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2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
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REPLACING SD-25550-01 FOR COMPLETING MARKER PART

1C02

CROSSBAR SYSTEMS

NO. 5
COMPLETING MARKER CIRCUIT

AT&TCO STANDARD

SD-26002-01-AL
964 SHEETS

BELL TELEPHONE LABORATORIES INCORPORATED

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| FS 66 TRANSMITTING CR- INFORMATION TO OUTGOING SENDER<br>FS 67 TRANSMITTING CL- INFORMATION TO OUTGOING SENDER | B48 | 60 | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 68 | 69 | | | | | | | | | | | | | | | |
| FS 68 TRANSMITTING MB- INFORMATION TO OUTGOING SENDER | B49A* | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | | | | | | | | | | | | | | | |
| FS 69 TRANSMITTING DL- & MISCELLANEOUS AUTOMATIC MESSAGE ACCOUNTING INFORMATION TO OUTGOING SENDER | B49B | 58 | 58 | 58 | 58 | 58 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | B49C | 57 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 70 TRANSMITTING CP- & NS- INFORMATION TO OUTGOING SENDER | B50 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |

* SHEETS WITH SUFFIX A WERE FORMERLY WITHOUT A SUFFIX LETTER.

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| FS 71 CALLED NO. A0-H0,J0-M0 LEADS | B51 | 57 | 57 | 57 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 72 CALLED NO. A1-H1,J1-M1 LEADS | B52 | 57 | 57 | 57 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 73 CALLED NO. A2-H2,J2-M2 LEADS | B53 | 57 | 57 | 57 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 74 CALLED NO. A4-H4,J4-M4 LEADS | B54 | 57 | 57 | 57 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 75 CALLED NO. A7-H7,J7-M7 LEADS | B55 | 57 | 57 | 57 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 76 OUTGOING SENDER CALLED NO. CHECK | B56 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| FS 77 SENDER OST CHECK | B57AK | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| | B57B | 59 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 69 | | | | | | | | | | | | | | | |
| FS 78 TRANSMITTING & CHECK OF RECORDER NO. OR SENDER CLASS ON PULSE CONVERSION | B58 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 69 | | | | | | | | | | | | | | | |
| FS 79 TRUNK CLASS RELAYS | B59AK | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 80 ROUTE TRANSFER | B59B | 49 | 49 | 49 | 49 | 49 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 81 CALLED NO. CONNECTOR<br>FS 82 CALLED NO. CONNECTOR APPLIQUE FOR USE WITH PRIVATE BRANCH EXCHANGE ALLOTTING | B60 | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| PART OF FS 83 NO. GROUP SEIZURE<br>FS 84 NO. GROUP SEIZURE APPLIQUE FOR USE WITH PRIVATE BRANCH EXCHANGE ALLOTTING | B61 | 59 | 59 | 59 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| *SHEET CANCELLED ON DWG ISS 53B* | B61B | | | | | | | | | | | | | | | | | | | | | | | | | |
| FS 85 NO. GROUP AND DIRECT ACCESS PRETRANSLATOR CONTROL | B62AK | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| | B62B | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| FS 86 NO. GROUP AND DIRECT ACCESS PRETRANSLATOR CONTROL | B63 | 58 | 58 | 58 | 58 | 58 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 87 NO. GROUP CONTROL APPLIQUE FOR USE WITH PRIVATE BRANCH EXCHANGE HUNTING | B64 | 59 | 61 | 61 | 61 | 61 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 88 NO. GROUP CONTROL APPLIQUE FOR USE WITH PRIVATE BRANCH EXCHANGE HUNTING | B65 | 58 | 58 | 58 | 59 | 58 | 58 | 58 | 58 | 58 | 58 | | | | | | | | | | | | | | | |
| PART OF FS 89 NO. GROUP CONTROL APPLIQUE FOR USE WITH INTERCEPT & BLANK NO. CALLS | B66 | 60 | 61 | 62 | 62 | 62 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| FS 90 HUNDREDS DIGIT NO. GROUP INFORMATION<br>FS 91 HUNDREDS DIGIT NO. GROUP INFORMATION APPLIQUE FOR USE WITH PRIVATE BRANCH EXCHANGE ALLOTTING | B67 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| FS 92 TENS DIGIT NO. GROUP INFORMATION<br>FS 93 TENS DIGIT NO. GROUP INFORMATION APPLIQUE FOR USE WITH PRIVATE BRANCH EXCHANGE ALLOTTING | B68 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| FS 94 UNITS DIGIT NO. GROUP INFORMATION<br>FS 95 UNITS DIGIT NO. GROUP INFORMATION FOR USE WITH PRIVATE BRANCH EXCHANGE ALLOTTING | B69 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| FS 96 NO. GROUP TRANSLATION | B70 | 60 | 60 | 60 | 63 | 63 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| FS 97 PRIVATE BRANCH EXCHANGE HUNTING | B71 | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 98 NO. GROUP CONTROL CIRCUIT APPLIQUE FOR USE WITH ALLOTTED PRIVATE BRANCH EXCHANGE HUNTING<br>FS 99 PRIVATE BRANCH EXCHANGE ALLOTTED CONTROL | B72 | 57 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 100 PRIVATE BRANCH EXCHANGE ALLOTTER IDENTIFIER, HUNDREDS & TENS DIGIT IDENTIFIER | B73 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | | | | | | | | | | | | | | | |
| FS 101 PRIVATE BRANCH EXCHANGE ALLOTTER IDENTIFIER, THOUSANDS DIGIT IDENTIFIER | B74 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | | | | | | | | | | | | | | | |

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| FS 102 PRIVATE BRANCH EXCHANGE ALLOTTER BUSY TEST | B75 | 54 | 54 | 54 | 54 | 54 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 103 PRIVATE BRANCH EXCHANGE ALLOTTER NO. GROUP SELECTION | B76 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | | | | | | | | | | | | | | | |
| PART OF FS 104 RINGING SWITCH CONTROL | B77 | 60 | 60 | 60 | 60 | 60 | 65 | 65 | 67 | 68 | 69 | | | | | | | | | | | | | | | |
| FS 105 RINGING SWITCH OPERATE | B78AK | 55 | 55 | 55 | 55 | 55 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| | B78B | 60 | 60 | 60 | 60 | 60 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| FS 106 MARKER TEST RELAYS | B79 | 58 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 107 MASTER TEST CONTROL OPERATION | B80 | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 68 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 108 MARKER CONTROL OF AUTOMATIC MONITOR | B81 | 58 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| FS 109 PER CENT LOAD INDICATOR | B82 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | | | | | | | | | | | | | | |
| FS 110 TIMING CIRCUITS (PART 1) | B83AK | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| | B83B | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | | | | | | | | | | | | | | | |
| FS 111 TIMING CIRCUITS (PART 2) | B84 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| FS 112 MO TEST CONTROL | B85 | 57 | 57 | 57 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| FS 113 CROSS DETECTION CONTACT FUNCTIONS | B86 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| FS 114 CROSS DETECTION RELAY LOCKING CIRCUITS | B87 | 58 | 61 | 62 | 62 | 62 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| FS 115 PEG COUNT | B88AK | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | B88B | 57 | 57 | 57 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | B88C | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | B88D | 58 | 58 | 58 | 58 | 58 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 115A WIDEBAND PEG COUNTS | B88E | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| FS 116 FRAME TEST RELAYS AUXILIARY | B89 | 30 | 30 | 30 | 30 | 30 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 117 FRAME MEMORY AUXILIARY<br>FS 118 FRAME SELECTION AUXILIARY | B90 | 57 | 57 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | | | | | | | | | | | | | | | |
| FS 119 TRUNK LINE JUNCTOR FRAME SELECTION | B91 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| FS 120 CENTRALIZED AUTOMATIC MESSAGE ACCOUNTING TRUNK CLASS & TRUNK LINK FRAME TRANSLATOR | B92 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| FS 121 CENTRALIZED AUTOMATIC MESSAGE ACCOUNTING CALLING CALLED AREAS, VACANT, FREE DENIED OR WORKING CODE CLASS RELAYS<br>FS 122 REGISTRATION FOR CONTROL DIGIT INFORMATION<br>FS 125 TYPE OF NETWORK INFORMATION FROM REGISTERS<br>FS 140 REGISTRATION FOR ROUTING CONTROL DIGIT INFORMATION | B93 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| FS 123 CALL PRIVILEGE CONTROL SCREENING | B94 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | | | | | | | | | | | | | | |
| FS 124 TRANSMITTING & CHECKING CD INFORMATION TO OUTSENDER<br>FS 131 TRANSMITTING CD OR CUSTOMER CLASS OF SERVICE TENS INFORMATION TO OUTGOING SENDER | B95AK | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | | | | | | | | | | | | | | | |
| FS 142 TRANSMITTING AND CHECKING ROUTING CONTROL DIGIT TO OUTGOING SENDER | B95B | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | | | | | | | | | | | | | | | |
| FS 126 4W CONFERENCE CONTROL<br>FS 127 4W APPARATUS AND WIRING | B96 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | | | | | | | | | | | | | | | |
| FS 128 UNIVERSAL PAD CONTROL | B97 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| FS 129 PRECEDENCE INDICATION TO TRUNKS AND LINES | B98 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | | | | | | | | | | | | | | | |

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| PART OF FS 48 CONTINUITY AND GROUND TEST | B99 | 59 | 59 | 59 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 130 TRANSMITTING CUSTOMER CLASS OF SERVICE UNITS INFORMATION TO SENDER | B100A* | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | | | | | | | | | | | | | | | |
| FS 132 CENTREX READ IN AND READ OUT CHECKER | B100B | 58 | 61 | 62 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| FS 133 CENTREX READ IN AND OUT | B101 | 60 | 60 | 60 | 60 | 60 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| FS 134 CENTREX TRAFFIC REGISTER OPERATION<br>FS 135 OPERATION WITH ORIGINATING LINE IDENTIFIER | B102 | 48 | 48 | 48 | 48 | 64 | 64 | 64 | 64 | 64 | 64 | | | | | | | | | | | | | | | |
| FS 136 LINE LINK PULSING ROUTE RELAY CONTROL | B103A* | 58 | 61 | 61 | 61 | 61 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 137 LINE LINK PULSING LINE SEIZURE | B103B | 59 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| FS 138 CLASS OF SERVICE MATCH | B104A* | 60 | 60 | 62 | 62 | 62 | 65 | 55 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| | B104B | 43 | 43 | 43 | 43 | 43 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 139 TENS BLOCK SCREENING | B105 | 59 | 59 | 59 | 63 | 64 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 140 CALL WAITING CONTROL | B106 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 69 | | | | | | | | | | | | | | | |
| PART OF FS 104 RINGING SWITCH CONTROL | B107 | 59 | 59 | 59 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| PART OF FS 89 NO. GROUP CONTROL APPLIQUE FOR USE WITH INTERCEPT AND BLANK NO. CALLS | B108 | 59 | 59 | 59 | 59 | 59 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| FS 65 MISC OUTGOING SENDER INFORMATION | B109 | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| FS 143 RING ROUTING CONTROL | B110 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | | | | | | | | | | | | | | |
| FS 144 ROUTING PROGRAM<br>FS 145 ROUTE AND ROUTING CONTROL DIGIT SELECTION | B111A* | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| FS 141 REGISTRATION OF ROUTING CONTROL DIGIT TO BE OUTPULSED | B111B | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| FS 167 CONTROL OF ROUTE CONTROL DIGIT BY SELECTED ROUTE | B111C | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | | | | | | | | | | | | | | | |
| *SHEET CANCELLED ON DWG ISS 330* | B112 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FS 146 LISTED NO. GENERATION | B113 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | | | | | | | | | | | | | | | |
| FS 147 TRAFFIC SAMPLE CONTROL | B114A* | 51 | 51 | 51 | 51 | 51 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | B114B | 53 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| FS 148 CENTREX INFORMATION TO THE TRUNKS AND REGISTER | B115 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| FS 149 PREEMPTION CONTROL | B116 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| FS 150 LINE PREEMPTION CONTROL | B117 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| FS 151 LEAD TEST AND STATUS | B118 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 36 | | | | | | | | | | | | | | | |
| | B119 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | | | | | | | | | | | | | | | |
| FS 152 ACCESS GROUP CONTROLLER INPUT | B120 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| FS 153 AUTOMATIC INTERCEPT CONTROL USING LLP SENDERS | B121A* | 49 | 49 | 49 | 49 | 49 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 175 AUTOMATIC INTERCEPT CONTROL USING DEDICATED AIS SENDERS | B121B | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 154 WIDEBAND SWITCHING CONTROL | B122A* | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | | | | | | | | | | | | | | | |
| FS 155 PLANT REGISTER PEG COUNT | B122B | 59 | 59 | 59 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 156 GLARE DETECTION | B123 | 51 | 51 | 51 | 51 | 51 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| FS 157 TEST ACCESS FOR CROSS CONNECTION CHECKING | B124 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | | | | | | | | | | | | | | | |
| *SHEETS CANCELLED ON DWG ISS 390* | B125 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B126 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B127 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B128 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B129 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B130 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FS 164 F-G DIGIT TRANSLATOR | B131 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | | | | | | | | | | | | | | | |
| FS 165 ROUTE TRANSLATOR APPARATUS AND WIRING FORMERLY PROVIDED AFTER DATE STD<br>FS 166 PBX TOLL DIVERSION | B132 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 67 | 67 | 67 | | | | | | | | | | | | | | | |

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| FS 168 REMOTE SWITCH UNIT CONTROL | B133 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| | B134 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| FS 169 WIDEBAND SELECT AND HOLD MAGNET CONTROL | B135 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| | B136 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| FS 170 WIDEBAND CONTROL | B137 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | | | |
| | B138 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | | | | | | | | | | | | | | | |
| FS 171 WIDEBAND CHANNEL SELECTION | B139 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| | B140 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | | | | | | | | | | | | | | |
| FS 172 WIDEBAND CROSS DETECTION LOCKING CIRCUITS | B141 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | | | |
| FS 173 WIDEBAND LINE MAINTENANCE BUSY CONTROL | B142 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| FS 174 WIDEBAND FALSE CROSS AND GROUND AND CONTINUITY TEST | B143 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | | | |
| FS 175 AREA CODE TRANSLATOR | B144 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | | | | | | | | | | | | | | | |

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| APP FIG.1,2 | C1A* | 60 | 60 | 60 | 63 | 63 | 63 | 63 | 67 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 3,4 | C1B | | | | 63 | 64 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG.5,6 | C2 | 60 | 60 | 60 | 60 | 60 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 7 | C3 | 58 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 8 | C4 | 60 | 60 | 60 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 9 | C5 | 59 | 61 | 61 | 63 | 64 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 10 | C6 | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 11 | C7A* | 60 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 55 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 12 | C7B | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | | | |
| APP FIG. 13 | C8 | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 68 | 69 | | | | | | | | | | | | | | | |
| | C9 | 60 | 61 | 61 | 61 | 61 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 14,15,16,17 | C10 | 60 | 60 | 60 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 18 | C11 | 58 | 61 | 61 | 6_ | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 19 | C12 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 20 | C13 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | | | | | | | | | | | | | | |
| | C14 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | | | | | | | | | | | | | | |
| APP FIG. 21 | C15 | 60 | 60 | 60 | 63 | 64 | 64 | 64 | 64 | 64 | 69 | | | | | | | | | | | | | | | |
| APP FIG. 22 | C16A* | 60 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| | C16B | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| APP FIG. 23,24 | C17 | 58 | 58 | 58 | 58 | 58 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 25 | C18 | 57 | 57 | 57 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | | | | | | | | | | | | | | | |
| APP FIG. 26 | C19 | 59 | 61 | 62 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 27,28 | C20 | 57 | 57 | 62 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 29 | C21 | 57 | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 30,31 | C22 | 57 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 32,33 | C23 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | | | | | | | | | | | | | | | |
| APP FIG 34,35,36,37 | C24 | 58 | 58 | 58 | 58 | 58 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 38 | C25 | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 39,40 | C26 | 60 | 61 | 61 | 61 | 61 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 41 | C27 | 59 | 59 | 59 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 42 | C28 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | | | | | | | | | | | | | | | |
| APP FIG. 43 | C29 | 53 | 53 | 53 | 53 | 53 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 44 | C30 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | | | | | | | | | | | | | | | |
| APP FIG. 45 | C31 | 59 | 59 | 59 | 59 | 59 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| APP FIG. 46 | C32 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| | C33 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| APP FIG. 47,48,49,50 | C34 | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 51,52,53,54 | C35 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 55 | C36 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 56,57,58 | C37 | 60 | 60 | 60 | 63 | 63 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| APP FIG. 59 | C38 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| APP FIG. 60,61,62,63 | C39 | 53 | 53 | 53 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 64,65,66,67 | C40 | 55 | 55 | 55 | 63 | 63 | 63 | 63 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 68 | C41 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | | | | | | | | | | | | | | | |
| APP FIG. 69,70,71,72 | C42 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | | | | | | | | | | | | | | | |
| APP FIG. 73,74,75 | C43 | 59 | 59 | 59 | 59 | 59 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| *SHEET CANCELLED ON DWG ISS 30D* | C44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| *SHEET CANCELLED ON DWG ISS 30D* | C45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| APP FIG. 78,79 | C46 | 60 | 60 | 62 | 63 | 63 | 63 | 63 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 81,82 | C47 | 53 | 53 | 53 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 83,84,85,86 | C48 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 87,89,89 | C49 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| APP FIG. 90 | C50A* | 59 | 59 | 62 | 62 | 62 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 91 | C50B | 57 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APP FIG. 94 | C51 | 59 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| APP FIG. 95,96,97 | C52 | 60 | 60 | 60 | 60 | 60 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 99,100,101 | C53 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 102,103,104,105 | C54 | 58 | 58 | 58 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 106,107,108,109,110,111 | C55 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | | | | | | | | | | | | | | | |
| APP FIG. 112,113,114 | C56 | 59 | 59 | 62 | 63 | 63 | 63 | 63 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 115 | C57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 116 | C58 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 117 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APP FIG. 118 | C59 | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 119 | C60 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| APP FIG. 120 | C61 | 57 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| | C62 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 121 | C63 | 57 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| APP FIG. 122,124 | C64 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 123 | C65 | 53 | 53 | 53 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 125,126 | C66 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 127,128,129 | C67 | 60 | 60 | 60 | 63 | 63 | 65 | 65 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| APP FIG. 130,131 | C68 | 43 | 43 | 43 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 132,133,134,135 | C69 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 136,137,138,139 | C70 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | | | | | | | | | | | | | | | |
| *SHEETS CANCELLED ON DWG ISS 39D* | C71 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | C72 | | | | | | | | | | | | | | | | | | | | | | | | | |
| APP FIG. 141,142,143,144 | C73 | 59 | 59 | 59 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 145,146 | C74 | 53 | 61 | 61 | 61 | 61 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 147,148,149 | C75 | 60 | 60 | 60 | 60 | 60 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 150 | C76 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| APP FIG. 151 | C77 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| APP FIG. 152 | C78 | 59 | 59 | 59 | 59 | 59 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 153 | C79 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | | | |
| APP FIG. 154 | C80 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| APP FIG. 155 | C81 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | | | | | | | | | | | | | | | |
| APP FIG. 156,157 | C82 | 47 | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 158,159,160 | C83 | 57 | 61 | 61 | 61 | 61 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| APP FIG. 161,162,163,164 | C84 | 53 | 53 | 53 | 53 | 53 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 165,166 | C85 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | | | | | | | | | | | | | | | |
| APP FIG. 167,168,169 | C86A* | 53 | 53 | 53 | 53 | 53 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| APP FIG. 170 | C86B | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | | | | | | | | | | | | | | | |
| APP FIG. 171,172 | C87 | 58 | 61 | 61 | 61 | 61 | 61 | 61 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| APP FIG. 175,176 | C88 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 177,178 | C89 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| APP FIG. 179,180,181 | C90 | 59 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | | | | | | | | | | | | | | | |
| APP FIG. 182,183 | C91 | | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| APP FIG. 184 | C92 | | | | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |

* SHEETS WITH SUFFIX A WERE FORMERLY WITHOUT A SUFFIX LETTER.

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 69B |

| BELL LABORATORIES | SD-26002-01 | A5 |
|---|---|---|

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| CIRCUIT NOTES | 101A | D1 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| | | D2 | 57 | 61 | 61 | 61 | 61 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| | 101B-101D | D3 | 58 | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | 101D-'01J | D4 | 59 | 59 | 59 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | RESERVED | D5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 102A | D6A* | 60 | 60 | 60 | 63 | 63 | 65 | 66 | 67 | 68 | 68 | | | | | | | | | | | | | | | |
| | 102B | D6B | 58 | 61 | 61 | 63 | 63 | 65 | 66 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | | D7A* | 60 | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D7B | | | | | | | | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D8A* | 60 | 61 | 62 | 63 | 64 | 65 | 65 | 67 | 68 | 69 | | | | | | | | | | | | | | | |
| | | D8B | | | | | 64 | 65 | 66 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | 102C | D9A* | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | | | | | | | | | | | | | | | |
| | | D9B | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D9C | | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | 102D | D9D | | | | | | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D9E | | | | | | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D9F | | | | | | 65 | 66 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | 103 | D10A* | 59 | 59 | 59 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D10B | 58 | 61 | 62 | 62 | 62 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11A* | 57 | 57 | 57 | 57 | 57 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11B | 58 | 58 | 58 | 58 | 58 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11C | 59 | 61 | 61 | 61 | 61 | 65 | 66 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11D | 58 | 61 | 61 | 61 | 61 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11E | 59 | 59 | 59 | 59 | 64 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11F | 57 | 57 | 57 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11G | 59 | 59 | 59 | 63 | 63 | 65 | 66 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D11H | 60 | 61 | 62 | 63 | 64 | 65 | 65 | 67 | 68 | 68 | | | | | | | | | | | | | | | |
| | 105, 106 | D11I | | | | | | 65 | 66 | 67 | 68 | 69 | | | | | | | | | | | | | | | |
| | 106 | D12A* | 59 | 61 | 62 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D12B | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | 108 | D12C | | | | | 64 | 65 | 66 | 67 | 68 | 69 | | | | | | | | | | | | | | | |
| | 109-126 | D13 | 60 | 61 | 62 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | 126-180 | D14A* | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | 181-END | D14B | 60 | 61 | 62 | 63 | 63 | 65 | 66 | 66 | 66 | 66 | | | | | | | | | | | | | | | |
| EQUIPMENT NOTES 201-END | | D14C | | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| INFORMATION NOTES 300-302 | | D15 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | | | | | | | | | | | | | | | |
| INFORMATION NOTES 303-304 | | D16 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | | | | | | | | | | | | | | | |
| INFORMATION NOTES 305 | | D17 | | | | 63 | 63 | 63 | 63 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| CROSS CONNECTION PUNCHING INDEX | | D18 | 59 | 61 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | | D19 | 59 | 61 | 61 | 63 | 63 | 65 | 66 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | | D20A* | 59 | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | | D20B | 59 | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | | D21A* | 59 | 61 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | | D21B | 59 | 61 | 61 | 63 | 63 | 65 | 66 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D22A* | 59 | 61 | 62 | 63 | 63 | 65 | 66 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D22B | 59 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| | | D22C | 59 | 61 | 62 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| | | D22D | | 61 | 61 | 63 | 63 | 65 | 66 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D23 | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| | | D24 | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 65 | | | | | | | | | | | | | | | |
| RESERVED | | D25 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | D26 | | | | | | | | | | | | | | | | | | | | | | | | | |
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| CROSS CONNECTION INFORMATION NOTE 400 | | D28 | 59 | 61 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | 69 | | | | | | | | | | | | | | | |
| | | D29 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| | | D30 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 67 | 67 | 67 | | | | | | | | | | | | | | | |
| | | D31 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| | | D32 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |

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| CROSS CONNECTION INFORMATION NOTE 400 | | D33 | 59 | 59 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | | D34 | 59 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| | | D35A* | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| | | D35B | 60 | 61 | 61 | 61 | 64 | 64 | 64 | 67 | 67 | 69 | | | | | | | | | | | | | | | |
| | | D36 | 59 | 59 | 59 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | | D37A* | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| | | D37B | 59 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | | | | | | | | | | | | | | | |
| | | D38A* | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| | | D38B | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | | | | | | | | | | | | | | | |
| | | D39 | 59 | 59 | 59 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | | D40 | 59 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | | | | | | | | | | | | | | | |
| | | D41 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 69 | | | | | | | | | | | | | | | |
| CROSS CONNECTION INFORMATION NOTE 400 (CONT) (WIRE, COLOR, AND GAUGE CHART) | | D42 | 59 | 61 | 61 | 63 | 63 | 65 | 65 | 65 | 65 | 69 | | | | | | | | | | | | | | | |
| CROSS CONNECTION INFORMATION NOTE | 401 | D43A* | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | | | | | | | | | | | | | | | |
| | 402 | D43B | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | | | | | | | | | | | | | | |
| | 403 | D44 | 55 | 55 | 55 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | | | | | | | | | | | | | | | |
| | 404 | D45 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | | | | | | | | | | | | | | | |
| | 405 | D46 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | | | | | | | | | | | | | | | |
| | 406 | D47 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | | | | | | | | | | | | | | | |
| | 407 | D48 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| | | D49 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | | | | | | | | | | | | | | | |
| | 408 | D50 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | | | | | | | | | | | | | | | |
| | 409 | D51A* | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | | | |
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| 2WD3 | 68/F7 | 108 | PRE23,56 |
| 2WE | 99G6 | 81 | C10L |
| 2WF | 88D/C6 | 81 | C10L |
| 2WG | 88D/D6 | 120 | PRE4,37 |
| 2WS | 93C9 | 123 | PRE19,52 |
| 3G | 11F8 | 20 | C38L |
| 3NA | 59A/F3 | 24 | C26L |
| 3TLF | 988 | 20 | C37L |
| 4BK | 115D5 | 112, 114 | C13R |
| 4BKC | 115B7 | 112, 114 | C13R |
| 4LT | 20A/C6 | 82 | T3+R |
| 4NE | 59A/E3 | 24 | C26L |
| 4NG | 74B8 | 60 | P26 |
| 4TLF | 9C8 | 20 | C37L |
| 4W | 93A9 | 123 | PRE18,51 |
| 4WA,4WB,4WC | 93A9 | 123 | PRE18,51 |
| 4WD | 99F6 | 123 | PRE18,51 |
| 4WE | 88D/D6 | 81 | C10L |
| 4WF | 88D/E6 | 120 | PRE4,37 |
| 4WS | 93A8 | 123 | PRE19,52 |
| 5DLT | 68/B7 | 112 | C13R |
| 5IK | 115E3 | 112, 114 | C13R |
| 5IKC | 115C7 | 112, 114 | C13R |
| 5ST | 59D3 | 24 | C26L |
| 5TLF | 9C8 | 20 | C37L |
| 6NT | 59C3 | 24 | C26L |
| 6TFA | 9C8 | 64 | C11R |
| 6TLF | 9E8 | 20 | C37L |
| 7DLT | 68/B6 | 112 | C13R |
| 7Q | 13E0 | 19 | C40L |
| 7RN | 59A/C3 | 24 | C26L |
| 7TFA | 9D8 | 64 | C11R |
| 7TLF | 9D8 | 20 | C37L |
| 7TR | 115D3 | 90 | C8R |
| 7TRC | 115H2 | 112 | C13R |
| 8NG | 74C8 | 60 | P26 |
| 8SP | 5983 | 24 | C26L |
| 8TLF | 9E8 | 20 | C37L |
| 9NP | 59A3 | 24 | C26L |
| 9TLF | 9E8 | 20 | C37L |
| 10LV | 12F6 | 150 | C10L |
| 10TLF | 9E8 | 20 | C37L |
| 11 | 47H5 | 39 | T49R |
| 11X | 20A/E6 | 48 | T26R |
| 12LV | 1206 | 150 | C10L |
| 20F | 9C6 | 19 | C40L |
| 20X-90X | 144B5 | 170 | REL R |
| 21X-91X | 144C5 | 170 | REL R |
| 60F | 9D6 | 64 | C11R |
| A | 64G8 | 23 | C28L |
| AO | 51A7 | 46 | T28R |
| A1 | 52A7 | 46 | T29R |
| A2 | 53A7 | 46 | T30R |
| A4 | 54A7 | 46 | T31R |
| A7 | 55A7 | 46 | T32R |
| AB | 76G4 | 60 | P27 |
| ACO | 51A3 | 48 | T26R |
| AC1 | 52A3 | 48 | T26R |
| AC2 | 53A3 | 48 | T26R |
| AC4 | 54A3 | 48 | T26R |
| AC7 | 55A3 | 48 | T26R |
| ACD | 93B2 | 69 | T10R |
| ACT | 144A2 | 170 | REL R |
| AD | 92A8 | 26 | C22L |
| ADD | 115A9 | 90 | C8R |
| ADVA | 60G9 | 60 | P28 |
| AG1-6 | 110E9 | 115 | RM42 |
| AGA1-6 | 110E9 | 115 | RM43 |
| AGC | 120D3 | 130 | REL R |
| AGCF | 3784 | 130 | REL R |
| AGCK | 120E9 | 130 | REL R |
| AGP | 40F8 | 38 | T52L |
| AGT | 120F0 | 164 | REL R |
| AHBO-9 | 73F7 | 61 | ** |
| AHG | 72C9 | 60 | P27 |
| AIC | 121B/A7 | 158 | AIS |
| AIC1 | 121B/B7 | 51 | T25R |
| AIC2 | 121B/B7 | 158 | AIS |
| AIC3 | 121B/F7 | 158 | AIS |
| AICK | 121B/D7 | 158 | AIS |
| AIFO | 20A/D8 | 136 | T6+R |
| AIF1 | 20A/E9 | 136 | T6+R |
| AIOD | 83B/A3 | 107 | T6R |
| AIS | 121A0 | 128 | REL R |
| AIS1 | 121C0 | 128 | REL R |
| AIS2 | 121C0 | 128 | REL R |
| AIS3 | 121C0 | 128 | REL R |
| AK | 6488 | 23 | C28L |
| ALC-3 | 28A/F8 | 38 | T52L |
| ALN | 11388 | 103 | C52R |
| ALN1 | 113A8 | 103, 112 | C52R, C13R |
| ALSO,1 | 6088 | 60 | P28 |
| ALS2-5 | 60D8 | 60 | P28 |
| AMA | 29B/B0 | 40,74 | T47R |
| AMA1 | 29B/C0 | 71 | C13L |
| AMA3 | 58D7 | 25 | C24L |
| AMA4 | 58E7 | 25 | C24L |
| AMA5 | 58E7 | 25 | C24L |
| AMB | 39F4 | 13 | C20R |
| AN | 74E7 | 60 | P27 |
| ANAO-9 | 74E6 | 61 | ** |
| ANBO-9 | 74E8 | 61 | ** |
| ANCO,4,5,9 | 74F8 | 61 | ** |
| ANDO,4,5,9 | 74G8 | 61 | ** |
| ANI | 29B/D6 | 75 | T5+R |
| ANIS | 28B/E9 | 75 | T5+R |
| ANON | 72A9 | 60 | P27 |
| ANR | 72F1 | 60 | P27 |
| ANR1 | 72D1 | 60 | P27 |
| ANR2 | 72D9 | 60 | P27 |
| ANS | 72C9 | 60 | P27 |
| ANT | 7289 | 60 | P27 |
| ANTD | 28B/C9 | 147 | REL R |
| AOA | 68/D7 | 11 | C27R |
| AOC | 68/D7 | 11 | C25R |
| AOLA | - | 124 | - |
| AOT | 21B/D3 | 112 | C13R |
| ARK1,2 | 4680 | 59 | CV22 |
| ARNO-4 | 45A3 | 59 | CV22 |
| ARN5 | 45B3 | 59 | CV22 |
| ARP | 45A2 | 59 | CV22 |
| ARS | 45A2 | 59 | CV22 |
| ARTO | 120G9 | 130 | REL R |
| ART1-9 | 120G9 | 134 | REL R |
| ARTA | 120G3 | 164 | REL R |
| ARTC | 120G3 | 130 | REL R |
| ASB | 43H0 | 27 | C18L |
| AST | 6ID0 | 43 | T38R |
| ATO-9 | 248/B1 | 51 | T25R |
| ATBO-9 | 73B7 | 61 | ** |
| ATT | 21A/D8 | 90 | C8R |
| ATT1 | 21B/B7 | 90 | C8R |
| ATT2 | 21B/B7 | 139 | C13R |
| AUS | 1008/B6 | 90 | C8R |
| AV1-6 | 170C0 | 115 | RM41 |
| AVK | 36H3 | 26 | C21L |
| AVK1 | 44A6 | 26 | C22L |
| BO | 51A7 | 46 | T28R |
| B1 | 52A7 | 46 | T29R |
| B2 | 53A7 | 46 | T30R |
| B4 | 54A7 | 46 | T31R |
| B7 | 55A7 | 46 | T32R |
| B147 | 25F3 | 47 | T27R |
| B258 | 25G3 | 47 | T27R |
| B369 | 25G3 | 47 | T27R |
| BCO | 51A3 | 47 | T27R |
| BCOO | 15E8 | 3 | C47R |
| BC1 | 52A3 | 47 | T27R |
| BC2 | 53A3 | 47 | T27R |
| BC4 | 54A3 | 47 | T27R |
| BC7 | 55A3 | 47 | T27R |
| BC10 | 15D8 | 2 | C50R |
| BC20 | 15D9 | 65 | F3 |
| BCAO | 15E9 | 123 | PRE17,50 |
| BCA10 | 15E9 | 123 | PRE17,50 |
| BCN | 143H6 | 167 | WB3,38 |
| BG | 29B/F8 | 26 | C21L |
| BG1 | 29B/F8 | 26 | C21L |
| BL | 28B/C4 | 41 | T43R |
| BLDA | 105F2 | 104 | REL R |
| BLR | 114B/F2 | 146 | REL R |
| BLSO-9 | 113B2 | 104 | REL R |
| BLT | 105E2 | 104 | REL R |
| BLTL | 105GF | 104 | REL R |
| BLTR | 108E9 | 104 | REL R |
| BN | 66B0 | 22 | C31L |
| BNA | 10880 | 43 | T38R |
| BNB | 10849 | 22 | C32L |
| BNTH | P-63F8 S-6IFO | 22 | C31L |
| BR1-3 | 78B/A9 | 138 | REL R |
| BRA | 108H9 | 104 | REL R |
| BRB | 66H0 | 104 | REL R |
| BRG | 78B/A9 | 138 | REL R |
| BRK1,2 | 46F0 | 59 | CV21 |
| BRL | 96D1 | 95 | 4W9,38 |
| BRNO-4 | 45B3 | 59 | CV21 |
| BRP | 45B2 | 59 | CV21 |
| BRS | 45C2 | 59 | CV21 |
| BSL | 137G1 | 167 | WB3,38 |
| BSL1 | 137H1 | 167 | WB3,38 |
| BTOO-10 ETC TO 90 | 25G5 | 50 | T17+R |
| BTOR,S,T TO BT9R,S,T | 25G7 | 49 | T18+R |
| BX | 86E0 | 29 | C4L |
| BY | 41D8 | 22 | C32L |
| BYK | 30A/H4 | 81 | C10L |
| CC | 51B7 | 46 | T28R |
| C1 | 52B7 | 46 | T29R |
| C2 | 53B7 | 46 | T30R |
| C4 | 54B7 | 46 | T31R |
| C4D | 28A/C6 | 102 | REL R |
| C7 | 55B7 | 46 | T32R |
| CAA | 28B/D9 | 41 | T43R |
| CAM | 29B/E0 | 69 | T10R |
| CAMA | 29B/E0 | 68 | C14L |
| CAUO-9 | 6A5 | 111 | C52R |
| CB | 23C0 | 19 | C42L |
| CB1 | 2380 | 19 | C42L |
| CB2 | 6A3 | 18 | C46L |
| CB3 | 5A5 | 18 | C44L |
| CB4 | 5A3 | 18 | C44L |
| CB5 | 23H0 | 7 | C36R |
| CB6 | 23H1 | 19 | C40L |
| BG | 29B/F8 | 26 | C21L |
| BG1 | 29B/F8 | 26 | C21L |
| CCO | 51B3 | 47 | T27R |
| CC1 | 5283 | 47 | T27R |
| CC2 | 5383 | 47 | T27R |
| CC4 | 5483 | 47 | T27R |
| CC7 | 55B3 | 47 | T27R |
| CDO,1,2,4,7, 10,15 | 93B5 | 118 | 4W2,31 |
| CDAO-4 | 95A/A2 | 117 | 4W10,39 |
| CDAP | 95A/A3 | 117 | 4W10,39 |
| CDAS | 95A/B3 | 117 | 4W10,39 |
| CDBO-4 | 95A/D1 | 117 | 4W12,41 |
| CDBP | 95A/D2 | 117 | 4W12,41 |
| CDBS | 95A/D2 | 117 | 4W12,41 |
| CDKO | 42B4 | 27 | C18L |
| CDK1 | 42F4 | 27 | C18L |
| CDN | 115G7 | 90 | C8R |
| CDNC | 115D7 | 94, 112 | T2L, CI3R |
| CDNK | 115F7 | 94, 112 | T2L, CI3R |
| CDPO,1,2,4,7, 10,15 | 93C5 | 118 | 4W2,31 |
| CDRO-2 | 93E6 | 119 | RM46 |
| CDR4 | 93F7 | 119 | RM46 |
| CDR7 | 93F6 | 119 | RM46 |
| CDRAO,1 | 93F9 | 119 | RM45 |
| CDRA2,3 | 93G9 | 119 | RM45 |
| CDSO-9 | 9486 | 122 | 4W3,32 |
| CDS10-19 | 9486 | 122 | 4W4,33 |
| CDS20-29 | 9486 | 122 | 4W5,34 |
| CDS30-39 | 9486 | 122 | 4W6,35 |
| CDT1 | 9486 | 117 | 4W10,39 |
| CDT2 | 95A/C3 | 117 | 4W10,39 |
| CDT3 | 95A/F0 | 117 | 4W12,41 |
| CDT4 | 95A/G0 | 117 | 4W12,41 |
| CE | 96B2 | 95 | 4W9,38 |
| CFGO,1 | 92C1 | 68 | C15L |
| CFG2 | 92D1 | 63 | C15L |
| CGA | 7F2 | 33,34 | T49L |
| CGA1 | 6A/F4 | 109 | REL R |
| CGB | 7G2 | 33,34 | T49L |
| CGB1 | 6A/G4 | 109 | REL R |
| CGRA | 7G2 | 79 | T4+R |
| CGRB | 7H2 | 79 | T4+R |
| CGS | 68/B7 | 90 | C8R |
| CGT | 35B/E2 | 11 | C27R |
| CHO-9 | 31A/C1-C7 | 12 | C22R |
| CHA | 31B/F5 | 9 | C31R |
| CHA1 | 31B/F5 | 10 | C28R |
| CHT | 31B/D5 | 12 | C24R |
| CHTO-9 | 33A/G7 | 12 | C24R |
| CI | 105F0 | 137 | REL R |
| CIO | 105E0 | 137 | REL R |
| CI1-4 | 105E0 | 137 | REL R |
| CIA | 10841 | 137 | REL R |
| CIR | 78B/B9 | 139 | REL R |
| CKG1 | 37D1 | 3 | C35R |
| CKG2 | 37D1 | 7 | C36R |
| CKG3 | 15G7 | 116 | 4W9,38 |
| CKG4 | 15C1 | 8 | C35R |
| CKG5 | 37C3 | 7 | C36R |
| CKG6 | 37D3 | 8 | C35R |
| CKG7 | 15H8 | 8 | C33R |
| CKG8 | 15D1 | 9 | C31R |
| CKO | 64D0 | 22 | C30L |
| CKR | 64F0 | 22 | C30L |

* 1. COMMON EQUIPMENT (CE) C--L OR C--R
2. TRANSLATOR AND CODE TREATMENT (TCT) T--L OR T--R
3. ROUTE RELAY (RR) RR--
4. CODE CONV (CC) CV--
5. PBX ALLR P--
6. FRAME CONN RELAY FR (FCR) F--
7. SUPPLY OR AUX SERVICE TREATMENT FR (SST OR AST) S--
8. 4 WIRE FR 4W
9. LINE LINK PULSING LLP
10. RELAY RACK REL R
11. 4 WIRE PREEMPTION FR WHEN THIS FRAME IS NOT PROVIDED, FIGURES 106, 108 AND 123 ARE MOUNTED ON THE RELAY RACK. PRE--
12. ROUTE PROGRAM FR RM--
13. AUX ROUTE PROGRAM FR ARM--
14. WIDEBAND FR W8
15. AIS SENDER FR AIS

** RELAY — PLATE POSITION

ANAO-4; ANBO-4; ANCO,4; ANDO,4 — P29, 37, 45, 53
ANA5-9; ANB5-9; ANC5,9; AND5,9 — P31, 39, 47, 55
ATBO-4; AHBO-4; — P30, 38, 46, 54
ATB5-9; AHB5-9; — P32, 40, 48, 56

DRAWING ISSUE

| | |
|---|---|
| 34A | 1B SDL AND |
| 35D | 1B SDL AND |
| 36A | SDL |
| 37D | SDL |
| 39D | RP |
| 41D | |
| 42A | |
| 43D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-A14A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# APPARATUS INDEX

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| CL0-5 | 47A1 | 56 | T45R |
| CL6-8 | 4781 | 75 | T5+R |
| CL9 | 4781 | 75 | T5R |
| CL10 | 47C0 | 183 | T5+R |
| CLG | 29B/F0 | 26 | C20L |
| CLK | 29A/A0 | 26 | C20L |
| CLK1-3 | 48G0 | 56 | T45R |
| CLP | 47A0 | 56 | T45R |
| CLS | 47A0 | 56 | T45R |
| CLT | 29B/G4 | 26 | C20L |
| CLT1 | 29B/H0 | 26 | C20L |
| CLT2 | 29B/G0 | 26 | C20L |
| CM | 104B/G9 | 96 | C3R |
| CMC1 | 22C6 | 69 | T10R |
| CMC2 | 22D6 | 69 | T10R |
| CMC3 | 22D6 | 68 | C15L |
| CMF | 28B/F9 | 69 | T10R |
| CMF0 | 21A/E9 | 68 | C15L |
| CMF1 | 21A/F9 | 63 | C15L |
| CMF2,3 | 21A/H6 | 68 | C15L |
| CMJ | 28B/G9 | 69 | T10R |
| CMJT | 28B/C9 | 147 | REL R |
| CMR0,1 | 28B/F6 | 69 | T9R |
| CMS0 | 21A/F9 | 68 | C14L |
| CMS1 | 21A/G9 | 63 | C14L |
| CMU0,1,2,4,7 | 104B/E9 | 96 | C2R |
| CN | 68/C7 | 11 | C25R |
| CNA | 68/C7 | 11 | C27R |
| CNC | 30B/B4 | 41 | T42R |
| CNK | 30B/A4 | 26 | C20L |
| CNP | 53H1 | 141 | REL R |
| CNT | 85D4 | 44 | REL R |
| CNTA | 66E4 | 44 | REL R |
| CNTI | 100B/G3 | 90 | C8R |
| CNTO | 100B/F3 | 90 | C8R |
| CON | 35A/E4, 99F3 | 11 | C26R |
| CON1 | 35B/C2 | 11 | C26R |
| CON2 | 99C3 | 123 | PRE 19,52 |
| CONA | 35B/B2 | 11 | C26R |
| CONB | 99C3 | 123 | PRE 18,51 |
| COX | 37C0 | 30 | C9L |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| CP | 51H1 | 141 | REL R |
| CP0-4 | 47E5 | 39 | T50R |
| CP5-9 | 47F5 | 39 | T50R |
| CP10 | 47G5 | 105 | REL R |
| CPG | 81H4 | 172 | REL R |
| CPK1,2 | 50B0 | 39 | T49R |
| CPMA | 42D5 | 39 | T50R |
| CPMB | 4206 | 155 | MKR WD 8S 6,4I |
| CPM_ | 116E7 | 120 | PRE 2,35 |
| CPNT | 38D5 | 117 | 4W11,40 |
| CPP | 47E4 | 39 | T49R |
| CPS | 47G4 | 39 | T49R |
| CR | 20B/G3 | 42 | T40R |
| CR0-4 | 45E1 | 56 | T44R |
| CR5 | 45G1 | 56 | T44R |
| CRK1,2 | 48C0 | 56 | T44R |
| CRP | 45E1 | 56 | T44R |
| CRS | 45F1 | 56 | T44R |
| CRU0,1,2,4,7 | 7E2 | 79 | T4+R |
| CSA | 114A/C9 | 105 | REL R |
| CSK | 6A/A1 | 78 | C12L |
| CSP | 6A/B5 | 78 | C11L |
| CSS | 6A/B5 | 78 | C11L |
| CST0 | 6A/D7 | 78 | C12L |
| CST1 | 6A/C7 | 78 | C12L |
| CST2 | 6A/A7 | 78 | C12L |
| CST3 | 6A/D7 | 78 | C11L |
| CST4 | 6A/C7 | 78 | C11L |
| CST5 | 6A/B7 | 78 | C11L |
| CST6-9 | 6A/A7 | 78 | C11L |
| CSU0-9 | 6A/B3 | 78 | C12L |
| CSW | 78B/D4 | 21 | C33L |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| CT0,1,2,4,7 | 7B2 | 33 | T48L |
| CTA0-9 | 7E5 | 33 | T48L |
| CTB0,1,2 | 7A2 | 34 | T49L |
| CTF0,1,2 | 92E1 | 68 | C14L |
| CTF4,7 | 92G1 | 63 | C14L |
| CTG5 | 57A/E0 | 68 | C15L |
| CTI | 105D0 | 112 | C13R |
| CTIL | 105E8 | 112 | C13R |
| CTK | 114A/E9 | 105 | REL R |
| CTK1 | 101D8 | 78 | C11L |
| CTK2 | 101B8 | 78 | C11L |
| CTKA | 114A/C7 | 105 | REL R |
| CTP0 | 95A/A8 | 84 | T2+R |
| CTP1 | 95A/B8 | 84 | T2+R |
| CTP2 | 95A/C8 | 84 | T2+R |
| CTP4 | 95A/C8 | 84 | T2+R |
| CTP7 | 95A/D8 | 84 | T2+R |
| CTUK | 100B/A0 | 78 | C11L |
| CU0-9 | 6A/C3 | 109 | REL R |
| CUA0,1,2,4,7 | 7C2 | 33 | T48L |
| CUB0,1,2,4,7 | 7C2 | 34 | T49L |
| CUK1 | 101G8 | 78 | C11L |
| CUK2 | 101E8 | 78 | C11L |
| CUP0 | 100A/B1 | 83 | T2+R |
| CUP1 | 100A/C1 | 83 | T2+R |
| CUP2 | 100A/D1 | 83 | T2+R |
| CUP4 | 100A/D1 | 83 | T2+R |
| CUP7 | 100A/E1 | 83 | T2+R |
| CV00-95 | 28B/A6 | 58 | CV23 |
| CVS | 28B/A9 | 59 | CV22 |
| CWB | 42H4 | 152 | WB 22,57 |
| CWC1 | 106E9 | 160 | REL R |
| CWC2 | 106E6 | 160 | REL R |
| CWCN | 143G7 | 153 | WB 18,53 |
| CWH0,1,2,4,7 | 106F3 | 160 | REL R |
| CWK | 106B9 | 160 | REL R |
| CWK1 | 64F6 | 160 | REL R |
| CWL | 106A2 | 160 | REL R |
| CWL1 | 106A2 | 160 | REL R |
| CWN0 | 106A2 | 160 | REL R |
| CWN1 | 106F2 | 160 | REL R |
| CWNT | 31A/A2 | 160 | REL R |
| CWR | 106C8 | 160 | REL R |
| CWS | 106C1 | 160 | REL R |
| CWT0,1,2,4,7 | 106F6 | 160 | REL R |
| CWU0,1,2,4,7 | 106H6 | 160 | REL R |
| CZ | 28B/H1 | 41 | T41R |
| CZT | 28B/H1 | 41 | T41R |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| D0 | 51C7 | 46 | T29R |
| D1 | 52C7 | 46 | T29R |
| D2 | 53C7 | 46 | T30R |
| D4 | 54C7 | 46 | T31R |
| D7 | 55C7 | 46 | T32R |
| DAC | 62B/B3 | 127 | REL R |
| DAC1 | 62B/A3 | 22 | C29L |
| DAHA | 28A/H1 | 175 | TACT 6+R |
| DAL | 28A/G1 | 175 | TACT 6+R |
| DAT | 105G2 | 104 | REL R |
| DATI | 21B/C3 | 90 | C3R |
| DATK | 115A2 | 104 | REL R |
| DCI | 66C0 | 8 | C33R |
| DCIA | 103C0 | 55 | T36R |
| DCK | 23E8 | 13 | C17R |
| DCT | 34A/C4 | 10 | C29R |
| DCT1 | 36E9 | 8 | C33R |
| DCT2 | 36F9 | 8 | C33R |
| DCT3 | 36B9 | 8 | C33R |
| DCTA | 36D9 | 8 | C35R |
| DCTK | 36F2 | 129 | REL R |
| DIRA | - | 124 | H+1 |
| DISI,2 | 37C0 | 13 | C13R |
| DISA | 39A/H1 | 13 | C13R |
| DL | 21G1 | 13 | C13R |
| DL0-6 | 47D1 | 56 | T46R |
| DLK1 | 49B/A0 | 56 | T46R |
| DLK2 | 49E0 | 56 | T46R |
| DLP | 47D0 | 56 | T46R |
| DLQ | 47E0 | 56 | T46R |
| DLT | 68/A7 | 102 | REL R |
| DLTC | 115C3 | 102 | REL R |
| DLTK | 115B3 | 102 | REL R |
| DN | 105C0 | 120 | PRE 1,14 |
| DNC | 93D2 | 69 | T10R |
| DNG | 61C0 | 132 | REL R |
| DNGA | 61F2 | 132 | REL R |
| DNGB | 61G2 | 132 | REL R |
| DNRA | 4145 | 90 | C9R |
| DP | 20B/E3 | 42 | T40R |
| DR0-7 | 28B/F6 | 41 | T42R |
| DR8,9 | 28B/F6 | 41 | T41R |
| DR10-19 | 28B/G6 | 70 | T3R |
| DRR0,1 | 28B/F6 | 75 | T5+R |
| DSI | 137C6 | 152 | WB 22,57 |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| DTF | 21B/A3 | 102 | REL R |
| DTF1 | 21B/C7 | 102 | REL R |
| DTF2 | 21B/C7 | 112 | C13R |
| DTF3 | 21B/C6 | 114 | C13R |
| | | 102 | REL R |
| DTI | 21B/B7 | 90 | C3R |
| DTI1 | 22F5 | 90 | C3R |
| DTI2 | 22G5 | 90 | C3R |
| DTI3 | 22H3 | 90 | C3R |
| DTI4 | 22G3 | 102 | REL R |
| DTK | 4A/F5 | 9 | C32R |
| DTS0-9 | 115C1 | 102 | REL R |
| DV0 | 34B/B0 | 10 | C23R |
| DV1 | 34B/D0 | 10 | C30R |
| DX0 | 51C3 | 36 | T15+R |
| DX1 | 52C3 | 36 | T15+R |
| DX2 | 53C3 | 36 | T15+R |
| DX4 | 54C3 | 36 | T15+R |
| DX7 | 55C3 | 36 | T15+R |
| DZ | 28A/D6 | 102 | REL R |
| E0 | 51C7 | 46 | T23R |
| E1 | 52C7 | 46 | T29R |
| E2 | 53C7 | 46 | T30R |
| E4 | 54C7 | 46 | T31R |
| E7 | 55C7 | 46 | T32R |
| ECK | 97C5 | 106 | PRE 22,55 |
| ECN | 63G0 | 43 | T38R |
| EG | 63G0 | 23 | C23L |
| EGD | 110D6 | 119 | RM46 |
| EGN | 113C6 | 103 | C52R |
| ELL | 2C3 | 7 | C36R |
| ELT | 20A/C6 | 48 | T26R |
| EN | 63E8 | 43 | T39R |
| ENES | 97E8 | 106 | PRE 22,55 |
| ESCK | 97F5 | 106 | PRE 22,55 |
| ESK | 97B6 | 106 | PRE 22,55 |
| ET | 20A/G6 | 52 | T14+R |
| ET0-9 | 24B/C1 | 52 | T14+R |
| ETS | 1342 | 6 | C41R |
| EX | 37H2 | 110 | C17R |
| EX7 | 5503 | 36 | T15+R |
| EXA | 37A7 | 110 | C17R |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| F0 | 51E7 | 46 | T23R |
| F1 | 52E7 | 46 | T29R |
| F2 | 53E7 | 46 | T30R |
| F4 | 54F7 | 46 | T31R |
| F7 | 55E7 | 46 | T32R |
| FA | 39A/D7 | 13 | C2CR |
| FA1 | 39A/E4 | 13 | C2CR |
| FAC | 21A/A3 | 32 | T51L |
| FAC1 | 21B/D7 | 73 | T6+R |
| FAC2 | 21B/B7 | 43 | T25R |
| FAC4 | 21A/A7 | 143 | T15+R |
| FAK | 32G6 | 9 | C31R |
| FB0-9 | 15D7 | 3 | C47R |
| FB10-19 | 15C7 | 2 | C50R |
| FB20-29 | 15B7 | 65 | F3 |
| FBK | 32G6 | 9 | C31R |
| FBKA | 99H6 | 123 | PRE 19,52 |
| FC | 93D2 | 69 | T10R |
| FC- | 28A/A8 | 66 | F14-55 |
| FC0 | 35B4, 99E3 | 11 | C25R |
| FC0A | 99A3 | 123 | PRE 13,51 |
| FC0 | 61C2 | 73 | T6+R |
| FC1 | 61D2 | 73 | T6+R |
| FE0 | 67A7 | 73 | T6+R |
| FE1 | 67H6 | 73 | T6+R |
| FF1 | 63H7 | 73 | T6+R |
| FG0,1 | 16D0 | 3 | C43R |
| FG2 | 16E0 | 3 | C43R |
| FGA | 110C9 | 119 | RM46 |
| FGT | 131C1 | 142 | REL R |
| FK | 1038/C6 | 91 | LLP, REL R |
| FL0 | 23G0 | 3 | C35R |
| FL01 | 23G0 | 3 | C35R |
| FL0A | 23F0 | 12 | C43L |
| FM | 40B0 | 7 | C33R |
| FM0-4 | 15C2 | 4 | C45R |
| FM0 | 15D1 | 4 | C45R |
| FM00 | 15E2 | 3 | C46R |
| FM05 | 15F2 | 3 | C46R |
| FM01C,15 | 1582 | 2 | C49R |
| FM020,25 | 9082 | 65 | F2 |
| FMK | 15E1 | 4 | C45R |
| FML | 1581 | 4 | C45R |
| FMP | 31A/F7 | 7 | C32R |
| FN | 70E3 | 40 | T33R |
| FNA | 70D3 | 22 | C32L |
| FNB | 70E3 | 22 | C32L |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| F50-9 | 15F6 | 3 | C46R |
| F510-19 | 15C6 | 2 | C49R |
| F520-29 | 90E4,H4 | 65, 179 | F2 |
| FSA | 15E7 | 4 | C47R |
| FT0,1 | 1E0 | 19 | C42L |
| FT2,3 | 1D3 | 19 | C42L |
| FTA0-4 | 1D4 | 64 | C11R |
| FTB0,1 | 3B7 | 19 | C40L |
| FTB2,3 | 3D7 | 19 | C40L |
| FTB4,5 | 3E7 | 64 | C11R |
| FTC0-9 | 14D1 | 1 | C48R |
| FTC10-19 | 14C5 | 2 | C51R |
| FTC20-29 | 3A3 | 65 | F4 |
| FTCK | 15B1 | 4 | C44R |
| FTCK1 | 15H2 | 4 | C44R |
| FTD0-9 | 14E1 | 126 | PRE 10,43 |
| FTD10-19 | 14D5 | 126 | PRE 11,44 |
| FTD20-29 | 3A4 | 126 | PRE 12,45 |
| FTK1 | 58/G1 | 13 | C36L |
| FTL | 3F3 | 22 | C30L |
| FTM0-5 | 7C3 | 17 | C47L |
| FTS0 | 3B2 | 125 | PRE 17,50 |
| FTS1 | 3C2 | 125 | PRE 17,50 |
| FTS2 | 3D2 | 125 | PRE 17,50 |
| FTS3 | 3E2 | 125 | PRE 17,50 |
| FTT0,1 | 3A9 | 19 | C41L |
| FTT2,3 | 3D9 | 19 | C41L |
| FTT4,5 | 3F9 | 64 | C12R |
| FTT8 | 3G9 | 19 | C40L |
| FU0,1,2,4,7 | 1D1-1H1 | 19 | C42L |
| FUL | 3H0 | 22 | C30L |
| FUM0-9 | 70A3 | 17 | C47L |
| FUT0-9 | 3D0 | 19 | C41L |
| FV0 | 20A/F5 | 43 | T26R |
| FX0 | 51E3 | 142 | REL R |
| FX1 | 5203 | 142 | REL R |
| FX2 | 53E3 | 142 | REL R |
| FX4 | 54E3 | 142 | REL R |
| FX7 | 55E3 | 142 | REL R |

DRAWING ISSUE

| | |
|---|---|
| 34A | 1 B EQL AND |
| 35D | 1 B EQL AND CCK |
| 37D | |
| 39D | RRL |
| 41D | |
| 43D | |
| 44A | |
| 45D | |

DRAWING ISSUE 64A

* SEE SHEET A144

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A148

BELL TELEPHONE LABORATORIES INCORPORATED 6S

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# APPARATUS INDEX

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| GO | 51F7 | 46 | T28R |
| G1 | 52F7 | 46 | T29R |
| G2 | 53F7 | 46 | T30R |
| G4 | 54F7 | 46 | T31R |
| G7 | 55F7 | 46 | T32R |
| GB | 6946 | 23 | C27L |
| GBA | 43A5 | 27 | C18L |
| GBB | 43B5 | 27 | C18L |
| GC | 31A/G4 | 20 | C38L |
| GCA | 31A/F4 | 64 | C11R |
| GL | 123A5 | 135 | REL R |
| GLA | 123A0 | 135 | REL R |
| GLB | 12380 | 135 | REL R |
| GLC | 44C6 | 135 | REL R |
| GLH | 34C/F8 | 11 | C26R |
| GLHI | 34C/H8 | 11 | C26R |
| GLHA | 99G8 | 123 | PRF 19,52 |
| GLR | 81G2 | 135 | REL R |
| GLT | 123D9 | 135 | REL R |
| GLTA | 123C0 | 135 | REL R |
| GN | 113D6 | 103 | C52R |
| GP1,2 | 40G8 | 38 | T52L |
| GPA | 40F5 | 38 | T52L |
| GPB | 40E5 | 38 | T52L |
| GRO-7 | 94E6 | 100 | RM49 |
| GS1-5 | 17C6 | 7 | C38R |
| GS6 | 17E6 | 7 | C36R |
| GSA1-3 | 17C7 | 3 | C47R |
| GSA4,5 | 17C7 | 3 | C48R |
| GSA11-13 | 17C8 | 2 | C50R |
| GSA14,15 | 17C8 | 2 | C51R |
| GSA21-25 | 17C8 | 65 | F3,4 |
| GSB1-4 | 17A8 | 166 | REL R |
| GT | 35A/H2, 99G3 | 11 | C25R |
| GT1 | 34C/D8 | 11 | C26R |
| GT2 | 34C/D8 | 11 | C26R |
| GT3 | 35B/C9 | 11 | C26R |
| GT5 | 35B/B5 | 11 | C26R |
| GTA | 35B/C5 | 11 | C26R |
| GTK | 35B/G4 | 11 | C27R |
| GTL | 57B/F0 | 26 | C23L |
| GTL2 | 57B/E0 | 18 | C45L |
| GW | 40H5 | 38 | T52L |
| GX0 | 51E3 | 142 | REL R |
| GX1 | 52E3 | 142 | REL R |
| GX2 | 53E3 | 142 | REL R |
| GX4 | 54E3 | 142 | REL R |
| GX7 | 55E3 | 142 | REL R |
| GZ | 40H5 | 33 | T52L |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| HO | 51F7 | 46 | T28R |
| H1 | 52F7 | 46 | T29R |
| H2 | 53F7 | 46 | T30R |
| H4 | 54F7 | 46 | T31R |
| H7 | 55F7 | 46 | T32R |
| HFA | 39A/C7 | 13 | C20R |
| HGO,1,2,4,7 | 1C4 | 18 | C44L |
| HGD | 110C6 | 119 | RM45 |
| HGK | 6A/H2 | 9 | C31R |
| HGL | 5A/G8 | 22 | C30L |
| HGNO-9 | 70B8 | 16 | C50L |
| HGTO-9 | 5A/D9 | 18 | C45L |
| HMSI | 34C/A9 | 10 | C30R |
| HMT | 34B/F0 | 10 | C28R |
| HMTI | 34B/G0 | 10 | C28R |
| HNO | 5185 | 54 | T34R |
| HN1 | 5285 | 54 | T34R |
| HN2 | 5385 | 54 | T 4R |
| HN4 | 5485 | 54 | T34R |
| HN7 | 5585 | 54 | T34R |
| HT | 110C6 | 119 | RM45 |
| HTKI | 5A/C6 | 18 | C45L |
| HTR | 838/B7 | 11 | C27R |
| HTT | 838/G6 | 14 | C15R |
| HTUK | 62A/A0 | 22 | C31L |
| HVTO-11 | 103F0 | 89 | LLP |
| IAO | 114B/D4 | 146 | REL R |
| IAT2-9 | 24B/A1 | 159 | REL R |
| IBTO,1 | 25F7 | 159 | REL R |
| ICC | 218/E7 | 90 | C8R |
| IDA | 20A/F6 | 159 | REL R |
| IDD | 20A/G8 | 47 | T27R |
| IDN | 28A/G7 | 102 | REL R |
| IDP | 20A/C5 | 161 | REL R |
| IDS | 20A/D5 | 161 | REL R |
| IFLG | 23B5 | 7 | C36R |
| IMG | 45D1 | 26 | C23L |
| IMT | 23D8 | 13 | C17R |
| INC | 21A/E9 | 32 | T51L |
| INCT | 21A/H5 | 143 | T15+R |
| INFO | 28A/B6 | 136 | T6+R |
| INFR | 59B/H4 | 136 | T6+R |
| INI | 21A/C8 | 32 | T51L |
| INL | 20A/A3 | 143 | T16+R |
| INT | 40F0 | 73 | 76+R |
| IOD | 28B/E9 | 83 | T2+R |
| IPCO-9 | 28A/B6 | 62 | T11+R |
| IPR | 110G6 | 119 | RM46 |
| IPRS | 28B/G9 | 117 | 4W10,39 |
| IPT | 66H7 | 8 | C35R |
| IRT | 79D4 | 13 | C17R |
| ITBA | - | 12A | H12 |
| ITD | 6B/H6 | 168 | C13R |
| ITM | 6B/H6 | 168 | C13R |
| ITNA | 108E0 | 82 | T3&4 |
| ITNB | 108F0 | 82 | T3&4 |
| ITNC | 108H1 | 169 | T6+R |
| ITND | 108H1 | 169 | T6+R |
| ITR1,2 | 22A7 | 8 | C34R |
| ITR3 | 2269 | 152 | WB22,57 |
| ITRA | 28B/E4 | 41 | T41R |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| JO | 51G7 | 46 | T28R |
| J1 | 52G7 | 46 | T29R |
| J2 | 53G7 | 46 | T30R |
| J4 | 54G7 | 46 | T31R |
| J7 | 55G7 | 46 | T32R |
| J8 | 85B3 | 45 | REL R |
| JCK | 32F1 | 9 | C31R |
| JGO | 12A0 | 20 | C38L |
| JG1,2 | 1280 | 20 | C38L |
| JG3,4 | 12C0 | 20 | C38L |
| JGCK | 34A/E5 | 10 | C29R |
| JLE | 9F0 | 20 | C36L |
| JLO | 9F0 | 20 | C36L |
| JSE | 9E0 | 20 | C36L |
| JSO | 9E0 | 20 | C36L |
| JSQ0,1,3 | 980 | 20 | C36L |
| JSQ2,5 | 9C0 | 20 | C36L |
| JSQ4 | 9D0 | 20 | C36L |
| JSSF | 141G4 | 153 | WB18,53 |
| JXP | 34A/H5 | 10 | C29R |
| JXP1 | 34C/G5 | 10 | C30R |
| JXPA | 34C/G5 | 10 | C30R |
| JXW | 136G4 | 154 | WB9,44 |
| JXWI | 139D2 | 154 | WB9,44 |
| JXWA | 139C2 | 154 | WB9,44 |
| KO | 51G7 | 46 | T28R |
| K1 | 52G7 | 46 | T29R |
| K2 | 53G7 | 46 | T30R |
| K4 | 54G7 | 46 | T31R |
| K7 | 55G7 | 46 | T32R |
| KA | 57A/A8 | 46 | T29R |
| KBC | 57A/A8 | 46 | T30R |
| KCV | 45D1 | 59 | CV21 |
| KDE | 57A/B8 | 46 | T29R |
| KFG | 57A/B8 | 46 | T30R |
| KG | 57A/B0 | 46 | T28R |
| KGS1 | 57A/B0 | 46 | T31R |
| KGS2 | 57A/C0 | 46 | T32R |
| KGS3,4 | 57A/A0 | 46 | T32R |
| KGS5-7 | 57A/C0 | 51 | T25R |
| KHJ | 57A/C8 | 46 | T29R |
| KK | 57A/A6 | 46 | T28R |
| KKL | 57A/D8 | 46 | T30R |
| KLPO,1,2 | 98C-D1 | 120 | PRE 4,37 |
| KLPR | 98H5 | 120 | PRE 4,37 |
| KM | 10500 | 9,90 | C8R,C31R |
| KTPO,1,2 | 98A-B1 | 120 | PRE 4,37 |
| KTPR | 98H5 | 120 | PRE 4,37 |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| LO | 51H7 | 46 | T28R |
| L1 | 52H7 | 46 | T29R |
| L2 | 53H7 | 46 | T30R |
| L4 | 54H7 | 46 | T31R |
| L7 | 55H7 | 46 | T32R |
| LA | 3H5 | 22 | C30L |
| LB | 108E9 | 22 | C32L |
| LBO-9 | 82B7 | 57 | C13R |
| LBT | 34A/E2 | 10 | C29R |
| LBTA | 1078Z | 9 | C31R |
| LBTB | 117D4 | 120 | PRE 3,36 |
| LCDO-2 | 93A2 | 69 | T10R |
| LCH | 59A/E9 | 22 | C32L |
| LCK | 33A/G8 | 9 | C31R |
| LDN | 105C2 | 90 | C9R |
| LDT | 83E8 | 14 | C16R |
| LEA | 28A/C8 | 43 | T38R |
| LEB | 28A/E8 | 43 | T39R |
| LFO-9 | 85E9 | 45 | REL R |
| LFK | 4A/A5 | 9 | C32R |
| LFK1 | 4A/E6 | 91 | LLP3, REL R |
| LFKA | 4B/E2 | 113 | C7L |
| LGA | 1118/A3 | 119 | RM45 |
| LGT | 35B/A5 | 11 | C27R |
| LHT | 34C/D5 | 18 | C46L |
| LI | 107A8 | 22 | C32L |
| LIA | 10788 | 22 | C29L |
| LIN | 108B9 | 24 | C26L |
| LIT | 34A/E3 | 10 | C29R |
| LITA | 117D7 | 120 | PRE 3,36 |
| LK | 12F6 | 9 | C31R |
| LKI | 36A9 | 8 | C33R |
| LK2 | 36A9 | 8 | C33R |
| LKA | 12E7 | 171 | C10L |
| LKC | 83D/B6 | 3 | C33R |
| LKD | 36B2 | 171 | C10L |
| LLO,1,2,4,7 | 33B/D9 | 7 | C36R |
| LLB | 4A/E5 | 9 | C32R |
| LLCI | 23C8 | 9 | C32R |
| LLC2 | 23C8 | 20 | C38L |
| LLC3 | 23D8 | 10 | C30R |
| LLC4 | 23A8 | 91 | LLP, REL R |
| LLCK | 136F1 | 167 | MKR WB/BS 3,38 |
| LLES | 97E3 | 106 | PRE 22,55 |
| LLI | 62A/D0 | 22 | C30L |
| LLIA | 62A/D0 | 22 | C29L |
| LLKA | 33B/F2 | 129 | REL R |
| LLKB | 33B/G2 | 129 | REL R |
| LLP1 | 105D2 | 98 | LLP |
| LLP2 | 60G5 | 88 | LLP |
| LLPX | 7086 | 17 | C47L |
| LLS | 44G2 | 26 | C20L |
| LLT | 33A/G3 | 10 | C29R |
| LLTA | 33B/E2 | 10 | C30R |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| LNA | 115F3 | 90 | C3R |
| LNP | 116C9 | 121 | PRE 5,38 |
| LNPP | 116D9 | 121 | PRE 5,38 |
| LNT | 35E2 | 45 | REL R |
| LOF | 33D/A6 | 38 | LLP |
| LOL | 99A5 | 121 | PRE 6,39 |
| LOLA | 4B/F4 | 129 | REL R |
| LOLB | 33B/C2 | 129 | REL R |
| LOLC | 77G6 | 129 | REL R |
| LOLD | 47E8 | 129 | REL R |
| LOLE | 33B/E2 | 129 | REL R |
| LOLF | 33B/D2 | 129 | REL R |
| LOLK | 33B/B2 | 129 | REL R |
| LOLP | 30B/C4 | 129 | REL R |
| LOT | 4A/E5 | 9 | C32R |
| LOTI | 4A/G5 | 9 | C32R |
| LP | 79E6 | 13 | C13R |
| LPA | 28A/A8 | 43 | T38R |
| LPB | 28A/D8 | 43 | T39R |
| LPI | 105A0 | 38 | LLP |
| LPMK | 98G5 | 121 | PRE6,39 |
| LPN | 103E7 | 88 | LLP |
| LR | 23E7 | 13 | C17R |
| LRDD-119 | 103E5 | 39 | LLP,3LLP |
| LRA | 103C0 | 38 | LLP |
| LRAI | 103C0 | 38 | LLP |
| LRD | 103D0 | 38 | LLP |
| LRI | 23G7 | 112, 114 | C13R |
| LRS | 103E7 | 91 | LLP |
| LRSTO-9 | 61D0 | 88 | LLP |
| LSC1 | 43A0 | 26 | C20L |
| LSC2 | 43A0 | 91 | LLP, REL R |
| LSK | 138H4 | 167 | |
| LST | 116A2 | 120 | PRE 1,34 |
| LSW | 13789 | 152 | WB22,57 |
| LSWR | 13789 | 151 | WB14,49 |
| LT | 20A/A6 | 48 | T26R |
| LT2 | 20A/D6 | 48 | T26R |
| LT3 | 20A/D6 | 143 | T16+R |
| LT4 | 20A/B9 | 51 | |
| LTA | 28A/B8 | 43 | T38R |
| LTB | 28A/D8 | 43 | T39R |
| LTI | 103B2 | 91 | LLP, REL R |
| LTR | 34C/C8 | 11 | C27R |
| LWL | 134H5 | 151 | WB14,49 |
| LXP | 34A/H1 | 10 | C29R |
| LXP1 | 34C/D1 | 10 | C30R |
| LXPA | 34C/E1 | 10 | C30R |
| LXW | 135H6 | 154 | WB9,44 |
| LXWI | 139B2 | 154 | WB9,44 |
| LXWA | 139A2 | 154 | WB9,44 |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| MO-9 | 35E5 | 44 | REL R |
| MAK | 39A/A9 | 13 | C20R |
| MAKI | 16G7 | 4 | C44R |
| MB | 39A/F2 | 13 | C20R |
| MBC | 142E1 | 156 | WB12,47 |
| MBCK | 142C4 | 156 | WB12,47 |
| MBK | 49A/E7 | 40 | T43R |
| MBK1,2 | 49A/C0 | 40 | T43R |
| MBK3 | 49B/G0 | 40 | T47R |
| MBK4 | 49B/F0 | 40,74 | T47R |
| MBK5 | 49B/D0 | 40,74 | T47R |
| MBK6 | 114A/A2 | 105 | REL R |
| MBSO-9 | 28B/F4 | 40 | T43R |
| MBT9 | 28B/A9 | 62 | T3+R |
| MCBO | 39A/F4 | 13 | C20R |
| MCBI | 39A/G4 | 13 | C20R |
| MCB2 | 39A/G4 | 177 | |
| MCK | 39A/A9 | 13 | C20R |
| MCS | 34B/A5 | 96 | C3R |
| MDO | 5165 | 161 | REL R |
| MD1 | 5265 | 161 | REL R |
| MD2 | 53F5 | 161 | REL R |
| MD4 | 5465 | 161 | REL R |
| MD7 | 5569 | 161 | REL R |
| MDI | 26H1 | 42 | T40P |
| MDK | 16G7 | 9 | C32R |
| ME | 20B/D3 | 42 | T40R |
| MFK | 4B/D2 | 113 | C7L |
| MFL | 4B/D3 | 113 | C7L |
| MLT | 68/A7 | 102 | REL R |
| MM | 104B/D9, 100B/H6 | 96, 182 | C3R |
| MMK | 134C5 | 151 | WB14,49 |
| MN | 85E4 | 44 | REL R |
| MNI | 85E4 | 44 | REL R |
| MPO-2 | 104A/A7 | 96 | C3R |
| MPT | 85H2 | 44 | REL R |
| MR | 4B/E7 | 11 | C27R |
| MRA | 6B/E7 | 11 | C27R |
| MRI | 105E2 | 90 | C9R |

| DESIG | LOCATION FS | APP FIG | EQPT# |
|---|---|---|---|
| **RELAYS** | | | |
| MRL | 838/F2 | 14 | C15R |
| MRLI | 83B/H2 | 13 | C13R |
| MS | 11702 | 121 | PRE 6,39 |
| MSK | 39A/B0 | 13 | C20R |
| MT | 7946 | 13 | C19R |
| MT1 | 7984 | 13 | C19R |
| MT2 | 7906 | 27 | 119L |
| MT3 | 114B/E4 | 146 | REL R |
| MT4 | 79B6 | 3 | C48R |
| MT5 | 19H4 | 6 | C39R |
| MT6 | 19H4 | 6 | C4CR |
| MT7 | 11G3 | 20 | C38L |
| MT8 | 942 | 20 | C36L |
| MT8A | 903 | 20 | C37L |
| MT9 | 7906 | 4 | C44R |
| MT10 | 71F6 | 55 | T36R |
| MT11 | 79C4 | 13 | C19R |
| MT12 | 7946 | 13 | C19R |
| MT13 | 7945 | 13 | C19R |
| MT14 | 79C6 | 2 | C51R |
| MT15 | 7985 | 55 | T36R |
| MT16 | 85G2 | 45 | REL R |
| MT17 | 79D4 | 13 | C19R |
| MT13 | 7984 | 13 | C19R |
| MT19 | 71F6 | 55 | T36R |
| MT20 | 71E6 | 13 | C19R |
| MT21 | 79F5 | 83 | LLP |
| MT22 | 79E5 | 55 | T37R |
| MT23 | 7906 | 128 | REL R |
| MT24 | 79C6 | 65 | F4 |
| MT25 | 47A5 | 75 | T5R |
| MT26 | 4746 | 75 | T5R |
| MT27 | 79C1 | 13 | C17R |
| MT28 | 7946 | 120 | PRE 4,37 |
| MT29 | 79C4 | 13 | C17R |
| MT30 | 7946 | 120 | PRE 4,37 |
| MT31 | 79H6 | 120 | PRE 4,37 |
| MT32 | 7946 | 120 | PRE 4,37 |
| MT33 | 11786 | 120 | PRE 3,36 |
| MT34 | 117C6 | 120 | PRE 3,36 |
| MT35 | 79C5 | 120 | PRE 3,36 |
| MT36 | 79C5 | 127 | REL R |
| MT37 | 12CH3 | 130 | REL R |
| MT38 | 120H3 | 130 | REL R |
| MT39 | 7904 | 116 | 4W7,36 |
| MT40 | 79G6 | 120 | PRE 7,40 |
| MT41 | 7906 | 138 | REL R |
| MT42 | 114B/A2 | 146 | REL R |
| MT43 | 7946 | 152 | WB22,57 |
| MT44 | 14282 | 156 | WB12,47 |
| MT45 | 79H5 | 152 | WB22,57 |
| MT46 | 14282 | 151 | WB14,49 |
| MT47 | 142G2 | 152 | WB22,57 |
| MT48 | 142G2 | 152 | WB22,57 |
| MT49 | 142F2 | 152 | WB22,57 |
| MT50 | 142A2 | 151 | WB14,49 |
| MT51 | 142H2 | 154 | WB9,44 |
| MT52 | 14389 | 154 | WB9,44 |
| MT53 | 142H2 | 154 | WB9,44 |
| MT54 | 142H2 | 154 | WB9,44 |
| MT55 | 1D6D9 | 160 | REL R |
| MT56 | 7944 | 20 | C36L |
| MT57 | 7987 | 25 | C24L |
| MTA | 79H5 | 9 | C31R |

DRAWING ISSUE

| | |
|---|---|
| 34A | I.B. &DL AND |
| 350 | I.B. &DL WHD CKT |
| 36A | CKT |
| 370 | CKT |
| 390 | RP |
| 41D | |
| 430 | |
| 450 | |

DRAWING ISSUE **65B**

* SEE SHEET A14A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A15

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# APPARATUS INDEX

| DESIG | LOCATION FS | APP FIG | EQPT * |
|---|---|---|---|
| **RELAYS** | | | |
| MXT | 86F0 | 30 | C9L |
| N1,2 | 60E3 | 54 | T34R |
| N3,4 | 60E3 | 54 | T33R |
| NAD | 115A9 | 90 | C8R |
| NAI | 12130 | 128 | REL R |
| NAIC | 1218/C7 | 23 | C27L |
| NANS | 7289 | 60 | P27 |
| NAR1 | 72A1 | 60 | P27 |
| NAR2 | 72B1 | 60 | P27 |
| NCCN | 288/D6 | 41 | T42R |
| NCMJ | 298/D0 | 68 | C15L |
| NCNC | 288/D6 | 41 | T42R |
| NCRA | 62A/B4 | 144 | C30R |
| NCTD | 288/A6 | 147 | REL R |
| NCW | 106C4 | 160 | REL R |
| NCWI | 106C6 | 160 | REL R |
| NDI | 109D6 | 26 | C23L |
| NDK | 109D2 | 26 | C23L |
| NE | 60H3 | 55 | T36R |
| NET | 94A5 | 116 | 4W7,36 |
| NGB | 61A1 | 22 | C29L |
| NGC | 62A/A0 | 23 | C27L |
| NGK | 62A/D6 | 22 | C31L |
| NGK1 | 62A/E7 | 22 | C31L |
| NGP | 41A2 | 22 | C29L |
| NGSA-H | 76D4 | 60 | P26 |
| NGSK | 76A0 | 60 | P27 |
| NGTA-H | 75D8 | 60 | P25 |
| NH | 95C0 | 45 | REL R |
| NID | 288/F9 | 93 | T2 + R |
| NLA | 6405 | 121 | PRE5,38 |
| NMR | 104A/C9 | 96 | C3R |
| NOB | 109C7 | 40,76 | T47R |
| NOC | 29A/C0 | 26 | C26L |
| NOLA | 48/E4 | 129 | REL R |
| NPC | 116E3 | 120 | PRE1,34 |
| NPCA | 98D6 | 120 | PRE3,36 |
| NPM | 116E3 | 120 | PRE1,34 |
| NPRC | 110F0 | 119 | RM45 |
| NR | 62A/H0 | 22 | C31L |
| NRCD | 288/G2 | 184 | REL R |
| NRD | 1148/C7 | 146 | REL R |
| NRR | 1148/B6 | 146 | REL R |
| NRS | 30A/G1 | 81 | C10L |
| NSA | 42H0 | 146 | REL R |
| NSI | 4203 | 26 | C23L |
| NSKI | 5050 | 39 | T49R |
| NSO | 42A4 | 26 | C23L |
| NSS | 94A7 | 116 | 4W7,36 |
| NSSO | 6087 | 54 | T33R |
| NSS1,2 | 60C7 | 54 | T33R |
| NSS3 | 60D7 | 54 | T33R |
| NSS4 | 60E7 | 54 | T33R |
| NSS5 | 60F7 | 54 | T33R |
| NST | 1160 | 120 | PRE1,34 |

| DESIG | LOCATION FS | APP FIG | EQPT * |
|---|---|---|---|
| **RELAYS** | | | |
| NT | 85D0 | 45 | REL R |
| NT1,2 | 85D1-D3 | 45 | REL R |
| NT3 | 85F2 | 45 | REL R |
| NT4 | 95F2 | 45 | REL R |
| NT5 | 95G0 | 45 | REL R |
| NT6 | 85E2 | 160 | REL R |
| NTA | 16A4 | 121 | PRE5,39 |
| NTB | 106H2 | 160 | REL R |
| NTC | 95F0 | 45 | REL R |
| NTD | 13207 | 147 | REL R |
| NTH | 95F0 | 45 | REL R |
| NTL | 7705 | 129 | REL R |
| NTMR | 104B/A3 | 96 | C2R |
| NTR | 85G2 | 45 | REL R |
| NTT | 95D3 | 45 | REL R |
| NW | 13703 | 152 | WB22,57 |
| NWB | 122A/B3 | 133 | REL R |
| NWL | 13503 | 156 | WB12,47 |
| NWLA | 13540 | 156 | WB12,47 |
| NWT | 138F4 | 152 | WB22,57 |
| OA | 20A/F9 | 43 | T38R |
| OACO | 12043 | 130 | REL R |
| OAC1-9 | 12043 | 134 | REL R |
| OAT | 39A/F3 | 14 | C15R |
| OAT1 | 838/B7 | 14 | C15R |
| OB | 20A/F8 | 43 | T39R |
| OBS | 10987 | 40,76 | T47R |
| OC | 838/C7 | 107 | T6R |
| OCN | 63H0 | 43 | T39R |
| OD | 9288 | 26 | C22L |
| OFCO-5 | 12188 | 129 | REL R |
| OFH | 107F6 | 21 | C33L |
| OFH1 | 107C1 | 21 | C33L |
| OFK | 70F9 | 22 | C32L |
| OGC | 42F0 | 26 | C23L |
| OGR1,2 | 93D/H1 | 131 | REL R |
| OHS | 10580 | 121 | PRE6,39 |
| OLI | 10248 | 85 | C42L |
| OLIA | 10289 | 85 | C42L |
| OLIT | 102C9 | 85 | C42L |
| ONX | 97E0 | 29 | C4L |
| OPO-4 | 47E0 | 91 | LLP |
| OPE | 27C5 | 36 | T15 + R |
| OPR | 288/C6 | 41 | T43R |
| OPSO-3 | 28A/G8 | 41 | T43R |
| OR | 21A/A8 | 32 | T51L |
| OR1 | 21B/A7 | 48 | T26R |
| ORA | 21A/A7 | 143 | T15+R |
| ORC | 58F0 | 68 | C14L |
| ORCO | 92C8 | 68 | C14L |
| ORC1 | 92D7 | 68 | C14L |
| ORC2 | 92E7 | 68 | C14L |

| DESIG | LOCATION FS | APP FIG | EQPT * |
|---|---|---|---|
| **RELAYS** | | | |
| ORK1 | 5680 | 46 | T32R |
| ORK2 | 56H0 | 46 | T31R |
| OPT | 79C4 | 13 | C17R |
| OSO-4 | 43C3 | 27 | C19L |
| OSC | 42C0 | 26 | C22L |
| OSE | 4406 | 27 | C19L |
| OSE1 | 43E4 | 27 | C19L |
| OSGO-4 | 42B4 | 27 | C17L |
| OSG5-9 | 42B4 | 28 | C16L |
| OSG10,11 | 42B4 | 67 | C23L |
| OSK | 44B3 | 27 | C19L |
| OSKA | 4305 | 27 | C18L |
| OST | 57A/F4 | 26 | C21L |
| OST1 | 57B/A0 | 26 | C22L |
| OST2 | 57B/B0 | 26 | C22L |
| OT | P-13G1 | 6 | C41R |
| | S-1985 | 6 | C41R |
| OTF | 79A4 | 30 | C8L |
| OTS | 19H2 | 6 | C41R |
| OTT | 109E8 | 26 | C23L |
| OTTA | 95A0 | 116 | 4W7,36 |
| OV | 41A/D8 | 22 | C32L |
| OVC | 41A/G7 | 22 | C29L |
| OVK | 78B/H4 | 90 | C8R |
| OVP | 20A/G5 | 145 | T15+R |
| OVS | 20A/E5 | 145 | T15+R |
| PC-9 | 10D1 | 20 | C39L |
| POA-P2A | 10C0 | 64 | C12R |
| P5A-P9A | 10G0 | 64 | C12R |
| PA | 11C5 | 20 | C39L |
| PAN | P-1058 2 | 90 | C9R |
| | S-103E9 | | |
| PB | 11D5 | 20 | C39L |
| PBN | 70H8 | 22 | C32L |
| PBX1,2 | 64A0 | 23 | C29L |
| PBXA | 358/D9 | 11 | C27R |
| PBY | 288/B4 | 41 | T43R |
| PC | 11E5 | 20 | C39L |
| PC00-27 | 28A/F8 | 37 | T12 + R |
| PC28-39 | 28A/F8 | 72 | T7 + R |
| PCCL | 58G0 | 25 | C24L |
| PCD0 | 21A/F9 | 32 | T51L |
| PCD1 | 21A/G9 | 32 | T51L |
| PCK | - | 124 | H11 |
| PCL1,2 | 22C7 | 25 | C24L |
| PCN | 288/A6 | 41 | T43R |
| PCR | 21A/E9 | 32 | T51L |
| PD | 20B/C3 | 42 | T40R |
| PDC0,1 | 288/D9 | 94 | T2L |
| PDK | 103B/C8 | 94 | T2L |
| PDKA | 103B/F7 | 94 | T2L |
| PDL | 88C/A5 | 131 | REL R |

| DESIG | LOCATION FS | APP FIG | EQPT * |
|---|---|---|---|
| **RELAYS** | | | |
| PE | 11E5 | 64 | C12R |
| PEG | 88B/F3 | 8 | C35R |
| PEG1 | 98B/E3 | 8 | C34R |
| PEG2 | 88B/E0 | 164 | REL R |
| PEG20,30 | 59B/E2 | 165 | REL R |
| PG00-14 | 95A4,A5 | 116 | 4W8,37 |
| PGR00-14 | 98D/F1-6 | 131 | REL R |
| PHB | 103A/H8 | 88 | |
| PHC | 20A/G9 | 43 | T39R |
| PK | 20B/B3 | 42 | T40R |
| PK1 | 24C/C1 | 143 | T16+R |
| PL | 8201 | 57 | C14R |
| PL1 | 8205 | 57 | C14R |
| PLB | 108C5 | 121 | PRE5,38 |
| PLB1 | 66F2 | 121 | PRE5,38 |
| PLBA | 108A0 | 121 | PRE5,38 |
| PLFK | 117F6 | 121 | PRE6,39 |
| PLSA | - | 124 | H12 |
| PML | 11689 | 121 | PRE5,38 |
| PMLL | 116E9 | 121 | PRE5,38 |
| PMO | P-70G8 | 22 | C32L |
| | S-41A/F7 | | |
| PN | 63A8 | 43 | T39R |
| PNC | 288/B6 | 41 | T43R |
| PNR | 11A5 | 20 | C39L |
| POTS | 105C2 | 86 | C10R |
| PP | 20B/A3 | 152 | WB22,57 |
| PPX | 288/B6 | 41 | T43R |
| PR | 968 | 19 | C40L |
| PRA0-4 | 94G4 | 119 | RM44 |
| PRC | 110F0 | 119 | RM45 |
| PREO-4 | 94A4 | 116 | 4W7,36 |
| PREA | - | 124 | H9 |
| PRI | 94A4 | 116 | 4W7,36 |
| PRL | 48/E3 | 113 | C7L |
| PRL0-4 | 9886 | 120 | PRE3,36 |
| PRLL | 48/C2 | 113 | C7L |
| PRLLA | 48/C1 | 30 | C7L |
| PRR | 110G0 | 119 | RM46 |
| PS | 20B/C3 | 42 | T40R |
| PS1 | 35B/E5 | 172 | REL R |
| PS2 | 35B/F5 | 172 | REL R |
| PSA | 35B/A9 | 172 | REL R |
| PSA1 | 35B/E7 | 172 | REL R |
| PSA2 | 35B/F7 | 172 | |
| PSA3 | 35B/B8 | 172 | |
| PSG | 35B/C7 | 172 | REL R |
| PSL | 4A/A1 | 172 | REL R |
| PSR | 81H2 | 42 | T40R |
| PST | 28A/A6 | 172 | REL R |
| PSTA | 28A/A6 | 172 | REL R |
| PTK | 63B3 | 22 | C29L |
| PTM | 628/D3 | 127 | REL R |
| PTN | 63C8 | 43 | T39R |
| PU | 35A/H6, 99G5 | 11 | C25R |
| PUI | 66F0 | 22 | C30L |
| PUL | 66D9 | 22 | C30L |
| PX | - | 124 | H12 |

| DESIG | LOCATION FS | APP FIG | EQPT * |
|---|---|---|---|
| **RELAYS** | | | |
| R- | 20A/A8 | 1 | R |
| RA1-5 | 17C3 | 7 | C37R |
| RA6 | 17E3 | 7 | C37R |
| RAV1 | 41A/B9 | 7 | C36R |
| RAV2 | 41A/C8 | 7 | C36R |
| RAV3 | 41A/C9 | 6 | C34R |
| RBT | 41B/D8 | 7 | C36R |
| RCCK | 81G2 | 13 | C19R |
| RCD | 114B/C6 | 146 | REL R |
| RCD0-4 | 1118/C-G8 | 97 | 4W13,42 |
| RCDP | 111B/C9 | 97 | 4W13,42 |
| RCDS | 111B/G9 | 97 | 4W13,42 |
| RCDT | 288/G2 | 184 | REL R |
| RCK1 | 30A/B4 | 21 | C33L |
| RCK2 | 107D7 | 21 | C33L |
| RCK3 | 107E9 | 21 | C33L |
| RCL | 77E0 | 22 | C30L |
| RCN1-15 | 70C8 | 16 | C50L |
| RCR | 114B/B7 | 146 | REL R |
| RCT1 | 77E3 | 21 | C34L |
| RCT2,3,12-14 | 7783 | 21 | C34L |
| RCT4,5 | 77C3 | 21 | C34L |
| RCT6-8,11 | 77D3 | 21 | C34L |
| RCT9 | 77A3 | 21 | C34L |
| RCT10 | 77F3 | 21 | C34L |
| RCT15 | 77E3 | 21 | C35L |
| RCTA | 35B/E9 | 11 | C26R |
| RCTB | 35B/G9 | 11 | C26R |
| RCTC | 99F8 | 123 | PRE19,52 |
| RCTS | 288/B9 | 117 | 4W11,40 |
| RCY | 41B/E8 | 7 | C37R |
| RCY1 | 418/E8 | 7 | C37R |
| RCY2 | 108G9 | 22 | C31L |
| RCY3 | 66H3 | 22 | C31L |
| RCY4 | 66G0 | 22 | C31L |
| RCY5 | 66G0 | 22 | C29L |
| RDCK | 133D2 | 151 | WB14,49 |
| RDI | 100B/C3 | 90 | C8R |
| RDIA | 100B/C3 | 90 | C8R |
| RDK1 | 95B/D0 | 97 | 4W13,42 |
| RDK2 | 95B/B0 | 97 | 4W13,42 |
| RDL | 41B/G3 | 13 | C17R |
| RDLI | 41B/F3 | 152 | WB22,57 |
| RDO | 101E8 | 90 | C8R |
| RDR | 100B/D0 | 90 | C8R |
| RDR1 | 100B/E0 | 90 | C8R |
| RDS | 100B/D3 | 112 | C13R |
| RE | 101A2 | 90 | C8R |
| RF | 39B/H0 | 7 | C38R |
| RFA | 39B/H0 | 7 | C38R |

| DESIG | LOCATION FS | APP FIG | EQPT * |
|---|---|---|---|
| **RELAYS** | | | |
| RG1-6 | 111A/D7 | 115 | RM42 |
| RGA | 110D0 | 115 | RM43 |
| RGA1-6 | 110D-G2 | 115 | RM43 |
| RGT | 28A/G9 | 43 | T33R |
| RGTA | 6357 | 22 | C29L |
| RI | P-66C1 | 22 | C29L |
| | S-61E0 | | |
| RI | 66C1 | 22 | C31L |
| RIA | 109C0 | 43 | T33R |
| RIB | 109A9 | 22 | C32L |
| RIK | 10CB/40 | 90 | C9R |
| RIP | 6640 | 22 | C29L |
| RIPA | 10940 | 43 | T33R |
| RIW | 6600 | 152 | WB22,57 |
| RK | 12E6 | 9 | C31R |
| RK1,2 | 200 | 9 | C32R |
| RK3 | 260 | 9 | C32R |
| RKA | 1207 | 171 | C10L |
| RLG | 2302 | 42 | T40R |
| RLL | 117A1 | 120 | PRE 3,36 |
| RLT | 358/B5 | 26 | C20L |
| RM00-143 | 111A/E5 | 99 | RM2-9 |
| RM200-343 | 111A/D5 | 99 | RM 1-12, 50-61 |
| RN | 5300 | 25 | C25L |
| RN0,1,2,4,7 | 5302 | 25 | C25L |
| RN2K | 59A/A6 | 71 | C13L |
| RN2T | 59A/B5 | 71 | C13L |
| RNG | 62A/E9 | 22 | C30L |
| RNH | 10986 | 104 | REL R |
| RNK1 | 59H6 | 25 | C25L |
| RNK2 | 59G6 | 25 | C25L |
| RNT | 5987 | 25 | C25L |
| RNT1 | 59H2 | 25 | C25L |
| RNT2 | 59G2 | 25 | C25L |
| RNT20 | 59A/F5 | 71 | C13L |
| RO | 21A/G9 | 32 | T51L |
| RO1,2 | 110C9 | 115 | RM41 |
| RO3 | 110D9 | 115 | RM41 |
| ROA | 24C/E4 | 9 | C33R |
| ROH | 358/D5 | 152 | REL R |
| RON | 90F2 | 13 | C19R |
| ROT | 110F9 | 119 | RM46 |
| RP | 702 | 32 | T51L |
| RPA | 702 | 33 | T49L |
| RPB | 702 | 34 | T49L |
| RPK | 308/H4 | 40,74 | T47R |

| DESIG | LOCATION FS | APP FIG | EQPT * |
|---|---|---|---|
| **RELAYS** | | | |
| RQ | 1301 | 19 | C40L |
| RR | 288/E6 | 42 | T40R |
| RRC | 2300 | 42 | T40R |
| RRK | 209/B7 | 42 | T40R |
| RS0 | 78A/B9 | 21 | C35L |
| RS1 | 788/C9 | 21 | C35L |
| RS2 | 788/C9 | 21 | C35L |
| RS3,4 | 788/D9 | 21 | C35L |
| RS5 | 78B/E9 | 21 | C35L |
| RS6,7 | 78B/F9 | 21 | C35L |
| RS8,9 | 788/G9 | 21 | C35L |
| RSC | 578/G3 | 26 | C22L |
| RSK | 78A/G2 | 21 | C33L |
| RSMK | 133E2 | 151 | WB14,49 |
| RST | 110E0 | 119 | RM46 |
| RSW | 42G7 | 151 | WB14,49 |
| RTO | 598/G4 | 41 | T41R |
| RT1 | 598/F4 | 41 | T41R |
| RT2,3 | 598/E4 | 41 | T41R |
| RT4 | 59A/D4 | 41 | T41R |
| RT5,6 | 598/C4 | 41 | T41R |
| RT7 | 59B/B4 | 41 | T41R |
| RT8,9 | 598/A4 | 41 | T41R |
| RT20-24 | 598/A2 | 165 | REL R |
| RT25-29 | 598/B2 | 165 | REL R |
| RT30-34 | 598/A2 | 165 | REL R |
| RT35-39 | 598/B2 | 165 | REL R |
| RTA | 81F3 | 13 | C17R |
| RTC | 598/C2 | 41 | T41R |
| RTC1 | 598/D2 | 41 | T41R |
| RTC2-5 | 598/D2 | 165 | REL R |
| RTN | 59A/D5 | 71 | C13L |
| RTNA | 59A/G5 | 71 | C13L |
| RTST | 9103 | 13 | C17R |
| RUK | 13435 | 151 | WB14,49 |
| RUK1 | 133F2 | 151 | WB14,49 |
| RUN | 59A/E5 | 71 | C13L |
| RUNA | 59A/G5 | 71 | C13L |
| RV | 23E0 | 22 | C29L |
| RV1 | 3F5 | 22 | C29L |
| RV2 | 3H5 | 22 | C29L |
| RV3 | 23F0 | 9 | C35R |
| RVT | 133G2 | 151 | WB14,49 |
| RWCN | 143E9 | 153 | WB18,53 |
| RWL | 13405 | 151 | WB14,49 |
| RYC | 418/G9 | 7 | C37R |
| RYC1 | 41B/G8 | 152 | WB22,57 |
| RYK | 1008/E0 | 112 | C13R |
| RYT | 84C2 | 14 | C16R |
| RYT1 | 84B3 | 14 | C16R |

* SEE SHEET A14A

| DRAWING ISSUE |
|---|
| 34A I.B GDL AND |
| 35D I.B GDL AND |
| 36A MS |
| 37D MS |
| 38A REL |
| 39D REL |
| 41D |
| 43D |
| 44A |
| 45D |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A16

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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# APPARATUS INDEX

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **RELAYS** | | | |
| S00-59 | 7F9 | 35 | T43L THRU T47L,OR ST |
| S60-119 | 7F9 | 35 | SST |
| S120-179 | 7F9 | 35 | AST |
| S180-239 | 7F9 | 35 | SAST |
| SA | 114A/H2 | 105 | REL R |
| SA0-9 | 71D1 | 55 | T37R |
| SAC | 64C8 | 55 | T35R |
| SAC1 | 64C5 | 23 | C28L |
| SAE | 71H4 | 23 | C27L |
| SAK | 69A8 | 23 | C28L |
| SAR | 114B/A8 | 146 | REL R |
| SC0-3 | 28A/G6 | 162 | REL R |
| SCAK | 116G8 | 120 | PRE1,34 |
| SCAL | 116H8 | 120 | PRE2,35 |
| SCB1 | 23A0 | 8 | C34R |
| SCB2 | 23B0 | 8 | C34R |
| SCB3 | 23E4 | 152 | WB22,57 |
| SCBA0,1 | 42G0 | 27 | C17L |
| SCBA2,3 | 42G0 | 28 | C16L |
| SCBB0,1 | 42G0 | 27 | C17L |
| SCBB2,3 | 42G0 | 28 | C16L |
| SCC | 109A6 | 40,74 | T47R |
| SCCK | 7A9 | 32 | T51L |
| SCK | 20B/F3 | 42 | T40R |
| SCL | 48H0 | 56 | T45R |
| SCL0,2,3,5 | 58D5 | 25 | C24L |
| SCN | 20B/E3 | 42 | T40R |
| SCR | 65B0 | 23 | C28L |
| SCT | 81F5 | 13 | C17R |
| SDT | 83H4 | 14 | C16R |
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| SHKA | 44E5 | 26 | C22L |
| SIA | 42A6 | 27 | C18L |
| STB | 4286 | 27 | C18L |
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| SKA | 42G6 | 27 | C18L |
| SKB | 42E6 | 27 | C18L |
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| SLCK1 | 64E9 | 23 | C28L |
| SLK | 44G3 | 26 | C21L |
| SLK1 | 44C6 | 26 | C22L |
| SLK2 | 44B6 | 26 | C22L |
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| SLPR | 98F8 | 120 | PRE1,34 |
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| SMK | P-498/H6 | 146 | REL R |
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| SMR | 114B/D2 | 146 | REL R |
| SMT | 114B/F2 | 146 | REL R |
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| SNG2 | 62C0 | 22 | C31L |
| SNK | 39B/G4 | 7 | C37R |
| SOG1 | 22D7 | 8 | C34R |
| SOG2 | 22D7 | 8 | C34R |
| SON | 42E0 | 26 | C22L |
| SP | 37H4 | 8 | C35R |
| SPC | 85H1 | 45 | REL R |
| SPH | 85C0 | 45 | REL R |
| SPI | 37H4 | 8 | C34R |
| SPL | 85E0 | 45 | REL R |
| SPL1 | 85E0 | 45 | REL R |
| SPL2 | 85E0 | 45 | REL R |
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| SQ1 | 9H0 | 20 | C36L |
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| SSB | 44G0 | 27 | C19L |
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| STA | 35A/A9 | 172 | REL R |
| STF | 9F8 | 19 | C40L |
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| STKA | 116A0 | 120 | PRE2,35 |
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| STP2 | 31A/G8 | 20 | C38L |
| STP2A | 31A/G8 | 64 | C11R |
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| TAM2 | 57B/D0 | 82 | T3+R |
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| TBI1 | 121E0 | 128 | REL R |
| TBIA | 108F0 | 43 | T38R |
| TBIB | 103B9 | 22 | C32L |
| TBK | 18H3 | 4 | C44R |
| TBS0-3 | 105C7 | 86 | C10R |
| TBT | 39B/A4 | 4 | C44R |
| TBTA | 39B/D4 | 4 | C45R |
| TBTB | 39B/C4 | 4 | C45R |
| TBW | 68A1 | 22 | C31L |
| TBX | 17D1 | 171 | C10L |
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| TCB | 21A/H4 | 53 | T50L |
| TCBA | 104A/B7 | 96 | C2R |
| TCC | 30A/E4 | 26 | C20L |
| TCCA | 24A/F4 | 18 | C43L |
| TCCK | 24A/G9 | 32 | T51L |
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| TCGB | 6A/G3 | 109 | REL R |
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| TCHK | 11D0 | 9 | C31R |
| TCK | 30A/G4 | 21 | C33L |
| TCNC | 28B/C6 | 41 | T42R |
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| TDK | 13286 | 147 | REL R |
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| TFK3 | 16B5 | 4 | C44R |
| TG | 38E2 | 26 | C23L |
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| TGA | 110B9 | 119 | RM46 |
| TGBK | 118D4 | 125 | PRE9,42 |
| TGCK | 34A/E7 | 10 | C29R |
| TGP | 17A0 | 5 | C42R |
| TGS | 17A0 | 5 | C42R |
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| TH2 | 53A5 | 54 | T34R |
| TH4 | 54A5 | 54 | T34R |
| TH7 | 55A5 | 54 | T34R |
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| THK1 | 49C/D7 | 82 | T3+R |
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| TMK | 30A/C4 | 26 | C20L |
| TMR | 104A/F7 | 96 | C2R |
| TMS | 84B0 | 14 | C16R |
| TN | 63B8 | 43 | T39R |
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| TTF | 9G8 | 19 | C40L |
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* SEE SHEET A14A

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DRAWING ISSUE **69B**

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-AI7

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

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| XPG | P-114A S-87D8 | 30 | C7L |
| XPLF | P-117F5 S-87H0 | 121 | PRE 5,38 |
| XPRE | P-94A5 S-87H0 | 116 | 4W7,36 |
| XPT | P-594/A5 S-87A4 | 30 | C8L |
| XRC | P-77H0 S-87H7 | 30 | C8L |
| XRD | P-111B/C9 S-87G5 | 97 | 4W13,42 |
| XRL | P-38D2 S-87A4 | 30 | C8L |
| XRS1 | 78A/B2 | 29 | C5L |
| XRS2 | 78A/F2 | 29 | C5L |
| XRS3 | P-78A/B9 S-87B4 | 29 | C6L |
| XRS4 | P-78B/C9 S-87C4 | 29 | C6L |
| XRSC | P-134G5 S-141A7 | 151 | WB14,49 |
| XS | P-43H5 S-87C4 | 30 | C8L |
| XSA | P-43G0 S-87C4 | 26 | C22L |
| XSCA | P-116G8 S-87H1 | 121 | PRE 5,38 |
| XSL | 34A/A3 | 30 | C8L |
| XSP | 1143/B7 | 146 | REL R |
| XSS | P-44A0 S-87H3 | 30 | C8L |
| XST | P-118A1 S-87H1 | 125 | PRE 7,40 |
| XSTI-5 | 118A-02 | 125 | PRE 9,42 |
| XSTC | P-116D2 S-87G0 | 121 | PRE 5,38 |
| XSTG | 118D2 | 125 | PRE 9,42 |
| XT | P-20A/G6, 42B4 S-87E4 | 30 | C8L |
| XT1 | 48E0 | 29 | C4L |
| XT2 | 49B/B0 | 29 | C4L |
| XT3 | 48D0 | 29 | C4L |
| XT5 | 87E3 | 29 | C6L |
| XTA | 20A/H6 | 30 | C9L |
| XTB1 | P-18A6 S-87D6 | 30 | C8L |
| XTC | P-137F5 S-141B7 | 155 | WB6,41 |
| XTG1 | P-188G S-87B8 | 30 | C8L |
| XTRK | P-22C2 S-87C8 | 30 | C8L |
| XTRL | P-38C3 S-87C8 | 30 | C8L |
| XTS | 32E5 | 29 | C5L |
| XTS1 | P-32E5 S-87D8 | 30 | C8L |
| XTV | P-109A7 S-87F6 | 40,74 | T47R |
| XVF | P-138H2 S-141C7 | 155 | WB6,41 |
| XVGB | 6E3 | 29 | C5L |
| XWB | 122A/F3 | 133 | REL R |
| XWBA | 122A/F2 | 133 | REL R |
| XWCH | 136H4 | 155 | WB6,41 |
| XWJS | P-136E5 S-141D7 | 155 | WB6,41 |
| XWLS | P-136E6 S-141B7 | 155 | WB6,41 |
| XWSL | P-136F8 S-141D7 | 155 | WB6,41 |
| XWTS | 136E7 | 155 | WB6,41 |
| XWVG | P-138E4 S-141C7 | 155 | WB6,41 |
| XXH | 144D2 | 170 | |
| XXO | 144E2 | 170 | |

* SEE SHEET A14A

8

DRAWING ISSUE

| | |
|---|---|
| 39D | JLP |
| 41D | |
| 42A | |
| 43D | |
| 44A | |

DRAWING ISSUE 61B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-A18

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# APPARATUS INDEX

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **CAPACITORS** | | | |
| A0-9 | 136F4 | 153 | WB18,53 |
| B0-9 | 136F6 | 153 | WB18,53 |
| CE | 96B2 | 95 | 4W9,38 |
| CHT | 31B/E2 | 12 | C21R |
| CLT1,2 | 29B/G6 | 26 | C20L |
| CON1 | 35A/D4, 99F3 | 11 | C26R |
| CON2 | 35A/D2, 99F2 | 11 | C26R |
| CON3 | 35A/E5, 99G4 | 11 | C25R |
| CONA | 35B/B2, 99C3 | 11 | C25R |
| CONB | 99C3 | 123 | PRE17,50 |
| CONC | 99C2 | 122 | PRE18,51 |
| COND | 99D4 | 123 | PRE19,52 |
| GT | 35A/H2, 99G3 | 11 | C27R |
| HMT1,2 | 34B/G1 | 10 | C28R |
| HTT | 83B/E5 | 14 | C15R |
| HTT1 | 83B/E3 | 14 | C15R |
| JO-9 | 33A/H5 | 12 | C23R |
| JH | 34A/G5 | 10 | C30R |
| JH1 | 34A/G5 | 8 | C33R |
| LO-9 | 33A/H3 | 12 | C23R |
| LDT | 83D7 | 14 | C16R |
| LH | 34A/G2 | 10 | C29R |
| LOLK | 33B/A1 | 129 | REL R |
| MFL | 4B/D3 | 113 | C7L |
| OAT | 83B/E2 | 14 | C15R |
| OST | 57A/F8, 57A/G8 | 26 | C21L |
| PRL | 4B/F4 | 113 | C7L |
| RCK | 107E7 | 21 | C33L |
| RNK2 | 58H6 | 25 | C25L |
| RNT | 58A9 | 25 | C25L |
| SDT | 83H1 | 14 | C16R |
| SDT1 | 83F1 | 14 | C16R |
| SDT2 | 83H0 | 14 | C16R |
| SH1,2 | 44F3 | 26 | C21L |
| SM | 44D0 | 27 | C19L |

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **CAPACITORS** | | | |
| T0-9 | 33A/H7 | 12 | C23R |
| TBT1,2 | 39B/B6 | 4 | C44R |
| TBTA1,2 | 39B/A5 | 172 | REL R |
| TCT | 114B/D7 | 146 | REL R |
| TCP | 1780 | 5 | C42R |
| TGS | 1780 | 5 | C42R |
| TH1 | 34A/G7 | 10 | C28R |
| TH2 | 34A/G7 | 10 | C28R |
| TH3 | 34A/G7 | 64 | C12R |
| TRTR | 83A7 | 14 | C15R |
| TYM1,2 | 63G7 | 23 | C27L |
| TYMA | 72C2 | 60 | P28 |
| TYMB | 72C2 | 60 | P28 |
| WJH1 | 136G2 | 154 | WB9,44 |
| WJH2 | 136G3 | 154 | WB9,44 |
| WJH3 | 136G3 | 154 | WB9,44 |
| WLH | 135H6 | 154 | WB9,44 |
| WT | 84A1 | 14 | C16R |
| WT1 | 84A0 | 14 | C16R |
| WTH | 136H6 | 154 | WB9,44 |
| XFR | 134E5 | 151 | WB14,49 |
| XHG | 6A/H3 | 30 | C7L |
| XLF | 103B/C6 | 91 | LLP |
| XLG | 4B/G3 | 30 | C7L |
| XLSS | 138H5 | 167 | CA0 |
| XPG | 11A9 | 30 | C7L |
| XPLF | 117F5 | 121 | PRE5,38 |
| XRS3 | 78B/D9 | 29 | C6L |
| XRS4 | 78B/D9 | 29 | C6L |
| XRSC | 134G5 | 151 | WB14,49 |
| XSCA | 116G8 | 121 | PRE5,38 |
| XT | 42C4 | | |
| XTC | 137F5 | 155 | WB6,41 |
| XVF | 138H2 | 155 | WB6,41 |
| XVGB | 6A/E3 | 29 | C5L |
| XWVG | 138E4 | 155 | WB6,41 |

| COMPONENT ASSEMBLIES | | | |
|---|---|---|---|
| CA0 | | 167 | WB3,38 |
| CA0-9 | | 153 | WB18,53 |
| CA10 | | 155 | WB6,41 |
| CA11 | | 156 | WB12,47 |
| CA12 | | 151 | WB14,49 |
| CDA | | 117 | 4W10,39 |
| CDB | | 117 | 4W12,41 |
| CON | | 123 | PRE17,50 |
| CST | | 78 | C11L |
| CSU | | 78 | C11L |
| HBA | | 88 | LLP |
| HBB | | 88 | LLP |
| JSR | | 12 | C21R |
| LJT0-9 | | 12 | C21R |
| P | | 121 | PRE6,39 |
| PA | | 121 | PRE6,39 |
| PGL1,2,3 | | 131 | REL R |
| PGR1,2,3 | | 131 | REL R |
| SMR | | 12 | C21R |
| SRK | | 81 | C10L |
| STS | | 125 | PRE8,41 |
| WLT | | 151 | WB14,49 |

SEE APP FIG

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **DIODES** | | | |
| A0-9 | 136F4 | 153 | WB18,53 |
| B0-9 | 136F5 | 153 | WB18,53 |
| C0-9 | 136F5 | 153 | WB18,53 |
| CL3 | 48G2 | 13 | --- |
| CS | 6A/H4 | 78 | |
| DCT | 34A/C3 | 8 | C28R |
| HB0-9 | 1038Z | 88 | LLP |
| HON1 | 44E5 | 181 | |
| LT | 20A/A5 | 180 | |
| LTI | 20A/A5 | 180 | |
| LFM | 89A/A8 | 8 | |
| LFFM | 88A/B9 | 8 | |
| LNL | 20A/A3 | 143 | T15*R |
| J0-9 | 33A/H6 | 12 | C23R |
| JH | 34A/G5 | 10 | C30R |
| LO-9 | 33A/H4 | 12 | C23R |
| LH | 34A/G2 | 10 | C29R |
| LOLK | 33B/B1 | 129 | REL R |
| MJ | 38E1 | 11 | C26R |
| MN | 38F1 | 11 | C26R |
| P0-3 | 11607 | 121 | PRE6,39 |
| P4,5 | 116C7 | 121 | PRE6,39 |
| PA0-2 | 116C7 | 121 | PRE6,39 |
| PA3-5 | 116B7 | 121 | PRE6,39 |
| PC20-39 | 59B/E7 | 165 | REL R |
| PEG | 88A/B1 | 7 | |
| PST | 15A1 | 4 | |
| PST1 | 15A1 | 4 | |
| RBT | 41B/D7 | 7 | |
| RCK | 107D4 | 21 | |
| REH1 | 77G8 | 129 | REL R |
| REH2 | 77G7 | 129 | REL R |
| RT20-39 | 59B/E7 | 165 | REL R |
| SH | 44F3 | 26 | C21L |
| SRK1 | 107C4 | 81 | C10L |
| SRK2 | 107C5 | 81 | C10L |
| ST | 35A/G3 | 172 | REL R |
| STS1-4 | 119D4 | 125 | PRE8,41 |
| T0-9 | 33A/H7 | 12 | C23R |
| TH | 34A/G6 | 10 | C28R |
| TNK | 70H1 | 45 | |
| TT | 20A/B3 | 143 | T15*R |
| WJH | 136G3 | 154 | WB9,44 |
| WLH | 135H5 | 154 | WB9,44 |
| WTH | 136H6 | 154 | WB9,44 |

| INDUCTORS | | | |
|---|---|---|---|
| CON1 | 35A/A2, 99D2 | 11 | C25R |
| CONB | 99A2 | 123 | PRE19,52 |
| TH | 34A/F6 | 10 | C29R |
| THW | 136G6 | 154 | WB9,44 |

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **LAMPS** | | | |
| ACT | 144A6 | 170 | REL R |
| CDS | 9466 | 82 | T3*R |
| CE | 96B3 | 82 | T3*R |
| CON | 35A/A2, 99E1 | 31 | C2L |
| CONA | 9981 | 123 | PRE19,52 |
| CWS | 106B3 | 160 | REL R |
| F | 91A0 | 31 | C2L |
| FN | 70E0 | 31 | C2L |
| FW | 137D5 | 155 | WB6,41 |
| HBS | 67B0 | 31 | C2L |
| HG | 6A/G3 | 31 | C2L |
| HGB | 6A/G3 | 31 | C2L |
| JC | 1300 | 31 | C2L |
| JG | 1305 | 31 | C2L |
| JS | 32F0 | 31 | C2L |
| LBS0,1 | 4A/B5 | 31 | C2L |
| LBS2 | 4A/C5 | 31 | C2L |
| LBS3 | 4A/C5 | 125 | PRE8,41 |
| LC | 34A/E9 | 31 | C2L |
| LF | 103B/C7, 103B/D9 | 31,91 | LLP, REL R |
| LFS | 4A/H0 | 31 | C2L |
| LG | 4B/G3 | 31 | C2L |
| LGC | 116F9 | 121 | PRE6,39 |
| LOB | 4A/A4 | 31 | C2L |
| LR | 12C4 | 31 | C2L |
| LRS | 103G0 | 91 | LLP |
| LS | 32F0 | 31 | C2L |
| LSA | 32E0 | 31 | C2L |
| LSB | 119E6 | 125 | PRE8,41 |
| LSB2 | 4A/B5 | 91 | LLP, REL R |
| LSK | 138H5 | 167 | WB3,38 |
| LV | 32G7 | 31 | C2L |
| MA | 43E0 | 31 | C2L |
| MB | 43E0 | 31 | C2L |
| MBS | 288/F5 | 82 | T3*R |
| MC | 43F0 | 31 | C2L |
| MPP | 4B/C2 | 31 | C2L |
| NBS1,2 | 62A/A7 | 31 | C2L |
| NBS3,4 | 62A/B7 | 31 | C2L |
| NGB | 65D0 | 31 | C2L |
| NGKB | 62A/D5 | 31 | C2L |
| NGS | 61D9 | 31 | C2L |
| OSA | 43E4 | 31 | C2L |
| OSB | 43F4 | 31 | C2L |

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **LAMPS** | | | |
| PLF | 117F5 | 121 | PRE6,39 |
| PLS | 96A8 | 82 | T3*R |
| PN | 10A0 | 31 | C2L |
| PNA | 10B0 | 31 | C2L |
| RB1,2 | 28B/H7 | 82 | T3*R |
| RS | 28B/D7 | 82 | T3*R |
| RSC | 134G6 | 151 | WB14,49 |
| S | 43H5 | 31 | C2L |
| SA | 43G0 | 26 | C21L |
| SAM | 43F0 | 31 | C2L |
| SBM | 43F0 | 31 | C2L |
| SCA | 116G9 | 121 | PRE6,39 |
| SCAL | 116H8 | 125 | PRE8,41 |
| SCM | 43G0 | 31 | C2L |
| SH | 44H5 | 31 | C2L |
| SKA | 42E2 | 31 | C2L |
| SKB | 42F6 | 31 | C2L |
| SLCK | 65B1 | 31 | C2L |
| SMB | 44E1 | 31 | C2L |
| SMBA | 44E1 | 31 | C2L |
| SP | 85H1 | 45 | REL R |
| ST | 141A5 | 155 | WB6,41 |
| STS | 118A3 | 125 | PRE8,41 |
| TB | 18A7 | 31 | C2L |
| TBS | 68A0 | 31 | C2L |
| TBS0-4 | 16E6 | 31 | C2L |
| TBS5 | 16F6 | 30 | C7L |
| TFS | 16A1 | 31 | C2L |
| THB | 73E0 | 60 | P28 |
| TOK | 119F6 | 125 | PRE8,41 |
| TS | 114A/D9 | 105 | REL R |
| TSK | 137F5 | 155 | WB6,41 |
| TSM | 32F7 | 31 | C2L |
| TTB | 73A0 | 60 | P28 |
| TXP | 34A/H7 | 31 | C2L |
| TXP1 | 34A/H7 | 31 | C2L |
| UBS | 6980 | 31 | C2L |
| VGB | 6A/E4 | 31 | C2L |
| WB | 122A/D3 | 133 | REL R |
| WBA | 62A/C7 | 155, 157 | WB6,41 WB29 |
| WF | 70C0 | 31 | C2L |
| WG | 70B0 | 31 | C2L |
| WJS | 136E4 | 155 | WB6,41 |
| WL | 70A0 | 31 | C2L |
| WLLO | 13B03 | 155 | WB6,41 |
| WLLI | 13BF3 | 155 | WB6,41 |
| WLL2 | 13BG3 | 155 | WB6,41 |
| WLS | 136F0 | 155 | WB6,41 |
| WTL | 137G5 | 155 | WB6,41 |
| WTXP | 136H6 | 155 | WB6,41 |
| XCDS | 94A7 | 116 | 4W9,38 |
| XPRE | 94A6 | 116 | 4W7,36 |
| XSP | 1148/B6 | 181 | REL R |
| XTS | 136E2 | 155 | WB6,41 |
| XVF | 138G3 | 155 | WB6,41 |

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **NETWORKS** | | | |
| AGCP | 120E9 | 130 | REL R |
| AGCS | 120F9 | 130 | REL R |
| ANA0-4 | 74C6 | 61 | P30,38, 46,54 |
| ANA5-9 | 74C6 | 61 | P32,40, 48,56 |
| AROP-4P | 45A4 | 59 | CV21 |
| AROS-5S | 45B4 | 59 | CV21 |
| ASM | 32F8 | 9 | C31R |
| BNTH1 | 61F0 | 22 | C30L |
| BROP-4P | 45C4 | 59 | CV21 |
| BROS-4S | 45C4 | 59 | CV21 |
| BSM | 32F8 | 9 | C31R |
| CDAOP-4P | 95A/A2 | 117 | 4W10,39 |
| CDAOS-4S | 95A/B2 | 117 | 4W10,39 |
| CDBOP-4P | 95A/C1 | 117 | 4W12,41 |
| CDBOS-4S | 95A/E1 | 117 | 4W12,41 |
| CHT | 31A/B1 | 12 | C21R |
| CIOP-4P | 105F0 | 137 | REL R |
| CIOS-4S | 105E0 | 137 | REL R |
| CLOP-5P | 47A1 | 56 | T45R |
| CL6P | 47B1 | 75 | T5*R |
| CL7P,8P,9P | 47C1 | 75 | T5*R |
| CL10P | 47C0 | 183 | |
| CL0S,1S | 47A2 | 56 | T45R |
| CL2S,3S | 47B2 | 56 | T45R |
| CL4S,5S | 47A2 | 56 | T45R |
| CL6S | 47B1 | 75 | T5*R |
| CL7S,8S | 47C1 | 75 | T5*R |
| CL9S | 47D1 | 75 | T5*R |
| CL10S | 47D0 | 183 | |
| CON4 | 35A/B1,99E1 | 11 | C25R |
| CON4A,B | 35A/B1,99E1 | 11 | C25R |
| CONA | 9941 | 123 | PRE19,52 |
| CONA1,2 | 9941 | 123 | PRE19,52 |
| CPOP-4P | 47E6 | 39 | T50R |
| CP5P-9P | 47F6 | 39 | T50R |
| CP1GP | 47G6 | 105 | REL R |
| CP0S-4S | 47F6 | 39 | T50R |
| CP5S-9S | 47G6 | 39 | T50R |
| CP10S | 47H6 | 105 | REL R |
| CPM4P | 42C6 | 39 | T50R |
| CPM4S | 42C6 | 39 | T50R |
| CPM8P | 42G6 | 155 | WB6,41 |
| CPM8S | 42H6 | 155 | WB6,41 |
| CPMCP | 42F4 | 39 | |
| CPMCS | 42G4 | 39 | |
| CROP-4P | 45E1 | 56 | T44R |
| CROS-4S | 45F1 | 56 | T44R |
| CR5S | 45G1 | 56 | T44R |
| CSOP-9P | 6A/B4 | 78 | C12L |
| CSOS-9S | 6A/C4 | 78 | C12L |
| CW | 106H2 | 160 | REL R |
| CWCN | 143G7 | 153 | WB18,53 |
| DLOP-6P | 47E1 | 56 | T46R |
| DLOS-6S | 47E1 | 56 | T46R |
| DNGP | 61C0 | 132 | REL R |
| DNGS | 61D0 | 132 | REL R |
| ETS | 18H0 | 6 | C41R |
| GLH | 34C/F8 | 11 | |
| GLH1 | 34C/H8 | 11 | |
| IF | 23F7 | 21 | C35L |
| IPR-P | 110A/G6 | 119 | RM46 |
| IPR-S | 110A/G6 | 119 | RM46 |
| JCK0 | 31B/C0 | 9 | C31R |
| JS0 | 32E4 | 12 | C21R |
| JS1-9 | 32G4 | | |
| LF | 85H6 | 45 | REL R |
| LFS | 4A/H1 | 8 | C35R |
| LGT | 35E5 | 11 | C27R |
| LLF | 103B/A7 | 91 | LLR |
| LLT | 33A/A3 | 10 | C28R |
| LR00-119 | 103E5 | 89 | LLP |
| LRS0-11 | 103G5 | 89 | LLP |
| MN | 85F4 | 44 | REL R |

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| **NETWORKS** | | | |
| MCR1 | 62A/B4 | 144 | C28R |
| MCR2 | 62A/C4 | 144 | C28R |
| OA1 | 65C1 | 23 | C27L |
| OGL2 | 88A/F0 | 131 | REL R |
| OSGA0-4 | 42E7 | 27 | C17L |
| OSGA5-9 | 42E7 | 28 | C16L |
| OSGA10,11 | 42E7 | 67 | C21L |
| OSGB0-4 | 42F7 | 27 | C17L |
| OSGB5-9 | 42F7 | 28 | C16L |
| OSGB10,11 | 42F7 | 67 | C21L |
| OTB | 6501 | 23 | C27L |
| OTS | 18G3 | 6 | C41R |
| PGL00 | 88C/C0 | 131 | REL R |
| PGL01 | 88A/A1 | 131 | REL R |
| PGL02 | 102E5 | 131 | REL R |
| PGL03 | 111A/H3 | 131 | REL R |
| PGL04 | 88B/C3 | 131 | REL R |
| PGL05 | 88C/F9 | 131 | REL R |
| PGL06 | 88C/G0 | 131 | REL R |
| PGL07 | 88C/E0 | 131 | REL R |
| PGL08 | 111A/G4 | 131 | REL R |
| PGL09 | 88C/D0 | 131 | REL R |
| PGL10 | 88C/F0 | 131 | REL R |
| PGL11 | 102C2 | 131 | REL R |
| PGL12 | 88B/B0 | 131 | REL R |
| PGL13 | 88B/B8 | 131 | REL R |
| PGL14 | 88C/H0 | 131 | REL R |
| PMS | 41A/G7 | 22 | C30L |
| RCD0-4P | 118/C-G8 | 97 | 4W13,42 |
| RCD0-4S | 118/C-G8 | 97 | 4W13,42 |
| RTS | 61E0 | 22 | C29L |
| RL | 117G7 | 120 | PRE1,34 |
| RSA | 78A/B2 | 21 | C35L |
| RSB | 78A/D2 | 21 | C35L |
| RSM0,1 | 78A/B1 | 21 | C35L |
| RSM2-4 | 7CA, 1 | 21 | C35L |
| RSM5-9 | 78A/F1 | 21 | C35L |
| S | 43H7 | 27 | C19L |
| SCCK | 7A9 | 32 | |
| SL | 34A/A2 | 10 | C28R |
| SLRK | 34A/E8 | 10 | C28R |
| SM0-9 | 3200 | 12 | C22R |
| SPT1 | 64D8 | 23 | C27L |
| STA | 43F6 | 27 | C19L |
| STB | 43G6 | 27 | C19L |
| STOKP | 18D7 | 120 | PRE2,35 |
| STOKS | 18E7 | 120 | PRE2,35 |
| SZA,B,C,D | 9A6 | 20 | C37L |
| TBS | 6883 | 43 | T38R |
| TCCA | 24A/F4 | 18 | |
| TSS | 1681 | 4 | C44R |
| TGT | 18C7 | 8 | C35R |
| TLKP | 62B/C3 | 127 | REL R |
| TLKS | 62B/C3 | 127 | REL R |
| TSM | 32E8 | 6 | C41R |
| TYMA | 63H5 | 23 | C27L |
| UK | 62A/B4 | 144 | |
| V | 6A/E4 | 18 | C45L |
| VFT | 117E7 | 18 | C43L |
| XCS | 68/C8 | 29 | |
| XF | 9180 | 29 | |
| XJC | 13C0,D1 | 29 | |
| XJG | 1306 | 29 | |
| XJS | 32G1 | 29 | |
| XJS1 | 32H1 | 150 | |
| XJSA | 32F1 | 29 | C4L |
| XJSB | 32H2 | 150 | C10L |
| XLC | 34A/D8,D9 | 29 | |
| XLR | 12C5 | 29 | |
| WJS0-9 | 1360S | 153 | WB18,53 |
| WLS0 | 136D0 | 153 | WB18,53 |

| DRAWING ISSUE | |
|---|---|
| 34A | 1 B SDL AND |
| 35D | 1 B SDL AND |
| 36A | MS |
| 37D | MS |
| 39D | DM |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 69B

* SEE SHEET A14A

COMPLETING MARKER CIRCUIT

SD-26002-01-A19

BELL TELEPHONE LABORATORIES INCORPORATED

2

6S

# APPARATUS INDEX

## RESISTORS

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| 4DG | 50E1 | 39 | T49R |
| 5DG | 50E1 | 39 | T49R |
| 7TR1 | 115F4 | 90 | C8R |
| 7TR2 | 115G4 | 90 | C8R |
| AAO-9 | 136E4 | 153 | WB18,53 |
| ABO-9 | 136E6 | 153 | WB18,53 |
| AIFO | 20A/E7 | 136 | T6+R |
| AIF1 | 20A/B2 | 136 | T6+R |
| AJO-9 | 33A/H4 | 12 | C21R |
| ALO-9 | 33A/H2 | 12 | C21R |
| AMA | 49B/G2 | 40 | T47R |
| ANI | 74A0 | 63 | P63 |
| ANKO-4 | 72F8 | 61 | P30 |
| ARNO,1,2,4,7 | 46B1 | 59 | CV22 |
| ATO-9 | 33A/H4 | 12 | C21R |
| AVK1 | 36G3 | 26 | C21L |
| AVK2 | 36H3 | 26 | C21L |
| BAO-9 | 136E4 | 153 | WB18,53 |
| BBO-9 | 136E6 | 153 | WB18,53 |
| BJO-9 | 33A/H4 | 12 | C21R |
| BLO-9 | 33A/H2 | 12 | C21R |
| BRNO,1,2,4,7 | 46F1 | 59 | CV21 |
| BTO-9 | 33A/H6 | 12 | C21R |
| BYK1,2 | 30A/H5 | 81 | C10L |
| CO-9 | 136E5 | 153 | WB18,53 |
| CDA0,1,2,4,7 | 95A-D4 | 117 | 4W10,39 |
| CDB0,1,2,4,7 | 95E-H0 | 117 | 4W10,41 |
| CDN1 | 115F9 | 94, 112 | T2L |
| CDN2 | 115G9 | 94, 112 | T2L |
| CDT | 28B/G3 | 184 | |
| CHA | 31A/B7 | 12 | C21R |
| CHT | 31B/D2 | 12 | C22R |
| CHT1 | 31B/E6 | 12 | C22R |
| CHT2 | 31B/D6 | 45 | REL R |
| CL1 | 48G1 | 56 | T46R |
| CL2-6 | 48G1 | 56 | T45R |
| CL7 | 48D1 | 75 | T5+R |
| CL8 | 48E1 | 75 | T5+R |
| CLT1 | 29B/H4 | 26 | C20L |
| CLT2 | 29B/H4 | 26 | C20L |
| CLT3 | 29B/H3 | 26 | C20L |
| CLT4 | 29B/G5 | 26 | C20L |
| CNK1 | 30B/A5 | 26 | C20L |
| CNK2 | 30B/A5 | 26 | C20L |
| COC | 96B8 | 82 | T3+R |
| CON1 | 35A/D4, 99F3 | 11 | C26R |
| CON2 | 35A/D4, 99F3 | 11 | C26R |
| CON3 | 35A/D3, 99F2 | 11 | C26R |
| CON4 | 35A/B3, 99D2 | 11 | C25R |
| CON5 | 35A/B3, 99C3 | 11 | C26R |
| CON6 | 35A/A3, 99D3 | 11 | C25R |
| CON7 | 35A/C2, 99E3 | 11 | C25R |
| CON8 | 35A/E1, 99G1 | 11 | C25R |
| CON9 | 35A/F2, 99G2 | 11 | C26R |
| CON10 | 35A/F1, 99G2 | 11 | C25R |
| CONA | 35B/B1 | 11 | C25R |
| CONB | 99C3 | 123 | PRE17,50 |
| CONC | 99C3 | 123 | PRE17,50 |
| COND | 99C2 | 123 | PRE17,50 |
| CONE | 99A2 | 123 | PRE17,50 |
| CONF | 99A3 | 123 | PRE17,50 |
| CONG | 99A3 | 123 | PRE17,50 |
| CONH | 99B3 | 123 | PRE17,50 |
| CONJ | 99C2 | 123 | PRE17,50 |
| CONK | 99D2 | 123 | PRE17,50 |
| CONL | 99D2 | 123 | PRE17,50 |
| CONM | 99B3 | 123 | PRE17,50 |
| CPO | 50A1 | 39 | T5CR |
| CP1 | 50B1 | 39 | T5CR |
| CP2 | 50C1 | 39 | T5CR |
| CP4 | 50C1 | 39 | T5CR |
| CP7 | 50D1 | 39 | T49R |
| CRO,1,2,4,7 | 48B1 | 56 | T46R |
| CSO-29 | 6A/D4 | 15 | C63L |
| CST0 | 101C7 | 78 | C11L |
| CST1 | 101C6 | 78 | C11L |
| CST2 | 101D6 | 78 | C11L |
| CST4 | 101E6 | 78 | C11L |
| CST7 | 101F6 | 78 | C11L |
| CSU0 | 101F6 | 78 | C11L |
| CSU1 | 101F6 | 78 | C11L |
| CSU2 | 101G6 | 78 | C11L |
| CSU4 | 101G6 | 78 | C11L |
| CSU7 | 101H6 | 78 | C11L |
| CW | 10GH2 | 160 | REL R |
| CWK | 10686 | 160 | REL R |
| DAP | 62B/E5 | 127 | REL R |
| DAT1 | 115A3 | 104 | REL R |
| DAT2 | 115B3 | 104 | REL R |
| DCT | 34A/D2 | 8 | C35R |
| DCT1 | 34A/D4 | 8 | C35R |
| DCT3 | 34A/B2 | 19 | C40L |
| DCT4 | 34A/B3 | 8 | C33R |
| DL1-6 | 49B/A2-C2 | 56 | T46R |
| DLT1 | 115B3 | 102 | REL R |
| DLT2 | 115B3 | 102 | REL R |
| DTF | 21B/A2 | 163 | WB5,40 |
| DTI | 21B/B2 | 163 | WB5,40 |
| ECK1,2,3 | 97C5 | 106 | PRE22,55 |
| ESK1 | 97B7 | 106 | PRE22,55 |
| ESK2 | 97A6 | 106 | PRE22,55 |
| ETA | 18H1 | 6 | C41R |
| ETS | 18H0 | 15 | C63L |
| EX | 37H4 | 110 | C17R |
| F | 91A0 | 29 | C4L |
| FC- | 17D5 | 66 | F14-55 |
| FM | 15A3 | 4 | C44R |
| FR | 23G9 | 15 | C63L |
| FTGO-9 | 14D1 | 126 | PRE10,43 |
| FTG10-19 | 14D5 | 126 | PRE11,44 |
| FTG20-29 | 89B5 | 126 | PRE12,45 |
| FTNO-5 | 62A/F5 | 17 | C47L |
| FUNO-9 | 62A/G5 | 17 | C47L |
| GL1 | 123F6 | 135 | REL R |
| GLT | 12308 | 135 | REL R |
| GT | 35A/H5, 99H4 | 11 | C25R |
| GT3 | 35B/B9 | 11 | C25R |
| GTT | 35A/H4, 99H3 | 11 | C25R |
| GWZ | 40H5 | 38 | T52L |
| HFA | 39A/C7 | 13 | C20R |
| HFA1 | 39A/D6 | 13 | C20R |
| HMFO,1 | 34A/E3 | 11 | C27R |
| HMF2 | 34B/E3 | 11 | C25R |
| HMSO | 34B/G3 | 11 | C27R |
| HMS1 | 34B/F3 | 11 | C27R |
| HMT | 34B/G1 | 10 | C28R |
| HTTO | 83B/H7 | 14 | C15R |
| HTT1,2 | 83B/E4 | 14 | C15R |
| HTT3 | 83B/E5 | 14 | C15R |
| HTT4 | 83B/G5 | 14 | C15R |
| IF | 23G7 | 21 | C35L |
| JO-9 | 33A/H4 | 12 | C23R |
| JC | 13C0 | 29 | C4L |
| JCK | 32F2 | 9 | C31R |
| JCKO | 31B/C0 | 9 | C31R |
| JG | 13D5 | 29 | C4L |
| JHR | 34A/F8 | 10 | C28R |
| JHR1 | 34A/G6 | 8 | C33R |
| JS | 32G0 | 29 | C4L |
| JS1-9 | 32G4 | 12 | C21R |
| JSA | 32H0 | 150 | C10L |
| JSB | 32G0 | 29 | |
| LO-9 | 33A/H3 | 12 | C23R |
| LSD | 50F1 | 39 | T49R |
| LA | 74F8 | 22 | P25 |
| LAO-9 | 74F5 | 91 | LLP |
| LBO-9 | 82D6 | 57 | C14R |
| LBK1,2 | 115E6 | 112, 114 | C13R |
| LC | 34A/D8 | 29 | C4L |
| LDT1,2 | 83D6 | 14 | C16R |
| LDT3 | 83D7 | 14 | C16R |
| LDT4 | 83E7 | 14 | C16R |
| LFS | 4A/H2 | 8 | C35R |
| LHR | 34A/F3 | 10 | C28R |
| LHTC 2 | 34A/A1 | 18 | C45L |
| LIK1 | 115E5 | 112, 114 | C13R |
| LIK2 | 115F5 | 112, 114 | C13R |
| LIT | 34A/E4 | 10 | C28R |
| LLCO-3 | 136E1 | 167 | CAO |
| LLT | 33A/G4 | 10 | C29R |
| LN | 103F5 | 91 | LLP |
| LOL | 99B5 | 121 | PRE5,38 |
| LOL1,2 | 30B/C5 | 129 | REL R |
| LOLK | 33B/B1 | 129 | REL R |
| LR | 12C4 | 29 | C4L |
| LR1 | 12C4 | 29 | C4L |
| LR2 | 12D4 | 29 | C4L |
| LRSO-11 | 103G5 | 89 | LLP |
| LST | 50G1 | 19 | T49R |
| MBO,1,2,4,7 | 49A1 | 40 | T48R |
| MBC | 14286 | 156 | WB12,47 |
| MJ | 39A/E6 | 13 | C20R |
| MN | 85F4 | 44 | REL R |
| MT8 | 9E3 | 20 | C37L |
| NAN | 75G5 | 60 | P28 |
| NET | 94A5 | 116 | 4W9,38 |
| NOB | 498/E2 | 40,74 | T47R |
| NSP | 114A/A3 | 105 | REL R |
| NT1 | 85G4 | 45 | REL R |
| NT2 | 85F3 | 45 | REL R |
| NTB | 17D0 | 5 | C42R |
| NTOB | 27E7 | 23,25 | C25L |
| NWL | 135D4 | 156 | WB12,47 |
| OA | 65C1 | 23 | C27L |
| OAT1,2 | 83B/E1 | 14 | C15R |
| OAT3 | 83B/E2 | 14 | C15R |
| OAT4 | 83B/G2 | 14 | C15R |
| OBS | 498/D3 | 40,74 | T47R |
| OFK | 70G7 | 22 | C30L |
| OST1 | 57A/F4 | 26 | C21L |
| OST2 | 57A/G5, 57A/H6 | 26 | C21L |
| OST3 | 57A/F7 | 26 | C21L |
| OTA | 18H1 | 6 | C41R |
| OTB | 65D1 | 23 | C27L |
| OTS | 18H0 | 15 | C63L |
| OVK1 | 78B/H5 | 90 | C8R |
| OVK2 | 78B/H4 | 90 | C8R |
| PB | 35A/D7, 99F7 | 9 | C32R |
| PBY | 28B/B5 | 117 | 4W10,39 |
| PC | 28B/A0 | 54 | T33R |
| PDK1 | 103B/C8 | 94 | T2L |
| PDK2 | 103B/B8 | 94 | T2L |
| PG1,2 | 35A/E3 | 172 | REL R |
| PG3 | 35A/F3 | 172 | REL R |
| PLF | 117E4 | 121 | PRE6,39 |
| PP | 20B/B2 | 152 | WB22,57 |
| PRI | 94A4 | 116 | 4W9,38 |
| PS1 | 35B/F5 | 172 | REL R |
| PS2 | 35B/F5 | 172 | REL R |
| PSG | 28F1 | 172 | |
| PTO-9 | 85H3 | 44 | REL R |
| PTL | 85H3 | 44 | REL R |
| R5-8 | 82E4 | 57 | C14R |
| RA | 17B4 | 7 | C36R |
| RCDO,1,2,4,7 | 958/A-D1 | 97 | 4W13,42 |
| RCK | 107E7 | 21 | C33L |
| RCK1 | 30A/A5 | 21 | C33L |
| RCK2 | 30A/A5 | 21 | C33L |
| RCTB | 35B/G9 | 11 | C25R |
| RGT | 28A/F9 | 43 | T38R |
| RNT1 | 58B6 | 25 | C25L |
| RNT2 | 58C8 | 25 | C25L |
| RNT3 | 58B8 | 25 | C25L |
| RS | 111A/D3 | 99 | RM |
| S | 43H7 | 26 | C23L |
| SA | 29A/F8 | 105 | REL R |
| SCAL | 116H7 | 125 | PRE9,42 |
| SCC | 498/E2 | 40,74 | T47R |
| SDT1,3 | 83G2 | 14 | C16R |
| SDT2 | 83G1 | 14 | C16R |
| SDT4 | 83H3 | 14 | C16R |
| SDT5 | 83F1 | 14 | C16R |
| SF | 83C5 | 8 | C35R |
| SH | 44F5 | 26 | C21L |
| SLK | 44H4 | 81 | C10L |
| SM | 44G1 | 27 | C19L |
| SMO-9 | 32C0 | 12 | C22R |
| SM10 | 44D0 | 27 | C19L |
| SMK1 | 498/H7 | 146 | REL R |
| SMK2 | 498/H7 | 146 | REL R |
| SPC | 114A/A3 | 105 | REL R |
| SRK | 10786 | 21 | C33L |
| ST1 | 35A/G4 | 172 | REL R |
| ST2 | 35A/H4 | 172 | REL R |
| ST3 | 35A/H3 | 172 | REL R |
| STA | 43F6 | 27 | C19L |
| STB | 43F6 | 27 | C19L |
| STC1 | 116D3 | 125 | PRE9,42 |
| STC2 | 116E3 | 125 | PRE9,42 |
| TO-9 | 33A/H6 | 12 | C23R |
| TBS | 6882 | 43 | T38R |
| TBT | 39B/B4 | 4 | C44R |
| TBT1 | 39B/A4 | | |
| TCC1,2 | 30A/E4 | 26 | C20L |
| TCK1,2 | 30A/G7 | 21 | C33L |
| TCT1 | 114B/F5 | 146 | REL R |
| TCT2 | 114B/D6 | 146 | REL R |
| TCT3 | 114B/D6 | 146 | REL R |
| TFS | 16C0 | 4 | C44R |
| TFTO | 39B/B6 | 4 | C44R |
| TFT1 | 39B/A6 | 4 | C44R |
| TG | 18C7 | 8 | C35R |
| TGBK | 118E7 | 125 | PRE9,42 |
| TGT | 35A/H4, 99H3 | 11 | C25R |
| THR1,2 | 34A/F8 | 10 | C28R |
| THR3 | 34A/G9 | 64 | C12R |
| TMK1 | 30A/C4 | 26 | C20L |
| TMK2 | 30A/D5 | 26 | C20L |
| TOG | 23H9 | 8 | C35R |
| TOKL | 118E2 | 125 | PRE9,42 |
| TPYK1 | 30B/E5 | 26 | C20L |
| TPYK2 | 30B/E5 | 26 | C20L |
| TRSF | 8CD1 | 14 | C15R |
| TRT1,2,3 | 83A6 | 14 | C15R |
| TRT4 | 8387 | 14 | C15R |
| TS | 32F6 | 29 | C4L |
| TSM | 32E8 | 6 | C41R |
| TVT | 49B/F2 | 40,74 | T47R |
| TW | 19H1 | 6 | C41R |
| TYMO | 63G6 | 23 | C27L |
| TYMI | 63G7 | 23 | C27L |
| TYMA | 72C2 | 60 | P28 |
| TYMB | 72C2 | 60 | P28 |
| TZ | 19H2 | 6 | C41R |
| V | 6A/D4 | 18 | C45L |
| VFT | 117E7 | 18 | C43L |
| VLB | 135G1 | 156 | WB12,47 |
| VLO | 14206 | 156 | WB12,47 |
| VLR | 135H1 | 156 | WB12,47 |
| VLT1,2 | 135F0 | 156 | WB12,47 |
| WB | 28B/C0 | 133 | REL R |
| WBK | 122A/F2 | 133 | REL R |
| WDCY | 135G7 | 154 | WB9,44 |
| WFC1 | 143E4 | 153 | WB18,53 |
| WFC2,3 | 143D4 | 153 | WB18,53 |
| WFC4 | 143D4 | 153 | WB18,53 |
| WJH1 | 136F2 | 154 | WB9,44 |
| WJH2,3 | 136G2 | 154 | WB9,44 |
| WJS0-9 | 136D5 | 153 | WB18,53 |
| WLH | 135G6 | 154 | WB9,44 |
| WLS0-9 | 136D0 | 153 | WB18,53 |
| WLT0-9 | 35E6 | 151 | WB14,49 |
| WPB | 135D2 | 156 | WB12,47 |
| WT1,2,3 | 84A1 | 14 | C16R |
| WT4 | 84B1 | 14 | C16R |
| WTH | 136H5 | 154 | WB9,44 |
| XCS | 68/C9 | 29 | C4L |
| XCW | 10686 | 160 | REL R |
| XFTN | 62A/G5 | 29 | C4L |
| XFUN | 62A/H5 | 29 | C4L |
| XJSA | 32F1 | 29 | C4L |
| XJSB | 32H2 | 150 | C10L |
| XRS1 | 78A3 | 15 | C63L |
| XRS2 | 78A/D3 | 15 | C63L |
| XSP1 | 114B/B5 | 146 | REL R |
| XSP2 | 114B/B7 | 146 | REL R |
| XSP3 | 114B/B8 | 146 | REL R |
| XSP4 | 47C4 | 146 | REL R |
| XSS | 44A0 | 29 | C4L |
| XST1-5 | 118B-D2 | 125 | PRE9,42 |
| XSTG | 118D2 | 125 | PRE9,42 |
| XTA | 20A/H5 | 30 | C9L |
| XTS | 136E7 | 155 | WB6,41 |
| XWB | 122A/F2 | 133 | REL R |
| XWTS | 136D8 | 155 | WB6,41 |

## TRANSFORMERS

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| CON2 | 35A/A2, 99D2 | 11 | C25R |
| CONA | 99A2 | 123 | PRE19,52 |

## TUBES

| DESIG | LOCATION FS | APP FIG | EQPT # |
|---|---|---|---|
| CON | 35A/E5, 99F4 | 11 | C26R |
| CONA | 99C4 | 123 | PRE18,51 |
| HTT | 83B/E4 | 14 | C15R |
| LOT | 83D6 | 14 | C16R |
| OAT | 83B/E1 | 14 | C15R |
| PTO-9 | 85H4 | 44 | REL R |
| PTL | 85H4 | 44 | REL R |
| SDT | 83F1 | 14 | C16R |
| TRTR | 83A6 | 14 | C15R |
| WT | 84A0 | 14 | C16R |

DRAWING ISSUE

| | |
|---|---|
| 34A | 1B |
| 35D | 1B |
| 36A | MS |
| 37D | MS |
| 38A | PWL |
| 39D | PWL |
| 41D | |
| 43D | |

DRAWING ISSUE 65B

* SEE SHEET A14A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A20

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## LEAD INDEX CONNECTING CIRCUITS

| CIRCUIT TITLE | CKT LEAD INDEX LOC |
|---|---|
| ACCESS GROUP CONTROLLER | 22A0 |
| ALL MARKERS BUSY OR ALL TRANSVERTERS BUSY CIRCUIT | 22C0 |
| AUTOMATIC INTERCEPT SERVICE SENDER CONNECTOR CIRCUIT | 22D0 |
| AUTOMATIC MONITOR REGISTER AND SENDER TEST CIRCUIT | 22A2 |
| AUTOMATIC PROGRESSION TRUNK TEST CIRCUIT | 22F2 |
| AUTOMATIC RANGE EXTENSION TEST CIRCUIT | 22C4 |
| BIT-STREAM CONTINUITY CHECK CKT | 36G4 |
| CALL DATA TRANSMITTER APPLICATION CIRCUIT (CDT APPL) | 36C/A5 |
| CALLED NUMBER DETECTOR CIRCUIT | 22E4 |
| COMPUTER LINE VERIFICATION ACCESS CIRCUIT | 36A7 |
| CONTINUITY TEST CIRCUIT | 22A5 |
| DIRECT ACCESS PRETRANSLATOR CONNECTOR CIRCUIT | 22A6 |
| DISTRIBUTOR AND SCANNER CIRCUIT | 36A5 |
| DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS) | 36B/A0 |
| ETS POWER AND DATA INTERFACE CIRCUIT | 36B/A5 |
| EXPANDED OPERATIONAL TRUNK TEST AND REMOTE TRUNK MAKE BUSY CKT (EOTT/RTMB) | 36C/A8 |
| FOREIGN AREA TRANSLATOR CONNECTOR CIRCUIT | 23A0 |
| GROUP BUSY CIRCUIT | 23B2 |
| IMMEDIATE RING CONTROL CIRCUIT | 23C2 |
| INCOMING REGISTER MARKER CONNECTOR CIRCUIT | 23A4 |
| INCOMING REGISTER TEST CIRCUIT | 24A5 |
| INTERFACE AND CONTROL CIRCUIT | 36A8 |
| LINE, LINE LINK AND CONNECTOR CIRCUIT | 24A6 |
| LINE LINK CONNECTOR CIRCUIT | 24A6 |
| LINE LINK MARKER CONNECTOR CIRCUIT | 25A2 |
| MARKER DISTRIBUTOR CONTROL CIRCUIT | 36B/A6 |
| MASTER TEST CONTROL CIRCUIT | 25C2 |
| MASTER TEST FRAME CONNECTOR CIRCUIT | 25E7 |

| CIRCUIT TITLE | CKT LEAD INDEX LOC |
|---|---|
| MASTER TEST FRAME JACK, LAMP AND KEY CIRCUIT | 28A1 |
| MASTER TRAFFIC CONTPOL CIRCUIT | 28A3 |
| MINI-REMOTE OFFICE TEST LINE(MINI-ROTL) INTERFACE CKT | 36C/A7 |
| MISCELLANEOUS CKT (MARKER) | 28B3 |
| NUMBER GROUP CIRCUIT | 28A5 |
| NUMBER GROUP AND CONNECTOR CIRCUIT | 28A5 |
| OFFICE TEST FRAME TEST CIRCUIT | 29A0 |
| OFFICE TEST FRAME TROUBLE INDICATOR AND CONNECTOR CIRCUIT | 29A4 |
| ORIGINATING LINE IDENTIFIER CIRCUIT | 30A2 |
| ORIGINATING REGISTER MARKER CONNECTOR CIRCUIT | 30A5 |
| OUTGOING SENDER CONNECTOR CIRCUIT | 31A5 |
| OUTGOING SENDER GROUP RELEASE CIRCUIT | 32A5 |
| PEG COUNTER AUXILIARY CIRCUIT | 32B5 |
| PLANT REGISTER CIRCUIT | 32D5 |
| POWER RINGING AND TONE FRAME CIRCUIT | 32C6 |
| PREFERENCE CONTROL AND MAKE BUSY CIRCUIT FOR AIS SENDER | 32E6 |
| REMOTE OFFICE TEST CONTROL CIRCUIT | 32F6 |
| REMOTE OFFICE TEST LINE CIRCUIT | 32G6 |
| REMOTE OFFICE TEST LINE REGISTER CIRCUIT | 36C4 |
| REMOTE OFFICE TEST LINE TRUNK MAKE BUSY CIRCUIT | 32A7 |
| SENDER CIRCUIT | 33C1 |
| SENDER GROUP BUSY CIRCUIT | 33E1 |
| SERVICE OBSERVING REGISTER CIRCUIT | 33G1 |
| SERVICE OBSERVING TRUNK SELECTION AND CONTROL CIRCUIT | 33C4 |

| CIRCUIT TITLE | CKT LEAD INDEX LOC |
|---|---|
| STATUS CONNECTOR CIRCUIT | 33D4 |
| TIME DELAY CONTROL CIRCUIT | 33A5 |
| TRAFFIC REGISTER CIRCUIT | 33C5 |
| TRAFFIC REGISTER TRANSLATOR CIRCUIT | 33D7 |
| TRAFFIC SAMPLE CIRCUIT | 33A9 |
| TRAFFIC SAMPLE MONITOR AND TEST CIRCUIT | 33C9 |
| TRAFFIC USAGE RECORDER CIRCUIT | 33D9 |
| TRANSFER REGISTER MARKER CONNECTOR CIRCUIT | 34A0 |
| TRUNK GROUP TRAFFIC SAMPLE CIRCUIT | 34A5 |
| TRUNK GROUP TRAFFIC SAMPLE TEST CIRCUIT | 34D5 |
| TRUNK LINK AND CONNECTOR CIRCUIT | 34A7 |
| TRUNK LINK CKT | 34F6 |
| TRUNK LINK CONNECTOR CIRCUIT | 34A7 |
| TRUNK TEST REGISTER CKT FOR USE WITH WIDEBAND SERVICE | 36A0 |
| TRUNK TEST REGISTER CIRCUIT | 36A1 |
| WIDEBAND/BIT-STREAM JUNCTOR SWITCH GROUP MARKER LOCKOUT CIRCUIT | 36D1 |
| WIDEBAND/BIT-STREAM LINE LINK CONNECTOR CIRCUIT | 36F1 |
| WIDEBAND LINK CIRCUIT | 36E2 |
| WIDEBAND/BIT-STREAM TRUNK LINK CONNECTOR CIRCUIT | 36F2 |

DRAWING ISSUE
40A
41D

DRAWING ISSUE
67B

SD-26002-01-A21

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A21

BELL TELEPHONE LABORATORIES INCORPORATED

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# LEAD INDEX

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **ACCESS GROUP CONTROLLER** | | |
| ~~ADDO-9~~ | 120E6 | 223A-G7 |
| AGC | 88C/G6 | |
| AGCKO-9 | 120F7 | 223A-G7 |
| ALMI(0-9) | 120G6 | 223A-G7 |
| ALM2(0-9) | 120G6 | 223A-G7 |
| INH- | 120G7 | 223A-G7 |
| **ALL MARKERS BUSY OR ALL TRANSVERTERS BUSY CKT** | | |
| AB | 39B/C2, D2 | 127H5, 130B/C0 |
| **AUTOMATIC INTERCEPT SERVICE SENDER CONNECTOR CKT** | | |
| AAN | 60B5 | 239D5 |
| AEN | 60C5 | 239D5 |
| AICK | 121B/D5 | 239D5 |
| AIV | 121B/D3 | 239D7 |
| APN | 60C5 | 239D5 |
| ATN | 60C5 | 239D5 |
| BAN | 60B5 | 239D5 |
| BEN | 60C5 | 239D5 |
| BN | 66A1 | 239D7 |
| BNTH | 63E9 | 239D7 |
| BPN | 60C5 | 239D5 |
| BS1-3 | 62A/A8 | 239D7 |
| BS41 | 62A/C7 | 239D5 |
| BTN | 60C5 | 239D5 |
| EN | 63E9 | 239D7 |
| FTO-5 | 70A6 | 239D7 |
| FUO-9 | 70A6 | 239D7 |
| HGO-9 | 70B6 | 239D7 |
| HNO | 51H5 | 239D5 |
| HN1 | 52H5 | 239D5 |
| HN2 | 53H5 | 239D5 |
| HN4 | 54H5 | 239D5 |
| HN7 | 55H5 | 239D5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **AUTOMATIC INTERCEPT SERVICE SENDER CONNECTOR CKT** | | |
| LTR | 34C/C9 | 239D5 |
| M | 79F2 | 239D7 |
| MT | 79D6 | 239D5 |
| NGK | 62A/D8 | 239D7 |
| PMO | 70G6 | 239D7 |
| PN | 63E9 | 239D7 |
| PTN | 63E9 | 239D7 |
| RO | 7/H0 | 239D7 |
| RC1 | 70C6 | 239D7 |
| RI | 66A1 | 239D7 |
| RON | 80G0 | 239D7 |
| TO | 51H5 | 239D5 |
| T1 | 52H5 | 239D5 |
| T2 | 53H5 | 239D5 |
| T4 | 54H5 | 239D5 |
| T7 | 55H5 | 239D5 |
| TBI | 66A1 | 239D7 |
| THO | 51H5 | 239D5 |
| TH1 | 52D3 | 239D5 |
| TH2 | 53D3 | 239D5 |
| TH4 | 54H5 | 239D5 |
| TH7 | 55D3 | 239D5 |
| TN | 63E9 | 239D7 |
| UO | 51H5 | 239D5 |
| U1 | 52H5 | 239D5 |
| U2 | 53H5 | 239D5 |
| U4 | 54H5 | 239D5 |
| U7 | 55H5 | 239D5 |
| UK | 62A/C8 | 239D7 |
| VFO-4 | 70D6 | 239D7 |
| VGO-11 | 70B6 | 239D7 |
| W | 62A/E8 | 239D7 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **AUTOMATIC MONITOR REGISTER AND SENDER TEST CKT** | | |
| DIS | 37A0 | 133A/E3 |
| MKB | 60E0 | 133A/B0 |
| MON | 79E2 | 133A/B5 |
| MONI | 81E7 | 133A/B0 |
| MONL | 79B2 | 133A/B0 |
| MRL | 58G6 | 133A/B5 |
| MTR | 81C7 | 133A/B0 |
| OSM | 79F2 | 133A/B0 |
| OSS | 81A7 | 133A/A0 |
| RA | 81B7 | 133A/B0 |
| RBT | 41B/F4 | 133A/E3 |
| RLT | 38G8 | 133A/F3 |
| RTST | 81H7 | 133A/E3 |
| SCT | 81F7 | 133A/A0 |
| SON | 42E2 | 133A/A0 |
| ST | 81A7 | 133A/B5 |
| TRL | 37E0 | 133A/F3 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **AUTOMATIC PROGRESSION TRUNK TEST CKT** | | |
| SLB | 71A2 | |
| TNGA | 72D6 | |
| TTO-9 | 18C0 | |
| TT10-19 | 18A3 | |
| TTA | 109A5 | |
| **AUTOMATIC RANGE EXTENSION TEST CKT** | | |
| CGA | 6A/G7 | 133A/D2 |
| CGA1 | 6A/C7 | 133A/B2 |
| CGB | 6A/G7 | 133A/D2 |
| CGB1 | 6A/G7 | 133A/B2 |
| LOL | 48/E5 | 133B/E2 |
| MT8 | 9H5 | 133A/G0 |
| NOL | 48/E5 | 133B/E2 |
| NOLL | 48/E5 | 133B/E2 |
| **CALLED NUMBER DETECTOR CKT** | | |
| A0-D0 | 51B9 | 226C0 |
| E0-H0 | 51H6 | 226C0 |
| J0 | 51H6 | 226C0 |
| K0 | 51H6 | 226C0 |
| A1-D1 | 52B9 | 226C0 |
| E1-H1 | 52H6 | 226C0 |
| J1 | 52H6 | 226C0 |
| K1 | 52H6 | 226C0 |
| A2-D2 | 53B8 | 226C0 |
| E2-H2 | 53H6 | 226C0 |
| J2 | 53H6 | 226C0 |
| K2 | 53H6 | 226C0 |
| A4-D4 | 54B8 | 226C0 |
| E4-H4 | 54H6 | 226C0 |
| J4 | 54H6 | 226C0 |
| K4 | 54H6 | 226C0 |
| A7-E7 | 55B8 | 226C0 |
| F7-H7 | 55H6 | 226C0 |
| J7 | 55H6 | 226C0 |
| K7 | 55H6 | 226C0 |
| M1 | 62A/A7 | 226C0 |
| M2,M3 | 62A/A6 | 226C0 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **AUTOMATIC PROGRESSION TRUNK TEST CKT** | | |
| MKB | 60E0 | 133A/B0 |
| MON | 79E2 | 133A/B5 |
| MONI | 81E7 | 133A/B0 |
| MONL | 79B2 | 133A/B0 |
| MRL | 58G6 | 133A/B5 |
| MTR | 81C7 | 133A/B0 |
| OSM | 79F2 | 133A/B0 |
| OSS | 81A7 | 133A/A0 |
| RA | 81B7 | 133A/B0 |
| RBT | 41B/F4 | 133A/E3 |
| RLT | 38G8 | 133A/F3 |
| RTST | 81H7 | 133A/E3 |
| SCT | 81F7 | 133A/A0 |
| SON | 42E2 | 133A/A0 |
| ST | 81A7 | 133A/B5 |
| TRL | 37E0 | 133A/F3 |
| **AUTOMATIC PROGRESSION TRUNK TEST CKT** | | |
| CGA | 6A/G7 | |
| CGA1 | 6A/G7 | |
| CGB | 6A/G7 | |
| CGB1 | 6A/G7 | |
| DK | 23D4 | 133A/C0 |
| LLPT | 79E7 | |
| MT3 | 79C7 | |
| MT9 | 79C7 | |
| MT10 | 71H8 | |
| MT25 | 47B8 | |
| MT26 | 47B8 | |
| NGTA-H | 75H6 | |
| NTLS | 79E7 | |
| OTSO,1 | 18C0 | |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **CONTINUITY TEST CKT** | | |
| ALR | - | 238C5 |
| ALS | - | 238C5 |
| B | 143G2 | - |
| CON | 143F2 | 238C5 |
| CST | 143A9 | 238C5 |
| CWCN | 143A9 | 238C5 |
| LB | 143G1 | 238C5 |
| MJ | - | 238C5 |
| MJ1 | - | 238C5 |
| OBT1,2 | 143A9 | 238C5 |
| OST | 143A9 | 238C5 |
| PC1-4 | 143A9 | 238C5 |
| R | 143F1 | 238C5 |
| R1 | 143F2 | 238C5 |
| SLFK | 143A9 | 238C5 |
| T | 143F1 | 238C5 |
| T1 | 143F2 | 238C5 |
| TB | 143G1 | 238C5 |
| TRB | 143G2 | 238C5 |
| WTR | 143E0 | 238C5 |
| WTR1 | 143E0 | 238C5 |
| WTT | 143E0 | 238C5 |
| WTT1 | 143E0 | 238C5 |

| DESIG | | LOCATION FS | LOCATION CAD |
|---|---|---|---|
| DIRECT ACCESS PRETRANSLATOR CONNECTOR CKT | PREF CONT & MAKE BUSY CKT FOR DIRECT ACCESS PRETRANSLATOR CKT | | |
| BNK | | 63F6 | 217D3 |
| BS1,2 | | 62A/A3 | 217D3 |
| BS3,4 | | 62A/B8 | 217D3 |
| CCSA | | 62B/F2 | 217C0 |
| DAC | | 62B/B2 | 217C0 |
| EN | | 63E6 | 217D3 |
| FN | | 70E2 | 217C0 |
| FNA | | 70D6 | 217C0 |
| FNB | | 70E6 | 217C0 |
| FTO-5 | | 70A6 | 217C0 |
| FUO-9 | | 70A6 | 217D3 |
| HBO-9 | | 67G7 | 217D3 |
| HGO-9 | | 70B6 | 217C0 |
| MC- | MP- | 62B/E2 | 217C0 |
| | | 62B/F8 | 217F0 |
| NG | | - | 217D3 |
| NG1 | | - | 217D3 |
| NGF | | 79G4 | 217C0 |
| NGK | | 62A/D8 | 217D3 |
| PMO | | 70G6 | 217C0 |
| PN | | 63A6 | 217D3 |
| POTS | | 62B/F2 | 217C0 |
| PTM | | 62B/D2 | 217G0 |
| PTN | | 63D6 | 217D3 |
| RC7 | | 70C6 | 217D3 |
| RC15 | | 70C6 | 217D3 |
| RYT | | 84D6 | 217G0 |

| DESIG | | LOCATION FS | LOCATION CAD |
|---|---|---|---|
| DIRECT ACCESS PRETRANSLATOR CONNECTOR CKT | PREF CONT & MAKE BUSY CKT FOR DIRECT ACCESS PRETRANSLATOR CKT | | |
| STAO-9 | | 61A1 | 217C5 |
| TBO-9 | | 68G8 | 217D3 |
| TBSO-3 | | 105D7 | 217CC |
| TCA | | 62B/G2 | 217C0 |
| TCB | | 62B/G2 | 217C0 |
| TCC | | 62B/G2 | 217C0 |
| TLK | | 62B/C2 | 217C0 |
| TLT | | 62B/D2 | 217G0 |
| TMB | | 61A1 | 217F0 |
| TN | | 63B6 | 217D3 |
| UO-9 | | 69D8 | 217D3 |
| UK | | 62A/C8 | 217D3 |
| VFO-4 | | 70D6 | 217D3 |
| VGO-11 | | 70B6 | 217C0 |
| W | | 62A/E8 | 217D3 |
| WB | | 62B/E2 | 133A/C7, 217G0 |
| WF | | 70C2 | 217D3 |
| WG | | 70B2 | 217D3 |
| WL | | 70A2 | 217D3 |

DRAWING ISSUE: 40A, 41D, 43D

DRAWING ISSUE: 59B

COMPLETING MARKER CIRCUIT (2)

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BELL TELEPHONE LABORATORIES INCORPORATED 6S

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| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **FOREIGN AREA TRANSLATOR CONNECTOR CKT** | | |
| A0 | 51D1 | 132C0 |
| A1 | 52D1 | 132C0 |
| A2 | 53D1 | 132C0 |
| A4 | 54D1 | 132C0 |
| A7 | 55D1 | 132C0 |
| B | 39A/F7 | 132E7 |
| B0 | 51D1 | 132C0 |
| B1 | 52D1 | 132C0 |
| B2 | 53D1 | 132C0 |
| B4 | 54D1 | 132C0 |
| B7 | 55D1 | 132C0 |
| C0 | 51D1 | 132C0 |
| C1 | 52D1 | 132C0 |
| C2 | 53D1 | 132C0 |
| C4 | 54D1 | 132C0 |
| C7 | 55D1 | 132C0 |
| CGC | 26B0 | 132E7 |
| CGD | 28A/B0 | 132E7 |
| CMF | 24C/G3 | 132E7 |
| CMS0,1 | 24C/H3 | 132E7 |
| D0 | 51D1 | 132C0 |
| D1 | 52D1 | 132C0 |
| D2 | 53D1 | 132C0 |
| D4 | 54D1 | 132C0 |
| D7 | 55D1 | 132C0 |
| E0 | 51D1 | 132C0 |
| E1 | 52D1 | 132C0 |
| E2 | 53D1 | 132C0 |
| E4 | 54D1 | 132C0 |
| E7 | 55D1 | 132C0 |
| F0 | 51D1 | 132C3 |
| F1 | 52D1 | 132C3 |
| F2 | 53D1 | 132C3 |
| F4 | 54D1 | 132C3 |
| F7 | 55D1 | 132C3 |
| FAA | - | 132E7 |
| FAB | - | 132E7 |
| FAR00-99 (G0,G1) | 28A/A1 | 132F2 |
| FAT- (A) | 27C8 | 132A7, B7,F5,G5 |
| FAT-(E) | 27B8 | |
| FAT-(L) | 27B8 | 132A7, B7,E4, F5,G5 |
| G0 | 51D1 | 132C3 |
| G1 | 52D1 | 132C3 |
| G2 | 53D1 | 132C3 |
| G4 | 54D1 | 132C3 |
| G7 | 55D1 | 132C3 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **FOREIGN AREA TRANSLATOR CONNECTOR CKT** | | |
| H0 | 51D1 | 132C3 |
| H1 | 52D1 | 132C3 |
| H2 | 53D1 | 132C3 |
| H4 | 54E1 | 132C3 |
| H7 | 55D1 | 132C3 |
| HN0 | 51E1 | 132C4 |
| HN1 | 52E1 | 132C4 |
| HN2 | 53E1 | 132C4 |
| HN4 | 54E1 | 132C4 |
| HN7 | 55E1 | 132C4 |
| J0 | 51D1 | 132C3 |
| J1 | 52D1 | 132C3 |
| J2 | 53D1 | 132C3 |
| J4 | 54D1 | 132C3 |
| J7 | 55D1 | 132C3 |
| K0 | 51D1 | 132C3 |
| K1 | 52D1 | 132C3 |
| K2 | 53D1 | 132C3 |
| K4 | 54D1 | 132C3 |
| K7 | 55D1 | 132C3 |
| LT | 60F1 | 132C4 |
| LT1 | 60F1 | 132C4 |
| MB | 39A/E7 | 132E7 |
| NE | 60G1 | 132C4 |
| OR | 21B/A8 | 132C4 |
| RO | 24C/G3 | 132E7 |
| RYT | 84C6 | 132E7 |
| SF | 83A/B4 | 132E7 |
| SF1 | 83A/B3 | 132E7 |
| TAN | 21B/A8 | 132C4 |
| T0 | 51E1 | 132C4 |
| T1 | 52E1 | 132C4 |
| T2 | 53E1 | 132C4 |
| T4 | 54E1 | 132C4 |
| T7 | 55E1 | 132C4 |
| TFA | - | 132E7 |
| TH0 | 51D1 | 132C4 |
| TH1 | 52D1 | 132C4 |
| TH2 | 53D1 | 132C4 |
| TH4 | 54D1 | 132C4 |
| TH7 | 55D1 | 132C4 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **FOREIGN AREA TRANSLATOR CONNECTOR CKT** | | |
| TOL | 21B/A8 | 132E4 |
| U0 | 51E1 | 132C4 |
| U1 | 52E1 | 132C4 |
| U2 | 53E1 | 132C4 |
| U4 | 54E1 | 132C4 |
| U7 | 55E1 | 132C4 |
| **GROUP BUSY CKT** | | |
| PSB | 102G5 | 12787 |
| **IMMEDIATE RING CONTROL CKT** | | |
| BRI-3 | 78B/B6 | 32587 |
| CIR | 78B/B6 | 32587 |

| "U" TYPE CONNECTORS DESIG INC REG MKR CONN CKT | WIRE SPRING CONNECTORS DESIG INC REG MKR CONN CKT (MKR PART) | DESIG PREF CONT CKT FOR INC REG MKR CONN | LOCATION FS | LOCATION CAD |
|---|---|---|---|---|
| 11 | 11 | | 20A/B1 | 65G0,142D0 |
| 2DT | 2DT | | 20A/C1 | 65E0,142D0 |
| | 2W | | 93C7 | 64D5 |
| | 4W | | 93C7 | 63C2,65H2 |
| A0 | A0 | | 51F1 | 64D0,141C0 |
| A1 | A1 | | 52F1 | 64D0,141C0 |
| A2 | A2 | | 53F1 | 64D0,141C0 |
| A4 | A4 | | 54F1 | 64D0,141C0 |
| A7 | A7 | | 55F1 | 64D0,141C0 |
| ACD | ACD | | 93B1 | 64D7,141F7 |
| B0 | B0 | | 51F1 | 64D0,141C0 |
| B1 | B1 | | 52F1 | 64D0,141C0 |
| B2 | B2 | | 53F1 | 64D0,141C0 |
| B4 | B4 | | 54F1 | 64D0,141C0 |
| B7 | B7 | | 55F1 | 64D0,141C0 |
| BT | BT | | 38E6 | 64D2,141C2 |
| C0 | C0 | | 51F1 | 64D2,141C2 |
| C1 | C1 | | 52F1 | 64D2,141C2 |
| C2 | C2 | | 53F1 | 64D2,141C2 |
| C4 | C4 | | 54F1 | 64D2,141C2 |
| C7 | C7 | | 55F1 | 64D2,141C2 |
| CB- | | CB- | 39A/B5 | 65B2,C2, 142B3 |
| | CD0,1,2,4,7,10,15 | | 93D4 | 63C2 |
| | CDA0,1,2,4,7 | | 93F5 | 63C2 |
| | CDP0,1,2,4,7,10,15 | | 93C4 | 63C2 |
| CKG | CKG | | 37D0 | 64D0,141C0 |
| | CNR | | 20B/C8 | 63C2 |
| | CPNT | | 38F6 | 63C2 |
| | CR | | 20B/G1 | 63C2 |
| D | | D | 39A/B5 | |
| D0 | D0 | | 51F1 | 64D2,141C2 |
| D1 | D1 | | 52F1 | 64D2,141C2 |
| D2 | D2 | | 53F1 | 64D2,141C2 |
| D4 | D4 | | 54FT | 64D2,141C2 |
| D7 | D7 | | 55F1 | 64D2,141C2 |
| DCK | DCK | | 23E6 | 64D5,141C5 |
| DNC | DNC | | 93D1 | 64D5 |
| E0 | E0 | | 51F1 | 64D2,141C2 |
| E1 | E1 | | 52F1 | 64D2,141C2 |
| E2 | E2 | | 53F1 | 64D2,141C2 |
| E4 | E4 | | 54F1 | 64D2,141C2 |
| E7 | E7 | | 55F1 | 64D2,141C2 |
| ECN | ECN | | 63G2 | 64D5,141C5 |
| F | F | | 23F6 | 64D0,141C0 |
| F0 | F0 | | 51F1 | 64D2,141C2 |
| F1 | F1 | | 52F1 | 64D2,141C2 |
| F2 | F2 | | 53F1 | 64D2,141C2 |
| F4 | F4 | | 54F1 | 64D2,141C2 |
| F7 | F7 | | 55F1 | 64D2,141C2 |

| "U" TYPE CONNECTORS DESIG INC REG MKR CONN CKT | WIRE SPRING CONNECTORS DESIG INC REG MKR CONN CKT (MKR PART) | DESIG PREF CONT CKT FOR INC REG MKR CONN | LOCATION FS | LOCATION CAD |
|---|---|---|---|---|
| FC | FC | | 93D1 | 64D7,141E7 |
| FG0 | FG0 | | 16C1 | 64D0,141C0 |
| FG1 | FG1 | | 16D1 | 64D0,141C0 |
| FG2 | FG2 | | 16D1 | 65G0 |
| FVD | FVD | | 20A/B1 | 65F0,142D0 |
| G0 | G0 | | 51F1 | 64D2,141C2 |
| G1 | G1 | | 52F1 | 64D2,141C2 |
| G2 | G2 | | 53F1 | 64D2,141C2 |
| G4 | G4 | | 54F1 | 64D2,141C2 |
| G7 | G7 | | 55F1 | 64D2,141C2 |
| H0 | H0 | | 51F1 | 64D7,141C7 |
| H1 | H1 | | 52F1 | 64D7,141C7 |
| H2 | H2 | | 53F1 | 64D7,141C7 |
| H4 | H4 | | 54F1 | 64D7,141C7 |
| H7 | H7 | | 55F1 | 64D7,141C7 |
| HT0 | HT0 | | 51F1 | 64D7,141C7 |
| HT1 | HT1 | | 52F1 | 64D7,141C7 |
| HT2 | HT2 | | 53F1 | 64D7,141C7 |
| HT4 | HT4 | | 54F1 | 64D7,141C7 |
| HT7 | HT7 | | 55F1 | 64D7,141C7 |
| INC | INC | | 21A/E1 | 64D0,141C0 |
| J0 | J0 | | 51F1 | 65E0,142D0 |
| J1 | J1 | | 52F1 | 65E0,142D0 |
| J2 | J2 | | 53F1 | 65E0,142D0 |
| J4 | J4 | | 54F1 | 65E0,142D0 |
| J7 | J7 | | 55F1 | 65E0,142D0 |
| K0 | K0 | | 51F1 | 65E0,142D0 |
| K1 | K1 | | 52F1 | 65E0,142D0 |
| K2 | K2 | | 53F1 | 65E0,142D0 |
| K4 | K4 | | 54F1 | 65E0,142D0 |
| K7 | K7 | | 55F1 | 65E0,142D0 |
| L0 | L0 | | 51F1 | 65E0,142D0 |
| L1 | L1 | | 52F1 | 65E0,142D0 |
| L2 | L2 | | 53F1 | 65E0,142D0 |
| L4 | L4 | | 54F1 | 65E0,142D0 |
| L7 | L7 | | 55F1 | 65E0,142D0 |
| LCD0-2 | LCD0-2 | | 93A1 | 64D7,141F7 |
| LR | LR | | 23F6 | 64D5,141C5 |
| LT | LT | | 20A/B1 | 64D0,141C0 |
| LT3 | LT3 | | 20A/C1 | 6402 |
| M7 | M7 | | 55H1 | 65B0,142D0 |
| MAK | | MAK | 39A/A5 | 65E4,142D0 |
| MB | MB | | 39A/G5 | 64D7,141F7 |
| MCK | | MCK | 39A/A5 | 65E4,142D0 |

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41D
43D

ISSUE 55B

COMPLETING MARKER CIRCUIT (2)

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BELL TELEPHONE LABORATORIES INCORPORATED

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26002-01-A23

DRAWING ISSUE: 40A, 41D, 43D, 45D

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| "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | |
|---|---|---|---|---|
| DESIG | DESIG | DESIG | LOCATION | |
| INC REG MKR CONN CKT | INC REG MKR CONN CKT (MKR PART) | PREF CONT CKT FOR INC REG MKR CONN | FS | CAD |
| MON | MON | | 79C2 | 64G5,141C5 |
| MRL | MRL | | 38F6 | 64D2,141C2 |
| MSK | | MSK | 39A/B5 | 65E4,142D0 |
| OA | OA | | 20A/C1 | 64D5,141C5 |
| OB | OB | | 20A/C1 | 64D5,141C5 |
| OCN | OCN | | 63H2 | 64G5,141C5 |
| PCD | PCD | | 21A/F1 | 64H5,65H0, 141C5 |
| PCD1 | PCD1 | | 21A/G1 | 64G5,65G0, 141C5 |
| PCR | PCR | | 21A/F1 | 64G5,65F0 141C5 |
| PHC | PHC | | 20A/D1 | 64D5,141C5 |
| RO | RO | | 21A/G1 | 64D0,141C0 |
| | RGG | | - | 64B5,141C5 |
| | SCK | | 20B/G1 | 63C2 |
| SPL | SPL | | 85E0 | 64D7,141F7 |
| SRT | SRT | | 23D6 | 65G0,142D0 |
| TAN | TAN | | 21A/B1 | 64B0,142C0 |
| TAN1 | TAN1 | | 21A/C1 | 64B0, 64D5, 141C5 |
| TAN2 | TAN2 | | 21A/C1 | 64D5,141C5 |
| TAN3,4 | TAN3,4 | | 21A/D1 | 64C5,141C5 |
| TCA | TCA | | 21A/H1 | 65F0,142D0 |
| TCB | TCB | | 21A/H1 | 65B0,142D0 |
| TFO | TFO | | 16E1 | 64D0,141C0 |
| TF1,2 | TF1,2 | | 16F1 | 64D0,141C0 |
| TF4,7 | TF4,7 | | 16G1 | 64D0,141C0 |
| THC | THC | | 20A/D1 | 64G5,141C5 |
| THTO | THTO | | 49C/E1 | 64B5 |
| THT1 | THT1 | | 49C/D1 | 64B5 |
| THT2 | THT2 | | 49C/C1 | 64G5 |
| THT3 | THT3 | | 49C/B1 | 64G5 |
| TM | TM | | 39A/G5 | 64D5,141C5 |
| TOL | TOL | | 21A/D1 | 65D0,142D0 |
| TR2 | TR2 | | 22C1 | 64D7,141E7 |
| TRK | TRK | | 22C1 | 64D7,141E7 |
| TRL | TRL | | 38E6 | 64D5,141C5 |
| TRS | TRS | | 22C1 | 64D5,141C5 |
| TST | TST | | 23D6 | 64G5,141C5 |
| TT | TT | | 20A/B1 | 65E0,142D0 |
| TTO | TTO | | 51F1 | 64D7,141C7 |
| TT1 | TT1 | | 52F1 | 64D7,141C7 |
| TT2 | TT2 | | 53F1 | 64D7,141C7 |
| TT4 | TT4 | | 54F1 | 64D7,141C7 |
| TT7 | TT7 | | 55F1 | 64D7,141C7 |
| UTO | UTO | | 51F1 | 64D7,141C7 |
| UT1 | UT1 | | 52F1 | 64D7,141C7 |
| UT2 | UT2 | | 53F1 | 64D7,141C7 |
| UT4 | UT4 | | 54F1 | 64D7,141C7 |
| UT7 | UT7 | | 55F1 | 64D7,141C7 |

| "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | |
|---|---|---|---|---|
| DESIG | DESIG | DESIG | LOCATION | |
| INC REG MKR CONN CKT | INC REG MKR CONN CKT (MKR PART) | PREF CONT CKT FOR INC REG MKR CONN | FS | CAD |
| VTC | VTC | | 93C1 | 64D7,141E7 |
| WKC | WKC | | 93E1 | 64D7,141B7 |
| X11 | X11 | | 20A/C1 | 65E0,142D0 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| INCOMING REGISTER TEST CKT | | |
| B | 81E1 | 133A/G2 |
| DIS | 37A0 | 133A/G2 |
| MRL | 38H3 | 133A/C2 |
| MT13 | 79A8 | 133A/G2 |
| PE | 38G4 | 133A/C2 |
| RBT | 41B/G4 | 133A/G2 |
| RTST | 81E1 | 133A/G2 |
| TRR | 37G0 | 133A/G2 |

| "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | |
|---|---|---|---|---|
| DESIG | DESIG | DESIG | LOCATION | |
| LINE, LINE LINK AND CONN CKT | LINE LINK CONN CKT | PREF CONT & MAKE BUSY CKT FOR LINE LINK CONN | FS | CAD |
| BS | BS | | 48/G6 | 68A/C0,14500 |
| BSO,1,2 | BSO,1,2 | | 4A/B7 | 68A/C0,14500 |
| | BY | | 103B/E3 | 6705,6900 |
| | BYP | | 11703 | 6900 |
| CGA | CGA | | 6A/F1 | 68A/C0 |
| CGB | CGB | | 6A/G1 | 68A/C0 |
| CSO-29 | CSO-29 | | 6A/C1 | 6705,68A/15, 14504 |
| | CWHO,1 | | 106F1 | 6903 |
| | CWH2,4 | | 106G1 | 6903 |
| | CWH7 | | 106H1 | 6903 |
| | CWK | | 106B1 | 6903 |
| | CWL | | 106A1 | 6903 |
| | CWNO | | 106E1 | 6903 |
| | CWN1 | | 106F1 | 6903 |
| | CWS | | 106B1 | 6903 |
| | CWT | | 106E1 | 6903 |
| | CWTO,1,2,4,7 | | 106H1 | 6903 |
| | CWUO,1,2,4,7 | | 106H1 | 6903 |
| DTK | DTK | | 4A/E7 | 68B/C0,145C7 |
| | E | | - | 68B/C0 |
| | ES | | 97E2 | 68B/C0 |
| | ESK | | 97C2 | 68B/C0 |
| | FK | | 103B/D3 | 6705,6900 |
| G | G | | 4A/G7 | 68B/C0,145C7 |
| HGO-9 | HGO-9 | | 6A/G1 | 68A/C0,14500 |
| HGK | HGK | | 6A/H1 | 68A/C0,14500 |
| LBO-9 | LBO-9 | | 33A/D2 | 68A/D3,14502 |
| LCB | LCB | | 88B/A6 | 68B/D3,145C7 |
| | LF | | 103B/B3 | 6705,68A/C0, 500 |
| LFK | LFK | | 4A/A7 | 68A/C0,14500 |
| | LFK1 | | 4A/E7 | 6705,6900 |
| LHO-4 | LHO-4 | | 33A/D0 | 68B/D3,145C7, 14502 |
| LLO-9 | LLO-9 | | 33A/D2 | 68A/D3 |
| LLF | LLF | | 79F4 | 68B/D3,145C7 |
| LO | LO | | 4A/G7 | 68B/C0,145C7 |
| LOB | LOB | | 4A/H7 | 68B/C0,145C7 |
| LOK | LOK | | 4A/F7 | 68B/C0,145C7 |
| | LOL | | 33A/D0 | 6705,6900 |
| | LOLL | | 48/F6 | 6705,6900 |
| | LT | | 109F2 | 6705,6900 |
| | LTA | | - | 6705,6900 |
| | LTM | | - | 6705,6900 |
| | MFK | | 48/D4 | 68B/D3 |
| | MPF | | 48/D4 | 68B/D3 |
| | NCW | | 106C1 | 6903 |
| | NLL | | 48/E6 | 6705,6900 |
| NT | NT | | 85C4 | 68A/C0,68B/C0, 14500 |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A24

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# LEAD INDEX

| DRAWING ISSUE |
|---|
| 40A |
| 41D |
| 42A |
| 43D |
| 44A |

## "U" TYPE CONNECTORS

| DESIG | LINE, LINE LINK AND CONN CKT |
|---|---|
| OF | |
| SM0-9 | |
| STO-59 | |
| TER | |
| TMB | |
| VO-4 | |
| VGB0-11 | |

## WIRE SPRING CONNECTORS

| DESIG | LINE LINK CONN CKT | DESIG | PREF CONT & MAKE BUSY CKT FOR LINE LINK CONN | LOCATION FS | LOCATION CAD |
|---|---|---|---|---|---|
| OF | OF | | | 88B/B6 | 68B/D3,145C7 |
| | PL | | | 82F6 | 68B/D3,145C7 |
| | PRE | | | 98D3 | 68B/D3 |
| | PRI | | | 98C3 | 69D0 |
| | PRO | | | 98C3 | 69D0 |
| | RL | | | 117G8 | 69D0 |
| | SLK | | | 44E5 | 67D5,69D0 |
| SM0-9 | SM0-9 | | | 32C1 | 68A/D3,145D2 |
| | SS0-9 | | | 44D5 | 67D5,69D0 |
| STO-59 | | STO-59 | | 4A/E7 | 68B/C5,69G1, 145D0 |
| TER | TER | | | 88A/A2 | 68B/D3,145C7 |
| TMB | TMB | | | 4A/E7 | 68B/B7,145C0 |
| VO-4 | VO-4 | | | 6A/E1 | 68B/C0,145C7 |
| | VFO-4 | | | 106B1 | 69D3 |
| | VFTO-4 | | | 117E8 | 68B/D3,145C7 |
| VGB0-11 | VGB0-11 | | | 6A/E1 | 68A/C0,145D0 |
| | WLK | | | 138C1 | 69H0 |
| | WLLB | | | 138C1 | 69D0 |
| | XCW | | | 106C1 | 69D3 |

## LINE LINK MARKER CONNECTOR CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| BT | 38A6 | 172A8 |
| CKG | 3700 | 172D5 |
| LFS | 4A/H7 | 172D2 |
| TR2 | 22A1 | 172B7 |
| TRK | 22A1 | 172B7 |
| TRL | 38A6 | 172A8 |
| TRS | 22B1 | 172A8 |

## MASTER TEST CONTROL CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| A | 136F2 | 133C/F2 |
| ADD0-9 | 120D6 | 133B/G0 |
| AGCK | 120E7 | 133B/F0 |
| AGCT | 120H1 | 133B/F0 |
| ALB | 117C7 | 133A/B7 |
| ALB1 | 117C7 | 133A/B7 |
| ART0-9 | 120H7 | 133B/G0 |
| ARTC | 120G1 | 133B/B0 |
| ASB | 43H2 | 133A/D0 |
| B | 136F5 | 133A/G2 |
| BR1-3 | 78B/B7 | 133B/E2 |
| BRL | 38H6 | 133B/A0 |
| BYP | 117H6 | 133A/C7 |
| CA0 | 62B/F5 | 133A/D7 |
| CA1 | 62B/G5 | 133A/D7 |
| CA2 | 62B/H5 | 133A/D7 |
| CB0 | 62B/F5 | 133A/D7 |
| CB1 | 62B/F5 | 133A/D7 |
| CB2 | 62B/G5 | 133A/D7 |
| CCSA | 62B/F3 | 133A/D7 |
| CGA | 6A/F7 | 133A/D2 |
| CGA1 | 6A/F7 | 133A/B2 |
| CGB | 6A/F7 | 133A/D2 |
| CGB1 | 6A/F7 | 133A/B2 |
| CHT | 79H4 | 133A/F2 |
| CIR | 78B/B7 | 133B/E2 |
| CST | 143B7 | 133C/D4 |
| CTR | 37A4 | 133A/B2 |
| CWCN | 143B7 | 133B/F7 |
| CWF1 | 106A3 | 133A/E7 |
| CWF2 | 106A3 | 133A/E7 |
| DIS | 37B0 | 133A/D0,G2 |
| DISC | 37B0 | 133A/E0 |
| DK | 23E4 | 133A/C0 |
| DL | | 133A/E5 |
| ETS0,1 | 18A0 | 133A/E2 |

## MASTER TEST CONTROL CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| FA | 137E7 | 133C/D0 |
| FB | 137E7 | 133C/D0 |
| FTC0-19 | 14E0 | 133A/G0 |
| FTC20-29 | 89D1 | 154E4 |
| INH | 120G1 | 133B/F0 |
| LB | 143H0 | 133C/D4 |
| LHC | 34C/H4 | 133A/E0 |
| LL0-9 | 85E8 | 32D2 |
| LLF | 79F8 | 133A/F0 |
| LLN | 134H4 | 133C/D2 |
| LLPT | 79F8 | 133A/D2 |
| LOL | 4B/E5 | |
| LP | 79E8 | 133A/G5 |
| MBC | 142B5 | 133C/D4 |
| MBCK | 142B5 | 133C/D4 |
| MMK | 134C4 | 133C/D2 |
| MRL | 38H6 | 133A/C2 |
| MT2 | 79D8 | 133A/E0 |
| MT3 | 79B8 | 133A/E0 |
| MT5K | 80E6 | 329E5 |
| MT6K | 80E6 | 329E5 |
| MT8 | 9H5 | 133A/G0 |
| MT9 | 79D8 | 133B/F0 |
| MT10 | 71G8 | 133A,B0 |
| MT13 | | 133A/G2 |
| MT19 | 71F8 | 133A/D0 |
| MT23 | 79E8 | 133A/G5 |
| MT25 | 47A8 | 133A/D2 |
| MT26 | 47A8 | 133A/D2 |
| MT28 | 79H8 | 133A/B7 |
| MT30 | 79H8 | 133A/C7 |
| MT40 | 79G8 | 133A/C7 |
| MT41 | 79G8 | 133A/G5 |
| MT44 | 142C0 | 133C/D2 |
| MT45 | 79H6 | 133C/D0 |
| MT46 | 142C0 | 133C/D4 |
| MT47 | 142G0 | 133C/D4 |
| MT49 | 142G0 | 133C/D4 |
| MT53 | 142G0 | 133C/D4 |
| NCW | 106D9 | 133A/E7 |
| NDT | 109D9 | 133A/D0 |
| NGRS | 79G8 | 133A/A2 |
| NGF | 79G8 | 133A/D0 |
| NGTA-H | 75H6 | 132E2 |

## MASTER TEST CONTROL CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| NOL | 48/E5 | 133B/E3 |
| NOLL | 48/E5 | 133B/E3 |
| NOMG | 118H2 | 133A/B7 |
| NRD | 114B/G8 | 32985 |
| NTLH | 85H9 | 32D2 |
| NTLS | 79F8 | 133A/D2 |
| NTR | 36A5 | 32D2 |
| NWL | 135E3 | 133B/F7 |
| ODT1,2 | 143B7 | 133C/D4 |
| OST | 143B7 | 133C/D4 |
| OSTO,1 | 18A0 | 133A/C3 |
| OTS0,1 | | 133A/E2 |
| OTT | 109H4 | 133A/G2 |
| PC1-4 | 143B7 | 133C/D4 |
| PE | 38G6 | 133A/C2 |
| PL0-9 | 135D6 | 133C/D0 |
| POTS | 62B/F3 | 133A/D7 |
| RAO-9 | 135D6 | 133B/F7 |
| RBT | 41B/E4 | 133A/D0,G2 |
| RCD | 114B/G8 | 32985 |
| RLN | 134H4 | 133C/D2 |
| RLT | 38G6 | 133A/B0,D0 |
| RNGC | 62A/F3 | 133A/B7 |
| RTST | | 133A/G2 |
| RUK | 134C4 | 133C/D2 |
| RVT | 133G1 | 133C/D0 |
| SA | 114A/H0 | 133A/F2 |
| SAC | 114A/G0 | 133A/E0 |
| SAT | 114B/E8 | 32985 |
| SB0-9 | 141C0 | 133C/D0 |
| SFNK | 140G1 | 133C/D2 |
| SKFP | 18H6 | 133A/C7 |
| SKFT | 119A5 | 133A/C7 |
| SLB | 71A3 | 133A/D2 |
| SLC | 64H4 | 133B/C0 |
| SLC1 | 64H4 | 133B/C0 |
| SLFK | 143B7 | 133C/D5 |
| SLT | 136E8 | 133C/D2 |
| SSC | 114A/H0 | 133A/E0 |
| SW | 78B/E2 | 133B/A0 |
| SWC | 78B/E2 | 133B/A0 |

## MASTER TEST CONTROL CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| TB | 143H0 | 133C/D4 |
| TCA,B | 62B/G3 | 133A/D7 |
| TCC | 62B/F3 | 133A/D7 |
| TNGA | 72E6 | 133A/G2 |
| TRR | 37F0 | 133A/D0 |
| TRS | 114B/B0 | 32985 |
| TRS1 | 114B/A0 | 32985 |
| TRTF | 37A4 | 133A/B2 |
| TRTI | 37A4 | 133A/B2 |
| TS | 132G1 | 133A/B5 |
| TS1 | 114A/C3 | 133B/D0 |
| TS2 | 114A/C4 | 133B/D0 |
| TSK | 137F7 | 133C/D2 |
| TT0-9 | 18A0 | 133A/G0 |
| TT10-19 | 18A4 | 133A/E0 |
| TTM | 109H5 | 133A/G2 |
| TTR | 37A4 | 133A/B2 |
| VF | 138E3 | 133C/D2 |
| VLB | 142C0 | 133C/D2 |
| VLO | 142C0 | 133C/D2 |
| VLR | 142C0 | 133C/D2 |
| VTR | 142C0 | 133C/D2 |
| VTS | 142C0 | 133C/D2 |
| WB | 62B/F3 | 133A/C7 |
| WB1 | 62A/D6 | 133C/D5 |
| WB2 | 62A/D6 | 133C/D5 |
| WB3 | 62A/D6 | 133C/D5 |
| WCHA | 141B3 | 133C/D4 |
| WCK | 141E4 | 133C/D4 |
| WC0 | 136E3 | 133C/D2 |
| WLH | 135E1 | 133C/D2 |
| WLHT | 135H2 | 133C/D2 |
| WLK | 138H8 | 133C/D2 |
| WLL | 138E3 | 133C/D2 |
| WLLI | 138E3 | 133C/D2 |
| WMB | 135E1 | 133C/D2 |
| WMC | 143B7 | 133B/F7 |
| WRLO | 136E2 | 133C/D2 |
| WRV | 122A/H1 | 133B/A0 |
| WTLC | 137F7 | 133C/D2 |
| WTR | 143D0 | 133C/D4 |
| WTR1 | 143D0 | 133C/D4 |
| WTS | 143B4 | 133C/D4 |
| WTST | 134D4 | 133C/D2 |
| WTT | 143D0 | 133C/D4 |
| WTT1 | 143D0 | 133C/D4 |

## DESIG

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|

## MASTER TEST FRAME CONNECTOR CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| 4DG | 50H7 | 88D3 |
| 4NE | 59A/A4 | 88D0 |
| 4TT | 59A/A4 | 88DQ |
| 4W | 9388 | 89D0 |
| 5DG | 50H7 | 88D3 |
| 5I | 115C9 | 85D3 |
| 5MT | 59A/A4 | 88D0 |
| 5ST | 59A/A4 | 88D0 |
| 6FT | 59A/A4 | 88D0 |
| 6NT | 59A/A4 | 88D0 |
| 7RN | 59A/A4 | 88DQ |
| 7T | 115C9 | 90D6 |
| 7TP | 59A/A4 | 88D0 |
| 8MP | 59A/A4 | 68D0 |
| 8SP | 59A/A4 | 88D0 |
| 9FP | 59A/A4 | 88D0 |
| 9NP | 59A/A4 | 88D0 |
| A | 64D9 | 80D3 |
| A0 | 51H2 | 83D0 |
| A1 | 52H2 | 83D0 |
| A2 | 53H2 | 83D0 |
| A4 | 54H2 | 83D0 |
| A7 | 55H2 | 83D0 |
| A'0 | 51H8 | 80D6 |
| A'1 | 52H8 | 80D6 |
| A'2 | 53H8 | 80D6 |
| A'4 | 54H8 | 80D6 |
| A'7 | 55H8 | 80D6 |
| ACD | 93A2 | 85D0 |
| AD | 92A6 | 85D0 |
| AD' | 92A6 | 85D3 |

## MASTER TEST FRAME CONNECTOR CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| ONN | 59A/A4 | 88D3 |
| 1SE | 59A/A4 | 88D0 |
| 1TB | 59A/A4 | 85D0 |
| 2DT | 20A/A1 | 82E6 |
| 2L | 7187 | 93D0 |
| 2L1 | 7188 | 93D0 |
| 2LN | 66G4 | 85D0 |
| 2LV | 116F5 | 91D4 |
| 2MB | 59A/A4 | 88D0 |
| 2SA | 59A/A4 | 88D0 |
| 2W | 9398 | 89D0 |
| 2WD | 97F6 | 89D3 |
| 2WD1 | 97F6 | 89D3 |
| 3FB | 59A/A4 | 88D0 |
| 3NA | 59A/A4 | 88D0 |
| 4B | 115C9 | 85C3 |

| DRAWING ISSUE |
|---|
| 61B |

COMPLETING MARKER CIRCUIT — (2)

3D-26002-01-A25

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET SIZE 6S

# LEAD INDEX

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MASTER TEST FRAME CONNECTOR CKT** | | |
| AF | 117D6 | 91D2 |
| AF1 | 117D6 | 91D2 |
| AFK | 117F7 | 91D2 |
| AG1-6 | 11009 | 89D6 |
| AGCK | 120E4 | 85D3 |
| AIS | 121A/B0, 121B/G7 | 82D6, 85D3 |
| AK | 64D9 | 80D3 |
| AL | 40H4 | 87D6 |
| ALN | 113A7 | 85D3 |
| ALT | 40H4 | 92E6 |
| AMA | 498/G5 | 82D3 |
| AN | 74G9 | 81E6 |
| AOT | 218/D2 | 90D6 |
| ARO,1,2,4,7 | 46H5 | 84D6 |
| ATT | 218/A2, 218/A2 | 88D3 |
| AVK1 | 44B5 | 84D3 |
| B0 | 51H2 | 83D2 |
| B1 | 52H2 | 83D2 |
| B2 | 53H2 | 83D2 |
| B4 | 54H2 | 83D2 |
| B7 | 55H2 | 83D2 |
| B'0 | 51H8 | 80D6 |
| B'1 | 52H8 | 80D6 |
| B'2 | 53H8 | 80D6 |
| B'4 | 54H8 | 80D6 |
| B'7 | 55H8 | 80D6 |
| BCN | 143H6 | 94D0 |
| BLC | 34A/A8 | 92D3 |
| ~~BLDA~~ | 105G3 | 90D0 |
| BLT | 105G3 | 90D0 |
| BN | 66A0 | 82D3 |
| BRO,1,2,4,7 | 46H5 | 84D6 |
| BRL | 38A5 | 89D0 |
| ~~BRT~~ | 99C7 | 89D3 |
| BST | 34A/A4 | 86D0 |
| BT | 38A5 | 84D3 |
| BTT | 99C7 | 89D3 |
| BY | 41A/D9 | 86C6 |
| C0 | 51H2 | 83D0 |
| C1 | 52H2 | 83D0 |
| C2 | 53H2 | 83D0 |
| C4 | 54H2 | 83D0 |
| C7 | 55H2 | 83D0 |
| C'0 | 51H8 | 80D6 |
| C'1 | 52H8 | 80D6 |
| C'2 | 53H8 | 80D6 |
| C'4 | 54H8 | 80D6 |
| C'7 | 55H8 | 80D6 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MASTER TEST FRAME CONNECTOR CKT** | | |
| CAM | 27G0 | 85D0 |
| CAMA | 298/F0 | 85D3 |
| CAMF | 21A/A2 | 85D3 |
| CAMS | 21A/A2 | 85D3 |
| CCK | 143H4 | 94D2 |
| CCK1 | 143H4 | 94D2 |
| CDO,1,2,4,7,10,15 | 93C6 | 89D0 |
| CD'O | 95A/D7 | 79D0 |
| CD'1,2,4,7 | 95A/D7 | 79D3 |
| CDAO,1,2,4,7 | 93H5 | 89D6 |
| CDA'O,1,2,4,7 | 95B/E4 | 89D6 |
| CDN | 115G8 | 88D3 |
| CDNK | 115G5 | 93D0 |
| CDPO,1,2,4,7 | 93C6 | 91D2 |
| CDPIO,15 | 93C6 | 91D2 |
| CDP'O,1,2,4,7 | 95A/H4 | 91D2 |
| CE | 96C0 | 89D3 |
| CE' | 96C0 | 59E5, 89D0 |
| CGA | 7A1 | 87D3 |
| CGB | 7A1 | 87D3 |
| CGT | 35B/E2 | 86D0 |
| CHO-9 | 31A/A5 | 78D0 |
| CHA | 31A/A5 | 77D6 |
| CI | 80E4 | 88D6 |
| CK | 16A7 | 76D6 |
| CKG | 37B9 | 77D6 |
| CKG1 | 37E0 | 92D3 |
| CKO | 64C0 | 80D3 |
| CKR | 64C0 | 80D3, 90D3 |
| CKR1 | 64C0 | 90D3 |
| CLI-6 | 48A7 | 82D3 |
| CL7 | 48A7 | 84D3 |
| CL8 | 48A7 | 84D6 |
| CLG | 298/F0 | 73D3 |
| CLK | 29A/B0 | 78D3 |
| CLTI | 29B/F0 | 78D3 |
| CLT2 | 298/F0 | 78D3 |
| CM | 1048/G8 | 87D3 |
| CN | 308/B1 | 78D3 |
| CNG | - | 88D6 |
| CNR | 208/D8 | 88D0 |
| CNS | 83B/B4 | 84D3 |
| CNT | 100B/H3 | 85D3 |
| CON | 35B/C2 | 86D0 |
| CPO,1,2,4,7 | 50D7 | 88D3 |
| CR | 208/D4 | 84D3 |
| CRO,1,2,4,7 | 48A7 | 82E6 |
| CRUO,1,2,4,7 | 7A1 | 82E6 |
| CSO-29 | 6A/D2 | 86D3 |
| CSG1,2 | 6A/D3 | 93D3 |
| CSW | 78B/D2 | 85D3, 87D3 |
| CTO | 7A1 | 77D0 |
| CTI,2 | 7A1 | 77D3 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MASTER TEST FRAME CONNECTOR CKT** | | |
| CT4,7 | 7A1 | 77D0 |
| CTAO,1,2 | 7A1 | 93D3 |
| CTA4,7 | 7A1 | 93D0 |
| CTI | 105E1 | 90D0 |
| CTTO,1,2,4,7 | 101B1 | 93D0 |
| CTUK | 100B/B0 | 77D3 |
| CUO,1,2,4,7 | 7A1 | 86G6 |
| CUTO,1,2,4,7 | 101B1 | 93D0 |
| CWCN | 143G8 | 94D2 |
| CWF | 23E9 | 81D3 |
| CWK | 42E4 | 80D3 |
| D | 208/D4 | 86G6 |
| DO | 51H2 | 83D0 |
| D1 | 52H2 | 83D0 |
| D2 | 53H2 | 83D0 |
| D4 | 54H2 | 83D0 |
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COMPLETING MARKER CIRCUIT (2) SD-26002-01-A26

BELL TELEPHONE LABORATORIES INCORPORATED 6S

C8L-176 (9-68) (A)

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COMPLETING MARKER CIRCUIT (2) SD-26002-01-A27

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-A27

CBL-176 (9-68) (A)

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| DESIG | LOCATION FS | LOCATION CAD |
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| WAR | 39A/H9 | - |
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| WFA1 | 39A/D9 | - |
| WFA2 | 39A/F9 | - |
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| "U" TYPE CONNECTORS DESIG NO. GROUP & CONNECTOR CKT | WIRE SPRING CONNECTORS DESIG NO. GROUP CONNECTOR CKT | DESIG PREF CONT & MAKE BUSY CKT FOR NO. GROUP | DESIG NO. GROUP CKT | LOCATION FS | LOCATION CAD |
|---|---|---|---|---|---|
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| LA | LA | | | 65C2 | 74F0,15DD0 |
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| NGK | NGK | | | 62A/C8 | 73D0,14900 |
| NWB | | | | 62A/C8 | 74G0 |
| OA | OA | | | 65C2 | 74G0,15DD0 |
| OFK | OFK | | | 70F6 | 74E0,15000 |
| OHB | OHB | | | 6788 | 74D0,15000 |
| OOF | OOF | | | 88B/D3 | 74E0,15DD0 |
| OTB | OTB | | | 65D2 | 74E0,15DD0 |

| "U" TYPE CONNECTORS DESIG NO. GROUP & CONNECTOR CKT | WIRE SPRING CONNECTORS DESIG NO. GROUP CONNECTOR CKT | DESIG PREF CONT & MAKE BUSY CKT FOR NO. GROUP | DESIG NO. GROUP CKT | LOCATION FS | LOCATION CAD |
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| SPT | SPT | | | 6788 | 73G5,149D4 |
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| TN | TN | | | 6386 | 73D0,14900 |
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XVIA DT MARKER

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-A28

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COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A29

BELL TELEPHONE LABORATORIES INCORPORATED

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KS

CBL-176 (9-68) (A)

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BELL TELEPHONE LABORATORIES INCORPORATED

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| | | | | | T | | | - | 66A/F0 | | | | | | | | | | |
| | | | | | | | | | | A0 | A0 | | 51D8 | 74D5,151D0 | | FRG | | - | 75G0 |
| | | | | | TM | TM | | 39A/G5 | 66A/D0,143D4 | A1 | A1 | | 52D8 | 74D5,151D0 | | | | | |
| | | | | | | | | | | A2 | A2 | | 53D8 | 74D5,151D0 | FTO-3 | FTO-3 | | 1D8 | 75D7,151C2 |
| | | | | | TP | TP | | 7E0 | 65E5,143D0 | A4 | A4 | | 54D8 | 74D5,151D0 | | | | | |
| L0 | L0 | | 51G1 | 66A/B2,143D4 | | | | | | A7 | A7 | | 55D8 | 74D5,151D0 | FU0,1,2,4,7 | FU0,1,2,4,7 | | 1E8 | 75D7,151C2 |
| L1 | L1 | | 52G1 | 66A/A2,143D4 | TR2 | TR2 | | 22B1 | 65G5,143D0 | | | | | | | | | | |
| L2 | L2 | | 53H1 | 66A/A2,143D4 | | TRB | | 81C1 | 67D0 | | | | | | | | | | |
| L4 | L4 | | 54H1 | 66A/A2,143D4 | | | | | | AD | AD | | 92A8 | 76E0 | | | | | |
| L7 | L7 | | 55H1 | 66A/A2,143D4 | TRK | TRK | | 22B1 | 65G5,143D0 | | | | | | | | | | |
| | | | | | TRL | TRL | | 38A6 | 65D7,143D2 | AMA | AMA | | 49B/F8 | 75D5,152C0 | | | | | |
| | | | | | TRS | TRS | | 22B1 | 65D7,143D2 | | | | | | G0 | G0 | | 51D8 | 74D7,151D2 |
| LL0,1,2,4,7 | LL0,1,2,4,7 | | 33B/D6 | 66A/C7,143D7 | | | | | | AR0,1,2,4,7 | AR0,1,2,4,7 | | 46D6 | 75D2,151C7 | G1 | G1 | | 52D8 | 74D7,151D2 |
| | | | | | | | | | | | | | | | G2 | G2 | | 53D8 | 74D7,151D2 |
| LT | LT | | 20A/A1 | 65E5,143D0 | | | | | | AV | AV | | 36H7 | 76E0,152E5 | G4 | G4 | | 54D8 | 74D7,151D2 |
| LT1,2 | LT1,2 | | 20A/A1 | 66A/D5 | | | | | | | | | | | G7 | G7 | | 55D8 | 74D7,151D2 |
| | LT3 | | 20A/A1 | 65D7 | | | | | | | | | | | | | | | |
| | | | | | VF0-4 | VF0-4 | | 1C8 | 66B4,144D0 | | | | | | SUB GR A | SUB GR A | | | |
| M0 | M0 | | 51G1 | 67E2 | | | | | | | | | | | GB0 OR GBE | GB0 OR GBE | | 43A8 | 76E3,152D7 |
| M1 | M1 | | 52G1 | 67E2 | VG0,1,2,4,7,10 | VG0,1,2,4,7,10 | | 1C8 | 66E4,144D0 | | | | | | | | | | |
| M2 | M2 | | 53G1 | 67E2 | | | | | | B0 | B0 | | 51D8 | 74D5,151D0 | | | | | |
| M4 | M4 | | 54G1 | 67E2 | | | | | | B1 | B1 | | 52D8 | 74D5,151D0 | SUB GR B | SUB GR B | | | |
| M7 | M7 | | 55H2 | 66A/D0 | X11 | X11 | | 20A/B1 | 65E5,143D0 | B2 | B2 | | 53D8 | 74D5,151D0 | GB0 OR GBE | GB0 OR GBE | | 43B8 | 76E3,152D7 |
| | | | | | | | | | | B4 | B4 | | 54D8 | 74D5,151D0 | | | | | |
| MAK | | MAK | 39A/A3 | 66F9,144F2 | | | | | | B7 | B7 | | 55D8 | 74D5,151D0 | | | | | |
| MB | MB | | 39A/G5 | 65G5,143D0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | BR0,1,2,4,7 | BR0,1,2,4,7 | | 46E6 | 75D2,151C7 | | | | | |
| MCK | | MCK | 39A/A3 | 66F9,144F2 | | | | | | | | | | | H0 | H0 | | 51D8 | 74D7,151D2 |
| MF | MF | | 20B/D1 | 66A/A5,143D7 | | | | | | | | | | | H1 | H1 | | 52D8 | 74D7,151D2 |
| MON | MON | | 79B2 | 66A/B0,143D4 | | | | | | | | | | | H2 | H2 | | 53D8 | 74D7,151D2 |
| | | | | | | | | | | | | | | | H4 | H4 | | 54D8 | 74D7,151D2 |
| MRL | MRL | | 38C6 | 66A/D0,143D4 | | | | | | C | C | | 79E4 | 74D5,151D0 | H7 | H7 | | 55D8 | 74D7,151D2 |
| MSK | | MSK | 39A/B3 | 66F9,144F2 | | | | | | C0 | C0 | | 51D8 | 74D5,151D0 | HG0,1,2,4,7 | HG0,1,2,4,7 | | 1G8 | 75D7,151C1 |
| | | | | | | | | | | C1 | C1 | | 52D8 | 74D5,151D0 | | | | | |
| | | | | | | | | | | C2 | C2 | | 53D8 | 74D5,151D0 | | | | | |
| N7 | N7 | | 55F8 | 67E2 | | | | | | C4 | C4 | | 54D8 | 74D5,151D0 | | | | | |
| | | | | | | | | | | C7 | C7 | | 55D8 | 74D5,151D0 | | | | | |
| NOB | NOB | | 109C1 | 66A/B0,143D4 | | | | | | | | | | | J0 | J0 | | 51D8 | 74D7,151D2 |
| | | | | | | | | | | | CD0,1,2,4,7 | | 95A/E7 | 75D2 | J1 | J1 | | 52D8 | 74D7,151D2 |
| | | | | | | | | | | | | | | | J2 | J2 | | 53D8 | 74D7,151D2 |
| | | | | | | | | | | | CDA0,1,2,4,7 | | 95B/C5 | 75D2 | J4 | J4 | | 54D8 | 74D7,151D2 |
| OBS | OBS | | 109B1 | 66A/B0,143D4 | | | | | | | | | | | J7 | J7 | | 55D8 | 74D7,151D2 |
| | OCN | | 63F1 | 65H5,67D0 | | | | | | | CDP0,1,2,4,7 | | 95A/H4 | 75D2 | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| OR | OR | | 21A/A1 | 65G5,143D0 | | | | | | CL1-4 | CL1-4 | | 48C8 | 74D5,151D0 | | | | | |
| | | | | | | | | | | CL5,6 | CL5,6 | | 48C8 | 75D2,151C7 | K0 | K0 | | 51D8 | 75A0,151C4 |
| | | | | | | | | | | CL7,8 | CL7,8 | | 48C8 | 75A0,151C4 | K1 | K1 | | 52D8 | 75A0,151C4 |
| | | | | | | | | | | | CNG | | - | 75A0 | K2 | K2 | | 53D8 | 75A0,151C4 |
| | | | | | | | | | | CP0,1,2,4,7 | CP0,1,2,4,7 | | 50B8 | 75D5,152C0 | K4 | K4 | | 54D8 | 75A0,151C4 |
| | | | | | | | | | | | | | | | K7 | K7 | | 55D8 | 75A0,151C4 |
| PD | PD | | 20B/C1 | 65D7,143D2 | | | | | | CR0,1,2,4,7 | CR0,1,2,4,7 | | 48C7 | 75A0,151C4 | | | | | |
| PK | PK | | 20B/B1 | 65D5,143D0 | | | | | | D0,1,2,4,7 | D0,1,2,4,7 | | (51-55)D8 | 74D5,151D0 | | | | | |
| | PK1 | | 20B/B1 | 66A/C5 | | | | | | | | | | | | | | | |
| PS | PS | | 20B/C1 | 65D7,143D2 | | | | | | | | | | | L0 | L0 | | 51D8 | 75A0,151C4 |
| | | | | | | | | | | DL1-6 | DL1-6 | | 49B/F8 | 75D2,151C7 | L1 | L1 | | 52D8 | 75A0,151C4 |
| | | | | | | | | | | | | | | | L2 | L2 | | 53D8 | 75A0,151C4 |
| | | | | | | | | | | | | | | | L4 | L4 | | 54D8 | 75A0,151C4 |
| | | | | | | | | | | | | | | | L7 | L7 | | 55D8 | 75A0,151C4 |
| RGG | | | - | | | | | | | E0 | E0 | | 51D8 | 74D7,151D2 | | | | | |
| | | | | | | | | | | E1 | E1 | | 52D8 | 74D7,151D2 | | | | | |
| RL | RL | | 38D6 | 66A/D0,143F5 | | | | | | E2 | E2 | | 53D8 | 74D7,151D2 | | | | | |
| | | | | | | | | | | E4 | E4 | | 54D8 | 74D7,151D2 | | | | | |
| RP | RP | | 7D0 | 65E5,143D0 | | | | | | E7 | E7 | | 55D8 | 74D7,151D2 | | | | | |
| RV1 | RV1 | | 13288 | 66A/D5 | | | | | | | | | | | | | | | |

DRAWING ISSUE
40A
41D
43D

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-A31

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-A31

# LEAD INDEX

| "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | |
|---|---|---|---|---|
| DESIG | ~~DESIG~~ | DESIG | LOCATION | |
| OUTGOING SENDER CONNECTOR CKT | OUTGOING SENDER CONNECTOR CKT (MARKER PART) | PREF CONT & MAKE BUSY CKT OUTGOING SDR CONN | FS | CAD |
| L5D | L5D | | 50F8 | 75D5,152C0 |
| LST | LST | | 50F8 | 75D5,152C0 |
| M | M | | 79F2 | 75G0,151C4 |
| MO | | | 51D8 | 75G5 |
| M1 | M1 | | 52D8 | 75G5 |
| M2 | M2 | | 53D8 | 75G5 |
| M4 | M4 | | 54D8 | 75D5 |
| M7 | M7 | | 55H8 | 75G0,151C4 |
| ~~MA~~ | MA | | 43E2 | 76B0,E0, 152E5 |
| MB | MB | | 43E2 | 74D5,151D0 |
| MB0,1,2,4,7 | MB0,1,2,4,7 | | 49A/C7 | 75D5,152C0 |
| MC | MC | | 43F2 | 74D7,151D2 |
| MD | | | – | 151D2 |
| ~~MON~~ | MON | | 79D2 | 75D2,151C7 |
| N7 | N7 | | 55D8 | 75D5 |
| ND | ND | | 109D1 | 74D7 |
| NOB | NOB | | 49B/F8 | 75D2,152C0 |
| | NSP | | 114A/B7 | 75D5 |
| OBS | OBS | | 49B/F8 | 75G5,152C0 |
| OD | OD | | 92B8 | 76E0 |
| ON1 | ON1 | | 44F7 | 76E0,152E5 |
| ORC0 | ORC0 | | 92B8 | 76E0 |
| ORC1 | ORC1 | | 92C8 | 76E0 |
| ORC2 | ORC2 | | 92D8 | 76E0 |
| OSO-4 | OSO-4 | | 43D8 | 76E3,H3, 152D7 |
| SUB GR A | SUB GR A | | | |
| OSGA0-9 | OSGA0-11 | | 42E8 | 76E3,H3, 127G5, 152E5 |
| SUB GR B | SUB GR B | | | |
| OSGB0-9 | OSGB0-11 | | 42F8 | 76E3,H3, 127G5, 152D7 |
| RN0,1,2,4,7 | RN0,1,2,4,7 | | 58C1 | 76E0,152E5 |
| RO | RO | | 37G0 | 76E0,152E5 |
| RP | RP | | 30B/G2 | 75G5,152C0 |
| S | S | | 43H8 | 76E0,152E5 |
| SO-4 | SO-4 | | 43G8 | 76E3,H3, 152D7 |
| SAM | SAM | | 43F2 | 76E0,152E5 |
| SBM | SBM | | 43F2 | 76E0,152E5 |
| SC | SC | | 49B/F8 | 75A0,152C0 |
| SCM | SCM | | 43G2 | 76E0,152E5 |

| "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | |
|---|---|---|---|---|
| DESIG | ~~DESIG~~ | ~~DESIG~~ | -- | |
| OUTGOING SENDER CONNECTOR CKT | OUTGOING SENDER CONNECTOR CKT (MARKER CKT) | PREF CONT & MAKE BUSY CKT OUTGOING SDR CONN | LOCATION FS | LOCATION CAD |
| | SG | | | 74D7 |
| SLP | SLP | | 79E4 | 74D5 |
| | SRT | | – | 74D5 |
| SUB GR A | | SUB GR A | | |
| SKA | | SKA | 42E8 | 76A3,E3, 152D7 |
| SUB GR B | | SUB GR B | | |
| SKB | | SKB | 42G8 | 76A3,E3, 152D7 |
| SLP | SLP | | 79F4 | 151D0 |
| | SPC | | 114A/A7 | 75D5 |
| SUB GR A | | SUB GR A | | |
| ST | | ST | 43E8 | 76A3,E3, 152D7 |
| SUB GR B | | SUB GR B | | |
| ST | | ST | 43F8 | 76E3,152D7 |
| TG | TG | | 38E4 | 76E0,152E5 |
| THT0 | THT0 | | 49C/F8 | 75D7 |
| THT1 | THT1 | | 49C/D8 | 75D7 |
| THT2 | THT2 | | 49C/C8 | 75D7 |
| THT3 | THT3 | | 49C/B8 | 75D7 |
| TM | TM | | 30A/A1 | 76E0,152E5 |
| TP | TP | | 30B/F2 | 75G5,152C0 |
| TSR | TSR | | 57B/B6 | 74D7,151D2 |
| TSR1 | TSR1 | | 57B/B8 | 74D5,151D0 |
| TVT | TVT | | 49B/F8 | 75A0,152C0 |
| VFO-4 | VFO-4 | | 1G8 | 75D7,152C2 |
| VGO,1,2,4,7,10 | VGO,1,2,4,7,10 | | 1F8 | 75D7,151C2 |
| XS | XS | | 43H8 | 76E0,152E5 |
| XSA | XSA | | 43G2 | 76E0,152E5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| OUTGOING SENDER GROUP RELEASE CKT | | |
| A0-11 | 44G6 | 127G5 |
| PEG COUNTER AUXILIARY CKT | | |
| OF00-114 | 111A/G7 | 185B/D0 |
| OF115-143 | 111A/G7 | 185B/B0 |
| OFL | 111A/D8 | 185B/A0 |
| OFP | 111A/C8 | 185B/A0 |
| OFR | 111A/C8 | 185B/A0 |
| PC00-114 | 111A/F7 | 185B/F0 |
| PC115-143 | 111A/F7 | 185B/E0 |
| PCL | 111A/B8 | 185B/D0 |
| PCP | 111A/B8 | 185B/D0 |
| PCR1,2 | 111A/A8 | 185B/D0 |
| PLANT REGISTER CKT | | |
| AI | 122B/A6 | 133B/G2 |
| CW1F | 122B/B6 | 133b/C0 |
| CW2F | 122B/B6 | 133B/C0 |
| CWP | 122B/C6 | 133B/C0 |
| DMST | 122B/C4 | 133A/F2 |
| DTPC | 122B/A6 | 133A/B5 |
| DTR | 122B/B4 | 133A/B5 |
| EX | 37A9 | 133A/F5 |
| GRA | 122B/E6 | 133B/F2 |
| GRO | 122B/E6 | 133B/F2 |
| GTF | 122B/G4 | 133A/F2 |
| LRF | 122B/A4 | 133A/F2 |
| MST | 122B/C4 | 133A/F2 |
| OGO-11 | 122B/B6 | 133B/E0 |
| RO | 122B/D6 | 133B/E0 |
| SSO-11 | 122B/C6 | 133B/B0 |
| TLRF | 122B/A4 | 133B/E2 |
| TPC | 122B/A6 | 133A/B5 |
| TR | 122B/B4 | 133A/A5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| PLANT REGISTER CKT | | |
| WMST0 | 122B/D4 | 133C/E7 |
| WMST1 | 122B/E4 | 133C/E7 |
| WMST2 | 122B/F4 | 133C/E7 |
| WTPC0-2 | 122B/G4 | 133C/E7 |
| WTR0 | 122B/D4 | 133C/E7 |
| WTR1 | 122B/E4 | 133C/E7 |
| WTR2 | 122B/F4 | 133C/E7 |
| POWER RINGING AND TONE FRAME CKT | | |
| +130V | 83B/G0 | 127B0 |
| AC-DC AUD | 35A/A0, | 127C0 |
| OR ± AUD | 99E0 | |
| MB | 39A/F5 | 127B0 |
| PL | 82H4 | 127C0 |
| RING G | 35A/A0, 99E0 | 127C0 |
| PREFERENCE CONTROL AND MAKE BUSY CKT FOR AIS SENDER | | |
| AICS | 61C9 | 239F5 |
| REMOTE OFFICE TEST CONTROL CKT | | |
| ETSO,1 | 18C0 | 133A/D2 |
| OTSO,1 | 18C0 | 133A/D2 |
| TT0-9 | 18C0 | 133A/H0 |
| TT10-19 | 18F3 | 133A/H0 |
| REMOTE OFFICE TEST LINE CKT | | |
| CGA | 6A/D5 | 133A/C2 |
| CGB | 6A/D5 | 133A/C2 |
| MT3 | 79C7 | 133A/H0 |
| MT9 | 79C7 | 133A/H0 |
| MT25 | 47B8 | 133A/C2 |
| SAT | 114B/E8 | 133A/A7 |
| TRS | 114B/B0 | – |
| TRSI | 114B/A0 | 133A/A7 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| REMOTE OFFICE TEST LINE TRUNK MAKE BUSY CKT | | |
| UF- | 88A/G4 | 245F0 |
| RR | 88A/B2 | 245F0 |
| RRA | 88A/G2 | 245F0 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|

| DRAWING ISSUE |
|---|
| 40A |
| 41D |
| 43D |
| 45D |

| DRAWING ISSUE |
|---|
| 57B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A32

BELL TELEPHONE LABORATORIES INCORPORATED

6S

LEAD INDEX

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|

SERVICE OBSERVING REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| C0 | 51B1 | 127D5 |
| C1 | 52B1 | 127D5 |
| C2 | 53B1 | 127D5 |
| C4 | 54B1 | 127D5 |
| C7 | 55B1 | 127D5 |
| CK | 109A1 | 127E8 |
| D0 | 51B1 | 127D5 |
| D1 | 52B1 | 127D5 |
| D2 | 53B1 | 127D5 |
| D4 | 54B1 | 127D5 |
| D7 | 55B1 | 127D5 |

SENDER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| SUB GR A | | |
| SIE | 42B8 | 138B0 |
| SIO | 42B8 | 138B0 |
| SUB GR B | | |
| SIE | 42C8 | 138B0 |
| SIO | 42C8 | 138B0 |
| WAE | 44F7 | 138E0 |
| WAO | 44F7 | 138E0 |

SENDER GROUP BUSY CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| ASB0-11 | 88C/F6 | 220B7 |
| OFL | 88C/F7 | 220B7 |
| SIE | 88D/B1 | 131E1, 220B7 |
| SIO | 88D/A1 | 131E1, 220B7 |

SERVICE OBSERVING REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| A0 | 51B1 | 127D5 |
| A1 | 52B1 | 127D5 |
| A2 | 53B1 | 127D5 |
| A4 | 54B1 | 127D5 |
| A7 | 55B1 | 127D5 |
| B0 | 51B1 | 127D5 |
| B1 | 52B1 | 127D5 |
| B2 | 53B1 | 127D5 |
| B4 | 54B1 | 127D5 |
| B7 | 55B1 | 127D5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| E0 | 51B1 | 127D5 |
| E1 | 52B1 | 127D5 |
| E2 | 53B1 | 127D5 |
| E4 | 54B1 | 127D5 |
| E7 | 55B1 | 127D5 |
| F0 | 51B1 | 127E8 |
| F1 | 52B1 | 127E8 |
| F2 | 53B1 | 127E8 |
| F4 | 54B1 | 127E8 |
| F7 | 55B1 | 127E8 |
| G0 | 51B1 | 127E8 |
| G1 | 52B1 | 127E8 |
| G2 | 53B1 | 127E8 |
| G4 | 54B1 | 127E8 |
| G7 | 55B1 | 127E8 |
| H0 | 51B1 | 127E8 |
| H1 | 52B1 | 127E8 |
| H2 | 53B1 | 127E8 |
| H4 | 54B1 | 127E8 |
| H7 | 55B1 | 127E8 |
| J0 | 51B1 | 127E8 |
| J1 | 52B1 | 127E8 |
| J2 | 53B1 | 127E8 |
| J4 | 54B1 | 127E8 |
| J7 | 55B1 | 127E8 |
| K0 | 51B1 | 127E8 |
| K1 | 52B1 | 127E8 |
| K2 | 53B1 | 127E8 |
| K4 | 54B1 | 127E8 |
| K7 | 55B1 | 127E8 |

SERVICE OBSERVING REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| L0 | 51B1 | 127E8 |
| L1 | 52B1 | 127E8 |
| L2 | 53B1 | 127E8 |
| L4 | 54B1 | 127E8 |
| L7 | 55B1 | 127E8 |
| M4 | 54B1 | - |
| M7 | 55B1 | 127D5 |
| SOC | 27H4 | 127D5 |

SERVICE OBSERVING TRUNK SELECTION AND CONTROL CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| CAMA | 27G1 | 127B7 |
| FAD | 27G2 | 127B7 |
| HFA | 27G2 | 127B7 |

STATUS CONNECTOR CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| BAT. | 118E7 | 216B0 |
| LS1,2 | 118C7 | 216E0 |
| LS3,4 | 118B7 | 216E0 |
| LS5 | 118A7 | 216E0 |
| LSG | 118D7 | 216E0 |
| PI-3 | 119E3 | 216E0 |
| P4 | 119F3 | 216E0 |
| SCA | 116H6 | 216E0 |
| SCAK | 116G6 | 216E0 |
| STC00-139 | 116E3 | 216B2 |
| TGB | 118D7 | 216B0 |
| TGCB | 116D3 | 216D2 |
| TGG | 118E7 | 216B0 |
| TOK | 118F7 | 216B0 |
| TPI-4 (A,B) | 119B3 | 216F2 |
| TPI-4 (C,D,E) | 119C3 | 216F2 |
| TS1,2 | 118C7 | 216B0 |
| TS3 | 118B7 | 216B0 |
| TS4,5 | 118A7 | 216B0 |
| TSG | 118D7 | 216B0 |

TIME DELAY CONTROL CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| GL | | |
| B | 123D5 | - |
| C | 123D6 | - |
| G | 123D7 | - |
| I | 123D6 | - |
| L | 123D6 | - |

TRAFFIC REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| ASB0-11 | 88C/F4 | 129B/C0 |
| ATT | 88C/B3 | 129B/C0 |
| BNA | 88B/G5 | 129B/E2 |
| BPCS | 88E/A6 | 129C/C1 |
| BTCH | 88E/B6 | 129C/C1 |
| BTOG | 88E/F6 | 129C/C1 |
| DCI | 88B/H5 | 129B/B2 |
| DRO-19 | 88C/D3 | 129B/D2 |
| FAD | 88A/B4 | 129B/B2 |
| FAM | 88A/B4 | 129B/B2 |
| FM | 88A/D5 | 129A/A5, 129B/B0,B5, C0 |
| FMPR | 88A/C5 | 129B/C0,E0 |
| IB | 88B/C5 | 129B/G7,H2 |
| IBP | 88B/C5 | 129B/H2 |
| IFFM | 88A/B5 | 129B/G2,G7, H2,H7 |
| IFFMP | 88A/C5 | 129B/G2,H2 |
| IFM | 88A/A5 | 129A/A5, 129B/B0,B5 |
| IFMPR | 88A/B5 | 129B/E0,F0 |
| IH | 88A/E5, F5 | 129B/G7, H2 |
| IHP | 88A/E5 | 129B/H2 |
| IP | 96B4 | 129A/E7 |
| IPC0-9 | 88A/E4 | 129B/H5 |
| ITB | 88B/E5 | 129B/C0 |
| LLP | 88C/F3 | 129A/D0, 129B/E7 |
| LOF0-9 | 88C/C4 | 129A/D2 |
| LOF00-119 | 88C/E4 | 129A/F2 |
| LPC0-9 | 88C/C4 | 129A/D2 |
| LPC00-119 | 88C/F4 | 129A/F2 |
| LR | 88C/D7 | 129A/D0 |
| LRG00-11 | 88C/D7 | 129A/D0 |
| LTD | 88A/B4 | 129B/G5 |
| LTM | 88A/C4 | 129B/G5 |
| MFL | 88B/F5 | 129B/F0 |

TRAFFIC REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| OAB0-9 | 88C/H3 | 129B/D7 |
| OF | 88A/G4 | 122B6, 123C6 |
| OFP | 111A/D8 | 129B/G7 |
| OGR0-9 | 88C/G4 | 129B/D7 |
| OP | 96B4 | 123C6, 129A/E7 |
| OSG0-11 | 88B/B4 | 129A/E5 |
| OST0-9 | 88C/G4 | 129B/D7 |
| OTR | 111A/E8 | 129B/D7 |
| OVF0-9 | 72H6 | 139G2 |
| PB | 96B4 | 129A/E7 |
| PC | 88A/C4 | 122B6 |
| PCL | 88B/C4 | 129B/C0 |
| PCM | 88B/F5 | 129B/C0 |
| PCP | 111A/E8 | 129B/G7 |
| PCSC | 88B/D5 | 129A/D5, E7 |
| PCT | 8FA/A4 | 129A/C5, E7 |
| PCT00-27 | 88C/E3 | 129B/E2 |
| PCT28-39 | 88C/E3 | 129B/B2 |
| PCV00-95 | 88C/D3 | 13400 |
| PDD | 88A/A4 | 129B/B2 |
| PDM | 88A/B4 | 129B/B2 |
| PLI | 82H7 | 129B/C0 |
| PLI | 88B/F5 | 129B/C0 |
| PLSC | 88B/G4 | 129B/D5 |
| POP | 88A/E4 | 129B/E5 |
| POS | 88A/E4 | 129B/E5 |
| PRT20-39 | 59B/E9 | 129B/G2 |
| PTC0 | 88C/B3 | 129B/C0 |
| PTOG | 88C/G3 | 129B/C0 |
| PTR00-143 | 111A/E8 | 129B/D7 |
| PTR200-343 | 111A/E8 | 129B/D7 |
| RIA | 88B/G5 | 129B/E2 |
| RIP | 88B/H5 | 129B/E2 |
| RMP0-9 | 88C/C4 | 129B/B5 |
| SO-9 | 88B/A4 | 129B/G5 |
| SCPR | 88B/E5 | 129B/F0 |
| TAB0-9 | 88C/H3 | 129B/D7 |
| TBI | 88B/G5 | 129B/E2 |
| TCH | 88B/G4 | 129A/C5 |
| TCHPR | 88B/H4 | 129B/F0 |
| TC0 | 88C/A3 | 129B/G5 |

TRAFFIC REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| TDTF | 88C/C3 | 129B/E2 |
| TGR0-9 | 88C/G4 | 129B/D7 |
| TGT0-9 | 88C/H4 | 129B/D7 |
| TIP | 88A/F5, G5 | 129B/C5, B5 |
| TIPR | 88A/F5 | 129B/F0 |
| TLDN | 88C/C3 | 129B/C0 |
| TMOR | 88C/B4,C4 | 129B/G5 |
| TOG | 88C/G3 | 129B/C0, 129A/E7 |
| TOPR | 88C/A4 | 129B/F0 |
| TOR | 88C/A4,B4 | 129A/C5 |
| TPC | 88B/E5 | 129A/C5 |
| TTRF | 88C/B3 | 129B/C0 |
| VCI | 88B/H5 | 129B/B2 |
| WIFF | 88E/D6 | 129C/D1 |
| WIFM | 88E/C6 | 129C/D1 |
| WPCS | 88E/B6 | 129C/D1 |
| WPCT | 88E/E6 | 129C/D1 |
| WTCH | 88E/C6 | 129C/D1 |
| WTOG | 88E/E6 | 129C/D1 |
| WTOR | 88E/D6 | 129C/D1 |

TRAFFIC REGISTER TRANSLATOR CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| ADTF | 102D1 | 129A/C7 |
| CG0-9 | 102A1 | 129A/E5 |
| CST0-9 | 102B1 | 129A/C7 |
| CSU0-9 | 102B1 | 129A/C7 |
| DTF | 102E1 | 129A/C7 |
| INCG | 102D1 | 129A/C7 |
| ITCG | 102D1 | 129A/C7 |
| LDN | 102D1 | 129A/C7 |
| ORCG | 102E1 | 129A/C7 |
| TRF | 102C1 | 129A/C7 |
| WAT | 102F1 | 129C/C1 |
| WIN | 102F1 | 129C/C1 |
| WOR | 102G1 | 129C/C1 |
| ZA | 102C1 | 129A/C7 |

TRAFFIC SAMPLE CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| CT | 114A/E4 | 199F3 |
| CTK | 114A/E7 | 199C3 |
| SA | 114A/G4 | 199A0 |
| SL | 114B/G4 | 199F3 |
| T | 114A/E7 | 199F3 |
| TA | 114A/E4 | 199E3 |
| TBR | 114A/H4 | 199B3 |
| TS | 114A/E4 | 199D3 |

TRAFFIC SAMPLE MONITOR AND TEST CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| MB | 39A/E0 | 119B3 |
| SPC | 114A/B8 | 119A0 |

TRAFFIC USAGE RECORDER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| MB | 39A/F7 | 127F0 |
| MBM | 39A/G7 | 127F0 |

| DRAWING ISSUE |
|---|
| 40A |
| 41D |
| 43D |
| 44A |
| 45D |
| 63B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A33

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-A33

# LEAD INDEX

| TRANSFER REGISTER MARKER CONNECTOR CKT (MARKER PART) | PREF CONT & MAKE BUSY CKT FOR TRANSFER REGISTER MARKER CONNECTOR | LOCATION FS | LOCATION CAD |
|---|---|---|---|
| 2W | | 93C7 | 66A/B5 |
| A0 | | 51A1 | 64H0 |
| A1 | | 52A1 | 64H0 |
| A2 | | 53A1 | 64H0 |
| A4 | | 54A1 | 64H0 |
| A7 | | 55A1 | 64H0 |
| A0T | | 21B/D1 | 63B7 |
| ATT | | 21B/C1 | 63B7 |
| B0 | | 51A1 | 64H0 |
| B1 | | 52A1 | 64H0 |
| B2 | | 53A1 | 64H0 |
| B4 | | 54A1 | 64H0 |
| B7 | | 55A1 | 64H0 |
| BT | | 38B2 | 64H2 |
| C0 | | 51A1 | 64H2 |
| C1 | | 52A1 | 64H2 |
| C2 | | 53A1 | 64H2 |
| C4 | | 54A1 | 64H2 |
| C7 | | 55A1 | 64H2 |
| CUO,1,2,4,7 | CB | 39C6 | 65H0 |
| CKG | | 37D0 | 64H0 |
| CTA0,1,2 | | 7B0 | 66A/F7 |
| CTA4,7 | | 7B0 | 66G4 |
| D0 | D | 39A/B5 | 65C3 |
| D1 | | 51A1 | 64H2 |
| D2 | | 52A1 | 64H2 |
| D4 | | 53A4 | 64H2 |
| D7 | | 54A5 | 64H2 |
| DAT | | 55A1 | 64H2 |
| DCK | | 21B/C1 | 63B7 |
| DTF | | 23G6 | 63D5 |
| DTI | | 21B/A1 | 63B7 |
| E0 | | 21B/B1 | 63B7 |
| E1 | | 51A1 | 64H2 |
| E2 | | 52A1 | 64H2 |
| E4 | | 53A1 | 64H2 |
| E7 | | 54A1 | 64H2 |
| ECN | | 55A1 | 64H2 |
| F | | 63E1 | 64H5 |
| | | 23F6 | 64H0 |

| TRANSFER REGISTER MARKER CONNECTOR CKT (MARKER PART) | PREF CONT & MAKE BUSY CKT FOR TRANSFER REGISTER MARKER CONNECTOR | LOCATION FS | LOCATION CAD |
|---|---|---|---|
| F0 | | 51B1 | 64D3 |
| F1 | | 52A1 | 64D3 |
| F2 | | 53E2 | 64D3 |
| F4 | | 54A1 | 64D3 |
| F7 | | 55A1 | 64D3 |
| FG0 | | 16C1 | 64H0 |
| FG1,2 | | 16E1 | 64H0 |
| FTO-3 | | 1B8 | 66F4 |
| FU0,1,2,4,7 | | 1B8 | 66A/G8 |
| FVD | | 20A/G1 | 64H2 |
| G0 | | 51A1 | 64C3 |
| G1 | | 52A1 | 64C3 |
| G2 | | 53F2 | 64C3 |
| G4 | | 54A1 | 64C3 |
| G7 | | 55A0 | 64C3 |
| H7 | | 55A0 | 64B3 |
| HG0,1,2,4,7 | | 1C8 | 66A/A8 |
| LI0 | | 21B/E1 | 63B7 |
| LI1 | | 21B/E1 | 63B7 |
| LL0,1,2,4 | | 33B/E6 | 63D5 |
| LL7 | | 33B/E6 | 63B7 |
| LRI | | 23G6 | 63B7, 85A3 |
| LT | | 20A/G1 | 65F6 |
| MB | | 39A/H6 | 64H8 |
| MON | | 79D2 | 64H5 |
| MRL | | 38C2 | 64H2 |
| OCN | | 63E1 | 63B7 |
| PK | | 20B/A1 | 65E5 |
| PKI | | 20B/A1 | 66A/B5 |
| R | | 11SE2 | 63D5 |
| RIK | | 22H6 | 63B7 |
| RGG | | - | 64A5 |
| T | | 11SE2 | 63D5 |
| T4 | | 11SC2 | 63D5 |
| T5 | | 11SD2 | 63D5 |
| T7 | | 11SD2 | 63D8 |
| TF0 | | 16E1 | 64H0 |
| TF1 | | 16F1 | 64H0 |
| TF2 | | 16F1 | 64H0 |
| TF4 | | 16G1 | 64H0 |
| TF7 | | 16G1 | 64H0 |

| TRANSFER REGISTER MARKER CONNECTOR CKT (MARKER PART) | PREF CONT & MAKE BUSY CKT FOR TRANSFER REGISTER MARKER CONNECTOR | LOCATION FS | LOCATION CAD |
|---|---|---|---|
| TIR | | 38A2 | 63B7 |
| TKT | | 23H6 | 63D5 |
| TM | | 39A/H6 | 64H5 |
| TR2 | | 22G1 | 64H8 |
| TRK | | 22F1 | 64H8 |
| TRL | | 38A2 | 64H5 |
| TRS | | 22G1 | 64H5 |
| TST | | 23G6 | 63B7 |
| TT0 | | 51A1 | 63H8 |
| TT1 | | 52A1 | 63H8 |
| TT2 | | 53A1 | 63H8 |
| TT4 | | 54A1 | 63H8 |
| TT7 | | 55A1 | 63H8 |
| UT0 | | 51A1 | 63H8 |
| UT1 | | 52A1 | 63H8 |
| UT2 | | 53A1 | 63H8 |
| UT4 | | 54A1 | 63H8 |
| UT7 | | 55A1 | 63H8 |
| VF0-4 | | 1C8 | 66B4 |
| VG0,1,2,4,7,10 | | 1C8 | 66D4 |
| WAT | | 21B/D1 | 63B7 |
| WDTF | | 21B/A1 | 63B7 |
| WDTI | | 21B/B1 | 63B7 |
| XII | | 20A/G1 | 64A0 |
| XHG1 | MAK | 23H6 | 63B7 |
| XHGA | | 23H6 | 63B7 |
| XI | MCK | 23H6 | 63D5 |
| XL | | 23H6 | 63B7 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **TRUNK GROUP TRAFFIC SAMPLE CKT** | | |
| B | 114B/B8 | 329C5 |
| P | 114B/D8 | 329C5 |
| SA | 114B/B8 | 329C5 |
| TGS00-99 | 114B/A8 | 118A9 |
| **TRUNK GROUP TRAFFIC SAMPLE TEST CKT** | | |
| MTS | 114B/H5 | 329E5 |
| **TRUNK LINK CKT** | | |
| FTC-(FR0-9) | 14D9 | 122D2- |
| FTC-(FR10-19) | 14D9 | 122D6 |
| FTC-(FR20-29) | 89D8 | 154A0 |
| GL | 123B7 | 70D6 |

| "U" TYPE CONNECTORS DESIG TRUNK LINK AND CONNECTOR CKT | WIRE SPRING CONNECTORS DESIG TRUNK LINK CONNECTOR CKT | DESIG PREF CONT & MAKE BUSY CKT FOR TRK LK CONN | LOCATION FS | LOCATION CAD |
|---|---|---|---|---|
| ONN | ONN | | 59A/H1 | 71D5,146C0 |
| ISE | ISE | | 59A/G1 | 71D5,148C0 |
| ITB | ITB | | 59A/G1 | 71D5,148C0 |
| 2MB | 2MB | | 59A/G1 | 71D5,148C0 |
| 2SA | 2SA | | 59A/G1 | 71D5,148C0 |
| 3FB | 3FB | | 59A/F1 | 71D5,148C0 |
| 3NA | 3NA | | 59A/F1 | 71D5,148C0 |
| 4NE | 4NE | | 59A/E1 | 71D5,148C0 |
| 4TT | 4TT | | 59A/E1 | 71D5,148C0 |
| 5MT | 5MT | | 59A/D1 | 71D5,148C0 |
| 5ST | 5ST | | 59A/D1 | 71D5,148C0 |
| 6FT | 6FT | | 59A/C1 | 71D5,148C0 |
| 6NT | 6NT | | 59A/C1 | 71D5,148C0 |
| 7RN | 7RN | | 59A/C1 | 71D5,148C0 |
| 7TP | 7TP | | 59A/C1 | 71D5,148C0 |
| 8MP | 8MP | | 59A/B1 | 71D5,148C0 |
| 8SP | 8SP | | 59A/B1 | 71D5,148C0 |
| 9FP | 9FP | | 59A/A1 | 71D5,148C0 |
| 9NP | 9NP | | 59A/A1 | 71D5,148C0 |
| 10LV | 10LV | | 12F8 | 69D7,70D2 |
| 12LV | 12LV | | 12G8 | 69D7 |

| DRAWING ISSUE |
|---|
| 40A |
| 41D |
| 43D |
| 45D |

| DRAWING ISSUE |
|---|
| 57B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A34

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# LEAD INDEX

| "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | | "L" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | | "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | | "U" TYPE CONNECTORS | WIRE SPRING CONNECTORS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | DESIG | DESIG | LOCATION | | DESIG | DESIG | DESIG | LOCATION | | DESIG | DESIG | DESIG | LOCATION | | DESIG | DESIG | DESIG | LOCATION | |
| TRUNK LINK AND CONNECTOR CKT | TRUNK LINK CONNECTOR CKT | PREF CONT & MAKE BUSY CKT FOR TRK LINK CONN | FS | CAD | TRUNK LINK AND CONNECTOR CKT | TRUNK LINK CONNECTOR CKT | PREF CONT & MAKE BUSY CKT FOR TRK LINK CONN | FS | CAD | TRUNK LINK AND CONNECTOR CKT | TRUNK LINK CONNECTOR CKT | PREF CONT & MAKE BUSY CKT FOR TRK LINK CONN | FS | CAD | TRUNK LINK AND CONNECTOR CKT | TRUNK LINK CONNECTOR CKT | PREF CONT & MAKE BUSY CKT FOR TRK LINK CONN | FS | CAD |
| AD | AD | | 92A6 | 70D6,147D0 | FAK | FAK | | 32G8 | 71D0,147D5 | NH | NH | | 85B0 | 70D6,147D0 | TB0-5 | TB0-5 | | 18A8 | 70D2,146D5 |
| | | | | | | | | | | | | | | | | TB6 | | 18A8 | 69D7,70D2 |
| ALC | ALC | | 33A/F9 | 71D0,147D5 | FB0-28 | | | 15C8 | 71B7 | NN | NN | | 85B0 | 70D6,147D0 | | TB7-9 | | 18A8 | 69D7,70D0 |
| | | | | | FB0-29 | | | 1538,C8 | 71B7,154B5 | | | | | | | | | | |
| ART | ART | | 35A/B7, 99E8 | 71D0,147D5 | FBK | FBK | | 32G8 | 71D5,147C0 | NT | NT | | 85B0 | 70D6,147D0 | TBK | TBK | | 18H8 | 70D4,146D7 |
| | ARTB | | 99A7 | 70D0 | FB0 OR FBE | FB0 OR FBE | | | 69B5,71B7 148C2,154B4, C7 | | | | | | TC | TC | | 30A/E1 | 71D5,147C0 |
| | | | | | | | | | | | | | | | TCB | TCB | | 88A/H6 | 70D6,147D0 |
| ASM | ASM | | 32F8 | 71D0,147D5 | | | | | | | | | | | | | | | |
| AST | AST | | 33A/F9 | 71D0,147D5 | | | | | | | | | | | TG0-9 | TG0-9 | | 18C8 | 70D4,146D7 |
| | | | | | FT0-3 | | | 1G4 | 172C0 | OD | OD | | 92B6 | 70D6,147D0 | TG10-19 | TG10-19 | | 18C8 | 70D6,147D0 |
| ATT | ATT | | 35A/A7, 99D8 | 71D0,147D5 | | | | | 122D2 | | | | | | | | | | |
| | | | | | | | | | | OF | OF | | 88A/H6 | 70D4,146D7 | | TGA1-3 | | 18G8 | 70B1 |
| | ATTB | | 99A7 | 70D0 | | | | | 122D6 | | | | | | | TGA4 | | 18F8 | 70B1 |
| | | | | | | | | | | OV | OV | | 78B/H1 | 70D0 | | | | | |
| | | | | | | | | | 154A0 | | | | | | | TLF | | 79F4 | 70D2,146D5 |
| | | | | | FU0,1,2,4,7 | | | 1G5 | 172C0 | | | | | | TP | TP | | 30B/E1 | 70D4,71D5, 147C0 |
| BLC | BLC | | 33A/F9 | 71D5,147C0 | | | | | | | | | | | TRA | TRA | | - | 70D4,146D7 |
| | | | | | | | | | | PQ-9 | PQ-9 | | 10D2 | 71D2,147D7 | TST | TST | | - | 146D7 |
| BRT | BRT | | 35A/C7, 99E8 | 70D2,71D5, 147C0 | | | | | | | | | | | TSK | TSK | | - | 70D4,146D7 |
| | | | | | | | | | | PR | PR | | 9D7 | 71D0,147D5 | TSX | TSX | | 32E8 | 70D4,146D7 |
| | BRTB | | 99B7 | 70D0 | G0 | G0 | | 13D9 | 71D0,147D5 | | PRO | | 98A3 | | | | | | |
| | | | | | G1-4 | G1-4 | | 13F9 | 71D0,147D5 | | PRE | | 98B3 | 70D6 | | | | | |
| | | | | | | | | | | | PRI | | 98B3 | 70D0 | TT | TT | | 109F7 | 71D5,147C0 |
| BS0-2 | BS0-2 | | 16E8 | 70D2,146D5 | | | | | | | | | | | TTA | TTA | | 109H7 | 71D0,147D5 |
| BS3 | BS3 | | 16F8 | 70D2,146D5 | | | | | | | | | | | | TTF | | 9E7 | 70D2 |
| BS4 | BS4 | | 16F8 | 70D2,148E2 | GL | GL | | 123B7 | 70D6 | | | | | | | | | | |
| | BS5 | | 16F8 | 69G5 | G0A | G0A | | 13D9 | 71D0,147D5 | | | | | | TTM | TTM | | 109H7 | 71D0,147D5 |
| BSM | BSM | | 32E8 | 71D5,147C0 | | | | | | | | | | | | | | | |
| BST | BST | | 33A/F9 | 71D5,147C0 | | | | | | R | R | | 12C8 | 71D0,147D5 | | | | | |
| | | | | | | | | | | RC | RC | | 30A/B1 | 71D0,145D7 | | | | | |
| BT0-9 | BT0-9 | | 18B8 | 70D4,146D7 | | | | | | | | | | | | | | | |
| BT10-19 | BT10-19 | | 18B8 | 70D6,147D0 | HF | HF | | 77G3 | 70D6,147C0 | RF | RF | | 91A6 | 71D0,147D5 | | VF0-4 | | 1G6 | 172C0 |
| BTT | BTT | | 35A/C7, 99E8 | 70D2,71D5, 147C0 | | HG0,1,2,4,7 | | 1G6 | 172C0 | | | | | | | | | | |
| | BTTB | | 99B7 | 70D0 | | | | | | RK | RK | | 12E8 | 71D0,147D5 | | VG0,1,2,4,7,10 | | 1J5 | 172C0 |
| | | | | | | | | | | RN10 | RN10 | | 59A/H1 | 7000 | | | | | |
| | | | | | | | | | | RN11 | RN11 | | 59A/G1 | 7000 | | | | | |
| | | | | | INC | INC | | 88A/G6 | 70D6,147D0 | RN12,13 | RN12,13 | | 59A/F1 | 7000 | | | | | |
| | | | | | | | | | | RN14 | RN14 | | 59A/E1 | 7000 | | WBS | | 122A/G1 | 70D6 |
| | | | | | | | | | | RN15 | RN15 | | 59A/D1 | 7000 | | | | | |
| | | | | | | | | | | RN16 | RN16 | | 59A/C1 | 7000 | XFT | XFT | | 14D9 | 70D2,146D5 |
| | CDN | | 11SG5 | 70D0 | JO-9 | JO-9 | | 33A/F4 | 70D8,147D2 | RN17,18 | RN17,18 | | 59A/B1 | 7000 | | | | | |
| | | | | | | | | | | RN19 | RN19 | | 59A/A1 | 7000 | | XTG1 | | 18H8 | 70B1 |
| | | | | | JC0-9 | JC0-9 | | 13B7 | 71D2,147D7 | RN20 | RN20 | | 59A/H1 | 7000 | | | | | |
| CK | | CK | 16A8 | 71G7,H7, 148B5-G5 | | | | | | RN21 | RN21 | | 59A/G1 | 7000 | | | | | |
| | | | | | JS0 | JS0 | | 32E3 | 70D8,147D2 | RN22 | RN22 | | 59A/F1 | 7000 | | | | | |
| | CN | | 30B/A1 | 71D0,147D5 | JS1-9 | JS1-9 | | 32E4 | 70D8,147D2 | RN23,24 | RN23,24 | | 59A/E1 | 7000 | | | | | |
| CN | CNT | | 100B/G4 | 69D7,70D0 | | | | | | RN25 | RN25 | | 59A/D1 | 7000 | | | | | |
| | | | | | | | | | | RN26 | RN26 | | 59A/C1 | | | | | | |
| | CTT0,1 | | 101C1 | 70D0 | | | | | | RN27 | RN27 | | 59A/B1 | SEE NOTE 1 | | | | | |
| | CTT2,4 | | 101D1 | 70D0 | | | | | | RN28,29 | RN28,29 | | 59A/A1 | | | | | | |
| | CTT7 | | 101E1 | 70D0 | | | | | | | RP | | 30H2 | 75F5 | | | | | |
| | | | | | L | L | | 12D8 | 71D0,147D5 | RS0,1 | RS0,1 | | 78A1 | 71D5,148C0 | | | | | |
| | CUT0,1 | | 101F1 | 70D0 | LO-8 | LO-8 | | 10D3 | 71D2,147D7 | RS2-4 | RS2-4 | | 78A/D1 | | | | | | |
| | CUT2,4 | | 101G1 | 70D0 | | | | | | RS5-9 | RS5-9 | | 78E1 | 71D5,148C0 | | | | | |
| | CUT7 | | 101H1 | 70D0 | LCC | | | - | 147D5 | RSK | RSK | | 78G1 | 71D5,147C0 | | | | | |
| | | | | | LCK | LCK | | 33A/F8 | 71D2,147D7 | S1 | S1 | | 33A/F9 | 71D0,147D5 | | | | | |
| | | | | | LH0-9 | LH0-9 | | 33A/F9 | 70D8,147D5 | | S8A1,2 | | 32E4 | 49D7 | | | | | |
| | | | | | LK | LK | | 12F8 | 71D0,147D5 | SEF | SEF | | 91E6 | 70D2,146D5 | | | | | |
| | DAT | | 11SA1 | 69D7,70D0, D4 | LOLP | LOLP | | 30B/C1 | 70D4 | SF | SF | | 9E7 | 71D0,147D5 | | | | | |
| DT | DT | | - | 70D4,146D7 | LVK | LVK | | 32H8 | 71D0,147D2 | SLK | SLK | | 44D7 | 70D2,146D5 | | | | | |
| | DTR | | 11SA2 | 70D6 | | | | | | SS0-9 | SS0-9 | | 44D7 | 70D2 | | | | | |
| | | | | | | | | | | ST- | | ST- | 16C8 | 71E7,F7, 146D5, 148G0 | | | | | |
| | | | | | MAK | MAK | | 16G8 | 70D4,146D7 | | | | | | | | | | |
| EF | EF | | 91C6 | 71D0,147D5 | MDK | MDK | | 16G8 | 70D2,D4, 146D5, 172C0 | SZA | SZA | | 9A4 | 71D0,147D5 | | | | | |
| | ES | | 97D2 | 71D5 | | | | | | SZB | SZB | | 9A4 | 71D0,147D5 | | | | | |
| | ESX | | 97B2 | 71D5 | | | | | | SZC | SZC | | 98- | 71D0,147D5 | | | | | |

NOTE 1: NOT EQUIPPED

DRAWING ISSUE: 40A, 41D, 43D

DRAWING ISSUE: 53B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A35

BELL TELEPHONE LABORATORIES INCORPORATED

FORM 6S

SD-26002-01-A35

# LEAD INDEX

| DRAWING ISSUE |
|---|
| 40A |
| 41D |
| 43D |
| 44A |
| 67B |

## TRUNK TEST REGISTER CKT FOR USE WITH WIDEBAND SERVICE

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| CGA | 6A/E5 | 238D7 |
| CGAI | 6A/E5 | 238D7 |
| CGB | 6A/E5 | 238D7 |
| CGBI | 6A/E5 | 238D7 |
| ETSO,1 | 18H0 | 238D7 |
| LLPT | 79G6 | 238D7 |
| LOL | 4B/E5 | 238D7 |
| MT3,9 | 79C7 | 238D7 |
| MT10 | 71G7 | 238D7 |
| MT25,26 | 4788 | 238D7 |
| MT44,46 | 142C0 | 238D7 |
| NOL | 4B/E5 | 238D7 |
| NOLL | 4B/E5 | 238D7 |
| NTLS | 79F7 | 238D7 |
| OTSO,1 | 18H0 | 238D7 |
| PLO-9 | 135D6 | 238D7 |
| RAO-9 | 135D6 | 238D7 |
| RVT | 133G1 | 238D7 |
| SLB | 71A3 | 238D7 |
| SW | 78B/E2 | 238D7 |
| SWC | 78B/E2 | 238D7 |
| TTO-9 | 18H0 | 238D7 |
| TTIO-19 | 18G4 | 238D7 |
| VLB | 142C0 | 238D7 |
| VLO | 142C0 | 238D7 |
| VLR | 142C0 | 238D7 |
| VTR | 142C0 | 238D7 |
| VTS | 142C0 | 238D7 |
| WRLO | 136E2 | 238D7 |

## TRUNK TEST REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| CGA | 6A/G7 | 238D7 |
| CGAI | 6A/G7 | |
| CGB | 6A/G7 | 238D7 |
| CGBI | 6A/G7 | |
| ETSO,1 | 18H0 | 238D7 |
| MT3,9 | 79C7 | 238D7 |
| MT25,26 | 4788 | 238D7 |
| OTSO,1 | 18H0 | 238D7 |
| TTO-9 | 18H0 | 238D7 |
| TTIO-19 | 18G4 | 238D7 |
| CK | 141B2 | 238B2 |
| GS | 141B0 | 238B2 |
| SBO-9 | 141B2 | 238B2 |
| STO-9 | 141A2 | 238B2 |

## WIDEBAND/BIT-STREAM JUNCTOR SWITCH GROUP MARKER LOCKOUT CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| MBC | 142B7 | 236D7 |
| MBCK | 142C7 | 236D7 |
| MBCL | 142C7 | 236D7 |
| MMK | 134C3 | 236D5 |
| MT | 142C7 | 236D5 |
| MT1 | 136D2 | 236D0 |
| MT2 | 136D3 | 236D0 |

## WIDEBAND/BIT-STREAM LINE LINK CONN CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| AO-4 | 136D2 | 236D5 |
| A5-9 | 136D3 | 236D7 |
| BSO | 138D2 | 237E6 |
| BS1 | 138F2 | 236D0 |
| BS2 | 139G2 | 236D0 |
| CO-3 | 136D2 | 236C2 |
| CCK | | 237C3 |
| LFK | 138F2 | 236D2 |
| LHO-9 | 135D2 | 236H0 |
| LLN | 134H3 | 236D2 |
| LSO-9 | 136D0 | 236D7 |
| LSK | 138H2 | 236C2 |

## WIDEBAND/BIT-STREAM LINE LINK CONN CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| NWC | 138F2 | 236D2 |
| NWL | 135D3 | 236D7 |
| RO-9 | 135D5 | 236D5 |
| RLA | 88E/G4 | 236D2 |
| RLN | 134G3 | 236D2 |
| RLOV | 88E/G4 | 236D2 |
| RLSO-9 | 134D3 | 236D5 |
| RUK | 134B3 | 236D5 |
| TBL | 134B3 | 236D2 |
| TSGO-3 | | 237C3 |
| TST | 134D3 | 236D2 |
| VFO-4 | 138F2 | 236H0 |
| VGO-11 | 138E2 | 236H0 |
| WCO-2 | 138G2 | 236D2 |
| WMB | 135D1 | 236D5 |
| XVF | 138H2 | 236D0 |

## WIDEBAND LINK CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| AS | 122A/D1 | 323D4 |
| BS | 122A/E1 | 323D4 |
| WK | 122A/E1 | 323D4 |
| XWB | 122A/F1 | 323D4 |

## WIDEBAND/BIT-STREAM TRUNK LINK CONN CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| BO-9 | 13606 | 237C0 |
| CO-3 | | 236C2 |
| CC | 143C3 | 237A0 |
| CCK | 143H3 | 237C3 |
| DSI | 134F3 | 237C7 |
| FA | 137E7 | 237C3 |
| FB | 137D7 | 237C3 |
| JSO-9 | 136D5 | 237C0 |
| LSK | | 236C2 |
| R | 143C1 | 237A0 |
| R1 | 143C2 | 237A0 |
| RFA | 134E3 | 237C3 |
| RFB | 134E3 | 237C3 |

## WIDEBAND/BIT-STREAM TRUNK LINK CONN CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| SLT | 136D8 | 237C0 |
| T | 143C1 | 237A0 |
| T1 | 143C2 | 237A0 |
| TFK | 137H7 | 237C0 |
| TS | 136D7 | 237C0 |
| TSGO-3 | 137H7 | 237C3 |
| TSR | 137F7 | 237C0 |
| WTLC | 137G7 | 237E6 |

## REMOTE OFFICE TEST LINE REGISTER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| CGA | 6A/G7 | 245C0 |
| CGAI | 6A/G7 | 245C0 |
| CGB | 6A/G7 | 245C0 |
| CGBI | 6A/G7 | 245C0 |
| ETSO,1 | 18D0 | 245C0 |
| LLPT | 79E7 | 245C0 |
| MT3 | 79C7 | 245C0 |
| MT9 | 79C7 | 245C0 |
| MT10 | 71G7 | 245C0 |
| MT25 | 4788 | 245C0 |
| MT26 | 4788 | 245C0 |
| NGTA-H | 75G6 | 245D1 |
| NTLS | 79E7 | 245C0 |
| OTSO,1 | 18D0 | 245C0 |
| SA | 114A/G0 | 245A/C0 |
| SAT | 114B/E8 | 245C0 |
| SLB | 71A3 | 245C0 |
| TNGA | 72F5 | 245D1 |
| TRSI | 114B/A0 | 245C0 |
| TTO-9 | 18D0 | 245C0 |
| TTIO-19 | 18F3 | 245C0 |
| TTA | 109H5 | 245A/C0 |

## BIT-STREAM CONTINUITY CHECK CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| CCK | 143H2 | 133C/F7 |
| CCKI | 143H2 | 133C/F7 |
| DF | 143G2 | 133C/F7 |
| DFI | 143H2 | 133C/F7 |

## DISTRIBUTOR AND SCANNER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| 2DT | 20A/H2 | 246D3 |
| 11 | 20A/D1 | 246D3 |
| A0 | 51H2 | 246D3 |
| A1 | 52H2 | 246D3 |
| A2 | 53H2 | 246D3 |
| A4 | 54H2 | 246D3 |
| A7 | 55H2 | 246D3 |
| B0 | 51H2 | 246D3 |
| B1 | 52H2 | 246D3 |
| B2 | 53H2 | 246D3 |
| B4 | 54H2 | 246D3 |
| B7 | 55H2 | 246D3 |
| C0 | 51H2 | 246D3 |
| C1 | 52H2 | 246D3 |
| C2 | 53H2 | 246D3 |
| C4 | 54H2 | 246D3 |
| C7 | 55H2 | 246D3 |
| CKG | 37B9 | 246D3 |
| D0 | 51H2 | 246D3 |
| D1 | 52H2 | 246D3 |
| D2 | 53H2 | 246D3 |
| D4 | 54H2 | 246D3 |
| D7 | 55H2 | 246D3 |
| E0 | 51H2 | 246D3 |
| E1 | 52H2 | 246D3 |
| E2 | 53H2 | 246D3 |
| E4 | 54H2 | 246D3 |
| E7 | 55H2 | 246D3 |
| F0 | 51H2 | 246D3 |
| F1 | 52H2 | 246D3 |
| F2 | 53H2 | 246D3 |
| F4 | 54H2 | 246D5 |
| F7 | 55H2 | 246D5 |
| FN | 70E8 | |
| FNA | 70E8 | |
| FNB | 70E8 | |
| FSO-29 | 16H0 | 246D5 |
| FTTO-4 | 3D9 | 246D5 |
| FUTO-9 | 3D0 | 246D5 |
| FVD | 20A/D1 | 246D5 |
| G0 | 51H2 | 246D5 |
| G1 | 52H2 | 246D5 |
| G2 | 53H2 | 246D5 |
| G4 | 54H2 | 246D5 |
| G7 | 55H2 | 246D5 |
| H0 | 51H2 | 246D5 |
| H1 | 52H2 | 246D5 |
| H2 | 53H2 | 246D5 |
| H4 | 54H2 | 246D5 |
| H7 | 55H2 | 246D5 |
| HGTO-9 | 5A/A9 | 246D5 |
| HMG1 | 34C/B9 | 246D5 |
| ITR | 22B9 | 246D5 |
| J0 | 51H2 | 246D5 |
| J1 | 52H2 | 246D5 |
| J2 | 53H2 | 246D5 |
| J4 | 54H2 | 246D5 |
| J7 | 55H2 | 246D5 |

## DISTRIBUTOR AND SCANNER CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| KO | 51H2 | 246D5 |
| K1 | 52H2 | 246D5 |
| K2 | 53H2 | 246D5 |
| K4 | 54H2 | 246D5 |
| K7 | 55H2 | 246D5 |
| LO | 51H2 | 246D5 |
| L1 | 52H2 | 246D5 |
| L2 | 53H2 | 246D5 |
| L4 | 54H2 | 246D5 |
| L7 | 55H2 | 246D5 |
| LRA | 103B0 | 246D5 |
| LT | 20A/D1 | 246D5 |
| LT1,LT2,LT3 | 20A/D1 | 246D5 |
| MO | 51H2 | 246D5 |
| M1 | 52H2 | 246D5 |
| M2 | 53H2 | 246D5 |
| M4 | 54H2 | 246D7 |
| M7 | 55H2 | 246D7 |
| MB | 39A/C0 | 246D7 |
| MT | 79A6 | 246D7 |
| NOB | 109C8 | 246D7 |
| NSP | 114A/A6 | 246D7 |
| OBS | 109C8 | 246D7 |
| OSK | 44C3 | 246D7 |
| PO | 20B/B4 | 246D7 |
| PK | 20B/B4 | 246D7 |
| PK1 | 20B/B4 | 246D7 |
| PS | 20B/B4 | 246D7 |
| RK3 | 20O | 246D7 |
| RP | 7E1 | 246D7 |
| SMP | 114A/A6 | 246D7 |
| TBO-9 | 17F0 | 246D7 |
| TK | 31B/B8 | 246D7 |
| TOG | 22C9 | 246D7 |
| TP | 7E1 | 246D7 |
| TSO-19 | 19A9 | 246D7 |
| TT | 20A/D1 | 246D7 |
| VFTO-4 | 5B/A2 | 246D7 |
| VGTO-11 | 5A/A0 | 246D7 |
| X11 | 20A/H2 | 246D7 |

## COMPUTER LINE IDENTIFICATION ACCESS CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| AST | 61D0 | 247C0 |
| CGA | 6A/E6 | 247C0 |
| CGAI | 6A/E6 | 247C0 |
| CGB | 6A/E6 | 247C0 |
| CGBI | 6A/E6 | 247C0 |
| LF | 103B/B4 | 247C0 |
| LLB | 4A/F6 | 247C0 |
| LLPX | 70C7 | 247C0 |
| LSC | 43A0 | 247C0 |
| MF | 79A6 | 247C0 |
| MT10 | 71F6 | 247C0 |
| MT11 | 79C6 | 247C0 |
| MT19 | 71F8 | 247C0 |
| NGB | 61B2 | 247C0 |
| NOLL | 4B/E3 | 247C0 |
| PBN | 70H9 | 247C0 |
| PMO | 70H9 | 247C0 |
| RC1-15 | 70C7 | 247C0 |
| SF1 | 83A/A3 | 247C0 |
| STOO-39 | 61B2 | 247C0 |
| STX | 8680 | 247C0 |
| TNK | 70C7 | 247C0 |
| TRB | 81C1 | 247C0 |

## INTERFACE AND CONTROL CKT

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| ITR | 38D1 | 133A/F7 |
| 2TR | 38D1 | 133A/F7 |
| LR | 23F9 | 81A3 |
| LRI | 23F9 | 85A3, 90A5 |
| MB | 39A/C1 | 133A/H5 |
| PC | 122B/A9 | 133A/A5 |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-A36A

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

SD-26002-01-A36A

CBL-176 (9-68) (A)

# LEAD INDEX

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS)** | | |
| 1T | ~~20A/H7~~ | 255D2 |
| 2DT | 20A/A1 | 255D2 |
| 2W | 93C8 | 255D2 |
| 4W | 93C8 | 255D2 |
| A0 | 51H1 | 255D2 |
| A1 | 52H2 | 255D2 |
| A2 | 53H2 | 255D2 |
| A4 | 54H2 | 255D2 |
| A7 | 55H2 | 255D2 |
| ACD | 93C3 | 255D2 |
| ADD | 115A8 | 255D0 |
| ANG | 11509 | 257B2 |
| AOT | 21B/B1 | 255D2 |
| ASB | 13H0 | 255D2 |
| ATB | 39B/C3 | 255D2 |
| ATT | 21A/D6 | 255D2 |
| B0 | 51H1 | 255D2 |
| B1 | 52H2 | 255D2 |
| B2 | 53H2 | 255D2 |
| B4 | 54H2 | 255D2 |
| B7 | 55H2 | 255D2 |
| C0 | 51H1 | 255D2 |
| C1 | 52H2 | 255D2 |
| C2 | 53H2 | 255D2 |
| C4 | 54H2 | 255D2 |
| C7 | 55H2 | 255D2 |
| CDN | 115G8 | 255D2 |
| CNS | 83B/A2 | 255B0 |
| CNTI | 100B/H3 | 255D2 |
| CR | 20B/C3 | 255D2 |
| | 7A1 | 255D2 |
| | | 255D5 |
| DNC | | |
| DR | | |
| DTF | | |
| DTI | 21B/A1 | |
| E0 | 51H1 | 255D5 |
| E1 | 52H2 | 255D5 |
| E2 | 53H2 | 255D5 |
| E4 | 54H2 | 255D5 |
| E7 | 55H2 | 255D5 |
| ECN | 63H1 | 255D5 |
| F0 | 51H1 | 255D5 |
| F1 | 52H2 | 255D5 |
| F2 | 53H2 | 255D5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS)** | | |
| F6 | 54H2 | 255D5 |
| F7 | 55H2 | 25505 |
| FAC | 21A/A2 | 25505 |
| FC | 93C3 | 255D5 |
| FGO-2 | 16D1 | 255D5 |
| FN | 70E8 | 255D7 |
| FNA | 70E8 | 255D7 |
| FM | 40C0 | 255D5 |
| FNB | 70E8 | 255D7 |
| FSO-29 | 16H0 | 255D7 |
| FTO-3 | 10B | 255D7 |
| FUG,1,2,4,7 | 10B | 255D7 |
| FVD | 20A/A1 | 255D7 |
| G0 | 51H1 | 255D7 |
| G1 | 52H2 | 255D7 |
| G2 | 53H2 | 255D7 |
| G4 | 54H2 | 255D7 |
| G7 | 55H2 | 255D7 |
| GLC | 44C8 | 255D7 |
| H0 | 51H1 | 255D7 |
| H1 | 52H2 | 255D7 |
| H2 | 53H2 | 255D7 |
| H4 | 54H2 | 255D7 |
| H7 | 55H2 | 255D7 |
| HGO,1,2,4,7 | 10B | 256D0 |
| HMG | 21B/A5 | 257B2 |
| HTO | 51B1 | 256D0 |
| HT1 | 52C1 | 256D0 |
| HT2 | 53AC | 256D0 |
| HT4 | 54A0 | 256D0 |
| HT7 | 55A1 | 256D0 |
| HTR | 83B/A2 | 255B0 |
| INC | 21A/A2 | 256C0 |
| IRT | 79D4 | 256D0 |
| J0 | 51H1 | 256D0 |
| J1 | 52H2 | 256D0 |
| J2 | 53H2 | 256D0 |
| J4 | 54H2 | 256D0 |
| J7 | 55H2 | 256D0 |
| K0 | 51H1 | 256D0 |
| | 52H2 | 256D0 |
| LCC0 - | | |
| LCK | | |
| LR | 23F9 | 256D0 |
| LRI | 23F9 | 256D0 |
| LT | 20A/A1 | 256D2 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS)** | | |
| LT1-3 | 20A/A1 | 256D2 |
| LTR | 83B/F7 | 255B0 |
| LTRG | 83B/F7 | 257B2 |
| M0 | 51H1 | 256D2 |
| M1 | 52H2 | 256D2 |
| M2 | 53H2 | 256D2 |
| M4 | 52H2 | 256D2 |
| M7 | 55H2 | 256D2 |
| MB | 39A/C0 | 256D2 |
| MDI | 2660 | 256D2 |
| MF | 20B/C3 | 256D2 |
| MON | 79A3 | 256D3 |
| MT | 79A6 | 256D2 |
| MT13 | 79A4 | 256D2 |
| MTK | 80C4 | 256D2 |
| MTR | 83B/A2 | 255B0 |
| N7 | 55E9 | 256D2 |
| NAD | 115A8 | 255B0 |
| NH | 8580 | 256D2 |
| NN | 8580 | 256D2 |
| NOB | 109C8 | 256D2 |
| NPU | 62A/B1 | 256D2 |
| NSI | 42C4 | 255B0 |
| NSIG | 42E2 | 257B2 |
| NT | 85D1 | 256D2 |
| OA | 20A/A1 | 256D2 |
| OB | 20A/A1 | 256D2 |
| OBS | 109C8 | 256D2 |
| OCN | 63H1 | 256D2 |
| OFH | 107E7 | 256D2 |
| OR | 21A/A1 | 256D2 |
| ORT | 79B4 | 256D2 |
| OV | 41A/D8 | 256D2 |
| PCD | 21A/A2 | 256D2 |
| PCD1 | 21A/A2 | 256D2 |
| PCR | 21A/A2 | 256D2 |
| PD | 20B/C3 | 256D2 |
| PHC | 20A/A1 | 256D2 |
| PK | 20B/C3 | 256D5 |
| PS | 20B/C3 | 256D5 |
| PSI | 35B/D7 | 256D5 |
| PSG | 35B/D7 | 256D5 |
| | 66D9 | 256D5 |
| | | 256D5 |
| SCB | | |
| SCK | 20B/C3 | 256D5 |
| SCN | 20B/C3 | 256D5 |
| SCT | 81G7 | 256C5 |
| SIA0-11 | 42C7 | 256D5 |
| SIB0-11 | 42C7 | 256D5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS)** | | |
| SPK | 85G2 | 256D5 |
| SPL | 85E1 | 256D5 |
| TAN | 21A/A2 | 256D5 |
| TAN1-4 | 21A/A2 | 256D5 |
| TBO-9 | 17D0 | 256D5 |
| TBX | 17D0 | 256D7 |
| TCA | 21A/A2 | 256C7 |
| TCB | 21A/A2 | 256D7 |
| TER | 22F3 | 255B0 |
| TERG | 22H2 | 257B2 |
| THC | 20A/A1 | 256D7 |
| THTO-3 | 49C/G3 | 256D7 |
| TOL | 21A/A2 | 256D7 |
| TP | 7E1 | 256D7 |
| TR2 | 22C0 | 256D7 |
| TRF | 21A/C7 | 256D7 |
| TRK | 22C0 | 256D7 |
| TRST | 81D5 | 256D7 |
| TSO-19 | 19A9 | 256D7 |
| TST | 23F9 | 256D7 |
| TT | 20A/A1 | 256D7 |
| TTO | 51B1 | 256D7 |
| TTI | 52C1 | 256D7 |
| TT2 | 53A0 | 256D7 |
| TT4 | 54A0 | 256D7 |
| TT7 | 55A1 | 256D7 |
| UTO | 51B1 | 256D7 |
| UT1 | 52C1 | 256D7 |
| UT2 | 53A0 | 256D7 |
| UT4 | 54A0 | 256D7 |
| UT7 | 55A1 | 256D7 |
| VFO-4 | 1D8 | 256D7 |
| VGO,1,2,4,7, | 1D8 | 257B0 |
| IO | | |
| VTC | 93C3 | 257B0 |
| WKC | 93C3 | 257B0 |
| XII | 20A/A1 | 257B0 |
| XTRK | 86D7 | 255B0 |
| XTRKG | 86D7 | 257B2 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **ETS POWER AND DATA INTERFACE CKT (PDI)** | | |
| AST | 61D0 | 261D5 |
| CGA | 6A/E6 | 261D5 |
| CGAI | 6A/E6 | 261D5 |
| CGB | 6A/E6 | 261D5 |
| CGBI | 6A/E6 | 261D5 |
| CI | 105F0 | 261D5 |
| CIO-4 | 105F0 | 261D5 |
| LF | 103B/B5 | |
| LLB | 4A/F6 | 261D5 |
| LLPX | 70D6 | 261D5 |
| LOLC | 77G5 | 261D5 |
| LR | 23F9 | |
| LRI | 23F9 | |
| LSC | 43A0 | 261D5 |
| MB | 39A/F0 | 261D5 |
| MBG | 39A/F0 | 261D5 |
| NT | 79A6 | 261D5 |
| MT10 | 71F6 | 261D5 |
| MT11 | 79D6 | 261D5 |
| MT19 | 71F8 | 261D5 |
| NGB | 6132 | 261D5 |
| NOLL | 4B/E3 | 261D5 |
| OFK | 70G8 | 261D5 |
| PBN | 70H9 | 261D5 |
| PMO | 70H9 | 261D5 |
| RC | 77D1 | 261D5 |
| RCL | 77D1 | 261D5 |
| RCI-15 | 70D6 | 261D5 |
| SFI | 83A/A3 | 261D5 |
| STO-39 | 61B1 | 261D5 |
| STX | | 261D5 |
| TRB | 81C1 | 261D5 |
| TRC | 70D6 | 261D5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MARKER DISTRIBUTOR CONTROL CKT (MDC)** | | |
| 2WD | 97F6 | 258D0 |
| 2WDI | 97F6 | 258D0 |
| 4DG | 50H7 | 258D0 |
| 5DLT | 68/A8 | 258D0 |
| 7DLT | 68/A8 | 258D0 |
| A0 | 51D9 | 258D0 |
| A1 | 52D9 | 258D0 |
| A2 | 53E9 | 258D0 |
| A4 | 54E8 | 258D0 |
| A7 | 55C9 | 258D0 |
| ADD | 115A8 | 258D0 |
| AEN | 60G5 | 258D0 |
| AK | 6488 | 258C0 |
| APN | 60G5 | 258D0 |
| ATN | 60G5 | 258D0 |
| ANIS | 28B/E7 | 258D0 |
| AO | 68/D4 | 258D0 |
| ARO | 46H5 | 258D0 |
| AR1 | 46H5 | 258D0 |
| AR2 | 46H5 | 258D0 |
| AR4 | 46H5 | 258D0 |
| AR7 | 46H5 | 258D0 |
| ASB | 40C5 | 258D0 |
| BEN | 60G5 | 258D0 |
| BH | 66A2 | 258D0 |
| BPN | 60G5 | 258D0 |
| BRO | 46H5 | 258D0 |
| BR1 | 46H5 | 258D0 |
| BR2 | 46H5 | 258D0 |
| BR4 | 46H5 | 258D0 |
| BR7 | 46H5 | 258D0 |
| BRA | 108F5 | 258D2 |
| BRAI | 108H6 | 258D2 |
| BRAL | 108H6 | 258D2 |
| BRG | 28B/A6 | 258D2 |
| BS1-4 | 62A/A8 | 258.2 |
| BS5 | 69C0 | 258D2 |
| BS6 | 68A0 | 258D2 |
| BS7 | 6780 | 258D2 |
| BS8-10 | 70A1 | 258D2 |
| BS11 | 6500 | 258D2 |
| BS12 | 62A/B4 | 258D2 |
| BS13 | 103B/D8 | 258D2 |
| BSN | 62B/D2 | 258D2 |
| BTN | 6065 | 258D2 |
| BY1 | 103B/E4 | 258D2 |
| BY2 | 103B/E5 | 258D2 |
| C0 | 51D9 | 258D2 |
| C1 | 52D9 | 258D2 |
| C2 | 53E9 | 258D2 |
| C4 | 53E8 | 258D2 |
| C7 | 55C9 | 258D2 |
| CAM | 29B/D0 | 258D2 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MARKER DISTRIBUTOR CONTROL CKT (MDC)** | | |
| CB | 100B/D2 | 258D2 |
| CGS | 6B/A8 | 258D2 |
| | 35B/D0 | 258D2 |
| | 35B/E0 | 258D2 |
| CH | 59A/H9 | 258D2 |
| CHA | 31B/F7 | 258D2 |
| CHAG | 31B/F7 | 258D2 |
| CKG | 39A/G5 | 258D2 |
| CKGI | 39A/G5 | 258D2 |
| CKO | 64F4 | 258D5 |
| CKOI | 64F4 | 258D5 |
| CKR | 64F0 | 258D5 |
| CLI-8 | 48H7 | 258D5 |
| CLG | 28A/A3 | 258D5 |
| CLK | 29A/A3 | 258D5 |
| CLKI | 29A/A3 | 258D5 |
| CMF | 28B/G7 | 258D5 |
| CMJ | 28B/G7 | 258D5 |
| CN | 68/D4 | 258D5 |
| CNT | 100B/F4 | 258D5 |
| CPI | 50A7 | 258D5 |
| CP7 | 50E7 | 258D5 |
| CSTO-9 | 6A/A6 | 258D5 |
| CSUO-9 | 6A/B2 | 258D5 |
| CTG | 64A5 | 258D5 |
| CTUK | 100B/C0 | 258D5 |
| D0 | 51D9 | 258D5 |
| D1 | 52D9 | 258D5 |
| D2 | 53E9 | 258D5 |
| D4 | 54E8 | 258D5 |
| D7 | 55C9 | 258D7 |
| DAPG | 62B/E7 | 258D7 |
| DAT | 105G4 | 258D7 |
| DC1-4 | 36G4 | 258D7 |
| DC5-8 | 36F8 | 258D7 |
| DC9 | 36C6 | 258D7 |
| DC10 | 36C6 | 258D7 |
| DIS | 37D8 | 258D7 |
| DISI | 37D8 | 258D7 |
| DLI | 498/A4 | 258D7 |
| DLT | 68/A8 | 258D7 |
| DR | 28B/D1 | 258C7 |
| DVC | 34B/B0 | 258D7 |
| DISA | 39A/H1 | 258D7 |
| EB | 18G3 | 258D7 |
| ESK | 97D4 | 258D7 |
| ET | 18G3 | 258D7 |
| ETS | 18G3 | 258D7 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MARKER DISTRIBUTOR CONTROL CKT (MDC)** | | |
| F0 | 51D9 | 258D7 |
| F1 | 5209 | 258D7 |
| F2 | 53E9 | 258D7 |
| F4 | 54E8 | 258D7 |
| F7 | 55D9 | 258D7 |
| FM | 40B4 | 259E0 |
| FC1 | 18G4 | 258D7 |
| FC2 | 18G4 | 258D7 |
| FCK | 17H6 | 259E0 |
| FKA | 103B/D7 | 259E0 |
| FK8 | 103B/H6 | 259E0 |
| FKC | 36C9 | 259E0 |
| FKD | 36C9 | 259E0 |
| FLG | 62A/E0 | 259E0 |
| FLH | 34A/B6 | 259E0 |
| FM | 40B3 | |
| FMI | 40A3 | 259E0 |
| FM2 | 40A3 | 259E0 |
| FNA | 70E6 | 259E0 |
| FNK | 77H5 | 259E0 |
| FNL | 7006 | |
| FSO-9 | 15F6 | 259E0 |
| FS10-9 | 15C6 | 259E0 |
| FS20-29 | 90H3 | 259E0 |
| FTCK | 1530 | 259C0 |
| FTCKI | 15H0 | 259D0 |
| FTL | 3G6 | 259E0 |
| FU10-5 | 70A8 | 259D0 |
| FUL | 3H0 | 259E0 |
| FUN0-9 | 7048 | 259F0 |
| G0 | 51D9 | 259E0 |
| G1 | 52C9 | 259E0 |
| G2 | 53E9 | 259E0 |
| G4 | 54E8 | 259E0 |
| G7 | 5509 | 259E0 |
| GTK | 358/H3 | 259E0 |
| GTKI | 353/H4 | 259E0 |
| H0 | 51D9 | 259E2 |
| H1 | 52D9 | 259E2 |
| H2 | 53E9 | 259E2 |
| H4 | 54E8 | 259E2 |
| H7 | 55D9 | 259E2 |
| HF | 64E7 | 259E2 |
| HCL | 5A/H6 | 259E2 |
| HGTO-9 | 5A/A9 | 259E2 |
| HNO | 51H6 | 259E2 |
| HN1 | 52H6 | 259E2 |
| HN2 | 53H6 | 259E2 |
| HN4 | 54H5 | 259E2 |
| HN7 | 55G5 | 259E2 |
| HTR | 83B/A2 | 259E2 |
| HTUK | 62A/A0 | 259E2 |
| IB1 | 883/B7 | 259E2 |
| IB2 | 888/B7 | 259E2 |
| IDNF | 115F9 | 259E2 |
| IDNM | 115F9 | 259E2 |
| IH | 88A/F7 | 259E2 |
| IHI | 88A/F7 | 259E2 |
| ING | 45C0 | 259E2 |
| INGK | 45C0 | 259E2 |
| ING | 6604 | 259E2 |

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 65B |

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| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MARKER DISTRIBUTOR CONTROL CKT (MDC)** | | |
| J0 | 51D9 | 259E2 |
| J1 | 52D9 | 259E2 |
| J2 | 53E9 | 259E2 |
| J4 | 54E8 | 259E2 |
| J7 | 55C9 | 259E2 |
| JC | 40D2 | 259E2 |
| JC1 | 40D3 | 259E2 |
| K0 | 51D9 | 259E2 |
| K1 | 52D9 | 259E2 |
| K2 | 53E9 | 259E2 |
| K4 | 54E8 | 259E2 |
| K7 | 55C9 | 259E2 |
| KG | 57A/D5 | 259E2 |
| KK | 57A/D6 | 259E2 |
| KN | 57A/D5 | 259E5 |
| L0 | 51D9 | 259E5 |
| L1 | 52D9 | 259E5 |
| L2 | 53E9 | 259E5 |
| L4 | 54E8 | 259E5 |
| L7 | 55C9 | 259E5 |
| LB | 108F5 | 259E5 |
| LCH | 59A/F9 | 259E5 |
| LDA | 28A/D2 | 259E5 |
| LDA1 | 28A/D2 | 259E5 |
| LDN | 105C4 | 259E5 |
| LF | 103B/A6 | 259E5 |
| LFG | 103B/A6 | 259E5 |
| LFK | 4A/A4 | 259E5 |
| LFK1 | 4A/D5 | 259E5 |
| LGT | 358/A5 | 259E5 |
| LLCA | 23A8 | 259E5 |
| LLES | 97D4 | 259E5 |
| LOLD | 47F9 | 259E5 |
| LLPA | 88C/F2 | 259E5 |
| LLPB | 88C/F2 | 259E5 |
| LLS | 44H2 | 259E5 |
| LRA | 103A/B0 | 259E5 |
| LRAU | 103A/B0 | 259E5 |
| LSC1 | 43A1 | 259E5 |
| LST | 50H7 | 259E5 |
| LTI | 103A/B0 | 259E5 |
| LTIL | 103A/B1 | 259E5 |
| M0 | 51D9 | 259E5 |
| M1 | 52D9 | 259E5 |
| M2 | 53E9 | 259E5 |
| M4 | 54E8 | 259E5 |
| M7 | 55C9 | 259E5 |
| MD | 26D0 | 259E5 |
| MD1 | 26D0 | 259E5 |
| MLT | 68/A8 | 259E5 |
| MRA | 68/D4 | 259E5 |
| MT5 | 19H6 | 259E7 |
| MT5A | 19H6 | 259E7 |
| MT25 | 47B7 | 259E7 |
| MT25A | 47B7 | 259E7 |
| MTR | 83B/A2 | 259E7 |
| N7 | 55C9 | 259E7 |
| NAD | 115A8 | 259E7 |
| NBS | 62B/D2 | 259E7 |
| NCCN | 28B/A5 | 259E7 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MARKER DISTRIBUTOR CONTROL CKT (MDC)** | | |
| NCNC | 28B/A5 | 259E7 |
| NCRA | 62A/B5 | 259E7 |
| NCTC | 28B/A5 | 259E7 |
| NDI | 109D7 | 259E7 |
| NE | 60H3 | 259E7 |
| NGS | 62A/C0 | 259E7 |
| NR | 62A/H1 | 259E7 |
| NSO | 42A4 | 259E7 |
| NSR | 42A4 | 259E7 |
| NTC | 29A/D3 | 259E7 |
| NTP | 29A/A6 | 259E7 |
| OB | 18G3 | 259E7 |
| OBS | 109A2 | 259E7 |
| OBSI | 109A2 | 259E7 |
| OLI | 44F1 | 259E7 |
| OL2 | 44F1 | 259E7 |
| OLTL | 19C7 | 259E7 |
| OSG | 42E2 | 259E7 |
| OSGO-11 | 42A4 | 259E7 |
| OSK | 44H2 | 26D0 |
| OSKT | 44C3 | 26D0 |
| OT | 18G3 | 26D0 |
| OTI | 109H4 | 26D0 |
| OT2 | 109H4 | 26D0 |
| OT3 | 109H4 | 26D0 |
| OTS | 18G3 | 26D0 |
| OVC | 40C8 | 26D0 |
| PBN | 70F9 | 26D0 |
| PBX | 35B/C9 | 26D0 |
| PBX1 | 35B/C9 | 26D0 |
| PBX2 | 64A5 | 26D0 |
| PBY | 88C/A0 | 26D0 |
| PBYG | 88C/A0 | 26D0 |
| PDCO | 28B/D7 | 26D0 |
| PDC1 | 28B/D7 | 26D0 |
| PDK | 103/B6 | 26D0 |
| PMO | 70F9 | 26D0 |
| PN | 63A9 | 26D0 |
| POTS | 105C4 | 26D0 |
| PSR | 28A/F0 | 26D0 |
| PSR1 | 28A/F0 | 26D0 |
| PST | 28A/A5 | 26D0 |
| PTK | 63A4 | 26D0 |
| PUT | 62A/E0 | 26D0 |
| R1 | 40A6 | 26D0 |
| R2 | 40A6 | 26D0 |
| RA1 | 88A/C8 | 26D0 |
| RAG | 88A/C8 | 26D0 |
| RB | 28B/H5 | 26D0 |
| RBT | 41B/D8 | 26D0 |
| RCL | 77F0 | 26D0 |
| RCT | 77B1 | 26C0 |
| RCT1-9 | 77B1 | 26D0 |
| RCT11-15 | 77B1 | 26D0 |
| RCY2 | 72E2 | 26D0 |
| RCYA | 66G6 | 26D2 |
| RCYB | 66G6 | 26D2 |
| RF1 | 41P/F7 | 26D2 |
| RF2 | 41A/A8 | 26D2 |
| RF3 | 41B/F7 | 26D2 |
| RGT | 63H7 | 26D2 |
| RGTR | 28A/D0 | 26D2 |
| RI | 66A2 | 26D2 |
| RLT | 35B/B4 | 26D2 |
| RR | 28A/E1 | 26D2 |
| RS | 78B/F6 | 26D2 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MARKER DISTRIBUTOR CONTROL CKT (MDC)** | | |
| RS6 | 78B/E6 | 26D2 |
| RS9 | 78B/F6 | 26D2 |
| RV | 23E1 | 26D2 |
| RV1 | 23E0 | 26D2 |
| RV3 | 23E0 | 26D2 |
| RV11 | 23E1 | 26D2 |
| RYT | 84A5 | 26D2 |
| RYT1 | 84E8 | 26D2 |
| RYT7 | 84E8 | 26D2 |
| SC | 7B6 | 26D2 |
| SCK | 7C6 | 26D2 |
| SCG | 7C7 | 26D2 |
| SK1 | 57B/C5 | 26D2 |
| SK2 | 57B/F8 | 26D2 |
| SK3 | 57D/C5 | 26D2 |
| SK4 | 30A/C1 | 26D2 |
| SKB | 30A/C1 | 26D2 |
| SNG | 62A/C0 | 26D2 |
| SNG1 | 62A/C0 | 26D2 |
| SNK | 39B/F3 | 26D2 |
| T1 | 29A/H4 | 26D2 |
| T2 | 29A/H4 | 26D2 |
| T3 | 29A/G6 | 26D2 |
| T4 | 54H5 | 26D2 |
| TASB | 40C5 | 26D2 |
| TB0-9 | 17D0 | 26D2 |
| TBG | 17H6 | 26D2 |
| TBI | 66A2 | 26D5 |
| TBI1 | 66E6 | 26D5 |
| TBT | 39B/A6 | 26D5 |
| TBTL | 39B/A6 | 26D5 |
| TBTS | 39B/A6 | 26D5 |
| TBX | 17D0 | 26D5 |
| TC | 77H5 | 26D5 |
| TCCA | 24A/F4 | 26D5 |
| TCCK | 24A/F4 | 26D5 |
| TCCN | 28B/A5 | 26D5 |
| TCG | 24A/F3 | 26D5 |
| TCGG | 6A/H4 | 26D5 |
| TCH | 59A/H9 | 26D5 |
| TCN | 29A/D3 | 26D5 |
| TCNC | 28B/A5 | 26D5 |
| TGTK | 35B/H3 | 26D5 |
| THO | 51H6 | 26D5 |
| THI | 52C4 | 26D5 |
| TH2 | 53D4 | 26D5 |
| TH4 | 54H5 | 26D5 |
| TH7 | 55E4 | 26D5 |
| TING | 66D4 | 26D5 |
| TLGT | 35B/A3 | 26D5 |
| TLS | 44H2 | 26D5 |
| TM | 39A/F5,G5 | 26D5 |
| TMI | 39A/F5 | 26D5 |
| TMS | 39H/D3 | 26D5 |
| TMG | 39B/D8 | 26D5 |
| TNO | 51H6 | 26D5 |
| TNI | 52H6 | 26D5 |
| TN2 | 53G5 | 26D5 |
| TN4 | 54H5 | 26D5 |
| TN7 | 55G5 | 26D5 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MARKER DISTRIBUTOR CONTROL CKT (MDC)** | | |
| TOA | 22E9 | 26D5 |
| TOGA | 22E3 | 26D5 |
| TOGB | 22E3 | 26D5 |
| TOS | 28B/G3 | 26D5 |
| TOSK | 44H2 | 26D7 |
| TP | 30B/D9 | 26D7 |
| TPI | 30B/D9 | 26D7 |
| TPG | 30B/D9 | 26D7 |
| TPK | 29A/A6 | 26D7 |
| TRA | 28A/D2 | 26D7 |
| TRA1 | 28A/D2 | 26D7 |
| TSO-9 | 19G0 | 26D7 |
| TSE | 16C1 | 26D7 |
| TSE1 | 16C1 | 26D7 |
| TSG | 18C7 | 26D7 |
| TST | 105D1 | 26D7 |
| TTK1 | 109E4 | 26D7 |
| TTK2 | 109E4 | 26D7 |
| TTK3 | 109E4 | 26D7 |
| TTL | 105G0 | 26D7 |
| TTL1 | 4A/C3 | 26D7 |
| TTL2 | 4A/C3 | 26D7 |
| TTL3 | 4A/F1 | 26D7 |
| TTL4 | 4A/F1 | 26D7 |
| TTL5 | 4A/C3 | 26D7 |
| TTL6 | 4A/C3 | 26D7 |
| TTL7 | 4A/C3 | 26D7 |
| TTP | 29A/A6 | 26D7 |
| TYM | 63G6 | 26D7 |
| TYM1 | 63G6 | 26D7 |
| U0 | 51H6 | 26D7 |
| U1 | 52H6 | 26D7 |
| U2 | 53G5 | 26D7 |
| U4 | 54H5 | 26D7 |
| U7 | 55G5 | 26D7 |
| VFL | 5B/G3 | 26D7 |
| VFTO-4 | 5B/A2 | 261C0 |
| VGL | 5A/H3 | 261C0 |
| VGTO-11 | 5A/A0 | 261C0 |
| XB | 49B/C0 | 261C0 |
| XIMG | 87A2 | 261C0 |
| XLAT | 24A/B3 | 261C0 |
| XLAT1 | 24A/B3 | 261C0 |
| XLF1 | 86H4 | 261C0 |
| XLF2 | 86H4 | 261C0 |
| XLFL | 87H5 | 261C0 |
| XR | 87E7 | 261C0 |
| XT | 24A/B0 | 261C0 |
| XT1 | 48B0 | 261C0 |
| XT2 | 49B/C0 | 261C0 |
| XT3 | 48D0 | 261C0 |
| XTG | 18C7 | 261C0 |
| XTS | 87C7 | 261C0 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **CALL DATA TRANSMITTER APPLICATION CKT (CDT APPL)** | | |
| A0 | 51A1 | 26400 |
| A1 | 52A1 | 26400 |
| A2 | 53A2 | 26400 |
| A4 | 54A2 | 26400 |
| A7 | 55A2 | 26400 |
| AIOD | 85D0 | 26400 |
| B0 | 51A1 | 26400 |
| B1 | 52A1 | 26400 |
| B2 | 53A2 | 26400 |
| B4 | 54A2 | 26400 |
| B7 | 55A2 | 26400 |
| C0 | 51A1 | 26400 |
| C1 | 52A1 | 26400 |
| C2 | 53A2 | 26400 |
| C4 | 54A2 | 26400 |
| C7 | 55A2 | 26400 |
| CGA | 7H1 | 26400 |
| CGB | 7H1 | 26400 |
| CKG | 37B9 | 26400 |
| CT0 | 7D1 | 26400 |
| CT1 | 7D1 | 26400 |
| CT2 | 7D1 | 26400 |
| CT4 | 7D1 | 26400 |
| CT7 | 7D1 | 26400 |
| CU0 | 7D1 | 26400 |
| CU1 | 7D1 | 26400 |
| CU2 | 7D1 | 26400 |
| CU4 | 7D1 | 26400 |
| CU7 | 7D1 | 26400 |
| D0 | 51A1 | 26400 |
| D1 | 52A1 | 26400 |
| D2 | 53A2 | 26400 |
| D4 | 54A2 | 26400 |
| D7 | 55A2 | 26400 |
| E0 | 51A1 | 26400 |
| E1 | 52A1 | 26400 |
| E2 | 53A2 | 26400 |
| E4 | 54A2 | 26400 |
| E7 | 55A2 | 26400 |
| F0 | 51A1 | 26400 |
| F1 | 52A1 | 26400 |
| F2 | 53A2 | 26400 |
| F4 | 54A2 | 26400 |
| F7 | 55A2 | 26400 |
| FN | 70E8 | 26400 |
| FNA | 70E8 | 26400 |
| FN? | 70E8 | 26400 |
| FSO-29 | 16H0 | 26404 |
| FTO-3 | 1D8 | 26404 |
| FU0 | 1D8 | 26404 |
| FU1 | 1D8 | 26404 |
| FU2 | 1D8 | 26404 |
| FU4 | 1D8 | 26404 |
| FU7 | 1D8 | 26404 |
| G0 | 51A1 | 26404 |
| G1 | 52A1 | 26404 |
| G2 | 53A2 | 26404 |
| G4 | 54A2 | 26404 |
| G7 | 55A2 | 26404 |
| H0 | 51A1 | 26404 |
| H1 | 52A1 | 26404 |
| H2 | 53A2 | 26404 |
| H4 | 54A2 | 26404 |
| H7 | 55A2 | 26404 |
| HG0 | 1D8 | 26404 |
| HG1 | 1D8 | 26404 |
| HG2 | 1D8 | 26404 |
| HG4 | 1D8 | 26404 |
| HG7 | 1D8 | 26404 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **CALL DATA TRANSMITTER APPLICATION CKT (CDT APPL)** | | |
| HMSI | 34C/B9 | 26404 |
| ITR | 22B9 | 26404 |
| J0 | 51A1 | 26404 |
| J1 | 52A1 | 26404 |
| J2 | 53A2 | 26404 |
| J4 | 54A2 | 26404 |
| J7 | 55A2 | 26404 |
| K0 | 51A1 | 26404 |
| K1 | 52A1 | 26404 |
| K2 | 53A2 | 26404 |
| K4 | 54A2 | 26404 |
| K7 | 55A2 | 26404 |
| L7 | 55A2 | 26404 |
| LT | 20A/A1 | 26404 |
| LT1 | 20A/C2 | 26404 |
| LT2 | 20A/C2 | 26404 |
| LT3 | 20A/C2 | 26404 |
| MB | 39A/C0 | 264C7 |
| MBK | 39A/C0 | 264C7 |
| MT | 79A3 | 264C7 |
| MTK | 79A3 | 264C7 |
| NOB | 109C8 | 264C7 |
| NRDO | 28B/G4 | 264C7 |
| NRD1 | 28B/G4 | 264C7 |
| OBS | 109C8 | 264C7 |
| OC | 85D0 | 264C7 |
| RCDO | 28B/G4 | 264C7 |
| RCD1 | 28B/G4 | 264C7 |
| RK3 | 2G0 | 264C7 |
| RP | 7F1 | 264C7 |
| SMP1-15 | 47H9 | 264C7 |
| SMPA | 47H9 | 264C7 |
| SOG | 22D8 | 264C7 |
| TBK | 18H5 | 264C7 |
| TP | 7F1 | 264C7 |
| VFO-4 | 1D8 | 264C7 |
| VG0 | 1D8 | 264C7 |
| VG1 | 1D8 | 264C7 |
| VG2 | 1D8 | 264C7 |
| VG4 | 1D8 | 264C7 |
| VG7 | 1D8 | 264C7 |
| VG10 | 1D8 | 264C7 |
| X11 | 20A/H4 | 264C7 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **MINI-REMOTE OFFICE TEST LINK INTERFACE CKT (MINI-ROTL)** | | |
| ALI | 40H3 | 26500 |
| ALT | 40H3 | 26500 |
| ALTI | 40H3 | 26500 |
| BT | 38A6 | 26500 |
| CKR | 64G0 | 26800 |
| CKR1 | 64G0 | 26500 |
| DIS | 37A1 | 26500 |
| ETSO,1 | 18A1 | |
| F80-29 | 15A9 | 26500 |
| FTO-3 | 1A6 | 26500 |
| FTC0-9 | 14F1 | 26500 |
| FTC10-19 | 14F6 | 26500 |
| FTC20-29 | 8A5 | 26500 |
| FUO,1,2,4,7 | 1A6 | 26500 |
| GPA | 40H3 | 26500 |
| GPB | 40H3 | 26500 |
| HGO,1,2,4,7 | 1A6 | 26504 |
| HT0 | 51A1 | 26507 |
| HT1 | 52C1 | 26504 |
| HT2 | 53A0 | 26504 |
| HT4 | 54A0 | 26504 |
| HT7 | 55A1 | 26504 |
| LLPT | 79G5 | 26504 |
| LTG | 109H2 | 26504 |
| MRL | 38A6 | 26504 |
| MT5A | 19H6 | 26504 |
| MTIO | 71E7 | 26504 |
| MT25 | 47A6 | 26504 |
| MT26 | 47B6 | 26504 |
| MT57 | 79B7 | 26504 |
| MT57A | 49B/H2 | 26504 |
| NDT | 109D5 | 26504 |
| NGTA-H | 75C6 | 26504 |
| NTLS | 79E5 | 26504 |
| OISO,1 | 18A0 | 26504 |
| OTT | 109E9 | 26504 |
| RA | 41A/C9 | 26504 |
| SB | 40H3 | 26504 |
| SLB | 71A1 | 26504 |
| TB | 40H3 | 26504 |
| TBT | 40H3 | 26504 |
| THTO-3 | 49C/C4 | 26507 |
| TNGA | 7A5 | 26507 |
| TR2 | 22H0 | 26507 |
| TRK | 22H0 | 26507 |
| TRL | 38A6 | 26507 |
| TSE1 | 19E6 | 26507 |
| TSE2 | 19E6 | 26507 |
| TT0 | 51A1 | 26507 |
| TT1 | 52C1 | 26507 |
| TT2 | 53A0 | 26504 |
| TT4 | 54A0 | 26507 |
| TT7 | 55A1 | 26507 |
| TTA0-9 | 18A0 | 26507 |
| TTA10-19 | 18A3 | 26507 |
| TTG | 109G5 | 26507 |
| UT0 | 51A1 | 26507 |
| UT1 | 52C1 | 26507 |
| UT2 | 53A0 | 26507 |
| UT4 | 53A0 | 26507 |
| UT7 | 55A1 | 26507 |
| VFO-4 | 1A6 | 26507 |
| VGO,1,2,4,7,10 | 1A6 | 26507 |

| DESIG | LOCATION FS | LOCATION CAD |
|---|---|---|
| **EXPANDED OPERATIONAL TRUNK TEST AND REMOTE TRUNK MAKE BUSY CKT (EOTT/RTMB)** | | |
| AMA | 49B/G3 | 26680 |
| SCC | 109A4 | 26680 |
| SCC1 | 109A4 | 26680 |
| TVT | 109A4 | 26680 |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S | ISSUE 67B

BELL LABORATORIES | SD-26002-01 | A36C

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COMPLETING MARKER CIRCUIT

DWG SIZE 6S | ISSUE 69B

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| J | A&M 4A | 102B (4) | 78B/F4,G4,87E7,G7 |
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| ZQ | STD 9D | 102C (2), 106 (11, 12,56, 57,132 154), 108 | 88A/G7,88B/E5,G0, G2,88C/A0,A8 |
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| YC | STD 9D | 102C (29), 106 (3,12, 101, 128, 137, 149) | APP FIG. 41,28B/B0, 29A/C4,C5,30B/E6, 88C/D1 |
| YD | MD 10B | | 17E8 |
| YE | STD 10B | 102B (13), 102D (25), 181 | 17E7,E8 |
| YF | MD 9D | | APP FIG. 30,63E4, 108B0-E0 |
| YG | STD 9D | 102C(9), 106(14, 31,42, 71) | APP FIG. 8,30,55, 63E3,F3,108B0 |
| YH | MD 10B | | 31A/H1 |
| YJ | STD 10B | 102C (8) | 3H2,31A/H1 |
| YK | MD 10B | | 30A/B3 |
| YL | STD 10B | 102C (10) | 30A/B3 |
| YM | MD 10B | | 27C3 |
| YN | STD 10B | 102C (11) | 27C3 |
| YP | MD 10B | | 15A0 |
| YQ | MD 10B | | 22D9 |
| YR | STD 10B | 102C (12) | 22D9 |
| YS | MD 10B | 101A | D1 (A14 FUSES) D2 (F1 FUSES) |
| YT | STD 10B | 101A, 102C (26) | D2 (F33,34 FUSES) |
| YW | MD 10B | | 85E3 |
| YX | STD 10B | 102C (13) | 85E3 |
| YY | STD 8D | 102B (6), 102C (1), 106 (4), 108 | APP FIG. 26,92A6,B6 |
| YZ | STD 10B | 102C (14) | 15A0,16A7 |
| XA | MD 13B | | APP FIG. 26,29A/B0, B1,29B/F0,G0, 30A/D1,E3,E5,F3, 30B/A2,A5,A7,B3,E2, E3,E5,F2,F5 |
| XB | STD 13B MD 33B | 128 | APP FIG. 26,29A/B1, 30A/D1,D2,E9, 30B/A3,A5,A7,E2,E8, F2,F3,A5,A7,E8, 36E5 |
| XE | MD 11B | | 24B9,29A/H1,H2 |
| XF | STD 11B | 102C (1), 106 (6,12) | 29A/G1,G2 |
| XG | MD 11B | | 27E8 |
| XH | STD 11B | 102B (6), 106 (7) | 27E8 |
| XJ | STD 12D | 102B(6), 106 (131), 108 | APP FIG. 25,75, 29B/C2,C3,48D1,G3, G6 |
| XM | MD 11B | | 84A/H6,H8 |
| XN | STD 11B | 102C (2), 106 (57, 66, 71) | 88A/H8 |
| XO | MD 11B | | 20A/H5,24A/D0, 24C/H0 |
| XP | STD 11B MD 33D | 128 | APP FIG. 30,24A/C0, 24C/H0 |
| XQ | MD 11B | | 57B/A1 |
| XR | STD 11B | 102C (16), 106, (8) | 57B/A1 |
| XS | MD 11B | | 84C4,F5 |
| XT | STD 11B | 102C(8), 1020 (12), 106(14, 70) | 83A/C4, 84C4,F5 |
| XU | MD 13B | | 31B/B7 |
| XV | STD 13B | 102C (17), 106 (48) | 31B/B7 |
| XW | MD 13B | | 29A/A4,B7,F8 |
| XX | STD 13B | 102C (19), 106 (12,37, 117),108 | 29A/A4,B8,D9,F9,G8 |
| XY | MD 13B STD 31D | 102C (52), 106 (23, 45), 126,128 | 108H5 |
| XZ | STD 13B A&M 31D | 106 (45), 126, 128 | 108G5 |
| WA | MD 13B | | 34A/A4 |
| WB | STD 13B | 102C (22) | 34A/A3 |
| WC | MD 13B | | 88A/G0 |
| WD | STD 13B | 102C (23) | 88A/G0 |
| WE | MD 13B | | 37C1 |
| WF | STD 13B | 102C (24) | 37C1 |
| WG | MD 13B | | 122B/D1 |
| WH | STD 13B | 102C (25) | 122B/D1 |
| WJ | STD 14B | 101A, 102C (27) | D2 (F39 FUSES) |
| WK | MD 16B | | 29A/G7,29B/C7 |
| WL | STD 16B | 102C (28) | 29B/C6 |
| WM | MD 16B | | 88C/A5 |
| WN | STD 16B | 102C (30), 106 (11, 52, 151), 108, 147 | APP FIG. 42,88C/A5, 84,85 |
| WQ | STD 16B | 102C (31), 106 (5, 12, 13,14, 47,68, 72,73, 135,139, 148), 108 | APP FIG. 48,20A/A7, A8,87,C2,H3, 24B/B9-F9,24C/C3 |
| WT | STD 16B | 102C (1), 106 (9), 108 | 28A/A2 |
| WQ | MD 16B | | APP FIG. 8 |
| WR | STD 16B | 102C (32), 106 (12,56) | APP FIG. 8 |
| WS | STD 18D | 101A, 102B (29A), 102D (33), 106 (28,29, 117), 108, 181 | APP FIG. 82,22E6, 57B/E0 |
| WT | STD 18D | 102B (33), 102D (32), 106 (29,87, 88), 108 | APP FIG. 82 |
| WU | STD 17D | 102B(31), 102C (81), 102D (18), 108 | APP FIG.33 |
| WV | A&M 17D STD 22D | 102B (31), 102D (18), 108 | APP FIG.33, 78A,C4 |
| WW | STD 17D | 102B (31), 102D (18) | APP FIG.33,78 |
| WX | A&M 17D | 102B (31) 102X(11, 12,18, 19),108 | APP FIG.11,15,18, 29,6A/F4,H4,74A, C4,D4,D6,D7,D8 |
| WY | STD 17D | 102B (31), 102D (18), 108 | APP FIG.33, 68/G3,70D7,D9,E6, E7,20A/H2,34B/C1 |
| WZ | STD 17D | 102B (32) | APP FIG.29,7C7, C9 |
| VA | STD 17D | 102B (32), 181 | APP FIG.29,86G |
| VB | STD 18D | 102C (74) | 45A7,87,D7 |
| VD | STD 18D | 101A, 102B (58), 1020(9) 108 | 29A/E3,36C0,C1, E8,61E7,F0,F7,H0, 63F0,88A/A0,10705 |
| VE | STD 18D | 101A, 102B (58), 108 | 29A/E4,C5,35B/B0, 36C0,E8,10705 |
| VF | STD 18D | 102B (58) 102D(9) | 68/F7 |
| VG | A&M 18D | 102B (58), 102D(9) | APP FIG. 123 |
| VH | STD 18D | 102B (58), 102D(9) | 15C1,79B2,C2 |
| VJ | STD 18D | 102B (58), 102D(9) 108 | APP FIG. 13,15C1, 79C2,C3,D2 |
| VK | STD 17D | 102C (33), 106 (18,61) | 44E1 |
| VL | STD 18D | 102B (58) | 35A0 |
| VM | STD 18D | 102B (58), 102D(9) | 34C/E8,99D1, |
| VN | MD 18D | | 109D4 |
| VO | STD 18D | 102C (34) | 109D4 |
| VP | MD 18D | | APP FIG. 18,22,26, 17A3,19A7,33A/H9 |
| VQ | STD 18D | 102C (39), 106 (28, 44, 86) | APP FIG. 18,22,26, 2E4,17A3,19A7, 33A/G9 |
| VR | MD 18D | | 24C/B6 |
| VS | STD 18D | 102C (35) | 24C/B6 |
| VT | MD 18D | | 43C2,H6 |
| VU | STD 18D | 102C (36) | 43C2,H6 |
| VV | MD 18D | | 57B/H6,G6 |
| VW | STD 18D | 102C (37) | 57B/H6 |
| VX | MD 18D | | 44G3 |
| VY | STD 18D | 102C (38) | 44G3 |
| VZ | STD 21D | 102C (40), 108 | APP FIG. 48,20A/C2 |
| UA | MD 21D STD 39D | 102C (103), 128 | 27F1,F2,G2 |
| UB | STD 21D MD 39D | 128 | 27F1,F2 |
| UD | MD 21D | 145 | APP FIG. 78 |
| UE | STD 21D | 102B (31), 102D (18), 106, (14) | APP FIG. 78 |
| UF | STD 21D | 102B (31), 102D (18) | 6A/B5,C3 |
| UG | A&M 21D | 102B (31), 102D (12,18) 108 | APP FIG. 78,6A/C8, 6B/C5,C7,D3,D6,D8, E7,74A,C4,D6,D7,D8, 34B/C1,10147,B5,C6, C7 |
| UH | STD 21D | 102B (31), 102D (12,19), 106 (14), 108 | 6B/B0,100B/D7, 101C3,C6,D2,D6,E3, E6 |
| UJ | STD 21D A&M25D | 102B (34), 02D (19), 128 | 21A/C3, 24A/E1 |
| UK | STD 21D A&M25D | 102B (34), 102D (19,48), 128 | 21A/C5,D5,D6 |
| UL | STD 21D | 102B (34), 102D (12), 108 | APP FIG. 22,29,43,78, 34B/B2,41A/C5,59A/E6, G8,87B8,100B/B1,E7, F1,G2,H5,101B3,C3,C6, D7,102A1,B4,C3,C4,D2, D5 |
| UM | STD 21D | 102B (34), 108 | 68/B0,34C/A7, 35A/C3,35B/F8,64F2, F3,7006,77C2,H0,H1, 78A/C6,78B/E8,G5, 99E3,108G2 |
| UN | MD 21D | 108 | APP FIG. 4,8,21, 78B/H8 |
| UO | STD 21D | 102C (46), 106 (12,14, 18,51, 58,69, 95), 108, 138 | APP FIG. 4,8,21, 78B/G7,G8,H8 |
| UQ | STD 21D | 102C (40,41), 106 (13,43, 111, 131, 160) | APP FIG 75, 4CF3,G4 |
| UR | STD 21D | 102C (42), 106 (14, 47) | 60D1,24C/D2 |
| US | STD 21D | 102C (43) | 19G3 |
| UT | STD 21D | 102C (44) | 45A7,87,D7 |
| UU | STD 21D | 102B (35), 181 | 28A/B5,G3 |
| UV | STD 21D | 102C (45) | 28A/G3 |
| UW | STD 21D | 102B (36) | 2G2,4A/F7,6A/D2,G2, G3,34A/F0,37C6 |
| UX | STD 21D | 102B (36) | 1A0-H9,2F0,H2, 4A/F5,F6,4B/G5, 58/B1-E1,6A/C2,F3, G2,60/C8-E8,22A1,B1, 29A/A0,31A/B3-B7, 31B/B0,34A/F0,3785-B7,00,38A6,39A/H3, H4,48E0,57B/G1,80E2, 86A1,87G1,102B7-F7 |
| UY | A&M 21D | 102B (37) | 70G8 |
| UZ | STD 21D | 102B (14, 37), 106 (101), 108, 181 | APP FIG. 17,77A8 |
| TA | STD 22D | 102B (24), 183 | 15G1,86G3 |
| TB | STD 22D | 102C (46), 106 (12, 14,18, 23,29, 35,42, 51,56, 101, 141) | APP FIG. 7,8,2C2, E2,15G8,G9 |
| TD | STD 22D MD 30D A&M 43D | 128, 143 | APP FIG. 27 |
| TE | STD 22D | 102B (41), 108 | 77A5-F8 |
| TF | STD 22D | 102B (41), 102D (1) 10(12, 14,18, 25, 141), 108 | 77A5-F8,10543 |
| TG | STD 22D | 102B (37), 108, 181 | 70C8 |
| TH | STD 22D | 102B (37), 6 (76), 181 | 70C8,77A9,B6 |
| TJ | A&M 22D | 102B (34), 102D (19), 108 | 35A/C3,36G0,41A/A3, 64F2,F3,99E3 |
| TK | STD 22D A&M 25D | 102B (34), 102D (19), 128 | APP FIG. 90,28B/A0,A1, 34C/A7,35A/C3,35B/F8, 36G0,G1,64F2,F3,70D6, 77C2,H0,H6,78A/C6, 78B/G5,E8,99E3, 100B/A8,115E9 |
| TL | MD 22D | | 10701 |
| TM | STD 22D | 102C (51), 106 (12, 14,18, 53,61, 70,71, 101) | APP FIG. 21,30A/B2, 107D1 |
| TN | STD 22D | 102B (40) | 33B/A7,B7,C7,61E2, G2 |
| TQ | STD 22D A&M 25D | 102B (31), 102D (18), 108,128 | 704 |
| TP | STD 22D A&M 25D | 102B (34), 102D(19) 106(14), 108,128 | APP FIG. 90,66A0, 105A3,B6-E6 |
| TQ | STD 22D | 102B (31), 102D (18) | 704-G5,8A1-G5 |
| TR | STD 22D | 102B (31), 102D (18) | 785-G5,8B1-G5 |
| TS | STD 22D MD 47D | 108, 128 | |
| TT | STD 22D | 102B (42), 108 | 22E5,33E3,44A8, B9,F0 |
| TU | STD 22D | 102B (42), 102D (5), 105 (61), 108 | APP FIG.36,22A3,E5, 23A7,36D7,D8,E9,F5, 38E3,42A0,43H1,44A8, J5,B9,D4,F0,G2,66G7, 78B/E3,E4,P3,83C4, 103A/B2,103B/B5,109F4 |
| TX | MD 22D | 108 | 57C5,41A/C7,F6,40R4, 62A/G8,66C5,88A/B9, 108E5 |
| TY | STD 22D | 102C 106(12, 14,18, 23,45, 53,61, 114, 116, 163), 108, 126 | APP FIG 22, 37C5,40A4,A5, B3-B5,41A/F6,66D5, 70D1,D8,108E6 |

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# OPTION INDEX

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| SA | MD 22D | | APP FIG. 27 |
| SB | STD 22D MD 30D | 128 | APP FIG. 27 |
| SC | STD 22D | 102C (48), 106 (17,55, 101), 108 | APP FIG. 22,30,77H1, H6 |
| SF | MD 22D | | APP FIG. 1,49 |
| SG | STD 22D | 102C (49) | APP FIG. 1,49 |
| SH | STD 22D | 102B (24) | 31B/B6 |
| SJ | A&M 25D | 102B (6) | 79F2 |
| SL | MD 22D | | 108A1-E1 |
| SM | STD 22D | 102B (44), 102D (29), 104,12, 29,31, 71,101), 181 | APP FIG 82,62A/E1 |
| SN | STD 22D | 102B (34), 102D (8), 106 (26), 108 | APP FIG. 22, 100B/G6,H1, 101F3-H3,102C5, 107A6,108G2 |
| SO | STD 22D | 102B (43), 102D (8) | 34B/B5,66E3,F1, 107A6 |
| SP | STD 22D | 102B (43), 102D (8), 108, 181 | APP FIG 22,34B/A6, 62A/E2,66E2,F0, B7B9,101F3-H3, 104A/A2-E2,H0, 104B/B5,C8,D4,G0, G4,107B6 |
| SQ | A&M 22D | 102B (34), 102D (19), 108 | 115H6 |
| SR | A&M 22D | 102B (34), 102D (19) | 28B/A0,A1,115G6 |
| SS | STD 22D | 102C (50) | 29A/F3,F4 |
| ST | MD 22D | 101A | D2 (H0-Z0 FUSES) |
| SU | STD 22D | 101A | D2 (H0-Z0 FUSES) |
| SV | MD 22D | | 29A/F3,F4 |
| SW | STD 24D | 102B (45), 102D (37), 106 (14,61 101, 131), 170 | APP FIG. 75,18H0, G3,45G2,47A7,G2, 79C7 |
| SY | MD 24D | 108 | 41A/B9 |
| SZ | STD 24D | 102C (55), 106 (14,26) | 41A/E5 |
| RA | STD 25D | 102B (52), 106 (38), 109 | APP FIG. 13,9H3,H4, 19F5,H4,23H2,H3, 34C/F6,F7,G7,G8, 37B0, H0,H4, 39B/B7, 40C2,62A/E7,71E7, F7,G6,81D6,G1,85H0 |
| RB | STD 25D | 102B (52) | 9H3,34C/F7,39B/B7 40C2,D4,G5,71E7-G7, 79A5,B5,81G1, 109F3,F6 |
| RC | STD 24D | 102C (54) | 7F9 |
| RD | MD 24D | | APP FIG. 45 |
| RE | STD 24D | 102C (46), 102D (12), 106 (14,25 38,59 152) | APP FIG. 45 |
| RF | MD 24D | 108 | 77A2,A3 |
| RG | A&M 24D | 102B (34), 102D (12,19), 108 | 66A0,77A2, A3,B3 |
| RH | MD 24D | 108 | 105A4 |
| RJ | STD 24D | 102B (34), 102D (12,19), 106 (14) | |
| RK | MD 24D | | APP FIG. 10,11,12 33G4 |
| RL | STD 24D | 102C (56), 108 | APP FIG. 10,11,12 |
| RO | STD 24D | 102B (46), 102D (24), 106 (25), 108, 181 | APP FIG. 23,55, 40B2,64G0,G1, 66G2,69B2,H6,H7, 71A9,B6,105C4, 108F3 |
| RQ | STD 24D MD 33D | 128 | APP FIG. 8 |
| RR | STD 24D A&M 57B | 102B (59), 128, 181 | 88C/C4,111A/A5-C6, 111B/A6-H6 |
| RS | MD 24D | 108 | 23B6 |
| RT | STD 24D | 102C (46), 106 (12, 14,18 23,25, 101), 108 | APP FIG. 8,22F2, 33A/G4 |
| RU | MD 24D | 108 | 40C4 |
| RV | STD 24D | 106 (23, 25), 108 | 40B4 |
| RW | STD 24D | | 9687,D4 |
| RX | STD 24D | | |
| QB | STD 23A | 102C (108), 106 (29, 58), 108 | 20A/D2 |
| QE | STD 22D | 102C (57), 102D (29), 106 (31,61 71,101) | 108B1-E2 |
| QF | MD 24D STD 51D | 102C (58), 128 | APP FIG. 31 |
| QG | STD 24D MD 51D | 128, 162 | APP FIG. 3; |
| QH | STD 24D | 102C (61), 106 (14, 30 111) | 20A/G2,100B/G1 |
| QJ | MD 24D | | 21B/A6,102C4 |
| QK | STD 24D | 102C (46), 106 (12,14, 30,32 47,65, 68, 72, 73, 102, 111, 148) | APP FIG. 48,102C4 |
| QL | STD 24D | 102B (42) 102D(5), 106 (12,14 25,61), 108, 181 | APP FIG 55 |
| QM | MD 24D | | 18F2 |
| QN | STD 24D | 102C (59), 106 (66) | 18F2 |
| QO | STD 24D | 102C (60), 106(12, 14,79) | 41B/D7 |
| QP | A&M 25D | 102B (31), 102D (12,19) 108 | |
| QQ | A&M 25D | 102B (31), 102D (19), 108 | APP FIG. 109,6A/B4, B7,D9,F4,G4,68/B0, F2,H2,7A2,B3,D4,F1, |
| QR | STD 25D | 102B (31), 102D (19),108 | 68/E2-H2 |
| QS | STD 24D | 102D (8), 108 | 41A/B8,100B/H6 |
| QT | STD 24D | 102B (34) 102D(8), 106 (26) | 100B/H6 |
| QU | A&M 25D | 102B (34), 102D (19), 106, (36), 108 | APP FIG. 90,30A/G3, 37D1,39A/D6,78A/F3, 78B/G7,H7,107E5, 113C1,G5,H0,115B2, B7,F5,G3 |
| QV | A&M 25D | 102B (43), 102D (8),181 | 104A/D3,E3,F4 |
| QW | STD 25D | 102B (43), 102D (8), 108, 181 | 104A/G3,G4,H4 |
| QX | STD 25D | 102C (46), 106 (12, 14) | APP FIG.22,107B8 |
| QY | STD 25D | 102B (31), 102D (18), 108 | APP FIG. 78 |
| QZ | A&M 25D | 102B (34), 102D (19), 108 | 36D1,E1,F1 |
| PA | A&M 25D | 102B (34), 102D (19) | 36D1,E1,F1,115G3 |
| PB | MD 25D | 108 | APP FIG 22 |
| PC | STD 25D | 102C (46), 106 (14, 18), 108 | APP FIG. 22 |
| PD | STD 25D | 102B (34) 102D (12) | 64D7,66G1 |
| PE | STD 25D | 102B (34) 102D (12), 108 | 64H1,66G1,H1,105E3, F4,F8,F9,G4,108C4, H7,113A1-C1, 115A3,A5 |
| PF | A&M 25D | 102B (34), 102D (8,19), 108 | 34B/D3,107B7 |
| PG | STD 25D | 102B (34), 102D(6) | 107A7,H1,H2 |
| PH | STD 25D | 102B (34), 102D (12), 106(14, 101), 116 | APP FIG. 90,21B/D5, E6,34B/C3,107A6,H1, H3 |
| PI | STD 25D | 102B (49), 102D ( 6 ), 181 | 114A/B5 |
| PJ | STD 25D | 102B (49), 102D ( 6 ) | 29A/D7,57B/B8,B9 |
| PK | MD 25D | | 36A0,B0,C1 |
| PN | STD 25D | 102B (50), 106 (35), 181 | APP FIG. 107 |
| PP | MD 25D | | 19H4,85A1 |
| PQ | STD 25D | 102B (52) | 85H1 |
| PR | STD 25D | 102B (34) | 27F0,78A/B6 |
| PS | STD 25D | 102B (34), 102D (12, 19), 106 (36) 108 | APP FIG. 11,90,2H3, 4A/H1,16B0,21A/D7, D8,21B/B6,27F0, 30G3,34B/B7,34C/A7, 35A/C3,35B/F8,F9, 37B5,D1,38A4,H3, 39D6,62A/D2,64D2, F2,F3,66A0,70D6, 77C2,D2,H0,H1, 78A/B6,B7,C6,C8,F3, 78B/E8,G2,G5,H7, 80D2,99E3,100B/A2, A3,C1,D4,E7,F3,G5,H1 101C2-H2,C9,F9, 102B4,D2,103C2, 105A3,B6-E6,E8,E9, 107E5,G3-G7,H5,H6, H9,113A7,C1,G5,H0, 115A5,B2,B7,E9,F5, F7 |
| PT | A&M 25D | 102B (34), 102D (19), 108 | APP FIG 90,21A/D8, 21A/C6,78B/G6,G7, H6,100B/C3,H1 101C8,D8,E9,F8,G8, 107E3,115G7 |
| PU | STD 25D | 102B (14), 102D (30) | APP FIG 44,85D4 |
| PW | A&M 25D | 102B (34), 102D (19), 108 | APP FIG 32,7A2,C2, 16B0,21B/F8,36G5, F5,41A/A3,A4,C5, 60D1,61F7,78B/G6, H2,H3,H6,100B/C4, C6, 101C1-H1, 102B5,D2,107F3, 108E7 |
| PX | A&M 25D | 102B (34), 102D (19), 108, 181 | 28A/E3,100B/C5,E7, 101F3,H3 |
| PY | A&M 25D | 102B (34), 102D (19), 108 | 28A/E3,100B/A7,B1, C5,F6,101C2,H2 |
| PZ | A&M 25D | 102B (31), 102D (19), 108 | 7A2,B2,C3,101D1,E1 |
| OA | A&M 25D | 102B (34), 102D (19), 106 (14), 116 | 107G6,G8 |
| OD | STD 25D | 102B (55), 181 | 79F6 |
| OE | STD 25D | 102B (56), 181 | 72E7 |
| OG | STD 25D MD 30D | 128 | APP FIG. 90,100B/D0 |
| OH | MD 25D | 108 | 48E3,F4 |
| OI | MD 25D | 108 | 40H3 |
| OJ | STD 25D | 102C (52), 106 (43) | APP FIG. 56,75, 48E3,F4,H3 |
| OK | MD 25D | | APP FIG. 56 |
| OL | MD 25D | 108 | 47G2,57A/A2 |
| OM | STD 25D | 102B (42), 102C (116), 102D (5), 106 (44), 118, 181 | 47E1,G3,57A/B1 |
| ON | A&M 26A | 102B (34), 102D (19) | 102A4 |
| OP | STD 28D | 102B (42), 102D(5) 181 | 71A2,G8,72E6,75H6, 79E7 |
| OQ | STD 26A | 102B (42), 102D(5), 108,181 | 21B/G8,72A5 |
| OR | STD 26A | 102D (19), 108 | 101B0 |
| OS | A&M 25D | 102B (36), 102D (19) | 101B0 |
| OU | MD 25D | | 64E5 |
| OV | STD 25D | 106 (18, 45, 61) | 58/G2,64E5 |
| OW | MD 25D | 108 | 115F6 |
| OX | STD 25D | 102C (65), 106 (14) | 115F6 |
| OY | MD 26A | | 78B/F4,G4 |
| OZ | STD 26A | 102C (66), 106 (14,18) | 78B/F4 |
| NB | STD 25D | 102B (30), 102C (67), 106 (47, 73), 108 | 20A/A8,88,24B/F6, 24C/D5,61B1,C2 |
| NC | MD 25D | | 28B/B3 |
| ND | STD 25D | 102C (68), 106 (14, 100, 109, 123), 108 | 28B/B2,B3 |
| NF | MD 25D | 108 | 24C/D4 |
| NG | STD 25D | 102B (49), 102D (6), 108 | 29A/B8 |
| NH | STD 28D | 102B (57), 102D (2) 106(99) | APP FIG. 8,31, 34A/E2,F3,39A/D2 |
| NI | STD 28D | 102B (57), 106 (99) | APP FIG. 8,4A/A6, 88A/A7,D7, 88B/G3,D7,88C/A7 |
| NJ | STD 28D | 102B (57), 102D(2) | 34A/C3 |
| NK | STD 28D | 102B (57), 102D (2),108 | 34A/C3 |
| NM | MD 28D | | APP FIG. 81 |
| NN | STD 28D | 102B (58), 102D(9) | APP FIG. 81 |
| NP | STD 28D | 102B (57), 102D(2) 108 | APP FIG. 19,34A/B3 |
| NQ | STD 28D | 102B (57), 102D(2) 106,48 56,129) 108, 155 | 88A/A5,A7,C5,C7, 88B/D7,E6,G3, 88C/A6 |
| NR | STD 28D MD 45D | 128 | 88A/A7,D7, 88B/D7,G3,88C/A7 |
| NS | STD 27A | 102B (48), 102D (11),181 | APP FIG 107,64F3, G3,68/D2 |
| NT | STD 28D | 102B (57), 102D(2) | APP FIG. 19,34A/B3 |
| NZ | MD 28D | 102D (12), 108 | APP FIG 78 |
| MA | STD 28D | 102B(34) 102D(12) | APP FIG. 78 |
| MB | STD 25D | 102C (46), 106(12, 14,15, 48,58, 62,71, 101) | APP FIG. 93 |
| MC | MD 28D | | 13E2 |
| ME | STD 28D | 102C (71), 106 (90), 108, 129 | 9F6,13E2 |
| MF | MD 28D | 108 | 29B/E2,88A/C3 |
| MG | MD 28D | | APP FIG. 10,12,23, 25,26,60 |
| MH | STD 28D | 102C (69), 106 (45, 49), 170 | APP FIG. 10,12,23, 25,26,60 |
| MI | MD 28D | 108 | 04A/D8 |
| MJ | STD 28D | 102C (72), 106 (42), 108 | 104A/D8 |
| MK | STD 33D | 102C (15), 120, 178 | APP FIG. 30,24A/C0, 24C/H0 |
| ML | MD 27A | | 57B/C2,D1,D3,E3 |
| MM | STD 27A | 102C (47) | 57B/C2,D1,D3,E3 |
| MN | MD 27A | | 58F2 |
| MO | STD 27A | 102B (6) | 58F2 |
| MP | MD 28D | 108 | 60H1 |
| MQ | STD 28D | 102C (70), 106 (50, 61) | 60H1 |
| MR | STD 28D | 102B (43), 102D(8) 108, 181 | 104A/E2 |
| MS | STD 28D | 102C (70), 106 (157), 108 | 20B/E2 |
| MT | STD 27A | 102C (46), 106 (12, 14), 108 | APP FIG. 13,81F4 |
| MU | MD 31D | | 67B1,68A3 |
| MV | STD 31D | 102C (73) | 67B1,68A3 |
| MW | MD 31D | | 103A2 |
| MX | STD 31D | 102B (42), 102D (5), 181 | APP FIG. 88 |
| MZ | MD 30D | 108, 123 | APP FIG. 82 |
| LA | STD 30D MD 57B | 128 | 111A/A6-C6, 111B/A6-H6 |
| LB | STD 30D | 102B (58), 102D (9) | 14D2,15C0,H3,16B2, H1,19A5,28B/A4, 34C/F3,F4,35B/D8, 37C7,38D4,39B/C6,C9, F8,61A8,69A4,77E0, 83B/H5,107A2,B2,D5, 108E6,E7 |
| LC | STD 30D MD 57B | 108, 128 | APP FIG. 19,3H1,H2, 6B/D5,15C0,E6,H6, 16B2,19A5,20B/C7,F2, G2,22C2,30A/B1,B2, 30B/B6,31B/D3,E5, 34B/E1,34C/F3,35B/D8, H1,H4,36H0,37C7, 38G5,H3,H6,39B/C7, 47F9,64A7,D2,D4, 66B2,69A4,77E0,78B/D1, F1,81C1,83B/G5,84B5, 86H1,92A6,C6,98D5, 99A5,107A2,B2,D5,F1, 108C6,E7,F7,116F8, G3,G6,H7,117B8,E3,G5 |
| LD | MD 31D | 108 | 21A/B5,C5 |
| LF | MD 30D | 108, 123 | 96A5 |

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| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| LG | MD 30D | | APP FIG. 18,34B/F1 |
| LH | STD 30D | 102C (46), 106 (12, 70, 101) | APP FIG. 18,34B/F1 |
| LJ | STD 31D A&M 35D | 102B (18), 128 | 21A/B5,C6,24A/F6 |
| LL | MD 33D | | 82F0,122B/A3,B4,C1, C3,G2,H1 |
| LM | STD 33D | 102C (76), 106 (51), 108 | 82F0,83F9,122B/A3, A7,B4,B7-B9,C1,C4, C7,E5,G3,G5,H1 |
| LN | MD 31D | 108 | APP FIG. 10 |
| LO | STD 31D | 102C (56) | APP FIG. 10 |
| LP | MD 30D | 108, 123 | APP FIG. 124,96A5, B4,C4 |
| LQ | MD 30D | 108, 123 | APP FIG. 124,96A6, B7,C7,D4-H4,D6 |
| LR | MD 30D | 108, 123 | APP FIG. 124,96E9 |
| LS | MD 30D | 108, 123 | 96F7 |
| LT | A&M 31D | 102B (60) | 17G0,18H5,31B/C8, 86C5 |
| LU | STD 31D | 102B (60), 106 (14, 101, 134) | 86A6,A7 |
| LV | STD 30D MD 57B | 108, 128 | APP FIG. 82,94D6 |
| LW | STD 31D MD 39D | 102D (6), 106 (69), 128, 132 | 57B/A2,A8,A9,60A2, 114A/D8,E0,E2,E8, F2 |
| LX | STD 31D MD 39D | 102D (6), 108, 128, 132 | 57B/A2,B8,B9, 114A/D8,E1,E2,E8 |
| LY | STD 31D | 102B (49), 102D (6) | 57B/A2,60A2 |
| LZ | STD 31D | 102C (75), 106 (77), 108 | APP FIG. 14 |
| KA | MD 29A | | 78D4,78A/E4,E5 |
| KB | STD 29A | 102C (46), 106 (14) | 78E4,78A/F4,F5 |
| KC | STD 30D | 102B (1), 108 | 14D6,16H1 |
| KD | STD 30D MD 57B | 128 | APP FIG. 126,15A6, D6 |
| KE | STD 30D | 102B (24), 103 | 89A4 |
| KF | STD 30D MD 57B | 128 | APP FIG. 126 |
| KG | STD 30D | 102B (34), 102D (12), 106 (14) | APP FIG. 9,100B/B0 |
| KH | STD 31D MD 45D | 128 | 88B/B1 |
| KJ | STD 31D MD 45D | 128 | 88B/B1 |
| KK | STD 31D | 102B (18), 102D (48) | 21A/D5,D6 |
| KL | MD 31D | 101A | D3(G28 FUSES) |
| KM | STD 31D A&M 57B | 101A, 102B, (59), 128, 181 | D3(H0 FUSES) |
| KN | MD 31D | 108 | 40A5,108F9 |
| KO | MD 31D | | 108G5 |
| KP | STD 31D | 102C (52), 106 (23, 45, 59), 126 | 40A5,108G1 |
| KQ | STD 31D | 102B (6), 102D (48), 181 | 57B/D2,D3 |
| KR | STD 31D | 102B (6), 102D (48), 108, 181 | 57B/D3 |
| KU | MD 29A | 108 | APP FIG. 91 |
| KV | MD 29D | 108 | 74F8 |
| KW | STD 29A | 102B (23), 102D (40), 106 (18,45) 181 | APP FIG. 60,74F5 |
| KX | STD 30D | 102B (61), 102D (36) | 86A8-G8 |
| KY | STD 30D | 102B (61), 102D (36), 106 (12) | 86A8-F8 |
| KZ | STD 30D MD 57B | 128 | 116D3 |
| JA | STD 30D MD 57B | 128 | 17E4,116C3 |
| JB | MD 30D | | 35A/A5,C5,B4, 39B/D5,40C2,88A/H1, 99D4,E4 |
| JC | STD 30D | 102C (115), 106 (12), 108 | APP FIG. 4,6,35A/A5, C5,37H5,39B/B6,C5, G5,E4,40D1, 88A/H0,99D4,E4 |
| JD | STD 33D | 102C, (77), 106 (52) | 28A/F5 |
| JE | MD 33D | 108 | 41A/D7 |
| | MD 33D | | 88D/B3,108E6 |
| JF | STD 65B | 102B (42) | |
| JG | STD 33D | 106 (18) | 41A/E7,88D/A1,B3, 108E6 |
| JH | STD 33D | 102C (46), 106 (14,59) | APP FIG. 45 |
| JI | MD 33D | | APP FIG. 45 |
| JJ | STD 33D | 102B (67), 102D (43) | APP FIG. 22,40B2, 61A2,62B/A4-C4,E6, 66C8,77G3, 78B/E3,E4,F3,84C6, E6,108F5 |
| JK | STD 33D | 102B (34), 102D (12) | APP FIG. 90,31B/B3, 66D0,100B/E5,H2, 104A/C7 |
| JL | STD 33D | 102B (34), 102D (12) | 31B/B3 |
| JM | STD 33D | 102B (34), 102D (12) 106 (14), 108 | APP FIG. 78 |
| JN | A&M 33D MD 37D | 108, 128 | APP FIG. 78 |
| JO | STD 33D | 102B (34), 102D (12). | APP FIG. 90 ,7A2,B3, C1,101C1,H1 |
| JP | A&M 33D | 102B (42) 102D (5,12), 106(14), 108, 181 | APP FIG 89, 103E6 |
| JQ | STD 33D | 102B (42), 102D (5), 181 | APP FIG. 89,103E6, F6 |
| JR | STD 33D | 102B (29A), 102D (33), 106 (87), 108 | 50E4,F5 |
| JS | STD 33D MD 43D | 106, (88), 128 | 30B/G6,G7,50D6,F6 |
| JT | MD 33D | 102D (12), 108 | APP FIG 90 |
| JU | MD 33D | 102D (12), 108 | APP FIG 90 |
| JV | STD 33D | 102B (34), 102C (119), 102D (12), 106 (14) | APP FIG. 90,103E8, F7 |
| JW | A&M 33D | 102B (29A), 102D (33), 106 (87), 108,154 181 | 30B/G6,G7 |
| JX | A&M 33D | 102B (34), 102D (19) | 24C/F0 |
| JY | STD 33D | 102B (34), 102D (12) | APP FIG 90, 31B/C3, 100B/G2,G6,G7 |
| JZ | STD 33D | 102B (42), 102D(5) 108, 181 | APP FIG. 91,47A5 |
| IA | STD 33D | 102B (42), 102D (5), 108, 181 | APP FIG. 46,28B/C2, D4,E3,41A/G5,60H5, 64D5,67F4,79F7, 88C/E9,F2 88D/A2,103A/C0, 103B/D4,105A0-A4, 107B3 |
| IB | STD 33D | 102B (66), 102D (7) | APP FIG. 22,47B5, 108B4 |
| IC | STD 33D | 102B (66), 102D (7) 108, 181 | APP FIG 51,22A2 57A/C1,79D7,22A2, 108B4 |
| ID | STD 33D MD 57B | 128 | 16A2 |
| IE | STD 30D | 102C (46), 106 (12,14, 56,58, 71,101) | APP FIG. 8,66H6 |
| IG | STD 33D | 102C (79) | 7F9,28G7 |
| IH | STD 33D | 102C (80) | 7E3 |
| II | STD 33D | 102B (62), 108 | APP FIG. 8,24C/E3, 34A/D3,D4,E4, 88A/B0,E0,88B/E9 88C/C0 |
| IJ | STD 31D | 102B (62), 102D (6), 106 (57,61, 69) 108 | APP FIG. 8 |
| IK | STD 33D | 102B (62) 106 (56), 108 | APP FIG. 8,24C/E3, 34A/D3,D4,E4, 88A/E0,88B/E9, 88C/C1-F1,F8,88D/B4, G0,H0,102E4,G2, 103D0 |
| IL | STD 33D | 102B (62), 108 | 88C/F8 |
| IM | STD 33D MD 57B | 108, 128 | 111A/F3,G2 |
| IN | STD 33D | 102C (81), 106 (56, 57,103, 114, 116, 122, 156) 108, 147, 155 | APP FIG. 30,48/C2, 88B/G1,88C/A1,B4,B6, F2 |
| IO | MD 33D A&M 43D | 108, 128, 147 | 88C/B5,C4 |
| IP | MD 33D | 108 | 88B/G1,88C/A1 |
| IR | STD 33D | 102B (64) | 77H1,H4 |
| IS | STD 33D | 102B (64), 106 (59), 108 | APP FIG. 129,47F8, 77H1,H1,G4 |
| IT | MD 33D | | APP FIG. 42,66F7 |
| IU | STD 33D | 102C (46), 106 (58,70), 101) | APP FIG.18,42, 23F1 |
| IV | A&M 33D | 102B (66), 102D (7), | 121B5,C5,E5,F5 |
| IW | STD 33D | 102B (66), 102D (7), 181 | 121C5,E5 |
| IX | MD 33D | 102B (83), 102D (28), 106 (99) | APP FIG.6,9,10,21, 26,29,45,55,57,60, 61,69,81,94,102,104, 106,112,114,34A/G1, G5,H1,H4,34C/E0, 35B/G8 |
| IY | STD 33D | 102C (56), 106 (113, 134) | APP FIG. 6,9,10,21, 26,29,45,35,57,60, 61,69,81,94,102,104, 106,112,114,34A/G1, G5,H1,H5,34C/D0, 35B/G8 |
| IZ | MD 33D | 108 | APP FIG. 75 |
| GA | STD 33D | 102B (6), 120 | APP FIG. 75 |
| GB | STD 33D | 102C (21), 106(10, 12,14, 18,35, 61), 120 | APP FIG. 26,29A/B1, 30A/D1,D2,E9, 30B/A3,E2,F2,F3,A5, A7,E8,36E5 |
| GC | MD 33D | 102D (12), 108 | APP FIG. 29 |
| GD | STD 33D | 102B (34), 102D (12), 120 | APP FIG. 29 |
| GE | STD 33D | 102B (65) | 41A/C3,63G0,H0 |
| GF | MD 33D | 108 | 61F1,H1 |
| GG | STD 33 | 102B (65), 102D (9), 108 | 61E7 |
| GH | STD 33D | 102B (34), 102D (12), 106 (55), 108, 172 | 107G5,H5 |
| GI | SPL 33D | 102D (12), 172 | 107G5,G6,H6, 11582 |
| GJ | MD 33D | | 21B/A6 |
| GK | STD 33D | 102C (46), 106 (14, 65,69, 72,73, 102, 111, 149) | APP FIG. 48 |
| GL | STD 25D | 102B (38), 102D (35) | 6A/E3 |
| GM | STD 25D | 102B (38), 102D (35), 106 (14,15) | 6A/E3 |
| GN | MD 33D | 101A | 28B/B7,C7,D7,E7, F4,H6 |
| GO | STD 33D | 101A, 102C (82), 106 (64, 136, 142) | APP FIG.82 |
| GP | A&M 33D | 102B (42) 102D(5) 108, 181 | 88C/C4,E8,88D/B5 |
| GQ | STD 33D | 102B (42), 102D (5), 106 (67), 181 | 88C/E9,F4,F7, 88D/A5,B1,C1 |
| GS | STD 35D | 102B (71), 108 | 68/D6,34B/H1, 34C/A3,H1,35D3, E1,64E7 |
| GT | STD 33D MD 35D | 128 | 24A/E6 |
| GU | STD 33D | 102B (58), 102D(9) | APP FIG. 7,17E3, E5,H6 |
| GV | STD 30D | 102C (83), 106 (12, 62, 107) | 79G7 |
| GW | STD 33D | 102C (86), 106 (65,68 68,71, 72,75, 139), 108 | 47C6,C9,E6,F7 |
| GX | MD 35D | 108 | 40G1 |
| GY | STD 35D | 102B (28), 102C (122), 102D (27), 181 | APP FIG.73,40G1, H1,68B0 |
| GZ | STD 35D | 102B (72), 102D (27) | (51-55)C8,H6 62A/A6,A7 |
| FA | A&M 35D STD 51D | 102B (29B), 108, 126 | 20A/A2,C2,D2 |
| FB | A&M 35D STD 51D | 102B (29B), 108, 128 | 29B/C2 |
| FC | A&M 35D STD 51D | 102B (29B), 108, 128 | 21A/E7,F8 |
| FD | STD 35D | 102C (99), 106 (68, 72, 73,84, 102, 111) | APP FIG. 32 |
| FE | STD 35D | 102C (89), 106 (66, 158) | APP FIG. 9 |
| FF | MD 35D | 108 | 72B7 |
| FG | STD 35D | 102B (42), 102C (121), 102D (5), 106 (14), 181 | 72B7 |
| FH | MD 35D | 106 | 42B2 |
| FI | STD 35D | 102B (42), 102C (120), (61) 102D (5) | 42B2 |
| FJ | A&M 35D | 102B (30), 102D (42), 108 | 20A/A3,E4,F5,F3,F5, 21A/A7,A8, 24C/B2,B5,B7 |
| FK | A&M 35D | 102B (29), 102D (41), 181 | 20A/B3 |
| FL | A&M 35D | 102B (30), 102D (42), 108 | 21A/G3,H4 |
| FM | STD 35D | 102B (30) 102D (42) | APP FIG. 143,21A/A4 |
| FN | STD 35D | 102B (30), 102D (42) | APP FIG. 143 |
| FO | A&M 35D | 102B (30), 108 | 20A/C4,C5,24C/C5 |
| FP | A&M 35D | 102B (39), 108 | 20A/C4,24C/C5 |
| FQ | A&M 35D | 102B (30), 108 | 24C/D5 |
| FR | A&M 35D | 102B (30), 108 | 20A/G5 |
| FS | A&M 35D | 102B (30), 108 | 20A/C5 |
| FT | STD 35D | 102B (30), 102D (42), 106 (114, 116, 156) | APP FIG. 123 |
| FU | STD 39D | 102B (52), 102C (94) | 40G5 |
| FV | A&M 35D | 102B (30), 102D (42), 108 | 20A/D4 |
| FW | A&M 35D STD 51D | 102B (29B), 108, 128 | 47D6,D7 |
| FX | A&M 35D | 102B (30), 102D (42), 108 | 57B/E3 |
| FY | STD 35D | 102B (68), 108 | 31B/G0,37H0,40C0, 62A/D4,D5,81G1, 84E6,122B/E7,123A4, A7,E2,E7,F5,H0 |
| FZ | STD 35D | 102B (68) | 31B/G0,34B/F1,40C0, 122B/H3 |
| EA | STD 35D | 102B (69) | 78B/F5-F7 |
| EB | STD 35D | 102B (70) | 88A/D1,G1 |
| EC | A&M 25D | 102D (12), 106 (14), 108 | APP FIG. 103,112 |
| ED | MD 35D | 108 | 107G7,H8,115F6 |
| EE | STD 35D | 102B (34), 102D (12), 106 (14), 117, 183 | 107F6,G6,G8,115F6 |
| EF | STD 35D | 102C (46), 102D (6), 106 (59,61 74,75, 85,92, 97) | APP FIG.13 |

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|---|---|---|---|
| EG | STD 35D | 102B (34), 102C (124), 102D (12), 106 (14) | 107E2 |
| EL | MD 35D STD 37D | 102C (144), 106 (102, 111), 108, 128 | APP FIG 46, 51G3, H2, 52G5, H1, 53G5, H1, 54G4, H2, 55H2, H5, 56G6, H0 |
| EM | STD 35D MD 41D | 128 | 56F5, G5, H0, 47 |
| EN | STD 35D | 102D (40), 106 (41) | 182, C2, 57B/F8, F9 |
| EQ | STD 35D | 102B (40), 106 (41), 108, 160, 181 | APP FIG. 82, 182, C2, 57B/F8, F9 |
| EP | MD 35D | | 88A/G8 |
| EQ | STD 35D | 102C (46), 102D (15), 106 (61, 71, 78, 80, 114, 115) | APP FIG. 7, 22H2, 88A/G8 |
| ER | STD 35D | 102B (72), 102D (27), | 41A/D6, 62A/C5, E8 |
| ES | STD 35D | 102B (72), 102D (27), 108 | 22C4, 29B/F9, C5, 37E3, G3, 41A/D6 62A/A3, A4, B4, B5, C5, C6, F8. |
| ET | A&M 35D | 127 | 20A/H2 |
| EU | STD 33D | 102B (64), 102D (20), 128 | APP FIG. 129 |
| EV | STD 33D | 102B (64) 102D (12), 106 (14), 108 | APP FIG. 17 |
| EW | STD 34A | 102B (49), 102D(6) 108, 181 | 103C1 |
| EX | STD 34A | 102B (49), 102D(6) 181 | 103D1 |
| EY | STD 35D | 102B (73), 125 | 20A/E4, F4, 40F1 |
| EZ | STD 35D | 102B (49) 102D ( 6 ) | 29A/B9, 34B/H3, 36C5, G6, 42C3, 49B/G3, 60A4, 80D2, 92D7, 103C1, 114A/A5, B6, 116G1 |
| DA | A&M 35D | 102B (74) | 30A/E1 |
| DB | STD 35D | 102B (74), 106 (74) | 30A/E1, E2 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| DC | STD 35D | 102B (21), 102D (10), 108, 119 | 82F5, 88A/A2 |
| DD | STD 35D | 102B (42), 102C (125), 102D (5), 181 | 34A/B4, 103C1 |
| DE | MD 37D | | APP FIG. 12 |
| DF | STD 37D | 102C (107) | APP FIG. 12 |
| DG | MD 35D | 108 | 86G3 |
| DH | STD 35D | 102C (90) | 87E8 |
| DI | STD 39D | 102B (52), 108 | 40H4 |
| DJ | STD 37D | 102B (80), 181 | 24A/C8 |
| DK | STD 37D | 102B (80), 137, 181 | 8A7, A8, 24A/C7 |
| DL | MD 35D | | 70E0 |
| DM | STD 35D | 102C (91), 106 (76) | 70E0 |
| DN | MD 35D | 108 | 105D9 |
| DO | STD 35D | 102C (92), 106 (17) | 105D9 |
| DP | MD 35D | | 78A/C4 |
| DQ | STD 35D | 102C (93) | 78A/C4 |
| DR | STD 35D | 102C (95), 106 (38, 77, 140), 108 | 83B/H6 |
| DS | A&M 35D MD 43D | 128 | APP FIG 78, 6A/A4 |
| DT | STD 35D | 102B (18), 102D (48), 106 (14, 81) | 21A/B5, C6, E5-E7, F4-F7, G4-G7 |
| DU | A&M 35D | 102B (18), 102D (48), 108 | 21A/F4, G4 |
| DV | A&M 35D | 102B, 102D (48) | 21A/E5 - G6 |
| DW | STD 35D | 102B (18), 102D (19, 48) | 21A/C5 |
| DX | STD 35D | 102B (34) 102D (8), 106 (80), 108, 181 | APP FIG. 96, 87B9, 104A/A0, A2-H2, B7, D8, D9, E8, 104B/A0, A2-C2, B9 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| DY | STD 35D | 102B (34) 102D(8) 108, 181 | 104B/B8 |
| DZ | MD 35D | | APP FIG. 22, 34C/A4, B4 |
| CA | STD 35D | 102C (96), 106 (70, 78) | APP FIG. 22, 34C/A4, B4 |
| CB | STD 35D | 102C (97), 106 (59), 108 | 35D2 |
| CC | STD 35D | 102B (34), 102C (126), 102D (12) | 81D4 |
| CD | MD 35D | | APP FIG. 32 |
| CE | STD 35D | 102B (42), 102D (11) | 97F7 |
| CF | STD 35D | 102B (75), 181 | 24A/E8 |
| CG | STD 35D | 102B (75), 106 (79), 181 | 24A/F8 |
| CH | MD 33D | 101A, 108 | APP FIG. 91, 4A/B6 |
| CI | MD 33D | 101A, 108 | APP FIG. 125, 4A/B6 |
| CJ | STD 33D | 101A 102C (98), 106 (12, 18, 59, 61, 70) | APP FIG. 31 |
| CK | STD 33D | 102B (64), 106 (12, 18, 61, 70) | 4A/B6 |
| CL | MD 35D | 108 | 24A/E5 |
| CM | MD 35D | 108 | 24A/D4, E6, E7, F6 |
| CN | STD 35D | 102B (18), 106 (80, 81, 82) | 24A/D4, E4, E6, F5 |
| CO | MD 35D | | APP FIG. 41 |
| CP | STD 35D | 102C (99), 106 (83) | APP FIG. 41 |
| CQ | MD 37D | | 66C7, D7 |
| CR | STD 37D | 102C (100), 106 (85) | 66C7 |
| CS | STD 37D MD 49D | 128, 158 | 37F8, 132B1-F1, B2, C2 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| CT | STD 37D | 158 | 45E9 |
| CU | A&M 37D MD 49D | 128, 158 | 7G1 |
| CV | A&M 37D MD 49D | 128, 158 | 7G1 |
| CW | STD 37D MD 49D STD 57B | 128, 164 | 20A/D2 |
| CX | STD 37D | 158 | 120B4 |
| CY | STD 37D | 158 | 62B/A3 |
| CZ | A&M 37D | 102B (34) 102D (12), 108 | 122B/A2 |
| BA | STD 37D MD 49D | 102D (12), 128 | 122B/A2 |
| BB | MD 37D | 102B | 63C0 |
| BC | STD 37D | 102C (101) | 63B0 |
| BD | STD 37D | 102B (79) | APP FIG. 147, 29B/B5 49A/C0, D3, 132B8, C8 |
| BE | STD 37D | 102B (79) | 29B/B4, B6, C4, C6, 31B/B5, G9, H7, 49A/B0, D0, D3 |
| BF | A&M 37D | 102B (78), 102D (38), 108 | 48D2, E2 |
| BG | STD 37D | 102B (78), 102D (38), 108 | 48D2 |
| BH | MD 37D | | APP FIG. 26 |
| BI | STD 25D | 102B (50), 181 | 2E1 |
| BJ | STD 37D | 102C (102) | APP FIG. 26, 30A/D4, D5 |
| BK | STD 37D | 102B (6), 108, 181 | 58D9 |
| BL | STD 37D | 102B (6), 102C (192), 16 | 58D8 |
| BM | MD 37D | | APP FIG. 123 |
| BN | STD 33D | 102B (58), 106 (57, 151), 108 | APP FIG. 42 |
| BO | MD 37D | 108 | 40D2, E2 |
| BP | STD 37D | 102C (105) | 40E2 |
| BQ | SPL 35D | 102B (71) | 47D8 |
| BR | MD 37D | | APP FIG. 41 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| BS | STD 37D | 102C (104) | APP FIG. 41 |
| BT | STD 37D | 106 (90), 108, 129 | 9F6 |
| BU | A&M 37D MD 41D | 128 | 9F6 |
| BV | SPL 37D | 102B (71) | 36C2, E1, E2 |
| BW | MD 37D | | APP FIG. 40 |
| BX | STD 37D | 102C (99), 106 (91) | APP FIG. 40 |
| BY | STD 37D | 102B (52), 106 (111) | 30A/F2, 109E8, F3, F6, G3 |
| BZ | SPL 37D | 102B (71) | 6B/C4, 122A/B7 |
| AA | STD 37D | 102B (17), 102D (50), 108, 181 | 25A5-E5 |
| AB | SPL 37D | 102B (71), 108, 137 | 51H2, 52H2, 122A/B2, C1 |
| AC | SPL 37D | 102B (71), 137 | 20B/G2, 122A/B2, C2 |
| AD | STD 37D | 102B (66), 102X(7), 105(61) | 30A/C2 |
| AE | STD 37D | 102B (66), 102D ( 7 ), 181 | 30A/C2, 34A/B4 |
| AF | MD 37D | | 111B/D0, D3, F3, G3 |
| AG | STD 37D A&M 39D | 102B (64), 106 (92), 128 | 4B/F5, G4, 79C5 |
| AH | STD 37D | 102B (52), 102C (127), 106 (70, 92) | APP FIG. 30 |
| AI | MD 39D | 108 | APP FIG. 105, 114A/D4 |
| AJ | STD 37D | 101H, 102B (58), 102D(9) | 35A/D1, 99F1 |
| AK | STD 37D | 101H, 102B (56), 102D(9) | 99F1 |
| AL | STD 21D | 102B (34), 102D (19) | 30A/G7 |
| AM | A&M 21D | 102B (34) 102D (19) | 30A/G6, H6 |
| AN | MD 37D | | 63H3 |
| AO | STD 37D | 102C (106) | 63H3, 105A0 |
| AP | STD 37D | 102B (34), 102D (12), 181 | APP FIG 103 |
| AQ | STD 37D | 102B (58) 102D (9) | 158I |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| AR | STD 37D MD 57B | 128 | APP FIG. 117, 38D5, H5, 110D2 |
| AS | MD 37D | 108 | APP FIG. 110, 37A8, B8, 83D9 |
| AT | STD 37D | 102C (109), 106 (89), 138 | APP FIG. 110, 168O, 22E2, 37A8, 89D9, 107C1 |
| AU | STD 37D | 102B (58), 102D (9) | 79C3, D2, D3, 81E5 |
| AV | STD 39D | 102B (49), 102D ( 6 ), 106 (69, 75, 97), 108, 132, 181 | APP FIG. 105, 39A/E1, 57B/A2, A8, A9, 60A2, 114A/A6, A7, D4, D8, E1, E3, F2, F4, H4 |
| AW | MD 37D | | 22E2, 107C1, 122B/D1 |
| AX | STD 37D | 102B (82), 102D (44), 106 (93), 109 | 122B/D8 |
| AY | MD 37D | | APP FIG 32 |
| AZ | STD 37D | 102C (99), 106 (93) | APP FIG. 32 |
| ZZA | MD 37D | 108 | APP FIG. 43, 33B/A7, 37B/B7, C7, 49C/D3, E4, F3, F4, G4 |
| ZZB | STD 37D MD 45D | 108, 128, 151 | APP FIG. 43, 33B/B7, C7, 49C/E3, E4, F3, F4, G4 |
| ZZD | MD 37D | | 63F7 |
| ZZE | STD 37D | 102C (117), 106 (14) | 63E7 |
| ZZF | A&M 39D MD 57B | 108, 128 | 111A/A8, B6, B8, C8, D6, D7, F3, F7, G3, G5, G6 |
| ZZG | STD 39D MD 57B | 128 | 11A/B8, C7, C8, D7, D8, E5, F7 |
| ZZH | MD 37D | 108 | APP FIG. 117, 38D4 |
| ZZI | STD 37D | 102B (58), 102D(9) 108 | 40D1 |
| ZZJ | MD 37D | 108 | 38H5 |
| ZZK | STD 39D | 102B (83), 102D (28) | 32E2, F2, 34A/C2, D2 |
| ZZL | STD 39D | 102B (83), 102D (28), 106 (99) | 32E1, E3, G2, G3, 34A/C1, C2 |
| ZZM | STD 39D | 102B (83), 102D (28), 106 (99) | APP FIG 150, 12F8, 34A/C2, D2 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZZO | STD 37D | 102B (58), 102D(9) 108 | 79C3 |
| ZZP | STD 39D | 102B (71, 84), 102D (13), 108, 148 | APP FIG. 19, 22, 23, 39, 2D1, 4A/A7, E6, 48/E5, 6A/E5, 18G3, H0, 19A6, 37F4, 39A/C1, 39B/A2, 41A/B6, 62B/E2, 66A5, E0, 71A4, G7, 77E4, 78B/F2, G3, 79F7, 82A2, 88E/C4, C5, D3, D4, 102F4, 135H0, 136G0, 137A0, B0, C5, D0, H0, 138G7, H7, 139A8 (139-142)H0, 143H7 |
| ZZQ | STD 39D | 102B (84) | 4A/A7, 19A6, 24B/D0, 31B/F8, 82A1 |
| ZZS | STD 39D | 102B (84), 102D (13) | 138A6 |
| ZZT | A&M 39D | 102B (34), 102D (19) | 107G2, 138A5 |
| ZZU | STD 39D MD 43D | 128, 148 | 107H7, 138A5 |
| ZZV | STD 39D | 102B (84), 102D (13) | APP FIG. 154 |
| ZZY | SPL 39D | 102B (71), 108, 135 | 2F1, 78B/F2, G3 |
| ZZZ | STD 39D | 102B (84), 102D (13), 108, 135 | 78B/G2 |
| ZYA | MD 39D | | 168I, 86D1 |
| ZYB | STD 39D | 102C (129), 106 (66) | 168I, 86D0, 122B/E9, 123G0 |
| ZYC | MD 39D | 108 | 122B/E9, 123G0 |
| ZYD | MD 39D | | 30B/D5 |
| ZYE | STD 39D | 102C (130) | 30B/D5, E4 |
| ZYF | MD 37D | 108 | 41A/B7, 47A5, 110D2 |
| ZYG | MD 39D | | 31B/B2, 63A3 |
| ZYH | STD 39D | 102C (46), 106 (14, 100, 101, 109, 118, 123) | APP FIG. 18, 24A/E3, F4 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZYI | MD 39D | | APP FIG. 8, 18B6, 22A8, F9, 24B/F3, 41B/A4, A5, C5, |
| ZYJ | STD 39D | 102C (170), 106 (100), 108, 153 | APP FIG. 8, 18A7, 22A7, A9, F9, 24C/F3, 41B/A5, A6, C7, 60B3, C2 |
| ZYK | MD 39D | 108 | 111B/A2 |
| ZYL | STD 39D MD 57B | 128 | 111B/A2 |
| ZYM | STD 39D | 102C (131), 106 (99, 101) | APP FIG. 31 |
| ZYN | MD 39D | 108 | 116H6 |
| ZYO | STD 39D MD 57B | 102D (5), 128 | 18E7, 116A6 |
| ZYP | STD 39D | 102B (52) | 4A/G0, 22D1, 38B5, 38C3, 109A5 |
| ZYQ | STD 39D | 102B (42) | 45F8, 47B5, D3 |
| ZYR | STD 39D | 102B (42), 102D (5), 106 (36, 37) 181 | 45E8, 47B5, D3 |
| ZYS | MD 39D | | 45E8, 47A5, F4 |
| ZYT | MD 39D | | 32F7 |
| ZYU | STD 39D | 102C (138) | 32F7 |
| ZYV | MD 39D | 108 | 115B4 |
| ZYW | STD 39D | 102B (34), 102C (134), 102D (12), 106 (14) | 115B4 |
| ZYX | MD 39D | 108 | 121A1 |
| ZYY | STD 39D | 102B (66), 102C (135) 102D ( 7 ), 181 | 121A1 |
| ZYZ | STD 39D | 102B (52), 102C (137) 106 (70, 92, 138) | 4A/G0, 4B/F5, G4, 22A2, D1, E0, 36G2, G3, 38A3, C3, B5, 79B4, C5, 109A5 |

COMPLETING MARKER CIRCUIT

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| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZXA | A&M 39D | 102B (34), 102D (19), 106 (14), 108 | APP FIG. 90, 105E3 |
| ZXB | SPL 39D | 102B (34), 102D (19) | APP FIG 90, 100B/A3, 104A/C8, 105E3 |
| ZXC | MD 39D | 108 | 39A/H1, 88B/E6 |
| ZXD | STD 39D | 102B (57), 102C (136), 102D(2), 155 | APP FIG 26, 88B/E6 |
| ZXE | MD 39D | | 63H3 |
| ZXF | STD 39D | 102C (3), 106, (75) | 63H2 |
| ZXG | A&M 41D | 102B (73), 102D (42) | 20A/E2, E5, F5, G2 |
| ZXI | STD 41D | 102B (73) | APP FIG 47, 20A/G2 |
| ZXJ | A&M 39D | 102B (34), 102D (19), 108 | 100B/A3 |
| ZXK | STD 41D | 102B (34), 102D (12), 108 | APP FIG 32, 41A/G1, 57A/B3, 107G3, G4, H4, 113A7, 115E9 |
| ZXL | STD 41D | 102B (34), 102D (12), 108 | 107G4, 113A7 |
| ZXM | STD 41D | 102B (34), 102D (12) | APP FIG 90, 112, 6B/B5, 20A/A2, A3, 51E3, 52E2, 53E3, F3, 54E3, F2, 55E3, F2, 100B/B4, G1, 115F4 |
| ZXN | STD 41D | 102B (34), 108 | 115F4 |
| ZXO | STD 41D | 102C (99), 106 (14) | APP FIG 26 |
| ZXP | STD 41D | 102B (12), 102D (5, 12), 108, 181 | 57A/B3 |
| ZXQ | STD 41D | 102B (52), 108, 141 | 9H3 |
| ZXR | A&M 41D | 102B (66) | APP FIG. 23, 51 69H7 |
| ZXS | STD 41D | 102C (143), 106 (48, 103, 114, 129) 108, | APP FIG. 113, 4B/F2, F3, 79B/G0, 88A/D9 |
| ZXT | MD 41D | | 80A/D9 |
| ZXU | MD 41D | | 2F1 |
| ZXV | STD 41D | 102C (110), 106 (35) | 2F1 |
| ZXW | MD 41D | 108 | 77H0, G5 |
| ZXX | STD 41D | 102B (64), 102C (139) | 77H0, G5 |
| ZXY | MD 41D | 108 | APP FIG. 88, 79E5 |
| ZXZ | MD 41D | 108 | 79F5, F6 |
| ZWA | MD 41D | 108 | 79E5 |
| ZWB | STD 41D | 102B (42), 102D(5) 106 (12, 14, 25, 61, 104), 108, 150 181, 188 | 79F5, F6 |
| ZWC | STD 41D | 102B (42), 102C (140), 102D(5) 106 (104), 181 | 66A7 |
| ZWD | A&M 41D | 102B (34), 108, 181 | 105F1 |
| ZWE | STD 41D | 102B (34) 102D (12), 181 | APP FIG 137, 47H0, 105F1 |
| ZWF | A&M 41D | 102B (34), 102D (8, 19) | 34A/B7, 34B/B8 |
| ZWG | STD 41D | 102B (34), 102D (8, 19) 108, 181 | 34A/B7, 34B/B8 |
| ZWH | MD 41D | 108 | 59A/E6 |
| ZWI | STD 41D | 102B (6), 102C (141), 102D (48) | 59A/E6 |
| ZWJ | MD 41D | 108 | APP FIG. 113, 28A/G7 |
| ZWK | STD 41D | 102B (71), 106 (102, 111), 108, 124, 137 | 51G3, 52G5, 53G5, 54G3, 55H5 |
| ZWL | MD 41D | 108 | APP FIG. 8, 37C9, 114A/D4, E8 |
| ZWM | STD 41D | 102B (49), 102C (145), 102D (6), 106 (37), 181 | APP FIG. 8, 37C9, 47E9, 114A/D4, E8, G2 |
| ZWN | MD 41D | 108 | APP FIG. 39 |
| ZWO | STD 41D | 102B (6), 102C (99), 106 (37) | APP FIG. 39 |
| ZWR | STD 43D | 102B (34), 102D (12), 148 | APP FIG. 163, 23B/A2, B1, 21B/B1, C1, D1 30B/B6, 41A/G1, 41B/D5, 115B8, 137D0, 138A5 |
| ZWS | STD 43D | 102B (34), 108 | 107G9, 115B7 |
| ZWT | STD 43D | 102B (34) 102D (12), 108 | 105F4, G4 |
| ZWU | STD 43D | 102B (34), 102D (12), 106 (14) | 105F4, G4 |
| ZWW | A&M 41D | 102B (30) 102D (42) | 20A/B2, 80A1 |
| ZWX | STD 41D | 102B (30), 102D (42), 139 | 20A/B2, 80A1 |
| ZWY | STD 41D | 102C (143), 106 (48, 129), 108 | 88A/G7 |
| ZWZ | MD 41D | 108 | APP FIG. 32 |
| ZYA | STD 41D | 102C (46), 106 (89, 95) 103 | APP FIG. 32 |
| ZVB | STD 43D | 102C (151), 106 (110) | 79G5 |
| ZVC | MD 43D | | 40D0, 88A, C7, D9 |
| ZVD | STD 43D | 102C (152), 106 (116, 129), 144 | APP FIG. 113, 40D0, 68A/C9, D9 |
| ZVE | STD 41D | 102B (42), 102C (147), 1020 ( 5 ), 181 | 69C1 |
| ZVF | STD 41D | 102B (23) 102X(40) 181 | 64H2 |
| ZVG | STD 41D | 102B (23) 102X(40) 106 (107), 181 | 64H2, 72E8 |
| ZVH | STD 43D | 102B (76) | APP FIG. 29, 34A1, 78B/G2, 87B6, 108F4 |
| ZVI | STD 43D | 102C (46), 106 (70, 126) | APP FIG. 9, 10 |
| ZVJ | MD 41D | 108, 141 | 39A/E1, F3 |
| ZVK | MD 41D | 101A, 108 | 28B/H6, 120G1 |
| ZVL | STD 41D | 102C (148) 106 (105, 143, | 28B/A8, A9, 96B3 |
| ZVM | MD 40A | 108 | 64D7 |
| ZVN | STD 40A | 102B (34), 102C (150), 102D (12) | 60A0, C0, 64D7 |
| ZVO | STD 41D | 102B (82), 102C (149), 102D (44) | 35B/D1 |
| ZVP | MD 41D | 108 | 122B/D8 |
| ZVQ | STD 41D | 102B (82), 102D (44), 106 (106) | 35B/D1, 122B/D9 |
| ZVR | STD 41D | 102C (46), 106 (106, 107, 110) | APP FIG. 20 |
| ZVS | A&M 41D | 106 (90), 129 | 96G |
| ZVT | STD 43D | 106 (111), 108 | 55G8, 56G7, H6 |
| ZVU | STD 42A | 102B (63), 102D (19), 108 | E8B/F3 |
| ZVV | A&M 42A | 102B (34), 102D (19), 181 | 88B/F3, 102B5, 115D9 |
| ZVW | STD 43D | 102B (63), 102D (14), 181 | 88B/E2, 120A1, C1, F1, G1, D5, H7 |
| ZVX | A&M 43D | 102B (63), 102D (14), 108, 181 | APP FIG 130, 109H2, 120D5 |
| ZVY | A&M 42A | 102B (34), 102D (19), 108 | 102B5 |
| ZUA | STD 43D MD 49D | 128, 152 | 79B4 |
| ZUB | MD 43D | 108 | 28B/B3 |
| ZUC | STD 43D | 102C (68), 106 (109, 123) | 28B/B3 |
| ZUD | MD 43D | 108 | 88A/E9 |
| ZUE | STD 43D | 102B (34), 102C (63), 102D (12), 106 (14) | 63A2 |
| ZUF | MD 43D | | 34A/C1 |
| ZUG | STD 43D | 102C (153), 106 (113), | 34A/C1 |
| ZUH | STD 43D | 102B (76), 102D (49) | APP FIG. 160, 34A/A0, 42E4, 78B/C3, D4, G2, 79D5, E5, 85E0, 106B3, D7, E8 |
| ZUI | STD 43D | 102B (76), 102D (49) | APP FIG 160, 34A/A1, 42E4, 78B/G2, 106D8 |
| ZUJ | MD 43D | 108 | 72A8 |
| ZUK | STD 43D | 102B (34), 102C (156), 102D (5, 12), 106 (14) | 21B/F8, 72B6 |
| ZUL | STD 43D | 102B (34), 102D (12), | 62A/H3 |
| ZUM | STD 43D | 102C (154), 106 (114) | APP FIG. 11, 88A/E6, F8, 88B/C6, C8 |
| ZUN | STD 43D | 102B(57) 106 (114) | 88A/F7, 88B/C7 |
| ZUP | STD 43D | 102B (57) 102D(2) 106 (114), 155 | 88A/E6, 88B/C6 |
| ZUQ | MD 43D | 108 | APP FIG. 11, 88A/A9 |
| ZUR | STD 43D | 102B (42), 102D(5) 106 (114) | 88B/C7 |
| ZUS | STD 43D | 102C (159), 106 (114, 116) | APP FIG. 22, 28A/A9 B5, B7, B9 |
| ZUT | A&M 43D | 102B (31), 145, 181 | 6A/A5 |
| ZUU | STD 43D | 102B (36), 108 | 88B/G0 |
| ZUV | STD 43D | 102B (36), 102C (157) | 88B/F9, G0, 102B8 |
| ZUW | STD 43D | 102B (36) | 98D/E9 |
| ZUX | MD 43D | | 81B0, 87F1 |
| ZUY | STD 43D | 102C (161), 106 (121) | 36D4, D5, E2, 62A/A3, A4, 81A0, 87F1 |
| ZUZ | MD 43D | 108 | 36C4, C5, E5 61A3, 81A2 62A/A3 |
| ZTB | STD 43D | 102B (29A), 102D (33), 106 (117, 118, 147), 181 | 30B/G6, G7, 50E6, F8 |
| ZTC | STD 43D | 102B (87), 106 (117, 145), 181 | APP FIG. 39 |
| ZTD | STD 43D | 102B (79), 108 | 132C7 |
| ZTE | STD 43D | 102B (79), 109 | APP FIG. 147, 124C0, 132C7 |
| ZTF | STD 43D | 102B (58), 102D (9) | 44H4 |
| ZTG | STD 43D | 102B (58), 102C (158), 102D(9) | APP FIG. 81 |
| ZTH | MD 43D | 108 | 88C/A9 |
| ZTI | STD 43D | 102C (160), 106 (151) | 88B/C9, 88C/A8 |
| ZTJ | STD 45D | 102B (88), 102D (31), 181 | 59B/E7 |
| ZTK | STD 45D | 102B (88), 102D (31), 106 (69), 126, 181 | APP FIG. 8, 165 |
| ZTL | STD 43D | 102B (57) 106 (116, 156), | 88A/37 |
| ZTM | STD 43D | 102B (57), 102D(2) 106 (116, 156), 155 | 88A/B7, C5 |
| ZTN | STD 43D | 102B (57) 102D(2) | 88C/A6 |
| ZTO | STD 43D | 102B (57) 102D(2) | APP FIG 131 |
| ZTP | STD 43D | 102B (34) 102C (156), 102D (12), 106 (14) | 62A/H3 |
| ZTQ | STD 44A | 102B (55), 106 (61), 150, 181, 188 | APP FIG 88, 79E5 |
| ZTR | STD 43D | 102B (76), 102D (49) | APP FIG 160, 106F2 |
| ZTT | STD 45D | 102B (40), 106 (94), 151, 165 | APP FIG 43, 49C/D4 E4, E6, F3, F4, F6, |
| ZTU | MD 45D | | 39B/C5 |
| ZTV | STD 45D | 102B (40) | 33B/B7, C7, 61F5, F7 |
| ZTW | STD 45D | 102C (115) | 39B/C5, C6 |
| ZTX | STD 45D | 102B (40) | 1D2, 1F2 |
| ZTY | MD 45D | 108 | APP FIG. 82, 57B/G8, F9 |
| ZTZ | STD 45D | 102B (40), 151, 160, 181 | APP FIG. 82, 1D2, 1F2, 57B/G8, G9 |
| ZSB | MD 45D | 108 | 102B4 |
| ZSC | A&M 45D | 102B (34), 102C (169), 102D (12) | 102B4 |
| ZSD | MD 45D | 108 | APP FIG 113, 48/C3, 118A, 12A1 |
| ZSE | STD 45D | 102B (57) | 130B, E6, F8 |
| ZSF | STD 45D | 102B (57), 102D(2) 106 (122), 119 | APP FIG. 113, 48/C3, 118A, 12A2 |
| ZSG | MD 45D | | APP FIG. 19, 23C5 |
| ZSH | STD 45D | 102C (164), 106 (18, 61) | APP FIG. 7 |
| ZSI | STD 45D | 102B (6), 102C (167) 102D (17) | APP FIG. 25 |
| ZSK | MD 45D | 108 | 104A/A9 |
| ZSL | STD 45D | 102B (34), 102C (165), 102D (12), 108 | 21B/D4 |
| ZSM | STD 45D | 102B (2), 102D (15), 106 (125) | APP FIG. 26, 81D4 |
| ZSN | STD 45D | 102B (91), 181 | APP FIG. 42 |
| ZSO | MD 45D | 108 | 4B/C2 |
| ZSP | STD 45D | 102B (57), 102C (168) 122(2) | 4B/C3 |
| ZSQ | STD 45D | 102B (90) | 91G5 |
| ZSR | STD 45D | 102B (9), 102D (45) | 28B/E8 |
| ZSS | MD 45D | 108 | 22A8 |
| ZST | STD 45D | 102C (111) 106 (5, 139) | 20A/B7 |
| ZSU | STD 45D | 102B (91), 106 (126), 181 | 24B/D2, 25E1, 26D1 |
| ZSV | STD 45D A&M 49D | 102B (64), 102D (12, 20) 108, 128 | 77G7, G8 |
| ZSW | STD 45D | 102B (34), 102D (12) 181 | 77G9, 105G1 |
| ZSX | STD 45D | 102B (41) | 77D8, F7 |
| ZSY | MD 45D | 108 | 77C8 |
| ZSZ | STD 45D | 102B (12, 102C (166), 102D(1) | 77C8, D7 |
| ZRA | STD 47D | 102B (84), 102D (13), 108 | APP FIG. 152, 13B06, 139G4, 141C6, F0, F5, G4 |
| ZRB | STD 47D | 102B (84), 102D (13), 108 | 141C3, 143F8 |
| ZRC | STD 47D | 102B (84), 102D (11) | 23G8 |
| ZRD | STD 45D | 102C (170) 153 | 22A8 |
| ZRE | STD 45D | 102C (162) | 109C2 |
| ZRF | STD 45D | 102B (57), 155 | 88A/35-D5, 88B/C6, D6, H4, 88C/A2, G3 |
| ZRG | MD 47D | 108 | 88B/D8, G0 |
| ZRH | STD 47D | 102C (178) 106 (132) | 88B/D9, G0 |
| ZRI | STD 45D | 102B (57), 106 (57), 108, 155 | 88B/D8, G0 |
| ZRJ | STD 47D | 102B (6), 181 | 59A/A3, B3, C3 |
| ZRK | STD 47D | 102B (6), 109 | 58F6, 92C7 |
| ZRL | STD 47D | 102B (6), 181 | APP FIG. 71, 59A/B5, 92C7 |
| ZRP | STD 47D | 102B (84), 102D (13) | APP FIG 153 |
| ZRQ | STD 47D | 102B (84), 102D (13), 108 | 141C3, 143F8 |
| ZRR | STD 47D | 102B (84), 102D (13) | APP FIG 155, 137F0 |

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|---|---|---|---|
| ZRS | MD 47D | 108 | 41B/B6 |
| ZRT | MD 47D | 108 | APP FIG. 90 |
| ZRU | STD 47D | 102C (170), 106 (100) | APP FIG. 90,150S |
| ZRV | STD 47D | 102B (58) 102D(9) | 38D4 |
| ZRW | STD 47D | 102B (58) 102D(9) | 38D4 |
| ZRX | MD 47D | | 138A3 |
| ZRY | STD 47D | 102B (84), 102C (171), 102D (13), 106 (101) | 138A3 |
| ZQA | MD 47D | | 41B/G7,87E0 |
| ZQB | STD 47D | 102C (173), 106 (150) | APP FIG. 6,87E1 |
| ZQC | STD 55B | 102B (92), 181 | 7E9 |
| ZQD | STD 55B | 102B (92), 181 | 7E9 |
| ZQE | STD 55B | 102B (92), 181 | 7E6 |
| ZQF | STD 47D | 102C (174), 106 (14) | 72A6 |
| ZQG | MD 47D | | |
| ZQH | STD 47D | 101J, 102B (14), 102C (179) | |
| ZQK | MD 49D | 108 | 2G3,31B/F1,G2 77F7,G6,G7 |
| ZQL | STD 49D | 102B (64), 102C (180) | 31B/G1,G2,33B/A3, 34C/B4,B5,77F7, G7,H6,78A/E2,E3, 10783,B4 |
| ZQO | STD 51D | 102B (93), 181 | |
| ZQP | MD 47D | | APP FIG. 22 |
| ZQQ | STD 47D | 102C (172), 106 (18) | APP FIG. 22 |
| ZQR | STD 49D | 102B (94), 181 | 88A/F2,G4 |
| ZQS | STD 49D | 102B (94) 181 | 98A/F2,G4 |
| ZQT | STD 49D | 102B (42), 102D(5) 108 | 81B6 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZQU | STD 49D | 102B (42) 08) 02D(5) | 81B6 |
| ZQV | STD 49D | 102B (84), 102C (182), 102D (13) | APP FIG. 152 |
| ZQW | STD 49D | 102B (34), 106 (42), 102D (12) 108 | APP FIG. 22,43, 66A2,101F3-H3 |
| ZQX | STD 49D | 102B (34), 1020 (12) | APP FIG. 102 |
| ZQY | STD 49D | 102B(34) 102D(8), 108,181 | 34B/A6 |
| ZQZ | STD 49D | 102B (34) 102D(8) 131 | 34B/A6,66A0 |
| ZPA | STD 49D | 102B (34) 1020(8) | 108G1 |
| ZPB | MD 49D | 108 | 29A/E7 |
| ZPC | STD 49D | 102B (6), 102C (155) | 29A/E7 |
| ZPD | STD 49D | 102C (113) | 3A5-E5,G6 |
| ZPE | MD 49D | | 62A/G5 |
| ZPF | STD 39D | 102B (52) | 41B/D7 |
| ZPG | STD 49D | 102C (183) | 34A/C4,D3 |
| ZPH | MD 49D | | 34A/C4,D3 |
| ZPJ | MD 49D | | 99E1 |
| ZPK | STD 49D | 102C (184) | 99E1 |
| ZPL | A&M 41D | (102B (66), 181 | 22A2 |
| ZPO | MD 59B | 1020 (12), 128 | 107D1,D2 |
| ZPP | STD 51D | 102B (67), 102C (185), 1020 (43) | 66B7,B8 |
| ZPR | STD 51D | 102B (29A) 102D (33) 108, 160, 181 | IF0-H0,B3-E3, B5-G5,B6-G6 |
| ZPS | STD 51D | 102B (29A), 102D (33), 106 (147), 160, 181 | IF0-H0,F1-H1, C5-G5,B6-G6 |
| ZPT | A&M41D | 102B (66) | 70D7 |
| ZPU | MD 51D | 108 | 29A/D8,E8 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZPV | STD 51D | 102B (49) 102C (85), 102D(6) 163, 181, | 29A/E8 |
| ZPW | MD 51D | | 44A0 |
| ZPX | STD 51D | 102C (58) | 44A0,87H3 |
| ZPY | STD 51D | 102B (9), 102C (84), 102D (45), 106 (137), 161, 181 | 28B/D0,D1,E0,E1 |
| ZPZ | MD 51D | 108 | 29A/G8,G9 |
| ZOA | STD 51D | 102B (49) 102C (19), 102D(6) 106 (57), 163, 181 | 29A/F8 |
| ZOC | STD 53B | 102B (42), 102D(5) 108 181 | |
| ZOD | STD 53B | 102B (34), 102D (12), 108 | 78A/A7,107G4,H5,H6 |
| ZOE | STD53B | 102B (34), 102D ( 5 ) 108 | 115E9 |
| ZOF | STD 53B | 102B (42) 102D(5) 166, 181 | 45D4,D5 |
| ZOG | STD 53B | 102B (34) 1020 (12) | 28A/G6,G7,78A/A7, 115E9 |
| ZOH | STD 49D | 102B (64) | 30B/C6,C7 |
| ZOJ | STD 49D | 102B (64), 108 | 30B/C6,C7 |
| ZOK | A&M 51D | 102B (29B), 102D (41),108 | 20A/C3,E7 |
| ZOL | STD 51D | 102B (29B), 1020 (41) | 20A/B3,C2,D8,E7,F8 |
| ZOM | STD 49D | 102B (95), 1020 (22) | 12A3 |
| ZOO | STD 51D | 102B (58) | 78B/F1,F2 |
| ZOP | STD 51D | 102B (58), 102C, (87), 102D (9), 106 (12) | 30A/H4,78B/D1,F1, F2,107F1,F2 |
| ZOQ | MD 51D | 108 | 30A/H4 |
| ZOR | A&M 51D | 102B (83), 102D (28), 106 (99) | 32H0 |
| ZOS | MD 51D | 108 | 32H0 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZOT | STD 51D | 102C (114), 102D (28) 106(99) | 32F4,G3 |
| ZOU | MD 51D | | 32F3,G3 |
| ZOV | STD 51D | 102B (83), 1020 (28) 106(99) | 34A/F1-F3 |
| ZOW | STD 51D | 102B (83), 1020 (28) 106(99) | 34A/F1-F3 |
| ZOX | STD 51D | 102B (52), 102C (88), 106 (138) | 23H3 |
| ZOY | STD 49D | 102B (96) | 40B6 |
| ZOZ | STD 53B | 102B (98) | 38E1,F1 |
| ZNA | STD 51D | 102B (34), 102C (117), 102D (12),106 (14),112 | |
| ZNB | STD 53B | 102B (98), 106 (141) | 122B/A7 |
| ZNC | STD 53B | 102B (72), 102C (118), 102D (27) | 62A/C4 |
| ZND | STD 53B | 102B (84) 102D (13) | 34C/B7 |
| ZNE | STD 53B | 102B (84) 102C (146) 102D (13) | 34C/B7 |
| ZNF | MD 53B | 108 | 41B/A4,A5 |
| ZNG | STD 53B | 102C (170), 153 | 41B/A4 |
| ZNH | MD 53B | 101A, 108 | 28B/E9 |
| ZNI | STD 53B | 102B (6), 106 (142), 169 | 28B/E9 |
| ZNJ | MD 53B | 101A, 108 | 28B/C9 |
| ZNK | STD 53B | 102B (79), 106 (142), 169 | 28B/C8,C9 |
| ZNL | MD 53B | 101A, 108 | 28B/E9,F9 |
| ZNM | STD 53B | 102B (6), 106 (142), 169 | 28B/F9 |
| ZNN | MD 53B | 101A, 108, 182D | 28B/F9,G9 |
| ZNO | STD 53B | 102B (6), 102D (48), 106 (142), 169 | 28B/G9 |

| APP OR WRG | RATED IN ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZNP | MD 53B | 101A, 108 | 28B/C9 |
| ZNQ | STD 53B | 102B (79), 106 (142), 169 | 28B/D8,D9 |
| ZNR | MD 53B | 101A, 108 | 28B/A9 |
| ZNS | STD 53B | 102B (33), 102D (32) 106 (143) 169 | 28B/A9 |
| ZNT | MD 53B | 108 | 28B/A9 |
| ZNU | STD 53B | 102B (22), 102D (46), 106 (133), 169, 181 | 28B/B9 |
| ZNV | MD 53B | 108 | 28B/D9 |
| ZNW | STD 53B | 102B(34), 102D (19), 106 (14), 169 | 28B/D8,D9 |
| ZNX | MD 53B | | 28B/D9 |
| ZNY | STD 53B | 102C (82), 169 | 28B/E9,70E0 |
| ZMA | STD 53B | 102B (43), 102D(8) 181 | 104A/F5,G5 |
| ZMB | STD 53B | 102B (43), 1020(8) 181 | 104A/D5,E5 |
| ZMC | MD 53B | | 114B/B4 |
| ZMD | STD 53B | 102B (49), 102C (142), 102D(6) 181 | 114B/B4 |
| ZME | STD 53B | 102B (52), 106 (51) | 122B/C4,D3 |
| ZMF | A&M 53B | 102B (34), 102D (19), 108 | |
| ZMG | A&M 53B | 102B (34), 102D (19) | |
| ZMH | MD 52A | 108 | 62A/B5 |
| ZMI | STD 52A | 102B (72) 102D (27) | |
| ZMJ | A&M 53B | 102B (42) 102D(5) 181 | |
| ZMK | STD 53B | 102B (42) 102D(5) 108,181 | APP FIG. 88 |
| ZML | STD 53B | 102B (96) 102C (189), 106 (144) | 4A/C5,6A/E3,G2 |
| ZMN | STD 53B | 102C (177), 106 (134) | 28B/F9 |
| ZMN | STD 53B | 102B (29A), 102D (33) 181 | 30B/G6,G7 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZMO | STD 53B | 102B (29A) 102D (6,33) 106 (145) 181 | 30B/G6,G7,47C5, 50G5,114B/G2 |
| ZMP | MD 53B | | 50G6 |
| ZMQ | STD 53B | 102C (175) | 50G6 |
| ZMR | MD 53B | | 36C3 |
| ZMS | STD 53B | 102C (187) 106 (146) | 36C3 |
| ZMT | STD 53B | 102C (186) 106 (146) | 34A/B5 |
| ZMV | A&M 53B | 102B (66), 102C (176) 106 (61) | 122B/A7,B8,B9 |
| ZMW | MD 53B | | 64G4 |
| ZMX | STD 53B | 102C (188) 106 (61) | 64F4 |
| ZMY | STD 53B | 102C (123), 106(54) 108 | 38C/A0,A1,103B/C7, |
| ZMZ | STD 49D | 102B (64) | 31B/G1,34C/A4,A5 78A/F3,107A3 |
| ZLA | STD 53B | 102B (31), 102C (177), 102D (18) | 6B/C8 |
| ZLB | STD 55B | 102C, (91) | 27(A-C)6,(A-C)7 |
| ZLC | STD 53B | 102C (114, 177) 102D (28) | |
| ZLD | STD 55B | 102B (42) 102D (5) | 65C1 |
| ZLE | STD 55B | 102B (42), 102C (194), 102D (5) | 65C1,D1 |
| ZLF | MD 55B | 102D (18), 108 | 7C6,D6,D8,E6,F3 |
| ZLG | STD 55B | 102B (31), 102C (190), 102D (18) | |
| ZLH | STD 45D | 102B (52) | 48G6,H6 |
| ZLI | STD 37D | 102B (52) | 70B/E4 |
| ZLJ | MD 55B STD 57B | 102B (100), 106(153) 128 | 56E1,G1 |
| ZLK | STD 55B | 102B (34), 102D (12) 106 (148) | APP FIG. 51,20A/B8, 100B/F2 |
| ZLL | STD 55B | 102B (34) 102D (12) | 6B/5B |
| ZLM | STD 55B | 102B (30), 102D (39,44) 108 | 20A/D8,88A/B7,C7 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZLN | A&M 55B | 102B (30) 102D (39,42) 106 (14) | 20A/C7-C9,D7 |
| ZLO | STD 55B | 102B (34), 102D (12) 172 | 107H6,H7,115A9,C2 |
| ZLP | STD 55B | 102B (34) 1020 (12) 108 | 107H6,H7 |
| ZLQ | STD 55B | 102C (193) | 56E0,G0 |
| ZLR | MD 55B | 108 | |
| ZLS | STD 55B | 102B (33), 102C (195), 1020 (40) 106 (150), 181 | 72A7 |
| ZLU | STD 57B | 102C (81), 106 (151), 174 | 37A7,88B/B7 |
| ZLW | STD 55B | 102B (14) | 70G0 |
| ZLX | A&M 55B | 102B (14), 106 (152) | 70H0,H1 |
| ZLY | STD 55B | 102B (14), 106 (152), 108 | 70H0,H1 |
| ZLZ | STD 45D | 102B (52) | 72F6,75C6 |
| ZKA | MD 57B | 108 | 111A/G2,F3 |
| ZKB | STD 57B | 102B (99) | 6A/H5,7B6,H5,F2,H5, 23E2,24A/B2,B3,B4, D0,G4,26D3,28A/D0,F0, 29A/A2,B3,E4,F5,F6,H5, 29B/H2,30B/E6, 31B/G6,35B/A3,D9, H2,39A/H5,39B/A5, 40A4,G2,41B/E7,F6, 48G2,G3,62A/B1, 64A4,D5,66E1,E8, F2,70F6,72E3,73B/E6, F5,78B/F6 |
| ZKC | STD 57B | 102B (99), 106 (153) 108, 179 | 2F1,7C6,15G9,H9, 17H5,18B7,F2,23E3, 24A/F3,G3,29B/A2, B3,D5,29B/H2,30B/E5, 31B/C2,F6,33A/F8, 35B/D9,H3,37D0, 39A/H4,H5,39B/A5, 04,40A3,F2,41A/B8, 41B,F7,45C1,56C5, 57A/B4,62A/F1, 63A3,66E7,F1,F3, 70G6,72E3,E4, 77H4,H8,73B/F6,G8, 78B/F6,100B/C2, 104A/B9,109A2 |
| ZKD | STD 57B | 102B (14), 102C (128) | APP FIG. 45 |

| APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|
| ZKE | MD 57B | 106 (154), 108 | 39B/A6,88C/A0 |
| ZKF | MD 57B | 106 (154), 108 | 88B/A0 |
| ZKG | STD 57B | 102C (196), 106 (154), 108 | 88A/G8,88C/B0 |
| ZKI | STD 57B | 102C (48), 179, 1828 | 77G0 |
| ZKK | STD 57B | 102B (99) | 108F5,G5,H7 |
| ZKL | STD 59B | 102C (159) | 88A/A8 |
| ZKM | A&M 59B | 177 | APP FIG. 8,88A/B7 |
| ZKN | STD 57B | 102B (99) | 7H6,19H5,H6,23E2, 24A/A3,B2,B4,24A/D0, 26D2,28A/D0,E3,F0, F3,29A/A3,D4, 30B/E6,35B/A4,D9,H2, 39B/A5,40A6,41B/F3, 47A6 62A/B1,64A4,E5, F5,66E7,78B/E6 |
| ZKP | STD 57B | 102C (197), 106 (157) | 38E4 |
| ZKS | STD 57B | 102B (42) 102D(5) 108 | 103B/D5 |
| ZKT | STD 57B | 102B (90) | 100B/B0,C0 |
| ZKU | STD 57B | 102B (42), | 4A/D2,E1,19B7,22E5, 30A/C2,36E4,F8,40D5 44G1,66G7,84E7,103A/B0, 103B/A5,B6 |

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|---|---|---|---|
| ZKV | STD 57B | 102B (42), 106 (61, 69) | 3G7,H1,4A/B1,C2,D2, D6,E1,E2,5A/H2,H7, 5B/G3,19C6,22E4, 23A8 30A/C1,34A/B5 35B/B4,E9,E1, 36D6,58,F4,E5,E8,F4, F8,40C7,D4,43E2, 44F1,G1,H2,66C7, 84E7,86H3,G5,87H5, 88B/C7,C8,88C/F2, F3,103A/B0,C0, 1038/A5,A7,B6,D5,E5, G7,105H0,109F4,F5, G3,G4,H3 |
| ZKW | STD 57B | 102B (42) | 36E4,F8,40D5, 44G1,84E8 |
| ZKX | STD 57B | 102B (14) | 42B8,C8 |
| ZKY | MD 57B | | 34C/E8,84D6 |
| ZKZ | STD 57B | 102C (132) | 22B2,34C/D8, 84D5 |
| ZJA | MD 57B | | 42B4,44C4,B0,D1 |
| ZJB | STD 57B | 102C (193), 178 | APP FIG. 30,42D0, C4,D1,57A/B4 |
| ZJC | STD 57B | 102B (6), 108 | 109B3 |
| ZJD | STD 57B | 102B (6) | APP FIG. 23 |
| ZJE | MD 57B | | 86F1 |
| ZJF | STD 57B | 102C (133) | 86F1,87C1 |
| ZJG | STD 56A | 102B (72), 102D (27) | 64D7 |
| ZJH | STD 56A | 102B (72), 102D (27) | 64D7 |
| ZJI | A&M 57B | 102B (19, 34), 108 | 28A/E8,100B/G5 |
| ZJJ | A&M 57B | 102B (34) | 28A/D2,100B/G5 |
| ZJK | STD 57B | 102B (45), 122D (37), 108 | 47A6 |
| ZJL | MD 57B | | 40D5,D6,D7 |
| ZJM | STD 57B | 102C (198), 106 (18), 180 | 40D5,D6 |
| ZJN | STD 49D | 102C (180) | 107C4 |
| ZJO | STD 49D | 102C (180) | 10783 |
| ZJP | STD 57B | 102B (14), 102D (30), 108 | 85C2,101E8 |
| ZJQ | STD 57B | 102B (14) | 85D1 |
| ZJR | STD 57B | 102B (14), 102D (30) | 85C1,100B/C6,H3, 101E8 |
| ZJS | STD 57B | 102B (14) | 33A/G6,G8 |
| ZJT | STD 57B | 102B (34), 102D (12), 108 | 28G3,100B/C2 |
| ZJU | STD 57B | 102B (42), 102D(5) 108 | 40C7,88C/F2, 103B/E4,10782 |
| ZJV | STD 57B | 102B (99) | 59A/H7 |
| ZJW | STD 57B | 102B (99) | 59A/H7 |
| ZJX | STD 59B | 102B (98), 106(141 (55)108 | 38E1 |
| ZJY | MD 58A | | 122B/B3,C3 |
| ZJZ | STD 58A | 102C (76), 106 (51), 108 | 122B/B3,C3 |
| ZIA | STD 57B | 102B (14) | 70H1 |
| ZIB | A&M 57B | 102B (31), 102D (12,19), 108 | 6A/F4,G4,101D7,E3, E6 |
| ZIC | A&M 57B | 102B (31), 102D (12,19) | APP FIG.78,7G1, 101C7,D3,D7 |
| ZIE | MD 59B | 108 | 34C/G8 |
| ZIF | STD 59B | 102B (52), 102C, 199 | 34C/F8,G7,G8 |
| ZIG | STD 57B | 102B (18), 108 | 24A/E3 |
| ZIH | STD 57B | 102B (18) | 24A/E3,F4 |
| ZII | STD 59B | 102B (34), 102D (12), 168 | 107D1,D2 |
| ZIJ | A&M 59B | 102B (34), 102D (19), 184 | 70F6 |
| ZIK | MD 59B | | 62A/H8,108G5 |
| ZIL | STD 59B | 102C (52) | 62A/H8,108G5 |
| ZIM | STD 57B | 102B (14), 108 | 70H1 |
| ZIN | STD 59B | 102B (98) | 23F9 |
| ZIO | STD 59B | 102B (98) | 23F9 |
| ZIQ | A&M 57B | 102B (31), 102D (19), 108 | 6A/C9 |
| ZIR | A&M 57B | 102B (31), 102D (19) | APP FIG. 78,6A/C9, H4 |
| ZIS | STD 59B | 102B (99) | 29B/D1,57B/C4, 5046,D6,G5 |
| ZIT | STD 57B | 102B (42), 183 | 4A/C2,D0,22A3,E5, 30A/C2,61D4, 62A/F7,H4,64G7, 66H7,67B1,C4,68A3, C8,69B2,103B/C6, 105H4,108E6, 109F5,G4, |
| ZIU | STD 57B | 102B (6) | 27F3,F4 |
| ZIV | A&M 53B | 106 (61) | 122B/B9 |
| ZIW | A&M 57B | 102B (34) | 101A1 |
| ZIX | A&M 57B | 102B (30,42) 108 | 20A/A4,A5 |
| ZIY | 57B STD | 102B (96) | 25B1,25C0 |
| ZHC | STD 61B | 102B (34), 102D (8), 108 | 66A2,F1 |
| ZHE | MD 61B | | 43G4 |
| ZHF | STD 61B | 102C (201) | 88B/A0 |
| ZHG | STD 61B | 102B (87) | 5035,5036,5065,D5 |
| ZHH | STD 61B | 102B (87), 106 (45) | 5035,5065,5084,D5 |
| ZHI | STD 61B | 102B (30), 102C (199), 102D (42), 108,167 | 57B/D3 |
| ZHJ | MD 61B | | 87D4 |
| ZHK | STD 61B | 102C (202) | 87D4 |
| ZHM | STD 61B | 1820 | 6A/E2 |
| ZHN | STD 61B | 102B (99), 182C | 6A/D2,E2 |
| ZHO | MD 57B | 108 | 186Z,1988 |
| ZHP | STD 57B | 102C (115), 106 (153) | APP FIG. 6,1962, 1986 |
| ZHQ | MD 60A | 108 | 6B/E5 |
| ZHR | STD 60A | 102B (99) | 6B/E6 |
| ZHS | MD 61B | 102B (96), 102C (203) | 39B/B7 |
| ZHT | STD 61B | 102C (159), 106, (116) | 88A/B9 |
| ZHU | MD 61B | 108 | 88A/B9,C9 |
| ZHV | MD 61B | 108 | 18A7 |
| ZHW | MD 61B | | 18A7 |
| ZHX | STD 61B | 102C (204), 160 (161) | 18A7 |
| ZHY | STD 57B | 182D, 182E, 190 | 29B/C3 |
| ZHZ | STD 57B | 182D, 182E, 190 | 29B/C4,31B/G7 |
| ZGA | STD 57B | 102B (99) | 6A/H4 |
| ZGB | STD 57B | 102B (99) | 6A/D4 |
| ZGC | A&M 57B | 102B (99) | 6A/D4,H4 |
| ZGD | STD 61B | 102B (52) | 109D6 |
| ZGE | STD 61B | 102B (42), 102D (5), 108 | 22A2 |
| ZGF | STD 61B | 102B (66), 102C (206), 102D (5) | 22A2 |
| ZGG | STD 61B | 102D (5), 108 | 22A3 |
| ZGH | STD 61B | 102B (66), 102C (206), 102D (5) | 22A3 |
| ZGI | STD 57B | 102B (99) | 66D5 |
| ZGJ | STD 57B | 102B (99) | 66D5 |
| ZGK | A&M 63B | 102D (1) | 105D8 |
| ZGL | MD 63B | | 30A/B3,107C3,D3 |
| ZGM | STD 63B | 102C (207) | APP FIG. 21, 30A/B3 |
| ZGN | STD 57B | 102B (34), 102D (8), 108 | 104A/D9 |
| ZGO | A&M 63B | 102D (2) | 4B/E2 |
| ZGP | STD 57B | 102B (34) 102D(8) 108 | 104A/B6 |
| ZGQ | A&M 57B | 102B (34) | 6E/H4,104A/B6 |
| ZGR | A&M 57B | 102B (99), 108 | 34B/C1,87B2 |
| ZGS | A&M 57B | 102B (99) | 34B/B1 |
| ZGT | STD 57B | 102B (99), | 18A7,40A5 |
| ZGU | STD 63B | 102B (99), 108 | 100B/B2 |
| ZGV | STD 63B | 102B (99), 102C (208) | 100B/B2 |
| ZGW | STD 63B | 102B (66), 102X(7) | 72G5 |
| ZGX | STD 63B | 102B (66), 102C (209), 102D (7) | 72G5 |
| ZGY | STD 63B | 102B (6) | 47H8 |
| ZGZ | A&M 63B | 102B (102) | 88A/A6,D6 |
| ZFA | STD 63B | 102B (102) | 88A/A6,D6 |
| ZFB | A&M 63B | 102B (58), 102D (9) | 88A/A6,D6 |
| ZFC | STD 63B | 102B (58), 102D (9) | 88A/A6,C6 |
| ZFD | A&M 63B | 102B (57), 102D (2) | 88A/B6,C6 |
| ZFE | STD 63B | 102B (57), 102D (2) | 88A/B6,C6 |
| ZFF | A&M 63B | 102C (159) | 39A/B6 |
| ZFG | STD 63B | 102C (159) | 15H7,88A/B6 |
| ZFH | A&M 63B | 102B (30) 102D (42) | 88A/B6,883/A0 |
| ZFI | STD 63B | 102B (30), 102D (42) | 88A/B6 |
| ZFJ | A&M 63B | 102B (57), 102D (2) | 88A/C6 |
| ZFK | STD 63B | 102B (57) 102D (2) | 88A/C6 |
| ZFL | STD 63B | 102B (95) | 15A1,B1 |
| ZFM | STD 63B | 102B (95) | APP FIG 4,15A1,B1 |
| ZFN | MD 63B | | APP FIG 11,123 |
| ZFO | STD 63B | 102C (210) | APP FIG. 11,123 |
| ZFP | MD 62A | 108 | 72E3 |
| ZFQ | STD 62A | 102B (99), 102C (211) | 72E3 |
| ZFR | MD 65B | | 88A/C1 |
| ZFS | STD 65B | 102C (212) | APP FIG 7,88A/B1 |
| ZFT | STD 57B | 102B (99), 108 | 102G8 |
| ZFU | A&M 57B | 102B (99) | 39B/D4 |
| ZFV | STD 57B | 102B (99) | 39B/D4 |
| ZFW | STD 65B | 102B (103) | 39B/A8,40C5,G6 |
| ZFX | STD 65B | 102B (103) | 1A7,14E2,E6,18A0,A4, 19E5,22H0,37A1,38A5, 40D3,D5,G5,41A/C9, 47A6,87,49B/H0, 49C/C3,D3,E3,F3, 64G0,71A4,72F6,79E6, 89A5,109D6,E8,G5 |
| ZFY | STD 65B | 102B (103) | 19E5,H5,39B/A7,40D5, D6,F1,H4,71E7, 79G6 |
| ZFZ | STD 65B | 102B (103) | 19E5,40D5,G3 |
| ZEA | STD 65B | 102B (103), 108, 188 | 39B/A7 |
| ZEB | STD 65B | 102B (103), 108, 198 | 19G5 |
| ZEC | MD 65B | 108 | 121B/B4 |
| ZED | A&M 65B | 102B (66), 102C (172) | APP FIG 43, 63C7,121B/B4 |
| ZEE | MD 65B | 108 | APP FIG 43,121A/G4 |
| ZEF | STD 65B | 102B (66), 102C, (172) | 63C3,121A/G3 |
| ZEG | MD 65B | 103 | APP FIG 56 |
| ZEH | STD 65B | 102C (213), 103 | APP FIG 56 |
| ZEI | MD 65B | 103, 108 | APP FIG 75 |
| ZEJ | STD 65B | 102C (213), 103 | APP FIG 75 |
| ZEK | MD 65B | 103, 108 | APP FIG 75 |
| ZEL | STD 65B | 102C (213), 103 | APP FIG 75 |
| ZEM | MD 65B | 103, 108 | APP FIG 75 |
| ZEN | STD 65B | 102C (213), 103 | APP FIG 75 |
| ZEO | MD 65B | 103, 108 | APP FIG 39 |
| ZEP | STD 65B | 102B (6), 102C (213), 103 | APP FIG 39 |
| ZEQ | MD 65B | 103, 108 | APP FIG 105 |
| ZER | STD 65B | 102B (49), 102C (213), 103 | APP FIG 105 |
| ZES | A&M 65B | 102D (5) | 44H1 |
| ZET | A&M 65B | 102D (6) | 29A/A8,D6,60A1 |
| ZEU | STD 65B | 102B (99), 102C (214) | 24A/C1 |
| ZEV | STD 65B | 102D (9) | 15H7,88D/D5,99G8 |
| ZEX | A&M 65B | 102D (12) | 78A/B6 |
| ZEY | A&M 65B | 102D (12) | 107G9 |
| ZEZ | A&M 65B | 102D (12) | 27E0 |
| ZDA | A&M 65B | 102D (12) | 107H6 |
| ZDB | A&M 65B | 102D (12) | 64C7,66G1 |
| ZDC | A&M 65B | 102D (13) | 4A/A7,24B/C0, 31B/F8,78B/G2 |
| ZDD | A&M 65B | 102D (13) | 23G8 |
| ZDE | STD 65B | 102B (84), 102D (13), 108 | 34A/A9 |
| ZDF | STD 65B | 102B (84), 102D (13), 108 | 22H8,23E4,34A/A9 |
| ZDG | STD 65B | 102B (31), 102D (18), 108 | 6A/D3,6B/H2 |
| ZDH | STD 65B | 102B (31), 102D (11), 108 | 6A/C3 |
| ZDI | A&M 65B | 1028 (31), 102D (18) | 6A/F4,G4 |
| ZDJ | STD 65B | 102B (31), 102D (18), 108 | 6A/D3,63/C5,D6,E7, 7A4-D4,E7,E9 |
| ZDK | A&M 65B | 102D (18) | 69/E2-H2 |
| ZDL | A&M 65B | 102D (5) | 22A4 |
| ZDM | A&M 65B | 102D (5) | 22A4 |
| ZDN | A&M 65B | 102D (19) | 34C/A8,35B/G8,64F2, F3,70D6,77C2,H0, 78A/D6,78B/E8,G5 |
| ZDO | A&M 65B | 102B (34), 102D (19), 108 | 34C/A7,41A/C5,64A3, 6686, 70E7, 77D2, 78A/C8,78B/E8,F5, 107C0,100B/A7 |
| ZDP | STD 65B | 102B (43), 102D (8), 108 | 34A/B5,B7,B8, 104B/C9,10785,B6 |
| ZDQ | STD 65B | 102B (43), 102D (8), 108 | 104A/C7,D7,108G1 |
| ZDR | STD 65B | 102B (34), 102D (8), 108 | 100B/H6 |
| ZDS | STD 65B | 102B (34), 102D (8), 108 | 104B/B8 |
| ZDU | A&M 65B | 102D (6) | 114A/B5 |
| ZDV | A&M 65B | 102D (6) | 29A9,34B/H3,36G6, 42C3,49B/G8,60A3, 80D2,103A/C1 |
| ZDW | A&M 65B | 102D (28) | 12G7,32H2 |
| ZDX | A&M 65B | 102D (34) | 59A/G6,G8,60A4,D4, 63C1,6604,B5,E5 |
| ZDY | STD 65B | 102B (5), 102D (34), 108 | 59A/G6,6084,C4, E4,63C1,E1 |
| ZDZ | STD 65B | 102B (42) | 88D/B4,108E6 |
| ZCA | STD 65B | 102B (42), 108 | 108E6 |
| ZCB | A&M 65B | 102D (12) | 31B/B2 |
| ZCC | STD 65B | 102B (34), 102D (8), 108 | 34B/D3,100B/C1, 02,F7,108G1 |
| ZCD | STD 65B | 102B (34), 102D (12), 108 | 100B/D4 |
| ZCE | STD 65B | 102B (103) | 40F2,H5 |
| ZCF | STD 65B | 102B (298), 102D (41), 108 | 20A/E8, 28A/B6, 59B/H5 |
| ZCG | STD 65B | 102B (298), 102D (41), 108 | 20A/C2 |
| ZCH | STD 67B | 102B (57) | 88A/A7,B7,C7,E7,F6, 88B/C7,D7,H3 |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S | ISSUE 69B

BELL LABORATORIES | SD-26002-01 | A44

E-7420-216-701 PRINTED IN U.S.A.

OPTION INDEX

| | APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|---|
| A | ZCJ | MD 67B | | 86E0 |
| | ZCK | STD 67B | 102C (215) | 86E0 |
| B | ZCL | STD 67B | 102B (9), 102D (45) | 28B/B5,D8 |
| | ZCM | MD 67B | | 88B/C0 |
| C | ZCN | STD 67B | 102C (216) | 88B/B0,88C/B7 |
| | ZCO | STD 66A | 102B (99), 190 | 29B/C3 |
| | ZCP | STD 66A | 102B (99), 190 | 29B/B4,C3,C4 31B/G7,H7 |
| | ZCQ | STD 69B | 102B (14) | 41A/G4 |
| D | ZCR | STD 67B | 102B (49) | 114A/F0 |
| | ZCS | STD 67B | 102B (103) | 109A4 |
| | ZCT | STD 67B | 102B (103) | 109A4,B4 |
| | ZCU | MD 67B | | APP FIG. 99,105, 127,133,172 |
| E | ZCV | STD 67B | 102C (217) | APP FIG. 99,105, 127,133,172 |
| | ZCW | MD 67B | | APP FIG. 54 |
| | ZCX | STD 67B | 102C (217) | APP FIG. 54 |
| F | ZCY | STD 69B | 102B (218) | 66A8 |
| | ZCZ | STD 69B | 102B (14) | 41A/F4 |
| | ZBA | STD 69B | 102B (14) | 70H0 |
| | ZBB | STD 69B | 102B (14) | 70H0 |
| | ZBC | STD 69B | 102B (14), 106 (163) | 41A/G5 |
| G | ZBD | MD 69B | | 88C/F5 |
| | ZBE | STD 69B | 102C (219) | 88A/G0, 88C/F5 |
| | ZBF | A&M 69B | 102D (49) | 34A/A1, 78B/F2, 87B6, 108F4 |
| | ZBG | STD 61B | 102B (77) | 48F7 |
| | ZBH | STD 61B | 102B (77) | 48G7 |
| H | ZBI | STD 69B | 102B (14) | 41A/G4 |
| | ZBJ | STD 61B | 102B (6) | 48G6 |

| | APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|---|
| | ZBK | STD 69B | 102B (104), 106 (164) | APP FIG. 56, 48F5, 57B/C9 |
| | ZBL | STD 69B | 102B (104), 106 (164) | APP FIG. 56, 48H5, 57B/C9 |

| | APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|---|
| | | | | |

| | APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|---|
| | | | | |

| | APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|---|
| | | | | |

| | APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|---|
| | | | | |

| | APP OR WRG | RATED ON ISSUE | REF NOTES | LOCATION |
|---|---|---|---|---|
| | | | | |

| | APP OR WRG | RATED ON ISSUE | REF | LOCATION |
|---|---|---|---|---|
| | | | | |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S | ISSUE 69B

BELL LABORATORIES | SD-26002-01- | A45

E 7487 10-73 PRINTED IN U.S.A.

# FS 1

CALLING LINE REGISTER AND TRANSFER CHECKER

TO MINI-ROTL INTERFACE CKT

FTO-3
FUO,1,2,4,7
VGO,1,2,4,7,10
HGO,1,2,4,7
VFO-4

ZFX

FTO
FUO
VGO
HGO
VFO
FTI
FUI
VGI
HGI
VFI
FT2
FU2
VG2
HG2
VF2
FT3
FU4
VG4
HG4
VF3
FU7
VG7
HG7
VF4
VG10
HG10

TO MTFC OR OT TIC

OLIT
NCMJ
GTL2
TOG3
CTGS CTFO
CTGS CTFI
CTGS CTF2
CTGS CTF4
CTGS CTF7
CFG2
CTGS
CFGO
TAMI
HNO
HN1
HN2
HN4
HN7
T0
T1
T2
T4
T7
U0
U1
U2
U4
U7
GTL
ZPR
ZPS
ZFR
ZTZ
ZTX
ZTW
ZTY
ZFX
ISO
IS1
IS2
IS4
IS7
49C/FB
49C/D7
49C/B7

ORIG LINE IDENTIFIER

TFN
TFN
VGT – VTKI
HGT – HTKI
VFT – FTKI

LINE LINK MARKER CONN

FTO-3 M-
FUO,1,2,4,7 M-

ORIG REG MKR CONN OR TRANSFER REG MKR CONN

MC- RC-

ORIG REG CKT OR TRANSFER REG CKT

FTO-3
FUO,1,2,4,7
VGO,1,2,4,7,10
HGO,1,2,4,7
VFO-4

OUTGOING SDR. CONN. CKT.

MC- SC-

SDR CKT

FGO-2 OR FTO-3
TFO,1,2,4,7 OR FUO,1,2,4,7
VGO,1,2,4,7,10
HGO,1,2,4,7
VFO-4

TO DAS-ETS OR OTHER APPL

TRUNK LINK CONN

M-

ORIGINATING REGISTER

F1

COMPLETING MARKER CIRCUIT

DRAWING ISSUE

20 BSC
80 BJS
108 BF
119 CN
180 DFF
210 DDF
250 JMT
290 RLP
350 DP
384 DM
390 DM
450

ISSUE 65B

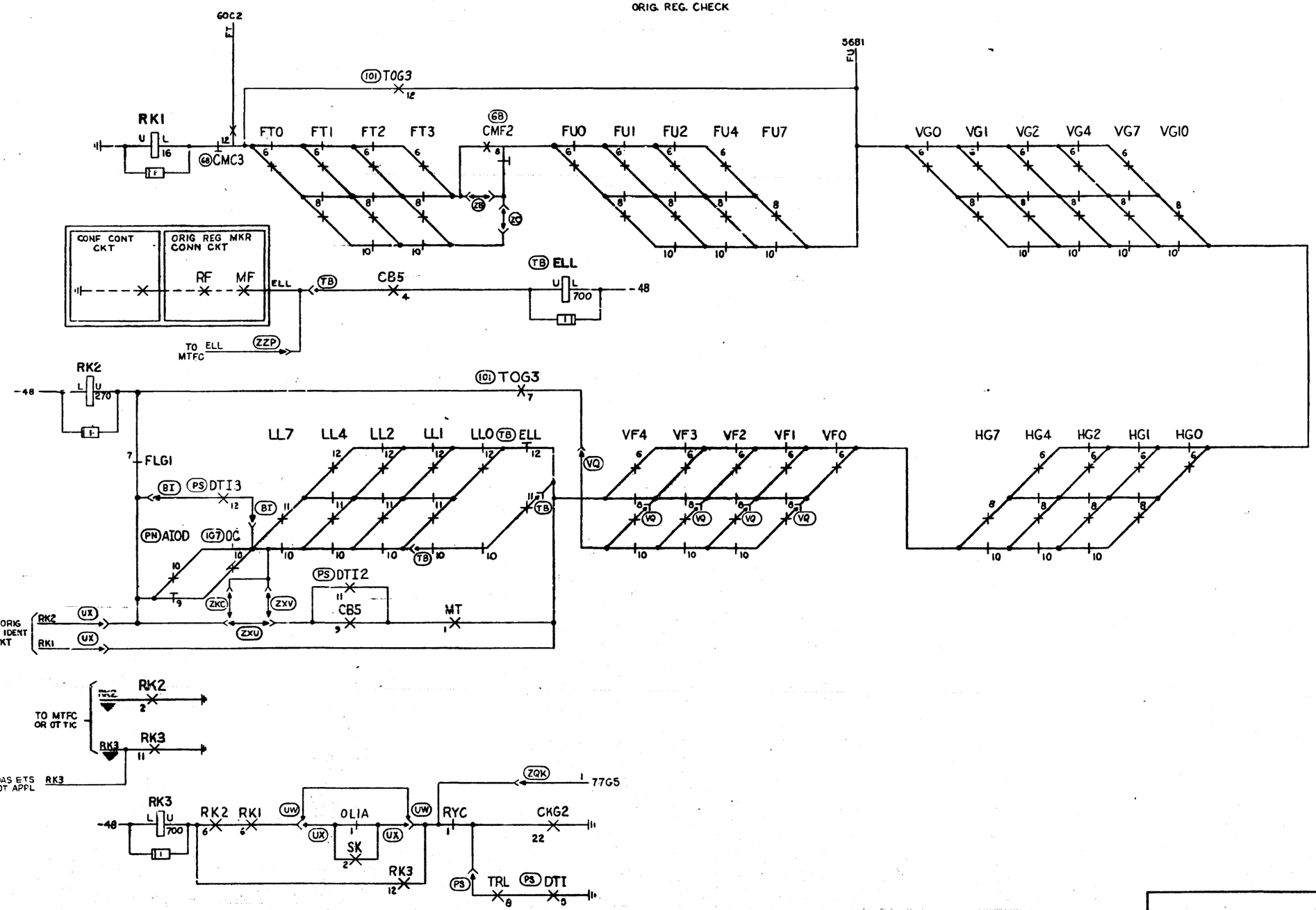
SD-26002-01-B1

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-B

# FS 2

ORIG. REG. CHECK




DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 2D | |
| 4A | |
| 5D | |
| 8D | |
| 21D | |
| 22D | |
| 23A | |
| 25D | |
| 29A | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 37D | |
| 39D | |
| 41D | |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 6B

SD-26002-01-B2

# FS 3

LINE LINK FRAME
UNITS CONTROL

FUT0 FUT1 FUT2 FUT3 FUT4 FUT5 FUT6 FUT7 FUT8 FUT9 FUL

CBI FU7 FU4 FU0 FU1 FU2 FU3 FU5 FU6 FU8 FU9

FUNO FUN1 FUN2 FUN3 FUN4 FUN5 FUN6 FUN7 FUN8 FUN9

TO M.T.F.C. OR OT TIC AND TO DAS CKT

TO MKR DIST CONT CKT FUL ZKV

LTI FUL LLI PSL 172 YJ

3IA/HO

M3 584

120 2WG TNK LA

LC PMLL PML LNP LNPR PBX2

FTL FUL VGL HGL VFL LA

# FS 4

LINE LINK FRAME
TENS CONTROL

E2A/F5 FTNO ZPD FTA0

E2A/F5 FTN1 ZPD FTA1

E2A/F5 FTN2 ZPD FTA2

E2A/F5 FTN3 ZPD FTA3

E2A/F5 FTN4 ZPD FTA4

FTO FTI FT2 FT3 FT1 FT2

CB FTB0 FTB1 FTB2 FTB3 FTB4 FTB5

FTTO FTTI FTT2 FTT3 FTT4 FTT5 FTL FTTB

FTSO FTS1 FTS2 FTS3 4WC 2W

FTNO FTN1 FTN2 FTN3 FTN4 FTN5

CKG2 RV1 RV2 SCB2 SCG2

E2A/F5 FTN5 ZPD TO MKR DIST FTL CONT CKT ZKV

172 PSL

FTL LTI LLI

XFUT TO MTFC

FTTB 6233 8760

TO M.T.F.C. AND TO DAS CKT

DRAW ISSU

| | |
|---|---|
| 1 | |
| 2D | |
| 5Ø | |
| 10B | |
| 18 | |
| 68 | |
| 180 | |
| 210 | |
| 220 | |
| 250 | |
| 27A | |
| 280 | |
| 300 | |
| 32A | |
| 390 | |

SD-26002-01-B3

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

ISSUE 57B

SD-26002-01-B3

# PART OF FS 5

LINE LINK FRAME SEIZURE

(172) PSA 12 — (172) PSL U L 270 — -48 — I

(86) TTL 4 — FLG1 3 — RCL 2 — PTK 1 — FTTB 3

ZKV — ZIT — (91) LLC4 1 — TTL5 — MKR DIST CONT CKT — LLC4 — TTL2 — ZKU — TTL1 — ZKV — TTL6 — LLC4 — TTL7

OSKA 2 — SKB 3 — SKA 3 — SCB2 7

ZIT — (91) LLC4 3 — ZKU — 4 — ZKV — ZKV — M,X,J AMA3 — (91) LLC4 2 — ZKV

TTL3 — TTL4 — MKR DIST CONT CKT — LLC4

OT TST CKT — TR2 L KEY — TR2A — TR2B — TP2B 8

(AH) OTF 2 — ZYZ — ZYZ — ZYP — R LFS -48

SP 4 — LFK 2 — LLC2 1 — TFK2 2 — TFK3 2 — (172) PSL 1 — SOG1 12 — (85) OLI 7

(P3) 3 — (PS) DTI1 — RK3 3 — (PS) — 3 LFS — LFS 33,000 ±20% 8

(64) FTT5 0-9 1-10 ST50-59

(64) FTT4 0-9 1-10 ST40-49 — ST40-59 — 2 WIRE ONLY

(123) FTS3 0-9 1-10 ST30-39 (4W)

FTT3 0-9 1-10 ST30-39 (2W)

(123) FTS2 0-9 1-10 ST20-29 (4W)

FTT2 0-9 1-10 ST20-29 (2W)

(123) FTS1 0-9 1-10 ST10-19 (4W)

FTT1 0-9 1-10 ST10-19 (2W)

(123) FTS0 0-9 1-10 ST00-9 (4W)

ST0-39

FUT9 — FUT8 — FUT7 — FUT6 — FUT5 — FUT4 — FUT3 — FUT2 — FUT1 — FUT0

FTT0 — ST9 — ST8 — ST7 — ST6 — ST5 — ST4 — ST3 — ST2 — ST1 — ST0

TO M.T.F.C. OR OT TIC — LFK — -48 — TO MKR DIST CONT CKT LFK

LFK L U 700 I — 49/F4 — LFK1 — LFK2 — (113) — (113) — (N1) — (ZDC) — (ZZG) — LFK — (ZZP) — 2 — (152) WBA — 4 — (156) VWC — WLK — 138C5 — LFK

LBS0 -48 R — LLCI 2 — BS0 — MC- — 352

LBS1 -48 R — LLCI 3 — (172) PSL 2 — BS1 — MC- — MC-

(CH) LBS2 -48 R — LLCI 16 — (CH,CI,CK) — BS2 — MC- — MCI

(CI) LBS3 -48 R — (172) PSL 3 — (ZML) — (ZWL)

(CJ) LBS2 -48 R — LOT — (85) OLI (P5) DTI 1 7 — 23H2

ORIGINATING LINE IDENTIFIER — DTK — ON — -48 — VTK — HTK

LINE LINK MARKER CONN — M-

(172) PSL 9 — TO MKR DIST CONT CKT LFK1 — ZKV — TO MTFC LFK1 — DTK

LOT L U 700 I — CB2 5 — -48 — (91) LFK1 L U 700 I — LFK1 — MCI

LLB U L 700 — (ZZP) WLLB — 138C2 — TMB — MB — TR — MP — E

TO M.T.F.C. — G — DTK — LLB — TO CLVA OR ETS PWR & DATA INTERFACE CKT

DTK L U 700 I — UX — UW — DTK — MC-

UX — TK 5 — LOT 10 — LOK — MC- — LO

UX — ONX 7 — TCHK 10 — LOT 8 — G — MC- — DT

(172) PSL 10 — LOTI L U 270 I — (85) OLI 12 — LOTI — LOT 4 — LO — (85) OLI 11 — MC-

LOB R — LOTI — LOT 2 — LOB — MC- — LO

XLO IL IU P-1175 — -48 — TR2 2 — LFS — M- — LINE LINK MKR CONN

LINE, LINE LINK & CONN. CKT.

VGS- — DT — -48

MC- — -48 — TR — MP — E

DRAWING ISSUE

| | | |
|---|---|---|
| 1 | K | |
| 2D | BLC | |
| 5D | MAA MP | |
| 7D | LA JEA | |
| 9D | PT JEM | |
| 12D | AEZ MA | |
| 13B | AEZ MA | |
| 18D | AE GD | |
| 21D | EM GHO | |
| 22D | NF MP MO | |
| 25D | BR GD Ang | |
| 28D | ML MO | |
| 30D | EN MP | |
| 32A | EP CLK AND | |
| 33D | EP CLK AND | |
| 34A | DX FIL AND | |
| 39D | RP | |
| 40A | | |
| 41D | | |
| 43D | | |

COMPLETING MARKER CIRCUIT

(2)

BELL TELEPHONE LABORATORIES, INC

6S

ISSUE 65B

SD-26002-01-B4A

SD-26002-01-B4A

# PART OF FS 5
LINE LINK FRAME SEIZURE

MASTER TEST CONTROL CKT

PLL -48 PLL MFSB KEY

MTFC

LINE, LINE LINK & CONN CKT (EVEN) (SEE NOTE 1)

AUXILIARY LINE LINK FRAME

EV 379

MC- MPP

MPP

MC-

MPP

LINE, LINE LINK & CONN CKT (ODD) (SEE NOTE 1).

MB MT27 11 PLL

5 IOTLF

MPP

(113) PRLL L U 700 -48

(113) (113) PRL (ZSF) 4

(M8) MT27 12 (ZSD)

(IN) PRLLA L U 900 -48

(IN) (ZSO) (ZSP)

(113) LFKA 12 1

(NH) MPP R -48

(113) STPA 2

MPP MC-

OD 379

(113) MFK L U 275 -48

(113) MFL IL IU P-8 S-850

.01

MFK MC- MPP

NOTES:

1. ASSOCIATION OF (MPP) LEADS WITH (MPP) RELAYS IN LINE, LINE LINK & CONNECTOR CKT.

| (MPP) LEAD FOR LINE LINK CKT. NO. | ASSOCIATED WITH (MPP) RELAY FOR LINE LINK CKT. NO. |
|---|---|
| 00 | 01 |
| 01 | 00 |
| 02 | 03 |
| 03 | 02 |
| 04 | 05 |
| 05 | 04 |
| 06 | 07 |
| 07 | 06 |
| 08 | 09 |
| 09 | 08 |
| 50 | 51 |
| 51 | 50 |
| 52 | 53 |
| 53 | 52 |
| 54 | 55 |
| 55 | 54 |
| 56 | 57 |
| 57 | 56 |
| 58 | 59 |
| 59 | 58 |

(129) NOLA 2L IL 640 -48

EF MT29 3 (ZZP)

NOL LOL NOLL TO TRUNK TEST REG (WIDEBAND)

TO CLVA OR TO ETS PWR & DATA INTERFACE CKT NOLL

TO OTHER MARKERS

NOL LOL NOLL TO AUTOMATIC RANGE EXTENSION TEST CKT

EF MT29 2

NOL NOLL LOL TO MASTER TEST CONTROL CKT

(ZGO) (113) PRL IL IU P-8 2U S-850 (ZXS) (ZXS)

(IN) PRLLA TI 78G2 4

(A8,ZYZ) NOL NOLL LOL TO OFFICE TEST FRAME TEST CKT

(113) LFKA L U 275 -48

(113) PRL .01 LFK1 LFK2 4A/A6

(113) LFKA 1

(129) LOLA L U 270 -48

EF MT29

(A6,ZYZ) LOLL TO OFFICE TEST FRAME TEST CKT

LOLL TO MTFC OR OT TIC

LINE, LINE LINK AND CONN CKT

(129) NLL MC- 26031

LOL

(129) LOLL MC- LOL -5LLS

LG R -48 XLG IL IU P10 .01UF

HGK LLCI LFK FTTB 2 4 6 1

FTKI 8 BS

MC- VGBO-11 HGO-9 LGO-11

UX UX

LG2 LG1

HTKI

ORIGINATING LINE IDENTIFIER

| DRAWING ISSUE |
|---|
| 28D |
| 32A |
| 33D |
| 34A |
| 37D |
| 39D |
| 41D |
| 43D |
| 45D |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT

SD-26002-01-84B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

## FS 6
LINE LINK VERTICAL GROUP CONTROL

## FS 7
LINE LINK HORIZONTAL GROUP CONTROL

TO DAS CKT OR TO MKR DIST CONT CKT

VGT0 VGT1 VGT2 VGT3 VGT4 VGT5 VGT6 VGT7 Ⓩ VGT8 Ⓩ VGT9 Ⓩ VGT10 Ⓩ VGT11 VGL

VGN0 VGN1 VGN2 VGN3 VGN4 VGN5 VGN6 VGN7 VGN8 VGN9 VGN10 VGN11

CB4 CB3 CB2

VG7 VG4 VG1 VG0 VG2 VG5 VG3 VG6 VG10

DTI2 VTKI HTKI

HGT0 HGT1 HGT2 HGT3 HGT4 HGT5 HGT6 HGT7 HGT8 HGT9 HGL

HG4 HG7 HG0 HG1 HG2 HG5 HG3 HG6

HGN0 HGN1 HGN2 HGN3 HGN4 HGN5 HGN6 HGN7 HGN8 HGN9

LLI LTI PSA3

TO M.T.F.C. OR OT TIC

TO MKR DIST CONT CKT

5B/F4 3H2

| DRAWING ISSUE | | |
|---|---|---|
| 1 | PCJ RC J | |
| 20 | BLC — | |
| 21C | RRV KDN AHJ | |
| 22D | NF JDS AHJ | |
| 25D | PR WK AA | |
| 27A | RLP MK A-D | |
| 28D | RLP MK A-D | |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

ISSUE 57B

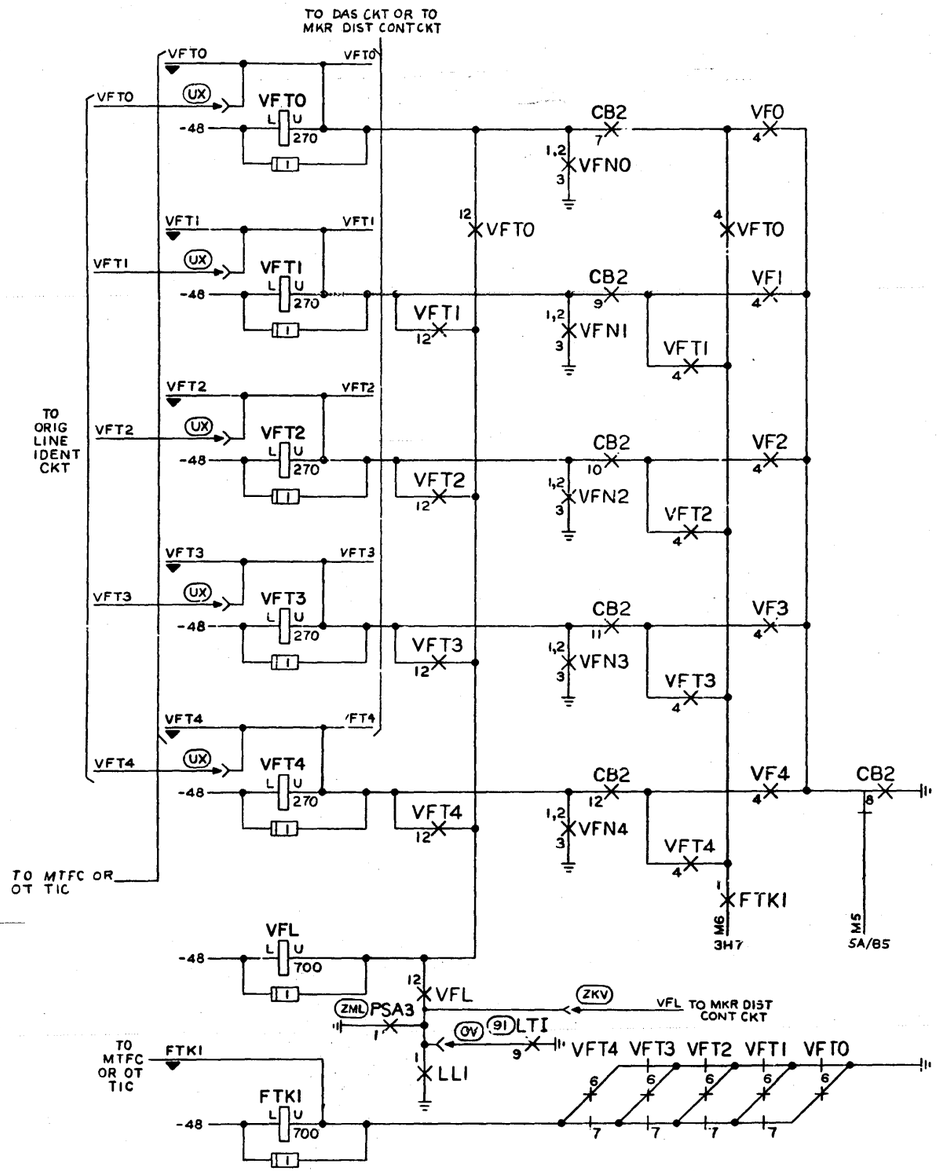
COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-B5A

SD-26002-01-B5A

# FS 8
LINE LINK
VERTICAL
FILE CONTROL




| DRAWING ISSUE | |
|---|---|
| 27A | PEC 7M4 AM |
| 28D | PEC 7M4 AM |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B5B

6S

SD-26002-01-B5B

# PART OF FS 9

GATING RELAYS FOR LINE LINK CONTROL

ORIGINATING LINE IDENTIFIER CKT

CST-CSU- -48 T- CS0-19

CSR- -48 T- CS20-29

CS0-19 CS0-29

LINE, LINE LINK & CONNECTOR CKT

CS0-29 MC

VF- VF- HG-

VGB0-11 VGB0-11

VGB0-11 VGB0-11

VGC0-11 VGC0-11

VF- VF- -48 MC

GRD CGB CGA

VGB0-11 MC

VGC0-11

CALL WAITING LINK

VG- LBY

MC CGA

MC CGB

CB (85) OLI HTKI VTKI FTKI CB2 -48

CB2

CSU0-9 -48

TO MKR DIST CONT CKT CSU0-9

CSI0-19 (78) (UE)

CSU0-9 IU IL P-700 (UE) (UG) CSP -48

CS0-9 (78) (UG) (UG) 2U 2L S-700 (UG) CSS -48

(UF) CS0S-9S -48

CSOP-9P (UE) (QQ) (109) CU0-9

(111) (UE) CSU0-9 (111) CAU0-9 -48

(UD) CSU0-9 (DS) (ZUT) (111)

(UD) CSU0-9

(78) (109) CU0-9 -48 (ZDH)

CS0-29 (UX) (UW) (ZHN)

CS20-29 (ZDG) (WX) CS20-29 CS0-29 5000 ±1% 4990 ±1% CS0-29 (WX) CS0-29 (ZDG) 6B/H3

CS0-19 (WX) CS0-19

HGK 10 HGK CS0-29 TO MTFC OR OT TIC AND OT TST CKTS

TO MTFC (MB) MT27 CSG1 CSG2 4 (GM) (GM) (PL)

(160) VF 106BB (TU) RLT 6

FTKI 2 (ZGC) (ZGB) TCGB 6A/H4

(UG,ZDJ) 33000±20% -48

(UX) (UX) 3

(WX)

VF-0-4 2 (ZHM,ZHN)

(Z)VGT8-11 VGT0-7 8 VTKI 8 LLCI 17 (WZ,YA) XVGB 2RT 4.53 RBI XVGB .01 VGB R -48

(ZML) (172) PSL 6 (ZML)

TCGA U L 270, 700 -48 1

TCGA TO MTFC

(QQ,NS) (QQ) CGAI 4 5 2 5 (ZIC) (ZIB) (NS)

(WX) (ZDI) (QQ) CGAI 4 5±5% (QQ)

MT15 11 CGAI CGA CGB CGBI

MT11 6

MT11 8

MT15 10

(QQ) CGBI 4 5±5% (ZDI) (WX)

(NS) (QQ) CGBI 2 5 (ZIC) (ZIB)

(QQ,NS) TCGB U L 270 700 -48 1 (ZIC)

TCGB TO MTFC

(ZIR) (ZIC,ZIR) CS (ZIC,ZIR) (ZKB) CS 6B/D0

6A/D4 TCGG (ZGA)

(ZGC) (ZGA) (ZGQ) TCGG 104A/C6

TCGG

MKR DIST CONT CKT T

HGO-9 MC HGO-9 HGTO-9 10 HTKI 1 LLCI 5 HGB R -48

(ZML) (172) PSL 4 (ZML)

HG HGO-9 HGO-9 MC HGK LHT 7 HGK U L 16 2 IU IL P2.7±15% XHG .01 XHG HG R -48

TO REMOTE OFFICE TEST LINE CKT

CGA CGB

CGAI CGA CGB CGBI (ZZP)

TO CLVA OR TO ETS PWR & DATA INTERFACE CKT

TO TRUNK TEST REGISTER (WIDEBAND)

TO ALL OTHER MARKERS

TO ALL OTHER WIRE SPRING MARKERS

MASTER TEST CONTROL CKT

TSIO CGAB

KCS5 CGSA,B L KEY VER9 CSGK -48

TO AUTOMATIC RANGE EXTENSION TEST CKT AND TO AUTOMATIC PROGRESSION TRK TST CKT AND TO TRK TEST REG CKT AND TO LINE VERIFICATION CKT AND TO REMOTE OFFICE TEST LINE REGISTER CKT

TO MKR DIST CONT CKT

CST6-9 (WW) CST6-9 U L 700 -48 1

CS6-9

CST2 (78) CST2 U L 700 -48 1 (QQ) TCGA 3

CS2 (UF) (QQ)

CST5 (QY) CST5 U L 700 -48 1 (QQ) TCGB 3

CS5 (UF) (QQ)

CST1 (78) CST1 U L 700 -48 1 (QQ) TCGA 2 (UG) CSP 2 5

CS1 (UF) (UG)

CST4 (QY) CST4 U L 700 -48 1 (QQ) TCGB 2

CS4 (UF) (QQ)

CST0 (78) CST0 U L 700 -48 1 (QQ) TCGA 1 (UG) CSS 2 5

CS0 (UF) (UG)

CST3 (QY) CST3 U L 700 -48 1 (QQ) TCGB 1

CS3 (UF) (QQ)

(UG) (ZIR) (ZIQ) (QQ)

(109) CU9 4

(109) CU8 4

(109) CU7 4

(109) CU6 4

(109) CU5 4

(109) CU4 4

(109) CU3 4

(109) CU2 4

(109) CU1 4

(109) CU0 4

(QQ) TCGB 8

(QQ) TCGA 8

| DRAWING ISSUE | |
|---|---|
| 27A | RLP (MJ AND) |
| 28D | RLP (MJ AND) |
| 31D | OM (MJ AND) |
| 32A | GHS (UK ONLY) |
| 35D | TS (UK ONLY) |
| 37D | WM |
| 39D | RP |
| 43D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B6A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILO

# PART OF FS 9

GATING RELAYS FOR LINE LINK CONTROL

CSK U L 270 -48 (1)

CST0 CST1 CST2 CST3 CST4 CST5 CST6 CST7 CST8 CST9

CSU0 CSU1 CSU2 CSU3 CSU4 CSU5 CSU6 CSU7 CSU8 CSU9

2WD3 2WDM 2WDL 2WDD
2WD2 2WDK 2WDJ 2WDC
2WD1 2WDH 2WDG 2WDB
2WD 2WDF 2WDE 2WDA
2WA 4WA

TCGA TCGB CUO-9 TRT00-09 TRT10-19

CAUO-9 CS90-99 CS80-89 CS70-79 CS60-69 CS50-59 CS40-49 CS30-39 CS20-29 CS10-19 CS0-9 CS0-29

ITD ITM DLT MLT 5DLT CGS 7DLT DATI ATT

TO MKR DIST CONT CKT

122A/A8 CCS
122A/B8 CN
122A/B5 AOC
122A/C8 MR

CNA XCS BX AOA MRA MR 2WC 2WDI-3 LLCI

TO ORIGINATING LINE IDENTIFIER CKT

P-230±10% S-200±2% 4990±1% 25±10%

| DRAWING ISSUE | |
|---|---|
| 25D | HPR WD AND |
| 27A | PEC EM AND |
| 30D | EN WM AND |
| 32A | GHS CLL AND |
| 33D | GHS CLL AND |
| 34A | TS TAL AND |
| 35D | TS WT AND |
| 37D | WM |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B6B

6S

SD-26002-01-B6B

# FS 10

CLASS OF SERVICE TREATMENT

ORIG REG CKT OR TR REG CKT

ORIG REG MKR CONN CKT OR TR REG MKR CONN CKT

TO MTFC OR OT TIC

TO DAS ETS CKT

CUTO,1,2,4,7 CT4,7 CTTO,1,2

CT-

RC- MC-

CTAO,1,2

RDR

SEE TABLE A

101H3

CTO,1,2

CTO,1

CT2

JO,PW

JO,PZ,QQ

JO,PZ

CT4,7

CT4,7 F3

CUAO,1,2,4,7

TRF

CUBO,1,2,4,7

SSUO,1,2,4,7

CT4,7

CT7

CTA4,7

G1

CU-

CUO,1,2,4,7

CU

RP

RPB

RPA

CKG6

TP

TPB

TPA

TPT

PST

172

TP1

TP2

TO DAS CKT OR TO DAS ETS CKT

CRU-

CRUO,1,2,4,7

CRUQ1,2,4,7

TO CDT APPL

CGA

CGB

CV,ZIC

C1

C4

C7

132E1

CGRA

CGRB

CRUO CRU1 CRU2 CRU4 CRU7

102 DTF

SCCK

14A/-5

PD TP

PS

RP

ZKB

ZKN

ZKC

TO MKR DIST CKT

T2

hP

SCG

CKG1

79

NZ

PW TRF

CT7 CT4 CT2 CT1 CTO

NT

NX,UG

ZLF

ZLG

ZDJ

W1

WY

34,WV CGB

CGA

ZV, ZDJ

WORKING SC-GRP IN X-CONN FIELD

CGA IH

MULT TO 3 OTHER S-REL. SEE TABLE I

USCO-11

SO-11

SEE NOTE I

REAR OF FR

S00-59,60-119

S120-179,180-239

SW-

ZQD

SG120-139

SG00-59

IG

SGGO-119

RC

SSGO-4

CTAO CTA1 CTA2 CTA3 CTA4 CTA5 CTA6 CTA7 CTA8 CTA9

TR TQ

NOTES:

1. USE LOOSE WIRING TO MULTIPLE USC-MULTIPLES OF REQUIRED S-GROUPS ON UNIT TERMINAL STRIPS TO WORKING SC-TERMINALS IN CROSS CONNECTION FIELD FOR SERVICE CROSS CONNECTION.

TABLE A

| LEAD DESIG | CONT NO. |
|---|---|
| CTA7 | 10 |
| CTA4 | 9 |
| CTA2 | 8 |
| CTA1 | 7 |
| CTAO | 6 |
| CU7 | 5 |
| CU4 | 4 |
| CU2 | 3 |
| CU1 | 2 |
| CUO | 1 |

TABLE I

SERVICE TREATMENT FRAMES

| APP FIG. | FIRST FR OR TRANSLATOR & CODE TREATMENT FR TERMINAL STRIP NO. FOR USCO-11 | | | SUPPLEMENTARY TERMINAL STRIP NO. FOR USCO-11 | | | AUX TERMINAL STRIP NO. FOR USCO-11 | | | SECOND AUX TERMINAL STRIP NO. FOR USCO-11 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 11-16,41-46 | 21-26,51-56 | 31-36 61-66 | 11-16,41-46 | 21-26,51-56 | 31-36,61-66 | 11-16,41-46 | 21-26,51-56 | 31-36,61-66 | 11-16,41-46 | 21-26,51-56 | 31-36,61-66 |
| 35 | 0-3 | 4-7 | 8-11 | 60-63 | 64-67 | 68-71 | 120-123 | 124-127 | 128-131 | 180-183 | 184-187 | 188-191 |
| 35 | 12-15 | 16-19 | 20-23 | 72-75 | 76-79 | 80-83 | 132-135 | 136-139 | 140-143 | 192-195 | 196-199 | 200-203 |
| 35 | 24-27 | 28-31 | 32-35 | 84-87 | 88-91 | 92-95 | 144-147 | 148-151 | 152-155 | 204-207 | 208-211 | 212-215 |
| 35 | 36-39 | 40-43 | 44-47 | 96-99 | 100-103 | 104-107 | 156-159 | 160-165 | 164-167 | 216-219 | 220-223 | 224-227 |
| 35 | 48-51 | 52-55 | 56-59 | 108-111 | 112-115 | 116-119 | 168-171 | 172-175 | 176-179 | 228-231 | 232-235 | 236-239 |

EQUIPMENT ARRANGEMENT FOR GROUPS OF 4 S- RELAYS WITH FIXED SC- MULT

DRAWING ISSUE

| | |
|---|---|
| 17D | PVS WEC |
| 19AC | ZDM TNJ NEC |
| 20AC | EDM RBJ XEC |
| 21D | EJK AHD |
| 22D | EN JOP HO LBT |
| 24D | EW JHO LBT |
| 25D | LBT AVP PEC |
| 27A | PVS AHD |
| 29A | PVS AHD EP |
| 33D | CLW NO |
| 35D | RB TNJ AHD |
| 37D | DM |
| 39D | RA |
| 43D | |

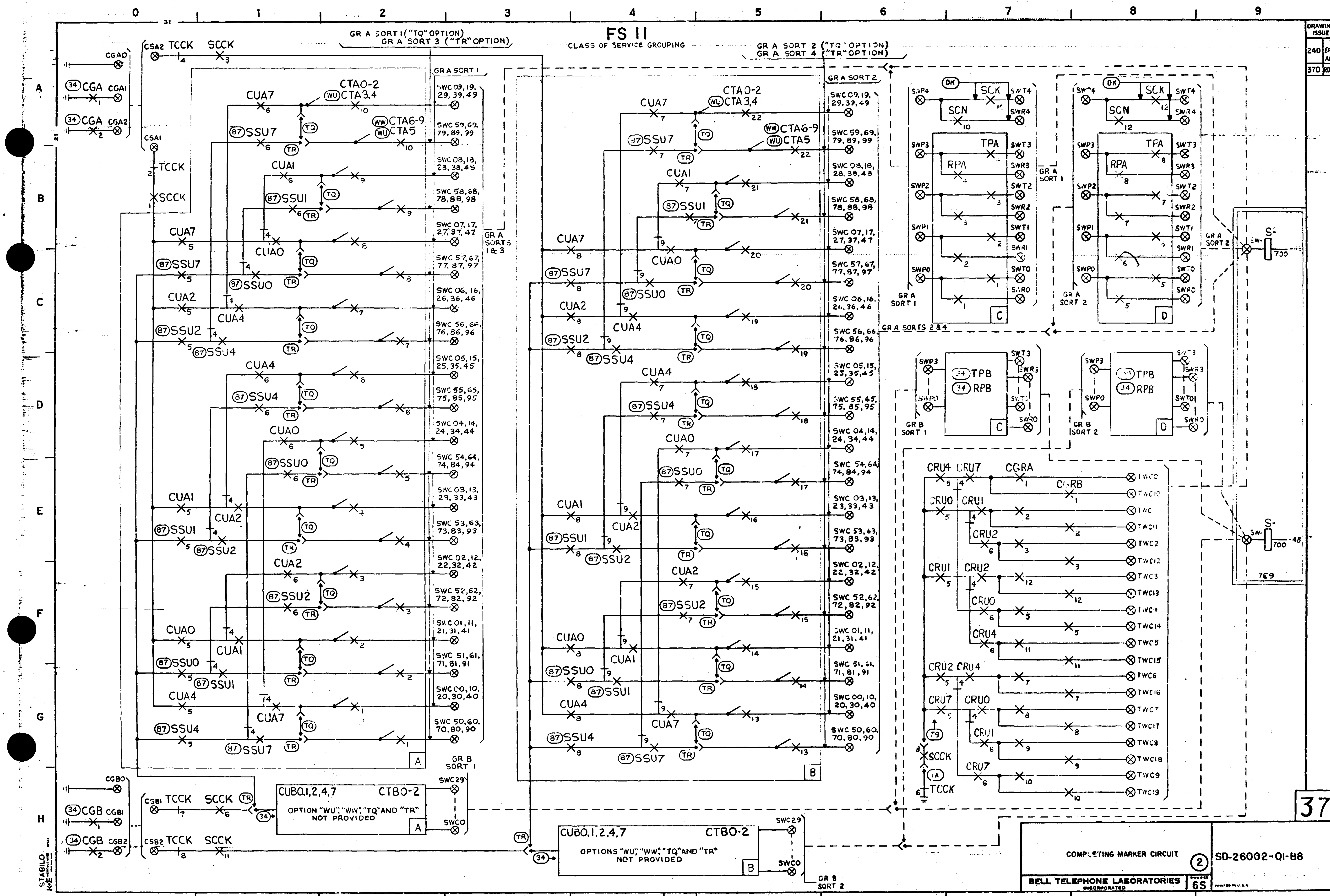
ISSUE 6S3

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B7

BELL TELEPHONE LABORATORIES INCORPORATED

6S


FS 11
CLASS OF SERVICE GROUPING
GR A SORT 1 ("TQ" OPTION)
GR A SORT 3 ("TR" OPTION)
GR A SORT 2 ("TQ" OPTION)
GR A SORT 4 ("TR" OPTION)
GR A SORT 1
GR A SORT 2
GR A SORTS 1 & 3
GR A SORTS 2 & 4
CGA0
(34) CGA CGA1
(34) CGA CGA2
CSA2 TCCK SCCK
CSA1
TCCK
SCCK
CUA7
CTA0-2
(WU) CTA3,4
(WW) CTA6-9
(WU) CTA5
(87) SSU7
CUA1
(87) SSU1
CUA0
(87) SSU0
CUA2
(87) SSU2
CUA4
(87) SSU4
TQ
TR
SWC 09, 19, 29, 39, 49
SWC 59, 69, 79, 89, 99
SWC 08, 18, 28, 38, 48
SWC 58, 68, 78, 88, 98
SWC 07, 17, 27, 37, 47
SWC 57, 67, 77, 87, 97
SWC 06, 16, 26, 36, 46
SWC 56, 66, 76, 86, 96
SWC 05, 15, 25, 35, 45
SWC 55, 65, 75, 85, 95
SWC 04, 14, 24, 34, 44
SWC 54, 64, 74, 84, 94
SWC 03, 13, 23, 33, 43
SWC 53, 63, 73, 83, 93
SWC 02, 12, 22, 32, 42
SWC 52, 62, 72, 82, 92
SWC 01, 11, 21, 31, 41
SWC 51, 61, 71, 81, 91
SWC 00, 10, 20, 30, 40
SWC 50, 60, 70, 80, 90
A
B
CGB0
(34) CGB CGB1
(34) CGB CGB2
CSB1 TCCK SCCK
CSB2 TCCK SCCK
CUB0,1,2,4,7 CTB0-2
OPTION "WU", "WW", "TQ" AND "TR" NOT PROVIDED
OPTIONS "WU", "WW", "TQ" AND "TR" NOT PROVIDED
GR B SORT 1
GR B SORT 2
SWC29
SWC0
DK
SCK
SCN
TPA
RPA
SWP4 SWP3 SWP2 SWP1 SWP0
SWT4 SWR4 SWT3 SWR3 SWT2 SWR2 SWT1 SWR1 SWT0 SWR0
C
D
(34) TPB
(34) RPB
CRU4 CRU7
CGRA
CGRB
CRU0 CRU1
CRU2
CRU1 CRU2
CRU0
CRU4
CRU2 CRU4
CRU7 CRU0
CRU1
CRU7
(79)
SCCK
(VA)
TCCK
TWC0 TWC10 TWC TWC11 TWC2 TWC12 TWC3 TWC13 TWC4 TWC14 TWC5 TWC15 TWC6 TWC16 TWC7 TWC17 TWC8 TWC18 TWC9 TWC19
S-
SW-
700
-48
7E9
DRAWING ISSUE
240D
370 RDT
37
COMPLETING MARKER CIRCUIT
(2)
SD-26002-01-B8
BELL TELEPHONE LABORATORIES INCORPORATED
6S

FS 12
SEQUENCE WALKING

FS 13
TRK. LK. FR. SIZE

TO MTFC OR TO OT TST CKT

TRK. LK. FR. CONN. CKT.

TRK LINK & CONN CKT

AUTO. RANGE EXTENSION TEST CKT

MASTER TEST FR. CONN. CKT. OR OT TST CKT

MASTER TEST CONTROL CKT OR OT TST CKT

TO OT TST CKT

MULT TO OTHER MARKERS

WHEN A PARTICULAR JUNCTOR GRP IS TO BE SELECTED.

TO M.T.F.C.

| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 5D |
| 10S |
| 18D |
| 25D |
| 28D |
| 30D |
| 34A |
| 37D WM |
| DRAWING REPUBLISHED WITHOUT CHANGE 10-1-68 |
| 41D |
| 43D |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-89

43

BELL TELEPHONE LABORATORIES, INC

6S

# FS 14
JUNCTOR PATTERN RELAYS

PN 9A9 — PN — PNA — LK2

P0 P1 P2 P3 P4 P5 P6 P7 P8 P9 — P0A P1A P2A P5A P6A P7A P8A P9A — 270 — TO M.T.F.C.

P0-9 — TRK LK & CONN CKT — MC- — P0-9 — LO-8 — CROSS CONNECT — LO-8

LO L1 L2 L3 L4 L5 L6 L7 L8

FTB0 FTB1 FTB2 FTB3 FTB4 FTB5 — 40F — 20F

FUT0,1 FUT2,3 FUT4,5 FUT6,7 FUT8,9

FTA0 FTA1 FTA2 FTA3

12 20F 12 40F

8 60F

DRAWING ISSUE 5D

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES

5

SD-26002-01-B10

# FS 15
CHANNEL TEST INDICATOR

TCH0 TCH1 TCH2 TCH3 TCH4 TCH5 TCH6 TCH7 TCH8 TCH9 TCHK

TO MTFC CR OT TST CKT & OTTIC

# FS 16
JUNCTOR PATTERN GROUPING

XPG .01 μF ±15% P-8

PNR STP1 STP2 PA PB PC PE PRL ZSD ZSF IOTLF LK2 FMP

TO M.T.F.C.

P2A P9A 7TFA P3 P4 P0A P8A P1A P5A P6A P7A P9A

KCH CHO-9 — WHEN A PARTICULAR CHANNEL IS TO BE SELECTED — MASTER TEST CONTROL CKT.

T- — TO OT TST CKT — MASTER TEST FRAME CONN CKT OR OT TST CKT

MT7 LLC2 CHA

| DRAWING ISSUE | |
|---|---|
| 1 | |
| 2D | |
| 3D | |
| 4A | |
| 5D | |
| 6A | |
| 25D | |
| 28D | |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 43D | |
| 45D | |
| REFURBISHED WITHOUT CHANGE 4-8-71 | |

ISSUE 48A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-BII

BELL TELEPHONE LABORATORIES, INC

# FS 17
JUNCTOR GROUP CONTROL

# FS 18
CONTROL OF R&L IN TRUNK LINK FRAME

TRK LINK & CONN CKT

TO MTFC OR OT TIC

| DRAWING ISSUE | |
|---|---|
| 1 | |
| 2D | BIC |
| 4A | |
| 5D | |
| 6A | |
| 250 | W&A |
| 280 | PEC |
| 330 | CLK |
| 390 | RA |
| 450 | |

REFURBISHED WITHOUT CHANGE 4-13-71

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 6SB

SD-26002-01-812

PAGE 6S

# FS 19

CONTROL OF JC- & G- IN TRUNK LINK FRAME

TRUNK LINK AND CONNECTOR CKT

TO M.T.F.C.

JC0-9

JG0 JG3 JG4 JG1 JG2

JGO JG1 JG2 JG3 JG4

JG 1260±1% S-200±1%,±2% P-4.0±10%, P-12±10%

XJC P-4±10% S-525±10%

XJC P-3.7±10% S-580±10%

JC 1600 ±1% 600 ±1% 800 ±1%

XJG

RQ 700

7Q 700

TTF 5TLF 4TLF 6TFA 9TLF 6TLF 8TLF 7TLF 20F 40F 60F PRLL PR

FUT0,1 FUT2,3 FUT4,5 FUT6,7 FUT8,9

FTB0 FTB1 FTB2 FTB3 FTB4 FTB5

7Q RQ

LK2 BX

STPA GCA GC GO GOA GCA GI-4 JC0-9 JC10-19 JC20-29

MC- RF EF SEF

| DRAWING ISSUE | |
|---|---|
| 5D | |
| 6A | |
| 11B | |
| 13B | |
| 28D | |
| 33D | |
| 45D | |

ISSUE 53B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-813

BELL TELEPHONE LABORATORIES INCORPORATED

# FS 20
FRAME TEST RELAYS

DRAWING ISSUE
30D NF YG AG
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

MASTER TEST CONTROL CKT
FTC
-48
KMT9
KFS
FG-KEY
FS-KEY
FTC0-19

TO OTHER MARKERS
MT4 F0 -48 1 FTC0
MT4 F1 -48 2 FTC1
MT4 F2 -48 3 FTC2
MT4 F3 -48 4 FTC3
MT4 F4 -48 5 FTC4
MT4 F5 -48 6 FTC5
MT4 F6 -48 7 FTC6
MT4 F7 -48 8 FTC7
MT4 F8 -48 9 FTC8
MT4 F9 -48 10 FTC9

FTC0-9 L U 400 (1)
FTG0-9 (5) (7)
(9) (1) 300 ±10% (1) -48 5K
TO MINI-ROTL INTERFACE CKT FTC0-9
LB (126) FO-7 ZFX

TO OT TEST CKT
F0 FTC0 GSAI-5 1 FT0(1-5) FT0(6) FT0(1-6) R- 13 FTC-,FR0
F1 FTC1 GSAI-5 2 FT1(1-5) FT1(6) FT1(1-6) R- 14 FTC-,FR1
F2 FTC2 GSAI-5 3 FT2(1-5) FT2(6) FT2(1-6) R- 22 FTC-,FR2
F3 FTC3 GSAI-5 4 FT3(1-5) FT3(6) FT3(1-6) R- 23 FTC-,FR3
F4 FTC4 GSAI-5 5 FT4(1-5) FT4(6) FT4(1-6) R- 24 FTC-,FR4
F5 GSAI-5 6 FT5(1-5) FT5(6) FT5(1-6) R- 30 FTC-,FR5
F6 GSAI-5 7 FT6(1-5) FT6(6) FT6(1-6) R- 31 FTC-,FR6
F7 GSAI-5 8 FT7(1-5) FT7(6) FT7(1-6) R- 32 FTC-,FR7
F8 GSAI-5 9 FT8(1-5) FT8(6) FT8(1-6) R- 33 FTC-,FR8
F9 GSAI-5 10 FT9(1-5) FT9(6) FT9(1-6) R- 34 FTC-,FR9

TO OTHER R-RELAYS FOR SAME GS-IN SAME MARKER
TO CORRESPONDING R-RELAYS IN OTHER MARKER

TO OTHER MARKERS
②MT14 F10 -48 1 FTC10
②MT14 F11 -48 2 FTC11
②MT14 F12 -48 3 FTC12
②MT14 F13 -48 4 FTC13
②MT14 F14 -48 5 FTC14
②MT14 F15 -48 6 FTC15
②MT14 F16 -48 7 FTC16
②MT14 F17 -48 8 FTC17
②MT14 F18 -48 9 FTC18
②MT14 F19 -48 10 FTC19

②FTC10-19 F10-19 L U 400 (1)
FTG10-19 (5) (7)
(9) (1) 500 ±10% (1) -48 5K
TO MINI-ROTL INTERFACE CKT FTC10-19
KC KD F10-19 ZFX

F10 ②GSAII-15 1 FT10(1-5) FT10(6) FT10(1-6) R- 40 FTC-,FR10
F11 ②GSAII-15 2 FT11(1-5) FT11(6) FT11(1-6) R- 41 FTC-,FR11
F12 ②GSAII-15 3 FT12(1-5) FT12(6) FT12(1-6) R- 42 FTC-,FR12
F13 ②GSAII-15 4 FT13(1-5) FT13(6) FT13(1-6) R- 43 FTC-,FR13
F14 ②GSAII-15 5 FT14(1-5) FT14(6) FT14(1-6) R- 44 FTC-,FR14
F15 ②GSAII-15 6 FT15(1-5) FT15(6) FT15(1-6) R- 50 FTC-,FR15
F16 ②GSAII-15 7 FT16(1-5) FT16(6) FT16(1-6) R- 51 FTC-,FR16
F17 ②GSAII-15 8 FT17(1-5) FT17(6) FT17(1-6) R- 52 FTC-,FR17
F18 ②GSAII-15 9 FT18(1-5) FT18(6) FT18(1-6) R- 53 FTC-,FR18
F19 ②GSAII-15 10 FT19(1-5) FT19(6) FT19(1-6) R- 54 FTC-,FR19

TO OTHER R-RELAYS FOR SAME GS-IN SAME MARKER
TO CORRESPONDING R-RELAYS IN OTHER MARKER

FTC- XFT MC- XFT FT FTC-
TRUNK LINK & CONN CKT
TRUNK CKT
SI
2RT RBI 250 ±5% XFT -48

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B14
BELL TELEPHONE LABORATORIES INCORPORATED
SHEET 65

SD-26002-01-B14

# FS 21
FR MEMORY

# FS 22
FR. SELECTION

# FS 23
FR. BUSY

TRST
MAKI
FM
PSTA
RFA
FMG
TFKI
FML
FMK
FTCK
PST
PSTI
TFK2
CPNT
MTI
MT18
GS6
RCYI
LST
FTC0-9
FTC10-19
FTC20-29
PCLI
CKG8
CKG4
CKG2
RYC
AGP
DISI
FM6
FMG0,5
FMG10,15
FMG20,25
FMG0-4
FMG10-14
FMG15-19
FMG20-24
FMG25-29
FS4,9
FS14,19
FS24,29
FS3,8
FS13,18
FS23,28
FS2,7
FS12,17
FS22,27
FS5-9
FS1,6
FS11,16
FS21,26
FS0-4
FS0,5
FS10,15
FS20,25
FM4
FM3
FM2
FM1
FM0
FMG10
FMG15
FMG5
FMI
FMG0
FMK
FMG MT9
TFKI FM65 FMG10 FMG15 FMG20 FMG25
TFKI FMI FM2 FM3 FM4
TBX
TBO-5
TB6-9
TBC
FTCK1
STX
TGT
TO MKR DIST CONT CKT FTCK1
TO MTFC OR OT TIC
TO MKR DIST CONT CKT
90F0
90H5
90A1
90A3
90C1
OF20
EF20
OF0
OF10
EF0
EF10
FTC19 FB19
FTC18 FB18
FTC17 FB17
FTC16 FB16
FTC15 FB15
FTC14 FB14
FTC13 FB13
FTC12 FB12
FTC11 FB11
FTC10 FB10
FTC9 FB9
FTC8 FB8
FTC7 FB7
FTC6 FB6
FTC5 FB5
FTC4 FB4
FTC3 FB3
FTC2 FB2
FTC1 FB1
FTC0 FB0
FS19
FS19 TO MTFC
FS10
FS10 TO MTFC
FS9
FS9 TO MTFC
FSO
FSO TO MTFC
FS11-18
FS1-8
TO MKR DIST CONT CKT
FB29
FB20-28
FB19
FB10-18
FB1-9
FB0
BC20
BC10
BC00
BCA0
BCA10
FB29 FB28 FB27 FB26 FB25 FB24 FB23 FB22 FB21 FB20
FB19 FB18 FB17 FB16 FB15 FB14 FB13 FB12 FB11 FB10
FB9 FB8 FB7 FB6 FB5 FB4 FB3 FB2 FB1 FB0
TO FBO-29 MINI-ROTL INTERFACE CKT
FBO-29
FBO-4
TO OT TST CKT
TRK-LK & CONN CKT (4 WIRE)
TRK LK & CONN CKT (2 WIRE)
MC- ODD MKR
MC- EVEN MKR
FBO
FBE
ODD MKRS
EVEN MKRS
FML
TLCI
XTLCI
FSA
NGK1
FS2
FS3
FS1
FS29
FS20
FS19
FS10
FS9
FSO
CKG1
CKG3
CKG7
DISA CKG6
TB,ZKC
DISI
TB
ZKC
ZEV
880D/D5, 2W 9966
TO DAS ETS CKT
DRAWING ISSUE

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-B15

FS 24
TRUNK LINK FRAME START

TABLE A

| ST-LEAD NO. | 2 WIRE TRK LK FRAMES REL CONT a 2WA | 2 WIRE TRK LK FRAMES REL CONT a 2WB | 4 WIRE TRK LK FRAMES REL CONT a 4WA | 4 WIRE TRK LK FRAMES REL CONT a 4WB |
|---|---|---|---|---|
| 0 | 1 | | 1 | |
| 1 | 2 | | 2 | |
| 2 | 3 | | 3 | |
| 3 | 4 | | 4 | |
| 4 | 5 | | 5 | |
| 5 | 6 | | 6 | |
| 6 | 7 | | 7 | |
| 7 | 8 | | 8 | |
| 8 | 9 | | 9 | |
| 9 | 10 | | 10 | |
| 10 | | 1 | | 1 |
| 11 | | 2 | | 2 |
| 12 | | 3 | | 3 |
| 13 | | 4 | | 4 |
| 14 | | 5 | | 5 |
| 15 | | 6 | | 6 |
| 16 | | 7 | | 7 |
| 17 | | 8 | | 8 |
| 18 | | 9 | | 9 |
| 19 | | 10 | | 10 |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 63B

SD-26002-01-B16

SD-26002-01-B16

# FS 25

TG- AND TB- OPERATION

# FS 26

GROUND SUPPLY AND ROUTE ADVANCE

TO OTHER R-RELAYS IN SAME GROUND SUPPLY

TO M.T.F.C. OR OT TIC

TO MKR DIST CONT CKT AND TO DAS ETS CKT

TO DAS CKT

TO MKR DIST CONT CKT

TO OTHER R-RELAYS IN SAME GROUND SUPPLY

COMPLETING MARKER CIRCUIT

SD-26002-01-B17

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

DRAWING ISSUE

| | |
|---|---|
| 1 | ACC |
| 20 | — |
| 36 | ABN HF |
| 108 | PCF LEA |
| 180 | AFF JBP |
| 220 | GEL JDP RHD |
| 240 | JM EBP JAC |
| 250 | JGS RGD AW |
| 300 | EN AWL AHD |
| 310 | EN AWL AHD |
| 330 | TS CLK AMB |
| 370 | ABL |
| 390 | FLK |
| 410 | |
| 450 | |

# FS 27

TEST AND SEIZURE OF A IDLE TRUNK

TO MINI-ROTL INTERFACE CKT (ZFX) WIRING

TO MA TST CONT CKT OR OT TST CKT

TO OTHER MARKERS

TO AUTO PROG TST TRK CKT OR TO ROTC OR TO ROTL REG CKT

TO MASTER TST CONT CKT OR OT TST CKT

TRUNK LINK AND CONN CKT

TO AUTO PROG TRUNK TEST CKT OR TO ROTC OR TO ROTL REG CKT

TO OTHER DIAL TONE AND COMPLETING WIRE SPRING MARKERS

TO OTHER MARKERS

TO MKR DIST CONT CKT

TO OTHER COMP MKRS

TO MTC

TO MTFC

TO CDT APPL

(SW) TO TRUNK TST REG CKT, (ZZP) TRUNK TST REG FOR WB

| DRAWING ISSUE |
|---|
| 65B |

COMPLETING MARKER CIRCUIT (2) SD-26002-01-818

BELL TELEPHONE LABORATORIES, INC 6S

SD-26002-01-818

# FS28

FREE SELECTION OF IDLE TRKS.

TO MTFC OR OT TIC

TO DA OT OR TO DA SETS

TS0 TS1 TS2 TS3 TS4 TS5 TS6 TS7 TS8 TS9

TS0 TS1 TS2 TS3 TS4 TS5 TS6 TS7 TS8 TS9 TS10 TS11 TS12 TS13 TS14 TS15 TS16 TS17 TS18 TS19

(171) LKA (171) RKA

JSQ0 JSQ5 JSQ2 JSQ4 JSQ1 JSQ3 JSQ0 JSQ2 JSQ4 JSQ1 JSQ3 JSQ5

SQO MAKI TBK TSEI (LB) (LC) (TB) SPI

PCL2 (L,ZP) (ZPP)

DTI3 (PS) (ZPQ) (ZPO) (ZPR) (PS) DTI3

TLC1 TER2 (VP) (VQ) TER2

OT (ZHP) OT

TE (ZHP)

TGT (ZKU) (ZKV) 91 LTI

OLTL TO MKR DIST CONT CKT

TS0 TS1 TS2 TS3 TS4 TS5 TS6 TS7 TS8 TS9

(IX,IY) TT0 TT1 TT2 TT3 TT4 TT5 TT6 TT7 TT8 TT9

TS0 TS1 TS2 TS3 TS4 TS5 TS6 TS7 TS8 TS9

L U 270 1

-48

OT 2L 2U S- 690 ±15% 1

TE 2L 2U S- 690 ±15% 1

TSE1 L U 270 2

TSE2 L U 270

MT1 TSE1 TO KTS

TSE2 TO

T1

TO TE TGT OT MT1 MT5 MT6 KTS T1

TO MKR DIST CONT CKT

TO OT TEST CKT & OTTIC

WHEN A PARTICULAR TRUNK IS TO BE SELECTED

MINI-ROTL INTERFACE CKT

ZFX TSE2

ZFY TSE1

ZFZ

RA

ZEB

MASTER TEST FR. CONN. CKT. OR OT TST CKT & OTTIC

MULT. TO CONN. RELS. FOR OTHER MKRS.

MASTER TEST CONTROL CKT.

MKR DIST CONT CKT

ZKB ZKN MT5 MT5A T

MT5A TO MINI-ROTL INTERFACE CKT

MT5 L U 700 1

MT6 L U 700 RA

MT6 12 6

HTT 5 DIS1 2 PP

ZFY MT17 4

TBK (US) 4

LLC2 12

TZ 10

TWZ

TW 6

TW L U 700

TW 226

TZ 226

TZ L U 950

-48

TSE1 TSE TO MTFC OR OT TIC

DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 20 | |
| 30 | |
| 80 | |
| 180 | |
| 210 | |
| 220 | |
| 250 | |
| 27A | |
| 280 | |
| 300 | |
| 310 | |
| 32A | |
| 330 | |
| 390 | RP |
| 430 | |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-B19

2

65

# FS 29

TYPE OF TRANSLATION

ORIGINATING REGISTER CKT

ORIGINATING REGISTER MARKER CONNECTOR CKT

INTER-MARKER GROUP OR CAMA SENDER CKT

INCOMING REGISTER MARKER CONNECTOR CKT

INCOMING REGISTER CKT

TRANSFER REGISTER CKT

TRANSFER REGISTER MARKER CONNECTOR CKT

TABLE A

| TERM. | CONTACT a |
|---|---|
| NK0 | 1 |
| NK1 | 2 |
| NK2 | 3 |
| NK3 | 4 |

| DRAWING ISSUE | |
|---|---|
| 350 | DP KMD AEL ADD |
| 36A | DM |
| 37D | DM |
| 39D | RP |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 66A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B20A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B20A

# FS 30

ORIGINATING REGISTER
SUBSCRIBER LINE INFORMATION

TRANSFER REGISTER CKT
TI WB SSR
RO
48
SSR

TRANSFER REGISTER MARKER CONNECTOR CKT
RC- MC-

ORIGINATING REGISTER CKT OR CONFERENCE CONTROL CKT

ORIGINATING REGISTER MARKER CONNECTOR CKT

PKI
ZWR
(152) PP U L 270 -48 I
PKI
PK
TO DAS CKT

TMI SSR
RC- MC-
PK
ZWR
(152) PP
20A/D7 XT
PP (152) 274 ±2%
(152) PP
PK U L 270 -48 I
PK
PD

PD
RC- MC-
PD
PD U L 270 -48 I
PD
PS

RC- MC-
PS
PS U L 270 -48 I
PS
MF

MF
RD MD
MF
(1YN) MF U L 700 -48 I
MF
TO MTFC OR OT TIC
D

RD MD
D
MF,MS
(BN) DP U L 700 -48 I
D
SCN

LTI LT2
RC- MC-
SCN
SCN U L 270 -48 I
SCN
SCK

RC- MC-
SCK
SCK U L 270 -48 I
SCK
(AC) NWB
(AC) WB
122A/A1
(LC)
CR

RC- MC-
CR
CR U L 270 -48 I
CR
TO DAS ETS

(LC)

RF MF
CR
SCK

INCOMING REGISTER CKT

INCOMING REGISTER MARKER CONNECTOR CKT

-48 RRK L U 700 CNR

ORIGINATING REGISTER MARKER CONNECTOR CKT
MC- RC-

ORIGINATING REGISTER
CR4 -48

RR 6 RRC 7

INCOMING REGISTER MARKER CONNECTOR CKT
MF RF

INCOMING REGISTER CKT
-48

CNR (LC)
CNR TO MTFC

DRAWING ISSUE

| | |
|---|---|
| 35D | TFA, TS, RTA, AND |
| 37D | WM |
| 39D | ME |
| 43D | CB |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B20B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF FS 31

TYPE OF CALL & TANDEM SCREENING

ORIG. REG. | ORIG. REG. MKR. CONN. CKT. | TO DAS ETS CKT | TO MTFC OR OT TIC (SEE NOTE 1)

INCOMING REG. | INC. REG MKR. CONN.

CMC

RO TAN

CLASS OA, OB, ETC.

TOL

RO

RO1 CAMA SDR.

CL1 CL2

RC- MC-

FAC TOL OR TAN TAN TANO TRF TAN 1 TAN 1 TAN 2 TAN 2 TAN 3 TAN 3 ATT TAN 4 TAN 4 TOL TOL TSC 5 TAN 5 INC INC PCR PCR PCD PCD PCDI PCDI RO RO TCA TCA TCB TCB CAMF

CAMS (68) CMSO,1

(53) TSC0 (53) TSC1 (53) TSC2 (53) TSC3 (53) TSC4 (53) TSC5 (53) TSC6 (53) TSC7 (53) TSC8 (53) TSC9 (53) TCA (53) TCB

TSC0-9 TC1 TC2

TSC0 TSC1-4 TSC5 TCA TCB TSC6 TSC7 TSC8 TSC9

TCA7 TPC TCA8 TPCO TCA9 TPC1

TAC1 TAC2 TCAI-4 TCBO TCBI-4 TCB5 TOC1 TOCO TOC2

FACA ORA FAC OR TAN TRF INI TOL ATT XCLC

P-2.7 ±15%

RO 20A/HG

TO DAS ETS CKT TRF

TO DAS ETS CKT ATT

ATT 218/C2

TCB6 CMFO TCB7 CMFI TCB8 CSMO TCB9 CSMI

AIF1 INFR

CMF2 CMFO,1 CKG6 CMF3 INCT

218/B4 DTF

NOTES:
1. TROUBLE RECORD PUNCH, PROVIDED WITH OPTION DT ON ISSUE 35D FOR LEADS TANO-4, TCA, TCB, TSC5

DRAWING ISSUE: 2D, 4A, 8D, 9D, 10B, 11B, 18D, 21D, 22D, 24D, 25D, 30D, 32A, 35D, 37D, 39D, 41D, 43D

ISSUE 57B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B21A (2) 6S

SD-26002-01-B21A

# PART OF FS 31
TYPE OF CALL AND TANDEM SCREENING

TRANSFER REG CKT | TRANSFER REG MKR CONN CKT | TO MTFC | TO DAS ETS | FAT CONN CKT | FAT CKT

DRAWING ISSUE: 25D, 27A, 28D, 29A, 30D, 32A, 33D, 34A, 35D, 37D, 41D, 43D, 45D

RC- MC- WB TI ATT DATI WAT RLK RO LIO LII

DTF WDTF DTI WDTI DAT WAT AOT LIO LII

163 DTF 274 ±2% 163 WDTF 12 163 WDTF U L 270 1 -48

102 DTF U L 270 1 -48

163 DTI 274 ±2% 11 163 WDTI 12 163 WDTI

PS DTI U L 270 1 -48

DTF 21A/H7

163 WDTI U L 270 1 -48

ATT 21A/E7

PS DAT1 U L 270 1 -48

163 WAT U L 270 1 -48

112 AOT U L 270 1 -48

SW- S- 48 7E9

SORT 1: TSB0-9 TSA0-9 TOS TAS INS DTS ORS

TSC0-9 TSC0-9 TOL TAN INC 102 DTF1 TCB TCA 53 TCCK 2 SCCK TSC1

SORT 2: ORS DTS INS TAS TOS TSA0-9 TSB0-9

102 DTF1 INC TAN TOL TSC0-9 TSC0-9 TCA TCB 53 3 TCCK SCCK 4 TSC2

CMO CM1 CM2 CM3

68 CMFO 1 68 CMFI 4 68 CMSO 4 65 CMSI

136

4WS 2WS CGA0 8A0 10 123 4WD 10 81 2WF

RE SPL2 ZSL PH

NE 73 6 FAC 5 73 SOGI 73 15 73 FACI 11 U L 700 1 -48

ZXK INI 4

PH PT DNRA 10 90 X11A 3 PH ICC U L 700 1 -48

PH 90 ATTI 2

102 DTF 6 AP EGN 1

TO DAS ETS HMG TAN 3 TAN OR

FAC2 GK FAC GJ ORI GK OR 1 GK QK QJ QK

ORI U L 270 1 -48

FAC2 U L 270 1 -48

ORO TOL TOL TOF TOL 3

PT TRF1 U L 270 2 -48

PW TRF 10 PT RE 5

PT TRF2 U L 270 -48

12 PW TFK3 7 OQ,PW,ZUK OQ,ZUK AN 72B4

90 ATTI U L 270 1 -48

130 ATT2 U L 270 1 -48

102 DTF 8 PS QC QJ PT ATT 12 PT

102 102 DTF 12 102 DTF1 U L 270 1 -48

DTF3 2U 1U 640 1 -48 ZQX 102

112,114 DTF2 U L 270 1 -48

FAT CONN CKT: CB23

FAT CKT: OR, TAN, TOL -48

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-82IB

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILD

# FS 32
TYPE OF CALL

LINE LINK MKR CONN CKT
ORIG REG MKR CONN CKT
INC REG MKR CONN CKT
TRANSFER REG MKR CONN
MC-
TRI
TRS
TRK
TR2
TRG
TO ORIG LINE IDENT
TO DAS ETS CKT
TO MTFC
TO OT TIC CKT
TO OT TST CKT
TO MINI-ROTL INTERFACE CKT
1TR TRK
2TR TR2
AIS
MM
RLT
LRS
AIC2
RYC
OTF
DTI
TR2
LR
RTST
DCK
ROA
GTI
XTRK
P-1175
PCLI
TRS
CONI
TFK3
EXA
AGCF
NCRA
LLPI
LTI
MKR DIST CONT CKT
TO DAS ETS CKT TER
TERG TO DAS ETS CKT
TR2D
TR2B
TR2C
TR2E
TR2F
TER4
TER6
TER5
TERI
TER2
DTI4
DTI3
DTI2
NSI
NSO
SON
ITR2
TRF1
TRF3
TRF4
FAC
OR
OLI
PCDO,1
PCR
CMF2
CMF
CMCI
CMC2
CMC3
CMSO,1
INC
TOL
TAN
LPN
VCI
DCI
DTII
LSC2
TER4
TCCK
EGN
LEA
LEB
OA
OB
LPA
LPB
LTA
LTB
PHC
THC
CA 41A7
RAV2
ITRI
ITR2
PCLI
PCL2
SOGI
SOG2
SNK
ONN
TEA
TERI
LR DCK
TCCA
TOG5
SRI
TOA
ITR TO DAS CKT OR CDT APPL
SOG TO CDT APPL
SOG
TOGI
TOG2
TOG6
TOG3
TOA TO MKR DIST CONT CKT
TOA
TRF3
TOGI
CKG2
INC
RAV2
TRSA
TOG
TOG TO DAS CKT
AMA4
TOG5
ITR3
TER
TO MTFC OR OT TIC
DRAWING ISSUE
39D JER
43D
45D
65B
COMPLETING MARKER CIRCUIT
2
SD-26002-01-B22
BELL TELEPHONE LABORATORIES INCORPORATED
6S

SD-26002-01-B22

FS 33
CLASS OF LINKAGE AND OFF NORMAL CONTROL

TO DAS ETS SCB

SCB1 CKG4

SCB1 CBI RCY4 ITRI LCK WBCI CONI GT2 GLHI SLA HMTI TK WBCI HGK RK LK TCHK JCK

WCN WFCK WDCI WSLA TSK TERI PUI PUL TBI

SCB2

STP2 LLCI STP2 STP

LSC2 RCY3 RCY4 66G7

WTK LCK

IFLG

TOG2 TOA CMF2 TRF2 RYC CKG2 TRL IMT MRLI DISI PCD0,1 PCR DTI1 TER4 TERI

CB6 LLCI LRAI AISI LLC4 TLCI TLC2

LLP LLC4 MKR DIST CONT CKT

CBI DTI1 SOGI RV2 RVI

FLGI RCY4 CKG4 ITRI RCY2 ILKI OV BY

DIRA DISI TRL MRLI LLCI

CB DIS2 LKI 3G 2G HMSI LLC2 CB6 WLCI WHS2 WBCI ITRI

CKO RCL RCTIO RGTA PTN TN EN PN LA FTL FUL VGL HGL VFL 64G1

LLCI LKI SCB1 LLC2 LLC3

RRC RRK CKG1 RLG

AUTOMATIC PROGRESSION TRUNK TEST CKT

INTER MKR GR SDR CKT SRT

INC REG MKR CONN CKT RC- MC-

MASTER TEST CONT CKT OP CAM KEY TKT KI,K2

CAMA SDR SRT

IMT IRT ORT

TTA TST

RV TO DAS ETS RV RGTA RV2 RVI RCL NGB TO MKR DIST CONT CKT RV RVIT RVI 41B/D4

TO DK ZKC TST TO OTHER COMPL MKRS

SCB2 SCB3

CMSO CMSI LR MST DCK INC REG CKT

RV3 RVT GSI-5 47C3

INC REG LINK CKT LSM

CWF DCK LRI CWS TO MTFC OR OT TIC

FLGA FLG

TRANSFER REG LINK CKT LSM

TRANSFER REG MKR CONN CKT RC- MC-

TRUNK CKT F

IF 33,000 ±20% LRI OFHI TLCI DCTI TFK3 TRFI FR

TO INTERFACE AND CONTROL CKT

FLG LKI TERI CKG2 RCY3 RCY4 ITRI TOG1 TRF3

LR R01 TRANSFER REG CKT

MST TTI DCK TKT XI XL XHGI XHGA RIK

WLFK RCA TKT XI TOG1 CDN TOG 330 ±1%

FLGI TNR ANR NARI NAR2 CB ZOX MT20 CB5 37H5

CB5 CB6 CB LOT 4D5 DTI OLI

TO MTFC OR OT TIC

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-823 2

65

# PART OF FS 34
"A" DIGIT TRANSLATOR

MKR DIST CONT CKT — T4 — XT
XTA — XTA — 87E4
XT — 5 — XO — MK,XP
CKG2
ZEU
OR — FAC
FAC — PT ATT — TOL — INC — TAN — L PCDO — L PCDI — L PCR — ZD
UJ
53 ZD
ZIG — ZIH
L PCR — L PCDI — L PCDO — ZD,CN
CN
ZYH — TCCK — TCCA — 700 — 48
ZKC
TCCA
MKR DIST CONT CKT — TCG — T — TCCK
ZD — ZKC — ZKB — ZKN — 53
TCA — TCB — TSC0 -- TSC- -- TSC9
102 DTF — SC — 7A8,C8 — SCK
PS ATT — 112 AOT — 163 WAT — PS DATI — PS DTI
RO — ROA 24C/G4

MKR DIST CONT CKT — T — XLAT1 — XLAT — ZKN — ZKB
NC1
SCN — SCK — CR
NC2
PS — PD — PK
FAC — PDL
OR — 81 2WF — PD
123 4WD — 4PD
PS — 81 2WF — PS
123 4WD — 4PS
PK
DJ — DK — SCN
VTC — VTC
DNC — DNC
FC — FRC
LCDO — LCDI — LCD2 — ACD
WKC — DNC — FC — VTC
69 — CM — CN
53 TSC8,9
WKC — LCDO-2
ACD
HAT
53 TSC5 — GT
53 TSC6,7
FAC — 161 IDS — IDS
161 IDP — IDP
CG — FAS
CF — ADT
OR — FAC — RO — 102 DTF
ACO 24B/DO
CL — ZG — 53 TCA
53 TSC9
53 TSC8
53 TSC7
68 CMSI
68 CMSO
53 TCB — LJ
TAN — LJ
TOL
PW TRF — RO — TCCK — 270 — 48
L — PCDO,I
PCR

DRAWING ISSUE
350 ESS No. 1 & DL AMA
370 DM
390 RA
43D
65B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B24A
BELL TELEPHONE LABORATORIES INCORPORATED — 6S

26002-01-B24A

# PART OF FS 34

"A" DIGIT TRANSLATION

(159) IAT2-9
IAW2-9 — U L 270 — -48

ATO-9
ATWO-9 — U L 270 — -48

(52) ETO-9
ETWO-9 — U L 270 — -48
131C5 FO-9 (142)

ZDC
ZZQ
24A/F9 ACO
(152)
(163) WDTF
(152) PP
(152) NW
(152) WBO-2
WPP
ACO ACI AC2 AC4 AC7
ZSU
MID 2682

(159) IDRO-9 (T&CT FR) — IDRO-9 (RR FR)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AC2 AC7 | (52) ET ETA9 | FVD FVD9 | LT LTA9 | (82) 4LT 4LT9 | IIX IIX9 | XII XII9 | (143) LT3 LT39 | (159) IDA IDA9 | (ZLK) LT4 LT49 | (VZ) LT2 LT29 | (WO) ELT ELT9 → A9 |
| ACI AC7 | (52) ET ETA8 | FVD FVD8 | LT LTA8 | (82) 4LT 4LT8 | IIX IIX8 | XII XII8 | (143) LT3 LT38 | (159) IDA IDA8 | (ZLK) LT4 LT48 | (VZ) LT2 LT28 | (WO) ELT ELT8 → A8 |
| ACO AC7 | (52) ET ETA7 | FVD FVD7 | LT LTA7 | (82) 4LT 4LT7 | IIX IIX7 | XII XII7 | (143) LT3 LT37 | (159) IDA IDA7 | (ZLK) LT4 LT47 | (VZ) LT2 LT27 | (WO) ELT ELT7 → A7 |
| AC2 AC4 | (52) ET ETA6 | FVD FVD6 | LT LTA6 | (82) 4LT 4LT6 | IIX IIX6 | XII XII6 | (143) LT3 LT36 | (159) IDA IDA6 | (ZLK) LT4 LT46 | (VZ) LT2 LT26 | (WO) ELT ELT6 → A6 |
| ACI AC4 | (52) ET ETA5 | FVD FVD5 | LT LTA5 | (82) 4LT 4LT5 | IIX IIX5 | XII XII5 | (143) LT3 LT35 | (159) IDA IDA5 | (ZLK) LT4 LT45 | (VZ) LT2 LT25 | (WO) ELT ELT5 → A5 |
| ACO AC4 | (52) ET ETA4 | FVD FVD4 | LT LTA4 | (82) 4LT 4LT4 | IIX IIX4 | XII XII4 | (143) LT3 LT34 | (159) IDA IDA4 | (ZLK) LT4 LT44 | (VZ) LT2 LT24 | (WO) ELT ELT4 → A4 |
| ACI AC2 | (52) ET ETA3 | FVD FVD3 | LT LTA3 | (82) 4LT 4LT3 | IIX IIX3 | XII XII3 | (143) LT3 LT33 | (159) IDA IDA3 | (ZLK) LT4 LT43 | (VZ) LT2 LT23 | (WO) ELT ELT3 → A3 |
| ACO AC2 | (52) ET ETA2 | FVD FVD2 | LT LTA2 | (82) 4LT 4LT2 | IIX IIX2 | XII XII2 | (143) LT3 LT32 | (159) IDA IDA2 | (ZLK) LT4 LT42 | (VZ) LT2 LT22 | (WO) ELT ELT2 → A2 |
| ACO ACI | (52) ET ETAI | FVD FVDI | LT LTAI | (82) 4LT 4LTI | (NB) | XII XIII | (143) LT3 LT31 | (159) IDA IDAI | (ZLK) LT4 LT41 | (VZ) LT2 LT21 | (WO) ELT ELTI |

ACI
24C/80

(170) A2-9 144G1

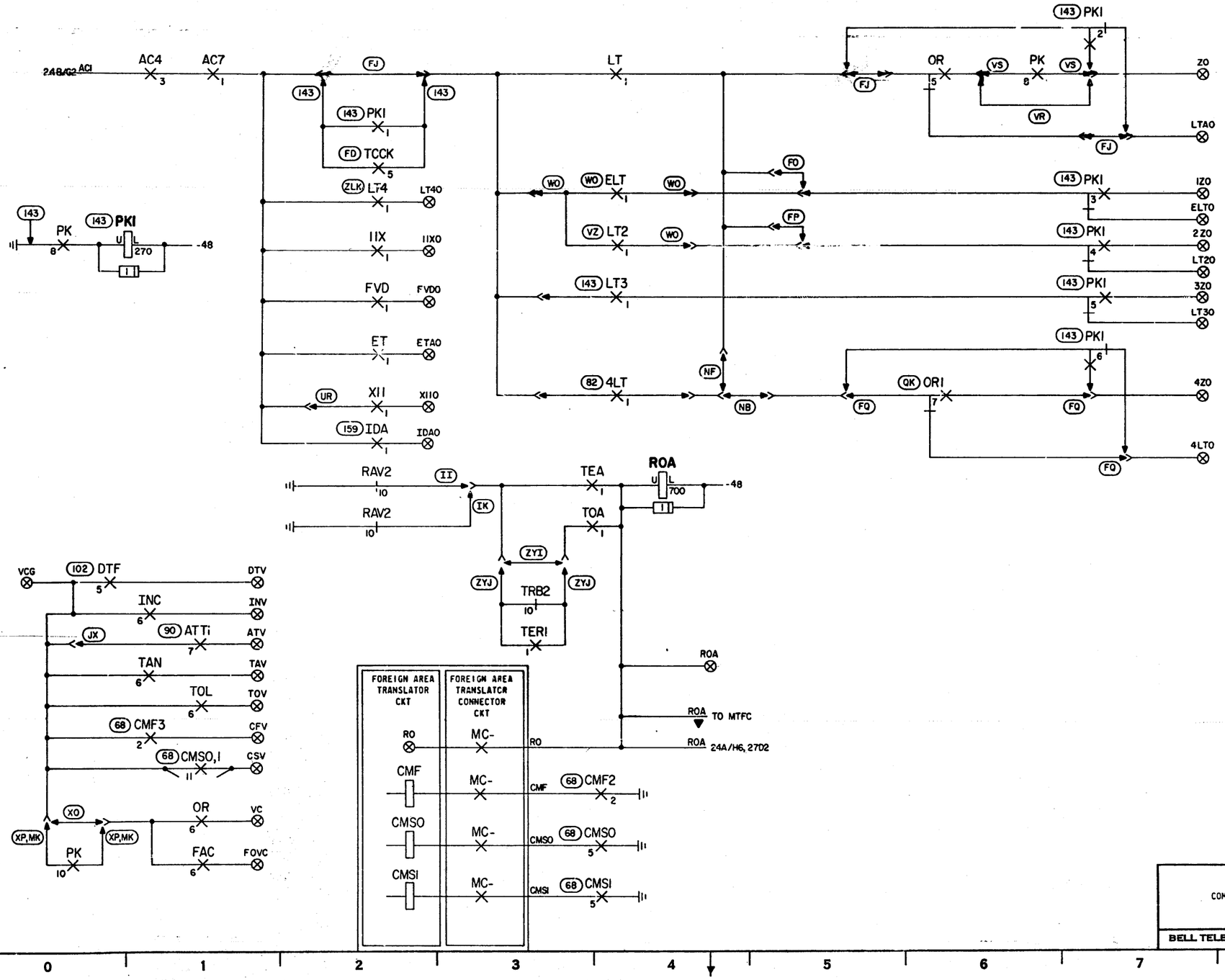
| DRAWING ISSUE | | |
|---|---|---|
| 35D | EC CAR FMS | |
| 37D | AB | |
| 39D | RR | |
| 41D | | |
| 43D | | |
| 45D | | |
| 47B | | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B248

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF FS 34
"A" DIGIT TRANSLATION




DRAWING ISSUE

| | |
|---|---|
| 350 | AC, 4 6 M 4 MF |
| 370 | AB |
| 390 | RA |
| 410 | |

ISSUE 55B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-B24C

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# FS 35

TRANSLATION FOR
2 DIGIT CODE POINTS

| DRAWING ISSUE | | |
|---|---|---|
| 1 | RM RCM | JFD |
| 2D | BKZ — | MMB |
| 6A | HW CJD | EAC |
| 37D | DM | |
| 41D | | |
| 45D | | |

ZIY PSTL 28A/A7

BC0 BC1 BC2 BC4 BC7

8 CKG2

ZSU

2682 MD

BC2 BC7 AT09,19,ETC. OR-99

BC1 BC7 AT08,18,ETC. OR-98

BC0 BC7 AT07,17,ETC. OR-97

BC2 BC4 AT06,16,ETC. OR-96

BC1 BC4 AT05,15,ETC. OR-95

BC0 BC4 AT04,14,ETC. OR-94

BC1 BC2 AT03,13,ETC. OR-93

BC0 BC2 AT02,12,ETC. OR-92

BC0 BC1 AT01,11,ETC. OR-91

BC4 BC7 AT00,10,ETC. OR-90

TO OTHER AT-RELAYS

AT0-9

AA 142 G9 ET09,19,29, ETC. OR-99

AA 142 G8 ET08,18,28, ETC. OR-98

AA 142 G7 ET07,17,27, ETC. OR-97

AA 142 G6 ET06,16,26, ETC. OR-96

AA 142 G5 ET05,15,25, ETC. OR-95

AA 142 G4 ET04,14,24, ETC. OR-94

AA 142 G3 ET03,13,23, ETC. OR-93

AA 142 G2 ET02,12,22, ETC. OR-92

AA 142 G1 ET01,11,21, ETC. OR-91

AA 142 G0 ET00,10,20, ETC. OR-90

TO OTHER ET-RELAYS

131F5

(52) ET0-9

159 IAT2-9 10 IAT29,39,ETC. OR 99 — B9

170 159 IAT2-9 9 IAT28,38,ETC. OR 98 — B8

170 8 IAT27,37,ETC. OR 97 — B7

170 7 IAT26,36,ETC. OR 96 — B6

170 6 IAT25,35,ETC. OR 95 — B5

170 5 IAT24,34,ETC. OR 94 — B4

170 4 IAT23,33,ETC. OR 93 — B3

170 3 IAT22,32,ETC. OR 92 — B2

170 2 IAT21,31,ETC. OR 91 — B1

170 1 IAT20,30,ETC. OR 90 — B0

13+81

BC0 8 1 BC1 8

BC2 7

BN 1K481

170

B147 U L 270 1 -48

BC1 9 BC4 9 BC7 9 BC0 9

B369 U L 270 1 -48

BC2 9

B258 U L 270 1 -48

BC0 10 BC1 10 BC2 10 BC4 10 BC7 10

(50) BT00,10, ETC. TO 90

ET0-9 U L 270 1 -48

BT0R,S,T TO BT9R,S,T

BT0R,S,T TO BT9R,S,T U L 180 6 -48

159 IBT0,1

IBT0,1 U L 270 1 -48

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | (2) SD-26002-01-B25 | ISSUE 58A |
| BELL TELEPHONE LABORATORIES, INC | 6S | |

# FS 36
TRANSLATION FOR
THREE DIGIT CODE POINTS

FOREIGN AREA
TRNSL. CONN. CKT.

ABCI OR
DEFI

-48

CGC

24B/E2, MD
25E1

CKG2 CC0 CC1 CC2 CC4 CC7

Z5U

MKR DIST CONT CKT

T

MD

MDI

ZKB

ZKN

MDI

Z5N MDI TR2E

I70

CODE POINTS

OPERATED RELAY

BTOT-9T

BTOS-9S

A DIGIT NO.

BTOR-9R

BTOO-90

B DIGIT

A DIGIT

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 090 | 099 | | | | 590 | 599 | | | 990 999 |
| 8 | 080 | 089 | | | | | | | | 980 989 |
| 7 | 070 | 079 | | | | | | | | 970 979 |
| 6 | 060 | 069 | | | | | | | | 960 969 |
| 5 | 050 | 059 | | | | 550 | 559 | | | 950 959 |
| 4 | 040 | 049 | | | | | | | | 940 949 |
| 3 | 030 | 039 | | | | | | | | 930 939 |
| 2 | 020 | 029 | | | | | | | | 920 929 |
| 1 | 010 | 019 | | | | | | | | 910 919 |
| 0 | 000 | 009 | | | | 500 | 509 | | | 900 909 |

CC2 CC7 B369
CC1 CC7
CC0 CC7
CC2 CC4
CC1 CC4
CC0 CC4
CC1 CC2
CC0 CC2
CC0 CC1
CC4 CC7

B258

B147

CC2 CC1 CC0 CN CO-9 I70

BTOT---BT5T---BT9T
BTOS---BT5S---BT9S
BTOR---BT5R---BT9R

| | BTOT | BT5T | BT9T | BTOS | BT5S | BT9S | BTOR | BT5R | BT9R |
|---|---|---|---|---|---|---|---|---|---|
| 9 | C099 | C599 | C999 | C069 | C569 | C969 | C039 | C539 | C939 |
| 5 | C095 | C595 | C995 | C065 | C565 | C965 | C035 | C535 | C935 |
| 4 | C094 | C594 | C994 | C064 | C564 | C964 | C034 | C534 | C934 |
| 0 | C090 | C590 | C990 | C060 | C560 | C960 | C030 | C530 | C930 |

| | BTOT | BT5T | BT9T | BTOS | BT5S | BT9S | BTOR | BT5R | BT9R |
|---|---|---|---|---|---|---|---|---|---|
| 9 | C089 | C589 | C989 | C059 | C559 | C959 | C029 | C529 | C929 |
| 5 | C085 | C585 | C985 | C055 | C555 | C955 | C025 | C525 | C925 |
| 4 | C084 | C584 | C984 | C054 | C554 | C954 | C024 | C524 | C924 |
| 0 | C080 | C580 | C980 | C050 | C550 | C950 | C020 | C520 | C920 |

| | BTOT | BT5T | BT9T | BTOS | BT5S | BT9S | BTOR | BT5R | BT9R |
|---|---|---|---|---|---|---|---|---|---|
| 9 | C079 | C579 | C979 | C049 | C549 | C949 | C019 | C519 | C919 |
| 5 | C075 | C575 | C975 | C045 | C545 | C945 | C015 | C515 | C915 |
| 4 | C074 | C574 | C974 | C044 | C544 | C944 | C014 | C514 | C914 |
| 0 | C070 | C570 | C970 | C040 | C540 | C940 | C010 | C510 | C910 |

| | BTOO | BT50 | BT90 |
|---|---|---|---|
| 9 | C009 | C509 | C909 |
| 0 | C000 | C500 | C900 |

159 IBTO,1 IC09,19
159 IBTO,1 IC00,10

TO DAS ETS CKT MDI

KEY

MDI

Z5N

MASTER TEST
FRAME JACK
LAMP & KEY CKT

Z5N MDI

-48

DRAWING ISSUE
1
20
EA HV/ 2/72
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68
41D
45D

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

2

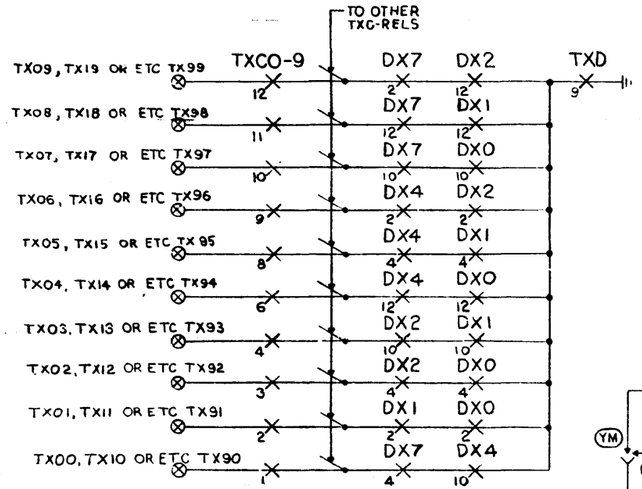
6S

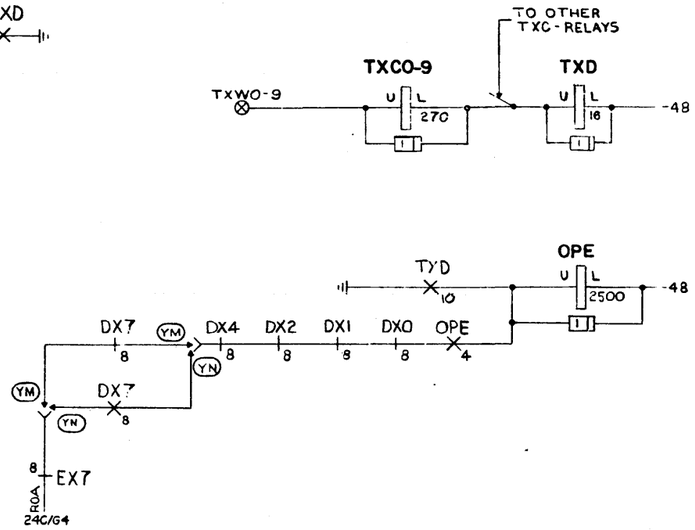
ISSUE
57B
SD-26002-01-B26

SD-26002-01-B26

## (36) FS 37

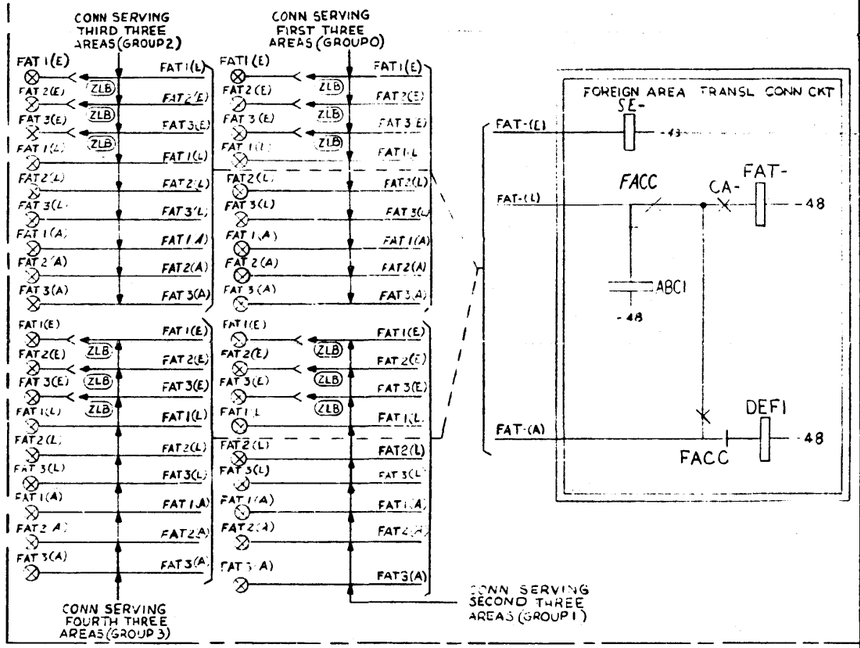
2 DIGIT OPR, 11XX TRANSLATION



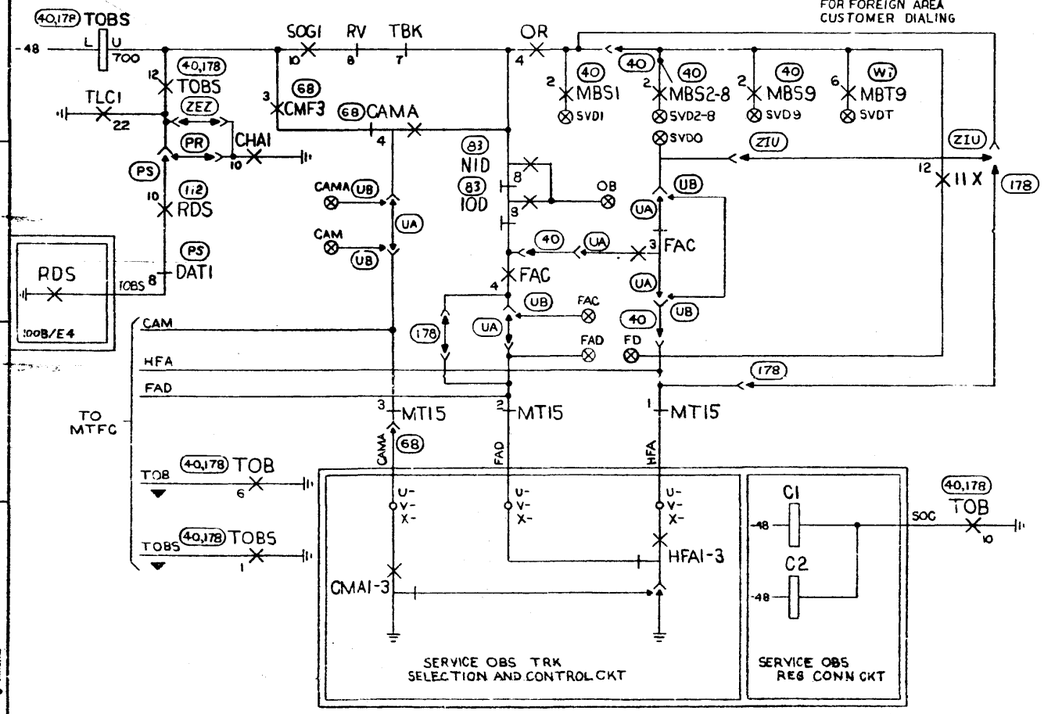

## FS 38

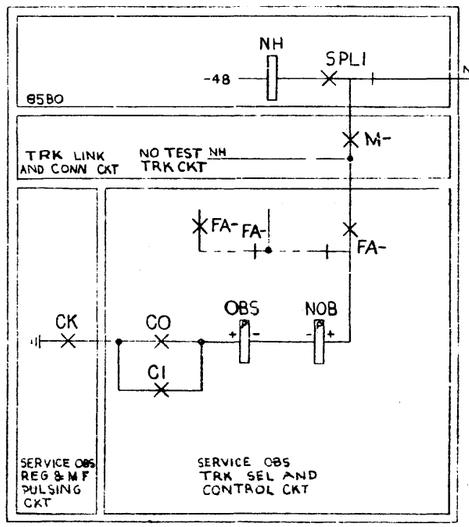
FOREIGN AREA TRNSL START LEAD

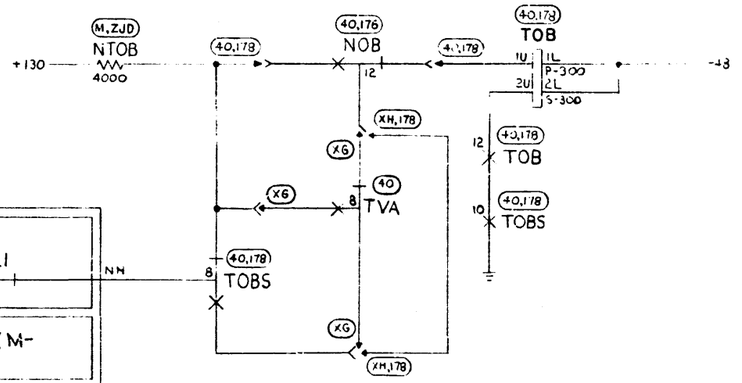



## FS 39

TRUNK OBSERVING FOR FOREIGN AREA CUSTOMER DIALING




ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B27

BELL TELEPHONE LABORATORIES INCORPORATED

65

# FS 40
ROUTE RELAYS

FOREIGN AREA TRANSLATOR CONNECTOR CKT
UARO/7 TARO-9 FAROO-99 "GI" FARIOO-199
TARO-9 FAROO-99 "GC" FAROO-99
XTRI UCK UARO/7 XTRI UCK
CGO
WP CKG2 5 IX,IY CMRO 5 2,7 CTAR
IX,IY CMRI 5 2,7 CTOR
IZ,GA DRRO,I 5 2,7 NRSO,I
CKGI 1 DIS2 2 ZI PK 163 WDTF 2 2 ZI RGT 10 WT2 84E4
ZH OR 9 ZH JY CNTO 5
PS,TP XIIB 1
LEA FL2 LEB FL5 LPA FLO LPB FL3 LTA FLI LTB FL4 88 LPN FLP
LEA AER 4 LEB BER 4 LPA APR 4 LPB BPR 4 88 LPN NPR 4 LTA ATR 4 LTB BTR 4 AP EGN GNR 4
136 INFO 12 INF-I
62 IPCO-9 2 IRO-9
ZKB RV 3 RGTA 7 RGTA
TO MKR DIST CONT CKT RGTR ZKN
58 CVOO-95 10 CVROO-95
DRO-7
YC DR8,9
70 DRIO-19 6 RRO-19
37 PCOO-27
72 PC28-39 2 PROO-27 PR28-39
TO MKR DIST CONT CKT LDAI TRAI TRA LDA
4 PT TRF1
10 PT TRF2
4 ZJJ
PT CDN ZJI
ZKN CGOO-59
PY TRA
PX PX 2
ZKN PY LDA
ZKN PT CDN
OPR 2 OPSO-3 4 OPO-3
ITRA 1 IAA
JY CNTO 4 ZJT CNTO
CVRGOO-23 CVRGOO-23
CC FR CVRG24-49 UV TRANSLATOR FR CVRG24-49
MKR DIST CONT CKT T PSRI ZKN PSR
PSR ZKB 172 ZCU,ZCV PSG 190,200 2 PSG PGR
ZKN ZKB 12 172 PST
175 DAL -48
DAL
175 DAHA -48
DAHA
175 DAL 6 DALI
175 DAHA 6 DAHAI
ORIGINATING LINE IDENTIFICATION
D RD 85 D
MF MF 85 MF

172 PST -48
PST TO MKR DIST CONT CKT PST
172 PSTA 1U 2U 640 -48
58 CVOO-95 CVOO-95 CVB00-95 PSTL 25CI 10
CVOO-95 TB CT FR
CVOO-95 CC FR UU
136 INFO ZCF -48
INFO
62 IPCO-9 -48
IPO-9
102 C4D -48
C4D
102 DZ -48
DZA ZXK INI 10 102 DTF 4 DZB DZ
ZOG IDN 10
OCN 141 CP 9 CP
141 CNP 9 CNP
IE PT DNRA 4 IF IG
INT 73 INT 10 INPB INTI
RVS JD WN MF 7 JD RVMF RVD
SCC00-08 SCC10-18 SCC20-28 SCC30-38 SCO-3 1,3-8,10,11 CIC00-08 CIC10-18 CIC20-28 CIC30-38
SCO-3 -48
IDI ZOG ZKK INI 2 ZOG ID2
ZOG IDN -48
162
PSA CGT 4 172 172 PSAI 6 ROH 6 PSG 172 ROH
PSC 172 5 PSG
ROH 7 PSG 172 7 PSO

R- RC- R- 180 6 66 FC 700
LPA RPA LPA P-300 S-300 ZI LCC ZH -48
LTA RTA LTA P-300 S-300 ZI ZH -48
LEA REA LEA P-300 S-300 ZI ZH -48
LPB RPB LPB P-300 S-300 ZI ZH -48
LTB RTB LTB P-300 S-300 ZI ZH -48
LEB REB LEB P-300 S-300 ZI ZH -48
37 PCOO-27 72 PC28-39 RPOO-27 RP28-39 -48 RCT 6 RGT
RGT 1510 ±1%
38 ALO-3 RCLO-3 RLO-3
RGT 950 -48
OPSO-3 OSO-3 -48
4 RGT
CKGI 7
162

DRAWING ISSUE 67B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B28A
BELL TELEPHONE LABORATORIES INCORPORATED 6S

DRAWING ISSUE 43D 45D

SD-26002-01-B28A

# FS 41
ROUTE SERIES RELAYS

TRB (TK, SR) (PW) TRF (TK,SR) TRC
PC (ZCW,ZCX) 37 PC00-27 (ZN) PC00-27
190,200
72 PC28-39 PC28-39
IC ITRA IA
IB
ZRT0-7 (YC) DR0-7 (YC) ZRS0-7
(YC) DR8,9
ZPT8-19 70 DRI0-19 ZRS8-19
(ZCU,ZCV)
WB WBR (133) WBS
190,200
70 DRI0-19
YC DR8,9
DR0-7
DR TO MASTER TEST FR CONNECTOR CKT
88 LRD DR TO MKR DIST CONT CKT
BSA 10,20,30,40 166 GSBI-4 BLA 10,20,30,40
(ZPY) (ZPY)
BSA 11,21,31,41 166 GSBI-4 BLA 11,21,31,41
(ZPY) (ZPY)
BSI0-40 GSBI-4 BLI0-40
BSI1-41 BLI1-41
BSI2-42 BLI2-42
BSI3-43 BLI3-43
BSI4-44 BLI4-44
(ZZP) WDZ WDZ
YC CZ CZ
YC CZT CZT
U L 270

VP WRA (156) WMBA WMBA
ND ZUC ZYH TOC5 ZUC ZUB TOA ND ND NC NC (156) WRA PB
VP OV
117 PBY
LB
PBY PBY -48
117 226
ZCL
22F8 TOA
LR RV BL LB
LRD (IA) RV LB (IA) BL
TY OVC 88 LRD (IA) LRA
(IA) RV
(IA) ITRA
ITRA RV LB ITRA TY OVC ITRA -48 700
MBSI-9 MBSI-9
MBSO MBSO
29A/F8 MBSO
40 MBS0-9 40 GO MBS -48
GN -48
TO TOS GO
TO MKR DIST CONT CKT TOS
184 NRCD NRCD IU 2U 16 NRDB
184 RCDT RCD IL 2L 16 RCDB
184 NRCD NRDI NRDO
184 RCDT RCDI RCDO
TO CDT APPL
184 NRCD 184 RCDT 184 CDT CDTK
226

TO MKR DIST CONT CKT
147 NCTD NND NCTD
PCN PM
PNC PN
PPX PP
TCCN TC TCCN
TCNC TN TCNC
NCCN NC NCCN NCNC
NCNC NN
LR PREA PRC 119
CR 4
CC 6 SCK
RR TO MKR DIST CONT CKT RR 2.5kΩ
IX,IY CMRO,I CMRO,I 4,9 6.3kΩ, 3.5kΩ
IZ,GA DRRO,I DRRO,I 4,9 6.3kΩ, 3.5kΩ
YC DR0-7 DR8,9 70 DRI0-19
DRG-19 2.5kΩ
OPSO-3 OPR 270
TO MASTER TEST FR OPR CONNECTOR CKT
TO MKR DIST CONT CKT RB
RB GN GO RBI,2
166
ZT LCB ZVK ZVL LCB CE 96C3
GO RS

LCB ZVL LCB CE 46C3
WT MBT9 MBT9 ZNR ZNS ZVL
59 CVS CVS ZNT ZNU
117 TNAN TNA
117 RCTS RCTS
147 ANTD ATD ZNJ ZNK ZNK
ZTE CMJT CMT ZNP ZNQ ZNQ
TO MKR DIST CONT CKT PDCO,I
94 PDCO,I PDCO,I ZNV ZNW ZNW
ZYH TCCA CAA CA ZCL ZSR ZNX ZNY CA
XJ ANIS ANIS ZNH ZNI
TO MKR DIST CONT CKT ANIS
83 IOD IOD ZNL ZNM
83 NID NID ZNL ZNM
69 CMF CMF ZNN ZNO
TO MKR DIST CONT CKT CMF CMJ
69 CMJ CMJ ZNN ZNO
RGOC-59
117 IPRS IPRS
IG DRGO-19
FN 70E0 FN

DRAWING ISSUE 43D 45D
ISSUE 67B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B28B
BELL TELEPHONE LABORATORIES INCORPORATED
6S

# PART OF FS 42
TRUNK CLASS CONTROL

TO MTFC

CLK
NOC
-48
CLK
RSC
NOC
CLTI
CLT2
AMA4
CLG
NDK
NSI
NSI
NSO
SON
RK1
RK2
RK3 FTKI OLI
57B/HI
UX
XB,GB
XA
ZR
ZS
M

JY
CNTO
129
LOLD
CLKI
CLK
CLG
TO MKR DIST CONT CKT
ZKC
ZKN
ZKB
RP
TP
LQ
AOLA
YC
CZ
CZT
XW
XX
NTP
TPK
TTP
TO MKR DIST CONT CKT
TC
TPK
FNB
FNA
CNC
TCNC
TCCN
117
RCTS
NCCN
94
CDNC
PDCI
PDKA
PDCO
40,74
RPK
RP
ZZP
WDZ
TOS
ZET
ZDV
NG
EZ
105
SA
146
RCD
ZWN,ZWO
CPP
9NP
CPIO
CPS
SMT
IAQ
NSA
RA
41A/A7
XX
117
RCTS
IPRS
NCCN
TCCN
TCNC
PDCI
PDCO
147
NCTD
PJ
MBSO
40
CPMC
ZHH
CPMA
ZTC
40,74
AMA
ZPB
ZPC
AMA5
AMA4
XJ
ANI
ZR
ZS
ZPU
ZPV
CZ
ZCU,ZCV
SA
190, 200
MBSO
288/F2
ZOA
ZPZ
CPMA
4

AMA
MBS-
FN
OBS
-48
NAMA
AMA
298/AO,87

NTC
TCN
YC
CZT
CZ
VD
VE
ZKN
ZKC
ZKB
TC
CNC
94
SOG2
ZTE
CMJT
CMJ
PT
TRF3
TOS
ZR
TOGI
PD
PNC
SS
NCCN
SV
PPX
CAA
PCN
TPK
PCN
TC
OPR
117
TNAN
BL
VP
T4
T3
RTK
MKR DIST CONT CKT
T1
T2
PT
TRF4
PBY
CAA
XCKR
-48
IL
IU
P-1175
XF
ROA
XE
TERI
13
TC
10
CAA
4

SD-26002-01-B29A

ISSUE 67B

COMPLETING MARKER CIRCUIT

SD-26002-01-B29A

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 68

# PART OF FS 42

TRUNK CLASS CONTROL

CLK -48 TC NAMA 29A/E2

40,74 AMA L U 700 I

71 AMAI L U 700 I

68 NCMJ L U 700 I

69 CAM L U 270 I

68 CAMA L U 270 I

XA CLG L U 700 I

XA CLT2 L U 700 I

XA CLTI L U 700 I

40 ZCP ZHZ ZHY ZCO

136 INFR 6

128 AISI 3 158 AIC2 3 136 INFO 6 AIFI 6 AIFO 6 FB

XJ ANIS 10 147 ANTD 10 XJ

83 IOD 4 83 NID 4

40 OBS 10

105 MBSO 1 105 BE BE

40 WT MBT9 5 40

BD BX MBK 12 BD BE BE

MBSI-9 1

FN 4 FN 9 OBS 4

WL WK

40 AMA 6 OPR THAN 5 BL 5 VP 5 CAA 5 29A/E2

TO MARKER DISTRIBUTOR CONTROL CKT CAM 69 CAM 7 ZIS

XJ ANI L U 700 I

XJ ANIS 8 147 ANTD 4 ZTE CMJT 10 69 CMJ 10 69 CMF 10

CAMA MAMA4 1 57B/B3 MAMA4 5 MAMA4 4

CLG XA TO MTFC

CLT2 XA CLTI XA

XA CLTI 8 XA CLT 4 7 3 ZS ZR ZR ZS XA NOC 8 TOGI 11 FBK 8 SOGI 11 FAK 8 RCK3 8 ITRI 8 CKG6 2

XA CLG 6 ZKC

XA CLG 4 SK 7 RCK3 6 RYC 2 ZKB CKG6 7

XA CLTI 12 XA CLTI 2

ZS ZR MAMA4 4 ZR ZS BG 5 XA CLTI 500±1% XA CLT 1 6 S-2.6kΩ±1% 5 2 P-200±1% 8 XA CLG

XA CLT4 200±1% XA CLT2 4.28-4.36 XA CLTI 4.28-4.36 BG 3

XA CLT3 620±1% BG 2

BG 6 XA CLT2 426±1%

BG L U 700 I CKG6 1

ZXO BGI L U 700 I ES NR 62A/A2

ISSUE 66A

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B29B

SD-26002-01-B29B

# PART OF FS 43

CHARGING INFORMATION TO THE TRUNKS

OUTGOING SENDER CONN CKT | OUTGOING SENDER CKT | OUTGOING SENDER LINK CKT | OUTGOING TRUNK CKT | TRUNK LINK FRAME AND CONN CKT | LINE LINK FRAME AND CONN CKT | INCOMING TRU CKT

TO MTFC OR OFFICE TEST FR TBL INDICATOR AND CONN CKT

MISC TRUNK CKT NOT REQUIRING A RINGING SELECTION SWITCH

TRUNK LINK AND CONN CKT

TRUNK CKT REQUIRING A RINGING SELECTION SWITCH

RINGING SELECTION SWITCH

TRUNK CKT

TO MKR DIST CONT CKT

TO MTFC

TO OT TIC

TO MTFC

308/F9 TR

8780

PART OF FS 43

CHARGING INFORMATION TO THE TRUNKS

COMPLETING MARKER CIRCUIT

SD-26002-01-B30A

BELL TELEPHONE LABORATORIES INCORPORATED

ISSUE 65B

SD-26002-01-B30A

# PART OF FS 43

CHARGING INFORMATION TO THE TRUNKS

TRUNK CKT

TRUNK LINK AND CONN CKT

TRUNK CKT OR ORIG REG CKT

RINGING SELECTION SWITCH

TRUNK CKT REQUIRING A RINGING SELECTION SWITCH

MISC TRUNK CKT NOT REQUIRING A RINGING SELECTION SWITCH

OUTGOING SENDER CKT

OUTGOING SENDER CONN CKT

OPR, CN — F — LV- — MC- — CN

CNK — CNKI — CNK2 — CNC — BG — TPYK — TPYKI — TPYK2 — TPK — RPK — LOLP — LOLI — LOL2 — LOLD — LOLA — TAM2 — TOG3 — TRF3 — CLG — CDN — CZT — PCN — TNAN — VP — PSA — PST — AIOD — AMA — TGS2 — TPS — CSW — MXT — LNT — DTII — TER2 — HOLD MAG — LOLP — TP/CN/VP — SI — ON — TP — RP

TO MTFC — TO MTFC OR OFFICE TST FR TBL IND CONN CKT — TO MKR DIST CONT CKT

ISSUE 57B

COMPLETING MARKER CIRCUIT

SD-26002-01-B308

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF FS 44
CHANNEL RFLAY OPERATION

| DRAWING ISSUE |
|---|
| 39D JER |
| 43D |
| 44A |
| 45D |

ISSUE 67B

SD-26002-01-B31A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B31A

BELL TELEPHONE LABORATORIES

# PART OF FS 44

CHANNEL RELAY OPERATION

ORIGINATING LINE IDENT

HTKI

TK2 (UX)

TKI (UX)

SON

ORKI ORK2 SCCK

NDI

RSC

(IX,IY) JCK

JCKO 33,000 ±20%

JCKO (13)

ZCB

(RE) SPL2

(RE) SPH (JH) NH NT

(JK) (JL) (JK)

ZYG ZYH TCCA ZKC TCCK ZYG

(JY) CNTO (JM) CTUK (JY)

(113) STPA (113) MFL (113) MFK

TK (147) TK (BE)

CHA LCK HGK TCHK LK RK

GCA GC (SH) (XV)

TLC2 (XU)

LLCI HMSI SOGI TK

SCB2 SOG2 RK3 (85) OLI

TO DAS CKT

(171) RKA LKA (171)

FAK FBK FBK (LT) XAB

TK U L 270 1 -48

TO MTFC OR OTTIC

JCK

CKG5 (LC) (121) PML

AOA (121) LNP

(110) TRT (AS,AT) EXA (110)

CHT 226 (PS) DTI2 TK

CHT 4.28-4.35μF (PS) DATI

(81) TOG4 (120) 2WG (121) PLFK

CNA (120) LITA (121) PLFK (LBTA) (LC)

CHT CKG5 P-200 ±1% S-2600 ±1%

(45) CHT2 2000 ±1% 2000 ±1% CHT1 300 ±1% (A) (45) NT

CKG5 -48

(163) WDTI (156) WLB (153) WCK (156) WDM (156) WCV

(152) WBCI (156) WCV (152) CWB (152) NW (152) WBA (152) CWB

ZZQ ZZQ ZDC

CHA -48 L U 270 12

CHAI -48 L U 270

CHA MKR DIST CONT CKT CHA CHAG ZKC ZKC ZKB

(135) GLTA (135) GLA (135) GL

(129) TR2C CHA (129)

CHA (FY) (FY) (FZ)

(129) NOLA ZQK ZQK ZQK

(129) LOLD

ZMZ ZQL (129) LOLA (129) NOLA (129) LOLF ZMZ ZQL (129) LOLA (129) LOLP

CH0 CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 CH9

XCHS IU IL P-8 ±15%

TBX SGX DCTI 1806 SG TBX (171)

(171) BT00 BT10 BT01 BT11 BT02 BT12 BT03 BT13 BT04 BT14 BT05 BT15 BT06 BT16 BT07 BT17 BT08 BT18 BT09 BT19 (171) RKA LKA

1887, 88

BE

(ZTE) (BC) (147) TDK (BD) TD (147) NCTD (147) ANTD CMJT (147) ANTD

ZCP ZHZ ZCP

(147) (BX) MBK (BD) NTD (BD) TD

DRAWING ISSUE 66A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B31B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

DRAWING ISSUE: 39D JER RP; 41D; 43D

LINE, LINE LINK AND CONN CKT

TO LINE SWITCH I-9

TO LINE JUNCTOR SWITCH I-9

VG2-11 VGI VGO

HGO L9 HGO LJ9

HGO LO HGO LJO

JUNCTOR SWITCH

TO TRUNK LINK JUNCTOR SWITCH LEVELS

LS9 LSO LJ9 LJO SM9 SMO

MC-

TRUNK LINK AND CONN CKT

10 LEVEL REGULAR OR EXTENSION JUNCTOR SWITCH

SWITCH O

LEFT HALF RIGHT HALF

JC- J9 JC- JO

TO LINE LINK JUNCTOR SWITCH VERTICALS

12 LEVEL COMBINED JUNCTOR SWITCH

SWITCH O

JC- J9 JC- JO SB- JB SA- JA

TO SWITCHES I-9

TO TRUNK SWITCH VERTICAL

TRUNK SWITCH O

LEFT HALF RIGHT HALF

T9 T2 B A

FB09 FA09 FB02 FA02

LV9 LV9 LV2 LV2

TO OTHER (FA-) OR (FB-) RELAYS ON SAME LEVEL ON OTHER TRUNK SWITCHES

TO JUNCTOR SWITCH VERTICALS

TO OTHER (LV) RELAYS

LCO

TO TRUNK SWITCH I-9 LCI-9

JC = SEE B12

# FS 45
SELECT MAGNET OPERATION

SMO-9 33,000 ±20%

SMO-9 4

XLS IU IL P-8

CHO-9

MT20

ONX

LSA R -48

LS R -48

ZZK

12LV 10LV TXI

ZZL ZZM 10 10 ZZM ZZL

IOLV 1

JCK P 4,9 1000 ±10%, 3500 ±10%

JCK 7500 ±5%

ZZK ZZM ZZK -48

JSO 3 ZOT ZOU -48

CHO 12

XJSA 2 -48 XJSA 33,000 ±5%

ZOT

JS R -48 ONX 10

IX,IY XJS 5,9 2,1 P P-10 ±10% P-12 ±10%

ZZK 12LV 10LV ZZK

ZZM 12 12 ZZM ZZL

CHI-9 12

ZOR JSB 4990 ±1%

JS 1000 ±1%

1,2 6,8 S-200±1%,2% ONX 3

ZMM XJS 1

ZZL ZZM

ZOT -48 ZOU JSI-9 3 JSI-9 33,000 ±20%

150 XJSI 9 P P-12±10%

BX 8 ZOT XJSB 2 -48 XJSB 33,000 ±5% -48

ZOS,ZOT JSA 300,422 ±1%,±0.5%

2 6 S-200±10% BX 6

ZLC XJSI 1 ZDW IOLV 12G8

JSO JSI-9 SBAI SBA2

XTSI IL IU P-1175 -48 TSEI 12 TSX MC-

IX,IY XTS 2,1 5,9 P P-10±10% P-12±10% 6,8 1,2 S-200±1%, ±2%

IY TS 600 ±1% 600 ±1% -48

IX TS 1070±1% -48

ONX 11

ZMM XTS 1

TSM 3 FBK 12 BSM

TSM 33,000 ±20%

TSM R -48 ONX 12 ZYT ZYU SLA 8 ZYV 12 FAK

5 BSM 5 ASM ASM MC-

TO OTHER (FA-) OR (FB-) RELAYS ON SAME LEVEL ON OTHER TRUNK SWITCH

FAK L U 270 1 -48

ITR2 7 SCBI 10 FAK MC- LV2-9 FA-

FBK L U 270 1 -48

LKI 6 FBK MC- LV2-9 FB-

TO MTFC OR OTTIC FAK FBK

123 FBK 99H8

LV R -48 XLV IL IU P-2.7±5% LVK MC- LV2-9 LV2-9

| DRAWING ISSUE | |
|---|---|
| 39D | |
| 42A | |
| 43D | |
| 45D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B32

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B32

LINE LINK FRAME & CONN. CKT.

TO JUNCTOR DISTRIBUTING FRAME

LINE SWITCH

VG2-11 VG1 VGO JUNCTOR SW

HOR. GROUP 9

LEFT HALF

RIGHT HALF (SEE NOTE 1)

REGULAR JUNCTOR SWITCH 9

SECOND EXTENSION JUNCTOR SWITCH 0

EXTENSION JUNCTOR SWITCH 0

REGULAR JUNCTOR SWITCH 0

JS9 JACK

JS0 JACK

TRUNK LINK FRAME & CONN. CKT.

TRUNK CKT.

TRUNK SWITCH 9

TRUNK SWITCH 0

LEFT HALF RIGHT HALF

RLH9 RLH0 LLH9 LLH0

RLH9 LC0 RLH0 LLH9 LLH0

FB92-99 FA92-99

FB02-09 FA02-09

MA1 TS

LC-11 MC-1

TO DAS ETS LCK

CTA6-9, CTA3-5, CTA0-2

CNTI SPH NH NT TE TFK1

SPL2 OT

ALC BLC AST BST SI

TOG2

LCK TO M.T.E. OR OT TIC

TCHO-9 CHTO-9

TABLE A

| a DESIG | b OPTION | RESISTANCE c | d |
|---|---|---|---|
| LO-9 | DE | 6810±1% | 1910±1% |
| ALO-9 | DF | 6800±5% | |
| BLO-9 | DF | | 2200±5% |

TABLE B

| | | | |
|---|---|---|---|
| JO-9 | DE | 6810±1% | 1910±1% |
| AJO-9 | DF | 6800±5% | |
| BJO-9 | DF | | 2200±5% |

TABLE C

| | | | |
|---|---|---|---|
| TO-9 | DE | 6810±1% | 1910±1% |
| ATO-9 | DF | 6800±5% | |
| BTO-9 | DF | | 2200±5% |

# PART OF FS 46

CHANNEL TEST

COMPLETING MARKER CIRCUIT

SD-26002-01-B33A

ISSUE 60A

BELL TELEPHONE LABORATORIES, INC

# PART OF FS 46

CHANNEL TEST

33F2 — LOLE — LOLK 4.28-4.56 — LOLK — LLKB — LOLK P-110 ±2% / S-550 ±1% — LOLA — (129) (20L) — LC 77H6

LOLA

LOLK 2K — +130V

33F0 LOL — LOLD (129) DCTK — GT2 — LLKB — LOLA — LOLB 16 / 21

LOLF 30.5 K

MT20 — JXPI — LLTA — LLT (RK,RL) — LOLE — LOLB — (129)

LLKA — LOLK — LOLA (129) — LLKB — LLKA

TO MA TST FR CONN CKT

(ZZB, ZTT) THTO — (TN) — LLO — (ZZA) — (ZZB,ZTT) THTI — LLI — (ZTV) (ZTT) THT2 (ZTV) — LL2 — (ZTV) (ZTT) THT3 (ZTV) — LL4 — LL7

CB5 — LL7, LL4, LL2, LLI, LLO

LLO,1,2,4,7 — 700

ORIG REG CKT — LLO,1,2,4,7 — ORIG REG MKR CONN CKT — RD — MD

TR REG CKT — LL- — TR REG MKR CONN CKT — RC- — MC-

DRAWING ISSUE

| | |
|---|---|
| 33D | ESP GOL AND |
| 34A | TEK TN) AND |
| 37D | LP |
| 45D | |

ISSUE 52A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-833B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-833B

STABILO

# PART OF FS 47
HOLD MAGNET OPERATION

VFT0-4 LHT LHT0-2

TO OFF TST FR TST CKT — LHMI, LHMT

TO MTFC OR OT TIC — LHM, LHMT

33A/FO LHO-4 — 2000±1% — -48

MT55 (160) — ZUH, ZUI, ZVH, ZBF

MTII — A

NTT — NTLH 85C8 — NT5 (45)

LXPI — JXPI — SLA — HMSI

MRA — ZUF, ZUG

12LV — ZZL, ZZM, ZZK

PR — ZZK, ZZM

DCT — ZPG, ZPH — 50

DCT1 — CKGI — S-220 ±1%

DCT2 — SCB2 — 90 ±1%

DCT3 — NP, NT — 5±5% 14±1%

DCT4 — NH — 5±5%

TTF — ZE

SLA — JXPI — SL — XSL — LK2 — P-1000 — 1000 ±5%

TXI — HMSI

FAK — FBK — CHAI

DCTI — ITRI — RAV2 — FMP — TRB2

AIC — MT54 — LRAI — LLC4

TBX — JXPI — 171

MKR DIST CONT CKT — LLP — FLH — ZKV — ZMT — TRLI — TRI

LXPI — JXPI — SLA

CHAI

ITR2 — ITR3 (152) — LKI — SCB2 — SCB3 — ZDE, ZDF

BX — IX, IY — XLC — S-580 — P-3.7 — S-525 ±10% — P-4 ±10%

LC — 800 ±1% — 600 ±1% — 1600 ±1%

TXP — TXPI — ZE

TH — INDR

HMTI — CHAI — JHR — 2000 — NHRI

JH — JHI — 4.28-4.36 UF

THRI — THR2 — THR3 — 2000

TERI — FLG — ITRI — LBT — LIT — LI — 6300±5% 3500±10% — 1000 ±1%

JGCK — TGCK — RK, RL — 30,500 ±5%

GLHI — XLH — TO ORIG LINE IDENT — HTR

DVO — DVA — MRA — DVA — HMTI — CHAI — LHR — 2000

LH — LH 4.28-4.36 UF

JXP — P-110 ±2% — S-550 ±1%

CKGI

TABLE A

| REL | (a) CONTACT NUMBER | LHT RES |
|---|---|---|
| VFT0 | 1 | 1/2 LHT0 |
| VFT1 | 2 | 1/2 LHT0 |
| VFT2 | 3 | 1/2 LHT1 |
| VFT3 | 5 | 1/2 LHT1 |
| VFT4 | 9 | 1/2 LHT2 |

| DRAWING ISSUE |
|---|
| 38A |
| 39D |
| 41D |
| 43D |

ISSUE 69B

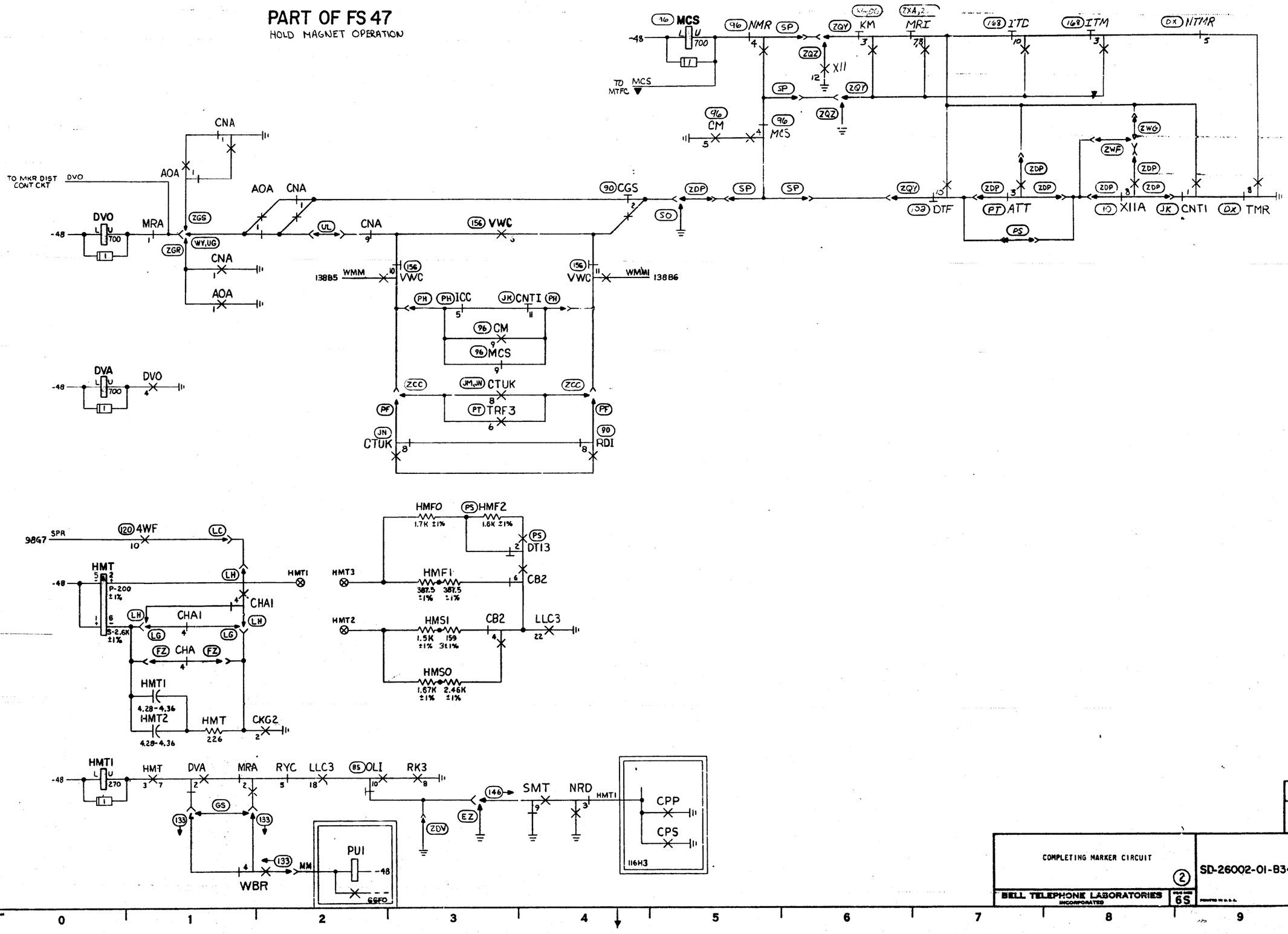
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B34A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF FS 47

HOLD MAGNET OPERATION




| DRAWING ISSUE | |
|---|---|
| 27A | MO CLK AMP |
| 30D | EN AMP AMO |
| 32A | EP CLK AMP |
| 33D | EP CLK AMP |
| 34A | LEA TRU AMP |
| 35D | LEA TRU MC |
| 36A | MM |
| 39D | RP |
| 41D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B348

BELL TELEPHONE LABORATORIES INCORPORATED

6S

STABILO

SD-26002-01-B348

# PART OF FS 47
HOLD MAGNET OPERATION

HMSI 12
SLA (RK,RL) TGCK LLTA JXPA JXPI LXPA LXPI XAJS XSL (A) SP LBTA (GS) HMTI (ZMZ) (DZ) (ZMZ) SLRK GLA (135) TRTR MRL TRBI FMP RAV2 (ZDN) (TK) LDN (UM,PS,TK) (UM,PS,TK) HMSI
(45) NT5 (133) WBK (ZQL) (129) LOLA (ZQL) (EQ) TER5 (CA) (CA) LI (ZQL) (129) NOLA (ZQL) (129) LOLF
RCL (129) NOLA RV (129) LOLC
(ZNE) (ZND) (ZNE) TRLI TRI (152) WBC3 (152) DSI
(ZDO) (UO) RCT5 RS4 (ZDO)
HMSI U L 270 1 -48
TO HMSI MTFC OR OT TIC
HMSI TO DAS CKT OR CDT APPL
(RK,RL) JGCK
GLHI GT2 HMTi CHAI
SLRK U L 700 31 -48
TK GTI SLRK
LLTA JXPI HTR LXPA LXPI
LTR U L 2500 -48
GLH CONI LXPI SP GTK GTA TOG2 (PT) TRF4 FLG LTR
(EQ) TER5 (158) AIC3 LTR TO AIS SDR CONN (158)
GTI U L 270 -48
GTI
10 LLC3
(IX,IY) LXPI U L 270 -48
LXPA 4 12,6 LXPI (IX,IY) LXPA U L 270 -48
LLC3 LXPA (IX,IY) LXP 24 12
(156) MT44 2 LFK
LLC3 12 TRST 8 LBTA 6 LHT U L 700 -48
(160) (IX,IY) LIT 5 3,4 2,7 (IX,IY) LBT 5 2,7 HGK 8
HGK 6 (LC) (LB) LIA LBA (LC) (LB) LBL 10780 LI 107AI 117C8 LBTA 107BI
GTI 1 GTI (ZKZ) GT2 U L 700 -48
GTI 1 (ZKY)
GT2 TO MTFC OR OT TIC
LLC3 9 CHA 10 LTR 8 (VM) LK2 3 GLH 10 FCG
35A/B5, 99E4 FCG 3,7 7,5 4 (RK,RL) FCG
99A4 FCGA 7 5 4 LK2 2 (123) FCGA (RB) (RA) (RA)
GLH U L 700 -48
TO OTHER MARKERS
(ZIF) GLH TRSG TRST TO OT TEST CKT
(ZIF) (ZIF) (RA) TRST 8IE5
(RA) (ZIF) (ZIE) MT18
LXPI 7 LXPI
JXPA 2 JXPA
SLA 3 SL
LHT 11 XLH
GLH 1 GLH
JXPI 7 JXPI
(155) XWSL 1
XSL 1 XSL
LXPA 2 LXPA
TO MTFC OR OT TIC
JXPI U L 270 -48
12 JXPI 4 JXPA
LLC3 8 4 7,5 3,7 (IX,IY) JXP JXPA 12 JXPA U L 270 -48
TO OTHER WIRE SPRING COMPL MARKERS
HGK 10 MT11 3 LHC TO MTC
358/A1 CON3 CONA 8 CONI 4 GLH 5 GLHI 7 GLHI U L 700 -48

| DRAWING ISSUE |
|---|
| 39D (CKT LIP) |
| 41D |
| 43D |
| 67B |

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B34C
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B34C

# (VL) PART OF FS 48
CONTINUITY AND GROUND TEST

TO MTFC OR OT TIC

TRK LINK & CONN CKT | LINE LINK & CONN CKT | MDF CKT | LINE CKT

AC-DC AUD ±AUD C

TO POWER RING CKT FROM FIRST COMPLETING MARKER

RING G C

CON (R) CON2 REP COIL CONI INDR 400 CONA CON6 500 ±1% RCTA GLHI FCG GTI TTT TRT FAK ATT ART BTT BRT

CON4A,B CON4 (ZPK, ZPJ) CON4 200kΩ ±1% CON5 5.1kΩ ±5%

(RK,RL) FCG S-15.4kΩ ±5% P-415 ±10%, 1110 ±10%

HTR (JC, JB) GLH

PBXA FBK

MC-LV FA T T J | MC-LV FB T T J | J L | T T | R R

SUBS TEL SET OR LINE LINK FR APPEARANCE OR INC TANDEM OR INTERTOLL TRUNK

PW TRF CON7 500 ±1% (TK) PS, T-I, UM

BX CHA AJ

CON3 20kΩ ±1% CON2 180kΩ ±1% CONI 1kΩ ±20% CONI ±6

AC-DC AUD ±AUD C

P

ACI AC2 -48 AC3

ZFN, ZFO CON2 .2058-.2142μF, .21 ±2%

ZFN, ZFO CONI .02025-.02045μF, .0205 ±2%

CON 1 2 4

TO SUCCEEDING COMP MKR

RING G C

TU RLT

PB 226 -48

TO FIRST DIAL TONE MKR FROM LAST COMP MKR IF OFFICE IS EQUIPPED WITH NOT MORE THAN 12 MARKERS

RING G C

AC-DC AUD ±AUD C

CON8 3.2kΩ ±1% GLHI GTI (RK,RL) CON 250,500 ±10% CON3 .004-.006μF

CONIO 12kΩ ±1% CON9 12kΩ ±1%

PGI 6.35kΩ PG2 350 ±1% 1k ±1%

PG3 480 ±1% PSA PST (172) PSI TPT

TO MTF JACK, LAMP & KEY CKT FROM LAST COMP MKR IF OFFICE IS EQUIPPED WITH ORIG LINE IDENT CKT OR WITH MORE THAN 12 MARKERS

RING G C AC-DC AUD ±AUD C

MTF JACK, LAMP AND KEY CKT

ACV ACVI

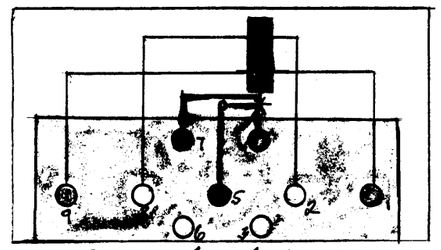
GT2 ST ST (U L) 180 STI 200 ±1% ST2 400 ±1% ST3 400 ±1% PS2

GTK CGT LGT PU 2RT RBN 2.4

GT LLC3 GT 2.14-2.18μF S-1.1kΩ P-1.1kΩ T-3.7kΩ ±1% LLC3

(C8) GT5 (C8) GT2 TGT 4.25kΩ ±1% GTT 120 ±1% MTI2 GT 3.2kΩ ±1%

PBXA



316 TYPE RELAYS

ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B35A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B35A

# PART OF FS 48

CONTINUITY AND GROUND TEST USED IN COMMON WITH OPTIONS VL AND VM

34C/G6 CON3 (123) (VE)

CONB CON2 (VE) 99H9 CON2 CON4 (123) (RK,RL) CON GLHI CONA

CONA 300 ±20% CONA .5-.625μF

LLC3 CONI CON TO MTFC OR OT TIC

(171) TBX CONA CCT CCT GLHI CONI

45 SPL (152) WBC3 (ZVQ) TR2C RC 122B/D9

(ZVO) TR2C TO MKR DIST CONT CKT

CGT1 CGT2 (ZKV) (91) LLC4 CKG6 CGT CGT

CGT GTK LGT RAVI GT5 TRR CGT TO MTFC

HTR 45 SPL TRBI (172) (123) PST 4W

(ZUY) NCR 62A/A5

MASTER TEST FR JACK, LP & KEY CKT

TO MKR DIST CONT CKT TLGT (ZKN) (ZKB) (120) 4WF CNA FLGI LGT U L 700 -48

CKR 3 LGT TO MKR DIST CONT CKT

PU GTA GT 36H1 GTK CGT GT2 GT3 GT5 U L 700 -48

THSA GT5 8 12

(91) LSC2 1 (ZKV) TU RLT U L 700 -48

TO MKR DIST CONT CKT RLT

(172) GT3 (172) (172) PSA STA PST (172)

LLC3 CGT 19 1 GT 9 5 GTK 12 GT2 3 5 GLHI GTA U L 700 -48

GTA 6

(172) GTA 9 (172) (172) PST 2

ROH U L 700 -48 TO DAS ETS ROH

ROH 12 PSG 10 (172)

PSI PSG 6 8 PS2 8 PSI U L 270 -48

PSI 1kΩ PS2 250 PS2 PSI 12 IU 2U 16

PSAI 12 PSA2 5 7 SNK PSA2 IL 2L 640 -48

PSAI U L 700 -48

TPT 11 STA 5 PSTA 11

(172) ROH 3 ROH (172) PSI 3 PSI TO MTFC

(172) PSG 11

GT5 11 GT5 TO MTFC OR OT TIC

LLC3 GTI 1 3 GTK 6

HMSI LGT 2 5 PBXA 11 AOA 2 4 MRA 9 (90) CGS CKR GT3 TOG2 (PT) TRF4 FLGI 1 6 12 6 2

GTK U L 700 -48 (ZKC) GTKI

(LC) (120) CNA 4WF 11 3 (LC) CNA (ZKN) 11

(ZKC) GTK NPBX NPBX PBX PBX T

(ZKB) TGTK (ZKC) 10 PBXA

MKR DIST CONT CKT

(172) GT3 GTA 5 10 (172) PSG U L 700 -48

(172) PSG 12 PSG TO DAS ETS

RAVI 24 (172) (172) 7 PSA PSI

(172) (172) (172) ST 6 (172) STA IL 2L 640 -48

(172) ROH 9 (172) PSG 9 (172) PSA U L 270 -48

(ZML) PSA3 2L IL 640 -48 GT3 1150 ±1% 1150 ±1% -48

CKG2 10 GT2 6 GT3 U L 1625 -48

PUL 10

(172) ROH 5 (172) PSI 11 PS2 11

MKR DIST CONT CKT PBX1 PBX T

CKG2 RAV2 418/G6 RYC (LB) (LC) RCY 5 (LC) CKR 2 (ZKN) (ZKB) (ZKC) PBXA U L 700 -48

PBXA 12

(PS) DTII 5

SCBI 4 CHAI 8 RCTB (81) 2WE 7 10 RCTA U L 700 -48

SOGI 9 TP 3 (123) RCTA 99E8

RCT7,11-15 8

RCT9 (UM,TK,PS,ZDN) 8 (UM,TK,PS,ZDN)

(123) HTR 99F9

HTR 12 (IY) LXPI (IY) 12 (IX) (IX) 6 CON1 8 SOGI 8 RCTB U L 1625 -48

RCTB 4 SP 8 SCBI 2 (PS) DTII 6 RCTB 1150 ±1% 1150 ±1% -48

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B358

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 65

# FS 49
LINKAGE CHECK

TO OTHER SPECIAL COMPLETING MARKERS

NTR — MASTER TEST CONTROL CKT

LK1 ITR2 DIS1,2 37F9

RCK2 LNT SPL NTR NTT CWNT ITR2 CB LK2 MT16

LK1 DCT3 CLK NOC XA

WQ,WR DCT2 DCT1 TBA WDCA WBC1 LKD LKD

TOG2 OTT TTK NSO RCTS TNAN TOL CMSI CMFI TMK

DCT1 DCT2 DCT3 TO MTFC OR OT TIC

PCL1 DTI2 RYK CTUK DATI ITR1 TER1 NCRA TRB2 NCR 37E3

RCK3 RNG MKR DIST CONT CKT LLP2 MT20 MT1 TMK1 FKD FKC FK

TRF4 TOG1 LSC2 TER4 RSC SLK2 LBTA DCTA

MT12 WBR WBK LOLD LLKB MT17 PCK SP LOLA SOGI OGC SSA SSB

NSI AMA4 LSC2 AVK1 NSO NOC TBX CLK OTT TTK SOGI AIC2 RV3 AICK AIC3 TER5 SCB2 ESCK LT LLPI MKR DIST CONT CKT DCT1 DCT2

WBC1 LDN LNA RS4 RCT5 DCTK 30.5kΩ LOLD LOLA NCRA

CKG4 GTA GTI CDN CDNC TRF4 LDN GTK GT2 CGT GT5 PU LOL PLB 108D6

OTF TO OT TST CKT SD SLK2 AVK1 20 AMA5 AVK2 200±1% AVK S-950±2% P-29 PCL2 OGC

RCD SAR BLR MBSC SMP SNP SMT RSC AV

OUTGOING SENDER CONNECTOR CKT — S

SENDER CKT — AV — ON

ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-B36

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-B36

# FS 50

DISCONNECT & TROUBLE RELEASE CONTROL CKT

INC REG TST CKT — ML, ITRR KEY, IRBT KEY

AUTO. MON REG & SDR TST CKT — RBT, MKR

MA TST CONT CKT — ORT, TRR KEY, RBT KEY, ATT

TO OTHER MARKERS

TO MINI-ROTL INTERFACE CKT

TO MTFC OR OT TIC

MA TST CONT CKT — TRTI L KEY, TRTR L KEY, TRR L KEY

TO ALL WIRE SPRING COMPL MARKERS

ORIG LINE IDENT — VTK VGR VTKI, HTK HGR HTKI, FTKI FR RCY, XLHA

TO DAS CKT OR CDT APPL

TO MTFC OR OTTIC

JK, LP & KEY CKT — EXR, PLANT REG CKT

TO OTF DISA TST CKT

TO ORIG LINE IDENT

LINE LINK MKR CONN

RMC

AUTO. MON REG & SDR TST CKT — RBT TI

39A/G4

TO OTHER WIRE SPRING COMPL MARKERS

MA TST FR JK,LP & KEY CKT — CLPT

TO MTFC OR OTTIC

MA TST CONT CKT — ORT, TRR KEY

INC REG TST CKT — ML, ITRR KEY

SDR CKT — ONI, RO

TO AIS SDR CONN CKT

TO MTFC

TO OTF DIS TST CKT

MA TST FR JK,LP & KEY CKT — MT4 TR2C TSEI TA TBTB TBTA

4001

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B37

DRAWING ISSUE 65B

# FS 51
## REGISTER RELEASE

TO MTFC OR OT TIC

TO OT TIC CKT

TO MINI-ROTL INTERFACE CKT

TRANSFER REG MKR CONN CKT

TRANSFER REG CKT

INTERFACE AND CONTROL CKT

MASTER TEST FR JACK, LAMP AND KEY CKT

INC REG TEST CKT

SDR CONN CKT

MF OUT SDR CKT

INTER MKR GRP SDR CKT

LINE LINK MKR CONN

ORIG. LINE IDENT. CKT

ORIG. REG. O.P. CKT.

ORG. REG. MKR CONN. CKT.

INC REG. M.F. CKT. OR CAMA SENDER

INC. REG. MKR. CONN. CKT.

AUTO. MON. SDR. AND REG. TEST CKT.

MASTER TEST CONTROL CKT

MULT. TO OTHER MKRS.

TO OTHER MARKERS

COMPLETING MARKER CIRCUIT

DRAWING ISSUE 65B

SD-26002-01-838

BELL TELEPHONE LABORATORIES, INC

# PART OF FS 52
MARKER BUSY

FIRST PREFERRED REG. MKR. CONN. FR.

INT OR LAST PREFERRED REG. MKR. CONN. FRS.

LL MC

MSK MAK MCK

MC- CB- TO OTHER MKR CONN

MCB

ORIG. L. IDENT. CKT.

TO CDT APPL MBK

TO DAS CKT OR DAS ETS CKT OR CDT APPL MB

INTERFACE AND CONTROL CKT

SCAN POINT

M.T.F. JACK, LAMP AND KEY CKT.

TRAFFIC SAMPLE MONITOR AND TEST CKT

TO OT TST CKT

TO ETS PWR & DATA INFAC CKT

TO M.T.F.C. OR OTTIC

TO MDC DISA

FIRST FR INT. FR ORIG REG MKR CONN

MCBO MCB2

INT OR LAST FR. INC. REG MKR. CONN. MCBI

TR REG MKR CONN

TAL TRA TRBI TRTR MRLI FA FAI

MFG

HFA HFA1

MJ TRA TAL FA FAI

FG FA3 FA2 TA TRT AR AR KEY

MISC. CKT. CLOSED BY BLOWN FUSE

ALARM CKT.

WFA WFA1 CLOSED BY BLOWN FUSE

FOREIGN AREA TRNSL CONN CKT

MISC CKT (FOR MARKER WICEBAND FR)

TRAFFIC USAGE RECORDER

WFA2 WFG WAR

MB MBL AMB MBS MIT MBM

UNO-3 BG MMB TM BX

IL P-1175 2U S-1075

AMB OAT OAT1 MXT TRL DIS2 CKG6 SNK MCBI

MKR DIST CONT CKT DST

CKG CKG1 TM1 ZKC ZKB

POWER RINGING AND TONE FR. CKT.

INC. REG. MKR. CONN. CKT.

ORIG. REG. MKR. CONN. CKT.

TRANSFER REG MKR CONN

TO OTHER TRANSFER REG MKR CONN SERVED BY SAME MKR

TO OTHER I.R.M.C. SERVED BY SAME MKR.

TO OTHER O.R.M.C. SERVED BY SAME MKR.

TO ORIG LINE IDENT CKT

MAK MCK MSK DISA DIS2 TRL

ZYJ ZVJ AV ZXC

DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 2D | |
| 4A | |
| 9B | |
| 13B | |
| 21D | |
| 22D | |
| 25D | |
| 28D | |
| 29A | |
| 32A | |
| 37D | |
| 39D | |
| 41D | |
| 43D | |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 6SB

SD-26002-01-B39A

# PART OF FS 52
MARKER BUSY

MARKER 0 | MARKER 1

WAB AMB 6 AMB 6 (ZZP) WAB → MASTER TRAFFIC CONTROL BWM -48

WAB

OFFICE EQUIPPED WITH 8 OR LESS COMP MARKERS

LAST COMP MARKER | INT COMP MARKER | FIRST COMP MARKER

ABG AB AMB 8 AMB 4 AB AMB 8 AMB 4 AB AMB 8 AMB 4 AB → ALL MARKERS BUSY CKT BI -48

(SEE NOTE 140)
OFFICE EQUIPPED WITH MORE THAN 8 COMP MARKERS

COMP MARKER 0 | INT COMP MARKER | COMP MARKER 8 | INT COMP MARKER | LAST COMP MARKER

AB AMB 4 AMB 8 AB AMB 4 AMB 8 AB AMB 4 AMB 8 AB AMB 4 AMB 8 AB AMB 4 AMB 8 AB → ALL MARKERS BUSY CKT BI -48

AB → MASTER TRAFFIC CONT BTR -48

# FS 53
FAILURE TO MATCH COUNTER

IFA L U 700 -48
- 2F 6, IF 10, FM 8, CKG2 14 (11)
- IFA 4
- (151) WLKB 3
- 2FA 4

2FA L U 700 -48

IF L U 700 -48
- IF 4
- IFA 6

2F L U 700 -48
- 2FA 2
- 2F 4

RF L U 700 -48
- RF 8, RAV2 3
- RFA 6, FM 10

RFA L U 700 -48
- RF 10, RFA 12, CKG2 13 (11)

# FS 54
TRUNK BUSY TIMING

TBT 5 P 1 6 S
- P-200 ±1%
- S-2600±1%

TBTI 200 — TBTA1,2 8.56-8.72 (TOTAL) — ZKB — TBT — ZKC

MKR DIST CONT CKT — ZKN — TBTS — TBTL — ZKC

TFTI 510 ±1% — 5700 ±1%

TFTO 330 ±1% — 350 ±1%

PSA 10 — TBC 2 — TBTB 6

TBT 200 — TBTI,2 8.56-8.72 (TOTAL)

TBTB L U 700 -48 — TBT 7 4 3 — FTCK 8

TBTA L U 700 -48 — TBTB 4

TO DAS ETS CKT — ATB

TO MKR DIST CONT CKT — TMS 7 — LCK — SLRK 2 — ZKC

FAK 4 — FBK 4 — ZTW 10 — ZTU — FTCKI — MT6 — MT9 2 — MT5 12 — TWT0-2 4 — TWT3,4 4

TSEI 7 — MAKI 10 — TBK 2 — TMG TO MKR DIST CONT CKT

TE 7 — OT 7

(UO) TBTA 2 — ZFV — ZFU — (UN) TBTA 10

(JC) TA L U 270 -48 — STLI-5 8 — FTCK 6 — TBTB 2 — TA 2

TA 8 — SPI 12

MT9 4 — STK 10 — TR2D 2 — TSTS 2 — TOKA — NST 6 — TER3 6

FTC0-9 (2) FTC10-19 (65) FTC20-29 — FS0-9 (2) FS10-19 (65) FS20-29 — TBK 6 — TSEI 5 — STKA 12 — PMLL 3 — STM

TO MKR DIST CONT CKT — SNK
TO MA TST FR CONN CKT — SNK

SNK L U 700 -48 — DISA 11

FMP 4 — OSKA 11 — PCL? 3 — SON 7 — TFK2 2 — FML 6 — TBTA 10 — TBTB 1 — TBC — ASB 4 — FTCK 2

(JC) TA — TBTB 8 — PSA 172 — MT6 — MT17 6 — TFKI 12 — TLC2 5 — TSEI 3 — TR2D 3 — NST 3 — STSO 3 — STS1 STS2 STS3 STS4 STS5 — MTI 4 — FTCKI 6 — CPNT 4

DRAWING ISSUE

| | TS GN. APP. MS |
|---|---|
| 32A | |
| 37D | |
| 390 | RA |
| 43D | |
| 45D | |

ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED — 65

SD-26002-01-839B

KIMBERLY

# FS 55
GROUP ALLOTTER

MKR DIST CONT CKT
NPBX
PBXA
SCB2
RCY5
LLCI
MKR DIST CONT CKT
TI
RCYI
FML
ALO GPA,B LA0,LB0
ALI GPA,B LA1,LB1
AL2 GPA,B LA2,LB2
AL3 GPA,B LA3,LB3
28A/A7
FM
FMP
HMSI
LLCI
LBTA
TBTA
MT6
TOGI
2L
DACI
TER2
TER4
TOG2
GP2
INT TK
MTI
AISI
GPI
LSC2
MKR DIST CONT CKT
T
TBTB
TA
CPNT
TSE2
MT5
TSEI
OSK
MT4
TR2C
ASB
MTI
TO MKR DIST CONT CKT
GPB
GPA
GW
AGP
ALO SALO
ALI SALI
AL2 SAL2
AL3 SAL3
ISG
2SG
RYC
RCY
GPI
SNK
GW GZ
GWZ
CKG5
OVP OVS
INT
IDD
IDP IDS
FDO FDI
FEO FEI FFI
DY0 DY1 DY2 DY3
TO MINI-ROTL INTERFACE CKT
TO MTFC OR OT TST CKT OR OFFICE TST FR TBL INDICATOR AND CONN CKT
TO MTFC AND DAS ETS FM
OVC TO MKR DIST CONT CKT
RA 41A/A7
RA 44F4

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 65 | 658 |

BELL LABORATORIES | SD-26002-01- | B40

# PART OF FS 56

ROUTE ADVANCE RECYCLE AND BUSY CONTROL

TNR 40A5 TNR U L 700 -48 1 10 TNR 20 LLCI

TOI 10 (68) CMFI 3 (68) CMSI 7 TAN 10 (68) CMFO 3 (68) CMSO 7

4 NGP 11 RCY

RCY 10 ROA 10 TOGI 2 (VP,VQ) NGP U L 700,270 -48 1

NGP 6

(PW) RAVI 3 (YK) LDN 2 (TK) (TJ) (UO) RCT5 9 RS4 10 (TJ) (PW) (90) X11A 9 (PT) DNRA U L 700 -48 1 12 DNRA (PT) (PW) CKG6 18

37F6 GL 1 GL 3 GLC GLR (135) (135)

41B/A9 RAV 138G7 RA 4088 RA 29A/D8 RA 11002 ERA 22F4 CA 15 INC 3 TOGI

(121) NTA 4 (ZZP) (ZYF)

TO MKR DIST CONT CKT RF2 36D2 (ZKC) PSA (172) 100B/M6 OVA (95)

(119) SR3 1 (119) SR2 1 (115) (119) SRI 1 RGA (115) ITRI 15 TRBI 3 SNK 2 (172) DTK 7 (172) PSL 7 TR2B 7265

RAV1 U L 700 -48 1 (ZOB) RAV3 U L 700 -48 1

RAV2 U L 700 -48 1 (ZFX) TO MINI-ROTL INTERFACE CKT RA

OV U L 700 -48 1 OV

BY U L 700 -48 1 BY

TO MA TST FR CONN CKT OR OFF TST FR TBL IND CONN CKT

NGP 11 RFA 2

(UO) RCT4,5 3 RCT14 4 LDN 3 (PS,TK) (ZOO)

RV 1 (TY) OVC 3 (88) LRD 3

ITRI DIS2 11 (15) PMO 2 (TX) (ZTR) CWKI 8 JB 1 NTT (45) 1 (ZTR) NTB 3 (45)

TER2 8

ROA 4 TERI 5 LB 8 (TY) OVC 2

(UL) (PW) (90) X11A 2 (PT) DNRA (PW) 6

(102) DTF1 7 (ZXK) INI 3 (UL) (PT) ATT 6 (SZ) 5 MTI1 (SZ) (SZ)

5 (102) DZ (ES) (ER) 6 OFK 7 OFK (ER) (ES) 1 LB (UL)

8 (45) NH 10 (45) SPH 2 (45) NT

(88) LRAI (JE) TER2 11 (JE) (JE) OV TO DAS ETS CKT (SY)

(112,114) DTF2 7 BNB 4 RIB 4 TBIB 4

(PU) CNT 2 (45) NT5 1 (45) NTC 7 (45) BY 12 CHA 6

(PT) RDO OV 11 11

(SY)

K 60 NARI 1 TOGI 4 ITRI 16 SGB2 12 NARI 2 (FT) TRF4 5 (PS) DTI2 7 SOGI 1 RBT RBT -48 418/E6

LLB 4 TERI 4 (60) NARI 3 (K) (60) (K)

132 TOGI 1 ITRI 13 (PT) TRF3 4 (GE) (81) 4WE 11 (81) 2WE 6 (GE) (GE) (132) (81) 4WE 12 (81) 2WE 5 (GE) (GE) (60) NARI 4 (K) (K) (60)

66B8 NGB NGB 10 (132) DNG 6 TERI (GE) 3 (132)

NARI ANR -48 72F2

40A4 PMO 100B/E5 OV

(128) AIS3 5 (ZCZ) (ZBI) LFK1 10 (91) (ZCZ) (ZBC) RO

(45) SPL 10 MTI1 7 (ZCZ) (ZCQ) (ZCQ) (ZBI) (IA) LRS 11 (IA) (JZ)

(TX) (TY) PMO 2U 2L 5-1075 -48 TERI 10 24 PMS 3

(TY) OVC U L 700 -48 1 (TB) CKG7 12 5

66D0 MM CNTI OV

115F9 LPN DZ ATT OV

137C4 TER6 WDTF DZ PK PP WAT OV

(ZWR) (ZXK)

108E8 LBTA DACI LRAI AIS2 OVC

40C7 ASB LSC2 AISI RCY5 LLSI OVC

66E5 NGC PBN TYMA PMO OVC

DRAWING ISSUE

| | |
|---|---|
| 32A | |
| 33D | |
| 35D | |
| 38A | LT |
| 39D | LT |
| 41D | |
| 43D | |
| 44A | |

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B41A

BELL TELEPHONE LABORATORIES INCORPORATED

STABILO

# PART OF FS 56

ROUTE ADVANCE RECYCLE AND BUSY CONTROL

OST1 OST2 (ZNJ) (ZYJ) TOA 22E9

OSC GSA1 GSA2 GSA3 GSA4 GSA5 (119) SR2 (119) SR3 RAV

RAV1,2 -48 41A/A6

(68) CMF2

ROA SLK2

(PS) DTI3

TEA TEA TOA

(68) CMC3 TER2 (PT) TRF1 TOG2 (ZYJ) TOA (ZYH) TCCA

TRL1

TRTR RDL TRBI TRSA TRI

DCK TR2C (L,ZF) PCL2 (L) PCR PCD1 (L) PCDO (68) CMF2

TRL -48 37D5

RDL RBT

TO MKR DIST CONT CKT RBT

RBT TM

138F7 RBT

RGTA NGB 23F3

TRR MO GT5 MT1 DISI,2 -48

TYMA RGTA RGTA BNTH GGA8

MASTER TEST CONTROL CKT

ORT TRR KEY RBT KEY

AUTO MONITOR SDR REG TEST CKT

MKR RBT BT DOR3 -48

INC REG TEST CKT

ML TRR KEY TRBT KEY

TO OTHER MARKERS

RTST ORT

MTI3

RAVI RAG SOG1 FM 2FA 1TRI

41E0 RBT

RBT RBT1 TO MA TST FR CONN CKT OR OFF TST FR TBL IND CONN CKT

RCY1 RCY

RCY SNK PU1 PU CNT

40A7 RCY PS DTI3 TO MKR DIST CONT CKT

64G1 TOG1 TNR

(152) RDL1 2.5kΩ -48

(152) WBC1 MRL TRTR TRB2 RBT RAVI RCY1

RDL 2.5kΩ -48

TO DAS ETS RAV RAVI RDL RCY RCY1

358/D8 RYC CKG2 RAV2 RAV3 RDL RCY1

(152) RYCI RYC -48

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-B41B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-B41B

# FS57
OUT. SDR. CLASS

# FS58
SDR. GROUP IDLE TEST

# FS59
SDR CONN. SEIZURE

SDR. CKT.

"A" SUBGROUP SDRS.

"B" SUBGROUP SDRS.

OUT. SDR. CONN. CKT.

AUTO. MONITOR REG. & SDR. TEST CKT.

MASTER TEST FR. JACK, LAMP AND KEY CKT.

TO OTHER R-RELS. FOR GS-GROUP 6

TO OTHER R-RELS. IN SAME GROUP

TO OTHER ODD OR EVEN COMP. MKRS.

TO OTHER MKRS.

TO DAS ETS CKT

TO MTFC OR OT TIC

TO MKR DIST CONT CKT

TO OFF TST FR TST CKT AND OT TIC

TO M.T.F.C. OR OT TIC

TO MTFC

TO DAS ETS

TO MKR DIST CONT CKT

TO OTHER MKRS

TO MTFC

DRAWING ISSUE

| DRAWING ISSUE |
|---|
| 1 |
| 2A |
| 5D |
| 8D |
| 12D |
| 18D |
| 20AC |
| 22D |
| 25D |
| 33D |
| 35D |
| 39D |
| 43D |
| 45D |
| 65B |

COMPLETING MARKER CIRCUIT

SD-26002-01-B42

BELL TELEPHONE LABORATORIES, INC

65

SD-26002-01-B42

# FS 60
OUT SENDER CONTROL

TO CLVA CKT OR TC ET3 PWR & DATA INFAC CKT — LSC — (ZKV) LSCI — TO MKR DIST CONT CKT

(TU) LSCI -48 L U 700 — (88) LRA 12

(91) LSC2 -48 L U 700 — (128) AIS2 9

I

TC MTFC OR OT TIC

JSQ2 5 — OS2 a — OS2 -48 L U 270 I — MT2 11 TOS2 — OSE 10 — OS2 5

JSQ4 5 — OS4 a — OS4 -48 L U 270 I — MT2 9 TOS4 — OSE 8 — OS4 5

SON 3 — JSQ1 5 — OS1 a — OS1 -48 L U 270 I — MT2 8 TOS1 — OSE 7 — OS1 5

JSQ3 5 — OS3 a — OS3 -48 L U 270 I — MT2 7 TOS3 — OSE 6 — OS3 5

JSQ0 5 — OS0 a — OS0 -48 L U 270 I — MT2 6 TOS0 — OSE 4 — OS0 5

JSQ5 5 — OSE1 2 OSE — OSE1 -48 L U 700 I — SON 2

TO OTHER MKRS. SERVED BY THE SAME PAIR OF "A" & "B" OUT. SDR CONN.

GBA -48 L U 700 I — OSKA 3 — SKA 7 — OSGO-4 (28) OSG5-9 (67) OSG10,11 7 — GBAO-11 — GBAC0 / GBAC- / GBAC3 — GBO OR GBE — GBO OR GBE — GBO OR GBE — GBO OR GBE — OUT. SDR. CONN. CKT. — MA

GBB -48 L U 700 I — OSKA 4 — SKB 7 — OSGO-4 (28) OSG5-9 (67) OSG10,11 8 — GBBO-11 — GBBC0 / GBBC- / GBBC3 — GBO OR GBE — GBO OR GBE — GBO OR GBE — GBO OR GBE — MA

OUT. SDR. CONN. CKT. — OSGA SP — SB MB — SUB GROUP "A"

OSGB SP — SB MB — SUB GROUP "B"

SENDER CKT.

OS04

OSKA -48 L U 700 I — OSK 3

MA -48 (R) — OSC 1 — MA — OSGA,B — MA

MB -48 (R) — OSC 2 — MB — MC- — MB

MC -48 (R) — (M,XJ) AMA3 2 — OSC 3 — MC — MC- — MC

SAM -48 (R) — OSC 5 — SAM — S — SA

SBM -48 (R) — OSC 7 — SBM — S — SB

SCM -48 (R) — (M,XJ) AMA3 1 — OSC 9 — SCM — S — SC

(E) SA (R) -48 — (E) XSA IL IU P-8 — CKG5 5 — RAV2 8 — OGC 12 — AVKI 2 — XSA — PC OR AMA — S

OUT. SDR. CONN. CKT.

TO DAS ETS CKT — ASB — ASB 12 — 103BI LT (TU) SON 5

ASB L U 2500 II — OSK 6 — TGSI 16 — (TU) LSCI 4 — ITR2 8 — SCBI 1 — MT2 4 — SIB 5 — SIA 6 — TO ALL MARKERS — ASB

ASB

MASTER TEST CONTROL CKT.

OSA -48 (R) — SP 6 — SKA 12 — OSC 11 — SKB 8 — FTCK 10 — SIB 8 — GBB 4 — JLO SQ0 5 — JLE 10 — SKA 5 — (TU) LSCI 3 — SIA 10 — OSE 1 — OSGO-4 (29) OSG5-9 (67) OSG10,11 9 — SDAO-11 — STA 33,000 ±20% — STA 3 — STACO / STAC- / STAC3 — ST — ST — TR — MP — E

OSB -48 (R) — SP 7 — SKB 12 — OSC 12 — SKA 8 — FTCK 11 — SIA 8 — GBA 4 — JLE SQ0 3 — JLO 6 — SKB 3 — (TU) LSCI 2 — SIB 10 — OSE 2 — OSGO-4 (29) OSG5-9 (67) OSG10,11 10 — SDBO-11 — STB 33,000 ±20% — STB 3 — STBCO / STBC- / STBC3 — ST — ST — TR — MP — E

(FE) CKG8 1 — CKG6 5 — TRR 9 — TRI 9 — (ZHE) 151

(TU) LSCI — ITR2 1 6 — SCBI 9 — OSKA 6 — TGT 4 — OSO-4 1 — SO-4 — S — 3 S — S -48 33,000 ± 20% — XS

OSGA — SO-4 — S — S

OSGB — S5-9 — S

S -48 (R) — XS IL IU P-8

SHEET NOTES:
L & (VT) WIRE CONTACT 4
(VL) WIRE CONTACT 6

| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 5D |
| 12D |
| 18D |
| 22D |
| 25D |
| 33D |
| 36D |
| 39D |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 6IB

SD-26002-01-B43

# FS 61

SENDER SL & AV CHECK CKT.

| DRAWING ISSUE | |
|---|---|
| 1 | JFD |
| 2D | BJRO WFO |
| 3D | |
| 5D | |
| 9D | PA |
| 17D | |
| 18D | AMD |
| 22D | LDV AMD |
| 24D | |
| 25D | EN AMD |
| 33D | CR |
| 35D | LP TNJ AMD |
| 37D | WM |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 41D | |
| 43D | |

TABLE A

| a | SS-LEAD |
|---|---|
| 1 | 0 |
| 2 | 1 |
| 3 | 2 |
| 4 | 3 |
| 5 | 4 |
| 6 | 5 |
| 7 | 6 |
| 8 | 7 |
| 9 | 8 |
| 10 | 9 |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

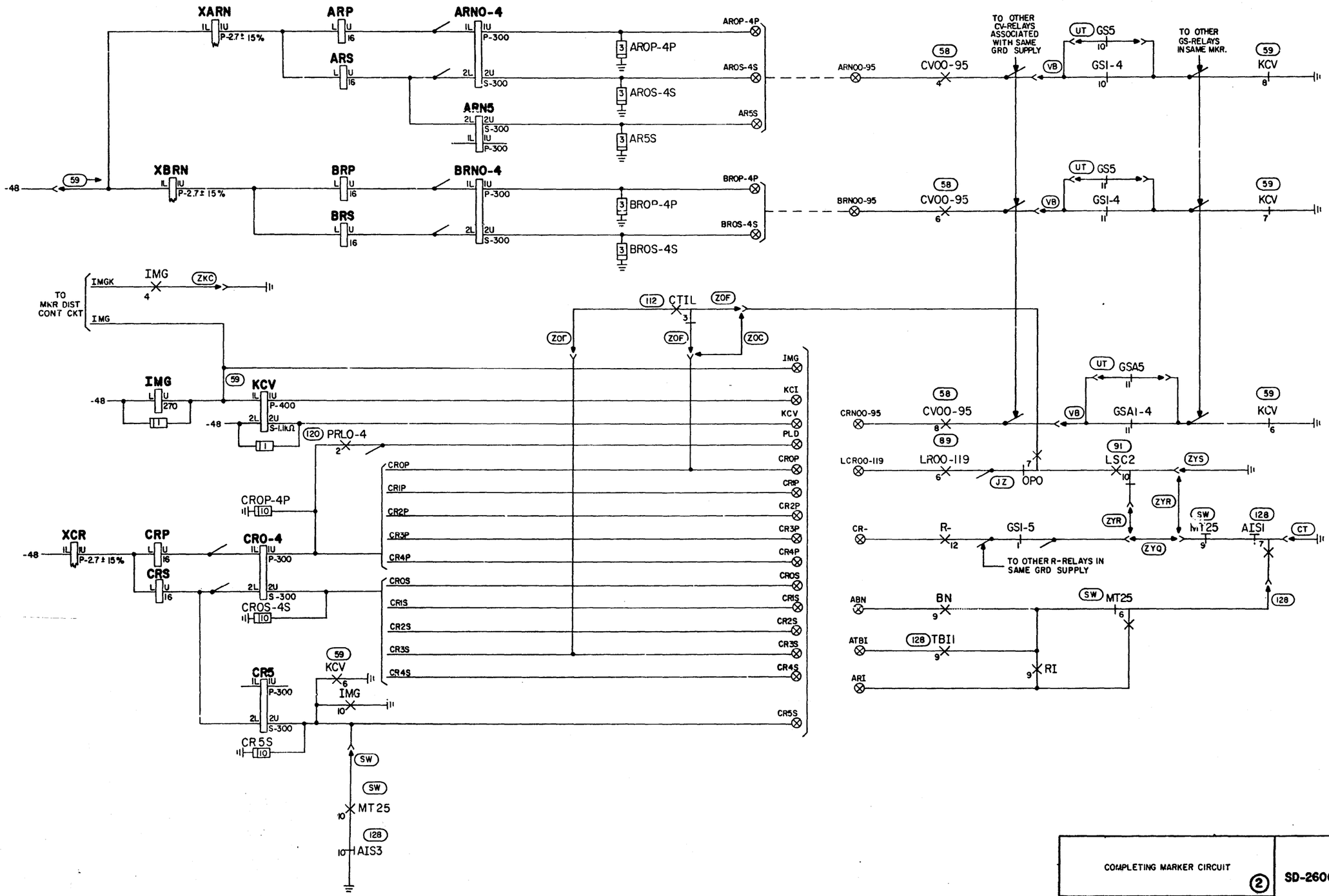
ISSUE 6S13

SD-26002-01-B44

SD-26002-01-B44

# FS 62

CROSS CONNECTION FOR
ARN-,BRN-, CR-
TO OUT SENDERS




| ISSUE |
|---|
| 65B |

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT (2) | | SD-26002-01-B45 |
| BELL TELEPHONE LABORATORIES INCORPORATED | SHEET 6S | |

# FS 63
TRANSMITTING ARN & BRN INFORMATION TO OUTGOING SENDER

48DI XTJ

ARN0 2000 ±5%
ARN1 2000 ±5%
ARN2 2000 ±5%
ARN4 2000 ±5%
ARN7 2000 ±5%
BRN0 2000 ±5%
BRN1 2000 ±5%
BRN2 2000 ±5%
BRN4 2000 ±5%
BRN7 2000 ±5%

ARP
ARS
BRP
BRS

ARK2 L U 700 -48 TGS1
ARK1 L U 700 -48 TGS1
BRK2 L U 700 -48 (LP)PLSA 7 TGS1
BRK1 L U 700 -48 (LP)PLSA 6 TGS1

(69)CMC2
51H5 HN0 AR0
52H5 HN1 AR1
53H5 HN2 AR2
54H5 HN4 AR4
55H5 HN7 BR0 AR7
51H5 T0 BR0
52H5 T1 BR1
53H5 T2 BR2
54H5 T4 BR4
55H7 T7 BR7

(LP)PLSA 1 BR0
(LP)PLSA 2 BR1
(LP)PLSA 3 BR2
(LP)PLSA 4 BR4
(LP)PLSA 5 BR7

AR0 AR1 AR2 AR4 AR7 BR0 BR1 BR2 BR4 BR7

TO MTFC OR OT TIC

TO MKR DIST CONT CKT

AR0,1,2,4,7
BR0,1,2,4,7

OUTGOING SDR CONN CKT
SENDER CKT
MC- SC-
AR0,1,2,4,7 OR HT0,1,2,4,7
BR0,1,2,4,7 OR TT0,1,2,4,7
-48

DRAWING ISSUE
18D A/T TU EN
25D 2/4W AUT
30D B EM MW BT

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-846
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-846

# FS 64
CROSS CONNECTION FOR CL-, MB-, DL- & CP- FOR OUTGOING SENDERS

XCL CLP CLS CL(0-5) CL(0-5)P CL(0,1,4,5)S CL2S CL3S SC3 SC2 SC1 SCO CSC

CL6 CL6P CL6S

UQ CL7,8 CL(7,8)P CL(7,8)S

183 CLIO CLIOP CLIOS OJ CL9 CL9P CL9S

XDL DLP DLS DLO-6 DLO(0-6)P DLO(0-6)S

CTIL LRS 62A/H4 OPO-4 LOPO-4 JZ OM

IDS IDP AIFO AIFI DLAO DLAI DLA2 DLOP DLOS DLIP DLIS DL2P DL2S DL3P DL3S DL4P DL4S DL5P DL5S DL6P DL6S

109E6 NDI

OP0 OP1 OP2 OP3 OP4 CI4 CI3 CI2 CI1 CIO ZWE CI VFT0 VFT1 VFT2 VFT3 VFT4 LG 88 LLPI 105F1 CIO-4

SW MT26 MT25 AIS3 128 AISI ZYR ZYQ ZYS 91 LSC2 GSI-5 TO OTHER R- RELAYS IN SAME GROUND SUPPLY R- DL- 20

LCL00-119 LR00-119 89 6983 103 ALN JZ 91 LSC2 ZYS ZYR GSI-5 TO OTHER R- RELAYS IN SAME GROUND SUPPLY CL- R- 11 5 ZYQ 158,18 128 AISI CAI

OPO-4 -48 L U 270 1 OPO-4 OPDI-4 5 LR00-119 LDL00-119

XSP4 300 ±1% 2 BLR ZMO GW BLA -48 MBSO CPMA MBSI-9 114B/HI

146 JA XCP 116C3 39 CPP L U 16 CPS L U 16 XCP -48 39 P-2.7 ±15%

CP(0,1)P CP2P CPX IDD ZXI 12 GK FAC2 8 143 TT 175 DAL DAHA 7 ORI QK INL INFO FW GW 136 AIFO AIFI 7 8

CPO-4 CP(0-4)P CP(0-4)S CP5-9 CP(5-9)P CP(5-9)S CP3P CP4P CP(5-7)S CP8S CP9S CP1OP CP1OS 105 CP1O

MT26 MT25 ZFX TO MINI-ROTL INTERFACE CKT MULT TO OTHER MARKERS TO OFFICE TEST FR TEST CKT ZJK ZKN MT MT25A MKR DIST CONT CKT T

DL4 ON AIS SENDER DL6 KEY DL3 KEY AIC MASTER TEST CONTROL CKT

AUTOMATIC PROGRESSION TRUNK TEST CKT AND/OR TRUNK TEST REGISTER CKT AND/OR REMOTE OFFICE TEST LINE CKT AND/OR TRUNK TEST REGISTER CKT FOR WIDEBAND AND/OR ROTL REG CKT

RCD 146 GW CPG 40 MBK 6 WCA 133 WBR 2 WC BQ TO OTHER R- RELAYS IN SAME GROUND SUPPLY GSI-5 1-5 1-6 3 GU GS6 LC,GUZWM CP- R- 21 LOLD 129 270 TO MKR DIST CONT CKT TO MTFC OR OT TIC IS RE SPH JH NH NTL SPL2 SMPA,SMPI-15 ZGY TO CDT APPL

11X 40 AMA 6 39 11 U L 700 1 -48

| DRAWING ISSUE |
|---|
| 34A KMI (Nos. TH1 AND) |
| 35D KMI (Nos. TH1 and 6ND) |
| 36A RDT |
| 37D RDT |
| 38A H-VG |
| 39D H-VG |
| 41D |
| 43D |
| 45D |
| 65B |

COMPLETING MARKER CIRCUIT

2

SD-26002-01-847

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# FS 66
TRANSMITTING CR- INFORMATION TO OUTGOING SENDER

# FS 67
TRANSMITTING CL- INFORMATION TO OUTGOING SENDER

CRK2 L U 700 TGS1 -48

CRKI L U 700 TGS1 -48

DLK2 L U 700 TGS1 -48

CLK3 L U 700 TGS1 -48

CLK2 L U 700 TGS1 -48

CLKI L U 700 TGS1 -48

SCL L U 700 -48 C MF2 4 PCL1 20

CR0 2000 ±5%

CR1 2000 ±5%

CR2 2000 ±5%

CR4 2000 ±5%

CR7 2000 ±5%

CL7 2000 ±5%

CL8 2000 ±5%

CL1 2000 ±5%

CL2 2000 ±5%

CL3 2000 ±5%

CL4 2000 ±5%

CL5 2000 ±5%

CL6 2000 ±5%

TO MKR DIST CONT CKT XT1 XT3

XT3 5,9 2,1 P-200 ±1% P-230 ±10% 6,8 1,2 S-1000 S 210 ±10% TX 9

XT1 5,9 2,1 P-200 ±1% P-230 ±10% 6,8 1,2 S-1000 S-210 ±10% TX 12

TO ORIG LINE IDENT CKT XT1

TO MTFC OR OT TIC

TO MKR DIST CONT CKT

67 CMCI U0 51H5 — CR0, CR1

67 CMCI U1 52H5 — CR2

67 CMCI U2 53H5 — CR4

67 CMCI U3 54H5 — CR7

67 CMCI U4 55H5 — CL7, CL8, CL1, CL2, CL3, CL4, CL5

OUTGOING SENDER CONN. CKT. — MC- SC-

SENDER CKT. OR CAMA SENDER CKT — CR0,1,2,4,7 CR UT0,1,2,4,7 -48 ON1

CR0,1,2,4,7

OUTGOING SENDER CONN. CKT. — MC- SC-

SENDER CKT. — CL1-8 -48 ON1

CL1-8

DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 2D | BLC |
| 9D | RID JEH |
| 11B | CH JEH |
| 12D | IS MR |
| 20AC | SGB DP AMD |
| 21D | SGB DP AMD |
| 22D | GEL TBW AMD |
| 24D | PEC EDH AMD |
| 25D | EN MGO AMD |
| 33D | TS CLL AMD |
| 35D | JEK BPL AMD |
| 37D | BDT |
| 39D | RA |
| 45D | |

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B48

BELL TELEPHONE LABORATORIES, INC 6S

MBO 2000 ±5%
MB1 2000 ±5%
MB2 2000 ±5%
MB4 2000 ±5%
MB7 2000 ±5%

MBS7 MBS4 MBS2 MBS1 FN (WT) MBT9 (83) TID MBO
MBS8 MBS5 MBS3 MBS1 FN (WT) MBT9 (83) TID MB1
MBS9 MBS6 MBS3 MBS2 (WT) MBT9 FN (83) TID MB2
MBS6 MBS5 MBS4 MBS0 FN (WT) MBT9 (83) TID MB4
MBS9 MBS8 MBS7 MBS0 (WT) MBT9 FN (83) TID MB7

CU0 CU1 CU2 CU4 CU7 100 ct

MBO,1,2,4,7

(40) FS 68
TRANSMITTING MB-INFORMATION TO OUTGOING SENDER

OUTGOING SENDER CONN CKT: MC- SC-
OUTGOING SENDER CKT: MB- -48 ON1

MBK2 (83) TID -48 700 MBK TGS2 (BE) (BD)
MBK1 -48 700 100FO MBK1 (83) MBK TGS2 (BD) (BE) AMA
DLI 49B/A2

AMA (BE) (BD) MBS0 MBS1 MBS2 MBS3 MBS4 MBS5 MBS6 MBS7 MBS8 MBS9 (WT) MBT9
(8W,8X) MBK 700, 270 -48
XMB TO M.T.F.C.

TO MTFC OR OTTIC

DRAWING ISSUE
1 ACT RCV
20 ANC
80 ANS JEN
108 DTP JEN SQ MB
120 ANS MB
180 ANS EDM
20AC WNT UDP AND
210 ANS UDP AND
220 ELN UDP AND
23A PEC SCN
250 MD WCD AND
300 EN MB AND
330 TS CLK AND
350 TS CDL AND
370 WM

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC.
SD-26002-01-B49A
37
2
6S

# PART OF FS 69

TRANSMITTING DL- AND MISC AMA INFORMATION TO OUTGOING SENDER

DL! TO MKR DIST CONT CKT

TO MTFC

DLKI L U 700 -48 TGSI 13

49A/DI DLI

DL1 2K±5% DL1 6 DLI

DL2 2K±5% DL2 6 DL2

DL3 2K±5% DL3 6 DL3

DL4 2K±5% DL4 6 DL4

DL5 2K±5% DL5 6 DL5

DL6 2K±5% DL6 6 DL6

(IX,IY) XT2 5,9 2,1 P-200±1% P-230±10% -48 TX 10

MKR DIST CONT CKT SDK XB XT2

95A/EO XCD 117

114A/A2 SP 40,74

OBS 2K±5% 40,74 OBS 40,176 9 OBS' OBS

40,74 AMA 9

(40,74) MBK5 L U 700 -48 (M) RN 11

XJ ANI 11

40,74 TGS2 5

101 TOG3 4 40,74

40,74 69 CAM 9 40,74

NOB 2K±5% 40,74 NOB 40,176 9 NOB' NOB

SCC 2K±5% 40,74 SCC 40,74 6 SC 40,74

MBK4 L U 700 -48 TGS2 4

AMA 11 40,74 69 CAM 40,74 11

TVT 2K±5% 40,74 6 TVA TVT

40 AMA 2K±5% 40,74 AMA

ZDV EZ AMA TO EXPANDED OPERATIONAL TRUNK TEST & REMOTE TRUNK MAKE BUSY CKT

AMA TO MTFC OR OT TIC

(40) MBK3 L U 700 -48 40,74 TGS2 3

ZFX (40) ZSI MBK3 6 MT57 2 ZFX

TO ALL OTHER MARKERS

MT57A TO MINI-ROTL INTERFACE CKT

146 AMA 92D7

MTI2 6

XJ ANI 1 10

MT57 1 ZSI

146 146 RCD 1 11 SAR

SMT 8

BLR 8

SMK 1 9 P-12

SMK2 20

SMC 10

SMK1 270±1% -48

AMA,DLI-6,TVT,SC

NOB,OBS

MC- SC- S-

-48 ONI

| OUTGOING SENDER CONN CKT | SENDER CKT |
|---|---|
| | AMA<br>TVT<br>SC<br>NOB<br>OBS<br>DL- |

DRAWING ISSUE

| | |
|---|---|
| 35D | TS GM |
| 36A | RDT |
| 37D | RDT |
| 39D | RA |
| 45D | |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B498

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B498

# PART OF FS 69

TRANSMITTING DL- AND MISC AMA INFORMATION TO OUTGOING SENDER

INC REG CKT | INC REG MKR CONN CKT | OUTGOING SENDER CONN CKT | CAMA SENDER CKT

THT3 → THT3 IL 2L 640 -48 → (ZTT) (ZTZ) 68 CTGS 4 → (WS) TAM2 10 → (ZFX) THT3 → TO MINI-ROLL INTERFACE CKT

(ZTZ) THK3 2L IL 640 -48 → THT3 MC- SC- TH3 -48 → 4 IFI → TH'3 → TO MTFC

THT2 → THT2 IU 2U 640 -48 → (ZTT) (ZTZ) 68 CTGS 3 → (WS) TAM2 9 → (ZFX) THT2

(ZTZ) THK2 2U IU 640 -48 → THT2 MC- SC- TH2 -48 → 2 IDI → TH'2 → TO MTFC

(ZZA,ZZB,ZTT) THT1 U,U,IL L,L,2L 700,700, 640 -48 → (ZZA) LL1 (ZZA) 9 (ZZB,ZTT) → THT1 (ZFX) THT1

(ZZA,ZZB) 68 CTGS 6 → (WS) TAM2 5 (ZZA,ZZB) → (ZZA,ZZB) THT1 12 (ZTT)

(EO) THK1 2L IL 640 -48 → THT1 MC- SC- TH1 -48 → 1 ICI → EO → TH'1 → TO MTFC

(ZZA,ZZB,ZTT) THT0 U,U,IU L,L,2U 700,700, 640 -48 → (ZZA) LL0 (ZZA) 9 (ZZB,ZTT) → THT0 (ZFX) THT0

(ZZA,ZZB) 68 CTGS 5 → (WS) TAM2 4 (ZZA,ZZB) → (ZZA,ZZB) THT0 12 (ZTT)

(EO) THK0 2U IU 640 -48 → THT0 MC- SC- TH0 -48 → 0 IB3 → EO → TH'0 → TO MTFC

TO MTFC OR OFFICE TEST FR TBL INDICATOR AND CONN CKT AND DAS ETS CKT

DRAWING ISSUE 45D

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-849C

BELL TELEPHONE LABORATORIES INCORPORATED

65

# (39) FS 70

TRANSMITTING CP AND NS INFORMATION TO OUTGOING SENDER

CPK1 — -48 — 700 L U — (40) TGS2 6

CPK2 — -48 — 700 L U — (40) TGS2 7

48EI XTI

NSK1 — -48 — 700 L U — (40) TGS2 8

CP0 2kΩ ±5%
CP1 2kΩ ±5%
CP2 2kΩ ±5%
CP4 2kΩ ±5%
CP7 2kΩ ±5%
4DG 2kΩ ±5%
5DG 2kΩ ±5%
L5D 2kΩ ±5%
LST 2kΩ ±5%

CPP
CPS
CPP
CPS

(52) WBC3
(152) WBC3

(ZTC) CPMA
(ZHH) (ZHG) (ZRR)
(ZTC) CPMA
(ZHH) CPMC
(ZRR) CPMB
(ZHH) CPMC
(ZRR) CPMB

(WT) MBT9
(JR) (JS) (ZTB) (ZYH) TOG5
(WT) MBT9

(ZMO) (ZMP)

(ZIS)

CP1 TO MARKER DISTRIBUTOR CONTROL CKT
CP0
CP1
CP2
CP4
CP7 TO MTFC
CP7 TO MARKER DISTRIBUTOR CONTROL CKT
4DG
5DG
L5D
LST
LST TO MTFC
4DG LST TO MARKER DISTRIBUTOR CONTROL CKT

CP0,1,2,4,7 — OUTGOING SENDER CONN CKT — MC- SC- — OUTGOING SENDER CKT — CP0,1,2,4,7 ONI -48

4DG,5DG, LST,L5D — OUTGOING SENDER CONN CKT — MC- SC- — OUTGOING SENDER CKT — 4DG,5DG, LST,L5D ONI -48

COMPLETING MARKER CIRCUIT

| BELL LABORATORIES | SD-26002-01- | DWG SIZE 6S | ISSUE 618 |
|---|---|---|---|
| | | | B50 |

TRANSFER REG CKT

RC-MC- TTO, UTO AO-GO

TRANSFER REG MKR CONN CKT

TO CDT APPL

**FS 71**

CALLED NUMBER AO-HO, JO-MO LEAD

TO MINI-RCTL INTERFACE CKT OR TO MTFC OR OT TIC AND TO DAS ETS CKT

SERVICE OBS REG CONN

AO-HO JO-LO -48 CO-

FOREIGN AREA TRANSL & CONN CKT

AO-GO -48 CA- ABC- CB- DEF-

XGHJ2 XGHJ2 XGHJ1 SIH3

INCOMING REG. CKT. OR CAMA SDR — AO-HO, JO-LO DIGITS, LT-, LU- — RC- MC-

INCOMING REG. MKR. CONN. CKT.

ORIG. REG. CKT. — AO-HO, JO-MO DIGITS — RC- MC-

ORIG. REG. MKR. CONN. CKT.

AO-HO, JO-LO, HTO, TTO, UTO

AO-HO, JO-MO

TO MTFC OR OT TIC AND TO DAS CKT OR DAS ETS

ACO 270 -48 ACO X12

BCO 270 -48 BCO X12

CCO 270 -48 CCO X12

DXO 270 -48 TXD X1

FXO 640 -48 FGT X1

GXO 640 -48 FGT X

NWB 122A/B1

CP 270 -48

IA KGS3 X1 KA

THO 270 -48 KGS1 X1

HNO 270 -48 KGS1 X2 IA KGS3 X2

TO 270 -48 IA KGS4 X1

UO 270 -48 IA KGS4 X2 IC KGS5 X1

IC KGS5 X2

IC KGS6 X1

IC KGS6 X2

KBC X1 KGS1 X1 KGS1 X2

KBC X7 KGS2 X1

KDE X1 KGS2 X2

KDE X7

KFG X1

KFG X7

KHJ X1

KHJ X7

KKL X1

KKL X7

KA X7

MDC 640 -48

N1 X1, N2 X1, N1 X7, N2 X7, N1 X13, N3 X1, N4 X1, N1 X19, N3 X7, N2 X13, N4 X7, N3 X13, N2 X19, N4 X13, N3 X19, N4 X19

TRN X1, TRN X2, TRN X3

AO 700 -48 AO'O

BO 700 -48 B'O

CO 700 -48 C'O

DO 700 -48 D'O

EO 700 -48 E'O

FO 700 -48 F'O

GO 700 -48 G'O

HO 700 -48 H'O

JO 700 -48 J'O

KO 700 -48 K'O

LO 700 -48 L'O

DAO, DBO, DCO, DEO

TO CALLED NUMBER DETECTOR CKT

OUTGOING SENDER CONN. CKT.

SENDER CKT. AO-HO JO-MO DIGITS -48

AO-HO, JO-MO — MC- SC-

MKR DIST CONT CKT — AO-HO, JO-MO — KN-

DAS ETS CKT — AO-HO, JO-MO

TO M.T.F.C.

106F8 HNO
106G8 TO
106H8 UO

TO AIS SENDER CONNECTOR CKT

TO MKR DIST CONT CKT

TO CALLED NUMBER DETECTOR CKT

46A4 TO 46E4

48A3

51E1

| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 8D |
| 11B |
| 18D |
| 22D |
| 23D |
| 33D |
| 34A |
| 35D |
| 37D |
| 39D |
| 41D |
| 43D |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-B51

SD-26002-01-B51

TRANSFER REG CKT

RC- MC-
TRANSFER REG MKR CONN CKT

TTI, UTI, AI-GI

TO CDT APPL

FS 72
CALLED NUMBER
AI-HI, JI-MI LEAD

SERVICE OBS REG CONN
AI-HI JI-LI
-48
CO-

FOREIGN AREA TRNSL & CONN CKT
AI-GI
-48
CA- ABC-
CB- DEF-
GHJ1

TO MAINT-ROUTINE INTERRUPT CKT OR TO MTFC OR OT TIC AND TO DAS ETS CKT

AI-HI JI-LI
AI-GI
UTI
THI
KI
JI
HI
HNI
TI
UI

GHJ2 GHJ2 GHJ1

INCOMING REG. CKT. OR CAMA SDR
AI-HI, JI-LI DIGITS, LT-, LU-
RC- MC-

INCOMING REG. MKR. CONN. CKT.
AI-HI, JI-LI, HTI, TTI, UTI

ORIG. REG. CKT.
AI-HI, JI-MI DIGITS
RC- MC-

ORIG. REG. MKR. CONN. CKT.
AI-HI, JI-MI

ACI U L 270 -48
BCI U L 270 -48
CCI U L 270 -48
DXI U L 270 -48
FXI IL 2L 640 -48
GXI IU 2U 640 -48
THI U L 270 -48
HNI U L 270 -48
TI U L 270 -48
UI U L 270 -48
MDI IL 2L 640 -48

TXD
FGT
ZXM
ZWK

TO MKR DIST CONT CKT THI

TO AIS SDR CONN CKT (158) FGT

KGS1 KGS2 KGS3 KGS4 KGS5 KGS6
KA KBC KDE KFG KHJ KKL

AI U L 700 -48
BI U L 700 -48
CI U L 700 -48
DI U L 700 -48
EI U L 700 -48
FI U L 700 -48
GI U L 700 -48
HI U L 700 -48
JI U L 700 -48
KI U L 700 -48
LI U L 700 -48

DAI (128)
DBI (128)
DCI (128)

TO CALLED NUMBER DETECTOR CKT

OUTGOING SENDER CONN. CKT.
MC- SC-

SENDER CKT.
AI-HI, JI-MI DIGITS -48

MKR DIST CONT CKT
KN-

DAS ETS CKT
AI-HI, JI-MI

AI-HI, JI-MI

106F8 HNI
106G8 TI
106H8 UI

HNI 46B4 HNI
TI 46E4 TNI
UI 4886 UI

TO MKR DIST CONT CKT

TO AIS SDR CONN CKT

TO MTFC OR OT TIC AND TO DAS CKT OR DAS ETS

122A/CI WB

TO CALLED NUMBER DETECTOR CKT

TO M.T.F.C.

DRAWING ISSUE

| | |
|---|---|
| 1 | JFD |
| 20 | MFD |
| 80 | Jun |
| 11B | FD |
| 8D | A AND B |
| 22D | CB |
| 25D | CB |
| 33D | CB |
| 34A | CB |
| 35D | CB |
| 37D | CB |
| 39D | CB |
| 41D | CB |
| 43D | CB |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B
SD-26002-01-B52

SD-26002-01-B52

# FS 73

CALLED NUMBER
A2-H2, J2-M2 LEAD

TO
CALLED NUMBER
DETECTOR CKT

TO MINI-ROTL INTERFACE CKT OR TO MTFC OR OTTIC CKT AND TO DAS ETS

TRANSFER REG CKT

RC- MC- TRANSFER REG MKR CONN CKT

TT2, UT2
A2-G2

TO CDT APPL

SERVICE OBS REG CONN

A2-H2
J2-L2
CO-

FOREIGN AREA TRANSL & CONN CKT

CA- ABC-
A2-G2
CB- DEF-
GHJI

GHJ2 GHJ2 GHJI

53H2

INCOMING REG. CKT. OR CAMA SENDER

A2-H2, J2-L2 DIGITS, LT-, LU-

RC- MC-

INCOMING REG. MKR. CONN. CKT.

A2-H2, J2-L2, HT2, TT2, UT2

ORIG. REG. CKT.

A2-H2, J2-M2 DIGITS

RC- MC-

ORIG REG. MKR. CONN. CKT.

A2-H2, J2-M2

AC2 U L 270 I 48
BC2 U L 270 I 48
CC2 U L 270 I 48
TH2 U L 270 I 48
HN2 U L 270 I 48
T2 U L 270 I 48
U2 U L 270 I 48
DX2 U L 270 I 48
FX2 1L 2L 640 48
GX2 1U 2U 640 48
CNP L U 270 I -48
MD2 1U 2U 640 48

A2 U L 700 I 48
B2 U L 700 I 48
C2 U L 700 I 48
D2 U L 700 I 48
E2 U L 700 I 48
F2 U L 700 I 48
G2 U L 700 I 48
H2 U L 700 I 48
J2 U L 700 I 48
K2 U L 700 I 48
L2 U L 700 I 48

TRN X 7
TRN X 12
TRN X 6
TRN X 9
KA X 3
KA X 9
KBC X 3
KBC X 9
KDE X 3
KDE X 9
KFG X 3
KFG X 9
KHJ X 3
KHJ X 9
KKL X 3
KKL X 9
N1 X 3
N1 X 9
N1 X 15
N2 X 3
N2 X 9
N2 X 15
N2 X 21
N3 X 3
N3 X 9
N3 X 15
N3 X 21
N4 X 3
N4 X 9
N4 X 15
N4 X 21

(IA) KGS3 X 5
(RS) KGS1 X 5
(RS) KGS1 X 6
(IA) KGS3 X 6
(RS) KGS2 X 5
(IA) KGS4 X 5
(RS) KGS2 X 6
(IA) KGS4 X 6
(IC) KGS5 X 5
(IC) KGS5 X 6
(IC) KGS6 X 5
(IC) KGS6 X 6

(128) DA2
(128) DB2
(128) DC2
(GZ)

A2 A'2
B2 B'2
C2 C'2
D2 D'2
E2 E'2
F2 F'2
G2 G'2
H2 H'2
J2 J'2
K2 K'2
L2 L'2
M2 M'2

OUTGOING SENDER CONN CKT.
SENDER CKT
A2-H2, J2-M2 DIGITS
MC- SG-
A2-H2, J2-M2
48

MKR DIST CONT CKT
DAS ETS
KN-
A2-H2, J2-M2

TO MKR TH2 DIST CONT CKT

TO AIS SDR CONN CKT TH2 (158)

TO MTFC OR OT TIC AND TO DAS CKT OR DAS ETS

TO M.T.F.C.

106F8 HN2
106G8 T2
106H8 U2
(160)

HN2 TN2 U2 TO MKR DIST CONT CKT

HN2 4684
T2 46F4
U2 48C6

53E1

TO AIS SDR CONN CKT

TO CALLED NUMBER DETECTOR CKT

K2 J2 H2 G2 F2 E2

(ZI) (ZXM) (ZWR) (EL) (R) (S) (3) (36) (141) (142) (161)

| DRAWING ISSUE | | |
|---|---|---|
| 1 | KC | JFD |
| 2D | BKC | MFO |
| 8D | DBA | JFO |
| 11B | CH | FD |
| 18D | TRU | A |
| | GE | AD |
| 22D | DJD | C3 |
| | MD | C2 |
| 25D | PG | C1 |
| | ET | |
| 33D | LU | CB |
| 34A | CPK | |
| | CPL | B |
| 35D | DPL | CD |
| | DHD | |
| 37D | PR | C8 |
| 39D | FA | C7 |
| 41D | | C6 |
| 43D | | C5 |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-B53

SHEET 2 OF 6S

TRANSFER REG CKT

RC- MC-

TRANSFER REG MKR CONN CKT

TT4.UT4 A4-G4

TO CDT APPL

TO MINI-ROTL INTERFACE CKT OR TO MTFC OR OTTIC CKT AND TO DAS ETS

SERVICE OBS REG CONN

A4-H4 J4-L4 CO-

-48

A4-H4 J4-M4

FOREIGN AREA TRNSL & CONN CKT

CA- ABC-

A4-C4

CB- DEF-

GHJI

-48

A4-G4

UT4

TH4

GHJ2 GHJ2 GHJ1

K4 J4 H4 HN4 T4 U4

INCOMING REG. CKT. OR CAMA SENDER

A4-H4, J4-L4 DIGITS, LT-, LU-

INCOMING REG. MKR. CONN. CKT.

RC- MC

A4-H4, J4-L4, HT4, TT4, UT4

ORIG. REG. CKT.

A4-H4, J4-M4

ORIG. REG. MKR. CONN. CKT.

RC- MC-

A4-H4, J4-M4

TO MTFC OR OTTIC AND TO DAS CKT OR DAS ETS

AC4 U L 270 -48

BC4 U L 270 -48

CC4 U L 270 -48

TXD DX4 U L 270 -48

FGT FX4 1L 2L 640 -48

FGT GX4 1U 2U 640 -48

HT4 TT4 C4 D4 UT4 E4 ZXM F4 ZXM G4 H4 J4 M4 K4 L4 EL

ZT ZWK

HN4 46C4

T4 46G4

U4 48D6

106F8 HN4

106G8 T4

106H8 U4

TRN

IA KGS3

IA KGS4

RS KGS1

RS KGS2

IC KGS5

IC KGS6

KA KBC KDE KFG KHJ KKL

TH4 U L 270 -48

HN4 U L 270 -48

T4 U L 270 -48

U4 270 -48

MD4 1L 2L 640 -48

A4 B4 C4 D4 E4 F4 G4 H4 J4 K4 L4 U L 700 -48

A'4 B'4 C'4 D'4 E'4 F'4 G'4 H'4 J'4 M'4 K'4 L'4

DA4 DB4 DC4 128

F S 74

CALLED NUMBER A4-H4 J4-M4 LEAD

TO CALLED NUMBER DETECTOR CKT

OUTGOING SENDER CONN. CKT.

SENDER CKT.

A4-H4, J4-M4 DIGITS

A4 H4, J4-M4 MC- SC-

MKR DIST CONT CKT

KN-

DAS ETS CKT

A4-H4, J4-M4

TO M.T.F.C.

TO MKR DIST CONT CKT

TO AIS SENDER CONNECTOR CKT

TO CALLED NUMBER DETECTOR CKT

DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 20 | BD |
| 80 | CH |
| 110 | CH |
| 180 | |
| 220 | GEL |
| 250 | RM |
| 330 | EA |
| 340 | |
| 350 | |
| 370 | |
| 390 | RA |
| 410 | |
| 430 | |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-B54

SD-26002-01-B54

# FS 75

CALLED NUMBER A7-H7, J7-M7 LEAD

TO MINI-ROTL INTERFACE CKT OR TO MTFC OR OTTIC CKT AND TO DAS ETS

TRANSFER REG CKT

TRANSFER REG MKR CONN CKT

RC- MC-

A7-H7, TT7, UT7

TO CDT APPL

SERVICE OBS REG. CONN.

A7-H7 J7-L7 -48 CO-

A7-H7 J7-M7

FOREIGN AREA TRNSL & CONN CKT

A7-G7 -48 CA- ABC- CB- DEF- GHJ1

A7-G7

TH7

K7 J7 H7 HN7 T7 U7

GHJ2 GHJ2 GHJ1

INCOMING REG. CKT. OR CAMA SENDER

A7-H7, J7-M7 DIGITS, LT-, LU-

INCOMING REG. MKR. CONN. CKT.

RC- MC-

A7-H7, J7-M7, HT7 TT7, UT7

ORIG. REG. CKT.

A7-H7, J7-M7 DIGITS

ORIG. REG. MKR. CONN. CKT.

RC- MC-

A7-H7, J7-M7

TO MT FC OR OT TIC AND TO DAS CKT OR DAS ETS CKT

AC7 U L 270 -48

BC7 U L 270 -48

CC7 U L 270 -48

TXD DX7 U L 270 -48

TXD EX7 U L 270 -48

FGT FX7 1L 2L 640 -48

FGT GX7 1U 2U 640 -48

TO AIS SDR CONN CKT TH7 (158)

TO MKR DIST CONT CKT TH7

AC7 BC7 CC7 TRN KBC KDE KFG KHJ KKL

N1 N2 N3 N4

TH7 U L 270 -48

HN7 U L 270 -48

T7 U L 270 -43

U7 U L 270 -48

KGS1 KGS2 KGS3 KGS4 KGS5 KGS6

TO MKR DIST CONT CKT HN7 TN7 U7

TO AIS SDR CONN CKT 158 HN7 T7 U7

106F8 HN7 106G8 T7 106H8 U7

TO CALLED NUMBER DETECTOR CKT K7 J7 H7 G7 F7

4604 HN7 46H4 T7 48DG U7

A7 U L 700 -48

B7 U L 700 -48

C7 U L 700 -48

D7 U L 700 -48

E7 U L 700 -48

F7 U L 700 -48

G7 U L 700 -48

H7 U L 700 -48

J7 U L 700 -48

K7 U L 700 -43

L7 U L 700 -48

M7 U L 700 -48

A'7 B'7 C'7 D'7 E'7 F'7 G'7 H'7 J'7 K'7 L'7 M'7

DA7 DB7 DC7

TO CALLED NUMBER DETECTOR CKT

MKR DIST CONT CKT KN-

DAS ETS A7-H7 J7-M7

FOREIGN SENDER CONN CKT

SENDER CKT A7-H7, J7-M7 DIGITS MC- SC- ST7

A7-H7, J7-M7 N7

MC- SC- ST7

TO MTFC

N'7

KA

TO DAS ETS CKT

ORIG. REG. MKR. CONN. CKT. MC- RC-

ORIG REG. CKT. STS

EL ST7 U L 700 -48

ZVT MD7 U L 700 -48

TO M.T.F.C.

DRAWING ISSUE

| | |
|---|---|
| 1 | E BAC |
| 20 | BAT |
| 80 | CH TEA |
| 118 | FRT TRT |
| 189 | GEL |
| 220 | UDP AND |
| 250 | EN WU AMP |
| 330 | ER ELE AND |
| 350 | GM DEL AND |
| 370 | UA AR |
| 390 | RA |
| 410 | |
| 430 | |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-B55.

# FS 76

OUT SENDER
CALLED NUMBER CHECK

| DRAWING ISSUE | |
|---|---|
| 1 | |
| 2D | BKC |
| 4A | |
| 5D | |
| 8D | |
| 33D | |
| 34A | GM |
| 35D | GM |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 43D | |

TO MTRC ORK — ORK1

ORK1 L U 270 — 48

60AI — 12 — 67 CMC1

OSG0-4
28 OSG5-9
67 OSG10,11

SK0 11 — SA — SAB — SABC

CDK0, 1 — SKD0, 1 — PCL1 — SPC — SPV

AO A1 A2 A4 A7 BO B1 B2 B4 B7 CO C1 C2 C4 C7 DO D1 D2 D4 D7

ZKC

H7 H4 H2 H1 H0 G7 G4 G2 G1 G0 F7 F4 F2 F1 F0 E7 E4 E2 E1 E0

ZLJ — ZLQ

H — BO — B1 — E4 — E7 — J

JO J1 J2 J4 J7 KO K1 K2 K4 K7 EL LO EL L1 EL L2 EL L4 L7

EM — EL

MD0 MD1 MD2 MD4 MD7

161 — ZVT

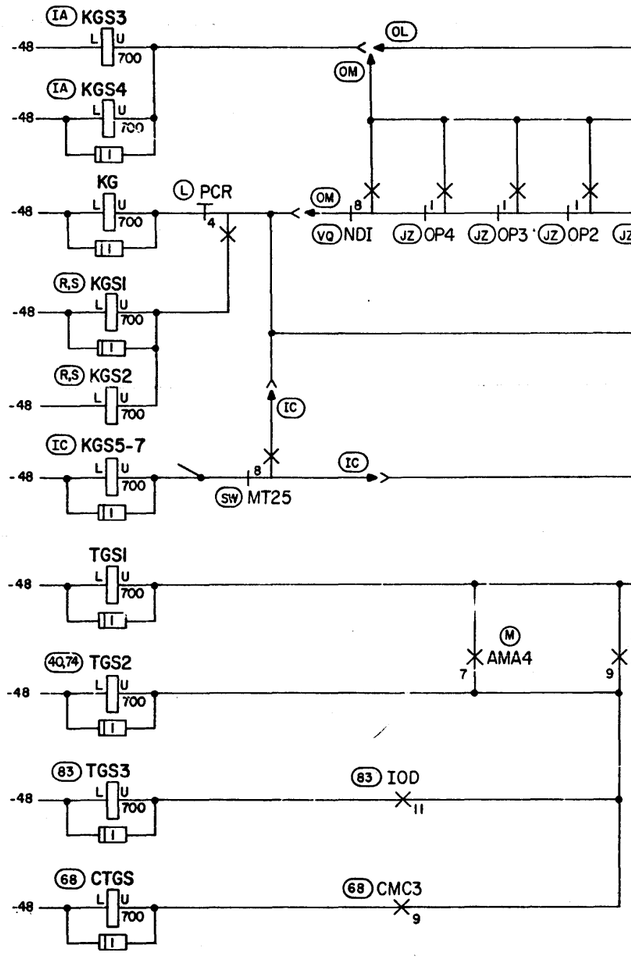
ORK2 U L 16

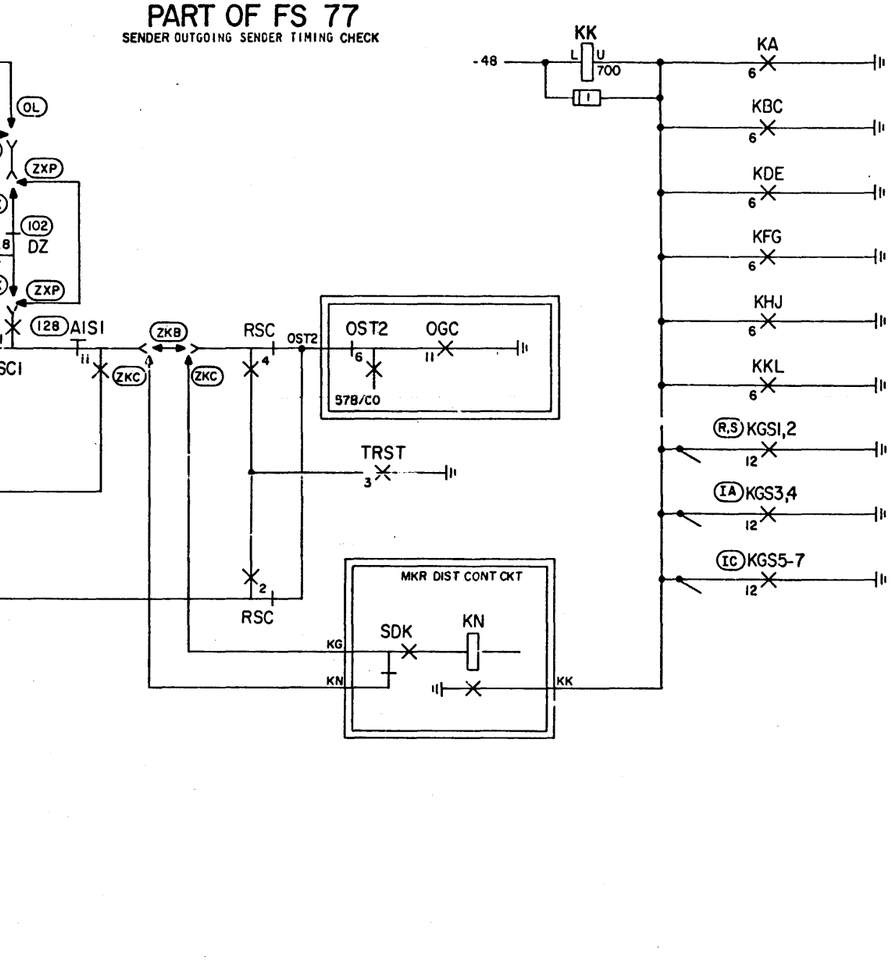
ST7

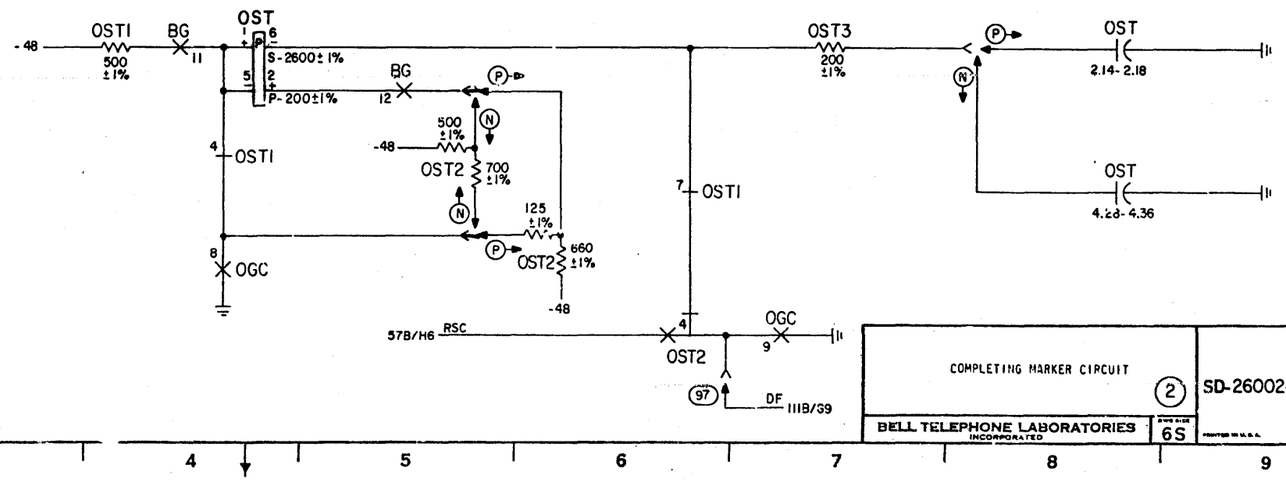
| | |
|---|---|
| COMPLETING MARKER CIRCUIT 2 | ISSUE 57B |
| BELL TELEPHONE LABORATORIES, INC | SD-26002-01-B56 |
| 6S | |

# PART OF FS 77

SENDER OUTGOING SENDER TIMING CHECK




DRAWING ISSUE

| | |
|---|---|
| 34A | CP, KA, BE, KG |
| 35D | KA, BE, AM |
| 37D | RD |
| 39D | RA |
| 41D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B57A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF FS 77
SENDER OUTGOING SENDER TIMING CHECK

OSTI
OST2
TAM1
TAM2
GTL2
GTL
OUTGOING SENDER CONNECTOR CKT
MC- SC- SC- MC-
SC- MC-
SCT
MON
ORK2
ORKI
OSTI
RK3
TGS3
TGS2
TGSI
ORK2
ORKI
KK
IOD
AMA3
CAMA
CLG
OST2 OGC
TO MTFC OST2
57A/B5 OST2
MBKI MBK2 MBK3 MBK4 MBK5 MBK6
RCD SAR
ANI
NSKI CPK2 CPKI
DLKI DLK2 CLS
2W
DLO DLS CLK3
CDTI CDT2 CDT3 CDT4
RDKI RDK2
4WC
CL4 CL2 CL3 CL5 CL9 CLK2 CLKI CLO
CRP CR5 CRK2 CRK1
TOG3 TOG2
CAM CMF
AMA
RSC
RPK AIOD TPS
NDI NDK
CVS ARK2 ARK1 BRK2 BRKI ARN5 KCV
THKI THKO THK3 THK2
TO MKR DIST CONT CKT SK3 SKI
TO MKR DIST CONT CKT SK2
TO ORIGINATING LINE IDENTIFIER CKT
GTLI
DIS2 OR FAC DTI
OLI FTKI
CLK 29A/AI
XT5 OGC CLK
TO MTFC OR OT TIC RSC
TO MTFC TSR 58G7 TSR
TSR
COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES INCORPORATED
SD-26002-01-B57B
ISSUE 69B
SHEET 6S

# FS 78

TRANSMITTING AND CHECK OF RECORDER NUMBER
OR SENDER CLASS
ON PULSE CONVERSION

TO M.T.F.C.

RNK2 RNK1 RNK

RNO RNI RN2 RN4 RN7

ONI RN- -48 SDR. CKT. AMA- OUT. SDR. CONN. CKT. RNO,1,2,4,7

RNO: RN 7RN 4NE 1SE 2SA; RNI: RN 8SP 5ST 3NA 1SE; RN2: RN 9NP 6NT 3NA 2SA; RN4: RN ONN 6NT 5ST 4NE; RN7: RN 7RN 9NP 8SP ONN

RNO RNI RN2 RN4 RN7 -48 700 L U

SCL0 SCL2 SCL3 SCL5 ONN PCLI 2SA PCCL 3NA PCCL 5ST PCCL -48 700

48E5 SC2 48E4 SC3 48M6 SC5

RNT 4.28-4.36 μF RNT 2.14-2.18 μF RNT3 200±1% RNTI 500±1% AMA5 PCLI RNT 5-6 S-2600±1% 1+2 P-200±1% RNT2 660±1% 125±1% RNT2 500±1% 700±1% RNTI RNT2

AMA3 AMA4 AMA5 DIS2 AMA CAMA ANI AMAI

ORC ORC0 ORC1 ORC2 AD OD OD RN2K NTR1 NTR2 AMAI

RN AMA5 OGC RNT2 CMF2 PCCL PCLI RNT2 RNTI RNT

TOG3 NOB OBS PCLI CMF2 RNTI RN RNTI

SCLO SCL2 SCL3 SCL5 MBKS AMA5 RNT2 RNK2 .1-.135 μF RNKI

TSR S7B/A6

| DRAWING ISSUE |
|---|
| 69B |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-B58

6S

# FS 79
TRUNK CLASS RELAYS

TRUNK LINK & CONNECTOR CKT

TRUNK CKT

TSC
TKT
TRN

FA RN

FB KT

RN29 ME/MF
RNI9 ME
9FP 9NP MC

RN28 ME/MF
RNI8 ME
8MP 8SP MC

RN27 ME/MF
RNI7 ME
7TP 7RN MC

RN26 ME/MF
RNI6 ME
6FT 6NT MC

RN25 ME/MF
RNI5 ME
5MT 5ST MC

RN24 ME/MF
RNI4 ME
4TT 4NE MC

RN23 ME/MF
RNI3 ME
3FB 3NA MC

RN22 ME/MF
RNI2 ME
2MB 2SA MC

RN21 ME/MF
RNII ME
ITB ISE MC

RN20 ME/MF
RNI0 ME
ONN MC

(71) RTNA
(71) RUNA
(ZRL) RNT20 (ZRJ)

9NP U L 270 I
8SP U L 270 I
7RN U L 270 I
6NT U L 270 I
5ST U L 270 I
4NE U L 270 I
3NA U L 270 I
2SA U L 270 I
ISE U L 270 I
ONN U L 270 I

TO DAS ETS

XPT IU IL P-2.7 ±15% -48

RN9 (X)9FP (Y)9NP ▼RN9 — TO MTFC
RN8 (X)8MP (Y)8SP ▼RN8
RN7 (X)7TP (Y)7RN ▼RN7
RN6 (X)6FT (Y)6NT ▼RN6
RN5 (X)5MT (Y)5ST ▼RN5
RN4 (X)4TT (Y)4NE ▼RN4
RN3 (X)3FB (Y)3NA ▼RN3
RN2 (X)2MB (Y)2SA ▼RN2
RNI (X)ITB (Y)ISE ▼RNI
RNO ▼RNO ONN

(ZRL) RN2K IU 2U 640 I -48

(71) AMAI 3 — (ZRL) — (M) RN 12 — (ZRL) — RNT2
(71) AMAI 4 — ORCO — S — RNT2
RNT'2 ORC'O ▼
RNT20 TO MTFC ▼

(ZRL) RN2T IL 2L 640 I -48
TLCI 16
5 (ZRL) RN2T

(71) AMAI 2 — (YY,LC) RN 10 — AD — AD — S — RNTI
AD
(146) IAO 2 — (146) SMT 11
TER3 2 — 4WF 2
AD' ▼RNT'I
AD ▼RNTI

(71) RTN U L 270 I -48
TLCI 19
9 (71) RTN

(71) AMAI 1 — (YY,LC) RN 9 — OD — OD — S — RNTO
OD
TER3 1 — 4WF 1
OD' ▼RNT'O
OD ▼RNTO
TO MTFC

ITRI 10
RV3 10
TCH (UL) 4
3 (90) ATTI 4 (102) DTFI
CCH (ZWH) (ZWI) 10
(68) CMSO 10 — (68) CMSI — CMS 22C8
(UL)

(71) RUN U L 270 I -48
TLCI 20
9 (71) RUN

3NA 12
6NT 12
9NP 12
16 (ZH) TERI

LCH U L 700 I -48
LCH ▼ — TO MTFC
TCH ▼

RN2T 1 — RNT20 U L 700 I -48
(ZRL)
RTN 1 — RTNA U L 700 I -48
(71)
RUN 1 — RUNA U L 700 I -48
(71)
17 TLCI
(71)

TER 22C8
8SP 12 — 2SA 12 — 4NE 12
ISE 12 — 5ST 12 — 7RN 12
(ZDX) (Y) (ZDY) (UL)
(ZDY) TCH — MAN — LCH
(ZJV) (ZJW)

(ZJW) TCH ▼
LCH
MKR DIST CONT CKT
AIS
TCH CH
(128) AIS2
TCH U L 700 I -48

OUTGOING SENDER CONNECTOR CKT

LAMA SENDER CKT
RNT2
RNTI
RNTO

DRAWING ISSUE
65B

· COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B59A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B59A

# FS 80
ROUTE TRANSFER

MASTER TEST FR JACK, LAMP, AND KEY CKT

RTCA- RT- RTX -48

RTW- RT20-24 30-34 (165) RTC2,4 SEE TABLE A — RT20-24, 30-34: 1L 2L 2450 -48

RTW- RT25-29 35-39 (165) RTC3,5 SEE TABLE A — RT25-29, 35-39: 1U 2U 2450 -48

CKG2 (BR,BS) RTC U L 700 -48

(BS) RTCI U L 700 -48

(165) RTC2-5 (BR,BS) RTC U L 700 -48

(IJ,IK) PEGI (ZTK) PEG20,30 U L 700 -48

RT- RTO-9

INFR INFR (136)

RT9 (BS) RTCI 2U 1U 2450 -48

RT8 (BS) RTCI 2U 1U 2450 -48

RT7 (BS) RTCI 2U 1U 2450 -48

RT6 (BS) RTCI 2U 1U 2450 -48

RT5 (BS) RTCI 2U 1U 2450 -48

RT4 (BR) RT4 (BR) (BR,BS) RT4 U,2L L,IL 2.5K,2450 -48; (BS) RTC; RT4

RT3 (BR) RT3 (BR) (BR,BS) RT3 U,2L L,IL 2.5K,2450 -48; (BS) RTC; RT3

RT2 (BR) RT2 (BR) (BR,BS) RT2 U,2L L,IL 2.5K,2450 -48; (BS) RTC; RT2

RTI (BR) RTI (BR) (BR,BS) RTI U,2L L,IL 2.5K,2450 -48; (BS) RTC; RTI

RTO (BR) RTO (BR) (BR,BS) RTO U,2L L,IL 2.5K,2450 -48; (BS) RTC; RTO

(136) INFR RTC; (136) INFR U L 2.5K (ZCF) -48

INF2 (136) AIFO INFO INF3 INF4 INFR

INF5 (136) AIFO INFO INF6 INF7 INFR

RTO-4 (BR,BS) RTO-4 RTAO-4 RTBO-4

RT5-9 (BR,BS) RTO-4 RTA5-9 RTB5-9

RT10-14 (BS) RT5-9 RTA10-14 RTB10-14

RT15-19 (BS) RT5-9 RTA15-19 RTB15-19

RT20-39 RT20-39 RTA20-39 — SEE TABLE B

(165) (ZTJ) (165) RTB20-39 (ZTK) (ZTK) (ZTK) RTB20-39

PC20-39 PEG20,30 RTP20-39 PRT20-39 PRT20-39 — SEE NOTE 1 — TRAFFIC REG CKT P

TO OTHER COMPLETING MARKERS

(165) RTC2 RTC — MASTER TEST FR CONN CKT — MASTER TEST CONTROL CKT RTFC RTFD -48

TABLE A

| LEADS | CONTACTS a | ON RELAY |
|---|---|---|
| RT 20-24 | 1,3,5,7,9 | RTC2 |
| RT 25-29 | 1,3,5,7,9 | RTC3 |
| RT 30-34 | 1,3,5,7,9 | RTC4 |
| RT 35-39 | 1,3,5,7,9 | RTC5 |

TABLE B

| RELAY | CONTACT b |
|---|---|
| RT 20-24 | 2 |
| RT 25-29 | 11 |
| RT 30-34 | 2 |
| RT 35-39 | 11 |

NOTES:
1. (PEG20) CONTACTS ASSOCIATED WITH DIODES (PC20-29), (PEG30) CONTACTS ASSOCIATED WITH DIODES (PC30-39).

DRAWING ISSUE 450

ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B59B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# FS 81
CALLED NUMBER CONNECTOR

# FS 82
CALLED NUMBER CONNECTOR APPLIQUE FOR USE WITH PBX ALLOTTING

RCD 1148/G7

CMC2 U56B0 · CWC2 U0 106B6 · CKG2 · SOG2 · CNTO · XT · TEA 22A7

U0 U1 U2 U4 U7 · T0 T1 T2 T4 T7 · CMCI · CWC2 · FT 2A1

HN0 HN1 HN2 HN4 HN7 · TH0 TH1 TH2 TH4 TH7 · 10685 HN7

GN · DZ · AIS3 · NR · CWC2 · BLTL · ZVN

ISE · 2SA · 3NA · 7RN · 8SP · 9NP · 4NE · 5ST · 6NT · ZDX · ZDY · ZA · AICI

TO AIS SENDER CONN CKT

OA · OB · PHC · LPA · LPB · THC · LTA · LTB · LEA · LEB · AAN · BAN · APN · BPN · ATN · BTN · AEN · BEN

TO MKR DIST CONT CKT

LT2 · LT3 · DNRA · XII · ITR2 · 4LT · ELT · FVD · ET · LT · LPA · LPB · LTA · LTB · LEA · LEB · LPN · TGSI · TOGI · TRF3 · CMCI

FOREIGN AREA TRANSLATOR CONN. CKT. · DEF3 · GHJ1 · GHJ2 · GHJI · LT4 · FACI

N1 · N2 · N3 · N4 · TRN · NE · NI-3 · FACI N4

LRS · OPO-4 · LLPI · LLP2 · LSC2 · CKG7 · AIS

MKR DIST CONT CKT · KN5 · TO MTFC

NSS0 · NSS1 · NSS2 · NSS3 · NSS4 · NSS5 · ALS0 · ALS1 · ALS2 · ALS3 · ALS4 · ALS5 · XNS · ANON · ALSO,1 · ALS2-5 · LPN · ALNI · ADVA

| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 8D |
| 9D |
| 18 |
| 16B |
| 18D |
| 21D |
| 22D |
| 23A |
| 25D |
| 27A |
| 28D |
| 31D |
| 33D |
| 34A |
| 35D |
| 36A |
| 37D |
| 39D |
| 40A |
| 41D |
| 43D |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-B60

SD-26002-01-B60

# FS 83
NUMBER GROUP SEIZURE

PREFERENCE CONTROL FOR DIR ACS PRT CONN CKT

DIR ACS PRT CONN CKT

NG CONN CKT OR PREFERENCE CONTROL FOR NG CONN CKT

TO CLVA CKT OR TO ETS PWR & DATA INFAC CKT

TO CLVA CKT CR TO ETS PWR & DATA INFAC CKT

TO MTFC OR OT TIC

# FS 84
NUMBER GROUP SEIZURE APPLIQUE FOR USE WITH PBX ALLOTTING

AICS TO PREFERENCE CONTROL AND MB CKT FOR AIS SENDERS

| TABLE A | | |
|---|---|---|
| CROSS CONN TERM. | RELAY CONTACT | |
| | DNG- | P-300 |
| 0 | 1 | 1 |
| 1 | 2 | 2 |
| 2 | 3 | 3 |
| 3 | 4 | 4 |
| 4 | 5 | 5 |
| 5 | 6 | 6 |
| 6 | 7 | 7 |
| 7 | 8 | 8 |
| 8 | 9 | 10 |
| 9 | 10 | 11 |

SEE 63B

COMPLETING MARKER CIRCUIT

SD-26002-01-B61

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

# PART OF FS 85

NUMBER GROUP AND DIRECT ACCESS PRETRANSLATOR CONTROL

SD-26002-01-B62A

COMPLETING MARKER CIRCUIT

SD-26002-01-B62A

BELL TELEPHONE LABORATORIES, INC

DRAWING ISSUE 65B

# PART OF FS 85

NUMBER GROUP AND DIRECT ACCESS PRETRANSLATOR CONTROL

DIRECT ACCESS PRETRANSLATOR CKT

DIRECT ACCESS PRETRANSLATOR CONN CKT

(127) TLT — TLT — TO MTFC
DAC

(CY)

(JJ) DACI — L U — 270 — I
-48
(127) DAC (JJ) 12
(JJ) DACI (SC) LLIA
12 12

(127) DAC — L U — 270 — I
-48
(127) DAC (JJ) 8 — (JJ) DACI 8 — RYT (JJ) 8

MC- — DAC — SNGI 9

(127) TLKP — I
(27) TLK — IL IU
-48
2L 2U — P-700 — S-700
(127) TLK (JJ) DACI · (JJ)
12 11
(127) TLKS — I

ET OT CT — MC- — TLK
CTA
R RT2
-48
ET OT CT — MC- — TLT

(127) TLT — 2U IU — 640

RTI — R — -48 — PTO — MC- — PTM

(127) PTM — 2L IL — 640

TO MKR DIST CONT CKT — NBS — BSN

MCA-A — PSI — MC-
MCA-B — PS2

BSN — (152) WBC1 — ZZP 10 — ZZP

12 THC — 12 PHC — 12 OB — 12 OA

DAPG TO MKR DIST CONT CKT

DAP — (ZCU, ZCV) DAP (JJ) — 190,200

MC0 MC1 MC2

WB — -48 — MC- — WB 1 — (127) MT36 — WB
POTS — -48 — MC- — POTS 6 — (127) MT36 — POTS
CCSA — -48 — MC- — CCSA 5 — (127) MT36 — CCSA
TCC — -48 — MC- — TCC (127) MT36 4 — TCC
TCB — -48 — MC- — TCB (127) MT36 3 — TCB
TCA — -48 — MC- — TCA (127) MT36 2 — TCA

NBS

POTS
CCSA
TCLC KEY — POTS — CCSA
TCLB KEY

DAC — CB0 — (127) MT36 12 — CA0 — (127) MT36 11 — MP0
DAC — CB1 — (127) MT36 10 — CA1 — (127) MT36 9 — MP1
DAC — CB2 — (127) MT36 8 — CA2 — (127) MT36 7 — MP2

MP — TR- — MP- — E

PREFERENCE CONTROL FOR DIRECT ACCESS PRETRANSLATOR CONN CKT

TO OTHER COMPLETING MARKERS

MASTER TEST CONTROL CKT

TO OTHER COMPLETING MARKERS

DRAWING ISSUE

| | | |
|---|---|---|
| 33D | TS | GN AM |
| 37D | RD | |
| 39D | | |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B62B

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

KIMBERLY

SD-26002-01-B62B

# FS 86

NUMBER GROUP AND DIRECT ACCESS PRETRANSLATOR CONTROL.

NUMBER GROUP CKT OR DIRECT ACCESS PRETRANSLATOR CKT

NUMBER GROUP CONN CKT OR DIRECT ACCESS PRETRANSLATOR CONN CKT

HBO-9 PT — CROSS CONN. "PT" TO "PN", "TN", "PTN", "EN", "PNI", "TNI", "PTNI", "ENI" OR "BNK"

PTK TO MKR DIST CONT CKT

PTK TO M.T.F.C.

TO MKR LIST CONT CKT

TO M.T.F.C.

TO AIS SENDER CONN CKT

TRANSFER REGISTER MARKER CONN CKT

ORIGINATING REGISTER MARKER CONN CKT (2W)

ORIGINATING REGISTER MARKER CONN CKT (4W)

INCOMING REGISTER MARKER CONN CKT

TO MTFC OR OT TIC AND TO DAS ETS CKT

AIS CKGT 105 F9

TO MKR DIST CONT CKT

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

DRAWING ISSUE 65B

SD-26002-01-B63

SD-26002-01-B63

# FS 87
NUMBER GROUP CONTROL
APPLIQUE FOR USE WITH PBX HUNTING

PBXI
PBX2
CKO
TRIA
TR2A
SACI
CKR
TO MTFC OR OT TIC AND OT TST CKT
TO M.T.F.C
TO MKR DIST CONT CKT
TO MINI-ROTL INTERFACE CKT
TO OTHER COMPLETING MARKERS
MASTER TEST CONTROL
NUMBER GROUP CKT.
NUMBER GROUP CONN. CKT.
COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
SD-26002-01-B64
6S
65B

DRAWING ISSUE
1
20
118
21D
22D
24D
25D
26A
27A
29A
30D
32A
33D
34A
35D
36A
37D
39D
40A
41D
43D
44A

# FS 88

NUMBER GROUP CONTROL APPLIQUE FOR USE WITH PBX HUNTING

NUMBER GROUP CONN. CKT.

NUMBER GROUP CKT.

64H3 NGC GB SLCK

SLCK U L 270

PBX2 PBX1 SCK

OFK 10

SLCK

PBX2 SLCK -48

SCR L U 400

LA

OAI

ZLD NLA 121 OA

OA 35,000 ± 20%

ZLE ZLE 88 MT21

OFK ZLE

2D MKR 1ST CONT CKT B31

NGB -48

A

UT SCR OTB

OTB 33,000 ± 20%

NGB 70FO

120 TR2D

EG

120 STM 10

LLI 10 EG U L 700

121 PMLL

EG

TO M.T.F.C. EG G 2

MC-

SC

A-

SC-

XC

GRD

CONN. TO "XSC" FOR MORE THAN ONE HUNTING GROUP IN SAME TENS BLOCK, OTHERWISE CONN. TO "GRD"

(SEE SHEET B68) TB00-99

CROSS CONN. TO "A-" FOR HUNTING GROUP IN ONE TENS BLOCK OR FOR LAST TENS BLOCK FOR "BLOCK HUNT" OPERATION OR TO "AT-" FOR LAST TENS BLOCK FOR "BLOCK SELECT" OPERATION

CKT. REQUIRED FOR MORE THAN ONE HUNTING GROUP IN SAME TENS BLOCK

XSC XSC XSC

SU0-9 TBA- U-

TBA TBA- TBA- SCK SCK

CKT. REQUIRED FOR HUNTING GROUP IN TWO OR MORE TENS BLOCK FOR "BLOCK HUNT" OPERATION

A- A-

AD-

CROSS CONN. TO PRECEDING TENS BLOCK "A-"

TA- A-

CROSS CONN. TO SAME TENS BLOCK "TB00-99" FOR TENS BLOCK HAVING MORE THAN ONE HUNTING GROUP

CA- A-

CROSS CONN. TO SAME TENS BLOCK "SC-" FOR INTERMEDIATE AND LAST TENS BLOCK

CKT. REQUIRED FOR HUNTING GROUP IN TWO OR MORE TENS BLOCK FOR "BLOCK SELECT" OPERATION

SB- SA-

CROSS CONN. TO "SC" ASSOC. WITH SAME TENS BLOCK FOR ALL TENS BLOCKS EXCEPT FIRST

E TBT

CROSS CONN. TO "A" ASSOC. WITH SAME TENS BLOCK FOR ALL TENS BLOCKS EXCEPT FIRST

LAST TENS BLOCK

INTERMEDIATE TENS BLOCK

SECOND TENS BLOCK

AS- SA- BA-

SA-

AT- TBT- T-

LA LSA- SA- B-

DRAWING ISSUE

| | |
|---|---|
| 1 | KC, KL |
| 20 | ZEAC — |
| 30D | N.F. |
| 32A | TS CLK |
| DRAWING NEPUN BUSINESS WITHOUT CHANGE 10-1-68 | |
| 41D | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

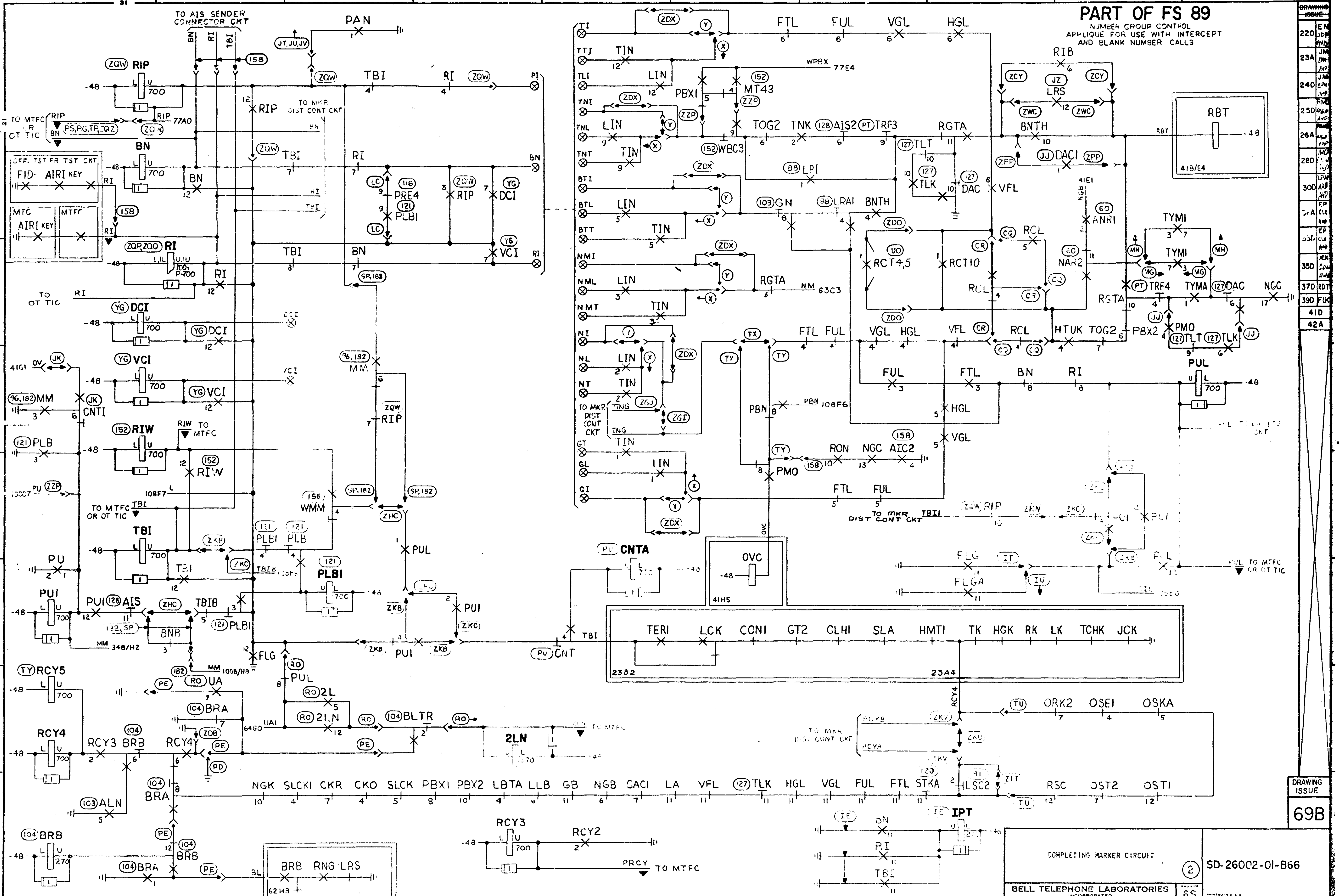
ISSUE 58A

SD-26002-01-B65

SHEET SIZE 6S

# PART OF FS 89

NUMBER GROUP CONTROL
APPLIQUE FOR USE WITH INTERCEPT
AND BLANK NUMBER CALLS




DRAWING ISSUE

| DRAWING ISSUE | |
|---|---|
| 22D | |
| 23A | |
| 24D | |
| 25D | |
| 26A | |
| 28D | |
| 30D | |
| 34A | |
| 35D | |
| 35D | |
| 37D | RDT |
| 39D | FUK |
| 41D | |
| 42A | |

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-B66

BELL TELEPHONE LABORATORIES INCORPORATED

6S

PRINTED IN U.S.A.

# FS 90
HUNDREDS DIGIT
NUMBER GROUP INFORMATION

TO MTFC OR OT TST CKT OR OT TIC

TO MKR DIST CONT CKT

A
GB
PBX2
HBS
SN62
SLCK1
FLG1
TFK2
TFK3
FAC1
MT21
ZIT
MU
MV
K
60
50

TBTA
MT21
LRA
MT23
AIS2
LLP2
ALN
ZIT

CIA
CIO-4
PLBA
LR00-119
RIPA
TBIA
RIA
BNA
VCIA
DCIA
ITNA
ITNB
ITNC
ITND

# FS 91
HUNDREDS DIGIT
NUMBER GROUP INFORMATION
APPLIQUE FOR USE WITH PBX ALLOTTING

ADVA
NANS
AN
NGSK
NGSA
NGSB 61 ANA0-9 HBB0-9
NGSC 61 ANB0-9 HBC0-9
NGSD 61 ANB0-9 HBD0-9
NGSE 61 ANC0,4,5,9 HBE0,4,5,9
NGSF 61 ANC0,4,5,9 HBF0,4,5,9
NGSG 61 AND0,4,5,9 HBG0,4,5,9
NGSH 61 AND0,4,5,9 HBH0,4,5,9

HB9 HB8 HB7 HB6 HB5 HB4 HB3 HB2 HB1 HB0

60
10382 HB0-9 TA

HN2 HN7
HN1 HN7
HN0 HN7
HN2 HN4
HN1 HN4
HN0 HN4
HN1 HN2
HN0 HN2
HN0 HN1
HN4 HN7

73 FAC1 FEI 2L 1L 640
73 FAC1 FEO 2U 1U 540

0H8 LHB 64D8 SPT

MC-
SA
A
HBA
HBS
HBO-9
TBA-

PROVIDED ONLY WHERE MORE THAN ONE HUNTING GROUP IN SAME TENS BLOCK

CROSS CONN. "HBO-9" TO "HBA" FOR INTERMEDIATE AND LAST TENS BLOCK FOR BLOCK HUNT OPERATION OR TO "HBS" FOR INTERMEDIATE AND LAST TENS BLOCK FOR BLOCK SELECT OPERATION.

TO MTFC OR OT TST CKT OR OT TIC

NUMBER GROUP CONN. CKT.
NUMBER GROUP CKT.
DIRECT ACCESS PRETRANSLATOR CONN CKT
DIRECT ACCESS PRETRANSLATOR CKT
HBO-9

DRAWING ISSUE
1 JFL
20 MWF
90 PO
11B PO
18D A
21D CB
22D CB
23A CB
25D CB B
30D C
31D CB
32A CB
33D C
34A C
35D S
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68
D
E
F
G
H

DRAWING ISSUE
59B

COMPLETING MARKER CIRCUIT
SD-26002-01-B67
BELL TELEPHONE LABORATORIES, INC
2
6S

SD-26002-01-B67

B56 TO MKR DIST CONT CKT

TBS (M) SNG2 RNG BNTH TBW (L U) SLCK1 PN EN TN PTN

-48 — 2 — 2 — 3 — 4.4±15% — 8 — 5 — 6 — 6 — 6

CONT. #3 CM MKR #C

(GY) (73) FAC1 2 (GY)

TBS 33,000 ±20% 4 TBS

(MV) (88) MT21 (MV) (MU) (ZIT) (MV) (K) (K) (60)

TO MTFC OR OT TST CKT OR OT T/C — TBUA

## FS 92
TENS DIGIT NUMBER GROUP INFORMATION

(89) LR00-119 2 — LR00-119 TB

(121) PLBA 2 — PLB TB

(Z0W) RIPA 2 — RIP TB

(137) CIA 2 — (137) CIO-4 2 — CIO-4 TB

(128) MT23 3 — TBIA 2 — TBI TB

(88) MT21 1 — RIA 2 — RI TB

(88) LRA 2 — BNA 2 — BN TB

(128) AIS2 3 — (YG) VCIA 2 — VC TB

(88) LLP2 2 — (YG) DCIA 2 — DC TB

(2IT) 10 — (5M) ITNA 2 — INA TB

(103) ALN0-59 — (5M) ITNB 2 — INB TB

(169) ITNC 2 — INC TB

(169) ITND 2 — IND TB

TO MTFC OR OT TST CKT OR OT T/C

## FS 93
TENS DIGIT NUMBER GROUP INFORMATION APPLIQUE FOR USE WITH PBX ALLOTTING.

ADVA 3

NANS 3 — AN 4

NGSK 3

NGSA 3

(61) NGSB 3 — ANAO-9 3 — TNBO-9 (6M)

(61) NGSC 3 — ANBO-9 5 — TNCO-9 (6M)

(61) NGSD 3 — ANBC-9 12 — TNDO-9 (6M)

(61) NGSE 3 — ANCO,4,5,9 3 — TNE 0,4,5,9 (6M)

(61) NGSF 3 — ANCO,4,5,9 12 — TNF 0,4,5,9 (6M)

(61) NGSG 3 — ANDO,4,5,9 3 — TNG 0,4,5,9 (6M)

(61) NGSH 3 — ANDO,4,5,9 12 — TNH 0,4,5,9 (6M)

TB9 TB9 / TB8 TB8 / TB7 TB7 / TB6 TB6 / TB5 TB5 / TB4 TB4 / TB3 TB3 / TB2 TB2 / TB1 TB1 / TB0 TB0

(60)

T2 / T7 — T1 / T7 — T0 / T7 — T2 / T4 — T1 / T4 — T0 / T4 — T1 / T2 — T0 / T2 — T0 / T1 — T4 / T7

TB9 TB8 TB7 TB6 TB5 TB4 TB3 TB2 TB1 TB0

T9 T8 T7 T6 T5 T4 T3 T2 T1 T0

TB0-9 — MC- — HB0-9 — TB00-99 — TB00-99

TBS-

NUMBER GROUP CONN. CKT.

NUMBER GROUP CKT.

CROSS CONN. TO "SC"-"TBA" SEE SHEET B65 FOR CROSS CONN. INFORMATION

DIRECT ACCESS PRETRANSLATOR CONN CKT — MC-

DIRECT ACCESS PRETRANSLATOR CKT — TB0-9

(GY) (73) FAC1 9 — (GY) FF1 2L IL 64.0

| DRAWING ISSUAL | |
|---|---|
| 1 | |
| 2D | |
| 9D | |
| 11B | |
| 18D | |
| 21D | |
| 22D | |
| 23A | |
| 25D | |
| 30D | |
| 31D | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 39D | |

DRAWING ISSUE 59B

COMPLETING MARKER CIRCUIT

SD-26002-01-B68

BELL TELEPHONE LABORATORIES, INC

1 SHT 6S

SD-26002-01-B68

FS94
UNITS DIGIT
NUMBER GROUP INFORMATION

(60) FS95
UNITS DIGIT
NUMBER GROUP INFORMATION
FOR USE WITH
PBX ALLOTTING

(120) SCAL
(121) PMLL
LC
LB
NGC
TYMA
PBX2
AK
A
SACI
GB
U L
700

TRIA
TR2A
NGC
UA
2LN
SAK
REY2
270

USS
GB
CKR
NLA
UT
SACI
RNH
TO MKR DIST CONT CKT

AIS2
LLP2
ALN
47A4

MT21
ADVA
NANS
AN
NGSK
ANS
AHG
NGSA
LRA

U2 U7 TR2A U9
U1 U7 TR2A U8
U0 U7 TR2A U7
U2 U4 TR2A U6
U1 U4 TR2A U5
U0 U4 TR2A U4
U1 U2 TR2A U3
U0 U2 TR2A U2
U0 U1 TR2A U1
U4 U7 TR2A U0

UC TRIA SA9 SA9 U9
UC TRIA SA8 SA8 U8
UC TRIA SA7 SA7 U7
UC TRIA SA6 SA6 U6
UC TRIA SA5 SA5 U5
UC TRIA SA4 SA4 U4
UC TRIA SA3 SA3 U3
UC TRIA SA2 SA2 U2
UC TRIA SA1 SA1 U1
UC TRIA SA0 SA0 U0

TO M.T.F. OR OTTIC

RIPA
CIA
CIO-4
ITNC
ITND
VCIA
DCIA
PLBA
TBIA
RIA
BNA
ITNA
ITNB

UA
2LN
RCY4 RCY2 (RO,ZXR)
RCY4 12:B/F5

NUMBER GROUP CONN CKT OR DIRECT ACCESS PRETRANSLATOR CONN CKT
MC-
NUMBER GROUP CKT OR DIRECT ACCESS PRETRANSLATOR CKT
U0-9

DRAWING ISSUE
1
20
90
118
180
210 SGB LDP RHD GEL LBW THD NRS
240 EPM AND
250 EN AND AND
300 LPM AND AND
330 EP CLK AND
350 JEK GDL AND
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68
410
430

DRAWING ISSUE
59B

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
SD-26002-01-869
2
6S

SD-26002-01-869

0 1 2 3 4 5 6 7 8 9

NO. GR CONN CKT OR DIR ACC PRT CONN CKT OR AIS SDR CONN CKT

NO. GR CKT OR DIR ACC PRT CKT OR AIS SDR CONN CKT

FS 96
NUMBER GROUP TRANSLATION.

WL SNG2 5 NGKI 11 WL MC- WL UO-9 TB00-99 L LL- FT FTO-5 MC- FTO-5 FTNO-3 (ZE) FTN4,5 FTNO-5 FUNO-9 FTN-, FUN- -48 MKR DIST CONT CKT

BS8 BS9 BS10 TO MKR DIST CONT CKT

FU FUO-9 MC- FUO-9 FUNO-9 7-P+8 90

WG SNG2 4 NGKI 10 WG MC- WG UO-9 TB00-99 G VHG- HG HGO-9 MC- HGO-9 HGNO-9 7-P+8 90

VG VGO-11 MC- VGO-11 VGNO-11 7-P+8 90

TRC 7-P+8 90

WF SNG2 3 NGKI 8 WF MC- WF SCK UO-9 TB00-99 F ERNO-4 ERRC LLPX MC- LLPX (EV) LLPX 7-P+8 90

6 (121) XSCA

TO XSC MTFC XSC MC- XSC XSC

ERVF WHEN UY OPTION IS FURNISHED IN MARKER

TN- TNRC TNK MC- TNK LLPX TNK RCI-15 TO CLVA CKT

RF- RC RCI-15 MC- RCI-15 RCNI-15 7-P+8 90

RFTN- TNVF

VF VFO-4 MC- VFO-4 RCI-15 TRC LLPX TO ETS PDI KT

RCNI-15

VFNO-4 (158) AIC2 7-P+8 90

RCT9 (PSTK LM,ZON) RCT8 6 6 (G) VFNO-4

PBN PMO (T7)

AIS 9 (128) FNA U L 700 -48

CONNECTIONS FOR SPECIAL TREATMENT

FREE NUMBERS

L LL- G VHG- F FN FNR RF FN

FN FN FNA FNB MC- FNA FNB

FNA TO MKR DIST CONT CKT

FNB U L 700 -48 TO MTFC OR OT TIC

FNB FN TO DAS OR DAS ETS OR CDT APPL

SNG1 7 (DM) (DM) FNB FNA FN MC- FN FN (DL) 2 2 (40) 10 FN CA 28B/E9 (ZNY) R FN -48

OVERFLOW FOR NON HUNTING NUMBERS

L LL F RF G G VH VHG OF POF PBX NO'S. OF OFK MC- OFK LB 7 OFK U L 2500 -48

12 FNB (CIJ) FN 5 (CIJ) 11 FNA 11 FNB (ZDO) (40) FN U L 700 -48 (30) RCT9 5 (ZDO)

12 FNA 6 CKGS

NGB -48 NGB NGS HG OFK 11 L MC- L OF

65EO

TNK U L 700 -48 1

PERMANENT BUSY & PERM. OVERFLOW

L G F OMIT LL VHG PMO MC- PMO PMO PBN

PBN MC- PBN PBN

12 PBN FG NGB

TO MARKER OUTPUT CONTROL CKT

OFK OFK 250 -48 (ZKF) OFK TO ETS PDI CKT

PMO PBN PMO U L 1175 1

PBN U L 700 LLI 8 1

TO COMPUTER LINE VERIFICATION ACCESS OT OR TO ETS PDI CKT

77GO TNK TRN RCL LLI RCL -48 MKR DIST CONT CKT

PMO, PBN -48

TNK 29 (160) WC2 9 (160) ZLW (ZLW) ZLX,ZLY (ZLX,ZLY) ZBA (RE) SPL2 (ZIM) (128) AI53 (ZTA) TNK RCT1 77E5 ZLX,ZLY (ZBA) (ZBA) (ZBA)

DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 20 | 612 |
| 50 | 1AH AND |
| 108 | ACF JEN |
| 118 | HYM PCH |
| 180 | PCH 2Y |
| 210 | UTC COM AND |
| 220 | CEL LBN AND |
| 250 | EN GND AND |
| 300 | EM PWR AND |
| 330 | EP CLK AND |
| 34A | PWR GDL AND |
| 35D | PWR GDL AND |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

41D
43D
45D

ISSUE 69B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-B70

BELL TELEPHONE LABORATORIES, INC. SIZE 8S

FS97
PBX HUNTING

TO OTHER MARKERS
SLB TO MASTER TST CONTROL CKT AND/OR ROTL REG CKT
(ZZP) SLB TO TRK TST REG (WB)
(ZFX) SLB TO MINI-ROTL INTERFACE CKT

APTT CKT MCL2 LLPC

SA9 SA8 SA7 SA6 SA5 SA4 SA3 SA2 SA1 SA0
NGC GB 2LN 2L MT22 SAC SL9 SL8 SL7 SL6 SL5 SL4 SL3 SL2 SL1 SL0
2LA 2L9 2L8 2L7 2L6 2L5 2L4 2L3 2L2 2L1 2L0
MT10 MT19 MT22 30,500 ±5% 4,9
S9 S8 S7 S6 S5 S4 S3 S2 S1 S0

SAE NLA SAE-9 2LN 2L UL 10565
TO MTFC OR OT TST CKT OR OT TIC

2LH 2LA 2L SPL2 SPH UA NH NT MT15 POTS
MASTER TEST FRAME CONNECTOR CKT MC-
MASTER TEST CONTROL CKT
KTBS LINE VERIFICATION
LLIA
105C4

NUMBER GR CONN CKT MC-
NUMBER GR CKT SC NS-
LINE LINK CKT LINE HOLD MAGNET LS-
LINE CKT SL F D
SCR GR BUSY CKT

MT20 MT19 MT10 CBLK TO OT TST CKT
TO CLVA OR TO ETS PWR & DATA INFAC CKT
TO MKRS 0 & 1
TO ROTL MT10 REG CKT
TO OTHER MKRS. MULT TO MARKERS 0,1
TO TRK TEST REG WIDE BAND
TO OT TST CKT

MASTER TEST CONTROL CKT
VER6 KVG3 PBX LINE SLEEVE VERIFICATION
VER6 LV2
MKT1 CONTROLS PBX HUNTING PBXH KEY
EBH KEY CONTROLS END OF BLOCK HUNTING
MCL1 LLP APTT CKT

CLOCK (CIBR) TB50 RNB13 P.10586

DRAWING ISSUE
2D 22D 24D 25D 26A 28D 30D 31D 33D 39D RP 43D
DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
SD-26002-01-B71
2 6S

# FS98
NUMBER GROUP CONTROL CKT.
APPLIQUE FOR USE WITH
ALLOTTED PBX HUNTING

# FS 99
PBX ALLOTTER CONTROL

NARI
NAR2
TYMB
TYMA
TYMI
NGKI
UK
ANRI
NGSK
AHG
ANR2
ANS
ZKC
RCY4
ZKB
RCY2
ZFQ
RV2
ZFP
TO MKR DIST RCY2 CONT CKT
ANR
64E1
64H2
NARI EG GB NGC
ANR ANRI CKGG
CTTL DZ LRS MM
RCT3
LRA
RAV3
PLB
BLTR
ANON
ANT
ADVA
TFK2
TER4
TFK3
218/G8
ANA0,4 ANBC,4 ANC0,4 AND0,4
ANA1-3 ANB1-3
ANA5,9 ANB5,9 ANC5,9 AND5,9
ANA6-8 ANB6-8
NANS
4NG, 8NG
AHG
ANR2
AN-
MC-
NUMBER GROUP CKT.
NUMBER GROUP CONN. CKT.
ANK
APTT CKT
NGS7 MCL2
NGS4
MASTER TEST CONTROL CKT.
NGT
TNGA
TO OTHER CKTS. ENGINEERS
MT21
MT12
MT5E
TNA
TO OT TST CKT
TO REMOTE OFFICE TEST LINE REGISTER CKT
TO MINI-ROTL INTERFACE CKT
XAN
AND0,4,5,9 ANC0,4,5,9 ANB0-9 ANA0-9
ANK0-9
2260 ±5%
COX
87E0
XAH
AIS
TR2B
SPL
WBC3
PBXI
AHG
ANON
ADVA
OVFO-9
TRAFFIC REGISTER CKT.
AB
TNA
TO SIMILAR NUMBERED LEADS ASSOC. WITH OTHER MKRS. IN THE SAME MKR. GROUP

DRAWING ISSUE: 1, 2D, 3D, 10B, 11B, 22D, 25D, 26A, 27A, 28D, 29A, 30D, 32A, 33D, 34A, 35D, 39D, 41D, 43D, 65B

COMPLETING MARKER CIRCUIT

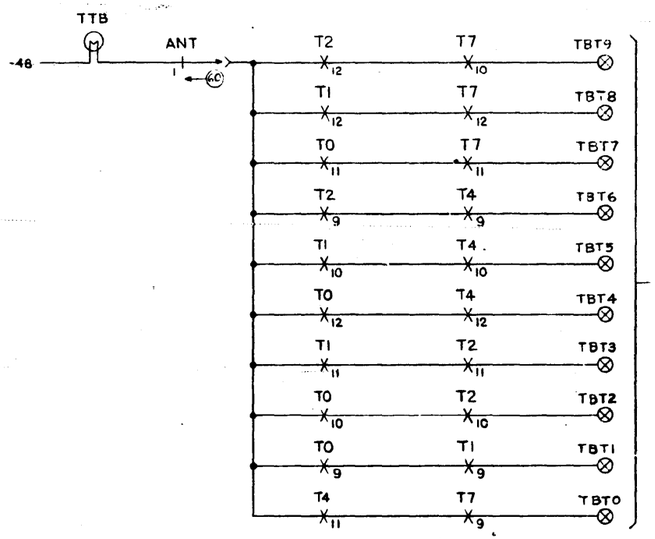
SD-26002-01-B72

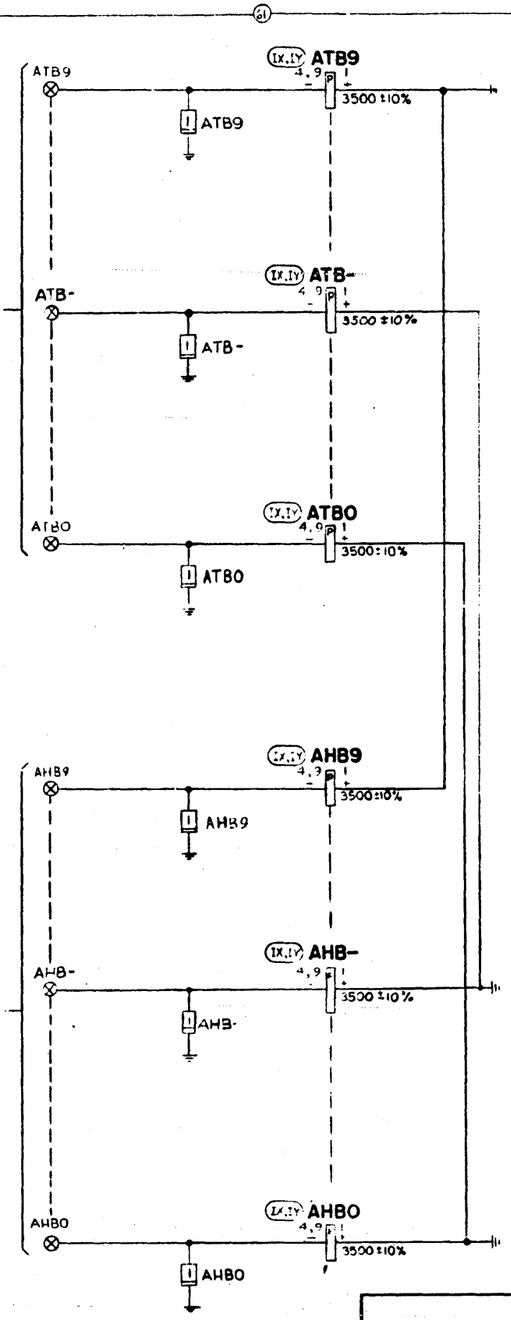
BELL TELEPHONE LABORATORIES, INC

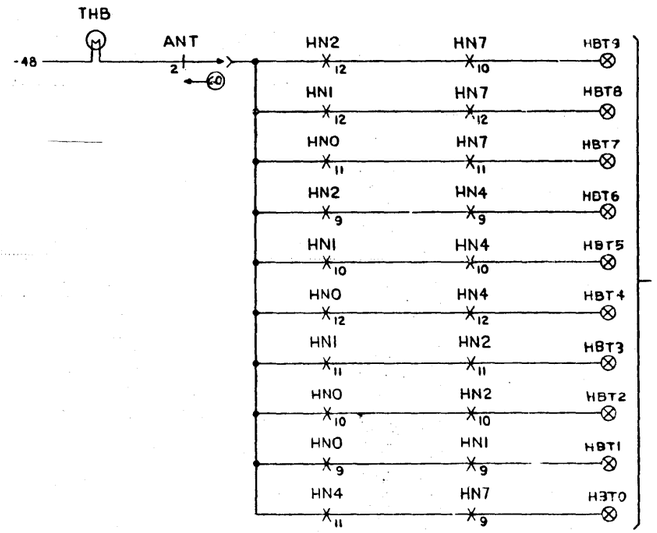
6S

# FS 100

PBX ALLOTTER IDENTIFIER
HUNDREDS AND TENS DIGIT IDENTIFIER



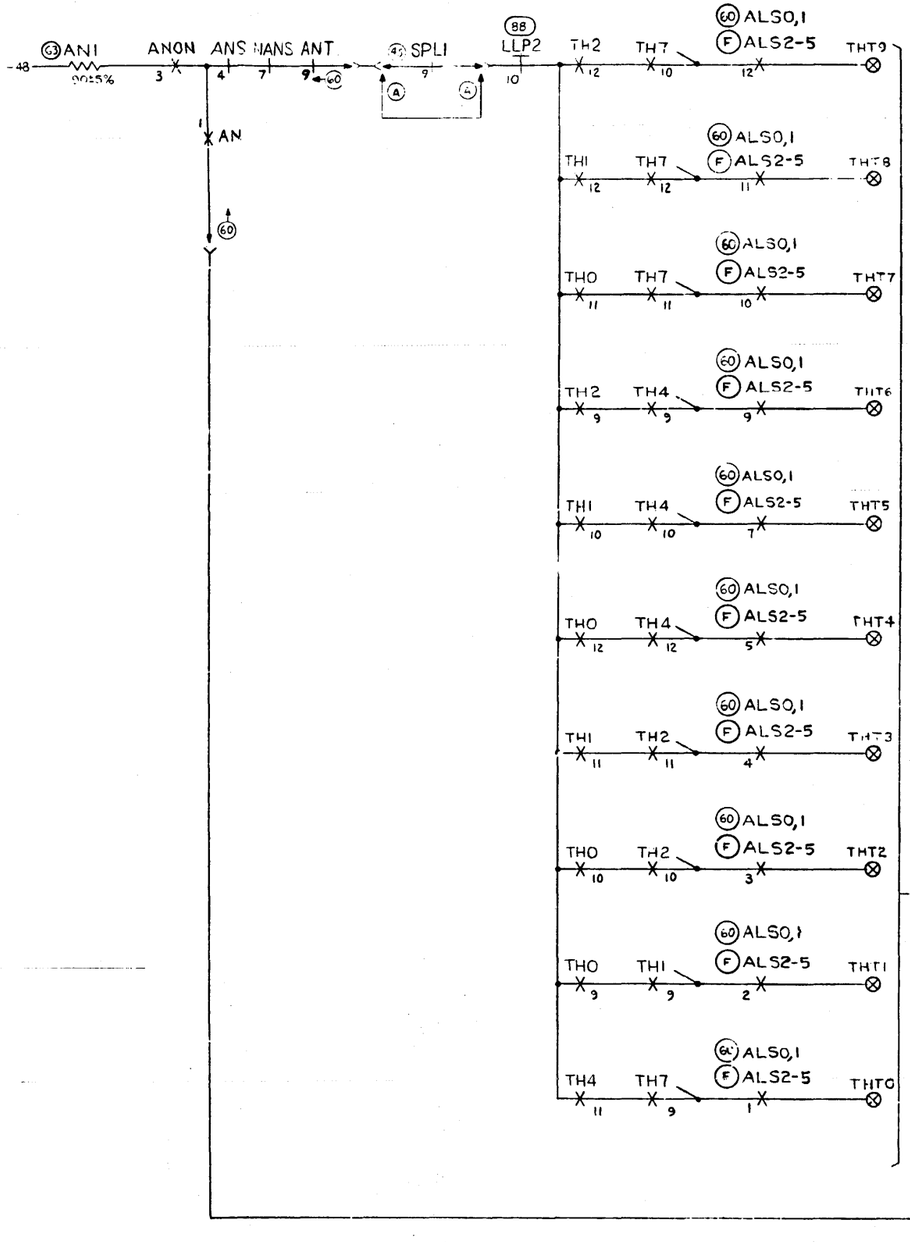



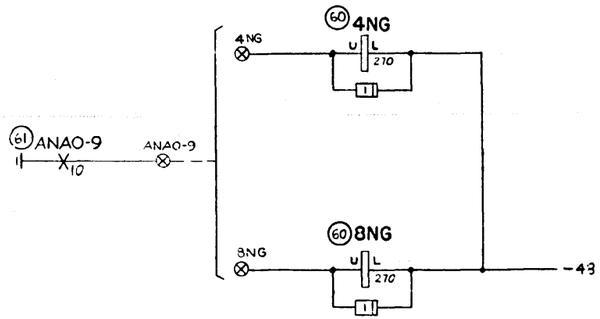

DRAWING ISSUE 1
20 TRUNK
330 TS CLK 4MP

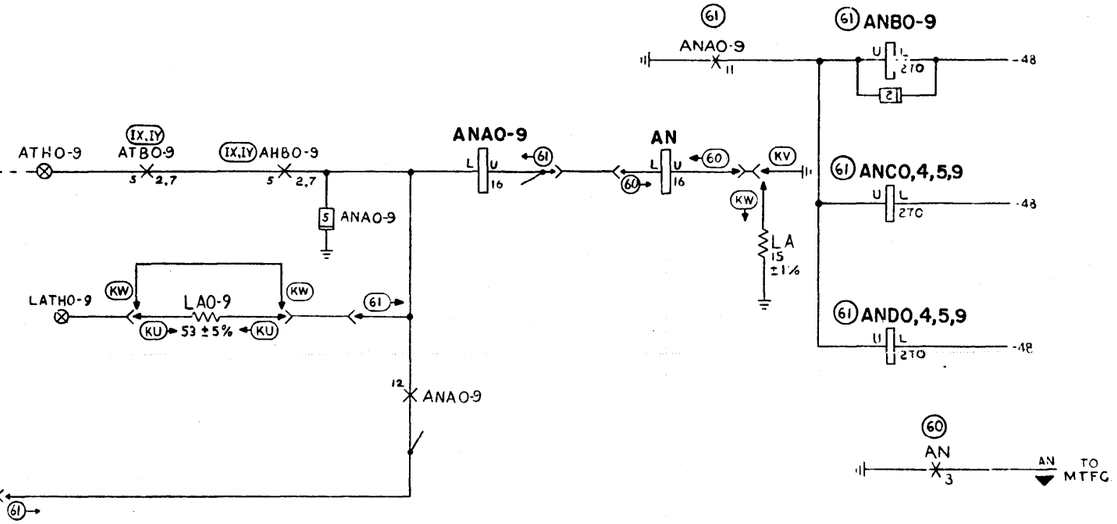
COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
2
6S
SD-26002-01-873
33

# FS 101

PBX ALLOTTER IDENTIFIER
THOUSANDS DIGIT IDENTIFIER




| DRAWING ISSUE | |
|---|---|
| 1 | |
| 2D | ALC |
| 4A | MCH MLS. |
| 11B | SWBD JEM |
| 22D | ELN LBW A-D |
| 29A | NLF AND |
| 330 | TS ELK AMP |
| 390 | RP |
| 410 | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

6S

41

SD-26002-01-B74

(60) FS 102

PBX ALLOTTER BUSY TEST

NUMBER GROUP CKT.

-48 — AB- 240 — ABT — H- — C- — TBT — D- — C- — TBT — D- — AN-

AN-

TO NO. GROUP 00-39 (ONE SET OF LEADS PER NO. GROUP EQUIPPED WITH PBX ALLOTTER)

COMP MKRS TO OTHER PBX ALLOTTER FRAME FOR SAME MKR GROUP

AN0 — AN0
AN2 — AN2
AN4 — AN4

NGA0-9 — (61) ANA0-9 — TNA (IX,IY) NGTA 4,9 — 3500±10%
NGB0-9 — (61) ANA0-9 — TNA (IX,IY) NGTB 4,9 — 3500±10%
NGC0-9 — (61) ANB0-9 — TNA (IX,IY) NGTC 4,9 — 3500±10%
NGD0-9 — (61) ANB0-9 — TNA (IX,IY) NGTD 4,9 — 3500±10%
NGE0,4,5,9 — ANC0 4,5,9 — TNA (IX,IY) NGTE 4,9 — 3500±10%
NGF0,4,5,9 — ANC0 4,5,9 — TNA (IX,IY) NGTF 4,9 — 3500±10%
NGG0,4,5,9 — AND0 4,5,9 — TNA (IX,IY) NGTG 4,9 — 3500±10%
NGH0,4,5,9 — AND0 4,5,9 — TNA (IX,IY) NGTH 4,9 — 3500±10%

NGTA — NGTA
NGTB — NGTB
NGTC — NGTC
NGTD — NGTD
NGTE — NGTE
NGTF — NGTF
NGTG — NGTG
NGTH — NGTH

TO OT TST CKT

TO SAME LEADS ASSOCIATED WITH OTHER MARKERS

TO MINI-ROTL INTERFACE CKT — NGTA-H (ZFX)

TO REMOTE OFFICE TEST LINE REGISTER CKT — NGTA-H (ZLR)

-48 — NAN 226 — NNG

-48 — NGT — NGT — NGA-H KEY — NGT — NGTA-H

MASTER TEST CONTROL CKT.

APTT CKT

-48 — NGS 226 — NGS- — NGS- — MCL2 — NGTA-H (OP)

| DRAWING ISSUE | |
|---|---|
| 1 | |
| 20 | ACC — |
| 30 | G.S. M.A.S. |
| 4A | NEW M.A.S. |
| 25D | RLP 2WD AND |
| 28D | KEY M.W. AND |
| 31D | NE KMR AND |
| 33D | TS CLK 2WD |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-B75

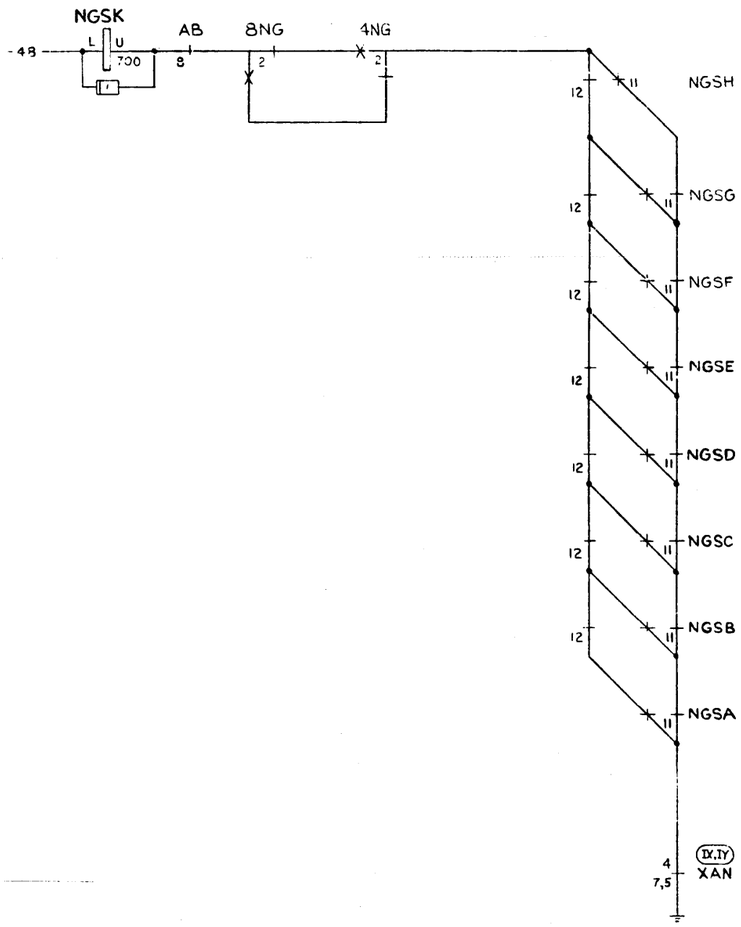
BELL TELEPHONE LABORATORIES, INC.

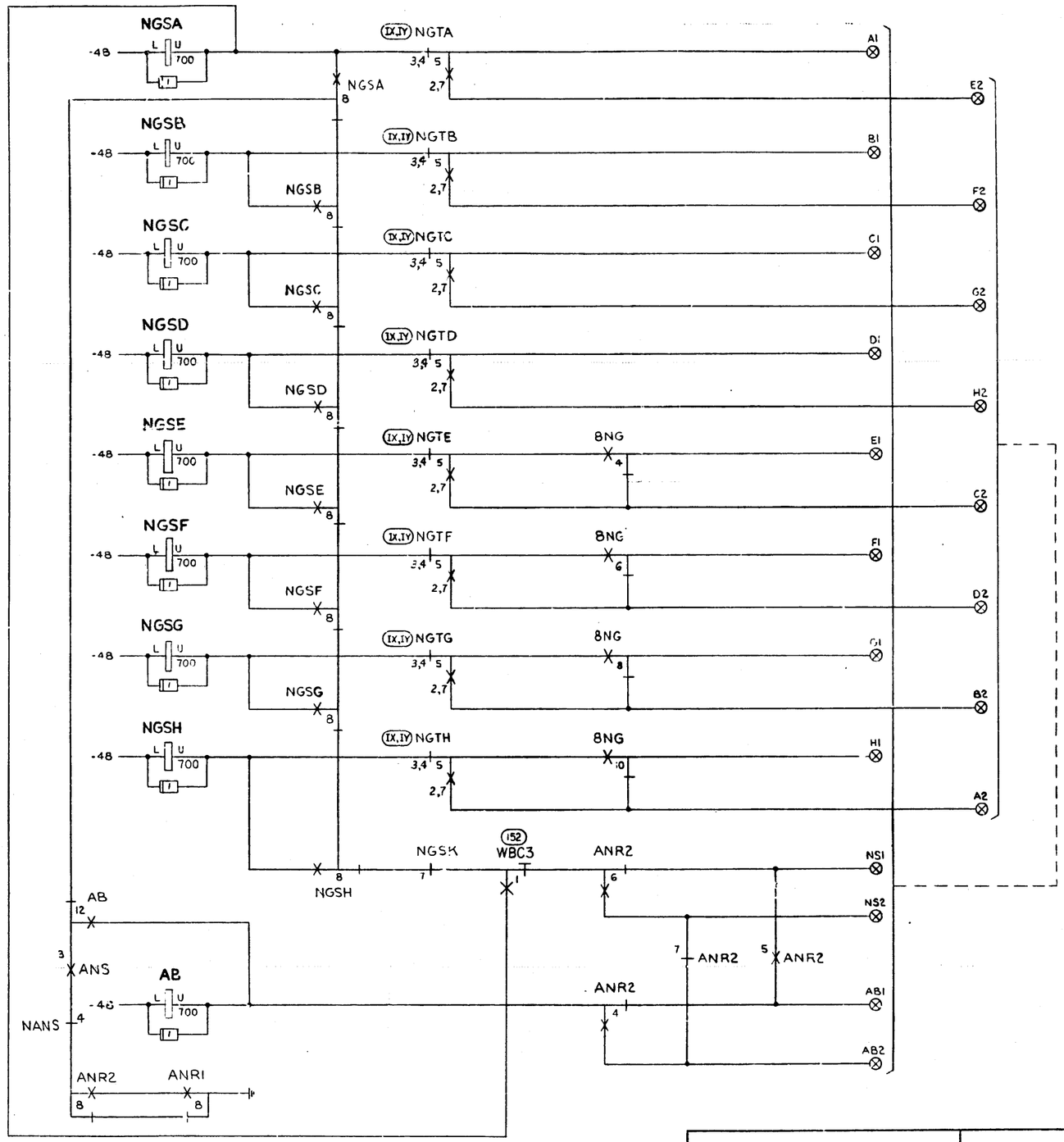
ISSUE 65B

26002-01-B75

# ⊛FS 103

PBX ALLOTTER NUMBER GROUP SELECTION




| DRAWING ISSUE |
|---|
| 1 |
| 33D TS CLK AND |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 |
| 41D |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

41

SD-26002-01-B76

2

65

# PART OF FS 104

RINGING SWITCH CONTROL

RIP -48 RIP 66A1

TO MTFC IRS MT15 RG

RCT9 L U 270 I 12

TO MTFC OR OT TIC AND TO MKR DIST CONT CKT

RCT2,3 RCT12-15 L U 270 I 12

RCT4,5 L U 270 I 12

TO ETS POWER AND DATA INTERFACE CKT RCL RC

PS,TK,UM,ZDN ZDO

RCT6-8 RCT11 L U 270 I 12

RCT1 L U 270 I 12

66A6 WPBX ZZP

RCT1 70H1 121 RCT1 121 RCT10 116B7

RCT10 L U 270 I 12 MT1 12 160 CWK 8

TO MTFC OR OT TIC RCT10 HF

92E6 HF

TRUNK CKT HF F -48 TRUNK LINK & CONN CKT MC- HF

68 CMC3 7 IS RE SPL2 5 IS NTL 9 P I 30.5kΩ ZXW ZXX TRSA 8

IR 5 129 LOLD IS

TO MTFC PBX 129 RCT10 11 ZKD 2LH 3 ZKC SLCKI 12

TO ETS PWR & DATA INFAC CKT LOLC 107B4 LTU

129 LOLC 1U 2U 640 -48 I ZQK ZQL 2G3 1 9

LC LOLA 338/A4

RNATN 86 TBSO-3 10

RNA15 86 TBSO-3 9 RCN15

RNA14 8 RCN14

RNA13 7 RCN13

RNA12 6 RCN12

RNA9 5 RCN9

RNA8 21 RCN8

RNA5 4 RCN5

RNA4 3 RCN4

RNA3 2 RCN3

RNA2 1 RCN2

105A7-C7 TRC UZ TRC 1 3 2 TH RGTA 2 PTK 2

RCN9 TE TF 2 3 1

RCN2,3 RCN12-15 TE TF 2 3 1

RCN4,5 TE TF 2 3 1

RCN8 105E4 POTS TF ZSY ZSZ TE 2 3 1

ZSZ ZSX

RCN6,7 RCN11 TE TF 2 3 1

RCN1 E TF 2 3 1

RCN10 TE TF 2 3 1

ZQK ZQL 129 LOLC 8

105G1 LL ZSV ZSW EV

EU REH2 2 1 REH1 REH

FNA TC FNK 10 ZKC

TO MKR DIST CONT CKT

120 TR2D 4 RCL 7 81 TOG4 3 125 STS5 2 120 STLO 2

SC XRC 2 RGTA 4 LLI 6 JJ DACI 4 127 TLK 4 RGTA 5 RV 5 45 NH 10 45 NT 3

RCL 12 PBXA 1 LGT 3

70E9 TNK 12 TNK 128 AISI 1 TRN 16

OAT 10 TNK 1 ZKI SC RCT14 6

RCT1-4 RCT6-9 RCT11-13,15 4

SC XRC -48 IL IU P-360 105H5 XRC UN RCT5 4 UO RCT5 4 RCT10 3 SC

PS,TK,UM,ZDN PS,TK,UM,ZDN

120 2WG 11 120 4WF 12 NH 116E6 H 120 4WF 5 120 2WG 10

ISSUE 69B

COMPLETING MARKER CIRCUIT

SD-26002-01-B77

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF FS 105

RINGING SWITCH OPERATE

RINGING SELECTION SWITCH CKT

TRUNK LINK CONN CKT

SELO,I LV MC- RSO,I FLG ONX RSK XRSI -48 90±5%

RSO,I 6 RSM0,I 3 RV3 9 1 4 12 RSA 3

XRSI RBI 2RT 0.86

SEL2-4 LV MC- RS2-4 FLG ONX XRS2 -48 90±5%

RS2-4 6 RSM2-4 3 RV3 10 2 5 RSB 3

SEL5-9 LV MC- RS5-9 6 RSM5-9 3

XRS2 RBI 2RT 0.86

SELO-9 LV MC- RSK -48

RSK U L 700 1

RS2 4 ONX 2 NRS 4 (81)

RS6 10

RS9 10

RSK TO MTFC OR OT TIC

IDN 4

ZOG ZOD ZOG ZOG

152 WBC3 6

TNK 4 RCTIO 2 PS 8 ZXK INI

102 DTFI 6 86 TTL 5

PS PR, ZEX PS LDN 1

RCTI-6,8 2 OV 9 LQ DIRA 9

RSO XRS3 U L 700 IU IL P-8 -48

RSO 1 XRS3 .01

UO RCT9 2 ZDO ZDO

PS PS DATI 11 PS

RSI U L 700 RSI 11

RCT7,11-15 2

RCT9 2 PS,TK,UM,ZDN PS,TK,UM,ZDN

TO MTFC OR OT TIC

FNB 10

BNB 10

RIB 10

TBIB 10

121 PLB 10 DP DQ TIN 10 LIN 11 L ID

BNB PLB LIN 10 TIN 11 C RIB

TBH 12 TBIB

128 AIS 7

158 AIC2 11

T

YG DCI 10 DCA

YG VCI 10 VCA

BY 10 OFH 2

129 LOLA 4

129 LOLC 8

ZQL ZQL ZMZ

LQ DIRA 10 OV 10

KA OFH 1 KA

KB KB

115E6 LIK PS,QU KB 1 OFH

ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B78A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF FS 105

RINGING SWITCH OPERATE

MKR DIST CONT CKT

LLI

BRG

SNG2

RCL

IMMEDIATE RING CONTROL CKT

BSI-3

XG

-48

ALM

BRI-3

CIR

TO MTC

TO OTHER COMPLETING MARKERS

MT41

BRG

BRI

BR2

BR3

BRG

BRI-3

CIR

TIR

RS2

RS3

RS4

RS5

RS6

RS7

RS8

RS9

XRS4

BR,BS RTC

TO MTFC OR OT TIC

158 AIC2

LC

TM CSW

ZOP

NRG

TIR RIR BIR IRG

RCL

NRS

PML

LNP

TBH

TBIB RIB BNB

LQ DIRA OV BY

120 2WG

48/E4 TI ZXS

TO MTC,TRK TEST REG.WIDEBAND

SEE NOTE 1

MT27

ZZP,ZZY

RV3

SC LLIA

ZZY ZZP

ZOO ZBF

ZUI,ZVH

ZZZ ZDC

JJ DACI

TU LSCI

TK LDN

FNB FNA

TU,JJ,158 LKI

TU,JJ

TCH

FNA FNB

J G

OZ RCL OY

139 ATT2

MB MT27

ZUH

160 MT55

SWC SW

TO OT TST

CSW TO MTFC

ZUH CSW TO OT TST

ZLI CSW TO OT TIC

RCT2,12

RCT3,13

RCT4,14

RCT5,15

RCT1,11

RCT6,7

RCT8

RCT9

RCT10

152 WBC3

TNK

UO

ZDO

EA

ZKB

ZKC

ZKN

RS6

RS9

MKR DIST CONT CKT

T3

RV3

129 LOLC

LOLA

138

130

LCH

ZDO TCH

PS,TK,UM,ZDN

PT

PW

UO

ROA

TRF

DTF2 114

OFH

UN

UM

PS

QU

QU,PS

LBK 115E6

OV -48 TF

ME

OV

INCOMING TRK CKT

TRK LINK CONN CKT

PW RO PW

PT TRFI

PT ATT

TO MTFC OVK

PT OVK

P-29

S-950 ±2%

PT TRFI

PT RDO

PT OVKI

PT OVK2 2.10±1%

PT CDN

NOTES:

1. MULT TO ALL WS COMPLETING MARKERS WHEN FIG 133 (SPL) IS PROVIDED. OTHERWISE MULT TO MARKERS 0,1.

COMPLETING MARKER CIRCUIT

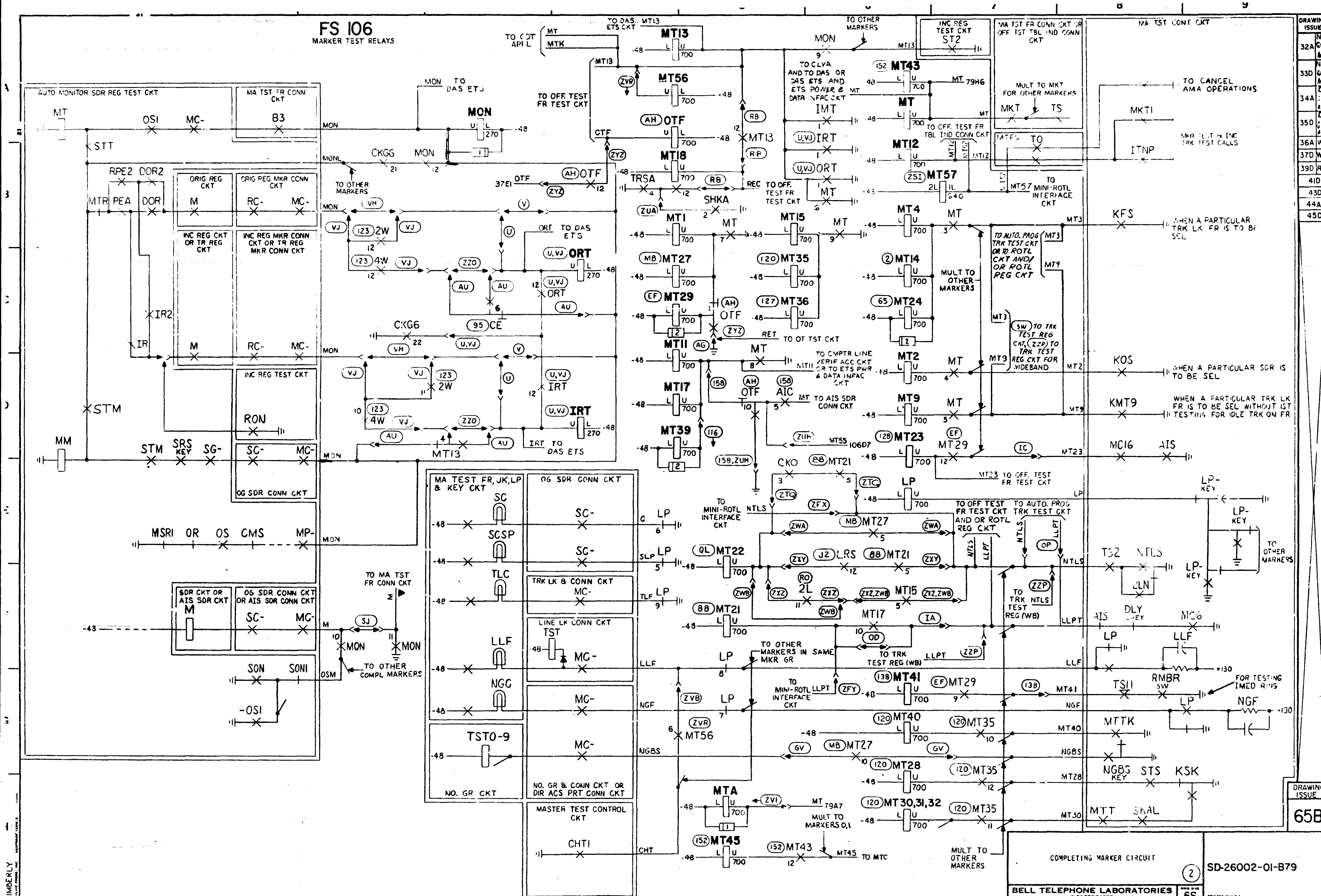
(2)

SD-26002-01-B788

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

ISSUE 69B




COMPLETING MARKER CIRCUIT

(2) SD-26002-01-B79

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

PRINTED IN U.S.A.

KIMBERLY

MTFC OR OT TIC

MTC
SD-25800-01-B10A

FS 107
MASTER TEST CONTROL OPERATION

MT17 MT1 ZWX ZWW MT12 ZVX MT2 MT4 MT14 ZJ,TA MT24 MT9 ZY MT10 MTK TO DAS-ETS CK MT8 MT8A MT42 EZ ZDV 130 MT38 ARTC MT38K

MT7K MT1K MT2K MT3K MT9K MT10K MT4K MT8K

T- TO OT TIC T0 T0 T1 T1 T0 C2 T1 B5

ITNP KCS OSS KEY FS KEY NTFS KEY TKS EBH KEY PBXH KEY MKT2 NTC FI KCH KJSQ JS KEY NTTS KEY NT8 INH KEY KJSQ TSST JSQ KEY JSQ KEY MT8K MT8K MT8K -45 KCH MC MCFI FAB KEY FAA KEY MTK MC

MT5K MT6K 146 146

TFA TFA

F.A.T. CONN FOR AREAS 4,5,6

F.A.T. CONN FOR AREAS 1,2,3

FIRST MKR INTER. MKR LAST MKR

MT42 MT3 MT6K MT5K MT42 MT3 MT6K MT5K MT42 MT3

TRST TRTR TRBI TRSA TST -48 226

MPR MPR

MTP MKB1 MKB MKT MKA RON EXG EXB

MKB -48 MKT -48 MKA -48 RON ONE SET OF CONTACTS FOR EACH MKR.

CI MPR MON CI EXB R5 EX CI

TRRI CI AUTO. MON. REG. AND SDR. CKT.

MKB TO OTHER MKRS. MON

MT RTA PS DTI 3 3 PS TO OTHER WIRE SPRING COMPL MARKERS

UX TRST 5 TRST 4 TST TRBI 8

OFFICE TEST FRAME TROUBLE INDICATOR OLI -48

ORIGINATING LINE IDENTIFIER ON ON TRST

AIS SENDER CONN CKT ASB MCA RON 158

RON L U 700 TGT -48 7

AS,AT EXA 3 EXG EXB

DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 2D | ABC |
| 5D | FS |
| 6A | |
| 10B | JC |
| 21D | |
| 22D | GEL |
| 25D | |
| 27A | |
| 28D | |
| 33D | |
| 36A | |
| 37D | |
| 38A | VM |
| 41D | |
| 43D | |

COMPLETING MARKER CIRCUIT
COMPLETING TRUNK CIRCUIT 2

BELL TELEPHONE LABORATORIES, INC 65

ISSUE 65B
SD-26002-01-B80

# FS108
MARKER CONTROL OF AUTOMATIC MONITOR

AUTO. MONITOR SDR. REG. TEST CKT.

MASTER TEST FRAME CONN. CKT OR OT TIC

MASTER TEST FRAME JACK, LAMP & KEY CKT.

INCOMING REG. TEST CKT.

MASTER TEST FRAME JACK, LAMP AND KEY CKT

MASTER TEST FRAME CONN CKT.

TO OTHER MKRS.

TO DAS-ETS

TO OTHER COMPL MKRS.

TO OTHER MARKERS

TO MTFC RCCK OR OT TIC

TO OT TIC

TO CLVA CKT OR TO E-S PWR & DATA INFAC CKT

4W ORMC CKT

CONF CONT CKT

| DRAWING ISSUE | |
|---|---|
| 1 | |
| 20 | AAC |
| 30 | RM |
| 50 | FS |
| 110 | |
| 150 | |
| 220 | |
| 250 | RLP |
| 26A | |
| 27A | |
| 280 | |
| 300 | |
| 32A | |
| 350 | LP |
| 36A | MS |
| 370 | MS |
| 390 | RA |
| 40A | |
| 410 | |
| 450 | |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B81

BELL TELEPHONE LABORATORIES, INC

6S

# FS 109
PER CENT LOAD INDICATOR

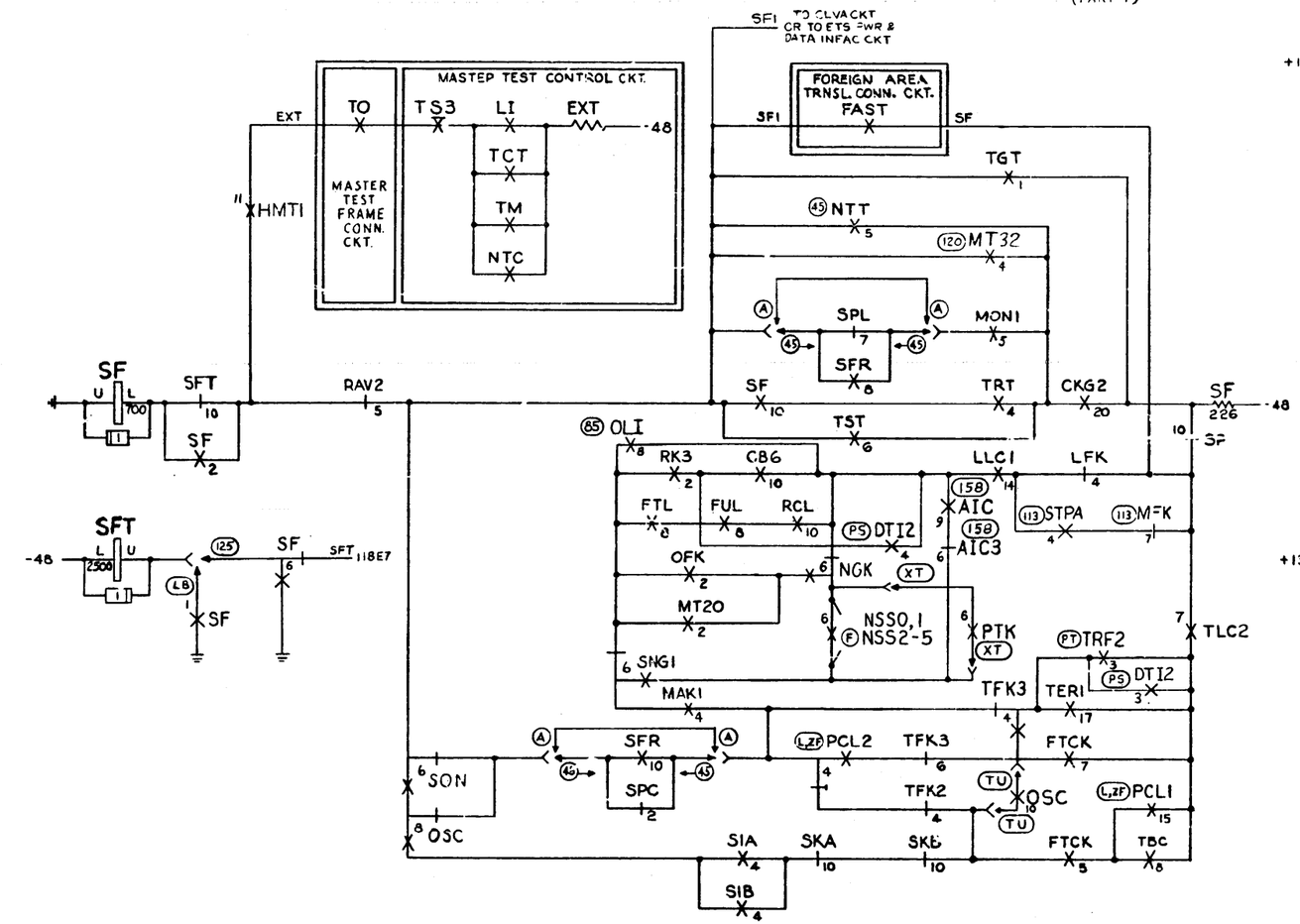
| DRAWING ISSUE | |
|---|---|
| 1 | |
| 2D | |
| 11B | |
| 25D | |
| 31D | |
| 33D | |
| 35D | |
| 39D | |

STX -48 2 ZZQ ZZP
STX -48 6
57
33F3 LB0-9 CHO-9 1
PL0-9
PL9 PLI 10 (IX,IY) LB9 4,9 12,000±5%, 30,500±5%
PL8 PLI 9 8
PL7 PLI 8 7
PL6 PLI 7 6
PL5 PLI 6 5 1-8 (IX,IY) LB1-8 4,9 12,000±5%, 30,500±5%
PL4 PLI 5 4
PL3 PLI 4 3
PL2 PLI 3 2
PL1 PLI 2 1
PL0 PLI 1 (IX,IY) LB0 4,9 12,000±5%, 30,500±5%
CKG5 4 57 PL 6- +1 P2-40±10% 2+ -5 P1-40±10% 11 PLI 12 PLI
(IX,IY) LB0 3,4 5 LB0 3200±1% -48 2,7
(IX,IY) LB1-8 3,4 5 LB1-8 3200±1% -48 2,7
(IX,IY) LB9 3,4 5 LB9 3200±1% -48 2,7
REG1 REG2
R5 57 R5 1600±1% -48
R6 57 R6 1600±1%
R7 57 R7 1600±1%
R8 57 R8 1600±1%
LM SLA 4 CB2 1 45 SPLI 10 45 57 PL 7 3 DC PL
LL MT18 10 LL
P5 HDTI 8
LINE, LINE LINK & CONN. CKT.
TRAFFIC REG. & CABINET CKT.
MC- HG0-9 PL0-9 PC TO OTHER PC RELAYS R -48 FPL
-48 POWER RINGING & TONE FR CKT.
PL 57 PLI L U 2500 TO ALL W.S COMP MARKERS PER MARKER GROUP
TO ALL W.S. COMP MARKERS PER MARKER GROUP
PLI KEY

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
2 SD-26002-01-882
39
6S

SD-26002-01-882

# PART OF FS 110
TIMING CIRCUITS
(PART 1)




| DRAWING ISSUE | | |
|---|---|---|
| 1 | | JFD |
| 2D | BLC | MFD |
| 3D | | MFD |
| 4A | | MFD |
| 8D | | A |
| 18 | | |
| 19D | | CB |
| 21D | | CB |
| 22D | | CB |
| 25D | | CB B |
| 28D | | CB |
| 30D | | CB |
| 32A | | CB |
| 33D | | CB C |
| 37D | | CB |
| DRAWING REFURBISHED WITHOUT CHANGE 10-68 | | |
| 41D | | CB |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

2

SD-26002-01-B83A

ISSUE 57S

# PART OF FS 110

TIMING CIRCUITS
(PART 1)

TO MKR DIST CONT CKT
HTR
MTR
TO DAS ETS CKT
HTR
CNS
MTR

AID
PN AIOD U L 270 -48
1

HTR
107 OC
SCBI 8
TK 1
152 WBC 1
HTR U L 700 -48
1
HTR TO MFTC

CNS
107 OC 7
CNS TO MFTC

MTR
107 OC 5
MTR 8IC5

AOS
107 OC 1
105
SAC
3
SA 114A/G1
107 OC

AIOD 3
PN
SOGI 7

HTT 6
HTR 5
OATI 4
OATI 10
OAT
OATI U L 700 -48
1

107 OC U L 270 -48
1
TB CKG7 9
107 OC 4

SCG
SC
S
S
S
7E7

OAT1 3.7 MEG ±1%
OAT3 1kΩ ±20%
OAT 2
OAT2 0.1 MEG ±20%
OAT 4.28-4.36
6 OAT
4

OAT 1
MRL U L 2.5kΩ 6 MRL

OAT4 6.5kΩ ±5%

+130(E)
+130V
POWER RINGING AND TONE FB CIRCUIT
RDL
37C4
MRL 2
MRL1 U L 2.5kΩ -48

HTT1 .001

HTT 2
HTT1 0.715 MEG ±1%
HTT3 1kΩ ±20%
HTT2 0.1 MEG ±20%
HTT 2.14-2.18
2 OAT
8 OATI
7 HTR

HTT4 6.5kΩ ±5%
8 HTT

DAS ETS CKT
LTRG
LTR
LTR

HTR
LC
HTT L U 2.5kΩ
HTR 6
DR
MT18 11
LZ HTTO 3kΩ ±5% +130V

DRAWING ISSUE 41D

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B83B

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B83B

# FS III

TIMING CKTS.
(PART 2)

+130 WT WT1 .001 μF 0.320 MEG. ±1% SF WT3 1000 ±20% WT2 0.1 MEG. ±20% WT 2.14-2.18 μF 4 TMS

+130 WT4 6500 ±5% WT WT U L 2500 TMS RYT RYT1 U L 700 -48

-48 TMS L U 700 WT TRST SFT RYT SNK TM RYT1 RYT L U 700 -48 RYT1 RAVI RST GB SP

MKR DIST CONT CKT
RYT LLI

156 SMB TMB

LC 120 RLL QX LIA

FOREIGN AREA TRNSL. CONN. CKT.
CA3
CB3

DIRECT ACCESS PRETRANSLATOR CONN CKT
MC- PC1 RTR1
PC2 RTR2

RYT JJ

ZTR CWNT
LK2
RCY
NT3
OFH
GLH ZKY GT1
ZKZ GT1
STP
PSC SCB2 GLA
SK FY FY
GLC ZKV ZKU ZKW LSC2
RYT1 RYT1 TO MKR DIST CONT CKT

FLGI LLCI STP2 WT1 31A/HI
CKGI DIS2 OR RGT WT2 NR RVI 29A/B3
CWK CKO UA DAC RYT1 RNG SNGI

TO MTFC OR OT TIC WT 2 WT

| DRAWING ISSUE | | |
|---|---|---|
| 1 | KCA KEA | JFD |
| 20 | BLC | |
| 11B | CH | |
| 16B | RDJ VEL | WJG |
| 18D | SAN EDA | A |
| 22D | HC JDP | C |
| 24D | BPM AMD | CB |
| 25D | DS RDJ AMD | CB |
| 28D | MD KMW AMD | CB |
| 30D | BPM MD AMD | B |
| 33D | RP BLK AMB | CB |
| 35D | TS BPL AMD | CB |
| 39D | RP | CB |
| 41D | | CB |
| 43D | | CB |
| 44A | | CB |

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
ISSUE 57B
SD-26002-01-B84
2
6S

SD-26002-01-B84

# FS 112

NO TEST CONTROL

NO TEST TRUNK CKT.

NO TEST CONN. CKT.

TRUNK LINK FRAME CONN. CKT.

LINE, LINE LINK & CONN. CKT.

TRUNK LINK FRAME & CONN. CKT.

TRUNK CKT.

MASTER TEST CONTROL CKT.

MASTER TEST FR. CONN. CKT.

INCOMING REG. MKR. CONN. CKT.

TO MTFC AND DAS ETS

TO CDT APPL

TO DAS ETS CKT

TO OFF TST FR TST CKT

TO DAS ETS CKT

TO OTHER SPECIAL MKRS

TO OTHER SPECIAL MKR

TO MTFC

VFT- MTII NT5 LXPI HMSI TERI FLG LBT LI LIT LIT FLG -48

ITRI

NTT

LHO-4

33FO

3480

LLO-9

NTLH

DRAWING ISSUE

| DRAWING ISSUE |
|---|
| 1 |
| 20 |
| 30 |
| 44 |
| 6A |
| 8D |
| 90 |
| 10B |
| 11B |
| 13B |
| 22D |
| 24D |
| 25D |
| 28D |
| 330 |
| 39D |
| 44A |

63B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-885

BELL TELEPHONE LABORATORIES, INC.

SIZE 8S

SD-26002-01-885

# FS113

CROSS DETECTION CONTACT FUNCTIONS

SD-26002-01-886

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

DRAWING ISSUE 67B

# FS 114
CROSS DETECTION
RELAY LOCKING CKTS.

XCR 2L 2U S-690 ±15% 8 — TO MKR DIST CONT CKT XIMG
XARS L U 700 8
XLG 2L 2U S-400 8
XHG 2L 2U S-690 8
XATS L U 700 8 — IX,IY XTS 3,7 — 7,5 ONX 8 — ONX 30A/B4
XAJS L U 700 8 — IX,IY XJS 7,5 3,7 — 5 7 (150) XJSI
XALC L U 700 8
IX,IY XLC 7,5 3,7 — (45) A
STX 4 — XRS2 1 2 3 — XRSI 1 2 3 — XARS 30B8 — XRS 86A7
COX L U 700 — MXT 12 — COX 10 8660 — LR 12 — DISI 1 — TRBI 9 — TRL 3 — TRTR 4 — (112,114) LRT 12 — RAVI 9
NTR 2 — JB 2 — NT5 2
ONX L U 700 — RYC 3 — (ZQA) (ZQB) RAV3 FM 4 4 (ZQA) (ZQE) — DCTI 10 — OFH 11 — IX,IY XF 7,5 3,7 — GTI 4
COX 7266 — COX 12 — 6 TRSA — (ZUX) — GT3 4 — (ZUY) — (ZUX) — IX,IY XJC 7,5 3,7 — COX 6 — 5 TRSA
OFHI 6 — RVI 5 — CKG2 19
XAF L U 700 8
XAJC L U 700 8
XACH L U 700 8 — 1 XCH 2
63H4 XN — 3H8 G — (UX) COX TO ORIG LINE IDENT CKT

XPT 2L 2U S-690±15% 8
XRL 2L 2U S-1075 8 — 3802
XRS3 2L 2U S-850±15% 8
XRS4 2L 2U S-850±15% 8
XS 2L 2U S-850±15% 8
XSA 2L 2U S-850±15% 8 — (E)
RYC (ZHK) RCY (ZHK) — RAV2 OATI HTR 7 6 11 — (ZHJ) (ZHJ) 3 — CKG4 2 — IX,IY XTI-3 7,5 3,7 — (146) XT5 42C2
XT5 L U 700 8 — 24A/C0 XTA 4 7,5 — XR,MK 3,7 XT 8
XCP 2L 2U S-690±15% 8 — (39) (146) XSP 7 5 — (39)
XDL 2L 2U S-690±15% 8
XCL 2L 2U S-690±15% 8

XARN 2L 2U S-690±15% 8 — (59)
XBRN 2L 2U S-690±15% 8 — (59)
XLV 2L 2U S-690 ±15% 8 — XVGB 1 2 — ZVH — 106C5 XCW (160) — (ZBF)
XAVGB L U 700 8
XSL 2L 2U S-2700 4
XCKR 2L 2U S-1075 8
XCLC 2L 2U S-690 ±15% 8
XTBI 2L 2U S-350±15% 8
XLO 2L 2U S-1075 8
XTV 2L 2U S-850±15% 8 — XTV (10,74)
XMRL 2L 2U S-1075 8
XOB 2L 2U S-850±15% 8 — XOB (10,76)

XBT 2L 2U S-1075 8
(125) XLSB 2
XLS 2L 2U S-850 ±15% 8
XCS 1005 H-S
(ULAK) XACS L U 700 — (UL) (WX) XACS 3 — WX XCS 7 3 — (UL)
XNMR — (SP) XTMR — (DX) 10-1A/09
(SA) XMM 1 — (SK) XCM 1
XTGI 2L 2U S-1075 8 — TO MKR DIST CONT CKT XTS
XTRK 2L 2U S-1075 8
XTRL 2L 2U S-1075 8
XTSI 2L 2U S-1075 8
(156) WCV 5 — (156) WMM 5
XPG 2L 2U S-850 ±15% 8 — (64) XFC (DH) — (125) XFTG 12
XAFT L U 700 8 — TO MKR DIST CONT CKT XR — 2 XFT
XAJG L U 700 8 — IX,IY XJG 3,7 7,5
XALR L U 700 8 — IX,IY XLR 3,7 7,5
XCDA 2L 2U S-690 ±15% 8 — (7)

XSTC 2L 2U S-690 ±15% 8 — (121)
XPLF 2L 2U S-690 ±15% 8 — (121)
XPRE 2L 2U S-690 ±15% 8 — (116)
XCDB 2L 2U S-690 ±15% 8 — (117)
XST 2L 2U S-2700 8 — (125)
(121) XSCA 2L 2U S-690 ±15% 8 — (120) CPML (121)
XSS 2L 2U S-690 ±15% 8 — (71A)
XBRL 2L 2U S-1075 8 — (71)
XLRL 2L 2U S-1075 8 — (121)
XCE 2L 2U S-850 ±15% 8 — (95)
XRD 2L 2U S-690 ±15% 8 — (97)
XLF 2L 2U S-690 ±15% 8 — (91) — TO MKR DIST XLF CONT CKT ZKV
(50) XRC 8 — XRC 2U 2L S-1900
XCDS 2L 2U S-690 ±15% 8 — (113)
TX U L 700 — NO CONNECTION
TXI U L 700 — NO CONNECTION

| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 10D |
| 11B |
| 12D |
| 17D |
| 18D |
| 21D |
| 22D |
| 24D |
| 25D |
| 28D |
| 30D |
| 32A |
| 33D |
| 34A |
| 35D |
| 39D |
| 42A |
| 43D |

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B87

BELL TELEPHONE LABORATORIES, INC 6S

# PART OF FS 115

TERI 20 (II) PEG 8 (ZP,VD) (ZP) (DC) TER — MC- — LINE, LINE LINK AND CONNECTOR CKT — TRAFFIC REGISTER CKT P

(81) 2WF 1 — (2W) PCT P

4WE 1 — (4W) PCT P

(131) PGR01 22 23 — (131) PGL01 11 — (ZP,VD)

CB6 2 PD 10 — (WN) MF 2 — PDD P; PDM P

HMTI 12 CB6 3 PK 12 OR 3 — (WN) MF 3 — FAD P; FAM P

(WN) MF 4 — LTD P; LTM P

SCB2 3 — (II) ITR2 9 — (IK) LKC 4 (IK) MT13 5 — (II) PEG 9 — (ZFS) PEG — (ZFR) RAVI 10

TO OTHER (R-) RELAYS IN SAME GRD SUPPLY

TO OTHER COMPLETING MARKERS (MF)

(119) IPR 9 — RA6 (GS6) R- 3 PC-; RA5 (GS5) R- 3 PC-; RA4 (GS4) R- 3 PC-; RA3 (GS3) R- 3 PC-; RA2 (GS2) R- 3 PC-; RA1 (GS1) R- 3 PC-; PC-

(119) NPRC 1 — (119) PRC 1 (EB) (EB)

TO CORRESPONDING ROUTE RELAYS IN OTHER COMPLETING MARKERS (SEE NOTE 110)

PEG 2

OVS 3 (145) — POS P

CB6 7 (42) PD 12 — OVP 10 (145) (145) — POP P

TO OTHER COMPLETING MARKERS

MTI3 1 (II) RBT 4 (II) — (IK) TOA 3 (IK)

(131) OGR2 22 23 — (131) OGL2 11

(62) IPC4-9 6 IPC4-9 — IPCO P

(62) IPCO-3 6 IPCO-3

TO OTHER (IPC-) RELAYS IN SAME MKR

TO OTHER (R-) RELAYS IN SAME GRD SUPPLY

TO CORRESPONDING (R-) RELAYS IN OTHER COMPLETING MARKERS

(38) ALO-3 10

TO OTHER (AL-) RELAYS IN SAME MKR

(ZQR) — RA1 (GS1) R- 4 OF-; RA2 (GS2) 4 OF-; RA3 (GS3) 4 OF-; RA4 (GS4) 4 OF-; RA5 (GS5) 4 OF-; (GS6) 4 OF-

(ZQS) (ZQS) (ZQS) (ZCR) OF- (ZQR) OF-

88C/F5 GPI — (ZBE) GPI 7 — (WD) (WD) (121) NTA 10 8 — MTI3 6 (WC) — TBTA

(EB) (119) PRC 6 — (119) NPRC 6 (EB) — (119) IPR 5

(JB) JC TBK 8 JC

RR RRA OF-

REMOTE OFFICE TEST LINE TRUNK MAKE BUSY CKT

RRA — FOR SPECIAL MARKERS 0 & 1 ONLY

FOR ROUTES WITH REMOTE TRUNK MAKE BUSY FEATURE

MBR- -48 — MER- RC- — ON

FOR ROUTES NOT ARRANGED FOR REMOTE TRUNK MAKE BUSY FEATURE

REMOTE OFFICE TEST LINE REG CKT

FIG. 8

PEG COUNT

IFM(2W) — (ZFA) (ZGZ) (ZGZ) (ZFA) (81) 2WF 6 — (NR,NI) — (NQ) (ZKM) IFM — (ZKL) TERI 19 — (TX, ZUS) — (ZUQ) PBXA 6 — (TY) RCY5. 6 — (ZUQ) — (TX, ZUS)

IFM(4W) — (ZRF) (ZFC) (ZFB) (ZFB) (ZFC) (81) 4WE 6 — (NQ) (ZCH)

IFMPR — (NQ) (ZFE) (ZFD) (ZFD) (ZFE) 5 (113) PRLL — IFFM

IFFM(2W) — (ZFG) (ZFF) (ZFF) (ZFG) (FT) 2WS 5 — (ZUS, ZKM) — (ZTL) — (ZKM) FM 11 — (ZHT) — (ZUS) — (ZTM) — (ZHU) — 1 FM

IFFM(4W) — (ZUS) (ZRF) (ZFI) (ZFH) (ZFH) (ZFI) (FT) 4WS 5 — (ZCH) — (TY) RCY5 6 8 IFA — (ZHU)

IFFMP — (ZTM) (ZFK) (ZFJ) (ZFJ) (ZFK) 5 (IN) PRLLA — (ZHT) — (ZVC)

TO MKR DIST CONT CKT — RAI FCK RAG — (EQ) TER5 2 — (ZHU) — 5 OV — (ZVD) — (ZVC)

FMPR — (NQ) (ZFE) (ZFD) (ZFD) (ZFE) (113) PRLL 11 — (ZCH) — (NQ) — (ZVC)

FM(4W) — (ZRF) (ZFC) (ZFB) (ZFB) (ZFC) (81) 4WE 7 — (NQ) — (NR,NI) — RFA 1 — RAI-4 4 — RAVI 22 — (ZVD)

FM(2W) — (ZFA) (ZGZ) (ZGZ) (ZFA) (81) 2WF 7 — (119) RA5 4 (123) 4WB 12 (119) — (113) LFKA 8 — 5 MTI8

TO OTHER COMPLETING MARKERS — (ZVD, ZXT) — (ZUD) — (113) 8 LFKA

IHP — (ZUP) — (IN) PRLLA 6 — (ZCH) — (ZUP)

IH(4W) — (ZRF) — (FT) 4WS 6 — (ZUM) — (ZUP) — (ZUN)

IH(2W) — (ZUM) — (FT) 2WS 6 — (ZUM)

TIPR — (NQ) — (113) PRLL 4 — (ZCH) — (NQ)

TIP(4W) — (ZRF) — (81) 4WE 2 — (NQ)

TIP(2W) — (81) 2WF 2 — (NR, NI)

TO MKR DIST CONT CKT — NPBX — PBXA — (ZUM)

TRUNK LINK CONNECTOR CKT

P MC- INC — (ZP) — (ZQ) — (ZWY) — (ZWJ) (113) LFKA 8 (ZWJ) — PBXA — (ZUM)

P MC- OF FMP 1 MTI3 3 — (XN, XM)

P MC- TCB — (XM) PEG 4 CB5 12 — TOGI 17

OV 4 MTI3 2 — BY 2 (ZKG) PB 88C/B0 — PEG 6 (EP) TERI 18 — TER5 12

clear

| DRAWING ISSUE |
|---|
| 42A |
| 43D |
| 45D |

| DRAWING ISSUE |
|---|
| 69B |

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B88A

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

# PART OF FS 115
PEG COUNT

DRAWING ISSUE
42A
43D
45D

TRAFFIC REGISTER CKT

LINE, LINE LINK AND CONNECTOR CKT

NO. GROUP CONNECTOR CKT

TO ALL MARKERS IN SAME MKR GROUP

TO MKR DIST CONT CKT

TO OTHER COMPLETING MARKERS

TO OTHER COMPLETING MARKERS

DRAWING ISSUE
67B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B888

BELL TELEPHONE LABORATORIES INCORPORATED

ORBITS 6S

SD-26002-01-B888

# PART OF FS 115

PEG COUNT

MKR DIST CONT CKT

PBY

TRAFFIC REG CKT

TOPR

TOR(4W)

TOR(2W)

TMOR(4W)

TMOR

RMPO-9

LPCO-9

LOFO-9

TCO

(4W)TCO

PTCO

ATT

TTRF

ILDN

TDTF

PCVOO-95

DR0-19

PCTOO-39

PCT20-39

OABO-9

TABO-9

TO OTHER COMPL MARKERS

TO OTHER WIRE SPRING COMPL MARKERS

TO MKR DIST CONT CKT

PTOG

(4W) TOG

TOG

TO ALL WIRE SPRING COMPL MARKERS

PDL

PRLL

PSA2

CHAI

MT7

PSTA

CB6

4WE

2WF

4W

2W

DP

SCK

MF

EXA

LRII9

LRII-

LRII0

LR-9

LR--

LR-0

LRG11

LRG--

LRG00

LRS

LOF

PEGI

LRA1

RNG

RCY3

PGR05

OVC

MT18

OFH

PGL05

OSG0-4

OSG5-9

OSG10,11

ASB

ASBO-11

OGRO-9

TGRO-9

OSTO-9

TGTO-9

OACO

OACI-9

TACO

TACI-9

PEG2

AGT

SEE TABLE A

SEE TABLE B

TO OTHER WIRE SPRING COMPL MARKERS

TO OTHER COMPL MARKERS

SENDER GROUP BUSY CKT

SBP

OFL

ACCESS GROUP CONTROLLER CKT

TABLE A

| L LEADS | a |
|---|---|
| 9 | 12 |
| 8 | 11 |
| 7 | 10 |
| 6 | 9 |
| 5 | 8 |
| 4 | 7 |
| 3 | 4 |
| 2 | 3 |
| 1 | 2 |
| 0 | 1 |

TABLE B

| AGC CKT | b |
|---|---|
| 9 | 10 |
| 8 | 9 |
| 7 | 8 |
| 6 | 7 |
| 5 | 6 |
| 4 | 5 |
| 3 | 4 |
| 2 | 3 |
| 1 | 2 |
| 0 | 1 |

DRAWING ISSUE

43D

45D

69B

COMPLETING MARKER CIRCUIT

2

SD-26002-01-888C

BELL TELEPHONE LABORATORIES INCORPORATED

6S

KIMBERLY

# PART OF FS 115

PEG COUNT

SDR GR BUSY CKT

SB0 SB5 SIO

SB0 SB5 SIE

TO OTHER ODD OR EVEN MARKERS

PBY 10

RNG 10

88 LOF 5

LB 2

ASB 7

OVC 6

LRS 1

88 LOF U L 700 -46

SII

SI

TOG2 5 33A/H9

TOG4

51 TOG4 U L 270 -48

IK IE DCTA 1

SCB2 11

IK LKC U L 270 -48

WR DCT2 5

IK LKC 1

IK PEG 5

153 WFCK 4

123 2W 3

81 2WF U L 700 -48

120 2WG U L 700 -48

15H7 2W ZEV

81 4WE U L 100 -48

123 4W 3

120 4WF U L 700 -48

IK PEG 10

A

131 PGR00 131 PGR01 131 PGR02 131 PGR03 131 PGR04

2170 2170 2170 2170 2170

-48

A 131 PGR (05,06,07,08,09) -48

A 131 PGR (10,11,12,13,14) -48

-46

131 OGR1 131 OGR2

IK RBT 11

TOA 11

2170 2170

| DRAWING ISSUE |
|---|
| 43D |
| 44A |

ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-B88D

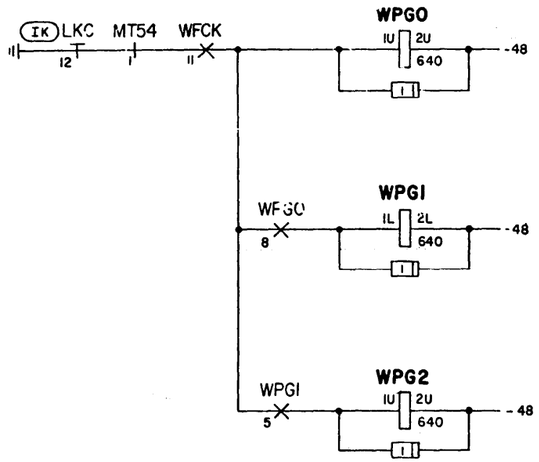
BELL TELEPHONE LABORATORIES INCORPORATED

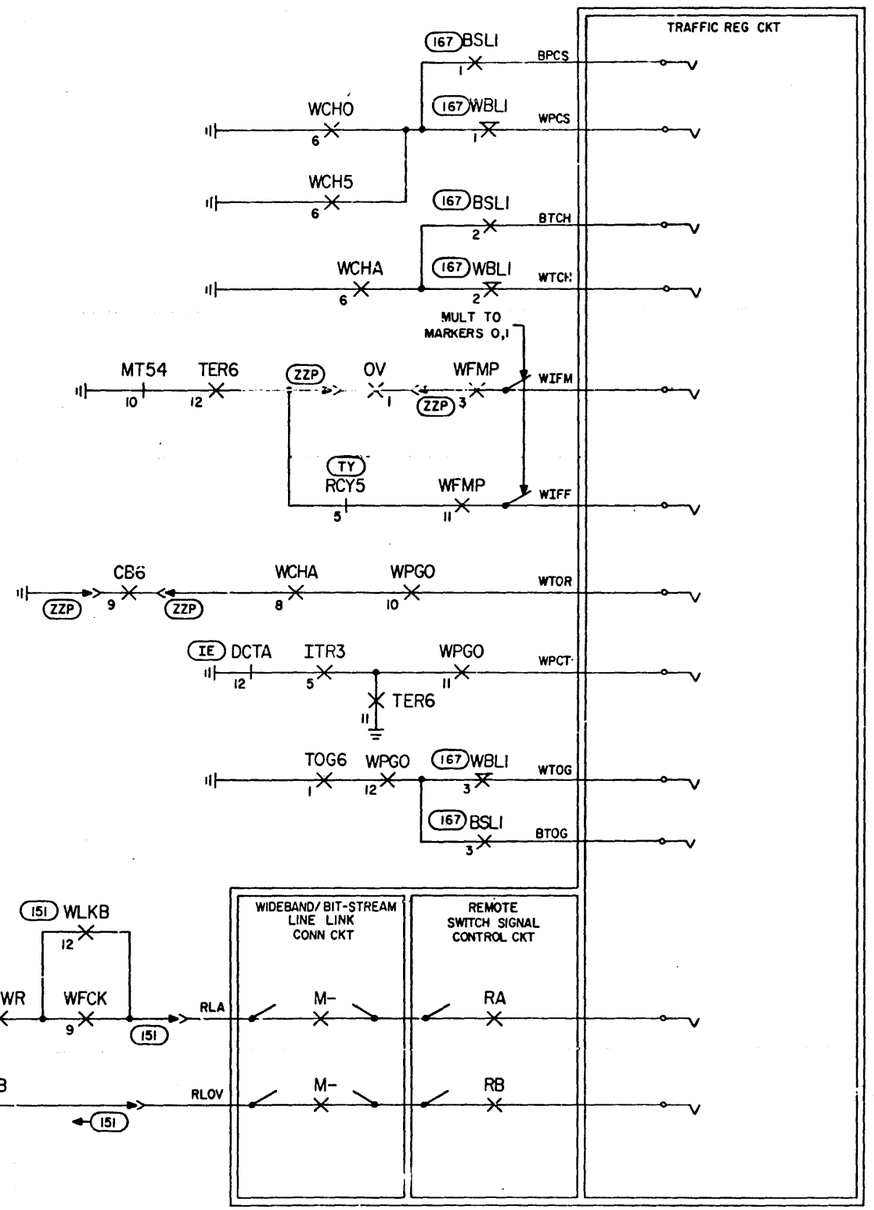
FORM 6S

KIMBERLY & STABILO

(152,153,154) **FS 115A**

WIDEBAND PEG COUNTS
(SEE NOTE 1)




NOTES:
1. WIRING IS ZZP OPTION UNLESS OTHERWISE INDICATED.

DRAWING ISSUE 44A

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B88E

BELL TELEPHONE LABORATORIES INCORPORATED

DATE 6 3

# FS 116
FRAME TEST RELAYS AUXILARY

TO OTHER MARKERS

TO MINI-ROTL INTERFACE CKT

TO OTHER FC- RELAYS FOR SAME 65- IN SAME MKR

TO CORRESPONDING FC- RELAYS IN OTHER MKR

MASTER TEST CONTROL CKT

-48 — FTC (R) — KMT9 — KFS — FG- KEY — FS- KEY — FTC20-29

(65) FTC20-29 — F20-29 — L — U — 400 — 1

(KE) — (KF) — (KF) — FTC20-29 — (ZFX) — F20-29

7 — 5 — FTG20-29

FTG20-29 — 1 — 9 — 500 ± 10% — 1 — FTG20-29 — 5K — -48

| | | | | | | |
|---|---|---|---|---|---|---|
| (65) MT24 F29 | FTC29 | (65) GSA21-25 FT29(1-5) | 10 | FT29(6) | FT29(1-6) | (66) FC- 10 FTC-;FR29 |
| (65) MT24 F28 | FTC28 | (65) GSA21-25 FT28(1-5) | 9 | FT28(6) | FT28(1-6) | (66) FC- 9 FTC-;FR28 |
| (65) MT24 F27 | FTC27 | (65) GSA21-25 FT27(1-5) | 8 | FT27(6) | FT27(1-6) | (66) FC- 8 FTC-;FR27 |
| (65) MT24 F26 | FTC26 | (65) GSA21-25 FT26(1-5) | 7 | FT26(6) | FT26(1-6) | (66) FC- 7 FTC-;FR26 |
| (65) MT24 F25 | FTC25 | (65) GSA21-25 FT25(1-5) | 6 | FT25(6) | FT25(1-6) | (66) FC- 6 FTC-;FR25 |
| (65) MT24 F24 | FTC24 | (65) GSA21-25 FT24(1-5) | 5 | FT24(6) | FT24(1-6) | (66) FC- 5 FTC-;FR24 |
| (65) MT24 F23 | FTC23 | (65) GSA21-25 FT23(1-5) | 4 | FT23(6) | FT23(1-6) | (66) FC- 4 FTC-;FR23 |
| (65) MT24 F22 | FTC22 | (65) GSA21-25 FT22(1-5) | 3 | FT22(6) | FT22(1-6) | (66) FC- 3 FTC-;FR22 |
| (65) MT24 F21 | FTC21 | (65) GSA21-25 FT21(1-5) | 2 | FT21(6) | FT21(1-6) | (66) FC- 2 FTC-;FR21 |
| (65) MT24 F20 | FTC20 | (65) GSA21-25 FT20(1-5) | 1 | FT20(6) | FT20(1-6) | (66) FC- 1 FTC-;FR20 |

FTC-

TRUNK LINK & CONN CKT — FTC- — FT — XFT — MC-

TRUNK CKT — SI

XFT — XFT — -46

DRAWING ISSUE 30D

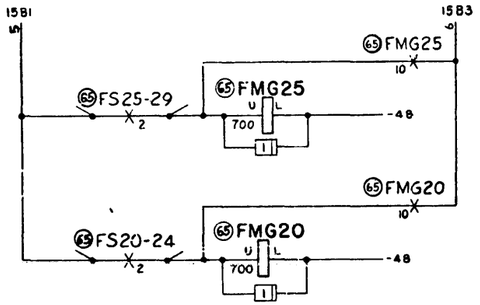
ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B89

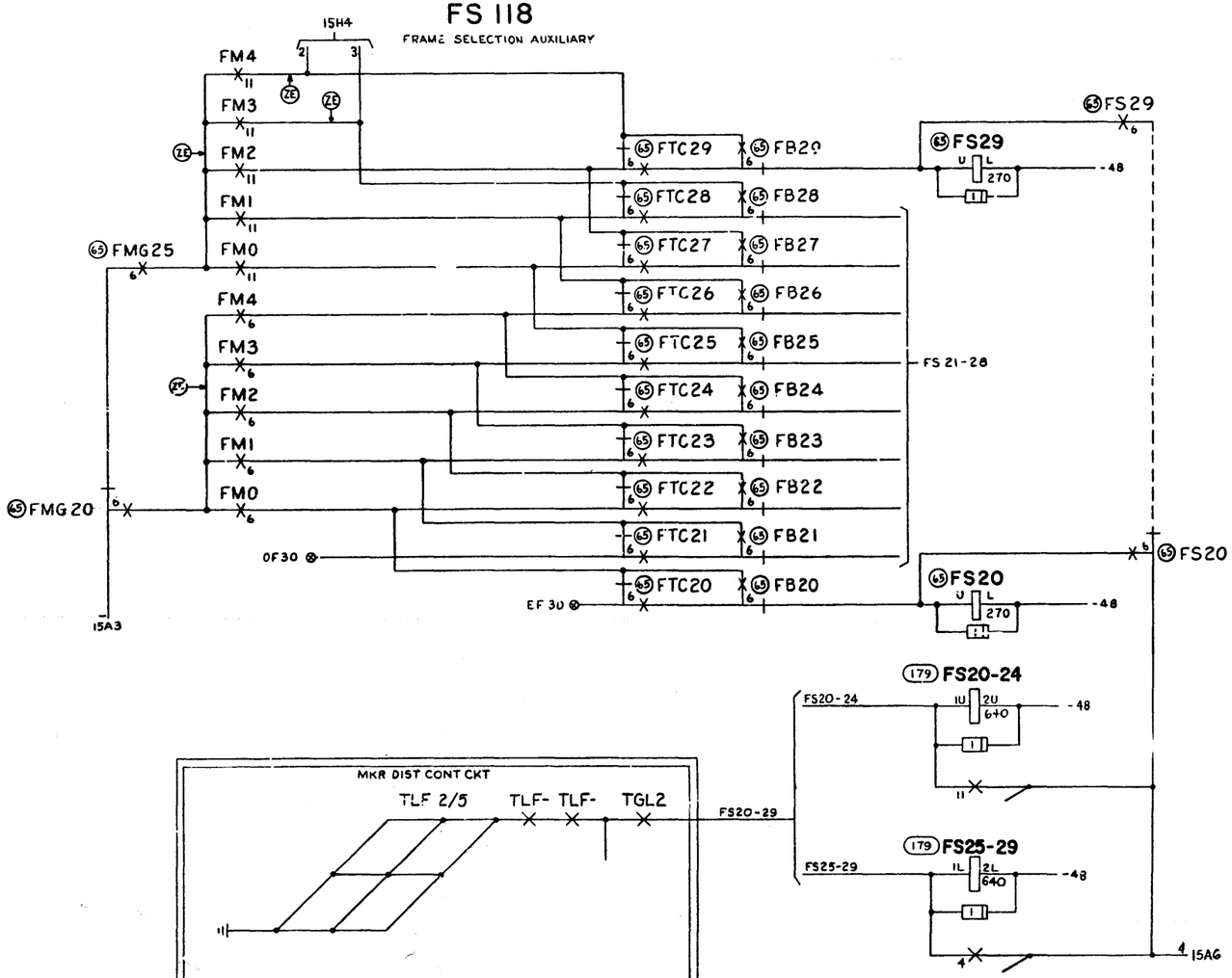
BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILO

## FS 117
FRAME MEMORY AUXILIARY




## FS 118
FRAME SELECTION AUXILIARY




| | |
|---|---|
| DRAWING ISSUE | 5D |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | ISSUE 62A |
| BELL TELEPHONE LABORATORIES INCORPORATED | SD-26002-01-BSO |
| | 6S |

# FS 119

TRUNK LINK JUNCTOR FRAME SELECTION

F (R) — (IX,IY) XF 5,9 — 2,1 P-10±10% P-12±10% — (IX,IY) F 1700±1% 1920±1% — 1,2 — 6,8 S-200±1% S-200±2% — (ZMM) XF 1 — 2 BX

FTB0 12 — FTB1 12 — (75) TTF 1 — (113) PRLL 9 — JG0 1 — JG1 7

P6 12 — 3TLF 10 — (64) P7A 11 — (64) P9A 6 — P2 1 — P3 11 — P4 12 — (64) P0A 6 — (64) P1A 6 — (64) P5A 6

8 (13) PRLL

(75) TTF 2 — 2TLF 10 — (64) P7A 2

JG3 1 — STF 8 — PR 8

STF 10 — (75) TTF 3 — JG1 9 — 4TLF 8 — (64) FTA2 10 — 5TLF 8 — 7TLF 4 — 8TLF 4 — 9TLF 4 — (64) 6TFA 10 — (64) P8A 10 — (64) P0A 11 — (64) P2A 3 — (64) P9A 3

JG4 9 — P6 2 — (64) P7A 12

JG2 9 — 7TLF 8 — P2 7 — 6TLF 10 — P0 8

FTB2 12 — FTB3 12 — (64) FTB4 12 — (64) FTB5 12 — JGO 12 — JGO 8 — PR 10 — (113) PRLL 7

JG1 1 — JG2 1 — JG4 1

JG1 12 — JG4 12 — 40F 10 — JG2 12 — P0 4 — P1 5 — P3 5 — 20F 10 — P2 4 — P4 4 — P7 5 — P8 4 — JG2 2 — JG2 5

RF — M- — RF

EF — M- — EF

SEF — M- — SEF

TRK LK & CONN CKT

RF / EF / SEF — MTFC

(ZSQ) — 1 FUT4,5

(ZSQ) — 1 FUTO-3

(ZSQ)

| DRAWING ISSUE | | |
|---|---|---|
| 5D | JPC NP | J.P.C. |
| 11B | HYM JGM | P.D. |
| 13B | AEZ WA | W.S. |
| 18D | C.A.W. KSH | A CB |
| 28D | HY EAL AHD | CB |
| 33D | CLK AHD | CB |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | | |
| 45D | | CB |

ISSUE 53B

SD-26002-01-B91

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B91

# FS 120
CAMA TRUNK CLASS &
TRUNK LINK FRAME TRANSLATOR

TRUNK CIRCUIT
TRUNK LINK & CONNECTOR CIRCUIT
TO MASTER TEST FRAME CONNECTOR
OUTGOING SENDER CONNECTOR CIRCUIT
SENDER CIRCUIT (LAMA/CAMA)
DRAWING ISSUE

42B3 DKO
CFG0 CFG1 CFG2 CTF0 CTF1 CTF2 CTF4 CTF7

CTF2 CTF7 CFG2 CMS
CTF1 CTF7
CTF0 CTF7
CTF2 CTF4
CTF1 CTF4
CTF0 CTF4
CTF1 CTF2
CTF0 CTF2
CTF0 CTF1
CTF4 CTF7
CFG1
CFG0

SGCO-3

FG0 CMF3 CFG0
FG1 CMF3 CFG1
FG2 CMF3 CFG2
TF0 CMF3 CTF0
TF1 CMF3 CTF1
TF2 CMF3 CTF2
TF4 CMF3 CTF4
TF7 CMF3 CTF7
U L 700

1660

TRUNK CIRCUIT
LF
AD
OD

CMJ
RN
SMT
AMA1
4WF
TER3
IAO
CMJT
AD
OD
ORC
ORCO
ORCI
ORC2
CAMA
ZRL
ZRK
RNT2
59A/C6
59A/86
59A/D6
85D1 NT
85C0 NN
77G3 HF
49B/G5 AMA

RNT1/AID
RNT0/OID
RNT2/ORCO
ORCI
ORC2
XONI
SENDER CIRCUIT
AMA

| DRAWING ISSUE | | |
|---|---|---|
| 8D | CSN JFN | JPD |
| 9D | PCP JFN | PD |
| 11B | CH JFN | PD |
| 14B | CHC DST | CB |
| 18D | PCP FRM | CB |
| 21D | MWD SDM RMD | CB |
| 22D | GEL JDP RMD | CB |
| 32A | ER CLK RMD | CB |
| 35D | LEA GAL RMD | CB |
| 38A | RP | CB |
| 43D | | CB |
| 53B | | |

COMPLETING MARKER CIRCUIT
(2)
SD-26002-01-B92
BELL TELEPHONE LABORATORIES INCORPORATED
65

CAMA SENDER

INCOMING REGISTER MARKER CONNECTOR CIRCUIT

## FS 121
CAMA CALLING-CALLED AREA, VACANT, FREE, DENIED OR WORKING CODE CLASS RELAYS.

LCDO-2 RD MD — LCDO-2 — (69) LCDO-2 U L 270 (1) -48 — LCDO-2 ▼ — TO MASTER TEST FRAME CONN CKT

ACD RD MD — ACD — (69) ACD U L 270 (1) -48 — ACD ▼ — ACD

VTC RD MD — VTC — (69) VTC U L 270 (1) -48 — VTC ▼ — VTC — TO DAS ETS

FC RD MD — FC — (69) FC U L 270 (1) -48 — FC ▼ — FC

DNC RE ME — DNC — (69) DNC U L 270 (1) -48 — DNC ▼ — DNC

WKC RD MD — WKC — (69) WKC U L 270 (1) -48 — WKC ▼ — WKC

## FS 122
REGISTRATION FOR CONTROL DIGIT INFORMATION

ORIGINATING REGISTER CKT — CD- RC- MC- — CDO,1,2,4,7,10,15 — (118) CDO,1,2,4,7,10,15 U L 270 (1) -48

ORIGINATING REGISTER MKR CONN CKT — CDPO,1,2,4,7,10,15

INCOMING REGISTER CKT — CD- RC- MC- — CDPO,1,2,4,7,10,15 — (118) CDPO,1,2,4,7,10,15 U L 270 (1) -48

INCOMING REGISTER MKR CONN CKT — CDO,1,2,4,7,10,15

CDPO,1,2,4,7,10,15 CDO,1,2,4,7,10,15 — TO MASTER TEST FRAME CONN CKT

## (123) FS 125
TYPE OF NETWORK INFORMATION FROM REGISTERS

ORIGINATING REGISTER CKT — 2W/4W — ORIGINATING REGISTER MKR CONN CKT — RC- MC- — 2W/4W

4WS U L 700 (FT) -48

4W U L 700 (2) -48 — 4WA, 4WB, 4WC

4W ▼ — TO MASTER TEST FRAME CONN CKT OR OTTC

2W ▼ — 2WA, 2WB U L 700 -48

INCOMING REGISTER CKT — 2W/4W — INCOMING REGISTER MKR CONN CKT — RC- MC- — 2W/4W — TO DAS ETS CKT

2W U L 700 (2) -48

TRANSFER REGISTER CKT — TRANSFER REGISTER MKR CONN CKT — RC- MC- — 2W

2WS (FT) U L 700 -48

## (119) FS 140
REGISTRATION FOR ROUTING CONTROL DIGIT INFORMATION

INCOMING REGISTER CKT — CDAO-2 RC- MC- — CDAO-2 (97) — CDRO-2 U L 700 (1) -48

CDA4 RC- MC- — CDA4 (97) — CDR4 U L 700 (1) -48

CDA7 RC- MC- — CDA7 (97) — CDR7 U L 700 (1) -48

INCOMING REGISTER MKR CONN CKT

(119) (123) 4WC — (GK) — (QK) ORI — FAC2

TO MASTER TEST FRAME CONN CKT

CDRO CDRI CDR2 CDR4 CDR7

CDR4 CDR7 — CDRAO U L 700 (1) -48

CDRO CDRI — CDRAI U L 700 (1) -48

CDRO CDR2 — CDRA2 U L 700 (1) -48

CDRI CDR2 — CDRA3 U L 700 (1) -48

DRAWING ISSUE

| | | |
|---|---|---|
| 8D | CAMA | UFD |
| 18D | REG | NB |
| 22D | ELM | CB A |
| 24D | DB | |
| 28D | ACD | CB |
| 30D | ENT | CB |
| 32A | TS | CB |
| 35D | NC | B |
| 39D | RA | CB |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

ISSUE 57B

SD-26002-01-B93

# FS 123
CALL PRIVILEGE CONTROL SCREENING

| DRAWING ISSUE | |
|---|---|
| 30D | NJF |
| 32A | TS |
| 35D | KK |
| 39D | RJF |

CDI5 CDI CDI6
CD2 CD7 CD9
CDI CD7 CD8
CD0 CD7 CD7
CD2 CD4 CD6
CDI CD4 CD5
CD0 CD4 CD4
CDI CD2 CD3
CD0 CD2 CD2
CD0 CDI CDI
CD4 CD7 CD0

(118) (116) PRI

CDPI5 (118) (116) NET (118)
CDPI5 CDPI CDPI6
CDPI5 CDP0 CDPI5
CDPI0 CDP4 CDPI4
CDPI0 CDP7 CDPI3
CDPI0 CDP2 CDPI2
CDPI0 CDPI CDPI1
CDPI0 CDP0 CDPI0
CDP2 CDP7 CDP9
CDPI CDP7 CDP8
CDP0 CDP7 CDP7
CDP2 CDP4 CDP6
CDPI CDP4 CDP5
CDP0 CDP4 CDP4
CDPI CDP2 CDP3
CDP0 CDP2 CDP2
CDP0 CDPI CDPI
CDP4 CDP7 CDP0
CDPI5 CDP2

SR21 (122) CDS00-39 SRX00-39
SR20 SRW00-39
SRI9 SRV00-39
SRI8 SRL00-39
SRI7 SRT00-39
SRI6 SRS00-39
SRI5 SRR00-39
SRI4 SRQ00-39
SRI3 SRP00-39
SRI2 SRN00-39
SRII SRM00-39
SRI0 SRL00-39
SR9 SRK00-39
SR8 SRJ00-39
SR7 SRH00-39
SR6 SRG00-39
SR5 SRF00-39
SR4 SRE00-39
SR3 SRD00-39
SR2 SRC00-39
SRI SRB00-39
SR0 SRA00-39
NSS NSS

PREO-4 PREO-4 U L 270 (1) PRI NET XPRE U L P-2.7 XPRE (116) -48
15 ± 1%
NSS U L 91K (116)
PG00-14 PG00-14 U L 270 (1) PRI NET (116) XCDS U L P-2.7 XCDS (116) -48
15 ± 1%
(118) CDI5 (118) CDI
CDG0-9 CDG0-9
4W FR T & CT FR

CKG3 PGR4 (116) PG00-14 PGM00-14
(116) CKG3 PGR3 PGL00-14
G PGR2 PGK00-14
PGR1 PGH00-14
PGG00-14
(116) CKG3 PGF00-14
(116) CKG3 CR PGE00-14
PGD00-14
(116) CKG3 SCK PGC00-14
PGB00-14
(116) CKG3 PGA00-14
(116) CKG3 (122) CDS00-39 CDD00-39
(116) CKG3 CDC00-39
(119) CDRA0-3 CDE0-3
(116) PRE0-4 PRA0-4
PREC PRC0-4
(119) NPRC VPRC
(119) PRC PRC
(116) PRE0-4 (119) PRA0-4 U L 270 (1) -48

(LV) CDS (122) CDS00-39 CSW00-39
-48 L U 270 (1)
DPA (BN) DP (WN) MF MF1
MFA
DPB (BN) DP (WN) MF MF2
MFB
(LV)

(117) SG
SG U L 700 (1) -48
(117) VG
VG U L 700 (1) -48
(100) GRO-7
GWO-7 T B 275 (6) -48

SW- S- -48
7E9

I4W (123) 4W I4W TCCK
2CA/H3
SWC- CTA- CUA-
8A4
INS INC TCCK SCCK
TAS TAN
TOS TOL
TSA- TSC- TCA
TSB- TSC- TCB
2187

39

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B94
BELL TELEPHONE LABORATORIES INCORPORATED
SHEET SIZE 6S
PRINTED IN U.S.A.

STABILO

# FS 124

TRANSMITTING AND CHECKING CDP AND CD INFORMATION TO OUT SENDER

# FS 131

TRANSMITTING CD OF CUSTOMER CLASS OF SERVICE TENS INFORMATION TO OUT SENDER

| DRAWING ISSUE | |
|---|---|
| 240 | PEC EXM AND |
| 300 | EN GDL AND |
| 32A | DL CLK AND |
| 350 | VRR THA AND |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |

OTTA OTT CKG3 PG00-14 CDAOP-4P CDAO-4 CDAP XCDA CDAOS-4S CDAS CDTI TGSI CDA0 CDA1 CDA2 CDA3 CDA4 CDA7 CDT2 CDT3 CDT4 PRE4 PRE3 PRE2 PRE1 PRE0 MT39 PRB4 PRB3 PRB2 PRB1 PRB0 CDBOP-4P CDBO-4 CDBP XCDB CDBOS-4S CDBS CDB0 CDB1 CDB2 CDB3 CDB4 CDB7 CDP0 CDP1 CDP2 CDP4 CDP7 CDP'0 CDP'1 CDP'2 CDP'4 CDP'7 TO MTFC OUT. SDR CONN CKT MC- RC- SC- CDP- CDP 0,1,2,4,7 CDO 0,1,2,4,7 CDO CD1 CD2 CD4 CD7 CD'0 CD'1 CD'2 CD'4 CD'7 CT'0 CT'1 CT'2 CT'4 CT'7 TID TGS3 CTO CT1 CT2 CT4 CT7 CTP0 CTPI CTP2 CTP4 CTP7 498/C1 XCD



COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

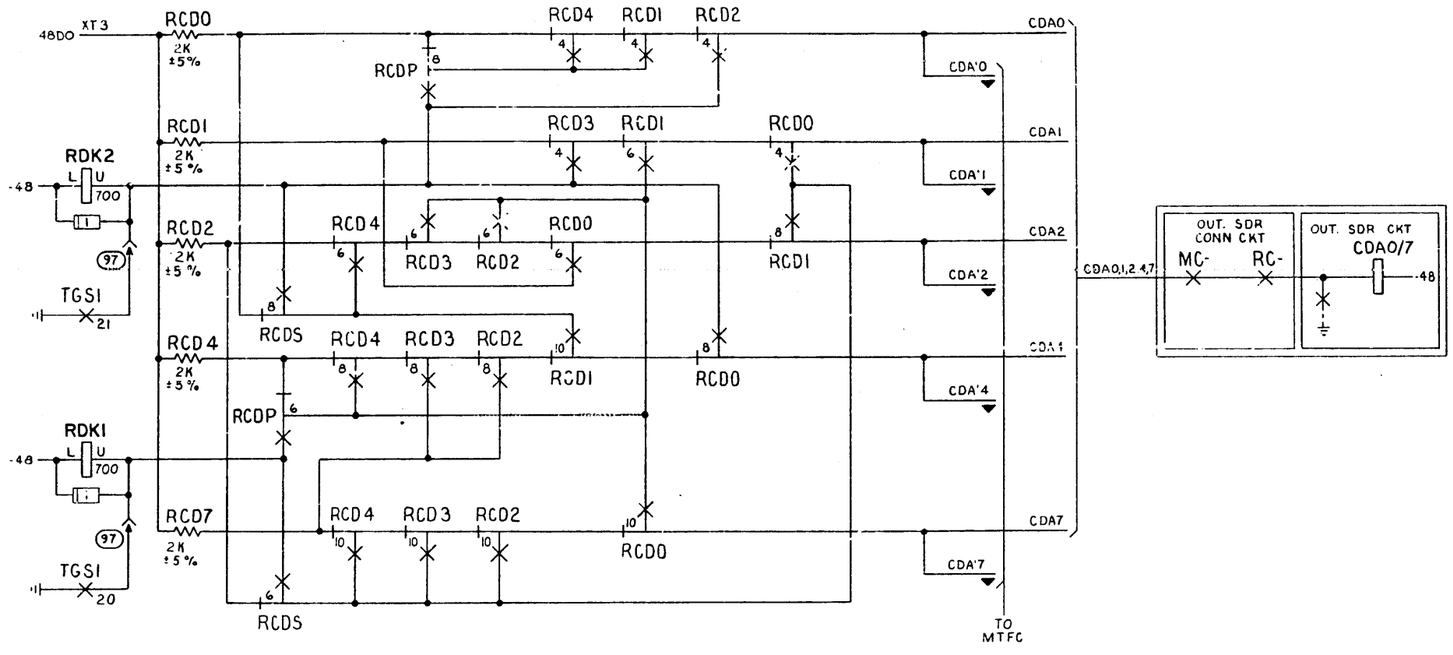
SIZE 6S

SD-26002-01-895A

SD-26002-01-895A

# (97) FS 142

TRANSMITTING AND CHECKING
ROUTING CONTROL DIGIT TO OUT SENDER




| DRAWING ISSUE | |
|---|---|
| 30D | EN GOL AND |
| 37D | MS |

37

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B958

BELL TELEPHONE LABORATORIES INCORPORATED

SYS PLAN 6S

## (95) FS 126
4W CONF CONTROL

CONF CONTROL | 4W ORMC
CE CE | RC MC
CE
CE U L 16
XCE U L P-2.7 ±15% .01UF
(82) CE R
(95,ZVL) -48
ZVL
LOB 28B/H6
CE 2
TO MTFC
XBRL XBRL 6
XCE XCE 6
CE' CE 1
NTA CE BRL U L 700 -48
NCPN
CE 8
T1
CE 10 6

TRAFFIC REG CKT
OP OR 8 LF
IP (81) TOG4 1
9B BY 11 TOL 4
LP TBK 6 LP
LP FTCK 12 LP
LP TR2B 8 LP
LP (59) ARP 10 (59) ARNO-4 TO-4 2 LP
(59) ARS 10 (59) ARNO-4 T5-9 12 LP
LQ RW TOA 6 LQ
LQ (TD) TWT4 2 LQ
LQ (TD) TWT3 2 LQ
LQ TWT2 2 LQ
LQ TWTI 2 LQ
LQ TWTO 2 LQ
TWTO-2 (TD) TWT3,4 10 LQ
(SB) TWTO-2 (TD) TWT3,4 3 LQ
LQ OFH 3 LQ
TCH 1
78F8

## FS 127 (MFR DISC)
4W APPARATUS AND WIRING
FORMERLY PROVIDED AFTER DATE STD

LQ TOL 7 SOG2 2 LQ
LQ
TLCI 7 LQ
LQ TR2 3 LQ
LQ BY 5 OV 5 LQ
LQ TOL 11 LQ
LQ
LQ AOLS
LQ DIR

(MZ) PLS R -48
(VZ) COC 226 -48
RW (VQ) NDI 12 RW
RW

LR CNC 2 LR
CNC 12 LR
LR TPK 10 LR
LS (2K) ORI 10 (IJ) PEGI 6 LS
LS (2K) ORI 9 (IJ) PEGI 5 LS

| DRAWING ISSUE | |
|---|---|
| 30D | EN CAL AND |
| 33D | TS CLK AND |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 41D | |
| 43D | |
| 45D | |

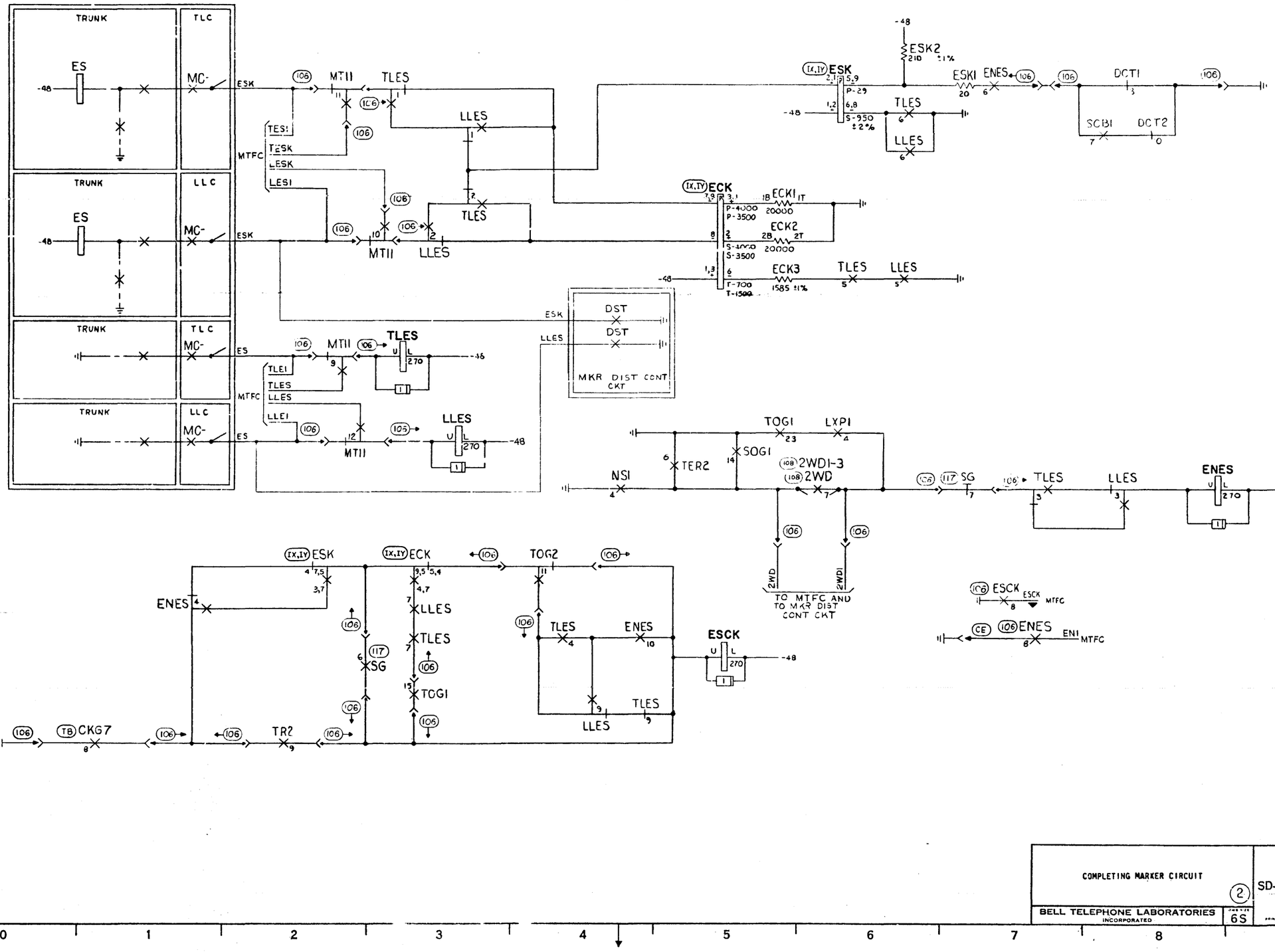
45

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B96
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

0 1 2 3 4 5 6 7 8 9
A B C D E F G H

# FS 128

UNIVERSAL PAD CONTROL




DRAWING ISSUE

18D

20AC

22D

24D

25D

30D

32A

33D

35D

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

ISSUE 57B

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | (2) | SD-26002-01-897 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S | |

# FS 129

PRECEDENCE INDICATION TO TRUNKS & LINES

DRAWING ISSUE

30D LPW BSL AMP

32A KP Su Ag

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

TO MTFC: FRO PRI PRE LPO LPI LPP

TLC MC- LV- MULTI-LEVEL TRK F/FP PO P1 P2 (PRE)

LLC MC- LL HG- MULTI-LEVEL TRK OR AUX LINE CKT. TF/F PO P1 P2

(120) NPCA 10; (116) PREO 10 → 0; (116) PRE1 (120) NPCA 10, 9 → 1; (116) PRE2 (120) NPCA 10, 8 → 2; (116) PRE3 (120) NPCA 10, 7 → 3; (116) PRE4 (120) NPCA 10, 6 → 4

(120) PRL0-4 0-4 U L 700 (120) -48

(121) TPMK 10 TPMK; (121) LPMK 10 LPMK — TO MTFC

(K6) KM (LC) 4; (120) NPC 4; (120) NPCA U L 700 -48

34B/EO: CKG2 (LC) CHAI 4 4WF (120) 10 SPR

CNA 3 (120) SLPR U L 700 -48

(71) RTN 3; (71) RUN 3

(120) STKA 3 (117) TER3

(120) 2LV 3 (120) STPR U L 700 -48

(120) 4WF HMSI 11 9

(121) LNP 6; (121) PML 6

LBTA (120) 3; KLPR (120) 3; SLPR 8

(121) TPMK 6

(71) RTN 6; (71) RUN 6

(121) TPMK U L 270 -48

(121) LPMK U L 270 -48

(121) TPMK U L 270 -48

(121) LPMK U L 270 -48

(120) STPR KTPR U L 270 -48

KLPR U L 270 -48

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B98

32

SD-26002-01-B98

STABILO

(123) PART OF FS 48
CONTINUITY AND GROUND TEST

CONA REP COIL
CONB INDR 400
CON2
CONG 500±1%
GLHA
RCTC
GTI
CONE .2 MEG ±1%
CONF 5100±5% ±20%
HTR
FCGA
CONM 4WC 10,000
-4,-9 500±10%
FCGA 34C/F5
CONH 500±1%
GLHA
RCTC
GTI
(121) LOL
GTK
LOL 22±5%
-9 210 ±10%
(ZPK) CONA1,2
(ZPJ,ZPK) CONA
(29) BX
COND 20KΩ ±1%
CONC .18MEG±1%
CONB 1000 ±20%
CON12
(ZFN,ZFO) CONC .2058-.2142, .21±2%
(ZFN,ZFO) CONB .02025-.02045, .0205±2%
CONA
CONJ 3200±1%
GLHA
CONK 12,000±1%
CONL 12,000±1%
CONB -9 500±10%
COND .004-.006
"C"

FBKA ATTB
FBKA ARTB
FBKA BTTB
FBKA BRTB
4WD
2WE
BTT
BRT
TTT
TRT
MT FC
FAK ATT
FAK ART
FAK (123) 4WD BTT
FAK (123) 4WD BRT
FBK (81) 2WE
PB 226
FBK
PBXA

4W TLC
4W LLC
LINE OR TRK CKT
T1
R1
T
R
SEND
REC
M
MB 250

2W TLC
2W LLC
LINE OR TRK CKT

(M) PART OF FS 48
CONTINUITY AND GROUND TEST

CONI INDR 400
CON2 REP COIL
CONA CON6 500±1%
GLH1
RCTA
GTI
CON4 .2 MEG ±1%
CON5 5100 ±5% ±20%
HTR
FCG
-8 S-15,400±5%
-2,+1 P-115±10%
GLH FCG 34C/E5
CON7 500±1%
TRF
GLH1
BX
CHA
LTR
CON3 20KΩ ±1% .18 MEG ±1%
CON2 .2058-.2142 .21±2%
CONI .02025-.02045, .0205±2%
CON
CON8 3200 ±1%
GLH1
GTI
-4,-9 250±10%, 500±10%
CON3 .004-.006
CON9 12,000±1%
CON10 12,000±1%
GT S-1100 P-1100 T-3700±1%
LLC3
GT 2.14-2.18
GTK
CGT
LGT
PU 2RT RBI 2.4
PBXA
TGT 4250 ±1%
GTT 120 ±1%
MT12
GT 3200 ±1%
GTK GT2
(81) 2WE
(123) 4WD
(123) 4WB
(81) 2WE
(123) 2WB
2W 15H7
ZEV
(123) FBKA
FBK 32H7
(123) RCTC
(123) 4WD TZ
(123) GLHA
GLH
(123) CON2
CON2
(81) 2WE
CON9

AC-DC AUD ±AUD "C"
TO POWER RINGING CKT
RING G "C"
TO SUCCEEDING COMP MKR
TO FIRST DIAL TONE MKR FROM LAST COMP MKR
AC1
AC2
AC3
-48

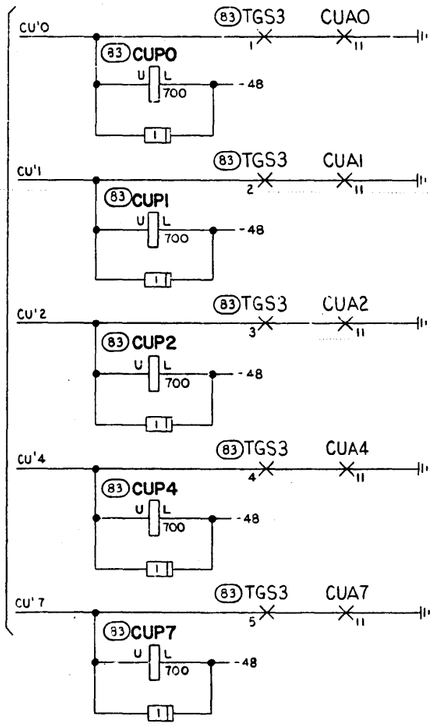
DRAWING ISSUE
18D
22D
24D
25D
26A
30D
32A
37D
39D

ISSUE 65B

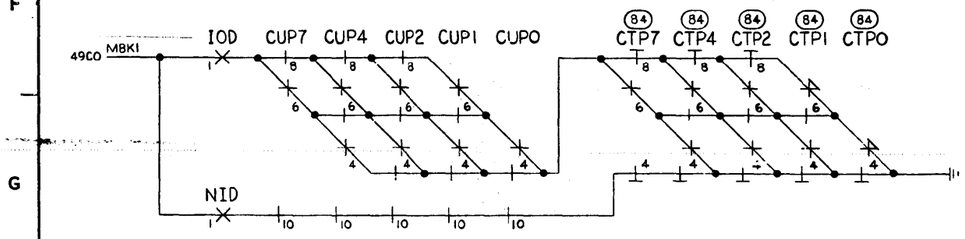
COMPLETING MARKER CIRCUIT
(2)
SD-26002-01-B 99
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S
PRINTED IN U.S.A.

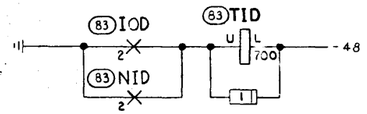
# FS 130

TRANSMITTING CUSTOMER CLASS OF SERVICE UNITS INFORMATION TO SENDER




4986




| | |
|---|---|
| DRAWING ISSUE | 29A |

29

CROSSBAR SYSTEMS
NO. 5
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B100A

BELL TELEPHONE LABORATORIES INCORPORATED

FORM 6S

PRINTED IN U.S.A.

SD-26002-01-B100A

STABILO

# FS 132

CENTREX READ IN AND READ OUT CHECKER

RATE TREATMENT SCREENING

7F9

MTFC CTUK

MTFC RDR

MTFC RDS

MTFC RYK

MKR DIST CONT CKT

64A4

TO MKR DIST CONT CKT

CNTI TO DAS ETS

4708

TRUNK LINK CONN CKT

CENTREX NO TEST TRUNK

8789

4188

| DRAWING ISSUE | |
|---|---|
| 29A | EN GOL AEG |
| 300 | EPN GOL AEP |
| 32A | TS GLE AM |
| 330 | TS GLE AM |
| 370 | MS |
| 390 | RP |
| 41D | |
| 45D | |

ISSUE 67B

COMPLETING MARKER CIRCUIT

SD-26002-01-B100B

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

PRINTED IN U.S.A.

# FS 133

CENTREX READ IN AND OUT

RE TO DAS ETS

RE TO MTFC

TRUNK CKT | TR LINK CONN CKT | TO MTFC

CTO CT1 CT2 CT4 CT7 CUO CU1 CU2 CU4 CU7

CSTO CST1 CST2 CST3 CST4 CST5 CST6 CST7 CST8 CST9

CSU0 CSU1 CSU2 CSU4 CSU7

CTK2 CUK2 CTKI CUKI

RDO RDI RDIA MCS CGS RIK DTI3 RDS LIA CNTO CNTI TRF2 RE ATT XCS TC-A TCGB

SD-26002-01-BI01

ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-BI01

BELL TELEPHONE LABORATORIES INCORPORATED

# FS 134
CENTREX TRAFFIC REGISTER OPERATION

# FS 135
OPERATION WITH ORIGINATING LINE IDENTIFIER

TRAFFIC REG TRANSLATOR CKT

CGO-9 -48 ⊗CGO-9

CGO-9 (UL) CGSO-9 — S- S- SC- (7F8) — CPC (ON) — (PT)RE 6 — CB6 5

CSOC-99 CSTO-9 — CSUO-9 (UD,UE) CSUO-9 6 (UL) (ZSB) FLG (PW) (PT) ATT (ZVY) (ZVV) LDN 115F9

CSTO-9 -48 — CSTO-9 — CSTO-2 6 — CST3-5 (QY) 6 — CST6-9 (WW) 6 — (PT) RE 12 (ZYH) TOG5 11 (ZSC) 3 (PS) (ZSL) — 100B/H2 RIK (SN)

(131) PGLII 1 — (131) PGRII — (IJ) PEGI 23 22 1

TO CORRESPONDING CG-RELAYS ASSOCIATED WITH OTHER COMP MARKERS

CGO-9 — ZA — AC7 7 — AC4 7 (UL) — (QJ) XII 2 (QJ) (UL) — (QK) (90) XIIA 11 (QK)

TRF (PW) (PS)

LDN (PW) (PS) (PT) CDN 10

INCG (90) XIIA 1 (UL) (PW) (PS) (PT) TRFI 10 (PW) (PS) (UL) (102) DTF 11 CB6 6 (IJ) PEGI 2 (UL)

ITCG (PS) (PS) LDN 5

ADTF

TO TRAFFIC REGISTERS — DTF 3 — (PS) ATT (PS) LDN 6

ORCG — (IK) (131) PGL02 1

(131) PGR02 33 32 (IK) L.KC 2

WAT (153) WPG2 8 — (PS) XIIB 4 — AC7 11 — AC4 11 — (ZZP)

WIN (153) WPG1 1 — (90) XIIA 10 — LDN (PS) 2 — (ZZP)

WOR (153) WPG1 2

TO ALL CG-RELAYS ASSOCIATED WITH SAME MARKER

ORIGINATING LINE IDENTIFIER

D — MF — MLF — TFN -48 — TFN LK (UX) RK3 7

RCY -48 — CKG RCY (UX) RCY 6

ECH 10 — OCH 10

(85) OLI U L 270 1 -48 — OLI (85) OLI 5 FTKI 4

(85) OLIA U L 270 1 -48 — (UV) OLI — JXPA 383/MD — OLIA

(85) OLIT U L 270 1 -48 — OLIT

LSP5 -48 — LSP5 (UX) JSQ5 9

LSP4 -48 — LSP4 (UX) JSQ4 9

LSP3 -48 — LSP3 (UX) JSQ3 9

LSP2 -48 — LSP2 (UX) JSQ2 9

LSP1 -48 — LSP1 (UX) JSQ1 9

LSP0 -48 — LSP0 (UX) JSQ0 9

LSP -48 — LSP (UX) SQO 1

GROUP BUSY CKT — RB — RBD D — RBMF MF — RC (UX) (FT) TBTA 10

(VM) 3 PS — (123) 4WA 11 — CAA 7

PSB — TO OTHER COMPLETING MARKERS

| DRAWING ISSUE | |
|---|---|
| 21D | KPP, EPM, AHD |
| 22D | GEL, WP, AHD |
| 24D | PEC, EPM, AHD |
| 25D | WL, 4A0, AHD |
| 26A | WJT, 4A0, AHD |
| 30D | RN, APL, AHD |
| 32A | BF, CLK, AHD |
| 33D | EF, CLK, AHD |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 42A | |
| 43D | |
| 44A | |
| 45D | |

ISSUE 64A

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B102

6S

# FS 136

LINE LINK PULSING
ROUTE RELAY CONTROL

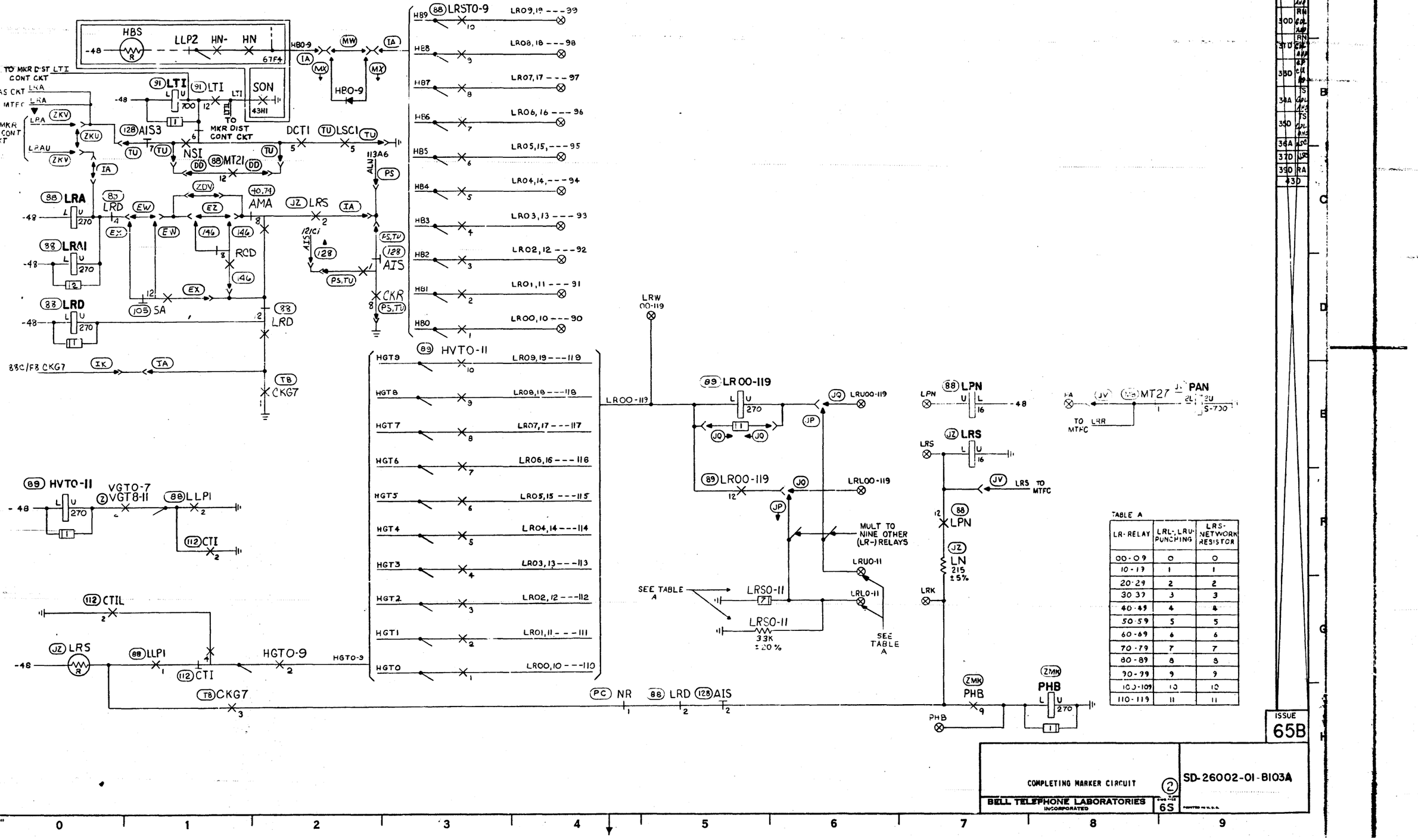



TABLE A

| LR- RELAY | LRL-, LRU- PUNCHING | LRS- NETWORK RESISTOR |
|---|---|---|
| 00-09 | 0 | 0 |
| 10-19 | 1 | 1 |
| 20-29 | 2 | 2 |
| 30-39 | 3 | 3 |
| 40-49 | 4 | 4 |
| 50-59 | 5 | 5 |
| 60-69 | 6 | 6 |
| 70-79 | 7 | 7 |
| 80-89 | 8 | 8 |
| 90-99 | 9 | 9 |
| 100-109 | 10 | 10 |
| 110-119 | 11 | 11 |

DRAWING ISSUE

| | |
|---|---|
| 22D | EN JD |
| 23A | CBT |
| 25D | RWD |
| 30D | RN |
| 31D | RN |
| 35D | CM |
| 34A | TS |
| 35D | TS |
| 36A | |
| 37D | |
| 39D | RA |
| 43D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-8103A

SD-26002-01-8103A

# FS 137
LINE LINK PULSING
LINE SEIZURE

LLP LINE CKT

LLP LINE SELECT & MAINTENANCE CONTROL CKT

LINE, LINE LINK & CONN CONTROL CKT

-48 F SL F F

FA LL- VF- ALL LINES IN SAME VF

FA HG- ALL LINES IN SAME HG-

VGB- MBI HGJ-9

VO-4 VFTO-4 ZHM FTKI 2 6A/E3

CENTREX TIE LINE OR ATT TRK

-48 IPC

VF- VF-- HG- MC LF

LF TO CLVA CKT OR TO ETS PWR & DATA INFAC CKT

LINE CKT

LINE, LINE LINK & CONN CKT

300 OF F MC-

FK (120) 4WF 4 FK 117F7 (91) ZKS ZKV

TWO WAY ONLY

E F MC- BY

ZJU (91) LLC4 5 LXPI 10 TBY LBTA -48 107B1

ZKV BY1 BY2 ZKV

LLC4 MKR DIST CONT CKT

MKR DIST CONT CKT

ZKV LF LLC4 LFG ZKV (91) LLF 1 DCT1 9 TU

ZKU ZKV PDK ZKV ZKU

(91) LLC4 4 ZIT (94) MT17 11

PDK TO MTFC

(94) PDK2 210 ±1% -48

(IX,IY) PDK 2,1 5,9 P-29 (94) PDK1 20 (94) PDCO 4 ZMY PDCO 12483

BG 6,8 1,2 S-950 -48 (94) 8

FK U L 16 2 XLF .01 IU IL P-2.7 ±15%

LF R -48

FKA FK XLF BS13 LF R -48

MKR DIST CONT CKT

(IX,IY) PDK 7,5 3,7 (94) PDKA U L 700 1 -48

(121) PLFK 12

(94) PDKA 2

(91) FK 12 FK TO MTFC

TO MKR DIST CONT CKT FKB ZKV

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 6IB |
| BELL LABORATORIES | SD-26002-01- | | B103B |

# PART OF FS 138

CLASS OF SERVICE MATCH

DRAWING ISSUE

| | |
|---|---|
| 35D | TS GPL AND |
| 36A | MS |
| 37D | MS |
| 39D | RP |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B104A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-B104A

# PART OF FS 138

CLASS OF SERVICE MATCH

1048/B9

NTMR

(DX) NTMR

(DX) NTMR 2L IL 640 -48

(53) TSC9 (DX) TCAA TUA9 12 20
(DX) TCBA TUB9 20

(53) TSC8 (DX) TCAA TUA8 12 19
(DX) TCBA TUB8 19

(53) TSC7 (DX) TCAA TUA7 12 18
(DX) TCBA TUB7 18

(53) TSC6 (DX) TCAA TUA6 12 17
(DX) TCBA TUB6 17

(53) TSC5 (DX) TCAA TUA5 12 16
(DX) TCBA TUB5 16

(53) TSC4 (DX) TCAA TUA4 12 15
(DX) TCBA TUB4 15

(53) TSC3 (DX) TCAA TUA3 12 14
(DX) TCBA TUB3 14

(53) TSC2 (DX) TCAA TUA2 12 13
(DX) TCBA TUB2 13

(53) TSCI (DX) TCAA TUAI 12 12
(DX) TCBA TUBI 12

(53) TSC0 (DX) TCAA TUA0 12 11
(DX) TCBA TUB0 11

(DX) (SP) MU9 MU8 MU7 MU6 MU5 MU4 MU3 MU2 MUI MU0

(96) MPI,2 10 9 8 7 6 5 4 3 2 1 OU9 OU8 OU7 OU6 OU5 OU4 OU3 OU2 OU1 OU0

MMU9 MMU8 MMU7 MMU6 MMU5 MMU4 MMU3 MMU2 MMUI MMU0

(96) MPI,2 20 19 18 17 16 15 14 13 12 11

(96) MPO 20 19 18 17 16 15 14 13 12 11 MP 104A/E6

MM

(SP) (ZDS) (78) CSK (DX) TMR 2U IU 640 -48

(DY) (DX) 4

(DY) (ZDS) (DX) 1 (96) MCS

(DX) TMR 12 NTMR 104B/A2

(DX)

(TB) CKG7 (SP) 11 (SP) 10 4

(SP) RCYI

7 BNB (ZDP)

(96) MM 11

(96) MM U L 270 -48

(96) CMU7 (96) CMU2 2 5

(96) CMU7 (96) CMUI 5 5

(96) CMU7 (96) CMU0 3 3

(96) CMU4 (96) CMU2 1 1

(96) CMU4 (96) CMUI 2 2

(96) CMU4 (96) CMU0 5 5

(96) CMU2 (96) CMUI 3 3

(96) CMU2 (96) CMU0 2 2

(96) CMUI (96) CMU0 1 1

(96) CMU7 (96) CMU4 1 3

(96) MPO 10 9 8 7 6 5 4 3 2 1

TU9 TU8 TU7 TU6 TU5 TU4 TU3 TU2 TUI TU0

(UD,UE) CSU9 (UD,UE) CSU8 (UD,UE) CSU7 (UD,UE) CSU6 (UD,UE) CSU5 (UD,UE) CSU4 (UD,UE) CSU3 (UD,UE) CSU2 (UD,UE) CSUI (UD,UE) CSU0

CUA0,1,2,4,7 CUO,1,2,4,7 101H3

(96) CMUO,1,2,4,7 U L 270 -48 (SP)

CM

(96) CM U L 270 -48

TO MTFC CM

(SP) (DX) TMR 10

DRAWING ISSUE

350 TS TB SM

390 TRK

430

ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B104B

BELL TELEPHONE LABORATORIES INCORPORATED 65

# FS 139
TENS BLOCK SCREENING

63H2 LPL (AC) 0SG0-4, (28) 0SG5-9, (67) 0SG10-11

(88) LLP2 — SNGI — (RT) TER4 — NSI

(88) LPI — LPI — AIS (129)

(121) OHS — OHS

(120) DN — DN — (117) TER3 — DNI

(112) CTI — CTI — (ZKK) INI — MKR DIST CONT CKT — TST — TSTL

(K6,06) KM — KM — MT15 — TO MTFC

CIO-4 — CIO-4 — CIA — PAN 105A3

66F8 (137) CIO-4 — CIOS-4S

CIOP-4P — P-700

TO ETS PWR & DATA INFAC CKT — CI — (ZWE) CIO-4 47H0

(ZWE) CI — (ZWD) — (ZSW) — LL 77F8

MKR DIST CONT CKT — LLP — TTL

TO MTFC — (JT,JU) — (JV) — PAN — P-700

(86) POTS — POTS — TO MKR DIST CONT CKT

(PS,TK) LDN — LDN

(89) LLPI — LLPI

(ZXA,ZXB) MRI — MRI — (ZXA) — (ZXB)

(104) BLT — (ZXR) AUS — BLT — (PH) ICC — (ZWU) (152) WBA — (RO) UA — (RO) 2L — UL — 2LN SA0-9 — 71H5

(104) BLDA — BLDA — (PH) ICC — (ZWU) (152) WBA

(4) DAT — DAT TO MKR DIST CONT CKT — DAT — (PH) ICC — (ZWU) (152) WBA

(104) BLTL — TO MTFC

(PE) — (ZWT) — (ZWU) — (RJ) — (RE) SPL2 — (RH) — (AP) EGN — (RO) — (ZIT)

(86) TTL — (ZKV) — (88) LPI — (JT,JU,JV) PAN — (SC) LLIA — (86) TTL — XRC 77H0

IRS0 (90) XIIA (PS,TP) ATT (TF) — INRC

IRS1 (PS,TP) XIIB (90) ATTI (PS,TP) — INR1

IRS2 (PS,TP) XIIB (90) ATTI (PS,TP) — INR2

IRS3 (PS,TP) XIIB (90) ATTI (PS,TP) — INR3

IRS4 (PS,TP) XIIB (90) ATTI (PS,TP) — INR4

IRS5 (PS,TP) XIIB (90) ATTI (PS,TP) — INR5

IRS6 (PS,TP) XIIB (90) ATTI (PS,TP) — INR6

RNBTN — (86) TBS0-3 — TRC — (12) TRC (FH) — PTK — RGTA

RNB15 — RCN15 — RNB14 — RCN14 — RNB13 — RCN13 — RNB12 — RCN12 — RNB9 — RCN9 — RNB8 — RCN8 (252) — RNB5 — RCN5 — RNB4 — RCN4 — RNB3 — RCN3 — RNB2 — RCN2 — 77A8

TO MTFC — TBS0-3 — (86) TBS0-3 — NO. GR CONT CKT — MC- — NO. GR CKT — TBS-

DIRECT ACCESS PRETRANSLATOR CONN CKT — MC-

(86) TBS0 — (86) TBS1-3 — (SC) LLIA — (PH) SCR — (DO)

(112) CTI — (112) CTIL

(PS) — (PE,PS) AIS — AIC2 (128) — (PE,PS128) — (TB) CKGT — (128) — OFCL 12H4 — NAI 63H4

(PF) — TBIB — RIB — BNB (103) — ALN (104) — BLTL

(PE) (104) BLT RNG — (104) BLTL

(PE) (104) BLDA

DRAWING ISSUE

25D PEC
28D RLP
29A RN
300 CM
31D CM
TS
33D CLK
34A NC
35D NC
36A RDT
37D RDT
39D PEC
41D
43D
45D

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B105

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STADILO

# FS 140
CALL WAITING CONTROL

CALL WAITING LINK CKT

LINE LINK CONN CKT

TO MA TST CONT CKT

TO OTHER MARKERS

TO MASTER TEST FR CONNECTOR CKT

CWH

CWT

CWU

HN-

T-

U-

CWCI

CWC2

CWK

CWR

CWNO

CWNI

CWH

CWHO

CWH1

CWH2

CWH4

CWH7

CWTO,1,2,4,7

CWUO,1,2,4,7

HNO,1,2,4,7

TO,1,2,4,7

UO,1,2,4,7

DRAWING ISSUE

43D

44A

ISSUE 69B

5163-5563

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-8106

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-8106

# PART OF FS 104
RINGING SWITCH CONTROL

LBTB 4WF 2WG LBTB LBB
LITA 4WF 2WG LITA LIB
117C1
LLC3 LIT HGK
LBT HGK
34C/F2-F4
LBL
LBTA
CWL1
SPL3 NT6 NT 106E4
CWKI
LLC1 CHAI DIRA
LOLA
LOLC
RV3
SRK RS4 RSK
NTT
CWS
EXA
TBY 103B/D6
LLS2
77G6
CTUK
ICC CNTI ATT
MCS
CM
CGS
RDI
CTUK
TBIB
OFH CK66
LIA
TRT
OV RCK2 TBH OFH1
BY
3708
LNT SRK
NRS
BYK
SRK2
SRK1
RCK1
OFH
TER3
CNC
2WG
DN
DIRA
RSK CSW OFH1 RCK2 DIRA OV TBIB TBH
RLT RCY5
TRH1
ATT DLTC
RSK CSW
ATT2
CDN
TCK
TR2C
OFH1
CDN
TRF1
ATT OVK
RS2 RS6 NRS
RSK CSW SRK RCK2 TR2
AIC2
TERI
TR2C
5IKC
4BKC
OFH
RCK2
RCK 0.5-0.625
RCK 300 ± 5%
TO DAS ETS CKT
RCK3
RYC ITRI RCK3
OFH
TCK1
TO MTFC OR OT TIC
FNB RIB TBH
FNA
TBIB
ITRI
RV3
RCK2
TCH
LCH
RCT5
DLT DLTC
MLT
DTF1 LNA XIIA
CTIL DZ
INI
IDN
CDNC
DAT
LRN
AGA CNA MRA RV3 SPL2
BI DA
DATK
DTF2
LRAI
WDP
WBA
NAD
ADD
SMAT
CNC
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B107
BELL TELEPHONE LABORATORIES INCORPORATED
65
DRAWING ISSUE
22D HC BW NMD
25D JHT WGD AMD
27A RLP FMW FMD
29A EN GDL AMD
30D EN GDL AMD
32A CLK
33D CLK AMD
34A PWR GDL AMD
35D PWR GDL AMD
36A WM
37D WM
39D RP
41D
43D
44A
SD-26002-01-B107
STABILO

# PART OF FS 89

NUMBER GROUP CONTROL
APPLIQUE FOR USE WITH INTERCEPT
AND BLANK NUMBER CALLS

PLBA · CIA · CI4 · CI3 · CI2 · CI1 · CI0 · RIPA · BNA · DCIA · RIA · VCIA · TBIA · ITNA · ITNB · XN · ITNC, ITND

AISI · NAI · NAIC · NARI · NE · LRS · LRA · RCY2 · RNH · BLTL · BLTR · AB · PLB · PLBI · RCY5 · RDL · PRE4 · TER4 · 4WF · PBN · IPT · RV · LB · BNB · RIB · TBIB · LIN · TIN · TERI · 2SA,3NA 5ST,6NT · 8SP,9NP · ISE 4NE,7RN · ITRI · CKG2 · LBTA · AIC · BRA · BRB · RCY3 · RCY4 · RCY · DCTA · FLG · LRAI · MT22 · CHA · ANR · WMBA · WCV · CKR · UA · CM · MCS · CTUK · HDTFI · ATTI · CNTI · XIIA · 2L · DACI · SPLI · NH · SPH · RIW · TBI · NAG · RIP · PLBI · VCI · RI · BN · GN · NRY · LLP2 · LLCI · TO MTFC · TO VKH DIST CONT CKT · TO MCH DIST CONT CKT · TO DAS ETS CKT

NOTES:
1. 8 (ZIK), 7 (ZIL)

| DRAWING ISSUE | |
|---|---|
| 22D | GEL UDP AHG |
| 23A | DB |
| 24D | DB |
| 25D | MUT |
| 27A | KY |
| 30D | E |
| 31D | N |
| 32A | EP |
| 33D | TS |
| 34A | NC |
| 35D | NC |
| 39D | REL |
| 40A | |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B108

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# FS 65
MISC OUTGOING SENDER INFORMATION

SERVICE OBSERVING REG CONN
CO2
CO1
CK
TO MTFC
NOBT
OBST
MKR DIST CONT CKT
FCK
CMJ
OBS
OBS1
ZKC
OBS
RC-
MC-
NCMJ
TOB
FN
ZI
ZJC
ORIG REG CKT
ORIG REG MKR CONN CKT
NOB
ANI
CHAI
RTST
ZRE
CMF2
SENDER CKT
OUTGOING SENDER CONN CKT
EP
SC-
ND
NDK
TGSI
NDI
ORCO-2
CAMA
VO
VN
SLKI
TOBS
TO EXPANDED OPERATIONAL TRUNK TEST AND REMOTE TRUNK MAKE BUSY CKT
OGC
SCC
SCC1
TVT
ZCT
ZCS
ZCI
ZYP
ZYZ
MT17
OTF
TVA
SCC
XTV
P-8
OBS
XOB
NOB
AIS SENDER
T
TO DAT CKT OR TO DAT TST OR CDT APPL
CKS
MTFC
MTC
ND
AIC
MC5
TS3
TO OTTIC
TO MINI-ROTL INTERFACE CKT
ZGD
ZFX
NDT
S-1075
P-1175
NSI
TTA
MTI2
NDT1
NDT2
NDT3
TO OTHER MARKERS
CGC
4703
LSCI
TU
PCL2
IMG
OTT
TO OT TIC
TO OT TST CKT
BY
NDK
TO MTFC
LLC4
TTK1
TTK2
TTK3
LINE, LINE LINK AND CONN CKT
LT
F
LTA
LTM
MBKI
LTG
LINE CKT
BY,RB
TTK
SK
DCTI
TT1
TT2
ZKV
ZKU
ZIT
TTG
TO MINI-ROTL LTG
MKR DIST CONT CKT
TTA
CAM
CAMA
AUTO PROG TRUNK TEST CKT AND/OR ROTL REG CKT
AIS LINE CIRCUIT
AIS SENDER AND LINE CIRCUIT CONN
TC-
AIS SENDER
MTC
ITDO
AIC
GL-
MC5
MKT1
MTFC
TRUNK LINK CKT
TRUNK LINK CONN CKT
TRUNK CKT
TT
MC2
LV2-9
TTM
MB2
MBKI
MTPI
ATPI
SI
TO MTFC OR OT TST CKT & OT TIC

DRAWING ISSUE
22D GEL L&W AND WIRE
23A EDM AND RLP
25D GAD AND RLP
28D EMU AND
35D KEG GDL
37D PAZ
39D RA
41D
45D

ISSUE 67B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B109
BELL TELEPHONE LABORATORIES INCORPORATED
6S

SD-26002-01-B109

(115) FS 143
ROUTING CONTROL

| DRAWING ISSUE | |
|---|---|
| 30D | EN BN, ARD |
| 32A | TS CLK RMK MG |
| 37D | MG |
| 39D | MG |

TO MTFC
SLB
P(0-4)4
SR3 SR2 SRI
SGA FGA TGA CDRA2 CDRAI PRAO-4
AVI AV2 AV3 AV4 AV5 AV6
AGAI AGA2 AGA3 AGA4 AGA5 AGA6
SRI EGD HGD HT CORAO RGI-6 AGI-6 CDRAO CDRAI CDRA2 CDRA3
SR2 ROT RAVI RDL PRC NPRC SR2 SR3
SR3 CKG3 RST
CDRA3 CDRA2 CDRAI HT HGD SKB ROT EA ERA
AGAI AGA2 AGA3 AGA4 AGA5 AGA6 RGAI-6 RTGI-6
AVI-6 AGI-6 RGI-6 SRI-3 RAVI 41A7 ERA (ZYF)
RGA RGA6 RGA5 RGA4 RGA3 RGA2 RGAI RG6 RG5 RG4 RG3 RG2 RG1
RST PRC CR SCK NPRC IPR
HTP HGD EGD HT HGD EGD CKG3
FGA SGA TGA ROI RO2 RO3 JSQ0 JSQ1 JSQ2 JSQ3 JSQ4 JSQ5
AGAI-6 AGI-6 RST PRAO-4 P(0-4)3 ROT
PRR RAVI 4WC
T3 CKG7
TO ALL W SPG COMPL MKR
IPR S-700 P-700 IPRS
LAST W SPG COMPL MKR
INT W SPG COMPL MKR
FIRST W SPG COMPL MKR
STX IPRX IPRL
MASTER TEST FR JK, LP & KEY CKT
IPR KEY
ALARM

TO MTFC

39

COMPLETING MARKER CIRCUIT

SD-26002-01-B110

BELL TELEPHONE LABORATORIES INCORPORATED

STABILO

# (115) PART OF FS 145
ROUTE AND ROUTING CONTROL DIGIT SELECTION

# (99) PART OF FS 144
ROUTING PROGRAM

PEG COUNTER AUXILIARY CIRCUIT

TRAFFIC REGISTER CIRCUIT

TABLE A

| CONTACT NO. | ASSOCIATED G PUNCHING |
|---|---|
| 00 | G00 |
| 01 | G01 |
| 02 | G02 |
| 03 | G03 |
| 04 | G04 |
| 10 | G05 |
| 11 | G06 |
| 12 | G07 |
| 13 | G08 |
| 14 | G09 |
| 20 | G10 |
| 21 | G11 |
| 22 | G12 |
| 23 | G13 |
| 24 | G14 |
| 30 | G15 |
| 31 | G16 |
| 32 | G17 |
| 33 | G18 |
| 34 | G19 |
| 40 | G20 |
| 41 | G21 |
| 42 | G22 |
| 43 | G23 |
| 44 | G24 |
| 50 | G25 |
| 51 | G26 |
| 52 | G27 |
| 53 | G28 |
| 54 | G29 |

*TOG AND SOG SCREENING RELAYS OPERATED ON ROUTINE (NOT-PREEMPT) SEARCH ONLY

DRAWING ISSUE

| | |
|---|---|
| 30D | DN |
| 32A | CL |
| 33D | CP |
| 34A | CL |
| 35D | GH |
| 39D | FK |
| 404 | |
| 430 | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-BIIIA

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 6S

SD-26002-01-BIIIA

## (115) PART OF FS 145
ROUTE AND ROUTING CONTROL DIGIT SELECTION

## (99) PART OF FS 144
ROUTING PROGRAM

## (97) FS 141
REGISTRATION OF ROUTING CONTROL DIGIT TO BE OUTPULSED

DRAWING ISSUE

| | |
|---|---|
| 30D | NP AMP |
| 32A | ZP CLK AAP VRA TYI |
| 35D | RDT |
| 39D | FLK |

RMOO-143 RM200-343 (LA) GA(00-143) GA(200-343) (RR) RM4(00-143) RMC4(00-23)

RMOO-143 RM200-343 (LA) SGA(00-143) SGA(200-343) (RR) RPC(00-143) RMC9(00-23)

RMOO-143 RM200-343 (LA) FGA(00-143) FGA(200-343) RMC10(00-23)

RMOO-143 RM200-343 (LA) CDM(00-143) CDM(200-343) (RR) RM6(00-143) RMC6(00-23)

RMOO-143 RM200-343 (LA) RS(00-143) RS(200-343) (RR) RM5(00-143) RMC5(00-23)

RMOO-143 RM200-343 (LA) CDB(00-143) CDB(200-343) (RR) RM7(00-143) RMC7(00-23)

RMOO-143 RM200-343 (LA) CDS(00-143) CDS(200-343) (RR) RM8(00-143) RMC8(00-23)

TO 11 OTHER (RM-) RELAYS IN SAME APP FIG. 99

ZCU,ZCV RS 190,200 RSG

RCD4P RCD4 RCD4S RCDP XRD P-300 S-300 P-2.7 ±15%

RCD3P RCD3 RCD3S P-300 S-300

RCD2P RCD2 RCD2S P-300 S-300

RCD1P RCD1 RCD1S P-300 S-300

RCDOP RCDO RCDOS P-300 S-300

ISSUE 67B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B111B

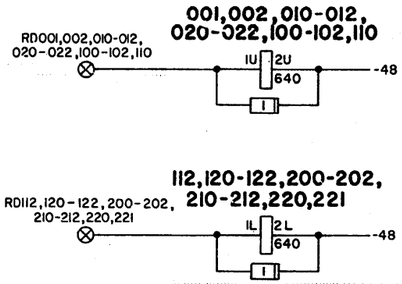
BELL TELEPHONE LABORATORIES INCORPORATED 6S

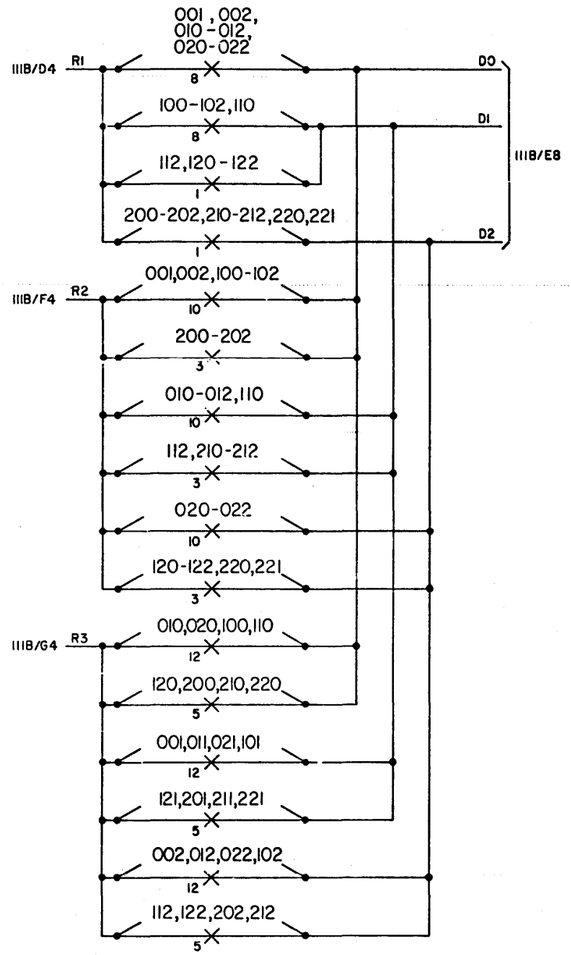
STABILO

SD-26002-01-B111B

# (148) FS 167

CONTROL OF ROUTE CONTROL DIGIT BY SELECTED ROUTE





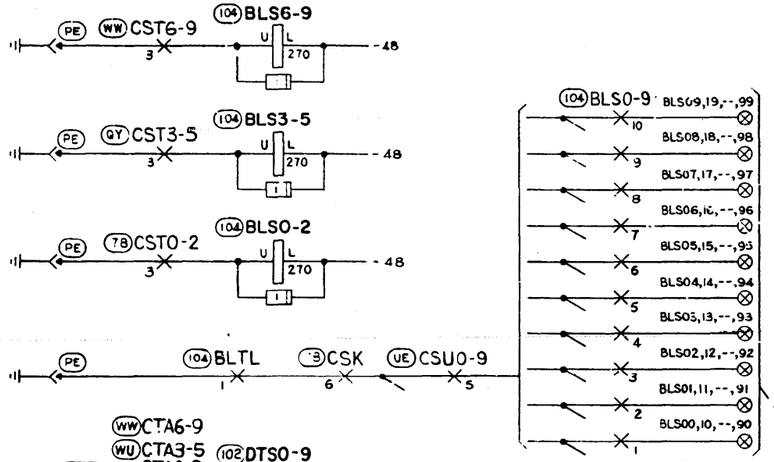

COMPLETING MARKER CIRCUIT (2) SD-26002-01-BIIIC

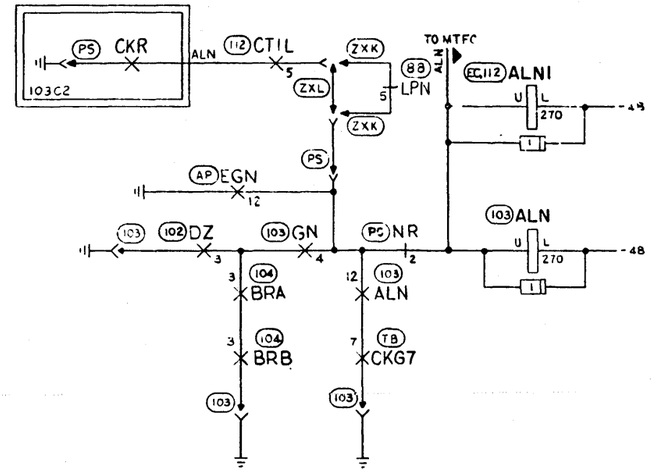
BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

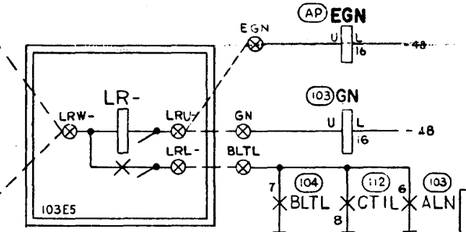
SD-26002-01-BIIIC

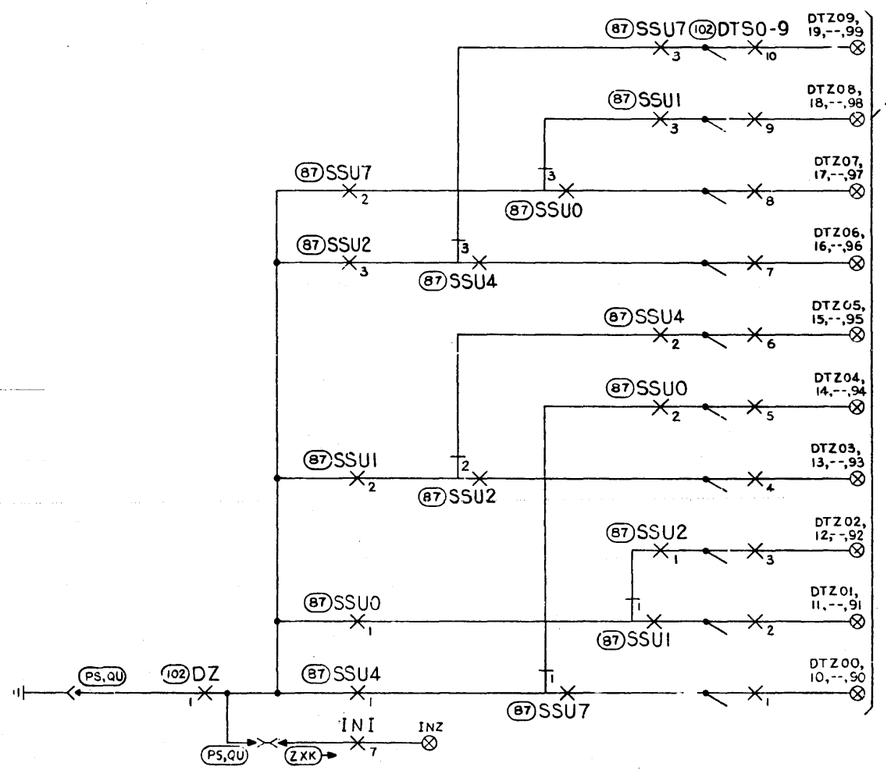
# FS 146
LISTED NUMBER GENERATION

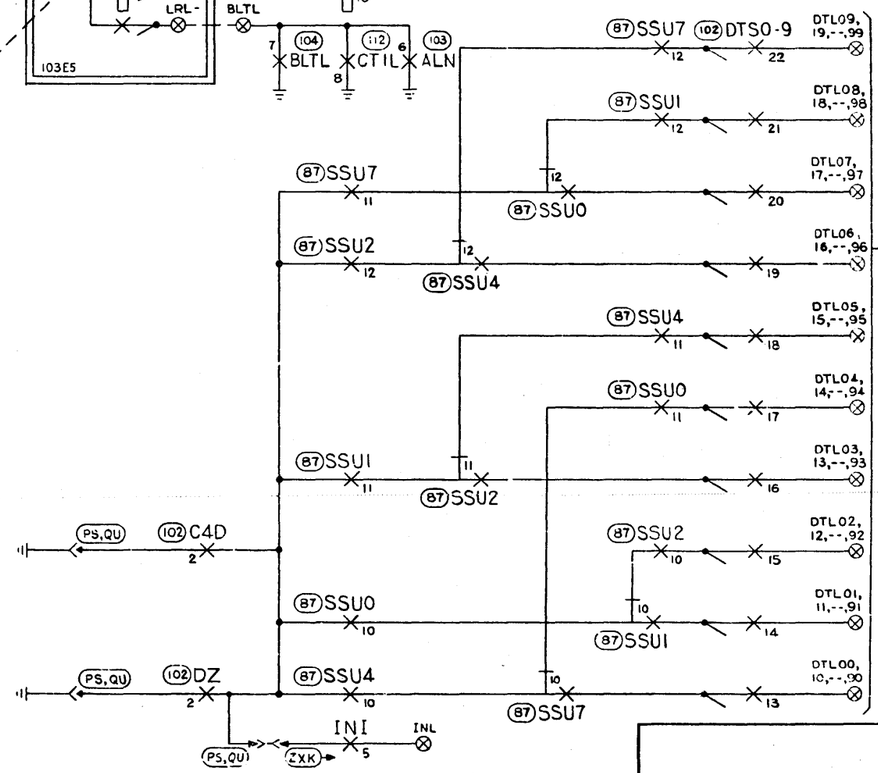
| DRAWING ISSUE | |
|---|---|
| 25D | PNP 1/66 AND RLP 1/66 AND |
| 27A | LP 2/DL AND MS |
| 37D | |
| 41D | |

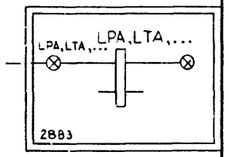



41

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-8113

BELL TELEPHONE LABORATORIES INCORPORATED

6S

STABILO K+E

# PART OF FS 147
TRAFFIC SAMPLE CONTROL

XT2 -48 SP 105 SPC 2000±5% SA 105 AV EZ 146 RCD 10 EZ SPC
GBS
MBK6 L U 700 1
-48 105 NSP 2000±5% SA 4 105 SA 9 105 PI 105 ZDU 146 RCD 11
TO MTFC AND DAS CKT SMP AV SPC NSP AV EZ NSP
40,74 TGS2 12 105 PI
498/DI

OUTGOING SENDER CONN CKT
MC- SC- SPC
MC- SC- NSP

SENDER CKT
SPC ONI SPC -48
NSP ONI NSP -48

TRAFFIC SAMPLE MONITOR AND TEST CKT
SPC MK- SMP SP -48

MASTER TEST CONTROL CKT
TSI TSCT TS2
TO OTHER COMPLETING MARKERS

EF MT29 MT15 8 FF MT29 6 AV CSA 2 AV CTK 4 5 7 AV CTKA U L 950 -48

AV ZWL ZWM 9 TR2B ZWL
AV AI AV

AV CSA U L 16 -48
LW,AV QK ORI 4 LX LX LW AI TS R -48
5 128 AIS2
12 ZXR AICI
CKG4

TAO-4 TA
TSO-4 TS
105 CT

TRAFFIC SAMPLE CKT
TS TS 270 T
TS SA CTR COUNTER STEP CT R -48 CT
SA -48 RESET
RES -48 SPL RES TRANSFER
TS
TS SA RES -48 SA
CT
TS TS SL
TS TS SA
TS TS TBR TBR

ZWM TR2B ZWM 4 9
LX, .N, ZWL
AV CTK
TO OTHER TRAFFIC SAMPLE CIRCUITS ASSOC WITH SAME MARKER
CTK 9 P-4 8 S-525 -48

TRAFFIC SAMPLE MONITOR AND TEST CKT
LV- MK- CTA -48
LV- MK- SMP -48
LV- MK- TBR -48

MTI5 TR2B LW 8 9 LX,AV 105 105 SA 7 105 LW,AV LX MTI5 TR2B 8 9 LX 105 AVKI 4
MXJ AMA3 5
105 DCT2 8 IJ,IK PEGI 7 105 SA 2 LW,AV LW,AV LW,AV ZWM EF MT29 8 ZWM AV IAO CT

REMOTE OFFICE TEST LINE REGISTER CKT
SA MCJ SA ZCR

MASTER TEST CONTROL CKT
SAC -48 SAC MTI5 12
SSC -48 SSC MTI8 3 105 SA 1 MTI5 7 105 SA U L 270 -48
KEY SA 105

AUTO PROG TRK TEST CKT
SA TSI

TO OTHER COMPLETING MARKERS

83B/C3 SA SA
TO OTHER TRAFFIC SAMPLE CIRCUITS ASSOC WITH SAME MARKER

TRT 7 AV TBR
8,9 AS,AT EXA

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES INCORPORATED
SD-26002-01-B114A
2
6S

DRAWING ISSUE
36A #3 ESS
39D F1K
41D
43D
45C
67B

SD-26002-01-B114A

# PART OF FS 147
TRAFFIC SAMPLE CONTROL

MASTER TEST CONTROL CKT OR REMOTE OFFICE TEST LINE CKT

AUTOMATIC PROGRESSION TRUNK TEST, REMOTE OFFICE TEST LINE REG CKT

4708

TRUNK GROUP TRAFFIC SAMPLE CKT

TSST · TRSI · TRS · MT3 · MT42 · TO ALL OTHER COMPLETING MARKER CIRCUITS · 1ST COMPLETING MARKER · ALL OTHER COMPLETING MARKERS

XSP · XSPI · SMC · SMR · XSP2 5K · XSP3 2K · TGTS · SAR · NRR · RCR · RCD · NRD · RDL · DISA · DISI · ZMD · ZMC · SMK · SMP · IAO · SOGI · SMR · STX · SMC · NSI · IAO · MT29 · MT3 · TCT2 · TCT3 · TCT · TGS- · TGS00-99 · C- · SA · +130 · -48

MASTER TEST CONTROL CKT OR REMOTE OFFICE TEST LINE CKT AND/OR REMOTE OFFICE TEST LINE REG CKT

AUTOMATIC PROGRESSION TRUNK TEST

TO OTHER COMPLETING MARKER CIRCUITS

ONN, ISE, 2SA, 3NA, 4NE, 5ST, 6NT, 7RN, 8SP · RN2T · RUN · ZRL · 71 · SMT

TCT1 · TCT · AVKI · AVK · 44B6

MBS1-9 · MBT9 · BLR · ZTC CPMA · 40 MBSO · ZMO · TOG3 · ZHH CPMC · BLR · CP4 · CPP · FAC2 · 47C5

TO OTHER COMPLETING MARKER CIRCUITS

MASTER TEST CONTROL CKT

RCD · NRD · MT3 · 60A3

LAST MARKER · INTERMEDIATE MARKER · FIRST MARKER

MTG MTS · MTS · MT42 · MT3

TRUNK GROUP TRAFFIC SAMPLE TEST CKT

TRUNK GROUP TRAFFIC SAMPLE CKT

MT

| DRAWING ISSUE |
|---|
| 36A CMK |
| 37D CMK |
| 38A RA |
| 43D |
| 45D |
| 61B |

COMPLETING MARKER CIRCUIT

SD-26002-01-B1148

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

2

# FS 148

CENTREX INFORMATION
TO THE TRUNKS AND REGISTER

TRUNK CKT

TRUNK LK & CONN CKT

TRANSFER REGISTER CKT

TRANSFER REG MARKER CONN CKT

TRANSFER REG LINK CKT

TRANSFER TRUNK CKT

TO MTFC

TO DAS ETS AND TO MKR DIST CONT CKT

TO DAS ETS CKT

MKR DIST CONT CKT

| DRAWING ISSUE | |
|---|---|
| 25D | JGB MJO AMV |
| 27A | RLP EAU AMO |
| 29A | RN BAL AMO |
| 33D | RP QA AMO |
| 35D | UP BAL AMO |
| 39D | RP |
| 41D | |
| 43D | |

DRAWING ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

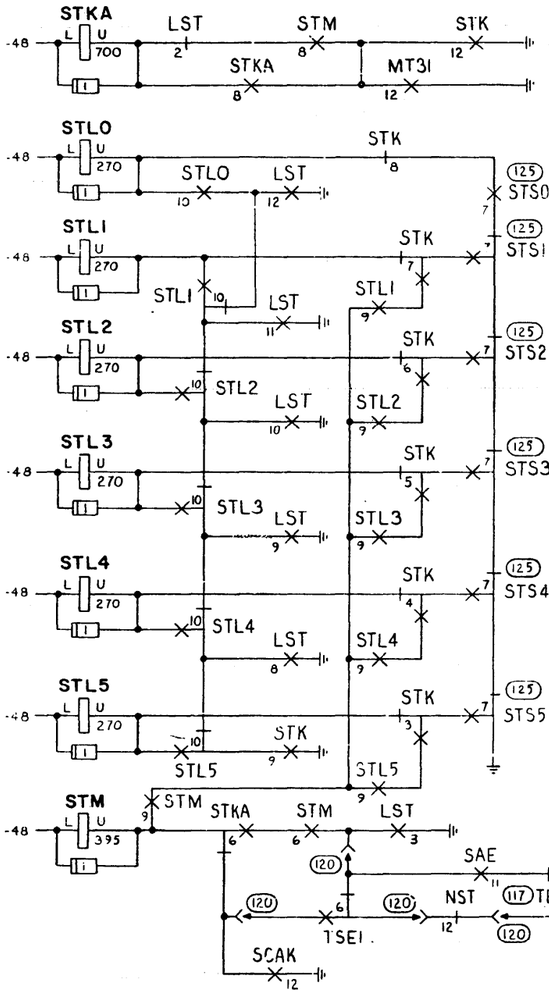
BELL TELEPHONE LABORATORIES INCORPORATED

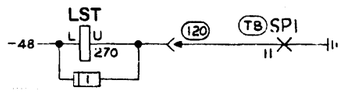
6S

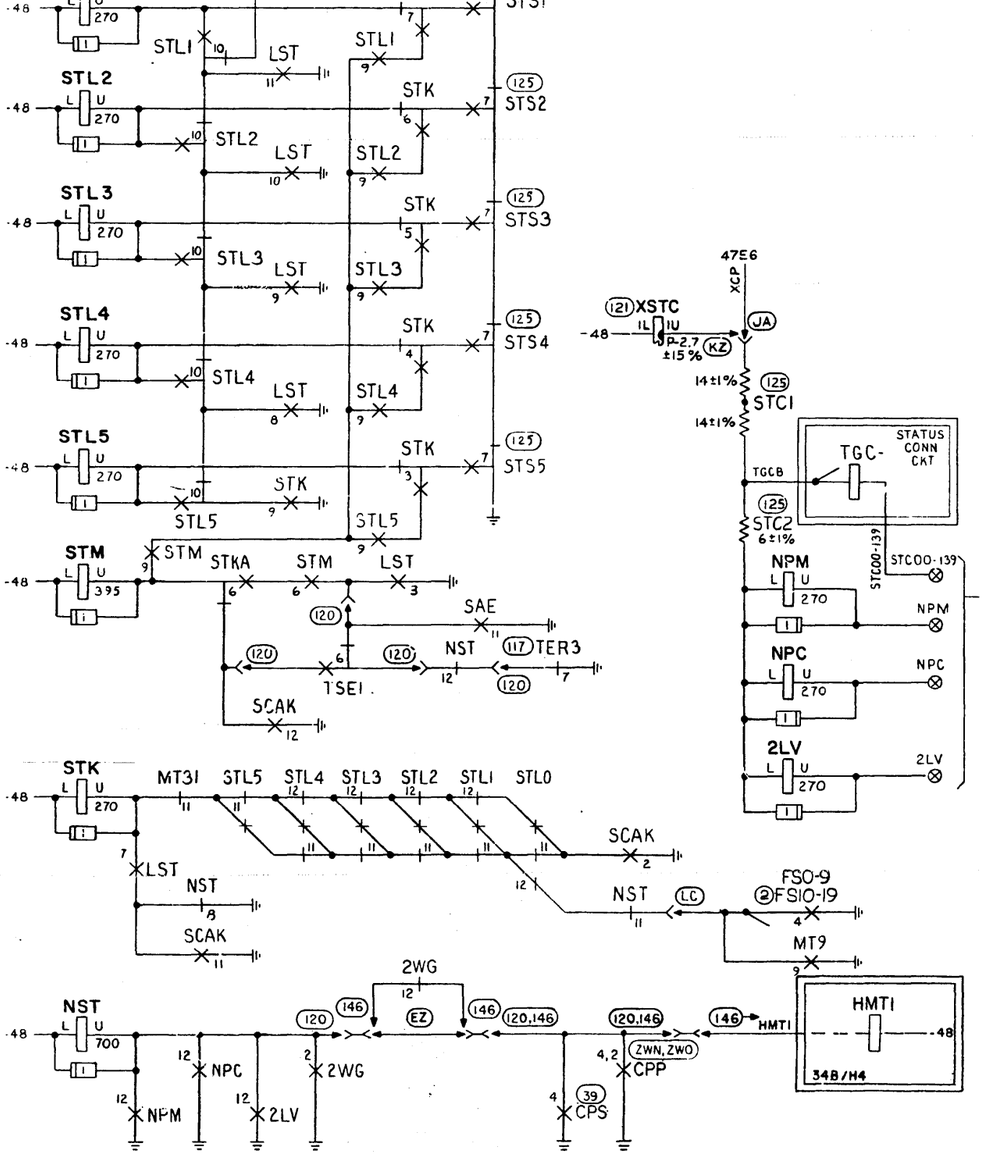
SD-26002-01-B115

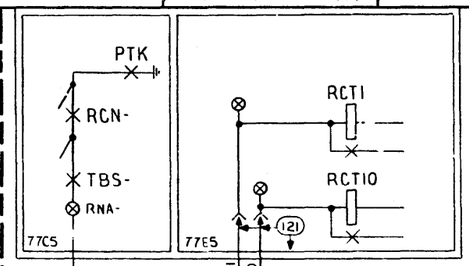
SD-26002-01-B115

# (120) PART OF FS 149
PREEMPTION CONTROL

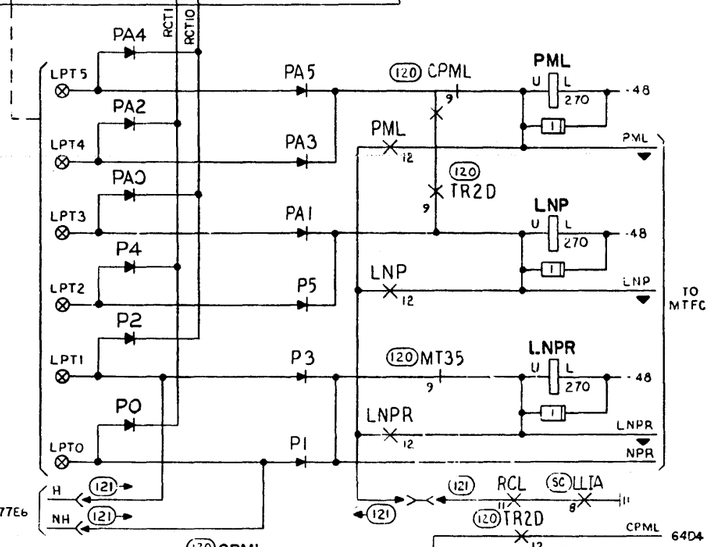


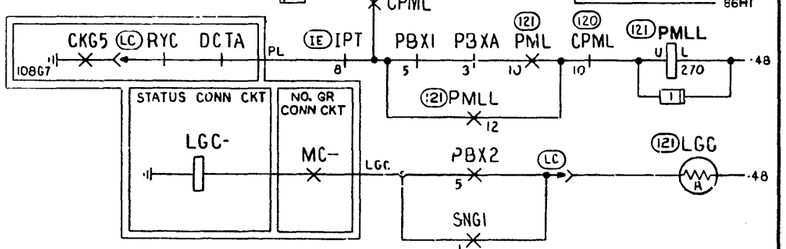



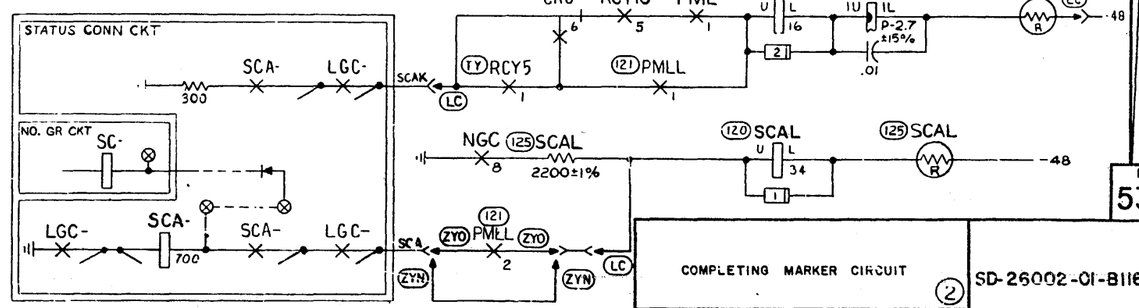



# PART OF FS 149
PREEMPTION CONTROL




| DRAWING ISSUE | |
|---|---|
| 30D | EN |
| 32A | TS |
| 36A | MS |
| 38A | RJF |
| 39D | RJF |
| 41D | |

ISSUE 53B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B116

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# FS 150
LINE PREEMPTION CONTROL

DRAWING ISSUE
30D NLF
32A
34A
350
390 RA

(120)RLL L U 270 -48 (11) (120)MT33 9 (120)RLL 8 MXT 6 (12)LBTB 6
(116)PRE3 11 (120)LITA 2 (120)KLP2 10 (120)KLPI 10 (120)KLP0 10
(121)MS 4 (121)PMLL 4 (120)LBTB 1
(120)MT34 10 (116)PRE2 11 (120)KLP2 8
(121)PML 3 (120)LITA 1 LLC3 2 (LC)
(120)DN 8
(120)KLPI 8 (120)KLP2 6
(121)LNP 3
(120)MT33 8 (116)PRE1 11 (120)KLPI 6
(120)MT33 U L 875 -48
(120)MT35 8 MT34 4
(120)MT34 U L 700 -48
(120)MT33 6
(120)MT33 11
(120)MT33 8 (116)PRE0 11 (120)LITA 4
(120)LITA 3 (120)LBTB 2 (120)MT33 5
TO OTHER COMPLETING MARKERS
MASTER TEST CONTROL CKT
ALB1 ALB ALB L KEY
(120)MT33 10

LBTA -48 (LC) LBB
LI -48 (LC) LIB
107A2
(OX)LIA 10 (120)RLL 2
(120)2WG 8
LBA LIA
(120)2WG 7 9 (120)4WF
(120)LITA L U 270 -48 (11)
(LC) HGK LBT (LC) HGK LIT LLC3
34C/F3

MS L U 700 -48 (11) PLFK 4 (121) (TB)SPI 10 (121)
6 MS
(120)LBTB L U 270 -48 (11) 8 (120)4WF

TO MTFC
AF AFI
(IE)DCTA 4 8 (120)MT35
+130 (LC) (121)PLF +42±5% 6 (120)4WF LLC3 13 HGK 1 CNA 4
(121)PML 4
(121)LNP 7
6 SCBI
(WR)DCT2 9
(81)TOG4 10
(LH)VFTO-4 9 VFTO-4
(LH)VFT 1
(LH)VFT .1 MEG
LLC MC- LL LG-
AUX LINE CKT PREEMTABLE LINES
F ON E

PLF R -48 XPLF 1L 1U P-2.7±15% .01 PLFK L U 16 (121) FK
AFK 2
TO MTFC
(120)4WF FK HG- F 300 RL
103B/L5

(LC) LLC3 3 (QX)LIA 12 (120)SLPR 7 (120)RLL 7 RL HG- F RL -48
(120)RL 1
(121)XLRL 1L 1U P-1175 -48
LRL TO MTFC

(QX)LIA 5 (120)MT34 7 (120)MT32 7 (120)MT35 7 BYP F MB SW BYP -48
LTA
TO OTHER COMPL MARKERS
BYP TO MTC

ISSUE 53B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B117
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B117
STABILO

# (125) PART OF FS 151

LEAD TEST AND STATUS

STATUS CONN CKT — TO ALL TGC-/LGC- RELAYS FOR SAME MKR

LINE OR TRK CKT

DRAWING ISSUE

300 [redacted]

32A TS CLF AMP

35D [redacted]

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

XST — 48 — 11 — 10 — P-1K

STXA

STS — R — -48

STS5 — L U — 395

STS4 — L U — 395

STS3 — L U — 395

STS2 — L U — 395

STS1 — L U — 395

STS0 — L U — 395

XST5 — 9 — 210

XST4 — 9 — 210

XST3 — 9 — 210

XST2 — 9 — 210

XST1 — 9 — 210

XSTG — 9 — 210

2.4K — -48 — 2.4K

TSTS

TOK

(170) MT30

TGBK — 9 — 500

TOKL — 9 — 500 — 1K

TOKA — 9

TOKA — U L — 700

TSTS — L U — 395

STSK — L U — 395

STS1 STS2 STS3 STS4 STS5

(120) MT28 — STS5 — 12

(120) MT28 — STS4 — 11

(120) MT28 — STS3 — 10

(120) MT28 — STS2 — 9

(120) MT28 — STS1 — 8

(120) MT28 — STG — 7

TS5 — LS5

TS4 — LS4

TS3 — LS3

TS2 — LS2

TS1 — LS1

TSG — LSG

TGC- — LGC- — SCA-

BYPI — BYPI PO P1 P2 — MB

TGB — BAT — TGC-

TO TGC- FOR SAME TRK GR IN OTHER MARKERS

SFT — SF — 83D1

(120) SCAK

(120) LST

(TY) RCY5

(120) TR2D

(120) MT35

TGG — TGC-

TOK — TGC-

TO MTFC

XST

TO MTC — NOMG — (120) MT30 — TOKA — 12

TO OTHER COMPLETING MARKERS

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-8118

BELL TELEPHONE LABORATORIES INCORPORATED

6S

35

STABILO

# (125) PART OF FS 151
LEAD TEST AND STATUS

| DRAWING ISSUE | |
|---|---|
| 30D | CM |
| 32A | PVS |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |

TRUNK LINK & CONNECTOR CIRCUIT

TRUNK CIRCUIT

STATUS CONNECTOR CKT

FTC- FT- (14D9)

P2 P1 P0 BYP1

P4 P1 P2 P3

TPI-4(A-E) TGC-

TPI-4 (A)

TPI-4 (B)

TPI-4 (C)

TPI-4 (D)

TPI-4 (E)

STS1-4

STSK

TO MT CONT

SKFT

TO OTHER COMPL MARKERS

(120) MT30

STS1-4

(120) STSK TR2D

XFTG 1U 2U 2450 -48

STS5

STS0

(120) MT30

(125) STXA

NUMBER GROUP CIRCUIT

LINE CIRCUIT

SC- NS (7H28)

SI P2 P1 P0 BYP

P4 P1 P2 P3

PI-3 LGC-

P4 LGC-

PI-3

(120) STLI-3

(120) STK LSB R

-48

(120) MT32

(125) STXA

XLSB 2L 1L 145 1H

STS0 STS5

(120) MT32

(120) TR2D

(120) STKA

(120) STL4

(120) TR2D

(116) PRE4

(120) STL5

P4

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-BII9

32

SD-26002-01-BII9

# FS 152
ACCESS GROUP CONTROLLER INPUT

| DRAWING ISSUE |
|---|
| 42A |
| 43D |

TABLE A

| ARTO-9 RELAY | a | b | CONT REL |
|---|---|---|---|
| 0 | 1 | 6 | |
| 1 | 2 | 7 | |
| 2 | 3 | 8 | ARTC |
| 3 | 4 | 9 | |
| 4 | 5 | 10 | |
| 5 | 1 | 6 | |
| 6 | 2 | 7 | |
| 7 | 3 | 8 | ARTA |
| 8 | 4 | 9 | |
| 9 | 5 | 10 | |

TABLE B

| ARTO-9 RELAY | c |
|---|---|
| 0 | 1 |
| 1 | 2 |
| 2 | 3 |
| 3 | 4 |
| 4 | 5 |
| 5 | 8 |
| 6 | 9 |
| 7 | 10 |
| 8 | 11 |
| 9 | 12 |

| DRAWING ISSUE |
|---|
| 57B |

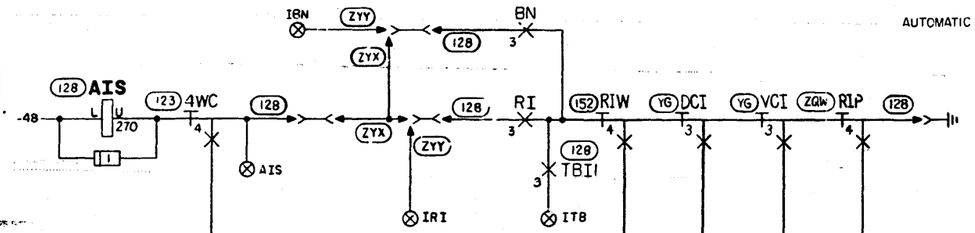
COMPLETING MARKER CIRCUIT (2) SD-26002-01-8120

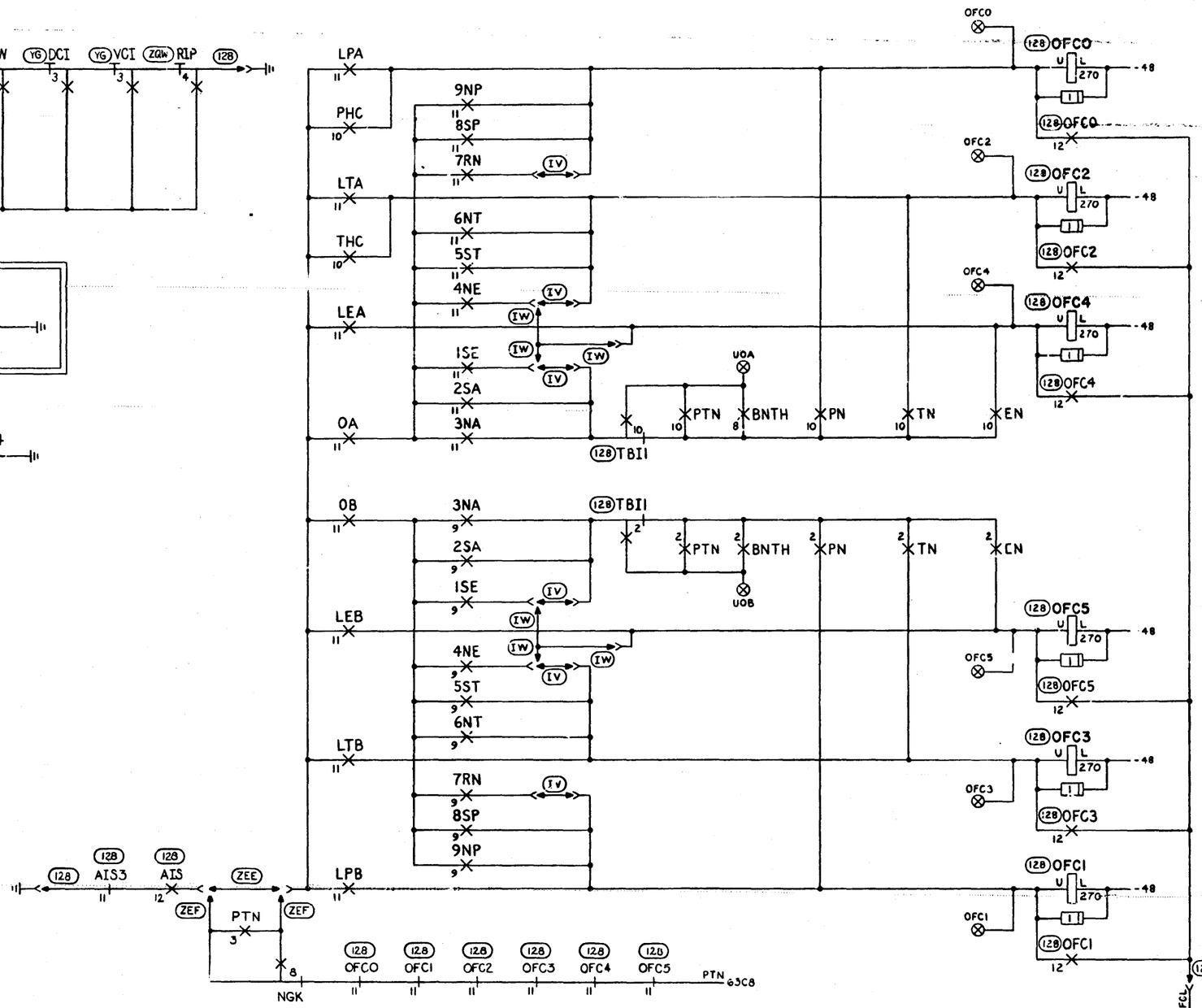
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-8120

# FS 153

AUTOMATIC INTERCEPT CONTROL USING LILP SENDERS




DRAWING ISSUE

| | |
|---|---|
| 33D | 1 B 4PL 4W |
| 34A | LEA 4W 2W |
| 39D | R.F. |
| 41D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT

2

SD-26002-01-B121A

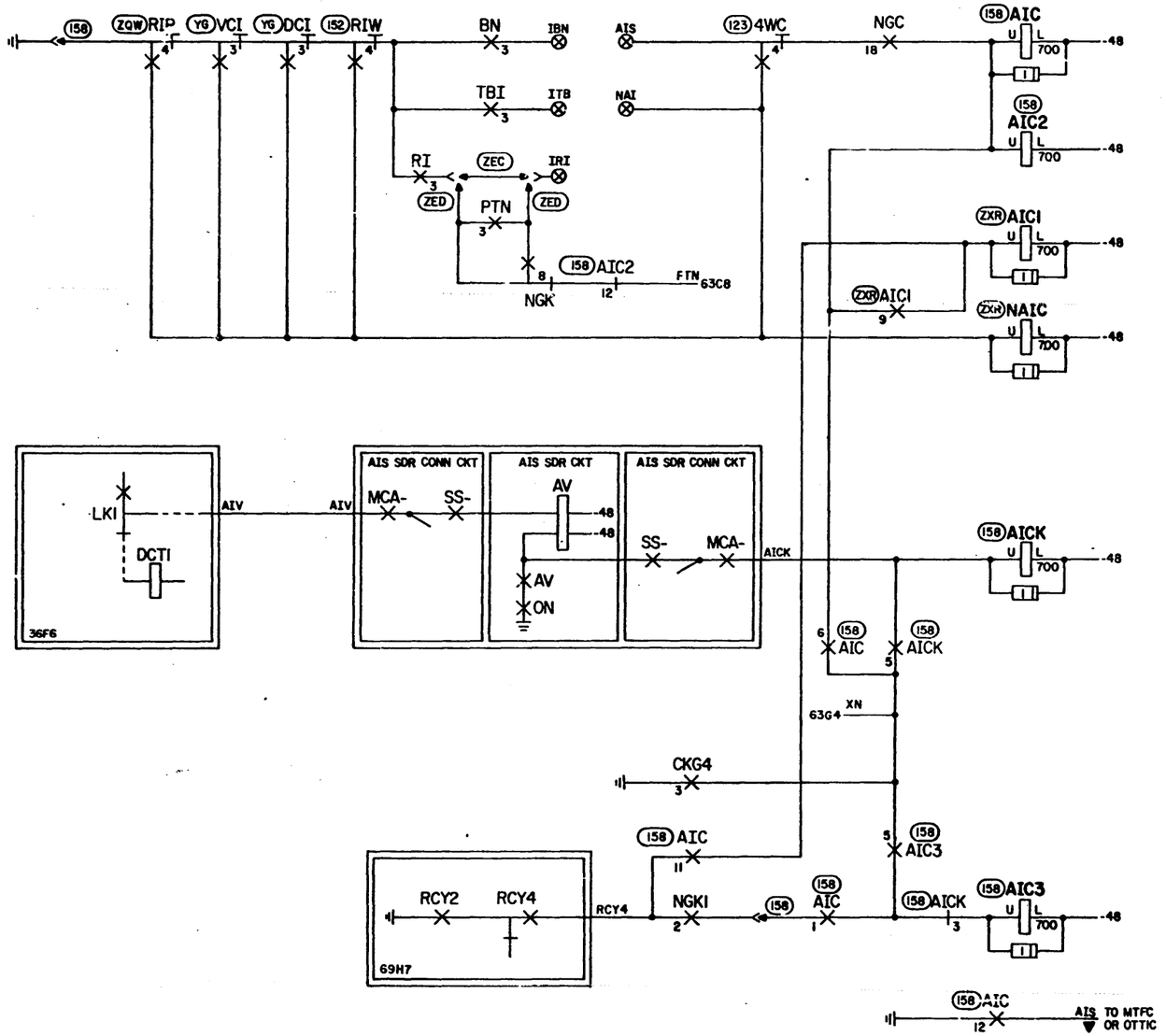
BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-B121A

KIMBERLY

# FS 175

AUTOMATIC INTERCEPT CONTROL, USING DEDICATED AIS SENDERS




| DRAWING ISSUE |
|---|
| 41D |
| 42A |
| 43D |
| 44A |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B121B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-B121B

# FS 154
WIDEBAND SWITCHING CONTROL

ORIG REG CKT

ORIG REG MKR CONN CKT

RC- MC- SCK (AC) NWB — SCK — SCK

RC- MC- CR (AC) WB — CR — CR — 20B/F3

STRA SSR RC- MC- LO (AB) NWB — LO — LO — 51H2

RC- MC- LI (AB) WB — LI — LI — 52HI

NWB (AC) (133) (133) NWB U L 700 I -48

WB (AC) (133) (133) WB U L 700 I -48

WIDEBAND LINK CKT

LLC3 AOA (133) WBR (133) WBS U L 270 I -48

SWITCH A PL- SM- PL- AS WBS 10 WRV (133) 2 FAK (133) 5 WB R -48

A -48 -48 SWITCH B SM- PL- BS WBS 9 WRV (133) 4 FBK (133) 5

PL- -48 -48 B CCK DC

DCK DC WK WBS 8 WBKA 9 210 (133) WBKA 5 7 (133) WBK U L 270 I -48

XWB WBS 7 XWBA 9 210 WBK 350 XWB 350 (133) (133) XWBA 5 7 (133) XWB U L 270 I -48

-48 PL- TRUNK LINE CKT KT FB-- TRK LK CONN CKT MC- WBS (133) WBS 6

WRV L KEY MASTER TEST CONTROL CKT WRV (133) (MB) MT27 9 (133) WRV U L 700 -48

TO ALL COMPLETING MARKERS

CTX (133) WBR 10 CGS (BZ) CGS -48

WCG (133) WBR 9 (BZ)

WBA (133)

AOC (133) 6B/E4 (133) WBR AOC 7 EQ TER5 4 4 LCH AO (133) AOC -48

MR (133) MRA -48

(133) (BZ)

CNA (133) WBR 5 CN (BZ) CNA -48

6B/C4, E4

WBR (IE) IPT 3 (133) WBR U L 270 I -48

SWB3 (133) WB 4 WB3 (133) NWB 4 NWB3

SWB2 (133) WB 3 WB2 (133) NWB 3 NWB2

SWBI (133) WB 2 WBI (133) NWB 2 NWBI

SWBO (133) WB 1 WBO (133) NWB 1 NWBO

(133) WB 12 EQ TER5 3

DRAWING ISSUE 37D RD1 41D

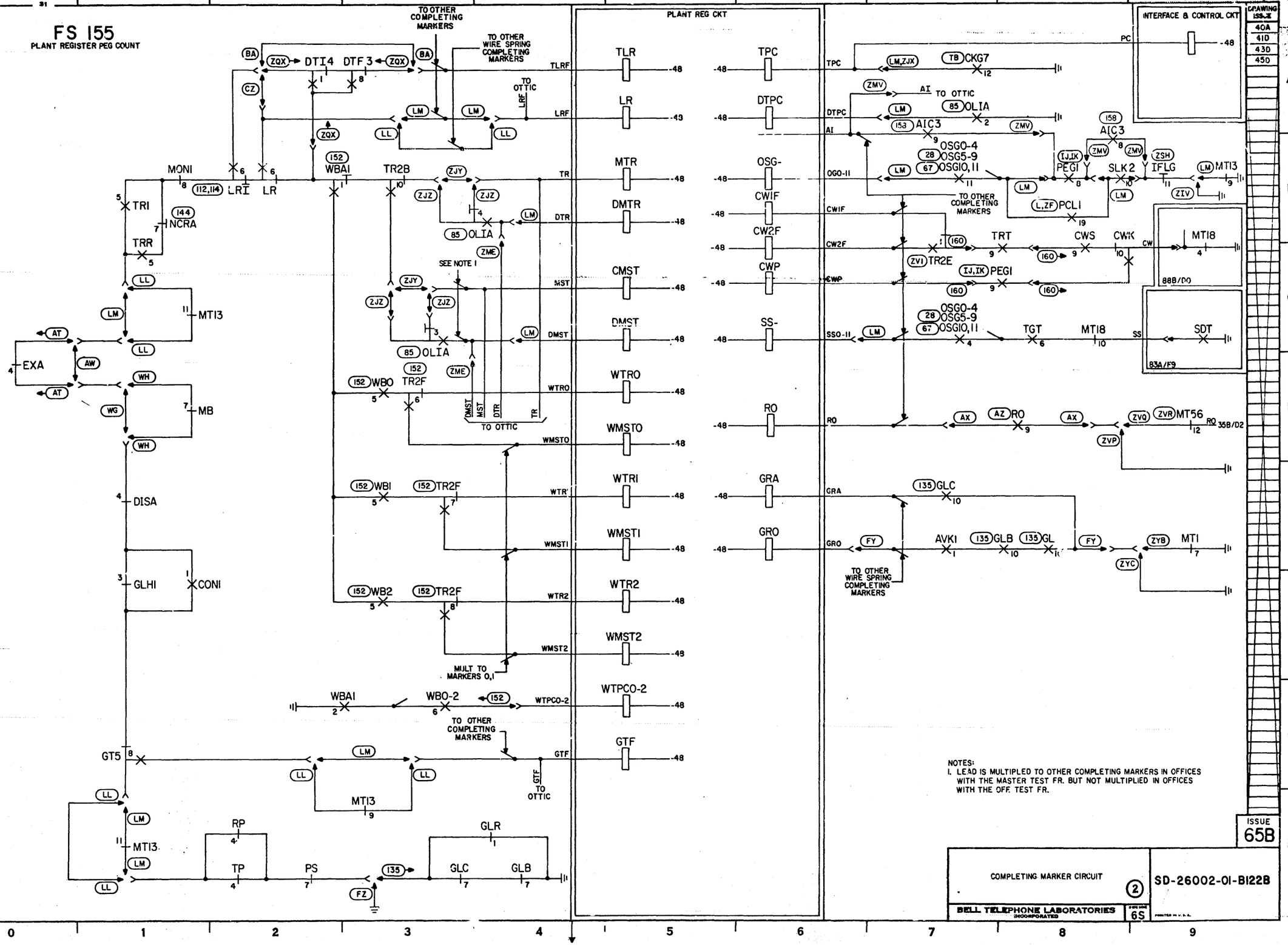
ISSUE 58A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-B122A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-B122A

# FS 155
PLANT REGISTER PEG COUNT




ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

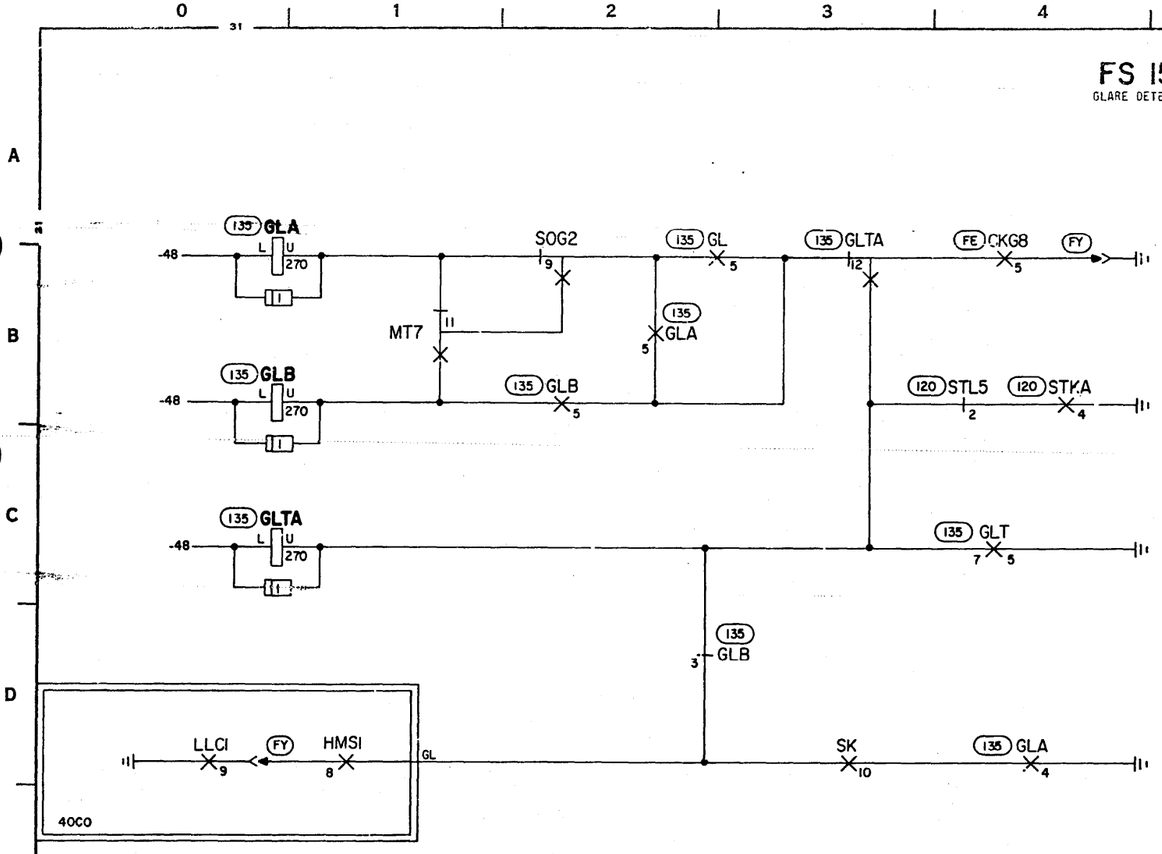
SD-26002-01-B122B

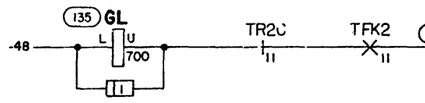
BELL TELEPHONE LABORATORIES INCORPORATED

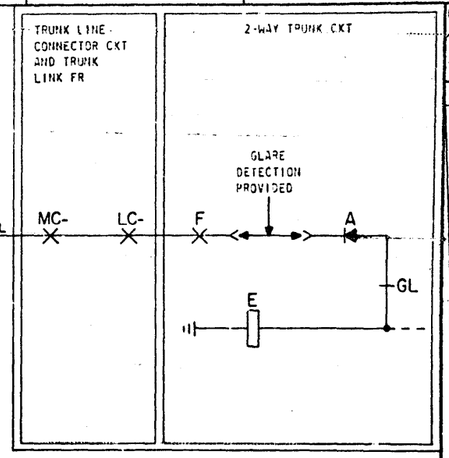
6S

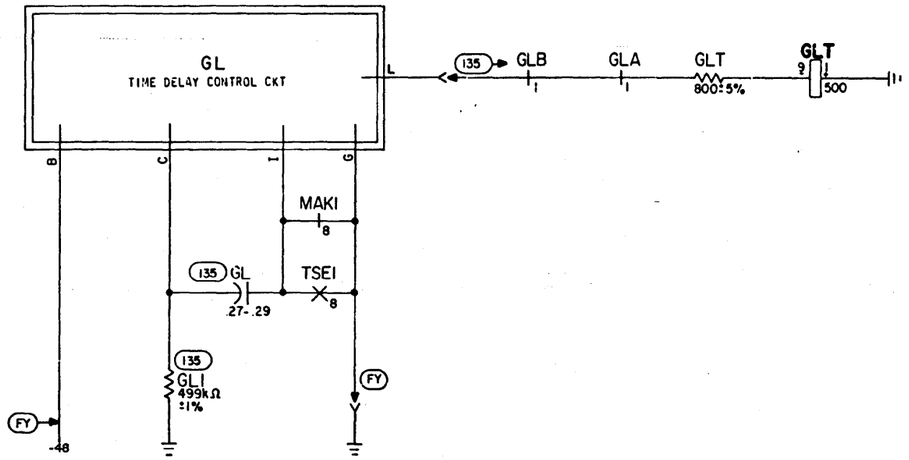
SD-26002-01-B122B

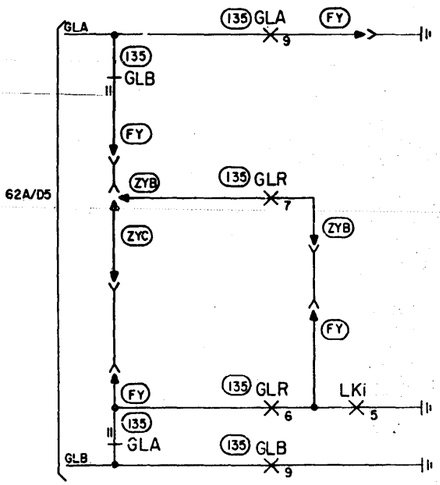
# FS 156
GLARE DETECTION




DRAWING ISSUE

| | |
|---|---|
| 35D | CPC REL AND |
| 39D | RP |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-8123

6S

SD-26002-01-8123

# FS 157

TEST ACCESS FOR CROSS CONNECTION CHECKING (SEE NOTE 1)

(XJ) ANIS 2 — TXC00

(147) ANTD 6 — TXC01

CAA 6 — TXC02

(69) CMF 4 — TXC03

(69) CMJ 8 — TXC04

(ZTE) CMJT 4 — TXC05

(83) IOD C — TXC06

(117) IPRS 4 — TXC07

LEA 7 — TXC08

LEB 7 — TXC09

LPA 7 — TXC10

LPB 7 — TXC11

LTA 7 — TXC12

LTB 7 — TXC13

NCCN 10 — TXC14

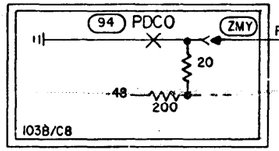
NCNC 10 — TXC15

BL 2 — TXC16

(147) NCTD 4 — TXC17

(83) NID 6 — TXC18

PCN 6 — TXC19




(94) PDCI 4 — TXC21

PNC 6 — TXC22

PPX 6 — TXC23

(117) RCTS 4 — TXC24

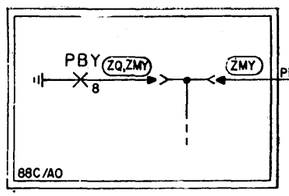
TCCN 8 — TXC25

TCNC 8 — TXC26

(117) TNAN 2 — TXC27

TOS 4 — TXC28

VP 2 — TXC29




NOTES:

1. ALL WIRING IS ZMY OPTION UNLESS OTHERWISE DESIGNATED.

ISSUE 55B

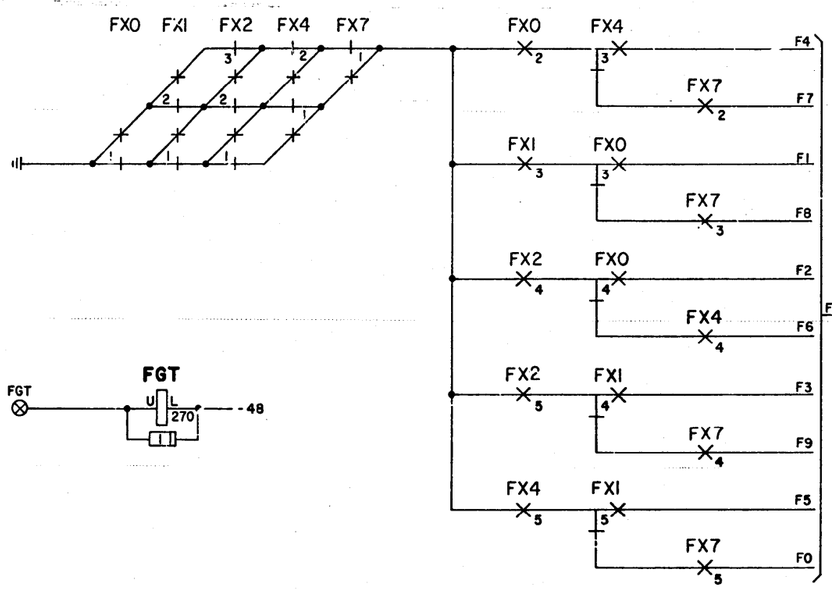
COMPLETING MARKER CIRCUIT

SD-26002-01-8124

BELL TELEPHONE LABORATORIES INCORPORATED

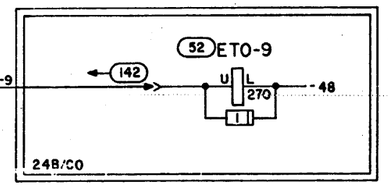
6S

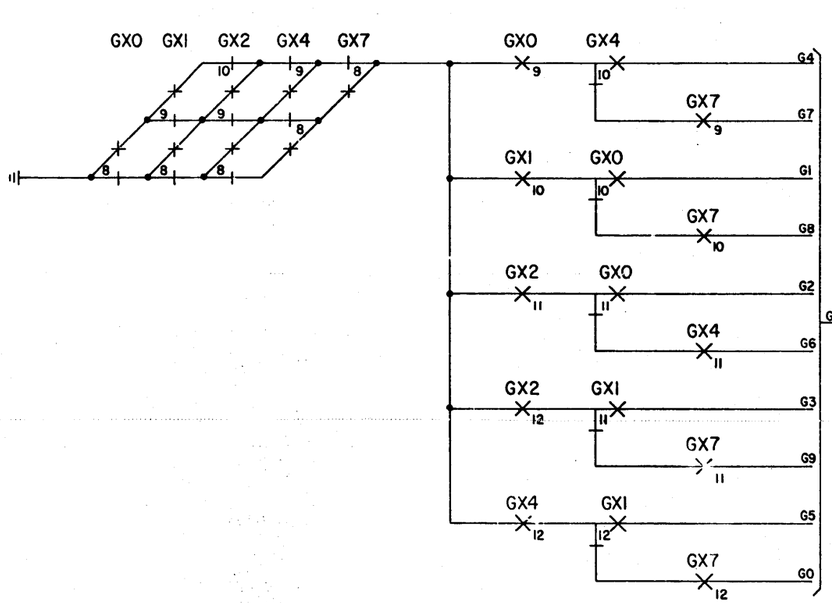
DRAWING ISSUE
37 D

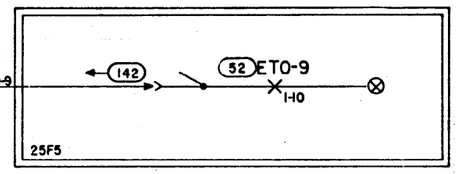








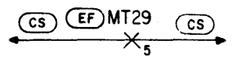

37

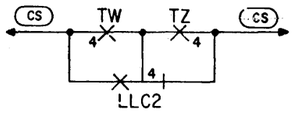
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B131
BELL TELEPHONE LABORATORIES INCORPORATED
6S

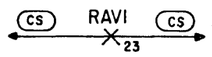
SD-26002-01-B131

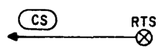
## FS 165 (MFR DISC)

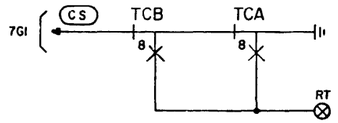
ROUTE TRANSLATOR APPARATUS AND
WIRING FORMERLY PROVIDED AFTER DATE STD

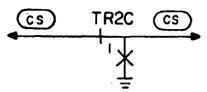


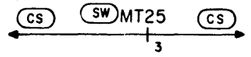



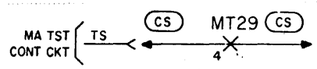



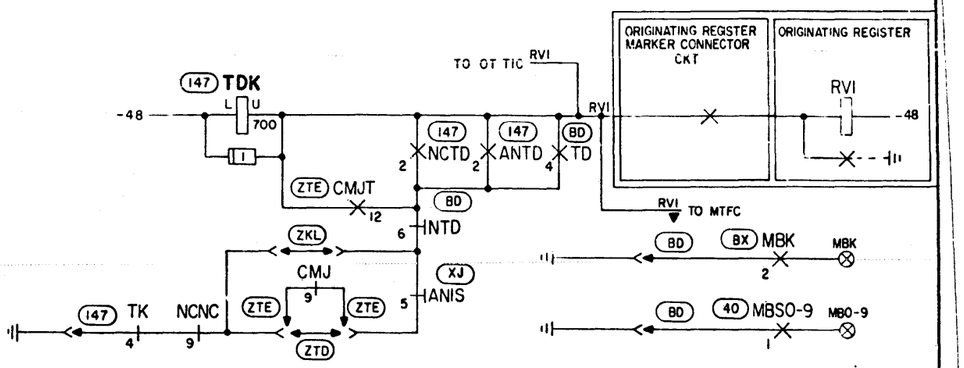



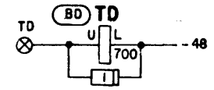



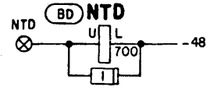




## FS 166

PBX TOLL DIVERSION




DRAWING ISSUE
37D PA2
43D

ISSUE
67B

COMPLETING MARKER CIRCUIT
2
SD-26002-01-BI32

BELL TELEPHONE LABORATORIES
INCORPORATED
6S

SD-26002-01-BI32

(151) PART OF FS 168
WIDEBAND REMOTE SWITCH CONTROL

TO MTFC

WL0 WL1 WL2 WL3 WL4 WL5 WL6 WL7 WL8 WL9 WLKB LSWR

(154) WTK
(154) WSRK
(152) TR2F
(163) WDTI

WL0 WL1 WL2 WL3 WL4 WL5 WL6 WL7 WL8 WL9 WLKB
U L 270 -48

WLT0 WLT1 WLT2 WLT3 WLT4 WLT5 WLT6 WLT7 WLT8 WLT9

RDCK
U L 700 -48
RUKI
TO MTFC RDCK
RSMK
U L 270 -48
(154) WHSI
RUK
RUKI
U L 700 -48
RWL
(154) WHSI
WTK 139G3
TO MTFC RUKI
(152) WLCI

TO MTC & TTR(WB)
RVT
(152) MT43
RVT
U L 700 -48
MULT TO MARKERS 0,1

WL0 WL1 WL2 WL3 WL4 WL5 WL6 WL7 WL8 WL9
WLA
U L 270 -48

DRAWING ISSUE
39D
41D
43D
47D

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-8133
BELL TELEPHONE LABORATORIES INCORPORATED
6S

SD-26002-01-8133

# (151) PART OF FS 168
WIDEBAND REMOTE SWITCH CONTROL

WIDEBAND REMOTE SWITCH

WIDEBAND REMOTE SWITCH SIGNAL CONTROL

WIDEBAND/BIT-STREAM LINE LINK CONN CKT

WIDEBAND/BIT-STREAM TRUNK LINK CONN CKT

AUDIO TRUNK

WIDEBAND CLASS AND LINE SELECTION CKT

HMS SMK HMK LXPI RC -48

TBLI/2 -48 RC TBL (154) TRB3 5

TBL TO MTFC

RDCK 5

RUKI 8

(154) WTK 5

12 (154) WHS2

MMK 8 RSMK 1

(151) WT 8 (151)

MMK 6 MMK

LWL 4 LWL

RWL 12 RWL

TO MTFC

RC RUK (132) WLCI 1

RUK 9 L U 500

(152) MT48 10 MULT TO MARKERS 0,1 RUK

(152) MT48 9 MMK

TO MTC

SO-9 BS AS -48 R MMK

MMK L U 700 1

(152) WLCI 12

TST1,2 -48 RC TST (152) MT49 1 WTST TO MTC

AS/BS SO-9 -48 RA RLSO-9 WLO-9 4 (152) WONX 12 WLA 4

FA- -48 RFA RVT 2 (151) FAK 1

FB- -48 RFB RVT 4 (151) FBK 1 (151) (152) WONX 6

XFR IL IU P-8 .01

RSW 3 (154) WTK 3

DSI -48 F DSI (152) DSI 11

RC RB RA RLN (152) WLCI 5

RA, RB, RC

(152) MT48 8 MULT TO MARKERS 0,1 RLN

(152) MT48 7 LLN

TO MTC

RWL U L 16 2

XRSC IU IL P-2.7 .01

RSC R -48

-48 R WVF- LLN

LWL U L 270 1

(152) WLCI 7

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-8134

BELL TELEPHONE LABORATORIES INCORPORATED

6S

DRAWING ISSUE 390 410

(152,153,154,155,156) PART OF FS 169
WIDEBAND SELECT AND HOLD MAGNET CONTROL
(SEE NOTE 1)

WMBA
WMB
WMBA MT44 WBA
NWLA
NWL
WLB
WLBT

WIDEBAND LINE CONTROL CKT
MB00-79
LL00-79
MBC-
MB00-79 MAGNET LATCH
MT-
LL00-79 136A0
WIDEBAND REMOTE SWITCH SIGNAL CONTROL CKT
WVF-
RL-(00-79)
NWL
TO-7
UO-9
RO-9
RSO-9
SO-9
LSO-9
12K
RL1-12
RI-12 136B0
G
RB
WIDEBAND/ BIT STREAM LINE LINK CONNECTOR CKT
MC-

WMB
LHO-9
NWL
RO-9
ZZP
MULT TO MARKERS 0,1
TO MTC
WLH
MT48
HGTO-9
HTKI
MT49
WLHT
MULT TO MARKERS 0,1
MT50
RA0-9
PL0-9
TO MTC AND TRUNK TEST REGISTER (WIDEBAND)
MT46
WLTO-9
WLO-9
WLT 136G4
LXWI
WLGK
LSWR
LWL
WHSI
WDCT
P-29 ±2%
S-220 ±1%
WBC2
180 ±1%
WFCK
WCHA
2kΩ
+130
VLT1
VLT2
VWC
WLBT
WLIT
MBC
VLO
MBCK
SMB
TMB
VLB
VLR
WLH 4.28-4.36
LXW
P-110 ±2%
S-550 ±1%

NOTES:
1. ALL WIRING IS ZZP OPTION.

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B135
BELL TELEPHONE LABORATORIES INCORPORATED
GS

SD-26002-01-B135

WIDEBAND LINK CKT
OR
BIT-STREAM LINK CKT

(152,153,154,155,156) PART OF FS 169
WIDEBAND SELECT AND HOLD MAGNET CONTROL
(SEE NOTE 1)

DRAWING ISSUE
390 LP NPP
410

135A5 LL00-79
LL00,13-79
LL0-12
L01-12
MB1-12 JACK
135B6 R1-12
R01-12
H0H2
LA- (H0N1-12)
MT1

LINE SWITCH GROUP
LA-/ 3-/ LC-/ LD-
HOLD -48

JUNCTOR SWITCH GROUP 9
JUNCTOR SWITCH GROUP 0
J- HOLD -48

TRUNK SWITCH
T0-9 HOLD -48
F-
SI -48 VIDEO TRK
SI AUDIO TRK

C- -48
J H0N
LSO-9
MT1 -48
MT2 -48
MT2
JSO-9

SEL LC-, LD- SEL LA-, LB- LSO-9

SEL J- (IN JUNCTOR SWITCH GROUPS 0-9)

SEL T0-9
F-

WIDEBAND/ BIT-STREAM LINE LINK CONNECTOR CKT
L- MC-

WIDEBAND/BIT-STREAM TRUNK LINK CONNECTOR CKT
T- MC-

LSO-9
WLSO-9 33,000 ±20%
WLSO-9 5
XWLS IL IU P-8
WCHO-9 12
WCK 4
WONX 11
WLS R -48

(167) XLLC 9 1 P-230 ±10% 2 8 S-210 ±10%
-48
(167) LLCO-3 2kΩ±5%
3 (167) WTGO-3

TO MTFC LLCO-3

CO-3 (167)

MT1 (151) MT46 12
MT2 MT45 1
MULT TO MARKERS 0,1
WRLO TO MTC AND TRUNK TEST REGISTER (WIDEBAND)
WCO TO MTC

AO-9

WCHO-9 11
MULT TO MARKERS 0,1
TO MTC A MT48 5 WCHA 12
1 LXWI

(167) LLCK L U 700 I
-48
TO MTFC LLCK

(154) WHS2 1
(167) WCGK 9 P 30,500 ±5%
WJGK 9 P 30,500 ±5%
WHSI 1

+130 WJH1 2000 WCHA 4
WJH2 2000
(ZZV) WJH3 2000

(154) JXWI 1
(154) WTK 11
(167) BSL 9

WJH1 4.28-4.36
WJH2 4.28-4.36
(ZZV) WJH3 4.28-4.36
WJH
WBC3 10
9 8 JXW 1 P-110 ±2% 2 S-550 ±1%
-48

WJS R -48
WONX 10
WCK 3
WCHO-9 1
XWJS IL IU P-8

JSO-9
WJSO-9 5
WJSO-9 33000 ±20%

AAO-9 6800 ±5%
BAO-9 2200 ±5%
AO-9 .01
AO-9
WCTO-9 9 500 ±10%

141C2
SO-9
CO-9 6800 ±5%
CO-9
BO-9
BO-9 .01

ABO-9 6800 ±5%
BBO-9 2200 ±5%
WCHO-9 7

MT48 WCHA
TO MTC B 6 11
MULT TO MARKERS 0,1
2 LXWI
WTGK 9 P 30,500 ±5%
0 4 1 THW
WTH +130 2000 WCHA 7 WHSI
WTH 4.28-4.36
WTH
WTXP R

135E6 WLT
(151) RSW 4
(ZZP)
STX 2
(ZZP)
2RT RBI XWCH 2000
-48

TS
XWTS 33000 ±20%
XWTS 3
MULT TO MARKERS 0,1
8 WONX 9 6 DSI LSW
TO MTC SLT MT48 4
8 WONX 9 P XWTS P-12 ±10%
2 S-200 ±2% 9
DCT3 2 (ZZP) 7 WHSI
9 WONX
600 ±1% XTS
800 ±1% XTS R
-48
(ZZP)
IU XWSL IL P-1000
-48
3 9 WSL 30,500 ±5%
-48

SLT
3 LSW

NOTES:
1. ALL WIRING IS ZZP OPTION UNLESS OTHERWISE DESIGNATED.

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-B136
BELL TELEPHONE LABORATORIES INCORPORATED
63

(152, 153, 154, 155, 156) PART OF FS 170

WIDEBAND CONTROL
(SEE NOTE 1)

ZZP LLCI 24 ZZP WBO-2 2 RYCI 2 VWC 2 CWB 2 — WLC U L 270 2 -48; WLCI U L 270 -48

ZZP TLCI 8 ZZP WBO-2 1 RYCI 3 CWB 1 — WTC U L 270 1 -48

TER6 4 (163) WDTF 7 (102) DZ 6 (IU) PK 11 PP 11 — (163) SWAT U L 270 1 -48; SWAT TO MTFC

(163) WAT 11 — 0V 41A/H1

(ZYH) TCCA 10 (163) WDTI 10 (163) WAT 10 — TWB

(ZWR) (ZZP) (163) SWAT 10 (ZWR)

(163) WDTI 8 — NW 1987

CKG7 11 (ZZP) 10 PK 9 PP 9 (ZZP) — NW U L 270 1 -48; NW TO MTFC; WBO-2

(163) WDTF 10 — OPP

PP 8 — IWS

OWBO-2 — WBO-2 U L 270 -48

WBC3 U L 270 -48

WBCI 6 — WBC2 U L 270 1 -48

WBO WBI 10 WB2 9 — WBA U L 270 1 -48

WBAI L L 270 1 -48

NW 10 — SNW — SW- S-

WBO-2 11 — SWBO-2 — SW- S-

7E8

(ZRR) WPP WP U L 700 1 -48

(152) (ZRR) WBO-2 12 WTSO-2 — WDP U L 700 1 -48

(167) WBLI U L 700 -48

(167) WBL WBL U L 700 2 -48

(152) (167) WBO-2 8 WBNO-2 — (167) BSL BSL U L 700 2 -48

(167) BSLI U L 700 -48

NOTES:
1. ALL WIRING IS ZZP OPTION UNLESS OTHERWISE DESIGNATED.

WDCI 11 — WONX U L 700 1 -48

WBO-2 3 CWB 3 RYCI 1 WLCI 10 (151) RSW 2 (151) RWL 2 — LSWR U L 700 1 -48

WTFK 3 — LSW U L 700 1 -48

WBCI U L 700 -48

(ZZP) (IE) DCTA 3 (ZZP) ITR3 2 TRB3 1 (ZZP) (ZZP) — DSI U L 270 1 -48

DSI 1

RAVI 5 (ZZP)

FM 5

FW R — LSW 1 DSI 3 — FB

ITR3 4

(IE) DCTA 2

ITR3 3 — FA

SCB3 3

MT49 6 FA; MT49 5 FB; MT47 8 TSK; WTLC — TO MTC

TSK R -48 — XTC IL IU P-2.7 .01 — TSK L U 16 2 — WTC 1 — TSK — MULT TO MARKERS 0,1

WTL R -48 — WTC 2 WTK 8 TSK 4 WLFK 1 (167) BCN 3 WCN 1 — 9 MT47 — WTLC

WTFK 1

WTFK L U 270 1 -48 — TFK

WTGO-3 L U 700 1 -48 (167) — TSGO-3

WTFK — TO MTFC TSK — TSK 12 — WTGO-3

| WIDEBAND/BIT-STREAM TRUNK LINK CONNECTOR | WIDEBAND LINK CKT OR BIT-STREAM LINK CKT | TRUNK CKT (VIDEO PART) |
|---|---|---|
| MB | F(1, 3, 5, 7, 9) | F |
| MB | F(0, 2, 4, 6, 8) | F |
| | TS R -48 — F- | T- |
| MA | | T- |
| MA MB | TRUNK LINK CONNECTOR: M- | |
| MA MB | | M- T- |

DRAWING ISSUE 49D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-BI37

BELL TELEPHONE LABORATORIES INCORPORATED 6S

DRAWING ISSUE: 390 RA; 40A; 41D; 43D

SD-26002-01-BI37

(152, 153, 154, 155, 156) PART OF FS 170

WIDEBAND CONTROL
(SEE NOTE 1)

VWC (167) WBT0 WBT1 WBT2 NWT
ZRA
TOG6
NWT WBO WB.0
WBI WB.1
WB2 WBT2
ZRY ZRX MT54 MT48
WCV MT44
WLIT WLB WMBA NWLA
NWLA WMBA
MT44 WRM
ZZS ZZP
ZZT,ZZU,ZWR WBCI
WMM 348/C2
WMM1 348/C4
WMM TO MTFC
WMM TERE ZZP TBIB ZZP
WCV TO MTFC
WRM MT44 WBC2 VWC
WLK LFK 4A/A6

LINE LINK CONN (ARRANGED FOR WIDEBAND)
MAI MCI MCI
WLLB WLCI LLB 4A/E6
WIDEBAND/ BIT-STREAM LINE LINK CONN
WMB JACK
MA BSO MT47 WLC WLLO
MULT TO MARKERS 0,1
WLL TO MTC
WLLI

WIDEBAND LINE CONTROL
WVG- VGOO-11 MA VGO-11 VGTO-11 VTKI ZZP WLC XWVG
NON-WIDEBAND VERT GROUPS
MULT TO MARKERS 0,1
MT47 VF TO MTC
WVF- WVG- MA VFO-4 LH VFTO-4 FTKI ZZP WLC
MB MC MD LFK WLFK
MA NWC NWT
NON-WIDEBAND VERT FILES
WVG-
MB MA BSI WLC WLLI
MC,MD MA BS2 WLC WLL2
MB WCO-2 WBTO-2
MA XVF XVF
WVF- L-
L- M- LSK (167)
MAX LOAD RESISTANCE = 15Ω

WLK LFK TO MTFC
WRM MT44 WBC2 VWC
WMM TOG6 TRI/TRR 37F9
ZRA TER6 PU PUI 66E0
WRA FLGA WRA WBA
NWT NWLA RBT RBT 41B/D4
WMM WRA CWB WDTI RA RAVI,2 41A/A6
ZZP LFK ZZP MT47 MULT TO MARKERS 0,1 WLK TO MTC
LSK LSKI TO MTFC
(167) LSK (167) XLSS (167) LSK (152) WLC

NOTES:
1. ALL WIRING IS ZZP OPTION UNLESS OTHERWISE DESIGNATED.

DRAWING ISSUE
39D LT
40A
41D
42A
43D

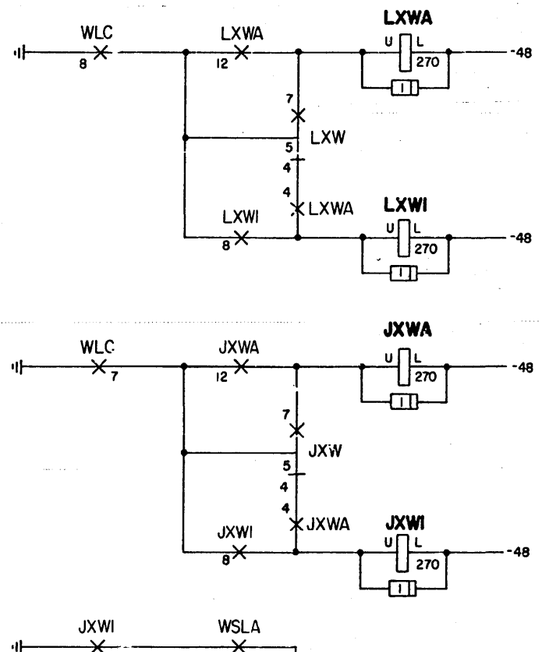
DRAWING ISSUE
58A

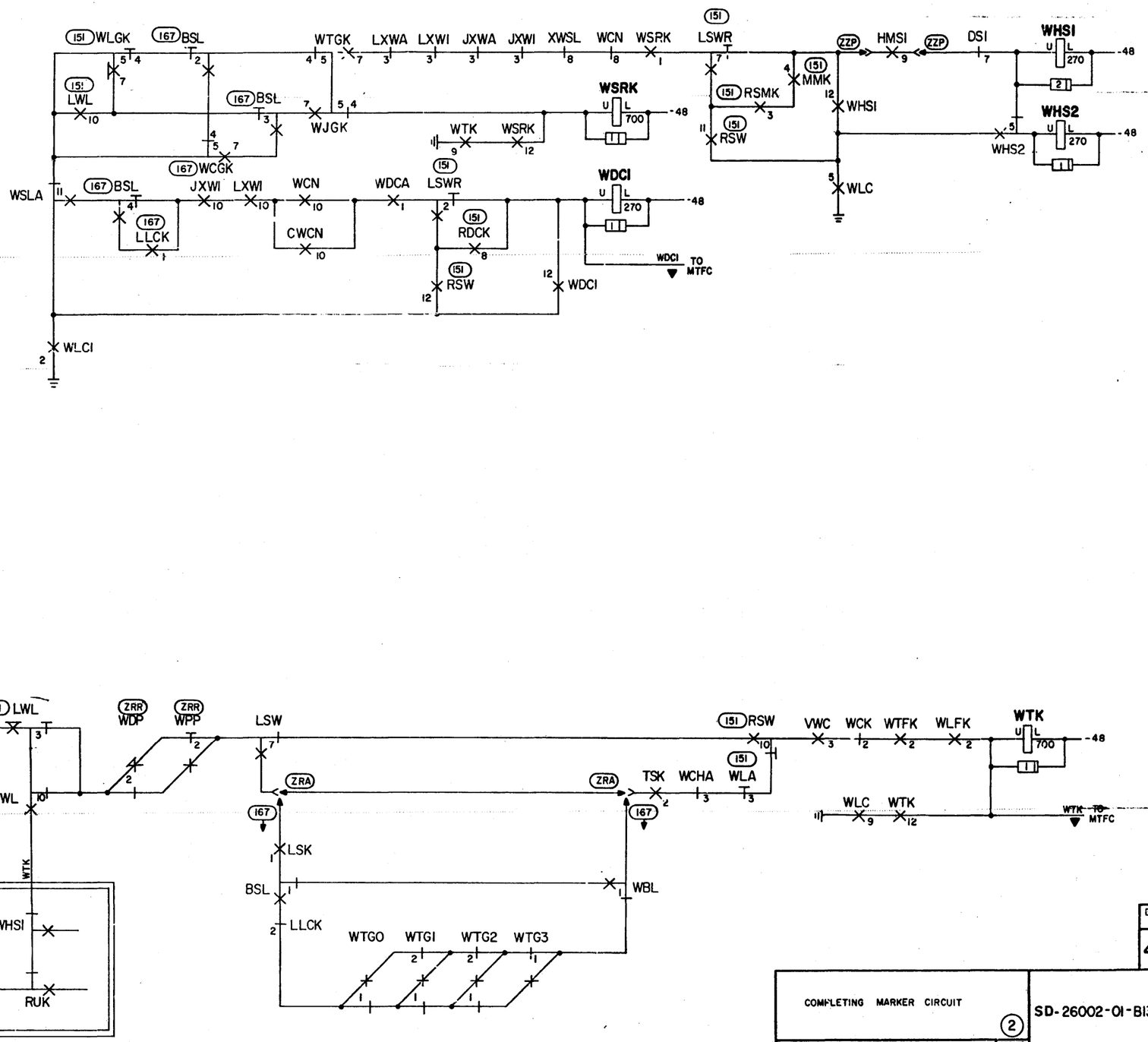
COMPLETING MARKER CIRCUIT
2
SD-26002-01-8138
BELL TELEPHONE LABORATORIES INCORPORATED
6S

(152,153,154,155,156) PART OF FS 171

WIDEBAND CHANNEL SELECTION

(SEE NOTE 1)




NOTES:

1. ALL WIRING IS ZZP OPTION UNLESS OTHERWISE DESIGNATED.

DRAWING ISSUE: 39D ARR MKL; 41D; 42A

DRAWING ISSUE: 47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B139

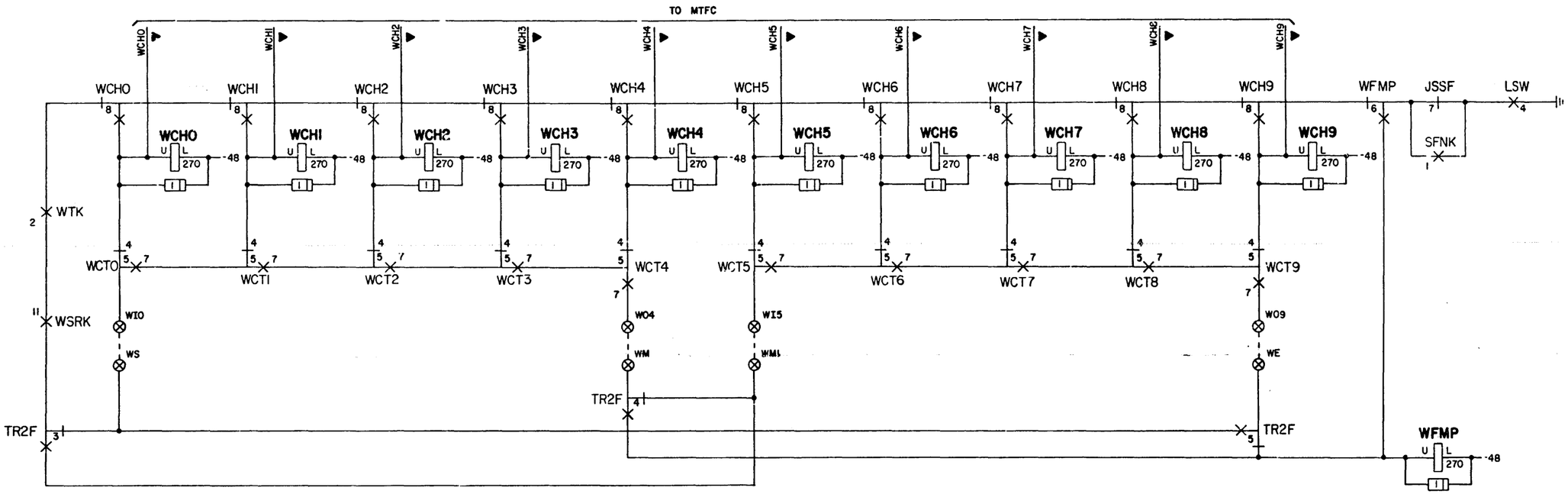
BELL TELEPHONE LABORATORIES INCORPORATED

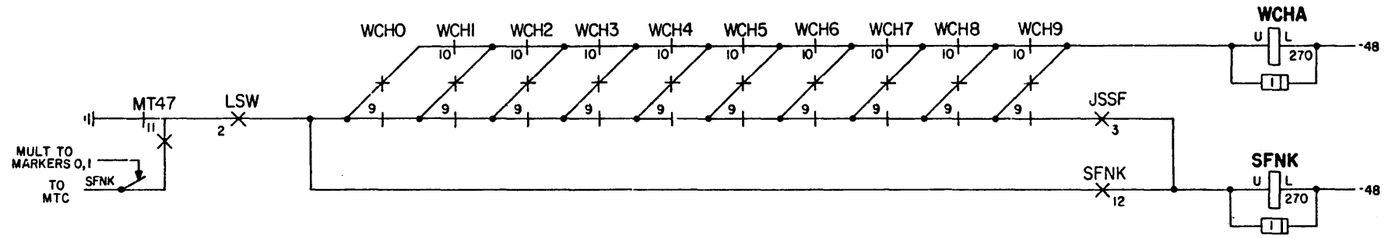
6S

SD-26002-01-B139

(152,153,154,155,156) PART OF FS 171

WIDEBAND CHANNEL SELECTION
(SEE NOTE 1)




NOTE:
1. ALL WIRING IS ZZP OPTION.

DRAWING ISSUE 390

39

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-B140

BELL TELEPHONE LABORATORIES INCORPORATED

(152,153,154,155,156) PART OF FS 171

WIDEBAND CHANNEL SELECTION
(SEE NOTE 1)

WIDEBAND/BIT-STREAM JUNCTOR SW GR MARKER LOCKOUT CIRCUITS (10 CIRCUITS: FOR SWITCH GROUPS 0-9)

MP-

MP-

MP- (OTHER WIDEBAND MARKER)

MT47 5 WBC2 7 GS

SB0-9

MULT TO MARKERS 0,1

TO MTC SB0-9

MT45 3-12

6-SOS 136E5

STO-9 WCHO-9 4

MT47 4

MULT TO MARKERS 0,1

WCHA TO MTC

WCHA 5

(163) WDTI 4

(151) WLA 5

(151) LWL 12

ST R -48

(167) BSL 7

(167) LLCK 3

CK

(167) WBL 7

ITR3 10

(151) RSW T1

WTK 6

WCK U L 270 -48

1

WCK TO MTFC

WCN 6

CWCN 6

(ZRB) TER6 (ZRB) 10

ZRQ ZRQ

(163) WDTF 5

WCK 10

MT47 3

MULT TO MARKERS 0,1

WCK TO MTC

WCHO-9 2

JSSF 12

JSSF U L 270 -48

1

LSW 5

JSSF 1 JSSF TO MTFC

NOTES:
1. ALL WIRING IS ZZP OPTION UNLESS OTHERWISE DESIGNATED.

(155) FS 172

WIDEBAND CROSS DETECTION LOCKING CIRCUITS

(155) COX 4 (155)

XRSC 8 — XRSC 2U 2L S-690 -48 (151)

XFR 8 — XFR 2U 2L S-850 -48 (151)

XWLS 8 — XWLS 2U 2L S-850 -48

XTC 8 — XTC 2U 2L S-690 -48

XWVG 8 — XWVG 2U 2L S-690 -48

XVF 8 — XVF 2U 2L S-850 -48

XMB 8 — XMB 2U 2L S-1075 -48

XWSL 4 — XWSL 2U 2L S-2700 -48

XWJS 8 — XWJS 2U 2L S-850 -48

XAWCH 8 — XAWCH U L 700 -48

1 — XWCH 2

XAWTS 8 — XAWTS U L 700 -48

7 — XWTS 5

(167)

XALLC 8 — XALLC U L 700 -48

7 — XLLC 5

XLSS 8 — XLSS 2U 2L S-690 -48

(151) XRSC 4 — WMXT U L 700 -48

(151) XFR 4

XTC 4

XWVG 4

XAWTS 4

XVF 4

XMB 4

XWSL 2

XAWCH 4

XWLS 4

XWJS 4

XALLC 4 (167)

XLSS 4

DRAWING ISSUE
39D
41D
43D

DRAWING ISSUE
49D

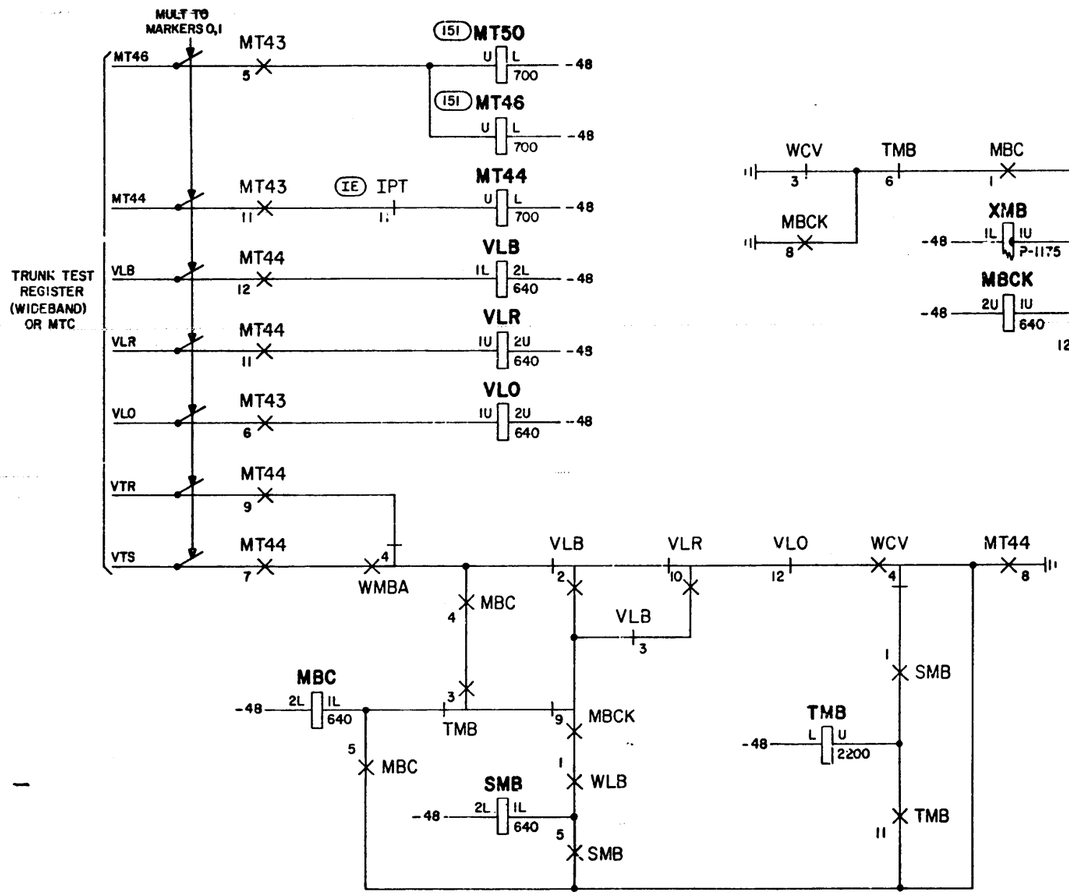
COMPLETING MARKER CIRCUIT (2)

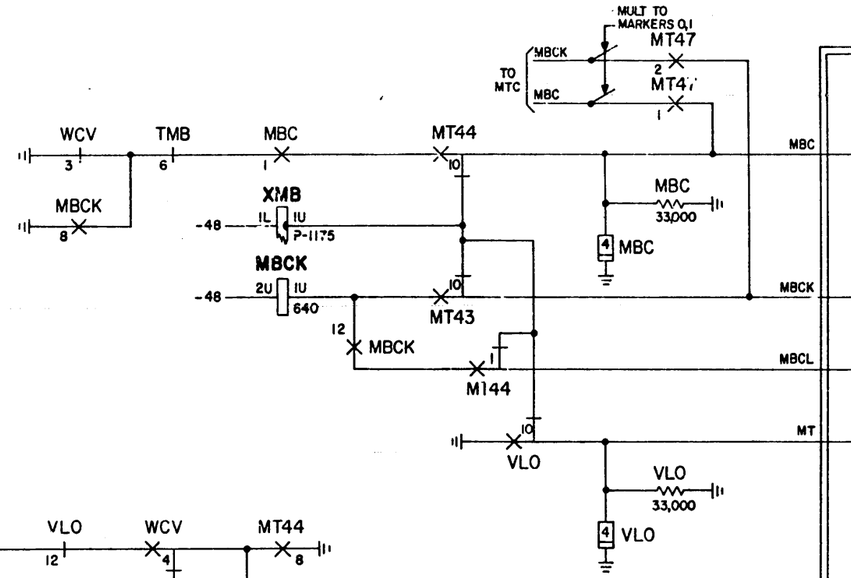
SD-26002-01-8141

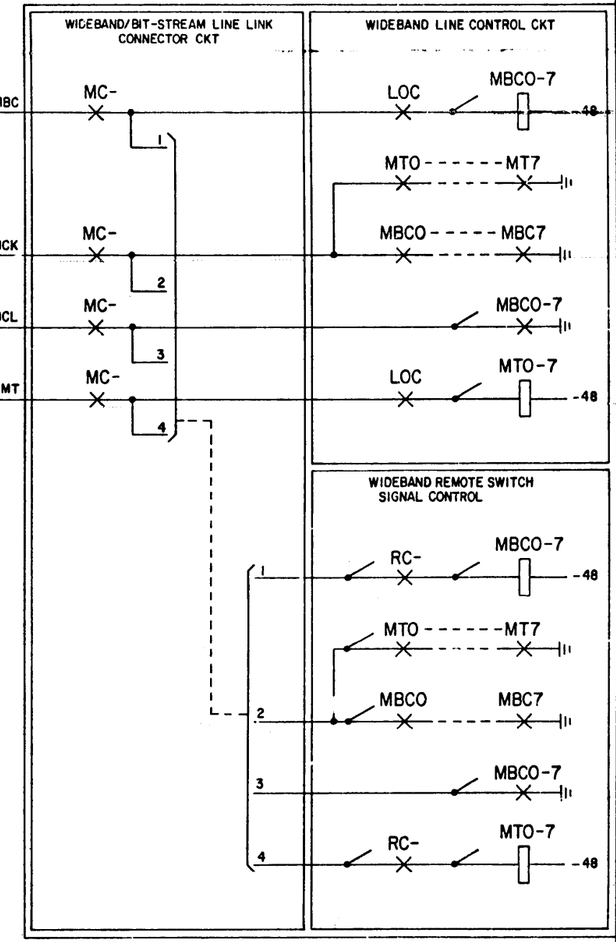
BELL TELEPHONE LABORATORIES INCORPORATED 6S

(152,153,154,155,156) **FS 173**

WIDEBAND LINE MAINTENANCE
BUSY CONTROL
(SEE NOTE 1)

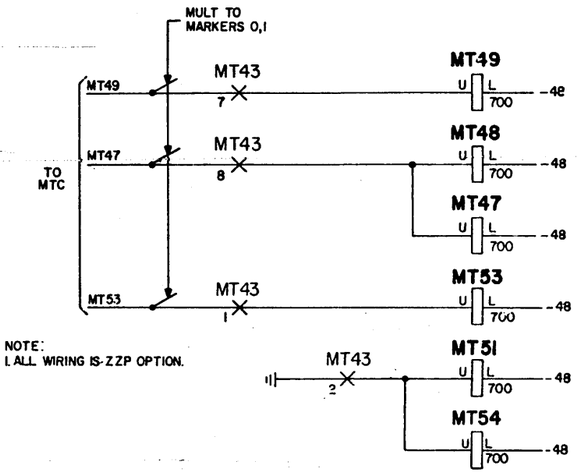









NOTE:
1. ALL WIRING IS-ZZP OPTION.

DRAWING ISSUE
390 LCP ITM
410

DRAWING ISSUE
47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-BI42

BELL TELEPHONE LABORATORIES INCORPORATED

6S

WIDEBAND TRUNK CKT

TO APPEARANCE ON TRUNK SWITCH OF WIDEBAND LINK (INCL "A" APPEARANCE OF ITR TRUNK)

TO TRUNK FACILITY OR B APPEARANCE OF ITR TRUNK

WIDEBAND/BIT-STREAM TRUNK LINK CONN CKT

(152, 153, 154, 155, 156) **FS 174**

WIDEBAND FALSE CROSS AND GROUND AND CONTINUITY TESTS (SEE NOTE 1)

TO MA TEST CONT CKT

MULT TO MARKERS 0,1

TO CONTINUITY TEST CKT

TO MA TEST CONT CKT

TO CONTINUITY TEST CKT

MT52

MT54

WFCT

WFC4 2500

WFC3 2500

WFC2 2500

WFCI 2500

WFC2 P-110±2% S-550±1%

WFCI P-110±2% S-550±1%

WFCK

RWCN

WCN

CWCN

BCN

JXWI

WHSI

WSLA

LSW

WCK

MT54

RWCN

CWCN

WBL

WBC2

WDP

TOG6

WHS2

LB

TB

CON

TBL

CONTINUITY TEST CKT

TCNC

WBC2

WBL

BCN

BSL

DF

DFI

CCK

CCKI

BIT-STREAM CONTINUITY CHECK CKT

BIT-STREAM TRUNK CKT (AUDIO PART)

WIDEBAND/BIT-STREAM TRUNK LINK CONN CKT

TO MA TEST FR CONNECTOR CKT

TO CONTINUITY TEST CKT

TO MA TEST FR CONNECTOR CKT

TO MA TEST FR CONN CKT

TO MA TEST FR CONNECTOR CKT

TRLI 37F4

TR2F

SCB3

ITR3

WHS2

WDTF

TER6

RYCI

WBC2

RWCN

WLC

WFCT

WFCK

WFC2

NOTES:
1. ALL WIRING IS ZZP OPTION UNLESS OTHERWISE DESIGNATED.

DRAWING ISSUE 49D

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-bi43

6S

SD-26002-01-bi43

(170) FS 175
AREA CODE TRANSLATOR

ACT(1)
ACT(2)
ACT
U L 270
I
-48

AT-
SC- RC-
25F3,2509

BO
BI
B2-9
BN
ACT 5
ACT 4
ACT 3
XOX
XIX
XNX

ACT
R
-48

XOX 2-9
20X-90X
XIX 2-9
21X-91X
XNX 2-9
(ZQO) XXO 1,4,9-12
(ZQO) 2NO-9NO
(ZQO) XXN 1
ACV

CN
ACT 2
(ZQO) XXN

CC- CC-
26H2

CO
ACT 1
(ZQO) XXO

0
0-9
CI-9
1-9

(ZQO) 9NO 2-9
AC920,930,---990
(ZQO) 2NO 2-9
AC220,230,---290
90X 1-10
AC900-909
20X 1-10
AC200-209
91X 1-10
AC910-919
21X 1-10
AC210-219
MULT TO INTERMEDIATE RELAYS

ACG00-31
RR UNIT

AC- AC- ELT
A2-9
24G9

ACR00-29
RR UNIT
ACR00-29
T&CT FR

ISSUE 51D

COMPLETING MARKER CIRCUIT
(2) SD-26002-01-B144
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

## APP FIG 1

RELAY

| DESIG | [400]R- | [100]R- | | | | |
|---|---|---|---|---|---|---|
| CODE | 286L,286E | 286L | | | | |
| OPTION | SG,SF | ZQC | | | | |
| 54 | 14G8 | 14G8 | | | | |
| 53 | 14F8 | 14F8 | | | | |
| 52 | 14F8 | 14F8 | | | | |
| 51 | 14E8 | 14E8 | | | | |
| 50 | 14E8 | 14E8 | | | | |
| 44 | 14D8 | 14D8 | | | | |
| 43 | 14D8 | 14D8 | | | | |
| 42 | 14C8 | 14C8 | | | | |
| 41 | 14C8 | 14C8 | | | | |
| 40 | 14B8 | 14B8 | | | | |
| 34 | 14G4 | 14G4 | | | | |
| 33 | 14F4 | 14F4 | | | | |
| 32 | 14F4 | 14F4 | | | | |
| 31 | 14F4 | 14F4 | | | | |
| 30 | 14E4 | 14E4 | | | | |
| 24 | 14E4 | 14E4 | | | | |
| 23 | 14D4 | 14D4 | | | | |
| 22 | 14C4 | 14C4 | | | | |
| 21 | 47D8 | 47D8 | | | | |
| 20 | 47E3 | 47E3 | | | | |
| 14 | 14C4 | 14C4 | | | | |
| 13 | 14B4 | 14B4 | | | | |
| 12 | 45E6 | 45E6 | | | | |
| 11 | 47B4 | 47B4 | | | | |
| 10 | 42C2 | 42C2 | | | | |
| 04 | 88A/G3 | 88A/G3 | | | | |
| 03 | 88A/C3 | 88A/C3 | | | | |
| 02 | 17H6 | 17H8 | | | | |
| 01 | 17A2 | 17A2 | | | | |
| 00 | 17D2 | 17D2 | | | | |
| COIL | 28A/A8 | 28A/A8 | | | | |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | [500]R- | 28A/A8 | 180A |

## APP FIG 2

RELAY

| DESIG | | | BC10 | | | | [10]FB10-19 | | [2]FMG10,15 | | [10]FS10-19 | | [10]FTC10-19 | | [5]GSA11-15 | | | | MT14 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AF504 | | | | AF4 | | AF511 | | AF40 | | AF527 | | AJ12 | | | | AJ12 | |
| OPTION | | | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | | | H | - | | | | | | | EM | 39B/F5 | | | EBM | - | | | EBM | - |
| 11 | | | M | - | | | | | | | | | | | EBM | - | | | EGM | 80B3 |
| 10 | | | M | 15C7 | | | M | - | M | 15C3 | M | b1D8 | M | 15H2 | EBM | 14G7 | | | EBM | 14G5 |
| 9 | | | M | 15C7 | | | | | | | | | | | EBM | 14F7 | | | EBM | 14F5 |
| 8 | | | M | 15C7 | | | BM | - | BM | 15F1 | EBM | 1687 | BM | 39B/F5 | EBM | 14F7 | | | EBM | 14F5 |
| 7 | | | M | 15C7 | | | | | B | 15G1 | B | 15F8 | | | EBM | 14E7 | | | EBM | 14E5 |
| 6 | | | M | 15C7 | | | BM | 15C5 | BM | 15B3 | EMB | 15C6 | BM | 15C4 | EBM | 14E7 | | | EBM | 14E5 |
| 5 | | | M | 15C7 | | | | | | | | | | | EBM | 14D7 | | | EBM | 14D5 |
| 4 | | | M | 15C7 | | | M | - | M | 15E1 | M | a | M | 15C0 | EBM | 14C7 | | | EBM | 14C5 |
| 3 | | | M | 15C7 | | | | | | | | | | | EBM | 14C7 | | | EBM | 14C5 |
| 2 | | | M | 15C7 | | | | | | | M | 15C2 | | | EBM | 14B7 | | | EBM | 14B5 |
| 1 | | | M | 15C7 | | | | | | | M | 15C2 | | | EBM | 14B7 | | | EBM | 14B5 |
| COIL | | | | 15D8 | | | | 15C7 | | 15C2 | | 15C6 | | 14D5 | | 17C8 | | | | 79C6 |

a: 16H1, 116G3

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | BC10 | 15D8 | 185A |
| | [10]FB10-19 | 15C7 | 185A |
| | [2]FMG10,15 | 15C2 | 185A |
| | [10]FS10-19 | 15C6 | 185A |
| | [10]FTC10-19 | 14D5 | 185A |

COMPLETING MARKER CIRCUIT

DWG SIZE: 6S

ISSUE: 63B

BELL LABORATORIES | SD-26002-01- | CIA

# APP FIG 3

RELAY

| DESIG | | | | | BC00 | | | | [10]FB0-9 | | FMG0 | | | | FMG5 | | [10]FS0-9 | | [10]FTC0-9 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | AF504 | | | | AF4 | | AF511 | | | | AF511 | | AF40 | | AF527 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | M | - | | | | | | | | | | | EM | 398/F5 | | | 12 |
| 11 | | | | | M | - | | | | | | | | | | | | | | | 11 |
| 10 | | | | | M | 15D7 | | | M | - | M | 15G3 | | | M | 15E3 | M | 61D8 | M | 15H2 | 10 |
| 9 | | | | | M | 15D7 | | | | | | | | | | | | | | | 9 |
| 8 | | | | | M | 15D7 | | | BM | - | BM | 15F1 | | | BM | 15F1 | EBM | 16B6 | BM | 398/F5 | 8 |
| 7 | | | | | M | 15D7 | | | | | B | - | | | B | 15G1 | B | 15F8 | | | 7 |
| 6 | | | | | M | 15D7 | | | BM | 15F5 | BM | 15F3 | | | BM | 15E4 | EMB | 15F6 | BM | 15F4 | 6 |
| 5 | | | | | M | 15D7 | | | | | | | | | | | | | | | 5 |
| 4 | | | | | M | 15D7 | | | M | - | M | 15E1 | | | M | 15E1 | M | a | M | 15C0 | 4 |
| 3 | | | | | M | 15D7 | | | | | | | | | | | | | | | 3 |
| 2 | | | | | M | 15D7 | | | | | | | | | | | M | 15C2 | | | 2 |
| 1 | | | | | M | 15L7 | | | | | | | | | | | M | 15C2 | | | 1 |
| COIL | | | | | | 15E8 | | | | 15D7 | | 15F2 | | | | 15F2 | | 15F6 | | 14D1 | COIL |
| | | | | | | | | | | | | | | | | | a | 16H0 11663 | | | |

RELAY

| DESIG | | | [4]GSA1-4 | | GSA5 | | | | | | MT4 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AJ12 | | AJ12 | | | | | | AJ12 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EBM | 41B/B5 | EBM | 41B/A7 | | | | | EBM | 40F1 | | | | | | | 12 |
| 11 | | | EBM | 45D8 | EBM | 45D8 | | | | | EBM | 80B2 | | | | | | | 11 |
| 10 | | | EBM | 14G1 | EBM | 14G1 | | | | | EBM | 14G1 | | | | | | | 10 |
| 9 | | | EBM | 14F1 | EBM | 14F1 | | | | | EBM | 14F1 | | | | | | | 9 |
| 8 | | | EBM | 14E1 | EBM | 14E1 | | | | | EBM | 14F1 | | | | | | | 8 |
| 7 | | | EBM | 13E1 | EBM | 14E1 | | | | | EBM | 14E1 | | | | | | | 7 |
| 6 | | | EBM | 14E1 | EBM | 14E1 | | | | | EBM | 13E1 | | | | | | | 6 |
| 5 | | | EBM | 14E1 | EBM | 14E1 | | | | | EBM | 14D1 | | | | | | | 5 |
| 4 | | | EBM | 14D1 | EBM | 14D1 | | | | | EBM | 14D1 | | | | | | | 4 |
| 3 | | | EBM | 14C2 | EBM | 14C2 | | | | | EBM | 14C1 | | | | | | | 3 |
| 2 | | | EBM | 14C2 | EBM | 14C2 | | | | | EBM | 14B1 | | | | | | | 2 |
| 1 | | | EBM | 14B2 | EBM | 14B2 | | | | | EBM | 14B1 | | | | | | | 1 |
| COIL | | | | 17C7 | | 17E7 | | | | | | 7986 | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | BC00 | 15E8 | 185A |
| | [10]FB0-9 | 15D7 | 185A |
| | [2]FMG0,5 | 15E2 | 185A |
| | [10]FS0-9 | 15F6 | 185A |
| | [10]FTC0-9 | 14D1 | 185A |

# APP FIG 4

RELAY

| DESIG | FM0 | | [4]FM1-4 | | FMG | | FMK | | FML | | | | FSA | | FTCK | | FTCK1 | | MAK1 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF33 | | AF33 | | AF515 | | AF513 | | AF507 | | | | AF511 | | AF521 | | AF522 | | AF519 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 15G3 | M | 15C3 | BM | | EMB | - | M | 37C8 | | | | | M | a | | | M | 16H0 | 12 |
| 11 | M | 90D1 | M | 90D1 | M | 15E1 | | | N | 40B6 | | | | | M | 43F5 | | | | | 11 |
| 10 | M | 15B4 | M | 15B4 | BM | - | EBM | - | BM | 37B7 | | | M | 15G6 | M | 43E5 | M | 398/C6 | M | 398/D8 | 10 |
| 9 | M | - | M | - | | | | | M | - | | | | | M | 17H5 | | | | | 9 |
| 8 | M | 15C4 | M | 15C4 | BM | 15A0 | EBM | 37C8 | BM | 15A1 | | | BM | 42C3 | BM | 398/C5 | BM | 16A7 | BM | 12D7 | 8 |
| 7 | B | - | B | 15G1 | B | 15A0 | | | B | 15D9 | | | B | | M | 83E5 | | | M | 15A0 | 7 |
| 6 | M | 90F1 | M | 90E1 | BM | 15B0 | EMB | 15B0 | BM | 15F0 | | | BM | - | BM | 398/E7 | BM | 398/C7 | BM | - | 6 |
| 5 | B | - | B | - | | | | | M | - | | | | | M | 83F5 | | | | | 5 |
| 4 | M | 15E0 | M | 15E0 | BM | 15G0 | EBM | 15E0 | B | 15D9 | | | M | 61D8 | BM | | M | 18H5 | M | 83E3 | 4 |
| 3 | M | 15F4 | M | 15F4 | M | 15H3 | | | M | - | | | | | M | 16B2 | | | | | 3 |
| 2 | M | 15F1 | M | 15F1 | BM | 15E1 | EBM | - | M | 398/G6 | | | | - | M | 398/H4 | | | M | 19A5 | 2 |
| 1 | M | 15G4 | M | 15G4 | M | - | | | M | - | | | | | M | 15H4 | | | | | 1 |
| COIL | | 15G2 | | 15C2 | | 15E1 | | 15E1 | | 15B1 | | | | 15F7 | | 15C1 | | 15H2 | | 16G7 | COIL |
| | | | | | | | | | | | | | | | a | 15C0 9684 | | | | | |

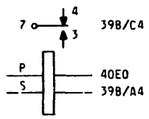
RELAY

| DESIG | MT9 | | TA | | TBC | | TBK | | TBTA | | TBTB | | TFK1 | | TFK2 | | TFK3 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ503 | | AF515 | | AF519 | | AF51 | | AF52 | | AJ501 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | JC | | | | | | UN | | UQ | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 16C3 | EBM | 398/B6 | BM | 18A7 | M | 18H4 | | | M | - | EBM | - | EBM | - | EBM | 37B7 | M 16B7 | 12 |
| 11 | EBM | 15C0 | EBM | 398/A7 | M | 16B1 | | | | | | | EBM | - | EBM | 16 | EBM | 12387 | M 16C0 | 11 |
| 10 | EBM | 15C0 | EBM | 40D2 | BM | 15H2 | M | 19A5 | M | g | BM | 10268 | EBM | 398/G6 | EBM | - | EBM | 6781 | M 6781 | 10 |
| 9 | EBM | 11663 | EBM | 116F5 | | | | | | | | | EBM | | EBM | 15E1 | EBM | 61D8 | M 61D8 | 9 |
| 8 | EMB | - | EMB | 398/E4 | BM | 83F5 | BM | 88A/H2 | M | 88A/H2 | BM | 88A/G1 | EMB | 398/A8 | EMB | | EMB | - | BM 22C4 | 8 |
| 7 | EBM | - | EBM | - | B | - | B | 27E1 | | | | | EBM | 18H4 | EBM | 15B0 | EBM | 398/G5 | M 218/F8 | 7 |
| 6 | EMB | 15H2 | EMB | 18G2 | BM | - | BM | a | M | 398/G6 | BM | 398/G6 | EMB | 398/B4 | EMB | 15H3 | EMB | 7287 | BM 83E4 | 6 |
| 5 | EMB | - | EMB | 18F2 | | | | | | | | | EMB | - | EMB | 398/B7 | EMB | 1697 | M 16D7 | 5 |
| 4 | EBM | 398/E5 | EBM | - | BM | | M | 19G3 | M | 40C1 | BM | 40C1 | EBM | 398/D4 | EBM | 15A0 | EBM | 83E4 | BM 83E4 | 4 |
| 3 | EBM | 16D3 | EBM | 398/B6 | M | 398/B8 | | | | | | | EBM | 4002 | EBM | 15G0 | EBM | 1581 | M 37G8 | 3 |
| 2 | EBM | 398/D6 | EBM | 398/E8 | BM | 398/B4 | M | 398/D3 | | | M | 398/D4 | EBM | 398/E8 | EBM | 15G0 | EBM | 4H0 | M 4H0 | 2 |
| 1 | EBM | 80B3 | EBM | 398/F6 | M | 398/C7 | | | | | M | 10BE6 | EBM | - | EBM | 15C0 | EBM | - | M 23G8 | 1 |
| COIL | | 7906 | | 398/E4 | | 17H1 | | 18H3 | | 40F0 | | 398/D4 | | 398/D4 | | 16A5 | | 16A5 | 16B5 | COIL |
| | | | | | | | a | 9684 398/F7 | | ZFU 398/E4 ZFT 10268 | | | | | | | | | |

RELAY

TBT

280A




CAPACITOR

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | TBT1,2 | 398/B5 | 437QA |

DIODE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZFM | PST | 15B1 | 446F |
| ZFM | PST1 | 15A1 | 446F |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | [5]FM0-4 | 15C2 | 185A |
| | FMG | 15E1 | 185A |
| | FMK | 15F1 | 185A |
| | FML | 15B1 | 185A |
| | FSA | 15G6 | 185A |
| | FTCK | 15C1 | 185A |
| | FTCK1 | 15H2 | 185A |
| | MAK1 | 16G7 | 185A |
| JC | TA | 398/E4 | 185A |
| | TBC | 17C1 | 185A |
| | TBK | 18H3 | 185A |
| | TBTA | 398/D4 | 185A |
| | TBTB | 398/C4 | 185A |
| | TFK1 | 16A5 | 186A |
| | TFK3 | 16B5 | 185A |
| | TFS | 16B1 | 1/2 177K |

RESISTOR

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | FM | 15A3 | 19JP |
| | TBT | 398/B4 | 18G |
| | TFS | 16C0 | KS-13490,L3,33kΩ |
| | TFTO | 398/A6 | 19FM |
| | TFT1 | 398/A6 | 19RT |

ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-CIB

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE GS

# APP FIG. 5

RELAY

| DESIG | FG0 | | FG1 | | FG2 | | TB0 | | [5]TB1-5 | | TF0 | | TF1 | | TF2 | | TF4 | | TF7 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ501 | | AJ501 | | AF518 | | AF518 | | AF523 | | AF523 | | AF523 | | AF523 | | AF523 | | | | | | CODE |
| OPTION | | | | | ZE | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 6IG7 | EBM | 16D3 | EBM | 6IG7 | EMB | 17D1 | EMB | 17D1 | M | 16D4 | M | 16C4 | M | 16C4 | M | 16D4 | M | 16C4 | | | | | 12 |
| 11 | EBM | 16D3 | EBM | 16D3 | EBM | 16D3 | M | 17F0 | M | 17F0 | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 16G5 | EBM | 16E5 | EBM | 16B5 | EBM | - | EBM | - | BM | 16C4 | BM | 16D4 | BM | 16D4 | BM | 16E4 | BM | 16C4 | | | | | 10 |
| 9 | EBM | 16G5 | EBM | 16E5 | EBM | 16C5 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | 16G5 | EMB | 16E5 | EMB | 16C5 | EBM | 17G4 | EBM | 17H4 | BM | - | BM | - | BM | 16E3 | BM | 16E3 | BM | 16E3 | | | | | 8 |
| 7 | EBM | 16G5 | EBM | 16E5 | EBM | 16C5 | B | — | B | — | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 16G5 | EMB | 16E5 | EMB | 16C5 | EMB | 17H4 | EMB | 17H4 | BM | - | BM | 16D3 | BM | 16D3 | BM | 16D3 | BM | 16D3 | | | | | 6 |
| 5 | EMB | 16H5 | EMB | 16F5 | EMB | 16D5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 16H5 | EBM | 16F5 | EBM | 16D5 | EBM | 18A8 | EBM | 18A8 | BM | 16D3 | BM | 16D3 | BM | 16D3 | BM | 16D3 | BM | - | | | | | 4 |
| 3 | EBM | 16H5 | EBM | 16F5 | EBM | 16D5 | M | - | M | - | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 16H5 | EBM | 16F5 | EBM | 16E5 | EBM | - | EBM | - | M | 16D4 | M | 16D4 | M | 16D4 | M | 16D4 | M | 16C4 | | | | | 2 |
| 1 | EBM | 16H5 | EBM | 16F5 | EBM | 16E5 | M | 15H2 | M | 15H2 | M | 16E4 | M | 16E4 | M | 16C4 | M | 16C4 | M | 15E4 | | | | | 1 |
| COIL | | 17D0 | | 16D0 | | 16E0 | | 17D0 | | 17D0 | | 16E0 | | 16F0 | | 16F0 | | 16G0 | | 16G0 | | | | | COIL |

RELAY

| DESIG | TG0 | | [9]TG1-9 | | TGP | | TGS | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AF530 | | AJ506 | | AJ506 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 17F0 | EBM | 17F0 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 17G0 | EBM | 17G0 | M | 17G1 | M | 17F1 | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | 18D8 | EBM | 18C8 | EBM | 19B7 | EBM | 18B7 | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 18D8 | EBM | 18C8 | EBM | 18G3 | EBM | 18G4 | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | - | EBM | 18G5 | EBM | - | EBM | 18G4 | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 18G4 | EBM | 18G5 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 17B1 | | 17B1 | | 17B0 | | 17A0 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| [2] | FG0,1 | 16D0 | 185A |
| (FE) | FG2 | 16E0 | 185A |
| [5] | TB0-5 | 17D0 | 185A |
| [5] | TF0/7 | 16F0 | 185A |
| [10] | TG0P-9P | 17B0 | 185A |
| [10] | TG0S-9S | 17B0 | 185A |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| TGP | 17B0 | 441T |
| TGS | 17A0 | 441T |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| NTB | 17D0 | 19EJ |

DRAWING ISSUE

| | |
|---|---|
| 1 | F1B |
| 20 | BCC |
| 50 | MVM |
| 180 | PBX |
| 210 | NWE |
| 220 | GSW |
| 240 | JPM |
| 250 | GAU |
| 300 | OCB |
| 32A | CLK |
| 330 | CLK |
| 34A | JEK |
| 350 | JEK |
| 370 | WM |
| 38A | DM |
| 390 | DM |
| 450 | |

# APP FIG. 6

RELAY

| DESIG | MT5 | | TSE2 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ702 | | AJ700 | | | | | | CODE |
| OPTION | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 24 | M | - | M | - | | | | | 24 |
| 23 | M | 40E2 | M | - | | | | | 23 |
| 22 | M | 18A4 | M | 18A4 | | | | | 22 |
| 21 | M | 18A4 | M | 18B4 | | | | | 21 |
| 20 | M | 18B4 | M | 18B4 | | | | | 20 |
| 19 | M | 18B4 | M | 18C4 | | | | | 19 |
| 18 | M | 18C4 | M | 18C4 | | | | | 18 |
| 17 | M | 18C4 | M | 18D4 | | | | | 17 |
| 16 | M | 18E4 | M | 18C4 | | | | | 16 |
| 15 | M | 18E4 | M | 18F4 | | | | | 15 |
| 14 | M | 18F4 | M | 18L4 | | | | | 14 |
| 13 | M | 18F4 | M | 18F4 | | | | | 13 |
| 12 | M | 39B/D6 | M | 40E2 | | | | | 12 |
| 11 | M | 16B2 | M | 16B2 | | | | | 11 |
| 10 | M | 18A0 | M | 19A1 | | | | | 10 |
| 9 | M | 18A0 | M | 18B1 | | | | | 9 |
| 8 | M | 18B0 | M | 18B1 | | | | | 8 |
| 7 | M | 18B0 | M | 18C1 | | | | | 7 |
| 6 | M | 18C0 | M | 18C1 | | | | | 6 |
| 5 | M | 18D0 | M | 18D1 | | | | | 5 |
| 4 | M | 18E0 | M | 18D1 | | | | | 4 |
| 3 | M | 18E0 | M | 18E1 | | | | | 3 |
| 2 | M | 18F0 | M | 18E1 | | | | | 2 |
| 1 | M | 18F0 | M | 18F1 | | | | | 1 |
| COIL | | 19H4 | | 19G5 | | | | | COIL |

RELAY

| DESIG | MT6 | | OT | | [10]TS0-9 | | TSE1 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ15 | | AJ510 | | AF518 | | AJ503 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | OPTION |
| LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 19H4 | | | EMB | - | EBM | 32E6 | | | | | 12 |
| 11 | EBM | 40D5 | | | M | - | EBM | 19H9 | | | | | 11 |
| 10 | EBM | 18G2 | | | EBM | - | EBM | 19A5 | | | | | 10 |
| 9 | EBM | 18G2 | | | | | EBM | 18E2 | | | | | 9 |
| 8 | EMB | - | M | 19C5 | EBM | - | EMB | b | | | | | 8 |
| 7 | EBM | - | B | a | B | - | EBM | a | | | | | 7 |
| 6 | EMB | 19H5 | M | 33A/F8 | EMB | 19D2 | EMB | 116F1 | | | | | 6 |
| 5 | EMB | a | B | - | | | EMB | 39B/F5 | | | | | 5 |
| 4 | EBM | 18G1 | M | 1988 | EBM | 18E2 | EBM | 18E2 | | | | | 4 |
| 3 | EBM | 39B/D5 | | | M | 19D9 | EBM | 18F2 | | | | | 3 |
| 2 | EBM | 18G1 | | | EBM | 18E2 | EBM | 39B/B6 | | | | | 2 |
| 1 | EBM | 39B/A7 | | | M | 19D9 | EBM | 18F6 | | | | | 1 |
| COIL | | 19H4 | | P-18G1 | | 19D1 | | 19G5 | | | | | COIL |
| | (RA) | 40C2 | | S-1985 | | | (JC) | 40E2 | | | | | |
| | a (ZFY) | 40F2 | | 1988 | | | a (JB) | 39B/D7 | | | | | |
| | | | | a (JC) 39B/D7 | | | (QM) | 18F2 | | | | | |
| | | | | | | | b (FY) | 123E7 | | | | | |

RELAY

| DESIG | TW | | TZ | | TE | | RAV3 | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF512 | | AJ500 | | AJ510 | | AJ12 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | ZHP | | ZQB | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EMB | - | | | EBM | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | BM | 99F9 | | | EBM | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | EBM | 19G2 | | | EBM | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | M | 18H1 | | | EBM | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | M | 19C5 | EBM | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | B | 39B/D7 | EBM | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 19H3 | EMB | - | M | 33A/G8 | EBM | 41B/G7 | | | | | | | | | | | | | | | | | 6 |
| 5 | | | M | 18H1 | B | - | EBM | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 132C1 | EBM | 132C1 | M | 1988 | EBM | 87E1 | | | | | | | | | | | | | | | | | 4 |
| 3 | | | BM | 18H1 | | | EBM | 72A7 | | | | | | | | | | | | | | | | | 3 |
| 2 | | | EBM | - | | | EBM | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | BM | 18H2 | | | EBM | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 18H1 | | 19H2 | | P-18H2 | | 41A/C9 | | | | | | | | | | | | | | | | | COIL |
| | | | | | | S-19C5 | | | | | | | | | | | | | | | | | | | |

RELAY

| | (IX) ETS | (IX) OTS | (IX) TTO-9 |
|---|---|---|---|
| | 280AF | 280AF | 280FK |
| 7 o 4 ↑ 3 | 18H1 | 18H1 | 19D2 |
| P P S | 18H2 | 18H2 | 18D3 |

RELAY

| | (IY) ETS | (IY) OTS | (IY) TTO-9 |
|---|---|---|---|
| | 316R | 316R | 316K |
| 5 o 4 ↑ 7 | 18H0 | 18H0 | 19D2 |
| P P S | 18H2 | 18H2 | 18D3 |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| [1] | ETS | 18H0 | 177K |
| [1] | OTS | 18G3 | 177K |
| | MT5 | 19H4 | 185A |
| | OT | 19B5 | 185A |
| (JC) | TE | 19C5 | 185A |
| [10] | TS0-9 | 19D2 | 185A |
| | TSE1 | 19G5 | 186A |
| | TSM | 32E8 | 177C |
| | TWZ | 19H3 | 185A |
| (ZQB) | RAV3 | 41A/C9 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| ETA | 18H1 | 18EF |
| OTA | 18H1 | 18EF |
| TSM | 32E8 | KS-13490,L3 33,000 |
| TW | 19H1 | 18AG |
| TZ | 19H2 | 18AG |

DRAWING ISSUE

| |
|---|
| 65B |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-C2

6S

# APP FIG. 7

RELAY

| DESIG | CKG2 | | RAV1 | | | | | |
|---|---|---|---|---|---|---|---|---|
| CODE | AJ700 | | AJ702 | | | | | |
| OPTION | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 24 | M | 23A7 | M | 358/D5 | | | | |
| 23 | M | 23G3 | M | 1321 | | | | |
| 22 | M | 2G3 | M | 881/D8 | | | | |
| 21 | M | 15E0 | M | - | | | | |
| 20 | M | 83C5 | M | - | | | | |
| 19 | M | 87E2 | M | 11001 | | | | |
| 18 | M | 86E1 | M | 11002 | | | | |
| 17 | M | 60A1 | M | a | | | | |
| 16 | M | 3702 | M | 84C3 | | | | |
| 15 | M | 3788 | M | 358/E1 | | | | |
| 14 | M | 396/E2 | M | 8183 | | | | |
| 13 | M | 398/M2 | M | - | | | | |
| 12 | | 418/G8 | M | 41A/B8 | | | | |
| 11 | M | 108C7 | M | 418/E6 | | | | |
| 10 | M | 358/C7 | M | 881/C1 | | | | |
| 9 | M | 598/C1 | M | 8701 | | | | |
| 8 | M | 2500 | M | 1783 | | | | |
| 7 | M | 2680 | M | - | | | | |
| 6 | M | 24A/D0 | M | 1786 | | | | |
| 5 | M | 28A/A3 | M | 137C6 | | | | |
| 4 | M | 22E7 | M | 111A/H2 | | | | |
| 3 | M | 2287 | M | 41A/B3 | | | | |
| 2 | M | 348/G2 | M | 37G1 | | | | |
| 1 | M | 3F5 | M | 418/H2 | | | | |
| COIL | | 37D1 | | 41A/B6 | | | | |

110A3
a 41B/E1

RELAY

| DESIG | 1F | | 1FA | | 2F | | 2FA | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF50 | | AF50 | | AF50 | | 1F114 | | | | CODE |
| OPTION | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | 11 |
| 10 | M | 398/E1 | M | - | M | - | M | 41B/E6 | | | 10 |
| 9 | | | | | | | | | | | 9 |
| 8 | BM | - | BM | 88A/B9 | BM | - | BM | - | | | 8 |
| 7 | | | | | | | | | | | 7 |
| 6 | BM | - | BM | 398/G2 | BM | 398/E1 | BM | 40B1 | | | 6 |
| 5 | | | | | | | | | | | 5 |
| 4 | M | 398/G1 | M | 398/F0 | M | 398/G1 | M | 398/F1 | | | 4 |
| 3 | | | | | | | | | | | 3 |
| 2 | | | | | | | B | 398/G1 | | | 2 |
| 1 | | | | | | | | | | | 1 |
| COIL | | 398/F0 | | 398/E0 | | 398/G0 | | 398/F0 | | | COIL |

RELAY

| DESIG | CB5 | | CKG5 | | FM | | FMP | | ELL | | [4]GS1-4 | | GS5 | | LL0 | | LL1 | | LL2 | | LL4 | | LL7 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AF521 | | AF55 | | AF42 | | AJ502 | | AJ501 | | AJ501 | | AJ502 | | AJ502 | | AJ502 | | AJ502 | | AJ502 | | CODE |
| OPTION | | | | | | | | | 1B | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 88A/H7 | M | 31B/D2 | M | 4081 | EMB | 31A/E8 | EBM | 2D3 | EBM | 17C5 | EBM | 17E5 | EBM | 2D3 | EBM | 2D2 | EBM | 2D2 | EBM | 2D2 | EBM | - | 12 |
| 11 | M | 888/A9 | M | 31B/D5 | M | 88A/B8 | M | 4CC0 | EBM | 2D3 | EBM | 4587 | EBM | 4587 | EBM | - | EBM | 2D2 | EBM | 2D2 | EBM | 2D2 | EBM | 2D1 | 11 |
| 10 | M | 888/A0 | M | 17D5 | BM | 398/H1 | EBM | 340/B4 | EBM | - | EBM | 45A7 | EBM | 45A7 | EBM | 2D3 | EBM | 2D2 | EBM | 2D2 | EBM | 2D2 | EBM | 2D1 | 10 |
| 9 | M | 2F2 | M | 17B1 | M | — | | | EBM | - | EBM | 17A3 | EBM | 17A3 | EBM | 49C/F3 | EBM | 49C/G3 | EBM | - | EBM | - | EBM | - | 9 |
| 8 | BM | 31A/G2 | BM | 40H7 | BM | 398/E2 | EBM | 34C/A7 | EMB | - | EMB | 17C3 | EMB | 17E3 | EMB | 338/A7 | EMB | 338/B7 | EMB | - | EMB | - | EMB | - | 8 |
| 7 | M | 338/D7 | M | 109F7 | B | 1BA7 | B | 11A5 | | | EBM | 17F6 | EBM | 17H6 | | | | | | | | | | | 7 |
| 6 | BM | 37F6 | BM | 70F6 | BM | 15A1 | EMB | 31A/B7 | EMB | - | EMB | 42C1 | EMB | 4281 | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | 6 |
| 5 | M | 338/D7 | M | 43G0 | M | 137D6 | | | | | EMB | 4734 | EMB | 4784 | | | | | | | | | | | 5 |
| 4 | BM | 2C2 | BM | 82D0 | BM | 87E2 | EBM | 398/G4 | EBM | - | EBM | 47D4 | EBM | 47D4 | EBM | 33A/E1 | EBM | 33A/E1 | EBM | 333/F2 | EBM | 333/E2 | EBM | 333/E1 | 4 |
| 3 | M | 338/E7 | M | 62A/G5 | M | 81C3 | M | 3702 | EBM | - | EBM | 47D9 | EBM | 47D9 | EBM | 33A/F1 | EBM | 33A/E2 | EBM | 333/G2 | EBM | 333/G1 | EBM | 333/F1 | 3 |
| 2 | M | 338/F7 | M | 62A/G5 | M | 41B/E6 | EBM | 89B/B7 | EBM | - | EBM | 17A7 | EBM | - | EBM | 33A/F2 | EBM | 33A/G1 | EBM | 333/E1 | EBM | 333/G1 | EBM | 333/E1 | 2 |
| 1 | M | 333/E7 | M | 31B/E7 | M | 88A/B9 | M | 88A/H6 | EBM | - | EBM | 45E7 | EBM | 45E7 | EBM | 33A/G2 | EBM | 33A/F2 | EBM | 333/G1 | EBM | 333/E1 | EBM | 333/G2 | 1 |
| COIL | | 23H0 | | 37C3 | | 4080 | | 31A/F7 | | 2C3 | | 1708 | | 17E6 | | 338/D9 | | 338/D9 | | 338/D9 | | 338/D9 | | 338/D9 | COIL |

RELAY

| DESIG | RA1 | | [3]RA2-4 | | RA5 | | RA6 | | RAV2 | | RBT | | RCY | | RCY1 | | | | RF | | RFA | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF122 | | AF122 | | AF122 | | AF122 | | AJ12 | | AF112 | | AF88 | | AF52 | | | | AF50 | | AF52 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 1783 | M | 17C3 | M | 17E3 | M | 17E3 | EBM | 22A7 | M | 418/D8 | M | 41B/E8 | M | 4086 | | | | | M | 398/H2 | | | 12 |
| 11 | M | 1786 | M | 17C6 | M | 17E6 | M | 17E6 | EBM | 18A7 | M | a | B | 41A/B0 | | | | | | | | | | | 11 |
| 10 | BM | 17E7 | BM | 17F7 | BM | 17H7 | BM | 17M7 | EBM | a | M | 418/C7 | M | 41A/A1 | BM | 41B/F1 | | | M | 398/H1 | BM | 15A1 | | | 10 |
| 9 | | | | | | | | | EBM | 22F8 | M | b | B | 1784 | | | | | | | | | | | 9 |
| 8 | BM | 17H4 | BM | 17G4 | BM | 17G4 | BM | 17G4 | EBM | 4361 | EBM | 3883 | BM | 62A/G8 | BM | 15C1 | | | BM | 398/H1 | BM | - | | | 8 |
| 7 | | | | | | | | | EBM | 87D4 | | | B | 17A4 | | | | | | | | | | | 7 |
| 6 | BM | 17G3 | BM | 17G4 | BM | 17G4 | BM | 17G4 | EBM | 418/G7 | EBM | 38D4 | BM | 102C7 | BM | 41B/H7 | | | BM | - | BM | 398/H0 | | | 6 |
| 5 | | | | | | | | | EBM | 83C1 | | | B | 358/E8 | | | | | | | | | | | 5 |
| 4 | BM | 88A/D8 | BM | 88A/D8 | BM | 88A/D8 | BM | 41B/E6 | EBM | 42C1 | EBM | 88A/E0 | M | 40F7 | BM | 1048/C9 | | | M | 40B2 | BM | 40B1 | | | 4 |
| 3 | | | | | | | | | EBM | 39B/H2 | M | - | B | 87D4 | | | | | | | | | | | 3 |
| 2 | M | 88A/C2 | M | 88A/C2 | M | 88A/C2 | M | 88A/C2 | EBM | 34A/J4 | M | 41B/H1 | M | 84D6 | M | 37G1 | | | | | M | 41A/B3 | | | 2 |
| 1 | M | 88A/F3 | M | 88A/B2 | M | 88A/G3 | M | a | EBM | 34C/A7 | M | | B | 4281 | M | 41B/H2 | | | | | M | 88A/C7 | | | 1 |
| COIL | | 1783 | | 17C3 | | 1703 | | 17E3 | | 41A/C8 | | 418/D8 | | 41B/E8 | | 41B/E8 | | | | 398/H0 | | 398/H0 | | | COIL |

(1M) 111A/G2
a
(1K) 111A/H3

24C/E2
a
111A/H3

(1K) 88D/H0
a
(1M) 111A/F2
(1M) 111A/G1
b
(1K) 111A/H2

RELAY

| DESIG | RYC | | | SNK | | | GS6 | | | TER5 | | | IFLG | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ15 | | | AF507 | | | AJ501 | | | AJ503 | | | AJ501 | | | | CODE |
| OPTION | | | | | | | GU | | | EQ | | | ZSH | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 108F7 | | M | 2288 | | EBM | 17E5 | | EBM | 88A/A9 | | EBM | | | | 12 |
| 11 | EBM | b | | M | - | | EBM | - | | EBM | 104A/D7 | | EBM | 22B/B9 | | | 11 |
| 10 | EBM | 107F7 | | BM | 398/H3 | | EBM | 15C1 | | EBM | 104A/A0 | | EBM | 88A/B1 | | | 10 |
| 9 | EBM | 57BA1 | | M | - | | EBM | 1783 | | EBM | 34C/B4 | | EBM | 88C/F1 | | | 9 |
| 8 | EMB | 1500 | | BM | - | | EMB | 17E3 | | EMB | - | | EMB | | | | 8 |
| 7 | EBM | | | B | 358/F6 | | EBM | 17H6 | | EBM | 36F7 | | EBM | | | | 7 |
| 6 | EMB | 42B1 | | BM | 40G6 | | EMB | 4281 | | EMB | 34C/C8 | | EMB | | | | 6 |
| 5 | EMB | 34B/G2 | | M | - | | EMB | - | | EMB | 88B/C8 | | EMB | | | | 5 |
| 4 | EBM | F | | BM | 84C1 | | EBM | - | | EBM | 122A/C6 | | EBM | | | | 4 |
| 3 | EBM | 87E0 | | M | - | | EBM | 47E9 | | EBM | 122A/F7 | | EBM | | | | 3 |
| 2 | EBM | 29B/H1 | | M | 414/B9 | | EBM | - | | EBM | 88A/C9 | | EBM | | | | 2 |
| 1 | EBM | 2G3 | | M | 418/F9 | | EBM | a | | EBM | - | | EBM | | | | 1 |
| COIL | | 418/G8 | | | 398/G4 | | | 17E6 | | | 22G2 | | | 2385 | | | COIL |

a
23A6
40F7

TU 22A3
b
(ZDL) 22A4

(1M) 111A/G1
a
(1K) 111A/H4

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| C85 | 23H0 | 185A |
| CKG5 | 37C3 | 186A |
| (TB) ELL | 2C3 | 185A |
| FM | 4080 | 185A |
| FMP | 31A/F7 | 185A |
| [5] GSI-5 | 17D6 | 186A |
| (GU) GS6 | 17E6 | 186A |
| [5] LL0/7 | 338/D9 | 185A |
| RAV1 | 41A/B8 | 185A |
| RBT | 418/D8 | 185A |
| RCY1 | 418/E8 | 185A |
| RYC | 41B/G8 | 185A |
| SNK | 398/G4 | 185A |
| (EQ) TER5 | 22G2 | 185A |
| (ZSH) IFLG | 2385 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| RA | 1784 | 18AG |

DIODE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZFS | PCG | 88A/B1 | 533K |
| ZKC | RBT | 41B/D7 | 446F |

DRAWING ISSUE

| | |
|---|---|
| 1 | BJ |
| 2D | BAC |
| 3D | WM AM |
| 5D | NP |
| 8D | JEM |
| 10B | DTT JEM |
| 11B | CH JEM WEK |
| 17D | KG AWZ |
| 18D | AM |
| 21D | DEH JDF AHD |
| 22D | DEH JDF AHD |
| 23A | JM JEM AHD |
| 24D | JM JEM AHD |
| 25D | PEC AGD AHD |
| 27A | MD CLK AHD |
| 28D | JMT CLK AHD |
| 30D | JEM AHD AHD |
| 32A | LP CLK AHD |
| 33D | LP CLK AHD |
| 34A | JDL GDL AHD |
| 35D | JDL GDL AHD |
| 37D | WM |
| 38A | DM |
| 39D | DM |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE
65B

COMPLETING MARKER CIRCUIT

SD-26002-01-C3

BELL TELEPHONE LABORATORIES, INC

6S

# APP FIG. 8

RELAY

| DESIG | CKG6 | | ITR1 | | SOG1 | | TER1 | | TOG1 | |
|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ700 | | AJ700 | | AJ700 | | AJ700 | | AJ702 | |
| OPTION | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 24 | M | 72A6 | M | 100B/C4 | M | - | M | 41A/F7 | M | 22E7 |
| 23 | M | 72G2 | M | 100A/F6 | M | IN8C/D0 | M | 108B7 | M | 9705 |
| 22 | M | 79C2 | M | 23C4 | M | - | M | 107F2 | M | 60G0 |
| 21 | M | 7982 | M | 22A4 | M | 81F1 | M | 16C0 | M | b |
| 20 | M | 21A/A7 | M | 23A1 | M | - | M | 88A/B0 | M | 1865 |
| 19 | M | 17C5 | M | 107G0 | M | - | M | 88A/B8 | M | 22F8 |
| 18 | M | 41A/B5 | M | 107F3 | M | - | M | b | M | 89B/B9 |
| 17 | M | 8166 | M | 108C8 | M | - | M | 83E5 | M | a |
| 16 | M | 17F6 | M | 41A/D0 | M | 111A/A7 | M | 59A/F7 | M | 40C1 |
| 15 | M | 1705 | M | 41A/A9 | M | 21B/D6 | M | 30A/G8 | M | 9763 |
| 14 | M | 17C5 | M | 41B/E6 | M | 97E5 | M | 30A/G4 | M | 30A/D6 |
| 13 | M | 1785 | M | 41A/D2 | M | 23C1 | M | 29A/G2 | M | 30A/D3 |
| 12 | M | 107B8 | M | 61D7 | M | 4A/H1 | M | 23B2 | M | 29A/E3 |
| 11 | M | 6407 | M | 41A/B6 | M | 29B/F4 | M | 37C7 | M | 29B/F4 |
| 10 | M | 702 | M | 59A/D6 | M | 27E1 | M | 36C3 | M | 37C7 |
| 9 | M | 63F8 | M | 30A/C2 | M | 35B/F8 | M | 34A/E1 | M | 36D6 |
| 8 | M | 35B/E1 | M | 30A/G4 | M | 35B/G9 | M | a | M | 36D3 |
| 7 | M | a | M | 36C3 | M | 83B/A5 | M | 1603 | M | 23G3 |
| 6 | M | 39G3 | M | 37D7 | M | 3IB/B7 | M | 23G3 | M | 23H8 |
| 5 | M | 43G4 | M | 34A/A4 | M | 37E7 | M | 41A/C7 | M | 41B/F6 |
| 4 | M | 42E2 | M | 34A/E1 | M | 36E3 | M | 41A/E0 | M | 41A/C0 |
| 3 | M | 30A/B4 | M | 23G3 | M | 36E6 | M | 41A/C2 | M | 41A/B7 |
| 2 | M | 29B/G4 | M | 23C3 | M | 41B/E6 | M | 62A/G7 | M | 41A/A2 |
| 1 | M | 29B/F9 | M | 18G6 | M | 41A/E0 | M | c | M | 41A/C2 |
| COIL | | 37D3 | | 22A7 | | 2207 | | 22F3 | | 22E7 |

(ZKC) 15H9 a 29B/H1

(RT) 22F2 a (RS) 2386 b (EQ) 22H2 c (EP) 88A/G9 (ZYI) 22A6 (ZYJ) 34C/F3

(IN) 88C/G1 a (RQ) 88C/G1 (XM) 88A/H7 (ZYH) 22H6 (ZYG) 63A1

RELAY

| DESIG | CKG1 | | CKG4 | | DCI | | DCT1 | | DCT2 | | DCT2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AJ501 | | AJ15 | | AJ512 | | AJ512 | | AJ503 | | CODE |
| OPTION | | | | | YG | | | | WQ | | WR | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 34A/C4 | EBM | 23A1 | EBM | 66C1 | BM | 4203 | BM | - | EBM | - | 12 |
| 11 | M | 7C6 | EBM | 36G9 | EBM | - | BM | 36E9 | BM | 36G9 | EBM | 36G9 | 11 |
| 10 | M | a | EBM | 36G9 | EBM | 78D3 | BM | 87E7 | BM | 97B8 | EBM | 97B8 | 10 |
| 9 | M | b | EBM | 23C4 | EBM | - | BM | a | BM | - | EBM | 117E6 | 9 |
| 8 | BM | 115H6 | EMB | 120E0 | EBM | - | MB | 62A/F6 | BM | 114A/F2 | EMB | 114G2 | 8 |
| 7 | M | 28A/H9 | EBM | 15F0 | EBM | 66BC | BM | 18G5 | BM | 18G5 | EBM | 18G5 | 7 |
| 6 | BM | 88B/E4 | EMB | 36F0 | EBM | - | MB | 36A0 | BM | 36A0 | EMB | 98E5 | 6 |
| 5 | M | 81H5 | EMB | 61D0 | EBM | - | MB | 1103B2 | BM | - | EMB | 88D/C5 | 5 |
| 4 | BM | 62A/G4 | EBM | 114A/E8 | EBM | - | BM | 2308 | BM | - | EBM | 36A0 | 4 |
| 3 | M | 2301 | EBM | a | EBM | a | BM | b | BM | 36C1 | EBM | 36C1 | 3 |
| 2 | M | 15F9 | EBM | 87D5 | EBM | 22H5 | BM | 34A/C3 | BM | 34A/D4 | EBM | 34A/D4 | 2 |
| 1 | M | 28A/B0 | EBM | 1906 | EBM | 10883 | BM | 34A/A4 | BM | 37F3 | EBM | 37F3 | 1 |
| COIL | | 3701 | | 1501 | | 66C0 | | 36E9 | | 36F9 | | 36F9 | COIL |

(IY) 34A/G5 a (IX) 34A/H4 (IY) 34A/G1 b (IX) 34A/H1

(128) 121A/D2 (158) 121B/F5 a (128) 121A/A2 (158) 121B/A3 a

1038/A8 10963 a 3681/C1 97B8 b

RELAY

| DESIG | DCT3 | | FLG | | FLG1 | | ITR2 | | DCTA | | LK1 | | LK2 | | | | ROA | | RV3 | | SCB1 | | SCB2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ512 | | AF521 | | AJ503 | | AJ503 | | AJ503 | | AJ512 | | AJ512 | | | | AF52 | | AF521 | | AF504 | | AJ503 | | CODE |
| OPTION | | | | | | | | | IE | | | | | | | | UN | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | - | M | 66F1 | EBM | 31B/H1 | EBM | 60D1 | EBM | 88E/E4 | BM | 36A9 | BM | 43C1 | | | M | 22d4 | M | 788/F7 | M | 23A1 | EBM | 41A/D0 | 12 |
| 11 | BM | 36B9 | M | a | EBM | 35B/A5 | EBM | 30A/E9 | EBM | - | BM | 36F8 | BM | 120F4 | | | | | M | 107H2 | M | a | EBM | a | 11 |
| 10 | BM | - | M | 78A/D2 | EBM | 67B1 | EBM | 2285 | EBM | - | BM | 36E8 | BM | 12C5 | | | BM | 41A/31 | M | 59A/E6 | M | 72C7 | EBM | 44F0 | 10 |
| 9 | BM | 30A/C5 | M | 78A2 | EBM | 64A4 | EBM | 88A/B0 | EBM | 103G7 | BM | 788/E3 | BM | - | | | | | M | 107H0 | M | 4366 | EBM | 31B/C7 | 9 |
| 8 | BM | 34A/A3 | BM | 44A8 | EMB | 64F7 | EMB | 43H1 | EM3 | - | BM | 23G2 | BM | 34A/A3 | | | BM | 413/B7 | BM | 36E7 | M | 838/B5 | EMB | 4084 | 8 |
| 7 | BM | 1986 | M | 34A/E4 | EBM | 2E1 | EBM | 32G7 | EBM | 18H6 | BM | 23C4 | BM | 1080 | | | | | M | 42A3 | M | 9788 | EBM | 44/F2 | 7 |
| 6 | BM | 36C7 | BM | 34C/D6 | EMB | 62A/A1 | EMB | 44E0 | EM3 | 99G5 | BM | 32G7 | BM | 11A4 | | | BM | 29A/G2 | BM | 30A/B2 | M | 117E6 | EMB | C | 6 |
| 5 | BM | - | M | 108G8 | EMB | 62A/A1 | EMB | 44E0 | EM3 | 99G5 | BM | a | BM | 61F9 | | | | | M | 30A/B6 | M | 36F7 | EMB | 8405 | 5 |
| 4 | BM | 36D8 | BM | 36H0 | EBM | 30A/B6 | EBM | 3804 | EBM | 117E6 | BM | 23C7 | BM | 62A/E3 | | | BM | 41A/C7 | BM | 788/F7 | M | 35B/E8 | EBM | b | 4 |
| 3 | BM | 36C1 | M | 1C2B3 | EBM | 44/C0 | EBM | 36A8 | EBM | 137C5 | BM | 36A0 | BM | 34C/E8 | | | | | M | 107B3 | M | 23C7 | EBM | 88A/G6 | 3 |
| 2 | BM | 136E8 | M | 62A/23 | EBM | 35B/G3 | EBM | 36A0 | EBM | 137D6 | BM | 34A/B8 | BM | 34C/F6 | | | M | 62A/H9 | M | 78A/D2 | M | 35B/G9 | EBM | d | 2 |
| 1 | BM | 30A/D3 | M | 34A/E1 | EBM | 23C3 | EBM | a | EBM | 8ED/B5 | BM | 23C1 | BM | 84C5 | | | M | 41B/D8 | M | 78A/B2 | M | 43HI | EBM | 3H6 | 1 |
| COIL | | 3689 | | 23G0 | | 23G0 | | 22A7 | | 3609 | | 36A9 | | 36A9 | | | | 24C/E4 | | 23F0 | | 23A0 | | 23B0 | COIL |

(IU) 23F1 a (IT) 66E7

(ZDE) 34A/A8 a (ZDF) 22G8

100B/C6 123H1

44F0 a 88B/C0

(II) 34A/E4 a (IN) 88D/B5 (ZDE) 34A/E3 b (ZDF) 23E4 (120) 98E5 c (158) 36F7 34A/D4 d 34A/E4

RELAY

| DESIG | SOG2 | | SP | | TEA | | TER2 | | TER4 | | TOA | | TOA | | TOG2 | | TR2 | | TR2B | | VCI | | SPI | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ12 | | AF507 | | AJ503 | | AJ503 | | AF100 | | AJ501 | | AJ501 | | AJ12 | | AJ12 | | AJ15 | | AJI2 | | CODE |
| OPTION | | | | | | | | | RT | | ZYI | | ZYJ | | | | | | | | YG | | TB | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | - | - | EBM | 62A/F5 | M | 85F2 | EBM | 6332 | EBM | 100B/C5 | EMB | 22E8 | EBM | 17H2 | EBM | 30A/B1 | EBM | 61F0 | EBM | 7266 | EBM | 66D1 | EBM | 39B/F4 | 12 |
| 11 | - | - | EBM | 16B0 | M | - | EBM | 41A/D6 | EBM | 22E6 | M | a | EBM | a | EBM | 97E4 | EBM | 64C1 | EBM | 16B7 | EBM | - | EBM | 116A3 | 11 |
| 10 | BM | 60A4 | EBM | 83C5 | BM | 4282 | EBM | 22C9 | EBM | 72B4 | EBM | 23A6 | EBM | 23A6 | EBM | 23A6 | EBM | 61E5 | EBM | 122B/B3 | EBM | 78A/E3 | EBM | 117D3 | 10 |
| 9 | EBM | 12382 | EBM | 84C4 | M | - | EBM | 41B/C4 | EBM | 105A2 | M | b | EBM | b | EBM | 44A9 | EBM | 97G2 | EBM | a | EBM | - | EBM | - | 9 |
| 8 | EMB | - | EBM | 35B/G8 | BM | 2288 | EMB | 41A/C6 | EMB | 23B7 | EBM | 28B/B3 | EMB | 28B/B3 | EMB | 34C/C5 | EBM | 13E7 | EBM | b | EMB | - | EBM | - | 8 |
| 7 | EBM | 3H6 | EBM | 43F4 | B | 16A5 | EBM | 30B/E3 | EBM | 40B4 | | | EBM | 2288 | EBM | 66C8 | EBM | 38B3 | EBM | 3IA/E7 | EMB | 66C3 | EBM | - | 7 |
| 6 | EMB | 29A/E6 | EBM | 43E4 | BM | 62A/H9 | EMB | a | EMB | 98E4 | EMB | 96D5 | EMB | 4230 | EMB | 66A5 | EBM | b | EBM | 3IA/F4 | EMB | - | EBM | - | 6 |
| 5 | EMB | 60A2 | EBM | 34C/A3 | M | - | EMB | 30A/E2 | EMB | 108D6 | | | EMB | 2288 | EBM | 33H9 | EBM | 107F4 | EBM | 3IA/EI | EMB | - | EBM | 38H4 | 5 |
| 4 | EBM | 115H6 | EBM | 3H10 | BM | 418/C7 | EBM | 16A6 | EBM | 36E8 | EBM | 41B/C7 | EBM | 41B/C6 | EBM | 36A3 | EBM | 22B3 | EBM | 3IA/C0 | EBM | - | EBM | 1986 | 4 |
| 3 | EBM | 30A/B8 | EBM | 36E2 | M | - | EBM | 4084 | EBM | 3607 | M | 88A/F0 | EBM | 88A/F0 | EBM | 40B5 | EBM | a | EBM | 36F5 | EBM | a | EBM | 101A0 | 3 |
| 2 | EBM | 96A6 | EBM | 61E9 | M | 41B/D5 | EBM | 30B/F2 | EBM | 36F5 | EBM | 62A/G9 | EBM | 62A/G9 | EBM | 35B/G3 | EBM | 4A/H5 | EBM | 30A/G5 | EBM | 22H5 | EBM | 115A2 | 2 |
| 1 | EBM | 318/C7 | EBM | 34C/C4 | M | 24C/E3 | EBM | 17A3 | EBM | 88B/C1 | M | 24C/E3 | EBM | 24C/E4 | EBM | 41B/C5 | EBM | 22C2 | EBM | 37A8 | EBM | 108C3 | EBM | 115F6 | 1 |
| COIL | | 22D7 | | 37H4 | | 22A9 | | 22D3 | | 22F2 | | 22E9 | | 22E9 | | 22E7 | | 22F1 | | 22E2 | | 66D0 | | 37H4 | COIL |

a 19A7 97E5

(IM) 111A/F2 (IK) 88D/H0 a (IM) 111A/G2 b (IK) 111A/H4

(IM) 111A/F2 (IK) 88D/H0 a (IM) 111A/G2 b (IK) 111A/H4

22E2 9686 a 22E2 37A7 b

(LW) 114A/E0 (AV) 114A/D4 (LX) 114A/F3 (ZWM) 114A/E8 a (ZWL) 114A/D4 b (LP) 96B4 b (ZYZ) 4A/F0

(128) 121A/A3 a (158) 121B/A3 a

RELAY

| DESIG | PEG1 | | PEG1 | | | | ROA | | CKG7 | | IPT | | LKC | | PEG | | PEG | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF506 | | AF506 | | | | AJ15 | | AJ503 | | AJ503 | | AJ503 | | AF506 | | AF506 | | | | | | | | CODE |
| OPTION | IJ | | IK | | | | UO | | TB | | IE | | IK | | II | | IK | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 120F3 | M | 120F8 | | | EBM | 2284 | EBM | 122B/A7 | EBM | 42H3 | EBM | 88E/B0 | M | 888/F2 | M | 888/F2 | | | | | | | 12 |
| 11 | M | 120E2 | M | 120E2 | | | EBM | 788/F6 | EBM | a | EBM | 14281 | EBM | - | M | 888/G2 | M | 888/G2 | | | | | | | 11 |
| 10 | M | 88C/H0 | M | - | | | EBM | 41A/A1 | EBM | 104B/C8 | EBM | 108E6 | EBM | - | M | 888/B1 | M | 88C/G0 | | | | | | | 10 |
| 9 | M | 122B/C7 | M | 122B/C7 | | | EBM | 1680 | EBM | 83B/C6 | EBM | - | EBM | - | M | 88A/B1 | M | 88A/B1 | | | | | | | 9 |
| 8 | M | 122D/B8 | M | 122B/B8 | | | EMB | 418/B6 | EMB | 97G1 | EM3 | 116E7 | EMB | - | M | 88A/A1 | M | - | | | | | | | 8 |
| 7 | M | 114A/F3 | M | 114A/F3 | | | EBM | 2369 | EBM | 11387 | EBM | - | EBM | - | M | 88A/A1 | M | - | | | | | | | 7 |
| 6 | M | b | M | 59B/E1 | | | EMB | 29B4 | EMB | 105F9 | EMB | 11584 | EMB | - | M | 88A/G8 | M | 88A/G8 | | | | | | | 6 |
| 5 | M | a | M | - | | | EMB | 11584 | EMB | - | EMB | - | EMB | - | M | 88B/B2 | M | 89D/C6 | | | | | | | 5 |
| 4 | M | 88C/E9 | M | - | | | EBM | 41A/C7 | EBM | 4280 | EBM | 120F2 | EBM | 88A/C0 | M | a | M | a | | | | | | | 4 |
| 3 | M | 88C/F0 | M | - | | | EBM | 88C/H0 | EBM | 103H1 | EBM | 122A/E8 | EBM | 88C/90 | M | 888/A7 | M | - | | | | | | | 3 |
| 2 | M | 102D5 | M | - | | | EBM | 62A/G9 | EBM | 60H5 | EBM | - | EBM | 102F4 | M | 88A/E1 | M | 88A/EI | | | | | | | 2 |
| 1 | M | 102C2 | M | - | | | EBM | 41B/D6 | EBM | 103E2 | EBM | - | EBM | 88D/C6 | M | 888/C8 | M | 88B/D8 | | | | | | | 1 |
| COIL | | 88B/E3 | | 88B/E3 | | | | 24C/E4 | | 15H8 | | 66H7 | | 88B/B6 | | 88B/F3 | | 08B/F3 | | | | | | | COIL |

(LS) 96F6 a (TM) 111A/G1 (LS) 96F6 b (TM) 111A/F2 (ZTK) 59B/E1

(119) 110F7 a (ZZF) 13700

(RQ) 88C/G2 a (XM) 88A/H7

(RQ) 88C/G2 a (XM) 89A/H7

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| (NH) JH1 | 34A/G5 | 4370A |

DIODE

| DESIG | LOC | CODE |
|---|---|---|
| DCT | 34A/C3 | 426F |
| (ZKM) IFM | 88A/A8 | 533K |
| (ZKM) IFFM | 88A/B8 | 533K |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CKG1 | 37C1 | 186A |
| CKG4 | 15D1 | 185A |
| (T8) CKG7 | 15H8 | 186A |
| (YG) DCT | 66C0 | 185A |
| DCT1 | 36E9 | 185A |
| DCT2 | 36F9 | 185A |
| DCT3 | 3689 | 185A |
| (IE) DCTA | 36D9 | 185A |
| [2] FLG,1 | 23G0 | 185A |
| [1] FS | 4A/H1 | 177C |
| TG1 | 18C7 | |
| (IE) IPT | 66H7 | 185A |
| ITP2 | 22A7 | 186A |
| LK1 | 36A9 | 185A |
| LK2 | 36A9 | 185A |
| (IK) LKC | 88D/B6 | 185A |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| (II,IK) PEG | 888/F3 | 185A |
| ROA | 24C/F4 | 185A |
| RV3 | 23F0 | 185A |
| SCB1 | 23A0 | 186A |
| SOG2 | 2207 | 186A |
| TEA | 22A9 | 185A |
| TER2 | 22G3 | 186A |
| (RT) TER4 | 22F2 | 185A |
| TOA | 22E9 | 185A |
| TOG2 | 22E7 | 185A |
| TR2B | 22E2 | 185A |
| (YG) VCI | 66D0 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (NH) DCT | 34A/B1 | 18DA |
| (NI) DCT | 34A/D2 | 18T |
| DCT1 | 34A/D4 | 18BS |
| (NH) DCT4 | 34A/B3 | 18CJ |
| (NH) JHR1 | 34A/G6 | 18BA |
| LFS | 4A/H2 | KS-13490,L3,33K |
| SF | 83C5 | 18AG |
| TG | 18C7 | KS-13490,L3,33K |
| (UN) TOG | 23H9 | 18BA |
| (UO) TOB | 23H9 | 18CR |

DRAWING ISSUE

| | |
|---|---|
| 1 | FAB |
| 2D | ASC |
| 3D | XXL AM |
| 4A | AM AMD |
| 5D | AM AMD |
| 8D | AM AMD |
| 9D | AM JDP |
| 10B | XXL AM |
| 11B | AM AMD |
| 13B | AM AMD |
| 16B | AM AMD |
| 17D | AM AMD |
| 18D | AM AMD |

WORN DRAWING REPRODUCED WITHOUT CHANGE 5-17-61 L.B.W.

| | |
|---|---|
| 20AC | DEH JDP AMD |
| 21D | DEH JDP AMD |
| 22D | NSC JDP AMD |
| 23A | MRS EDH AMD |
| 24D | MRS EDH AMD |
| 25D | JAT AMD |
| 26A | JAT AMD |
| 27A | MD CLN AMD |
| 29D | MD CLN AMD |
| 29A | MD AMD |
| 30D | MD AMD |
| 31D | NLF AMD |
| 32A | LP CLK AMD |
| 33D | LP CLK AMD |
| 34A | CK JDK EDL AMD |
| 35D | CK JDK EDL AMD |
| 36A | WM |
| 37D | WM |
| 38A | DM |
| 39D | DM |
| 40A | |
| 41D | |
| 42A | |
| 43D | |

DRAWING ISSUE 44A 45D

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C4

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

# APP FIG. 9

RELAY

| DESIG | LLC1 | | TLC1 | | | |
|---|---|---|---|---|---|---|
| CODE | AJ702 | | AJ700 | | | |
| OPTION | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 24 | M | 137A0 | M | 9G7 | | |
| 23 | M | 85F1 | M | 986 | | |
| 22 | M | 31A/C8 | M | 27E0 | | |
| 21 | M | 31B/B7 | M | 1509 | | |
| 20 | M | 41A/B1 | M | 59A/F4 | | |
| 19 | M | 31A/H2 | M | 59A/D5 | | |
| 18 | M | 40A4 | M | 23C8 | | |
| 17 | M | 6A/E3 | M | 59A/H4 | | |
| 16 | M | 4A/E6 | M | 59A/B5 | | |
| 15 | M | 23A8 | M | 16F7 | | |
| 14 | M | 83C4 | M | - | | |
| 13 | M | 108H2 | M | 19A7 | | |
| 12 | M | 88B/F0 | M | 15D9 | | |
| 11 | M | 23C7 | M | 15F0 | | |
| 10 | M | 107A4 | M | 1688 | | |
| 9 | M | 40D0 | M | - | | |
| 8 | M | 68/F5 | M | 13780 | | |
| 7 | M | 31A/C8 | M | 9696 | | |
| 6 | M | 31A/B9 | M | 16A0 | | |
| 5 | M | 6A/G3 | M | 16F7 | | |
| 4 | M | 48/G4 | M | 18F7 | | |
| 3 | M | 4A/B6 | M | 18E7 | | |
| 2 | M | 4A/B6 | M | 18E7 | | |
| 1 | M | 12A3 | M | 18D7 | | |
| COIL | | 23C8 | | 23A8 | | |

RELAY

| DESIG | CHA | | DTK | | FAK | | FBK | | KM | | HGK | | LBTA | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AF511 | | AJ503 | | AJ503 | | AJ503 KG | | AJ508 | | AF515 | | CODE |
| OPTION | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 11H8 | | | EBM | 32F8 | EBM | 32F8 | EBM | 105D0 | M | 318/C5 | BM | a | 12 |
| 11 | EBM | b | | | EBM | b | EBM | b | EBM | - | | | M | 10781 | 11 |
| 10 | EBM | 34C/E5 | M | - | EBM | a | EBM | a | EBM | 105H1 | BM | a | BM | 36D8 | 10 |
| 9 | EBM | a | | | EBM | 30A/D3 | EBM | 30A/D3 | EBM | 105H1 | | | | | 9 |
| 8 | EMB | 883/G1 | 3M | - | EMB | 29B/F4 | EMB | 29B/F4 | EMB | 98F0 | 3M | 34C/E4 | BM | 108G6 | 8 |
| 7 | EBM | 38D3 | B | 41A/B9 | EBM | 38D4 | EBM | 38C3 | EBM | - | | | B | 34C/A3 | 7 |
| 6 | EMB | 41A/E8 | BM | - | EMB | 34A/A4 | EMB | 34A/A4 | EMB | - | BM | 34C/E3 | BM | 34C/D3 | 6 |
| 5 | EMB | d | | | EMB | 122A/D3 | EMB | 122A/E3 | EMB | 1008/C0 | | | | | 5 |
| 4 | EBM | c | M | 31A/D1 | EBM | 39B/C5 | EBM | 39B/C5 | EBM | 98D5 | BM | 23A3 | BM | 68H3 | 4 |
| 3 | EBM | 37F6 | | | EBM | 99E7 | EBM | 31B/C8 | EBM | 348/A6 | | | M | 98H4 | 3 |
| 2 | EBM | 31B/C5 | | | EBM | 31B/C7 | EBM | 31B/C9 | EBM | - | M | 48/G4 | BM | 107A2 | 2 |
| 1 | EBM | 31A/C8 | | | EBM | c | EBM | 134E4 | EBM | - | M | 11705 | M | 108H2 | 1 |
| COIL | | 31B/F5 | | 4A/F5 | | 32G6 | | 32G6 | | 105D0 | | 6A/H2 | | 107B2 | COIL |
| | a 11H1 85F1 | | | | a 35A/B7 99E7 | | a 35A/C7 99F7 | | | | a 6A/D2 34C/H2 | | (LC) 31B/E5 (ZVD) 40D0 | | |
| | b 35A/D2 99F1 | | | | b 35A/A7 9907 | | b 35A/C6 99G7 | | | | | | | | |
| | (FZ) 348/F1 c (FY) 31B/F0 | | | | (VM) 99E7 c (ZZP) 134E4 | | | | | | | | | | |
| | (KO) 108G5 d (29) 31B/F3 | | | | | | | | | | | | | | |

RELAY

| DESIG | LCK | | LFK | | LK | | LLB | | | | LOT | | LOT1 | | MDK | | MTA | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF519 | | AF523 | | AF511 | | AF52 | | | | AF513 | | AF519 | | AF522 | | AF24 ZV1 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 23A5 | M | 88B/C2 | | | M | - | | | EMB | - | M | 4A/G5 | | | M | 10607 | | | | | | | 12 |
| 11 | | 33A/G8 | | | | | | | | | | | | | | | M | - | | | | | | | 11 |
| 10 | M | - | BM | 138H7 | M | 12F7 | BM | - | | | EBM | 4A/F6 | M | - | M | 86C1 | M | - | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | M | - | | | | | | | 9 |
| 8 | BM | - | BM | 34C/D3 | BM | 23A5 | BM | - | | | EBM | 4A/G5 | BM | - | BM | 83E9 | M | - | | | | | | | 8 |
| 7 | B | 39B/D3 | | | B | - | | | | | | | B | - | | | M | - | | | | | | | 7 |
| 6 | BM | 23A2 | BM | 48/G4 | BM | 318/C6 | BM | 86G4 | | | EMB | 31A/C0 | BM | - | BM | 1008/C5 | M | - | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | M | - | | | | | | | 5 |
| 4 | M | 318/C5 | BM | 83C5 | M | 1687 | BM | 41A/E0 | | | EBM | 4A/G6 | M | - | M | 44E1 | M | - | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | M | - | | | | | | | 3 |
| 2 | M | - | M | 4H0 | | | M | - | | | EBM | 4A/G6 | M | 4A/H5 | | | M | - | | | | | | | 2 |
| 1 | | | M | 86B1 | | | M | - | | | | | | | | | M | - | | | | | | | 1 |
| COIL | | 33G8 | | 4A/A5 | | 12F6 | | 4A/E5 | | | | 4A/E5 | | 4A/G5 | | 18G7 | | 79H5 | | | | | | | COIL |

RELAY

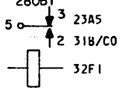
| DESIG | | | | | RK | | RK1 | | RK2 | | RK3 | | TCHK | | TK | | TLC2 | | CKGB | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | AF511 | | AF508 | | AF514 | | AF507 | | AF519 | | AJ512 | | AF521 | | AJ501 FE | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | M | - | M | 2H2 | M | 11H0 | BM | 37F5 | M | 31B/B7 | EBM | - | | | | | 12 |
| 11 | | | | | | | | | | | M | 2G0 | | | BM | 31P/R8 | M | 30A/B3 | EBM | - | | | | | 11 |
| 10 | | | | | M | 12F8 | M | 29A/A1 | M | 29A/A1 | BM | 38A4 | M | 4A/G5 | BM | 104A/D7 | M | 62A/B0 | EBM | - | | | | | 10 |
| 9 | | | | | | | | | | | M | 31B/C7 | | | BM | 40C8 | M | 6109 | EBM | - | | | | | 9 |
| 8 | | | | | BM | 23A5 | M | - | M | - | BM | a | BM | 23A5 | BM | 1003/E1 | BM | - - | EMB | - | | | | | 8 |
| 7 | | | | | B | - | B | - | | | B | 102B7 | B | - | BM | 23A4 | M | 83D5 | EBM | - | | | | | 7 |
| 6 | | | | | BM | 31B/C6 | M | 2H1 | M | 2H1 | BM | 57B/G1 | BM | - | BM | 31B/E3 | BM | - | EMB | - | | | | | 6 |
| 5 | | | | | | | | | | | M | 37D7 | | | BM | 4A/F5 | M | 39B/B7 | EMB | 123B4 | | | | | 5 |
| 4 | | | | | M | 16B7 | M | 57B/F2 | M | 57B/F2 | BM | - | M | 31B/C5 | BM | a | BM | - | EBM | - | | | | | 4 |
| 3 | | | | | | | | | | | M | 4A/H1 | | | BM | 38D3 | M | - | EBM | - | | | | | 3 |
| 2 | | | | | M | - | M | 2G0 | M | 2G0 | M | 83C3 | M | - | BM | 39C/C5 | M | - | EBM | - | | | | | 2 |
| 1 | | | | | | | | | | | M | 57B/B3 | | | BM | 38B/B6 | M | 30A/B3 | EBM | 43G4 | | | | | 1 |
| COIL | | | | | | 12E6 | | 2D0 | | 2D0 | | 2G0 | | 11H0 | | 31B/E8 | | 23B8 | | 15D1 | | | | | COIL |
| | | | | | | | | | | | a 34B/G3 3788 | | | | a 31B/B5 132C6 | | | | | | | | | | |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

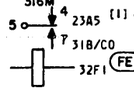
RELAY

(1X) JCK 280BY




RELAY

(1Y) JCK 316M




NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ASM | 32F8 | 177K |
| BSM | 32F8 | 177K |
| CHA | 31B/F5 | 186A |
| CKG8 | 15D1 | 185A |
| DTK | 4A/F5 | 185A |
| FAK | 32G6 | 185A |
| FBK | 32G6 | 185A |
| HGK | 6H2 | 186A |
| JCK0 | 31B/C0 | ½ 177C |
| LBTA | 107B2 | 185A |
| LCK | 33G8 | 185A |
| LFK | 4A/A5 | 185A |
| LK | 12F6 | 185A |
| LLC1 | 23C8 | 185A |
| [2] LOT, LOT1 | 4A/F5 | 185A |
| MDK | 18G7 | 185A |
| (ZV1) MTA | 79H5 | 185A |
| RK | 12E6 | 185A |
| RK1 | 2D0 | 185A |
| RK2 | 2D0 | 185A |
| RK3 | 2G0 | 185A |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| TCHK | 11H0 | 185A |
| TK | 31B/B8 | 185A |
| TLC2 | 23A8 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| JCK0 | 31B/C0 | KS-13490,L3 33,000 |
| PB | 35A/D7, 99F7 | 18AG |
| JCK | 32F2 | KS-13492,L1 7500 |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 20 | BSC - |
| 30 | BSM ASM |
| 4A | MM MJS |
| 5D | MSM MM |
| 6A | HVM CVD |
| 9D | DPP JEK |
| 10B | DPP JEK |
| 13B | AEZ MM |
| 17D | KNB VCC |
| 18D | PVS |
| 21D | SGB DPP AHD |
| 22D | ADJ DPP AHD |
| 23A | EN DTM LAD |
| 24D | EN DTM LAD |
| 25D | GAJ WGD AHD |
| 27A | AHD CLK ANT |
| 29A | DP YMS AHD EV |
| 30D | YMS AHD |
| 32A | LD CLK AHD |
| 33D | LD CLK AHD |
| 34A | KMI GDL AHD |
| 35D | KMI GDL AHD |
| 37D | WM |
| 39D | DM |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C5

BELL TELEPHONE LABORATORIES, INC. SHEET NO. 65 PRINTED IN U.S.A.

# APP FIG. 10

RELAY

| DESIG | | | CHA1 | | | | CVO | | DVA | | HMS1 | | HMT1 | | | | JXP1 | | JXPA | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AJ503 | | | | AJ502 | | AJ502 | | AJ503 | | AF518 | | | | AJ503 | | AF519 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EBM | 109C2 | | | EBM | - | EBM | - | EBM | 34C/A3 | EMB | 88A/B2 | | - | EBM | 34C/G3 | M | 34C/H4 | | | | | 12 |
| 11 | | | EBM | 34C/B4 | | | EBM | - | EBM | - | EBM | 23C2 | M | 83B1 | | | EBM | 34A/A3 | | | | | | | 11 |
| 10 | | | EBM | a | | | EBM | - | EBM | - | EBM | 34A/C2 | EBM | 2344 | | - | EBM | 33B/D3 | M | 88B/D8 | | | | | 10 |
| 9 | | | EBM | b | | | EBM | - | EBM | - | EBM | a | | | | | EBM | - | | | | | | | 9 |
| 8 | | | EMB | 35B/E8 | | | EMB | - | EMB | - | EMB | b | EBM | 34A/F7 | | | EMB | 34C/A1 | BM | 34C/A1 | | | | | 8 |
| 7 | | | EBM | 107A4 | | | | | | | EBM | 34A/E1 | B | 34A/F5 | | | EBM | 34C/G0 | B | - | | | | | 7 |
| 6 | | | EMB | 34A/A4 | | | EMB | - | EMB | - | EMB | 31B/B7 | EMB | 34C/B4 | | | EMB | 34A/A6 | BM | 88B/G1 | | | | | 6 |
| 5 | | | EMB | 34A/A7 | | | | | | - | EMB | 34C/A4 | | | | | EMB | 34A/C1 | | | | | | | 5 |
| 4 | | | EBM | c | | | EBM | 34B/D1 | EBM | 34A/G1 | EBM | 34A/E6 | EBM | 34A/F2 | | | EBM | 34C/C2 | M | 34C/G4 | | | | | 4 |
| 3 | | | EBM | 34A/F8 | | | EBM | - | EBM | 34A/F2 | EBM | 34A/E5 | M | 88B/F2 | | | EBM | - | | | | | | | 3 |
| 2 | | | EBM | 34A/F5 | | | EBM | 34A/F1 | EBM | 34B/G1 | EBM | 35B/G0 | EBM | - | | | EBM | 34A/C7 | M | 34C/F0 | | | | | 2 |
| 1 | | | EBM | 34A/F3 | | | EBM | - | | - | EBM | 62A/G7 | M | 34C/A3 | | | EBM | 34A/C5 | | | | | | | 1 |
| COIL | X | | X | 31B/F5 | X | | X | 34B/B0 | X | 34B/D0 | X | 34C/A9 | X | 34B/G0 | X | | X | 34C/G5 | X | 34C/G5 | X | | X | | COIL |

CHA1:
a (PR) 27F0
(PS) 100B/D4
b 83D9 88C/A9
c (LG) 34B/F1
(LH) 34B/F2

HMS1:
(120) 98H3
a (ZZP) 139A8
b (FY) 40C0
(FZ) 40C1

RELAY

| DESIG | LLC3 | | | | | | |
|---|---|---|---|---|---|---|---|
| CODE | AJ702 | | | | | | |
| OPTION | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 24 | M | 34C/E0 | | | | | |
| 23 | M | - | | | | | |
| 22 | M | 34B/F4 | | | | | |
| 21 | M | - | | | | | |
| 20 | M | b | | | | | |
| 19 | M | 35B/C3 | | | | | |
| 18 | M | 34B/G2 | | | | | |
| 17 | M | a | | | | | |
| 16 | M | - | | | | | |
| 15 | M | - | | | | | |
| 14 | M | - | | | | | |
| 13 | M | 117D5 | | | | | |
| 12 | M | 34C/D2 | | | | | |
| 11 | M | 122A/C2 | | | | | |
| 10 | M | 34C/D0 | | | | | |
| 9 | M | 34C/E5 | | | | | |
| 8 | M | 34C/G3 | | | | | |
| 7 | M | 35B/B0 | | | | | |
| 6 | M | - | | | | | |
| 5 | M | - | | | | | |
| 4 | M | - | | | | | |
| 3 | M | 117G5 | | | | | |
| 2 | M | 117A8 | | | | | |
| 1 | M | 35B/G2 | | | | | |
| COIL | X | 23D8 | X | | X | | |

LLC3:
a 35A/H2 99G3
b 35A/H2 99G4

RELAY

| DESIG | LLTA | | LXP1 | | LXPA | | | | SLA | | SLRK | | TX1 | | TR2E | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF519 | | AJ503 | | AF519 | | | | AJ503 | | AF523 | | AJ12 | | AJ12 | | CODE |
| OPTION | | | | | | | | | | | | | | | ZVI | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 33B/E3 | EBM | a | M | 34C/E0 | | | EBM | 34A/A3 | M | 34C/C6 | EBM | - | EBM | 26D3 | 12 |
| 11 | | | EBM | - | | | | | EBM | 23A4 | | | EBM | - | EBM | - | 11 |
| 10 | M | - | EBM | 103B/E5 | | - | | | EBM | - | BM | 34C/A6 | EBM | - | EBM | - | 10 |
| 9 | | | EBM | 34C/C7 | | | | | EBM | 34C/A0 | | | EBM | 33A/G3 | EBM | - | 9 |
| 8 | BM | 34C/A0 | EMB | 34C/A1 | BM | 34C/F1 | | | EMB | 32F7 | BM | - | EBM | 32E3 | EBM | - | 8 |
| 7 | B | - | EBM | 34C/F0 | B | 34C/C7 | | | EBM | - | | | EBM | - | EBM | - | 7 |
| 6 | BM | - | EMB | b | BM | - | | | EMB | 122F2 | BM | - | EBM | - | EBM | - | 6 |
| 5 | | | EMB | 34A/C1 | | | | | EMB | 34A/C1 | | | EBM | 34A/A3 | EBM | - | 5 |
| 4 | M | 34C/C1 | EBM | 97E6 | M | 34C/E0 | | | EBM | 82F0 | BM | 37C8 | EBM | - | EBM | - | 4 |
| 3 | | - | EBM | 34C/C4 | | | | | EBM | 34C/F0 | | | EBM | - | EBM | - | 3 |
| 2 | M | - | EBM | 34A/C6 | M | 34C/H0 | | | EBM | 34A/C7 | M | 34B/D4 | EBM | 115F8 | EBM | - | 2 |
| 1 | | | EBM | 34A/C5 | | | | | EBM | 34A/C5 | M | 31A/B0 | EBM | 61F1 | EBM | 122B/C7 | 1 |
| COIL | X | 33B/E2 | X | 34C/D1 | X | 34C/E1 | X | | X | 34A/A3 | X | 34C/B8 | X | 87H9 | X | 22F2 | COIL |

LXP1:
(IX) 34C/E0
(IY) 35B/G8
(IX) 35B/G8
(IY) 34C/E0

RELAY

DCT
(MG) 280AK
(MH) 280FW
7 4 3 P S
36E0
34A/C4

HMT
(MG) 280A
(MH) 280FY
7 4 3 P S
34B/G1
34B/F0

(RK) JGCK
(RK) LLT
(RK) TGCK
RK 280CU
5 3 2
34C/B0
34A/E5
33B/E3
33A/G3
34C/A0
34A/E7

316A
5 4 7
(RL) JGCK
34C/B0
34A/E5
(RL) TGCK
34C/A0
34A/E7
316M
5 4 7
(IY) LBT
34C/E3
34A/E2
(IY) LIT
34C/E3
34A/E3

(IX) JXP
280FM
7 4 3 P S
34C/H4
34A/H5

(IX) LXP
34C/E0
34A/H1

(IX) LBT
280E
5 3 2
-
34C/E3
34A/E2

(IX) LIT
34C/E3
34A/E3

SL
280CB
5 3 2
34A/A3
34A/A3

(RL) LLT
316B
5 4 7
33B/E3
33A/G3

316C
5 4 7 P S
(IY) LXP
34C/E0
34A/H1
(IY) JXP
34C/H4
34A/H5

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | COIL |

**CAPACITOR**

| DESIG | LOC | CODE |
|---|---|---|
| [2] HMT1,2 | 34B/G1 | 437QA |
| JH | 34A/G5 | 437QA |
| LH | 34A/G2 | 437QA |
| TH1 | 34A/G7 | 437QA |
| TH2 | 34A/G7 | 437QA |

**INDUCTOR**

| DESIG | LOC | CODE |
|---|---|---|
| TH | 34A/F6 | 200CL |

**DIODE**

| DESIG | LOC | CODE |
|---|---|---|
| JH | 34A/G5 | KS-15701,L3 |
| LH | 34A/G2 | KS-15701,L3 |
| TH | 34A/G6 | KS-15701,L3 |

**NETWORK**

| DESIG | LOC | CODE |
|---|---|---|
| DVO | 34B/B0 | 185A |
| DVA | 34B/D0 | 185A |
| HMS1 | 34C/A9 | 185A |
| HMT1 | 34B/G0 | 185A |
| JXP1 | 34C/G5 | 185A |
| JXPA | 34C/G5 | 185A |
| LLT | 33A/G3 ½ | 177C |
| LLTA | 33B/E2 | 185A |
| LXP1 | 34C/D1 | 185A |
| LXPA | 34C/E1 | 185A |
| SL | 34A/A3 ½ | 177C |
| SLA | 34A/A3 | 185A |
| SLRK | 34C/B8 ½ | 177C |

**RESISTOR**

| DESIG | LOC | CODE |
|---|---|---|
| HMT | 34B/G1 | 18AG |
| JHR | 34A/F6 | 18BA |
| LHR | 34A/F3 | 18BA |
| LIT | 34A/E4 | 19RN |
| [2] THR1,2 | 34A/F8 | 18BA |
| (LN) LLT | 33A/G4 | 18KF |
| (LO) LLT | 33A/G4 | 224A,263A,10.1kΩ |

DRAWING ISSUE
1, 2D, 3D, 4A, 9D, 16B, 18D, 21D, 22D, 24D, 25D, 27A, 28D, 30D, 31D, 32A, 33D, 34A, 35D, 36A, 37D, 38A, 39D, 43D, 45D

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES, INC 6S
SD-26002-01-C6
PRINTED IN U.S.A.

SD-26002-01-C6

# APP FIG. 11

RELAY

| DESIG | ADA | | CGT | | CMA | | CON1 | | CONA | | | | GLN | | GLM1 | | GT1 | | GT2 | | GT3 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ502 | | AJ502 | | AJ502 | | AJ501 | | AF521 | | | | AJ501 | | AJ501 | | AJ503 | | AJ501 | | AG9 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 104A/A10 | EBM | – | EBM | 104A/A10 | EBM | 358/B1 | M | – | | | EBM | b | EBM | c | EBM | c | EBM | – | | | | | 12 |
| 11 | EBM | 122A/C2 | EBM | – | EBM | b | EBM | 23A3 | M | – | | | EBM | a | EBM | b | EBM | b | EBM | 35A/G4 | | | | | 11 |
| 10 | EBM | 107H1 | EBM | 358/C1 | EBM | 107H2 | EBM | 99F1 | M | – | | | EBM | 34C/E8 | EBM | 34C/B3 | EBM | e | EBM | 23A3 | | | | | 10 |
| 9 | EBM | – | EBM | – | EBM | 34B/B2 | EBM | – | M | – | | | EBM | – | EBM | d | EBM | 34C/C5 | EBM | 34C/B3 | | | | | 9 |
| 8 | EMB | 318/D3 | EMB | a | EMB | 318/E3 | EMB | 358/G8 | BM | 34C/H6 | | | EMB | 84D5 | EBM | 23A3 | EMB | 99A6 | EBM | – | EBM | 358/C3 | | | 8 |
| 7 | | | | | | | EBM | – | M | – | | | EBM | 88B/F0 | EBM | 34C/A6 | EBM | a | EBM | 358/B4 | B | 358/B4 | | | 7 |
| 6 | EMB | – | EMB | 37E5 | EMB | 98G4 | EMB | a | BM | 358/C1 | | | EMB | – | EMB | 99A5 | EMB | 35B/C8 | EBM | 358/C8 | EBM | 358/G3 | | | 6 |
| 5 | | | | | | | EMB | 34C/C3 | M | – | | | EMB | 34C/M8 | EMB | 358/C8 | EMB | 34C/D2 | EMB | – | d | 358/C6 | | | 5 |
| 4 | EBM | 28A/H4 | EBM | 28A/H4 | EBM | 117D5 | EBM | 34C/H7 | BM | a | | | EBM | 99B4 | EBM | 358/C1 | EBM | 87E2 | EBM | 36G1 | 4 | 87F1 | | | 4 |
| 3 | EBM | – | EBM | 358/B4 | EBM | 98F8 | EBM | – | M | – | | | EBM | 99G8 | EBM | 122B/F1 | EBM | 358/G2 | EBM | 35A/C4 | | | | | 3 |
| 2 | EBM | 358/G1 | EBM | 36H1 | EBM | 358/A6 | EBM | 22D2 | M | – | | | EBM | 34C/C3 | EBM | 358/B1 | EBM | 36G0 | EBM | a | | | | | 2 |
| 1 | EBM | a | EBM | 358/C3 | EBM | a | EBM | 122B/F1 | M | – | | | EBM | 34C/G0 | EBM | a | EBM | d | EBM | 33B/C1 | | | | | 1 |
| COIL | | 68/D7 | | 358/E2 | | 68/B7 | | 358/C2 | | 358/B2 | | | | 34C/F8 | | 34C/H8 | | 34C/D8 | | 34C/D8 | | 358/C9 | | | COIL |
| | a | 34A/B2 34B/C1 34B/B1 | a | 35A/H3 99G4 | a | 34B/C1 34B/B1 35B/B2 | a | 35A/D5 99F4 | a | 35A/A3 99D3 | | | a | 35A/B5 99F4 | a | 35A/E2 99G2 | a | 35A/E3 99G3 | a | 35A/E3 99H3 | | | | | |
| | | | | | b | 35B/H1 35B/H2 | | | | | | | b | 35A/B5 99E4 | b | 35A/C5 99F3 | b | 35A/C6 99F5 | | | | | | | |
| | | | | | | | | | | | | | | | c | 35A/A5 99D4 | c | 35A/A6 99D5 | | | | | | | |
| | | | | | | | | | | | | | | | d | 34A/E0 34A/F0 | d | 84E6 34C/D7 | | | | | | | |
| | | | | | | | | | | | | | | | | | e | 84E5 22C2 | | | | | | | |

RELAY
280AW

WX AOC WX CN WX MR

5 → 3, 2 → 1

| 68/D6 | 68/C6 | 68/E6 |
|---|---|---|
| 68/D7 | 68/C7 | 68/E7 |

RK CON
280F

5 → 3, 2 → 1

35B/B1
35A/E4,99F3

RK FCG
280AE

7 → 4, 3

34C/E6

P
S

35B4,99E3

RL CON
316B

5 → 4, 7

35B/B1
35A/E4,99F3

RL FCG
316D

5 → 4, 7

34C/E6

P
S

35B4,99E3

GT
280FM

9 → 5, 4

P
S
T

35B/C3
35A/H2,99G3

PU
S10

2 → 3, 1

36H0
66FC
35A/H6,99G5

CAPACITOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| ZFN | CON1 | 35A/D4,99F3 | 475AC |
| ZFO | CON1 | 35A/E4,99F3 | 535BN |
| ZFN | CON2 | 35A/D2,99F2 | 475F |
| ZFO | CON2 | 35A/E2,99F2 | 535LC |
| | CON3 | 35A/E5,99G4 | 441P |
| | CONA | 35B/B2 | 441C |
| | GT | 35A/H2,99G3 | 439QA |

DIODE

| | DESIG | LOC | CODE |
|---|---|---|---|
| ZNB | MJ | 38E1 | 426F |
| ZNB | MN | 38F1 | 426F |

INDUCTOR

| DESIG | LOC | CODE |
|---|---|---|
| CON1 | 55A/A2, 99D2 | 221H |

RELAY

| DESIG | GT5 | | GTA | | | | GTK | | HTR | | | | | | | | LGT | | LTR | | MRA | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AJ502 | | | | AJ501 | | AJ501 | | | | | | | | AJ501 | | AF505 | | AJ502 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 35B/B4 | EBM | – | | | EBM | 358/C3 | EBM | a | | | | | | | EBM | – | | | EBM | 34A/D1 | | | 12 |
| 11 | M | 35B/C0 | EBM | – | | | EBM | d | EBM | d | | | | | | | EBM | c | | | EBM | 104A/A10 | | | 11 |
| 10 | BM | 38E2 | EBM | 358/C6 | | | EBM | 358/E0 | EBM | 99B4 | | | | | | | EBM | – | | 34C/E6 | EBM | 107H2 | | | 10 |
| 9 | M | – | EBM | 35B/D3 | | | EBM | c | EBM | 37C3 | | | | | | | EBM | b | | | EBM | – | | | 9 |
| 8 | BM | 122B/G1 | EMB | – | | | EMB | 358/B3 | EMB | 99A4 | | | | | | | EMB | – | EBM | 34C/E6 | EMB | – | | | 8 |
| 7 | B | 36H0 | | | | | EBM | 99A6 | EBM | 83B/E6 | | | | | | | EBM | a | | | | | | | 7 |
| 6 | BM | – | EMB | 358/C8 | | | EMB | 358/G3 | EMB | 83B/H5 | | | | | | | EMB | – | EMB | 34C/C7 | EMB | – | | | 6 |
| 5 | M | 35A/H3 | | | | | EMB | 99A5 | EMB | 83B/B6 | | | | | | | EMB | 358/G0 | | | | | | | 5 |
| 4 | BM | 37B1 | EBM | – | | | EBM | 36H1 | EBM | 34C/C3 | | | | | | | EBM | 35A/H2 | EBM | 99F1 | EBM | 34A/H2 | | | 4 |
| 3 | M | 37E5 | EBM | 34C/C5 | | | EBM | b | EBM | b | | | | | | | EBM | 37F2 | | | EBM | 34A/F1 | | | 3 |
| 2 | M | 37E5 | EBM | 34F1 | | | EBM | a | EBM | c | | | | | | | EBM | 37F5 | | | EBM | 34B/G1 | | | 2 |
| 1 | M | 358/E1 | EBM | 36H0 | | | EBM | 34C/D4 | EBM | 83B/F1 | | | | | | | EBM | 37E3 | | | EBM | 34B/B1 | | | 1 |
| COIL | M | 358/H5 | | 358/C5 | | | | 358/B4 | | 83B/B7 | | | | | | | | 358/A5 | | 34C/C8 | | 68/E7 | | | COIL |
| | | | | | | | a | 35A/G6 99F5 | a | 35B/E0 35B/G7 | | | | | | | a | 35A/H6 99G5 | | | | | | |
| | | | | | | | b | 35A/G7 99F5 | b | 35A/B4 99D4 | | | | | | | b | 35A/H5 99H4 | | | | | | |
| | | | | | | | c | 35A/H3 99H2 | c | 35A/C4 99E4 | | | | | | | c | 35A/H7 99G5 | | | | | | |
| | | | | | | | d | 35A/H3 99G4 | d | 87D5 83B/G5 | | | | | | | | | | | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AOA | 68/D7 | 185A |
| CNT | 358/E2 | 185A |
| CNA | 68/C7 | 185A |
| CON1 | 358/C2 | 185A |
| CON4 | 35A/D1,99E1 | 186A |
| CONAA | 35A/B1,99E1 | 186B |
| CONAB | 35A/B1,99E1 | 186B |
| GEN | 34C/F8 | 185A |
| GLM1 | 34E/H8 | 185A |
| GT1 | 34C/D8 | 185A |
| GT2 | 34C/D8 | 185A |
| GT3 | 358/C9 | 185A |
| GTA | 358/C5 | 185A |
| GTK | 358/G4 | 185A |

ZPK
ZPK

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| HTR | 83B/B7 | 185A |
| LGT | 358/A5 ½ | 177C |
| LTR | 34C/C8 | 185A |
| MRA | 68/E7 | 185A |
| PBXA | 358/D9 | 185A |
| RCTA | 358/E9 | 185A |
| RCTB | 358/G9 | 185A |

RELAY

| DESIG | PBXA | | | | RCTA | | RCTB | | | | TR2C | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ502 | | | | AF513 | | AG9 | | | | AJ12 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 358/E9 | | | EMB | – | | | | | E9M | 318/F3 | | | | | | | | | | | | | 12 |
| 11 | EBM | 358/G0 | | | | | | | | | EBM | 123B6 | | | | | | | | | | | | | 11 |
| 10 | EBM | 358/H1 | | | EBM | – | | | | | EBM | 38B2 | | | | | | | | | | | | | 10 |
| 9 | EBM | b | | | | | | | | | EBM | 107E6 | | | | | | | | | | | | | 9 |
| 8 | EMB | 40A4 | | | EBM | – | EBM | – | | | EBM | a | | | | | | | | | | | | | 8 |
| 7 | | | | | | | B | 35B/E8 | | | EBM | 107D3 | | | | | | | | | | | | | 7 |
| 6 | EMB | c | | | EMB | – | EBM | – | | | EBM | 37F6 | | | | | | | | | | | | | 6 |
| 5 | | | | | | | B | – | | | EBM | 37E3 | | | | | | | | | | | | | 5 |
| 4 | EBM | a | | | EBM | b | M | 35B/G7 | | | EBM | 37E5 | | | | | | | | | | | | | 4 |
| 3 | EBM | 116E8 | | | | | | | | | EBM | 40F2 | | | | | | | | | | | | | 3 |
| 2 | EBM | 18A7 | | | EBM | a | | | | | EBM | 41B/C3 | | | | | | | | | | | | | 2 |
| 1 | EBM | 77B8 | | | | | | | | | EBM | 132F1 | | | | | | | | | | | | | 1 |
| COIL | | 358/D9 | | | | 358/G9 | | 358/G9 | | | | 22F2 | | | | | | | | | | | | | COIL |
| | a | 35B/A6 99H5 | | | a | 35A/D4 99F5 | | | | | ZVO | 358/D1 | | | | | | | | | | | | | |
| | b | 35A/C6 99G7 | | | b | 35A/A4 99D5 | | | | | ZVO | 358/D1 | | | | | | | | | | | | | |
| | ZUM | 88A/F8 | | | | | | | | | | | | | | | | | | | | | | | |
| | ZUQ | 88A/B9 | | | | | | | | | | | | | | | | | | | | | | | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| CON1 | 35A/D4,99F3 | ~~KS-13490,L3~~KS-19150,L1,1000 |
| CON2 | 35A/D4,99F3 | ~~T45A~~,KS-20810.L1A 180,000 |
| CON3 | 35A/D3,99F2 | ~~T45A~~,KS-20810.L1A 20,000 |
| CON4 | 35A/B3,99D2 | ~~T45A~~,KS-20810,L1A 200,000 |
| CON5 | 35A/B3,99E3 | KS-13492,L1 5100 |
| CON6 | 35A/A3,9903 | 18AP |
| CON7 | 35A/C2,99E3 | 18AP |
| CON8 | 35A/E1,99G1 | 18FR |
| CON9 | 35A/F2,99G2 | ~~T45A~~,KS-20810,L1A 12,000 |
| CON10 | 35A/F1,99G2 | ~~T45A~~,KS-20810,L1A 12,000 |
| CONA | 35B/B1 | ~~KS-13490,L3~~KS-19150,L1,300 |
| GT | 35A/H5,99H4 | 18FR |
| GT3 | 35B/B9 | 19TL |
| GTT | 35A/H4,99H3 | 18EP |

RESISTOR (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| HMF0 | 34B/E3 | 18DS |
| HMF1 | 34B/E3 | 19TA |
| PS HMF2 | 34B/E3 | 18GE |
| HMS0 | 34B/G3 | 19SD |
| HMS1 | 34B/F3 | 19DD |
| RCTB | 35B/G9 | 19TL |
| TGT | 35A/H4,99H3 | 18FS |

TRANSFORMER

| DESIG | LOC | CODE |
|---|---|---|
| CON2 | 35A/A2, 99D2 | 94M REP COIL |

TUBE

| DESIG | LOC | CODE |
|---|---|---|
| CON | 35A/E5 99F4 | 313CA |

| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | ISSUE 65B |
| BELL TELEPHONE LABORATORIES, INC 6S | SD-26002-01-C7A |

SD-26002-01-C7A

# APP FIG 12

RELAY

| DESIG | CH0 | | CH1-4 | | CH5 | | CH6-9 | | TCH0-9 | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | [4]AJ503 | | AJ503 | | [4]AJ503 | | [10]AF524 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 32F3 | EBM | 32G4 | EBM | 32D1 | EBM | 32D1 | M | | | | | | | | | | | | 12 |
| 11 | EBM | 32D1 | EBM | 32D1 | EBM | 32D1 | EBM | 32D1 | | | | | | | | | | | | | 11 |
| 10 | EBM | 31B/G3 | EBM | 31B/G4 | EBM | 31B/G5 | EBM | 31B/G6 | M | | | | | | | | | | | | 10 |
| 9 | EBM | 31B/G3 | EBM | 31B/G4 | EBM | 31B/G5 | EBM | 31B/G6 | | | | | | | | | | | | | 9 |
| 8 | EMB | 31A/B1 | EMB | 31A/B2 | EMB | 31A/B4 | EMB | 31A/B6 | EBM | 31A/E5 | | | | | | | | | | | 8 |
| 7 | EBM | 31A/B3 | EBM | 31A/B1 | EBM | 31A/B5 | EBM | 31A/B6 | | | | | | | | | | | | | 7 |
| 6 | EMB | 888/D8 | EMB | | EMB | 888/D8 | EMB | | EBM | | | | | | | | | | | | 6 |
| 5 | EMB | 33A/F3 | EMB | 33A/F3 | EMB | 33A/F3 | EMB | 33A/F3 | | | | | | | | | | | | | 5 |
| 4 | EBM | 33A/G6 | EBM | 33A/G6 | EBM | 33A/G6 | EBM | 33A/G6 | M | 11H1 | | | | | | | | | | | 4 |
| 3 | EBM | 33A/G4 | EBM | 33A/G4 | EBM | 33A/G4 | EBM | 33A/G4 | | | | | | | | | | | | | 3 |
| 2 | EBM | 33A/G2 | EBM | 33A/G2 | EBM | 33A/G2 | EBM | 33A/G2 | M | 33A/G7 | | | | | | | | | | | 2 |
| 1 | EBM | 82C2 | EBM | 82C2 | EBM | 82C2 | EBM | 82C2 | | | | | | | | | | | | | 1 |
| COIL | | 31A/C1 | | 31A/C3 | | 31A/C4 | | 31A/C6 | | 11D0 | | | | | | | | | | | COIL |

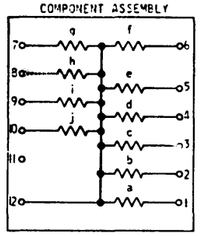
RELAY

| DESIG | CHT | | | CHT | | | CHT0-9 | | | CHT0-9 | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | 280A | | | 280FY | | | [10]280J | | | [10]316B | | | | | | | | | | | CODE |
| OPTION | MG | | | MH | | | RK | | | RL | | | | | | | | | | | OPTION |
| | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC | |
| TOP | | | | | | | | | | | | | | | | | | | | | |
| | 4,7,3 | 8M | 31A/B1 | 4,7,3 | 8M | 31A/B1 | 3,5,2 | 8M | 31A/D5 | 4,5,7 | 8M | 31A/D5 | | | | | | | | | |
| BOT | | | | | | | | | | | | | | | | | | | | | |
| COIL | | | 31B/D5 | | | 31B/D5 | | | 33A/G7 | | | 33A/G7 | | | | | | | | | |

CAPACITOR

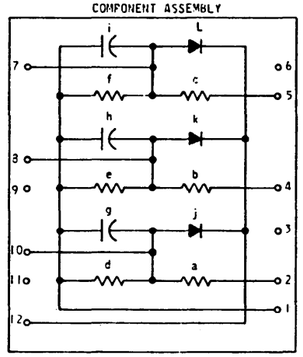
| | DESIG | LOC | CODE |
|---|---|---|---|
| | CHT | 31B/E2 | 437DA |
| DE | [10]J0-9 | 33A/H5 | KS-13368,L3, .01 |
| DE | [10]L0-9 | 33A/H5 | |
| DE | [10]T0-9 | 33A/H7 | |

COMPONENT ASSEMBLY




| DESIG | | JSP | | SMR | |
|---|---|---|---|---|---|
| CODE | | ED-94823-G433 | | ED-94823-G433 | |
| OPTION | | DF | | DF | |
| COMPONENT | CODE | DESIG | LOC | DESIG | LOC |
| RESISTOR a | KS-19150-L3,33K | SPARE | 32G4 | SM0 | 32C0 |
| b | KS-19150-L3,33K | JS1 | | SM1 | |
| c | KS-19150-L3,33K | JS2 | | SM2 | |
| d | KS-19150-L3,33K | JS3 | | SM3 | |
| e | KS-19150-L3,33K | JS4 | | SM4 | |
| f | KS-19150-L3,33K | JS5 | | SM5 | |
| g | KS-19150-L3,33K | JS6 | | SM6 | |
| h | KS-19150-L3,33K | JS7 | | SM7 | |
| j | KS-19150-L3,33K | JS8 | | SM8 | |
| k | KS-19150-L3,33K | JS9 | | SM9 | |

COMPONENT ASSEMBLY




| DESIG | | LJT0-9 |
|---|---|---|
| CODE | | [10]ED-94823-G432 |
| OPTION | | DF |
| COMPONENT | CODE | DESIG / LOC |
| RESISTOR a | ~~KS-19H3, L1A, 6.8K~~ KS-20289, L3A, 6.81K | AJ 33A/H4 |
| b | | AL 33A/H2 |
| c | | AT 33A/H6 |
| d | ~~KS-19H3, L1A, 2.2K~~ KS-20289, L3A, 2.15K | BJ 33A/H4 |
| e | | BL 33A/H2 |
| f | | BT 33A/H6 |
| CAPACITOR g | KS-14239, L3 | J 33A/H5 |
| h | KS-14239, L3 | L 33A/H3 |
| i | KS-14289, L3 | T 33A/H7 |
| DIODE j | 446F | J 33A/H5 |
| k | 446F | L 33A/H3 |
| L | 446F | T 33A/H7 |

DIODE

| | DESIG | LOC | CODE |
|---|---|---|---|
| DE | [10]J0-9 | 33A/H5 | K-15724,L3 |
| DE | [10]L0-9 | 33A/H3 | |
| DE | [10]T0-9 | 33A/H7 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [10]CH0-9 | 31A/C4 | 185A |
| [1] CHT | 31B/D2 | 177C |
| [1] - | | |
| [5]JS0-9 | 32E4,G4 | 177C |
| [10]SM0-9 | 32D0 | 177J |
| [10]TCH0-9 | 11D0 | 185A |

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| | CHA | 31A/B7 | 18EJ |
| | CHT | 31B/D2 | 18AG |
| | CHT1 | 31B/E6 | 188U |
| DE | [10]J0-9 | 33A/H4 | 19ABL |
| DE | [9]JS1-9 | 32G4 | KS-13490,L3,33K |
| DE | [10]L0-9 | 33A/H3 | 19ABL |
| DE | [10]SM0-9 | 32C0 | KS-13490,L3,33K |
| DE | [10]T0-9 | 33A/H6 | 19ABL |

DRAWING ISSUE

| | | |
|---|---|---|
| 35D | TS | |
| 37D | RDT | |
| 39D | DM | |
| 43D | | |
| 45D | | |

ISSUE 49D

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C7B

BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

SD-26002-01-C7B

# PART OF APP FIG. 13

RELAY

| DESIG | AMB | | | | DCK | | DIS1 | | DIS2 | | DISA | | DL | | FA | | FA1 | | HFA | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AG8 | | | | AF52 | | AJ503 | | AJ5C3 | | AJ501 | | AF59 | | AF00 | | AF10 | | AF59 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | M | 22A8 | EBM | 15D0 | EBM | 58D8 | EBM | 39A/H1 | | | M | | EM | | | | 12 |
| 11 | | | | | | | EBM | 15G9 | EBM | a | EBM | 39B/G4 | | | | | | | | | 11 |
| 10 | | | | | BM | | EBM | 38C4 | EBM | 18A7 | EBM | 15H9 | M | 81G1 | M | 39A/F1 | M | 39A/F1 | M | 39A/D7 | 10 |
| 9 | | | | | | | EBM | 37H0 | EBM | 37D6 | EBM | 86E1 | | | | | | | | | 9 |
| 8 | M | 39B/C0 | | | BM | 61D8 | EMB | 23A8 | EMB | 23C1 | EMB | 86C1 | M | 81G1 | M | | EBM | 39A/F4 | M | | 8 |
| 7 | B | | | | | | EBM | 2387 | EBM | 37D5 | EBM | | | | B | 39A/D7 | B | | | | 7 |
| 6 | BM | 39B/A1 | | | BM | 41B/C2 | EMB | 37C1 | EMB | 42B0 | EMB | | M | | M | | EMB | 39A/D7 | M | | 6 |
| 5 | | | | | | | EMB | 37C1 | EMB | 111A/J3 | EMB | 114B/B4 | | | | | | | | | 5 |
| 4 | M | 39B/C0 | | | BM | 42E2 | EBM | 114B/C4 | EBM | 57B/G1 | EBM | 122B/E1 | M | | | | M | 39A/D6 | M | | 4 |
| 3 | | | | | | | EBM | 37C1 | EBM | 39G3 | EBM | 38B3 | | | | | | | | | 3 |
| 2 | | | | | M | 2284 | EBM | 19H4 | EBM | 28A/B0 | EBM | 38C3 | | | M | 39A/E4 | M | 39A/E4 | | | 2 |
| 1 | | | | | M | 3708 | EBM | 87C1 | EBM | 39H1 | EBM | 38C3 | | | | | | | | | 1 |
| COIL | | 39A/F4 | | | | 23C8 | | 37C0 | | 37C0 | | 39A/H1 | | 81G1 | | 39A/D7 | | 39A/E4 | | 39A/C7 | COIL |
| | | | | | | | | | a | 38C4 41A/C7 | | | | | | | | | | | |

RELAY

| DESIG | IMT | | IRT | | | | LP | | LR | | | | MAK | | MB | | MCB0 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF52 | | AF42 | | | | AJ12 | | AJ42 | | | | AF511 | | AF21 | | AF506 | | | | CODE |
| OPTION | | | U,VJ | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 37F5 | EMB | 79D4 | | | EBM | | EBM | 87C0 | | | | | | | M | 39A/D4 | | | 12 |
| 11 | | | M | 23D8 | | | EBM | | EBM | 81G1 | | | | | | | M | 39A/D4 | | | 11 |
| 10 | BM | 37E7 | EBM | | | | EBM | | EBM | | | | M | | M | | M | 39A/D4 | | | 10 |
| 9 | | | | | | | EBM | 79F4 | EBM | 22A8 | | | | | B | | M | 39A/D4 | | | 9 |
| 8 | BM | | EBM | 38G5 | | | EBM | 79F5 | EBM | | | | BM | 39A/G7 | EBM | 39A/F3 | M | 39A/D4 | | | 8 |
| 7 | | | B | 81G3 | | | EBM | 79G5 | EBM | 3883 | | | B | 39A/G2 | B | 122B/D1 | M | 39A/D4 | | | 7 |
| 6 | BM | 23A7 | EMB | 18H6 | | | EBM | 79E4 | EBM | 122B/B2 | | | BM | 36C1 | EMB | 39A/F4 | M | 39A/D4 | | | 6 |
| 5 | | | | | | | EBM | 79E4 | EBM | 42B1 | | | | | B | 39A/D1 | M | 39A/D4 | | | 5 |
| 4 | BM | 37G8 | EBM | 38H5 | | | EBM | | EBM | 22B3 | | | M | | M | 39A/G7 | M | 39A/D4 | | | 4 |
| 3 | | | M | 37G1 | | | EBM | | EBM | 21E7 | | | | | B | 39A/H2 | M | 39A/D4 | | | 3 |
| 2 | M | 23D8 | EBM | 81H4 | | | EBM | | E3M | 37E7 | | | | | M | 39A/H2 | M | 39A/D4 | | | 2 |
| 1 | M | 79A6 | M | 79A6 | | | EBM | | EBM | 37G7 | | | | | | | M | 39A/D4 | | | 1 |
| COIL | | 23D8 | | 79D4 | | | | 79E6 | | 23E7 | | | | 39A/A9 | | 39A/F2 | | 39A/F4 | | | COIL |

RELAY

| DESIG | MCK | | MON | | MON1 | | | | MRL1 | | MSK | | | | MT | | MT1 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF511 | | AF520 | | AF55 | | | | AJ5 | | AF511 | | | | AF24 | | AJ12 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | 79B3 | M | 81C6 | | | EBM | | | | | | M | 47A6 | EBM | 77F4 | | | 12 |
| 11 | | | M | 79F2 | M | 81C6 | | | EBM | | | | | | M | 85C4 | EBM | 37E3 | | | 11 |
| 10 | M | | M | 79F2 | BM | 81D6 | | | EBM | 39A/E3 | M | | | | M | 71F7 | EBM | 3781 | | | 10 |
| 9 | | | M | 79A6 | M | 81B6 | | | EBM | | | | | | M | 79B6 | EBM | 37C1 | | | 9 |
| 8 | BM | | M | 37G1 | BM | 1228/B1 | | | EBM | | BM | | | | M | 79C5 | EBM | 1580 | | | 8 |
| 7 | B | 39A/G2 | B | 57B/B1 | B | 8161 | | | EBM | | B | 39A/H2 | | | M | 79B5 | EBM | a | | | 7 |
| 6 | BM | 86D1 | M | 80E1 | BM | 38H5 | | | EBM | 42C1 | BM | 39A/F2 | | | M | 79A6 | EBM | 80A0 | | | 6 |
| 5 | | | | | M | 83B4 | | | EBM | | | | | | M | 79D7 | EBM | 36C8 | | | 5 |
| 4 | M | | M | 42F1 | BM | 37C1 | | | EBM | 3884 | M | | | | M | 79D7 | EBM | 40G5 | | | 4 |
| 3 | | | M | 81F6 | M | | | | EBM | 38C4 | | | | | M | 7987 | EBM | 40D4 | | | 3 |
| 2 | | | M | 81F6 | M | | | | EBM | 2388 | | | | | M | 9H3 | EBM | 40D4 | | | 2 |
| 1 | | | M | 81G5 | M | | | | EBM | 23A7 | | | | | M | 2F2 | EBM | 19G5 | | | 1 |
| COIL | | 39A/A9 | | 79A3 | | 81E5 | | | | 83B/H2 | | 39A/B0 | | | | 79A6 | | 7984 | | | COIL |
| | | | | | | | | | | | | | | | | | a | 86D1 1228/E9 | | | |

RELAY

| DESIG | MT11 | | MT12 | | MT13 | | | | MT17 | | MT18 | | | | MT20 | | MT27 | | MT29 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ501 | | AJ12 | | | | AF88 | | AJ501 | | | | AJ501 | | AJ12 | | AJ12 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | MB | | EF | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 97E2 | EBM | 85H2 | EBM | 79A5 | | | M | 80A0 | EBM | 7984 | | | EBM | 338/D3 | EBM | 48/C3 | EBM | 79D7 | 12 |
| 11 | EBM | 9782 | EBM | 20A/B2 | EBM | a | | | B | 103B/C7 | EBM | 83B/H7 | | | EBM | 37H5 | EBM | 48/C2 | EBM | 30A/E1 | 11 |
| 10 | EBM | 97C2 | EBM | 36D1 | EBM | 38G2 | | | M | 79F6 | EBM | a | | | EBM | | EBM | 79G6 | EBM | 1148/E3 | 10 |
| 9 | EBM | 97D2 | EBM | 80A2 | EBM | b | | | B | 888/H7 | EBM | b | | | EBM | | EBM | 122A/G2 | EBM | 79G7 | 9 |
| 8 | EMB | 6A/G4 | EMB | a | EBM | 41B/D7 | | | BM | 109A5 | EMB | 88B/F2 | | | EMB | 36C7 | EBM | 78F5 | EBM | 114A/G3 | 8 |
| 7 | EBM | 41A/G3 | EBM | | EBM | 88B/D1 | | | B | 36E1 | EBM | 88B/B9 | | | EBM | | EBM | 78F5 | EBM | 114A/C4 | 7 |
| 6 | EMB | 6A/G4 | EMB | 49B/G4 | EBM | 88A/G0 | | | BM | 39B/A8 | EMB | 111A/F2 | | | EMB | 62A/F6 | EBM | 88C/H1 | EBM | 114A/C4 | 6 |
| 5 | EMB | 41A/E5 | EMB | | EBM | 88A/C1 | | | B | 105A4 | EMB | 88A/D9 | | | EMB | | E3M | 79E6 | EBM | 132B1 | 5 |
| 4 | EBM | 39B/C7 | EBM | 109E7 | EBM | c | | | M | 19H5 | E8M | 88B/C0 | | | EBM | 32E1 | EBM | 6A/E3 | EBM | 132G2 | 4 |
| 3 | EBM | 34C/H3 | EBM | 48G6 | EBM | 88A/H7 | | | B | 37C8 | EBM | 114A/H1 | | | EBM | 23H0 | EBM | 120H2 | EBM | 48/E4 | 3 |
| 2 | EBM | 34A/B1 | EBM | 10907 | EBM | 88A/G8 | | | M | 88B/F6 | EBM | 88C/F9 | | | EBM | 83D3 | EBM | 120H3 | EBM | 48/E4 | 2 |
| 1 | EBM | 61H0 | EBM | 72E7 | EBM | 88A/E0 | | | B | 37G3 | EBM | c | | | EBM | | EBM | 103E9 | EBM | 48/G4 | 1 |
| COIL | | 79C4 | | 79A6 | | 79A5 | | | | 79D4 | | 7984 | | | | 71E6 | | 79C4 | | 79C4 | COIL |
| | | | a | 35A/H5 99H4 | a | (LL) 1228/C1 (LM) 1228/H1 | | | | | a | (LL) 82F0 (LM) 1228/C8 | | | | | | | | | |
| | | | | | b | (LM) 1228/B9 (LL) 1228/H3 | | | | | b | (IK) 111A/H3 (IN) 111A/H1 | | | | | | | | | |
| | | | | | c | (ZP) 88B/C2 (AU) 79D3 | | | | | c | (VJ) 15C1 (RA) 34C/G7 | | | | | | | | | |

RELAY

| DESIG | MCB1 | | | | | |
|---|---|---|---|---|---|---|
| CODE | AJ702 | | | | | |
| OPTION | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 24 | M | 39A/H2 | | | | |
| 23 | M | 39A/H3 | | | | |
| 22 | M | 39A/F4 | | | | |
| 21 | M | 86E1 | | | | |
| 20 | M | | | | | |
| 19 | M | | | | | |
| 18 | M | 120G2 | | | | |
| 17 | M | 39A/F7 | | | | |
| 16 | M | 39A/C5 | | | | |
| 15 | M | 39A/C5 | | | | |
| 14 | M | 39A/C5 | | | | |
| 13 | M | 39A/C5 | | | | |
| 12 | M | 39A/D5 | | | | |
| 11 | M | 39A/D5 | | | | |
| 10 | M | 39A/D5 | | | | |
| 9 | M | 39A/D5 | | | | |
| 8 | M | 39A/D5 | | | | |
| 7 | M | 39A/D5 | | | | |
| 6 | M | 39A/D5 | | | | |
| 5 | M | 39A/D5 | | | | |
| 4 | M | 39A/D5 | | | | |
| 3 | M | 39A/D5 | | | | |
| 2 | M | 39A/D5 | | | | |
| 1 | M | 39A/D5 | | | | |
| COIL | | 39A/G4 | | | | |

WORN DRAWING REPRODUCED WITHOUT CHANGE 10/25/73

ISSUE 69B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-C8

BELL TELEPHONE LABORATORIES INCORPORATED

SHT SIZE 6S

PRINTED IN U.S.A.

E-7481 (10-72)

# PART OF APP FIG. 13

RELAY

| DESIG | ORT | | RCCK | | RDL | | RON | | RTST | | RTA | | SCT | | | | TAL | | | | TM | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF42 | | AF50 | | AF10 | | AF51 | | AF507 | | AJ503 MT | | AF519 | | | | AF59 | | | | AJ507 | | | | CODE |
| OPTION | U,VJ | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EMB | 79C4 | | | EM | 3781 | | | M | 81G3 | EBM | - | M | 81F5 | | | | | | | M | 84C1 | | | 12 |
| 11 | M | 23D8 | | | | | | | M | 109C2 | EBM | 100B/E6 | | | | | | | | | M | - | | | 11 |
| 10 | EBM | 41B/E5 | M | - | M | 418/C0 | M | 66D6 | BM | 81D5 | EBM | 100B/E4 | M | 578/B1 | | | M | 39A/D3 | | | M | 37E2 | | | 10 |
| 9 | | | | | | | | | M | 81E5 | EBM | 48C0 | | | | | | | | | M | - | | | 9 |
| 8 | EBM | 3781 | BM | - | EBM | a | M | - | BM | 42B0 | EMB | 38H4 | BM | - | | | M | - | | | BM | - | | | 8 |
| 7 | B | 81G3 | | | B | 108D6 | | | B | 22B4 | EBM | - | B | 38E3 | | | | | | | M | - | | | 7 |
| 6 | EMB | 38G6 | BM | 81G2 | EMB | 418/D7 | M | - | BM | 42E3 | EMB | - | BM | - | | | M | 39A/D9 | | | BM | - | | | 6 |
| 5 | | | | | | | | | M | 41B/E5 | EMB | - | | | | | | | | | M | - | | | 5 |
| 4 | EBM | 38G6 | M | - | M | 1786 | M | 83G2 | BM | 3805 | EBM | - | M | - | | | M | 39A/C7 | | | BM | - | | | 4 |
| 3 | M | 37F1 | | | | | | | M | 81F4 | EBM | 80D2 | | | | | | | | | M | 41B/D9 | | | 3 |
| 2 | EBM | 81H4 | | | M | 418/G8 | | | M | 3805 | EBM | - | M | - | | | | | | | M | 39A/E1 | | | 2 |
| 1 | M | 7986 | | | | | | | M | 3781 | EBM | 37E0 | | | | | | | | | M | 39A/H3 | | | 1 |
| COIL | | 79C4 | | 81G2 | | 41B/G3 | | 30F2 | | 81G3 | | 81F3 | | 81F5 | | | | 39A/D3 | | | | 39A/G1 | | | COIL |
| | | | | | a | 110A3 | | | | | | | | | | | | | | | | | | | |
| | | | | | | 114B/84 | | | | | | | | | | | | | | | | | | | |
| | | | | | | 418/E1 | | | | | | | | | | | | | | | | | | | |

RELAY

| DESIG | TR1 | | | TRA | | TRB1 | | TR82 | | TRL | | TRL1 | | TRR | | TRS | | TRSA | | TRST | | TST | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF45 | | | AF10 | | AF507 | | AF507 | | AJ501 | | AF88 | | AF55 | | AJ501 | | AF54 | | AF55 | | AF52 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 83C9 | | | EM | 39A/E3 | M | 81B1 | M | 81A0 | EBM | - | M | 81C4 | M | 83D9 | EBM | - | M | 8003 | M | 81H1 | M | 81C4 | 12 |
| 11 | M | 418/C1 | | | | | M | 81G2 | M | - | EBM | 3803 | B | 34C/B7 | M | 418/D1 | EBM | - | | | M | 81A2 | | | 11 |
| 10 | BM | 34C/B7 | | | M | 39A/E3 | BM | 34C/A7 | BM | 24C/F3 | EBM | 3834 | M | - | BM | 37H4 | EBM | 22D2 | BM | 81A2 | BM | a | BM | - | 10 |
| 9 | M | 43H4 | | | | | M | 87C1 | M | - | EBM | 3883 | B | - | M | 43G4 | EBM | - | | | M | 81A2 | | | 9 |
| 8 | BM | - | | | EBM | | BM | 80F2 | C1 | 36D4 | EMB | 2H3 | BM | - | BM | 35B/E1 | EMB | 37C5 | BM | a | BM | 34C/D3 | BM | 23E4 | 8 |
| 7 | B | 37C2 | | | B | | B | 33E3 | B | 34A/B4 | EBM | 39A/H1 | B | 37C2 | B | 37C2 | EBM | - | B | 22F9 | B | 62A/A1 | | | 7 |
| 6 | BM | 37F2 | | | EBM | 39A/E9 | BM | 80D2 | BM | a | EMB | 39A/G3 | BM | - | BM | 37G3 | EMB | 37G3 | BM | 87E1 | BM | 84C1 | BM | 83C3 | 6 |
| 5 | M | 122B/B1 | | | | | M | 37G2 | M | - | EMB | 3701 | B | 37G3 | M | 122B/B1 | EMB | - | B | 87F1 | M | A0E3 | | | 5 |
| 4 | BM | 34A/C6 | | | M | 39A/D7 | BM | 39A/E3 | BM | 3788 | EBM | 37C2 | M | 418/C1 | BM | 37F4 | EBM | - | P4 | 7984 | BM | 80E3 | BM | 3882 | 4 |
| 3 | M | 8104 | | | | | M | 41A/B9 | M | 3784 | EBM | 8701 | B | 34A/C6 | M | 8106 | EBM | - | | | M | 57A/C5 | | | 3 |
| 2 | M | 8182 | | | M | 81C2 | M | 418/C0 | M | - | EBM | 23A7 | M | 8182 | M | 8182 | EBM | - | M | 418/C9 | M | 81A0 | M | 9003 | 2 |
| 1 | M | 81H2 | | | | | M | 35B/F1 | M | 418/H1 | EBM | 2387 | B | 81H2 | M | 81H3 | EBM | - | | | M | 38G2 | M | 80E4 | 1 |
| COIL | | 37G3 | | 39A/E2 | | 81B0 | | 81A0 | | 3702 | | 37E2 | | 37F2 | | 22D4 | | 81A1 | | 9105 | | 2308 | COIL |
| | | | | | | | | a 37G4 | | | | | | | | | | a 35B/84 | | a 15A0 | | | | |
| | | | | | | | | 62A/A4 | | | | | | | | | | 77H5 | | 62A/A4 | | | | |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

CIRCDE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZCX | CB | 23H3 | 426F |
| ZKC | CL3 | 48G2 | 446F |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ~~AMB~~ | 39A/F4 | 185A |
| DIS1 | 37C0 | 186A |
| DISA | 39A/H1 | 185A |
| MAK | 39A/A9 | 185A |
| MCB0 | 39A/F4 | 185A |
| MCK | 39A/A9 | 185A |
| MON | 7983 | 185A |
| MON1 | 81E5 | 185A |
| MSK | 3080 | 185A |
| (EF) MT29 | 79C4 | 186A |
| RDL | 41B/G3 | 185A |
| SCT | 81F5 | 185A |
| TM | 39A/G1 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| HFA | 39A/C7 | KS-13492,L1 10,000 |
| HFA1 | 39A/D6 | KS-13492,L1,290 |
| MJ | 39A/D6 | 18CN |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 2D | BLC - |
| 4A | NM |
| 9D | NM |
| 10B | YKM |
| 13B | AEZ MR |
| 18D | PVS |
| 20AC | MSK DP |
| 21D | AHD |
| 22D | QH |
| 24D | EM EBM A9 |
| 25D | DS WG AND |
| 27A | AND CLK AND |
| 28D | AND CLK AND |
| 29A | JEM AND AND |
| 30D | JEM AND AND |
| 31D | JEM AND AND |
| 32A | LP CLK AND |
| 33D | LP CLK AND |
| 34A | DP COL AND |
| 35D | DP COL AND |
| 36A | WM |
| 37D | WM |
| 38A | LY |
| 39D | LY |
| 40A | |
| 41D | |
| 42A | |
| 43D | |
| 45D | |

DRAWING ISSUE

65B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SWD DATE 65

SD-26002-01-C9

# APP FIG. 14

RELAY

| DESIG CODE OPTION | | | HTT AF9 | | LOT AF9 | | | HRL AF9 | | OAT AF523 | | OATI AF511 | | | RYT AF522 | | RYTI AF512 | | SDT AF9 | | SF AF523 | | SFT AF134 | | TMS AF813 | | TRT AJ501 | | TRTR AF9 | | WT AF9 | | | DESIG CODE OPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EM | - | EM | 83C8 | | EM | - | M | 39A/F3 | | | | | | | | EM | 93C8 | M | - | M | - | EM8 | - | EBM | 107B1 | EM | 418/H1 | EM | 8388 | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | M | 83H4 | | | EBM | - | | | | | | 11 |
| 10 | | | M | - | M | 37F7 | | M | 418/GQ | BM | 77G1 | M | 83B/B6 | | M | - | | | M | 37G7 | BM | 83C3 | EBM | 93C1 | EBM | - | EBM | 8388 | M | 39A/E3 | M | 37F7 | | | 10 |
| 9 | | | d | - | B | - | | B | 308/D4 | | | | | | | | | | B | - | | | B | - | | | EBM | 1229/B1 | B | 39C/A6 | B | - | | | 9 |
| 8 | | | EBM | 838/G6 | EBM | - | | EBM | - | BM | - | BM | 83B/E6 | | BM | 8403/B4 | EBM | 84E6 | EBM | 38E4 | BM | - | ESM | - | EBM | - | EM8 | 37F8 | EBM | 81B2 | EBM | 13485 | | | 8 |
| 7 | | | B | - | B | - | | B | 38C3 | | | B | 39A/G3 | | | | | | B | - | | | B | 84C1 | | | EBM | 114A/H3 | B | 38EM | B | - | | | 7 |
| 6 | | | EM8 | 838/B5 | EM8 | 83E7 | | EM8 | 838/F2 | BM | 838/E4 | BM | 8705 | | BM | 8481 | EM8 | 84C3 | EM8 | 83H3 | BM | 8301 | EBM | 8308 | EM8 | 8482 | EM8 | 83A8 | EM8 | 8388 | EM8 | 8482 | | | 6 |
| 5 | | | B | 19H4 | B | - | | B | 34C/A6 | | | | | | | | | | B | - | | | B | 8582 | | | EM8 | - | B | 8002 | B | - | | | 5 |
| 4 | | | EBM | - | EBM | 16A8 | | EBM | - | BM | 838/B6 | M | 838/B6 | | M | 8483 | EBM | 8482 | EBM | 16A8 | BM | 84A1 | EBM | 83G3 | EBM | 84A2 | EBM | 83C4 | EBM | 0 | EBM | 84C1 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | EBM | 16A7 | M | - | | | | | 3 |
| 2 | | | M | - | M | 83E8 | | M | 83B/H2 | M | 838/E5 | | | | | | | | M | 83E8 | M | 83C1 | M | 83E8 | EBM | - | EBM | - | M | 3781 | M | 84F0 | | | 2 |
| 1 | | | | | | | | | | M | 838/F2 | | | | | | | | | | M | 8301 | M | - | | | EBM | 318/D2 | | | | | | 1 |
| COIL | | | | 838/G6 | | 83E8 | | | 83B/F2 | | 39A/F5 | | 83B/B7 | | | 84C2 | | 8483 | | 83H4 | | 83CC | | 8300 | | 8480 | | 8388 | | 8388 | | 8482 | | | COIL |

a 418/CQ 87D1

**CAPACITOR**

| DESIG | LOC | CODE |
|---|---|---|
| HTT | 83B/E5 | 4390A |
| HTTI | 83B/E3 | ~~KS-13368,L3,.001uF~~ KS-13368,L34,.001 |
| LDT | 83D7 | 4390A |
| OAT | 83B/E2 | 4370A |
| SDT | 83H1 | 4390A |
| SDTI | 83F1 | ~~KS-13368,L3,.001uF~~ |
| SDT2 | 83H0 | KS-13368,L34,.001 |
| TRTR | 83A7 | 4390A |
| WT | 84A1 | 4390A |
| WTI | 84A0 | ~~KS-13368,L3,.001uF~~ KS-13369,L34,.001 |

**NETWORK**

| DESIG | LOC | CODE |
|---|---|---|
| HTT | 83B/G6 | 185A |
| OATI | 83B/B7 | 185A |
| RYT | 84C2 | 185A |
| RYTI | 8483 | 185A |
| SDT | 83H4 | 185A |
| SF | 83C0 | 185A |
| SFT | 83D0 | 185A |
| TMS | 8480 | 185A |
| WT | 8482 | 185A |

**TJBE**

| DESIG | LOC | CODE |
|---|---|---|
| HTT | 83B/E4 | 313CC |
| LDT | 83D6 | 313CC |
| OAT | 83B/E1 | 313CC |
| SDT | 83F1 | 313CC |
| TRTR | 83A6 | 313CC |
| WT | 84A0 | 313CC |

**RESISTOR**

| DESIG | LOC | CODE |
|---|---|---|
| HTTI | 83B/E4 | T45A,KS-20810,L1A,~~15M~~ |
| HTT2 | 83B/E4 | KS-13490,L3 100,000 |
| HTT3 | 83B/E5 | KS-13490,L3 1000 |
| HTT4 | 83B/G5 | 18KJ |
| LDTI | 83D6 | T45A,263A 3.57M |
| LDT2 | 83D6 | KS-13490,L3 100,000 |
| LDT3 | 83D7 | KS-13490,L3 1000 |
| LDT4 | 83E7 | 18KJ |
| OATI | 83B/E1 | T45A,263A 3.7M |
| OAT2 | 83B/E1 | KS-13490,L3 100,000 |
| OAT3 | 83B/E2 | KS-13490,L3 1000 |
| OAT4 | 83B/G2 | 18KJ |
| SDTI | 83G2 | T45A,KS-20810,L1A,~~.11M~~ |
| SDT2 | 83G1 | KS-13490,L3 100,000 |
| SDT3 | 83G2 | KS-13490,L3 1000 |
| SDT4 | 83H3 | 18KJ |
| SDT5 | 83F1 | T45A,KS-20810,L1A,.856M |
| (LZ) HTTO | 83B/H7 | KS-13491,L1,3300 |

**RESISTOR (CONT)**

| DESIG | LOC | CODE |
|---|---|---|
| TRST | 80D1 | 18A6 |
| TRTI | 83A6 | T45A,KS-20810,L1A,1.52M |
| TRT2 | 83A6 | KS-13490,L3 100,000 |
| TRT3 | 83A7 | KS-13490,L3 1000 |
| TRT4 | 8387 | 18KJ |
| WTI | 84A1 | T45A,KS-20810,L1A,.320M |
| WT2 | 84A1 | KS-13490,L3 100,000 |
| WT3 | 84A1 | KS-13490,L3 1000 |
| WT4 | 8481 | 18KJ |

# APP FIG. 15

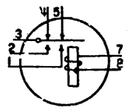
**RESISTOR**

| DESIG | LOC | CODE |
|---|---|---|
| (WX) [30]CSO-2 | 6A/D4 | T45A,KS-20810,L1A,~~3000~~ 4990 |
| FR | 23G9 | KS-5843,L427 90 |
| ETS | 18H0 | KS-5843,L427 90 |
| OTS | 19H0 | KS-5843,L427 90 |
| XRS1 | 78A3 | KS-5843,L427 90 |
| XRS2 | 78A/D3 | KS-5843,L427 90 |

NOTE:
1. WIRING, SOCKETS, RESISTORS AND NETWORKS ARE ALWAYS PROVIDED FOR (FTNO-3), (FUNO-9) AND (VGNO-11) PLUG-IN RELAYS. THE 276A RELAYS ARE PROVIDED AS REQUIRED TO IDENTIFY THE FRAME TENS, FRAME UNITS AND VERTICAL GROUP NUMBERS OF THE LINE LINK FRAMES OR THE REQUIRED (LR-) RELAYS, PROVIDE P-48D887 PLUG-IN RESISTOR ASSEMBLY WHEN THE 276A RELAYS ARE OMITTED. WHEN ETS OPERATION IS PROVIDED RELAYS FTNO-2 AND FUNO-9 CANNOT BE OMITTED.

# APP FIG. 16

RELAY




| DESIG | [10] HGNO-9 | [15] RCN1-15 | [5] VFNO-4 | | |
|---|---|---|---|---|---|
| CODE | 276A | 276A | 276A | | |
| OPTION | | | | | |
| 8 | 70B8 | 70C8 | 70D8 | | |
| 7 | 70B8 | 70C8 | 70D8 | | |
| 6 | - | - | - | | |
| 5 | - | - | - | | |
| 4 | - | - | - | | |
| 3 | 5A/D7 | 77A9-F9 | 58/B3 | | |
| 2 | 5A/D7 | 77A9-F9 | 58/B3 | | |
| 1 | 5A/D7 | 77A9-F9 | 58/B3 | | |

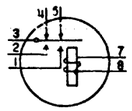
**NETWORK**

| DESIG | LOC | CODE |
|---|---|---|
| [10] HGNO-9 | 70B7 | 185A |
| [15] RCN1-15 | 70C7 | 185A |
| [5] VFNO-4 | 70D7 | 185A |

# APP FIG. 17

(SEE NOTE 1)

RELAY




| DESIG | [4] FTNO-3 | [2] FTN4,5 | [10] FUNO-9 | [12] VGNO-11 | TRC | LLPX | | |
|---|---|---|---|---|---|---|---|---|
| CODE | 276A | 276A | 276A | 276A | 276A | 276A | | |
| OPTION | | ZE | | | UZ | EV | | |
| 8 | 70A8 | 70A8 | 70A8 | 70B8 | 70A9 | 70B6 | | |
| 7 | 70A8 | 70A8 | 70A8 | 70B8 | 70A9 | 70B6 | | |
| 6 | - | - | - | - | - | - | | |
| 5 | - | - | - | - | - | - | | |
| 4 | - | - | - | - | - | - | | |
| 3 | ~~307,62F5~~ | 3F7,62F5 | 3D1,62G5 | 5A/D1 | a | 7709 | | |
| 2 | 307 | 3F7 | 3D1 | 5A/D1 | a | 7709 | | |
| 1 | 62A/F5 | 62A/F5 | 62A/G5 | 5A/D1 | a | 7709 | | |

a (TG) 70B8 (TH) 77A8

**NETWORK**

| DESIG | LOC | CODE |
|---|---|---|
| [4] FTNO-3 | 70A7 | 185A |
| (ZE) [2] FTN4,5 | 70A7 | 185A |
| [10] FUNO-9 | 70B7 | 185A |
| (EV) LLPX | 70B6 | 185A |
| (UZ) TRC | 70A8 | 185A |
| [12] VGNO-11 | 70B7 | 185A |

**RESISTOR**

| DESIG | LOC | CODE |
|---|---|---|
| [4] FTNO-3 | 62A/F5 | 140A OR T445,KS-20289,L6C,3010 |
| (ZE) [2] FTN4,5 | 62A/F5 | |
| [10] FUNO-9 | 62A/G5 | |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 12D | |
| 30 | |
| 44 | |
| 50 | |
| 108 | |
| 118 | |
| 138 | |
| 170 | |
| 210 | |
| 220 | |
| 240 | |
| 250 | |
| 27A | |
| 280 | |
| 310 | |
| 324 | |
| 330 | |
| 34A | |
| 36A | |
| 370 | |
| 390 | RP |
| 410 | |
| 430 | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC 6S

ISSUE 638 SD-26002-01-C10

SD-26002-01-C10

# APP FIG. 18

RELAY

| DESIG | GTL2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CODE | AJ700 | | | | | | | |
| OPTION | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 24 | M | 1F6 | | | | | | |
| 23 | M | 1E6 | | | | | | |
| 22 | M | 1D6 | | | | | | |
| 21 | M | 1C6 | | | | | | |
| 20 | M | 1B6 | | | | | | |
| 19 | M | 1G5 | | | | | | |
| 18 | M | 1E5 | | | | | | |
| 17 | M | 1D5 | | | | | | |
| 16 | M | 1C5 | | | | | | |
| 15 | M | 1B5 | | | | | | |
| 14 | M | 1G3 | | | | | | |
| 13 | M | 1E3 | | | | | | |
| 12 | M | 1D3 | | | | | | |
| 11 | M | 1C3 | | | | | | |
| 10 | M | 1B3 | | | | | | |
| 9 | M | 1H2 | | | | | | |
| 8 | M | 1G2 | | | | | | |
| 7 | M | 1E2 | | | | | | |
| 6 | M | 1C2 | | | | | | |
| 5 | M | 1B2 | | | | | | |
| 4 | M | 1E0 | | | | | | |
| 3 | M | 1D0 | | | | | | |
| 2 | M | 1C0 | | | | | | |
| 1 | M | 1B0 | | | | | | |
| COIL | X | 57B/E0 | X | | X | | X | |

RELAY

| DESIG | CB2 | | CB3 | | CB4 | | FLGA | | FTK1 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AF521 | | AF521 | | AJ503 | | AJ502 | | | | CODE |
| OPTION | | | | | | | IU | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 5B/C3 | M | 5A/H2 | M | 5A/G2 | EBM | - | EBM | 62A/F5 | | | 12 |
| 11 | M | 5B/D3 | M | 5A/G7 | M | 5A/F2 | EBM | 66F7 | EBM | - | | | 11 |
| 10 | M | 5B/C3 | M | 5A/F7 | M | 5A/F2 | EBM | - | EBM | - | | | 10 |
| 9 | M | 5B/B3 | M | 5A/F7 | M | 5A/E2 | EBM | - | EBM | 57B/G1 | | | 9 |
| 8 | BM | 5B/E4 | BM | 5A/E7 | BM | 5A/E2 | EMB | - | EMB | 48/G5 | | | 8 |
| 7 | M | 5B/B3 | M | 5A/E7 | M | 5A/D2 | EBM | 120F8 | | | | | 7 |
| 6 | BM | 34B/F4 | BM | 5A/A5 | BM | 5A/B4 | EMB | - | EMB | 6A/A3 | | | 6 |
| 5 | M | 4A/E5 | M | 5A/D7 | M | 5A/C2 | EMB | - | | | | | 5 |
| 4 | BM | 34B/F3 | BM | 5A/C7 | BM | 5A/C2 | EBM | 120E2 | EBM | 102C8 | | | 4 |
| 3 | M | 5A/A3 | M | 5A/C7 | M | 5A/C2 | EBM | - | EBM | 138E3 | | | 3 |
| 2 | M | 6A/A2 | M | 5A/B7 | M | 5A/B2 | EBM | 138F6 | EBM | d 1 | | | 2 |
| 1 | M | 82F1 | M | 5A/A7 | M | 5A/A2 | EBM | 106E7 | EBM | 58/F3 | | | 1 |
| COIL | X | 6A/A2 | X | 5A/A5 | X | 5A/A3 | X | 23F0 | X | 58/G1 | X | | COIL |

(ZHL) 6A/E4
a
(ZHM) 1038/A5

RELAY

| DESIG | HG0 | | HG1 | | HG2 | | HG4 | | HG7 | | HGTO | | [9]HGTI-9 | | | | HTK1 | | LAT | | TCCA | | TO65 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF523 | | AF523 | | AF523 | | AF523 | | AF523 | | AF519 | | AF519 | | | | AJ502 | | AF507 | | AJ501 | | AJ501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | ZYH | | ZYH | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 5A/F6 | M | 5A/F6 | M | 5A/G6 | M | 5A/E7 | M | 5A/G7 | M | 5A/D9 | M | 5A/D9 | | | EBM | 5A/B6 | M | - | EBM | - | EBM | 63A1 | 12 |
| 11 | | | | | | | | | | | | | | | | | EBM | - | M | 34C/G0 | EBM | - | EBM | 102C4 | 11 |
| 10 | BM | - | BM | - | BM | 2E7 | BM | 2E5 | BM | 2E6 | M | 6A/G2 | M | 6A/G2 | | | EBM | 135F3 | BM | - | EBM | 137D1 | EBM | 50F4 | 10 |
| 9 | | | | | | | | | | | | | | | | | EBM | - | M | 34A/A1 | EBM | 20A/C8 | EBM | 50E5 | 9 |
| 8 | BM | - | BM | 2E7 | BM | 2E7 | BM | 2E6 | BM | 2E6 | BM | 135E3 | BM | 135E3 | | | EMB | 63F7 | BM | - | EMB | 31B/C2 | EMB | - | 8 |
| 7 | | | | | | | | | | | B | - | B | 5A/E5 | | | | | B | 6H2 | EBM | 22B8 | EBM | 22B8 | 7 |
| 6 | BM | 2F7 | BM | 2E7 | BM | 2E7 | BM | 2E6 | BM | - | BM | 5A/E6 | BM | 5A/E6 | | | EMB | 6A/A2 | BM | - | EMB | - | EMB | - | 6 |
| 5 | | | | | | | | | | | | | | | | | | | M | 34A/A1 | EMB | - | EMB | - | 5 |
| 4 | BM | 5A/D6 | BM | 5A/D6 | BM | 5A/E6 | BM | 5A/E7 | BM | 5A/F7 | M | 5A/D7 | M | 5A/D7 | | | EBM | -- | BM | - | EBM | 28B/D8 | EBM | 28B/A3 | 4 |
| 3 | | | | | | | | | | | | | | | | | EBM | - | M | 34A/A1 | EBM | - | EBM | 88B/A0 | 3 |
| 2 | M | 5A/C6 | M | 5A/C6 | M | 5A/C7 | M | 5A/D7 | M | 5A/F7 | M | 103G2 | M | 103G2 | | | EBM | 62A/F5 | M | 34A/A1 | EBM | - | EBM | - | 2 |
| 1 | M | 5A/B6 | M | 5A/B7 | M | 5A/C7 | M | 5A/A6 | M | 5A/A7 | | | | | | | EBM | 6A/G2 | M | 34A/A1 | EBM | 41B/C6 | EBM | - | 1 |
| COIL | X | 1B4 | X | 1C4 | X | 1D4 | X | 1E4 | X | 1G4 | X | 5A/D9 | X | 5A/D9 | X | | X | 5A/C6 | X | 34C/D5 | X | 24A/F4 | X | 22G7 | COIL |

RELAY

| DESIG | [5]VGT1-5 | | [2]VGT6,7 | | [2]VGT8,9 | | [2]VGT10,11 | | | | VTK1 | | VF0 | | VF1 | | [3]VF2-4 | | VFT0 | | VFT1-4 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF519 | | AF519 | | AF519 | | AF519 | | | | AJ502 | | AF523 | | AF523 | | AF523 | | AJ503 | | AJ503 | | | | CODE |
| OPTION | | | | | Z | | Z | | | | | | VQ | | VQ | | VQ | | LH | | LH | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 138E2 | M | 138E2 | M | 138E2 | M | 138E2 | | | EBM | 138E3 | M | - | M | - | M | - | EBM | 58/B2 | EBM | 58/C2 | | | 12 |
| 11 | | | | | | | | | | | EBM | - | | | | | | | EBM | 106A2 | EBM | 106A2 | | | 11 |
| 10 | M | 5A/B1 | M | 5A/E1 | M | 5A/F1 | M | 5A/G1 | | | EBM | 5A/A3 | BM | - | BM | - | BM | 2E4 | EBM | 47G0 | EBM | 47G0 | | | 10 |
| 9 | | | | | | | | | | | EBM | - | | | | | | | EBM | 117D7 | EBM | 117D7 | | | 9 |
| 8 | BM | 6A/E2 | BM | 6A/E2 | BM | 6A/E2 | BM | 6A/E2 | | | EMB | 6A/E2 | BM | - | BM | 2E4 | BM | 2E4 | EMB | 34A/A1 | EMB | 34A/A1 | | | 8 |
| 7 | B | 5A/G4 | B | 5A/F4 | B | 5A/E4 | B | 5A/D4 | | | | | | | | | | | EBM | 58/G3 | EBM | 58/G3 | | | 7 |
| 6 | BM | 5A/G3 | BM | 5A/F3 | BM | 5A/E3 | BM | 5A/D3 | | | EMB | 6A/A2 | BM | 2E5 | BM | 2E5 | BM | 2E4 | EMB | 58/G3 | EMB | 58/G3 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | EMB | | EMB | | | | 5 |
| 4 | M | 5A/C2 | M | 5A/E2 | M | 5A/F2 | M | 5A/G2 | | | EBM | 62A/F5 | BM | 5B/A2 | BM | 5B/B1 | BM | 58/B1 | EBM | 5B/B3 | EBM | 5B/C3 | | | 4 |
| 3 | | | | | | | | | | | EBM | - | | | | | | | EBM | 138E2 | EBM | 138E2 | | | 3 |
| 2 | M | 103F1 | M | 103F1 | M | 103F1 | M | 103F1 | | | EBM | - | M | - | M | - | M | - | EBM | 6A/E2 | EBM | 6A/E2 | | | 2 |
| 1 | | | | | | | | | | | EBM | - | M | - | M | - | M | - | EBM | - | EBM | - | | | 1 |
| COIL | X | 5A/B0 | X | 5A/D0 | X | 5A/F0 | X | 5A/G0 | X | | X | 5A/C3 | X | 186 | X | 1D6 | X | 1D6 | X | 5B/B1 | X | 5B/B1 | X | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CB2 | 6A/A3 | 185A |
| CB3 | 5A/A5 | 185A |
| CB4 | 5A/A3 | 185A |
| (IU) FLGA | 23F0 | 185A |
| FTK1 | 5B/G1 | 185A |
| HG0 | 1B4 | 185A |
| HG1 | 1C4 | 185A |
| HG2 | 1D4 | 185A |
| HG4 | 1E4 | 185A |
| HG7 | 1G4 | 185A |
| HGTO | 5A/D9 | 185A |
| [9] HGTI-9 | 5A/D9 | 185A |
| HTK1 | 5A/C6 | 185A |
| LHT | 34C/D5 | 185A |
| (ZYH) TCCA | 24A/F4 | 185A |
| (ZYH) TO65 | 22G7 | 185A |
| (WX) [illegible] | 6A/E4 | 177C |
| VF0 | 1B6 | 185A |
| [4] VF1-4 | 1D6 | 185A |
| VFT0 | 5B/B1 | 185A |
| [4] VFT1-4 | 5B/B1 | 185A |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| VG0 | 1B3 | 185A |
| VG1 | 1C3 | 185A |
| VG2 | 1D3 | 185A |
| VG4 | 1E3 | 185A |
| VG7 | 1F3 | 185A |
| VG10 | 1G3 | 185A |
| VGTO | 5A/A0 | 185A |
| [5] VGT1-5 | 5A/B0 | 185A |
| [2] VGT6,7 | 5A/D0 | 185A |
| (Z) [2] VGT8,9 | 5A/F0 | 185A |
| (Z) [2] VGT10,11 | 5A/G0 | 185A |
| VTK1 | 5A/C3 | 185A |
| (LH) VFT | 117E7 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| [3] LHT0-2 | 34A/A1 | 19YM |
| V | 6A/D4 | KS-13490,L3 33,000 |
| (LM) VFT | 117E7 | KS-13490,L3,0.1 MEG |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 2D | FJD |
| 4A | GLZ |
| 17D | WM |
| 18D | WM |
| 21D | WH |
| 22D | DOP |
| 25D | SAV |
| 27A | SAV |
| 28D | SAV |
| 30D | WM |
| 32A | LP |
| 33D | LP |
| 34A | DP |
| 35D | DP |
| 37D | WM |
| 38A | RA |
| 39D | RA |
| 41D | |
| 43D | |
| 44A | |
| 45D | |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C11

BELL TELEPHONE LABORATORIES, INC

65

# APP FIG. 19

RELAY

| DESIG | 7Q | | 20F | | 40F | | | | | | CB | | CB1 | | CB6 | | | | FTO | | FT1 | | FT2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF506 | | AF506 | | AF506 | | | | | | AF521 | | AF521 | | AF521 | | | | AF522 | | AF523 | | AF523 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 13C6 | M | 10E6 | M | 10E6 | | | | | M | 3G7 | M | 23A1 | M | 23D2 | | | | | M | – | M | – | 12 |
| 11 | M | 13C6 | M | – | M | – | | | | | M | 3F7 | M | 3G1 | M | 300B/C1 | | | | | | | | | 11 |
| 10 | M | 13C6 | M | 91G4 | M | 91F4 | | | | | M | 307 | M | 3F1 | M | E3C3 | | | M | – | BM | – | BM | 2C2 | 10 |
| 9 | M | 13G4 | M | 1382 | M | 13C2 | | | | | M | 3C7 | M | 3F1 | M | a | | | | | | | | | 9 |
| 8 | M | 13G4 | M | 10G4 | M | 10E4 | | | | | BM | 3F8 | BM | 3E1 | BM | 104A/D7 | | | BM | – | BM | 282 | BM | 282 | 8 |
| 7 | M | 13F4 | M | 10G4 | M | 10D4 | | | | | M | 387 | M | 301 | M | 98A/E2 | | | | | | | | | 7 |
| 6 | M | 13E4 | M | 10F4 | M | 10C4 | | | | | BM | a | BM | 383 | BM | 102D4 | | | BM | 281 | BM | 282 | BM | 282 | 6 |
| 5 | M | 13E4 | M | 10E4 | M | 10C4 | | | | | M | 38D3 | M | 3D1 | M | 102A5 | | | | | | | | | 5 |
| 4 | M | 13D4 | M | 10D4 | M | 10C4 | | | | | BM | 36A8 | BM | 3C1 | BM | b | | | M | 386 | BM | 3C8 | BM | 3E8 | 4 |
| 3 | M | – | M | 10C4 | M | 10B4 | | | | | M | 23[illegible] | M | 3C1 | M | 88A/B2 | | | | | | | | | 3 |
| 2 | M | 13C4 | M | 10B4 | M | 10B4 | | | | | M | 6A/[illegible]1 | M | 3B1 | M | 88B/A2 | | | | | M | 3F8 | M | 3G6 | 2 |
| 1 | M | 17C4 | M | 10B4 | M | 10B4 | | | | | M | 3F7 | M | 3A1 | M | 86C/A8 | | | | | M | 3F8 | M | 3F8 | 1 |
| COIL | | 13E0 | | 9C8 | | 9D8 | | | | | | 23C0 | | 2380 | | 23H1 | | | | 180 | | 1C0 | | 1D0 | COIL |

(ZSH) 23B5
a
(ZSG) 23C5

(LC) 68/D5
a
(ZZP) 88E/D4

b 100B/C2
23A7

RELAY

| DESIG | FT3 | | [2]FT80,1 | | FT82 | | FT83 | | | | FTTO | | FTT1 | | [2]FTT2,3 | | | | FTT8 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF523 | | AF504 | | AF504 | | AF504 | | | | AF506 | | AF506 | | AF506 | | | | AF48 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | – | M | 91A1 | M | 91H1 | M | 91H1 | | | M | 3A6 | M | 388 | M | 308 | | | M | 3G9 | | | | | 12 |
| 11 | | | M | 13C5 | M | 13C5 | M | 1305 | | | M | 3B6 | M | 3C8 | M | 306 | | | B | 3F8 | | | | | 11 |
| 10 | BM | 2C2 | M | 13G3 | M | 13G3 | M | 13H3 | | | M | 4A/F3 | M | 4A/E3 | M | 4A/C3 | | | BM | 62A/F6 | | | | | 10 |
| 9 | | | M | 13F3 | M | 13F3 | M | 13F3 | | | M | 4A/F3 | M | 4A/E3 | M | 4A/C3 | | | B | 3E8 | | | | | 9 |
| 8 | BM | 282 | M | 13D3 | M | 13E3 | M | 13E3 | | | M | 4A/F3 | M | 4A/E3 | M | 4A/C3 | | | BM | – | | | | | 8 |
| 7 | | | M | 13C3 | M | 13C3 | M | 13C3 | | | M | 4A/F3 | M | 4A/E3 | M | 4A/C3 | | | B | 3E8 | | | | | 7 |
| 6 | BM | 282 | M | 13A2 | M | 13A2 | M | 1382 | | | M | 4A/G3 | M | 4A/E3 | M | 4A/C3 | | | BM | 308 | | | | | 6 |
| 5 | | | M | 10D5 | M | 10G5 | M | – | | | M | 4A/G3 | M | 4A/E3 | M | 4A/C3 | | | B | 3C8 | | | | | 5 |
| 4 | BM | 3E8 | M | 10D5 | M | 10F5 | M | – | | | M | 4A/G3 | M | 4A/E3 | M | 4A/C3 | | | BM | 388 | | | | | 4 |
| 3 | | | M | 10C5 | M | 10F5 | M | 10H5 | | | M | 4A/H3 | M | 4A/E3 | M | 4A/C3 | | | B | 4A/D0 | | | | | 3 |
| 2 | M | – | M | 10C5 | M | 10F5 | M | 10G5 | | | M | 4A/H3 | M | 4A/E3 | M | 4A/C3 | | | M | 8881 | | | | | 2 |
| 1 | M | – | M | 10B5 | M | 10F5 | M | 10G5 | | | M | 4A/H3 | M | 4A/E3 | M | 4A/C3 | | | B | 4B/G5 | | | | | 1 |
| COIL | | 1D0 | | 387 | | 3D7 | | 3E7 | | | | 3A9 | | 3C9 | | 3D9 | | | | 3G9 | | | | | COIL |

RELAY

| DESIG | FU0 | | FU1 | | FU2 | | FU4 | | FU7 | | | | | | [6]FUT0-5 | | [4]FUT6-9 | | | | | | PR | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF523 | | AF523 | | AF523 | | AF523 | | AF523 | | | | | | AF5 | | AF5 | | | | | | AJ501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 303 | M | 3D2 | M | 3F3 | M | 3D2 | M | 3F2 | | | | | M | 3D1 | M | 3D1 | | | | | EBM | 31A/H3 | 12 |
| 11 | | | | | | | | | | | | | | | M | 3D1 | M | 3D1 | | | | | EBM | 34A/F2 | 11 |
| 10 | BM | – | BM | – | BM | 2C4 | BM | 2C4 | BM | 2C5 | | | | | M | 10C6 | M | 10C6 | | | | | EBM | 91H2 | 10 |
| 9 | | | | | | | | | | | | | | | M | 12C6 | M | 12C6 | | | | | EBM | 9C3 | 9 |
| 8 | BM | – | BM | 2C4 | BM | 2C4 | BM | 2C4 | BM | 2C5 | | | | | M | 4A/G2 | M | 4A/G2 | | | | | EMB | 9104 | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | EBM | 905 | 7 |
| 6 | BM | 283 | BM | 2B4 | BM | 2B4 | BM | 2B4 | BM | – | | | | | M | 13E3 | M | 13E3 | | | | | EMB | 12C5 | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | EMB | 11E7 | 5 |
| 4 | BM | 3F3 | BM | 3F3 | BM | 3G3 | BM | 3E2 | BM | 3G2 | | | | | M | 1383 | M | 1383 | | | | | EBM | 905 | 4 |
| 3 | | | | | | | | | | | | | | | M | 1089 | M | 1089 | | | | | EBM | 34A/D2 | 3 |
| 2 | M | 383 | M | 3C3 | M | 3C2 | M | 3D2 | M | 3F2 | | | | | M | 13A3 | M | 13A3 | | | | | EBM | 13C5 | 2 |
| 1 | M | 383 | M | 382 | M | 3C2 | M | 3A2 | M | 3A2 | | | | | M | 9106 | M | – | | | | | EBM | 9F6 | 1 |
| COIL | | 1B1 | | 1C1 | | 1E1 | | 1G1 | | 1H1 | | | | | | 3D0 | | 3D0 | | | | | | 9G8 | COIL |

RELAY

| DESIG | | | | | RQ | | | | STF | | | | TTF | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | AF506 | | | | AJ501 | | | | AJ501 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | ZE | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | M | 1206 | | | EBM | 31A/H3 | | | EBM | 31A/G3 | | | | | | | | | | | 12 |
| 11 | | | | | M | 13C6 | | | EBM | 34A/D2 | | | EBM | 9F7 | | | | | | | | | | | 11 |
| 10 | | | | | M | 13C6 | | | EBM | 9131 | | | EBM | 9C3 | | | | | | | | | | | 10 |
| 9 | | | | | M | 13G4 | | | EBM | 983 | | | EBM | 13A1 | | | | | | | | | | | 9 |
| 8 | | | | | M | 13G4 | | | EMB | 9104 | | | EMB | 11C9 | | | | | | | | | | | 8 |
| 7 | | | | | M | 13F4 | | | EBM | 8E4 | | | EBM | 34A/B3 | | | | | | | | | | | 7 |
| 6 | | | | | M | 13F4 | | | EMB | 12C4 | | | EMB | 34A/C3 | | | | | | | | | | | 6 |
| 5 | | | | | M | 13E4 | | | EMB | 11E7 | | | EMB | 906 | | | | | | | | | | | 5 |
| 4 | | | | | M | 13E4 | | | EBM | 9C5 | | | EBM | 9C5 | | | | | | | | | | | 4 |
| 3 | | | | | M | – | | | EBM | – | | | EBM | 91E1 | | | | | | | | | | | 3 |
| 2 | | | | | M | 13D4 | | | EBM | – | | | EBM | 91C2 | | | | | | | | | | | 2 |
| 1 | | | | | M | 13C4 | | | EBM | 9F6 | | | EBM | 91A1 | | | | | | | | | | | 1 |
| COIL | | | | | | 13D1 | | | | 9F8 | | | | 9G8 | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 7Q | 13E0 | 185A |
| 20F | 9C8 | 185A |
| 40F | 9D8 | 185A |
| CB | 23C0 | 186A |
| CB6 | 23H1 | 185A |
| FTO | 180 | 185A |
| FT1 | 1C0 | 185A |
| [2] FT2,3 | 1D0 | 185A |
| [2] FT80,1 | 387 | 185A |
| FT82 | 3D7 | 185A |
| FT83 | 3E7 | 185A |
| FTTO | 3A9 | 185A |
| FTT1 | 3B9 | 185A |
| [2] FTT2,3 | 3C9 | 185A |
| FTT8 | 3G9 | 186A |
| FU0 | 1B1 | 185A |
| FU1 | 1C1 | 185A |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| FU2 | 1D1 | 186A |
| FU4 | 1E1 | 185A |
| FU7 | 1F1 | 185A |
| [10] FUT0-9 | 3D0 | 185A |
| PR | 9G8 | 185A |
| RQ | 1301 | 185A |
| STF | 9F8 | 185A |
| (ZE) TTF | 9H8 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (NP) DCT3 | 34A/B2 | 18CJ |
| (NT) DCT3 | 34A/B2 | 19EF |

DRAWING ISSUE

| | | |
|---|---|---|
| 1 | – | FJD |
| 2D | SEC | – |
| 4A | HM | MJS |
| 5D | MWB | NP |
| 9D | AT | JJM |
| 13B | AEZ | MR |
| 16B | WB | WE |
| 17D | WMB | WE |
| 21D | WM | |
| | SOP | MD |
| | SSW | |
| 22D | SOP | |
| | BAD | |
| 23A | EN | |
| | EPM | |
| 26A | JAT | |
| | SAW | |
| 27A | CLK | |
| | SAW | |
| 28D | CLK | |
| 31D | OLP | |
| | LP | |
| 32A | CLK | |
| 33D | LO | |
| | CLK | |
| 34A | OP | |
| | SOL | |
| 35D | OP | |
| | SOL | |
| 37D | WM | |
| 38A | PZ | |
| 39D | PZ | |
| 43D | | |
| 44A | | |
| 45D | | |

COMPELLING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

ISSUE 57B

SD-26002-01-C12

SHEET 65

# PART OF APP FIG. 20

RELAY

| DESIG | 2G | | 2TLF | | 2-3TLF | | 3G | | | | | | 3TLF | | 4TLF | | 5TLF | | 6TLF | | 7TLF | | 8TLF | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ512 | | AF507 | | AF507 | | AF520 | | | | | | AF507 | | AF507 | | AF507 | | AF507 | | AF507 | | AF507 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 11A9 | M | 1186 | M | 1186 | M | - | | | | | M | 1106 | M | 11C6 | M | 1186 | M | 11C6 | M | 11A9 | M | 11C6 | 12 |
| 11 | BM | 11A9 | M | 11A6 | M | 11A6 | M | - | | | | | M | 11A6 | M | 11A6 | M | 11A6 | M | 1186 | M | 1186 | M | 11A6 | 11 |
| 10 | BM | 11C5 | BM | 91C2 | BM | - | M | - | | | | | dM | 91A2 | BM | 13A2 | BM | 13A2 | BM | 9IH2 | BM | 11C6 | BM | - | 10 |
| 9 | BM | 11C5 | M | 9C5 | M | 9C4 | M | - | | | | | M | 9C4 | M | 9C3 | M | 9C3 | M | 905 | M | 304 | M | 904 | 9 |
| 8 | BM | 1185 | BM | - | BM | 12G2 | M | 11C5 | | | | | BM | 11C9 | BM | 91E2 | BM | 91E2 | BM | 12B2 | BM | 91G3 | BM | - | 8 |
| 7 | BM | 23C2 | B | - | B | - | B | 23C1 | | | | | B | - | B | - | B | - | B | - | B | - | B | - | 7 |
| 6 | BM | 1185 | BM | 12G2 | BM | 12G2 | M | 11A5 | | | | | BM | - | BM | - | BM | - | BM | 11F7 | BM | 11F7 | BM | - | 6 |
| 5 | BM | 1189 | M | 12E2 | M | 1284 | | | | | | | M | 1282 | M | 11E6 | M | 12F2 | M | 11G7 | M | 11G7 | M | - | 5 |
| 4 | BM | 12G2 | BM | 12C2 | BM | 12H2 | M | 11C9 | | | | | BM | - | BM | - | BM | 12L4 | BM | 11A9 | BM | 91E2 | BM | 91E2 | 4 |
| 3 | BM | 12F2 | M | 1284 | M | 12H2 | M | 12E2 | | | | | M | 12G2 | M | 1285 | M | 12F2 | M | 1301 | M | 1202 | M | 1301 | 3 |
| 2 | BM | 1202 | M | 12H2 | M | 12E2 | M | 12C2 | | | | | M | 12H2 | M | 12F2 | M | 1202 | M | 1201 | M | 12F2 | M | 1282 | 2 |
| 1 | BM | 1202 | M | 12E2 | M | 12E2 | M | 12A2 | | | | | M | 1202 | M | 12C2 | M | 12C2 | M | 12G2 | M | 13E1 | M | 12A2 | 1 |
| COIL | | 11F8 | | 9A8 | | 9A8 | | 11F8 | | | | | | 988 | | 9C8 | | 9C8 | | 9E8 | | 908 | | 9E8 | COIL |

RELAY

| DESIG | 9TLF | | 10TLF | | | | | | | | | | GC | | | | JG0 | | JG1 | | JG2 | | JG3 | | JG4 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AF507 | | | | | | | | | | AF507 | | | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 1106 | M | 1184 | | | | | | | | | M | - | | | EBM | 91H2 | EBM | 91E4 | EBM | 91FH | EBM | - | EBM | 91E4 | 12 |
| 11 | M | 11A6 | M | 11A6 | | | | | | | | | M | 318/B6 | | | EBM | 12C6 | EBM | 12D6 | EBM | 12D6 | EBM | 12C9 | EBM | 12D6 | 11 |
| 10 | BM | - | BM | - | | | | | | | | | BM | 31A/G2 | | | EBM | 12C7 | EBM | 12C7 | EBM | 12C7 | EBM | 12 07 | EBM | 12C7 | 10 |
| 9 | M | 903 | M | 903 | | | | | | | | | M | 1308 | | | EBM | - | EBM | 91E2 | EBM | 91G2 | EBM | - | EBM | 91G2 | 9 |
| 8 | BM | - | BM | - | | | | | | | | | BM | - | | | EMB | 91H2 | EMB | 13F5 | EMB | 13F5 | EMB | 13E5 | EMB | 13E5 | 8 |
| 7 | B | - | B | - | | | | | | | | | B | - | | | EBM | - | EBM | 91A2 | EBM | - | EBM | - | EBM | - | 7 |
| 6 | BM | - | BM | - | | | | | | | | | BM | 31A/C9 | | | EMB | 13G5 | EMB | 13F5 | EMB | 13F5 | EMB | 13E5 | EMB | 13E5 | 6 |
| 5 | M | - | M | 48/C3 | | | | | | | | | M | 13G8 | | | EMB | - | EMB | - | EMB | 91G5 | EMB | - | EMB | - | 5 |
| 4 | BM | 91F2 | BM | 31A/E8 | | | | | | | | | BM | 13F8 | | | EBM | 13E7 | EBM | 13E7 | EBM | 13F7 | EBM | 13F7 | EBM | 13G7 | 4 |
| 3 | M | 1301 | M | 12A2 | | | | | | | | | M | 13F8 | | | EBM | 13A1 | EBM | 1381 | EBM | 13C1 | EBM | 13A1 | EBM | 13A1 | 3 |
| 2 | M | 1282 | M | 12A2 | | | | | | | | | M | 13E8 | | | EBM | 1307 | EBM | - | EBM | 91F5 | EBM | - | EBM | - | 2 |
| 1 | M | 12A2 | M | 12A4 | | | | | | | | | M | 13E9 | | | EBM | 91A2 | EBM | 91D8 | EBM | 91E4 | EBM | 91D1 | EBM | 91E4 | 1 |
| COIL | | 9E8 | | 9E8 | | | | | | | | | | 31A/G4 | | | | 12A0 | | 1280 | | 1280 | | 12C0 | | 12C0 | COIL |

RELAY

| DESIG | JLE | | JLO | | JSE | | JSO | | | | | | JSQ0 | | JSQ1 | | JSQ2 | | JSQ3 | | JSQ4 | | JSQ5 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AF507 | | AF523 | | AF523 | | | | | | AF82 | | AF82 | | AF82 | | AF82 | | A'82 | | AF82 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | M | - | M | 9E1 | M | 9F1 | | | | | EM | 981 | EM | 981 | EM | 9C1 | EM | 901 | EM | 901 | EM | 9E1 | 12 |
| 11 | M | - | M | - | | | | | | | | | M | 981 | M | 9C1 | M | 9C1 | M | 901 | M | 901 | M | 981 | 11 |
| 10 | BM | - | BM | - | BM | - | BM | - | | | | | M | - | M | - | M | - | M | - | M | - | M | - | 10 |
| 9 | M | 12E2 | M | 12C2 | | | | | | | | | M | 102F7 | M | 102E7 | M | 102E7 | M | 102D7 | M | 102D7 | M | 102C7 | 9 |
| 8 | BM | 9F5 | BM | 9F4 | BM | 9F3 | BM | 9F3 | | | | | EBM | - | EBM | 9H1 | EBM | 11A9 | EBM | - | EBM | - | EBM | 11A9 | 8 |
| 7 | B | - | B | - | | | | | | | | | M | 19A4 | M | 19C4 | M | 19E4 | M | 19C4 | M | 19C4 | M | 1984 | 7 |
| 6 | BM | 9A1 | BM | 9A2 | BM | - | BM | - | | | | | EMB | 991 | EMB | 9F3 | EMB | 9H1 | EMB | 9G3 | EMB | - | EMB | 1203 | 6 |
| 5 | M | 4366 | M | 43F8 | | | | | | | | | M | 43D1 | M | 43C1 | M | 4381 | M | 43C1 | M | 4381 | M | 4301 | 5 |
| 4 | BM | P02 | BM | 982 | BM | 9E4 | BM | 9F1 | | | | | EBM | 12C3 | EBM | 12C3 | EBM | 1186 | EBM | 1283 | EBM | 12C3 | EBM | 1187 | 4 |
| 3 | M | 4365 | M | 43G8 | | | | | | | | | M | 9F1 | M | 991 | M | 9F1 | M | 961 | M | 9E1 | M | 961 | 3 |
| 2 | M | 9F1 | M | 9E1 | M | 9D2 | M | 9C2 | | | | | M | 110A/C8 | M | 10A/D8 | M | 10A/D8 | M | 10A/C8 | M | 110A/D8 | M | 110D8 | 2 |
| 1 | M | 9F3 | M | 9F4 | M | 982 | M | 982 | | | | | M | 1904 | M | 19F4 | M | 1984 | M | 1904 | M | 19E4 | M | 1904 | 1 |
| COIL | | 9F0 | | 9F0 | | 9E0 | | 9E0 | | | | | | 980 | | 980 | | 9C0 | | 9C0 | | 900 | | 900 | COIL |

RELAY

| DESIG | LLC2 | | | | | | | | MT7 | | MT8 | | MT8A | | MT56 | | P0 | | P1 | | P2 | | P3 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | | | | | | | AJ12 | | AJ501 | | AF33 | | AJ12 | | AF521 | | AF521 | | AF521 | | AF521 | | CODE |
| OPTION | | | | | | | | | | | | | ZY | | ZVR | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 19G3 | | | | | | | EBM | 88C/89 | EBM | - | M | - | EBM | 228/D9 | M | 11E6 | M | 11E6 | M | - | M | 11G1 | 12 |
| 11 | M | | | | | | | | EBM | 1238I | EBM | - | M | - | EBM | - | M | 11G7 | M | 11G1 | M | - | M | 9183 | 11 |
| 10 | BM | 23C2 | | | | | | | EBM | 11H3 | EBM | 961 | M | - | EBM | - | M | 11F1 | M | 11H0 | M | 11G7 | M | 11G6 | 10 |
| 9 | M | 11H7 | | | | | | | EBM | 11G3 | EBM | 80C3 | M | 9H3 | EBM | - | M | 11G0 | M | 11F0 | M | 11E1 | M | 11C9 | 9 |
| 8 | BM | 9A2 | | | | | | | EBM | 11F3 | EMB | 9E4 | M | 9D0 | EBM | 64H3 | BM | 9H3 | BM | 12A4 | BM | 12A4 | BM | 12A5 | 8 |
| 7 | B | 982 | | | | | | | EBM | 11F3 | EBM | 9E3 | B | 80C3 | EBM | 64H3 | M | 11F0 | M | 11E0 | M | 9163 | M | 11E1 | 7 |
| 6 | BM | 9E3 | | | | | | | EBM | 11E3 | EMB | 902 | M | 9D0 | EBM | 7905 | BM | 12A4 | BM | 12A4 | BM | 12A4 | BM | 12A4 | 6 |
| 5 | M | 9E1 | | | | | | | EBM | 11D3 | EMB | 9C2 | B | - | EBM | 72E8 | M | 11D0 | M | 91F4 | M | 11D1 | M | 91G4 | 5 |
| 4 | BM | 132C1 | | | | | | | EBM | 11D3 | EBM | 9H2 | M | 9C0 | EBM | - | BM | 91F4 | BM | 11C0 | BM | 91G4 | BM | 11C1 | 4 |
| 3 | M | 115F5 | | | | | | | EBM | 11C3 | EBM | 9G2 | M | 9C0 | EBM | - | M | 11C0 | M | 11B1 | M | 11C1 | M | 11C1 | 3 |
| 2 | M | - | | | | | | | EBM | 11B3 | EBM | 9E3 | M | 9B0 | EBM | - | M | 11A0 | M | 11B1 | M | 11C1 | M | 12A7 | 2 |
| 1 | M | 4A/H0 | | | | | | | EBM | 11A3 | EBM | 12A3 | M | 9B0 | EBM | - | M | 11A1 | M | 11B0 | M | 9183 | M | - | 1 |
| COIL | | 23C8 | | | | | | | | 11G8 | | 9H3 | | 9D3 | | 75A4 | | 10B1 | | 10B1 | | 10C1 | | 10C1 | COIL |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 2D | BKG |
| 4A | WM |
| 5D | WM |
| 6A | WM |
| 10B | WM |
| 11B | WM |
| 21D | WM |
| 22D | WM |
| 25D | WM |
| 28D | WM |
| 30D | WM |
| 35D | WM |
| 36A | WM |
| 37D | WM |
| 39D | WM |
| 41D | WM |
| 43D | WM |
| 45D | WM |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

SD-26002-01-C13

ISSUE 5CA

SD-26002-01-C13

# PART OF APP FIG. 20

RELAY

| DESIG | P4 | | P5 | | P6 | | P7 | | P8 | | P9 | | | | | | PA | | PB | | PC | | PNR | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | | | | | AF506 | | AF506 | | AF506 | | AF506 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 9183 | M | 11G1 | M | 91A3 | M | 11G1 | M | 11C6 | M | 11G2 | | | | | M | - | M | - | M | - | M | - | 12 |
| 11 | M | 11G1 | M | - | M | 11G1 | M | 11C6 | M | 12G2 | M | 11G2 | | | | | M | - | M | - | M | - | M | - | 11 |
| 10 | M | 11F1 | M | 11F7 | M | 11F7 | M | 11F1 | M | 11F6 | M | 11F2 | | | | | M | 11G1 | M | 11G1 | M | 11G0 | M | 11G3 | 10 |
| 9 | M | 11G6 | M | - | M | 11E1 | M | 11F6 | M | 11E1 | M | 11F6 | | | | | M | 11G1 | M | 11G1 | M | 11GQ | M | 11G3 | 9 |
| 8 | BM | 12A5 | BM | 12A5 | BM | 12A6 | BM | 12A6 | BM | 12A6 | BM | 12A6 | | | | | M | 11F1 | M | 11F1 | M | 11FQ | M | 11F3 | 8 |
| 7 | M | 11C9 | M | 11E1 | M | 11E1 | M | 11E1 | M | - | M | 11E2 | | | | | M | 11E1 | M | 11E1 | M | 11EQ | M | 11E3 | 7 |
| 6 | BM | 12A5 | BM | 12A5 | BM | 12A5 | BM | 12A6 | BM | 12A6 | BM | 12A6 | | | | | M | 11E1 | M | 11E1 | M | 11EQ | M | 11D3 | 6 |
| 5 | M | 11D1 | M | - | M | 11D1 | M | 91H4 | M | 11D1 | M | - | | | | | M | 11D1 | M | 11D1 | M | 11DQ | M | 11D3 | 5 |
| 4 | 9M | 91G4 | BM | 11C1 | BM | - | BM | 11C2 | BM | 91H4 | BM | 11C2 | | | | | M | 11C1 | M | 11C1 | M | 11CQ | M | 11C3 | 4 |
| 3 | M | 12A7 | M | 11C1 | M | 11C1 | M | 11F1 | M | 11C1 | M | 11G1 | | | | | M | 11B1 | M | 11B1 | M | 11BQ | M | 11B3 | 3 |
| 2 | M | 11B1 | M | 11B1 | M | 91G3 | M | 11B2 | M | 11G1 | M | 11B2 | | | | | M | 11P1 | M | 11B1 | M | 11AQ | M | 11A3 | 2 |
| 1 | M | 11A1 | M | - | M | - | M | 11A1 | M | 11A1 | M | 11A2 | | | | | M | 11A1 | M | 11A1 | M | 11AQ | M | 11A3 | 1 |
| COIL | | 10D1 | | 10E1 | | 10E1 | | 10F1 | | 10G1 | | 10G1 | | | | | | 11C5 | | 11D5 | | 11E5 | | 11A5 | COIL |

RELAY

| DESIG | SQ0 | | SQ1 | | SQA | | | | | | STP | | STP1 | | STP2 | | STP3 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF52 | | AF54 | | AF87 | | | | | | AF517 | | AF515 | | AJ503 | | AF52 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 9G1 | M | 9H1 | | | | | | | EM | - | BM | 31A/E9 | EBM | 11C5 | M | 31A/E2 | | | | | | | 12 |
| 11 | | | | | | | | | | | M | - | M | 11A5 | EBM | 31A/H2 | | | | | | | | | 11 |
| 10 | BM | 43F5 | BM | 9G3 | EBM | 9A0 | | | | | M | 31A/E9 | BM | 31A/E9 | EBM | 31A/C9 | BM | 31A/E9 | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | EBM | 11B5 | | | | | | | | | 9 |
| 8 | BM | 9F3 | BM | 9F3 | EMB | 88A1 | | | | | EBM | 31A/H2 | BM | 11C5 | EMB | 31A/G1 | BM | - | | | | | | | 8 |
| 7 | | | B | 9G1 | | | | | | | B | - | B | - | EBM | 11D5 | | | | | | | | | 7 |
| 6 | BM | 43G5 | BM | - | EMB | - | | | | | EMB | 31A/B9 | BM | 11A8 | EMB | 11E5 | BM | 31A/C8 | | | | | | | 6 |
| 5 | | | B | - | EM | 9A2 | | | | | | | | | EMB | 12C1 | | | | | | | | | 5 |
| 4 | BM | 19A4 | BM | - | EB | - | | | | | M | 31A/G7 | BM | 11B8 | EBM | 12C1 | BM | - | | | | | | | 4 |
| 3 | | | | | | | | | | | M | - | M | 12B1 | EBM | 12B1 | | | | | | | | | 3 |
| 2 | M | 9H1 | M | - | | | | | | | M | - | BM | 12B1 | EBM | 12B1 | M | 31A/H7 | | | | | | | 2 |
| 1 | M | 102F7 | | | | | | | | | M | 8405 | M | 12A1 | EBM | 12A1 | M | 31A/C8 | | | | | | | 1 |
| COIL | | 9G0 | | 9H0 | | 9E2 | | | | | | 31A/F9 | | 31A/C8 | | 31A/G9 | | 31A/F1 | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| | 2G | 11F8 | 185A |
| | 3G | 11F8 | 185A |
| | GC | 31A/G4 | 185A |
| (5) | JG0-4 | 1280 | 185A |
| | JLE | 9F0 | 185A |
| | JL0 | 9F0 | 185A |
| | JSE | 9E0 | 185A |
| | JS0 | 9E0 | 185A |
| (6) | JSQ0-3 | 9C0 | 185A |
| | LLC2 | 23C8 | 185A |
| | MT7 | 1H8 | 185A |
| (10) | P0-9 | 10D1 | 185A |
| | PA | 11C5 | 185A |
| | PB | 11D5 | 185A |
| | PC | 11E5 | 185A |
| | PNR | 11A5 | 185A |

NETWORK (CONT)

| | DESIG | LOC | CODE |
|---|---|---|---|
| | SQ0 | 9H0 | 185A |
| | SQ1 | 9H0 | 185A |
| | SQA | 9E2 | 185A |
| | STP | 31A/F9 | 185A |
| | STP1 | 31A/C8 | 185A |
| | STP2 | 31A/G9 | 185A |
| | STP3 | 31A/F1 | 185A |
| (1) | S7A,B | 9A6 | 177C |
| (1) | S7C,D | 9A6 | 177C |

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| (Z) | MT8 | 9E3 | KS-8512,L4A 2050 |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 2D | ELA BLC - |
| 4A | WM WJS WM WP |
| 5D | WM WP |
| 10B | JM JM |
| 13B | AE2 MA |
| 21D | SB JDT AHC |
| 25D | BB GG MP |
| 28D | SAW KLH PWL |
| 35D | DP GSL AMG |
| 39D | HW |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C14

39

BELL TELEPHONE LABORATORIES, INC. 6S

# APP FIG. 21

RELAY

| DESIG | CSW | | OFH | | OFH1 | | RCK2 | | RCK3 | | RCT1 | | RCT2 | | RCT3 | | RCT4 | | RCT4 | | RCT5 | | RCT5 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | 4J15 | | 4J501 | | AF52 | | AF515 | | AF519 | | AF514 | | AF514 | | AF514 | | AF514 | | AF521 | | AF514 | | AF521 | | CODE |
| OPTION | TH | | | | | | | | | | | | | | | | UN | | UO | | UN | | UO | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 30B/D3 | EBM | 107E4 | M | 107C1 | BM | - | M | 107F8 | M | 77E3 | M | 77B3 | M | 77B3 | M | 77C3 | M | 77C3 | M | 77C3 | M | 77C3 | 12 |
| 11 | EBM | - | EBM | d | | | M | 36A5 | | | | | | | | | | | M | - | | | M | 107G0 | 11 |
| 10 | EBM | 30A/B2 | EBM | 107B8 | BM | 107E3 | BM | - | M | 30A/C3 | M | 78B/E5 | M | 78B/C5 | M | 78B/D5 | M | 78B/D5 | M | 78B/D5 | M | 78B/E6 | M | 78B/E6 | 10 |
| 9 | EBM | - | EBM | 88C/F9 | | | | | | | | | | | | | | | M | - | | | M | 41A/A4 | 9 |
| 8 | EMB | 107C6 | EMB | 107C4 | BM | 23G7 | BM | 407H1 | BM | 29B/G4 | M | - | M | - | M | - | M | - | BM | 64G3 | M | - | BM | 64F2 | 8 |
| 7 | EBM | 78B/F1 | EBM | 30A/G5 | | | B | 107F3 | B | - | | | | | | | | | M | 64A3 | | | M | 64A3 | 7 |
| 6 | EMB | 64F7 | EMB | 9[illegible]5 | BM | 97E2 | BM | 30A/B3 | BM | a | M | - | M | - | M | - | M | - | BM | - | M | - | BM | 70F7 | 6 |
| 5 | EMB | 78B/D | EMB | 120F6 | | | | | | | | | | | | | | | M | - | | | M | b | 5 |
| 4 | EBM | 107F2 | EBM | a | BM | 107C7 | BM | 107C7 | M | 3607 | M | 77H1 | M | 77H1 | M | 77H1 | M | 77H1 | BM | 77H1 | M | a | BM | a | 4 |
| 3 | EBM | 107F1 | EBM | c | | | N | 30A/G5 | | | | | | | | | | | M | 41A/C5 | | | M | 41A/C5 | 3 |
| 2 | EBM | 107E2 | EBM | 78A/E5 | M | 37E7 | BM | 37E8 | M | 36D6 | M | 78A/B6 | M | 78A/B6 | M | 78A/B6 | M | 78A/B6 | M | 78A/B6 | M | 78A/B6 | M | 78A/B6 | 2 |
| 1 | EBM | - | EBM | b | M | - | N | 30A/G6 | | | | | | | | | | | M | 66C6 | | | M | 66C6 | 1 |
| COIL | | 78B/D4 | | 107F6 | | 107C1 | | 107D7 | | 107E9 | | 77E3 | | 77B3 | | 77B3 | | 77C3 | | 77C3 | | 77C3 | | 77C3 | COIL |

a (UN) 78H8 (UQ) 78G8
b (KA) 78A/E5 (KB) 78A/F4
c (LQ) 96H4 (LC) 107C6 (LC) 37D6 (ZQB) 87E1
a 29B/H2 30A/E9
a 34C/B8 77H1
a (TJ) 34C/B6 (TK,JM) 77H1 (PA) 115G3
b (QZ) 36F2

RELAY

| DESIG | RS1 | | RS2 | | RS3 | | | | RS5 | | RS6 | | RS7 | | RS8 | | RS9 | | RSK | | SRK | | TBH | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF522 | | AF522 | | AF522 | | | | AF522 | | AF522 | | AF522 | | AF522 | | AF522 | | AF507 | | AF513 | | AF55 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | M | 78A3 | EMB | 107C2 | M | 78A/D5 | 12 |
| 11 | | | | | | | | | | | | | | | | | | | M | - | | | M | 78B/G1 | 11 |
| 10 | M | 30A/B7 | M | 30A/B7 | M | - | | | M | - | M | 78A/[illegible] | M | - | M | - | M | 78A/H1 | BM | - | EBM | 107A8 | BM | - | 10 |
| 9 | | | | | | | | | | | | | | | | | | | M | - | | | M | - | 9 |
| 8 | BM | - | BM | 107F1 | BM | - | | | BM | 30A/H6 | BM | - | BM | - | BM | - | BM | 86F1 | BM | 107C6 | EBM | 107B8 | BM | - | 8 |
| 7 | | | | | | | | | | | | | | | | | | | B | 10783 | | | B | 107C1 | 7 |
| 6 | BM | 78A/A1 | BM | 78A/D1 | BM | 78A/D1 | | | BM | 78E1 | BM | 78A/E1 | BM | 78A/E1 | BM | 78A/E1 | BM | 78A/E1 | BM | 107D1 | EMB | a | BM | - | 6 |
| 5 | | | | | | | | | | | | | | | | | | | M | - | | | M | 10788 | 5 |
| 4 | M | - | M | 78A/G1 | M | - | | | M | - | M | 107F1 | M | - | M | - | M | 30A/H5 | BM | 107F2 | EBM | 107F3 | BM | 107G1 | 4 |
| 3 | | | | | | | | | | | | | | | | | | | M | - | | | M | - | 3 |
| 2 | | | | | | | | | | | | | | | | | | | M | 107D1 | EBM | 107C1 | M | 30A/H6 | 2 |
| 1 | | | | | | | | | | | | | | | | | | | M | - | | | M | 107D7 | 1 |
| COIL | | 78A/C9 | | 78B/C9 | | 78B/D9 | | | | 78B/E9 | | 78B/F9 | | 78B/F9 | | 78B/G9 | | 78B/G9 | | 78A/G2 | | 10787 | | 107C9 | COIL |

(LC) 30A/B2
a (ZQL) 10783

RELAY

| DESIG | RCT6 | | RCT7 | | RCT8 | | RCT9 | | RCT0 | | RCT10 | | RCT11 | | RCT12 | | RCT13 | | RCT14 | | RCT15 | | RS0 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF514 | | AF514 | | AF514 | | AF514 | | AF521 | | AF521 | | AF514 | | AF514 | | AF514 | | AF514 | | AF514 | | AF522 | | CODE |
| OPTION | | | | | | | UN | | UO | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 77D3 | M | 77D3 | M | 77D3 | M | 77A3 | M | 77A3 | M | 77F3 | M | 77D3 | M | 77B3 | M | 77B3 | M | 77B3 | M | 77B3 | | | 12 |
| 11 | | | | | | | | | M | - | M | 77H4 | | | | | | | | | | | | | 11 |
| 10 | M | 78B/F5 | M | 78B/F5 | M | 78B/G5 | M | 78B/G5 | M | a | M | 78B/F5 | M | 78B/E5 | M | 78B/C5 | M | 78B/C5 | M | 78B/D5 | M | 78B/E6 | M | 30A/C7 | 10 |
| 9 | | | | | | | | | M | - | M | - | | | | | | | | | | | | | 9 |
| 8 | M | - | M | 358/F8 | M | - | M | 358/F8 | BM | b | BM | 64F2 | M | 358/F8 | M | 358/F8 | M | 358/F8 | M | 358/F8 | M | 358/F8 | BM | - | 8 |
| 7 | | | | | | | | | M | - | M | 64A3 | | | | | | | | | | | | | 7 |
| 6 | M | - | M | - | M | 70D6 | M | 70D6 | BM | 70D6 | BM | - | M | - | M | - | M | - | M | 77G1 | M | - | BM | 73A1 | 6 |
| 5 | | | | | | | | | M | - | M | 116G7 | | | | | | | | | | | | | 5 |
| 4 | M | 77H1 | M | 77H1 | M | 77H1 | M | 77H1 | BM | 77H1 | BM | - | M | 77H1 | M | 77H1 | M | 77H1 | M | 41A/C5 | M | 77H1 | M | - | 4 |
| 3 | | | | | | | | | M | - | M | 77H1 | | | | | | | | | | | | | 3 |
| 2 | M | 78A/B6 | M | 78A/C6 | M | 78A/B6 | M | 78A/C6 | M | 78B6 | M | 78A/B6 | M | 78A/C6 | M | 78A/C6 | M | 78A/C6 | M | 78A/C6 | M | 78A/C6 | | | 2 |
| 1 | | | | | | | | | M | - | M | 66C7 | | | | | | | | | | | | | 1 |
| COIL | | 77D3 | | 77D3 | | 77D3 | | 77A3 | | 77A3 | | 77F3 | | 77D3 | | 77B3 | | 77B3 | | 77B3 | | 77B3 | | 78A/B9 | COIL |

a (TJ) 78B/F5
(UM,TK) 78G8
(TJ) 100B/A8
b (UM,TK) 35F8

RELAY

| DESIG | TNK | | | | | | | | | | RS4 | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF52 | | | | | | | | | | AF522 | | | | | | | | | | | | | | CODE |
| OPTION | 77G1 | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 77F1 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | BM | 78B/F5 | | | | | | | | | M | 41A/B4 | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | 42A1 | | | | | | | | | BM | b | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | 64A1 | | | | | | | | | BM | 78D1 | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | 78A/B6 | | | | | | | | | M | a | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 66B5 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | M | a | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 70G1 | | | | | | | | | | 78B/D9 | | | | | | | | | | | | | COIL |

a (LC) 3H3 (ZKI) 77G1
(PA) 115G3
a (QZ) 36F1
(TJ) 34C/B8
b (ZQL) 107B4

RELAY

(IX) RCKI — (IY) TCK

280AS

| | (IX) RCKI | (IY) TCK |
|---|---|---|
| 7 | 107C3,D3 | 107E2 |
| P | 30A/B4 | 30A/G4 |
| S | 30A/B4 | 30A/G4 |

RELAY

(IY) RCKI — (IY) TCK

316N

| | (IY) RCKI | (IY) TCK |
|---|---|---|
| 5 | 107C3,D3 | 107E2 |
| P | 30A/B4 | 30A/G4 |
| S | 30A/B4 | 30A/G4 |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| RCK | 107E7 | 441C |

DIODE

| DESIG | LOC | CODE |
|---|---|---|
| (ZGM) RCK | 107C4 | 533F |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| (TM) CSW | 78B/D4 | 185A |
| IF | 23F7 | 1/2 177K |
| OFH | 107F7 | 185A |
| OFH1 | 107C1 | 185A |
| RCK3 | 107E9 | 185A |
| RSO | 78A/B9 | 185A |
| [2] RS1,RS2 | 78A/C9 | 185A |
| [2] RS3,RS4 | 78B/D9 | 185A |
| RS5 | 78B/E9 | 185A |
| [2] RS6,RS7 | 78B/F9 | 185A |
| [2] RS8,RS9 | 78B/G9 | 185A |
| RSA | 78B/B2 | 177C |
| RSB | 78A/D2 | 177C |
| RSK | 78A/G2 | 185A |
| [2] RSM8,L | 78A/B1 | 177C |
| [3] RSM2-4 | 78A/[illegible] | 177C |
| [5] RSM5-9 | 78A/F1 | 177C |
| SRK | 10787 | 185A |
| TBH | 107C9 | 185A |
| TNK | 70G1 | 185A |
| RCT1 | 77E3 | 185A |
| [2] RCT2,3 | 77B3 | 185A |
| [2] RCT4,5 | 77C3 | 185A |
| [3] RCT6-8 | 77D3 | 185A |
| RCT9 | 77A3 | 185A |
| RCT10 | 77F3 | 185A |
| RCT11 | 77D3 | 185A |
| [4] RCT12-15 | 77B3 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| IF | 23G7 | KS-13490,L3 33,000 |
| RCK1 | 30A/A5 | KS-13490,L1 300 |
| RCK2 | 30[illegible]/A5 | 18S |
| RCK | 107E7 | 18FD |
| SRK | 10786 | 19CK |
| TCK1 | 30A/G7 | 18S |
| TCK2 | 30A/G7 | 18FD |

DRAWING ISSUE

22D COM UDP
23A EN EBR AMP
25D JAT WAG AMD
27A SAA CL PBX
30D CMC AMB AMD
32A CLG AMD
33D CLK AMD
34A DDL AMD
35D EBR CXL AMD
36A WM
37D WM
39D JAM
41D
42A
43D
45D

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-C15

STABILO

# PART OF APP FIG. 22

RELAY

| DESIG | BN | | BNB | | BNTH | | BY | | CKQ | | CKR | | DAC1 | | FNA | | FNB | | FTL | | FUL | | HGL | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF55 | | AF53 | | AF21 | | AF55 | | AF42 | | AJ503 | | AJ503 JJ | | AJ22 | | AJ22 | | AJ501 | | AJ501 | | AJ501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 66B1 | | | | | M | 41A/E8 | EMB | 64D1 | EBM | 64F1 | EBM | 628/34 | EBM | 70F6 | EBM | 70F6 | EBM | 3G8 | EBM | 3H1 | EBM | 51/G7 | 12 |
| 11 | M | 66H6 | | | | | M | 96B4 | M | - | EBM | 64C3 | EBM | 628/C4 | EBM | 70F7 | EBM | 70E7 | EBM | 66H6 | EBM | 66H6 | EBM | 66H5 | 11 |
| 10 | BM | a | BM | 78A/C3 | M | 66A7 | BM | 78A/E3 | EBM | 62A/D1 | EBM | 64A1 | EBM | 108G5 | EBM | 77H7 | EBM | 78A/C3 | EBM | - | EBM | - | EBM | - | 10 |
| 9 | M | c | B | 105F8 | B | - | M | 107D5 | | | EBM | 109G3 | EBM | 788/C3 | EBM | 788/C4 | EBM | 788/C4 | EBM | - | EBM | - | M | 788/F4 | 9 |
| 8 | BM | 66D7 | BM | 788/G2 | EBM | 121C7 | BM | 788/G0 | EBM | 62A/B1 | EMB | 103D2 | EMB | 628/E1 | EMB | 788/F3 | EMB | 788/F3 | EMB | 83D3 | EMB | 83D3 | EMB | - | 8 |
| 7 | B | 66C7 | B | a | B | - | B | 23C5 | B | 62A/G1 | EBM | 66H2 | EBM | ,0B2 | | | | | EBM | - | EBM | - | EBM | | 7 |
| 6 | BM | 62A/E7 | BM | 108D7 | EMB | 63F8 | BM | 85E3 | EMB | 11667 | EMB | 62A/E1 | EMB | - | EMB | 30A/E6 | EMB | 30A/E6 | EMB | 66A5 | EMB | 66A6 | EMB | 66A7 | 6 |
| 5 | M | 64A2 | B | - | B | 64F4 | M | 96C6 | | | EMB | 6930 | EMB | 108F5 | | | | | EMB | 66E6 | EMB | 66A6 | EMB | 66D7 | 5 |
| 4 | BM | 72A6 | BM | 41A/F7 | M | 6686 | BM | 88B/C8 | EBM | 66H2 | EBM | 62A/B1 | EBM | 77E1 | EBM | 30A/H7 | EBM | 30A/H7 | EBM | 66C6 | EBM | 66C6 | EBM | 66C5 | 4 |
| 3 | M | b | B | 66F1 | B | 68A1 | M | 107/F5 | M | 79E5 | EBM | 358/A | EBM | 108G3 | EBM | 29A/B3 | EBM | 29A/B3 | EBM | 66D7 | EBM | 66D6 | EBM | - | 3 |
| 2 | M | 108A8 | M | 30A/H6 | M | 121D7 | M | 88A/G8 | EBM | 64F1 | EBM | 338/D8 | EBM | - | EBM | 70E1 | EBM | 70E0 | EBM | 64F5 | EBM | 64F5 | EBM | 64F6 | 2 |
| 1 | M | 108D5 | | | | | M | 37E8 | M | 84E5 | EBM | 358/G2 | EBM | 6688 | EBM | 107G0 | EBM | 107G0 | EBM | 3H3 | EBM | 3H4 | EBM | 3H4 | 1 |
| COIL | | 66B0 | | 108A9 | | P-63F8 | | 41A/D8 | | 64D0 | | 64F0 | | 628/A3 | | 7008 | | 70E8 | | 3G8 | | 3H0 | | 5A/G8 | COIL |

(SN) 1008/C1
a
(SP) 104A/D7
(128) 121A/A2
b
(158) 121B/A4
(IB) 64F3
(IB) 62A/H3
c
(128) 45F6

(SP) 1048/C9
a
(82) 1008/H7

S-61F0

RELAY

| DESIG | HTUK | | LA | | L3 | | LCH | | | | LTA | | LLT | | LLTA | | NGB | | NGK | | NGKI | | NGP | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AJ501 | | AF42 | | AF523 | | | | AJ503 QX | | AF506 | | ~~AF506~~ SC | | AF52 | | AF523 | | AF518 | | AF20 | | CODE |
| OPTION | | | | | | | | | | | | | | | ZQW | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | EBM | - | EMB | 108C7 | M | 107F0 | | | EBM | 11765 | M | 62A/E0 | M | 628/34 | M | - | M | 63F4 | EMB | - | EMB | | 12 |
| 11 | M | - | EBM | 66H5 | M | 623/F7 | | | | | EBM | 308/B6 | M | 3H1 | M | - | | | | | M | 70A1 | M | 41A/B3 | 11 |
| 10 | BM | 62A/A1 | EBM | - | EBM | 288/C3 | BM | 788/E3 | | | EBM | 11701 | M | 6560 | M | - | BM | 41A/E2 | BM | 66H1 | EBM | 70B1 | EBM | 61E5 | 10 |
| 9 | M | - | EBM | 363 | | | | | | | EBM | 11585 | M | 64F1 | M | - | | | | | | | | | 9 |
| 8 | BM | - | EMB | - | EBM | 41A/C7 | BM | 107H1 | | | EMB | 101C9 | M | 70H8 | M | 1160 9 | BM | 23E3 | BM | G | EBM | 70C1 | EBM | 61F5 | 8 |
| 7 | B | 63F7 | EBM | - | B | 70F7 | | | | | EBM | 10109 | M | 6389 | M | 78B/F2 | | | | | B | 72C1 | | | 7 |
| 6 | BM | - | EMB | - | EMB | 288C4 | BM | - | | | EMB | 101F9 | M | 77E1 | M | - | BM | 66H4 | BM | 83D3 | EMB | - | EMB | 41A/B2 | 6 |
| 5 | M | - | EMB | 37C4 | | | | | | | EMB | b | M | 308 | M | - | | | | | | | | | 5 |
| 4 | BM | 66C7 | BM | 62A/F3 | EBM | 23B/E3 | BM | - | | | EBM | 10B/M | M | 3H1 | M | - | BM | - | BM | 62A/C9 | EBM | 15G9 | EBM | 41A/A0 | 4 |
| 3 | M | - | EBM | 64A2 | M | 888/C3 | | | | | EBM | 115A5 | M | 5A/G7 | M | 7186 | | | | | M | 62A/A1 | | | 3 |
| 2 | M | - | EBM | 64F4 | EBM | 88D/B3 | M | 30A/ | | | EBM | a | M | 5A/H2 | M | 10508 | M | - | M | 6109 | EBM | 121B/F5 | EBM | - | 2 |
| 1 | M | - | EBM | 6404 | M | 41A/D6 | M | 788/C4 | | | EBM | 11587 | M | 58/G2 | M | 10545 | M | - | M | 63B0 | M | 62A/C3 | M | - | 1 |
| COIL | | 62A/A0 | | 3H5 | | 108E8 | | 59A/E9 | | | | 10738 | | 62A/D0 | | 62A/D0 | | 61A1 | | 62A/D6 | | 62A/F7 | | 41A/A2 | COIL |

30A/G3
a
8485
10109
b
11765

(ZEF) 121A/G4
a
(ZED) 121B/C4

RELAY

| DESIG | RCY2 | | RCY3 | | RCY4 | | RCY5 | | RGTA | | | | RTB | | RTP | | RNG | | RV | | RV1 | | RV2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ15 | | AF52 | | AJ15 | | AJ15 TY | | AJ15 | | | | AF53 | | AF55 ZQW | | AJ501 | | AF55 | | AF6 | | AF90 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 108F7 | M | - | EBM | 23B1 | EBM | - | EBM | 63H6 | | | | | M | 6681 | EBM | 62A/F8 | M | 23E1 | M | - | | | 12 |
| 11 | EBM | 4230 | | | EBM | 23C3 | EBM | 118E4 | EBM | 6647 | | | | | M | 1C08/C2 | EBM | 105G7 | M | 34C/B4 | M | - | | | 11 |
| 10 | EBM | 108F4 | BM | 108H8 | EBM | 62A/G2 | EBM | 108C5 | EBM | 6609 | | | BM | 79C3 | BM | 66E7 | EBM | 88D/A2 | BM | 288/C3 | M | - | | | 10 |
| 9 | EBM | 4489 | | | EBM | 62A/E7 | EBM | 40C6 | EBM | 6103 | | | B | 105F8 | M | - | EBM | 98C/F4 | M | 62A/H8 | | | | | 9 |
| 8 | EMB | 62A/B1 | BM | 23G1 | EMB | c | EMB | 107D1 | EMB | 64F3 | | | BM | 788/G1 | BM | - | EMB | 6444 | BM | 27E1 | M | 84E5 | M | - | 8 |
| 7 | EBM | 6948 | | | EBM | b | EBM | 18A7 | EBM | 288/D1 | | | B | - | B | 66D2 | EBM | 624/B2 | B | a | B | 23C2 | B | 23C2 | 7 |
| 6 | EMB | 10885 | BM | 88C/F9 | EMB | 6661 | EMB | a | EMB | 66C5 | | | BM | 66A8 | BM | 10883 | EMB | 624/A1 | BM | 23D/C3 | BM | - | EBM | - | 6 |
| 5 | EMB | 6946 | | | EMB | 6946 | EMB | 88E/D5 | EMB | 77E1 | | | B | - | M | - | EMB | 624/F6 | M | 77F1 | B | 87E2 | B | 72E3 | 5 |
| 4 | EBM | 23C3 | BM | 64C2 | EBM | a | EBM | 4489 | EBM | 77E1 | | | BM | 41A/E8 | BM | a | EBM | 84E5 | BM | 28B/E2 | M | 23E2 | M | 23E1 | 4 |
| 3 | EBM | 62A/H7 | | | EBM | 23G2 | EBM | 42C0 | EBM | 23E3 | | | B | 10760 | M | 6633 | EBM | 624/H4 | M | 28A/D0 | | | | | 3 |
| 2 | EBM | 66H4 | M | 6660 | EBM | 6481 | EBM | 40A4 | EBM | 77A9 | | | M | 30A/H6 | M | - | EBM | 68A0 | M | - | M | - | | | 2 |
| 1 | EBM | 72E4 | M | 72A5 | EBM | 6401 | EBM | 116G7 | EBM | 62A/B3 | | | | | M | - | EBM | 36C7 | M | 41A/C6 | M | - | | | 1 |
| COIL | | 108G9 | | 66J3 | | 6660 | | 6660 | | 63G7 | | | | 108A9 | | 66AJ | | 624/E9 | | 23E0 | | 3F5 | | 3H5 | COIL |

(ZKC) 72E3
a
(ZKB) 72E3
(ZIK) 62A/H8
b
(ZIL) 108G5
(ZIK) 108G5
c
(ZIL) 62A/H8

(ZUQ) 88A/A9
a
(ZUS) 88A/B9

(128) 121A/A3
a
(158) 121B/A2

(LB) 108E7
a
(LC) 108E6

| DESIG | NGP | | NR | | NR | | OFK | | OV | | OVC | | PBN | | PMQ | | PTK | | PUI | | PUL | | RCL | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ21 | | AF519 | | AJ503 | | AF64 | | AJ15 | | AJ15 TY | | AF>2 | | AF21 | | AF523 | | AF52 | | AF16 | | AF521 | | CODE |
| OPTION | VQ | | PB | | PC | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | M | - | EBM | - | EMB | 70F7 | EBM | 37E8 | EBM | 41A/G7 | M | 70H5 | | | M | 6332 | M | 66F0 | M | 66E8 | M | 77F1 | 12 |
| 11 | EBM | 41A/B3 | | | EBM | - | M | 70F1 | EBM | a | EBM | 88B/C8 | | | | | | | | | | | M | 11608 | 11 |
| 10 | EBM | 61E5 | M | - | EBM | - | M | 6580 | CBM | 78A/F4 | EBM | 28B/D3 | BM | 70C9 | M | 41A/F7 | BM | 104A/A0 | BM | 62A/F0 | M | 35B/C8 | M | 83D3 | 10 |
| 9 | EBM | 61F5 | | | EBM | - | BM | 62A/F8 | EBM | 78A/B7 | EBM | 28B/E4 | | | B | - | | | | | | | M | 78B/F4 | 9 |
| 8 | EM | - | BM | 84E4 | EMB | 84E4 | M | 6501 | EMB | 788/G0 | EMB | - | BM | 6605 | EBM | 66E5 | BM | | BM | 64F7 | EBM | 6662 | BM | 54F2 | 8 |
| 7 | | | B | 6080 | EBM | 6080 | BM | a | EBM | 23C5 | EBM | 88C/F7 | | | B | - | | | B | 62A/B2 | M | 77D0 | 7 |
| 6 | EMB | 41A/B2 | BM | 60A0 | EMB | 60A0 | EMB | b | EMB | 107C8 | EMB | 88D/B4 | BM | 37C5 | EMB | 37C5 | BM | 83D4 | BM | 11584 | EBM | 30A/C6 | BM | b | 6 |
| 5 | EM | - | | | EMB | - | BM | 62A/G8 | EMB | b | EMB | 88B/E6 | | | B | - | | | | | | | M | a | 5 |
| 4 | EBM | 41A/A0 | M | - | EBM | - | M | | EBM | 88A/G8 | EBM | 62A/G8 | BM | - | M | b | BM | 37C8 | BM | 66E8 | EBM | 62A/D1 | BM | 6AC7 | 4 |
| 3 | EBM | - | | | EBM | - | BM | - | EBM | 107A7 | EBM | 41A/C6 | | | B | - | | | | | | | M | 62A/F6 | 3 |
| 2 | EBM | 61F1 | M | - | EBM | 103B7 | M | 83D3 | EBM | 107E5 | EBM | 41A/C7 | M | 62A/F8 | M | a | M | 77A9 | M | a | M | a | M | 4A/C0 | 2 |
| 1 | EBM | 61G0 | | | EBM | 103H4 | M | 62A/G8 | EBM | c | EBM | - | M | 108F5 | | | M | 4A/D0 | M | 41B/F9 | M | 66E3 | M | 23E2 | 1 |
| COIL | | 41A/A2 | | 62A/H0 | | 62A/H0 | | 70F8 | | 41A/D8 | | 41A/G7 | | 70H8 | | P-70G8 | | 63B3 | | 66F0 | | 66D9 | | 77E0 | COIL |

(ER) 62A/E8
a
(ES) 41A/D6

(ER) 41A/D6
b
(ES) 62A/F8

41A/F9
a
85E3

88A/C9
b
96C8

(81) 107D4
c
(ZZP) 88E/C5

S-41A/F7
(TX) 41A/C7
a
(TY) 7008
(TX) 62A/A8
b
(JJ) 66C8

(ZKC) 66F3
a
(ZKB) 66E8

(IB) 62A/G3
a
(158) 63E9

(CQ) 66B7
a
(138) 78A/B6
(C) 78B/C1
b
(ZQL) 34C/B4

| DRAWING ISSUE | |
|---|---|
| 32A | RAC CLK 4ms |
| 33D | RAC CLK 4ms |
| 34A | |
| 35D | |
| 36A | WM |
| 37D | WM |
| 38A | JHW |
| 39D | JHW |
| 41D | |
| 43D | |
| 44A | |
| 45D | |

| DRAWING ISSUE |
|---|
| 69B |

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-C16A

BELL TELEPHONE LABORATORIES INCORPORATED — TYPE 6S

# PART OF APP FIG. 22

RELAY

| DESIG | SNG2 | | TBI | | TBIB | | TBW | | TCH | | THR | | UK | | VFL | | VGL | | RI | | RI | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AF55 | | AJ501 | | AF500 | | AF523 | | AF114 | | AF522 | | AJ501 | | AJ501 | | AF55 ZQP | | AJ122 ZQQ | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 78B/A6 | M | 66F1 | EBM | 13888 | | | M | 78B/E8 | | | | | EBM | 58/G2 | EBM | 5A/H2 | M | 66C1 | EBM | 66C1 | | | 12 |
| 11 | M | 61D7 | M | 66H6 | EBM | – | | | | | | | | | EBM | 66H5 | EBM | 66H6 | M | 66H6 | EBM | 66H6 | | | 11 |
| 10 | M | 62A/A7 | BM | a | EBM | 78B/D3 | M | 77G5 | BM | – | M | 41A/A1 | M | 62A/C5 | EBM | – | EBM | – | BM | a | EBM | a | | | 10 |
| 9 | M | 62A/A7 | M | b | EBM | 105F8 | B | – | | | | | | | EBM | – | EBM | – | M | c | EBM | c | | | 9 |
| 8 | M | 62A/B7 | BM | 66C2 | EMB | 78B/G1 | M | – | BM | 107H1 | BM | 62A/B3 | BM | | EMB | – | EMB | – | BM | 66D8 | EMB | 66D8 | | | 8 |
| 7 | M | 62A/B7 | B | 66B2 | EBM | – | B | – | | | | | | | EBM | – | EBM | – | B | 66B2 | EBM | 66B2 | | | 7 |
| 6 | M | 62A/E5 | BM | 62A/E6 | EMB | 107A8 | M | 62A/A2 | BM | 78B/E3 | BM | – | BM | 72C2 | EMB | 56B7 | EMB | 6646 | BM | 62A/E6 | EMB | 62A/E6 | | | 6 |
| 5 | M | 7040 | M | 64B2 | EMB | 66F1 | B | – | | | | | | | EMB | – | EMB | 6607 | M | 64B2 | EMB | 64B2 | | | 5 |
| 4 | M | 7080 | BM | 66A2 | EBM | 41A/E8 | M | – | BM | 59A/E6 | M | 41B/F6 | M | 62A/A1 | EBM | 66C7 | EBM | 66C6 | BM | 66A3 | EBM | 66A3 | | | 4 |
| 3 | M | 70C0 | M | c | EBM | 107G1 | B | – | | | | | | | EBM | 62A/B4 | EBM | – | M | b | EBM | b | | | 3 |
| 2 | M | 6940 | M | 10888 | EBM | 107C8 | | | M | 30A/G7 | B | 23G1 | | | EBM | 64F6 | EBM | 64F5 | M | 108A8 | EBM | 108A8 | | | 2 |
| 1 | M | 6780 | M | 108E3 | EBM | – | | | M | 78B/F5 | | | | | EBM | 3H4 | EBM | 3H4 | M | 108C3 | EBM | 108C3 | | | 1 |
| COIL | | 62A/B0 | | 66E0 | | 10889 | | 68A1 | | 59A/H9 | | 41A/A1 | | 62A/C6 | | 58/F1 | | 5A/H0 | | 66C1 | | P-66C8 | | | COIL |

(SN) 1008/C2
a
(SP) 104A/D8
(IB) 62A/G3
b
(128) 121E1
(IB) 64F2
c
(158) 121B/B4

(SN) 1008/C1
a
(SP) 104A/D7
(IB) 64F2
b
(128) 121A/A2
(158) 12.B/B4
(IB) 62A/G3
c
(128) 45G7

S-61E0
(SN) 1008/C1
a
(SP) 104A/D7
(IB) 64F2
b
(128) 121A/A2
(158) 121B/B4
(IB) 62A/G3
c
(128) 45G7

RELAY

| DESIG | LI | | LI | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF518 | | AJ513 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | DZ | | CA | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EMB | 107B4 | PBEM | 34C/B5 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | M | 30A/B5 | BM | 30A/B5 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 115E9 | EBM | 115E9 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | PMEB | 107B4 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | 30A/H5 | EMB | 30A/H5 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | B | 34A/E2 | BM | 34A/E2 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 107F0 | EBM | 107F0 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | BM | * | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 107C2 | PMEB | 107C2 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | M | 30A/G5 | BM | 30A/G5 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 30A/A2 | PBEM | 30A/A2 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | M | 30B/D3 | BM | 30B/D3 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 107A8 | | 107A8 | | | | | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| BN | 6680 | 185A |
| BNB | 108A9 | |
| BNTH | 63F8 | |
| BNTH1 | 61F0 | 1/2 177C |
| BY | 41A/D8 | |
| CKO | 6400 | |
| CKR | 64F0 | |
| (JJ) DAC1 | 62B/A3 | |
| FTL | 3G8 | |
| FUL | 3H0 | 185A |
| HGL | 5A/G8 | |
| HTUK | 62A/A0 | |
| LA | 3H5 | |
| LB | 108E8 | |
| LCH | 59A/E9 | |
| LI | 107A9 | |
| (QX) LIA | 10788 | |
| LLI | 62A/E0 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| NGB | 61A1 | |
| NGK | 62A/D6 | |
| NGK1 | 62A/E7 | |
| (VP,VQ) NGP | 41A/A2 | |
| (PB,PC) NR | 62A/H0 | |
| OFK | 70F8 | 185A |
| OV | 41A/D8 | |
| (TY) OVC | 41A/G7 | |
| PBN | 70H8 | |
| PMO | 70G8 | |
| PMS | 41A/G7 | 1/2 177C |
| PTK | 6383 | |
| PU1 | 66F0 | |
| PUL | 66D9 | |
| RCL | 77E0 | 185A |
| RCY2 | 108G9 | |
| RCY3 | 66H3 | |
| RCY4 | 66G0 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| RGTA | 63G7 | |
| (ZQP,ZQQ) RI | 66C1 | |
| RIB | 108A9 | |
| RNG | 62A/E9 | |
| (ZQW) RIP | 66A0 | |
| (ZQQ) RIS | 61E0 | |
| RV | 23E0 | |
| RV1 | 3F5 | 185A |
| RV2 | 3H5 | |
| SNG2 | 62A/B0 | |
| TBI | 66E0 | |
| TBIB | 108B9 | |
| TCH | 59A/H9 | |
| THR | 41A/A1 | |
| UK | 62A/C6 | |
| VFL | 5B/F1 | |
| VGL | 5A/H0 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| OFK | 70G7 | 18AM |

DRAWING ISSUE

| | |
|---|---|
| 32A | FAC D1M 4MB |
| 33D | FAC 6LM 6MB 6DL |
| 35D | GDL AND LT |
| 38A | LT |
| 39D | LT |
| 41D | CB |
| 42A | CB |
| 43D | CB |
| 59B | |

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-C16B

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-C16B

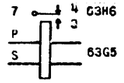
# APP FIG. 23

RELAY

| DESIG | A | | AK | | | | EG | | GB | | PBX1 | | PBX2 | | NAIC | | SAC1 | | SAE | | SCR | | SLCK | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF55 | | AF52 | | | | AF52 | | AJ501 | | AJ503 | | AJ503 | | AJI2 ZXR | | AF519 | | AJ22 | | AF4 | | AF35 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 64H7 | M | - | | | M | 62A/F8 | EBM | 64C8 | EBM | 64A1 | EBM | 3H2 | EBM | - | M | - | EBM | | | | EM | - | 12 |
| 11 | M | - | | | | | | | EBM | 66H4 | EBM | 61D8 | EBM | 69A5 | EBM | - | | | EBM | 116E2 | | | | | 11 |
| 10 | BM | - | BM | - | | | BM | 64H1 | EBM | 64H1 | EBM | 6177 | EBM | 66H3 | EBM | - | M | - | EBM | 62A/E5 | M | - | M | 64C8 | 10 |
| 9 | M | - | | | | | | | EBM | 64C3 | EBM | - | EBM | - | EBM | - | | | EBM | - | | | | | 9 |
| 8 | BM | - | BM | - | | | BM | 888/H6 | EMB | 6900 | EMB | 66H3 | EMB | 6780 | EBM | - | BM | - | EMB | 888/H6 | BM | 105D9 | M | 64D5 | 8 |
| 7 | B | 64C8 | | | | | | | EBM | 64C8 | EBM | 62A/A2 | EBM | 62A/ | EBM | - | B | 66H4 | | | | | B | - | 7 |
| 6 | BM | 6501 | BM | - | | | BM | 888/E6 | EMB | 67A1 | EMB | 72G7 | EMB | 66C8 | EBM | - | BM | - | EMB | 63G4 | BM | 64H6 | EMB | 6580 | 6 |
| 5 | M | - | | | | | | | EMB | 71A0 | EMB | 0 | EMB | 116F8 | EBM | 10884 | | | | | | | B | 66H2 | 5 |
| 4 | BM | 67A1 | BM | 64G7 | | | BM | 64A8 | EBM | 7180 | EBM | 65A1 | EBM | 63G6 | EBM | 63G4 | M | 6980 | EBM | 62A/B2 | M | 6501 | M | 64G7 | 4 |
| 3 | M | 64C5 | | | | | | | EBM | 71D0 | EBM | 62A/B8 | EBM | 65A1 | EBM | 62A/H2 | | | EBM | 64C6 | | | | | 3 |
| 2 | M | 69A6 | M | 69A6 | | | M | 65H0 | EBM | 71E0 | EBM | 64D5 | EBM | 6580 | EBM | 63E9 | M | 69A6 | EBM | 62A/E8 | | | M | 64F8 | 2 |
| 1 | M | - | M | 63H6 | | | M | 65F0 | EBM | 71F0 | EBM | 64A7 | EBM | 64G7 | EBM | 64E2 | | | EBM | 6488 | | | | | 1 |
| COIL | | 64G8 | | 64F8 | | | | 65G0 | | 69A6 | | 64AC | | 64A0 | | 121B/C7 | | 64C5 | | 71H4 | | 6580 | | 6580 | COIL |

(120) 116E8
a
(ZZP) 66A5

RELAY
TYM
(MG) 280A
(MH) 280FY




CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| (2) TYM1,2 | 63G7 | 437QA |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| (RO) | 2L | 71A6 | 185A |
| | 2LN | 66G3 | 185A |
| | A | 64G8 | 185A |
| | AK | 64B8 | 185A |
| | EG | 65G0 | 185A |
| | GB | 69A6 | 185A |
| (ZXR) | NAIC | 121B/C7 | 185A |
| | NGC | 62A/A0 | 185A |
| [1] | OA1 | 65C0 | 177K |
| | OTB | 65D1 | 177K |
| | PBX1 | 64A0 | 185A |
| | SAC1 | 64C5 | 185A |
| | SAE | 71H4 | 185A |
| (RO) | SAK | 69A8 | 185A |
| | SCR | 6580 | 185A |
| | SLCK | 6580 | 185A |

NETWORK(CONT)

| | DESIG | LOC | CODE |
|---|---|---|---|
| | SLCK1 | 64E9 | 185A |
| | SPT | 64D8 | 185A |
| [1] | SPT1 | 64D8 | 177C |
| | TYMA | 63H5 | 177C |
| (RO) | UA | 64G0 | 185A |
| | UT | 64H0 | 185A |

RELAY

| DESIG | SLCK1 | | SPT | | | | TYMA | | UT | | ZL | | ZLN | | SAK | | UA | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF32 | | AF21 | | | | AF55 | | AF50 | | AJ503 RO | | AJ503 RO | | AF40 RO | | AJ503 RO | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONS ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EMB | a | | | | | M | - | | | EBM | 7186 | EBM | 66G2 | EM | | EBM | 64G0 | 12 |
| 11 | | | M | - | | | M | - | | | EBM | 79F5 | EBM | 64G1 | | | EBM | 71A7 | 11 |
| 10 | EBM | 6780 | M | - | | | BM | - | M | 54G1 | EBM | 105H2 | EBM | 69A7 | M | - | EBM | 105G4 | 10 |
| 9 | | | B | - | | | M | - | | | EBM | 105H2 | EBM | 69H6 | | | EBM | 100G5 | 9 |
| 8 | EBM | 68A1 | EBM | 62A/C2 | | | BM | - | BM | 6980 | EMB | 105G5 | EMB | 62A/D2 | EBM | - | EMB | 104A/C8 | 8 |
| 7 | | | B | 64D1 | | | B | 62A/B2 | | | EBM | 108F3 | EBM | 71H5 | B | 6363 | EBM | 66G1 | 7 |
| 6 | EMB | 64E8 | EMB | - | | | BM | 64C8 | BM | - | EMB | 104A/C8 | EMB | 62A/G3 | EMB | 6947 | EMB | 84E5 | 6 |
| 5 | | | B | 6483 | | | M | - | | | EMB | 66G2 | EMB | 7140 | | | EMB | 6363 | 5 |
| 4 | EBM | 66H2 | M | 64D7 | | | BM | - | M | 6501 | EBM | 71A2 | EBM | 71C0 | M | 62A/C1 | EBM | 62A/C1 | 4 |
| 3 | | | B | - | | | M | 84C6 | | | EBM | 4CB2 | EBM | 7100 | | | EBM | 6988 | 3 |
| 2 | EBM | 62A/E6 | M | - | | | M | 64C3 | | | EBM | 71H5 | EBM | 71F0 | M | - | EBM | 69A6 | 2 |
| 1 | | | | | | | M | 6606 | | | EBM | 71A8 | EBM | a | M | - | EBM | 69H6 | 1 |
| COIL | | 64E9 | | 64D8 | | | | 63H5 | | 64H0 | | 71A6 | | 66G3 | | 6980 | | 64G0 | COIL |
| | (LC) 64D2 a (ZKC) 77H5 | | | | | | | | | | | | a | 64E5 7160 | | | | | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (ZJD) NTOB | 27E6 | 18FC |
| OA | 65C1 | KS-13490,L3 33,000 |
| OTB | 65D1 | KS-13490,L3 33,000 |
| TYMO | 65G8 | 188T |
| TYM1 | 63G7 | 18EW |

RELAY

| | NGC | | DESIG |
|---|---|---|---|
| | AJ702 | | CODE |
| | | | OPTION |
| CONT ARR | LOC | | |
| M | 71A0 | 24 | |
| M | 71B0 | 23 | |
| M | 71D0 | 22 | |
| M | 71E0 | 21 | |
| M | 71F0 | 20 | |
| M | 62A/A2 | 19 | |
| M | 121B/A6 | 18 | |
| M | 66C9 | 17 | |
| M | 69A5 | 16 | |
| M | 62A/G2 | 15 | |
| M | - | 14 | |
| M | 6606 | 13 | |
| M | 64H6 | 12 | |
| M | 64G8 | 11 | |
| M | 64C3 | 10 | |
| M | 64E5 | 9 | |
| M | 116H7 | 8 | |
| M | 63H6 | 7 | |
| M | | 6 | |
| M | 64G1 | 5 | |
| M | 69A2 | 4 | |
| M | 60A4 | 3 | |
| M | 64E5 | 2 | |
| M | 83G7 | 1 | |
| | 62A/A0 | COIL | |

DRAWING ISSUE

| | |
|---|---|
| 1 | 21B |
| 2D | BLC — |
| 30 | WM WM DPP TEM |
| 90 | |
| 21D | SGB UDP AND |
| 22D | USH UDP AND |
| 24D | EN EBM ANT |
| 25D | CS USG AND |
| 26A | DS USG AND |
| 28D | NO CLK AND |
| 30D | JEM WM AND |
| 32A | RAC CLK AND |
| 33D | RAC CLK AND |
| 34A | KMD GDL AND |
| 35D | KMD GDL AND |
| 36A | WM |
| 39D | EBM |
| 41D | |
| 42A | |
| 43D | |

# APP FIG. 24

RELAY

| DESIG | ONN | | ISE | | 2SA | | 3NA | | | | 4NE | | 5ST | | 6NT | | | | | | 7RN | | 8SP | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF520 | | AF520 | | AF520 | | AF520 | | | | AF520 | | AF520 | | AF520 | | | | | | AF520 | | AF520 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | M | 59A/H7 | M | 59A/G7 | M | 59A/E7 | | | M | 59A/F7 | M | 59A/G7 | M | 59A/F7 | | | | | M | 59A/G7 | M | 59A/G7 | 12 |
| 11 | M | - | M | 12IC5 | M | 121C5 | M | 12105 | | | M | 12C5 | M | 12185 | M | 12185 | | | | | M | 12185 | M | 12185 | 11 |
| 10 | M | - | M | 108C7 | M | 10887 | M | 10887 | | | M | 108C7 | M | 10887 | M | 10887 | | | | | M | 108C7 | M | 108C7 | 10 |
| 9 | M | - | M | 121E5 | M | 12105 | M | 12105 | | | M | 121E5 | M | 121E5 | M | 121F5 | | | | | M | 121F5 | M | 121F5 | 9 |
| 8 | M | 58C4 | M | - | M | 58C4 | M | 5304 | | | M | - | M | 58E4 | M | - | | | | | M | - | M | - | 8 |
| 7 | B | - | B | - | B | - | B | - | | | B | - | B | - | B | - | | | | | B | - | B | - | 7 |
| 6 | M | 2289 | M | 63C1 | M | 63C1 | M | 63D1 | | | M | 63C1 | M | 6381 | M | 6381 | | | | | M | 63E1 | M | 63D1 | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 58E3 | M | 58C3 | M | 5803 | M | 5803 | | | M | 58E3 | M | 58E3 | M | 5803 | | | | | M | 58F3 | M | 58F3 | 4 |
| 3 | M | 114B/E1 | M | 114B/E1 | M | 114B/E1 | M | 114B/E1 | | | M | 114B/E1 | M | 114B/E1 | M | 114B/E1 | | | | | M | 114B/E1 | M | 114B/E1 | 3 |
| 2 | M | 58F3 | M | 5883 | M | 58C3 | M | 5883 | | | M | 5883 | M | 58C3 | M | 58E3 | | | | | M | 58A3 | M | 5883 | 2 |
| 1 | M | - | M | 6084 | M | 6084 | M | 6084 | | | M | 60E4 | M | 60E4 | M | 60E4 | | | | | M | 60C4 | M | 60C4 | 1 |
| COIL | | 59A/H3 | | 59A/G3 | | 59A/G3 | | 59A/F3 | | | | 59A/E3 | | 5903 | | 59C3 | | | | | | 59A/C3 | | 5983 | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ONN | 59A/H3 | 185A |
| ISE | 59A/G3 | 185A |
| 2SA | 59A/G3 | 185A |
| 3NA | 59A/F3 | 185A |
| 4NE | 59A/E3 | 185A |
| 5ST | 5903 | 185A |
| 6NT | 59C3 | 185A |
| 7RN | 59A/C3 | 185A |
| 8SP | 5983 | 185A |
| GNP | 59A3 | 185A |
| LIN | 10889 | 185A |
| TIN | 108C9 | 185A |

RELAY

| DESIG | GNP | | | | LIN | | TIN | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF520 | | | | AF507 X | | AF507 X | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 59A/F7 | | | M | 66A4 | M | 66A4 | | | | | | | | | | | | | 12 |
| 11 | M | 121A5 | | | M | 78A/C5 | M | 78A/C5 | | | | | | | | | | | | | 11 |
| 10 | M | 108C7 | | | BM | 78A/C5 | BM | 78A/C4 | | | | | | | | | | | | | 10 |
| 9 | M | 121F5 | | | M | 66A4 | M | 66B4 | | | | | | | | | | | | | 9 |
| 8 | M | 29A/B9 | | | BM | - | BM | - | | | | | | | | | | | | | 8 |
| 7 | B | - | | | B | - | B | - | | | | | | | | | | | | | 7 |
| 6 | M | 63D1 | | | BM | - | BM | - | | | | | | | | | | | | | 6 |
| 5 | | | | | M | 66B4 | M | 66B4 | | | | | | | | | | | | | 5 |
| 4 | M | 58C3 | | | BM | - | BM | - | | | | | | | | | | | | | 4 |
| 3 | M | 36H7 | | | M | 66C4 | M | 66C4 | | | | | | | | | | | | | 3 |
| 2 | M | 58F3 | | | M | 66D4 | M | 66D4 | | | | | | | | | | | | | 2 |
| 1 | M | 6004 | | | M | 66E4 | M | 66D4 | | | | | | | | | | | | | 1 |
| COIL | | 59A3 | | | | 10889 | | 108C9 | | | | | | | | | | | | | COIL |

DRAWING ISSUE
65B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-C17
BELL TELEPHONE LABORATORIES, INC
SIZE 6S

# APP FIG. 25

RELAY

| DESIG | PCL1 | | | | | |
|---|---|---|---|---|---|---|
| CODE | AJ702 | | | | | |
| OPTION | L,ZF | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 24 | M | 22C7 | | | | |
| 23 | M | 22A8 | | | | |
| 22 | M | 22D2 | | | | |
| 21 | M | 58G3 | | | | |
| 20 | M | 48H0 | | | | |
| 19 | M | 122B/B8 | | | | |
| 18 | M | - | | | | |
| 17 | M | 16C3 | | | | |
| 16 | M | - | | | | |
| 15 | M | 83E5 | | | | |
| 14 | M | *8Hz | | | | |
| 13 | M | 16C1 | | | | |
| 12 | M | 888/B2 | | | | |
| 11 | M | 58C4 | | | | |
| 10 | M | 58D7 | | | | |
| 9 | M | 58B7 | | | | |
| 8 | M | 58B6 | | | | |
| 7 | M | 58G1 | | | | |
| 6 | M | 58C1 | | | | |
| 5 | M | - | | | | |
| 4 | M | 36B3 | | | | |
| 3 | M | 36F3 | | | | |
| 2 | M | 37C7 | | | | |
| 1 | M | 15C0 | | | | |
| COIL | | 22C7 | | | | |

RELAY

| DESIG | | | AMA3 | | AMA4 | | AMA5 | | | | PCCL | | PCL2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AJ501 | | AJ501 | | AJ501 | | | | AF523 | | AJ501 | | CODE |
| OPTION | | | | | M | | M | | | | L | | L,ZF | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EBM | a | EBM | | EBM | 36G4 | | | M | 888/D2 | EBM | - | 12 |
| 11 | | | EBM | 57B/B5 | EBM | 36E4 | EBM | 58B6 | | | | | EBM | - | 11 |
| 10 | | | EBM | b | EBM | 22G6 | EBM | - | | | BM | - | EBM | - | 10 |
| 9 | | | EBM | 57B/E3 | EBM | - | EBM | 29A/E7 | | | | | EBM | 16A7 | 9 |
| 8 | | | EMB | 57B/G2 | EMB | - | EMB | - | | | BM | 58H1 | EMB | 19A8 | 8 |
| 7 | | | EBM | 57B/F4 | EBM | 57A/D2 | EBM | - | | | | | EBM | - | 7 |
| 6 | | | EMB | 57B/G5 | EMB | - | EMB | 58G5 | | | BM | - | EMB | - | 6 |
| 5 | | | EMB | C | EMB | 29B/F3 | EMB | 58F2 | | | | | EMB | 109E7 | 5 |
| 4 | | | EBM | 4A/E1 | EBM | 29B/A3 | EBM | 58G1 | | | BM | J8D4 | EBM | 83E3 | 4 |
| 3 | | | EBM | 42D3 | EBM | 29A/E7 | EBM | 58B7 | | | | | EBM | 398/G5 | 3 |
| 2 | | | EBM | 43F1 | EBM | 29A/B1 | EBM | - | | | M | 58D4 | EBM | 36H4 | 2 |
| 1 | | | EBM | 43G1 | EBM | 29B/E1 | EBM | 58D6 | | | M | 58C4 | EBM | 41B/C3 | 1 |
| COIL | | | | 58B7 | | 58E7 | | 58E7 | | | | 58G0 | | 22C7 | COIL |

a
- (AV) 57B/A3, A9
- (LW) 57B/A3, A9
- (LY) 57B/A3

b 57B/B3, 58F2

c
- (LX) 57B/B9
- (PJ) 57B/B9
- (105) 114A/F1

RELAY

| DESIG | | | RN | | RNO | | RN1 | | RN2 | | RN4 | | RN7 | | | | RNK1 | | RNK2 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AF508 | | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | AF514 | | AF503 | | | | CODE |
| OPTION | | | M | | M | | M | | M | | M | | M | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | 59A/B6 | | | | | | | | | | | | | M | - | | | | | 12 |
| 11 | | | M | 49B/D1 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | M | 92A6 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | | | M | - | M | - | | | 10 |
| 9 | | | M | 9286 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | M | 58H1 | EBM | - | EBM | - | EBM | 58H4 | EBM | 58H5 | EBM | 58H5 | | | M | - | M | - | | | 8 |
| 7 | | | M | - | | | | | | | | | | | | | | | 3 | - | | | 7 |
| 6 | | | M | - | EBM | - | EBM | 58G4 | EBM | 58G4 | EBM | 58G4 | EBM | 58G5 | | | M | 36H5 | M | 36H4 | | | 6 |
| 5 | | | M | 58E3 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | M | 58C3 | EBM | 58G3 | EBM | 58G4 | EBM | 58G4 | EBM | 58G5 | EBM | - | | | M | 58A2 | M | 58A2 | | | 4 |
| 3 | | | M | 58C3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | M | 58B3 | | | | | | | | | | | | | M | - | M | - | | | 2 |
| 1 | | | M | 58A3 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | 58G0 | | 58B2 | | 58C2 | | 58D2 | | 58E2 | | 58F2 | | | | 58H6 | | 58G6 | | | COIL |

RELAY

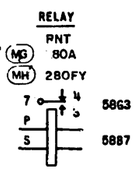
| DESIG | | | RNT1 | | RNT2 | | | | SCL0 | | [3]SCL2,3,5 | | | | MT57 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AF518 | | AF518 | | | | AF523 | | AF523 | | | | AK22 | | | | | | | | CODE |
| OPTION | | | | | | | | | L | | L | | | | ZSI | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EMB | 58H2 | EMB | | | | | | M | - | M | - | | | | | EBM | - | | | | | 12 |
| 11 | M | - | M | - | | | | | | | | | | | | | EBM | - | | | | | 11 |
| 10 | EBM | - | EBM | 58H3 | | | | | BM | - | BM | - | | | | | EBM | - | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | EMB | - | | | | | 9 |
| 8 | EBM | - | EBM | 58G1 | | | | | BM | - | BM | - | | | | | EMB | - | | | | | 8 |
| 7 | B | - | B | - | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 58C6 | EMB | 58G8 | | | | | BM | - | BM | 58H4 | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | EMB | - | | | | | 5 |
| 4 | EBM | 58B9 | EBM | 58B9 | | | | | BM | 58H4 | BM | 58H4 | | | | | EMB | - | | | | | 4 |
| 3 | M | - | M | - | | | | | | | | | | | | | EBM | - | | | | | 3 |
| 2 | EBM | 58G8 | EBM | - | | | | | M | - | M | - | | | | | EBM | 49B/H1 | | | | | 2 |
| 1 | M | 58G3 | M | - | | | | | M | - | M | - | | | | | EBM | 49B/G4 | | | | | 1 |
| COIL | | 58H2 | | 58G2 | | | | 58C5 | | 58D5 | | | | | | 79B7 | | - | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

| | |
|---|---|
| PNT | |
| (MG) | 80A |
| (MH) | 280FY |




CAPACITOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| | RNK2 | 58H6 | 441T |
| (N) | RNT | 58A8 | 437QA |
| (P) | RNT | 58A9 | 439QA |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| (MXJ) | AMA3 | 58D7 | 186A |
| (L) | PCCL | 58G0 | 185A |
| (ZF,L) | PCL2 | 22C7 | 185A |
| (M) | RN | 58G0 | 185A |
| (M) | RNO | 58B2 | 185A |
| (M) | RNI | 58C2 | 185A |
| (M) | RN2 | 58D2 | 185A |
| (M) | RN4 | 58E2 | 185A |
| (M) | RN7 | 58F2 | 185A |
| | RNK1 | 58H6 | 185A |
| | RNT1 | 58H2 | 185A |
| | RNT2 | 58G2 | 183A |
| | [4] SCL0,2,3,5 | 58C5 | 185A |

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| (M) | NT0B | 27E6 | 18FC |
| | RNT1 | 58B6 | 18AP |
| (N) | RNT2 | 58C8 | 19TF |
| (P) | RNT2 | 58C8 | 19RA |
| | RNT3 | 58B8 | 18BT |

DRAWING ISSUE

| | |
|---|---|
| 1 | * |
| 20 | BEC |
| 30 | |
| 50 | |
| 80 | |
| 90 | |
| 11B | |
| 12D | |
| 13B | |
| 18D | |
| 21D | |
| 22D | |
| 27A | |
| 28D | |
| 31D | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 36A | |
| 37D | |
| 39D | RP |
| 40A | |
| 43D | CB |
| 45D | |

DRAWING ISSUE

64A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C18

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

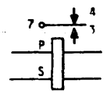
SD-26002-01-C18

# APP FIG. 26

RELAY

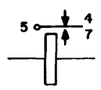
| DESIG | AD | | AVK1 | | BG | | CLG | | CLK | | CLT1 | | CLT2 | | GTL | | LLS | | LSC1 | | BGI | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AF515 | | AF506 | | AJ5C1 | | AF507 | | AF513 | | AF522 | | AF519 | | AJ12 | | AJ12 | | AF506 | | | | CODE |
| OPTION | YY | | | | | | XA | | | | XA | | XA | | | | TU | | TU | | ZXO | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | BM | - | M | 57A/G5 | EBM | - | M | - | EMB | 298/H1 | | | M | - | EBM | 4439 | EBM | 788/G5 | M | - | | | 12 |
| 11 | EBM | 58F6 | M | 44A6 | M | 57A/F4 | EBM | 57B/B4 | M | - | | | | | | | EBM | 4404 | EBM | 57A/B3 | M | - | | | 11 |
| 10 | EBM | - | BM | - | M | 37A7 | EBM | 298/B1 | 2M | 29A/B0 | EBM | - | M | - | M | 1H3 | EBM | 4405 | EBM | 1L3E6 | M | - | | | 10 |
| 9 | EBM | - | | - | M | 115B4 | EBM | 308/A7 | M | - | | | | | | | EBM | 4405 | EBM | 44E1 | M | - | | | 9 |
| 8 | EMB | 92E6 | BM | 114B/F8 | M | 1058/C7 | EMB | 298/H4 | BM | 36H9 | EBM | 29A/F2 | BM | - | BM | - | EBM | 4405 | EBM | 44B9 | M | - | | | 8 |
| 7 | EBM | - | B | 30A/B2 | M | 115F8 | EBM | - | B | - | | | | | B | 37D7 | EBM | 4405 | EBM | 4281 | M | - | | | 7 |
| 6 | EMB | 92D6 | BM | 36E3 | M | 298/H3 | 1B | 298/G2 | BM | 36E5 | EMB | - | BM | - | BM | - | EBM | 4405 | EBM | 31B6 | M | - | | | 6 |
| 5 | EMB | 92C6 | | | M | C | EMB | | M | - | | | | | | | EBM | 4405 | EBM | 1038Z | M | - | | | 5 |
| 4 | EBM | - | BM | 114A/E4 | M | 115A3 | EBM | 298/G1 | BM | 57B/H4 | EBM | 29A/C0 | M | 29A/C1 | M | 57B/G5 | EBM | 4405 | EBM | 43H0 | M | - | | | 4 |
| 3 | EBM | - | M | 37H1 | M | b | EBM | 30A/E9 | M | - | | | | | | | EBM | 4405 | EBM | 43F5 | M | - | | | 3 |
| 2 | EBM | - | BM | 43G2 | M | a | EBM | 308/A8 | M | - | EBM | 29B/G3 | | | M | 57B/A7 | EBM | 4405 | EBM | 43G5 | M | 115F4 | | | 2 |
| 1 | EBM | - | M | 1228/E7 | M | 1150B | EBM | 308/E8 | M | - | | | | | | | EBM | 4405 | EBM | 43G6 | M | 115D4 | | | 1 |
| COIL | | 92A8 | | 44A6 | M | 298/F8 | | 298/F0 | | 29A/A0 | | 298/H0 | | 298/G0 | | 57B/F0 | | 4402 | | 43A0 | | 29B/F8 | | | COIL |
| | | | | | a | 298/H6 308/E3 | | | | | | | | | | | | | | | | | | | |
| | | | | | b | 298/H6 30A/E4 | | | | | | | | | | | | | | | | | | | |
| | | | | | c | 298/H3 308/A5 | | | | | | | | | | | | | | | | | | | |

RELAY



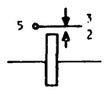

| (IX) AVK | (XA) CLT | (XB) CNK | (MG) OST | (MH) OST | (IX) SLK | (X3) TCC | (XB) TPYK |
|---|---|---|---|---|---|---|---|
| 290AS | 280A | 280AS | 280A | 280FY | 290JG | 290AS | 280AS |
| 44A7 | 298/F2 | 308/B2 | 57B/B2 | 57B/B2 | 44A6 | 30A/F2 | 308/F3 |
| 36H3 | 298/G4 | 308/A4 | 57A/F4 | 57A/F4 | 44G3 | 30A/E4 | 308/E4 |

RELAY




| (IY) SHK |
|---|
| 316A |
| 44E5 |
| 44E4 |

RELAY




| (IX) SHK | TMK |
|---|---|
| 280CU | 290AA |
| 44E5 | 36B7 |
| 44E4 | 30A/C4 |

RELAY

| (IY) AVK | (GB) CNK | (IY) SLK | (GB) TCC | (GB) TPYK |
|---|---|---|---|---|
| 316N | 316N | 316P | 316N | 316N |
| 44A7 | 308/B2 | 44A8 | 30A/F2 | 308/F3 |
| 36H3 | 308/A4 | 44G3 | 30A/E4 | 308/E4 |

RELAY

| DESIG | IMG | | NDI | | NDI | | NDK | | NCC | | NSO | | NSI | | | | OD | | CGC | | OSC | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF519 | | AF128 | | AF21 | | AF522 | | AF523 | | AF507 | | AF507 | | | | AJ503 | | AF506 | | AF521 | | | | CODE |
| OPTION | | | VQ | | VP | | | | XA | | | | | | | | YY | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | EBM | 96B8 | | | | | M | - | M | 29A/C2 | M | 42D3 | | | EBM | - | M | 43G2 | M | 43F5 | | | 12 |
| 11 | | - | EBM | 57B/F5 | | | | | | | M | 1641 | M | 1681 | | | EBM | 58F6 | M | 57B/E1 | M | 43E5 | | | 11 |
| 10 | M | 4502 | EBM | 47D3 | M | 47D3 | M | 109E8 | BM | - | BM | 37C9 | BM | 29A/B2 | | | EBM | 58E7 | M | 57B/G4 | M | 43E4 | | | 10 |
| 9 | | - | | | M | - | | | | | M | 30A/C3 | M | 0 | | | EBM | - | M | 57A/H7 | M | 43G2 | | | 9 |
| 8 | BM | 38E4 | EMB | 57A/B1 | EBM | 57B/F5 | BM | - | BM | 298/F3 | BM | 30A/D1 | BM | 1090G | | | EMB | 92C7 | M | 57A/H4 | BM | 83F1 | | | 8 |
| 7 | B | 109E8 | | | B | - | | | | | B | 30A/D2 | B | 39E3 | | | EBM | - | M | 58F1 | M | 43G6 | | | 7 |
| 6 | BM | - | EME | 31B/C1 | EMF | 31B/C1 | BM | 57B/F5 | BM | 36G5 | BM | 30A/E1 | BM | 103C1 | | | EMB | 92D7 | M | 1093A1 | BM | 41B/A1 | | | 6 |
| 5 | | | | | F | 38E2 | | | | | M | 44F4 | M | 2285 | | | EMB | 92C7 | M | 1093E4 | M | 44E2 | | | 5 |
| 4 | M | 45C1 | EBM | 1090D | M | 1090D | M | 29A/B2 | M | - | BM | 36B5 | BM | 97E4 | | | EBM | - | M | 36D5 | BM | 16A7 | | | 4 |
| 3 | | - | | | B | - | | | | | M | 3687 | M | 105A2 | | | EBM | - | M | 36D4 | M | 43F2 | | | 3 |
| 2 | M | - | EBM | 1090B | M | 1090B | | | M | 36C9 | B | 3MD2 | B | 36E4 | | | EBM | - | M | 44G3 | M | 43E2 | | | 2 |
| 1 | | - | EBM | 38E2 | | | | | M | - | M | 2285 | M | 42C3 | | | | | M | 36H4 | M | 43E1 | | | 1 |
| COIL | | 4501 | | 1090G | | 1090G | | 1090D2 | | 29A/C0 | | 42A4 | | 42C4 | | | | 9288 | | 42E1 | | 42D0 | | | COIL |
| | | | | | | | | | | | | | ZR | 29A/C2 | | | | | | | | | | | |
| | | | | | | | | | | | | | 146 | 114B/D3 | | | | | | | | | | | |

| CAPACITOR | | | |
|---|---|---|---|
| | DESIG | LOC | CODE |
| XA | CLT1 | 298/G6 | 437QA |
| XA | CLT2 | 298/G6 | 437QA |
| N | OST | 57A/G8 | 437QA |
| P | OST | 57A/F8 | 439QA |
| Q | SH1 | 44F3 | 437QA |
| Q | SH2 | 44F4 | 437QA |

| DIODE | | | |
|---|---|---|---|
| | DESIG | LOC | CODE |
| Q | SH | 44F3 | KS-15701-L3 |

| LAMP | | | |
|---|---|---|---|
| | DESIG | LOC | CODE |
| E | SA | 43G0 | 13J |

RELAY

| DESIG | OST1 | | OST2 | | OTT | | | | | | RSC | | | | SHKA | | SK | | SLK1 | | SLK2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF518 | | AF518 | | AF522 | | | | | | AJ503 | | | | AF519 | | AF519 | | AF523 | | AF521 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EMB | 66H8 | EMB | - | | | | | | | EBM | 66H7 | | | M | 44E5 | M | - | M | 44C6 | M | 44B8 | 12 |
| 11 | M | 62A/B5 | M | - | | | | | | | EBM | 29A/B0 | | | | | | | | | M | | 11 |
| 10 | EBM | 41B/A4 | EBM | 41B/A4 | M | 95A0 | | | | | EBM | 36H7 | | | M | 44F3 | M | 12303 | BM | - | M | 1228/B8 | 10 |
| 9 | | | | | | | | | | | EBM | 38C1 | | | | | | | | | M | 36G5 | 9 |
| 8 | EBM | - | EBM | 57B/G2 | BM | 36B4 | | | | | EMB | 84E5 | | | BM | - | M | 109E3 | BM | - | BM | 44F5 | 8 |
| 7 | B | 57A/G6 | B | 66H8 | | | | | | | EBM | 42C1 | | | B | 44F4 | B | 298/H2 | | | M | - | 7 |
| 6 | EMB | 57B/G5 | EMB | 57B/C2 | BM | 36E6 | | | | | EMB | 36F3 | | | BM | - | BM | 84E6 | BM | 44A7 | BM | 41B/B8 | 6 |
| 5 | | | | | | | | | | | EMB | 3608 | | | | | | | | | M | 88B/B2 | 5 |
| 4 | EBM | 57A/G4 | EBM | 57A/H6 | M | 109G3 | | | | | EBM | 57A/B4 | | | M | - | M | 36D5 | BM | 44E3 | BM | 44E1 | 4 |
| 3 | M | 57B/B2 | M | 57B/C6 | | | | | | | EBM | 57B/H4 | | | | | | | | | M | 70A/C3 | 3 |
| 2 | EBM | 57B/C3 | EBM | 57B/B7 | | | | | | | EBM | 57A/D4 | | | M | 7985 | M | 2H2 | M | - | M | 37H0 | 2 |
| 1 | M | 57B/A3 | M | 57B/B7 | | | | | | | EBM | 57B/E7 | | | | | | | M | 109C5 | M | 36D8 | 1 |
| COIL | | 57B/A8 | | 57B/B8 | | 109E8 | | | | | | 57B/G3 | | | | 44E5 | | 30A/C4 | | 44C0 | | 44B8 | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| YY | AD | 92A8 | 185A |
| | AVK1 | 44A6 | 185A |
| | BG | 298/F8 | 185A |
| ZXO | BGI | 29B/F8 | 185A |
| XA | CLG | 298/F0 | 185A |
| | CLK | 29A/A0 | 185A |
| XA | CLT1 | 298/H0 | 185A |
| | GTL | 57B/F0 | 186A |
| | LMG | 4501 | 185A |
| TU | LLS | 44G2 | 185A |
| | NDI | 10906 | 185A |
| | NDK | 1090D2 | 185A |
| XA | NOC | 29A/C0 | 185A |
| | NSO | 42A4 | 185A |
| | NSI | 42C4 | 185A |
| YY | OD | 9288 | 185A |
| | OGC | 42E0 | 185A |
| | OSC | 42C0 | 185A |
| | OST1 | 57B/A0 | 185A |
| | OST2 | 57B/B0 | 185A |
| | OTT | 109E9 | 185A |
| TU | RLT | 358/B5 | 185A |
| | RSC | 57B/G3 | 185A |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| SHKA | 44E5 | 185A |
| SK | 30A/C4 | 185A |
| SLK1 | 44C6 | 185A |
| SLK2 | 44B6 | 185A |
| SON | 42E0 | 185A |
| TG | 38E2 | 185A |
| TTK | 109F4 | 185A |
| TU TLS | 44H2 | 185A |

RELAY

| DESIG | SON | | | | TLS | | TG | | TGT | | TTK | | | | XSA | | | | | | RLT | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | | | AJ12 | | AF511 | | AF507 | | AF522 | | | | AF96 | | | | | | AF32 | | | | CODE |
| OPTION | | | | | TU | | | | | | | | | | E | | | | | | TU | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 44B7 | | | EBM | 4439 | | | M | 3783 | | | | | | | | | | | EMB | 1070I | | | 12 |
| 11 | M | 39B/G6 | | | EBM | 4404 | | | M | 3783 | | | | | | | | | | | | | | | 11 |
| 10 | M | 2285 | | | EBM | 4405 | M | 38F3 | BM | 3701 | M | 109F4 | | | | | | | | | EBM | 62A/D5 | | | 10 |
| 9 | M | 44B9 | | | EBM | 4405 | | | M | 42B2 | | | | | | | | | | | | | | | 9 |
| 8 | BM | 31B/B0 | | | EBM | 4405 | BM | 37B3 | BM | 1986 | BM | 3685 | M | 87C4 | | | | | | | EBM | 22A2 | | | 8 |
| 7 | M | 44F4 | | | EBM | 4405 | B | - | B | 80F2 | | | | | | | | | | | | | | | 7 |
| 6 | BM | 83E2 | | | EBM | 4405 | BM | - | BM | 1228/C8 | B4 | 36E6 | M | 86E5 | | | | | | | EMB | - | | | 6 |
| 5 | M | 43H1 | | | EBM | 4405 | | | M | 15H3 | | | | | | | | | | | | | | | 5 |
| 4 | BM | 0 | | | EBM | 4405 | M | - | BM | 43H7 | M | - | M | 86F2 | | | | | | | EBM | a | | | 4 |
| 3 | M | 43C1 | | | EBM | 4405 | | | M | 44F5 | | | | | | | | | | | | | | | 3 |
| 2 | M | 43E4 | | | EBM | 4405 | | | M | 1702 | | | | | | | | | | | EBM | b | | | 2 |
| 1 | M | 44F4 | | | EBM | 4405 | | | M | 83B4 | | | | | | | | | | | | | | | 1 |
| COIL | | 42E0 | | | | 44H2 | | 38E2 | | 3782 | | 109F4 | | P-43CC | | | | | | | | 358/B5 | | | COIL |
| | ZR | 29A/B2 | | | | | | | | | | | | S-87C4 | | | | | | | a | 35A/E7 99F5 | | | |
| | ZSM | 81D4 | | | | | | | | | | | | | | | | | | | b | 35A/E6 43F5 | | | |

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| | AVK1 | 36G3 | 16S |
| | AVK2 | 36H3 | 18BT |
| XA | CLT1 | 298/H4 | 18AP |
| XA | CLT2 | 298/H4 | 18DG |
| XA | CLT3 | 298/H5 | 18FL |
| XA | CLT4 | 298/G5 | 18BT |
| XB,GB | CNK1 | 308/A5 | 18S |
| XB,GB | CNK2 | 308/A5 | 18FD |
| | OST1 | 57A/F4 | 18AP |
| N | OST2 | 57A/G5 | 19TF |
| P | OST2 | 57A/H6 | 19RA |
| | OST3 | 57A/F7 | 18BT |
| | S | 43H7 | KS-13490,L3 33,000 |
| Q | SH | 44F5 | 18BA |
| XB,GB | TCC1 | 30A/E4 | 18S |
| XB,GB | TCC2 | 30A/E4 | 18FD |
| | TMK1 | 30A/C4 | 18FD |
| BH | TMK2 | 30A/D5 | 18S |
| BJ | TMK2 | 30A/D5 | 19GW |

RESISTOR (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| XB,GB TPYK1 | 30B/E5 | 18S |
| XB,GB TPYK2 | 30B/E5 | 18FD |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 2D | BLC |
| 3D | SSM SMP MM |
| 8D | JM |
| 9D | JM |
| 11B | AEM |
| 13B | AEM |
| 17D | WC |
| 18D | FVS |
| 21D | DEB LDP GHD |
| 22D | GEL LDP GHD |
| 23A | EN |
| 25D | JAT |
| 28D | SAW CLH |
| 30D | JEM |
| 31D | |
| 32A | WB CLH |
| 33D | WB CLH |
| 34A | KMT |
| 35D | KMT |
| 36A | WM |
| 37D | WM |
| 39D | RP |
| 40A | |
| 41D | |
| 43D | |
| 45D | |

REFURBISHED WITHOUT CHANGE 4-8-71

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C19

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

# PART OF APP FIG. 27

RELAY

| DESIG | AS8 | | | CDK0 | CDK1 | | GBA | GB8 | MT2 | OS0 | (4)OSI-4 | OSE | OSE1 | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF60 | | | AF51 | AF51 | | AF522 | AF522 | AF88 | AF519 | AF518 | AF507 | AF523 | CODE |
| OPTION | | | | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | M 43H0 | | | | | | | | H - | EMB - | EMB - | M 44A7 | M - | 12 |
| 11 | | | | | | | | | B 4383 | M 44A7 | M 44E1 | | | 11 |
| 10 | M - | | M - | M - | | | M - | M - | H - | EMB 44B1 | BM 43B4 | BM - | | 10 |
| 9 | | | | | | | | | B 4383 | | M 44C5 | | | 9 |
| 8 | M 4004 | | M - | M - | | | BM - | BM - | BM 43C3 | EBM 44D0 | EBM 44D0 | BM 43B4 | BM - | 8 |
| 7 | B 88D/B4 | | | | | | | | B 4303 | B - | B 44D0 | B 43C4 | | 7 |
| 6 | M 88C/F5 | | M 56C0 | M 56C0 | | | BM 42G7 | BM 42E7 | BM 4303 | EMB 43D2 | EMB 43B2 | BM 43C4 | BM 57B/C8 | 6 |
| 5 | | | | | | | | | B 43H1 | | | M - | | 5 |
| 4 | M 39B/G7 | | M 42D1 | M 42E4 | | | M 43G5 | M 43E5 | H 43H1 | EBM 43C1 | EBM 43C2 | BM 43D4 | BM 66G8 | 4 |
| 3 | | | | | | | | | B 42A6 | H 43C4 | M 43C4 | M 44B4 | | 3 |
| 2 | M 44G4 | | | | | | | | M 80A2 | EBM - | EBM - | M 42F6 | M 4303 | 2 |
| 1 | | | | | | | | | B 4286 | M 43G7 | M 43G7 | M 43E6 | M 44B4 | 1 |
| COIL | 43H0 | | 4284 | 42F4 | | | 43A5 | 4385 | 7906 | 43C3 | 43C3 | 44A6 | 43E4 | COIL |

RELAY

| DESIG | (5)OSG0-4 | | | | | |
|---|---|---|---|---|---|---|
| CODE | AJ700 | | | | | |
| OPTION | | | | | | |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC |
| 24 | M - | | | | | |
| 23 | M 42C6 | | | | | |
| 22 | M - | | | | | |
| 21 | M - | | | | | |
| 20 | M 105A1 | | | | | |
| 19 | M - | | | | | |
| 18 | M 81A4 | | | | | |
| 17 | M 88C/F5 | | | | | |
| 16 | M 88B/B3 | | | | | |
| 15 | M 5680 | | | | | |
| 14 | M 44G5 | | | | | |
| 13 | M 42C3 | | | | | |
| 12 | M - | | | | | |
| 11 | M 1228/B7 | | | | | |
| 10 | M 43F6 | | | | | |
| 9 | M 43E6 | | | | | |
| 8 | M 43B7 | | | | | |
| 7 | M 43A7 | | | | | |
| 6 | M 42F7 | | | | | |
| 5 | M 42E7 | | | | | |
| 4 | M 1228/C7 | | | | | |
| 3 | M 42A6 | | | | | |
| 2 | M 42E1 | | | | | |
| 1 | M 42E1 | | | | | |
| COIL | 4284 | | | | | |

RELAY

| DESIG | OSK | OSKA | | (2)SCBA0,1 | (2)SCBB0,1 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | AJ501 | | AF61 | AF61 | | | | CODE |
| OPTION | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | M 44B4 | EBM 44A6 | | | | | | | 12 |
| 11 | M - | EBM 39B/G4 | | B 42A7 | B 4287 | | | | 11 |
| 10 | BM - | EBM 42C6 | | | | | | | 10 |
| 9 | M 44G1 | EBM 42A6 | | B 42A7 | B 42C7 | | | | 9 |
| 8 | BM - | EMB - | | | | | | | 8 |
| 7 | B - | EBM - | | B 42A7 | B 42C7 | | | | 7 |
| 6 | BM 43H0 | EMB 43G7 | | | | | | | 6 |
| 5 | M 40E2 | EMB 66G8 | | B 4287 | B 42C7 | | | | 5 |
| 4 | BM - | EBM 43C8 | | | | | | | 4 |
| 3 | M 4306 | EBM 43A6 | | B 4287 | B 42D7 | | | | 3 |
| 2 | M - | EBM 4A/D1 | | | | | | | 2 |
| 1 | M 19C1 | EBM 88B/F2 | | | | | | | 1 |
| COIL | 4483 | 4305 | | 42G0 | 42G0 | | | | COIL |

# PART OF APP FIG. 27

RELAY

| DESIG | SIA | SIB | | SKA | SKB | | SSA | SSB | [3]TWT0-2 | [3] TWT0-2 | [2]TWT 3,4 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF527 | AF527 | | AJ512 | AJ512 | | AF507 | AF507 | AF44 | AF5 | AF5 | | CODE |
| OPTION | | | | | | | | | SA | SB | TD | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | | | | BM 43E4 | BM 43F4 | | M 44G1 | M 44G1 | | M - | M - | | 12 |
| 11 | | | | BM 1881 | BM 1881 | | M 44A2 | M 44A2 | | M - | M - | | 11 |
| 10 | M 43E6 | M 43F6 | | BM 83E3 | BM 83E4 | | BM 44B2 | BM 44B2 | 4 96F4 | M 96F4 | M 96G4 | | 10 |
| 9 | | | | BM - | BM - | | M 44B2 | M 44B2 | | M - | M - | | 9 |
| 8 | BM 43F5 | BM 43E5 | | BM 43F5 | BM 43E5 | | BM 44C2 | BM 44C2 | H 42D4 | M 42D4 | M 42D1 | | 8 |
| 7 | | | | BM 43A6 | BM 4386 | | B 36D5 | B 36D5 | | | | | 7 |
| 6 | BM 43H2 | BM 43H2 | | BM 44G1 | BM 44H0 | | BM 44C2 | BM 44C2 | H 42A2 | M 42A2 | M 42A2 | | 6 |
| 5 | | | | BM - | BM - | | M 44D2 | M 44D2 | | | | | 5 |
| 4 | M 83E3 | M 83F3 | | BM 42E6 | BM 42F6 | | BM 44D2 | BM 44D2 | N 39B/D6 | M 39B/D6 | M 39B/D6 | | 4 |
| 3 | | | | BM 4A/D1 | BM 4A/D1 | | M 44E2 | M 44E2 | | M 96G4 | M 96G4 | | 3 |
| 2 | | | | BM - | BM - | | M 44F2 | M 44E2 | | M 96F4 | M 96E4 | | 2 |
| 1 | | | | BM 43F6 | BM 43G6 | | M 44F2 | M 44F2 | | M - | M - | | 1 |
| COIL | 42A6 | 4286 | | 42G6 | 42E6 | | 44G0 | 44G0 | 4204 | 42D4 | 42D4 | | COIL |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| SM | 44D0 | 439A |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ASB | 43H0 | 185A |
| CDK0 | 4284 | 185A |
| CDK1 | 42F4 | 185A |
| GBA | 43A5 | 185A |
| GB8 | 4385 | 185A |
| [5] OS0-4 | 43C3 | 185A |
| OSE | 44A6 | 185A |
| OSE1 | 43E4 | 185A |
| [5] OSG0-4 | 4284 | 185A |
| [5] OSGA0-4 | 42E7 | 177K |
| [5] OSGB0-4 | 42F7 | 177K |
| OSK | 44B3 | 185A |
| OSKA | 43D5 | 185A |
| S | 43H7 | ½ 177C |
| SIA | 42A6 | 185A |
| SI8 | 4286 | 185A |
| SKA | 42G6 | 185A |
| SK8 | 42E6 | 185A |
| SSA | 44G0 | 185A |
| SS8 | 44G0 | 185A |
| STA | 43F6 | ½ 177C |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| ST8 | 43G6 | ½ 177C |
| [3] TWT0-2 | 4204 | 185A |
| (TD) [2] TWT3,4 | 4204 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| SM | 44D1 | KS-13490,L3 33,000 |
| SM10 | 44D0 | KS-13490,L2 100 |
| STA | 43E6 | KS-13490,L3 33,000 |
| ST8 | 43F6 | KS-13490,L3 33,000 |

# APP FIG. 28

RELAY

| DESIG | [5]OSG5-9 | | | | | |
|---|---|---|---|---|---|---|
| CODE | AJ700 | | | | | |
| OPTION | | | | | | |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC |
| 24 | M - | | | | | |
| 23 | M 42C7 | | | | | |
| 22 | M - | | | | | |
| 21 | M - | | | | | |
| 20 | M 105A1 | | | | | |
| 19 | M - | | | | | |
| 18 | M 81A4 | | | | | |
| 17 | M 88C/F5 | | | | | |
| 16 | M 88B/B3 | | | | | |
| 15 | M 5680 | | | | | |
| 14 | M 44G5 | | | | | |
| 13 | M 42C3 | | | | | |
| 12 | M - | | | | | |
| 11 | M 1228/B7 | | | | | |
| 10 | M 43F6 | | | | | |
| 9 | M 43E6 | | | | | |
| 8 | M 43B7 | | | | | |
| 7 | M 43A7 | | | | | |
| 6 | M 42F7 | | | | | |
| 5 | M 42E7 | | | | | |
| 4 | M 1228/C7 | | | | | |
| 3 | M 42A6 | | | | | |
| 2 | M 42E1 | | | | | |
| 1 | M 42E1 | | | | | |
| COIL | 4284 | | | | | |

RELAY

| DESIG | [2]SCBA2,3 | [2]SCBB2,3 | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|
| CODE | AF61 | AF61 | | | | | | | CODE |
| OPTION | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | | | | | | | | | 12 |
| 11 | B 42A7 | B 4287 | | | | | | | 11 |
| 10 | | | | | | | | | 10 |
| 9 | B 42A7 | B 42C7 | | | | | | | 9 |
| 8 | | | | | | | | | 8 |
| 7 | B 42A7 | B 42C7 | | | | | | | 7 |
| 6 | | | | | | | | | 6 |
| 5 | B 42A7 | B 42C7 | | | | | | | 5 |
| 4 | | | | | | | | | 4 |
| 3 | B 4287 | B 4207 | | | | | | | 3 |
| 2 | | | | | | | | | 2 |
| 1 | | | | | | | | | 1 |
| COIL | 42G0 | 42G0 | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [5] OSG5-9 | 4284 | 185A |
| [5] OSGA5-9 | 42E7 | 177K |
| [5] OSGB5-9 | 42F7 | 177K |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 2D | AJFO |
| 3D | AJFO |
| 8D | FO |
| 18D | A |
| 21D | CB |
| 22D | CB |
| 24D | CB |
| 25D | CB |
| 28D | CB |
| 30D | CB |
| 32A | CB |
| 33D | C |
| 34A | |
| 35D | |
| 37D | CB |
| 39D | RP |
| 41D | CB |
| 43D | D |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

ISSUE 653

SD-26002-01-C20

6S

# APP FIG. 29

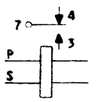
RELAY

| DESIG | BX | | | | ONX | | | | TX | | | | XACH | | XALS | | XAF | | XAJC | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | | | AF508 | | | | AJ12 | | | | AF51 | | AF51 WX,UL | | AF51 | | AF51 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 13D2 | | | M | 32F2 | | | E8M | 48E0 | | | | | | | | | | | 12 |
| 11 | M | – | | | M | 32F5 | | | E8M | – | | | | | | | | | | | 11 |
| 10 | BM | 34A/C9 | | | M | 32G0 | | | E6M | 49B/B1 | M | – | M | – | M | – | M | – | | | 10 |
| 9 | M | 6B/C8 | | | M | 32E1 | | | E8M | 48D0 | | | | | | | | | | | 9 |
| 8 | BM | 32H1 | | | M | 87C3 | | | E8M | – | M | 87A3 | M | 87F8 | M | 87F3 | M | 87F3 | | | 8 |
| 7 | B | a | | | M | 4A/G4 | | | E8M | – | | | | | | | | | | | 7 |
| 6 | BM | 32H1 | | | M | 44E1 | | | E8M | – | M | 86A6 | M | 86G6 | M | 86B6 | M | 86AB | | | 6 |
| 5 | M | 39A/F3 | | | M | 78A/D2 | | | E8M | – | | | | | | | | | | | 5 |
| 4 | BM | 99B7 | | | M | 78A2 | | | E8M | – | M | 86B3 | M | 86A3 | M | 86B3 | M | 86C3 | | | 4 |
| 3 | M | 34A/C8 | | | M | 32G1 | | | E8M | – | | | | | | | | | | | 3 |
| 2 | M | 91B1 | | | M | 78A/G1 | | | E8M | – | | | | | | | | | | | 2 |
| 1 | M | 12C5 | | | M | 44A0 | | | E8M | 20B/H5 | | | | | | | | | | | 1 |
| COIL | | 86E0 | | | | 87E0 | | | | 87H8 | | 87G2 | | 87B8 | | 87F2 | | 87F2 | | | COIL |
| | a | 35A/D2 99F2 | | | | | | | | | | | | | | | | | | | |

RELAY

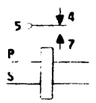
| DESIG | XAJG | | | | XAJS | | XALC | | XALR | | XARS | | | | | | XATS | | XAVGB | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF51 | | | | AF111N | | AF51 | | AF51 | | AF51 | | | | | | AF51 | | AF51 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | – | | | M | – | M | – | M | – | M | – | | | | | M | – | M | – | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 87F9 | | | BM | 87D2 | M | 87D3 | M | 87F9 | M | 87A3 | | | | | M | 97C3 | M | 87B6 | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 86D6 | | | BM | 86C6 | M | 86D7 | M | 86C8 | M | 86A6 | | | | | M | 86G8 | M | 86F6 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 86C3 | | | M | 86C3 | M | 86C3 | M | 86D3 | M | 86C2 | | | | | M | 86E3 | M | 86D3 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | B | 34C/A2 | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 87F8 | | | | 87D2 | | 87D2 | | 87F8 | | 87A2 | | | | | | 87C2 | | 87B6 | | | COIL |

RELAY (GC) XCS 280AP; (WX) XCS 280BR; (IX) XF 280AF; (IX) XFTN 280BE; (IX) XFUN 280BE; (IX) XJC 280BJ; (IX) XJG 280AF; (IX) XJS 280AF; (IX) XLC 280BJ; (IX) XLR 280AF; (IX) XT1 280AP; (IX) XT2 28CAP; (IX) XT3 280AP; (IX) XTS 280AF




| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100B/D7 | 87B8 | 87E2 | 62A/F4 | 62A/E3 | 87F1 | 87F8 | 87D2 | 87D1 | 87F8 | 87D3 | 87D4 | 87D5 | 87C2 |
| | 101G8 | 6B/C8 | 91A0 | 62A/G4 | 62A/F4 | 13D1 | 13D6 | 32F1 | 34A/D8 | 12C5 | 48E0<br>48E0 | 49B/B0 | 48D0<br>48D0 | 32E5 |

RELAY (GD) XCS 314T; (IY) XF 316C; (IY) XFTN 316L; (IY) XFUN 316L; (IY) XJC 316U; (IY) XJG 316R; (IY) XJS 316R; (IY) XLC 316U; (IY) XLR 316R; (IY) XT1 316T; (IY) XT2 316T; (IY) XT3 316T; (IY) XTS 316R




| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100B/D7 | 87E2 | 62A/F4 | 62A/E3 | 87F1 | 87F8 | 87D2 | 87D1 | 87F8 | 87D4 | 87D4 | 87D4 | 87C2 |
| | 101G8 | 91A0 | 62A/G4 | 62A/F4 | 13C1 | 13D6 | 32F1 | 34A/D8 | 12C5 | 48E0<br>48E0 | 49B/B0 | 48D0<br>48D0 | 32E5 |

RELAY XCH S514

87G2

33A/H1

RELAY

| XRS1 | XRS2 | (VA) XVGB | (WZ) XVGB |
|---|---|---|---|
| S533 | S533 | S68 | S65 |
| 87B1 | 87B0 | (ZVH) 87B7<br>(160) 106C4 | (ZVH) 87B7<br>(160) 106C4 |
| 78A/B2 | 78A/F2 | 6A/E3 | 6A/E3 |

RELAY

| DESIG | XRS3 | | XRS4 | | | | | | XT5 | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF95 | | AF96 | | | | | | AF114 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | M | – | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 87B4 | M | 87C4 | | | | | BM | 87D4 | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 86D5 | M | 86E5 | | | | | BM | 86F5 | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 86E0 | M | 86F0 | | | | | M | 86F2 | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | B | 57A/G2 | | | | | | | | | | | 1 |
| COIL | | 78A/B9 | | 78B/C9 | | | | | | 87E3 | | | | | | | | | | | COIL |
| | | S-87B4 | | S-87C4 | | | | | | | | | | | | | | | | | |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| XRS3 | 78B9 | ~~KS-13368,L3,.01uf~~ |
| XRS4 | 78B/D9 | KS-13368,L29,.01 |
| XVGB | 6A/E3 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| BX | 86E0 | 185A |
| ONX | 87E0 | 185A |
| (ZOT) XJSA | 32F1 | 186A |
| (ZLA) XCS | 6B/C8 | 185A |
| XF | 91B0 | |
| XJC | 13C0 | |
| XJC | 13D1 | |
| (ZMM) XJG | 13D6 | |
| XJS | 32G1 | |
| XLC | 34A/D8,D9 | |
| XLR | 12C5 | |
| XTS | 32E5 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (IX) F | 91A0 | 180S |
| (IX) JC | 13D0 | 19SR |
| JG | 13D5 | 18CP |
| JS | 32G0 | 18BM |
| (ZOR) JSB | 32G0 | ~~221A~~,KS-20810,L1A,4990 |
| (IX) LC | 34A/D8 | 19SR |
| LR | 12C4 | 18AU |
| LR1 | 12C4 | 19FP |
| LR2 | 12D4 | 18JP |
| (IX) TS | 32F6 | 18HA |
| (IY) TS | 32F6 | 19SR |
| (WX) XCS | 6B/C9 | ~~145A~~,KS-20810,L1A,~~3880~~,4990 |
| (ZPX,ZPY) XSS | 44A0 | 18AG |
| (ZPE) XFTN | 62A/G5 | 18EJ |
| (ZPD) XFTN | 62A/G5 | 18GF |
| XFUN | 62A/H5 | 18EJ |
| (IY) F | 91A0 | 18JU — 1920 |
| (IY) JC | 13C0 | 18GE |
| (IY) LC | 34A/D9 | 18GE |
| (ZOT) XJSA | 32F1 | KS-19150,L1,33000 |

DRAWING ISSUE

| | |
|---|---|
| 11 | – FJB |
| 20 | B&C – |
| 50 | N/P N/P |
| 118 | N/P V&N |
| 170 | B&C B&C |
| 180 | PVS |
| 210 | U&P A-D |
| 220 | MLT U&P AND |
| 240 | EN E&M AND |
| 250 | DS U&D AND |
| 27A | L.EN CLK AND |
| 280 | L.EN CLK AND |
| 29A | L.EN CLK AND |
| 300 | L.EN CLK AND |
| 310 | L.EN CLK AND |
| 330 | L.EN CLK AND |
| 350 | CK G.AL AND |
| 38A | MEL |
| 390 | MEL |
| 430 | OB |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C21

BELL TELEPHONE LABORATORIES, INC SIZE 6S

PRINTED IN U.S.A.

# APP FIG. 30

RELAY

| DESIG | | COX | | MXT | PRLLA | STX | | XAFT | XBT | XCKR | XCL | XCLC | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AF813 | | AF82 | AJ12 | AJ602 | | AF51 | AF71 | AF71 | AF97 | AJ510 | CODE |
| OPTION | | | | | IN | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EMB | 87E0 | M | 87C0 | EBM | 13E6 | EBM | - | | | | | | | | | 12 |
| 11 | | | | | | | EBM | - | EBM | 0 | | | | | | | | | 11 |
| 10 | | | EBM | 87C1 | BM | 30B/D5 | EBM | - | EBM | 104A/09 | 4 | - | M | - | M | - | | | 10 |
| 9 | | | | | | | EBM | - | EBM | 15H4 | | | | | | | | | 9 |
| 8 | | | EBM | 86G1 | BM | 86A6 | EBM | - | EMB | 8680 | M | 87E8 | M | 87A8 | M | 87C6 | M | 87G4 | 8 |
| 7 | | | | | | | EBM | 86B/C6 | | | | | | | | | | | 7 |
| 6 | | | EMB | 87F1 | BM | 117A2 | EBM | 88A/E6 | EMB | 82A1 | M | 86F6 | M | 86B8 | M | 86D8 | M | 86A8 | 6 |
| 5 | | | | | | | EBM | 88A/C7 | | | | | | | | | | | 5 |
| 4 | | | EBM | 141A6 | BM | 30A/B8 | EBM | 4B/E3 | EBM | 87B1 | M | 86F3 | M | 86E3 | M | 86C2 | M | 86A2 | 4 |
| 3 | | | | | | | EBM | 88C/G2 | EBM | - | | | | | | | | | 3 |
| 2 | | | EBM | 37H8 | M | 39G3 | EBM | 88B/A2 | EBM | b | | | M | - | M | - | | | 2 |
| 1 | | | | | M | 37H8 | EBM | 4B/C1 | EBM | 33A/H2 | | | | | | | | | 1 |
| COIL | | | | 87C0 | | 86F0 | | 48/C1 | | 8680 | | 87E8 | | P-3983 | | P-99AG | | P-47A0 | COIL |
| | | | | | | | | | a 110H7 1148/03 | | | | | S-87A8 | | S-87C6 | | S-87B6 | |
| | | | | | | | | | (ZZQ) 82A1 | | | | | | | | | | |
| | | | | | | | | | b (ZZP) 136G4 | | | | | | | | | | |

| DESIG | | XCR | | XDL | | XHG | | XLG | | XLO | | XLS | | XLV | | XMRL | | XN | | XN | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AF97 | | AF97 | | AF104 | | AF102 | | AF71 | | AF98 | | AF97 | | AF71 | | AF81 | | AF96 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | YF | | YG | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | H | - | | | | | M | - | M | - | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 87A3 | M | 87F4 | M | 87C3 | M | 87e3 | M | 87E9 | | | M | 87A8 | M | 8788 | M | 87F6 | M | 63G4 | M | 63G4 | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 86F6 | M | 86B8 | M | 86C6 | M | 86E6 | M | 8685 | | | M | 86G8 | M | 86E6 | M | 86F9 | M | 86C5 | M | 86C5 | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 8682 | M | 8682 | M | 8682 | M | 8603 | M | 86C2 | | | M | 86E3 | M | 8603 | M | 8602 | M | 8602 | M | 86D2 | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | M | - | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | P-45E0 | | P-47D0 | | P-6H2 | | P48/F4 | | P-1H5 | | | | P-32D0 | | P-32G7 | | P-39C3 | | 63G5 | | P-108G0 | COIL |
| | | S-87A2 | | S-87F4 | | S-8782 | | S-8782 | | S-87E8 | | | | S-87A8 | | S-8788 | | S-87F8 | | | | S-63G5 | |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| ~~XHG~~ | ~~6A/H3~~ | ~~KS-18868, L3 .01uF~~ |
| ~~XLG~~ | ~~48/G3~~ | KS-13368, L29, .01uF |
| ~~XPG~~ | ~~11A4~~ | ~~KS-13368, L29, .01uF~~ |
| (ZJB) XT | 42B4 | KS-13368, L29, .01uF |

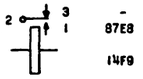
NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| (IN) PRLLA | 48/C1 | 185A |
| STX | 86B0 | 185A |
| XTB1 | 18A7 | 185A |

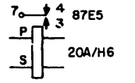
RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (MK,XP) XTA | 20A/H5 | 19UF |

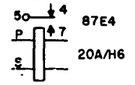
RELAY XFT S504




RELAY (XP) XTA 280BJ




RELAY (MK) XTA 316U




RELAY

| DESIG | | XPG | | XPT | | XRL | | XS | | XRC | | XSL | | XSS | | | | XTB1 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AF96 | | AJ610 | | AF71 | | AF98 | | AJ73 | | AF12 | | AF96 | | | | AF103 | | | | CODE |
| OPTION | | | | | | | | | | SC | | | | ZPW | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | M | - | H | - | EM | - | | | | | | | | | 12 |
| 11 | | | | | | | | | | | H | | M | - | | | | | | | | | 11 |
| 10 | | | | | M | - | | | M | 42A2 | H | - | M | - | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | M | - | | | | | | | | | 9 |
| 8 | M | 87E8 | M | 87A4 | M | 87B4 | M | 87C4 | M | 87H6 | BM | 34C/A2 | EBM | - | | | | | M | 87D8 | | | 8 |
| 7 | | - | B | - | | | | | | | | | B | 44H3 | | | | | | | | | 7 |
| 6 | M | 86A8 | M | 86D8 | M | 86E8 | M | 8685 | M | 86E5 | BM | - | EMB | 44A0 | | | | | M | 86F5 | | | 6 |
| 5 | | - | B | - | | | | | | | | | B | - | | | | | | | | | 5 |
| 4 | M | 86E3 | M | 86D2 | M | 86E2 | M | 86E2 | M | 86A2 | H | 87C8 | M | 86F2 | | | | | M | 8662 | | | 4 |
| 3 | | | | | | | | | | | M | - | M | 86E5 | | | | | | | | | 3 |
| 2 | | | | | M | - | | | M | 77D1 | M | 8662 | M | - | | | | | | | | | 2 |
| 1 | | | | | | | | | | | M | 34C/H0 | M | - | | | | | | | | | 1 |
| COIL | | P-11A9 | | A | | P-38D2 | | P-43H5 | | P-77H0 | | 34A/A3 | | 44A0 | | | | P-48H6 | | | | COIL |
| | | S-8708 | | P-59A/A5 a S-87A4 | | S-87A4 | | S-87C4 | | S-87H7 | | S-87C8 | | | | | | S-8708 | | | | |

RELAY

| DESIG | | XTG1 | | XTRK | | XTRL | | XTS1 | | OTF | | | | XT | | | | XSS | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AF71 | | AF71 | | AF71 | | AF71 | | AJ12 | | | | AJ510 | | | | AJ157 | | | | CODE |
| OPTION | | | | | | | | | | AH | | | | | | | | ZPX | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | EBM | 79B4 | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | EBM | 38C4 | | | | | | | | | | | | | 11 |
| 10 | H | - | H | - | H | - | H | - | EBM | 79D5 | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | EBM | 10985 | | | | | | | | | | | | | 9 |
| 8 | H | 8788 | H | 87C8 | H | 87C8 | H | 87D8 | EBM | 3885 | | | | M 87E5 | | | | M d6E5 | | | | | 8 |
| 7 | | | | | | | | | EBM | 38A3 | | | | B 60A3 | | | | B 44H3 | | | | | 7 |
| 6 | H | 86A6 | H | 86C8 | H | 86E8 | H | 86A6 | EBM | 38A3 | | | | M 86F8 | | | | M 87H3 | | | | | 6 |
| 5 | | | | | | | | | EBM | 22B3 | | | | B b | | | | B 44A0 | | | | | 5 |
| 4 | H | 86A3 | H | 86F3 | H | 86F3 | H | 86F3 | EBM | 36G3 | | | | M 86F2 | | | | M 86F2 | | | | | 4 |
| 3 | | | | | | | | | EBM | 2200 | | | | | | | | | | | | | 3 |
| 2 | H | - | H | - | H | - | H | - | EBM | 4A/G0 | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | EBM | 79C5 | | | | | | | | | | | | | 1 |
| COIL | | P-1886 | | P-22C4 | | P-38C3 | | P-32E5 | | 79A4 | | | | a | | | | P-4390 | | | | | COIL |
| | | S-8788 | | S-87C8 | | S-87C8 | | S-8708 | | | | | | P- (XO) 20A/G6 (ZJB) 4284 a S-87E4 (XO) 24A/C0 b (ZJB) 42D0 | | | | S-87H3 | | | | |

# APP FIG. 31

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| (ZPJ) CON | 35A/A2,99E1 | 13J |
| (ZPK) CON | 35A/A2,99E1 | 13D |
| F | 91A0 | 13J |
| FN | 70E0 | 13J |
| HBS | 87B0 | 13J |
| HG | 6A/G3 | 13J |
| HGB | 6A/G3 | 13J |
| JC | 13D0 | 13J |
| JG | 13G5 | 13J |
| JS | 32F0 | 13J |
| LBS0 | 4A/B5 | 13J |
| LBS1 | 4A/B5 | 13J |
| (CJ) LBS2 | 4A/C5 | 13J |
| ~~LF~~ | ~~34A/E9~~ | ~~13J~~ |
| (ZKV) LF | 1038/C7 | 13J |
| LFS | 4A/H0 | 13J |

LAMP (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| LG | 4B/G3 | 13J |
| LOB | 4A/H4 | 13J |
| LR | 12C4 | 13J |
| LS | 32F0 | 13J |
| LSA | 32E0 | 13J |
| LV | 32G7 | 13J |
| MA | 43E0 | 13J |
| MB | 43E0 | 13J |
| MC | 43F0 | 13J |
| (NH) MPP | 4B/C2 | 13J |
| NBS1 | 62A/A7 | 13J |
| NBS2 | 62A/A7 | 13J |
| NBS3 | 62A/B7 | 13J |
| NBS4 | 62A/B7 | 13J |
| NGB | 8600 | 13J |
| ~~NGNB~~ | ~~62A/E5~~ | ~~13J~~ |
| NGS | 61D9 | 13J |

LAMP (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| OSA | 43E4 | 13J |
| OSB | 43F4 | 13J |
| PN | 10A0 | 13J |
| (ZE) PNA | 10B0 | 13J |
| S | 43H5 | 13J |
| SAM | 43F0 | 13J |
| SBM | 43F0 | 13J |
| SCM | 43C0 | 13J |
| SH | 44H5 | 13J |
| SKA | 42E6 | 13J |
| SKB | 42F8 | 13J |

LAMP (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| SLCK | 6581 | 13J |
| (QF) SMB | 44E1 | 13J |
| (QG) SMB | 44E1 | 13A |
| SMBA | 44E1 | 13A |
| (ZPX) SMBA | 44E1 | 13J |
| TB | 18A7 | 13J |
| TBS | 68A0 | 13J |
| TBS0-4 | 16E6 | 13J |
| (ZYM) TBS5 | 16F6 | 13J |
| TFS | 16A1 | 13J |
| TSM | 32F7 | 13J |
| TXP | 34A/H7 | 13J |
| (ZE) TXPI | 34A/H7 | 13J |
| UBS | 69B0 | 13J |
| VGB | 6A/E4 | 13J |
| WF | 70C0 | 13J |
| WG | 70B0 | 13J |
| WL | 70A0 | 13J |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 20 | 65C |
| 50 | 65P |
| 90 | 65P |
| 11B | CM 65B |
| 13B | A62 65B |
| 17D | 65B |
| 18D | 65B |
| 21D | SGB 65P AMD |
| 22D | DSP AMD |
| 24D | EN DSM AMD |
| 25D | BB AMD |
| 27A | L MUL CLK AMD |
| 28D | LPM CLK AMD |
| 30D | JEM AMD |
| 31D | JEM AMD |
| 32A | LP CLK AMD |
| 33D | LP AMD |
| 34A | CK GOL AMD |
| 35D | CK GOL AMD |
| 37D | AMD |
| 38A | MEL |
| 39D | MEL |
| 41D | |
| 42A | |
| 43D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C22

BELL TELEPHONE LABORATORIES, INC 65

SD-26002-01-C22

# APP FIG. 32

RELAY

| DESIG | FAC | | INC | | OR | | | | PCR | | | | RP | | SCCK | | SCCK | | TAN | | | | TOL | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | | | AF42 | | | | AJ501 | | AF515 | | AJ512 | | AJ503 | | | | AJ503 | | CODE |
| OPTION | | | | | | | | | L | | | | | | ZHZ | | ZYA | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | | | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 24A/D2 | EBM | - | EBM | 24A/D0 | | | EMB | 24A/E4 | | | EBM | 7D2 | BM | 20A/A7 | BM | 20A/A7 | EBM | - | | | EBM | a | 12 |
| 11 | EBM | 24A/E0 | EBM | 24A/E1 | EBM | 24A/E8 | | | M | 24A/H9 | | | EBM | - | M | 8H1 | BM | 8H1 | EBM | 24A/E2 | | | EBM | 96C6 | 11 |
| 10 | EBM | 24A/E8 | EBM | 41A/A7 | EBM | 57B/G2 | | | EBM | 24A/E3 | | | EBM | 7C7 | BM | 318/B2 | BM | 318/B2 | EBM | 41A/B0 | | | EBM | 41A/A0 | 10 |
| 9 | EBM | 24A/F8 | EBM | 24A/E1 | EBM | 28A/C1 | | | | | | | EBM | 7C7 | | | BM | 10181 | EBM | 24A/E2 | | | EBM | 24A/E1 | 9 |
| 8 | EMB | 57B/G2 | EMB | 22F8 | EMB | 96A4 | | | EBM | 41B/C4 | | | EMB | - | BM | 8G6 | BM | 8G6 | EMB | - | | | EMB | 3686 | 8 |
| 7 | EBM | 22B4 | EBM | - | EBM | 22B6 | | | B | 88B/F2 | | | EBM | - | B | - | BM | 83E9 | EBM | - | | | EBM | 96A6 | 7 |
| 6 | EMB | 24C/H1 | EMB | 24C/F1 | EMB | 24C/H1 | | | EMB | 24A/E3 | | | EMB | - | BM | 8H1 | BM | 8H1 | EMB | 24C/F1 | | | EMB | 24C/G1 | 6 |
| 5 | EMB | 21B/D6 | EMB | 22D5 | EMB | 24C/B6 | | | | | | | EMB | 30B/G7 | | | BM | 12OC5 | EMB | 22E5 | | | EMB | 22E5 | 5 |
| 4 | EBM | 27F2 | EBM | - | EBM | 27E2 | | | EBM | 57A/B1 | | | EBM | 122B/H2 | BM | 21B/G2 | BM | 21B/G2 | EBM | 24A/F6 | | | EBM | 96A5 | 4 |
| 3 | EBM | 27.2 | EBM | - | EBM | 88A/B3 | | | M | - | | | EBM | - | M | 8A1 | BM | 8A1 | EBM | 21B/A6 | | | EBM | 21B/B8 | 3 |
| 2 | EBM | 24A/A8 | EBM | 21B/F3 | EBM | 24A/A8 | | | EBM | 2396 | | | EBM | 29A/C5 | BM | 21B/G2 | BM | 21B/G2 | EBM | 21B/F4 | | | EBM | 21B/F4 | 2 |
| 1 | EBM | 21B/A6 | EBM | 21B/F1 | EBM | 21B/A6 | | | M | 22C5 | | | EBM | 29A/B3 | M | 880 | BM | 880 | EBM | 21B/F1 | | | EBM | 21B/F0 | 1 |
| COIL | | 21A/A8 | | 21A/E9 | | 21A/A8 | | | | 21A/E9 | | | | 7D2 | | 7A9 | | 7A9 | | 21A/B8 | | | | 21A/D8 | COIL |

a (CM) 24A/F7
(UJ) 24A/E2

RELAY

| DESIG | TP | | TRF | | PCDO | | PCD1 | | TCCK | | TCCK | | RO | | RO | | INI | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ503 | | AF42 | | AF42 | | AF515 | | AJ512 | | AF90 | | AJ503 | | AJ503 | | | | | | | | CODE |
| OPTION | | | PW | | L | | L | | CD | | FO | | AY | | A2 | | 7"K | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 7D2 | EBM | 7G3 | EMB | 24A/E5 | EMB | 24A/E4 | BM | 20A/H3 | BM | 20A/H3 | | | EBM | | EBM | 105A3 | | | | | | | 12 |
| 11 | EBM | - | EBM | 7C7 | M | 24A/G9 | M | 24A/G9 | M | 22F5 | BM | 22E5 | | | EBM | | EBM | 105D1 | | | | | | | 11 |
| 10 | EBM | 7C7 | EBM | 21B/F6 | EBM | - | EBM | - | BM | a | BM | b | | | EBM | | EBM | 28A/D5 | | | | | | | 10 |
| 9 | EBM | 7C7 | EBM | a | | | | | | | BM | 20A/E8 | | | | | EBM | 1228/E8 | EBM | 115E9 | | | | | 9 |
| 8 | EMB | - | EMB | 7C3 | EBM | 41B/C5 | EBM | 41B/C4 | BM | 8H0 | BM | 8H0 | M | 78B/H3 | EMB | 73H4 | EMB | 78A/B7 | | | | | | | 8 |
| 7 | EBM | - | EBM | 24A/G8 | B | 24A/E2 | B | 24A/E2 | B | 8H0 | BM | 8H0 | B | 24A/F8 | EBM | 24A/F3 | EBM | 113H1 | | | | | | | 7 |
| 6 | EMB | 30B/F7 | EMB | - | EMB | 24A/E2 | EMB | 24A/E2 | BM | 8H6 | BM | 8H6 | EBM | 20A/G6 | EMB | 20A/G6 | EMB | - | | | | | | | 6 |
| 5 | EMB | 30B/E6 | EMB | 28B/A0 | | | | | | | BM | a | B | 24A/G8 | EMB | 24A/G2 | EMB | 113H6 | | | | | | | 5 |
| 4 | EBM | 22B/H2 | EBM | 115G7 | EBM | 88B/F1 | EBM | 88B/F1 | BM | 8A0 | BM | 8A0 | M | 24A/H5 | EBM | 24A/H2 | EBM | 21B/E5 | | | | | | | 4 |
| 3 | EBM | 35B/F8 | EBM | 78B/H5 | M | - | M | - | M | 21B/G3 | BM | 21B/G3 | | | EBM | | EBM | 41A/D5 | | | | | | | 3 |
| 2 | EBM | 29A/B4 | EBM | 101B0 | EBM | 2336 | EBM | 2336 | BM | 880 | BM | 880 | | | EBM | | EBM | 28A/G7 | | | | | | | 2 |
| 1 | EBM | 29A/B5 | EBM | 783 | M | 22C5 | M | 22C5 | M | 21B/G2 | BM | 21B/G2 | | | EBM | | EBM | 107H4 | | | | | | | 1 |
| COIL | | 7E2 | | 21A/B8 | | 21A/F9 | | 21A/G9 | | 24A/G9 | | 24A/G9 | | 21A/G9 | | 21A/G9 | | 21A/C8 | | | | | | | COIL |

a 35A/C3
99E3

(ZYG) 31B/C2
(ZYH) 24A/F8

b (I43) 24C/C2
(I44) 20A/H3
(ZYG) 31B/C2
(ZYH) 24A/F4

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| FAC | 21A/A8 | 185A |
| INC | 21A/E9 | |
| (ZXK) INI | 21A/C8 | |
| OR | 21A/A9 | |
| (P) PCDO | 21A/F9 | |
| (L) PCDI | 21A/G9 | |
| (L) PCR | 21A/E9 | |
| RO | 21A/G9 | |
| RP | 7D2 | |
| SCCK | 7A9 | |
| TAN | 21A/B8 | |
| TCCK | 24A/G9 | |
| TOL | 21A/D8 | |
| TP | 7E2 | |
| (PH) TRF | 21A/B8 | |

# APP FIG. 33

RELAY

| DESIG | CGA | | CGB | | CTO | | CT1 | | CT2 | | CT4 | | CT7 | | CUA0 | | CUA1 | | CUA2 | | CUA4 | | CUA7 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | CODE |
| OPTION | WV | | WV | | | | | | | | WY | | WY | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 7D4 | M | 7D4 | M | 7F4 | M | 7F4 | M | 7E4 | M | 7E3 | M | 7F4 | EBM | 7C2 | EBM | 7C2 | EBM | 7C2 | EBM | 7C2 | EBM | 7C2 | 12 |
| 11 | M | 7C4 | M | 7C4 | M | 7C3 | M | 7B4 | M | 7B4 | M | 7C4 | M | 7F4 | EBM | 100A/B2 | EBM | 100A/C2 | EBM | 100A/C2 | EBM | 100A/D2 | EBM | 100A/E2 | 11 |
| 10 | M | 7B4 | M | 7B4 | M | 7D4 | M | 7D4 | M | 7D4 | M | 7D4 | M | 7G4 | EBM | 101F3 | EBM | 101F3 | EBM | 101G3 | EBM | 101G3 | EBM | 101H3 | 10 |
| 9 | M | - | M | - | M | 7B4 | M | 7C4 | M | 7G4 | M | 7A4 | M | 7A4 | EBM | 8C4 | EBM | 8F4 | EBM | 8E4 | EBM | 8C4 | EBM | 8G4 | 9 |
| 8 | BM | - | BM | - | BM | 7D8 | BM | 7D7 | BM | 7D7 | BM | - | BM | - | EMB | 8F4 | EMB | 8E4 | EMB | 8C4 | EMB | 8G4 | EMB | 8B4 | 8 |
| 7 | M | - | M | - | M | 95A9 | M | 9589 | M | 95C9 | M | 95C9 | M | 9509 | EBM | 8D4 | EBM | 8B4 | EBM | 8F4 | EBM | 8D4 | EBM | 8A4 | 7 |
| 6 | BM | 7D9 | BM | 7D9 | BM | 708 | BM | 707 | BM | 707 | BM | 707 | BM | - | EMB | 8D1 | EMB | 8B1 | EMB | 8F1 | EMB | 8D1 | EMB | 8A1 | 6 |
| 5 | M | 7F3 | M | 7F2 | M | 101C2 | M | 101C2 | M | 101D3 | M | 101E2 | M | 101E2 | EMB | 8E0 | EMB | 8E0 | EMB | 8C0 | EMB | 8G0 | EMB | 8B0 | 5 |
| 4 | BM | - | BM | - | BM | - | BM | 7D7 | BM | 707 | BM | 707 | BM | 706 | EBM | 8C1 | EBM | 8F1 | EBM | 9E1 | EBM | 8C1 | EBM | 8G1 | 4 |
| 3 | M | - | M | - | M | 7A2 | M | 7A2 | M | 782 | M | 782 | M | 782 | EBM | 7A6 | EBM | 7A6 | EBM | 7A7 | EBM | - | EBM | - | 3 |
| 2 | M | - | M | - | M | 7A2 | M | 7A2 | M | 7A2 | M | - | M | - | EBM | 7A6 | EBM | 7A6 | EBM | 7A7 | EBM | 7A7 | EBM | - | 2 |
| 1 | M | - | M | - | M | 7A4 | M | 7C4 | M | 7D4 | M | - | M | - | EBM | - | EBM | 7D7 | EBM | 7A7 | EBM | 7A7 | EBM | 7A7 | 1 |
| COIL | | 7G2 | | 7G2 | | 7A1 | | 7A1 | | 7A1 | | 7B1 | | 7B1 | | 7C2 | | 7D2 | | 7D2 | | 7E2 | | 7E2 | COIL |

RELAY

| DESIG | [3]CTA0-2 | | [3]CTA3-5 | | [3]CTA6-9 | | DESIG |
|---|---|---|---|---|---|---|---|
| CODE | AJ700 | | AJ700 | | AJ700 | | CODE |
| OPTION | | | WU | | WW | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 24 | M | 33A/G7 | M | 33A/G7 | M | 33A/G7 | 24 |
| 23 | M | 113C1 | M | 113C1 | M | 113C1 | 23 |
| 22 | M | 8A5 | M | 8A5 | M | 8A5 | 22 |
| 21 | M | 8A5 | M | 8A5 | M | 8A5 | 21 |
| 20 | M | 8A5 | M | 8A5 | M | 8A5 | 20 |
| 19 | M | 8A5 | M | 8A5 | M | 8A5 | 19 |
| 18 | M | 8A5 | M | 8A5 | M | 8A5 | 18 |
| 17 | M | 8A5 | M | 8A5 | M | 8A5 | 17 |
| 16 | M | 8A5 | M | 8A5 | M | 8A5 | 16 |
| 15 | M | 8A5 | M | 8A5 | M | 8A5 | 15 |
| 14 | M | 8A5 | M | 8A5 | M | 8A5 | 14 |
| 13 | M | 8A5 | M | 8A5 | M | 8A5 | 13 |
| 12 | M | - | M | - | M | - | 12 |
| 11 | M | 104A/G2 | M | 104A/E2 | M | 104A/B2 | 11 |
| 10 | M | 8A2 | M | 8A2 | M | 8A2 | 10 |
| 9 | M | 8A2 | M | 8A2 | M | 8A2 | 9 |
| 8 | M | 8A2 | M | 8A2 | M | 8A2 | 8 |
| 7 | M | 8A2 | M | 8A2 | M | 8A2 | 7 |
| 6 | M | 8A2 | M | 8A2 | M | 8A2 | 6 |
| 5 | M | 8A2 | M | 8A2 | M | 8A2 | 5 |
| 4 | M | 8A2 | M | 8A2 | M | 8A2 | 4 |
| 3 | M | 8A2 | M | 8A2 | M | 8A2 | 3 |
| 2 | M | 8A2 | M | 8A2 | M | 8A2 | 2 |
| 1 | M | 8A2 | M | 8A2 | M | 8A2 | 1 |
| COIL | | 7C5 | | 7C5 | | 7F5 | COIL |

RELAY

| DESIG | RPA | | TPA | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF506 | | AF506 | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | M | - | | | | | | | | | 12 |
| 11 | M | - | M | - | | | | | | | | | 11 |
| 10 | M | - | M | - | | | | | | | | | 10 |
| 9 | M | - | M | - | | | | | | | | | 9 |
| 8 | M | 888 | M | 888 | | | | | | | | | 8 |
| 7 | M | 888 | M | 888 | | | | | | | | | 7 |
| 6 | M | 888 | M | 888 | | | | | | | | | 6 |
| 5 | M | 888 | M | 888 | | | | | | | | | 5 |
| 4 | M | 887 | M | 887 | | | | | | | | | 4 |
| 3 | M | 887 | M | 887 | | | | | | | | | 3 |
| 2 | M | 887 | M | 887 | | | | | | | | | 2 |
| 1 | M | 887 | M | 887 | | | | | | | | | 1 |
| COIL | | 7D2 | | 7E2 | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| (WV) CGA | 7G2 | 185A |
| CGB | 7G2 | 185A |
| [3] CTO,1,2 | 7B2 | 185A |
| [2] (WY) CT4,7 | 7C2 | 185A |
| [3] CTA0-2 | 7C5 | 185A |
| [3] (WU) CTA3-5 | 7C5 | 185A |
| [4] (WW) CTA6-9 | 7F5 | 185A |
| [5] CUA0,1,2,4,7 | 7C2 | 185A |

DRAWING ISSUE
23A EN LOM AND
24D EN LOM AND
25D JAT LOM AND LOW CLK
27A CLK
28D CLK LOM AND
30D OP CLK AND
31D OP CLK AND
32A OP CLK AND
33D OP CLK AND
34A CK LOC AND
35D CK LOC LOL AND
37D MD
39D DM
40A
41D
43D

DRAWING ISSUE
60A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C 23
BELL TELEPHONE LABORATORIES INCORPORATED 6S PRINTED IN U.S.A.

## (34) APP FIG. 34

RELAY

| DESIG | [3] CTB0-2 | |
|---|---|---|
| CODE | AJ700 | |
| OPTION | | |
| | CONT ARR | LOC |
| 24 | M | - |
| 23 | M | - |
| 22 | M | 8H5 |
| 21 | M | 8H5 |
| 20 | M | 8H5 |
| 19 | M | 8H5 |
| 18 | M | 8H5 |
| 17 | M | 8H5 |
| 16 | M | 8H5 |
| 15 | M | 8H5 |
| 14 | M | 8H5 |
| 13 | M | 8H5 |
| 12 | M | - |
| 11 | M | - |
| 10 | M | 8H2 |
| 9 | M | 8H2 |
| 8 | M | 8H2 |
| 7 | M | 8H2 |
| 6 | M | 8H2 |
| 5 | M | 8H2 |
| 4 | M | 8H2 |
| 3 | M | 8H2 |
| 2 | M | 8H2 |
| 1 | M | 8H2 |
| COIL | | 7A2 |

| DESIG | CGA | | CGB | | [5] CUB0,1,2,4,7 | | RPB | | TPB | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AF521 | | AJ503 | | AF506 | | AF506 | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | M | - | EBM | - | M | - | M | - | | | | | | | | | 12 |
| 11 | M | - | M | - | EBM | - | M | - | M | - | | | | | | | | | 11 |
| 10 | M | - | M | - | EBM | - | M | - | M | - | | | | | | | | | 10 |
| 9 | M | 104A/F3 | M | 104A/E3 | EBM | 8K1 | M | - | M | - | | | | | | | | | 9 |
| 8 | BM | 104A/G4 | BM | 104A/F3 | EMB | 8H4 | M | 8D8 | M | 8D8 | | | | | | | | | 8 |
| 7 | M | 104A/H4 | M | 104A/H3 | EBM | 8H2 | M | 8D8 | M | 8D8 | | | | | | | | | 7 |
| 6 | BM | 7D9 | BM | 7D9 | EMB | 8H1 | M | 8D8 | M | 8D8 | | | | | | | | | 6 |
| 5 | M | 7F3 | M | 7F2 | EMB | 8H1 | M | 8D8 | M | 8D8 | | | | | | | | | 5 |
| 4 | BM | - | BM | - | EBM | 8H1 | M | 8D7 | M | 8D7 | | | | | | | | | 4 |
| 3 | M | - | M | - | EBM | - | M | 8D7 | M | 8D7 | | | | | | | | | 3 |
| 2 | M | 8A0 | M | 8H0 | EBM | - | M | 8D7 | M | 8D7 | | | | | | | | | 2 |
| 1 | M | 8A0 | M | 8H0 | EBM | - | M | 8D7 | M | 8D7 | | | | | | | | | 1 |
| COIL | | 7G2 | | 7G2 | | 7C2 | | 7D2 | | 7E2 | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [2] CGA,B | 7H3 | 185A |
| [3] CTB0-2 | 7B3 | 185A |
| [5] CUB0,1,2,4,7 | 7C2 | 185A |

## (35) APP FIG. 35

RELAY

| DESIG | [240] S00-239 | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF506 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 7F8 | | | | | | | | | | | | | | | | | 12 |
| 11 | M | 7F8 | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 7F8 | | | | | | | | | | | | | | | | | 10 |
| 9 | M | 7F8 | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 7F8 | | | | | | | | | | | | | | | | | 8 |
| 7 | M | 7F8 | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 7F8 | | | | | | | | | | | | | | | | | 6 |
| 5 | M | 7F8 | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 7F8 | | | | | | | | | | | | | | | | | 4 |
| 3 | M | 7F8 | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 7F8 | | | | | | | | | | | | | | | | | 2 |
| 1 | M | 7F8 | | | | | | | | | | | | | | | | | 1 |
| COIL | | 7F9 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [240] S00-239 | 7D8 | 185A |

## (36) APP FIG. 36

RELAY

| DESIG | DX0 | | DX1 | | DX2 | | DX4 | | DX7 | | EX7 | | OPE | | [10] TXC0-9 | | TXD | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF519 | | AF519 | | AF519 | | AF519 | | AF519 | | AF519 | | AF15 | | AF5 | | AF37 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 27B2 | M | 27A2 | M | 27A2 | M | 27B1 | M | 27A1 | M | - | | | M | 27A1 | M | - | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | M | 27A1 | M | - | | | | | | | 11 |
| 10 | M | 27B2 | M | 27C2 | M | 27C1 | M | 27C2 | M | 27B1 | M | - | | | M | 27B1 | M | 27C4 | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | M | 27B1 | M | 27A2 | | | | | | | 9 |
| 8 | BM | 27C4 | BM | 27C4 | BM | 27C4 | BM | 27C3 | BM | 27C3 | BM | 27D2 | M | - | M | 27B1 | M | - | | | | | | | 8 |
| 7 | B | - | B | - | B | - | B | - | B | - | B | - | | | | | M | - | | | | | | | 7 |
| 6 | BM | - | BM | - | BM | - | BM | - | JM | - | BM | - | EMB | - | M | 27B1 | M | 55D2 | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | M | 55C2 | | | | | | | 5 |
| 4 | M | 27C2 | M | 27B2 | M | 27C1 | M | 27B1 | M | 27C1 | M | - | M | 27C4 | M | 27C1 | M | 54C2 | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | M | 27C1 | M | 53C2 | | | | | | | 3 |
| 2 | M | 27C2 | M | 27C1 | M | 27B2 | M | 27B1 | M | 27A1 | M | - | | | M | 27C1 | M | 52C2 | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | M | 27C1 | M | 51C2 | | | | | | | 1 |
| COIL | | 51C3 | | 52C3 | | 53C3 | | 54C3 | | 55C3 | | 55D3 | | 27C5 | | 27B4 | | 27B5 | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| DX0 | 51C3 | 185A |
| DX1 | 52C3 | 185A |
| DX2 | 53C3 | 185A |
| DX4 | 54C3 | 185A |
| DX7 | 55C3 | 185A |
| EX7 | 55D3 | 185A |
| OPE | 27C5 | 185A |
| [10] TXC0-9 | 27B4 | 185A |
| TXD | 27B5 | 185A |

## (37) APP FIG. 37

RELAY

| DESIG | [28] PC00-27 | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF514 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | - | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | - | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 88C/E2 | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 28B/A1 | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 28A/E1 | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 28A/F8 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [28] PC00-27 | 28A/F8 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 24D | JM EXM AMP |
| 25D | JAT MSG AMD |
| 28D | LPM CLK AND |
| 33D | CLS CLA AND EX |
| 35D | CBL AND |
| 37D | MD |
| 43D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET SIZE 6S

SD-26002-01-C24

# ㊳APP FIG. 38

| DESIG | AGP | | [3]ALO-2 | | AL3 | | GP1 | | GP2 | | GW | | GZ | | | | | | | | GPA | | GPB | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AF514 | | AF514 | | AF511 | | AF53 | | AF513 | | AF513 | | | | | | | | AF523 | | AF523 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 40G8 | M | - | M | | | | | | EBM | | EM8 | 4OG6 | | | | | | | M | - | M | - | 12 |
| 11 | M | 40F8 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | BM | - | M | 86A/F2 | M | 88A/F2 | M | - | BM | - | EBM | | EBM | - | | | | | | | BM | - | BM | - | 10 |
| 9 | M | 40G7 | | | | | | | B | - | | | | | | | | | | | | | | | 9 |
| 8 | BM | - | M | 17F7 | M | 17F7 | BM | 40D8 | BM | 40F7 | EBM | 40G6 | EBM | - | | | | | | | BM | - | BM | - | 8 |
| 7 | B | 15D1 | | | | | B | 88A/GC | B | | | | | | | | | | | | | | | | 7 |
| 6 | BM | 40F5 | M | 17F7 | M | 17F7 | BM | 40D6 | BM | 40B7 | EM8 | 4CM7 | EM8 | 40H6 | | | | | | | BM | 40B8 | BM | 40B8 | 6 |
| 5 | M | - | | | | | | | B | | | | | - | | | | | | | | | | | 5 |
| 4 | BM | - | M | 40A7 | M | 40B8 | M | 40F9 | BM | 40H6 | EBM | 40F5 | EDM | - | | | | | | | BM | 40A8 | BM | 40A8 | 4 |
| 3 | M | - | | | | | | | B | - | | | | | | | | | | | | | | | 3 |
| 2 | M | 84C5 | M | 40E6 | M | 40F6 | | | M | - | EBM | 40G7 | EBM | 40G7 | | | | | | | M | 40A8 | M | 40A8 | 2 |
| 1 | M | 8;84 | | | | | | | | | | | | | | | | | | | M | 40A8 | M | 40A8 | 1 |
| COIL | | 0F8 | | 28A/F8 | | 28A/F8 | | 40G8 | | 40G8 | | 40H5 | | 40H5 | | | | | | | | 40F5 | | 40E5 | COIL |

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

**NETWORK**

| DESIG | LOC | CODE |
|---|---|---|
| AGP | 40F8 | 185A |
| [4]ALO-3 | 28A/F8 | 185A |
| GPA | 40F5 | 185A |
| GPB | 40E5 | 185A |
| GP1 | 40G8 | 185A |
| GP2 | 40G8 | 185A |
| GW | 40H5 | 185A |
| GZ | 40H5 | 185A |

**RESISTOR**

| DESIG | LOC | CODE |
|---|---|---|
| GWZ | 40H5 | 19GL |

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

| DRAWING ISSUE | |
|---|---|
| 1 | |
| 20 | |
| 13B | |
| 34A | |
| 43D | |

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-C25

ISSUE 35B

BELL TELEPHONE LABORATORIES, INC

6S

# APP FIG. 39

RELAY

| DESIG | 11 | | CP0 | | CP1 | | CP2 | | CP3 | | CP4 | | CP5 | | CP6 | | CP7 | | CP8 | | CP9 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ9 | | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | EBM | - | EBM | 50C2 | EBM | - | E3M | - | EBM | - | EBM | - | EBM | 50C2 | E3M | - | E2M | - | EBM | - | | | 12 |
| 11 | EBM | 5001 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 5002 | EBM | 50F3 | EBM | 50E3 | EBM | 50F3 | EBM | 50E2 | EBM | 50E2 | EBM | 50G4 | EBM | 50G4 | EBM | 50G3 | EBM | 50G2 | EBM | 50G2 | | | 10 |
| 9 | EBM | 5003 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EM8 | - | EBM | 50E3 | EBM | 50E3 | EBM | 50E2 | EBM | 50E2 | EBM | 50E2 | EBM | 50F3 | EBM | 50F3 | EBM | 50F3 | EBM | 50F2 | EBM | 50F2 | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EM8 | - | EBM | 50D5 | EBM | 50C4 | EBM | 50D3 | EBM | 50D3 | EBM | - | EBM | 50D5 | EBM | 50C4 | EBM | 50C3 | EBM | 50D2 | EBM | - | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 50C4 | EBM | 50C3 | EBM | 50B3 | EBM | 50C3 | EBM | 50C3 | EBM | 50D2 | EBM | 50C3 | EBM | 50B2 | EBM | 50C3 | EBM | 50C2 | EBM | 50D3 | | | 4 |
| 3 | EBM | 50C2 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 5083 | EBM | 5084 | EBM | 5045 | EBM | 5042 | EBM | 5082 | EBM | 50C2 | EBM | 5084 | EBM | 5043 | EBM | 5043 | EBM | 5082 | EBM | 50C2 | | | 2 |
| 1 | EBM | 5044 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 47H5 | | 47E5 | | 47E5 | | 47E5 | | 47E5 | | 47E5 | | 47F5 | | 47F5 | | 47F5 | | 47F5 | | 47F5 | | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| | 11 | 47H5 | 185A |
| (ZHH) | CPMCP | 42F4 | 185A |
| | CPMCS | 42G4 | 185A |
| (ZEO) [5] | CPOP-9P | 47E6,F6 | 177C |
| [5] | CPOS-9S | 47F6,G6 | 177C |
| | CPK1 | 50A0 | 185A |
| | CPK2 | 50C0 | 185A |
| [2] | CPMAP,S | 42D5 | 185A |
| | NSK1 | 50E0 | 185A |
| (ZZP) | WD2 | 288/G1 | 185A |
| (ZEP) [9] | CPOP-9P | 47E6,F6 | 186D |
| [10] | CPOS-9S | 47F6,G6 | 186D |

RELAY

| DESIG | CPP | | CPP | | CPS | | NSK1 | | WD2 | | XCP | | CPMA | | CPMC | | CPK1 | | CPK2 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ508 | | AJ508 | | AJ508 | | AF531 | | AF518 | | AF97 | | AF530 | | AF530 | | AF531 | | AF531 | | | | CODE |
| OPTION | ZWN | | ZWO | | | | | | ZZP | | | | ZTC | | ZHH | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | - | | | | | EMB | - | | | EBM | 42C5 | EBM | 42F4 | | | | | | | 12 |
| 11 | | | | | | | | | M | - | | | | | | | | | | | | | 11 |
| 10 | M | 29A/B8 | BM | - | M | 29A/C8 | EBM | - | EBM | - | | | EBM | 42D5 | EBM | 42G4 | EBM | | EBM | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | 50G2 | BM | 50G2 | EBM | 50G2 | EBM | - | EBM | - | M | B7F5 | EBM | 50C4 | EBM | 50C6 | EBM | | EBM | | | | 8 |
| 7 | | | | | | | | | B | 29A/C4 | | | | | | | | | | | | | 7 |
| 6 | EBM | 50E2 | BM | 50E2 | EBM | 50F2 | EBM | - | EMB | - | M | G6A5 | EBM | b | EBM | 50C6 | EBM | | EBM | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 116H2 | BM | 37C9 | EBM | 116H2 | EBM | 57B/C4 | EBM | - | M | G6A2 | EBM | a | EBM | 114B/H6 | EBM | 57B/C4 | EBM | 57B/C4 | | | 4 |
| 3 | | | | | | | | | M | - | | | | | | | | | | | | | 3 |
| 2 | | | M | 116H2 | | | | | EBM | - | | | EBM | 29A/D7 | EBM | 29A/D7 | | | | | | | 2 |
| 1 | | | M | 29A/B8 | | | | | M | - | | | | | | | | | | | | | 1 |
| COIL | | 47E4 | | 47E4 | | 47G4 | | 50E0 | | 288/G1 | | a | | 42D5 | | 42G4 | | 50A0 | | 50C0 | | | COIL |

a P-47G4, S-87F4

a 29A/G8, 114B/G1

b (ZHH) 5045, (ZHC) 5085

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| 40G | 50E1 | KS-13492,L1 2000 |
| 50G | 50E1 | KS-13492,L1 2000 |
| CP0 | 50A1 | KS-13492,L1 2000 |
| CP1 | 50B1 | KS-13492,L1 2000 |
| CP2 | 50C1 | KS-13492,L1 2000 |
| CP3 | 50D1 | KS-13492,L1 2000 |
| CP7 | 5001 | KS-13492,L1 2000 |
| L5D | 50F1 | KS-13492,L1 2000 |
| LST | 50G1 | KS-13492,L1 2000 |

# APP FIG. 40

RELAY

| DESIG | AMA | | FN | | | [2]MBK1,2 | | MBK3 | | MBK4 | | MBK5 | | MBS0 | | [9]MBS1-9 | | NOB | | OBS | | RPK | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AJ22 | | | AF531 | | AF531 | | AF531 | | AF531 | | AJ508 | | AJ508 | | AJ502 | | AJ502 | | AF522 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 58D8 | EBM | 49A/C5 | | | | | | | | | | | M | 36H6 | M | 114B/F1 | EBM | 27E8 | E5M | 109B4 | | | 12 |
| 11 | M | 498/F3 | EBM | 49A/C5 | | | | | | | | | | | | | | | EBM | - | EBM | - | | | 11 |
| 10 | BM | 498/G2 | EBM | 70E0 | | EBM | - | EBM | - | EBM | - | EBM | 57B/D4 | BM | 29A/E4 | BM | 49A/E4 | EBM | 109C4 | EBM | 298/C4 | M | - | | 10 |
| 9 | M | 498/D3 | EBM | 298/C6 | | | | | | | | | | | | | | | EBM | 498/E3 | EBM | 498/D3 | | | 9 |
| 8 | BM | 103C1 | EMB | 109B2 | | EBM | - | EBM | - | EBM | - | EBM | - | BM | 49A/E4 | BM | 49A/E4 | EMB | - | EMB | - | BM | 57B/F3 | | 8 |
| 7 | B | 57B/E2 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | 47H5 | EMB | 70E7 | | EBM | - | EBM | 49B/H1 | EBM | - | EBM | - | BM | 49A/C3 | BM | 49A/C3 | EMB | - | EMB | - | BM | a | | 6 |
| 5 | M | a | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | 57B/E1 | EBM | 298/B4 | | EBM | 57B/C2 | EBM | 57B/C2 | EBM | 57B/C3 | EBM | 58G5 | BM | 49A/C3 | BM | 49A/C3 | EBM | 58H2 | EBM | 298/B6 | M | - | | 4 |
| 3 | M | 29A/D7 | EBM | 49A/B5 | | | | | | | | | | | | | | | EBM | - | | | | | 3 |
| 2 | M | 308/F4 | EBM | 49A/A5 | | | | | | | | | | M | 114B/G1 | M | 27E2 | EBM | - | EBM | - | | | | 2 |
| 1 | M | 308/G4 | EBM | 49A/A5 | | | | | | | | | | M | a | M | a | EBM | - | EBM | 58H2 | | | | 1 |
| COIL | | 298/B0 | | 70E8 | | | 49A/C0 | | 49B/G0 | | 49B/F0 | | 49B/D0 | | 288/F4 | | 288/F4 | | 109C7 | | 109B7 | | 308/H4 | | COIL |
| | (BE) 49A/D2 a (BD) 49A/D1 | | | | | | | | | | | | | (BE) 298/H5 a (BD) 132C9 | | (BE) 298/C5 a (BD) 132C9 | | | | | | b (ZS) 308/H5 | | |

RELAY

| DESIG | SCC | | TGS2 | | | TOB | | TOBS | | | | TVA | | | | XOB | | XTV | | MBK | | MBK | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF522 | | AF506 | | | AF530 | | AF52 | | | | AF522 | | | | AF96 | | AF96 | | AF511 | | AJ512 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | FW | | BX | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | 114A/B2 | | EBM | 27E8 | M | 27E0 | | | | | | | | | | | | | | BM | 298/B5 | 12 |
| 11 | | | M | 578/B3 | | | | | | | | | | | | | | | | | | | BM | - | 11 |
| 10 | M | 109A5 | M | 308/C8 | | EBM | 27H4 | BM | 27F8 | | | M | 109B4 | | | | | | | M | 49A/B0 | BM | 49A/B0 | 10 |
| 9 | | | M | 308/F8 | | | | | | | | | | | | | | | | | | | BM | - | 9 |
| 8 | BM | - | M | 50E0 | | EBM | - | BM | 27F7 | | | BM | 27F8 | | | 1 | 87G8 | M | 87F6 | BM | - | BM | 318/H7 | 8 |
| 7 | | | M | 50C0 | | | | | | | | | | | | | | | | B | - | BM | - | 7 |
| 6 | BM | 498/E3 | M | 5080 | | EBM | 27G0 | BM | 109D6 | | | BM | 498/F3 | | | M | 86C5 | M | 86C8 | BM | 47C9 | BM | 47C9 | 6 |
| 5 | | | M | 498/E1 | | | | | | | | | | | | | | | | | | | BM | - | 5 |
| 4 | M | - | M | 498/F1 | | EBM | 109B3 | BM | - | | | M | - | | | M | 86D2 | M | 86G2 | M | 49A/D0 | BM | 49A/D0 | 4 |
| 3 | | | M | 498/G1 | | | | | | | | | | | | | | | | | | BM | - | 3 |
| 2 | | | M | 49A/B0 | | EBM | 109C3 | M | - | | | | | | | | | | | | | BM | 13289 | 2 |
| 1 | | | M | 49A/D0 | | | | M | 27J0 | | | | | | | | | | | | | BM | - | 1 |
| COIL | | 109A6 | | 57A/D0 | | | P-27E7 | | 27E0 | | | | 10986 | | | | a | | a | | 49A/E7 | | 49A/E7 | COIL |
| | | | | | | | S-27E7 | | | | | | | | | | P-10988 a S-87G6 | | P-109A7 a S-87F6 | | | | | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| AMA | 498/G2 | KS-13492,L1 2000 |
| [2] MB0-1 | 49A1 | KS-13492,L1 2000 |
| [3] MB2,4,7 | 4981 | KS-13492,L1 2000 |
| NOB | 498/E2 | KS-13492,L1 2000 |
| OBS | 498/D3 | KS-13492,L1 2000 |
| SCC | 498/E2 | KS-13492,L1 2000 |
| TVT | 498/F2 | KS-13492,L1 2000 |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| | AMA | 298/B0 | 185A |
| | FN | 70E8 | 185A |
| (BM,BX) | MBK [2] | 49A/E7 | 185A |
| [2] | MBK1,2 | 49A/B0 | 185A |
| [10] | MBS0-9 | 28B/F4 | 186A |
| | NOB | 109C7 | 185A |
| | OBS | 109B7 | 185A |
| | RPK | 308/H4 | 185A |
| | SCC | 109A6 | 185A |
| | TGS2 | 57A/D0 | 185A |
| | MBK3 | 49B/G0 | 185A |
| | MBK4 | 49B/F0 | 185A |
| | MBK5 | 49B/D0 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 2D | EJB BLC |
| 3D | |
| 13B | |
| 13D | |
| 20AC | |
| 21D | |
| 23D | |
| 24C | |
| 25D | |
| 27A | |
| 30D | |
| 33D | |
| 34A | |
| 35D | |
| 36A | LEC |
| 37D | LEC |
| 39D | DM |
| 41D | |
| 43D | |
| 48D | |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C26

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

ISSUE 67B

SD-26002-01-C26

# APP FIG. 41

RELAY

| DESIG | | | CAA | | CNC | | CZ | | CZT | | [8]DRO-7 | | [2]DR8,9 | | ITRA | | NCGN | | NCNC | | OPR | | [4]OPSO-3 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AJ505 | | AF114 | | AF518 | | AF518 | | AF59 | | AF59 | | AF523 | | AJ505 | | AJ505 | | AF519 | | AF514 | | CODE |
| OPTION | | | | | | | YC | | YC | | | | YG | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | EMB | - | EMB | - | | | | | M | 288/E3 | | | | | M | — | M | — | 12 |
| 11 | | | | | | | M | - | M | - | | | | | | | | | | | | | | | 11 |
| 10 | | | M | 30A/D8 | M | a | EBM | 29A/E8 | EBM | - | M | 98C/D2 | M | 88C/D2 | BM | — | M | 124G1 | M | 124G1 | M | — | M | — | 10 |
| 9 | | | B | 30A/E8 | | | | | | | | | | | | | B | 29A/F4 | B | 132C6 | | | | | 9 |
| 8 | | | M | - | BM | 29A/B6 | EBM | 29A/E4 | EBM | 29A/D4 | M | 288/B1 | M | 288/C1 | BM | — | M | — | M | — | BM | — | M | — | 8 |
| 7 | | | B | 102H7 | | | B | 29A/C4 | B | 29A/C3 | | | | | | | B | 29A/E9 | B | 29A/E9 | B | 308/E7 | | | 7 |
| 6 | | | M | 124B1 | BM | 29A/E5 | EMB | - | EMB | - | M | 28A/D1 | M | 28A/C1 | BM | 288/B1 | M | 29A/E9 | M | 29A/E9 | BM | 29A/G5 | M | — | 6 |
| 5 | | | B | 29A/H5 | | | | | | | | | | | | | B | 29A/E9 | B | 29A/E9 | | | | | 5 |
| 4 | | | M | 29A/F4 | M | - | EBM | 29A/B4 | EBM | 29A/B4 | M | 288/D0 | M | 288/C0 | BM | 28B/E2 | M | 30B/A6 | M | — | M | 30A/E6 | M | 28A/F3 | 4 |
| 3 | | | | | | | M | - | M | - | | | | | | | | | | | | | | | 3 |
| 2 | | | M | 29A/G3 | B | b | EBM | 29A/H4 | EBM | - | | | | | M | — | M | 29A/C6 | M | 29A/D6 | M | 28A/F2 | M | 28A/G5 | 2 |
| 1 | | | | | | | M | | M | 30B/E6 | | | | | M | 28A/F3 | | | | | | | | | 1 |
| COIL | | | | 288/D9 | | 30B/B4 | | 288/H1 | | 283/H1 | | 28B/F6 | | 28B/F6 | | 28B/E4 | | 288/C6 | | 288/D6 | | 288/G6 | | 28A/G8 | COIL |

(LR) 96E6
a (LC) 107D6
(ZWR) 107F9

(LR) 96E6
b (LC) 107C3
(ZWR) 107G9

RELAY

| DESIG | | | PCN | | PNC | | PPY | | | | RTC | | RTC1 | | RTC | | TC | | TCCN | | TCNC | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AJ505 | | AJ505 | | AJ505 | | | | AJ131 | | AJ131 | | AJ501 | | AF523 | | AJ505 | | AJ505 | | | | CODE |
| OPTION | | | | | | | | | | | BS | | BS | | BR | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | EBM | 59B/D1 | EBM | - | EBM | 59B/D1 | M | 29A/G3 | | | | | | | 12 |
| 11 | | | | | | | | | | | EMB | 59B/D4 | EMB | 59B/A4 | EBM | - | | | | | | | | | 11 |
| 10 | | | M | 30A/D6 | M | 30B/D8 | M | 30A/D8 | | | EBM | - | EBM | - | EBM | - | BM | 29A/G3 | M | 30A/E5 | M | 30A/E5 | | | 10 |
| 9 | | | B | — | B | 30B/E7 | B | 30B/E7 | | | EMB | 59B/H3 | EMB | - | EBM | 59A/H3 | | | B | - | B | - | | | 9 |
| 8 | | | M | 30B/E7 | M | — | M | 30D/F6 | | | EBM | - | EBM | - | EMB | - | BM | - | M | 124E3 | M | 124E3 | | | 8 |
| 7 | | | B | — | B | — | B | — | | | EMB | 59B/E4 | EMB | 59B/A4 | EBM | 59B/D3 | | | B | 29A/E9 | B | 29A/E9 | | | 7 |
| 6 | | | M | 12483 | M | 12403 | M | 12403 | | | EBM | 78B/C9 | EBM | - | EMB | - | BM | 29A/D5 | M | 29A/E9 | M | 29A/E9 | | | 6 |
| 5 | | | B | 29A/G4 | B | 29A/G4 | B | 29A/G4 | | | EMB | 59B/F4 | EMB | 59B/B4 | EMB | 78B/C9 | | | B | 29A/E9 | B | 29A/E9 | | | 5 |
| 4 | | | M | 29A/G3 | M | 29A/G3 | M | 29A/G3 | | | EBM | - | EBM | - | EBM | 59B/E3 | BM | - | M | 30B/A6 | M | 143G3 | | | 4 |
| 3 | | | | | | | | | | | EMB | 59B/G4 | EMB | 59B/C4 | EBM | 59B/F3 | | | | | | | | | 3 |
| 2 | | | M | 29A/F5 | M | 29A/F3 | M | — | | | EBM | - | EBM | - | EBM | 59B/G3 | M | 29A/B5 | M | 29A/B6 | M | 29A/B6 | | | 2 |
| 1 | | | | | | | | | | | EMB | 59B/G4 | EMB | 59B/C4 | EBM | 59B/G3 | M | 29A/G5 | | | | | | | 1 |
| COIL | | | | 288/A6 | | 288/B6 | | 288/B6 | | | | 59B/C2 | | 59B/D9 | | 59B/C2 | | 30A/F4 | | 283/C6 | | 28B/C6 | | | COIL |

RELAY

| DESIG | | | TOS | | TPK | | TPS | | | | VP | | BL | | BL | | PBY | | PBY | | RTO | | RT1 | | RT2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AJ505 | | AF522 | | AF114 | | | | AJ505 | | AJ505 | | AJ45 | | AJ505 | | AJ45 | | AF115 | | AF115 | | AF115 | | CODE |
| OPTION | | | | | | | ZS | | | | | | CO | | CP | | CO | | CP | | BR | | BR | | BR | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | | | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | EBM | - | | | EBM | - | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | EBM | - | | | EBM | - | | | | | | | 11 |
| 10 | M | 30A/E6 | M | 96E6 | M | - | | | | | M | - | M | | EBM | - | M | 88D/A2 | EBM | 88D/A2 | M | 59B/G4 | M | 59B/F4 | M | 59B/E4 | 10 |
| 9 | B | 30A/E3 | | | | | | | | | B | 30A/E7 | B | 120E3 | EBM | 120E3 | B | 30A/E7 | EBM | 30A/E7 | | | | | | | 9 |
| 8 | M | 30A/E3 | BM | - | BM | 57B/F3 | | | | | M | 30B/E8 | M | 120F3 | EMB | 120F3 | M | 88C/A0 | EMB | 88C/A0 | EBM | 59B/C7 | EBM | 59B/C7 | EBM | 59B/C7 | 8 |
| 7 | B | - | | | | | | | | | B | 120E4 | B | 30B/E8 | EBM | 30B/E8 | B | 120E3 | EBM | 120E3 | | | | | | | 7 |
| 6 | M | - | BM | 29B/B4 | BM | 30B/H6 | | | | | M | 120F4 | M | 30A/E8 | EMB | 30A/E8 | M | 120F3 | EMB | 120F3 | B | - | B | - | B | - | 6 |
| 5 | B | 29A/C6 | | | | | | | | | B | 29B/H5 | B | 29A/C5 | EMB | 29A/C5 | B | 30B/E8 | EMB | 30B/E8 | | | | | | | 5 |
| 4 | M | 124F3 | M | 29A/F4 | M | - | | | | | M | 29A/H5 | M | 29A/C5 | EBM | 29A/C5 | M | 28B/A5 | EBM | 28B/A5 | M | - | M | - | M | - | 4 |
| 3 | | | | | | | | | | | | | | | EBM | - | | | EBM | - | | | | | | | 3 |
| 2 | M | 29A/F7 | | | B | - | | | | | M | 124G3 | M | 124H1 | EBM | 124H1 | M | 29A/H5 | EBM | 29A/H5 | EBM | 59B/B7 | EBM | 59B/B7 | EBM | 59B/B7 | 2 |
| 1 | | | | | | | | | | | | | | 62A/B4 | EBM | 62A/B4 | | | EBM | 62A/B5 | | | | | | | 1 |
| COIL | | 288/F4 | | 30B/F4 | | 30B/G4 | | | | | | 288/A4 | | 28B/C4 | | 28B/C4 | | 288/B4 | | 288/B4 | | 59B/G4 | | 59B/F4 | | 59B/E4 | COIL |

RELAY

| DESIG | | | RT3 | | RT4 | | RTO | | RT5 | | RTJ | | RT6 | | RT2 | | RT7 | | RT3 | | RT8 | | RT4 | | RT9 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | AF115 | | AF115 | | AK4 | | | | AK4 | | | | AK4 | | | | AK4 | | | | AK4 | | | | CODE |
| OPTION | | | BR | | BR | | BS | | BS | | BS | | BS | | BS | | BS | | BS | | BS | | BS | | BS | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | M | 59B/C4 | | | M | 59B/C4 | | | M | 59B/B4 | | | M | 59B/A4 | | | M | 59B/A4 | 12 |
| 11 | | | | | | | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | 11 |
| 10 | M | 59B/E4 | M | 59B/D4 | | | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | 10 |
| 9 | | | | | | | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | 9 |
| 8 | EBM | 59B/C7 | EBM | 59B/C7 | | | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | B | - | B | - | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | | | 5 |
| 4 | M | - | M | - | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | | | EMB | - | | | 4 |
| 3 | | | | | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | EBM | 59B/C7 | | | 3 |
| 2 | EBM | 59B/B7 | EBM | 59B/B7 | | | EBM | 59B/B7 | | | EBM | 59B/B7 | | | EBM | 59B/B7 | | | EBM | 59B/B7 | | | EBM | 59B/B7 | | | 2 |
| 1 | | | | | | | M | 59B/G4 | | | M | 59B/G4 | | | M | 59B/F4 | | | M | 59B/E4 | | | M | 59B/C4 | | | 1 |
| COIL | | 59B/E4 | | 59B/D4 | | 59B/G4 | | 59B/C4 | | 59B/F4 | | 59B/C4 | | 59B/E4 | | 59B/B4 | | 59B/A4 | | 59B/D4 | | 59B/A4 | | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| (CO, CP) | BL | 28B/C4 | 186A |
| | CAA | 28B/D9 | 186A |
| | CNC | 30B/B4 | 185A |
| (YC) | CZ | 28B/H1 | 185A |
| | CZT | 28B/H1 | 185A |
| | [8]DRO-7 | 28B/F6 | 185A |
| (YC) | [2]DR8-9 | 28B/F6 | 185A |
| | ITRA | 28B/E4 | 185A |
| | NCGN | 28B/D6 | 186A |
| | NCNC | 28B/D6 | 186A |
| | OPR | 28B/G6 | 185A |
| | [4] OPSO-3 | 28A/G8 | 185A |
| (CO, CP) | PBY | 28B/B4 | 186A |
| | PCN | 29B/A6 | 186A |
| | PNC | 28B/B6 | 186A |
| | PPX | 28B/B6 | 186A |
| (BS, BR) | RTC | 59B/C2 | 185A |
| (BS) | RTC1 | 59B/D2 | 185A |
| | TC | 30B/F4 | 185A |

NETWORK (CONT)

| | DESIG | LOC | CODE |
|---|---|---|---|
| | TCCN | 28B/C6 | 186A |
| | TCNC | 28B/C6 | 186A |
| | TOS | 28B/F4 | 186A |
| (ZS) | TPK | 30B/F4 | 185A |
| | TPS | 30B/G4 | 185A |
| | VP | 28B/A4 | 186A |

| DRAWING ISSUE | |
|---|---|
| 1 | - FJD |
| 2D | DLC |
| 8D | PDP |
| 9D | PDP |
| 13B | ATZ MR |
| 18D | PVS |
| 21D | SGR |
| 22D | NC |
| 24D | SV EBM AND GAV |
| 25D | |
| 28D | LPM CLK AND |
| 30D | NEM AND AND |
| 32A | FJV CLK AND |
| 33D | FJV CLR AND |
| 34A | DX CBL AND |
| 35D | DX CBL AND |
| 36A | CR |
| 37D | CR |
| 39D | DM |
| 43D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C27

BELL TELEPHONE LABORATORIES, INC DWG SIZE 65

# APP FIG. 42

RELAY

| DESIG | CR | | MF | | | | PS | | PSR | | PD | | RLG | | RR | | RRC | | RRK | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF519 | | AJ12 | | | | AF515 | | AF115 | | AF519 | | AF13 | | AF59 | | AF13 | | AF531 | | | | CODE |
| OPTION | | | WN | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | EBM | 8LD3 | M | | BM | 10646 | | | M | 88A/E3 | EM | - | | | EM | - | | | | | 12 |
| 11 | | | EBM | - | | | M | 7B7 | | | | | | | | | | | | | | | 11 |
| 10 | M | 24A/B5 | EBM | - | M | | BM | 12A3 | M | 81H1 | M | a | M | 38H5 | M | - | M | 23D1 | EBM | 38H5 | | | 10 |
| 9 | | | EBM | - | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | 16A1 | EBM | 88C/B8 | BM | | BM | 81H1 | EBM | - | BM | 7B7 | EBM | - | M | - | EBM | - | EBM | 38G5 | | | 8 |
| 7 | B | 24A/B5 | EBM | 28A/F5 | B | | B | 122B/H2 | | | B | 24A/A7 | B | - | | | B | 208/C7 | | | | | 7 |
| 6 | BM | 94D4 | EBM | 94C6 | BM | | BM | 37C4 | B | - | BM | 24A/A7 | EMB | - | M | 208/C7 | EMB | - | EBM | 37C3 | | | 6 |
| 5 | | | EBM | 94C6 | | | | | | | | | B | - | | | B | 37C4 | | | | | 5 |
| 4 | M | 28B/E6 | EBM | 88A/B3 | M | | BM | 24A/A6 | M | 81H1 | M | 24A/B8 | M | 37C3 | M | 37D3 | M | 37C3 | EBM | 23D1 | | | 4 |
| 3 | | | EBM | 88A/B3 | | | M | 102H7 | | | | | | | | | | | | | | | 3 |
| 2 | M | 110A/F0 | EBM | 88A/A3 | M | | BM | 24A/B8 | EBM | 37C4 | M | 29A/F3 | M | - | | | M | 23D2 | | | | | 2 |
| 1 | | | EBM | 88C/C5 | | | M | 38D4 | | | | | M | - | | | M | 23D0 | | | | | 1 |
| COIL | | 20B/G3 | | 20B/D3 | | | | 20B/C3 | | 81H2 | | 20B/C3 | | 23D2 | | 28B/E6 | | 23D0 | | 20B/B7 | | | COIL |

(MF) 88A/A3
0
(ZKP) 38E4

| | NETWORK DESIG | LOC | CODE |
|---|---|---|---|
| | CR | 20B/G3 | 185A |
| (WN) | MF | 20B/D3 | 185A |
| | PD | 20B/C3 | 185A |
| | PK | 20B/B3 | 185A |
| | PS | 20B/C3 | 185A |
| | SCK | 20B/F3 | 185A |
| | SCN | 20B/E3 | 185A |
| (SN) | DP | 20B/E3 | 185A |

RELAY

| DESIG | SCK | | SCN | | DP | | PK | | PK | | | | MDI | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF519 | | AF519 | | AJ12 | | AF519 | | AJ503 | | | | AK10 | | | | | | | | | | CODE |
| OPTION | | | | | BN | | IT | | TU | | | | ZSN | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 8A8 | M | 8A8 | EBM | 88C/B8 | M | 88A/B2 | EBM | 88A/B2 | | | BM | - | | | | | | | | | 12 |
| 11 | | | | | EBM | | | | EBM | 137C2 | | | M | 26D2 | | | | | | | | | 11 |
| 10 | M | 8A7 | M | 8A7 | EBM | 88C/B6 | M | 24C/H0 | EBM | 24C/H0 | | | M | - | | | | | | | | | 10 |
| 9 | | | | | EBM | - | | | EBM | 137D1 | | | M | - | | | | | | | | | 9 |
| 8 | BM | 24A/B5 | BM | 24A/B4 | eBM | 94C6 | BM | a | EMB | a | | | M | - | | | | | | | | | 8 |
| 7 | B | 24A/B5 | B | - | EBM | - | B | 24A/A7 | EBM | 24A/A7 | | | | | | | | | | | | | 7 |
| 6 | BM | 28B/E6 | BM | 24A/C8 | BM | 94C6 | BM | 24A/A7 | EMB | 24A/A7 | | | | | | | | | | | | | 6 |
| 5 | | | | | EBM | - | | | EMB | - | | | | | M | - | | | | | | | 5 |
| 4 | M | a | M | - | EBM | 94C6 | M | 24A/B7 | EBM | 24A/B7 | | | | | BM | - | | | | | | | 4 |
| 3 | | | | | EBM | - | | | EBM | 120B1 | | | | | BM | - | | | | | | | 3 |
| 2 | M | 110A/F1 | M | - | EBM | 94C5 | M | 28A/B1 | EBM | 28A/B1 | | | | | BM | - | | | | | | | 2 |
| 1 | | | | | EBM | - | | | EBM | - | | | | | BM | - | | | | | | | 1 |
| COIL | | 20B/F3 | | 20B/E3 | | 20B/E3 | | 20B/B3 | | 20B/B3 | | | 26H1 | | | - | | | | | | | COIL |

(116) 94E4
a
(ZLU) 88C/B7

(VS) 24C/B6
0
(143) 24C/C0

(VS) 24C/E6
0
(143) 24C/C0

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

| DRAWING ISSUE | |
|---|---|
| 1 | |
| 2D | AN |
| 4A | |
| 6A | |
| 8D | |
| 118 | CH |
| 138 | |
| 168 | |
| 170 | |
| 190 | |
| 220 | |
| 240 | |
| 260 | |
| 264 | |
| 300 | |
| 330 | |
| 350 | CK |
| 370 | SSL |
| 390 | DM |
| 40A | |
| 43D | C |
| 45D | |

SD-26002-01-C28

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

ISSUE 60A

SD-26002-01-C28

# APP FIG. 43

RELAY

| DESIG | AST | | | | BNA | | | | ECN | | EN | | | | LEA | | LEB | | | | LPA | | LPB | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | | | AF24 | | | | AF112 | | AF515 | | | | AF533 | | AF533 | | | | AF533 | | AF533 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 63A8 | | | M | 63D4 | | | M | - | BM | 63E8 | | | M | 60D4 | M | 60G4 | | | M | 60D4 | M | 60D4 | 12 |
| 11 | EBM | - | | | M | 63D4 | | | M | - | M | 63D2 | | | M | 121C4 | M | 121E4 | | | M | 121A4 | M | 121G4 | 11 |
| 10 | EBM | 63B6 | | | M | 63F4 | | | M | - | BM | 121C8 | | | M | 6302 | M | 63L2 | | | M | 63E2 | M | 63E2 | 10 |
| 9 | EBM | 63E6 | | | M | 6380 | | | M | - | | | | | | | | | | | | | | | 9 |
| 8 | EMB | 6386 | | | M | 62A/E2 | | | EBM | 63G4 | 3M | 68A2 | | | M | 60F0 | M | 60F0 | | | M | 60F0 | M | 60F0 | 8 |
| 7 | EBM | 63E6 | | | M | - | | | | | B | 64F4 | | | B | 124D1 | B | 124E1 | | | B | 124E1 | B | 124F1 | 7 |
| 6 | EMB | 63C6 | | | M | 88A/G6 | | | EBM | 61G4 | BM | 68A2 | | | M | 62A/A1 | M | 62A/A1 | | | M | 62A/A1 | M | 62A/A1 | 6 |
| 5 | EMB | - | | | M | 62A/C2 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 63C6 | | | M | 61E2 | | | EBM | 61E4 | BM | - | | | M | 28A/C4 | M | 28A/C4 | | | M | 28A/C4 | M | 28A/C4 | 4 |
| 3 | EBM | - | | | M | 69H4 | | | M | - | M | 63C2 | | | | | | | | | | | | | 3 |
| 2 | EBM | 63D6 | | | M | 6826 | | | M | 61F1 | BM | 121D8 | | | M | 22F6 | M | 22F6 | | | M | 22G6 | M | 22G6 | 2 |
| 1 | EBM | 61D3 | | | M | 6785 | | | M | 61G1 | M | 63E2 | | | M | 28A/C3 | M | 28A/C3 | | | M | 28A/D3 | M | 28A/D3 | 1 |
| COIL | | 61D0 | | | | 10880 | | | | 63G0 | | 63E8 | | | | 28A/C8 | | 28A/E8 | | | | 28A/A8 | | 28A/D8 | COIL |

RELAY

| DESIG | LTA | | LTB | | | (2)OA,OB | | OCN | | | PHC | | PN | | PTN | | | | RGT | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF533 | | AF533 | | | AF521 | | AF112 | | | AF514 | | AF515 | | AF515 | | | | AF118 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 60E4 | M | 60F4 | | M | 62B/E4 | M | - | | M | 62B/E4 | BM | 63A8 | BM | 63D8 | | | | | | | 12 |
| 11 | M | 121B4 | M | 121F4 | | M | 121D4 | M | - | | | | M | 6202 | M | - | | | | | | | 11 |
| 10 | M | 63C2 | M | 63C2 | | M | 22F6 | M | - | | M | 121A4 | BM | 121C7 | BM | 121C6 | | | E3M | 28A/B2 | | | 10 |
| 9 | | | | | | M | 63C0 | M | - | | | | | | | | | | PM | 62A/A7 | | | 9 |
| 8 | M | 60F0 | M | 60F0 | | BM | - | EBM | 63G3 | | M | 22H6 | BM | - | BM | 58A2 | | | | | | | 8 |
| 7 | B | 124F1 | B | 124F1 | | M | 62D2 | | | | | | B | 64F4 | B | 64F3 | | | | | | | 7 |
| 6 | M | 62A/A1 | M | 62A/A1 | | BM | - | EBM | 61F4 | | M | 63E2 | BM | 68A1 | BM | 68A2 | | | EBM | 28A/F8 | | | 6 |
| 5 | | | | | | M | 60F4 | | | | | | | | | | | | | | | | 5 |
| 4 | M | 28A/C4 | M | 28A/D3 | | BM | - | EBM | 61G4 | | M | 6002 | BM | - | BM | - | | | PM | 28A/G8 | | | 4 |
| 3 | | | | | | M | 60E4 | M | - | | | | M | 63C2 | M | a | | | M | 63F6 | | | 3 |
| 2 | M | 22G8 | M | 22H8 | | M | 6004 | M | 61G1 | | M | 60C4 | BM | 121D7 | BM | 121D6 | | | | | | | 2 |
| 1 | M | 28A/D3 | M | 28A/D4 | | M | 6084 | M | 61G1 | | | | M | 6302 | M | 6382 | | | | | | | 1 |
| COIL | | 28A/B8 | | 28A/D8 | | | 20A/F9 | | 63H0 | | | 20A/G5 | | 63 .8 | | 63C8 | | | | 29A/F9 | | | COIL |

(ZED) 121B/B4
a
(ZEF) 121A/G4

RELAY

| DESIG | | RIA | | RIPA | | SNGI | | | TBIA | | THC | | TN | | | THTO | THTI | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AF24 | | AF24 | | AF521 | | | AF24 | | AF514 | | AF515 | | | AF524 | AF524 | | CODE |
| OPTION | | | | ZQW | | | | | | | | | | | | ZZA | ZZA | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | 6303 | M | 62A/E2 | M | 62A/D4 | | | M | 62A/E2 | M | 62B/E3 | BM | 6388 | | M | 49B/C7 | M | 49B/E7 | | | 12 |
| 11 | | | M | 63D4 | M | - | M | 62A/B5 | | | M | 6303 | | | M | 6302 | | | | | | | 11 |
| 10 | | | M | 63F4 | M | 63F3 | M | 63A7 | | | M | 63G4 | M | 12184 | BM | 12IC7 | | M | - | M | - | | | 10 |
| 9 | | | M | 6380 | M | 6381 | M | 62B/B2 | | | M | 6380 | | | | | | | | | | | | 9 |
| 8 | | | M | 62A/E2 | M | - | BM | 84F6 | | | M | - | M | 22H8 | BM | 68A2 | | EBM | 61G3 | EBM | 61G3 | | | 8 |
| 7 | | | M | - | M | - | M | 70E0 | | | M | - | | | B | 64F4 | | | | | | | | 7 |
| 6 | | | M | 88B/G6 | M | 88B/H6 | BM | 8303 | | | M | 88B/G6 | M | 83C2 | BM | 68A2 | | EBM | 61F3 | EBM | 61F3 | | | 6 |
| 5 | | | M | 62A/C2 | M | 62A/C3 | M | 105A1 | | | M | 62A/C2 | | | | | | | | | | | | 5 |
| 4 | | | M | 61G8 | M | 61F8 | BM | 6387 | | | M | 61G8 | M | 6002 | BM | - | | M | - | M | 61H3 | | | 4 |
| 3 | | | M | 69H3 | M | 69G4 | M | 63E7 | | | M | 69H4 | | | M | 6382 | | | | | | | | 3 |
| 2 | | | M | 6887 | M | 68A6 | M | 6307 | | | M | 6886 | M | 60E4 | BM | 121D7 | | M | - | M | 61F3 | | | 2 |
| 1 | | | M | 6785 | M | 6789 | M | 116F8 | | | M | 6785 | | | M | 6302 | | | | | | | | 1 |
| COIL | | | | 10C0 | | 108A0 | | 6280 | | | | 108E0 | | 20A/G9 | | 6388 | | | 49C/E2 | | 49C/D2 | | | COIL |

RELAY

| DESIG | THTO | | THTI | | | THTO | | THTI | | THT2 | | THT3 | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ501 | | | AK502 | | | | AK502 | | | | | | | | | | | | CODE |
| OPTION | ZZB | | ZZB | | | ZTT | | ZTT | | ZTT | | ZTT | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 49C/F6 | EBM | 49C/E6 | | EBM | 61E6 | | | EBM | 61F6 | | | | | | | | | | | | 12 |
| 11 | EBM | 33B/A7 | EBM | 33B/A7 | | EBM | - | | | EBM | 61E6 | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | | EBM | 33B/A7 | | | EBM | 33B/A7 | | | | | | | | | | | | 10 |
| 9 | EBM | - | EBM | - | | EMB | 61G3 | | | EMB | 61H3 | | | | | | | | | | | | 9 |
| 8 | EMB | 61G3 | EMB | 61G3 | | EMB | 61E3 | | | EMB | 61G3 | | | | | | | | | | | | 8 |
| 7 | EBM | - | EBM | - | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 61F3 | EMB | 61F3 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | - | EMB | - | | | | EMB | 61F3 | | | EMB | 61G3 | | | | | | | | | | 5 |
| 4 | EBM | - | EBM | 61H3 | | | | EMB | 61H3 | | | EMB | 61H3 | | | | | | | | | | 4 |
| 3 | EBM | - | EBM | - | | | | EBM | 33B/A7 | | | EBM | 33B/C7 | | | | | | | | | | 3 |
| 2 | EBM | - | EBM | 61F3 | | | | EBM | 61E6 | | | EBM | - | | | | | | | | | | 2 |
| 1 | EBM | - | EBM | - | | | | EBM | 61E6 | | | EBM | 61E6 | | | | | | | | | | 1 |
| COIL | | 49C/E2 | | 49C/D2 | | | 49C/E2 | | 49C/D2 | | 49C/C2 | | 49C/B2 | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AST | 61U0 | 185A |
| BNA | 108B0 | 185A |
| ECN | 63H0 | 185A |
| EN | 63E8 | 185A |
| LEA | 28A/C8 | 185A |
| LEB | 28A/E8 | 185A |
| LPA | 28A/A8 | 185A |
| LPB | 28A/D8 | 185A |
| LTA | 28A/B8 | 185A |
| LTB | 28A/D8 | 185A |
| [2] OA,OB | 20A/F9 | 185A |
| OCN | 63H0 | 185A |
| PHC | 20A/G9 | 185A |
| PN | 63A8 | 185A |
| PTN | 63C8 | 185A |

NETWORK (CONT)

| | DESIG | LOC | CODE |
|---|---|---|---|
| | RGT | 28A/F9 | 185A |
| | RIA | 108C0 | 185A |
| (ZQW) | RIPA | 108A0 | 185A |
| | SNGI | 62A/B0 | 185A |
| | TBIA | 108E0 | 185A |
| | T8S | 6883 | 177J |
| | THC | 20A/G9 | 185A |
| (ZZA,ZZB,ZTT) | THTO | 49C/E2 | 185A |
| | THTI | 49C/D2 | 185A |
| (ZTT) | THT2 | 49C/E2 | 185A |
| | THT3 | 49C/D2 | 185A |
| | TN | 63B8 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| RGT | 28A/F9 | 18DA |
| T8S | 6882 | KS-13490,L3 33,000 |

DRAWING ISSUE

| | |
|---|---|
| 1 | F,J,B |
| 20 | A,C,-- |
| 90 | Rem JSH |
| 11B | CH JSH PVS YMJ |
| 18D | |
| 21D | SGB JDP GWJ |
| 22D | CDH JDP AAD |
| 25D | PEC WAD JMD |
| 30D | DLB JMD JMD |
| 33D | AJV CLK JMD |
| 35D | CK GPL BMD |
| 37D | SSL |
| 38A | ESM |
| 39D | ESM |
| 43D | |
| 45D | |

DRAWING ISSUE

65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C29

BELL TELEPHONE LABORATORIES, INC

6S

# ㊵APP FIG. 44

RELAY

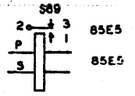
| DESIG | MN | | MN1 | | CNT | | CNTA | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF25 | | AF59 | | AF42 | | AF114 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | PU | | PU | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | EMB | 85D4 | | | | | | | | | | | | | | | 12 |
| 11 | | | | | M | - | | | | | | | | | | | | | | | 11 |
| 10 | M | - | M | - | EBM | - | M | - | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | - | M | - | EBM | - | BM | - | | | | | | | | | | | | | 8 |
| 7 | B | 85E4 | | | B | 85G0 | | | | | | | | | | | | | | | 7 |
| 6 | M | - | M | 31D/88 | EMB | - | BM | - | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | - | M | 85F4 | EBM | 66F4 | M | - | | | | | | | | | | | | | 4 |
| 3 | | | | | M | - | | | | | | | | | | | | | | | 3 |
| 2 | M | 85F1 | | | EBM | 41E7 | B | 85D2 | | | | | | | | | | | | | 2 |
| 1 | | | | | M | 41B/F9 | | | | | | | | | | | | | | | 1 |
| COIL | | 85E4 | | 85E4 | | 85D4 | | 66E4 | | | | | | | | | | | | | COIL |

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

[8] M0-1, M2-3, M4-5, M6-7, M8-9.

S89




MPT S29

| NETWORK DESIG | | LOC | CODE |
|---|---|---|---|
| | MN | 85F4 | ½ 177C |
| | MN1 | 85E4 | 185A |
| (PU) | CNT | 85D4 | 185A |
| (PU) | CNTA | 66E4 | 185A |

| RESISTOR DESIG | | LOC | CODE |
|---|---|---|---|
| | MN | 85F4 | KS-13490,L1 51,000 |
| [10] | PTO-9 | 85H3 | KS-13492,L1 5600 |
| | PTL | 85H3 | KS-13492,L1 5600 |

| TUBE DESIG | | LOC | CODE |
|---|---|---|---|
| [10] | PTO-9 | 85H4 | 313C |
| | PTL | 85H4 | 313C |

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 25D | 58A |
| 33D | |

SD-26002-01-C30

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

ISSUE 58A

SD-26002-01-C30

# ㊾ APP FIG. 45

RELAY

| DESIG | 2LH | | JB | | LNT | | MTIS | | NH | | NH | | NT | | NTI | | NT2 | | NT3 | | NT4 | | NT5 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF42 | | AF52 | | AF52 | | AJ12 | | AF55 | | AF50 | | AF82 | | AF24 | | AF98 | | AF24 | | AF33 | | AF100 | | CODE |
| OPTION | ZKD | | | | | | | | UH | | JI | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EMB | 71A7 | M | 85C3 | M | 308/03 | EBM | 36A8 | M | 318/B4 | | | EM | 318/B4 | M | 85D1 | | | M | 6405 | M | 85G3 | EMB | 85G0 | 12 |
| 11 | M | | | | | | EBM | 85H6 | M | 33A/G7 | | | M | 85C3 | M | 85H7 | | | M | 85G4 | M | 83G3 | M | 85G4 | 11 |
| 10 | EBM | | BM | 85C3 | BM | - | EBM | 85C7 | BM | 77F3 | M | 77E2 | M | 85G4 | M | 85C7 | EBM | 85F1 | M | 85C6 | M | 83G3 | EBM | 85G1 | 10 |
| 9 | | | | | | | EBM | 85D7 | M | - | | | M | 85F1 | M | 85D7 | B | - | M | 85D8 | M | - | M | 16F7 | 9 |
| 8 | EBM | | BM | | BM | - | EBM | 85D7 | BM | 41A/E4 | BM | 41A/E4 | EBM | 33A/G7 | M | 85D7 | EBM | 85F3 | M | 85D6 | M | - | EBM | 34A/B1 | 8 |
| 7 | B | | | | | | EBM | 85E7 | B | - | | | M | 85H5 | M | 85E7 | B | - | M | 85E6 | B | 85G0 | | | 7 |
| 6 | EMB | | BM | 31A/A2 | BM | - | EBM | 85E7 | BM | 71A7 | BM | 71A7 | EMB | - | M | 85E7 | EMB | 85G4 | M | 85E6 | M | - | EMB | 34C/B2 | 6 |
| 5 | | | | | | | EBM | 85F7 | M | - | | | M | 81D4 | M | 85F7 | B | - | M | 85F6 | B | 85C4 | | | 5 |
| 4 | EBM | | BM | 85E3 | BM | 107C2 | EBM | 85F7 | BM | 108F4 | M | 108F4 | EBM | 31B/F7 | M | 85F7 | EBM | 85G3 | M | 05F4 | M | - | EBM | 85D4 | 4 |
| 3 | M | 77H4 | | | | | EBM | 85G7 | M | - | | | M | 77F2 | M | 85G7 | B | - | M | 85G8 | M | 85D4 | M | 85E3 | 3 |
| 2 | EBM | | M | 87D0 | M | 36A6 | EBM | 85G7 | M | - | | | M | 41A/L5 | M | 85G7 | M | 85H6 | M | 85G8 | M | - | EBM | 87E1 | 2 |
| 1 | M | 71A7 | M | 41A/C7 | M | 30A/B5 | EBM | 85H7 | M | 47G8 | | | M | 71A7 | M | 85H7 | | | M | 85H6 | M | - | M | 41A/E7 | 1 |
| COIL | | 71A6 | | 85B3 | | 85E2 | | 85G. | | 85C0 | | 85C0 | | 85D0 | | 85D3 | | 85D2 | | | | 85F2 | | 85G0 | COIL |

RELAY

| DESIG | | NTC | | | | NTH | | NTR | | NTT | | SPH | | SFR | | SPC | | SPH | | SPL | | SPL1 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AG14 | | | | AG6 | | AG7 | | AF55 | | AJ12 | | AJ501 | | AF114 | | AF114 | | AF55 | | AJ501 | | CODE |
| OPTION | | | | | | | | | | | | RE | | | | | | RO | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | EMB | - | M | - | M | 85G1 | EBM | 318/B4 | EBM | - | | | | | M | 85G1 | EBM | 85B0 | 12 |
| 11 | | | | | | | | M | - | M | 85D3 | EBM | 33A/G7 | EBM | - | | 33A/G7 | | | M | 85D3 | EBM | 85C0 | 11 |
| 10 | | | | | | EBM | 85B3 | EBM | - | BM | 107B3 | EBM | 41A/E5 | EBM | 83E2 | M | - | M | 41A/E5 | BM | a | EBM | 82F1 | 10 |
| 9 | | | B | - | | | | M | 31A/A1 | M | 85C2 | EBM | - | EBM | - | | | | | M | 85C3 | EBM | 74A1 | 9 |
| 8 | | | M | - | | EBM | - | EBM | - | BM | 34A/B0 | EBM | 64C2 | EBM | 83C3 | BM | - | BM | 64C2 | BM | 35B/C0 | EMB | 85D1 | 8 |
| 7 | | | B | 41A/E7 | | B | - | | | B | - | EBM | - | EBM | - | | | | | B | 85B3 | EBM | 108F5 | 7 |
| 6 | | | M | - | | EMB | 85E2 | EBM | - | BM | 83F3 | EBM | 64A2 | EMB | 16C2 | BM | 83H2 | BM | 64A2 | BM | 72G7 | EMB | 64A2 | 6 |
| 5 | | | B | - | | | | M | - | M | 83B4 | EBM | - | EMB | - | | | | | M | 85E4 | EMB | 31A/B8 | 5 |
| 4 | | | M | 85G1 | | EBM | - | EBM | 36A6 | BM | 31A/B0 | EBM | 108F4 | EBM | 85C2 | M | 85B2 | M | 108F5 | BM | 85C2 | EBM | 85H0 | 4 |
| 3 | | | | | | | | M | - | M | 85D4 | EBM | - | EBM | - | | | | | M | 85C2 | EBM | 16C2 | 3 |
| 2 | | | | | | EBM | 85F0 | M | 8700 | M | 36A7 | EBM | 47G8 | EBM | - | B | 83E2 | B | - | M | 36A6 | EBM | 9 | 2 |
| 1 | | | | | | M | 85G2 | M | 85G1 | M | 41A/C7 | EBM | 71A7 | EBM | - | | | | | M | 35B/E1 | EBM | 83H2 | 1 |
| COIL | | | 85F0 | | | | 85F0 | | 85/G2 | | 85D3 | | 85C0 | | 85B1 | | 85H1 | | 85C0 | | 85E0 | | 85E0 | COIL |

RELAY

| DESIG | SPL2 | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | RE | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 318/B3 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | EBM | 21B/D4 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 107H2 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | 33A/G8 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | 70H0 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | EBM | - | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | - | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | 77G4 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 47H9 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 85H1 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | a | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 71A7 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 85E0 | | | | | | | | | | | | | | | | | | | | | | | COIL |
| | a | 77A3 10586 | | | | | | | | | | | | | | | | | | | | | | | |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY
LFO-9
280AS

31A/C7
85E6

RELAY
LFO 9
313.4

31A/C7
85E6

DIODE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZIA | TNK | 70H? | 446F |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| SP | 85H1 | 13J |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ZKD 2LH | 71A6 | 185A |
| LF | 85H6 | 177K |
| LNT | 85E2 | 185A |
| NH | 85C0 | 185A |
| NT | 85D0 | 185A |
| NTI | A503 | 185A |
| NT2 | 85D2 | 185A |
| NT3 | 85F2 | 185A |
| NT4 | 85F2 | 185A |
| NT5 | 85G0 | 185A |
| NTC | 85F0 | 185A |
| NTH | 85F0 | 185A |
| NTR | 85/G2 | 185A |
| NTT | 85D3 | 185A |
| SFR | 85B1 | 185A |
| SPC | 85H1 | 185A |
| SPH | 85C0 | 185A |
| SPL | 85E0 | 185A |
| RE SPL2 | 85E0 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| CHT2 | 318/L6 | 19YN |
| NTI | 85G4 | KS-5643, L325, 120 |
| NT2 | 85F3 | KS-8512, L39A 40 |

| DRAWING ISSUE | |
|---|---|
| 1 | - |
| 2D | FJH |
| 3D | |
| 8D | |
| 10B | |
| 13B | |
| 21D | |
| 22D | |
| 24D | |
| 25D | |
| 29A | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 38A | EM |
| 39D | EM |
| 43D | |
| 44A | |
| 45D | |

TU 41A/G2
a
PP 85H1

a
SN 1008/C2
SP 104A/D6

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

SD-26002-01-C31

ISSUE 29B

# PART OF APP FIG. 46

RELAY

| DESIG | A0 | | A1 | | A2 | | A4 | | A7 | | | | B0 | | B1 | | B2 | | B4 | | B7 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT APR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT AHR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | | | EBM | a | EBM | a | EBM | 56A4 | EBM | a | EBM | a | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 56A2 | EBM | 56A2 | EBM | 56A3 | | | EBM | - | EBM | - | EBM | 56A4 | EBM | 56A4 | EBM | 56A5 | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | 5681 | EBM | 5682 | EBM | 5682 | EBM | 5683 | | | EBM | - | EBM | 5683 | EBM | 5684 | EBM | 5684 | EBM | 5685 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 5681 | EBM | 5681 | EBM | 5682 | EBM | 5682 | EBM | 5683 | | | EBM | 5683 | EBM | 5683 | EBM | 5684 | EBM | 5684 | EBM | 5685 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 51A7 | | 52A7 | | 53A7 | | 54A7 | | 55A7 | | | | 51A7 | | 52A7 | | 53A7 | | 54A7 | | 55A7 | | | COIL |
| | | | | | | | | | | | | | ZLQ 56F0 a ZKC 56A3 | | ZLQ 56F1 a ZKC 56A4 | | | | ZLQ 56F0 a ZKC 56A4 | | ZLQ 56F1 a ZKC 56A5 | | | | |

RELAY

| DESIG | C0 | | C1 | | C2 | | C4 | | C7 | | | | D0 | | D1 | | D2 | | D4 | | D7 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 5685 | EBM | 5685 | EBM | 5686 | EBM | 5686 | EBM | 5687 | | | E3M | 5687 | EBM | 5687 | EBM | 5688 | EBM | 5688 | EBM | 5689 | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 56A6 | EBM | 56A6 | EBM | 56A7 | | | EBM | - | EBM | - | EBM | 56A8 | EBM | 56A8 | EBM | 56A9 | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | 5685 | EBM | 5686 | EBM | 5686 | EBM | 5687 | | | EBM | - | EBM | 5687 | EBM | 5688 | EBM | 5688 | EBM | 5689 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 5685 | EBM | 5635 | EBM | 5686 | EBM | 5686 | EBM | 5687 | | | EBM | 5687 | EBM | 5687 | EBM | 5688 | EBM | 5688 | EBM | 5689 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 51B7 | | 52B7 | | 53B7 | | 54B7 | | 55B7 | | | | 51C7 | | 52C7 | | 53C7 | | 54C7 | | 55C7 | | | COIL |

RELAY

| DESIG | E0 | | E1 | | E2 | | E4 | | E7 | | | | F0 | | F1 | | F2 | | F4 | | F7 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 56E9 | EBM | 56E8 | EBM | 56E8 | EBM | 56E7 | EBM | 56E7 | | | EBM | 56E7 | EBM | 56E6 | EBM | 56E6 | EBM | 56E5 | EBM | 56E5 | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 5608 | EBM | 5607 | EBM | 5607 | | | EBM | - | EBM | - | EBM | 5606 | EBM | 5605 | EBM | 5605 | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | 5608 | EBM | 5608 | EBM | 5607 | EBM | 5607 | | | EBM | - | EBM | 5606 | EBM | 5606 | EBM | 5605 | EBM | 5605 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 56E9 | EBM | 56E8 | EBM | 56E8 | EBM | 56E7 | EBM | 56E7 | | | EBM | 56E7 | EBM | 56E6 | EBM | 56E6 | EBM | 56E5 | EBM | 56E5 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 51D7 | | 52D7 | | 53D7 | | 54D7 | | 55D7 | | | | 51E7 | | 52E7 | | 53E7 | | 54E7 | | 55E7 | | | COIL |

RELAY

| DESIG | G0 | | G1 | | G2 | | G4 | | G7 | | | | H0 | | H1 | | H2 | | H4 | | H7 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 56E5 | EBM | 56E4 | EBM | 56E4 | EBM | 56E3 | EBM | 56E3 | | | EBM | 56E3 | EBM | 56E2 | EBM | 56E2 | EBM | 56E1 | EBM | 56E1 | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 5604 | EBM | 5603 | EBM | 5603 | | | EBM | - | EBM | - | EBM | 5602 | EBM | 5601 | EBM | 5601 | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | 5604 | EBM | 5604 | EBM | 5603 | EBM | 5603 | | | EBM | - | EBM | 5602 | EBM | 5602 | EBM | 5601 | EBM | 5601 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 56E5 | EBM | 56E4 | EBM | 56E4 | EBM | 56E3 | EBM | 56E3 | | | EBM | 56E3 | EBM | 56E2 | EBM | 56E2 | EBM | 56E1 | EBM | 56E1 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 51F7 | | 52F7 | | 53F7 | | 54F7 | | 55F7 | | | | 51F7 | | 52F7 | | 53F7 | | 54F7 | | 55F7 | | | COIL |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 20 | BL |

COMPLETING MARKER CIRCUIT

(2)

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

ISSUE 57B

SD-26002-01-C32

26002-01-C32

# PART OF APP FIG. 46

RELAY

| DESIG | J0 | | J1 | | J2 | | J4 | | J7 | | | | K0 | | K1 | | K2 | | K4 | | K7 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 56G1 | EBM | 56G1 | EBM | 56G2 | EBM | 56G2 | EBM | 56G3 | | | EBM | 56G3 | EBM | 56G3 | EBM | 56G4 | EBM | 56G4 | EBM | 56G5 | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 56F2 | EBM | 56F2 | EBM | 56F3 | | | EBM | - | EBM | - | EBM | 56F4 | EBM | 56F4 | EBM | 56F5 | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | 56G1 | EBM | 56G2 | EBM | 56G2 | EBM | 56G3 | | | EBM | - | EBM | 56G3 | EBM | 56G4 | EBM | 56G4 | EBM | 56G5 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 56G1 | EBM | 56G1 | EBM | 56G2 | EBM | 56G2 | EBM | 56G3 | | | EBM | 56G3 | EBM | 56G3 | EBM | 56G4 | EBM | 56G4 | EBM | 56G5 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 51G7 | | 52G7 | | 53G7 | | 54G7 | | 55G7 | | | | 51G7 | | 52G7 | | 53G7 | | 54G7 | | 55G7 | | | COIL |

RELAY

| DESIG | L0 | | L1 | | L2 | | L4 | | L7 | | | | KA | | KBC | | KDE | | KFG | | KG | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | AF506 | | AF506 | | AF506 | | AF506 | | AF507 | | | | CODE |
| OPTION | EL | | EL | | EL | | EL | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | M | - | M | - | M | 55D6 | M | 55E6 | M | - | | | 12 |
| 11 | | | | | | | | | | | | | M | 55E8 | M | 55B6 | M | 55D6 | M | 55E6 | M | 57A/D9 | | | 11 |
| 10 | EBM | 56G5 | EBM | 56G5 | EBM | 56G6 | EBM | 56G6 | EBM | 56G7 | | | M | 54G5 | M | 54B6 | M | 54E6 | M | 54F6 | BM | - | | | 10 |
| 9 | | | | | | | | | | | | | M | 53G4 | M | 53B6 | M | 53D6 | M | 53E6 | M | 57A/C9 | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 56F6 | EBM | 56F6 | EBM | 56F7 | | | M | 52G3 | M | 52B6 | M | 52D6 | M | 52E6 | BM | - | | | 8 |
| 7 | | | | | | | | | | | | | M | 51G4 | M | 51B6 | M | 51D6 | M | 51E6 | B | - | | | 7 |
| 6 | EBM | - | EBM | 56G5 | EBM | 56G6 | EBM | 56G6 | EBM | 56G7 | | | M | 57A/A7 | M | 57A/A7 | M | 57A/A7 | M | 57A/B7 | BM | - | | | 6 |
| 5 | | | | | | | | | | | | | M | 55A6 | M | 55A6 | M | 55C6 | M | 55E6 | M | 57A/B9 | | | 5 |
| 4 | EBM | 55G5 | EBM | 56G5 | EBM | 56G6 | EBM | 56G6 | EBM | 56G7 | | | M | 54A6 | M | 54A6 | M | 54C6 | M | 54E6 | BM | - | | | 4 |
| 3 | | | | | | | | | | | | | M | 53A6 | M | 53A6 | M | 53C6 | M | 53E6 | M | 57A/B9 | | | 3 |
| 2 | | | | | | | | | | | | | M | 52A6 | M | 52A6 | M | 52C6 | M | 52E6 | M | 57A/A9 | | | 2 |
| 1 | | | | | | | | | | | | | M | 51A6 | M | 51A6 | M | 51C6 | M | 51E6 | M | 57A/A9 | | | 1 |
| COIL | | 51H7 | | 52H7 | | 53H7 | | 54H7 | | 55H7 | | | | 57A/A8 | | 57A/A8 | | 57A/B8 | | 57A/B8 | | 57A/B0 | | | COIL |

RELAY

| DESIG | KGS1 | | KGS2 | | KHJ | | KK | | KKL | | KGS3 | | KGS4 | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF506 | | AF506 | | AF506 | | AF511 | | AF506 | | AF506 | | AF506 | | | | | | | | | | | | CODE |
| OPTION | R,S | | R,S | | | | | | | | IA | | IA | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 57A/C7 | M | 57A/C7 | M | 55F6 | | | M | 55G6 | M | 57A/C7 | M | 57A/C7 | | | | | | | | | | | 12 |
| 11 | M | 88B/G2 | M | 55D6 | M | 55G6 | | | M | 55G6 | M | - | M | 55D6 | | | | | | | | | | | 11 |
| 10 | M | 55A5 | M | 55C5 | M | 54G6 | M | 63H4 | M | 54G6 | M | 55B5 | M | 55D5 | | | | | | | | | | | 10 |
| 9 | M | 55A5 | M | 55B5 | M | 53G6 | | | M | 53G6 | M | 55A5 | M | 55C5 | | | | | | | | | | | 9 |
| 8 | M | 54A5 | M | 54C5 | M | 52G6 | BM | 57B/B6 | M | 52H6 | M | 54B5 | M | 54D5 | | | | | | | | | | | 8 |
| 7 | M | 54A5 | M | 54B5 | M | 51F6 | B | - | M | 51G6 | M | 54A5 | M | 54C5 | | | | | | | | | | | 7 |
| 6 | M | 53A5 | M | 53C5 | M | 57A/B7 | BM | - | M | 57A/B7 | M | 53B5 | M | 53D5 | | | | | | | | | | | 6 |
| 5 | M | 53A5 | M | 53B5 | M | 55F6 | | | M | 55G6 | M | 53A5 | M | 53C5 | | | | | | | | | | | 5 |
| 4 | M | 52A5 | M | 52C5 | M | 54F6 | M | 57B/A1 | M | 54G6 | M | 52B5 | M | 52D5 | | | | | | | | | | | 4 |
| 3 | M | 52A5 | M | 52B5 | M | 53F6 | | | M | 53G6 | M | 52A5 | M | 52C5 | | | | | | | | | | | 3 |
| 2 | M | 51A5 | M | 51C5 | M | 52F6 | | | M | 52G5 | M | 51B5 | M | 51D5 | | | | | | | | | | | 2 |
| 1 | M | 51A5 | M | 51B5 | M | 51F6 | | | M | 51G5 | M | 51A5 | M | 51C5 | | | | | | | | | | | 1 |
| COIL | | 57A/B0 | | 57A/C0 | | 57A/C8 | | 57A/A6 | | 57A/D8 | | 57A/A0 | | 57A/A0 | | | | | | | | | | | COIL |

RELAY

| DESIG | ORK1 | | ORK2 | | | | | | ST7 | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF514 | | AF508 | | | | | | AF531 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | EL | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | - | M | - | | | | | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 56A0 | M | - | | | | | EBM | - | | | | | | | | | | | | | | | 8 |
| 7 | | | B | 86G8 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 31B/B1 | M | 31B/B1 | | | | | EBM | - | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 57B/B6 | M | 57B/B- | | | | | EBM | 56H0 | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 57B/C1 | M | 57B/B1 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 56B0 | | 56H0 | | | | | | 55G9 | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| A0 | 51A7 | 185A |
| A1 | 52A7 | 185A |
| A2 | 53A7 | 185A |
| A4 | 54A7 | 185A |
| A7 | 56A7 | 185A |
| B0 | 51A7 | 185A |
| B1 | 52A7 | 185A |
| B2 | 53A7 | 185A |
| B4 | 54A7 | 185A |
| B7 | 55A7 | 185A |
| C0 | 51B7 | 185A |
| C1 | 52B7 | 185A |
| C2 | 53B7 | 185A |
| C4 | 54B7 | 185A |
| C7 | 55B7 | 185A |
| D0 | 51C7 | 185A |
| D1 | 52C7 | 185A |
| D2 | 53C7 | 185A |
| D4 | 54C7 | 185A |
| D7 | 55C7 | 185A |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| E0 | 51D7 | 185A |
| E1 | 52D7 | 185A |
| E2 | 53D7 | 185A |
| E4 | 54D7 | 185A |
| E7 | 55D7 | 185A |
| F0 | 51E7 | 185A |
| F1 | 52E7 | 185A |
| F2 | 53E7 | 185A |
| F4 | 54E7 | 185A |
| F7 | 55E7 | 185A |
| G0 | 51F7 | 185A |
| G1 | 52F7 | 185A |
| G2 | 53F7 | 185A |
| G4 | 54F7 | 185A |
| G7 | 55F7 | 185A |
| H0 | 51F7 | 185A |
| H1 | 52F7 | 185A |
| H2 | 53F7 | 185A |
| H4 | 54F7 | 185A |
| H7 | 55F7 | 185A |

NETWORK (CONT)

| | DESIG | LOC | CODE |
|---|---|---|---|
| | J0 | 51G7 | 185A |
| | J1 | 52G7 | 185A |
| | J2 | 53G7 | 185A |
| | J4 | 54G7 | 185A |
| | J7 | 55G7 | 185A |
| | K0 | 51C7 | 185A |
| | K1 | 52G7 | 185A |
| | K2 | 53G7 | 185A |
| | K4 | 54G7 | 185A |
| | K7 | 55G7 | 185A |
| EL | L0 | 51H7 | 185A |
| EL | L1 | 52H7 | 185A |
| EL | L2 | 53H7 | 185A |
| EL | L4 | 54H7 | 185A |
| EL | L7 | 55H7 | 185A |
| | KA | 57A/A8 | 185A |
| | KBC | 57A/A8 | 185A |
| | KDE | 57A/B8 | 185A |
| | KFG | 57A/B8 | 185A |
| | KG | 57A/B0 | 185A |
| | KK | 57A/A6 | 185A |

NETWORK (CONT)

| | DESIG | LOC | CODE |
|---|---|---|---|
| R,S | KGS1 | 57A/B0 | 185A |
| IA | KGS4 | 57A/A0 | 185A |
| | KHJ | 57A/C8 | 185A |
| | KKL | 57A/D8 | 185A |
| | ORK1 | 56B0 | 185A |
| | ORK2 | 56H0 | 185A |
| EL | ST7 | 55G9 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 1 | PJB |
| 2D | BLC |
| 4A | HMM MHB SSW WOR MH |
| 22D | LP CWL AHB |
| 33D | DP DBL AHB |
| 35D | RA |
| 43D | |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C33

BELL TELEPHONE LABORATORIES, INC

SIZE 6S

53B

SD-26002-01-C33

# APP FIG 47

RELAY

| DESIG | B147 | | B258 | | B369 | | BC0 | | BC1 | | BC2 | | BC4 | | BC7 | | CC0 | | CC1 | | CC2 | | CC4 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AF504 | | AF504 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | | M | | M | | M | 51A3 | M | 52A3 | M | 53A3 | M | 54A3 | M | 55A3 | M | 51B3 | M | 52B3 | M | 53B3 | M | 54B3 | 12 |
| 11 | M | | M | | M | | M | | M | | M | | M | | M | | M | 26G2 | M | 26G2 | M | 26G2 | M | | 11 |
| 10 | M | 26E4 | M | 26D4 | M | 26A4 | M | 25G2 | M | 25G2 | M | 25G3 | M | 25G3 | M | 25H3 | M | | M | | M | | M | | 10 |
| 9 | M | 26E4 | M | 26D4 | M | 26A4 | M | 25F3 | M | 25F2 | M | 25G3 | M | 25F2 | M | 25G2 | M | | M | | M | | M | | 9 |
| 8 | M | 26E4 | M | 26D4 | M | 26B4 | BM | 25F2 | BM | 25E3 | BM | 25G1 | BM | 25D1 | BM | 25D2 | BM | | BM | | BM | 26C1 | BM | 26C1 | 8 |
| 7 | M | 26F4 | M | 26D4 | M | 26B4 | M | | M | | M | 25F3 | M | | M | | M | | M | | M | | M | | 7 |
| 6 | M | 26F4 | M | 26D4 | M | 26B4 | BM | | BM | 25D1 | BM | 25D1 | BM | 25D1 | BM | 25D2 | BM | | BM | 26C1 | BM | 26C1 | BM | 26C1 | 6 |
| 5 | M | 26F4 | M | 26D4 | M | 26B4 | M | 25D2 | M | 25B2 | M | 25A2 | M | 25D3 | M | 25B3 | M | 26B2 | M | 26A2 | M | 25A2 | M | 26B3 | 5 |
| 4 | M | 26F4 | M | 26E4 | M | 26C4 | BM | 25C0 | BM | 25C1 | BM | 25C1 | BM | 25C1 | BM | | BM | 26C0 | BM | 26C1 | BM | 26C1 | BM | 26C1 | 4 |
| 3 | M | 26G4 | M | 26E4 | M | 26C4 | M | 25B2 | M | 25D2 | M | 25D3 | M | 25E2 | M | 25B3 | M | 26A2 | M | 26C2 | M | 26C3 | M | 26C2 | 3 |
| 2 | M | 26G4 | M | 26E4 | M | 26C4 | M | 25D2 | M | 25D3 | M | 25C2 | M | 25C3 | M | 25A3 | M | 26C2 | M | 26B1 | M | 26C3 | M | 26B3 | 2 |
| 1 | M | 26G4 | M | 26E4 | M | 26C4 | M | 25E2 | M | 25E3 | M | 25C2 | M | 25C3 | M | 25E3 | M | 26C2 | M | 26C3 | M | 26B2 | M | 26B3 | 1 |
| COIL | | 25F3 | | 25G3 | | 25G3 | | 51A3 | | 52A3 | | 53A3 | | 54A3 | | 55A3 | | 51B3 | | 52B3 | | 53B3 | | 54B3 | COIL |

RELAY

| DESIG | CC7 | | | | IDD | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | | | AJ503 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | ZXI | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 55B3 | | | EBM | 47C7 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | M | | | | EBM | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | | | | EBM | 40G | | | | | | | | | | | | | | | | | | | 10 |
| 9 | M | | | | EBM | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | 26C2 | | | EMB | 20A/B3 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | M | | | | EBM | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | 26C2 | | | EMB | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | 26A3 | | | EMB | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | | | | EBM | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | M | 26A3 | | | EBM | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 26A3 | | | EBM | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | M | 25C3 | | | EBM | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 55B3 | | | | 20A/H9 | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| B147 | 25F3 | 185A |
| B258 | 25G3 | 185A |
| B369 | 25G3 | 185A |
| BC0 | 51A3 | 185A |
| BC1 | 52A3 | 185A |
| BC2 | 53A3 | 185A |
| BC4 | 54A3 | 185A |
| BC7 | 55A3 | 185A |
| CC0 | 51B3 | 185A |
| CC1 | 52B3 | 185A |
| CC2 | 53B3 | 185A |
| CC4 | 54B3 | 185A |
| CC7 | 55B3 | 185A |
| [illegible] | 20A/H9 | 185A |

# APP FIG 48

RELAY

| DESIG | 11X | | AC0 | | AC1 | | AC2 | | AC4 | | AC7 | | ELT | | FAC2 | | FVD | | LT | | LT2 | | OR1 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF504 | | AJ503 | | AF504 | | AF504 | | AF504 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | WO | | GK | | | | | | YZ | | QK | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 27F4 | M | 51A3 | M | 52A3 | M | 53A3 | M | 54A3 | M | 55A3 | M | 20A/A9 | EBM | 93G6 | M | 100B/G1 | M | 20A/A8 | M | 20A/B8 | EBM | 93G6 | 12 |
| 11 | M | 47H4 | M | | M | | M | | M | 102F3 | M | 102F3 | M | 60D1 | EBM | 93H6 | M | 60D1 | M | 60E1 | M | 60D0 | EBM | 93G6 | 11 |
| 10 | M | 24B/A6 | M | | M | | M | | M | | M | | M | 24B/A9 | EBM | 20A/C7 | M | 24B/B4 | M | 24B/D4 | M | 24B/B9 | EBM | a | 10 |
| 9 | M | 24B/B6 | M | | M | | M | | M | | M | | M | 24B/B9 | EBM | 1008/F2 | M | 24B/B4 | M | 24B/D4 | M | 24B/B9 | EBM | 96F6 | 9 |
| 8 | M | 24B/B6 | BM | | BM | | BM | 24B/D1 | BM | 24B/D2 | BM | 24B/D2 | M | 24B/C9 | EMB | 47C6 | M | 24B/B4 | M | 24B/B4 | M | 24B/B9 | EMB | 47D7 | 8 |
| 7 | M | 24B/F6 | M | | M | | M | | M | 102C3 | M | 102C7 | M | 24B/C9 | EBM | | M | 24B/C4 | M | 24B/C4 | M | 24B/C9 | EBM | 24C/D6 | 7 |
| 6 | M | 24B/D6 | BM | | BM | 24B/D1 | BM | 24B/D1 | BM | 24B/D2 | BM | 24B/D2 | M | 24B/D9 | EMB | | M | 24B/D4 | M | 24B/D4 | M | 24B/D9 | EMB | 20A/G3 | 6 |
| 5 | M | 24B/D6 | M | 24B/E3 | M | 24B/B3 | M | 24B/A3 | M | 24B/E3 | M | 24B/B3 | M | 24B/E9 | EMB | 20A/D8 | M | 24B/D4 | M | 24B/D4 | M | 24B/D9 | EMB | 20A/E9 | 5 |
| 4 | M | 24B/E4 | BM | 24B/D1 | BM | 24B/D1 | BM | 24B/D1 | BM | 24B/D2 | BM | 24B/D2 | M | 24B/E9 | EBM | 20A/G3 | M | 24B/E4 | M | 24B/E4 | M | 24B/E9 | EBM | 114A/D8 | 4 |
| 3 | M | 24B/F6 | M | 24B/C3 | M | 24B/E3 | M | 24B/E3 | M | 24C/B1 | M | 24B/C3 | M | 24B/F9 | EBM | 20A/F3 | M | 24B/F4 | M | 24B/F4 | M | 24B/F9 | EBM | 20A/E3 | 3 |
| 2 | M | 20A/A8 | M | 24B/F3 | M | 24B/D3 | M | 24B/F3 | M | 24B/D3 | M | 24B/A3 | M | 24B/G9 | EBM | | M | 24B/F4 | M | 24B/F4 | M | 24B/F9 | EBM | 1008/F2 | 2 |
| 1 | M | 24C/C2 | M | 24B/G3 | M | 24B/G3 | M | 24B/C3 | M | 24B/C3 | M | 24C/B1 | M | 24C/C4 | EBM | 21B/A6 | M | 24C/D2 | M | 24C/B4 | M | 24C/C4 | EBM | 21B/A6 | 1 |
| COIL | | 20A/E6 | | 51A3 | | 52A3 | | 53A3 | | 54A3 | | 55A3 | | 20A/C6 | | 21B/B7 | | 20A/F6 | | 20A/A6 | | 20A/D6 | | 21B/A7 | COIL |
| | | | | | | | | | | | | | | | | | | | | | | | LS | 96F6 | |
| | | | | | | | | | | | | | | | | | | | | | | | a ZLN | 20A/C8 | |

RELAY

| DESIG | X11 | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | b | | | | | | | | | | | 12 |
| 11 | M | 60D1 | | | | | | | | | | | 11 |
| 10 | M | 24B/A6 | | | | | | | | | | | 10 |
| 9 | M | 24B/B6 | | | | | | | | | | | 9 |
| 8 | M | 24B/B6 | | | | | | | | | | | 8 |
| 7 | M | 24B/C6 | | | | | | | | | | | 7 |
| 6 | M | 24B/D6 | | | | | | | | | | | 6 |
| 5 | M | 24B/D6 | | | | | | | | | | | 5 |
| 4 | M | 24B/E6 | | | | | | | | | | | 4 |
| 3 | M | 24B/F6 | | | | | | | | | | | 3 |
| 2 | M | a | | | | | | | | | | | 2 |
| 1 | M | 24C/D2 | | | | | | | | | | | 1 |
| COIL | | 20A/D9 | | | | | | | | | | | COIL |
| | | QJ 102C4 | | | | | | | | | | | |
| | | a HB 24B/F6 | | | | | | | | | | | |
| | | UL 100B/F1 | | | | | | | | | | | |
| | | b ZQZ 34B/46 | | | | | | | | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 11X | 20A/E6 | 185A |
| AC0 | 51A3 | 185A |
| AC1 | 52A3 | 185A |
| AC2 | 53A3 | 185A |
| AC4 | 54A3 | 185A |
| AC7 | 55A3 | 185A |
| WO ELT | 20A/C6 | 185A |
| GK FAC2 | 21B/B7 | 185A |
| FVD | 20A/F6 | 185A |
| LT | 20A/A6 | 185A |
| VZ LT2 | 20A/D6 | 185A |
| QK OR1 | 21B/A7 | 185A |
| X11 | 20A/D9 | 185A |

# APP FIG. 49

RELAY

| DESIG | [30]BTOR,S,T TO BT9R,S,T |
|---|---|
| CODE | 286L,286E |
| OPTION | SG,SF |
| 54 | 26B6 |
| 53 | 26B6 |
| 52 | 26B6 |
| 51 | 26B6 |
| 50 | 26B6 |
| 44 | 26C6 |
| 43 | 26C6 |
| 42 | 26C6 |
| 41 | 26C6 |
| 40 | 26C6 |
| 34 | 26D6 |
| 33 | 26D6 |
| 32 | 26D6 |
| 31 | 26D6 |
| 30 | 26D6 |
| 24 | 26E6 |
| 23 | 26E6 |
| 22 | 26E6 |
| 21 | 26E6 |
| 20 | 26E6 |
| 14 | 26F6 |
| 13 | 26F6 |
| 12 | 26F6 |
| 11 | 26F6 |
| 10 | 26F6 |
| 04 | 26G6 |
| 03 | 26G6 |
| 02 | 26G6 |
| 01 | 26G6 |
| 00 | 26G6 |
| COIL | 25G7 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [30] BTOR,S,T TO BT9R,S,T | 25G7 | 180A |

# APP FIG. 50

RELAY

| DESIG | [10]BT00,10, ETC TO 90 |
|---|---|
| CODE | AF504 |
| OPTION | |
| | CONT ARR / LOC |
| 12 | M / - |
| 11 | M / - |
| 10 | M / 26H5 |
| 9 | M / 26H5 |
| 8 | M / 26H5 |
| 7 | M / 26H5 |
| 6 | M / 26H5 |
| 5 | M / 26H5 |
| 4 | M / 26H5 |
| 3 | M / 26H5 |
| 2 | M / 26H5 |
| 1 | M / 26H5 |
| COIL | / 25G5 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [10] BT00,10, ETC TO 90 | 25G5 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 34A | DP [illegible] |
| 35D | DP [illegible] |
| 36A | SSL |
| 37D | SSL |
| 39D | OM |
| 41D | |
| 43D | |
| 44A | |
| 45D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C34

BELL TELEPHONE LABORATORIES INCORPORATED SYS DOC 6S

SD-26002-01-C34

## APP FIG. 51

| RELAY | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | LT4 | | [10] AT0-9 | | KGS5 | | KGS6 | | KGS7 | | AICI | | |
| CODE | AF504 | | AF504 | | AF506 | | AF506 | | AF506 | | AJI2 | | |
| OPTION | ZLK | | | | IC | | IC | | IC | | ZXR | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 100B/F1 | M | - | M | 57A/C7 | M | 57A/C7 | M | 57A/C7 | EBM | 114A/E8 | 12 |
| 11 | M | 60G1 | M | - | M | - | M | 55F6 | M | - | EBM | 61C7 | 11 |
| 10 | M | 248/A8 | M | 25B4 | M | 55D5 | M | 55E5 | M | - | EBM | 60B4 | 10 |
| 9 | M | 248/B8 | M | 25B4 | M | 55D5 | M | 55E5 | M | - | EBM | 121B/C6 | 9 |
| 8 | M | 248/B8 | M | 25C4 | M | 54E5 | M | 54F6 | M | - | EBM | 60G5 | 8 |
| 7 | M | 248/C8 | M | 25C4 | M | 54D5 | M | 54E5 | M | - | EBM | 60F5 | 7 |
| 6 | M | 248/D8 | M | 25D4 | M | 53D5 | M | 53F5 | M | 121E1 | EBM | 60E5 | 6 |
| 5 | M | 248/D8 | M | 25D4 | M | 53D5 | M | 53E5 | M | 121F2 | EBM | 60D5 | 5 |
| 4 | M | 248/E8 | M | 25D4 | M | 52E5 | M | 52F5 | M | 121G2 | EBM | 60D5 | 4 |
| 3 | M | 248/F8 | M | 25D4 | M | 52D5 | M | 52E5 | M | 121G2 | EBM | 60C5 | 3 |
| 2 | M | 248/G8 | M | 25E4 | M | 51D5 | M | 51F5 | M | 121H2 | EBM | 60B5 | 2 |
| 1 | M | 24C/C2 | M | 25E4 | M | 51D5 | M | 51E5 | M | 121H2 | EBM | 60B5 | 1 |
| COIL | | 20A/B9 | | 24B/B1 | | 57A/C0 | | 57A/C0 | | 57A/C0 | | 121B/B7 | COIL |

| NETWORK DESIG | LOC | CODE |
|---|---|---|
| (ZXR) AICI | 121B/B7 | 185A |
| [10] AT0-9 | 248/B1 | 185A |
| (IC) [3] KGS5-7 | 57A/C0 | 185A |
| (ZLK) LT4 | 20A/B9 | 185A |

## APP FIG. 52

| RELAY | | | | |
|---|---|---|---|---|
| DESIG | ET | | [10]ET0-9 | |
| CODE | AF504 | | AF504 | |
| OPTION | | | | |
| | CONT ARR | LOC | CONT ARR | LOC |
| 12 | M | 20A/A9 | M | - |
| 11 | M | 60E1 | M | - |
| 10 | M | 24B/A3 | M | 25B6 |
| 9 | M | 24B/B3 | M | 25B6 |
| 8 | M | 24B/B3 | M | 25C6 |
| 7 | M | 24B/C3 | M | 25C6 |
| 6 | M | 24B/D3 | M | 25D6 |
| 5 | M | 24B/D3 | M | 25D6 |
| 4 | M | 24B/E3 | M | 25D6 |
| 3 | M | 24B/F3 | M | 25D6 |
| 2 | M | 24B/F3 | M | 25E6 |
| 1 | M | 24C/D2 | M | 25E6 |
| COIL | | 20A/G8 | | 24B/C1 |

| NETWORK DESIG | LOC | CODE |
|---|---|---|
| ET | 20A/G6 | 185A |
| [10] ET0-9 | 24B/C1 | 185A |

## APP FIG. 53

| RELAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | TCA | | TC8 | | TSC0 | | TSC1 | | TSC2 | | TSC3 | | TSC4 | | TSC5 | | TSC6 | | TSC7 | | TSC8 | | TSC9 | | DESIG |
| CODE | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 2 | BM | - | BM | 104B/E0 | BM | 104B/E0 | BM | 104B/E0 | BM | 104B/D0 | BM | 104B/D0 | DM | 104B/C0 | BM | 104B/C0 | BM | b | BM | b | BM | b | 12 |
| 11 | BM | 24A/G2 | BM | 24A/G2 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H2 | BM | 24A/H2 | 11 |
| 10 | BM | 24A/H2 | BM | 24A/H2 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H1 | BM | 24A/H2 | BM | 24A/H2 | 10 |
| 9 | BM | 104A/D7 | BM | 104A/E7 | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | 9 |
| 8 | BM | 132E2 | BM | 132E1 | BM | 104A/G1 | BM | 104A/G1 | BM | 104A/F1 | BM | 104A/E1 | BM | 104A/D1 | BM | a | BM | a | BM | a | BM | a | BM | a | 8 |
| 7 | BM | - | BM | | BM | 21H3 | BM | 21H3 | BM | 21H3 | BM | 21H3 | BM | 21H3 | BM | 21H3 | BM | 21H3 | BM | 21H3 | BM | 21H3 | BM | 21H3 | 7 |
| 6 | BM | - | BM | - | BM | 21A/C4 | BM | 21A/C5 | BM | 21A/C5 | BM | 21A/C5 | BM | 21A/C5 | BM | 21A/C6 | BM | 21A/C6 | BM | 21A/F6 | BM | 21A/F6 | BM | 21A/G6 | 6 |
| 5 | BM | 21A/E4 | BM | 21A/E5 | BM | 21A/34 | BM | 21A/B4 | BM | 21A/34 | BM | 21A/34 | BM | 21A/34 | BM | 21A/D4 | BM | 21E4 | BM | 21F4 | BM | 21F4 | BM | 21G4 | 5 |
| 4 | BM | - | BM | 213/F3 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | BM | 21B/F6 | 4 |
| 3 | BM | 21B/E4 | BM | 24A/E6 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | BM | 21B/F5 | 3 |
| 2 | BM | - | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | 2 |
| 1 | BM | 21B/F0 | BM | 104A/B7 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | BM | 21B/F0 | 1 |
| COIL | | 21H4 | | 21H4 | | 21B3 | | 21C3 | | 21C3 | | 21D3 | | 21D3 | | 21E3 | | 21E3 | | 21F3 | | 21F3 | | 21G3 | COIL |
| | a | 24A/E6 | | | | | | | | | | | | | a | 24A/E6 | a | 24A/E7 | a | 24A/E7 | a | 24A/D4 | a | 24A/D4 | |
| | a | 104A/A7 | | | | | | | | | | | | | a | 104A/D1 | a | 104A/C1 | a | 104A/B1 | a | 104A/A1 | a | 104A/A1 | |
| | | | | | | | | | | | | | | | | | | | b | 24A/F5 | b | 24A/F5 | b | 24A/F5 | |
| | | | | | | | | | | | | | | | | | | | b | 104B/B0 | b | 104B/B0 | b | 104B/A0 | |

| NETWORK DESIG | LOC | CODE |
|---|---|---|
| TCA | 21H4 | 185A |
| TC8 | 21H4 | 185A |
| [10] TSC0-9 | 21B3 | 185A |

## APP FIG. 54

| RELAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | | | HN0 | | HN1 | | HN2 | | HN4 | | HN7 | | [2]NSS0,1 | | [4]NSS2-5 | | DESIG |
| CODE | | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | F | | CODE |
| OPTION | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | 73G1 | M | 73E1 | M | 73E1 | M | 73G2 | M | 73E2 | M | 61A2 | M | 61A2 | 12 |
| 11 | | | M | 73F1 | M | 73G1 | M | 73G2 | M | 73G1 | M | 73F2 | M | 61A2 | M | 61A2 | 11 |
| 10 | | | M | 73G1 | M | 73F1 | M | 73G2 | M | 73F2 | M | 73E2 | M | 61A2 | M | 61A2 | 10 |
| 9 | | | M | 73H1 | M | 73H2 | M | 73F1 | M | 73F2 | M | 73H2 | M | 61A2 | M | 61A2 | 9 |
| 8 | | | BM | - | BM | - | BM | 60C1 | BM | 60C1 | BM | 60C1 | BM | 61A2 | BM | 61A2 | 8 |
| 7 | | | M | 183 | M | 103 | M | 1E3 | M | 1F0 | M | 1G0 | M | 61A2 | M | 61A2 | 7 |
| 6 | | | BM | - | BM | 60C1 | BM | 60C1 | BM | 60C1 | BM | 60C1 | BM | 83A3 | BM | 83A3 | 6 |
| 5 | | | M | 67F5 | M | 67D5 | M | 67D5 | M | 67F5 | M | 67D5 | M | 61A2 | M | 61A2 | 5 |
| 4 | | | BM | 60C0 | BM | 60B1 | BM | 60B1 | BM | 60B1 | BM | 60B2 | BM | 61A2 | BM | 61A2 | 4 |
| 3 | | | M | 67E5 | M | 67F5 | M | 67F5 | M | 67H5 | M | 67E5 | M | 61A2 | M | 61A2 | 3 |
| 2 | | | M | 67G5 | M | 67F5 | M | 67G5 | M | 67F5 | M | 67D5 | M | 61A2 | M | 61A2 | 2 |
| 1 | | | M | 67G5 | M | 67G5 | M | 67E5 | M | 67H5 | M | 67E5 | M | 61A2 | M | 61A2 | 1 |
| COIL | | | | 5185 | | 5285 | | 5385 | | 5485 | | 5585 | | 60B7,C7 | | 60C7-F7 | COIL |

| NETWORK DESIG | LOC | CODE |
|---|---|---|
| HN0 | 5185 | |
| HN1 | 5285 | |
| HN2 | 5385 | |
| HN4 | 5485 | |
| HN7 | 5585 | 185A |
| [4]N1-4 | 6CE3 | |
| [2]NSS0,1 | 60B7,C7 | |
| [4]NSS2-5 | 60C7-F7 | |
| TO | 5185 | |

| RELAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [4]N1-4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AJ700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONT ARR | LOC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 24 |
| M | 55C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 23 |
| M | 54C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 22 |
| M | 53C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 21 |
| M | 52C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 20 |
| M | 51C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 19 |
| M | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| M | 55C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 |
| M | 54C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| M | 53C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 |
| M | 52C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| M | 51C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| M | 60K2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| M | 55C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| M | 54C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| M | 53C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| M | 52C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| M | 51C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| M | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| M | 55C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| M | 54C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| M | 53C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| M | 52C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| M | 51C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | 60E3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

| NETWORK (CONT) DESIG | LOC | CODE |
|---|---|---|
| T1 | 5285 | |
| T2 | 5385 | |
| T4 | 5485 | |
| T7 | 5585 | |
| TH0 | 51A5 | 185A |
| TH1 | 52A5 | |
| TH2 | 53A5 | |
| TH4 | 54A5 | |
| TH7 | 55A5 | |

| RESISTOR DESIG | | LOC | CODE |
|---|---|---|---|
| (ZCW) | PC | 28B/A0 | 59H |
| (ZCX) | PC | 28B/A0 | KS-8512, L6C, 200 |

| RELAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | T0 | | T1 | | T2 | | T4 | | T7 | | | | TH0 | | TH1 | | TH2 | | TH4 | | TH7 | | XNS | | DESIG |
| CODE | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | | | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | AJ510 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 73C1 | M | 73B1 | M | 73A1 | M | 73C2 | M | 7382 | | | M | 74D2 | M | 74B2 | M | 74A2 | M | 74D2 | M | 74B2 | | | 12 |
| 11 | M | 73B1 | M | 73C1 | M | 73C2 | M | 73D1 | M | 7382 | | | M | 74B2 | M | 74E2 | M | 74E2 | M | 74G2 | M | 74B2 | | | 11 |
| 10 | M | 73C1 | M | 73C1 | M | 73C2 | M | 73C2 | M | 73A2 | | | M | 74E2 | M | 74D2 | M | 74E2 | M | 74D2 | M | 74A2 | | | 10 |
| 9 | M | 73D1 | M | 7302 | M | 7381 | M | 7382 | M | 7302 | | | M | 74F2 | M | 74F2 | M | 74C2 | M | 74C2 | M | 74G2 | | | 9 |
| 8 | BM | - | BM | - | BM | 6082 | BM | 6082 | BM | 0083 | | | BM | - | BM | - | BM | 60C2 | BM | 60C3 | BM | 60C3 | M | - | 8 |
| 7 | M | 183 | M | 103 | M | 1E3 | M | 1G0 | M | 1H0 | | | M | - | M | - | M | - | M | - | M | - | B | 60F8 | 7 |
| 6 | BM | - | BM | 6082 | BM | 6082 | BM | 6082 | BM | 6083 | | | BM | - | BM | 60C2 | BM | 60C2 | BM | 60C3 | BM | 60C3 | M | 63E4 | 6 |
| 5 | M | 68F6 | M | 68D6 | M | 68C6 | M | 68F6 | M | 68D6 | | | M | 61B3 | M | 61A3 | M | 61A3 | M | 61B3 | M | 61A3 | 3 | - | 5 |
| 4 | BM | 60A1 | BM | 60A2 | BM | 60A2 | BM | 60A2 | BM | 60A3 | | | BM | 6082 | BM | 6082 | BM | 6082 | BM | 6082 | BM | 6083 | M | - | 4 |
| 3 | M | 68D6 | M | 68F6 | M | 68F6 | M | 68G6 | M | 68D6 | | | M | 61A3 | M | 61B3 | M | 61B3 | M | 61C3 | M | 61A3 | | | 3 |
| 2 | M | 68F6 | M | 68E6 | M | 68F6 | M | 68E6 | M | 68C6 | | | M | 61C3 | M | 61B3 | M | 61C3 | M | 61B3 | M | 61A3 | | | 2 |
| 1 | M | 68G6 | M | 68G6 | M | 68E6 | M | 68E6 | M | 68G6 | | | M | 61C3 | M | 61C3 | M | 61A3 | M | 61A3 | M | 61C3 | | | 1 |
| COIL | | 5185 | | 5285 | | 5385 | | 5485 | | 5585 | | | | 51A5 | | 52A5 | | 53A5 | | 54A5 | | 55A5 | | 60F7 | COIL |

| NETWORK DESIG | LOC | CODE |
|---|---|---|
| TO | 5185 | |
| T1 | 5285 | |
| T2 | 5385 | |
| T4 | 5485 | |
| T7 | 5585 | |
| TH0 | 51A5 | 185A |
| TH1 | 52A5 | |
| TH2 | 53A5 | |
| TH4 | 54A5 | |
| TH7 | 55A5 | |
| [4]N1-4 | 6CE3 | |
| [2]NSS0,1 | 60B7,C7 | |
| [4]NSS2-5 | 60C7-F7 | |

DRAWING ISSUE

G7B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-C35

6S

DRAWING ISSUE

20 ALC
3D ALC, MM1
6A AND
8D J M 1FH
10B GT
8D COM
21D SGB, LOP, GND
22D SSW, DDP, GND
25D BB, W60, AND
30D DJB, AND, LP
33D CLK, A0V
35D DP, AND
37D DM
39D MM2
41D
43D CH

# APP FIG. 55

RELAY

| DESIG | DC1A | | MT10 | | MT15 | | MT19 | | NE | | [10]SA0-9 | | SAC | | 2LA | | | | TR1A | | TR2A | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF24 | | AJ12 | | AJ12 | | AJ12 | | AF511 | | AF519 | | AF521 | | AJ512 RO | | | | AF24 | | AF24 | | | | CODE |
| OPTION | YG | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 62E2 | EBM | 80C3 | EBM | 114A/G1 | EBM | - | | | M | - | M | 71A2 | BM | - | | | M | - | M | - | | | 12 |
| 11 | M | - | EBM | 71F7 | EBM | 6F5 | EBM | - | | | | | M | 7182 | BM | - | | | M | 69A4 | M | 69B4 | | | 11 |
| 10 | M | 63E4 | EBM | 71A3 | EBM | 6G5 | EBM | 71A5 | M | 63F3 | M | 71D1 | M | 7182 | BM | 7182 | | | M | 69C5 | M | 69B4 | | | 10 |
| 9 | M | 6381 | EBM | 7193 | EBM | 10501 | EBM | 7185 | | | | | M | 71C2 | BM | 71C3 | | | M | 69C5 | M | 69C4 | | | 9 |
| 8 | M | - | EBM | 7183 | EBM | b | EBM | 71C5 | BM | 64A3 | BM | 6906 | M | 7102 | BM | 71C3 | | | M | 6905 | M | 69C4 | | | 8 |
| 7 | M | - | EBM | 71C3 | EBM | 114A/H2 | EBM | 71C5 | B | 10885 | B | - | M | 6408 | BM | 7103 | | | M | 6905 | M | 6904 | | | 7 |
| 6 | M | 88B/H6 | EBM | 7103 | EBM | 7188 | EBM | 7105 | BM | 218/D5 | BM | 6906 | BM | 6405 | BM | 71E3 | | | M | 69E5 | M | 6904 | | | 6 |
| 5 | M | 62C2 | EBM | 71E3 | EBM | 79F6 | EBM | 71E5 | | | | | M | 71E2 | BM | 71E3 | | | M | 69E5 | M | 69E4 | | | 5 |
| 4 | M | 61F8 | EBM | 71E3 | EBM | a | EBM | 71E5 | M | 63H3 | M | 71H4 | BM | 71E2 | BM | 71F3 | | | M | 69F5 | M | 69F4 | | | 4 |
| 3 | M | 69H3 | EBM | 71F3 | EBM | 2751 | EBM | 71F5 | | | | | M | 71F2 | BM | 71G3 | | | M | 60F5 | M | 69F4 | | | 3 |
| 2 | M | 6886 | EBM | 71G3 | EBM | 2761 | EBM | 71G5 | | | M | 71H7 | M | 71G2 | BM | 71H3 | | | M | 69G5 | M | 69G4 | | | 2 |
| 1 | M | 67C5 | EBM | 71H3 | EBM | 2762 | EBM | 71H5 | | | | | M | 71G2 | BM | 71H3 | | | M | 69G5 | M | 69G4 | | | 1 |
| COIL | | 108C9 | | 71F6 | | 7985 | | 71F6 | | 60H3 | | 71D1 | | 64C8 | | 71A8 | | | | 64C0 | | 64C0 | | | COIL |

RELAY

| DESIG | U0 | | U1 | | U2 | | U4 | | U7 | | | | UC | | VC1A | | MT22 | | | | | | TRN | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AF521 | | AF521 | | AF521 | | AF521 | | | | AF507 | | AF24 | | AJ12 | | | | | | AJ700 | | CODE |
| OPTION | | | | | | | | | | | | | | | YG | | QL | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | M | - | M | - | M | - | M | - | | | M | 6985 | M | 62F2 | EBM | 108F6 | | | | | M | 63E3 | 24 |
| 11 | M | - | M | - | M | - | M | - | M | - | | | M | 6985 | M | | EBM | 71A2 | | | | | M | 63H3 | 23 |
| 10 | M | - | M | - | M | - | M | - | M | - | | | BM | 6363 | M | 63F4 | EBM | 71A4 | | | | | M | 63H1 | 22 |
| 9 | M | - | M | - | M | - | M | - | M | - | | | M | 6905 | M | 6381 | EBM | 7184 | | | | | M | 6361 | 21 |
| 8 | BM | - | BM | - | BM | 6081 | BM | 6081 | BM | 6081 | | | BM | 6905 | M | | EBM | 71C4 | | | | | M | 66H0 | 20 |
| 7 | M | IC6 | M | ID6 | M | IE6 | M | IF6 | M | IG6 | | | B | 6447 | M | | EBM | 71C4 | | | | | M | 57B/A2 | 19 |
| 6 | BM | - | BM | 6080 | BM | 6081 | BM | 6081 | BM | 6081 | | | BM | 6905 | M | 88B/H6 | EBM | 71D4 | | | | | M | - | 18 |
| 5 | M | 69E3 | M | 6983 | M | 6983 | M | 69E3 | M | 6983 | | | M | 69E5 | M | 62C2 | EBM | 71E4 | | | | | M | 61E7 | 17 |
| 4 | BM | 60A0 | BM | 60A0 | BM | 60A1 | BM | 60A1 | BM | 60A2 | | | BM | 69E5 | M | 61F8 | EBM | 71F4 | | | | | M | 77G1 | 16 |
| 3 | M | 69C3 | M | 69E3 | M | 69E3 | M | 69G3 | M | 69C3 | | | M | 69F5 | M | 69H3 | EBM | 71F4 | | | | | M | 55D3 | 15 |
| 2 | M | 69F3 | M | 6903 | M | 69F3 | M | 6903 | M | 6983 | | | M | 69F5 | M | 6887 | EBM | 71G4 | | | | | M | 55C3 | 14 |
| 1 | M | 69F3 | M | 69G3 | M | 6903 | M | 6903 | M | 69G3 | | | M | 69G5 | M | 67C5 | EBM | 71H4 | | | | | M | 5583 | 13 |
| COIL | | 51C5 | | 52C5 | | 53C5 | | 54C5 | | 55C5 | | | | 62G0 | | 108D0 | | 79E5 | | | | | M | 5483 | 12 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 64C3 | 11 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 5483 | 10 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 5303 | 9 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 53C3 | 8 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 5383 | 7 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 5203 | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 52C3 | 5 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 5283 | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 51D3 | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 51C3 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | M | 5183 | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | 60G3 | COIL |

RELAY

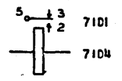
| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

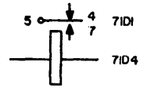
| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY
(RG) 77A3
a (RJ) 105C4
(LW) 114A/E0
b (LK) 114A/F2
(AV) 114A/C4

RELAY
[c] (IX) SLO-9
280CU




RELAY
[c] (IY) SLO-9
316A




NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| (RO) | 2LA | 71A8 | |
| (YG) | DC1A | 108C0 | |
| | NE | 6065 | |
| [10] | SA0-9 | 7101 | |
| | SAC | 64C8 | |
| | TR1A | 64C0 | |
| | TR2A | 64C0 | |
| | TRN | 6063 | 195A |
| | U0 | 51C5 | |
| | U1 | 52C5 | |
| | U2 | 53C5 | |
| | U4 | 54C5 | |
| | U7 | 55C5 | |
| | UC | 4260 | |
| (YG) | VC1A | 108D0 | |

DRAWING ISSUE

| | |
|---|---|
| 1 | PJB |
| 2D | MJC |
| 3D | |
| 8D | |
| 9D | |
| 18D | |
| 21D | |
| 22D | |
| 24D | |
| 25D | |
| 27A | MD |
| 28D | MD |
| 29A | NF |
| 30D | |
| 31D | NF |
| 33D | WB |
| 35D | DP |
| 36A | DM |
| 39D | |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE
57B

SD-26002-01-C36

COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES, INC
SIZE AND CODE 6S
SD-26002-01-C36
PRINTED IN U.S.A.

# PART OF APP FIG. 56

RELAY

| DESIG | TGS1 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CODE | AJ702 | | | | | | | |
| OPTION | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 24 | M | 95A/C3 | | | | | | |
| 23 | M | 95A/D3 | | | | | | |
| 22 | M | 109DI | | | | | | |
| 21 | M | 95B/C0 | | | | | | |
| 20 | M | 95E/D0 | | | | | | |
| 19 | M | 95A/G0 | | | | | | |
| 18 | M | 95H0 | | | | | | |
| 17 | M | - | | | | | | |
| 16 | M | 43H0 | | | | | | |
| 15 | M | | | | | | | |
| 14 | M | 60G0 | | | | | | |
| 13 | M | 49B/A1 | | | | | | |
| 12 | M | 57B/A1 | | | | | | |
| 11 | M | 57B/B5 | | | | | | |
| 10 | M | 48F1 | | | | | | |
| 9 | M | 48H1 | | | | | | |
| 8 | M | 45B1 | | | | | | |
| 7 | M | 46D1 | | | | | | |
| 6 | M | 48B0 | | | | | | |
| 5 | M | 48D0 | | | | | | |
| 4 | M | 48F0 | | | | | | |
| 3 | M | 48F0 | | | | | | |
| 2 | M | 48G0 | | | | | | |
| 1 | M | 48G0 | | | | | | |
| COIL | | 57A/D0 | | | | | | |

RELAY

| DESIG | CL0 | | CL1 | | CL2 | | (2)CL3,5 | | (2)CLK1,2 | | CLK3 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AF530 | | AF530 | | AF530 | | AF531 | | AF531 | | CODE |
| OPTION | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | EBM | - | EBM | - | EBM | - | | | | | 12 |
| 11 | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | 10 |
| 9 | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | | EBM | - | EBM | - | EBM | - | 8 |
| 7 | | | | | | | | | | | | | 7 |
| 6 | EBM | 57B/E9 | EBM | 48F2 | EBM | 57B/E8 | EBM | a | EBM | - | EBM | - | 6 |
| 5 | | | | | | | | | | | | | 5 |
| 4 | EBM | 48F3 | EBM | 48G3 | EBM | - | EBM | 48G2 | EBM | a | EBM | 57B/E6 | 4 |
| 3 | | | | | | | | | | | | | 3 |
| 2 | EBM | - | EBM | - | EBM | - | EBM | - | | | | | 2 |
| 1 | | | | | | | | | | | | | 1 |
| COIL | | P-47A1 | | P-47A1 | | P-47A1 | | P-47A1 | | 48G0 | | 48G0 | COIL |
| | | S-47A1 | | S-47A1 | | S-47A1 | | S-47A1 | | 57B/C8 | | | |
| | | | | | | | | 57B/D8 | a | 57B/D9 | | | |
| | | | | | | | a | 57B/E8 | | | | | |

DIODE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZKC | CL3 | 48F3 | 446F |

RELAY

| DESIG | CLP | | CLP | | CLS | | (5)CR0-4 | | CR5 | | CRK1 | | CRK2 | | CRP | | CRS | | DL0 | | CRP | | (6)DLI-6 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ508 | | AJ508 | | AJ508 | | AF530 | | AF530 | | AF531 | | AF531 | | AJ508 | | AJ508 | | AF530 | | AJ508 | | AF530 | | CODE |
| OPTION | OJ | | OK | | | | | | | | | | | | ZBK | | | | | | ZBL | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | | | | | EBM | - | EBM | - | | | | | | | | | EBM | - | M | - | EBM | - | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | BM | 48E3 | M | - | M | - | BM | 48D4 | EBM | - | EBM | - | EBM | - | M | - | M | - | EBM | - | BM | 57B/B9 | EBM | - | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | 48F4 | EBM | 48F4 | EBM | 48F5 | EBM | 48C3 | EBM | - | EBM | - | EBM | - | EBM | 48A2 | EBM | 48C2 | EBM | 57B/E5 | BM | 48A2 | EBM | - | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | 48F3 | EBM | 48F3 | EBM | 57B/C6 | EBM | 48B4 | EBM | 57B/C9 | EBM | - | EBM | - | EBM | 48C2 | EBM | 48D2 | EBM | - | BM | 48C2 | EBM | 48B/B3 | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | 48G5 | EBM | 48G5 | EBM | 48H3 | EBM | 48A3 | EBM | 57B/E9 | EBM | 57B/E9 | EBM | 57B/E9 | EBM | - | EBM | - | EBM | - | BM | 48G5 | EBM | - | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | - | | | | | EBM | - | EBM | 48G6 | | | | | | | | | EBM | - | M | - | EBM | - | 2 |
| 1 | M | - | | | | | | | | | | | | | | | | | | | M | - | | | 1 |
| COIL | | 47A0 | | 47A0 | | 47A0 | | P-45E1 | | P-45G1 | | 48C0 | | 48C0 | | 45E1 | | 45F1 | | 47D1 | | | | 47D1 | COIL |
| | | | | | | | | S-45E1 | | S-45G1 | | | | | | | | | | | | | | | |

# PART OF APP FIG. 56

RELAY

| DESIG | DLK1 | | DLK2 | | | | DLP | | | | DLS | | SCL | | | | CL4 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | | | AJ506 | | | | AJ506 | | AF523 | | | | AF530 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | M | - | | | EBM | - | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | | | M | - | | | M | - | BM | - | | | EBM | - | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | | | EBM | - | | | EBM | - | BM | 48H6 | | | EBM | - | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | - | | | EBM | 48E3 | | | EBM | 57B/E5 | BM | 48F6 | | | EBM | 57B/C8 | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 57B/C4 | EBM | 57B/C5 | | | EBM | - | | | EBM | - | BM | 48F5 | | | EBM | 48G2 | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | M | - | | | EBM | 48G5 | | | | | | | 2 |
| 1 | | | | | | | | | | | | | M | - | | | | | | | | | | | 1 |
| COIL | | 49B/A0 | | 48E0 | | | | 47D0 | | | | 47E0 | | 48H0 | | | | 47A1 | | | | | | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| ZEG | [3] CLOP-5P | 47A1 | 177C |
| | [3] CLOS-5S | 47A1-B2 | 177C |
| ZEH | [6] CLOP-5P | 47A1 | 186D |
| | [6] CLOS-5S | 47A1 | |
| | [5] CROP-4P | 45E1 | |
| | [6] CROS-5S | 45F1 | |
| | [3] CLK1-3 | 48G0 | 185A |
| ZEG | [3] CROP-4P | 45E1 | 177C |
| | [2] CROS-4S | 45F1 | |
| | CR5S | 45G1 | |
| | [2] CRK1,2 | 48C0 | 185A |
| ZEG | [4] DLOP-GP | 47E1 | 177C |
| | [4] DLOS-6S | 47E1 | |
| ZEH | [7] DLOP-6P | 47E1 | 186D |
| | [7] DLOS-6S | 47E1 | |
| | DLK1 | 49A/B0 | 185A |
| | DLK2 | 48F0 | |
| | SCL | 43H0 | 185A |
| | TGS1 | 57A/D0 | 185A |

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| [6] | CLI-6 | 48G1 | KS-13492,L1 2000 |
| [2] | CR0-1 | 48A1 | KS-13492,L1 2000 |
| | CR2 | 48B1 | KS-13492,L1 2000 |
| | CR4 | 48C1 | KS-13492,L1 2000 |
| | CR7 | 48D1 | KS-13492,L1 2000 |
| [6] | DLI-6 | 49B/A2-C2 | KS-13492,L1 2000 |

# APP FIG. 57

RELAY

| DESIG | PL1 | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF83 | | | | | | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | M | 82D2 | | | | | | | | | | | | | | | | | | |
| 11 | M | 82D2 | | | | | | | | | | | | | | | | | | |
| 10 | M | 82A6 | | | | | | | | | | | | | | | | | | |
| 9 | M | 82B6 | | | | | | | | | | | | | | | | | | |
| 8 | M | 82B6 | | | | | | | | | | | | | | | | | | |
| 7 | M | 82B6 | | | | | | | | | | | | | | | | | | |
| 6 | M | 82C6 | | | | | | | | | | | | | | | | | | |
| 5 | M | 82C6 | | | | | | | | | | | | | | | | | | |
| 4 | M | 82C6 | | | | | | | | | | | | | | | | | | |
| 3 | M | 82C6 | | | | | | | | | | | | | | | | | | |
| 2 | M | 82D6 | | | | | | | | | | | | | | | | | | |
| 1 | M | 82D6 | | | | | | | | | | | | | | | | | | |
| COIL | | 82G5 | | | | | | | | | | | | | | | | | | |

RELAY

[0] (IX) L80-9 280AD

PL 280BM

8206 8287 — 82F4 8201 8201

RELAY

[0] (IY) L80-9 31uA

8206 8287

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| [10] | L80-9 | 82D6 | 18FR |
| [4] | R5-8 | 82E4 | 18GE |

# APP FIG. 58

RELAY

| | [98]CV00-95 | | | |
|---|---|---|---|---|
| | AF523 | | | |
| CONT ARR | LOC | CONT ARR | LOC | |
| | M | - | | 12 |
| | | | | 11 |
| | M | 28A/D1 | | 10 |
| | | | | 9 |
| | M | 45D6 | | 8 |
| | | | | 7 |
| | M | 45B6 | | 6 |
| | | | | 5 |
| | M | 45A6 | | 4 |
| | | | | 3 |
| | M | 88C/C2 | | 2 |
| | | | | 1 |
| | | 28A/A6 | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| [98] | CV00-95 | 28A/A6 | 185A |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

ISSUE 6S

ISSUE 6B

SD-26002-01-C37

DRAWING ISSUE: 1 - 2D -

# APP FIG. 59

RELAY

| DESIG | [2]ARK1,2 | | [5]ARN0-4 | | ARN5 | | ARP | | ARS | | | | | | [2]BRK1,2 | | [5]BRN0-4 | | BRP | | BRS | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF530 | | AF530 | | AJ506 | | AJ506 | | | | | | AF531 | | AF530 | | AJ506 | | AJ506 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EBM | 96D5 | EBM | - | | | | | | | | | | | EBM | - | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | 46D3 | EBM | - | M | 96C4 | M | 96D4 | | | | | | | EBM | - | EBM | 46H3 | M | - | M | - | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | 46B4 | EBM | - | EBM | 46A2 | EBM | 46C2 | | | | | | | EBM | - | EBM | 46G2 | EBM | 46E2 | EBM | 46F2 | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | 46B4 | EBM | - | EBM | 46C2 | EBM | 46D2 | | | | | | | EBM | - | EBM | 46F3 | EBM | 46G2 | EBM | 46H2 | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 57B/F6 | EBM | 46B1 | EBM | 57B/G6 | EBM | - | EBM | - | | | | | | | EBM | 57B/F7 | EBM | 46D2 | EBM | - | EBM | - | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | EBM | 96C5 | EBM | - | | | | | | | | | | | EBM | - | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 46B0 | | 45A3 | | S-4583 | | 45A2 | | 45A2 | | | | | | 46F0 | | 4583 | | 46B2 | | 45C2 | | | COIL |
| | | | | | | P-4583 | | | | | | | | | | | | | | | | | | | |

RELAY

| DESIG | CVS | | | | KCV | | | | XARN | | XBRN | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ505 | | | | AF109 | | | | AF97 | | AF97 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | - | | | M | - | | | | | | | | | | | | | | | | | 10 |
| 9 | B | - | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | - | | | EBM | 45A9 | | | M | 87A6 | M | 87A6 | | | | | | | | | | | 8 |
| 7 | B | - | | | B | 45B9 | | | | | | | | | | | | | | | | | 7 |
| 6 | M | - | | | EBM | a | | | M | 86G6 | M | 86G6 | | | | | | | | | | | 6 |
| 5 | B | 57B/F6 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 57B/F6 | | | M | 57B/G7 | | | M | 86G2 | M | 86G3 | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | - | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 288/A9 | | | | P-4501 | | | | P-45A1 | | P-45B1 | | | | | | | | | | | COIL |
| | | | | | | S-4501 | | | | S-87A6 | | S-87A6 | | | | | | | | | | | |
| | | | | | a | 45G2 | | | | | | | | | | | | | | | | | |
| | | | | | | 45D9 | | | | | | | | | | | | | | | | | |

**NETWORK**

| | DESIG | LOC | CODE |
|---|---|---|---|
| [3] | AROP-4P | 45A6 | 177C |
| [3] | AROS-5S | 46B4 | 177C |
| [2] | ARK1,2 | 46B0 | 185A |
| [3] | BROP-4P | 45C4 | 177C |
| [3] | BROS-4S | 45C4 | 177C |
| [2] | BRK1,2 | 46F0 | 185A |
| | KCV | 45D1 | 185A |

**RESISTOR**

| DESIG | LOC | CODE |
|---|---|---|
| ARN0 | 46A1 | KS-13492,L1 2000 |
| ARN1 | 46B1 | KS-13492,L1 2000 |
| ARN2 | 46B1 | KS-13492,L1 2000 |
| ARN4 | 46C1 | KS-13492,L1 2000 |
| ARN7 | 46D1 | KS-13492,L1 2000 |
| BRN0 | 46E1 | KS-13492,L1 2000 |
| BRN1 | 46E1 | KS-13492,L1 2000 |
| BRN2 | 46F1 | KS-13492,L1 2000 |
| BRN4 | 46G1 | KS-13492,L1 2000 |
| BRN7 | 46G1 | KS-13492,L1 2000 |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

DRAWING ~~ISSUE~~

| | |
|---|---|
| 1 | FIB |
| 20 | [illegible] |
| 180 | PV3 |
| 300 | DLB |
| 350 | KMT |
| 430 | [illegible] |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC 6S

ISSUE 53D

SD-26002-01-C38

SD-26002-01-C38

# ⑥⓪ APP FIG. 60

RELAY

| DESIG | 4NG | | 8NG | | | | | | AB | | ADVA | | AHG | | | | ALSO | | ALSI | | ALS2-5 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF42 | | AF42 | | | | | | AF32 | | AJ502 | | AF82 | | | | AF821 | | AF821 | | AF821 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EMB | - | EMB | - | | | | | EMB | 76G4 | EBM | - | M | 72C8 | | | M | 7443 | M | 7443 | M | 7443 | | | 12 |
| 11 | M | - | M | - | | | | | | | EBM | - | | | | | M | 7483 | M | 7483 | M | 7483 | | | 11 |
| 10 | EBM | - | EBM | 76F7 | | | | | EBM | 108C6 | EBM | 61C7 | BM | - | | | M | 7483 | M | 7483 | M | 7483 | | | 10 |
| 9 | | | | | | | | | | | EBM | 72A8 | | | | | M | 74C3 | M | 74C3 | M | 74C3 | | | 9 |
| 8 | EBM | - | EBM | 76E7 | | | | | EBM | 76B0 | EMB | 7285 | BM | 7201 | | | BM | 61C5 | BM | 61C5 | BM | 61D5 | | | 8 |
| 7 | B | - | B | - | | | | | | | | | | | | | M | 74D3 | M | 74D3 | M | 74D3 | | | 7 |
| 6 | EMB | - | EMB | 76D7 | | | | | EMB | 72H7 | EMB | 72G8 | WM | 72G8 | | | BM | 60G7 | BM | 60G7 | BM | 60G8 | | | 6 |
| 5 | | | | | | | | | | | | | | | | | M | 74D3 | M | 74D3 | M | 74D3 | | | 5 |
| 4 | EBM | - | EBM | 76D7 | | | | | EBM | - | EBM | 69E1 | BM | 69G1 | | | BM | 74E3 | BM | 74E3 | BM | 74E3 | | | 4 |
| 3 | M | - | M | - | | | | | | | EBM | 88C3 | | | | | M | 74E3 | M | 74E3 | M | 74E3 | | | 3 |
| 2 | EBM | 76B1 | EBM | 76D1 | | | | | EBM | - | EBM | 67C1 | M | - | | | M | 74F3 | M | 74F3 | M | 74F3 | | | 2 |
| 1 | M | 72C8 | M | 72C8 | | | | | | | EBM | 61C5 | M | - | | | M | 74G3 | M | 74G3 | M | 74G3 | | | 1 |
| COIL | | 74C8 | | 74C8 | | | | | | 76G4 | | 60G9 | | 72C9 | | | | 6088 | | 60C8 | | 60E8 | | | COIL |

RELAY

| DESIG | AN | | ANON | | ANR | | ANR1 | | ANR2 | | | | | | ANS | | ANT | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF121 | | AF506 | | AF55 | | AF55 | | AF55 | | | | | | AJ15 | | AJ502 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | - | M | 72D7 | M | 72G1 | M | 72E1 | M | 72D8 | | | | | EBM | 72C8 | EBM | 7288 | | | | | 12 |
| 11 | M | 63H3 | M | 72F9 | M | - | M | - | M | 72E2 | | | | | EBM | 72E2 | EBM | - | | | | | 11 |
| 10 | BM | 7286 | M | 72C7 | BM | - | BM | 6483 | BM | - | | | | | EBM | - | EBM | 7285 | | | | | 10 |
| 9 | | | M | 7288 | M | 108H5 | M | - | M | - | | | | | EBM | 72A2 | EBM | 74A1 | | | | | 9 |
| 8 | BM | - | M | 7285 | BM | - | BM | 76H4 | BM | 76H4 | | | | | EMB | - | EMB | - | | | | | 8 |
| 7 | B | 61C6 | M | - | B | 23H1 | B | 72A1 | B | 76G7 | | | | | EBM | 61C6 | | | | | | | 7 |
| 6 | BM | 69F1 | M | 72G8 | BM | - | BM | 72G1 | BM | 76F7 | | | | | EMB | 72G9 | EMB | - | | | | | 6 |
| 5 | | | M | 60G8 | M | - | M | 72C3 | M | 76G8 | | | | | EMB | - | | | | | | | 5 |
| 4 | BM | 68C3 | M | - | BM | 72C7 | BM | - | BM | 76G7 | | | | | EBM | 74A1 | EBM | 61C6 | | | | | 4 |
| 3 | M | 74G8 | M | 74A0 | M | - | M | 7202 | M | - | | | | | EBM | 76G4 | EBM | - | | | | | 3 |
| 2 | BM | 67C2 | M | - | M | - | M | 66B8 | M | - | | | | | EBM | 69G1 | EBM | 73E1 | | | | | 2 |
| 1 | M | 74A1 | M | - | M | 72D8 | M | 61C8 | M | 61C7 | | | | | EBM | 63H3 | EBM | 73A1 | | | | | 1 |
| COIL | | 74E7 | | 72A9 | | 72F1 | | 7201 | | 7209 | | | | | | 72C9 | | 72A9 | | | | | COIL |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| TYMA | 72C2 | 4370A |
| TYMB | 72C2 | 4370A |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| TMB | 73E0 | 13J |
| TTB | 73A0 | 13J |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 4NG | 74C8 | 185A |
| 8NG | 74C8 | 185A |
| AB | 76G4 | 185A |
| ADVA | 60G9 | 185A |
| AHG | 72C9 | 185A |
| [2] ALSO,1 | 60C8 | 185A |
| Ⓕ [4] ALS2-5 | 60E8 | 185A |
| ANON | 72A9 | 185A |
| ANR | 72F1 | 185A |
| ANR1 | 7201 | 185A |
| ANR2 | 7209 | 185A |
| ANS | 72C9 | 185A |
| ANT | 72A9 | 185A |
| NANS | 7289 | 185A |
| NAR1 | 72A1 | 186A |
| [8] NGSA-H | 7604 | 185A |
| NGSK | 7680 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| TYMA | 72C2 | 18AG |
| TYMB | 72C0 | 18FS |
| (KW) LA | 74F8 | 18DJ |
| NAN | 75G5 | 18AG |

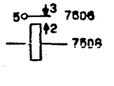
# ⑥⓪ PART OF APP FIG. 60

RELAY

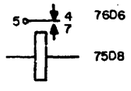
| DESIG | NANS | | NAR1 | | NAR2 | | | | NGSA | | [7]NGSB-H | | NGSK | | | | | | TNA | | XAN | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AJ503 | | AJ503 | | | | AJ9 | | AJ9 | | AF55 | | | | | | AJ15 | | AF52 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | 7289 | EBM | - | EBM | - | | | | EBM | - | EBM | 76C2 | M | - | | | | | EBM | - | M | 72G7 | | | 12 |
| 11 | M | EBM | 61C8 | EBM | 66C8 | | | | EBM | 76F3 | EBM | 7603 | M | - | | | | | EBM | - | | | | | 11 |
| 10 | BM | EBM | 6481 | EBM | 6482 | | | | EBM | - | EBM | - | BM | 7201 | | | | | EBM | - | BM | - | | | 10 |
| 9 | M | EBM | 64H1 | EBM | 61C5 | | | | EBM | - | EBM | - | M | - | | | | | EBM | 75F8 | | | | | 9 |
| 8 | BM | EMB | 23H1 | EMB | 23H2 | | | | EMB | 75A5 | EMB | 7605 | BM | - | | | | | EMB | 75F8 | BM | - | | | 8 |
| 7 | B | EBM | 108G4 | EBM | 64E2 | | | | | | | | B | 76F6 | | | | | EBM | 75EP | | | | | 7 |
| 6 | BM | EMB | 108A7 | EMB | 6401 | | | | EMB | - | EMB | - | BM | - | | | | | EMB | 7506 | BM | - | | | 6 |
| 5 | M | EMB | 108J5 | EMB | | | | | | | | | M | 69G1 | | | | | EMB | 75C8 | | | | | 5 |
| 4 | BM | EBM | 41E4 | EBM | 6202 | | | | EBM | 69G1 | EBM | - | BM | - | | | | | EBM | 7588 | BM | 86A3 | | | 4 |
| 3 | M | EBM | 41E1 | EBM | - | | | | EBM | 6803 | EBM | 68F3 | M | 6803 | | | | | EBM | 7586 | | | | | 3 |
| 2 | M | EBM | 41D1 | EBM | 72C3 | | | | EBM | 6701 | EBM | 67E1 | M | 67D1 | | | | | EBM | 75A8 | M | 86F8 | | | 2 |
| 1 | M | EBM | 41D4 | EBM | 7202 | | | | EBM | 61C7 | EBM | 6147,87 | M | 61C7 | | | | | EBM | 72H6 | M | - | | | 1 |
| COIL | | 7288 | | 72A1 | | 7281 | | | | 76A4 | | 7604 | | 7680 | | | | | | 72E9 | | 72G9 | | | COIL |

RELAY

[8] (IX) NGTA-H 280AH




[8] (IY) NGTA-H 316M




RELAY

| | | | |
|---|---|---|---|
| (MG) TYMI | 280A | 66C9 | 72C1 |
| (MH) TYMI | 280FY | 66C9 | 72C1 |
| (IX) XAN | 280BE | 76F3<br>86F8 | 72E9 |

RELAY

(IY) XAN 316L

76F3
86F8
72E9

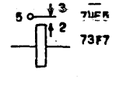
# ⑥① APP FIG. 61

SEE NOTE 1

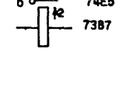
RELAY

| DESIG | ANAO | | [9]ANA1-9 | | [10]ANBO-9 | | [4]ANCO,4,5,9 | | [4]AND0,4,5,9 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF37 | | AF37 | | AF92 | | AF92 | | AF92 | | | | CODE |
| OPTION | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 74G6 | M | 74G6 | M | 68F3 | M | 68G3 | M | 68H3 | | | 12 |
| 11 | M | 74E7 | M | 74E7 | M | 67E2 | M | 67F2 | M | 67G2 | | | 11 |
| 10 | M | 74C7 | M | 74C7 | M | 6186 | M | 61A6 | M | 61A6 | | | 10 |
| 9 | M | 7587 | M | 7587 | M | 75C7 | M | 75E7 | M | 75G7 | | | 9 |
| 8 | M | 75A7 | M | 75A7 | M | 7507 | M | 7507 | M | 75G7 | | | 8 |
| 7 | M | 6186 | M | 6186 | | | | | | | | | 7 |
| 6 | M | 72H7 | M | 72H7 | M | - | M | - | M | - | | | 6 |
| 5 | M | 72F8 | M | 72F8 | M | 72F7 | M | 72F7 | M | 72F8 | | | 5 |
| 4 | M | 7286 | M | 7286 | M | 7286 | M | 72C7 | M | 72C7 | | | 4 |
| 3 | M | 68E3 | M | 68E3 | M | 68E3 | M | 68F3 | M | 68G3 | | | 3 |
| 2 | M | 6702 | M | 6702 | M | 67E2 | M | 67F2 | M | 67G2 | | | 2 |
| 1 | M | 6186 | M | 6186 | M | 6186 | M | 61A6 | M | 61A6 | | | 1 |
| COIL | | 74E6 | | 74E6 | | 74E8 | | 74F8 | | 74F8 | | | COIL |

[10] (IX) RELAY AH80-9 280AH




[10] (IX) AT80-9 280AH




NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [10] AH80-9 | 73F7 | 185A |
| [8] ANAO-9 | 74F6 | 177K |
| [10] ANB0-9 | 74E8 | 186A |
| [10] AT80-9 | 7387 | 185A |

# ⑥② APP FIG. 62

RELAY

| | [10]IPCO-9 | | | | DESIG |
|---|---|---|---|---|---|
| | AF514 | | | | CODE |
| | | | | | OPTION |
| CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| | | M | - | | | 12 |
| | | M | - | | | 11 |
| | | M | - | | | 10 |
| | | M | - | | | 9 |
| | | M | - | | | 8 |
| | | M | - | | | 7 |
| | | M | 88A/E2 | | | 6 |
| | | M | - | | | 5 |
| | | M | - | | | 4 |
| | | M | 28A/C1 | | | 3 |
| | | M | - | | | 2 |
| | | M | 28A/C1 | | | 1 |
| | 28A/B6 | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [10] IPCO-9 | 28A/B6 | 185A |

SHEET NOTES:

1. ALL -0 TO -4 DESIGNATIONS ARE IN FIRST FIG. 61 AND ALL -5 TO -9 DESIGNATIONS ARE IN SECOND FIG. 61.

# ⑥③ APP FIG. 63

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| AN1 | 74AC | KS-5643,L427 |

RELAY

| | [10] (IY) AH80-9 316M | [10] (IY) AT80-9 316M |
|---|---|---|
| | 74E5 | 74E5 |
| | 73F7 | 7387 |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| [10] ANKO-9 | 72F8 | 145C,KS-20810,L1A,2260 |

DRAWING ISSUE

| | |
|---|---|
| 1 | - |
| 20 | ARC - |
| 4A | WM W.E. |
| 9D | A.I.C. J.D.M. |
| 21D | WH UDP RHD |
| 22D | WH UDP RHD |
| 24D | SV EDM AMS |
| 25D | WH R.F. RHD |
| 28D | MD CLR RHD |
| 29A | NLF WAB RHD |
| 30D | PGJ WAB RHD |
| 32A | WB CLR AHB |
| 33D | WB CLR AHB |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 41D | |
| 43D | |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2) SD-26002,01-C39

BELL TELEPHONE LABORATORIES, INC 6S

## APP FIG. 64

RELAY

| DESIG | 6TFA | | 7TFA | | 60F | | FTA0 | | FTA1 | | FTA2 | | FTA3 | | FTA4 | | FTB4 | | FTB5 | | FTT4 | | FTT5 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF523 | | AF522 | | AF522 | | AF523 | | AF523 | | AF523 | | AF523 | | AF522 | | AF504 | | AF504 | | AF506 | | AF506 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | | | | | | M | 10C7 | M | 10D7 | M | 10E7 | M | 10F7 | | | M | 91H1 | M | 91H1 | M | 3E8 | M | 3F8 | 12 |
| 11 | | | | | | | | | | | | | | | | | M | 13D5 | M | | M | 3F6 | M | 3F6 | 11 |
| 10 | BM | 91F2 | M | | M | 13C2 | BM | | BM | | BM | 91E3 | BM | | M | | M | 13H3 | M | | M | 4A/B3 | M | 4A/A3 | 10 |
| 9 | | | | | | | | | | | | | | | | | M | 13G3 | M | | M | 4A/B3 | M | 4A/A3 | 9 |
| 8 | BM | 11B9 | BM | 11B9 | BM | 10C9 | BM | 10B7 | BM | 10D7 | BM | 10E7 | BM | 10F7 | BM | | M | 13E3 | M | 13E3 | M | 4A/B3 | M | 4A/A3 | 8 |
| 7 | | | | | | | | | | | | | | | | | M | 13D3 | M | 13D3 | M | 4A/B3 | M | 4A/A3 | 7 |
| 6 | BM | 31A/F3 | BM | | BM | | BM | | BM | | BM | 31A/F3 | BM | 31A/G3 | BM | 31A/G3 | M | 13A2 | M | 13B2 | M | 4A/B3 | M | 4A/A3 | 6 |
| 5 | | | | | | | | | | | | | | | | | M | 10G7 | M | 10H7 | M | 4A/B3 | M | 4A/A3 | 5 |
| 4 | BM | | M | 11B7 | M | | BM | 10A7 | BM | 10C7 | BM | 10D7 | BM | 10F7 | M | | M | 10G7 | M | 10G7 | M | 4A/B3 | M | 4A/A3 | 4 |
| 3 | | | | | | | | | | | | | | | | | M | 10G7 | M | | M | 4A/B3 | M | 4A/A3 | 3 |
| 2 | M | 11D8 | | | | | M | 10A7 | M | 10C7 | M | 10B7 | M | 10E7 | | | M | 10F7 | M | | M | 4A/B3 | M | 4A/A3 | 2 |
| 1 | M | 1382 | | | | | M | 10A7 | M | 10B7 | M | 10A7 | M | 10B7 | | | M | 10F7 | M | | M | 4A/B3 | M | 4A/A3 | 1 |
| COIL | | 9C8 | | 9D8 | | 9C5 | | 3A4 | | 3C4 | | 3D4 | | 3E4 | | 3F4 | | 3F7 | | 3G7 | | 3E9 | | 3F9 | COIL |

RELAY

| DESIG | GCA | | P0A | | P1A | | P2A | | P5A | | P6A | | P7A | | P8A | | P9A | | PE | | STP2A | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AF517 | | AF517 | | AF517 | | AF517 | | AF517 | | AF517 | | AF521 | | AF517 | | AF506 | | AF514 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 31A/C9 | EM | 11C8 | EM | | EM | 11B7 | EM | | EM | | EM | 91G3 | M | 11C8 | EM | 11B7 | M | | M | 11A8 | | | 12 |
| 11 | M | 31B/B6 | M | 91F3 | M | | M | | M | 11G2 | M | | M | 91B3 | M | 11G3 | M | 11G3 | M | | | | | | 11 |
| 10 | BM | | M | 11D9 | M | 11D9 | M | 11C9 | M | 11D9 | M | 11E9 | M | 11E9 | M | 91F3 | M | 11E9 | M | 11H2 | M | 11A7 | | | 10 |
| 9 | M | 13D8 | | | | | | | | | | | | | M | | | | M | 11G2 | | | | | 9 |
| 8 | BM | | EBM | 12A7 | EBM | 12A7 | EBM | 12A6 | EBM | 12A8 | EBM | 12A8 | EBM | 12A8 | BM | 12A9 | EBM | 12A9 | M | 11F2 | M | 11C8 | | | 8 |
| 7 | B | 31A/G1 | B | 12B7 | B | 12B8 | B | 12B8 | B | 12B8 | B | 12B8 | B | 12B9 | M | 11E3 | B | | M | 11E2 | | | | | 7 |
| 6 | BM | | EMB | 91C3 | EMB | 91C3 | EMB | | EMB | 91C3 | EMB | | EMB | 11E3 | BM | 12B9 | EMB | 91B3 | M | 11E2 | M | 11C8 | | | 6 |
| 5 | M | 31A/G3 | | | | | | | | | | | | | M | 11F3 | | | M | 11D2 | | | | | 5 |
| 4 | BM | 13G8 | M | | M | 11C2 | M | | M | 11F2 | M | | M | 11C3 | BM | 11C3 | M | 11F3 | M | 11C2 | M | 11E8 | | | 4 |
| 3 | M | 13F8 | M | 11E2 | M | 11H2 | M | 91F3 | M | | M | 11E3 | M | 11H3 | M | 11H3 | M | 91G3 | M | 11C2 | | | | | 3 |
| 2 | M | | M | 11B2 | M | 11E2 | M | | M | 11B2 | M | 11B3 | M | 91C3 | M | 11B3 | M | 11B3 | M | 11B2 | M | | | | 2 |
| 1 | M | 13E8 | M | 11D2 | M | | M | | M | 11A2 | M | 11D3 | M | | M | 11A3 | M | 11A3 | M | 11A2 | | | | | 1 |
| COIL | | 31A/F4 | | 10B0 | | 10C0 | | 10C0 | | 10E0 | | 10F0 | | 10G0 | | 10G0 | | 10H0 | | 11E5 | | 31A/G9 | | | COIL |

RELAY

XFC
S29 (DG) (DH)
2 — x 3 86G3, 87E7
1

RBN 2RT 17F3

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| TH3 | 34A/G7 | 437QA |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 60F | 9D9 | 185A |
| [5] FTA0-4 | 3C4 | 185A |
| FTB4 | 3F7 | 185A |
| FTB5 | 3G7 | 185A |
| FTT4 | 3E9 | 185A |
| FTT5 | 3F9 | 185A |
| GCA | 31A/F4 | 185A |
| [3] P0A-2A | 10C0 | 185A |
| [5] P5A-9A | 10F0 | 185A |
| PE | 11E5 | 185A |
| STP2A | 31A/G9 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| THR3 | 34A/G8 | 188A |

## APP FIG. 65

RELAY

| DESIG | BC20 | | [10]FB20-29 | | FMC20 | | FMG25 | | [10]FS20-29 | | FTC20-29 | | | | [5]GSA21-25 | | | | MT24 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AF4 | | AF511 | | AF511 | | AF40 | | [10]AF527 | | | | AJ12 | | | | AJ12 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | | | | | | | | EM | 39B/F6 | | | | | EBM | 17D4 | | | EBM | | | | 12 |
| 11 | M | | | | | | | | | | | | | | EBM | | | | EBM | 80B3 | | | 11 |
| 10 | M | 15A7 | | | M | | M | 90B3 | M | 90A3 | M | 61D8 | M | 15H2 | EBM | 89A6 | | | EBM | 89A2 | | | 10 |
| 9 | M | 15A7 | | | | | | | | | | | | | EBM | 89B6 | | | EBM | 89B2 | | | 9 |
| 8 | M | 15B7 | | | BM | | BM | 15F1 | M | 15F1 | EBM | 16B8 | BM | 39B/F5 | EBM | 89B6 | | | EBM | 89B2 | | | 8 |
| 7 | M | 15B7 | | | | | B | 15G1 | B | 15G1 | B | 15F7 | | | EBM | 89C6 | | | EBM | 89C2 | | | 7 |
| 6 | M | 15B7 | | | BM | 90E3 | BM | 90F0 | BM | 90D0 | EBM | 90E5 | BM | 90E3 | EBM | 89C6 | | | EBM | 89C2 | | | 6 |
| 5 | M | 15B7 | | | | | | | | | | | | | EBM | 89D6 | | | EBM | 89D2 | | | 5 |
| 4 | M | 15B7 | | | M | | M | 15E1 | M | 15E1 | M | 16H0 | M | 15C6 | EBM | 89D6 | | | EBM | 89D2 | | | 4 |
| 3 | M | 15B7 | | | | | | | | | | | | | EBM | 89E6 | | | EBM | 89E2 | | | 3 |
| 2 | M | 15B7 | | | | | | | M | 90B1 | | | | | EBM | 89F6 | | | EBM | 89E2 | | | 2 |
| 1 | M | 15B7 | | | | | | | M | 15D2 | | | | | EBM | 89F6 | | | EBM | 89F2 | | | 1 |
| COIL | | 15D9 | | 15B7 | | 90B2 | | 90B2 | | 90E4 | | 89A3 | | | | 17C8 | | | | 79C6 | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| BC20 | 15D9 | 185A |
| [10] FB20-29 | 15B7 | 185A |
| FMG20 | 90B2 | 185A |
| FMG25 | 90B2 | 185A |
| [10] FS20-29 | 90E4 | 185A |
| [10] FTC20-29 | 89A3 | 185A |
| MT24 | 79C6 | 136A |

## APP FIG. 66

RELAY

| DESIG | FC0-499 | | | | | |
|---|---|---|---|---|---|---|
| CODE | [500] AF506 | | | | | |
| OPTION | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | M | 17D4 | | | | |
| 11 | M | 17F2 | | | | |
| 10 | M | 89A7 | | | | |
| 9 | M | 89B7 | | | | |
| 8 | M | 89B7 | | | | |
| 7 | M | 89C7 | | | | |
| 6 | M | 89C7 | | | | |
| 5 | M | 89D7 | | | | |
| 4 | M | 89D7 | | | | |
| 3 | M | 89E7 | | | | |
| 2 | M | 89F7 | | | | |
| 1 | M | 89F7 | | | | |
| COIL | | 28A/A8 | | | | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| [500] FC0-499 | 17D5 | ~~T45C~~, KS-20810, L1A, 16.9kΩ |

## APP FIG. 67

RELAY

| DESIG | OSG10,11 | |
|---|---|---|
| CODE | [2]AJ700 | |
| OPTION | | |
| | CONT ARR | LOC |
| 24 | M | |
| 23 | M | 42C8 |
| 22 | M | |
| 21 | M | |
| 20 | M | 105A1 |
| 19 | M | |
| 18 | M | 81B4 |
| 17 | M | 88C/F5 |
| 16 | M | 88B/B3 |
| 15 | M | 56C0 |
| 14 | M | 44G5 |
| 13 | M | 42C3 |
| 12 | M | |
| 11 | M | 122B/B7 |
| 10 | M | 43F6 |
| 9 | M | 43E6 |
| 8 | M | 43C7 |
| 7 | M | 43A7 |
| 6 | M | 42F7 |
| 5 | M | 42E7 |
| 4 | M | 122B/C7 |
| 3 | M | 42B8 |
| 2 | M | 42E1 |
| 1 | M | 42E1 |
| COIL | | 42B4 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [2] OSG10,11 | 42C4 | 185A |
| [2] OSGA10,11 | 42E7 | 177K |
| [2] OSGB10,11 | 42F7 | 177K |

DRAWING ISSUE

| | |
|---|---|
| 5D | NP |
| 6A | ~~NP~~ AHD |
| 18D | ~~AHD~~ AHJ |

WORN DRAWING REPRODUCED WITHOUT CHANGE

W.N.B. AHD

| | |
|---|---|
| 21D | AHN UDP AHD |
| 22D | SSW UDP AHD |
| 25D | BB AHD AHD |
| 28D | AHD CLK |
| 31D | OLB XNN AHD |
| 32A | LP CLK AHD |
| 33D | LP CLK AHD |
| 35D | LP GDL AHD |
| 37D | DM |
| 38A | RA |
| 39D | RA |
| 43D | B |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C40

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-C40

# APP FIG. 68

RELAY

| DESIG | | | | | | CAMA | | CFG0 | | CFG1 | | CFG2 | | | | | | CMC3 | | CMF0 | | CMF1 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | AJ503 | | AJ501 | | AJ501 | | AJ501 | | | | | | AJ501 | | AF518 | | AF518 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | EBM | 57B/G2 | EBM | 92G4 | EBM | 92E4 | EBM | 9284 | | | | | EBM | 281 | EMB | 21A/H7 | EMB | 21A/H7 | 12 |
| 11 | | | | | | | EBM | 57B/A2 | EBM | 92G4 | EBM | 92E4 | EBM | 9284 | | | | | EBM | 41B/C4 | M | | M | | 11 |
| 10 | | | | | | | EBM | 57B/B3 | EBM | 92G4 | EBM | 92E4 | EBM | 9284 | | | | | EBM | 88B/D2 | EBM | | EBM | | 10 |
| 9 | | | | | | | EBM | 57B/F4 | EBM | 92G4 | EBM | 92E4 | EBM | 92C4 | | | | | EBM | 57A/E2 | | | | | 9 |
| 8 | | | | | | | EMB | 58F1 | EMB | 92G4 | EMB | 92E4 | EMB | 92C4 | | | | | EMB | | EBM | | EBM | | 8 |
| 7 | | | | | | | EBM | 58F4 | EBM | 92G4 | EBM | 92F4 | EBM | 92C4 | | | | | EBM | 77B8 | B | | B | | 7 |
| 6 | | | | | | | EMB | 58F4 | EMB | 92G4 | EMB | 92F4 | EMB | 92C4 | | | | | EMB | | EMB | | EMB | 36C7 | 6 |
| 5 | | | | | | | EMB | 10904 | EMB | 92H4 | EMB | 92F4 | EMB | 92D4 | | | | | EMB | | | | | | 5 |
| 4 | | | | | | | EBM | 27E1 | EBM | 92H4 | EBM | 92F4 | EBM | 92D4 | | | | | EBM | | EBM | | EBM | | 4 |
| 3 | | | | | | | EBM | 9207 | EBM | 92H4 | EBM | 92F4 | EBM | 92D4 | | | | | EBM | | M | 41C0 | M | 41B0 | 3 |
| 2 | | | | | | | EBM | 57B/H6 | EBM | 92A0 | EBM | 92A0 | EBM | 92A0 | | | | | EBM | 29B/D1 | EBM | | EBM | | 2 |
| 1 | | | | | | | EBM | 58E8 | EBM | 1C0 | EBM | 92A0 | EBM | 100 | | | | | EBM | | M | 21B/F5 | M | 21B/F5 | 1 |
| COIL | | | | | | | | 29B/E0 | | 92C1 | | 92D1 | | 92D1 | | | | | | 2208 | | 21A/E9 | | 21A/F9 | COIL |

RELAY

| DESIG | CMF2 | | CMF3 | | CMS0 | | CMS1 | | | | | | CTF0 | | CTF1 | | CTF2 | | CTF4 | | CTF7 | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | | | | | AF507 | | AF507 | | AF507 | | AF507 | | AF507 | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | EBM | 22C5 | EBM | 92C1 | EBM | a | EBM | a | | | | | M | 92C2 | M | 9282 | M | 9282 | M | 92D2 | M | 9283 | | | 12 |
| 11 | EBM | 22C5 | EBM | 92D1 | EBM | 24C/G1 | EBM | 24C/G1 | | | | | M | 9282 | M | 92C2 | M | 9282 | M | 9283 | M | 9283 | | | 11 |
| 10 | EBM | 41B/A3 | EBM | 92D1 | EBM | 59A/E7 | EBM | 59A/F6 | | | | | BM | 92A1 | BM | 92A1 | BM | 92A1 | BM | 92A2 | BM | | | | 10 |
| 9 | EBM | 88B/F0 | EBM | 92E1 | EBM | 24A/F5 | EBM | 24A/F5 | | | | | M | 92D2 | M | 92C2 | M | 92C3 | M | 92C3 | M | 9283 | | | 9 |
| 8 | EMB | 233 | EMB | 92E1 | EMB | 21A/B3 | EMB | 21A/B3 | | | | | BM | | BM | 92A1 | BM | 92A1 | BM | 92A2 | BM | 92A2 | | | 8 |
| 7 | EBM | 41B/C5 | EBM | 92F1 | EBM | 41C0 | EBM | 41B0 | | | | | B | | B | | B | 92A1 | B | 92A2 | B | 92A2 | | | 7 |
| 6 | EMB | 58G1 | EMB | 92G1 | EMB | 22C5 | EMB | 22C5 | | | | | BM | | BM | | BM | | BM | | JM | | | | 6 |
| 5 | EMB | 58H2 | EMB | 92G1 | EMB | 24C/H4 | EMB | 24C/H4 | | | | | M | 9202 | M | 9203 | M | 9203 | M | 92C3 | M | 9203 | | | 5 |
| 4 | EBM | 48H0 | EBM | | EBM | 21B/F5 | EBM | 21B/F6 | | | | | BM | | BM | | BM | | BM | | BM | | | | 4 |
| 3 | EBM | 109C3 | EBM | 27E1 | EBM | | EBM | | | | | | M | 181 | M | 1D1 | M | 1E1 | M | 1G1 | M | 1H1 | | | 3 |
| 2 | EBM | 24C/G4 | EBM | 24C/G4 | EBM | | EBM | | | | | | M | | M | | M | | M | | M | | | | 2 |
| 1 | EBM | 23A6 | EBM | | EBM | | EBM | 36C7 | | | | | M | | M | | M | | M | | M | | | | 1 |
| COIL | | 21A/H6 | | 21A/H6 | | 21A/F9 | | 21A/G9 | | | | | | 92E1 | | 92E1 | | 92F1 | | 92G1 | | 92G1 | | | COIL |
| | | | | | a | 21A/B3 23E6 | a | 21A/B3 23E7 | | | | | | | | | | | | | | | | | |

RELAY

| DESIG | CTGS | | | | | NCMJ | | | | ORC | | ORC0 | | ORC1 | | ORC2 | | | | | | TTA | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF508 | | | | | AF506 | | | | AF506 | | AJ503 | | AJ503 | | AJ503 | | | | | | AF506 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | M | 1D0 | | | | M | | | | M | | EBM | | EBM | | EBM | | | | | | M | 10907 | 12 |
| 11 | M | 1B1 | | | | M | | | | M | | EBM | 58F5 | EBM | 58F5 | EBM | 5DF5 | | | | | M | | 11 |
| 10 | M | 1D1 | | | | M | | | | M | 92C7 | EBM | | EBM | 58F5 | EBM | | | | | | M | | 10 |
| 9 | M | 1E1 | | | | M | 109B2 | | | M | 92E7 | EBM | | EBM | | EBM | | | | | | M | | 9 |
| 8 | M | 1G1 | | | | M | 1H2 | | | M | 58H1 | EMB | 10903 | EMB | 10903 | EMB | 10903 | | | | | M | 109H6 | 8 |
| 7 | M | 1H1 | | | | M | 1G2 | | | M | | EBM | | EBM | | EBM | | | | | | M | | 7 |
| 6 | M | 49C/E5 | | | | M | 1E2 | | | M | | EMB | | EMB | | EMB | | | | | | M | 109H6 | 6 |
| 5 | M | 49C/F5 | | | | M | 1C2 | | | M | | EMB | | EMB | | EMB | | | | | | M | | 5 |
| 4 | M | 49C/B6 | | | | M | 1B2 | | | M | | EBM | | EBM | | EBM | | | | | | M | 109H4 | 4 |
| 3 | M | 49C/D5 | | | | M | 1D0 | | | M | | EBM | | EBM | | EBM | | | | | | M | | 3 |
| 2 | M | | | | | M | 1C0 | | | M | | EBM | | EBM | | EBM | | | | | | M | 10907 | 2 |
| 1 | M | | | | | M | 1B0 | | | M | | EBM | | EBM | | EBM | | | | | | M | 3780 | 1 |
| COIL | | 57A/E0 | | | | | 29B/D0 | | | | 58F0 | | 92C8 | | 9207 | | 92E7 | | | | | | 2307 | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CAMA | 29B/E0 | 185A |
| CFG0 | 92C1 | 185A |
| CFG1 | 92D1 | 185A |
| CFG2 | 92D1 | 185A |
| CMF0 | 21A/E9 | 185A |
| CMF1 | 21A/F9 | 185A |
| CMF2 | 21A/H6 | 1C6A |
| CMS0 | 21A/F9 | 185A |
| CMS1 | 21A/G9 | 185A |
| CTF0 | 92E1 | 185A |
| CTF1 | 92F1 | 185A |
| CTF2 | 92F1 | 185A |
| CTF4 | 92G1 | 185A |
| CTF7 | 92H1 | 185A |
| CTGS | 57A/E0 | 185A |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| NCMJ | 29E D0 | 185A |
| ORC | 58F0 | 185A |
| ORC0 | 92C8 | 185A |
| ORC1 | 9207 | 185A |
| ORC2 | 92E7 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 8D | DFF JFH |
| 11B | JFH PD |
| 13B | AEE WS |
| 18D | FJH |
| 21D | JLC JDP BMD SSW |
| 22D | JDP FHD |
| 25D | MD WHO HRD CMC |
| 30D | AND LD |
| 32A | CLC AND LP |
| 33D | LP DDL AND |
| 34A | DDL AND |
| 35D | LP COL AND |
| 39D | RA |
| 43D | CB |
| 45D | |

DRAWING ISSUE

58A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C41

BELL TELEPHONE LABORATORIES, INC 6S

SD-26002-01-C41

## ⑥⑨ APP FIG. 69

RELAY

| DESIG | ACD | | | | CAM | | CMC1 | | CMC2 | | CMF | | CMJ | | DNC | | FC | | | | LCD0 | | LCD1 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | | | AJ503 | | AJ501 | | AJ501 | | AJ505 | | AJ505 | | AJ503 | | AJ503 | | | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | | | EBM | | EBM | 5681 | EBM | 60A0 | | | | | EBM | 24A/C6 | EBM | 24A/C6 | | | EBM | 24A/C4 | EBM | 24A/C4 | 12 |
| 11 | EBM | 24A/C5 | | | EBM | 498/F3 | EBM | 6083 | EBM | | | | | | EBM | 24A/C6 | EBM | 24A/C6 | | | EBM | | EBM | 24A/C4 | 11 |
| 10 | EBM | | | | EBM | | EBM | 6083 | EBM | 46G6 | M | 298/E7 | M | 298/E7 | EBM | 24A/C8 | EBM | 24A/D8 | | | EBM | | EBM | | 10 |
| 9 | EBM | | | | EBM | 498/E3 | EBM | 6082 | EBM | 46G6 | B | 22C5 | B | 132C7 | EBM | | EBM | | | | EBM | | EBM | | 9 |
| 8 | EMB | 24A/D7 | | | EMB | | EMB | 6060 | EMB | 46F6 | M | 22C5 | M | 124C1 | EMB | | EMB | | | | EMB | 24A/D8 | EMB | 24A/D8 | 8 |
| 7 | EBM | | | | EBM | 298/D1 | EBM | 578/A3 | EBM | 46E6 | B | 678/F9 | B | 10982 | EBM | | EBM | | | | EBM | | EBM | | 7 |
| 6 | EMB | | | | EMB | | EMB | | EMB | 46D6 | M | | M | 298/F6 | EMB | | EMB | | | | EMB | | EMB | | 6 |
| 5 | EMB | | | | EMB | | EMB | 4606 | EMB | 46D6 | B | | B | | EMB | | EMB | | | | EMB | | EMB | | 5 |
| 4 | EBM | | | | EBM | | EBM | 4BC6 | EBM | 46C6 | M | 12481 | M | 92F8 | EBM | | EBM | | | | EBM | | EBM | | 4 |
| 3 | EBM | | | | EBM | | EBM | 4886 | EBM | 4686 | | | | | EBM | | EBM | | | | EBM | | EBM | | 3 |
| 2 | EBM | | | | EBM | 0 | EBM | 4886 | EBM | 4686 | M | | M | 92A6 | EBM | | EBM | | | | EBM | | EBM | | 2 |
| 1 | EBM | | | | EBM | 578/D3 | EBM | 46A6 | EBM | 46A6 | | | | | EBM | | | | | | EBM | | | | 1 |
| COIL | | 9382 | | | | 298/E0 | | 2206 | | 2206 | | 288/E9 | | 288/G9 | | 9302 | | 9302 | | | | 93A2 | | 93A2 | COIL |

(ML) 57B/D3
(MM) 57B/D1

RELAY

280E (IX) CMRO (IX) CMRI

5 → 3 → 2
28A/A3 28A/B3
28B/F6 28B/F6

316M
5 → 4 → 7
(IY) CMRO 28A/A3 (IY) CMRI 28A/B3
28B/F6 28B/F6

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ACD | 9382 | 185A |
| CAM | 298/E0 | 185A |
| CMC1 | 22C6 | 185A |
| CMF | 288/F9 | 186A |
| CMJ | 288/G9 | 186A |
| DNC | 9302 | 185A |
| FC | 9302 | 185A |
| LCD0 | 93A2 | 185A |
| LCD1 | 93A2 | 185A |
| LCD2 | 93A2 | 185A |
| VTC | 93C2 | 185A |
| WKC | 93E2 | 185A |

RELAY

| DESIG | LCD2 | | | | | | VTC | | WKC | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | | | | | AJ503 | | AJ503 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 24A/C4 | | | | | EBM | | EBM | 24A/C5 | | | | | | | | | | | | | 12 |
| 11 | EBM | 24A/C4 | | | | | EBM | 24A/C6 | EBM | | | | | | | | | | | | | | 11 |
| 10 | EBM | | | | | | EBM | 24A/C8 | EBM | | | | | | | | | | | | | | 10 |
| 9 | EBM | | | | | | EBM | | EBM | | | | | | | | | | | | | | 9 |
| 8 | EMB | 24A/D8 | | | | | EMB | | EMB | 24A/D7 | | | | | | | | | | | | | 8 |
| 7 | EBM | | | | | | EBM | | EBM | | | | | | | | | | | | | | 7 |
| 6 | EMB | | | | | | EMB | | EMB | | | | | | | | | | | | | | 6 |
| 5 | EMB | | | | | | EMB | | EMB | | | | | | | | | | | | | | 5 |
| 4 | EBM | | | | | | EBM | | EBM | | | | | | | | | | | | | | 4 |
| 3 | EBM | | | | | | EBM | | EBM | | | | | | | | | | | | | | 3 |
| 2 | EBM | | | | | | EBM | | EBM | | | | | | | | | | | | | | 2 |
| 1 | EBM | | | | | | EBM | | EBM | | | | | | | | | | | | | | 1 |
| COIL | | 93A2 | | | | | | 93C2 | | 93E2 | | | | | | | | | | | | | COIL |

## ⑦⑩ APP FIG. 70

RELAY

| DESIG | (10) DR10-19 | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF59 | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARP | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 88C/D2 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 288/C1 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 28A/E1 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 288/C0 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 288/G6 | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| (10) DR10-19 | 288/G6 | 185A |

## ⑦① APP FIG. 71

RELAY

| DESIG | AMA1 | | RN2K | | RN2T | | RNT20 | | RTN | | RTNA | | RUN | | RUNA | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AK502 | | | | AJ12 | | AJ513 | | AJ12 | | AJ513 | | AJ12 | | | | CODE |
| OPTION | | | ZRL | | ZRL | | ZRL | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 58E9 | EBM | 58E7 | | | EBM | | PBEM | | EBM | | PBEM | | EBM | | | | 12 |
| 11 | EBM | | EBM | | | | EBM | | BM | | EBM | | BM | | EBM | | | | 11 |
| 10 | EBM | | EBM | | | | EBM | 59A/A2 | EBM | | EBM | 59A/A2 | EBM | | EBM | 59A/A2 | | | 10 |
| 9 | EBM | | EMB | | | | EBM | 59A/A2 | PMEB | 59A/D4 | EBM | 59A/B2 | PMEB | 59A/F4 | EBM | 59A/B2 | | | 9 |
| 8 | EMB | | EMB | | | | EBM | 59A/B2 | EMB | | EBM | 59A/B2 | EMB | 1148/F0 | EBM | 59A/C2 | | | 8 |
| 7 | EBM | | | | | | EBM | 59A/C2 | BM | | EBM | 59A/C2 | BM | | EBM | 59A/C2 | | | 7 |
| 6 | EMB | 58F6 | | | | | EBM | 59A/D2 | EBM | 98E4 | EBM | 59A/D2 | EBM | 98F4 | EBM | 59A/D2 | | | 6 |
| 5 | EMB | 58F4 | | | EMB | 59A/C4 | EBM | 59A/E2 | BM | | EBM | 59A/E2 | BM | | EBM | 59A/E2 | | | 5 |
| 4 | EBM | 92C7 | | | EMB | | EBM | 59A/E2 | PMEB | | EBM | 59A/F2 | PMEB | | EBM | 59A/F2 | | | 4 |
| 3 | EBM | 59A/B5 | | | EBM | | EBM | 59A/F2 | BM | 98F8 | EBM | 59A/F2 | BM | 98F8 | EBM | 59A/G2 | | | 3 |
| 2 | EBM | 92A6 | | | EBM | 1148/F0 | EBM | 59A/G2 | PBEM | | EBM | 59A/G2 | PBEM | | EBM | 59A/G2 | | | 2 |
| 1 | EBM | 9286 | | | EBM | 59A/F5 | EBM | 59A/H2 | BM | 59A/G5 | EBM | 59A/H2 | BM | 59A/G5 | EBM | 59A/H2 | | | 1 |
| COIL | | 298/C0 | | 59A/A6 | | 59A/B5 | | 59A/F5 | | 59A/D5 | | 59A/G5 | | 59A/E5 | | 59A/G5 | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AMA1 | 298/C0 | 185A |
| (ZRL) RN2K | 59A/A6 | 185A |
| (ZRL) RN2T | 59A/B5 | 185A |
| (ZRL) RNT20 | 59A/F5 | 185A |
| RTN | 59A/D5 | 185A |
| RTNA | 59A/G5 | 185A |
| RUN | 59A/E5 | 185A |
| RUNA | 59A/G5 | 185A |

## ⑦② APP FIG. 72

RELAY

| DESIG | (12) PC28-39 | | | | DESIG |
|---|---|---|---|---|---|
| CODE | AF514 | | | | CODE |
| OPTION | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | | | | 12 |
| 11 | | | | | 11 |
| 10 | M | | | | 10 |
| 9 | | | | | 9 |
| 8 | M | | | | 8 |
| 7 | | | | | 7 |
| 6 | M | 88C/E2 | | | 6 |
| 5 | | | | | 5 |
| 4 | M | 288/A1 | | | 4 |
| 3 | | | | | 3 |
| 2 | M | 28A/E1 | | | 2 |
| 1 | | | | | 1 |
| COIL | | 28A/F8 | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| (12) PC28-39 | 28A/F8 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 8D | DTP 18M |
| 9D | DTP 18M ATS |
| 10B | 18M |
| 11B | 10M 16A AP |
| 13B | CLR JEN |
| 30D | MAB AMB |
| 33D | GAA CLK AMB |
| 35D | RCB CDL AMB |
| 36A | DM |
| 37D | DM |
| 39D | RCB |
| 43D | |

DRAWING ISSUE 60A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C42

BELL TELEPHONE LABORATORIES, INC 6S

SD-26002-01-C42

## (73) APP FIG. 73

RELAY

| DESIG | FAC1 | | FDO | | FDI | | FEO | | FEI | | FFI | | INT | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF132 | | AK6 | | | | AK6 | | | | AK6 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | GY | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | " | 61E5 | BM | - | | | BM | - | | | | | BM | 38D3 | | | | | | | | | 12 |
| 11 | M | 218/D7 | BM | - | | | BM | - | | | | | BM | - | | | | | | | | | 11 |
| 10 | M | - | BM | - | | | BM | - | | | | | BM | 28A/E5 | | | | | | | | | 10 |
| 9 | M | 68H6 | BM | - | | | | | | | | | BM | - | | | | | | | | | 9 |
| 8 | BM | - | BM | 40F2 | | | BM | 40G2 | | | | | BM | 40C8 | | | | | | | | | 8 |
| 7 | M | 67H6 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | a | | | BM | - | | | BM | - | BM | - | | | | | | | | | | | 6 |
| 5 | M | 67H7 | | | BM | - | | | BM | - | BM | - | | | | | | | | | | | 5 |
| 4 | M | 67C1 | | | BM | - | | | BM | - | BM | - | | | | | | | | | | | 4 |
| 3 | M | 61D2 | | | BM | - | | | BM | - | BM | - | | | | | | | | | | | 3 |
| 2 | M | 6880 | | | BM | - | | | BM | - | BM | - | | | | | | | | | | | 2 |
| 1 | M | 61C2 | | | BM | 40G2 | | | BM | 40H2 | BM | 40H1 | | | | | | | | | | | 1 |
| COIL | | 218/D7 | | 61C2 | | 61D2 | | 67H7 | | 67H6 | | 68H7 | | 40F0 | | | | | | | | | COIL |
| | a | 60G2 60H2 | | | | | | | | | | | | | | | | | | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| FAC1 | 218/D7 | 185A |

## (74) APP FIG. 74

RELAY

| DESIG | AMA | | MBK4 | | MBK5 | | | | | | RPK | | SCC | | TGS2 | | TVA | | | | XTV | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF507 | | AF531 | | AF531 | | | | | | AF522 | | AF522 | | AF506 | | AF522 | | | | AF96 | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 5908 | | | | | | | | | | | | | M | 114A/B2 | | | | | | | | 12 |
| 11 | M | 498/F3 | | | | | | | | | | | | | M | 57B/B3 | | | | | | | | 11 |
| 10 | BM | 498/G2 | EBM | - | EBM | 57B/04 | | | | | M | - | M | 109A5 | M | 308/G8 | M | 10984 | | | | | | 10 |
| 9 | M | 498/D3 | | | | | | | | | | | | | M | 308/F8 | | | | | | | | 9 |
| 8 | BM | 103C1 | EBM | - | EBM | - | | | | | BM | 57B/F3 | BM | - | M | - | BM | - | | | M | 87E6 | | 8 |
| 7 | B | 57B/E2 | | | | | | | | | | | | | M | - | | | | | | | | 7 |
| 6 | BM | - | EBM | - | EBM | - | | | | | BM | a | BM | 498/E3 | M | - | BM | 498/F3 | | | M | 86C8 | | 6 |
| 5 | M | - | | | | | | | | | | | | | M | 498/E1 | | | | | | | | 5 |
| 4 | B | 57B/E1 | EBM | 57B/C3 | EBM | - | | | | | M | - | M | - | M | 498/F1 | M | - | | | M | 86G2 | | 4 |
| 3 | M | 29E7 | | | | | | | | | | | | | M | 498/G1 | | | | | | | | 3 |
| 2 | M | 308/F4 | | | | | | | | | | | | | M | - | | | | | | | | 2 |
| 1 | M | 308/G4 | | | | | | | | | | | | | M | 49A/D0 | | | | | | | | 1 |
| COIL | | 298/B0 | | 498/F0 | | 498/D0 | | | | | | 308/H4 | | 109A6 | | 57A/D0 | | 10986 | | | | P 109A7 S-87E6 | | COIL |
| | | | | | | | | | | | (ZR) | 29A/C5 | | | | | | | | | | | | |
| | | | | | | | | | | | (ZS) | 308/H5 | | | | | | | | | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AMA | 298/B0 | 185A |
| RPK | 308/H4 | |
| SCC | 109A6 | |
| TGS2 | 57A/D0 | |
| MBK4 | 498/F0 | |
| MBK5 | 498/D0 | |

RESISTOR

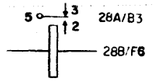
| DESIG | LOC | CODE |
|---|---|---|
| NOB | 498/E2 | KS-13492,L1,2000 |
| OBS | 498/D3 | KS-13492,L1,2000 |
| SCC | 498/E2 | KS-13492,L1,2000 |
| TVT | 498/F2 | KS-13492,L1,2000 |

## (75) APP FIG. 75

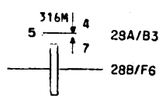
| DESIG | ANI | | ANIS | | CL7 | | CL6 | | CL8 | | MT25 | | MT26 | | CL9 | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ505 | | AF530 | | AF530 | | AF530 | | AF88 | | AJ12 | | AF530 | | | | | CODE |
| OPTION | XJ | | XJ | | UQ | | | | UQ | | SW | | SW | | OJ | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | | |
| 12 | EBM | - | | | EBM | - | EBM | - | EBM | - | M | 47A6 | EBM | - | EBM | - | | | | 12 |
| 11 | EBM | 498/E1 | | | | | | | | | B | - | EBM | - | | | | | | 11 |
| 10 | EBM | 498/G4 | M | 298/C2 | EBM | - | EBM | - | EBM | - | M | 45H2 | EBM | - | EBM | - | | | | 10 |
| 9 | EBM | 57A/D3 | B | - | | | | | | | B | 45E8 | EBM | - | | | | | | 9 |
| 8 | EMB | 57B/D2 | M | 298/D7 | EBM | 48F5 | EBM | - | EBM | 48F4 | BM | 57A/C1 | EBM | - | EBM | - | | | | 8 |
| 7 | EBM | 57B/E4 | B | - | | | | | | | B | - | EBM | - | | | | | | 7 |
| 6 | EMB | 29A/E7 | M | - | EBM | 48F2 | EBM | 48F4 | EBM | 48F2 | BM | 45F7 | EBM | - | EBM | 57B/D8 | | | | 6 |
| 5 | EMB | - | B | 132C7 | | | | | | | B | - | EBM | - | | | | | | 5 |
| 4 | EBM | 57B/D4 | M | - | EBM | 48F4 | EBM | 48H4 | EBM | 48H5 | M | - | EBM | - | EBM | - | | | | 4 |
| 3 | EBM | 48F6 | | | | | | | | | B | 132F1 | EBM | - | | - | | | | 3 |
| 2 | EBM | 56E8 | M | 124A1 | EBM | 48D2 | EBM | 48E4 | EBM | 48E3 | M | 47H2 | EBM | - | EBM | 48E3 | | | | 2 |
| 1 | EBM | 109C2 | | | | - | | | | | B | 47C4 | EBM | 47G2 | | - | | | | 1 |
| COIL | | 298/D6 | | 28B/E9 | | 47B1 | | 47B1 | | 47B1 | | 47A5 | | 47A6 | | 47B1 | | | | COIL |

RELAY

[2] (IZ) DRRO-1
280E




[2] (GA) DRRO-1




NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| (XJ) | ANI | 298/D6 | 185A |
| (XJ) | ANIS | 28B/E9 | 186A |
| (ZEI) | [1] CL6P-6S | 47B1 | 177C |
| (ZEJ) | [2] CL6P-6S | 47B1 | 186D |
| (ZEK) | [1] CL7P,8P | 47C1 | 177C |
| | [1] CL7S,8S | 47C1 | |
| (ZEL) | [2] CL7P,8P | 47C1 | 186D |
| | [2] CL7S,8S | 47C1 | |
| (ZEM) | [1] CL9P | 47C1 | 177C |
| | [1] CL9S | 47D1 | |
| (ZEN) | [2] CL9P,9S | 47C1 | 186D |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (UQ) [2] CL7,8 | 48D1 | KS-13492,L1,2000 |

DRAWING ISSUE

| | |
|---|---|
| 9D | RAM |
| 12D | AEJ |
| 14B | CTE-DST |
| 20AC | UDP |
| 21D | UDP |
| 22D | CSW |
| 24D | FEC |
| 25D | DS |
| 27A | AMO |
| 30D | PDJ |
| 33D | DPK |
| 34A | DPK |
| 35D | DPK |
| 36A | BEM |
| 37D | BEM |
| 39D | RA |
| 41D | |
| 43D | |

DRAWING ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-C43

6S

# APP FIG. 78

RELAY

| DESIG | CSK | CST0 | CST1 | CST2 | CST3 | CST4 | CST5 | CST6 | CST7 | CST8 | CST9 | CSU0 | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ512 | AJ502 | AJ502 | AJ502 | AJ502 | AJ502 | AJ502 | AJ502 | AJ502 | AJ502 | AJ502 | AJ502 | CODE |
| OPTION | | | | | QY | QY | QY | WW | WW | WW | WW | UD | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | BM - | EBM - | EBM 104A/F5 | EBM 104A/F5 | EBM 104A/F5 | EBM 104A/D5 | EBM 104A/D5 | EBM 104A/D5 | EBM 104A/A5 | EBM 104A/B5 | EBM 104A/A5 | EBM 101G5 | 12 |
| 11 | BM - | EBM - | EBM 104A/G5 | EBM 104A/G5 | EBM 104A/G5 | EBM 104A/D5 | EBM 104A/D5 | EBM 104A/D5 | EBM 104A/B5 | EBM 104A/A5 | EBM 101G5 | 11 | |
| 10 | BM 1008/B2 | EBM - | EBM 6B/AO | EBM 6B/BO | EBM 6B/BO | EBM 6B/BO | EBM 6B/CO | EBM 6B/CO | EBM 6B/CO | EBM 6B/DO | EBM 6B/DO | EBM - | 10 |
| 9 | BM 1008/D5 | EMB 6B/AO | EMB 6B/AO | EMB 6B/BO | EMB 6B/BO | EMB 6B/BO | EMB 6B/CO | EMB 6B/CO | EBK 6B/CO | EBM 6B/DO | EMB 6B/DO | EBM 6B/EO | 9 |
| 8 | BM 1008/E6 | EMB 6B/HI | EMB 6B/HI | EMB 6B/HI | EMB 6B/GI | EMB 6B/GI | EMB 6B/F1 | EMB 6B/F1 | EMB 6B/E1 | EMB 6B/E1 | EMB 6B/D1 | EMB 6A/A4 | 8 |
| 7 | BM - | | | | | | | | | | | | 7 |
| 6 | BM 113C2 | EMB 102B3 | EMB 102B3 | EMB 102B3 | EMB 102C3 | EMB 102C3 | EMB 102C3 | EMB 102C3 | EMB 102C3 | EMB 102C3 | EMB 102C3 | EMB a | 6 |
| 5 | BM - | | | | | | | | | | | | 5 |
| 4 | BM 104B/88 | EBM 104A/H5 | EBM 104A/G5 | EBM 104A/G5 | EBM 104A/D5 | EBM 104A/E5 | EBM 104A/E5 | EBM 104A/E5 | EBM 104A/C5 | EBM 104A/C5 | EBM 104A/C5 | EBM 104B/G7 | 4 |
| 3 | BM 104A/H0 | EBM a | EBM a | EBM a | EBM a | EBM a | EBM a | EBM 113A1 | EBM 113A1 | EBM 113A1 | EBM 113A1 | EBM 6B/H2 | 3 |
| 2 | BM 1008/C6 | EBM 101E5 | EBM 101C5 | EBM 101D5 | EBM 101D5 | EBM 101D5 | EBM 101D5 | EBM 101D4 | EBM a | EBM a | EBM 101E4 | EBM 6B/H2 | 2 |
| 1 | BM 6B/D1 | EBM b | EBM b | EBM b | EBM b | EBM b | EBM b | EBM 101D6 | EBM 101C4 | EBM 101C4 | EBM 101D4 | EBM 6B/H2 | 1 |
| COIL | 6B/A1 | 6A/D7 | 6A/C7 | 6A/A7 | 6A/D7 | 6A/C7 | 6A/B7 | 6A/A7 | 6A/A7 | 6A/A7 | 6A/A7 | 6A/B3 | COIL |
| | | (UG) 101B4 | (UG) 101A4 | (QQ) 101A4 | (QQ) 101B5 | (QQ) 101A5 | (QQ) 101A5 | | a 101E5 | a 101E4 | | (UL) 6A/A4 | |
| | | (PE) 113B1 | (PE) 113B1 | (PE) 113B1 | (PE) 113B1 | (PE) 113B1 | (PE) 113B1 | | 101E6 | 101E5 | | o (DS) 10283 | |
| | | b 101D3 | b 101C5 | b 101C5 | b 101D5 | b 101C4 | b 101C4 | | | | | | |
| | | 101D6 | 101D4 | 101D4 | 101E3 | 101E4 | 101E4 | | | | | | |

RELAY

| DESIG | CSU0 | [9]CSU1-9 | [9]CSU1-9 | CTK1 | CTK2 | CTUK | CUK1 | CUK2 | CTUK | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ518 | AJ502 | AJ518 | AJ507 | AJ507 | AF511 | AJ507 | AJ507 | AJ503 | | | | | | | CODE |
| OPTION | UE | UD | UE | UL | UL | JN | UL | UL | JM | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | EBM 101G5 | EBM 101F5 | EBM 101F5 | M - | M - | | M - | M - | EBM 318/C3 | | | | | | | 12 |
| 11 | EBM 101G5 | EBM 101F4 | EBM 101F4 | M - | M - | | M - | M - | EBM - | | | | | | | 11 |
| 10 | EBM - | EBM 6B/FO | EBM 6B/FO | M - | M - | M 108G2 | M - | M - | EBM 108G2 | | | | | | | 10 |
| 9 | EBM 6B/EO | EBM 6B/FO | EBM 6B/FO | M - | M - | | M - | M - | EBM - | | | | | | | 9 |
| 8 | EMB 6B/F2 | EMB 6A/A4 | EMB 6B/F2 | BM - | BM - | BM b | BM - | BM - | EMB 348/D3 | | | | | | | 8 |
| 7 | EBM b | | EBM b | M - | M - | B 1008/G6 | M - | M - | EBM 1008/G6 | | | | | | | 7 |
| 6 | EMB 102B3 | EMB a | EMB 102B3 | BM - | BM - | BM 107F5 | BM - | BM - | EMB 107F5 | | | | | | | 6 |
| 5 | EMB a | | EMB a | M - | M - | | M - | M - | EMB 1008/E6 | | | | | | | 5 |
| 4 | EBM 104B/G7 | EBM 104B/F6 | EBM 104B/F6 | BM 1008/E2 | BM 1008/E2 | M a | BM 1008/E3 | BM 1008/E2 | EBM 107A7 | | | | | | | 4 |
| 3 | EBM 6B/H2 | EBM 6B/H2 | EBM 6B/H2 | M - | M - | | M - | M - | EBM 36C5 | | | | | | | 3 |
| 2 | EBM 6B/H2 | EBM 6B/H2 | EBM 6B/H2 | M - | M - | | M - | M - | EBM 1008/E1 | | | | | | | 2 |
| 1 | EBM 6B/H2 | EBM 6B/H2 | EBM 6B/H2 | M 1008/D7 | M 1008/C7 | | M 1008/C7 | M 1008/C7 | EBM 1008/D1 | | | | | | | 1 |
| COIL | 6A/B4 | 6A/B3 | 6A/B4 | 101D8 | 101B8 | 1008/A0 | 101G8 | 101E8 | 1008/A2 | | | | | | | COIL |
| | (QQ) 6B/H2 | (UL) 6A/A4 | (QQ) 6B/H2 | | | (SN) 107A7 | | | | | | | | | | |
| | (PE) 113C2 | o (DS) 10283 | (PE) 113C2 | | | a (SP) 10787 | | | | | | | | | | |
| | b (QQ) 6B/G2 | | b (QQ) 6B/G2 | | | | | | | | | | | | | |
| | (III) 6A/A5 | | (III) 6A/B5 | | | b (SN) 348/D3 | | | | | | | | | | |
| | | | | | | (PF) 348/D2 | | | | | | | | | | |

RELAY

2808A

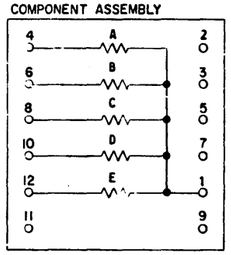
(UG) CSS 6A/D8 6A/B5

(UG) CSP 6A/C8 6A/B5

DIODE

| DESIG | LOC | CODE |
|---|---|---|
| ZIC,ZIR CS | 6A/H4 | 426G |

COMPONENT ASSEMBLY




| DESIG | | CSU | | CST | |
|---|---|---|---|---|---|
| CODE | | ED94823-( )G157 | | ED94823-( )G157 | |
| OPTION | | MA | | MA | |
| COMPONENT | CODE | DESIG | LOC | DESIG | LOC |
| RESISTOR | | | | | |
| A | KS-19152, L1, 2000 | CSU7 | 101H6 | CST7 | 101E6 |
| B | | CSU4 | 101G6 | CST4 | 101E6 |
| C | | CSU2 | 101G6 | CST2 | 101D6 |
| D | | CSU1 | 101F6 | CST1 | 101C6 |
| E | | CSU0 | 101F6 | CST0 | 101C6 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CSK | 6A/A1 | |
| [3] (QY) CST3-5 | 6A/D7-D7 | |
| [4] (WW) CST6-9 | 6A/A7 | |
| [10] (UD) CSU0-9 | 6A/B3 | 185A |
| [10] (UE) CSOP-9P | 6A/B4 | |
| [10] (UG) CSCS-9S | 6A/C4 | |
| (UL) CTK1 | 101D8 | |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| (UL) CTK2 | 101B8 | |
| (JN, JM) CTUK | 110B/A0 | |
| (UL) CUK1 | 101G8 | 185A |
| (UL) CUK2 | 101E8 | |

RESISTOR

| CODE | DESIG | LOC | CODE |
|---|---|---|---|
| | (MA,NZ) CST0 | 101C7 | |
| | (MA,NZ) CST1 | 101C6 | |
| | (QQ,JH) CST2 | 101D6 | KS-13492, L1, 2000 |
| | (MA,NZ) CST4 | 101E6 | |
| | (MA,NZ) CST7 | 101E6 | |
| | (MA,NZ) CSU0 | 101F6 | |
| | CSU1,2,4,7 | 101F6-H6 | |

# APP FIG. 79

RELAY

| DESIG | CGRA | CGRB | CRU0 | CRU1 | CRU2 | CRU4 | CRU7 | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | AF521 | AJ503 | AJ503 | AJ503 | AJ503 | AJ503 | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | M 8E7 | M 8E7 | EBM - | EBM - | EBM - | EBM - | EBM - | | | | | | | | | | | | | 12 |
| 11 | M 8E7 | M 8E7 | EBM - | EBM - | EBM - | EBM - | EBM - | | | | | | | | | | | | | 11 |
| 10 | M 8E7 | M 8E7 | EBM - | EBM - | EBM - | EBM - | EBM - | | | | | | | | | | | | | 10 |
| 9 | M 8E7 | M 8E7 | EBM - | EBM - | EBM - | EBM - | EBM - | | | | | | | | | | | | | 9 |
| 8 | BM 8E7 | BM 8E7 | EMB - | EMB - | EMB - | EMB - | EMB - | | | | | | | | | | | | | 8 |
| 7 | M 6E7 | M 6E7 | EBM - | EBM - | EBM - | EBM - | EBM - | | | | | | | | | | | | | 7 |
| 6 | BM 7C9 | BM 7C9 | EMB 8F7 | EMB 8G7 | EMB 8E7 | EMB 8F7 | EMB 8G7 | | | | | | | | | | | | | 6 |
| 5 | M 8E7 | M 8E7 | EMB 8E6 | EMB 8F6 | EMB 8G6 | EMB 8E6 | EMB 8G6 | | | | | | | | | | | | | 5 |
| 4 | BM - | BM - | EBM 8G7 | EBM 8E7 | EBM 8F7 | EBM 8G7 | EBM 8E7 | | | | | | | | | | | | | 4 |
| 3 | M 8E7 | M 8E7 | EBK 788 | EBM 788 | EBM 788 | EBM 788 | EBM - | | | | | | | | | | | | | 3 |
| 2 | M 8E7 | M 8E7 | EBM 788 | EBM 788 | EBM 788 | EBM 789 | EBM - | | | | | | | | | | | | | 2 |
| 1 | M 8E7 | M 8E7 | EBM - | EBM 7A8 | EBM 788 | EBK 789 | EBM 789 | | | | | | | | | | | | | 1 |
| COIL | 7G2 | 7H2 | 7F2 | 7F2 | 7F2 | 7F2 | 7F2 | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CGRA | 7G2 | 185A |
| CGRB | 7H2 | 185A |
| [5] CRU0,1,2,4,7 | 7F2 | 185A |

DRAWING ISSUE

| | | |
|---|---|---|
| 22D | GSW JST RHD FN | |
| 23A | ESM AMP EN | |
| 24D | EBM AMP JST | |
| 25D | AMP | |
| 27A | MD CLK AMP | |
| 28D | CLK AMP | |
| 29A | CLE AMP AMP | |
| 30D | FES AMP AMP | |
| 33D | WB CLK BMP | |
| 34A | KME GDL BMP | |
| 35D | KMD GDL AMP | |
| 36A | BEM | |
| 37D | BEM | |
| 39D | RA | |
| 43D | D | |

ISSUE 67B

SD-26002-01-C46

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-C46

PRINTED IN U.S.A.

| RELAY DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | COIL |

| RELAY DESIG | | | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | | COIL |

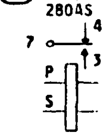
## APP FIG. 81

| RELAY DESIG | 2WE | | 2WF | | 4WE | | NRS | | TOG4 | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AF506 | | AF506 | | AJ501 | | AJ503 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 88C/G2 | M | 24A/B8 | M | 41A/D3 | EBM | 38D4 | EBM | 118/F7 | | | | | | | | | | | 12 |
| 11 | EBM | 99G7 | M | 24A/A8 | M | 41A/C3 | EBM | | EBM | 118/F0 | | | | | | | | | | | 11 |
| 10 | EBM | 35B/E9 | M | 21B/H3 | M | 88C/G2 | EBM | 78B/E7 | EBM | 117E5 | | | | | | | | | | | 10 |
| 9 | EBM | 61H1 | M | 20A/H4 | M | 61H1 | EBM | 107C4 | EBM | - | | | | | | | | | | | 9 |
| 8 | EMB | 42D2 | M | 20A/A5 | M | 42D2 | EMB | 30A/B7 | EMB | 31B/E4 | | | | | | | | | | | 8 |
| 7 | EBM | 99H9 | M | 88A/D7 | M | 88A/D7 | EBM | b | EBM | – | | | | | | | | | | | 7 |
| 6 | EMB | 41A/C3 | M | 88A/A7 | M | 88A/A7 | EMB | 12F7 | EMB | – | | | | | | | | | | | 6 |
| 5 | EMB | 41A/E3 | M | 88A/C6 | M | 88B/G3 | EMB | 30A/G2 | EMB | – | | | | | | | | | | | 5 |
| 4 | EBM | 99E6 | M | 88C/B4 | M | 88C/A4 | EBM | 78A/G2 | EBM | 111A/A7 | | | | | | | | | | | 4 |
| 3 | EBM | 99E6 | M | 88B/C6 | M | 88B/D6 | EBM | a | EBM | 77D0 | | | | | | | | | | | 3 |
| 2 | EBM | 99E7 | M | 88A/G6 | M | 88A/F6 | EBM | 107F2 | EBM | 17E5 | | | | | | | | | | | 2 |
| 1 | EBM | 99H2 | M | 26A/A2 | M | 88A/A3 | EBM | 78B/E1 | EBM | 96B4 | | | | | | | | | | | 1 |
| COIL | X | 99G6 | X | 88D/C6 | X | 88D/E6 | X | 30A/G1 | X | 88D/D1 | X | | X | | X | | X | | X | | COIL |

| | NRS |
|---|---|
| a | 30A/H4<br>78B/E1 |
| b | 30A/H5<br>78B/F1 |

RELAY

(IX) BYK
280AS

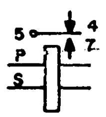



107C5

30A/H4

RELAY

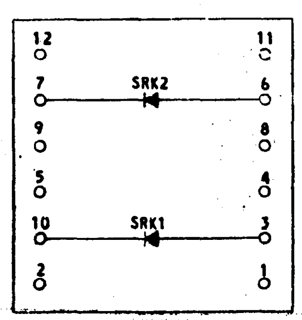
(IY) BYK
316N




107C5

30A/H4

COMPONENT ASSEMBLY




| DESIG | SRK | | |
|---|---|---|---|
| CODE | ED-94823-( ) G-158 | | |
| OPTION | NN | | |
| COMPONENT | DESIG | LOC | CODE |
| DIODE | SRK1 | 107C4 | 426F |
| | SRK2 | 107C5 | |

DIODE

| | DESIG | LOC | CODE |
|---|---|---|---|
| (NM) | SRK1 | 107C4 | 426F |
| (NM) | SKK2 | 107C5 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 2WE | 99G6 | 185A |
| 2WF | 88D/C6 | |
| 4WE | 88D/E6 | |
| NRS | 30A/G1 | |
| TOG4 | 88D/D1 | |

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| | BYK1 | 30A/H5 | 18S |
| | BYK2 | 30A/H5 | 18FD |
| (ZTG) | SLK | 44H4 | 18J |

## APP FIG. 82

| RELAY DESIG | 4LT | | ITNA | | ITNB | | MBT9 | | TAM1 | | TAM2 | | THKO | | THK1 | | THK2 | | THK3 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AF24 | | AF24 | | AJ45 | | AF506 | | AJ501 | | AK501 | | | | AK501 | | | | | | | | CODE |
| OPTION | | | SM | | SM | | WT | | WS | | WS | | EO | | EO | | ZTZ | | ZTZ | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 20A/B8 | M | 62A/F2 | M | 62A/F2 | EBM | 50F6 | M | 1D6 | EBM | - | BM | a | | | BM | 57B/G6 | | | | | | | 12 |
| 11 | M | 60D1 | M | – | M | – | EBM | 50D6 | M | 1C6 | EBM | - | BM | – | | | BM | 57B/G8 | | | | | | | 11 |
| 10 | M | 24B/A5 | M | 63F3 | M | 63F3 | EBM | 30A/E6 | M | 1H0 | EBM | 49C/C5 | BM | – | | | BM | | | | | | | | 10 |
| 9 | M | 24B/B5 | M | 63A0 | M | 63A0 | EBM | 49D6 | M | 1G0 | EBM | 49C/D5 | BM | – | | | BM | | | | | | | | 9 |
| 8 | M | 24B/B5 | M | – | M | – | EMB | 114B/G1 | M | 1E3 | EMB | 30B/G7 | BM | – | | | BM | | | | | | | | 8 |
| 7 | M | 24B/C5 | M | – | M | – | EBM | 49C5 | M | 1C3 | EBM | – | | | | | | | | | | | | | 7 |
| 6 | M | 24B/D5 | M | – | M | – | EMB | 27E2 | M | 1B3 | EMB | – | | | | | | | | | | | | | 6 |
| 5 | M | 24B/D5 | M | 62A/B3 | M | 62A/C2 | EMB | 29B/B5 | M | 1G3 | EMB | 49C/E5 | | | BM | – | | | BM | | | | | | 5 |
| 4 | M | 24B/E5 | M | 61E9 | M | 61F9 | EBM | 49C5 | M | 1F2 | EBM | 49C/G5 | | | BM | – | | | BM | | | | | | 4 |
| 3 | M | 24B/F5 | M | 69H3 | M | 69H4 | EBM | 49B5 | M | 1E2 | EBM | 1G6 | | | BM | – | | | BM | | | | | | 3 |
| 2 | M | 24B/F5 | M | 69C7 | M | 68C6 | EBM | 49A5 | M | 1D2 | EBM | 1F6 | | | BM | 57B/G9 | | | BM | | | | | | 2 |
| 1 | M | 24C/D4 | M | 67C6 | M | 67C5 | EBM | 49A5 | M | 1FC | EBM | 1E6 | | | BM | a | | | BM | 57B/G8 | | | | | 1 |
| COIL | X | 20A/C6 | X | 108E0 | X | 108F0 | X | 28B/A9 | X | 57B/D0 | X | 57B/D0 | X | 49C/E7 | X | 49C/D7 | X | 49C/C7 | X | 49C/B7 | X | | X | | COIL |

| | THKO | THK1 |
|---|---|---|
| a | (ZTY) 57B/F9<br>(ZTZ) 57B/G9 | (ZTY) 57B/F8<br>(ZTZ) 57B/G9 |

LAMP

| | DESIG | LOC | CODE |
|---|---|---|---|
| | CE | 96B3 | 13J (RES) |
| (MZ) | PLS | 96A8 | 13J (RES) |
| (LV) | CDS | 94B6 | 13J (RES) |
| (GO) | MBS | 28B/F5 | 13J (RES) |
| (GO) | RB1 | 28B/H7 | 13J (RES) |
| (GO) | RB2 | 20B/H7 | 13J (RES) |
| (GO) | RS | 28B/D7 | 13J (RES) |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| | 4LT | 20A/C6 | 185A |
| (SM) | ITNA | 108E0 | 185A |
| (SM) | ITNB | 108F0 | 185A |
| (WT) | MBT9 | 28B/A9 | 186A |
| (WS) | TAM1 | 57B/D0 | 185A |
| (EO) | THKO | 49B/B6 | 185A |
| (EO) | THK1 | 49B/D6 | 185A |
| (ZTZ) | THK2 | 49C/C7 | 185A |
| (ZTZ) | THK3 | 49C/B7 | 185A |

RESISTOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| (MZ) | COC | 96B8 | 18AG |

| DRAWING ISSUE | |
|---|---|
| 18D | PVP EDM AHD |
| 20AC | JLH UDP AHD |
| 21D | JLH UDP AHD |
| 22D | GSW UDP AHD |
| 23A | JM EPH AHD |
| 24D | JM ETW AHD |
| 25D | CS WGO AHD |
| 28D | MD CLK AHD |
| 30D | DLB KMB AHD |
| 32A | WB CLK AHD |
| 33D | WB CLK AHD |
| 34A | KMD GDL AHD |
| 35D | KMD GDL AHD |
| 36A | BEM |
| 38A | ESM |
| 39D | ESM |
| 43D | |
| 45D | |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C47

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

PRINTED IN U.S.A.

# APP FIG. 83

RELAY

| DESIG | CUP0 | | CUP1 | | CUP2 | | CUP4 | | CUP7 | | IOD | | NID | | TID | | TGS3 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | AF122 | | AF122 | | AJ12 | | AF506 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | M | - | M | - | EBM | - | M | 57B/A2 | | | | | | | 12 |
| 11 | | | | | | | | | | | M | 57A/E2 | M | - | EBM | 4980 | M | 57B/B4 | | | | | | | 11 |
| 10 | EBM | 100F2 | EBM | 100F1 | EBM | 100F1 | EBM | 100F1 | EBM | 100F0 | BM | 57B/B4 | BM | - | EBM | 95D6 | M | 95D9 | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | EBM | 95C6 | M | 95C9 | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 100F1 | EBM | 100F1 | EBM | 100F0 | BM | 27F2 | BM | 27F2 | EBM | 9586 | M | 95C9 | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | EBM | 9586 | M | 9589 | | | | | | | 7 |
| 6 | EBM | - | EBM | 100F1 | EBM | 100F1 | EBM | 100F1 | EBM | 100F0 | BM | 124D1 | BM | 124B3 | EBM | 95A6 | M | 95A9 | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | EBM | 49C5 | M | 100E2 | | | | | | | 5 |
| 4 | EBM | 100F2 | EBM | 100F1 | EBM | 100F1 | EBM | 100F1 | EBM | - | BM | 29B/D2 | BM | 298/D2 | EBM | 49C5 | M | 100D2 | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | EBM | 4985 | M | 100C2 | | | | | | | 3 |
| 2 | | | | | | | | | | | M | 100H2 | M | 100H2 | EBM | 4985 | M | 100C2 | | | | | | | 2 |
| 1 | | | | | | | | | | | M | 100F0 | M | 100G0 | EBM | A9A5 | M | 100B2 | | | | | | | 1 |
| COIL | | 100B1 | | 100C1 | | 100D1 | | 100D1 | | 100E1 | | 286/E9 | | 289/F9 | | 100H2 | | 57A/E0 | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CUP0 | 100B1 | 185A |
| CUP1 | 100C1 | 185A |
| CUP2 | 100D1 | 185A |
| CUP4 | 100D1 | 185A |
| CUP7 | 100E1 | 185A |
| IOD | 288/E9 | 186A |
| NID | 288/F9 | 186A |
| TID | 100H3 | 185A |
| TGS3 | 57A/E0 | 185A |

# APP FIG. 84

RELAY

| DESIG | CTP0 | | CTP1 | | CTP2 | | CTP4 | | CTP7 | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF531 | | AF531 | | AF531 | | AF531 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 100F3 | EBM | 100F2 | EBM | 100F2 | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | EBM | 100F3 | EBM | 100F3 | EBM | 100F2 | EBM | 100F2 | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 100F3 | EBM | 100F3 | EBM | 100F3 | EBM | 100F2 | EBM | 100F2 | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 9548 | | 9588 | | 95C8 | | 95C8 | | 95D8 | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CTP0 | 9548 | 185A |
| CTP1 | 9588 | 185A |
| CTP2 | 95C8 | 185A |
| CTP4 | 95C8 | 185A |
| CTP7 | 95D8 | 185A |

# APP FIG. 85

RELAY

| DESIG | OLI | | OLIT | | OLIA | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AF504 | | AJ503 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 6A/B2 | M | - | EBM | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | EBM | 4A/G6 | M | - | EBM | - | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 34B/G2 | M | - | EBM | 88B/G0 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | 4A/G5 | M | 1G2 | EBM | 88B/F9 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | 83C2 | M | 1F2 | EMB | - | | | | | | | | | | | | | | | | | | | 8 |
| 7 | EBM | 4A/H1 | M | 1D2 | EBM | - | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 31A/E0 | M | 1C2 | EMB | - | | | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | 102C7 | M | 1B2 | EMB | - | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 57B/G0 | M | 1E0 | EBM | 1228/B4 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 31B/C7 | M | 1D0 | EBM | 1228/C3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 2286 | M | 1C0 | EBM | 1228/A7 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 23H2 | M | 1B0 | EBM | 262 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 102A8 | | 102C8 | | 10283 | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| OLI | 102A8 | 185A |
| OLIT | 102C8 | 185A |
| OLIA | 10283 | 185A |

# APP FIG. 86

RELAY

| DESIG | POTS | | TTL | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AJ503 | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 105C2 | EBM | 105H0 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | M | | EBM | - | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | - | EBM | - | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | M | - | EBM | - | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | - | EMB | - | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | M | - | EBM | - | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | 105H0 | EMB | 64F7 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | - | EMB | 78A/B8 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | - | EBM | 4A/B0 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | M | - | EBM | 62A/F7 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | - | EBM | 6404 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | M | - | EBM | - | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 105C2 | | 105H5 | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| POTS | 105C2 | 185A |
| [4] T3S0-3 | 105C7 | 185A |
| TTL | 105H5 | 185A |

RELAY

| DESIG | [4] T8S0-3 |
|---|---|
| CODE | AJ700 |
| OPTION | |
| 24 | 105D7 |
| 23 | - |
| 22 | 105A7 |
| 21 | 77A6 |
| 20 | 105A7 |
| 19 | 105A7 |
| 18 | 105A7 |
| 17 | 105A7 |
| 16 | 105A7 |
| 15 | 105A7 |
| 14 | 105A7 |
| 13 | 105A7 |
| 12 | 105A7 |
| 11 | 105A7 |
| 10 | 77A6 |
| 9 | 77A6 |
| 8 | 77A6 |
| 7 | 77A6 |
| 6 | 77A6 |
| 5 | 77A6 |
| 4 | 77A6 |
| 3 | 77A6 |
| 2 | 77A6 |
| 1 | 77A6 |
| COIL | 105C7 |

DRAWING ISSUE

| | |
|---|---|
| 21D | GL LOP AND |
| 220 | GSW JDT AHT |
| 23A | JM EBM AND |
| 240 | JM EBM AND |
| 250 | JAT AND AND AND |
| 27A | CLK AND |
| 280 | JHT CLK AND |
| 31D | PBJ AND AND |
| 32A | CLK CLK AND AND |
| 330 | CLK AND |
| 350 | AMI AND AND |
| 370 | YS |
| 390 | DLB |
| 40A | |
| 430 | |
| 44A | |
| 450 | |

ISSUE 5 7B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-C48

SHEET 6S

PRINTED IN U.S.A.

26002-01-C48

## APP FIG. 87

RELAY

| DESIG | SSU0 | | SSU1 | | SSU2 | | SSU4 | | SSU7 | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 113E7 | EBM | 113E7 | EBM | 113E6 | EBM | 113E6 | EBM | 113D7 | | | | | | | | | | | | | 12 |
| 11 | EBM | 113F7 | EBM | 113G6 | EBM | 113G6 | EBM | 113F7 | EBM | 113E6 | | | | | | | | | | | | | 11 |
| 10 | EBM | 113G6 | EBM | 113H7 | EBM | 113G7 | EBM | 113H6 | EBM | 113H7 | | | | | | | | | | | | | 10 |
| 9 | EBM | 8C4 | EBM | 8G4 | EBM | 8E4 | EBM | 8D4 | EBM | 8G4 | | | | | | | | | | | | | 9 |
| 8 | EMB | 8G4 | EMB | 8E4 | EMB | 8C4 | EMB | 8G4 | EMB | 8C4 | | | | | | | | | | | | | 8 |
| 7 | EBM | 8E4 | EBM | 8B4 | EBM | 8F4 | EBM | 8D4 | EBM | 8A4 | | | | | | | | | | | | | 7 |
| 6 | EMB | 8E7 | EMB | 8B1 | EMB | 8F1 | EMB | 8D1 | EMB | 8A1 | | | | | | | | | | | | | 6 |
| 5 | EMB | 8G0 | EMB | 8E0 | EMB | 8C0 | EMB | 8G0 | EMB | 8C0 | | | | | | | | | | | | | 5 |
| 4 | EBM | 7C1 | EBM | 8G1 | EBM | 8E1 | EBM | 8C1 | EBM | 8G1 | | | | | | | | | | | | | 4 |
| 3 | EBM | 113E2 | EBM | 113E3 | EBM | 113E1 | EBM | 113F2 | EBM | 11303 | | | | | | | | | | | | | 3 |
| 2 | EBM | 113F3 | EBM | 113G1 | EBM | 113G2 | EBM | 113F3 | EBM | 113E1 | | | | | | | | | | | | | 2 |
| 1 | EBM | 113G1 | EBM | 113H3 | EBM | 113G3 | EBM | 113H1 | EBM | 113H2 | | | | | | | | | | | | | 1 |
| COIL | | 7C3 | | 7C3 | | 7C3 | | 7C3 | | 7C3 | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [5] SSU0,1,2,4,7 | 7L3 | 185A |

## APP FIG. 88

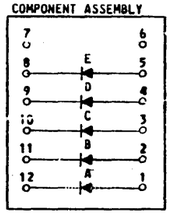
RELAY

| DESIG | LLP1 | | LLP2 | | LPI | | LPN | | LRA | | LRD | | [10]LRSTO-9 | | MT21 | | LOF | | LRA1 | | PHB | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ45 | | AF521 | | AF42 | | AF504 | | AJ12 | | AJ15 | | AF521 | | AJ513 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | ZMK | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 1050Z | EBM | 60H5 | EBM | 105A0 | EBM | 103F7 | M | 43A1 | EMB | 103D2 | M | - | EBM | 103C1 | EBM | 88C/05 | M | - | 98EM | | | | 12 |
| 11 | EBM | - | EBM | 105A0 | EBM | 63H3 | EBM | 107H4 | M | 6103 | M | 62A/H2 | M | - | EBM | 65C1 | EBM | 88C/05 | M | - | BM | 61E1 | | | 11 |
| 10 | EBM | 105H3 | EBM | 74A2 | EBM | - | EBM | - | M | 105H3 | EBM | - | M | 103A3 | EBM | - | EBM | 88C/05 | M | - | EBM | 61E1 | | | 10 |
| 9 | EBM | 105H3 | EBM | 61C6 | EBM | - | EBM | 11569 | M | 72A5 | | | M | 103A3 | EBM | - | EBM | 88C/05 | M | 34B/B4 | EMEB | 103A/H7 | | | 9 |
| 8 | EMB | 62A/F7 | EMB | 61D5 | EMB | - | EMB | 60G0 | BM | 64F5 | EBM | 288/D4 | M | 103A3 | EBM | 72K7 | EMB | 88C/05 | BM | - | EMB | 61E1 | | | 8 |
| 7 | EBM | 64A1 | EBM | 63F5 | EBM | - | EBM | - | M | 63F4 | B | - | M | 103A3 | EBM | 68A3 | EBM | 88C/05 | M | - | BM | 61E1 | | | 7 |
| 6 | EMB | 64F7 | EMB | 64E2 | EMB | 105H4 | EMB | 63B2 | BM | 105H3 | EMB | - | M | 103A3 | EBM | 67B1 | EMB | a | BM | 107G7 | EBM | 61E1 | | | 6 |
| 5 | EMB | 47H0 | EMB | 60H2 | EMB | - | EMB | 113A7 | M | 62A/C2 | | | M | 103A3 | EBM | a | EMB | 88D/B3 | M | 88B/C7 | BM | 61E1 | | | 5 |
| 4 | EBM | 60H4 | EBM | 6103 | EBM | - | EBM | 288/C4 | BM | 10886 | EBM | 103C0 | M | 103A3 | EBM | 69C1 | EBM | 88C/05 | BM | 66B6 | PMEB | 61E1 | | | 4 |
| 3 | EBM | 64F6 | EBM | 69B2 | EBM | - | EBM | 60H8 | M | 6963 | M | 41A/C6 | M | 103A3 | EBM | 64F1 | EBM | 88C/05 | M | 2328 | BM | 61E1 | | | 3 |
| 2 | EBM | 103F1 | EBM | 68C6 | EBM | - | EBM | 2265 | M | 6886 | EBM | 103H5 | M | 103A3 | EBM | 67B4 | EBM | 88C/05 | M | 88C/F2 | PBEM | 61E1 | | | 2 |
| 1 | EBM | 103G1 | EBM | 67C4 | EBM | 6686 | EBM | 28A/E3 | M | 6785 | M | 288/D0 | M | 103A3 | EBM | 6CB6 | EBM | 88C/05 | M | 88C/F8 | BM | 61E1 | | | 1 |
| COIL | | 1050Z | | 60G5 | | 105A0 | | 103E7 | | 103C0 | | 103D0 | | 6100 | | 79F5 | | 88D/A6 | | 10XC0 | | 103A/H8 | | | COIL |

(ZXY) 79F6 — a 88C/E7
(ZTQ) 79E6 — a 88C/E8

(JG) 108E6
a
(JE) 41A/D7

COMPONENT ASSEMBLY




| DESIG | HBA | | | HBB | | |
|---|---|---|---|---|---|---|
| CODE | ED-94823-( )G2 | | | ED-94823-( )G2 | | |
| OPTION | MX | | | MX | | |
| COMPONENT | DESIG | LOC | CODE | DESIG | LOC | CODE |
| DIODE | | | | | | |
| A | HB4 | | | HB9 | | |
| B | HB3 | | | HB8 | | |
| C | HB2 | 103B2 | 426F | HB7 | 103B2 | 426F |
| D | HB1 | | | HB6 | | |
| E | HB0 | | | HB5 | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| LLP1 | 1050Z | 185A |
| LLP2 | 60G5 | |
| LOF | 88D/A6 | |
| LPI | 105A0 | |
| LRA1 | 103C0 | 186A |
| LRD | 103D0 | 185A |
| [10]LRSTO-9 | 6100 | |
| (ZMK) PHB | 103A/H8 | |

## APP FIG. 89

RELAY

| DESIG | [1]HVT-- | | [10]LR-- | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AF504 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | M | 103F5 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | M | - | M | G- | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 103D3 | M | - | | | | | | | | | | | | | | | | | | | 10 |
| 9 | M | 103E3 | M | 47B4 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 103E3 | M | 88C/E4 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | M | 103E3 | M | - | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 103F3 | M | 45E6 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | 103F3 | M | 47F4 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 103F3 | M | 61D2 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | M | 103G3 | M | - | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 103G3 | M | 68A6 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | M | 103B3 | M | 67A5 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 103F0 | | 103E5 | | | | | | | | | | | | | | | | | | | COIL |

(GP) 88C/D6
a
(GQ) 88C/F5

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [1] HVT-- | 103F0 | [1]185A |
| (JQ)[10] LR-- | 103E5 | 185A |
| (JP) [1] LRS-- | 103G5 | 177B |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (JP)[1] LRS-- | 103G5 | KS-13490,L1,33,000 |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

DRAWING ISSUE

| | |
|---|---|
| 22D | GEL JDP AAQ |
| 23A | EN AM AM |
| 240 | EN AM |
| 250 | JAT AM AM |
| 27A | AND CLK AND |
| 31D | NLE AM AND |
| 32A | FAC CLK AM |
| 33D | FAC CLK AM |
| 34A | AM CLK AM2 |
| 35D | FAB CLK AM |
| 36A | Y3 |
| 37D | Y3 |
| 38A | DLB |
| 39D | DLB |
| 41D | |
| 43D | |
| 44A | |
| 45D | |

ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-C49

SD-26002-01-C49

# APP FIG. 90

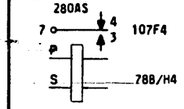
| DESIG | ATT | ATI | ATT1 | CDN | CGS | DAT1 | DNRA | DTI | DTI1 | DTI2 | DTI3 | ICC | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | AJ503 | AJ503 | AJ501 | AJ503 | AJ503 | AF523 | AJ503 | AJ503 | AJ503 | AJ503 | AJ15 | CODE |
| OPTION | PS | PT | | PT | | PS | PT | PS | PS | PS | PS | PH | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | EBM 21B/B7 | EBM 21B/B7 | EBM 100a/J1 | EBM 115H7 | EBM 104A/C0 | EBM - | M 41A/B5 | EBM 115B6 | EBM 308/E2 | EBM 22H3 | EBM 2E1 | EBM - | 12 |
| 11 | EBM 115F9 | EBM 107A6 | EBM 105D5 | EBM 788/H5 | EBM 107A7 | EBM 78B8 | | EBM 100a/01 | EBM 115F6 | EBM 2F2 | EBM 100B/G2 | EBM - | 11 |
| 10 | EBM - | EBM 88C/B2 | EBM 105D5 | EBM 102D3 | EBM 107H2 | EBM 244/G6 | BM 21B/E6 | EBM 24A/H5 | EBM 115D7 | EBM 5A/A3 | EBM 37D7 | EBM - | 10 |
| 9 | EBM 24A/G5 | EBM 24A/E1 | EBM 105E5 | EBM 23H9 | EBM 356/H2 | EBM 38C3 | | EBM 24A/H5 | EBM 1680 | EBM a | EBM a | EBM 100a/B1 | 9 |
| 8 | EMB - | EMB 102B5 | EMB 105C5 | EMB 36G0 | EMB 101C8 | EMB a | BM 6001 | EMB a | EMB 31A/D0 | EMB 36C4 | EMB 101C9 | EMB 407H5 | 8 |
| 7 | EBM 68/B5 | EBM 107D2 | EBM 24C/F1 | EBM 107E2 | EBM 101C8 | EBM 68/B5 | | EBM b | EBM 100a/C5 | EBM 41A/E0 | EBM 101C9 | EBM 115B2 | 7 |
| 6 | EMB - | EMB 41A/D5 | EMB 105B5 | EMB 88C/B2 | EMB 101F8 | EMB 36C4 | BM 41A/C6 | EMB 100B/F5 | EMB 356/H9 | EMB 27C8 | EMB 101F9 | EMB 107A5 | 6 |
| 5 | EMB 88C/C2 | EMB 788/H3 | EMB 108F1 | EMB 107E3 | EMB 101F8 | EMB 31B/E3 | | EMB 2H3 | EMB 356/E8 | EMB 34B/D3 | EMB 101F9 | EMB 34B/C3 | 5 |
| 4 | EBM 105A5 | EBM b | EBM 105A5 | EBM 28A/E2 | EBM - | ECM 100a/E1 | BM 28A/E5 | EBM 22B4 | EBM 16A6 | EBM 83D4 | EBM 1986 | EBM 100a/H1 | 4 |
| 3 | EBM 102E1 | EBM c | EBM 59A/E5 | EBM 108E7 | EBM 100B/C6 | EBM 36C5 | | EBM 8002 | EBM 4A/H1 | EBM 83D5 | EBM 418/F7 | EBM 105F4 | 3 |
| 2 | EBM 68/B5 | EBM 107F3 | EBM 21B/E7 | EBM 28A/F3 | EBM 348/B4 | EBM 68/A6 | M 100B/C4 | EBM 3B84 | EBM 23B7 | EBM 115D3 | EBM 348/E4 | EBM 105G4 | 2 |
| 1 | EBM 68/A6 | EBM 101E8 | EBM 100B/C7 | EBM 30A/F6 | EBM 100a/H1 | EBM 68/B6 | M - | EBM 22F5 | EBM 23B1 | EBM 115E3 | EBM 37F6 | EBM 105G3 | 1 |
| COIL | 21A/D8 | 21A/D8 | 21B/B7 | 115G7 | 68/B7 | 218/C3 | 41A/A5 | 218/B3 | 22F5 | 22G5 | 22H3 | 218/E7 | COIL |
| | | b (TE) 77A5 (TF) 105A5 (SN) 100B/F7 (SP) 34B/B7 | | | | a 27F0 100a/D4 | | a 82G0 11509 b 57B/H2 25H2 | | (ZXN) 115F4 a (ZXM) 115D3 | (ZRT) 115C6 a (ZRU) 41B/B6 | | |

| DESIG | KM | LDN | LDN | LNA | MRI | | RDI | RDIA | RDO | RDR | RDR1 | RE | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | AJ503 | AJ503 | AJ503 | AJ503 | | AJ501 | AJ501 | AJ12 | AJ512 | AJ503 | AJ503 | CODE |
| OPTION | OG | PS | TK | QU | ZXA | | | | PT,JO | PS | PS | PT | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | EBM 10590 | EBM 105C2 | EBM 105C2 | EBM - | EBM 105E2 | | EBM - | EBM - | EBM 78B/H4 | EBM 100a/D1 | EBM - | EBM 10294 | 12 |
| 11 | EBM - | EBM 88C/C2 | EBM 78B/G3 | EBM - | EBM - | | EBM - | EBM - | EBM 41A/F9 | EBM 100a/G1 | EBM - | EBM 101/A1 | 11 |
| 10 | EBM 105H1 | EBM 105H3 | EBM 105G1 | EBM - | EBM - | | EBM 100B/E1 | EBM - | EBM 101C1 | EBM 7B1 | EBM - | EBM 9F6 | 10 |
| 9 | EBM 105H1 | EBM 88C/C2 | EBM 36H1 | EBM - | EBM - | | EBM 100a/A2 | EBM - | EBM 101C1 | EBM 7B1 | EBM - | EBM 10180 | 9 |
| 8 | EMB 98F0 | EMB 105H3 | EMB 105G1 | EMB - | EMB 105H2 | | EMB a | EMB - | EBM 10101 | EBM 7B1 | EMB - | EBM - | 8 |
| 7 | EBM - | EBM 11509 | EBM 11509 | EBM - | EBM 34B/A7 | | EBM 101E2 | EBM 101H2 | EBM 10101 | EBM 7B1 | EBM 100a/C5 | EBM - | 7 |
| 6 | EMB - | EMB 102E2 | EMB 34C/A8 | EMB - | EMB 105H2 | | EMB 100a/G7 | EMB 100C/C6 | EBM 101E1 | EBM 7B1 | EMB - | EMB 10245 | 6 |
| 5 | EMB 100B/C0 | EMB 102D2 | EMB 115F3 | EMB - | EMB - | | EMB 107B7 | EMB 100B/B0 | EBM 101F1 | EBM 7C1 | EMB - | EMB 218/F7 | 5 |
| 4 | EBM 9805 | EBM 107G4 | EBM 88B/E3 | EBM 11592 | EBM 100a/A7 | | EBM 10102 | EBM 10162 | EBM 101F1 | EBM 7C1 | EBM 100B/D4 | EBM - | 4 |
| 3 | EBM 34B/A6 | EBM 41A/C5 | EBM 41A/C5 | EBM 36F1 | EBM - | | EBM 10102 | EBM 10162 | EBM 101G1 | EBM 7C1 | EBM 38H3 | EBM 101E4 | 3 |
| 2 | EBM - | EBM 102F2 | EBM 41A/A4 | EBM - | EBM - | | EBM 101C1 | EBM 101F2 | EBM 101G1 | EBM 7C1 | EBM 100B/F5 | EBM - | 2 |
| 1 | EBM - | EBM 78A/B8 | EBM 36F1 | EBM 107G2 | EBM - | | EBM 101C2 | EBM 101F2 | EBM 101H1 | EBM 7C1 | EBM 100B/C6 | EBM 16B0 | 1 |
| COIL | 105D0 | 105C2 | 105C2 | 115F3 | 105E2 | | 100B/C3 | 100a/C3 | 101E8 | 100a/D0 | 100B/E0 | 10132 | COIL |
| | | | | | | | (PF) 34B/D4 a (QA) 107G5 | | | | | | |

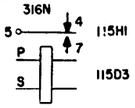
| DESIG | RIX | TRF1 | TRF2 | TRF3 | TRF4 | X11A | X11B | CNTI | CNTO | PAN | PAN | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF523 | AJ503 | AJ503 | AJ503 | AJ503 | AJ503 | AJ503 | AJ503 | AJ503 | AJ521 | AJ72 | | CODE |
| OPTION | | PT | PT | PT | PT | | TP,FS | JK | JY | JT,JU | JV | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | M 100a/B6 | EBM 108E7 | EBM 21B/F7 | EBM a | EBM 22B5 | EBM 108F2 | EBM 105E5 | EDM a | EBM 31B/C3 | M 105A2 | BM 105B2 | | 12 |
| 11 | | EBM 107E3 | EBM 101/A0 | EBM 115G7 | EBM 36G0 | EBM 102C4 | EBM 105D5 | EBM 34B/C4 | EBM 100B/D1 | M - | BM - | | 11 |
| 10 | BM 101C8 | EBM 102D3 | EBM 28A/D3 | EBM 63B2 | EBM 22A8 | EBM 102F2 | EBM 105D5 | EBM 107A5 | EBM 100B/C2 | M - | BM - | | 10 |
| 9 | | EBM 22B5 | EBM 9F5 | EBM 66A6 | EBM 37C7 | EBM 41A/A4 | EBM 20A/B9 | EBM 100B/C6 | EBM 100B/E7 | M - | BM - | | 9 |
| 8 | BM 101C8 | EMB 78B/H4 | EMB - | EMB 23H3 | EMB 36E6 | EMB 100B/F6 | EMB 105C5 | EMB 100B/E7 | EMB 101C9 | BM - | BM - | | 8 |
| 7 | | EBM 41B/C5 | EBM - | EBM 29A/F6 | EBM 36D3 | EBM 100B/C4 | EBM - | EBM 108F2 | EBM 101D9 | M - | BM - | | 7 |
| 6 | BM 101F2 | EMB 78B/H3 | EMB 23A6 | EMB 34A/D3 | EMB 358/G3 | EMB 107G3 | EMB 105B5 | EMB 66D0 | EMB 101E9 | BM 105H4 | BM 105H4 | | 6 |
| 5 | | EMB 22A8 | EBM 101E8 | EBM 60H0 | EMB a | EMB - | EMB 85C1 | EMB 28A/C2 | M - | BM - | | | 5 |
| 4 | BM 101F7 | EBM 28A/D3 | EBM 16A6 | EBM 41A/D2 | EBM 66C8 | EBM b | E3M 102F4 | EBM 100B/H2 | EBM a | BM - | BM - | | 4 |
| 3 | | EBM 2369 | EBM 9305 | EBM - | EBM 36F5 | EBM 218/E7 | EBM 105A5 | EBM b | EBM 60A3 | M - | BM - | | 3 |
| 2 | M 100B/E5 | EBM 107D1 | EBM 16A0 | EBM 61F7 | EBM 34C/C6 | EBM 41A/C6 | EBM 100B/A3 | EBM 100B/C2 | EBM 101G9 | M - | BM - | | 2 |
| 1 | M 100a/G7 | EBM 88C/B1 | EBM - | EBM 22F8 | EBM 29A/H5 | EBM 102D1 | EBM 28A/C3 | EBM 34B/B9 | EBM 100B/C2 | M 66A2 | BM 66A2 | | 1 |
| COIL | 100a/H0 | 21B/F7 | 21B/F7 | 22A6 | 22B6 | 100B/F0 | 100a/G0 | 100B/G3 | 100B/F3 | 105A2 | a | | COIL |
| | | | | a 30A/F6 30B/A7 | | (SP) 34B/B7 a (PY) 100B/G7 (TE) 77A5 (TF) 105A5 | | a (SN) 100B/D2 (SR) 104A/C7 (ZJP) 101E9 b (ZJR) 33A/G7 | 28A/G3 a 29A/A3 | | a P-105B2 a S-105E9 | | |

| DESIG | AUS | MRI | ADD | NAD | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK501 | | AK501 | | | | | | | | | | | | | | CODE |
| OPTION | ZXB | ZXB | ZLO | ZLO | | | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | | BM 105E2 | | BM | | | | | | | | | | | | | 12 |
| 11 | | BM | | BM | | | | | | | | | | | | | 11 |
| 10 | | BM 105H2 | | BM | | | | | | | | | | | | | 10 |
| 9 | | BM 100B/A7 | | BM 107H7 | | | | | | | | | | | | | 9 |
| 8 | | BM 34B/A7 | | BM 107H7 | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | 6 |
| 5 | BM - | | BM 107H6 | | | | | | | | | | | | | | 5 |
| 4 | BM - | | BM | | | | | | | | | | | | | | 4 |
| 3 | BM - | | BM 115C2 | | | | | | | | | | | | | | 3 |
| 2 | BM 104A/D8 | | BM | | | | | | | | | | | | | | 2 |
| 1 | BM 105F3 | | BM | | | | | | | | | | | | | | 1 |
| COIL | 100B/B6 | 105E2 | 115A9 | 115A9 | | | | | | | | | | | | | COIL |

RELAY (PT) OVK 280AS




RELAY (ZXM) 7TR 316N




NETWORK

| OPTION | DESIG | LOC | CODE |
|---|---|---|---|
| PS | ATT | 21A/D8 | 185A |
| PT | ATT | 21A/D8 | 185A |
| | ATT1 | 21B/B7 | 185A |
| ZLO | ADD | 115A9 | 185A |
| ZXB | AUS | 100B/B6 | 185A |
| PT | CDN | 115G7 | 185A |
| | CGS | 68/B7 | 185A |
| PS | DAT1 | 21B/C3 | 185A |
| PT | DNRA | 41A/A5 | 185A |
| PS | DTI | 21B/B3 | 185A |
| PS | DTI1 | 22F5 | 186A |
| PS | DTI3 | 22H3 | 185A |
| PH | ICC | 21B/E7 | 185A |
| OG | KM | 105D0 | 185A |
| PS,TK | LDN | 105C2 | 185A |

NETWORK

| OPTION | DESIG | LOC | CODE |
|---|---|---|---|
| QU | LNA | 115F3 | 185A |
| ZXA,ZXB | MRI | 105E2 | 185A |
| ZLO | NAD | 115A9 | 185A |
| JT,JU | PAN | 105A2 | 185A |
| JV | PAN | 105B2 | 185A |
| | RDI | 100B/C3 | 185A |
| JO,PT | RDO | 101E8 | 185A |
| PS | RDR | 100B/D0 | 186A |
| PT | RE | 101A2 | 185A |
| | RIK | 100B/H0 | 185A |
| PT | TRF1 | 21B/F7 | 186A |
| PT | TRF4 | 2286 | 186A |
| PS,TP | X11A | 100B/F0 | 185A |
| | X11B | 100B/G0 | 185A |

RESISTOR

| OPTION | DESIG | LOC | CODE |
|---|---|---|---|
| ZXM | 7TR1 | 115F4 | 18S |
| ZXM | 7TR2 | 115G4 | 18FD |
| PT | OVK1 | 789/H5 | 18S |
| PT | OVK2 | 788/H4 | 18FD |

DRAWING ISSUE: 250 EN WLG AMP; 26A EN WLG AMP; 27A MD CLK AMP; 28D MD CLK AMP; 29A CC CLK AMP; 32A CLK AMP; 330 CLK AMP; 34A CLK RCB COL AMP RCB; 350 COL AMP; 370 YS; 38A DLB; 39D DLB; 410; 42A; 43D; 44A; 45D

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C50A

BELL TELEPHONE LABORATORIES INCORPORATED — SHEET 65

SD-26002-01-C50A

STABILO

# APP FIG. 91

RELAY

| DESIG | FK | | LFK1 | | LLC4 | | LRS | | LSC2 | | LTI | | OPO | | [4] OP1-4 | | XLF | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ508 | | AF511 | | AJ15 | | AJ45 | | AJ12 | | AF55 | | AJ503 | | AJ503 | | AF104 | | | | | | | | |
| OPTION | | | | | | | JZ | | | | | | JZ | | JZ | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 1038/F7 | | | EBM | - | EBM | a | EBM | 36E8 | M | 1038I | EBM | 47EO | EBM | 47EO | | | | | | | | | 12 |
| 11 | | | | | FBM | 34A/B4 | EBM | 41A/G5 | EBM | 3606 | M | - | EBM | - | EBM | - | | | | | | | | | 11 |
| 10 | BM | - | M | 41A/G4 | EBM | 30A/C2 | EBM | 72A5 | EBM | 45E8 | BM | 1986 | EBM | - | EBM | 64E6 | | | | | | | | | 10 |
| 9 | | | | | EBM | 1096S | EBM | 52A/H4 | EBM | b | M | 58/G2 | EBM | 64E6 | EBM | 64E6 | | | | | | | | | 9 |
| 8 | BM | - | BM | - | EMB | - | EMB | 22A2 | EBM | 36E4 | BM | - | EMB | - | EMB | - | M | 87H5 | | | | | | | 8 |
| 7 | | | B | - | EBM | 109F2 | EBM | 6482 | EBM | C | B | 22E5 | EBM | 45E7 | EBM | - | | | | | | | | | 7 |
| 6 | BM | - | BM | - | EMB | 35B/E1 | EMB | 10886 | EBM | a | BM | - | EMB | - | EMB | - | M | 86G5 | | | | | | | 6 |
| 5 | | | | | EMB | 1038/E5 | EMB | 6004 | EBM | 4402 | M | 58/H7 | EMB | - | EMB | - | | | | | | | | | 5 |
| 4 | BM | - | M | 44F1 | EBM | 1038/67 | EBM | 64F5 | EBM | 22E5 | BM | - | EBM | 47G2 | EBM | 47G3 | M | 86H3 | | | | | | | 4 |
| 3 | | | | | EBM | 4A/E0 | EBM | 88B/B1 | EBM | 4006 | M | 5A/H2 | EBM | - | EBM | - | | | | | | | | | 3 |
| 2 | M | 36D8 | | | EBM | 4A/E2 | EBM | 103C2 | EBM | 66H7 | M | 3G8 | EBM | 6004 | EBM | 6004 | | | | | | | | | 2 |
| 1 | M | - | | | EBM | 4A/C2 | EBM | b | EBM | 358/B4 | M | 3H1 | EBM | 57A/B3 | EBM | 57A/B2 | | | | | | | | | 1 |
| COIL | | 1038/D6 | | 4A/D6 | | 23A8 | | 103E7 | | 43A0 | | 10381 | | 47EO | | 47EO | | a | | | | | | | COIL |
| | | | | | | | a 66A8 79E6 | | a 60H5 84D8 | | | | | | | | P 1038/D7 S 87H5 | | | | | | | | |
| | | | | | | | b 88D/B5 88C/E8 | | b 47B5 115F6 | | | | | | | | | | | | | | | | |
| | | | | | | | | | (ZYR) 47D4 | | | | | | | | | | | | | | | | |
| | | | | | | | | | c (ZYS) 47G4 | | | | | | | | | | | | | | | | |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| FK | 1038/D6 | 186A |
| LFK1 | 4A/D6 | 185A |
| LLC4 | 23A8 | 185A |
| LLF | 1038/A7 | 185A |
| LSC2 | 43A0 | 185A |
| LTI | 10381 | 185A |
| (JZ) OPO | 47EO | 185A |
| (JZ)[4]OP1-4 | 47EO | 185A |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| XLF | 1038/C6 | ~~KS-13358,L3,0.01~~ KS-13368,L29,.01 |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| (ZKS) LF | 1038/D7 | 13J (RES) |
| (ZKV) LF | 1038/D9 | 13J (RES) |
| (JZ) LRS | 1036O | 13J (RES) |
| (CH) LSB2 | 40/B5 | 13J (RES) |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (KU)[10]LA0-9 | 74F5 | 18M |
| (JZ) LN | 103F7 | KS-8512,L17A,215 |

DRAWING ISSUE

| | |
|---|---|
| 25D | BB |
| 27A | MD CLB AMD |
| 28D | MD CLB AMD |
| 29A | MD CLB AMD |
| 30 | DLB AMD CLB |
| 32A | CLB AMD |
| 33D | AMD CLB AMD |
| 34A | CLB AMD RDB |
| 35D | CLB AMD RDB |
| 36A | RDB |
| 37D | RDB |
| 39D | RDB |
| 410 | |
| 430 | |

ISSUE 69B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C508

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# APP FIG. 94

| RELAY DESIG | CDNC | | PDC0 | | PDC1 | | PDKA | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ15 | | AJ505 | | AJ505 | | AJ15 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | | | | | EBM | - | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | | | | | EBM | - | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | M | 30B/B6 | M | 30B/A6 | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | EBM | - | B | - | B | - | EBM | - | | | | | | | | | | | | | | | 9 |
| 8 | EMB | - | M | 115E8 | M | 115E8 | EMB | - | | | | | | | | | | | | | | | 8 |
| 7 | EBM | - | B | 29A/F9 | B | 29A/F9 | EBM | - | | | | | | | | | | | | | | | 7 |
| 6 | EMB | - | M | 29A/F9 | M | 29A/F9 | EMB | - | | | | | | | | | | | | | | | 6 |
| 5 | EMB | - | B | - | B | 29A/F9 | EMB | - | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 29A/D6 | M | 103B/C9 | M | 124C3 | EBM | 29A/D6 | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 36G1 | | | | | EBM | - | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 115G7 | M | 29A/C6 | M | 29A/C6 | EBM | 103B/F6 | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 29A/C6 | | | | | EBM | 29A/C6 | | | | | | | | | | | | | | | 1 |
| COIL | | 115D7 | | 28B/D9 | | 28B/D9 | | 103B/E7 | | | | | | | | | | | | | | | COIL |

| RELAY DESIG | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY
280AS

(IX) CDNK (IX) PDK

| | |
|---|---|
| 115D7 | 103B/F6 |
| 115F7 | 103B/C8 |
| | 103B/C8 |

RELAY
316N

(IY) CDNK (IY) PDK

| | |
|---|---|
| 115D7 | 103B/F6 |
| | 103B/C8 |
| 115F7 | 103B/C8 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CDNC | 115D7 | 185A |
| [2]PDCO,1 | 28B/D9 | 186A |
| PDKA | 103B/E7 | 195A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| CDN1 | 115F9 | 18S |
| CDN2 | 115G9 | 18FD |
| PDK1 | 103B/C6 | 19S |
| PDK2 | 103B/B7 | 18FD |

DRAWING ISSUE
30D
32A
33D
34A
35D
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68
430

ISSUE 6IB

COMPLETING MARKER CIRCUIT 2

SD-26002-01-C51

BELL TELEPHONE LABORATORIES INCORPORATED

6S

PRINTED IN U.S.A.

SD-26002-01-C51

57-49140

## APP FIG. 95 (MFR DISC.)

| RELAY DESIG | BRL | | CE | | XBRL | | XCE | | | | | | | | | | | | | | | | | | RELAY DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ68 | | AJ508 | | AF71 | | AF104 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EM | - | M | - | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | B | - | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 38H5 | BM | 9601 | M | - | | | | | | | | | | | | | | | | | | | 10 |
| 9 | B | - | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | 38C5 | BM | 9600 | M | 87H4 | M | 87H5 | | | | | | | | | | | | | | | | | 8 |
| 7 | B | 38F6 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 96D1 | BM | 79C3 | M | 96C0 | M | 96C0 | | | | | | | | | | | | | | | | | 6 |
| 5 | B | - | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | - | BM | 81E6 | M | 86H2 | M | 86H2 | | | | | | | | | | | | | | | | | 4 |
| 3 | B | 37F1 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 37C2 | M | 37C1 | M | - | | | | | | | | | | | | | | | | | | | 2 |
| 1 | BM | 38C5 | M | 96C0 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 9601 | | 96B2 | | a | | a | | | | | | | | | | | | | | | | | COIL |
| | | | | | a P-38C5 S-87H4 | | a P-96J2 S-87H4 | | | | | | | | | | | | | | | | | | |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| CE | 96J2 | KS-13368,L3,0.01 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| BRL | 96D1 | 185A |
| CE | 96B2 | 186A |

## APP FIG. 96

| RELAY DESIG | CM | | CMU0 | | CMU1 | | CMU2 | | CMU4 | | CMU7 | | MCS | | MM | | NMR | | NTMR | | TMR | | | | RELAY DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ89 | | AF132 | | AF132 | | AF132 | | AF132 | | AF132 | | AJ15 | | AJ89 | | AJ15 | | AK501 DX | | AK501 DX | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | - | M | - | M | - | M | - | M | - | EBM | 101E2 | | | EBM | 104A/B9 | | | BM | 104B/B9 | | | 12 |
| 11 | EMB | - | M | - | M | - | M | - | M | - | M | - | EBM | 101F2 | EMB | 104B/C9 | EBM | - | | | BM | 104B/C9 | | | 11 |
| 10 | | | M | - | M | - | M | - | M | - | M | - | EBM | 101G2 | | | EBM | 104A/A0 | | | BM | 104B/G1 | | | 10 |
| 9 | EMB | 34B/C3 | M | - | M | - | M | - | M | - | M | - | EBM | 34B/D3 | EMB | 22A2 | EBM | - | | | BM | 104A/C8 | | | 9 |
| 8 | | | BM | - | BM | - | BM | - | BM | - | BM | - | EMB | 101G2 | | | EMB | - | | | BM | 34B/B9 | | | 8 |
| 7 | BM | 108G2 | M | - | M | - | M | - | M | - | M | - | EBM | 101H2 | BM | 72A6 | EBM | 104A/C9 | | | | | | | 7 |
| 6 | EBM | - | BM | - | BM | - | BM | - | BM | - | BM | - | EMB | 104A/B9 | EBM | 66D2 | EMB | - | | | | | | | 6 |
| 5 | BM | 34B/B5 | M | 104B/F2 | M | 104B/D2 | M | 104B/D2 | M | 104B/F2 | M | 104B/D2 | EMB | 108G2 | BM | 64E6 | EMB | - | BM | 34B/A9 | | | | | 5 |
| 4 | | | M | - | M | - | M | - | M | - | M | - | EBM | 34B/B5 | | | EBM | 34B/A5 | BM | 104A/E9 | | | | | 4 |
| 3 | EMB | 107B6 | M | 104A/E2 | M | 104B/F2 | M | 104B/F2 | M | 104B/G2 | M | 104B/E2 | EBM | 107B6 | EMB | 66D0 | EBM | - | BM | 104A/D8 | | | | | 3 |
| 2 | | | M | 104B/F2 | M | 104B/E2 | M | 104B/F2 | M | 104B/E2 | M | 104B/D2 | EBM | 104A/H1 | | | EBM | 104A/C9 | BM | 104A/C8 | | | | | 2 |
| 1 | EMB | 87C9 | M | 104B/G2 | M | 104B/G2 | M | 104B/E2 | M | 104B/E2 | M | 104B/G2 | EBM | 104B/B8 | EMB | 87B9 | EBM | - | BM | 104B/A2 | | | | | 1 |
| COIL | | 104B/C9 | | 104B/E9 | | 104B/E9 | | 104B/E9 | | 104B/E9 | | 104B/E9 | | 34B/A5 | | 104B/D9 | | 104A/C9 | | 104B/A3 | | 104B/A9 | | | COIL |

RELAY

| DESIG | MP0 | MP1 | MP2 | TCAA | TC8A | |
|---|---|---|---|---|---|---|
| CODE | AJ700 | AJ700 | AJ700 | AJ700 DX | AJ700 DX | |
| OPTION | | | | | | |
| 24 | | | | | | |
| 23 | | | | | | |
| 22 | | | | | | |
| 21 | | | | | | |
| 20 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/A1 | 104B/A1 | |
| 19 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/B1 | 104B/B1 | |
| 18 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/B1 | 104B/B1 | |
| 17 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/C1 | 104B/C1 | |
| 16 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/C1 | 104B/D1 | |
| 15 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/D1 | 104B/D1 | |
| 14 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/D1 | 104B/E1 | |
| 13 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/E1 | 104B/E1 | |
| 12 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/E1 | 104B/F1 | |
| 11 | 104B/B7 | 104B/B5 | 104B/B5 | 104B/F1 | 104B/F1 | |
| 10 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/A1 | 104A/A1 | |
| 9 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/A1 | 104A/B1 | |
| 8 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/B1 | 104A/B1 | |
| 7 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/C1 | 104A/C1 | |
| 6 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/D1 | 104A/D1 | |
| 5 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/D1 | 104A/E1 | |
| 4 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/E1 | 104A/F1 | |
| 3 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/F1 | 104A/F1 | |
| 2 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/G1 | 104A/G1 | |
| 1 | 104B/D4 | 104B/B4 | 104B/B4 | 104A/G1 | 104A/H1 | |
| COIL | 104A/A7 | 104A/A7 | 104A/A7 | 104A/A7 | 104A/B7 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CM | 104B/G9 | 185A |
| [5] CMU0,1,2,4,7 | 104B/E9 | 185A |
| MCS | 34B/A5 | 185A |
| MM | 104B/D9 | 185A |
| [3] MP0-2 | 104A/A7 | 185A |
| NMR | 104A/C9 | 185A |
| (DX) NTMR | 104B/A3 | 185A |
| (DX) TCAA | 104A/A7 | 185A |
| (DX) TC8A | 104A/B7 | 185A |
| (DX) TMR | 104B/A9 | 185A |

## APP FIG 97 (MFR DISC.)

RELAY

| DESIG | RCD0 | | RCD1 | | RCD2 | | RCD3 | | RCD4 | | RCDP | | RCDS | | | | XRD | | RDK1 | | RDK2 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | AJ506 | | AJ506 | | | | AF97 | | AF522 | | AF522 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 958/D3 | EBM | 958/C2 | EBM | 958/D2 | EBM | 958/D2 | EBM | 958/D1 | M | - | M | - | | | | | M | - | M | - | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | 958/C3 | EBM | 958/C3 | EBM | 958/C2 | EBM | 958/C2 | EBM | 958/C1 | EBM | 958/B2 | EBM | 958/C1 | | | M | 87H5 | BM | - | BM | - | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 958/B2 | EBM | 958/B3 | EBM | 958/C2 | EBM | 958/C2 | EBM | 958/B1 | EBM | 958/D1 | EBM | 958/E1 | | | M | 86G6 | BM | - | BM | - | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 958/B3 | EBM | 958/A3 | EBM | 958/A3 | EBM | 958/B2 | EBM | 958/A2 | EBM | - | EBM | - | | | M | 86H3 | M | 57B/E7 | M | 57B/E8 | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 1118/G8 | | 1118/F8 | | 1118/D8 | | 1118/D8 | | 1118/C8 | | 1118/C9 | | 1118/G9 | | | | P-118/C9 S-87G5 | | 958/D0 | | 958/B0 | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| RCD0P | 1118/G8 | 177C |
| RCD0S | 1118/G8 | |
| RCD1P | 1118/F8 | |
| RCD1S | 1118/F8 | |
| RCD2P | 1118/E8 | |
| RCD2S | 1118/E8 | |
| RCD3P | 1118/D8 | |
| RCD3S | 1118/D8 | |
| RCD4P | 1118/C8 | |
| RCD4S | 1118/C8 | |
| RDK1 | 958/D0 | 185A |
| RDK2 | 958/B0 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| RCD0 | 958/A1 | KS-13492,L1,2K |
| RCD1 | 958/B1 | |
| RCD2 | 958/B1 | |
| RCD4 | 958/C1 | |
| RCD7 | 958/D1 | |

DRAWING ISSUE

| | |
|---|---|
| 22D | DEL DCI AHC |
| 23A | MLT EDM AHC |
| 24D | MLT EDM AHC |
| 25D | AHC |
| 26A | AHC WGC AHC |
| 27A | AHC CLK AHC |
| 29A | AHC AHC |
| 30D | AHC SJC |
| 32A | SJC SLS CLK AHC |
| 33D | SLS CLK AHC |
| 35D | KCG EDM AHC |
| 36A | JGR |
| 38A | PAZ |
| 39D | PAZ |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C52

BELL TELEPHONE LABORATORIES INCORPORATED

6S

## APP FIG. 99 (A&M ONLY)

| RELAY | | | | | | |
|---|---|---|---|---|---|---|
| DESIG | [288]RM-- | | | | | |
| CODE | AF504 | | | | | |
| OPTION | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | M | 111A/G5 | | | | |
| 11 | M | 111A/F5 | | | | |
| 10 | M | 111B/D5 | | | | |
| 9 | M | 111B/B5 | | | | |
| 8 | M | 111B/A5 | | | | |
| 7 | M | 111B/F5 | | | | |
| 6 | M | 111B/D5 | | | | |
| 5 | M | 111B/E5 | | | | |
| 4 | M | 111B/A5 | | | | |
| 3 | M | 111A/C5 | | | | |
| 2 | M | 111A/B5 | | | | |
| 1 | M | 111A/B5 | | | | |
| COIL | | 111A/E5 | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [2881 RM-- | 111A/D5 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (ZCU) RS | 111B/D5 | 59H |
| (ZCV) RS | 111B/D5 | KS-8512,L6C,200 |

## APP FIG. 100 (MFR DISC.)

| RELAY | [8] GRO-7 | |
|---|---|---|
| CODE | 286B | |
| OPTION | | |
| 54 | 111A/E4 | |
| 53 | 111A/E4 | |
| 52 | 111A/E4 | |
| 51 | 111A/E4 | |
| 50 | 111A/E4 | |
| 44 | 111A/E4 | |
| 43 | 111A/E4 | |
| 42 | 111A/E4 | |
| 41 | 111A/E4 | |
| 40 | 111A/E4 | |
| 34 | 111A/E4 | |
| 33 | 111A/E4 | |
| 32 | 111A/E4 | |
| 31 | 111A/E4 | |
| 30 | 111A/E4 | |
| 24 | 111A/E4 | |
| 23 | 111A/E4 | |
| 22 | 111A/E4 | |
| 21 | 111A/E4 | |
| 20 | 111A/E4 | |
| 14 | 111A/E4 | |
| 13 | 111A/E4 | |
| 12 | 111A/E4 | |
| 11 | 111A/E4 | |
| 10 | 111A/E4 | |
| 04 | 111A/E4 | |
| 03 | 111A/E4 | |
| 02 | 111A/E4 | |
| 01 | 111A/E4 | |
| 00 | 111A/E4 | |
| COIL | 94E6 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [8] GRO-7 | 94E6 | 130A |

## APP FIG. 101

| RELAY | TOG3 | | | | | |
|---|---|---|---|---|---|---|
| DESIG | AJ501 | | | | | |
| CODE | | | | | | |
| OPTION | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | EBM | 282 | | | | |
| 11 | EBM | 57B/G2 | | | | |
| 10 | EBM | 1A2 | | | | |
| 9 | EBM | 1F1 | | | | |
| 8 | EMB | 1D2 | | | | |
| 7 | EBM | 203 | | | | |
| 6 | EMB | 57B/F8 | | | | |
| 5 | EMB | 1C1 | | | | |
| 4 | EBM | 498/D4 | | | | |
| 3 | EBM | 58G2 | | | | |
| 2 | EBM | α | | | | |
| 1 | EBM | 57B/E0 | | | | |
| COIL | | 2267 | | | | |
| | (ZMN) | 308/G7 | | | | |
| | (ZMO) | 114B/H1 | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| TOG3 | 2267 | 135A |

DRAWING ISSUE

| | |
|---|---|
| 30D | FES |
| 33D | GLS |
| 35D | CK |
| 36A | |
| 38A | |
| 39D | |
| 45D | |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-C53

PAGE NUMBER 65

SD-26002-01-C53

## APP FIG. 102

| DESIG | C4D | | DLT | | DLTC | | DTF | | DTF1 | | DZ | | MLT | | DTI4 | | DTF3 | | | | | | | | IDN | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AF42 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AK501 | | | | | | | | | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | ZQX | | ZQX | | | | | | | | ZOG | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | - | EMB | - | EBM | 21B/C7 | EBM | 21B/F3 | EBM | 62A/H3 | EBM | - | | | BM | | | | | | | | EBM | | 12 |
| 11 | EBM | - | EBM | - | M | 1008/B4 | EBM | 10204 | EBM | 88C/C2 | EBM | 115G9 | EBM | 11569 | | | BM | | | | | | | | EBM | | 11 |
| 10 | EBM | - | EBM | 10763 | EBM | a | EBM | 348/B7 | EBM | 108F1 | EBM | 6080 | EBM | 10763 | | | BM | | | | | | | | EBM | 28A/D4 | 10 |
| 9 | EBM | - | EBM | - | | | EBM | 24A/H3 | EBM | a | EBM | 60A0 | EBM | - | | | BM | | | | | | | | EBM | 115E9 | 9 |
| 8 | EMB | - | EMB | - | EBM | - | EMB | 21B/B6 | EMB | 21B/F2 | EMB | 57A/83 | EMB | 38H4 | | | BM | 122B/A3 | | | | | | | EMB | | 8 |
| 7 | EBM | - | EBM | - | B | 10702 | EBM | 24A/F8 | EBM | 41A/D5 | EBM | 10764 | EBM | - | | | | | | | | | | | EBM | | 7 |
| 6 | EMB | - | EMB | - | EMB | - | EMB | 21B/E7 | EMB | 78A/B7 | EMB | 137C2 | EMB | - | | | | | | | | | | | EMB | | 6 |
| 5 | EMB | - | EMB | - | | | EMB | 24C/F0 | EMB | 1008/B1 | EMB | 41A/D5 | EMB | 8103 | BM | | | | | | | | | | EMB | | 5 |
| 4 | EBM | - | EBM | 115C3 | EBM | 1008/B3 | EBM | 28A/D5 | EBM | 59A/E6 | EBM | 72A5 | EBM | 1008/B3 | BM | | | | | | | | | | EBM | 73A/A2 | 4 |
| 3 | EBM | - | EBM | 68/C6 | M | 115C9 | EBM | 1008/C4 | EBM | 11582 | EBM | 11386 | EBM | 68/C6 | BM | | | | | | | | | | EBM | | 3 |
| 2 | EBM | 113G5 | EBM | - | EBM | 1008/B5 | EBM | 37A5 | EBM | 30A/C3 | EBM | 113H5 | EBM | 1008/B3 | BM | | | | | | | | | | EBM | | 2 |
| 1 | EBM | - | EBM | 11586 | M | - | EBM | 7A9 | EBM | 10702 | EBM | 113H1 | EBM | 115A6 | BM | 122B/A2 | | | | | | | | | EBM | 107H4 | 1 |
| COIL | | 28A/C6 | | 68/A7 | | 115C3 | | 21B/A3 | | 21B/C7 | | 28A/D6 | | 68/A7 | | 22G3 | | 21B/C6 | | | | | | | | 28A/G7 | COIL |

(QA) 10762
a
(PS) 10767

(PS) 1008/F5
a
(PY) 1008/F7

NETWORK

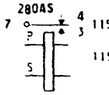
| DESIG | LOC | CODE |
|---|---|---|
| C4D | 28A/C6 | |
| DLT | 68/A7 | |
| DLTC | 115C3 | |
| DTF | 21B/A3 | |
| DTF1 | 21B/C7 | |
| (ZQX) DTF2 | 21B/C6 | 185A |
| (ZQX) DTI4 | 22G3 | |
| [10] DTSO-9 | 113C1 | |
| DZ | 28A/D6 | |
| (ZOG) IDN | 28A/G7 | |
| MLT | 68/A7 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| DLT1 | 11585 | 18S |
| DLT2 | 11585 | 18FD |

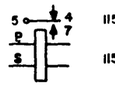
| RELAY DESIG | [10] DTSO-9 | |
|---|---|---|
| CODE | AJ700 | |
| OPTION | | |
| 24 | - | |
| 23 | - | |
| 22 | 11308 | |
| 21 | 11308 | |
| 20 | 11308 | |
| 19 | 11308 | |
| 18 | 11308 | |
| 17 | 11308 | |
| 16 | 11308 | |
| 15 | 11308 | |
| 14 | 11308 | |
| 13 | 11308 | |
| 12 | - | |
| 11 | - | |
| 10 | 11303 | |
| 9 | 11303 | |
| 8 | 11303 | |
| 7 | 11303 | |
| 6 | 11303 | |
| 5 | 11303 | |
| 4 | 11303 | |
| 3 | 11303 | |
| 2 | 11303 | |
| 1 | 11303 | |
| COIL | 11301 | |

RELAY
(IX) DLTK
280AS




115.B4
11583

RELAY
(IY) DLTK
316N




11584
11583

## APP FIG. 103

| DESIG | ALN | | GN | | ALNI | | EGN | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AF122 | | AJ503 | | AJ508 | | | | | | | | CODE |
| OPTION | | | | | EC | | AP | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 11387 | M | 108F8 | EBM | - | M | 113A6 | | | | | | | 12 |
| 11 | EBM | 4784 | M | 6402 | EBM | 63E7 | | | | | | | | | 11 |
| 10 | EBM | 6306 | BM | 60C0 | EBM | - | BM | | | | | | | | 10 |
| 9 | EBM | 67C5 | | | EBM | 61E7 | | | | | | | | | 9 |
| 8 | EMB | 6483 | BM | 60A0 | EMB | - | BM | 105B4 | | | | | | | 8 |
| 7 | EBM | 6983 | | | EBM | - | | | | | | | | | 7 |
| 6 | EMB | 11306 | BM | 6685 | EMB | 63A2 | BM | 6383 | | | | | | | 6 |
| 5 | EMB | 66H0 | | | EMB | - | | | | | | | | | 5 |
| 4 | EBM | 62A/D3 | BM | 11387 | EBM | - | BM | 28A/E4 | | | | | | | 4 |
| 3 | EBM | 63C3 | | | EBM | 60H8 | | | | | | | | | 3 |
| 2 | EBM | 10563 | M | 108G4 | EBM | 61C6 | M | 22E6 | | | | | | | 2 |
| 1 | EBM | 6103 | M | 108F8 | EBM | 72A8 | M | 21B/E7 | | | | | | | 1 |
| COIL | | 11388 | | 11306 | | 113A8 | | 113C6 | | | | | | | COIL |

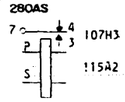
NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ALN | 11388 | 185A |
| (EC) ALNI | 113A8 | 185A |

## APP FIG. 104

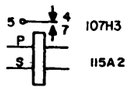
| DESIG | BLDA | | BLT | | (10) BLSO-9 | | BLTL | | BLTR | | BRA | | BRB | | DAT | | RNH | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AF504 | | AJ503 | | AJ503 | | AF42 | | AF42 | | AJ503 | | AJ503 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 105F2 | EBM | 105E2 | M | - | EBM | 10508 | EBM | 108F7 | EMB | 108H7 | EMB | 66H1 | EBM | 10502 | EBM | 108C6 | | | | | | | 12 |
| 11 | EBM | - | EBM | - | M | - | EBM | 108C5 | EBM | - | M | - | M | - | EBM | - | EBM | - | | | | | | | 11 |
| 10 | EBM | 105H2 | EBM | 105H2 | M | 113A3 | EBM | 10502 | EBM | - | EBM | - | EBM | 108H6 | EBM | 105H1 | EBM | - | | | | | | | 10 |
| 9 | EBM | 105H2 | EBM | 105H2 | M | 113A3 | EBM | 108C6 | EBM | - | | | | | EBM | 105H1 | EBM | - | | | | | | | 9 |
| 8 | EMB | - | EMB | - | M | 113A3 | EMB | 60C0 | EMB | 72A8 | EBM | 66H1 | EBM | 62A/H3 | EMB | - | EMB | 64D6 | | | | | | | 8 |
| 7 | EBM | - | EBM | - | M | 113A3 | EBM | 11306 | EBM | 108C5 | B | 66G1 | B | - | EBM | - | EBM | - | | | | | | | 7 |
| 6 | EMB | - | EMB | - | M | 113A3 | EMB | 108H7 | EMB | 64D7 | EMB | - | EMB | 66G0 | EMB | - | EMB | - | | | | | | | 6 |
| 5 | EMB | - | EMB | - | M | 113A3 | EMB | 108G3 | EMB | - | | | | | EMB | - | EMB | 69C0 | | | | | | | 5 |
| 4 | EBM | 115A4 | EBM | - | M | 113A3 | EBM | 108F8 | EBM | 64G0 | EBM | 62A/H2 | EBM | - | EBM | 115A4 | EBM | 62A/G1 | | | | | | | 4 |
| 3 | EBM | - | EBM | - | M | 113A3 | EBM | 108E5 | EBM | 108D8 | M | 11387 | M | 11387 | EBM | - | EBM | 64B3 | | | | | | | 3 |
| 2 | EBM | 107H3 | EBM | - | M | 113A3 | EBM | 64H1 | EBM | 66G3 | EBM | - | EBM | - | EBM | 107H3 | EBM | 64C3 | | | | | | | 2 |
| 1 | EBM | 10567 | EBM | 10567 | M | 113A3 | EBM | 113C1 | EBM | 108H8 | M | 66H0 | M | - | EBM | - | EBM | 10968 | | | | | | | 1 |
| COIL | | 105F2 | | 105E2 | | 11382 | | 10508 | | 108E9 | | 10869 | | 66H0 | | 10502 | | 10886 | | | | | | | COIL |

RELAY
(IX) DATK
280AS




107H3
115A2

RELAY
(IY) DATK
316N




107H3
115A2

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| BLDA | 105F2 | |
| [10] BLSO-9 | 113A2 | |
| BLT | 105E2 | |
| BLTL | 10508 | |
| BLTR | 108E9 | 185A |
| BRA | 108G9 | |
| BRB | 66H0 | |
| DAT | 10502 | |
| RNH | 10886 | |

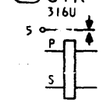
RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| DAT1 | 115A3 | 18S |
| DAT2 | 11583 | 18FD |

## APP FIG. 105

| DESIG | CP10 | | MBK6 | | SA | | CSA | | CTKA | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AF531 | | AF42 | | AJ45 | | AF98 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | AV | | AV | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | | | EMB | 103C1 | EBM | - | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | M | - | EBM | - | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | EBM | 29A/B8 | EBM | - | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | EBM | - | B | - | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EBM | - | EBM | 114A/B4 | EMB | - | EBM | - | | | | | | | | | | | | | | | 8 |
| 7 | | | | | B | 114A/E2 | EBM | - | B | - | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 37C9 | EBM | - | EMB | 60A2 | EMB | - | EMB | - | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | EMB | - | B | - | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 29A/C8 | EBM | 57B/C4 | EBM | 114A/C4 | EBM | 16B1 | EBM | 37C8 | | | | | | | | | | | | | | | 4 |
| 3 | | | | | M | - | EBM | 37D9 | B | 16B1 | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 29A/C8 | | | EBM | 114A/F3 | EBM | 114A/C5 | M | - | | | | | | | | | | | | | | | 2 |
| 1 | | | | | M | 114A/H1 | EBM | - | | | | | | | | | | | | | | | | | 1 |
| COIL | | 4765 | | 114A/A2 | | 114A/H2 | | 114A/C9 | | 114A/C7 | | | | | | | | | | | | | | | COIL |

RELAY
(AV) CTK
316U




114A/C6
114A/E9

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| (AI) TS | 114A/D9 | 13J(RFS) |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| (ZEQ) [1] CP10P | 4766 | 177C |
| CP10S | 47H6 | |
| (ZER) CP10P | 4766 | 186D |
| CP10S | 47H6 | |
| (AV) CSA | 114A/C9 | |
| (AV) CTKA | 114A/C7 | 185A |
| MBK6 | 114A/A2 | |
| SA | 114A/H2 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| NSP | 114A/A3 | KS-13492,L1,2000 |
| (ZCU) SA | 29A/F8 | 59H |
| (ZCV) SA | 29A/F8 | KS-8512,L6C,200 |
| SPC | 114A/A3 | KS-13492,L1.2000 |

| DRAWING ISSUE |
|---|
| 250 WHB WLP AHC |
| 27A MD CLK AHD |
| 28D MD CLK AHD |
| 29A DLB AHD |
| 31D DLB AHD |
| 32A WB AHD |
| 33D WB CLK AHD |
| 34A CK SPL APP |
| 35D CK SPL APP |
| 36A PREL |
| 37D PREL |
| 39D RP |
| 40A |
| 41D |
| 43D |

DRAWING ISSUE
67B

COMPLETING MARKER CIRCUIT (?)

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE CODE 6S

SD-26002-01-C54

SD-26002-01-C54

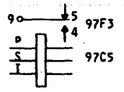
STABILO

## APP FIG. 106

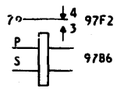
RELAY

| DESIG | ENES | | ESCK | | LLES | | TLES | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF;05 | | AF90 | | AJ503 | | AJ503 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | EBM | - | EBM | - | | | | | | | | | | | | | | | 12 |
| 11 | | | | | EBM | - | EBM | - | | | | | | | | | | | | | | | 11 |
| 10 | M | 97F4 | | | EBM | - | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | | | | | EBM | 97G4 | EBM | 97G5 | | | | | | | | | | | | | | | 9 |
| 8 | EBM | 97F7 | M | 97F7 | EMB | - | EMB | - | | | | | | | | | | | | | | | 8 |
| 7 | | | B | - | EBM | 97F3 | EBM | 97F3 | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 97B7 | EBM | 36F8 | EMB | 97B6 | EMB | 9786 | | | | | | | | | | | | | | | 6 |
| 5 | | | B | - | EMB | 97C6 | EMB | 97C6 | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 97F1 | M | 36E8 | EBM | - | EBM | 97F4 | | | | | | | | | | | | | | | 4 |
| 3 | | | | | EBM | 97E8 | EBM | 97E7 | | | | | | | | | | | | | | | 3 |
| 2 | | | | | EBM | 97C3 | EBM | 97C3 | | | | | | | | | | | | | | | 2 |
| 1 | | | | | EBM | 97B3 | EBM | 97B3 | | | | | | | | | | | | | | | 1 |
| COIL | | 97E8 | | 97F5 | | 97E3 | | 97D3 | | | | | | | | | | | | | | | COIL |

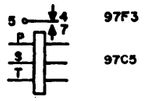
(IX) RELAY ECK 280CE



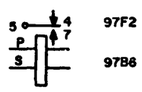

(IX) RELAY ESK 280AS




(IY) RELAY ECK 316S




(IY) RELAY ESK 316M




NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ENES | 97E8 | 185A |
| ESCK | 97F5 | |
| LLES | 97E3 | |
| TLES | 97D3 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| ECK1 | 97C5 | 40BK |
| ECK2 | 97C5 | 40BK |
| ECK3 | 97C5 | 19CY |
| ESK1 | 97B7 | 18S |
| ESK2 | 97AG | 18FD |

## APP FIG. 107

RELAY

| DESIG | AIOD | | OC | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ513 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | PN | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | PBEM | - | | | | | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | BM | 838/B5 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 2E1 | EBM | 2E1 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | 2E1 | PMEB | - | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | 57B/F3 | EMB | - | | | | | | | | | | | | | | | | | | | 8 |
| 7 | EBM | 3C8/H6 | BM | 838/B4 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | 3C8/F3 | EBM | 8500 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | 30B/H3 | BM | 838/B3 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 8500 | PMEB | 838/C7 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 838/A4 | BM | 838/D3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | - | PBEM | - | | | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | - | BM | 838/C3 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 838/A3 | | 838/C7 | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| (PN) AIOD | 838/A3 | 185A |
| OC | 838/C7 | |

## APP FIG. 108

RELAY

| DESIG | 2WD | | 2WD1 | | 2WD2 | | 2WD3 | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 9 |
| 8 | EMB | - | EMB | - | EMB | - | EMB | - | | | | | | | | | | | | | | | 8 |
| 7 | EBM | 97E6 | EBM | 97E6 | EBM | 97E6 | EBM | 97E6 | | | | | | | | | | | | | | | 7 |
| 6 | EMB | - | EMB | - | EMB | - | EMB | - | | | | | | | | | | | | | | | 6 |
| 5 | EMB | - | EMB | - | EMB | - | EMB | - | | | | | | | | | | | | | | | 5 |
| 4 | EBM | - | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 68/C3 | EBM | 68/B3 | EBM | 68/A3 | EBM | 68/A3 | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 68/C3 | EBM | 68/B3 | EBM | 68/B3 | EBM | 68/A3 | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 68/C3 | EBM | 68/C3 | EBM | 68/B3 | EBM | 68/A3 | | | | | | | | | | | | | | | 1 |
| COIL | | 68/E7 | | 68/F7 | | 68/F7 | | 66/F7 | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 2WD | 68/E7 | 185A |
| 2WD1 | 68/F7 | |
| 2WD2 | 68/F7 | |
| 2WD3 | 66/F7 | |

## APP FIG. 109

RELAY

| DESIG | (10) CUO-9 | | TCGA | | TCGB | | TCGA | | TCGB | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ507 | | AJ507 | | AJ507 | | AJ502 | | AJ502 | | | | | | | | | | | | | | CODE |
| OPTION | | | QQ | | QQ | | NS | | NS | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 68/D3 | M | | M | | EBM | 68/D2 | EBM | 68/D2 | | | | | | | | | | | | | 12 |
| 11 | M | 68/D3 | M | - | M | - | EBM | - | EBM | - | | | | | | | | | | | | | 11 |
| 10 | M | - | M | - | M | - | EBM | - | EBM | - | | | | | | | | | | | | | 10 |
| 9 | M | - | M | - | M | - | EBM | - | EBM | - | | | | | | | | | | | | | 9 |
| 8 | BM | - | BM | 6A/H9 | BM | 6A/G9 | EMB | | EMB | | | | | | | | | | | | | | 8 |
| 7 | M | - | M | - | M | - | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | - | BM | - | BM | - | EMB | - | EMB | - | | | | | | | | | | | | | 6 |
| 5 | M | - | M | - | M | - | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | 6A/G9 | BM | 101E6 | BM | 101F6 | EBM | 101E6 | EBM | - | | | | | | | | | | | | | 4 |
| 3 | M | - | M | 6A/B8 | M | 6A/B8 | EBM | - | EBM | - | | | | | | | | | | | | | 3 |
| 2 | M | L | M | 6A/C8 | M | 6A/D8 | EBM | - | EBM | - | | | | | | | | | | | | | 2 |
| 1 | M | 6A/B6 | M | 6A/D8 | M | 6A/E8 | EBM | - | EBM | - | | | | | | | | | | | | | 1 |
| COIL | | 6A/C3 | | 6A/F3 | | 6A/G3 | | 6A/F3 | | 6A/G3 | | | | | | | | | | | | | COIL |

RELAY 280BA

(QQ) CGAI (QQ) CGBI

| | |
|---|---|
| 6F3 | 6G4 |
| 6F4 | 6G4 |

NETWORK

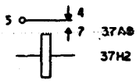
| DESIG | LOC | CODE |
|---|---|---|
| TCGA | 6F3 | 185A |
| TCGB | 6G3 | |
| [10] CUO-9 | 6C3 | |

## APP FIG. 110

RELAY

| DESIG | EXA | | EXA | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF521 | | AJ503 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | AS | | AT | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 8308 | EBM | 8308 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | M | - | EBM | - | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 37G7 | EBM | 37G7 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | M | - | EBM | 44A/H3 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | 44A/H3 | EMB | 10781 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | M | - | EBM | - | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | 22E3 | EMB | 22E3 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | - | EMB | - | | | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | 1680 | EBM | 22E/00 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | M | 80G3 | EBM | 80G3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 37A8 | EBM | 37A8 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | M | 31B/E2 | EBM | 31B/F2 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 37A7 | | 37A7 | | | | | | | | | | | | | | | | | | | COIL |

RELAY EX 316A




RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| EX | 37H1 | 18AG |

## APP FIG. 111

RELAY

| DESIG | (10) CAUO-9 | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ507 | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 68/D2 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | M | 68/E2 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 68/E2 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | M | 68/F2 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | 68/F2 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | M | 68/G2 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | - | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | 68/G2 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | BM | - | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | M | - | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | - | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | M | - | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 6A/A5 | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [10] CAUO-9 | 6A5 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 25D | MAT |
| 27A | MD CLK AMP |
| 28D | MD CLK |
| 29A | CC |
| 30D | CC |
| 31D | CC |
| 34A | WB |
| 35D | WB |
| 36A | SSL |
| 37C | |
| 39D | RP |
| 40A | |
| 41D | |

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NUMBER 6S

SD-26002-01-C55

26002-01-C55

## APP FIG. 112

RELAY

| DESIG | 4BKC | | 5DLT | | 5IKC | | ALN1 | | AOT | | CDNC | | CTI | | CTIL | | DTF2 | | LRI | | RDS | | RYK | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AF42 | | AJ503 | | AJ503 | | AJ503 | | AJ12 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EMB | - | EBM | 105D0 | EBM | 105E8 | EBM | 115E3 | EBM | 8700 | EBM | 100A/F5 | EBM | 100A/F1 | 12 |
| 11 | EBM | - | EBM | 100B/B4 | EBM | - | EBM | 63E7 | EBM | - | M | 100B/B5 | EBM | 64D2 | EBM | 11509 | EBM | 115E3 | EBM | 81E1 | EBM | 11509 | EBM | - | 11 |
| 10 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 105H1 | EBM | 10763 | EBM | 107F5 | EBM | - | EBM | 27F0 | EBM | - | 10 |
| 9 | EBM | - | EBM | - | EBM | - | EBM | 61C6 | EBM | - | | | EBM | 105H1 | EBM | 628/M5 | EBM | 107E5 | EBM | - | EBM | 115F5 | EBM | - | 9 |
| 8 | EMB | 38A4 | EMB | - | EMB | 38H4 | EMB | - | EBM | - | EBM | 10765 | EMB | 624/F7 | EMB | 11306 | EMB | a | EBM | 23E7 | EMB | 11506 | EMB | 36C4 | 8 |
| 7 | EBM | 10769 | EBM | - | EBM | 107H8 | EBM | - | EBM | - | B | - | EBM | - | EBM | 64B1 | EBM | 41A/E7 | EBM | - | EBM | 11586 | EBM | - | 7 |
| 6 | EMB | - | EMB | 11509 | EMB | - | EMB | 63A2 | EMB | - | EMB | - | EMB | 64F7 | EMB | - | EMB | 11506 | EBM | 1228/B2 | EMB | 100B/D6 | EMB | - | 6 |
| 5 | EMB | 11509 | EMB | - | EMB | 11509 | EMB | - | EMB | - | | | EMB | 105E7 | EMB | 113A7 | EMB | 20A/E8 | EBM | - | EMB | 100A/G1 | EMB | 100A/G1 | 5 |
| 4 | EBM | 107F6 | EBM | 11503 | EBM | 107E7 | EBM | - | EBM | 24A/G6 | EBM | 100B/B5 | EBM | 103G1 | EBM | 628/D3 | EBM | 10768 | EBM | - | EBM | 101C9 | EBM | - | 4 |
| 3 | EBM | - | EBM | 63/C5 | EBM | 100B/B3 | EBM | 60H8 | EBM | 24A/G6 | M | - | EBM | - | EBM | 45C4 | EBM | b | EBM | - | EBM | 101C9 | EBM | - | 3 |
| 2 | EBM | 100B/B3 | EBM | - | EBM | 100B/B3 | EBM | 61D5 | EBM | - | EBM | 11567 | EBM | 103F1 | EBM | 103G0 | EBM | 20A/G4 | EBM | 3884 | EBM | 101F9 | EBM | - | 2 |
| 1 | EBM | - | EBM | 11586 | EBM | - | EBM | 72A8 | EBM | - | M | - | EBM | 10500 | EBM | 105E8 | EBM | 81D4 | EBM | 37G8 | EBM | 101F9 | EBM | 100A/E0 | 1 |
| COIL | | 115B7 | | 68/B7 | | 115C7 | | 113A8 | | 218/D3 | | 115D7 | | 10500 | | 105E8 | | 218/C7 | | 23G7 | | 100A/D3 | | 100A/E0 | COIL |

(ZXN) 115F4
a
(ZXM) 20A/A3
(GI) 107G6
b
(ZLO) 107H6

RELAY

280AS

(IX) CDNK — 115D7 / 115F7
(IX) 4BK — 115C7 / 115D5
(IX) 5IK — 115C7 / 115E3

316N

(IY) CDNK — 115D7 / 115F7
(IY) 4BK — 115C7 / 115D5
(IY) 5IK — 115C7 / 115E3

NETWORK

| DESIG | LOC |
|---|---|
| 4BKC | 115B7 |
| 5DLT | 68/B7 |
| 5IKC | 115C7 |
| ALN1 | 113A8 |
| AOT | 218/D3 |
| CDNC | 115D7 |
| CTI | 105B1 |
| CTIL | 105E8 |
| DTF2 | 218/C7 |
| LRI | 23G7 |
| RDS | 100A/D3 |
| RYK | 100A/E0 |
| XI | 23H8 |
| TKT | 23G7 |
| (ZXM) 7DLT | 68/B6 |
| (ZXM) 7TRC | 115H2 |

CODE

185A

1854

RELAY

| DESIG | XI | | TKT | | 7DLT | | 7TRC | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK22 | | | | AJ503 | | AJ503 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | ZXM | | ZXM | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | | | 12 |
| 11 | | | EBM | 37C5 | EBM | - | EBM | - | | | | | | | | | | | | | | | | | 11 |
| 10 | | | EBM | - | EBM | 100B/B5 | EBM | - | | | | | | | | | | | | | | | | | 10 |
| 9 | | | EMB | 37B4 | EBM | 11585 | EBM | - | | | | | | | | | | | | | | | | | 9 |
| 8 | | | EMB | 37A4 | EMB | - | EMB | 38H4 | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | EBM | - | EBM | - | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | EMB | 11508 | EMB | - | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | - | | | EMB | - | EMB | 11589 | | | | | | | | | | | | | | | | | 5 |
| 4 | EMB | - | | | EBM | - | EBM | - | | | | | | | | | | | | | | | | | 4 |
| 3 | EBM | - | | | EBM | 68/C6 | EBM | 100B/B3 | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 37C4 | | | EBM | - | EBM | 100B/B3 | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | - | | | EBM | 11586 | EBM | - | | | | | | | | | | | | | | | | | 1 |
| COIL | | 23H8 | | 23G7 | | 68/B6 | | 115H2 | | | | | | | | | | | | | | | | | COIL |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| CDN1 | 115F9 | 18S |
| CDN2 | 115G9 | 18FD |
| L8K1 | 115E6 | 18S |
| L8K2 | 115E6 | 18FD |
| L1K1 | 115E5 | 18S |
| L1K2 | 115F5 | 18FD |

## APP FIG. 113

RELAY

| DESIG | LFKA | | MFK | | MFL | | PRL | | PRLL | | STPA ZSD | | STPA ZSF | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF169 | | AF169 | | AF96 | | AF93 | | AJ12 | | AF35 | | AJ503 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT AFR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 48/D1 | M | - | | | | | EBM | 31A/H6 | EM | 31A/H6 | EBM | 31A/H6 | | | | | | | | | | | 12 |
| 11 | | | | | | | | | EBM | 88A/C7 | | | EBM | 13E8 | | | | | | | | | | | 11 |
| 10 | M | 898/G2 | M | - | | | | | EBM | 13B1 | M | - | EBM | 13E8 | | | | | | | | | | | 10 |
| 9 | | | | | | | | | EBM | 91A2 | | | EBM | 13E6 | | | | | | | | | | | 9 |
| 8 | EBM | a | EBM | - | M | 31A/C8 | M | 12A1 | EBM | 91C1 | M | - | EMB | 1308 | | | | | | | | | | | 8 |
| 7 | EB | - | EB | 83D5 | | | | | EBM | 91H2 | B | - | EBM | - | | | | | | | | | | | 7 |
| 6 | EBM | 888/E9 | EBM | 31B/C4 | M | 31B/C4 | M | 11B5 | EBM | 888/H3 | EMB | 31B/C4 | EMB | 31B/C4 | | | | | | | | | | | 6 |
| 5 | EB | - | EB | 31A/H6 | | | | | EBM | 88A/B7 | B | - | EMB | - | | | | | | | | | | | 5 |
| 4 | | | | | M | 898/F6 | M | 48/C3 | EBM | 88A/F6 | M | 83D4 | EBM | 83D4 | | | | | | | | | | | 4 |
| 3 | M | | M | - | | | | | EBM | 888/E7 | | | EBM | - | | | | | | | | | | | 3 |
| 2 | M | 88C/F1 | M | - | | | | | EBM | 31A/E8 | M | 48/C3 | EBM | 48/C3 | | | | | | | | | | | 2 |
| 1 | M | 48/F2 | M | - | | | | | EBM | 88C/A6 | | | EBM | - | | | | | | | | | | | 1 |
| COIL | | 48/E2 | | 48/D2 | | 48/D3 | | 48/E3 | | 48/C2 | | 31A/H5 | | 31A/H5 | | | | | | | | | | | COIL |

(ZWJ) 88A/H7
a
(ZUD) 88A/E9
(ZVD) 88A/D9

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| MFL | 48/D3 | ~~KS-13368,L3,.01uF~~ KS-13368,L29,.01 |
| PRL | 48/F4 | ~~KS-13368,L3,.01uF~~ KS-13368,L29,.01 |

NETWORK

| DESIG | LOC |
|---|---|
| LFKA | 48/E2 |
| MFK | 48/D2 |
| PRLL | 48/C2 |
| STPA | 31A/H5 |

CODE

185A

## APP FIG. 114

RELAY

| DESIG | 4BKC | | 5IKC | | DTF2 | | LRI | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ12 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | - | EBM | 115E3 | EBM | 8700 | | | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | EBM | - | EBM | 115E3 | EBM | 81E1 | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | | EBM | - | EBM | 107F5 | EBM | - | | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | - | EBM | - | EBM | 107E5 | EBM | - | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | - | EMB | - | EMB | 115F4 | EBM | 23E7 | | | | | | | | | | | | | | | | | 8 |
| 7 | EBM | | EBM | 107G6 | EBM | 41A/E7 | EBM | - | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | - | EMB | - | EMB | 11506 | EBM | 1228/B2 | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | 115C9 | EMB | 115C9 | EMB | 20A/E8 | EBM | - | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 107F6 | EBM | 107E6 | EBM | 107G5 | EBM | - | | | | | | | | | | | | | | | | | 4 |
| 3 | EBM | - | EBM | - | EBM | | EBM | - | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | - | EBM | - | EBM | 20A/G4 | EBM | 3884 | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | - | EBM | - | EBM | 788/G6 | EBM | 37G8 | | | | | | | | | | | | | | | | | 1 |
| COIL | | 115B7 | | 115C7 | | 218/C7 | | 23G7 | | | | | | | | | | | | | | | | | COIL |

RELAY

280AS

(IX) 4BK — 115C7 / 115D5
(IX) 5IK — 115C7 / 115E3

316N

(IY) 4BK — 115C7 / 115D5
(IY) 5IK — 115C7 / 115E3

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 4BKC | 115B7 | 185A |
| 5IKC | 115C7 | 185A |
| DTF2 | 218/C7 | 185A |
| LRI | 23G7 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| L8K1 | 115E6 | 18S |
| L8K2 | 115E6 | 18FD |
| L1K1 | 115E5 | 18S |
| L1K2 | 115F5 | 18FD |

DRAWING ISSUE

25D DS WGD AND
27A XY CLK AND
28D XY CLK AND
29A NF WGD AND
31D NF WGD AND
32A TS CLK AND
33D TS CLK AND
34A JEK GDL AND
35D JEK GDL AND
37D SSL
39D RP
40A
41D
43D
45D

DRAWING ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C56

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-C56

STABILO

# APP FIG. 115 (MFR DISC.)

RELAY

| DESIG | AG1 | | AG2 | | AG3 | | AG4 | | AG5 | | AG6 | | AGA1 | | AGA2 | | AGA3 | | AGA4 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF48 | | AF48 | | AF48 | | AF48 | | AF48 | | AF48 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 110F8 | M | 110F8 | M | 110F6 | M | 110F8 | M | 110F8 | M | 110F8 | E3M | - | E3M | - | E3M | - | E3M | - | 12 |
| 11 | a | 1113/H4 | a | 1113/H4 | a | 1113/H4 | a | 1113/H4 | a | 1113/H4 | a | 1113/H4 | E3M | - | E3M | - | E3M | - | E3M | - | 11 |
| 10 | 3M | 110CO | 3M | 110CO | 3M | 110CO | 3M | 110CO | 3M | 110CO | 3M | 110CO | E3M | - | E3M | - | E3M | - | E3M | - | 10 |
| 9 | a | 1113/D4 | a | 1113/D4 | a | 1113/D4 | a | 1113/D4 | a | 1113/D4 | a | 1113/D4 | E3M | - | E3M | - | E3M | - | E3M | - | 9 |
| 8 | 3M | 110A3 | 3M | 110A3 | 3M | ~~110A3~~ | 3M | 110A3 | 3M | 110A3 | 3M | 110A3 | EM3 | - | EM3 | - | EM3 | - | EM3 | - | 8 |
| 7 | a | 1113/F4 | a | 1113/F4 | a | 1113/F4 | a | 1113/F4 | a | 1113/F4 | a | 1113/F4 | E3M | - | E3M | - | E3M | - | E3M | - | 7 |
| 6 | 3M | 110EO | 3M | 110EO | 3M | 110EO | 3M | 110EO | 3M | 110EO | 3M | 110EO | EM3 | - | EM3 | - | EM3 | - | EM3 | - | 6 |
| 5 | a | 111A/C4 | a | 111A/C4 | a | 111A/C4 | a | 111A/C4 | a | 111A/C4 | a | 111A/C4 | EM3 | 111A/G4 | EM3 | 111A/G4 | EM3 | 111A/H4 | EM3 | 111A/H4 | 5 |
| 4 | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | E3M | 110B4 | E3M | 110B4 | E3M | 110B4 | E3M | 110B5 | 4 |
| 3 | a | 111A/B3 | a | 111A/B3 | a | 111A/B3 | a | 111A/B3 | a | 111A/B3 | a | 111A/B3 | E3M | - | E3M | - | E3M | 110A6 | E3M | 110A6 | 3 |
| 2 | M | 1113/A4 | M | 1113/A4 | M | 1113/A4 | M | 1113/A4 | M | 1113/A4 | M | 1113/A4 | E3M | - | E3M | 110A6 | E3M | 110A6 | E3M | 110A6 | 2 |
| 1 | a | 111A/A4 | a | 111A/A4 | a | 111A/A4 | a | 111A/A4 | a | 111A/A4 | a | 111A/A4 | E3M | 110A5 | E3M | 110A6 | E3M | 110A6 | E3M | 110A6 | 1 |
| COIL | | 110E9 | | 110E9 | | 110E9 | | 110E9 | | 110E9 | | 110E9 | | 110E9 | | 110E9 | | 110E9 | | 110E9 | COIL |

RELAY

| DESIG | AGA5 | | AGA6 | | AV1 | | AV2 | | AV3 | | AV4 | | AV5 | | AV6 | | RQ1 | | RQ2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ15 | | AJ15 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | E3M | - | E3M | - | E3M | 110DO | E3M | 110DO | E3M | 110DO | E3M | 110DC | E3M | 110DO | E3M | 110DO | EBM | 111D3 | EBM | 111D3 | 12 |
| 11 | E3M | - | E3M | - | E3M | 110EO | E3M | 110EO | E3M | 110EO | E3M | 110EO | E3M | 110EO | E3M | 110EO | EBM | -- | EBM | — | 11 |
| 10 | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | EBM | 111B/F3 | EBM | 111B/F3 | 10 |
| 9 | E3M | - | E3M | - | E3M | 110A2 | E3M | 110A3 | E3M | 110A4 | E3M | 110A4 | E3M | 110A4 | E3M | 110A4 | EBM | — | EBM | — | 9 |
| 8 | EM3 | - | EM3 | - | EM3 | 110C1 | EM3 | 110C1 | EM3 | 110C1 | EM3 | 110C1 | EM3 | 110C1 | EM3 | 110C1 | EMB | 111B/G3 | EMB | ~~111B~~/G3 | 8 |
| 7 | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | EBM | - | EBM | 111AO | 7 |
| 6 | EM3 | - | EM3 | - | EM3 | 110E8 | EM3 | 110E8 | EM3 | 110E8 | EM3 | 110E8 | EM3 | 110E8 | EM3 | 110E8 | EMB | 111BO | EMB | 111AO | 6 |
| 5 | EM3 | 111G4 | EM3 | 111G4 | EM3 | 110E1 | EM3 | 110E1 | EM3 | 110E1 | EM3 | 110E1 | EM3 | 110E1 | EM3 | 110E1 | EMB | 110C8 | EMB | 110D8 | 5 |
| 4 | E3M | 110B5 | E3M | 110B5 | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | 1113/E3 | E3M | 1113/E3 | 4 |
| 3 | E3M | 110A6 | E3M | 110A7 | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | EBM | 110C7 | EBM | 110C8 | 3 |
| 2 | E3M | 110A6 | E3M | 110A7 | E3M | 1113/A4 | E3M | 1113/A4 | E3M | 1113/A4 | E3M | 1113/A4 | E3M | 1113/A4 | E3M | 1113/A4 | EBM | 111B2 | EBM | 111B2 | 2 |
| 1 | E3M | 110A6 | E3M | 110A7 | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | E3M | - | EBM | 111A3 | EBM | 111A3 | 1 |
| COIL | | 110E9 | | 110E9 | | 110CO | | 110CO | | 110CO | | 110CO | | 110CO | | 110CO | | 110C9 | | 110C9 | COIL |

RELAY

| DESIG | RO3 | | RG1 | | RG2 | | RG3 | | RG4 | | RG5 | | RG6 | | RGA | | RGA1 | | RGA2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ15 | | AJ508 | | AJ508 | | AJ508 | | AJ508 | | AJ508 | | AJ508 | | AJ503 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 111D3 | M | 110F8 | M | 110F8 | M | 110F8 | M | 110F8 | M | 110F8 | M | 110F8 | E3M | 1113/H7 | E3M | 11086 | E3M | 11086 | 12 |
| 11 | EBM | — | | | | | | | | | | | | | E3M | - | E3M | - | E3M | 1113/C0 | 11 |
| 10 | EBM | 1113/F3 | 3M | - | 3M | - | 3M | - | 3M | - | 3M | - | 3M | - | E3M | - | E3M | 1113/C0 | E3M | 1113/C0 | 10 |
| 9 | EBM | — | | | | | | | | | | | | | E3M | - | E3M | 1113/H4 | E3M | 1113/H4 | 9 |
| 8 | EMB | 1113/G3 | 3M | 110G3 | 3M | 110F3 | 3M | 110F3 | 3M | 110E3 | 3M | 110E3 | 3M | 110D3 | EM3 | - | EMB | 110G3 | EMB | 110F3 | 8 |
| 7 | EBM | 111AO | | | | | | | | | | | | | E3M | - | E3M | 1113/D4 | E3M | 1113/D4 | 7 |
| 6 | EMB | 111AO | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | 3M | 110E1 | EM3 | - | EMB | 1113/B4 | EM3 | 1113/B4 | 6 |
| 5 | EMB | 110D8 | | | | | | | | | | | | | EM3 | - | EMB | 1113/E4 | EM3 | 1113/E4 | 5 |
| 4 | E3M | 1113/E3 | 3M | 110GO | 3M | 110G1 | 3M | 110G1 | 3M | 110G1 | 3M | 110G1 | 3M | 110G2 | E3M | 111A/D7 | E3M | 1113/G4 | E3M | 1113/G4 | 4 |
| 3 | E3M | 110C8 | | | | | | | | | | | | | E3M | 111A/B7 | E3M | 1113/E4 | E3M | 1113/E4 | 3 |
| 2 | EBM | 111B2 | M | 110A2 | M | 110A2 | M | 110A2 | M | 110A2 | M | 110A2 | M | 110A2 | E3M | 1785 | E3M | 111A/G4 | E3M | 111A/G4 | 2 |
| 1 | EBM | 111A3 | M | 110C1 | M | 110C1 | M | 110C1 | M | 110C1 | M | 110C1 | M | 110C1 | E3M | 41A8 | E3M | 111A/F4 | E3M | 111A/F4 | 1 |
| COIL | | 110D9 | | 111A/E7 | | 111A/E7 | | 111A/E7 | | 111A/E7 | | 111A/E7 | | 111A/E7 | | 110DO | | 110G2 | | 110F2 | COIL |

RELAY

| DESIG | RGA3 | | RGA4 | | RGA5 | | RGA6 | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | E3M | 11086 | E3M | 11086 | E3M | 11086 | E3M | 11086 | | | | | | | | | | | | | 12 |
| 11 | E3M | 1113/C0 | E3M | 1113/30 | E3M | 1113/30 | E3M | 1113/30 | | | | | | | | | | | | | 11 |
| 10 | E3M | 1113/C0 | E3M | 1113/30 | E3M | 1113/30 | E3M | 1113/30 | | | | | | | | | | | | | 10 |
| 9 | E3M | 1113/H4 | E3M | 1113/H4 | E3M | 1113/H4 | E3M | 1113/H4 | | | | | | | | | | | | | 9 |
| 8 | EM3 | 110F3 | EM3 | 110E3 | EM3 | 110E3 | EM3 | 110D3 | | | | | | | | | | | | | 8 |
| 7 | E3M | 1113/D4 | E3M | 1113/D4 | E3M | 1113/D4 | E3M | 1113/D4 | | | | | | | | | | | | | 7 |
| 6 | EM3 | 1113/B4 | EM3 | 1113/B4 | EM3 | 1113/B4 | EM3 | 1113/B4 | | | | | | | | | | | | | 6 |
| 5 | EM3 | 1113/E4 | EM3 | 1113/E4 | EM3 | 1113/E4 | EM3 | 1113/E4 | | | | | | | | | | | | | 5 |
| 4 | E3M | 1113/G4 | E3M | 1113/G4 | E3M | 1113/G4 | E3M | 1113/G4 | | | | | | | | | | | | | 4 |
| 3 | E3M | 1113/E4 | E3M | 1113/E4 | E3M | 1113/E4 | E3M | 1113/E4 | | | | | | | | | | | | | 3 |
| 2 | E3M | 111A/G4 | E3M | 111A/G4 | E3M | 111A/G4 | E3M | 111A/G4 | | | | | | | | | | | | | 2 |
| 1 | E3M | 111A/F4 | E3M | 111A/F4 | E3M | 111A/F4 | E3M | 111A/F4 | | | | | | | | | | | | | 1 |
| COIL | | 110E2 | | 110E2 | | 110D2 | | 110D2 | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [6] AG1-6 | 110E9 | |
| [6] AGA1-6 | 110E9 | |
| [6] AV1-6 | 110CO | 185A |
| RO1 | 110C9 | |
| RO2 | 110C9 | |
| RO3 | 110D9 | |
| [6] RG1-6 | 111A/D7 | 186A |
| RGA | 110DO | |
| RGA1 | 110G2 | |
| RGA2 | 110F2 | 185A |
| [2] RGA3,4 | 110E2 | |
| [2] RGA5,6 | 110D2 | |

DRAWING ISSUE

| | |
|---|---|
| 30D | LPM AMP AMP |
| 32A | GLS CLK AMP |
| 33D | GLS CLK AMP |
| 39D | RA |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C57

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-C57

STABILO

E-7422-A-2(8-64)

# APP FIG. 116 (MFR DISC.)

RELAY

| DESIG | NET | | NSS | | PG00-14 | | PRE0 | | PRE1 | | PRE2 | | PRE3 | | PRE4 | | PRI | | XCOS | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ506 | | AJ108 | | AF504 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ506 | | AF97 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | M | 94C4 | E&M | 95D0 | E&M | 95D0 | E&M | 95C0 | E&M | 95C0 | E&M | 95C0 | | | | | 12 |
| 11 | | | | | M | 94C4 | E&M | 11783 | E&M | 11783 | E&M | 11783 | E&M | 117A3 | E&M | 10806 | | | | | 11 |
| 10 | M | - | | | M | 94C4 | E&M | 98A6 | E&M | 9886 | E&M | 9886 | E&M | 98A6 | E&M | 98C6 | M | - | | | 10 |
| 9 | | | | | M | 9584 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | 6682 | | | | | 9 |
| 8 | E&M | 94D1 | M | - | M | 94C4 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | 108E7 | E&M | 94C0 | M | 87G7 | 8 |
| 7 | | | | | M | 94C4 | E&M | 94G4 | E&M | 94G4 | E&M | 94G4 | E&M | 94G4 | E&M | 94G4 | | | | | 7 |
| 6 | E&M | 94A5 | M | 94F2 | M | 94C4 | E&M | 94F4 | E&M | 94F4 | E&M | 94F4 | E&M | 94F4 | E&M | 94F4 | E&M | 94A4 | M | 86H6 | 6 |
| 5 | | | | | M | 94C4 | E&M | 94F4 | E&M | 94F4 | E&M | 94F4 | E&M | 94F4 | E&M | 94F4 | | | | | 5 |
| 4 | E&M | - | | | M | 94C4 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | - | E&M | - | M | 86G3 | 4 |
| 3 | | | | | M | 94C4 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | - | | | | | 3 |
| 2 | | | | | M | 94C4 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | 11964 | | | | | 2 |
| 1 | | | | | M | 94C4 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | - | | | | | 1 |
| COIL | | 94A5 | | 94A7 | | 94F1 | | 94A4 | | 94A4 | | 94A4 | | 94A4 | | 94A4 | | 94A4 | S-87G7 | | COIL |
| | | | | | | | | | | | | | | | | | | | P-94A7 | | |

RELAY

| DESIG | XPRE | | MT39 | | QTTA | | | |
|---|---|---|---|---|---|---|---|---|
| CODE | AF97 | | AJ12 | | AJ12 | | | |
| OPTION | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | | | EBM | - | EBM | - | | |
| 11 | | | EBM | - | EBM | - | | |
| 10 | | | EBM | - | EBM | - | | |
| 9 | | | EBM | - | EBM | - | | |
| 8 | M | 37H0 | EBM | - | EBM | - | | |
| 7 | | | EBM | - | EBM | - | | |
| 6 | M | 36H6 | EBM | 95C0 | EBM | 95C0 | | |
| 5 | | | EBM | 95D0 | EBM | 95C0 | | |
| 4 | M | 96H3 | EBM | 9500 | EBM | 9500 | | |
| 3 | | | EBM | 9500 | EBM | 95D0 | | |
| 2 | | | EBM | - | EBM | - | | |
| 1 | | | EBM | - | EBM | - | | |
| COIL | | S-87H0 | | 7904 | | 95A0 | | |
| | | P-94A5 | | | | | | |

RELAY

| DESIG | CKG3 |
|---|---|
| CODE | AJ700 |
| OPTION | |
| 24 | - |
| 23 | 94C4 |
| 22 | 111A/B7 |
| 21 | 111A/D7 |
| 20 | 110C8 |
| 19 | 110G4 |
| 18 | 110D7 |
| 17 | 110C2 |
| 16 | 110H1 |
| 15 | 110C0 |
| 14 | - |
| 13 | - |
| 12 | - |
| 11 | - |
| 10 | 94E4 |
| 9 | 94F4 |
| 8 | 94D4 |
| 7 | 94D4 |
| 6 | 94E4 |
| 5 | 94E4 |
| 4 | - |
| 3 | - |
| 2 | - |
| 1 | - |
| COIL | 15G7 |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| XCOS | 94A7 | 13J (RES) |
| XPRE | 94A6 | 13J (RES) |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [15]PG00-14 | 94A4 | 185A |
| [5]PRE0-4 | 94A4 | 185A |
| MT39 | 7904 | 186A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| NET | 94A5 | 18DJ |
| PRI | 94A4 | 18DJ |

DRAWING ISSUE

| | |
|---|---|
| 30D | N.T. |
| 32A | L.A. R.W. AHO |
| 34A | T.S. GOL AHO |
| 35D | T.S. GOL AHO |
| 37D | R.A. |
| 39D | R.A. |
| 43D | |

# PART OF APP FIG. 117 (MFR DISC.)

RELAY

| DESIG | CDA0 | | CDA1 | | CDA2 | | CDA3 | | CDA4 | | CDAP | | CDAS | | CDB0 | | CDB1 | | CDB2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AF530 | | AF530 | | AF530 | | AF530 | | AJ506 | | AJ506 | | AF530 | | AF530 | | AF530 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | - | | | | | E&M | - | E&M | - | E&M | - | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | E&M | 95D5 | E&M | 95C5 | E&M | 95D5 | E&M | 95D5 | E&M | 95D5 | M | - | M | - | E&M | 95H2 | E&M | 95G2 | E&M | 95H2 | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | E&M | 95C5 | E&M | 95C6 | E&M | 95C5 | E&M | 95C4 | E&M | 95C4 | E&M | 95A4 | E&M | 95A4 | E&M | 95G3 | E&M | 95F3 | E&M | 95G2 | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | E&M | 95C5 | E&M | 9585 | E&M | 95C5 | E&M | 95C4 | E&M | 95C4 | E&M | 95C4 | E&M | 95D4 | E&M | 95F2 | E&M | 95F2 | E&M | 95F2 | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | E&M | 95A6 | E&M | 95A6 | E&M | 95A5 | E&M | 95A5 | E&M | 95A5 | E&M | - | E&M | - | E&M | 95F3 | E&M | 95E2 | E&M | 95E3 | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | E&M | - | E&M | - | E&M | - | E&M | - | E&M | - | | | | | E&M | - | E&M | - | E&M | - | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 95A2 | | 95A2 | | 95A2 | | 95A2 | | 95A2 | | 95A3 | | 95B3 | | 95D1 | | 95D1 | | 95D1 | COIL |

RELAY

| DESIG | CDB3 | | CDB4 | | CDBP | | CDBS | | CDT1 | | CDT2 | | CDT3 | | CDT4 | | | | RCTS | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AF530 | | AJ506 | | AJ506 | | AF522 | | AF522 | | AF522 | | AF522 | | | | AJ505 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | E&M | - | E&M | - | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | E&M | 95H1 | E&M | 95H1 | M | - | M | - | M | - | M | - | M | - | M | - | | | M | - | 10 |
| 9 | | | | | | | | | | | | | | | | | | | B | 3686 | 9 |
| 8 | E&M | 95G1 | E&M | 95G1 | E&M | 95E1 | E&M | 95G1 | &M | - | &M | - | &M | - | &M | - | | | M | - | 8 |
| 7 | | | | | | | | | | | | | | | | | | | B | - | 7 |
| 6 | E&M | 95F1 | E&M | 95F1 | E&M | 95G1 | E&M | 95H1 | &M | - | &M | - | &M | - | &M | - | | | M | 29A/09 | 6 |
| 5 | | | | | | | | | | | | | | | | | | | B | 29A/09 | 5 |
| 4 | E&M | 95F2 | E&M | 95E2 | E&M | - | E&M | - | M | 57B/E6 | M | 57B/E6 | M | 57B.E7 | M | 57B.E7 | | | M | 124E3 | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | E&M | - | E&M | - | | | | | | | | | | | | | | | M | 29A/86 | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 95D1 | | 95D1 | | 95D2 | | 95D2 | | 95B3 | | 95C3 | | 95F0 | | 95G0 | | | | 28B/89 | COIL |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C58

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 65

PRINTED IN U.S.A.

STABILO

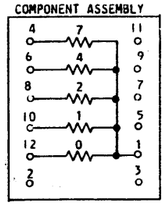
E-7422-A-2(8-64)

# PART OF APP FIG. 117 (MFR DISC.)

RELAY

| DESIG | SG | | TER3 | | VG | | XCDA | | XCD3 | | IPRS | | TNAN | | CPNT | | CPNT | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF16 | | AJ503 | | AF16 | | AF97 | | AF97 | | AJ505 | | AJ505 | | AF114 ZZH | | AF55 AR | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | E8M | 63G1 | M | - | | | | | | | | | | | M | 38H5 | | | 12 |
| 11 | | | E8M | 63H1 | | | | | | | | | | | | | M | 38H6 | | | 11 |
| 10 | M | - | E8M | 107C6 | M | - | | | | | M | 11CH5 | M | - | M | 38H6 | BM | 15B1 | | | 10 |
| 9 | | | E8M | 105C1 | | | | | | | B | 16A3 | B | 30A/E8 | | | M | - | | | 9 |
| 8 | E8M | - | EM8 | 308/87 | E8M | - | M | 87G8 | M | 87G2 | M | 16A2 | M | 30B/E8 | BM | 37D3 | BM | 37D3 | | | 8 |
| 7 | B | 97E7 | E8M | 116E2 | B | - | | | | | B | 29A/D9 | B | 3686 | | | B | 37C1 | | | 7 |
| 6 | E8M | 97G3 | EM8 | 398/E8 | E8M | - | M | 86H6 | M | 86H6 | M | 29A/D9 | M | | BM | 38H5 | BM | 40EI | | | 6 |
| 5 | | | EM8 | 37D7 | | | | | | | B | 29A/G5 | B | 29A/G6 | | | M | - | | | 5 |
| 4 | E8M | 1118/H0 | E8M | - | E8M | - | M | 86G3 | M | 86H3 | M | 124D1 | M | 29A/G5 | M | 39B/C7 | BM | 39B/C8 | | | 4 |
| 3 | | - | E8M | 98GJ | | | | | | | | | | | | | M | - | | | 3 |
| 2 | M | - | E8M | 92B6 | M | - | | | | | M | 29A/D6 | M | 124F3 | B | 37C1 | M | - | | | 2 |
| 1 | M | 1118/A0 | E8M | 92C6 | M | 1118/30 | | | | | | | | | | | M | - | | | 1 |
| COIL | | 94D6 | | 17A4 | | 94D6 | | S-87G8 P-95A3 | | S-87G1 P-95D2 | | 28B,G9 | | 28B/B9 | | 38D5 | | 38D5 | | | COIL |

COMPONENT ASSEMBLY




| DESIG | CDA | | CDa | |
|---|---|---|---|---|
| CODE-[2]ED-94823-( )G157 | | | | |
| OPTION | | | | |
| COMPONENT CODE | DESIG | LOC | DESIG | LOC |
| RESISTOR 0 | CDA0 | 95A4 | CDa0 | 95E0 |
| 1 | CDA1 | 9584 | CDa1 | 95F0 |
| 2 | CDA2 | 95a4 | CDa2 | 95F0 |
| 4 | CDA4 | 95C4 | CDa4 | 95G0 |
| 7 | CDA7 | 95D4 | CDa7 | 95H0 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [5]CDAOP-4P | 95A2 | 177C |
| [5]CDAOS-4S | 9582 | |
| [5]CDaOP-4P | 95C1 | |
| [5]CDaOS-4S | 95E1 | |
| CDT1 | 9583 | 185A |
| ~~CDT2~~ | 95C3 | |
| CDT3 | 95F0 | |
| CDT4 | 95G0 | |
| SG | 94D6 | |
| TER3 | 17A4 | |
| VG | 94D6 | |
| IPRS | 28B/G9 | 186A |
| RCTS | 28B/B9 | |
| TNAN | 28B/B9 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| PBY | 28B/B5 | 18AG |

# APP FIG. 118 (MFR DISC.)

RELAY

| DESIG | CDO | | CD1 | | CD2 | | CD4 | | CD7 | | CD10 | | CD15 | | CDPO | | CDP1 | | CDP2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | 94H1 | 12 |
| 11 | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | 11 |
| 10 | E8M | - | E8M | 94A1 | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | 94D1 | E8M | 94D1 | E8M | - | 10 |
| 9 | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | - | E8M | 94A1 | E8M | 94F1 | E8M | 94E1 | E8M | 94E1 | 9 |
| 8 | EM8 | 94A1 | EM8 | 94A1 | EM8 | 94A1 | EM8 | 9481 | EM8 | 94A1 | EM8 | - | EM8 | - | EM8 | 94F1 | EM8 | 94F1 | EM8 | 94F1 | 8 |
| 7 | E8M | 9481 | E8M | 9481 | E8M | 9481 | E8M | 9481 | E8M | 94A1 | E8M | - | E8M | - | E8M | 94G1 | E8M | 94G1 | E8M | 94G1 | 7 |
| 6 | EM8 | 94C1 | EM8 | 9481 | EM8 | 9481 | EM8 | 9481 | EM8 | 94A1 | EM8 | - | EM8 | - | EM8 | 94G1 | EM8 | 94G1 | EM8 | 94G1 | 6 |
| 5 | EM8 | 94C1 | EM8 | 94C1 | EM8 | 94C1 | EM8 | 94C1 | EM8 | 94C1 | EM8 | - | EM8 | - | EM8 | 94H1 | EM8 | 94H1 | EM8 | 94G1 | 5 |
| 4 | E8M | - | E8M | 9486 | E8M | - | E8M | - | E8M | - | E8M | - | E8M | 94B5 | E8M | - | E8M | - | E8M | - | 4 |
| 3 | E8M | - | E8M | - | E8M | 9480 | E8M | 9480 | E8M | 9480 | E8M | - | E8M | - | E8M | - | E8M | - | E8M | 94E0 | 3 |
| 2 | E8M | - | E8M | 94C0 | E8M | 9480 | E8M | 9480 | E8M | 9480 | E8M | 94A0 | E8M | - | E8M | - | E8M | 94F0 | E8M | 94E0 | 2 |
| 1 | E8M | 94C0 | E8M | 94C0 | E8M | 9480 | E8M | 9480 | E8M | 9480 | E8M | 94A0 | E8M | 94A0 | E8M | 94F0 | E8M | 94F0 | E8M | 94E0 | 1 |
| COIL | | 9385 | | 9385 | | 9385 | | 9385 | | 9385 | | 9385 | | 93B5 | | 93C5 | | 93C5 | | 93C5 | COIL |

RELAY

| DESIG | CDP4 | | CDP7 | | CDP10 | | CDP15 | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | E8M | - | E8M | - | E8M | - | E8M | 94A1 | | | | | | | | | | | | | 12 |
| 11 | E8M | - | E8M | - | E8M | - | E8M | - | | | | | | | | | | | | | 11 |
| 10 | E8M | - | E8M | - | E8M | - | E8M | 94D1 | | | | | | | | | | | | | 10 |
| 9 | E8M | 94E1 | E8M | 94E1 | E8M | 94E1 | E8M | 94D1 | | | | | | | | | | | | | 9 |
| 8 | EM8 | 94G1 | EM8 | 94F1 | EM8 | 94E1 | EM8 | - | | | | | | | | | | | | | 8 |
| 7 | E8M | 94G1 | E8M | 94F1 | E8M | 94E1 | E8M | - | | | | | | | | | | | | | 7 |
| 6 | EM8 | 94G1 | EM8 | 94F1 | EM8 | 94E1 | EM8 | - | | | | | | | | | | | | | 6 |
| 5 | EM8 | 94H1 | EM8 | 94H1 | EM8 | 94F1 | EM8 | - | | | | | | | | | | | | | 5 |
| 4 | E8M | - | E8M | - | E8M | - | E8M | - | | | | | | | | | | | | | 4 |
| 3 | E8M | 94E0 | E8M | 94E0 | E8M | - | E8M | - | | | | | | | | | | | | | 3 |
| 2 | E8M | 94E0 | E8M | 94E0 | E8M | 94D0 | E8M | - | | | | | | | | | | | | | 2 |
| 1 | E8M | 94E0 | E8M | 94E0 | E8M | 94D0 | E8M | 94D0 | | | | | | | | | | | | | 1 |
| COIL | | 93C5 | | 93C5 | | 93C5 | | 93C5 | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [7]CDO,1,2,4,7,10,15 | 9385 | 185A |
| [7]CDPO,1,2,4,7,10,15 | 93C5 | |

DRAWING ISSUE

| | |
|---|---|
| 30D | CM... |
| 32A | CMD CLK Amp |
| 33D | CMD CLK Amp TS Gnl Amp |
| 34A | IM |
| 37D | |
| 43D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C59

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 65

PRINTED IN U.S.A.

E-7422-A-2(8-64)

SD-26002-01-C59

STABILO

# APP FIG. 119 (MFR DISC.)

RELAY

| DESIG | CDR0 | | CDR1 | | CDR2 | | CDR4 | | CDR7 | | CDRA0 | | CDRA1 | | CDRA2 | | CDRA3 | | EGD | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ12 | | AJ12 | | AJ12 | | AJ12 | | AJ12 | | AJ12 | | AJ12 | | AJ12 | | AJ12 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 111B/B2 | EBM | 111B/B2 | EBM | 111B/B2 | EBM | 111B/B2 | EBM | - | 12 |
| 11 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 111B/G4 | 11 |
| 10 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 110C3 | EBM | - | EBM | - | EBM | - | 10 |
| 9 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 94F4 | EBM | 94F4 | EBM | 94F4 | EBM | 94F4 | EBM | 111B/D4 | 9 |
| 8 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 111B/C4 | EBM | 111B/C4 | EBM | 111B/C4 | EBM | 111B/C3 | EMB | - | 8 |
| 7 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 111A/C1 | EBM | 111B/H1 | EBM | 111B/H2 | EBM | - | EBM | 111B/F4 | 7 |
| 6 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 111A/C1 | EBM | 111A/B1 | EBM | 111A/C1 | EBM | - | EMB | 111B/G0 | 6 |
| 5 | EBM | - | EBM | - | EBM | 93H7 | EBM | 93H7 | EBM | 93H7 | EBM | 110B1 | EBM | 110C3 | EBM | 110B3 | EBM | 110B3 | EMB | 111B/E1 | 5 |
| 4 | EBM | - | EBM | 93H6 | EBM | 93H7 | EBM | 93H7 | EBM | 93H7 | EBM | 111B/B4 | EBM | 111B/C3 | EBM | 111B/C3 | EBM | - | EBM | 111B/D0 | 4 |
| 3 | EBM | 93H6 | EBM | 93H6 | EBM | 93H7 | EBM | 93H7 | EBM | - | EBM | 111B/H2 | EBM | 110A1 | EBM | 110A1 | EBM | 110C3 | EBM | 110D7 | 3 |
| 2 | EBM | 93G8 | EBM | 93H8 | EBM | 93H8 | EBM | - | EBM | - | EBM | 111B/G0 | EBM | 110A4 | EBM | 110A3 | EBM | 110A4 | EBM | 111B/A1 | 2 |
| 1 | EBM | 93F8 | EBM | 93F8 | EBM | 93G8 | EBM | 93F8 | EBM | 93F8 | EBM | 110A3 | EBM | 110A4 | EBM | 110A6 | EBM | 110A4 | EBM | 110A1 | 1 |
| COIL | | 93E6 | | 93E6 | | 93E6 | | 93F7 | | 93F6 | | 93F9 | | 93F9 | | 93G9 | | 93G9 | | 110D6 | COIL |

RELAY

| DESIG | FGA | | HGD | | HT | | IPR | | LGA | | NPRC | | PRA0-3 | | PRA4 | | PRC | | PRR | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ72 | | AJ508 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AF32 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 111B/B1 | EBM | - | EBM | 110F8 | BM | - | M | - | EBM | 111B/A2 | EBM | - | EBM | - | EBM | - | EMB | 110H0 | 12 |
| 11 | EBM | - | EBM | - | EBM | 111B/A1 | BM | 110H8 | | | EBM | - | EBM | - | EBM | - | EBM | 88A/E6 | | | 11 |
| 10 | EBM | 111B/D1 | EBM | - | EBM | - | BM | 111A/B7 | BM | 111B/H4 | EBM | 94G4 | EBM | - | EBM | - | EBM | 94G4 | EBM | 111B/E4 | 10 |
| 9 | EBM | 110C4 | EBM | - | EBM | 110A1 | BM | 88A/C1 | | | EBM | 16A2 | EBM | - | EBM | 111A/C7 | EBM | 16A2 | | | 9 |
| 8 | EMB | 111B/E1 | EMB | - | EMB | 110C7 | BM | - | BM | 111B/G4 | EMB | - | EMB | - | EMB | 111B/A7 | EMB | - | EBM | - | 8 |
| 7 | EBM | - | EBM | 111B/G1 | EBM | 110C2 | BM | - | | | EBM | 110A5 | EBM | 111B/C2 | EBM | 111B/C2 | EBM | 110A4 | | | 7 |
| 6 | EMB | 111B/C2 | EMB | 111B/D0 | EMB | 111B/C0 | BM | - | BM | 111B/E4 | EMB | 88A/G1 | EMB | 111B/B2 | EMB | 111B/B2 | EMB | 88A/G2 | EMB | - | 6 |
| 5 | EBM | 110A8 | EMB | 111B/B0 | EMB | 111B/D0 | BM | 88A/G2 | | | EMB | 111B/A7 | EMB | 111B/B2 | EMB | 111B/B2 | EMB | 111B/B7 | | | 5 |
| 4 | EBM | 110A1 | EBM | 111B/B1 | EBM | 111B/G1 | BM | 110G4 | BM | 111B/A0 | EBM | 111A/C7 | EBM | 110A2 | EBM | 110A2 | EBM | 111A/C7 | EBM | - | 4 |
| 3 | EBM | - | EBM | 110C7 | EBM | 111A/C1 | BM | 110G7 | | | EBM | 111A/B7 | EBM | 110F6 | EBM | 110F6 | EBM | 111A/B7 | | | 3 |
| 2 | EBM | 110B7 | EBM | 110C3 | EBM | 111A/B1 | BM | 110F0 | M | - | EBM | 111B/C1 | EBM | 111B/C2 | EBM | 111B/C2 | EBM | 111B/D1 | EBM | - | 2 |
| 1 | EBM | - | EBM | 110A1 | EBM | 111A/A1 | BM | 110G7 | M | - | EBM | 88A/D1 | EBM | 111B/D2 | EBM | 111B/D2 | EBM | 88A/D2 | | | 1 |
| COIL | | 110A9 | | 110C6 | | 110C6 | | 110G6 | | 111B/A3 | | 110F0 | | 94G4 | | 94G4 | | 110F0 | | 110G0 | COIL |

RELAY

| DESIG | ROT | | RST | | SGA | | SR1 | | SR2 | | SR3 | | TGA | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AF48 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | M | - | EBM | 111B/B1 | EBM | 111B/G1 | EBM | 111B/D2 | EBM | 111B/G2 | EBM | - | | | | | | | 12 |
| 11 | EBM | 111A/D1 | B | - | EBM | 111B/B1 | EBM | 111B/D2 | EBM | 111B/G2 | EBM | 111B/F2 | EBM | 111B/B1 | | | | | | | 11 |
| 10 | EBM | - | BM | - | EBM | 111B/D2 | EBM | 22B8 | EBM | 110B3 | EBM | 110C3 | EBM | - | | | | | | | 10 |
| 9 | EBM | 110D2 | B | - | EBM | 110C3 | EBM | - | EBM | 110B5 | EBM | 110B5 | EBM | - | | | | | | | 9 |
| 8 | EMB | - | BM | - | EMB | 111B/E1 | EMB | - | EMB | 41B/A7 | EMB | 41B/A7 | EMB | - | | | | | | | 8 |
| 7 | EBM | - | B | 110A2 | EBM | 110A1 | EBM | 110D1 | EBM | 110D1 | EBM | 110D1 | EBM | 110A1 | | | | | | | 7 |
| 6 | EMB | - | BM | - | EMB | 110A8 | EMB | - | EMB | 110A1 | EMB | 110B1 | EMB | 110B8 | | | | | | | 6 |
| 5 | EMB | 111B/G2 | B | 111A/B0 | EMB | 110B8 | EMB | 110A1 | EMB | 110B1 | EMB | 110B1 | EMB | 110B8 | | | | | | | 5 |
| 4 | EBM | 111B/G3 | BM | - | EBM | 111B/C1 | EBM | 110B2 | EBM | 110C2 | EBM | 110C2 | EBM | 111B/C2 | | | | | | | 4 |
| 3 | EBM | 111B/D2 | B | 110C1 | EBM | 110B8 | EBM | - | EBM | 111A/A1 | EBM | 111A/B1 | EBM | 110C4 | | | | | | | 3 |
| 2 | EBM | 111A/B1 | M | 84C3 | EBM | 111B/H5 | EBM | 111A/A0 | EBM | 111A/B0 | EBM | 111A/C0 | EBM | 111B/C2 | | | | | | | 2 |
| 1 | EBM | 111A/A1 | B | 110E7 | EBM | 110A7 | EBM | 41A/A9 | EBM | 41A/A8 | EBM | 41A/A9 | EBM | 110A8 | | | | | | | 1 |
| COIL | | 110F9 | | 110E0 | | 110B9 | | 110A0 | | 110B0 | | 110B0 | | 110B9 | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [3]CDR0-2 | 93E6 | |
| CDR4 | 93F7 | |
| CDR7 | 93F8 | |
| [2]CDRA0,1 | 93F9 | |
| [2]CDRA2,3 | 93G9 | 185A |
| EGD | 110D6 | |
| FGA | 110A9 | |
| HGD | 110C6 | |
| HT | 110C6 | |
| [2]IPR | 110G6 | |
| LGA | 111B/A3 | 186A |
| NPRC | 110F0 | |
| [5]PRA0-4 | 94G4 | |
| PRC | 110F0 | |
| PRR | 110G0 | |
| ROT | 110F9 | 185A |
| RST | 11E0 | |
| SGA | 110B9 | |
| SR1 | 110A0 | |
| [2]SR2,3 | 110B0 | |
| TGA | 110B9 | |

DRAWING ISSUE

| | |
|---|---|
| 30D | CMC ELM AMA |
| 32A | CMC ELM AMA T3 RA |
| 33D | CMC ELM AMA |
| 34A | T3 RA AMA |
| 37D | SSL |
| 39D | RA |
| 43D | |

ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C60

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

E-3432-A-2(8-64)

# PART OF APP FIG. 120 (MFR DISC.)

RELAY

| DESIG | 2LV | | 2WG | | 4WF | | CPML | | DN | | KLPO | | KLP1 | | KLP2 | | KLPR | | KTPO | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ512 | | AJ501 | | AJ501 | | AJ503 | | AJ503 | | AF501 | | AF501 | | AF501 | | AJ503 | | AF501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 116H1 | EBM | 116G1 | EBM | 77E6 | EBM | 116E8 | EBM | 105C0 | BM | - | BM | - | BM | - | EBM | 98C2 | BM | - | 12 |
| 11 | BM | 98A1 | EBM | 77E6 | EBM | a | EBM | - | EBM | 308/B7 | M | - | M | - | M | - | EBM | 98C2 | M | - | 11 |
| 10 | BM | 98A1 | EBM | 77F6 | EBM | 348/E1 | EBM | 116E9 | EBM | 105H0 | BM | 117A5 | BM | 117A4 | BM | 117A4 | EBM | 98D2 | BM | - | 10 |
| 9 | BM | 98E3 | EBM | 3H2 | EBM | 11707 | EBM | 11698 | EBM | 105H0 | M | - | M | - | M | - | EBM | - | M | - | 9 |
| 8 | BM | 98E2 | EMB | 117C4 | EMB | 11705 | EMB | 87H2 | EMB | 11785 | BM | - | BM | 11784 | BM | 11784 | EMB | - | M | - | 8 |
| 7 | BM | 98E1 | EBM | 117C7 | EBM | 10806 | EBM | - | EBM | - | M | - | M | - | M | - | EBM | - | M | - | 7 |
| 6 | BM | 98F1 | EMB | 37C7 | EMB | 11704 | EMB | - | EMB | - | BM | - | BM | 11785 | EMB | 98H0 | EMB | 98H0 | BM | - | 6 |
| 5 | BM | 98F1 | EMB | 318/E4 | EMB | 77F6 | EMB | - | EMB | - | M | - | M | - | M | 98H2 | EMB | - | M | - | 5 |
| 4 | BM | 116F5 | EBM | 10706 | EBM | 1038/D4 | EBM | - | EBM | 107D5 | BM | - | BM | 98H2 | BM | 98H2 | EBM | - | BM | - | 4 |
| 3 | BM | 98G8 | EBM | 3805 | EBM | 358/H1 | EBM | - | EBM | - | M | - | M | - | M | 98H2 | EBM | 98H5 | M | - | 3 |
| 2 | BM | - | EBM | 788/C0 | EBM | 92A6 | EBM | - | EBM | - | BM | 98G2 | BM | 98G2 | BM | 98G2 | EBM | - | BM | 98E3 | 2 |
| 1 | BM | - | EBM | - | EBM | 92C6 | EBM | - | EBM | - | M | - | M | - | M | - | EBM | - | M | - | 1 |
| COIL | | 116F3 | | 88D/D6 | | 880/E6 a 358/A4 98H3 | | 116E7 | | 105C0 | | 99C1 | | 98D1 | | 98D1 | | 98H5 | | 98A1 | COIL |

RELAY

| DESIG | KTP1 | | KTP2 | | KTPR | | LATA | | LITA | | LST | | MT28 | | MT30 | | MT31 | | MT32 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF501 | | AF501 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ12 | | AJ12 | | AJ12 | | AJ12 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | - | BM | - | EBM | 98H2 | EBM | - | EBM | - | EBM | 116A1 | EBM | 11846 | EBM | 98A2 | EBM | 116A1 | EBM | 98C2 | 12 |
| 11 | M | - | M | - | EBM | 98H2 | EBM | - | EBM | - | EBM | 116A1 | EBM | 11846 | EBM | 98A2 | EBM | 116F0 | EBM | 98C2 | 11 |
| 10 | BM | - | BM | - | EBM | 98B2 | EBM | - | EBM | - | EBM | 116C1 | EBM | 11886 | EBM | 98B2 | EBM | - | EBM | 98D2 | 10 |
| 9 | M | - | M | - | EBM | - | EBM | - | EBM | - | EBM | 116C1 | EBM | 11806 | EBM | 11936 | EBM | - | EBM | - | 9 |
| 8 | BM | - | BM | - | EMB | - | EMB | - | EMB | - | EMB | 116D1 | EBM | 11906 | EBM | 11936 | EBM | - | EBM | 64H6 | 8 |
| 7 | M | - | M | - | EBM | - | EBM | - | EBM | - | EBM | 116G0 | EBM | 11806 | EBM | 11936 | EBM | 18F8 | EBM | 11706 | 7 |
| 8 | BM | - | BM | - | EMB | 98H0 | EMB | 117A2 | EMB | - | EMB | 15H3 | EBM | - | EBM | 11946 | EBM | 37C7 | EBM | - | 6 |
| 5 | M | - | M | 98F2 | EMB | - | EMB | - | EMB | 318/E4 | EMB | 15C0 | EBM | - | EBM | 11936 | EBM | - | EBM | 62A/F6 | 5 |
| 4 | BM | 98F3 | BM | 98G2 | EBM | - | EBM | - | EBM | 117C4 | EBM | 1367 | EBM | 62A/F4 | EBM | 11862 | EBM | - | EBM | 8744 | 4 |
| 3 | M | - | M | 98F2 | EBM | - | EBM | - | EBM | 117C3 | EBM | 11661 | EBM | - | EBM | 11904 | EBM | 18F7 | EBM | 119F4 | 3 |
| 2 | BM | 98E2 | BM | 98E2 | EBM | - | EBM | 117C3 | EBM | 117A3 | EBM | 11640 | EBM | - | EBM | 11805 | EBM | - | EBM | 119E6 | 2 |
| 1 | M | - | M | - | EBM | - | EBM | 117A7 | EBM | 117A7 | EBM | 119E3 | EBM | - | EBM | - | EBM | 16B7 | EBM | - | 1 |
| COIL | | 9881 | | 9881 | | 98H5 | | 11704 | | 11707 | | 116A2 | | 79H6 | | 79H6 | | 79H6 | | 79H6 | COIL |

RELAY

| DESIG | MT33 | | MT34 | | MT35 | | NPC | | NPCA | | NPM | | NST | | PRL0 | | PRL1 | | PRL2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AG10 | | AJ12 | | AJ12 | | AJ512 | | AJ501 | | AJ512 | | AJ501 | | AJ509 | | AJ509 | | AJ509 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | EBM | - | EBM | 79H7 | BM | 116H0 | EBM | - | BM | 116H0 | EBM | 116E2 | EM | 98A0 | EM | 98A0 | EM | 98A0 | 12 |
| 11 | M | 117C7 | EBM | - | EBM | 79H7 | BM | - | EBM | - | BM | - | EBM | 11662 | M | 98A0 | M | 98B0 | M | - | 11 |
| 10 | M | 117C7 | EBM | 11782 | EBM | 79G7 | BM | - | EBM | 93A6 | BM | - | EBM | | M | 98A0 | M | - | M | 98B0 | 10 |
| 9 | B | 117A1 | EBM | - | EBM | 11668 | BM | - | EBM | 9836 | BM | - | EBM | 98E3 | M | 98C0 | M | 98C0 | M | 98C0 | 9 |
| 8 | M | 117G2 | EBM | 11745 | EBM | 11726 | BM | - | EMB | 9836 | BM | - | EMB | 11660 | EBM | 98E1 | EBM | 98E1 | EBM | 98F1 | 8 |
| 7 | B | - | EBM | 11706 | EBM | 11767 | BM | - | EBM | 98A6 | BM | - | EBM | - | M | 98C0 | M | 9800 | M | 64G4 | 7 |
| 6 | M | 117C5 | EBM | - | EBM | 98F0 | BM | - | EMB | 98C6 | BM | - | EMB | 396/E8 | EMB | 98E0 | EMB | 98F0 | EMB | 98F0 | 6 |
| 5 | B | 117C4 | EBM | - | EBM | 18C7 | BM | 9866 | EMB | 9860 | BM | - | EMB | 37D7 | M | 9800 | M | 64G3 | M | 9800 | 5 |
| 4 | M | - | EBM | - | EBM | 11736 | BM | 9805 | EBM | - | BM | 116F5 | EBM | - | EBM | 64G3 | EBM | 98E0 | EBM | 98E0 | 4 |
| 3 | B | - | EBM | - | EBM | 118F7 | BM | - | EBM | - | BM | - | EBM | 398/C7 | M | 9861 | M | 9861 | M | 98H1 | 3 |
| 2 | M | - | EBM | - | EBM | 118F7 | BM | - | EBM | - | BM | - | EBM | - | M | 45E2 | M | 45E2 | M | 45E2 | 2 |
| 1 | M | - | EBM | - | EBM | 16A3 | BM | - | EBM | - | BM | - | EBM | 1632 | M | 16A3 | M | 16A3 | M | 16A3 | 1 |
| COIL | | 11736 | | 117C6 | | 79C5 | | 116E3 | | 9806 | | 116E3 | | 11660 | | 9886 | | 9886 | | 9836 | COIL |

RELAY

| DESIG | PRL3 | | PRL4 | | RLL | | SCAK | | SCAL | | SLPR | | STK | | STKA | | STL0 | | STL1 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ509 | | AJ509 | | AJ503 | | AF122 | | AF89 | | AF507 | | AJ513 | | AJ501 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EM | - | EM | - | EBM | - | M | 116F1 | | | M | 98C1 | PJEM | 11642 | EBM | 398/F7 | EBM | 116F2 | EBM | 116F2 | 12 |
| 11 | M | 9880 | M | - | EBM | - | M | 11660 | | | M | 98C1 | BM | 6403 | EBM | 66H7 | EBM | 116F2 | EBM | 116F2 | 11 |
| 10 | M | 9880 | M | - | EBM | - | BM | 118E5 | | | BM | 9801 | EBM | 398/E6 | EBM | | EBM | 11640 | EBM | 11680 | 10 |
| 9 | M | 6404 | M | 6404 | EBM | - | | | | | M | - | PMEB | 116E1 | EBM | 1367 | EBM | - | EBM | 11681 | 9 |
| 8 | EBM | 98F1 | EBM | 9861 | EMB | 117A1 | BM | 118E6 | M | 69A4 | BM | 98H5 | EMB | 11641 | EMB | 11641 | EMB | - | EMB | 398/E5 | 8 |
| 7 | M | 9800 | M | - | EBM | 11706 | | | a | - | a | 11706 | BM | 11681 | EBM | 18E7 | EBM | - | EBM | 1866 | 7 |
| 6 | EMB | 98F1 | EMB | 98E1 | EMB | - | BM | 6403 | A | - | BM | - | EBM | 11681 | EMB | 116E0 | EMB | 6405 | EMB | 6403 | 6 |
| 5 | M | 9800 | M | - | EMB | - | | | a | - | M | - | BM | 116C1 | EMB | - | EMB | 116F5 | EMB | 116F5 | 5 |
| 4 | EBM | 98E0 | EBM | - | EBM | 9835 | BM | 6409 | | | BM | - | PMEB | 11601 | EBM | 12384 | EBM | - | EBM | 1307 | 4 |
| 3 | M | 98H1 | M | 98H1 | EBM | - | | | | | M | - | BM | 11601 | EBM | 9868 | EBM | | EBM | 119E4 | 3 |
| 2 | M | 45E2 | M | 45E2 | EBM | 117C2 | M | 116F2 | | | M | - | PJEM | 11926 | EBM | 119F4 | EBM | 77E0 | EBM | 18E9 | 2 |
| 1 | M | 16A3 | M | 16A4 | EBM | - | M | 118E6 | | | M | - | BM | 16A2 | EBM | - | EBM | - | EBM | 1632 | 1 |
| COIL | | 9836 | | 9836 | | 117A1 | | 116G8 | | 116H8 | | 98F8 | | 116F0 | | 11640 | | 11640 | | 11630 | COIL |

RELAY

| DESIG | STL2 | | STL3 | | STL4 | | STL5 | | STM | | STOK | | STPR | | | | TR20 | | TRRA | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AF501 | | AG55 | | AF507 | | | | AJ501 | | AJ501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 116F1 | EBM | 116F1 | EBM | 116F1 | EBM | 18E7 | BM | 398/F8 | | | M | 98A1 | | | EBM | 116E8 | EBM | 37D6 | 12 |
| 11 | EBM | 116F1 | EBM | 116F1 | EBM | 116F1 | EBM | 116F1 | M | - | | | M | 98A1 | | | EBM | 116E8 | EBM | - | 11 |
| 10 | EBM | 116C0 | EBM | 116C0 | EBM | 11600 | EBM | 116E0 | BM | 65F1 | M | 1907 | BM | 9881 | | | EBM | 11905 | EBM | 18H4 | 10 |
| 9 | EBM | 116C1 | EBM | 116C1 | EBM | 11601 | EBM | 116E1 | M | 116E0 | | | M | - | | | EBM | 116C8 | EBM | - | 9 |
| 8 | EMB | 398/E5 | EMB | 398/E5 | EMB | 398/E5 | EMB | 398/E5 | BM | 116A1 | BM | - | BM | 98H5 | | | EMB | 118F4 | EMB | - | 8 |
| 7 | EBM | 18G7 | EBM | 18G7 | EBM | 18F7 | EBM | 19F3 | M | - | B | - | B | - | | | EBM | 65F1 | EBM | - | 7 |
| 6 | EMB | 64G3 | EMB | 64G4 | EMB | 64G4 | EMB | 64G4 | BM | 116E1 | BM | 3707 | BM | - | | | EMB | - | EMB | 37G2 | 6 |
| 5 | EMB | 116F5 | EMB | 116F5 | EMB | 116F5 | EMB | 116F5 | M | 18H3 | B | 18H3 | M | - | | | EMB | 398/E7 | EMB | - | 5 |
| 4 | EBM | 18G7 | EBM | 19G8 | EBM | 18F8 | EBM | 37E6 | BM | 37E6 | M | - | BM | - | | | EBM | 7701 | EBM | - | 4 |
| 3 | EBM | 119E4 | EBM | 119E4 | EBM | 119F4 | EBM | 119G4 | M | - | | | M | - | | | EBM | 398/B7 | EBM | - | 3 |
| 2 | EBM | 18E8 | EBM | 19E9 | EBM | 18E8 | EBM | 12384 | BM | - | M | - | M | - | | | EBM | 119F5 | EBM | - | 2 |
| 1 | EBM | 16A3 | EBM | 16A3 | EBM | 16A3 | EBM | 16A4 | M | - | | | M | - | | | EBM | 119F3 | EBM | - | 1 |
| COIL | | 11680 | | 116C0 | | 11600 | | 11600 | | 116E0 | | 1907 | | 9868 | | | | 22E2 | | 37D5 | COIL |

RELAY

| DESIG | MT40 | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ12 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | | | | | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | | | | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | - | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | | | | | | | | | | | | | | | | | | | 8 |
| 7 | EBM | - | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | - | | | | | | | | | | | | | | | | | | | 6 |
| 5 | EBM | - | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | - | | | | | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 18C7 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | - | | | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 16A3 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 7966 | | | | | | | | | | | | | | | | | | | COIL |

DRAWING ISSUE

30D NE
32A CMC
33D CKC
34A UP
35D UP
38A RP
39D RP
43D

DRAWING ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C61

BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

PRINTED IN U.S.A.

SD-26002-01-C61

E-7422-A-2(8-64)

# PART OF APP FIG. 120 (MFR DISC.)

| DESIG CODE OPTION | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | DESIG CODE OPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| 2LV | 116E3 | |
| 2WG | 88D/D6 | |
| 4WF | 88D/E6 | |
| CPML | 116E7 | |
| DN | 105C0 | |
| KLP0 | 98C1 | |
| KLP1 | 98D1 | |
| KLP2 | 98D1 | 195A |
| KLPR | 98H5 | |
| KTP0 | 98A1 | |
| KTP1 | 98B1 | |
| KTP2 | 98d1 | |
| KTPR | 98H5 | |
| LBTd | 117D4 | |
| LITA | 117D7 | |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| LBT | 116A2 | |
| NPC | 116E3 | |
| NPCA | 9806 | |
| NPM | 116E3 | 185A |
| NST | 11660 | |
| [5]PRLO-4 | 9836 | |
| RL | 117G7 | |
| RLL | 117A1 | |
| SCAK | 11668 | 186A |
| SCAL | 116H9 | |
| SLPR | 98F9 | |
| STK | 116F0 | 185A |
| STKA | 116A0 | |
| STLO | 116A0 | |

NETWORK (CONT)

| DESIG | LOC | CODE |
|---|---|---|
| STL1 | 116J0 | |
| STL2 | 116d0 | |
| STL3 | 116C0 | |
| STL4 | 11600 | |
| STL5 | 11600 | 195A |
| STM | 116E0 | |
| STPR | 9809 | |
| STOKP | 1807 | |
| STOKS | 19E7 | |
| TR2D | 22E2 | |

| DRAWING ISSUE | |
|---|---|
| 30D | CM KM AM |
| 32A | CM KM AM |
| 39D | RP |
| 43D | RP |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C62

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

# APP FIG. 121 (MFR DISC.)

RELAY

| DESIG | LNP | | LNPR | | LPMK | | MS | | NLA | | NTA | | OHS | | PL8 | | PL81 | | PL8A | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AF519 | | AF512 | | AJ503 | | AF4 | | AJ507 | | AJ512 | | AJ501 | | AJ501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | E8M | 116C8 | E8M | 11608 | M | - | | | E8M | - | | | E8M | 10580 | 8M | 108C6 | E8M | 108C6 | E8M | 62A/E2 | 12 |
| 11 | E8M | 788/F1 | E8M | - | | | | | E8M | 71H5 | | | E8M | - | 8M | 62A/G8 | E8M | 62A/G8 | E8M | | 11 |
| 10 | E8M | 3H3 | E8M | - | M | 98C6 | | | E8M | - | M | 88A/G1 | E8M | 105HO | 8M | - | E8M | 78A/C4 | E8M | 63F2 | 10 |
| 9 | E8M | 3H3 | E8M | 3H3 | | | | | E8M | - | | | E8M | 105HO | 8M | 88B/C2 | E3M | 6682 | E3M | 6321 | 9 |
| 8 | EM8 | 31B/D4 | EM8 | | 8M | 37D6 | E8M | - | EM8 | 6980 | 8M | - | EM8 | - | 8M | - | EM8 | 108E6 | EM8 | - | 8 |
| 7 | E8M | 117E5 | E8M | - | 8 | - | | | E8M | - | | | E8M | - | 8M | 72A8 | E8M | - | E8M | - | 7 |
| 6 | EM8 | 98H4 | EM8 | - | 8M | - | EM8 | 117D2 | EM8 | - | 8M | - | EM8 | - | 8M | - | EM8 | 10883 | EM8 | 888/F6 | 6 |
| 5 | EM8 | - | EM8 | - | | | | | EM8 | 64A7 | | | EM8 | - | 8M | 64E7 | EM8 | - | EM8 | 62A/B2 | 5 |
| 4 | E8M | - | E8M | - | M | 98G5 | E8M | 117A5 | E8M | - | M | 41A/B7 | E8M | - | 8M | 66E2 | E8M | 66E1 | E8M | 61E8 | 4 |
| 3 | E8M | 11787 | E8M | - | | | | | E8M | - | | | E8M | - | 8M | 66C0 | E8M | 66F1 | E8M | 69H3 | 3 |
| 2 | E8M | - | E8M | - | M | - | | | E8M | 65C1 | | | E8M | - | 8M | - | E8M | - | E8M | 63A6 | 2 |
| 1 | E3M | - | E8M | - | | | | | E8M | - | | | E8M | - | 8M | - | E8M | - | E3M | 67A5 | 1 |
| COIL | | 116C9 | | 11609 | | 98G5 | | 117D2 | | 64G5 | | 1A4 | | 10580 | | 108C5 | | 66F2 | | 108A0 | COIL |

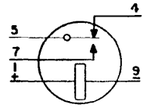
RELAY

| DESIG | PLFK | | PML | | PMLL | | SLN | | TPMK | | XLRL | | XPLF | | XSCA | | XSTG | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ508 | | AJ503 | | AJ503 | | AJ503 | | AF519 | | AF71 | | AF104 | | AF104 | | AF97 | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 103B/F6 | E8M | 11688 | E8M | 116F8 | E8M | 64H5 | M | - | | | | | | | | | | | 12 |
| 11 | | | E8M | 788/E1 | E8M | 69A4 | E8M | - | | | | | | | | | | | | | 11 |
| 10 | 8M | - | E8M | 116E8 | E8M | 18D7 | E8M | - | M | 98C6 | M | - | | | | | | | | | 10 |
| 9 | | | E8M | 3H2 | E8M | 3H2 | E8M | - | | | | | | | | | | | | | 9 |
| 8 | 8M | 31B/E4 | EM8 | 31B/D4 | EM8 | 65G1 | EM8 | - | 8M | 37C6 | M | 87H4 | M | 87H0 | M | 87H2 | M | 87G0 | | | 8 |
| 7 | | | E8M | 3H2 | E8M | 64A7 | E8M | - | 8 | | | | | | | | 8 | - | | | 7 |
| 6 | 8M | 31B/D5 | EM8 | 98H4 | EM8 | 64G2 | EM8 | - | 8M | 98F5 | M | 86E8 | M | 86G5 | M | 70C0 | M | 86A5 | | | 6 |
| 5 | | | EM8 | 64D3 | EM8 | 64D3 | EM8 | 64A9 | | | | | | | | | 8 | - | | | 5 |
| 4 | 8M | 11702 | E8M | 117E5 | E8M | 117A6 | E8M | - | M | - | M | 86H2 | M | 86G2 | M | 116E9 | M | 86H2 | | | 4 |
| 3 | | | E8M | 117A7 | E8M | 398/F8 | E8M | - | | | | | | | | | | | | | 3 |
| 2 | M | - | E8M | - | E8M | 116H6 | E8M | - | M | - | M | - | | | | | | | | | 2 |
| 1 | M | - | E3M | 116G7 | E8M | 116G7 | E8M | - | | | | | | | | | | | | | 1 |
| COIL | | 117F6 | | 11689 | | 116E9 | | 64H5 | | 98E5 | | S-87H4 P-117G5 | | S-87H0 P-117F5 | | S-87H1 P-116G8 | | S-87G0 P-11602 | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

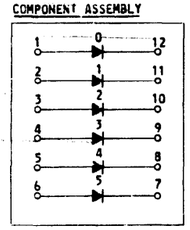



| DESIG | LOL |
|---|---|
| CODE | 316H |
| OPTION | |
| 9 | 99A5 |
| 8 | - |
| 7 | 36HO |
| 6 | - |
| 5 | 36HO |
| 4 | 36HO |
| 3 | - |
| 2 | - |
| 1 | 99A5 |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| XPLF | 117F5 | ~~KS-13368,L3,0.01~~ |
| XSCA | 11608 | KS-13368,L29,.01 |

COMPONENT ASSEMBLY




| DESIG | | P | | PA | |
|---|---|---|---|---|---|
| CODE-[2]ED-94823-( ) G133 | | | | | |
| OPTION | | | | | |
| COMPONENT | CODE | DESIG | LOC | DESIG | LOC |
| DIODE | | | | | |
| 0 | 426F | P0 | 116D7 | PA0 | 116C7 |
| 1 | | P1 | 116D7 | PA1 | 116C7 |
| 2 | | P2 | 116D7 | PA2 | 116C7 |
| 3 | | P3 | 116D7 | PA3 | 11687 |
| 4 | | P4 | 116C7 | PA4 | 11687 |
| 5 | | P5 | 116C7 | PA5 | 11687 |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| LGC | 116F9 | 13J (RES) |
| PLF | 117F5 | 13J (RES) |
| SCA | 116G9 | 13J (RES) |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| LNP | 116C9 | 185A |
| LNPR | 11609 | |
| LPMK | 98G5 | |
| MS | 117D2 | |
| NLA | 64G5 | |
| NTA | 16A4 | |
| OHS | 10580 | |
| PL8 | 108C5 | |
| PL81 | 66F2 | |
| PL8A | 108A0 | |
| PLFK | 117F6 | 186A |
| PML | 11689 | 185A |
| PMLL | 116E9 | |
| SLN | 64H5 | |
| TPMK | 98E5 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| PLF | 117E4 | KS-8512,L6A,442 |
| LOL | 9985 | KS-19151,L1,22 |

DRAWING ISSUE

| | |
|---|---|
| 30D | NLP PLF PML PMLL SLN TPMK XLRL XPLF XSCA XSTG |
| 32A | GMK PML PMLL SLN TPMK XLRL XPLF XSCA XSTG |
| 33D | GAR CLR LOL LP |
| 34A | 8HL PLF |
| 35D | LP 8HL PLF |
| 38A | PLF |
| 39D | PLF |
| 43D | |
| 45D | |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C63

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

SD-26002-01-C63

STABILO

E-7422-A-7(8-64)

## APP FIG. 122 (MFR DISC.)

| DESIG | [10] CDS-- | |
|---|---|---|
| CODE | AJ700 | |
| OPTION | | |
| LOC | LOC | |
| 24 | 94E4 | |
| 23 | 94E4 | |
| 22 | 94A2 | |
| 21 | 94A2 | |
| 20 | 94A2 | |
| 19 | 94A2 | |
| 18 | 94A2 | |
| 17 | 94A2 | |
| 16 | 94A2 | |
| 15 | 94A2 | |
| 14 | 94A2 | |
| 13 | 94A2 | |
| 12 | 94A2 | |
| 11 | 94A2 | |
| 10 | 94A2 | |
| 9 | 94A2 | |
| 8 | 94A2 | |
| 7 | 94A2 | |
| 6 | 94A2 | |
| 5 | 94A2 | |
| 4 | 94A2 | |
| 3 | 94A2 | |
| 2 | 94A2 | |
| 1 | 94A2 | |
| COIL | 9486 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [10] CDS-- | 9486 | 185A |

## APP FIG. 124 (MFR DISC.)

(WIRING INFORMATION ONLY - SEE NOTE 123)

| DESIG | AOLA | | DIRA | | IT3A | | PCK | | PLSA | | PREA | | PX | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF151 | | AJ15 | | AF120 | | AF531 | | AJ12 | | AJ502 | | AF50 | | | | | | | | CODE |
| OPTION | LQ | | LQ | | LP | | LQ | | LP | | LR | | LP | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | PBEM | - | E3M | - | EM | - | | | E3M | - | E3M | - | | | | | | | | | 12 |
| 11 | | | E3M | - | | | | | E3M | - | E3M | - | | | | | | | | | 11 |
| 10 | E3M | - | E3M | 78A/E3 | E3M | - | E3M | - | E3M | - | E3M | - | M | - | | | | | | | 10 |
| 9 | | | E3M | 78A/B7 | | | | | E3M | - | E3M | - | | | | | | | | | 9 |
| 8 | EM3 | - | EM3 | 78B/G0 | EM3 | - | E3M | - | E3M | - | EM3 | - | 3M | - | | | | | | | 8 |
| 7 | | | E3M | 23C7 | 3 | - | | | E3M | 46E1 | | | | | | | | | | | 7 |
| 6 | E3M | 29A/B3 | EM3 | 107C8 | E3M | 37C3 | E3M | 36E1 | E3M | 46G1 | EM3 | - | 3M | 37C2 | | | | | | | 6 |
| 5 | | | EM3 | - | 3 | - | | | E3M | 46G5 | | | | | | | | | | | 5 |
| 4 | | | E3M | - | PM | - | E3M | - | E3M | 46F5 | E3M | - | M | - | | | | | | | 4 |
| 3 | 3M | - | E3M | - | 3 | - | | | E3M | 46F5 | E3M | - | | | | | | | | | 3 |
| 2 | PBEM | - | E3M | - | EM | - | | | E3M | 46E5 | E3M | - | | | | | | | | | 2 |
| 1 | 3M | - | E3M | - | | | | | E3M | 46D5 | E3M | 28B/E6 | | | | | | | | | 1 |
| COIL | | - | | - | | - | | - | | - | | - | | - | | | | | | | COIL |

DRAWING ISSUE

| | |
|---|---|
| 30D | LPM |
| 32A | CM |
| 33D | GM |
| 34A | KM |
| 35D | KM |
| 430F | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C64

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET SIZE 6S

PRINTED IN U.S.A.

# APP FIG. 123

RELAY

| DESIG | 2W | | 2WA | | 2WB | | | | 4W | | 4WA | | 4WB | | 4WC | | 4WD | | BCA0 | | BCA10 | | CON2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AF506 | | AF506 | | | | AJ501 | | AF506 | | AF506 | | AJ501 | | AJ501 | | AF504 | | AF504 | | AF516 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 79B2 | M | 9B6 | M | 9G7 | | | EBM | 79C2 | M | 68/C1 | M | 88A/D8 | EBM | 99B3 | EBM | 20A/A5 | M | — | M | — | EM | 35B/B0 | 12 |
| 11 | EBM | 79D3 | M | 68/C1 | M | 99G6 | | | EBM | 35B/F1 | M | 102H6 | M | 99F6 | EBM | 93G6 | EBM | 24A/B8 | M | — | M | — | | | 11 |
| 10 | EBM | 88C/A2 | M | 16C7 | M | 16C7 | | | EBM | 79D2 | M | 16C7 | M | 16C7 | EBM | 93G6 | EBM | 21B/H2 | M | 15D7 | M | 15C7 | M | — | 10 |
| 9 | EBM | 3E8 | M | 16C7 | M | 16C7 | | | EBM | 88C/A2 | M | 16C7 | M | 16C7 | EBM | 111B/G8 | EBM | 24A/B8 | M | 15D7 | M | 15C7 | | | 9 |
| 8 | EMB | 308 | M | 16C7 | M | 16C7 | | | EMB | 986 | M | 16C7 | M | 16C7 | EMB | 3E8 | EMB | 99F8 | M | 15D7 | M | 15C7 | EBM | 99A3 | 8 |
| 7 | EBM | 3C8 | M | 16C7 | M | 16C7 | | | EBM | 9G7 | M | 16C7 | M | 16C7 | EBM | 308 | EBM | 99G5 | M | 15D7 | M | 15C7 | | | 7 |
| 6 | EMB | 88C/B4 | M | 16C7 | M | 16C7 | | | EMB | 94B8 | M | 16C7 | M | 16C7 | EMB | 3C8 | EMB | 99E7 | M | 15E7 | M | 15C7 | EMB | 99C3 | 6 |
| 5 | EMB | 15D9 | M | 16C7 | M | 16C7 | | | EMB | 1509 | M | 16C7 | M | 16C7 | EMB | 388 | EMB | 99E7 | M | 15E7 | M | 15C7 | | | 5 |
| 4 | EBM | 3A8 | M | 16C7 | M | 16C7 | | | EBM | 30A/G0 | M | 16C7 | M | 16C7 | EBM | 12B/A5 | EBM | 9906 | M | 15E7 | M | 15C7 | M | — | 4 |
| 3 | EBM | 88D/C5 | M | 16C7 | M | 16C7 | | | EBM | 88D/E5 | M | 16C7 | M | 16C7 | EBM | 81E6 | EBM | 9906 | M | 15E7 | M | 15C7 | | | 3 |
| 2 | EBM | 16A0 | M | 16C7 | M | 16C7 | | | EBM | 88C/B4 | M | 16C7 | M | 16C7 | EBM | 110G3 | EBM | 99C6 | M | 15E7 | M | 15C7 | M | 99C4 | 2 |
| 1 | EBM | 57B/C7 | M | 16C7 | M | 16C7 | | | EBM | 16A0 | M | 16C7 | M | 16C7 | EBM | 57B/E8 | EBM | 99C6 | M | 15E7 | M | 15C7 | | | 1 |
| COIL | | 93C9 | | 93B9 | | 93B9 | | | | 93A9 | | 93A9 | | 93A9 | | 93A9 | | 99F6 | | 15E9 | | 15F9 | | 99G8 | COIL |

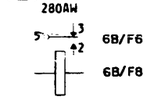
RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | FBKA | | FTS0 | | FTS1 | | FTS2 | | FTS3 | | GLHA | | | | RCTC | | (4)TB6-9 | | 2WS | | 4WS | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AF519 | | AF506 | | AF506 | | AF506 | | AF506 | | AF524 | | | | AF512 | | AF518 | | AF506 | | AF506 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | EM | | FT | | FT | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | M | 99A7 | M | 388 | M | 3C8 | M | 3D8 | M | 3E8 | M | — | | | | | JM8 | 1701 | M | — | M | — | M | — | 12 |
| 11 | | | | M | 3B6 | M | 3B6 | M | 3D6 | M | 3E6 | | | | | | | M | 17F0 | M | — | M | — | M | — | 11 |
| 10 | | M | 99A7 | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | M | — | | | | | EBM | — | M | — | M | — | M | — | 10 |
| 9 | | | | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | | | | | | | | | M | — | M | — | M | — | 9 |
| 8 | | BM | — | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | EBM | 99A4 | | | EBM | 99A5 | EBM | 17H2 | M | — | M | — | M | — | 8 |
| 7 | | B | — | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | | | | | | | B | — | M | 88B/C6 | M | 88B/C6 | M | 88B/C6 | 7 |
| 6 | | BM | — | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | EBM | 99B3 | | | EMB | — | EMB | 17H2 | M | 88A/F6 | M | 88A/F6 | M | 88A/E6 | 6 |
| 5 | | | | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | | | | | | | | | M | 88A/B7 | M | 88A/B7 | M | 88A/B7 | 5 |
| 4 | | M | 99B7 | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | M | — | | | EBM | 99B5 | EBM | 18A8 | M | 20A/B6 | M | 20A/B6 | M | 20A/B6 | 4 |
| 3 | | | | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | | | | | | | M | — | M | 20A/B6 | M | 20A/B6 | M | 20A/B6 | 3 |
| 2 | | M | 99B7 | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | M | 99C2 | | | | | EBM | — | M | 20A/B6 | M | 20A/B6 | M | 20A/B6 | 2 |
| 1 | | | | M | 4A/E3 | M | 4A/E3 | M | 4A/C3 | M | 4A/C3 | | | | | | | M | 15H2 | M | 20A/B6 | M | 20A/B6 | M | 20A/B6 | 1 |
| COIL | | | 99H6 | | 388 | | 3C8 | | 3D8 | | 3D8 | | 99G8 | | | | 99F8 | | 1700 | | 93C9 | | 93A8 | | COIL |

RELAY
(VG) 2WC
280AW




RELAY
316B

| | CONB | FCGA |
|---|---|---|
| | 35B/B0 | 34C/F6 |
| | 99C3 | 99B3 |

CAPACITOR

| | DESIG | LOC | CODE |
|---|---|---|---|
| (ZFN) | CONB | 99C3 | 475AC |
| (ZFO) | CONB | 99C3 | 535BN |
| (ZFN) | CONC | 99C2 | 475F |
| (ZFO) | CONC | 99C2 | 535LC |
| | COND | 99D4 | 441P |

INDUCTOR

| DESIG | LOC | CODE |
|---|---|---|
| CONB | 99A2 | 221H |

LAMP

| | DESIG | LOC | CODE |
|---|---|---|---|
| (ZPJ) | CONA | 99B1 | 13J(RES) |
| (ZPK) | CONA | 99B1 | 13D(RES) |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| | 2W | 9389 | 186A |
| | 4W | 93A9 | 186A |
| | 4WD | 99F6 | 185A |
| | BCA0 | 15E9 | 185A |
| | BCA10 | 15E9 | 185A |
| | CON2 | 99G8 | 185A |
| (ZPJ) | CONA | 99A1 | 186A |
| (ZPK) | CONA1 | 99A1 | 186B |
| (ZPK) | CONA2 | 99A1 | 186B |
| | FBKA | 99H6 | 185A |
| | FTS0-3 | 3C8 | 185A |
| | GLHA | 99G8 | 185A |
| (EM) | (4)TB6-9 | 17D0 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| CONG | 99A3 | 18AP |
| CONH | 99B3 | 18AP |
| CONJ | 99C2 | 18FR |
| CONM | 99B3 | 18JW |

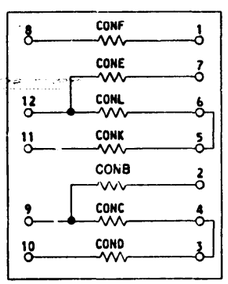
TRANSFORMER

| DESIG | LOC | CODE |
|---|---|---|
| CONA | 99A2 | 94M REP COIL |

TUBE, ELECTRON

| DESIG | LOC | CODE |
|---|---|---|
| CONA | 99C4 | 313CA |

COMPONENT ASSEMBLY




| DESIG | CON | | |
|---|---|---|---|
| CODE | ED-94823-( ) G-156 | | |
| OPTION | | | |
| COMPONENT | DESIG | LOC | CODE |
| RESISTOR | CONB | 99C3 | KS-19150,L3,1000 |
| | CONC | 99C3 | 221A,0.18 MEG |
| | COND | 99C2 | 221A,20,000 |
| | CONE | 99A2 | 221A,0.2 MEG |
| | CONF | 99A3 | KS-19152,L1,5100 |
| | CONK | 99D2 | 221A,12,000 |
| | CONL | 99D2 | 221A,12,000 |

DRAWING ISSUE

| | |
|---|---|
| 30D | ZLB AMD |
| 31D | DLB AMD |
| 32A | GM CLL AMD |
| 33D | GM CLL AMD |
| 35D | KMH DPL AMD |
| 37D | SSL |
| 38A | PS |
| 39D | PS |
| 41D | |
| 43D | |

DRAWING ISSUE
65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C65

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 65

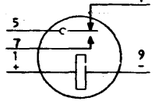
SD-26002-01-C65

# APP FIG. 125 (MFR DISC.)

| DESIG | STSO | STS1 | STS2 | STS3 | STS4 | STS5 | STSK | STXA | TOK | TOKA | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ520 | AJ520 | AJ520 | AJ520 | AJ520 | AJ520 | AJ520 | AJ512 | AJ520 | AJ501 | CODE |
| OPTION | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | EBM / - | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / - | EBM / 11985 | 8M / 11802 | EBM / 11845 | EBM / 11863 | 12 |
| 11 | EMB / - | EMB / - | EMB / - | EMB / - | EMB / - | EMB / - | EMB / | 8M / 11803 | EMB / 11864 | EBM / - | 11 |
| 10 | EBM / 11904 | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / 11904 | EBM / 11985 | 8M / 11905 | EBM / 11845 | EBM / - | 10 |
| 9 | EMB / - | EMB / 11863 | EMB / 11863 | EMB / 11863 | EMB / 11864 | EMB / 11864 | EMB / - | 8M / 11802 | EMB / 11864 | EBM / 11882 | 9 |
| 8 | EBM / 11904 | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / 11904 | EBM / 11985 | 8M / 18E8 | EBM / 11885 | EMB / - | 8 |
| 7 | EMB / 11602 | EMB / 11682 | EMB / 11682 | EMB / 116C2 | EMB / 11602 | EMB / 11602 | EMB / - | 8M / 118C2 | EMB / 11886 | EBM / 6403 | 7 |
| 6 | EBM / - | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / - | EBM / 11985 | 8M / - | EBM / 11885 | EBM / 3706 | 6 |
| 5 | EMB / - | EMB / 11863 | EMB / 11863 | EMB / 11863 | EMB / 11864 | EMB / - | EMB / 11904 | 8M / 11882 | EMB / 11885 | EMB / 11886 | 5 |
| 4 | EBM / - | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / 11984 | EBM / - | EBM / 11985 | 8M / - | EBM / 11805 | EBM / 11887 | 4 |
| 3 | EMB / 39B/C7 | EMB / 39B/C8 | EMB / 39B/C8 | EMB / 39B/C8 | EMB / 39B/C9 | EMB / 39B/C9 | EMB / - | 8M / 11882 | EMB / 11805 | EBM / 11887 | 3 |
| 2 | EBM / - | EBM / - | EBM / - | EBM / - | EBM / 77D0 | EBM / - | EBM / - | 8M / 119E4 | EBM / 11805 | EMM / 39B/E7 | 2 |
| 1 | EMB / - | EMB / 11803 | EMB / 11803 | EMB / 11883 | EMB / 11883 | EMB / 11883 | EMB / - | 8M / 11802 | EMB / 11886 | EBM / - | 1 |
| COIL | / 11804 | / 11804 | / 11884 | / 11884 | / 11884 | / 11884 | / 11802 | / 86C0 | / 11882 | / 11886 | COIL |

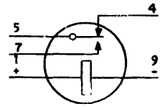
| DESIG | TSTS | XFTG | XLSB | XST | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ520 | AK9 | | AF70 | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | | | | | | | | | | | |
| 12 | EBM / 11885 | M / 87E8 | | | | | | | | | | | | | 12 |
| 11 | EMB / 11803 | | | | | | | | | | | | | | 11 |
| 10 | EBM / 11864 | B / - | | | | | | | | | | | | | 10 |
| 9 | EMB / 11863 | | | | | | | | | | | | | | 9 |
| 8 | EBM / 11885 | 8M / - | | EBM / 87H2 | | | | | | | | | | | 8 |
| 7 | EMB / 11803 | | | B / - | | | | | | | | | | | 7 |
| 6 | EBM / 11883 | | | EMB / 11805 | | | | | | | | | | | 6 |
| 5 | EMB / 11883 | | | | | | | | | | | | | | 5 |
| 4 | EBM / 11887 | | B / - | M / 86H2 | | | | | | | | | | | 4 |
| 3 | EMB / 11883 | | | | | | | | | | | | | | 3 |
| 2 | EBM / 39B/E7 | | M / 87A8 | | | | | | | | | | | | 2 |
| 1 | EMB / 11883 | | | | | | | | | | | | | | 1 |
| COIL | / 11882 | / 11905 | / 11985 | S-87H1 / P-11881 | | | | | | | | | | | COIL |

RELAY



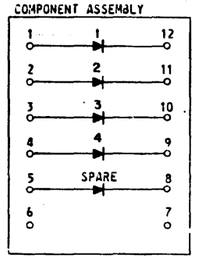

| DESIG | TGBK | TOKL | |
|---|---|---|---|
| CODE | 3168 | 3163 | |
| OPTION | | | |
| 9 | 11804 | 11882 | |
| 8 | - | - | |
| 7 | 11886 | 11883 | |
| 6 | - | - | |
| 5 | 11886 | 11883 | |
| 4 | 11886 | - | |
| 3 | - | - | |
| 2 | - | - | |
| 1 | 11804 | 11882 | |

RELAY




| DESIG | XST1 | XST2 | XST3 | XST4 | XST5 | XSTG | |
|---|---|---|---|---|---|---|---|
| CODE | 316H | 316H | 316H | 316H | 316H | 316H | |
| OPTION | | | | | | | |
| 9 | 11802 | 11802 | 11802 | 11882 | 11882 | 11802 | |
| 8 | - | - | - | - | - | - | |
| 7 | 11883 | 11803 | 11803 | 11883 | 11883 | 11883 | |
| 6 | - | - | - | - | - | - | |
| 5 | 11883 | 11803 | 11803 | 11883 | 11883 | 11883 | |
| 4 | - | - | - | - | - | - | |
| 3 | - | - | - | - | - | - | |
| 2 | - | - | - | - | - | - | |
| 1 | 11802 | 11802 | 11802 | 11882 | 11882 | 11802 | |

COMPONENT ASSEMBLY




| DESIG | STS | | |
|---|---|---|---|
| CODE-[2]ED-94823-( )G20 | | | |
| OPTION | | | |
| COMPONENT | CODE | DESIG | LOC |
| DIODE 1 | 426G | STS1 | 119D4 |
| 2 | | STS2 | |
| 3 | | STS3 | |
| 4 | | STS4 | |
| SPARE | | | |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| (CI) LBS3 | 4C5 | |
| LSB | 119E6 | |
| SCAL | 116H8 | 13J(RES) |
| STS | 118A3 | |
| TOK | 118F6 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| STSO | 118D4 | |
| STS1 | 118C4 | |
| [2]STS2,3 | 11884 | |
| [2]STS4,5 | 118A4 | 185A |
| STSK | 11862 | |
| STXA | 86C0 | |
| TGBK | 118D4 | |
| TOK | 118F2 | |

NETWORK (CONT)

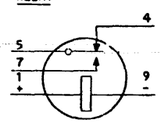
| DESIG | LOC | CODE |
|---|---|---|
| TOKA | 118F6 | |
| TOKL | 118E2 | |
| TSTS | 118E2 | |
| XST1 | 118D2 | |
| [2]XST2,3 | 118C2 | 185A |
| XST4 | 11882 | |
| XST5 | 118A2 | |
| XSTG | 118D2 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| SCAL | 116H7 | 18HB |
| STC1 | 116D3 | 19EF |
| STC2 | 116E3 | 18FT |
| TGBK | 118E7 | 188H |
| TOKL | 118E2 | 188H |
| [1/2] XST1 | 118D2 | |
| [1] XST2 | 118C2 | |
| XST3 | 118C2 | 19ABJ |
| [1] XST4 | 11882 | |
| XST5 | 11882 | |
| [1/2] XSTG | 118D2 | |

# APP FIG. 126 (MFR DISC.)

RELAY




| DESIG | FTG0-9 | FTG10-19 | FTG20-29 | |
|---|---|---|---|---|
| CODE | 316B | 316B | 316B | |
| OPTION | | KD | KF | |
| 9 | 14E1 | 14D5 | 89A4 | |
| 8 | - | - | - | |
| 7 | 14D1 | 14D5 | 8984 | |
| 6 | - | - | - | |
| 5 | 14D1 | 14D5 | 8984 | |
| 4 | - | - | - | |
| 3 | - | - | - | |
| 2 | - | - | - | |
| 1 | 14E1 | 14D5 | 89A4 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [10]FTG0-9 | 14D1 | |
| (KD) [10]FTG10-19 | 14D5 | 195A |
| (KF) [10]FTG20-29 | 89A4 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| [5]FTG0-9 | 14D1 | |
| (KD) [5]FTG10-19 | 14D5 | 19ABM |
| (KF) [5]FTG20-29 | 8985 | |

| DRAWING ISSUE | |
|---|---|
| 30D | EMC AMP |
| 32A | GM ALW AMP |
| 34A | TS COL AMP |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C66

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILO

# APP FIG. 127

RELAY

| DESIG | DAC | | MT36 | | PTM | | TLT | | TLK | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ12 | | A K6 | | | | AJ72 | | CODE |
| OPTION | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 62A/A4 | EBM | 62B/F6 | | | BM | 37E7 | BM | 62B/C3 | 12 |
| 11 | EBM | - | EBM | 62B/F6 | | | BM | - | BM | 66H5 | 11 |
| ~~10~~ | ~~EBM~~ | 66B7 | EBM | 62B/F6 | | | BM | 66B6 | BM | 66B6 | ~~10~~ |
| 9 | EBM | 84E6 | EBM | 62B/G6 | | | BM | 66D9 | BM | - | 9 |
| 8 | EMB | 62B/B3 | EBM | 62B/G6 | | | BM | 62B/A4 | BM | - | 8 |
| 7 | EBM | - | EBM | 62B/H7 | | | | | BM | - | 7 |
| ~~6~~ | EMB | 66C9 | EBM | 62P/F2 | | | | | BM | 66D9 | 6 |
| 5 | EMB | - | EBM | 62B/G2 | BM | 37F7 | | | BM | - | 5 |
| 4 | EBM | 64D7 | EBM | 62B/G2 | BM | - | | | BM | 77E2 | 4 |
| 3 | EBM | - | EBM | 62B/G2 | BM | - | | | BM | - | 3 |
| 2 | EBM | - | EBM | 62B/G2 | BM | - | | | BM | 64F6 | 2 |
| 1 | EBM | 62A/B4 | EBM | 62B/F2 | BM | - | | | BM | - | 1 |
| COIL | | 62B/B3 | | 79C5 | | 62B/D3 | | 62B/D3 | | 62B/C3 | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| DAC | 62B/B3 | 185A |
| TLKS | 62B/C3 | 185A |
| TLKP | 62B/C3 | 185A |

RESISTOR

| DESIG | | LOC | CODE |
|---|---|---|---|
| ZCU | DAP | 62B/E5 | 59H |
| ZCV | DAP | 62B/E5 | KS-8512, L6C, 200 |

# APP FIG. 128

RELAY

| DESIG | AIS | | AIS1 | | AIS2 | | NAI | | OFCO | | OFC1-3 | | TBI1 | | AIS3 | | MT23 | | OFC4,5 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ12 | | AJ12 | | AJ503 | | AJ503 | | [3]AJ503 | | AJ503 | | AJI2 | | AJI2 | | [2]AJ503 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 121A/G3 | EBM | 4006 | EBM | 121D1 | EBM | - | EBM | 121B9 | EBM | 121D9 | EBM | - | EBM | - | EBM | - | EBM | 121A/D8 | | | | | 12 |
| 11 | EBM | 66F0 | EBM | 57A/B4 | EBM | 88B/C0 | EBM | - | EBM | 121A/G4 | EBM | 121A/G5 | EBM | - | EBM | 121G3 | EBM | - | EBM | 121A/G6 | | | | | 11 |
| 10 | EBM | 60H5 | EBM | 23A8 | EBM | 59A/G9 | EBM | 62A/H3 | EBM | - | EBM | 64E3 | EBM | 12106 | EBM | 45H2 | EBM | - | EBM | | | | | | 10 |
| 9 | EBM | b | EBM | 108A4 | EBM | a | EBM | 63H4 | EBM | 64E4 | EBM | 64E3 | EBM | 45F6 | EBM | 47H2 | EBM | - | EBM | 64E4 | | | | | 9 |
| 8 | EMB | 105A1 | EBM | 42A1 | EBM | - | EMB | 108B4 | EMB | - | EMB | - | EMB | - | EBM | 70H0 | EBM | - | EBM | | | | | | 8 |
| 7 | EBM | 78A/D4 | EBM | 45E8 | EBM | 64F6 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 103C0 | EBM | - | EBM | | | | | | 7 |
| 6 | EMB | a | EBM | 47D4 | EBM | 6686 | EMB | - | EMB | 121E1 | EMB | 121E1 | EMB | - | EBM | 60A0 | EBM | - | EBM | 121A/E1 | | | | | 6 |
| 5 | EMB | 88B/E7 | EBM | 47B6 | EBM | 114A/D8 | EMB | 64E3 | EMB | 121F1 | EMB | 121F1 | EMB | - | EBM | 41A/G3 | EBM | - | EBM | 121A/F1 | | | | | 5 |
| 4 | EBM | 22A1 | EBM | - | EBM | 6982 | EBM | - | EBM | 121G1 | EBM | 121G1 | EBM | - | EBM | - | EBM | - | EBM | 121A/G1 | | | | | 4 |
| 3 | EBM | 64E4 | EBM | 29C/C1 | EBM | 68C6 | EBM | - | EBM | 121G1 | EBM | 121G1 | EBM | 12142 | EBM | - | EBM | 68A6 | EBM | 121A/G1 | | | | | 3 |
| 2 | EBM | 103H5 | EBM | 60H2 | EBM | 67C4 | EBM | 109A8 | EBM | 121H1 | EBM | 121H1 | EBM | 12106 | EBM | - | EBM | 67B4 | EBM | 121A/H1 | | | | | 2 |
| 1 | EBM | 103D2 | EBM | 77F1 | EBM | 6104 | EBM | - | EBM | 121H1 | EBM | 121H1 | EBM | - | EBM | - | EBM | - | EBM | 121A/H1 | | | | | 1 |
| COIL | | 121A0 | | 121C0 | | 121C0 | | 121B0 | | 121A8 | | 121D9 | | 121E0 | | 121C0 | | 79D6 | | 121A/D8 | | | | | COIL |
| | a | 105F8 63H4 | | | a | 62A/H5 43A1 | | | | | | | | | | | | | | | | | | | |
| | b | 7006 72G5 | | | | | | | | | | | | | | | | | | | | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AIS | 121A0 | 135A |
| AIS1-3 | 121C0 | |
| NAI | 12130 | |
| [6]OFC0-5 | 121D8 | |
| TBI1 | 121E0 | |

# APP FIG. 129

RELAY

| DESIG | LLK8 | | LOLB | | | | LOLE | | LOLD | | | | LOLA | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF90 | | AJ506 | | | | AF22 | | AJ503 | | | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | EBM | 47F8 | | | EBM | 10783 | 12 |
| 11 | | | | | | | | | EBM | - | | | EBM | 10783 | 11 |
| 10 | | | | | M | 33B/E3 | | | EBM | 29A/A3 | | | EBM | 36F3 | 10 |
| 9 | | | | | | | | | EBM | 31B/F3 | | | EBM | 36E2 | 9 |
| 8 | M | - | | | EBM | - | EBM | 33A/G3 | EMB | 29A/A3 | | | EMB | 78B/F7 | 8 |
| 7 | B | 33B/C1 | | | | | | | EBM | 36F3 | | | EBM | a | 7 |
| 6 | EBM | 36D3 | | | EBM | - | EMB | - | EMB | 47F8 | | | EMB | 33B/F3 | 6 |
| 5 | B | 33B/B2 | | | | | | | EMB | 77H4 | | | EMB | 33B/C2 | 5 |
| 4 | M | 33B/G3 | | | EBM | - | EBM | 33B/B1 | EBM | - | | | EBM | b | 4 |
| 3 | | | | | | | | | EBM | 36D2 | | | EBM | 33B/B1 | 3 |
| 2 | | | | | | | | | EBM | 33B/C0 | | | EBM | c | 2 |
| 1 | | | | | | | | | EBM | 30B/C5 | | | EBM | 31B/G3 | 1 |
| COIL | | 33B/G2 | | 33B/C2 | | | | 33B/E2 | | 47E8 | | | | 48/F4 | COIL |

| | | | |
|---|---|---|---|
| | | ZQK | 31B/G1 |
| a | | ZQL | 34C/B4 |
| | 33B/B3 | | |
| b | 78A/E3 | | |
| | | ZOH | 30B/C7 |
| c | | ZOJ | 30B/D7 |

RELAY

| DESIG | | | | | | | | | | | | | | | LOLC | | NOLA | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | AK13 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | EBM | 34C/B5 | | | | | 12 |
| 11 | | | | | | | | | | | | | | | EBM | 10784 | | | | | 11 |
| 10 | | | | | | | | | | | | | | | EBM | 78B/E6 | | | | | 10 |
| 9 | | | | | | | | | | | | | | | EM | 77G6 | | | | | 9 |
| 8 | | | | | | | | | | | | | | | EM | a | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | EM | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | EM | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | EBM | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | EBM | a | | | 3 |
| 2 | | | | | | | | | | | | | | | | | EBM | b | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | 77G6 | | 48/E4 | | | COIL |

| | | | |
|---|---|---|---|
| | | ZQK | 31B/F1 |
| a | | ZQL | 34C/B4 |
| | | ZQK | 31B/G2 |
| b | | ZQL | 34C/B5 |

RELAY

316W LLKA

| | | |
|---|---|---|
| 5 | 6 | 33B/F3 |
| 5 | 4, 7 | 33B/G3 |
| | | 33B/F2 |

LOLK 316C

| | | |
|---|---|---|
| 5 | 4, 7 | 33B/F3 |
| P | | 33B/B2 |
| S | | |

LOLP 316N

| | |
|---|---|
| | 31B/G3 |
| | 30B/C4 |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| LOLK | 33B/A1 | 437QA |

DIODE

| DESIG | | LOC | CODE |
|---|---|---|---|
| LOLK | | 33B/B1 | 426F |
| EU | REH1 | 77G8 | 426F |
| EU | REH2 | 77G7 | 426F |

RELAY

316A LOLF (IS) NTL DCTK

| | | | | |
|---|---|---|---|---|
| 5 | 4 | ZQK 31B/G2 | 47H8 | 33B/C0 |
| | 7 | ZQL 34C/B6 | | |
| | | 33B/D2 | 77G5 | 36F2 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| LLKA | 33B/F2 | |
| LLKB | 33B/G2 | 195A |
| LOLA | 48/F4 | |
| LOLB | 33B/C2 | 186A |
| LOLC | 77G6 | 195A |
| LOLD | 47E8 | |
| LOLE | 33B/E2 | |
| NOLA | 48/F4 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| LOL1 | 30B/C5 | 19FD |
| LOL2 | 30B/C5 | 18S |
| LOLK | 33B/B1 | 189A |

DRAWING ISSUE

| | |
|---|---|
| 33D | TS CLK AND |
| 34A | BM GOL AND |
| 35D | BM GOL AND |
| 36A | MD |
| 37D | MD |
| 39D | FS |
| 40A | |
| 41D | |
| 43D | |

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C67

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 6S

PRINTED IN U.S.A.

HIGGINS 4465

# APP FIG. 130

RELAY

| DESIG | AGC | | AGCF | | | | ARTO | | ARTC | | MT37 | | MT38 | | OACO | | TACO | | AGCK | | AGCK | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AF114 | | | | AJ12 | | AJ12 | | AJ12 | | AJ12 | | AJ503 | | AJ503 | | AJ518 ZVW | | AJ511 ZVX | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| CONT ARR | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 120B2 | | | | | EBM | 120G8 | EBM | - | EBM | 120E5 | EBM | - | EBM | - | EBM | - | EBM | - | EM | - | | | 12 |
| 11 | EBM | 120D1 | | | | | EBM | - | EBM | 80D4 | EBM | 120E5 | EBM | - | EBM | - | EBM | - | EBM | - | M | - | | | 11 |
| 10 | EBM | 120E1 | M | 37B4 | | | EBM | - | EBM | 120G8 | EBM | 120E5 | EBM | - | EBM | - | EBM | - | EBM | - | M | - | | | 10 |
| 9 | EBM | - | | | | | EBM | - | EBM | 120G8 | EBM | 120E5 | EBM | - | EBM | - | EBM | - | EBM | - | | | | | 9 |
| 8 | EMB | - | BM | - | | | EBM | - | EBM | 120G8 | EBM | 120E5 | EBM | - | EMB | - | EMB | - | EMB | 120E3 | EBM | 120E3 | | | 8 |
| 7 | EBM | - | | | | | EBM | 120A1 | EBM | 120G8 | EBM | 120F2 | EBM | - | EBM | 120E7 | EBM | 120F8 | EBM | - | | | | | 7 |
| 6 | EMB | 120F0 | BM | 22E3 | | | EBM | 120D5 | EBM | 120G8 | EBM | 120F9 | EBM | - | EMB | 120E4 | EMB | 120F4 | EMB | 120E1 | EMB | 120E1 | | | 6 |
| 5 | EMB | 888/E1 | | | | | EBM | 120A4 | EBM | 120G4 | EBM | 120E5 | EBM | 120F8 | EMB | 120A3 | EMB | 120D2 | EMB | 888/E1 | | | | | 5 |
| 4 | EBM | 120F6 | M | - | | | EBM | 120G5 | EBM | 120G4 | EBM | 120E5 | EBM | 120F2 | EBM | 120D2 | EBM | 120D2 | EBM | 37B3 | EBM | 37B3 | | | 4 |
| 3 | EBM | 37B3 | | | | | EBM | 88C/H1 | EBM | 120G4 | EBM | 120E5 | EBM | 8004 | EBM | 88C/H2 | EBM | 88C/H2 | EBM | - | M | - | | | 3 |
| 2 | EBM | 37B4 | B | 37G1 | | | EBM | 88C/H1 | EBM | 120G4 | EBM | 120E5 | EBM | 120H3 | EBM | 88C/G5 | EBM | 88C/H5 | EBM | - | M | - | | | 2 |
| 1 | EBM | 120E3 | | | | | EBM | 120E5 | EBM | 120G4 | EBM | 120E5 | EBM | 120G2 | EBM | 88C/G5 | EBM | 88C/G5 | EBM | - | M | - | | | 1 |
| COIL | | 120D3 | | 37B4 | | | | 120G9 | | 120G3 | | 120H3 | | 120H3 | | 120A3 | | 120B3 | | 120E9 | | 120E9 | | | COIL |

RELAY

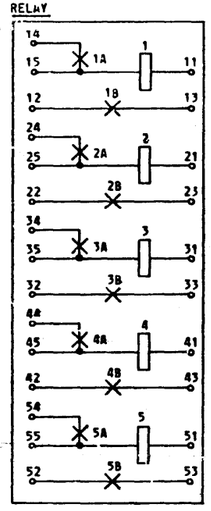
| DESIG | | | | | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | | | | | OPTION |
| CONT ARR | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AGC | 120D3 | |
| AGCP | 120E9 | |
| AGCS | 120F9 | |
| ARTO | 120G9 | 185A |
| ARTC | 120G3 | |
| OACO | 120A3 | |
| TACO | 120B3 | |

# APP FIG. 131

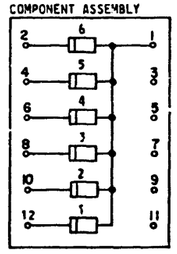
RELAY




| DESIG | | PGR00 | PGR01 | PGR02 | PGR03 | PGR04 | PGR05 | PGR06 | PGR07 | PGR08 | PGR09 | PGR10 | PGR11 | PGR12 | PGR13 | PGR14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | 293D | | | | | 293D | | | | | 293D | | | | |
| OPTION | | | | | | | | | | | | | | | | |
| COIL | POS | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| | LOC | 88D/F1 | 88D/F1 | 88D/F2 | 88D/F3 | 88D/F4 | 88D/F5 | 88D/F5 | 88D/F5 | 88D/F5 | 88D/F5 | 88D/F6 | 88D/F6 | 88D/F6 | 88D/F6 | 88D/F6 |
| CONT A | LOC | 88D/F1 | 88D/F1 | 88D/F2 | 88C/F3 | 88D/F4 | 88D/F5 | 88D/F9 | 88D/F5 | 88D/F5 | 88D/F5 | 88D/F6 | 88D/F6 | 88D/F6 | 88D/F6 | 88D/F6 |
| POS B | LOC | 88C/J1 | 88A/A1 | 102E4 | 111A/H3 | 88B/C2 | 88C/F9 | 88C/F0 | 88C/E0 | 111A/F3 | 88C/D0 | 88C/F0 | 102C2 | 88B/B0 | 88B/B7 | 88C/H0 |

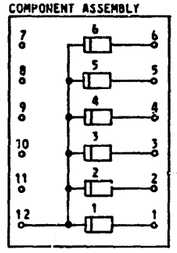
| DESIG | | OGR1 | OGR2 | PDL | | |
|---|---|---|---|---|---|---|
| CODE | | 293D | | | | |
| OPTION | | | | ZTO | | |
| COIL | POS | 1 | 2 | 3 | 4 | 5 |
| | LOC | 88D/H1 | 88D/H1 | 88C/A5 | | |
| CONT A | LOC | 88D/H1 | 88D/A1 | 88C/A5 | | |
| POS B | LOC | 111F4 | 88A/F0 | | | |

COMPONENT ASSEMBLY




| DESIG | | PGR1 | | PGR2 | | PGR3 | |
|---|---|---|---|---|---|---|---|
| CODE | | ED94823-( )G312 | | ED94823-( )G312 | | ED94823-( )G312 | |
| OPTION | | | | | | | |
| COMPONENT | CODE | DESIG | LOC | DESIG | LOC | DESIG | LOC |
| NETWORK | | | | | | (ZTO) | |
| 1 | | OGR1 | 88D/H1 | OGR2 | 88D/H1 | PDL | 88C/A5 |
| 2 | | PGR04 | 88D/F4 | PGR09 | 88D/F5 | PGR14 | 88D/F6 |
| 3 | 185A | PGR03 | 88D/F3 | PGR08 | 88D/F5 | PGR13 | 88D/F6 |
| 4 | | PGR02 | 88D/F2 | PGR07 | 88D/F5 | PGR12 | 88D/F6 |
| 5 | | PGR01 | 88D/F1 | PGR06 | 88D/F5 | PGR11 | 88D/F6 |
| 6 | | PGR00 | 88D/F1 | PGR05 | 88D/F5 | PGR10 | 88D/F6 |

COMPONENT ASSEMBLY




| DESIG | | PGL1 | | PGL2 | | PGL3 | |
|---|---|---|---|---|---|---|---|
| CODE | | ED94823-( )G345 | | ED94823-( )G345 | | ED94823-( )G345 | |
| OPTION | | | | | | | |
| COMPONENT | CODE | DESIG | LOC | DESIG | LOC | DESIG | LOC |
| NETWORK | | | | | | | |
| 1 | | - | - | OGL2 | 88A/F0 | - | - |
| 2 | | PGL04 | 88B/C3 | PGL09 | 88C/D0 | PGL14 | 88C/H0 |
| 3 | 185A | PGL03 | 111H3 | PGL08 | 111G4 | PGL13 | 88B/B8 |
| 4 | | PGL02 | 102E5 | PGL07 | 88C/E0 | PGL12 | 88B/B0 |
| 5 | | PGL01 | 88A/A1 | PGL06 | 88C/G0 | PGL11 | 102C2 |
| 6 | | PGL00 | 88C/C0 | PGL05 | 88C/F9 | PGL10 | 88C/F0 |

| DRAWING ISSUE | |
|---|---|
| 33D | TS C14 bw |
| 34A | TS Col and |
| 36A | MD |
| 39D | RP |
| 41D | |
| 42A | |
| 43D | |

ISSUE 63B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-068

BELL TELEPHONE LABORATORIES INCORPORATED 6S

## APP FIG. 132

RELAY

| DESIG | DNG | | DNGA | | DNGB | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AJ512 | | AJ512 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 61C0 | BM | - | BM | - | | | | | | | | | | | | | | | 12 |
| 11 | | | BM | 63F5 | BM | 63F5 | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 10 |
| 9 | | | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 9 |
| 8 | EBM | 61H1 | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 8 |
| 7 | | | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 41A/E2 | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 6 |
| 5 | | | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 5 |
| 4 | EBM | - | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 4 |
| 3 | | | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 3 |
| 2 | EBM | - | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 2 |
| 1 | | | BM | 61C1 | BM | 61C1 | | | | | | | | | | | | | | | 1 |
| COIL | | 61C0 | | 61F2 | | 61G2 | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| DNGA | 61F2 | 185A |
| DNGB | 61G2 | |
| DNGP | 61C0 | |
| DNGS | 61D0 | |

## APP FIG. 133

RELAY

| DESIG | NWB | | WB | | WBK | | WBR | | WBS | | WRV | | XWB | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AF32 | | AJ503 | | | |
| OPTION | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | EBM | - | EBM | 122A/E7 | EBM | - | EBM | 28B/C1 | EBM | - | EBM | - | EBM | - | | |
| 11 | EBM | - | EBM | - | EBM | - | EBM | 122A/C3 | EBM | - | | | EBM | - | | |
| 10 | EBM | - | EBM | - | EBM | - | EBM | 122A/A7 | EBM | 122A/D2 | EBM | - | EBM | - | | |
| 9 | EBM | - | EBM | - | EBM | - | EBM | 22A/B7 | EBM | 122A/E2 | | | EBM | - | | |
| 8 | EMB | - | EMB | - | EMB | - | EMB | - | EMB | 122A/E2 | EBM | - | EMB | - | | |
| 7 | EBM | - | EBM | - | EBM | - | EBM | 122A/B6 | EBM | 122A/F2 | | | EBM | - | | |
| 6 | EMB | - | EMB | - | EMB | 36C0 | EMB | - | EMB | 122A/G2 | EMB | - | EMB | 36C9 | | |
| 5 | EMB | - | EMB | - | EMB | - | EMB | 122A/D7 | EMB | - | | | EMB | - | | |
| 4 | EBM | 122A/E6 | EBM | 122A/E7 | EBM | 34C/B3 | EBM | 34B/H1 | EBM | 36C1 | EBM | 122A/E2 | EBM | - | | |
| 3 | EBM | 122A/F6 | EBM | 122A/F7 | EBM | 36D2 | EBM | 36D1 | EBM | - | | | EBM | - | | |
| 2 | EBM | 122A/F6 | EBM | 122A/F7 | EBM | - | EBM | 4709 | EBM | - | EBM | 122A/D3 | EBM | - | | |
| 1 | EBM | 122A/G6 | EBM | 122A/G7 | EBM | - | EBM | 64G6 | EBM | - | | | EBM | - | | |
| COIL | | 122A/B3 | | 122A/C3 | | 122A/E3 | | 122A/E8 | | 122A/C3 | | 122A/G3 | | 122A/F3 | | |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| WB | 122A/D3 | 13J (RES) |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| NWB | 122A/B3 | 185A |
| WB | 122A/C3 | |
| WBK | 122A/E3 | |
| WBR | 122A/E8 | |
| WBS | 122A/C3 | |
| XWB | 122A/F3 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (ZCU) WB | 28B/C0 | 59H |
| (ZCV) WB | 28B/C0 | KS-8512,L6C,200 |
| [1] WBK, XWB | 122A/F2 | 188J |

RELAY

| DESIG | WBKA | | | XWBA | | |
|---|---|---|---|---|---|---|
| CODE | 316M | | | 316M | | |
| OPTION | | | | | | |
| | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC |
| TOP | | | | | | |
| | 4,5,7 | BM | 122A/E3 | 4,5,7 | BM | 122A/F3 |
| BOT | | | | | | |
| COIL | | | 122A/E2 | | | 122A/F2 |

## APP FIG. 134

RELAY

| DESIG | [9] ART- | | [9] OAC- | | [9] TAC- | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ12 | | AJ503 | | AJ503 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 120G8 | EBM | - | EBM | - | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 11 |
| 10 | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | EMB | - | EMB | - | | | | | | | | | | | | | | | 8 |
| 7 | EBM | 120A1 | EBM | 120F7 | EBM | 120F8 | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 120D5 | EMB | 120E4 | EMB | 120F4 | | | | | | | | | | | | | | | 6 |
| 5 | EBM | 120B4 | EMB | 120B3 | EMB | 120D2 | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 120G5 | EBM | 120D2 | EBM | 120D2 | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 88C/H1 | EBM | 88C/H2 | EBM | 88C/H2 | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 88C/H1 | EBM | 88C/G5 | EBM | 88C/H5 | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 120E5 | EBM | 88C/G5 | EBM | 88C/G5 | | | | | | | | | | | | | | | 1 |
| COIL | | 120H9 | | 120A3 | | 120C3 | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [9] ART- | 120A9 | 185A |
| [9] OAC- | 120A3 | |
| [9] TAC- | 120C3 | |

## APP FIG. 135

RELAY

| DESIG | GL | | GLA | | GLB | | GLC | | GLR | | GLTA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ15 | | AJ503 | | AJ503 | | AJ503 | | AJ15 | | AJ503 | | | | | |
| OPTION | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | EBM | - | EBM | - | EBM | - | EBM | 44C7 | EBM | - | EBM | 123B3 | | | | |
| 11 | EBM | - | EBM | 123H0 | EBM | 123F0 | EBM | 44B7 | EBM | - | EBM | 31F1 | | | | |
| 10 | EBM | 122B/E8 | EBM | 3406 | EBM | 122B/E8 | EBM | 122B/E7 | EBM | - | EBM | - | | | | |
| 9 | EBM | - | EBM | 123F1 | EBM | 123H1 | EBM | 84E7 | EBM | - | EBM | - | | | | |
| 8 | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | | | | |
| 7 | EBM | 4487 | EBM | 4488 | EBM | 122B/H4 | EBM | 122B/H3 | EBM | 123F1 | EBM | - | | | | |
| 6 | EMB | - | EMB | 31F1 | EMB | 81F2 | EMB | 81G2 | EMB | 123H1 | EMB | - | | | | |
| 5 | EMB | 123B3 | EMB | 12382 | EMB | 12382 | EMB | 37H2 | EMB | 37G1 | EMB | - | | | | |
| 4 | EBM | 37H2 | EBM | 12304 | EBM | 37H1 | EBM | - | EBM | - | EBM | - | | | | |
| 3 | EBM | 31B/F0 | EBM | 31B/F0 | EBM | 12303 | EBM | - | EBM | 41A/B4 | EBM | 31B/F0 | | | | |
| 2 | EBM | 18G6 | EBM | 34CA6 | EBM | 18G5 | EBM | - | EBM | 37C6 | EBM | - | | | | |
| 1 | EBM | 41A/A6 | EBM | 12303 | EBM | 12303 | EBM | 41A/A6 | EBM | 122B/H4 | EBM | 16B1 | | | | |
| COIL | | 123A5 | | 123A0 | | 12380 | | 44C6 | | 81G2 | | 123C0 | | | | |

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| GL | 123E6 | 441Q5 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| GL | 12345 | 135A |
| GLA | 12340 | |
| GLB | 12380 | |
| GLC | 44C6 | |
| GLR | 81G2 | |
| GLTA | 123C0 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| GL1 | 123E6 | KS-20810,L1A |
| GLT | 123D3 | 18CN |

RELAY

| DESIG | GLT | | | | | |
|---|---|---|---|---|---|---|
| CODE | 316B | | | | | |
| OPTION | | | | | | |
| | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC |
| TOP | | | | | | |
| | 4,5,7 | BM | 3 | | | |
| BOT | | | | | | |
| COIL | | | 12309 | | | |
| | | | 31F1 | | | |
| | | | 3 | | | |
| | | | 123C4 | | | |

DRAWING ISSUE

| | |
|---|---|
| 33D | TS CLK |
| 34A | CLK |
| 35D | RCB CLK A/B |
| 36A | TS CLK |
| 37D | TS CLK |
| 38A | RP |
| 39D | RP |
| 40A | |
| 42A | |
| 43D | |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C69

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-C69

## APP FIG 136 (A&M ONLY)

RELAY

| DESIG | AIFO | | AIFI | | INFO | | INFR | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ512 | | AJ5 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 20A/F6 | EBM | 20A/B2 | BM | 28A/C1 | EBM | | | | | | | | | | | | 12 |
| 11 | EBM | 20A/F5 | EBM | 20A/B2 | BM | | EBM | | | | | | | | | | | | 11 |
| 10 | EBM | | EBM | 20A/A2 | BM | | EBM | 598/H4 | | | | | | | | | | | 10 |
| 9 | EBM | 47C2 | EBM | 47C2 | BM | | EBM | | | | | | | | | | | | 9 |
| 8 | EMB | 47C2 | EMB | 47C2 | BM | | EBM | | | | | | | | | | | | 8 |
| 7 | EBM | 47D6 | EBM | 47E6 | BM | 47E8 | EBM | | | | | | | | | | | | 7 |
| 6 | EMB | 298/C3 | EMB | 298/C3 | BM | 298/C2 | EBM | 298/B2 | | | | | | | | | | | 6 |
| 5 | EMB | | EMB | | BM | | EBM | | | | | | | | | | | | 5 |
| 4 | EBM | | EBM | 21A/F8 | BM | | EBM | 21A/G8 | | | | | | | | | | | 4 |
| 3 | EBM | | EBM | 21A/F7 | BM | | EBM | 21A/F7 | | | | | | | | | | | 3 |
| 2 | EBM | 598/A7 | EBM | | BM | 598/A7 | EBM | 598/B8 | | | | | | | | | | | 2 |
| 1 | EBM | 598/A7 | EBM | | BM | 598/A7 | EBM | 598/A8 | | | | | | | | | | | 1 |
| COIL | | 20A/E9 | | 20A/E9 | | 28A/B6 | | 598/H4 | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AIFO | 20A/E9 | 185A |
| AIFI | 20A/E9 | |
| INFO | 28A/B6 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| AIFO | 20A/E6 | KS-8512, L68, 274 |
| AIFI | 20A/B2 | |

## APP FIG 137

RELAY

| DESIG | CIO | | CI1 | | CI2 | | CI3 | | CI4 | | CIA | | CI | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ72 | | AJ72 | | AJ72 | | AJ72 | | AJ72 | | AJ12 | | AJ503 7WE | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 105EO | BM | 105EO | BM | 105EO | BM | 105EO | BM | 105EO | EBM | | EBM | | | | | | 12 |
| 11 | BM | 105EO | BM | 105EO | BM | 105EO | BM | 105EO | BM | 105EO | EBM | 105E1 | EBM | | | | | | 11 |
| 10 | BM | | BM | 108A2 | BM | 108A2 | BM | 108A2 | BM | 108A1 | EBM | 63F2 | EBM | | | | | | 10 |
| 9 | BM | 108A3 | BM | 108A2 | BM | 108A2 | BM | 108A2 | BM | 108A1 | EBM | 63A0 | EBM | 47HI | | | | | 9 |
| 8 | BM | | BM | | BM | | BM | | BM | | EBM | | EMB | | | | | | 8 |
| 7 | BM | | BM | | BM | | BM | | BM | | EBM | | EBM | 47GI | | | | | 7 |
| 6 | BM | | BM | | BM | | BM | | BM | | EBM | | EMB | | | | | | 6 |
| 5 | BM | | BM | | BM | | BM | | BM | | EBM | 62A/C3 | EMB | | | | | | 5 |
| 4 | BM | 61F9 | BM | 61F9 | BM | 61F9 | BM | 61F9 | BM | 61F9 | EBM | 61F9 | EBM | 47GI | | | | | 4 |
| 3 | BM | 69H2 | BM | 69H2 | BM | 69H2 | BM | 69H2 | BM | 69H2 | EBM | 69H2 | EBM | 47GI | | | | | 3 |
| 2 | BM | 68A6 | BM | 68A6 | BM | 68A6 | BM | 68A6 | BM | 68A6 | EBM | 68A6 | EBM | 47GO | | | | | 2 |
| 1 | BM | 67A5 | BM | 67A5 | BM | 67A5 | BM | 67A5 | BM | 67A5 | EBM | 67A5 | EBM | 47HO | | | | | 1 |
| COIL | | 105EO | | 105EO | | 105EO | | 105EO | | 105EO | | 108A1 | | 105FO | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CIOP-4P | 105FO | 185A |
| CIOS-4S | 105EO | |
| CIA | 108A1 | |
| (ZWE) CI | 105FO | |

## APP FIG 138

RELAY

| DESIG | BR1 | | BR2 | | BR3 | | BRG | | CIR | | MT41 | | TIR | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ512 | | AJ512 | | AJ512 | | AJ507 | | AJ512 | | AJ12 | | AJ516 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 78B/A8 | BM | 78B/A8 | BM | 78B/A8 | M | | BM | 77E8 | EBM | | EBM | | | | | | 12 |
| 11 | BM | | BM | | BM | | M | | BM | | EBM | | EMB | | | | | | 11 |
| 10 | BM | | BM | | BM | | M | | BM | | EBM | | EBM | | | | | | 10 |
| 9 | BM | | BM | | BM | | M | | BM | | EBM | | EMB | | | | | | 9 |
| 8 | BM | | BM | | BM | | BM | | BM | | EBM | | EBM | | | | | | 8 |
| 7 | BM | | BM | | BM | | M | 78B/C7 | BM | | EBM | | BM | 37G3 | | | | | 7 |
| 6 | BM | | BM | | BM | | BM | | BM | | EBM | | EBM | | | | | | 6 |
| 5 | BM | 78B/D8 | BM | 78B/F8 | BM | 78B/D8 | M | 78B/B8 | BM | | EBM | | BM | 37C6 | | | | | 5 |
| 4 | BM | 78B/F7 | BM | 78B/D7 | BM | 78B/D7 | BM | 78B/D7 | BM | | EBM | 78B/B7 | EBM | 37A2 | | | | | 4 |
| 3 | BM | | BM | 78B/G7 | BM | | M | 78B/A8 | BM | | EBM | 78B/A7 | EMB | 78C6 | | | | | 3 |
| 2 | BM | 78B/C7 | BM | 78B/C8 | BM | 783/C8 | M | 78B/A8 | BM | | EBM | 78B/A7 | EBM | | | | | | 2 |
| 1 | BM | 78B/A7 | BM | 78B/A8 | BM | 78B/A8 | M | 78B/A8 | BM | 78B/D7 | EBM | 78B/A7 | EMB | 78B/D7 | | | | | 1 |
| COIL | | 78B/A9 | | 78B/A9 | | 78B/A9 | | 78B/A9 | | 78B/B9 | | 79G6 | | 78B/C9 | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| BR1 | 78B/A9 | 185A |
| BR2 | 78B/A9 | |
| BR3 | 78B/A9 | |
| BRG | 78B/A9 | |
| CIR | 78B/B9 | |
| TIR | 78B/C9 | |

## APP FIG 139

RELAY

| DESIG | ATT2 | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | | | | | | | | | | | | | | | | | 12 |
| 11 | EBM | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | | | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | | | | | | | | | | | | | | | | | | 8 |
| 7 | EBM | 107E2 | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | | | | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 107F2 | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 78B/G3 | | | | | | | | | | | | | | | | | 1 |
| COIL | | 218/B7 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| ATT2 | 218/B7 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 35D | 6A, 1B, 6N, 4W |
| 36A | MD |
| 37D | MD |
| 39D | RF |
| 40A | |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 60A

COMPLETING MARKER CIRCUIT — (2)

SD-26002-01-C70

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

E-7422-A-1 (8-64)

## APP FIG 141

RELAY

| DESIG | CNP | | CP | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | EBM | | | | | | | | | | | | | | 12 |
| 11 | EBM | | EBM | | | | | | | | | | | | | | 11 |
| 10 | EBM | | EBM | | | | | | | | | | | | | | 10 |
| 9 | EBM | 28A/E6 | EBM | 28A/D6 | | | | | | | | | | | | | 9 |
| 8 | EMB | | EMB | | | | | | | | | | | | | | 8 |
| 7 | EBM | | EBM | | | | | | | | | | | | | | 7 |
| 6 | EMB | | EMB | | | | | | | | | | | | | | 6 |
| 5 | EMB | | EMB | | | | | | | | | | | | | | 5 |
| 4 | EBM | | EBM | | | | | | | | | | | | | | 4 |
| 3 | EBM | | EBM | | | | | | | | | | | | | | 3 |
| 2 | EBM | | EBM | | | | | | | | | | | | | | 2 |
| 1 | EBM | | EBM | | | | | | | | | | | | | | 1 |
| COIL | | 53H1 | | 51H1 | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CNP | 53H1 | 185A |
| CP | 51H1 | |

## APP FIG 142

RELAY

| DESIG | FGT | | FX0 | | GX0 | | FX1 | | GX1 | | FX2 | | GX2 | | FX4 | | GX4 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AK6 | | | | AK6 | | | | AK6 | | | | AK6 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | | | | BM | | | | BM | 131G3 | | | BM | 131G3 | | | BM | 131G3 | | | 12 |
| 11 | M | | | | BM | 131F3 | | | BM | 131G3 | | | BM | 131F3 | | | BM | 131F3 | | | 11 |
| 10 | M | 55E3 | | | BM | 131E3 | | | BM | 131E3 | | | BM | 131E1 | | | BM | 131E3 | | | 10 |
| 9 | M | 54E3 | | | BM | 131E3 | | | BM | 131E1 | | | BM | 131E1 | | | BM | 131E2 | | | 9 |
| 8 | M | 53E3 | | | BM | 131E1 | | | BM | 131E1 | | | BM | 131E1 | | | BM | 131E2 | | | 8 |
| 7 | M | 52E3 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 51E3 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | 55E3 | BM | | | | BM | 131D3 | | | BM | 131C3 | | | BM | 131D3 | | | | | 5 |
| 4 | M | 54E3 | BM | 131B3 | | | BM | 131C3 | | | BM | 131B3 | | | BM | 131C3 | | | | | 4 |
| 3 | M | 53E3 | BM | 131B3 | | | BM | 131B3 | | | BM | 131A1 | | | BM | 131A3 | | | | | 3 |
| 2 | M | 52E3 | BM | 131A3 | | | BM | 131A1 | | | BM | 131A1 | | | BM | 131A2 | | | | | 2 |
| 1 | M | 51E3 | BM | 131A1 | | | BM | 131A1 | | | BM | 131A1 | | | BM | 131A2 | | | | | 1 |
| COIL | | 131C1 | | 51E3 | | 51E3 | | 52D3 | | 52E3 | | 53E3 | | 53E3 | | 54E3 | | 54E3 | | | COIL |

RELAY

| DESIG | FX7 | | GX7 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|
| CODE | AK6 | | | | | | | | CODE |
| OPTION | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | BM | 131H3 | | | | | 12 |
| 11 | | | BM | 131G3 | | | | | 11 |
| 10 | | | BM | 131F3 | | | | | 10 |
| 9 | | | BM | 131E3 | | | | | 9 |
| 8 | | | BM | 131E2 | | | | | 8 |
| 7 | | | | | | | | | 7 |
| 6 | | | | | | | | | 6 |
| 5 | BM | 131D3 | | | | | | | 5 |
| 4 | BM | 131C3 | | | | | | | 4 |
| 3 | BM | 131B3 | | | | | | | 3 |
| 2 | BM | 131A3 | | | | | | | 2 |
| 1 | BM | 131A2 | | | | | | | 1 |
| COIL | | 55E3 | | 55E3 | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| FGT | 131C1 | 185A |

## APP FIG 143

RELAY

| DESIG | FACA | | INCT | | INCT | | INL | | LT3 | | ORA | | PK1 | | 1T | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ507 | | AJ508 | | AJ507 | | AJ512 | | AF504 | | AJ507 | | AJ512 | | AJ512 | | | | | | CODE |
| OPTION | | | FM | | FN | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 21A/A7 | M | 20A/D4 | M | 20A/D4 | BM | 20A/A8 | M | 20A/B9 | M | 21A/B7 | BM | | BM | 20A/A8 | | | | | 12 |
| 11 | M | 20A/H4 | | | M | | BM | 20A/A9 | M | 5000 | M | 20A/H4 | BM | | BM | 20A/A9 | | | | | 11 |
| 10 | M | | BM | | M | | BM | | M | 24B/A7 | M | | BM | | BM | | | | | | 10 |
| 9 | M | | | | M | | BM | | M | 24B/B7 | M | | BM | | BM | | | | | | 9 |
| 8 | BM | | BM | | BM | | BM | 47D7 | M | 24B/B7 | BM | | BM | | BM | 47D7 | | | | | 8 |
| 7 | M | 20A/D3 | | | M | | BM | | M | 24B/C7 | M | 20A/D3 | BM | | BM | | | | | | 7 |
| 6 | BM | 20A/E3 | BM | 20A/E3 | BM | 20A/E3 | BM | | M | 24B/D7 | BM | 20A/E3 | BM | 24C/D7 | BM | | | | | | 6 |
| 5 | M | 20A/D3 | | | M | | BM | | M | 24B/D7 | M | 20A/C3 | BM | 24C/D7 | BM | | | | | | 5 |
| 4 | BM | 20A/F3 | BM | 20A/G3 | BM | 20A/G3 | BM | | M | 24B/E7 | BM | 20A/F3 | BM | 24C/C7 | BM | | | | | | 4 |
| 3 | M | 20A/C3 | | | M | | BM | | M | 24B/F7 | M | 20A/C3 | BM | 24C/C7 | BM | | | | | | 3 |
| 2 | M | 20A/D9 | M | 20A/D8 | M | 20A/C8 | BM | | M | 24B/F7 | M | 20A/D8 | BM | 24C/B7 | BM | | | | | | 2 |
| 1 | M | 20A/A4 | M | 20A/A3 | M | 20A/A3 | BM | | M | 24C/D4 | M | 20A/A3 | BM | 24C/B2 | BM | | | | | | 1 |
| COIL | | 21A/A7 | | 21A/H5 | | 21A/H5 | | 20A/A3 | | 20A/D6 | | 21A/B7 | | 24C/C1 | | 20A/B3 | | | | | COIL |

DIODE

| DESIG | LOC | CODE |
|---|---|---|
| INL | 20A/A3 | 426G |
| TT | 20A/B3 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| FACA | 21A/A7 | |
| INCT | 21A/H5 | |
| INL | 20A/A3 | |
| LT3 | 20A/D6 | 185A |
| ORA | 21A/A7 | |
| PK1 | 24C/C1 | |
| TT | 20A/B3 | |

(FM, FN)

## APP FIG 144

RELAY

| DESIG | NCRA | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ72 | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 36E2 | | | | | | | | | 12 |
| 11 | BM | a | | | | | | | | | 11 |
| 10 | BM | 37G4 | | | | | | | | | 10 |
| 9 | BM | 22E1 | | | | | | | | | 9 |
| 8 | BM | 22E1 | | | | | | | | | 8 |
| 7 | BM | 122B/B1 | | | | | | | | | 7 |
| 6 | BM | 62A/B4 | | | | | | | | | 6 |
| 5 | BM | 62A/C5 | | | | | | | | | 5 |
| 4 | BM | 38G2 | | | | | | | | | 4 |
| 3 | BM | 37G1 | | | | | | | | | 3 |
| 2 | BM | 36D4 | | | | | | | | | 2 |
| 1 | BM | 22E3 | | | | | | | | | 1 |
| COIL | | 62A/B4 | | | | | | | | | COIL |

(ZUZ) 81A1

(ZUY) 81A0

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| NCR1 | 62A/B4 | |
| NCR2 | 62A/C4 | 185A |
| UKA | 62A/C6 | |

RELAY

| DESIG | UKA | | | | | | DESIG |
|---|---|---|---|---|---|---|---|
| CODE | 316D | | | | | | CODE |
| OPTION | | | | | | | OPTION |
| | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC | |
| TOP | | | | | | | |
| | 4,5,7 | BM | 62A/B5 | | | | |
| BOT | | | | | | | |
| COIL | | | 62A/C6 | | | | COIL |

DRAWING ISSUE

| | |
|---|---|
| 35D | FGT IB DAM HAS |
| 36A | WM |
| 37D | WM |
| 39D | RA |
| 40A | |
| 41D | |
| 43D | |

ISSUE 63B

COMPLETING MARKER CIRCUIT

SD-26002-01-C73

BELL TELEPHONE LABORATORIES INCORPORATED

SYS CODE 6S

# APP FIG 145

RELAY

| DESIG | OVP | OVS | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK6 | | | | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | BM | | | | | | | | | | | | | | | | | |
| 11 | BM | | | | | | | | | | | | | | | | | |
| 10 | BM | 88A/E3 | | | | | | | | | | | | | | | | |
| 9 | BM | | | | | | | | | | | | | | | | | |
| 8 | BM | 40FO | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 5 | | | BM | 40F1 | | | | | | | | | | | | | | |
| 4 | | | BM | | | | | | | | | | | | | | | |
| 3 | | | BM | 88A/D3 | | | | | | | | | | | | | | |
| 2 | | | BM | | | | | | | | | | | | | | | |
| 1 | | | BM | | | | | | | | | | | | | | | |
| COIL | | 20A/G5 | | 20A/E5 | | | | | | | | | | | | | | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| OVP | 20A/G5 | 135A |
| OVS | 20A/E5 | |

# APP FIG 146

RELAY

| DESIG | BLR | MT3 | MT42 | | NRD | NSA | RCD | SMC | SMP | SMR |
|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF32 | AJ15 | AJ15 | | AJ503 | AF42 | AJ503 | AJ503 | AF32 | AJ501 |
| OPTION | | | | | | | | | | |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC |
| 12 | EMB 1148/H1 | EBM 80G8 | EBM 80G8 | | EBM 47B6 | EMB | EBM 47C9 | EBM 1148/B5 | EMB | EBM |
| 11 | | EBM | EBM | | EBM | M | EBM 114A/B6 | EBM 1148/B7 | | EBM |
| 10 | EBM 36H6 | EBM 1148/A1 | EBM | | EBM | EBM | EBM 114A/A6 | EBM 498/H7 | EBM | EBM |
| 9 | | EBM | EBM | | EBM 1148/G7 | | EBM 1148/G7 | CBM | | EBM |
| 8 | EBM 498/H4 | EMB 1148/G8 | EMB | | EMB | EBM 29A/C9 | EMB 103C1 | EMB | EBM 36H7 | EMB 1148/F2 |
| 7 | | EBM | EBM | | EBM 1148/C6 | B | EBM 1148/C6 | EBM 1148/B5 | | EBM |
| 6 | EMB | EMB 1148/G8 | EMB | | EMB 1148/C6 | EMB | EMB 1148/C6 | EMB | EMB | EMB |
| 5 | | EMB | EMB 80C3 | | EMB 1148/F6 | | EMB 1148/F6 | EMB | | EMB |
| 4 | EBM | EBM 1148/B2 | EBM 1148/B8 | | EBM | EBM 42C3 | EBM 57B/C2 | EBM | EBM 1148/E6 | EBM 1148/B6 |
| 3 | | EBM | EBM 1148/B8 | | EBM 34D/H4 | M 42C2 | EBM 36H5 | EBM | | EBM |
| 2 | EBM 47C5 | EBM 1148/H3-5 | EBM 1148/H3-5 | | EBM | EBM | EBM 29A/B9 | EBM | EBM 1148/D7 | EBM |
| 1 | | EBM 1148/C3 | EBM 1148/F6 | | EBM | M | EBM 498/H3 | EBM 1148/B8 | | EBM |
| COIL | 1148/F2 | 1148/E4 | 1148/A2 | | 1148/C7 | 42H0 | 1148/C6 | 1148/D4 | 1148/C4 | 1148/D2 |

RELAY

| DESIG | SMT | IAO | | SAR | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK501 | | | AK7 | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC |
| 12 | BM 29A/C9 | | | | EBM 57B/C3 | | | | | | | | | | | | | |
| 11 | BM 92A6 | | | | EBM 498/H3 | | | | | | | | | | | | | |
| 10 | BM 36H6 | | | | EBM 1148/C6 | | | | | | | | | | | | | |
| 9 | BM 34B/H4 | | | | EM | | | | | | | | | | | | | |
| 8 | BM 498/H5 | | | | EM 36H6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 5 | | BM 1148/D0 | EM | | | | | | | | | | | | | | | |
| 4 | | BM | EM | | | | | | | | | | | | | | | |
| 3 | | BM 1148/F7 | EBM | | | | | | | | | | | | | | | |
| 2 | | BM 92B7 | EBM | | | | | | | | | | | | | | | |
| 1 | | BM 29A/C9 | EBM | | | | | | | | | | | | | | | |
| COIL | 1148/F2 | 1148/D4 | | | 1148/A8 | | | | | | | | | | | | | |

RELAY

| DESIG | NRR | RCR | SMK | TCT | XSP | TGTS |
|---|---|---|---|---|---|---|
| CODE | 316M | 316M | 316R | 316F | 316R | 316A |
| OPTION | | | | | | |
| | CONT NO. / CONT ARR / LOC | CONT NO. / CONT ARR / LOC | CONT NO. / CONT ARR / LOC | CONT NO. / CONT ARR / LOC | CONT NO. / CONT ARR / LOC | CONT NO. / CONT ARR / LOC |
| TOP | | | | | | |
| | 4,5,7 BM 1148/C5 | 4,5,7 BM 1148/B5 | 4,5,7 BM 1148/C3 | 4,5,7 BM 1148/D7 | 4,5,7 BM 87E5 | 4,5,7 BM 1148/C8 |
| BOT | | | | | | |
| COIL | 1148/B6 | 1148/B7 | a | 1148/F6 | 1148/B7 | 1148/B8 |

a P-498/H6
S-

CAPACITOR

| DESIG | LOC | CODE |
|---|---|---|
| TGT | 1148/D7 | 437A |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| XSP | 1148/B6 | 13J(RES) |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| BLR | 1148/F2 | |
| IAO | 1148/D4 | |
| MT3 | 1148/E4 | |
| MT42 | 1148/A2 | |
| NRD | 1148/C7 | |
| NSA | 42H0 | |
| RCD | 1148/C6 | 185A |
| SAR | 1148/A8 | |
| SMC | 1148/D4 | |
| SMP | 1148/C4 | |
| SMR | 1148/D2 | |
| SMT | 1148/F2 | |
| TCT | 1148/F6 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| SMK1 | 498/H7 | 19FA |
| SMK2 | 498/H7 | 19S |
| TCT1 | 1148/F5 | 19EF |
| TCT2 | 1148/D6 | 18JW |
| TCT3 | 1148/D6 | 19U |
| XSP1 | 1148/B5 | 18FN |
| XSP2 | 1148/B7 | 19EW |
| XSP3 | 1148/B9 | 19BA |
| XSP4 | 47C5 | 19BU |

DRAWING ISSUE

| | |
|---|---|
| 36A | XS |
| 38A | RA |
| 39D | RA |
| 43D | |

DRAWING ISSUE

65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C74

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

## APP FIG 147

RELAY

| DESIG | ANTD | | NCTD | | NTD | | TD | | TDK | | CMJT | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ505 | | AJ508 | | AF522 | | AF522 | | AF531 | | AJ508 | | | | | | | | | | CODE |
| OPTION | | | | | BD | | BD | | | | ZTE | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | 29A/D6 | | | | | | | M | 13287 | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 29B/C2 | BM | | M | | M | 318/H8 | EBM | | BM | 29B/E7 | | | | | | | | | 10 |
| 9 | B | 318/G8 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | 31B/G8 | BM | 31B/G8 | BM | 31B/H8 | BM | 31B/G8 | EBM | 318/G9 | BM | 31B/G9 | | | | | | | | | 8 |
| 7 | B | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | 12481 | BM | | BM | 13287 | BM | | EBM | | BM | 29A/F5 | | | | | | | | | 6 |
| 5 | B | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 29B/D7 | BM | 12483 | M | | M | 13288 | EBM | | BM | 124C1 | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 13287 | M | 13287 | | | | | | | M | 92B6 | | | | | | | | | 2 |
| 1 | | | M | 29A/F9 | | | | | | | M | 92F6 | | | | | | | | | 1 |
| COIL | | 28B/C9 | | 28B/A6 | | 13207 | | 13207 | | 13286 | | 28B/C9 | | | | | | | | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| | ANTD | 28B/C9 | 186A |
| (ZTE) | CMJT | 28B/C9 | 186A |
| | NCTD | 28B/A6 | 186A |
| (BD) | NTD | 13207 | 185A |
| (BD) | TD | 13207 | 185A |
| | TDK | 13286 | 185A |

## APP FIG 148 (MFR DISC.)

RELAY

| DESIG | C01 | 112 | 002 | 120 | 010 | 121 | 011 | 122 | 012 | 200 | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK501 | | AK501 | | AK501 | | AK501 | | AK501 | | CODE |
| OPTION | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | BM 111C/E5 | | BM 111C/F5 | | BM 111C/E5 | | BM 111C/E5 | | BM 111C/F5 | | 12 |
| 11 | BM | | BM | | BM | | BM | | BM | | 11 |
| 10 | BM 111C/C5 | | BM 111C/C5 | | BM 111C/D5 | | BM 111C/D5 | | BM 111C/D5 | | 10 |
| 9 | BM | | BM | | BM | | BM | | BM | | 9 |
| 8 | BM 111C/A5 | | BM 111C/A5 | | BM 111C/A5 | | BM 111C/A5 | | BM 111C/A5 | | 8 |
| 7 | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | 6 |
| 5 | | BM 111C/G5 | | BM 111C/E5 | | BM 111C/F5 | | BM 111C/G5 | | BM 111C/E5 | 5 |
| 4 | | BM | | BM | | BM | | BM | | BM | 4 |
| 3 | | BM 111C/D5 | | BM 111C/E5 | | BM 111C/E5 | | BM 111C/E5 | | BM 111C/C5 | 3 |
| 2 | | BM | | BM | | BM | | BM | | BM | 2 |
| 1 | | BM 111C/B5 | | BM 111C/B5 | | BM 111C/B5 | | BM 111C/B5 | | BM 111C/C5 | 1 |
| COIL | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | COIL |

RELAY

| DESIG | 020 | 201 | 021 | 202 | 022 | 210 | 100 | 211 | 101 | 212 | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK501 | | AK501 | | AK501 | | AK501 | | AK501 | | CODE |
| OPTION | | | | | | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | BM 111C/E5 | | BM 111C/E5 | | BM 111C/F5 | | BM 111C/E5 | | BM 111C/E5 | | 12 |
| 11 | BM | | BM | | BM | | BM | | BM | | 11 |
| 10 | BM 111C/D5 | | BM 111C/D5 | | BM 111C/D5 | | BM 111C/C5 | | BM 111C/C5 | | 10 |
| 9 | BM | | BM | | BM | | BM | | BM | | 9 |
| 8 | BM 111C/A5 | | BM 111C/A5 | | BM 111C/A5 | | BM 111C/B5 | | BM 111C/B5 | | 8 |
| 7 | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | 6 |
| 5 | | BM 111C/F5 | | BM 111C/G5 | | BM 111C/E5 | | BM 111C/F5 | | BM 111C/G5 | 5 |
| 4 | | BM | | BM | | BM | | BM | | BM | 4 |
| 3 | | BM 111C/C5 | | BM 111C/C5 | | BM 111C/D5 | | BM 111C/D5 | | BM 111C/D5 | 3 |
| 2 | | BM | | BM | | BM | | BM | | BM | 2 |
| 1 | | BM 111C/C5 | | BM 111C/C5 | | BM 111C/C5 | | BM 111C/C5 | | BM 111C/C5 | 1 |
| COIL | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | COIL |

RELAY

| DESIG | 102 | 220 | 110 | 221 | | DESIG |
|---|---|---|---|---|---|---|
| CODE | AK501 | | AK501 | | | CODE |
| OPTION | | | | | | OPTION |
| | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | CONT ARR / LOC | |
| 12 | BM 111C/F5 | | BM 111C/E5 | | | 12 |
| 11 | BM | | BM | | | 11 |
| 10 | BM 111C/C5 | | BM 111C/D5 | | | 10 |
| 9 | BM | | BM | | | 9 |
| 8 | BM 111C/B5 | | BM 111C/B5 | | | 8 |
| 7 | | | | | | 7 |
| 6 | | | | | | 6 |
| 5 | | BM 111C/E5 | | BM 111C/F5 | | 5 |
| 4 | | BM | | BM | | 4 |
| 3 | | BM 111C/E5 | | BM 111C/E5 | | 3 |
| 2 | | BM | | BM | | 2 |
| 1 | | BM 111C/C5 | | BM 111C/C5 | | 1 |
| COIL | 111C/A3 | 111C/B3 | 111C/A3 | 111C/B3 | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| [2] | 001,002 | 111C/A3 | 185A |
| [3] | 010-012 | | |
| [3] | 020-022 | | |
| [3] | 100-102 | | |
| | 110 | | |
| | 112 | 111C/B3 | |
| [3] | 120-122 | | |
| [3] | 200-202 | | |
| ~~[3]~~ | ~~210-212~~ | | |
| [2] | 220,221 | | |

## APP FIG 149

RELAY

| DESIG | (4) TB6-9 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | | | | | | | CODE |
| OPTION | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 17D1 | | | | | | | 12 |
| 11 | EBM | 17F0 | | | | | | | 11 |
| 10 | EBM | | | | | | | | 10 |
| 9 | EBM | | | | | | | | 9 |
| 8 | EMB | 17H2 | | | | | | | 8 |
| 7 | EBM | | | | | | | | 7 |
| 6 | EMB | 17H2 | | | | | | | 6 |
| 5 | EMB | | | | | | | | 5 |
| 4 | EBM | 18A8 | | | | | | | 4 |
| 3 | EBM | | | | | | | | 3 |
| 2 | EBM | | | | | | | | 2 |
| 1 | EBM | 15H2 | | | | | | | 1 |
| | | 17D0 | | | | | | | COIL |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| [4] | TB6-9 | 17D0 | 185A |

DRAWING ISSUE

| | |
|---|---|
| 37D | jar |
| 39D | RA |
| 43D | CB |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C75

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

E-1422-A-1 (6-64)

SD-26002-01-C75

# APP FIG 150

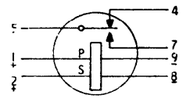
RELAY

| DESIG | 10LV | | 12LV | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ501 | | | | | | | | | | | | | | | | CODE |
| OPTION | ZZM | | ZZM | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 32G2 | EBM | 32G2 | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | EBM | - | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 32E2 | EBM | 32E2 | | | | | | | | | | | | | | | 10 |
| 9 | EBM | - | EBM | - | | | | | | | | | | | | | | | 9 |
| 8 | EMB | - | EMB | 34A/C2 | | | | | | | | | | | | | | | 8 |
| 7 | EBM | - | EBM | - | | | | | | | | | | | | | | | 7 |
| 6 | EMB | - | EMB | - | | | | | | | | | | | | | | | 6 |
| 5 | EMB | - | EMB | - | | | | | | | | | | | | | | | 5 |
| 4 | EBM | - | EBM | 34A/F3 | | | | | | | | | | | | | | | 4 |
| 3 | EBM | - | EBM | - | | | | | | | | | | | | | | | 3 |
| 2 | EBM | - | EBM | - | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 32E2 | EBM | - | | | | | | | | | | | | | | | 1 |
| COIL | | 12F7 | | 12G7 | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | COIL |

RELAY




| DESIG | XJS1 | |
|---|---|---|
| CODE | 316R | |
| OPTION | | |
| 9 | 32H1 | |
| 8 | 32H1 | |
| 7 | 87C3 | |
| 6 | | |
| 5 | 87C3 | |
| 4 | | |
| 3 | | |
| 2 | 32H1 | |
| 1 | 32H1 | |

NETWORK

| OPTION | DESIG | LOC | CODE |
|---|---|---|---|
| ZZM | 10LV | 12F7 | 185A |
| ZZM | 12LV | 12G7 | |
| ZOT | XJSB | 32H7 | 186A |
| ZLC | XJS1 | 32H1 | 185A |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| (ZCS) JSA | 32H0 | 188U |
| (ZOT) JSA | 32H0 | 186K |
| (ZOT) XJSB | 32H2 | KSH9150,L1-33,000 |

# PART OF APP FIG 151

RELAY

| DESIG | LSWR | | LWL | | MMK | | MT46 | | MT5C | | RDCK | | RSMK | | RSW | | RUK1 | | RVT | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ503 | | AF531 | | AJ12 | | AJ12 | | AF531 | | AJ503 | | AJ501 | | AF531 | | AF32 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | 14184 | | | EBM | 13602 | EBM | - | | | EBM | - | EBM | 139C5 | | | EMD | - | 12 |
| 11 | EBM | 88E/G3 | EBM | 135F4 | | | EBM | - | EBM | - | | | EBM | - | EBM | 13987 | | | | | 11 |
| 10 | EBM | - | EBM | 13983 | EBM | - | EBM | 135C5 | EBM | 135D6 | EBM | - | EBM | - | EBM | 139F7 | EBM | - | EBM | - | 10 |
| 9 | EBM | - | EBM | - | | | EBM | 135C5 | EBM | 135D6 | | | EBM | - | EBM | - | | | | | 9 |
| 8 | EMB | | EMB | 31A/D8 | EBM | 13484 | EBM | 135D5 | EBM | 135D6 | EBM | 139C5 | EMB | - | EMB | - | EBM | 13444 | EDM | - | 8 |
| 7 | EBM | 139A7 | EBM | - | | | EBM | 135D5 | EBM | 135D6 | | | EBM | - | EBM | - | | | | | 7 |
| 6 | EMB | 133A9 | EMB | - | EBM | 13446 | EBM | 135D5 | EBM | 135C6 | EBM | 13444 | EMB | - | EMB | - | EBM | 133E0 | EMB | - | 6 |
| 5 | EMB | - | EMB | - | | | EBM | 135D5 | EBM | 13506 | | | EMB | - | EMB | 42C4 | | | | | 5 |
| 4 | EBM | 135E5 | EBM | 13446 | EBM | 139A7 | EBM | 135C5 | EBM | 13506 | EBM | 133D2 | EBM | | EBM | 136G4 | EBM | 133G2 | EBM | 134F4 | 4 |
| 3 | EBM | - | EBM | 139F3 | | | EBM | 135C5 | EBM | 13506 | | | EBM | 139B7 | EBM | 134E6 | | | | | 3 |
| 2 | EBM | 139B5 | EBM | - | | | EBM | 135C5 | EBM | 13506 | | | EBM | 133E2 | EBM | 13787 | | | EBM | 134E4 | 2 |
| 1 | EBM | - | EBM | - | | | EBM | 135D5 | EBM | 13506 | | | EBM | 134B4 | EBM | 14184 | | | | | 1 |
| COIL | | 137B9 | | 134H5 | | 134C5 | | 14282 | | 142A2 | | 133C2 | | 133E2 | | 42G4 | | 133F2 | | 133G2 | COIL |

RELAY

| DESIG | RWL | | WL0 | | WL1 | | WL2 | | WL3 | | WL4 | | WL5 | | WL6 | | WL7 | | WL8 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ508 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 134B6 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | 12 |
| 11 | | | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | 11 |
| 10 | BM | 139G2 | EBM | - | EBM | 133E5 | EBM | 133E5 | EBM | 133E5 | EBM | 133E6 | EBM | 133E6 | EBM | 133E6 | EBM | 133E7 | EBM | 133E7 | 10 |
| 9 | | | EBM | 133E5 | EBM | 133E5 | EBM | 133E5 | EBM | 133E5 | EBM | 133E6 | EBM | 133E6 | EBM | 133E6 | EBM | 133E7 | EBM | 133E7 | 9 |
| 8 | BM | 135G3 | EMB | 133A0 | EMB | 133A1 | EMB | 133A2 | EMB | 133A3 | EMB | 133A4 | EMB | 133A4 | EMB | 133A5 | EMB | 133A6 | EMB | 133A7 | 8 |
| 7 | | | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | 7 |
| 6 | BM | 133F1 | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | 6 |
| 5 | | | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | 5 |
| 4 | BM | - | EBM | 134D4 | EBM | 134D4 | EBM | 134D4 | EBM | 134D4 | EBM | 134D4 | EBM | 134D4 | EBM | 134D4 | EBM | 134D4 | EBM | 134D4 | 4 |
| 3 | | | EBM | 135E5 | EBM | 135E5 | EBM | 135E5 | EBM | 135E5 | EBM | 135E5 | EBM | 135E5 | EBM | 135E5 | EBM | 135E5 | EBM | 135E5 | 3 |
| 2 | M | 13788 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | 2 |
| 1 | M | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | 1 |
| COIL | | 134G5 | | 13361 | | 13381 | | 13382 | | 13383 | | 13384 | | 13385 | | 13386 | | 13386 | | 13387 | COIL |

DRAWING ISSUE

| |
|---|
| 390 RA |
| 410 |
| 424 |
| 44A |

DRAWING ISSUE

| |
|---|
| 53B |

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-C76

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# PART OF APP FIG 151

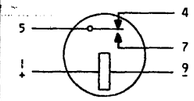
RELAY

| DESIG | WL9 | | WLA | | WLKB | | XFR | | XRSC | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AF42 | | AF96 | | AF104 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EBM | - | EMB | 88C/F3 | | | | | | | | | | | | | | | 12 |
| 11 | EBM | - | EBM | - | M | 88E/G3 | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 133E7 | EBM | - | EBM | - | | | | | | | | | | | | | | | 10 |
| 9 | EBM | 133E7 | EBM | - | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | 133A8 | EMB | - | EBM | - | M | 141B7 | M | 141A7 | | | | | | | | | | | 8 |
| 7 | EBM | - | EBM | - | 8 | - | | | | | | | | | | | | | | | 7 |
| 6 | EMB | - | EMB | 31A/D8 | EMB | 133A9 | M | 86E6 | M | 8606 | | | | | | | | | | | 6 |
| 5 | EMB | - | EMB | 141A4 | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 134D4 | EBM | 134D6 | EBM | - | M | 141B8 | M | 141A8 | | | | | | | | | | | 4 |
| 3 | EBM | 135E5 | EBM | 139G7 | M | 398/F1 | | | | | | | | | | | | | | | 3 |
| 2 | EBM | - | EBM | - | EBM | - | | | | | | | | | | | | | | | 2 |
| 1 | EBM | - | EBM | - | M | 31A/F8 | | | | | | | | | | | | | | | 1 |
| COIL | | 133B8 | | 133E8 | | 133C9 | | P-134F5<br>S-141B7 | | P-134G5<br>S-141A7 | | | | | | | | | | | COIL |

RELAY

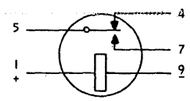
| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY



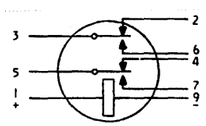

| DESIG | RUK | |
|---|---|---|
| CODE | 316B | |
| OPTION | | |
| 9 | 134B5 | |
| 8 | | |
| 7 | 133F0 | |
| 6 | | |
| 5 | 133F0 | |
| 4 | 133F0 | |
| 3 | | |
| 2 | | |
| 1 | 134B5 | |

RELAY



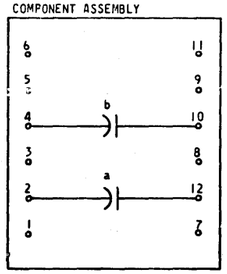

| DESIG | WLGK | |
|---|---|---|
| CODE | 316A | |
| OPTION | | |
| 9 | 135E6 | |
| 8 | | |
| 7 | 139A3 | |
| 6 | | |
| 5 | 139A3 | |
| 4 | 139A3 | |
| 3 | | |
| 2 | | |
| 1 | 135E6 | |

RELAY



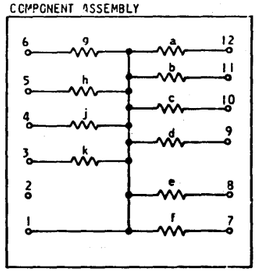

| DESIG | WLT0 | WLT1 | WLT2 | WLT3 | WLT4 | WLT5 | WLT6 | WLT7 | WLT8 | WLT9 |
|---|---|---|---|---|---|---|---|---|---|---|
| CODE | 316W | 316W | 316W | 316W | 316W | 316W | 316W | 316W | 316W | 316W |
| OPTION | | | | | | | | | | |
| 9 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 |
| 8 | | | | | | | | | | |
| 7 | 133C0 | 133C1 | 133C2 | 133C3 | 133C4 | 133C4 | 133C5 | 133C6 | 133C7 | 133C8 |
| 6 | 133C1 | 133C1 | 133C2 | 133C3 | 133C4 | 133C5 | 133C6 | 133C6 | 133C7 | 133C8 |
| 5 | 133C0 | 133C1 | 133C2 | 133C3 | 133C4 | 133C4 | 133C5 | 133C6 | 133C7 | 133C8 |
| 4 | 133C0 | 133C1 | 133C2 | 133C3 | 133C4 | 133C4 | 133C5 | 133C6 | 133C7 | 133C8 |
| 3 | 133C1 | 133C1 | 133C2 | 133C3 | 133C4 | 133C5 | 133C6 | 133C6 | 133C7 | 133C8 |
| 2 | 133C1 | 133C1 | 133C2 | 133C3 | 133C4 | 133C5 | 133C6 | 133C6 | 133C7 | 133C8 |
| 1 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 | 135E6 |

COMPONENT ASSEMBLY




| DESIG | | CA12 | | |
|---|---|---|---|---|
| CODE | | ED-94823-()G606 | | |
| OPTION | | | | |
| COMPONENT | | DESIG | LOC | CODE |
| CAPACITOR | a | XFR | 134F5 | ~~KS-13368,L3,.01~~ |
| | b | XRSC | 134G5 | KS-13368,L29,.01 |

COMPONENT ASSEMBLY




| DESIG | | WLT0-9 | | |
|---|---|---|---|---|
| CODE | | ED-94823-(),G602 | | |
| OPTION | | | | |
| COMPONENT | | DESIG | LOC | CODE |
| RESISTOR | a-k | [10]WLT0-9 | 135E6 | KS-19150,L1,6.8KΩ |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| RSC | 134G6 | 13J(RES) |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| LSWR | 13789 | |
| LWL | 134H5 | |
| MMK | 134C5 | 185A |
| RSW | 42G4 | |
| ROCK | .33D2 | |
| RSMK | 133E2 | |
| RUK1 | 133F2 | |
| RWL | 134G5 | 186A |
| WL0 | 13381 | |
| WL1 | 13381 | |
| WL2 | 13382 | |
| WL3 | 13383 | |
| WL4 | 13384 | |
| WL5 | 13385 | 185A |
| WL6 | 13386 | |
| WL7 | 13386 | |
| WL8 | 13387 | |
| WL9 | 13388 | |
| WLA | 133E8 | |
| WLKB | 133C9 | |

DRAWING ISSUE
390 DM
43D CB
44A FCB

DRAWING ISSUE
53B

COMPLETING MARKER CIRCUIT

SD-26002-01-C77

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-C77

E-7422-A-1(8-64)

# APP FIG 152

RELAY

| DESIG | CWB | | DS1 | | ITR3 | | LSW | | MT43 | | MT45 | | MT47 | | MT48 | | MT49 | | NW | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ15 | | AF42 | | AJ503 | | AJ501 | | AJ15 | | AJ12 | | AJ15 | | AJ15 | | AJ15 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | - | EMB | - | EBM | - | EBM | 143F4 | EBM | 79H5 | EBM | 141C1 | EBM | 138D2 | EBM | - | EBM | - | EBM | - | 12 |
| 11 | EBM | - | M | 134F4 | EBM | - | EBM | | EBM | 142B1 | EBM | 141C1 | EBM | 140F1 | EBM | 138A3 | EBM | - | EBM | - | 11 |
| 10 | EBM | 138G6 | EBM | 34C/B7 | EBM | 141B3 | EBM | - | EBM | 142C5 | EBM | 141C1 | EBM | 138H9 | EBM | 134C4 | EBM | - | EBM | 137H2 | 10 |
| 9 | EBM | 31B/E9 | | | EBM | 143E7 | EBM | 136E7 | EBM | 133G1 | EBM | 141C1 | EBM | 137F7 | EBM | 134C4 | EBM | - | EBM | 31B/F8 | 9 |
| 8 | EMB | - | EBM | | EMB | - | EMB | 139F2 | EMB | 142G1 | EBM | 141C1 | EMB | 137F7 | EMB | 134G6 | EMB | - | EMB | - | 8 |
| 7 | EBM | - | B | 139A8 | EBM | 143C5 | EBM | 139F4 | EBM | 142F1 | EBM | 141C1 | EBM | 138E3 | EBM | 134H4 | EBM | - | EBM | - | 7 |
| 6 | EMB | - | EMB | 136E7 | EMB | - | EMB | - | EMB | 142C1 | EBM | 141C1 | EMB | 138D2 | EMB | 136F6 | EMB | 137E7 | EMB | - | 6 |
| 5 | EMB | 31B/F8 | | | EMB | 88E/E4 | EMB | 141H4 | EMB | 142A1 | EBM | 141C1 | EMB | 141B0 | EMB | 136E3 | EMB | 137E7 | EMB | - | 5 |
| 4 | EBM | 42H3 | EBM | - | EBM | 137D6 | EBM | 140B9 | EBM | 66A5 | EBM | 141C1 | EBM | 141A3 | EBM | 136E8 | EBM | - | EBM | 24B/E0 | 4 |
| 3 | EBM | 137B6 | M | 137D6 | EBM | 137E6 | EBM | 136E8 | EBM | 135F2 | EBM | 141C1 | EBM | 141D4 | EBM | 135D2 | EBM | - | EBM | - | 3 |
| 2 | EBM | 137B3 | EBM | - | EBM | 137C5 | EBM | 140F2 | EBM | 142F1 | EBM | - | EBM | 142A6 | EBM | 135D3 | EBM | 135H3 | EBM | - | 2 |
| 1 | EBM | 137B3 | M | 137C6 | EBM | 34A/88 | EBM | 137D5 | EBM | 142H1 | EBM | 136D3 | EBM | 142B6 | EBM | 135E2 | EBM | 134D4 | EBM | - | 1 |
| COIL | | 42G6 | | 137C6 | | 22G9 | | 137B9 | | 79A6 | | 79H5 | | 142G2 | | 142G2 | | 142F2 | | 137D3 | COIL |

RELAY

| DESIG | NWT | | PP | | RDLI | | RIW | | RYC1 | | SCB3 | | TER6 | | TOG6 | | TR2F | | TSK | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF169 | | AJ503 | | AF10 | | AJ15 | | AJ15 | | AJ503 | | AJ501 | | AJ501 | | AJ12 | | AJ508 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | - | EBM | - | EM | - | EBM | 66E1 | EBM | - | EBM | - | EBM | 88E/C4 | EBM | - | EBM | 143G6 | M | 137H6 | 12 |
| 11 | | | EBM | 137C3 | | | EBM | - | EBM | - | EBM | - | EBM | 88E/E5 | EBM | - | EBM | - | | | 11 |
| 10 | M | 138A1 | EBM | - | M | - | EBM | - | EBM | - | EBM | - | EBM | 141C3 | EBM | - | EBM | - | BM | - | 10 |
| 9 | | | EBM | 13J/D1 | | | EBM | - | EBM | 143F7 | EBM | 143E8 | EBM | 143F8 | EBM | J | EBM | - | | | 9 |
| 8 | EBM | 138E6 | EMB | 137E1 | EBM | - | EMB | - | EMB | - | EMB | - | EMB | 139B7 | EMB | - | EBM | 122B/F3 | BM | - | 8 |
| 7 | EB | - | EBM | - | B | - | EBM | - | EBM | 17B3 | EBM | - | EBM | - | EBM | - | EBM | 122B/E3 | | | 7 |
| 6 | EBM | - | EMB | - | EMB | - | EMB | - | EMB | 17A4 | EMB | - | EMB | 40B2 | EMB | - | EBM | 122B/D3 | BM | 23B2 | 6 |
| 5 | EB | 138D1 | EMB | | | | EMB | - | EMB | 18A1 | EMB | - | EMB | - | EMB | - | EBM | 140D7 | | | 5 |
| 4 | | | EBM | 24B/E0 | M | - | EBM | a | EBM | - | EBM | 34A/B9 | EBM | 134C | EBM | 134C | EBM | 140D1 | BM | 137C6 | 4 |
| 3 | M | - | EBM | | | | EBM | - | EBM | 137C2 | EBM | 137C2 | EBM | - | EBM | - | EBM | 140D0 | | | 3 |
| 2 | M | - | EBM | 20B/B2 | M | 41B/G2 | EBM | - | EBM | 137A2 | EBM | - | EBM | 138E6 | EBM | - | EBM | 133C8 | M | 139F6 | 2 |
| 1 | M | - | EBM | 20B/B2 | | | EBM | 108E3 | EBM | 137B6 | EBM | - | EBM | - | EBM | 88E/E4 | EBM | 133C0 | M | - | 1 |
| COIL | | 138F4 | | 20B/B3 | | 41B/F3 | | 66D0 | | 41B/G8 | | 23E4 | | 22G2 | | 22F7 | | 22G1 | | 137F6 | COIL |

(128) 121A/A3
a
(158) 121B/A3

(2R4) 138A0
a
(167) 138D7

RELAY

| DESIG | WB0 | | WB1 | | WB2 | | WB4 | | WBC1 | | WBC2 | | WBC3 | | WBT0 | | [2] WBT1,2 | | WLC | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ501 | | AF504 | | AJ503 | | AJ503 | | AJ503 | | AJ507 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 137E0 | EBM | 137E0 | EBM | 137E0 | EBM | 105F4 | EBM | 23A4 | M | 143F7 | EBM | 5005 | EBM | - | EBM | - | M | 138E4 | 12 |
| 11 | EBM | 137H2 | EBM | 137H2 | EBM | 137H2 | EBM | 105G4 | EBM | 23A3 | M | 143H7 | EBM | 50F5 | EBM | - | EBM | - | M | 138E4 | 11 |
| 10 | EBM | - | EBM | 137G2 | EBM | - | EBM | 105G4 | EBM | 62B/E2 | M | 143G4 | EBM | 136G3 | EBM | 138A0 | EBM | 138A1 | M | 143D7 | 10 |
| 9 | EBM | 137G2 | EBM | 137C2 | EBM | 137G3 | EBM | 115B8 | EBM | 31B/E8 | M | 143F0 | EBM | 66B5 | EBM | - | EBM | 138A1 | M | 139G8 | 9 |
| 8 | EMB | 137G0 | EMB | 137G0 | EMB | 137G0 | EMB | 31B/F9 | EMB | 23C3 | M | 135H6 | EMB | 72G7 | EMB | - | EMB | - | BM | 139A0 | 8 |
| 7 | EBM | 24B/E0 | EBM | 24B/E0 | EBM | 24B/E0 | EBM | a | EBM | - | M | 141B0 | EBM | 31A/D8 | EBM | - | EBM | - | M | 139C0 | 7 |
| 6 | EMB | 122B/G3 | EMB | 122B/G3 | EMB | 122B/G3 | EMB | 100B/C4 | EMB | 137F2 | M | - | EMB | 78A/A6 | EMB | - | EMB | - | BM | - | 6 |
| 5 | EMB | 122B/D3 | EMB | 122B/E3 | EMB | 122B/F3 | EMB | 138E8 | EMB | 138A6 | M | | EMB | 78B/F5 | EMB | - | EMB | - | M | 13987 | 5 |
| 4 | EBM | 138A2 | EBM | 138B2 | EBM | 138B2 | EBM | 62A/C7 | EBM | 41B/G1 | M | 138C6 | EBM | 358/D1 | EBM | 138A2 | EBM | 138B2 | BM | 143C7 | 4 |
| 3 | EBM | 137B5 | EBM | 137B5 | EBM | 137B5 | EBM | - | EBM | 36E0 | M | | EBM | 34C/B6 | EBM | - | EBM | - | M | 138D3 | 3 |
| 2 | EBM | 137A1 | EBM | 137A1 | EBM | 137A1 | EBM | 4A/A7 | EBM | 36B0 | M | | EBM | 23G8 | EBM | - | EBM | - | M | 138G2 | 2 |
| 1 | EBM | 137B1 | EBM | 137B1 | EBM | 137B1 | EBM | 135A1 | EBM | 83B/B7 | M | 135G6 | EBM | 76F6 | EBM | - | EBM | - | M | 138G2 | 1 |
| COIL | | 137E3 | | 137E3 | | 137E3 | | 137F3 | | 137B6 | | 137F3 | | 137E3 | | 138G4 | | 138G4 | | 137A3 | COIL |

(ZZT) 107G1
a
(ZZU) 107H7

RELAY

| DESIG | WLC1 | | WLFK | | WONX | | WTC | | WTFK | | WBA1 | | WRM1 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ507 | | AJ503 | | AJ501 | | AJ507 | | AJ503 | | AJ503 | | AJ503 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | ZQV | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 134C6 | EBM | - | EBM | 134D5 | M | - | EBM | - | EBM | - | EBM | | | | | | | | 12 |
| 11 | M | 133G3 | EBM | - | EBM | 136F0 | M | - | EBM | - | EBM | - | EBM | | | | | | | | 11 |
| 10 | M | 137B7 | EBM | - | EBM | 136E4 | M | - | EBM | - | EBM | - | EBM | | | | | | | | 10 |
| 9 | M | 138C2 | EBM | - | EBM | 136E7 | M | - | EBM | - | EBM | - | EBM | | | | | | | | 9 |
| 8 | BM | - | EMB | - | EMB | 136E7 | BM | - | EMB | - | EMB | - | EMB | | | | | | | | 8 |
| 7 | M | 134H6 | EBM | - | EBM | - | M | - | EBM | 17B3 | EBM | - | EBM | | | | | | | | 7 |
| 6 | BM | - | EMB | - | EMB | 134E5 | BM | - | EMB | 17A4 | EMB | - | EMB | 42G3 | | | | | | | 6 |
| 5 | M | 134G3 | EMB | - | EMB | - | M | - | EMB | 18A7 | EMB | - | EMB | | | | | | | | 5 |
| 4 | BM | 23D2 | EBM | - | EBM | - | BM | - | EBM | - | EBM | - | EBM | 42G8 | | | | | | | 4 |
| 3 | M | 138H4 | EBM | 23G7 | EBM | - | M | - | EBM | 137C8 | EBM | - | EBM | | | | | | | | 3 |
| 2 | M | 139C3 | EBM | 139F6 | EBM | - | M | 137G5 | EBM | 139F8 | EBM | 122B/G2 | EBM | 42H4 | | | | | | | 2 |
| 1 | M | 134B4 | EBM | 137G6 | EBM | - | M | 137F6 | EBM | 137G6 | EBM | 122B/B2 | EBM | | | | | | | | 1 |
| COIL | | 137B3 | | 138F4 | | 137A9 | | 137B3 | | 137G6 | | 137G3 | | 42H0 | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| CWB | 42G6 | |
| DS1 | 137C6 | |
| ITR3 | 22G9 | |
| LSW | 137B9 | |
| NW | 137D3 | |
| NWT | 138F4 | 185A |
| PP | 20B/B3 | |
| RDLI | 41B/F3 | |
| RIW | 66D0 | |
| SCB3 | 23E4 | |
| TER6 | 22G2 | |
| TOG6 | 22F7 | |
| TR2F | 22G1 | 186A |
| TSK | 137F6 | |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| WB0 | 137E3 | |
| WB1 | 137E3 | |
| WB2 | 137E3 | 185A |
| WB4 | 137F3 | |
| WBA1 | 137G3 | |
| WBC1 | 137B6 | |
| WBC2 | 137F3 | 186A |
| WBT0 | 138G4 | |
| [2] WBT1,2 | 138G4 | 185A |
| WLC | 137A3 | 186A |
| WLFK | 138F4 | |
| (ZQV) WRM1 | 42H0 | 185A |
| WTC | 137B3 | |
| WTFK | 137G6 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| PP | 20B/B2 | KS-8512,L6B,274 |

DRAWING ISSUE
39D RA
40A
41D
42A
43D
44A

DRAWING ISSUE
65B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-C78

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

E-7432-A-3(8-64)

# APP FIG 153

RELAY

| DESIG | CWCN | | JSSF | | RWCN | | SFNK | | WCH0 | | WCH1 | | WCH2 | | WCH3 | | WCH4 | | WCH5 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF54 | | AF42 | | AJ501 | | AF42 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 143H7 | EMB | 141G4 | EBM | 143F2 | EMB | 140F6 | EBM | 136E0 | EBM | 136E0 | EBM | 136E0 | EBM | 136E0 | EBM | 136E0 | EBM | 136E0 | 12 |
| 11 | | | M | - | EBM | 143F2 | M | - | EBM | 136E3 | EBM | 136E3 | EBM | 136E3 | EBM | 136E3 | EBM | 136E3 | EBM | 136E3 | 11 |
| 10 | BM | 139C4 | EBM | - | EBM | 143F1 | EBM | - | EBM | - | EBM | 140F3 | EBM | 140F3 | EBM | 140F3 | EBM | 140F4 | EBM | 140F4 | 10 |
| 9 | | | | | EBM | 143F1 | | | EBM | 140F2 | EBM | 140F3 | EBM | 140F3 | EBM | 140F3 | EBM | 140F4 | EBM | 140F4 | 9 |
| 8 | BM | 37G3 | EBM | - | EMB | - | EBM | - | EMB | 140B0 | EMB | 140B1 | EMB | 140B2 | EMB | 140B2 | EMB | 140B3 | EMB | 140B4 | 8 |
| 7 | B | - | B | 140B8 | EBM | 143C5 | B | - | EBM | 136E6 | EBM | 136E6 | EBM | 136E6 | EBM | 136E6 | EBM | 136E6 | EBM | 136E6 | 7 |
| 6 | BM | 141C3 | EMB | - | EMB | - | EMB | - | EMB | 88E/B5 | EMB | - | EMB | - | EMB | - | EMB | - | EMB | 88E/B5 | 6 |
| 5 | B | - | | | EMB | 143F8 | | | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | EMB | - | 5 |
| 4 | BM | 37C5 | EBM | - | EBM | - | EBM | - | EBM | 141A2 | EBM | 141A2 | EBM | 141A2 | EBM | 141A2 | EBM | 141A2 | EBM | 141A2 | 4 |
| 3 | | | M | 140F6 | EBM | - | M | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | EBM | - | 3 |
| 2 | M | 143F4 | EBM | - | EBM | 143F4 | EBM | - | EBM | 141E2 | EBM | 141E2 | EBM | 141E2 | EBM | 141E2 | EBM | 141E2 | EBM | 141E2 | 2 |
| 1 | | | M | 141H4 | EBM | - | M | 140B8 | EBM | 136E5 | EBM | 136E5 | EBM | 136E5 | EBM | 136E5 | EBM | 136E5 | EBM | 136E5 | 1 |
| COIL | | 143G7 | | 141G4 | | 143E9 | | 140F7 | | 140B0 | | 140B1 | | 140B2 | | 140B3 | | 140B4 | | 140B4 | COIL |

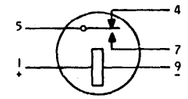
RELAY

| DESIG | WCH6 | | WCH7 | | WCH8 | | WCH9 | | WCHA | | WCK | | WCN | | WFCK | | WFCT | | WFMP | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ513 | | AJ503 | | AF42 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 136E0 | EBM | 136E0 | EBM | 136E0 | EBM | 136E0 | EBM | 136E3 | EBM | 143F4 | EBM | 143F5 | PBEM | | EBM | 143D2 | EMB | - | 12 |
| 11 | EBM | 136E3 | EBM | 136E3 | EBM | 136E3 | EBM | 136E3 | EBM | 136F6 | EBM | - | EBM | - | BM | 88E/B1 | EBM | 143D2 | M | 88E/D5 | 11 |
| 10 | EBM | 140F4 | EBM | 140F5 | EBM | 140F5 | EBM | 140F5 | EBM | - | EBM | 141C4 | EBM | 139B4 | EBM | 135G5 | EBM | 143E1 | EBM | - | 10 |
| 9 | EBM | 140F4 | EBM | 140F5 | EBM | 140F5 | EBM | 140F5 | EBM | - | EBM | 318/E8 | EBM | 143A8 | PMEB | 88E/G3 | EBM | 143E1 | | - | 9 |
| 8 | EMB | 140B5 | EMB | 140B6 | EMB | 140B6 | EMB | 140B6 | EMB | 88E/D4 | EMB | - | EMB | 139A6 | EMB | 143D8 | EMB | - | EBM | - | 8 |
| 7 | EBM | 136E6 | EBM | 136E6 | EBM | 136E6 | EBM | 136E6 | EBM | 136H6 | EBM | 143C5 | EBM | 37G3 | BM | - | EBM | - | B | - | 7 |
| 6 | EMB | - | EMB | - | EMB | - | EMB | - | EMB | 88E/C5 | EMB | - | EMB | 141B3 | EBM | - | EMB | 143C8 | EMB | 140B8 | 6 |
| 5 | EMB | - | EMB | - | EMB | - | EMB | - | EMB | 141A4 | EMB | - | EMB | - | BM | 2382 | EMB | - | | | 5 |
| 4 | EBM | 141A2 | EBM | 141A2 | EBM | 141A2 | EBM | 141A2 | EBM | 136F2 | EBM | 136E0 | EBM | 23B2 | PMEB | 88D/C7 | EBM | 143D8 | EBM | - | 4 |
| 3 | EBM | - | EBM | - | EBM | - | EBM | - | EBM | 139G7 | EBM | 136E4 | EBM | 37C5 | BM | 143C5 | EBM | - | M | 88E/C5 | 3 |
| 2 | EBM | 141E2 | EBM | 141E2 | EBM | 141E2 | EBM | 141E2 | EBM | - | EBM | 139F8 | EBM | - | PBEM | - | EBM | - | EBM | - | 2 |
| 1 | EBM | 136F5 | EBM | 136E5 | EBM | 136E5 | EBM | 136E5 | EBM | 135G6 | EBM | 143H5 | EBM | 137G6 | BM | 143C8 | EBM | 143C8 | M | 31A/D8 | 1 |
| COIL | | 140B5 | | 140B6 | | 140B7 | | 140B7 | | 140F7 | | 141B5 | | 143F5 | | 14309 | | 143C9 | | 140D8 | COIL |

RELAY

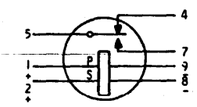
| DESIG | WPG0 | | WPG1 | | WPG2 | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK501 | | | | AK501 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 88E/E5 | | | BM | - | | | | | | | | | | | | | | | |
| 11 | BM | 88E/E5 | | | BM | - | | | | | | | | | | | | | | | |
| 10 | BM | 88E/D5 | | | BM | - | | | | | | | | | | | | | | | |
| 9 | BM | - | | | BM | - | | | | | | | | | | | | | | | |
| 8 | BM | 88E/C1 | | | DM | 102F2 | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | BM | 88E/D1 | | | BM | - | | | | | | | | | | | | | |
| 4 | | | BM | - | | | BM | - | | | | | | | | | | | | | |
| 3 | | | BM | - | | | BM | - | | | | | | | | | | | | | |
| 2 | | | BM | 102G3 | | | BM | - | | | | | | | | | | | | | |
| 1 | | | BM | 102F1 | | | BM | - | | | | | | | | | | | | | |
| COIL | | 88E/B2 | | 88E/C2 | | 88E/D2 | | - | | | | | | | | | | | | | |

RELAY



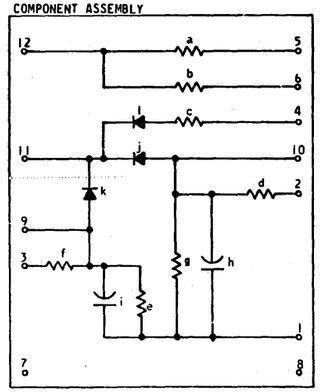

| DESIG | WCT0 | WCT1 | WCT2 | WCT3 | WCT4 | WCT5 | WCT6 | WCT7 | WCT8 | WCT9 |
|---|---|---|---|---|---|---|---|---|---|---|
| CODE | 316B | 316B | 316B | 316B | 316B | 316B | 316B | 316B | 316B | 316B |
| OPTION | | | | | | | | | | |
| 9 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 |
| 8 | | | | | | | | | | |
| 7 | 140C0 | 140C1 | 140C2 | 140C3 | 140C3 | 140C4 | 140C5 | 140C6 | 140C6 | 140C7 |
| 6 | | | | | | | | | | |
| 5 | 140C0 | 140C1 | 140C2 | 140C3 | 140C3 | 140C4 | 140C5 | 140C6 | 140C6 | 140C7 |
| 4 | 140C0 | 140C1 | 140C2 | 140C3 | 140C3 | 140C4 | 140C5 | 140C6 | 140C6 | 140C7 |
| 3 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 1 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 | 136F5 |

RELAY




| DESIG | WFC1 | WFC2 | | |
|---|---|---|---|---|
| CODE | 316C | 316C | | |
| OPTION | | | | |
| 9 | - | - | | |
| 8 | 143E6 | 143D6 | | |
| 7 | 143D5 | 143D7 | | |
| 6 | | | | |
| 5 | 143D5 | 143D7 | | |
| 4 | - | 143D7 | | |
| 3 | | | | |
| 2 | 143E6 | 143D6 | | |
| 1 | - | - | | |

COMPONENT ASSEMBLY




| DESIG | | CAO-9 | | |
|---|---|---|---|---|
| CODE | | [10]E0-94823-( ),G603 | | |
| OPTION | | | | |
| COMPONENT | | DESIG | LOC | CODE |
| CAPACITOR | h | A | 136F4 | KS-14289,L3,.01 |
| | i | B | 136F6 | KS-14289,L3,.01 |
| DIODE | j | A | 136F4 | 446F |
| | k | B | 136F5 | 446F |
| | l | C | 136F5 | 446F |
| RESISTOR | a | WJS | 136D5 | KS-19150,L1,33,000 |
| | b | WLS | 136D0 | KS-19150,L1,33,000 |
| | c | C | 136E5 | KS-19152,L1,6800 |
| | d | AA | 136E4 | KS-19152,L1,6800 |
| | e | BB | 136E6 | KS-19152,L1,2200 |
| | f | AB | 136E6 | KS-19152,L1,6800 |
| | g | BA | 136E4 | KS-19152,L1,2200 |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZAP | CWCN | 143G7 | |
| | JSSF | 141G4 | |
| | RWCN | 143E9 | |
| | SFNK | 140F7 | |
| | WCH0 | 140B0 | |
| | WCH1 | 140B1 | |
| | WCH2 | 140B2 | |
| | WCH3 | 140B3 | |
| | WCH4 | 140B4 | |
| | WCH5 | 140B4 | |
| | WCH6 | 140B5 | 185A |
| | WCH7 | 140B6 | |
| | WCH8 | 140B7 | |
| | WCH9 | 140B7 | |
| | WCHA | 140F7 | |
| | WCK | 141B5 | |
| | WCN | 143F5 | |
| | WFCK | 143D9 | |
| | WFCT | 143C9 | |
| | WFMP | 140D8 | |
| | [10]WJS0-9 | 136D5 | 177J |
| | [10]WLS0-9 | 136D0 | |
| | WPG0 | 88E/B2 | 185A |
| | WPG1 | 88E/C2 | |
| | WPG2 | 88E/D2 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| WFC1 | 143E4 | [1] 195S |
| WFC2 | 143D4 | |
| WFC3 | 143D4 | [1] 195S |
| WFC4 | 143D4 | |

DRAWING ISSUE

| | |
|---|---|
| 39D | DM |
| 42A | CB |
| 44A | |

DRAWING ISSUE

49D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C79

BELL TELEPHONE LABORATORIES INCORPORATED — DWG SIZE 6S — PRINTED IN U.S.A.

26002-01-C79

E-742E-A-1 (8-64)

# APP FIG 154

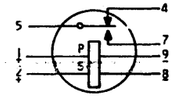
RELAY

| DESIG | JXW1 | | JXWA | | LXW1 | | LXWA | | TRB3 | | WDC1 | | WDCA | | WFA | | WFA1 | | WHS1 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ503 | | AJ515 | | AF60 | | AF10 | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | EBM | 139C1 | EBM | | EBM | 139A1 | EBM | | EBM | 139C6 | M | | M | | EM | | EBM | 13987 | 12 |
| 11 | EBM | 139E0 | EBM | | EBM | | EBM | | EBM | | EBM | 137A8 | M | | | | | | EBM | 143E4 | 11 |
| 10 | EBM | 13984 | EBM | | EBM | 13984 | EBM | | EBM | | EBM | | BM | | M | 39A/F6 | M | 39A/F7 | EBM | 135F3 | 10 |
| 9 | EBM | 143E4 | EBM | | EBM | | EBM | | EBM | | EBM | | M | | | | | | EBM | | 9 |
| 8 | EMB | 13901 | EMB | | EMB | 13981 | EMB | | EMB | | EMB | | BM | | M | | EBM | | EMB | 139F1 | 8 |
| 7 | EBM | 139H1 | EBM | 139H1 | EBM | 139G1 | EBM | 139G1 | EBM | | EBM | 143C5 | M | | B | 39A/G9 | B | | EBM | 136E8 | 7 |
| 6 | EMB | | EMB | | EMB | | EMB | | EMB | | EMB | | BM | | M | | EMB | | EMB | 133E1 | 6 |
| 5 | EMB | | EMB | | EMB | 135F5 | EMB | | EMB | 134B3 | EMB | 36E0 | M | | | | | | EMB | | 5 |
| 4 | EBM | | EBM | 139D1 | EBM | 135E5 | EBM | 139B1 | EBM | | EBM | | BM | 3680 | M | 39A/F9 | M | 39A/G9 | EBM | 135F5 | 4 |
| 3 | EBM | 139A6 | EBM | 139A5 | EBM | 139A5 | EBM | 139A5 | EBM | | EBM | | M | | | | | | EBM | 133F0 | 3 |
| 2 | EBM | | EBM | | EBM | 136G6 | EBM | | EBM | - | EBM | 23B2 | M | | M | 39A/H8 | M | 39A/G8 | EBM | 136H6 | 2 |
| 1 | EBM | 136G1 | EBM | | EBM | 136F3 | EBM | | EBM | 137C6 | EBM | 135G3 | M | 139B5 | | | | | EBM | 136F3 | 1 |
| COIL | | 139C2 | | 139C2 | | 139B2 | | 139A2 | | 81B1 | | 13986 | | 139F2 | | 39A/D9 | | 39A/G7 | | 139A9 | COIL |

RELAY

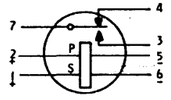
| DESIG | WHS2 | | WSLA | | WSRK | | WTK | | MT51 | | MT52 | | MT53 | | MT54 | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ501 | | AJ501 | | AF24 | | AJ12 | | AJ12 | | AJ12 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 134B5 | EBM | 139E1 | EBM | 139B6 | EBM | 139F8 | M | 143A8 | EBM | 143C0 | EBM | 143C1 | EBM | 143F4 | | | | | 12 |
| 11 | EBM | | EBM | 139B3 | EBM | 140C0 | EBM | 136G1 | M | 143A8 | EBM | 143D0 | EBM | 143D1 | EBM | 88E/B0 | | | | | 11 |
| 10 | EBM | | EBM | | EBM | 13380 | EBM | | M | 143A8 | EBM | 143D0 | EBM | 143D1 | EBM | 88E/C4 | | | | | 10 |
| 9 | EBM | 143E8 | EBM | 143E4 | EBM | | EBM | 139B5 | M | 143A8 | EBM | 143E0 | EBM | 143E1 | EBM | 143H0 | | | | | 9 |
| 8 | EMB | | EMB | | EMB | | EMB | 13705 | M | 143A8 | EBM | | EBM | | EBM | 143G0 | | | | | 8 |
| 7 | EBM | | EBM | 139F1 | EBM | | EBM | | M | 143A8 | EBM | | EBM | | EBM | 138A3 | | | | | 7 |
| 6 | EMB | | EMB | | EMB | | EMB | 14185 | M | 143A8 | EBM | | EBM | | EBM | 94A/B4 | | | | | 6 |
| 5 | EMB | 13988 | EMB | | EMB | | EMB | 13484 | M | 143A8 | EBM | | EBM | | EBM | | | | | | 5 |
| 4 | EBM | 143G0 | EBM | | EBM | | EBM | 13380 | M | 143A8 | EBM | | EBM | 143B8 | EBM | | | | | | 4 |
| 3 | EBM | 2303 | EBM | 23B3 | EBM | | EBM | 134E6 | M | | EBM | | EBM | 14388 | EBM | 62A/D7 | | | | | 3 |
| 2 | EBM | | EBM | | EBM | | EBM | 14080 | M | 143C4 | EBM | | EBM | | EBM | 62A/D8 | | | | | 2 |
| 1 | EBM | 136F1 | EBM | | EBM | 139A6 | EBM | 2384 | M | 143C8 | EBM | | EBM | | EBM | 62A/C7 | | | | | 1 |
| COIL | | 139B9 | | 139E2 | | 13986 | | 139F9 | | 142H2 | | 143B9 | | 142H2 | | 142H2 | | | | | COIL |

RELAY



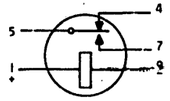

| DESIG | JXW | LXW | |
|---|---|---|---|
| CODE | 316C | 316C | |
| OPTION | | | |
| 9 | 136G4 | 135H6 | |
| 8 | 136G4 | 135H6 | |
| 7 | 139D1 | 139B1 | |
| 6 | | | |
| 5 | 139D1 | 139B1 | |
| 4 | 139D1 | 139B1 | |
| 3 | | | |
| 2 | 136G4 | 135H6 | |
| 1 | 136G4 | 135H6 | |

RELAY




| DESIG | WDCT | |
|---|---|---|
| CODE | 280FW | |
| OPTION | | |
| 7 | 139F1 | |
| 6 | 135F6 | |
| 5 | 135F6 | |
| 4 | - | |
| 3 | 139F1 | |
| 2 | 135F6 | |
| 1 | 135F6 | |

RELAY




| DESIG | WJGK | WSL | WTGk | |
|---|---|---|---|---|
| CODE | 316A | 316A | 316A | |
| OPTION | | | | |
| 9 | 136F3 | 136F9 | 136G7 | |
| 8 | | | | |
| 7 | 13984 | 139E1 | 139A4 | |
| 6 | | | | |
| 5 | 13984 | 139E1 | 139A4 | |
| 4 | 13984 | - | 139A4 | |
| 3 | | | | |
| 2 | | | | |
| 1 | 136F3 | 136F9 | 136G7 | |

CAPACITOR

| OPTION | DESIG | LOC | CODE |
|---|---|---|---|
| | WJH1 | 136G2 | |
| | WJH2 | 136G3 | |
| ZZV | WJH3 | 136G3 | |
| | WLH | 135H6 | 437QA |
| | WTH | 136H6 | |

DIODE

| DESIG | LOC | CODE |
|---|---|---|
| WJH | 136G3 | |
| WLH | 135H5 | KS-15701,L3 |
| WTH | 136H6 | |

INDUCTOR

| DESIG | LOC | CODE |
|---|---|---|
| THW | 136G6 | 200CL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| JXW1 | 139D2 | |
| JXWA | 139C2 | |
| | | 185A |
| LXW1 | 139B2 | |
| LXWA | 139A2 | |
| TRB3 | 81B1 | 186A |
| WDC1 | 13986 | 185A |
| WDCA | 139F[illegible] | |
| WHS1 | 139A9 | 186A |
| WHS2 | 13989 | 185A |
| WSL | 136F9 | (1/2)177C |
| WSLA | 139E2 | |
| WSRK | 13986 | 185A |
| WTK | 139F9 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| WDCT | 135G7 | 19WE |
| WJH1 | 136F2 | |
| WJH2 | 136G2 | |
| WJH3 | 136G2 | 18BA |
| WLH | 135G6 | |
| WTH | 136H6 | |

ZZV

| DRAWING ISSUE | |
|---|---|
| 39D | PAT |
| 40A | CB - |
| 41D | CB |
| 42A | CB |
| 44A | CB |

| DRAWING ISSUE |
|---|
| 53B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C80

BELL TELEPHONE LABORATORIES INCORPORATED

6S

E-7422-A-1(8-64)

080-10-00096 03

# APP FIG. 155

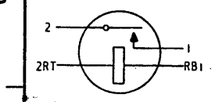
RELAY

| DESIG | WMXT | | XAWCH | | | | XAWTS | | XMB | | XTC | | XVF | | XWJS | | XWLS | | XWSL | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF531 | | AF51 | | | | AF51 | | AF71 | | AF104 | | AF96 | | AF96 | | AF96 | | AF12 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | M | - | 12 |
| 11 | | | | | | | | | | | | | | | | | | | M | - | 11 |
| 10 | EBM | - | M | - | | | M | - | M | - | | | | | | | | | M | - | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | - | M | 141E7 | | | M | 141E7 | M | 141D7 | M | 141B7 | M | 141C7 | M | 141D7 | M | 141B7 | BM | 139A6 | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 86A7 | M | 8686 | | | M | 86G8 | M | 86F5 | M | 86D6 | M | 86B5 | M | 86C7 | M | 86G8 | BM | - | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 8681 | M | 141E8 | | | M | 141C8 | M | 141D8 | M | 141B8 | M | 141D3 | M | 141F8 | M | 141E8 | M | 141C7 | 4 |
| 3 | | | | | | | | | | | | | | | | | | | M | - | 3 |
| 2 | | | | | | | | | M | - | | | | | | | | | M | 141D8 | 2 |
| 1 | | | | | | | | | | | | | | | | | | | M | 34C/G0 | 1 |
| COIL | | 141A9 | | 141E7 | | | | 141E7 | | P-142B4 | | P-137F5 | | P-138H2 | | P-136E6 | | P-136E0 | | P-136F8 | COIL |
| | | | | | | | | | | S-141D7 | | S-141B7 | | S-141C7 | | S-141D7 | | S-141B7 | | S-141D7 | |

RELAY

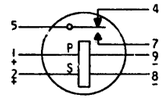
| DESIG | XWVG | | WDP | | WPP | | CPMB | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ510 | | AJ501 | | AJ501 | | AF530 | | | | | | | | | | | | | | CODE |
| OPTION | | | ZRR | | ZRR | | ZRR | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | EBM | | EBM | | EBM | 42G6 | | | | | | | | | | | | | 12 |
| 11 | | | EBM | | EBM | | | | | | | | | | | | | | | | 11 |
| 10 | | | EBM | | EBM | | EBM | 42H6 | | | | | | | | | | | | | 10 |
| 9 | | | EBM | | EBM | | | | | | | | | | | | | | | | 9 |
| 8 | M | 141C7 | EMB | | EMB | | EBM | 50C6 | | | | | | | | | | | | | 8 |
| 7 | B | | EBM | | EBM | | | | | | | | | | | | | | | | 7 |
| 6 | M | 86E6 | EMB | | EMB | | EBM | 50B6 | | | | | | | | | | | | | 6 |
| 5 | B | | EMB | 1076Z | EMB | | | | | | | | | | | | | | | | 5 |
| 4 | M | 141C8 | EBM | 1158Z | EBM | | | | | | | | | | | | | | | | 4 |
| 3 | | | EBM | 143F0 | EBM | | EBM | | | | | | | | | | | | | | 3 |
| 2 | | | EBM | 139F3 | EBM | 139F4 | EBM | | | | | | | | | | | | | | 2 |
| 1 | | | EBM | 143H7 | EBM | | | | | | | | | | | | | | | | 1 |
| COIL | | P-138E4 | | 137F1 | | 137E1 | | 42G6 | | | | | | | | | | | | | COIL |
| | | S-141C7 | | | | | | | | | | | | | | | | | | | |

RELAY



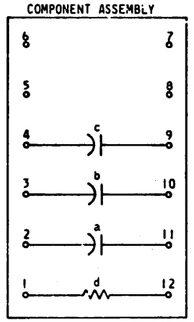

| DESIG | XWCH | |
|---|---|---|
| CODE | S514 | |
| OPTION | | |
| 2 | 141E7 | |
| 1 | 141E7 | |
| 2RT | 136H4 | |
| RB1 | 136H4 | |

RELAY




| DESIG | XWTS | |
|---|---|---|
| CODE | 316R | |
| OPTION | | |
| 9 | 136E8 | |
| 8 | 136E8 | |
| 7 | 141F7 | |
| 6 | | |
| 5 | 141F7 | |
| 4 | - | |
| 3 | | |
| 2 | 136E8 | |
| 1 | 136E8 | |

COMPONENT ASSEMBLY




| DESIG | | CA10 | | |
|---|---|---|---|---|
| CODE | | ED-94823-( ), G604 | | |
| OPTION | | | | |
| COMPONENT | | DESIG | LOC | CODE |
| CAPACITOR | a | XTC | 137F5 | ~~KS-13368,L3,.01~~ |
| | b | XWVG | 138E4 | KS-13368,L29,.01 |
| | c | XVF | 138H2 | |
| RESISTOR | d | XWTS | 136C8 | KS,19150,L1,33000 |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| FW | 137D5 | 13J(RES) |
| ST | 141A5 | |
| TSK | 137F5 | |
| WBA | 62A/C7 | |
| WJS | 136E4 | |
| WLLO | 138D3 | |
| WLLI | 138F3 | |
| WLL2 | 138G3 | |
| WLS | 136F0 | |
| WTL | 137G5 | |
| WTXP | 136H7 | |
| XTS | 136F8 | |
| XVF | 138G3 | |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZRR | CPMBP | 42G6 | 185A |
| ZRR | CPMBS | 42H6 | |
| ZRR | WDP | 137F1 | |
| ZRR | WPP | 137E1 | |
| | XWTS | 136D8 | (1/2)177C |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| XTS | 136E7 | 19SR |

DRAWING ISSUE 39D LT

DRAWING ISSUE 53B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C81

BELL TELEPHONE LABORATORIES INCORPORATED PAGE NO. 65 PRINTED IN U.S.A.

SD-26002-01-C81

E-7422-A-1(8-64)

# APP FIG 156

RELAY

| DESIG | NWLA | | MBC | | MBCK | | MT44 | | SMB | | VLO | | TMB | | VLB | | VLR | | VWC | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF515 | | AK6 | | | | AJ15 | | AK6 | | | | AJ504 | | AK6 | | | | AJ503 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | - | | | BM | 142C5 | EBM | 142B1 | | | BM | 142D3 | | | | | BM | 135G2 | EBM | - | 12 |
| 11 | M | - | | | BM | - | EBM | 142C1 | | | BM | - | BM | 142E4 | | | BM | - | EBM | 348/C4 | 11 |
| 10 | BM | - | | | BM | 135G1 | EBM | 142B5 | | | BM | 142D5 | M | - | | | BM | 142D3 | EBM | 348/C3 | 10 |
| 9 | | | | | BM | 142E2 | EBM | 142D1 | | | BM | - | BM | 135G2 | | | BM | 135H2 | EBM | 138A0 | 9 |
| 8 | BM | 138F7 | | | BM | 142B3 | EMB | 142D4 | | | BM | 135F2 | | | | | BM | - | EMB | - | 8 |
| 7 | B | - | | | | | EBM | 142D1 | | | | | BM | - | | | | | EBM | 108G2 | 7 |
| 6 | BM | 13884 | | | | | EMB | 138C6 | | | | | B | 14284 | | | | | EMB | 348/B3 | 6 |
| 5 | | | BM | 142E1 | | | EAB | 138C3 | BM | 142F2 | | | BM | - | BM | - | | | EMB | 135F0 | 5 |
| 4 | BM | 13884 | BM | 142D2 | | | EBM | 135A0 | BM | 8486 | | | M | - | BM | - | | | EBM | 4A/A7 | 4 |
| 3 | M | - | BM | - | | | EBM | 138B5 | BM | - | | | BM | 142E2 | BM | 142D2 | | | EBM | 139F7 | 3 |
| 2 | BM | - | BM | 135F1 | | | EBM | 34C/D3 | BM | 135G2 | | | M | - | BM | 142D2 | | | EBM | 137A3 | 2 |
| 1 | M | - | BM | 142B4 | | | EBM | 142C5 | BM | 142E4 | | | BM | 8486 | BM | 135H2 | | | EBM | - | 1 |
| COIL | | 135A0 | | 142E1 | | 142C4 | | 142B2 | | 142E2 | | 142C2 | | 142E3 | | 142B2 | | 142C2 | | 138C7 | COIL |

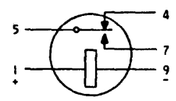
RELAY

| DESIG | WCV | | WLB | | | | WMBA | | WMM | | | | WRA | | WRM | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AF515 | | | | AF515 | | AJ503 | | | | AJ503 | | AJ503 | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 13883 | BM | - | | | BM | 108F3 | EBM | 13887 | | | EBM | 138F8 | EBM | - | | | | | 12 |
| 11 | EBM | - | M | - | | | M | - | EBM | - | | | EBM | - | EBM | - | | | | | 11 |
| 10 | EBM | 318/E8 | BM | - | | | BM | 288/A2 | EBM | - | | | EBM | 288/64 | EBM | - | | | | | 10 |
| 9 | EBM | 318/E9 | | | | | | | EBM | - | | | EBM | 13866 | EBM | - | | | | | 9 |
| 8 | EMB | - | BM | 13883 | | | BM | 13883 | EMB | - | | | EMB | - | EMB | 138C6 | | | | | 8 |
| 7 | EBM | 10863 | B | 318/D9 | | | B | - | EBM | 7287 | | | EBM | - | EBM | - | | | | | 7 |
| 6 | EMB | - | BM | 13883 | | | BM | 13883 | EMB | - | | | EMB | - | EMB | 318/E8 | | | | | 6 |
| 5 | EMB | 87C9 | | | | | | | EMB | 87C9 | | | EMB | - | EMB | - | | | | | 5 |
| 4 | EBM | 14204 | BM | - | | | BM | 14201 | EBM | 66E2 | | | EBM | - | EBM | 42H3 | | | | | 4 |
| 3 | EBM | 14283 | M | - | | | M | 13540 | EBM | 64E7 | | | EBM | - | EBM | 13885 | | | | | 3 |
| 2 | EBM | - | BM | - | | | BM | 13804 | EBM | 13806 | | | EBM | - | EBM | - | | | | | 2 |
| 1 | EBM | - | M | 142E2 | | | M | - | EBM | 13805 | | | EBM | - | EBM | - | | | | | 1 |
| COIL | | 13887 | | 13580 | | | | 13540 | | 138A7 | | | | 138F7 | | 42H8 | | | | | COIL |

RELAY

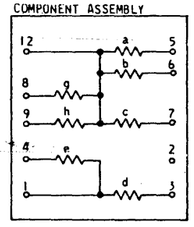
| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

RELAY




| DESIG | NWL | WLBT | WLIT | WMB | | |
|---|---|---|---|---|---|---|
| CODE | 316M | 316F | 316B | 316M | | |
| OPTION | | | | | | |
| 9 | 135D3 | 135F0 | 135F1 | 135D2 | | |
| 8 | | | | | | |
| 7 | 135A0 | 13580 | 13883 | 135A0 | | |
| 6 | | | | | | |
| 5 | 135A0 | 13580 | 13883 | 135A0 | | |
| 4 | | | 13883 | | | |
| 3 | | | | | | |
| 2 | | | | | | |
| 1 | 135D3 | 135F0 | 135F1 | 135D2 | | |

COMPONENT ASSEMBLY




| DESIG | CA11 | | |
|---|---|---|---|
| CODE | ED-94823-( ),G605 | | |
| OPTION | | | |
| COMPONENT | DESIG | LOC | CODE |
| RESISTOR a | VLT2 | 135F0 | ~~221A~~, KS-20810, L1A, 4320 |
| RESISTOR b | WMB | 13502 | ~~221A~~, KS-20810, L1A, 3650 |
| RESISTOR c | NWL | 135D4 | ~~221A~~, KS-20810, L1A, 3650 |
| RESISTOR d | VLR | 135H1 | ~~1470~~, KS-20289, L6C, 1150 |
| RESISTOR e | VLT1 | 135F0 | KS-19152, L1, 1800 |
| RESISTOR g | MBC | 14286 | KS-19150, L1, 33,000 |
| RESISTOR h | VLO | 14206 | KS-19150, L1, 33,000 |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| NWLA | 135A0 | 185A |
| MBC | 14296 | 177 |
| VLO | 14206 | |
| VWC | 138C7 | 185A |
| WCV | 13887 | |
| WLB | 13580 | |
| WMBA | 135A0 | |
| WMM | 138A7 | |
| WRA | 138F7 | |
| WRM | 42H8 | |

RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| VLB | 135G1 | KS-5643, L427, 750 |

# APP FIG 157

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| WBA | 62A/C7 | 13J(RES) |

DRAWING ISSUE

390 DM
40A
41D
42A
430

DRAWING ISSUE

63B

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-C82

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 65

RELAY

| DESIG | AIC | | AIC2 | | AIC3 | | AICK | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ12 | | AJ12 | | AJ12 | | AJ12 | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 1218/G6 | EBM | 1218/C5 | EBM | 6ID9 | EBM | | | | | | | | | | | | 12 |
| 11 | EBM | 1218/F5 | EBM | 78A/D4 | EBM | 62A/C7 | EBM | | | | | | | | | | | | 11 |
| 10 | EBM | 62A/E6 | EBM | 63G4 | EBM | 63A2 | EBM | | | | | | | | | | | | 10 |
| 9 | EBM | 83A/D4 | EBM | 62A/B0 | EBM | 122B/A7 | EBM | | | | | | | | | | | | 9 |
| 8 | EBM | 63F9 | EBM | 105F8 | EBM | 122B/A8 | EBM | | | | | | | | | | | | 8 |
| 7 | EBM | 1086/7 | EBM | 78B/C3 | EBM | | EBM | | | | | | | | | | | | 7 |
| 6 | EBM | 1218/E6 | EBM | a | EBM | 83A/D4 | EBM | | | | | | | | | | | | 6 |
| 5 | EBM | 79D5 | EBM | 70D7 | EBM | 1218/F6 | EBM | 1218/E6 | | | | | | | | | | | 5 |
| 4 | EBM | 64C7 | EBM | 66D6 | EBM | 34C/C9 | EBM | 44A6 | | | | | | | | | | | 4 |
| 3 | EBM | 62A/E1 | EBM | 298/C1 | EBM | | EBM | 1219/F6 | | | | | | | | | | | 3 |
| 2 | EBM | 34A/B4 | EBM | 107F2 | EBM | | EBM | | | | | | | | | | | | 2 |
| 1 | EBM | 1218/F6 | EBM | 36E7 | EBM | 36F7 | EBM | 36E7 | | | | | | | | | | | 1 |
| COIL | | 1218/A7 | | 1218/B7 | | 1218/B7 | | 1218/D7 | | | | | | | | | | | COIL |

(ZGF) 22A3
(ZGH) 22A4

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| AIC | 1218/A7 | 185A |
| AIC3 | 1218/F7 | |
| AICK | 1218/D7 | |



RELAY

| DESIG | IDA | | [8] IAT2-9 | | [2] IBTO,1 | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF504 | | AF504 | | AF504 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | | M | | M | | | | | | | | | | | | | | 12 |
| 11 | M | | M | | M | | | | | | | | | | | | | | 11 |
| 10 | M | 248/A7 | M | 25A7 | M | 26H5 | | | | | | | | | | | | | 10 |
| 9 | M | 248/B7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 9 |
| 8 | M | 248/B7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 8 |
| 7 | M | 248/C7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 7 |
| 6 | M | 248/D7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 6 |
| 5 | M | 248/D7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 5 |
| 4 | M | 248/E7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 4 |
| 3 | M | 248/F7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 3 |
| 2 | M | 248/F7 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 2 |
| 1 | M | 24C/E2 | M | 25B7 | M | 26H5 | | | | | | | | | | | | | 1 |
| COIL | | 20A/F6 | | 248/A1 | | 25F7 | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| IDA | 20A/F6 | 185A |
| [8] IAT2-9 | 248/A1 | |
| [2] IBTO,1 | 25F7 | |



RELAY

| DESIG | CWC1 | | CWC2 | | CWK | | CWK1 | | NTB | | CWL | | MT55 | | CWL1 | | NCW1 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF24 | | AJ15 | | AJ515 | | AK6 | | AK6 | | AK501 | | | | AK6 | | AK6 | | | | CODE |
| OPTION | | | | | | | ZTR | | ZTR | | | | | | ZTR | | ZTR | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 106F6 | EBM | 60A0 | M | 105C7 | BM | 107A3 | | | BM | 106A8 | | | BM | 107A2 | | | | | 12 |
| 11 | M | 106F4 | EBM | 60C2 | M | | BM | | | | BM | 106A8 | | | BM | | | | | | 11 |
| 10 | M | 106F7 | EBM | 6080 | BM | 122B/B8 | BM | 31A/A1 | | | BM | 106D2 | | | BM | 31A/C0 | | | | | 10 |
| 9 | M | 106F7 | EBM | 70G0 | M | | BM | 64F6 | | | BM | 106D3 | | | BM | | | | | | 9 |
| 8 | M | 106F7 | EMB | 106C6 | BM | 77F4 | BM | 41A/C7 | | | BM | 106D4 | | | BM | | | | | | 8 |
| 7 | M | 106F7 | EBM | 63C3 | M | 84E5 | | | | | | | | | | | | | | | 7 |
| 6 | M | 106F7 | EMB | 106C1 | BM | 64F5 | | | | | | | | | | | | | | | 6 |
| 5 | M | 106G7 | EMB | | M | 62A/D1 | | | BM | 31A/A2 | | | BM | 106E8 | | | BM | 31A/A1 | | | 5 |
| 4 | M | 106G7 | EBM | 106G4 | BM | 64E5 | | | BM | 106H1 | | | BM | 34A/A0 | | | BM | | | | 4 |
| 3 | M | 106G7 | EBM | 106G4 | M | 63A3 | | | BM | 41A/C8 | | | BM | 106E1 | | | BM | | | | 3 |
| 2 | M | 106G7 | EBM | 106G4 | M | 106H2 | | | BM | 106E3 | | | BM | a | | | BM | | | | 2 |
| 1 | M | 106G7 | EBM | 106G4 | M | 106E1 | | | BM | | | | BM | b | | | BM | | | | 1 |
| COIL | | 106E9 | | 106E6 | | 10689 | | 64F6 | | 106H2 | | 106A2 | | 106D9 | | 106A2 | | 106C6 | | | COIL |

(ZUH) 64G6 a
(ZUI) 106A3
(ZUH) 78B/G2 b
(ZUI) 106A3

| DESIG | CWNO | | CWN1 | | CWNT | | CWS | | NCW | | CWR | | NT6 | | SPL3 | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK46 | | AK46 | | AJ515 | | AJ512 | | AK43 | | | | AJ15 | | AJ12 | | | | CODE |
| OPTION | | | | | ZTR | | | | | | | | ZTR | | ZTR | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 106E2 | | | EBM | 85C2 | BM | 10602 | | | | | EBM | 106G2 | EBM | 10684 | | | 12 |
| 11 | M | 61E2 | | | EBM | 85E2 | BM | 10685 | B | | | | EBM | 106H1 | EBM | 106F1 | | | 11 |
| 10 | M | 106E7 | | | EBM | | BM | 106C1 | BM | 106D2 | | | EBM | 106B5 | EBM | 106F1 | | | 10 |
| 9 | B | 106E7 | | | EBM | 84C5 | BM | 1228/B8 | M | 106E7 | | | EBM | 106C3 | EBM | 106G1 | | | 9 |
| 8 | B | 106D3 | | | EMB | | BM | 10683 | M | 10603 | | | EMB | 31A/A0 | EBM | 106G1 | | | 8 |
| 7 | | | | | EBM | 36A7 | BM | 23F8 | | | | | EBM | | EBM | 106C4 | | | 7 |
| 6 | | | | | EMB | | BM | 10652 | | | | | EMB | | EBM | | | | 6 |
| 5 | | | B | 106D3 | EMB | 31A/A2 | BM | 10780 | | | M | 106E4 | EMB | | EBM | 6466 | | | 5 |
| 4 | | | B | 106E8 | EBM | 106G2 | BM | 106F1 | | | M | 42E4 | EBM | 107A3 | EBM | 107A3 | | | 4 |
| 3 | | | M | 106E8 | EBM | | BM | 106E1 | | | M | 61E3 | EBM | | EBM | 106/H1 | | | 3 |
| 2 | | | M | 61E2 | EBM | 85F0 | BM | 106F2 | | | B | 106B2 | EBM | | EBM | | | | 2 |
| 1 | | | M | 106F2 | EBM | | BM | 10682 | | | | | EBM | | EBM | 10681 | | | 1 |
| COIL | | 106E2 | | 106F2 | | 31A/A2 | | 106C1 | | 106C4 | | 106C8 | | 85E2 | | 85E0 | | | COIL |

LAMP

| DESIG | LOC | CODE |
|---|---|---|
| CWS | 10683 | 13J (RES) |

| DESIG | LOC COIL | LOC B CONT | CODE |
|---|---|---|---|
| [1] CWH0,1,2,4,7 | 106F3 | 106F3 | 293A |
| [1] CWT0,1,2,4,7 | 106F6 | 106F6 | 293A |
| [1] CWU0,1,2,4,7 | 10666 | 10666 | 293A |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| | CW | 106H2 | |
| | CWC1 | 106E9 | |
| | CWC2 | 106E6 | |
| ZTR | CWK1 | 64F6 | |
| | CWL | 106A2 | |
| | CWN0 | 106E2 | 185A |
| | CWN1 | 106F2 | |
| ZTR | CWNT | 31A/A2 | |
| | CWR | 106C8 | |
| | CWS | 106C1 | |
| | NCW | 106C4 | |
| ZTR | NT8 | 106H2 | |

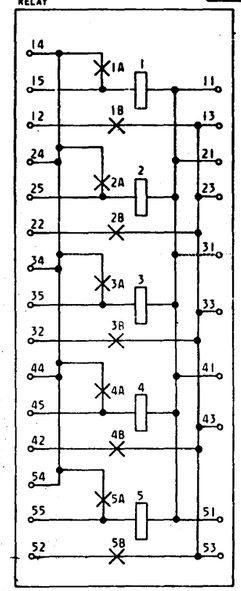
RESISTOR

| DESIG | LOC | CODE |
|---|---|---|
| CW | 106H2 | KS-19150,L1,100kΩ |
| CWK | 10686 | 19EA |
| XCW | 10686 | 188M |

RELAY

| DESIG | XCW | | | | | |
|---|---|---|---|---|---|---|
| CODE | 316R | | | | | |
| OPTION | | | | | | |
| | CONT NO. | CONT ARR | LOC | CONT NO. | CONT ARR | LOC |
| TOP | | | | | | |
| | 4,5,7 | BM | 10602 | | | |
| BOT | | | | | | |
| COIL | | | 106A6 | | | |

RELAY




DRAWING ISSUE 44A

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C83

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

## APP FIG 161

RELAY

| DESIG | IDP | | IDS | | MDO | | MD1 | | MD2 | | MD4 | | MD7 | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF515 | | AF515 | | AK501 | | | | AK501 | | | | AF531 | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | | BM | | BM | 56F8 | | | BM | 56F8 | | | | | | | | | | | 12 |
| 11 | M | | M | | BM | | | | BM | | | | | | | | | | | | 11 |
| 10 | BM | | BM | | BM | 56F8 | | | BM | 56F8 | | | EBM | 56F9 | | | | | | | 10 |
| 9 | | | | | BM | | | | BM | 56F8 | | | | | | | | | | | 9 |
| 8 | BM | | BM | | BM | | | | BM | 56F8 | | | EBM | 56F9 | | | | | | | 8 |
| 7 | B | 40G0 | B | 40G1 | | | | | | | | | | | | | | | | | 7 |
| 6 | BM | | BM | | | | | | | | | | EBM | 56F9 | | | | | | | 6 |
| 5 | | | | | | | BM | | | | BM | 56F9 | | | | | | | | | 5 |
| 4 | BM | 47B2 | BM | 47B2 | | | BM | 56F8 | | | BM | 56F9 | EBM | 56F9 | | | | | | | 4 |
| 3 | M | | M | | | | BM | | | | BM | | | | | | | | | | 3 |
| 2 | BM | 24A/E8 | BM | 24A/E8 | | | BM | 56F8 | | | BM | 56F9 | | | | | | | | | 2 |
| 1 | M | | M | | | | BM | 56F8 | | | BM | 56F9 | | | | | | | | | 1 |
| COIL | | 20A/C5 | | 20A/D5 | | 51G5 | | 52G5 | | 53F5 | | 54G5 | | 55G9 | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | IDP | 20A/C5 | 185A |
| | IDS | 20A/D5 | |
| | MDO | 51G5 | |
| | MD1 | 52G5 | |
| | MD2 | 53F5 | |
| | MD4 | 54G5 | |
| | MD7 | 55G9 | |

## APP FIG 162

RELAY

| DESIG | SC0 | | SC1 | | SC2 | | SC3 | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ513 | | AJ513 | | AJ513 | | AJ513 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | PBEM | | PBEM | | PBEM | | PBEM | | | | | | | | | | | | | | 12 |
| 11 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | | | | | | | | | | | | | 11 |
| 10 | EBM | 28A/G5 | EBM | 28A/G5 | EBM | 28A/G5 | EBM | 28A/G5 | | | | | | | | | | | | | 10 |
| 9 | PMEB | 28A/G6 | PMEB | 28A/G6 | PMEB | 28A/G6 | PMEB | 28A/G6 | | | | | | | | | | | | | 9 |
| 8 | EMB | 28A/G5 | EMB | 28A/G5 | EMB | 28A/G5 | EMB | 28A/G5 | | | | | | | | | | | | | 8 |
| 7 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | | | | | | | | | | | | | 7 |
| 6 | EBM | 28A/G5 | EBM | 28A/G5 | EBM | 28A/G5 | EBM | 28A/G5 | | | | | | | | | | | | | 6 |
| 5 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | | | | | | | | | | | | | 5 |
| 4 | PMEB | 28A/G5 | PMEB | 28A/G5 | PMEB | 28A/G5 | PMEB | 28A/G5 | | | | | | | | | | | | | 4 |
| 3 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | | | | | | | | | | | | | 3 |
| 2 | PBEM | 47B3 | PBEM | 47B3 | PBEM | 47B3 | PBEM | 47B2 | | | | | | | | | | | | | 2 |
| 1 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | BM | 28A/G5 | | | | | | | | | | | | | 1 |
| COIL | | 28A/G6 | | 28A/G6 | | 28A/G6 | | 28A/G6 | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | SC0 | 28A/G6 | 185A |
| | SC1 | 28A/G6 | |
| | SC2 | 28A/G6 | |
| | SC3 | 28A/G6 | |

## APP FIG 163

RELAY

| DESIG | SWAT | | WAT | | WDTF | | WDTI | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ503 | | AJ503 | | AJ503 | | AJ503 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | EBM | | EBM | 21B/A3 | EBM | 21B/B2 | | | | | | | | | | | | | 12 |
| 11 | EBM | | EBM | 137C3 | EBM | 21B/A2 | EBM | 21B/B2 | | | | | | | | | | | | | 11 |
| 10 | EBM | 137D1 | EBM | 137D2 | EBM | 137D1 | EBM | 137D1 | | | | | | | | | | | | | 10 |
| 9 | EBM | | EBM | | EBM | | EBM | | | | | | | | | | | | | | 9 |
| 8 | EMB | | EMB | | EMB | | EMB | 137D3 | | | | | | | | | | | | | 8 |
| 7 | EBM | | EBM | | EBM | 137C1 | EBM | | | | | | | | | | | | | | 7 |
| 6 | EMB | | EMB | | EMB | 143E8 | EMB | 143E8 | | | | | | | | | | | | | 6 |
| 5 | EMB | | EMB | | EMB | 141D3 | EMB | 141C3 | | | | | | | | | | | | | 5 |
| 4 | EBM | | EBM | 24A/G6 | EBM | 24B/D0 | EBM | 141A4 | | | | | | | | | | | | | 4 |
| 3 | EBM | 30B/B7 | EBM | 24A/G6 | EBM | 30B/B7 | EBM | 138G7 | | | | | | | | | | | | | 3 |
| 2 | EBM | 107G9 | EBM | | EBM | 28A/B1 | EBM | 133C9 | | | | | | | | | | | | | 2 |
| 1 | EBM | | EBM | | EBM | | EBM | 31B/D8 | | | | | | | | | | | | | 1 |
| COIL | | 137C3 | | 21B/C3 | | 21B/A3 | | 21B/B3 | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | SWAT | 137C3 | 185A |
| | WAT | 21B/C3 | |
| | WDTF | 21B/A3 | |
| | WDTI | 21B/B3 | |

RESISTOR

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | DTF | 21B/A2 | KS-8512,L6B,274 |
| | DTI | 21B/B2 | KS-8512,L6B,274 |

## APP FIG 164

RELAY

| DESIG | AGT | | | | ARTA | | PEG2 | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK4 | | | | AJ12 | | AJ501 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | M | | EBM | | EBM | | | | | | | | | | | | | | 12 |
| 11 | | | EBM | | EBM | | EBM | 88B/F1 | | | | | | | | | | | | | 11 |
| 10 | | | EBM | | EBM | 120G8 | EBM | 88C/G5 | | | | | | | | | | | | | 10 |
| 9 | | | EMB | | EBM | 120G8 | EBM | 88C/G5 | | | | | | | | | | | | | 9 |
| 8 | | | EMB | | EBM | 120G8 | EMB | 88C/G5 | | | | | | | | | | | | | 8 |
| 7 | | | | | EBM | 120G8 | EBM | 88C/G5 | | | | | | | | | | | | | 7 |
| 6 | | | | | EBM | 120G8 | EMB | 88C/G5 | | | | | | | | | | | | | 6 |
| 5 | EMB | | | | EBM | 120G4 | EMB | 88C/G5 | | | | | | | | | | | | | 5 |
| 4 | EMB | | | | EBM | 120G4 | EBM | 88C/G5 | | | | | | | | | | | | | 4 |
| 3 | EBM | | | | EBM | 120G4 | EBM | 88C/G5 | | | | | | | | | | | | | 3 |
| 2 | EBM | 88C/H5 | | | EBM | 120G4 | EBM | 88C/G5 | | | | | | | | | | | | | 2 |
| 1 | M | 120F0 | | | EBM | 120G4 | EBM | 88C/G5 | | | | | | | | | | | | | 1 |
| COIL | | 120F0 | | | | 120G3 | | 88B/E0 | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | AGT | 120F0 | 185A |
| | ARTA | 120G3 | 185A |
| | PEG2 | 88B/E0 | 185A |

DRAWING ISSUE 43D

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C84

BELL TELEPHONE LABORATORIES INCORPORATED

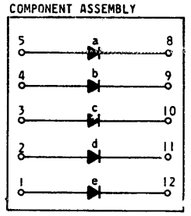
SHEET 65

# APP FIG 165 (SEE NOTE 1)

| DESIG | PEG20(30) | | RTC2 | | RTC3(4,5) | | RT20-24 (30-34) | | RT25-29 (35-39) | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF506 | | AJ131 | | AJ131 | | AK4 | | | | | | | | | | | | | | CODE |
| OPTION | ZTK | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | | EBM | 59B/G7 | EBM | | | | M | 59B/B2 | | | | | | | | | | | 12 |
| 11 | M | | EMB | | EMB | | | | EBM | 59B/D6 | | | | | | | | | | | 11 |
| 10 | M | 59B/E7 | EBM | | EBM | | | | EBM | | | | | | | | | | | | 10 |
| 9 | M | 59B/E7 | EMB | 59B/A1 | EMB | 59B/A1 | | | EMB | | | | | | | | | | | | 9 |
| 8 | M | 59B/E7 | EBM | | EBM | | | | EMB | | | | | | | | | | | | 8 |
| 7 | M | 59B/E7 | EMB | 59B/A1 | EMB | 59B/A1 | | | | | | | | | | | | | | | 7 |
| 6 | M | 59B/E7 | EBM | | EBM | | | | | | | | | | | | | | | | 6 |
| 5 | M | 59B/E7 | EMB | 59B/A1 | EMB | 59B/A1 | EMB | | | | | | | | | | | | | | 5 |
| 4 | M | 59B/E7 | EBM | | EBM | | EMB | | | | | | | | | | | | | | 4 |
| 3 | M | 59B/E7 | EMB | 59B/A1 | EMB | 59B/A1 | EBM | | | | | | | | | | | | | | 3 |
| 2 | M | 59B/E7 | EBM | | EBM | | EBM | 59B/D6 | | | | | | | | | | | | | 2 |
| 1 | M | 59B/E7 | EMB | 59B/A1 | EMB | 59B/A1 | M | 59B/A2 | | | | | | | | | | | | | 1 |
| COIL | | 59B/E2 | | 59B/D2 | | 59B/D2 | | 59B/A2 | | 59B/B2 | | | | | | | | | | | COIL |

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

COMPONENT ASSEMBLY




| DESIG | | | CA0,1(2,3) | | CA4,5(6,7) | |
|---|---|---|---|---|---|---|
| CODE | | | [4] ED-94823-( ),G2 | | | |
| OPTION | | | ZTK | | | |
| COMPONENT | | CODE | DESIG | LOC | DESIG | LOC |
| DIODE | a | 426F | RTB- | 59B/E7 | PC- | 59B/E7 |
| | b | | RTB- | 59B/E7 | PC- | 59B/E7 |
| | c | | RTB- | 59B/E7 | PC- | 59B/E7 |
| | d | | RTB- | 59B/E7 | PC- | 59B/E7 |
| | e | | RTB- | 59B/E7 | PC- | 59B/E7 |

NETWORK

| | DESIG | LOC | CODE |
|---|---|---|---|
| (ZTK) | PEG20(30) | 59B/E2 | 185A |
| | RT20-24 (30-34) | 59B/A2 | 185A |
| | RT25-29 (35-39) | 59B/B2 | 185A |
| | RTC 2,3(4,5) | 59B/D2 | 185A |

# APP FIG 166

| DESIG | [4] GSB1-4 | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ131 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 17F7 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | EMB | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | EMB | 28B/E0 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | EMB | 28B/E0 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | EMB | 28B/E0 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 28B/D1 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | EMB | 28B/E0 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 28B/D1 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | EMB | 28B/E0 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 17A8 | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| DESIG | LOC | CODE |
|---|---|---|
| [4] GSB1-4 | 17A8 | 185A |

NOTES:
1. DESIGNATIONS SHOWN IN PARENTHESES APPLY TO 2ND APP FIG 165 PROVIDED.

DRAWING ISSUE 45D

DRAWING ISSUE 51D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C85

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-C85

# APP FIG. 167

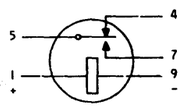
RELAY

| DESIG | BCN | | BSL | | BSLI | | LLCK | | LSK | | WBL | | WBLI | | WTGO | | WTG1 | | WTG2 | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AJ501 | | AJ501 | | AJ501 | | AJ508 | | AJ501 | | AJ501 | | AJ501 | | AJ501 | | AJ501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | EBM | | EBM | | EBM | | M | | EBM | | EBM | | EBM | | EBM | | EBM | | 12 |
| 11 | EBM | | EBM | 143G4 | EBM | | EBM | | | | EBM | | EBM | | EBM | | EBM | | EBM | | 11 |
| 10 | EBM | | EBM | 143G5 | EBM | | EBM | | BM | | EBM | 143G5 | EBM | | EBM | | EBM | | EBM | | 10 |
| 9 | EBM | | EBM | 136G1 | EBM | | EBM | | | | EBM | | EBM | | EBM | | EBM | | EBM | | 9 |
| 8 | EMB | | EMB | | EMB | | EMB | | BM | | EMB | | EMB | | EMB | | EMB | | EMB | | 8 |
| 7 | EBM | | EBM | 141B2 | EBM | | EBM | | | | EBM | 141B3 | EBM | | EBM | | EBM | | EBM | | 7 |
| 6 | EMB | | EMB | | EMB | | EMB | | BM | | EMB | | EMB | | EMB | | EMB | | EMB | | 6 |
| 5 | EMB | 143H4 | EMB | 143C6 | EMB | | EMB | | | | EMB | 143C6 | EMB | | EMB | | EMB | | EMB | | 5 |
| 4 | EBM | | EBM | 139B3 | EBM | | EBM | | BM | | EBM | | EBM | | EBM | | EBM | | EBM | | 4 |
| 3 | EBM | 137G6 | EBM | 139B4 | EBM | 88E/F5 | EBM | 141B3 | | | EBM | 143F0 | EBM | 88E/E5 | EBM | 136E2 | EBM | 136E2 | EBM | 136E2 | 3 |
| 2 | EBM | 143G3 | EBM | 133A4 | EBM | 88E/B5 | EBM | 139H4 | M | 138H5 | EBM | 143G4 | EBM | 88E/C5 | EBM | | EBM | 139H5 | EBM | 139H5 | 2 |
| 1 | EBM | 143H5 | EBM | 139G4 | EBM | 88E/A5 | EBM | 139C3 | M | 139G4 | EBM | 139G6 | EBM | 88E/B5 | EBM | 139H5 | EBM | 139H5 | EBM | 139H5 | 1 |
| COIL | | 143H6 | | 137G1 | | 137H1 | | 136F1 | | 138H4 | | 137G1 | | 137F1 | | 137H6 | | 137H6 | | 137H6 | COIL |

RELAY

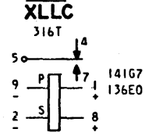
| DESIG | WTG3 | | XALLC | | XLSS | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ501 | | AF51 | | AF104 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | EBM | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | | M | | | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EMB | | M | 141F6 | M | 141G6 | | | | | | | | | | | | | | | 8 |
| 7 | EBM | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | | M | 86D7 | M | 86C7 | | | | | | | | | | | | | | | 6 |
| 5 | EMB | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | | M | 141F8 | M | 141F8 | | | | | | | | | | | | | | | 4 |
| 3 | EBM | 136F2 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | 139H6 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 137H6 | | 141F7 | | P-138H5<br>S-141G7 | | | | | | | | | | | | | | | COIL |

RELAY

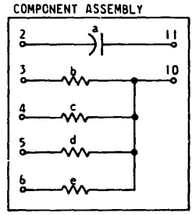



| DESIG | WCGK | | |
|---|---|---|---|
| CODE | 316A | | |
| OPTION | | | |
| 9 | 136F2 | | |
| 8 | | | |
| 7 | 139B4 | | |
| 6 | | | |
| 5 | 139B4 | | |
| 4 | 139B4 | | |
| 3 | | | |
| 2 | | | |
| 1 | 136F2 | | |

RELAY
**XLLC**
316T




COMPONENT ASSEMBLY




| DESIG | | CAO | | |
|---|---|---|---|---|
| CODE | | ED-94823( ),G840 | | |
| OPTION | | | | |
| COMPONENT | | DESIG | LOC | CODE |
| CAPACITOR | a | XLSS | 138H5 | KS-13368,L30,.01 |
| RESISTOR | b | LLCO | 136E1 | KS-19152,L1,2kΩ |
| | c | LLC1 | | |
| | d | LLC2 | | |
| | e | LLC3 | | |

LAMP

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | LSK | 138H5 | 13J (RES) |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | BCN | 143H6 | 185A |
| | BSL | 137G1 | 186A |
| | LLCK | 136F1 | 185A |
| | LSK | 138H4 | 186A |
| | WBL | 137G1 | 186A |
| [4] | WTGO-3 | 137H6 | 185A |

# APP FIG. 168

RELAY

| DESIG | ITD | | ITM | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK501 | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | 6B/C5 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | BM | 104A/C0 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | BM | 34B/A7 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | BM | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | BM | 6B/A5 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | BM | 6B/C6 | | | | | | | | | | | | | | | | | 5 |
| 4 | | | BM | 104A/C0 | | | | | | | | | | | | | | | | | 4 |
| 3 | | | BM | 34B/A9 | | | | | | | | | | | | | | | | | 3 |
| 2 | | | BM | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | BM | 6B/A5 | | | | | | | | | | | | | | | | | 1 |
| COIL | | 6B/H6 | | 6B/H6 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | ITD | 6B/H6 | 185A |
| | ITM | 6B/H6 | 185A |

# APP FIG. 169

RELAY

| DESIG | ITNC | | ITND | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF24 | | AF24 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 62A/F2 | M | 62A/F2 | | | | | | | | | | | | | | | | | 12 |
| 11 | M | | M | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | 63F2 | M | 63F2 | | | | | | | | | | | | | | | | | 10 |
| 9 | M | 63A0 | M | 63A0 | | | | | | | | | | | | | | | | | 9 |
| 8 | M | | M | | | | | | | | | | | | | | | | | | 8 |
| 7 | M | | M | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | | M | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | 62A/D2 | M | 62A/D3 | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 61F9 | M | 61F9 | | | | | | | | | | | | | | | | | 4 |
| 3 | M | 69H2 | M | 69H2 | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 68C7 | M | 68C6 | | | | | | | | | | | | | | | | | 2 |
| 1 | M | 67C6 | M | 67D5 | | | | | | | | | | | | | | | | | 1 |
| COIL | | 108H1 | | 108H1 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | INTC | 108H1 | 185A |
| | INTD | 108H1 | 185A |

ISSUE

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-C86A

BELL TELEPHONE LABORATORIES INCORPORATED SHEET SIZE 6S

# APP FIG. 170

RELAY

| DESIG | [8]2N0-9N0 | | [8]2ØX-9ØX | | [8]21X-91X | | ACT | | XØX | | X1X | | XNX | | XXN | | XXØ | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ512 | | AJ503 | | | | CODE |
| OPTION | ZQO | | | | | | | | | | | | | | ZQO | | ZQO | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | EBM | 144D5 | | | 12 |
| 11 | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | BM | - | EBM | 144D5 | | | 11 |
| 10 | BM | - | BM | 144F3 | BM | 144G3 | BM | - | BM | - | BM | - | BM | - | BM | - | EBM | 144D5 | | | 10 |
| 9 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | - | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EBM | 144D5 | | | 9 |
| 8 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | - | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EMB | - | | | 8 |
| 7 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | - | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EBM | - | | | 7 |
| 6 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | - | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EMB | - | | | 6 |
| 5 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | 144A2 | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EMB | - | | | 5 |
| 4 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | 144B2 | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EBM | 144D5 | | | 4 |
| 3 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | 144C2 | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EBM | - | | | 3 |
| 2 | BM | 144E3 | BM | 144F3 | BM | 144G3 | BM | 144D2 | BM | 144B5 | BM | 144C5 | BM | 144D5 | BM | - | EBM | - | | | 2 |
| 1 | BM | - | BM | 144F3 | BM | 144G3 | BM | 144E2 | BM | - | BM | - | BM | - | BM | 144D5 | EBM | 144D5 | | | 1 |
| COIL | | 144D5 | | 144B5 | | 144C5 | | 144A2 | | 144A2 | | 144B2 | | 144C2 | | 144D2 | | 144E2 | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

LAMP

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | ACT | 144A6 | 13J |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| ZQO | [8]2N0-9N0 | 144D5 | |
| | [8]2ØX-9ØX | 144B5 | |
| | [8]21X-91X | 144C5 | |
| | ACT | 144A2 | |
| | XØX | 144A2 | 185A |
| | X1X | 144B2 | |
| | XNX | 144C2 | |
| ZQO | XXN | 144D2 | |
| ZQO | XXØ | 144E2 | |

DRAWING ISSUE

ISSUE 51D

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-C868

BELL TELEPHONE LABORATORIES INCORPORATED

65

SD-26002-01-C868

# APP FIG. 171

RELAY

| DESIG | LKA | | RKA | | TBA | | LKD | | TBX | | XCHS | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF132 | | AF132 | | AK501 | | | | AJ507 | | AF96 | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | M | 31B/H6 | M | 31B/H6 | BM | 18H4 | | | M | 15G2 | | | | | | | | | | | 12 |
| 11 | M | 31B/H6 | M | 31B/H6 | EM | | | | M | 35B/C0 | | | | | | | | | | | 11 |
| 10 | M | 31B/H6 | M | 31B/H6 | BM | | | | M | | | | | | | | | | | | 10 |
| 9 | M | 31B/H6 | M | 31B/H6 | BM | 38D3 | | | M | 17E0 | | | | | | | | | | | 9 |
| 8 | BM | 19A4 | BM | 19A5 | BM | 36A1 | | | BM | | M | 37C2 | | | | | | | | | 8 |
| 7 | M | 31B/H6 | M | 31B/H6 | | | | | M | 31B/G1 | | | | | | | | | | | 7 |
| 6 | BM | 31B/C8 | BM | 31B/C7 | | | | | BM | 17G5 | M | 86B7 | | | | | | | | | 6 |
| 5 | M | 31B/H6 | M | 31B/H6 | | | BM | 31A/B9 | M | 34A/A5 | | | | | | | | | | | 5 |
| 4 | M | 31B/H6 | M | 31B/H6 | | | BM | 12F8 | BM | 31B/G0 | M | 37D4 | | | | | | | | | 4 |
| 3 | M | 31B/H6 | M | 31B/H6 | | | BM | | M | 36E5 | | | | | | | | | | | 3 |
| 2 | M | 31B/H6 | M | 31B/H6 | | | BM | | M | 12E8 | | | | | | | | | | | 2 |
| 1 | M | 31B/H6 | M | 31B/H6 | | | BM | 36B1 | M | 12E7 | | | | | | | | | | | 1 |
| COIL | | 12E7 | | 12D7 | | 17E0 | | 36B2 | | 17D1 | | P-31B/G0 | | | | | | | | | COIL |
| | | | | | | | | | | | | S-37C2 | | | | | | | | | |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | LKA | 12E7 | 185A |
| | LKD | 3682 | |
| | RKA | 12D7 | |
| | TBA | 17E0 | |
| | TBX | 17D1 | |

# APP FIG. 172

RELAY

| DESIG | PS1 | | PS2 | | CPG | | PSA | | PSA1 | | PSG | | PSL | | PST | | ROH | | ST | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF517 | | AK36 | | | | AJ512 | | AF132 | | AF55 | | AJ507 | | AJ507 | | AF55 | | AJ11 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EM | 35B/F5 | BM | | | | BM | 4A/G1 | M | 35B/E6 | M | 35B/D6 | M | 3H1 | M | 28A/G0 | M | 35B/E4 | | | 12 |
| 11 | M | 35B/D8 | BM | 35B/D9 | | | BM | 37F7 | M | 33A/F1 | M | 35B/F0 | M | 3H7 | M | 88C/B8 | M | | | | 11 |
| 10 | M | 35A/G5 | BM | 35A/G5 | | | BM | 39B/B4 | M | 33A/F1 | BM | 35B/E5 | M | 4A/G4 | M | 35A/H5 | BM | | | | 10 |
| 9 | | | BM | | | | BM | 39B/B8 | M | 33A/G1 | M | 35B/B8 | M | 4A/D5 | M | 35A/G3 | M | 35B/A8 | | | 9 |
| 8 | EBM | 35A/F3 | BM | 35B/E4 | | | BM | 39B/A8 | BM | 3602 | BM | 35B/E4 | BM | | BM | 30B/C6 | BM | | M | | 8 |
| 7 | B | 35A/G3 | | | | | BM | 35B/D6 | M | 33A/G1 | B | 28A/H6 | M | 41A/B9 | M | 35A/G2 | B | 28A/H6 | | | 7 |
| 6 | EMB | 35B/E4 | | | | | BM | 35B/L4 | BM | 28A/H5 | BM | 28A/H6 | BM | 6A/F3 | BM | 7E2 | BM | 28A/H6 | M | 35B/A8 | 6 |
| 5 | | | | | B | 81H2 | BM | 38C4 | M | 33A/E2 | M | 28A/H6 | M | 36D1 | M | 35A/G5 | M | 35B/C8 | | | 5 |
| 4 | M | 35A/G3 | | | B | | BM | 35A/G5 | M | 33A/F2 | BM | | BM | 6A/G3 | BM | 35B/F1 | BM | | | | 4 |
| 3 | M | 35B/B7 | | | BM | | BM | 35A/F4 | M | 33A/F2 | M | 81H2 | M | 4A/C6 | M | 35A/F5 | M | 35B/A7 | | | 3 |
| 2 | M | | | | BM | | BM | 33A/E1 | M | 33A/G2 | M | 28A/F1 | M | 4A/B5 | M | 35B/E3 | M | | | | 2 |
| 1 | M | 35A/F4 | | | BM | | BM | 30B/C6 | M | 33A/G2 | M | | M | 4A/H1 | M | 35B/C4 | M | | | | 1 |
| COIL | | 35B/E5 | | 35B/F5 | | 81H4 | | 35B/B9 | | 35B/E7 | | 35B/C7 | | 4A/A1 | | 28A/A6 | | 35B/D5 | | 35A/G4 | COIL |

RELAY

| DESIG | TPT | | STA | | | | | | PSTA | | PSA2 | | | | | | FSA3 | | SPARE | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK501 | | | | | | | | AK501 | | | | | | | | ZML | | AK501 | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | | | | | | | | BM | 88C/A8 | | | | | | | | | BM | | 12 |
| 11 | BM | 35B/F4 | | | | | | | BM | 35B/E6 | | | | | | | | | BM | | 11 |
| 10 | BM | 35A/F2 | | | | | | | BM | 28A/A6 | | | | | | | | | BM | | 10 |
| 9 | BM | 35A/F4 | | | | | | | BM | 37C8 | | | | | | | | | BM | | 9 |
| 8 | BM | 35A/G3 | | | | | | | BM | 15A1 | | | | | | | | | BM | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | BM | 35B/F4 | | | | | | | BM | 35B/F6 | | | | | BM | | | | 5 |
| 4 | | | BM | | | | | | | | BM | 88C/A8 | | | | | BM | | | | 4 |
| 3 | | | BM | | | | | | | | BM | | | | | | BM | 5A/H1 | | | 3 |
| 2 | | | BM | 81H3 | | | | | | | BM | | | | | | BM | 5A/H7 | | | 2 |
| 1 | | | BM | 35B/C4 | | | | | | | BM | | | | | | BM | 5B/G2 | | | 1 |
| COIL | | 7E3 | | 35B/A9 | | | | | | 28A/A6 | | 35B/F7 | | | | | | 35B/B8 | | | COIL |

CAPACITOR

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | TBTA1,2 | 39B/A5 | 437QA |

DIODE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | ST | 35A/G3 | 426A |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | PSA | 35B/B9 | 185A |
| | PSA1 | 35B/E7 | |
| | PSG | 35B/C7 | |
| | PSL | 4A/A1 | |
| | PST | 28A/A6 | |
| | ROH | 35B/D5 | |
| | STA | 35A/A9 | |
| | TPT | 7E3 | |
| ZML | PSA3 | 35B/B8 | |

RESISTOR

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | PG1 | 35A/E3 | 18FP |
| | PG2 | 35A/E3 | 19TM |
| | PG3 | 35A/F3 | 18JY |
| | PS1 | 35B/F5 | 18BH |
| | PS2 | 35B/F5 | 18AM |
| ZCU | PSG | 28F1 | 59H |
| ZCV | PSG | 28F1 | KS-8512,L6C,200 |
| | ST1 | 35A/G4 | 18BT |
| | ST2 | 35A/H4 | 18BG |
| | ST3 | 35A/H3 | 18BG |
| | TBT1 | 39B/A4 | 13G |

DRAWING ISSUE

ISSUE 67B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-C87

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

PRINTED IN U.S.A.

SD-26002-01-C87

## APP FIG. 175

RELAY

| DESIG | DAHA | | DAL | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ512 | | AJ512 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | BM | | BM | | | | | | | | | | | | | | | | 12 |
| 11 | BM | | BM | | | | | | | | | | | | | | | | 11 |
| 10 | BM | | BM | | | | | | | | | | | | | | | | 10 |
| 9 | BM | | BM | | | | | | | | | | | | | | | | 9 |
| 8 | BM | | BM | | | | | | | | | | | | | | | | 8 |
| 7 | BM | 47D7 | BM | 47D7 | | | | | | | | | | | | | | | 7 |
| 6 | BM | 28A/H1 | BM | 28A/H1 | | | | | | | | | | | | | | | 6 |
| 5 | BM | | BM | | | | | | | | | | | | | | | | 5 |
| 4 | BM | | BM | | | | | | | | | | | | | | | | 4 |
| 3 | BM | | BM | | | | | | | | | | | | | | | | 3 |
| 2 | BM | | BM | | | | | | | | | | | | | | | | 2 |
| 1 | BM | | BM | | | | | | | | | | | | | | | | 1 |
| COIL | | 28A/H1 | | 28A/G1 | | | | | | | | | | | | | | | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | DAHA | 28A/H1 | 185A |
| | DAL | 28A/G1 | 185A |

## APP FIG. 176

RELAY

| DESIG | NOB | | OBS | | XOB | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AJ502 | | AJ502 | | AF96 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 27E8 | EBM | 10984 | | | | | | | | | | | | | | | 12 |
| 11 | EBM | | EBM | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 109C4 | EBM | | | | | | | | | | | | | | | | 10 |
| 9 | EBM | 49B/E3 | EBM | 49B/D3 | | | | | | | | | | | | | | | 9 |
| 8 | EMB | | EMB | | M | 87G6 | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EMB | | EMB | | M | 86C2 | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | | EBM | | M | 86D2 | | | | | | | | | | | | | 4 |
| 3 | EBM | | EBM | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | | EBM | | | | | | | | | | | | | | | | 2 |
| 1 | EBM | | EBM | | | | | | | | | | | | | | | | 1 |
| COIL | | 109C7 | | 10987 | | a | | | | | | | | | | | | | COIL |

a P-10988
S- 8766

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | ~~NOB~~ | 109C7 | 185A |
| | OBS | 10987 | 185A |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-C88

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-C88

## APP FIG. 177

RELAY

| DESIG | MCB2 | | | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF506 | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT APR | LOC | CONT ARR | LOC | |
| 12 | M | | | | | | | | | | | | | | | | | | 12 |
| 11 | M | | | | | | | | | | | | | | | | | | 11 |
| 10 | M | | | | | | | | | | | | | | | | | | 10 |
| 9 | M | | | | | | | | | | | | | | | | | | 9 |
| 8 | M | | | | | | | | | | | | | | | | | | 8 |
| 7 | M | | | | | | | | | | | | | | | | | | 7 |
| 6 | M | | | | | | | | | | | | | | | | | | 6 |
| 5 | M | | | | | | | | | | | | | | | | | | 5 |
| 4 | M | 39A/D2 | | | | | | | | | | | | | | | | | 4 |
| 3 | M | 39A/D2 | | | | | | | | | | | | | | | | | 3 |
| 2 | M | 39A/D2 | | | | | | | | | | | | | | | | | 2 |
| 1 | M | 39A/D2 | | | | | | | | | | | | | | | | | 1 |
| COIL | | 39A/G4 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | MCB2 | 39A/G4 | 185A |

## APP FIG. 178

RELAY

| DESIG | TOB | | TOBS | | | | | | | | | | | | | | | | DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AF530 | | AF52 | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | EBM | 27E8 | M | 27E0 | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | EBM | 27H4 | BM | 27F8 | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | EBM | | BM | 27F7 | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 27G0 | BM | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | EBM | 109B3 | BM | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | EBM | 109C3 | M | | | | | | | | | | | | | | | | 2 |
| 1 | | | M | 27H0 | | | | | | | | | | | | | | | 1 |
| COIL | | 27E7 | | 27E0 | | | | | | | | | | | | | | | COIL |

ISSUE 57B

COMPLETING MARKER CIRCUIT

SD-26002-01-C89

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 65

CBL-250 (12-74)

# APP FIG. 179

RELAY

| DESIG | [5]FS20-24 | | [5] FS25-29 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | AK50! | | | | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | BM | 16B7 | | | | | | | | | | | | | | | | |
| 11 | BM | 90G4 | | | | | | | | | | | | | | | | |
| 10 | BM | | | | | | | | | | | | | | | | | |
| 9 | BM | 16G1 | | | | | | | | | | | | | | | | |
| 8 | BM | 15F7 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 5 | | | BM | 16B7 | | | | | | | | | | | | | | |
| 4 | | | BM | 90H4 | | | | | | | | | | | | | | |
| 3 | | | BM | | | | | | | | | | | | | | | |
| 2 | | | BM | 16J1 | | | | | | | | | | | | | | |
| 1 | | | BM | 15F7 | | | | | | | | | | | | | | |
| COIL | | 90G4 | | 90H4 | | | | | | | | | | | | | | |

| DESIG | |
|---|---|
| CODE | |
| OPTION | |
| 12 | 12 |
| 11 | 11 |
| 10 | 10 |
| 9 | 9 |
| 8 | 8 |
| 7 | 7 |
| 6 | 6 |
| 5 | 5 |
| 4 | 4 |
| 3 | 3 |
| 2 | 2 |
| 1 | 1 |
| COIL | COIL |

RELAY

| DESIG | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC |
| 12 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | |
| COIL | | | | | | | | | | | | | | | | | | |

| DESIG | |
|---|---|
| CODE | |
| OPTION | |
| 12 | 12 |
| 11 | 11 |
| 10 | 10 |
| 9 | 9 |
| 8 | 8 |
| 7 | 7 |
| 6 | 6 |
| 5 | 5 |
| 4 | 4 |
| 3 | 3 |
| 2 | 2 |
| 1 | 1 |
| COIL | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | [10]FS20-29 | 90H4 | 185A |

## APP FIG. 180

DIODE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | LT | 20A/A4 | 426G |
| | LTI | 20A/A5 | 426G |

## APP FIG. 181

DIODE

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | HONI | 44E5 | 446F |

ISSUE 62A

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-C90

## APP FIG. 182

RELAY

| DESIG | | MM | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | AJB9 | | | | | | | | | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | 12 |
| 11 | EMB | 100B/H6 | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | 10 |
| 9 | EM9 | 2235 | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | 8 |
| 7 | BM | 72A6 | | | | | | | | | | | | | | | | | 7 |
| 6 | EBM | 66D2 | | | | | | | | | | | | | | | | | 6 |
| 5 | BM | 66E6 | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | 4 |
| 3 | EM5 | 66D0 | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | 2 |
| 1 | EMB | | | | | | | | | | | | | | | | | | 1 |
| COIL | | 100B/H6 | | | | | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | MM | 100B/H6 | 185A |

## APP FIG. 183

RELAY

| DESIG | | | | | | | | | | CL10 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | AF530 | | | | | | | | | |
| OPTION | | | | | | | | | | | | | | | | | | | |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | EBM | 48E5 | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | EBM | 48D4 | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | EBM | 48F2 | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | EBM | 48H6 | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | EBM | 48F5 | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | EBM | 48E5 | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | 47C0 | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | CL10P | 47C0 | 186D |
| | CL10S | 47D0 | 186P |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S — 63B

BELL LABORATORIES — SD-26002-01 — C91

PRINTED IN U.S.A.

# APP FIG 184

| RELAY DESIG | | | | | | | NRCD | | RCDT | | | | | | | | | | | | RELAY DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | AK508 | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | | | |
| 12 | | | | | | | BM | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | BM | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | BM | 28B/G3 | | | | | | | | | | | | | 10 |
| 9 | | | | | | | BM | 28B/H2 | | | | | | | | | | | | | 9 |
| 8 | | | | | | | BM | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | BM | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | BM | 28B/H3 | | | | | | | | | | | 4 |
| 3 | | | | | | | | | BM | 28B/G4 | | | | | | | | | | | 3 |
| 2 | | | | | | | | | BM | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | BM | | | | | | | | | | | | 1 |
| COIL | | | | | | | | 28B/G2 | | 28B/G2 | | | | | | | | | | | COIL |

| RELAY DESIG | | | | | | | | | | | | | | | | | | | | | RELAY DESIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | | | | | | | | | | | | | | | | | | | | CODE |
| OPTION | | | | | | | | | | | | | | | | | | | | | OPTION |
| | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | CONT ARR | LOC | |
| 12 | | | | | | | | | | | | | | | | | | | | | 12 |
| 11 | | | | | | | | | | | | | | | | | | | | | 11 |
| 10 | | | | | | | | | | | | | | | | | | | | | 10 |
| 9 | | | | | | | | | | | | | | | | | | | | | 9 |
| 8 | | | | | | | | | | | | | | | | | | | | | 8 |
| 7 | | | | | | | | | | | | | | | | | | | | | 7 |
| 6 | | | | | | | | | | | | | | | | | | | | | 6 |
| 5 | | | | | | | | | | | | | | | | | | | | | 5 |
| 4 | | | | | | | | | | | | | | | | | | | | | 4 |
| 3 | | | | | | | | | | | | | | | | | | | | | 3 |
| 2 | | | | | | | | | | | | | | | | | | | | | 2 |
| 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| COIL | | | | | | | | | | | | | | | | | | | | | COIL |

NETWORK

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | NRCD | 28B/G2 | 186A |
| | RCDT | 28B/G2 | 186A |

RESISTOR

| OPT | DESIG | LOC | CODE |
|---|---|---|---|
| | CDT | 28B/G3 | 18AG |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S | ISSUE 63B

BELL LABORATORIES | SD-26002-01- | C92

E-7482-A-1 (6-70) PRINTED IN U.S.A.

CIRCUIT NOTES

101 (A) 1-1/3 AMP 48V SIG. BAT. FUSES PER MARKER

| DESIG | FIG. | BATTERY SUPPLY FOR COMMON EQPT FRAME |
|---|---|---|
| | | APPARATUS |
| A0 | 18 | VFO-4, CB2, VFTO-4 & FTK1 RELS V RESISTOR & V NETWORK |
| A1 | 18 | HGTO-4 & TOG5 RELS |
| A2 | 18 | HGTS-9 & HTK1 RELS |
| A3 | 18 | LHT, VGO,TO,VGTIO & FLGA RELS LHTO-4 RES |
| A4 | 18 | HGO/7, CB3, CB4 & VGT11 RELS |
| A5 | 18 | VGTO-4, VTK1 & TCCA RELS |
| A6 | 18 | VGTS-9 RELS |
| A7 | 19 | FUTO-4 RELS |
| A8 | 19 | FUTS-9 RELS |
| A9 | 19 | STF, PR, 7Q, RQ, 20F, 40F, FTBO-3, CB6, TTF RELS |
| A10 | 19 | CB, OLI, OLIT, & FTTO-3 RELS, OLIA REL |
| A11 | 19 | FTO-3, CB1, FUO/7 & FTTB RELS |
| A12 | 20 | JGO-4, GC, STP, STP1-3 & MT7 RELS |
| A13 | 20 | 2G,3G,JLE,JLO,JSE,JSO,JSQO-5, MT8,MT8A,MT56,SQO, SQI & SQA RELAYS |
| A14 | 21 | RCT13-15, RCK2, ICK & TNK RELS |
| A14 | 21 | (RCT1-12 RELS) "YS" OPTION |
| A15 | 21 | SRK, RSK, OFH, OFH1, CSW, TBH & RCK3 RELS TCK2 & RCK2 RES |
| A16 | 22 | FNA, FNB, 3NB, RIB, TBIB, PMO, OFK, BY, OV, LB, LT, 9NTH, LCH, LIA & TCH RELS OFK RES |
| A17 | 22 | MTUK, OVC, UK, BN, RI, TBI, NR, RCY2, RCY5, SNG2, NGK, NGP & DAC1 RELS |
| A18 | 22 | PUT, PUL, LLI, RNG, RCL, VFL, HGL, PTK, LLIA, & RV2 RELS |
| A19 | 22 | CKO, CKR, VGL, FUL, FTL, TNR, LA, RGTA, RV & RIP RELS |
| A19 | 23 | AK & SLCK1 RELS |
| A20 | 23 | PBX1,2,A,UT,TYMA,NGC,SAC1,SPT,TYM & SAE RELS TYMA NETWORK |
| A20 | 144 | ENTIRE FIG 144 |
| A21 | 165 | RT2C 29, RTC2,3 & PEG20 RELAYS |
| | 24 | ENTIRE FIG. 24 |
| | 25 | SCLO,2,3,5, PCCL & PCL1,2 RELS |
| A22 | 25 | RM, RMO/7, RMK1, RNT1,2, AMA3,4 & 5, MT57 RELS RNT1,2 RESISTOR |
| A23 | 26 | TGT, TG, OTT, TTK, ND1, NDK, CLK, NOC, IMG, NSO, NSI, OGC, CLT1,2, SLK1, CLG RELS S RESISTOR |
| A24 | 26 | SHKA, OST1,2, SLK2, GTL, LLS, TLS, & LSC1, RELS |
| A24 | 18 | GTL2 |
| A25 | 26 | AVK1, BG1, OSC, RLT, RSC, SK & SON RELAYS |
| A26 | 26 | BG, CNK, TCC, TPYK, AVK & SLK RELS TMK1, OST1, OST2, CNK2, TCC2, TPYK2, & AVK2 RESISTORS |
| A27 | 158 | AIC, AIC2,3 & AICK RELAYS |
| | 23 | NAIC RELAY |
| | 27 | SSA, SSB & OSO-4 RELAYS |
| A28 | 27 | CDKO,1, MT2, OSE, OSE1, OSK, SIA, SIB & TWTO-4 RELAYS |
| A29 | 27 | ASB, BA, GBB, OSGO-4, OSKA, SCBAO, 1 & SCBBO, 1 RELAYS |
| | 28 | ENTIRE FIG. 28 |
| | 67 | ENTIRE FIG. 67 |
| | 162 | SCO-3 RELAYS |
| A30 | 29 | XACH, XACS, XAF, XAJC, XAJG, XAJS, XALC, XALR, XARS, XATS, XT5 & XAVGB RELS, XJSA RES, XJSA NET. |
| A31 | 29 | XRS3 & XRS4 RELAYS |
| A32 | 29 | BX, ONX, XCH, XFTN & XFUN REL TS & XSS RES |
| | 165 | RT30-39, RTC4,5 & PEG30 RELAYS |
| A33 | 29 | XCS, XT1,2, & 3 RELAYS XCS RESISTOR |
| A34 | 30 | XAFT, XBT, XLO, XMRL, XPG, XPT, XRC, XRL, XSS XTRK, & XTRL RELAYS |
| A35 | 30 | COX, MXT, PRLLA, STX, XCKR, XCLC, XLS, XSL, XT, XTA, XTBI, XTGI, & XTSI RELAYS |
| A36 | 30 | XCL, XCR, XDL, XFT, & XN RELAYS |
| A37 | 3 | MT4 & BCOO RELAYS MT4 CONTACTS 1-5 |
| A38 | 3 | FSO-9 & FMGO,5 REL MT4 CONTACTS 6-10 |
| A39 | 3 | FBO-4 RELAYS |

101 (A) 1-1/3 AMP 48V SIG. BAT. FUSES PER MARKER (CONT'D)

| DESIG | FIG. | BATTERY SUPPLY FOR COMMON EQPT FRAME |
|---|---|---|
| | | APPARATUS |
| B0 | 3 | FBS-9 RELS |
| B0 | 64 | FTT4,5 & XFC RELS |
| B1 | 2 | MT14, BCIO & TER5 RELS MT14 CONTACTS 1-5 |
| B2 | 2 | FS10-19 & FMG10,15 RELS MT14 CONTACTS 6-10 |
| B3 | 2 | FB10-14 RELS |
| B4 | 2 | FB15-19 RELS |
| B5 | 4 | FMO-4, FMK, FML, FSA, TBTA, TBTB, FMG, TBT & MT9 RELS |
| B6 | 4 | FTCK, FTCK1 & TFK1,2,TA RELS |
| B7 | 4 | TFK3, MAK1, TBC & TBK RELS |
| B8 | 5,149 | ENTIRE APP FIGURES 5 & 149 |
| B9 | 6 | ENTIRE FIG: 6 |
| B10 | 7 | FMP, RF, RFA, 1F, 1FA, 2F, 2FA, GSI & GS6 RELS RA RESISTOR |
| B10 | 3 | GSA1 REL |
| B10 | 2 | GSA11 REL |
| B11 | 7 | GS2-5, CB5, IFLG RELAYS |
| B11 | 3 | GSA2-5 RELS |
| B11 | 2 | GSA12-15 RELS |
| B12 | 7 | FM, SNK, RCY, RCY1, RYC, RAV1,2, CKGS & RBT RELS |
| B12 | 8 | CKG6, CKG7 & LKC RELS |
| B12 | 77 | CKG3 REL |
| B13 | 7 | CKG2, LLO/7, & ELL RELS |
| B13 | 8 | CKG1, DCTA & IPT RELS |
| B14 | 8 | FLG, FLG1, RY3, SOG1,2 & TER4 RELS |
| B15 | 8 | TR2, TR2B, SP, SP1, PEG, ITR1,2, TOG1,2, TEA & PEG1 RELS, SF RESISTOR, TG1 NET |
| B15 | 11 | TR2C REL |
| B16 | 8 | CKG4, TER1,2, SCB1,2, ROA, DCI, VCI & TOA RELS |
| B17 | 8 | DCT1,2,3, & LK1,2 RELS |
| B18 | 9 | LLC1, LFK, DTK, LOT, LOTI, TLC1,2, MDK, CKG8 & MTA RELAYS |
| B19 | 9 | RK2,3, CHA, LCK, TCHK RELAYS & JCK RES |
| | 10 | CHA1 REL & TR2E REL |
| B20 | 150 | ENTIRE APP FIG. 150 |
| | 9 | FAK, FBK, TK, RK, KM, LK & LBTA RELS PB RES |
| B21 | 10 | DVA, DVO, SLRK, LLTA, MMT1, MMS1 & JXPA RELS |
| B22 | 10 | JXP1, LXPA, LXP1, SLA, LLT & SL RELS, LLT RES |
| B23 | 20 | LLC2 REL |
| B23 | 10 | LLC3, JXP, LXP & MMT RELS |
| B23 | 103 | ENTIRE FIG. 103 |
| B24 | 11 | CGT, GTK, GTI-3,5, GLH, GLHI, GTA, HTR, LGT, LTR, PBXA, RCTA & RCTB RELAYS GT3 & RCTB RESISTORS |
| B25 | 11 | CNA, AOA, MRA, CON1, GT, FCG & CONA RELS CONA CAP CONS RES |
| B25 | 12 | CHO-9 RELS |
| B26 | 12 | TCHO-9 RELS CHA RES, JSO-9 NET., JSO-9 RES |
| B27 | 13 | MAK, MCK, MSK, TM, MB, FAI, RTA, LR & DCK RELS HFA1 RESISTOR |
| B28 | 13 | MT, MT1, 11, 12, 13, 17, 18, 20, 27, TRST, TRSA, RCCK, TRS, RDL, RON & MT29 RELAY |
| B29 | 13 | DIS1,2, DISA, MRL1, TAL, TRL, TRR, TRI, TRA, TRL1, TRB1,2 & LP RELS MJ RESISTOR |
| B30 | 13 | MON2 PUNCHING |
| B30 | 13 | IMT, IRT, MON, ORT, RTST, SCT & TST RELAYS |
| B30 | 110 | ENTIRE FIG. 110 |
| B31 | 14 | AC2 PUNCHING & ALL FIG. 14 |
| B31 | 30 | DTF RELAY |
| B32 | 64 | STP2A, FTAO-4, GCA, 60F, FTB4,5 RELS |
| B33 | 31 | F LAMP |
| B34 | 31 | FN LAMP |
| B35 | 31 | HBS LAMP |

101 (A) 1-1/3 AMP 48V SIG. BAT. FUSES PER MARKER (CONT'D)

| DESIG | FIG. | BATTERY SUPPLY FOR COMMON EQPT FRAME |
|---|---|---|
| | | APPARATUS |
| B36 | 30 | XHG REL |
| B36 | 31 | HG LAMP |
| B37 | 31 | HGB LAMP |
| B38 | 31 | JC LAMP |
| B39 | 31 | JG LAMP |
| C0 | 31 | JS LAMP |
| C1 | 31 | LBSO LAMP |
| C2 | 31 | LBS1 LAMP |
| C3 | 31 | LC LAMP |
| C4 | 31 | LFS LAMP |
| C5 | 30 | XLG REL |
| C5 | 31 | LG LAMP |
| C6 | 31 | LOB LAMP |
| C7 | 31 | LR LAMP |
| C8 | 31 | LS LAMP |
| C9 | 31 | LSA LAMP |
| C10 | 30 | XLV REL |
| C10 | 31 | LV LAMP |
| C11 | 31 | MA LAMP |
| C12 | 31 | MB LAMP |
| C13 | 31 | MC LAMP |
| C14 | 31 | NBS1 LAMP |
| C15 | 31 | NBS2 LAMP |
| C16 | 31 | NBS3 LAMP |
| C17 | 31 | NBS4 LAMP |
| C18 | 31 | NGB LAMP |
| C19 | 31 | NGK9 LAMP |
| C20 | 31 | NGS LAMP |
| C21 | 31 | OSA LAMP |
| C22 | 31 | OSB LAMP |
| C23 | 31 | PM & PNA LAMPS |
| C24 | 30 | XS REL |
| C24 | 31 | S LAMP |
| C25 | 26 | XSA REL |
| C25 | 26 | SA LAMP |
| C26 | 31 | SAM LAMP |
| C27 | 31 | SBM LAMP |
| C28 | 31 | SCM LAMP |
| C29 | 31 | SKA LAMP |
| C30 | 31 | SKB LAMP |
| C31 | 31 | SMB & SMBA LAMPS |
| C32 | 31 | TB LAMP |
| C33 | 31 | TBS LAMP |
| C34 | 31 | TBSO LAMP |
| C35 | 31 | TBS1 LAMP |
| C36 | 31 | TBS2 LAMP |
| C37 | 31 | TBS3 LAMP |
| C38 | 31 | TBS4 LAMP |
| C39 | 31 | TFS LAMP |

101 (A) 1-1/3 AMP 48V SIG. BAT. FUSES PER MARKER (CONT'D)

| DESIG | FIG. | BATTERY SUPPLY FOR COMMON EQPT FRAME |
|---|---|---|
| | | APPARATUS |
| D0 | 31 | TSM LAMP |
| D1 | 31 | UBS LAMP |
| D2 | 31 | VGB LAMP |
| D3 | 31 | WF LAMP |
| D4 | 31 | WG LAMP |
| D5 | 31 | WL LAMP |
| D6 | 15 | XRS1,2 RESISTORS |
| D7 | 15 | ETS & OTS RESISTORS |
| D7 | 15 | FR RESISTOR |
| D8 | 60 | ANR, ANR1, ANR1,2, ANRN, TYM1, XAN, ANG & BNG RELAYS TYMB RESISTOR |
| D9 | 60 | NANS, ANT, ANS, ANG, XAM, AB, NGSK, NGSA-H, TMA & ANR2 RELAYS NAN RESISTOR TTB & THB LAMPS |
| D10 | 60 | XAN, ALSO-5 & ADV3 RELAYS |
| | 63 | ENTIRE APP FIG. 63 |
| D11 | 59 | XARN, XBRN, TRK1,2, BRK1,2, CVS RELAY ZNT OPTION & KCV RELAYS |
| D12 | 61 | ENTIRE FIG. 61 |
| D13 | 45 | NT, NTT, NT1, NT3, MT16, NH, SPH, SFR, SPC, SPL, SPL1, LNT, NTH & NTC RELS |
| D14 | 45 | NT2, NT5, NT4, NTR, JB, SPL2 & 2LH RELAYS |
| D15 | 44 | ENTIRE FIG. 44 |
| | 57 | ENTIRE FIG. 57 EXCEPT PL1 REL |
| D16 | 45 | SP LAMP |
| D17 | 68 | CAMA, ORC, ORCO-2, & TTA RELS |
| | 69 | CAM REL |
| D18 | 68 | CTFO/7, CMF2,3, CTGS, NCMJ, CFSO-2 RELS |
| D19 | 26 | AD & OD RELAYS |
| | 31 | TBS5 LAMP |
| D20 | 71 | ENTIRE FIG. 71 |
| | 166 | GSB1-4 RELAYS |
| D21 | 21 | (RCT1-6 RELAYS) "YT" OPTION |
| D22 | 21 | (RCT7-12 RELAYS) "YT" OPTION |
| D23 | 78 | CSK, CSR, CSS, CSTO-9 & CSUO-9 RELAYS |
| D24 | 81 | ENTIRE FIG. 81 |
| | 171 | ENTIRE FIG. 171 |
| | 101 | ENTIRE FIG. 101 |
| D25 | 86 | ENTIRE FIG. 86 |
| D26 | 113 | ENTIRE APP FIG. 113 |
| | 139 | ENTIRE APP FIG. 139 |
| | 163 | ENTIRE APP FIG. 168 |
| D27 | 90 | AUS, ICC, LOK, MA, MRI, PAN, 7TR & XTTB RELAYS 7TR2 RESISTOR |
| D28 | 90 | ADD, AFI, CON, CCS, DATT, DHRA, NAD, RDIA, RDI, RDO, RDR, RDRI, RE & XTTA RELAYS |
| D29 | 90 | ATT, CNT1, CTO, DTF, DTTI-3, OVF, RIK & TRFI-4 RELAYS |
| D30 | 79 | CTK1,2, CTLK & CUK1,2 RELAYS |
| D31 | 55 | ST20-179 RELAYS |
| N | 13 | MA LEAD (FS 52) |
| N | | POWER, RINGING & TONE FRAME CKT |

DRAWING ISSUE

| | |
|---|---|
| 1 | PF FJB |
| 2D | BLC — WF |
| 3D | TM PMD WF |
| 4A | TIM WF |
| 5D | JFO |
| 8D | GJT JFO |
| 9D | JC PO |
| 10B | JC PO |
| 11B | MD PO |
| 12D | GSD WS |
| 13B | AEZ WS |
| 17D | NE WJ |
| 18D | DTF AH |
| WORN DRAWING REPRODUCED WITHOUT CHANGE 4-18-61 WMB | |
| 21D | |
| 22D | |
| 24D | |
| 25D | |
| 27A | |
| 28D | |
| 30D | |
| 31C | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 37D | |
| 39D | |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 57B

COMPLETING MARKER CIRCUIT ②

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CIRCUIT NOTES: (CONT)
101 (A). 1-1/3 AMP 48V SIGNAL BATTERY FUSES PER MARKER
(CONT)

| DESIG | APP FIG. | BATTERY SUPPLY FOR TRANSLATOR FRAME |
|---|---|---|
| | | APPARATUS |
| F0 | 37,62, 72,107 | ALL APP FIGURES 37, ENTIRE APP FIGURES 62, 72 & 107 |
| | 38 | ENTIRE APP FIG. 38 |
| F1 | 32 | ENTIRE APP FIG. 32 & ORI REL |
| | 33 | RPA & TPA RELAYS |
| | 34 | RPB & TPB RELAYS |
| | 53 | TCA,TCB & TSC0,1 RELAYS |
| | 53 | TSC2-9 RELAYS YS OPTION |
| F2 | 33 | CTA0-9 RELAYS |
| | 34,87 | CUB0/7, & SSU0/7 RELAYS |
| F3 | 33 | CTC-7, & CUA0/7 RELAYS |
| | 73 | ENTIRE APP FIG 73 |
| F4 | 33 | CGA & CGB RELAYS |
| | 34 | CGA,CGB & CTB0-2 RELAYS |
| | 79 | ENTIRE APP FIG 79 |
| F5 | 35 | S0-59 RELAYS |
| F6 | 35 | S60-119 RELAYS |
| F7 | 39 | ENTIRE APP FIG 39 EXCEPT CMRA REL & CMRC REL |
| | 83 | IOD & NID RELAYS,ZNL OPTION |
| F8 | 40 | ALL APP FIG. 40 EXCEPT AMA,FN,MBS0-9 OPTION GN,TGS2,TOB & TOBS RELAYS |
| | 74 | ALL APP FIG. 74 EXCEPT AMA & TGS2 RELAYS |
| | 39 | CPMA REL & CPMC REL |
| | 176 | ENTIRE APP FIG. 176 |
| F9 | 40 | AMA, FN, TGS2, TGB & TOBS RELAYS |
| | 56 | ENTIRE APP FIG. 56 |
| | 74 | AMA & TGS2 RELAYS |
| | 178 | TOB, TOBS RELAYS |
| F10 | 41 | ENTIRE APP FIG 41 EXCEPT ITRA,TPS,RT5-9 & RCTI RELAYS; APP FIG 147 NCTD RELAY GN OPTION |
| | 41 | ITRA,TPS,RT5-9 & RTCI |
| F11 | 42 | ENTIRE APP FIG 42 |
| | 70 | ENTIRE APP FIG 70 |
| F12 | 43 | ENTIRE APP FIG 43 |
| F13 | 51 | AICI REL |
| | 55 | SA0-4 RELAYS |
| F14 | 55 | SA5-9 RELAYS |
| F15 | 55 | MT10,MT22,SAC,TR1A,TR2A,U0/7 & UC RELAYS |
| F16 | 54 | HN0/7 RELAYS |
| | 55 | 2LA,MT15,MT19,NE & TRN RELAYS |
| F17 | 54 | N1,N4 & T0/7 RELAYS |
| F18 | 46 | A0-H0,J0-L0,KG,KK & ST7 RELAYS |
| F19 | 46 | A1-H1,J1-L1,KA,KDE & KHJ RELAYS |
| F20 | 46 | A2-H2,J2-L2,KBC,KFG & KKL RELAYS |
| F21 | 46 | A4-H4,J4-L4,& KGS1,2,3,4 RELAYS |
| F22 | 46 | A7-H7,J7-L7 & ORK1 RELAYS |
| F23 | 47 | BC0/7 RELAYS |
| F24 | 47 | CC0/7 RELAYS |
| F25 | 47 | B147,B258,B369 & IDD RELAYS |
| | 48 & 52 | ENTIRE APP FIG. 52 & FAC2 REL |
| | 50 &159 | ENTIRE APP FIGURES 50 & 159 |
| | 51 | ATO-9 RELAYS |
| F26 | 48 | ENTIRE APP FIG. 48 EXCEPT FAC2 REL |
| F27 | 49 | ENTIRE APP FIG. 49 |
| | 82 | TAMI & 2 REL OPTION WS, 4LT, THKO,1,2,3 RELAYS |
| | 161 | ENTIRE APP FIG.161 |
| F28 | 36 | ENTIRE APP FIG. 36 |
| F29 | 65 | MT24 REL,CONTACTS 1-5 |
| F30 | 65 | GSA24,25 RELAYS & MT24 REL, CONTACTS 6-10 |
| F31 | 65,179 | BC20, FS20-29,FMG20,25 & GSA21-23 RELAYS & ENTIRE APP FIG. 179 |
| F32 | 41 | RB PUNCHING OPTION GN |
| | 82 | RBI LAMP OPTION GO |
| X | 57 | PLI REL |
| F33 | 53 | TSC2-5 RELAYS YT OPTION |
| | 65 | FB20-24 RELAYS |
| F34 | 53 | TSC6-9 RELAYS YT OPTION |
| | 65 | FB25-29 RELAYS |
| F35 | 68 | CMC3 REL |
| | 69 | ACD,CMC1,2 & LCD0-2 RELAYS |
| F36 | 69 | CMR0,1,DNC,FC,VTC, & WKC RELAYS |
| | 147 | NTD,TD,& TDK RELAYS,ANTD REL ZNJ OPTION, CMJT REL ZNP OPTION |
| F37 | 69 | CMF & CMJ RELAYS ZNN OPTION |
| | 75 | ANI,DNR0,1 RELAYS & ANIS RELAY ZNH OPTION |
| | 83 | CUP0,1,2,4,7,TGS3 & TID RELAYS |
| | 84 | ENTIRE APP FIG. 84 |
| F38 | 43 | LCB PUNCHING, ZVK OPTION |
| | 75 | MT25 & MT26 RELAYS |
| | 105 | ENTIRE APP FIG. 105 |
| F39 | 54 | N1,N2,TH0/7 & XNS RELAYS "WJ" OPTION |

CIRCUIT NOTES: (CONT)
101 (A). 1-1/3 AMP 48V SIGNAL BATTERY FUSES PER MARKER
(CONT)

| DESIG | APP FIG. | BATTERY SUPPLY FOR TRANSLATOR FRAME |
|---|---|---|
| | | APPARATUS |
| G0 | 51 | KSS5-7 RELAYS |
| | 146 | ENTIRE APP FIG 146 EXCEPT XSP LAMP & XSP1 RES |
| G1 | 130,164 | ENTIRE APP. FIGURES 130 & 164 |
| G2 | 134 | ET 1,2, OAC1,2 & TAC1,2 RELAY |
| G3 | 106 | ESK2(RES),ELK,ESK,TLES & LLES RELAYS "VE" OPTION |
| | 146 | XSP LAMP & XSP1 RES |
| G4 | 106 | ENES & ESCK RELAYS "VE" OPTION |
| | 103 | ENTIRE APP FIG 103 "VE" OPTION |
| G5 | 137 | ENTIRE APP FIG 137 |
| G6 | 136 | ENTIRE APP FIG 136 |
| | 170 | ENTIRE APP FIG. 170 |
| | 175 | ENTIRE APP FIG. 175 |
| G7 | 32 | OR, FAC RELAY 143 OPTION |
| | 143 | ENTIRE APP FIG. 143 |
| | 145 | ENTIRE APP FIG. 145 |
| G8 | 138 | ENTIRE APP FIG. 138 |
| G9 | 135 | ENTIRE APP FIG. 135 & GL TIMER |
| G10 | 134 | ART3,4,OAC3,4 & TAC3,4 RELAYS |
| G11 | 82 | MBT9 RELAY, ZNR OPTION |
| | 142 | ENTIRE FIG 142 |
| G12 | 82 | CE & CDS LAMPS |
| G13 | 88 | LLP1,LPI,LPN,LRA,LRD & MT21 RELAYS |
| G14 | 31,91 | LRS LAMP |
| G15 | 89 | HVT0-5 RELAYS |
| G16 | 89 | HVT6-11 RELAYS |
| G17 | 91 | LFK1,LLC4,LSC2,LTI & XLF RELAYS |
| G18 | 91 | OP0-4 RELAYS |
| G19 | 31 | LBS2 LAMP "CJ" OPTION |
| | 91 | LSB2 LAMP "CH" OPTION |
| | 125 | LBS3 LAMP "CI" OPTION |
| G20 | 91 | LF LAMP |
| G21 | 96 | CM,CMU0,1,2,4,7,MCS,MM & MMR RELAYS |
| G22 | 96 | MPO-2,MTMR,TCAA,TCBA,TMR RELAYS |
| G23 | 94 | ENTIRE APP FIG. 94 |
| G24 | 88 | LLP2,LOF & LRA1 RELAYS |
| G25 | 129 | LLKA,LLKB,LOLA,LOLC,LOLD,LOLE RELAYS |
| G26 | 129 | DCTK,LOLK,LOLP,NOLA RELAY,LOLC LAMP & LOLI RES |
| G27 | 134 | OAC5,6, TAC5,6, ART5,6 RELAYS |
| G28 | 99 | RMB PCHG, OPTION KL |
| | 134 | OAC7-9, TAC7-9, ART7-9 RELAYS |
| G29 | 23 | 2L, 2LN, SAK & UA RELAYS |
| G30 | 102 | DLT,DTF1,DTS0-9,IDN,& MLT RELAYS |
| G31 | 102 | C40,DLTC,DLTK,DZ & DTF3,DTI4 RELAYS DLT2 RES |
| G32 | 104 | BLS0-9,BRA,DAT & RNH RELAYS DAT2 RES |
| G33 | 104 | BLDA,BLT,BLTL,BLTR,BRB & DATK RELAYS |
| G34 | 109 | CU0-9,TCGA & TCGP RELAYS |
| G35 | 111 | CAU0-9 RELAYS |
| G36 | 112 | 5DLT,AOT,& 7DLT RELAYS |
| G37 | 112 | DTF2,RDS,RYK & 7TRC RELAYS |
| | 114 | DTF2 RELAY |
| G38 | 112 | 4BKC,5IKC,CDNC,CTI,CTTL,ITD,IT4,TKT,& XI RELS |
| | 116 | 4BKC & 5IKC RELAYS |
| G39 | 112 | 4BK,5IK,ALN1,CDNK & LRI RELAYS CDN2,LBK2 & LIK2 RESISTORS |
| | 114 | 4BK,5IK,LRI RELAYS LBK2 & LIK2 RESISTORS |

CIRCUIT NOTES: (CONT)
101 (A). 1-1/3 AMP 48V SIGNAL BATTERY FUSES PER MARKER
(CONT)

| DESIG | APP FIG. | BATTERY SUPPLY FOR TRANSLATOR FRAME |
|---|---|---|
| | | APPARATUS |
| H0-20 | | SEE NOTE 1 |
| H0 | 99 | RMB PCHG OPTION KM |
| | 115 | RG1-6 RELAYS |
| H1 | 115 | AG1-6 RELAYS |
| H2 | 115 | AGA1-6,RGA & RGA1-6 RELAYS |
| H3 | 115 | A11-6,R01,R02 & RC3 RELAYS |
| H4 | 100 | GRC-7 RELAYS |
| H5 | 119 | CDRO,1,2,4,7,PRR & RST RELAYS |
| H6 | 119 | CDRA0-3,FGA,IPR,ROT,SGA & TGA RELAYS |
| H7 | 119 | EGD,HGD,HT,NPRC,PRA0-4,PRC & SR1-3 RELAYS |
| | 97 | ENTIRE APP FIG 97 |
| | 148 | ENTIRE APP FIG 148 |
| H8 | 120 | 2WG,4WF, KLP0-2,KTP0-2 & STM RELAYS |
| | 35 | S180-240 RELAYS |
| H9 | 120 | DN,LST,MT40,RLL & STK RELAYS |
| H10 | 120 | LBTB,LTIA & STL0-2 RELAYS |
| H11 | 120 | KLPR,KTPR & STL3-5 RELAYS |
| H12 | 120 | CPML,NST,PRL0-4,STKA,SLPR,STOK, STPR & TR2D RELAYS |
| H13 | 121 | LNP,LNPR,MS,OHS & XLRL RELAYS, LGC LAMP |
| H14 | 121 | NLA,PLB1,SLN,XPLF & XSCA RELAYS |
| H15 | 121 | LPMK,PLB,PML,PMLL & TPHK RELAYS |
| H16 | 121 | PLF LAMP |
| H17 | 121 | SCA LAMP |
| H18 | 120 | MT28,MT30-35,NPCA &TRRA RELAYS |
| H19 | 126 | ENTIRE APP FIG. 126 |
| H20 | 95 | ENTIRE APP FIG. 95 |
| H21 | 106 | ENTIRE APP FIG. 106 VD OPTION |
| H22 | 108 | ENTIRE APP FIG. 108 VD OPTION |
| H23 | 116 | XPRE LAMP |
| | 157 | WBA LAMP |
| H24 | 116 | CKG3 REL,XCDS LAMP |
| H25 | 117 | XCDA(PRI),XCDB(PRI) & TNAN RELAYS,PBY RES |
| H26 | 123 | CON2,FBKA,GLHA & RCTC RELAYS |
| H27 | 123 | 2W,2WA,2WB,2WS,4W,4W(A-D),4WS & TB6-9 RELAYS, CONF RES |
| H28 | 123 | BCA0,BCA10 & FTS0-3 RELAYS |
| H29 | 116 | MT39,OTTA,PRA0-4,XCDS(SEC) & XPRE(SEC) RELAYS |
| | 117 | IPRS,XCDA(SEC) & XCDB(SEC) RELAYS |
| H30 | 125 | SCAL LAMP |
| | 133 | ENTIRE APP FIG. 133 EXCEPT WB LAMP |
| H31 | 121 | XSTC REL |
| | 133 | WB LAMP |
| H32 | 127 | ENTIRE APP FIG. 127 |
| H33 | 131 | ENTIRE APP FIG. 131 |
| | 141 | ENTIRE APP FIG. 141 |
| H34 | 132 | ENTIRE APP FIG. 132 |
| H35 | 82 | RB2 LAMP |
| H36 | 82 | MBS LAMP |
| H37 | 82 | RS LAMP |
| H38 | 128 | AIS,AIS1,AIS3,MT23 & OFC0-2 RELAYS |
| H39 | 128 | AIS2,NAI,OFC3-5 & TBTI RELAYS |
| H40 | 117 | CDT1-4,CPNT,RCTS,SG,TEK3 & VG RELAY |
| H41 | 118 | CDO,1,2,4,7,10 & 15 RELAYS |
| H42 | 118 | CDP0,1,4,7,10 & 15 RELAYS |
| H43 | 125 | STSK,STXA,TOK,TSTS,XFTG & XST RELAYS TGBK,TOKL,XST1-5 & XSTG RESISTORS |
| H44 | 125 | LSB & STS LAMPS |
| H45 | 125 | TOK LAMP |

* TO BE FUSED ON POWER,RING & TONE FRAME CKT

CIRCUIT NOTES: (CONT)
101 (A). 1-1/3 AMP 48V SIGNAL BATTERY FUSES PER MARKER
(CONT)

| DESIG | APP FIG. | BATTERY SUPPLY FOR WIDEBAND FRAME |
|---|---|---|
| | | APPARATUS |
| J0 | 151 | LSH2,MT46,MT50,WL0-9,WLA, & WLKB RELAYS |
| J1 | | RSC LAMP |
| J2 | | ROCK,RSMK,RSW,RUK1,RVT,XFR, & XRSC RELAYS |
| J3 | 152 | LSH,RDL1,RIW,TER6,TR2F,WBA1,WLFK & WRMI RELAYS |
| J4 | | CWB,WB0-2,WTC, & WTFK RELAYS |
| J5 | | RYC1,WBC1-3, & WBT0-2 RELAYS |
| J6 | | TIR3,MT43,MT45,SCB3, & WBA RELAYS |
| J7 | | DSI,NWT,TOG6,WLC, & WLCI RELAYS |
| J8 | | MT47,MT48,MT49,NW,PP, & WONX RELAYS |
| J9 | 153 | WCHA,WFC1,WFC2,WFCK, & WFCT RELAYS |
| J10 | | JSSF,WCH0-9, & WCK RELAYS |
| J11 | | CWCN,RWCN,SFNK,WCN, & WFMP,WPG0-2 RELAYS |
| J12 | 154 | WDCA,WHS1,2,WSPK,MT51-54,& WTK RELAYS |
| J13 | | JXW1,LXW1,LXWA, & WDCI RELAYS |
| J14 | | JXW,JXWA,LXW,TRB3,WSL, & WSLA RELAYS WDCT RESISTOR |
| J15 | 155 | WMXT,XMB,XTC,XVF & XWVS RELAYS XTS RESISTOR |
| J16 | | CPMB,WDP,WPP,XACM,XAWTS,XWCM, XWJS,XWLS & XWSL RELAYS |
| J17 | | TSK — LAMPS |
| J18 | | XTS — LAMPS |
| J19 | | XVF — LAMPS |
| J20 | | FW — LAMPS |
| J21 | | WTL — LAMPS |
| J22 | | WLS — LAMPS |
| J23 | | WLL0 — LAMPS |
| J24 | | WLL1 — LAMPS |
| J25 | | WLL2 — LAMPS |
| J26 | | ST — LAMPS |
| J27 | | WJS — LAMPS |
| J28 | | WBA — LAMPS |
| J29 | 156 | WHC,WLB, & WMM RELAYS |
| J30 | | MT44,WCV,WRA & WRM RELAYS |
| J31 | | MBCK,MBC,NWLA,SMB,TMB,VLB,VLO,VLR & WMBA RELAYS, VLR & VLTI RESISTORS |
| J32 | 163 | ENTIRE APP FIG. 163 |
| J33 | 167 | LSK LAMP |
| J34 | 167 | ENTIRE APP FIG. 167 EXCEPT LSK LAMP |
| J35-J43 | | SPARES |
| J44 | | B LEAD TO WIDEBAND CONTINUITY TEST CKT |
| J45 | | SPARE |

| DESIG | APP FIG. | BATTERY SUPPLY ON MISC RELAY RACK FRAME |
|---|---|---|
| A | 160 | ENTIRE APP FIG. 160 EXCEPT CWS LAMP |
| B | 160 | CWS LAMP |
| C | 172 | ENTIRE APP FIG. EXCEPT PSA,PSA1,PSA2, PSA3,PSL,PSG, & ROH RELAYS |
| D | 172 | PSA,PSA1,PSA2,PSA3,PSL,PSG, ROH RELAYS |

SHEET NOTES:

1. THE FOLLOWING FUSES ARE USED FOR THE ORIGINATING LINE IDENTIFIER CKT (SD-27606-01) WHEN PROVIDED:
   ST OPTION (MD) FUSES G19-29
   SU OPTION (STD) FUSES H0-20
   FUSES H0-20 ARE ALSO USED FOR 4-WIRE APPARATUS WHICH IS NOT PROVIDED IN OFFICES WITH ORIGINATING LINE IDENTIFIER CIRCUITS.

| DRAWING ISSUE |
|---|
| 32A |
| 33D |
| 34A |
| 35D |
| 37D |
| 39D |
| 4CA |
| 41D |
| 43D |
| 44A |
| 45D |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D2

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CIRCUIT NOTES: (CONT)

101(B). 1/2 AMP HV + 130 VOLT BATTERY FUSES PER MARKER

| DESIG | APP FIG. | BATTERY SUPPLY FOR TRANSLATOR FRAME |
|---|---|---|
| | | APPARATUS |
| E0 | 10 | JHR, LHR & THR1,2 RESISTORS |
| | 129 | LOLK RESISTOR |
| | 64 | THR3 RESISTOR |
| | 8 | JHR1 RESISTOR |
| E1 | 8 | TOG RESISTOR |
| | 11 | CON8 RESISTOR |
| | 14 | TRTR, LDT, SDT & WT TUBES, TRT1, 4, LDT1, 4, SDT4, 5 & WT1, 4, RESISTORS, SDT1, 2 & WT1 CAPACITORS |
| | 76 | CONJ & CONM RESISTORS |
| E | 14 | OAT & HTT TUBES, OAT1, 4 & HTT1, 4 RESISTORS |
| | | HTT1 CAPACITOR |
| E3 | 23,25 | NT08 RESISTOR |
| | 146 | TCT2 RESISTOR |
| E4 | 26 | SH RESISTOR |
| | 156 | VL8 RESISTOR |
| E5 | 121 | PLF RESISTOR |
| | 154 | WJH1-3, WLH, & WTH RESISTORS |
| * TO BE FUSED ON POWER, RING & TONE FRAME CIRCUIT (SEE NOTE 212) | | |

101(C) 1-1/3 AMP HV + 130 VOLT BATTERY FUSES PER MARKER

| DESIG | APP FIG. | BATTERY SUPPLY FOR TRANSLATOR FRAME |
|---|---|---|
| | | |
| E2 | 45 | NT1 RESISTOR |
| | | |

101(D) GROUND LEADS PER MARKER

| DESIG | APP FIG. | GROUND SUPPLY FOR COMMON EQUIPMENT FRAME |
|---|---|---|
| | | APPARATUS |
| A0 | 16 | ENTIRE APP FIG 16 |
| A1 | 17 | ENTIRE APP FIG. 17 |
| A2 | 18 | ENTIRE APP FIG. 18 |
| A3 | 19,35 | ENTIRE APP FIG. 19 & 85 |
| A4 | 20 | PO-9, 2TLF, 2-3TLF, 3TLF-10TLF, JLE, JLO, JSQ0-5, MT3 & JSQ-4, 3G RELAYS |
| | | |
| A5 | 20 | MT7, LLC2, GC, STP1,2,3, JSE, JSQ & SQA RELAYS, SZA-D NETWORKS |
| A6 | 21 | ENTIRE APP FIG. 21 |
| A7 | 22 | BY, LB, LI, OFK, OV, PBN & PMO RELAYS PMS NETWORK |
| A8 | 22 | BN, BNTH, CKR, NGK1, PU1, PUL, RCL, NO.12 CONTACT RCY2, NO. 1,2,4 CONTACTS, RCY4, RI, RIP, RNG & T3I RELAYS BNTH1 NETWORK |
| A9 | 22 | DACI, LLT, LLIA, TSIB, & UK RELAYS |
| A10 | 22 | RV, RSTA, TNR, PTK, NGB, VFL & RV1 RELAYS SI PUNCHING |
| A11 | 23,144 | ENTIRE APP FIG. 23 & APP FIG 144 |
| A12 | 24 | ENTIRE APP FIG. 24 |
| A13 | 25 | ENTIRE APP FIG. 25 |
| | | |
| A14 | 26 | IMG, ND1, NDK, OTT, TG, TGT RELAYS |
| A15 | 26 | OGC, CLG, SLK2, SK & LSC1 RELAYS |
| A16 | 26 | OST2, SHK, RSC, CNK, TCC, TPYK, NSI, NSQ, & SHKA RELAYS |
| A17 | 26 | AD, BG, OD & SON RELAYS, OST CAPACITOR NO. 3 CONTACT AVK1 REL |
| | | |
| A18 | 27 | ENTIRE APP FIG. 27 |
| A18 | 28 | ENTIRE APP FIG. 28 |
| A18 | 67 | ENTIRE APP FIG. 67 |
| A19 | 29 | XACH, XACS, XAF, XAJC, XAJG, XAJS, XALC, XALR, XARS, XRS3,4, XATS, XAVGB & XT5 NO. 6 CONTACTS & XLC, XRC RELAYS |
| | | |

CIRCUIT NOTES: (CONT)

101(D) (CONT) GROUND LEADS PER MARKER

| DESIG | APP FIG. | GROUND SUPPLY FOR COMMON EQUIPMENT FRAME |
|---|---|---|
| | | APPARATUS |
| A19 | 30 | XRL, XS, XT, XTS1, XTB1, XTG1, XTRK, XTRL, XBT, XCKR, XCR, XDL, XHC, XLG, XCL, XAFT, XLS, XLV, XLO, XMRL, XN, XPG, XPT & XCLC NO. 6, XSS NO. 3, XSL NO. 1 CONTACTS, 1H, XTB1 RELAY |
| | 26 | XSA |
| | | |
| A20 | 29 | XACH, XACS, XAF, XAJC, XAJG, XAJS, XALC, XALR, XARS, XRS3,4, XATS, XAVGB & XT5 NO. 4 CONTACTS |
| A20 | 29 | XCH, XRS2 & XVGB NO. 2 CONTACT, XCS, XFUN, XLR NO. 7 CONTACT, BX, XJG, XTS, ONX, XRS1, 2 & 2RT RELAYS |
| | | |
| A20 | 30 | XAFT, XBT, XCKR, XCL, XCLC, XCR, XDL, XHG, XLG, XLO, XLS, XLV, XMRL, XN, XPG, XPT, XRC, XRL, XS, XSS, XT, XTB1, XTG1, XTRK, XTRL, XTS1 NO. 4 & XSL NO. 2 |
| A21 | 30 | XT CONTACT NO. 5 & 7, MXT, STX, XTA, XLS, XFT, & OTF RELAYS, XTA RESISTOR |
| | | |
| A22 | 30 | COX |
| A23 | 3 | ENTIRE APP FIG. 3 UNIT 0 |
| A23 | 2 | ENTIRE APP FIG. 2 UNIT 1 |
| A24 | 4 | ENTIRE APP FIG. 4 |
| | | |
| A25 | 5,149 | ENTIRE APP FIGURES 5 & 145 |
| A25 | 6 | ENTIRE APP FIG. 6 |
| A26 | 7 | CBS, FM, FMP, GS1-6 & RYC RELAYS |
| A27 | 7 | RAV1,2, RBT, RCY, RCY1, IFLG & SNK RELAYS |
| A28 | 7 | CKG2 NO. 1-4, 7-12 CONTACTS |
| A29 | 7 | CKG2 NO. 13-18, 21-23 CONTACTS & TER5 RELAY |
| | | |
| A30 | 8 | CKG1 & CKG4 RELAYS |
| A31 | 8 | CKG6 NO. 1, 2, 5-8, 10-12 CONTACTS, OCT1 NO. 9 CONTACT & PEG1, SP1 & TER4 RELAYS |
| A32 | 9 | CKG6 NO. 13-20, 22-24 CONTACTS, LKC & IPT, TOA RELAYS |
| A33 | 8 | FLG, FLG1, PEG, RV3, TR2 & TR28 RELAYS LFS NETWORK & RESISTOR |
| A34 | 8 | ITR1, 2, SCB2, SOG1, 2, TER1, 2 & TOG1, 2 RELAYS |
| | | |

DRAWING ISSUE

| | |
|---|---|
| 29A | CML, EBL, AM |
| 300 | CML, CA, AM |
| 310 | CML, CA, AM |
| 32A | CA, AM, RT |
| 330 | CA, AM |
| 350 | AM, TR |
| 370 | AM |
| 390 | AM |
| 430 | AM |
| 450 | AM |
| SAIC | |

ISSUE 63B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-03

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-03

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CIRCUIT NOTES: (CONT)
101 (D). GROUND LEADS PER MARKER

| DESIG | FIG. | GROUND SUPPLY FOR COMMON EQUIPMENT FRAME |
|---|---|---|
| | | APPARATUS |
| A34 | 81 | NRS,SCB2,TOG3,2WE & 2WF RELAYS |
| A35 | 8 | CKG7,DCT1,2,3,DCTA,LK1,LK2,ROA & TEA RELAYS |
| A36 | 9 | KM,LFK,LLB,LLCI & MTA RELAYS |
| | 119 | IPR CONTACT 3 |
| A37 | 9 | MGK,RK1,2,3 & TLC1,2 RELAYS |
| A38 | 9 | CHA,FAK,FBK,HGK,JCK,LBTA,TK & CKG8 RELAYS ASM & BSM NETWORKS,JCKO RESISTOR & NETWORK |
| A39 | 10 | LLC3 RELAY |
| A40 | 10 | ENTIRE FIG. 10 EXCEPT LLC3 RELAY |
| A41 | 11 | ENTIRE FIG. 11 |
| A42 | 12 | ENTIRE FIG. 12 |
| A42 | 13 | MAK, MCK, MSK & TM RELAYS |
| A42 | 113 | RELAY LFKA CONTACT NO. 6 |
| A43 | 13 | MAK, MCK, MSK & ABG PUNCHINGS & MARKER CONNECTOR "D" GRD |
| A44 | 13 | MB, MCBO, 1, FA, FA1, HFA & RDL RELAYS |
| A45 | 13 | MT, MT1, 12, 17, 18, 27 & TRST RELAYS |
| A46 | 13 | TRSA, DIS2 (EXCEPT #6) DISA MRLI, TRB, TRLI, MT18, RTA & TRI RELAYS |
| A47 | 13 | LP NO. 9 CONTACT, TAL, TRA, TRBI, TRB2, TRL & DL RELAYS |
| A47 | 110 | ENTIRE FIG. 110 |
| A49 | 13 | LP NO. 5 & 6 CONTACTS, DIS1 CONTACT 9, (X-1) |
| | 146 | MT29 CONTACT 10 |
| A50 | 13 | TST,MON,RTST,LR,IMT,ORT,MT11,MT13 & IRT RELAYS, RDL #8, DIS2 #6 |
| A51 | 14 | ENTIRE FIG. 14 |
| A51 | 31 | SH, TXP & TXP1 LAMPS |
| A52 | 45 | ENTIRE FIG. 45 ZOG OPTION |
| A52 | 44 | ENTIRE FIG. 44 ZOG OPTION |
| A53 | 7 | CKG5 RELAY, RELAYS LLO & LL1 NO. 8 CONT. |
| A54 | 7 | "FCK1" PUNCHING |
| A55 | 60 | ANR,ANR1,NAR1,2,NGTA-H,ANS,ANON & AN RELAYS |
| | | LA RESISTOR |
| A56 | 60 | TNA, XAN & XAH RELAYS |
| A56 | 61 | ENTIRE FIG. 61 |
| A57 | 59 | ALL FIG. 59 |
| A57 | 58 | ALL FIG. 58 |
| A58 | 64 | ENTIRE FIG. 64 |
| A59 | 68 | ENTIRE APP FIG.68 |
| A60 | 71 | ENTIRE APP FIG.71 |
| | 78 | CSK,CSP,CSS & CSU9 RELAYS |
| A61 | 86 | ENTIRE APP FIG.86 |
| | 113 | PRL & LFKA CONTACT 1 |
| A62 | 78 | CSTO-9,CSUO-9 RELAYS |
| A63 | 102 | ENTIRE APP FIG.102 |
| A64 | 22 | LIA,OVC,RCY2 NO.5,9 CONTACTS, RCY3,RCY5, & PTK RELAYS |
| A65 | 103 | ENTIRE APP FIG.103 |
| | 96 | ENTIRE APP FIG.96 |
| A66 | 104 | ENTIRE APP FIG.104 |
| A67 | 22 | SNG2,RCL NO.8 CONTACT |
| | 26 | BG NO.7,8,9 CONTACTS & BG1 RELAY |
| A68 | 9 | JCK WINDING |
| | 12 | CHO-9 CONTACT 12 |
| | 109 | ENTIRE APP FIG.109 |
| | 150 | ENTIRE APP FIG.150 |
| | 171 | ENTIRE APP FIG. 171 |
| A69 | 90 | ATTI,CNTI,CNTO,DNRA,ICC,LON,MRI,PAN & XIIA RELYS |
| A70 | 90 | ATT, CGS, DTI2, RE, RO & TRFI-3 RELAYS |
| | 168 | ENTIRE APP FIG. 168 |
| A71 | 90 | OATI,OTII & RORT RELAYS |
| A72 | 90 | DTI & 7TR RELAYS |
| A73 | 112 | 48KC,5DLT,CTI,DTF2,RDS,DTI3,7DLT,7TRC,5IKC, 48K,5IK,TKT,XI,ITD,ITM & CDNK RELAYS |
| | 114 | 48K,48KC,5IK,5IKC,DTF2,ITD,ITM & LRI RELAYS |
| A74 | 112 | ALMT,CDNC,LRI,CTIL & DTI2 RELAYS |
| A75 | 13 | MT18 NO. 6 & NO. 9 CONTACTS |
| | 113 | RELAY LFKA CONTACT NO. 12 |

CIRCUIT NOTES: (CONT)
101 (D) GROUND LEADS PER MARKER

| DESIG | FIG. | GROUND SUPPLY FOR TRANSLATOR FRAME |
|---|---|---|
| | | APPARATUS |
| B0 | 37,62, 72 | ALL FIGURES 37, FIG.62 & FIG.72 |
| B0 | 32 | ENTIRE FIG. 32, EXCEPT TRF RELAY |
| B0 | 33 | ENTIRE FIG. 33, CGAG & CGBO PUNCHINGS |
| B0 | 34 | ENTIRE FIG. 34 |
| B0 | 35 | ALL FIG. 35 |
| B0 | 38 | ENTIRE FIG. 38 |
| B0 | 39 | ENTIRE FIG. 39 |
| B0 | 40,74 | XOB & XTV RELAYS |
| B0 | 53 | ENTIRE FIG. 53 EXCEPT TCA CONTACT 8 |
| B1 | 176 | ENTIRE APP FIG. 176 |
| | 178 | ENTIRE APP FIG. 178 |
| | 40,74 | ENTIRE APP FIG. 40 & 74 EXCEPT XOB, XTV RELAYS & MBT9 RELAY CONTACT 8 |
| B2 | 41,56 | ENTIRE APP FIG. 56 & TPS,CZ & CZT RELAYS & RTC 11 & 12 CONTACTS |
| B3 | 41 | ENTIRE APP FIG.41 EXCEPT TPS,CZ, CZT, & RTC NO.5 & 11 CONTACTS |
| B3 | 42,70 | ENTIRE APP FIG. 42 & APP FIG. 70 |
| B4 | 43 | ENTIRE APP FIG. 43 |
| B4 | 55 | ENTIRE APP.FIG. 55 EXCEPT SAC NO. 8-12 CONTACTS. & NE, TRN RELAYS |
| B5 | 55 | SAC NO. 8-12 CONTACTS,NE & TRN RELAYS |
| B5 | 54 | ENTIRE APP FIG. 54 |
| B6 | 46 | ENTIRE APP FIG. 46 |
| B7 | 47 | ENTIRE APP FIG. 47 |
| B8 | 48 | ENTIRE APP FIG. 48 |
| B8 | 36 | ENTIRE APP FIG. 36 |
| B9 | 73,136, 175 | ENTIRE APP FIG. 73,136 & 175 |
| B10 | 41 | SCG PUNCHING |
| B11 | 65 | ENTIRE FIG. 65 |
| B12 | 107 | ALL FIG. 107 |
| | 66 | ALL FIG. 66 |
| B13 | 40 | MBT9 CONTACT 8 |
| | 69,75 | ENTIRE APP FIG. 69 & 75 |
| | 82 | TAM1 & TAM2 RELAYS |
| | 183 | ENTIRE APP FIG 183 |
| B14 | 83,84,94 | ENTIRE FIG. 83, FIG. 84 & FIG. 94 |
| B15 | 32 | TRF & IMI RELAYS |
| B16 | 53 | TCA CONTACT |
| B17 | | SPARE |
| B18 | 106,41 | ENTIRE APP FIG 106 & RTC NO. 5 CONTACT |
| B19 | 129 | ENTIRE APP FIG. 129 |
| B20 | 143 | ENTIRE APP FIG. 143 |
| B21 | 51 | ENTIRE APP FIG. 51 |

101 (E).

| DESIG. | FIG. | GROUND SUPPLY FOR 4 WIRE FRAME |
|---|---|---|
| | | APPARATUS |
| C0 | 116 | CKG3 NO. 1-10,23 CONTACTS |
| C1 | 116 | CKG3 NO. 15-22, CONTACTS PREO-4, PRL, NET. XPRE, XCDS RELAYS |
| C2 | | SPARE |
| C3 | | |
| C4 | 95 | ENTIRE APP FIG. 95 |
| C5 | 117 | ENTIRE APP FIG. 117 |
| | 118 | NO 1 CDPO RELAY |
| C6 | 97 | XRD NO 4 6 RCDO-9 RELAYS |

CIRCUIT NOTES: (CONT)
101 (E).

| DESIG. | FIG. | GROUND SUPPLY FOR 4 WIRE FRAME |
|---|---|---|
| | | APPARATUS |

| BATTERY SYMBOL | VOLTAGE RANGE |
|---|---|
| -48V | 45-50V |
| +130V | 125-135V |

101(F).

| DESIG. | FIG. | GROUND SUPPLY FOR LINE LINK PULSING FRAME |
|---|---|---|
| | | APPARATUS |
| D0 | 99 | ENTIRE FIG. 89 |
| D0 | 99 | ENTIRE FIG. 89 |
| D1 | 91 | LRS & FK RELAYS |
| D2 | 91 | LTI,LSC2 & XLF RELAYS |

101(G).

| DESIG | FIG. | GRD SUPPLY FOR RM FRAME |
|---|---|---|
| | | APPARATUS |
| E0 | 99 | RMG PCHG, RJ RESISTOR |
| E1 | 115 | ENTIRE APP FIG. 115 |
| E2 | 119 | CDRO,PRAO-4,ROT,RST & TGA RELAYS |
| E3 | 119 | CDRAO-3,IPR CONTACT 4,PRC,SR2 & SR3 RELAYS |

101(H).

| DESIG. | APP FIG. | RINGING SUPPLY FUSING | | | |
|---|---|---|---|---|---|
| KAC-DC AUD OR ± AUD | 31 | 2-WIRE ONLY MKR GR | FIRST MKR | RINGING MACH FUSED AT 1/2A | 1/4A HV |
| | | | | RINGING MACH FUSED OVER 1/2 A | 1/2A HV |
| | 31, 123 | 4-WIRE MKR GR | FIRST MKR | (AJ) | 1/2A HV |
| | | | | (AK) | 3/4A HV |
| RING. # GRD | 31, 123 | FIRST MARKER | | | |

# OBTAINED FROM PWR RING & TONE DIST FRAME

101(I).

| DESIG. | APP FIG. | GROUND SUPPLY FOR 4W PRE FRAME |
|---|---|---|
| F0 | 106 | ENTIRE APP FIG. 106 |
| F1 | 120 | 2LV,2WG,NPC,NPM,STK,STKA & STM RELAYS |
| F2 | 120 | LST RELAY |
| F3 | 120 | STLO-5,KTPR,KLPR & DN RELAYS |
| | | RL NETWORK |
| F4 | 120 | 4WF & NST RELAYS |
| F5 | 120 | PRLO-3, SCAK RELAYS |
| F6 | 121 | XSTC,XPLF,XSCA,XLRL,PLB,PLBA,PLB1, TPMK & LPMK RELAYS |
| F7 | 121 | PMLL,PLFK,NTA,PML,LNP & MS RELAYS |
| F8 | 125 | XST,XLSB,XFTG,XSTG & XST1-5 RELAYS |
| F9 | 125 | TOKA,STS5 & STXA RELAYS |
| F10 | 125 | TGBK,TOK & TSTS RELAYS |
| F11 | 126 | FTGO-9 RELAYS |
| F12 | 126 | FTG10-19 RELAYS |
| F13 | 126 | FTG20-29 RELAYS |
| F14 | 123 | TS6-9 RELAYS |
| F15 | 123 | 2W,2WA,2WB,4W,4WC,CON2 & CON8 RELAYS |
| | | CONE,CONM,CONL RESISTORS |
| | | CONB,COND CAPACITORS |
| F16 | 120 | TRRA,MT31,32,34,35, NPCA RELAYS |
| F17 | 120 | MT30 RELAY |

CIRCUIT NOTES: (CONT)
101(J).

| DESIG | APP FIG. | GRD LEADS ASSIGNED ON MISC RELAY RACK FRAME * |
|---|---|---|
| RR1 | 105 | ENTIRE APP FIG. 105 |
| RR2 | 106 | ENTIRE APP FIG. 106 |
| RR3 | 108 | ENTIRE APP FIG. 108 |
| RR4 | 123 | T86-9 RELAYS |
| RR5 | 123 | 2W,2WA 2WB 4W,4WC CON2 & CON8 RELAYS |
| | | CONE,CONM,CONL RESISTORS |
| | | CONB,COND CAPACITORS |
| RR6 | 127 | PTM,TLK,TLT RELAYS DAP RESISTOR |
| RR7 | 127 | DAC RELAY |
| RR8 | 132 | ENTIRE APP FIG. 132 |
| RR9 | 133 | ENTIRE APP FIG. 133 |
| RR10 | 131 | ENTIRE APP FIG. 131 |
| RR11 | 128 | AIS,AIS3 & NAI RELAYS |
| | 158 | ENTIRE APP FIG. 158 |
| RR12 | 128 | AIS1 & AIS2 RELAYS |
| RR13 | 130,164 | ENTIRE APP FIGURES 130 & 164 |
| RR14 | 134 | ENTIRE APP FIG. 134 |
| RR15 | 91 | ENTIRE APP FIG. 91 |
| RR16 | 135 | ENTIRE APP FIG. 135 & GL TIMER |
| RR17 | 138 | ENTIRE APP FIG. 138 |
| RR18 | 137 | ENTIRE APP FIG. 137 |
| RR19 | 146 | ENTIRE APP FIG. 146 |
| RR20 | 88 | ENTIRE APP FIG. 88 |
| RR21 | 142 | ENTIRE APP FIG. 142 |
| RR22 | 160 | ENTIRE APP FIG. 160 |
| RR23 | 89 | ENTIRE APP FIG. 89 |
| RR24 | 147 | ENTIRE APP FIG. 147 |
| RR25 | 165 | RT20-39 & RTC2 RELAYS |
| RR26 | 44,45 | ENTIRE APP FIGURES 44 & 45,ZOH OPTION |
| RR27 | 172 | ENTIRE APP FIG. 172 |
| RR28 | 179 | ENTIRE APP FIG 179 |
| RR29 | 184 | ENTIRE APP FIG 184 |

* FUSE DESIG IS FOR RECORD PURPOSES ONLY

101(K).

| DESIG | APP FIG | GROUND SUPPLY FOR WIDEBAND FRAME |
|---|---|---|
| G0 | 151 | LSWR,WLO,WLKB,RWL,XRSC,WLGK & RUK RELAYS |
| G1 | | XFR,RSW,MMK & LWL RELAYS |
| G2 | 152 | RIW,LSW,TSK & WBO-2 RELAYS |
| G3 | | RYCI,TER6,TOG6,WBA,WBCI & WBC2 RELAYS |
| G4 | | WLC RELAY |
| G5 | | WLCI,DSI,NW,PP,WBAI,TR2F,WRMI,MT43,WONX & WTFK RELAYS |
| G6 | 153 | ENTIRE FIG.153 |
| G7 | 154 | WTK,WMSI,LXWI,JXWI,LXWA,JXWA,WFA & WFAI RELAYS |
| G8 | | WSLA,WTGK,JXW,LXW,WDCT,WJGK,MTS2,MTS4 & WSL RELAYS, WSL NETWORK |
| G9 | 155 | XWLS & XWJS RELAYS, WTXP LAMP |
| G10 | | ALL FIG.155 EXCEPT XWLS & XWJS RELAYS,WTXP LAMP |
| G11 | 156 | WLBT,WMB,WPR,WLK,VWC & WMM RELAYS |
| G12 | | WCV,MBCK,MT44,WRM,TMB,NWL & VLO RELAYS NWL,WMB,VLO & MBC RESISTORS VLO,MBC NETWORKS |
| G13 | 152 | MT47 & MT49 RELAYS |
| | 163 | ENTIRE APP FIG.163 |
| G14 | 167 | ENTIRE APP FIG.167 |

DRAWING ISSUE
63B

COMPLETING MARKER CIRCUIT (2)

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6S

CIRCUIT NOTES: (CONT)

102(A).

| FEATURE ALWAYS PROVIDED | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|
| ROUTE RELAY (SEE NOTE 183) | 1 | | 1 PER MKR FOR FIRST 8 RELAYS 1 PER MKR FOR EACH ADDITIONAL 10 RELAYS |
| TRK LK FR TEST AND SELECT FOR TLF 0-9 | 3 | | ONE OF EACH PER MARKER |
| TRK LK FR MEMORY AND CHECK | 4 | | |
| TRK BLOCK, TRK GR, AND TRK LK FR NO. | 5 | | |
| TRK SELECTION | 6 | | |
| ROUTE ADVANCE & RECYCLE CONTROL | 7 | | |
| CONTROLLER "A" | 8 | | |
| CONTROLLER "B" | 9 | | |
| HOLD MAGNET OPERATION | 10 | | |
| CONTINUITY AND GRD TEST | 11 | | |
| CHANNEL TEST AND SELECT | 12 | | |
| MARKER BUSY AND MASTER TEST FR CONTROL | 13 | | |
| MARKER TIMING | 14 | | |
| 50 WATT RES | 15 | | |
| CALLED LINE HOR GR, VERT FILE, AND RINGING CONTROL IDENTIFIER | 16 | | |
| CALLED LINE FR TENS & FR UNITS IDENTIFIER (SEE NOTE 217) | 17 | | |
| VERT GR, VERT FILE AND HOR GR REGISTRATION | 18 | | |
| LINE LK FR NUMBER REGISTER | 19 | | |
| JUNCTOR GR AND OFFICE SIZE | 20 | | |
| RINGING SWITCH CONTROLLER | 21 | | |
| NUMBER GR CONTROLLER | 22 | | |
| PBX HUNTING CONTROLLER | 23 | | |
| AMA TRK NO. & INC TRK CLASS | 24 | | |
| OUTGOING SDR LK CONTROLLER SDR AND TRK CLASS TIMING | 26 | | |
| SDR SELECTOR AND SDR CONNECTOR CONTROLLER (SDR GR 0-4) | 27 | | |
| CROSS DETECTOR "A" | 29 | | |
| CROSS DETECTOR "B" | 30 | | |
| RES LAMP | 31 | | |
| CLASS OF CALL | 32 | | |
| SUB CLASS OF SERVICE "A" | 33 | | |
| ROUTE SERIES & ROUTE TRANSFER | 41 | | |
| PARTIAL DIAL, PERM SIG AND COIN CONTROL | 42 | | |
| LOCAL COMPLETION & NUMBER GR START CONTROL | 43 | | |
| TRANSFER & CHECK OF A-L DIGITS TO SDR | 46 | | |
| TRANSLATOR CONN FOR B & C DIGITS | 47 | | |
| TRANSLATION FOR "A" DIGIT AND TYPE TRANSLATION | 48 | | |
| TRANSLATION OF 3 DIGIT XIX TO X9X CODES | 49 | | |
| "AT" TRANSLATION FOR 2 DIGIT LOCAL AREA CODES | 51 | | |
| CALLED NUMBER, THOUSANDS, HUNDREDS, AND TENS REGISTER | 54 | | |
| CALLED NUMBER, UNIT DIGIT REGISTER & PBX SLEEVE TEST | 55 | | |
| ROUTE TRANSFER & CHECK FOR DL-, CL-, & CR- | 56 | | |

102(A). (CONT)

| FEATURE ALWAYS PROVIDED | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|

102(B). (CONT)

| PAR. | FEATURE OR OPTION | APP FIG. | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|
| 1 | TRK LK FR TEST AND SELECT FOR TLF10-19 | 2 | KC | 1 PER MKR |
| 2 | AUTO. MON REG & SDR TEST CKT PROVIDED | | V | |
| | "TOUCH-TONE" PROV IN ORIG REG AND NOT IN MONITOR | | ZSM | |
| | TEST SET TYPE TESTING PROVIDED | | U | |
| 3 | OVER 390 LINES PER LINE LK FR OR OVER 80 LR- RELAYS | | Z | |
| 4 | 4-WIRE RINGING SWITCH | | J | |
| | 4&6 OR 6 WIRE RINGING SWITCH | | G | |
| 5 | TL INDICATES TRK AS TOLL (T) YES | | X,ZDY | |
| | FULL SEL (F) OR MAN.(M) NO | | Y | |
| | PULSE CONV | 25 | L | 1 PER MKR |
| 6 | LAMA OR CAMA | 39,40 | M,MO, XH, ZPC, ZWO, ZSI, ZEP | 1 PER MKR |
| | CAMA | 68, 69 | ZF, ZNO, ZWI | 1 PER MKR |
| | TRAFFIC SAMPLING PROVIDED YES | | KQ | |
| | TRAFFIC SAMPLING PROVIDED NO | | KR | |
| | LAMA-C OR ETS NOT PROV (SEE NOTE 181) — MORE THAN 10 AMA RECORDERS OR TRUNK CLASS CONTROL — YES | 71 | YY,BL | 1 PER MKR |
| | MORE THAN 20 | | ZRL | |
| | MORE THAN 26 | | ZRJ | |
| | NOT MORE THAN 20 | | ZRK | |
| | NO | | BK | |
| | LAMA OR CAMA — A&M ONLY — LAMA PERSON TO PERSON | 83 | ZNM | 1 PER MKR |
| | WHEN SDR TEST CKT IS PROV AND AUTO. MON REG & SDR TEST CKT IS NOT PROV FOR TESTING PERSON TO PERSON SDR | | SJ | |
| | 100 CLASS TENS | 84 | | 1 PER MKR |
| | ANI | | GA,XJ, ZBJ, ZNI | |
| | AND LAMA OR CAMA ARE NOT PROVIDED | 74 | ZJC | 1 PER MKR |
| | CALL DATA TRANSMITTER (CDT) PROVIDED (SEE NOTES 102B (99), 187, 190, 305) | - | ZGY | |
| | ROUTE SERIES FLAT RATE SCREEN PROVIDED | 184 | | 1 PER MKR |
| | CDT OR LAMA-C OR ETS PROV — SERVICE OBSERVING REQUIRED AND APP FIG 40 IS NOT PROVIDED (SEE NOTE 175(C)) | 176, 178 | ZJD | 1 PER MKR |
| | ANI (SEE NOTE 175 (A)) | | GA,XJ, ZBJ, ZNI | |
| | AND APP FIG 40 IS NOT PROVIDED | 74 | | 1 PER MKR |
| | AND APP FIG 178 IS NOT PROVIDED | | ZJC | |
| | CAMA (SEE NOTE 175 (B)) | 39, 40, 68, 69 | ZF, ZNO, ZWI, M,MO, XH, YY, ZPC, ZWO, ZSI, ZIU | |
| | AND OPTION ZRL IS NOT PROVIDED | | ZRK | |

102(B). (CONT)

| PAR. | FEATURE OR OPTION | APP FIG. | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|
| 7 | DAMPING CONES ON SDR LK SWITCHES ASSOC WITH TRK LK FRAMES — YES DUAL VOLTAGE OPERATION | | Q | |
| | NO | | T | |
| | OFFICE EQUIPPED WITH — ANY U TYPE SDR | | N | |
| | ANY U TYPE SDR CONN AND AMA, ANI OR PULSE CONV | | E | |
| | ALL W S SENDERS | | P | |
| 8 | FOR SDR GR 5-9 OR MORE THAN 4 SENDER CONNECTORS OR BOTH | 28 | | 1 PER MKR |
| | FOR SDR GR 10 AND 11 | 67 | | 1 PER MKR |
| 9 | BILLING OR ROUTE SERIES RELAY CONTROLLED BY ROUTE GROUND SUPPLY — NO | | ZSR | |
| | YES (SEE NOTE 181) | 166 | ZPY, ZCL | 1 PER MKR |
| 10 | S-SERVICE TREATMENT RELAY (SEE NOTES 171,183) | 35 | | 1 PER 3 GROUPS OF 4 S- RELAYS 12 USC-POINTS PER GR |
| 11 | 2 DIGIT TX OPERATOR CODES 11XX (SEE NOTE 181) | 36 | | 1 PER MKR |
| 12 | PREROUTE PEG COUNT OR ROUTE SERVING OFFICES REQUIRING DIFFERENT CHARGING PATTERNS OR BOTH (SEE NOTE 181) — 00-13 | 37 | | 1 PER MKR FOR PRE-ROUTE PEG COUNTS OR CHG PATTERN OR BOTH |
| | 14-27 | | | |
| | 28-39 | 72 | | |
| | PREROUTE PEG COUNT FOR NON ALLOTTER ROUTES HAVING 60 OR MORE TRUNKS (SEE NOTE 181) | 62 | | 1 PER 10 PREROUTE REL |
| 13 | TRK OR SDR GR ALLOTTER OR BOTH ARRANGED FOR FLEXIBLE GRD SUPPLY ASSIGNMENT (SEE NOTE 181) | 38 | YE | 1 PER MKR |

ISSUE 68A

COMPLETING MARKER CIRCUIT

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CIRCUIT NOTES: (CONT)

102(B). (CONT)

| PAR. | FEATURE OR OPTION | | | | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|---|---|
| 14 | SPECIAL MKR C & I | TEST DESK ACCESS TO ORIG ONLY LINES WITHOUT USING SC- RELAYS | ETS PROVIDED | OFF ARGT FOR CUST MSG REG OPERATION OR PHASE III CENTREX | YES | | 44 | | 1 PER SPECIAL MKR |
| | | | | | PHASE III CENTREX PROVIDED | | | PU | |
| | | | | | NO | | | B | |
| | | | | NO | | | | ZLW | |
| | | | AND OPT UZ IS PROVIDED | YES | | | | ZLY | |
| | | | | ETS PROVIDED | NO | | | ZIM | |
| | | | | | YES (PROVIDE FOR TRANSITION ONLY) | | | ZIA | |
| | | | | NO (A&M PROVIDED), OPTION UY | | | | ZLX | |
| | | | AWU AIS USING LLP IS PROVIDED | YES | | | | ZCZ | |
| | | | | YES - CONN TO INCPT CENTER REQD | YES | | | ZBA, ZBI | |
| | | | | | NO (OVERFLOW RETURNED) | | | ZBB, ZBC | |
| | | | | NO - CONN TO INCPT CENTER REQD | YES | | | ZBA | |
| | | | | | NO (OVERFLOW RETURNED) | | | ZCZ, ZBB, ZBC | |
| | | | | NO - AND LLP PROVIDED | YES | | | ZBB, ZCQ | |
| | | | | | NO | | | ZBB | |
| | | | ETS PROVIDED | NO | AND CENTREX BUSY VERIF PROVIDED | | | ZJP | |
| | | | | YES | | | | ZKX | |
| | | | | AND CENTREX BUSY VERIF PROVIDED | NO | | | ZJQ, ZJS | |
| | | | | | YES | | | ZJR | |
| | | | TWO LINE NUMBER FEATURE PROVIDED | | | | | ZKD | |
| | | YES | | | | | 45 | ZQH | 1 PER SPECIAL MKR |
| | | NO | | | | | | A, ZLW | |
| | | AND ETS PROVIDED | | | | | | ZJS | |
| 15 | REVERTIVE PULSE CONVERSION | REVERTIVE SDR ARRANGED FOR | 2 DIGIT OFF. CODE | | | | | S | |
| | | | 3 OR 2,3 DIGIT OFF. CODE | | | | | R | |
| 16 | TRANSLATION OF 3 DIGIT XOX TYPE CODES (SEE NOTE 181) | | | | | | 50 | | 1 PER MKR |
| 17 | ET, EXTRA TRANSLATOR (SEE NOTE 181) | | | | | | 52 | | 1 PER MKR |
| | FOR TRANSLATION OF "A" DIGITS OR "B" DIGITS OR BOTH AND NOT "F-G" DIGITS | | | | | | | AA | |
| | FOR TRANSLATION OF "A" DIGITS OR "F-G" DIGITS OR BOTH AND NOT "B" DIGITS | | | | | | 142 | | 1 PER MKR |
| 18 | MORE THAN ONE TANDEM OR TOLL CLASS OR CAMA | PROVIDED | | | | | 53 | CH | 1 PER MKR |
| | | FLEXIBLE ARRANGEMENT OF TANDEM AND TOLL CLASS MARKS | YES | | | | | DT | |
| | | | NO (A&M) | | | | | LJ, DV, DU | |
| | | PHASE I OR II CENTREX NOT PROVIDED | | | | | | KK, DW | |
| | | NOT PROVIDED | | | | | | ZD | |
| | | AND ETS PROVIDED | NO | | | | | ZIG | |
| | | | YES | | | | | ZIH | |
| 19 | MORE THAN TWO NUMBER SERIES (SEE NOTE 181) | | | | | | | F | |
| | MAX OF ONE NUMBER SERIES START RELAY PER NUMBER SERIES GR (SEE NOTE 181) | | | | | | | ZA | |
| 20 | LINE LK MKR CONN INDICATES TENS DIGIT OF LINE LK FR NUMBER BY GROUNDING | TWO LEADS | | | | | | ZC | |
| | | ONE LEAD | | | | | | ZB | |
| 21 | FOR PERCENT LOAD READINGS OF LINE LK WHERE THE TRAFFIC USAGE RECORDER IS NOT FURNISHED | | | | | | 57 | DC | 1 PER MKR (SEE NOTE 119) |
| 22 | CODE CONVERSION PRE ROUTE RELAYS | PROVIDED (SEE NOTE 183) | | | | | 58 | | 1 PER MKR PER 12 ROUTES (MAX 8 UNITS) |
| | | | | | | | 59 | ZHU | 1 PER MKR |
| | | NOT PROVIDED | | | | | | H | |

102(B). (CONT)

| PAR. | FEATURE OR OPTION | | | | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|---|---|
| 23 | PBX ALLOTTER IS PROV TO DISTR LINES OF HUNTING GR IN MORE THAN ONE NO. GR (OTHER THAN BLANK NUMBERS OR INTERCEPT TRUNKS) (SEE NOTE 183) | TEST CONTROL PROVIDED FOR BLOCK SELECT FEATURE | YES | | | ZVG | |
| | | | NO | | | ZVF | |
| | | PBX ALLOTTER CONTROL | | | 60 | ZLS, KW | 1 PER MKR |
| | | ALLOTTER PBX GR IDENTIFICATION | PBX GR | DISTRIBUTED OVER | 61 | | 1 PER 5 ALLOTTED PBX'S PER MARKER |
| | | | 1,2,3 | 2-4 NO. GR | | | |
| | | | 0,4 | 2-8 NO. GR | | | |
| | | | 6,7,8 | 2-4 NO. GR | | | |
| | | | 5,9 | 2-8 NO. GR | | | |
| | | RESISTOR | | | 63 | | 1 PER MKR |
| | | PBX ALLOTTING IS NOT PROVIDED | | | | K, ZVF | |
| 24 | TRIPLE TRUNK LINK FRAME OPERATION (2W ONLY) | PROVIDED | | | 64 | SH, ZE | 1 PER MKR |
| | | MORE THAN 20 TRUNK LINK FRAMES | YES | ETS PROVIDED | NO (SEE NOTE 183) | TRK LK TEST & SEL FOR FR 20-29 | 65 | KE | 1 PER MKR |
| | | | | | | TRK LK FR LEAD CONN | 66 | | 1 (FC) REL APP FIG. 66 PER ROUTE REL |
| | | | | YES | | | 179 | | 1 PER MKR |
| | | | NO | | | | | TA | |
| | | NOT PROVIDED | | | | | | ZJ | |
| 25 | MKR GR CONTAINS | ALL WIRE SPG MARKERS | | | | | | ZU | |
| | | NON WIRE SPG MARKERS | | | | | | ZT | |
| 26 | LINE VERIFICATION TEST | PERFORMED BY THE MASTER TEST CONTROL CKT IN OFFICES USING SINGLE SIDED TBL RCD CARDS | | | | | | ZW | |
| | | PERFORMED BY THE LINE VERIFICATION TEST CKT OR IN OFFICES USING DBL SIDED TBL RCD CARDS | | | | | | ZX | |
| 27 | MORE THAN 10 OR- RELAYS (SEE NOTE 181) | | | | | | 70 | | 1 PER MKR |
| 28 | INTERCEPT OF UNAUTHORIZED CUSTOMER 10 DIGIT DDD CALLS (SEE NOTE 181) | | | | | | 73 | GY | 1 PER MKR |
| 29A | AMA RECORDS ON TAN OR TOL THROUGH SWITCHED CALLS | YES (SEE NOTES 154,176,181) | | | | | 101 | WS | 1 PER MKR |
| | | INC TRUNK IDENTIFIED BY (SEE NOTE 160) | TRUNK NUMBER | | | | | ZPR | |
| | | | INC CLASS (SOURCE) | | | | | ZPS | |
| | | CCI-6 OR CCI8 MARK REQ'D ON FLAT RATE WATS ROUTES BEING TRK GR TRAFFIC SAMPLED ON ORIG CALLS | YES | | | | | ZMO | |
| | | | NO | | | | | ZMN | |
| | | "SDG" INDICATION USED FOR IDENT OF CALLS | YES (STD) | | | | | ZTB | |
| | | NO (A&M ONLY) (SEE NOTE 154) | | | | | | JW | |
| | | NO | | | | | | JR | |

102(B). (CONT)

| PAR. | FEATURE OR OPTION | | | | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|---|---|
| | PREROUTE RELAYS FOR DIRECTORY ASSISTANCE CHARGING (SEE NOTES 167,181) | | | | 175 | | 1 PER MKR |
| 298 | AMA RECORDS OF 411 LOCAL AREA INFO CALLS (A&M ONLY) (SEE NOTE 167) | YES (SEE NOTE 181) | | | 136 | ZCF | 1 PER MKR |
| | | AND INTERCHANGEABLE CODES (APP FIG 143) ARE NOT PROVIDED | | | | FK | |
| | | NO | | | | FA | |
| | | AMA PROVIDED | | | | FB | |
| | | CAMA CENTER | | | | FC | |
| | | | | | | FW | |
| | | INTERCHANGEABLE CODES (APP FIG. 143) | YES | | | ZCI, ZOL | |
| | | | NO | | | ZCH, ZOK, ZHI, ZWX | |
| 30 | ROUTING OF INTER-CHANGE-ABLE CODES BY "OR" AND "FAC" MARKS REQUIRED | YES | | | | 143 | 1 PER MKR |
| | | CAMA OR MULTIPLE TAN/TOL CLASSES | YES | | | FM | |
| | | | NO | | | FN | |
| | | BOTH 2-WIRE AND 4-WIRE | | | | FT | |
| | | TO PROVIDE IFFM (4W) TRAFFIC REGISTER PEG COUNT ON A ONE PER MKR BASIS | YES | | | ZFI | |
| | | | NO (A&M) | | | ZFH | |
| | | NO (A&M ONLY) | | | | FJ, ZHW | |
| | | WHEN 7 DIGIT DIALING OF INTRA PBX CALLS IS PROVIDED | NO | | | ZLM | |
| | | | YES | | | ZLN | |
| | | CAMA CENTER | DIRECTORY ASSISTANCE CHARGING | NO | | FX | |
| | | | | YES | | ZHI | |
| | | CAMA OR MULTIPLE TAN-TOL CLASSES | | | | FL | |
| | | ACCESS 1 | | | | FO | |
| | | ACCESS 0 | | | | FP | |
| | | ACCESS 8 | | | | FV | |
| | | EXTRA TRANSLATOR, ET | | | | FR | |
| | | ADDITIONAL TRANSLATOR ALT (APP FIG 82) | | | | FS | |
| | | ADDITIONAL SCREENING (OPTION NB) | | | | FQ | |
| | | ETS PROVIDED | NO | | | ZIX | |
| | | | YES | 190 | | | |

102(B). (CONT)

| PAR. | FEATURE OR OPTION | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|

ISSUE 69B

COMPLETING MARKER CIRCUIT

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CIRCUIT NOTES (CONT)

102(B) (CONT)

| PAR | FEATURE OR OPTION | | | | PROVIDE APP FIG | PROVIDE APP OR WRG | QUANTITY |
|---|---|---|---|---|---|---|---|
| 31 | CUSTOMER CLASS OF SERVICE ARRANGED | | | | | | |
| | ON A ONE OUT OF THIRTY BASIS CENTREX: CLASSES 30-59 WITH TWO SORTS | | | | | TO,TQ, WU,WV | |
| | | NOT PROVIDED | | | | WX,ZLA | |
| | | FOUR SORTS | CLASSES 00-29 | | 87 | TR,WU, WX | 1 PER MKR |
| | | | CLASSES 30-49 | | | WV | |
| | | PROVIDED | | | 78 | UE,UG ZDG | 1 PER MKR |
| | PHASE I OR II CENTREX: WITH 20 CLASSES AND 20 RATE TREATMENTS | | | | | QP | |
| | | ETS PROVIDED | | YES | | ZIR | |
| | | | | NO | | ZIQ | |
| | WITH 60 CLASSES AND NO RATE TREATMENT (SEE NOTE 181) | | | | 109 | QQ,QY, ZOH, ZDI | 1 PER MKR |
| | | ETS PROVIDED | | YES | | ZIC | |
| | | | | NO | | ZIB | |
| | ON A UNITS AND TENS BASIS | | | | 78 | UE,UF, WY, ZLC | 1 PER MKR |
| | TWO SORTS | CLASSES 30-59 | | | | QY,TQ, WU | |
| | | CLASSES 60-99 | | | | WW | |
| | FOUR SORTS | CLASSES 00-49 | | | 87 | QY,TQ, WU,WW | 1 PER MKR |
| | EXPANDED TERMINATING CLASS OF SERVICE TRANSLATION FIELD (FOR OVER THIRTY CLASSES) | YES | OPTION UD IS PROVIDED | | 111 | ZUT | 1 PER MKR |
| | | NO | | | | QR | |
| | PHASE I OR II CENTREX PROVIDED | | | | | PZ,UH | |
| 32 | RATE TREATMENT PROVIDED FOR CENTREX OPERATION | NO | | | | WZ | |
| | | YES (SEE NOTE 181) | | | 79 | VA | |
| 33 | SUBSTITUTE DETAILED BILLING TREATMENT | | | | | WT, ZNS | |
| 34 | CENTREX: NO | | | | | AL,JL, PD,PG, PR,UM, ZUL | |
| | MULTIPLE CLASS OF SERVICE MATCH PROVIDED | | | YES | | DY,ZQZ | |
| | | | | NO | | ZHC, ZPA | |
| | YES | | | | 90 | GD,JM, MA,PH, UL,ZQW | 1 PER MKR |
| | BUSY LINE VERIFICATION: YES | | | | | JY | |
| | PROVIDE IN SPL MARKERS 0 & 1 ONLY | | | | | JK | |
| | PHASE III CENTREX PROVIDED | | | | | JO | |
| | PROVIDE IN ALL OTHER COMPLETING MARKERS | | | | | JL | |
| | ETS NOT PROVIDED | | | | | ZJT | |
| | NO | | | | | JL | |
| | INDIVIDUAL CUSTOMER GROUP ANNOUNCEMENT (SEE NOTE 181) | | | | 137 | | 1 PER MKR |
| | CUSTOMER IDENTIFIED BY VERTICAL FILE | YES | NUMBER GROUP F TO ERNO -4 CROSS CONN USED TO IDENTIFY CUSTOMER GROUP | | | ZSW | |
| | | NO | | | | ZWD | |
| | LINE LINK PULSING IS PROVIDED AND TWO WAY LINE CIRCUITS ARE USED | | | | | ZII | |

102(B) (CONT)

| PAR | FEATURE OR OPTION | | | | PROVIDE APP FIG | PROVIDE APP OR WRG | QUANTITY |
|---|---|---|---|---|---|---|---|
| 34 | CENTREX YES: BUSY LINE OR DON'T ANSWER TRANSFER: YES (SEE NOTE 114, 115) | | | | 104 | PE, ZSL, ZVN | 1 PER MKR |
| | WIDEBAND SWITCHING OF CENTREX STATIONS PROVIDED: YES: PROVIDE IN SPL MARKERS 0 & 1 ONLY | | | | | ZWU | |
| | PROVIDE IN ALL OTHER COMPLETING MARKERS | | | | | ZWT | |
| | NO | | | | | ZWT | |
| | NO | | | | | PD | |
| | MULTIPLE CLASS OF SERVICE MATCH PROVIDED: YES | | | | | ZQY | |
| | MATCHING OF INCOMING TRUNK CLASS TO SUBCLASS OF SERVICE: YES | | | | 168 | DX,ZDS | 1 PER MKR |
| | ETS PROVIDED: YES: NO | | | | | ZGN, ZGP | |
| | PHASE III CENTREX | | | | | ZGP | |
| | PHASE I & II CENTREX | | | | | ZGQ | |
| | NO | | | | | DY | |
| | NO | | | | | ZCC, SN | |
| | CLASS OF SERVICE MISMATCH ROUTED TO: OVERFLOW | | | | | QT, ZHC | |
| | PBX ANNOUNCEMENT | | | | 182 | ZDR | 1 PER MKR |
| | PHASE III CENTREX (SEE NOTES 114, 115) | | | | 103, 112 | AL,CC, GH,PS, ZCD, ZSC, ZUE, ZUK, ZYW | 1 PER MKR |
| | CENTRALIZED CENTREX ATTENDANT OPERATION (SEE NOTE 136): YES | | | | | ZXK | |
| | PRIMARY OFFICE AND ANY ATTENDANT INCOMING TRUNK FROM SECONDARY OFFICE IS CAPABLE OF HANDLING BOTH LDN AND TRF TRAFFIC | | | NO | | ZOD, ZOE | |
| | | | | YES | | ZOG | |
| | SEVEN DIGIT CALL TRF - ATTENDANT: NO | | | | | ZXN | |
| | YES | | | | | ZXM | |
| | SEVEN DIGIT CALL TRANSFER -INDIVIDUAL | | | | | ZLL | |
| | SEVEN DIGIT DIALING OF INTRA-PBX CALLS | | | | | LK | |
| | NO | | | | | ZOE, ZXL, ZXN | |
| | CALL TRANSFER FOR STATION TO STATION CALLS | | | YES | | ZLO | |
| | | | | NO | | ZLP | |
| | CODE POINT ACCESS TO MANUAL PBX LINES ON THE LLF (SEE NOTE 181) | | | | | AP | |
| | WIDEBAND SWITCHING OF CENTREX STATIONS: YES: PROVIDE IN SPECIAL MARKERS 0&1 ONLY | | | | 163 | ZWR | 1 PER MKR |
| | PROVIDE IN ALL OTHER COMPLETING MARKERS | | | | | ZWS | |
| | NO | | | | | ZWS | |

102(B) (CONT)

| PAR | FEATURE OR OPTION | | | PROVIDE APP FIG | PROVIDE APP OR WRG | QUANTITY |
|---|---|---|---|---|---|---|
| 34 | CENTREX YES: PHASE III: SEPARATE PLANT REGISTER FOR TRF REGISTER LINK RELEASE | YES | | | ZQX | |
| | | NO | | | CZ | |
| | MULTIPLE CLASS OF SERVICE MATCH PROVIDED | | | | ZWG | |
| | PHASE I OR II CENTREX (SEE NOTE 116) | | | | QA,QS, PR,PT, PW | |
| | WHEN ATTENDANT TRUNK IS ARRANGED FOR LLP | | | 139 | | 1 PER MKR |
| | TO PERMIT COMPLETION OF CALLS COMMON TO ALL CENTREX CUSTOMERS | | | | KG | |
| | WHEN TRAFFIC REGISTER TRANSLATOR CIRCUIT IS PROVIDED | | | | QN | |
| | TO PREVENT FALSE COUNTS WHEN INCOMING TRUNKS ARE ASSIGNED TO LINE LINK LOCATIONS WITH NO REGARD TO CLASS OF SERVICE | | | | ZSC | |
| | TO PROVIDE VACANT CODE GROUPINGS FOR ATTENDANT CLASS CALLS | | | | JX | |
| | TOLL OR MORE THAN ONE TANDEM CLASS OR CAMA | PROVIDED | | | JK | |
| | | NOT PROVIDED | | | UJ | |
| | ETS | PROVIDED | | | ZIW, ZJJ | |
| | | NOT PROVIDED | | | ZJI | |
| | NO TEST ACCESS TO STATION WITH INCOMING RESTRICTIONS: WITH TENS BLOCK SCREENING | PROVIDED | | | RJ | |
| | | NOT PROVIDED | | | RG | |
| | WIDEBAND SWITCHING PROVIDED | | | | ZZT | |
| | DIAL TRANSFER: YES (SEE NOTE 114, 181) | | | 102, 114 | EE,EG, QU, ZTP | 1 PER MKR |
| | AND SEPARATE PLANT REGISTER FOR TRANSFER REGISTER LINK RELEASE | YES | | | ZQX | |
| | | NO | | | CZ | |
| | NO | | | | ZUL | |
| | MULTIPLE CLASS OF SERVICE MATCH PROVIDED: YES | | | | PX | |
| | OPTION PH IS NOT PROVIDED | | | | PF | |
| | INTRA-MARKER GROUP SERVICE: NO | | | | ZWG, ZXJ | |
| | YES AND FULLY RESTRICTED STA IN MARKER GROUP | NO | | | ZWF, ZXJ | |
| | | YES | | | ZXB, ZWG | |
| | NO | | | | PY, ZXJ | |
| | PHASE II CENTREX | | | 94 | AL,TK, ZNW | 1 PER MKR |
| | ACCESS GROUP CONTROLLER | NOT PROVIDED | | | ZVY | |
| | | PROVIDED | | | ZVV | |

102(B) (CONT)

| PAR | FEATURE OR OPTION | | | PROVIDE APP FIG | PROVIDE APP OR WRG | QUANTITY |
|---|---|---|---|---|---|---|
| 34 | CENTREX YES: PHASE I CENTREX | | | | TJ, ZVY, ZDQ | |
| | FREE LISTED DIRECTORY NUMBER | YES | | | AM, | |
| | | NO | | | AL | |
| | DIAL TRANSFER | YES | | | PA | |
| | | NO | | | QZ | |
| | TENS BLOCK SCREENING OF CENTREX LINES WITH RESTRICTED INCOMING SERVICE | IS REQUIRED | | | ZMG | |
| | | IS NOT REQUIRED | | | ZMF | |
| | TIE LINE PAD CONTROL | YES | | | SR | |
| | | NO | | | SQ | |
| | MORE THAN ONE NON-TERMINAL HUNTING OR ANY TERMINAL HUNTING RESTRICTED INCOMING TREATMENT REQUIRED | | | | JV,TP, ZNA | |
| | AND OPTION ZXB IS NOT PROVIDED | | | | ZXA | |
| 35 | A MULTIPLICITY OF CODE CONVERSION ROUTINGS ARE CONTROLLED BY INDIVIDUAL RA PUNCHINGS (SEE NOTE 181) | | | | UU | |
| 36 | MKR ARRANGED TO SERVE DIAL TONE CALLS FROM ORIGINATING LINE IDENTIFIER | YES | | 85 | UX, ZUV | 1 PER MKR |
| | | | 1ST AND 2ND TRIAL FAILURE INDICATIONS TO OFFICE TEST FRAME IN OFFICES WITHOUT PLANT REGISTER CIRCUIT | | ZME | |
| | | NO | | | UW,ZUU ZUW | |
| 37 | TRK NO. INDICATION FROM NO. GR PROVIDED BY F TO RFTN CROSS CONN IN NO. GR | YES (SEE NOTE 181) | | | U? | |
| | | TENS BLOCK SCREENING: YES | | | TH | |
| | | NO | | | TG | |
| | | NO | | | UY | |
| 38 | MASTER TEST CONTROL CKT ARRANGED TO CONTROL CLASS OF SERVICE FROM LINE LINK FR ON MARKER TEST CALLS | YES | | | GM | |
| | | NO | | | GL | |
| 39 | MORE THAN 6 TRUNK BLOCKS (TBO-5) REQUIRED | | | 149 | | 1 PER MKR |
| 40 | MORE THAN 1000 TRUNK NUMBERS (SEE NOTE 151) | YES (MAX 4000 TRUNKS) | | | ZTT | |
| | | CAMA CENTER OR TRK NO. IDENTIFICATION REQUIRED FOR TANDEM AMA (SEE NOTES 160,176,181) | YES | | EO, ZTZ | |
| | | | NO | | EN, ZTX | |
| | | NO | | | EN,TN, ZTV,ZTX | |
| 41 | NO. OR TENS BLOCK SCREENING | PROVIDED (SEE NOTE 181) | | 86 | TF, ZSZ | 1 PER MKR |
| | | NOT PROVIDED | | | TE, ZSX | |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S

ISSUE 67B

BELL LABORATORIES SD-26002-01 D7A

CIRCUIT NOTES (CONT)

| 102B. (CONT) PAR | FEATURE OR OPTION | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|
| 42 | NO | | . | TT,ZYQ, ZQT,ZLD, ZKU | |
| | LINE LINK PULSING YES (SEE NOTE 102B(3)) | | | | |
| | AND ETS IS NOT PROVIDED (SEE NOTE 183) | | 88, 91 | ZKU,DD FG,FI IA,JZ, MX,QM, QL,TU ZUR, ZW8, ZWC, ZYR, ZLE, ZJU, ZKS | 1 PER MKR |
| | TONE RETURNED FOR ALL LLP CIRCUITS BUSY | 60 IPM | | ZDZ | |
| | | 120 IPM | | ZCA | |
| | NO AIS WITHOUT USING LLP | | | ZGE | |
| | | | 89 | | 1 PER MKR PER 10(LR) RELAYS MAX 12 APP FIG |
| | HUNDREDS BLOCK TRNSL FOR BOTH POTS AND LLP NUMBERS | YES(STD) | | ZMK | |
| | | NO (A&M ONLY) | | ZMJ | |
| | AUTO MON REG AND SDR TST CKT ARRANGED TO MONITOR LLP SENDERS | YES | | ZQT | |
| | | NO | | ZQU | |
| | AND PBX ALLOTTER FEATURE IS PROVIDED | | | 0Q, ZVE | |
| | TEST BY APTT | | | OP | |
| | IMPROVED PEG COUNT AND OVERFLOW INDICATIONS | YES | | GQ | |
| | | NO (A&M ONLY) | | GP | |
| | (LR) RELAY MULT PROVIDED | NO | | JQ | |
| | | YES (A&M ONLY) | | JP | |
| | AND CENTRALIZED ATT OPERATION IS PROVIDED | YES | | ZOF | |
| | | NO | | ZOC,ZXP | |
| | AND ETS IS PROVIDED | | | FI,TU, ZUR,ZKV, ZJU | |
| | NO AIS WITHOUT USING LLP | | | ZGE | |
| | LLP FRAME NOT PROVIDED | | | ZIT | |
| | FOR TRANSITION TO ETS | | | ZKW | |
| | AUTO MON REG AND SDR TST CKT ARRANGED TO MONITOR LLP SENDERS | YES | | ZQT | |
| | | NO | | ZQU | |
| 43 | MULTIPLE CLASS OF SERVICE MATCH | | | | |
| | YES (SEE NOTES 157 & 181) | | 96 | SP, ZDP, ZDQ | 1 PER MKR |
| | MARKER GROUP IS EQUIPPED WITH TWO SORTS AND A MAX OF | 30 CLASSES OF SERVICE | | ZMA | |
| | | 60 CLASSES OF SERVICE | | ZMB | |
| | 4 SORTS NOT PROVIDED | | | MR | |
| | APP FIG 34 USED TO PROVIDED 60 CLASSES OF SERVICE | YES | | QV | |
| | | NO | | QW | |
| | NO | | | SO | |
| 44 | SEPARATE TRK GROUPS FOR LINE LINK FR INTERCEPT (SEE NOTE 181) | ADDITIONAL TRK GROUPS | 169 | | 1 PER MKR |
| 45 | TO PROVIDE TEST CKT CONTROL OF DL3 AND DL6 SIGNALS TO SENDER (SEE NOTE 170) | ETS NOT PROVIDED | | SW | |
| | | | | ZJK | |
| 46 | TWO LINE NO. (SELECTION OF AN ALTERNATE LINE ON THE LINE BUSY CONDITIONS) (SEE NOTE 181) | | | RO | |

| 102B. (CONT) PAR | FEATURE OR OPTION | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|
| 48 | UNIVERSAL PAD CONTROL | | 106, 108 | CE | 1 PER MKR |
| | RATE TREATMENT PROVIDED (SEE NOTE 181) | | 109 | ZDH, NS | 1 PER MKR |
| 49 | TRAFFIC SAMPLING BY AMA RECORD (SEE NOTES 176, 181, 187, 305) | | | | |
| | PROVIDED (SEE NOTE 167) | | 105 | AV,ZOA ZPV,ZWM, ZER | 1 PER MKR |
| | AND MKR IS ARRANGED FOR LINE LINK PULSING | YES | | EX | |
| | | NO | | EW | |
| | SAMPLING ON SELECTED TRK GR BASIS (MUST BE APPLIED TO ALL MARKERS IF APPLIED TO ANY) | YES | 146 | ZMD | 1 PER MKR |
| | | NO | | EZ | |
| | AND REMOTE OFFICE TEST LINE REGISTER IS ARRANGED FOR IMPROVED OPERATIONAL TRUNK TEST FEATURES | | | ZCR | |
| | NOT PROVIDED IN INDIVIDUAL MARKER | | | EZ,LY, NG,PJ | |
| | AND TRAFFIC SAMPLING PROVIDED IN OTHER MARKERS | | | PI | |
| 50 | SENDER TP INDICATION FOR PBX ARRANGED FOR AUTO IDENTIFIED OUTWARD DIALING (SEE NOTES 176,181) | | 107 | PN | 1 PER MKR |
| | AND PHASE III CENTREX IS PROVIDED | | | 8I | |
| 52 | OFFICE TEST FRAME | | | | |
| | PROVIDED (SEE NOTE 182) | | | AH,FU, PQ,RA, ZIF, ZOX, ZYZ | SEE NOTE 111 |
| | AND USES LINE LINK AND TRUNK LINK TEST RELAYS | | | BY, ZXQ | |
| | FUNCTIONS WITH ROTL CIRCUIT | | | | |
| | AND LINE LINK PULSING OR ROTL REGISTER CIRCUIT IS PROVIDED | | | ZLI | |
| | AND OPTION ZSI IS PROVIDED | | | ZLH | |
| | AND REMOTE OFFICE TEST LINE REGISTER ARRANGED TO PERFORM uC TESTS ON TRUNK CONDUCTORS | | | ZGD | |
| | ROTL OR ROTL REG NOT PROVIDED | | | ZPF | |
| | NOT PROVIDED | | | RB,DI, ZYP | |
| 55 | WHEN LLP IS PROVIDED WITH THE OFFICE TEST FR (SEE NOTE 181) | | | OD, ZTQ | |
| 56 | WHEN NO GR ALLOTTING IS PROVIDED WITH THE OFFICE TEST FR (SEE NOTE 181) | | | OE | |

| (CONT) PAR | FEATURE OR OPTION | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|

| 102B (CONT) PAR | FEATURE OR OPTION | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 67B |
| BELL LABORATORIES | SD-26002-01- | | D7B |

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CIRCUIT NOTES: (CONT)

102.(B) (CONT)

| PAR | FEATURE OR OPTION | | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|---|
| 57 | PAIRED LINE LINK FR OPERATION | YES (SEE NOTES 119 AND 155) | | 113 | NH,NO, ZSF,ZSP, ZTM,ZUP, ZXD | |
| | | TO PROVIDE IFMPR,IFFMP, FMPR TRAFFIC REG PEG COUNTS ON A ONE PER MKR BASIS | YES | | ZFE | |
| | | | ZTM PROVIDED | | ZFK | |
| | | | NO (A&M) | | ZFD | |
| | | | ZTM PROVIDED | | ZFJ | |
| | | ALL LINE LINK FRAMES PAIRED | | | ZRI, ZRF,ZCH | |
| | | TRAFFIC DATA PROCESSOR PROVIDED | YES | | ZTO | |
| | | | NO | | ZTN | |
| | | TRIPLE TRK LINK FR OPERATION | YES | | NT | |
| | | | NO | | NJ | |
| | | TRIPLE TRK LINK FR OPERATION | YES | | NP | |
| | | | NO | | NK | |
| | | NO | | | NI,ZUN, ZSE,ZTL | |
| 58 | 4-WIRE SWITCHING FEATURE | NOT PROVIDED | | | AJ,AQ, LB,VE, VH,VL, ZOO,ZRV, ZTF,ZZI | |
| | | PROVIDED | | 81, 123 | AK,NN, VD,VJ, VM,LB, ZOP,ZTG, AQ,ZZI | 1 OF EACH PER MKR |
| | | TO PROVIDE IFM(4W), FM(4W) TRAFFIC REG PEG COUNTS ON A ONE PER MKR BASIS | YES | | ZFC | |
| | | | NO (A&M) | | ZFB | |
| | | PERM SIGNAL LOCKOUT FEATURE PROVIDED | YES | | ZRW | |
| | | | NO | | ZRV | |
| | | OFFICE IS ARRANGED FOR CLASS-OF-SERVICE SELECTION ON A TENS AND UNITS BASIS | YES | | VF | |
| | | | NO | | VG | |
| | | TOG-ANNOUNCEMENT ROUTES ASSIGNED TO GRD SUPPLY 6 | | | GU | |
| | | OFFICE ARRANGED FOR AUTO MONITOR REG AND SENDER TEST CKT WITH 4-WIRE | YES | | AU | |
| | | | NO | | ZZO | |
| 59 | WADS ROUTING AND RATING SEPARATION (A&M ONLY) | | | 99 | KM, RR | 1 PER GR OF 12(RM) RELAYS, 12 RMC POINTS PER GROUP |
| 60 | MKR GROUP PROVIDES MXT TROUBLE INDICATION | | YES | | LU | |
| | | | NO | | LT | |
| 61 | WHEN MASTER TEST FR IS ARRANGED TO TRANSLATE TROUBLE PUNCH INDICATIONS TO A 2/5 BASIS | | YES | | KY | |
| | | | NO | | KX | |
| 62 | TRAFFIC DATA PROCESSOR | | NOT PROVIDED | | II,IJ, IL | |
| | | | PROVIDED | 131 | IK | 1 PER MKR |
| 63 | CCSA ACCESS GROUP CONTROLLER (AGC) CKT PROVIDED (SEE NOTE 181) | | | 130 | | 1 PER MKR PER 1ST AGC CKT |
| | | | | 134 | | 1 PER MKR PER ADD AGC CKT |
| | MORE THAN ONE AGC PER NETWORK OR MORE THAN FIVE AGC CIRCUITS PER MKR GROUP | | YES (SEE NOTE 130) | 164 | ZVW | 1 PER MKR |
| | | | NO (A&M ONLY) | | ZVX | |
| | NOT PROVIDED | | | | ZVU | |

102.(B) (CONT)

| PAR | FEATURE OR OPTION | | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|---|
| 64 | RANGE EXTENSION FOR UNIGAUGE CABLING | YES | | | ZQL | |
| | | AND THE MCI RELAY IS PROVIDED IN ANY LINE LINK CONN | | 129 | CK | 1 PER MKR |
| | | SPECIAL MKR 0 AND 1 | YES | | IS,ZJO, ZXX | |
| | | | NO | | IR,ZJN | |
| | | SPECIAL RINGING COMBINATION ASSIGNMENTS FOR UNGAUGE PBX LINES (A&M ONLY) | | | | |
| | | TENS BLOCK SCREENING PROVIDED | YES | | EU | |
| | | | NO | | EV, ZSV | |
| | | PERMANENT SIGNAL TEST PROVIDED | YES | | ZOH | |
| | | | NO | | ZOJ | |
| | | WITH OTF NOT EQUIPPED WITH POSITIVE TEST CALL CONTROL (A&M ONLY) | | | AG | |
| | | NO | | | IR,ZMZ | |
| 65 | DUPLICATE NO GROUPS (SEE NOTES 105,181) | | YES | | 132 | | 1 PER MKR |
| | | | NO | | | GE | |
| | | | 4W NOT PROVIDED | | | GG | |
| 66 | AUTOMATIC INTERCEPT YES | USING LLP (SEE NOTE 181) | | 128 | AE,IC, ZGX,ZVY, ZEF | |
| | | TRK LK INDICATES TRK AS TOLL FULL SEL OR MANUAL (SEE PAR 5) | NO | | IW | |
| | | | YES | | IV | |
| | | WITHOUT USING LLP (A&M ONLY) (SEE NOTE 146) | | 158 | AD,ZGW ZMV,ZXR | |
| | | AND LLP PROVIDED | YES | | ZGF,ZED | |
| | | | NO | | ZGH | |
| | | MESSAGE REGISTER OPERATION PROVIDED | | | ZPT | |
| | | WHEN BOTH LLP AND APP FIG 96 ARE PROVIDED OR WHEN APP FIG 182 IS PROVIDED (SEE NOTE 181) | | | ZPL | |
| | NO | | | | AD,IB, ZGW | |
| 67 | DIRECT ACCESS TO 101 ESS | | | 127 | JJ, ZPP | 1 PER MKR |
| 68 | GLARE DETECTION FOR 2-WAY TRUNKS | | YES | 135 | FY | 1 PER MKR |
| | | | NO | | FZ | |
| 69 | MKR CONTROLLED IMMEDIATE RING (SEE NOTE 121) | | YES | 138 | | 1 PER MKR |
| | | | NO | | EA | |
| 70 | 2W-4W OFFICES WITH POLYGRID ROUTING CONTROLS PROVIDED | | | | EB | |
| 71 | WIDEBAND SWITCHING (SPECIAL) (SEE NOTES 135 & 137) | YES | | 133 | | 1 PER MKR |
| | | AMA REQUIRED FOR WIDEBAND ROUTES AND THE TRAFFIC SAMPLING FEATURE IS PROVIDED IN MKR GROUP | | | BQ | |
| | | AND OPTION ZZP IS NOT PROVIDED (SEE NOTE 135) | | | ZZY | |
| | | ELEVEN DIGIT DIALING IN MKR GROUP | YES | | AC,ZWK | |
| | | | NO | | AB | |
| | | PHASE I OR PHASE II CENTREX OR COIN LINES IN MKR GROUP | | | BZ | |
| | | TO BYPASS WIDEBAND LINK CHK ON MKR AND ITNP TESTS | | | BV | |
| | NO | | | | GS,ZWK | |
| 72 | CALLING LINE IDENT YES | TERMINATING AND INTRAOFFICE CALL | | 149 | ES, ZNC | 1 PER MKR |
| | | IDENTIFICATION OF SOG CALLS ALSO REQUIRED | | | GZ, ZMI | |
| | | BUSY LINE TRANSFER PROVIDED (APP FIG.104) | YES | | ZJH | |
| | | | NO | | ZJG | |
| | NO | | | | ER, ZJG | |

102.(B) (CONT)

| PAR | FEATURE OR OPTION | | | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|---|---|
| 73 | INTERNATIONAL DIRECT DISTANCE DIALING | LAMA ARRANGEMENTS GATEWAY CODE REQUIRED YES | INTCHG CODES (APP FIG 143) PROVIDED | YES | | ZXI | |
| | | | | NO (A&M) | | ZXI, ZXG | |
| | | | ADDITIONAL "A" DIGIT TRANSLATOR OR 2 OR 3 DIGIT TRANSLATIONS REQUIRED TO DETERMINE GATEWAY CODES (SEE NOTE 181) | | 159 | | 1 PER MKR |
| | | | NO (SPL) | | 145 | | 1 PER MKR |
| | | TSPS ARRANGEMENTS | INTCHG CODES (APP FIG 143) PROVIDED | YES | 161 | | 1 PER MKR |
| | | | | NO (A&M) | 161 | ZXG | 1 PER MKR |
| | | NOT PROVIDED | | | | EY | |
| 74 | OFFICE ARRANGED FOR DEDICATED MESSAGE TIMING TRUNKS | | | YES | | DB | |
| | | | | NO (A&M) | | DA | |
| 75 | SCREENING FOR 2-WAY OFF-NET ACCESS LINES (SEE NOTE 181) | | | YES | | CG | |
| | | | | NO | | CF | |
| 76 | CALL WAITING SERVICE | YES | | | 160 | | 1 PER MKR |
| | | SPECIAL MARKERS 0 & 1 OFFICE TEST FRAME PROVIDED | | YES | | ZTR | |
| | | | | NO | | ZUI | |
| | | NO | | | | ZVH | |
| 77 | TO PROVIDE ANI OUTPULSING INSTRUCTIONS TO THE MF SENDER ON DIGIT 8 CUT-THROUGH FOR ENHANCED PRIVATE SWITCHED COMMUNICATION SYSTEMS (EPSCS) | | | NO | | ZBG | |
| | | | | YES | 183 | ZBH, ZBJ | 1 PER MKR |
| 78 | START PULSE SIGNAL TO TSPS CONTROLLED BY CR- INFORMATION (STANDARD ARRANGEMENT) (SEE NOTE 181) | TO PROVIDE FLEXIBLE ROUTING OF ANI CALLS (SEE NOTES 181 & 135) | | | | | |
| | | | | YES | | BG | |
| | | | | NO (A&M ONLY) | | BF | |
| 79 | PBX TOLL DIVERSION | PROVIDED WITH OR WITHOUT CDT | | | 147 | ZNK | 1 PER MKR |
| | | WITH AMA | | | | | |
| | | WITH CAMA JUNCTOR OPERATION | | YES | | ZTG, ZNQ | |
| | | | | NO | | ZTD | |
| | | NOT PROVIDED | | | | BE | |
| 80 | COIN LINE OPERATION (SEE NOTE 181) | COIN FIRST | | | | DV | |
| | | DIAL TONE FIRST | | | | DK | |
| 92 | PLANT REGISTER REQUIRED FOR INCOMING REORDER REQUEST | | | YES | | AX,ZVQ | |
| | | | | NO | | ZVO | |
| 83 | ANY TRK LINK FR EQUIPPED WITH 12 LEVEL JUNCTOR SWITCHES | XJS RELAY IS 280AF (IX OPTION PROVIDED) | | | | ZOR | |
| | | YES | ALL 12 LEVEL SWITCHES | YES | | ZZL | |
| | | | | PAIRED LLK PROV | | ZOW | |
| | | | | NO | | ZOV | |
| | | NO | | | | ZZM | |
| | | | | | | ZZK | |

102.(B) (CONT)

| PAR | FEATURE OR OPTION | | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|---|
| 84 | WIDEBAND/ BIT-STREAM SWITCHING (STD) | YES (SEE NOTES 133 AND 134) | PROVIDED IN MARKERS 0 AND 1 ONLY | | 152, 153, 154, 155, 156 | ZNE, ZRY, ZZP, ZQV, ZDF | 1 PER MKR |
| | | | ONE OR MORE TRUNKS ON THE WIDEBAND LINK CKT CONNECTED TO BIT-STREAM FACILITIES | YES | | ZRQ | |
| | | | | NO | | ZRB | |
| | | | WIDEBAND LINK CKT OR BIT-STREAM LINK CKT ARRANGED FOR A MAX OF 400 TRUNKS | | | ZZV | |
| | | | WIDEBAND REMOTE SWITCH UNITS PROVIDED | | 151 | | 1 PER MKR |
| | | | DATA PHONE 50 FACILITIES PROVIDED | | | ZRR | |
| | | | CENTREX NOT PROVIDED | | | ZZS | |
| | | | BIT-STREAM LINK CKT PROVIDED | YES | 167 | ZRP | 1 PER MKR |
| | | | | NO | | ZRA, ZRC | |
| | | | PROVIDED IN ALL OTHER COMPLETING MARKERS | | 157 | ZZQ,ZZZ, ZRC,ZND, ZZE | 1 PER MKR |
| | | NO | | | | ZZQ,ZZZ, ZRC,ZND, ZZE | |
| 86 | PREROUTE CONTROL OF CL- INFORMATION TO REVERTIVE SENDERS (SEE NOTE 181) | | | | 162 | | 1 PER MKR |
| 87 | CLASS OF CALL INDEX USED TO IDENTIFY WATS CALLS ON AMA RECORDS (SEE NOTE 181) | YES | | | | ZTC | |
| | | CCI6 ON 10-DIGIT CALLS ONLY (A&M ONLY) | | | | ZHG | |
| | | CCI6 & CCI8 ON 7 AND 10-DIGIT CALLS (STD) | | | | ZHH | |
| | | NO | | | | ZHG | |
| 88 | SUPPLEMENTARY ROUTE TRANSFER RELAYS (SEE NOTE 181) | | | | 165 | | ONE PER GROUP OF TEN (10) SUPL ROUTE TR RELAYS ADDED |
| | | ROUTE TRANSFER PEG COUNTS REQUIRED | NO | | | ZTJ | |
| | | | YES | | | ZTK | |
| 90 | PERMANENT JUNCTOR DISTRIBUTION WITH LESS THAN 4 TRK LINK FRAMES | | | | | ZSQ | |
| 91 | INTERCEPTION FOR PBX ORIGINATED CALLS CONTAINING MUTILATED A,B, OR C DIGITS (SEE NOTE 181) | KEY CONTROL PROVIDED | | | | ZSN | |

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 63 | 69B |

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CIRCUIT NOTES: (CONT)

102.(B) (CONT)

| PAR | FEATURE OR OPTION | | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|---|
| 92 | EXPANSION OF SERVICE TREATMENT SCREENING FACILITIES(SEE NOTE 181) | SC180-239 | | | ZQE | |
| | | SG120-139 | | | ZQD | |
| | | SE00-49 | | | ZQC | |
| 93 | AREA CODE TRANSLATOR(NIX & NOX CODES) (SEE NOTE 181) | | | 170 | | 1 PER MKR |
| | TRANSLATION OF NNO CODES | | | | ZQO | |
| 94 | REMOTE OFFICE TEST LINE TRUNK MAKE BUSY CKT PROVIDED (SEE NOTE 181) | | YES | | ZQS | |
| | | | NO | | ZQR | |
| 95 | EXPANDED PERMANENT SIGNAL ROUTING: OVERFLOW LINKS PROVIDED (2-WIRE ONLY) | | YES | 171 | | 1 PER MKR |
| | | | NO | | ZQM | |
| 96 | EXPANDED PERMANENT SIGNAL ROUTING: MARKER PERMANENT SIGNAL TEST PROVIDED (2-WIRE ONLY) | YES | | | ZHS,ZML | 1 PER MKR |
| | | AND ARRANGED TO REDUCE FIRST TRIAL PERMANENT SIGNAL TROUBLE CARDS | YES | | ZFM | |
| | | | NO | | ZFL | |
| | | AND ETS IS PROVIDED | | | ZIY | |
| | | NO | | | ZUY | |
| 98 | INTERFACE AND CONTROL CIRCUIT | PROVIDED: LINK RELEASE (LR) INDICATION REQUIRED | | | ZIN | |
| | | AND OFFICE EQUIPPED WITH TRANSFER REGISTERS (FIG 112 OR 114) | | | ZIO | |
| | | X OPTION PROVIDED IN I & C CKT | | | ZOZ, ZJK | |
| | | X OPTION NOT PROVIDED IN I & C CKT | | | ZJX, ZNB | |
| | | NOT PROVIDED | | | ZOZ | |
| 99 | ETS OPERATION: NO | | | | ZGB,ZKB, ZKJ,ZJV, ZHN,ZGI | |
| | CDT PROVIDED IN MARKER EQUIPPED FOR LAMA (SEE NOTES 102B(G), 190) | | YES | | ZCP | |
| | | | NO | | ZCO | |
| | AND OPTION VM AND/OR UX PROVIDED | | | | ZFT | |
| | CENTREX PROVIDED | YES | | | ZGU | |
| | | NO | AND CS SELECT ON 1/30 BASIS | | ZGR | |
| | YES (SEE NOTE 182,217) | | | | ZCP,ZKC, ZHN,ZHR, ZEU | |
| | AND OPTION UO PROVIDED | YES | | | ZFV | |
| | | | AND OPTION VM PROVIDED | | ZFT | |
| | | NO | | | ZFU | |
| | AUTOMATIC INTERCEPT WITHOUT USING LLP IS PROVIDED | | NO | | ZGI | |
| | | | YES | | ZGJ | |
| | CLASS-OF-SERVICE ARRANGED ON A | UNITS AND TENS BASIS | | | ZGA | |
| | | ONE OUT OF THIRTY BASIS AND CTX PROV | YES | | ZGB | |
| | | | NO | | ZGC | |
| | | | LLP PROV NO | | ZGR | |
| | | | LLP PROV YES | | ZGS | |
| | PBX RECYCLE ON FIRST FAILURE TO MATCH(OPTION TY) | | | | ZGT | |
| | CENTREX PROVIDED | | | | ZGV | |
| | TRANSITION TO ETS | | | | ZKN | |
| | CENTREX BUSY LINE TRK PROVIDED | | NO | | ZKJ | |
| | | | YES | | ZKK | |
| | CENTREX IS PROVIDED WITHOUT THE MULTIPLE CLASS OF SERVICE MATCH FEATURE | | | | ZKT | |
| | AUTOMATIC INTERCEPT USING LLP IS PROVIDED | | NO | | ZJV | |
| | | | YES | | ZJW | |
| | CAMA PROVIDED WITH INTERCHANGEABLE CODES OR DIRY ASSISTANCE CHARGING | | | | ZIS | |

102.(B) (CONT)

| PAR | FEATURE OR OPTION | | | PROVIDE APP FIG | PROVIDE APP OR WRG | PROVIDE QUANTITY |
|---|---|---|---|---|---|---|
| 100 | TO BLOCK 7 DIGIT CALLS WITH A 0 OR 1 DIGIT IN THE B POSITION | | NO | | ZLJ | |
| | | | YES | | ZLQ | |
| 101 | MKR BUSY RELAY FOR 13TH TO 16TH ORMC | | | 177 | | 1 PER MKR |
| 102 | TO PROVIDE IFM (2W),FM(2W) TRAFFIC REGISTER PEG COUNTS ON A ONE PER MARKER BASIS | | YES | | ZFA | |
| | | | NO (A&M) | | ZGZ | |
| 103 | OPERATION WITH MINI-ROTL PROVIDED | YES | | | ZEA ZFX | |
| | | AND PROVIDED IN OFFICE EQUIPPED WITH MASTER TEST FRAME | | | ZFY | |
| | | AND PROVIDED IN OFFICE EQUIPPED WITH OFFICE TEST FRAME | | | ZCE ZFZ | |
| | | AND OPERATION WITH ENHANCED OPERATIONAL TRUNK TEST AND REMOTE TRUNK MAKE BUSY CKT PROVIDED | YES | | ZCT | |
| | | | NO | | ZCS | |
| | | NO | | | ZCE, ZFW, ZCS | |
| | | | IN MASTER TEST FRAME OFFICE | | ZEB | |
| | | | IN OFFICE TEST FRAME OFFICE | | ZEA | |
| 104 | CAMA SENDER ARRANGED FOR INTERTOLL TRUNK IMPEDANCE MATCHING | | YES | | ZBL | |
| | | | NO | | ZBK | |

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CIRCUIT NOTES: (CONT)

102(C). (CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 1 | CAMA | | ZS, YY, XF, WP | |
| 2 | PROVIDE TRAFFIC REGISTER PEG COUNTS ON A PER MARKER BASIS INSTEAD OF ON A PER FRAME BASIS WITH OR WITHOUT THE TRAFFIC USAGE RECORDER | | ZQ, XN | |
| 3 | PREVENT XN REL OPERATION DUE TO KK AND NE RELAYS OPERATING | | ZXF | |
| 4 | MARKER CONNECTS TO WIRE SPG TRK LK CONNECTORS | | ZO | |
| 5 | INDEPENDENT CONTROLS IN THE MASTER TEST CONTROL CKT FOR TCLL OR TAN TRANSLATOR AND CLASS MARKS | | ZM | |
| 6 | PREVENT FALSE OPERATION OF JSQ RELAYS ON SERVICE CALLS | | ZY | |
| 7* | ROUTE SERVING OFFICES FEQUIRING DIFFERENT CHARGING FATTERNS | | ZN | |
| 8 | PREVENT XJC INDICATION ON CALLS TO PBX LINES IN OFFICE SIZES WHERE JG-INFORMATION VARIES WITH LINE LINK FRAME NUMBERS | | YJ | |
| 9* | INTERCEPT OF VACANT AND DENIED CODES ON INCOMING TRK CALLS (INTERCEPT TRUNKS ON LINE LINK FRAME) | | YG | |
| 10 | ELIMINATE ADJACENT RELAY CONTACTS TERMINATING TO BAT. AND GRD | | YL | |
| 11* | ELIMINATE A FALSE CARD INDICATION AND PROVIDE REORDER ON 2 DIGIT TX CODES | | YN | |
| 12 | PREVENT AN INCOMPLETE TROUBLE RECORD CARD ON LINK RELEASE FOR PULSE CONVERSION CALLS WHERE TRUNK CLASS IS MARKED AS ONN | | YR | |
| 13 | PREVENT TROUBLE CARDS ON NO-TEST CALLS ENCOUNTERING OVERFLOW CONDITION | | YX | |
| 14 | PREVENT MARKER BLOCKAGE DUE TO THE INABILITY OF A MARKER TO SEIZE A TRUNK LINK FRAME | | YZ | |
| 15* | PREVENT OPERATION OF F25, F26 & F27 BATTERY FUSE WHEN MORE THAN 2 OUT OF 5 REGISTRATIONS ARE RECEIVED IN THE "A" DIGIT OR WHEN TWO TRANSLATOR RELAYS SUCH AS THE LT AND ET ARE FALSELY OPERATED. | | MK | |
| 16 | INSURE THE RELEASE OF THE (OST1) RELAY ON ROUTE ADVANCE AND RECYCLE. | | XR | |
| 17 | INSURE THE RELEASE OF THE (TK) RELAY ON A JUNCTOR RETEST | | XV | |
| 18* | ACTIVATE (SF) TIMER ON TRUNK NUMBER OR INTERCEPT NUMBER CALLS WAITING TO SEIZE A NUMBER GROUP | | XT | |
| 19 | PREVENT TRANSMITTING TRUNK CLASS INFORMATION IF MORE THAN ONE ROUTE SERIES RELAY IS OPERATED | | XX, ZOA | |
| 20 | ANI PROVIDED | 75 | | 1 PER MKR |
| 21 | REDUCE MARKER MACHINE TIME ON SOG-CALLS WITH A SENDER | | GB | |
| 22 | PREVENT MARKER XSL TROUBLE CARD ON A TOG-NSO CLASS CALL | | WB | |
| 23* | PREVENTS SCORING OF THE "OF" TRAFFIC REGISTER ON ALLOTTED TRUNK GROUPS WHEN THE FIRST GROUP IS FOUND BUSY | | WD | |
| 24 | PREVENT TROUBLE CONDITION WHERE THE (DIS1-2) RELAYS FAIL TO LOCK ON PARTIAL OPERATION | | WF | |
| 25 | PREVENT SCORING OF THE PLANT REGISTERS WHEN THE MARKER IS MADE BUSY | | WH | |
| 26 | IMPROVED FUSING ARRANGEMENT | | YT | |
| 27 | PREVENT OPERATION OF FUSE F17 DUE TO OVER-REGISTRATIONS | | WJ | |
| 28* | TO PROVIDE LINE BUSY TO M.R. LINES ON CALLS TO BUSY FREE NUMBERS | | WL | |
| 29* | AMA AND TRUNK CLASS INFO REQUIRED ON SAME CALL (COIN ZONE DIALING, WATS, ETC) | | YC | |

102(C). (CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 30 | WHEN DP ORIG REG IS ARRANGED TO FUNCTION WITH PUSHBUTTON SETS | | MS, WN | |
| 31 | DIGIT "1" ACCESS CODE PROVIDED | | WO | |
| 32 | PREVENT FALSE OPERATION OF DIS1-2 RELAYS | | WR | |
| 33 | PREVENT PREMATURE SLK CHECK | | VK | |
| 34* | PREVENT RELAY RACE BETWEEN NOB AND TOB RELAYS ON INC. CAMA CALLS | | VO | |
| 35* | PREVENT OPERATION OF F27 BATTERY FUSE WHEN MORE THAN 2 OUT OF 5 REGISTRATIONS ARE RECEIVED IN THE "A" DIGIT AND WHEN THE ZO & PD PUNCHINGS ARE CONNECTED TO THE SAME ROUTE RELAY | | VS | |
| 36 | PREVENT RELAY RACE OF OS- AND OSE RELAY | | VU | |
| 37 | PREVENT FALSE OPR OF RSC REL ON CAMA 1ST OR CAMA JUNCTOR CALLS | | VW | |
| 38 | PREVENT PRENATURE OPERATION OF SLK REL | | VY | |
| 39* | TANDEM AMA RECORDS | | VQ | |
| 40 | DIGIT "0" ACCESS CODE PROVIDED | | VZ | |
| 41 | CLASS LEADS CL7 & 8 TO SENDER CIRCUITS | | UQ | |
| 42* | X11 TRANSLATION USED FOR ORIG CUSTOMER 4 DIGIT DIALING | | UR | |
| 43* | IMPROVED TRUNK SELECTION PREFERENCE | | US | |
| 44* | TO PROVIDE CODE CONVERSION FOR ROUTE RELAYS IN GROUND SUPPLY 5 | | UT | |
| 45* | INCREASED CROSS CONNECTING FACILITIES FOR USE WITH CODE CONVERSION FEATURE | | UV | |
| 46 | ADDITIONAL SELECTION AND CONTROL RELAY FOR GENERAL USE | 82 | EF,EQ, GK,IE, IU,JH, KB,LH, MB,MT, QX,PC, QK,RE, RT,TB, UD,ZVA, ZVI,ZVR ZYH | 1 PER MKR |
| 47* | TO BLOCK THE MARKER WHEN THE AMA3 RELAY FAILS TO OPERATE | | MM | |
| 48* | PROVIDE CROSS DETECTION BETWEEN TERM. HUNTING AND NON-HUNTING RINGING COMBINATIONS | | SC | |
| | TO PROVIDE DETECTION OF A FALSELY OPERATED TNK RELAY(SEE NOTE 182b) | | ZKI | |
| 49 | MULTICONTACT RELAYS WITH SILVER CONTACTS | | SG | |
| 50* | TO PREVENT BYPASSING THE PERMANENT SIGNAL OVERFLOW CHECK PATH ON CALLS REQUIRING (NCCN) RELAY | | SS | |
| 51 | TO PROVIDE CANCEL RINGING SWITCH OPERATION FEATURE | | TM | |
| 52 | TO PROVIDE PBX RECYCLE ON 1ST FAILURE TO MATCH AND TO IMPROVE NUMBER GROUP TROUBLE DETECTION FEATURES | | TY, KP, XY | |
| | TC ELIMINATE MOMENTARY OPERATE PATH FOR THE LB RELAY WHEN OPTION KP IS PROVIDED | | ZIL | |
| 53 | 10 DIGIT LOCAL COMPLETION LAMA OR CAMA | | ZI | |
| 54* | TO CANCEL ACCESS "1" REQUIREMENTS FOR SPECIAL CLASSES OF SERVICE | | RC | |
| 55 | TO PREVENT TROUBLE CARDS ON NO-TEST CALLS TO A CENTREX LISTED DIR NO. | | SZ | |
| 56 | REPLACEMENT OF 280 TYPE RELAYS WITH 316 TYPE | | RL,IY LO | |
| 57* | COMMON OR SEPARATE TRUNK GROUPS FOR LINE LINK FR INTERCEPT | | QE | |
| 58 | MAXIMUM OF 10 O.S.L. SELECT MAG OPERATION | | QF, ZPX | |
| 59* | IMPROVED EQUALIZATION OF ODD OR EVEN TRUNK SELECTIONS | | QN | |
| 60* | ROUTE ADVANCE TO REGISTER BUSY TONE FROM ROUTES IN GROUND SUPPLIES OTHER THAN GROUND SUPPLY SIX | | QO | |

102(C). (CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 61 | 4 DIGIT INTRA-PBX AND 5 DIGIT INTRA-PBX CALLS IN SAME MKR GROUP | | QH | |
| 62* | TO PROVIDE CL9 RELAY (ADDITIONAL CLASS INFORMATION TO SENDERS) | | OJ | |
| 63 | TO ACTIVATE THE SF TIMER WHEN WAITING FOR THE NO. GROUP ON DTF CALLS TO THE ATTENDANT OR BUSY LINE TRANSFER CALLS | | ZUE | |
| 64 | TO IMPROVE MAINTENANCE AND TO PREVENT FALSE TBL CARDS IN OFFICES WITH LLP | | OV | |
| 65 | TO PREVENT LOSS OF THE CDN MARK WHEN A TROUBLE CARD IS TAKEN ON AN ATTENDANT TRUNK TEST CALL | | OX | |
| 66 | TO PROVIDE FOR FREE NUMBER OPERATION WHEN THE CANCEL RINGING SWITCH OPERATION FEATURE IS PROVIDED | | OZ | |
| 67* | TO PROVIDE ADDITIONAL SCREENING OF TRANSLATION INDICATIONS AND NO. GROUP STARTS | | NB | |
| 68* | TO ELIMINATE TONE ROUTE SCREENING ON TOG AND TRF CALLS | | ND | |
| | TO PREVENT FALSE TCO PEG COUNTS ON TOG CALLS TO OVERFLOW | | ZUC | |
| 69 | 280 RELAY, SILVER CONTACT SCREWS, TO IMPROVE CONTACT PERFORMANCE | | MH | |
| 70* | TO PREVENT OPERATION OF THE XN RELAY ON TEN DIGIT LOCAL COMPLETION CALLS VIA LLP | | MQ | |
| 71 | REDUCE TROUBLE CARDS ON TRANSITIONS TO PAIRED OR TRIPLE TLF OPERATION | | ME | |
| 72* | TO PREVENT RELAY RACE BETWEEN NMR AND XACS RELAYS | | MJ | |
| 73* | TO SELECT A PARTICULAR PBX ALLOTTED LLP LINE CKT | | MV | |
| 74* | GRD SUPPLY FOR ARN-,BRN-,CR-INFO TO SDR. | | VB | |
| 75* | RES PROVIDED FOR USE WITH OFF. TEST FR | | LZ | |
| 76 | TO PROVIDE ADDITIONAL PEG COUNT LEADS TO THE PLANT REGISTER CITCUIT | | LM, 2J2 | |
| 77* | SCREENING TO SELECT DIAL OR TOUCH-TONE REVERTING TRUNKS | | JD | |
| 78* | TO PROVIDE 120 IPM ON ALL LLP TRUNKS BUSY | | JG | |
| 79* | INCREASE SG- POINTS TO 120 | | IG | |
| 80* | INCREASE SG- POINTS TO 180 | | IH | |
| 81 | TO PROVIDE SEP PEG COUNT LEADS FOR 2-WIRE, 4-WIRE AND PAIRED LINE LINK OPERATION ON TOTAL ORIGINATING, OFF. OVERFLOW, AND THRU SWITCHED TRAFFIC | | IN | |
| | ONE UP CHECK FOR MF AND DP RELAYS TO INSURE TOTAL ORIGINATING PEG COUNT (WU OPTION PROVIDED) | | ZLU | |
| 82 | TO PROVIDE RESISTANCE LAMPS IN BATTERY SUPPLY FOR RB PCH AND FOR SELECTED ROUTE SERIES RELAYS | | ZNY, GO | |
| 83* | TEST CONT FOR PBX BLK SELECTION PROVIDED (NON-ALLOTTED) | | GV | |
| 84* | TO ARR FLEX. RTE SERIES REL FEATURES FOR USE ON ROUTES REQUIRING BOTH AMA AND TRK CLASS INFO ON SAME CALL | | ZPY | |
| 85* | TO PROVIDE FOR TRAFFIC SAMPLING ON ROUTES REQUIRING BOTH AMA AND TRK CLASS INFO ON SAME CALL | | ZPV | |
| 86* | TO PERMIT "OR" & "FAC" MARKS TO IND CODE PATTERN ON 7 AND 10 DIG. AMA CALLS | | GW | |
| 87 | WHEN RINGING MUST BE CANC FOR 4-WIRE LINE LK INCPT TRUNKS TO PREVENT SHORT OFF HOOK SUP. SIG. TO INC TRK | | ZOP | |
| 88* | SOG TST CAL: BLOCKING WITH OFF. TST FR | | ZOX | |
| 89 | ADDITIONAL OFF NORMAL GROUNDS | | FE | |
| 90* | PROVIDE TBL PCH ON XFC CROSS DETECTION | | DH | |
| 91* | TO PREVENT FALSE OPERATION OF XRC RELAY ON CALLS TO FREE NO. HUNTING GROUPS WHEN OPTION TH IS PROVIDED | | DM | |
| 92* | TO PERMIT ASSN OF A PBX HUNTING GROUP WITH MORE THAN ONE TBS- RELAY | | DO | |
| 93* | TO PROVIDE RINGING ON TIP CONDUCTOR FOR BLANK NO. INCPT CALLS | | DQ | |
| 94* | IMPROVED GROUP ALLOTTER TESTING WITH OFFICE TEST FR | | FU | |

102(C). (CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 95 | TO INSURE LIGHT TRAFFIC OPERATION ON MARKER TEST CALLS WHEN HEAVY TRAFFIC OPERATION IS NOT REQUESTED | | QB | |
| 96 | TO PREVENT TROUBLE CARDS WHEN HOLD MAGNET OPERATES BEFORE COMPLETION OF LINE IDLE TEST | | CA | |
| 97 | IMPROVED HOLDING CKT ON GROUND TEST FAILURES | | CB | |
| 98 | RESISTANCE LAMP FOR BS2 LEAD | | CJ | |
| 99 | RELAY CODES CHANGED TO PROVIDE ADDITIONAL CONTACTS FOR GENERAL USE | | AZ, BX, CP, FD, ZWO, ZXO | |
| 100* | IMPROVED (RCL) CONTACT ARRANGEMENT | | CR | |
| 101 | PREVENT FALSE OPERATION OF THE SF TIMER ON 4 DIGIT INCOMING CALLS | | BC | |
| 102 | IMPROVE OPERATING LIMITS OF TMK RELAY | | BJ | |
| 103 | IMPROVE ARRANGEMENT FOR TRUNK SERVICE OBSERVING | | UA | |
| 104* | ADDITIONAL ROUTE TRANSFER RELAYS | | BS | |
| 105* | CHECK OF TA,TE AND OT RELAYS | | BP | |
| 106* | TO PREVENT FALSE OPERATION OF THE XN RELAY DUE TO RELAY RACE OF NE AND KK RELAYS WHEN LPI RELAY IS OPERATED | | JO | |
| 107 | IMPROVED EQUIPMENT ARRANGEMENT FOR CHANNEL TEST UNIT | | DF | |
| 108 | PRIVATE LINE NETWORK DIGIT 8 ACCESS CODE PROVIDED FROM — ORIGINATING REGISTERS | | QB | |
| | INCOMING REGISTERS | | CW | |
| 109 | RECORDS OF SELECTED TRAFFIC CONDITIONS | 110 | | 1 PER MKR |
| | IMPROVED TRAP CKT OPERATION | | AT | |
| 110* | CHECK AIOD AND OC RELAY OPERATION ON TEST CALLS | | ZXV | |
| 111* | PERMIT SCREENING BY INCOMING TRANSLATOR MARKS | | ZST | |
| 112* | TO PERMIT ASSIGNING CENTREX TEST NUMBERS IN AN ADDED THOUSAND SERIES HUNDREDS BLOCK | | ZZE | |
| 113 | IMPROVED CROSS CHECK ON FTN- RELAYS | | ZPD | |
| 114 | TO PROVIDE FOR TRUNK LINK FRAMES EQUIPPED WITH 12 LEVEL JUNCTOR SWITCHES | 150 | ZLC | 1 PER MKR |
| | TO INSURE PROPER FUNCTIONING OF JUNCTOR SELECT CROSS DETECTION | | ZOT | |
| 115* | DETECTION OF OPEN BUSY TEST LEADS TO 2-WAY TRUNKS | | JC, ZHP | |
| | IMPROVED TESTING ARRANGEMENT | | ZTW | |

* SEE NOTE 181.

DRAWING ISSUE

60A

| DRAWING ISSUE |
|---|
| 32D TJW GDL AHD |
| 33D TJW GDL AHD |
| 34A TJW AHD ZK |
| 35D TJW AHD ZK |
| 36A AHD |
| 37D AHD |
| 39D ZJ |
| 41D |
| 43B |
| 45D |

COMPLETING MARKER CIRCUIT

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BELL TELEPHONE LABORATORIES INCORPORATED

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CIRCUIT NOTES: (CONT)

102(C). (CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | APP FIG | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 116* | TO PROVIDE 7 OR 10 DIGIT OUTPULSING OR DIAL MOBILE RADIO WITH LINE LINK PULSING | | OM | |
| 117* | TO PROVIDE CROSS CONNECT ACCESS FROM I- TO SC- TERMINALS FOR INC.. TRK CLASS SCREENING FOR CENTREX RESTRICTED INCOMING SERVICE WHEN TENS BLOCK SCREENING IS PROVIDED. | | ZNA | |
| 118 | TO PREVENT FALSE TBL CARDS ON "UNASSIGNED LINE-LINE TEST" IN MARKERS WITH CALLING LINE IDENTIFICATION FEATURES. | | ZNC | |
| 119* | TO PROVIDED CENTREX INC RESTRICTED SERVICE FOR STATIONS REACHED VIA LLP ON A HUNDREDS BLOCK BASIS. | | JV | |
| 120 | TO RETURN OVERFLOW ON TERMINATING CALLS TO LINE LINK PULSING TRUNKS WHEN TROUBLE IS DETECTED AFTER THE LINE LINK PULSE NO. GROUP USAGE | | FI | |
| 121* | TO PREVENT OPERATION OF THE (XN) RELAY DURING PERIODS OF HEAVY INTRAOFFICE TRAFFIC WHEN BOTH INTRAOFFICE AND LINE LINK PULSING TRUNK GROUPS ARE ALLOTTED | | FG | |
| 122* | TO PERMIT CANCELLATION OF INTERCEPT ON NPA-411 CALLS AND NPA-NOX/NIX CODES | | GY | |
| 123* | TO PROVIDE TEST ACCESS FOR CROSS CONNECTION CHECKING | | ZMY | |
| 124 | TO BYPASS THE DOWN CHECK OF THE (DLTC) RELAY ON SECOND TRIAL CALLS TO CENTREX STATIONS | | EG | |
| 125 | TO PREVENT FALSE XTS TROUBLE PUNCH ON LINE LINK PULSING TEST CALLS, OR TO PREVENT EXTRA TROUBLE CARD ON INTRAOFFICE TEST CALLS TO LINE LINK PULSE STATION | | DD | |
| 126 | TO PREVENT NON-PRODUCTIVE TROUBLE RECORDS IN PHASE III CENTREX OFFICES WHEN THE AUTOMATIC MONITOR IS ARRANGED TO MONITOR THE TRANSFER REGISTER | | CC | |
| 127 | TO PERMIT TESTING OF RANGE EXTENDERS BY THE OFFICE TEST FRAME TEST CKT | | AH | |
| 128* | TO PROVIDE "HF" INDICATION TO NT TRUNKS FROM THE FIRST LINE OF A 2 LINE NUMBER HUNT GROUP | | ZKD | |
| 129 | TO PROVIDE A DOWN CHECK FOR THE GLT TIMER, PREVENT SCORING THE GRO AND GRA PLANT REGISTERS ON GLARE TEST CALLS, AND PREVENT POSSIBLE FALSE NGK1 TROUBLE PUNCH WHEN GLARE DETECTION IS PROVIDED | | ZYB | |
| 130 | TO PREVENT POSSIBLE OPERATION OF THE RINGING SWITCH HOLD MAGNET WHEN A CROSS IS DETECTED IN THE NO. GROUP RINGING INFORMATION | | ZYE | |
| | | | | |
| 131 | 855 BATTERY SUPPLY TO TRUNK LINK CONNECTOR | | ZYM | |
| 132 | TO PERMIT TRANSFER START TROUBLE RECORDS ON HEAVY TRAFFIC | | ZK. | |
| 133 | TO ALLOW THE RINGING SWITCH TO BE SET TO OVERFLOW WHEN A CROSS OTHER THAN "XRS-" IS ENCOUNTERED ON AN INCOMING CALL | | ZJF | |

* SEE NOTE 181.

102(C).(CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | APP FIG | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 134 | TO PREVENT TROUBLE RECORD ON 1ST TRIAL CALLS TO PLUGGED-UP CENTREX LINES | | ZYW | |
| 135* | TO PROVIDE TREATMENT OF CCSA INTERCEPT IN THE LOCAL OFFICE WHEN AIS IS PROVIDED | | ZYY | |
| 136 | TO PROVIDE THE SAMPLE CHANNEL-PAIRED LINE LINK PEG COUNT LEAD ON A PER MARKER BASIS | | ZXD | |
| 137 | POSITIVE TEST CALL CONTROL WITH OFFICE TEST FRAME | | ZYZ | |
| 138 | REDUCE CONTACT EROSION ON FAK AND FBK CONTACTS | | ZYU | |
| 139 | TO PREVENT FALSE LOLD TROUBLE PUNCH ON SPECIAL CALLS | | ZXX | |
| 140* | TO ROUTE RINGER TEST CALLS DIRECTED TO LINE LINK PULSING STATION NUMBERS TO RBT | | ZWC | |
| 141 | TO PROVIDE CROSS CONNECTABLE SELECTION OF EITHER TOLL CHARGE OR LOCAL CHARGE CONDITIONS ON ALL LOCAL COMPLETING CAMA CALLS | | ZWI | |
| 142* | IMPROVED MKR DISCONNECT FOR TRK GRP TRAFFIC SAMPLE TEST CALLS | | ZMD | |
| 143 | TO IMPROVE TIPR PEG COUNTS AND TO PREVENT FALSE TIP IFM AND FM PEG COUNTS IN OFFICES WITH SOME BUT NOT ALL LINE LINK FRAMES PAIRED. | | ZWY, ZXS | |
| 144 | TO PROVIDE REGISTRATION OF THE L DIGIT | | EL | |
| 145* | TO ALLOW SAMPLING TO BE CANCELLED ON TRAFFIC SAMPLE CUSTOMER'S IAO ROUTES | | ZWM | |
| 146* | TO INSURE RELEASE OF AUDIO LINKAGE FOLLOWING TROUBLE RECORD ON CALLBACK PORTION OF WIDEBAND IAO CALL. | | ZNE | |
| 147* | TO PERMIT MASTER TEST FRAME SELECTION OF ALLOTTED LINE LINK PULSING LINE CIRCUITS ASSIGNED TO THE SECOND OR SUCCEEDING TENS BLOCK OF THE (A) NUMBER GROUP | | ZVE | |
| 148* | TO PROVIDE A RESISTANCE LAMP IN THE BATTERY SUPPLY FOR PUNCHING LCB | | ZVL | |
| 149 | BLOCK INCOMING REORDER PLANT REGISTER ON 2ND TRIAL AND TEST CALLS | | ZVQ | |
| 150* | TO PREVENT MARKER BLOCKAGE ON CALLS TO PBX HUNT GROUPS ARRANGED FOR BUSY LINE TRANSFER | | ZVN | |
| | | | | |
| 151 | MARKER GROUP EQUIPPED FOR IMPROVED CHANNEL TESTING WITH MASTER TEST FRAME | | ZVB | |
| 152 | TO PREVENT AN (IFM) PEG COUNT WHEN LINE BUSY AND FAILURE TO MATCH CONDITIONS ARE ENCOUNTERED SIMULTANEOUSLY IN 10TLF SIZE OFFICES | | ZVD | |
| 153* | TO PREVENT POSSIBLE PREMATURE RELEASE OF 316 TYPE (LXP) RELAY ON CALLS INVOLVING MESSAGE RATE LINES | | ZUG | |
| 154 | TO PROVIDE ADDITIONAL TRAFFIC REGISTER COUNTS FOR: INCOMING ATTEMPTS TO BUSY LINES AND INCOMING ATTEMPTS TO PBX LINES | | ZUM | |
| 155* | IMPROVED CHECK CKT FOR AMA RELAYS | | ZPC | |

102(C). (CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | APP FIG | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 156* | TO PREVENT FALSE OPERATION OF THE (XN) RELAY ON DTF CALLS DURING PERIODS OF HEAVY TRAFFIC WHEN ATTENDANT LINE CIRCUITS ARE ALLOTTED | | ZUK, ZTP | |
| 157* | TO PREVENT SCORING THE TOTAL CHANNEL (TCH) AND SAMPLE CHANNEL (PCSC) PEG COUNT REGISTERS ON DIAL TONE CALLS WHEN THE MARKER IS USED WITH THE ORIGINATING LINE IDENTIFIER | | ZUV | |
| 158 | TO ENSURE SLK RELEASE ON OGT TESTS IN 4-WIRE OFFICES | | ZTG | |
| 159 | TO PROVIDE A TRAFFIC REGISTER COUNT OF INCOMING FIRST FAILURES TO MATCH CONDITIONS (SEE NOTE 177) | | ZUS, ZKL | |
| | TO PROVIDE IFFM (2W) TRAFFIC REG PEG COUNT ON A ONE PER MARKER BASIS — YES | | ZFG | |
| | TO PROVIDE IFFM (2W) TRAFFIC REG PEG COUNT ON A ONE PER MARKER BASIS — NO (A&M) | | ZFF | |
| | TO ASSURE A COUNT OF 1ST FAILURES TO MATCH FOLLOWING A LINE BUSY RECYCLE | | ZMT | |
| 160 | TO PREVENT ORIGINATING TRAFFIC PEG COUNTS ON TEST CALLS | | ZTT | |
| 161 | TO PREVENT EXCESSIVE TROUBLE INDICATIONS ON CALLING LINE IDENTIFICATION ON TERMINATING CALLS | | ZUY | |
| 162 | TO PROVIDE NOB PERFORATION ON ORIGINATING REGISTER TESTS | | ZRE | |
| 163* | TO ALLOW COMPLETION OF TEST CALLS TO THE INCOMING TRUNK TEST LINE CKT WHEN INCOMING TRUNK CLASS MATCH IS PROVIDED | 168 | 1 PER MKR | |
| 164 | TO ELIMINATE DOUBLE TRAFFIC AND PLANT REGISTER COUNTS ON INTRAOFFICE LINE LINK PULSING CALLS | | ZSH | |
| 165* | TO DISABLE BUSY LINE TRANSFER ON SPECIAL CALLS | | ZSL | |
| 166* | TO ADD RCN8 TO TENS BLOCK SCREENING FIELD | | ZSZ | |
| 167* | TO PERMIT CANCELLATION OF AMA SIGNAL TO SENDER ON TEST CALLS | | ZSS | |
| 168 | TO PROVIDE POSITIVE TEST FRAME CONTROL OF THE "MATE FRAME EARLY BUSY" CONDITION FOR PAIRED LINE LINK TEST | | ZSP | |
| 169 | TO PREVENT FALSE PEG COUNTS WHEN THE LINE APPEARANCE OF TRUNKS ARE ASSIGNED TO A VERTICAL FILE ASSOCIATED WITH A CENTREX CUSTOMER | | ZSC | |
| 170 | REDUCE 2ND TRIAL TROUBLE RECORDS AND HIGH AND DRY CONDITIONS ON INCOMING CALLS AND REDUCE TROUBLE RECORDS DUE TO INSUFFICIENT NUMBER OF DIGITS ON TERMINATING CALLS. | | ZYJ, ZRD, ZNG | |
| | REDUCE TROUBLE INDICATIONS DUE TO DTI LINK RELEASE (PHASE III CENTREX) | | ZRU | |
| 171* | TO ALLOW CANCELLATION OF WIDEBAND CLASS MISMATCH CIRCUITRY ON SELECTED TEST CALLS | | ZRY | |
| 172* | TO PROVIDE REGULAR INTERCEPT TREATMENT FOR CENTREX CUSTOMERS REACHED VIA LLP WHEN FIRST NUMBER GROUP IS NOT PROVIDED | | ZQQ | |
| | WHEN NON-DISCRIMINATING NUMBERS TRUNK CLASS (ISE, 2SA, 3NA) ARE USED FOR FOUR DIGIT INCOMING AND AUTOMATIC INTERCEPT IS PROVIDED — USING LLP | | ZEP | |
| | WHEN NON-DISCRIMINATING NUMBERS TRUNK CLASS (ISE, 2SA, 3NA) ARE USED FOR FOUR DIGIT INCOMING AND AUTOMATIC INTERCEPT IS PROVIDED — WITHOUT USING LLP | | ZED | |
| 173 | TO PREVENT ARCING OF THE LV-CONTACTS ON THE TLF ROUTE ADVANCE AND RECYCLE | | ZQB | |
| 174* | TO PREVENT TROUBLE RECORD IN PHASE III CENTREX OFFICES WHEN ATT LINES ARE ALLOTTED AND ATTENDANT INADVERTENTLY DIALS ZERO | | ZQF | |
| 175 | ASSOCIATION OF 4DG AND 5DG TBL CARD PUNCHES WITH LEADS TO SENDER | | ZMQ | |

102(C).(CONT)

| PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 176 | TO PROVIDE AN AIS SENDER USAGE PLANT REGISTER COUNT WHEN AIS WITHOUT USING LLP IS PROVIDED. | | ZMV | |
| 177 | TO PROVIDE PROTECTION FOR CONTACTS CONTROLLING POLAR RELAYS | | ZLA, ZLC, ZMM | |
| 178 | PREVENT CHANNEL PEG. COUNTS (TCH AND PCSC) WHEN A LINE BUSY IS ENCOUNTERED | | ZPH | |
| 179 | TO INSURE PROPER LF- RELAY OPERATION WHEN THE NO- TEST UNIT IS MOUNTED ON THE RELAY RACK | | ZQH | |
| 180 | TO ALLOW USE OF STANDARD RINGING COMBINATIONS FOR UNIGUAGE CUSTOMERS | | ZQL | |
| | SPECIAL MARKER 0 & 1 — YES | | ZJO | |
| | SPECIAL MARKER 0 & 1 — NO | | ZJN | |
| | | | | |
| 182* | TO PROVIDE SENDER OPERATION ON WB REQUESTS COMPLETING ON A NON-WB BASIS | | ZQV | |
| 183 | TO PROVIDE TROUBLE RECORD ON OPEN PRIMARY WINDING OF DCT RELAY | | ZPG | |
| 184 | IMPROVED CONTACT PROTECTION NETWORK FOR CONTINUITY TEST CKT | | ZPK | |
| 185 | TO ROUTE RINGER TEST CALLS DIRECTED TO DIRECT ACCESS 101 ESS STATION NUMBERS TO RBT | | ZPP | |
| 186 | TO PREVENT RELEASE OF FORWARD LINKAGE WHEN A TROUBLE RECORD IS REQUESTED ON AN INTRA-OFFICE TEST CALL | | ZMT | |
| 187* | TO IDENTIFY WHICH PBX LINE WAS INVOLVED ON AN IAO NUISANCE CALL TROUBLE RECORD CARD | | ZMS | |
| 188* | TO PREVENT TROUBLE RECORD ON CALLS TO UNEQUIPPED NUMBER GROUPS WHEN AIS WITHOUT USING LLP IS PROVIDED AND BLANK NUMBER INTERCEPT IS NOT ROUTED TO THE AIS CENTER | | ZMX | |
| 189* | TO PREVENT LOSS OF DIALING PROTECTION FOR CALL WAITING SUBSCRIBER ON PERMANENT SIGNAL CALLS | | ZML | |
| 190* | TO PREVENT OPERATION OF F2 BATTERY FUSE WHEN AN EXCESSIVE NUMBER OF CT-RELAYS ARE OPERATED | | ZLG | |
| 191* | PROVIDE ADDITIONAL FOREIGN AREA TRANSLATOR START LEADS | | ZLB | |
| 192* | TO PREVENT FALSE TRANSVERTER TROUBLE CARDS CAUSED BY FAILURE OF THE MKR AMA1 RELAY | | ZL | |
| 193 | TO PROVIDE CROSS DETECTION FOR OSG-RELAYS AND TO PREVENT FALSE OPERATION OF OSG- RELAYS DURING TRUNK GUARD TEST | | ZJB | |
| 194 | TO INSURE TEST CIRCUIT RELEASE WHEN LINE BUSY IS ENCOUNTERED ON TEST CALLS TO PARTICULAR LLP LINE CIRCUITS ASSIGNED TO BLOCK SELECT HUNTING GROUPS | | ZLE | |
| 195* | TO INSURE NUMBER GROUP RESEIZURE ON PBX ALLOTTER CALL AFTER ROUTE ADVANCE TO ALTERNATE IAO TRUNK GROUP | | ZLS | |
| 196 | TO PREVENT THE TCO TRAFFIC REGISTER FROM SCORING ON TEST CALLS | | ZKG | |
| 197 | TO PROVIDE IMMEDIATE RELEASE OF THE ORIGINATING REGISTER ON PARTIAL DIAL CALLS WHEN ALL PARTIAL DIAL TRUNKS AND ALL TONE TRUNKS ARE BUSY | | ZKP | |
| 198* | TO ALLOW A PBX RECYCLE IF LLP LINES ARE SERVED BY MORE THAN ONE SENDER GROUP AND THE MARKER ENCOUNTERS ALL SENDERS BUSY ON AN INTRA-OFFICE LLP CALL WHERE THE INTRA-OFFICE TRUNKS ARE ALLOTTED | | ZJM | |

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COMPLETING MARKER CIRCUIT (2)

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BELL TELEPHONE LABORATORIES INCORPORATED

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CIRCUIT NOTES: (CONT)

| 102(C). (CONT) PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 199 | TO PREVENT OPERATION OF PEG COUNT RELAYS ON OFFICE TEST FRAME TST CALLS | | ZIF | |
| 200 | TO PREVENT THE SENDER FROM POSSIBLY APPEARING IDLE BEFORE THE (RO) RELAY RELEASES AND TO PREVENT CONTACTS OF TWO OUTSENDER CONNECTOR (S) RELAYS FROM POSSIBLY BEING CLOSED TOGETHER DURING MARKER REORDER FUNCTIONS | 181 | | ONE PER MARKER |
| 201 * | TO ENABLE THE SO-9 LEADS TO THE TRAFFIC REGISTER CKT TO BE USED FOR PEG COUNTS OF THROUGH SWITCHED CALLS PER INCOMING TRUNK CLASS | | ZHF | |
| 202 | TO PREVENT FALSE XT5 TROUBLE RECORD CARD ON RECYCLE DUE TO CLASS-OF-SERVICE MISMATCH ON CALL FROM A CENTREX STATION TO A LLP NUMBER WHEN APP FIGURE 96 IS PROVIDED. | | ZHK | |
| 203 | TO ALLOW THE TRUNK BUSY TIMER (TBT) TO CONTINUE TO FUNCTION AFTER TRUNK LINK FRAME SEIZURE ON TEST CALLS TO BUSY PERMANENT SIGNAL TRUNKS WHERE THE PERMANENT SIGNAL TEST FEATURE IS PROVIDED. | | ZHS | |
| 204 | TO PREVENT FBK TROUBLE RECORDS ON FAILURE-TO-MATCH CONDITIONS WHEN SERVING INTRA OFFICE COIN CALLS OR DIRECT ACCESS TO 101 ESS CALLS WHICH TERMINATE TO HUNT LINES. | | ZHX | |
| 205 | TO PROVIDE CODE PATTERN CHECK ON DIRECTORY ASSISTANCE CHARGE CALLS (SEE NOTE 167) | | ZHI | |
| 206 * | TO PREVENT AN AICK FAILURE AND TROUBLE RECORD ON RECYCLE WHEN AN IAO CALL TO AN INTERCEPTED NUMBER ENCOUNTERS A FAILURE-TO-MATCH (FM) CONDITION WHEN MARKER IS EQUIPPED FOR AIS WITHOUT USING LLP (A&M). | | ZGF OR ZGH | |
| 207 | TO PROVIDE MEANS TO RECOGNIZE CROSSED RC LEADS TO THE TRUNK LINK FRAME | | ZGM | |
| 208 | TO BLOCK MARKER WHEN CS DISTRIBUTED BY ETS PROCESSOR DOES NOT MATCH CS RECEIVED FROM LLF | | ZGV | |
| 209 * | TO PREVENT UNPRODUCTIVE FIRST TRIAL TROUBLE CARDS WHEN A CUSTOMER DIALS A NUMBER ASSIGNED TO AN LLP TRUNK IN A PBX ALLOTTED HUNTING GROUP WHICH IS ROUTED TO BLANK NUMBER INTERCEPT VIA AIS USING LLP | | ZGX | |
| 210 | REPLACEMENT OF 475 SERIES WITH 535 SERIES CAPACITORS | | ZFO | |
| 211 | TO PREVENT MARKER BLOCKAGE ON REVERTING CALLS IN AN ETS OFFICE WHEN OPTION KP IS PROVIDED | | ZFQ | |
| 212 | TO PREVENT AN ERRONEOUS SCORE OF THE ALLOTTED IPC- PEG COUNT REGISTER DURING THE CALL FORWARD USAGE ON AN IAO TYPE CALL | | | |
| 213 | REPLACEMENT OF VARIOUS 177C NETWORKS WITH 186D | | ZEH, ZEJ, ZEL, ZEN, ZEP, ZER | |
| 214 | TO PREVENT MULTIPLE XT TROUBLE CARDS FROM DIAL PULSE INC REG WHEN ETS IS PROVIDED IN A MARKER WITH OPTION ZYJ | | ZEU | |
| | | | | |

| 102(C). (CONT) PAR. | FEATURES AND OPTIONS PROVIDED AFTER DATE OF INTRODUCTION INTO MANUFACTURE. WHEN ADDING THESE FEATURES TO EXISTING MARKERS PROVIDE THE CORRESPONDING OPTIONS | APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|
| 215 | TO PREVENT OVERHEATING OF XLR RELAY WHEN MARKER IS MAINTAINED BUSY FOR AN EXTENDED PERIOD OF TIME | | ZCK | |
| 216 | TO PREVENT POSSIBLE DOUBLE SCORING OF CLASS OF SERVICE PEG COUNT REGISTER ON PERMANENT SIGNAL TEST CALLS | | ZCN | |
| 217 | REPLACEMENT OF 59H RESISTORS WITH KS-8512 RESISTORS | | ZCV, ZCX | |
| 218 | TO ROUTE RINGER TEST CALLS TO RBT FOR CALLS DIRECTED TO REGULAR INTERCEPT TREATMENT FOR CENTREX CUSTOMERS REACHED VIA LLP | | ZCY | |
| 219 | TO PREVENT SCORING OF THE "OF" TRAFFIC REGISTER ON ALLOTTED SENDER GROUPS WHEN THE FIRST GROUP IS FOUND BUSY | | ZBE | |

* SEE NOTE 181.

COMPLETING MARKER CIRCUIT

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CIRCUIT NOTES: (CONT)

102(D) REUSE OPTION TABLE-SEE NOTE 186

| PAR | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER | | | | APPARATUS AND WIRING CHANGES REQUIRED IN REUSE MARKER | | |
|---|---|---|---|---|---|---|---|
| | APP FIG | OPTION | FOR DESCRIPTION OF FEATURE SEE NOTE 102B PAR | NOTE | ADD | REMOVE | CONDITION |
| 1 | 86 | TF,ZSZ | 41 | | ZGK | | |
| 2 | 113 | NH,NQ, ZSF,ZSP, ZTM,ZUP, ZKD | 57 | | ZGO | | |
| | | ZFE | | | ZFD | ZFE | * |
| | | ZFK | | | ZFJ | ZFK | * |
| | | NT | | | NJ,NP, OR NK | NT | * |
| | | NJ | | | NT,NP, OR NK | NJ | * |
| | | ZTQ | | | ZTN | ZTQ | * |
| 3 | | | | | | | RESERVED |
| 4 | | | | | | | RESERVED |
| 5 | 88,89, 91 | DD,FG, FI,IA, JZ,MX, OM,QL, ZUK,ZUR, ZJU, ZKS,TU, ZWB,ZWC, ZMK,OP, OQ,ZVE, ZOF | 42 | | ZES | | LLP OR AIS USING LLP NOT PROVIDED IN MKR GRP |
| | | | | | ZDL | | IF AIS WITHOUT USING LLP (OPTION ZGH) IS PROVIDED IN MKR GROUP |
| | | | | | ZDM | | IF OPTION ZGG PROVIDED IN MKR GROUP |
| | | ZGE | | | ZGF | ZGE | * |
| | | ZYR | | | ZYO | ZYR | * |
| | | ZLE | | | ZLD | ZLE | * |
| | | ZMJ | | | ZMK | ZMJ | * |
| | | ZQT | | | ZQU | ZQT | * |
| | | GP | | | GQ | GP | * |
| | | GQ | | | GP | GQ | * |
| | | JQ | 34,42 | | JP | JG | * |
| | | JP | | | JQ | JP | * |
| | | ZOC,ZXP | 42 | | ZOE | ZOC,ZXP | * |
| 6 | 105 | | | | ZET | | |
| | | | | | ZDU | | TRAFFIC SAMPLING PROVIDED IN OTHER MARKERS |
| | | ZOA,ZMQ ZPV,ZWM, LW OR AV OR LX | 49 | | NONE | | |
| | | EX | | | EW | EX | * |
| | | EW | | | EX | EW | * |
| | | | | | | | |
| | 146 | | | | ZDV | | |
| | | NG,PJ, LY,PI | | | APP FIG 105,AV | NG,PJ, LY,PI | * |
| | | IJ,EF | | 106 | NONE | | |
| 7 | 128 | AE | 66 | | AD | AE | |
| | | IC | | | TB | IC | |
| | | ZGX | | | ZGW | ZGX | |
| | | ZYY | | | NONE | | |
| | | IW | | | IV | IW | * |
| 8 | 96,168, 182 | SP,DX, MR,ZQY | 43 | | SO | ZDP | NONE |
| | | ZDQ WITH SP | | | SN,ZCC | ZDQ | * |
| | | ZMA | | | ZMB | ZMA | 2 SORTS AND MAX OF 60 CLASSES OF SERVICE |
| | | ZMB | | | ZMA | ZMB | 2 SORTS AND MAX OF 30 CLASSES OF SERVICE |
| | | ZWG | | | ZWF | ZWG | * |
| | | ZDS | | | DY | ZDS,ZGN | * |
| | | ZHC | | | SP | ZHC | * |
| | | | | | APP FIG 182 | | |
| | | ZQZ | | | ZQY | ZQZ | * |

102(D) (CONT)

| PAR | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER | | | | APPARATUS AND WIRING CHANGES REQUIRED IN REUSE MARKER | | |
|---|---|---|---|---|---|---|---|
| | APP FIG | OPTION | FOR DESCRIPTION OF FEATURE SEE NOTE 102B PAR | NOTE | ADD | REMOVE | CONDITION |
| 8 | | ZGP | 43 | | | | NONE |
| | | QW | | | QV | QW | * |
| | | QV | | | QW | QV | * |
| | | ZDR | | | QT | ZDR | * |
| | | QT OR QS | | | ZDR WITH APP FIG 182 | QT OR QS | * |
| | | DY | | | ZDS,ZGN, DX | DY | * |
| | 53 | | | 106(80) | CROSS CONNECT INC TRUNK CLASS OPTION DT TO SIMULATE OPTION DU AND DV AS REQUIRED. CROSS CONNECT TC1,TC2, TAC1,TAC2,TOCO,TCBO,TOC2 AS REQUIRED. | | |
| | | SN WITH ZCC | 43 | | PF | ZCC | * |
| | | | | | ZDQ OR ZPA | | * |
| 9 | 81 | | 58 | | NONE | | |
| | 123 | | | | ZEV | | |
| | | VM | | | NONE | | |
| | | VJ | | | VH | VJ | |
| | | VD | | | GG | | IF MARKER NOT ARRANGED FOR DUPLICATE NUMBER GROUPS |
| | | NN | | | NONE | | |
| | | LB | | | NONE | | |
| | | ZZI | | | NONE | | |
| | | ZTG | | | ZTF | ZTG | * |
| | | ZQP | | | NONE | | |
| | | AK | | | AJ | AK | * |
| | | ZFC | | | ZFB | ZFC | * |
| | | ZFB | | | ZFC | ZFB | * |
| | | ZRW | | | ZRV | ZRW | * |
| | | ZRV | | | ZRW | ZRV | * |
| | | VF | | | VG | VF | * |
| | | VG | | | VF | VG | * |
| | | AU | | | ZZO | AU | * |
| | | ZZO | | | AU | ZZO | * |
| | | GU | | | NONE | | |
| | | AQ | | | NONE | | |
| 10 | 57 | DC | 21 | | NONE | | |
| 11 | 106,108 | CE,NS | 48 | | NONE | | |
| | 109 | | | | WX | ZDH | * |
| 12 | 112 | CC,ZNA, ZSC,ZYW | 34 | | NONE | | |
| | | GD OR GC | | | ZEZ | GD OR GC | OPTION WX EQUIPPED OTHER MARKERS |
| | 90,102, 103 | EE,JT,JU, JV,RE,UL, ZUE,ZUK, ZQW | | | NONE | | |
| | | EG | | 102C(124) | | | |
| | | AP,EC | | 106 | NONE | | |
| | | KG,MA, JM | 34 | | NONE | | |
| | | GH | | | GJ | GH | * |
| | | RJ | | | RG | RJ | * |
| | | PS,ZCD | | | CHECK NOTE 112 FOR PHASE I & II OPTIONS | PS | PHASE I & II CENTREX EQUIPPED IN OTHER MARKERS |
| | | | | | ZEX | | NO CENTREX EQUIPPED IN OTHER MARKERS |
| | | | | | ZCD | | |
| | | ZTP | | | ZUL | ZTP | |
| | | JK,JO | 34 | | ZCB | JK,JO | |
| | | JY,ZJT, JM | | | NONE | | |

* APPARATUS AND WIRING SHOWN SHALL BE ADDED AND REMOVED IF CORRESPONDING APPARATUS AND WIRING SHOWN IN ADD COLUMN IS EQUIPPED IN OTHER MARKERS, OTHERWISE NO CHANGE IS REQUIRED.

| | | | |
|---|---|---|---|
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CIRCUIT NOTES: (CONT)

REUSE OPTION TABLE - SEE NOTE 186

102(D) (CONT)

| PAR | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER: APP FIG | OPTION | FOR DESCRIPTION OF FEATURE SEE: NOTE 1028 PAR | NOTE | APPARATUS AND WIRING CHANGES REQUIRED IN REUSE MARKER: ADD | REMOVE | CONDITION |
|---|---|---|---|---|---|---|---|
| | 137 | ZWE | | | NONE | | |
| | | ZSW | | | ZSV | ZSW | OPTION EV EQUIPPED IN OTHER MARKERS |
| | | ZQX OR BA | 34 | | CZ | ZQX OR BA | * |
| | | ZLO | | | ZDA | | ZLP EQUIPPED IN OTHER MARKERS, PHASE III CENTREX |
| | | JL | | | JK,JO | JL | * |
| | 163 | | | | NONE | | |
| | | ZWR | | | ZEY | | PHASE III CENTREX REQD & OPTION ZWR NOT EQPD IN OTHER MARKERS |
| | | ZII OR ZPO | | | | | NONE |
| 12 | | ZXK | | | ZXL,ZXP | ZXK | * |
| | | ZOG | 34 | | ZOD | ZOG | OPTION ZXK EQUIPPED IN OTHER MARKERS |
| | | ZXM | | | | | NONE |
| | | ZLL,ZLK | | | | | NONE |
| | | PH | | | | | |
| | | | | | QP | | * |
| | | UH | 31 | | UG | UH | * |
| | | | | | ZIB OR ZIC | | * |
| | 104 | PE | | | ZDB | | OPTION PD EQUIPPED IN OTHER MARKERS |
| | | ZVN | 34 | 102C(150) | | ZVN | |
| | | ZWU, ZWT | | | ZWT | ZWU | * |
| | | ZSL | | | | | NONE |
| 13 | 151,153, 154,155, 156,157 | ZRY,ZRQ, ZRB,ZZS, ZCV,ZZV, ZRR,ZRP, ZRA,ZRC, ZZZ | 84 | | NONE | | |
| | 167 | | | | ZDD | | |
| | | ZNE | | | ZND | ZNE | |
| | 152 | ZZP | | | ZDC,ZDE | ZDF | |
| 14 | 130,134, 164 | ZVW,ZVX | 63 | | NONE | | |
| 15 | | V,ZSM | 2 | | U | V,ZSM | |
| 16 | 62 | | 12 | | NONE | | |
| 17 | | ZSI | 6 | 102C(67) | NONE | | |
| | 78 | UE | | | NONE | | |
| | | UF | | | UG | UF | * |
| | | WY,ZDG, ZDI, ZDJ,ZLG OR ZLF | | | WX | ZDG, ZDI,ZJJ, ZLG CR ZLF | * |
| | 87 | QY,WU, WW | | | NONE | | |
| | | TQ | | | TR | TQ | * |
| 18 | | TR | 31 | | TQ | TR | * |
| | 111 | | | | ZDK | | EXPANDED TERMINATING CLASS-OF-SERVICE TRANSLATION FIELD NOT EQUIPPED IN OTHER MARKERS AND CLASS ON A TENS AND UNITS BASIS |
| | | TO | | | WY | TO | * |
| | | WV | | | NONE | | |
| | | WX | | | SEE NOTES 1028 (31,48), 112 | WX | CLASS-OF-SERVICE ON A UNITS AND TENS BASIS OR ON A ONE-OUT-OF-30 BASIS, WITH PHASE I & II CENTREX EQUIPPED IN OTHER MARKERS |
| | | ZLA | | | NONE | | |
| | | UG | | | SEE NOTE 1028(31) | UG | CLASS-OF-SERVICE ON A UNITS AND TENS BASIS OR ON A ONE-OUT OF-30 BASIS WITHOUT PHASE I & II CENTREX EQUIPPED IN OTHER MARKERS |
| | | PZ | 31 | | | | |
| 19 | 94,139 | PF,TP,RJ, RG,ZZT, ON,JX, ZMG,ZMF, ZNW,OS, OR,ZXA, ZIJ,ZJI | 34 | | NONE | | |
| | | UK | | | DW | UK | * |
| | 114 | QU,QA, PT,PW | | | PS | QA,PT,PW, QU, APP FIG 114 | * |
| | | QP | 31 | | QQ OR UH | QP | * |
| | | ZVV | 34 | | ZVY,ZVU | ZVV | * |
| | | ZVY | | | ZVV | ZVY | * |

102(D) (CONT)

| PAR | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER: APP FIG | OPTION | FOR DESCRIPTION OF FEATURE SEE: NOTE 1028 PAR | NOTE | APPARATUS AND WIRING CHANGES REQUIRED IN REUSE MARKER: ADD | REMOVE | CONDITION |
|---|---|---|---|---|---|---|---|
| | | QQ | | | UF,ZIQ,ZIR WX,QP,QR, UH, APP FIG.111 | QQ | REMOVE QQ IF ANY OF THE OPTIONS SHOWN IN ADD COLUMN IS REQUIRED |
| | | ZIR | 31 | | ZIQ OR QQ | ZIR | * |
| | | ZIQ | | | ZIR OR QQ | ZIQ | * |
| | | ZIB | | | ZIC OR UH | ZIB | * |
| | | ZIC | | | ZIB OR UH | ZIC | * |
| 19 | | PX | | | PY OR PS | PX | * |
| | | PY | | | PS | PY | * |
| | | ZWF | | | ZWG | ZWF | * |
| | | ZWG | 34 | | ZWF | ZWG | * |
| | | ZXJ | | | ZXB | ZXJ | * |
| | | | | | NOTE 1028(34) | | PHASE III CENTREX EQUIPPED IN OTHER MARKERS |
| | | ZXB | | | ZXJ OR ZXA | ZXB | * |
| | | AM | | AL | AL | AM | |
| | | UJ | | | APP FIG 53 | UJ | * |
| | | SR | | | TK OR SQ | SR | * |
| | | SQ | | | TK | SQ | * |
| | | TJ | | | PS | TJ,ZDO | IF PS IN OTHER MARKERS |
| | | | | | TK | TJ,ZDO | IF TK IN OTHER MARKERS |
| | | | | | ZDN | ZDO | CENTREX NOT EQUIPPED |
| | | TK | | | TJ PS | TK | * |
| | | QZ | | | | QZ | |
| | | PA | | | | PA | |
| 20 | | EU | 64 | | EV,ZSV | EU | * |
| 21 | 149 | | 39 | | NONE | | |
| 22 | 171 | | 95 | | NONE | | |
| | | ZOM | | | APP FIG 171 | ZOM | * |
| 23 | | ZA | 19 | | | ZA | |
| 24 | | RO | 46 | | NONE | | |
| 25 | 38 | YE | 13 | | NONE | | |
| 26 | 28,67 | | 8 | | NONE | | |
| 27 | 144 | GZ,ES, ZNC,ZMI, ZJH | 72 | | NONE | | |
| | | ZJG | | | ZJH | ZJG | * |
| | | ER | | | ES | ER | * |
| | | ZOR | 83 | | | | NONE (1% OPTION PROVIDED) |
| | | ZZM | | | ZOW | | RECEIVING OFFICE HAS ALL 10 LEVEL SWITCHES |
| | 150 | ZLC,ZQT | | 102C(114) | | | NONE |
| 28 | | ZZL | | | ZZM | ZZL | * |
| | | | | | ZZK | | * |
| | | ZZK | 83 | | ZZL | ZZK | * |
| | | | | | ZZM | | * |
| | | ZOW | | | ZOV | ZOW | * |
| | | ZOV | | | ZOW | ZOV | * |
| 29 | 169 | SM | 44 | | | | NONE |
| | | QE | | 102C(57) | | | NONE |
| 30 | | PU | 14 | | | PU | |
| | | ZJP | | | ZJR | ZJP | * |
| 31 | 165 | | | | | | NONE |
| | | ZTJ | 88 | | ZTK | ZTJ | * |
| | | ZTK | | | ZTJ | ZTK | * |
| 32 | | WT,ZNS | 33 | | NONE | | |

* APPARATUS AND WIRING SHOWN SHALL BE ADDED AND REMOVED IF CORRESPONDING APPARATUS AND WIRING SHOWN IN ADD COLUMN IS EQUIPPED IN OTHER MARKERS, OTHERWISE NO CHANGE IS REQUIRED.

COMPLETING MARKER CIRCUIT

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CIRCUIT NOTES: (CONT)

102(D) (CONT)

REUSE OPTION TABLE - SEE NOTE 186

| PAR | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER: APP FIG | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER: OPTION | FOR DESCRIPTION OF FEATURE SEE: NOTE 102B PAR | FOR DESCRIPTION OF FEATURE SEE: NOTE | APPARATUS AND WIRING CHANGES REQUIRED IN REUSE MARKER: ADD | REMOVE | CONDITION |
|---|---|---|---|---|---|---|---|
| 33 | 101 | WS | 29A | | | | NONE |
| | | ZMO | | | ZMN | ZMO | * |
| | | ZMN | | | ZMO | ZMN | * |
| | | ZPR | | | ZPS | ZPR | * |
| | | ZPS | | | ZPR | ZPS | * |
| | | ZTB | | | JW | ZTB | * |
| | | | | | JR | | * |
| | | JW | | | ZTB | JW | * |
| | | JR | | | ZTB | JR | * |
| | | | | | JW | | * |
| 34 | | X,ZDY | 5 | | ZDX | ZDY | OPTION Y EQUIPPED IN OTHER MARKERS |
| | | Y | | | X,ZDY | Y | * |
| 35 | | GL | 38 | | GM | GL | * |
| | | GM | | | GL | GM | * |
| 36 | | KY | 61 | | KX | KY | * |
| | | KX | | | KY | KX | * |
| 37 | | SW,ZJK | 45 | | NONE | | |
| 38 | | BG | 78 | | BF | BG | * |
| | | BF | | | BG | BF | * |
| 39 | 183 | | | | NONE | | |
| | | ZLM | 30 | | ZLN OR APP FIG 143 | ZLM | * |
| | | ZLN | | | ZLM OR APP FIG 143 | ZLN | * |
| 40 | 60,61, 63 | | 23 | | K | | |
| | | ZLS,KW | | | | | NONE |
| | | ZVG | | | ZVF | ZVG | * |
| | | ZVF | | | ZVG | ZVF | * |
| 41 | 136 | | 29B | | ZCG ZOL ZOK | ZCF | IF APP FIG 143 IS PROVIDED IN MARKER GROUP |
| | | | | | | | IF APP FIG 143 IS NOT PROVIDED IN MARKER GROUP |
| | | FK | | | | FK | |
| 42 | 143 | | 30 | | FJ | 143 | |
| | | | | | ZLM | | * |
| | | | | | ZLN | | * |
| | | | | | ZXG | | * |
| | 180 | | | | ZIX | APP FIG 180 | * |
| | | ZIX | | | APP FIG 180 | ZIX | * |
| | | FM OR FN | | | FL | FM OR FN | |
| | | FT | | | | | NONE |
| | | ZFH | | | ZFI | ZFH | * |
| | | ZFI | | | ZFH | ZFI | * |
| | | ZWX | | | ZWW | ZWX | * |
| | | ZHI | | | FX | ZHI | * |
| 43 | 127 | JJ,ZPP | 67 | | NONE | | |
| 44 | | AX,ZVQ | 82 | | NONE | | |
| | | ZVO | | | AX,ZVQ | ZVO | * |
| 45 | 166 | ZPY,ZCL | 9 | | ZSR | ZCL | |
| 46 | 58,59 | ZNU | 22 | | H | | |
| 47 | 162 | | 86 | | NONE | | |
| 48 | 53 | CN | 18 | | | | NONE |
| | | DT | | | | | NONE IF OTHER MARKERS ARE EQUIPPED WITH DT OPTION |
| | | | | | OTHER MARKERS EQUIPPED WITH APP FIG. 53 & DU OPTION | CROSSCONNECT DT TO SIMULATE DU WIRING | CROSSCONNECT TC1, TC2, TAC1, TAC2, TOCO, TCBO & TOC2 AS REQUIRED |
| | | | | | OTHER MARKERS NOT EQUIPPED WITH APP FIG. 53 | | |
| | | DU,DV | | | DT | DU, DV | * |
| | | | | | | | NONE IF OTHER MARKERS ARE EQUIPPED WITH APP FIG. 53 WITHOUT DV OPTION |
| | | | | | | | IF OTHER MARKERS ARE NOT EQUIPPED WITH APP FIG. 53, CROSSCONNECT TC1, TC2, TAC1, TAC2, TOCO, TCBO AND TOC2 AS REQUIRED |
| | | DW,KK | | | UK | DW,KK | * |

* APPARATUS AND WIRING SHOWN SHALL BE ADDED AND REMOVED IF CORRESPONDING APPARATUS AND WIRING SHOWN IN ADD COLUMN IS EQUIPPED IN OTHER MARKERS, OTHERWISE NO CHANGE IS REQUIRED.

102(D) (CONT)

| PAR | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER: APP FIG. | APPARATUS AND WIRING EQUIPPED AND NOT REQUIRED IN REUSE MARKER: OPTION | FOR DESCRIPTION OF FEATURE SEE: NOTE 102B PAR | FOR DESCRIPTION OF FEATURE SEE: NOTE | APPARATUS AND WIRING CHANGES REQUIRED IN REUSE MARKER: ADD | REMOVE | CONDITION |
|---|---|---|---|---|---|---|---|
| 48 (CONT) | 68,69 | KQ,KR, ZF,ZNO, ZWI | 6 | | | | NONE |
| 49 | 160 | ZTR | 76 | | | | NONE |
| | | ZUH | | | ZBF | | * |
| | | ZUI | | | | | NONE |
| 50 | 52 | | 17 | | | | NONE |
| | 142 | | | | | | NONE |
| | | AA | | | | | NONE |

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CIRCUIT NOTES: (CONT)

103.

| NETWORK VALUES | | | |
|---|---|---|---|
| NETWORK NO. | | RESISTANCE IN OHMS | CAPACITANCE IN uF |
| 1 | | 470 | 0.11 |
| 2 | | 120 | 0.3 |
| 3 | | 470 | 0.5 |
| 4 | | 100 | 1 |
| 5 | | 100 | 0.5 |
| 6 | | 150 | 0.3 |
| 7 | | 150 | 0.1 |
| 8 | | 1000 | 0.5 |
| 9 | | 270 | 0.5 |
| 10 | ZEG, ZEI, ZEK, ZEM, ZEO, ZEQ | 470 | 0.5 |
| | ZEH, ZEJ, ZEL, ZEN, ZEP, ZER | 270 | 0.5 |

* THIS IS A FALSE OPTION

104.

| RECORD OF FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| 4A OR PRIOR | J OR G | J,G | SEE OPTION INDEX | G | J | |
| | X OR Y | X,Y | | Y | X | |
| | ZB OR ZC | ZB,ZC | | ZC | ZB | |
| | | | | | | |
| 5D | ZJ OR ZE | ZJ | | ZJ,ZE | | |
| | APP FIG. 64,65,66 | | | APP FIG. 64,65,66 | | |
| | APP FIG. 67 | | | APP FIG. 67 | | |
| | | | | | | |
| 7B | ZV | NONE | | ZV | | |
| | ZT OR ZU | ZT | | ZU | ZT | |
| 8D | ZH OR ZI | ZH | | ZI | | ZH |
| | ZF,ZG APP FIG. 68,69 | ZF,ZG | | ZF,ZG APP FIG. 68,69 | | |
| | ZR OR ZS | ZR | | ZS | | ZR |
| | YY | NONE | | YY | | |
| 9D | ZP OR ZQ | ZP | | ZQ | | ZP |
| | YC | NONE | | YC | | |
| | APP FIG. 70 | | | APP FIG. 70 | | |
| | APP FIG. 71 | ~ | | APP FIG. 71 | | |
| | APP FIG. 73 | NONE | | APP FIG. 73 | | |
| | ZW OR ZX | ZW | | ZX | ZW | |
| | YG OR YF | YF | | YG | | YF |

104. (CONT)

| RECORD OF FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| 10B | APP FIG. 72 & ZN | NONE | SEE OPTION INDEX | APP FIG. 72 & ZN | | |
| | ZM | NONE | | ZM | | |
| | YE OR YD | YD | | YE | | YD |
| | ZY | NONE | | ZY | | |
| | YH,YJ | YH | | YJ | | YH |
| | YK,YL | YK | | YL | | YK |
| | ZO | NONE | | ZO | | |
| | YQ,YR | YQ | | YR | | YQ |
| | YS,YT | YS OR NONE | | YT | | YS |
| | YW,YX | YW OR NONE | | YX | | YW |
| | YP,YZ | YP | | YZ | | YP |
| | YM,YN | YM | | YN | | YM |
| 11B | XE,XF | XE | | XF | | XE |
| | XG,XH | XC | | XH | | XG |
| | XM,XN * | XM | | XN * | | XM |
| | XR,XQ | XQ | | XR | | XQ |
| | XS,XT | XS | | XT | | XS |
| | RESISTOR | | | 144E | | 140A |
| | XO,XP | XO | | XP | | XO |
| 12C | XJ APP FIG. 74,75 | NONE | | XJ APP FIG. 74,75 | | |

104. (CONT)

| RECORD OF FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| 13B | XU,XV | XU | SEE OPTION INDEX | XV | | XU |
| | XW,XX | XW | | XX | | XW |
| | XY,XZ | XY | | XZ | | XY |
| | XA,XB | XA | | XB | | XA |
| | WA,WB | WA | | WB | | WA |
| | WC,WD | WC | | WD | | WC |
| | WE,WF | WE | | WF | | WE |
| | WG,WH | WG | | WH | | WG |
| | | | | | | |
| 14B | WJ | NONE | | WJ | | |
| 16B | WK,WL | WK OR NONE | | WL | | WK |
| | WM,WN | WM | | WN | | WM |
| | WO | NONE | | WO | | |
| | WP | WP WITH ZI | | WP | | |
| | WQ,WR | WQ | | WR | | WQ |
| | | | | APP FIG 34 | | |
| 17D | WX,WY | WX | | | | |
| | WU | NONE | | WU | | |
| | WV | NONE | | | | |
| | WZ,VA | WZ | | WZ,VA | | |
| | WW | NONE | | WW | | |

* THIS IS A FALSE OPTION

ISSUE 67B

COMPLETING MARKER CIRCUIT

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BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

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CIRCUIT NOTES: (CONT)

| 104. (CONT) | RECORD OF FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| | CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | | STD | A&M | MD |
| | 17D | | | SEE OPTION INDEX | APP FIG. 78 | | |
| | | | | | APP FIG. 79 | | |
| | | VK | NONE | | VK | | |
| | 18D | | | | APP FIG. 81,82 | | |
| | | VB | VB | | VB | | |
| | | VD,VE | VE | | VD, VE | | |
| | | VF,VG | NONE | | VF | VG | |
| | | VH,VJ | VH | | VH, VJ | | |
| | | VL,VM | VL | | VL, VM | | |
| | | VN,VO | VN | | VO | | VN |
| | | VP,VQ | VP | | VQ | | VP |
| | | VR,VS | VR | | VS | | VR |
| | | VT,VU | VT | | VU | | VT |
| | | VV,VW | VV | | VW | | VV |
| | | VX,VY | VX | | VY | | VX |
| | | WT | NONE | | WT | | |
| | | WS | NONE | | WS | | |
| | 19A | | | | | | ZV |
| | 21D | | | | APP FIG. 83,84 | | |
| | | UA,UB | UA | | UB | | UA |
| | | VZ | NONE | | VZ | | |
| | | UQ | NONE | | UQ | | |
| | | UD,UE | UD | | UE | | UD |
| | | UF,UG | UF | | UF | UG | |

| 104. (CONT) | RECORD OF FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| | CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | | STD | A&M | MD |
| | 21D | UH | NONE | SEE OPTION INDEX | UH | | |
| | | UJ,UK | NONE | | UJ,UK | | |
| | | APP FIG. 90,UL,UM | UM | | APP FIG. 90,UL,UM | | |
| | | UN,UO | UN | | UO | | UN |
| | | UR | NONE | | UR | | |
| | | UT | NONE | | UT | | |
| | | UW,UX | UW | | UW,UX | | |
| | | | | | APP FIG. 85 | | |
| | | UU | NONE | | UU | | |
| | | UV | NONE | | UV | | |
| | | US | NONE | | US | | |
| | | UY,UZ | UY | | UZ | UY | |
| | | AL,AM | AL | | AL | AM | |
| | 22D | TA | ZJ | | TA,ZJ | | |
| | | TB | NONE | | TB | | |
| | | TD | NONE | | TD | | |
| | | TE,TF, APP FIG. 86 | TE | | TE,TF, APP FIG. 86 | | |
| | | TH,TG | TG OR NONE | | TG,TH | | |
| | | TJ,TK | TJ | | TK | TJ | |
| | | TL,TM | TL | | TM | | TL |
| | | TO | WV OR NONE | | WV,TO | | |
| | | TP | NONE | | TP | | |
| | | TQ,TR | TQ OR NONE | | TQ,TR | | |
| | | TS, TN | TN | | TS,TN | | |

| 104. (CONT) | RECORD OF FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| | CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | | STD | A&M | MD |
| | 22D | TT,TU APP FIG. 88,89,91 | TT | SEE OPTION INDEX | TT,TU, APP FIG. 88,89,91 | | |
| | | TX,TY | TX | | TY | | TX |
| | | SA,SB | SA | | SB | | SA |
| | | SC | NONE | | SC | | |
| | | APP FIG.95 | NONE | | APP FIG.95 | | |
| | | SH | NONE | | SH | | |
| | | SM | NONE | | SM | | |
| | | SN | SN OR NONE | | SN | | |
| | | SO,SP APP FIG. 96 | SO | | SO,SP APP FIG. 96 | | |
| | | SL,QE | SL | | QE | | SL |

| 104. (CONT) | RECORD OF FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| | CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | | STD | A&M | MD |
| | | | | SEE OPTION INDEX | | | |

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| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-D10B |
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CIRCUIT NOTES: (CONT)

104. (CONT)

RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 22D | APP FIG 94,SQ,SR | SQ OR NONE | SEE OPTION INDEX | APP FIG 94 | SQ,SR | |
| | SS,SV | SV OR NONE | | SS | | SV |
| | ST,SU | SY | | SU | | ST |
| | APP FIG 87 | NONE | | APP FIG 87 | | |
| | | | | | ZV | |
| | SF,SG | SF | | SG | | SF |
| 23A | | | | | | |
| | QB | NONE | | QB | | |
| | APP FIG 101 | APP FIG 101 WITH WS OR NONE | | APP FIG 101 | | |
| 24D | SY,SZ | SY OR NONE | | SZ | | SY |
| | SW | NONE | | SW | | |
| | RW,RX | RW | | RW,RX | | |
| | RU,RV | RU OR RV | | RV | | RU |
| | RS,RT | RS OR RT | | RT | | RS |
| | RR | NONE | | RR | | |
| | RQ | NONE | | RQ | | |
| | RO | NONE | | RO | | |
| | QS,QT | QS,SN OR NONE | | QT | | QS |
| | RK,RL | RK OR NONE | | RL | | RK |
| | RH,RJ | RH OR NONE | | RJ | | RH |
| | RF,RG | RF OR NONE | | | RG. | RF |
| | | | | | | |

104. (CONT)

RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 24D | RD,PE | RD OR NONE | SEE OPTION INDEX | RE | | RD |
| | RC | NONE | | RC | | |
| | QO | NONE | | QO | | |
| | | | | | | |
| | QM,QN | QN | | QN | | QM |
| | QL | QL WITH TU OR NONE | | QL | | |
| | QJ,QK | QJ | | QK | | QJ |
| | QH | NONE | | QH | | |
| | QF,QG | QF | | QG | | QF |
| | APP FIG 97,99,100 | NONE | | APP FIG 97,99,100 | | |
| 25D | RA,RB | RB | | RA,RB | | |
| | QZ,PA | QZ OR NONE | | | QZ,PA | |
| | QY | QY OR NONE | | QY | | |
| | QX | NONE | | QX | | |
| | QV,QW | QW OR NONE | | QW | QV | |
| | QU | | | | QU | |
| | QR | QR OR NONE | | QR | | |
| | QP,QQ | QP OR NONE | | | QP,QQ | |
| | PY | PY OR NONE | | | PY | |
| | PX | PX OR NONE | | | PX | |
| | GL,GM | GL | | GL,GM | | |

104. (CONT)

RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 25D | PU | NONE | SEE OPTION INDEX | PU | | |
| | PT | PT OR NONE | | | PT | |
| | PR,PS | PR | | PR,PS | | |
| | PP,PQ | PP OR NONE | | PQ | | PP |
| | PN | NONE | | PN | | |
| | | | | | | |
| | PG,PH | PG | | PG,PH | | |
| | PW | PW OR NONE | | | PW | |
| | PF | PF OR NONE | | | PF | |
| | PD,PE | PD | | PD,PE | | |
| | PB,PC | PB WITH TT OR PC WITH TU | | PC | | PB |
| | PZ | | | | PZ | |
| | OL,OM | OL OR NONE | | OM | | OL |
| | OK,OJ | OK | | OJ | | OK |
| | OI | OI OR NONE | | | | OI |
| | OH | OH OR NONE | | | | OH |
| | OG | NONE | | OG | | |
| | OE | NONE | | OE | | |
| | OD | NONE | | OD | | |
| | OU,OV | OU | | OV | | OU |
| | MB | NONE | | MB | | |
| | OA | OA OR NONE | | | OA | |
| | | | | | | |

104. (CONT)

RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 25D | APP FIG. 110 | NONE | SEE OPTION INDEX | APP FIG. 110 | | |
| | APP FIG. 107 | NONE | | APP FIG. 107 | | |
| | APP FIG. 106,108, PK | PK | | APP FIG. 106,108 | | PK |
| | APP FIG. 105, PI,PJ | PJ | | APP FIG. 105, PI,PJ | | |
| | APP FIG. 83,84,SJ | NONE | | | APP FIG. 83,84,SJ | |
| | | | | APP FIG. 102 | | |
| | APP FIG. 103,EC | NONE | | APP FIG. 103 | EC | |
| | | | | APP FIG. 104 | | |
| | | | | APP FIG. 109 | | |
| | | | | APP FIG. 111 | | |
| | | | | APP FIG. 112 | | |
| | BI | NONE | | BI | | |
| | | | | | APP FIG. 94, TK, TO,TP, UJ,UK | |
| | OR,OS | OR OR NONE | | | OS | OR |
| | OW,OX | OW OR NONE | | OX | | OW |
| | NB | NONE | | NB | | |
| | | | | | | |

ISSUE 67B

COMPLETING MARKER CIRCUIT

SD-26002-01-DIIA

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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CIRCUIT NOTES: (CONT)

104. (CONT) RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 25D | NC,ND | NC | SEE OPTION INDEX | ND | | NC |
| | NF | NF OR NONE | | | | NF |
| | NG | NG WITH XW OR NONE | | NG | | |
| 26A | ON | NONE | | | ON | |
| | OQ | NONE | | OQ | | |
| | OY,OZ | OY | | OZ | | OY |
| | | | | | | |
| 27A | ML,MM | ML | | MM | | ML |
| | MN,MO | MN OR NONE | | MO | | MN |
| | NS | NONE | | NS | | |
| | MT | NONE | | MT | | |
| 28D | NN,NM | NM OR NONE | | NN | | NM |
| | NZ,MA | UL,NZ & MA OR NONE | | MA | | NZ |
| | MC,ME | MC | | ME | | MC |
| | MF,MS * | MF,MS *, & WN OR NONE | | MS * | | MF |
| | OP | NONE | | OP | | |
| | NP,NT | NP OR ZJ | | NP,NT | | |
| | NJ,NK | NK OR ZE | | NJ,NK | | |
| | MP,MQ | MP OR NONE | | MQ | | MP |
| | MI,MJ | MI OR NONE | | MJ | | MI |
| | APP FIG. 113, NH,NI, NR,NQ | NI OR NR | | APP FIG. 113, NH,NI, NR,NQ | | |
| | MG,MH | MG | | MH | | MG |
| | MR | SP & MR OR NONE | | MR | | |

* THIS IS A FALSE OPTION

104. (CONT) RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 29A | APP FIG. 114 | NONE | SEE OPTION INDEX | | APP FIG. 114 | |
| | KA,KB | KA | | KB | | KA |
| | KU,KW | KU & APP FIG. 91 OR NONE | | KW | | KU |
| | KV | KV & APP FIG.60 OR NONE | | | | KV |
| 30D | APP FIG. 77,80,92, 93,98 | NONE | | | | APP FIG. 77,80,92, 93,98 |
| | APP FIG. 115-122, 125,126 | NONE | | APP FIG. 115-122, 125,126 | | |
| | APP FIG. 123 | NONE | | APP FIG. 123 | | |
| | APP FIG. 124 | NONE | | | | APP FIG. 124 |
| | MZ | MZ & APP FIG 82 OR NONE | | | | MZ |
| | LA | NONE | | LA | | |
| | LB,LC | LB | | LB,LC | | |
| | LF | LF & YD OR NONE | | | | LF |
| | LG,LH | LG | | LH | | LG |
| | LP,LQ, LR,LS | LP,LQ, LR,LS, OR NONE | | | | LP,LQ, LR,LS |
| | LV | NONE | | LV | | |
| | KC,KD | KC & APP FIG. 2 OR NONE | | KC,KD | | |
| | KE,KF | KE & APP FIG. 65 OR NONE | | KE,KF | | |
| | KG | OG OR NONE | | KG | | OG |
| | KX,KY | KX | | KX,KY | | |
| | KZ,JA | NONE | | KZ,JA | | |
| | IE | NONE | | IE | | |
| | JB,JC | JB,SA OR S9,TD OR NONE | | JC | | JB,SB, TD |
| | GV | NONE | | GV | | |
| | EB | NONE | | EB | | |

104. (CONT) RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 31D | LN,LO | LN & RL OR NONE | SEE OPTION INDEX | LO | | LN |
| | LT,LU | LT | | LU | LT | |
| | LW,LX | LX & APP FIG. 105 OR NONE | | LX,LW | | |
| | LY | LY WITH M OR XJ OR NONE | | LY | | |
| | KH,KJ | KH | | KH,KJ | | |
| | KL,KM | KL OR NONE | | KM | | KL |
| | KN | KN & TY OR NONE | | | | KN |
| | KO,KP | KO | | KP | | KO |
| | KR,KQ | KR & APP FIG. 69 OR NONE | | KR,KQ | | |
| | XY,XZ | XY | | XY | XZ | |
| | LZ | RA OR NONE | | LZ | | |
| | IJ | IJ,UO OR NONE | | IJ | | |
| | | | | | | |
| | MU,MV | MU | | MV | | MU |
| | MW,MX | TU & MW OR NONE | | MX | | MW |
| | LD,LJ, KK | LD & APP FIG. 53 OR NONE | | LJ,KK | | LD |
| 33D | LL,LM | LL | | LM | | * LL |
| | JD | NONE | | JD | | |
| | JE,JF, JG | JF QU & JE OR PS & JE OR NONE | | JG | | JE,JF |

104. (CONT) RECORD OF FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | USE IN CIRCUIT A&M | USE IN CIRCUIT MD |
|---|---|---|---|---|---|---|
| 33D | JR,JS, JW | JR OR JR & JW OR NONE | SEE OPTION INDEX | JR,JS | JW | |
| | JP,JQ | APP FIG. 89 & JP OR NONE | | JQ | JP | |
| | JT,JU,JV | JT & PS OR JU & TP OR NONE | | JV | | JT,JU |
| | APP FIG. 127,JJ | NONE | | APP FIG. 127,JJ | | |
| | JK,JL,JY | JL | | JK,JL, JY | | |
| | JM,JN | JM OR JN | | JM | JN | |
| | JO | JO OR NONE | | JO | | |
| | JH,JI | JI | | JH | | JI |
| | ID | NONE | | ID | | |
| | IG,IH | NONE | | IG,I. | | |
| | IT,IU | IT | | IU | | IT |
| | APP FIG. 132,GE, GF,GG | GE & GG WITH VE OR GF WITH VD | | APP FIG. 1 2, GE,GG | | GF |

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104. (CONT)

RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | GH,GI | GH & PS OR NONE | SEE OPTION INDEX | GH | | | GI |
| | MK | XP OR XO | | MK | | XP | |
| | IX,IY | IX | | IY | | IX | |
| | IZ,GA | IZ & XJ OR NONE | | GA | | IZ | |
| | APP FIG. 130 | NONE | | APP FIG. 130 | | | |
| | JX | NONE | | | JX | | |
| | GB | XB OR XA | | GB | | XB | |
| | GC,GD | GC & UL OR UM | | GD | | GC | |
| 33D | | | | | | | |
| | GJ,GK | GJ | | GK | | GJ | |
| | GN,GO | GN | | GO | | GN | |
| | GP,GQ | GP & TU OR NONE | | GQ | GP | | |
| | JZ | JZ & APP FIG. 91 OR NONE | | JZ | | | |
| | IA | IA & TU OR NONE | | IA | | | |
| | APP FIG. 128, IB,IC | IB | | APP FIG. 128, IB,IC | | | |
| | IV,IW | NONE | | IW | IV | | |
| | GT | NONE | | GT | | | |
| | GU | NONE | | GU | | | |
| | APP FIG. 131, II,IK IL,IM | II WITH IL,IM OR NONE | | APP FIG.131 IK,II, IL,IM | | | |
| | APP FIG. 134 | NONE | | APP FIG. 134 | | | |

104. (CONT)

RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | IN,IP, IO | IP,RQ, IO OR NONE | SEE OPTION INDEX | IN | | IP,IO, RQ | |
| | GW | NONE | | GW | | | |
| 33D | IR,IS, EU,EV, APP FIG. 129 | NONE | | IR,IS, EU,EV, APP FIG. 129 | | | |
| | CJ | NONE | | CJ | | | |
| | CH,CI, CK | CH & APP FIG.91 OR CI & APP FIG.125 OR NONE | | CK | | CH,CI | |
| | BN | LV WITH BN OR NONE | | BN | | | |
| | | | | | | | |
| 34A | EW,EX | EW OR NONE | | EX,EW | | | |
| | | | | | | | |
| | APP FIG. 137 | NONE | | APP FIG. 137 | | | |
| | APP FIG. 139 | NONE | | | APP FIG. 139 | | |
| | APP FIG. 141 | NONE | | | | | APP FIG. 141 |
| 35D | BQ,GS, APP FIG. 133 | GS | | GS | | | BQ, APP FIG. 133 |
| | GX,GY | GX OR NONE | | GY | | GX | |
| | GZ | NONE | | GZ | | | |
| | FD,CD | CD | | FD | | CD | |

104. (CONT)

RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | FA,FB,FC, FJ,FK, FL,FM,FN, FO,FP,FQ, FR,FS,FT, FV,FW,FX, APP FIG. 136,143 | FA,FB, FC,FJ, FL,FO, FP,FQ, FR,FS, FV,FW, FX,OR NONE | SEE OPTION INDEX | FM,FN, FT, APP FIG. 136, 143 | FA,FB, FC,FJ, FK,FL, FO,FP, FQ,FR, FS,FV, FW,FX | | |
| | FE | NONE | | FE | | | |
| | FF,FG | FF WITH OQ OR NONE | | FG | | FF | |
| 35D | FH,FI | FH WITH TU OR NONE | | FI | | FH | |
| | FY,FZ APP FIG. 135 | FZ | | FY,FZ APP FIG. 135 | | | |
| | EA APP FIG. 138 | EA | | EA,APP FIG. 138 | | | |
| | ED,EE | ED WITH PS OR ED WITH QU OR NONE | | EE | | ED | |
| | EF | NONE | | EF | | | |
| | EG | NONE | | EG | | | |
| | EL,EM | EL | | EM | | EL | |
| | EN,EO | EN | | EN,EO | | | |
| | ER,ES, APP FIG. 144 | ER | | ER,ES, APP FIG. 144 | | | |

104. (CONT)

RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | EP,EQ | EP | SEE OPTION INDEX | EQ | | EP | |
| | ET | NONE | | | ET | | |
| | EY, APP FIG. 145 | EY | | EY | | | APP FIG. 145 |
| | EZ, APP FIG. 146 | EZ | | EZ, APP FIG.146 | | | |
| | DA,DB | DA | | DB | DA | | |
| | DC | NONE | | DC | | | |
| | DD | NONE | | DD | | | |
| | DG,DH | DG & APP FIG.64 OR NONE | | DH | | DG | |
| | DL,DM | DL | | DM | | DL | |
| 35D | DN,DO | DN OR NONE | | DO | | DN | |
| | DP,DQ | DP | | DQ | | DP | |
| | DR | DR & RA OR NONE | | DR | | | |
| | DS | NONE | | | DS | | |
| | DT,DU, DV | DU & APP FIG.53, LJ OR NONE OR DU & APP FIG.53, LJ WITH DV & ZF | | DT | LJ,DU, DV | | |
| | DX,DY | DY OR NONE | | DX,DY | | | |
| | DW | UK & APP FIG.53 OR NONE | | DW | | | |
| | DZ,CA | DZ | | CA | | DZ | |
| | CB | APP FIG. 129 OR NONE | | CB | | | |

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CIRCUIT NOTES: (CONT)

104. (CONT)

| RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES | | | | | | | |
|---|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | | |
| | | | | STD | A&M | MD | SPL |
| 35D | CE | NONE | SEE OPTION INDEX | CE | | | |
| | CF,CG | CF | | CF,CG | | | |
| | CL,CM, CN | CL & APP FIG. 53 WITH ZG OR WITH CM, ZF,GT, OR NONE | | CN | | CL,CM, GT,ZG | |
| | CC | NONE | | CC | | | |
| | CO,CP | CO | | CP | | CO | |
| 37D | AA, APP FIG. 142 | AA & APP FIG. 52 OR NONE | | AA,APP FIG. 142 | | | |
| | AB,AC | AB & APP FIG. 133 OR NONE | | | | | AB,AC |
| | AD,AE | AD | | AD,AE | | | |
| | AF, APP FIG. 148 | AF | | APP FIG. 148 | | AF | |
| | AG | NONE | | AG | | | |
| | AH | NONE | | AH | | | |
| | AJ,AK | AJ | | AK,AJ | | | |
| | AN,AO | AN | | AO | | AN | |
| | AP | NONE | | AP | | | |
| | AS,AT, AW | AW OR AS & AW | | AT | | AS,AW | |
| | AY,AZ | AY | | AZ | | AY | |
| | AX | NONE | | AX | | | |
| | AU, ZZO | ZZO & VJ OR NONE | | AU, ZZO | | | |
| | AQ,AR, ZZH,ZZI, ZZJ,ZYF | AQ & ZZH,ZZI, ZZJ,OR ZYF,OR AQ & NONE | | AQ,AR, ZZI | | ZZH, ZZJ, ZYF | |

* THIS IS A FALSE OPTION

104. (CONT)

| RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES | | | | | | | |
|---|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | | |
| | | | | STD | A&M | MD | SPL |
| 37D | BB,BC | BB | SEE OPTION INDEX | BC | | BB | |
| | BE,BD, APP FIG. 147 | BE | | BE,BD, APP FIG. 147 | | | |
| | BK,BL | BK WITH APP FIG. 40 OR NONE | | BK,BL | | | |
| | BM APP FIG.149 | BM OR NONE | | APP FIG. 149 | | BM | |
| | BO,BP | BO OR NONE | | BP | | BO | |
| | BR,BS | BR | | BS | | BR | |
| | BT,BU | BT & ME OR NONE | | BT | BU | | |
| | BW,BX | BW | | BX | | BW | |
| | BF,BG | BF & UQ OR NONE | | BG | BF | | |
| | BH,BJ | BH | | BJ | | BH | |
| | BY,ZLI | RB OR NONE | | BY, ZLI | | | |
| | BV | NONE | | | | | BV |
| | BZ | NONE | | | | | BZ |
| | CQ,CR | CQ | | CR | | CQ | |
| | CS,CT | CT | | CS,CT | | | |
| | CU,CV | NONE | | | CU,CV | | |
| | CW | NONE | | CW | | | |
| | CX,CY | CX,CY OR NONE | | CX,CY | | | |
| | CZ,BA | CZ WITH APP FIG. 112 OR CZ WITH APP FIG. 114 OR NONE | | BA | CZ | | |
| | DE,DF | DE | | DF | | DE | |
| | DJ,DK | DJ | | DJ,DK | | | |
| | | | | EL | | | |

104. (CONT)

| RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES | | | | | | | |
|---|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | | |
| | | | | STD | A&M | MD | SPL |
| 37D | JN | JN & PW OR NONE | SEE OPTION INDEX | | | JN | |
| | ZZA,ZZB | ZZA & TS OR TN | | ZZB | | ZZA | |
| | ZZD,ZZE | ZZD | | ZZE | | ZZD | |
| | | | | | | | |
| 39D | ZYD,ZYE | ZYD | | ZYE | | ZYD | |
| | ZXA,ZXB, ZXJ | ZXA,ZXJ OR NONE | | | ZXA, ZXJ | | ZXB |
| | ZYP,ZYZ | ZYP OR ZYP & AG | | ZYP, ZYZ | | | |
| | ZXC,ZXD | ZXC WITH NC OR NONE | | ZXD | | ZXC | |
| | ZPF | NONE | | ZPF | | | |
| | ZZF,ZZG | APP FIG 99,116, & ZZF OR NONE | | ZZG | ZZF | | |
| | APP FIG. 150, ZZK, ZZL, & ZZM | ZZK | | APP FIG. 150, ZZK, ZZL, ZZM | | | |
| | FU,DI | APP FIG. 38 & DI OR NONE | | FU, DI | | | |
| | ZXE, ZXF* | ZXE, ZXF* | | ZXF* | | ZXE | |
| | ZYA, ZYB, ZYC | ZYA & ZYC WITH FY OR ZYA AND NONE | | ZYB | | ZYA, ZYC | |
| | ZYT,ZYU | ZYT | | ZYU | | ZYT | |
| | ZYG,ZYH | ZYG | | ZYH | | ZYG | |
| | ZYI,ZYJ | ZYI | | ZYJ | | ZYI | |

104. (CONT)

| RECORD OF APP FIGURES, WIRING, AND APPARATUS CHANGES | | | | | | | |
|---|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | | |
| | | | | STD | A&M | MD | SPL |
| 39D | APP FIG. 151,152, 153,154, 155,156, 157,ZZP, ZZQ,ZZS, ZZT,ZZU, ZZV | ZZQ | SEE OPTION INDEX | APP FIG. 151,152, 153,154, 155,156, 157,ZZP, ZZQ,ZZS, ZZU,ZZV | ZZT | | |
| | ZZY,ZZZ | ZZZ | | ZZZ | | | ZZY |
| | ZYK,ZYL | APP FIG. 119 & ZYK OR NONE | | ZYL | | ZYK | |
| | ZYM | NONE | | ZYM | | | |
| | ZYN,ZYO | ZYN OR NONE | | ZYO | | ZYN | |
| 39D | UA,UB | UA | | UA | | UB | |
| | ZYV,ZYW | QU OR PS WITH ZYV OR NONE | | ZYW | | ZYV | |
| | ZYX,ZYY | APP FIG 128 & ZYX OR NONE | | ZYY | | ZYX | |
| | AI,AV | LX WITH CY & AI & APP FIG. 105 OR LW WITH AI & APP FIG. 105 OR NONE | | AV | | AI,LW, LX | |
| | ZYQ, ZYR, ZYS | ZYQ & ZYS OR NONE | | ZYQ, ZYR | | ZYS | |
| 40A | ZVM, ZVN | ZVM WITH APP FIG. 104 OR NONE | | ZVN | | ZVM | |

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CIRCUIT NOTES: (CONT)

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| | APP FIG. 159 | NONE | SEE INDEX OPTION | APP FIG. 159 | | |
| | ~~ZXU,~~ ZXV | ZXU | | ZXV | | ZXU |
| | ZXI | NONE | | ZXI | | |
| | ZXG | NONE | | | ZXG | |
| | ZXK,ZXL, ZXM,ZXN | ZXL,ZXN WITH PS OR NONE | | ZXK,ZXL, ZXM,ZXN | | |
| | ZXO | NONE | | ZXO | | |
| | ZXP | ZXP WITH TU OR NONE | | ZXP | | |
| | APP FIG. 158,ZXR, & ZPT | NONE | | | APP FIG. 158,ZXR, ZPT,ZPL | |
| | ZXW,ZXX | ZXW WITH IS OR NONE | | ZXX | | ZXW |
| | ZWF,ZWG | ZWG WITH SP OR NONE | | ZWG | ZWF | |
| 41D | ZWD,ZWE | ZWD WITH APP FIG. 137 OR NONE | | ZWE | ZWD | |
| | ZWH,ZWI | ZWH WITH APP FIG. 68 OR NONE | | ZWI | | ZWH |
| | ZXS,ZXT, ZWJ,ZWY | ZWJ WITH IK, ZWY WITH II, & ZXT | | ZXS,ZWY | | ZXT,ZWJ |
| | ZWK | ZWK WITH EL OR EM | | ZWK | | EM |
| | ZWL,ZWM | ZWL WITH AV OR NONE | | ZWM | | ZWL |
| | ZWN,ZWO | ZWN WITH APP FIG. 39 OR NONE | | ZWO | | ZWN |
| | ZWW,ZWX | ZWW | | ZWX | ZWW | |

* THIS IS A FALSE OPTION

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| | ZWZ,ZVA | ZWZ WITH UN OR ZVA WITH UO | SEE INDEX OPTION | ZVA | | ZWZ |
| | ZVJ,ZXQ* | RA WITH ZXQ* & ZVJ OR NONE | | ZXQ* | | ZVJ |
| | ZVE | NONE | | ZVE | | |
| | ZVF,ZVG | ZVF | | ZVG,ZVF | | |
| 41D | ZVK,ZVI | ZVK & ZI OR NONE | | ZVL | | ZVK |
| | ZVO,ZVP, ZVQ | ZVO & NONE OR ZVO & ZVP WITH AX | | ZVO,ZVQ | | ZVP |
| | ZVR | NONE | | ZVR | | |
| | ZVS | ME WITH BU, OR ME WITH BT OR NONE | | | ZVS | BU |
| | ZWC | NONE | | ZWC | | |
| | ZXY,ZXZ, ZWA,ZWB | ZXY WITH APP FIG. 88,ZXZ WITH RQ, ZWA WITH MT,ZWB WITH IC OR NONE | | ZWB | | ZXY, ZXZ, ZWA |
| | | | | | | |
| 42A | ZVU,ZVV, ZVY | ZVU WITH IJ OR IK & ZVY WITH PW OR NONE | | ZVU | ZV, ZVY | |
| | ZUX,ZUY, ZUZ | ZUX & ZUZ & ES OR ZUX ALONE | | ZUY | | ZUX,ZUZ |
| 43D | ZTH,ZTI | ZTH & ZQ OR NONE | | ZTI | | ZTH |
| | APP FIG. 162 | NONE | | APP FIG. 162 | | |
| | APP FIG. 164 | NONE | | APP FIG. 164 | | |

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| | ZZU | ZZP,ZZU OR NONE | SEE OPTION INDEX | | | ZZU |
| | ZWR,ZWS, APP FIG. 163 | ZWS WITH PS OR NONE | | ZWR,ZWS, APP FIG. 163 | | |
| | ZWT, ZWU | ZWT WITH PE OR NONE | | ZWT,ZWU | | |
| | ZVB | NONE | | ZVB | | |
| | APP FIG. 161, ZVT | ZVT & EL OR NONE | | APP FIG. 161, ZVT | | |
| | ZVX,ZVW | ZVX & APP FIG. 130 OR NONE | | ZVW | ZVX | |
| | ZUA | NONE | | ZUA | | |
| | ZUB,ZUC | ZUB WITH ND OR NONE | | ZUC | | ZUB |
| 43D | ZUD,ZVC, ZVD | ZVC & ZUD WITH ZXS, OR ZVC & NONE | | ZVD | | ZUD, ZVC |
| | ZUE | NONE | | ZUE | | |
| | ZUF, ZUG | ZUF | | ZUG | | ZUF |
| | APP FIG. 160, ZUH, ZUI, ZVH | ZVH | | APP FIG. 160, ZUH, ZUI, ZVH | | |
| | | | | | TD | |
| | ZVI | NONE | | ZVI | | |
| | ZUJ, ZUK | ZUJ WITH EC OR ZUJ WITH APP FIG. 112 OR NONE | | ZUK | | ZUJ |
| | ZUH | NONE | | ZUM | | |

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| | ZUN,ZUP | NONE | SEE OPTION INDEX | ~~ZUN,ZUP~~ | | |
| | ZUQ,ZUS | ZUQ WITH TY OR TX AND NONE | | ZUS | | ZUQ |
| | ZUR | NONE | | ZUR | | |
| | ZTN,ZTO | ZTN WITH NQ OR NONE | | ZTN,ZTO | | |
| | ZUT | NONE | | | ZUT | DS |
| 43D | | | | | IO | |
| | ZUU,ZUV, ZUW | ZUW & ZUU WITH ZQ OR ZUW & NONE | | ZUU, ZUV, ZUW | | |
| | ZTB | JS OR JR | | ZTB | | JS |
| | ZTC | NONE | | ZTC | | |
| | ZTD,ZTE | ZTL, APP FIG. 147 OR NONE | | ZTD,ZTE | | |
| | ZTF,ZTG | ZTF | | ZTF,ZTG | | |
| | ZUL,ZTP | ZUL | | ZUL,ZTF | | |
| | ZTR | NONE | | ZTR | | |
| | ZTL,ZTM | NONE | | ZTL,ZTM | | |

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CIRCUIT NOTES: (CONT)

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| 44A | ZTQ | NONE | SEE OPTION INDEX | ZTQ | | |
| | | | | | | |
| 45D | ZSD, ZSE, ZSF | ZSD & APP FIG. 113 & ZSE OR ZSE | | ZSE, ZSF | | ZSD |
| | ZSR, APP FIG. 166 | ZSR | | ZSR, APP FIG. 166 | | |
| | ZST | NONE | | ZST | | |
| | ZSQ | NONE | | ZSQ | | |
| | ZRE | NONE | | ZRE | | |
| | ZTU, ZTW | ZTU | | ZTW | | ZTU |
| | APP FIG. 165, ZTJ, ZTK | | | APP FIG. 165, ZTJ, ZTK | | |
| | ZTT, ZTV | ZTV AND ZZA, ZZB OR TN | | ZTT, ZTV | | |
| | ZTX, ZTY, ZTZ | ZTX & ZTY WITH EO OR ZTX ALONE | | ZTX, ZTZ | | ZTY |
| | APP FIG. 168, ZSK | ZSK WITH DX OR NONE | | APP FIG. 168 | | ZSK |
| | ZSC, ZSB | ZSB WITH UL OR NONE | | ZSC | | ZSB |
| | ZSG, ZSH | ZSG & KH OR KJ | | ZSH | | ZSG, KH, KJ |
| | ZSL | NONE | | ZSL | | |
| | ZSO, ZSP | ZSO WITH APP FIG. 113 OR NONE | | | | |
| | | | | | | ZZB |

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| 45D | ZSM | NONE | SEE OPTION INDEX | ZSM | | |
| | ZSN | NONE | | ZSN | | |
| | ZSU | NONE | | ZSU | | |
| | ZSS, ZRD | ZSS & ZYJ OR NONE | | ZRD | | ZSS |
| | ZSV, ZSW | ZSV WITH EV OR NONE | | ZSV, ZSW | | |
| | ZSX, ZSY, ZSZ | ZSX & ZSY WITH TF OR ZSX | | ZSX, ZSZ | | ZSY |
| | | | | | | NR |
| | ZLH, ZLZ, ZSI | NONE | | ZLH, ZLZ, ZSI | | |
| | ZRF, ZRI | ZRI WITH IN OR NONE | | ZRF, ZRI | | |
| 47D | ZRL, ZRJ | NONE | | ZRL, ZRJ | | |
| | ZRK | ZRK WITH YY OR NONE | | ZRK | | |
| | ZQP, ZQQ | ZQP | | ZQQ | | ZQP |
| | ZQA, ZQB | ZQA | | ZQB | | ZQA |
| | ZQF | NONE | | ZQF | | |
| | ZRG, ZRH | ZRG WITH ZQ OR ZP | | ZRH | | ZRG |
| | | | | | | TS |
| | APP FIG. 167, ZRA, ZRC, ZRP | ZRC & ZRA WITH ZZP OR ZRC & NONE | | APP FIG. 167, ZRA, ZRC, ZRP | | |
| | ZRB, ZRQ | ZRB & ZRQ WITH ZZP OR NONE | | ZRB, ZRQ | | |
| | ZRR | NONE | | ZRR | | |
| | APP FIG. 169 | NONE | | APP FIG. 169 | | |
| | ZRS, ZRT, ZRU | ZRS WITH ZYJ OR ZRT WITH PS OR ALL OR NONE | | ZRU | | ZRS, ZRT |

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| 47D | ZRV, ZRW | ZRV | SEE OPTION INDEX | ZRV, ZRW | | |
| | ZRX, ZRY | ZRX WITH ZZP OR NONE | | ZRY | | ZRX |
| | ZQG, ZQH | ZQG | | ZQH | | ZQG |
| 49D | | | | | EU, ZSV | |
| | ZQR, ZQS | ZQR | | ZQR, ZQS | | |
| | ZQT, ZQU | ZQT WITH TT OR ZQU WITH TU | | ZQT, ZQU | | |
| | APP FIG. 171, ZOM | ZOM | | APP FIG. 171, ZOM | | |
| | APP FIG. 172, ZOH, ZOJ, ZOY | ZOJ WITH APP FIG. 129 OR ZOY OR BOTH | | APP FIG. 172, ZOH, ZOJ, ZOY | | |
| | ZQK, ZQL, ZMZ, ZJN, ZJO | ZMZ & ZQK WITH APP FIG. 129 OR ZMZ ALONE | | ZQL, ZMZ, ZJN, ZJO | | ZQK |
| | ZQX | BA OR CZ OR NONE | | ZQX | | BA |
| | ZQV | NONE | | ZQV | | |
| | ZQW | ZQW WITH UL OR NONE | | ZQW | | |
| | ZQY, ZQZ | ZQY WITH SP OR NONE | | ZQY, ZQZ | | |
| | ZPA | ZPA WITH UM OR UL | | ZPA | | |
| | ZPB, ZPC | ZPB & M OR NONE | | ZPC | | ZPB |
| | ZPC, ZPE | ZPE | | ZPD | | ZPE |
| | ZPG, ZPH | ZPH | | ZPG | | ZPH |
| | | | | | | ZUA |

104. (CONT)

| RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES | | | | | | |
|---|---|---|---|---|---|---|
| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT | | |
| | | | | STD | A&M | MD |
| 49D | ZPJ, ZPK | ZPJ | SEE OPTION INDEX | ZPK | | ZPJ |
| | CS | NONE | | | | CS |
| | CW | NONE | | | | CW |
| | CU | NONE | | | | CU |
| | CV | NONE | | | | CV |
| | | | | | | |
| 51D | ZPP | NONE | | ZPP | | |
| | ZPR, ZPS | ZPR OR NONE | | ZPR, ZPS | | |
| | ZPW, ZPX | ZPW | | ZPX | | ZPW |
| | | | | QF | | QG |
| | APP FIG. 170, ZQO | NONE | | APP FIG. 170, ZQO | | |
| | ZPU, ZPV | ZPU & APP FIG. 105 OR NC | | ZPV | | ZPU |
| | ZPY | NONE | | ZPY | | |
| | ZOA, ZPZ | ZPZ & XX OR XW | | ZOA | | ZPZ |
| | ZOK, ZOL | APP FIG. 136 OR ZOK WITH FA | | ZOL | ZOK | |
| | APP FIG. 175 | NONE | | APP FIG. 175 | | |
| | | | | | APP FIG. 136 | |
| | | | | | | |

ISSUE 67B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-DIIF |
| BELL TELEPHONE LABORATORIES INCORPORATED | DWG SIZE 6S |

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E-74251 (10-71)

CIRCUIT NOTES: (CONT)

104. (CONT)

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | | | | FA,FW | | | |
| | | | | FB,FC | | | |
| | Z00, Z0P, Z0Q | Z00 OR Z00 & APP FIG. 81 WITH Z0Q | | Z00, Z0P | | Z0Q | |
| | Z0R | NONE | | | Z0R | | |
| 51D | Z0S, Z0T, Z0U | Z0S WITH APP FIG. 150 & Z0U | | Z0T | | Z0S, Z0U | |
| | Z0V, Z0W | NONE | | Z0V, Z0W | | | |
| | Z0N, Z0X | Z0N & RA OR NONE | | Z0X | | Z0N | |
| | Z0P | NONE | | | Z0P | | |
| | ZNA | NONE | | ZNA | | | |
| 52A | ZMH, ZMI | ZMH WITH ES OR NONE | | ZMI | | ZMH | |
| | | | | | | | |
| | Z0D, Z0E, Z0G | Z0D WITH ZXK & Z0E WITH PS OR Z0E WITH PS OR NONE | | Z0D, Z0E, Z0G | | | |
| | Z0C, Z0F | Z0C WITH JZ OR NONE | | Z0C, Z0F | | | |
| | Z0Z, ZNB | Z0Z | | Z0Z, ZNB | | | |
| | ZNC | NONE | | ZNC | | | |
| 53B | ZND, ZNE | ZND | | ZND, ZNE | | | |
| | ZNF OR ZNG | ZNF WITH ZYJ OR ZYK | | ZNG | | ZNC | |
| | ZMA, ZMB | NONE | | ZMA, ZMB | | | |
| | ZNH, ZNI | ZNH WITH XJ OR NONE | | ZNI | | ZNH | |
| | ZNJ, ZNK | ZNJ WITH APP FIG. 147 OR NONE | | ZNK | | ZNJ | |

SEE OPTION INDEX

104. (CONT)

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | ZNL, ZNM | ZNL WITH APP FIG. 83 OR NONE | | ZNM | | ZNL | |
| | ZNN, ZNO | ZNN WITH APP FIG. 69 OR NONE | | ZNO | | ZNN | |
| | ZNP, ZNQ | ZNP WITH ZTE OR NONE | | ZNQ | | ZNP | |
| | ZNR, ZNS | ZNR WITH WT OR NONE | | ZNS | | ZNR | |
| | ZNT, ZNU | ZNT WITH APP FIG. 59 OR NONE | | ZNU | | ZNT | |
| | ZNV, ZNW | ZNV WITH APP FIG. 94 OR NONE | | ZNW | | ZNV | |
| | ZNX, ZNY | ZNX | | ZNY | | ZNX | |
| 53H | ZMC, ZMD | ZMC WITH APP FIG. 146 OR NONE | | ZMD | | ZMC | |
| | ZME | NONE | | ZME | | | |
| | ZMF, ZMG | ZMF WITH RF OR ZMF WITH RG OR NONE | | | ZMF, ZMG | | |
| | ZMJ, ZMK | ZMJ WITH APP FIG. 88 OR NONE | | ZMK | ZMJ | | |
| | ZML | NONE | | ZML | | | |
| | ZLA, ZLC, ZMM | NONE | | ZLA, ZLC, ZMM | | | |
| | ZMN, ZMO | ZMN OR NONE | | ZMN, ZMO | | | |
| | ZMP, ZMQ | ZMP | | ZMQ | | ZMP | |
| | ZMR, ZMS | ZMR | | ZMS | | ZMR | |
| | ZIV, ZMV | NONE | | | ZIV, ZMV | | |

SEE OPTION INDEX

104. (CONT)

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | ZMW, ZMX | ZMW | | ZMX | | ZMW | |
| 53B | ZMT | NONE | | ZMT | | | |
| | ZMY | NONE | | ZMY | | | |
| | ZLF, ZLG | ZLF WITH WY | | ZLG | | ZLF | |
| | ZLB | NONE | | ZLB | | | |
| | ZQC, ZQD, ZQE | NONE | | ZQC, ZQD, ZQE | | | |
| | ZLO, ZLP | ZLP WITH PS OR NONE | | ZLO, ZLP | | | |
| | ZLL | NONE | | ZLL | | | |
| | ZLM, ZLN | ZLM WITH FJ OR APP FIG. 143 | | | ZLM, ZLN | | |
| | ZLK | NONE | | ZLK | | | |
| 55B | ZLJ, ZLQ | ZLJ | | ZLQ | | ZLJ | |
| | ZLD, ZLE | ZLD | | ZLD, ZLE | | | |
| | ZLR, ZLS | ZLR WITH APP FIG. 60 OR NONE | | ZLS | | ZLR | |
| | ZLW, ZLX, ZLY | ZLW | | ZLW, ZLY | ZLX | | |
| 56A | ZJG, ZJH | ZJG | | ZJG, | | | |
| | ZLU | ZLU | | ZLU | | | |
| | ZKA | ZKA WITH IK OR IM OR NONE | | | | ZKA | |
| | | CW | | CW | | | |
| | ZKD | NONE | | ZKD | | | |
| 57B | ZKE ZKF, ZKG | ZKE WITH ZQ OR ZKF WITH ZMY OR NONE | | ZKG | | ZKE, ZKF | |
| | ZKB, ZKC, ZKN | ZKB | | ZKB, ZKC, ZKN | | | |
| | ZKI | NONE | | ZKI | | | |

SEE OPTION INDEX

104. (CONT)

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | ZKJ, ZKK | ZKJ | | ZKJ, ZKK | | | |
| | ZKP | NONE | | ZKP | | | |
| | ZKT | NONE | | ZKT | | | |
| | ZKU, ZKV, ZKW | ZKU | | ZKU, ZKV, ZKW | | | |
| | ZKX | NONE | | ZKX | | | |
| | ZKY, ZKZ | ZKY | | ZKZ | | ZKY | |
| | ZJA, ZJB | ZJA | | ZJB | | ZJA | |
| | APP FIG. 176, 178, ZJC, ZJD, ZIU | APP FIG. 74 WITH APP FIG. 176 AND ZJC OR NONE | | | ZIU | | |
| | ZJE, ZJF | ZJE | | ZJF | | ZJE | |
| | ZJI, ZJJ | NONE OR ZJI WITH PY OR PX | | | ZJI, ZJJ | | |
| 57B | ZJK | SW WITH ZJK OR NONE | | ZJK | | | |
| | ZJL, ZJM | ZJL | | ZJM | | ZJL | |
| | | | | ZLJ | | | |
| | | | | | APP FIG. 99, RR, KM | | APP FIG. 95, 97, 100, 115, 116, 117, 118, 119, 120, 121, 122, 125, 126, 148, AR, IC, IM, JA, KD, KF, KZ, LA, LC, LV, ZYL, ZYO, ZZF, ZZG |
| | APP FIG. 177 | NONE | | APP FIG. 177 | | | |
| | APP FIG. 179 | NONE | | APP FIG. 179 | | | |
| | ZKS | ZKS WITH APP FIG. 91 OR NONE | | ZKS | | | |
| | ZJP, ZJQ, ZJR, ZJS | ZJP WITH JK OR NONE | | ZJP, ZJQ, ZJR, ZJS | | | |
| | ZJT | ZJT WITH JY OR NONE | | ZJT | | | |
| | ZJU | ZJU WITH IA OR NONE | | ZJU | | | |
| | ZJV, ZJV | ZJV | | ZJV, ZJV | | | |

SEE OPTION INDEX

ISSUE 67B

COMPLETING MARKER CIRCUIT

SD-26002-01-DIIG

BELL TELEPHONE LABORATORIES INCORPORATED

6S

CIRCUIT NOTES: (CONT)

104. (CONT) RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| 57B | ~~ZIA~~ | ZLY OR NONE | SEE OPTION INDEX | ZIA | | | |
| | ZIB, ZIC | ZIB WITH QQ OR NONE | | | ZIB, ZIC | | |
| | ZIG, ZIH | ZIG WITH ZD OR APP FIG 53 | | ZIG, ZIH | | | |
| | ZIM | ZLY WITH ZLM OR NONE | | ZIM | | | |
| | ZHO, ZHP | ZHO WITH JB OR ZHP WITH JC | | ZHP | | ZHO | |
| | ZIQ, ZIR | ZIQ WITH QP OR NONE | | | ZIQ, ZIR | | |
| | ZIT | NONE | | ZIT | | | |
| | ZIX, APP FIG. 180 | ZIX WITH FJ OR APP FIG. 143 | | | ZIX APP FIG 180 | | |
| | ZIW | NONE | | | ZIW | | |
| | ZIY | NONE | | ZIY | | | |
| | ZHY, ZHZ | NONE | | ZHY, ZHZ | | | |
| | ZGA | NONE | | ZGA | | | |
| | ZGB, ZGC | ZGB | | ZGB | ZGC | | |
| | ZGI, ZGJ | ZGI | | ZGI, ZGJ | | | |
| | ZGN | ZGN WITH DX OR NONE | | ZGN | | | |
| | ZGP OR ZGQ | ZGP WITH DX OR NONE | | ZGP | ZGQ | | |
| | ZGR, ZGS | ZGR WITH WX OR WY OR UG | | | ZGR, ZGS | | |
| | ZGT | NONE | | ZGT | | | |
| | ZFT, ~~ZFU~~, ZFV | ZFT WITH YM OR NONE | | ZFT, ZFV | ZFU | | |
| 58A | ZJY, ZJZ | ZJZ WITH LM OR ZJY WITH LL | | ZJZ | | ZJY | |

104. (CONT) RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| 59B | ZIE, ZIF | ZIE WITH RA OR NONE | SEE OPTION INDEX | ZIF | | ZIE | |
| | ZII | NONE | | ZII | | | |
| | ZIJ | NONE | | | ZIJ | | |
| | ZIK, ZIL | ZIK | | ZIL | | ZIK | |
| | ZIN, ZIO | NONE | | ZIN, ZIO | | | |
| | ZIS | NONE | | ZIS | | | |
| | ZJX | ZNB WITH ZJX OR NONE | | ZJX | ZNB | | |
| | ZKL, ZKM | ZLK | | ZKL | ZKM | | |
| | | | | | ZPO | | |
| 60A | ZHQ, ZHR | ZHQ WITH ZKC OR NONE | | ZHR | | ZHQ | |
| 61B | ZHC, APP FIG 182 | ZHC WITH SO OR NONE | | ZHC, APP FIG 182 | | | |
| | APP FIG 181, ZHE | ZHE | | APP FIG 181 | | ZHE | |
| | ZHF | NONE | | ZHF | | | |
| | ZHG, ZHH | ZHG | | ZHG, ZHH | | | |
| | ZHI | APP FIG 143 AND FX OR NONE | | ZHI | | | |
| | ZHJ, ZHK | ZHJ | | ZHK | | ZHJ | |
| | ZHM*, ZHN | ZHN | | ZHM*, ZHN | | | |
| | ZHS | NONE | | ZHS | | | |
| | ZHU, ZHT | ZUS WITH ZHU OR NONE | | ZHT | | ZHU | |
| | ZHV | ZHV WITH TY OR NONE | | | | ZHV | |
| | ZHW, ZHX | ZHW | | ZHX | | ZHW | |

* THIS IS A FALSE OPTION

104. (CONT) RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| 61B | ZGD | NONE | SEE OPTION INDEX | ZGD | | | |
| | APP FIG 183 | NONE | | APP FIG 183 | | | |
| | ZBG, ZBH, ZBJ | ZBG | | ZBG, ZBH, ZBJ | | | |
| | ZGE, ZGF, ZGG, ZGH | ZGE AND TU OR ZGG AND TT | | ZGE, ZGF, ZGG, ZGH | | | |
| 62A | ZFP, ZFQ | ZFP WITH ZKC OR NONE | | ZFQ | | ZFP | |
| 63B | ZGK | NONE | | | ZGK | | |
| | ZGL, ZGM | ZGL | | ZGM | | ZGL | |
| | ZGO | NONE | | | ZGO | | |
| | ZGU, ZGV | ZGU WITH UL OR NONE | | ZGU, ZGV | | | |
| | ZGW, ZGX | ZGW | | ZGW, ZGX | | | |
| | APP FIG 184 | NONE | | APP FIG 184 | | | |
| | ZGY | NONE | | ZGY | | | |
| | ZGZ, ZFA | ZGZ WITH APP FIG 81 OR NR OR NI OR NQ | | ZFA | ZGZ | | |
| | ZFB, ZFC | ZFB WITH APP FIG 81 AND NI OR NR, NQ OR NONE | | ZFC | ZFB | | |
| | ZFD, ZFE | ZFD WITH APP FIG 113 AND NQ OR NONE | | ZFE | ZFD | | |
| | ZFF, ZFG | ZFF AND FT WITH ZUS OR SKM OR ZFF WITH ZUS | | ZFG | ZFF | | |
| | ZFH, ZFI | ZFH AND FT WITH ZUS OR ZKM OR NONE | | ZFI | ZFH | | |
| | ZFJ, ZFK | ZFJ WITH IN AND ZTM OR NONE | | ZFK | ZFJ | | |
| | ZFL, ZFM | ZFL | | ZFL, ZFM | | | |
| | ZFN, ZFO | ZFN | | ZFO | | ZFN | |
| 65B | ZFR, ZFS | ZFR | | ZFS | | ZFR | |
| | ZFW OR ZFX | ZFW | | ZFW, ZFX | | | |
| | ZFY OR ZFZ | DI OR FU | | ZFY, ZFZ | | | |
| | ZEA OR ZEB | RA OR RB | | ZEA, ZEB | | | |

104. (CONT) RECORD OF APP FIGURES WIRING AND APPARATUS CHANGES

| CHANGED ON ISS | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| 65B | ZEC, ZED | ZEC WITH APP FIG 158 OR NONE | SEE OPTION INDEX | | ZED | ZEC | |
| | ZEE, ZEF | ZEE WITH APP FIG 128 OR NONE | | ZEF | | ZEE | |
| | ZEG, ZEH | ZEG | | ZEH | | ZEG | |
| | ZEI, ZEJ | ZEI WITH APP FIG. 65 OR NONE | | ZEJ | | ZEI | |
| | ZEK, ZEL | ZEK WITH UQ OR NONE | | ZEL | | ZEK | |
| | ZEQ, ZER | ZEQ WITH APP FIG. 125 OR NONE | | ZER | | ZEQ | |
| | ZEM, ZEN | ZEM WITH UQ OR NONE | | ZEN | | ZEM | |
| | ZEO, ZEP | ZEO WITH APP FIG. 39 OR NONE | | ZEP | | ZEO | |
| | ZES | NONE | | | ZES | | |
| | ZET | NONE | | | ZET | | |
| | ZEU | NONE | | ZEU | | | |
| | ZEV | NONE | | | ZEV | | |
| | ZEX, ZEY, ZEZ | NONE | | | ZEX, ZEY, ZEZ | | |
| | ZDA, ZDB | NONE | | | ZDA ZDB | | |
| | ZDC, ZDD | NONE | | | ZDC, ZDD | | |
| | ZDE, ZDF | ZDE WITH ZZQ OR ZDF WITH ZZP | | | ZDE ZDF | | |
| | ZDG | ZDG WITH APP FIG. 78 | | ZDG | | | |
| | ZDH | ZDH WITH APP FIG. 109 | | ZDH | | | |
| | ZDI | ZDI WITH QQ | | | ZDI | | |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S | ISSUE 68A

BELL LABORATORIES | SD-26002-01- | DIIH

CIRCUIT NOTES: (CONT)

104. (CONT)

| CHANGED ON ISSUE | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| | ZDJ | ZDJ WITH WY | | ZDJ | | | |
| | ZDK | NONE | | | ZDK | | |
| | ZDL | NONE | | | ZDL | | |
| | ZDM | NONE | | | ZDM | | |
| | ZDN | NONE | | | ZDN | | |
| | ZDO | ZDO WITH TJ | | | ZDO | | |
| | ZDP | ZDP WITH SP OR NONE | | ZDP | | | |
| | ZDQ | ZDQ WITH SP OR NONE | | ZDQ | | | |
| | ZDR | ZDR WITH APP FIG 182 OR NONE | | ZDR | | | |
| 65B | ZDS | ZDS WITH DX OR NONE | | ZDS | | | |
| | | | | | | | |
| | ZDU | NONE | | | ZDU | | |
| | ZDV | NONE | | | ZDV | | |
| | ZDW | NONE | | | ZDW | | |
| | ZDX | NONE | | | ZDX | | |
| | ZDY | ZDY WITH X OR NONE | | ZDY | | | |
| | ZDZ | NONE | | ZDZ | | | |
| | ZCA | ZCA WITH JG OR NONE | | ZCA | | | |
| | ZCB | NONE | | | ZCB | | |
| | ZCC | ZCC WITH SN OR NONE | | ZCC | | | |
| | ZCD | ZCD WITH PS OR NONE | | ZCD | | | |
| | ZCE | NONE | | ZCE. | | | |
| | ZCF | ZCF WITH APP FIG 136 OR NONE | | ZCF | | | |
| | ZCG | ZCG WITH FA OR NONE | | ZCG | | | |
| | | | | | | | |

SEE OPTION INDEX

104. (CONT)

| CHANGED ON ISSUE | IF JOB RECORDS DO NOT SPECIFY | THIS OPTION WAS FURN | SEE NOTE | USE IN CIRCUIT STD | A&M | MD | SPL |
|---|---|---|---|---|---|---|---|
| 66A | ZCO, ZCP | ZCO WITH ZKB OR ZCP WITH ZKC | | ZCO ZCP | | | |
| 67B | ZCH | NONE | | ZCH | | | |
| | ZCJ, ZCK | ZCJ | | ZCK | | ZCJ | |
| | ZCL | ZCL WITH APP FIG 166 | | ZCL | | | |
| | ZCM OR ZCN | ZCM | | ZCN | | ZCM | |
| | ZCU OR ZCV | ZCU | | ZCV | | ZCU | |
| | ZCW OR ZCX | ZN | | ZCX | | ZCW | |
| | ZCR | NONE | | ZCR | | | |
| | ZCS OR ZCT | ZCS | | ZCS, ZCT | | | |
| | ZBG | ZBG | | ZBG | | | |
| 68A | ZBH | NONE | | ZBH | | | |
| | ZBI | XJ WITH ZBJ | | ZBJ | | | |
| | ZCQ | ZCO WITH IA OR NONE | | ZCQ | | | |
| | ZCZ | NONE | | ZCZ | | | |
| | ZBA | NONE | | ZBA | | | |
| 69B | ZBB | ZBB WITH ZLX OR ZBB WITH ZLY OR NONE | | ZBB | | | |
| | ZBC | NONE | | ZBC | | | |
| | ZCY | NONE | | ZCY | | | |
| | ZBD, ZBE | ZBD | | ZBE | | ZBD | |
| | ZBF | NONE | | | ZBF | | |
| | ZBK, ZBL | ZBK | | ZBK, ZBL | | | |

SEE OPTION INDEX

105. THE DUPLICATE NUMBER GROUP FEATURE CANNOT BE USED WITH NUMBER GROUPS CONTAINING PRE-EMPTIBLE PBX LINES.

106. COORDINATING OPTIONS FOR THE MARKER

| PAR | MKR ISS | FEATURE | PROVIDE APP FIG | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|
| 1 | 5D | SECOND EXTENSION TRUNK LINK FR | | ZC | |
| 2 | 8D | FOR UNIFORM TROUBLE RECORDS WHERE MARKERS ARE ARRANGED FOR SEPARATE CHECK OF TRUNK AND OUTGOING SENDER TP CIRCUITS | | ZS | |
| 3 | | WHEN YC OPTION IS PROVIDED | | ZS | |
| 4 | 9D | MORE THAN 10 AMA RECORDERS | | YY | |
| 5 | 45D | WHEN ZST OPTION IS PROVIDED | | WO | |
| 6 | 11B | WHEN ZS OPTION IS FURNISHED | | XF | |
| 7 | | WHEN TRUNK SERVICE OBSERVING IS REQUIRED | | XH | |
| 8 | | WHEN INTERCEPT OF DIRECT DISTANT DIALING CALLS WITH DOUBLE AREA CODES IS PROVIDED | | XR | |
| 9 | 8D | WHEN LAMA OR CAMA IS PROVIDED | 25 | | 1 PER MKR |
| | | WHEN CAMA IS PROVIDED | | ZS, YY, XF, WP | |
| | 12D | WHEN ANI IS PROVIDED | 25, 75 | WP, ZS, XF, MO | 1 PER MKR |
| | 57B | WHEN APP FIG 74 IS PROVIDED | 176 | | 1 PER MKR |
| 10 | 13B | WHEN GB OPTION IS FURNISHED TO REDUCE MARKER MACHINE TIME | | ZS | |
| 11 | 16B | WHEN MULTIFREQUENCY ORIGINATING REGISTERS ARE PROVIDED | | ZQ | |
| | | WHEN OPTION ZQ IS PROVIDED | | WN | |
| 12 | 30D | 4-WIRE SWITCHING PROVIDED | 82, 106, 108, 149, | GB, JC, SM, TB, WO, XF, XX, ZQ, ZS | 1 EACH PER MKR |
| | 51D | OPTION ZOP | | TM | |
| 13 | 21D | DIGIT 0 ACCESS CODE PROVIDED | | WQ, UQ | |
| 14 | 21D | CENTREX PROVIDED | | GB, ND, RT, UO, UR, YG | |
| | 29A | CONFERENCE CIRCUIT | | MB, MT | |
| | 35L | PROVIDED | | QO | |
| | 25D | BUSY LINE TRANSFER OR DON'T ANSWER TRANSFER PROVIDED | 86, 89, 103 | KG, PC, PH, QX, TF, TY, UE | 1 PER MKR |
| | 29A | | | RE | |
| | 43D | | | ZUE | |
| | 25D | PBX ALLOTTER FEATURE PROVIDED | | EC | |
| | 43D | OPTION ZWR PROVIDED | | ZUK | |
| | 33D | BUSY LINE VERIFICATION PROVIDED | | CM, JH, JM, PH, RE | |
| | | APP FIG 89 PROVIDED AND LR- RELAY MULTIPLE PROVIDED YES | | JP | |
| | | APP FIG 89 PROVIDED AND LR- RELAY MULTIPLE PROVIDED NO | | JQ | |
| | 43D | OPTION ZUF PROVIDED | | YT | |
| | 25D | OPTION PH PROVIDED | | QT | |
| | 35D | APP FIG 137 PROVIDED | 86 | JV, TF | 1 PER MKR |
| | 45D | OPTION ZSW PROVIDED | | EV | |

106. (CONT)

| PAR | MKR ISS | FEATURE | PROVIDE APP FIG | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|
| 14 | | CENTREX PROVIDED | | | |
| | 25D | PHASE III CENTREX PROVIDED | 86, 87 89, 102 | KG, QX PC, QX, RJ, SZ TB, TF, UH, | 1 PER MKR |
| | 29A | | | KB, MB, MT, GL, RE | |
| | 31D | | | IE, LU | |
| | 33D | | | JV | |
| | 35D | | | EE, EG | |
| | 41D | | | ZWB | |
| | 43D | | | ZTP | |
| | 47D | | | ZQF | |
| | 49D | | | ZNA | |
| | 43D | OPTION ZUK PROVIDED | | FG | |
| | 45D | OPTION ZSC PROVIDED | | ZYH | |
| | 41D | CENTREX CENTRALIZED ATTENDANT OPERATION PROVIDED | 53 | DT, SW, ZXO | 1 PER MKR |
| | 56A | OPTION ZLK PROVIDED | | OK | |
| | 55B | AND A-P FIG 143 IS NOT PROVIDED | | GK WO, ZLN, ZYH | |
| | | PHASE I OR II CENTREX PROVIDED | | | |
| | 25D | OPTION QX PROVIDED | | OA, PH | |
| | 24D | OPTIONS RG OR RJ PROVIDED | | RE | |
| | 25D | DIAL TRANSFER PROVIDED | 87, 89 103 | GM, MB, MT, OA, PC, PH, QX, SZ | 1 PER MKR |
| | 29A | | | KB, RE | |
| | 39D | | | IE, ZYH | |
| | 43D | | | ZUE | |
| | 25D | PBX ALLOTTER | | EC | |
| | 43D | FEATURE PROVIDED | | ZUK | |
| | 37D | OPTION ZZE OR ZUE PROVIDED | | EC | |
| | 22D | PHASE II CENTREX PROVIDED | | OZ, TB, TM, TP | |
| | 24D | | 86 | QH, QK, TF | 1 PER MKR |
| | 25D | | | QX | |
| | 33D | | | JV, MB | |
| | 49C | | | ZNA | |
| | 39D | OPTION ZXB NOT PROVIDED | | ZXB | |
| | | PHASE I CENTREX PROVIDED | | | |
| | 24D | TENS BLOCK SCREENING PROVIDED | | QH, QK, TP | |
| | 22D | OPTION SR PROVIDED | 94 | TB | 1 PER MKR |
| | 25D | | | QX | |
| | 53B | | | ZNW | |
| | 33D | OPTION JV PROVIDED | | MB | |
| | 30D | OPTION KG OR TP PROVIDED | 86 | TF | 1 PER MKR |
| | 25D | OPTION OS PROVIDED | | TB | |

COMPLETING MARKER CIRCUIT

DWG SIZE 8S | ISSUE 69B

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CIRCUIT NOTES: (CONT)

106. COORDINATING OPTIONS FOR THE MARKER (CONT)

| PAR. | MKR ISS | FEATURE | PROVIDE: APP FIG | PROVIDE: APP OR WRG | PROVIDE: QUANTITY |
|---|---|---|---|---|---|
| 15 | 25D | WHEN GM OPTION IS FURNISHED | | MB | |
| 17 | 22D | TENS BLOCK SCREENING | | SC | |
| | 35D | PROVIDED | | DO | |
| 18 | 22D | LINE LINK PULSING; AND ETS IS NOT PROVIDED | 86 | GB,RT,TB,TF,TM,TY,UO,VK,ZS | 1 PER MKR |
| | 25D | LINE LINK PULSING; AND ETS IS NOT PROVIDED | | OV,PC | |
| | 26A | LINE LINK PULSING; AND ETS IS NOT PROVIDED | | OZ | |
| | 29A | LINE LINK PULSING; AND ETS IS NOT PROVIDED | | KW | |
| | 33D | LINE LINK PULSING; AND ETS IS NOT PROVIDED | | JG,CJ,CK | |
| | 45D | LINE LINK PULSING; AND ETS IS NOT PROVIDED | | ZSH | |
| | 57B | LINE LINK PULSING; AND ETS IS NOT PROVIDED | | ZJM | |
| | 63B | LINE LINK PULSING; AND ETS IS NOT PROVIDED | | ZQQ | 1 PER MKR |
| | 57B | LINE LINK PULSING; AND ETS IS PROVIDED | | GB,OZ,RT,TB,TM,TY,VK,ZS,ZSH | |
| | | LINE LINK PULSING; AND ETS IS PROVIDED; AND THE MCI RELAY IS PROVIDED IN ANY LINE LINK CONNECTOR | | CJ,CK | |

106. (CONT)

| PAR. | MKR ISS | FEATURE | PROVIDE: APP FIG | PROVIDE: APP OR WRG | PROVIDE: QUANTITY |
|---|---|---|---|---|---|
| 23 | 24D | WHEN TY OPTION IS FURNISHED | | RT,RV,TB | |
| | 31D | WHEN TY OPTION IS FURNISHED | | KP,XY | |
| 25 | 24D | WHEN RO OPTION IS FURNISHED | 84 | QL,RE,RT,RV,TF | 1 PER MKR |
| | 41D | WHEN RO OPTION IS FURNISHED | | ZWB | |
| 26 | 24D | WHEN OPTIONS SN AND SZ ARE PROVIDED AND MISMATCH IS ROUTED TO OVERFLOW | | QT | |
| 28 | 24D | WHEN WS OPTION IS FURNISHED | | VQ | |
| 29 | 23A | WHEN OPTION QB,SM,WS OR WT IS FURNISHED | 82 | TB | 1 PER MKR |
| 30 | 24D | WHEN OPTION QH IS PROVIDED | | QK | |
| 31 | 23A | WHEN OPTION SM IS PROVIDED | | QE,YG | |
| 35 | 25D | OPTION PN WITH APP FIG 107 PROVIDED | | GB,TB,ZS,ZXV | |
| 36 | 39D | WHEN OPTION ZYR IS PROVIDED WITH PS OR QU | | EE | |
| 37 | 25D | TRAFFIC SAMPLING PROVIDED | | QK,XX,ZS | |
| | 59D | USING AMA-IAQ TRUNKS WITH LINE LINK PULSING | | ZYR | |
| | 41D | WITH OPTION ZWM | | ZWO | |
| | 51D | ON ROUTES REQUIRING AMA AND TRUNK CLASS INFO ON SAME CALL | 166 | ZOA | |
| 38 | 25D | OPTION RA PROVIDED | | RE | |
| | 35D | OPTION RA PROVIDED | | DR | |

106. (CONT)

| PAR. | MKR ISS | FEATURE | PROVIDE: APP FIG | PROVIDE: APP OR WRG | PROVIDE: QUANTITY |
|---|---|---|---|---|---|
| 41 | 37D | WHEN OPTION EO IS PROVIDED | 82 | | 1 PER MKR |
| 42 | 26A | WHEN MULTIPLE CLASS OF SERVICE MATCH FEATURE IS PROVIDED | | TB | |
| | 28D | WHEN MULTIPLE CLASS OF SERVICE MATCH FEATURE IS PROVIDED | | MJ | |
| | 49D | WHEN MULTIPLE CLASS OF SERVICE MATCH FEATURE IS PROVIDED | | ZQW,YG | |
| 43 | 25D | WHEN APP FIG 75 IS PROVIDED | | OJ | |
| | | WHEN OPTION OJ IS PROVIDED | 75 | UQ | 1 PER MKR |
| 44 | | WHEN OPTION OM IS PROVIDED | | VQ | |
| 45 | 26A | WHEN PBX ALLOTTER CONTROL IS PROVIDED | | OV | |
| | 28D | WHEN PBX ALLOTTER CONTROL IS PROVIDED | | MH | |
| | 29A | WHEN PBX ALLOTTER CONTROL IS PROVIDED; AND APP FIG 89 IS FURNISHED | | KW | |
| | 31D | WHEN PBX ALLOTTER CONTROL IS PROVIDED; AND OPTION TY IS FURNISHED: YES | | KP,XY | |
| | | WHEN PBX ALLOTTER CONTROL IS PROVIDED; AND OPTION TY IS FURNISHED: NO | | XZ | |
| 47 | 25D | WHEN OPTION NB IS PROVIDED | | QK,UR,WO | |
| 48 | 28D | PAIRED LINE LINK FEATURE PROVIDED | | MB | |
| | 39D | PAIRED LINE LINK FEATURE PROVIDED | | XV | |
| | 41D | PAIRED LINE LINK FEATURE PROVIDED; AND OPTION NQ IS PROVIDED | | ZXS,ZWY | |
| 49 | | WHEN APP FIG 25 IS PROVIDED | | MH | |
| 50 | 28D | 10 DIGIT LOCAL COMPLETION WITH: CAMA OR LAMA | | ZT | |
| | | 10 DIGIT LOCAL COMPLETION WITH: LINE LINK PULSING | | MQ | |
| | 28D | WHEN OPTION LM IS PROVIDED | | TB,UO | |
| 51 | 58A | WHEN OPTION ZNE IS PROVIDED | | ZJE | |
| 52 | | WHEN OPTION JD IS PROVIDED | | WN | |
| 53 | 33D | WHEN DIRECT ACCESS TO 101 ESS IS PROVIDED | | SC,TM,TY | |
| | | 101 ESS HANDLES CCSA TRAFFIC AND ETS IS NOT PROV | 37 | ZN | 1 PER MKR |
| 56 | 33D | WHEN OPTION IK IS PROVIDED | | IE,JG,TB,WR,ZQ | |
| | | AND LINE LINK PULSING IS PROVIDED | | JG | |
| | | AND OPTION NQ IS FURNISHED | | IN | |
| 57 | 45D | WITH FIG 113 | | ZRI | |
| | 33D | WHEN OPTION IN IS PROVIDED | | XN,ZQ | |
| | | AND OFFICE IS EQUIPPED WITH "TOUCH-TONE ® " DIALING OPERATION | | BN | |
| | | AND TRAFFIC DATA PROCESSOR IS NOT PROVIDED | | IJ | |
| 58 | 33D | ACCESS GROUP CONTROLLER PROVIDED | | IE,IU,MB,QB,UO | |
| | | WHEN OPTION IS IS PROVIDED | | ,RE | |
| 59 | | WHEN APP FIG 129 IS PROVIDED | | CB,EF,KP | |
| | | WHEN CK IS PROVIDED | | CJ | |

106. (CONT)

| PAR. | MKR ISS | FEATURE | PROVIDE: APP FIG | PROVIDE: APP OR WRG | PROVIDE: QUANTITY |
|---|---|---|---|---|---|
| 61 | 33D | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; AND ETS IS NOT PROVIDED | 91 | EF,FI,GB,MQ,OV,QE,SM,TM,TU,TY,VK,ZS | 1 PER MKR |
| | 45D | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; AND ETS IS NOT PROVIDED | | ZSH | |
| | 33D | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; AND ETS IS NOT PROVIDED | 75 | CJ,CK,QL | 1 PER MKR |
| | | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; AND OFFICE IS EQUIPPED WITH OFFICE TEST FRAME | | ZTQ | |
| | 33D | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; AND ETS IS PROVIDED | | ZWB | |
| | 41D | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; AND ETS IS PROVIDED | | FI,GB,TM,TU,TY,VK,ZS,ZSH,ZKV,ZIT | |
| | 57B | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; AND ETS IS PROVIDED; AND THE MCI RELAY IS PROVIDED IN ANY LINE LINK CONN | | CJ,CK | |
| | | AUTOMATIC INTERCEPT SERVICE USING LLP SENDERS; FOR TRANSITION TO ETS | | ZKW | |
| | 41D | AUTOMATIC INTERCEPT SERVICE WITHOUT USING LLP | | AD,EO,TM | |
| | 53B | AUTOMATIC INTERCEPT SERVICE WITHOUT USING LLP | | ZMX | |
| | | AND PHASE I OR II CENTREX IS PROVIDED WITHOUT DIAL TRANSFER | 139 | | |
| | | AND OPTION ZMV IS PROVIDED | | ZSH | |
| | | AND OPTION LM IS NOT PROVIDED | | ZIV | |
| | | AND TRAFFIC DATA PROCESSOR IS NOT PROVIDED | | IJ | |
| | 57B | AND OFFICE TST FR IS PROVIDED | | ZYZ | |
| 62 | 30D | WHEN GV OPTION IS FURNISHED | | MB | |
| 63 | | WHEN GQ OPTION IS PROVIDED | | JG | |
| 64 | 33D | WHEN GQ OPTION IS PROVIDED | 82 | | 1 PER MKR |
| 65 | | WHEN GH OPTION IS PROVIDED | | GK,QK | |
| 66 | 35D | GLARE DETECTION PROVIDED | | FE,QN,WN | |
| 68 | 35D | AMA RECORDS OF X11 CALLS (APP FIG 136) | | FD,GK,GW,QK,WO | |
| 69 | 33D | WHEN OPTION UO OR LW OR AV OR ZKV OR ZTK OR APP FIG. 160 IS PROVIDED AND TRAFFIC DATA PROCESSOR IS NOT PROVIDED | | IJ | |
| 70 | 43D | CALL WAITING SERVICE | | CA,CJ,CK,IU,LH,XT,ZVI | |
| | | AND OFFICE TEST FRAME IS PROVIDED | | AH,TM,ZYZ | |
| 71 | 35D | WIDEBAND SWITCHING (SPL) PROVIDED | | EQ,IE,MB,QE,SM,TM,XN,YG | |
| | | AND AMA IS PROVIDED ON WIDEBAND ROUTES | | GW | |
| 72 | 35D | INTERCHANGEABLE CODES (FIG. 143) PROVIDED | | FD,GK,GW,QK,WO | |
| 73 | 35D | WHEN APP FIG 145 IS PROVIDED | | FD,GK,NB,QK,WO | |
| 74 | 35D | WHEN OPTION DB IS PROVIDED | | EF | |
| 75 | 39D | TRAFFIC SAMPLING BY SELECTED TRUNK GROUP | | EF,GW | |
| | 39D | TRAFFIC SAMPLING BY SELECTED TRUNK GROUP | | ZKF | |
| | 41D | TRAFFIC SAMPLING BY SELECTED TRUNK GROUP | | AV | |

| DRAWING ISSUE |
|---|
| 41D |
| 43D |
| 44A |
| 45D |

| DRAWING ISSUE |
|---|
| 67B |

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D12A

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CIRCUIT NOTES: (CONT)
106. COORDINATING OPTIONS FOR THE MARKER

| PAR. | MKR ISS | FEATURE | PROVIDE: APP FIG | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|
| 76 | 35D | WHEN OPTION TH IS PROVIDED | | DM | |
| 77 | | WHEN OPTION DR IS PROVIDED | | LZ | |
| 78 | | WHEN OPTION CA IS PROVIDED | | EQ | |
| 79 | | WHEN OPTION CG IS PROVIDED | | QO | |
| 80 | | WHEN OPTION DX IS PROVIDED | 53 | CN,EQ | 1 PER MKR |
| 81 | | WHEN OPTION DT IS PROVIDED | | CN | |
| 82 | | WHEN OPTION ZF IS PROVIDED | | CN | |
| 83 | 34A | WHEN APP FIG 144 IS PROVIDED | | CP | |
| 84 | 35D | WHEN APP FIG 136 IS PROVIDED | | FD | |
| 85 | 37D | WHEN APP FIG 138 IS PROVIDED | | EF,CR | |
| 86 | 33D | WHEN APP FIG.132 IS PROVIDED | | VQ | |
| 87 | 37D | WHEN OPTION JW IS PROVIDED | | JR,WT | |
| 88 | | WHEN OPTION JS IS PROVIDED | | WT | |
| 89 | 39D | WHEN OPTION "AT" IS PROVIDED | | ZVA | |
| 90 | 37D | WHEN OPTION ME IS PROVIDED — PHASE I OR II CENTREX IS PROVIDED: NO | | BT | |
| | | YES | | ZVS | |
| 91 | | WHEN PBX TOLL DIVERSION IS PROVIDED WITH AMA | | BX | |
| 92 | | WHEN OPTION AG IS PROVIDED | | EF,AH | |
| | | WHEN OPTION ZYZ IS PROVIDED | | EF,AH, BY | |
| 93 | | WHEN OPTION AX IS PROVIDED | | AZ | |
| 94 | | WHEN APP FIG. 129 AND MORE THAN 1000 TRUNK NUMBERS ARE PROVIDED | | ZTT | |
| 95 | 41D | WHEN OPTION UO IS PROVIDED | | ZVA | |
| 97 | 39D | WHEN OPTION AV IS PROVIDED | | EF | |
| 99 | 39D | WHEN OPTION ZZL OR ZZM IS PROVIDED | 150 | ZYM | 1 PER MKR |
| | | | | ZOT | |
| | 50A | WITH OPT. IX | | ZOR | |
| | | WITH OPT. ZZL PROVIDED | | ZOE | |
| | | OPT. NH AND OPT. ZZM PROVIDED | | ZOV | |
| 100 | 39D | WHEN OPTION ZYJ IS PROVIDED | | ND, ZYH | |
| | 47D | | | ZRU | |
| 101 | 39D | WIDEBAND SWITCHING — WITH DATA-PHONE 50 FEATURES | 169 | ZRY | 1 PER MKR |
| | | | | IE, IU, LH, LU, MB, QE, RT, SC, SM, SQ, TB, TM, UZ, YC, ZYM | |
| | | WITH PHASE I OR II CENTREX | | PH | |
| | 43D | WITH PHASE III CENTREX | | ZYH | |
| 102 | 41D | INTERNATIONAL DIRECT DISTANCE DIALING - LAMA ARRANGEMENT | | EL,FD, QK,QK ZWK | |
| 103 | | WHEN OPTION ZXS IS PROVIDED | | ZIN | |
| 104 | | WHEN OPTION ZWC IS PROVIDED | | ZJB | |
| 105 | | WHEN OPTION ZVL IS PROVIDED | 82 | | 1 PER MKR |
| 106 | | WHEN OPTION ZVQ IS PROVIDED | | ZVR | |
| 107 | | WHEN OPTION ZVG IS PROVIDED | | GV, ZVR | |

| PAR. | MKR ISS | FEATURE | PROVIDE: APP FIG | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|
| 109 | 43D | WHEN OPTION ZUC IS PROVIDED | | ND, ZYH | |
| 110 | | WHEN OPTION ZVB IS PROVIDED | | ZVR | |
| 111 | | WHEN INTERNATIONAL DIRECT DISTANCE DIALING - TSPS ARRANGEMENT (APP FIG 161) IS PROVIDED | | BG,EL, FD,GK, QH,QK, UQ, ZWK | |
| | | WHEN OPTION EL IS PROVIDED & APP FIG 161 IS NOT PROVIDED | | ZVT | |
| 113 | 43D | WHEN OPTION IY IS PROVIDED | | ZUG | |
| 114 | 43D | WHEN OPTION ZUM IS PROVIDED — WITH OPTION TY | | ZUS | |
| | | PAIRED LINE LINK FRAMES PROVIDED: YES | | IN, ZXS, ZUP | |
| | | NO | | ZUN | |
| | | WITH LINE LINK PULSING | | EQ, ZUR | |
| | | BOTH 2-WIRE & 4-WIRE SWITCHING | | FT | |
| 116 | 43D | WHEN OPTION ZUS IS PROVIDED | | ZVD, EQ,TY | |
| | 61B | | | ZHT | |
| | 43D | PAIRED LINE LINK FRAMES PROVIDED: YES | | IN, ZTM | |
| | | NO | | ZTL | |
| | | BOTH 2-WIRE & 4-WIRE SWITCHING | | FT | |
| 117 | 51D | WHEN OPTION ZTC IS PROVIDED | 82, 101, 166 | WS,XX, ZTB | 1 PER MKR |
| 118 | 43D | WHEN TANDEM AMA (OPTION ZT8) IS PROVIDED | | ZYH | |
| | 51D | ON WATS ROUTES | 166 | | 1 PER MKR |
| 121 | 43D | WHEN APP FIG 144 IS PROVIDED | | ZUY | |
| 122 | 45D | WHEN OPTION ZSF IS PROVIDED | | IN | |
| 123 | | WHEN APP FIG 166 IS PROVIDED | | ND, ZUC, ZYH | |
| 125 | 45D | WHEN OPTION ZSM IS PROVIDED | | ZS | |
| 126 | | WHEN OPTION ZSU IS PROVIDED | | ZVI | |
| 128 | 45D | WHEN OPTION BG IS PROVIDED | | YC | |
| 129 | 43D | WHEN OPTION ZVD IS PROVIDED WITH OPTION HQ | | ZXS, ZWY | |
| 131 | 45D | WHEN OPTION SW,UQ,OR XJ IS PROVIDED | 75 | | 1 PER MKR |
| 132 | 47D | WHEN OPTION ZQ IS PROVIDED | | RH | |
| 133 | | WHEN APP FIG.147 IS PROVIDED FOR PBX TOLL DIVERSION | | ZX | |
| 134 | 53B | WHEN OPTION IY IS PROVIDED | | ZMM | |
| 135 | 51D | WHEN APP FIG. 170 IS PROVIDED | | WO | |
| 137 | | WHEN WATS TRUNKS REQUIRE BOTH AMA AND CLOCK TIMERS AND ETS IS NOT PROVIDED | 166 | YC, ZPY | 1 PER MKR |
| 138 | | WHEN POSITIVE TEST CALL CONTROL WITH OFFICE TEST FR (OPTION ZYZ) IS PROVIDED | | ZOX | |
| 139 | | WHEN DIRECTORY ASSISTANCE CHARGING (APP FIG. 175) IS PROVIDED | | WO, ZST | |
| 140 | 49D | WHEN APP FIG. 172 IS PROVIDED | | DR | |
| 141 | 53B | WHEN OPTION ZNB (CSACS) IS PROVIDED | | TB, ZJX | |

| PAR. | MKR ISS | FEATURE | PROVIDE: APP FIG. | APP OR WRG | QUANTITY |
|---|---|---|---|---|---|
| 142 | 53B | WHEN OPTION ZNI,ZNK,ZNM,ZNO, ZNQ, OR ZNW IS PROVIDED | | GO | |
| 143 | | WHEN OPTION ZNS OR ZNU IS PROVIDED | | ZVL | |
| 144 | | WHEN CALL WAITING FEATURES AND PERMANENT SIGNAL FEATURES ARE BOTH PROVIDED | | ZML | |
| 145 | | WHEN OPTION ZMO IS PROVIDED | | ZTC, ZMH, ZOA | |
| 146 | | WHEN APP FIG. 144 AND OPTION ZMS ARE PROVIDED | | ZMT | |
| 147 | | WHEN OPTION ZPS IS PROVIDED | | ZT8 | |
| 149 | 55B | WHEN HOTEL-MOTEL MULTI-MESSAGE UNIT OPERATION IS REQUIRED | | YC | |
| 150 | | WHEN OPTION ZLS IS PROVIDED | | ZQB | |
| 151 | 57B | WHEN OPTION ZLU IS PROVIDED | 110 | BN, WH, ZTJ | |
| 152 | 55B | WHEN OPTION ZLY OR ZLX IS PROVIDED | | RE | |
| 153 | 57B | WHEN OPTION ZKC IS PROVIDED | | ZLJ, ZHP, ZXF | |
| 154 | | WHEN OPTION ZQ OR ZMY IS PROVIDED | | ZKG | |
| 155 | 59B | WHEN OPTION ZJX IS PROVIDED — INTERFACE AND CONTROL CIRCUIT PROVIDED | | TB | |
| 156 | 59B | WHEN OPTION ZKM IS PROVIDED — PAIRED LINE LINKS PROVIDED: YES | | IN, ZTM | |
| | | NO | | ZTL | |
| | | BOTH 2-WIRE & 4-WIRE SWITCHING | | FT | |
| 157 | 57B | WHEN OPTION ZKP IS PROVIDED | | MS | |
| 158 | 61B | WHEN APP FIG. 181 IS PROVIDED | | FE | |
| 159 | 61B | WHEN OPTION ZHF IS PROVIDED | | ZYH | |
| 160 | 61B | WHEN APP FIG. 183 IS PROVIDED | | UQ | |
| 161 | 65B | WHEN MINI-ROTL OPERATION IS PROVIDED | | SW | |
| | | AND OFFICE TEST FR IS PROVIDED | | FU,BY, | |
| 162 | | WHEN OPTION ZED OR ZEF IS PROVIDED | | ZQQ | |
| 163 | 69B | WHEN TEST DESK ACCESS TO ORIG ONLY LINES WITHOUT USING SC- RELAYS IS PROVIDED AND OPTION ZBC IS REQUIRED. | | TY | |
| 164 | 69B | WHEN OPTION ZBL IS PROVIDED | | UQ | |

DRAWING ISSUE: 41D, 42A, 43D, 44A, 45D

DRAWING ISSUE: 69B

COMPLETING MARKER CIRCUIT (2)

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CIRCUIT NOTES: (CONT)

108.

| PRIOR TO ISSUE | OPTION | WAS PART OF OPTION |
|---|---|---|
| 16B | WP | ZI |
| | TG | UZ |
| 22D | SQ,SN, TJ | UL |
| | TQ | WV |
| | QS | SN |
| | SY | UL |
| | RF | TE |
| | RH | TP |
| 24D | RS | UN |
| | RT | UQ |
| | RU | TX |
| | RV | TY |
| | QL | TU |
| | QP | UG |
| | QR | 78 |
| | QW | SP |
| | QY | WU |
| | QZ | TJ |
| | PB | TT |
| | PC | TO |
| | PF | SP |
| 25D | PT | 90 |
| | PW | UL |
| | PX | SP |
| | PY | SN |
| | PZ | UH |
| | OH | UQ |
| | OI | 75 |
| | OL | TU |
| | OW | 94 |
| | OR | UL |
| | NG | XX |
| | NF | 82 |
| | NP | ZE |
| | NK | ZJ |
| | NZ | UL |
| 28D | MS,MF | WN |
| | MR,MI | SP |
| | MP | ZI |
| 29A | KU | 91 |
| | KV | 60 |
| | KC | 2 |
| | KE | 65 |
| | LF | VD |
| 30D | LP | 80 |
| | LQ | 92 |
| | LR | 77 |
| | LS | 98 |
| | MZ | 82 |
| | KR | 69 |
| | KN | TY |
| | LD | 53 |
| 31D | LN | RL |
| | LX | 105 |
| | MJ | TU |
| | LZ | RA |
| | JE | PS,QU |
| | JP | 89 |
| | JT | PS |
| | JU | TP |
| | JW | 101 |
| | JR | 39 |
| | JN | PW |
| | JM | PS |
| | IJ | UO |
| | IL | TU |
| | IM | 115 |
| 33D | IO | WN |
| | IP | ZO |
| | GF | VD |
| | GH | PS |
| | GG | VE |
| | IZ | XJ |
| | GC | UL |
| | GP | TU |
| | JZ | 91 |
| | IA | TU |
| | CH | 91 |
| | CI | 125 |
| | BN | LV |

| PRIOR TO ISSUE | OPTION | WAS PART OF OPTION |
|---|---|---|
| 34A | EW | IA |
| | GX | 73 |
| | FB | 40 |
| | FC | 68 |
| | FF | QQ |
| | FH | TU |
| | FL | 53 |
| | FQ | WO |
| | FP | VZ |
| | FQ | NB |
| | FR | 52 |
| | FS | 82 |
| 35D | FV | QB |
| | FW | GW |
| | FX | 69 |
| | ED | PS,QU |
| | DC | 57 |
| | DG | 64 |
| | DN | SC |
| | DR | RA |
| | CB | APP FIG 129 |
| | DU | 53 |
| | DV | ZF |
| | CL | 53 |
| | CM | ZF |
| | DY | SP |
| | AA | 52 |
| | BF | UO |
| | BK | 40 |
| | ZZO | VJ |
| | CZ | 112, 114 |
| | BD | JC |
| 37D | BT | ME |
| | AB | 133 |
| | AS | 110 |
| | ZZA | TS |
| | ZZH | 117 |
| | ZZI | JC |
| | ZZJ | LC |
| | ZYF | 115 |
| | DI | APP FIG 38 |
| | ZZF | 99,116 |
| | ZYC | FY |
| | ZYK | 119 |
| | ZYN | LC |
| | ZYV | QU,PS |
| 39D | ZYX | 128 |
| | ZXA | TP |
| | ZXC | NQ |
| | ZXJ | PW |
| | ZZY | 133 |
| | ZZZ | GS |
| | AI | APP FIG 105 |
| 40A | ZVM | 104 |
| | ZVA | UO |
| | ZVJ | RA |
| | ZVK | ZI |
| | ZVP | QX |
| | ZWA | MT |
| | ZWB | IC |
| | ZWD | 137 |
| | ZWG | SP |
| | ZWH | 68 |
| | ZWJ | IK |
| | ZWK | EL |
| 41D | ZWL | AV |
| | ZWN | 39 |
| | ZWY | II |
| | ZWZ | UN |
| | ZXN | PS |
| | ZXP | TU |
| | ZXQ | RA |
| | ZXW | IS |
| | ZXY | 88 |
| | ZXZ | RQ |
| | ZXL | PS |
| 42A | ZVU | IJ,IK |
| | ZVY | PW |

| PRIOR TO ISSUE | OPTION | WAS PART OF OPTION |
|---|---|---|
| | ZUZ | ES |
| | ZWS | PS |
| | ZWT | PE |
| | ZVX | 130 |
| | ZVT | EL |
| 43D | ZUB | NO |
| | ZUD | ZXS |
| | ZUJ | EC,112 |
| | ZUQ | TY |
| | ZUU | ZQ |
| | ZTD | 147 |
| | ZTH | ZQ |
| | ZTY | EQ |
| | ZSB | UL |
| | ZSK | DX |
| | ZSD | 113 |
| 45D | ZSL | LM |
| | ZSV | EV |
| | ZSY | TF |
| | ZSO | 113 |
| | ZSS | ZYJ |
| | ZRI | IN |
| | ZRA | ZZP |
| | ZRB | ZZP |
| | ZRG | ZQ |
| 47D | ZRK | YY |
| | ZRQ | ZZP |
| | ZRS | ZYJ |
| | ZRT | PS |
| | ZQT | TT |
| | ZQU | TU |
| | ZQK | 129 |
| 49D | ZQW | UL |
| | ZPA | UM |
| | ZQY | SP |
| | ZPB | M |
| | ZPR | WS |
| | ZPU | APP FIG 105 |
| | ZPZ | XX |
| 51D | ZOJ | APP FIG 129 |
| | ZOK | FA |
| | ZOQ | 81 |
| | ZOS | 150 |
| | ZON | RA |
| 52A | ZMH | ES |
| | ZNF | ZYJ |
| | ZMK | 88 |
| | ZNH | XJ |
| | ZNJ | 147 |
| | ZNL | 83 |
| | ZNN | 69 |
| | ZNP | ZTE |
| 53B | ZNR | WT |
| | ZNT | 59 |
| | ZNV | 94 |
| | ZMF | RF |
| | ZMF | RG |
| | ZOC | JZ |
| | ZOD | ZXK |
| | ZOE | PS |
| | ZLF | WY |
| 55B | ZLP | PS |
| | ZLM | FJ |
| | ZLR | 60 |
| | 176 | 74 |
| | ZGN | DX |
| | ZGP | DX |
| | ZGR | WX |
| | ZIB | QQ |
| 57B | ZIG | ZD |
| | ZIM | ZZY |
| | ZIX | FJ |
| | ZJC | 74 |
| | ZJI | PW |
| | ZJK | SW |
| | ZJP | JK |
| | ZJT | JY |
| | ZJU | IA |
| | ZKA | IK |
| | ZKE | ZQ |

108.

| PRIOR TO ISSUE | OPTION | WAS PART OF OPTION |
|---|---|---|
| | ZKF | ZMY |
| 52B | ZKJ | 104 |
| | ZKS | APP FIG 91 |
| | ZFT | VM |
| 58A | ZJY | LL |
| | ZJZ | LM |
| 59B | ZIE | RA |
| | ZJX | ZNB |
| | ZHC | SO |
| | ZHQ | ZKC |
| | ZHU | ZUS |
| | ZHV | TY |
| 61B | ZHI | APP FIG 143 |
| | ZGE | TU |
| | ZGG | TT |
| 62A | ZEP | ZKC |
| 63B | ZGU | UL |
| | ZEC | 158 |
| | ZEE | 128 |
| | ZEI | 75 |
| | ZEK | UQ |
| | ZEM | QJ |
| | ZEO | 39 |
| | ZEQ | 105 |
| | ZDE | ZZQ |
| | ZDF | ZZP |
| 65B | ZDG | APP FIG 78 |
| | ZDH | APP FIG 109 |
| | ZDI | QQ |
| | ZDJ | WY |
| | ZDO | TJ |
| | ZOP, ZDQ | SP |
| | ZDR | APP FIG 182 |
| | ZDS | DX |
| | ZDY | X |
| | ZLA | JG |
| | ZCC | SN |
| | ZCD | PS |
| | ZEA | RA |
| | ZEB | RB |
| | | |
| | | |
| | | |
| | ZCF | APP FIG 136 |
| 66A | ZCO | ZKB |
| | ZCP | ZKC |
| 67B | ZCL | APP FIG 166 |
| | ZCW | ZN |
| 68A | ZBJ | XJ |
| 69B | ZCQ | IA |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S

ISSUE 69B

BELL LABORATORIES

SD-26002-01-

D12C

E-7488 (8-77) PRINTED IN U.S.A.

109. SUBSEQUENT TO ISSUE 17D,APP FIG 34 AND OPTION ZV MAY BE APPLIED ON AN (A&M ONLY) BASIS FOR FIELD MODIFICATIONS OF EXISTING MARKERS AS FOLLOWS:

(A&M ONLY)

1. APPLY APP FIG 34 WHEN INCREASING THE NO. OF CLASSES OF SERVICE FROM 30 TO 60 WITH TWO (2) SORTS.
2. APPLY APP FIG 34 AND OPTION ZV WHEN INCREASING THE NO. OF SORTS TO FOUR (4) WITH 30 CLASSES OF SERVICE.

110. REMOVE MULTIPLE OF PC LEADS BETWEEN INTRAOFFICE ROUTE RELAYS WHEN IT IS DESIRED TO USE IPC PEG COUNT ARRANGEMENT FOR INTRAOFFICE ROUTE.

111. THE TERM "OFFICE TEST FRAME TEST CKT" REFERS TO ISSUE 2 OR LATER OF SD-27633-01.

112. *NOTE CANCELLED ON ISSUE 67B*

113. THE TRAFFIC DATA PROCESSOR FEATURE WILL FUNCTION WITH EITHER THE TRAFFIC DATA CONVERTER CKT OR WITH REGULAR TRAFFIC REGISTERS, THUS ALLOWING THE FEATURE TO BE INSTALLED IN OFFICES NOT YET EQUIPPED WITH A TRAFFIC DATA PROCESSING SYSTEM.

114. THE FOLLOWING FEATURES CAN BE APPLIED ONLY IN A MARKER GROUP ARRANGED FOR CLASS OF SERVICE SELECTION ON A UNITS AND TENS BASIS:

1. DIAL TRANSFER
2. BUSY LINE AND DON'T ANSWER TRANSFER
3. PHASE III CENTREX

115. WHEN ETS IS NOT PROVIDED PROVIDE ONE APP FIG. 89 FOR EACH TEN LISTED DIRECTORY NUMBERS THAT MUST BE GENERATED. THE LISTED DIRECTORY NO. OF A CENTREX CUSTOMER MUST BE GENERATED IF THE CUSTOMER IS EQUIPPED WITH BUSY LINE TRANSFER OR IF THE ATTENDANT FACILITIES ARE ON THE LINE LINK FRAME. THE TOTAL NO. OF APP FIGURES 89 USED FOR LINE LINK PULSING AND FOR NO. GENERATION IS LIMITED TO 12.

116. OPTIONS PH AND OA PROVIDE AN IMPROVED METHOD OF CLASS OF SERVICE READ IN AND CHECK FOR PHASE I AND II CENTREX,FOR UNIFORMITY OF OPERATION PROVIDE OPTIONS PH AND OA IN ALL MARKERS OF A GROUP IF ANY OF THEM ARE SO EQUIPPED.

117. OPTION EE PROVIDES A LINE IDLE INDICATION TO THE TRANSFER TRUNK ON CALLS TO LINE LINK PULSING STATIONS. THIS SIGNAL IS REQUIRED TO PROVIDE THE CENTREX ATTENDANT WITH A FLASHING LAMP SIGNAL WHEN A CALL IS TRANSFERRED TO A LINE LINK PULSING STATION. FOR UNIFORM OPERATION, WHEN LINE LINK PULSING IS PROVIDED, OPTION EE SHOULD BE FURNISHED IN ALL COMPLETING MARKERS OF A GROUP IF ANY OF THE MARKERS ARE SO EQUIPPED.

118. WHEN ETS IS NOT PROVIDED, FOR UNIFORM CROSS CONNECTIONS PROVIDE OPTION OM IN ALL COMPLETING MARKERS OF A GROUP IF ANY OF THE MARKERS ARE SO EQUIPPED.

119. FOR PAIRED LINE LINK FRAME OPERATION, OFFICE SIZE MUST BE SUCH TO PROVIDE CROSS CONNECTION FOR (IOTLF) RELAY (SEE J SPECIFICATION). WHEN PAIRED LINE LINK FRAME OPERATION IS APPLIED, THE PERCENT LOAD (PL), CANNOT BE INDICATED ON A LINE LINK FRAME BASIS, AND OPTION DC MUST BE REMOVED. OPTION ZSF PERMITS THE PAIRED LINE LINK FRAME FEATURE TO BE ADDED AT ANY TIME, BUT PREVENTS IT FROM BECOMING OPERATIONAL UNTIL THE (IOTLF) RELAY CROSS CONNECTION IS PROVIDED.

120. THE FOLLOWING OPTIONS PROVIDE 316 REPLACEMENTS FOR VARIOUS 280 TYPE RELAYS:

| OPTION | RELAY DESIG |
|---|---|
| MK | XTA |
| GA | ORRO,I |
| GB | CNK,TCC,TPYK |
| GD | XCS |

121. THE MARKER CONTROLLED IMMEDIATE RING FEATURE SHOULD BE PROVIDED IN ALL NEW MARKER GROUPS THAT HAVE THE NECESSARY LEVELS AVAILABLE ON THE RINGING SELECTION SWITCH. LIMITATIONS ON LEVEL ASSIGNMENTS ARE OUTLINED IN THE RINGING SELECTION SWITCH CKT.

122. THE WIRING FOR OPTIONS RX AND RX AND THE WIRING AND APPARATUS OF APP FIGURES 77,80,92,93 AND 98 WAS PART OF THE 4-WIRE FEATURE WHICH NOW HAS NO APPLICATION IN ANY EXISTING 2-WIRE OR 4-WIRE NO. 5 CROSSBAR OFFICE.

123. RELAY CONTACTS AND TERMINAL ASSIGNMENTS ASSOCIATED WITH APP FIG 124 AND OPTIONS MZ,LF,LP,LQ,LR AND LS MAY BE USED AS REQUIRED FOR NEW FEATURES.

124. APP FIG 141, APPARATUS AND WIRING, PROVIDES OPERATOR ROUTE SELECTION FOR DIAL TONE FIRST OPERATION OF COIN LINES. WHEN APP FIG 141 IS PROVIDED REMOVE OPTION ZWK.

125. WHEN APP FIG. 145 (CUSTOMER DIALING OF OVERSEAS CALLS) IS PROVIDED, DO NOT PROVIDE APP FIG. 143 AND OPTION EY.

126. WHEN APP FIG. 165 AND OPTION ZTK (SUPPLEMENTARY ROUTE TRANSFER RELAYS WITH PEG COUNTS REQUIRED) IS PROVIDED, DO NOT PROVIDE APP FIG. 115. (CONT ON D14A)

DRAWING ISSUE

34A TS THIS AND
35D TS THIS AND
36A
37D
39D
40A
41D
42A
43D
45D

DRAWING ISSUE 67B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D13

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D13

CIRCUIT NOTES: (CONT)

126. (CONT) OPTIONS KP AND XY MAY BE ADDED TO MARKERS EQUIPPED WITH THE PBX ALLOTTER FEATURE (APP FIG. 60) AND THE PBX RECYCLE ON 1ST FAILURE TO MATCH FEATURE (OPTION TY) TO PREVENT MARKER BLOCKAGE ON 1ST FAILURE TO MATCH ON CALLS TO ALLOTTED NUMBERS. OPTION XZ MAY BE ADDED ON AN (A&M ONLY) BASIS TO MARKERS EQUIPPED WHEN THE PBX ALLOTTER FEATURE AND NOT EQUIPPED WITH THE PBX RECYCLE ON 1ST FAILURE TO MATCH FEATURE, TO PREVENT MARKER BLOCKAGE ON A PBX RECYCLE WHEN ALL LINES ARE FOUND BUSY IN THE SELECTED NUMBER GROUP AFTER BEING SEIZED.

127. (A&M ONLY) ~~PROVIDE OPTION ET TO FURNISH~~ THE 20T LEAD TO THE ORIGINATING REGISTER MARKER CONNECTOR FRAME IN OFFICES WITH CLASS OF SERVICE ARRANGED ON A ONE-OUT-OF-THIRTY BASIS, TO PROVIDE AN ADDITIONAL TRANSLATION INDICATION MARK FOR SERVICES SUCH AS IXX OR CENTREX TIE LINE CODES.

128.

| RERATED | | | | | |
|---|---|---|---|---|---|
| OPTION | RATING | ISSUE | OPTION | RATING | ISSUE |
| ZV | MFR DISC. | 19A | BA,CS,CU, CV,CW,ZVA | MFR DISC. | 49D |
| ZV | A&M | 22D | | | |
| APP FIG 94 TO,TP,TK, UJ,UK | A&M | 25D | QF | STD | 51D |
| | | | QG | MFR DISC. | 51D |
| OG,SB,TD | MFR DISC. | 30D | FIG. 136 | A&M | 51D |
| XY | STD | 31D | FA,FB, FC,FW | STD | 51D |
| XZ | A&M | 31D | | | |
| XB,XP,RQ | MFR DISC. | 33D | APP FIGURE, 95,97,100, 115,116, 117,118, 119,120, 121,122, 125,126, 138,LA,LC, LV,KD,KF, KZ,JA,ID, IM,AR, ZZF,ZZG ZYL,ZYO | MFR DISC. | 57B |
| LJ | A&M | 35D | | | |
| ZG,GT | MFR DISC. | 35D | | | |
| JN | MFR DISC. | 37D | | | |
| EL | STD | 39D | | | |
| AG | A&M | 39D | | | |
| UA | STD | 39D | | | |
| LW,LX,UB | MFR DISC. | 39D | | | |
| BU,EM | MFR DISC. | 41D | | | |
| IO,TD | A&M | 43D | APP FIG 99 RR, KM | A&M | 57B |
| DS,JS,ZZU | MFR DISC. | 43D | | | |
| KH,KJ | MFR DISC. | 45D | ZLJ,CW | STD | 57B |
| NR,ZZB | MFR DISC. | 45D | ZPG | MFR DISC. | 59B |
| TS | MFR DISC. | 47D | | | |
| EU,ZSV | A&M | 49D | | | |

129. (A&M ONLY) PROVIDE OPTION ME WITH ZVS IN PHASE I OR II CENTREX OFFICES TO PREVENT EXCESSIVE TROUBLE CARDS DURING TRANSITION TO PAIRED OR TRIPLE TRUNK LINK FRAME OPERATION. IN ALL OTHER OFFICES, PROVIDE OPTION ME WITH BT.

130. PROVIDE THIS OPTION IN ALL MARKERS OF A GROUP, IF ANY OF THE MARKERS ARE SO ARRANGED.

131. ***NOTE CANCELED ON ISSUE 57B***

132. OPTION AV WAS NOT PROVIDED WITH CLASS OF SERVICE TRAFFIC SAMPLING PRIOR TO ISSUE 39D, AND IS REQUIRED TO PROVIDE A CHECK CIRCUIT FOR THE "TRAFFIC SAMPLE CIRCUIT", (SD-27681-01); AND IS REQUIRED IN OFFICES EQUIPPED WITH THE "TRAFFIC SAMPLE MONITOR AND TEST CIRCUIT", (SD-27876-01). PRIOR TO ISSUE 39D, OPTION LX WAS REQUIRED FOR "7 DIGIT SOG ONLY" TRAFFIC SAMPLING AND OPTION LW WAS REQUIRED FOR "7 AND 10 DIGIT SOG AND INTRAOFFICE" TRAFFIC SAMPLING. OPTION AV SUPERSEDES OPTIONS LX AND LW.

133. WHEN WIDEBAND SWITCHING IS PROVIDED, LAMA MUST BE PROVIDED FOR CHARGING.

134. THIS FEATURE OR OPTION CANNOT BE PROVIDED IN OFFICES WITH AUTOVON FEATURES.

135. (SPL) WHEN OPTION ZZY IS PROVIDED, OPTION ZZZ MUST BE REMOVED.

136. CENTRALIZED CENTREX ATTENDANT OPERATION CAN BE APPLIED ONLY IN A MARKER GROUP ARRANGED FOR PHASE III CENTREX LINE LINK PULSING AND THE MULTIPLE CLASS OF SERVICE MATCH WITH THE INCOMING TRUNK CLASS MATCH. (SEE NOTE 102B, 34).

137. (SPL) WHEN WIDEBAND SWITCHING, APP FIG. 135 (SPL) IS ADDED AND THE MARKER IS NOT REQUIRED TO REGISTER ELEVEN DIGITS, PROVIDE OPTION AB AND REMOVE OPTION ZWK. IF ELEVEN DIGIT REGISTRATION IS REQUIRED AND DIAL TONE FIRST, OPTION DK, IS NOT PROVIDED, PROVIDE OPTION AC. WIDEBAND SWITCHING (SPL) CANNOT BE ADDED TO AN OFFICE IF BOTH ELEVEN DIGIT REGISTRATION AND DIAL TONE FIRST ARE PROVIDED.

138. PRIOR TO ISSUE 41D, OPTION AT WAS COORDINATED TO OPTION UO.

139. PRIOR TO ISSUE 41D, OPTION ZWX WAS NOT PROVIDED WITH APP FIG. 143. OPTION ZWX MUST BE PROVIDED IN OFFICES EQUIPPED FOR INTERCHANGEABLE NPA AND LOCAL OFFICE CODES TO ALLOW INCOMING AND CAMA TRUNK TESTING WITH 10 DIGIT CODES.

140. IN OFFICES WITH MORE THAN 8 COMPLETING MARKERS, THE TRANSFER REGISTER MARKER CONNECTORS WILL ONLY ACCESS MARKERS 0-7.

141. OPTION ZVJ MUST BE REMOVED AND OPTION ZXQ PROVIDED WHEN REMOTE OFFICE TEST LINE CIRCUIT IS PROVIDED IN OFFICES WITH OFFICE TEST FRAME MANUFACTURED PRIOR TO ISSUE 17D.

142. DIAL TONE FIRST-SPECIAL (APP FIG. 141) AND INTERNATIONAL DIRECT DISTANCE DIALING - TSPS ARRANGEMENT (APP FIG. 161) CANNOT BE PROVIDED IN THE SAME OFFICE.

143. SUBSEQUENT TO ISSUE 43D, OPTION TD MAY BE ADDED ON AN A&M ONLY BASIS TO EXISTING MARKER GROUPS REQUIRING MORE THAN THREE SENDER GROUPS FOR 2-WAY TRUNKS.

144. OPTION ZVD CANNOT BE PROVIDED IN OFFICES WITH MULTI-LEVEL PREEMPTION.

145. (A&M ONLY) OPTION ZUT PERMITS THE ADDITION OF THE "EXPANDED TERMINATING CLASS-OF-SERVICE TRANSLATION FIELD" FEATURE (APP FIG. 111) IN CENTREX OFFICES EQUIPPED WITH OPTION UD.

146. AIS WITHOUT LLP CANNOT BE PROVIDED IN OFFICES WITH AUTOVON.

147. (A&M ONLY) IF OPTION WN IS ADDED TO MARKERS MANUFACTURED PRIOR TO ISSUE 16B AND OPTION IN IS NOT PROVIDED, THEN OPTION IO MUST BE PROVIDED.

148. (A&M ONLY) PRIOR TO ISSUE 43D, ZZU WAS PROVIDED TO CANCEL CENTREX FEATURES ON INCOMING PICTUREPHONE® CALLS. WHEN ZUR IS ADDED TO MARKERS EQUIPPED WITH ZZP, ZZU SHOULD BE REMOVED.

149. PRIOR TO ISSUE 43D, TERMINATING CALLS TO NUMBERS SET UP FOR CALLING LINE IDENTIFICATION MAY CAUSE EXCESSIVE TROUBLE INDICATIONS. THIS CONDITION MAY EXIST WHEN THE CALLING LINE IDENTIFICATION FEATURE WORKS WITH THE "MASTER TEST FRAME CONNECTOR CIRCUIT", (SD-25805-01). OPTION ZUY WILL PREVENT THIS PROBLEM.

150. OFFICES WITH MARKERS PRIOR TO ISSUE 44A AND WITH OFFICE TEST FRAMES AND LLP MUST PROVIDE OPTION ZTQ WHEN OPTION ZWB IS PROVIDED.

151. PRIOR TO ISSUE 45D OPTIONS ZTT AND ZTZ WERE NOT PROVIDED WITH MORE THAN 1000 TRUNK NUMBERS FEATURE. OPTION ZTT NOW REPLACES OPTION ZZB COMPLETELY.

152. PRIOR TO ISSUE 49D, OPTION ZUA WAS USED TO PREVENT STUCK SENDER PEG COUNTS ON MTF USAGES.

153. IN MARKERS EQUIPPED WITH ZYJ PRIOR TO ISSUE 45D OPTION ZRD SHOULD BE ADDED TO PROVIDE FOR AN IMPROVED ARRANGEMENT ON LINK RELEASE. IN MARKERS EQUIPPED WITH ZYJ PRIOR TO ISSUE 53B OPTION ZNG SHOULD BE ADDED TO ELIMINATE ROUTE ADVANCE ON A TOG CALL AFTER SECOND TRIAL FAILURE DUE TO MUTILATED DIGITS.

154. (A&M ONLY) WHEN TANDEM OR TOLL AMA CALLS (4-WIRE CALLS ONLY) ARE TO BEIDENTIFIED BY A "TP" INDICATION TO THE TRANSVERTER, OPTION JW MUST BE PROVIDED.

155. PRIOR TO ISSUE 45D, OPTIONS NQ, ZUP, ZXD, AND ZTM WERE REQUIRED ONLY WHEN SOME, BUT NOT ALL, LINE LINK FRAMES WERE PAIRED. SUBSEQUENT TO ISSUE 45D, IT WILL BE NECESSARY TO REMOVE OPTION ZRF AND, IF OPTION IN IS NOT FURNISHED, REMOVE OPTION ZRI WHEN AN OFFICE TRANSITION IS FROM AN ALL PAIRED TO A PARITALLLY PAIRED ARRANGEMENT.

156. OVERFLOW LINKS CANNOT BE PROVIDED IN OFFICES WITH 4-WIRE.

157. THE MULTIPLE CLASS-OF-SERVICE MATCH FEATURE MUST BE PROVIDED IN OFFICES WITH CENTREX AND 60 CLASSES OF SERVICE WITH NO RATE TREATMENT. THE MULTIPLE CLASS-OF-SERVICE MATCH FEATURE CAN BE PROVIDED IN OFFICES WITHOUT CENTREX ONLY IF THOSE OFFICES ARE PROVIDED WITH APP FIG. 78 (CLASS-OF-SERVICE ON A UNITS AND TENS BASIS).

158. PRIOR TO ISSUE 49D OPTIONS CS, CT, CU, CV,CX, AND CY WERE ASSOCIATED WITH THE ROUTE TRANSLATOR FEATURE. OPTIONS CT, CX, AND CY ARE NOW RATED AFTER DATE STANDARD AND ALL RELAY CONTACTS AND TERMINAL ASSIGNMENTS ASSOCIATED WITH OPTION CS ARE NOW AVAILABLE FOR NEW FEATURE.

159. PRIOR TO ISSUE 57B, OPTION ZLQ WAS FURNISHED ON AN AFTER DATE STANDARD BASIS.

160 PRIOR TO ISSUE 51D, IN OFFICES WITHOUT LAMA-C OR ETS, TRUNK NUMBERS WERE ALWAYS USED FOR INC TRUNK IDENTIFICATION ON AMA RECORDS OF THROUGH SWITCHED CALLS. WHEN CHANGING FROM TRUNK NUMBER IDENTIFICATION TO INC CLASS (OR SOURCE) IDENTIFICATION, OPTION ZPS MUST REPLACE ZPR. WHERE OPTION ZPS IS ADDED TO OFFICES PREVIOUSLY ARRANGED FOR MORE THAN 1000 TANDEM TRUNK NUMBERS, OPTIONS EQ AND ZTZ NEED NOT BE REMOVED EVEN THOUGH THEY WILL NO LONGER BE USED TO INDICATE A TRUNK NUMBER THOUSANDS DIGIT. IN THIS CASE, THE TRANSVERTER MUST BE MODIFIED TO GENERATE A THOUSANDS DIGIT "0".

161. PRIOR TO ISSUE 51D, OPTION ZPY WAS NOT PROVIDED WITH APP FIG. 166. OPTION ZPY MUST BE PROVIDED WHERE WATS TRUNKS USING BOTH AMA AND CLOCK TIMERS ARE ALLOWED TO ADVANCE TO THE POTS NETWORK.

162. PRIOR TO ISSUE 51D, OPTION QG WAS PROVIDED FOR MAXIMUM OF 8 O.S.L. SELECT MAGNET OPERATION.

163. PRIOR TO ISSUE 51D, OPTIONS ZPV AND ZOA WERE NOT PROVIDED WITH APP FIG. 105. OPTIONS ZOA AND ZPV MUST BE PROVIDED FOR TRAFFIC SAMPLING ON ROUTES REQUIRING BOTH AMA AND MESSAGE UNIT CLOCK TIMERS.

164. PRIOR TO ISSUE 49D, OPTION CW WAS COORDINATED TO THE ROUTE TRANSLATOR FEATURE AND WAS PROVIDED ON AN AFTER DATE STANDARD BASIS FOR "PLN DIGIT 8 ACCESS CODE PROVIDED TO INCOMING REGISTERS."

165. OPTION ZTT MUST BE APPLIED IN ALL MARKERS IF MORE THAN 2000 TRUNK NUMBERS ARE REQUIRED.

166. PRIOR TO ISSUE 53B, PROVIDE OPTION ZOF IN OFFICES WITH CENTRALIZED ATTENDANT OPERATION WHEN IDENTIFICATION OF LISTED DIRECTORY NUMBER TRAFFIC SWITCHED TO AN ATTENDANT AT THE PRIMARY OFFICE IS REQUIRED.

167. WHEN 2 LINE AMA RECORDS OF DIRECTORY ASSISTANCE CALLS ARE REQUIRED FOR CHARGING, APP FIG. 136 MUST BE REMOVED. THIS FEATURE REQUIRES MESSAGE BILLING INDEX 16 TO BE DEDICATED TO DIRECTORY ASSISTANCE CHARGING WHICH PREVENTS USING THE MBS6 ROUTE SERIES RELAY ON TRAFFIC SAMPLED ROUTES. APP FIG. 175 IS REQUIRED WHEN THE MARKER IS EQUIPPED WITH APP FIG. 40 AND IS ARRANGED TO IDENTIFY CODE PATTERN BY "OR" OR "FAC" MARKS FROM ORIG REGISTERS. (OPTION "GW")

168. (A&M ONLY) WHEN LINE LINK PULSING IS PROVIDED IN AN OFFICE WITH 4-WIRE RINGING SWITCHES AND 2-WAY LINE LINK PULSING LINE CIRCUITS ARE USED, OPTION ZII SHOULD BE PROVIDED TO PREVENT A POSSIBLE FALSE TCK TROUBLE CONDITION FOLLOWING A PBX RECYCLE.

169. TO PROVIDE RESISTANCE LAMPS IN BATTERY SUPPLY OF CERTAIN ROUTE SERIES RELAYS PROVIDE THE FOLLOWING OPTIONS:

| OPTION | RELAY |
|---|---|
| ZNI | ANIS |
| ZNK | ANTD |
| ZNM | IOD,NID |
| ZNO | CMF,CMJ |
| ZNQ | CMJT |
| ZNS | MBT9 |
| ZNU | CVS |
| ZNW | PDCO,I |
| ZNY | CAA |

170. OPTION SW IS REQURED * WHEN ANY OF THE FOLLOWING TEST CIRCUIT ARRANGEMENTS ARE PROVIDED IN AN OFFICE.

1. TRUNK TEST REGISTER PROVIDED
2. SUBSEQUENT TO ISSUE 52A, AUTOMATIC PROGESSION TRUNK TEST CKT IS PROVIDED AND EQUIPPED WITH THE "TESTING WADS TRUNKS OR CONTROL DELETE" FEATURE.
3. SUBSEQUENT TO ISSUE 52A, MASTER TEST CONTROL CKT PROVIDED AND EQUIPPED WITH THE DL3 AND DL6 KEYS (OPTION MH).
4. REMOTE OFFICE TEST LINE CKT OR REMOTE OFFICE TEST LINE REGISTER CKT PROVIDED.
5. MINI-ROTL FEATURE PROVIDED.

* IF CONDITION 4 IS THE ONLY CONDITION THAT REQUIRES OPTION SW, PROVIDE SW IN SPECIAL MARKERS (0 AND 1) ONLY.

171. SUBSEQUENT TO ISSUE 55B, THE MAXIMUM NUMBER OF SERVICE TREATMENT (S-) RELAYS AVAILABLE IS 240.

172. IF OPTION ZLO SHOULD BE ADDED TO A MARKER GROUP EQUIPPED WITH OPTION GI(SPL), OPTION GI MUST BE REPLACED WITH OPTION GH.

173. SUBSEQUENT TO ISSUE 55B, THE MAXIMUM NUMBER OF ROUTE RELAYS (R-) AVAILABLE IS 500.

174. OPTION ZLU CANNOT BE PROVIDED IN OFFICES EQUIPPED WITH CONTROL DIGIT SCREENING (APP FIG. 116).

175. A. WHEN A MARKER IS CONVERTED TO LAMA-C WITH ANI OR ETS WITH ANI, AND THE MARKER IS ALREADY EQUIPPED WITH THE ANI FEATURES, THE EXISTING APPARATUS AND WIRING PROVIDED FOR ANI SHOULD CONTINUE TO BE USED.

B. WHEN A MARKER IS CONVERTED TO ETS WITH CAMA AND THE MARKER IS ALREADY EQUIPPED WITH CAMA FEATURES, THE EXISTING APPARATUS AND WIRING PROVIDED FOR CAMA SHOULD CONTINUE TO BE USED. CAMA IS NOT AVAILABLE WITH LAMA-C.

C. WHEN A MARKER IS CONVERTED TO CDT OR TO LAMA-C OR TO ETS AND THE MARKER IS ALREADY EQUIPPED FOR LAMA, THE EXISTING APPARATUS AND WIRING FOR THE LAMA FEATURE SHOULD CONTINUE TO BE USED FOR THE SERVICE OBSERVING FUNCTIONS.

176. THE FOLLOWING FEATURES ARE NOT REQUIRED IN OFFICES WITH LAMA-C. WHEN ADDING LAMA-C TO EXISTING OFFICES, THESE FEATURES NEED NOT BE REMOVED FOR PROPER CIRCUIT OPERATION:

1. TRAFFIC SAMPLING BY AMA RECORD.
2. SENDER TP INDICATION FOR PBX'S.
3. AMA RECORDS ON TAN OR TOL THROUGH SWITCHED CALLS.
4. TRUNK NUMBER IDENTIFICATION REQUIRED FOR TANDEM AMA IN OFFICES WITH MORE THAN 1000 TRUNK NUMBERS.

177. FOR MARKERS MANUFACTURED PRIOR TO ISSUE 22D, A TRAFFIC REGISTER COUNT OF INCOMING FIRST FAILURE TO MATCH CONDITIONS (IFFM) MAY BE OBTAINED BY SPECIFYING OPTION ZKM.

178. WHEN OPTION ZJB IS ADDED TO A MARKER, THAT MARKER MUST BE EQUIPPED WITH EITHER OPTION XP OR MK.

179. OPTION ZKI CANNOT BE PROVIDED IN OFFICES EQUIPPED WITH MULTI-LEVEL PRE-EMPTION (OPTION LC) OR WITH ETS (OPTION ZKC).

180. RESERVED

CIRCUIT NOTES. (CONT)

181. THE FUNCTIONS ASSOCIATED WITH THESE FEATURES ARE PROVIDED BY ETS. THE APPARATUS AND WIRING FOR THESE FEATURES SHOULD NOT BE ADDED TO ETS MARKERS. WHEN ETS IS ADDED TO A MARKER CONTAINING THESE FEATURES THE APPARATUS AND WIRING IS NOT REMOVED.

182A. ETS OPERATION CANNOT BE PROVIDED IN OFFICES WITH THE FOLLOWING FEATURES:

1. AUTOVON
2. WIDEBAND
3. OFFICE TEST FRAME
4. ORIGINATING LINE IDENTIFIER
5. CALL WAITING
6. MINI-ROTL

182B. IF PROVIDED, REMOVE OPTION ZKI WHEN ETS IS ADDED.

182C. REMOVE OPTION ZHN WHEN TRANSITION TO ETS OPERATION IS COMPLETE AND ANY OF THE FOLLOWING CONDITIONS EXIST:

a. WHEN LINE LINK PULSING, UNIGAUGE, OR PHASE I OR II CENTREX IS ADDED.

b. WHEN LINE LINK PULSING, UNIGAUGE, OR PHASE I OR II CENTREX IS PROVIDED AND A LINE LINK FRAME IS ADDED.

182D. REPLACE OPTION ZNN WITH ZHM WHEN TRANSITION TO FULL ETS IS COMPLETE AND ANY OF THE CSOO-29 LEADS ARE REUSED IN ANY LINE LINK CONNECTOR TO PROVIDE LINE LINK PULSING, RANGE EXTENSION FOR UNIGAUGE CABLING, OR TIE LINE PAD CONTROL (REQUIRED FOR PHASE II CENTREX-OPTIONAL FOR PHASE I CENTREX) FEATURES.

182E. WHEN ETS IS ADDED TO AN OFFICE, OPTION ZHY SHALL BE PROVIDED INITIALLY. OPTION ZHZ SHALL REPLACE OPTION ZHY WHEN THE MARKER IS REQUIRED TO ROUTE ALL LAMA TRAFFIC NON-AMA. JOBS RECORDS NEED NOT BE MAINTAINED FOR OPTIONS ZHY AND ZHZ.

183. WHEN TRANSITION TO FULL ETS OPERATION IS COMPLETE THE FOLLOWING MARKER FRAMES MAY BE REMOVED IF DESIRED:

| MARKER FRAME | | APP FIG | SEE NOTE | OPTIONS REQUIRED WHEN FRAME IS REMOVED | REMARKS |
|---|---|---|---|---|---|
| J28760C | COMPL MKR ROUTE REL FRAME (RR) | 1 | 102A | NONE | |
| J28760D | CODE CONVERSION FRAME (CC) | 58,59 | 102B (22) | H | |
| J28760E | COMPL MKR SUPL OR AUX SERV TREATMENT FRAME (ST)OR(AST)OR(SST)OR(SAST) | 35 | 102B (10) | NONE | |
| J28760F | COMPL MKR PBX ALLOTTER FRAME (PBX ALLR) | 60,61 | 102B (23) | K | |
| J28760G | COMPL MKR FC RELAY FRAME (FCR) | 65,66 | 102B (24) | TA | SEE EQPT NOTE 218 |
| J2876GJ | COMPL MKR LINE LINK PULSING FRAME (LLP) | 88,89,91 | 102B (42) | ZIT, AND EE IF QU OR PS IS PROVIDED | |
| J28760K | COMPL MKR AUX LINE LINK PULSING FRAME (ALLP) | 89 | 102B (42) | NONE | |

184. PRIOR TO ISSUE 59B, PROVIDE OPT ZIJ TO PREVENT POSSIBLE FALSE TRANSVERTER TROUBLE CARDS ON IAO AMA CALLS TO PHASE I CENTREX FREE LDN NUMBERS.

185. APP FIG 183 IS REQUIRED WHEN OPTION BG IS PROVIDED AND ANY ROUTES REQUIRE OUTPULSING OF ANI INFORMATION ONLY. THIS INCLUDES:

a. "0_" ANI CALLS TO CROSSBAR TANDEM TSP.

b. DIRECTORY ASSISTANCE CHARGING ROUTES WHERE "411" IS NOT OUTPULSED.

186. THOSE FEATURES WHICH ARE EQUIPPED BUT NOT REQUIRED ARE LEFT IN PLACE ON THE MARKER FRAME, WHILE RELAY RACK MOUNTED APPARATUS IS NOT PROVIDED. FORMER CROSS CONNECTIONS ARE REMOVED AND CROSS CONNECTIONS WILL BE ADDED FOR DESIRED FEATURES.

187. CDT PROVIDES A LIMITED CAPABILITY FOR DOING POINT-TO-POINT AND CCSA TRAFFIC SAMPLING, OPTION ZGY, ON TRUNK GROUPS SCANNED BY CDT. 15 SOFTWARE COUNTERS (20% SAMPLE) ARE PROVIDED PER MARKER THAT CAN BE DIVIDED BETWEEN THE 2 TYPES OF TRAFFIC SAMPLING. CCSA MARKER GROUPS REQUIRING MORE TRAFFIC SAMPLE COUNTERS THAN AVAILABLE WITH CDT MUST CONTINUE USING EXISTING TRAFFIC SAMPLING CIRCUITS WITH LAMA-A OR LAMA-B FOR THE CCSA TRAFFIC. HOWEVER, SINCE NO 20% COUNTERS ARE REQUIRED FOR 100% TRAFFIC SAMPLING ON TRUNK GROUPS SCANNED BY CDT, ALL CCSA CUSTOMERS IN A MARKER GROUP THAT REQUIRE 100% SAMPLING MAY USE CDT FACILITIES WHEN PROVIDED.

188. OPTION ZTQ MUST BE PROVIDED WHEN MINI-ROTL TEST OF LLP IS PROVIDED IN MARKERS EQUIPPED WITH OPTION ZWB.

189. MINI-ROTL CANNOT BE PROVIDED TO FUNCTION WITH THE FOLLOWING FEATURES:

1. ETS OPERATION.
2. FOUR-WIRE SWITCHING.
3. CCSA NETWORK.

190. WHEN CDT IS ADDED TO AN OFFICE EQUIPPED WITH LAMA FEATURES, OPTIONS ZCP AND ZHY SHALL BE PROVIDED INITIALLY AND OPTION ZCO REMOVED. OPTION ZHZ SHALL REPLACE OPTION ZHY WHEN CDT IS TO HANDLE ALL LAMA TRAFFIC AND THE MARKER IS REQUIRED TO ROUTE ALL LAMA TRAFFIC NON-AMA. JOB RECORDS NEED NOT BE MAINTAINED FOR OPTIONS ZHY AND ZHZ. THIS ARRANGEMENT PERMITS THE USE OF MBS- ROUTE SERIES RELAYS FOR THE PBX TOLL DIVERSION FEATURE WITH THE EXCEPTION OF THE MBK CROSS CONNECTION TERMINAL.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 66A |
| BELL LABORATORIES | SD-26002-01- | D14B |

EQUIPMENT NOTES:

201. IN CAD 103 AND 132 THE DESIGNATION DT IS RATED MFR DISC. ON ISSUE 14B OF SD-26002-01.

202. THE CRSS LEAD BETWEEN CAD 124A AND CAD 124C IS ADDED EFFECTIVE WITH ISSUE 14B OF SD-26002-01 TO BRING THE CAD INFORMATION INTO AGREEMENT WITH THE SD AND PROVIDES FOR MORE EFFICIENT USE OF ROUTE RELAYS.

203. WHEN REGULAR LINE LINK CONNECTOR FRAMES ARE ADDED TO AN EXISTING OFFICE EMPLOYING COMBINED LLC FRAMES, THE TL NUMBERING OF ST LEADS FOR THE ADDED LINE LINK CONNECTOR FRAMES WILL NOT AGREE WITH NUMBERING SHOWN ON CAD 102, BUT WILL BEGIN ONE NO. HIGHER THAN EMPLOYED ON THE LAST COMBINED FRAME AND CONTINUE IN GROUPS OF FIVE (5) NUMBERS FOR EACH LINE LINK CONNECTOR FRAME.

204. WHEN REGULAR NO. GROUP CONNECTOR CONTROL FRAMES ARE ADDED TO AN EXISTING OFFICE EMPLOYING THE COMBINED NGC OSC FRAMES, THE ST LEADS SHALL CONTINUE IN ASCENDING NUMERICAL ORDER FOR THE NEXT ADDITIONAL 24 NO. GROUPS ON NO. GROUP CONNECTOR CONTROL FRAME 0 AND UP TO A MAXIMUM OF 16 ADDITIONAL NO. GROUPS ON NO. GROUP CONNECTOR CONTROL FRAME 1.

205. ON ISSUE 17D, CAD 34 AND ALL CONNECTING LEADS WERE RATED MFR DISC.; ON ISSUE 19AC, CAD 34 AND ALL CONNECTING LEADS WERE RATED A&M ONLY.

206. SWITCHBOARD CABLING FROM TS (JG) AND (JH) ON LINE LINK PULSING FRAME TO AUXILIARY LINE LINK PULSING FRAME (CAD 160) RUN THROUGH FANNING STRIP AT BOTTOM OF TERMINAL STRIP. SWITCHBOARD CABLING FROM TS (JI) ON LINE LINK PULSING FRAME TO PBX ALLOTTER FRAME (CAD 158) RUN FROM BACK OF TERMINAL STRIP.

207. PRIOR TO ISSUE 24D, TWENTY RAG- LEADS (RAG00-19) CABLED BETWEEN THE TRANSLATOR AND CODE TREATMENT FRAME AND EACH ROUTE RELAY FRAME PROVIDING EIGHTY RAG-TERMINALS ON THE TRANSLATOR AND CODE TREATMENT FRAME. ISSUE 24D PROVIDED FOR TWO GROUPS OF FORTY RAG- LEADS WITH ONE GROUP ASSIGNED TO TWO ROUTE RELAY FRAMES AND THE OTHER GROUP ASSIGNED TO THE TWO OTHER ROUTE RELAY FRAMES. TO PROVIDE TERMINALS FOR THE ADDITIONAL TWENTY RAG-PUNCHINGS THE SECOND SECTION OF TS (RB) OF EACH ROUTE RELAY FRAME WAS CHANGED FROM CODE 256B TO 256D. WHEN INCREASING THE SIZE OF MARKER GROUPS WHICH INCLUDE MARKERS MANUFACTURED PRIOR TO ISSUE 24D, TWO ALTERNATIVES ARE AVAILABLE:

A. UPDATE EXISTING MARKERS BY MAKING THE ABOVE TERMINAL STRIP SUBSTITUTION AND RECABLING IN ACCORDANCE WITH STANDARD DRAWINGS.

B. MAINTAIN THE OLD A&M CABLING ARRANGEMENT AS COVERED IN CADS. IN ADDITION TO PROVIDING NEW FRAMES TO OPERATE IN THE OLD PATTERN, THE A&M ARRANGEMENT SUPPLIES SPARE SWITCHBOARD CABLE TO ROUTE RELAY FRAMES 0 AND 1 WHICH WILL SIMPLIFY A TRANSITION TO THE STANDARD ARRANGEMENT IF THIS SHOULD BECOME NECESSARY.

208. ADDITIONAL EQUIPMENT CAPACITY FOR FUSES DESIGNATED A40-45, B40-45, C40-45, D32-37, E6, E7, F40-45, G40-45, AND H40-45, WAS ADDED ON ISSUE 28D BY REPLACEMENT OF THE EXISTING FUSE PANELS WITH THE MODULAR TYPE. AS FEATURES USING THESE FUSES ARE ADDED TO MARKER FRAMES MANUFACTURED PRIOR TO ISSUE 28D, THE EXISTING FUSE PANELS WHICH BECOME INADEQUATE SHALL BE REPLACED BY THEIR CORRESPONDING MODULAR PANELS. ALL FUSE PANELS OF A BAY SO AFFECTED SHALL BE REPLACED AT THAT TIME.

209. WIRING PER CADS 139 AND 141 WAS ASSOCIATED WITH THE 4-WIRE FEATURES PRIOR TO ISSUE 30D, AND NOW HAS NO APPLICATION IN ANY NO. 5 CROSSBAR OFFICE.

210. SPARE SWITCHBOARD CABLE LEADS OF CAD 180 ARE CUT TO LENGTH OF LONGEST RUN WITHIN (CE) FRAME, J28760A, FOLDED, AND SWITCHED INTO THE VERTICAL ARM OF THE FORMED FRAME SWITCHBOARD CABLE.

211. ON ISSUE 35D, THE LS4 PUNCHING WAS GIVEN A SECOND APPEARANCE ON THE T&TC FRAME TO ALLOW CROSS CONNECTION TO SC- OR TSO-4 PUNCHINGS.

212. SUBSEQUENT TO ISSUE 39D, THE +130 (E) LEAD IS ASSIGNED TO A BUS BAR FUSE ON THE POWER, RINGING, AND TONE DISTRIBUTION FRAME THAT IS FED FROM A DIFFERENT SUPPLY FEEDER THAN THE 3-AMP SUPPLY FUSE OF THE SAME MARKER.

213. CROSS CONNECTIONS FOR CERTAIN S- TERMINALS MAY REQUIRE USE OF AN SG- OR SE- TERMINAL TO OBTAIN TRANSPORTATION BETWEEN FRAMES (SEE NOTE 449A & B).

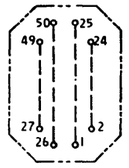
214. RESERVED.

215. THREE ARRANGEMENTS HAVE BEEN USED FOR PROVIDING SWBD CA INTERCONNECTIONS BETWEEN THE COM EQPT FRAME (J28760A) AND THE T&CT FRAME (J28760B) WHICH ARE COVERED IN CADS 108 AND 107 RESPECTIVELY. THESE ARRANGEMENTS ARE AS FOLLOWS:

A. 1. PRIOR TO ISSUE 33D THE SWBD CABLE TERMINATED ON 251 (MFR DISC) TYPE TERMINAL STRIPS ON BOTH CE AND T&CT FRAMES (USING COORDINATE NUMBERING) FOR LEADS 00-799.
FOR FEATURES REQUIRING LEADS 800-859, SWBD CA IS TERMINATED ON 251 TYPE TERMINAL STRIPS ON THE CE FRAME AND ON 251 TYPE AND D5A TYPE TERMINAL STRIPS ON THE T&CT FRAME (USING COORDINATE NUMBERING AND D5A NUMBERING SCHEMES). FOR FEATURES REQUIRING LEADS ABOVE 859, SWBD CABLING IS RUN TO 251 TYPE TERMINAL STRIPS WHERE APPLICABLE, OTHERWISE SWBD CABLING IS RUN DIRECT ON BOTH FRAMES.

2. FROM ISSUE 33D TO ISSUE 57B ONE END OF THE SWBD (MFR DISC.) CA TERMINATED ON 251 TYPE TERMINAL STRIPS (COORDINATE NUMBERING) ON THE CE FRAME (CAD 108) WITH OTHER END HAVING (16) KS-19162-L14 PLUGS AND MATING TO KS-19163-L1 CONNECTORS ON THE T&CT FRAME (CAD 107) FOR LEADS 00 TO 799. THE CONNECTORS WERE ARRANGED IN PAIRS WITH COORDINATE NUMBERING 00-99 EACH FOR 8 PAIRS. FOR LEADS 800 AND ABOVE, THE DISCRIPTION GIVEN IN ARRANGEMENT NO. 1 APPLIES.

3. BEGINNING WITH ISSUE 57B THE SWBD CA IS COMPLETELY CONNECTORIZED WITH KS-16690-L1 CONNECTOR (REF H400-066) ON BOTH ENDS OF THE INTERCONNECTING CABLE WHICH MATES TO AN 841777758 MTG PLT PROVIDING UP TO 20 CONNECTOR ASSEMBLY POSITIONS AND IS EQUIPPED WITH (18) 841777717 PLUG WIRE BLOCK ASSEMBLIES LOCATED ON BOTH CE (MTG PLT CC) AND T&CT (MTG PLT TQ) FRAMES. THE MALE (FRAME MTD) AND FEMALE (ON INTERCONNECTING CABLE) CONNECTOR PINS ARE NUMBERED 1 THRU 50 FOR EACH CONNECTOR. THE MALE PORTION USES A STAGGERED TERMINAL ARRANGEMENT (REAR VIEW) AND IS NUMBERED AS FOLLOWS:



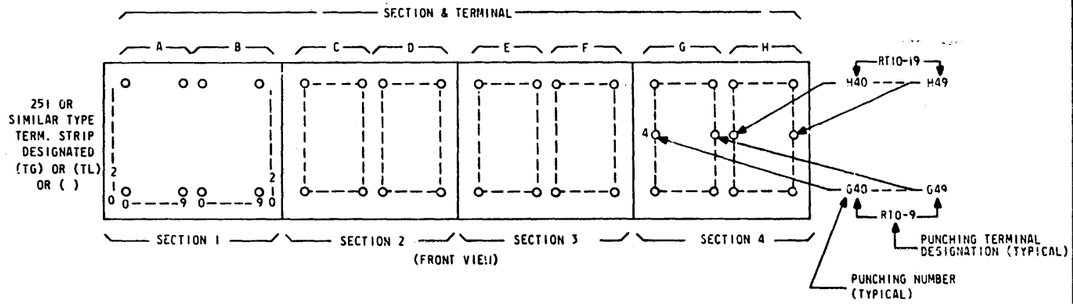

VIEWED FROM REAR

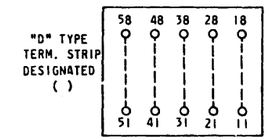
B. 1. CADS 107 AND 108 ARE ARRANGED TO SERVE ALL THREE ARRANGEMENTS MENTIONED ABOVE. THESE CADS SHOW DUAL DESIGNATION ON ALL TERMINAL STRIP PUNCHINGS. THE PUNCHING NUMBERING ON THE SWBD CABLE SIDE INDICATES THE TERMINAL STRIP NUMBERING FOR ARRANGEMENT NO. 1 AND THE CONNECTOR ASSY NUMBERING OF ARRANGEMENT NO. 2. THE PUNCHING NUMBERING ON THE LOCAL CABLE SIDE INDICATES THE CONNECTOR ASSEMBLY NUMBERING OF ARRANGEMENT NO. 3. LEADS WHICH DO NOT SHOW TERMINAL STRIP PUNCHINGS, DO SHOW THE CONNECTOR ASSEMBLY NUMBERING OF ARRANGEMENT NO. 3 AND THE DIRECT CABLING ARRANGEMENT NUMBERING FOR THE (MFR DISC.) CONDITIONS.

2. A LEAD NUMBERING PLAN FOR CADS 107 & 108 IS USED TO SHOW LEAD DESIGNATION AND TOTAL LEAD COUNT BUT IS NOT NECESSARILY REQUIRED FOR DESIGNATIONS OF THE ALPHA-NUMERIC NUMBERING SHOWN ON SOME LEADS.

3. BEGINNING WITH ISSUE 57B SWBD CABLES ON CADS 107 AND 108 GOING TO OTHER CIRCUITS MUST BE TERMINATED ON THE LOCAL CABLE SIDE OF TQ OR CC CONNECTOR ASSEMBLIES (MALE PART) BECAUSE OF PHYSICAL LIMITATIONS ON THE INTERCONNECT CABLE CONNECTORS (FEMALE PART). (SEE INTERCONNECT SWBD CA DWG H400-066 FOR CABLE LENGTHS; (ETC).

216. USE THE FOLLOWING COORDINATE NUMBER SCHEME IN THE CROSS-CONNECTION PUNCHING INDEX TO LOCATE UNSTAMPED CROSS-CONNECTION TERMINALS ON THE MARKER FRAMES AND UNITS.




SAMPLE OF CROSS-CONNECTION PCHG INDEX (SEE D SHEETS)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) | | | | FUNCTIONAL MEANING |
|---|---|---|---|---|---|---|
| | | FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | |
| RT0-9 | 54 | 59B/B6-D6 | TG,TL | G40-49 | TR | ROUTE TRANSFER |
| RT10-19 | | | TG | H40-49 | | |
| RT20-39 | | | TV | 2 | | |

INDICATES STAMPING ALREADY APPEARS IN THIS SECTION OF THE TERMINAL STRIP.

217. WIRING, SOCKETS, RESISTORS AND NETWORKS ARE ALWAYS PROVIDED FOR (FTN0-3), (FUN0-9) AND (VGN0-11) PLUG-IN RELAYS. THE 276A RELAYS ARE PROVIDED AS REQUIRED TO IDENTIFY THE FRAME TENS, FRAME UNITS AND VERTICAL GROUP NUMBERS OF THE LINE LINK FRAMES OR THE REQUIRED (LR-1) RELAYS, PROVIDE P-480887 PLUG-IN RESISTOR ASSEMBLY WHEN THE 276A RELAYS ARE OMITTED.

WHEN ETS OPERATION IS PROVIDED RELAYS (FTN0-2) AND (FUN0-9) CANNOT BE OMITTED.

218. WHEN ETS OPERATION AND MORE THAN 20 TRUNK LINK FRAMES ARE PROVIDED, AND THE COMPLETING MARKER FRAME CONNECTOR RELAY FRAME (J28760G) IS REMOVED, THE (FTC20-29) SWBD CABLE LEADS MUST RUN DIRECTLY FROM THE SUPPLEMENTARY DIAL TONE MARKER (J28759B) TO THE MASTER TEST FRAME CONTROL CKT (REF SD-26001-01).

219. WHEN MAKING ADDITIONS TO AN ETS OFFICE AND LLP, OR RANGE EXTENSION FOR UNIGUAGE, OR PHASE I OR II CENTREX ARE NOT PROVIDED, THE CSO0-29 LEADS TO ANY LINE LINK CONNECTOR MAY BE OMITTED FROM THE CABLING.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 65B |
| BELL LABORATORIES SD-26002-01- | | D14C |

INFORMATION NOTES:
300.

| CALL | FUNCTION | NETWORK | TYPE OF CALL | TRANSLATION | CLASS OF SERVICE CODE "14" NOTE 1 | CONTROL DIGIT | ROUTING CONTROL DIGIT | ARBITRARY DIGITS NOTE 1 AR- | BR- | CR- | CALLED NUMBER A | B | C | D | E | F | G | H | LINE EQUIPMENT LOCATION FT- | FU- | VG- | HG- | VF- | MF SENDER INFORMATION NOTE 1 CL- | DL- | AMA | AMA INFORMATION TVT/SC | OBS/NOB | TP/RP | CP-NOTE 3 | 4DG/NS- | RN- | MBS- | DP SENDER INFORMATION CL- | DL- |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOG TO NO.5 OFFICE | ORIG REG TO MKR | 4W | CP | LT | X | | X | | | | X | X | X | X | X | X | X | 8 | X | X | X | X | X | | | | | | | | | | | | |
| | ADDED BY MKR | | | | | | | X | | | | | | | | | | | | | | | | | X | X | X | X | X | X | 2-8 | | |
| | MKR TO SDR | | | | | X | X | | | | X | X | X | X | X | X | X | 8 | X | X | X | X | X | X | X | X | X | X | X | RP | X | X | X | 2-8 | | |
| | SDR OUTPULSE | | | | | X | X | | | | X | X | X | X | X | X | X | 8 | | | | | | | | | | | | | | | | | |
| | SDR TO TRANSVERTER | 4W | | | | X | | | | | X | X | X | X | X | X | X | 8 | X | X | X | X | X | | | | | X | X | RP | X | X | X | 2-8 | | |
| SOG TO NO.4 OFFICE | ADDED BY MKR | | | | X | | X | X | X | X | | | | | | | | | | | | | | X | X | X | X | | RP | X | X | X | 9 | | |
| | MKR TO SDR | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | 8 | X | X | X | X | X | X | X | X | X | X | X | RP | X | X | X | 9 | | |
| | SDR OUTPULSES | | | | X | | | X | X | X | X | X | X | X | X | X | X | NOTE 4 | | | | | | | | | | | | | | | | | |
| | SDR TO TRANSVERTER | | | | | X | | | | | X | X | X | X | X | X | X | 8 | X | X | X | X | X | | | | | X | X | RP | X | X | X | 9 | | |
| TOG TO NO.5 OFFICE | INC REG TO MKR | 4W | TOL | LT | X | | X | X | | | X | X | X | X | X | X | X | 8 | | | X HN- | X T- | X U- | NOTE 2 | | | | | | | | | | | |
| | ADDED BY MKR | | | | | | | NOTE 7 | | | | | | | | | | | | | | | | X | X | X | X | | TP NOTE 2 | X | X | X | 2-8 | | |
| | MKR TO SDR | | | | | X | X | | | | X | X | X | X | X | X | X | 8 | | | X | X | X | | | | | | | | | | | | |
| | SDR OUTPULSES | | | | | X | X | | | | X | X | X | X | X | X | X | 8 | | | | | | | | | | | | | | | | | |
| | SDR TO TRANSVERTER | 4W | | | | X | | | | | X | X | X | X | X | X | X | 8 | | | X | X | X | | | | | X | | TP | X | X | X | 2-8 | | |
| TOG TO NO.4 OFFICE | ADDED BY MKR | | | | X | | NOTE 7 | X | X | | | | | | | | | | | | | | | X | X | X | X | | TP | X | X | X | 9 | | |
| | MKR TO SDR | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | 8 | | | X | X | X | X | X | X | Y | | TP | X | X | X | 9 | | |
| | SDR OUTPULSES | | | | X | | | X | X | A | X | X | X | X | X | X | X | NOTE 4 | | | | | | | | | | | | | | | | | |
| | SDR TO TRANSVERTER | 4W | | | | X | | | | | X | X | X | X | X | X | X | 8 | | | X | X | X | | | | | X | | TP | X | X | X | 9 | | |
| TOLL SW & VERIF TRK FROM SW80 | INC REG TO MKR | 4W | INC | OA | X | | I | | | | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| SOG TO SXS PBX | ORIG REG TO MKR | 4W | OR | LT | X | | X | | | | X | X | X | X | X | X | X | 8 | X | X | X | X | X | | | | | | X | RP | | | | | | |
| | ADDED BY MKR | | | | | | | X | | | | | | | | | | | | | | | | X | | X | X | | | X | X | X | X | SEE NOTE 6 | |
| | MKR TO SDR | | | | | | X | X | | | X | X | X | X | X | X | X | 8 | X | X | X | X | X | X | | X | X | X | RP | X | X | X | X | X | X |
| | SDR OUT PULSES | SEE NOTE 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SDR TO TRANSVERTER | 4W | | | | | X | | | | X | X | X | X | X | X | X | 8 | X | X | X | X | X | | | | | X | X | RP | X | X | X | X | | |
| TOG TO SXS PBX | INC REG TO MKR | 4W | TOL | LT | X | | X | X | | | X | X | X | X | X | X | X | 8 | | | X | X | X | NOTE 2 | | | | | | | | | | | |
| | ADDED BY MKR | | | | | | | NOTE 7 | | | | | | | | | | | | | | | | X | | X | X | | TP | X | X | X | X | SEE NOTE 6 | |
| | MKR TO SDR | | | | | X | X | | | | X | X | X | X | X | X | X | 8 | | | X | X | X | X | | | X | | TP | X | X | X | X | X | X |
| | SDR OUT PULSES | SEE NOTE 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SDR TO TRANSVERTER | 4W | | | | | X | | | | X | X | X | X | X | X | X | 8 | | | X | X | X | | | | X | | | TP | X | X | X | X | | |

301. THE KS-16751 INDICATOR MAY BE USED TO INDICATE OPERATION OF DRY REED RELAYS AS FOLLOWS:

| FOR MDG TERMINALS (RELAY CODE) | CONN GRD TO TERM. 293A | 293D | CONN INDICATOR TO TERM. 293A | 293D |
|---|---|---|---|---|
| 11-15 | 53 | 12 | 12 | 13 |
| 21-25 | 53 | 22 | 22 | 23 |
| 31-35 | 53 | 32 | 32 | 33 |
| 41-45 | 53 | 42 | 42 | 43 |
| 51-55 | 53 | 52 | 52 | 53 |

302. UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS. VALUES PRECEDED BY THE SYMBOL +(PLUS) OR -(MINUS) ARE IN VOLTS.

NOTES:

1. (A) "CL-1" CLASS INDICATION - THE SENDER ADDS THE "AR-" & "BR-" ARBITRARY DIGITS.

   (B) "CL-2" CLASS INDICATION - ALL TRAFFIC USING TWO-WAY INTERTOLL TRUNKS.

   (C) "CL-6" CLASS INDICATION - THE SENDER OUTPULSES "CODE 14" (10-4) ON PRIORITY AND SPILL-OVER CALLS.

   (D) "CL-4" CLASS INDICATION - THE SENDER OUTPULSES THE CONTROL DIGIT AND ROUTING CONTROL DIGIT.

   (E) "CL-1" CLASS INDICATION - THE SENDER OUTPULSES THE CONTROL DIGIT AND DELETES THE ROUTING CONTROL DIGIT.

2. "TP" INDICATES A THROUGH SWITCHED CALL. THE INCOMING TRUNK NUMBER RECORDED ON HN-, T- & U- RELAYS IN THE MARKER, IS TRANSMITTED TO THE TRANSVERTER ON THE VG-, HG- & VF- LEADS RESPECTIVELY. THE TRANSVERTER INSERTS A ZERO (0) FOR THE THOUSANDS DIGIT AND THE NUMBER WILL BE RECORDED ON THE AMA TAPE. WITH NO TRANSLATION, IN THE CALLING NUMBER POSITIONS.

3. "CP-3" INDICATES TO THE TRANSVERTER THAT SEVEN (7) DIGITS ARE IN THE CALLED NUMBER. "CP-8" INDICATES THAT A ONE (1) DIGIT AREA CODE IS INVOLVED PLUS A SEVEN (7) DIGIT NUMBER.

4. ON EIGHT (8) DIGIT OUTGOING CALLS TO A NO. 4 OFFICE, THE AREA CODE INVOLVED IS IN THE ARBITRARY DIGITS. THE "A" DIGIT WILL BE DELETED BY THE SENDER.

5. ON CALLS TO A PBX THE DIAL PULSE SENDER MAY DELETE FROM 1 TO 7 DIGITS AND PREFIX AN ARBITRARY DIGIT.

6. "CL1" CLASS INDICATES TO DP SENDER TO DELETE 7 DIGITS. OTHER CLASS AND DELETE INDICATIONS ARE AS LISTED IN NOTE 400 PART 7.

7. THE ROUTING CONTROL DIGIT TRANSMITTED TO THE SENDER MAY BE DIFFERENT THAN THE DIGIT RECEIVED FROM THE INC REG.

DRAWING ISSUE
220 NMF
240 CR
300 RLS
430



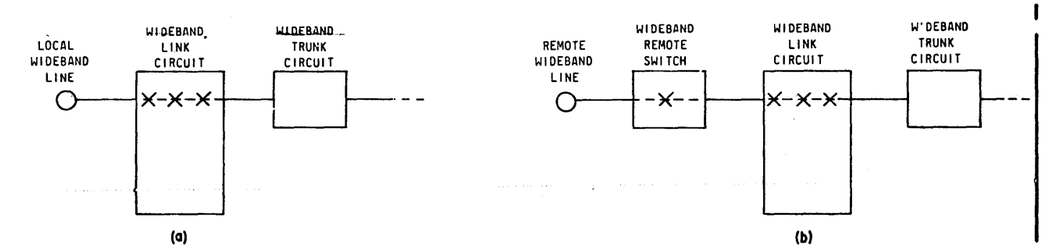
COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S
SD-26002-01-D15

INFORMATION NOTES

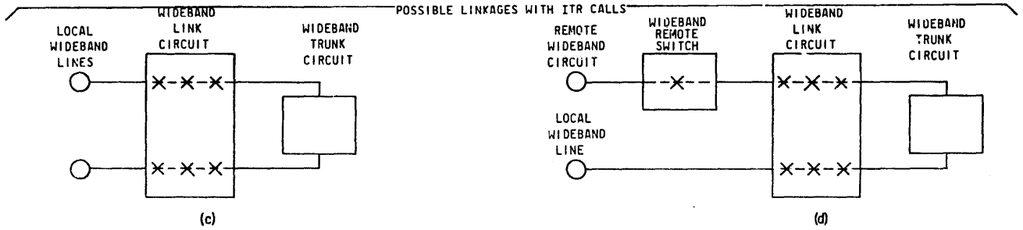
# NOTE 303

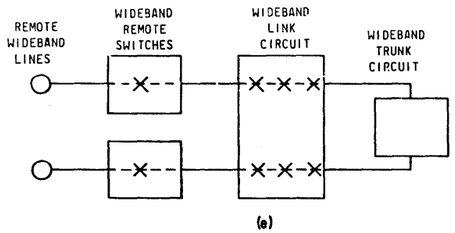
TYPES OF WIDEBAND LINKAGES

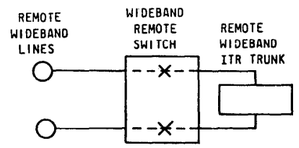
POSSIBLE LINKAGES WITH SOG OR TER CALLS



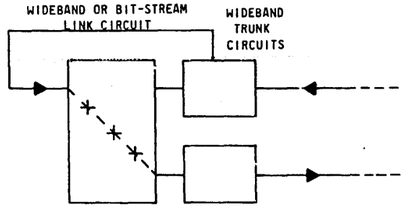

POSSIBLE LINKAGES WITH ITR CALLS



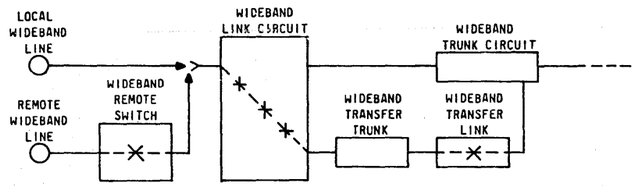




LINKAGE WITH TOG CALL



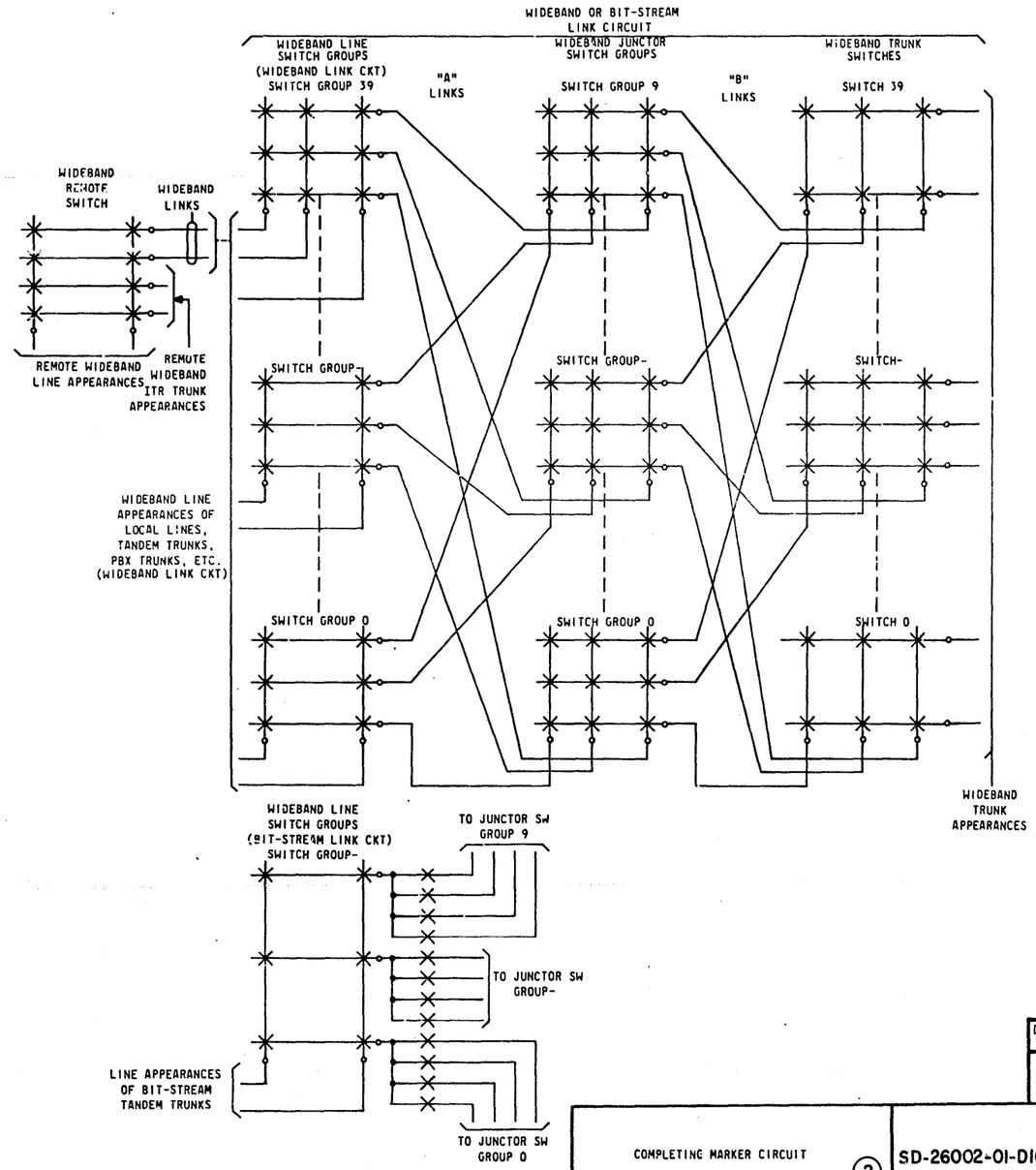

LINKAGE WITH DTI CALL




INFORMATION NOTES

# NOTE 304

WIDEBAND SWITCHING NETWORK




| DRAWING ISSUE |
|---|
| 390 AU,E |
| 430 |

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D16

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

INFORMATION NOTES: (CONT)

305. CALL DATA TRANSMITTER (CDT) MAY COEXIST WITH LAMA, CAMA, AND ANI IN A MARKER GROUP, HOWEVER TRUNKS SCANNED BY CDT SHALL NOT BE ASSOCIATED WITH THE OTHER SYSTEMS.

306. DURING JUNCTOR TRANSITION PROCEDURES IN OFFICE EMPLOYING 6 TRIPLE TRUNK LINK FRAME OPERATION, CONTACT 5 RELAY GCA SHALL BE WIRED AS SHOWN ON FS 4, SHEET B31A, AND SHALL BE REMOVED UPON COMPLETION OF TRANSITION.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 67B |
| BELL LABORATORIES | SD-26002-01 | | D17 |

# CROSS CONNECTION PCHG INDEX

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| 1AO-5 | 22 | 121E0 | AIS UNIT | | | "A" DIGIT | |
| 1BO-5 | 22 | 121F0 | | | | "B" DIGIT | |
| 1CO-5 | 22 | 121F0 | | | | "C" DIGIT | |
| 1SG | 27 | 4006 | TE | 4 | TR | 1 SENDER GROUP | |
| 1XS | 38 | 20A/A9 | TB | 4 | TR | SERVICE CODE SCREEN | |
| 1ZO | 24 | 24C/C7 | TK | 4 | TR | ORIGINATING "A" ZERO | |
| 2AO-5 | 22 | 121G0 | AIS UNIT | | | "A" DIGIT | |
| 2BO-5 | 22 | 121H0 | | | | "B" DIGIT | |
| 2CO-5 | 22 | 121H0 | | | | "C" DIGIT | |
| 2DT | 24 | 20A/C9 | TK | 4 | TR | 2 DIGIT TRANSLATION | |
| 2LO-7 | 69,105 | 71C3-H3 | C | 11-18 | PLT BELOW TBS UN ON CE | 2 LINE NUMBER | |
| 2L8,9 | | 71B3 | | 21,22 | | | |
| 2LV | 63 | 116F4 | NB | 1 | 4W PRE | 2 LEVEL PREEMEPTION | |
| 2SG | 27 | 4006 | TE | 4 | TR | 2 SENDER GROUPS | |
| 2WD | 16 | 68/F5 | CF | 3 | CE | ECHO SUPR CONT (4W) | |
| 2WD1-3 | 16 | 68/F5 | CF | 1 | CE | UNIVERSAL PAD CONT (2W) | |
| 2WDA-D | 16 | 68/A-D3 | CF | 3 | CF | ECHO SUPR CONT (4W) | |
| 2WDE-M | 16 | 68/A-C3 | CF | 3 | CE | UNIVERSAL PAD CONT (2W) | |
| 2WS | 38 | 21B/G2 | TA | 1 | TR | 2-WIRE SCREENING | |
| 2ZO | 24 | 24C/C7 | TK | 4 | TR | ORIGINATING "A" ZERO | |
| 3ZO | 24 | 24C/D7 | TK | 4 | TR | ORIGINATING "A" ZERO | |
| 4LT | 24,74,77 | 20A/B4 | TK | 4 | TR | PLN TRANSLATION | |
| 4LTO | 24 | 24C/E7 | TL | 4 | TR | LOC TRNSL 1-9 CODE POINTS 2W OR 4W | 472 |
| 4LT1-9 | | 24B/(A-F)5 | | | | | |
| 4NG | 39 | 74D8 | PAF,PAG | 2 & 4 | PBX | 4 NO. GROUPS | |
| 4PD | 50 | 24A/B9 | TF | 1 | TR | 4-WIRE PARTIAL DIAL | |
| 4PS | 50 | 24A/B9 | TF | 1 | TR | 4-WIRE PERMANENT SIGNAL | |
| 4WS | 38 | 21B/G2 | TA | 1 | TR | 4-WIRE SCREENING | |
| 4ZO | 24 | 24C/D7 | TF,TK | 1,4 | TR | ORIGINATING "A" ZERO | |
| 5DT | 16 | 68/B5 | CF | 3 | CE | FIVE DIGIT DIAL TRANSFER | |
| 7DT | 16 | 68/B5 | CF | F03,13,23 | CE | SEVEN DIGIT DIAL TRANSFER | |
| 5MT | 16 | 68/B5 | CF | 3 | CE | FIVE DIGIT MANUAL TRANSFER | |
| 7MT | 16 | 68/B5 | CF | 3 | CE | 7 DIGIT ATTENDANT CONT TRANSFER | |
| 8NG | 39 | 74C8 | PAF,PAG | 2 & 4 | PBX | 8 NO. GROUPS | |
| 11X2-9 | 24 | 24B/(A-F)6 | TK | 4 | TR | 11X2-9 CODE POINTS | |
| 11XO | | 24C/C2 | | | | 11XO CODE POINT | |
| A1 | 39 | 76A8 | PAD,PAF | 2 & 4 | PBX | PBX ALLOTTER A NO. GROUP PREFERENCE | |
| A2 | 39 | 76F9 | PAD,PAF | 2 & 4 | PBX | PBX ALLOTTER A NO. GROUP PREFERENCE | |
| AAN | 45 | 60B6 | TB | 4 | TR | OFFICE "A" ALL NO. | |
| AB | 31 | 398/C0 | CD | MULT 158 | CE | ALL BUSY | |
| AB1 | 39 | 76G8 | PAD,PAF | 2 & 4 | PBX | ALL BUSY | 472 |
| AB2 | 39 | 76H8 | PAD,PAF | 2 & 4 | PBX | ALL BUSY | |
| ABG | 31,92 | 398/B0 | CD | MULT 159 | CE | ALL BUSY GROUND | |
| ABN | 22 | 45F6 | AIS UNIT | | | AUTOMATIC BLANK NO. | 472 |
| AC1,2,3 | 33 | 35C1,99G1 | CG | | CE | CONNECT AC SUPPLY | |
| AC--- | 99 | 144D4-G4 | B-AC | A-F | REL R | AREA CODE CODE POINT | 472 |
| ACG00-31 | | 143E5 | A-ACG | A-H | | AREA CODE GROUPING | |
| ACR00-29 | | 144G5 | B-ACR | G | | AREA CODE ROUTE | |
| | | | TG | 1 | TR | | |
| ACT(1),(2) | | 144A1 | TL,TU | 4,4 | TR | AREA CODE TRANSLATOR | |
| ACV | | 144D6 | B-AC | E | REL R | VACANT AREA CODE | |
| ADD | 96 | 115A8 | TM | F53 | TR | ADD-ON | |
| ADT | 88 | 24A/F9 | TL | 1 | TR | "A" DIGIT TRANSLATOR | |
| AEN | 45 | 60F6 | TB | 4 | TR | OFFICE "A" EXTRA THEORETICAL NUMBER | 473 |
| AER | 46 | 28A/C4 | TF | 1 | TR | OFFICE "A" EXTRA THEORETICAL ROUTE | |
| AGM | 77 | 120F5 | TV | 1 | TR | AGC PRE-SERVICE TRAFFIC MEASUREMENT | |
| AGM0-9 | | | | | | | |
| AHB0-9 | 39 | 73F6 | PAF,PAG | 2 & 4 | PBX | ALLOTTED NO. HUNDRED BLOCK | |
| AI | 22 | 42A2 | CF | 1 | CE | AUTOMATIC INTERCEPT | |
| AID | 40,74 | 83B/A2 | TN | 2 | TR | AUTOMATIC IDENTIFIED OUTWARD DIALING | 472 |
| | | | STC | 2 | ST,AST, SAST, SST | | |
| AIN | 95 | 100B/G0 | TL | B99 | TR | ATTENDANT INTERCOM | |
| AIS | 22 | 121A/A1, 121B/A5 | A | B,F | AIS UN ON REL R | AUTOMATIC INTERCEPT SERVICE | |
| | | | TE | F14 | TR | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| AL11-18 | 60 | 17F7 | - | 11-18 | TRK GR ALLR ON TR | ALLOTTER GROUND SUPPLY | 472 |
| AL21-28 | | | | 21-28 | | | |
| ALSO-5 | 39 | 61C4 | PAC | 2 | PBX | NON-ALLOTTED NO.SERIES(0-5) | |
| ALT0 | 24 | 20A/A4 | TL | 1 | TR | LOCAL TRANSLATION | |
| ALT1 | | 20A/C4 | TL | 1 | TR | | |
| ALT2 | | 20A/D4 | TL | 1 | TR | | |
| ALT3 | | 20A/D4 | TL | 1 | TR | | |
| ALT4 | 24,93 | 20A/E4, F4 | TL | 1 | TR | | |
| ALT5 | 24 | 20A/C9 | TL | 1 | TR | | |
| ALT6 | 24,93 | 20A/F4, G4 | TL | 1 | TR | | 472 |
| ALT7 | 24 | 20A/G4, H4 | TL | 1 | TR | | |
| ALT8 | | 20A/B4 | TL | 1 | TR | | 472 |
| ALT9 | | 20A/E4 | TL | 1 | TR | | |
| ALT10 | | 20A/A4 | TL | B42 | TR | | |
| ALT11 | | 20A/E4 | TL | B43 | TR | | |
| ALT12 | | 20A/E9 | TL | B44 | TR | | |
| ALT13 | | 20A/D4 | TL | B47 | TR | | |
| ALT14 | | 20A/B4 | TL | B48 | TR | | |
| AMA | 3 | 42D3 | CF | 3 | CE | AMA-2W | |
| AMA4 | 3 | 42D2 | CG | 4 | CE | AMA-4W | |
| ANO-9 | 39 | 75D5 | PAC | 3 & 4 | PBX | ALLOTTED NO. | |
| ANA0-9 | 39 | 74C7 | PAE | 1 & 3 | PBX | ALLOTTED NO. (0-9) | |
| ANIS | 30,90 | 38B/B8 | TE | 3 | TR | ANI ROUTE SERIES | 472 |
| AOC | 16 | 68/D5 | CS | 4 | CE | ALL OTHER LINES AND UNUSED CS-CLASSES | |
| AOLS | | 96D7 | TA | 1 | TR | ANI ROUTE SERIES | |
| AOS | 40,74 | 83B/C2 | TN | 2 | TR | ALL OTHER CLASS SIGNAL | |
| | | | STC | 2 | ST,AST, SAST, SST | | |
| APN | 45 | 60C6 | TB | 4 | TR | OFFICE "A" PHYSICAL NO. | 473 |
| APR | 46 | 28A/C4 | TF | 1 | TR | OFFICE "A" PHYSICAL ROUTE | 472 |
| ARO-6 | 69,70 | 105(A-E)4 | A | 31-37 | TBS UN ON CE | ATTENDANT RESTRICTION | |
| AROP-4P | 36 | 45A5 | CVC | 1 & 3 | CC | "A" CODE ROUTE DIGIT | |
| AROS-5S | 36 | 45A5,B5 | CVC | 1 & 3 | CC | "A" CODE ROUTE DIGIT | |
| ARI | 22 | 45G6 | AIS UNIT | | | AUTOMATIC REGULAR INTERCEPT | |
| ARN00-95 | 36 | 45A6 | CVB,CVD, CVE | 1 & 3 | CC | "A" ARBITRARY DIGIT | |
| ART0-9 | 77 | 120C0 | TV | 1 | TR | TERM. OR ACCESS RTE TR | |
| AS | 45,70 | 61D1 | TA | 1 | TR | OFFICE "A" ADDED THOUSANDS SERIES | |
| | | | JE | 1,2,3,4 | LLP | | |
| AST0-5 | 45 | 61A2 | TB | H10-15 | TR | ADDITIONAL START | |
| AT00-99 | 24 | 25C6 | TK | 4 | TR | 2 DIGIT TRANSLATION | |
| ATB0-9 | 39 | 73B6 | PAF,PAG | 2 & 4 | PBX | ALLOTTED NO. TENS BLOCK | |
| ATBI | 22 | 45F6 | AIS UNIT | | | AUTOMATIC TROUBLE INTERCEPT | |
| ATD | 90 | 28B/B8 | TM | F33 | TR | ANI TOLL DIVERSION | |
| ATH0-9 | 39 | 74E4 | PAF,PAG | 2 & 4 | PBX | A.LOTTED NO. THOUSANDS | |
| ATN | 45 | 60D6 | TB | 4 | TR | OFFICE "A" THEORETICAL NO. | 473 |
| ATR | 46 | 28A/D4 | TF | 1 | TR | OFFICE "A" THEORETICAL ROUTE | 472 |
| ATT | 51 | 21A/E7 | TB | 3 | TR | ATTENDANT CLASS | |
| ATV | 56 | 24C/F1 | TD | 4 | TR | ATTENDANT CLASS-VACANT CODE | |
| ATW0-9 | 24 | 24B/B0 | TK | 4 | TR | "A" DIGIT TRANSLATOR WINDING | |
| B1 | 39 | 76A8 | PAD,PAF | 2 & 4 | PBX | PBX ALLOTTER B NO. GROUP PREFERENCE | 472 |
| B2 | 39 | 76E9 | PAD,PAF | 2 & 4 | PBX | | |
| BA00-143 | 71 | 111B6 | LE | 1 | RM | BEST ALTERNATE ROUTE OR TRIPLE | |
| BA200-343 | | | PD | 1 | ARM | | |
| BAN | 45 | 60B6 | TB | 4 | TR | OFFICE "B" ALL NO. | |
| BAT | 29 | 37H4 | CF | 3 | CE | BATTERY | |
| BEN | 45 | 60G6 | TB | 4 | TR | OFFICE "B" EXTRA THEORETICAL NO. | 473 |
| BER | 46 | 28A/C4 | TF | 1 | TR | OFFICE "B" EXTRA THEORETICAL NO. | 472 |
| BIR | 21 | 78B/E2 | CG | 3 | CE | BLANK NO. INTERCEPT RINGING | |
| BL | 10 | 28B/C4 | TN | 1 | TR | BUSY LINE | |
| | | | STC | 1 | ST,AST, SAST SST | | |
| BL 10-14 | 30 | 28B/F1 | TV | C00-04 | TR | BILLING | 472 |
| BL 20-24 | | | | C05-09 | | | |
| BL 30-34 | | | | C10-14 | | | |
| BL 40-44 | | | | C15-19 | | | |
| BLA 10,11 | | 28B/D1 | | D02,03 | | | |
| BLA 20,21 | | | | D04,05 | | | |
| BLA 30,31 | | | | D06,07 | | | |
| BLA 40,41 | | | | D08,09 | | | |
| BLDA | 69,105 | 105F5 | B | 21 | TBS UN ON CE | BUSY LINE AND DON'T ANSWER TRANSFER | |
| BLS00-99 | 73 | 113(B,C)4 | BLDA TRF UNIT | | RR | BUSY LINE SORT | |
| BLT | 69,105 | 105F5 | B | 28 | TBS UN ON CE | BUSY LINE TRANSFER | |
| BLTL | 73,95 | 113D5 | JE,KE | 1 | ALLP,LLP | BUSY LINE TRANSFER LOCK | |
| | | | A | 1 | LR,RR | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| BN | 22,23,63 | 66B3 | MC | G | 4W | BLANK NO. | 472 |
| | | | - | 32,34,36 | INC TRK CL UN ON CE | | |
| BNA | 22 | 108B1 | TE | 3 | TR | LINE INTERCEPT NO.SCREENING | |
| BNB | 21 | 78B4 | - | 15 | INC TRK CL UN ON CE | BLANK NO. AUXILIARY | |
| BN-HB | 17 | 67B6 | TP | 4 | TR | BLANK NO. HUNDREDS BLOCK | |
| BN-ST | 17 | 61C9 | TB | 4 | TR | BLANK NO. START | |
| BN-TB | 17 | 68B7 | TP | 4 | TR | BLANK NO. TENS BLOCK | |
| BNTH | 45,70,73 | 61F1 | JE, KE,TA | 1 | ALLP, LLP,TR | BLANK NO. THOUSANDS | |
| | | | A | | LR REL RACK | | |
| BN-U | 17 | 69H4 | TP | 4 | TR | BLANK NO. UNITS | |
| BPN | 45 | 60D6 | TB | 4 | TR | OFFICE "B" PHYSICAL NO. | 473 |
| BPR | 46 | 28A/D4 | TF | 1 | TR | OFFICE "B" PHYSICAL ROUTE | 472 |
| BRO P-4P | 36 | 45B5 | CVC | 1 & 3 | CC | B CODE ROUTE DIGIT | |
| BRO S-4S | 36 | 45C5 | CVC | 1 & 3 | CC | B CODE ROUTE DIGIT | |
| BR1 | 84 | 78B/F8 | A | 58 | MKR CONT IMED RNG UN ON REL R | BRUSH 1-3 | |
| BR2 | | 78B/D8 | | 57 | | | |
| BR3 | | 78B/D8 | | 56 | | | |
| BRN00-95 | 36 | 45B6 | CVB,CVD, CVE | 1 & 3 | CC | B ARBITRARY DIGIT | |
| BS 10-14 20-24 30-34 40-44 | 30,59 | 28B/F0 | 1V | 2 | TR | BILLING SELECTION DROPPED ON ROUTE ADVANCE | 418 |
| BSA 10,11, 20,21, 30,31, 40,41 | | 28B/D0 | | | | | |
| BSL | 92 | 137G1 | AA | 1 | WB | BIT-STREAM LINK | |
| BSN | 75 | 62B/E3 | TD | 4 | TR | BELL SYSTEM NETWORK | |
| BTG-9 | 24 | 25G4 | TL | 4 | TR | B DIGIT TRANSLATOR | |
| BT(0-9), R,S,T | 24 | 25G6 | TL | 4 | TR | B DIGIT TRANSLATOR | |
| BTI | 22 | 66B4 | - | 43 | INC TRK CL UN ON CE | BLANK THOUSANDS INTERCEPT | |
| BTL | 23 | 66B4 | - | 43 | | BLANK THOUSANDS LOCAL | |
| BTN | 45 | 60E6 | TB | 4 | TR | OFFICE "B" THEORETICAL NO. | 473 |
| BTR | 46 | 28A/D4 | TF | 1 | TR | OFFICE "B" THEORETICAL ROUTE | 472 |
| BTT | 23 | 66B4 | - | 53 | INC TRK CL UN ON CE | BLANK THOUSAND TOLL | |
| BWD | 29 | 37H5 | CF | 3 | CF | BATTERY WDG | |
| | | | TG | 1 | [illegible] | | |
| | | | STB | 3 | SST | | |
| | | | | | AST | | |
| C | - | 78A/C5 | - | 26 | INC TRK CL UN ON CE | COMMON | |
| C000-499 | 24,34,70,89 | 26D7 | TK | 1,2,3 | TR | 3 DIGIT CODE POINTS | |
| C500-999 | 24,70,89 | 26D7 | TH | 2,3,4 | TR | 3 DIGIT CODE POINTS | |
| C1 | 39 | 76B8 | PAD,PAF | 2 & 4 | PBX | PBX ALLOTTER C NO. GROUP REFERENCE | |
| C2 | 39 | 76D9 | PAD,PAF | 2 & 4 | PBX | | |
| C4D | 24 | 28A/C4 | TJ2 | 4 | TR | FOUR DIGIT CONFLICT | |
| CA | 30 | 28B/E8 | TE,FA, LD | 3 | TR,ARM, RM | CATCH-ALL AUXILIARY | |
| CAI(CLO5) | 22 | 47B4 | | 3 | RR | CLASS AUTOMATIC INTERCEPT | |
| CAM | 64 | 27F1 | TA | 3 | TR | CAMA CALLS | |
| CAMA | 64 | 27F1 | TA | 3 | TR | CAMA OBSERVING | |
| CC | 30,62, 71 | 28B/E5 | TC | 2,4 | TR | COIN CONNECTOR | 472 |
| | | | TN | 1,3 | | | |
| | | | PA | 3 | RM, ARM | | |
| | | | LD | 3 | | | |
| | | | STC | 1,3 | ST,AST, SAST, SST | | |
| CC1 | 71 | 111B/A7 | LB | 1 | RM | ADVANCE TO PREEMPT CYCLE | |
| CCH | 20 | 59A/E6 | - | 14 | INC TRK CL UN ON CE | CAMA CHARGE | |

ISSUE 63B

COMPLETING MARKER CIRCUIT

SD-26002-01-018

BELL TELEPHONE LABORATORIES INCORPORATED

CODE IDENT 6S

PRINTED IN U.S.A.

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| CDO-9,16 | 61 | 94A-C2 | MB | 3 | 4W | CONTROL DIGIT | |
| CDACP-4P | 62 | 95A2 | MD | 4 | 4W | CONTROL DIGIT | |
| CDAOS-4S | 62 | 95A2 | MD | 4 | 4W | | |
| CDBOO-143 CDB200-343 | 71 | 111B/F6 | LE | 4 | RM | CODE ROUTING DIGIT BEST ALTERNATE ROUTE OR TRIPLE | |
| CDBOP-4P | 62 | 95D1 | PB | 4 | ARM | CONTROL DIGIT | |
| CDBOS-4S | | | MD | 4 | 4W | | |
| CDCOO-39 | 62 | 94F5 | MC | 3 | 4W | 4W CLASS-OF-SERVICE | |
| CDDOO-39 | 62 | 94E5 | MC | 4 | | | |
| CDEO-3 | 71 | 94F5 | MD | 4 | 4W | SCREENING RELAYS FOR CLASS-OF SERVICE INDICATIONS ON A CONTROL DIGIT BASIS | |
| CDGO-9 | 38,61,62 | 9483 | TA,TF,HB | 1,4 | TR | CONTROL DIGIT GROUPING | |
| CDMOO-143 CDM200-343 | 71 | 111B/D6 | LE | 3 | RM | CODE ROUTING DIGIT MOST DIRECT ROUTE OR TRIPLE | |
| CDPO-16 | 61 | 94E-H2 | PB | 3 | ARM | CONTROL DIGIT | |
| CDSOO-143 CDS200-343 | 71 | 111B/H6 | MB | 3 | 4W | CODE ROUTING DIGIT SECOND BEST ALTERNATE ROUTE OR TRIPLE | 472 |
| | | | LE | 4 | RM | | |
| | | | PB | 4 | ARM | | |
| CDTK | 106 | 28B/H4 | TE | FIO | TR | CDT ROUTE SERIES CHECK | |
| CFV | 56 | 24C/G1 | TF | 1 | TR | CAMA FUNCTION VACANT CODE | |
| CGOO-59 | 57,71 | 28A/E4 | TF,TJ,TA | 1-4 | TR,RM | CODE GROUPING | |
| CG60-119 | 71 | 111E3 | LA | 2 | RM | CODE GROUPING | |
| | | 111E2 | TJ | 1-4 | TACT | | |
| CGAO,1,2 | 38 | 8AO | TB | F07,17,29 | TR | CLASS-OF-SERVICE GR "A" | |
| CGBO,1,2 | 38 | 8HO | TB | 3 | TR | CLASS-OF-SERVICE GR "B" | |
| CGS | 16 | 68/B5 | CF | 3 | CE | CUSTOMER GROUP SERVICE | |
| CGSO-9 | 37 | 102A2 | TL | 1 | TR | CUSTOMER GROUP SERVICE | |
| CI | 69 | 105F1 | C | 58 | PLT BELOW TBS UN ON CE | CUSTOMER GROUP INTERCEPT | |
| CIO-4 | | | | 54-58 | | | |
| CI(0-4)HB | 69 | 67A6 | INDIV CUST GR ICPT ANNOUNCEMENT UNIT | | | CUSTOMER GROUP INTERCEPT HUNDREDS BLOCK | |
| CI(0-4)ST | 69 | 61B/D0 | TA | G25-29 | TR | CUSTOMER GROUP INTERCEPT START | |
| CI(0-4)TB | 69 | 68A7 | INDIV CUST GR ICPT ANNOUNCEMENT UNIT | | | CUSTOMER GROUP INTERCEPT TENS BLOCK | |
| CI(0-4)U | 69 | 69H3 | INDIV CUST GR ICPT ANNOUNCEMENT UNIT | | | CUSTOMER GROUP INTERCEPT UNITS | |
| CICOO-38 | 97 | 28A/G6 | TV | 1 | TR | CLASS INFORMATION CONTROL | |
| CIR | 84 | 78B/D6 | A | 55 | MKR CONT IMED RNG LN ON REL R | CANCEL IMMEDIATE RING | |
| CK | 65 | 100R/A6 | TN | 1,3 | TR | CLASS CHECK | |
| | | | STC | 1,3 | ST,AST, SAST,SST | | |
| CKG3 | 62 | 94C4 | MD | 4 | 4W | CLASS CHECK GROUND | |
| CKGD | 65 | 100B/A6 | TN | 1,3 | TR | CLASS CHECK GROUND | |
| | | | STC | 1,3 | ST,AST, SAST,SST | | |
| CLOOO-499 | 6A,6B,7,8, 9,9A,76, 80,104,107 | 47B4 | RA,RC, RD | 3 | RR | TERMINATING OFFICE CLASS | |
| CLC | 37 | 88B/A1 | TD | 4 | TR | CLASS CONTROL | |
| CLOP-10P | 6A,6B,7,9, 9A,80,104 | 47C0 | RB | 3 | RR | CLASS PRIMARY | |
| | | | JA,KA | 1,2,3,4 | LLP,ALLP | | |
| CLOS-10S | 6A,6B,7,9, 9A,80 | 47D0 | RB | 3 | RR | CLASS SECONDARY | |
| | | | JA,KA | 1,2,3,4 | LLP,ALLP | | |
| CM | 65 | 104B/G8 | MULT CL SERV MATCH UNIT | | CE | CLASS-OF SERVICE MATCH | |
| CMO-3 | 38 | 21B/F5 | TBI | G16-19 | TR | CAMA SCREENING | |
| CMFO,1 | 51 | 21A/E6 | TU | 1 | TR | CAMA FIRST | |
| CMF | 58 | 28B/E8 | TE | 3 | TR | CAMA FUNCTION ROUTE SERIES | |
| CMJ | 58 | 28B/F8 | TE | 3 | TR | CAMA JUNCTOR ROUTE SERIES | |
| CMRO | 58 | 28B/F5 | TN | 1 | T&CT | CAMA TANDEM JUNCTOR REROUTE | |
| CMR1 | 58 | 28B/F5 | TN | 1 | T&CT | CAMA TOLL JUNCTOR REROUTE | 472 |
| CMSO-7 | 58 | 92D4 | - | 21-28 | CAMA UN ON CE | CAMA TRUNK LINK FRAME NO. | |
| CMS8-15 | | | | 31-38 | | | |
| CMS16-23 | | | | 41-48 | | | |
| CMS24-29 | | | | 51-56 | | | |
| CMT | 90 | 28B/F8 | TE | 4 | TR | CAMA JUNCTOR TOLL DIV ROUTE SERIES | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| CN | 16 | 68/C5 | CG | 4 | CE | GROUND START COIN LINES | |
| CNA | 79 | 122A/D6 | CG | A16 | CE | GROUND START COIN LINES AUX | |
| CNP | 85 | 28A/E6 | TL | B98 | TR | COIN NOT PRESENT | |
| CNS | 40,74 | 838/B2 | TN | 1 | TR | COIN SIGNAL | |
| | | | STC | 1 | ST,AST SAST, SST | | |
| CNT | 76 | 1008/F3 | TE | 4 | TR | CENTREX NO TEST | |
| CNTO | | 28A/G4 | TE | 4 | TR | CENTREX NO TEST | |
| COPO,1 | 3 | 42D6 | RF,RG | CO,1 | RR | CODE PATTERN MODIFIER OUTPUT | |
| COP2,3 | | 47(G-H)7 | | A30,31 B30,31 | | | |
| CP | 85 | 28A/D6 | TL | B97 | TR | COIN PRESENT | |
| CPOO-499 | 5,6A,6B,8,9, 9A,63,74,76, 78,79,104 | 47D8 | RA,RC RD | 4 | RR | CODE PATTERN | |
| | | | NC | 1-4 | 4W PRE | | |
| CPOP-9P | 5,8 | 47(8-F)8 | RA | 4 | RR | CODE PATTERN PRIMARY | |
| CPOS-9S | 5,8 | 47(F-G)8 | RB | 4 | RR | CODE PATTERN PRIMARY | |
| CP1OP | 74 | 47G8 | RB | 4 | RR | CODE PATTERN PRIMARY | |
| CP1OS | 74 | 47H8 | RB | 4 | RR | CODE PATTERN PRIMARY | |
| CPC | 37 | 102A3 | TO | 3 | TR | CTX PEG COUNT | |
| CPG | 5 | 47C8 | TE | G18 | TR | CODE PATTERN GROUND | |
| CPMO,1 | 3 | 42D5 | RF,RG | C2,3 | RR | CODE PATTERN MODIFIER | |
| CPM2 | | 42H5 | | A37-39, B37-39 | | | |
| CPM3 | | | | A47-49, B47-49 | | | |
| CPM4,5 | 3 | 42G3 | | | | CODE PATTERN MODIFIER | |
| CPX | 5 | 47C8 | TE | G19 | TR | SEVEN OR TEN DIGIT REQUIRED | 472 |
| | | | RB | G | RR | | |
| COP4,5 | 3 | 42F5 | | | | CODE PATTERN MODIFIER OUTPUT | |
| CROOO-499 | 4,8,9,9A,36, 63,76,80,93, 104 | 45E6 | RA,RC, RD | 3 | RR | COMPENSATING RESISTANCE AND CODE ROUTE | |
| CROP-5P | 4,6A,8,36, 80,93 | 45E5,F5 | CVC | 2&4 | CC | COMPENSATING RESISTANCE AND CODE ROUTE PRIMARY | |
| | | | JC, XC,RB | 3 | LLP, ALLP,RR | | |
| CROS-5S | 4,6A,6B,8,36, 76,80,93,99, 104 | 45F5,G5 | CVC | 2&4 | CC | COMPENSATING RESISTANCE AND CODE ROUTE SECONDARY | |
| | | | JC, XC,RB | 3,4 | LLP, ALLP,PR | | |
| CRNO-95 | 36 | 45D6 | CVB, CVD,CVE | 2&4 | CC | C ARBITRARY DIGIT | |
| CSOO-29 | 16,79 | 68/H3 | CG | 1 | CE | CLASS-OF-SERVICE | |
| CS30-99 | 16 | 68/G-H3 | CG | 2 | CE | CLASS-OF SERVICE | |
| CSA1 | 38 | 9AO | TB | 3 | TR | CLASS-OF-SERVICE SORT "A" | |
| CSA2 | | | | | | | |
| CSB1 | 38 | 9HO | TB | 3 | TR | CLASS OF SERVICE SORT B | |
| CSB2 | | | | | | | |
| CSC | 97 | 47A/A3 | RB | 1 | RR | CLASS SCREENING | |
| CSMO,1 | 51 | 21A/F6 | TU | 1 | TR | CAMA SECOND | |
| CST3-9 | 16 | 6G6 | CG | 2 | CE | CLASS OF SERVICE | |
| CSV | 56 | 24C/G1 | TF | 1 | TR | CAMA COMPLETING VACANT CODE | |
| CSWOO-39 | 61 | 94B7 | TA | 1,2 | TR | 4W CLASS OF SERVICE | 472 |
| CT | 74 | 114F4 | TU | 1 | TR | TRAFFIC SAMPLE COUNT | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| CTAR | 59 | 28A/A4 | TF | 1 | T&CT | CAMA TANDEM ROUTE | |
| CTT | 69 | 105D1 | C | 28 | PLT BELOW TBS UN ON CE | CENTREX TEMPORARY INTERCEPT | |
| CTOR | 59 | 28A/B4 | TF | 1 | T&CT | CAMA TOLL ROUTE | |
| CTOX | 65 | 100B/A3 | TJ | 1 | TR | CLASS UNITS & TENS CHECK | |
| CTX | 79 | 122A/A6 | CG | A18 | CE | CENTREX CLASS | |
| CVOO-95 | 10,36,53,71 | 28A/A4, 94 | TL & TG | 1 | CC & TR | CODE CONVERSION | |
| | | | LG | 1 | RM | | |
| CV300-95 | 36 | 28A/A6 | CVB, CVD,CVE | 2&4 | CC | CODE CONVERSION BATTERY | |
| CVROO-95 | 36 | 28A/D1 | CVB | 1,2,3,4 | CC | CODE CONVERSION ROUTE | |
| CVRGOO-49 | 57,71 | 28A/G2, G4 | TF | 1 | TR | CODE CONVERSION ROUTE GROUPING | |
| | | | CVF | 1,2,3,4 | CC | | |
| | | | LA | 4 | RM | | |
| CVS | 36 | 28B/E8 | CVC | 2&4 | CC | CODE CONVERSION SERIES | |
| CWB | 92 | 42H7 | RF | A,B (40-42) | RR | CANCEL WIDEBAND LINKAGE | 472 |
| | | | RG | | | | |
| CWSO | 44 | 61A/F3 | TB | F9,F08 | TR | CALL WAITING NO. GROUP START | |
| CWS1 | 44 | 61A/G3 | | F21 | | | |
| CXC | 101 | 77A4 | TL | H62 | TR | CENTREX COMPLETE | |
| CXR | 101 | 77A4 | TL | H63 | TR | CENTREX RESTRICTED | |
| CXS | 101 | 77A4 | TF | H30 | TR | CENTREX SCREENING | |
| CZ | 59 | 28B/H1 | - | 27 | RTE SER & RT TR UN ON TR | COIN ZONE NF TP SIGNAL TO TRUNK | |
| | | | - | 27 | SUPL DIV RTE SER REL UN ON TR | | |
| CZT | 59 | 28B/H1 | - | 28 | RTE SER & RT TR UN ON TR | COIN ZONE-TP SIGNAL TO TRUNK | |
| | | | - | 28 | SUPL DIV RTE SER REL UN ON TR | | |
| D | 69 | 28A/H4 | TF | 1 | TR | DIAL ORIG REG ROUTE | |
| D1 | 39 | 76C3 | PAD,PAF | 2&4 | PBX | PBX ALLOTTER C | |
| D2 | 39 | 76D9 | PAD,PAF | 2&4 | PBX | NO. GROUP PREFERENCE | |
| DAO | 22 | 51A7 | AIS UNIT | | | "A" DIGIT OF OFFICE CODE | |
| DA1 | 22 | 52A6 | | | | | |
| DA2 | 22 | 53A7 | | | | | |
| DA4 | 22 | 54A7 | | | | | |
| DA7 | 22 | 55A7 | | | | | |
| DAHA | 100 | 28A/H0 | TM | 2 | TR | DIRECTORY ASSISTANCE CHARGING-HOME NPA AREA | |
| DAHA1 | | 28A/H1 | | | | | |
| DAL | 100 . | 28A/G0 | TM | 2 | TR | DIRECTORY ASSISTANCE CHARGING-LOCAL AREA | |
| DAL1 | | 28A/H1 | | | | | |
| DAP | 75 | 62B/E3 | TD | 4 | TR | DIRECT ACCESS PRETRANSLATOR | |
| DAT | 69, 105 | 105G5 | B | 18 | TBS UN ON CE | DON'T ANSWER TRANSFER | |

DRAWING ISSUE

32A SP. SDL AMD
33D SP. SDL AMD
34A CK TMJ AMD
35D CK TMJ AMD
36A WL D
37D WL FL
39D RF
41D
43D
45D

DRAWING ISSUE 69B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-D19

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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SD-26002-01-D19

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FR | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| DBO | 22 | 51B7 | AIS UNIT | | | "B" DIGIT OF OFFICE CODE | |
| DB1 | | 52B7 | | | | | |
| DB2 | | 53B7 | | | | | |
| DB4 | | 54B7 | | | | | |
| DB7 | | 55B7 | | | | | |
| DCO | 22 | 51C7 | AIS UNIT | | | "C" DIGIT OF OFFICE CODE | |
| DC1 | | 52C7 | | | | | |
| DC2 | | 53C7 | | | | | |
| DC4 | | 54C7 | | | | | |
| DC7 | | 55C7 | | | | | |
| DCA | 21 | 78A/E5 | - | 24 | INC TRK CL UN ON CE | DENIED CODE INTERCEPT: AUXILIARY | |
| DC-HB | 17 | 67C6 | TP | 4 | TR | DENIED CODE INTERCEPT: HUNDREDS BLOCK | |
| DCI | 37 | 66C2 | TE | 3 | | DENIED CODE INTERCEPT | |
| | | | TL | 1 | | | |
| DC-ST | 17 | 61F8 | TB | 4 | | DENIED CODE INTERCEPT: START | |
| DC-TB | | 68B7 | TP | | | DENIED CODE INTERCEPT: TENS BLOCK | |
| DC-U | | 69G4 | | | | DENIED CODE INTERCEPT: UNITS | |
| DCIA | 22 | 108C1 | TE | 3 | | LINE INTERCEPT NO. SCREENING | |
| | | | | | | | |
| DIR | | 96D7 | - | 47 | INC TRK CL UN ON CE | | |
| DIS | 68 | 37C6 | TF | 1 | TR | DISCONNECT | |
| | | | | | | | |
| DKO,1 | 3,58 | 42E4 | RB | 2 | RR | "C" DIGIT CHECK OR CAMA SENDER TRANSLATOR | 472 |
| DKA1,2 | 3 | 42B3 | CG | 2 | CE | "C" DIGIT CHECK AUXILIARY | |
| | | | | | | | |
| DL000-499 | 6,6A,6B, 8,9,9A,76, 80,93,104 | 47E3 | RA,RC, RD | 4 | RR | DELETE DIGITS | |
| DLOP-6P | | 47(D-F)3 | RB | | | DELETE DIGITS PRIMARY | |
| | | | JA,KA | 1,2,3,4 | LLP,ALLP | | |
| DLOS-6S | 6,6A,6N,6,9, 9A,76,80,95 | 47(D-F)3 | RB | 4 | RR | DELETE DIGITS SECONDARY | |
| | | | JA,KA | 1,2,3,4 | LLP,ALLP | | |
| DLAO | 80,93 | 47B3 | RB1 | 1 | RR | | |
| DLA1,2 | 9A | 47C3 | RB1 | 1 | RR | DELETE AUXILIARY | |
| DN | 63 | 105C1 | C | 46 | PLT BELOW TBS UN ON CE | 4W DIRECTORY NO. | |
| DNC | 58 | 24A/C9 | TF | 1 | TR | DENIED CODE | |
| DNGO-9 | 45 | 61C2 | TU | 4 | | DUAL NO. GROUP START | |
| DNGAO-9 | | 61C1 | | | | DUAL NO. GROUP "A" | |
| DNGA | | 61F2 | TA | | | DUAL NO. GROUP | |
| DNGBO-9 | | 61C1 | TU | | | DUAL NO. GROUP "B" | |
| DNGB | | 61H2 | TA | | | DUAL NO. GROUP | |
| DNGC | | | TA | | | | |
| DNGD | | | TB | | | DUAL NO. GROUP START | |
| DNI | 63 | 105C1 | - | 48 | INC TRK CL UN ON CE | 4W DIRECTORY NO. INTERCEPT | |
| | | | | | | | |
| DPA | 61 | 94C6 | TA | B16 | TR | DP CONTROL DIGIT | |
| DPB | | | | B17 | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| DRO-9 | | | | | | DIVERTED ROUTE | |
| DR10-19 | 10,30,59 | 28B/G5 | TL | 1 | TR | DIVERTED ROUTES (MORE THAN 10 REQUIRED) | |
| DRGO-19 | 10, 57 | 28B/H8 | STC | 3 | SST, AST | DIVERTED ROUTE GROUPING | |
| DRRO,1 | 30 | 28B/F5 | TN | 2 | TR | RAPID DIVERTED ROUTE | |
| | | | | | | | |
| DSTO-9(PER DAPCO-2) | 45 | 61A2 | TU | 4 | TR | DIRECT ACCESS PRETRANSLATOR START | 473 |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FR | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| DT | 16 | 68/A5 | CF | 3 | CE | DIAL TRANSFER | 472 |
| DTL00-99 | 24,95 | 113(D-4)8 | B | A,B, E,F | DIAL TRFR UN ON RR | DIAL TRANSFER LOCAL COMPL | |
| DTS SORT 1 | 38 | 21B/F1 | TB1 | 3 | TR | INCOMING CLASS SCREENING | |
| SORT 2 | | 21B/F3 | | | | | |
| DTV | 56 | 24C/F1 | TD | | | DIAL TRANSFER VACANT CODE | |
| DTZ00-99 | 73,95 | 113(D-H)4 | B | C,D, G,H | DIAL TRFR UN ON REL R | DIAL TRANSFER ZERO | |
| DYO-3 | 81 | 40(E-F)1 | TL | H25-28 | TR | DENY CODE | |
| | | | | | | | |
| DZ | 24 | 28A/H4 | TJ2,TE | 4 | TR | DIAL ZERO | |
| DZA | | 28A/D4 | TJ2 | | | | |
| DZB | | 28A/D5 | | 1 | | | |
| | | | | | | | |
| E | 11 | 31A/E7 | CG | 3 | CE | END | |
| E1 | 39 | 76C8 | PAD, PAF | 2,4 | PBX | PBX ALLOTTER E NO. GROUP PREFERENCE | |
| E2 | | 76A9 | | | | | |
| | | | | | | | |
| EA | 71 | 110D3 | PC,LF | 1,1 | ARM,RM | EARLY ADVANCE GROUP | |
| | | | | | | | |
| EF,EFO,10 | 14 | 15D4 | CG | 4 | CE | EVEN FR TRK LINK FR | |
| EF20 | | 15A4 | | | | TRK LINK FR SELECTION | |
| EF30 | | 90G2 | | | | | |
| | | | | | | | |
| EG | 71 | 111B/C6 | MC | 4 | 4W | EXTERNAL GRID ALT ROUTE CONT | 472 |
| EGD | | 11086 | LF | 3 | RM | EXTERNAL GRID | |
| EGL | | 111B/C1 | MC | 4 | 4W | EXTERNAL GRID LIMITED | |
| EGN | 91 | 113C5 | A | 1-4 | LR RR | EXTRA GENERATE NO. | |
| | | | JE | | LLP | | |
| | | | KE | | ALLP | | |
| EGU | 71 | 111B/C1 | MC | 4 | 4W | EXTERNAL GRID UNLIMITED | |
| | | | | | | | |
| ELS | 38 | 20A/B9 | TB | 4 | TR | EXTRA LOCAL SCREEN | |
| ELT | 24 | 20A/C4 | TK | | | EXTRA LOCAL TRANSLATION | |
| ELTO | | 24C/C7 | | | | EXTRA LOCAL TRANSLATION "A" DIGIT | |
| ELT1-9 | | 24B/(A-G)9 | | | | | |
| | | | | | | | |
| ERA | 71 | 110D3 | PC,LF | 1,1 | ARM,RM | EARLY ROUTE ADVANCE | |
| | | | | | | | |
| ET | 24 | 20A/G4 | TK | 4 | TR | EXTRA TRANSLATOR | |
| ET00-99 | 24,89 | 25D8 | | 3 | | 2 DIGIT ET CODE POINT | |
| ETAO | 24 | 24C/D2 | | 4 | | EXTRA TRANSLATION "A" CODE POINTS | |
| ETA1-9 | | 24B/(A-F)3 | | | | | |
| ETWO-9 | | 24B/C0 | | | | 1 DIGIT EXTRA TRANSLATOR WINDING | |
| | | | | | | | |
| EX | 29 | 83D8 | CF | 3 | CE | EXTRA INDICATION | |
| EXA | | | | | | EXTRA INDICATION AUXILIARY | |
| EXB | | 80G3 | CG | 4 | CE | EX.RA BATTERY PUNCHING TROUBLE RECORDER | |
| | | | TE | | TR | | |
| EXG | | | CG | | CE | EXTRA GROUND PUNCHING TROUBLE RECORDER | |
| | | | TE | | TR | | |
| | | | | | | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FR | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| F1 | 39 | 76D8 | PAD, PAF | 2,4 | PBX | PBX ALLOTTER "F" NO. GROUP PREFERENCE | 472 |
| F2 | | 76B9 | | | | | |
| FAC | 64 | 27F2 | TA | 3 | TR | FOREIGN AREA CALL | |
| FAD | 49,64 | 27G2 | TK,TA | | | FOREIGN AREA DIALING | |
| FAR00-199 | 53,70,71, 72 | 28A/A4 | LA,TH | 1,3 | RM,TR | FOREIGN AREA ROUTE | |
| FAS | 88 | 24A/E9 | TE | F18 | TR | FOREIGN AREA SCREEN | |
| FATI-3 GR(0,1, 2,3) E1 | 24,53,58, 77 (SEE NOTE 407) | 27C7 | TG | G57,H11, 21,31 | | FOREIGN AREA TRANSLATION (AREA OR LOCAL) | 472 |
| FATI-3 GR(0,1, 2,3) E2 | | | | G58,H12, 22,32 | | | |
| FATI-3 GR(0,1, 2,3) E3 | | | | G59,H13, 23,33 | | | |
| FCK1,2,3 | 52 | 17H5 | CG | 2 | CE | FCK CHECK | |
| | | | | | | | |
| FD | 49,64 | 27G2 | TK,TA | 3 | TR | FOREIGN DIALING | |
| | | | | | | | |
| FG1,2 | 15 | 16D0 | CG | 2 | CE | FR GROUP | |
| FGA00-143 | 71 | 111B/D6 | LE | 1,2 | RM | FIRST GROUP ADVANCE (PRE-EMPT CYCLE) | |
| FGA200-343 | | | PB | 2,3 | ARM | | |
| FGAP | | 111B/C3 | LF | 3 | RM | FIRST GROUP ADVANCE PRE-EMPT | |
| FGT | 89 | 13IC0 | TJ | 4 | TR | F-G DIGIT TRANSLATION | |
| | | | | | | | |
| FLO | 46 | 28A/D3 | TF | H40 | TR | OFFICE "A" PHYSICAL CENTREX 4 OR 5 DIGIT RT | 472 |
| FL1 | | | | H41 | | OFFICE "A" THEORETICAL CENTREX 4 OR 5 DIGIT RT | |
| FL2 | | 28A/C3 | | H42 | | OFFICE "A" EXTRA THEORETICAL CENTREX 4 OR 5 DIGIT RT | |
| FL3 | | 28A/D3 | | H43 | | OFFICE "B" PHYSICAL CENTREX 4 OR 5 DIGIT RT | |
| FL4 | | | | H44 | | OFFICE "B" THEORETICAL CENTREX 4 OR 5 DIGIT RT | |
| FL5 | | 28A/C3 | | H45 | | OFFICE "B" EXTRA THEORETICAL CENTREX 4 OR 5 DIGIT RT | |
| FLP | 70 | 28A/E3 | | 1 | | LINE LINK PULSING CENTREX 4 OR 5 DIGIT ROUTE | |
| | | | | | | | |
| FOVC | 37,56 | 24C/H1 | TF | 4 | TR | FOREIGN OFFICE VACANT CODE | |
| | | | | | | | |
| FRC | 58 | 24A/D9 | TF | 1 | TR | FREE CODE | |
| | | | | | | | |
| FS1-3 | 14 | 15F6-F8 | CG | 2 | CE | AUXILIARY FS CONTROL | |
| FSP | 71 | 111B/A6 | PA | 3 | ARM | FINAL SCREENING POINT | 472 |
| | | | LF,LD | 3,3 | RM | | |
| | | | | | | | |
| FVDO | 24,70 | 24C/D2 | TK | 4 | TR | 5 DIGIT CP | |
| FVD1-7 | | | | | | | |
| FVD8 | 24,70,95 | 24B/(A-F)4 | | | | | |
| FVD9 | 24,70 | | | | | | |
| | | | | | | | |
| G | 63,82 | 94C4 | MD | 4 | 4W | GROUND | |
| G00-29 | 10,30,57, 62,71 | 111D4, 111E4 | LC | 2,3 | RM | GRADING TREATMENT | |
| | | | | | | | |

DRAWING ISSUE 410 430 450

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D20A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FR | FUNCTION MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| G1 | 39 | 76E8 | PAD, PAF | 2&4 | | | |
| G2 | | 76B9 | | | | | |
| GA00-143 | 71 | 111B/A6 | LE | 2 | RM | GROUP ADVANCE | 472 |
| GA200-343 | | | PB | | ARM | | |
| G3A0-11 | 25 | 43A7 | CF | 1 | CE | OUTSENDER GROUP BUSY "A" | |
| GBAC0-3 | | | CG | | | OUTSENDER GROUP BUSY "A" CONNECTOR | |
| GBB0-11 | | 43B7 | CF | | | OUTSENDER GROUP BUSY B | |
| GBBC0-3 | | | CG | | | OUTSENDER GROUP BUSY B CONNECTOR | |
| GC00-29 | 71 | 111D3 | LB,LD | 4,1 | RM | GRADING CONTROL | 472 |
| GC30-59 | | 111E3 | PA | 1 | ARM | | |
| GI | 22 | 66E4 | - | 42 | INC TRK CL UN ON CE | GROUP INTERCEPT | |
| GL | 23 | 66E4 | - | 42 | INC TRK CL UN ON CE | GROUP LOCAL | |
| GN | 73 | 113D5 | KE | 1-4 | ALLP | GENERATE NO. | |
| | | | JE | | LLP | | |
| | | | A | | LR RR | | |
| GNR | 91 | 28A/E4 | TE | F16 | TR | GENERATE NO. ROUTE | |
| GRD | 29 | 37H6 | CF | 3 | CE | GROUND | |
| GT | 23 | 66D4 | - | 52 | INC TRK CL UN ON CE | GROUP TOLL | |
| GW0-7 | 38,62,71 | 94E6 | MD | 3 | 4W | GRADING REL WINDING | |
| GWD | 29 | 37H5 | CF | | CE | GROUND WINDING | |
| | | | TG | 1 | TR | | |
| | | | STB | 3 | SST | | |
| | | | | | AST | | |
| H | 103 | 56F0 | TG | 1 | TR | H DIGIT | |
| HI | 39 | 76E8 | PAD, PAF | 2 & 4 | PBX | PBX ALLOTTER H NO. GROUP PREFERENCE | |
| H2 | | 76C9 | | | | | |
| HAT | 58 | 24A/D9 | TE | 3 | TR | HOME AREA TRANSLATOR | |
| HB0-9 | 17,63 | 67F6 | TP | 4 | TR | HUNDREDS BLOCK | 472 |
| | 39,70,73, 95 | 67E3 | PAE | 1 & 3 | PBX | HUNDREDS BLOCK (0-9) | |
| | | | JE | 3 | LLP | | |
| | | | A | 1 | LR RR | | |
| HBB0-9 | 39 | 67E2 | PAD, PAF, PAG | 1,2,3,4 | PBX | HUNDREDS BLOCK | |
| HBC0-9 | | | | | | | |
| HBD0-9 | | | | | | | |
| HBE0,4,5,9 | | | | | | | |
| HBF0,4,5,9 | | | | | | | |
| HBG0,4,5,9 | | | | | | | |
| HBH0,4,5,9 | | | | | | | |
| HBT0-9 | | 73F3 | | | | HUNDREDS BLOCK TRANSLATED | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FR | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| HGC | 71 | 111B/A2 | LF | 4 | RM | HOME GRID ALT ROUTE CONT | 472 |
| HGD | | 11086 | LF | 3 | | HOME GRID | |
| HMT1 | 41 | 34B/F2 | CG | 2 | CE | HOLD MAGNET TIMER | |
| HMT2,3 | | | | | | HOLD MAGNET TIMING | |
| HSA | 71 | 111B/A2 | LF | 4 | RM | HOME GRID 2ND ALT ROUTE | 472 |
| HTP | 71 | 11086 | LF | 3 | RM | HOME TRIPLE INDICATION | |
| HTR | 40,74 | 836/B2 | TN | 1 | TR | HEAVY TRAFFIC | |
| | | | STC | 1 | ST,AST, SAST, SST | | |
| IO-6 | 69,70 | 105(A-E)4 | B | 11-17 | TBS UN ON CE | INCOMING 7 DIGIT | |
| | | | TF | 10-16 | TR | | |
| I4W | 61 | 94B7 | TA | 1 | TR | INCOMING CLASS 4W | |
| IA | 10 | 28B/B1 | TD | 4 | CE | INTRAOFFICE ALT ROUTE | |
| IAA | | 28A/F4 | TF | 1 | | | |
| IAO | 74 | 114A/F4 | TU | | TR | SAMPLE INTRAOFFICE CALLS | |
| IAT20-99 | 94 | 25(A-E)8 | B | A-H | AUX LTD A-C DIG TRNSL UN ON REL R | INTERNATIONAL 2 DIGIT TRANSLATION | |
| IAW2-9 | | 248/A0 | A | B,D, F,H | | INTERNATIONAL B DIGIT TRANSLATOR WINDING | |
| I8 | 10 | 28B/B1 | TD | 4 | CE | INTRAOFFICE ALT ROUTE | 472 |
| IBN | 22 | (158) 121B/B4 | A | B,F | AIS UN ON RELR | BLANK NO. INTERCEPT | |
| | | (128) 121A/B1 | A | 5B | | | |
| | | | TE | F13 | TR | | |
| IBTO,1 | 94 | 25F6 | A | B,D, F,H | AUX LTD A-C DIG TRNSL UN ON REL R | INTERNATIONAL C DIGIT TRANSLATOR | |
| IC | 10 | 28B/B0 | TE | 3 | CE | INTRAOFFICE ALT ROUTE | |
| ICO0-19 | 94 | 26H6 | B | A,C, E,G | AUX LTD A-C DIG TRNSL UN ON REL R | INTERNATIONAL 3 DIGIT TRANSLATION | |
| ICPT | 63 | 105C1 | B | 5B | TBS UN ON CE | 4W OPERATE LINE INTERCEPT | |
| ID | - | 78A/C5 | - | 18 | INC TRK CL UN ON CE | COMMON | |
| ID1 | 95 | 28A/G6 | TL | G54 | TR | INCOMING LISTED DIRECTORY NUMBER | |
| ID2 | | 28A/G7 | | G55 | | | |
| IDA0 | 94 | 24C/E2 | B | B,D, F,H | AUX LTD A-C DIG TRNSL UN ON REL R | INTERNATIONAL DIALING "A" DIGIT TRANSLATION | |
| IDA1-9 | | 24B(A-F)7 | | | | | |
| IDP | 93 | 24A/E9 | TG | B46 | TR | INTERNATIONAL DIALING PERSON-TO-PERSON | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FR | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| IDRO-9 | 94 | 24B/F0 | AUX LTD A-C DIG. TRNSL UNIT TL | I | TR | INTERNATIONAL DIALING ROUTE | |
| IDS | 93 | 24A/E9 | TG | B47 | TR | INTERNATIONAL DIALING-STATION TO STATION | 472 |
| IE | 10 | 28A/E4 | TF | 1 | TR | INTRAOFFICE ALT ROUTE FOR DIRECTORY NO. | |
| IF | | 28A/E6 | | | | | |
| IG | | | | | | | |
| IMG | 9,9A | 45D5 | RB | 3 | RR | INTERMARKER GROUP | |
| IN5 | 11 | 31A/E4 | CG | 3 | CE | INTO CHANNEL 5 | |
| INA-HB | 17 | 67C6 | TP | 4 | TR | INTERCEPT "A" TRUNK GROUP | 472 |
| INA-ST | | 61F9 | TA | 1 | | | |
| INA-TB | | 68C7 | TP | 4 | | | |
| INA-U | | 69H4 | | | | | |
| INB-HB | | 67C6 | | | | INTERCEPT B TRUNK GROUP | |
| INB-ST | | 61F9 | TA | 1 | | | |
| INB-TB | | 68C7 | TP | 4 | | | |
| INB-U | | 69H4 | | | | | |
| INC-HB | | 67D6 | TA | 1 | | INTERCEPT C TRUNK GROUP | |
| INC-ST | | 61B/E1 | | B14 | | | |
| INC-TB | | 68C7 | TP | 4 | | | |
| INC-U | | 69H3 | | | | | |
| IND-HB | | 67D6 | TP | A42 | | INTERCEPT D TRUNK GROUP | |
| IND-ST | | 61B/E1 | TA | B15 | | | |
| IND-TB | | 68C7 | TP | A41 | | | |
| IND-U | | 69H3 | | A40 | | | |
| INFO,1 | 82 | 28A/B4,C1 | TM | 2 | TR | INFORMATION RTE | |
| INF2-7 | | 59B/A6, A8,B8 | | | | | |
| INI | 51 | 21A/C7 | TB | F11 | TR | INCOMING INTERCOM CLASS | |
| INL | 95 | 113H6 | TG | B48 | TR | INCOMING INTERCOM LOCAL COMPL | 472 |
| INO | 11 | 31A/E1 | CG | 3 | CE | INTO CHANNEL 0 | |
| INP8 | 10 | 28A/F6 | TE | | TR | INTERCEPT TO TONE TRUNKS ON ALL PATHS BUSY | |
| INRO-6 | 69,70, 105 | 105(A-E)6 | JE,KE B | A,C,E,G 51-57 | LLP,ALLP TBS UN ON CE | INCOMING RESTRIC ION | |
| INS SORT 1 | 22,38,61 | 21B/F1 | TB | 3 | TR | INCOMING CLASS SCREENING | |
| SORT 2 | | 21B/F3 | | | | | |
| INT | 10 | 28A/E4 | TE | 3 | TR | INTERCEPT FOR ALL PATHS BUSY OR UNAUTHORIZED CUSTOMER IO DIGIT | |
| INTI | | 28A/F6 | TF | 4 | | INTERCEPT FOR UNAUTHORIZED CUSTOMER IO DIGIT DDD CALLS | |
| INV | 56 | 24C/F1 | | | | INCOMING CLASS VACANT CODE | 472 |
| INZ | 95 | 113H2 | TG | B49 | TR | INCOMING INTERCOM-ZERO | |
| IOD | 30 | 28B/C8 | TN | 2 | TR | IDENTIFIED OUTWARD DIALING | |
| IPO-9 | 37 | 28A/C4 | TG,TK | 4 | TR | INDIVIDUAL PEG | |
| IPR | 62,71 | 110G5 | MD | 4 | 4W | IMMEDIATE PRE-EMPT CYCLE | |
| IPRS | 30 | 28B/G8 | TE,LD | 3,4 | TR,RM | IMMEDIATE PRE-EMPT ROUTE SERIES | |
| | | | PA | 3 | ARM | | |
| IRO-9 | 37,72 | 28A/D1 | TF | 4 | TR | INDIVIDUAL ROUTE | |
| IRG | 21 | 78B/E2 | CG | 3 | CE | RING INTERCEPT | |
| IRI | 22 | (158) 121B/B4 | A | 2B | AIS UN ON REL R | REGULAR INTERCEPT | |
| | | (128) 121A/B1 | A | A,E | | | |
| IRSO-6 | 69,70 | 105(A-E)4 | TD | 3 | TR | INCOMING RESTRICTION SCREENING | |
| ISO-2,4,7 | 40 | 1C6-G6 | TN | 4 | TR | INCOMING SOURCE OR CLASS | 472 |
| | | | STC | 2 | ST,AST, SAST, SST | | |

DRAWING ISSUE: 41D, 43D, 45D

DRAWING ISSUE: 63B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D20B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

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# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| ITB | 22 | (158) 121B/B4 (128) 121A/A2 | AIS UNIT | | | TROUBLE INTERCEPT | |
| ITD | 16 | 68/H5 | CF | 2 | CE | INCOMING TEST LINE | |
| ITM | | 68/H5 | | | | | |
| ITNA | 22 | 108F1 | TE | 3 | TR | INTERCEPT "B" TRUNK GROUP | |
| ITNB | | | | | | | |
| ITNC | | 108H1 | | F11 | | | |
| ITND | | | | F12 | | | |
| ITRA | 10 | 28A/E2 | | 3 | | INTRAOFFICE ROUTE ADVANCE | |
| IWS | 92 | 137E2 | TG | 1 | | INCOMING WIDEBAND SCREENING | |
| J | 103 | 56G0 | TG | 1 | TR | J DIGIT | |
| KCI | 36 | 45D5 | RB | 3 | RR | IMG & CANCEL CD CONVERSION | |
| KCV | | | | | | CANCEL CODE CONVERSION | |
| KM | 69,105 | 105D1 | B | 48 | TBS UN ON CE | CANCEL MATCH | |
| L | 21 | 78A/C5 | - | 17 | INC TPK CL UN ON CE | LOCAL | 472 |
| LA0-3 | 27 | 40B8 | TF | 2 | TR | ALLOTTED ROUTE "A" | |
| LAN | 69 | 105A4 | B | 27 | TBS UN ON CE | LLP ANNOUNCEMENT | |
| LATH0-9 | 70,73 | 74F5 | JC, KC | 1,2,3,4 | LLP, ALLP | LLP ALLOTTED NO. THOUSANDS | |
| | | | A | 1 | LR RR | | |
| LB0-3 | 27 | 40B8 | TF | 2 | TR | ALLOTTED ROUTE "B" | |
| LCB | 58 | 28A/H5 | TN | 1 | TR | LOCAL COMPLETION BATTERY | |
| | | | TD | 4 | | | |
| | | | STC | 2 | ST, AST, SAST, SST | | |
| LCC | | 28A/B9 | TD | 4 | | LOCAL COMPLETION COMMON | |
| LCD0-2 | | 24A/D9 | TF | | | LOCAL CODE DIALING AREA 0-2 | |
| LCH | 20 | 59A/G8 | - | 12 | INC TRK CL UN ON CE | LOCAL CHARGE | |
| LCL00-29, 30-119 | 7,73,95 | 47A4 | JB, KB | 1,2,3,4 | LLP, ALLP | LLP- SENDER CLASS | 472 |
| | | | B | 4 | LR RR | | |
| LCR00-29, 30-119 | 4,95 | 45E6 | JD, KD | 1,2,3,4 | LLP ALLP | LLP- ARB DIGIT | |
| LDA | 66 | 28A/F4 | TD | 3 | TR | LISTED DIR NO. ATT | |
| LDL00-119 | 6,95 | 47E3 | JB | 4 | LLP | LLP- DELETE DIGIT | |
| LDN | 69 | 105C4 | B | 23 | TBS UN ON CE | LISTED DIR NO. | 472 |
| LEA | 24,46,77, 95 | 28A/C7 | TG,TL | 1 | TR | LOCAL EXTRA THEO OFFICE "A" | |
| LEB | | 28A/E7 | | | | LOCAL EXTRA THEO OFFICE "B" | |
| LGA | 71 | 111B/C3 | LF,PC | 3,3 | RM,ARM | LAST GR ADVANCE | |
| LGAS | | 111B/A3 | FF | 3 | RM | LAST GR ADVANCE SCREENING | |
| LLPI | 69,105 | 105D4 | TE | G | TR | LLP-EXT NO. GR USAGE | |
| | | | B | 22 | TBS UN ON CE | | |
| LLS0 | 25 | 40C5 | CJ | 1 | CE | LINE LINK SELECTIONS 0 | |
| LLS1 | | | | | | 1 | |
| LLS2 | | 107B2 | | | | 2 | |
| LN(00-29), (30-119)HB | 70,73,95 | 67A6 | JB, KB | 1,2,3,4 | LLP, ALLP | LLP NO. HUNDREDS BLOCK | 472 |
| | | | B | 2 | LR RR | | |
| LN(00-29), (30-119)ST | | 61D2 | JD, KD | 1,2,3,4 | LLP, ALLP | LLP NO. START | |
| | | | B | 2 | LR RR | | |
| LN(00-29), (30-119)TB | | 68A7 | JB, KB | 1,2,3,4 | LLP, ALLP | LLP NO. TENS BLOCK | |
| | | | B | 2 | LR RR | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| LOLD | 78 | 47E8 | RB | 3 | RR | LONG LOOP ROUTES | |
| LOP0-4 | 6,95 | 47E1 | JA | 1 | LLP | LINE OUT-PULSE 0-4 | |
| LPA | 24,46,77, 95 | 28A/B7 | TG,TL | 1 | TR | LOCAL PHYSICAL OFFICE "A" | |
| LPB | | 28A/D7 | | | | LOCAL PHYSICAL OFFICE "B" | |
| LPN | 24,70,95 | 103E7 | JE, KE | 1,2,3,4 | LLP, ALLP | LLP NO. | |
| LPT0-5 | 63 | 116 (B-D)6 | A | 11-16 | TBS UN ON CE | LINE PREEMPTION TREATMENT | |
| LR00-99 | 70 | 103C4 | JF, KF | 1,2,3,4 | LLP, ALLP | LLP ROUTE | |
| LR | 10 | 28A/C2 | TE | 2 | TR | ROUTE ADVANCE | |
| LRA | | 28B/D4 | TK | 4 | | | |
| LRD | | 28A/F2 | TE | 3 | | LLP ROUTE DENIED | |
| LRK | 70 | 103G7 | JF, KE | 1,2,3,4 | LLP, ALLP | LR RELAY LOCK | |
| LRL- | 70,73,95 | 103 (E,F)6 | JD, KE | | LLP, ALLP | | |
| | | | B | 2 | LR RR | | |
| LRS | 70 | 103E7 | JE, KE, TE | 1,2,3,4 | LLP, ALLP, TR | LR SERIES | 472 |
| LRST0-9 | 70 | 61D2 | JE | 1,2,3,4 | LLP, ALLP | LLP ROUTE START | |
| LRU- | 70,73,95 | 103 (E,F)6 | JD, JK | 1,2,3,4 | LLP, ALLP | LR RELAY UPPER | |
| | | | B | 1 | LR,RR | | |
| LRW00-99 | 70,73, 77,95 | 103D5 | A | B,D, F,H | BL DA TRF UN ON RR | LLP ROUTE WIRING | |
| | | | JE | A,C,E,G | LLP | | |
| | | | KE | A,C,E,G | ALLP | | |
| LRW100-119 | | | TJ | G,H | TR | | |
| | | | B | A,C, E,G | BL DA TRF UN ON RR | | |
| | | | TJ | G,H | TR | | |
| LS | 38,74 | 20A/ (A,B)9, B7,H4 | TB | 4 | TR | LOCAL SCREEN | |
| | | | TD | 3 | | | |
| LS0,1 | | | TBI | F00,F10 | TR | LOCAL SCREEN FOR ORIG INTERCHANGEABLE CODES | |
| LS2 | | | TB | F20 | TR | LOCAL SCREEN FOR ACCESS CODES | |
| LS3,4 | | | TA TD | 1,4 | | | |
| LS5 | | | TA | B10 | TR | | |
| LS6,7,8 | | | TA | B11-13 | TR | LOCAL SCREEN FOR INC INTERCHANGEABLE CODES | |
| LS9 | 38 | 20A/B9 | TA | G59 | TR | LOCAL SCREEN FOR INTERCOM CODES | |
| LT | 24,74 | 20A/ (A-G)4, (C-F)9 | TK | 4 | TR | LOCAL TRANSLATOR | |
| LT0 | 24 | | TL | 4 | | LOCAL TRANSLATION | |
| LT1 | | | TK,TL | 4 | TR | | |
| LT2 | | | TL | 4 | | | |
| LT3 | 24,77 | | TJ,TL | 1,4 | | | |
| LT4-5, | 24 | | TL | 4 | | | |
| LT6-9 | | 20A/G4 | TL | 4 | TR | LOCAL TRANSLATOR | |
| | | 20A/F9 | | | | | |
| LT 20 | | 24C/C7 | TK | 4 | TR | LOCAL TRANSLATOR 2 "A" DIGIT | 472 |
| LT21-29 | | 24B/ (A-F)9 | | | | | |
| LT30 | | 24C/D7 | TL | 4 | TR | LOCAL TRANSLATOR 3 "A" DIGIT | |
| LT31-39 | | 24B/ (A-F)7 | | | | | |
| LT40-49 | | 24B/(A-G) 8,24C/C2 | | A30-39 | TR | LOCAL TRANSLATOR 4 "A" DIGIT | |
| LTA | 24, 46, 77, 95 | 28A/B7 | TG,TL | 1 | TR | THEO OFFICE "A" | |
| LTA0 | | 24C/B7 | TK | 4 | | LOCAL TRANSLATOR 0-9 CODE POINTS | |
| LTA1-9 | 24 | 24B/ (A-F)5 | | | | | |
| LTB | 24,46,77,95 | 28A/D7 | TG,TL | 1 | | LOCAL THEO OFFICE "B" | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| M | 11 | 31A/E4 | CG | 3 | CE | MIDDLE | |
| M1 | | 31A/E4 | | | | MIDDLE ONE | |
| MAK | 35 | 39A6 | CF,CG | 4 | CE | MARKER PREFERENCE | |
| MAN | 20 | 59C5 | - | 11 | INC TRK CL UN ON CE | MANUAL | |
| MB0-9 | 90 | 132C9 | TE | 3 | TR | MESSAGE BILLING FOR TOLL DIVERSION | |
| MBK | | 132B9 | | F19 | | | |
| MBS0-8 | 10,30 | 28B/F2 | TC | 1,3 | TR | MESSAGE BILLING SERIES | 472 |
| | | | TN | 1-4 | | | |
| MBS9 | | | TC | 1,3 | | | |
| | | | TN | 1-4 | | | |
| | | | STC | 1-4 | ST, AST SAST, SST | | |
| | | | LD | 3 | RM | | |
| | | | PA | 3 | ARM | | |
| MBT9 | 30 | 28B/A8 | TE,LD PA | 3,3,3 | TR,RM ARM | MESSAGE BILLING SERIES OVERRIDE | |
| MCK | 35 | 39A6 | CF,CG | 4 | CE | MARKER PREFERENCE | |
| MD00-143 | 71 | 111A/A6 | LE | 1 | RM | MOST DIRECT ROUTE | |
| MD200-343 | | | PB | 1 | ARM | | |
| MDI | 98 | 26D3 | TF | 1 | TR | MUTILATED DIGIT INTERCEPT | |
| MF | 68 | 28A/H4 | TF | 1 | TR | MF ORIG REGISTER ROUTE | 472 |
| MF1,2 | 61 | 94C7 | TA | 1 | | MF CONTROL DIGIT | |
| MFA,B | | 94C6 | | B18,19 | | | |
| MLT0-5 | 24 | 20A/ (A-G)4 D9 | TL | 4 | TR | MARKER TRANSLATORS | |
| MLT7-9 | | | | | | | |
| MLT6,8 | | | | | | | |
| MLT10 | 24,93 | 20A/ B7,F6, H8 | | B45 | | | 472 |
| MLT11 | | | | B46 | | | |
| MLT12 | | | | A7 | | | |
| MLT13 | 24 | 20A/C7 | TL | G56 | TR | | |
| MM | 65 | 104B/A7 | MULT CS MATCH UNIT | | CE | MIS MATCH | 472 |
| MMU0-9 | | 104B/ (B,C) 4 | | | | MIS MATCH UNITS | |
| MON1 | 43 | 81E5 | CG | 3 | CE | MONITOR | |
| MON2 | | | | | | MONITOR BATTERY | |
| MON3 | | | | | | REGISTER TEST MONITOR | |
| MP0-2 | 65 | 104A/A7 | MULT CS MATCH UNIT | | CE | MATCH PATTERN | 472 |
| MR | 16 | 68/E5 | CG | 4 | CE | MESSAGE REGISTER LINES | |
| MRI | 69 | 105E4 | TE | 4 | TR | MATCH RESTRICTED INC | |
| MSK | 35 | 39A8 | CF,CG | 4 | CE | MARKER PREFERENCE | |
| MT | 16 | 68/A5 | CF | 3 | CE | MANUAL TRANSFER | |
| MT0-9 | 65 | 104A/ (A-H)2 | MULT CS MATCH UNIT | | CE | MATCH TER TENS DIGITS | |
| MTG | 74 | 114B/H2 | A | 31 | TRK GR TR SAMP UN ON RR | MASTER TEST TRAFFIC SAMPLE GROUND | |
| MTR | 40,74 | 83B/B2 | TN | 1 | TR | MONITOR RELEASE | |
| | | | STC | 1 | ST, AST, SAST SST | | |
| MTS | 74 | 114B/H3 | A | 32 | TRK GR TR SAMP UN ON RR | MASTER TEST TRAFFIC SAMPLE | |
| MU0-9 | 65 | 104B/ (B-C)1 | MULT CS MATCH UNIT | | CE | MATCH TER UNITS DIGITS | |

| DRAWING ISSUE | |
|---|---|
| 34A | DP TM1 AND |
| 35D | DP TM1 AND |
| 36A | M4 |
| 37D | M4 |
| 39D | RP |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D21A

BELL TELEPHONE LABORATORIES INCORPORATED

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# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| N1-4 | 32 | 60E3 | TA | 4 | TR | NO. CONNECTOR | 472 |
| NA1 | | 108B1 | TF | 4 | TR | LINE INT NO. SCREENING | |
| NA2-6 | | 10882-E2 | | | | | |
| NA7 | | 1068? | | | | | |
| NAB | | 105A4 | | | | | |
| NA9 | | 108F2 | TG | 1 | TR | | |
| NA10 | 22 | 108F2 | TG | 1 | TR | | |
| NAD | 96 | 115A8 | TM | F43 | TR | NOT ADD-ON | |
| NAI | 22 | 158 / 121B/B5 | A | 48 | AIS UN ON REL R | NOT AUTOMATIC INTERCEPT | |
| | | 128 / 121A/B0 | A | B,F | | | |
| | | | TE | F15 | TR | | |
| NAN | 39 | 61C4 | PAD | 2 | PBX | NON ALLOTTED NO. SERIES | |
| NBS | 75 | 628/F3 | TD | 4 | TR | NON BELL SYSTEM | |
| NC | 30 | 28B/D5 | TC | A,E | TR | NON CHARGE COIN | |
| | | | TN | A,D,E | | | |
| | | | STC | 1-3 | ST,AST, SAST,SST | | |
| | 66 | | - | 25 | RTE SER & RTE TR UN ON TR | | |
| | 59 | | - | 25 | SUPL RTE SER REL UN ON TR | | |
| NC1,2 | 26 | 24A/ B4,6 | TF | 4 | TR | NON COIN SERVICE | |
| NCPN | 71 | 96D0 | TK | 4 | TR | NO CAMP ON | |
| NCT | 87 | 62A/A5 | CG | 3 | CE | CALLING LINE IDENTIFICATION | |
| NCT1-3 | | | | | | | |
| NDI | 6 | 47D3 | JA, KA | 1,2,3,4 | LLP, ALLP | NO DIGITS OUTPULSED | |
| | | | RB | 4 | RR | | |
| NDT1-3 | 42 | 109D8 | CG | 2 | CE | NO DIGITS OUTPULSED | |
| NGO-9 | 45 | 6181 | TA | G40-49 | TR | NO. GR START SCREENING | |
| | | | TM | F | | | |
| | | | STB | F | SST | | |
| NGA-H | 39 | 75D6 | PAD | 2,3,4 | PBX | NO. GR (A-H) ALLOTTED PBX | |
| NGS | 45 | 6182 | TA,TF | 3,1 | TR | NO. GR START SCREENING | |
| NI | 22 | 66C4 | - | 41 | INC TRK CL UN ON CE | NO INTERCEPT | |
| NID | 30 | 28B/D8 | TN | 2 | TR | NO IDENTIFICATION DIALING | |
| NKO-3 | 83 | 20A/ B4,6 | TL | A40-43 | TR | 2W,4W NETWORK SEPARATION | |
| NKA0-3 | | | | A44-47 | | | |
| NKB0,1 | | | | A48,49 | | | |
| NKB2,3 | | | | B40,41 | | | |
| NL | 23 | 66(C,D)4 | | 41 | INC | NO LOCAL | |
| NMI | 22 | | - | 44 | TRK CL UN ON CE | NO MATCH INTERCEPT | |
| NML | 23 | | | 44 | | NO MATCH LOCAL | |
| NMT | | | | 54 | | NO MATCH TOLL | |
| NN | 30, 59, 76, 90, 107 | 28B/D5 | TC | 1,3 | TR | NON CHARGE NON COIN | |
| | | | TN | 1-3 | | | |
| | | | STC | 1-3 | ST,AST, SAST, SST | | |
| | | | RTE SER & RTE TR UN | | TR | | |
| | | | SUPL DIV RTE SER REL UN | | | | |
| | | | PA | 3 | ARM | | |
| | | | LD | 3 | RM | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| NND | 90 | 28B/A5 | TM | F23 | TR | NON CHARGE TOLL DIVERSION | 472 |
| NNG | 39 | 75D6 | PAC | 2 | PBX | NO NO. GR | |
| NPC | 63 | 116 (E,F)4 | NB | 1 | 4W PRE | NON PREEMPTABLE | |
| NPM | | | | | | NO PRECEDENCE MEMORY | |
| NPR | 70 | 28A/D4 | TF | 1 | TR | LLP ROUTE | |
| NPRC | 71 | 94G5 | MC | 4 | 4W | NON PREEMPT CYCLE | |
| NRCB | 106 | 28B/G2 | TG | A76 | TR | NO RECORD | |
| | | | TN | 4 | | | |
| | | | STB | 4 | SST,AST | | |
| | | | STC | G77 | ST,SAST | | |
| NRDB | 106 | 289/G3 | TE | E19 | TR | NO RECORD BATTERY | |
| NRG | 21 | 78B/D1 | CG | 3 | CE | NO RINGING | |
| NRSO,1 | 30 | 28A/B4 | TF | 1 | TR | NEW ROUTE SELECTION | |
| NS1,2 | 39 | 76F8 | PAD,PAF | 2,4 | PBX | NO. GR SELECTION | |
| NSA | 74 | 42F4 | RB | 1 | RR | NO SAMPLING | |
| NSE | 32 | 60E1 | TA | 4 | TR | NO. SELECTION EXTRA TRANSLATION | |
| NSI | 3 | 42C3 | RB | 2 | RR | NO SENDER INTRAOFFICE | |
| NSL | 32 | 6000, E2 | TA | 4 | TR | NO SELECTION LOCAL | |
| NSLO | | | | G38 | | | |
| NSLI-3 | | | | 4 | | | |
| NSL4 | | | | G39 | | | |
| NSO | 3, 104 | 42A3 | CF | 3 | CE | NO SENDER OUTGOING | |
| | | | RB | 2 | RR | | |
| NSR | | | | | | NO SENDER REVERTING | |
| NSS | 62 | 94F3 | MC | 4 | 4W | NO SUCH SERVICE | |
| NSSO-5 | 45 | 6086-F6 | TB | G10-15 | TR | NO. SERIES START | 473 |
| NSX | 32 | 60D2 | TA | 4 | TR | NO. GR SELECTION LOCAL PBX | 472 |
| NT | 23 | 6604 | INC CL TRK UNIT | | CE | NO TOLL | |
| NTA | 71 | 96D0 | TE | 3 | TR | NO TRUNKS AVAILABLE | |
| | | | LD | 3 | RM | | |
| NTB | 6A,8 | 17D1 | RB | 1 | RR | NO TRK BLOCK | |
| NTD | 90 | 1320G | TN | F13 | TR | NON TOLL DIVERSION | |
| NTMR | 65 | 104A/A1 | MULT MATCH | CS UNIT | | NO TER MATCH NOT REQUIRED | |
| NTR1,2 | 58 | 58F6 | CG | 2 | CE | 10 OR LESS RECORDERS | |
| NW | 92 | 137E3 | TG | 1 | TR | NON-WIDEBAND | |
| NWB | 79 | 122A/B2 | TN | C66 | TR | NOT WIDEBAND | |
| NWB0-3 | | 122A/E7 G7 | TU | 1 | TR | | |
| OAB | 77 | 120A2, 86,87, E6 | TD | 4 | TR | ORIG ACCESS BUSY | |
| OACO-9 | | | TG,TV | 1 | | ORIG ACCESS CONTROL | |
| OATO-9 | | | TV | J | | ORIG ACCESS TRANSLATION | |
| OAPB | 77 | 12084 | TV | 1 | TR | ORIG-ALL PATHS BUSY | |
| OB | 64 | 27F2 | TA | 3 | TR | OPERATOR BILLING | |
| OCN | 85 | 28A/D4 | TL | B96 | TR | OPERATOR COIN ROUTE SCREENING | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| OF,0,10 | 14 | 15(A-D)4 | CG | 4 | CE | ODD FRAME (TLF) | 472 |
| OF20 | | | | | | TRK LK FRAME SELECTION | |
| OF30 | | 90F1 | | | | | |
| OFCO-5 | 22 | 121 (A-G)8 | AIS UNIT | | | OFFICE CODE | |
| OGRO-9 | 77 | 120A0 | TV | 1 | TR | ORIG GR ACCESS ROUTE | |
| OHS | 63 | 105B1 | MC | 4 | 4W | OFF-HOOK SERVICE | |
| OPO-3 | 55 | 28A/F4 | TF | 2 | TR | OPERATOR CODE POINT | |
| OPBO-9 | 77 | 12084 | TV | 1 | TR | ORIG PATHS BUSY | |
| OPD1-4 | 6 | 47F3 | JB | 1 | LLP | OUTPULSE, DELETE INFO FOR LLP | |
| OPP | 92 | 137E2 | TG | 1 | TR | ORIGINATING PREFIX "P" | |
| ORC | 58 | 92 | - | 15 | CAMA UN ON CE | ORIG RATE CLASS | |
| ORCO-2 | | 1(C-F)6 | | 16-18 | | ORIG RATE CLASSES 0-2 | |
| ORO | 53 | 21B/A8 | TL | 1 | TR | TOLL TRANSLATION OF FOREIGN AREA | |
| ORS SORT 1 | 38 | 21B/F2 | TB | 3 | TR | ORIG REGISTER CLASS SCREENING | 472 |
| SORT 2 | | | | | | | |
| ORTO-9 | 77 | 120A0 | TV | 1 | TR | ORIG GR ACCESS ROUTE TRANSFER | |
| OSO-3 | 54,55 | 28A/G7 | TG,TL | 4 | TR | OPERATOR SIGNAL | |
| OSOOO-499 | 3,6A,6B,8, 9,9A,58,74,76 92,104,107 | 4282 | RA,RC, RD | 2 | RR | OUTSENDER | |
| OSCO-11 | 3,6A,6B,8, 9,9A,58,69 76,92,104, 105,107 | 4283 | CF | E,F | CE | OUTSENDER CONNECTOR | |
| | | | B | 31-37, 41-44 | TBS UN ON CE | | |
| | | | RB | D | REL R | | |
| OSM | 25 | 8185 | CG | 1 | CE | OUTSENDER MONITORING | |
| OSMO-11 | | 8184 | | | | | |
| OT4 | 11 | 31A/E4 | CG | 3 | CE | OUT FROM CHANNEL 4 | |
| OT9 | | 31A/E7 | | | | OUT FROM CHANNEL 9 | |
| OTR | 71 | 111A/E5 | LB | 1 | RM | NON-PREEMPT OVERFLOW TRAFFIC | |
| OT- | 65 | 104A/ (A-H)6 | MULT CS MATCH UNIT | | CE | ORIG TERM. TENS | |
| OU- | | 104B/ (B,C)4 | | | | ORIG UNITS | |
| OV | 10 | 28B/A4 | TD,TF | 2,1 | TR | OVERFLOW | |
| OWBO-2 | 92 | 137E3 | TG | 1 | TR | ORIGINATING WIDEBAND | |
| P(O-4)1 | 71 | 111B/D3 | LF | 4 | RM | PRECEDENCE LEVELS | |
| P(O-4)2 | | 111B/B3 | | | | | |
| P(O-4)3 | | 110F7 | | | | | |
| P(O-4)4 | | 110A2 | | | | | |
| P(O-4)5 | | 111B/B3 | | | | | |
| P(O-4)6 | | 111B/B3 | | | | | |
| P(O-4)7 | | 111B/C3 | | | | | |

DRAWING ISSUE

| | |
|---|---|
| 34A | DP TM AM |
| 35D | DP TM AMD |
| 36A | WL |
| 37D | WL |
| 39D | RP |
| 40A | |
| 41D | |
| 42A | |
| 43D | |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D21B

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-D21B

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG. | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| PA | 70 | 103E8 | TE | 4 | TR | PBX ANNOUNCEMENT | |
| PAN | 69 | 105A4 | A,B | 24 | TBS UN ON CE | PBX ANNOUNCEMENT | |
| | | | IE | H | TR | | |
| PB | 10,71,77, 88,92,104 | 288/B2 | TE,LD | 2,3 | TR,RM | PATHS BUSY | |
| PBI | 71 | 111B/A7 | LB | 1 | RM | ADVANCE TO ROUTINE PATHS BUSY | |
| | | | | | | | |
| PC00-27 | 30,71,75 | 288/A1 | TD | 3,4 | TR | PREROUTE CHARGE | |
| PC28-39 | 30,71,75 | 288/A1 | TD | 4 | TR | PREROUTE CHARGE | |
| PCD0,1 | 8 | 24A/G9 | TF | 4 | TR | PULSE CONVERSATION DIAL | |
| PCR | 8 | 24A/H9 | TF | 4 | TR | PULSE CONVERSION REVERTIVE | |
| PCS0-9 | 37 | 88B/A2 | TL,STB | 1 | TR,SST | PEG COUNT SERVICE | |
| | | | | | | | |
| PD | 50 | 24A/A9 | TF | 4 | TR | PARTIAL DIAL | |
| PD1 | 50 | 24A/A9 | TF | 4 | TR | PARTIAL DIAL | |
| PDC0,1 | 30 | 288/G8 | TE | 4 | TR | PAD CONTROL | |
| | | | | | | | |
| PEA | 71 | 111B/B7 | LF,LC | 1,3 | RM | PREEMPT ANNOUNCEMENT | |
| | | | | | | | |
| PG00-14 | 62 | 94A3 | MD | 1,2 | | | |
| PGA00-14 | 62 | 94E5 | | | | | |
| PGB00-14 | 22,62 | 94E5 | | | | | |
| PGC00-14 | 62 | 94E5 | | | | | |
| PGD00-14 | 62 | 94D5 | | | | | |
| PGE00-14 | 62 | 94D5 | | | | | |
| PGF00-14 | 62 | 94D5 | MC | 3,4 | 4W | PRIVILEGE GROUP | 472 |
| PGG00-14 | 62,71 | 94D5 | | | | | |
| PGH00-14 | 63 | 94C5 | | | | | |
| PGJ00-14 | 62 | 95B1 | | | | | |
| PGK00-14 | 62 | 94C5 | | | | | |
| PGL00-14 | 62 | 94C5 | | | | | |
| PGM00-14 | 62 | 94C5 | | | | | |
| PGR | 19 | 28A/G2 | TG | 1 | T&CT | PERMANENT SIGNAL GROUP ROUTE SERIES | |
| PGR1 | 63 | 94C4 | C | 38 | TBS UN ON CE | PRIVILEGE GROUP | |
| | | | MC | H | 4W | | |
| PGR2,3,4 | 62 | | MC | H | | | |
| PHB | 70 | 103A/H7 | JF | 1-4 | LLP, ALLP | POTS HUNDREDS BLOCK | |
| PHB0-9 | 70 | 61D2 | | | | | |
| PI | 22 | 66A4 | - | 57 | INC TRK CL UN ON CE | PBX INTERCEPT | |
| PLB | 21 | 78C4 | - | 23 | INC TRK CL UN ON CE | PREEMPTABLE LINE BUSY | |
| PLBA | 22 | 108A1 | TE | 4 | TR | PREEMPTABLE LINE BUSY INTERCEPT | |
| PLB-HB | 63 | 67A6 | TP | 4 | TR | PREEMPTABLE LINE BUSY HUNDREDS BLOCK | |
| PLB-ST | 63 | 61E8 | TBI | HI8 | TR | PREEMPTABLE LINE BUSY START | |
| PLB-TB | 63 | 68A7 | TP | 4 | TR | PREEMPTABLE LINE BUSY TENS BLOCK | |
| PLB-U | 63 | 69H4 | TP | 4 | TR | PREEMPTABLE LINE BUSY UNITS | |
| PLC | 63 | 68/D5 | MD | 4 | 4W | 4W PRMT AUX LINE CKT | |
| PLD | 63 | 45E5 | RB | 3 | RR | PRIORITY LEVEL DIGIT | |
| PM | 30 | 288/A5 | TN | 1 | TR | PERMANENT SIGNAL COIN | |
| | | | PA | 3 | RM, ARM | | |
| | | | LD | 3 | | | |
| | | | STC | 1 | ST,AST, SAST, SST | | |
| PN | 30 | 288/B5 | TN | 1 | TR | PERMANENT SIGNAL NON-COIN | |
| | | | PA | 3 | RM, ARM | | |
| | | | LD | 3 | | | |
| | | | STC | 1 | ST,AST, SAST, SST | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| POTS | 63,69, 105 | 10584 | TE | H | TR | ORDINARY TERM. SERVICE | 475 |
| | | | A,B | 26 | TBS UN ON CE | | |
| PP | 30 | 288/B5 | TN | 1 | TR | PERMANENT SIGNAL PBX | 472 |
| | | | PA | 3 | RM, ARM | | |
| | | | LD | 3 | | | |
| | | | STC | 1 | ST,AST, SAST, SST | | |
| PR | 12 | 9G7 | CG | 2 | CE | PAIRED FRAME | |
| PR00-27 | 37,46,71,72 | 28A/E1 | LA,TF | 4 | RM,TR | PEG ROUTE | |
| PR28-39 | | 28A/E1 | | | | | |
| PRA0-4 | 62 | 94F5 | MC | 4 | 4W | PRECEDENCE | |
| PRB0-4 | 62 | 95D0 | MC | 4 | 4W | | |
| PRC | 71 | 94F4 | MC | 4 | 4W | PREEMPT CYCLE | |
| PRC0-4 | 62 | 94F5 | TF | B40-44 | TR | PRECEDENCE | |
| PRE0-4 | 62 | 94A3 | MD | 1,2 | 4W | | |
| PREC | 62 | 94F3 | TE | 4 | TR | | |
| PRT20-39 | 54 | 598/E8 | SUPL RTE TR UNIT | | | PEG COUNT ROUTE TRANSFER | |
| | | | DYN OVLD RTE TR CONT UNIT | | | | |
| PRV | 25 | 56C2 | CG | 1 | CE | PULSE CONVERSION REVERTIVE | |
| PS | 50 | 24A/B9 | TF | 4 | TR | PERMANENT SIGNAL | |
| PSA | 19 | 28A/H4 | RB | 1 | RR | PERMANENT SIGNAL RTE ADV | |
| PSG | 19 | 28A/H6 | TG | 1 | TR | PERMANENT SIGNAL GROUND | |
| PSO | 19 | 28A/H6 | TG | 1 | TR | PERMANENT SIGNAL OVERFLOW | |
| PSR | 50 | 28A/F1 | TG | 1 | TR | PERMANENT SIGNAL ROUTE | |
| PST | 50 | 28A/A4 | TG | 1 | TR | PERMANENT SIGNAL TEST | |
| R5-8 | 28 | 82E3 | - | 33-36 | PERCENT LOAD UN ON CE (MD) | REGISTER | |
| | | | - | 55-58 | PERCENT LOAD UN ON RR | | |
| R000-499 | 8,10,30,57, 58,66,71,76, 79,107 | 28A/A9 | TD | 1-4 | TR | ROUTE RELAY R- TERMINAL | |
| RA000-499 | 6A,68,8,9, 9A,10,19, 57,68,71, 92,104 | 17F8 | RA,RC, RD | 2 | RR | ROUTE ADVANCE | |
| RA000-119 | 68 | 17G8 | CVG | 1-4 | CC | ROUTE ADVANCE (DD OPTION) | |
| RAG00-39 | 10,57,62, 71,104 | 17F9 | RB | 2 | RR OR RR UNIT ON REL R | ROUTE ADVANCE GROUPING | 472 |
| | | | TF | 2 | TR | | |
| | | | LA | 4 | RM | | |
| | | | PC | 4 | ARM | | |
| RAG40-79 | 10,57,62, 71 | 17F9 | TF | 2 | TR | | |
| | | | LA | 4 | RM | | |
| | | | PC | 4 | ARM | | |
| RAL0-3 | 27 | 17F9 | TE | 3 | TR | ROUTE ADV ALLOTTED TRK GR | |
| RB | 8,10,30, 36,47,71 | 28B/H5 | TC | 2,4 | TR | ROUTE BATTERY | |
| | | | TN | 2,3,4 | | | |
| | | | CVC | 2,4 | C | | |
| | | | PA | 3 | RM, ARM | | |
| | | | LO | 3 | | | |
| | | | STC | 2,3 | ST,AST, SAST, SST | | |
| RBT | 10 | 416/D7 | LD,TE | 3,4 | RM,TR | REGISTER RETURN BUSY | |
| RC000-499 | 68,8,9A,10, 19,28,27,30, 37,38,46,47, 50,53-59,68, 70-72,76,79, 89,91,92-94, 98,107 | 28A/A7 | LH | 1-4 | RM | ROUTE RELAY RC- TERMINAL | |
| | | | TG,TL | 2,3 | TR | | |
| RCD | 106 | 28B/H2 | TG | A77 | TR | RECORD REQUIRED | |
| | | | TN | 4 | | | |
| | | | STB | G77 | ST,AST, | | |
| | | | STC | 4 | ST,SAST | | |
| RCD8 | 106 | 28B/H3 | TE | E18 | TR | RECORD REQUIRED BATTERY | |
| RCG-- | 57,71-72 | 111A/E2 | PA | 1,2,3 | ARM | RC GROUPING | |
| | | | LD | 1,2 | RM | | |
| RCL0-3 | 27,46,58,70 | 28A/F2 | TG,TL | 4 | TR | RC FOR ALLOTTED ROUTE REG | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| RCT1-7 | 69,105 | 77(A-E)A | A | 42-48 | TBS UN ON CE | RINGING CONTROL | 475 |
| RCT8,9 | | | | 57,56 | | | |
| RCT10-15 | | | | 51-56 | | | |
| RCTS | 30 | 288/C8 | TE,LD | 3 | TR,RM | RC THRU SWITCH | 472 |
| RD03 | 71 | 111B/F6 | LD,PA | 3,3 | RM,ARM | ROUTING DIGIT | |
| RD001 | 71 | 111C/B2 | LD,PA | 4,4 | RM,ARM | ROUTE DIGIT COMBINATION | |
| RD002 | | 111C/A2 | | | | | |
| RD010 | | 111C/B2 | | | | | |
| RD011 | | 111C/B2 | | | | | |
| RD012 | | 111C/A2 | | | | | |
| RD020 | | 111C/B2 | | | | | |
| RD021 | | 111C/B2 | | | | | |
| RD022 | | 111C/B2 | | | | | |
| RD100 | | 111C/B2 | | | | | |
| RD101 | | 111C/B2 | | | | | |
| RD102 | | 111C/B2 | | | | | |
| RD110 | | 111C/B2 | | | | | |
| RD112 | | 111C/C2 | | | | | |
| RD120 | | 111C/C2 | | | | | |
| RD121 | | 111C/C2 | | | | | |
| RD122 | | 111C/C2 | | | | | |
| RD200 | | 111C/C2 | | | | | |
| RD201 | | 111C/C2 | | | | | |
| RD202 | | 11 C/C2 | | | | | |
| RD210 | | 111C/C2 | | | | | |
| RD211 | | 111C/C2 | | | | | |
| RD212 | | 111C/C2 | | | | | |
| RD220 | | 111C/C2 | | | | | |
| RD221 | | 111C/C2 | | | | | |
| RD0P-4P | 71 | 111B/(C-G)7 | LD | 4 | RM | ROUTING DIGITS | |
| RD0S-4S | | | PA | 4 | ARM | | |
| REA | 47 | 28A/C7 | TJ | 1 | TR | RINGER TEST OFFICE "A" EXTRA THEORETICAL | |
| REB | 47 | 28A/E7 | TJ | 1 | TR | RINGER TEST OFFICE "B" EXTRA THEORETICAL | |
| REG1,2 | 28 | 62E3 | - | 31,32 | PERCENT LOAD UN ON CE (MD) | REGISTER | |
| | | | | 53,54 | PERCENT LOAD UN ON RR | | |
| REH | 69, 105 | 77G8 | A | 28 | TBS UN ON CE | RANGE EXTENSION HUNTING | 472 |
| RG00-59 | 57 | 288/H8 | TC | 1-4 | TR | ROUTE GROUPING | |
| | | | TD | 1&7 | | | |
| RG1L | 71 | 111A/D6 | LA, PD | 1, 4 | RM, ARM | ROUTING GROUP 1 | |
| RG11 | | 111A/B4 | | | | | |
| RG12 | | 111A/C3 | | | | | |
| RG13 | | 111A/D4 | | | | | |
| RG14 | | 111B/A4 | | | | | |
| RG15 | | 111B/E4 | | | | | |
| RG16 | | 111B/D4 | | | | | |
| RG17 | | 111B/F4 | | | | | |
| RG18 | | 111B/H4 | | | | | |
| RG19 | | 111B/B4 | | | | | |
| RG110 | | 111B/D4 | | | | | |
| RG111 | | 111A/F4 | | | | | |
| RG112 | | 111A/G4 | | | | | |

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 67B |

| BELL LABORATORIES | SD-26002-01- | D22A |
|---|---|---|

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## CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| RG2L | | 111D6 | | | | | |
| RG21 | | 111B4 | | | | | |
| RG22 | | 111C3 | | | | | |
| RG23 | | 111D4 | | | | | |
| RG24 | | 111B/A4 | | | | | |
| RG25 | | 111B/E4 | | | | | |
| RG26 | 71 | 111B/D4 | LA,PD | 1,4 | RM,ARM | ROUTING GROUP 2 | |
| RG27 | | 111B/F4 | | | | | |
| RG28 | | 111B/H4 | | | | | |
| RG29 | | 111B/64 | | | | | |
| RG210 | | 111B/D4 | | | | | |
| RG211 | | 111F4 | | | | | |
| RG212 | | 111G4 | | | | | |
| RG3L | | 111E6 | | | | | |
| RG31 | | 111A4 | | | | | |
| RG32 | | 111B3 | | | | | |
| RG33 | | 111C4 | | | | | |
| RG34 | | 111B/A4 | | | | | |
| RG35 | | 111B/E4 | | | | | |
| RG36 | 71 | 111B/D4 | LA,PD | 1,4 | RM,ARM | ROUTING GROUP 3 | |
| RG37 | | 111B/F4 | | | | | |
| RG38 | | 111B/H4 | | | | | |
| RG39 | | 111B/B4 | | | | | |
| RG310 | | 111B/D4 | | | | | |
| RG311 | | 111F4 | | | | | |
| RG312 | | 111H4 | | | | | |
| RG4L | | 111E6 | | | | | |
| RG41 | | 111A4 | | | | | |
| RG42 | | 111B3 | | | | | |
| RG43 | | 111C4 | | | | | |
| RG44 | | 111B/A4 | | | | | |
| RG45 | 71 | 111B/E4 | LA,PD | 1,4 | RM,ARM | ROUTING GROUP 4 | 472 |
| RG46 | | 111B/D4 | | | | | |
| RG47 | | 111B/F4 | | | | | |
| RG48 | | 111B/H4 | | | | | |
| RG49 | | 111B/B4 | | | | | |
| RG410 | | 111B/D4 | | | | | |
| RG411 | | 111F4 | | | | | |
| RG412 | | 111H4 | | | | | |
| RG5L | | 111E6 | | | | | |
| RG51 | | 111A4 | | | | | |
| RG52 | | 111B3 | | | | | |
| RG53 | | 111C4 | | | | | |
| RG54 | | 111B/A4 | | | | | |
| RG55 | | 111B/E4 | | | | | |
| RG56 | 71 | 111B/D4 | LB,PD | 1,4 | RM,ARM | ROUTING GROUP 5 | |
| RG57 | | 111B/F4 | | | | | |
| RG58 | | 111B/H4 | | | | | |
| RG59 | | 111B/B4 | | | | | |
| RG510 | | 111B/D4 | | | | | |
| RG511 | | 111G4 | | | | | |
| RG512 | | 111H4 | | | | | |
| RG6L | | 111F6 | | | | | |
| RG61 | | 111A4 | | | | | |
| RG62 | | 111B3 | | | | | |
| RG63 | | 111C4 | | | | | |
| RG64 | | 111B/A4 | | | | | |
| RG65 | | 111B/E4 | | | | | |
| RG66 | 71 | 111B/D4 | LB,PD | 1,4 | RM,ARM | ROUTING GROUP 6 | |
| RG67 | | 111B/F4 | | | | | |
| RG68 | | 111B/H4 | | | | | |
| RG69 | | 111B/B4 | | | | | |
| RG610 | | 111B/D4 | | | | | |
| RG611 | | 111G4 | | | | | |
| RG612 | | 111H4 | | | | | |

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 61B |

BELL LABORATORIES | SD-26002-01- | D22B

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| RGT | 30,47 | 28A/F9 | TD | 4 | TR | RINGER TEST | |
| RGTA | 47 | 28A/D1 | TF | 1 | TR | RINGER TEST PER ROUTE | |
| RI | 22,23,65 ~~66C5~~ | - | - | 31,33, 35 | INC TRK CL UN ON CE | REG INCPT | |
| RI-HB | 17 | 67B6 | TP | 4 | TR | REG INCPT HUNDREDS BLOCK | |
| RI-ST | 17 | 61G8 | TB | 4 | TR | REG INCPT START | |
| RI-TB | 17 | 68B7 | TP | 4 | TR | REG INCPT TENS BLOCK | |
| RI-U | 17 | 69H4 | TP | 4 | TR | REG INCPT UNITS | |
| RIA | 22 | 10801 | TE | 3 | TR | LINE INCPT NO. SCREENING | |
| RIB | 21 | 78A/D5 | - | 27 | INC TRK CL UN ON CE | REG INCPT AUXILIARY | |
| RIPA | 22 | 10881 | TE | 3 | TR | LINE INCPT NO. SCREENING | |
| RIP-HB | 17 | 67B6 | TP | 4 | TR | PBX AND RESTRICTED INCPT HUNDREDS BLOCK | |
| RIP-TB | 17 | 68B7 | TP | 4 | TR | PBX AND RESTRICTED INCPT TENS BLOCK | |
| RIP-U | 17 | 69G4 | TP | 4 | TR | PBX AND RESTRICTED INCPT UNITS | |
| RIR | 21 | 78B/E1 | CG | 3 | CE | REG INCPT RINGING | |
| RITH | 70 | 61E1 | JE | 1-4 | LLP | REG INCPT THOUSANDS | |
| RLO-3 | 30 | 28A/F9 | TD | 4 | TR | "R" FOR ALLOTTED ROUTE | |
| RM1,2,3 (00-143) | 30,36,37, 72 | 111A/ (A-C)6 | LE | 1,2 | RM | ROUTE PROGRAM | 472 |
| RM4 (00-143) | | 111B/A6 | | 2,3 | | | |
| RM5 (00-143) | | 111B/E6 | | | | | |
| RM6 (00-143) | | 111B/D6 | | 3,4 | | | |
| RM7 (00-143 | | 111B/F6 | | | | | |
| RM8 (00-143) | | 111B/H6 | | | | | |
| RMB | 72 | 111A/B5 | LC | 1 | RM | ROUTING PROGRAM BAT. | |
| RMC1,2,3 (0-11) | 71,72 | 11A/ (A-C)5 | LA,LB,LC | 1 | RM | ROUTING PROGRAM CONTROL | |
| RMC1,2,3 (12-23) | | | PC | 4 | ARM | | |
| RMC4 (0-11) | | 111B/A5 | LA,LB,LC | 1 | RM | | |
| RMC4 (12-23) | | | PC | 4 | ARM | | |
| RMC5 (0-11) | | 111B/E5 | LA,LB,LC | 1 | RM | | |
| RMC5 (12-23) | | | PC | 4 | ARM | | |
| RMC6 (0-11) | | 111B/D5 | LA,LB,LC | 1 | RM | | |
| RMC6 (12-23) | | | PC | 4 | ARM | | |
| RMC7 (0-11) | | 111B/F5 | LA,LB,LC | 1 | RM | | |
| RMC7 (12-23) | | | PC | 4 | ARM | | |
| RMC8 (0-11) | | 111B/H5 | LA,LB,LC | 1 | RM | | |
| RMC8 (12-23) | | | PC | 4 | ARM | | |
| RMC9 (0-11) | | 111B/B5 | LA,LB,LC | 1 | RM | | |
| RMC9 (12-23) | | | PC | 4 | ARM | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| RMC10 (0-11) | | 111B/C5 | LA,LB,LC | 1 | RM | ROUTING PROGRAM CONTROL | |
| RMC10 (12-23) | | | PC | 4 | ARM | | |
| RMC11 (0-11) | | 111A/F5 | LA,LB,LC | 1 | RM | | |
| RMC11 (12-23) | | | PC | 4 | ARM | | |
| RMC12 (0-11) | | 111A/G5 | LA,LB,LC | 1 | RM | | |
| RMCL (0-11) | 71,72 | 111A/E6 | LA,LB,LC | 1 | RM | ROUTING PROGRAM LOWER WINDING | |
| RMCL (12-23) | | | PC | 4 | ARM | | |
| RMG | 72 | 111A/E5 | LB | 1 | RM | ROUTING PROGRAM GROUND | |
| RMP- | 72 | 88B/C4 | TM,STB | 1 | TR,SST | PEG COUNT PROGRAM | |
| RMU00-143 | 71,72 | 111A/E5 | LB | 2,3,4 | RM | ROUTING PROGRAM UPPER WINDING | 472 |
| RMU200-319 | | | PB | 4 | ARM | | |
| RMU020-343 | | | PC | 4 | | | |
| RNA- | 63,69,105 | 77(B-F)4 | TBA | 11-54 | TBS UN ON CE | RING NO. RING COMB. | 475 |
| RNA TN | 69,105 | 77B4 | | 55-58 | | TERM. TREATMENT | |
| RNB- | 63,69,105 | 105B6 | TBB | 11-54 | | | |
| RNB TN | 69,105 | 105A6 | | 55-58 | | | |
| RO | 23 | 41A/F5 | - | 37,38 | INC TRK CL UN ON CE | REORDER | 472 |
| ROA | 24,38, 56,58, 77 | 24C/F4 | TN | 1,3 | TR | REORDER AUXILIARY | |
| | | | TE | 3 | | | |
| | | | TJ | 1 | | | |
| | | | STC | 1,3 | ST,AST, SAST, SST | | |
| ROH | 19 | 28A/H6 | TG | 1 | TR | RECEIVER OFF HOOK | |
| ROT | 21 | 110F7 | LF | 3 | RM | PREC LEVELS REQ POT. | |
| RP00-39 | 37,46 | 28A/F7 | TG,TL | 4 | TR | ROUTE PEG | |
| RP-ST | 17 | 61F8 | TB | 4 | TR | PBX AND RESTRICTED INCPT START | |
| RPA | 47 | 28A/A7 | TJ | 1 | TR | RINGER TEST OFF, "A" PHYSICAL | |
| RPB | 47 | 28A/D7 | TJ | 1 | TR | RINGER TEST OFF, B PHYSICAL | |
| RPC00-143 | 72 | 111B/B6 | LE | 1 | RM | PROGRAM PEG | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| RRO-19 | 37,58,59, 76,107 | 28A/E1 | TF | 4 | TR | DIVERTED ROUTE | |
| RSU0-143 | 30,71 | 111B/F6 | LE | 3 | RM | ROUTE SERIES | |
| RS200-343 | | | PB | 3 | ARM | | |
| RSG | 72 | 111B/F5 | LF | 4 | RM | ROUTE SERIES GROUND | |
| RSW | 92 | 42G4 | RF | 1 | RR | REMOTE SWITCHED INTRAOFFICE | |
| RT (MFR DISC.) | 77 | 132E2 | TL | G54 | TR | ROUTE | |
| RTO-9 | 54 | 59B/B6-D6 | TG,TL | G40-49 | TR | ROUTE TRANSFER | 472 |
| RT10-19 | | | TG | H40-49 | | | |
| RT20-39 | | | TV | 2 | | | |
| RTA | 47 | 28A/B7 | TJ | B06 | TR | RINGER TEST OFF, "A" THEO | |
| RTAO-9 | 54 | 59C/B8-D8 | TF | C10-19 | | ROUTE TRANSFER "A" | |
| RTA10-19 | | | TG | H50-59 | | | |
| RTA20-39 | | | TV | 2 | | | |
| RTB | 47 | 28A/D7 | TJ | B07 | TR | RINGER TEST OFF "B" THEO | |
| RTBO-9 | 54 | 59B/B8-E8 | TF | D10-19 | | ROUTE TRANSFER "B" | |
| RTB10-19 | | | TG | H60-69 | | | |
| RTB20-39 | | | TV | 2 | | | |
| RTG1-6 | 71 | 11086 | LF | G121-126 | RM | ROUTINE GROUPS | |
| RTP20-39 | 54 | 59B/E8 | SUPL RTE TR UNIT DYN OVLD RTE TR CONT UNIT | | | ROUTE TRANSFER PEG | |
| RTS (MFR DISC.) | | 132D2 | TL | 4 | TR | ROUTE TRANSLATOR START | |
| RV | 10 | 28B/D4 | TD | 4 | TR | REVERTING | |
| RVD | 10 | 28A/F6 | TM | C76 | TR | REVERTING TRK (DIAL) | |
| RVMF | 10 | 28A/F6 | TM | C86 | TR | REVERTING TRK (TOUCH-TONE) | |
| RVS | 10 | 28A/F4 | STB | 2 | SST,AST | REVERTING TRK SCREENING | |
| RVT | 7 | 23F1 | RB | 3 | RR | REVERTING TRK | |

DRAWING ISSUE 45D

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D22C

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| S | 11 | 31A/E1 | CG | 3 | LE | START | |
| ~~S00-11~~ | 10,22,24,30, 36-38,40,45, 46,53,57,58, 59,62,65,69, 70,72,74,76, 77,79,88,90, 91,92,95,98, 99,107 | 7F9 | TM | 1,2,3,4 | TR | SERVICE SCREENING | |
| | | | STB | 1,2,3,4 | SS | | |
| SA | 25 | 56C2 | CG | 4 | CE | SKIP "A" DIGIT | |
| SAB | 3,25 | 56C2 | CG | 4 | CE | SKIP "A" & B DIGIT | |
| SABC | 3,25 | 56C2 | CG | 4 | CE | SKIP "A",B & C DIGIT | |
| SAC | 74 | 83B/C2 | TM | 3 | TR | SAMPLE ALL CALLS | |
| | | | STC | 3 | ST,AST, SAST, SST | | |
| SALO-3 | 27 | 40D6 | TD | 4 | TR | SENDER ALLOTTED | |
| SAR | 74 | 114B/A8 | RB | 4 | RR | SAMPLE ALWAYS REQUIRED | |
| SBA00-143 | 71 | 111A/C6 | LE | 2 | RM | 2ND BEST ALTERNATE ROUTE | 472 |
| SBA200-343 | | | PB | 2 | ARM | | |
| SC00-239 | 10,22,24,30, 37,38,40,45- 47,50,53-56, 58,65,66, 69,70-72,74, 76,77,88- 90,92,93,95, 98,107 | 7F6 | STE | 1 | SST,AST | SERVICE CONTROL | |
| | | | TE | 1,2,3 | TR | | |
| | | | TJ | 1 | TR | | |
| | | | LF | 1,2,3 | RM | | |
| | | | PC | 1,2,3 | ARM | | |
| SCC00-38 | 97 | 28A/G4 | TV | 1 | TR | SENDER CLASS CONTROL | |
| SCG | 40,95 | 83B/C0 | TD | 4 | TR | SERVICE CONTROL GROUND | |
| SCG00-29 | 71 | | LA,LB | 1 | RM | SC-GROUPING | |
| | | | LE | 2 | | | |
| SCN | 50 | 24A/C9 | TF | 4 | TR | STUCK COIN | |
| SDA0-11 | 25 | 43E7 | CF | 1 | CE | SENDER START FOR "A" GROUP | |
| SDB0-11 | 25 | 43F7 | CF | 1 | CE | SENDER START FOR B GROUP | |
| SDG0,1 | 3 | 42D2 | CG | 3 | CE | SKIP DIGIT | |
| SE00-49 | 57 | 7F9 | STF | 1,2,3,4 | ST, AST, SST, SAST | S- POINT EXTENSION | 472 |
| | | | TMI | 1,2 | T & CT | | |
| SF | 12 | 9F7 | CG | 2 | CE | SINGLE FRAME | |
| SG | 62 | 94D6 | MD | 4 | 4W | SPL GRADE | 472 |
| SG00-139 | 57, 71 | 7F9 | TF,TN | 1-4 | TR | SERVICE SCREEN GROUP | |
| | | | LC | 1,2 | RM | | |
| | | | STC | 1-4 | ST, SST, AST, SAST | | |
| | | | TG | 4 | TR | | |
| SGA00-143 | 71 | 111B/B6 | LE | 1,2 | RM | SECOND GROUP ADVANCE | |
| SGA200-343 | | | PB | 1,2 | ARM | | |
| ~~SGAP~~ | 71 | 111B/B3 | ~~LF~~ | ~~3~~ | ~~RM~~ | ~~2ND GROUP ADVANCE PREEMPT~~ | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| SGCO-3 | 6A,58 | 92H4 | CG | F | CE | SENDER GROUP CONNECTOR | 472 |
| | | | - | 11-14 | CAMA UN ON CE | | |
| SGD | 71 | 111B/B3 | LF | 3 | RM | SPL GRADE DIR ROUTES | 472 |
| SGNR | 71 | 111B/G0 | MC | 4 | 4W | SPL GRADE NO RESTRICTION | |
| SGR | 71 | 111B/G0 | MC | 4 | 4W | SPL GRADE RESTRICTED | |
| SGTR | 71 | 111B/G0 | MC | 4 | 4W | SPL GRADE TAN. RESTRICTION | |
| SI,SI1 | 70 | 88C/B1 | CG | 4 | CE | SENDERS IDLE | |
| SIA0-11 | 25 | 42A7 | - | SEE CADS 27 & 28 | SDR GR UN ON CE | SENDER IDLE "A" SUBGROUP | |
| SIAC-(0-3) | | | | | | SENDER IDLE "A" CONNECT | |
| SIB0-11 | | 42C7 | | | | SENDER IDLE "B" SUBGROUP | |
| SIBC-(0-3) | | | | | | SENDER IDLE "B" CONNECT | |
| SK0-11 | 25 | 56C1 | CF | 3 | CE | SKIP | |
| SKB | 71 | 110C3 | LF | 3 | RM | SKIP BEST ALTERNATE ROUTES (HOME GRID) | |
| SKD0,1 | 3 | 56C1 | CG | 1 | CE | SKIP DIGITS | |
| SKS | 71 | 111B/C3 | LF | 3 | RM | SKIP 2ND BEST ALTERNATE TRIPLE (HOME GRIDS) | |
| SLB | 71 | 110A2 | LF | 3 | RM | SELECT BEST ALTERNATE ROUTES (HOME GRID) | |
| SLS | 71 | 118/D3 | LF | 3 | RM | SELECT 2ND BEST ALTERNATE TRIPLE (HOME GRIDS) | |
| SMP1-15 | 74 | 47H8 | TG | A60-59 A70-74 | TR | SAMPLE COUNTERS (20%) | 472 |
| | | | RE | 1,2 | RM | | |
| | | | RA | 4 | RR UNIT | | |
| | | | STB | G06-96 G07-47 | ST,AST SAST, SST | | |
| SMPA | 74 | 47H8 | TG | A75 | TR | SAMPLE ALL CALLS (100%) | |
| | | | RE | 1,2 | RM | | |
| | | | RA | 4 | PR UNIT | | |
| | | | STB | G57 | ST,AST SAST, SST | | |
| SNW | 92 | 137H3 | TB | F03 | TR | SCREEN NON-WIDEBAND | |
| SPC | 25 | 56C1 | CG | 1 | CE | SKIP PULSE CONVERSION | |
| SPF | 12 | 9F7 | CG | 2 | CE | SINGLE,PAIRED & TRIPLED FR | |
| SPF4 | 12 | 9G7 | CG | 2 | CE | 4W-SINGLE OR PAIRED FRAME | |
| SR0,1 | 61,63 | 94F2 | MC | 3,4 | 4W | 4W SPL REQUEST | 472 |
| SR2-5 | | 94E2 | | | | | |
| SR6-9 | | 94D2 | | | | | |
| SR10-13 | | 94C2 | | | | | |
| SR14-17 | | 94B2 | | | | | |
| SR18-21 | | 94A2 | | | | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| SRA,B (00-39) | 62,63 | 94F3 | MC, ME | 1-4 | 4W | SPL REQUEST | 472 |
| SRC-F (00-39) | | 94E3 | | | | | |
| SRG,H,J,K (00-39) | | 94D3 | | | | | |
| SRL-N,P (00-39) | | 94C3 | | | | | |
| SRQ-T (00-39) | | 94B3 | | | | | |
| SRU-X (00-39) | | 94A3 | | | | | |
| SSG0-4 | 38 | 7F9 | TA,TE | 4 | TR | "S-" TO "SW-" GROUP | |
| STO-9 (NGSO-5) | 45,70 | 61B2 | TB | 1 | TR | START NO. GROUP | 473 |
| | | | JK,KF | 1,2,3,4 | LLP,ALP | | |
| ST00-39 | 17,39,44, 45,63,67,70, 73,95 | 61B1 | TA | 1 | TR | START NO. GROUP CONNECTOR | 472 |
| | | | JE,KE | 1,2,3,4 | LLP,ALP | | |
| | | | A | 1 | LLRR | | |
| | | | PWH | 1,2,3,4 | PBX | | |
| STA | 18 | 61E2 | TB | 4 | TR | START "A" EVEN NO. TRK NUMBER GROUP | |
| STA1 | | 61F2 | | H16 | | | |
| STA2,3 | | 61F2,G2 | | F30,31 | | | |
| STACO-3 | 25 | 43E7 | CG | 1 | CE | START "A" CONNECTOR (OUTGOING SENDER) | |
| STB | 18 | 61G2 | TB | 4 | TR | START "B" ODD NO. TRK NUMBER GROUP | 472 |
| STB1 | | 61H2 | | H17 | | | |
| STB2,3 | | | | F32,33 | | | |
| STBCO-3 | 25 | 43F7 | CG | 1 | CE | START "B" CONNECTOR (OUTGOING SENDER) | |
| STC00-139 | 63 | 116E4 | NB | 1-4 | 4W PRE | STATION CONNECTOR | |
| SVD0-9 | 48,64 | 27E3 | TA,TB1 | 1 | TR | SERVICE OBSERVING DESIRED | |
| SVDT | 48,64 | 27E2 | TA | 1,4 | TR | SERVICE OBSERVING TANDEM | |
| SW00-59 | 22,38,62, 71,79,107 | 7D8 | MD | 3 | 4W | SERVICE RELAY WINDING | 472 |
| SW00-239 | 22,38,62, 71,79,107 | 7D8 | TA | 1,2,3 | TR | | |
| SWB0-2 | 92 | 137H3 | TB | F04-F06 | TR | SCREEN WIDEBAND | |

DRAWING ISSUE 45D

DRAWING ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D22D

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-D22D

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| SWBO-3 | 79 | 122A/(E-G)6 | TU | 1 | TR | SCREENING WIDEBAND | |
| SWCOO-29 GR A, SORT 1 | 22,38,79 | 8(A-G)3 | TB | 1-3 | TR | SERVICE RELAY CONTROL | |
| SWCOO-29 GR A, SORT 2 | 22,38,79 | 8(A-G)6 | TB | 1-3 | TR | | |
| SWCOO-29 GR B, SORT 1 | 22,38,79 | 8H3 | TB | 1-3 | TR | SERVICE RELAY CONTROL | |
| SWCOO-29 GR B, SORT 2 | 22,38,79 | 8H5 | | | | | |
| SWCOO-99 SORT 1 | 22,38,79 | 8(A-G)3 | TB | 1,2 | TR | SERVICE RELAY CONTROL 100 CLASSES OF SERVICE | |
| SWCOO-99 SORT 2 | 22,38 | 8(A-G)6 | TB | 2,3 | TR | | |
| SWPO-3 GR A, SORT 1 | 38 | 8(B,C)6 | TA | 2 | TR | TWO PARTY TREATMENT | 472 |
| SWP4 GR A, SORT 1 | 38 | 8A6 | TA | 2 | TR | COIN TREATMENT | |
| SWPO-3 GR A, SORT 2 | 38 | 8(B,C)8 | TA | 2 | TR | TWO PARTY TREATMENT | |
| SWP4 GR A, SORT 2 | 38 | 8A8 | TA | 2 | TR | COIN TREATMEN | |
| SWPO-3 GR B, SORT 1 | 38 | 8D6 | TA | 2 | TR | TWO PARTY TREATMENT | |
| PWPO-3 GR B, SORT 2 | 38 | 8D8 | TA | 2 | TR | | |
| SWRO-3 GR A, SORT 1 | 38 | 8(B,C)7 | TB | 1-3 | TR | RING PARTY CONTROL | |
| SWR4 GR A, SORT 1 | 38 | 8A7 | TA | 2 | TR | NO COIN DEPOSIT | |
| SWRO-3 GR A, SORT 2 | 38 | 8(B,C)8 | TB | 1-3 | TR | RING PARTY CONTROL | |
| SWR4 GR A, SORT 2 | 38 | 8A8 | TA | 2 | TR | NO COIN DEPOSIT | |
| SWRO-3 GR B, SORT 1 | 38 | 8D7 | TB | 1-3 | TR | RING PARTY CONTROL | |
| SWRO-3 GR B, SORT 2 | 38 | 8D8 | TB | 1-3 | TR | | |
| SWTO-3 GR A, SORT 1 | 38 | 8(B,C)7 | TB | 1-3 | TR | TIP PARTY CONTROL | |
| SWT4 GR A, SORT 1 | 38 | 8A7 | TA | 2 | TR | COIN DEPOSIT | |
| SWTO-3 GR A, SORT 2 | 38 | 8(B,C)8 | TB | 1-3 | TR | TIP PARTY CONTROL | |
| SWT2 GR A, SORT 2 | 38 | 8A8 | TA | 2 | TR | COIN DEPOSIT | |
| SWTO-3 GR B, SORT 1 | 38 | 8D7 | TB | 1-3 | TR | TIP PARTY CONTROL | |
| SWTO-3 GR B, SORT 2 | 38 | 8D8 | TB | 1-3 | TR | | |
| SZ2,2-3, 4-10 | 13 | 9C8 | CG | 2 | CE | TLF SIZE | |
| SZA,B,C,D | 13 | 9A6 | CG | 2 | CE | TLF SIZE A,B,C,D | |
| SZD4 | 13 | 9B6 | CG | 2 | CE | 4W OFFICE SIZE | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| T | 21 | 78A/D5 | - | 16 | INC TRK CL UN ON CE | TOLL | 472 |
| TAO-4 | 74 | 114A/E | TM (MFR DISC) | 06,16, 26,36, 46 | TR | TRAFFIC SAMPLE AUXILIARY | |
| | | | TM | C110-114 | | | |
| | | | TF | 845-49 | | | |
| TAB | 77 | 120C6 | TD | 4 | TR | TERM. ACCESS BUSY | |
| TAC1,2 | 51 | 21B6,B7 | TB | 3 | TR | TANDEM CLASS | |
| TAPB | 77 | 120C5 | TV | 1 | TR | TERM.-ALL PATHS BUSY | 472 |
| TARO-9 | 77 | 120D6 | TV | 1 | TR | TERM. ACCESS ROUTE | |
| TAS SORT 1 | 22,38,61 | 21B/F0 | TA | 3 | TR | TANDEM CLASS SCREENING | |
| TAS SORT 2 | 22,38,61 | 21B/F3 | TB | 3 | TR | | |
| TAV | 37,56 | 24C/G1 | TF | 4 | TR | TANDEM VACANT CODE | |
| TBO-9 | 17,63 | 68E7 | TP | 4 | TR | TENS BLOCK | |
| TBO-9 | 39,70,73 95 | 68F4 | JC,KC, PAE | 1-4 | ALLP, LLP, PBX | TENS BLOCK | |
| | | | A | 1 | LR RM | | |
| TBOOO-499 | 1,6A,6B,8,9, 9A,104,107 | 17D2 | RA,RC, RD | 1 | RR | TRUNK BLOCK | |
| TBCO-5 | 1,6B, 9,9A, 104 | 17D1 | RB | 1 | RR | TRUNK BLOCK CONNECTOR | 472 |
| TBC6-9 | 1 | 17D1 | RB | 1 | RR | TRUNK BLOCKS-4-WIRE | |
| TBCX | 1 | 17D1 | | | | TRUNK BLOCK CONNECTOR - OVERFLOW | |
| TBI-HB | 17 | 67B6 | TP | 4 | TR | TROUBLE INCPT HUNDREDS BLOCK | |
| TBI-ST | 17 | 61G8 | TB | 4 | TR | TROUBLE INTERCEPT START | |
| TBI-TB | 17 | 68B7 | TP | 4 | TR | TROUBLE INTERCEPT TENS BLOCK | |
| TBI-U | 17 | 69H4 | TP | 4 | TR | TROUBLE INTERCEPT UNITS | |
| TBIA | 22 | 108E1 | TE | 4 | TR | LINE INTERCEPT NO. SCREENING | |
| TBIB | 21 | 78A/D5 | - | 28 | INC TRK CL UN ON CE | TROUBLE INTERCEPT AUXILIARY | |
| TBTO-9 | 39 | 73B3 | PAE | 2,4 | PBX | TENS BLOCK TRANSLATED | |
| TC | 30,59 | 28B/C5 | LD | E | RM | TALKING CHARGE COIN | |
| | | | PA | F | ARM | | |
| | | | TC | B,F | TR | | |
| | | | TN | B,C F,G | | | |
| | | | - | 23 | RTE SER & TR UN ON TR | | |
| | | | - | 23 | SUPL RTE SER & TR UN ON TR | | |
| | | | STC | 1-4 | ST, AST SAST SST | | |
| TC1,2 | 51 | 21A/H3 | TB | 3 | TR | TRUNK CLASSES | |
| TCA1-4 | | 21A/B6 | TA,TU | 1,4 | TR | | |
| TCA7-9 | | 21A/F4 | TU | 1 | TR | | |
| TCBO | | 21A/C4 | TU | 1 | TR | | |
| TCB1-5 | | 21A/C6 | TA,TU | 1,4 | TR | | |
| TCB6-9 | | 21A/F6 | TU | 1 | TR | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| TCH | 20 | 59A/G8 | - | 13 | INC TRK CL UN ON CE | TOLL CHARGE | 472 |
| TCS | 38 | 20A/H4 | TB | 4 | TR | TRUNK CLASS SCREEN | |
| TD | 90 | 132C6 | TM | 3 | TR | TOLL DIVERSION | |
| TECO-9 | 77 | 120B2 | TV | 1 | TR | TERM. ACCESS CONTROL | |
| TGOOO-499 | 2,6A,6B,8,9, 9A,104,107 | 17A2 | TG | 1 | RR | TRUNK GROUP | |
| TGCO-19 | 2,6B,9,9A, 104 | 17B1 | TGC | 1 | RR | TRUNK GROUP CONNECTOR | |
| TGRO-9 | 77 | 120C0 | TV | 1 | TR | TERM. GROUP ACCESS ROUTE | |
| TGSOO-99 | 74 | 114B/A8 | RF | 3,4 | RR | TRUNK GROUP SAMPLING | |
| THO-9 | 39 | 61B4 | PAE | 1,3 | PBX | THOUSANDS DIGIT (ALLOTTED PBX) | |
| THAO-9 | 39 | 61B5 | PAH | 1,3 | PBX | THOUSANDS DIGITS (A-C) NO. GROUP | |
| THAQ-9 | | | PAD, PAF, PAG | | | | |
| THBO-9 | | | | | | | |
| THCO-9 | | | | | | | |
| THDO-9 | 39 | 61A5 | PAD, PAF, PAG | 1-4 | PBX | THOUSANDS DIGITS (D-H) NO. GROUP | |
| THEO,4,5,9 | | | | | | | |
| THFO,4,5,9 | | | | | | | |
| THGO,4,5,9 | | | | | | | |
| THHO,4,5,9 | | | | | | | |
| THTO-9 | 39 | 74D4 | PAE | 2,4 | | THOUSANDS TRANSLATED | |
| TI | 22 | 66A4 | - | 46 | INC TRK CL UN ON CE | TEMPORARY INTERCEPT | |
| TIR | 21 | 78B/E1 | CG | 3 | CE | TROUBLE INTERCEPT RINGING | |
| TLI | 23 | 66A4 | - | 46 | INC TRK CL UN ON CE | TEMPORARY LOCAL INTERCEPT | |
| TN | 30,59 | 28B/C5 | LD | E | RM | TALKING CHARGE NON-COIN | |
| | | | PA | F | ARM | | |
| | | | TC | B,F | TR | | |
| | | | TN | B,C F,G | | | |
| | | | - | 24 | RTE SER & TR UN ON TR | | |
| | | | | 24 | SUPL RTE SER & TR UN ON TR | | |
| | | | STC | 1-4 | ST, AST SAST SST | | |
| TNA | 30 | 28B/A8 | TE | F17 | TR | TONE OR ANNOUNCEMENT TRUNK | |
| TNBO-9 | 39 | 68F4 | PAD, PAF, PAG | 1-4 | PBX | TENS DIGIT (B-H) | |
| TNCO-9 | | | | | | | |
| TNDO-9 | | | | | | | |
| TNEO,4,5,9 | | | | | | | |
| TNFO,4,5,9 | | | | | | | |
| TNGO,4,5,9 | | | | | | | |
| TNHO,4,5,9 | | | | | | | |
| TNI | 22 | 66A4 | - | 45 | INC TRK CL UN ON CE | TRUNK NO. INTERCEPT | |
| TNK | 69, 105 | 70C8 | A | 25 | TBS UN ON CE | TRUNK NO. CHECK | |
| TNL | 23 | 66A4 | - | 45 | INC TRK CL UN ON CE | TRUNK NO. LOCAL | |
| TNT | 25 | 66B4 | - | 55 | | TRUNK NO. TOLL | |

DRAWING ISSUE
36A
37D
38A
41D
42A
43D
45D

DRAWING ISSUE
65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-023

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CROSS CONNECTION PCHG INDEX (CONT)

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| TO | 30 | 288/F2 | TC | 2,4 | TR | INTERTOLL ROUTE SERIES | 472 |
| | | | TN | 2,3 | | | |
| | | | PA | 3 | RM, ARM | | |
| | | | LD | | | | |
| | | | STC | 2,3 | ST,AST, SAST, SST | | |
| TOC0 | 51 | 21A/A6 | TB | 3 | TR | TOLL CLASS | |
| TOC1 | | 21A/C6 | | | | | |
| TOC2 | | 21A/D6 | | | | | |
| TOF | 53 | 21B/B8 | TD | 4 | TR | TOLL CLASS FOREIGN AREA | 472 |
| TOL | 53 | 21B/B8 | TD | 4 | TR | TOLL TRANSLATION OF FOREIGN AREA | |
| | | | TL | 1 | TR | | |
| TOS SORT 1 | 22,38,61 | 21B/F0 | TB | 3 | TR | TOLL CLASS SCREENING | |
| TOS SORT 2 | 22,38,61 | 21B/F4 | TB | 3 | TR | | |
| TOV | 37,56 | 24C/G1 | TF | 4 | TR | TOLL VACANT CODE | |
| TPBO-9 | 77 | 120C5 | TV | 1 | TR | TERM. PATHS BUSY | |
| TPC | 51 | 21A/F4 | TU | 1 | TR | PULSE CONVERSION | |
| TPCO,1 | | 21A/F4 | TU | 1 | TR | CLASSES | |
| TRA | 66 | 28A/E4 | TK | 4 | TR | TRANSFER ATTENDANT | |
| TRB | 66 | 28B/A0 | TD | 3 | TR | TRANSFER ATTENDANT | |
| TRC | 66 | 28B/A1 | TD | 3 | TR | TRANSFER ATTENDANT | |
| TRTOO-19 | 16 | 68/C3 | CG | 2 | CE | TERM. RATE TREATMENT | |
| TSO-4 | 74 | 114A/E3 | TL | H20-24 | TR | TRAFFIC SAMPLE | |
| | | | TN | 3 | | | |
| | | | STC | 3 | SST | | |
| TSA SORT 1 | 22,38,61, | 21B/F0 | TB | 1 | TR | TRUNK SCREENING | |
| 0-9 SORT 2 | 107 | 21B/F4 | TB | 2 | TR | GROUP A | |
| TSB SORT 1 | 22,38,61, | 21B/F0 | TB | 2 | TR | TRUNK SCREENING | |
| 0-9 SORT 2 | 107 | 21B/F4 | TB | 3 | TR | GROUP B | |
| TSC1 | 38 | 21B/G2 | TB | 3 | TR | TRUNK SCREENING | 472 |
| TSC2 | 38 | 21B/G3 | TB | 3 | TR | TRUNK SCREENING | |
| TST | 63,69, 105 | 105D1 | B | 47 | TBS UN ON CE | TEST LINE | |
| TSTA | 67 | 61F6 | TA | 3 | TR | TRANSFER NO. GROUP START TRUNK LINK FR, 0-9 | |
| TSTB | 67 | 61G6 | TA | 3 | TR | TRANSFER NO. GROUP START TRUNK LINK FR, 10-19 | |
| TSTC | 67 | 61G6 | TA | 3 | TR | TRANSFER NO. GROUP START TRUNK LINK FR, 20-29 | |
| TT | 24 | 20A/C4 | TK | 4 | TR | TOLL TRANSLATOR | |
| TT1 | 42 | 109F4 | CG | 2 | CE | TRUNK TESTING | |
| TT2 | 42 | 109G3 | CG | 2 | CE | TRUNK TESTING | |
| TTA0-9 | 65 | 104A/ (A-H) 1 | CJ | 4 | CE | TERMINATING TENS DIGIT MATCH | 472 |
| TTB0-9 | | | | | | | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| | | | | | | | 472 |
| TTF | 12 | 9G7 | CG | 2 | CE | TRIPLED FRAME | |
| TTI | 23 | 66A4 | - | 56 | INC TRK CL UN ON CE | TEMPORARY TOLL INTERCEPT | |
| TU0-9 | 65 | 104B/ (E-G)4 | MULT MATCH | CL SER UNIT | CE | TERMINATING UNITS 0-9 | |
| TUA0-9 | 65 | 104C/ (A-F)1 | CJ | 4 | CE | TERMINATING UNITS DIGIT MATCH | |
| TUB0-9 | | | | | | | |
| TWO-4 | 3 | 42A2 | CG | 4 | CE | TWO WAY TRUNK | |
| TWB | 92 | 137D4 | TG | 1 | TR | TRANSFER WIDEBAND | |
| TWC0-19 | 38 | 8(E-H)8 | TA | 3 | TR | RATE TREATMENT | |
| TWT0-4 | 3 | 42D3 | RB | 3 | RR | TWO WAY TRUNK | |
| TX00-99 | 34,70,89 | 2780 | TH | 4 | TR | TX CODE POINTS | |
| TXC00-30 | 102 | 124A1-H4 | TU | 2 | TR | TEST CROSS CONNECTIONS | |
| TXW0-9 | 34 | 2783 | TJ | 1 | TR | TX CODE TRANSLATOR WINDING | |
| U0-9 | 17,63,73 | 69D4 | JC | A,C, | LLP | UNITS | 472 |
| | | | KC | E,G | ALLP | | |
| | | | TP | H | TR | | |
| | | | A | A,C, E,G | I.R RR UN ON REL R | | |
| | | SEE CAD 537 | | | INDIV CUST GR INCPT ANN UN ON REL R | | |
| U0A | 22 | 121/C6 | A | B,F | AIS UN ON REL R | UNIDENTIFIED OFFICE A | |
| U0B | 22 | 121/E6 | | | | UNIDENTIFIED OFFICE B | |
| USC0-11 | 38 | 7F8 | SEE CAD 35 | | ST REL UN ON TR | UNIT TERMINAL PUNCHINGS FOR SC- | |
| VC | 37,56 | 24C/H1 | TF | 4 | TR | VACANT CODE | |
| VCA | 21 | 78A/E5 | - | 25 | INC TRK CL UN ON CE | VACANT CODE GROUPING | |
| VCG | 56,57,93, 99 | 24C/F0 | TJ | 3-5 | TR | VACANT CODE GROUPING | |
| | | | TE | 3 | TR | | |
| VC-HB | 17 | 67C6 | TP | 4 | TR | VACANT CODE INTERCEPT — HUNDREDS BLOCK | |
| VCI | 56 | 66D2 | TE | 3 | TR | VACANT CODE INTERCEPT — VACANT CODE | |
| VC-ST | 17 | 61F8 | TB | 4 | TR | VACANT CODE INTERCEPT — START | |
| VC-TB | 17 | 68B7 | TP | 4 | TR | VACANT CODE INTERCEPT — TENS BLOCK | |
| VC-U | 17 | 69G4 | TP | 4 | TR | VACANT CODE INTERCEPT — UNITS | |

| TERM. DESIG | CROSS CONN TABLE PART | LOCATION (SEE NOTE 216) FS | TERM. STRIP | SECTION AND/OR TERM. | FRAME | FUNCTIONAL MEANING | SEE NOTE |
|---|---|---|---|---|---|---|---|
| VCIA | 22 | 108E1 | TE | 3 | TR | LINE INTERCEPT NO SCREENING | 472 |
| VG | 62 | 94D6 | MD | 4 | 4W | VOICE GRADE | |
| VP | 50,56,61 | 288/A2 | TF | 4 | TR | VACANT CODE PARTIAL DIAL | |
| VTC | 56 | 24A/C9 | TF | 1 | TR | VACANT TERMINATING CODE | |
| WAB | 92 | 398/A1 | CD | MULT 158 | CE | WIDEBAND ALL BUSY | |
| WB | 79 | 122A/B2 | TM | C56 | TR | WIDEBAND | |
| WB0-3 | 79 | 122A/(E-G)7 | TU | 1 | TR | WIDEBAND | |
| WBA | 79 | 122A/B6 | CG | A19 | CE | WIDEBAND AUXILIARY | |
| WBL | 92 | 137G1 | AA | A23,28 | WB | WIDEBAND LINK | |
| WBN0-2 | 92 | 137G0 | AA | A20-22, A25-27 | WB | WIDEBAND NETWORK | |
| WBR | 79 | 122A/E7 | TE | 4 | TR | WIDEBAND ROUTE | |
| WBS | 79 | 288/C1 | TF,TO | 4 | TR | WIDEBAND SERIES | |
| WC | 5 | 47D9 | TE | G17 | TR | WIDEBAND | |
| WCA | | 47D8 | | G16 | | | |
| WCG | 79 | 122A/B6 | CG | A17 | CE | WIDEBAND CENTREX (PHASE I OR II) | |
| WDP | 92 | 137F1 | AA | A34,39 | WB | DATA PHONE 50 SERVICE | |
| WDZ | 92 | 288/G1 | - | 43 | RTE SER & TR UN ON TR; SUPL RTE SER & TR UN ON TR | WIDEBAND DIAL ZERO | |
| WE | 92 | 140D7 | AA | 1 | WB | WIDEBAND END | |
| WI0 | 92 | 139C0 | AA | A10,16 | WB | WIDEBAND INTO CHANNEL 0 | |
| WI5 | 92 | 140C4 | AA | A11,17 | WB | WIDEBAND INTO CHANNEL 5 | |
| WM | 92 | 140D3 | AA | 1 | WB | WIDEBAND MIDDLE | |
| WMI | 92 | 140D4 | AA | 1 | WB | WIDEBAND MIDDLE ONE | |
| WMBA | 92 | 288/B2 | TG | 1 | TR | WIDEBAND MAINTENANCE BUSY | |
| WO4 | 92 | 140C3 | AA | A12,18 | WB | WIDEBAND OUT CHANNEL 4 | |
| WO9 | 92 | 140C7 | AA | A13,19 | WB | WIDEBAND OUT CHANNEL 9 | |
| WP | 92 | 137E1 | AA | A33,38 | WB | PICTURE PHONE SERVICE | |
| WPP | 92 | 248/D0 | TG | 1 | TR | WIDEBAND PREFIX "P" | |
| WRA | 92 | 288/A2 | TG | 1 | TR | WIDEBAND ROUTE ADV | |
| WRM | 92 | 42H4 | RF3 | A44,844 | RR | WIDEBAND ROUTE MEMORY | |
| | | | RG | A44,843 | | | |
| WRM1 | 92 | 42H0 | RF | A45,845 | RR | WIDEBAND ROUTE MEMORY | |
| WRM2 | 92 | 42H1 | RF | A46,846 | RR | WIDEBAND ROUTE MEMORY | |
| WS | 92 | 139D0 | AA | 1 | WB | WIDEBAND START | |
| WTS0-2 | 92 | 137E0 | AA | A30-32, A35-37 | WB | WIDEBAND TYPE OF SERVICE | |
| X110 | 24,70 | 24C/D1 | TK | 4 | TR | X11 CODE POINTS 0 | |
| X11(1-9) | 24,70 | 24B/C6 | TK | 4 | TR | X11 CODE POINTS 1-9 | |
| ZO | 24,85 | 24C/B7 | TF | 4 | TR | ZERO OPERATOR | |
| ZRS0-7 | 59,92 | 288/B1,C1 | - | 11-18 | RTE SER & TR UN ON TR | COIN ZONE ROUTE SERIES | |
| ZRS8,9 | | | | 21,22 | | | |
| ZRS10-17 | | | - | 11-18 | SUPL DIV RTE SER & TR UN ON TR | COIN ZONE ROUTE SERIES (MORE THAN 10 REQUIRED) | |
| ZRS18,19 | | | | 21,22 | | | |
| ZRT0-7 | | 288/B0,C0 | - | 31-38 | RTE SER & TR UN ON TR | COIN ZONE TP OR NO TP SIGNAL TO TRUNK | |
| ZRT8,9 | | | | 41-42 | | | |
| ZRT10-17 | | | - | 31-38 | SUPL DIV RTE SER & TR UN ON TR | COIN ZONE TP OR NO TP SIGNAL TO TRUNK | |
| ZRT18,19 | | | | 41,42 | | | |

| | |
|---|---|
| 36A | K6 CB |
| 37D | K6 CB |
| 39D | RJF CB |
| 40A | |
| 41D | |
| 42A | |
| 43D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D24

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D24

# CROSS CONNECTION INFORMATION

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| PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
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| 1 | TRUNK BLOCK ON TRUNK LINK FRAME OF TRUNKS ASSOCIATED WITH ROUTE RELAY | TB- | TBC 0-5 | TRUNK BLOCKS 0-5 (2 WIRE) | NOTE 472 |
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| | | | TBCX | TRUNK BLOCK - OVERFLOW LINKS | NOTES 464,472 |
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| 2 | TRUNK GROUP ON TRUNK LINK FRAME OF TRUNKS ASSOCIATED WITH ROUTE RELAY | TG- | TGC 00-19 | TRUNK GROUPS 00-19 | |
| | | | | | |
| 3 | OS- PUNCHING TO CONTROL OUTGOING SENDER GROUP SELECTION, AUXILIARY TWO WAY TRUNK AND CODE DIGIT CHECK RELAYS | | | | NOTE 472 |
| | OUTGOING LOCAL TANDEM OR TOLL ROUTE (OPTION JC PROVIDED) | OS- | OSC 0-11 | SENDER GROUP ASSOCIATED WITH ROUTE | |
| | | | NSO | NO SENDER REQUIRED FOR ROUTE | |
| | INTRAOFFICE ROUTES 2 WIRE | OS- | NSI | NO SENDER INTRAOFFICE CLASS | |
| | INTRAOFFICE ROUTES 4 WIRE | AMA | OSC 0-11 | SENDER GROUP REQUIRED FOR AMA BILLING | |
| | | AMA4 | | | |
| | DEDICATED WATS ROUTES REQUIRING AMA RECORDS | OS- | CPM0,1 | ROUTES IDENTIFIED WITH CCI6 | |
| | | | CPM4,5 | ROUTES IDENTIFIED WITH CCI8 | |
| | | COP0,1 | OSC 0-11 | SENDER GROUP ASSOCIATED WITH WATS ROUTE | |
| | | COP4,5 | | | |
| | (A&M) OUTGOING ROUTE ASSOCIATED WITH 2-WAY TRUNKS OR CENTREX NIGHT ANSWERING TRUNKS AND MARKER IS NOT ARRANGED TO DETECT OPEN BUSY TEST LEAD THRU 2-WAY TRUNKS (JC OPTION NOT PROVIDED) | OS- | TWT 0-4 | AUXILIARY RELAY TO PROVIDE TRUNK BUSY TIMING AFTER SEIZURE OF TRUNK LINK FRAME | |
| | | TW 0-4 | OSC 0-11 | SENDER GROUP ASSOCIATED WITH ROUTE | |
| | | | NSO | NO SENDERS REQUIRED FOR ROUTE | |
| | | | | | |
| | STRAIGHT FORWARD X11 & X1 ROUTES ORIGINATING REGISTER SERVED BY PRETRANSLATORS | SDG 0-1 | OSC 0-11 | SENDER GROUP ASSOCIATED WITH ROUTE | |
| | | SKD 0-1 | SAB | CHECK A,B DIGITS ON X1 CODES | |
| | | | SABC | CHECK A,B,C DIGITS ON X11 CODES | |
| | | OS- | DK1 | CHECK SOME OR ALL OF CODE DIGITS | |
| | | | DKO | CHECK SOME OR ALL OF CODE DIGITS (CAMA NOT PROVIDED) | |
| | | DKA1 | DKA2 | | |
| | DATA-PHONE 50 ROUTES REQUIRING AMA RECORDS | OS- | CPM2 | SENDER GRP ASSOCIATED WITH DATA-PHONE 50 ROUTES | |
| | | | CPM3 | | |
| | | COP2 COP3 | OSC (0-11) | | |
| | REVERTING CALL ROUTE AND RINGER TEST ROUTES | OS- | NSR | SENDER NOT REQUIRED ON REVERTING CALL, TRUNK REQUIRES RINGING SWITCH SELECTION | |
| | | | NSO | NO SENDER OPERATOR TYPE TRUNK | |
| | DIAL TONE ROUTES | OS- | NSO | NO SENDER REQUIRED FOR ROUTE | |
| | | | | | |
| 4 | CR- & LCR- CONTROL OF ARBITRARY DIGITS FOR DP & MF SENDERS AND COMPENSATING RESISTANCE FOR R. P. & PCI SENDERS | CR- LCR- | | ARB DIG / COMP RES | NOTE 472 |
| | | | CROP | 0 / 0 | |
| | | | CR1P | 1 / | |
| | | | CR2P | 2 / | |
| | | | CR3P | 3 / 300 | |
| | | | CR4P | 4 / | |
| | | | CR0S | 5 / | |
| | | | CR1S | 6 / 600 | |
| | | | CR2S | 7 / | |
| | | | CR3S | 8 / | |
| | | | CR4S | 9 / 900 | |
| | | | CR5S | NONE / NONE | |
| | | | | | |

DRAWING ISSUE: 21D, 22D, 24D, 25D, 30D, 32A, 33D, 43D, 45D

DRAWING ISSUE: 63B

COMPLETING MARKER CIRCUIT

SD-26002-01-D27

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CROSS CONNECTION INFORMATION (CONT)

400. (CONT)

| PART | CONDITION | | | | | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | | | REFERENCE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CODE PATTERN TO SENDER ON AMA ROUTES | | | | | | | | | | | LDS GRD TO SDR | |
| 5 | "OR" AND "FAC" MARKS CONTROL CODE PATTERN (OPTION GW PROVIDED) | YES | TRAFFIC SAMPLING (SEE PART 74) | NOT PROVIDED | | | CPG | CPX | BY CPX | 3 DIGITS (411) | 2 LINE AMA ENTRY DIR ASST CALLS ONLY | CP1,2,LST | |
| | | | | PROVIDED | BY SELD TRK GR | STANDARD ROUTES | CP- | CPX | | 7 DIGITS (NXX + 4D) | | CP1,2,LST | |
| | | | | | BY CUST CLASS PROVD | | | | | 7 DIGITS (NXX + 4D) | | CP1,2,4DG* | |
| | | | | | | WIDEBAND ROUTES (SPL) | CPG | WC | | 10 DIGITS (NPA + 7D) | | CP2,7,4DG* | |
| | | | | | | | WCA | CPX | | 7 TO 11 DIGITS (IDDD) | | CPO,2,4DG | |
| | | NO | 7 DIGIT ROUTING | | | | | CP3P | NNX + 4 DIGITS | | | CP1,2,4DG* | |
| | | | 10 DIGIT ROUTING | | | | CP- | CP4P | NPA + 4 DIGITS | | | CP2,7,4DG* | |
| | | | IDDD ROUTING | | | | | CP2P | 7 TO 11 DIGITS | | | CPO,2,4DG | |
| | * 4DG IS CHANGED TO 5DG FOR TANDEM AND TO L5D FOR STANDARD WIDEBAND<br>CP1,2 IS CHANGED TO CPO,1 FOR WATS CCI6 ROUTES<br>CP1,2 IS CHANGED TO CP1,4 FOR WATS CCI8 ROUTES<br>CP2,7 IS CHANGED TO CPO,7 FOR WATS CCI6 ROUTES<br>CP2,7 IS CHANGED TO CP4,7 FOR WATS CCI8 ROUTES | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 6 | DL OR LDL PROVIDES DELETE AND/OR OTHER INFORMATION TO THE OUT SENDERS DP, MF, PCI, AND FREQUENCY SHIFT PULSING SENDERS USE DELETION. TRANSMITTING CLI TO THE OUT SENDERS INDICATES ONE OF THE FOLLOWING FEATURES:<br>1. TRANSMIT II (ORXX) AHEAD OF THE CALLED NO.<br>2. REVERTIVE SENDER CALLS TO CROSSBAR OFFICES USING SHORT INTERVALS BETWEEN SELECTIONS. | | | | | | DL- | | | | | | NOTE 472 |
| | LINE LINK PULSING | 7 OR 10 DIGIT OUTPULSING (STD CONDITION) OR 4 DIGIT OUTPULSING (MD CONDITION) | | AND NUMBER GROUP NOT USED FOR EXTENSION NUMBERS | | | LDL- | | | | | | |
| | | 4 DIGIT OUTPULSING (STD) CONDITION | | AND NUMBER GROUP NOT USED FOR EXTENSION NUMBERS | | | OPD 1-4 | | | | | | |
| | | | | | | | LDL- | | LOPO | DELETE ALL DIGITS - OUTPULSE "0" | | | |
| | | | | | | | | | LOP1-4 | TO OPERATE OP1-4 RELAYS FOR DELETE INFORMATION | | | |
| | WHEN EXTENSION NO. GROUP IS USED (LINE LINK PULSING). | | | | | | LDL- | | - | OMIT CROSS CONNECTION | | | |
| | WHEN SENDER IS REQUIRED BUT DOES NOT OUTPULSE | | | | | | LDL-<br>DL- | | ND1 | 1. STRAIGHT FORWARD ROUTES WHERE SENDER PROVIDES PATH FOR TM LEAD TO THE TRUNK.<br>2. INTRAOFFICE AMA CALLS.<br>3. TEST CALLS REQUIRING SENDERS BUT NO PULSING.<br>4. STRAIGHT FORWARD LLP ROUTE. | | | |
| | | | | | | | | | | | | | |
| 6A | INCOMING CAMA FUNCTION ROUTES | INTERCHANGEABLE CODES PROVIDED | YES | | | | CP- | CPX | | | | | NOTES 421, 472 |
| | | | NO | | | | | OMIT | | | NO | | |
| | | | | | | | | CP8S | 411 ROUTE<br>555-1212 ROUTE | 2 LINE AMA ENTRY ONLY | YES | DIRECTORY ASSISTANCE CHARGING | |
| | | | | | | | | CP3P OR CP4P | 7 DIGIT ROUTE<br>10 DIGIT ROUTE | | | | |
| | | | | | | | OS- | SGC- | WHERE SEVERAL CAMA SENDER GROUPS SERVE INCOMING CAMA CALLS | | | | NOTES 415, 472 |
| | | | | | | | | OSCO-11 | WHERE SINGLE CAMA SENDER GROUP SERVES INCOMING CAMA CALLS | | | | |
| | | | | | | | CL-<br>DL-<br>CR- | CL4S, DLOP<br>CL4P, DLOS | CL1, CL5 TO SENDER (TAN-LT SIGNAL)<br>CL2, CL5 TO SENDER (TOLL-TT SIGNAL) 900 Ω TRK | | | | NOTE 472 |
| | | | | | | | | CL4P, DLOS, CR5P | CL2, CL3, CL5 TO SENDER (TOLL-TT SIGNAL) 600 Ω TRK | | | | |
| | | | | | | | TB- | NTB | NO TRK BLOCK SELECTION | | | | |
| | | | | | | | RA-<br>TG- | | OMIT CROSS CONNECTION | | | | |
| | | | | | | | CR- | CR5S | NO CR- TO SENDER | | | | |
| 6B | CAMA JUNCTOR FUNCTION ROUTES | INTERCHANGEABLE CODES PROVIDED | YES | | | | CP- | CPX | | | | | NOTES 421, 472 |
| | | | NO | | | | | OMIT | | | NO | | |
| | | | | | | | | CP8S | 411 ROUTE<br>555-1212 ROUTE | 2 LINE AMA ENTRY ONLY | YES | DIRECTORY ASSISTANCE CHARGING | |
| | | | | | | | | CP3P OR CP4P | 7 DIGIT ROUTE<br>10 DIGIT ROUTE | | | | |

| DELETE DIGIT | LEADS GROUNDED TO SENDER |
|---|---|
| NONE | NONE |
| A | DL1 |
| AB | DL2 |
| ABC | DL3 |
| ABCD | DL4 |
| ABCDE | DL5 |
| ABCDEF | DL6 |
| NONE | CLI(CL2 WHEN CLIO IS OPERATED) |
| A | DL1-CLI |
| AB | DL2-CLI |
| ABC | DL3-CLI |
| ABCD | DL4-CLI |
| ABCDE | DL5-CLI |
| ABCDEF | DL6-CLI |

400. (CONT)

| PART | CONDITION | | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|---|---|
| | | | | OS- | OSCO-11 | SENDER GROUP SERVING CAMA JUNCTORS | | NOTE 415,472 |
| | | | | CL- | CL4S, DLOP | CL1, CL5 TO SENDER (TAN-LT SIGNAL) | | 47C5, 47F5, NOTE 472 |
| | | | | DL- | CL4P, DLOS | CL2, CL5 TO SENDER (TOL-TT SIGNAL) | | |
| 6B | CAMA JUNCTOR FUNCTION ROUTES | | | RA- | RC- | TONE TRUNKS | | |
| | | | | TB | TBC- | SEE PART 1 | | NOTE 472 |
| | | | | TG- | TGC- | SEE PART 2 | | |
| | | | | CR- | CR5S | NO CR- TO SENDER | | |
| | CL CONTROL FOR CLASS INFO TO SENDERS | | | | | CL SIG. TO SDR | | |
| PART OF 7 | MF SENDERS | 2-WIRE | | CL- | CL2S | NONE | ROUTE CONSISTS OF ONE WAY LOCAL OR TOLL CONNECTING TRUNKS (SENDER PROVIDES GUARD TIMING) | NOTES 418, 419, 420, 472 |
| | | | | | CL2P | 2 | ROUTE CONSISTS OF INTERTOLL OR 2-WAY LOCAL TRUNKS WHICH REQUIRE IMMEDIATE LOOP CLOSURE FROM SENDER (TRUNK PROVIDES GUARD TIMING) | |
| | | | | | CL3S | 4 | COIN ZONE CALL | |
| | | | | | CL5S | 6 | SENDER ARRANGED FOR 900Ω IMPEDANCE AND USED WITH 600Ω TRUNKS | |
| | | | | | CL5P | 2,6 | SENDER ARRANGED FOR 900Ω IMPEDANCE AND USED WITH 600Ω INTERTOLL TRUNKS | |
| | | | | | CL4S | 5 | ANI-OPR IDENT OF CALLING LINE | SEE PART 80 |
| | | | | | CL6S | 3,5 | ANI-AUTOMATIC IDENTIFICATION OF CALLING LINE, NON-COIN OR PREFIX "1" COIN CALLS ROUTED SAME AS UNDER CLASS 3, 5 & 8 | |
| | | | | | CL7S | 5,7 | ANI-DIAL "0" CALLS OPERATOR IDENTIFICATION (OPTION BF PROVIDED) | |
| | | | | | | 5,8 | CALLS ROUTED TO TSPS NO.1 REQUIRING OPR IDENT (OPTION BG PROVIDED) | |
| | | | | | CL7P | 3,5,7 | ANI DIAL "0" CALLS AUTO. IDENT (OPTION BF PROVIDED) | |
| | | | | | CL8P | 3,5,8 | ANI-AUTOMATIC IDENT PREFIX "0" COIN CALLS ROUTED VIA COMMON TRK GR WITH PREFIX "1" CALL (A&M ONLY) | |
| | | | | | CL9S | 8 | PREFIX "0" NON-ANI COIN CALLS ROUTED VIA COMMON TRK GR WITH PREFIX "1" CALLS (A&M ONLY) | |
| | | | | | CL10S | 5,7 | ANI DIAL "0" CALLS, OPERATOR IDENT (APP FIG. 183 PROVIDED) | |
| | | | | | CL10P | 3,5,7 | ANI DIAL "0" CALLS, AUTOMATIC IDENT (APP FIG. 183 PROVIDED) | |
| | MF SENDERS | 4-WIRE | | CL- | CL2P | 2 | 2-WAY TRUNK AND 1-WAY 4-WIRE INTERTOLL TRUNK | |
| | | | | | CL3P | 2,4 | 2-WAY TRUNK, OUTPULSE CONTROL DIGIT & ROUTING CONT DIGIT | |
| | | | | | CL3S | 4 | INTRAOFFICE AMA | |
| | | | | | CL1P | 2,3,4 | 2-WAY TRUNK OUTPULSE CONTROL DIGIT, DELETE ROUTING CONTROL DIGIT ALLOWS THE CR- DIGIT TO BE SUBSTITUTED FOR THE RCD | |
| | PCI SENDER | | | CL- | CL2P | 2 | NO NUMERICS OVER 9999 | NOTE 472 |
| | | | | | CL0S | 3 | NUMERICS OVER 9999 | |
| | REVERTIVE SENDER | CALL IS TO A GCO PANEL OFFICE NON-REPEATING INCOMING SELECTORS IN THE TRUNK GROUP | | CL- | CL0P | 2,3 | 2 DIGIT CODE IN A 3 DIGIT AREA — LOW INCOMING GROUP | |
| | | | | | CL0S | 3 | OTHER TYPE CODES THAN LISTED ABOVE — LOW INCOMING GROUP | |
| | | CALL IS TO A CROSSBAR OFFICE OR A BCO PANEL OFFICE OR A GCO PANEL OFFICE HAVING ONLY REPEATING INCOMING SELECTORS IN THE TRUNK GROUP | | | CL3P | 2,4 | HIGH INCOMING GROUP — 2 DIGIT CODE IN A 3 DIGIT AREA | |
| | | | | | CL2P | 2 | LOW INCOMING GROUP — 2 DIGIT CODE IN A 3 DIGIT AREA | |
| | | | | | CL3S | 4 | HIGH INCOMING GROUP — OTHER TYPE THAN CODES LISTED ABOVE | |
| | | | | | CL2S | NONE | LOW INCOMING GROUP — OTHER TYPE THAN CODES LISTED ABOVE | |
| | | PULSE CONVERSION ROUTE | | | CL2S | NONE | | |

ISSUE 69B

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-D28

BELL TELEPHONE LABORATORIES INCORPORATED

6S

PRINTED IN U.S.A.

# CROSS CONNECTION INFORMATION (CONT)

400. (CONT)

| PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|
| | CL- CONTROL FOR CLASS INFORMATION TO SENDERS | | | CL SIGNAL TO SENDER | | |
| 7 (CONT) | DIAL PULSE SENDER OR LLP DIAL PULSE SENDER<br>NOTE: CLASS 4 TO THE LLP-DP SENDER INDICATES "M" LEAD PULSING. (A&M ONLY) | LCL; CL- | CL2P | 2 | CALL COMPLETED BY A 2 WAY TRUNK, AN INTERTOLL TRUNK, OR A LINK TYPE CDO | NOTE 472 |
| | | | CL2S | 3 | START DIALING SIGNAL REQUIRED | |
| | | | CL3S | 4 | OUTPULSING AT 20 PPS (DP SDR) | |
| | | | CL4S | 5 | BAT & GRD PULSING | |
| | | | CL5S | 6 | CUSTOMER ACCESS TO 2 WAY OR 1T TRUNK WITH COMPOSITE SIGNAL (USED WITH CLASS 2) | |
| | | | CL0P | 2,3 | COMBINES CLASS 2 & 3 CONDITIONS | |
| | | | CL1P | 2,3,4 | COMBINES CLASS 2,3 & 4 CONDITIONS | |
| | | | CL3P | 2,4 | COMBINES CLASS 2 & 4 CONDITIONS | |
| | | | CL4P | 2,5 | COMBINES CLASS 2 & 5 CONDITIONS | |
| | | | CL5P | 2,6 | COMBINES CLASS 2 & 6 CONDITIONS | |
| | | | CL1S | 3,4 | COMBINES CLASS 3 & 4 CONDITIONS | |
| | | | CL2S | NONE | CALL IS COMPLETED TO A SXS OFFICE, LOOP DIALING 1 WAY TRUNK | |
| | | | CL2S | NONE | PULSE CONVERSION | |
| | | | CL6P | 2,3,8 | 2 WAY, WINK ST., "M" LEAD PULSING | |
| | | | CL9P | 2,8 | 2 WAY, "M" LEAD PULSING | |
| | | | CL8S | 3,8 | WINK ST., "M" LEAD PULSING | |
| | | | CL9S | 8 | "M" LEAD PULSING | |
| | REVERTING CALL ROUTES AND RINGER TEST ROUTES | CL- | RVT | REVERTING TYPE CALL | | |
| | | | | | | |
| 8 | PULSE CONVERSION ROUTES | PCR, PCDO-1 | RC- | PULSE CONVERSION R- RELAY | | NOTES 408, 472 |
| | | R- | RB | ROUTE BATTERY | | |
| | | OS- | OSC 0-11 | SENDER GROUP ASSOCIATED WITH ROUTE | | |
| | | CR- | CR5S | DIAL PULSING SENDERS | | |
| | | | CR0P | REVERTIVE PULSING SENDERS | | |
| | | DL- | DL0S | DIAL PULSING SENDER | | |
| | | | DL0P | REVERTIVE PULSING SENDER TO CROSSBAR OFFICES | | |
| | | | DL0S | REVERTIVE PULSING SENDER TO OTHER THAN CROSSBAR OFFICES | | |
| | | CL- | | SEE PART 7 | | |
| | | CP-, RA-, TG- | | OMIT CROSS CONNECTIONS | | |
| | | Td- | NTB | NO TRUNK BLOCK SELECTION | | |
| 9 | ROUTES REQUIRING INTERMARKER GROUP SENDERS, SPECIAL CL & DL CONTROL | | | | | |
| | INTERMARKER GROUP SENDER TO CALLED MKR | | | CALLING MKR TO SENDER | | |
| | PURPOSE / TRANSLATION / TRUNK CLASS | | | | | |
| | SUB TO SUB OR TRUNK TO SUB — LT — INC | CL- CL- | CL2S DL0S | NONE | | NOTE 472 |
| | SUB TO TRUNK CALL — LT — TDM | | CL2P DL0P | CL1,CL2 | NO INTERCHANGEABLE CODES PROVIDED | |
| | LT — TOL | | CL3S DL0S | CL4 | | |
| | LT — TDM | | CL2P DL0P | CL1,CL2 | 7 DIGIT ROUTE — INTERCHANGEABLE CODES PROVIDED | |
| | LT — TOL | | CL3S DL0S | CL4 | | |
| | TT — TAN | | CL2P DL1P | CL1,CL2,DL1 | 10 DIGIT ROUTE — INTERCHANGEABLE CODES PROVIDED | |
| | TT — TOL | | CL3S DL1S | CL4,DL1 | | |
| | 11 — TDM | | CL2S DL0P | CL1 | | |
| | X11 — TDM | | CL0S DL0S | CL3 | NO INTERCHANGEABLE CODES PROVIDED | |
| | X11 — INC | | CL0P DL0P | CL1,CL2,CL3 | | |
| | TRUNK TO SUB CALL — TT — INC | | CL0S DL0P | CL1,CL3 | | |
| | FVD — INC | | CL2P DL0S | CL2 | | |
| | 2DT — INC | | CL0P DL0S | CL2,CL3 | | |
| | | TB- | TBC- | SEE PART 1 | | |
| | | TG- | TGC- | SEE PART 2 | | |
| | | OS- | OSC- | SEE PART 3 | | |
| | | CR- | IMG | NO CR- TO SENDER | | |
| | | RA- | | SEE PART 10 | | |
| | | CP- | | SEE PART 5 | | |
| PART OF 9A | ROUTES REQUIRING INTERMARKER GROUP SENDERS FOR CAMA SERVICE | | | | | |
| | | CP- | | OMIT CROSS CONNECTION | | |
| | | TB- | TBC- | SEE PART 1 | | |
| | | TG- | TGC | SEE PART 2 | | |
| | | OS- | OSCO-11 | INTERCHANGEABLE GROUP SENDER SERVICE CAMA CALLS | | |
| | | RA- | RC- | TONE TRUNKS | | |
| | | CR- | IMG | NO CR- TO SDR | | |

400. (CONT)

| PART | CONDITION | | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | | REFERENCE |
|---|---|---|---|---|---|---|---|---|---|
| 9A (CONT) | ROUTES REQUIRING INTERMARKER GROUP SENDERS FOR CAMA SERVICE | | | | | | | | NOTE 472 |
| | INTERMARKER GROUP SENDER TO CALLED MKR | | | | | CALLING MKR TO SENDER | | | |
| | PURPOSE | TRANSLATION | TRUNK CLASS | | | | | | |
| | SUB TO SUB OR SUB TO TRUNK TANDEM SUPV | LT | CMFO | CL- DL- | CL4S DL0P | CL1,CL5 | NO INTERCHANGEABLE CODES PROVIDED | | |
| | SUB TO TRUNK TOLL SUPV | TT | CMFI | | CL4P DL0S | CL2,CL5 | | | |
| | SUB TO SUB OR SUB TO TRUNK TANDEM SUPV | LT | CMFO | | CL4S DL0P | CL1,CL5 | 7 DIGIT ROUTE | INTERCHANGEABLE CODES PROVIDED | |
| | | TT | CMFO | | CL4S DL1P | CL1,CL5 AND DL1 | 10 DIGIT ROUTE | | |
| | SUB TO TRUNK TOLL SUPV | LT | CMFI | | CL4P DL0S | CL2,CL5 | 7 DIGIT ROUTE | | |
| | | TT | CMFI | | CL4P DL1S | CL2,CL5 AND DL1 | 10 DIGIT ROUTE | | |
| | | | | | | | | | |
| | ROUTE ADVANCE FEATURES | | | | | | | | |
| | SUB OUTGOING ROUTES (SOG) DIRECT OR ALTERNATE ROUTES | INTERCEPT OF UNAUTHORIZED CUSTOMER 10 DIGIT DDD CALLS | NOT PROVIDED | RAG | RC- | ALTERNATE ROUTES OR TONE TRUNKS | | | |
| | | | | | SC- | ALTERNATE ROUTE VARIES WITH SUB CLASS | | | |
| | | | | | PB | TC TONE TRUNKS ON ALL PATHS BUSY WHEN ROUTE SERVES COIN AND NON-COIN SUB | | | |
| | | | | | CV- | ALTERNATE ROUTE FOR CODE CONVERSION | | | |
| | | | PROVIDED | RAG | RC- | ALTERNATE ROUTES OR TONE TRUNKS | | | |
| | | | | | SC- | ALTERNATE ROUTE VARIES WITH SUB CLASS | | | |
| | | | | | INT | ALL PATHS BUSY OR INTERCEPT OF UNAUTHORIZED CUSTOMER 10 DIGIT DDD CALLS | | | |
| | | | | | CV- | ALTERNATE ROUTE FOR CODE CONVERSION | | | |
| | | | | INPB | PB | TO TONE TRUNKS ON ALL PATHS BUSY WHEN ROUTE SERVES COIN AND NON-COIN SUB | | | |
| | | | | INT1 | RC- | INTERCEPT OF UNAUTHORIZED CUSTOMER 10 DIGITS DDD CALLS | | | |
| | | | | S-G- OR RAG- | RBT | REGISTER RETURN BUSY TONE | | | |
| | INTRAOFFICE ROUTES (ITR) | | | RAG | LR | PERMIT DISTINCTION BETWEEN ALL PATHS BUSY, LINE BUSY AND REVERTING CALLS. | | | |
| PART OF 10 | WHEN ROUTE ADVANCE IS REQUIRED FROM FLAT RATE TO AMA TRUNKS OR WHEN LLP IS PROVIDED | | LLP NOT PROVIDED | RA- | ITRA | ASSOCIATED WITH ROUTE RELAY FOR FLAT RATE INTRAOFFICE TRUNKS | | | NOTE 213, 402, 403, 407, 449, 467, 468, 469, 472 |
| | | | | IAA, R-, IB | RC-, IC, RB | ASSOCIATED WITH ROUTE RELAY FOR AMA INTRAOFFICE TRUNKS | | | |
| | | | | IA | MBS- | MESSAGE BILLING SERIES | | | |
| | | | | | SC- | RATE TREATMENT SCREENING REQUIRED FOR "CENTREX" SERVICE | | | |
| | | | | S- | MBS- | MESSAGE BILLLNG SERIES | | | |
| | | | | | DR-, DRG- | DENIED ROUTE | | | |
| | | | LLP PROVIDED | RA- | ITRA | ASSOCIATED WITH ROUTE RELAY FOR FLAT RATE INTRAOFFICE TRUNKS | | | |
| | | | | IA, IB, IC | - | OMIT CROSS CONNECTIONS | | | |
| | | | | IAA | RC- | ASSOCIATED WITH ROUTE RELAY FOR FLAT RATE ROUTE ADVANCE TO AMA | | | |
| | | | | R- | RB | | | | |
| | | | | RA- | LRD | PERMIT DISTINCTION BETWEEN ALL PATHS BUSY, LINE BUSY, REVERTING AND LLP CALLS | | | |
| | | | | R- | MBS- | MESSAGE BILLING SERIES | ASSOCIATED WITH ROUTE RELAY FOR AMA INTRAOFFICE TRUNKS | | |
| | | | | | SC- | RATE TREATMENT SCREENING REQUIRED FOR "CENTREX" SERVICE | | | |
| | | | | S- | MBS- | MESSAGE BILLING SERIES | | | |
| | | | | | DR-, DRG- | DENIED ROUTE | | | |
| | | | | RA- | LRD | | | | |
| | | | | LRA | RC- | ASSOCIATED WITH SOG ROUTE (OUTGOING-INCOMING LLP ROUTE) | | | |
| | | | | R- | RB | | | | |
| | | | | RA- | PB | | | | |
| | PHASE I OR II "CENTREX" SERVICE 4 OR 5 DIGIT INTRAMARKER GROUP FR SERVICE | | NO | RA- | LR | ASSOCIATED WITH ROUTE RELAY FOR INTRAOFFICE TRUNKS WITH REVERSE BATTERY SUPERVISION (NO TRANSFER FEATURES) | | | |
| | | | YES | RA- | IE | | | | |
| | | | | IF | LR | | | | |
| | | | | IG | SC- | ASSOCIATED WITH INTRAOFFICE ROUTE WITH TRANSFER. | | | |
| | | | | S- | LR | | | | |
| | | | | | RC- | | | | |

DRAWING ISSUE

| | |
|---|---|
| 22D | NON, ESPM, ANSI |
| 24D | PAL, CSM, AMA |
| 25D | LAT, CSP, ANSI |
| 32A | AMA, CAMA, AMP |
| 33D | TOP, BAR, AMP |
| 34A | CAMA, AMA |
| 35D | CAMA, AMP |
| 37D | CAMA |

ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D29

BELL TELEPHONE LABORATORIES INCORPORATED

6S

400. (CONT)

| PART | CONDITION | | CONNECT TERM | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|
| 10 (CONT) | REVERTING CALLS | | RV | SC- | PERMIT SCREENING BETWEEN REVERTING AND NON-REVERTING SUB CLASS OF SERVICE | NOTES 213,402, 403,407, 467,468, 474 |
| | | | S- | RC- | REVERTING ROUTE | |
| | | | | BL | BUSY LINE INDICATION ON NON-REVERTING ROUTES | |
| | | | S- | RVS | PERMIT SCREENING BETWEEN DIAL AND TOUCH-TONE REVERTING TRUNKS | |
| | | DIAL PULSE TRUNKS | RVD | RC- | ROUTES FOR REVERTING TRUNKS | |
| | | TOUCH-TONE TRUNKS | RVMF | | | |
| | TOLL OR TANDEM ROUTES (TOG) | | RAG | RC- | ALTERNATE ROUTES | |
| | | | | PB | SET REORDER IN TRUNK CKT ON PATHS BUSY | |
| | | | | CV- | ALTERNATE ROUTE FOR CODE CONVERSION | |
| | | | OV | SC- | PERMIT SCREENING BETWEEN COIN AND NON-COIN SUB SERVICE | |
| | | | | RC- | NON-COIN TONE ROUTES ONLY | |
| | | | S- | RC- | NON-COIN TONE TRUNKS | |
| | | | S- | RC- | COIN TONE TRUNKS | |
| 11 | CHANNEL SELECTOR PREFERENCE SETTING | ALTERNATE SETTING PERIODICALLY TO AID IN DETECTING CHANNEL TROUBLES AND TO EQUALIZE APPARATUS USAGE | S | INO | INITIAL PREFERENCE SETTING — IDENTICAL CROSS CONNECTIONS MUST BE MAINTAINED IN ALL MARKERS TO ENSURE MAXIMUM OFFICE LOADING | |
| | | | M | OT4 | | |
| | | | MI | IN5 | | |
| | | | E | OT9 | | |
| | | | S | IN5 | ALTERNATE PREFERENCE SETTING | |
| | | | M | OT9 | | |
| | | | MI | INO | | |
| | | | E | OT4 | | |
| 12A | SINGLE, PAIRED OR TRIPLED TL INFORMATION (REMOVE ON JUNCTOR ADDITIONS OR TRANSITIONS AND APPLY IN TRUNK LINK FRAME SEE J SPEC) | | SPF (2W) SPF4 (4W) | SF | SINGLE TRUNK LINK FRAME OPERATION | NOTE 306 |
| | | | | PR | PAIRED TRUNK LINK FRAME OPERATION | |
| | | | | TTF | TRIPLE TRUNK LINK FRAME OPERATION (2 WIRE ONLY) - FOR EXCEPTION SEE 12B | |
| 12B | SIZE > OR SIZE 10 TRIPLE DISTRIBUTION | | | PR | TRUNK LINK FRAMES EQUIPPED WITH ONLY ONE EXTENSION FRAME (EITHER 1ST OR 2ND) | |
| 12C | PERMANENT JUNCTOR DISTRIBUTION | | SPF | PR | UP TO 40 LINE LINKS | |
| | | | | TTF | OVER 40 LINE LINKS | |
| 13 | OFFICE OPERATION OR SINGLE SIZE | | SZD (2W) SZD4 (4W) | SZ2-10 | OFFICE SIZE AS DETERMINED BY THE NUMBER OF SINGLE TRUNK LINK FRAME OR TRUNK LINK FRAME PAIRS OR TRIPLES | |
| | OFFICE SIZE DURING ADDITIONS AND TRANSITIONS WHEN TRUNK LINK FRAME INDICATES | SIZE A | SZA | | | |
| | | SIZE B | SZB | | | |
| | | SIZE C | SZC | | | |
| 14 | CLOSURE OF FS- CHAIN | | OF | OFO | MAXIMUM OF TEN TRUNK LINK FRAMES | |
| | | | OF | OF10 | FROM 11 TO 20 TRUNK LINK FRAMES | |
| | | | OFO | OF20 | | |
| | | | OF | OF10 | FROM 21 TO 30 TRUNK LINK FRAMES | |
| | | | OF20 | OF30 | | |
| | | | EF | EFO | MAXIMUM OF TEN TRUNK LINK FRAMES | NOTE 472 |
| | | | EF | EF10 | FROM 11 TO 20 TRUNK LINK FRAMES | |
| | | | EFO | EF20 | | |
| | | | EF | EF10 | FROM 21 TO 30 TRUNK LINK FRAMES | |
| | | | EF20 | EF30 | | |
| | | | FS1 | FS2 | MAXIMUM OF TEN TRUNK LINK FRAMES | |
| | | | FS2 | FS3 | FROM 11 TO 20 TRUNK LINK FRAMES | |
| 15 | OPERATION OF FGO RELAY | | FG1 | FG2 | WHEN OFFICE HAS "U" TYPE INC REG & 10 OR LESS TRUNK LINK FRAMES | |

400. (CONT)

| PART | CONDITION | | | CONNECT TERM | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|
| 16 | TYPE OF LINE | NON-CENTREX CUSTOMERS | ECHO SUPPRESSOR CONTROL OR UNIVERSAL PAD CONTROL REQUIRED | NO | CS00-99, CST3-9 | CN | COIN LINES OR 4W PRMT AUX LINE CIRCUITS OR PRMT TRUNKS | NOTE 472 |
| | | | | | | MR | MESSAGE REGISTER LINES | |
| | | | | | | AOC | ALL OTHER LINES AND UNUSED CLASSES | |
| | | | | YES | CS00-99, CST3-9 | 2WD 2WD1-3 | ECHO SUPPRESSOR CONTROL | |
| | | | | | | 2WD1-5 | PAD CONTROL | |
| | | | | | 2WDA-D 2WDE-M | AOC | ALL OTHER LINES | |
| | | | | | | ON | 4W PRMT AUX LINE CIRCUITS OR PRMT TRUNKS | |
| | | CENTREX CUSTOMERS (A&M ONLY) PHASE I OR II CENTREX AND OFFICE EQUIPPED FOR | MANUAL TRANSFER ONLY — UNIVERSAL PAD CONTROL REQUIRED — NO | | CS00-99, CST3-9 | CGS | CENTREX CUSTOMERS | |
| | | | | YES — RATE TREATMENT PROVIDED | YES | CS00-99, CST3-9 | CGS | CENTREX CUSTOMERS | |
| | | | | | | TRT00-19 | 2WD1-3 | PAD CONTROL | |
| | | | | | | 2WDE-M | - | NOT USED | |
| | | | | | NO | CS00-59 | 2WD1-3 | PAD CONTROL | |
| | | | | | | 2WDE-M | CGS | CENTREX CUSTOMERS | |
| | | | MANUAL AND DIAL TRANSFER | | CS00-99, CST3-9 | MT | CENTREX CUSTOMERS WITH MANUAL TRANSFER | |
| | | | | | | DT | CENTREX CUSTOMERS WITH DIAL TRANSFER | |
| | | | | | TRT00-19 | 2WD1-3 | PAD CONTROL | |
| | | | | | 2WDE-M | - | NOT USED | |
| | | | PHASE III CENTREX | | CS00-39, CST3-9 | DT | 4 DIGIT- | CALL TRANSFER-ATTENDANT |
| | | | | | | 5DT | 5 DIGIT- | |
| | | | | | | 7DT | 7 DIGIT- | |
| | | | | | | MT | 4 DIGIT | CALL TRANSFER-INDIVIDUAL |
| | | | | | | 5MT | 5 DIGIT | |
| | | | | | | 7MT | 7 DIGIT | |
| | | | | | TRT00-19 | 2WD1-3 | PAD CONTROL | |
| | | | | | 2WDE-M | - | NOT USED | |
| | | | INCOMING TRUNK TEST LINE CIRCUIT-TREATMENT WHEN INCOMING TRUNK CLASS MATCH FEATURE (OPTION DX) IS PROVIDED | PHASE III OR PHASE II WITHOUT DIAL TRANSFER | CS- | ITM | ALL APPEARANCES EXCEPT TRANSFER TST CALL APPEARANCE IN PHASE II CENTREX OFFICE WITH DIAL TRANSFER | |
| | | | | PHASE II WITH DIAL TRANSFER | | TTD | TRANSFER TST CALL APPEARANCE (ALPHA CKT) | |

400. (CONT)

| PART | CONDITION | CONNECT TERM | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|
| 17 | NUMBER GROUP ASSIGNMENTS FOR LOCAL INTERCEPT AND AUTOMATIC INTERCEPT TRUNKS | INA-ST, INB-ST, INC-ST, IND-ST, BNST, DCST, RP-ST, TBIST, VCST | ST00-39 | THOUSANDS DIGIT DIRECTORY ASSIGNMENT | NOTE 472 |
| | | INA-HB, INB-HB, INC-HB, IND-HB, NHB, DCHB, RIHB, RIPHB, TBIHB, VCHB | HB0-9 | HUNDREDS DIGIT DIRECTORY ASSIGNMENT | |
| | | INA-TB, INB-TB, INC-TB, IND-TB, BNTB, DCTB, RIPTB, TBITB VCTB | TB0-9 | TENS DIGIT DIRECTORY ASSIGNMENT | |
| | | INA-U, INB-U, INC-U, IND-U, BNU, DCU, RIPU, RIU, TBIU, VCU | U0-9 | UNITS DIGIT DIRECTORY ASSIGNMENT | |

COMPLETING MARKER CIRCUIT

DWG SIZE 6S

ISSUE 67B

BELL LABORATORIES SD-26002-01- D30

# CROSS CONNECTION INFORMATION (CONT)

400. (CONT)

| PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REF |
|---|---|---|---|---|---|---|
| 18 | NO. GROUP ASSIGNMENTS FOR TANDEM AND TOLL TRUNKS WHEN THE NO. GROUPS SERVE BOTH SUBSCRIBERS AND TRUNKS. | | STA | ST00-39 | START "A" (EVEN TRUNK NO. GROUP) ONE NO. GROUP SERVING TRUNKS NUMBERED 000-999 | NOTE 472 |
| | | | STA1,2,3 | | START "A1" (EVEN TRUNK NO. GROUP) ONE NO. GROUP SERVING TRUNKS NUMBERED 1000-1999. | |
| | | | STB | | START "B" (ODD TRUNK NO. GROUP) OTHER NO. GROUP SERVING TRUNKS NUMBERED 000-999 | |
| | | | STB1,2,3 | | START "B1" (ODD TRUNK NO. GROUP) OTHER NO. GROUP SERVING TRUNKS NUMBERED 1000-1999. | |
| 19 | PERMANENT SIGNAL TEST ROUTING | ROUTE ADVANCE | RA | PSA | PERMANENT SIG ROUTE ADVANCE | NOTES 463, 472 |
| | | RECEIVER OFF HOOK | ROH | | | |
| | | PERMANENT SIG GROUND | PSG | RC- | ROUTES | |
| | | PERMANENT SIG OVERFLOW | PSO | | | |
| | | ROUTE SERIES | PGR | PM | WHEN COMMON OVERFLOW TRUNKS ARE USED FOR PSG ROUTE | |
| 20 | LOCAL COMPLETING CAMA CALLS | | CCH | LCH | NON-CHARGE SUPERVISION ON CALLS TO FREE NO. | |
| | WHEN TRUNK LINK INDICATES TRUNKS AS TOLL (T) FULL SELECTOR (F) OR MANUAL (M) AND MANUAL TRUNKS REQUIRE SUPERVISION OR NON SUPERVISION ON CALLS TO FREE NO. | | MAN. | TCH | CHARGE SUPERVISION ON CALLS TO FREE NO. | |
| 21 | RINGING DISTINCTION ON INTERCEPT TRUNKS (LINE LK FR) | REGULAR INTERCEPT | RIB | T | APPLY RINGING TO TIP SIDE OF LINE | NOTE 472 |
| | | BLANK NO. INTERCEPT | BNB | | | |
| | | TROUBLE INTERCEPT | TBIB | | | |
| | | DENIED CODE INTERCEPT | DCA | L | APPLY RINGING TO RING SIDE OF LINE | |
| | | VACANT CODE INTERCEPT | VCA | | | |
| | | PREEMPTABLE LINE BUSY | PLB | | | |
| | 4-WIRE INTERCEPT | REGULAR INTERCEPT | RIR | NRG | RINGING SWITCH NOT SET | |
| | | BLANK NO. INTERCEPT | BIR | | | |
| | | TROUBLE INTERCEPT | TIR | IRG | RINGING SWITCH SET | |
| 22 | LINE INTERCEPT | TYPE OF INTERCEPT | AUTO. INTERCEPT PROVIDED | | | |
| | | | NO | CHANGED AND DISCONNECTED NUMBERS OR UNASSIGNED NUMBERS OR BLANK NUMBERS IN EQPD NO. GROUPS | NI | RI | REGULAR INTERCEPT OPERATOR | NOTE 472 |
| | | | | | | BN | NO SUCH NO. TONE OR MACHINE INTERCEPT | |
| | | | | UNASSIGNED OR BLANK NUMBERS IN EQPD NO. GROUPS | GI | RI | REGULAR INTERCEPT OPERATOR | |
| | | | | | | BN | NO SUCH NO. TONE OR MACHINE INTERCEPT | |
| | | | | BLANK THOUSAND SERIES IN UNEQUIPPED NO. GROUP AND BLANK HUNDREDS BLOCK IN NO. GROUP | BTI | RI | REGULAR INTERCEPT OPERATOR | |
| | | | | | | BN | NO SUCH NO. TONE OR MACHINE INTERCEPT | |
| | | | | NO PHYSICAL THEORETICAL OR EXTRA THEORETICAL NO. MATCH | NMI | RI | REGULAR INTERCEPT OPERATOR | |
| | | | | | | BN | NO SUCH NO. TONE OR MACHINE INTERCEPT | |
| | | | | SUBSCRIBER CALLS A TRUNK NO. | TNI | RI | REGULAR INTERCEPT OPERATOR | |
| | | | | | | BN | NO SUCH NO. TONE OR MACHINE INTERCEPT | |
| | | | | TEMPORARY INTERCEPT OR CNTX DISCONNECTED NO. | TI | RI | REGULAR INTERCEPT OPERATOR | |
| | | | | | | BN | NO SUCH NO. TONE OR MACHINE INTERCEPT | |
| | | | | | | PI | COMMON CNTX MACHINE INTERCEPT ANNOUNCEMENT | |
| | | | | TEMPORARY ARRANGEMENTS FOR AREA TRANSFERS | GI | VCI, DCI | PROVIDE LOCAL PROCESSING | |
| | | | YES | TEMPORARY DISCONNECTED NUMBERS | TI | RI | AUTO. INTERCEPT CENTER TREATS AS REGULAR INTERCEPT | |
| | | | | UNASSIGNED NUMBERS IN WORKING HUNDREDS BLOCK | NI | | | |
| | | | | UNEQUIPPED NO. GROUP OR BLANK HUNDREDS BLOCK | BTI | BN | AUTO. INTERCEPT CENTER TREATS AS BLANK NO. INTERCEPT | |
| | | | | SUBSCRIBER CALLS A TRUNK NO. | TNI | | | |
| | | | | NO PHYSICAL THEORETICAL OR EXTRA THEORETICAL NO. MATCH | NMI | | | |

400. (CONT.)

| PART | CONDITION | | | | CONNECT TERM | CONNECT TO TERM. | CONDITION | REF |
|---|---|---|---|---|---|---|---|---|
| 22 (CONT) | LINE INTERCEPT | AUTO. INTERCEPT SRV | COMMON CONTROL SWITCHING ARRANGEMENT PROVIDED IN OFFICE AND ETS IS NOT PROV | NO | BLANK NO. INTERCEPT | IBN | AIS | ROUTE TO AUTOMATIC INTERCEPT CENTER | NOTES 213, 409 |
| | | | | | REGULAR INTERCEPT | IRI | | | |
| | | | | | TROUBLE INTERCEPT | ITB | NAI | PROCESS IN LOCAL OFFICE | |
| | | | | YES | BLANK NO. AND REGULAR INTERCEPT | IRI | IBN | | |
| | | | | | | IBN | SC- | COMMON CONTROL SWITCHING ARRANGEMENT SCREENING | |
| | | | | | NON-COMMON CONTROL SWITCHING ARRANGEMENT TRAFFIC | SG- | AIS | ROUTE TO AUTOMATIC INTERCEPT CENTER | |
| | | | | | COMMON CONTROL SWITCHING ARRANGEMENT TRAFFIC | SG- | NAI | PROCESS IN LOCAL OFFICE | |
| | | | | | TROUBLE INTERCEPT | ITB | IRI | NON-COMMON CONTROL SWITCHING ARRANGEMENT TROUBLE INTERCEPT ROUTED TO AUTOMATIC INTERCEPT | |
| | | | | | | | NAI | PROCESS IN LOCAL OFFICE-BOTH COMMON CONTROL SWITCHING ARRANGEMENT AND POTS TRAFFIC | |
| | | | | SENDER GROUP SELECTION | | AI | OSC- | SENDER GROUP ASSOCIATED WITH AUTO. INTERCEPT ROUTE | |
| | | | | CLASS INFORMATION TO SENDER | | CAI | CLOS | START DIALING SIGNAL REQUIRED | |
| | | | | ARBITRARY DIGIT INFO TO SENDER | BLANK NO. | ABN | CROP | PREFIX "0" | |
| | | | | | REGULAR INTERCEPT | ARI | CR3P | PREFIX "3" | |
| | | | | | TROUBLE INTERCEPT | ATBI | CRIP | PREFIX "1" | |
| | | | | OFFICE CODE INFO TO SENDER | OFFICE A | U0A | OFCO-5 | UNIDENTIFIED OFFICE CODES | INFO TO SENDER TRANSMITTED ON A TWO-OUT OF FIVE BASIS |
| | | | | | OFFICE B | U0B | | | |
| | | | | | | 1A0-5 | DA0, 1, 2, 4, 7 | FIRST DIGIT OF OFFICE CODE | |
| | | | | | | 2A0-5 | | | |
| | | | | | | 1B0-5 | DB0, 1, 2, 4, 7 | SECOND DIGIT OF OFFICE CODE | |
| | | | | | | 2B0-5 | | | |
| | | | | | | 1C0-5 | DC0, 1, 2, 4, 7 | THIRD DIGIT OF OFFICE CODE | |
| | | | | | | 2C0-5 | | | |
| | | | | ROUTE TO INTERCEPT CENTER | | NA8 | BNA, DCIA, ITNA, ITNB, ITNC, ITND, RIA, RIPA, TBIA, VCIA | COMMON INTERCEPT TRUNK GROUPS | |
| | | SEL OF INTER-CEPT TRUNKS | | LOCAL OFFICE INTERCEPT TYPES | COMMON CNTX MACHINE INTERCEPT ANNOUNCEMENT (SEE PART 69 FOR INDIVIDUAL CUSTOMER GROUP INTERCEPT ANNOUNCEMENT) | NA1 | BNA, DCIA, ITNA, ITNB, ITNC, ITND, PLBA, RIA, RIPA, TBIA, VCIA | COMMON INTERCEPT TRUNK GROUPS | NOTE 472 |
| | | | | | BLANK NO. | NA2 | | | |
| | | | | | DENIED CODE INTERCEPT | NA3 | | | |
| | | | | | REGULAR INTERCEPT | NA4 | | | |
| | | | | | VACANT CODE INTERCEPT | NA5 | | | |
| | | | | | TROUBLE INTERCEPT | NA6 | | | |
| | | | | | AUTOVON PREEMPT LINE BUSY | NA7 | | | |
| | | | | | DENIED WIDEBAND INTERCEPT LLF | NA9 | | | |
| | | | | | MAINTENANCE BUSY WIDEBAND INTERCEPT LINE LINK FRAME | NA10 | | | |
| | | | | CONTROL OF SCREENING RELAYS FOR SEPARATE INTERCEPT TRUNK GROUPS (LOCAL INTERCEPT ROUTES ONLY) | | INS, PGB, BAS, SMC, TOS, TSA0-9, TSB0-9 | SW- | | |
| | | | | | | NA1-10 | SC- | TRUNK CLASS SCREENING | |
| | | | | SCREENING TO DETERMINE LOCAL INTERCEPT TRUNK GROUP | | S- | BNA, DCIA, ITNA, ITNB, ITNC, ITND, PLBA, RIA, RIPA, TBIA, VCIA | LOCAL INTERCEPT TRUNK GROUPS | NOTES 213, 472 |

DRAWING ISSUE

59B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D31

BELL TELEPHONE LABORATORIES INCORPORATED 6S

DRAWING ISSUE

390 JHW

40A

41D

45D

# CROSS CONNECTION INFORMATION (CONT)

| PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|---|
| 23 | TYPE OF INTER-CEPTING A & M CONDITION | CHANGED, DISCONTINUED, UNASSIGNED OR BLANK NUMBERS IN EQUIPPED NUMBER GROUPS | NL • • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | NT • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | | RO | SETS TRUNK IN REORDER | | |
| | | UNASSIGNED OR BLANK NUMBERS IN EQUIPPED NUMBER GROUPS | GL • • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | GT • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | BLANK THOUSAND SERIES IN UN-EQUIPPED NUMBER GROUP AND BLANK HUNDREDS BLOCK IN NUMBER GROUP | BTL • • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | BTT • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | | RO | SETS TRUNK IN REORDER | | |
| | | NO PHYSICAL, THEORETICAL OR EXTRA-THEORETICAL NUMBER MATCH | NML • • | RI | REGULAR INTERCEPT OPERATOR | | NOTE 472 |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | NMT • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | | RO | SETS TRUNK IN REORDER | | |
| | | SUBSCRIBER CALLS A TRUNK NUMBER | TNL • • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | TNT • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | | RO | SETS TRUNK IN REORDER | | |
| | | TEMPORARY INTERCEPT | TLI • • | RI | REGULAR INTERCEPT OPERATOR | | |
| | | | | BN | NO SUCH NUMBER TONE OR MACHINE INTERCEPT ANNOUNCEMENT | | |
| | | | TTI • | RI | REGULAR INTERCEPT OPERATOR | | |

| PART | TYPE OF TRANSLATION | | | | | | REFERENCE |
|---|---|---|---|---|---|---|---|
| 24 | TOLL CODE TRANSLATION FROM INC REG | TT | LT | MARKER 3 DIGIT TRANSLATOR | | | NOTES 401, 472 |
| | SXS BX CODES OR IXX PBX CODES | 2DT | ET | MARKER 2 DIGIT TRANSLATOR | | | |
| | SOURCE AND STRUCTURE OF CALLED ADDRESS | LTO-9, ALTO-14 | ELT | ACCESS "1" TRANSLATOR | NO INTERCHANGEABLE CODES | | |
| | | | 4LT | CCSA TRANSLATION | | | |
| | | | MLTO-13 | MARKER TRANSLATORS | | | NOTE 451 |
| | INCOMING IO DIGITS | TT | ELT | ACCESS "1" INDICATES IO DIGITS | | | NOTES 421,472 |
| | ORIGINATING CENTREX INTERCOM TRAFFIC | LT8 | MLT8 | 4-DIGIT CENTREX-- | | | NOTE 474 |
| | | LT6 | MLT6 | 5-DIGIT CENTREX-- | | | |
| | | ALT5 | MLT13 | 7-DIGIT CENTREX-- | | | |

\# TOLL CALLS
\#\# LOCAL CALLS

| PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|---|
| 24 (CONT) | TREATMENT OF "A" DIGIT TRANSLATION | | | | | | |
| | LT TRANSLATOR | | LTA 0-9, ZO | ATW- | "B" DIGIT TRANSLATION | | NOTES 213, 401, 403, 407, 408, 451, 471, 472 |
| | | | | SC- | SCREENING OF "A" DIGIT TRANSLATION | | |
| | | | | RC-, VCG | DIRECT ROUTING FROM "A" DIGIT TO OPERATOR VACANT CODE, ETC | | |
| | | | | FAT- | FOREIGN AREA TRANSLATOR REQUIRED | | |
| | ELT TRANSLATOR | | ELTO-9, 1ZO | ATW-, C.P. | SIMILAR TO LT TRANSLATOR | | |
| | LT2 TRANSLATOR | | LT 20-29, 2ZO | ATW-, C.P. | | | |
| | LT3 TRANSLATOR | | LT 30-39, 3ZO | ATW, C.P. | SIMILAR TO LT TRANSLATOR | | |
| | 4LT TRANSLATOR | | 4LTO-9, 4ZO | ATW-, C.P. | SIMILAR TO LT TRANSLATOR | | |
| | ET TRANSLATOR | | ETA 0-9 | ETW- | "B" DIGIT TRANSLATION | | |
| | | | | SC- | SCREENING OF "A" DIGIT TRANSLATION | | |
| | | | | RC-, VCG | DIRECT ROUTING FRAME "A" DIGIT TRANSLATION | | |
| | FVD TRANSLATION | | FVDO-9 | C.P. | CODE POINT TREATMENT | | |
| | CENTREX | | XIIO FVDO | SC- | TREATMENT WHEN ALL ATTENDANT FACILITIES ARE REACHED VIA THE TRUNK LINK FRAME-ORIG CALLS ONLY | | |
| | | | S- | RC- | | | |
| | | | XIIO FVDO | DZ | TREATMENT WHEN ALL ATTENDANT FACILITIES ARE REACHED VIA THE LINE LINK FRAME-ORIG AND DIAL TRANSFER CALLS | | |
| | | DIAL ZERO CALLS FROM ORIGINATING OR TRANSFER CALLS | XIIO LT40 FVDO | DZA | TREATMENT TO DISTINGUISH BETWEEN ORIG AND TRANSFER DIAL ZERO CALLS | TREATMENT WHEN SOME ATTENDANT FACILITIES ARE REACHED VIA THE LLF AND SOME VIA THE TLF | |
| | | | DZ5 | SC- | SCREENING FOR ORIG DIAL ZERO CALLS BY CUSTOMER | | |
| | | | S- | DZ | ORIG DIAL ZERO CALLS WHEN ATTENDANT FACILITIES ARE REACHED VIA THE LLF | | |
| | | | S- | RC- | ORIG DIAL ZERO CALLS WHEN ATTENDANT FACILITIES ARE REACHED VIA THE TLF | | |
| | | LOCAL COMPLETION ONLY | DTL 00-99 | LPA,LPB LTA,LTB LEA,LEB | WHEN CUSTOMER HAS ATTENDANT FACILITIES THAT ARE REACHED VIA THE LLF | | |
| | | 4 DIGIT DIALING WITH THE SAME NUMBER USED IN MORE THAN ONE NUMBER SERIES | ALL- | C4D | OFFICE ARRANGED FOR DIAL TRANSFER | DESIRED LOCAL COMPLETION RELAY DETERMINED BY CLASS OF SERVICE | |
| | | | DTL 00-99 | LPA,LPB LTA,LTB LEA,LEB | | | |
| | | | ALL- | SC- | OFFICE NOT ARRANGED FOR DIAL TRANSFER | | |
| | | | S- | LPA,LPB LTA,LTB LEA,LEB | | | |
| | 7 DIGIT INTERCOM TRANSLATOR | | LT41-49 | ATW-CP | SIMILAR TO LT TRANSLATOR | | |
| | XII TRANSLATION | | XII 0-9 | C.P. | SERVICE CODE POINT TREATMENT WHEN PRETRANSLATORS ARE NOT FURNISHED | | |
| | | | | LEA | OFFICE "A" EXTRA THEORETICAL | | |
| | | | | LEB | OFFICE "B" EXTRA THEORETICAL | | |
| | | | | LPA | OFFICE "A" PHYSICAL | | |
| | | | | LPB | OFFICE "B" PHYSICAL | | |
| | | | | LTA | OFFICE "A" THEORETICAL | | |
| | | | | LTB | OFFICE "B" THEORETICAL | | |
| | 11X TRANSLATION | | 11X 0,2-9 | C.P. | CODE POINT TREATMENT | | |
| | TREATMENT OF "B" DIGIT TRANSLATION | | | | | | |
| | 7,6-7 DIGIT AREAS LOCAL & TOLL CALLS | | ATOO-99 | BTO-9 BT(0-9)R BT(0-9)S BT(0-9)T | "C" DIGIT TRANSLATION REQUIRED | | |
| | | | | C.P. | "C" DIGIT TRANSLATION NOT REQUIRED | | |
| | 7,6-7 DIGIT AREAS 2 DIGIT BX CODES 6,5 DIGIT AREAS TOLL CODES | | ETOO-99 | BTO-9 BT(0-9)R BT(0-9)S BT(0-9)T | "C" DIGIT TRANSLATION REQUIRED | | |
| | | | | C.P. | "C" DIGIT TRANSLATION NOT REQUIRED | | |
| | TREATMENT OF "C" DIGIT TRANSLATION | | COOO-999 | C.P. | CODE POINT TREATMENT | | |

DRAWING ISSUE
22D (CEL EPM ABP)
24D (MLT DM AMP)
25D (MD EPM AMP)
50D (CML DCL LEND)
31D (CML TEL AMP)
32R (CML JNR MEM AMP)
35D (TEL SPC SMP CLK)
37D
DRAWING REPUBLISHED WITHOUT CHANGE 10-1-68
41D
43D
45D
DRAWING ISSUE
59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D32

BELL TELEPHONE LABORATORIES INCORPORATED 6S

PRINTED IN U.S.A.

STABILO

| 400. (CONT) PART | CONDITION | CONNECT TERM | CONNECT TO TERM | CONDITION | REF |
|---|---|---|---|---|---|
| OSG-, OUT SDR GRP CROSS CONN FEATURES | | | | | |
| 25 | TESTING AND SELECTING THE "A" AND "B" SENDER CONN ASSOCIATED WITH THE OSG (0-9) SENDER GROUPS. | SIA 0-11 | SIAC0(0-3)<br>SIAC1(0-3)<br>SIAC2(0-3)<br>SIAC3(0-3)<br>SIAC4(0-3) | GROUP TEST LEADS FOR IDLE SENDERS<br>EXAMPLE:<br>SIAC0(0)-0 GRP OF SENDERS, IN "A" SUB GROUP OF CONN 0 | |
| | | SIB 0-11 | SIBC0(0-3)<br>SIBC1(0-3)<br>SIBC2(0-3)<br>SIBC3(0-3)<br>SIBC4(0-3) | | |
| | | GBA 0-11 | GBAC(0-3) | CONN BUSY GROUP TEST LEAD | |
| | | GBB 0-11 | GBBC(0-3) | | |
| | | SDA 0-11 | STAC(0-3) | START LEAD TO CONNECTOR | |
| | | SDB 0-11 | STBC(0-3) | | |
| | WHEN OFFICE PROVIDES AN AUTOMATIC MONITOR REG SDR TEST CKT | OSM 0-11 | OSM | FROM SDR GROUPS WORKING WITH AUTO MONITOR | |
| | SKIP CHECK OF DIGITS INFORMATION TRANSMITTED TO THE OUTGOING SENDER | SK 0-11 | SA | SKIP CHECK "A" DIGIT | NOTE 472 |
| | | | SAB | SKIP CHECK "AB" DIGITS | |
| | | | SABC | SKIP CHECK "ABC" DIGITS | |
| | SKIP CHECK OF DIGITS ON REVERTIVE SENDER GROUPS USED WITH PULSE CONVERSION | SK 0-11 | SPC | REVERTIVE SENDER GROUPS USED WITH PULSE CONVERSION | |
| | | PRV | SAB | REV SENDERS EQUIPPED FOR TWO DIGIT OFFICE CODES | |
| | | | SABC | REV SENDERS EQUIPPED FOR THREE DIGIT OFFICE CODES | |
| | WHEN LLP ROUTES ARE SERVED BY: 1 SDR GRP | LLS1 | LLS0 | LINE LINK PULSING RECYCLE CONTROL | |
| | WHEN LLP ROUTES ARE SERVED BY: MORE THAN 1 SDR GRP | LLS2 | | | |
| 26 | WHEN ANY "U" TYPE ORIG REIGSTERS ARE PROVIDED WITHOUT COIN LINE SERVICE | NC1 | NC2 | CANCELS ORIG REG COIN SIGNALS CHECK | |
| 27 | FLAT RATE INTRAOFFICE TRUNKS ASSOCIATED WITH ALLOTTER | SAL- | ISG | REQUIRED WHEN OFFICE IS ARRANGED FOR LLP | |
| | WHEN ALLOTTED TRUNK GROUPS REQUIRE: 1 SENDER GROUP | 1SG | SALO-3 | SENDER ALLOTTED | NOTE 472 |
| | WHEN ALLOTTED TRUNK GROUPS REQUIRE: 2 SENDER GROUP | 2SG | | | |
| | PROVIDES FOR ALLOTTED TRUNK GROUP, SUBGROUP A | LAO-3 | RC | ASSOCIATES ALLOTTED SUBGROUP A WITH ROUTE RELAY | NOTES 407, 472 |
| | PROVIDES FOR ALLOTTED TRUNK GROUP SUBGROUP B | LBO-3 | RC | ASSOCIATES ALLOTTED SUBGROUP B WITH ROUTE RELAY | |
| | ROUTE ADVANCE FROM ALLOTTED TRUNK GROUPS | RALO-3 | RC | FIRST ROUTE ADVANCE FROM ALLOTTED TRUNK GROUP | NOTE 472 |
| | CODE POINTS FOR ALLOTTED ROUTES | CP | RCLO-3 | | NOTES 407,472 |
| 28 | PROVIDES MEANS FOR REGISTERING THE NUMBER OF BUSY LINKS IN A HORIZONTAL GROUP ON A LINE LINK FRAME INCLUDING THE CALL IN PROGRESS. | REG 2 | R5,R6 & R7 | 3 OR MORE BUSY LINKS | |
| | | | R5 & R6 | 4 OR MORE BUSY LINKS | |
| | | | R6 | 5 OR MORE BUSY LINKS | |
| | | NO CROSS CONNECTION | | 6 OR MORE BUSY LINKS | |
| | | REG 1 | R5 | 7 OR MORE BUSY LINKS | |
| | | | R5 & R6 | 8 OR MORE BUSY LINKS | |
| | | | R5,R6 & R7 | 9 OR MORE BUSY LINKS | |
| | | | R5,R6,R7 & R8 | 10 OR MORE BUSY LINKS | |
| 29 | EXTRA PUNCH FOR SPECIAL TROUBLE RECORDING CONN WHERE REQUIRED | EXB | | BATTERY SOURCE FOR TROUBLE INDICATION | |
| | | EXC | | GROUND SOURCE FOR TROUBLE INDICATION | |
| | RECORDS OF SELECTED TRAFFIC CONDITIONS | GWD | | GROUND SOURCE TO BE DETECTED — EX RELAY IS OPERATED FROM GROUND — PEG COUNT WITH OR WITHOUT A TROUBLE RECORDER RECORD | |
| | | BWD | BAT | | |
| | | BWD | | BATTERY SOURCE TO BE DETECTED — EX RELAY IS OPERATED FROM BATTERY | |
| | | GWD | GRD | | |
| | | EX | EXA | TROUBLE RECORDER RECORD ON FIRST TRIAL-CALL COMPLETES ON SECOND TRIAL | |

| 400. (CONT) PART | CONDITION | CONNECT TERM | CONNECT TO TERM | CONDITION | REF |
|---|---|---|---|---|---|
| 30 | TYPE OF CALL<br>SUBSCRIBER ORIGINATING OUTGOING (SOG), SUBSCRIBER ORIGINATING INTRA-OFFICE (ITR), TANDEM OR TOLL THRU SWITCHED (TOG) | RM-<br>RS--<br>G--<br>PC-<br>R-<br>RGT<br>RLO-3<br>OR<br>S- WHEN R- IS CONNECTED TO SC- OR BL--<br>WHEN R- IS CONN TO BS-- OR BLA-<br>WHEN ZRS IS CONN TO BSA-- | DRO-19,DRG- | DIVERTED ROUTE | NOTES 213, 404, 408, 418, 419, 420, 467, 468, 469, 472 |
| | | | MBSO-9 | MESSAGE BILLING INDEX — WHEN AMA,RECORDING IS REQUIRED | |
| | | | PDCO | GRD "CN" & "CDN" LEADS TO TRK AND "LF" LEAD (VIA LINE LINK) TO TRK — CENTREX TIE LINE PAD CONTROL | |
| | | | PDCI | GRD "CN" & "CDN" LEAD TO TRK | |
| | | | IOD | CALLING NUMBER OPERATOR IDENTIFIED | |
| | | | NID | CALLING NUMBER AUTO IDENTIFIED | |
| | | | SC- | WHEN ROUTE SERIES DEPENDS ON SUB OR TRK CLASS SCREENING | |
| | | | PM | COIN SUB GRD "TP" LEAD TO TRK — COMMON PERM SIGNAL TRK GROUP | |
| | | | PN | NO COIN OR PBX SUB NO CLASS INFO TO TRK | |
| | | | PP | PBX SUB GRD "TC" LEAD TO TRK | |
| | | | TC | TCCN RELAY GRD "TC" & "CN" LEAD TO TRK | |
| | | | TN | TCNC RELAY GRD "TC" LEAD TO TRK — CHARGE CONDITION FOR SUB MESSAGE REGISTER CALLS OR TONE INDICATION FOR CLR TRUNKS USED TO CHECK OUT MARKER | |
| | | | NN | NCNC RELAY NO CLASS INFO TO TRK | |
| | | | NC | NCCN RELAY GRD "CN" LEAD TO TRK — CN SUB WHEN TRK PROVIDES CN & NON CN SERVICE; "O" ATT CALL FROM EXT (CENTREX) | |
| | | | CC | CN SUB FOR TRUNKS NOT ARRANGED FOR COIN CONTROL AND REGISTER MUST RETURN COIN | |
| | | | CA | CANCELS TRK CLASS INFO — COMMON OVER FLCW TRUNKS REACHED BY ROUTE ADV | |
| | | | TO | TOS RELAY GROUND "RC" LEAD — TOLL SUPERVISION ON TOLL & TANDEM THRU CALLS TO A COMB LOCAL & TOLL OUTGOING TRK WITH SENDERS | |
| | | | MBT9 | OVERRIDE PREVIOUS AMA BILLING WITH MB9 | |
| | | | RB | ROUTE BATTERY — WHEN TRK CLASS INFO MESSAGE BILLING INFO DENIED SERVICE & COIN REROUTE INFO IS NOT ASSOCIATED WITH R- RELAY | |
| | | | RCTS | RC THROUGH SWITCH | |
| | | | IPRS | SKIP POLITE SEARCH AND GO INTO IMMEDIATE PREEMPT CYCLE | |
| | | | BS1-,BSA- | GRD SUPPLY 1 — ROUTE SERIES RELAY TO BE DROPPED ON ROUTE ADV | |
| | | | BS2-,BSA- | GRD SUPPLY 2 | |
| | | | BS3-,BSA- | GRD SUPPLY 3 | |
| | | | BS4-,BSA- | GRD SUPPLY 4 | |
| | SUBSCRIBER ORIGINATING CALL REQUIRING ANI ROUTE | S- | DRRO,1 | ANI REROUTE | |
| | | NRSO,1 | RC- | ANI ROUTE FOR OPERATOR OR AUTOMATIC IDENTIFICATION (SINGLE ORIG RATE CLASS) | |
| | | | SC- | WHEN ANI ROUTE SELECTION DEPENDS ON ORIG RATE CLASS | |
| | | R- | ANIS | ANI ROUTE SERIES | |
| | 4-WIRE SOG AND TOG OVERFLOW | R- | TNA | COMBINED LOCAL AND TANDEM TONE OR ANNOUNCEMENT TRK | NOTES 442,472 |

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 63B |

BELL LABORATORIES | SD-26002-01- | D33

# CROSS CONNECTION INFORMATION (CONT)

| PART | CONDITION | | | CONNECT TERM. | CONNECT TO TERM. | | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|---|
| 31 | GROUND FOR AMB CKT | | | AB | ABG | | APPLY ON LAST MKR | |
| 32 | SELECTION OF THOUSANDS, HUNDREDS, TENS AND UNITS DIGITS FOR NUMBER GROUP TRANSLATION | LOCAL TRNSL AND FOR AREA TRNSL CKT IS | PROV | NSLO | NSL | | | NOTE 472 |
| | | | | NSL2 | | | | |
| | | | | NSL3 | | | | |
| | | | | NSL4 | | | | |
| | | | | NSL1 | | | | |
| | | | NOT PROV | NSL | | | | |
| | | | | NSLO | | | | |
| | | | | NSL2 | | | | |
| | | | | NSL3 | | | | |
| | | | | NSL4 | | N1 | NO DIGITS IN OFFICE CODE | |
| | | TOLL OR TWO DIGIT SXS CODES | | NSE | | N2 | ONE DIGIT IN OFFICE CODE | |
| | | | | | | N3 | TWO DIGITS IN OFFICE CODE | |
| | | NUMBER SELECTION LOCAL PBX | | NSX | | N4 | THREE DIGITS IN OFFICE CODE | |
| | | | | | | | | |
| 33 | OFFICE RINGING SUPPLY USED FOR CONTINUITY TEST PROVIDES A -48 VOLT REFERENCE LEVEL | YES | | AC1 | AC2 | | AC-DC AUDIBLE RINGING | SHEET NOTE 1 |
| | | NO | | | AC3 | | ± AUDIBLE RINGING | |
| | | | | | | | | |
| 34 | TWO DIGIT OPERATOR TX CODES IDENTIFIED BY 11XX | | | C110, C111, C119 | CP | | CODE POINTS | NOTES 407, 472 |
| | | | | TX00-99 | TXW0-9 | | TX CODE TRANSLATOR | |
| | | | | | CP | | CODE POINTS | |
| | | | | | | | | |
| 35 | PREFERENCE CONTROL FOR MKR CONN (EACH MKR SHOULD BE CONNECTED TO VARY THE ORDER OF PREFERENCE FOR THE ORMC, IRMC, TRMC, AND LLMC. ALL ORMC, IRMC, TRMC SHOULD BE PREFERRED BEFORE THE LLMC. | | | (MKR) MAK (ST) MCK (ST) MSK (ST) | (ORMC) (IRMC) (TRMC) MAK-ST (O) MCK-ST (O) MSK-ST (O) | | MKR START ENTRANCE INTO MKR CONN CHAIN | FS 52 (3944), NOTE 461 |
| | | | | (ORMC) (IRMC) (TRMC) MAK-E (O) MCK-E (O) MSK-E (O) | (ORMC) (IRMC) (TRMC) MAK-ST (O) MCK-ST (O) MSK ST (O) | | FROM PRECEDING TO SUCCEEDING MKR CONN IN CHAIN | |
| | | WITHOUT ORIGINATING LINE IDENTIFIER | | (ORMC) (IRMC) (TRMC) MAK-E (O) MCK-E (O) MSK-E (O) | (MKR) MAK (E) MCK (E) MSK (E) | | END OF MKR CONN CHAIN TO MKR "END" PUNCHINGS | |
| | | WITH ORIGINATING LINE IDENTIFIER | | (ORMC) (IRMC) (TRMC) MAK-E (O) MCK-E (O) MSK-E (O) | (LLMC) MAK-ST (O) MCK-ST (O) MSK-ST (O) | | TO EXTEND PREFERENCE CHAIN TO LLMC FRAMES | |
| | | | | (LLMC) MAK-E (O) MCK-E (O) MSK-E (O) | (MKR) MAK (E) MCK (E) MSK (E) | | END OF LINE LINK MKR CONN CHAIN TO MKR "END" PUNCHINGS | |
| | | | | | | | | |

| PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|
| | TWO OR THREE DIGIT CODE CONVERSION | | | | |
| 36 | CODE POINTS OR S-POINTS ASSOCIATED WITH A ROUTE REQUIRING TWO OR THREE ARBITUARY DIGITS CODE CONVERSION | CP, S-, RM- | CV00-95 | SELECTION OF PRE-ROUTE RELAY FOR CODE CONVERSION | NOTES 213, 407 472 |
| | WHEN CERTAIN ROUTES REQUIRE TWO OR THREE ARBITRARY DIGITS CODE CONVERSION TO BE PREFIXED TO THE OUTPULSED NUMBER | CV800-95 | CVS | CODE CONVERSION USED | NOTE 472 |
| | | | RB | ROUTE FEATURE NOT USED | |
| | | CVR00-95 | TO RC- VIA CVRG00-23 | CODE CONVERSION RELAY GROUPING | NOTES 407, 472 |
| | | | TO SC- VIA CVRG00-23 | CLASS OF SERVICE TREATMENT FOR CODE CONVERSION ROUTE | NOTES 408, 472 |
| | ARBITRARY DIGITS FOR TWO OR THREE DIGIT CODE CONVERSIONS | ARN00-95 | AR0P | 0 HUNDREDS DIGIT | NOTE 472 |
| | | | AR1P | 1 | |
| | | | AR2P | 2 | |
| | | | AR3P | 3 | |
| | | | AR4P | 4 | |
| | | | AR0S | 5 | |
| | | | AR1S | 6 | |
| | | | AR2S | 7 | |
| | | | AR3S | 8 | |
| | | | AR4S | 9 | |
| | | | AR5S | NO HUNDREDS DIGIT (TWO DIGIT CODE CONVERSION) | |
| | | BRN00-95 | BR0P | 0 TENS DIGIT | |
| | | | BR1P | 1 | |
| | | | BR2P | 2 | |
| | | | BR3P | 3 | |
| | | | BR4P | 4 | |
| | | | BR0S | 5 | |
| | | | BR1S | 6 | |
| | | | BR2S | 7 | |
| | | | BR3S | 8 | |
| | | | BR4S | 9 | |
| | | CRN00-95 | CR0P-4P, CR0S-5S | UNITS DIGIT (SEE PART 4) | |
| | CODE CONVERSION ROUTE BUT CODE CONVERSION FEATURE NOT USED | CR- | KC1 | CANCELS CODE CONVERSION ON INTERMARKER SENDER GROUP CALLS | |
| | | | KCV | CANCELS CODE CONVERSION | |
| 37 | CODE POINT PEG COUNT | CP, RM- | RP00-39 | PEG COUNT ON A SINGLE CODE OF A GROUP HAVING A COMMON ROUTE | NOTES 407, 408, 415, 472 |
| | | PR00-39 | RC- | | |
| | INDIVIDUAL PEG COUNT | CP, RM- | IP0-9 | OVER 60 TRUNKS IN GROUP IPC0-3 RELAYS ARE NOT USED WHEN ALO-3 RELAYS ARE CONNECTED | |
| | | IR0-9 | RC- | | |
| | PRE-ROUTE PEG COUNT | RP00-39 | VC | OR CLASS | NOTES 213, 407, 408, 415, 416, 417, 472 |
| | | | TAV | TDM CLASS | |
| | | | TOV | TOLL CLASS | |
| | | | FOVC | FAC CLASS | |
| | DIVERTED ROUTES | RR-, S- | RC- | CODE TREATMENT | |
| | | | DCI | SCREENING FOR DENIED CODE INTERCEPT TREATMENT (LINE LINK FR) | |
| | CLASS OF SERVICE AND INC TRUNK CLASS ON THROUGH SWITCHED CALLS PEG COUNT AND CENTREX PBX INFORMATION (PHASE III) | CLC | SC- | | NOTES 213, 472 |
| | | S- | PCS0-9 | PEG COUNT OF ORIGINATING CALLS ACCORDING TO CLASS OF SERVICE AND THROUGH SWITCHED CALLS ACCORDING TO INC TRUNK CLASS (MAX OF ANY 10 CLASSES OF SERVICE PER MKR) | |
| | | S- | CGS0-9 | CUSTOMER GROUP IDENTIFICATION TO TRAFFIC REGISTER TRANSLATOR CKT (MAX OF ANY 10 PBX PER MKR GROUP) | |
| | CENTREX PBX INFORMATION (PHASE I AND II) | CPC | SC- | | |
| | | S- | CGS0-9 | CUSTOMER GROUP IDENTIFICATION TO TRAFFIC REGISTER TRANSLATOR CKT (MAX OF ANY 10 PBX PER MKR GROUP) | |
| | | | | | |

NOTES

1. THESE CROSS CONNECTIONS MUST BE MADE TO BALANCE OUT ANY DC CURRENTS DUE TO THE RINGING MACHINE VOLTAGES.

DRAWING ISSUE

| | |
|---|---|
| 32A | KEC |
| 33D | KEC |
| 35D | KMC |
| 37D | |
| 430 | |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D34

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D34

HIGGINS 4465

# CROSS CONNECTION INFORMATION (CONT)

400. (CONT)

| PART | CONDITION | | | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|---|
| 38 | SUB CLASS (S-) RELAY OPERATION | STANDARD | TWO SORTS | | CGA0 | CSA1 | SORT 1 | NOTES 405, 472 |
| | | | | | | CSA2 | SORT 2 | |
| | | | | SORT 1 | SWC00-99 | SW-,GW0-7 | | |
| | | | | SORT 2 | SWC00-99 | | | |
| | | | FOUR SORTS | | CGA0 | CSA1 | SORT 1 | |
| | | | | | | CSA2 | SORT 2 | |
| | | | | | CGB0 | CSB1 | SORT 3 | |
| | | | | | | CSB2 | SORT 4 | |
| | | | | SORT 1 | SWC00-49 | SW-,GW0-7 | | |
| | | | | SORT 2 | SWC00-49 | | | |
| | | | | SORT 3 | SWC50-99 | | | |
| | | | | SORT 4 | SWC50-99 | | | |
| | | A&M ONLY | THIRTY CLASSES | TWO SORTS | CGA0 | CSA1 | SORT 1 | |
| | | | | | | CSA2 | SORT 2 | |
| | | | | GROUP "A" | SWC00-29 | SW- | SORT 1 | |
| | | | | | SWC00-29 | | SORT 2 | |
| | | | | FOUR SORTS | CGA0 | CSA1 | SORT 1 | |
| | | | | | | CSA2 | SORT 2 | |
| | | | | | CGB0 | CSB1 | SORT 1 | |
| | | | | | | CSB2 | SORT 2 | |
| | | | | GROUP "A" | SWC00-29 | SW- | SORT 1 | |
| | | | | | SWC00-29 | | SORT 2 | |
| | | | | GROUP B | SWC00-29 | | SORT 1 | |
| | | | | | SWC00-29 | | SORT 2 | |
| | | | SIXTY CLASSES | TWO SORTS | CGA1 | CSA1 | SORT 1 | |
| | | | | | CGA2 | CSA2 | SORT 2 | |
| | | | | GROUP B | CGB1 | CSB1 | SORT 1 | |
| | | | | | CGB2 | CSB2 | SORT 2 | |
| | | | | GROUP "A" | SWC00-29 | SW- | SORT 1 | |
| | | | | | SWC00-29 | | SORT 2 | |
| | | | | GROUP B | SWC00-29 | | SORT 1 | |
| | | | | | SWC00-29 | | SORT 2 | |
| | | | WHEN MIXED SUB CLASSES ON 2P LINES ARE PROVIDED | GROUP "A" | SWC00-99 | SWP0-3 | SORT 1 | |
| | | | | | SWC00-99 | SWP0-3 | SORT 2 | |
| | | | | | SWT0-3 | SW- | TIP - SORT 1 | |
| | | | | | SWR0-3 | | RING - SORT 1 | |
| | | | | | SWT0-3 | | TIP - SORT 2 | |
| | | | | | SWR0-3 | | RING - SORT 2 | |
| | | | | GROUP B (A&M) ONLY | SWC00-29 | SWP0-3 | SORT 1 | |
| | | | | | SWC00-29 | SWP0-3 | SORT 2 | |
| | | | | | SWT0-3 | SW- | TIP - SORT 1 | |
| | | | | | SWR0-3 | | RING - SORT 2 | |
| | | | | | SWT0-3 | | TIP - SORT 1 | |
| | | | | | SWR0-3 | | RING - SORT 2 | |
| | | | COIN CLASS | GROUP "A" SORT 1 OR 2 | SWC00-99 | SWP4 | COIN CLASS | |
| | | | | | SWT4 | SW- | COIN DEPOSIT | |
| | | | | | SWR4 | | NO COIN DEPOSIT | |
| | TRUNK CLASS (S-) RELAY OPERATION | SINGLE NETWORK | | | CGA0 | TSC1 | SORT 1 | FS 31, NOTE 472 |
| | | | | | | TSC2 | SORT 2 | |
| | | 2 WIRE - 4 WIRE NETWORK DISTINCTION REQUIRED | | | 2WS | TSC1 | 2 WIRE NETWORK SORT | |
| | | | | | 4WS | TSC2 | 4 WIRE NETWORK SORT | |
| | | SORT 1 | | | ORS | SW- | ORIGINATING | |
| | | | | | INS | | INCOMING | |
| | | | | | TAS | | TANDEM | |
| | | | | | TOS | | TOLL | |
| | | | | | DTS | | DIAL TRANSFER | |
| | | | | | TSA0-9 | | IND TOLL & TANDEM CLASSES | |
| | | | | | TSB0-9 | | | |
| | | SORT 2 | | | ORS | SW- | ORIGINATING | |
| | | | | | INS | | INCOMING | |
| | | | | | TAS | | TANDEM | |
| | | | | | TOS | | TOLL | |
| | | | | | DTS | | DIAL TRANSFER | |
| | | | | | TSA0-9 | | IND TOLL AND TANDEM CLASSES | |
| | | | | | TSB0-9 | | | |
| | | CAMA FIRST TANDEM | | | CM0 | | CAMA CLASSES | |
| | | CAMA FIRST TOLL | | | CM1 | | | |
| | | CAMA SECOND TANDEM | | | CM2 | | | |
| | | CAMA SECOND TOLL | | | CM3 | | | |
| | ACCESS DIGIT 0,1,8, & 9 SCREENING | TRANSLATOR USED | | IIX | 1XS | SW- | | NOTES 421, 472 |
| | | | | INC CALL | TCS | | | |
| | | | | ELT | ELS | | | |
| | | | | LT2 | LS2 | | | |
| | | | | ET | LS3 | | | |
| | | | | 4LT | LS4 | | | |
| | | | | LT3 | LS5 | | | |
| | | | | LT4 | LS9 | | | |
| | | ACCESS DIGIT 1 CANCELED. | | NO | U0 | | | NOTES 434, 472 |
| | | | | YES | LS | SC- | | |
| | | | | | S- | SSG0-3 | | |
| | | | | | SSG0-3 | SW- | | |
| | RATE TREATMENT | | | | TWC0-19 | SW- | RATE TREATMENT SCREENING | NOTE 472 |
| | INTERCHANGEABLE CODE SCREENING | NON-NPA | | ORIG | LS0 | SW- | SEPARATION OF NPA AND ~~NON-NPA~~ CODES BY "OR" AND "FAC" MARKS | NOTES 451, 472 |
| | | | | INC | LS6 | | | |
| | | NAP CODE | | ORIG | LS1 | | | |
| | | | | IND | LS7 | | | |

400. (CONT)

| PART | CONDITION | | | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|---|
| 38 (CONT) | INTERCHANGEAGLE CODE SCREENING | NON-NPA CODE | | ORIG | LS0 | SW- | SEPARATION OF NPA AND NON-NPA CODES BY "OR" OR "FAC" MARKS | NOTES 451,472 |
| | | | | INC | LS6 | | | |
| | | NPA CODE | | ORIG | LS1 | | | |
| | | | | INC | LS7 | | | |
| | | NON-NPA CODE | | | LS | | SEPARATION OF NPA AND NON-NPA CODES BY ACCESS CODE "I" | NOTES 421,472 |
| | | NPA CODE | | | ELS | | | |
| | | INC | | | LS8 | TCS | | |
| | SPECIAL SERVICE SCREENING | | | | CDG0-9 | SW- | | NOTES 425, 442, 472 |
| | | | | | | ROA | | |
| | | | | | | SC- | | |
| | | | | | | RC- | | |
| | USC- TERM. FOR GROUPS OF 4(S-) RELAYS | | | | USC- | USC0-11 | USC- TERM. OF OTHER S- GROUPS USING COMMON SC- POINTS | NOTES 405,472 |
| | | | | | | SC- | SC- CROSS CONN GROUP IN CROSS CONN FIELD | |
| 39 ALLOTTED HUNTING GROUPS | IDENTIFICATION OF ALLOTTED HUNTING GROUPS (SEE PART 70 FOR ALLOTTED LLP HUNTING GROUPS) | DIRECTORY NO. DIGITS | THOUSANDS | | THT0-9 | AT0-9 | ALLOTTED HUNTING GROUPS 0-9 (MAXIMUM TEN) | NOTES 411,472 |
| | | | HUNDREDS | | HBT0-9 | AHB0-9 | | |
| | | | TENS | | TBT0-9 | ATB0-9 | | |
| | | NO. SERIES HAVING NO ALLOTTED NUMBERS | | | ALS0-5 | NAN | NON-ALLOTTED NUMER SERIES | NOTES 412, 472 |
| | ASSOCIATION OF HUNTING GROUP WITH NUMBER GROUPS | | | | AN0-4 | NGA- | NUMBER GROUP ASSOCIATED WITH THE DIRECTORY NUMBER | |
| | | | | | | NGB-H | ALL OTHER NUMBER GROUPS ASSOCIATED WITH HUNTING GROUP | |
| | | MAXIMUM NUMBER OF NUMBER GROUPS ASSOCIATED WITH HUNTING GROUP | 2 | | | NGC- | | |
| | | | 2 OR 3 | | | NGD- | | |
| | | | 5 | | | NGF- | | |
| | | | 5 OR 6 | | | NGG- | | |
| | | | 5,6,OR 7 | | | NGH- | | |
| | | | 5 OR MORE | YES | | 8NG | MORE THAN FOUR NUMBER GROUPS | NOTES 411,472 |
| | | | | NO | | 4NG | LESS THAN FIVE NUMBER GROUPS | |
| | NUMBER GROUP SELECTION PREFERENCE | | | | A1-H1 | A2-H2 | CROSS CONN A1 TO A2, B1 TO B2, ETC. EXCEPT AS SHOWN BELOW: | NOTES 413, 472 |

| COMPLETING MARKER NUMBER | CROSS CONN NS1 TO | CROSS CONN NS2 TO | CROSS CONN AB1 TO | CROSS CONN AB2 TO |
|---|---|---|---|---|
| 0 | A1 | B1 | A2 | B2 |
| 1 | B1 | A1 | B2 | A2 |
| 2 | C1 | D1 | C2 | D2 |
| 3 | D1 | C1 | D2 | C2 |
| 4 | E1 | F1 | E2 | F2 |
| 5 | F1 | E1 | F2 | E2 |
| 6 | G1 | H1 | G2 | H2 |
| 7 | H1 | G1 | H2 | G2 |
| 8 | A1 | B1 | A2 | B2 |
| 9 | C1 | D1 | C2 | D2 |
| 10 | E1 | F1 | E2 | F2 |
| 11 | G1 | H1 | G2 | H2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | NUMBER GROUP START FOR ALLOTTED HUNTING GROUP | CTX LISTED DIRECTORY NUMBER GENERATED BY MKR | | | THA-THH | ST00-39 | NUMBER GROUP A-H START | NOTES 414, 472 |
| | | LINE LINK PULSING HUNTING GROUP | | YES | THA-THH | ST00-39 | NO NUMBER GROUP IS ASSOCIATED WITH NUMBER SERIES IN WHICH STATION | |
| | | | | | | T.10-9 | YES NUMBERS ARE ASSIGNED | |
| | | | | NO | THB-THH | TH0-9 | NUMBER GROUP B-H START | |
| | NUMBER OF FIRST LINE IN NUMBER GROUPS B-H | | | | HBB-HBH | HB0-9 | HUNDREDS DIGIT | |
| | | | | | TNB-TNH | TB0-9 | TENS DIGIT | |

| DRAWING ISSUE | |
|---|---|
| 32A | KEC 4PL AWE |
| 330 | KEC 4PL AM |
| 350 | GM 2PL AWE |
| 57B | AWE |
| 410 | |
| 450 | |

ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D35A

BELL TELEPHONE LABORATORIES INCORPORATED

FORM 65S

PRINTED IN U.S.A.

HIGGINS 4465

## CROSS CONNECTION INFORMATION (CONT)

| PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|
| 40 | SPECIAL SUB LINE SCREENING | GRD FOR SC- | SCG | SC- | SPECIAL SUB LINE SCREENING | NOTES 213, 407, 472 |
| | | DIALED PBX LINES | S- | HTR | MIN OPEN-LINE INTERVAL ON CALL BACK | |
| | | | | AIOX | AUTOMATIC IDENTIFIED OUTWARD DIALING (AIOD) | |
| | | MANUAL LINES | | MTR | CANCEL AUTOMATIC MONITOR SIGNAL TO MASTER TEST FR ON MANUAL CALLS | |
| | | COIN LINES | | CNS | COIN SIGNAL TO MASTER TEST FR | |
| | | ALL OTHER CLASS LINES | | AOS | ALL OTHER CLASSES | |
| | INCOMING TRUNK SOURCE OR CLASS INDICATION FOR TANDEM AMA | GRD FOR SC- | SCO | SC-(A) SC-(B) | CONNECT (A) AND (B) TO GENERATE INCOMING SOURCE OR CLASS INDICATION 0 TO 9 ON 2 OF 5 BASIS FOR AMA IDENTIFICATION NUMBER | NOTES 213, 472 |
| | | INCOMING CLASS | S-(A) S-(B) | IS-(0, 1,2,4,7) | | |
| | | | | HMT3 | CONES PROVIDED FOR ALL IOLV LLF & TLF SWITCHES | |
| 41 | HOLD MAGNET TIMING | | HMT1 | HMT2 | CONES OMITTED FOR ANY IOLV LLF & TLF SWITCHES OR I2LV SWITCHES PROVIDED | |
| 42 | WHEN AUTOMATIC PROGRESSION TRUNK TEST CKT OR REMOTE OFFICE TEST LINE CKT OR REMOTE OFFICE TEST LINE REGISTER CKT OR MINI-ROTL INTERFACE CKT | | NDT1 | NDT2 | IS FURNISHED | |
| | | | NDT1 | NDT3 | IS NOT FURNISHED | |
| | | | TT1 | TT2 | | |
| 43 | AUTOMATIC MONITOR REGISTER AND SENDER TEST CKT PROVIDED | | MON1 | MON2 | NOT PROVIDED | |
| | | | | MON3 | PROVIDED | INCOMING REGISTER TEST CKT |
| 44 | CALL WAITING NUMBER GROUP SELECTION | | CWSO,1 | ST00-39 | NO GROUP START LEAD | NOTE 472 |

| PART | CONDITION | | | CONNECT TERM. | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|
| 45 | NO. SERIES START LEADS | OFFICE "A" PHYSICAL NO. | | STO-9 PER NGSO-5 | NSS0-5 | NO. SERIES START RELAY FOR 10,000 CONSECUTIVE NUMBERS ASSOCIATED WITH 1,2, OR 3 OFFICE SUB DIVISIONS | NOTES 406, 473 |
| | | OFFICE "A" THEORETICAL NO. | | | | | |
| | | OFFICE "A" EXTRA THEORETICAL NO. | | | | | |
| | | OFFICE B PHYSICAL NO. | | | | | |
| | | OFFICE B THEORETICAL NO. | | | | | |
| | | OFFICE B EXTRA THEORETICAL NO. | | | | | |
| | | OFFICE "A" ALL NUMBERS | | | NSS0-5 | ALL OFFICE "A" SUB DIVISIONS SERVED BY 1 (NSS-) RELAY | NOTES 406, 472 |
| | | OFFICE B ALL NUMBERS | | | | ALL OFFICE B SUB DIVISIONS SERVED BY 1 (NSS-) RELAY | |
| | | | | | ST00-39 | NO. GROUP START LEADS | NOTES 213, 401, 403, 407, 408, 451, 472 |
| | | | | | AS | WHEN A THOUSANDS SERIES OF NO. IS ASSIGNED TO A PARTIALLY FILLED NO. GROUP WITHIN THE SAME "A" OR B NO. GROUP DIVISION. (CANNOT BE USED FOR INTERCEPT NUMBERS) | |
| | | | | | OSTO-9 PER DAPCO-2 | DIRECT ACCESS PRE-TRANSLATOR START LEADS NOTE 473 | |
| | | | | | DNGO | DUAL NO. GROUP START LEADS | |
| | | | | | DNGO-9 | SCREENING REQUIRED FOR ONE NO. SERIES THOUSANDS DIGIT | |
| | | | | | NGS | | |
| | | | | | BNTH | BLANK NO. TREATMENT, BLANK THOUSANDS | |
| | | FOR ADDED THOUSAND SERIES OF PARTIALLY FILLED NO. GROUP | | ASTO-5 | ST00-39 | TO PARTIALLY FILLED NUMBER GROUP | |
| | | SCREENING OF ONE NO. SERIES THOUSANDS DIGIT | | NGS | SC- | CLASS SCREENING | |
| | | | | SO-11 | NGO-9 | INTERCONNECT TO NO. GROUP START | |
| | | | | NGO-9 | OSTO-9 PER DAPCO-2 | DIRECT ACCESS PER-TRANSLATOR START LEADS | |
| | | | | | ST00-39 | NO. GROUP START LEADS | |
| | | | | | BNTH | BLANK NO. THOUSANDS | |
| | | DUAL NO. GROUP START LEADS | | DNGA0-9 | ST00-39 | "A" NO. GROUP OF PAIR | |
| | | | | DNGA | | | |
| | | | | DNGB0-9 | | B NO. GROUP OF PAIR | |
| | | | | DNGB | | | |
| | | | | DNGC | | 2 WIRE NETWORK NUMBERS (MD) | |
| 46 | LOCAL COMPLETION ROUTES | | COOF POINTS OR S- | RP- | | WHEN CCSA OR POTS MARK IS REQUIRED FOR 101 | NOTES 213, 403, 407, 410, 448, 472 |
| | | | | LEA | | OFFICE "A" EXTRA THEORETICAL | |
| | | | | LEB | | OFFICE B EXTRA THEORETICAL | |
| | | | | LPA | | OFFICE "A" PHYSICAL | |
| | | | | LPB | | OFFICE B PHYSICAL | |
| | | | | LTA | | OFFICE "A" THEORETICAL | |
| | | | | LTB | | OFFICE B THEORETICAL | |
| | | PRE-ROUTE RELAY IS USED TO PROVIDE POTS OR CCSA MARK TO 101 | PR- | | | | |
| | | OFFICE "A" EXTRA THEORETICAL | FL2 | RC- | ROUTE | ASSOCIATED WITH 4 OR 5 DIGIT CENTREX INTRAOFFICE ROUTES | NOTES 403, 407, 472 |
| | | "A" PHYSICAL | FL0 | RCL- | ALLOTTER ROUTE | | |
| | | "A" THEORETICAL | FL1 | SC- | ROUTE SCREENING | | |
| | | B EXTRA THEORETICAL | FL5 | | | | |
| | | B PHYSICAL | FL3 | | | | |
| | | B THEORETICAL | FL4 | | | | |
| | | OFFICE "A" EXTRA THEORETICAL | AER | RC- | ROUTE | ASSOCIATED WITH 7 DIGIT INTRAOFFICE ROUTE | |
| | | "A" PHYSICAL | APR | RCL- | ALLOTTER ROUTE | | |
| | | "A" THEORETICAL | ATR | SC- | ROUTE SCREENING | | |
| | | B EXTRA THEORETICAL | BER | | | | |
| | | B PHYSICAL | BPR | | | | |
| | | B THEORETICAL | BTR | | | | |

* IN LAMA-C OR ETS OFFICES WHERE THE MARKERS ARE EQUIPPED WITH APP FIG 107, THE S- TERMINALS FOR AIOD LINES SHOULD BE DISCONNECTED FROM THE AID TERMINAL AND CONNECTED TO THE HTR TERMINAL.

DRAWING ISSUE: 324A, 330, 370, 390, 430, 69B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

SD-26002-01-D35B

HIGGINS 4465

400. (CONT)

| PART | CONDITION | | CONNECT TERM | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|
| 47 | RINGER TEST ROUTES | | CODE POINTS | REA | OFFICE "A" EXTRA THEORETICAL | NOTES 407,410, 472 |
| | | | | REB | OFFICE "B" EXTRA THEORETICAL | |
| | | | | RPA | OFFICE "A" PHYSICAL | |
| | | | | RPB | OFFICE "B" PHYSICAL | |
| | | | | RTA | OFFICE "A" THEORETICAL | |
| | | | | RTB | OFFICE "B" THEORETICAL | |
| | | | RGT | RB | TEN CENT COIN OR NO COIN SERVICE | NOTES 404 410,472 |
| | | | | SC- | FIVE CENT COIN | |
| | | | RGTA | RC- | COMMON TRUNKS | NOTES 407, 410,472 |
| | | | | SC- | 2 TRK GROUPS COIN & NON COIN | |
| 48 | TRUNK OBSERVING ON HOME AREA CALLS AS DETERMINED BY AMA MESSAGE UNITS (1-9) | | SVD 1-9 SVDT | SVDO | WHEN TRUNK SERVICE OBSERVING IS REQUIRED | * NOTE 472 |
| 49 | WHEN II IS USED FOR A FOREIGN AREA DIRECTING CODE | | FAD | FD | WHEN TRUNK SERVICE OBSERVING IS REQUIRED | |
| 50 | LINE IR-REGULARITY | STRUCK COIN | SCN | RC-SC | ROUT OR SCREENING POINT | NOTES 407, 408, 463, 472 |
| | | PERMANENT SIGNAL 4W | | | | |
| | | PERMANENT SIGNAL 2W | PS | PST | PERMANENT SIGNAL TEST ROUTING | |
| | | | | RC- | | |
| | | PARTIAL DIAL ORIG CLASS 2W | PD | SC-VP | VACANT CODE PARTIAL DIAL TREATMENT | |
| | | PARTIAL DIAL ORIG CLASS 4W | 4PD | | | |
| | | PARTIAL DIAL FOREIGN AREA | PDF | | VACANT CODE PARTIAL DIAL TREATMENT | |
| 51 | I TOLL & I TDM CLASS (STD) | | TAC1 | TAC2 | TDM CLASS | |
| | | | TOCO | TOC1 | TOLL CLASS | |
| | | | TOC1 | TOC2 | | |
| | U TYPE MKR IN MKR GR ARRANGED FOR MORE THAN 1 TAN CLASS | | TOCO | TOC2 | TOLL TO MTFC | |
| | | | TC1 | TC2 | LOCAL OPERATION OF TCA | |
| | MORE THAN 1 TDM OR TOLL CLASS FROM IRMC (STD) | | TOC1 | TOC2 | TOLL TO MTFC | |
| | WHEN TOLL OR MORE THAN ONE TANDEM CLASS OR CAMA IS NOT PROVIDED AND CENTREX PHASE I OR III IS PROVIDED | | TOCO | ATT | ATTENDANT CLASS CENTREX SERVICE | |
| | INCOMING CLASSES | | TCA-TCB- | CMFO | CAMA FIRST (TAN SUPERVISION) | |
| | | | | CMF1 | CAMA FIRST (TOL SUPERVISION) | |
| | | | | CSMO | CAMA SECOND (TAN SUPERVISION) | |
| | | | | CSM1 | CAMA SECOND (TOLL SUPERVISION) | |
| | | | | TPC | PULSE CONVERSION-REVERTIVE | |
| | | | | TPCO | PULSE CONVERSION-DIAL (SENDER GR 0) | |
| | | | | TPC1 | PULSE CONVERSION-DIAL (SENDER GR 1) | |
| | | | | TAC2 | TANDEM CLASSES | |
| | | | | TOC1 | TOLL CLASSES | |
| | | | | INI | INCOMING INTERCOM CLASS | |
| 52 | CLOSURE OF FCK LEAD | | FCK2 | FCK1 | 20 OR LESS TRK LK FR | NOTE 472 |
| | | | FCK2 | FCK3 | 21 TO 30 TRK LK FR | |
| 53 | WHEN A TOLL CLASS OF CALL REQUIRES "OR" TRANSLATION IN FOREIGN AREA TRANSLATOR CKT | | TOF | SC- | PROVIDES S- SCREENING | NOTE 472 |
| | | | S- | TOL | TOLL TRANSLATION IN FOREIGN AREA TRANSLATOR | |
| | | | S- | ORO | "OR" TRANSLATION IN FOREIGN AREA TRANSLATOR | |
| | WHEN ALL TOLL CLASSES REQUIRED TOLL TRANSLATION IN FOREIGN AREA TRANSLATOR CKT | | TOF | TOL | TOLL TRANSLATION IN FOREIGN AREA TRANSLATOR | |
| | CODE POINT REQUIRING FOREIGN AREA TRANSLATOR | | CP | FAT (1-3) A,L & E | START LEADS TO SEIZE FOREIGN AREA TRANSLATOR | NOTES 407,408, 409,472 |
| | CODE POINT OBTAINED FROM FOREIGN AREA TRANSLATION | | FAROO-199 | RC- | R-RELAY FOR FOREIGN AREA ROUTE | |
| | | | | CV- | SELECTION OF PREROUTE RELAY FOR CODE CONVERSION | |
| 54 | WHEN ROUTE ASSOCIATED WITH A CO POINT IS TO BE TRANSFERRED | | CP | RTO-39 | CODE POINTS ASSOCIATED WITH ROUTE TRANSFER | NOTES 407,472 |
| | | | RTAO-39 | RC-,SC- | NORMAL ROUTING A | |
| | | | RTBO-39 | OS-,ETC | TRANSFERRED ROUTING | |
| | WHEN TRANSFERRED ROUTE REQUIRES PEG COUNTS (RT 20-39 ONLY) | | RTP 20-39 | PRI 20-39 | TRAFFIC REGISTER ASSOCIATED WITH TRANSFERRED ROUTE | NOTE 472 |
| 55 | OPERATOR ROUTE WITH IDENTIFING SIGNAL | | CP | OSO-3 | OPERATE C3 - RELAY ASSOCIATED WITH OPR ROUTE | |
| | | | CPO-3 | RC-,SC-,ETC | OPERATE R- RELAY FOR SELECTING OPR TRK | |
| 56 | VACANT CODE SCREENING | VACANT CODES | CP | VCG | VACANT CODE GROUPING | NOTES 407, 408, 409, 415, 472 |
| | | INC CLASS | INV | VCI | VACANT CODE INTERCEPT | |
| | | | | ROA | REORDER IN TRUNK (A&M ONLY) | |
| | | DIAL TRANSFER CLASS | DTV | VOI | VACANT CODE INTERCEPT | |
| | | TDM CLASS | TAV | RC- ROA | INTERCEPT ROUTE OR TRUNK REORDER (A&M ONLY) | |
| | | TOLL CLASS | TOV | | | |
| | | CMF CLASS | CFV | | | |
| | | CMS CLASS | CSV | | | |
| | | | VTC | | | |
| | | OR CLASS | VC | VP | VACANT CODE PARTIAL DIAL | |
| | | FAC CLASS | FOVC | RC-,SC- | OPERATOR OR TONE TRUNK | |
| | | ATTENDANT CLASS (CENTREX PHASE I,II) (A&M ONLY) | ATV | ROA | REORDER IN TRUNK | |
| | | | | VCI | VACANT CODE INTERCEPT | |
| 57 | GROUPING TERMINALS | CODE POINT | CP | CGOO-59 | CODE GROUPING POINTS | NOTES 213, 407, 449, 472 |
| | | ROUTE RELAY R-POINT | R- | RGOO-59 | ROUTE RELAY R- GROUPING POINTS | |
| | | ROUTE ADVANCE | RA- | RAG--- | ROUTE ADVANCE GROUPING POINTS | |
| | | ROUTE RELAY RC-POINT | R-- | CVRG OO-23 | CODE CONVERSION ROUTE GROUPING POINTS | |
| | | VACANT CODES | C | VCG | VACANT CODE GROUPING | |
| | | GROUPING POINTS | G- | AS REQD | GENERAL TIE-POINT USE | |
| | | ROUTE RELAY RC-POINTS | RC- | RCG- | ROUTE RELAY RC- GROUPING POINTS | |
| | | DIVERTED ROUTE POINT | DR- | DRG- | DIVERTED ROUTE GROUPING POINT | |
| | | SCREENING RELAY S-POINT | S- | SGOO-139 | SCREENING RELAY S-GROUPING POINT | |
| | | | | SEGO-49 | SCREENING RELAY S-POINT EXTENSION | |

400. (CONT)

| PART | CONDITION | | | CONNECT TERM | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|
| 58 | AMA RECORDERS | | | NTR1 | NTR2 | FOR OFFICES WITH SENDERS OTHER THAN CAMA TYPE ARRANGED FOR TEN OR LESS AMA RECORDERS FIG 71 EQUIPPED | NOTE 415 |
| | OFFICE ARRANGED FOR CAMA | CAMA SENDER SELECTION | | DKO- | OS-, VIA SGC- | WHERE SEVERAL CAMA SENDER GROUPS SERVE INCOMING CAMA CALLS | NOTES 415,472 |
| | | | | SGCO-3 | CMSOO-29 | | |
| | | | | OSCO-11 | SGCO-3 | | |
| | | | | OSCO-11 | OS- | WHERE SINGLE CAMA SENDER GROUP SERVES INCOMING CAMA CALLS | |
| | | TREATMENT OF LOCAL OFFICE CODES | | LCB | LCC | FOR LOCAL OFFICE CODES REQUIRING NO CAMA TREATMENT | NOTES 213, 415, 472 |
| | | | | | S- | ALL LOCAL OFFICE CODES REQUIRING SAME CAMA TREATMENT | |
| | | | | SC- | LCC | | |
| | | | | LCB | S | FOR NON-CAMA CLASSES | |
| | | SELECTION OF CAMA SENDER ROUTE | | CTAR | SC- | TAN CAMA ROUTE SCREENING | |
| | | | | CTOR | SC- | TOL CAMA ROUTE SCREENING | |
| | | | | CMRO,1 | S- | ROUTE TO CAMA | |
| | | | | RR- | RC1O-3 | FOR TRUNK & SENDER ALLOTTER - JUNCTOR CALLS | |
| | | | | | SC- | CAMA ROUTE SCREENING | |
| | | | | CMF | R- | CAMA FUNCTION ROUTE SERIES | |
| | | | | CMJ | R- | CAMA JUNCTOR ROUTE SERIES | |
| | | ORIGINATING RATE CLASS | | ORC | ORCO | SUBS. ORIGINATING RATE CLASS "0" | NOTES 213,415 |
| | | | | | ORC1 | SUBS. ORIGINATING RATE CLASS "1" | |
| | | | | | ORC2 | SUBS. ORIGINATING RATE CLASS "2" | |
| | | CAMA COMPLETING USAGE TRANSLATOR AND ROUTE SELECTION | | LCDO | HAT | ABX HOME AREA CODES NOT TRANSLATED IN FOREIGN AREA TRANSLATOR | NOTES 203, 415, 472 |
| | | | | | FAT (1-3)L | HOME AREA CODES TRANSLATED IN FOREIGN AREA TRANSLATOR | |
| | | | | | RC- | SINGLE ROUTE SERVES HOME AREA | |
| | | | | LCD1 | FAT (1-3)L | AREA 1 CAMA CODES TRANSLATED IN FOREIGN AREA TRANSLATOR | |
| | | | | | RC | SINGLE ROUTE SERVES AREA 1 | |
| | | | | LCD2 | FAT (1-3)L | AREA 2 CAMA CODES TRANSLATED IN FOREIGN AREA TRANSLATOR | |
| | | | | | RC- | SINGLE ROUTE SERVES AREA 2 | |
| | | TREATMENT OF DENIED CODES AND FREE CODES | | DNC | RC- ROA | INTERCEPT ROUTE OR TRUNK REORDER | |
| | | | | FRC | | | |
| | DIVERTED ROUTE OPERATION (MAXIMUM 20 DIVERTED ROUTES) | | | S- | DR-, DRG- | DIVERTED ROUTE SCREENING | NOTES 213,404, 472 |
| | | | | RR- | RC- | DIVERTED ROUTED RELAY | NOTES 407,472 |
| 59 | WHEN ANI AND TRUNK CLASS INFO OR MORE THAN ONE TRUNK CLASS IS REQD ON SAME CALL FOR SERVICES SUCH AS: 1. COIN ZONE DIALING 2. WATS 3. COMMON TRK GROUPS TO TSPS 4. HOTEL/MOTEL-MULTI MSG UNIT OPERATION 5. AUTO CONF CKT PROV FOR 4W SW | | | ZRS- | BSAI-4 | ROUTE SERIES TO BE DROPPED ON ROUTE ADVANCE | NOTES 416, 455, 468, 470, 472 |
| | | | | | NC | GRD CN LEAD TO TRUNK | |
| | | | | | NN | NO GRD ON CN OR TC LEAD | |
| | | | | | TC | GRD TC AND CN LEAD TO TRUNK | |
| | | | | | TN | GRD TC LEAD TO TRUNK | |
| | | | | ZRT- | CZ | NO TP SIGNAL TO TRUNK | |
| | | | | | CZT | TP SIGNAL TO TRUNK | |
| 60 | GROUND SUPPLY ASSIGNMENTS FOR TRUNK AND SENDER ALLOTTER GROUPS | ALLOTER GROUP NUMBER | AL-TERM NUMBER | AL-TERM NUMBER | GROUND SUPPLY NUMBER | IN MARKER GROUPS WITH FS & WS MARKERS, ALLOTTER GROUPS ARE RESTRICTED TO GROUND SUPPLY 4 | NOTE 472 |
| | | 0 | 15 | 25 | 1 | | |
| | | | 11 | 21 | | | |
| | | 1 | 16 | 26 | 2 | | |
| | | | 12 | 22 | | | |
| | | 2 | 17 | 27 | 3 | | |
| | | | 13 | 23 | | | |
| | | 3 | 18 | 28 | 4 | | |
| | | | 14 | 24 | | | |

* THESE CROSS CONNECTIONS ARE NOT REQUIRED IN LAMA-C OFFICES.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 63B |
| BELL LABORATORIES | SD-26002-01- | | D36 |

# CROSS CONNECTION INFORMATION (CONT)

400. (CONT)

| PART | CONDITION | CONNECT TERM. | TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|
| 61 | 4 WIRE CONTROL DIGIT SCREENING | | SWC 00-99 | CLASS OF SERVICE FOR SUB. GROUP | NOTE 472 |
| | | CSW 00-39 | INS,TAS, TOS,I4W, TSAO-9, TSBO-9 | INC TRUNK CLASS | |
| | | MF1, MF2 | SWC 00-99 | VARIABLE CONTROL DIGIT SCREENING FOR DP AND MF SUB LINES | |
| | | DPA,MFA DPB,MFB | CSW 00-39 | | |
| | | CDP 00-16, | SR 00-21 | CONTROL DIGIT SCREENING | NOTES 425,472 |
| | | CDO-9, 16 | CDG C-9 | CONTROL DIGIT GROUPING | NOTES 442, 472 |
| | | CDGO-9 | VP | VACANT AND RESTRICTED 4W NETWORK CODE | |
| 62 | 4 WIRE PRIVILEGE GROUP SCREENING | SRA 00-39 SRB 00-39 SRC 00-39 SRD 00-39 SRE 00-39 SRF 00-39 SRG 00-39 | PRE 0-4 | MULTI-LEVEL PREEMPTION AND PRECEDENCE SCREENING | NOTES 425, 472 |
| | | SRH 00-39 SRJ 00-39 SRK 00-39 SRL 00-39 SRM 00-39 SRN 00-39 SRP 00-39 SRQ 00-39 SRR 00-39 SRS 00-39 SRT 00-39 SRU 00-39 SRV 00-39 SRW 00-39 SRX 00-39 NSS | PG 00-14 | NETWORK PRIVILEGE GROUP SCREENING | |
| | | | CDG 0-9 | CONTROL DIGIT GROUPING | NOTES 442, 472 |

400. (CONT)

| PART | CONDITION | | | CONNECT TERM. | TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|
| 62 (CONT) | 4 WIRE PRIVILEGE GROUP SCREENING | | | PGA 00-14 PGB 00-14 PGC 00-14 PGD 00-14 | SW 00-59 | ~~SCREENING AND/OR GRADING~~ FOR POLITE CYCLE | NOTES 425, 472 |
| | | | | PGE 00-14 | GW 0-7 | SCREENING AND/OR GRADING FOR PREEMPT CYCLE | |
| | | | | PGF 00-14 | VG | VOICE GRADE | |
| | | | | | SG | SPECIAL GRADE | |
| | | | | PGG 00-14 | IPR | IMMEDIATE PREEMPT CYCLE | |
| | | | | PGJ 00-14 | CDA OP-4P CDA OS-4S | NETWORK CONTROL DIGIT TO BE OUTPULSED | |
| | | | | PGK 00-14 PGL 00-14 PGM 00-14 PGR 2,3,4 | SW 00-59 GW 0-7 CDG 0-9 G-CDG 0-9 CKG3 | SCREENING AND/OR GRADING | |
| | | | | PRAO-4 | SW- | PRECEDENCE SCREENING | |
| | | | | PRB 0-4 | CDB OP-4P CDB OS-4S | PRIORITY CONTROL DIGIT TO BE OUTPULSED | |
| | | | | PRCO-4 PREC | | PRIORITY LEVEL SCREENING POINT | NOTES 442, 472 |
| | | | | CDC 00-39 CDD 00-39 | SW 00-59 GW 0-7 | SCREENING RELAYS FOR CLASS OF SERV INDICATIONS | NOTES 425, 472 |
| | | | | S00-1T G00-2S | CC | APPLY PREEMPTION | NOTE 472 |
| 63 | 4 WIRE MULTILEVEL PREEMPTION | TRUNK PREEMPTABLE | YES | CP- | STCOOO -139 | TRUNK STATUS CUT IN | |
| | | | | | 2LV | TRUNK PROVIDED WITH TWO-LEVEL PREEMPTION | |
| | | | NO | CP- | NPM | STORE PRECEDENCE OF CALL IN LINE CKT | |
| | | | | | NPC | STORE ZERO PRECEDENCE IN LINE CKT | |
| | | LINE PREEMPTABLE | YES | RNA- | LPT5 | PREEMPTABLE LINE-HUNTING | NOTES 440, 472 |
| | | | | | LPT4 | PREEMPTABLE LINE-NON HUNTING | |
| | | | NO RING FROM LINE | | LPT3 | NON PREEMPTABLE LINE HUNTING | |
| | | | NO RING FROM TRUNK | | LPT2 | NON PREEMPTABLE LINE NON HUNTING | |
| | | | | | LPT1 | NON PREEMPTABLE LINE HUNTING | |
| | | | | | LPTO | NON PREEMPTABLE LINE NON HUNTING | |
| | | OFF HOOK SERVICE | NO | RNB- | POTS | NO OFF HOOK SERVICE | |
| | | | YES | RNB- | PGRI | PRIVILEGE GROUP SCREENING | |
| | | | | PGHOO -14 | OHS | COMPLETE CALL TO OFF HOOK STATION | |
| | | | | | RI,BN | DENY COMPLETION OF CALL TO OFF HOOK STATION | |
| | | NUMBER GROUP ASSIGNMENTS FOR PREEMPT LINE BUSY INTERCEPT | | PLB-ST | ST00-39 | THOUSANDS DIGIT | NOTE 472 |
| | | | | PLB-HB | HBO-9 | HUNDREDS DIGIT | |
| | | | | PLB-TB | TBO-9 | TENS DIGIT | |
| | | | | PLB-U | UO-9 | UNITS DIGIT | |
| | | LISTED DIRECTORY NO. CALLS | | RNB- | DN | LISTED DIRECTORY NO. | NOTES 440,472 |
| | | | | DNI | RI,BN | DENY COMPLETION OF CALL TO LISTED DIRECTORY NO. | |
| | | TEST LINES | | RNA- | LPTI | RINGING COMBINATION AND TREATMENT CONTROLLED BY MASTER TEST CONTROL CKT | NOTE 472 |
| | | | | RNB- | TST | | |
| | | PRIORITY LEVEL TO SDR | | CR- | PLD | STORE PRIORITY LEVEL IN D P SENDER | |
| | | 4W LINE INTERCEPT | | RNA- | LPT3 | NON PREEMPTABLE LINE HUNTING | NOTES 440,472 |
| | | | | RNB- | ICPT | TERM. TREATMENT FOR 4W INTERCEPT | |
| | | TYPE OF LINE CKT | | G- | SR- | GRD SUPPLY FOR SR- TERMINAL | NOTES 425,472 |
| | | | | SR- | PLC | LINE IS A 4W PREEMPT AUX LINE CKT | |

DRAWING ISSUE

| | |
|---|---|
| 29A | RL CO AP |
| 30D | RLE CO AP |
| 32A | RAC SD AP |
| 35D | V/F D AP |
| 41D | |

ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D37A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILO

SD-26002-01-D37A

# CROSS CONNECTION INFORMATION (CONT)

| 400. (CONT) PART | CONDITION | | | CONNECT TERM | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|
| 64 | TRUNK SERVICE OBSERVING | | | SVDO, FAD | SVD1-9 | TRUNK OBSERVING BY AMA MESSAGE UNITS | * NOTE 472 |
| | | | | | SVDT | TRUNK OBSERVING WHEN 4-WIRE PRIVATE NETWORK SPILLS OVER INTO BELL SYSTEM NETWORK | |
| | | | | | OB | TRUNK OBSERVING ON OPERATOR BILLED CALLS | |
| | | | | | FAC | TRUNK OBSERVING ON FOREIGN AREA CALLS | NOTE 472 |
| | | | | | FD | TRUNK OBSERVING WHEN 11 IS USED FOR A FOREIGN AREA DIRECTING CODE | |
| | | | | CAM | CAMA | TRUNK OBSERVING ON CAMA CALLS | |
| 65 | CLASS OF SERVICE MATCH | MULTIPLE CLASS MATCH FEATURE | NO | CTUK | SC- | RATE TREATMENT SCREENING (CROSS CONN FOR PHASE I OR II CNTX ONLY) | NOTES 213, 431, 472 |
| | | | | S- | CK | MATCH REQUIRED | |
| | | | | | CKGD | MATCH NOT REQUIRED | |
| | | | YES | OT- | CM | ALL ASSOCIATED UNITS DIGITS MATCH | |
| | | | | | MM | ALL ASSOCIATED UNITS DIGITS MIS-MATCH | |
| | | | | | MPO | MATCH CORRESPONDING UNITS DIGITS ONLY | |
| | | | | | MPI,2 | UNITS DIGIT MATCH DETERMINED BY PATTERN RELAY CROSS CONNECTIONS | |
| | | | UNITS MATCH PATTERN | OU- | TUO-7 | TQ FIRST UNITS DIGIT TC BE MATCHED | |
| | | | | | MM | UNITS DIGIT TO MIS-MATCH | |
| | | | | MMU- | TUO-9 | TO NEXT UNITS DIGIT TO BE MATCHED | |
| | | | | | MM | LAST MIS-MATCH UNITS DIGIT TO MIS-MATCH | |
| | | | MATCHING OF INCOMING TRK CLASS TO SUBSCRIBER CLASS OF SERVICE | TTAO-9 TTBO-9 | MTO-9 | TO ASSOCIATE TRK CLASS WITH ORIGINATING SUBSCRIBER CLASS TENS DIGIT | |
| | | | | TUAO-9 TUBO-9 | MUO-9 | TO ASSOCIATE TRK CLASS WITH ORIGINATING SUBSCRIBER CLASS UNITS DIGIT | |
| | | | | | NTMR | TO CANCEL MATCH FOR ALL OTHER TRK CLASSES | |
| | | | INTRA MARKER GROUP SERVICE PROVIDED (A&M ONLY-FOR PHASE I OR II CNTX) | CTUK | SC- | INTRA MARKER GROUP SCREENING | |
| | | | | S- | CK | RATE TREATMENT OR CLASS OF SERVICE ASSOCIATED WITH INTRA MARKER GROUP SERVICE | |
| 66 | PHASE I AND II CENTREX ATTENDANT TRUNK SELECTION FOR TRANSFER CALLS | | | TRA | SC- | TRANSFER TREATMENT | NOTES 404, 407, 432, 472 |
| | | | | LDA | SC- | LISTED DIR NO. TREATMENT FOR MULT LISTED DIR NO. | |
| | | | | R- | SC- | RATE TREATMENT SCREENING | |
| | | | | | TRB | ROUTE SERIES | |
| | | | | TRC | NC | ROUTE SERIES OPERATE | |
| 67 | PHASE I AND II CENTREX TRANSFER CALL NO. GROUP START | | | ST00-39 | TSTA | START NO. GROUP FOR TRANSFER TRUNKS ASSOCIATED WITH TRUNK LINK FR 0-9 | NOTE 472 |
| | | | | | TSTB | START NO. GROUP FOR TRANSFER TRUNKS ASSOCIATED WITH TRUNK LINK FR 10-19 | |
| | | | | | TSTC | START NO. GROUP FOR TRANSFER TRUNKS ASSOCIATED WITH TRUNK LINK FR 20-29 | |
| 68 | WHEN MARKER IS ARRANGED TO SERVE DIAL TONE CALLS FROM ORIGINATING LINE IDENTIFIER | | | RA- | DIS | ALL ORIGINATING REGISTERS BUSY OR CHANNELS BUSY ON DIAL TONE ROUTES | NOTE 472 |
| | | | | D | RC- | DIAL PULSE ORIGINATING REGISTER ROUTE | |
| | | | | MF | | MF ORIGINATING REGISTER ROUTE | |
| PART OF 69 | TENS BLOCK SCREENING / CENTREX | TO OBTAIN RING COMBINATIONS RCT2-5, RCT8,9, RCT12-15 FOR REGULAR SUBSCRIBER | | RNA- | RCT- | TO OBTAIN REQUIRED RINGING COMBINATION | NOTES 428, 475 |
| | | | | RNB- | POTS | NO SPECIAL TERMINATING TREATMENT | |
| | | TRUNK NO. INDICATION | | RNA- | TNK | TRUNK NO. CHECK | |
| | | | | RNB- | POTS | NO SPECIAL TERMINATING TREATMENT | |
| | | LINES REQUIRING (A&M ONLY) RANGE EXTENSION | | RNA- | RCT4 | INDIVIDUAL LINE | |
| | | | | | REH | TERMINAL HUNTING | |
| | | | | RNB- | | CROSS CONNECT AS REQUIRED FOR TERMINATING TREATMENT | |
| | | LISTED DIRECTORY NUMBER CALLS | PHASE II & III | RNA- | RCT10 | TERMINAL HUNTING | |
| | | | | RNB- | INR- | RESTRICTED INCOMING TREATMENT | |
| | | | | AR-, IRS- | PAN | PBX RECORDED ANNOUNCEMENT | |
| | | | | I- | LDN | LISTED DIRECTORY NO. (CONSOLE OR SWBD ONLY) | |
| | | | PHASE I | RNA- | RCT4 | CHARGE (LISTED DIR NO.) | |
| | | | | | RCT5 | FREE (LISTED DIR NO.) | |
| | | | | RNB- | POTS | TERMINATING TREATMENT GIVEN BY (RCT-) RELAYS | |
| | | TEMP DISC STATION ROUTED TO AN ATTENDANT | PHASE II | RNA- | RCT- | ANY NON-HUNTING RINGING COMBINATION | |
| | | | | RNB- | INR- | RESTRICTED INCOMING TREATMENT | |
| | | | | AR-, IRS- | PAN | PBX RECORDED ANNOUNCEMENT | |
| | | | | I- | LDN | LISTED DIRECTORY NO. (CONSOLE OR SWBD ONLY) | |
| | | | PHASE I | RNA- | RCT14 | ROUTE TO ATTENDANT | |
| | | | | RNB- | POTS | TERMINATING TREATMENT GIVEN BY (RCT-) RELAY | |
| | | | PHASE III | RNA- | | OMIT CROSS CONNECTION | |
| | | | | RNB- | INR- | ATTENDANT INTERCEPT TREATMENT | |
| | | | | AR-, IRS- | PAN | PBX RECORDER ANNOUNCEMENT | |
| | | | | I- | CTI | ROUTE TO ATTENDANT | |
| | | TO ALLOW COMPLETION OF CALLS TO LINES COMMON TO ALL CENTREX CUSTOMERS | | RNA- | RCT- | TO OBTAIN REQUIRED RING COMBINATION | |
| | | | | RNB- | KM | CANCEL CLASS MATCH | |
| | | | | | TST | TEST LINE-CANCEL MATCH | |

| 400. (CONT) PART | CONDITION | | | | CONNECT TERM | CONNECT TO TERM | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|---|---|
| PART OF 69 | TENS BLOCK SCREENING / CENTREX | INDIVIDUAL CUSTOMER GROUP INTERCEPT ANNOUNCEMENT (MAX 5 CUSTOMER GROUPS) | TERMINATING TREATMENT OF INTERCEPTED NO. | OPTION ZSW NOT PROV | RNA- | - | OMIT CROSS CONNECTION | NOTE 472 |
| | | | | | RNB- | CI | CUSTOMER GROUP IDENTIFIED BY VERTICAL FILE (STD) | |
| | | | | | | CIO-4 | CUSTOMER GROUP IDENTIFIED BY TERMINATING TREATMENT (A&M ONLY) | |
| | | | | OPTION ZSW PROV | RNA- | - | (F TO ERNO-4 CROSS CONN USED IN NUMBER GROUP TO IDENTIFY CUSTOMER GROUP) | |
| | | | | | RNB- | - | OMIT CROSS CONNECTION | |
| | | | NO GROUP ASSIGNMENTS FOR INTERCEPT TRUNKS | | CI(0-4)ST | STCO-39 | NO. GROUP ASSIGNMENT | |
| | | | | | CK(0-4)HB | HBO-9 | HUNDREDS DIGIT ASSIGNMENT | |
| | | | | | CI(0-4)TB | TBO-9 | TENS DIGIT ASSIGNMENT | |
| | | | | | CI(0-4)U | UO-9 | UNITS DIGIT ASSIGNMENT | |
| | | RESTRICTED INCOMING TREATMENT | | | RNA- | RCT- | TO OBTAIN REQUIRED RINGING COMBINATION | NOTES 213, 428, 475 |
| | | | | | RNB- | INR- | RESTRICTED INCOMING TREATMENT | |
| | | | START IN TRAFFIC FROM ATTENDANT | | AR- | POTS | ATTENDANT COMPLETION ON A START IN BASIS | |
| | | | | | | LLPI | LINE LINK PULSING START | |
| | | | | | | PAN | CNTX/NON LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | LAN | CNTX/LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | INTERCOM TRAFFIC (4 OR 5 DIGIT IAO) | | IRS- | SC- | ORIGINATING RATE TREATMENT SCREENING | |
| | | | | | | POTS | FOUR DIGIT TRAFFIC NON RESTRICTED | |
| | | | | | | LLPI | LINE LINK PULSING START | |
| | | | | | | PAN | CNTX/NON LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | LAN | CNTX/LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | MULTIPLE CLASS MATCH PROVIDED — NO | S- | PAN | CNTX/NON LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | LAN | CNTX/LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | MRI | CLASS OF SERVICE MATCH REQUIRED (PHASE I & II) | |
| | | | | | | POTS | ORIGINATING RATE TREATMENT SCREENING DETERMINES IF A CLASS OF SERVICE MATCH IS REQUIRED (PHASE I&II) | |
| | | | | | | | CLASS OF SERVICE MATCH REQUIRED (PHASE III) | |
| | | | | | | LLPI | LINE LINK PULSING START | |
| | | | | MULTIPLE CLASS MATCH PROVIDED — YES | S- | PAN | CNTX/NON LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | LAN | CNTX/LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | POTS | CLASS OF SERVICE MATCH REQUIRED | |
| | | | | | | MRI | CLASS OF SERVICE MATCH NOT REQUIRED (PHASE I & II) | |
| | | | | | | LLPI | LINE LINK PULSING START | |
| | | | TRAFFIC INCOMING TO CUSTOMER GROUP | | I- | PAN | CNTX/NON LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | LAN | CNTX/LLP STATIONS — ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | POTS | NO SPECIAL TERMINATING TREATMENT | |
| | | | | | | LLPI | LINE LINK PULSING START | |
| | | | | | | SC- | TRUNK CLASS SCREENING | |
| | | | | INCOMING TRK CLASS SCREENING | S- | PAN | ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | | | | POTS | ALLOWS COMPLETION | |
| | | | BUSY LINE AND DON'T ANSWER TRANSFER | | RNA- | RCT- | ANY DESIRED RINGING COMBINATION | |
| | | | | | RNB- | BLT | STATIONS WITH BUSY LINE TRANSFER | |
| | | | | | | DAT | STATIONS WITH DON'T ANSWER TRANSFER | |
| | | | | | | BLDA | STATIONS WITH BUSY LINE & DON'T ANSWER TRANSFER | |
| | | | LINE LINK PULSING | EXTENSION NO. TRANSLATION | RNA- | - | OMIT CROSS CONNECTION | |
| | | | | | RNB- | LLPI | LINE LINK PULSING START | |
| | | | | | | INR- | CENTREX, RESTRICTED INCOMING TREATMENT | |
| | | | | LLP LINE CKT USAGE | RNA- | RCT-- | TO OBTAIN DIRECTING LEVEL I, AND SILENT LEVEL | |
| | | | | | RNB- | OSC- | OUTSENDER GROUP SELECTION | |
| | | | TWO LINE NUMBER | FIRST LINE | RNA- | RCT- | ANY NON-HUNTING RINGING COMBINATION | |
| | | | | | RNB- | 2LO-9 | UNITS DIGIT OF SECOND LINE | |
| | | | | SECOND LINE — ACTION TAKEN WHEN 2ND LINE IS CALLED AND IS BUSY — ROUTE TO LINE BUSY | - | - | CROSS CONNECT IN NUMBER GROUP AS NON-HUNTING LINE | |
| | | | | ROUTE TO FIRST LINE | RNA- | RCT- | ANY NON-HUNTING RINGING COMBINATION | |
| | | | | | RNB- | 2LO-9 | UNITS DIGIT OF FIRST LINE | |
| | | | DIRECT ACCESS TO 101 ESS PROVIDED AND PHASE I CENTREX NOT PROVIDED | | RNA- | RCT15 | SILENT LEVEL OF RINGING SWITCH — DIRECT ACCESS TO 101 ESS LINE CIRCUITS | |
| | | | | | RNB- | POTS | NO SPECIAL TERMINATING TREATMENT | |

* THESE CROSS CONNECTIONS ARE NOT REQUIRED IN LAMA-C OFFICES.

COMPLETING MARKER CIRCUIT

DWG SIZE 6S | ISSUE 62A

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# CROSS CONNECTION INFORMATION (CONT)

| 400. (CONT) PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|
| 70 | LINE LINK PULSING / EXTENSION NO. TRANSLATION | INDIVIDUAL NO. GROUP TRANSLATION REQUIRED FOR ALL NUMBERS IN THOUSANDS BLOCK OR LLP AND POTS NUMBERS ARE ASSIGNED IN THE SAME THOUSANDS BLOCK | STO-9 PER NGSO-5 | ST00-39 | NO. GROUP START | NOTES 429, 472 |
| | | | LRL- | LRK | LLP ROUTE LOCK | |
| | | | LRU- | LRS | LLP ROUTE SERIES | |
| | | ROUTING ON A THOUSANDS BLOCK BASIS | STO-9 PER NGSO-5 | LRW 00-119 | LLP THOUSANDS BLOCK REQUIRES SINGLE (LR-) RELAY | |
| | | | | BNTH | BLANK NO. TREATMENT | |
| | | | | RITH | REGULAR INTERCEPT TREATMENT ROUTE TO BELL SYSTEM OPERATOR | |
| | | | LRL- | LRK | LLP ROUTE LOCK | |
| | | | LRU- | LRS | LLP ROUTE SERIES | |
| | | ROUTING ON A HUNDREDS BLOCK BASIS | STO-9 PER NGSO-5 | LRST 0-9 | HUNDREDS BLOCK TRANSLATOR | |
| | | | PHBO-9 | ST00-39 | NG START FOR HUNDS BLK WITH NON-LL (POTS) NO. | |
| | | | LROO-99 | LRW 000-119 | HUNDREDS GLOCK ASSOCIATED WITH SINGLE (LR-) RELAY | |
| | | | | ST00-39 | NG START FOR LLP HUNDREDS BLK REQUIRING MORE THAN ONE (LR-) RELAY | |
| | | | | AS | LLP HUNDREDS BLK REQUIRING MORE THAN ONE (LR-) REL IS ASGN TO PARTIALLY FILLED NG | |
| | | | | PHB | NON LLP (POTS) HUNDREDS BLOCK | |
| | | | | BNTH | BLANK NUMBER TREATMENT | |
| | | | | RITH | REGULAR INCPT TREATMENT ROUTE TO BELL SYS OPR | |
| | | UNRESTRICTED INCOMING TREATMENT | LRU- | LRS | LLP ROUTE SERIES | NOTES 213, 403, 407, 408, 429, 449, 472 |
| | | RESTRICTED INCOMING TREATMENT ON A HUNDREDS BLOCK BASIS | LRU- | INR- | CNTX RESTRICTED INCOMING TREATMENT | |
| | | | AR- | LRS | ATND COMPLETION ON A START IN BASIS | |
| | | | T- | PA | ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | IRS- | LRS | FOUR DIGIT TRAFFIC NON-RESTRICTED | |
| | | | | SC- | ORIGINAL RATE TREATMENT SCREENING | |
| | | | S- | LRS | NON-RESTRICTED RATE TREATMENT | |
| | | | | PA | RESTRICTED RATE TREATMENT - ROUTE TO ANNOUNCEMENT MACHINE | |
| | | | LRL- | LRK | LLP ROUTE LOCK | |
| | | TRANSLATION DETERMINED BY OFFICE CODE | C000-999 FAR 00-99 TX00-99 FV00-9 XII (0,2-9) | LRW 00-119 | ALL NO. IN AN OFFICE CODE ASSOCIATED WITH SAME (LR-) RELAY | |
| | | | LRU- | LPN | LLP ROUTE SERIES | |
| | | 7 DIG TRAFFIC 4 DIG CNTX TRAFFIC | NPR FLP | - RC- | ROUTE | |
| | | | | RCL- | ALLOTTER ROUTE | |
| | | | | SC- | ROUTE SCREENING | |
| | | | LRL- | - | OMIT CROSS CONNECTION | |
| | | NO. GROUP ASSIGNMENTS FOR LLP LINE CIRCUITS | LN(00-119)ST | ST00-39 | NON ALLOTTED LLP LINES | NOTES 429, 472 |
| | | | | LATH0-9 | ALLOTTED LLP LINES | |
| | | | | BNTH | ROUTE TO TROUBLE INTERCEPT | |
| | | | LN(00-119)HB | HB0-9 | HUNDREDS DIGIT ASSIGNMENT | |
| | | | LN(00-119)TB | TB0-9 | TENS DIGIT ASSIGNMENT | |
| | | SENDER BUSY PEG COUNT CONTROL | SI | STI | ONE SENDER GROUP SERVING LLP ROUTES | |
| | | | SI | - | OMIT CROSS CONNECTION WHEN MORE THAN ONE SENDER GROUP SERVES LLP ROUTES | |

| 400. (CONT) PART | CONDITION | | CONNECT TERM | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|
| PART OF 71 | POLYGRID 4 WIRE ROUTING CONTROL | | CVRG- | RCG- | R- RELAY | NOTES 403, 423, 424, 425, 435, 444, 445, 446, 447, 472 |
| | | | SG- | GC- | | |
| | | | SG-- CG-- CVRG- FAR-- OR RAG-- | SC- OR SC-VIA SCG- GC-- | SCREENING FOR OPERATION | |
| | | | | RMW-- | ROUTING PROGRAM | |
| | | | G-- | RC-- (VIA RCG--) | R- RELAY | |
| | | | | PB | PATHS BUSY | |
| | | | | NTA | NO TRUNKS AVAILABLE | |
| | | | | RB | ROUTE BATTERY | |
| | | | | CC | WHEN NO TRUNKS AVAILABLE ON THE FIRST MARKER USAGE FOR A PREEMPT PRIVILEGE CALL | |
| | | | | FOR ROUTE SERIES SELECTION SEE CROSS CONN TABLE PART 30 | ROUTE SERIES RELAY SELECTION | |
| | | | RS-- | | | |
| | | | SG- | LGAS | LAST GROUP ADVANCE SCREENING | |
| | | | | LGA | LAST GROUP ADVANCE | |
| | | | FGA-- SGA-- GA-- | RC-(VIA RCG--) | ADDITIONAL ROUTE | |
| | | | | SC-.GC- RMW-- | ADDITIONAL ROUTING PROGRAM | |
| | | | | RAG, | ROUTE ADVANCE | |
| | | | GA--SG- | FSP | FINAL SCREENING POINT | |
| | POLYGRID ROUTE SELECTION | MOST DIRECT | MD-- | RC-(VIA RCG--) | R- RELAY | |
| | | BEST ALTERNATE | BA-- | SC-- | SERVICE SCREENING | |
| | | 2ND BEST ALTERNATE | SBA- | CV-- (VIA RCG--) | CODE CONVERSION ROUTE | |
| | | | | GC- | GRADE SCREENING | |
| | WHEN ONE ROUTE MISSING IN A TRIPLE | | MD-- BA-- | ERA | EARLY ROUTE ADVANCE - ROUTE NOT PROVIDED | |
| | | | SBA-- | EA | EARLY ADVANCE - ROUTE NOT PROVIDED | |
| | WHEN R RELAY IS USED FOR POLYGRID ROUTING ONLY | | R-- | RB | ROUTE BATTERY | |
| | | | RA-- | - | OMIT CROSS CONNECTION | |

| ROUTING CONTROL DIGIT | | | ROUTING CONTROL DIGIT TO SDR | |
|---|---|---|---|---|
| MOST DIRECT ROUTE OR TRIPLE | CDM- | RDOP | 0 | ROUTE FREELY |
| | | RD1P | 1 | ROUTE DIRECT OR VIA BEST ALTERNATE ONLY |
| BEST ALTERNATE ROUTE OR TRIPLE | CDB- | RD2P | 2 | ROUTE DIRECT OR VIA 2ND BEST ALTERNATE ONLY |
| | | RD3P | 3 | ROUTE DIRECT ONLY |
| 2ND BEST ALTERNATE ROUTE OR TRIPLE | | RD4P | 4 | RESERVED |
| | | RD0S | 5 | RESERVED |
| | | RD1S | 6 | RESERVED |
| | | RD2S | 7 | RESERVED |
| | CDS- | RD3S | 8 | RESERVED |
| | | RD4S | 9 | RESERVED |
| SPECIAL GRADE ROUTES (WHEN LIMITED TO THREE LINKS) WHEN TOG-TRAFFIC IS SERVED AND THE MOST DIRECT ROUTE IS VIA A TANDEM SWITCHING POINT | CDM-- | RD03 | 0 OR 3 | ROUTE FREELY ON SOG CLASS ROUTE DIRECT ONLY ON TOG CLASS |

DRAWING ISSUE: 32A FAC 601 AND; 33D FAC 601 AND; 34A CK 601 AND; 35D DK 601 AND; 37D 4/4; 45D *

DRAWING ISSUE 59B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D38A

BELL TELEPHONE LABORATORIES INCORPORATED 65

SD-26002-01-D36A

# CROSS CONNECTION INFORMATION (CONT)

| 400. (CONT) PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | | REFERENCE |
|---|---|---|---|---|---|---|---|
| | POLYGRID 4 WIRE ROUTING CONTROL | | | | | | |
| | ROUTING CONTROL DIGIT | | | | | | |
| | | | | CONTROL DIGIT ASSOCIATED WITH SELECTED ROUTE IN TRIPLE | | | |
| | | | | FIRST ROUTE | SECOND ROUTE | THIRD ROUTE | |
| | CONTROL OF ROUTE CONTROL DIGIT BY SELECTED ROUTE ON CALLS TO AN EXTERNAL GRID | CDM-CDB-CDS- | RD0P | 0 | 0 | 0 | NOTES 408, 423, 424, 425, 435, 444, 445, 446, 447, 472 |
| | | | RD001 | 0 | 0 | 1 | |
| | | | RD002 | 0 | 0 | 2 | |
| | | | RD010 | 0 | 1 | 0 | |
| | | | RD011 | 0 | 1 | 1 | |
| | | | RD012 | 0 | 1 | 2 | |
| | | | RD020 | 0 | 2 | 0 | |
| | | | RD021 | 0 | 2 | 1 | |
| | | | RD022 | 0 | 2 | 2 | |
| | | | RD100 | 1 | 0 | 0 | |
| | | | RD101 | 1 | 0 | 1 | |
| | | | RD102 | 1 | 0 | 2 | |
| | | | RD110 | 1 | 1 | 0 | |
| | | | RD1P | 1 | 1 | 1 | |
| | | | RD112 | 1 | 1 | 2 | |
| | | | RD120 | 1 | 2 | 0 | |
| | | | RD121 | 1 | 2 | 1 | |
| | | | RD122 | 1 | 2 | 2 | |
| | | | RD200 | 2 | 0 | 0 | |
| | | | RD201 | 2 | 0 | 1 | |
| | | | RD202 | 2 | 0 | 2 | |
| | | | RD210 | 2 | 1 | 0 | |
| | | | RD211 | 2 | 1 | 1 | |
| | | | RD212 | 2 | 1 | 2 | |
| | | | RD220 | 2 | 2 | 0 | |
| | | | RD221 | 2 | 2 | 1 | |
| | | | RD22P | 2 | 2 | 2 | |
| | | | RD3P | 3 | 3 | 3 | |
| 71 (CONT) | | | | | | | |
| | CONFERENCE CONTROLLER PROVIDED: NO | PEA | RCG-SCG- | TO TONE ROUTES | | | NOTES 424, 472 |
| | CONFERENCE CONTROLLER PROVIDED: YES | NCPN | SCG-RCG- | | | | |
| | | PEA | NTA | NO TRUNKS AVAILABLE | | | |
| | EXTERNAL GRID NON PREEMPT ALTERNATE ROUTE CONTROL | EG | EGL | LIMITED TO MOST DIRECT TRIPLE | | | |
| | | | EGU | UNLIMITED | | | |

| 400. (CONT) PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|
| | POLYGRID 4 WIRE ROUTING CONTROL | | | | |
| | PRECEDENCE LEVELS THAT LOOK AT TWO OR MORE TRIPLES PREEMPT CYCLE EXTERNAL GRID | P(0-4)1 | FGAP | LEVELS THAT LOOK AT TWO OR MORE TRIPLES | NOTES 408, 424, 425, 435, 472 |
| | | | LGA | LEVELS THAT LOOK ONLY AT ONE TRIPLE | |
| | PRECEDENCE LEVELS THAT LOOK AT THREE TRIPLES PREEMPT CYCLE EXTERNAL GRID | P(0-4)2 | SGAP | LEVELS THAT LOOK AT THREE TRIPLES | |
| | | | LGA | LEVELS THAT LOOK ONLY AT TWO TRIPLES | |
| | PRECEDENCE LEVELS THAT ROTATION IS REQUIRED | P(0-4)3 | ROT | LEVELS THAT ROTATION IS REQUIRED | |
| | | | - | OMIT | |
| | PRECEDENCE LEVELS THAT LOOK AT BEST ALTERNATE TRIPLES WITH ROUTE CONTROL DIGIT 1 RECEIVED HOME GRID | P(0-4)4 | SLB | PRECEDENCE LEVELS THAT LOOK AT THE BEST ALTERNATE TRIPLE ROUTES | |
| | | | SKB | PRECEDENCE LEVELS THAT SKIP BEST ALTERNATE TRIPLE ROUTES | |
| | PRECEDENCE LEVELS THAT LOOK AT SECOND BEST ALTERNATE TRIPLE ROUTES WITH ROUTE CONTROL DIGIT 0 & 2 RECEIVED HOME GRID | P(0-4)5 | SLS | PRECEDENCE LEVELS THAT LOOK AT THE SECOND BEST ALTERNATE TRIPLE ROUTES | |
| | | | SKS | PRECEDENCE LEVELS THAT SKIP SECOND BEST ALTERNATE TRIPLE ROUTES | |
| | PRECEDENCE LEVELS THAT LOOK AT SPECIAL GRADE ROUTES ON VOICE GRADE CALLS, HOME GRID | P(0-4)6 | SGD | PRECEDENCE LEVELS THAT LOOK AT SPECIAL GRADE ROUTES | |
| | | | FSP | PRECEDENCE LEVELS THAT SKIP SPECIAL GRADE ROUTES | |
| | PRECEDENCE LEVELS THAT LOOK AT SPECIAL GRADE ROUTES ON VOICE GRADE CALLS. EXTERNAL GRID & HOME TRIPLE | P(0-4)7 | LGAS | PRECEDENCE LEVELS THAT LOOK AT SPECIAL GRADE ROUTES | |
| | | | FSP | PRECEDENCE LEVELS THAT SKIP SPECIAL GRADE ROUTES | |
| | ROUTING GROUP SEPARATION INTO (1) HOME GRID (2) EXTERNAL GRID (3) HOME TRIPLE | RTGI-6 | HTP | HOME TRIPLE GROUPS | |
| | | | HGD | HOME GRID GROUPS | |
| | | | EGD | EXTERNAL GRID GROUPS | |
| 71 (CONT) | CONTROL DIGIT INDICATIONS | CDE 0-3 | SW- | CLASS OF SERVICE SCREENING ON A CONTROL DIGIT BASIS | |
| | ADVANCE TO PREEMPT CYCLE | CCI | CC | ROUTE SERIES SELECTION | |
| | NON PREEMPT PATHS BUSY | PGI | PB | | |
| | PREEMPT ANNOUNCEMENT | PEA | RCG- | ANNOUNCEMENT ROUTE | |
| | ROUTING GROUP ASSOCIATION | RMCL (00-23) | RG(1-6)L | ROUTING GROUPS 1-6 | NOTES 423, 441, 472 |
| | | RMCI (00-23) | RG(1-6)1 | | |
| | | RMC2 (00-23) | RG(1-6)2 | | |
| | | RMC3 (00-23) | RG(1-6)3 | | |
| | | RMC4 (00-23) | RG(1-6)4 | | |
| | | RMC5 (00-23) | RG(1-6)5 | | |
| | | RMC6 (00-23) | RG(1-6)6 | | |
| | | RMC7 (00-23) | RG(1-6)7 | | |
| | | RMC8 (00-23) | RG(1-6)8 | | |
| | | RMC9 (00-23) | RG(1-6)9 | | |
| | | RMC10 (00-23) | RG(1-6)10 | | |
| | | RMC11 (00-23) | RG(1-6)11 | | |
| | | RMC12 (00-23) | RG(1-6)12 | | |
| | | QTR | | | |
| | NON PREEMPT CYCLE | NPRC | SW- | CLASS OF SERVICE SCREENING BY PREEMPT OR NON PREEMPT CYCLE | NOTE 472 |
| | PREEMPT CYCLE | PRC | | | |
| | SPECIAL GRADE TANDEM CALLS RESTRICTED ALTERNATE ROUTING | SGTR | SGNR | NOT RESTRICTED | |
| | | | SGR | RESTRICTED | |
| | IMMEDIATE PREEMPT CYCLE | IPR | PGG 00-14 | 4-WIRE PRIVILEGE GROUP SCREENING | NOTES 425, 472 |
| | | | PC 00-39 | PRE ROUTE RELAY WHEN USED TO INITIATE IMMEDIATE PREEMPT CYCLE | |
| | HOME GRID NON PREEMPT ALTERNATE ROUTE CONTROL FOR CONTROL DIGIT 0. | HGC | HSA | SELECT 2ND BEST ALTERNATE | NOTES 424, 446, 472 |
| | | | SKS | SKIP 2ND BEST ALTERNATE | |

DRAWING ISSUE
370 Rd
390 TRW

ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D388

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

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400. (CONT)

| PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|
| 72 | ROUTING AND RATING CONTROL | CP | | | NOTES 436, 437, 472 |
| | | IR- | | | |
| | | FAR-- | RMW- | ROUTE PROGRAM RELAY | |
| | | S- | | | |
| | | PR- | | | |
| | | RMB | RMCL- | | |
| | | S- | RMC- | ROUTE PROGRAM CONTROL — WHEN ROUTING AND RATING FOR A CODE POINT VARY DEPENDING ON THE CLASS OF SERVICE | |
| | | | | RATE PROGRAM CONTROL | |
| | | RMG | RMC- | ROUTE PROGRAM | |
| | | RM- (SEE CROSS CONN TABLE PARTS 36 & 37) | RC- (VIA RCG--) | ROUTE RELAY | |
| | | | SC- | WHEN ROUTE RELAY AND/OR ROUTE SERIES RELAY DEPEND UPON CLASS OR ZONE OF SERVICE | |
| | | | ROUTE SERIES | SEE CROSS CONNECTION TABLE PART 30 | |
| | | RMG | RMC9 (00-143) | PEG GROUND | NOTES 438, 472 |
| | | RPC (00-143) | SC- | PEG COUNT OF ORIGINATING CALLS BY CLASS OF SERVICE PER ROUTE (MAX 10 COMBINATIONS PER MARKER) | |
| | | S- | RMP 0-9 | | |
| | | RSG | SC- | WHEN ROUTE SERIES RELAY DEPENDS ON THE CLASS OF SERVICE | NOTES 436 473,472 |
| 73 | CENTREX LISTED DIRECTORY NUMBER GENERATION FOR BUSY LINE TRANSFER OR ATTENDANT FACILITIES REACHED VIA THE LINE LINK FRAME. | BLS 00-99 | LRW 00-119 | TO GENERATE LISTED DIRECTORY NUMBER FOR BUSY LINE TRANSFER | NOTES 439, 449, 472 |
| | | DTZ 00-99 | LRW 00-119 | TO GENERATE LISTED DIRECTORY NUMBER FOR DIAL ZERO ACCESS TO ATTENDANT REACHED VIA THE LLF ON ORIGINATING OR DIAL TRANSFER CALL | |
| | | LRU- | GN | SERIES RELAY — FOR LR- RELAYS USED FOR NUMBER GENERATION | |
| | | LRL- | BLTL | LOCK | |
| | | LN- (ST) | ST00-39 | NUMBER GROUP START | |
| | | | LATH 0-9 | ALLOTTED DIRECTORY NUMBERS | |
| | | | BNTH | ROUTE TO TROUBLE INTERCEPT | |
| | | LN- (HB) | HB0-9 | HUNDREDS DIGIT | |
| | | LN- (TB) | TB0-9 | TENS DIGIT | |
| | | LCL- | U0-9 | UNITS DIGIT | |

400. (CONT)

| PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|---|
| 74 * | TRAFFIC SAMPLING BY CUSTOMER CLASS | DIGIT 8 ACCESS | IAO | SC- | TRAFFIC SAMPLING ON INTRAOFFICE CALLS | | NOTES 213, 443, 472 |
| | | | S- | CT | | | |
| | | | 4LT, LS4 | TSO-4 | ONE 2-WIRE PRIVATE LINE NETWORK | | |
| | | | | SC- | MORE THAN ONE 2-WIRE PRIVATE LINE NETWORK | | |
| | | | LT,LS | | LOCAL AREA TRANSLATION | | |
| | SPECIAL SUB LINE SCREENING | | S- | TSO-4 | TRAFFIC SAMPLING IN INCREMENTS OF 2 OR MORE AS DETERMINED BY TRAFFIC SAMPLE CIRCUIT | | |
| | | | | SAC | TRAFFIC SAMPLING ON EVERY CALL | | |
| | ROUTES WITH TRUNKS NOT EQUIPPED WITH AMA INCLUDING TONE, OVERFLOW, CATCH-ALL & ETC ROUTES | | CP- | CPIOP | CANCEL SAMPLE REQUEST | | |
| | | | | CPIOS | ROUTE ADVANCE TO TRUNK GROUP EQUIPPED WITH AMA FEATURES | | |
| | TYPE OF LINES INVOLVED | MORE THAN ONE TYPE OF LINE SAMPLED BY SAME TRAFFIC SAMPLE CIRCUIT | TAO-4 | SC- | SCREENING FOR TYPE OF LINE | | |
| | | | S- | HTR, CNS, AOS, AID, MTR | TYPE OF LINE | | |
| | | ONE TYPE OF LINE SAMPLED BY TRAFFIC SAMPLE CIRCUIT | TAO-4 | | | | |
| | TRAFFIC SAMPLING BY SELECTED TRUNK GROUP | INTRAOFFICE ROUTES | OS- | NSA | NON-AMA TRUNK GROUP | | NOTES 426, 472 |
| | | | | NSI | AMA TRUNK GROUP | | |
| | | | CP- | TGS- | ASSIGN SAME TGS- FOR BOTH AMA & NON-AMA IAO TRUNK GROUPS (OR AMA ON LLP) | | |
| | | OUTGOING ROUTES | CP- | TGS- | ASSIGN SAME TGS- TO ALL FULLY EQUIPPED AMA GROUPS | | |
| | | | | | ASSIGN SEPARATE TGS- TO EACH PARTICALLY EQUIPPED AMA GROUP | | |
| | | | | SAR | SAMPLE ALL CALLS | | |
| | | GRD FOR LAST MKR | MTS | MTG | APPLY ON LAST MKR | | |
| | TRAFFIC SAMPLING USING THE CALL DATA TRANSMITTER | | CP-, S- | SMP 1-15 | 20% SAMPLING | | NOTE 476 |
| | | | | SMPA | 100% SAMPLING | | |
| 75 | TYPE OF CALL INDICATION TO 101 ESS | | PC- OR DAP | BSN | CALL IS FROM BELL SYSTEM NETWORK | | NOTES 448,472 |
| | | | | NBS | CALL IS FROM CCSA NETWORK | | |
| 76 | CENTREX BUSY LINE VERIE ROUTES | ROUTE RELAY OPR | BUSY LINE VERIFICATION RATE TREATMENT | S- | SC- | CLASS OF SERVICE SCREENING | NOTES 213, 403, 472 |
| | | | 5 DIGIT CUSTOMER CLASSES OF SERVICE | S- | RC- | 5 DIGIT ROUTE — COMMON TRUNK GROUP USED FOR 4 AND 5 DIGIT BUSY LINE VERIFICATION ROUTE RELAYS | |
| | | | 4 DIGIT CUSTOMER CLASSES OF SERVICE | S- | RC- | 4 DIGIT ROUTE | |
| | | ROUTE RELAY INFO | ROUTE SERIES | R- | NN | NON CHARGE NON COIN | NOTE 472 |
| | | | OUTSENDER GROUP | OS- | OSC- | SENDER GROUP ASSOCIATED WITH ROUTE | |
| | | | ARB DIGIT — 4 DIGIT ROUTE | CR- | SEE PART 4 | C DIGIT OF OFFICE CODE REQUIRED | |
| | | | ARB DIGIT — 5 DIGIT ROUTE | CR- | CR55 | NO ARBITRARY DIGIT REQUIRED | |
| | | | DELETE | DL- | DLOS | DELETE NONE | |
| | | | SENDER CLASS | CL- | SEE PART 7 | CLASS INFORMATION AS REQUIRED | |
| | | | CODE PATTERN | CP- | CNT VIA RAG) | BUSY LINE VERIFICATION (CTX NO TEST) ROUTE IDENTIFICATION | |
| | | | ROUTE ADVANCE | RA- | PB (VIA RAG) | PATHS BUSY | |
| | | | TRUNK GROUP | TG- | SEE PART 2 | TRUNK GROUP ASSOCIATED WITH ROUTE | |
| | | | TRUNK BLOCK | TB- | SEE PART 1 | TRUNK BLOCK ASSOCIATED WITH ROUTE | |

* THIS MARKER FEATURE IS NOT FOR USE IN OFFICES EQUIPPED WITH THE LAMA-C OR ETS SYSTEM. THESE ASSOCIATED CROSS CONNECTIONS SHOULD BE DISCONNECTED IN LAMA-C OR ETS OFFICES.

# CROSS CONNECTION INFORMATION (CONT)

| PART | CONDITION | | | CONNECT TERM. | CONNECT TO TERM | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|---|---|
| 77 | CCSA NETWORK ACCESS GROUP CONTROL | ORIG CCSA TRAFFIC | SINGLE CCSA NETWORK IN MKR GR | LT3, ALT3, ALT13 | OACO | SINGLE AGC REQUIRED FOR NETWORK CONTROL | | NOTES 213, 450, 472 |
| | | | | ORT- | OGRO | FIRST AGC CONTROLS | MULTIPLE AGC'S REQUIRED FOR NETWORK CONTROL | |
| | | | | | OGR- | INTERMEDIATE AGC CONTROLS | | |
| | | | | | OAC- | LAST AGC CONTROLS | | |
| | | | MORE THAN ONE CCSA NETWORK IN MKR GR | LT3, ALT3, ALT13 | SC- | SCREENING TO DETERMINE NETWORKS REQUIRING AGC CONTROL | | |
| | | | | S- | ALT.MLT3 | MKR TRANSLATOR | NETWORKS NOT USING AGC FOR CONTROL | |
| | | | | | FAT(1-3) A&L&E | FOREIGN AREA TRANSLATOR | | |
| | | | | | OAC- | SINGLE AGC REQUIRED FOR NETWORK CONTROL | | |
| | | | | ORT- | OGR- | FIRST AGC CONTROL | MULTIPLE AGC'S REQUIRED FOR NETWORK CONTROL | |
| | | | | | OGR- | INTERMEDIATE AGC CONTROL | | |
| | | | | | OAC- | LAST AGC CONTROL | | |
| | | | | OAT- | ALT.MLT3 | MKR TRANSLATOR | NETWORK TRANSLATION FOR ORIG ACCESS ROUTE | |
| | | | | | FAT(1-3) A&L&E | FOREIGN AREA TRANSLATOR | | |
| | | | | OAB- | PB | ORIG ACCESS ROUTES BUSY -TO TONE ROUTE | | |
| | | TERMINATING CCSA TRAFFIC | | CODE OR DIST POINT | TEC- | SINGLE AGC REQUIRED FOR NETWORK CONTROL | | NOTES 407, 450, 472 |
| | | | | ART- | TGR- | FIRST AGC CONTROLS | MULTIPLE AGC'S REQUIRED FOR NETWORK CONTROL | |
| | | | | | TEC- | INTERMEDIATE AGC CONTROLS | | |
| | | | | TAR- | LEA, LEB, LPA, LPB, LRW-, LTA, LTB | LAST AGC CONTROLS | | |
| | | | | TAB | ROA | LOCAL COMPLETION ROUTES | | |
| | | PRESERVICE MODE OF OPERATION | | OPB- | OAT- | TERM. ACCESS ROUTES BUSY - TRK TO REORDER | | NOTES 450, 472 |
| | | | | TPB- | TAR- | ORIG ACCESS ROUTE | | |
| | | | | AGM- | AGM | TERM. ACCESS ROUTE | | |
| | | SERVICE MODE OF OPERATION | | OPB- | OAPB | ACCESS CONTROL CHECK | | |
| | | | | TPB- | TAPB | ORIG ACCESS ROUTE BUSY-TO TONE ROUTE | | |
| 78 | EXTENDED RANGE FOR CUSTOMER LINES | | | CP- | LOLD | TERM. ACCESS ROUTE BUSY TRK TO REORDER | | NOTE 472 |
| | | | | | | OG TRK ROUTES OR ORIG REG REQUIRING LONG LOOP SIG. | | |
| | | | | | | OMIT CROSS CONN WHEN LONG LOOP AMPLIFIER IS REQD | | |
| 79 | WIDEBAND SWITCHING (SPECIAL) | SUB CLASS (S-) RELAY CONTROL | | SWC- | SWBO-3 | P PREFIX SCREENING | | NOTES 213, 453, 472 |
| | | | | WBO-3 | SW- | PREFIX RECEIVED | | |
| | | | | NWBO-3 | SW- | PREFIX NOT RECEIVED | | |
| | | WIDEBAND ROUTE CONTROL FOR OUTGOING TRAFFIC | | CP- | WBR | ROUTES ASSOC WITH WIDEBAND LINK | | |
| | | WIDEBAND ROUTE CONTROL FOR INC TRAFFIC | | SCG | SC- | | | |
| | | | | S- | WB | WIDEBAND INC TRK CLASS | | |
| | | | | S- | NWB | ALL OTHER TRK CLASSES | | |
| | | TYPE OF LINE | PHASE I OR II CENTREX CLASSES | CS- | CTX | NON-WIDEBAND CENTREX CLASSES | | |
| | | | | | WCG | CLASSES ASSOC WITH WIDEBAND LINK | | |
| | | | ALL OTHER CLASSES | | AOC | NON-WIDEBAND CLASSES | | |
| | | | | | WBA | CLASSES ASSOC WITH WIDEBAND LINE | | |
| | | | COIN LINES | | CNA | NON-WIDEBAND CLASSES | | |
| | | | MESSAGE REG LINES | | MR | | | |
| | | INTERCEPT SCREENING | | NA- | SC- | INTERCEPT SCREENING | | |
| | | | P NOT RECEIVED-OR NON-WB INC TRUNKS | S- | BNA-, TBIA | BELL SYSTEM INTERCEPT | | |
| | | | P RECEIVED-OR WB INC TRUNKS | S- | ITNA | WIDEBAND INTERCEPT | | |

| PART | CONDITION | | | CONNECT TERM. | CONNECT TO TERM. | LEADS GROUNDED TO SENDER | | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|---|---|---|---|
| 80 | ROUTING CONTROLS FOR PREFIX "0" & "1" TRAFFIC (STD ARR) TSPS ROUTINGS | | | CL- | | CL- | | | | NOTES 455, 472 |
| | | | | | CL8P | 3,5,8 | | AUTO. IDENT | | |
| | | | | | CL7S | 5,8 | | OPERATOR IDENT | | |
| | | | | DL- | | DL- | | | | |
| | | | | | DL1S | 1 | | "0" OPERATOR CALLS | | |
| | | | | | DL0S | HOME | | 1000 NOT PROV | PREFIX "0"&"1" CALLS | |
| | | | | | DLAO | HOME | | NON-1000 CALL | 1000 PROV | |
| | | | | | | CL1 | | 1000 CALL | | |
| | | COMBINED TRK GR (EITHER COIN OR NON-COIN PREFIX "0" & "1" AND "0" OPERATOR) (SEE NOTE 1) | | | | CR- | | | | |
| | | | | | | RCVD | TRMTD | | | |
| | | | | CR- | CR3S | NONE | 10-7 | PREFIX "1" | | |
| | | | | | CR3S | 7,1 | 10-1 | PREFIX "0" AND "0" OPERATOR | | |
| | | SUPER COMBINED TRK GR (BOTH COIN AND NON-COIN PREFIX "0" & "1" AND "0" OPERATOR) (SEE NOTE 1) | | CR- | CR2S | 7,0 | 10-0 | NON-COIN | PREFIX "0" AND | |
| | | | | | CR3S | 7,1 | 10-1 | COIN | "0" OPERATOR | |
| | | | | | CR4S | 7,2 | 10-2 | SPARE | | |
| | | | | | CR0P | 7,4 | 10-4 | NON-COIN | PREFIX "1" | |
| | | | | | CR5S | NONE | 10-7 | COIN | | |
| | | TSPS ROUTINGS (AAM ONLY ARR) OR CSBR TOM TSP OR CAMA OR BOTH CAMA & CSBR TOM TSP | "0" OPR COIN AND "0" OPR NON-COIN ROUTED OVER SEPARATE TRK GROUPS | CL- | CL7S | CL- | | | | |
| | | | | | CL10S | 5,7 | 10-7 | OPTION BF APP FIG 183 | OPERATOR IDENTIFICATION | |
| | | | | | CL7P | 3,5,7 | 10-7 | OPTION PF APP FIG 183 | AUTOMATIC IDENTIFICATION | |
| | | | | | CL10P | | | | | |
| | | | PREFIX "0" AND PREFIX "1" NON-COIN ROUTED OVER SEPARATE TRK GROUPS | CL- | CL4S | 5 | 10-7 | OPERATOR IDENTIFICATION | | |
| | | | | | CL6S | 3,5 | 10-7 | AUTOMATIC IDENTIFICATION | | |
| | | | COMBINED TRK GR FOR BOTH PREFIX "0" AND PREFIX "1" COIN (SEE NOTE 1) | CL- | CL6S | 3,5 | 10-7 | PREFIX "1" | ANI | |
| | | | | | CL8P | 3,5,8 | 10-1 | PREFIX "0" | | |
| | | | | | CL2S | NONE | 10-7 | PREFIX "1" | NON-ANI | |
| | | | | | CL9S | 8 | 10-1 | PREFIX "0" | | |
| 81 | INTERCEPT OF UNAUTHORIZED CUSTOMER 10 DIGIT DDD CALLS | | | DY0 | DY1 | DENY NPA - NOX CODES | | | | NOTE 472 |
| | | | | | DY2 | DENY NPA - NIX CODES INCLUDING NPA-411 | | | | |
| | | | | | DY3 | DENY NPA - NIX CODES EXCLUDING NPA-411 | | | | |
| 82 (A&M ONLY) | AMA RECORDING OF INFORMATION CODES (411, 1-411) | CODES 411 OR 1-411 | | INF0 | C411 | CODE POINT | | LOCAL OUTGOING ROUTE OR VIA CAMA JUNCTOR | | NOTES 415, 472 |
| | | VIA CAMA JUNCTOR | | INF1 | RC-, SC- | ROUTE RELAY OR SCREENING POINT | | | | |
| | | | | INF2 | S- | CAMA SUB CLASSES | | TANDEM CLASS ROUTE | | |
| | | | | INF3 | CMRO | | | | | |
| | | | | INF4 | NN, RC- | ROUTE SERIES OR ROUTE RELAY | | | | |
| | | | | INF5 | S- | CAMA SUB CLASSES | | TOLL CLASS ROUTE | | |
| | | | | INF6 | CMR1 | | | | | |
| | | | | INF7 | NN, RC- | ROUTE SERIES OR ROUTE RELAY | | | | |
| 83 | SEPARATION OF TRANSLATOR RELAYS IN COMBINED 2-WIRE AND 4-WIRE OFFICE | | | NK- | LT-, ALT- | TRANSLITION MARKS FROM REGISTERS | | | | NOTES 451, 472 |
| | | | | NKA- | MLT- | 2-WIRE NETWORK TRANSLATORS | | | | |
| | | | | NKB- | MLT- | 4-WIRE NETWORK TRANSLATORS | | | | |
| 84 | BRUSH SELECTION WHEN IMMEDIATE RING IS CANCELED | | | CIR | BR1 | MARKERS 0,3,6 | | | | |
| | | | | | BR2 | MARKERS 1,4,7 | | | | |
| | | | | | BR3 | MARKERS 2,5 | | | | |
| 85 | OPERATOR ROUTE SELECTION FOR DIAL TONE FIRST COIN LINES (SPECIAL) | | | ZO | SC- | SCREEN TO SEPARATE COIN AND NON-COIN CLASSES | | | | NOTE 472 |
| | | | | S- | CP | CODE POINT TREATMENT FOR NON-COIN CLASSES | | | | |
| | | | | | OCN | OPERATOR ROUTE SCREENING FOR COIN CLASS | | | | |
| | | | | CP | RC- | COIN PRESENT ROUTE | | | | |
| | | | | CNP | | COIN NOT PRESENT ROUTE | | | | |
| 87 | CALLING LINE IDENTIFICATION | | | NCT | NCT1-3 | CONTROL OF CALLING LINE IDENTIFICATION | | | | NOTE 472 |

NOTES:
1. THE TERM "COMBINED" INDICATES PERMITTED BUT NOT MANDATORY COMBINATION OF INDICATED TRAFFIC TYPES.

## CROSS CONNECTION INFORMATION (CONT)

| PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|
| 38 | RESTRICTION OF OFF NET. TRAFFIC FOR 2 WAY OFF NET. ACCESS LINES | | FAS | SC- | | NOTES 213, 454, 472 |
| | | | S- | PB | 2 WAY OFF NET. ACCESS LINE CLASS OF SERVICE - ROUTE TO TONE TRUNK | |
| | | | | ADT | ALL OTHER CLASSES | |
| 89 | F-G DIGIT TRANSLATION REQUIRED | | C-,TX | FGT | F-G DIGIT TRANSLATOR | NOTE 472 |
| | | | ET- | RC-, SC | ROUTE OR SCREENING POINT | |
| 90 | PBX TOLL DIVERSION | WITH OR WITHOUT CDT | MBK | SC- | TOLL DIVERSION SCREENING ON AMA CALLS WITHOUT CDT | NOTES 213, 456, 472 |
| | | | MBO-9 | | TOLL DIVERSION SCREENING WITH CDT | |
| | | | S- | TD | AMA CALLS REQUIRING TOLL DIVERSION | |
| | | | | NTD | AMA CALLS NOT REQUIRING TOLL DIVERSION | |
| | | | S- | NND | NCNC CALLS REQUIRING TOLL DIVERSION | |
| | | | | NN | NCNC CALLS NOT REQUIRING TOLL DIVERSION | |
| | | | S- | ATD | ANI CALLS REQUIRING TOLL DIVERSION | |
| | | | | ANIS | ANI CALLS NOT REQUIRING TOLL DIVERSION | |
| | | | S- | CMT | CAMA JUNCTOR CALLS REQUIRING TOLL DIVERSION | |
| | | | | CMJ | CAMA JUNCTOR CALLS NOT REQUIRING TOLL DIVERSION | |
| 91 | CODE POINT ACCESS TO MANUAL PBX LINES ON LINE LINK FRAME | | ET-, S- | LRW- | TO GENERATE PILOT NUMBER OF MANUAL PBX LINES | NOTES 213, 407, 472 |
| | | | LRU- | EGN | SERIES RELAY | |
| | | | LRL- | RC | OMIT CROSS CONNECTION | |
| | | INTRAOFFICE ROUTE SELECTION | GNR | RC- | INTRAOFFICE ROUTE | |
| | | | | SC- | SCREENING TO DENY ACCESS TO PBX LINES | |
| | | | S- | RC | INTRAOFFICE ROUTE | |
| | | | | DR | DENIED ROUTE | |
| | | NUMBER GROUP SELECT AND GENERATION OF PILOT NUMBER | LN- (ST) | ST00-39 | NUMBER GROUP START | |
| | | | LN- (HB) | HB0-9 | HUNDREDS DIGIT | |
| | | | LN- (TB) | TB0-9 | TENS DIGIT | |
| | | | LCL- | U0-9 | UNITS DIGIT | |
| | | TERMINATING TREATMENT FOR MANUAL PBX LINES | RNA- | RCTIO | TERMINAL HUNTING | |
| | | | RNB- | PAN | ROUTE TO PBX RECORDED ANNOUNCEMENT | |
| 92 | WIDEBAND SWITCHING MKR 0,1 | CHANNEL SELECTION PREFERENCE TO EQUALIZE APPARATUS USAGE. (SIMILAR PREFERENCE REQUIRED IN EACH WIDEBAND MARKER) | WS | WI0 | PREFERENCE 1 WIDEBAND CHANNELS 0-4 TO WIDEBAND CHANNELS 5-9 | NOTES 213, 430, 472 |
| | | | WM | W04 | | |
| | | | WMI | WI5 | | |
| | | | WE | W09 | | |
| | | | WS | WI5 | PREFERENCE 2 WIDEBAND CHANNELS 5-9 TO WIDEBAND CHANNELS 0-4 | |
| | | | WM | W09 | | |
| | | | WMI | WI0 | | |
| | | | WE | W04 | | |
| | | SCREENING CONTROL — ORIGINATING WIDEBAND REQUEST | OPP | OWB- | SUBSCRIBER CLASS SCREENING NOT REQUIRED | |
| | | | | SC- | SUBSCRIBER CLASS SCREENING REQUIRED | |
| | | | S- | OWB- | CLASS CONTAINS ALL OR SOME WIDEBAND LINES | |
| | | | | NW | CLASS CONTAINS NO WIDEBAND LINES | |
| | | SCREENING CONTROL — INCOMING | IWS | SC- | TRUNK CLASS SCREENING | |
| | | | S- | CWB- | WIDEBAND TRUNK CLASSES | |
| | | | | NW | ALL NON-WIDEBAND CLASSES | |
| | | SCREENING CONTROL — TRANSFER REQUEST (PHASE III ONLY) | TWB | OWB | WIDEBAND CLASS ASSOCIATED WITH TRANSFER TRAFFIC | |
| | | | SNW | SW | NON-WIDEBAND ROUTING | |
| | | | SWB0-2 | | WIDEBAND ROUTING | |
| | | WIDEBAND REQUEST FROM NON-WIDEBAND LINE | WPP | PB | ROUTE TO PATHS BUSY | |
| | | "O" OPERATOR LOCATED IN DISTANT OFFICE AND AMA REQUIRED | WDZ | ZRT- | GROUND ON LEAD TO TRUNK | |
| | | | ZRS- | NC | | |
| | | MAINTENANCE BUSY ANNOUNCEMENT ROUTE | WMBA | SC- | TYPE OF WIDEBAND SERVICE SCREENING | |
| | | | S- | RC- | WIDEBAND MAINTENANCE BUSY ANNOUNCEMENT ROUTES (ASSIGNED TO GROUND SUPPLY 5) | |
| | | | R- | CA | ROUTE SERIES RELAY | |
| | | | RA- | RC- | COMMON OVERFLOW ROUTE | |
| | | | OS- | CWB | CANCEL WIDEBAND LINKAGE | |
| | | DENIED WIDEBAND ANNOUNCEMENT ROUTE | WRA, RR- | SC- | TYPE OF WIDEBAND SERVICE SCREENING | |
| | | | S- | RC- | DENIED WIDEBAND ANNOUNCEMENT ROUTES (ASSIGNED TO GROUND SUPPLY 5) | |
| | | | R- | CA | ROUTE SERIES RELAY | |
| | | | RA- | RC- | COMMON OVERFLOW ROUTE | |
| | | | OS- | WRM | CANCEL LINKAGE, ENABLE WIDEBAND MATCH | |
| | | WIDEBAND INTRAOFFICE REMOTE ROUTES | OS- | RSW | INTRA-REMOTE SWITCHED CALLS | |
| | | | | | | |
| | | ALL MARKERS BUSY INDICATION TO MASTER TRAFFIC CONTROL | APG | WAB | APPLY TO MARKER 0 ONLY | |
| | | WIDEBAND NETWORK TYPE OF SERVICE | WTS 0-2 | WP | WIDEBAND PICTUREPHONE SERVICE | |
| | | | | WDP | WIDEBAND DATA-PHONE 50 SERVICE | |
| | | NETWORK SELECTION | WBN 0-2 | WBL | CLASS INDICATES WIDEBAND LINK | |
| | | | | BSL | CLASS INDICATES BIT-STREAM LINK | |

| PART | CONDITION | | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|---|
| 92 | WIDEBAND SWITCHING MKR 0,1 | ROUTES THAT COMPLETE A WIDEBAND CALL BUT DO NOT REQUIRE A WIDEBAND LINKAGE | OS- | WRM | NO SENDER REQUIRED — REQUIRES VERIFICATION THAT CALLING LINE IS WIDEBAND (DENIED WIDEBAND ANNOUNCEMENT NO. NII, ETC) | NOTES 430, 472 |
| | | | OS- | WRMI | SENDER REQUIRED | |
| | | | WRM2 | OSCO-11 | SENDER GROUP ASSOCIATED WITH ROUTE | |
| | | | OS- | CWB | DOES NOT REQUIRE VERIFICATION THAT CALLING LINE IS WIDEBAND (MTCE BUSY ANNOUNCEMENT, VACANT CODE, TONE, OVERFLOW ANNOUNCEMENTS, ETC.) | |
| 93 | INTERNATIONAL DIRECT DISTANCE DIALING | LAMA ARRANGEMENT | ALT4 | MLTIO | INTERNATIONAL DIALING | NOTES 459, 472 |
| | | | CR- | CRP-CRS- | INDICATE INTERNATIONAL GATEWAY TO SENDER | |
| | | | ALT6 | VCG | VACANT CODE TREATMENT FOR CALLS WITH "01" PREFIX | |
| | | TSPS ARRANGEMENT | ALT4 | MLTIO | INTERNATIONAL STATION | NOTES 400(80), 451, 455, 472 |
| | | | IDS | RC-/SC- | TO STATION | |
| | | | ALT6 | MLTI2 | INTERNATIONAL PERSON | |
| | | | IDP | RC-/SC- | TO PERSON | |
| | | | DL- | DLAO | TSPS ROUTE ARRANGED FOR INTERNATIONAL CALLS | |
| 94 | LIMITED "A", "B" AND "C" DIGIT TRANSLATOR | | IDA- | IDR- | ROUTE TRANSLATION FROM "A" DIGIT | NOTES 459, 472 |
| | | | | IAW- | B OR C DIGIT TRANSLATION REQUIRED | |
| | | | IAT-- | IDR- | ROUTE TRANSLATION FROM "A" AND B DIGITS | |
| | | | | IBT- | C DIGIT TRANSLATION REQUIRED | |
| | | | IC-- | IDR- | ROUTE TRANSLATION FROM "A", B AND C DIGITS | |
| | | | IDR- | RC- | ROUTING | |
| 95 | CENTRALIZED CENTREX ATTENDANT OPERATION-ATTENDANT CONTROLLED TRANSFER | SECONDARY OFFICE — ROUTING OF TRANSFER CALLS TO THE PRIMARY OFFICE | DTZ00-99 | LRW00-119 | PILOT NO. FOR ATTENDANT LLP TRUNKS TO CENTRALIZED ATTENDANT FACILITIES AT PRIMARY OFFICE | NOTES 213, 439, 472 |
| | | | DTL00-99 | - | OMIT CROSS CONNECTION | |
| | | | LRU- | LPN | LLP ROUTE SERIES | |
| | | | LRL- | - | OMIT CROSS CONNECTION | |
| | | NO. GROUP INFORMATION | LN-(ST) | ST00-39 | NO. GROUP START | |
| | | | LN-(HB) | HB0-9 | HUNDREDS DIGIT | |
| | | | LN-(TB) | TB0-9 | TENS DIGIT | |
| | | SENDER INFORMATION | LDL-- | DL0S | DELETE NONE | |
| | | | LCR-- | CR5S | NO ARBITRARY DIGIT | |
| | | | LCL-- | CL-- | SEE PART 7 FOR CLASS INFORAMTION | |
| | | ROUTING OF LISTED DIRECTORY NO. OR CENTREX TEMP. INCPT CALLS TO THE PRIMARY OFFICE — NO. GROUP INFORMATION | LRU- | LPN | LLP ROUTE SERIES — PILOT NO. FOR ATTENDANT LLP TRUNKS TO CENTRALIZED ATTENDANT FACILITIES AT PRIMARY OFFICE (SAME NO. AS ABOVE) | |
| | | | LRL- | BLTL | LR- RELAY LOCK | |
| | | | LN-(ST) | ST00-39 | NO. GROUP START | |
| | | | LN-(HB) | HB0-9 | HUNDREDS DIGIT | |
| | | | LN-(TB) | TB0-9 | TENS DIGIT | |
| | | SENDER INFORMATION | LDL-- | LOPO | DELETE 4, OUTPULSE "8" | |
| | | | LCR-- | - | OMIT CROSS CONNECTION | |
| | | | LCL-- | CL-- | SEE PART 7 FOR CLASS INFORMATION | |
| | | PRIMARY OFFICE — LISTED DIRECTORY NO. GENERATION FOR INCOMING TRANSFER, INCOMING LISTED DIRECTORY, AND INCOMING CTI CALLS | FVD8 | IDI | INCOMING LDN INDICATION SCREENING | |
| | | | IDZ | C.P. | CODE POINT TREATMENT | |
| | | | INZ | SC- | TRUNK CLASS SCREENING REQUIRED WHEN MARKER GROUP SERVES MORE THAN ONE CUSTOMER ARRANGED FOR CENTRALIZED ATTENDANT OPERATION | |
| | | | S- | LRW-- | TO SAME RL- RELAY USED TO GENERATE LDN (SEE PART 73) | |
| | | | INL | SC- | TRUNK CLASS SCREENING REQUIRED WHEN MARKER GROUP SERVES MORE THAN ONE CUSTOMER ARRANGED FOR CENTRALIZED ATTENDANT OPERATION | |
| | | | S- | LPA, LPB, LEA, LEB, LTA, LTB | LOCAL COMPLETION RELAY | |
| | | SEVEN DIGIT CALL TRANSFER-ATTENDANT PROVIDED WITHOUT SEVEN DIGIT CALL TRANSFER INDIVIDUAL | SCG | SC- | TO PROVIDE INTERCOM OPERATION ON START OUT-WHEN SEVEN DIGIT TRANSFER IS PROVIDED | |
| | | | S- | AIN | | |

DRAWING ISSUE: 37D MS, 39D RJF, 40A, 41D, 43D, 45D

DRAWING ISSUE: 69B

SD-26002-01-D41

COMPLETING MARKER CIRCUIT — (2) — SD-26002-01-D41

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

# CROSS CONNECTION INFORMATION (CONT)

| PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | REFERENCE |
|---|---|---|---|---|---|
| 96 | CALL TRANSFER FOR STATION-TO-STATION CALLS (ADD-ON) | SCG- | SC- | SUB CLASS OR RATE TREATMENT SCREENING | NOTE 472 |
| | | S- | ADD | ENABLE ADD-ON | NOTES 213,472 |
| | | | NAO | NO ADD-ON | |
| 97 | PREROUTE CONTROL OF CLASS INFORMATION TO REVERTIVE SENDERS | CODE POINT | SCC- | HIGH AND LOW INCOMING GROUP INFORMATION TO REVERTIVE SENDERS IS DETERMINED BY PREROUTE SCREENING | NOTES 462, 472 |
| | | CL- | CSC | | |
| | | CIC- | C.P. | CODE POINT TREATMENT | |
| 98 | INTERCEPTION FOR PBX ORIGINATED CALLS CONTAINING MUTILATED A,B, OR C DIGITS | NDI | SC- | SCREENING TO PROVIDE INTERCEPT FOR PBX CLASSES | NOTES 213, 407, 472 |
| | | S- | RC-N | | |
| 99 | AREA CODE TRANSLATOR | ELS | ACT | ODD ONLY | NOTES 465, 472 |
| | | LS | SW- | | |
| | | ELT- | LT2-<br>LT3-<br>4LT-<br>ETA-<br>11X- | PPCS TRANSLATION RELAY (ODD AND PPCS) | |
| | | SCG | SC- | | |
| | | S- | ACT | | |
| | | ACC--- | ACG--- | AREA ROUTE TRANSLATION | |
| | | ACG--- | ACR--- | | |
| | | ACR--- | RC--- | ONE ROUTE TO AREA | |
| | | ACR--- | FAT-- | MORE THAN ONE ROUTE TO AREA | |
| | | ACV, ACC--- | ACG-- | VACANT AREA ROUTING | |
| | | ACG-- | ACR-- | | |
| | | ACR-- | VCG | | |
| 100 | AMA RECORDING OF DIRECTORY ASSISTANCE CALLS | 2 LINE AMA RECORD: LOCAL AREA (411 CODE POINT) | C(411) | PREROUTE REQUIRED | NOTES 469, 472 |
| | | | DALI | ROUTE RELAY OR SCREENING POINT | |
| | | HOME NPA AREA(555-1212 CODE POINT) | C(555) | | |
| | | | DAHAI | PREROUTE REQUIRED | |
| | | 4 OR 5 LINE AMA RECORD: HOME NPA AREA(555-1212 CODE POINT) | C(555) | ROUTE RELAY OR SCREENING POINT | |
| | | FOREIGN NPA AREAS (NPA+555+1212 CODE POINT) | C(NPA) | | |
| 101 | INC TRK CLASS SCREENING OF PHASE I CENTREX LINES WITH RESTRICTED INC SERVICE WHEN TENS BLOCK SCREENING IS NOT PROVIDED | CXS | SC- | TRK CLASS SCREENING | NOTES 213, 472 |
| | | S- | CXC | ALLOWS COMPLETION | |
| | | | CXR | ROUTE TO ANNOUNCEMENT MACHINE | |
| 102 | CROSS CONNECTION CHECKING | TXCOO-30 | - | TERMINALS PROVIDED FOR TEST ACCESS | NOTE 472 |
| 103 | WHEN HOME AREA HAS OFFICE CODE OF THE NOX OR NIX TYPE | H | J | TO PREVENT BLOCKAGE OF 7 DIGIT CALLS WITH 0/1 IN 8 DIGIT POSITION | |

* A DEDICATED ROUTE RELAY MUST BE ASSIGNED TO THE MULTILATED DIGIT INTERCEPT ROUTE TO AVOID POSSIBLE FEEDBACK PROBLEMS WHICH OCCUR IF A COMMON ROUTE RELAY, SUCH AS THE ZERO OPERATOR ROUTE RELAY, IS USED.

| PART | CONDITION | CONNECT TERM. | CONNECT TO TERM. | CONDITION | | REFERENCE |
|---|---|---|---|---|---|---|
| 104 | DIGIT 8 CUT-THROUGH CLASS | S- | RC- | ROUTE TO NO. 1 ESS ARRANGED FOR EPSCS SERVICE | | NOTES 471, 472 |
| | DIGIT 8 CUT-THROUGH FOR ENHANCED PRIVATE SWITCHED COMMUNICATION SYSTEM (EPSCS) | R- | NN | ROUTE SERIES | | |
| | | TG- | TGC- | TRUNK GROUP | | |
| | | TB- | TBC- | TRUNK BLOCK | | |
| | | OS- | NSO | NO SENDER OUTGOING | NON ANI ROUTE | |
| | | CL- | - | OMIT CROSS CONNECTIONS | | |
| | | DL- | - | | | |
| | | CR | - | | | |
| | | OS- | OSC- | ANI SENDER GROUP | ANI ROUTE | |
| | | CL- | CLIOP | OUTPULSE ANI INFO ONLY | | |
| | | DL- | DLOP | DELETE NONE, GRD CLASS 2 LEAD TO SENDER | | |
| | | CR- | CRSS | NO CR | | |
| | | CP- | RAG- | MONITOR RELEASE | | |
| | | RAG- | MTR | | | |
| | | RA- | PB | ROUTE ADVANCE TO PATHS BUSY | | |
| 105 | A&M ONLY | | | | | |
| | CROSS CONNECTION INFORMATION FOR REUSE MARKERS HAVING FEATURES WIRED AND EQUIPPED BUT NOT REQUIRED IN REUSE OFFICE | | | | | |

| FORMER CONDITION | | REMOVE CROSS CONNECTIONS CONNECTING TERM | REMOVE CROSS CONNECTIONS CONNECTING TO TERM | REUSE CONDITION | ADD CROSS CONNECTIONS CONNECTING TERM | ADD CROSS CONNECTIONS CONNECTING TO TERM |
|---|---|---|---|---|---|---|
| TENS BLOCK SCREENING | RINGING COMBINATION | RNA2-5,8,9,12-15, RNATN (ALL ASSOC TBSO-3 RELAYS) | RCT-, REH, TNK | RINGING COMBINATION | RNA2-5,8,9,12-15 (TBSO RELAY ONLY) | RCT2-5,8,9,12-15 |
| | | | | | RNATN (TBSO RELAY ONLY) | TNK |
| | TERMINATING TREATMENT | RNB2-5,8,9,12-15, RNBTN (ALL ASSOC TBSO-3 RELAYS) | 2L, BLT, BLDA, CI, DAT, JAR, KM, LLPI, OSC, POTS, TST | SATISFY TERMINATING TREATMENT CHECKS | RNB2-5,8,9,12-15 RNBTN (TBSO RELAY ONLY) | POTS |

| | | | | | | |
|---|---|---|---|---|---|---|
| 106 | HIGH USAGE LOCAL ROUTES (TRUNK GROUPS) SCANNED BY CALL DATA TRANSMITTER (CDT) | CDTK | NN | FLAT RATE SUBSCRIBER CLASSES (AMA RECORD BLOCKED BY CDT) | RTE RELAY AHEAD OF SERVICE TREATMENT FIELD | NOTE 477 |
| | | S- | NRCD | | | |
| | | NRBD | RB | | | |
| | | S- | RCD | MESSAGE SERVICE SUBSCRIBER CLASSES (AMA RECORD GENERATED BY CDT) | | |
| | | RCDB | RB | | | |
| | | CDTK | NN | | | |
| | | S- | RC- | FLAT RATE SUB-SCRIBER CLASSES (AMA RECORD BLOCKED BY CDT) | RTE RELAY BEHIND SERVICE TREATMENT FIELD | |
| | | R- | NRCD | | | |
| | | NRDB | RB | | | |
| | | CDTK | NN | | | |
| | | S- | RC- | MESSAGE SERVICE SUBSCRIBER CLASSES (AMA RECORD GENERATED BY CDT) | | |
| | | R- | RCD | | | |
| | | RCDB | RB | | | |
| | | CDTK | NN | | | |
| 107 | SCREENING FOR BUSY LINE VERIFICATION (BLV) DEDICATED TANDEM ROUTING FROM TSPS | BLV ROUTE SCREENING | R- | SC- | DIVERTED ROUTE SCREENING | | NOTE 478 |
| | | ROUTE SERIES | R- | NN | NON-CHARGE, NON-COIN | | |
| | | DIVERTED ROUTE OPERATION | RR- | RC- | DIVERTED ROUTE RELAY | | |
| | | DIVERTED ROUTE OPERATION | S- | DR- | DIVERTED ROUTE SCREENING | | |
| | | CONTROL OF SCREENING RELAYS FOR DEDICATED TSPS BLV INC CLASS | TSA- | SW- | DEDICATED TSPS BLV INCOMING CLASS SCREENING RELAY | | |
| | | | TSB- | | | | |
| | | OUTSENDER GROUP | OS- | OSC- | SENDER GROUP ASSOCIATED WITH DEDICATED ROUTE | | |
| | | SENDER GROUP | CL- | SEE PART 7 | CLASS INFORMATION AS REQUIRED | | |
| | | TRUNK GROUP | TG- | SEE PART 2 | TRUNK GROUP ASSOCIATED WITH DEDICATED ROUTE | | |
| | | TRUNK BLOCK | TB- | SEE PART 1 | TRUNK BLOCK ASSOCIATED WITH DEDICATED ROUTE | | |

NOTE 400 (CONT)

THE COLORS OF WIRE SHALL BE USED AS SHOWN IN THE TABLE BELOW. THE TERMINAL STRIP HORIZONTAL ROWS ARE NUMBERED BOTTOM UP IN ALL CASES. WHERE TWO OR MORE TERMINALS IN THE SAME VERTICAL COLUMN ARE STRAPPED TOGETHER AND SERVED BY ONE CROSS CONNECTION "JUMPER", THE COLOR SHALL BE DETERMINED BY THE ROW FROM WHICH THE "JUMPER" LEAVES THE TERMINAL STRIP. INTRA-CONNECTIONS UNDER REMARKS REFER TO "JUMPERS" WHICH RUN ONLY BETWEEN TERMINALS OF THE SAME TERMINAL STRIP. IN CASES WHERE A LARGE NUMBER "VACANT CODE" CROSS CONNECTIONS HAVE TO BE MADE, ALL "VACANT CODE" CONNECTIONS MAY BE RUN WITH BLUE WIRE. THE TYPE AND GAUGE OF WIRE IS SPECIFIED ON E0270A2-01.

| FRAME | TERM. STRIP DESIG | NOR ROW | WIRE COLOR | REMARKS |
|---|---|---|---|---|
| COMMON EQUIP | CF | 1ST<br>2ND<br>3RD | WHITE<br>BLACK<br>RED | |
| | CG | ALL | GREEN | ALL INTRA-CONNECTIONS ONLY |
| T & CT | TD | 1ST<br>2ND<br>3RD<br>4TH<br>5TH<br>6TH<br>7TH | WHITE<br>BLACK<br>RED<br>BROWN<br>GREEN<br>WHITE<br>BLACK | |
| | TF | 1ST<br>2ND<br>3RD<br>4TH<br>5TH<br>6TH | WHITE<br>BLACK<br>RED<br>BROWN<br>GREEN<br>WHITE | |
| T & CT | TM, TK, & TN | 1ST<br>2ND<br>3RD<br>4TH | WHITE<br>BLACK<br>RED<br>BROWN | |
| ROUTE REL | RC | 5TH<br>6TH | GREEN<br>WHITE | |
| CODE CONV | CVD & CVE | 7TH<br>8TH | BLACK<br>RED | |
| ALL SERVICE TREATMENT | STR | 9TH<br>10TH | BROWN<br>GREEN | |
| T & CT | TP | 2ND<br>3RD<br>4TH | BLACK<br>RED<br>BROWN | INTRA-CONNECTIONS ONLY |
| ROUTE REL | RA & RD | 1ST<br>2ND | WHITE*<br>BLACK | *WHITE IS ALSO USED FOR INTRA-CONNECTIONS. ON T & CT FRAME ONLY (TB) |
| CODE CONV | CVB | 3RD<br>4TH | RED<br>BROWN | |
| T & CT | TB | 5TH | GREEN | |
| PBX ALLR | PAE | 1ST<br>2ND<br>3RD<br>4TH | WHITE<br>BLACK<br>RED<br>BROWN | |
| | PAD | 4TH<br>5TH<br>6TH<br>7TH | BROWN<br>GREEN<br>WHITE<br>BLACK | |
| | PAD & PAE | 1ST<br>2ND | RED<br>RED | INTRA-CONNECTIONS ONLY |
| MAN | MA | 1ST<br>2ND<br>3RD<br>4TH<br>5TH<br>6TH<br>7TH<br>8TH<br>9TH<br>10TH | WHITE<br>BLACK<br>RED<br>BROWN<br>GREEN<br>WHITE<br>BLACK<br>RED<br>BROWN<br>GREEN | |
| | | | | |

ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

SB-26002-01-D42

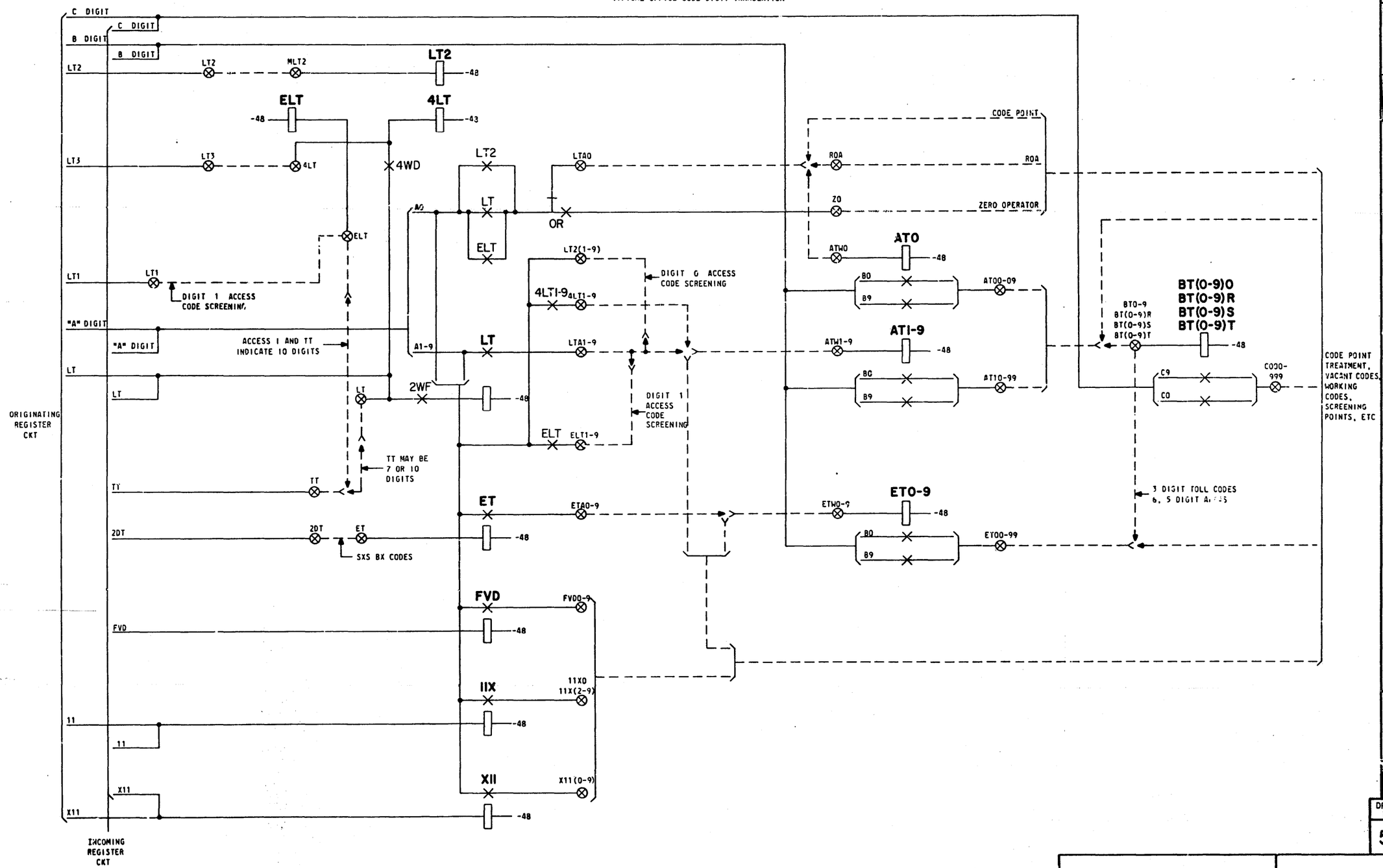
BELL TELEPHONE LABORATORIES INCORPORATED

ISSUE 6S

CROSS CONNECTION INFORMATION (CONT)

# NOTE 401

TYPICAL OFFICE CODE DIGIT TRANSLATION




DRAWING ISSUE
35D NSC
DRAWING REFURBISHED WITHOUT CHANGE

DRAWING ISSUE
51D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D43A

BELL TELEPHONE LABORATORIES INCORPORATED

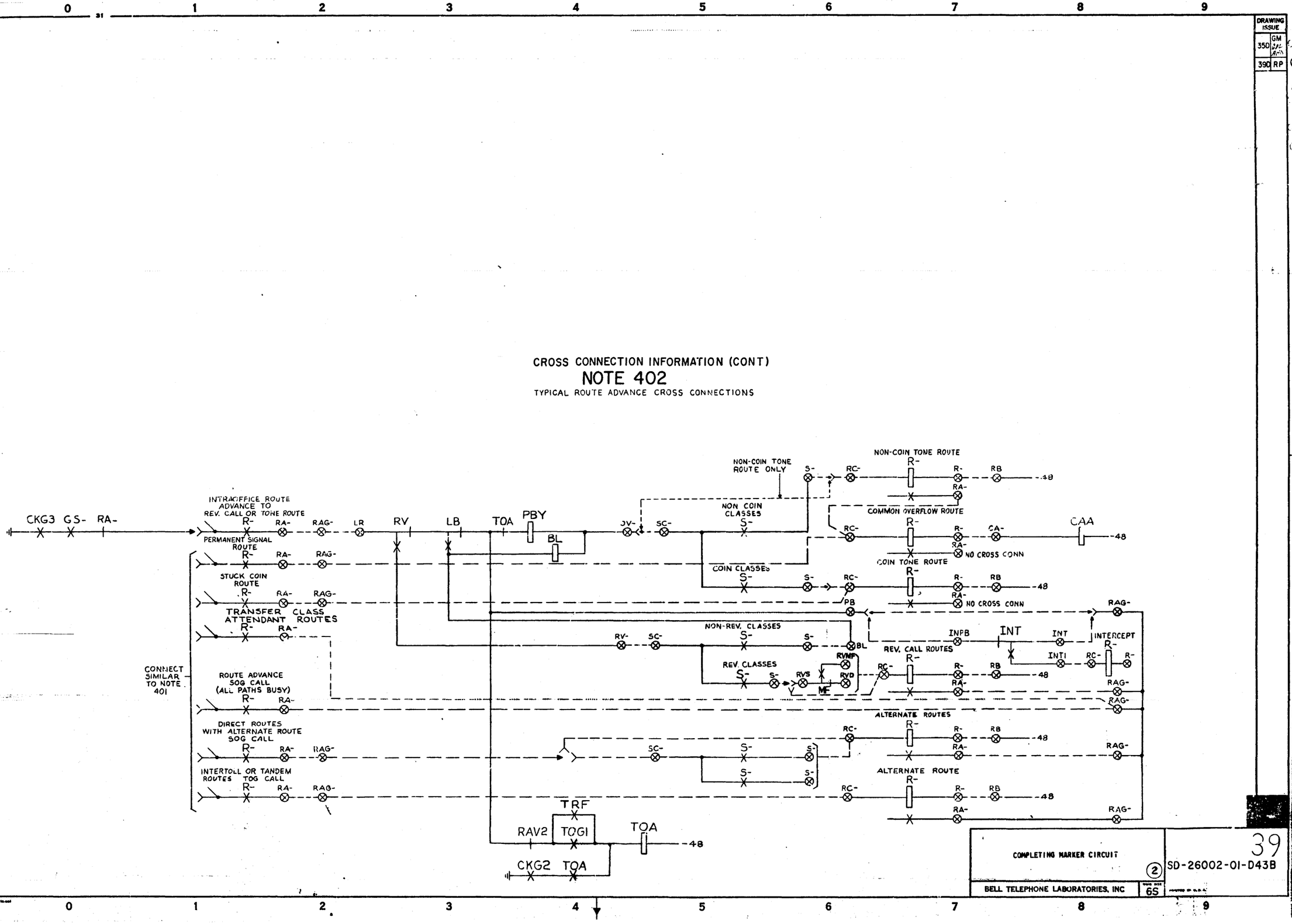
6S

| DRAWING ISSUE | |
|---|---|
| 350 | GM |
| 390 | RP |

CROSS CONNECTION INFORMATION (CONT)

## NOTE 402

TYPICAL ROUTE ADVANCE CROSS CONNECTIONS




COMPLETING MARKER CIRCUIT

39

SD-26002-01-D43B

BELL TELEPHONE LABORATORIES, INC

65

# NOTE 403

TYPICAL INTRAOFFICE ROUTE RELAY OPERATION

L LK PULS ROUTE DETERMINED BY CODE POINT

CODE POINTS C- LRW- LR- LRU- LPN LPN -48

FLAT RATE ROUTE ADVANCE TO AMA TRK GR

L LK PULS PROVIDED WITHOUT OPTION ZYR (SEE SHEET NOTE 1)

ITRA IAA RC- R- (FLAT RATE ROUTE ADVANCE TO AMA TRK GR) R- RB -48

RA-

NO L LK PULS OR L LK PULS PROVIDED WITH OPTION ZYR

CLASS OF SERVICE SCREENING

AMA S- S- RC- R (AMA) R- RB -48

RA-

TRAFFIC SAMPLING PROVIDED

NO TRAFFIC SAMPLING

L LK PULS PROVIDED

L LK PULS NOT PROVIDED

IB RB -48

IC IA ITRA

FLAT RATE ROUTE ADVANCE TO AMA TRK GR

RATE TREATMENT SCREENING

CENTREX RESTRICTED STATIONS

SC- S- S- DR- DR- -48

OTHER S- S- MBS- MBS- -48

C- LP- LPA, LPB, ETC -48

NPR SC

CROSS CONNECT FOR 4 OR 5 DIGIT TRAFFIC

APR, BPR, ETC

FR S- S- RC- R (FR) R- NN NCNC -48

RA-

CNTO OR

XIIB

FVD(2-8) X..(2-8) SC- S- S-

SCREEN HERE IF LOCAL COMP RELAY IS IDENTIFIED BY CLASS OF SERVICE

SEE NOTE 439 FOR DIAL TRANSFER OPERATION

LPN, LPA, LPB, ETC

CN S- S- RC- R (CN) R- TC TCCN -48

RA-

ITRA ITRA RV LB OVC ITRA -48

FLAT RATE ROUTE ADVANCE TO AMA TRK GR

AMA & L LK PULS

LRD LRD LRA RV LB OVC

(ROUTE ADVANCE TO OUTGOING - INCOMING)

RC- R- RB -48

RA- PB -48

RV

BL

LR RV LB BL

PBY OV

INTERCOM (WITH TRANSFER) REV BAT. SUPV

(CUSTOMERS WITH ADD ON) S- S- RC- R- -48

(CUSTOMERS WITHOUT ADD ON) S- SC- S-

INTERCOM (NO TRANSFER) REV BAT. SUPV

R-(IAO) RC- R- -48

ADD ON PROVIDED

ADD ON NOT PROVIDED

BUSY LINE VERIFICATION NOT PROVIDED

FLO-5, FLP SC- S- S-

RATE TREATMENT SCREENING (ALL OTHERS)

BUSY LINE VERIFICATION PROVIDED

(BUSY LINE VERIFICATION) S- S-

4,5, OR 7 DIGIT STATION-TO-STATION (INTERCOM) TRAFFIC

BUSY LINE VERIFICATION 5 DIGIT

CLASS-OF-SERVICE SCREENING (5 DIGIT CUSTOMERS)

SC- S- S- RC- R-(SOG) R- -48

BUSY LINE VERIFICATION 4 DIGIT

(4 DIGIT CUSTOMERS) S- S- RC- R-(SOG) R- -48

BUSY LINE VERIFICATION 7 DIGIT

(7 DIGIT CUSTOMERS) S- S- RC- R- -48

NN NCNC -48

(4 OR 5 DIGIT PHASE I OR II CENTREX INTERCOM ROUTE)

R- RA-

SCREEN HERE WHEN INTRA MKR GR FR IS PROVIDED (PHASE I AND II CENTREX)

IE DNRA IF IG

RATE TREATMENT SCREENING OTHER S- S-

INTRAOFFICE ROUTE WITH TRANSFER

INTRA MKR GRP-FR R- RA-

SC- S- S- RC- R- RB -48

NOTES:

1. A SECOND R- RELAY FOR THE AMA TRK GR IS REQUIRED TO ELIMINATE THE CR-, CL- AND DL- CROSS CONNECTIONS WHEN L LK PULS IS PROVIDED WITHOUT OPTION ZYR. THIS RELAY IS NOT REQUIRED WITH OPTION ZYR.

DRAWING ISSUE

| | |
|---|---|
| 1 | FTR FTB |
| 2D | DAL — |
| 5D | FTD HP |
| 9D | BF FTG |
| 16B | WH FTH |
| 18D | PB FTJ |
| 21D | WD FTK AMD |
| 22D | EN GLN AID |

DWG REFURBISHED WITHOUT CHANGE 12-18-82 ELN

| | |
|---|---|
| 24D | DB FTM AMD |
| 25D | RL FTN AMD |
| 26A | PJD DW FTP AMD |
| 33D | GDL ABD |
| 39D | RA |

ISSUE 63B

COMPLETING MARKER CIRCUIT (2) SD-26002 01-D44

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D44

# NOTE 404

ROUTE SERIES CROSS CONN

| WINDINGS OF ROUTE OR PHEROUTE RELAYS | DESIG FROM | | RB | RG 00-59 | SC 00-239 | PM | PN | PP | TC | TN | NH | NC | CC | CA | TO | MBS 0-9 MBT9 | DP 0-19 | RCTS | IOD | NID | PDC 0-1 | IPRS | CVS | CMR 0,1 | LCB | CMF | CMJ | ANIS | ORR 0,1 | DRG 0-19 | BS-- |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCHG TREATED AS CODE POINTS | DESIG TO | NO.OF PCHG | 1 | 60 | 180 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 11 | 20 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 20 | 20 |
| ROUTE RELAYS | R000-499 | 500 | X | X | X | | | | X | X | X | X | X | X | | X | | X | X | X | X | X | | | | X | X | X | | | X |
| S- POINTS | S- | 2180 | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | | X | X | | | | X | X | X |
| ALLOTTED ROUTES | RL0-3 | 4 | X | X | X | | | | | | X | | | | | | | | | | | X | | | | | | | | | |
| RINGER TEST | RGT | 1 | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PEG COUNT CHARGE | PC00-39 | 40 | | X | X | | | | X | X | X | X | | | X | X | | X | X | X | X | | | | | | | | | | |
| ROUTING PROGRAM RELAYS | RS00 99 | 144 | | | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | | X | | | | | | | | | |
| RM- POINTS | RM- | 1152 | | | X | | | | X | X | | | | | | X | | | | | | | | | | | | | | | |
| TRANSFER | TRC | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| CODE CONVERSION | CVB- | | X | | | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| LOCAL COMPL RELAYS | LCC | | | | X | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| BILLING BY GRD SUPV | BL--- | 20 | | | X | | | | X | X | X | X | | | X | X | | | | | | | | | | | | | | | |

BATTERY SUPPLY FOR ROUTE RELAY

ROUTE BATTERY

ROUTE GROUPING

SCREENING POINTS

COMMON PERM SIGNAL TRK GR

COIN SUB (GRD LEAD TO TRK)

NO CN OR PBX NO. GRD TO TRK

PBX SUB (GRD TC LEAD TO TRK)

TCCN REL (GRD TO TRK & CN LEADS)

TCNC REL (GRD TC LEAD CHARGE CONDITION FOR SUB MSG REG CALLS OR TONE FOR CLR TRUNKS)

NCNG (NO. GRD TO TRK USED TO CHECK OUT MKR)

NCCN (GRD CN TO TRK FOR CN SUB WHEN TRK PROVIDES CN & NON CN SERVICE OR FOR "0" ATT CALL FROM EAT)

COIN RETURN USED WITH TRK GR NOT EQPT FOR CR & REG CANNOT RECOGNIZE CR CODES

CANCELS TRK CLASS INFO ONLY USE WITH COMMON OVERFLOW TRUNKS

TOLL SUPV ON TOLL & TAN THRU CALLS TO COMB LOCAL & TOLL OUTGOING WITH SENDERS (GRD RC LEAD)

MESSAGE BILLING INFO

DIVERTED ROUTES

THROUGH SWITCH VACANT CODE

IDENTIFIED OUTWARD DIALING

NO IDENTIFICATION DIALING

PAD CONTROL INFO TO "CENTREX" TRUNKS

SKIP POLITE SEARCH AND GO INTO PREEMPT CYCLE

CODE CONVERSION SERIES

CODE CONVERSION ROUTE

CAMA REROUTE

LOCAL COMPLETION BATTERY

CAMA FIRST

CAMA JUNCTOR

AUTOMATIC NUMBER IDENTIFICATION

DIVERTED ROUTES - ANI

GROUPING FOR OR POINTS

ROUTE SERIES TO BE DROPPED ON ROUTE ADV

DRAWING ISSUE

220 EN

240 PE

32A GLS

33D GLS

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

45D

ISSUE 55B

COMPLETING MARKER CIRCUIT

SD-26002-01-D45

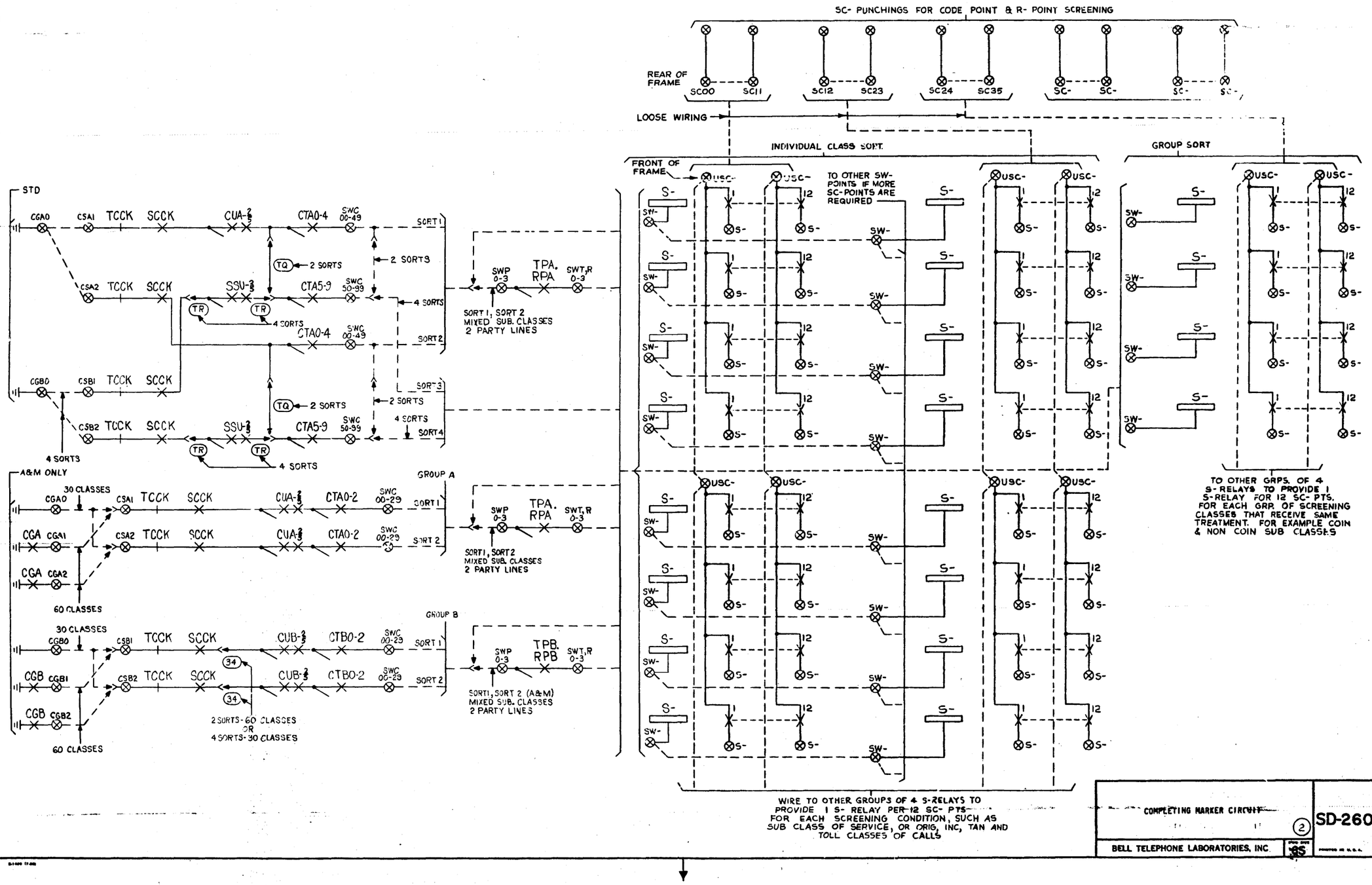
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

## CROSS CONNECTION INFORMATION (CONT)

# NOTE 405

S- RELAY SCREENING FOR SERVICE TREATMENT




DRAWING ISSUE

| | |
|---|---|
| 1 | FNR F1B |
| 2D | ARC |
| 3D | XFR NAS |
| 18D | PBM EDM SMB |
| 21D | EDM AND |
| 24D | MLT EDM AND |
| 25D | RL EDM AND |
| 33D | GAV & DL MM |

DRAWING REPUBLISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC.

33

SD-26002-01-D46

SD-26002-01-D46

# NOTE 406

NUMBER SERIES, NSS0-5, OPERATION FOR NUMBER GROUP SELECTION

| (-) OPTION (A&M ONLY) 4 OFFICE CODE GRP DIVISION | | NUMBER SERIES GROUP | (Y) OPTION (STANDARD) 6 OFFICE CODE GRP DIVISIONS | | NUMBER GROUP INDICATION TO MARKER | | | | OFFICE CODE GROUP CROSS-CONN PUNCHING TO OPERATE NSS- REL | TYPICAL ARRANGMENTS OF OFFICE NUMBER SERIES | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INC TRK GROUP INDICATION TO MARKER | | | INC TRK GROUP INDICATION TO MARKER | | DISCRIMINATING | | NON DISCRIMINATING | | | 1 NO. SERIES | 2 NO. SERIES | 3 NO. SERIES | 4 NO. SERIES | 5 NO. SERIES | 6 NO. SERIES | NUMBER SERIES RELAYS |
| FROM REGISTER | FROM TRUNK | | FROM REGISTER | FROM TRUNK | REGULAR NBR'S | ADDED NBR'S | REGULAR NBR'S | ADDED NBR'S | | STD & A&M | STD & A&M | STD | STD | STD | STD | |
| PHC OA * LPA | — 7TP, 8MP, 9FP — | A | PHC OA * LPA | — 8SP - 9NP — | PN | PNI SEE NOTE 1 | | | APN | | | | | | | NSS0 -48 |
| THC OA * LTA | — 4TT, 5MT, 6FT — | | THC OA * LTA | — 5ST - 6NT — | TN | TNI SEE NOTE 1 | | | ATN | | Φ | | | | | Ⓕ NSS2 -48 |
| | | | OA * LEA | 1SE - 4NE — | EN | ENI SEE NOTE 1 | | | AEN | | Φ | | | | | Ⓕ NSS4 -48 |
| OA | 1TB, 2MB, 3FB | | OA | 2SA - 3NA | | - | PTN | PTNI SEE NOTE 1 | AAN | | | | | | | |
| OB * LPB | 7TP, 8MP, 9FP — | B | OB * LPB | 8SP - 9NP — | PN | PNI SEE NOTE 1 | | | BPN | | | | | | | NSS1 -48 |
| OB * LTB | 4TT, 5MT, 6FT | | OB * LTB | 5ST - 6NT — | TN | TNI SEE NOTE 1 | | | BTN | | Φ | Φ | | | | Ⓕ NSS3 -48 |
| | | | OB * LEB | 1SE - 4NE — | EN | ENI SEE NOTE 1 | | | BEN | | Φ | Φ | | | | Ⓕ NSS5 -48 |
| OB | 1TB, 2MB, 3FB | | OB | 2SA - 3NA | | | PTN | PTNI SEE NOTE 1 | BAN | | | Φ | Φ | | | |

* OBTAINED BY MARKER TRNSL OF 1, 2 OR 3 DIGITS.

Φ INDICATES CONN IF OFFICE CODE GROUP DIVISION IS PROVIDED.

NOTE 1. PNI, TNI, ENI, PTNI USED FOR IDENTIFING AN ADDED THOUSAND SERIES TO AN EXISTING NUMBER GROUP.

DRAWING ISSUE

| | |
|---|---|
| 1 | J.N. FJB |
| 20 | DEC — |
| 5T | JAN FJB |
| 18D | J.S. |
| 24D | M.L. FJN AHP |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

CROSS CONNECTION INFORMATION (CONT)

# PART OF NOTE 407

FUNCTIONS CONTROLLED BY CODE POINTS

| CODE POINT PUNCHINGS | | DESIG | RC- | RP 00-39 | RCL 0-3 | OS 0-3 | REA,REB RPA,RPB RTA,RTB | LEA,LEB LPA,LPB LTA,LTB | CV 00-95 | IP 0-9 | RT 0-39 | VCG | ROA | FATI-3 (A&L&E) | ATW 0-9 | ETW 0-9 | BTO-9 BT(0-9) R,S,T | TX 0-9 | VP | SE 00-49 | SG 00-139 | SC 00-239 | VCI | DCI | LRW- | RMW 00-59 | GC 00-59 | EA | DZA | C4D | TEC 0-4 | SCC00-38 | LDI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "A" DIGIT OR 1 DIGIT CODES | ZERO FROM ORIG REG | Z0, IZO-4Z0 | X | | X | X | | | | | X | | | | | | | | | | | X | | | | | X | | | | | | |
| | LOCAL TRSNL DIGITS 1-9 | LTA1-9, ELT1-9, LT21-29, LT31-39, 4LT1-9 | X | X | X | X | X | X | X | X | X | X | | X | X | | | | | | | X | | | | | | | | | | | |
| | LOCAL TRSNL ZERO FROM INC REG | LTAO, ELTO, LT2O, LT3O, 4LTO | X | X | | X | | X | X | X | X | X | X | | | | | | | | | X | | | | | | | | | | | |
| | EXTRA TRANSLATOR, DIGITS 0-9 FROM INC REG 2DT OR TOLL CLASS | ETAO-9 | X | X | X | X | X | X | X | X | X | X | | | | X | | | | | | X | | | | | | | | | | | |
| | 11 TRANSLATION FOR SERVICE STRAIGHTFORWARD OR FOREIGN AREA CODES | 11XO, 11X(2-9) | X | X | | X | | X | X | X | X | | | X | | | | | | | | X | | | | | | | | | | | |
| | SV TRANSLATION FOR SERVICE ON STRAIGHTFORWARD CODES | X11(0-9) | X | X | | X | | X | | X | X | X | | | | | | | | | | X | | X | | | | X | X | | | | |
| | FVD TRANSLATION FROM INC OR ORIG REG DIGITS 0-9 | FVDO-9 | X | X | | | | X | X | X | X | X | | | | | | | | | | X | | X | X | | | X | | | | | X |
| INC LDN SCREENING | | ID2 | X | X | | | | X | X | X | X | X | | | | | | | | | | X | | X | X | | | X | | | | | |
| AB OR 2 DIGIT CODES | LT, LOCAL TRANSLATOR CODES | ATOO-99 | X | X | X | X | X | X | X | X | | X | | | | X | | | | | | X | | | X | | | | | | | | |
| | ET, EXTRA TRANSLATOR CODES | ETOO-99 | X | X | X | X | X | X | X | X | X | X | X | | | X | | | | | | X | | X | X | | | | | | | | |
| ABC OR 3 DIGIT CODES | LOCAL TRANSLATION | COOO-999 | X | X | X | X | X | X | X | X | X | X | X | X | | | | X | | | | X | | | X | X | X | | | | | X | |
| 2 DIGIT TX CODES INC REG TOLL CLASS | | TXOO-99 | X | X | | | | X | X | X | X | | X | | | | | | | | | X | | | X | | | | | | | | |
| ROUTE ADVANCE GROUPINGS | | RAG- | X | X | X | X | | X | X | X | X | X | X | | | | | | | | | X | | | | X | X | | | | | | |
| S- RELAY SCREENING | | S- | X | X | X | X | | X | X | X | X | X | X | X | | | | | X | X | | | | X | X | X | X | | | | X | | |
| PREROUTE RELAY CODE POINTS | INDIVIDUAL PEG COUNT | IR 0-9 | | | | | | X | X | | | | | | | | | | | | | X | | | | X | X | | | | | | |
| | PEG COUNT PREROUTE | PR 00-39 | X | | X | X | | X | | | | | | | | | | | | | | X | | | | X | X | | | | | | |
| | RINGER TEST ROUTE | RGTA | X | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| | LOCAL COMPLETION ROUTES | AER,BER, APR,BPR, ATR,BTR, FLO-5 | X | | X | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| | CODE CONVERSION ROUTES | CVR 00-95 | X | | | | | | | | | | | | | | | | | | | X | | | | X | X | | | | | | |
| | PULSE CONVERSION | PCDO,1, PCR | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | OPERATOR PREROUTE | OPO-3 | X | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| | DIVERTED ROUTES | RRO-19 | X | | X | X | | X | | X | ? | X | | | | | | | | | | X | | X | | | | | | | | | |
| | CLASS INFORMATION CONTROL | CIC 00-38 | X | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| CCSA TERM. ACCESS ROUTES | | TARO-4 | | | | | | X | | | | | | | | | | | | | | | | | X | | | | | | | | |
| MUTILATED DIGIT INTERCEPTION | | MDI | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| 6 DIGIT CODE TRANSLATIONS USING FOREIGN AREA TRANSLATORS | | FAR- | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | |

PREROUTE

WHEN FURTHER TRANSL OF CODE POINTS IS REQ

ROUTE RELAY WINDING
PREROUTE PEG COUNT
ALL3TTED TRK GROUPS
TONE SIGNAL DISTINCTION ON AN OPERATOR ROUTE
RINGER TEST ROUTES
LOCAL COMPLETION ROUTES
CODE CONVERSION
INDIVIDUAL PEG COUNT
ROUTE TRANSFER
VACANT CODE TREATMENT
REORDER FOR INC. TAM OR TOLL CALLS (A&M ONLY)
FOREIGN AREA TRANSL REQ
LOCAL TRANSL AB CODES OR 2 DIGIT TRANSL
EXTRA TRANSL AB CODES OR 2 DIGIT TRANSLATION
LOCAL OR EXTRA TRANSL ABC CODE OR 3 DIGIT TRANSL
OPR 2 DIGIT TX CODES
VACANT CODE PARTIAL DIAL TREATMENT
S- POINT EXTENSION
GROUPING FOR S- POINTS
WHEN S- SCREENING IS REQ TO PROVIDE DIFFERENT ROUTES FOR TYPES OF SERVICE OR TRK CLASS
VACANT CODE INTERCEPT FOR INCOMING CALLS
DENIED CODE INTERCEPT
LINE LINK PULSING ROUTE RELAY WINDING
ROUTING PROGRAM RELAY WINDING
WHEN G- GRADING IS REQ TO PROVIDE DIFFERENT ROUTES FOR TYPES OF INFO SERVICES OR TRK CLASS
EARLY ADVANCE OUT OF A RM- ROUTING PROGRAM
DIAL ZERO FOR CENTREX ATTENDANT OR ORIGINATING OR TRANSFER CALLS
CENTREX SERVICE- 4 DIGIT DIALING WITH CONFLICTING NUMBERS
CCSA ACCESS CONTROL TERM. TRAFFIC
PREROUTE CONTROL OF CLASS INFORMATION TO REVERTIVE SENDERS
INCOMING LISTED DIRECTORY NUMBER SCREENING

DRAWING ISSUE

| | |
|---|---|
| 35D | CK |
| 36A | |
| 37D | |
| 39D | RJF |
| 43D | |
| 45D | |

ISSUE 57B

SD-26002-01-D48

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D48

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# CROSS CONNECTION INFORMATION (CONT)

## PART OF NOTE 407

FUNCTION CONTROLLED BY CODE POINTS

| CODE POINT PUNCHINGS | | DESIG | RC- | RP 00-39 | RCL 0-3 | OS 0-3 | REA, REB RPA, RPB RTA, RTB | LEA, LEB LPA, LPB LTA, LTB | CV 00-95 | IP 0-9 | RTO-39 | VCG | ROA | FAT1-3 (A&L&E) | ATW 0-9 | ETW 0-9 | BTO-9 BT(0-9 R, S, T | TX 0-9 | VP | SG 00-119 | SC 00-239 | VCI | DCI | LRW- | RAW 00-95 | GC 00-59 | EA | TEC 0-4 | SCOO-38 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLOTTED TRUNK GROUPS | | L(A,B)0-3 | X | | | | | | | | | | | | | | | | | | X | | | | | | | |
| ROUTE TRANSFER | | RT(A,B)0-9 | X | | | X | | | | | | | | | | | | | | | X | | | | | | | |
| ORIG. REG | PARTIAL DIAL LOCAL AREA | 3PD | | | | | | | | | | | | | | | | | X | | X | | | | | | | |
| | PARTIAL DIAL FOREIGN AREA | PD | | | | | | | | | | | | | | | | | X | | X | | | | | | | |
| | PERMANENT SIGNAL | 4PS | X | | | | | | | | | | | | | | | | | | X | | | | | | | |
| | | PS | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| | STUCK COIN | SCN | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| VACANT CODE | ORIGINATING CLASS | VC | X | X | | | | | | X | | | | | | | | | X | | X | | | | | | | |
| | TANDEM CLASS | TAV | X | X | | | | | | | | | X | | | | | | | | | | | | | | | |
| | TOLL CLASS | TOV | X | X | | | | | | | | | X | | | | | | | | | | | | | | | |
| | INC CLASS OR DIAL TRANSFER | INV, DTV | | | | | | | | | | | X | | | | | | | | | X | | | | | | |
| | ATTENDANT CLASS | ATV | | | | | | | | | | | X | | | | | | | | | X | | | | | | |
| | FOREIGN AREA OFFICE | FOVC | | X | | | | | | X | | | | | | | | | | | X | | | | | | | |
| GRD FOR CLASS OF SERVICE PEG COUNT | | CLC | | | | | | | | X | | | | | | | | | | | X | | | | | | | |
| GRD FOR SC- POINT | | SCG | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| OUTPUT OF FOREIGN AREA TRANSLATOR | | FAR 00-99 | X | | | | | X | X | | | X | | X | | | | | | | | | | X | X | X | | X | |
| TRANSFER ATTENDANT | | TRA | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| LISTED DIR NO. ATTENDANT | | LDA | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| LINE LINK PULS ROUTE | | FLP, NPR | X | X | | | | | | | | | | | | | | | | | X | | | | | | | |
| RING ROUTING CONTROL | MOST DIRECT ROUTE | MD 00-95 | X | | | | | | X | | | | | | | | | | | | X | | | | X | | | |
| | BEST ALTERNATE ROUTE | BA 00-95 | X | | | | | | X | | | | | | | | | | | | X | | | | X | X | | |
| | 2ND BEST ALTERNATE ROUTE | SBA00-95 | X | | | | | | X | | | | | | | | | | | | X | | | | X | X | | |
| | GROUP ADVANCE | GA00-95 | X | | | | | | | | | | | | | | | | | | X | | | X | | | | |
| ROUTE PROGRAM ROUTING | | RM-- | X | | | | | | | | | | | | | | | | X | | X | | X | | | | | |
| GENERATED NO. ROUTE | | GNR | X | | | | | | | | | | | | | | | | | | X | | | | | | | |

PREROUTE

WHEN FURTHER TRANSL OF CODE POINTS IS REQ.

- ROUTE RELAY WINDING
- PREROUTE PEG COUNT
- ALLOTTED TRK GROUPS
- TONE SIGNAL DISTINCTION ON AN OPERATOR ROUTE
- RINGER TEST ROUTES
- LOCAL COMPLETION ROUTES
- CODE CONVERSION
- INDIVIDUAL PEG COUNT
- ROUTE TRANSFER
- VACANT CODE TREATMENT
- REORDER FOR INC. TAN OR TOLL CALLS (M&M ONLY)
- FOREIGN AREA TRANSL REQ.
- LOCAL TRANSL AB CODES OR 2 DIGIT TRANSL
- EXTRA TRANSL AB CODES OR 2 DIGIT TRANSL
- LOCAL OR EXTRA TRANSL ABC CODE OR 3 DIGIT TRANSL
- OPP. 2 DIGIT TX CODES
- VACANT CODE PARTIAL DIAL TREATMENT
- GROUPING FOR S- POINTS
- WHEN S- SCREENING IS REQ TO PROVIDE DIFFERENT ROUTES FOR TYPES OF SERVICE OR TRK CLASS
- VACANT CODE INTERCEPT FOR INCOMING CALLS
- DENIED CODE INTERCEPT
- LINE LINK PULSING ROUTE RELAY WINDING
- ROUTING PROGRAM RELAY WINDING
- WHEN G- GRADING IS REQ TO PROVIDE DIFFERENT ROUTES FOR TYPES OF SERVICE OR TRK CLASS
- EARLY ADVANCE OUT OF AN RM - ROUTING PROGRAM
- CCSA ACCESS CONTROL TERM. TRAFFIC
- PREROUTE CONTROL OF CLASS INFORMATION TO RECEIVE SENDERS

DRAWING ISSUE

| | |
|---|---|
| 240 | NP CPI AHF |
| 250 | PL CPI AHF |
| 330 | VNR CPI AHF |
| 370 | NS |
| 390 | RJF |
| 430 | |
| 450 | |

ISSUE 55B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D49

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# CROSS CONNECTION INFORMATION (CONT)

## NOTE 408

ROUTE AND ROUTE SERIES OPERATION FROM CODE POINTS WITH AND WITHOUT CLASS SCREENING

PUNCHINGS TREATED AS CODE POINT

- 6 DIGIT TRANSLATION — FAR-
- EXTRA LOCAL TRNSL — ELTI-9
- LOCAL TRNSL — LTAO-9
- ORIG REG LOCAL TRNSL — ZO
- EXTRA TRNSL 2DT OR TOLL — ETAO-9
- 11 TRNSL — 11X(0,2-9)
- SV TRNSL OR NG SEL — XII(O-9)
- FVD TRNSL — FVDO-9
- LOCAL TRNSL 2 DIGIT — ATOO-99
- EXTRA TRNSL 2 DIGIT — ETOO-99
- 3 DIGIT CODE POINT — COOO-999
- TRANSFER ATTENDANT — TRA
- INDIVIDUAL PEG COUNT — IRO-9
- TOLL TRNSL TX CODES — TXOO-99
- ALLOTTED TRK GROUPS — LAO-3,LSO-3
- CODE CONV — CVROO-95
- OUTPUT OF FAT — FAROO-99
- PEG COUNT PRE ROUTE — PROO-39
- ROUTE TRANSFER — RTAO-9,RTBO-9
- LOCAL TRNSL 2 — LT2(1-9)
- PULSE CONV — PCR,PCDO,1
- DIVERTED ROUTE — RRO-19
- OPR PREROUTE — OPO-3
- 4 WIRE LOCAL TRNSL — 4LTO-9
- PERM SIG — PS
- PERM SIG ROUTE — PSR
- LOCAL OFF. DISCR — AER,APR,ATR, BER,BPR,BTR
- PERM SIG (4 WIRE) — 4PS
- STUCK COIN — SCN
- VACANT CODE ORIG — VC
- VACANT CODE TAN — TAV
- L LK PULSING CODE — LPR
- ~~VACANT CODE TOLL~~ — TOV
- VACANT CODE INC — INV
- VACANT CODE FOREIGN AREA — FOVC
- 2ND BEST ALT ROUTE — SBAOO-95
- BEST ALT ROUTE — BAOO-95
- MOST DIRECT ROUTE — MDOO-95
- PROGRAM ROUTE — RM--
- ORIG REG PL NET TRNSL — 4ZO
- VACANT CODE -DTF — DTV
- VACANT CODE -ATT — ATV

USE SCREENING RELAYS AT THIS POINT WHEN ROUTE SELECTED DEPENDS UPON THE CLASS OF SERVICE OR UPON ORIG, INC, TDM OR TOLL TYPE OF CALL

NO SCREENING REQUIRED

USE SCREENING RELAYS AT THIS POINT WHEN ROUTE SERVES ALL CLASSES OF CALLS BUT CLASS SIGNAL TO TRK OR MESSAGE BILLING INDEX VARIES WITH TYPE OF SUB. OR INC. TDM OR TOLL CALLS

NO SCREENING OR CONTROL REQUIRED

R-

PC — PCOO-39 — 190

ALO-3

LEA, LEB
LPA, LPB
LTA, LTB
LEA,LPA,LTA, LEB,LPB,LTB — -48

REA,RPA,RTA, REB,RP3,RTB — RGT

RM- -48 RG-

OPSO-3

IPCO-3

CVOO-95 — CVS

PCOO-39

VCI

RT — RTO-9 — RTA- RTB-

VCG — OR VC, TAN TAV, TOL TOV, INC INV, FAC FOVC, DTF DTV, ATT ATV

CODE POINTS

DCI

ROA

PST

LR- — LRW- LRU- LPN- LPN — -48-

FAT(1-3) A8L — FOREIGN AREA TRNSL

RG- RG- — SC- — S-

BS- GSBI-4 BL-- -48 — MAY BE SCREENED

ROUTE SERIES RELAY DROPPED ON ROUTE ADVANCE

RSG RMC- RM- RM- SC- S-

RM- RSOO-95

RS 190

RB -48 ROUTE BAT.

CA — TCCA — CAA — -48 CANCELS TRK CLASS INFO

(TOA) REL — MBSO-9 — -48 AMA BILLING INDEX

NCNC — NN — -48 NO. GRD TO TRK

NCCN — NC — -48 GRD "CN" LEAD TO TRK

TCNC — TN — -48 GRD "TC" LEAD TO TRK

TCCN — TC — -48 GRD "TC" & "CN" LEADS TO TRK

RR — SCK — CC — -48 ROUTE REQUIRES COIN RETURN BY ORIGINATING REGISTER

PNC — PN — -48 NON-COIN OR PBX (NO. GRD TO TRK)

PPX — PP — -48 PBX (GRD "TC" LEAD TO TRK)

PCN — PM — -48 COIN (GRD "TP" LEAD TO TRK)

DRO-19 — -48 DIVERTED ROUTES

TOS — TO — -48 TOLL CALLS WHICH TDM THRU OFF. (GRD "RC" LEAD TO TRK)

IOD — IOC — -48 IDENTIFIED OUTWARD DIALING

NID — NID — -48 NO. IDENTIFICATION ON DIALING

PDCO — PDCO — -48 GRD "CN" & "CDN" LEADS TO TRK & "LF" LEAD (VIA L LK) TO TRK

PDCI — PDCI — -48 GRD "CN" & "CDN" LEADS TO TRK

MBT9 — MBT9 — -48 OVERRIDE PREVIOUS AMA BILLING WITH M59

| DRAWING ISSUE | |
|---|---|
| 24D | EN |
| 25D | |
| 33O | GCS |
| 37D | |
| 39D | R-F |
| 45D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT

SD-26002-01-D50

BELL TELEPHONE LABORATORIES INCORPORATED

6S

(ANNOUNCEMENT OR REORDER TONE)

CROSS CONNECTION INFORMATION (CONT.)

**NOTE 409**

TYPICAL VACANT CODE TREATMENT

VACANT OFFICE CODES FOREIGN AREA TRANSLATOR

7 DIGIT VACANT OFFICE CODES

10 DIGIT VACANT AREA CODES

INTERCOM VACANT CODES

MKR

SPECIAL TREATMENT FOR XOX/XIX VACANT CODES

FAR00 VCG OR VC TAN TAV TOL TOV INC INV FAC FOVC CMF3 CFV CMSO,1 CSV DTF DTV ATT ATV

VP (VACANT CODE TONE) VP OV RC ROA

S TAN S TOLL (A&M ONLY)

S NON PERMITTED FAC DIALING

OPERATOR R- RC R NN NCNC -48

VCI VCI -48

RL- R- R-

VACANT CODE TREATMENT SHOWING SPECIAL ROUTING FOR ANY COMBINATION OF CLASS (OR, TAN, TOL) AND/OR AREA (1, 2, 3) FROM THE FOREIGN AREA TRANSLATOR

VACANT OFFICE CODES RECEIVE SAME TREATMENT AS 7 DIGIT VACANT CODES

FAR00 VCG

EXAMPLE: TAN CLASS AREA 2 — FAR- RC R- R

EXAMPLE: TOLL CLASS AREAS 1 & 2 — FAR- RC R- R

EXAMPLE: TAN & TOLL CLASS AREA 3 — FAR- RC R- R

ADDITIONAL FAR TREATMENTS FOR VACANT CODES

FOREIGN AREA TRANSLATOR

VACANT OFFICE CODES RECEIVE SAME TREATMENT AS 7 DIGIT VACANT CODES

FOREIGN AREA TRANSLATOR FAR00 VCG RC R- R NN NCNC -48

VACANT CODE TREATMENT WHEN FOREIGN AREA TRANSLATOR SERVES ONLY ONE CLASS (OR, TAN, TOL)

VACANT CODE TREATMENT WHEN SUBSCRIBER CLASSES RECEIVE DIFFERENT TREATMENT FOR VACANT OFFICE CODES IN THE FOREIGN AREA

FOREIGN AREA TRANSLATOR FAR00 RC SUBSCRIBER VACANT CODES R- R SC S S S S S S S S TAN S TOL S NN NCNC -48

DR DR- 48 NR RC SUBSCRIBER VACANT CODES R- R

DR DR- -48 NR RC TAN & TOLL VACANT CODES R- R

TYPICAL CROSS CONNECTIONS FOR AUTOMATIC INTERCEPT ROUTING

BELL SYSTEM TRAFFIC — CCSA NOT PRCVIDED — CCSA PROVIDED AND BELL SYSTEM TROUBLE INTERCEPT ROUTED TO AUTOMATIC INTERCEPT CENTER

AIS -48 4WC AIS SG- S- S- S- CCSA PROVIDED IBN BN IRI RI

NAI -48 NAI SG- S- S- ITB TBII OCI VCI RIP RIW

CCSA TRAFFIC

CCSA NOT PROVIDED AND TROUBLE INTERCEPT ROUTED TO AUTOMATIC INTERCEPT CENTER

TROUBLE INTERCEPT TREATED IN LOCAL OFFICE

TYPICAL VACANT CODE OR NON WORKING NO. TREATMENT OR BOTH (SEPARATE INTERCEPT TRUNK GROUPS ON 2 LK FRAMES)

TSC- SCCK TCCK INC INS SW- S-

TAN TAC

TOL TOS

TCA TSCO-9 TSAO-9

TCB TSCO-9 TSBO-9

PG- PGB

CT- CU- SWC-

SC- S- S- BNA BNA

SEPARATE TRUNK GROUPS

NAI-G RIA RIA

COMMON TRUNK GR

SEPARATE TRUNK GROUPS

SC- ITNA ITNA

VCIA VCIA

| DRAWING ISSUE | | |
|---|---|---|
| 1 | K.H. F.S. | |
| 20 | REC — | WJF-4 W.F.C. |
| 4A | W.G.R. M.A.R. | |
| 5D | V.A.H. W.P. | J.F.D. A |
| 8D | J.C. J.B.N. | P.B. |
| 9D | W.J.C. J.M. | P.B. |
| 11B | W.A. J.B.N. | P.B. |
| 18D | J.S. T.H.J. | AMD C |
| 22D | J.B. J.B.N. AMD | C |
| | J.M. J.B.N. AMD | C |
| 24D | W.J.T. J.B.N. AMD | C |
| 25D | J.N.R. G.A.L. AMD | C |
| 33D | J.C.R. | C |
| 37D | W.F. | C |
| 39D | | C |

DRAWING ISSUE 49D

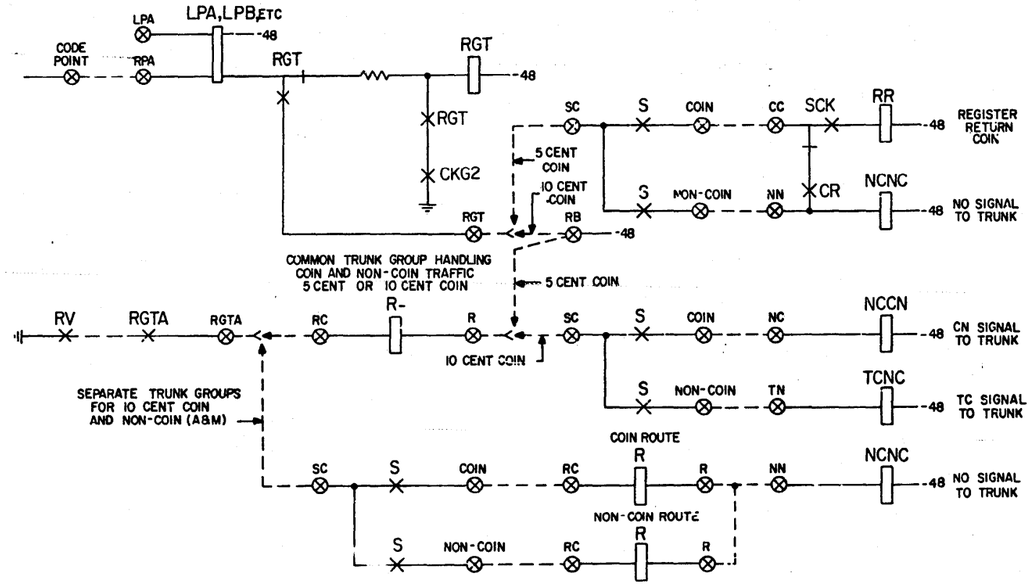
COMPLETING MARKER CIRCUIT (2) SD-26002-01-D51A

BELL TELEPHONE LABORATORIES, INC 6S

CROSS CONNECTION INFORMATION (CONT)

## NOTE 410

RINGER TEST ROUTES




DRAWING ISSUE 39D

39

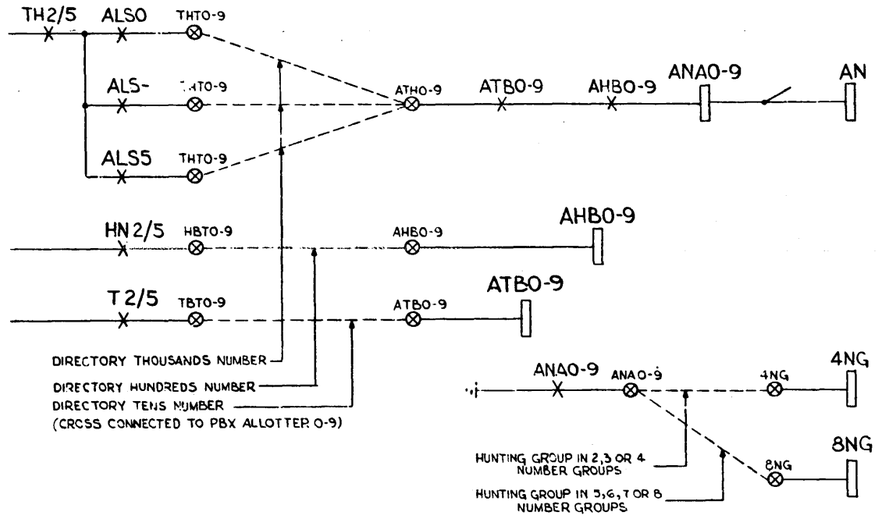
COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-D5IB

SD-26002-01-D5IB

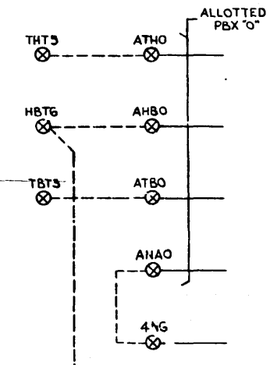
## NOTE 411
ALLOTTED PBX INPUT




EXAMPLE

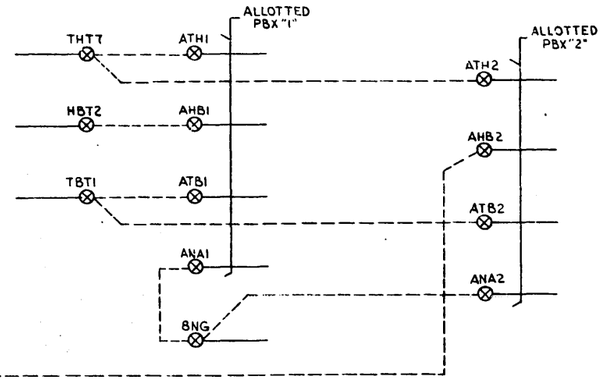
ALLOTTED NUMBER 5630
HUNTING GROUP IN 2 NUMBER GROUPS

5630 IS ASSIGNED TO ALLOTTED PBX "0"




ALLOTTED NUMBER 7210
HUNTING GROUP IN 5 NUMBER GROUPS

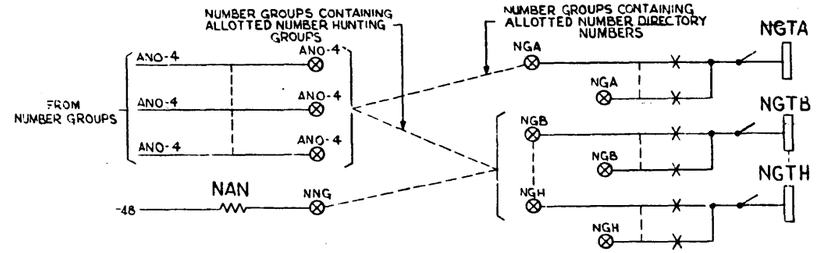
7210 IS ASSIGNED TO ALLOTTED PBX "1"




ALLOTTED NUMBER 7610
HUNTING GROUP IN 7 NUMBER GROUPS

7610 IS ASSIGNED TO ALLOTTED PBX "2"

## NOTE 412
HUNTING GROUP BUSY IN NUMBER GROUP

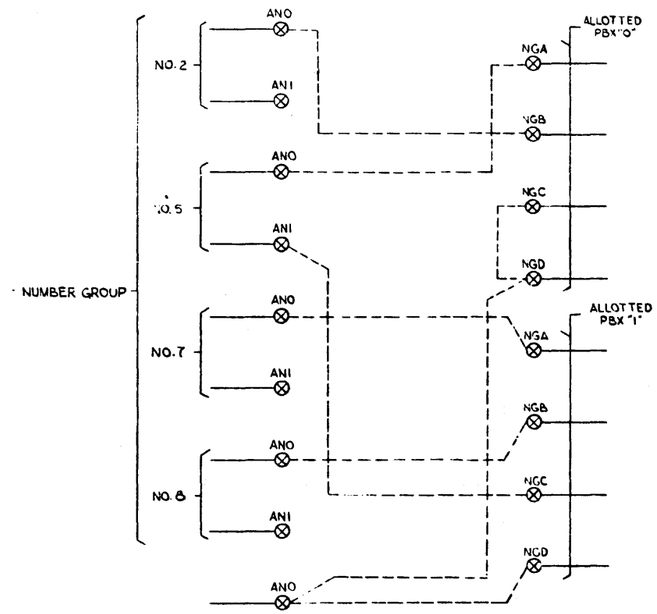



WHEN HUNTING GROUP IS IN 2 NUMBER GROUPS CROSS CONN. TO NGC AND NGD
WHEN HUNTING GROUP IS IN 3 NUMBER GROUPS CROSS CONN. TO NGD
WHEN HUNTING GROUP IS IN 5 NUMBER GROUPS CROSS CONN. TO NGF, NGG AND NGH
WHEN HUNTING GROUP IS IN 6 NUMBER GROUPS CROSS CONN. TO NGG AND NGH
WHEN HUNTING GROUP IS IN 7 NUMBER GROUPS CROSS CONN. TO NGH
WHEN HUNTING GROUP IS IN 4 OR 8 NUMBER GROUPS NO. NNG CROSS CONN. IS MADE

EXAMPLE

ALLOTTED NUMBER 5630
HUNTING GROUP IN 2 NUMBER GROUPS
(NO. 5 AND NO. 2)

ALLOTTED NUMBER 7210
HUNTING GROUP IN 3 NUMBER GROUPS
(NO. 7, NO. 8 AND NO. 5)



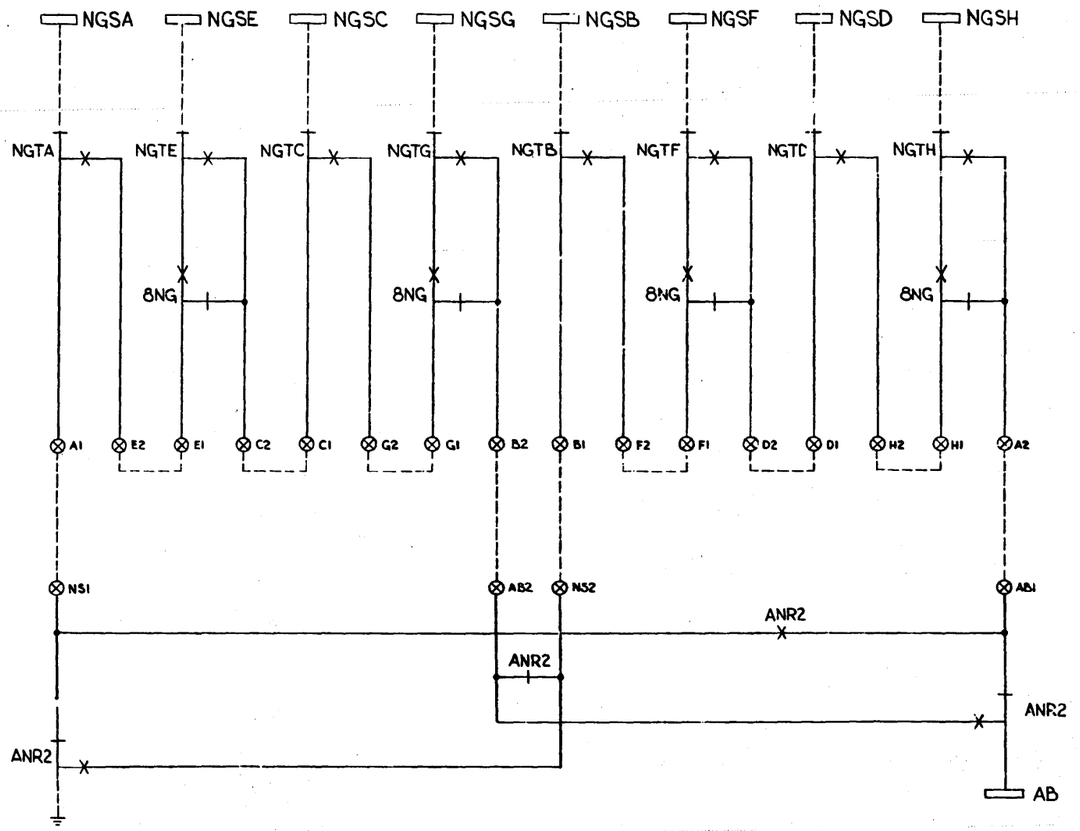

DRAWING ISSUE
20 BCC
4A WFB MAS
18D WFB MAS
24D JM ECM AHP
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES INCORPORATED
SPEC CODE 6S
24
SD-26002-01-D52

## NOTE 413

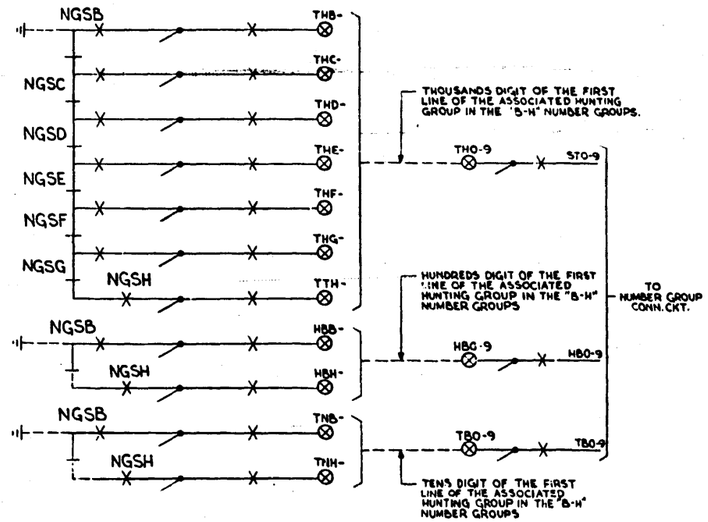
MARKER PREFERENCE AND SELECTION OF NUMBER GROUP

CROSS CONN. SHOWN FOR MARKER "O"



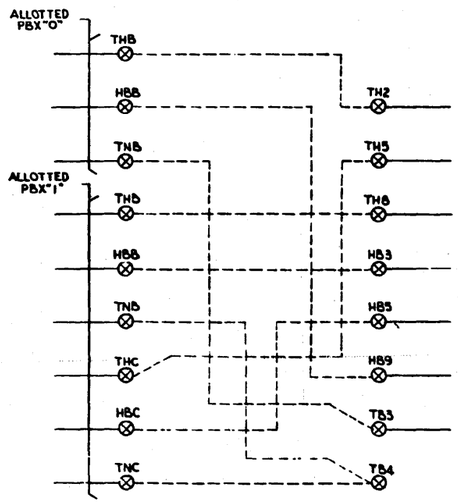

## NOTE 414

INPUT TO NUMBER GROUP FOR "B" THROUGH "H" NUMBER GROUPS




ALLOTTED NUMBER 5630 HAS HUNTING GROUPS IN 2 NUMBER GROUPS (NO. 3 AND NO. 2) NUMBERS OF THE FIRST LINE IN THE HUNTING GROUPS ARE 3630 AND 2930

ALLOTTED NUMBER 7210 HAS HUNTING GROUPS IN 3 NUMBER GROUPS (NO. 1, NO. 8 AND NO. 5) NUMBERS OF THE FIRST LINE IN THE HUNTING GROUPS ARE 7210, 6340 AND 5340




DRAWING ISSUE

| | |
|---|---|
| 2D | DEC — |
| 4A | NOV M.A.S. |
| 18D | JUL T&S |
| 24D | JM CPM AMD |

DRAWING REFURBISHED WITHOUT CHANGE 10-2-68

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

FORM 6S

24

SD-26002-01-D53

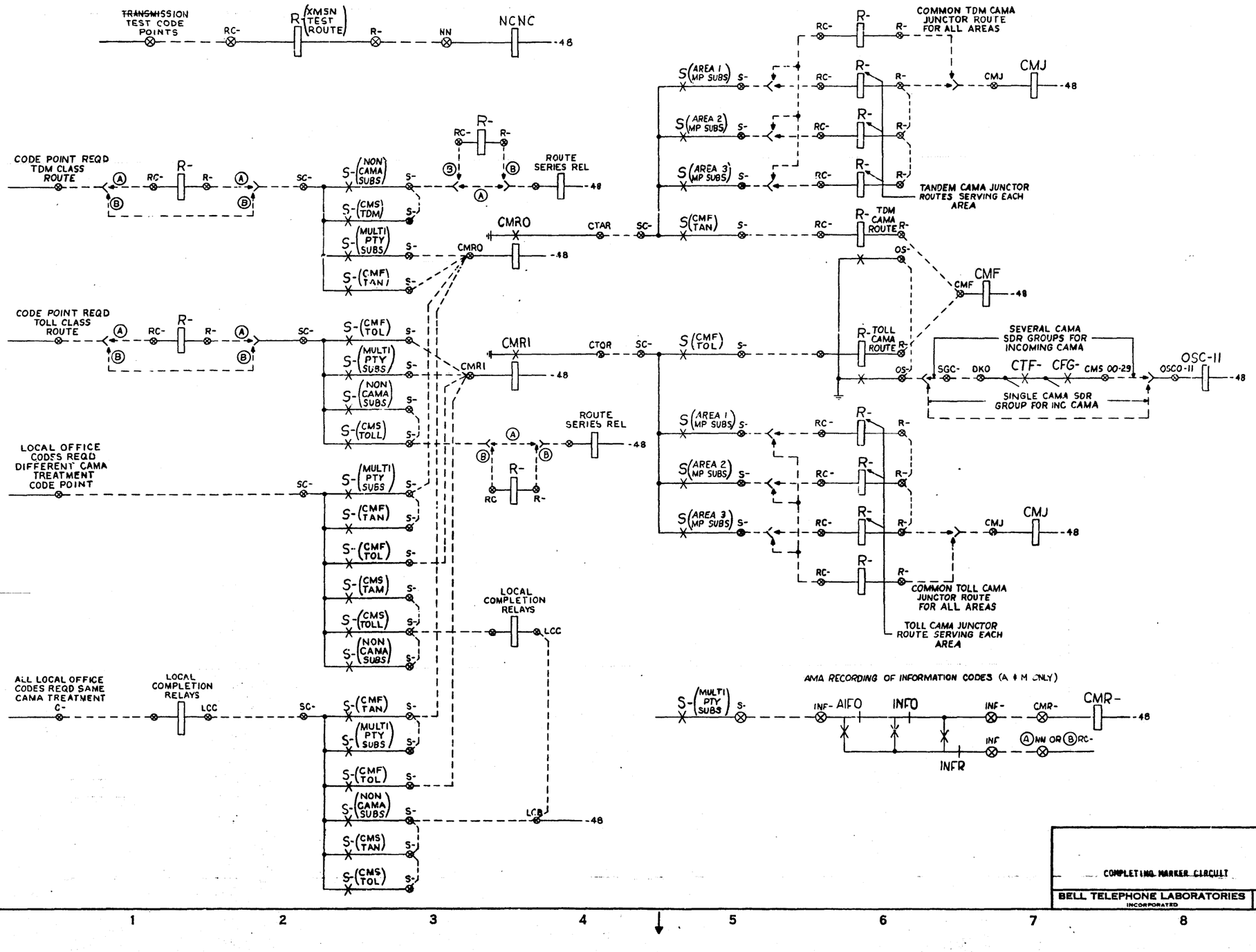
SD-26002-01-D53

CROSS CONNECTION INFORMATION (CONT)

## NOTE 415

CAMA CROSS CONNECTIONS
FOR ROUTE AND ROUTE SERIES REL.

(A) ROUTE REL BEFORE "SC" FIELD
(B) ROUTE REL AFTER "SC" FIELD




| DRAWING ISSUE | | |
|---|---|---|
| 8D | CSD | |
| 18D | | |
| 22D | GEU | |
| 24D | JM | |
| 35D | | |

DRAWING REFURBISHED WITHOUT CHANGE ID-1-68

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

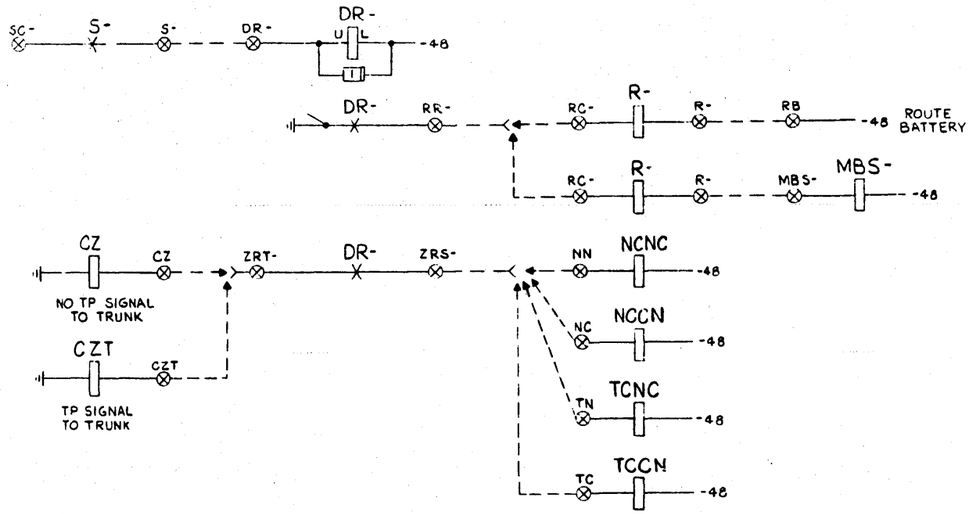
6S

ISSUE 5ID

SD-26002-01-D54

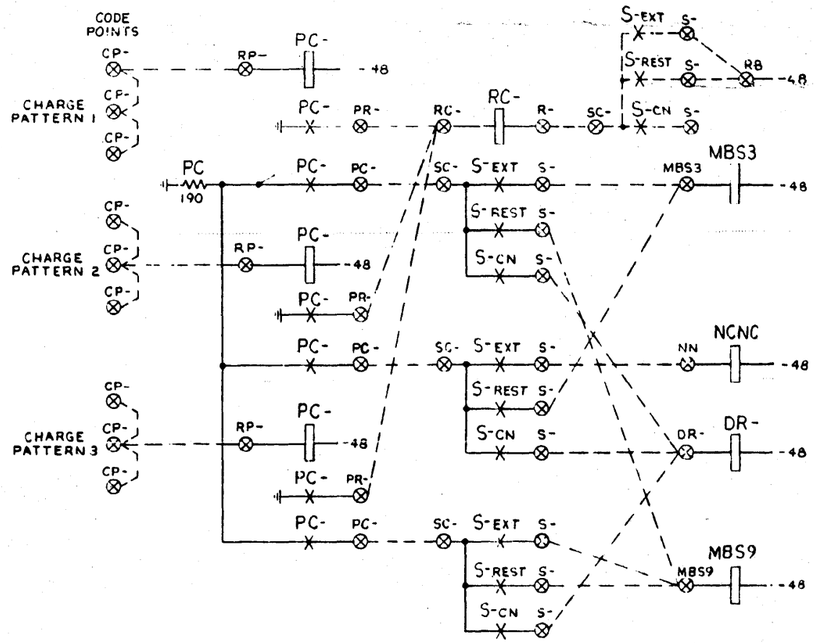
## NOTE 416

COIN ZONE DIALING CROSS CONNS
FOR ROUTE AND ROUTE SERIES RELAYS




## NOTE 417

PREROUTE CKT FOR TRK GRPS HAVING THE SAME
ROUTE INFORMATION BUT REQUIRING DIFFERENT CHARGING PATTERNS




DRAWING ISSUE

| | | |
|---|---|---|
| 9D | L.A.F. | |
| 10B | D.T.P. | |
| 11B | A.Q. | |
| 13B | A.E.T. | |
| 18D | J.S. | |
| 24D | J.M. | |

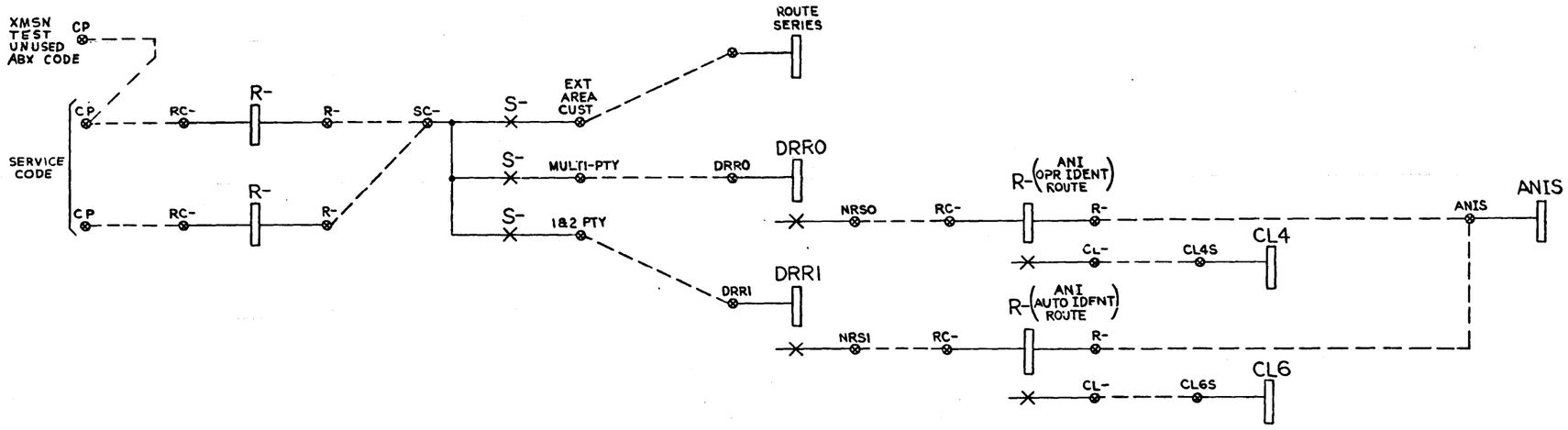
SD-26002-01-D55

CROSSBAR SYSTEMS
NO. 5
COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES INCORPORATED
6S

24
SD-26002-01-D55

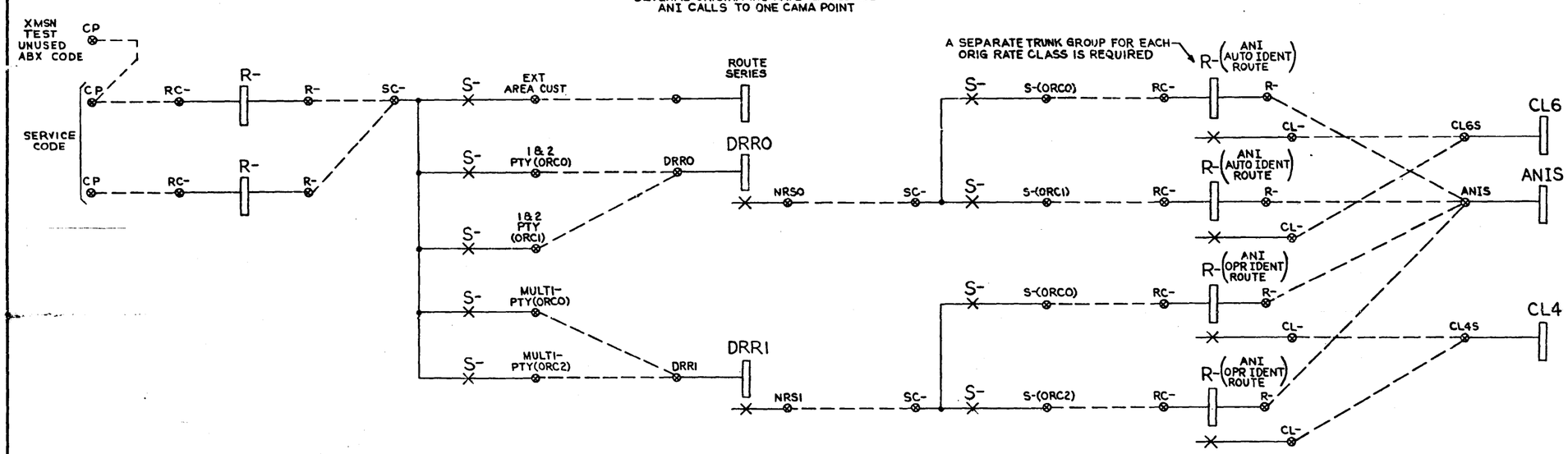
## NOTE 418

SINGLE ORIGINATING RATE CLASS ALL ANI CALLS TO ONE CAMA POINT




## NOTE 419

SEVERAL ORIGINATING RATE CLASSES ALL ANI CALLS TO ONE CAMA POINT




DRAWING ISSUE

| | | |
|---|---|---|
| 12D | AJ | WS |
| 18D | | GEL |
| 22D | DW | AW |
| 24D | JM | EM AW |

DRAWING REFURBISHED WITHOUT CHANGE 10-2-68

24

COMPLETING MARKER CIRCUIT (2)

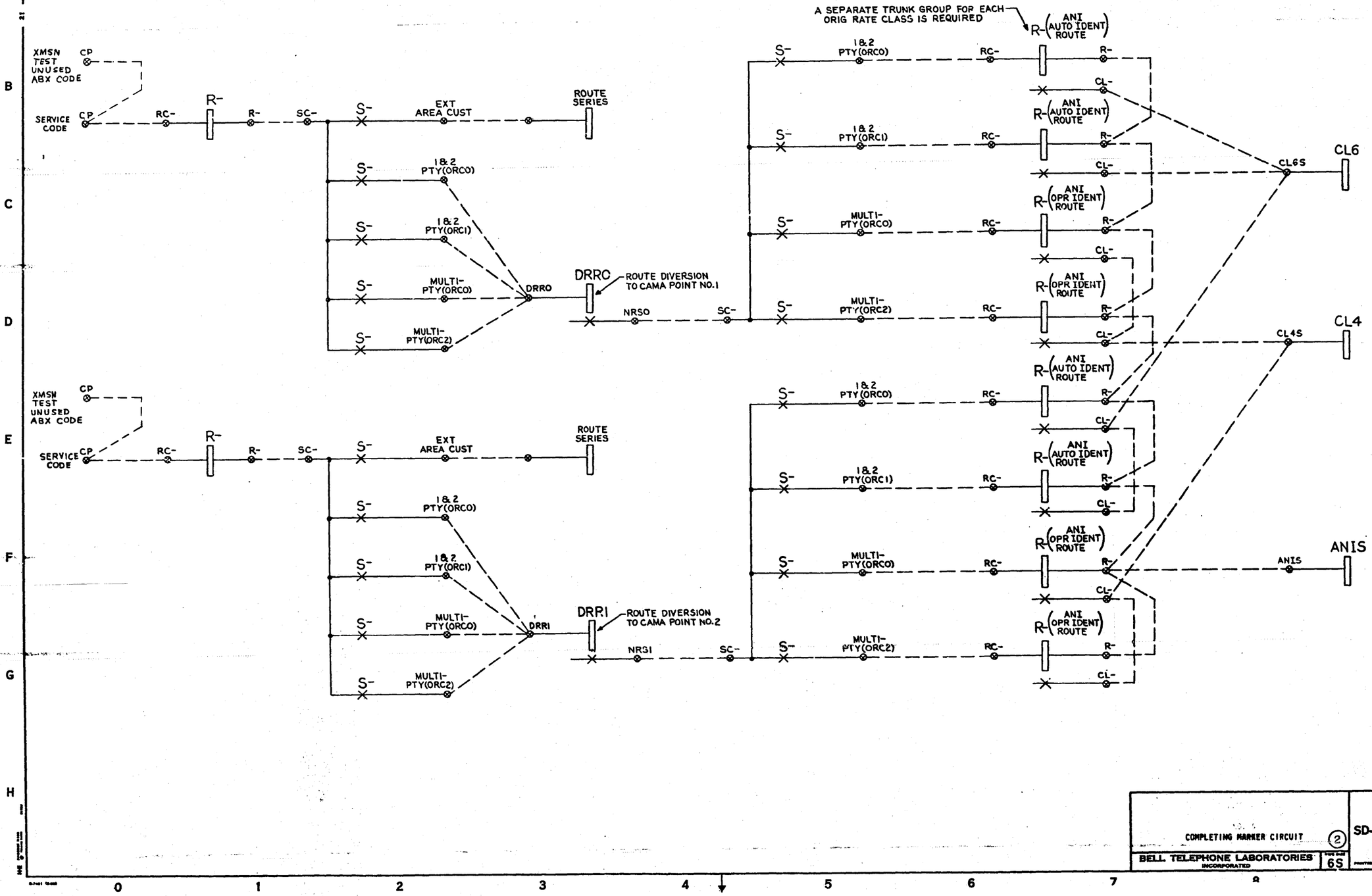
SD-26002-01-D56

BELL TELEPHONE LABORATORIES INCORPORATED

6S

## NOTE 420

SEVERAL ORIGINATING RATE CLASSES ANI CALLS TO TWO CAMA POINTS




| DRAWING ISSUE | |
|---|---|
| 12D | AEJ MA |
| 18D | JM LL |
| 22D | JM GEL GDW AMP |
| 24D | JM FDW AMP |
| DRAWING REFURBISHED WITHOUT CHANGE 10-2-68 | |

24

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-D57

6S

SD-26002-01-D57

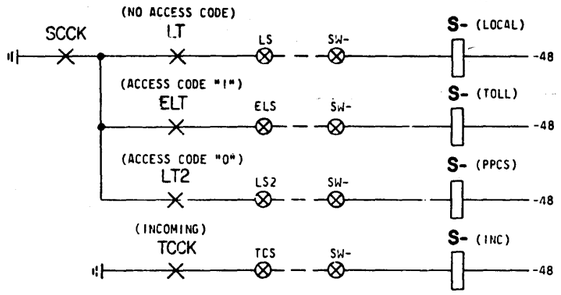
CROSS CONNECTION INFORMATION (CONT)

# NOTE 421

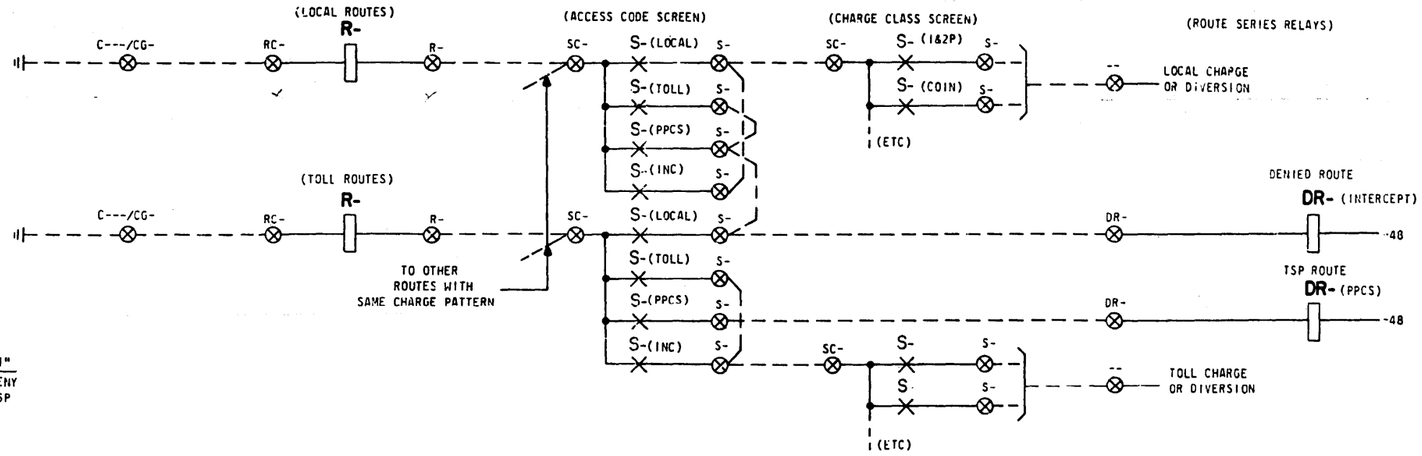
TYPICAL TREATMENT OF ACCESS CODES "0" AND "1"

## ACCESS CODE "1" USED TO INDICATE TOLL CODES - CODE "0" USED TO INDICATE PPCS SERVICE

### S- RELAY SELECTION




### ROUTE SCREENING




### TRANSLATION

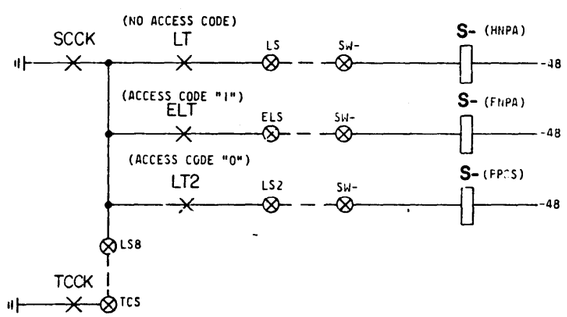
| TRANSLATION RELAYS | ASSOC WITH OR LEAD | ASSOC WITH IR LEAD |
|---|---|---|
| LT | LT | LT&TT |
| ELT | LT1 | |
| LT2 | LT2 | |

### ROUTINGS

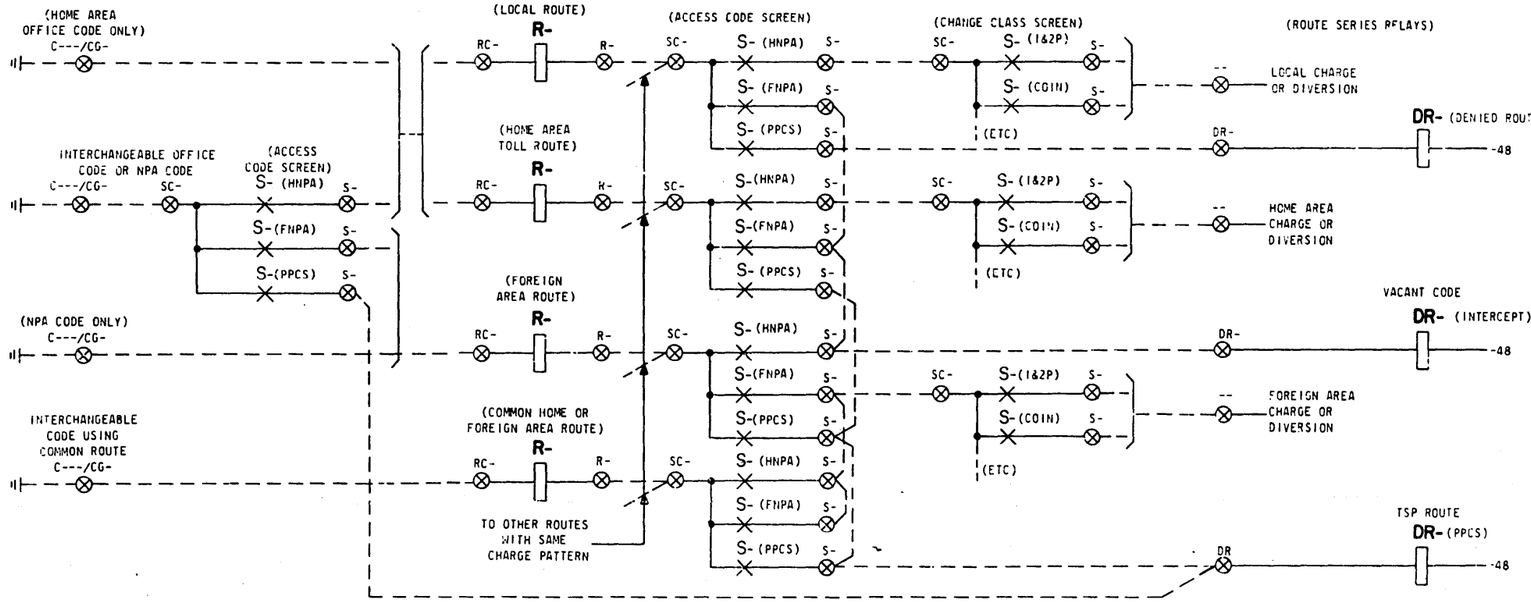
| CALLED CODE | ACCESS CODE NONE | "0" | "1" |
|---|---|---|---|
| LOCAL | R- | DENY | DENY |
| TOLL | DENY | R- | TSP |

## ACCESS CODE "1" USED TO INDICATE NPA CODES - CODE "0" USED TO INDICATE PPCS SERVICE

### S- RELAY SELECTION




### ROUTE SCREENING




### TRANSLATION

| TRANSLATION RELAYS | ASSOC WITH OR LEAD | ASSOC WITH IR LEAD |
|---|---|---|
| LT | LT | LT |
| ELT | LT1 | TT |
| LT2 | LT2 | |

### ROUTINGS

| CALLED CODE | ACCESS CODE NONE | "1" | "0" |
|---|---|---|---|
| OFFICE CODE ONLY | R- | VCG | TSP* |
| NPA CODE ONLY | VCG | R- | TSP |
| INTERCHANGEABLE | R- | R- | TSP |

* DENIED TO LOCAL OFFICES



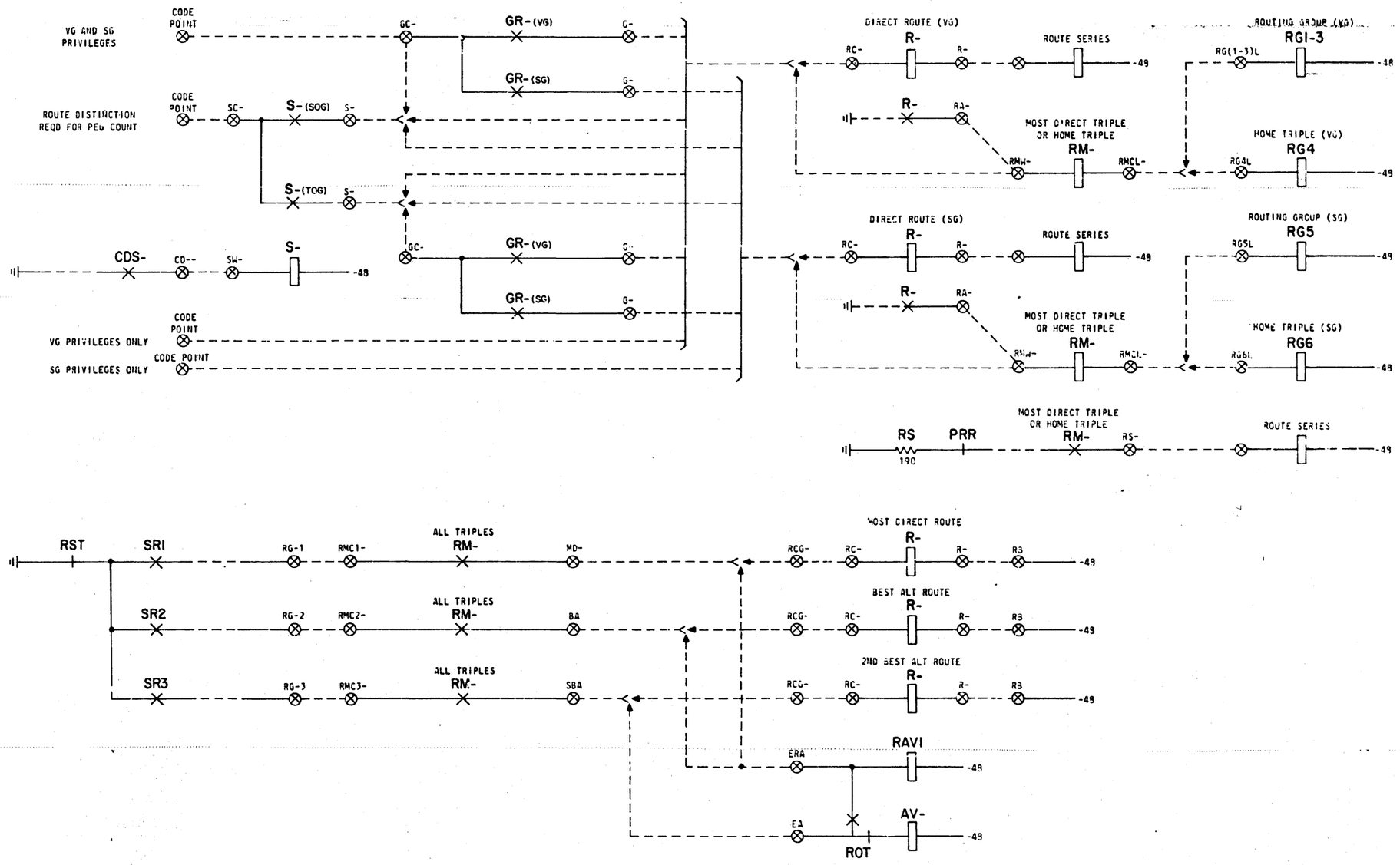
COMPLETING MARKER CIRCUIT (2) SD-26002-01-D58

BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

CROSS CONNECTION INFORMATION (CONT)

## NOTE 423

TYPICAL POLYGRID ROUTING CONTROL CROSS CONNECTIONS




DRAWING ISSUE

32A FAC COM AND

SD-26002-01-D59

HIGGINS 4465

32

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-D59

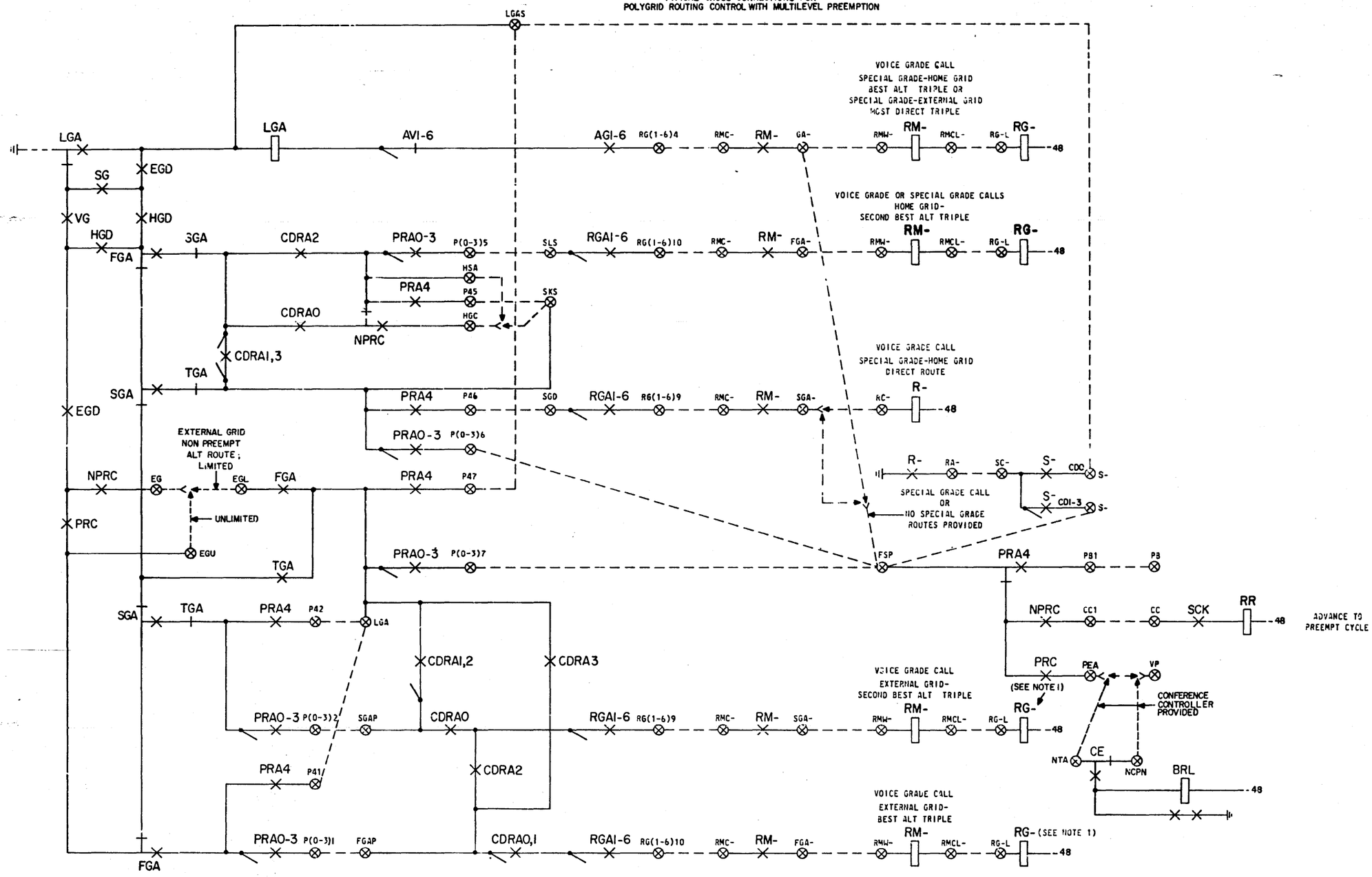
BELL TELEPHONE LABORATORIES INCORPORATED

6S

CROSS CONNECTION INFORMATION (CONT)

## NOTE 424

TYPICAL CROSS CONNECTIONS FOR
POLYGRID ROUTING CONTROL WITH MULTILEVEL PREEMPTION




NOTE:

1. THE BEST ALT TRIPLE AND SECOND BEST ALT TRIPLE RM- RELAYS ARE USED ONLY ON PREEMPT CYCLES AND MUST BE IN A DIFFERENT GROUP (RG1-4) THAN THE HOME OR MOST DIRECT TRIPLE RM- RELAYS.

| DRAWING ISSUE | |
|---|---|
| 32A | GA CDL AND |
| 35D | CK CDL AND |
| 39D | TRM |

39

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D60

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 65

PRINTED IN U.S.A.

SD-26002-01-D60

CROSS CONNECTION INFORMATION
NOTE 425
CONTROL DIGIT SCREENING AND MARKER CONTROL

| TYPICAL CONTROL DIGIT INFORMATION TO MARKER | | INFORMATION FROM REGISTERS: ORIGINATING | INFORMATION FROM REGISTERS: INCOMING | CONTROL DIGITS |
|---|---|---|---|---|
| SLOT 1 | NOTHING | ✓ | ✓ | GENERATED FROM REG. |
| | PRIORITY | ✓ | ✓ | PRECEDENCE LEVEL KEYS OR "1X" DIALED |
| | IMMEDIATE | ✓ | ✓ | |
| | FLASH | ✓ | ✓ | |
| | FLASH OVERICE | ✓ | ✓ | |
| | ROUTINE | | ✓ | "1X" DIALED |
| | OFF HOOK S.G. | ✓ | | |
| | OFF HOOK V.G | ✓ | | |
| | AUTOVON S.G. | ✓ | | |
| | AUTOVON V.G. | ✓ | | |
| SLOT 2 | NOTHING | ✓ | ✓ | GENERATED FROM REG. |
| | OFF HOOK S.G. | ✓ | ✓ | "1X" DIALED |
| | OFF HOOK V.G. | ✓ | ✓ | |
| | AUTOVON S.G. | ✓ | ✓ | |
| | AUTOVON V.G. | ✓ | ✓ | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

PRECEDENCE LEVEL MUST BE ASSIGNED FROM SLOT 1 (CDP- CONTROL DIGITS)
"NOTHING" IS CODE COMBINATION "15-1" IN EITHER SLOT.
NETWORK ROUTING CODES IN SLOT 2 ARE VALID ONLY WITH PRECEDENCE CODES IN SLOT 1

CDP- — SR00-21 — CDS0 — SRA-X
G — CDS- — SRA-X
CDS39 — SRA-X
CD-

AT THIS POINT, THE SPECIAL REQUEST (CDP-,CD-) AND THE CUSTOMER OR TRUNK CLASS OF SERVICE ARE COMPARED. THE TREATMENT REQUIRED IS DETERMINED BY THE CROSS CONNECTS TO THE (PRE-) AND (PG-) TERMINALS

PRECEDENCE RELAYS

| | | TYPICAL FEATURES |
|---|---|---|
| PRE0 | PRE0 — -48 | FLASH OVERIDE PRECEDENCE |
| PRE1 | PRE1 — -48 | FLASH |
| PRE2 | PRE2 — -48 | IMMEDIATE |
| PRE3 | PRE3 — -48 | PRIORITY |
| PRE4 | PRE4 — -48 | ROUTINE |
| | | |

PRIVILEGE GROUP RELAYS

| | | |
|---|---|---|
| PG00 | PG00 — -48 | NO SPECIAL CONTROL |
| PG01 | PG01 — -48 | AUTOVON S.G. |
| PG02 | PG02 — -48 | AUTOVON V. G. |
| PG03 | PG03 — -48 | 5D SWBD |
| PG04 | PG04 — -48 | 490 L SWBD |
| PG05 | PG05 — -48 | OFF HOOK V G. |
| PG06 | PG06 — -48 | OFF HOOK S. G. |
| PG07 | PG07 — -48 | AUTOVON WITH IMMEDIATE PREEMPT |
| PG08-14 | PG08-14 — -48 | AS REQUIRED |
| | | |

TYPE OF LINE

| | | |
|---|---|---|
| CNA | PLC CB6 — -48 | LINE IS A 4 W PREEMPT AUX LINE CKT |

PG- — PGA-
PG- — PGB-
(S-) AND/OR (GR-) RELAY SCREENING FOR VOICE GRADE OR SPECIAL GRADE TRUNKS IN REGULAR TRUNK ROUTES
PG- — PGC-
PG- — PGD-

PG- — PGE- (S-) AND/OR (GR-) RELAY (GR-) RELAY SCREENING FOR VOICE GRADE OR SPECIAL GRADE TRUNKS IN PREEMPTION TRK ROUTES

PG- — PGF- (SG) OR (VG) RELAY OPERATION FOR SPECIAL OR VOICE GRADE

PG- — PGG- OPERATES (IPR) RELAY FOR CALLS WITH IMMEDIATE PREEMPTION CYCLE

PG- — PGJ- NETWORK CONTROL DIGITS TO OUTGOING SENDER

PG- — PGH- OFF-HOOK SERVICE

PG- — PGK-
PG- — PGL-
PG- — PGH-
AS REQUIRED

| DRAWING ISSUE | |
|---|---|
| 30D | FES (EA. AND) |
| 32A | JNR (CAL AND) |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |

32

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D61

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D61

STABILO

FIG. 1 PARTIALLY AMA EQUIPPED TRUNK GROUPS

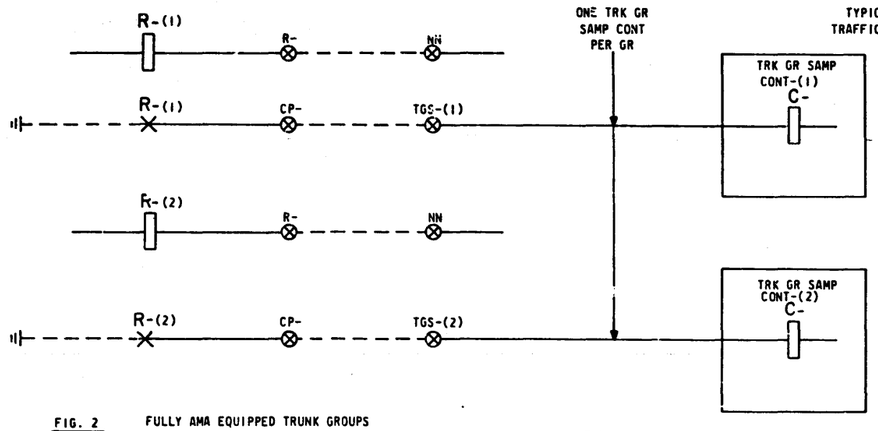



FIG. 2 FULLY AMA EQUIPPED TRUNK GROUPS

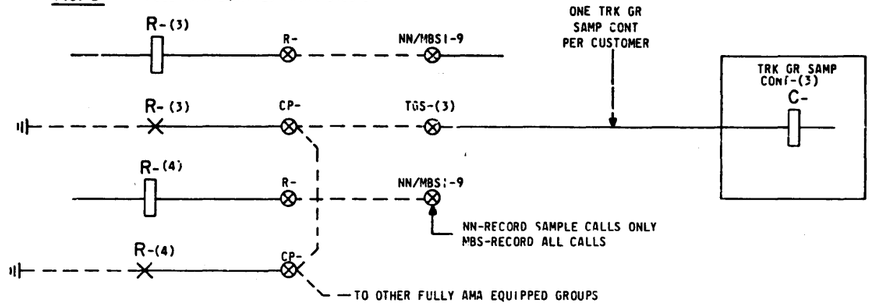
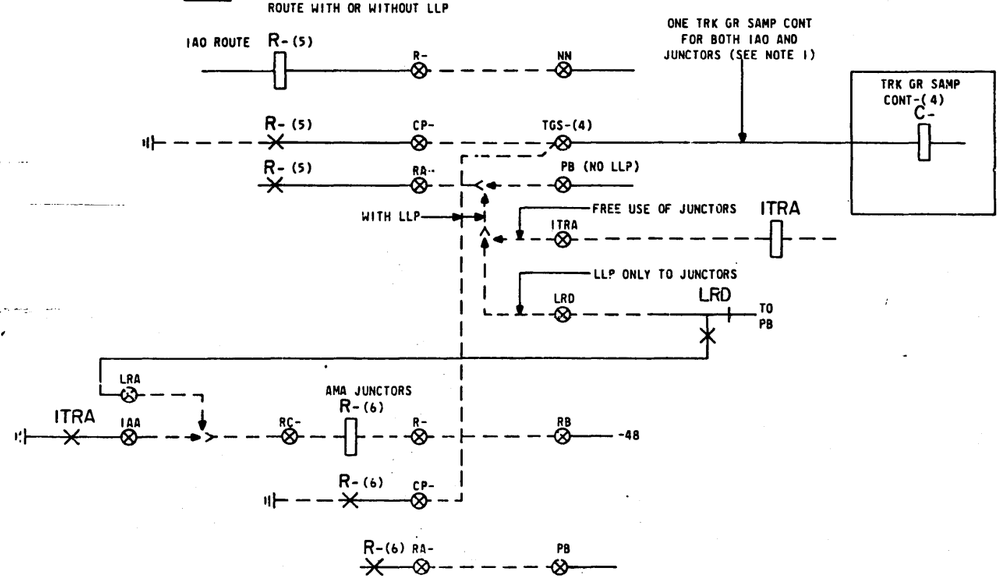



FIG. 3 PARTIALLY OR FULLY AMA INTRAOFFICE ROUTE WITH OR WITHOUT LLP




CROSS CONNECTION INFORMATION (CONT)

## NOTE 426

TYPICAL ROUTE RELAY CROSS CONNECTION TRAFFIC SAMPLING BY SELECTED TRUNK GROUP WITH LAMA-A OR LAMA-B

FIG. 4 NON-AMA INTRAOFFICE GROUP WITH LLP (SEE NOTE 2)

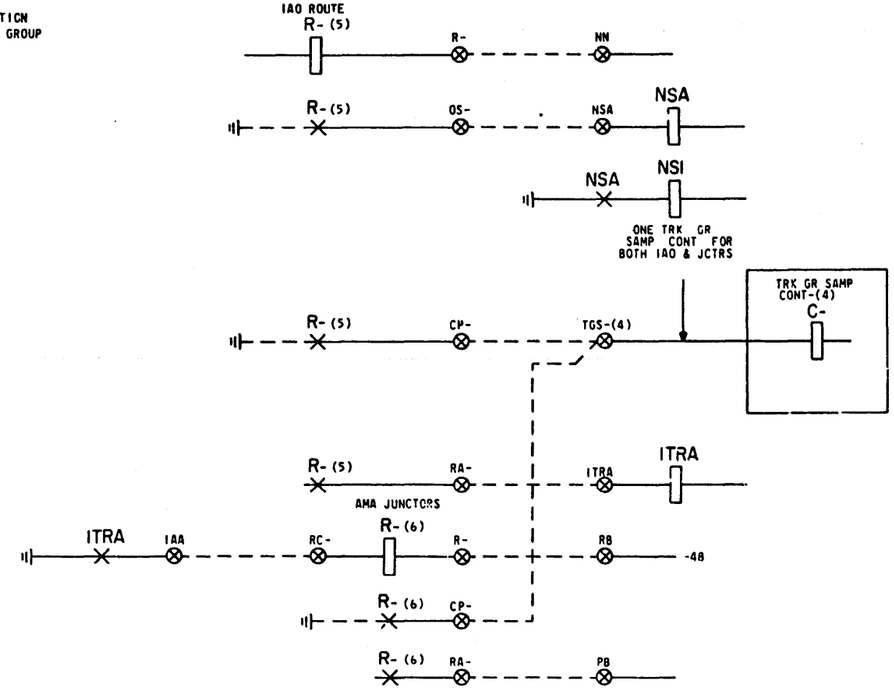
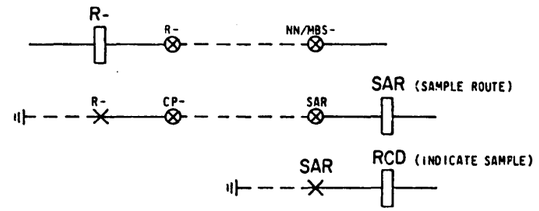



FIG 5 100% SAMPLING FULLY AMA EQUIPPED GROUPS ONLY




NOTES:
1. FULLY AMA-IAO WITHOUT LLP MAY USE TRK GR SAMP CONT-(3) OF FIG.2.
2. WITHOUT LLP, SECOND ROUTE COULD BE IAO-AMA, BUT THESE CAN BE COMBINED AS SHOWN IN FIG.3.

DRAWING ISSUE 390 WM

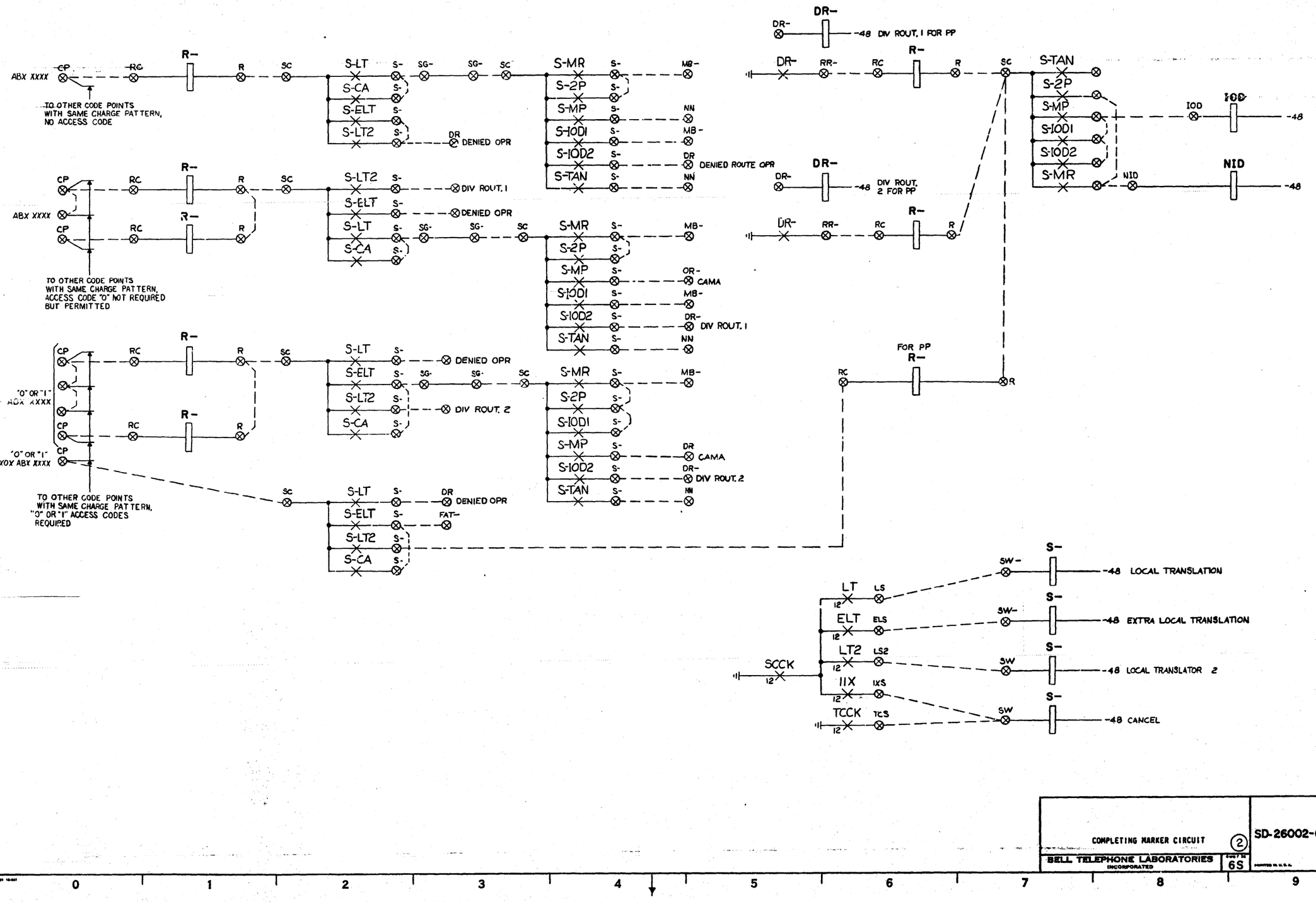
ISSUE 63B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D62

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# NOTE 427

TYPICAL CROSS CONNECTIONS FOR PERSON TO PERSON AND IDENTIFIED OUTWARD DIALING




| DRAWING ISSUE | |
|---|---|
| 21D | AGN EPM WB |
| 24D | 3V EPM MP |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

24

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D63

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 24 6S

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26002-01-D63

ENTERING

## CROSS CONNECTION INFORMATION (CONT)

# NOTE 428

TYPICAL NUMBER GROUP TENS BLOCK SCREENING

RANGE EXTENSION HUNTING LINE (A&M ONLY) — REH, REH2, REHI, LOLC, RCT10 -48

TRUNK NO. INDICATION — TNK -48

PHASE I LISTED DIR. NO. CHARGE OR RANGE EXTENSION-INDIVIDUAL LINE — RCT4 -48

PHASE I LISTED DIR. NO. FREE — RCT5 -48

PHASE I TEMP DISC. STA ROUTED TO AN ATTENDANT — RCT14 -48

(SEE NOTE 1) — RCT-- -48

2LO-9, 2LA, 2L -48 TWO LINE NO.

SA0-9 -48 UNITS DIGIT OF OTHER LINE

LLPI -48 LINE LINK PULSING-EXT NO. USAGE

OSG- -48 LINE LINK PULSING-LINE CKT USAGE OUT SENDER CLASS

(SEE NOTE 1) POTS -48 SPECIAL SERVICE NOT REQUIRED

KM -48 CANCEL CLASS OF SERVICE MATCH

BLT -48 BUSY LINE TRANSFER

DAT -48 DON'T ANSWER TRANSFER

BLDA -48 BUSY LINE AND DON'T ANSWER TRANSFER

CENTREX TEMPORARY INTERCEPT PHASE III — INR- ATTI XIIA I- CTI -48; AR- IRS-

PHASE II AND III CENTREX LISTED DIR NO. — INR- ATTI XIIA I- LDN -48; AR- IRS-

TRC, TBSO-3, RNATN; RCN12-15, RNA12-15; RCN8,9, RNA8,9; RCN2-5, RNA2-5

PTK, RGTA

TRC, TBSO-3, RNBTN; RCN12-15, RNB12-15; RCN8,9, RNB8,9; RCN2-5, RNB2-5

(ZSW)

LLPX — INDIVIDUAL CUSTOMER GR INTERCEPT ANNOUNCEMENT — (ZSW) CI -48

CONFERENCE CKT TREATMENT — INR- ATTI AR- XIIA I- IRS-

FULLY RESTRICTED TREATMENT — INR- ATTI AR- XIIA I- IRS-

SEMI-RESTRICTED TREATMENT A — INR- ATTI AR- XIIA I- IRS-

SEMI-RESTRICTED TREATMENT B — INR- ATTI AR- XIIA I- IRS-

SEMI-RESTRICTED TREATMENT C — INR ATTI AR- XIIA I- IRS-

CROSS CONNECT TO POTS TO ALLOW ATTENDANT COMPLETION VIA START IN OPERATION

CROSS CONNECT TO PAN TO PREVENT ATTENDANT COMPLETION VIA START IN OPERATION

ORIG RATE TREATMENT

SC- S- S- (FULLY RESTRICTED)

S- S- (CONF CKT)

S- S- (ALL OTHERS)

SC- S- S- (CONF CKT)

S- S- (ATT TRK)

S- S- (UNIVERSAL TIE LINES)

S- S- (ALL OTHERS)

SC- S- S- (CONF CKT)

S- S- (ALL OTHERS)

SC- S- S- (INTRA MKR GR-FR)

S- S- (ALL OTHERS)

INCOMING TRUNK CLASS

SC- S- S- (TOLL)

S- S- (ALL OTHERS)

SG- SG- PAN -48 ROUTE TO "CENTREX" RECORDED ANNOUNCEMENT

SEE PART 69 RESTRICTED INCOMING TREATMENT

SG- SG- POTS -48 NO TERMINATING RESTRICTIONS

SG- SG- MRI -48 USED WITH INTRA MKR GR FR SERVICE PHASE I AND II CENTREX

SHEET NOTES:

1. CROSS CONNECT TO OBTAIN RINGING COMBINATIONS RCT 2-5, RCT8,9, RCT12-15 FOR REGULAR SUBSCRIBERS.

DRAWING ISSUE

| | |
|---|---|
| 22D | ALM EPM AMP |
| 24D | PEC EPM AMP |
| 25D | RU EPM AMP |
| 26A | UAC EPM AMP |
| 29A | NLF GAL I/O |
| 34A | GM GAL AMP |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-86 | |
| 35D | |

ISSUE 52A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D64

BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

PRINTED IN U.S.A.

## CROSS CONNECTION INFORMATION (CONT)

# NOTE 429

TYPICAL LINE LINK PULSING ROUTE RELAY OPERATION

HB9 — LR(0-9)9
HB0 — LR(0-9)0
FI HB0-9
STOO-39 — ST- NUMBER GROUP START FOR LLP HUNDREDS BLOCK REQUIRING MORE THAN ONE (LR-) RELAY.
AS — AST — (ZMK) PHB — LLP HUNDREDS BLOCK REQUIRING ONE (LR) RELAY IS ASSIGNED TO A PARTIALLY FILLED NUMBER GROUP.
PHB — NON LLP HUNDREDS BLOCK (POTS)
LLP HUNDREDS BLOCK REQUIRES SINGLE (LR) RELAY

(SEE NOTE 1) (ZMJ)
(SEE NOTE 1) (ZMK) PHB — LRSTO-9
PHBO-9 — STOO-39 — NUMBER GROUP START FOR NON LLP HUNDREDS BLOCKS
HUNDREDS BLOCK TRANSLATION REQUIRED (SEE NOTE 1)

DISCONNECTED CENTREX CU CUSTOMER ROUTE TO BELL SYSTEM INTERCEPT OPERATOR FOR REFERRALS
RITH — RI

INDIVIDUAL TREATMENT REQUIRED FOR STATIONS REACHED BY LINE LINK PULSING OR WHEN LINE LINK PULSING STATIONS AND REGULAR CUSTOMER LINES ASSIGNED NUMBERS IN THE SAME THOUSANDS SERIES - (OPTION ZMJ PROVIDED)

ALL NO. IN THOUSAND SERIES ASSOCIATED WITH SAME LINE LINK PULSING ROUTE RELAY AND INDIVIDUAL TREATMENT NOT REQUIRED

RESTRICTED INCOMING TREATMENT
UNRESTRICTED INCOMING TREATMENT

LRW- — LR- — LRU- — LRL- — IRN- ATTI — XIIB — IRS- — I- — PA — PAN — ROUTE TO CENTREX ANNOUNCEMENT
ORIG RATE TREATMENT — S- S- SG-
5C- — S- S- SG- — UNRESTRICTED INTERCOM TRAFFIC
AR-

TH 2/5 TH 2/5 NSS- STO-9 PER NSSO-5 -48
LRW- — LR- — LRU- — LRS — LRS
HVT- — LRL- — LRK LRD +8
CROSS CONN FOR LOCKING BAT. WHEN (LR-) RELAY IS NOT OPERATED FROM CODE POINT

NUMBERS ASSIGNED TO A PARTIALLY FILLED NO. GR
ASTO-5 — STOO-39 ST-

NO. GR CONN — MC-
NO. GR
ONLY G&F PUNCHINGS CROSS CONNECTED FOR STATIONS REACHED BY LINE LINK PULSING
G INDICATES THE DESIRED ROUTE
F INDICATES THE DESIRED DELETE INFORMATION AND TERM. TREATMENT.
NO. GR CONN — MC-

HN 2/5 HN 2/5 — HBO-9 (B2)
T 2/5 T 2/5 — TBO-9
U 2/5 U 2/5 — UO-9
WL, WG, WF

TRANSLATOR — L, G, F
VHG- — RF-
HG- — VG- — VF- — RC-

NO. GR TRANSLATION REGISTRATION
HGTO-9 — LLPI
VGTO-9 — HVTO-11
VFTO-4 — OPO-4 — DELETE INFORMATION TO SENDER
TBS- — RNB- — RNA- — OMIT CROSS CONN
RCN-
LLPI — LLPI

NOTES:
1. THE HUNDREDS BLOCK TRANSLATOR CAN BE USED FOR THOUSANDS BLOCKS CONTAINING POTS AND LLP NUMBERS ONLY WHEN OPTION ZMK IS PROVIDED. IF OPTION ZMJ IS PROVIDED, THOUSANDS BLOCK MUST CONTAIN ONLY LLP NUMBERS.

LLP CODE POINT — CP — LRW- — LR- — LRU- — LPN — LPN — -48
LRL- — OMIT CROSS CONN

DRAWING ISSUE 53B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D65

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D65

DRAWING ISSUE: 22D HC EXP AMD; 24D SV EXP AMD; 31D NJF CAL AMD; 33D GLS CAL AMD; 34A CK CAL AMD

CROSS CONNECTION INFORMATION (CONT)

# PART OF NOTE 430

TYPICAL WIDEBAND ROUTE & SCREENING CROSS CONNECTIONS

CODE POINT OR CODE GROUP

CODE POINTS HAVING NO WIDEBAND SERVICES

CODE POINTS HAVING SOME WIDEBAND SERVICES

LOCAL COMPLETION CODES HAVING NO WIDEBAND SERVICES — APR,BPR,ETC

LOCAL COMPLETION CODES HAVING SOME WIDEBAND SERVICES — APR,BPR,ETC

CENTREX 4,5 DIGIT LOCAL COMPLETION CODES HAVING NO WIDEBAND SERVICES — FLO-5,FLP

CENTREX 4,5 DIGIT LOCAL COMPLETION CODES HAVING SOME WIDEBAND SERVICES — FLO-5,FLP

REQUESTED SERVICE

S-(NON WB)

S-(WB-)

DENY PARTICULAR WIDEBAND SERVICE

TO NON-WIDEBAND INTRA OFFICE ROUTES (SEE NOTE 403)

(NON WB TRUNKS) R-

(WB- TRUNKS) R-

ONE SC- POINT PER NON WIDEBAND CHARGE PATTERN

NON-WIDEBAND CHARGE PATTERNS

VACANT CODE, TONE, OVERFLOW, ETC

CWB

WRM

IPT

NSO

DENIED WIDEBAND ANNOUNCEMENT

DR-

WIDEBAND CHARGE PATTERNS

(WB- IAO TRUNKS) R-

(NON-WIDEBAND, 4-5 DIGIT IAO TRUNKS) R-

RATE TREATMENT SCREENING

S-(CNTX NO TEST)

S-(ALL OTHER)

DIVERT TO CNTX NO TEST SOG ROUTES (SEE NOTE 403)

DR-(WB ATT)

SUBSCRIBER CLASS

(LOCALLY SWITCHED WIDEBAND, 4-5 DIGIT IAO TRUNKS) R-

S-(ATTENDANT)

NCCN

(REMOTELY SWITCHED WIDEBAND, 4-5 DIGIT IAO TRUNKS) (SUPPLY ONE ROUTE PER CENTREX CUSTOMER WITH WIDEBAND REMOTE SWITCHING) R-

DIVERT TO LOCALLY SWITCHED WIDEBAND IAO ROUTES

RSW

NSI

OS-

-48

| DRAWING ISSUE | |
|---|---|
| 390 | HVG |
| 430 | |

| DRAWING ISSUE |
|---|
| 47D |

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D66A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

CROSS CONNECTION INFORMATION (CONT)

# PART OF NOTE 430

CONTROL OF WIDEBAND SERVICE SCREENING RELAYS (SEE NOTE 2)

PK PP

WDTF WDTI

PP

SUBSCRIBER CLASSES (SEE NOTE 1)

OPP SC- S-(A) S- NW

NW (NON-WIDEBAND) -48

S-(B) S- OWBO

WBO (FIRST WIDEBAND SERVICE) -48

S-(C) S- OWB1

WB1 (SECOND WIDEBAND SERVICE) -48

S-(D) S- OWB2

WB2 (THIRD WIDEBAND SERVICE) -48

TRUNK CLASSES (SEE NOTE 1)

IWS SC- S-(E) S-

S-(F) S-

S-(F) S-

S-(F) S-

BIT-STREAM CALL FROM AN OPERATOR

CODE POINT S- (BIT-STREAM WB-) R-

S- (WB-)

TRUNK CLASS (SEE NOTE 1)

S- (BIT-STREAM OPERATOR) TN TCNC (GRD TC LEAD TO TRUNK) -48

S- (OTHER) TO ROUTE SERIES AS REQUIRED

NW SNW SW- S- (NON-WIDEBAND) -48

WBO SWBO SW- S- (FIRST WIDEBAND SERVICE) -48

WB1 SWB1 SW- S- (SECOND WIDEBAND SERVICE) -48

WB2 SWB2 SW- S- (THIRD WIDEBAND SERVICE) -48

WIDEBAND ANNOUNCEMENT ROUTES

DENIED WIDEBAND ANNOUNCEMENT ROUTE (SEE NOTE 3) (GROUND SUPPLY 5)

DR- RR- RC- R- R- CA CAA -48

COMMON OVERFLOW (GROUND SUPPLY 6)

FINAL ROUTES (GROUND SUPPLY 1-4)

R- (OGT) RA- PB TOA WRA WMBA WPA

R- (IAO) RA- LR

R- RA- RC- R- R- OS WRM WRM -48

MAINTENANCE BUSY ANNOUNCEMENT ROUTE (SEE NOTE 4) (GROUND SUPPLY 5)

WMBA RC- R- R-

OV TO TONE ROUTE

R- RA-

R- OS- CWB CWB -48

WIDEBAND "O" OPERATOR LOCATED IN DISTANT OFFICE

S-(WB-) S- AMA NOT REQUIRED RC- R- R- NC NCCN (GRD CN LEAD TO TRUNK) -48

AMA REQUIRED

ZO SC- S-(NON WB) S- DR- DR- -48

TO NON-WIDEBAND OPERATOR ROUTE

WDZ WDZ ZRT- DR- ZRS-

DR- RR- RC- R- R- MBS- MBS- -48

NOTES:

1. CLASS CONTAINS:
   (A.) NO WIDEBAND LINES.
   (B.) ALL OR SOME LINES HAVE FIRST WIDEBAND SERVICE.
   (C.) ALL OR SOME LINES HAVE SECOND WIDEBAND SERVICE.
   (D.) ALL OR SOME LINES HAVE THIRD WIDEBAND SERVICE.
   (E.) ALL NON-WIDEBAND TRUNK CLASSES.
   (F.) ALL WIDEBAND TRUNK CLASSES.

2. NOT MORE THAN ONE WIDEBAND SERVICE MAY BE CONTAINED IN ANY CLASS.

3. TRUNK LINK ANNOUNCEMENT TO WIDEBAND LINES CALLING NON-WIDEBAND LINES OR CODES.

4. TRUNK LINK ANNOUNCEMENT FOR WIDEBAND CALLS TO OR FROM WIDEBAND LINES THAT ARE MAINTENANCE BUSY.

| DRAWING ISSUE |
|---|
| 39D JWW |
| 40A |
| 41D |
| 43D |

| DRAWING ISSUE |
|---|
| 47D |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D66B

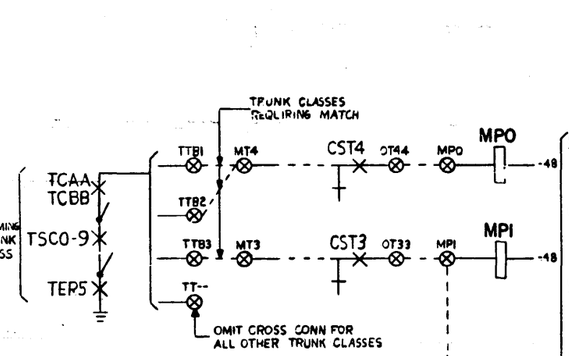
BELL TELEPHONE LABORATORIES INCORPORATED 6S

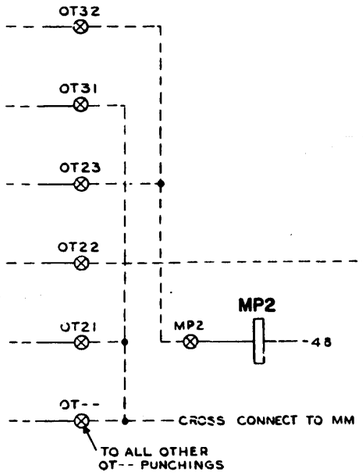
SD-26002-01-D66B

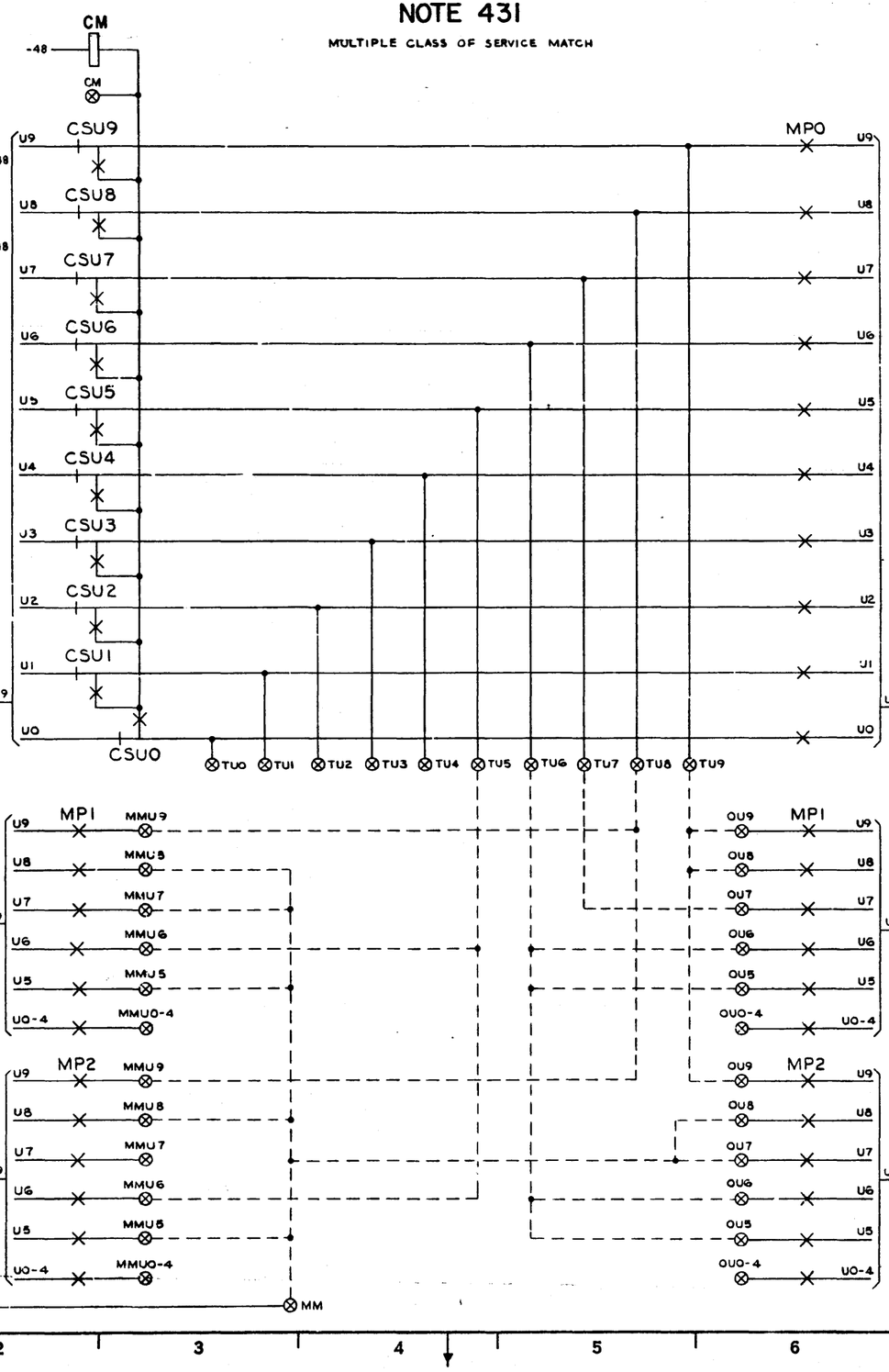
## CROSS CONNECTION INFORMATION (CONT)

# NOTE 431

MULTIPLE CLASS OF SERVICE MATCH




TYPICAL ARRANGEMENTS FOR "CENTREX" FOUR OR FIVE DIGIT TRAFFIC.

| PBX NO. | CLASS OF SERVICE NO. | CLASS OF SERVICE ASSIGNED TO | ORIGINATING PBX CAN COMPLETE TO |
|---|---|---|---|
| 0-9 | 40-49 | LDN, STA | |
| 10 | 25 | LDN1 | ORIG PBX ONLY |
| | 26 | LDN2 | |
| | 35 | LDN3 | |
| | 36 | LDN4, STA | |
| 11 | 27 | LDN, STA | |
| 12 | 37 | | |
| 13 | 28 | LDN, STA | |
| | 29 | STA | ORIG PBX AND PBX 14 |
| 14 | 38 | LDN, STA | ORIG PBX ONLY |
| | 39 | STA | ORIG PBX AND PBX 13 |

TYPICAL ARRANGEMENT FOR MATCHING INC TRK CLASS TO SUB CLASS

| TRUNK CLASS | TO MATCH CLASS OF SERVICE |
|---|---|
| TCB,TSC1 | 45 |
| TCB,TSC2 | 46 |
| TCB,TSC3 | 36 |




| DRAWING ISSUE | |
|---|---|
| 22D | PRH EDM AMD |
| 24D | SV EDM AMD |
| 35D | LLS TMJ AMD |

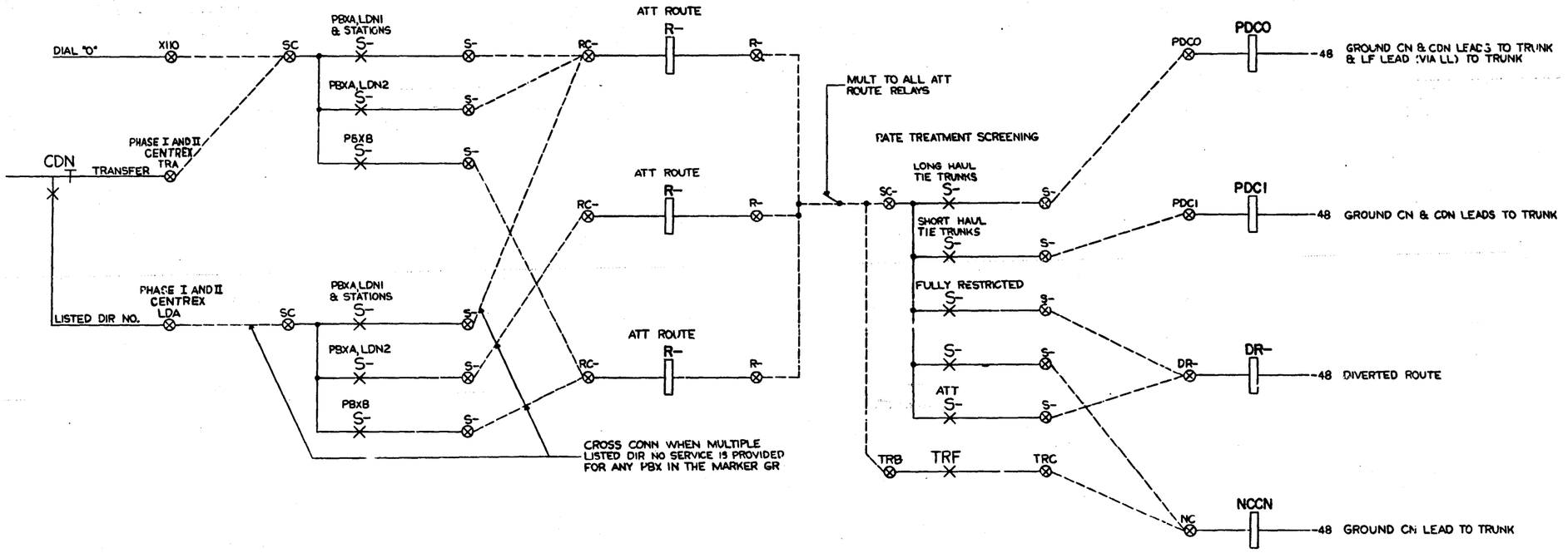
35

| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | SD-26002-01-D67 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

## CROSS CONNECTION INFORMATION (CONT)

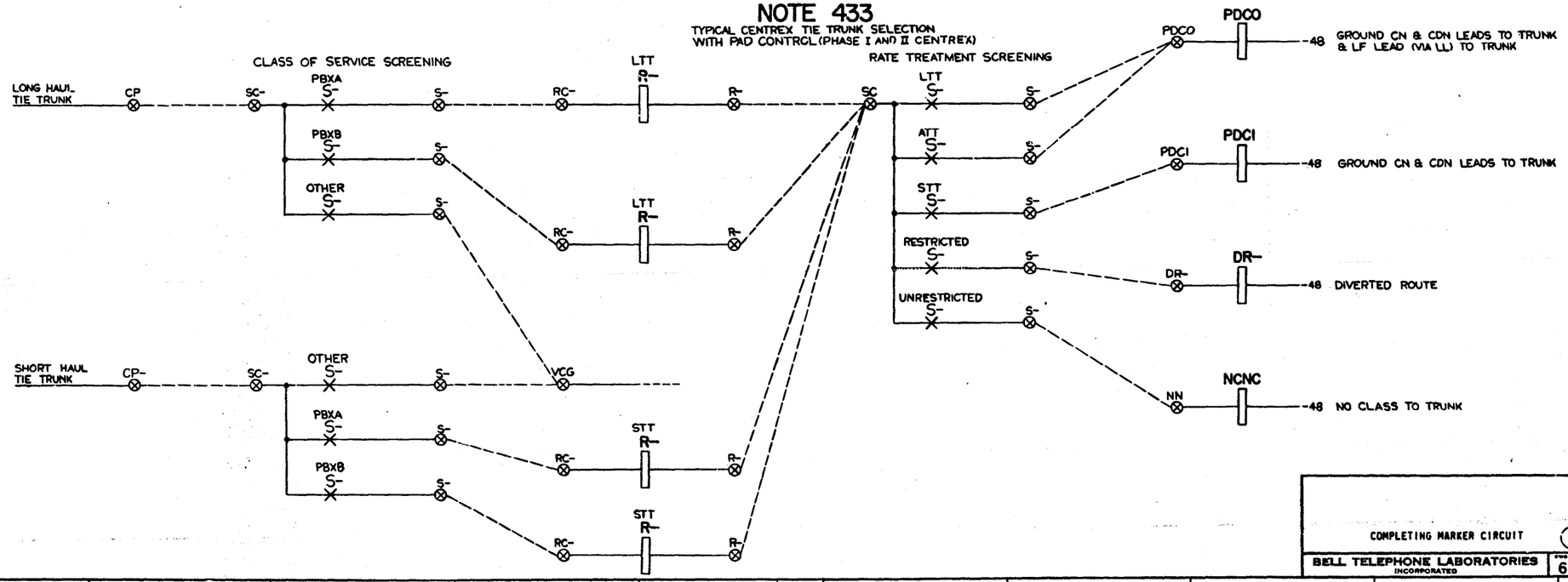
## NOTE 432

TYPICAL CENTREX ATTENDANT TRUNK SELECTION




## NOTE 433

TYPICAL CENTREX TIE TRUNK SELECTION WITH PAD CONTROL (PHASE I AND II CENTREX)




DRAWING ISSUE
22D NM1 EDM AMP
24D SV EDM AMP
25D NUT EDM AMP
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

CB

25

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D68

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

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STABILO

# NOTE 434

TYPICAL CROSS CONNECTIONS FOR ACCESS TO ROUTES REQUIRING PREFIX "1" CODES BY SPECIAL CLASSES OF SERVICE NOT PROVIDING DIGIT "1" ACCESS CODES

OFFICE CODE DIALED INTO ORIGINATING REGISTER

CODE POINTS

ABX XXXX

TO OTHER CP'S USING SAME ROUTING & CHARGE PATTERN, NO ACCESS CODE "1"

ABX XXXX

TO OTHER R- RELAYS WITH SAME CHARGE PATTERN, NO ACCESS CODE "1"

RC- R- R- SC- S-LT S-ELT S-CA S- SG SG SC- S-RES S-DTWX S-CN NN NCNC -48

TN TCNC -48

MBS1-9 MBSI-9 -48

1ABX XXXX

1XIX ABX XXXX

TO OTHER CP'S USING SAME ROUTING & CHARGE PATTERN, ACCESS CODE "1" REQUIRED

TO OTHER R- RELAYS WITH SAME CHARGE PATTERN, ACCESS CODE "1" REQUIRED

DR- DR- TWX OPERATE -48

SCCK 12 ELT 12 ELS

LT 12 LS

IIX 2 IXS

TCCK 12 TCS

SPECIAL CLASSES OF SERVICE SCREENING NOT REQUIRED

SPECIAL CLASSES OF SERVICE SCREENING REQUIRED

SC- S-RES S-DTWX S-CN S- SSGO-4 SSGO-4

SW- S- -48 EXTRA LOCAL TRANSLATION

SW- S- -48 LOCAL TRANSLATION

SW- S- -48 CANCEL

DR- DR- COIN -48

DR- DR- OPERATOR -48

DRAWING ISSUE JM 240 AMP

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

24

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D69

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILOK

## CROSS CONNECTION INFORMATION (CONT)

# NOTE 435

POLYGRID ROUTING CONTROL CROSS CONNECTIONS

| | DESTG | ROUTING RELAYS HAW- | ROUTE PROGRAM RELAY RCG- | GROUPING POINTS LAST GROUP ADVANCE LGA- | NO T TRUNKS AVAILABLE SCREENING NTA | ROUTE BATTERY RB | SPECIAL GRADE DIRECT ROUTES SGD | ROUTE SERIES RELAYS RS | GRADING CONTROL POINTS GC- | SERVICE POINTS POINTS CONTROL RAG- | ROUTE ADVANCE GROUPING POINTS FAP | FINAL POINT SCREENING EAR | EARLY ROUTE ADVANCE EAA- | EARLY ROUTE ADVANCE RO-9 | ROUTE CONTROL DIGITS TRANSMITTED RO-1 | ROUTE CONTROL DIGITS TRANSMITTED ROUTING DIGIT RDT | FIRST GROUP ADVANCE (PREEMPT) FGAP | SECOND GROUP ADVANCE (PREEMPT) SGAP | LAST GROUP ADVANCE (PREEMPT) LGA | LEVELS ENTITLED TO ROTATION VE | VOICE ALERT SERVICE WINDINGS VAT | GRADING RELAY WINDINGS GRW | HOME TRIPLE INDICATION HOUTING PROGRAM LOWER WINDING HTP | ROUTING GROUPS RMC1 (00-11) \| RMC12 (00-11) | RG 01-62 | EXTERNAL GRID INDICATION EGI | HOME GRID INDICATION HGI | SELECT BEST ALTERNATE ROUTES (HOME GRIDS) SBA | SKIP BEST ALTERNATE ROUTES (HOME GRIDS) SKB | SELECT SECOND BEST ALTERNATE (HOME GRIDS) SBA | SKIP SECOND BEST ALTERNATE TRIPLE (HOME GRID) SKB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADING TREATMENT | G-- | X | X | | X | X | | X | - | | | | | | | | | | | | | | | | | | | | | |
| S- GROUPING POINTS | SG- | X | | X | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| CODE GROUPING POINTS | CG- | X | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | |
| CODE CONVERSION GROUPING POINTS | CVRG- | X | X | | | | | | X | X | | | | | | | | | | | | | | | | | | | | |
| FOREIGN AREA ROUTES | FAR- | X | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | |
| PEG ROUTES | PR- | X | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | |
| ROUTE ADVANCE GROUPING POINTS | RAG- | X | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | |
| ROUTE SERIES POINTS | RS-- | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| FIRST GROUP ADVANCE (PREEMPT CYCLE) | FGA-- | X | X | | | | | | X | X | X | | | | | | | | | | | | | | | | | | | | |
| SECOND GROUP ADVANCE (PREEMPT CYCLE) | SGA-- | X | X | | | | | | X | X | X | | | | | | | | | | | | | | | | | | | | |
| GROUP ADVANCE | GA-- | X | X | | | | | | X | X | X | X | | | | | | | | | | | | | | | | | | | |
| MOST DIRECT ROUTES | MD-- | | X | | | | | | X | X | | | X | | | | | | | | | | | | | | | | | | |
| BEST ALTERNATE ROUTES | BA-- | | X | | | | | | X | X | | | X | | | | | | | | | | | | | | | | | | |
| SECOND BEST ALTERNATE ROUTE | SBA-- | | X | | | | | | X | X | | | | X | | | | | | | | | | | | | | | | | |
| ROUTE RELAY WINDING | R- | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| MOST DIRECT ROUTE OR TRIPLE | CDA- | | | | | | | | | | | | | X | X | X | | | | | | | | | | | | | | | |
| BEST ALTERNATE ROUTE OR TRIPLE | CDB- | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | |
| SECOND BEST ALTERNATE ROUTE OR TRIPLE | CDS- | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | |
| PRECEDENCE LEVEL | P(0-4) 1 | | | | | | | | | | | | | | | | X | | X | | | | | | | | | | | | |
| PRECEDENCE LEVEL | P(0-4) 2 | | | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | |
| PRECEDENCE LEVEL | P(0-4) 3 | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| PREEMPT ANNOUNCEMENT | PEA | | X | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| PRIVILEGE GROUP | PG(00-14 | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| CONTROL DIGIT INDICATIONS | CDE 0-3 | | | | | | | | | | | | | | | | | | | | | X | X | | | | | | | | |
| ROUTING GROUPS | RTG 1-6 | | | | | | | | | | | | | | | | | | | | | | | X | | | X | X | | | |
| ROUTE GROUPING | RG(1-6)L | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| ROUTING PROGRAM CONTROL | RMC1 (00-11) \| RMC12 (00-11) | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| ADVANCE TO PREEMPT CYCLE | CC1 | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ADVANCE TO ROUTINE PATHS BUSY | PJ1 | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| PRECEDENCE LEVEL | P(0-4)4 | | | | | | | | | | | | | | | | | | | | | | | | | | | X | X | | |
| PRECEDENCE LEVEL | P(0-4)5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | X |
| PRECEDENCE LEVEL | P(0-4)6 | | | | | X | | | | | X | | | | | | | | | | | | | | | | | | | | |
| PRECEDENCE LEVEL | P(0-4)7 | | X | | | | | | | | X | | | | | | | | | | | | | | | | | | | | |



CROSSBAR SYSTEMS
NO. 5
COMPLETING MARKER CIRCUIT
2
SD-26002-01-D70
BELL TELEPHONE LABORATORIES INCORPORATED
DATE 6-5
PRINTED IN U.S.A.

SD-26002-01-D70

## CROSS CONNECTION INFORMATION (CONT)

## NOTE 436

TYPICAL CROSS CONNECTIONS USING THE RM- RELAYS FOR RATING & ROUTING SEPARATION OF XO/IX CODE POINTS

GROUP XO/IX CODE POINTS AS WADS & WATS ZONAL INTERSECTIONS DICTATE → XO/IX CODE POINTS — RMW- — RM- (ASSUME THIS RM- REL IS USED FOR INTER STATE CODE POINTS) — -48

R- (TO CONVERTER) (WADS): RC- — R- — RB — -48

SCG — SC- — S- (4R & WADS) — S- — RMC- — RM- — RM-

RSG — SC- — S- (WATS) — S- — RMC- — RM- — RM-

S- (POTS) — S- — RMC- — RM- — RM-

S- (WADS A) — S- — RMC- — RM- — RM-

S- (WADS B) — S- — RMC- — RM- — RM-

S- (WADS C) — S- — RMC- — RM- — RM-

S- (WADS TS) — S- — RMC- — RM- — RM-

S- (4R) — S- — RMC- — RM- — RM-

S-

ASSUME ROUTE TO ZONE 3 R- (WATS): RC- — R-

(WATS ZONE 3 SCREEN): SC- — S- (S WATS) — S- — DR- — DR- — -48

S- (ZONE 1)
S- (ZONE 2)
S- (ZONE 3)
S- (ZONE 4)
S- (ZONE 5)
S- (ZONE 6)

NN — NCNC — -48

SC- — S- (FR)

S- (HT) — TN — TCNC — -48

R-: RC- — R- — SC- — REGULAR POTS SCREENING

SC- (WADS ZONE 3 SCREENING) — S- (ZONE 1) — S-
S- (ZONE 2)
S- (ZONE 3)
S- (ZONE 4)
S- (ZONE 5)
S- (ZONE 6) — TN

ASSUME THIS RM- REL ROUTING IS TO ZONE 3 FOR ORIG RATE CENTERS A & B AND TO ZONE 4 FOR ORIG RATE CENTER C

SC- (WADS ZONE 4 SCREENING) — S- (ZONE 1) — S-
S- (ZONE 2)
S- (ZONE 3)
S- (ZONE 4)
S- (ZONE 5)
S- (ZONE 6)

MBS9 — MBS9 — -48

DRAWING ISSUE 240 (1M AMD)

DRAWING REFURBISHED WITH-OUT CHANGE 10-1-68

24

COMPLETING MARKER CIRCUIT (2) SD-?6002-01-D71

BELL TELEPHONE LABORATORIES INCORPORATED 6S

3TABILC

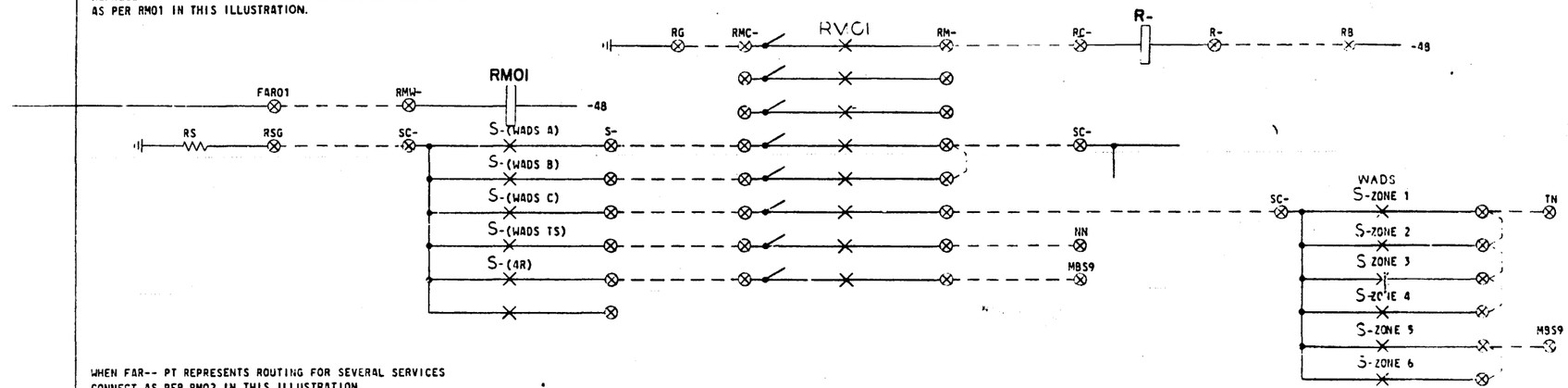
## CROSS CONNECTION INFORMATION (CONT)

# NOTE 437

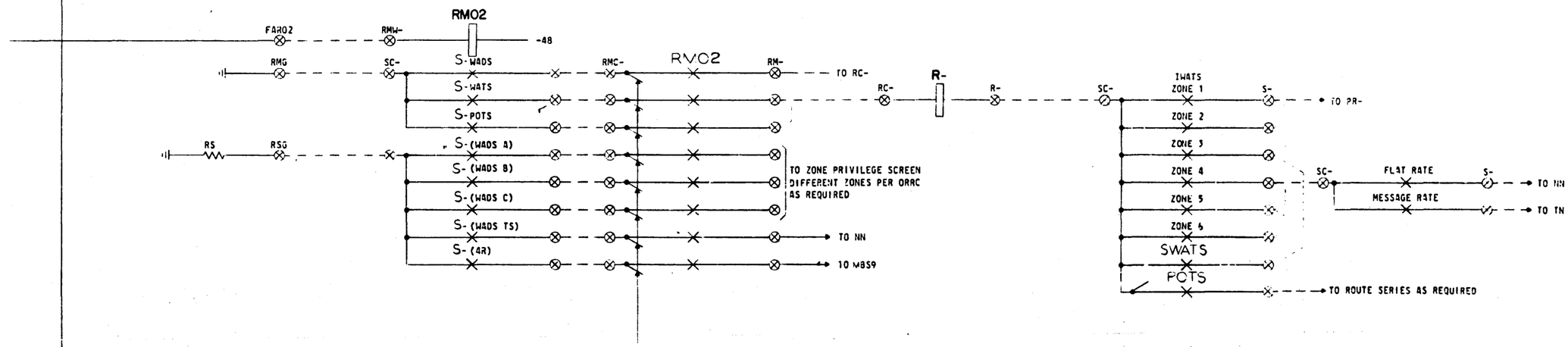
METHODS OF SCREENING CODE POINTS FOR WADS SWITCHING

FAT CONN

WHEN FAR-- PT REPRESENTS ROUTING FOR ONLY WADS AND DOES NOT REPRESENT THE SAME ZONE FOR ALL ORIG RATE CENTERS CONNECT AS PER RM01 IN THIS ILLUSTRATION.




WHEN FAR-- PT REPRESENTS ROUTING FOR SEVERAL SERVICES CONNECT AS PER RM02 IN THIS ILLUSTRATION.




MULT TO 11 OTHER (RM-) RELAYS
MAX (RM-) RELAYS 95



CROSSBAR SYSTEMS
NO. 5
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-D72

BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

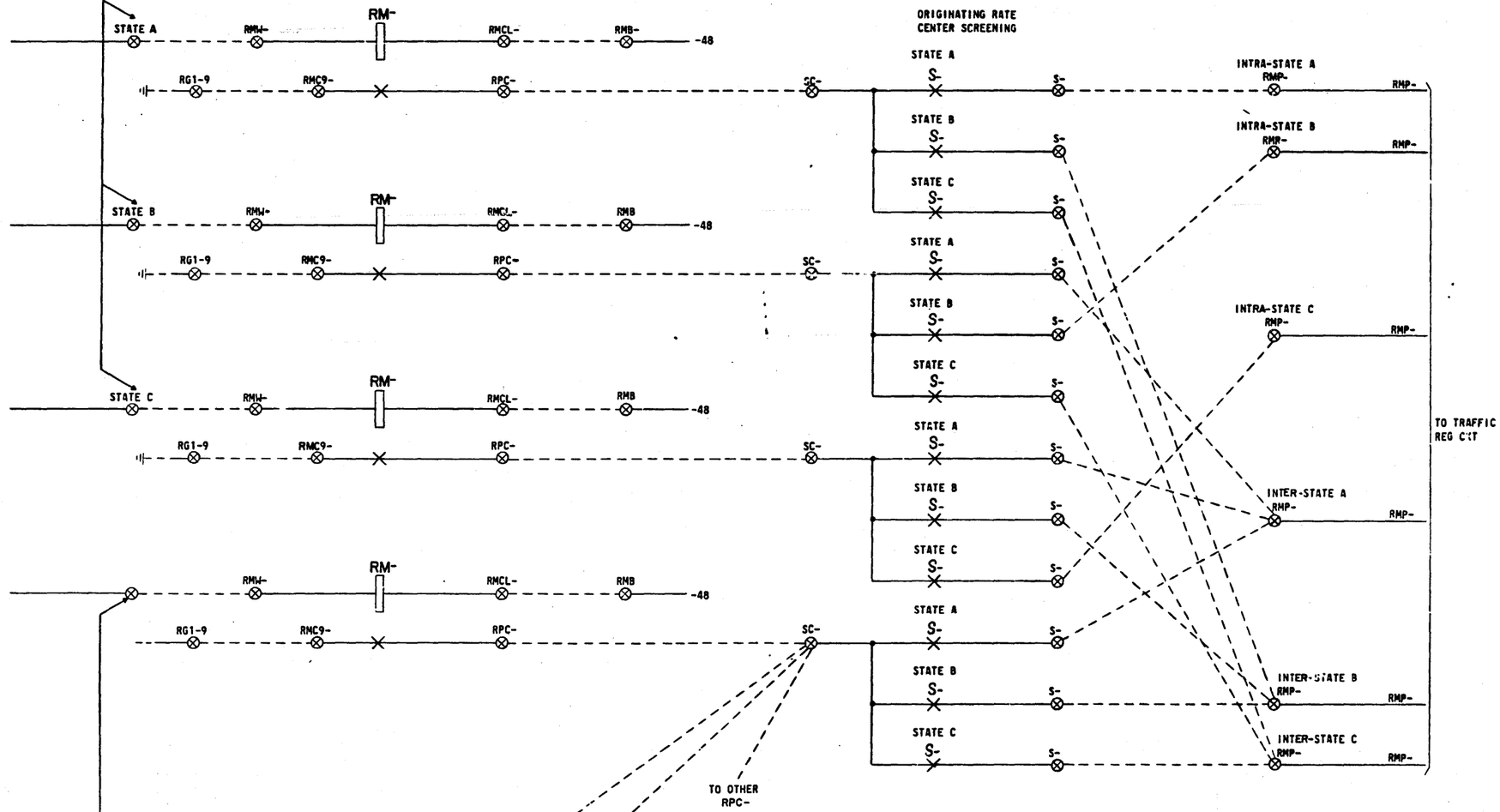
SD-26002-01-D72

STABILOK

## CROSS CONNECTION INFORMATION (CONT)

# NOTE 438

TYPICAL WADS TRAFFIC REGISTER OPERATION (3 ORIGINATING RATE CENTERS [STATES] ILLUSTRATED)






COMPLETING MARKER CIRCUIT (2) SD-26302-01-D73
BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF NOTE 439

TYPICAL NO. GENERATION CROSS CONNECTIONS
PHASE II (DIAL TRANSFER) AND PHASE III CENTREX
CENTRALIZED ATTENDANT OPERATION NOT PROVIDED

NO. GROUP
CROSS CONNECTIONS

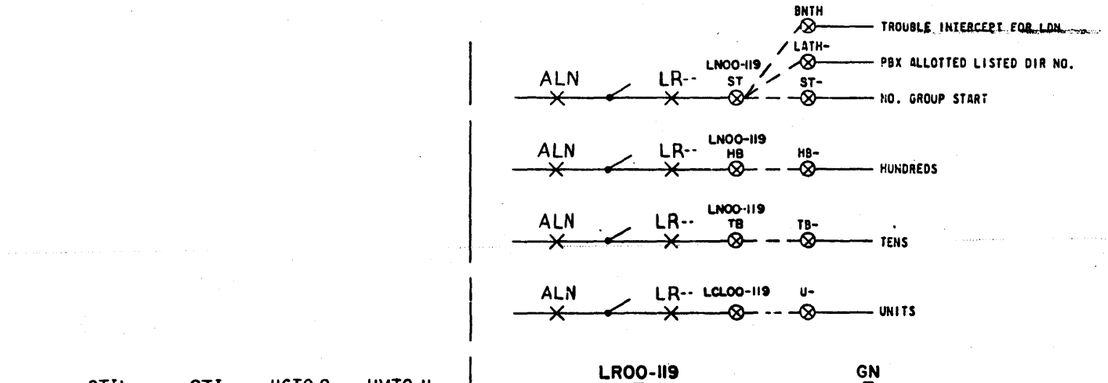
L TO LL - OMIT

G TO VHG - CROSS CONNECT TO OPERATE PROPER LR- RELAY

F TO RF - CROSS CONNECT TO GIVE CTI TERM. TREATMENT— ANY VERTICAL FILE

CENTREX TEMPORARY INTERCEPT
ROUTED TO THE ATTENDANT

(PHASE III)



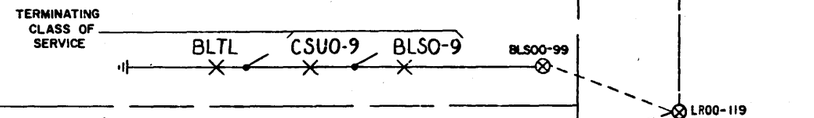

NO. GROUP
CROSS CONNECTIONS

L TO LL - NORMAL

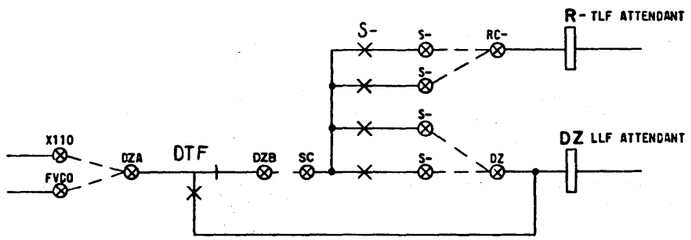
G TO VHG - NORMAL

F TO RF - NORMAL RC WITH BLT OR BLDA FEATURE RELAY

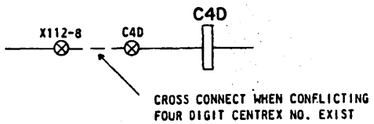
BUSY LINE TRANSFER
ROUTED TO CENTREX ATTENDANT




DIAL ZERO CALLS




FOUR DIGIT NO. CONFLICTS




DRAWING ISSUE
25D EN
31D NLF
41D CB

ISSUE 51D

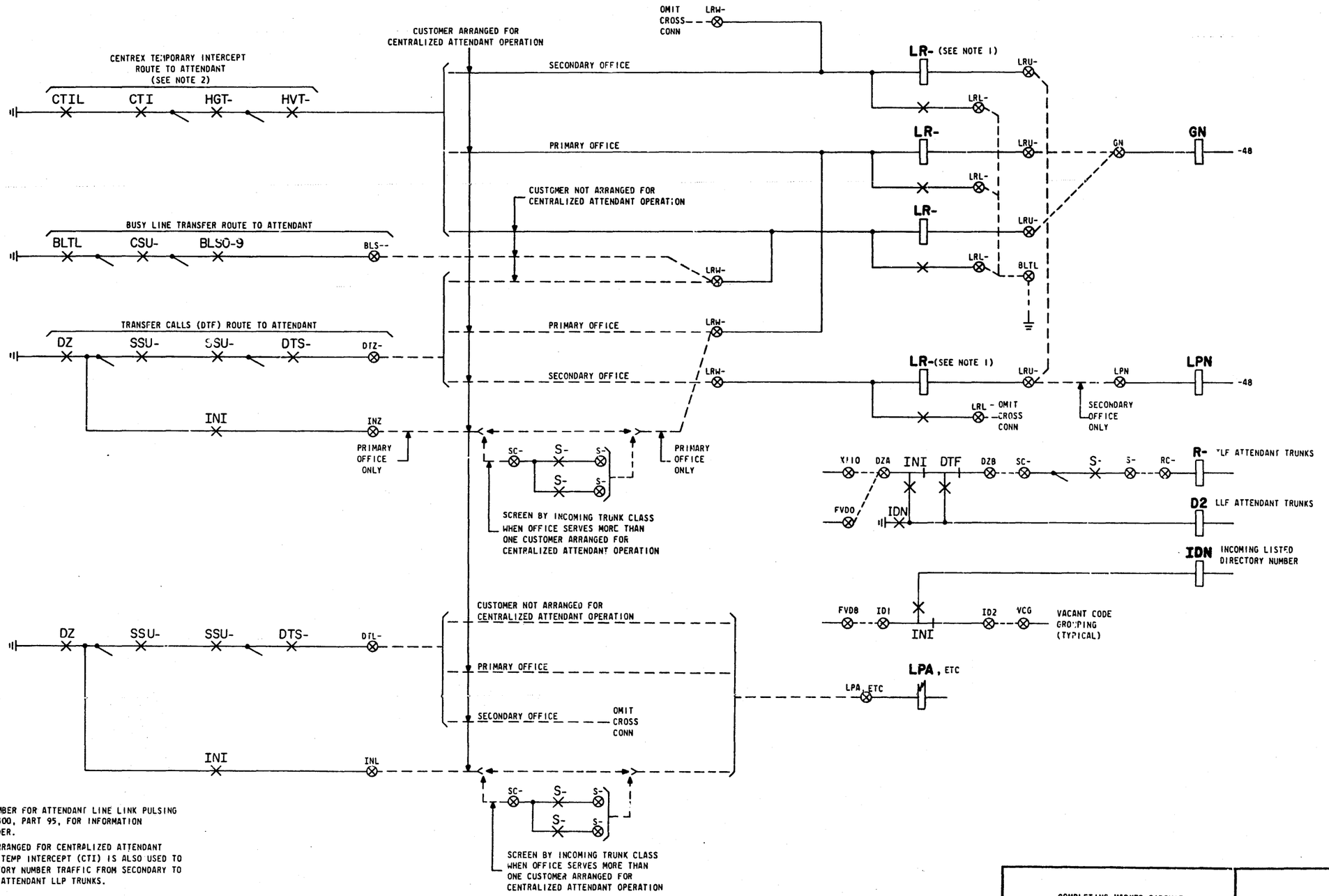
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-D74A
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

SD-26002-01-D74A

OTHERS

# PART OF NOTE 439

TYPICAL NO. GENERATION CROSS CONNECTIONS
PHASE III CENTREX
CENTRALIZED ATTENDANT OPERATION PROVIDED




NOTES:
1. GENERATES PILOT NUMBER FOR ATTENDANT LINE LINK PULSING TRUNKS. SEE NOTE 400, PART 95, FOR INFORMATION TRANSMITTED TO SENDER.
2. WHEN CUSTOMER IS ARRANGED FOR CENTRALIZED ATTENDANT OPERATION, CENTREX TEMP INTERCEPT (CTI) IS ALSO USED TO ROUTE LISTED DIRECTORY NUMBER TRAFFIC FROM SECONDARY TO PRIMARY OFFICE VIA ATTENDANT LLP TRUNKS.

DRAWING ISSUE 41D

ISSUE 51D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D748

BELL TELEPHONE LABORATORIES INCORPORATED

6S

CROSS CONNECTION INFORMATION (CONT)

## NOTE 440

TYPICAL NUMBER GROUP TENS BLOCK SCREENING FOR 4-WIRE FEATURES

TRC TBSO-3 RNATN
RCNI5 RNAI5
RCNI4 RNAI4
RCNI3 RNAI3
RCNI2 RNAI2
RCN9 RNA9
RCN5 RNA5
RCN4 RNA4
RCN3 RNA3
PTK
RCN2 RNA2

TRC TBSO-3 RNaTN
PGTA
RCNI5 RNaI5
RCNI4 RNaI4
RCNI3 RNaI3
RCNI2 RNaI2
RCN9 RNa9
RCN5 RNa5
RCN4 RNa4
RCN3 RNa3
RCN2 RNa2

PREEMPTABLE LINES
HUNTING
LPT5
LPT4
LPT3
LPT2
LPT1
LPT0
NON PREEMPTABLE LINES
NON HUNTING

PML -49
PREEMPTABLE LINE

LNP -49
NON-PREEMPTABLE LINE RING FROM LINE

LNPR -49
NON-PREEMPTABLE LINE RING FROM TRUNK

RCTIO -49
RCTIO

RCTI -49
RCTI

POTS
POTS -48
SPECIAL SERVICE NOT REQUIRED

ALL PG- ASSOCIATED WITH OFF HOOK SERVICE

PGH- PG- PGH-- OHS
OHS -49
COMPLETE CALL TO OFF HOOK STATION

TERM. LINE HAS OFF HOOK SERVICE

PG- PGH--

ALL PG- NOT ASSOCIATED WITH OFF HOOK SERVICE

RT
RI (TYPICAL) -49
ROUTE CALL TO INTERCEPT

DNI
DN
DN -49
COMPLETE CALL TO DIRECTORY NO. (GRD ON LEAD TO 4-WIRE TRUNK.)
TER4

TERM. LINE IS A LISTED DIRECTORY NO.

ICPT

4W LINE INTERCEPT

DRAWING ISSUE
300 LB, GA, AND
32A RP3

32

CROSSBAR SYSTEMS
NO. 5
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-D75

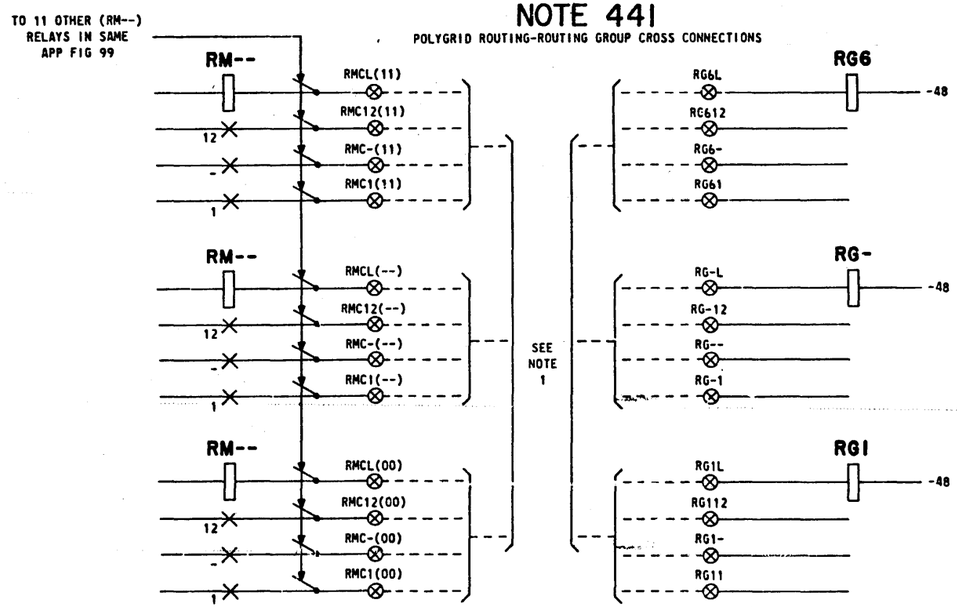
BELL TELEPHONE LABORATORIES INCORPORATED
SHEET SIZE 6S
PRINTED IN U.S.A.

SD-26002-01-D75

STABILO

## NOTE 441

POLYGRID ROUTING-ROUTING GROUP CROSS CONNECTIONS




## NOTE 442

TYPICAL OVERFLOW AND ANNOUNCEMENT ROUTES FOR 4-WIRE NETWORKS WITH MULTILEVEL PREEMPTION




NOTES:
1. ANY ONE GROUP OF (RM) PUNCHINGS MAY CONNECT TO ANY ONE GROUP OF (RG) PUNCHINGS.
2. ROUTE SERIES RELAY USED FOR OVERFLOW SHOULD NOT BE USED FOR ANY OTHER ROUTE.

34

COMPLETING MARKER CIRCUIT (2) | SD-26002-01-D76

BELL TELEPHONE LABORATORIES INCORPORATED | SIZE 6S

SD-26002-01-D76

## NOTE 443

TYPICAL CROSS-CONNECTIONS OF TRAFFIC SAMPLE CONTROL WITH LAMA-A OR LAMA-B

TRAFFIC SAMPLE CHECK CIRCUITRY NOT PROVIDED

SAMPLE OF (LT) NOT REQUIRED

ORIGINATING CLASS OF SERVICE

DIGIT 8 NOT DIALED

SCCK

LT 12

LS

SC- S- S-

S- S-

HTR

AID

MTR

CNS

AOS

DIGIT 8 DIALED

4LT

LS4

TRAFFIC SAMPLE CHECK CIRCUITRY PROVIDED

INCOMING CLASSES

LT0

LT1

LT3

SC- S- S-

ORIGINATING CLASSES

S- S-

ORIGINATING CLASS NO SAMPLE REQUIRED

ORIGINATING CLASS OF SERVICE

ORIGINATING CLASS SAMPLE REQUIRED

SC- S- S-

S- S-

ORIGINATING CLASS OF SERVICE

SC- S- S-

S- S-

ONLY ONE ORIGINATING CCSA CUSTOMER TO BE SAMPLED

WATS TRAFFIC ORIGINATING CLASS OF SERVICE

SCG

SC- S- S-

S- S-

LT LT -48

ELT ELT -48

4LT 4LT -48

TRAFFIC SAMPLE CIRCUIT

Ⓐ Ⓑ TAO-4 TS

Ⓐ Ⓑ TSO-4 TS

CSA -48

T CKG4 Ⓑ TS Ⓐ -48

CTR COUNTER

TS SA CT -48

SA

-48 TRANSFER

CTK -48

Ⓑ

-48 RES RES

SA -48 MT15 TS SA RES -48

STEP

RELAY

Ⓐ - TRAFFIC SAMPLE CHECK CIRCUITRY NOT PROVIDED.

Ⓑ - TRAFFIC SAMPLE CHECK CIRCUITRY PROVIDED.

DRAWING ISSUE

31D JHT

390 RJF

ISSUE 63B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D77

BELL TELEPHONE LABORATORIES INCORPORATED

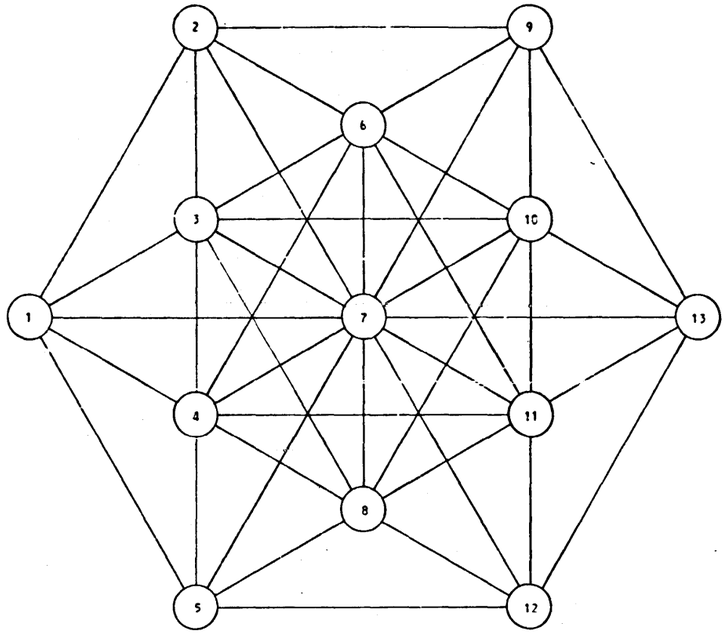
6S

SD-26002-01-D77

CROSS CONNECTION INFORMATION (CONT)

## NOTE 444

4 WIRE POLYGRID ROUTING CONTROL TYPICAL EXAMPLE OF ROUTE AND ROUTING CONTROL DIGIT ASSIGNMENTS FOR HOME GRIDS.




HOME GRID ROUTING PROGRAM TO OFFICE 7

| ROUTING SELECTION | | CLASS OF CALL | ROUTING CONTROL DIGIT RECEIVED | AT OFFICE 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD | ROUTE | ROUTING CONTROL DIGIT XMTD |
| A | MOST DIRECT ROUTE | SOG/TOG | 0,1,2 OR 3 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 |
| B | DEST ALTERNATE TRIPLE | SOG | 0 | 3 | 1 | 3 | 1 | 6 | 2 | 3 | 1 | 4 | 1 | 3 | 2 | 4 | 2 | 6 | 1 | 6 | 2 | 8 | 2 | 8 | 1 | 10 | 1 |
| | | TOG | 0 | | 1 | | 1 | | 2 | | 1 | | 1 | | 2 | | 2 | | 1 | | 2 | | 2 | | 1 | | 1 |
| | | | 1 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 |
| | | SOG | 0 | 4 | 1 | 6 | 1 | 10 | 1 | 9 | 2 | 9 | 1 | 10 | 2 | 11 | 2 | 10 | 1 | 11 | 2 | 10 | 2 | 11 | 1 | 11 | 1 |
| | | TOG | 0 | | 1 | | 1 | | 2 | | 2 | | 1 | | 2 | | 2 | | 1 | | 2 | | 2 | | 1 | | 1 |
| | | | 1 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 |
| | | SOG | 0 | - | X | - | X | 4 | 2 | 11 | 2 | - | X | 4 | 1 | 10 | 1 | - | X | 3 | 2 | 4 | 2 | - | X | - | X |
| | | TOG | 0 | | | | | | 2 | | 2 | | | | 1 | | 1 | | | | 2 | | 2 | | | | |
| | | | 1 | | | | | | 3 | | 3 | | | | 3 | | 3 | | | | 3 | | 3 | | | | |
| C | SECOND BEST ALTERNATE TRIPLE | SOG | 0 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 1 | 9 | 2 | 12 | 2 | 5 | 1 | 9 | 1 |
| | | TOG | 0 | | 1 | | 1 | | 2 | | 2 | | 1 | | 2 | | 2 | | 1 | | 2 | | 2 | | 1 | | 1 |
| | | | 2 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 |
| | | SOG | 0 | 5 | 1 | 9 | 1 | 2 | 2 | 5 | 2 | 12 | 1 | 9 | 2 | 12 | 2 | 13 | 1 | 13 | 2 | 13 | 2 | 13 | 1 | 12 | 1 |
| | | TOG | 0 | | 1 | | 1 | | 2 | | 2 | | 1 | | 2 | | 2 | | 1 | | 2 | | 2 | | 1 | | 1 |
| | | | 2 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 | | 3 |
| | | SOG | 0 | - | X | - | X | 8 | 1 | 6 | 2 | - | X | 11 | 1 | 3 | 1 | - | X | 9 | 2 | 6 | 1 | - | X | - | X |
| | | TOG | 0 | | | | | | 1 | | 2 | | | | 1 | | 1 | | | | 2 | | 1 | | | | |
| | | | 2 | | | | | | 3 | | 3 | | | | 3 | | 3 | | | | 3 | | 3 | | | | |



COMPLETING MARKER CIRCUIT (2)

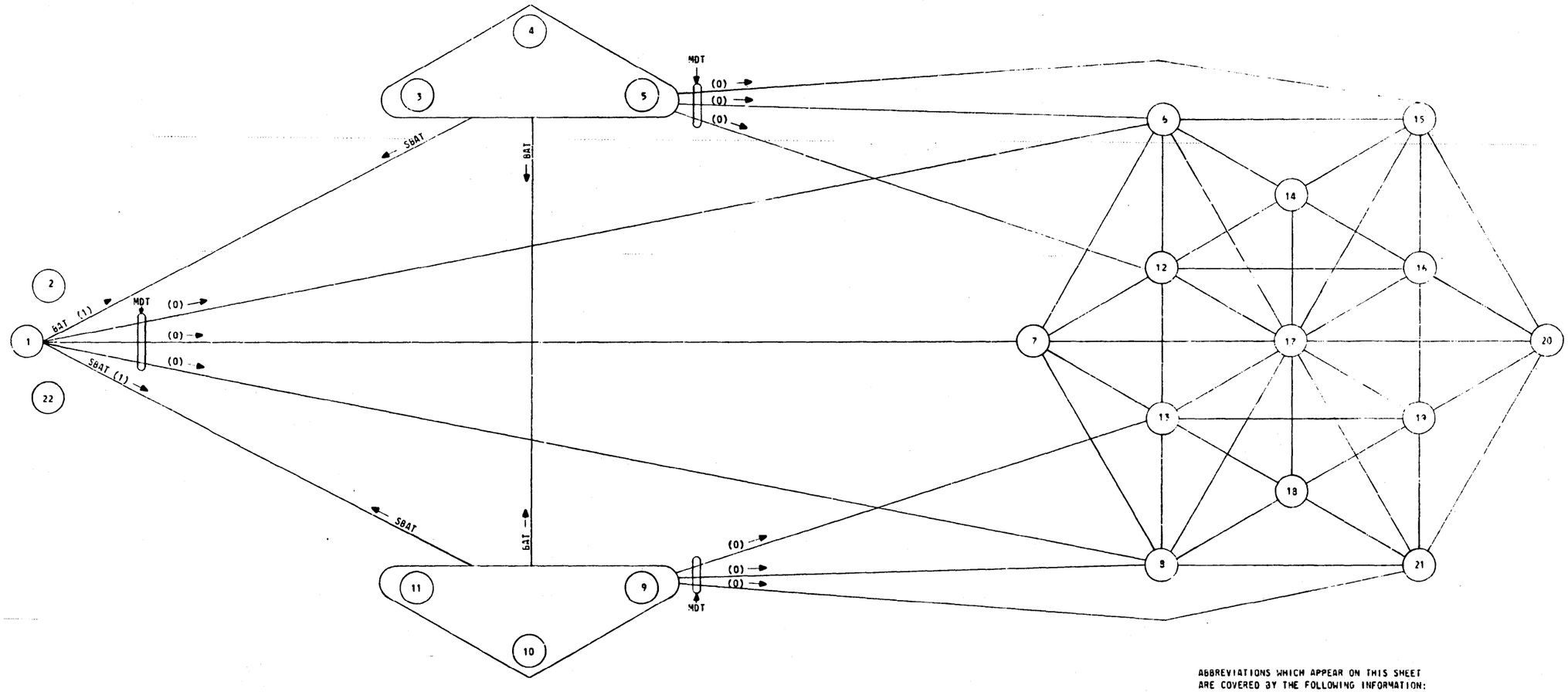
SD-26002-01-D78

BELL TELEPHONE LABORATORIES INCORPORATED 6S

CROSS CONNECTION INFORMATION (CONT)

## NOTE 445

4 WIRE POLYGRID ROUTING CONTROL TYPICAL EXAMPLE OF
ROUTE AND ROUTING CONTROL DIGIT ASSIGNMENTS FOR EXTERNAL GRIDS




| EXTERNAL GRID ROUTING PROGRAM TO OFFICE 17 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ROUTING SELECTION | | CLASS OF CALL | ROUTING CONTROL DIGIT RECEIVED | AT OFFICE 1,2,22 | | AT OFFICE 3,4,5 | | AT OFFICE 9,10,11 | |
| | | | | TRIPLE | ROUTING CONTROL DIGIT XMTD | TRIPLE | ROUTING CONTROL DIGIT XMTD | TRIPLE | ROUTING CONTROL DIGIT XMTD |
| A | MOST DIRECT TRIPLE | SOG/TOG | 0,1,2 OR 3 | 6,7,8 | 0 | 6,12,15 | 0 | 8,13,21 | 0 |
| B | BEST ALTERNATE TRIPLE | SOG | 0 | 3,4,5 | 1 | 9,10,11 | 2 | 3,4,5 | 2 |
| | | TOG | 0 | | 1 | | 2 | | 2 |
| | | | 1 | | 3 | | 3 | | 3 |
| C | SECOND BEST ALTERNATE TRIPLE | SOG | 0 | 9,10,11 | 1 | 1,2,22 | 2 | 1,2,22 | 1 |
| | | TOG | 0 | | 1 | | 2 | | 1 |
| | | | 2 | | 3 | | 3 | | 3 |

ABBREVIATIONS WHICH APPEAR ON THIS SHEET
ARE COVERED BY THE FOLLOWING INFORMATION:

MDT - MOST DIRECT TRIPLE

BAT - BEST ALTERNATE TRIPLE

SBAT - SECOND BEST ALTERNATE TRIPLE

DRAWING ISSUE
32A E.P. CAL AND

32

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D79

BELL TELEPHONE LABORATORIES INCORPORATED

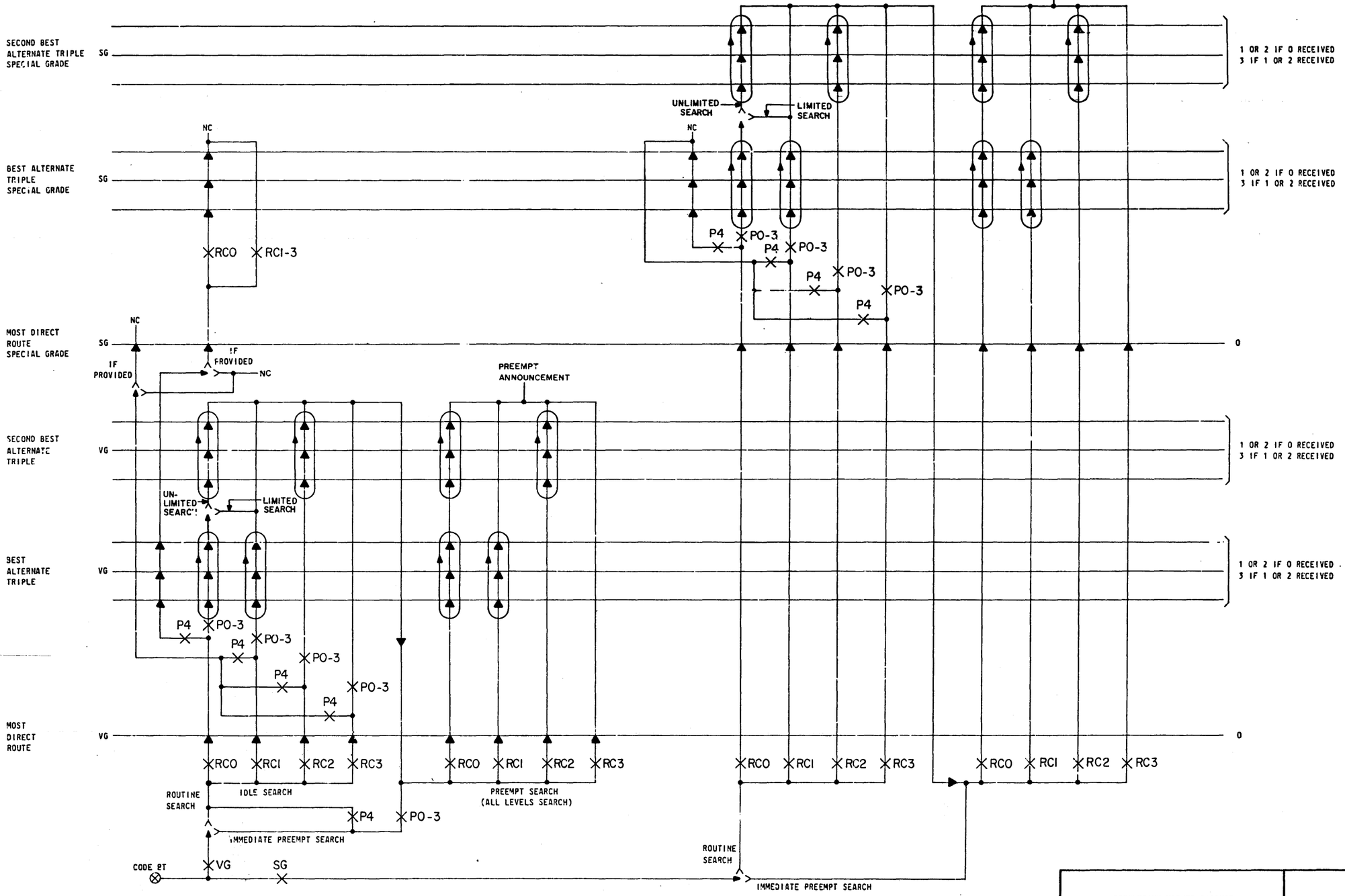
6S

SD-26002-01-D79

CROSS CONNECTION INFORMATION (CONT)

NOTE 446

TYPICAL ROUTING PATTERN FOR ALL HOME GRID OFFICES PER CODE GROUP




| DRAWING ISSUE | |
|---|---|
| 32A | TS |
| 39D | RJF |

39

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-D80

BELL TELEPHONE LABORATORIES INCORPORATED

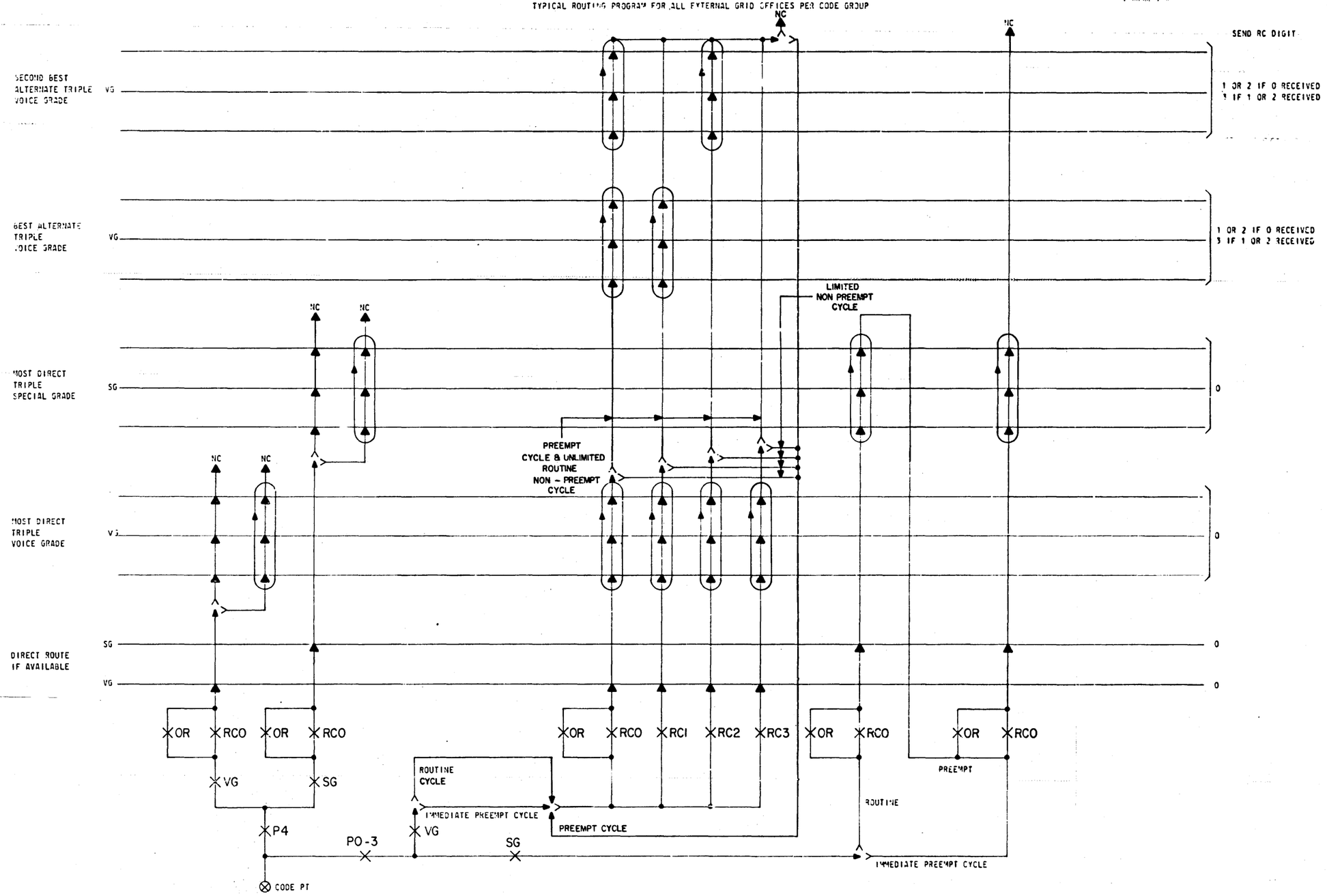
6S

HIGGINS 4465

CROSS CONNECTION INFORMATION (CONT)

## NOTE 447

TYPICAL ROUTING PROGRAM FOR ALL EXTERNAL GRID OFFICES PER CODE GROUP




DRAWING ISSUE 32A TS GAL ANT

32

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D81

BELL TELEPHONE LABORATORIES INCORPORATED 6S

HIGGINS 4465

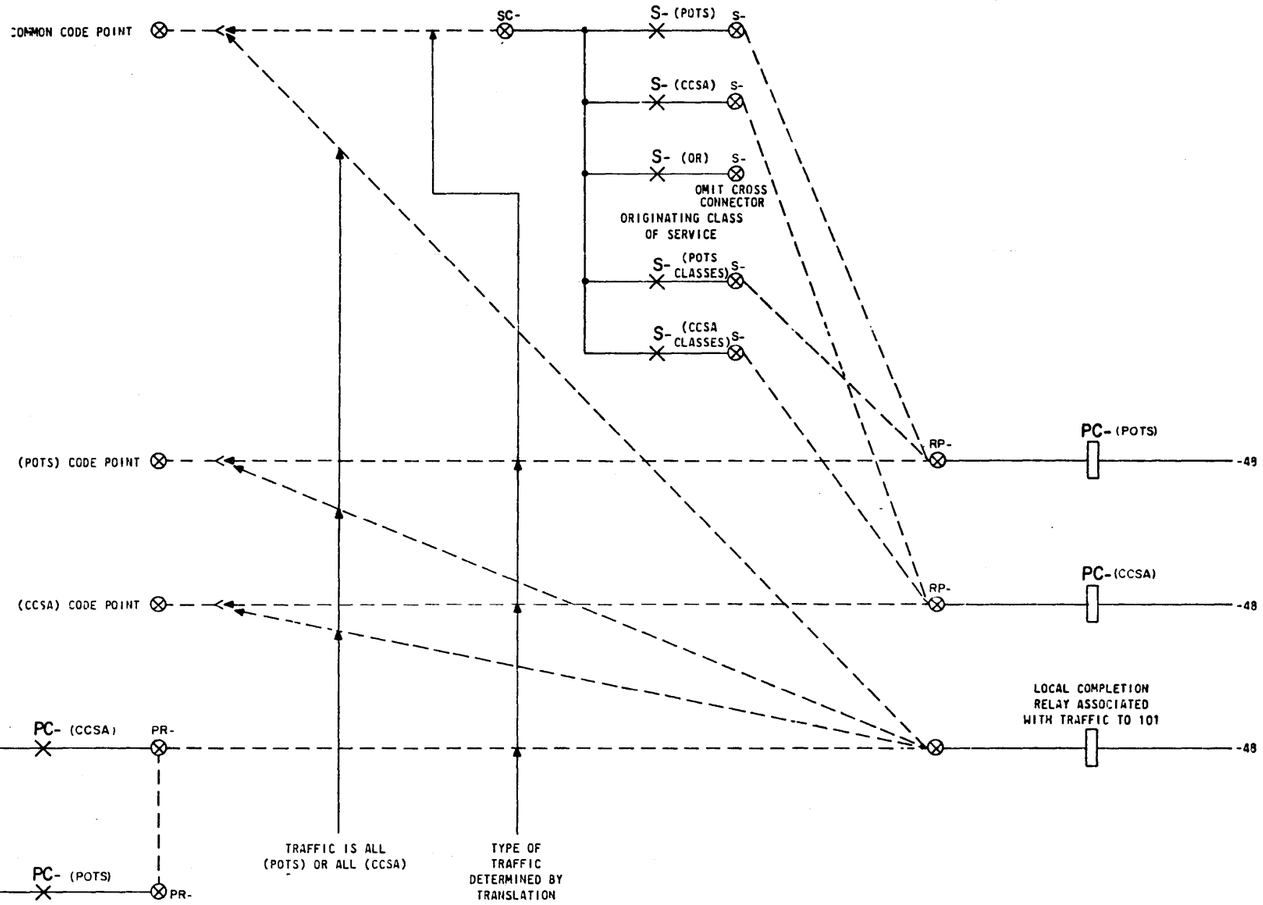
SD-26002-01-D81

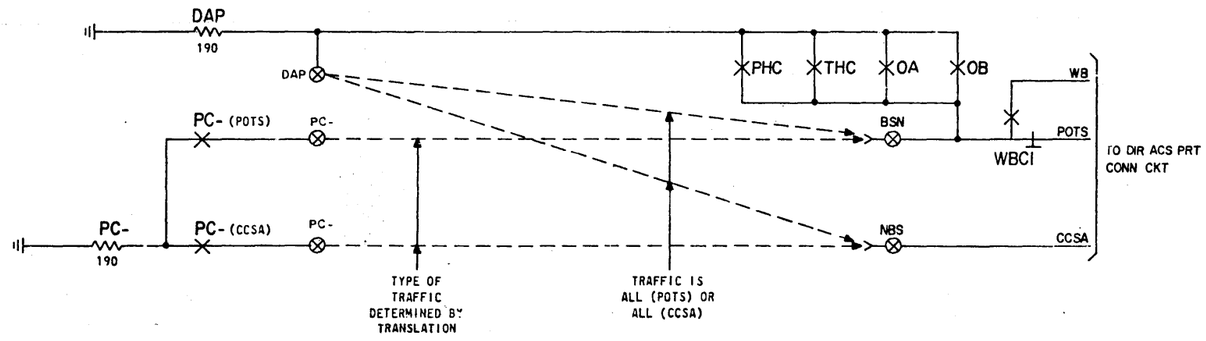
CROSS CONNECTION INFORMATION (CONT)

## NOTE 448

TYPICAL CROSS CONNECTIONS FOR TRANSMITTING TYPE OF CALL INFORMATION TO 101 ESS

TRUNK CLASS SCREENING




DRAWING ISSUE

| | |
|---|---|
| 330 | MS CAL AM |
| 39D | RP |



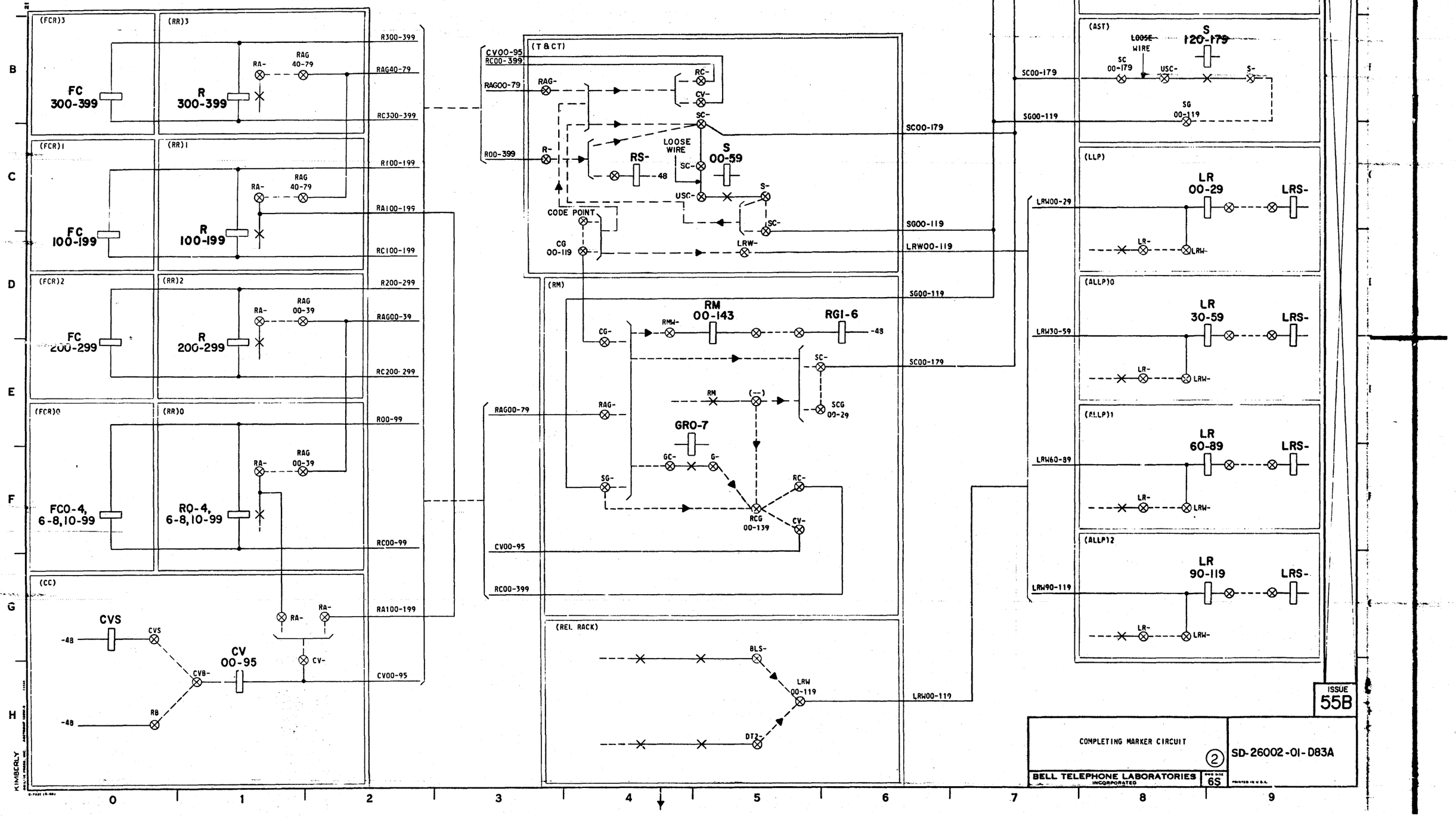
COMPLETING MARKER CIRCUIT (2) SD-26002-01-D082

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S — PRINTED IN U.S.A.

CROSS CONNECTION INFORMATION (CONT)

## NOTE 449A

GENERAL ACCESS TO LRW-,RA-,RC-,R-,S-,AND SC- POINTS
(MAXIMUM OF 400 ROUTE RELAYS AND 180 S- RELAYS)

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ISSUE 55B

COMPLETING MARKER CIRCUIT ②

SD-26002-01-D83A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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KIMBERLY

26002-01-D83A

CROSS CONNECTION INFORMATION (CONT)

## NOTE 449B

GENERAL ACCESS TO LRW-,RA-,RC-,R-,S-,AND SC- POINTS
(MAXIMUM OF 500 ROUTE RELAYS AND 240 S- RELAYS)

(FCR)4
FC 400-499
(RR)4
R 400-499
RA- RAG00-39
R400-499
RAG00-39
RC400-499

(FCR)3
FC 300-399
(RR)3
R 300-399
RA- RAG00-39
R300-399
RAG00-39
RC300-399

(FCR)2
FC 200-299
(RR)2
R 200-299
RA- RAG00-39
R200-299
RAG00-39
RC200-299

(FCR)1
FC 100-199
(RR)1
R 100-199
RA- RAG00-39
R100-199
RAG00-39
RC100-199

(FCR)0
FC0-4 6-8,10-99
(RR)0
R0-4 6-8,10-99
RA- RAG00-39
R00-99
RAG00-39
RC00-99

CVS
-48
CVS
CVB-
CVB
-48
RA- RA-
CV-
CV00-95
CV00-95

R00-499 → R-
RC00-499 → RC-
(RR4) RAG00-39 → RAG-
(RRO) RAG00-39 → RAG-

(T & CT)
SC00-239
SG00-139
SE00-49 (ST)
ROUTE SERIES-
ROUTE SERIES- -48
LRW-

(RELAY RACK)
BLS-
LRW-
DTZ-

SW180-239
SE00-49 (SAST)
SW120-179
SE00-49 (AST)
SW60-119
SE00-49 (SST)
SW00-59
SE00-49 (ST)

(SAST)
SC00-239 LOOSE WIRE USC-
SG00-139
SE00-49
ROUTE SERIES-
S-
S180-239
-48

(AST)
SC00-239 LOOSE WIRE USC-
SG00-139
SE00-49
ROUTE SERIES-
S-
S120-179
-48

(SST)
SC00-239 LOOSE WIRE USC
SG00-139
SE00-49
ROUTE SERIES-
S-
S60-119
-48

(ST)
SC00-239 LOOSE WIRE USC-
SG00-139
SE00-49
ROUTE SERIES-
S-
S00-59
-48

(LLP-)
LR- LRW-
LR-
LRS
-48

ISSUE 55B

COMPLETING MARKER CIRCUIT

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BELL TELEPHONE LABORATORIES INCORPORATED

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CROSS CONNECTION INFORMATION (CONT)

# PART OF NOTE 450

TYPICAL CROSS CONNECTIONS FOR ACCESS GROUP CONTROLLER OPERATION

ORIG REG | ORIG REG MKR CONN CKT — RC- MC- LT3

LT3 — ALT3 — ALT13

ONLY ONE CCSA NET. IN MARKER GROUP

SC- S- S-

NET. A AGC NOT REQUIRED

NET. B SINGLE AGC REQUIRED — OACO — OGRO ARTO ORTO — OACO — -48

NET. C MULTIPLE AGC REQUIRED (SEE NOTE 1) — OACI — OGRI ARTI ORTI — OACI — -48

INTERMEDIATE AGC CONTROLS — OAC- — OGR- ART- ORT- — OAC- — -48

LAST AGC CONTROL — OAC- — OGR- ART- ORT- — OAC- — -48

NET. B SINGLE AGC REQUIRED — TECO — TGRO ARTO ARTO — TECO — -48

NET. C MULTIPLE AGC REQUIRED (SEE NOTE 1) — TACI — TGRI ARTI ARTI — TACI — -48

INTERMEDIATE AGC CONTROLS — TAC- — TGR- ART- ART- — TEC- — -48

LAST AGC CONTROL — TAC- — TGR- ART- ART- — TEC- — -48

NET. A AGC NOT REQUIRED

CCSA NET. LOCAL COMPLETION CODE POINTS

CROSS CONNECT ONLY FOR PRESERVICE MODE OF OPERATION

PK AGC OACO ARTO — OATO OPBO

OACI ARTI — OATI OPBI

OAC- ART- — OAT- OPB-

OAC- ART- — OAT- OPB-

CROSS CONNECT ONLY FOR SERVICE MODE OF OPERATION

AGC TACO ARTO — TARO TPBO

TACI ARTI — TARI TPBI

TAC- ART- — TAR- TPB-

TAC- ART- — TAR- TPB-

TAPB

4LT — 4LT FAT- MLT3 — LT3 -48 — CCSA NET. TRANSLATION

OAPB OAB PB — PBY — OV R- — TONE ROUTE R- -48

SCCK — TAB ROA — ROA -48

LTA -48

LPA -48

LTB -48

LPB -48

NOTES:

1. WHEN A NETWORK REQUIRES MULTIPLE AGC CIRCUITS, THE ORDER OF SELECTING THE AGC CIRCUITS SHOULD BE VARIED FROM MARKER TO MARKER TO EQUALIZE THE LOADING ON THESE CIRCUITS. FOR EXAMPLE THE ORDER OF PREFERENCE FOR MARKER (0) MAY BE: AGC 1,2,3,4; MARKER (1) MAY PREFER: AGC 3,4,1,2; AND ETC.

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COMPLETING MARKER CIRCUIT (2) SD-26002-01-D84A

BELL TELEPHONE LABORATORIES

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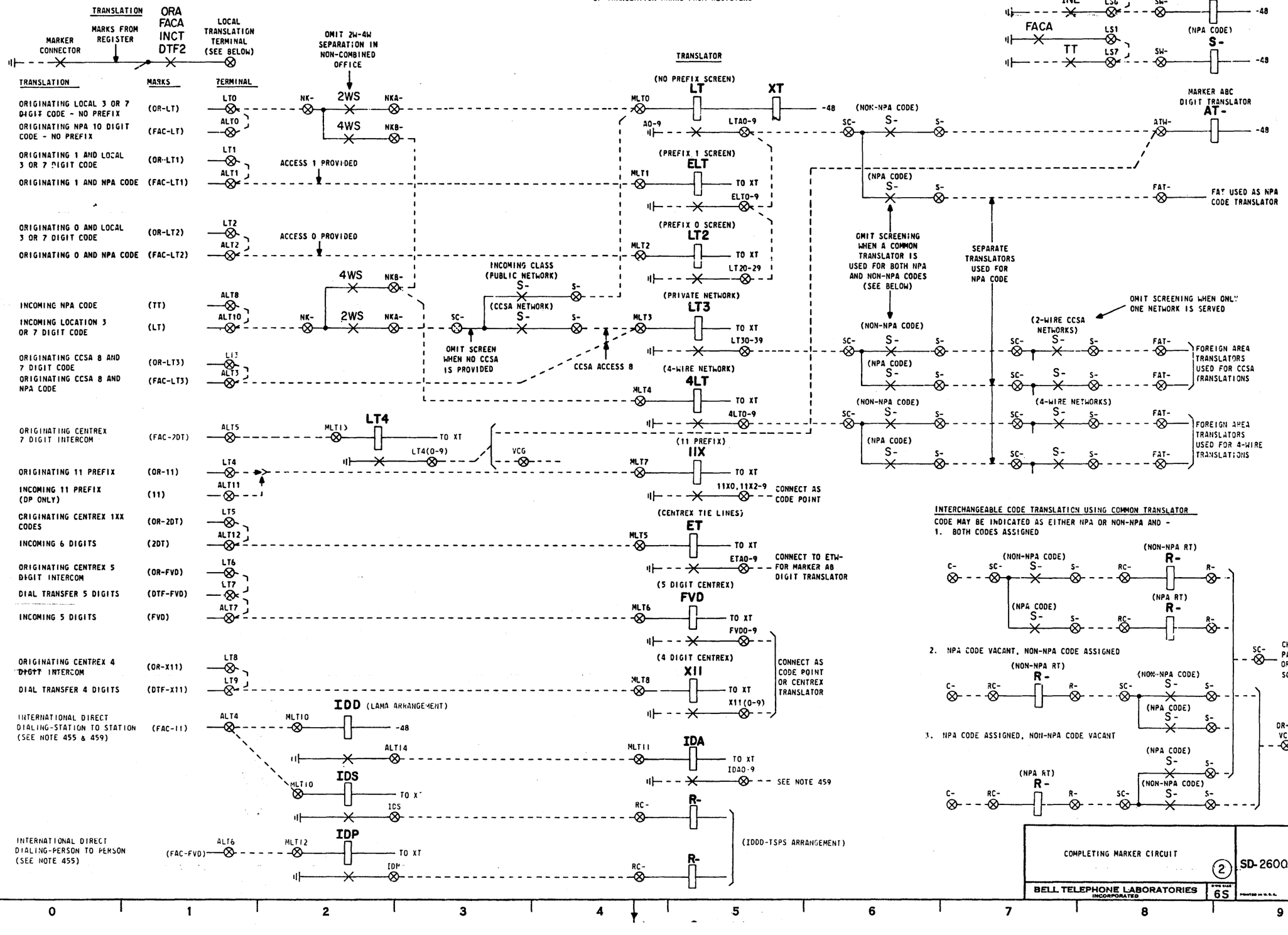
CROSS CONNECTION INFORMATION (CONT)

# NOTE 451

TYPICAL TRANSLATION ARRANGEMENT
OF TRANSLATION MARKS FROM REGISTERS




| DRAWING ISSUE | |
|---|---|
| 35D | TS 6A 8B |
| 37D | 01A |
| 41D | |
| 43D | |

ISSUE 55B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-D85

BELL TELEPHONE LABORATORIES INCORPORATED

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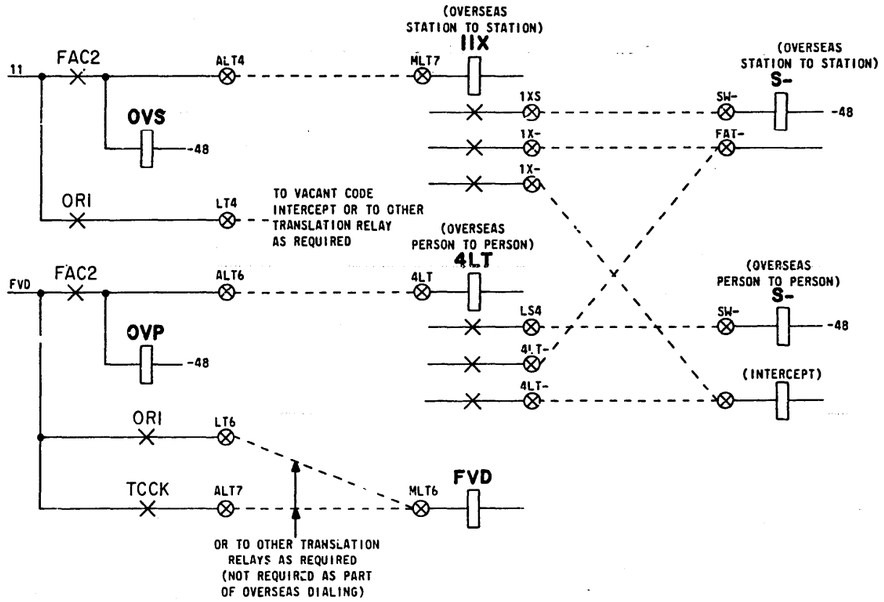
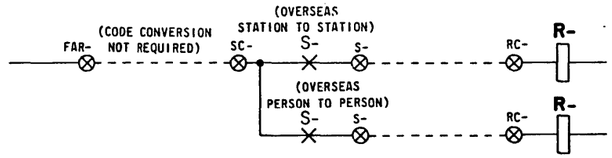
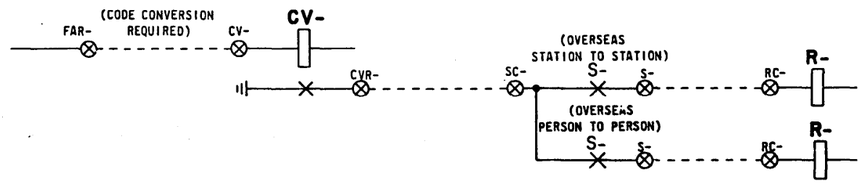
CROSS CONNECTION INFORMATION(CONT)

## (SPL) NOTE 452

(145) TYPICAL TRANSLATION AND SCREENING FOR CUSTOMER DIALING OF OVERSEAS CALLS.




DRAWING ISSUE 35D DK Gpl and

35

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D86

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D86

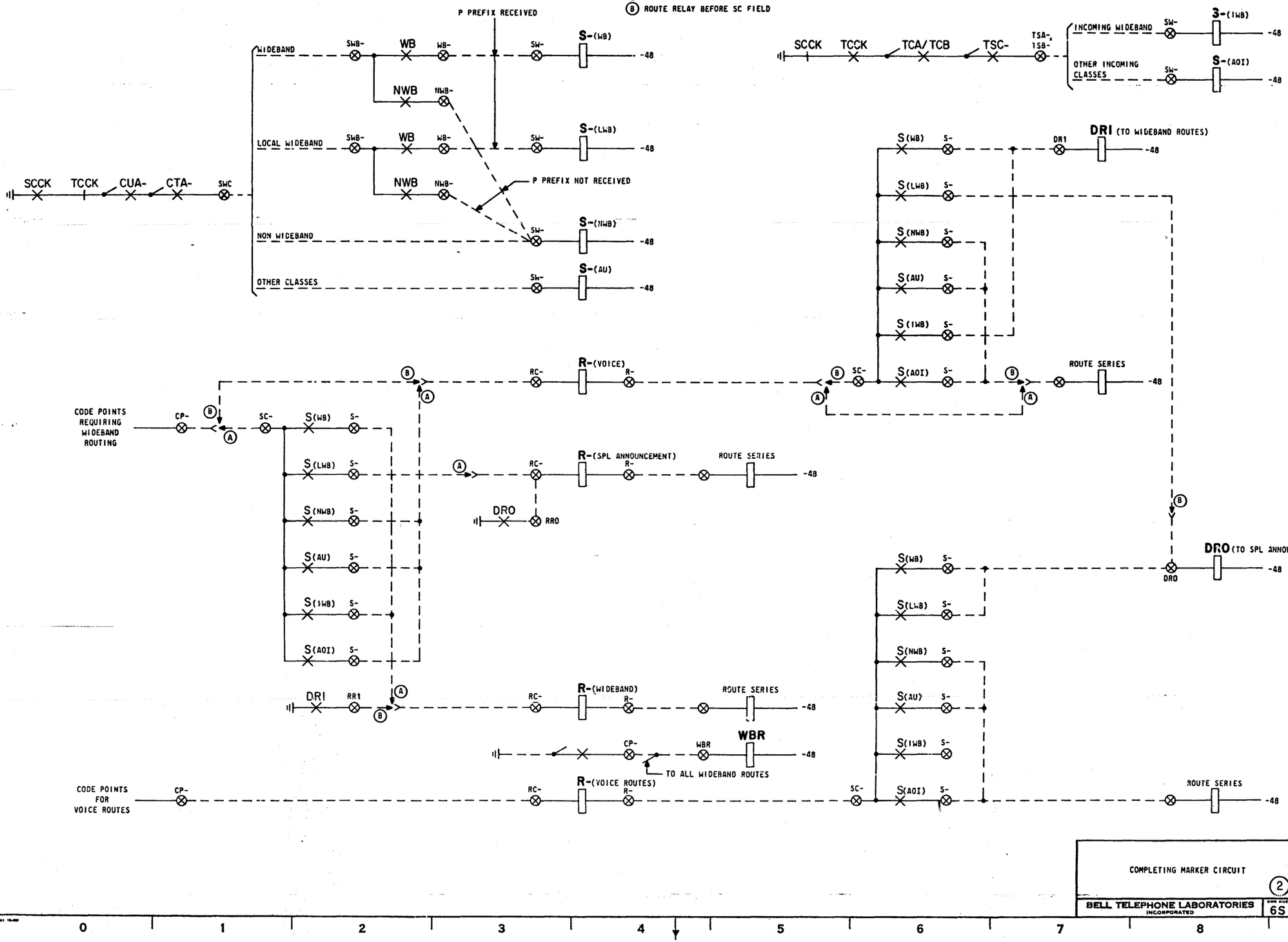
CROSS CONNECTION INFORMATION (CONT)

# NOTE 453

TYPICAL SCREENING FOR WIDEBAND SWITCHING

(A) ROUTE RELAY AFTER SC FIELD

(B) ROUTE RELAY BEFORE SC FIELD




DRAWING ISSUE

350 I.B. 401 AHO

35

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-D87

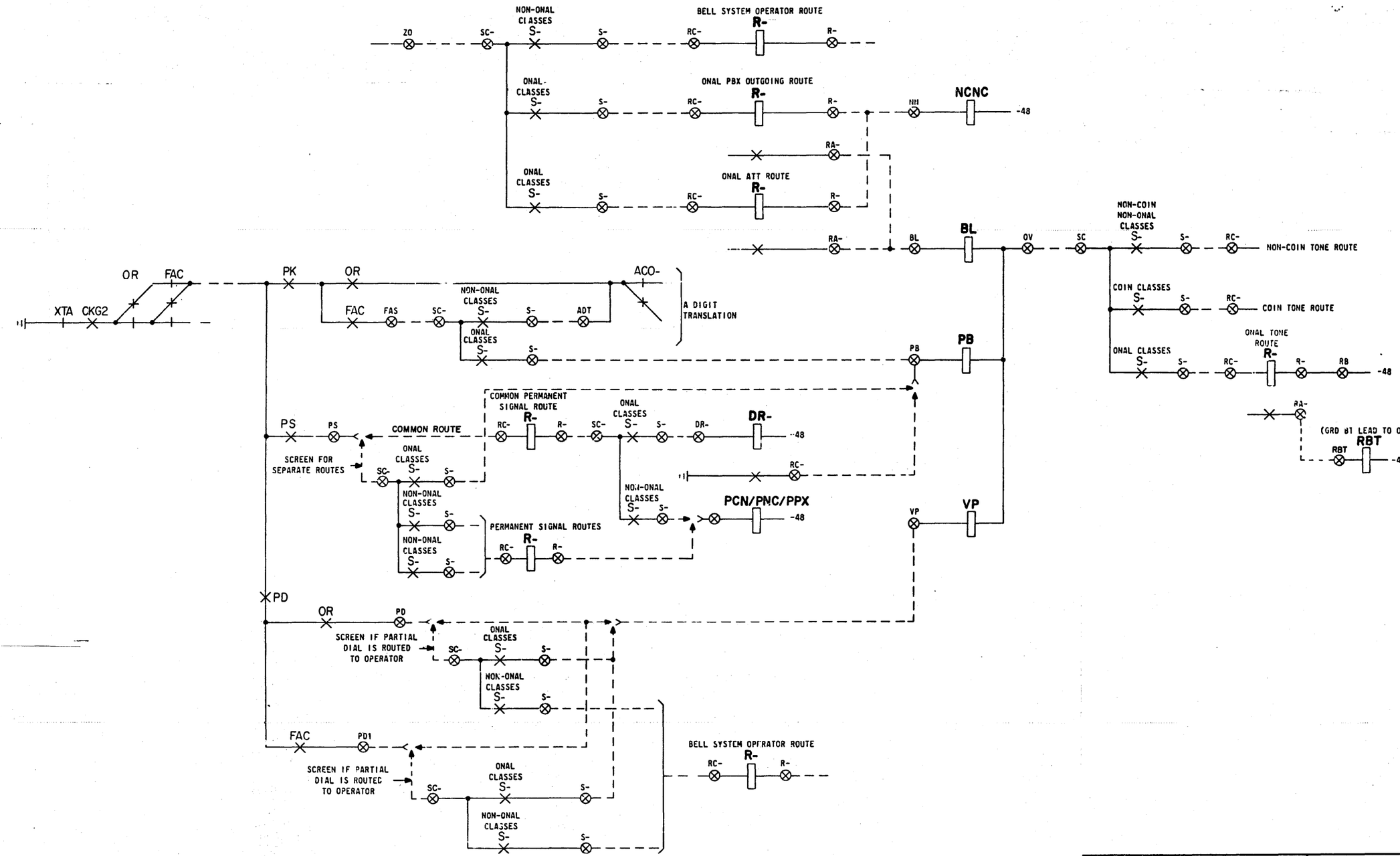
BELL TELEPHONE LABORATORIES INCORPORATED

6S

CROSS CONNECTION INFORMATION (CONT)

# NOTE 454

TYPICAL CROSS CONNECTIONS FOR TWO WAY OFF NETWORK ACCESS LINE TRAFFIC




DRAWING ISSUE
35D LP GPL BHP

35

COMPLETING MARKER CIRCUIT (2)

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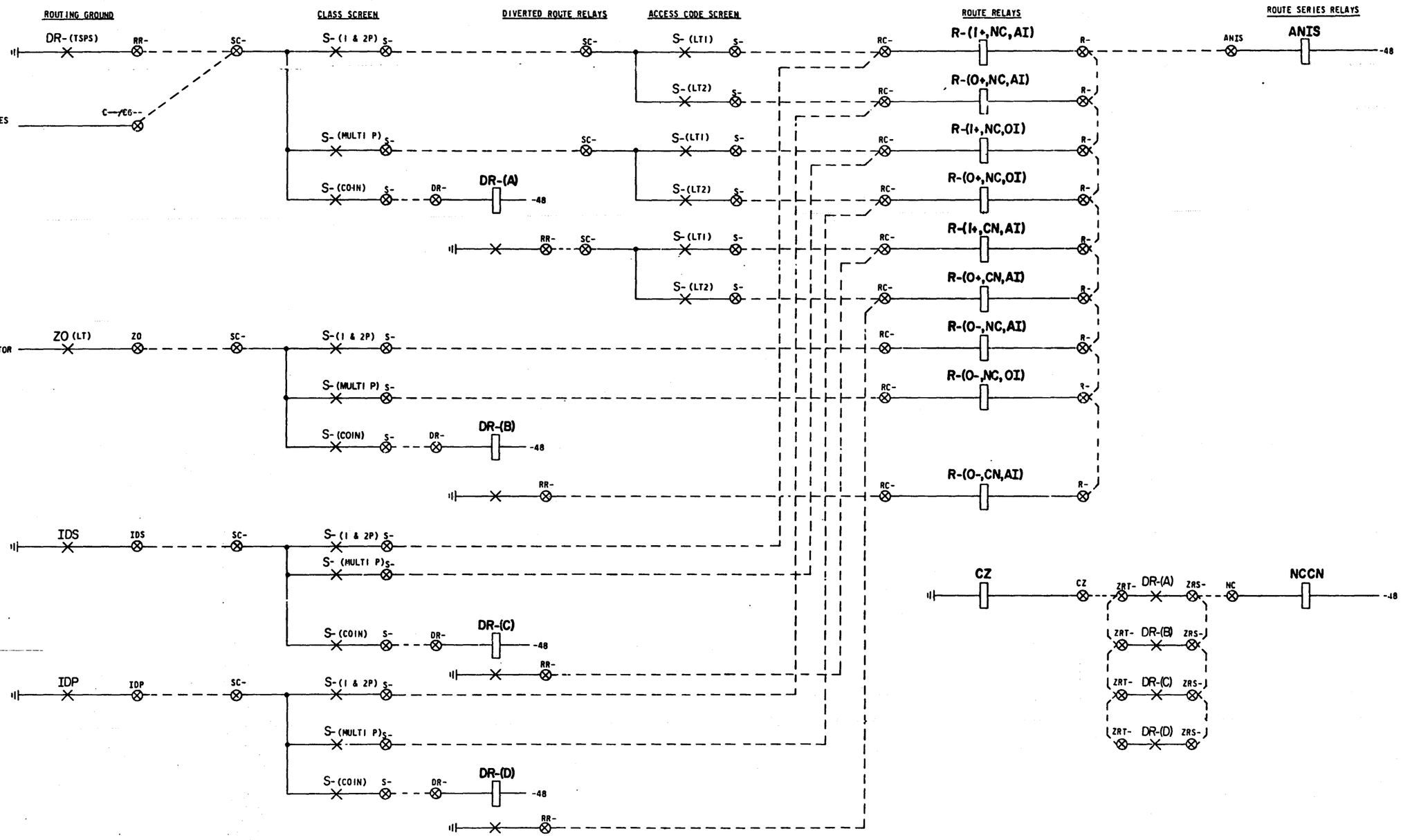
BELL TELEPHONE LABORATORIES — INCORPORATED — 6S

# NOTE 455

TYPICAL ROUTING CONTROL FOR COMMON TRUNK GROUP
TO TRAFFIC SERVICE POSITION SYSTEM NO. 1 (TSPS)




DRAWING ISSUE 450

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COMPLETING MARKER CIRCUIT (2)

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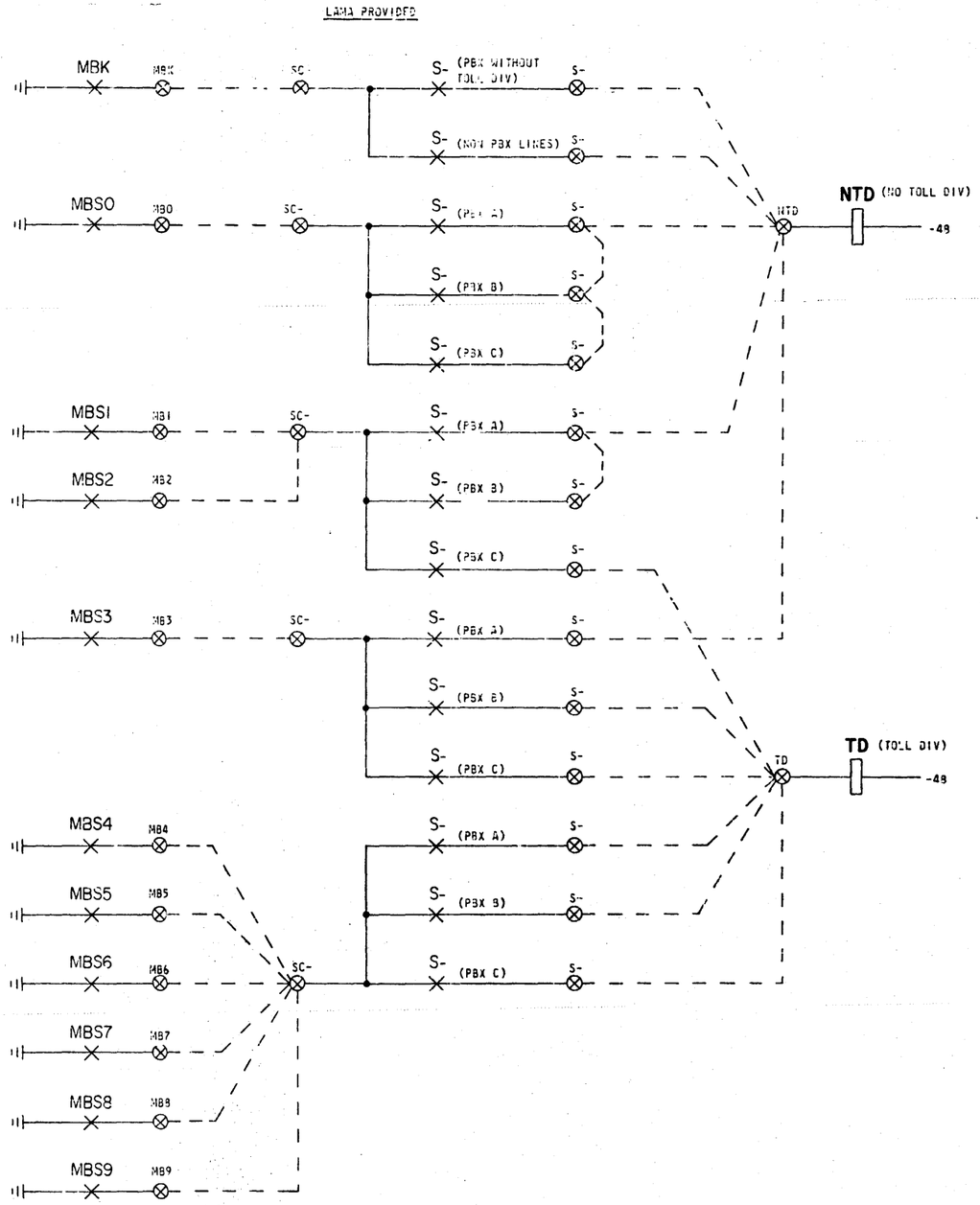
BELL TELEPHONE LABORATORIES INCORPORATED

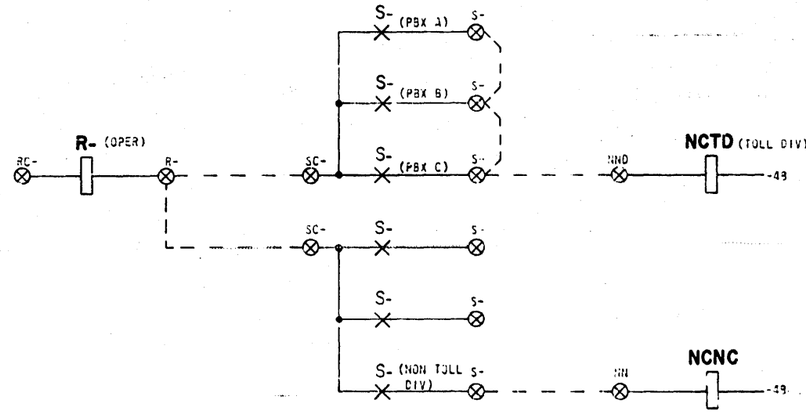
6S

CROSS CONNECTION INFORMATION (CONT)

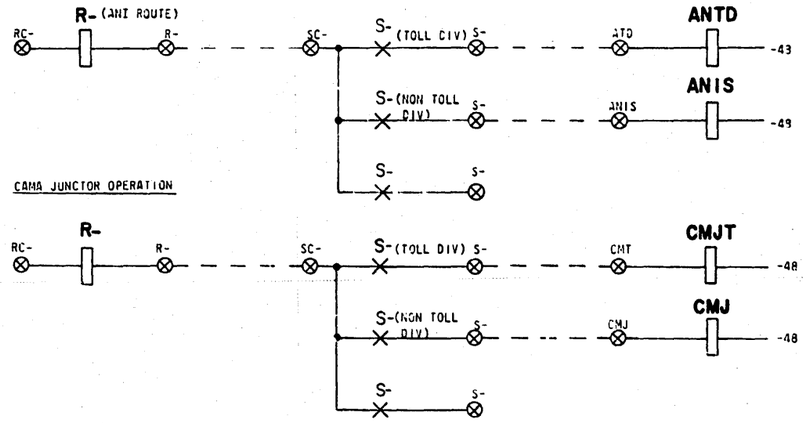
# NOTE 456

TYPICAL CROSS CONNECTIONS FOR PBX TOLL DIVERSION




ANI




CAMA JUNCTOR OPERATION

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37D LP
43D

43

COMPLETING · ARKER CIRCUIT (2)

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BELL TELEPHONE LABORATORIES INCORPORATED

6S

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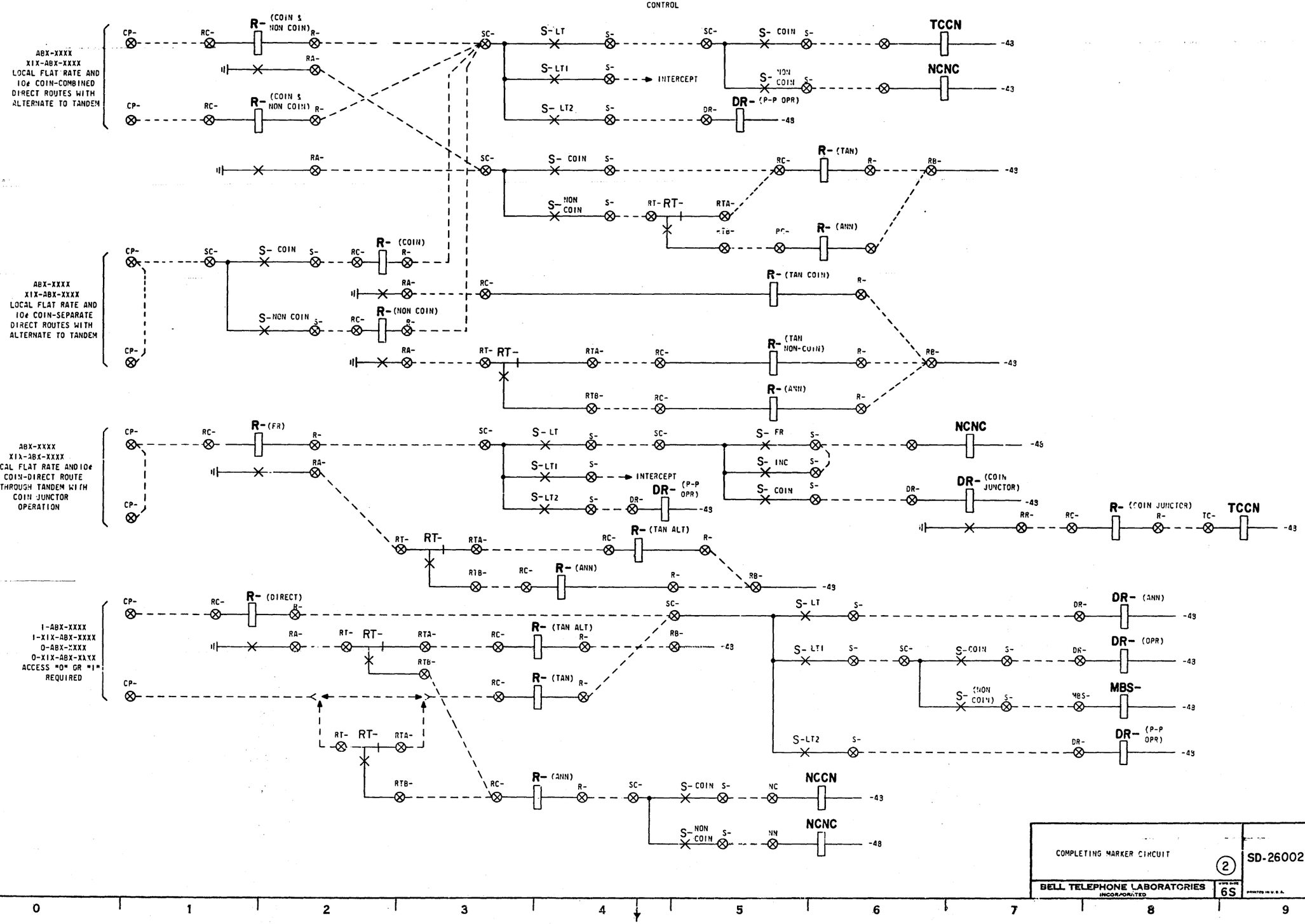
CROSS CONNECTION INFORMATION (CONT)

# NOTE 457

TYPICAL CROSS CONNECTIONS FOR DYNAMIC OVERLOAD CONTROL




| COMPLETING MARKER CIRCUIT | (2) | SD-26002-01-D91 |
|---|---|---|
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S | |

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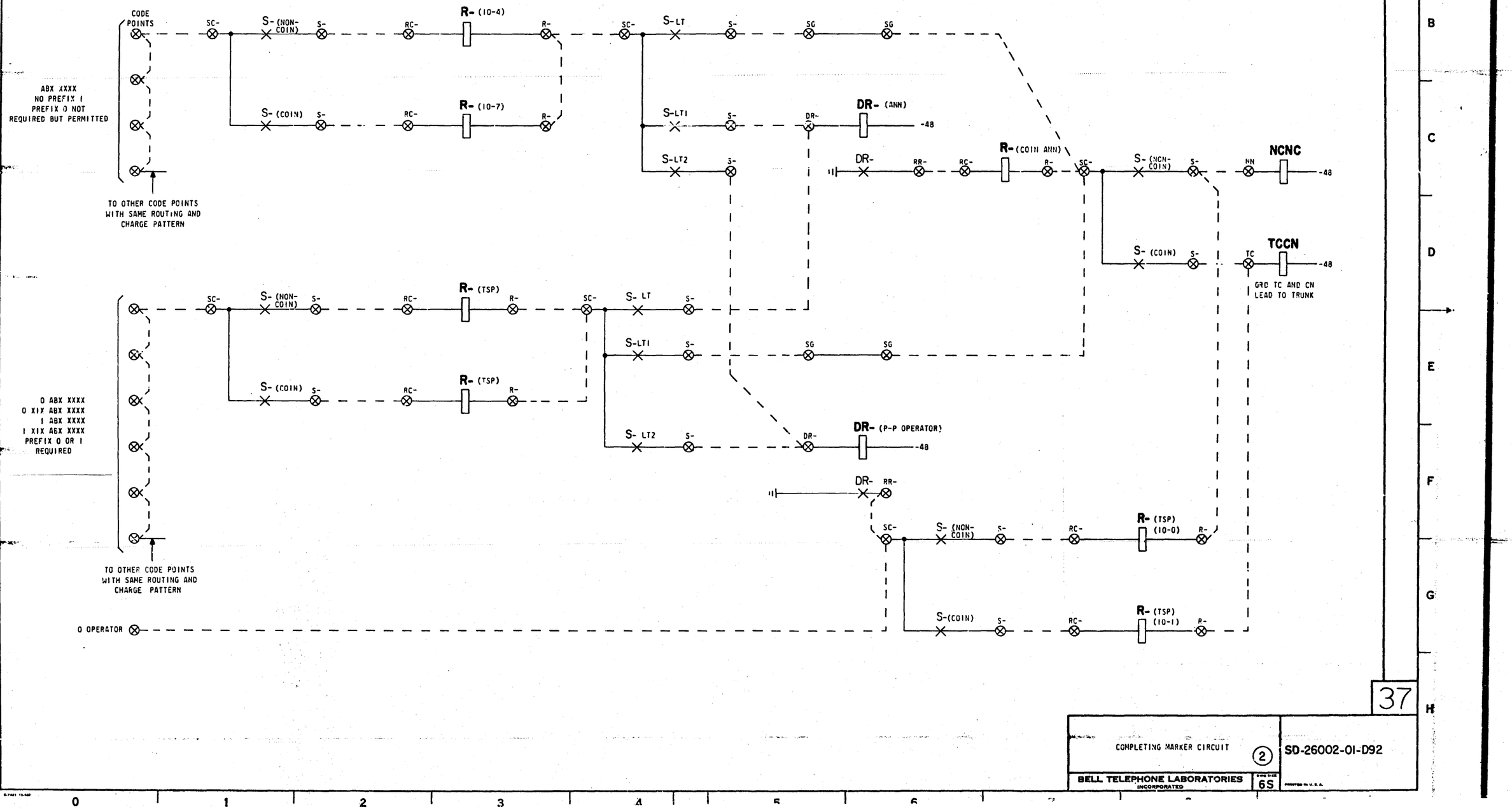
CROSS CONNECTION INFORMATION (CONT)

# NOTE 458

TYPICAL TREATMENT OF PREFIX 0
AND PREFIX 1 CODES TO TSP
VIA COMMON TRUNK GROUP




DRAWING ISSUE
37D LP

37

COMPLETING MARKER CIRCUIT (2)

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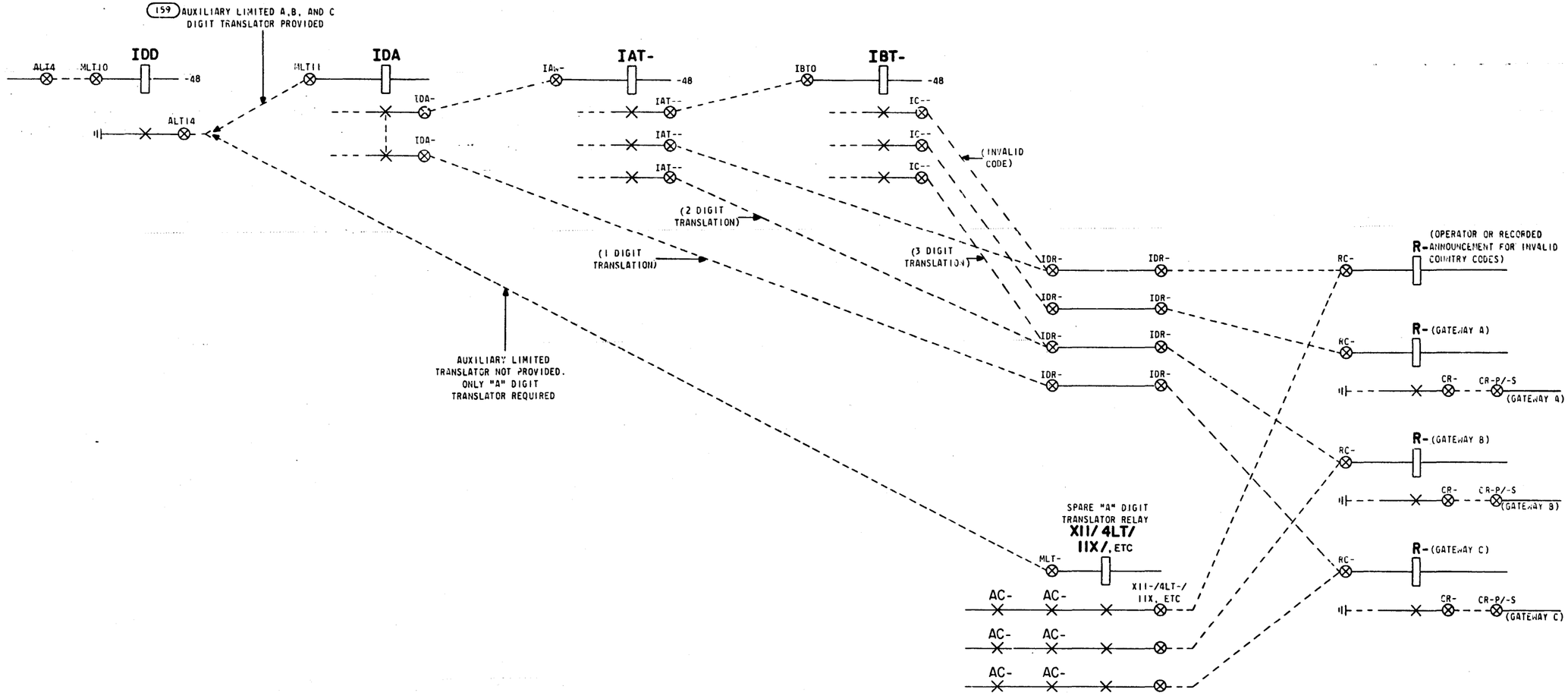
SHEET SIZE 6S

CROSS CONNECTION INFORMATION (CONT)

# NOTE 459

(2XI) TYPICAL CROSS CONNECTIONS FOR INTERNATIONAL DIRECT DISTANCE DIALING (LAMA ARRANGEMENT)

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41D
430

43

COMPLETING MARKER CIRCUIT (2) SD-26002-01-D93

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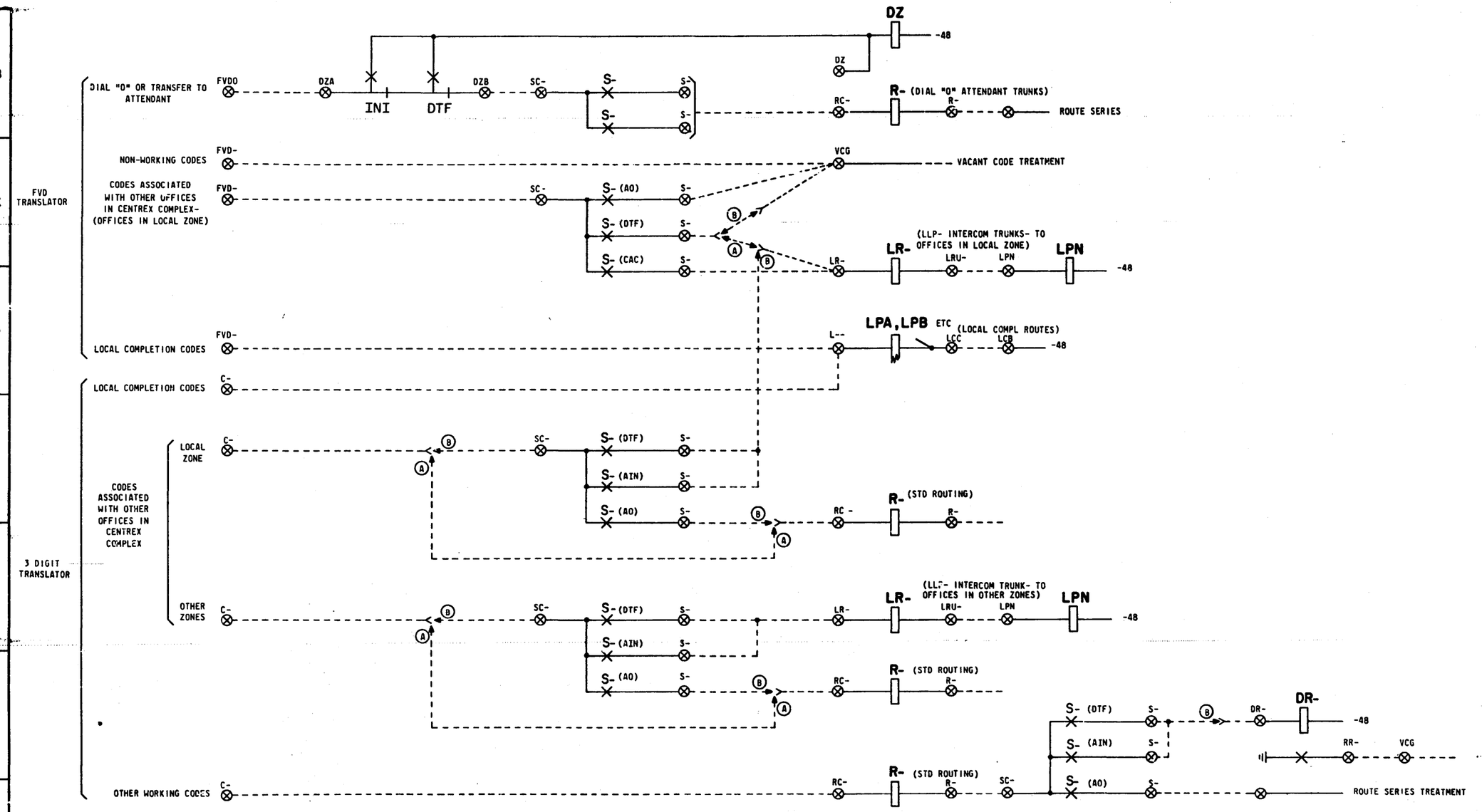
CROSS CONNECTION INFORMATION (CONT)

# PART OF NOTE 460

CENTRALIZED ATTENDANT CROSS CONNECTIONS
FOR ROUTING INTERCOM AND ATTENDANT
CONTROLLED TRANSFER CALLS

(A) ONE DIALING ZONE - 5 DIGIT DIALING
(B) MULTIZONE - 5 DIGIT DIALING




DRAWING ISSUE 41D

ISSUE 55B

COMPLETING MARKER CIRCUIT (2)

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BELL TELEPHONE LABORATORIES INCORPORATED 6S

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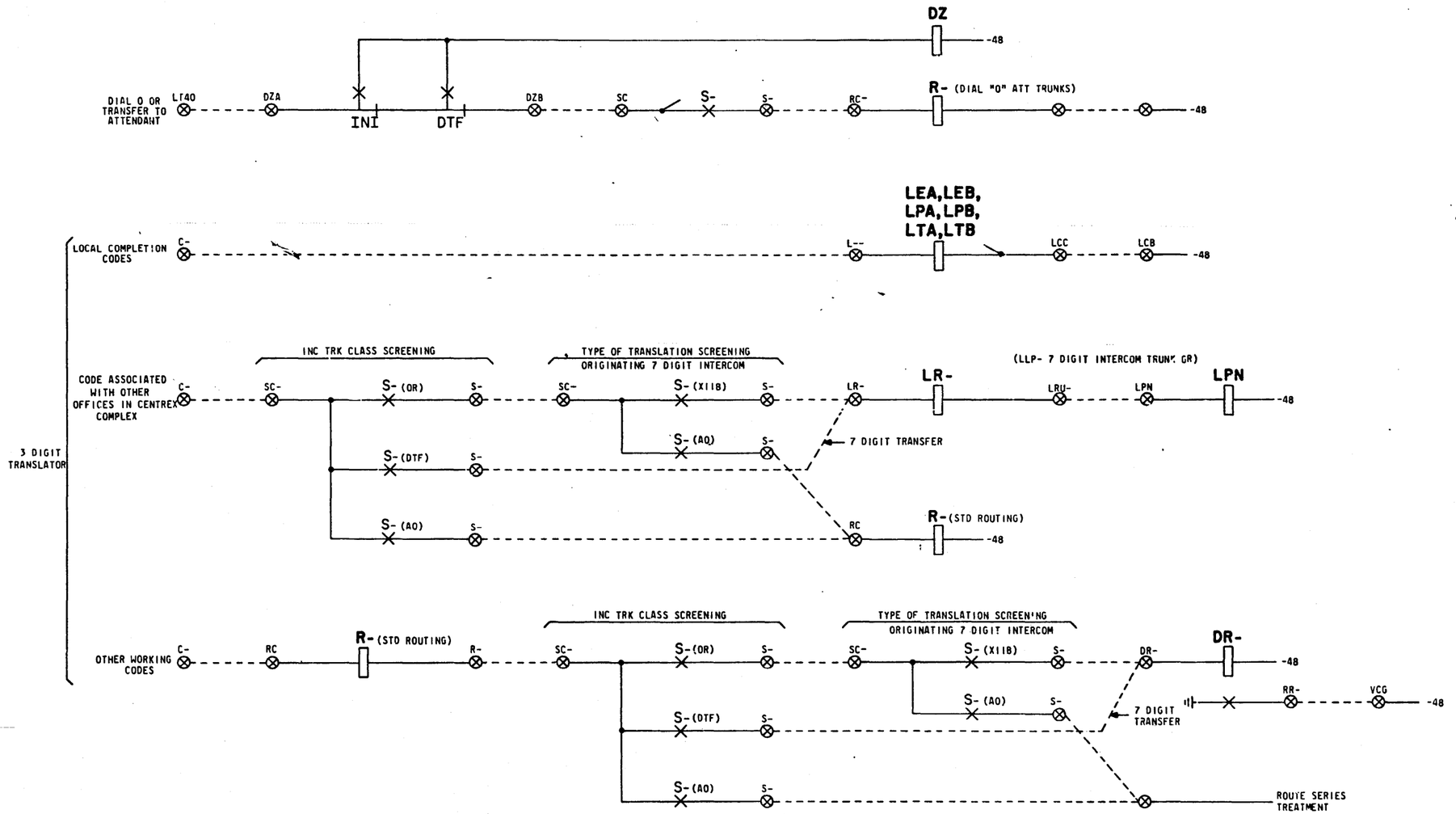
# PART OF NOTE 460

CENTRALIZED ATTENDANT
CROSS CONNECTIONS
© ONE DIALING ZONE - 7 DIGIT DIALING




ISSUE 55B

COMPLETING MARKER CIRCUIT

SD-26002-01-D948

BELL TELEPHONE LABORATORIES INCORPORATED

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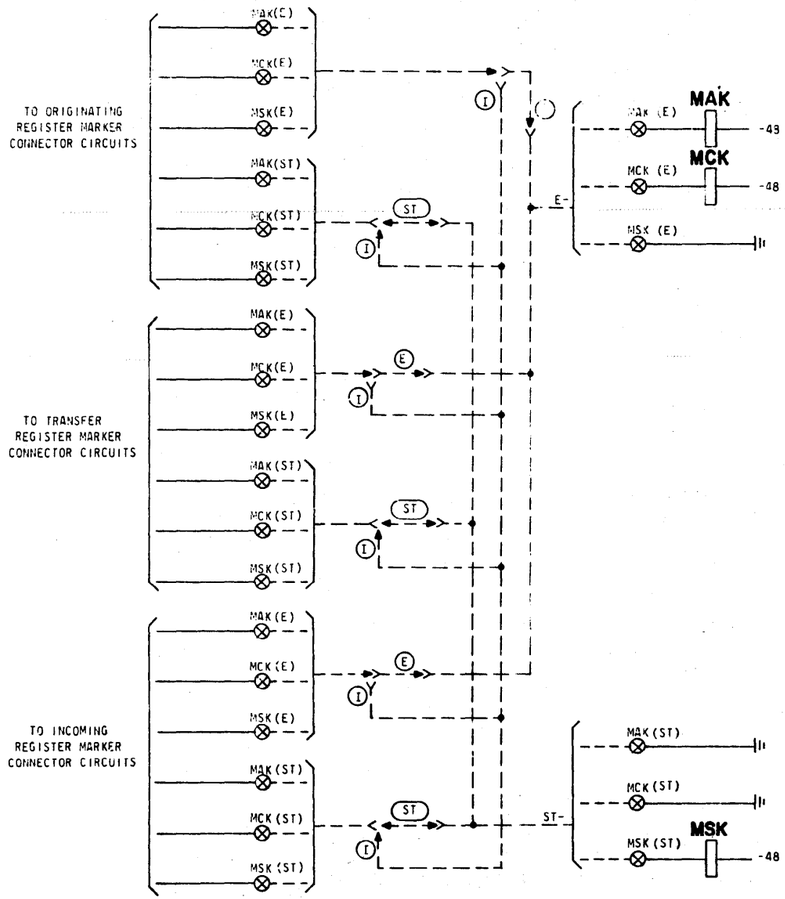
CROSS CONNECTION INFORMATION (CONT)

# NOTE 461

WORK PREFERENCE FOR SUCCEEDING MARKERS
ROTATE AMONG TYPES OF CONNECTOR FRAMES BY CROSS-CONNECTIONS OF MAK, MCK, MSK IN THE MARKER
(LLMC, IF PROVIDED, IS ALWAYS LAST PREFERRED)

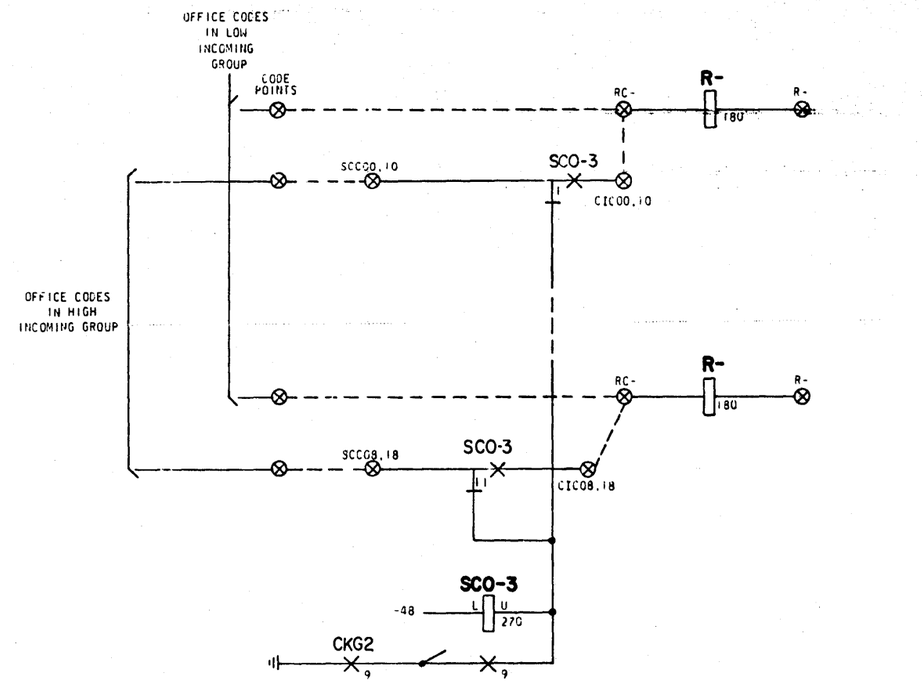


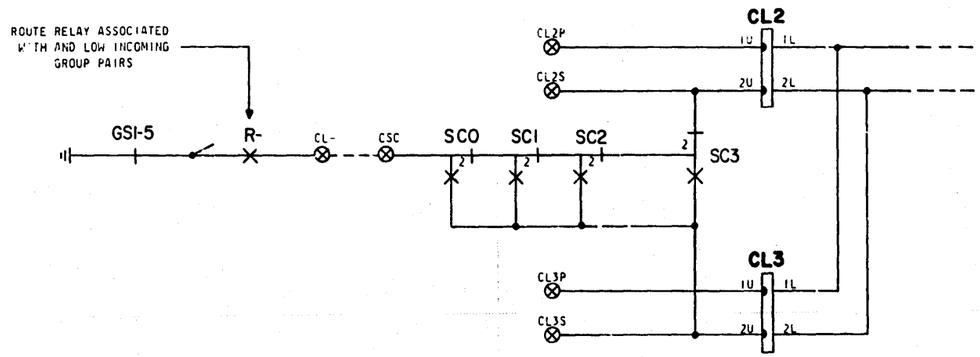

OPTIONAL NOTATION
(ST) -START LEAD FOR TYPE OF CONNECTOR, FIRST PREFERENCE
(I) -INTERMEDIATE WIRING FOR TYPE OF CONNECTOR, INTERMEDIATE PREFERENCE
(E) -END LEAD FOR TYPE OF CONNECTOR, LAST PREFERENCE

CROSS CONNECTION INFORMATION (CONT)

# NOTE 462

PREROUTE CONTROL OF CLASS INFORMATION TO REVERTIVE SENDERS




DRAWING ISSUE 43D

43

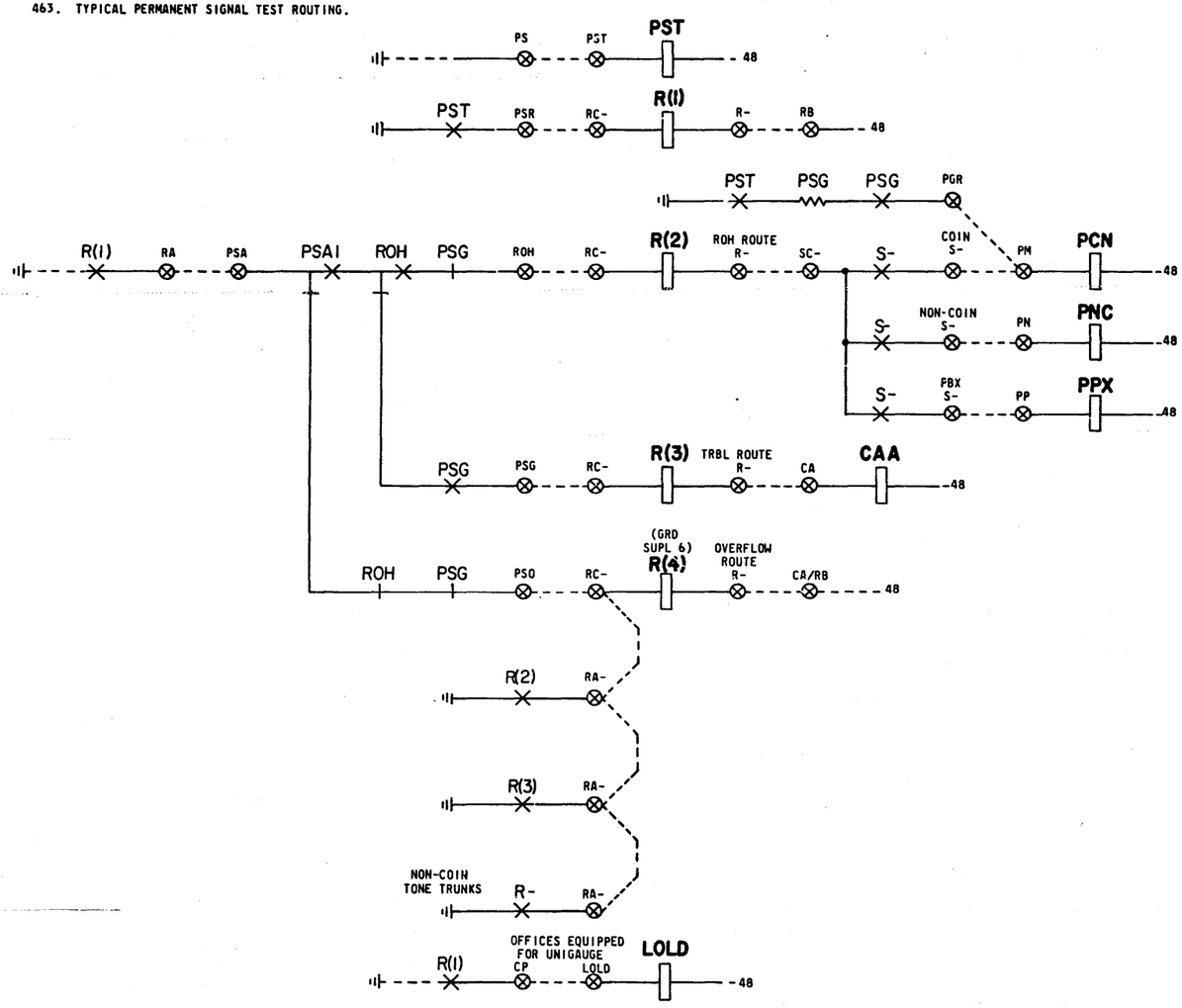
COMPLETING MARKER CIRCUIT (2) SD-26002-01-D95

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-D95

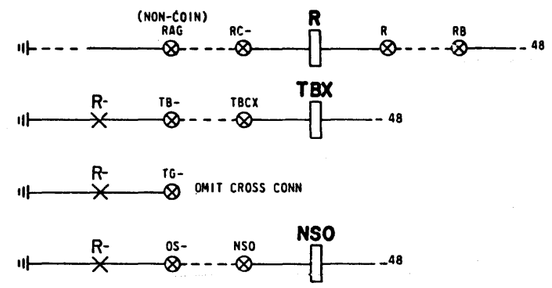
CROSS CONNECTION INFORMATION: (CONT)

463. TYPICAL PERMANENT SIGNAL TEST ROUTING.




CROSS CONNECTION INFORMATION: (CONT)

464. TYPICAL OVERFLOW LINK ROUTING. (GR. SUPL 6)




| | | | |
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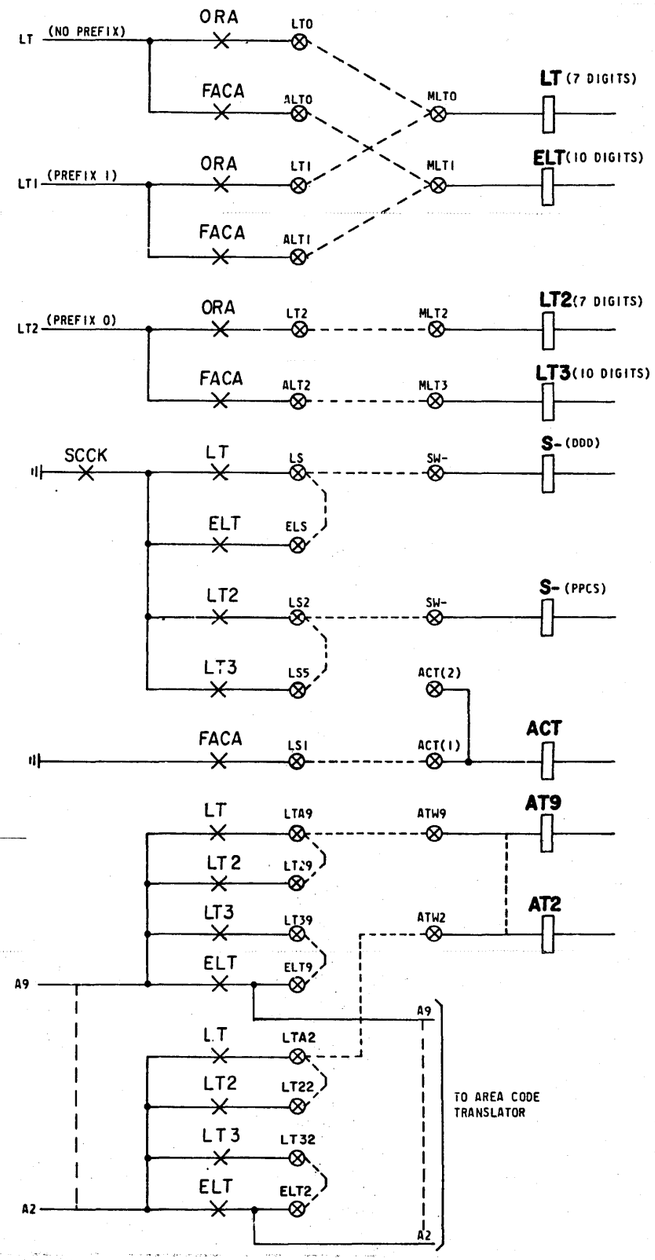
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01- | | D96 |

# PART OF NOTE 465

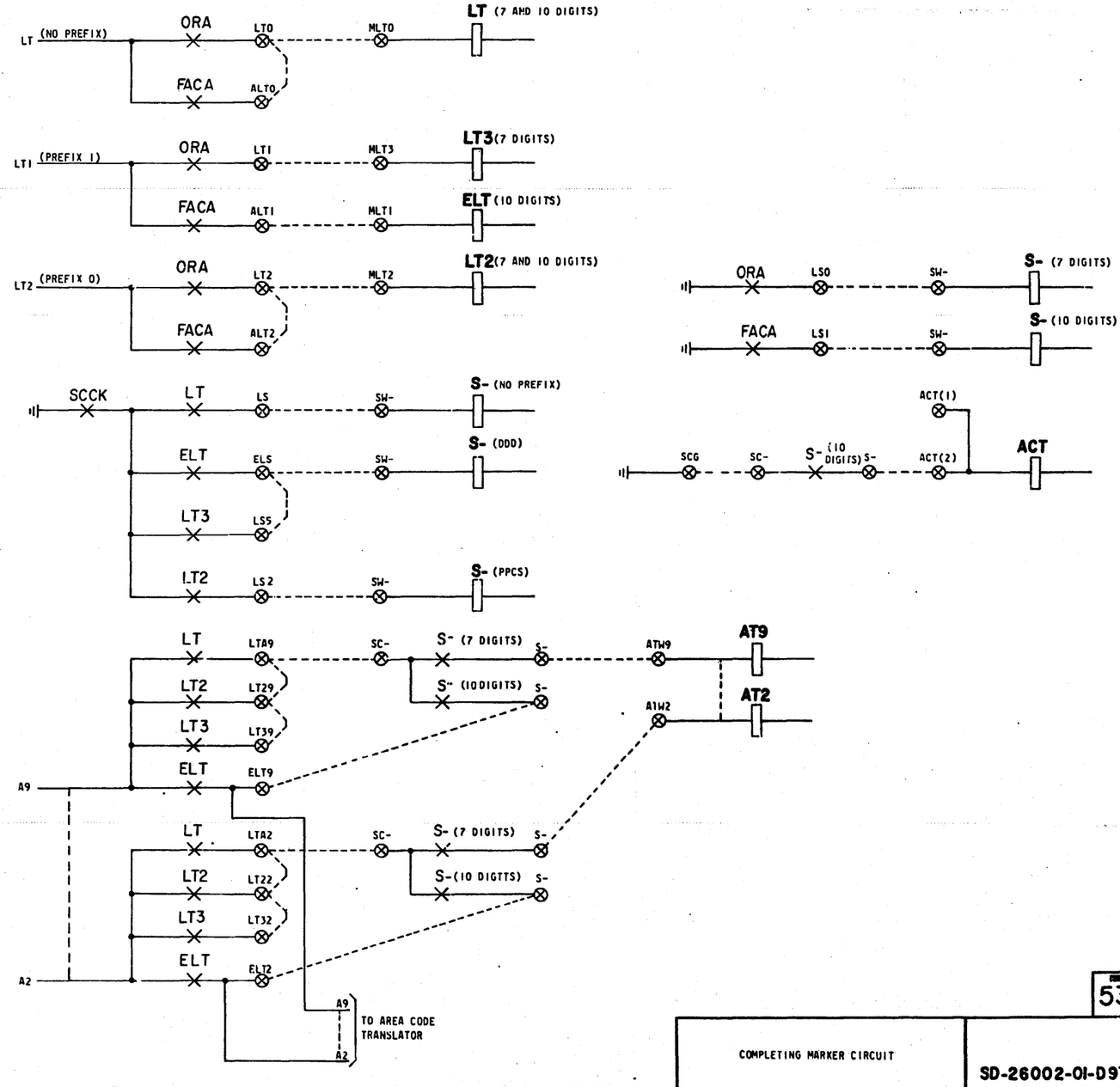
(170) TYPICAL CROSS CONNECTIONS
FOR USING AREA CODE TRANSLATOR WITH
INTERCHANGEABLE CODES

(A) TYPE OF CALL (7 OR 10 DIGITS) DETERMINED BY DIGIT TIMING IN REGISTER

(a) TIMING ON OT INTERCHANGEABLE CODES ONLY




(b) TIMING ON BOTH OT AND IT INTERCHANGEABLE CODES

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| | COMPLETING MARKER CIRCUIT | | SD-26002-01-D97A |
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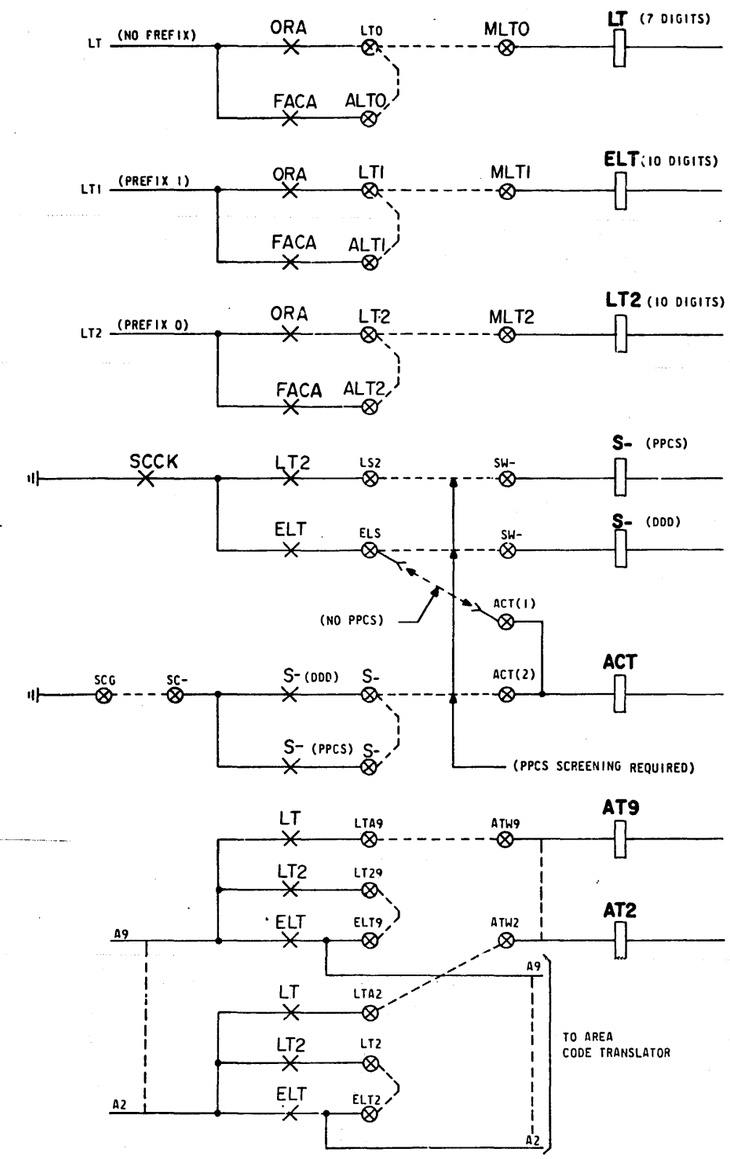
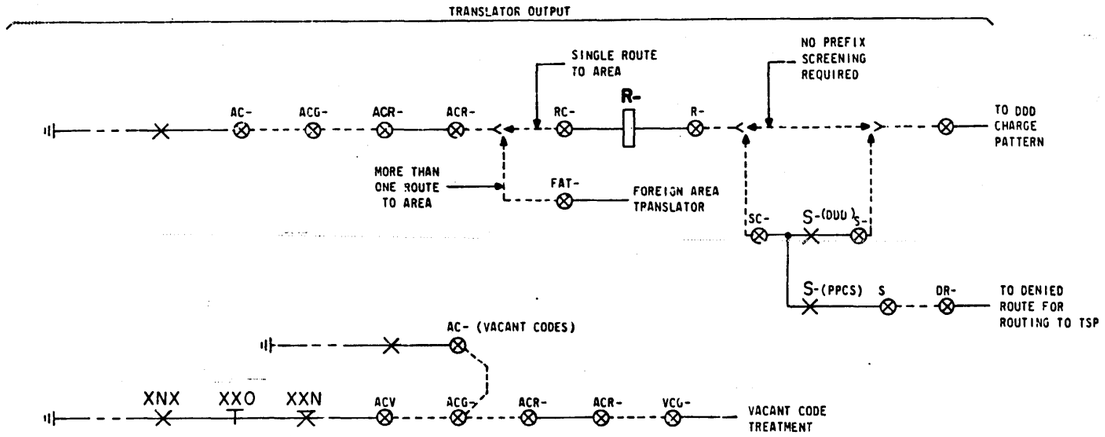
# PART OF NOTE 465

(170) TYPICAL CROSS CONNECTIONS
FOR USING AREA CODE TRANSLATOR WITH
INTERCHANGEABLE CODES

(B) TYPE OF CALL (7 OR 10 DIGITS) DETERMINED BY PREFIX DIGIT (NO TIMING BY REGISTER)



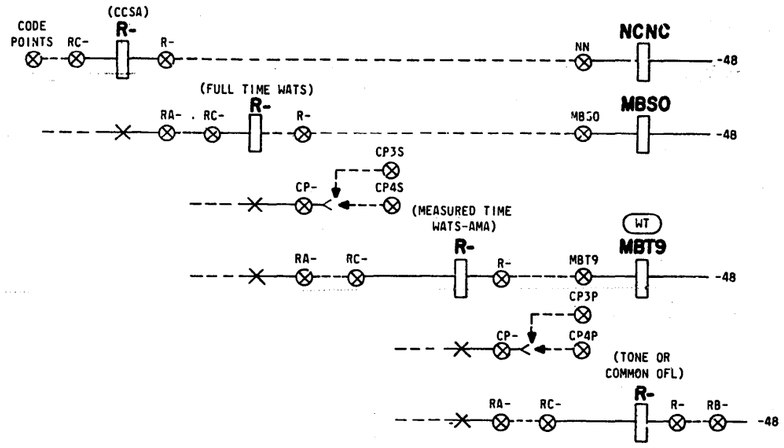




ISSUE 53B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-D978 |
| BELL TELEPHONE LABORATORIES INCORPORATED | DATE 6S |

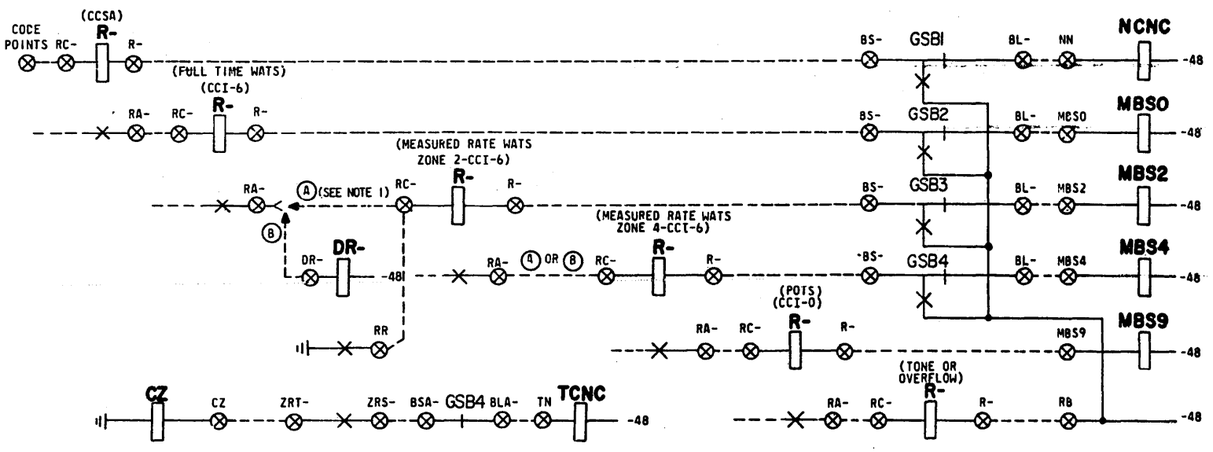
## (A&M ONLY) NOTE 467

TYPICAL CCSA ROUTING OVERFLOWING TO WATS IN
NO. 5 CROSSBAR TANDEM OFFICE
(RECORDER NO. USED ON AMA RECORDS TO
SEPARATE ~~WATS TRAFFIC~~ FROM DDD TRAFFIC)




## NOTE 468

TYPICAL CCSA ROUTING OVERFLOWING TO WATS/POTS
(WATS AND POTS AMA RECORDS SEPARATED AS FOLLOWS:
POTS-(CCI-0); 10 DIGIT WATS-(CCI-6); 7 DIGIT WATS-(MBI-))




NOTES:

1. OPTION (A) - TRUNK TIMING BY AMA RECORD ONLY.
   OPTION (B) - TRUNK REQUIRES BOTH CLOCK TIMER AND AMA RECORD.

ISSUE 5ID

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-D98

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PAGE 6S

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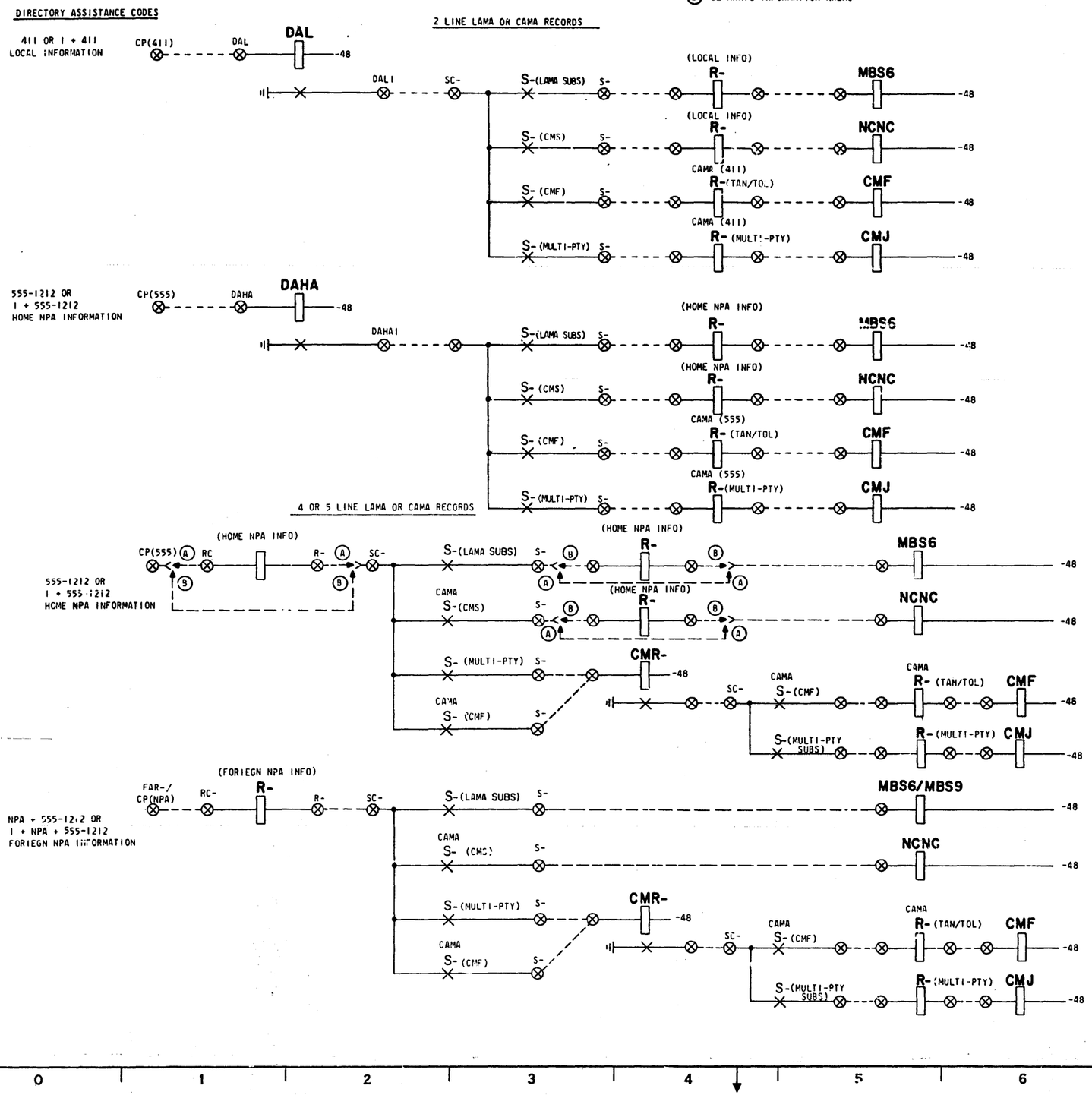
# NOTE 469

DIRECTORY ASSISTANCE CHARGING

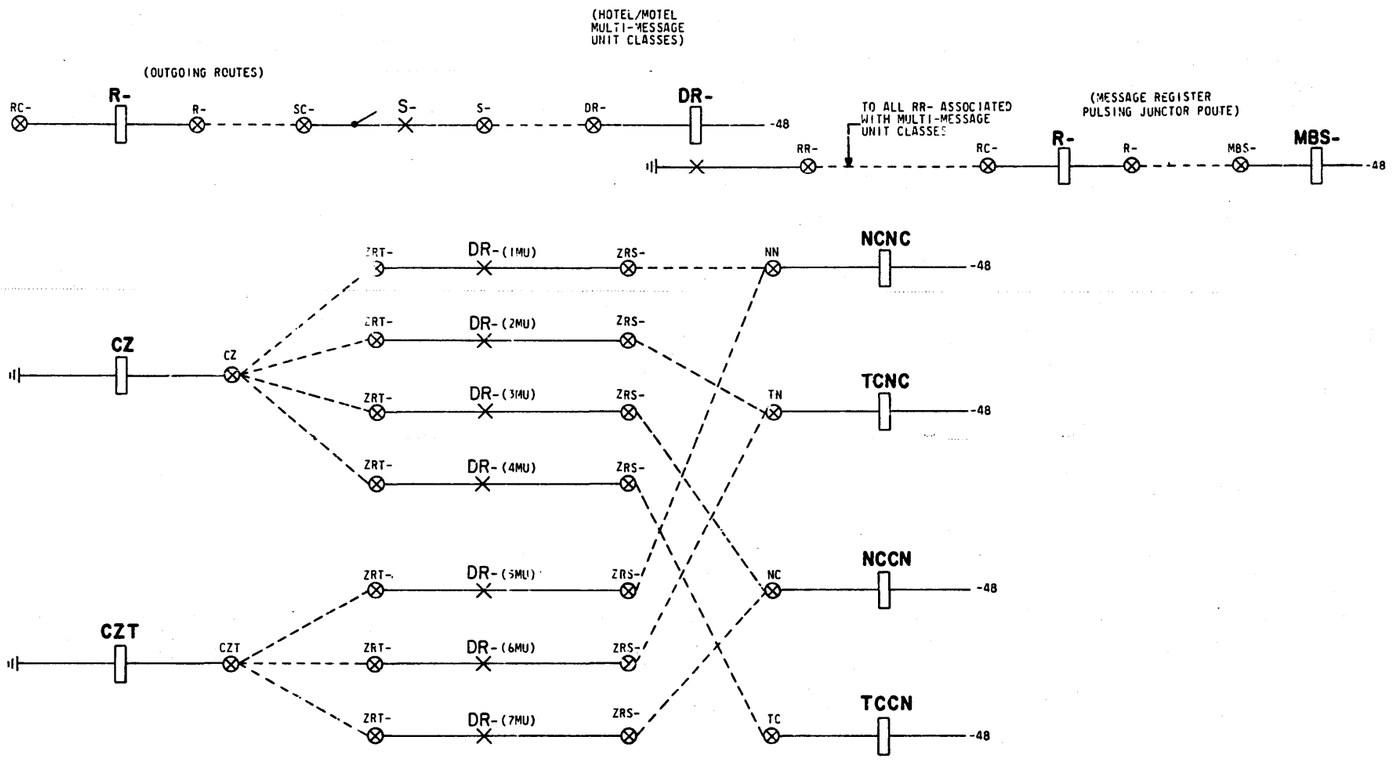
(A) COMMON INFORMATION AREA

(B) SEPARATE INFORMATION AREAS



# NOTE 470

HOTEL/MOTEL MULTI-MESSAGE UNIT OPERATION




| MESSAGE UNITS | LEADS GROUNDED TO JUNCTOR CKT | JUNCTOR CKT RELAYS OPERATED |
|---|---|---|
| 1 | NONE | NONE |
| 2 | TC | Z1 |
| 3 | CN | Z2 |
| 4 | TC,CN | Z1,Z2 |
| 5 | TP | Z4 |
| 6 | TC,TP | Z1,Z4 |
| 7 | CN,TP | Z2,Z4 |

ISSUE 55B

COMPLETING MARKER CIRCUIT

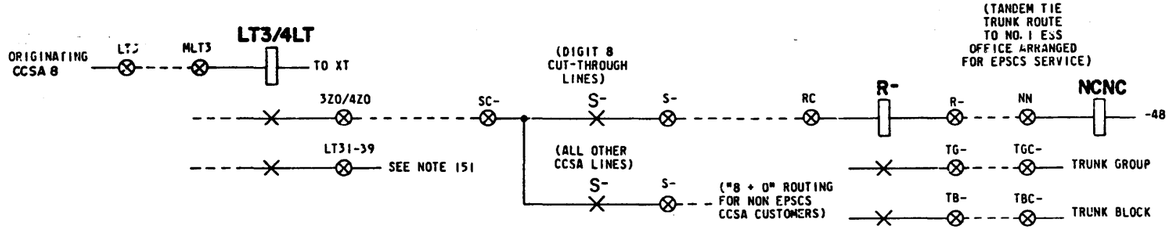
SD-26002-01-D100

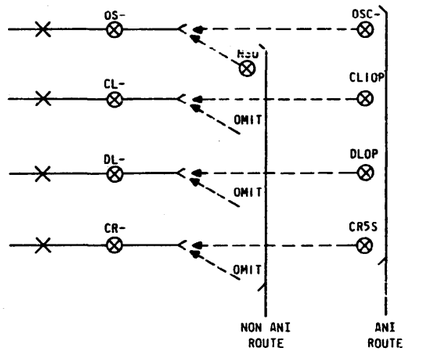
BELL TELEPHONE LABORATORIES INCORPORATED

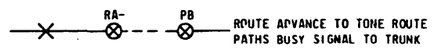
6S

CROSS CONNECTION INFORMATION:(CONT)

471. DIGIT 8 CUT-THROUGH FOR ENHANCED PRIVATE SWITCHED COMMUNICATIONS SYSTEM (EPSCS)




472. CROSS CONNECTIONS WHICH REFER TO THIS NOTE ARE REQUIRED IN NON ETS OFFICES ONLY. THEY MUST BE MAINTAINED DURING TRANSITION TO ETS OPERATION. WHEN TRANSITION IS COMPLETE THE CROSS CONNECTIONS MAY BE REMOVED.

473. THESE CROSS CONNECTIONS ARE REQUIRED IN OFFICES WITH ETS WHEN DIRECT ACCESS TO 101 ESS IS PROVIDED.

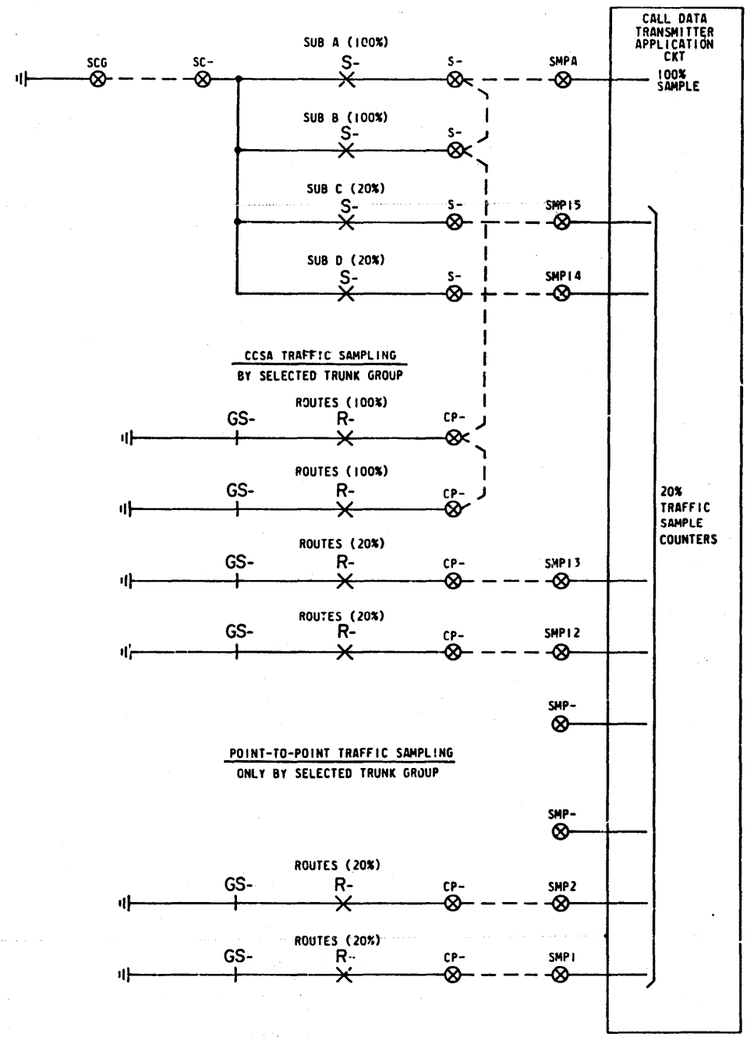
474. THESE CROSS CONNECTIONS MUST BE MAINTAINED IN OFFICES WITH ETS WHEN CENTREX IS PROVIDED.

475. WHEN ETS IS ADDED TO AN OFFICE WITH DIRECT ACCESS TO 101 ESS AND AND PHASE I CENTREX IS NOT PROVIDED, THE RNA- TO RCT15 AND THE RNB- TO POTS CROSS CONNECTIONS ASSOCIATED WITH THE DIRECT ACCESS LINES ARE REQUIRED AND SHOULD NOT BE REMOVED. THE RNA- AND RNB- CROSS CONNECTIONS FOR ALL OTHER LINES MUST BE MAINTAINED DURING TRANSITION TO ETS OPERATION AND MAY BE REMOVED WHEN TRANSITION IS COMPLETED.

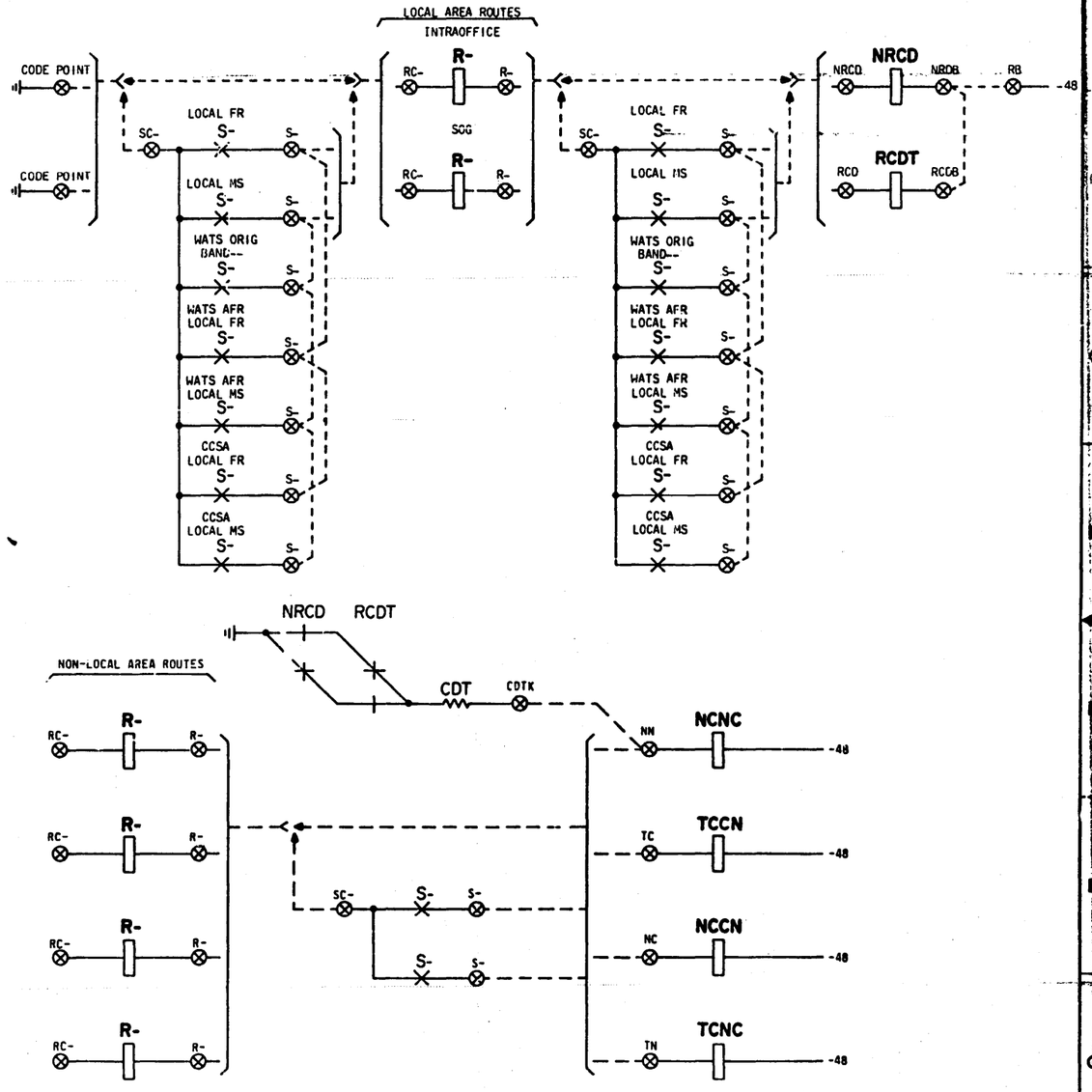
| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE | ISSUE |
| | | 6S | 638 |
| BELL LABORATORIES | SD-26002-01- | | D101 |

CROSS CONNECTION INFORMATION: (CONT)

476. TYPICAL CROSS CONNECTIONS FOR POINT-TO-POINT AND CCSA TRAFFIC SAMPLING USING CALL DATA TRANSMITTER (CDT).



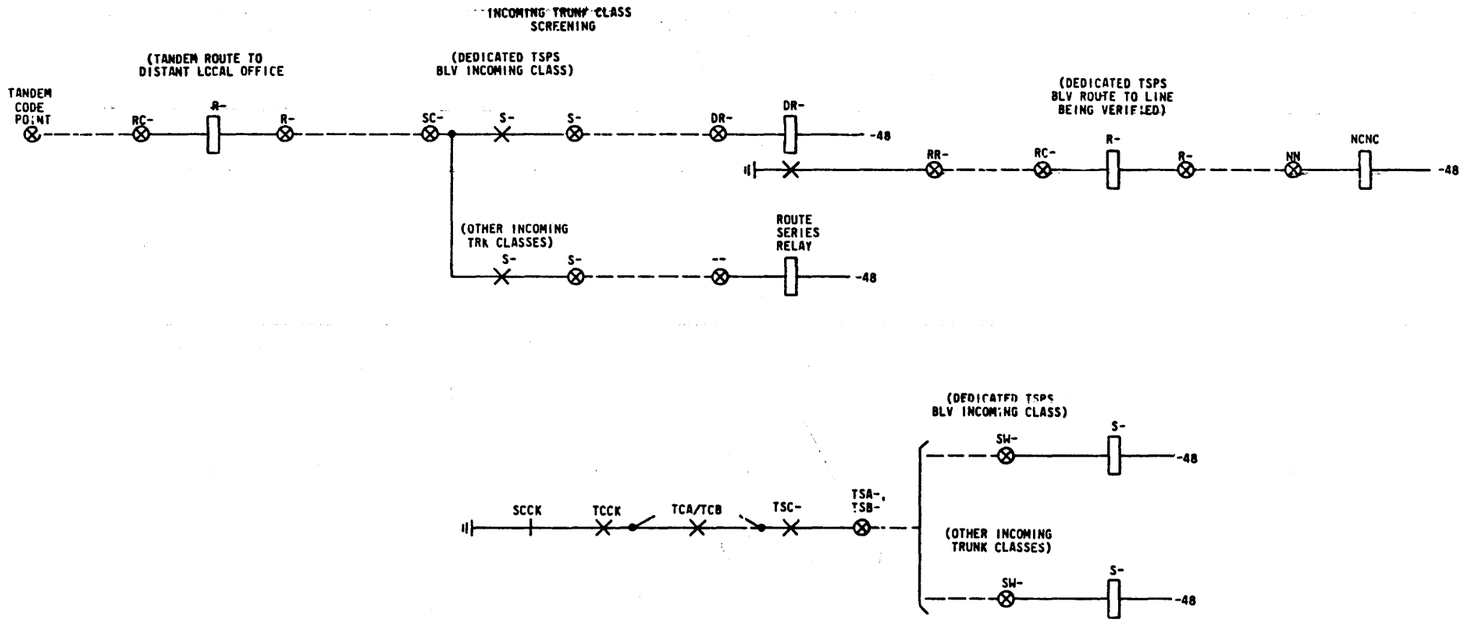

477. TYPICAL CROSS CONNECTIONS FOR ROUTE SERIES FLAT RATE SCREEN USED WITH CALL DATA TRANSMITTER (CDT).




| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | CHG SIZE 6S | ISSUE 69B |
| BELL LABORATORIES | SD-26002-01- | | D102 |

CROSS CONNECTION NOTES: (CONT)

478. TYPICAL SCREENING CROSS CONNECTIONS FOR OPERATION OF A TANDEM ROUTE RELAY FOR A TSPS BUSY LINE VERIFICATION (BLV) CALL TERMINATING TO A LINE IN A DISTANT LOCAL OFFICE.




| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 65B |
| BELL LABORATORIES | SD-26002-01- | | D103 |

# PART OF SC 1

SUBSCRIBER OUTGOING CALL (SOG) WITH A SENDER (SON)

(A) ETS NOT PROVIDED

SC 101 SEIZURE OF MARKER BY REG MARKER CONNECTOR
LL-
II/XII/ LT
CGA/CGB, CT-, CU-
PP
PKI
A-L 2/5 DIGITS
RP/TP
OR
OBS/NOB
FT-, FU-, HG, VF, VG-

SC 102 TRANSLATION, TRUNK AND CLASS SCREENING AND ROUTE RELAY OPERATION
WB-
TB-
TG-
FTC- FTCK
CP-
DL-
CL-
CR-
OSG-
ROUTE SERIES

SC 103 TYPE OF CALL & LINKAGE
SOG- CB

SC 112A OUTGOING SENDER SELECTION AND CONTROL CIRCUIT
ORKI,2
SKA/ SKB
SLK2
RSC
RNK-
ORK

SC 104(A) SEIZURE OF TRUNK LINK FRAME AND TRUNK SOG, ITR OR TOG CALLS
L-TO P-X-CONN
LCK
FAK/ FBK
TFKI2 CK

SC 114 TRUNK CLASS INFORMATION, NON AMA
SC 135 TRUNK CLASS INFORMATION, COIN ZONE DIALING WITH OR WITHOUT AMA
CLK/(XA) NOC

OFFICE SIZE -TLF
SF/PR/TTF

SC 106 LINE LK FR SEIZURE AND CONT CALL BACK
RWL/LWL
LFK
FTT,- FUT-
RK3
HGK
WCV

SC 108 CONTROL FOR CHANNEL TEST
JCK
LK/RK
TCHK

SC 165 CONTROL FOR WIDEBAND CHANNEL TEST
WTK

WIDEBAND SWITCHING

SC 166 WIDEBAND CHANNEL SELECTION AND HOLD MAGNET OPERATION
WDCI

SC 109 CHAN SELECTION AND HOLD MAG OPR
TK
HMSI
DCT

SC 110 LINKAGE CHECK
DCTI
LKI

SC 111 DISCONNECT
DISI-2

ABBREVIATION AND SYMBOL LEGEND

- DIST POINT CLOSED (DAS ETS)
- DIST POINT OPENED (DAS ETS)
- SCAN POINT OPERATED (DAS ETS)
- SCAN POINT RELEASE (DAS ETS)

| DRAWING ISSUE | |
|---|---|
| 4A | |
| 9D | |
| 13B | |
| 21D | |
| 39D | RJF |
| 43D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E2A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF SC 1

SUBSCRIBER OUTGOING CALL (SOG) WITH A SENDER (SON)

(8)ETS PROVIDED

**SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR**

TYPE OF TRANSLATION | TYPE OF LINE | DIALED DIGITS | START | CONNECTOR INFO | CALLING LINE LOCATION

LL- | LT-/II/XII/ 2DT/FVD | OR/FAC | SCK/SCN/CR | PK | TP/RP | $A\frac{2}{5}$-$M\frac{2}{5}$, N7 | CKG6 | DR | TRK/TR2 | FT-, FU-, HG-, VG-, VF- | FT-, FU-, HG-, VG-, VF- (M21)

**SC 174 DISTRIBUTE SOG WITH SENDER**

SOGI/SOG | FS- | TB- | TS- | ODT/EVT | CL-, CLQ- | $A\frac{2}{5}$-$M\frac{2}{5}$, N7 (A'- N') | $AR\frac{2}{5}$, $BR\frac{2}{5}$, $CR\frac{2}{5}$ | OSG- | SDK | ROUTE SERIES

**SC 112B OUTGOING SENDER SELECTION AND CONTROL**

SKA/SKB | SSA/SSB | OS- | OSK | SLKI,2 | OST2 | RSC, RNT2 | RNK | AVKI

**SC 104(8) SEIZURE OF TRUNK LINK FRAME AND TRUNK**

TFKI, 2 CK | MAKI | FAK/FBK | LCK

**SC 114 OR 137 TRUNK CLASS INFORMATION**

CLK

**SC 108 CONTROL FOR CHANNEL TEST**

JCK | LK/RK | TCHK

**SC 106 LINE LINK FRAME SEIZURE AND CONTROL**

Y8

VTKI | FTKI | HTKI | LFK | HGK | RK3

**SC 109**

TK

CHANNEL SELECTION AND HOLD MAGNET OPERATION

DCT

**SC 110**

DCTI

LINKAGE CHECKS

LKI

**SC 111**

DISI,2

DISCONNECT

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

COMPLETING MARKER CIRCUIT

| BELL LABORATORIES | SD-26002-01 | E2B |
|---|---|---|
| | DWG SIZE 6S | ISSUE 5TB |

131 28142

# SC 2

INTRAOFFICE CALL, (ITR) WITH A SENDER, (SDN)

ETS NOT PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR

XTM XCKG- XPP XLT/XII XOR XCT-▼ XCU-▼ XCGA XCGB XTP/RP XPKI XA-L DIG. XVG-▼ XFT-▼ XHG-▼ XFU-▼ XVF-▼

FORWARD LINKAGE, FLG

CALL BACK LINKAGE, CB

SC 102 TRANSLATION, TRK. & CLASS SCREENING & ROUTE RELAY OPR.

XFTC- XRSW XFTCK XTG- XTB- XCR-CL, CR-DL XAMA XNSI XWB-

SC 103 TYPE OF CALL & LINKAGE

XLKI XITR- XLKI (LKI 25K) XITR- XFLG- FBK

SC 105 ITR ADVANCE TO CALL BACK LINKAGE

XCB- XFAK XSCB- XLL-

SC 104(A) SEIZURE OF TRK. LINK FRAME & TRUNK

XFBK XLCK XFAK XTFKI-2 XFS-

SC 106 L.LK. FRAME SEIZURE, CB, CALL BACK LINKAGE

XRWL/LWL XFTT- XFUT- XWCV XHGK XRK3

SC 112(A) [illegible] SENDER SELECT & CONTROL CIRCUIT

XSLK2 XRSC XRNK/RNK1-2 XCLK

OFFICE SIZE -TLF SF/PR/TTF

SC 116 NUMBER GROUP SEIZURE & TRANSLATION OR SC 144

XLLPI XFTT- XFUT- XRCT- XVF-▼ XVG-▼ XHG-▼ XRNG XNR

TO 3X16

SC 125 XLRD L LK PULSING ROUTE ADV TO OUTGOING-INCOMING ROUTE

INFORMATION MATCHES

XRV

ROUTE ADV TO REV SC 125

WIDEBAND SWITCHING

TO 3D16

SC 165 CONTROL FOR WIDEBAND CHANNEL TEST XWTK

SC 108 CONTROL FOR CHANNEL TEST XJCK XRK▼/LK▼ XTCHK

SC 107(A) L. LK. FRAME SEIZURE & CONTROL (FLG) XRWL/LWL XHGK XLG XWCV

SC 117 LINE BUSY TEST & RINGING SWITCH CONTROL XRCK3

SC 108 CONTROL FOR CHANNEL TEST XJCK XRK▼/LK▼ XTCHK

SC 166 WIDEBAND CHANNEL SELECT & HOLD MAG OPR XWDCI

SC 109 XTK CHANNEL SELECT & HOLD MAG. OPR. XHMSI XDCT

SC 165 CONTROL FOR WIDEBAND CHANNEL TEST XWTK

SC 109 XTK CHANNEL SELECTION & HOLD MAG. OPR. XHMSI XDCT

4 OR 5 DIGIT ONLY

SC 143 LISTED DIRECTORY NUMBER XRAVI,2

ROUTE ADVANCE SC 125

SC 166 WIDEBAND CHANNEL SELECTION & HOLD MAG OPR XWDCI

SC 110 XDCT1 LINKAGE CHECK XLKI XOSG-

LKI, R7

SC 110 LINKAGE CHECK XDCT2

SC-111 XDISI-2 DISCONNECT

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE

| | |
|---|---|
| 4A | FHR, WCM, MAS |
| 21D | JLK, EDM, AMP |
| 22D | ELM, EFG, AHP |
| 39D | RA |
| 43D | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SPEC NO. 6S

ISSUE 57B

SD-26002-01-E3

# PART OF SC 3

TERMINATING (TER) INCOMING (FLG) TRUNK CALL

(A) ETS NOT PROVIDED

CKG- TM

SC101 SEIZURE OF MARKER BY REGISTER MARKER CONN.

TRK. LK. FR NUMBER: FG0-2 TF0/7

WB-

TYPE INC. TRK: INC/ TAN/ TOLL

TYPE TRANS.: LT/ 11/ TT/ 11X/ FVD/ 2DT

OA/ OB/ PHC/ THC

DIALED DIGITS: A-L 2/5

SC102 CODE TRANSLATION, SUB & TRK SCREENING & ROUTE RELAY OPERATION — LPA/LPB/ LTA/LTB/ LEA/LEB

SC103 TYPE OF CALL AND LINKAGE — TER- FLG- SNG-

SC104A SEIZURE OF TRK. LK. FR. & TRK. — TRK CLASS C-9; FAK/ FBK; LCK; TFK3 CK; NSS 0-5

SC116 NUMBER GROUP SEIZURE AND TRANSLATION OR SC144 — FTT- FUT- RCT- VFT- VGT- HGT- RNG CL- DL- CR- ILR- LRA-

SC116 NUMBER GROUP SEIZURE AND TRANSLATION — FTT- FUT- VGT- HGT- VFT- RCT- OSG- RNG

OFFICE SIZE -TLF SF/PR/TTF

SC108 CONTROL FOR CHANNEL TEST — JCK; RK/ LK; TCHK

SC107A LLF SEIZURE & CONTROL FLG. — FK; RWL/LWL; HGK; LG-; WCV

WIDEBAND SWITCHING

SC109 CHANNEL SEL. & HOLD MAG. OPER — TK; DCT; HMSI

SC117 LINE BUSY TEST & RINGING SWITCH CONTROL — RCK3

SC145A SENDER SELECTION & CONTROL — RSC; SLK2

SC110 LINKAGE CHECK — DCTI; LKI

SC165 CONTROL FOR WIDEBAND CHANNEL TEST — WTK

SC111 DISCONNECT — DISI-2

SC166 WIDEBAND CHANNEL SELECT AND HOLD MAGNET OPERATION — WDCI

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE

| | | |
|---|---|---|
| 1 | DVP | |
| 4A | | |
| 5D | | |
| 21D | JUR | 82 |
| 22D | ELA | |
| 39D | RJF | 8 |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

DWG SIZE 6S

SD-26002-01-E4A

ISSUE 57B

# PART OF SC 3

TERMINATING (TER) INCOMING (FLG) TRUNK CALL

(B)ETS PROVIDED - TERMINATING

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR

~~TRUNK~~ LINK FRAME NUMBER: FGO-2, TF 2 UNIT

TYPE OF TRANSLATION: LT-/II/TT/OA/OB/ IIX/FVD/2DT/PHC/THC

INCOMING TRUNK CLASS: INC/TAN/TOL/TAN-/ PCR/PCD/PCDI, TCA/TCB

DIALED DIGITS: A-M 2/5, N7

CONNECTOR INFO: TRK/TR2

START: CKG6, DR

SC 175 DISTRIBUTE - TERMINATING

TERI TER, RNG, NR, FT- FU-, HG- VG-, VF-, HTKI VTKI FTKI, RCT-, CKR

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

MAKI, FAK/FBK, LCK, TFK3 CK

SC 108 CONTROL FOR CHANNEL TEST

JCK, RK/LK, TCHK

SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL - FORWARD LINKAGE

HGK, LFK

SC 117 LINE BUSY TEST AND RINGING SWITCH CONTROL

RCK3

SC 109

TK — CHANNEL SELECTION AND HOLD MAGNET OPERATION

DCT

SC 110

DCTI — LINKAGE CHECK

LKI

SC 111

DISI,2 — DISCONNECT

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | | E4B |

BRUNING 44-131 28142

E-74211-01B-791 PRINTED IN U.S.A.

# PART OF SC 3

TERMINATING (TER) INCOMING (FLG) TRUNK CALL

(C)ETS PROVIDED - TERMINATING TO LINE LINK PULSING LINE CKT

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR

TRUNK LINK FRAME NUMBER: FGO-2, TF 2/5

TYPE OF TRANSLATION: LT-/II/TT/OA/OB/IIX/FVD/2DT/PHC/THC

INCOMING TRUNK CLASS: INC/TAN/TOL/TAN-/PCR/PCD/PCDI, TCA/TCB

DIALED DIGITS: A-M 2/5, N7

CONNECTOR INFO: TRK/TR2

START: CKG6, DR

SC 176 DISTRIBUTE TERMINATING TO LINE LINK PULSING LINE

TERI TER, RNG, NR, FT- FU-, HG- VG-, VF-, HTKI VTKI FTKI, OSG-, SDK, A 2/5 - D 2/5, N7, A'-N', CL-, CLQ-, CR-, RCT-, CKR

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

MAKI, FAK/FBK, LCK, TFK3 CK

SC 145(B) LINE LINK PULSING SENDER SELECT AND CONTROL

SKA/SKB, RSC, SLK2

SC 117 LINE BUSY TEST AND RINGING SWITCH CONTROL

RCK3

SC 108 CONTROL FOR CHANNEL TEST

JCK, RK/LK, TCHK

SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL - FORWARD LINKAGE

HGK, LFK

SC 109

TK

CHANNEL SELECTION AND HOLD MAGNET OPERATION

DCT

SC 110

DCTI

LINKAGE CHECK

LKI

SC 111

DISI,2

DISCONNECT

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | | E4C |

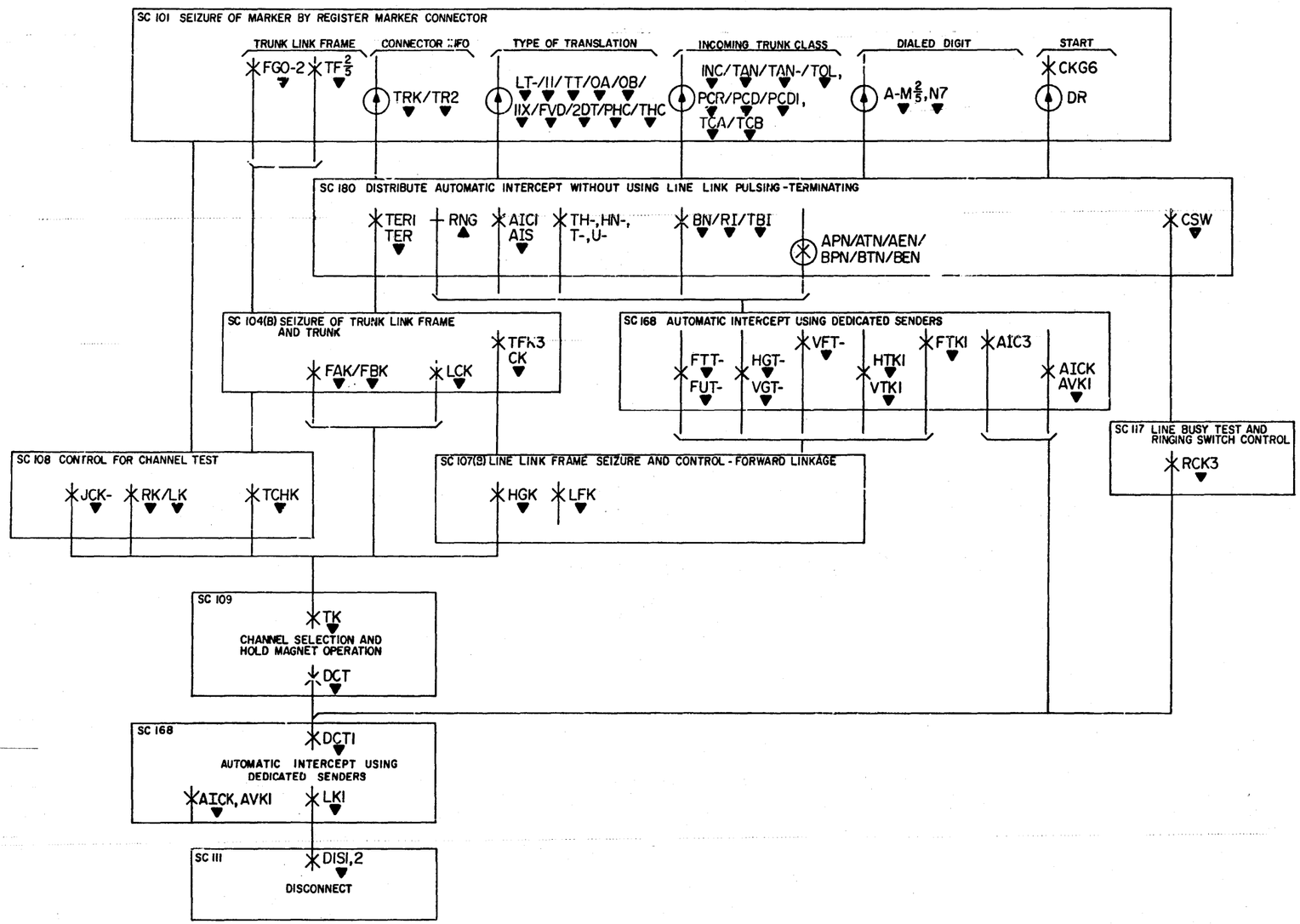
TUNING 44-131 28142

6-7421-916-781 PRINTED IN U.S.A.

# PART OF SC 3

TERMINATING (TER) INCOMING (FLG) TRUNK CALL

(D)ETS PROVIDED - TERMINATING TO AUTOMATIC INTERCEPT WITHOUT USING LINE LINK PULSING - LINE CIRCUIT




NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATION AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

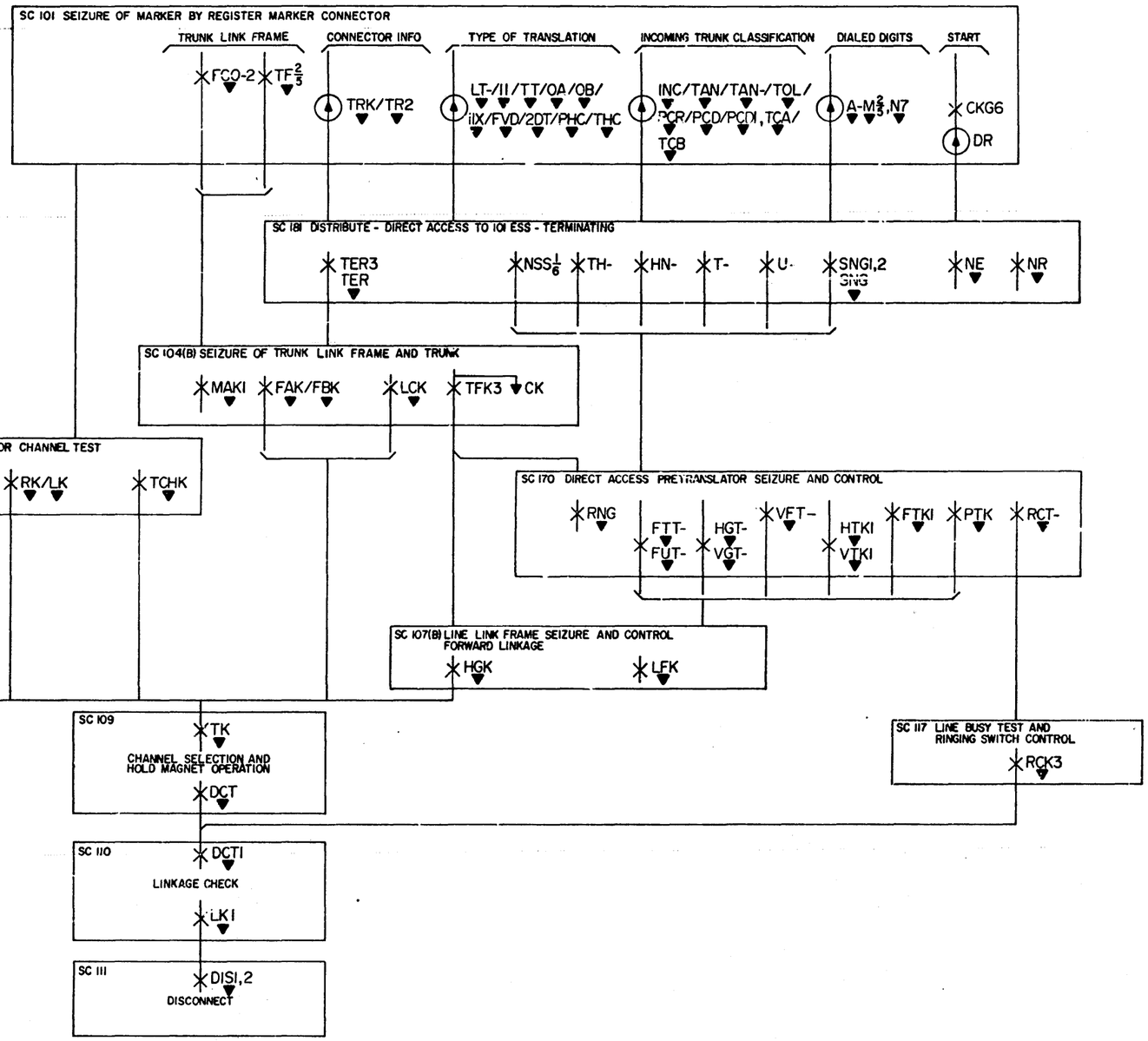
| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | | E4D |

DRWG 44-131 28142

# PART OF SC 3

TERMINATING (TER) INCOMING (FLG) TRUNK CALL

(E)ETS PROVIDED - TERMINATING TO 101 ESS - DIRECT ACCESS




NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | | |
| | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | E4E |

14-131 28142
6-7441-6 (6-71) PRINTED IN U.S.A.

# PART OF SC 3

TERMINATING (TER) INCOMING (FLG) TRUNK CALL

(F)ETS PROVIDED-TERMINATING TO PHASE I OR II LISTED DIRECTORY NUMBER

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR

TRUNK LINK FRAME: FGO-2, TF 2/5

CONNECTOR INFO: TRK/TRZ

TYPE OF TRANSLATION: LT-/OA/OB/ FVD/PHC/THC

INCOMING TRUNK CLASSIFICATION: INC/TAN/TAN-/TOL/ PCR/PCD/PCDI, TCA/TCB

DIALED DIGITS: A-M 2/5, N7

START: CKG6, DR

SC 175 DISTRIBUTE TERMINATING

TERI TER, RNG, NR, FT- FU-, HG- VG-, VF-, HTKI VTKI FTKI, CST- CSU (MDC), LDN, CKR

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

MAKI, FAK/ FBK, LCK, TFK3 CK

SC 108 CONTROL FOR CHANNEL TEST

JCK-, RK/ LK, TCHK

SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL - FORWARD LINKAGE

HGK, CST-, CSU-

SC 109

TK

CHANNEL SELECTION AND HOLD MAGNET OPERATION (SEE NOTE 2)

SC 117 LINE BUSY TEST AND RINGING SWITCH CONTROL

RCK3, CTUK, CDNC CDN

SC 110

DCTI

LINKAGE CHECK

LKI

SC 111

DISI,2

DISCONNECT

NOTES:

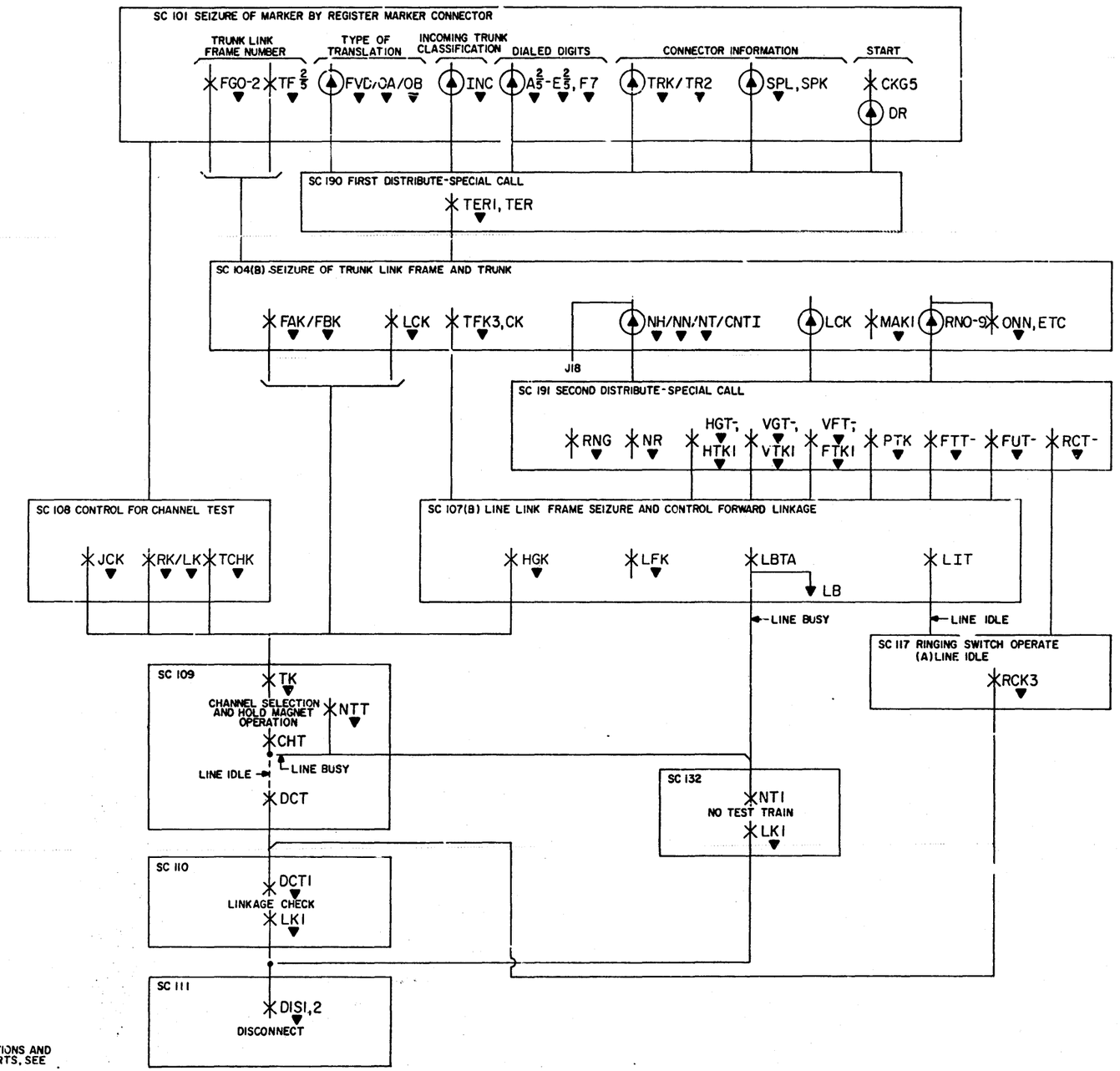
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.
2. LINKAGE IS NOT SET ON THIS CALL.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE ES | ISSUE 5TB |
| BELL LABORATORIES | SD-26002-01 | E4F |

# PART OF SC 3

TERMINATING (TER) INCOMING (FLG) TRUNK CALL

(G) ETS PROVIDED - TERMINATING - SPECIAL CALL (SPL)




NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01- | | E4G |

# PART OF SC 4

SUBSCRIBER OUTGOING CALL (SOG), WITHOUT A SENDER (NSO)

(A) ETS NOT PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR
- LL-
- PP
- PKI
- II/XII/LT
- CGA/CGB, CT-, CU-
- A-L 2/5 DIGITS
- RP/TP
- OR
- FT-, FU-, HG-, VF-, VG-

SC 102 TRANSLATION TRUNK AND CLASS SCREENING AND ROUTE RELAY OPERATION
- TB-
- TGP/TGS
- TG-
- FTC-
- FTCK
- WB-
- NSO
- CL-
- ROUTE SERIES

RINGER TEST AND REVERTIVE CALL

SC 117 LINE BUSY TEST, RINGING SWITCH, OVERFLOW AND BUSY OPERATION
- RV3
- RCK3

SC 103 TYPE OF CALL AND LINKAGE
- SOG-
- CB-

SC 104(A) SEIZURE OF TRUNK LINK FRAME AND TRUNK SOG, ITR OR TOG CALLS
- L-TO P-X-CONN
- LCK
- FAK/FBK
- TFKI-2 CK

SC 114 TRUNK CLASS INFORMATION NON AMA
- CLK/(XA) NOC

OFFICE SIZE -TLF SF/PR/TTF

SC 106 LINE LINK FRAME SEIZURE AND CONTROL CALL BACK LINKAGE
- RWL/LWL
- FTT-/FUT-
- RK3
- HGK
- WCV

SC 108 CONTROL FOR CHANNEL TEST
- JCK
- LK/RK
- TCHK

SC 165 CONTROL FOR WIDEBAND CHANNEL TEST
- WTK

WIDEBAND SWITCHING

SC 166 WIDEBAND CHANNEL SELECTION AND HOLD MAGNET OPERATION
- WDCI

SC 109 CHANNEL SELECTION AND HOLD MAGNET OPERATION
- TK
- HMSI
- DCT

SC 110 LINKAGE CHECK CIRCUITS
- DCTI
- LKI

SC 111 DISCONNECT
- DISI-2

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| DRAWING ISSUE | | |
|---|---|---|
| 4A | NC, NJ | |
| 3B | CGB, NJ | |
| 21D | ULK, CB, AM | |
| 39D | RJF | |
| 43D | CB | |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E5A

ISSUE 57B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-E5A

# PART OF SC 4

SUBSCRIBER OUTGOING CALL (SOG), WITHOUT A SENDER (NSO)

(B)ETS PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR

TYPE OF TRANSLATION | TYPE OF LINE | DIALED DIGITS | START | CONNECTOR INFO | CALLING LINE LOCATION

LL- | LT-/Ii/XII/ 2DT/FVD | OR/FAC | SCK/SCN/ CR | PS/PD/PK | TP/RP | A2/5-M2/5, N7 | CKG6 DR | TRK/TR2 | FT-/FU-/HG-/ VG-/VF- | FT-/FU-/HG-/ VG-/VF-

SC 173 DISTRIBUTE SOG WITHOUT SENDER

SOGI SOG | NSO | FS- | TB- | TS- | ODT/EVN | ROUTE SERIES

R15

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

MAKI | FAK/FBK | LCK | TFKI,2 CK

GI2

SC 108 CONTROL FOR CHANNEL TEST

JCK | LK/RK | TCHK

SC 106 LINE LINK FRAME SEIZURE AND CONTROL

VTKI | FTKI | HTKI | LFK | HGK | RK3

SC 109

TK

CHANNEL SELECTION AND HOLD MAGNET OPERATION

DCT

SC 114 OR 137 TRUNK CLASS INFORMATION

CLK

SC 110

DCTI

LINKAGE CHECKS

LKI

SC III

DISI-2

DISCONNECT

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | | E5B |

# PART OF SC 5

TOLL OR TANDEM INCOMING TRK TO AN OUTGOING TRK (TOG)
(A) ETS NOT PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONN
FGD-2 | TF 2/5 | II/XII/LT/TT | A-L 3/5 DIGITS | TOL/TAN | THTO-3 LLO-3 | ECN/OCN | HT; TT; UT;

SC 102 TRANSLATION, TRUNK AND CLASS SCREENING AND ROUTE RELAY OPERATION
TB- | TGP/TGS | TG- | FTC-/FTCK | CP- | WB- | DL- | CL- | CR- | OSG- | ROUTE SERIES

SC 103 TYPE OF CALL AND LINKAGE
TOG- | FLG- | SNG-

SC 112A OUTGOING SENDER SELECTION AND CONTROL CKT
SKA/SKB | SLK2 | RSC

SC 104A SEIZURE OF TRUNK LINK FRAME AND TRUNK SOG, ITR OR TOG CALLS
L-TO P-X-CONN | LCK | FAK/FBK | TFKI-2, CK

SC 114 TRK CLASS INFO
CLK/(XA) NOC

SC 116 NUMBER GROUP SEIZURE AND TRANSLATION
FTT- | FUT- | VGT- | HGT- | VFT- | RCT- | RNG

OFFICE SIZE -TLF
SF/PR/TTF

SC 108 CONTROL FOR CHANNEL TEST
JCK | LK/RK | TCHK

SC 107A LINE LINK FRAME SEIZURE AND CONTROL CALL FORWARD LINKAGE
LWL | FTT-/FUT- | RK3 | HGK

SC 165 CONT FOR WIDEBAND CHANNEL TEST
WTK

SC 166 WIDEBAND CHANNEL SELECT AND HOLD MAGNET OPERATION
WDCI

SC 109 CHANNEL SELECT AND HOLD MAGNET OPR
TK | HMSI | DCT

SC 110 LINKAGE CHECK CKTS
DCTI | LKI

SC 111 DISCONNECT
DISI-2

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE: 4A, 5D, 15B, 21D, 39D, 45D

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E6A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

26002-01-E6A

# PART OF SC 5

TOLL OR TANDEM TRUNK TO AN OUTGOING TRUNK (TUG)
(B)ETS IS PROVIDED

**SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR**

INCOMING TRUNK
TRUNK LINE FRAME NUMBER: FG-, TF-
TYPE OF TRANSLATION: LT-/II/TT/IIX/ FVD/ 2DT
INCOMING TRUNK CLASSIFICATION: TAN/ TOL / TAN- / PCR/ PCD / PCDI , TCA / TCB
DIALED DIGITS: $A\frac{2}{5}$ -$M\frac{2}{5}$, N7
START: CKG6, DR
TRUNK NUMBER: THT-, HT-, TT-, UT-
CONNECTOR INFO: OCN / ECN; TRK / TR2

**SC 178 DISTRIBUTE TANDEM WITH SENDER**

HGT-, HTKI; VGT-, VTKI; VFT-, FTKI; PTK; RCL; TTL; FTT-; FUT-; FS-; TB-; TS-; CL-, CLQ; $A\frac{2}{5}$ -$M\frac{2}{5}$, N7 → A'-N'; $AR\frac{2}{5}$, $BR\frac{2}{5}$, $CR\frac{2}{5}$; OSG; SDK; ROUTE SERIES

**SC 112(B) OUTGOING SENDER SELECTION AND CONTROL**

SKA /SKB; SSA /SSB; OS-; OSK; SLCKI, 2; RSC; AVKI

**SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK**

TFKI, 2 /CK; FAK/FBK; LCK

**SC 114 TRUNK CLASS AND CONTROL**

CLK

**SC 108 CONTROL FOR CHANNEL TEST**

JCK; RK/LK; TCHK

**SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL FORWARD LINKAGE**

HGK; LFK

**SC 109**
TK
CHANNEL SELECT AND CONTROL
DCT

**SC 110**
DCTI
LINKAGE CHECK
LKI

**SC 111**
DISI, 2
DISCONNECT

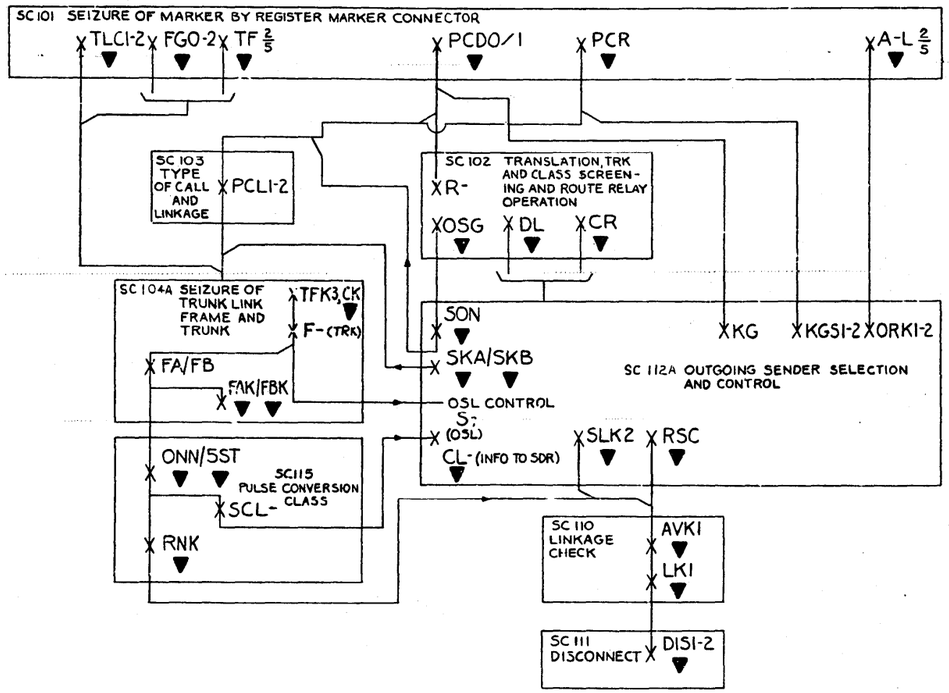
NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | | E6B |

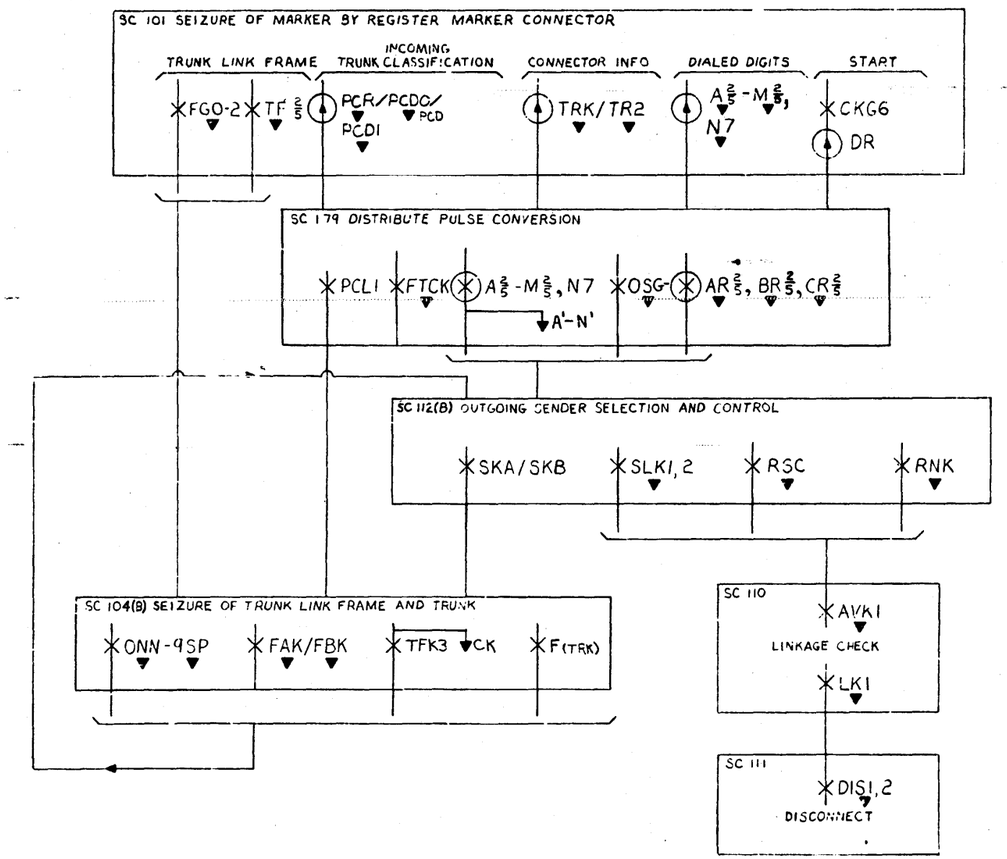
JNING 44-131 28142

# SC 6
PULSE CONVERSION
PCR/PCDO/PCDI

(A) ETS NOT PROVIDED




(B) ETS PROVIDED




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE
4A
5D
DRAWING REFURBISHED WITHOUT CHANGE 10-2-68

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

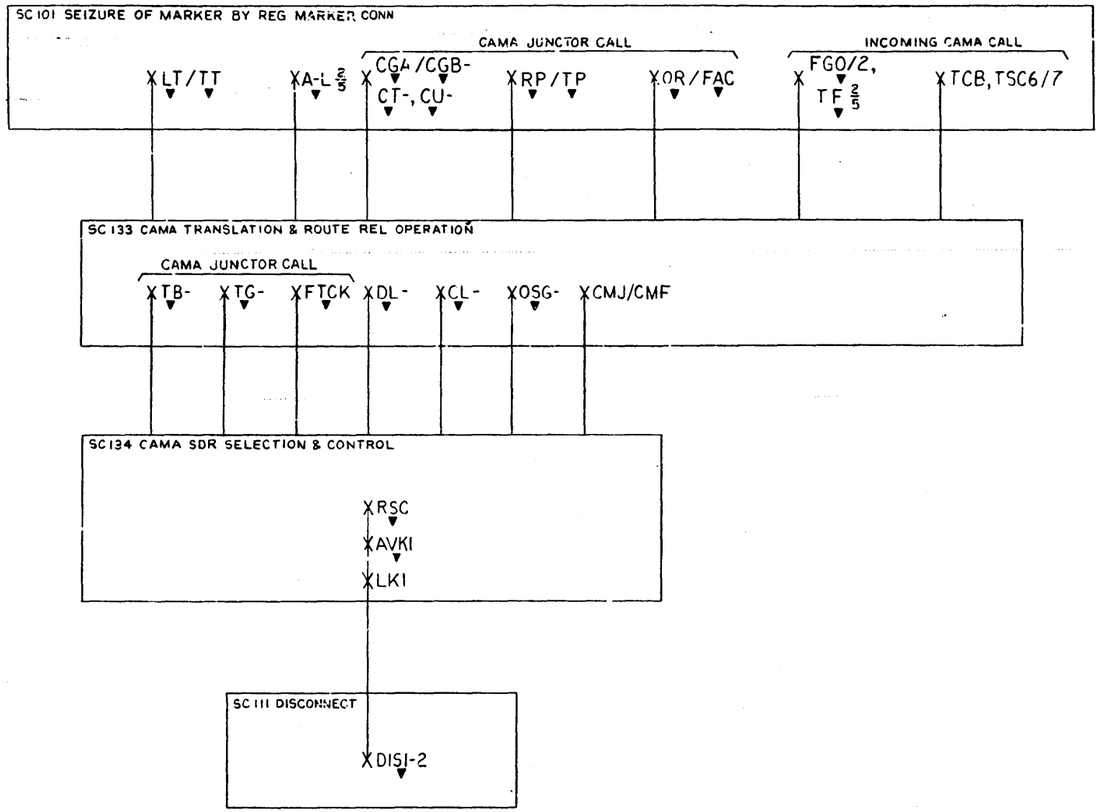
DRAWING SIZE 6S

ISSUE 58A

SD-26002-01-E7

# PART OF SC 7

CAMA JUNCTOR (CMJ) OR INCOMING CAMA CALL (CMF)
(A) ETS NOT PROVIDED




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE
BD
DRAWING REFURBISHED CHANGE 10-1-66

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

ISSUE 57B

SD-26002-01-E8A

# PART OF SC 7

INCOMING CAMA CALL (CMF)
(B)ETS PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR

TRUNK LINK FRAME: FG0-2, TF 2/5

INCOMING TRUNK CLASSIFICATION: TAN/TOL/TAN-/PCR/ PCD/PCDI, TCA/TCB

DIALED DIGITS: A 2/5-M 2/5, N7

CONNECTOR INFO: TRK/TR2

TRUNK NUMBER: HT-, TT-, UT-

START: CKG6; DR

SC 185 DISTRIBUTE CAMA FIRST

PCLI, FTCK, SON, OSG 1/12, A 2/5-M 2/5, N7, A'-N', CLI-8, CLQ0-2, SDK, CMCI,3, CAMA, AMA4,5, CFG0-2, CTF 2/5

SC 112(B) OUTGOING SENDER SELECTION AND CONTROL

SKA/SKB, SSA/SSB, OS-, OSK, SLKI,2, RSC, RNK

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

ONN-9SP, FAK/FBK, TFK3

SC 110

AVKI
LINKAGE CHECK
LKI

SC 111

DISI,2
DISCONNECT

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | | E8B |

BRUNING 44-131 28142

# PART OF SC 8

TRANSFER (TRF) CALL
(CENTREX PHASE I & II)
(A)ETS NOT PROVIDED

SC101 SEIZURE OF MARKER BY REGISTER CONNECTOR
- FGO-2
- TF2/5
- TRF
- HT-, TT-, UT-

SC139 SEIZURE OF TRUNK LINK FRAME TO READ OUT CLASS OF SERVICE
- CDN
- SCCK

SC142 ATTENDANT TRUNK LAMP INFORMATION
- TPK
- TC
- CNC
- CLK

SC140 TRANSLATION TRUNK AND CLASS SCREENING AND ROUTE RELAY OPERATION
- TB
- TG
- FTC, FTCK
- NSO

SC103 TYPE OF CALL AND LINKAGE
- TRF 3,4
- FLG
- SNG

SC107A NUMBER GROUP SEIZURE AND TRANSLATION TRANSFER CALL
- FTT-
- FUT-
- VGT-
- HGT-
- VFT-
- RNG
- RCT-

SC104A SEIZURE OF TRUNK LINK FRAME AND TRUNK SOG, TTR, TER, TOG OR TRF CALLS
- L-TOP X-CONN
- LCK
- FAK/FBK
- TFK 1,2 CK

OFFICE SIZE TRUNK LINK FRAME
(SF)/(PR)/(TTF)

SC107 LINE LINK FRAME SEIZURE AND CONTROL CALL FORWARD LINKAGE
- FTT-, FUT-
- LG
- HGK

SC108 CONTROL FOR CHANNEL TEST
- JCK
- LK/RK
- TCHK

SC109 CHANNEL SELECTION AND HOLD MAGNET OPERATION
- TK
- DCT

SC110 LINKAGE CHECK CIRCUITS
- DCTI
- LKI

SC111 DISCONNECT
- DISI-2

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A

DRAWING ISSUE
210 WM
29A FES

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E9A

BELL TELEPHONE LABORATORIES INCORPORATED 65

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# PART OF SC 8

TRANSFER CALL (TRF) PHASE I OR II
(B)ETS PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER BY REGISTER CONNECTOR

TRUNK LINK FRAME
FGO-2 FGO-2 TF 2/5

INCOMING TRUNK CLASSIFICATION
TRF TRF

INCOMING OR IAO TRUNK NUMBER
HT 2/5, TT 2/5, UT 2/5

START
CKG6
DR

SC 139 SEIZURE OF TRUNK LINK FRAME TO READ OUT CLASS OF SERVICE

CTT- CT-
CUT
CUA- CU-
TRF2
TRA/ LDA, RE
CDN

SC 186 DISTRIBUTE PHASE I OR II TRANSFER CALL

NSO FS- TB- TS- ODT/EVT
HGT- HTKI
VGT- VTKI
VFT- VTKI
FTT- FUT-
RCL, TTL
ROUTE SERIES

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

LCK FAK/FBK TFKI,2 CK

SC 108 CONTROL FOR CHANNEL TEST

JCK LK/RK TCHK

SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL

HGK LFK

SC 142 TRUNK CLASS INFORMATION

CLK

SC 109
TK
CHANNEL SELECTION AND HOLD MAGNET OPERATION
DCT

SC 110
DCTI
LINKAGE CHECK
LKI

SC 111
DISI,2
DISCONNECT

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 58A |

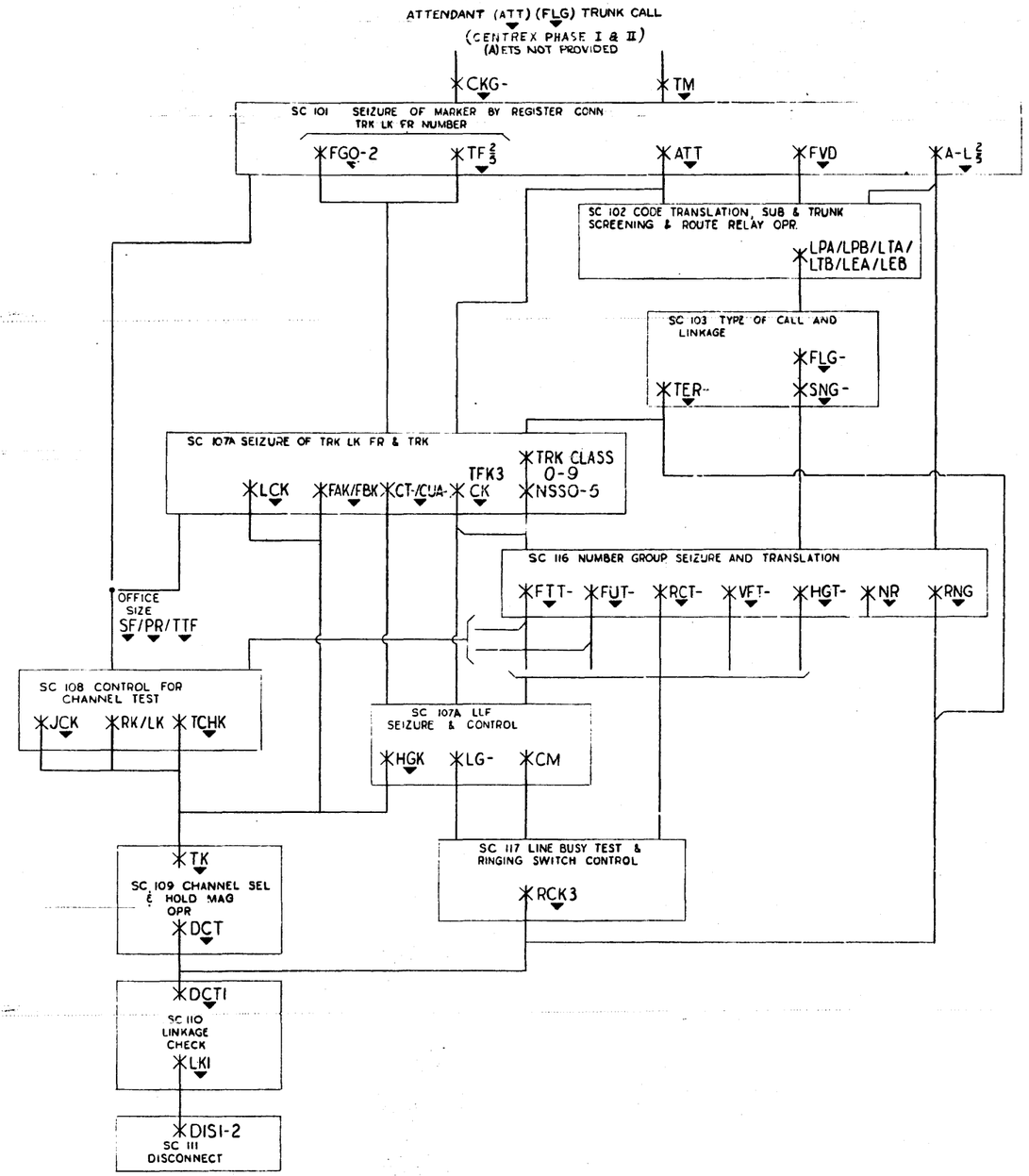
| BELL LABORATORIES | SD-26002-01 | E98 |
|---|---|---|

DRAWING 44-131 28142

# PART OF SC 9

ATTENDANT (ATT) (FLG) TRUNK CALL

(CENTREX PHASE I & II)
(A)ETS NOT PROVIDED




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS, USED ON SEQUENCE CHARTS, SEE SHEET E2A

DRAWING ISSUE

| | |
|---|---|
| 21D | SCC EPM AMP |
| 22D | ELN EPH ANT |
| 29A | FES CAL AAL |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E 10A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF SC 9

ATTENDANT CLASS CALL (ATT, FLG, TER)

CENTREX PHASE I AND II
(B)ETS PROVIDED

**SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR**

| TRUNK LINK FRAME | | INCOMING TRUNK CLASSIFICATION | TYPE OF TRANSLATION | DIALED DIGITS | START |
|---|---|---|---|---|---|
| FGO-2 | TF 2/5 | ATT | XII/FVD | A 2/5 - E 2/5, F7 | CKG6 / DR |

**SC 187 FIRST DISTRIBUTE ATTENDANT CLASS CALL**

TERI
TER

**SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK**

FAK/FBK | LCK | TFK3 CK | LCK | CTT-CU- | CUT-CU-

**SC 188 SECOND DISTRIBUTE ATTENDANT CLASS CALL**

HGT-HTKI | VGT-VTKI | VFT-FTKI | FTT- | FUT- | RCT-

**SC 120 CONTROL FOR CHANNEL TEST**

JCK | LK/RK | TCHK

**SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL**

HGK | LFK

**SC 109**
TK
CHANNEL SELECTION AND HOLD MAGNET OPERATION
DCT

**SC 110**
DCTI
LINKAGE CHECKS
LKI

**SC 111**
DISI,2
DISCONNECT

**SC 117 LINE BUSY TEST AND RINGING SWITCH CONTROL**

RCK3

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | | E108 |

RUNNING 44-131 28142

# PART OF SC 10

INTRAOFFICE CALL, (ITR) NON AMA, WITH OR WITHOUT A LINE LINK PULSING SENDER (SON)
(A) ETS NOT PROVIDED

SC101 SEIZURE OF MARKER BY REGISTER MARKER CONN
PP | LT/XII | OR | CT-/CU-CGA/CGB | TP/RP | A-L DIG | FT-/HG-/FU-/VR-/VG- | LL-

FORWARD LINKAGE, (FLG)

CALLBACK LINKAGE (SCB)

SC102 TRANSLATION, TRK & CLASS SCREENING, & ROUTE RELAY OPERATE
FTC- | RSW | FTCK | TG- | TB- | NSI | WB-

FROM LKI, 11K38

SC103 TYPE OF CALL & LINKAGE
LKI | ITR | LKI | FLG-

SC105 ITR ADVANCE TO CALL BACK LINKAGE
CB- | SCB-

SC104 SEIZURE OF TRK LK FR & TRK
FBK | LCK | FAK | TFK1-2 CK | FS-

SC106 LINE LK FR SEIZURE CALLBACK LINKAGE
RWL/LWL | HGK | RK3 | FTT- | FUT | WCV

SC116 NO. GROUP SEIZURE & TRANSLATION OR SC144
FTT-FUT- | VGT-HGT- | VFT- | RCT- | RNG | CL-DL-CR- | LR;LRA

SC116 NO. GROUP SEIZURE & TRANSLATION
FTT-FUT- | VGT-HGT | VFT- | RCT- | OSG- | RNG

OFFICE SIZE - TLF SF/PF/TTF

A / B TO 11Y19

TO 11E20

WIDEBAND SWITCHING

LINE LOCATION MATCHES ROUTE ADV TO REV — RV
SC125

SC165 CONTROL FOR WIDEBAND CHANNEL TEST — WTI

SC108 CONTROL FOR CHANNEL TEST
JCK | RK/LK | TCHK

SC108 CONTROL FOR CHANNEL TEST
JCK | RK/LK | TCHK

SC107 LINE LK FR SEIZURE & CONTROL
RWL/LWL | FK | WCV | HGK | LC

SC117 LINE BUSY TEST & RINGING SW CONTROL
RCK3

SC145 SENDER SELECTION & CONTROL
RSC | SLK2 | CLK

SC166 WIDE BAND CHANNEL SELECT & HOLD MAG. OPERATE — WDCI

SC109 TK
CHANNEL SELECT & HOLD MAG. OPERATE
HMSI | DCT

WIDEBAND SWITCHING

SC165 CONTROL FOR WIDEBAND CHANNEL TEST — WTK

SC109 TK
CHANNEL SELECTION & HOLD MAG OPERATE
HMSI | DCT

SC110 AVKI
LINKAGE CHECK
DCT2

SC166 WIDEBAND CHANNEL SELECTION & HOLD MAG OPERATE — WDCI

SC111 DISCONNECT — DIS 1-2

SC110 DCTI
LINKAGE CHECK
LKI

TO LKI, 11Q7

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS, USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE
22D GEL ECP MP LT
39D

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E11A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILO

# PART OF SC 10

INTRAOFFICE CALL (ITR) WITHOUT A LINE LINK PULSING SENDER

(B)ETS PROVIDED

**SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR**

- TYPE OF TRANSLATION: LT, OR, PK, SCK
- TYPE OF LINE: TP/RP
- DIALED DIGITS: $A_5^2$-$M_5^2$,N7
- START: CKG6, DR
- LINE LINK: LL-
- CALLING LOCATION: FT-, FU-, HG-, VG-, VF-

**SC 177 DISTRIBUTE - INTRAOFFICE**

NSI, FS-, TB-, TS-, HGT-, VGT-, VFT-, FTT-, FUT-, HTKI, VTKI, FTKI, RCL, TTL, RCT-, POTS/, LDN/, DAT/--, ROUTE SERIES

**SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK**

FBK, LCK, TFKI,2 CK

**SC 108 CONTROL FOR CHANNEL TEST**

JCK, LK/RK, TCHK

**SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL FORWARD LINKAGE**

HGK, LFK

**SC 109 CHANNEL SELECTION AND HOLD MAGNET OPERATION**

TK, DCT

**SC 117 LINE BUSY TEST AND RINGING SWITCH CONTROL**

RCK3

**SC 110 LINKAGE CHECKS**

DCTI, LKI

**SC 105 INTRAOFFICE ADVANCE TO CALL BACK LINKAGE**

LCK, RK3, FAK, JCK, LK/RK, TCHK, LLC2

**SC 106 LINE LINK FRAME SEIZURE AND CONTROL**

HGK, RK3

**SC 114 OR 137 TRUNK CLASS INFORMATION**

CLK

**SC 109 CHANNEL SELECTION AND HOLD MAGNET OPERATION**

TK, DCT

**SC 110 LINKAGE CHECKS**

DCT2

**SC 111 DISCONNECT**

DISI,2

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE · 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | | E11B |

BRUNING 44-131 28142

# PART OF SC 11

DIAL TRANSFER CALL (DTF)

(CENTREX-PHASE III OR PHASE I & II WITH DIAL TRANSFER)
(A) ETS NOT PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER CONNECTOR

FGO-2 · TF 2/5 · CT 2/5 · CUA 2/5, CU- · DTF · WDTF · FVD/XII · PP · PKI · A-E 2/5

SC 148 'A' DIGIT TRANSLATION AND TYPE OF CALL AND LINKAGE

FLG · WB-/NW · TER · SWAT · SNG · LR- · ALN

DIAL "0"

OTHER

SC 104A SEIZURE OF TRUNK LINK FRAME AND TRUNK

LCK · FAK/FBK · TFK3

OFFICE SIZE TLF, SF/PR/TTF

SC 116 NUMBER GROUP SEIZURE AND TRANSLATION

FTT- · FUT- · RCT- · VFT- · HGT- · RNG

SC 108 CONTROL FOR CHANNEL TEST

JCK · RK/LK · TCHK

SC 107A LINE LINK FRAME SEIZURE AND CONTROL

HGK · CM · RWL/LWL · LG- · WCU

TK

SC 109 CHANNEL SELECTOR AND HOLD MAGNET OPERATE

DCT · HMSI

SC 117 LINE BUSY TEST AND RINGING SWITCH CONTROL

RCK3

SC 165 CONTROL FOR WIDEBAND CHANNEL TEST

WTK

DCTI

SC 110 LINKAGE CHECK

LKI

SC 166 WIDEBAND CHANNEL SELECT AND HOLD MAGNET OPERATION

WDCI

DISI, 2

SC 111 DISCONNECT

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS, USED SEQUENCE CHARTS, SEE SHEET E2A

DRAWING ISSUE

25D JB 6GP AMP

29A FES GDL AMP

DRAWING RETURNED WITHOUT CHANGE 0-1-68

43D

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E12A

BELL TELEPHONE LABORATORIES INCORPORATED

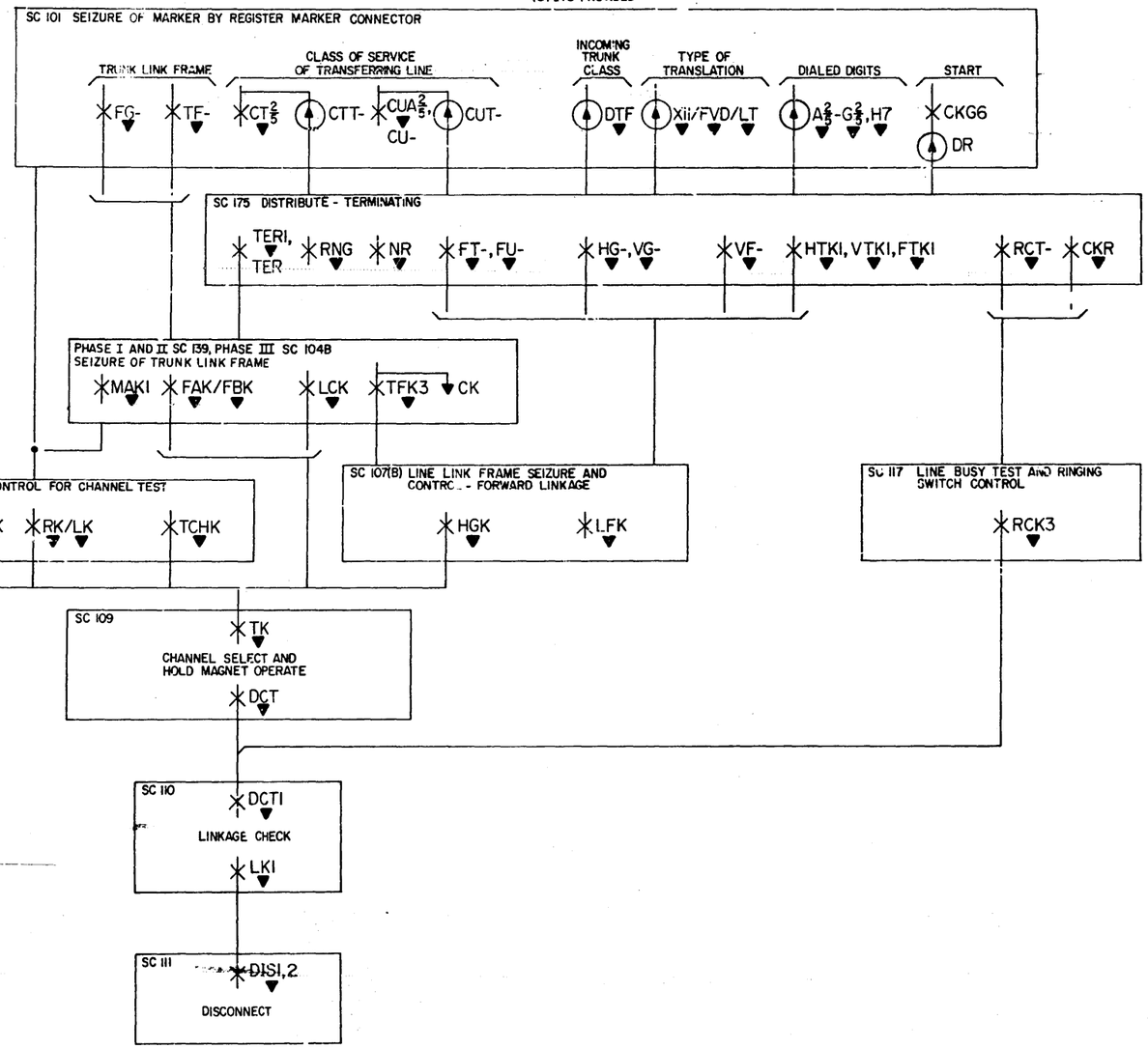
6S

STABILO

# PART OF SC 11

DIAL TRANSFER CALL (DTF)

(CENTREX - PHASE III OR PHASE I AND II WITH DIAL TRANSFER)
(B) ETS PROVIDED




NOTES:

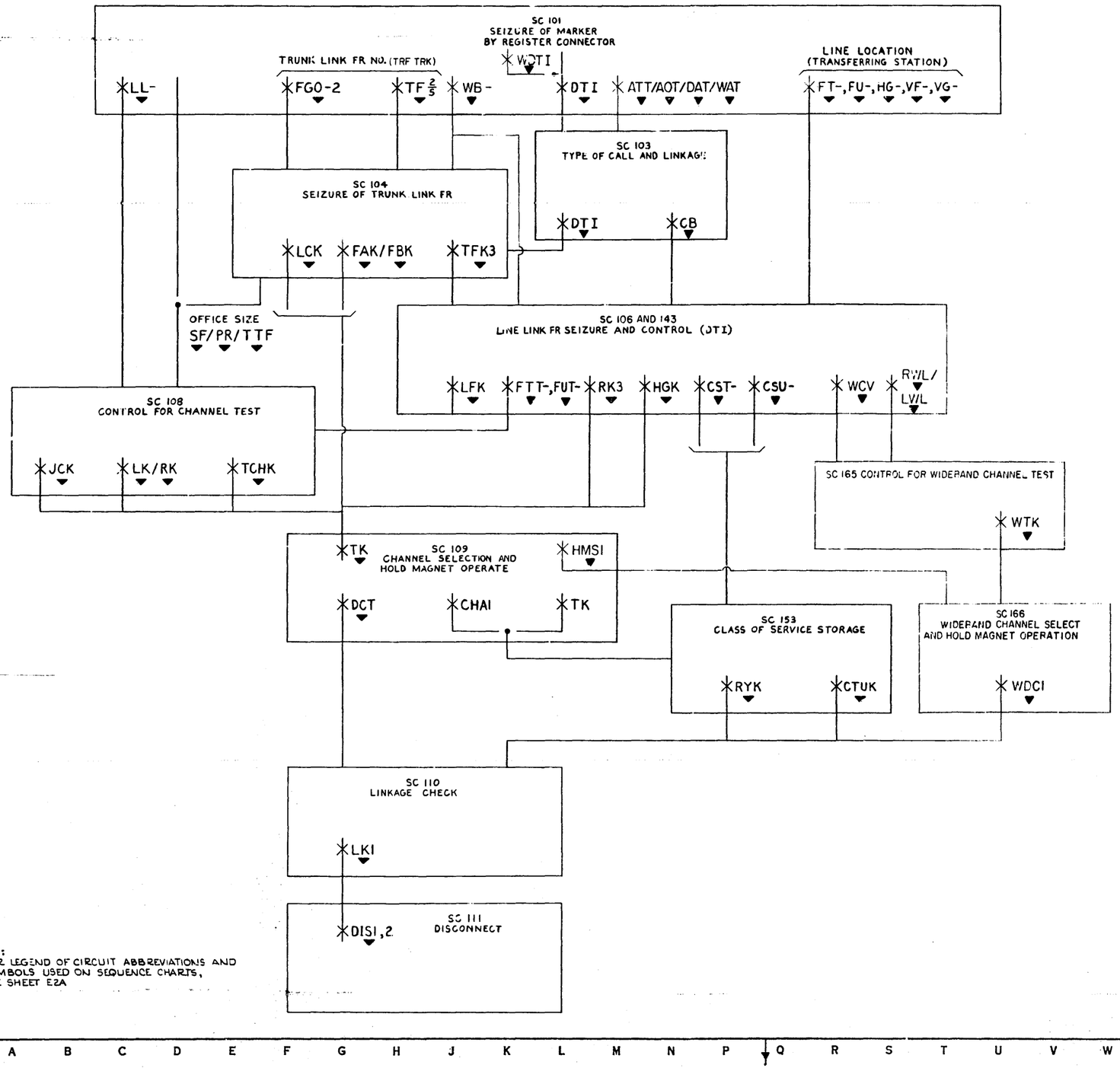
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 6IB |
| BELL LABORATORIES | SD-260C2-01 | | E12B |

BRUNING 44-131 28142

# PART OF SC 12

DIAL TRANSFER - IDENTIFICATION USAGE - (DTI)
(CENTREX - PHASE III)
(A)ETS NOT PROVIDED




NOTE:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A

DRAWING ISSUE
29A 1.8 GPL WNZ
43D

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-E13A

6S

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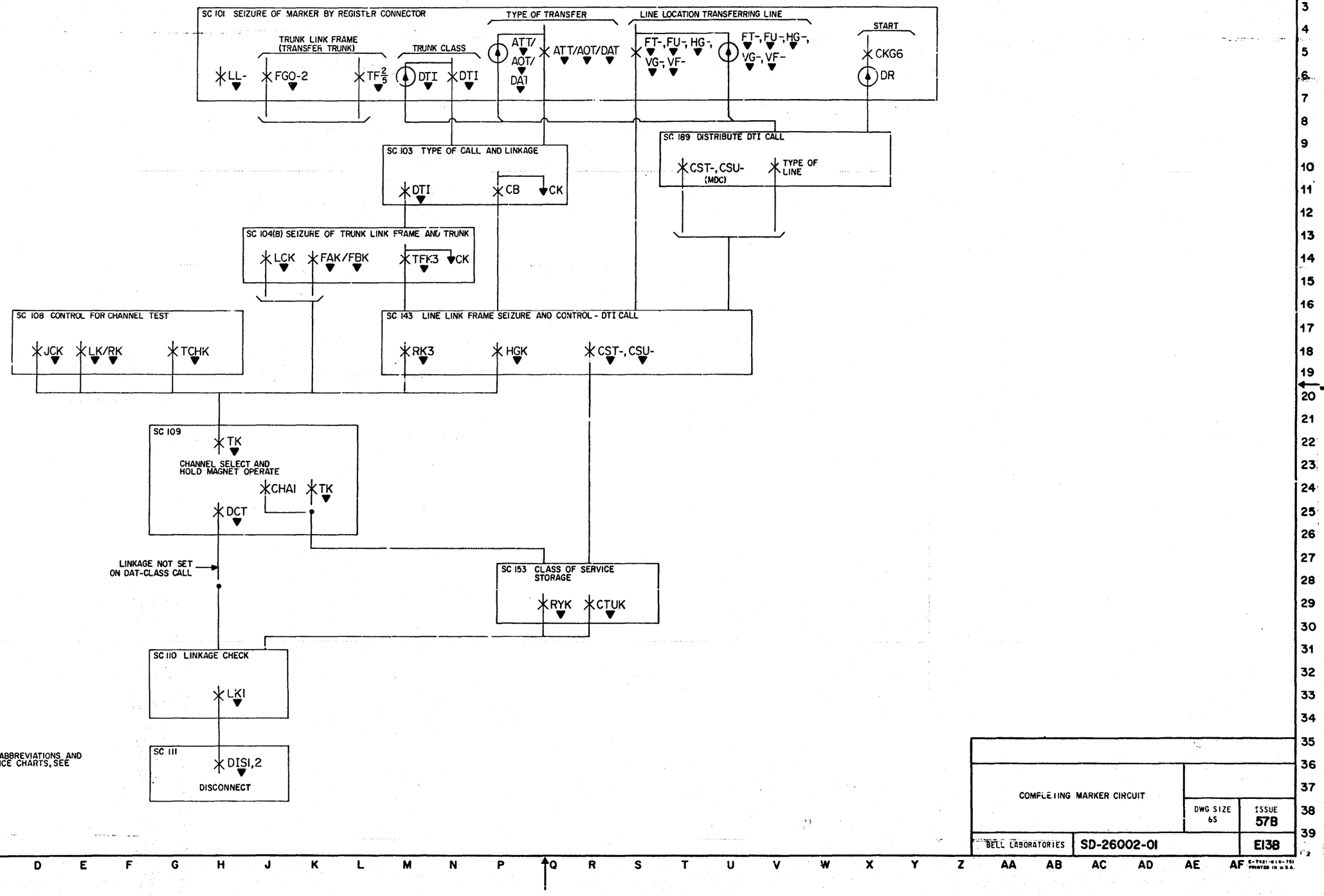
STABILO

# PART OF SC 12

DIAL TRANSFER - IDENTIFICATION USAGE (DTI)
(CENTREX PHASE III)
(B)ETS PROVIDED




NOTES:

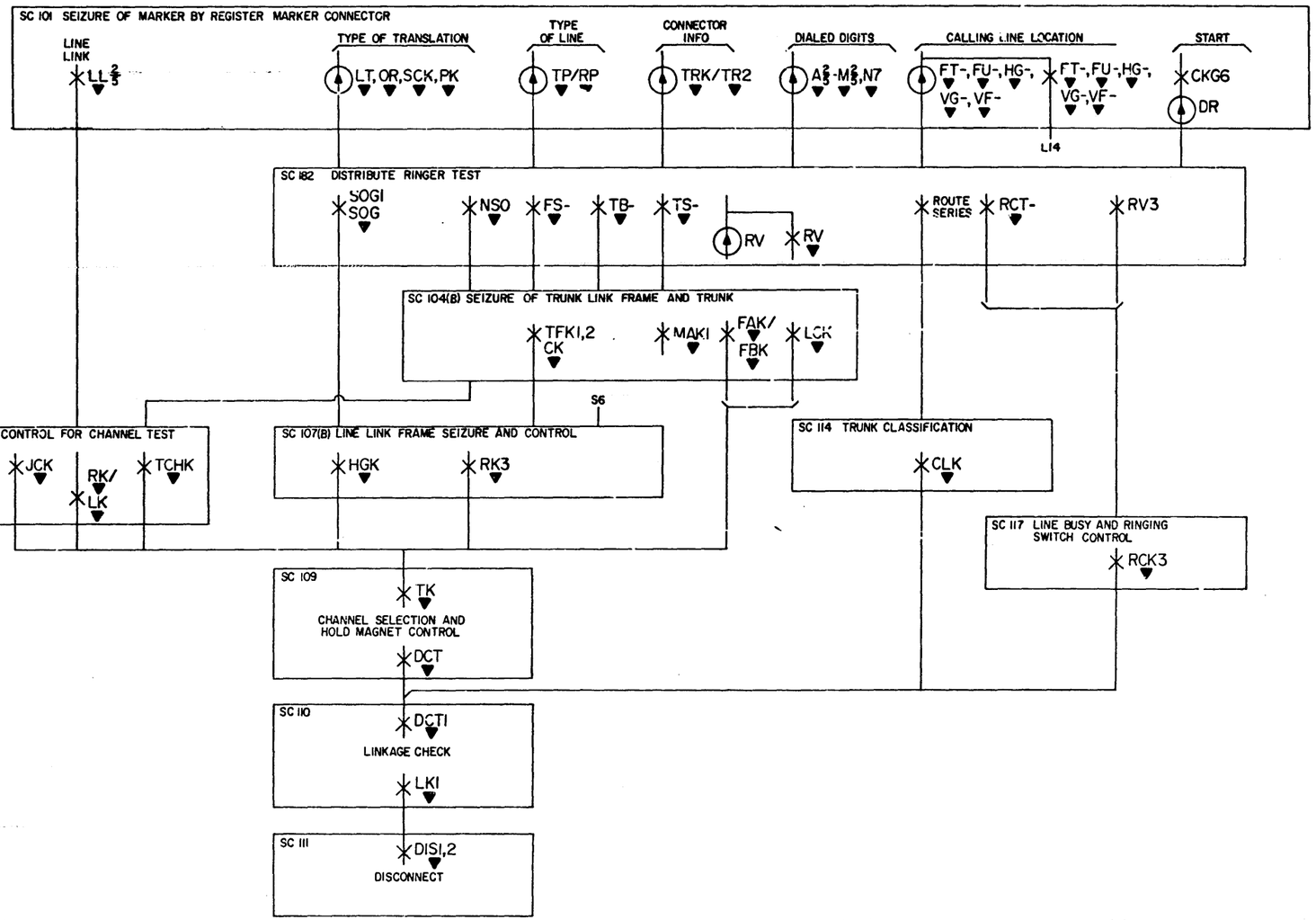
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | E138 |

BRUNING 44-131 28142
5-7421-910-753 PRINTED IN U.S.A.

# SC 13

RINGER TEST CALL
ETS PROVIDED




NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | 6 |
| | | DWG SIZE 6S | ISSUE 5BA |
| BELL LABORATORIES | SD-26002-01 | | E14 |

# SC 14

REVERTING CALL
ETS PROVIDED

SC 101 SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR

LINE LINK: LL 2/5

TYPE OF TRANSLATION: LT, OR, SCK, PK

TYPE OF LINE: 1P/RP

CONNECTOR INFO: TRK/TR2

DIALED DIGITS: A 2/5 - M 2/5, N7

CALLING LINE LOCATION: FT-, FU-, HG-, VG-, VF

FT-, FU-, HG-, VG-, VF- → L16

START: CKG6, DR

SC 183 FIRST DISTRIBUTE REVERTING CALL

RAV

RV, RV

RCT-

SC 184 SECOND DISTRIBUTE REVERTING CALL

SOG1, SOG

NSO

FS-

TB-

TS-

ROUTE SERIES

RV3

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

TFK1, CK

MAK1

FAK/FBK

LCK

SC 117 RINGING SWITCH CONTROL

RCK3

S6

SC 108 CONTROL FOR CHANNEL TEST

JCK

LK/RK

TCHK

SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL

HGK

RK3

SC 114 TRUNK CLASSIFICATION AND CONTROL

CLK

SC 109 CHANNEL SELECTION AND HOLD MAGNET OPERATION

TK

DCT

SC 110 LINKAGE CHECK

DCT1

LK1

SC 111 DISCONNECT

DIS1,2

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATION AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

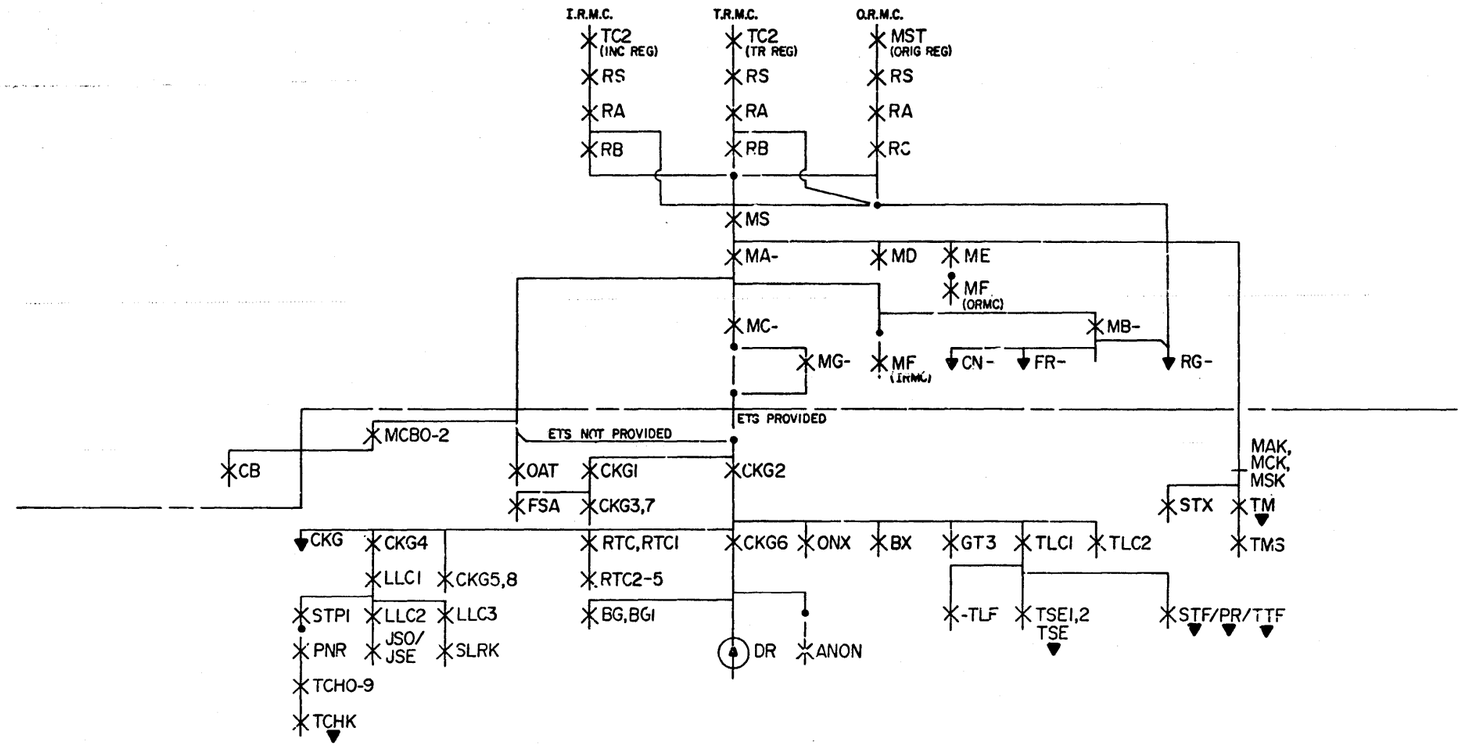
| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | | 6B |
| | DWG SIZE 6S | ISSUE 6B |
| BELL LABORATORIES | SD-26002-01 | E15 |

DRAWING 44-131 28142

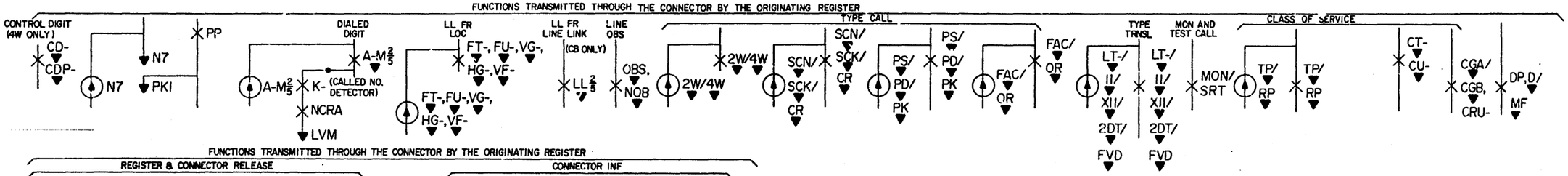
E-74011-R (6-70) PRINTED IN U.S.A.

# PART OF SC 101

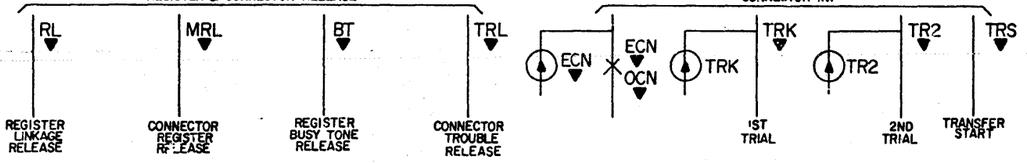
SEIZURE OF MARKER BY REGISTER MARKER CONN




FUNCTIONS TRANSMITTED THROUGH THE CONNECTOR BY THE ORIGINATING REGISTER




FUNCTIONS TRANSMITTED THROUGH THE CONNECTOR BY THE ORIGINATING REGISTER




ISSUE 58A

COMPLETING MARKER CIRCUIT

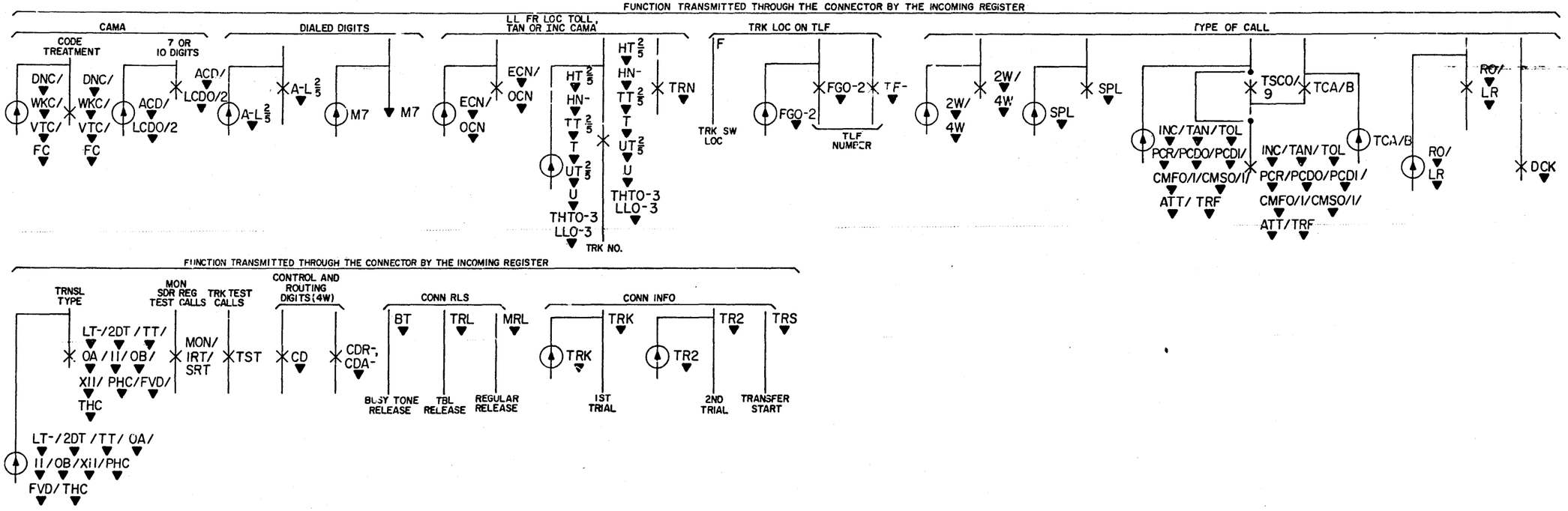
SD-26002-01-E17A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF SC 101

SEIZURE OF MARKER BY REGISTER MARKER CONNECTOR




ISSUE 57B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

SD-26002-01-E17B

PRINTED IN U.S.A.

BRUNING 44-131 24092

# SC 102

TRANSLATION, TKUNK AND CLASS SCREENING AND ROUTE RELAY OPERATION

SC 101 TYPE OF TRANSLATION AND A&C CODE

PCR/ PCDO/ PCDI

D 2/5

CC 2/5

2DT

TT

BC 2/5

B 2/5

LT3

AC 2/5

2W

4W

LT

FVD

XIIX

XII

II

C 2/5

ET

A 2/5

LT

4LT

ET-

AT-

BT-

IIXX CODES

TXD

TXCI-9

DX 2/5

ORIG CALL

WIDEBAND MARKER

PP

NON WIDEBAND MARKER

PP

PKI

PK

PS/ PD/ PK

CR/ SCN/ SCK

INC REG SCREENING

OVER 1 INC TAN OR TOL CLASS

TCA/B

TSCO/9

TRF/ INC/ TAN/ TOL/ATT

TCCK

CD 2/5

SC 101 ORIG CALLS SUB CLASS SCREENING

CRU-

CGA/ CGB

CT-

CUA-

RP, TP

CDS-

SCCK

S-

PG-

CDA-

CD-,030

WIDEBAND MARKER

NON-WIDEBAND MARKER

NW

WB-

WBA, WBAI

S-

GR-

NON-VALID WIDEBAND REQUEST

NO SCREENING

SCREENING AHEAD OF R RELAY

DCI/ VCI

PST

ALO-3

IPC-/ PC-

CV00-95

SCO-3

OPS 0-3

LPA/ LPB/ LTA/ LTB/ LEA/ LEB

RM 00-95

RG1,2

PRE ROUTE RELAYS

SRI

RCD-

SCREENING BETWEEN R AND ROUTE SERIES RELAYS

FROM SC 122, VCI, 34N26 OR DCI, 34G26

TER-

NO SCREENING

ROUTE SERIES

R-

ROUTE SERIES

CHARGE AND CLASS INFORMATION FOR TRUNK

CDA-, Z14

FTC- TB- TG- RA-

TRUNK, LINK, AND FRAME SELECTION

ROUTE ADVANCE

AR-, BR-

ARN-BRN

CR- CL- DL- CDA- CD- CP-

SENDER CONTROL

PC- OF-

TRAFFIC REGISTERS

OSG- SON

CWB NSO

RSW NSI

NSA

DRAWING ISSUE

| | |
|---|---|
| 22D | 6WA CDM AMP |
| 24D | M/72 CDM AMP |
| 25D | JB 6GD AMP |
| 29A | NSC DOL AMD |
| 37D | 7/5 |
| 39D | WM |
| 40A | |
| 43D | |

50A

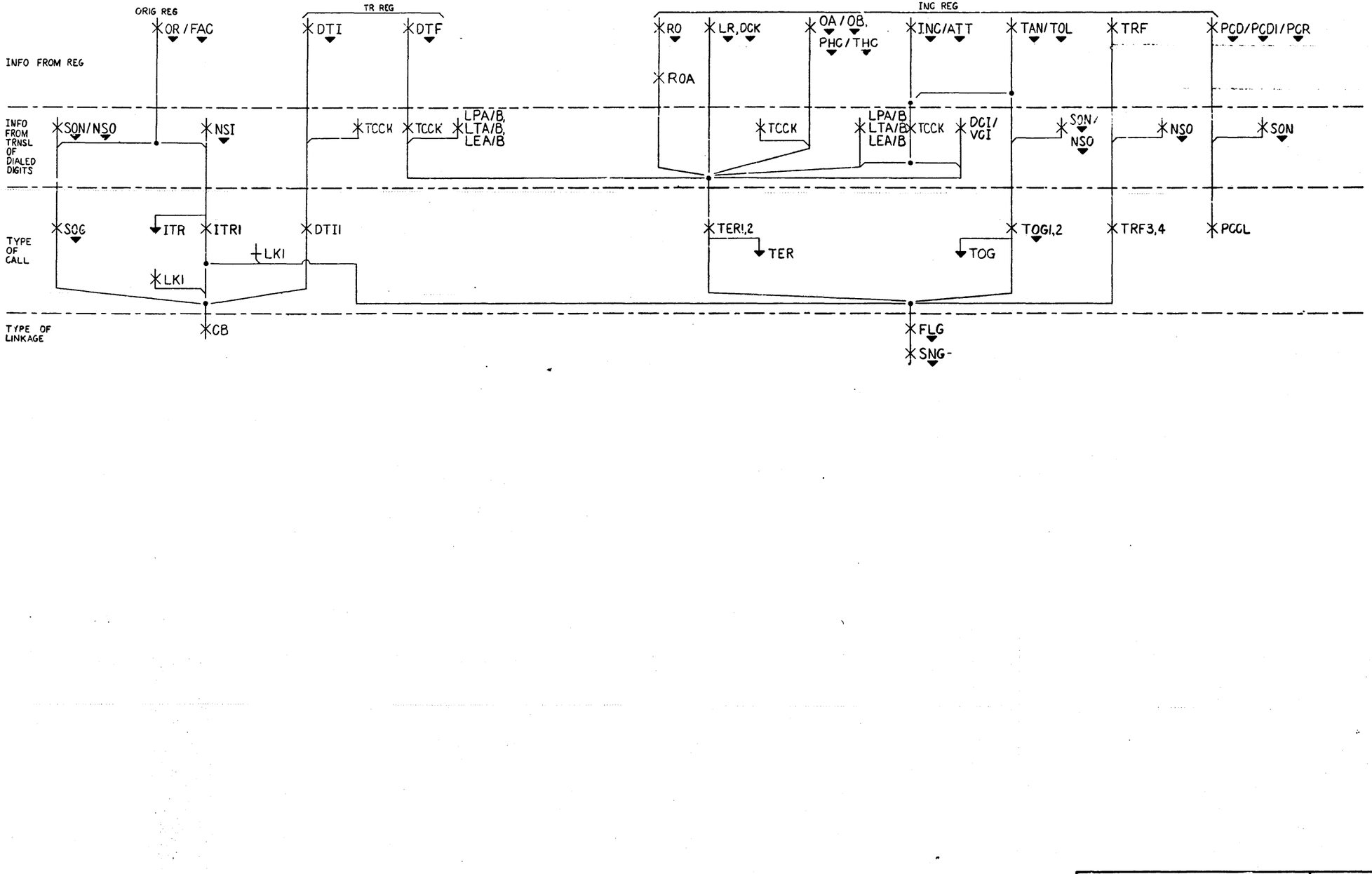
COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-E 18A

# SC 103

INFORMATION REQUIRED FOR TYPE OF CALL AND LINKAGE




DRAWING ISSUE 29A

DRAWING ISSUE 51D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E18B

BELL TELEPHONE LABORATORIES INCORPORATED

PAGE 6S

SD-26002-01-E18B

STABILO

# PART OF SC 104

SEIZURE OF TRUNK LINK FRAME AND TRUNK
(A) ETS NOT PROVIDED

SEIZURE OF TRUNK LINK FRAME & TRUNK
SOG, ITR, TER, TOG, OR TRF CALLS

SC102 OR SC140 | SC101 | SC102

R- | CKG2 | CKG4 | FMK | FMG | TLC1-2 | BC- | FB- T.L. FR. IDLE | FB T.L. FR. BUSY | TSE1-2 | TSE | WIDEBAND SWITCHING | WB- | WTC | WBC1 | WBC2, 3

MULTILEVEL OPERATION — SEE SC 156

FTC- | FS- | TBC | TBTB — STARTS TBT TIMER | FTCK1 | FCK | FTCK

1ST FAILURE TO MATCH, SC 127 — FM

MP (T.L) | M (TL) | MC (TL) | MDK | MAK1

WIDEBAND SWITCHING | OPERATION OF FRAME MEMORY CKT | PERM. SIG. TEST CALL

OTHER CALLS | OVERFLOW LINK CALLS | TFK1, 2 CK | OVERFLOW LINK CALLS | OTHER CALLS

TBTB — ENDS TBT TIMER | TBX (TL) — TO SC172 73 ADIS

TB-(T.L.) | MULTILEVEL OPERATION

FMG- | FM- | FMK | FMG | NEXT CALL | FMG- | FM-

T.L. SEIZURE TER, DTI CALLS

SC101: FGO-2 | TF 2/5

SC103: TER1, 2 — TER | DTI1, 2 — DTI

MP (T.L) | CK | M (T.L.) | MDK | MC- (T.L.) | MAK1

FMK | FML | F LEAD THRU INCOMING REG LINK (HM)

TFK3 | DTI CALL — SC 143, MP-, 51AC14

F (TRK.) | FA/FB (TL)

WTK | WCN | TSK | WLFK

MA, MB (WTLC)

WTFK | RSW | LSW

SC 101: ACT/TRF/CNTI | RDO

CT- | CUA-

SC 107A LINE LINK FRAME SEIZURE AND CONTROL ATTENDANT CLASS

TRK SERVICE OBSERVING

OR | FAC | CAMA

MB50-9 | IIX

GRD ON "HFA" LEAD FROM S.O.T.S. — TEN DIGIT FACD CALLS ONLY — GRD ON "FAD" LEAD FROM (SOTS)

COMBINATION OF SEVEN DIGIT ABX CODE CALLS HAVING MORE THAN ONE MESSAGE UNIT CHARGE AND TEN DIGIT FACD CALLS

GRD ON "CAMA" LEAD FROM SOTS.

TOBS

TOB — CONN RELS (S.O.R.C) — OBS

CORRS FS-, FTC- | TBK | TA | TBTB | TSE | TT- | STARTS TBT TIMER | TE | TS-EVEN

TT- | TS-EVEN | TSE1-2 | ETS | OTS | F(TRK) | OT | TS-ODD

USED FOR TRK SERVICE OBSERVING

FR (S.O.T.S) | FA (S.O.T.S) | OBS (S.O.R.C) — CO (S.O.T.S) | COI (S.O.T.S)

TBTB — STOPS TBT TIMER

FA/FB (T.L.)

ONN-9SP CLASS RELAYS FOR RCDR. NO. ON AMA CALLS

A/B SEL MAG. (TL) | TIP & RING TO MKR FOR LINE TEST | FAK/FBK | LV2-9 (T.L.) | LCO-9 (T.L.) | LCK | SEL MAG 2-9 (TL TRK SW)

WIDEBAND SWITCHING

ALL CALLS, IF PERM SIG. TEST FEATURE IN OFFICE TO RECYCLE, SC127

TER ONLY | OA/OB | LPA, LPB, ETC

ONN 9SP CLASS RELAYS FOR OFFICE DISCRIMINATION | NSSO-5 | LCH/TCH | MP (NG)

F (WIDEBAND TRK)

TER3 — NO COMBINATION ANALOG/BIT-STREAM TRUNKS SERVED BY THIS OFFICE

TTR3 | S (WIDEBAND TRK)

WCN CONTINUITY TEST OF OUTGOING FACILITY

F- (WIDEBAND LINK CKT) | T- (WIDEBAND LINK CKT) | TSK

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| DRAWING ISSUE |
|---|
| 220 |
| 29A |
| 32A |
| 37D |
| 39D RA |

DRAWING ISSUE 57B

COMPLETING MARKER CIRCUIT

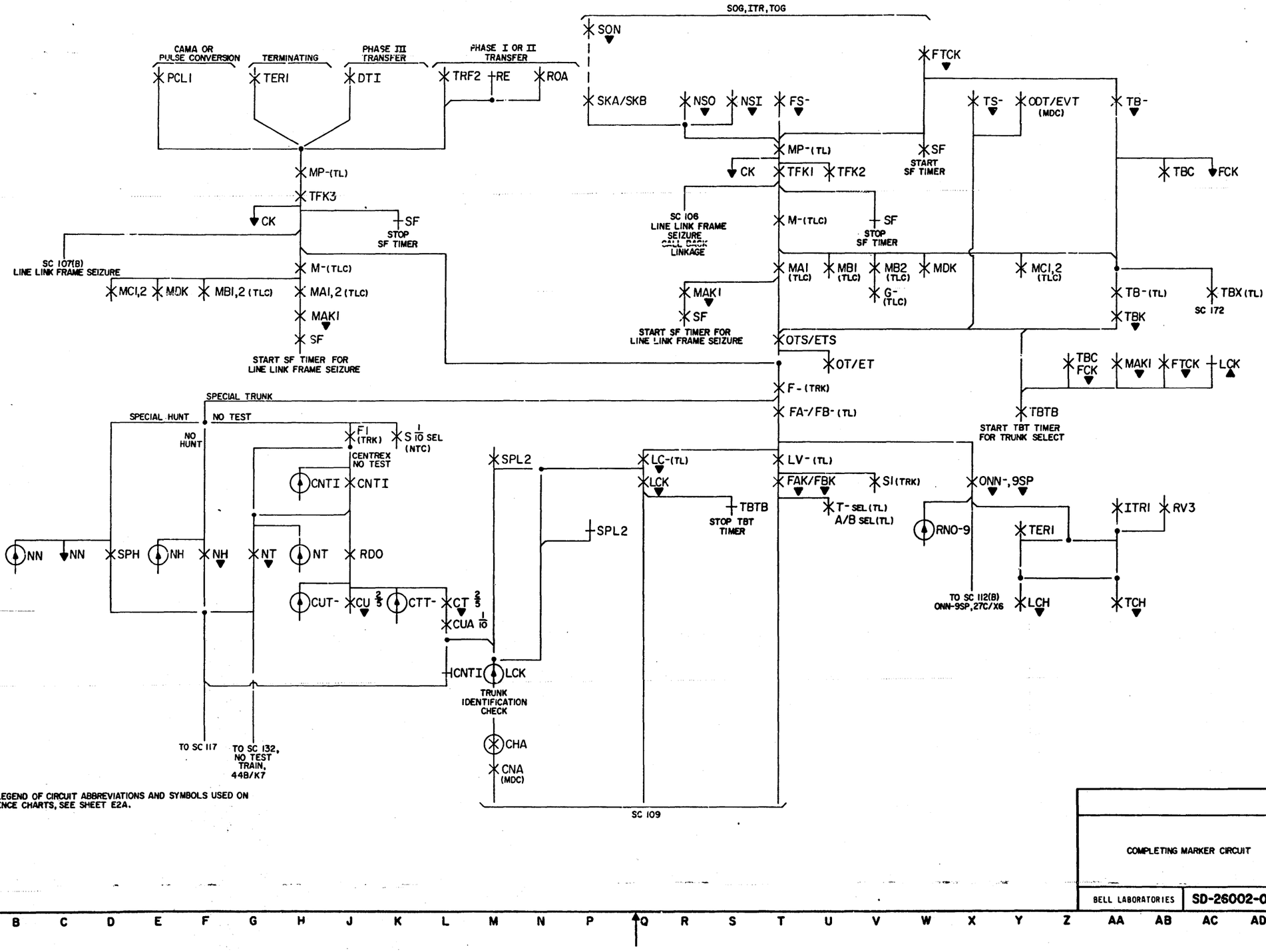
SD-26002-01-E19A

BELL TELEPHONE LABORATORIES, INC

2 | 6S

# PART OF SC 104

SEIZURE OF TRUNK LINK FRAME AND TRUNK
(B)ETS PROVIDED




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | E19B |

BRUNING 44-131 28142

# SC 105

INTRAOFFICE ADVANCE TO "CB" CALL BACK LINKAGE

DRAWING ISSUE 390 FUK 430

AMA3
OSG-
OSC
SIA/SIB
NSI
AMA PROVIDED
DCTI
DCT
LK2
TENS BLOCK SCREENING
LKI
MP(osc)
SKA/SKB
LLC2-3
JSQ-
JLE/JLO
JSO
JLE/JLO
MP(LL)
MC-(LL)
VGB-(LL)
LFK
LXPI, LXPA, JXPI, JXPA
LLCI
WIDEBAND SWITCHING
LLP
LLC4
WLC, WLCI
FBK
SL
SLA
LC-(TL)
LCK
R/L ER/EL (TL)
RK/LK
JC-(TL)
JCK
GLH
GLHI
PO-9
2G/3G
PA/PNR
PN/TN
PTK
LLI
VGL, VFL, HGL
LLIA
TTL
TBS
TT-
RCL
RCT
RS
FTL, FUL
LA
FUT-
FTT-
FTB-
VFT-
VGT-
HGT
PSK
HVT-
FTKI
VTKI
HTKI
RSO/I
LLP
F(LINE CKT)
FK
ONX
J SEL (TL)
J SEL (LL)
LJ SEL (LL)
RS2-8 SEL (RSS)
WBT-/NWT
LSWR
WL-
WLA
LSW
WCH-
WCHA
MA (WLLC)
MB, MC, MD (WLLC)
WLFK
TSK
WVG--, WVF-- (WBLC)
RA
RB
RC (WRSSC)
RWL/LWL
LXWI
LXWA, JXWA
JXWI
WSLA
WFCK
WDCI
S (WB TAK)
WCN
WHS2
WHSI
WIDEBAND SWITCHING
STPI, LTR, PEG, GTK, HMSI
CHT
TK
CH-
CHAI
HG-(LL)
HGK
GC
TCHK
MC-, LG-(LL)
GO-4 (TL)
CBI
FUT-
FUL
CB
FTB-
LK2
C95
LL-
RKI
RK2
RK3
FTL
FTT-
LLCI
TO SC 106 20B/AC3
WIDEBAND SWITCHING
WLC, WLCI
LSW
STPI, GC
SCBI-2
WIDEBAND SWITCHING
SCB3
F--(WBL)
T-(WBL)
TSK
LC-(TL)
LCK
FAK
TO SEL, T2-9 SEL (TL)
PA/PNR
TCH-
TCHK
R-/L-(TL)
RK/LK
GO-4 (TL)
RF/EF/SEF (TL)
JC-(TL)
JG-
2G/3G
OT(LL)
LOTI
LO(LL)
DTK
JCK
TO SC 109, TK
MC-(LL)
LFKI
LLC2
LLC3
DVO, SLRK
AMA PROVIDED
TO SC 106 20B/AD3

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E20A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# SC 106

LINE LINK FRAME SEIZURE AND CONTROL
CALL BACK LINKAGE

DRAWING ISSUE
39D FLK
41D
43D

OR
GTL, GTL2

INTRAOFFICE CALL
FROM SC 105
20A/AE19 20A/H37

VG 2/6 → VG'
VF 1/5 → VF'
HG 2/5 → HG'
FT- → FT'
FU 2/5 → FU'

CALLING LINE IDENTIFICATION

FROM SC 102, SC 133 OR SC 173 SOGI, 7409 OR SC 174 SOGI, 75G10 OR SC SC 185 SOGI, 8669

SOGI-2 → SOG

CB → CBI

MP (TL) → CK
TFKI, 2

CB6
CB (MDC)

CB5
LL 2/5

FUT 1/10

FROM SC 143
VF-, 5IS17

OUTGOING CALL
INTRAOFFICE CALL
FTB- FTT-

FROM SC 143
FUT-, 5IZ19

INTRAOFFICE CALL

CB2
CB3

FROM SC 143
VTKI, 5IP12

FROM SC 143
HG, 5IT6

OUTGOING CALL
MP (LL)
MAI (LL)

RK2 RKI
RK3
TO SC 109, TK

CB4 VFT 1/5
VGT 1/12 FTKI
VTKI

VWC
HGT 1/10
HTKI

MA2, MB1, MB2 (LL)
MCI (LL)
WIDEBAND SWITCHING
MA
MB
MC
MD
(WLLC)

WIDEBAND SWITCHING
WIDEBAND SWITCHING
WIDEBAND SWITCHING

NON-WIDEBAND MARKER
WIDEBAND MARKER

PR-LL
LFKA PRL
LFK

HG- (LL)
HGK
TO SC109 TK, 23A/M3
WLFK

VGB-(LL)

WIDEBAND LINE LINK
NON-WIDEBAND LINE LINK

WVG--(WBLC)

CLOSES LBO-9 AND LLO-9 TEST LEADS

WBA

WVF-- (WBLC)
LG- (LL)

NON-WIDEBAND CALL
WIDEBAND CALL

CLOSES PATH TO LINE HOLD MAG SC109, 23B/V22

CLOSES SEL MAG LEADS SMO-9 TO LL

WBT-
RA, RB, RC (WRSSC)
LWL
WLIT
WMB
NWL
WBA
VWC
WMBA
NWLA
WLK
RWL
TO SC 166
WRM
WRM
TO SC 166

WCV
TO SC 109

NWT

NWLA, NWT
WRA
WMM
NWLA/ NWT
RAVI, 2
TO SC 128

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

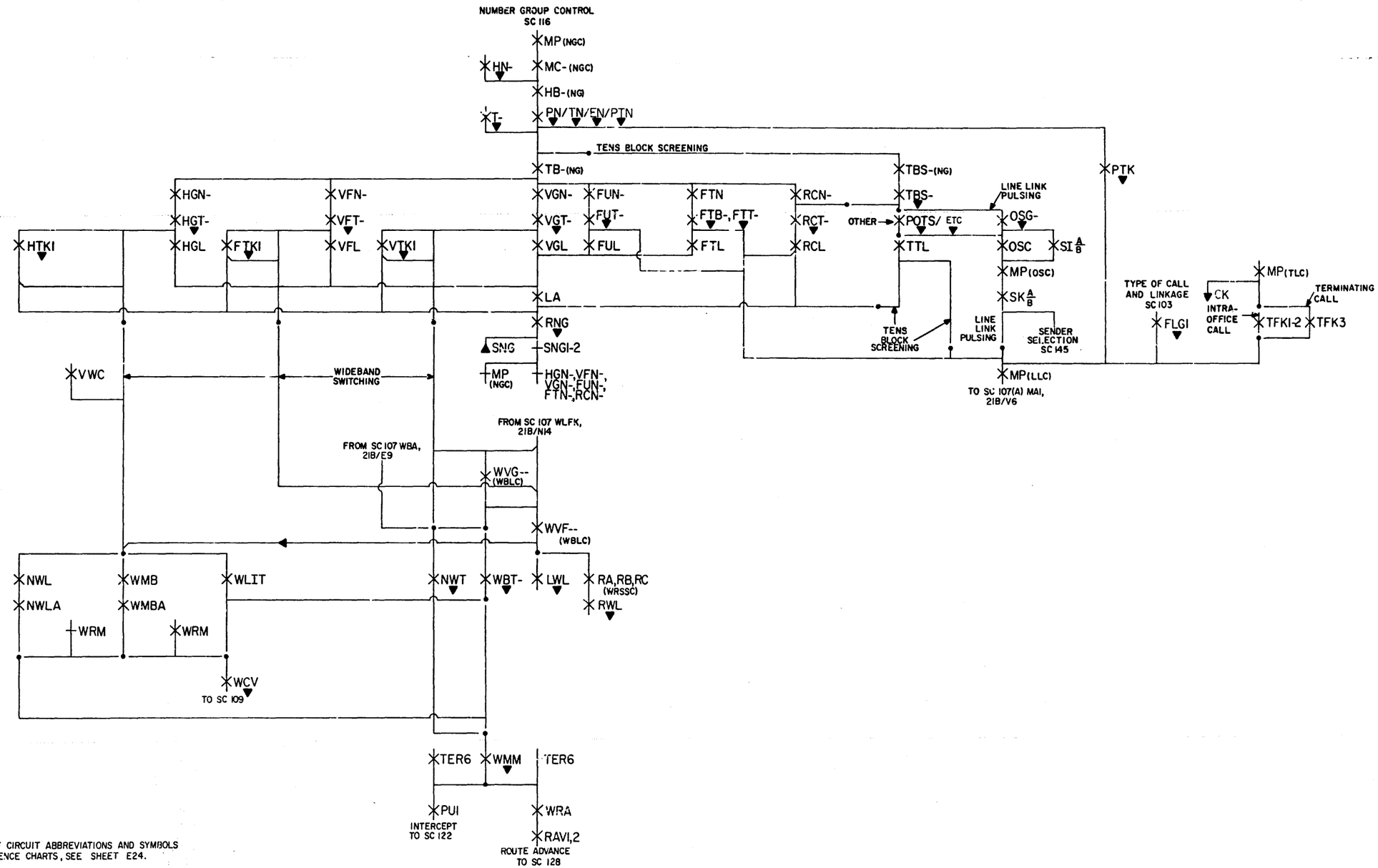
ISSUE 58A

COMPLETING MARKER CIRCUIT
SD-26002-01-E20B
BELL TELEPHONE LABORATORIES INCORPORATED
6S

SD-26002-01-E20B

# PART OF SC 107

LINE LINK FRAME AND LINE CIRCUIT SEIZURE AND CONTROL CALL FOWARD LINKAGE (A)ETS NOT PROVIDED




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E24.

DRAWING ISSUE
390 WE
410

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E21A

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

PRINTED IN U.S.A.

# PART OF SC 107

LINE LINK FRAME AND LINE
CIRCUIT SEIZURE AND CONTROL
CALL FORWARD LINKAGE
(A)ETS NOT PROVIDED

WIDEBAND MKR
NON-WIDEBAND MKR
WIDEBAND LINE LINK
NON-WIDEBAND LINE LINK
WIDEBAND CALL
NON-WIDEBAND CALL
PR-LL
NON PR-LL
VWC
WBA
WBA
TO SC 107 NWT, 21A/K20
PRL
LFKA
PRLL, PRLLA
LFK
TER
TSC-TCA/B
NO TERM MATCH REQUIRED
TERM MATCH REQUIRED
ATT
TER
ITRI
XIIA
NTMR
XIIA
TMR
ATT
RDI, RDIA
MCS
CTX-PHASE I & II
CMU-, CTA-
TO SC 107 WVF, 21A/N19
WB-
WLC
LFKI
MCI(LLC)
WIDEBAND SWITCHING
LLP
LLP
MA(WLLC) MB, MC,(WLLC) MD
CLOSES SSO-9 AND SLK LEADS TO OUT SENDER LINK CKT
F(LINE CKT)
FK
WLFK
MBI-2 (LLC)
VGB- (LL)
VF-(LL)
OTHER
CS-
FROM SC 107A MP, 21A/X17
MAI(LLC)
HG-(LL)
HGK
CLOSES LBO-9 TEST LEADS
CLOSES SEL MAG LEADS SMO-9 TO LLF
CLOSES LLO-9 TEST LEADS
CLOSES NT LEAD TO NO TEST CONN CKT
LG-(LL)
INTRAOFFICE OR TERMINATING
CST-
CSU-
CTX LINE
CSK
CTX LINE
NON CTX LINE
AOL/CN
CHAI
LIT
LINE IDLE
LINE BUSY
LBT
LBTA
MULTI-LEVEL LINES, SEE SC 159
TO SC 117, RINGING SWITCH (A) LINE IDLE, 31A/R4
LB
CALL WAITING SERVICE
XVGB, CWL
TO SC 147
MPO-2
CGS
AOA/CNA/MRA
CM
MCS
XIIA/ATTI/DTF
CTUK
CT-(TRK)
CU-(TRK)
RIK
MM
CM
TO SC 122, SC 127
CKR
RCY4
CKR
SPLI
SPLI
TO SC 120, PBX RECYCLE
XCS
CTKI,2
CUKI,2
CTUK
TO SC 117
NT
NH/SPH
BLTL
RV
TO SC 132, NO TEST TRAIN, 44B/N6
TO SC 149, BUSY LINE TRANSFER RECYCLE
TO SC 117, RINGING SWITCH (B) LINE BUSY, OVERFLOW, 31B/J9
CLOSES PATH TO LINE HOLD MAGNET

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A

DRAWING ISSUE
39D
41D

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-E21B
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

SD-26002-01-E21B

# PART OF SC 107

LINE LINK FRAME SEIZURE AND CONTROL
(B)ETS PROVIDED

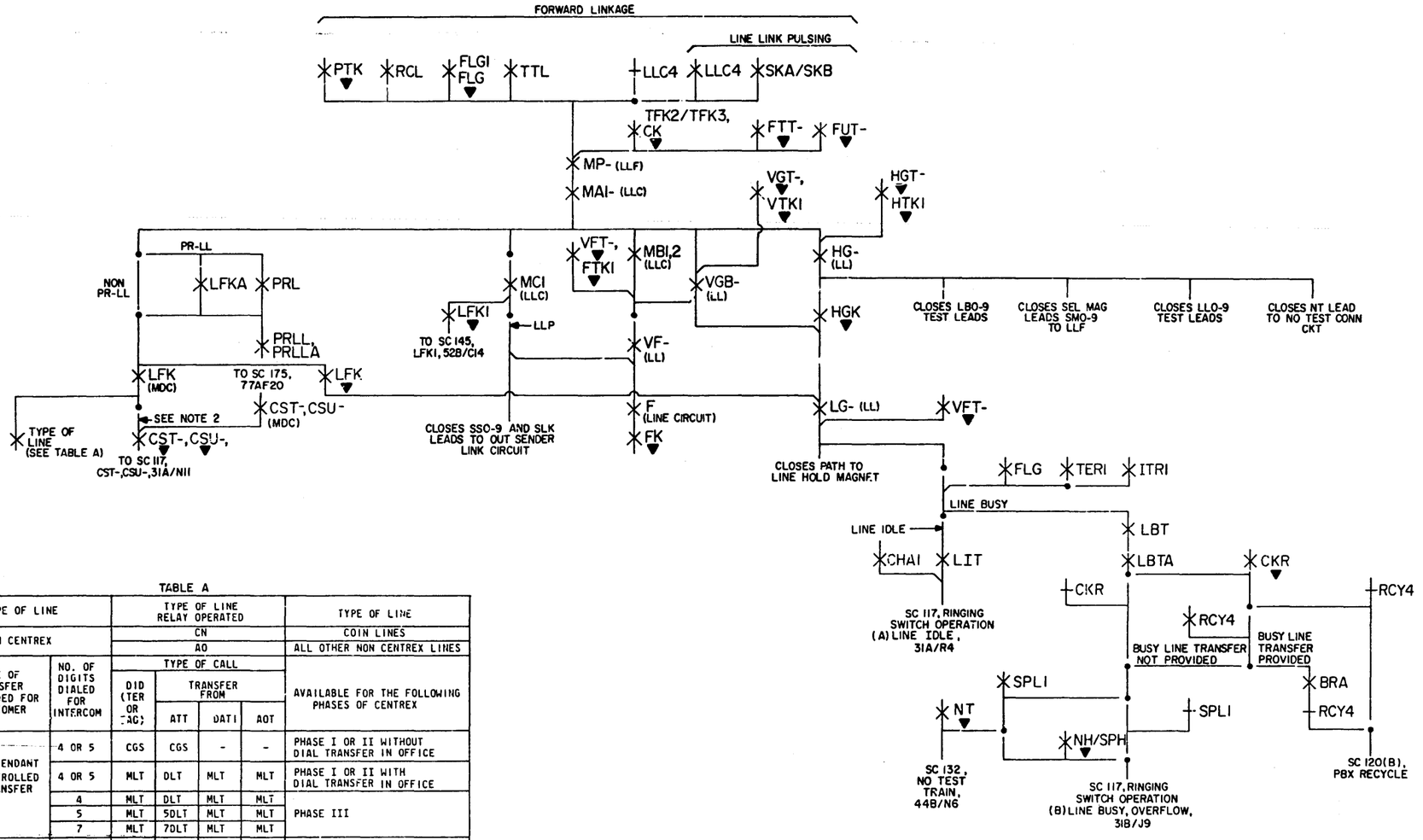



TABLE A

| TYPE OF LINE | | | TYPE OF LINE RELAY OPERATED | | | | TYPE OF LINE |
|---|---|---|---|---|---|---|---|
| NON CENTREX | | | CN | | | | COIN LINES |
| | | | AO | | | | ALL OTHER NON CENTREX LINES |
| CENTREX | TYPE OF TRANSFER PROVIDED FOR CUSTOMER | NO. OF DIGITS DIALED FOR INTERCOM | TYPE OF CALL | | | | AVAILABLE FOR THE FOLLOWING PHASES OF CENTREX |
| | | | DID (TER OR TAC) | TRANSFER FROM | | | |
| | | | | ATT | DATI | AOT | |
| | ATTENDANT CONTROLLED TRANSFER | 4 OR 5 | CGS | CGS | - | - | PHASE I OR II WITHOUT DIAL TRANSFER IN OFFICE |
| | | 4 OR 5 | MLT | DLT | MLT | MLT | PHASE I OR II WITH DIAL TRANSFER IN OFFICE |
| | | 4 | MLT | DLT | MLT | MLT | PHASE III |
| | | 5 | MLT | 5DLT | MLT | MLT | |
| | | 7 | MLT | 7DLT | MLT | MLT | |
| | STATION CONTROLLED TRANSFER | 4 OR 5 | DLT | DLT | MLT | DLT | PHASE I OR II WITH DIAL TRANSFER |
| | | 4 | DLT | DLT | MLT | DLT | PHASE III |
| | | 5 | 5DLT | 5DLT | MLT | 5DLT | |
| | | 7 | 7DLT | 7DLT | MLT | 7DLT | |

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS. SEE SHEET E2A.
2. CENTREX BUSY VERIFICATION CALL OUTGOING, OR CALL COMPLETING TO PHASE I OR II CENTREX LINE.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 63B |
| BELL LABORATORIES | SD-26002-01 | | E2IC |

131 28142
6-7621-810-783 PRINTED IN U.S.A.

# SC 108
CONTROL FOR CHANNEL TEST

OFFICE OPERATES AS A SINGLE SIZE
DURING ADDITIONS OR TRANSITIONS THE OFFICE SIZE MAY BE VARABLE
MC- (TL)
TLC1
2-10 TLF
T.L.F. SIZE
PR
TTF
STF
SINGLE, PAIRED OR TRIPLED FRAME
2-10 TLF
STF
2OF
6-10 TLF
PR
4-6 TLF
PR
40F
7-10 TLF
TTF
60F
20, 40 OR 60 L.L.F.

PATTERN CONTROL

PATTERN NUMBER
40F
20F
FUT-
FTA-
FTB-
MC- (T.L.)
POA-9A 1/10
PO-9 1/10
⊗ CONN PO-9 TO LO-B LEADS

2 OR 3 GROUP PATTERN
P0/2/3/4
P5-9
6,7, TLF
3G
2G

PATTERN GROUP
TLF
-TFA
STP1 / STP2
JSQ-
PA/PB/PC/PE
PNR
TCHO-9
TCHK

JUNCTOR GROUP AND JUNCTOR CONNECTOR (JC) CONTROL

JUNCTOR GROUP
JSQ-
P 1/10
STP1, STP2
LLC1
-TLF OR 2G/3G
JG 1/5
GC/GCA
MC- (TL)
FUT-
G 1/5 (T.L.)

REGULAR OR EXTENTION FR
FTB-/ FTA-
STF
PR 4OF
PR, 2OF P
TTF, P', P-A -TLF
RF (T.L.)
SEF (T.L.)
EF (T.L.)
JCO-9 (T.L.)
JC20-29
JC10-19 (T.L.)
TCHK
JCK
CHT (BUSY JUNCTOR)

7 OR REGULAR QUAD CONTROL
7TLF
7Q
6TLF, 8TLF, 9TLF
RQ

LINE LINKS
SHOWN ON LLF CONTROL
HG-(LL)
HGK
CHT (BUSY LINE LKS)
LLO-9
LBO-9 LEADS
FOR LINE LINK CHANNEL TEST
LG- (LL)
CLOSES LHO-9 LEADS TO L.L. LINE SWITCH HOLD MAG
FROM SC 105
RK3

TRUNK LINKS
RIGHT OR LEFT JUNCTORS
FUT-
JG 1/5
R,ER,SER (TL)
LEL,SEL (TL)
RK
LK
CHT- BUSY TRK. LINKS
CLOSES LHO-9 LEADS TO T.L. JUNCTOR SWITCH J HOLD MAG AND TRUNK SW T HOLD MAG FOR CHANNEL TEST AND HOLD MAG. OPER.
SHOWN ON TLF CONTROL
F (T)
FA-/FB- (TL)
LCO-9 (TL)
LCK
LV2-9 (TL)
FAK/ FBK
CLOSES T.L. TRUNK SWITCH TOT1 AND T2-9 SELECT MAG. LEADS

TK

| | |
|---|---|
| 8D | JAK JBK |
| 9D | JDN JEN |
| 14B | CJC QST |
| 21D | FAM JDP AAD |
| 22D | GWN EDH AMP REL |
| 39D | |

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E22
BELL TELEPHONE LABORATORIES, INC 6S
39

# PART OF SC 109

CHANNEL SELECTION AND
HOLD MAGNET OPERATION

FROM SC106, HGK. 20B/S26 AND FROM SC112 ORK1-2, 27N12

TK

MULTIFREQUENCY LINES

DTI USAGE, DON'T ANSWER TRANSFER

ALL OTHERS

SEE SC 159

DATI/DTI

34-41ms

SLRK

CHT

NO TEST TRAIN

NTT

NTT

LOT

LOT

DTK

DTK

CHT-

ALL CHANNELS BUSY

CHT-

IDLE CHANNEL

SC 126
JUNCTOR STEP
AND
FAILURE TO
MATCH

TO SC 109, 23B/V4

DATI , DTI

RL (TRF TRK)

RLB (INC TRK)

HOLD MAG
(INITIAL LINKAGE)

SC 132
TK,44B/Q6
NO TEST TRAIN

SC 153(B)
TK,58A/D27
CLASS OF SERVICE
STORAGE
DTI USAGE
PHASE III
CENTREX
(B) DON'T ANSWER
TRANSFER

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01- | E23A |

WING 44-131 28142

# PART OF SC 109

CHANNEL SELECTION AND HOLD MAGNET OPERATION

MESSAGE REGISTER LINES
MR
MRA
48V OPERATION
HM DUAL VOLTAGE OPERATION

PBX LINES
CKR

LOOP START COIN LINES
CN
CNA

ALL OTHER LINES
AOC
AOA
DVO
DVA

TRANSFER CALL
TRF3

CENTREX SERVICE
CGS
CTUK
CM

NORMAL WIDEBAND CALL
NW
WBCI
WCK
WCV
WLB

NON-WIDEBAND CALL FROM SC 102
WBA
NW

LLTA
TGCK
JGCK
L-,LJ-SEL(LL)
J-SEL (TL)

INTERCEPTED WIDEBAND CALL
WCV
WRM
CWB
WBCI

WIDEBAND MARKER

FROM SC 109, 23A/M22
CHO
CHI/--/9
JCK
GLA
JCK
CHA, CHAI
JCK
HMT
HMTI
HMSI

(GL)&(GLA) OPERATE BEFORE (CHA)
GL
GLA
STOP HOLD MAGNET FUNCTIONS BUT CONTINUE SENDER FUNCTIONS ON SC 112
FROM SC 112
GLA

CB
DTI
DTI
RL (TRF TRK)
TO SC 153 CHAI, 58A/F7
RLB (INC TRK)
HOLD MAG (INITIAL LINKAGE)
RL (OR)
HOLD MAG (DT LINKAGE)

(GL)&(GLA) OPERATE AFTER (CHA) BUT BEFORE (GLT) TIMER
GL
TOG
GLA
STOP CHANNEL FUNCTIONS BUT CONTINUE SENDER FUNCTIONS ON SC 112
FROM SC 112
GLA

LDN
SEE SC 110 LINKAGE CHECK F-TER TO LISTED DIRECTORY NUMBER
LDN
RK3
CB5
CB

LINE LINK PULSING
RLT
LGT
TOG, TRF
TOG, TRF
FLG
FLG
LGT
PBXA
CKR
CKR, PBXA
PBXA
AOA/MRA/CGS
AOA,MRA, CKR,CGS
GT3
GTK
CGT (JK,LP & KEY CKT)
HTR
LGT
SPL
CGT

FROM SC 172 TBX, 73AD8
TBX
OVERFLOW LINK CALLS
OTHER CALLS
L-HOLD (LL)
LXP
CON TUBE
CON
CONA
CON
CONI
FCG TEST
HTR
LTR
GLH
GLH!
LXP
LXPA
CGT (JK,LP & KEY CKT)
SPL
TR2C
LOL (4W LN LOCKOUT)
PLB
PU (IF LINE IS PLUGGED UP)
PUI
SC 122 (ETS NOT PROVIDED)
SC 127 (8) (ETS PROVIDED)
BLOCKS LINKAGE CHECK CKT SC 110
GTA

FROM SC 106 LG, 20B/S28
HTR
LG-(LL)
LXP
L-HOLD (LL)
LXPA
LXP
LXPI
GTI
GT2
GT NO GRD TEST FAILURE
GTA
GT3 GRD TEST FAILURE
GT5
SC 123

J-HOLD (LL)
LLT
J-HOLD (TL)
JXP
JXPA
JXPI
JXP
T-HOLD (TL)
SL
SLA (SL)
LLTA
FLG
DCT
OVERFLOW LINK CALLS
OTHER CALLS
DCT
LINKAGE CHECK SC 110
TO SC 172, 73X19

DRAWING ISSUE
35D EB GN MFL AAP
39D RP
43D

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E238

BELL TELEPHONE LABORATORIES INCORPORATED 65

# PART OF SC 110

LINKAGE CHECK CIRCUITS

## A- INTRAOFFICE OPERATION

CALL FORWARD LINKAGE

ITRI, DCT, RNG, RCK3, DCT3, GT2, FLG, GTK, GTA, GT5, WDCI (WIDEBAND SWITCHING), PU, RSC, FK, SLK2

DCT1, DCTA (WIDEBAND SWITCHING) — F-(WBL), WDCT, WDCA, T-(WBL), TSK

LINE LINK PULSING — F(LINE CKT), FK, DCT, LKI, LK2, CB

DCT — ADVANCE TO CALL BACK LINKAGE

CALL BACK LINKAGE - NO SENDER OPERATION

ITRI, DCT, WDCI (WIDEBAND SWITCHING), LKI, SCBI, OTT, TTK, NOC/ CLK, NSI, AMA4, RNG, RCK3, DCT3, FLG, GTI

DCT2 — F(TRK) — FA,FB-(TL) (WIDEBAND SWITCHING) — F(WB TRK), F-(WBL), WDCT, WDCA

DCT — DISCONNECT

CALL BACK LINKAGE - SENDER OPERATION

LRA, ITRI, DCT, WDCI (WIDEBAND SWITCHING), LKI, RSC, SLK2, AMA5, RNKI-2, RNG, RCK3, DCT3, FLG, GTI

LRA: LINE LINK PULSING — AMA5: AMA

AV(OS), AVK, AVKI, SCBI, OTT, TTK, NOC/ CLK, OGC

DCT2 — F(TRK) — FA,FB-(TL) (WIDEBAND SWITCHING) — F(WB TRK), F-(WBL), WDCT, WDCA

DCT — DISCONNECT

## B- TOLL OR TANDEM OUTGOING

OPERATION WITH SENDERS

TOGI, DCT, WDCI (WIDEBAND SWITCHING), SLK2, SK, OGC, FLG, PU, GTK, GTI, GT5

DCT1, DCTA — F(INC TRK), TF(INC TRK), DCT

WIDEBAND SWITCHING — TF(WB INC TRK), WDCT, WDCA

NSO, TMK, OTT, TTK, NOC/ CLK

DCT3 — F(OG TRK) (WIDEBAND SWITCHING) — FA(TL), F(OG WB TRK), TMK, RSC, F-(WBL), AV(OS), AVK, AVKI, OGC, RNG, LKI

DCT — DISCONNECT

NO SENDER OPERATION

TOGI, DCT, WDCI (WIDEBAND SWITCHING), SSA/ SSB, FLG, PU, GTK, GTI, GT5

DCT1, DCTA — F(INC TRK), TF(INC TRK)

WIDEBAND SWITCHING — TF(WB INC TRK), WDCT, WDCA

TAN (TOG): LV-(TL), TM(OG TRK), H(OG TRK), TMK

TOLL (TOG): TMK, TOL

DCT — NOC/ CLK, OTT, TTK, DCT2, NSO, DCT3, RNG

F(OG TRK), FA-(TL), LKI, DCT — DISCONNECT

## C- SUBSCRIBER OUTGOING

OPERATION WITH SENDERS

SOGI, DCT, SLK2, GT5, FLG, GTI, WIDEBAND SWITCHING, WDCI, PU, RNKI,2 (AMA: RNK)

AV(OS), AVK, AVKI, OGC, RV3, OTT, TTK, NOC/ CLK

GLARE DETECTION NOT PROVIDED — GLB

GLARE PROTECTION PROVIDED — GLB

GL — GL, RO (SDR), OF,OFI(TRK), GL

DCT1, DCTA — F(TRK), FB-(TL), DCT

WIDEBAND SWITCHING — F(WB TRK), F-(WBL), WDCT, WDCA

LKI, DCT — DISCONNECT

NO SENDER OPERATION

REVERTING CALL: RNG, RCK3, RV3, PU, RV3 (WIDEBAND SWITCHING), WDCI, DCT, SOGI, FLG, GT5, NSO, GTI, NOC/ CLK, CTT, TTK

DCT1, DCTA — F(TRK) — FA-(TL) (WIDEBAND SWITCHING) — F(WB TRK), F-(WBL), WDCT, WDCA

DCT — LKI — DISCONNECT

DRAWING ISSUE 390 — ISSUE 51D

COMPLETING MARKER CIRCUIT

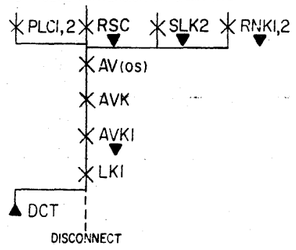
SD-26002-01-E24

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

# PART OF SC110

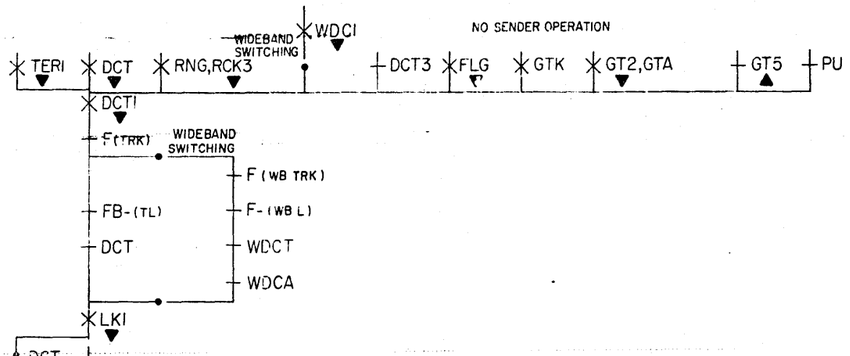
LINKAGE CHECK CIRCUITS

D - PULSE CONVERSION OR CAMA INC

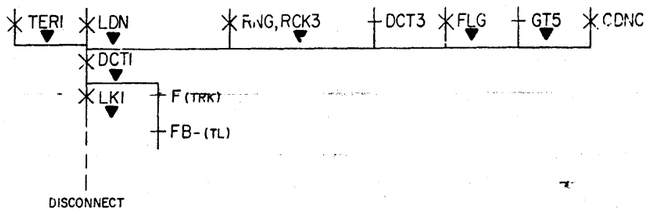



E - TERMINATING

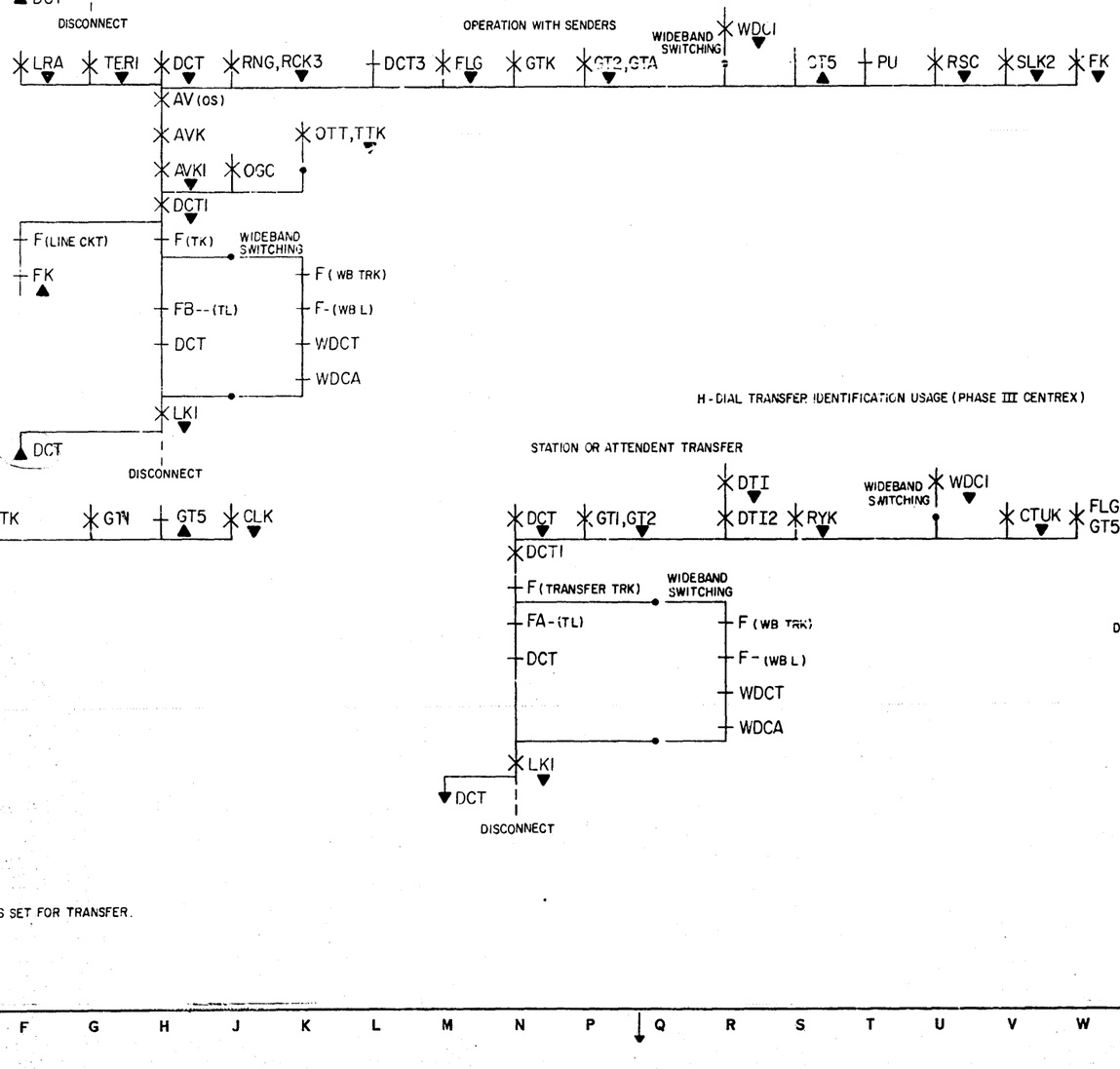
NO SENDER OPERATION



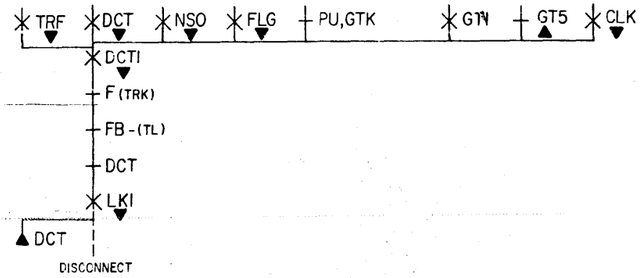

F - TERMINATING TO LISTED DIRECTORY NO. (PHASE I, II CENTREX)
(SEE NOTE 1)




OPERATION WITH SENDERS




G - TRANSFER CALL (PHASE I, II CENTREX)

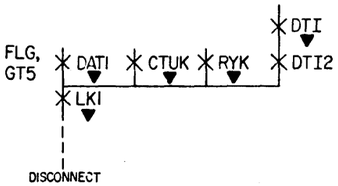



H - DIAL TRANSFER IDENTIFICATION USAGE (PHASE III CENTREX)

STATION OR ATTENDENT TRANSFER




DON'T ANSWER TRANSFER




NOTES:

1. NO LINKAGE IS SET ON THIS CALL, TRUNK IS SET FOR TRANSFER.

| DRAWING ISSUE | |
|---|---|
| 390 | JER |
| 430 | |

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COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E25

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# PART OF SC III
DISCONNECT

TOG-
DCT
DCT3
F (OUT TRK)
FA-(TL)
TMK
AV(OS)
AVK
AVKI

TER-TO LISTED DIRECTORY NUMBER (CENTREX)
CDN DCTI

SOG-
DCTI
F (TRK)
FA-/FB- (TL)
DCT
LKI

TER
DCTI
LINE LINK PULSING
F(TRK)
F (LINE CKT)
FA/FB (TL)
FK
DCT
CAMA
SC 167 WIDEBAND INTERCEPT

ITR-
DCT2
F (TRK)
FA-/FB- (TL)
DCT

F (TRK)
FA-/FB- (TL)

FLG, FLGI
LLI
FUL FTL VGL HGL VFL
FUT- FTT- VGT- HGT- VFT-
LL1A VTKI HTKI FTKI
TTL TBS-
POTS/ETC

FROM SC 123 35B/AE22
DISI 2 DISI
TO SC III CB,CBI 26B/D5

F- ETS/OTS,OT
FA-/FB-(TL)
LV-(TL)
SL
LC- (TL)
LCK
FAK/FBK
CHT-
RCKI
RCK2

GTI
DCTI
ONX
L,LJ- SEL (LL)
J,T- SEL (TL)
SS- SEL (OSL)
DTK
LO (LL)
DTK
LOTI
SM- SEL (RS)

WDCI
WQNY
L- SEL (WBL)
J- SEL (WBL)
T- SEL (WBL)
TO REL (WRS) SEL MAGNETS

CKGI
SCCK, FSA
RV

CKG2
TO SC III, TRN,26B/S22

CKG4
FMK, LKI
SCBI-2 SCB
DCTI
RNG
DCT2/ DCT3
RA-
FCK

CKG5
TB-
TBC
CHT, FN

CKG6
BG, CGT
ANON, OSC
AVK
S (OSC)
RN-
RNT2, OST2
CGC
RSC
GTL, GTL2

AMA3-5
CLK
RNKI-2, MC,SC (OSC)
SSA/ SSB
DISA
LOSE
OSK
OSKA

CKG7
LRS
LRA
LSC1
LSC2
RLT
LLP2
OP-
DL- DLP/DLS
WIDEBAND SWITCHING
LR--
CR- CRP/CRS
CL- CLS/CLP
WBA, WBAI
NW/WB-
WBC1
WBC2,3
VWC
WCV/WMM
WCN
RWCN

GTL, GTL2
FT- FU- VG- HG- VF-
TB- (TL)
TBK
OA/ OB
TERI-2
TER
PK, SCK
OR/ FAC
TAN/ TCL/ INC
TP, TPA,
TPB/ RP, RPA, RPB
RS (-RMC)
RC- (-RMC)
CT-
CTA-, CTB-
CUA-, CUB-
CU-
TCB
TSC 6/9
CMF-CMS
CGA/ CGB, AC 2/5, BC 2/5, CC 2/5, FF-, FG-,
SOGI-2 SOG
TOGI-2 TOG
AMB
CB- (-RMC)
MRL (IR/OR) MRL
MAK, MCK, MSK
TM
TMS
MS (-RMC)
MC- (-RMC)
DISI-2 DISI
MCB0-2
DISA
STX
BX
STF/PR/ TTF
SF/PR/TTF
RQ/TQ
2G/3G
SNK
OAT
HTR
OATI
-TLF
20F/ 40F/ 60F
FMK
PNR/ PA
RTN/RUN RTNA/RUNA
MAKI
JCK
RF/ EF/ SEF, (TL) JC, (TL) P-, P-A
TLCI-2
MC-(TL)
R,ER, SER/ L,EL, SEL (TL)
RK/ LK
WIDEBAND SWITCHING
WTC
MA, MB (WTLC)
WTFK
TSK
MP-(TL)
M- (TL)
MDK
CK
TS-
TFKI-2
TFK3
FTCK
FML

| DRAWING ISSUE | |
|---|---|
| 5D | MTS W.E. LEA |
| 9D | JAH JFA PP |
| 21D | JLK JDM AWS 2 |
| 22D | EN KFA 3 |
| 39D | R.F. 4 CB |
| 404 | 5 |
| 430 | 6 |

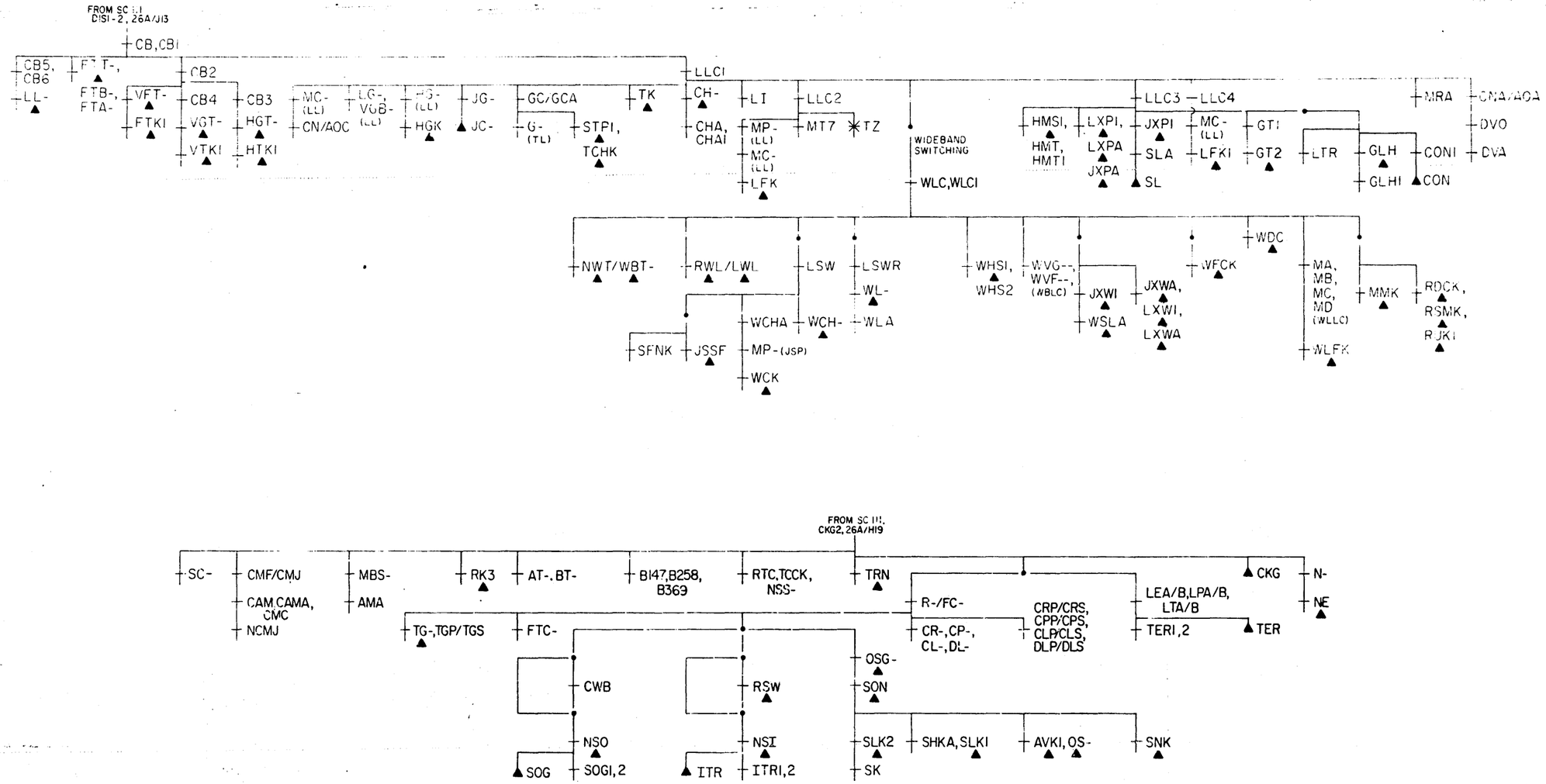
ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E26A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF SC III

DISCONNECT







| DRAWING ISSUE | |
|---|---|
| 390 | F3 |
| 430 | |

43

COMPLETING MARKER CIRCUIT

2

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-E26B

SD-26002-01-E26B

# PART OF SC 112

OUTGOING SENDER SELECTION AND CONTROL CIRCUIT
SOG CALL WITH AMA
(A)ETS NOT PROVIDED

(PPCS)
R-
MBS 1/10 SC 115
IOD
NID
CUP-/CTP- DO NOT OPERATE
AMA
TID
MBKI
TGP/TGS
TG 1/10
TB 1/6
RA 1/6
FTC-
OSG 1/10
AMA3
AMA4
AMA5
MBK2
CL 1/6
CLP/CLS
CP 1/10
CPP/CPS
CR 1/6
CRP/CRS
DL 1/7
DLP/DLS
OST1
CLK
FS 1/30
TBC
FTCKI
FTCK
OSC
SIA/SIB
GBA/GBB IF SDR CONN BUSY
OGC
SCC SC115
RN
KG
TGSI
TGS3
TGS2
SDN
SNK
SOG1
SOG2
SOG
MP- (O.SC.)
SKA/SKB
KA
KBC
KDE
KFG
KHJ
KKL
CL-,CR-, DL- ST7 M7
CLKI-3 CRKI-2 DLKI-2
CUP 3/5 CTP 3/5 MBKI
CPKI-2 MBKI-5 MSKI
CP-,MB-, LST/L5D/ 4DG/5DG, AMA,SC/ TVT
CBI
CB
RCTB
FUT 1/10
FTT- FTB- FTA-
CB2
CBS, CB6
LL 2/5
LOT
CB4
CB3
VFT 1/5
VGT 1/12
VTKI
HGT 1/10
FTKI
HTKI
RKI-
RK3
OST1
OSGA/OSGB (O.SC.)
SSA/SSB
KK
A 2/5
B 2/5, C 2/5
D 2/5, E 2/5
F 2/5, G 2/5
H 2/5, J 2/5
K 2/5, L 2/5
OST1
ORKI-2
ORK
TO SC109 TK, 23SI
MAI-2 (O.SC.)
OS-
MBI-2 (O.SC.)
MCI-2 (O.SC.)
OSE
OSEI
OSK
OSE
EXCEPT PREFERRED
OS-
F (TRK)
SS SEL. (O.SL.)
OSKA
SIA/SIB
GBA/GBB
RPK/TPS
RPK
S (O.S.C [5])
SHK
SHKA
SLK
SH HOLD (O.SL.)
SLKI
ON (O.S.)
AMA3
KK
ORKI-2 RK3
SCI-2 (OSC.)
FT-,FU 3/5,VG 3/6, VF 1/5,HG 2/5,CP 2/5, MB 2/5,OB5/NOB, 4DG/5DG, L5D/LST, SC/TVT, AMA,CUP 2/5
(O.S.)
SBI-2 (OSC.)
K 2/5, L 2/5, ST7 CR 2/5, CL4 8 DL 1/6, CTP 3/5
(O.S.)
SAI-2 (OSC.)
A 2/5, B 2/5, C 2/5 D 2/5, E 2/5, F 2/5 G 2/5, H 2/5, J 2/5 CLI-3
(O.S.)
ONI (C.S.)
SB (O.S.)
OSEI
OSE
TG
D (TRK)
SI (TRK)
CT (O.S.)
LR (O.S.)
SLK
OSTI
OST
OST2
IOD
KG
KA, KBC KDE
KFG, KHJ KKL
KK
REMOVE TRANSMITTING GRDS. FROM CALLED LINE IDENT. DIGITS TO O.S.
GTL
GTL2
REMOVE TRANSMITTING GRDS. FROM CALLING LINE INDENT. DIGITS TO O.S.
TGS2
TGS1
REMOVE TRANSMITTING GRDS. FROM ROUTE INFORMATION LEADS TO O.S.
TGS3
REMOVE TRANSMITTING GRDS FROM CALLING LINE CLASS OF SERVICE INFORMATION TO O.S. (PPCS)
GLARE DETECTION PROVIDED
GLA
GL
GLC
RAV1
SK
GLTA
RYTI
NOT PROVIDED
SLK2
TO SC128
RNK SC115
RNKI-2 SC115
WDCI WIDEBAND SWITCHING
DCT
GTI
RYT
CHA
HMSI
RESUME CHANNEL FUNCTIONS SC 109
AV (O.S.)
AVK
AVKI
CLK
DCTI
LINKAGE CHECK SC-110
GTL2
GTL
RSC
OSC
MP- (O.SC.)
SKA/SKB
OSG/OSGB (OSC)
SENDER CHECK RELAYS HELD OPERATED
MC-(o.s.c)
SC-(o.s.c.)
A 2/5 - J 2/5
ORKI-2
K 2/5, J 2/5, ST7 CLKI-3, CRKI-2 DLKI-2
M7, CL-, CR-, DL-, K 2/5, J 2/5
CPKI-2, MBKI-5 NSKI
CP-, MB-, NOB'/OBS', SC/TVT, AMA, LST/L5D/4DG/5DG, CUP-, CTP-

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE
220 GEL CP AMP
355 DP
390 RP

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-E27A
BELL TELEPHONE LABORATORIES, INC
SIZE 6S

# PART OF SC 112

OUTGOING SENDER SELECTION AND CONTROL
(B)ETS PROVIDED

OSG 2/6
OSG 2/6 (MDC)
OSG 1/12
FTCK
OSC
SIA/SIB
SON
GBA/GBB
MP- (OSC)
SKA/SKB
GBA/GBB
SSA/SSB
OSGA/OSGB (OSC)
MP- (TLF) SC 104B
TLS
OS-
MAI,2 (OSC)
MBI,2
MCI,2 (OSC)
OSE
OSEI
OS- (EXCEPT PREFERED)
OSK
OSE
SIA/SIB
GBA/GBB
S- (OSC)
F (TRK)
SS-SEL (OSL)
ONI (OS)
SHK
SB (OS)
SHKA
OSEI
SLK
SH HOLD (OSC)
OSE
SLKI
ON (OS)
D (TRK)
CT (OS)
TG
SI (TRK)
LR (OS)
GL
GLA
GLA
GL
GL
SLK2
GLC
RAVI
TO SC129
SK
RYTI
GLTA
GLA
RYT
HMSI
DCT, GTI
FROM SC 112B RNK1,2/RNK, 27C/R23
CAMA FIRST OR CAMA JUNCTOR
AV
AVK
AVKI
DCTI
LINKAGE CHECK

SDK
OGC
KNI-4 (MDC)
KK
SAI,2 (OSC)
SBI,2 (OSC)
SCI,2 (OSC)
A$\frac{2}{5}$-J$\frac{2}{5}$ CLI-3
K$\frac{2}{5}$-M$\frac{2}{5}$, N7 (A-C), R$\frac{2}{5}$, CL4-8
FT-, FU-, HG-, VG-, VF-, THT-, OBS/NOB, TP/RP, SC/TVT
SENDER RELAYS OPERATED

A-, M-
A-, M-
A'-M'
N7
ST7
N7
CLI-8
CLKI-8 (MDC)
CLI-8
AR$\frac{2}{5}$
AK$\frac{2}{5}$ (MDC)
AR$\frac{2}{5}$
BR$\frac{2}{5}$
BK$\frac{2}{5}$ (MDC)
BR$\frac{2}{5}$
CR$\frac{2}{5}$
CK$\frac{2}{5}$ (MDC)
CR$\frac{2}{5}$
CLQO-2
CLQO-2 (MDC)
ORKI,2
ORK
TSR
SENDER CHECK RELAY IS HELD OPERATED
OSTI
OST
OST2
KNI-4 (MDC)
KK
OSTI
OST
ND
NDI
NDK
TGSI
DLKI-2
CRKI-2
CLKI-2
SC 185 CAMA FIRST CMCI, 87MII
TRN
HN$\frac{2}{5}$
T$\frac{2}{5}$
U$\frac{2}{5}$
(A-C), R$\frac{2}{5}$
CAMA FIRST
27C/AIO
TGSI
CAMA FIRST
TRN
DLKI-2
CRKI-2
CLKI-2
ANI
GT
GTL2
CAMA OR ANI
TGS2
CAMA FIRST
CTGS
OPERATE GROUNDS TO SENDER REMOVED
ANI
GTL2
GTL
RSC
OSC
MP- (OSC)
SKA/SKB
OSGA/OSGB (OSC)
SA-, SB-, SC- (OSC)
CLK- (MDC)
MA-, MB-, MC (OSC)
A-M$\frac{2}{5}$, N7
CRKI,2
ORK
A'-M'$\frac{2}{5}$, N'7
AR$\frac{2}{5}$, BR$\frac{2}{5}$, CR$\frac{2}{5}$
NOB'/OBS'
CL-
AK$\frac{2}{5}$, BK$\frac{2}{5}$, CK$\frac{2}{5}$ (MDC)

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

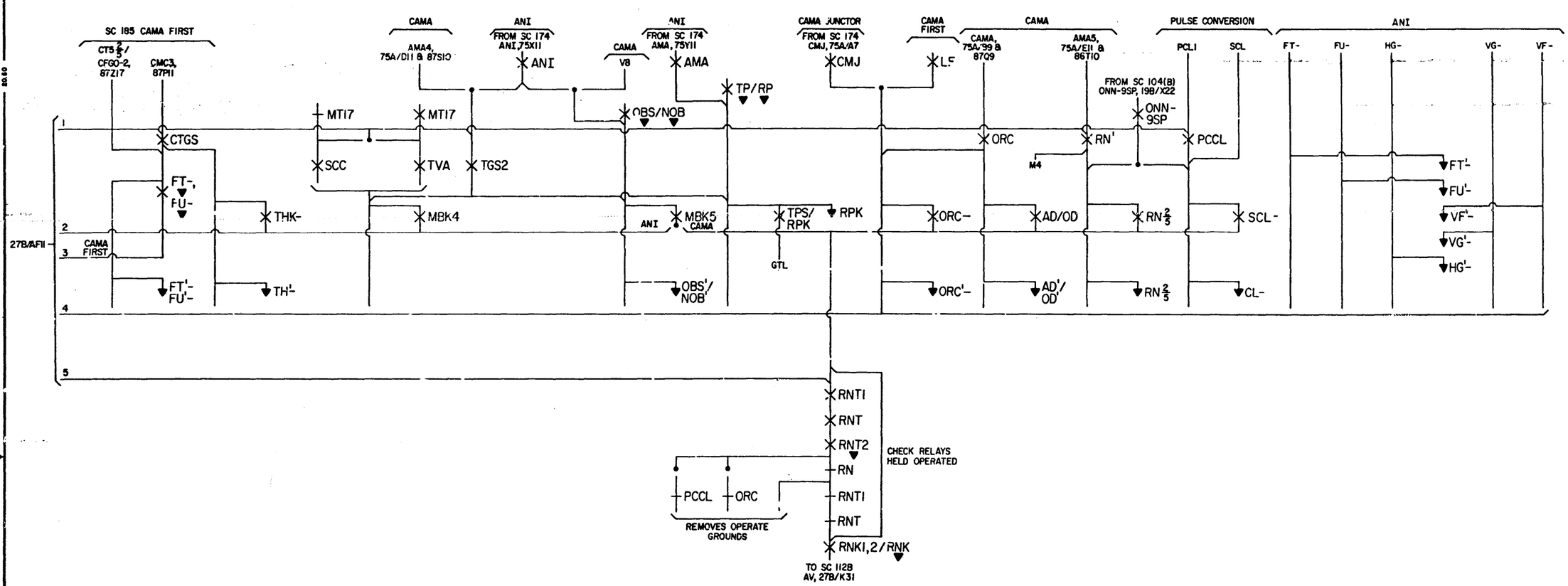
COMPLETING MARKER CIRCUIT

| BELL LABORATORIES | SD-26002-01 | DWG SIZE 6S | ISSUE 58A |
|---|---|---|---|

E27B

# PART OF SC 112

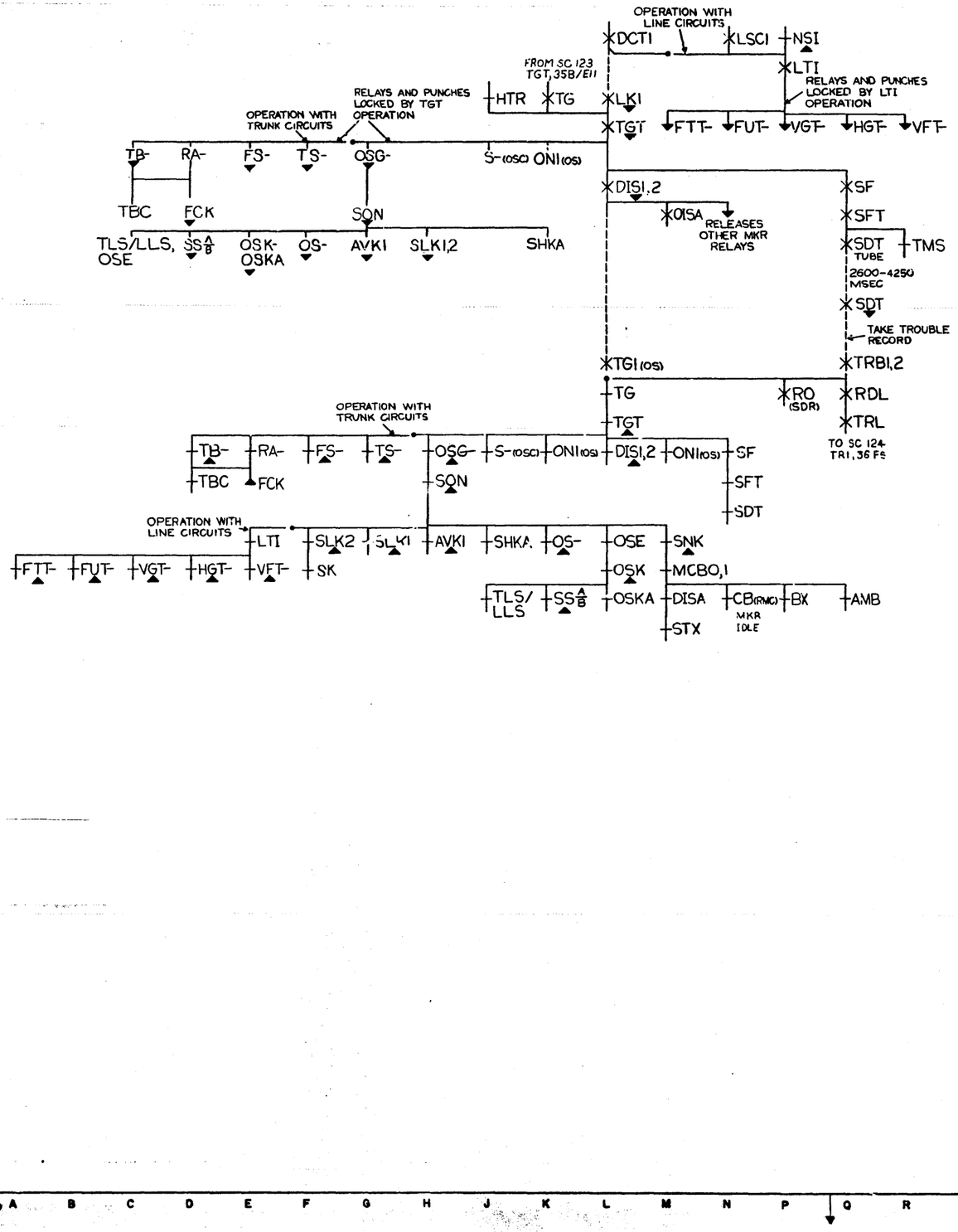
OUTGOING SENDER SELECTION AND CONTROL
(B)ETS PROVIDED




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | E27C |

# SC 113
TG TEST




OPERATION OF (SDT) BEFORE RELEASE OF (TG) CAUSES A TROUBLE RECORD FOLLOWED BY A TROUBLE RELEASE DISCONNECT – SC123

| DRAWING ISSUE | |
|---|---|
| 5D | |
| 8D | |
| 9D | |
| 21D | |
| 22D | |
| 39D | |

39

COMPLETING MARKER CIRCUIT

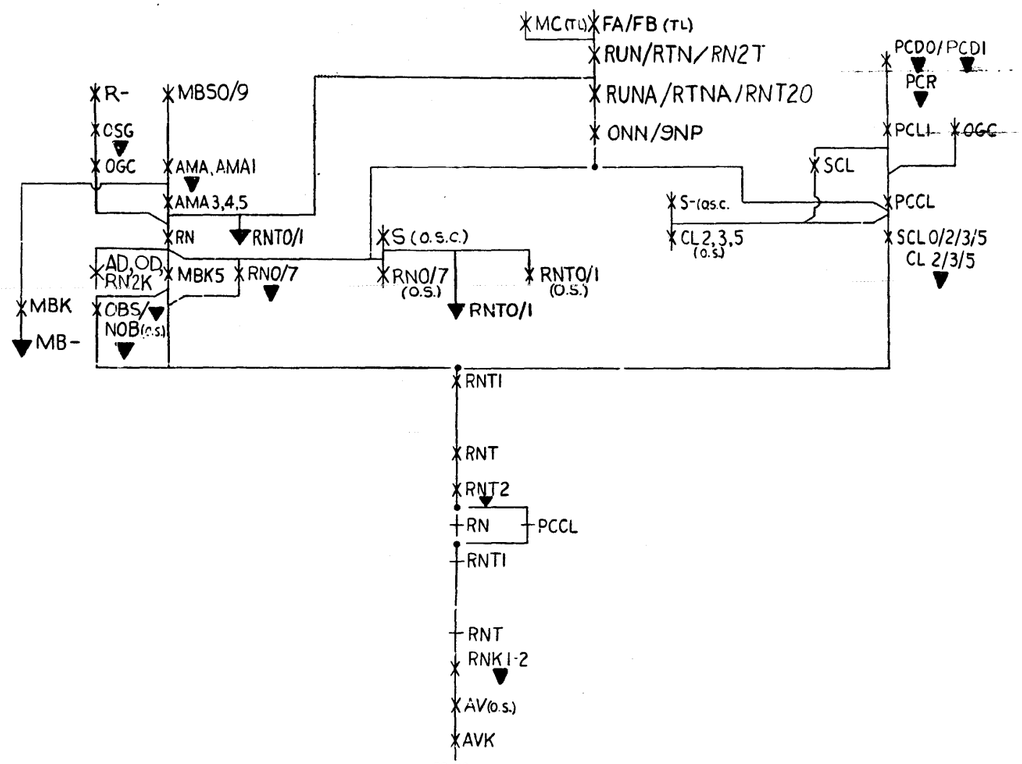
SD-26002-01-E28

BELL TELEPHONE LABORATORIES INCORPORATED

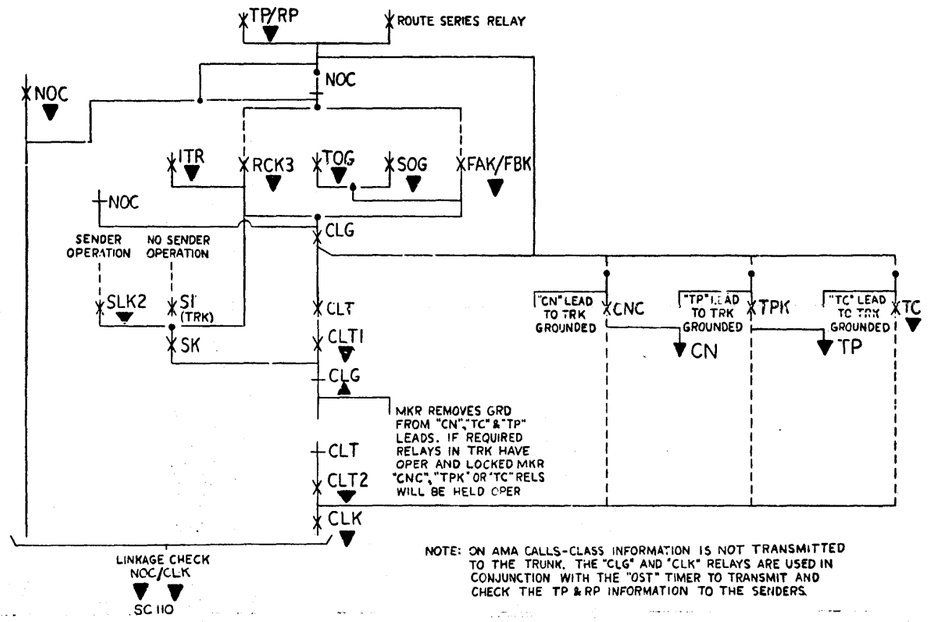
SIZE 6S

823-10-2009

## SC 115
AMA RECORDER NUMBER
OR PULSE CONV CLASS




## SC 114 (MFR DISC)
TRUNK CLASS INFORMATION
NON AMA
(SEE SC 137)




NOTE: ON AMA CALLS-CLASS INFORMATION IS NOT TRANSMITTED TO THE TRUNK. THE "CLG" AND "CLK" RELAYS ARE USED IN CONJUNCTION WITH THE "OST" TIMER TO TRANSMIT AND CHECK THE TP & RP INFORMATION TO THE SENDERS.

| DRAWING - ISSUE |
|---|
| 1 |
| 4A |
| 5D |
| 6D |
| 13B |
| 21D |
| 22D |

DRAWING ISSUE 49D

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E29

BELL TELEPHONE LABORATORIES INCORPORATED

FORM 6S

# SC 116

NUMBER GROUP SEIZURE AND TRANSLATION

SC 104 | SC 102 | SC 149 | SC 150 | SC 103

RGTA | FLG | NSS- | TFK 2/3, CK | FROM SC 122, 34K39 OR SC 128 CKR, 68P16 | SNG1-2 | 2 THOUSAND SERIES IN SAME NG | AST | FROM SC 122- MP-, 34F39 OR SC 144 MP-, J39 OR SC 148 PBX1, 2, 68P17

CA/OB/ THC/PHC | FVD | LPA/LPB, ETC | ELT/LT ELT/TT | FACT | NG3 | N1 | N2 | N3 | N4 | NE

BRG | BR- | MP- (PREF CONT) FOR DAPC | TO SC170 MP-, 72L3 | MP- (NG) | MC- (NG) | HB- (NG) | PN/TN/EN/PTN | TH- | HN- | T- | U-

SC 102 OF SC 148 | WBA | WBA | MC- (NG) | BRG | MC- (NG) | NGK | TBW | NGKI | NGKI | U- (NG) | NUMBER NOT ON TRAP | UKA | UK | UK

TBA- (NG) | ONE HTG GR IN TENS BLOCK | SPT | WIDEBAND NUMBER GROUP | SC 158 | TBS- (NG) | PTK | TB- (NG) | TBS-

NON-WIDEBAND NUMBER GROUP | WB (NG) | NWB (NG) | RCN-/TRC | RCN- | RCN10 | RCN- | FUN- | FTN- | VGN | HGN- | VFN- | FUT- | FIT- | FTB- | VGT- | HGT- | VET- | FUL- | FTL | VGL | VTKI | HGL | HTKI | VFL | FTKI | UK | NUMBER ON TRAP | NCRA | LVM | UK

SC- (NG) | SC- (NG) | SC- (NG) | TERM. TREAT. REL (SEE NOTE 2) | TNK | RCT- | RCT- | RCT10 | RCT- | LA | SCK | SLO-9 | POTS | HTUK | START TYM TIMER

TTL | RCL | RNG

PBX1,2 | RS1 2/3 | RS0/1 | NR | SNGI-2 | TB-(NG), T0-9 | TBW | TBS-(NG) | NGC | UC | HTUK | STOP TYMI TIMER

SLCK | SC 158 | SLCK | SM- SEL (RS) | RSK | NSS- | NI-4 | MP- (NG) | HB- (NG), HN0-9 | NGKI | FTN-, FUN-, HGN-, VGN-, VFN-, RCN-, TRC | UC | U0-9 (NG)

SLCKI | CKO | TBW | TO PBX CALL SC 118 | SRK | SMO/1 SEL (RS) | TH-, H-, T-, U- | NE | NGK

SHEET NOTES

1.

| | CONDITION |
|---|---|
| A | NON ALLOTTED PBX LINE |
| B | TENS BLOCK SCREENING PROVIDED |
| C | TENS BLOCK SCREENING NOT PROVIDED |
| D | MORE THAN ONE (T&S) IND REQD PER N G |
| E | ONLY ONE (TBS) IND REQD PER N G |
| F | (RCN1), (RCN6-8), (RCN11) RELAYS ONLY |
| G | (RCN2-5), (RCN9), (RCN12-15) RELAYS ONLY |
| H | MULTILEVEL PBX - SEE SC158 |
| J | CUTS THROUGH SLEEVES OF DEDICATED WIDEBAND PBX TRUNKS |
| K | NON-SUBGROUP HUNTING - CUTS THROUGH SLEEVES OF DEDICATED NON-WIDEBAND PBX TRUNKS |
| | SUBGROUP HUNTING - CUTS THROUGH SLEEVES OF ALL PBX TRUNKS IN HUNTING GROUP |

2.

| | TERMINATING TREATMENT RELAYS | |
|---|---|---|
| DESIG | TREATMENT | REF |
| POTS | PLAIN TERMINATING SERVICE | |
| LDN | CENTREX LISTED DIR NO. | |
| PAN | CENTREX PBX ANNOUNCEMENT | |
| MR1 | CENTREX MATCH REST. INCOMING | |
| LLP1 | LINE LINK PULSING (EXT NO USAGE) | SC144 |
| OSG- | OUTGOING SENDER GROUP (LINE LK PULSING - DID LINE CKT USAGE) | SC145 |
| ZL | TWO LINE NUMBER | SC146 |
| BLT | BUSY LINE TRANSFER | SC149 |
| DAT | DON'T ANSWER TRANSFER | SC149 |
| BLDA | BUSY LINE & DON'T ANSWER TRANSFER | SC149 |

DRAWING ISSUE: 4A, 5D, 8D, 9D, 9S, 14B, 22D, 25D, 32A, 35D, 39D, 41D, 43C

ISSUE 56A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E30

BELL TELEPHONE LABORATORIES INCORPORATED 6S

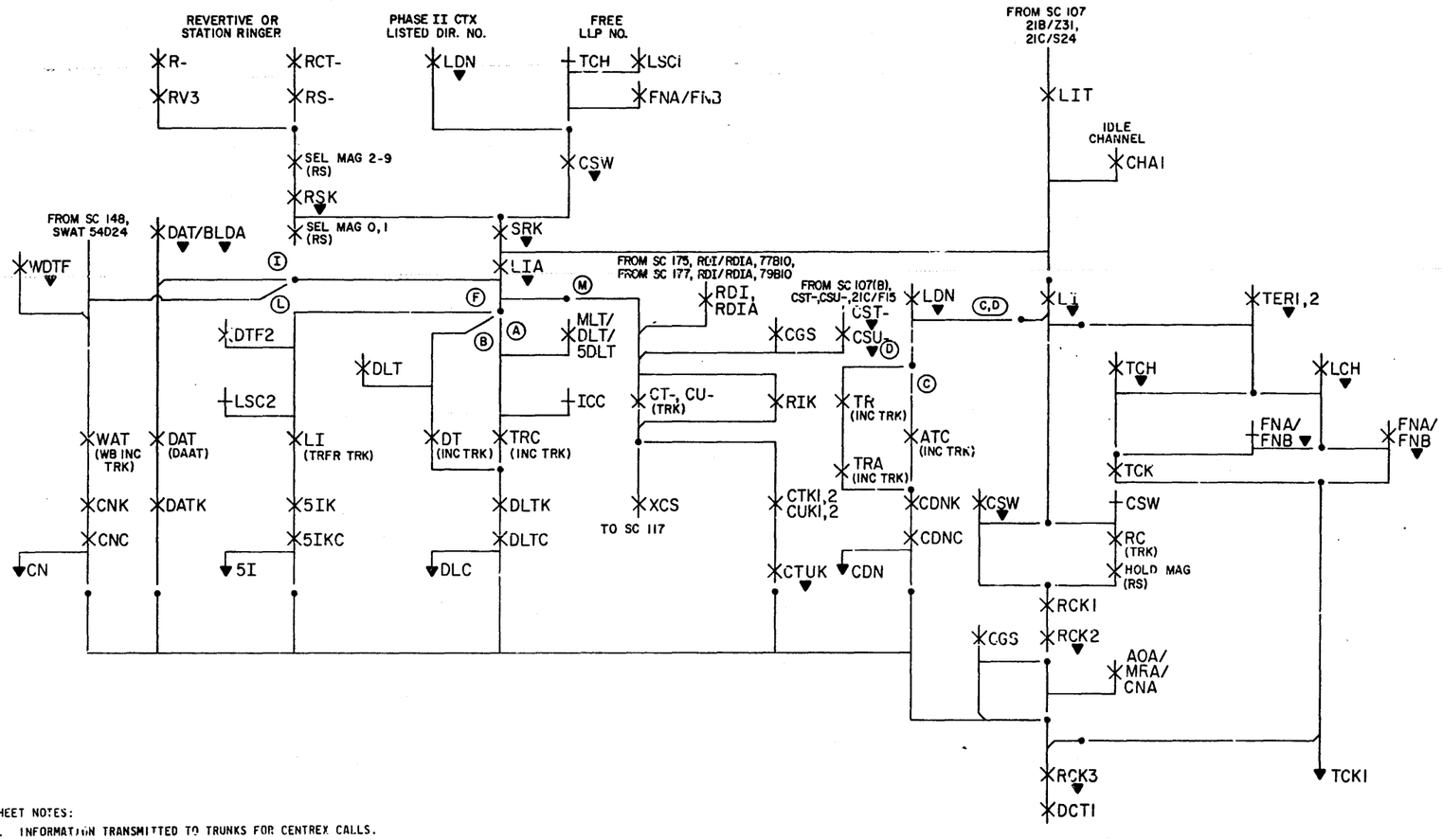
SD-26002-01-E30

STABILO

# PART OF SC 117

RINGING SWITCH OPERATION

(A) LINE IDLE




SHEET NOTES:

1. INFORMATION TRANSMITTED TO TRUNKS FOR CENTREX CALLS.

| | CONDITION | CTX PHASE |
|---|---|---|
| A | CALLED NUMBER HAS TRANSFER | III |
| B | CALLED NUMBER HAS DIAL TRANSFER | I,II |
| C | CALL TO CTX ATTENDANT | III |
| D | | I,II |
| E | PATHS BUSY OR OVERFLOW | I,II |
| F | LINE IDLE | III OR I,II WITH DIAL TRANSFER |
| G | LINE BUSY | |
| H | PATHS BUSY | |
| I | CALLED NUMBER HAS DON'T ANSWER TRANSFER | I,II,III |
| J | INTERCOM CALL — MULTIPLE MATCH CKT PROV | I,II,III |
| K | INTERCOM CALL — MULTIPLE MATCH CKT NOT PROV | I,II,III |
| L | AUDIO ONLY TRANSFER FROM WIDEBAND TRK | III |
| M | CLASS OF SERVICE STORAGE IN TRUNK | I,II |

2. FOR LEGEND OF CIRCUIT ABBREVIATION AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

ISSUE 58A

COMPETING MARKER CIRCUIT

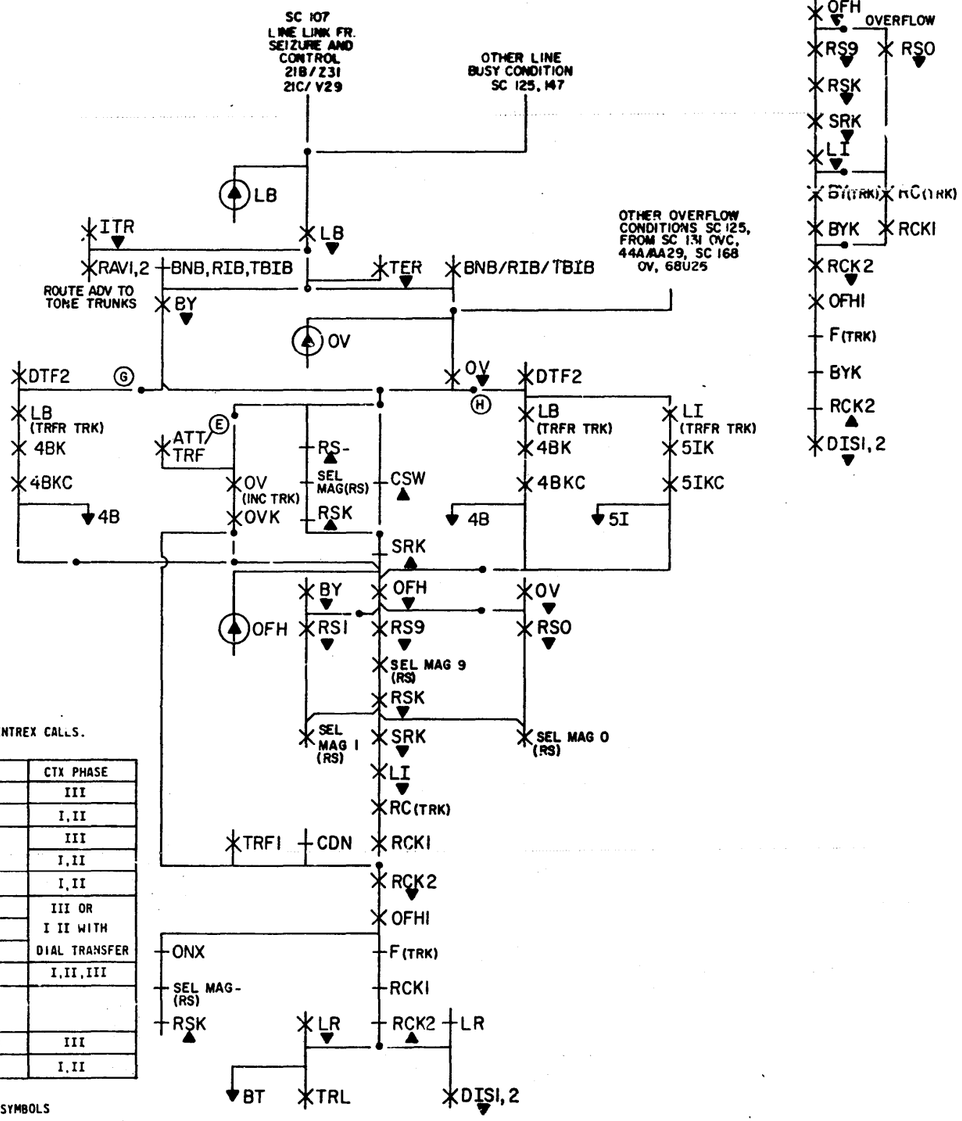
SD-26002-01-E31A

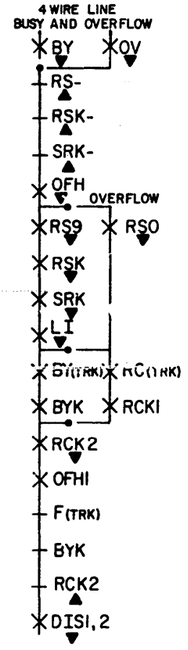
BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF SC 117

RINGING SWITCH OPERATION
(B) LINE BUSY, OVERFLOW




SHEET NOTES:

1. INFORMATION TRANSMITTED TO TRUNKS FOR CENTREX CALLS.

| | CONDITION | CTX PHASE |
|---|---|---|
| A | CALLED NUMBER HAS TRANSFER | III |
| B | CALLED NUMBER HAS DIAL TRANSFER | I,II |
| C | CALL TO CTX ATTENDANT | III |
| D | | I,II |
| E | PATHS BUSY OR OVERFLOW | I,II |
| F | LINE IDLE | III OR |
| G | LINE BUSY | I II WITH |
| H | PATHS BUSY | DIAL TRANSFER |
| I | CALLED NUMBER HAS DON'T ANS TRANSFER | I,II,III |
| | | |
| L | AUDIO ONLY TRANSFER FROM WIDEBAND TRK | III |
| M | CLASS OF SERVICE STORAGE IN TRUNK | I,II |

2. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

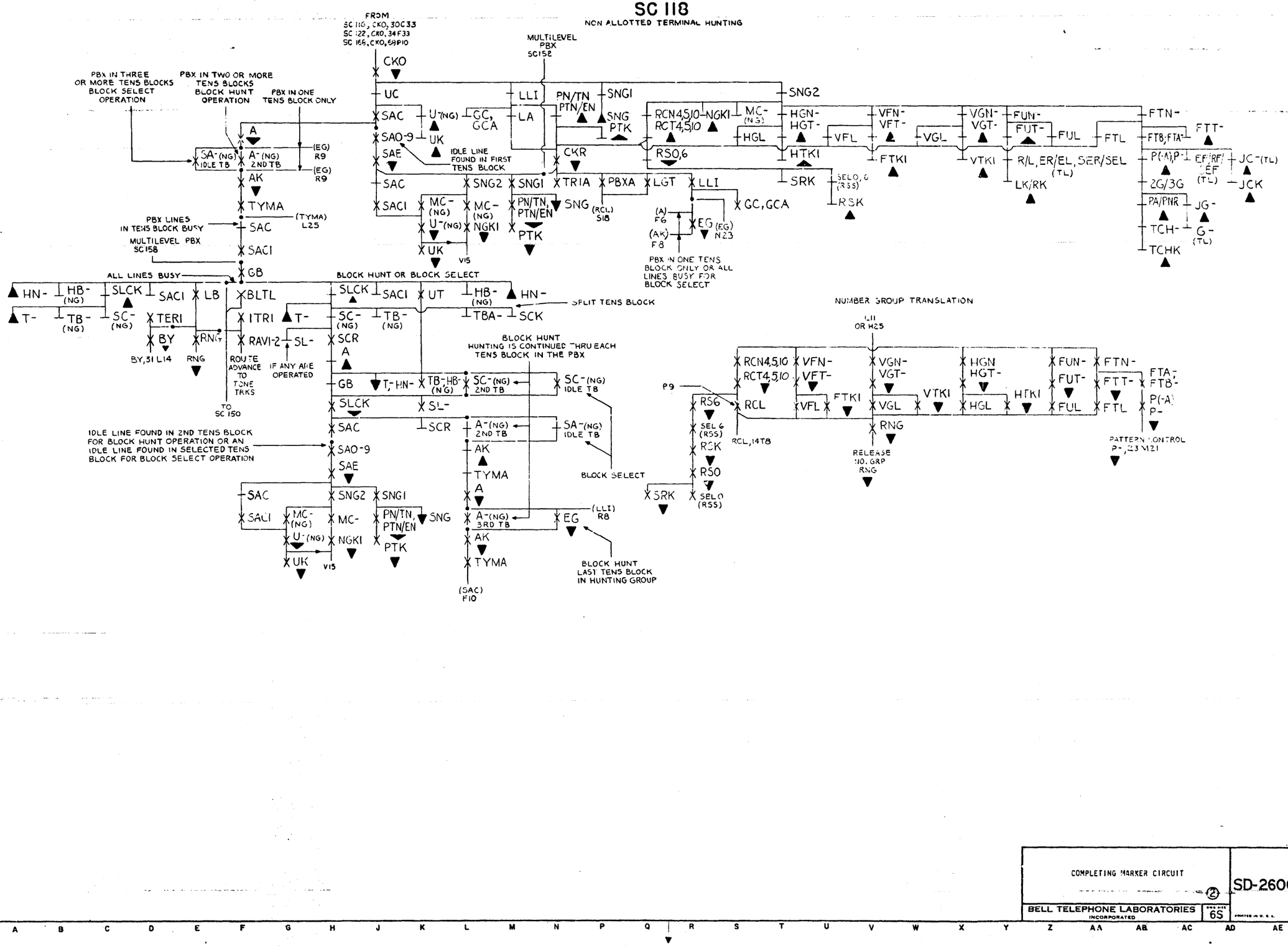
COMPLETING MARKER CIRCUIT

| BELL LABORATORIES | SD-26002-01 | DWG SIZE 6S | ISSUE 58A |
|---|---|---|---|

E31B

# SC 118

NON ALLOTTED TERMINAL HUNTING




| DRAWING ISSUE | |
|---|---|
| 21D | 51B COM AB |
| 22D | 6K 6P AH |
| 32A | 6P CLK 3H |
| 39D | 6P |
| 41D | |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E32

ISSUE 56A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U. S. A.

# SC 119

PBX ALLOTTED TERMINAL HUNTING
ETS NOT PROVIDED

MA (IRMC)
CKGI CKG2
CKG CKG4 CKG5 CKG6
NI-4
ANON NE
U 2/5 T 2/5 HN 2/5 TH 2/5
NSS- ALS- ATB0-9 AHB0-9
NON-ALLOTTED NO. SERIES
MP (NG)
ADVA AN ANA0-9
ALLOTTED HUNTING IN 5,6,7 OR 8 NO. GROUPS
ALLOTTED NO SERIES NON-ALLOTTED NUMBERS
ANT
NGTA NGTB ANB0-9 4NG/8NG ANC0,4,8 AND0,4,8
MP (NG) NANS ATB0-9 AHB0-9 ANS
NGTC NGTD NGTE NGTF NGTG NGTH
ALL NUMBERS BUSY
AB NGSA-H NAR2 NARI UC
MP-, 22P6
ONLY ONE
LB NG3K CKO
HN- CKR
LGT PBXA PBX2 PBXI TRIA
MP (NG)
MC- (NG)
MC- (NG) NGKI
HB0-9 (NG) NGK
PN/TN/PTN/EN
PTK SC- (NG) TB- (NG) T- TBW
SLO-9 SLCK
SAC SLCKI
A TBW
SA0-9 SAE SAC SACI U0-9 (NG) UK
IDLE LINE FOUND IN FIRST TENS BLOCK
SA- (NG) IDLE TB
AK TYMA SAC SACI GB
ONLY ONE TENS BLOCK IN SELECTED NUMBER GROUP OR ALL LINES BUSY IN SELECTED NUMBER GROUP
EG
HN- HB0-9 (NG) SACI SLCK UT
T- TB- (NG) SC- (NG) SCR A
ANR
ALLOTTED NUMBER NO NUMBER GROUP RECYCLE TO SC 125 ANR,MI7,39C/AE32
HN-, T- HB-, T- (NG) GB SC- (NG) IDLE TB
SLCK SLO-9
SA- (NG) AK TYMA A SCR SAC SAE SACI U0-9 (NG) UK
NO GROUP TRANSLATION
ALL LINES IN ASSOCIATED NUMBER GROUP OF THIS ALLOTTED PBX ARE BUSY

## PART OF SC 120

PBX RECYCLE
(A)ETS NOT PROVIDED

LBT
PBX LINE FOUND BUSY IN L LK FR
LBTA
PBX ALLOTTER FEATURE PROVIDED
ANR ANR, J28,39C/AE32
ANR2 RCY2
NGS LLCI
NGSK GC, GCA HG- HGK JG G- (TL) STPI PA/PNR TCH- TCHK VGB-, LG-, MC- (LL) LBT MP (LL) MC- (LL) LFK LLC2,3 LBTA CKR
RCY3 FLGI LLI SLCKI
PRCY
VGT- VTKI HGT- HTKI VFT- FTKI VGL, HGL, FTL, FUL, VFL
PN/PTN PTK FUT- LK/RK FTB- JC- (TL) JCK FT- P- EF/RF (TL) LA, RCL, RCT10
L/R EL/ER SEL/SER (TL)
PBX ALLOTTER FEATURE PROVIDED
RCY4 RCY5
ANRI ANR NARI,2 NGS- NGSK
RNG NR NI-4 NE LLCI LLC2,3 TH-,HN-, T-,U- NSS-, ALS-
FLGI NGC
LLI GC, GCA UC CKO TR2A
UC CKR LLI RYT
PBXA SNG2 SNG1 PBXI,2 GC, GCA
SNG MP (NG)
RESEIZE NO. GRP

COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES INCORPORATED
6S
ISSUE 65B
SD-26002-01-E33A

DRAWING ISSUE
4A
5D
10B
21D DLH EDM AMD
22D EN
29A JB
39D RJF

# PART OF SC 120

PBX RECYCLE
(8) ETS PROVIDED

LINE FOUND BUSY AT LLF

DACI
CKR
LB, LBTA

FIRST FAILURE TO MATCH

RCY5
FMP
RF
PBXA
DACI

BUSY LINE TRANSFER NOT PROVIDED

BUSY LINE TRANSFER PROVIDED

RCY 4
BRA
RCY5
RCY4

RCY4
RCY2
RCY3
PRCY
FLGI
LLI
SLCKI
LLCI

RCY2

STP-
PA / PNR
TCH-
TCHK

CKR, LA

FTL, FUL, HGL, RCL, VFL, VGL

FUT-
EL/ER, L/R, SEL/SER (TL)
LK/RK
BRA

HGT-, VFT, VGT-
FTKI, HTKI, VTKI

FTB-
JC-(TL)
JCK

FTT-

RCL
RCT-

HUNTING LINE

DIRECT ACCESS TO 101 ESS

POTS
CHA, AO/ETC

POTS
CHA, AO/ETC

FTT-, FUT-, HGT-, VGT-

CKR, FNK, RCT-, TC/FNA, VFT-

NGK
PBX/NPBX
HF

FTT-, FUT-, HGT-, VGT- (MDC)

NGK (MDC)
PBX/NPBX (MDC)
SLCK

GNGO,I (MDC)
LGT
BSN/NBS
BSN/NBS (MDC)

GK
GK, GNGI (MDC)

$A_3^2$-$D_3^2$, LEA/ LEB/LPA/LPB/ LTA/LTB

HG- (LL)
HGK
TK

JG-
G-(TL)

CG, GCA, LG(LL), VGB (LL)

MA2(LLC), MBI, MB2, MCI

LLC2,3
LBTA
MP-(LL)
MAI-(LL)
LFK (MDC)
LFK

BRA
BRB
BRA
RCY4

LLCI
RCY2
LLC2,3
STPI

CLOSE DISTRIBUTE POINTS FOR COMPLETION OF CALL

RNG
FLGI
NGC
LLI
LLI (MDC)
NR
GC
RYT
TMS
BRB
RYTI
RYT
TMS

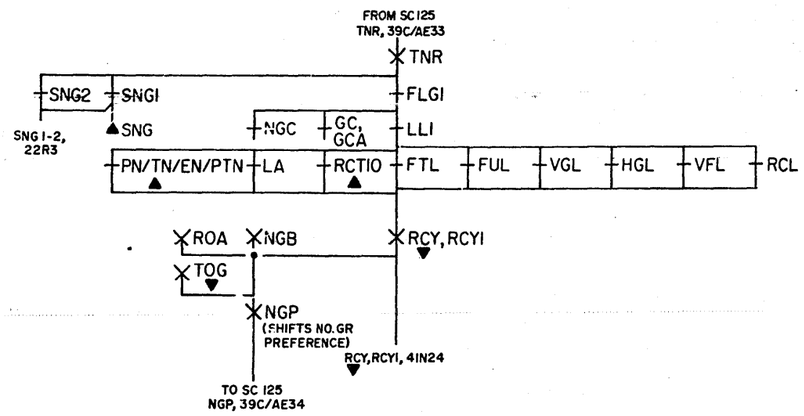
SC 175 DISTRIBUTE TERMINATING
SC 176 DISTRIBUTE TERMINATING TO LLP LINE
SC 180 DISTRIBUTE AUTOMATIC INTERCEPT WITHOUT USING LLP- TERMINATING
SC 181 DISTRIBUTE DIRECT ACCESS TO 101 ESS
SC 188 SECOND DISTRIBUTE ATTENDANT CLASS CALL

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | C8 |
| | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-260C2-01- | | E33B |

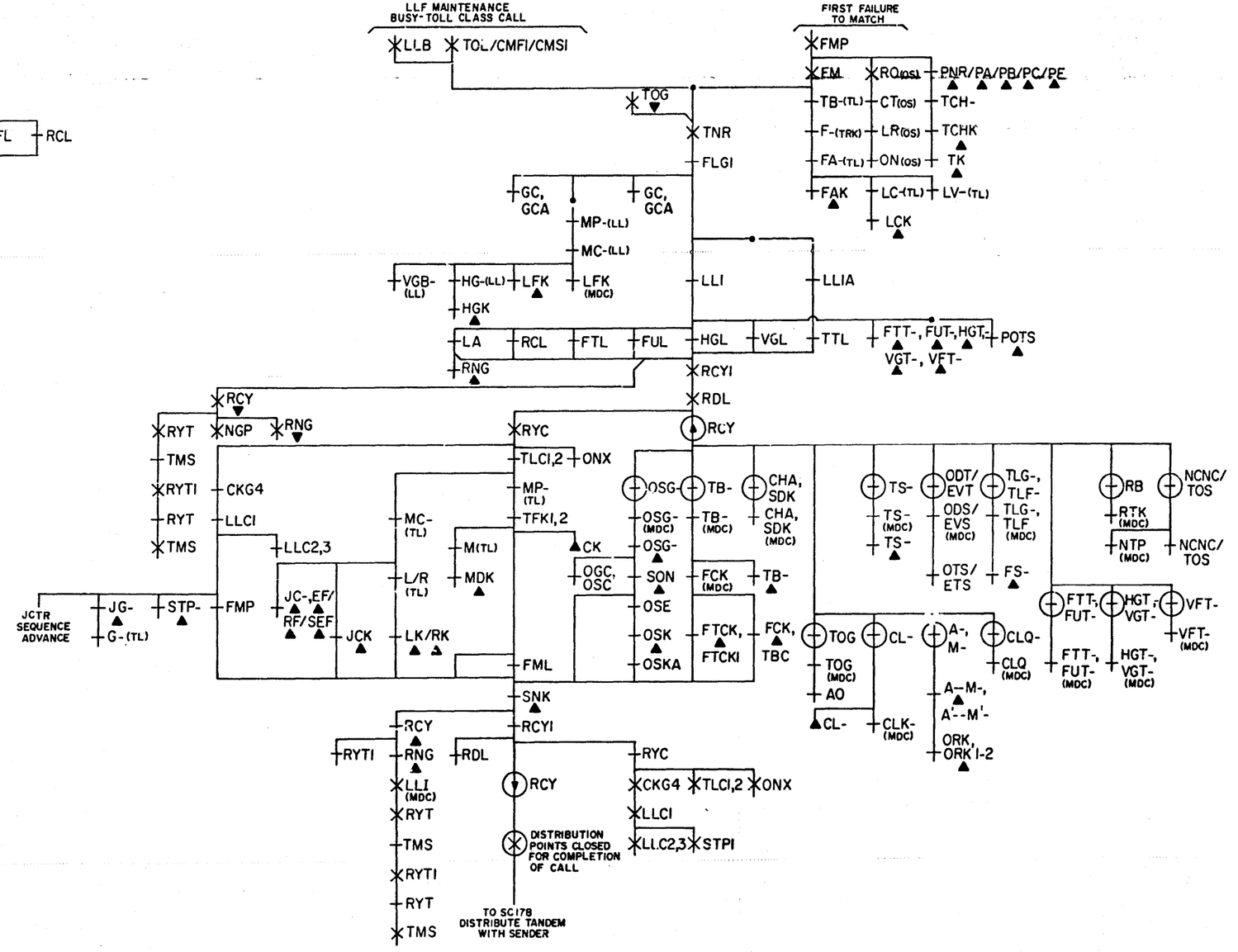
# SC 121

TRUNK NUMBER RECYCLE - TOG CALL

(A) ETS NOT PROVIDED




(B) ETS PROVIDED TRUNK




COMPLETING MARKER CIRCUIT

| BELL LABORATORIES | SD-26002-01- | E33C |
|---|---|---|

DWG SIZE 6S | ISSUE 58A

BURNING 44-131 28148

# SC 122
INTERCEPTING
*ETS NOT PROVIDED*

RINGER TEST TAN/TOLL INC: RGTA, TFK2
INTRA OFFICE TERMINATING: ITRI, TFK3

BLANK THOUSANDS: MP (NG), MC- (NG)
BLANK HUNDREDS: HB- (NG), BNTH, PN/TN/PTN, TN- (NG), TNK, TB- (NG), TBW
MC- (NG), U- (NG), UK
MC- (NG), NGKI

BLANK THOUSANDS OR BLANK HUNDREDS
TRUNK NUMBER ASSIGNED

HTUK
Time 67-83 MILLISECS
TYM
TYMA

RBT
REGISTER RETURN BUSY (C)

(D) VGN-, VGT-, VGL; HGN-, HGT-, HGL; VGN-, VGT-, VGL; HGN-, HGT-, HGL; RCN-, RCT-, RCL; VFN-, VFT-, VFL
(A) COMPLETE AS NORMAL CALL SC 3
(B)
(G) RCN-, VFN-; RCT-, VFT-; RCL, VFL
(E)
(F) FTN-, FUN-, HGN-, VGN-; FTT-, FUT-, HGT-, VGT-; FTL, FUL, VGL, HGL
(H) FTN-, FUN-, RCN-, VFN; FTT-, FUT-, RCT-, VFT-; FTL, FUL, RCL, VFL
WORK TIME OUT TAKE TBL RCD

FTN-, FUN-; FTT-, FUT-; FTL, FUL

PU, MM, WMM
PUI

CALL TO CTX RESTRICTED STATION
PAN

MM, PUL
MARKER NORMAL CHECK, 41R35

RCY
RCYI
TO SC 127 RCY, RCYI, 41M9
RYT, TMS, RYTI, RYT, TMS
STARTS WORK TIMER

WMM, RIW
WMM, MM

DCI, RIP
TO SC 102 TER, 18A/F27
BN, BNB, RSO, 2
TO SC 168 BNB, 68Q5

VCI
TO SC 102 TER, 18A/F27
RI, RIB
TO SC 168 RIB, 68T5

TBI, TBIB, TBH, RSO/1,2
TO SC 168 TBIB, 68Y5

SEL MAG 2 (RSS)
RSK
SRK, SEL MAG 0-1

CPT
CWS
WBC
WBC2,3

RYT, TMS, RYTI, RYT, TMS
STARTS WORK TIMER
FOR RELEASE OF NUMBER GROUP INFORMATION
CHECK NUMBER GROUP RELEASE
LLI
CKO, SNGI, PN/TN/EN/PTN, CKR, PBXI-2, MP (NG)
TO SC 116 MP-, 30R9

NR, NI-4, NE
SNG
DCIA, RIA, BNA, TBIA, VCIA, RIPA, ITNA/ITNB
SNG2, SNGI, SNG
TO SC 116 SNGI-2, 30R6

| "SC" OPTION | NO. GROUP XCONN | ROUTING | ACTION TAKEN | |
|---|---|---|---|---|
| A | L,G,F | | TO CALL LINE | |
| B | NONE | "N I" | CHANGED OR DISCONNECTED NUMBER | NO SUCH NUMBER TONE, MACHINE ANNOUNCEMENT OR REGULAR INTERCEPT OPR |
| C | G | "G I" | BLANK NUMBER | |
| D | G,F | "T I" | TEMPORARY INTERCEPT | |
| E | L | TBI RELAY | TROUBLE INTERCEPT TRUNK | |
| F | L,G | | MARKER BLOCKS AND CAUSES A WORK TIME OUT | |
| G | F | | | |
| H | L,F | | | |

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING -1SSUE
4A, 5D, 08, 22D, 39D, 41D

ISSUE 57B
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-E34
BELL TELEPHONE LABORATORIES INCORPORATED
6S

# PART OF SC 123

CONTROL OF MARKER DISCONNECTS & TROUBLE RECORDS (SEE NOTE 1)

GLARE: GLA, GLR, GLB

NORMAL CALLS DISC.: ITRI, LKI, ITRI, DCT2

IMMEDIATE RING FAILURE: TIR

LINK RELEASE IDENTIFIER: LRI

LINK RELEASE: LR, DCK

CROSS DISC.: MXT

TIME OUT DISC.: WT, LDT, SDT

INTER MKR GR TEST: IMT

GRD TEST FAILURE: GT5, CGT

GLC

TRS, PSR, PMO

TRS, PS, PSR

LA, PMO, PBN

TRT

SP

TR2C, TR2C, TR2C, TR2C

LGT, LGT

CLPT, CLPT (J,L & K CKT)

TK/CHA/CB5, TK/CHA/CB5

TRR TBL RECORD REGULAR REL

TRI TBL RECORD, TBL REL, 2ND TRIAL

TRLI NO TBL RECORD, TBL REL 2ND TRIAL

TO SC 123, 358/G3

TRST, TRSA

TBL RCD

TBL RCD BUSY

TBL RCD TIMED REL: TRTR

OVERALL TIME OUT: MRL

REG BUSY TONE 37B33, AD32: RBT

TRBI,2

TRI/TRLI

HMSI

L-,J- HOLD MAG (LL)

J- & T- HOLD MAG (TL)

WBCI, ITR3, WBCI, ITR3

RDLI, DSI

RDL

WIDEBAND REMOTELY SWITCHED: DSI (TRK- AUDIO PART), SI (TRK- REMOTE WB), LA-/LB- HOLD MAG (WRS)

WIDEBAND LOCALLY SWITCHED: F-- (WBL), L--,J-,T- HOLD MAG (WBL)

TO SC 123, 358/R3

NOTES:
1. INTERSECTING PATHS DO NOT INDICATE A CONNECTION.

DRAWING ISSUE: 39D DM; 40A

ISSUE 49D

COMPLETING MARKER CIRCUIT

SD-26002-01-E35A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# PART OF SC 123

CONTROL OF MARKER
DISCONNECTS & TROUBLE
RECORDS
(SEE NOTE 1)

DISC. ORIG REG RETURN COIN

DISC. ON INC TRK OVERFLOW

OVER FLOW

PATHS BUSY

RR

OV

BY

RCK2

OFNI

F

RCK1

RCK2

RRK

RRC

CNR

RLG

LR

LR

FROM SC 123, 35A/F22

HTR

HTR

TG

TG

TGT

TO SC 113, TG, 28K4

FROM SC 123, 35A/M40

RBT

TRR

TRI

TRLI

DCK

DCK

TR2C

TR2C

TRTR

MRL

PCL2

PCL2

TERI/TCCA

TERI

GSA-/ SR-

PCR/ PCDO/ PCDI

PCR/ PCDO/ PCDI

TEA

ROA

ROA

TOGI

TOG2

TEA

TEA, TOA

TO SC 111, DISI-2, 26GI2

TO SC 124, TRL, 36F9

TO SC 128, RAVI-2, 42PI

TO SC 124, MRLI, 36W9

RBT, 35A/L27

TO SC 164, TOA 6405

LRI

DTI

RK3

RK3

TRL (TRMC)

TRL

TIR (TR)

TST,LR, TR2,RBT

TST/LR/ TR2/RBT

MRL (OR) (IR) (TR)

TRL (ORMC) (IRMC) (TRMC)

BT, (OR) TRL (IR) (TR)

NOTES:
1. INTERSECTING PATHS DO NOT INDICATE A CONNECTION.

DRAWING ISSUE
390 OM

39

COMPLETING MARKER CIRCUIT (2)

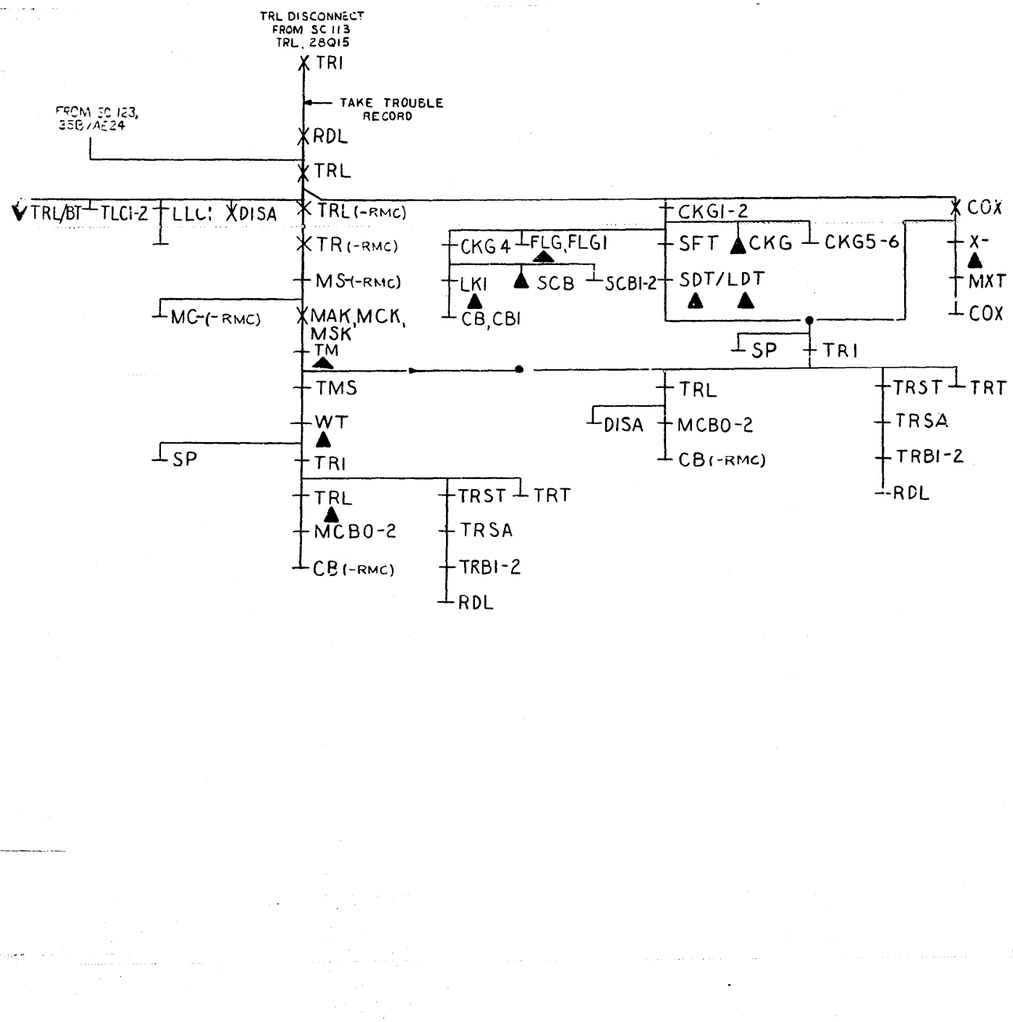
SD-26002-01-E35B

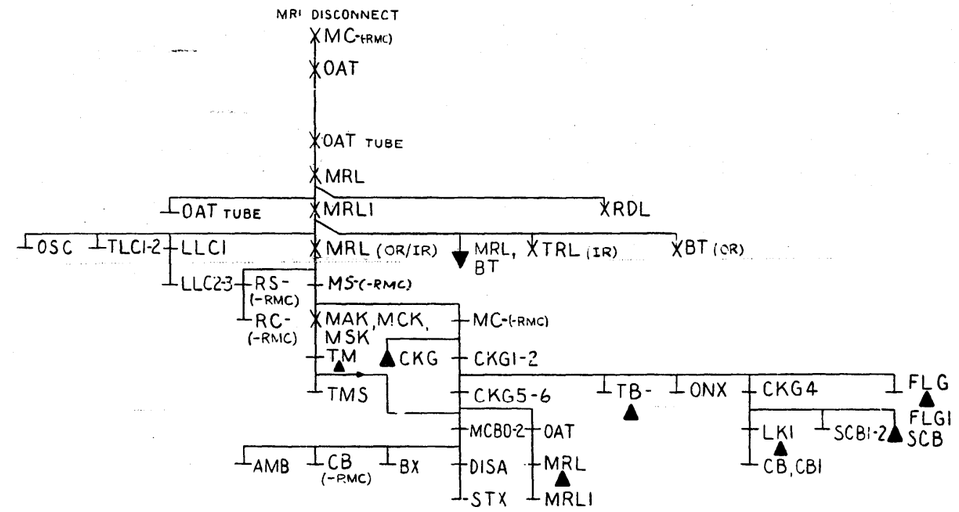
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

# SC 124
TRL AND MRLI DISCONNECT




DRAWING ISSUE
4A
5D
22D
39D

C8

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

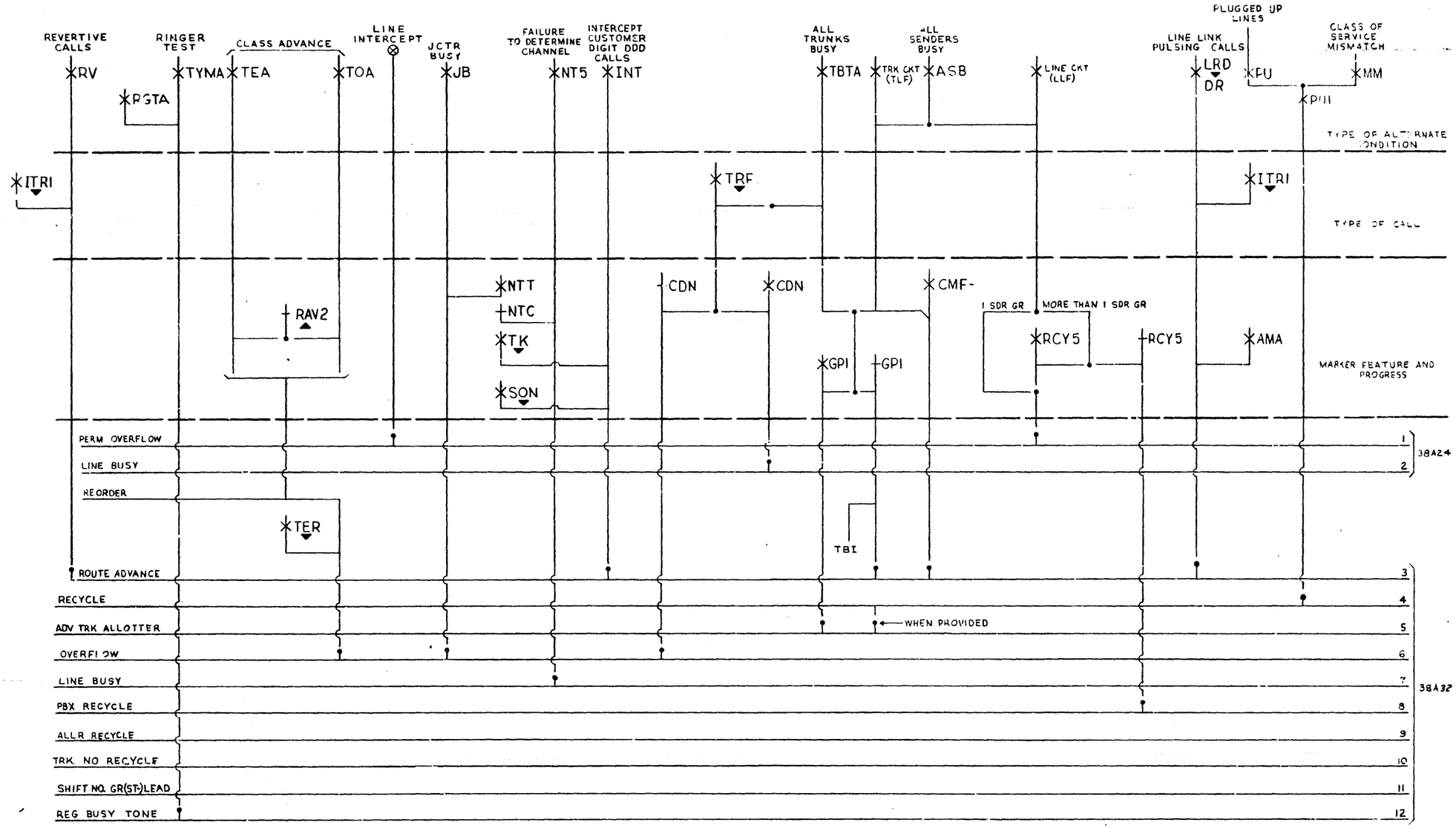
SD-26002-01-E36

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF SC 125

ALTERNATE ACTIONS
(A) ETS NOT PROVIDED




SHEET NOTES:
1. INTERSECTING PATHS DO NOT INDICATE A CONNECTION.

| DRAWING ISSUE |
|---|
| 4A |
| 5D |
| 13B |
| 22D |
| DRAWING REFURBISHED WITHOUT CHANGE 10/1/68 |

C8

ISSUE 58A

COMPLETING MARKER CIRCUIT

SD-26002-01-E37

BELL TELEPHONE LABORATORIES, INCORPORATED

65

SD-26002-01-E37

# PART OF SC 125

ALTERNATE ACTIONS
(A) ETS NOT PROVIDED

STANDARD NETWORK FAILURE TO MATCH

WIDEBAND LINK FAILURE TO MATCH

WIDEBAND CHANNEL FAILURE TO MATCH

3RD
2ND
1ST
FM
NLKB
WFMP
LWL
WLA
2FA
RFA
RF
FMP
FM
SLAPE
GLTA
GL
GLA
GLB
TYPE OF ALTERNATE CONDITION
SOGI, ITRI
TOGI
TER2
OTHER TYPE CALLS
TER2
TOGI
ITRI
OTHER TYPE CALLS
SOG, TOG
SOG
TYPE OF CALL
TER6
DII
PBXA
PBXA
PBXA
PBXA
RCY5
RCY5
RCY5
RCY5
GLC
GL
GP2
GP2
MARKER FEATURE AND PROGRESS
REORDER TO SENDER R SIGLAR RELEASE
TO SC 110, 2412
PERM. OVERFLOW 1
LINE BUSY 2
37AD19
39A20
TER
TER
ROUTE ADVANCE 3
RECYCLE 4
ADV TRK ALLOTTER 5
OVERFLOW 6
LINE BUSY 7
PBX RECYCLE 8
ALLR RECYCLE 9
TRK NO. RECYCLE 10
SHIFT NO. GR(3T-) LEAD 11
REG BUSY TONE 12
37AD28
39A28

SHEET NOTES:

1. INTERSECTING PATHES DO NOT INDICATE A CONNECTION.

DRAWING ISSUE

| | |
|---|---|
| 220 | GEL EM AMP |
| 299A | FES GAL AMP LIF |
| 350 | REL AMP |
| 390 | R.F |

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-E38

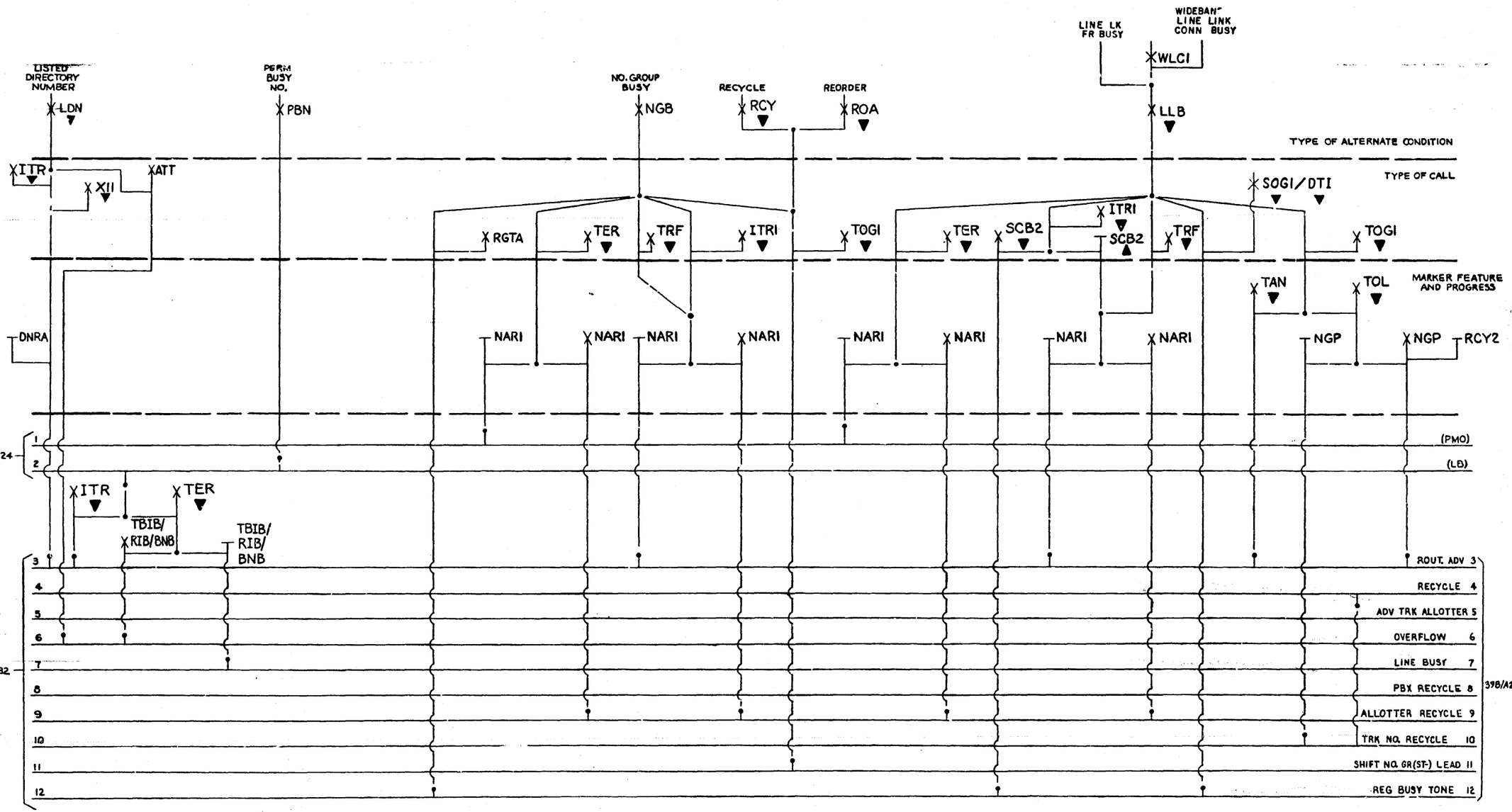
6S

STABILO

26002-01-E38

# PART OF SC 125

ALTERNATE ACTIONS
(A) ETS NOT PROVIDED




SHEET NOTES:
1. INTERSECTING PATHS DO NOT INDICATE A CONNECTION.

DRAWING ISSUE
4A
5D
21D
22D
29A
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68
30A

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT (2) | ISSUE 58A | |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S | SD-26002-01-E39A |

# PART OF SC 125

ALTERNATE ACTIONS
(A) ETS NOT PROVIDED

LINE TEST BUSY
LBTA
LB

CTX INTERCOM
ALL OTHERS

PBX GR BUSY
GB EG

ALL ALLOTTED NO. GR BUSY
AB (ALLOTTER)

TYPE OF ALTERNATE ACTION

TYPE OF CALL
MKR FEATURE AND PROGRESS

CTUK
CM
CKR/UA
CKR, UA
NARI
2L
NARI
RCY4
RCY4
SPL
SPL
SPH/NH
NT
BLTL
BLTL
GN
BLTR
BLTL
BLTL
BLTL
BLTL
NARI
NARI
RCY2
RCY2
RNH

39A/AE29

| | | |
|---|---|---|
| 1 | PERM OVERFLOW | 1 |
| 2 | LINE BUSY | 2 |
| 3 | ROUTE ADVANCE | 3 |
| 4 | RECYCLE | 4 |
| 5 | ADV TRK ALLOTTER | 5 |
| 6 | OVERFLOW | 6 |
| 7 | LINE BUSY | 7 |
| 8 | PBX RECYCLE | 8 |
| 9 | ALLR RECYCLE | 9 |
| 10 | TRK NO. RECYCLE | 10 |
| 11 | SHIFT NO. GR (ST-) LEAD | 11 |
| 12 | REG BUSY TONE | 12 |

MARKER ACTION 39C/A29

| | | |
|---|---|---|
| NO-TEST TRAIN | 13 | TO SC 131,629 |
| PBX RECYCLE - NON HUNT | 14 | TO SC 150,54Y1 |
| BUSY LINE TRANSFER RECYCLE | 15 | TO SC 149,54N1 |
| TWO-LINE NUMBER OPERATION | 16 | TO SC 146,01 |

C8

DRAWING ISSUE
29A
39D RP

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-E398
BELL TELEPHONE LABORATORIES INCORPORATED
6S

STABILO

# PART OF SC 125

ALTERNATE ACTIONS
(A) ETS NOT PROVIDED

WIDEBAND LINE MAINTENANCE BUSY

WMBA

MT44

MT44

WRM

WRM

WCV

WMM

WIDEBAND CLASS MISMATCH

WB-

WBT-

NWT

NWLA

TER6

TER6

FLGA

FLGA

NWLA/NWT

NWT

NWLA

WRA

TYPE OF ALTERNATE CONDITION

TYPE OF CALL

MARKER FEATURE AND PROGRESS

TO SC 125, 39B/AE29

| | | | |
|---|---|---|---|
| 1 | PERM OVERFLOW | 1 | |
| 2 | LINE BUSY | 2 | |
| 3 | ROUTE ADVANCE | 3 | TO SC 128(A) RAVI-2, 42V13 |
| 4 | RECYCLE | 4 | TO SC 127(A), RCY, 41N9 |
| 5 | ADV TRK ALOTTER | 5 | TO SC 125, AGP, 43E7 |
| 6 | OVERFLOW | 6 | TO SC 117(B), OV, 31B/P13 |
| 7 | LINE BUSY | 7 | TO SC 117(B), BY, 31B/M8 |
| 8 | PBX RECYCLE | 8 | TO SC 120(A), RCY2, 33R18 |
| 9 | ALLR RECYCLE | 9 | TO SC 119, ANR, 33J28, TO SC 120(A), ANR, 33M17 |
| 10 | TRK NO. RECYCLE | 10 | TO SC 121(A), TNR, 33C/F2 |
| 11 | SHIFT NO. GR (ST-) LEAD | 11 | TO SC 121(A), NGP, 33C/D12 |
| 12 | REG BUSY TONE | 12 | RBT |

DRAWING ISSUE
39D RM

ISSUE
58A

COMPLETING MARKER CIRCUIT

(2)

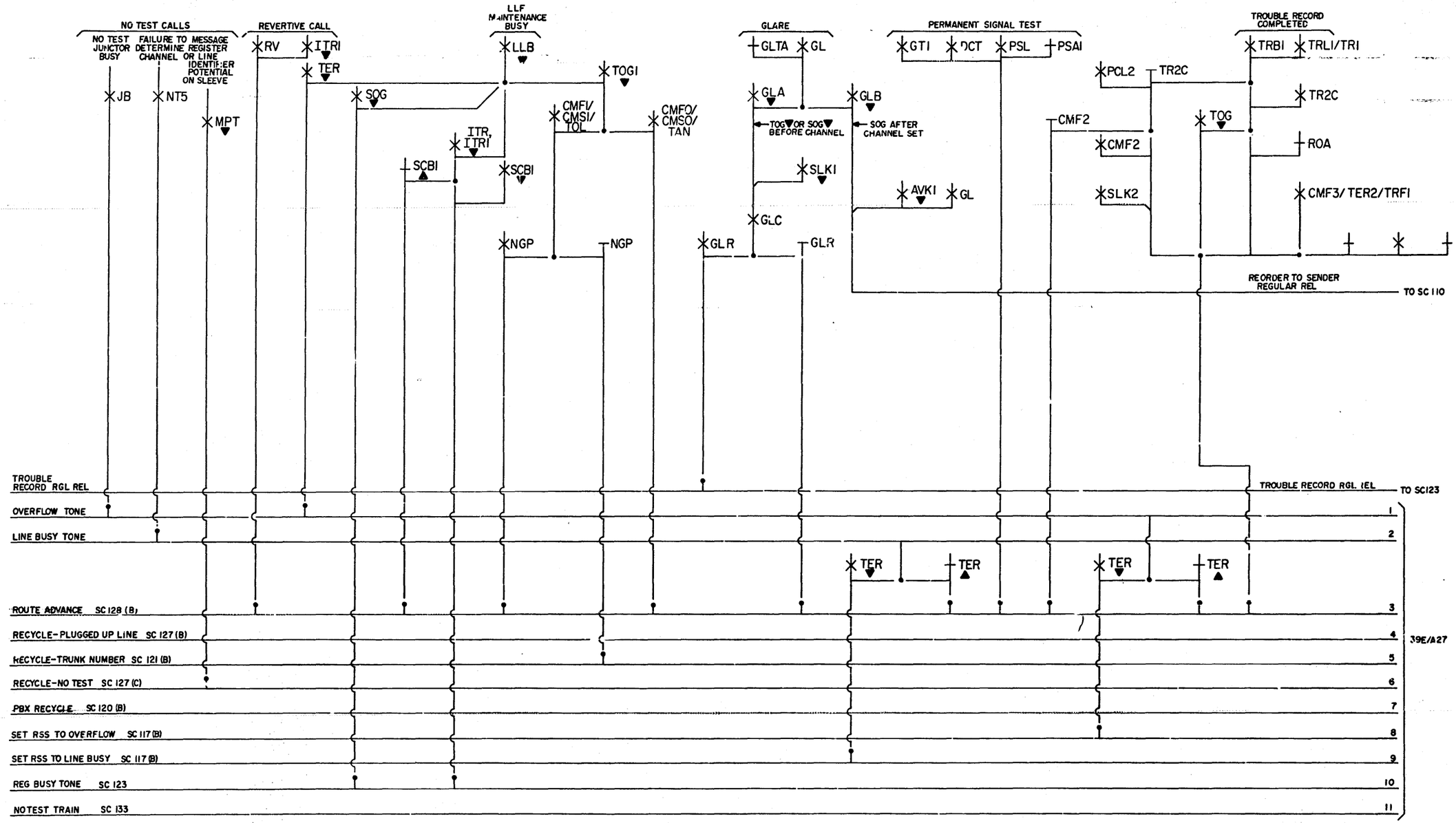
SD-26002-01-E39C

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF SC 125

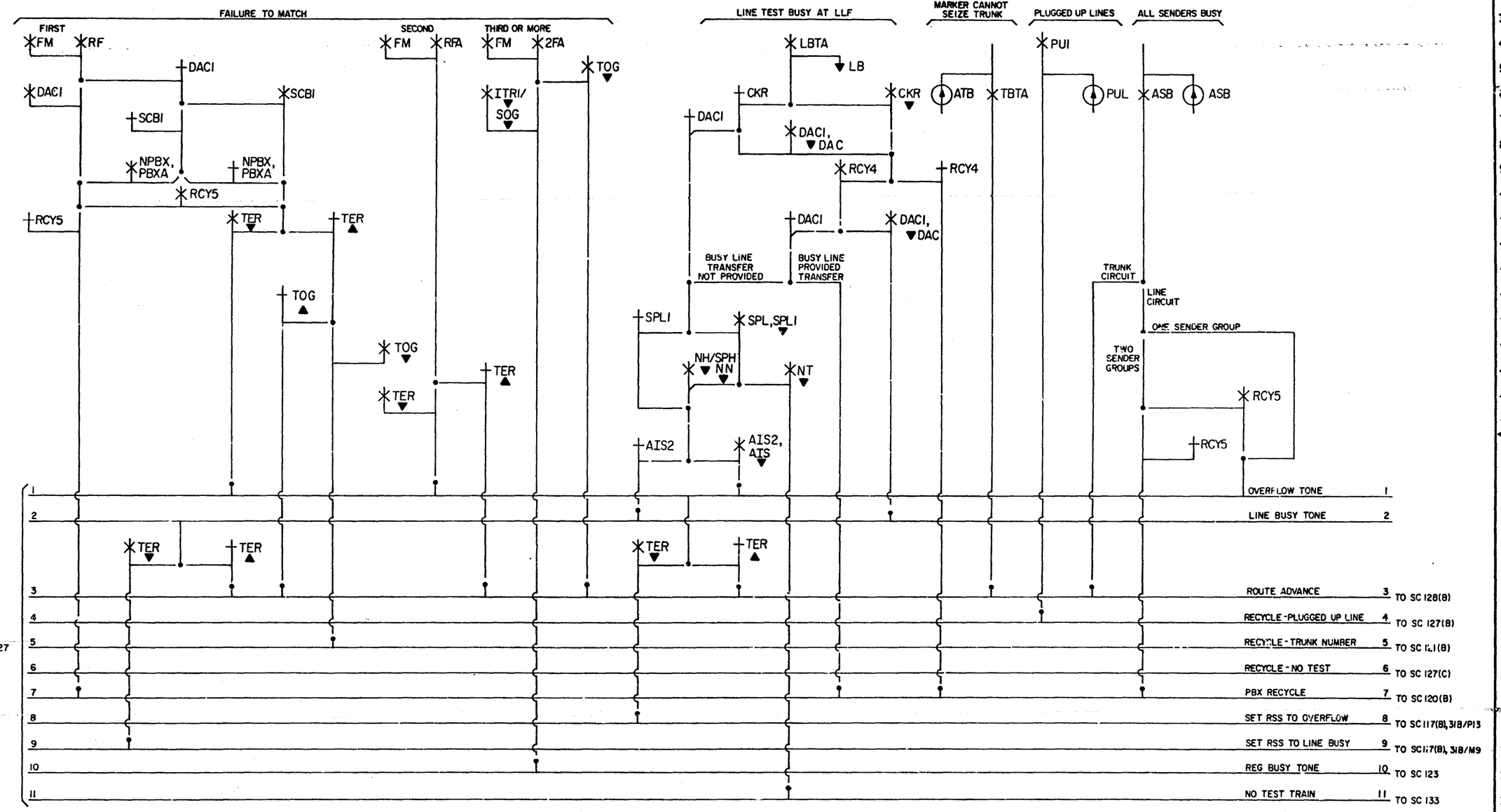
ALTERNATE ACTIONS
(B)ETS PROVIDED




| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01- | | E39D |

# PART OF SC 125

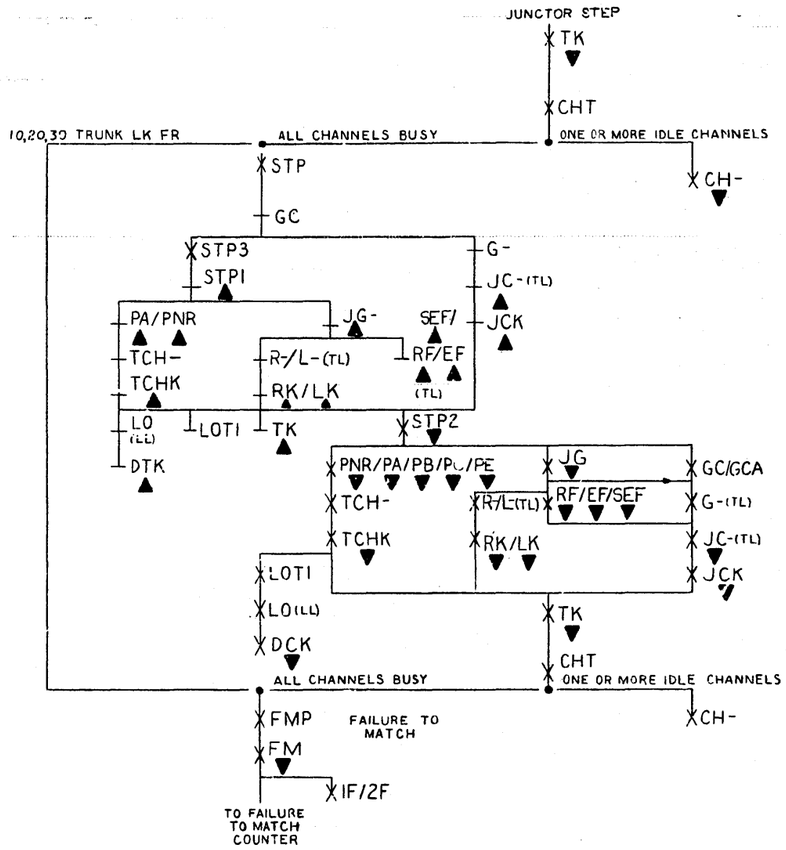
ALTERNATE ACTIONS
(B) ETS PROVIDED

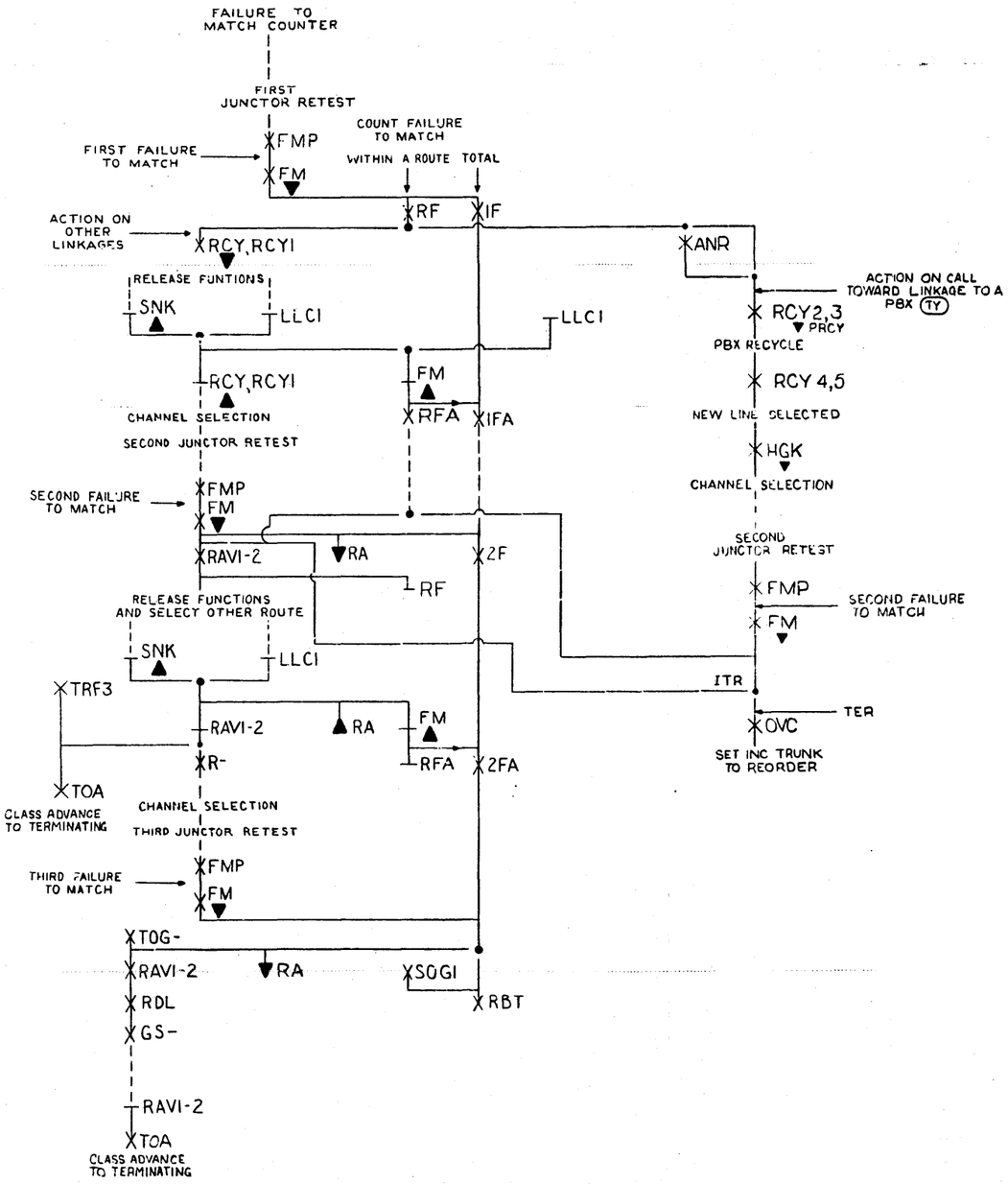



| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01- | | E39E |

ING 44-131 28142

# SC 126
JUNCTOR STEP AND FAILURE TO MATCH




| CKT. WIRING ISSUE | |
|---|---|
| 4A | NO 2 AUTO CCS |
| 5D | NO 2 CCS |
| 14B | NO 2 CCS DST |
| 21D | REM ECM AND |
| 22D | HC ECM AND |
| 390 | RP |

SD-26002-01-E40

# PART OF SC 127

RECYCLE
ALL TYPES OF CALL
(A) ETS NOT PROVIDED

WIDEBAND CLASS MISMATCH
WMM
CLASS OF SERVICE MISMATCH
MM
IST FAILURE TO MATCH
FMP
PLUGGED UP LINE
PU
PERM SIG. TEST CALL
FM
RF
PUi
PNR/PA/PB/PC/PE
TCH-
TCHK
TK
RO (OS)
TG
TGT
LO (LL)
LOTI
DTK
FMG-, FM-
OPR. OF FRAME MEMORY CKT SC 104
ALL CALLS, IF PERM. SIG. TEST FEATURE IN OFFICE
FML
RCY, RCYI
34Y25, 43B5
RDL
WIDEBAND SWITCHING
RYC
NSO/NSI
OGC
OSG-
SON
OSEI
OSK
OSKA
ONX
SEL MAG
OSE
SLKI-2
(OSC) HOLD MAG
OS-
OSE, SHKA
SSA/ SSB
TG-, TGP/TGS
TB-
FS-
IST FM CALL
TERM CALL
FCK
TBC
TBK
LV (TL)
LC (TL)
LCK
F- (TRK)
FA- (TL)
FAK
SLA
RUN, RUNA/ RTN, RTNA
F (WB TRK)
TLCI-2
FTCK
RK3
SNK
RNG
TLF
TS-
M (TL)
MDK
CK
MP (TL)
TFKI-2 /TFK3
FML
FMK
P-LK/ RK
MC- (TL)
JCK
CKG4
LLCI
LLC2-3
MC- (LL)
R/L (TL)
RK/LK
FMP
JC-
RF/EF/ SEF (TL)
JCTR SEQ ADV
GTI
GT2
SLRK, CONI, SL, HMSI
OPEN HOLD MAGNET CKT
MP- (LL)
MC- (LL)
LFK
MRA
GLH
GLHI
JG-
G- (TL)
HMTI
STP-, GC
PE/ PNR/PA PB/PC
TCH-
TCHK
LG-, HG-, VGB-(LL)
HGK
CH-
CHA, CHAI
HMT
TK
CNA
DVO
DVA
AOA
TO FTCK
TO FMP
SNK
RCY, RCYI
WIDEBAND SWITCHING
TB-
TG-, TGP/ TGS
RYC
RDL
RNG
RYCI
TBC
OSG-
NSO
ONX
TLCI-2
CKG4
LLCI
LLC2-3
WIDEBAND SWITCHING
WLC, WLCI
MARKER CONTINUES AS A NORMAL CALL
RYCI
WLC, WLCI
WHSI, WHS2
OPEN WIDEBAND HOLD MAGNET CKT
MA, MB, MC, MD (WLCC)
WLFK
WTC
MA, MB (WTLC)
WTFK
WFCK, WTK, WDCI
WCN
TSK
LSW
F- (WBL)
WSL
WSLA
WCH-
WCHA
LSWR
WL-
WLA
WONX
TO RELEASE WIDEBAND SELECT MAGNETS
WIDEBAND SWITCHING
34W24

DRAWING ISSUE
390 DM

ISSUE
58A

COMPLETING MARKER CIRCUIT
2
SD-26002-01-E41A

BELL TELEPHONE LABORATORIES
INCORPORATED
6S

SD-26002-01-E41A

# PART OF SC 127
RECYCLE ALL TYPES OF CALL

(B) ETS PROVIDED, RECYCLE-PLUGGED UP LINE (PUL) TERMINATING (TER) OR INTRAOFFICE (ITR)

FROM SC109, 418/R39

PU — OPENS DCTI OPERATE PATH

PUI

PUL

GT3

LLI

LLIA

FTT-, LA

VGT-

VGB-, (LL) VTKI

VFT-

FTKI, LG-(LL)

RCL

RCT-

RS-

R-SEL MAG (RSS)

TTL DAT/ POTS

RCY

TMS

RYTI

RYT

TMS

PUL

RCYI

RDL

RYC

ITR

CKG4

FUT

FTB-

EF/RF, (TL) PF

EL/ER L/R, SEL/SER (TL)

JC-(TL)

HTKI

HGT-

HG-(LL)

LK/RK

JCK

HGK

HMTI

ONX

LLCI

CH-

CHA, CHAI

LIA, SRK

LI

GC,GCA, JG;PEG

RCK2

RCK3

R-HOLD MAGNET (RSS) RC-(TRK) RCKI

LLC2

MA2(LLC), MBI,MB2, (LLC) MCI,MDI (LLC)

LLC3

HMSI, LHT, LTR

GT3, GTA, GTK, HMT

MP-(LL)

MAI(LL)

MT7

JCTR SEQUENCE ADVANCE

LFK

LFK (MDC)

CONI,CON

JXPI

JXPA

LXPI

SLA

LXPA

GLH, GTI

GLHI, GT2

STP-

PA-/ PNR

TCH-

TCHK

TK

ITR

F (TRK)

FB-(TL)

LC-(TL)

FBK

LCK

LV-(TL)

TLC1,2

FMK

MC- (TLC)

TB- (TL)

TB-

TB- (MDC)

FCK (MDC)

EVT/ ODT

EVT/ ODT (MDC)

MP- (TL)

TFKI,2, ▲CK

FTCKI

TBC, ▲FCK

FTCK

RB

RTK (MDC)

FML

SNK

TBIB

PUI

RCYI

RYC

RDL

CKG4

ONX

LLCI

RCY

DISTRIBUTE POINTS CLOSED FOR COMPLETION OF CALL TO TROUBLE INTERCEPT

RYTI

RCY

RNG

LLI (MDC)

RYT

TMS

RYTI

RYT

TMS

TLC1,2

TLF

PR/STF/TTF

STPI

PNR

TCH-

TCHK

LLC3

SLRK

LLC2

JSE/JSO

AUTOMATIC INTERCEPT NOT PROVIDED — SC 175-DISTIBUTE TERMINATING; SC 177- DISTIBUTE INTRAOFFICE

AUTOMATIC INTERCEPT PROVIDED — SC 176- DISTRIBUTE TERMINATING TO LLP LINE OR SC 180- DISTRIBUTE AUTOMATIC INTERCEPT WITHOUT USING LLP-TERMINATING

(C) ETS PROVIDED, RECYCLE-NO TEST (NTT) (PHASE III CENTREX OFFICE ONLY)

FROM SC 132, 448/U19

MPT

CNT

NT5

RCYI

RDL

RCY

TMS

RYTI

RYT

TMS

RCY

RYC

ONX

CKG4

LLCI

ITR

RCY

LLC3

LLC2

MA2,MBI,2 MCI,MDI (LL)

G-(TL)

R/L(TL)

RK/LK

JG-

JC-(TL)

JC-

JCK

HG-(LL)

HGK

TK

STP-

PA-/ PNR

TCH-

TCHK

JCTR SEQUENCE ADVANCE

MP-(LL)

MAI-(LL)

LFK

LFK (MDC)

CNTA

NTT

CNT

RCY

RYTI

RYC

RDL

CKG4

ONX

RCY

LLCI

LLC2

FTT-,FUT-, HGT-,VGT-

FTT-,FUT-, HGT-,VGT- (MDC)

FNK, POTS/DAT, RCT-,TC/FNA

AO/MLT-

AO/MLT-

TS-

TS- (MDC)

TS

NTP

NTP (MDC)

NCNC

NCNC

STPI

PNK

TCH-

TCHK

LLC3

SLRK

TO SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL (CALL CONTINUES AS SC 3(G) TERM. SPL)

COMPLETING MARKER CIRCUIT

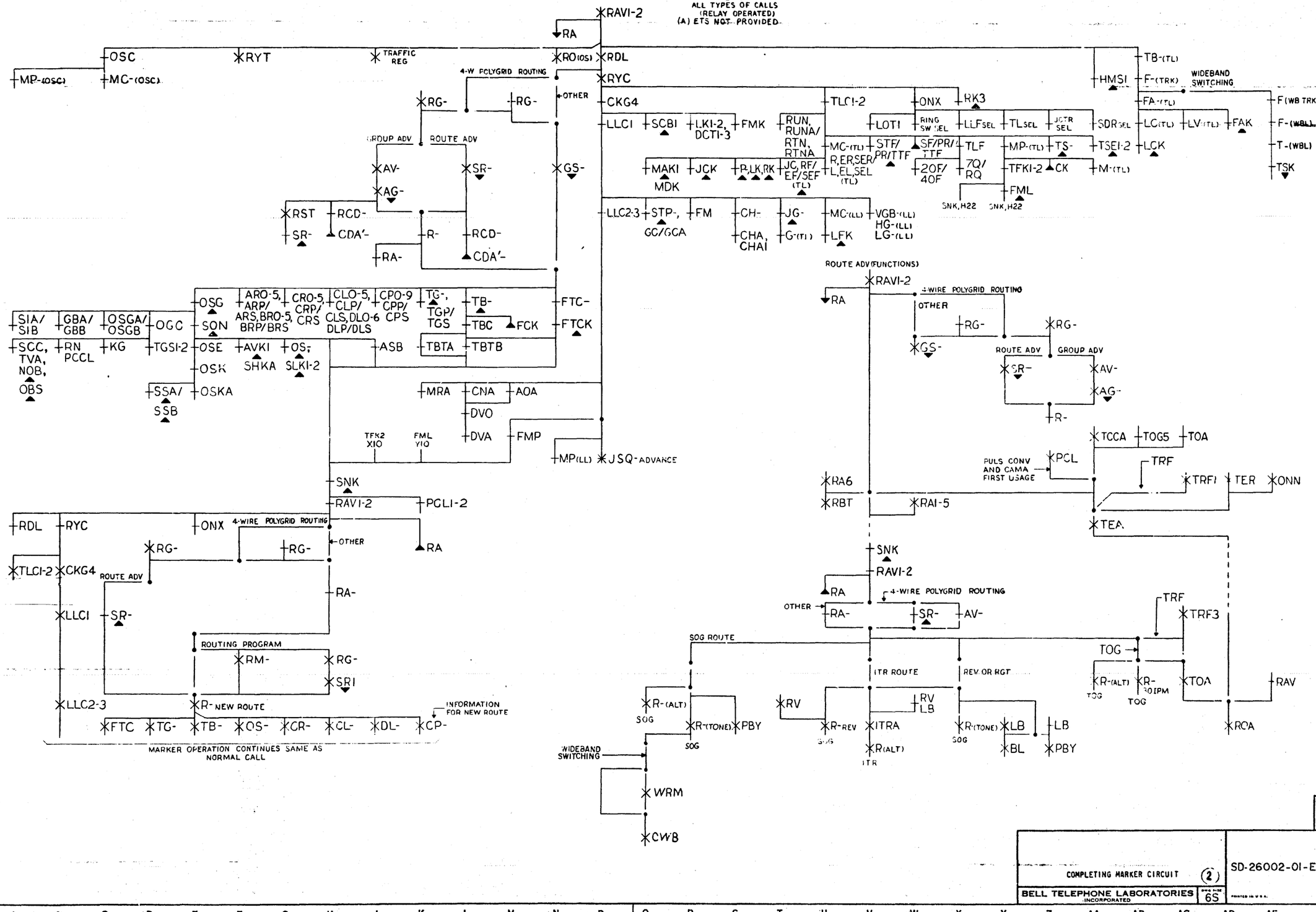
DWG SIZE 65

ISSUE 58A

BELL LABORATORIES | SD-26002-0(-) | E41B

# PART OF SC 128

ROUTE ADVANCE
ALL TYPES OF CALLS
(RELAY OPERATED)
(A) ETS NOT PROVIDED




DRAWING ISSUE

| | |
|---|---|
| 24D | |
| 50D | |
| 39D | R4 |

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)

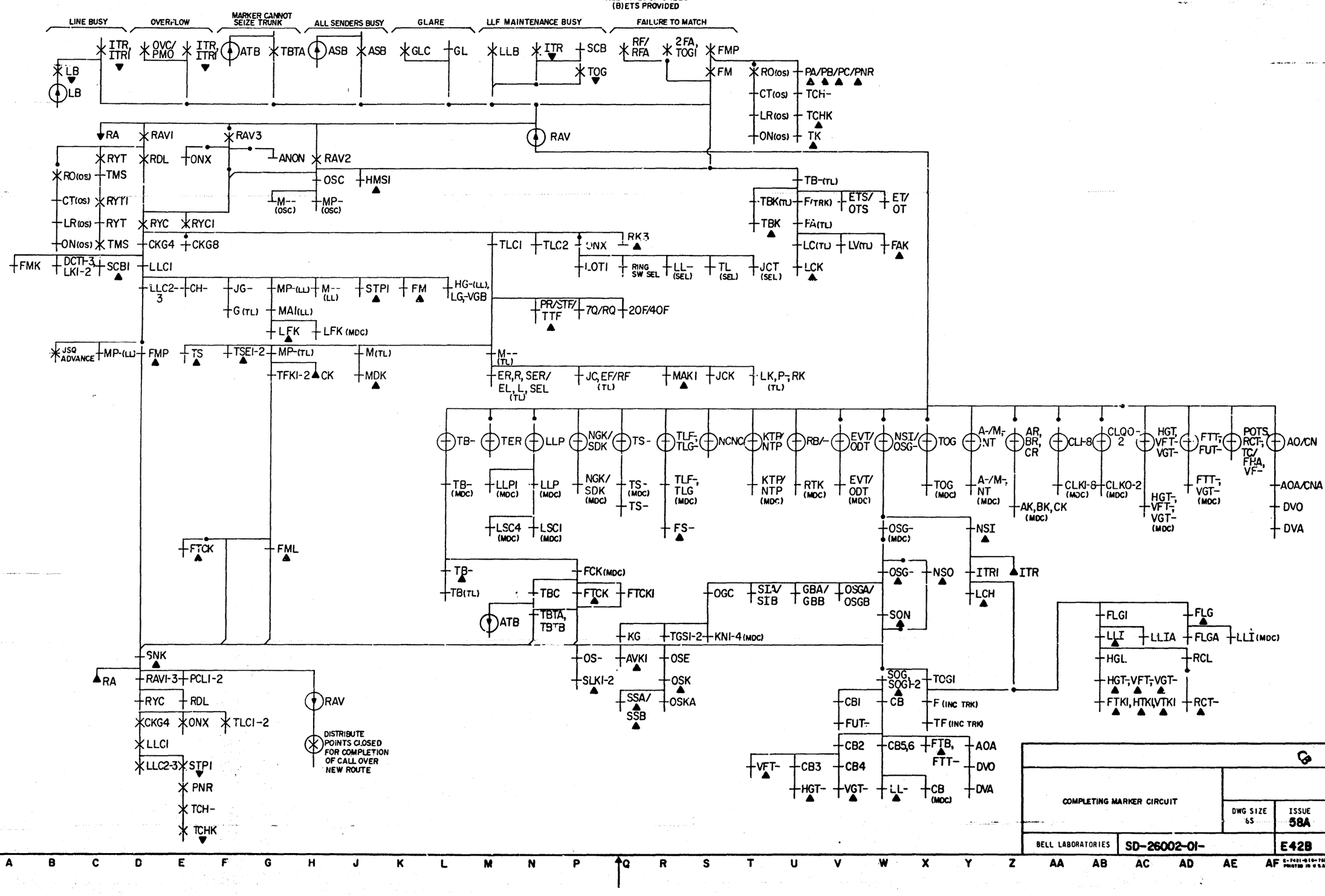
SD-26002-01-E42A

BELL TELEPHONE LABORATORIES INCORPORATED

65

# PART OF SC 128

ROUTE ADVANCE
ALL TYPES OF CALLS
(B)ETS PROVIDED

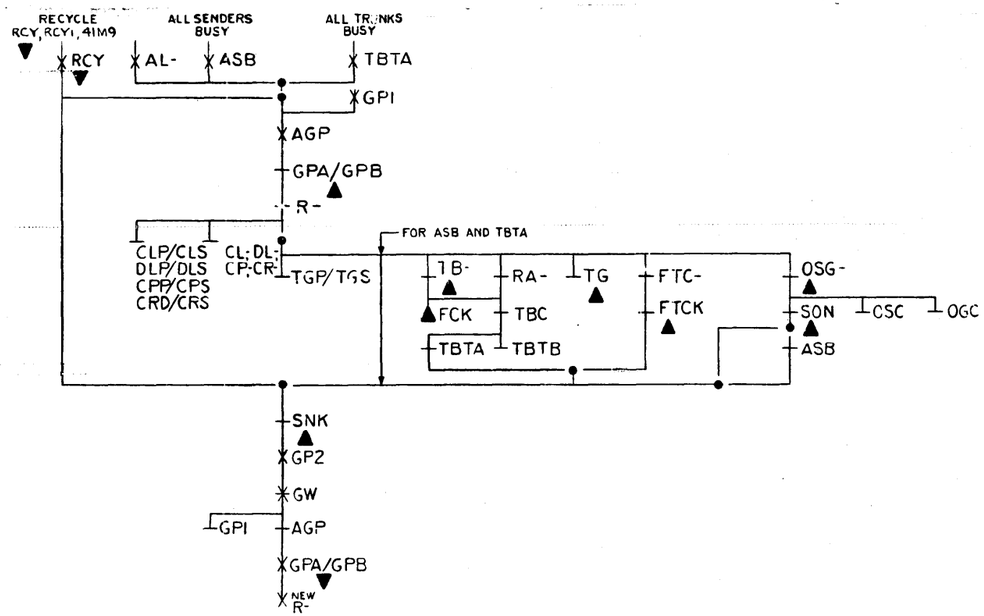



COMPLETING MARKER CIRCUIT

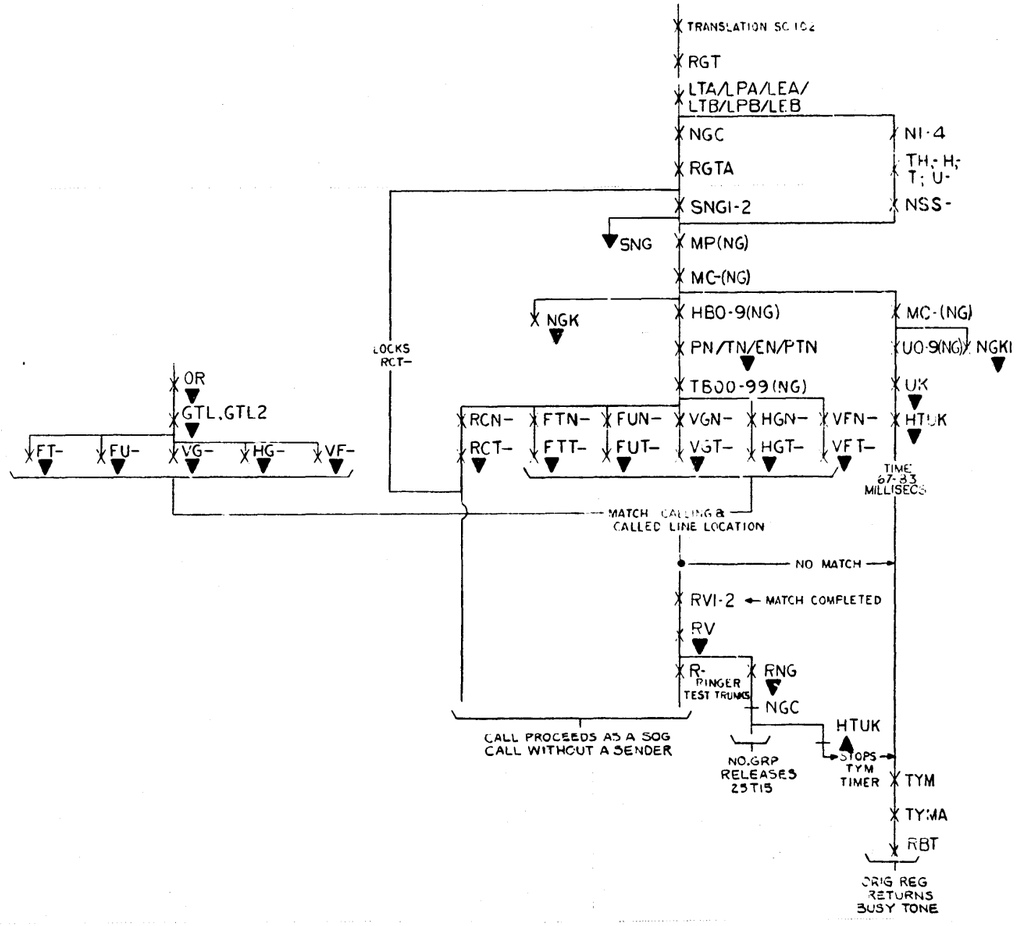
| BELL LABORATORIES | SD-26002-01- | DWG SIZE 6S | ISSUE 58A |
|---|---|---|---|
| | | | E42B |

A B 31 C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE

## SC 129
TRUNK GROUP ALLOTTER




## SC 130
RINGER TEST CALL
ETS NOT PROVIDED




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE
4A
5D
5DD

| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | ISSUE 5/B |
| BELL TELEPHONE LABORATORIES | SD-26002-01-E43 |

# SC 131

SPECIAL CALLS
(ETS NOT PROVIDED)

CENTREX NO TEST (SOG)

MC (ORMC)

OR

XII/FVD

XIIA, XIIB

CGA, CGB, CT 2/5, CUA 2/5, CRU 2/5

SCCK

S-

RATE TREATMENT AND CLASS OF SERVICE

LPA-/LPB-/ETC.

DR-

CNTO

XIIA, XIIB, NI/N2, NE

R-

RDI, RDIA

OUTGOING SENDER SELECTION
TR LK FR SEIZURE
L LK FR SEIZURE

CS

CST 1/10, CSU 1/10

CSK

CGS

RIK

CT 2/5 (T), CU 2/5 (T)

CTKI,2 ; CUKI,2

CTUK

TK

CLK

COMPLETE AS A REGULAR SOG CALL

SPECIAL HUNT, NO HUNT, NO TEST, CENTREX NO TEST (INC)

TC2 (IR)

RS- (IRMC)

RA- (IRMC)

RB- (IRMC)

MS- (IRMC)

MD- (IRMC)

SPL (IRMC)

CB- (IRMC)

FOR ALL NON-SPECIAL MARKERS IN SAME CONN

SPL1

SPL

SPL2

NMR

CTUK

SPO/SPI (MTFC)

NTC

CGT

MNI

IF MESSAGE REGISTER OPERATION IS REQUIRED

SPC

SFR

ME (IRMC)

MA (IRMC)

FVD

INC

TF 2/5

FGO/I

LPA/LPB ETC.

TCCK

N2

TERI,2

TH-, HN-, T-, U-

NE

FLG

FLG, FLGI

MP- (TL-)

NGC

LLI

TFK3

M (TL)

CK

MP- (NG)

F (T)

NUMBER GROUP SEIZURE
RINGING SWITCH SELECTION
LINE LINK FR SEIZURE
PREPARATION FOR CHANNEL TEST

NN

SPH

NH

FI (T)

SO-9 SEL (NTC)

CENTREX NO TEST

CNTI

NT

TO SC 132
NT, 44B/K7

NMR

MCS

MULTIPLE CLASS MATCH

RIK

CTUK

RDO

CT 2/5

CUA 2/5, CUB 2/5

CTA 1/10

TK

VGB- (LL)

CENTREX NO TEST

CST 1/10, CSU 1/10

LG- (LL)

LIT

LBT

CSK

CTKI,2, CUKI,2

MISMATCH

PBX SPECIAL HUNT

LBTA

CGS

MPO-2

RCY2

MATCH

34-41 MSEC

RCY4

LB

CM

CTUK

XCS

MM

BY

OVC

SPECIAL HUNT SECOND PBX BUSY ON L LK FR

NO HUNT OR INDIVIDUAL SPECIAL HUNT

TO SC 117
OV, 31B/L17

TO SC 132
NTT, 44B/N11

DVO

DVA

CHT

LINE IDLE

NTI

CHO-9

CHA, CHAI

HMT

LI

RC (T)

TO SC 132
44B/Q5

COMPLETE AS A REGULAR TERMINATING CALL

DRAWING ISSUE
33D 1.8 EAS AND

ISSUE
58A

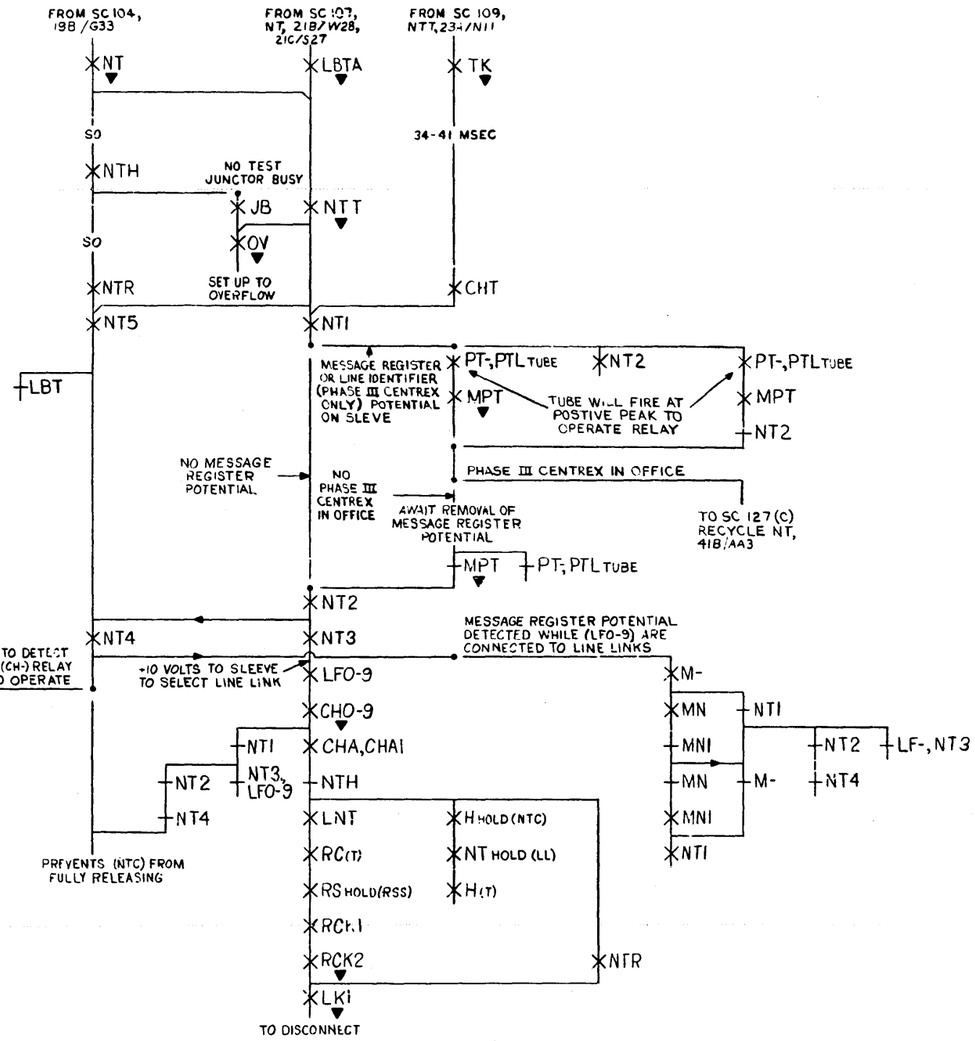
COMPLETING MARKER CIRCUIT

SD-26002-01-E44A

BELL TELEPHONE LABORATORIES
INCORPORATED

SD-26002-01-FA44

# SC 132
NO-TEST TRAIN




DRAWING ISSUE 330 GAV CLK AMD

ISSUE 58A

COMPLETING MARKER CIRCUIT

(2)

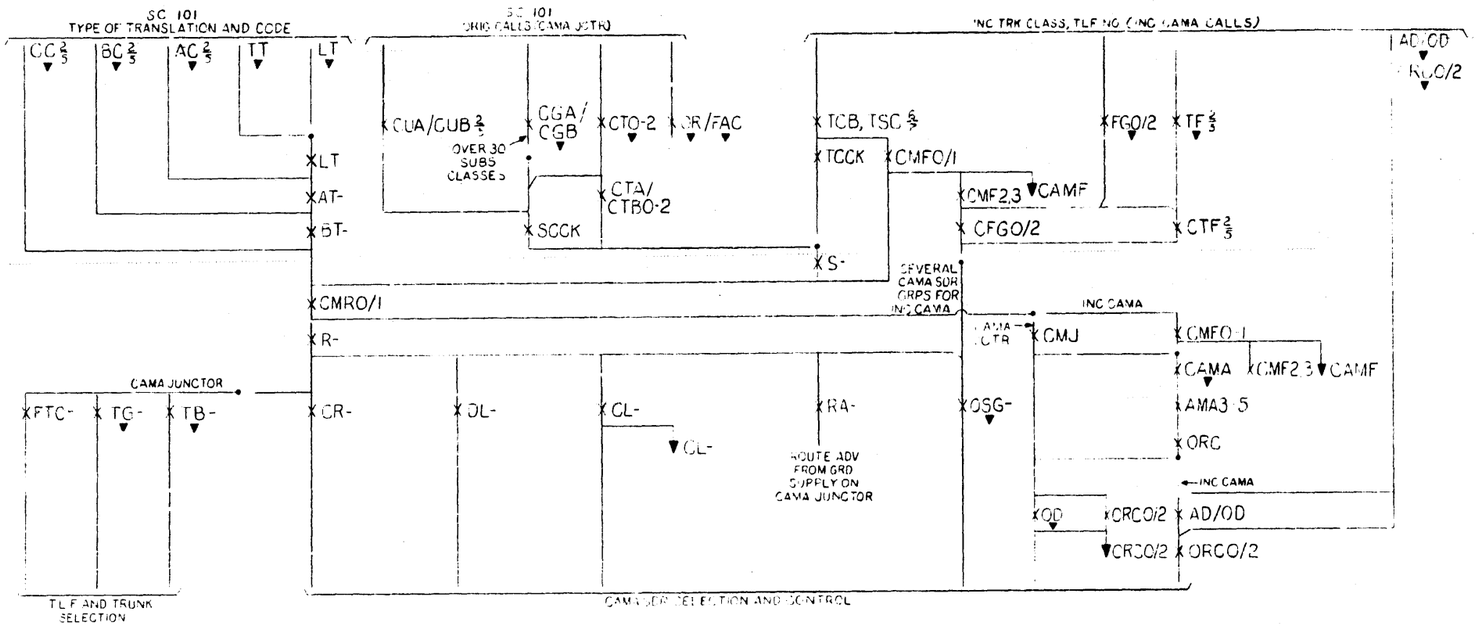
SD-26002-01-E448

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# SC 133

CAMA TRANSLATION AND ROUTE RELAY OPERATION




| COMPLETING MARKER CIRCUIT | SD-26002-01-E45 |
|---|---|
| BELL TELEPHONE LABORATORIES INCORPORATED | 65 |

SD-26002-01-E45

# SC 134
CAMA SDR SELECTION AND CONTROL
ETS NOT PROVIDED

DRAWING ISSUE
80 CWT VM CSC
9D VM CSC
14B CSC CSC
DRAWING REFURBISHED WITHOUT CHANGE 10-1-66

CAMA JUNCTOR CALL
R–
INC CAMA CALL
CAMA JCTR CALL
CMJ
CMF
CAM CAMA
CMC1-3
AMA3-5
GTL, GTL2
TLF NO TRANSLATOR WHERE SEVERAL CAMA SDR GRPS SERVE INC CAMA
OSG–
DLO
DLP/DLS
CL 1/6
CLP/CLS
CR5
CRS
TGP/TGS
TG 1/10
TB 1/6
FS 1/30
RA 1/6
TBC
FTC–
FTCK1
FTCK
OSC
SIA/SIB
GBA/GBB (IF SDR CONN BUSY)
OGC
SON
SOG
INC CAMA CALL
PCL1,2
NCMJ
TLF NO INC CAMA CALL
MP (OUT SDR CONN)
SKA/SKB
SCC
KG
RN
MBK5
ORC
CAMA JCTR CALL
TGS1
CLK1-3, DLK1,2, CRK1,2
TGS2
MBK4
SC
CTGS
FU0/7 FT0-2
NOC/CLK
CK
MP(T.L.)
KA
KBC
KDE
KFG
KHJ
KKL
ST7
M'7
ORC0/2
OD
CL-DL-CR-
OD' ORC0/2
TRN
HN0/7, T0/7, U0/7
TFK1,2
TFK3
MC(T.L.)
F(TRK)
TB(T.L.)
TT–
AD/OD ORC0/2
AD/OD' ORC0/2
TS–
TSE1,2
ETS/OTS
FO (JCTR)
ORK1,2
OSGA/OSGB (OUT SDR CONN)
OS–
SSA/SSB
KK
A 2/5'
B 2/5', C 2/5'
D 2/5', E 2/5'
F 2/5', G 2/5'
H 2/5', J 2/5'
K 2/5', L 2/5'
MA1, 2 (OUT SDR CONN)
MB1,2,MC1,2 (OUT SDR CONN)
OSE
OSE1
OS– (EXCEPT PREFERRED)
OSK
OSKA
F (CAMA INC TRK) OR FO (CAMA JCTR)
SS SEL (OUT SDR LINK)
SHK
SHKA
SIA/SIB
GBA/GBB
S (OUT SDR CONN)
CAMA JCTR
S1
SLK
SH HOLD (OUT SDR LINK)
SLKI
SCI, 2
OST1
OST
OST2
VF 1/5, HG 2/5 SC/TVT (SDR)
SAI, 2 (OUT SDR CONN)
A 2/3 – J 2/5
CLI,2 (SDR)
SBI, 2 (OUT SDR CONN,
CR 2/5, DLO (SDR)
K 2/5 L 2/5 ST7 (SDR)
ONI (SDR)
SB (SDR)
OSE1
FA/FB (T.L.)
LV2/9 (T.L.)
FAK/FBK
RUN/RTN
RUNA/RTNA
ONN-9NP (RCDR NO.)
RNO/7
RNT1
RNO/7 (O.S.)
RNT
RNT2
RN
RNT1
RNT
RNK1-2
RNK
AV (O.S.)
AVK
AVK1
LK1
LR (SDR)
SLK
SLK2
AVK1
KG
KA,KBC KDE
KFG, KHJ KKL
KK
REMOVE GRDS FROM CALLED LINE IDENT DIGITS TO SDR
TGS1,2
REMOVE GRDS FROM ROUTE INFO LEADS TO SDR
TRN
REMOVE GRDS FROM TRK NO. LEADS TO SDR
INC CAMA CALL
CTGS
REMOVE GRDS FROM TLF NO. LEADS TO SDR
MBK5 AD/OD ORC0/2
SLK2
CAMA JCTR CALL
GTL,GTL2
SDR CHECK RELS HELD OPERATED
RSC
OSC
MP
SKA/SKB
OSGA/OSGB (OUT SDR CONN)
MC– (OUT SDR CONN)
SC– (OUT SDR CONN)
RELEASE MKR RELS HELD FROM SDR
DISCONNECT

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

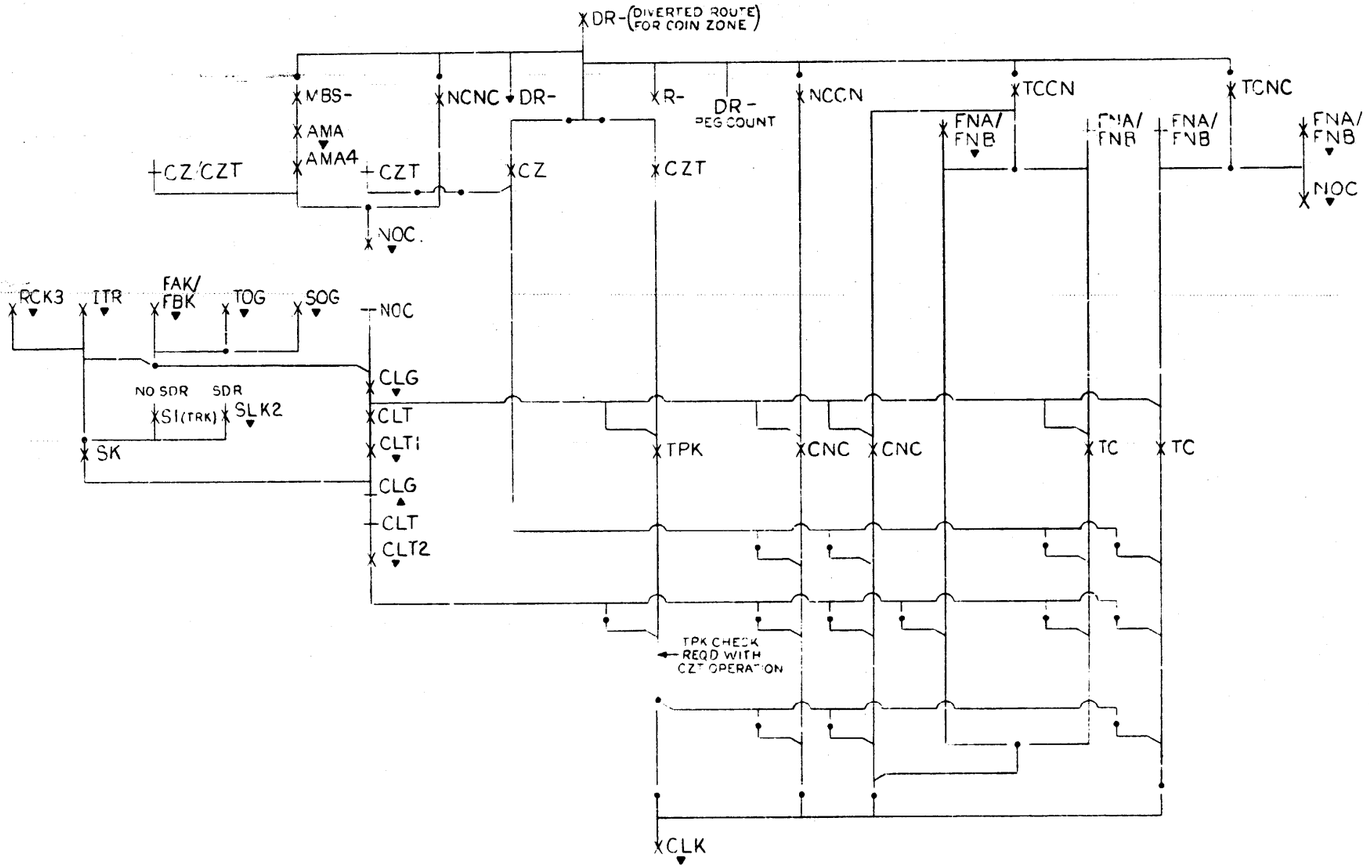
COMPLETING MARKER CIRCUIT

ISSUE 57B
SD-26002-01-E46

BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

# SC 135 (MFR DISC)

TRUNK CLASS INFORMATION
FOR COIN ZONE DIALING WITH OR WITHOUT
AMA RECORD
(SEE SC 136)




DRAWING ISSUE
90 3S 1EM
138 6DS MP

13

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

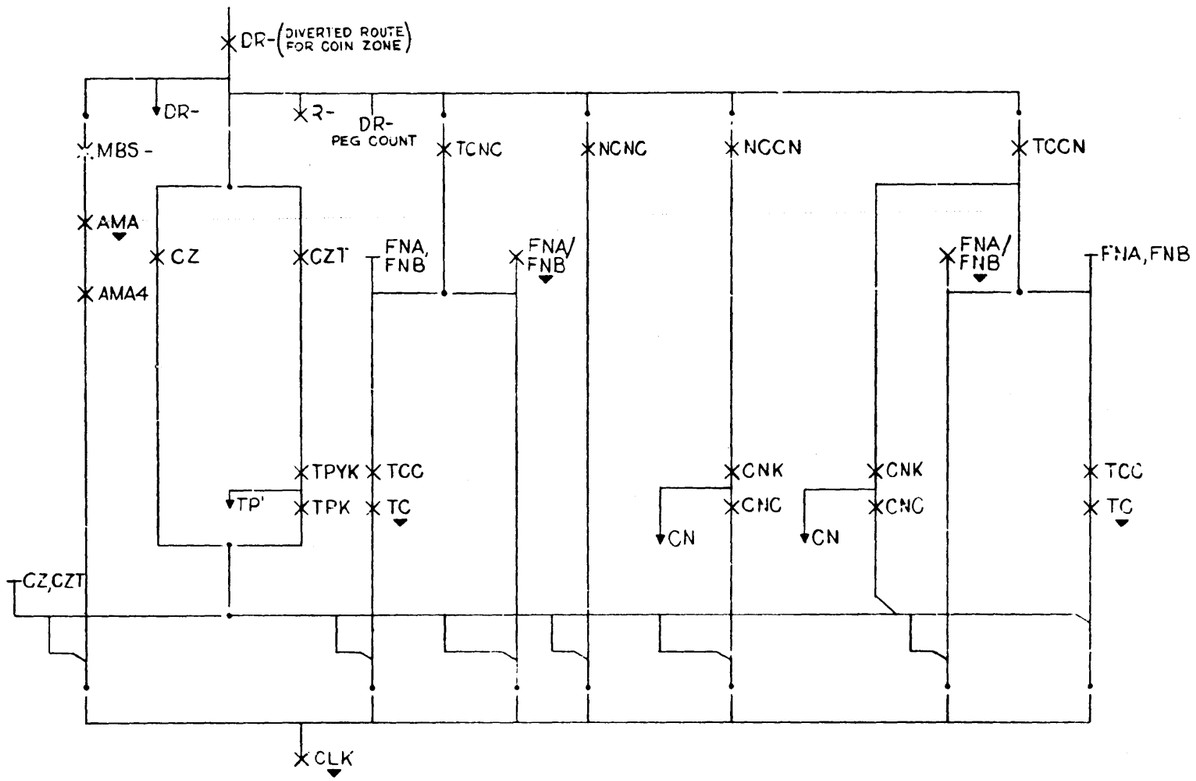
6S

SD-26002-01-E47

SD-26002-01-E47

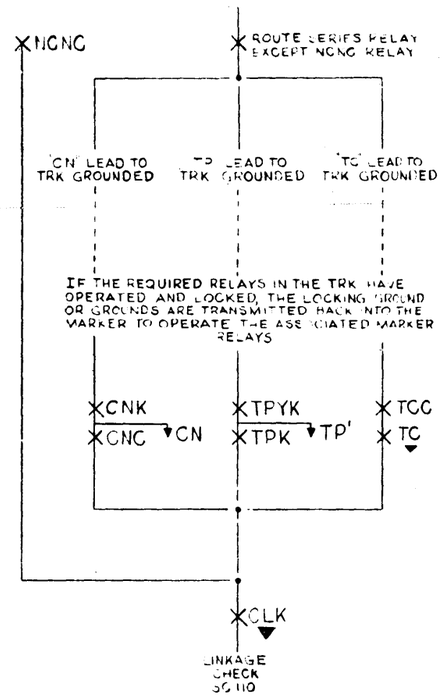
## SC 136

TRUNK CLASS INFORMATION
FOR COIN ZONE DIALING WITH OR WITHOUT AMA RECORD




## SC 137

TRUNK CLASS INFORMATION
NON AMA




DRAWING ISSUE 138 MR

13

COMPLETING MARKER CIRCUIT

SD-26002-01-E48

BELL TELEPHONE LABORATORIES INCORPORATED

65

SD-26002-01-E48

# PART OF SC 138

POLYGRID ROUTING CONTROL

498/390 CODE PT ROUTE ADV

GS-
RA-
RM-
SRI
R-
ROUTE NOT PROVIDED (ERA)
ALL TRUNKS BUSY
RAVI,2
RDL
SR2
CDRA3
HT
R-
ROUTE NOT PROVIDED
RELEASE ROUTING INFORMATION
HT/CDRA3
SNK
RAVI,2
SRI
R-
ROUTE NOT PROVIDED (ERA)
ALL TRUNKS BUSY
RAVI,2
RDL
SR3
CDRA1/2
HT
R-
ROUTE NOT PROVIDED
RELEASE ROUTING INFORMATION
HT/CDRA1,2
SNK
RAVI,2
SR2
R-
PRIORITY CALL ROTATION EXERCISED
ROUTE NOT PROVIDED (ERA)
ALL TRUNKS BUSY
ROUTINE CALL NO ROTATION
SBA ROUTE NOT PROVIDED (EA)
RAVI,2
RDL
AV-
TO 40-,498/Q3

CDRA0 RG-
RGA-
RGA-
RGA-
HT/EGD
HGD
CDRA3
CDRA2
CDRA1
FGA/SGA/TGA
FGA, SGA, TGA
PO1/2/3
P4
SRI

ORDER OF SELECTION OF ROUTE RELAYS CONTROLLED BY A PROGRAM RELAY.

ROT RM- ROT
RMD
JSQ0/3 JSQ1/4 JSQ2/5 RRA
RO1 RO2 RO3 RSBA
RMD RBA RSBA
RBA RSBA RMD
RSBA RMD RBA

DRAWING ISSUE
32A JEG

32

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E49A

BELL TELEPHONE LABORATORIES INCORPORATED 6S

HIGGINS 4465

# PART OF SC 138
POLYGRID ROUTING CONTROL

DRAWING ISSUE
32 A

FROM AV-, 49A/J37

AG-

ROUTE NOT PROVIDED

R-

RELEASE ROUTING INFORMATION

RST

SNK

RAVI,2

SR-

AV-

LGA

LGA

FGA

SGA

TGA

RG-

AG-

FGA

RG-

AG-

SGA

P4

P0,1,2,3

HGD

HGD

EGD

EGD

VG

VG

VG

SG

SG

NPRC

PRC

IF AVAILABLE

UNLIMITED

LIMITED

TGA

FGA

FGA

FGA

SGA

SGA

CDRAO, 1,2

CDRA3

CDRAO

CDRAI,2

CDRAO/2

CDRAI/3

LGA

P0,1,2,3

P4

NPRC

PRC

SCK

RR

R-

R-

PBY

R- SPECIAL GRADE ROUTE IF AVAILABLE

49A/1E

GRD CNR TO REG-ADVANCE TO PREEMPT CYCLE

ROUTE TO PREEMPT ANNOUNCEMENT

ROUTE TO TONE TRUNKS

32

COMPLETING MARKER CIRCUIT

SD-26002-01-E49B

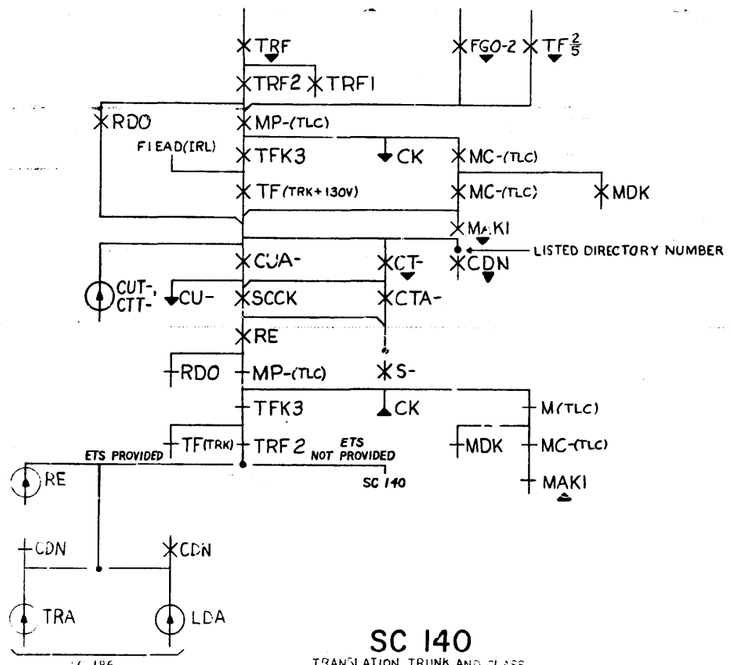
BELL TELEPHONE LABORATORIES INCORPORATED

SS

HIGGINS 4465

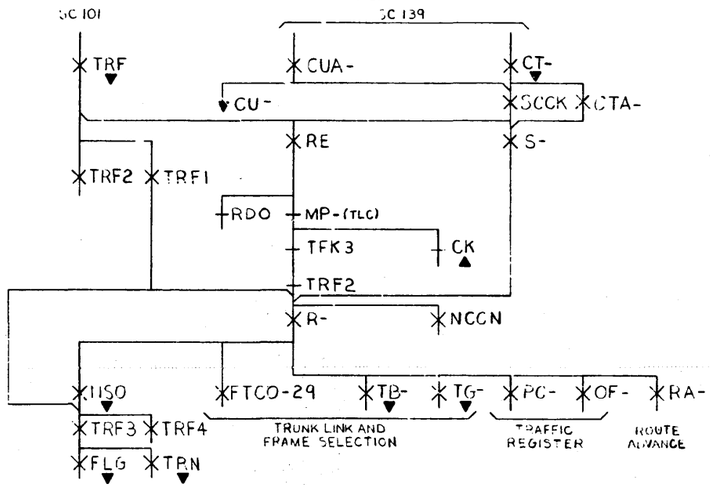
## SC 139

SEIZURE OF TRUNK LINK FRAME TO READ OUT CLASS OF SERVICE TRANSFER CALL



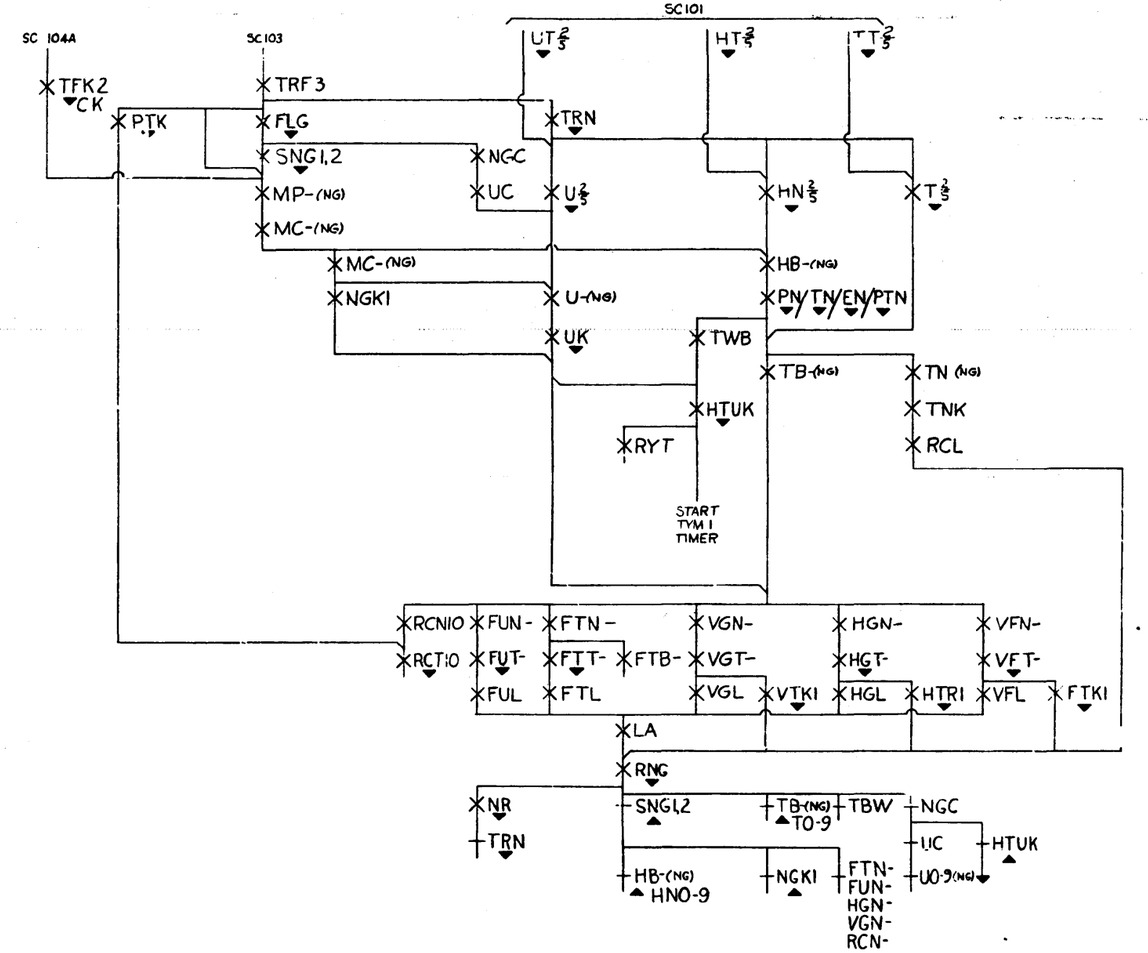

## SC 140

TRANSLATION, TRUNK AND CLASS SCREENING AND ROUTE RELAY OPERATION TRANSFER CALL




## SC 141

NUMBER GROUP SEIZURE AND TRANSLATION TRANSFER CALL




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE 210 AGM JDP AWE

ISSUE 58A

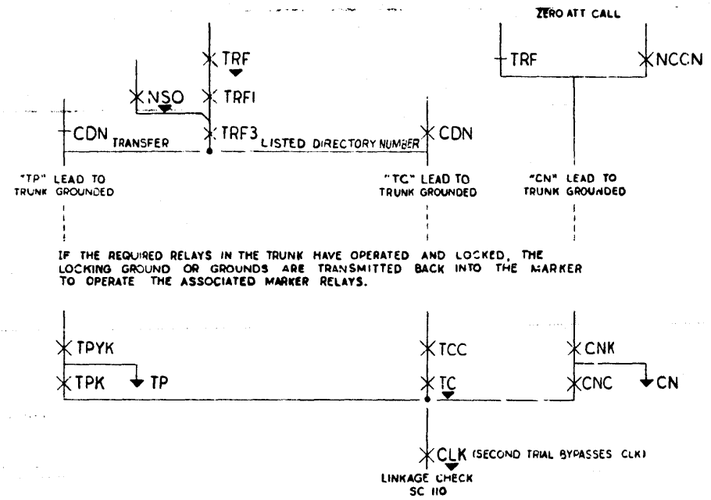
COMPLETING MARKER CIRCUIT

SD-26002-01-E50

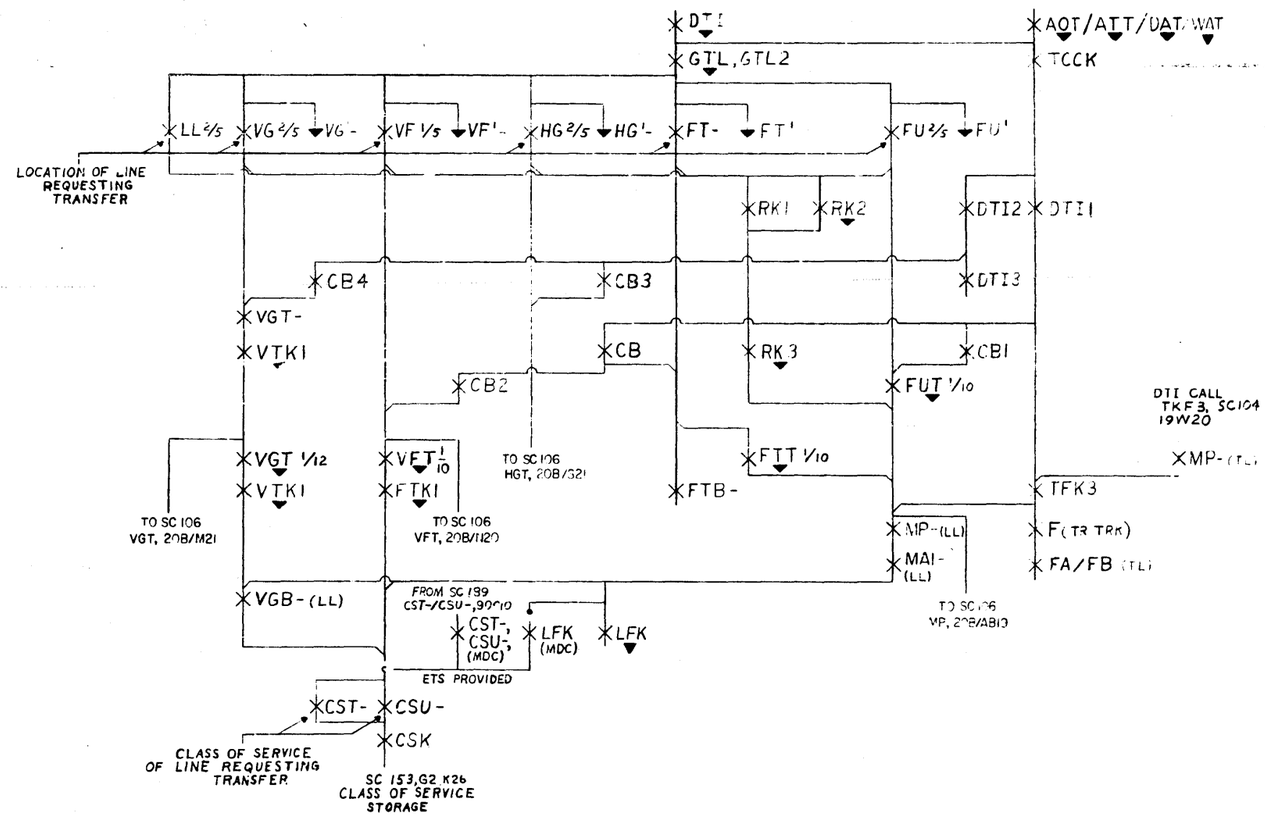
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-E50

# SC 142
ATTENDANT TRUNK LAMP INFORMATION




# SC 143
LINE LINK FRAME SEIZURE AND CONTROL
PHASE III CENTREX, DTI CALL




DRAWING ISSUE

| | | |
|---|---|---|
| 21D | SGE EDM | |
| 22D | EN | |
| 29A | FEB | |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68
43D

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E51

BELL TELEPHONE LABORATORIES INCORPORATED

6S

STABI-0

# SC 144

NO. GROUP SEIZURES
FOR LINE LINK PULSING
PBX DID CALL

H-, T-
TH-, U-
SNGI, 2
NSS--
ALS
CKG6-
ANON
ADVA
ANT
EXT NUMBERS IN MULTIPLES OF 100 ASSIGNED TO ONE PBX
NO GR FURNISHED FOR INDIVIDUAL TREATMENT OF PBX EXT NUMBERS
EXT NUMBERS IN MULTIPLES OF 1000 ASSIGNED TO ONE PBX
MP- (NG)
NANS
EXT NUMBERS ARE NOT ALLOTTED
LRST
HB- (NG)
PN ETC
U- (NG)
TB- (NG)
HGN-
VGN-
RCN-
VFN-
HGT-
VGT-
LLPI
LLP
VFT-
HVT-
OP-
3 DIGIT OR 11XX CODE POINTS
LR-
LPN
LRS
LR-
CKO
LLP2
ANON
LLI
ADVA, ANT, NANS
SNGI, 2
NE
HGN-, RCN-, VFN-, VGN-
LLPI
LLP
CKR
AMA
IF PBX TRUNK NO. IS ALLOTTED
AMA
LRD
LRA
LLI
PBXI, 2
IF PBX TRUNK NUMBER IS NOT ALLOTTED
ANON
ADVA
ANT
CL-, CR-, DL-
SNGI, 2
RAVI, 2
RA
LR--, LRS
OP-
ANA-
ANB-, ANC-, AND-
AN
AN
RCY
RNG
NGT-
ROUTE ADVANCE TO SOG TYPE CALL
NR
ANS
NANS
NGS-
NGSK
NARI, 2
NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.
MP- (NG)
TO SC 116
MP, 30R10
SEIZE NUMBER GROUP FOR PBX TRUNK LOCATION

# PART OF SC 145

LINE LINK PULSING SENDER
SELECTION AND CONTROL CIRCUIT
TER OR ITR CALL
(A)ETS NOT PROVIDED

LR--
LRA
OP-
LSCI
LSC2
KGS3,4 MP (OSC)
CL 1/8
CL P/5
CR 1/6
CR P/5
DL 1/7
DL P/3
OSG-
LSCI
OGC
TTL
GB A/B
SON
LSCI
OSC
SI A/B
KGS3
KGS4
SCC
IF SDR CONN BUSY
TGSI
SNK
MP- (OSC)
A 2/5
KK
CLKI-3, CRKI, 2
DLKI-3
CL-, CR-, DL-
SK A/B
B 2/5
OSTI
C 2/5, D 2/5, E7
SS A/B
OSG A/B (OSC)
MP- (LL)
ORKI, 2
LLS
OS-
MC- (OSC)
OSTI
OSEI
OSE
OSK
OS-
EXCEPT PREFERRED
LFKI
OSKA
F (LINE CKT)
SS SEL (OSC)
S- (OSC)
GB A/B
SI A/B
SHK
DSAI (OSC)
KK, ORKI, 2
DSA2 (OSC)
ON1 (OS)
SHKA
A 2/5, B 2/5, C 2/5, D 2/5, CLI-3, E7 (OS)
OSTI
CL5, 6, CR-, DL- (OS)
SB (OS)
SLK
OST
OSEI
SH HOLD (OSL)
SLKI
OST2
SL (LINE CKT)
ON (OS)
TER ONLY
KGS3, 4
KK
REMOVE XMTG GROUNDS FROM CALLED LINE IDENT DIGITS TO OS
REMOVE XMTG GROUNDS FROM ROUTE INF LEADS TO OS
TGSI
D (LINE CKT)
CT (OS)
TG
LR (OS)
OSTI
SLK
OST
SLK2
RSC
SK
OSC
MC- (OSC)
DSAI, 2 (OSC)
MP- (OSC)
FLG
RNG
DCT
RCK3
FK
CL-, CR-, DL-
CLKI-3, CRKI, 2, DLKI-3
A 2/5, D 2/5, E7
SK A/B
ITR
ORKI, 2
OSG A/B (OSC)
TER
AV (OS)
AVK
AVKI
DCTI
LINKAGE CHECK SC 110

DRAWING ISSUE
220 NNF EM NT

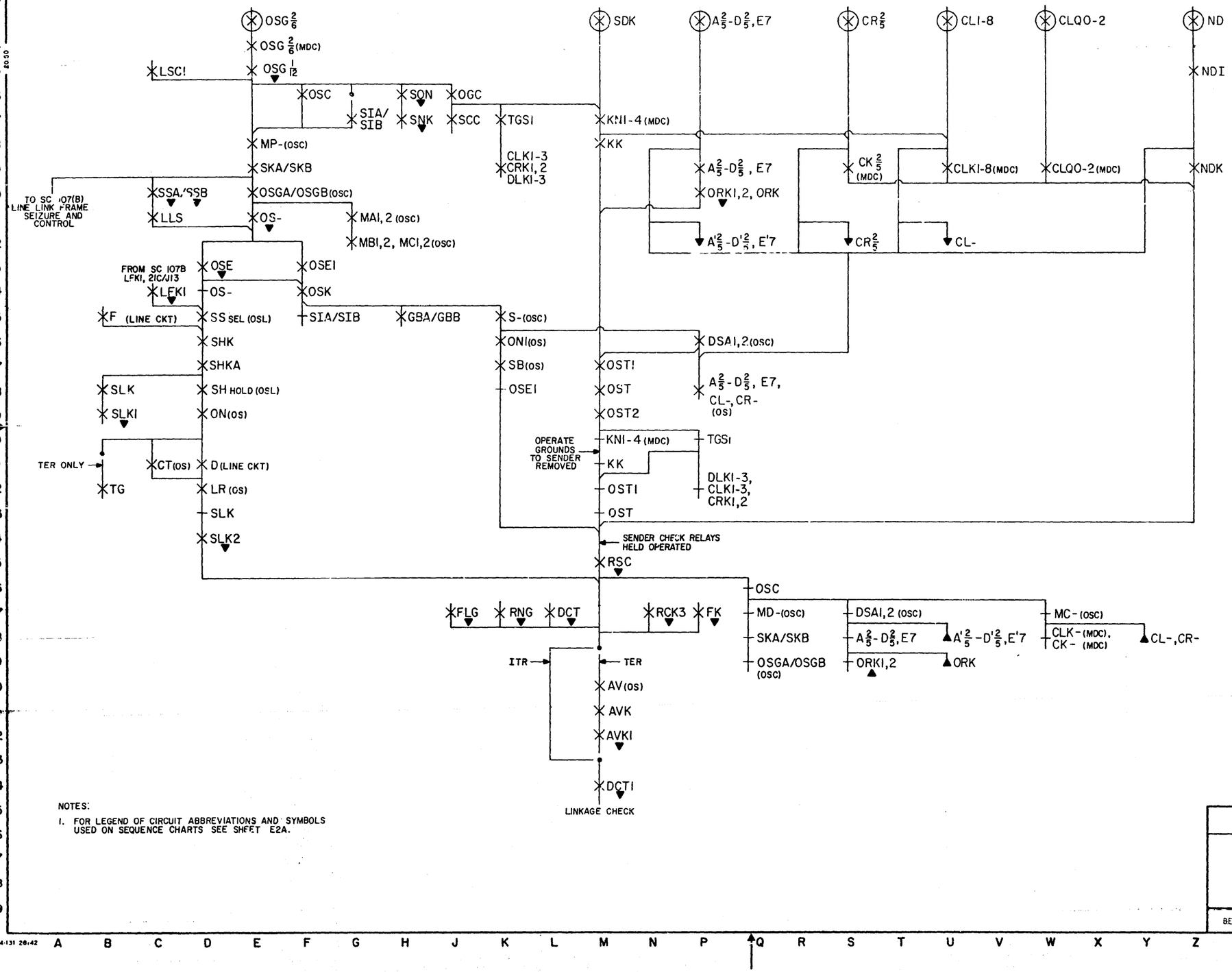
ISSUE 57B

COMPLETING MARKER CIRCUIT
SD-26002-01-E52A
BELL TELEPHONE LABORATORIES INCORPORATED
6S

STABILO

# PART OF SC 145

LINE LINK PULSING SENDER SELECTION AND CONTROL CKT
TER OR ITR CALL
(B)ETS PROVIDED




NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 65 | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | E52B |

BRUNING 44-131 28.42

## SC 146
TWO LINE NUMBER OPERATION
ETS NOT PROVIDED

30R10
HB-(NG)
PN / TN / EN / PTN
PTK
TBS-(NG)
TB-(NG)
TBS-
RCN-
RCT-
RCL
2L
2LN
2LA
SA0-9
LA
TTL
RNG
30R26
MP-(LLC)
21T16
LG-(LL)
LINE IDLE
LINE BUSY
LIT
31E8
LBT
LBTA
2L
RCY2
2LN
RCY3
SAK (IF ONLY ONE SA- IS OPERATED)
LLCI
FLGI
33R19
33Z20
RELEASE LL INFORMATION
RELEASE NG INFORMATION
RCY4
RNG
FLGI
NGC
UA
SAK
RYT
SAK
XN
SNG1,2
MP-(NG)
NUMBER GROUP START

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

## SC 147
CALL WAITING SERVICE CONTROL

LBT (SC 117)
XVGB, CWL
LBTA
CWS
LB
CWF
CWSI,2 (CWL)
NON CALL WAITING LINE
LP-(CWL)
NCW (CWL)
ALL CALL WAITING CIRCUITS BUSY
CP-(CWL)
NCW
LB
LINE BUSY (SC 117)
CALL WAITING LINK FUNCTIONS
CWN-
CWH-, CWT-, CWU-
CWC1
CWC2
DCT (CWL)
HN-, T-, U-
(CALL WAITING CKT NUMBER)
CWK
CWR
CWK
CWS (CWL)
RCY2
PRCY
LLCI
RCY3
RELEASE LLC (SC 120)
CWS
CWF
FLGI
RELEASE NUMBER GROUP TRANSLATION (SC 120)
RCY4,5
RNG
FLGI
RYT
SNG1,2
NGC
MP-(NGC)
NUMBER GROUP SEIZURE (SC 116)

DRAWING ISSUE
43D
44A

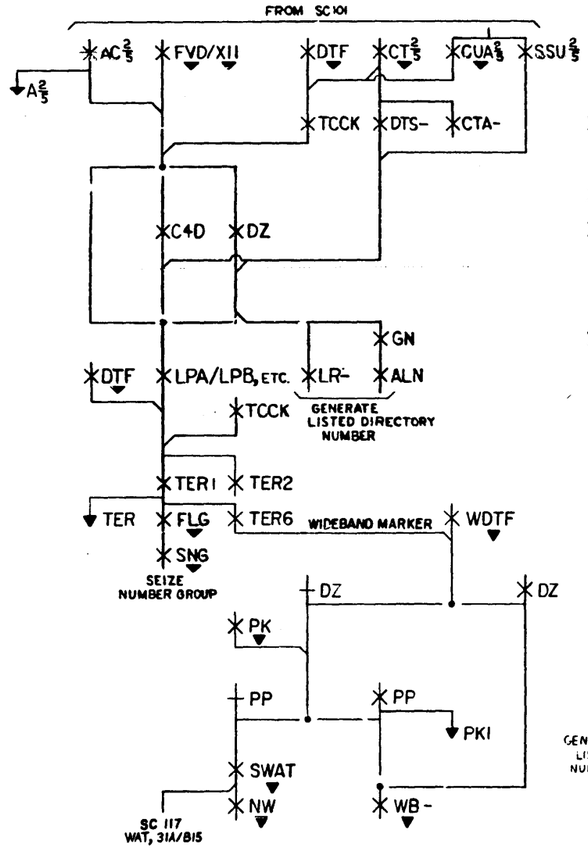
DRAWING ISSUE
57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E53

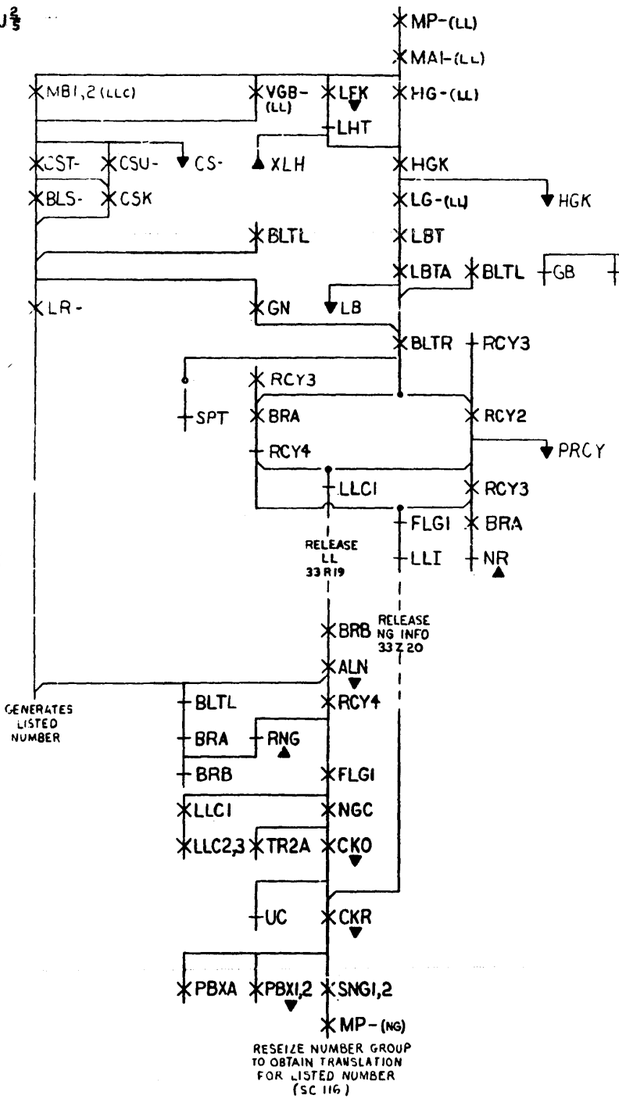
BELL TELEPHONE LABORATORIES INCORPORATED — SHEET SIZE 6S — PRINTED IN U.S.A.

SD-26002-01-E53

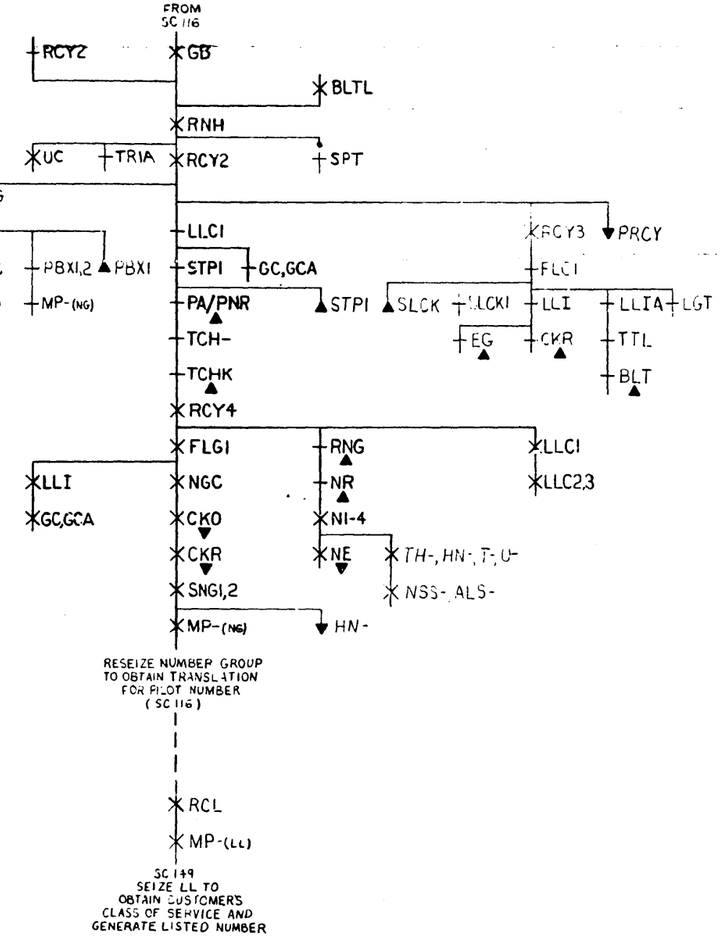
## SC 148
"A" DIGIT TRANSLATION AND TYPE OF CALL AND LINKAGE (DIAL TRANSFER CALL)




## SC 149
BUSY LINE TRANSFER RECYCLE (LINE FOUND BUSY AT LLF)




## SC 150
PBX RECYCLE NON HUNT FOR BUSY LINE TRANSFER HUNTING GROUP (ALL LINES FOUND BUSY IN NUMBER GROUP)




DRAWING ISSUE
250 (W54 W58)
430

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E54

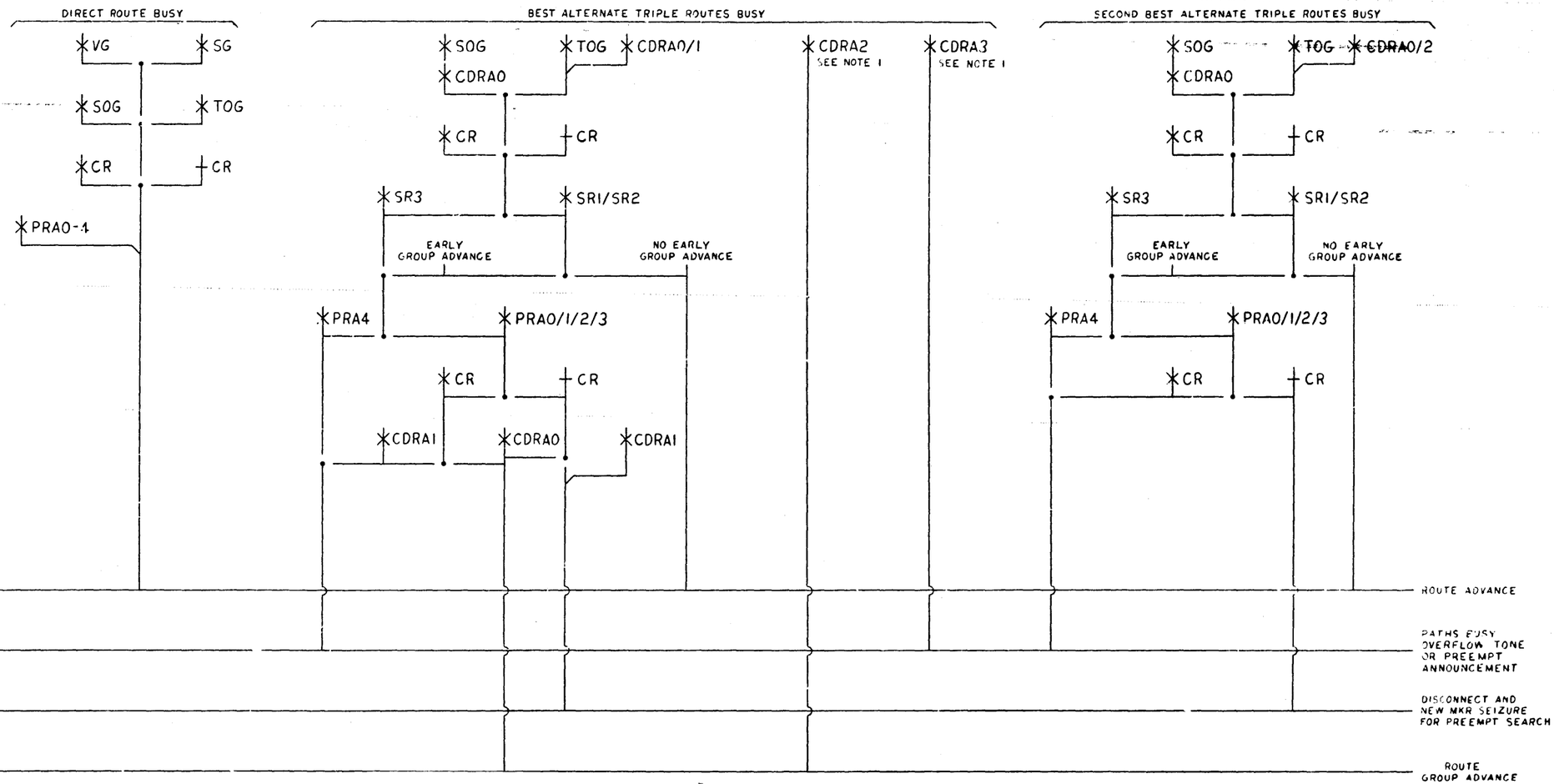
BELL TELEPHONE LABORATORIES INCORPORATED

PAGE NO. 65

PRINTED IN U.S.A.

# SC 151

ALTERNATE ACTIONS FOR POLYGRID ROUTING
HOME GRID OFFICES




NOTES:
1. BEST ALTERNATE TRIPLE ROUTE PROGRAM RELAY OPERATES BUT NO ROUTE IS LOOKED AT IF (CDRA2'1') IS RECEIVED.

DRAWING ISSUE
32A KEG CLK 8AP

32

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E55

BELL TELEPHONE LABORATORIES INCORPORATED

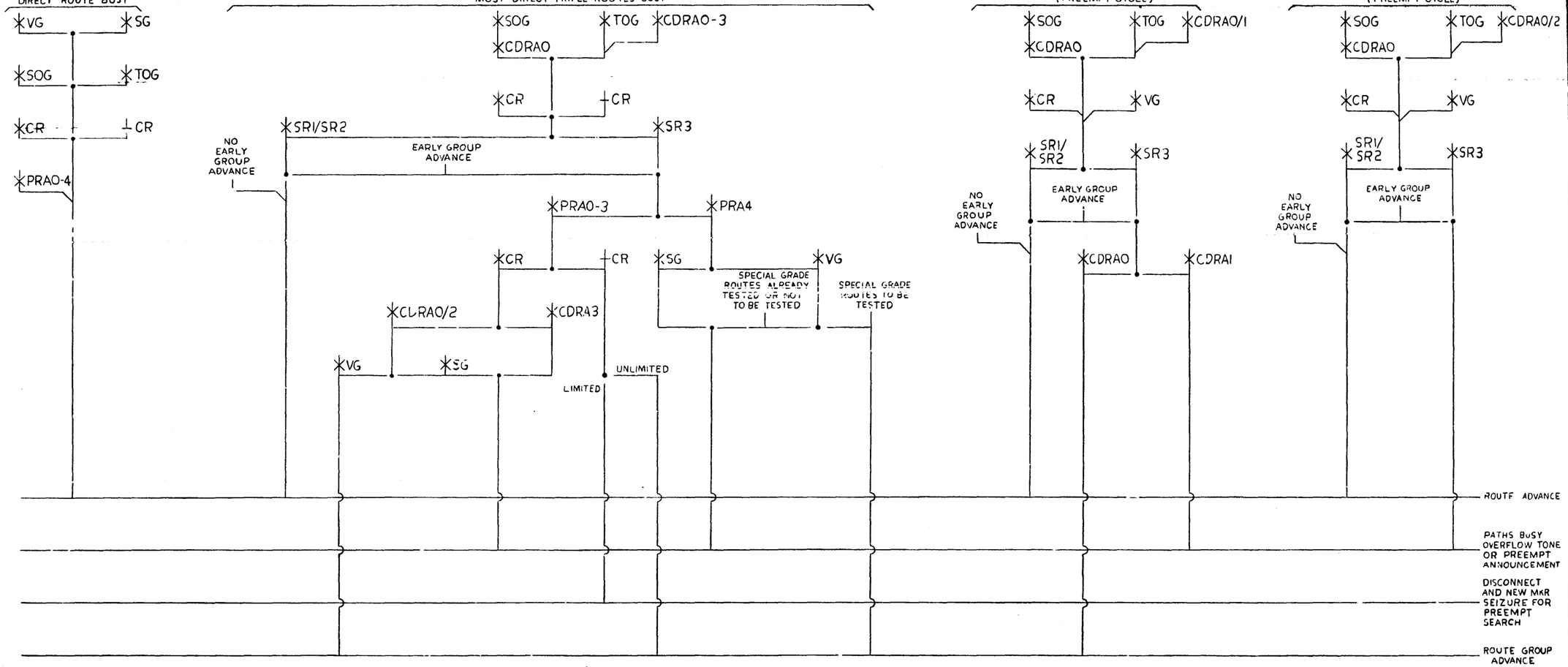
6S

KIMBERLY

SD-26002-01-E55

# SC 152

ALTERNATE ACTIONS FOR POLYGRID ROUTING
EXTERNAL GRID OFFICES




| DRAWING ISSUE | |
|---|---|
| 32A | RCB CLR AND |
| 37D | WM |

37

COMPLETING MARKER CIRCUIT

SD-26002-01-E56

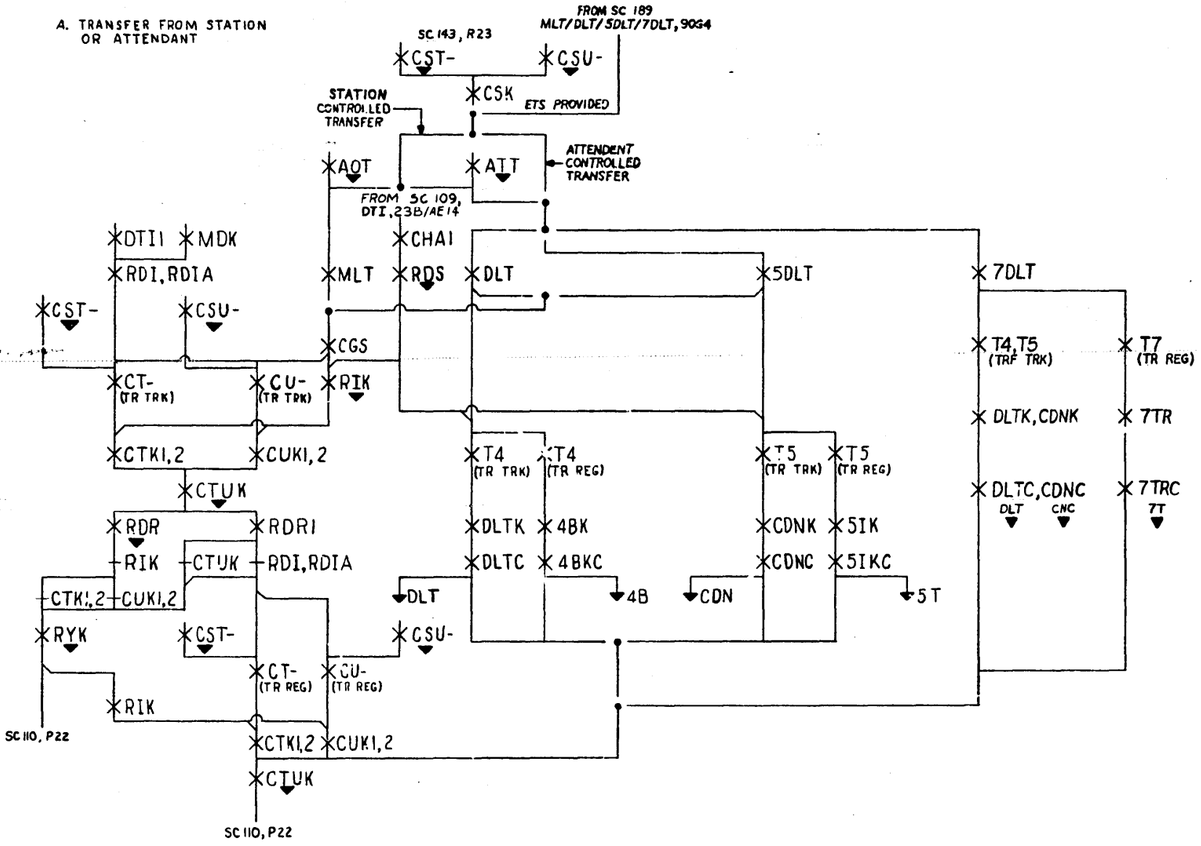
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

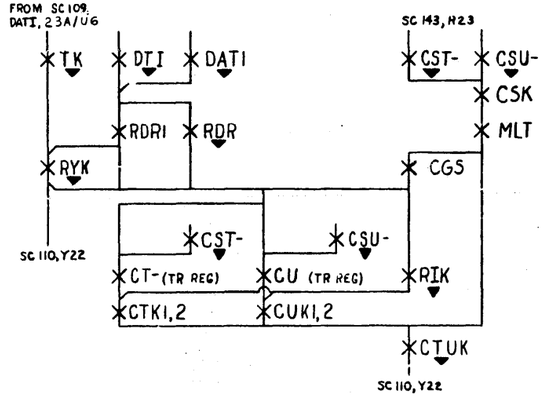
# SC 153

CLASS OF SERVICE STORAGE DTI USAGE - PHASE III CENTREX

A. TRANSFER FROM STATION OR ATTENDANT




B. DON'T ANSWER TRANSFER




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE

| | |
|---|---|
| 29A | CLK SAL And |
| 35D | DP ASS Pul |
| 390RJR | |

ISSUE 58A

COMPLETING MARKER CIRCUIT

SD-26002-01-E58A

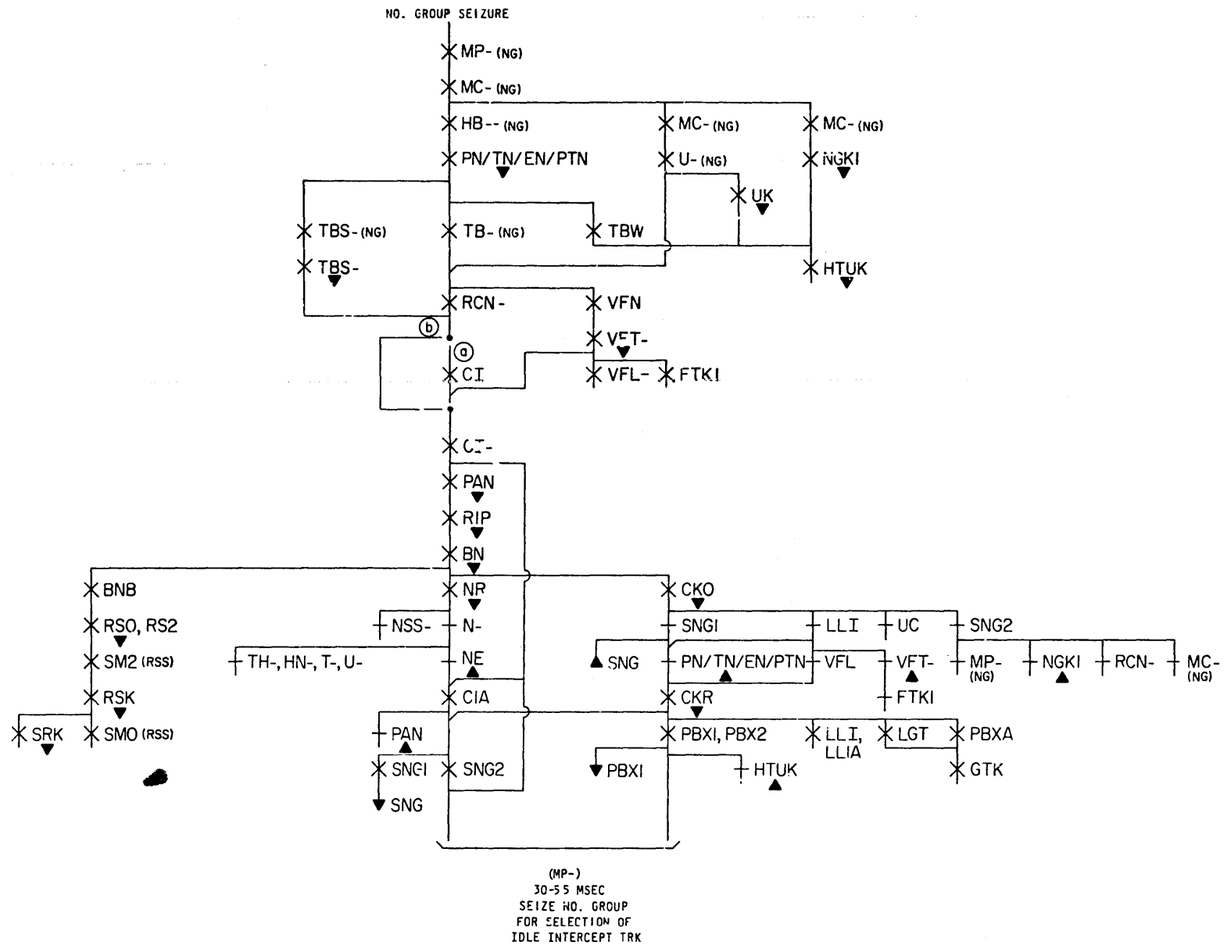
BELL TELEPHONE LABORATORIES INCORPORATED

6S

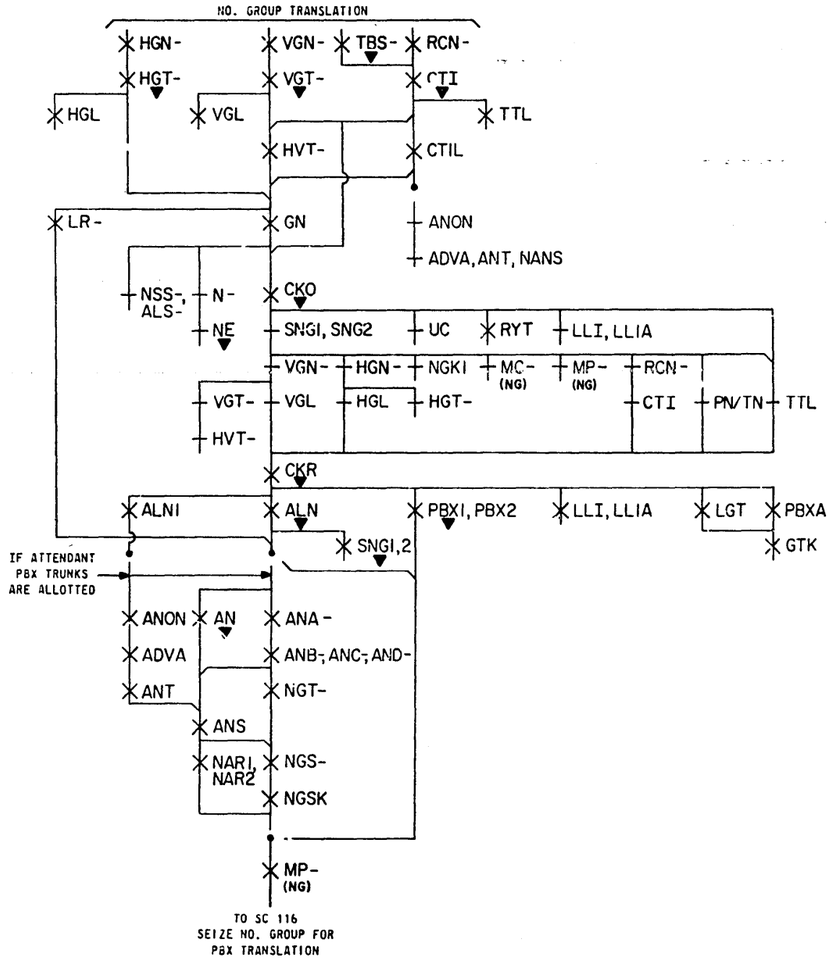
26002-01-E58A

OTHERS

INDIVIDUAL CUSTOMER GROUP INTERCEPT ANNOUNCEMENT




TEMPORARY INTERCEPT ROUTE TO ATTENDANT (PHASE III)




NOTES:
a. SINGLE TERM. TREATMENT, VFT-IDENTIFIES CUSTOMER.
b. TERM. TREATMENT PER CUSTOMER.

DRAWING ISSUE
35G DP AAL AAB
41D

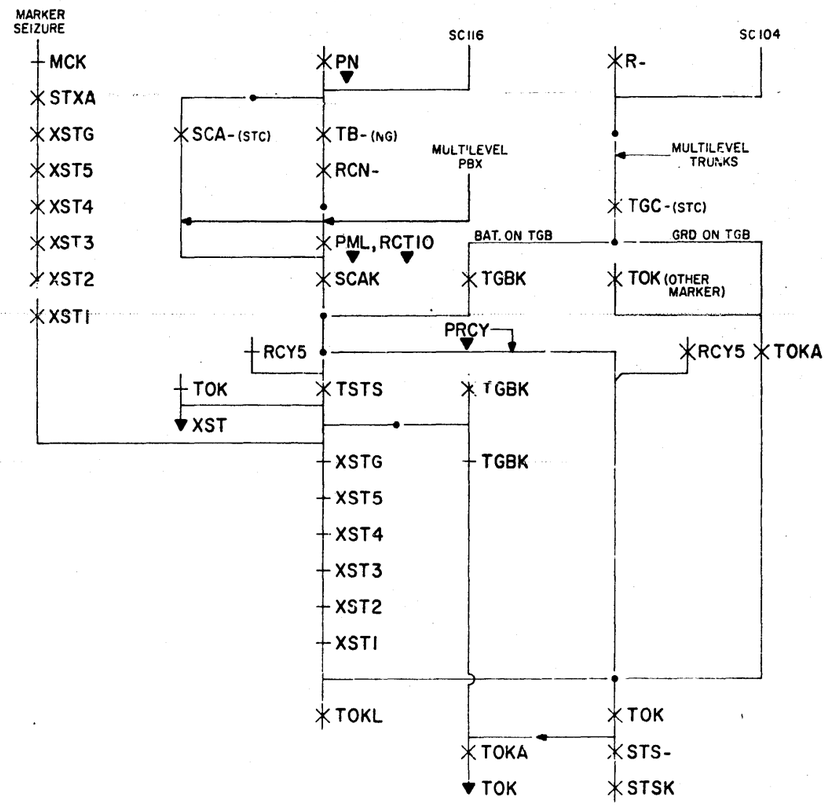
41

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E58B

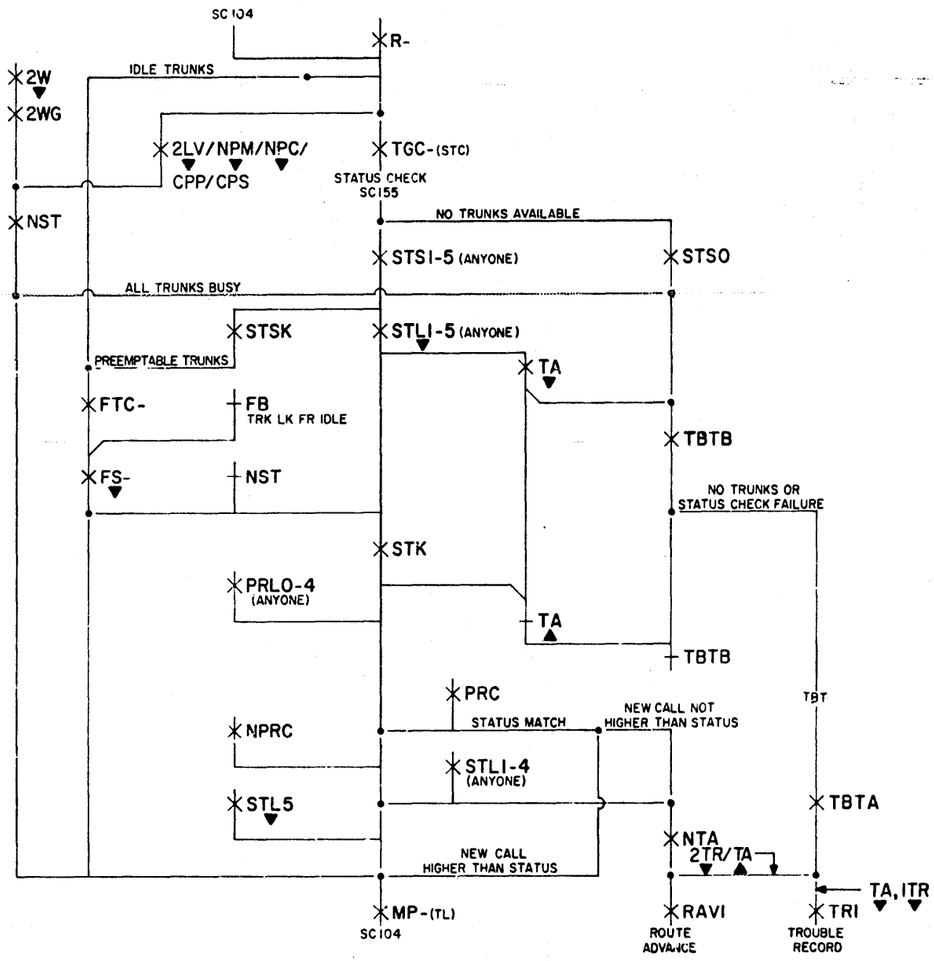
BELL TELEPHONE LABORATORIES INCORPORATED — 6S

PRINTED IN U.S.A.

# SC 155
MULTILEVEL STATUS CHECK




# SC 156
SEIZURE OF TRUNK LINK WITH MULTILEVEL OPERATION




DRAWING ISSUE
32A DR 111 AND

32

COMPLETING MARKER CIRCUIT

SD-26002-01-E59

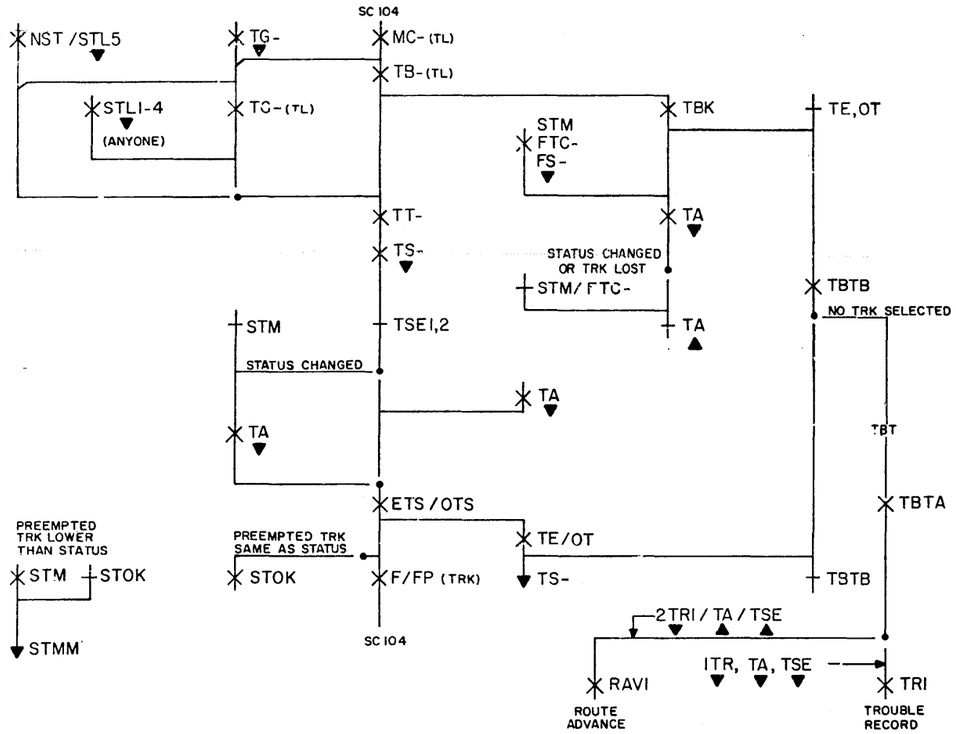
BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-E59

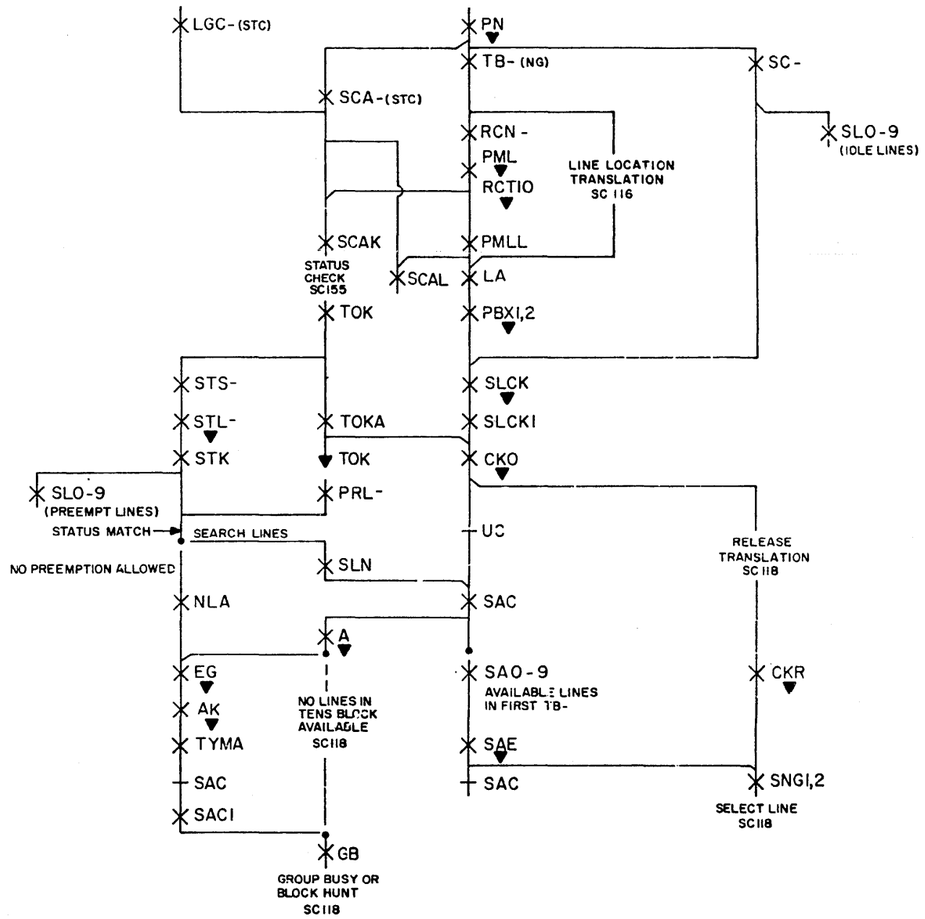
## SC 157

TRUNK SELECTION
WITH MULTILEVEL OPERATION




## SC 158

LINE SELECTION
MULTILEVEL PBX



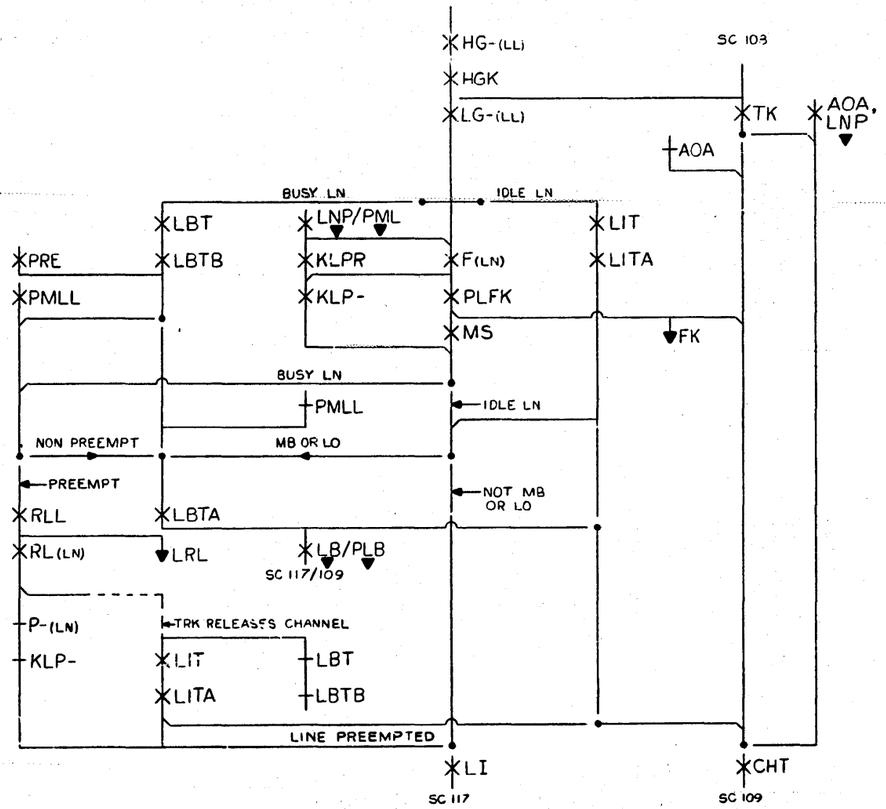

| DRAWING ISSUE | | |
|---|---|---|
| 32A | CR | CLK AED |
| 35D | TEK | AAC AHD |
| 39D | RJF | |

39

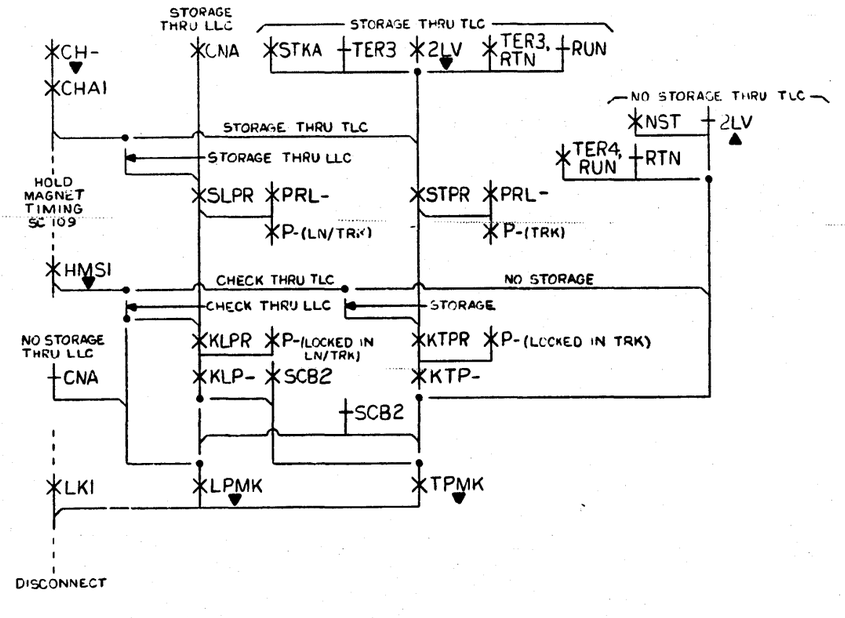
COMPLETING MARKER CIRCUIT (2) SD-26002-01-E60

BELL TELEPHONE LABORATORIES INCORPORATED 6S

## SC 159
LINE BUSY TEST
MULTILEVEL LINES




## SC 160
4W PRECEDENCE STORAGE AND CHECK




DRAWING ISSUE
32A JLF 4-1-80

CB

32

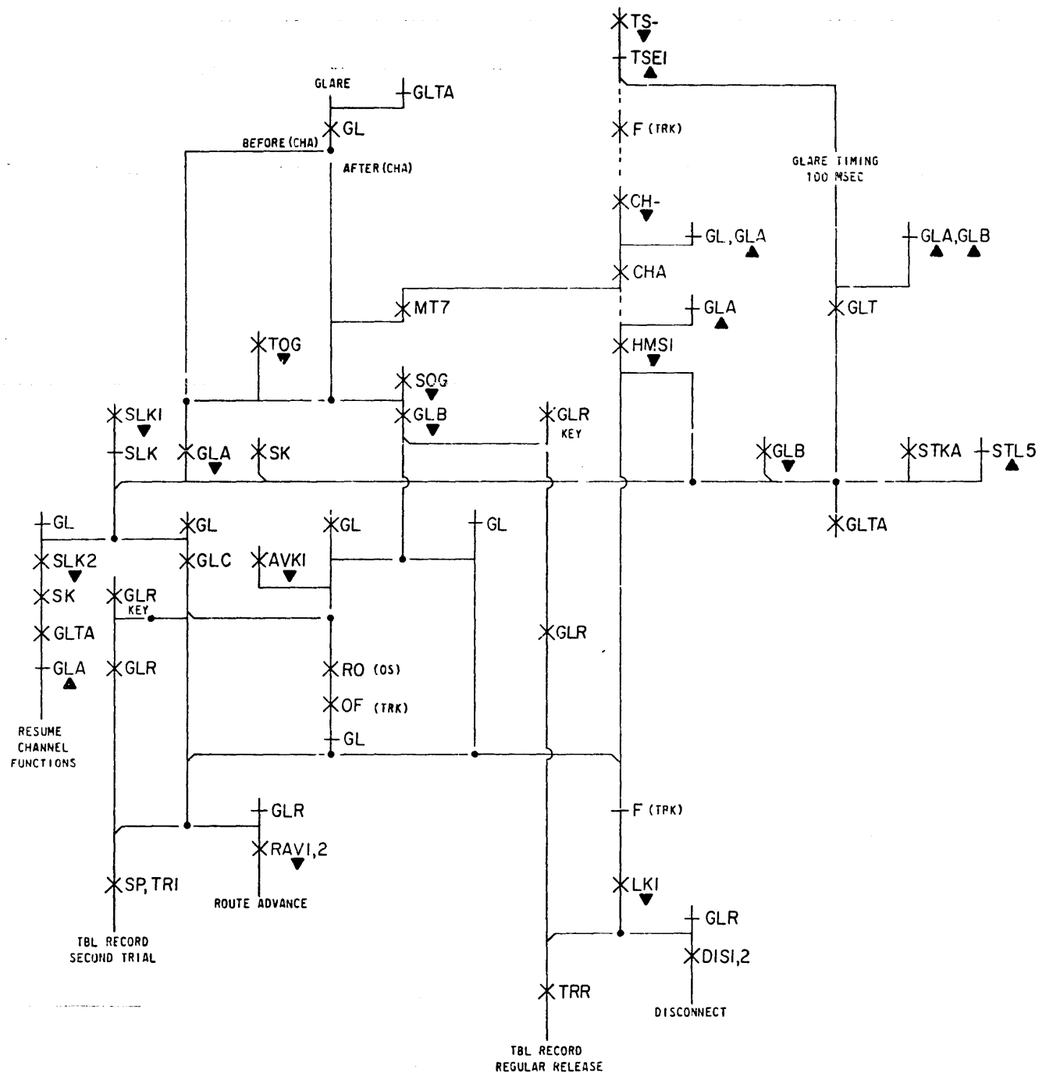
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E61

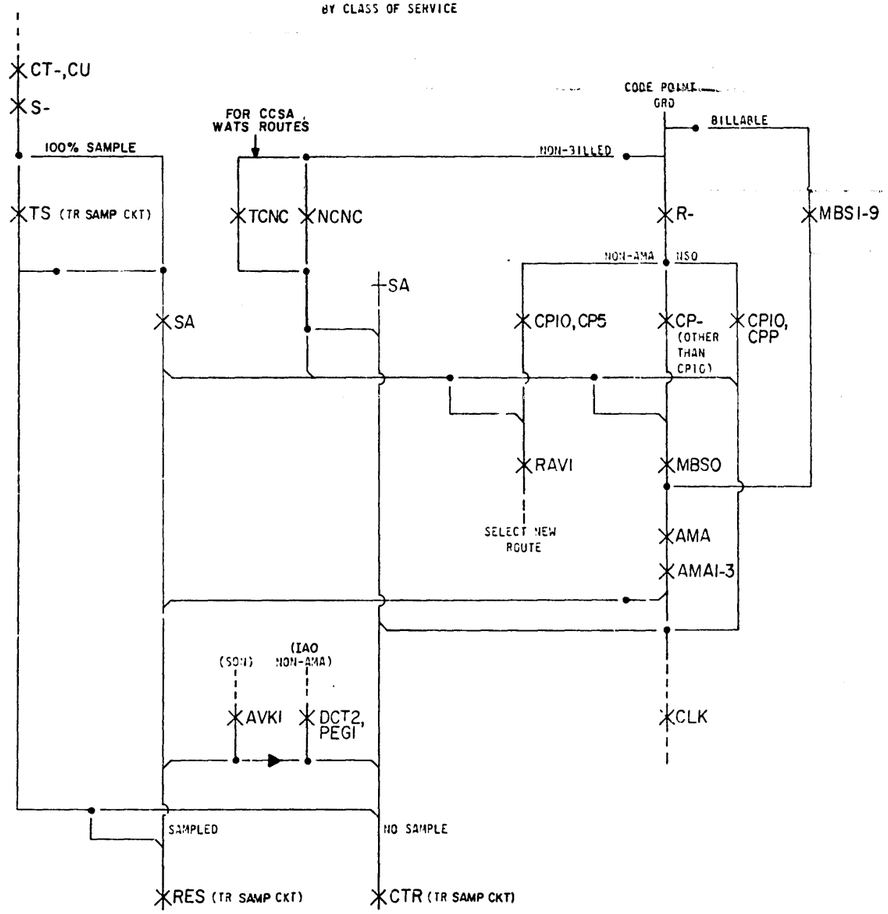
BELL TELEPHONE LABORATORIES INCORPORATED

PAGE NO. 65

# SC 161
GLARE DETECTION




# SC 162
TRAFFIC SAMPLING CONTROL BY CLASS OF SERVICE




DRAWING ISSUE 35D LP PSL HJD

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 41D

41

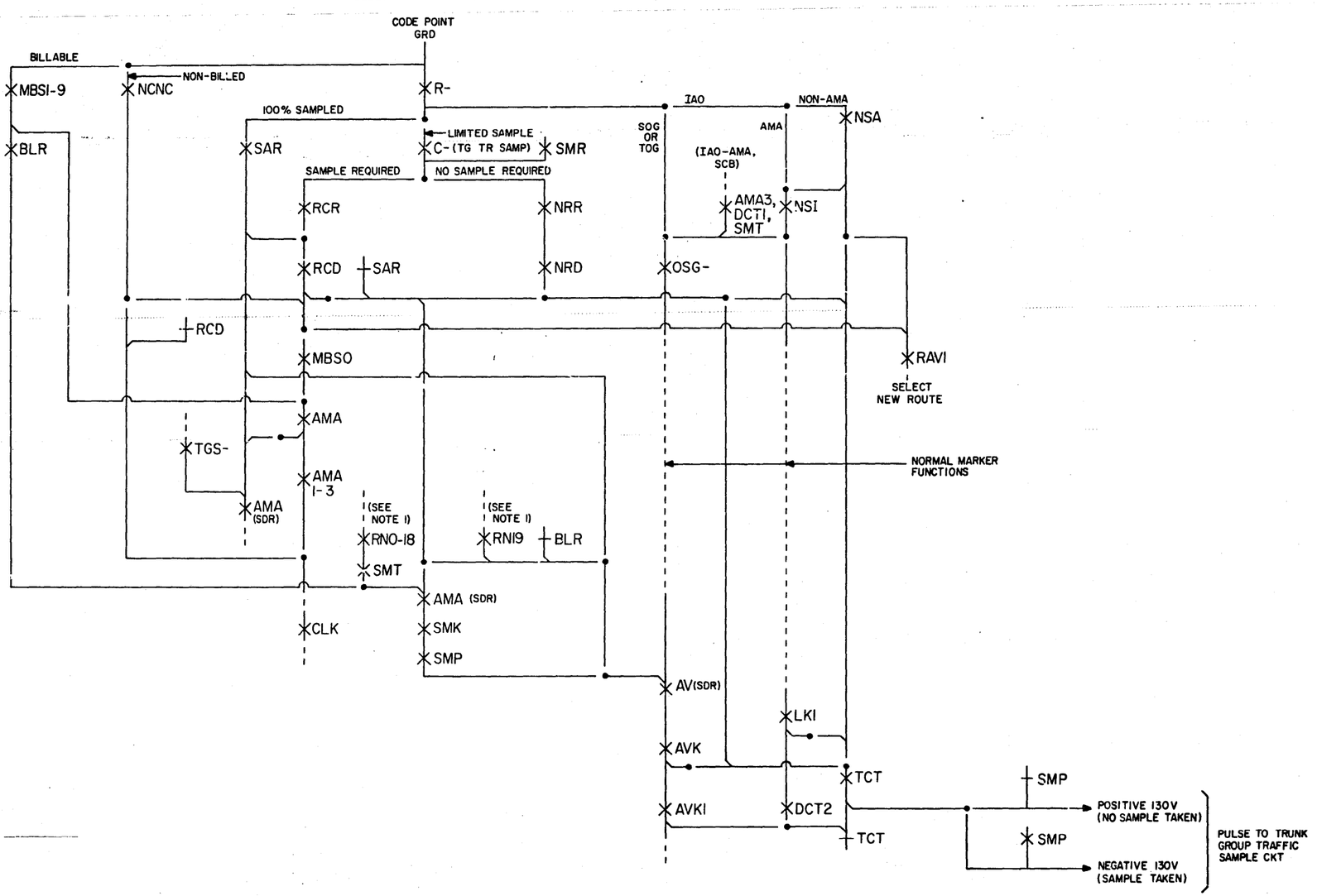
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E62

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# SC 163
TRAFFIC SAMPLING CONTROL BY SELECTED TRUNK GROUP




NOTES:
1. AMA RECORDER NO. FROM TRUNK LINK CKT RECORDER NO. 19 INDICATES NON-AMA TRUNK FOR SAMPLING CONTROL. (RN9) INDICATES NON-AMA WHEN (RNIO-19) ARE NOT EQUIPPED.

DRAWING ISSUE
35D T.& NSC REL. ENG
36A MS

36

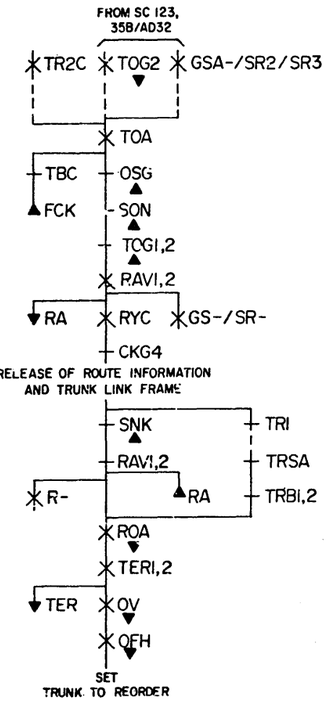
COMPLETING MARKER CIRCUIT (2) SD-26002-01-E63

BELL TELEPHONE LABORATORIES INCORPORATED | 6S

SD-26002-01-E63

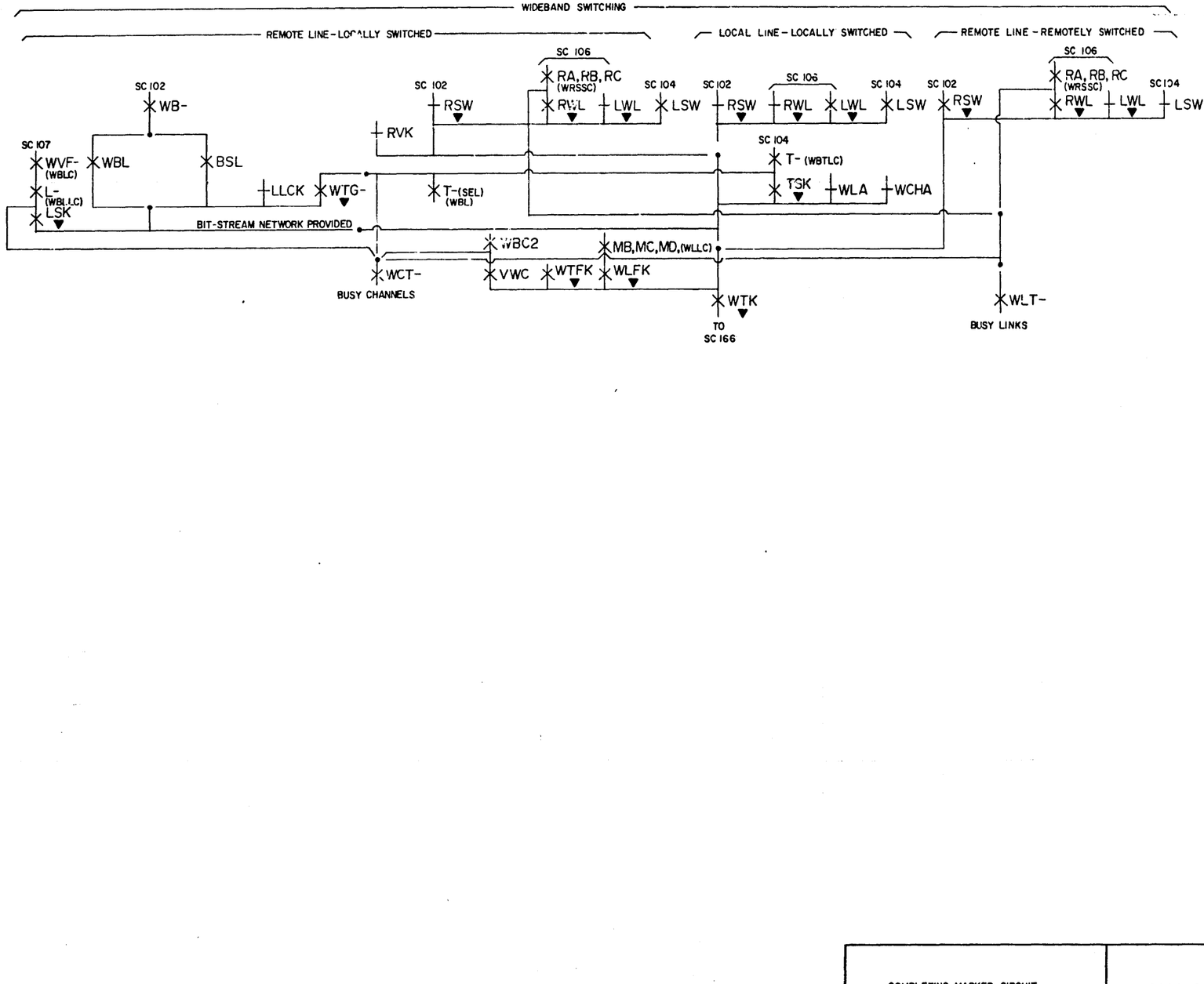
## SC 164

REORDER AFTER A SECOND TRIAL TROUBLE RECORD FOLLOWING A ROUTE ADVANCE




## SC 165

CONTROL FOR WIDEBAND CHANNEL AND LINK TEST



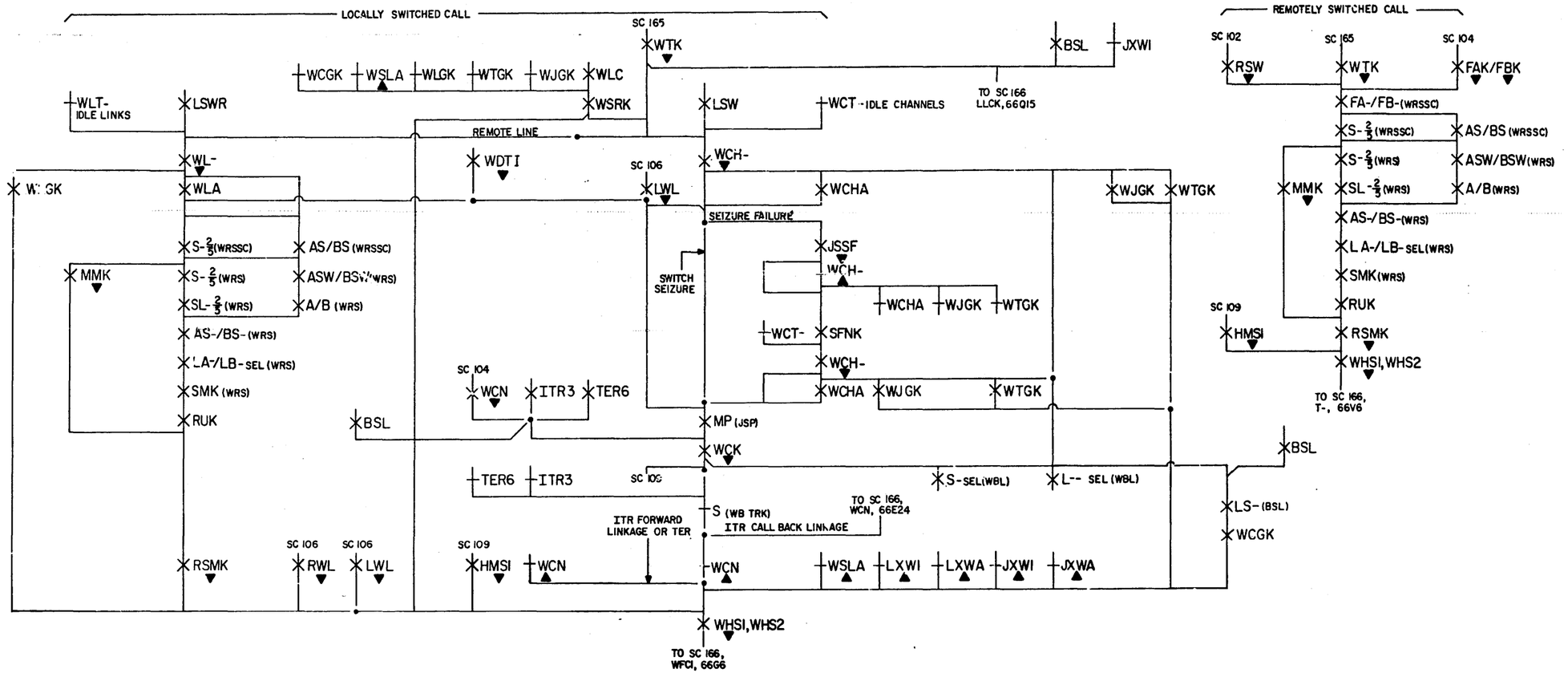

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E64

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF SC 166

WIDEBAND CHANNEL SELECTION AND HOLD MAGNET OPERATION




| DRAWING ISSUE |
|---|
| 39D |
| 43D |

| DRAWING ISSUE |
|---|
| 47D |

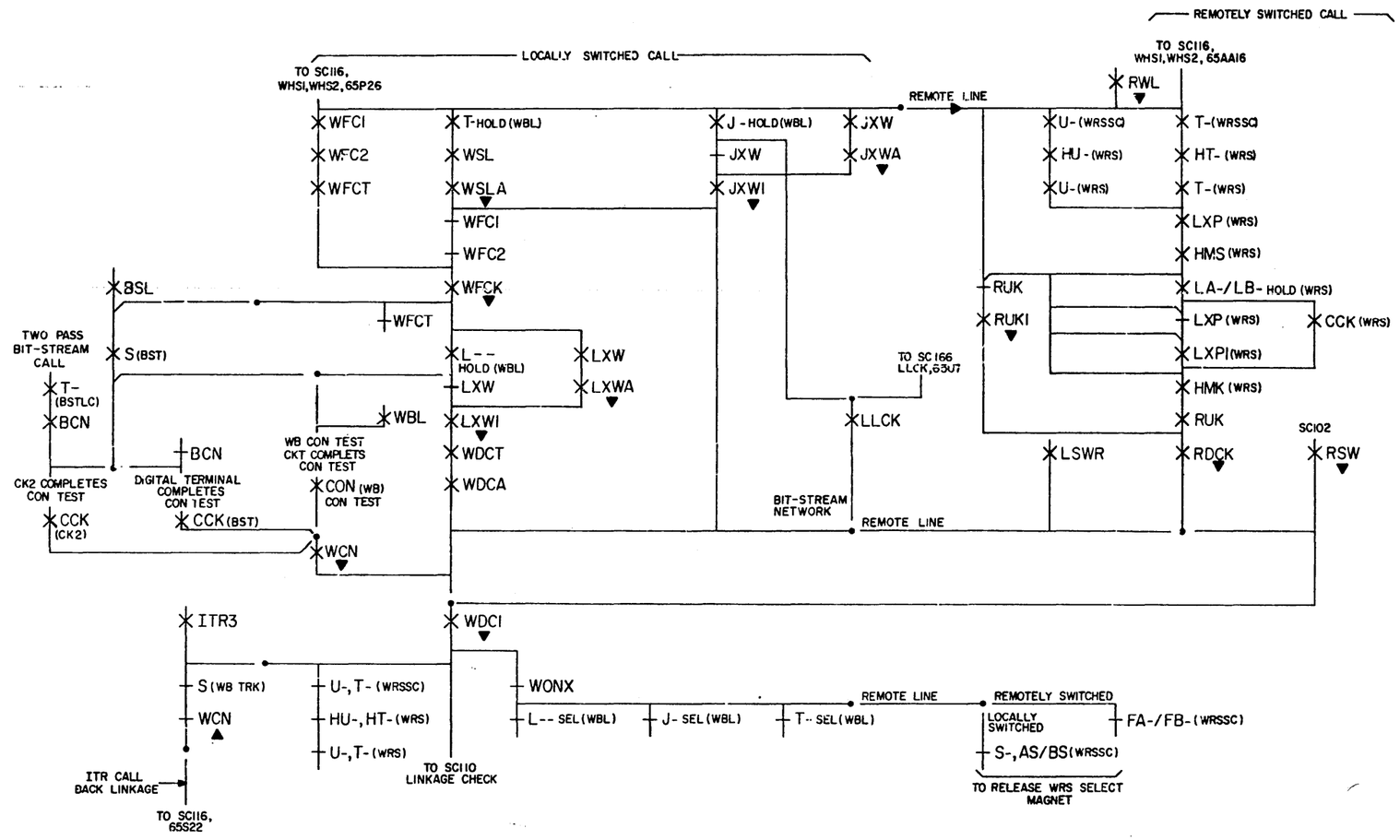
COMPLETING MARKER CIRCUIT (2) SD-26002-01-E65

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-E65

# PART OF SC 166

WIDEBAND CHANNEL SELECTION AND HOLD MAGNET OPERATION




| DRAWING ISSUE |
|---|
| 39D |

| DRAWING ISSUE |
|---|
| 47D |

COMPLETING MARKER CIRCUIT (2)

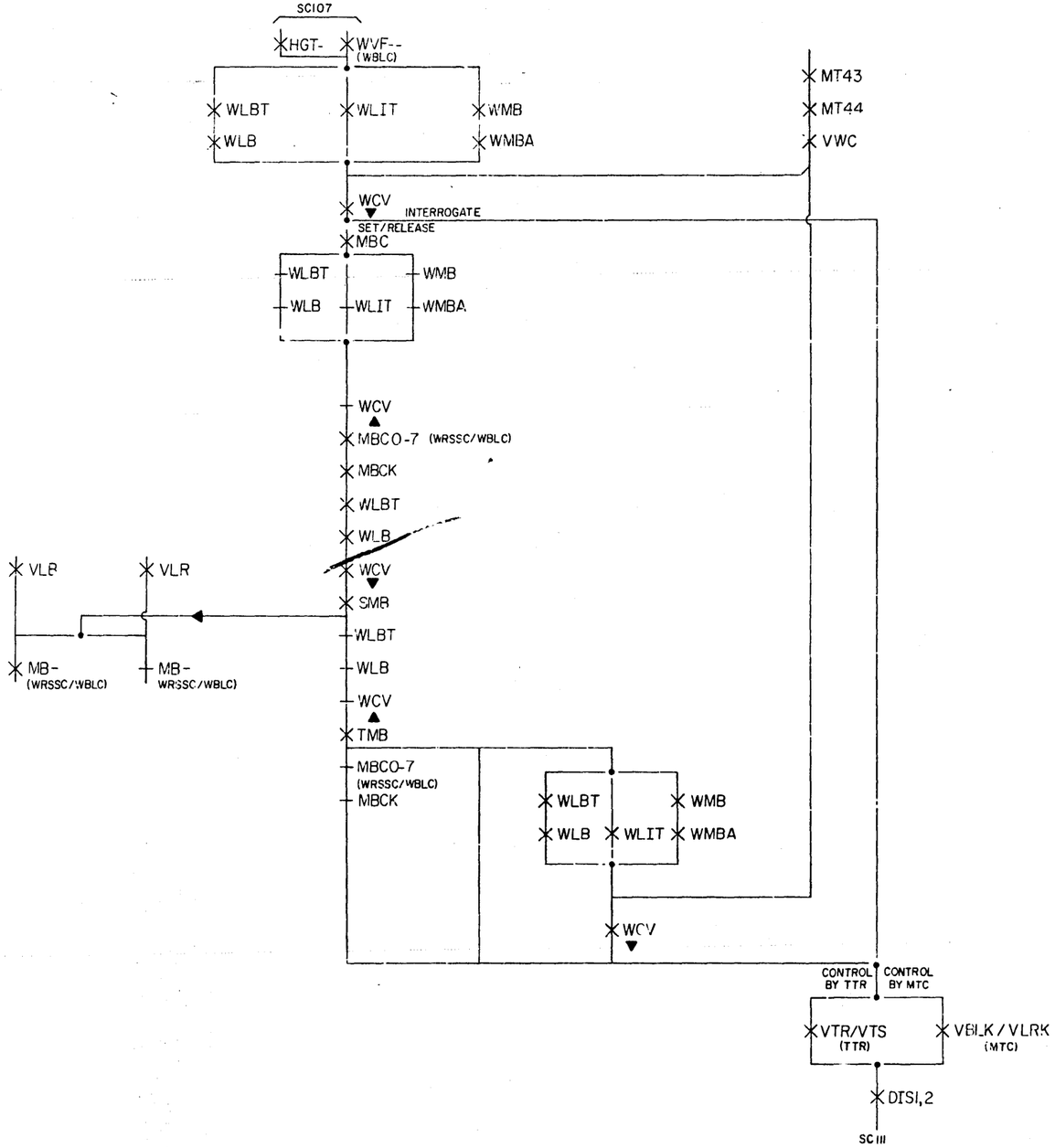
SD-26002-01-E66

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# SC 167

CONTROL OF WIDEBAND MAINTENANCE BUSY




| DRAWING ISSUE | |
|---|---|
| 39D | RP |
| 40A | |
| 424 | |

42

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-E67

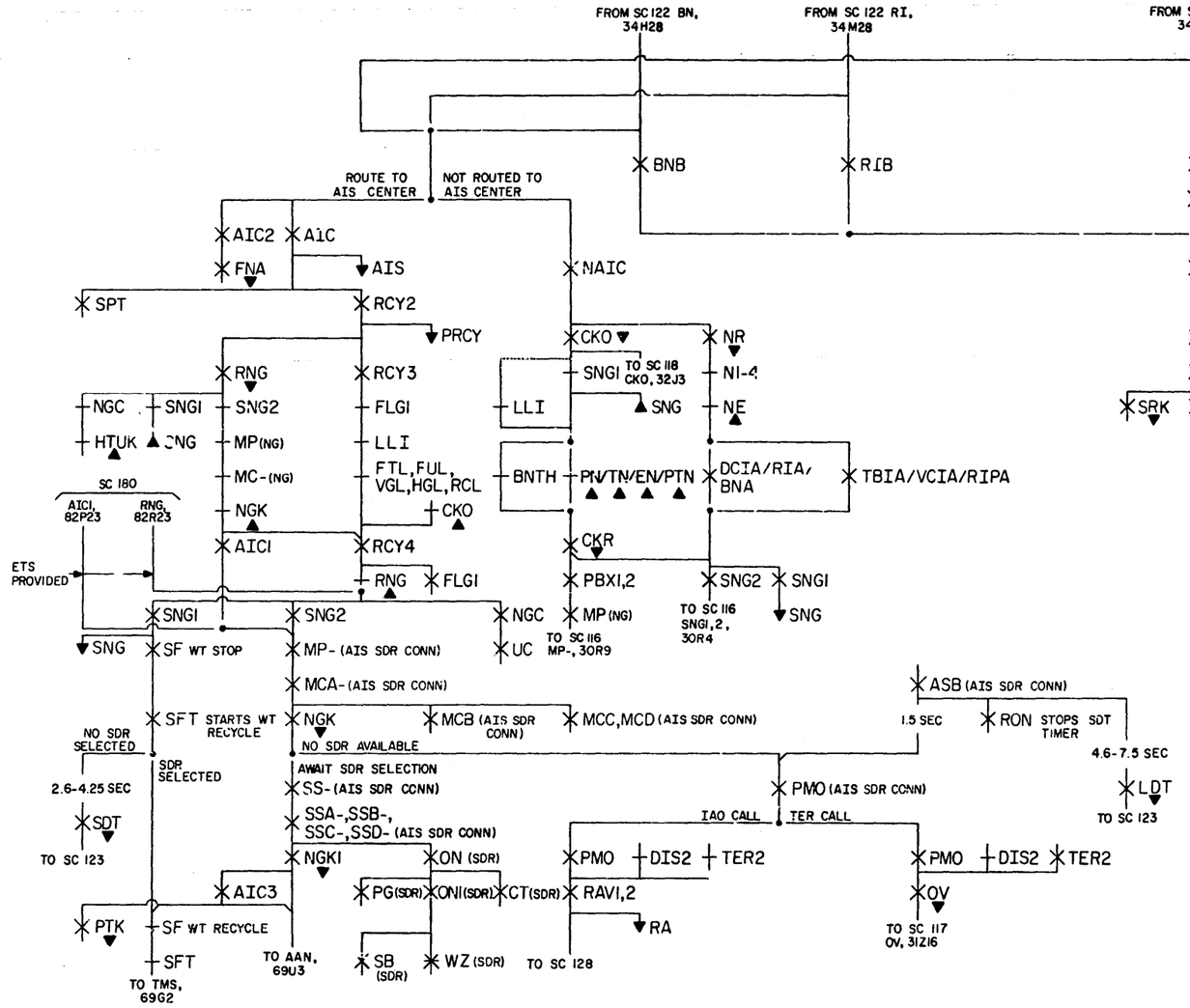
BELL TELEPHONE LABORATORIES INCORPORATED

6S

26002-01-E67

# PART OF SC 168

AUTOMATIC INTERCEPT USING DEDICATED SENDERS




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

DRAWING ISSUE 410

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E68

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# PART OF SC 168

AUTOMATIC INTERCEPT USING DEDICATED SENDERS

DRAWING ISSUE 4D

FROM SFT, 68H28

TMS WT STARTS

WT

CONTINUE TIMING IF WT OPERATES

WT

WT

TO SC 123

SF WT STOPPED LLF SEIZURE

SFT START WT RECYCLED

SFT WT RECYCLE

TER

IAO

TO 70QI

TO 70BI

FROM AIC3, 68J26

BN/RI/TBI (AIS SDR)

THO-$7\frac{2}{3}$, HNO-$7\frac{2}{3}$, TO-$7\frac{2}{3}$, UO-$7\frac{2}{3}$ (AIS SDR)

PN/EN/PTN/TN/BNTH (AIS SDR)

AAN/BAN/APN/BPN/ATN/BTN/AEN/BEN (AIS SDR)

CK (AIS SDR)

UK

GT (AIS SDR)

CKT SELECTS IDLE TRK TO (AIS SDR)

ALB (SDR)

ALB (SDR CONN)

PMO

GT (SDR)

ITR-ROUTE ADVANCE TO TONE TRUNKS
TER-SET TRUNK TO OVERFLOW

PTK

LK (SDR)

RCN-

VFN-

FTN-, FUN-

HGH-, VGN-

RCT-

VFT-

FTT-, FUT-

HGT-, VGT-

FTT, FUT

RCL

FTKI

VFL

FTL, FUL

HGL, VGL

HTKI, VTKI

LA

RNG

SNG2

SNGI

NGC

MCB (AIS SDR CONN)

MCC, MCD (AIS SDR CONN)

SNG

UC

FTN-, FUN-, HGN-, VGN-, VFN-, RCN-

NGKI

SC 107 LLK FRAME SEIZURE AND CONTROL

HGK

LG

JCK, RK, TCHK

AIC

CSW

SC 117 LINE BUSY TEST AND RING SWITCH CONTROL

RCK3

TO DCTI, 70H4

TK

SC 109 CHANNEL SELECTOR AND HOLD MAGNET OPERATION

DCT

ITR

TERI

TO DCTI, 70H4

TO 70VI

41

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-E69

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

26002-01-F69

# PART OF SC 168

AUTOMATIC INTERCEPT USING DEDICATED SENDERS

FROM SFT, 69D20

FROM RCK3, 69U28

FROM DCT, 69P34

ITRI

DCTI

SC 111 LINKAGE CHECK

LKI

SC 105 ITR ADVANCE TO CALL BACK LINKAGE

CB

SCB

RYT WT RECYCLES AND STARTS

FROM ORIG REG

FU, FT, VF, VG, HG--

LL-

SC 106 LLK FRAME SEIZURE AND CONT CALL BACK LINKAGE

FTT-, FUT-

HGK

RK3

LCK

FAK

TO 70QI

SC 108 CONTROL FOR CHANNEL TEST

JCK

LK

TCHK

TK

SC 109 CHANNEL SEL & HOLD MAC OPERATION

DCT

TO 70VI

FROM SFT, 69D20, FRC# 70B19

WT WT TIMES OUT

TO SC 123 TIMEOUT DISCONNECT

FROM DCT, 69P34

FROM DCT, 70J28

AIC

AICK

TER5

SCB2

TER5

LC- (AIS SDR CONN)

D (LINE CKT)

CT (AIS SDR)

SL (LINE CKT)

LR (AIS SDR)

AV (AIS SDR)

KP (AIS SDR)

LTR

ITRI

TCT TIMER (AIS SDR)

LTR

TER5

TGI (AIS SDR)

OFI (AIS SDR)

TGI

OFI

AICK

AVKI

AIC3

LKI

LKI

SS (AIS SDR CONN)

MP- (AIS SDR & PREF & CONT)

MCP (AIS SDR CONN)

NGK

DCTI

F (TK)

FA/FB (TL)

DCT

LKI

DCT2

F (TK)

FA/FB (TL)

DCT

DISI

DISI,2

SC 111 DISCONNECT

DRAWING SIZE 41D

41

COMPLETING MARKER CIRCUIT (2)

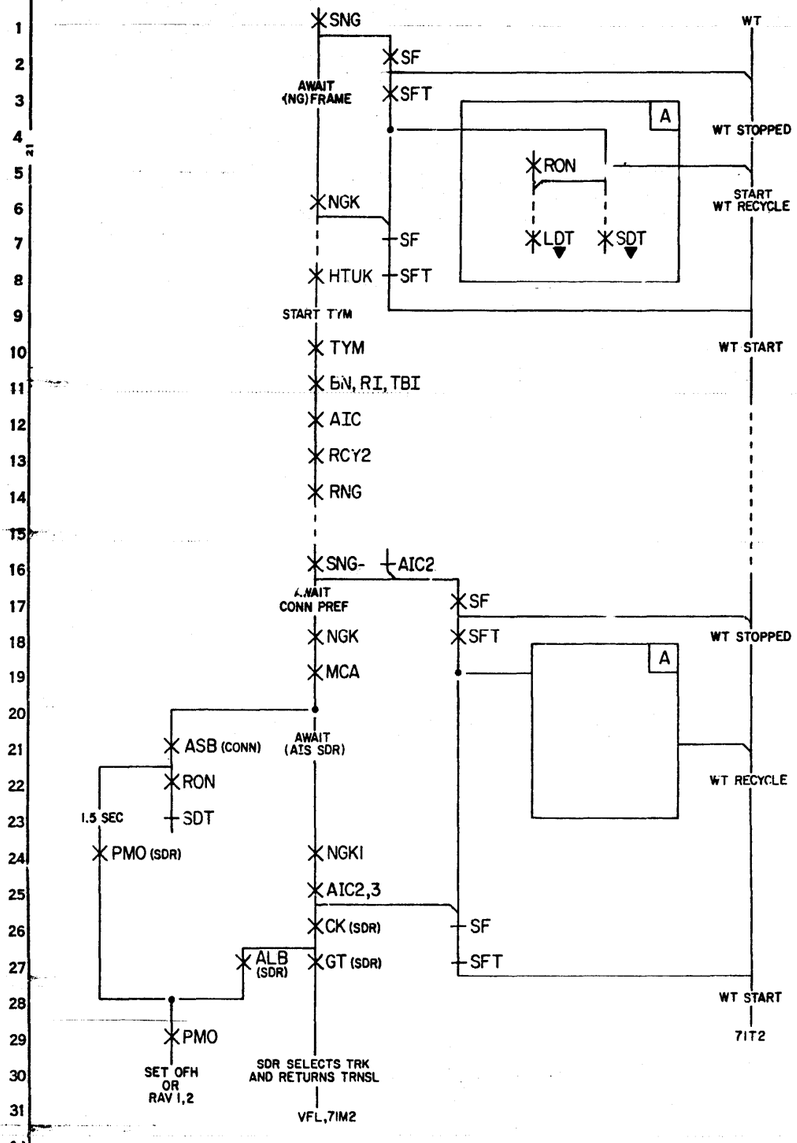
SD-26002-01-E70

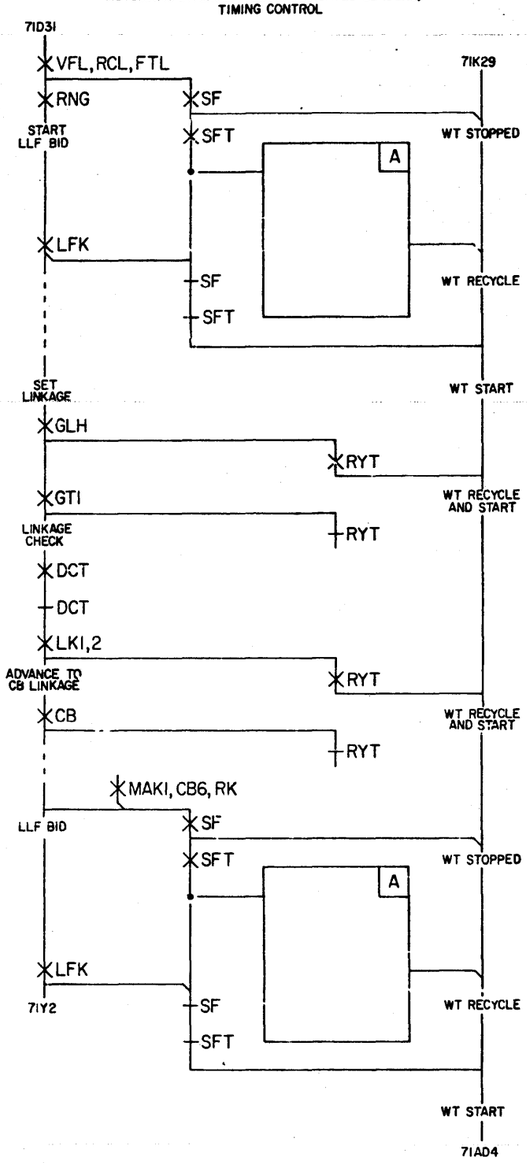
BELL TELEPHONE LABORATORIES INCORPORATED

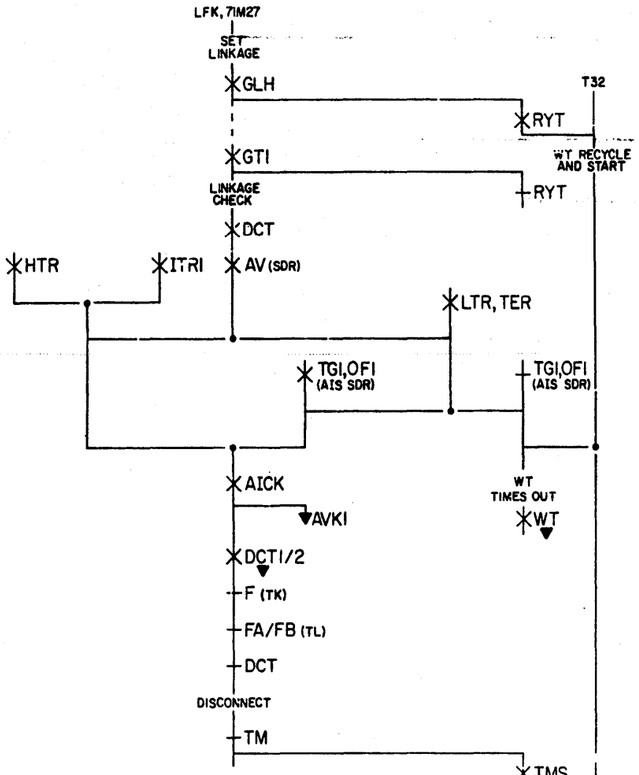
DRAWING SIZE 6S

# SC 169

AUTOMATIC INTERCEPT USING DEDICATED SENDERS, TIMING CONTROL




DRAWING ISSUE 4ID

41

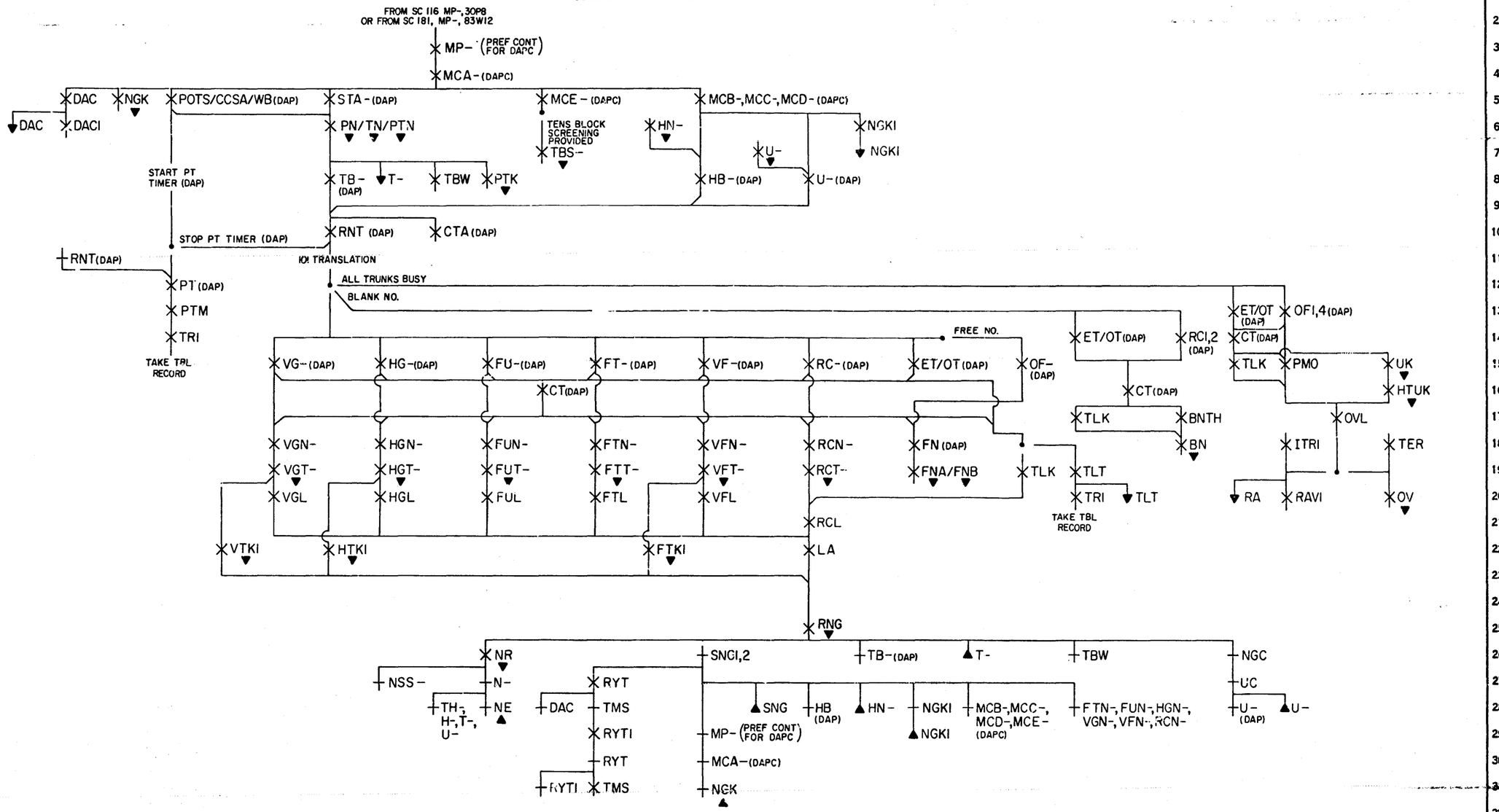
COMPLETING MARKER CIRCUIT (2) SD-26002-01-E71

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-E71

# SC 170

DIRECT ACCESS PRETRANSLATOR
SEIZURE AND CONTROL




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

ISSUE 57B

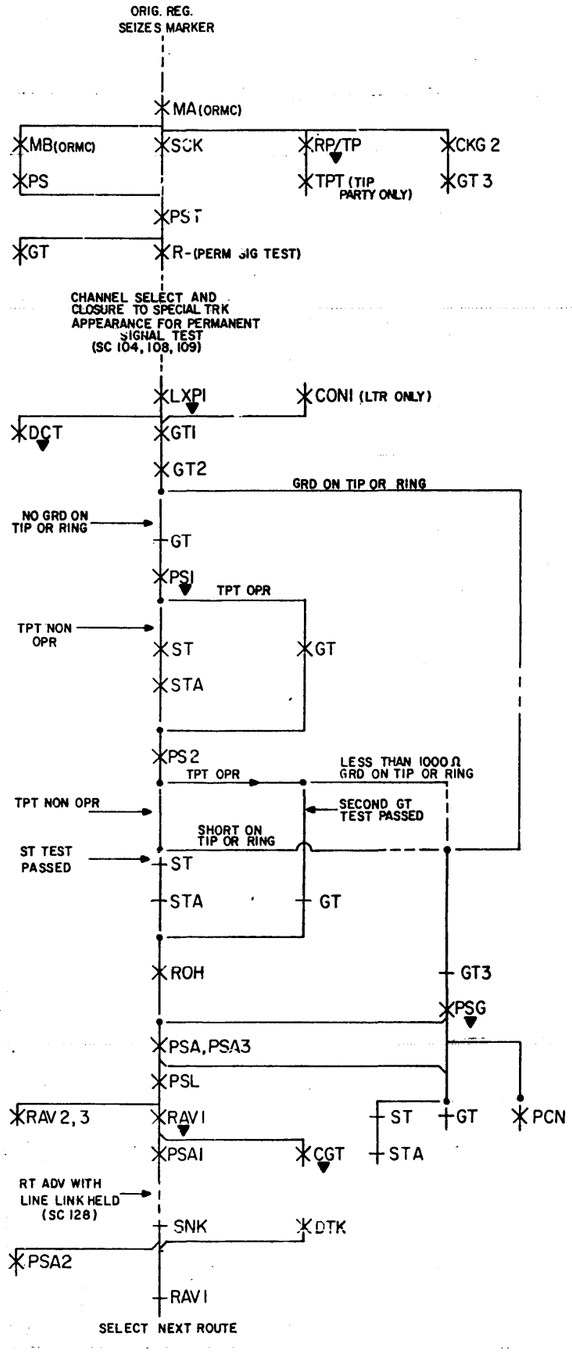
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-E72

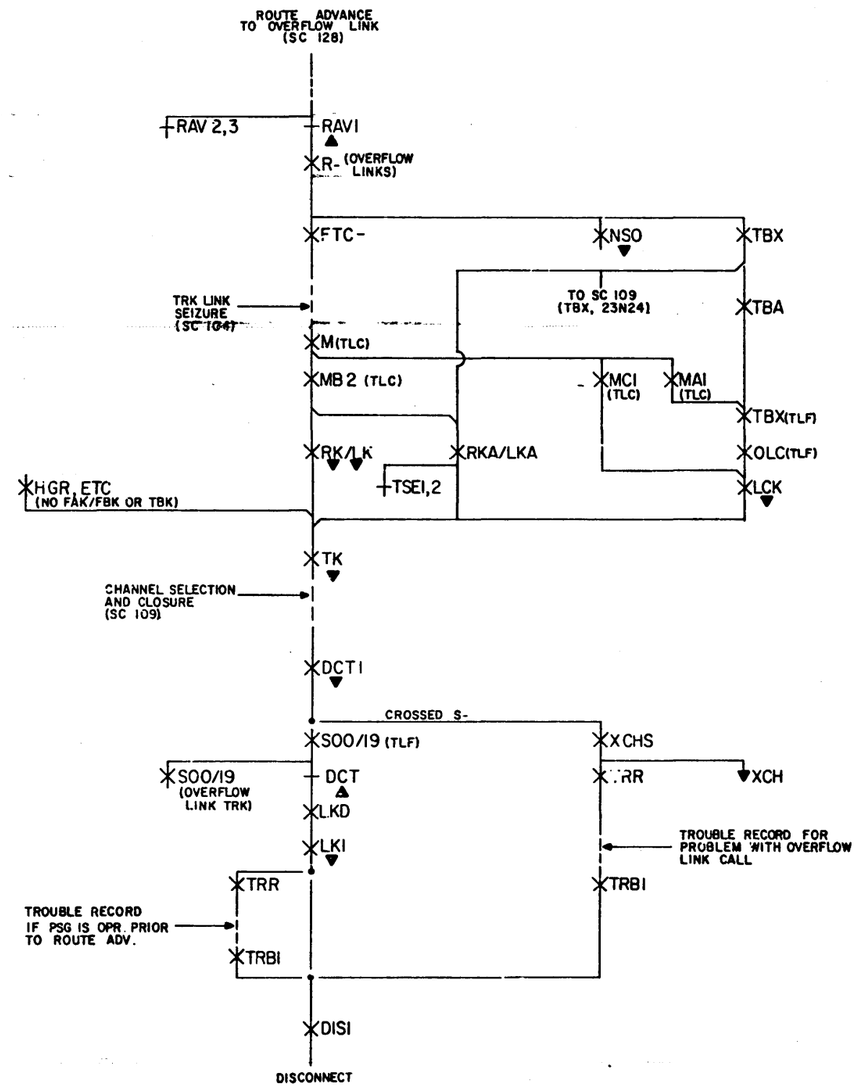
BELL TELEPHONE LABORATORIES INCORPORATED

6S

## SC 171
PERMANENT SIGNAL TEST CALL




## SC 172
OVERFLOW LINK OPERATION



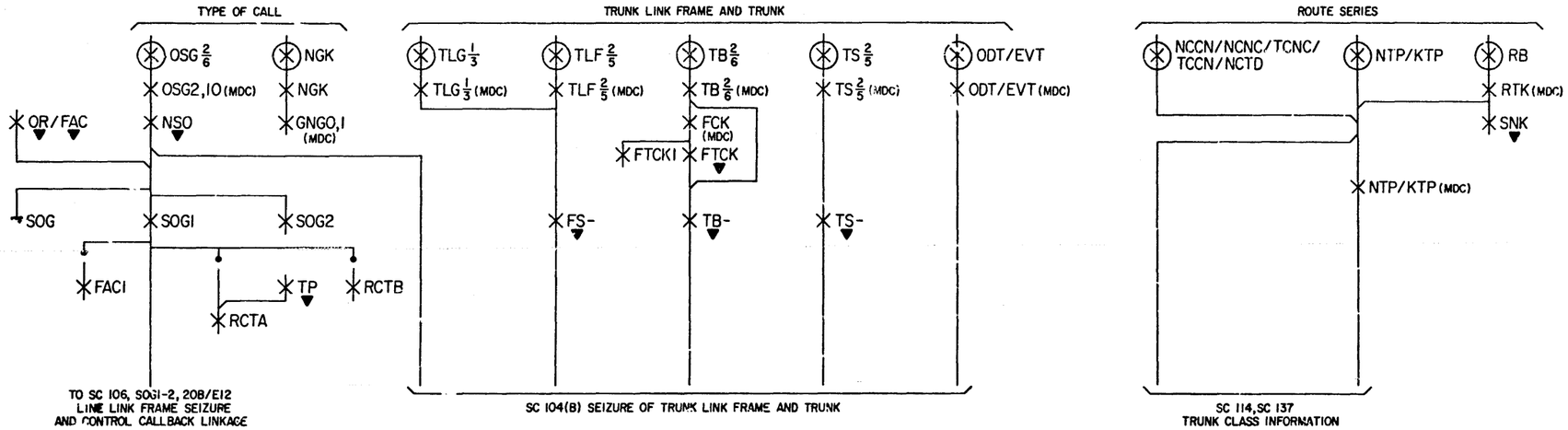

ISSUE 58A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-E73

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-E73

# SC 173
DISTRIBUTE SOG WITHOUT SENDER




NOTES:

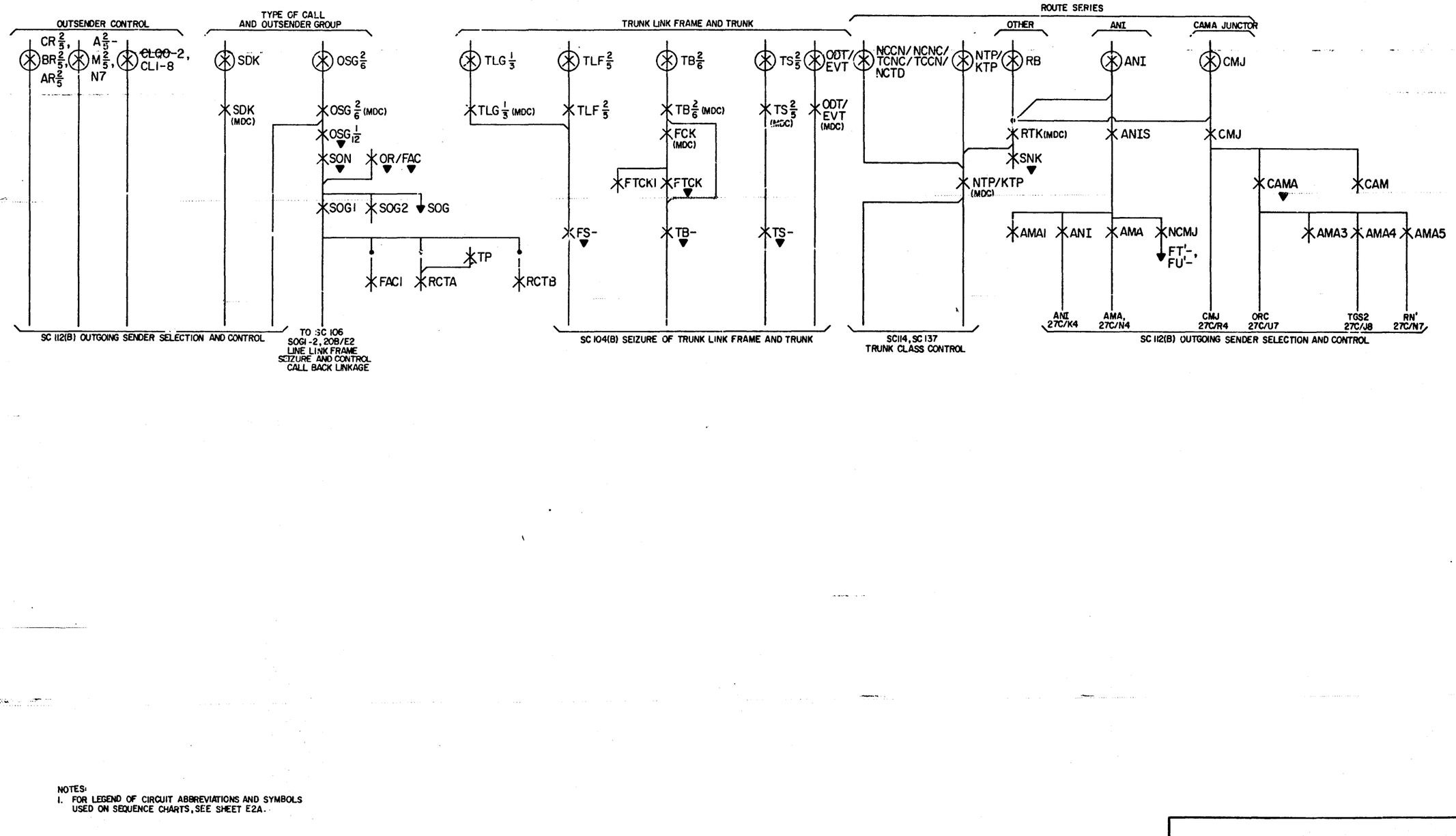
1. FOR LEGEND OF CIRUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | C8 |
| | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | | E74 |

44-131 28142 PRINTED IN U.S.A.

# SC 174

DISTRIBUTE SOG WITH SENDER




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | CB |
| | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | | E75 |

# SC 175
DISTRIBUTE TERMINATING

TYPE OF CALL

TER

TERI | TER2 | TER

TER4 | TER5 | FLGI | FLG

FLGA | LLI (MDC)

RDI, RDIA | NGC | LLI, LLIA

TO SC 117, RDI, RDIA, 31A/L10

UC

RYT | BRG

TMS | BR-

RYTI | BRG

RYT

TMS

SF

START SF TIMER

LA

RNG

NR | NGC | LLI (MDC)

UC | RYTI

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

WORKING LINE EQUIPMENT NUMBER

HGT 2/5, VGT 2/6 | VFT 1/5 | FTT 2/4, FUT 2/5 | RCT- | TC | FNK | FNA

FNA

HGT 2/5, VGT 2/6 (MDC) | FTT 2/4, FUT 2/5 (MDC)

FREE NUMBER

HGT-, VGT- | VFT- | FUN-, FTN- | RCT- | PTK

FTT-, FUT-

RCL

HGL, VGL | VFL | FTL, FUL

TTL

HTKI, VTKI | FTKI

SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL

TERMINATING TREATMENT

POTS/LDN/DAT/TST

POTS/LDN/DAT/KM

HUNTING LINES

HF | CKR | PBX/LGT

SLCKI SLCK

HF

CKR

NON-PBX LINE

PBX LINE

PBXA, LGT

NPBX/PBX (MDC)

TYPE OF LINE

NGK | CN/AO/MLT/DLT/5DLT/7DLT/CGS

NGK (MDC)

GNGO, I (MDC)

PERMANENT OVERFLOW NUMBER

PMO

PMO

PERMANENT BUSY NUMBER OR ALL HUNTING LINES BUSY

PBN | HTUK

HTUK

67-83 ms

TYM

TYMA

PBN

CUSTOMER GROUP IDENTITY (SEE NOTE 2)

CST-, CSU-

CST-, (MDC)

CST- (MDC)

SC 117 LINE BUSY TEST, RINGING SWITCH OVERFLOW AND BUSY OPERATION

SC 107 (B) F15

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.
2. COMPLETING TO PHASE I OR II CENTREX LINE.

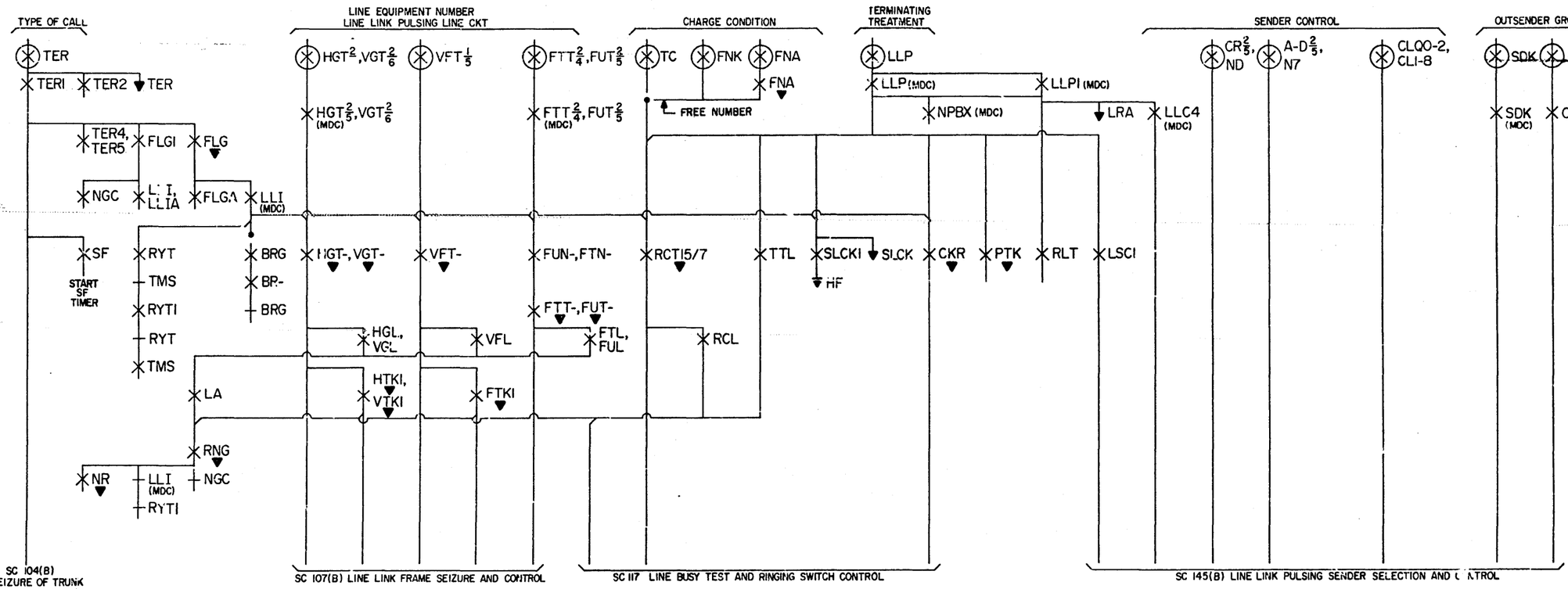
| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | | E77 |

44-131 28142

5-7431-6 (6-75) PRINTED IN U.S.A.

# SC 176

DISTRIBUTE TERMINATING
TO LINE LINK PULSING LINE




SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL

SC 117 LINE BUSY TEST AND RINGING SWITCH CONTROL

SC 145(B) LINE LINK PULSING SENDER SELECTION AND CONTROL

NOTES:

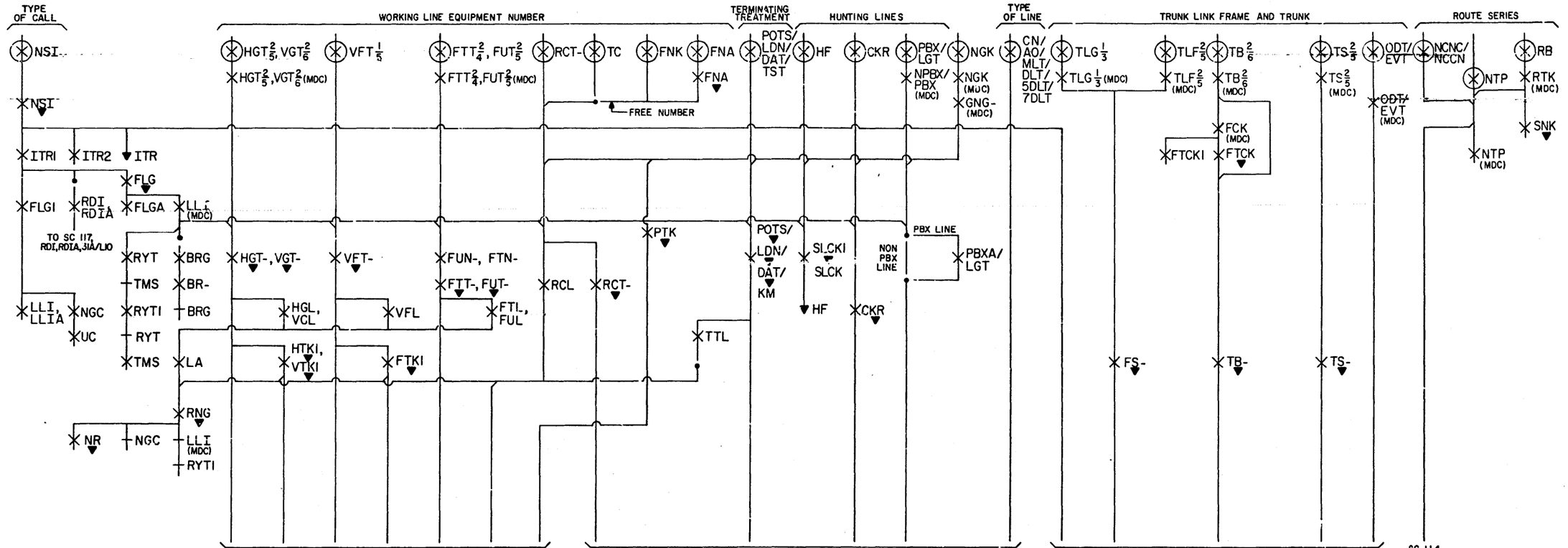
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 63B |
| BELL LABORATORIES | SD-26002-01 | E78 |

BRUNING 44-131 28142

# SC 177

DISTRIBUTE INTRAOFFICE




NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | B |
| | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01- | | E79 |

# SC 178
DISTRIBUTE TANDEM W:TH SENDER

SENDER CONTROL

CR 2/5, BR 2/5, AR 2/5

A 2/5 - M 2/5, N7

CLQ0-2, CLI-8

TYPE OF CALL & OUTSENDER GROUP

SDK

OSG 2/6

SDK (MDC)

OSG 2/6 (MDC)

OSG 1/12

SON

INC/TOL/TAN/ CMF2/CMSO,I

TOGI

TOG2

TRN

TOG5

PTK

NGC

FLGI

LLI, LLIA

FLG

FLGA

LLI (MDC)

U 2/5

T 2/5

HN 2/5

ECN/OCN

RYT

TMS

RYTI

BRG

BR-

LA

RNG

NR

LLI (MDC)

NGC

RYTI

LINE LINK FRAME LOCATION OF INCOMING TANDEM OR TOLL TRUNK

HGT 2/5, VGT 2/6

VFT 1/5

FTT 2/4, FUT 2/5

TOG

HGT 2/5, VGT 2/6 (MDC)

FTT 2/4, FUT 2/5 (MDC)

TOG (MDC)

HGT-, VGT-

VFT-

FTN-, FUN-

FTT-, FUT-

HGL, VGL

VFL

FTL, FUL

RCL

POTS

TTL

HTKI, VTKI

FTKI

TRUNK LINK LINK FRAME AND TRUNK (OUTGOING TRUNK)

TLG 1/3

TLF 2/5

TB 2/6

TLG 1/3 (MDC)

TLF 2/5 (MDC)

TB 2/6 (MDC)

FCK (MDC)

FTCKI

FTCK

FS-

TB-

TS 2/5

TS 2/5 (MDC)

TS-

ODT/ EVT

ODT/ EVT (MDC)

ROUTE SERIES

NCNC/TOS

NTP

RB

RTK (MDC)

NTP (MDC)

SNK

SC 112B OUTGOING SENDER SELECTION AND CONTROL

SC 107(8) LINE LINK FRAME SEIZURE AND CONTROL

SC 104(8) SEIZURE OF TRUNK LINK FRAME AND TRUNK

SC 114 TRUNK CLASS CONTROL

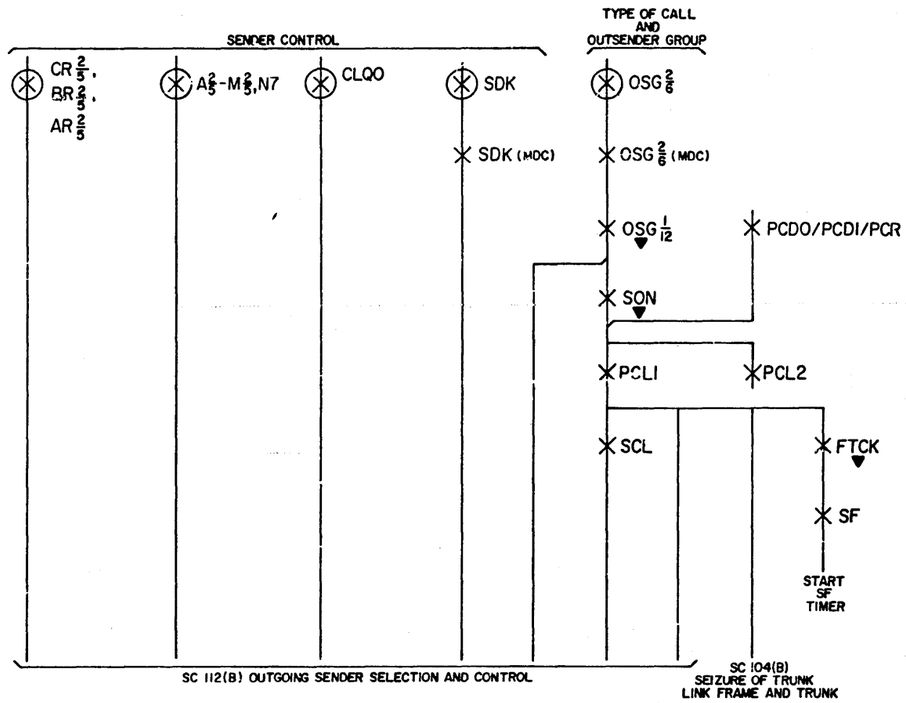
NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 57B |
| BELL LABORATORIES | SD-26002-01 | | E80 |

BRUNING 44-131 28142

C-7421-816-751 PRINTED IN U.S.A.

# SC 179
DISTRIBUTE PULSE CONVERSION

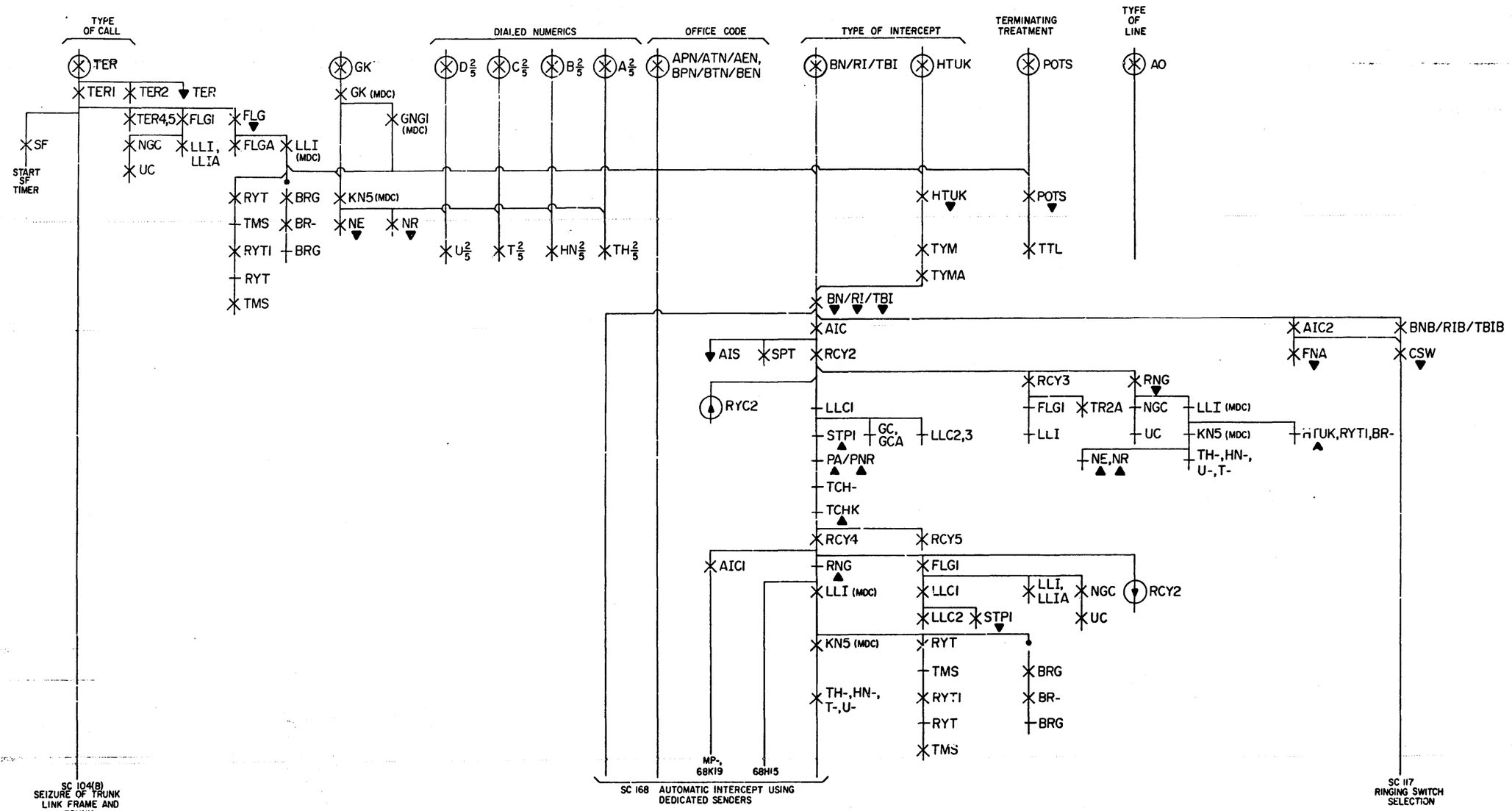



NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | | E81 |

# SC 180

DISTRIBUTE AUTOMATIC INTERCEPT WITHOUT USING LLP- TERMINATING



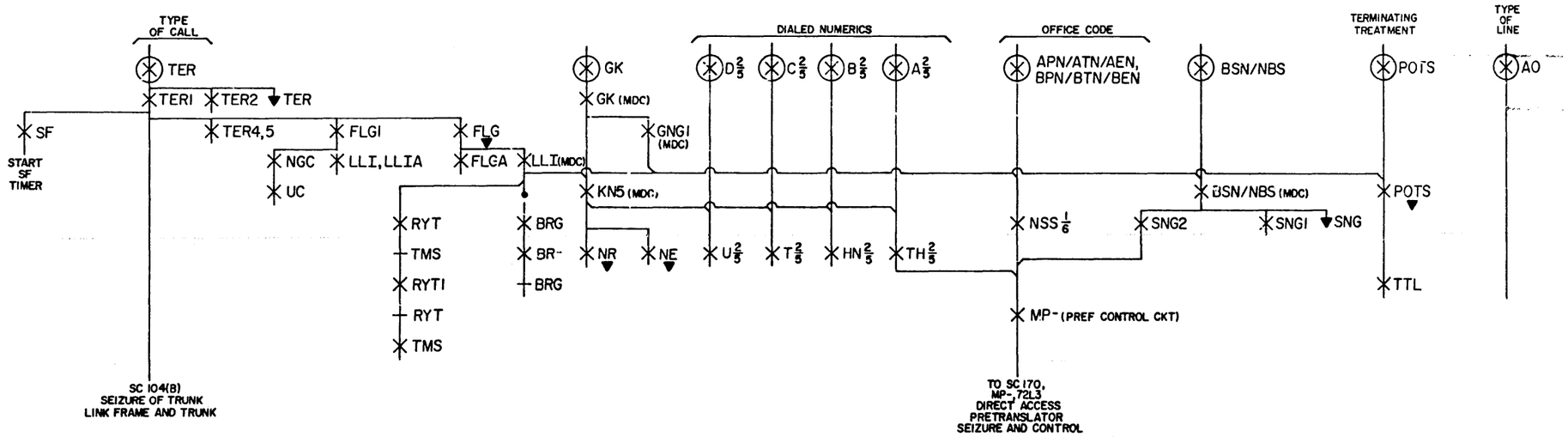

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | | |
| | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | E82 |

# SC 181

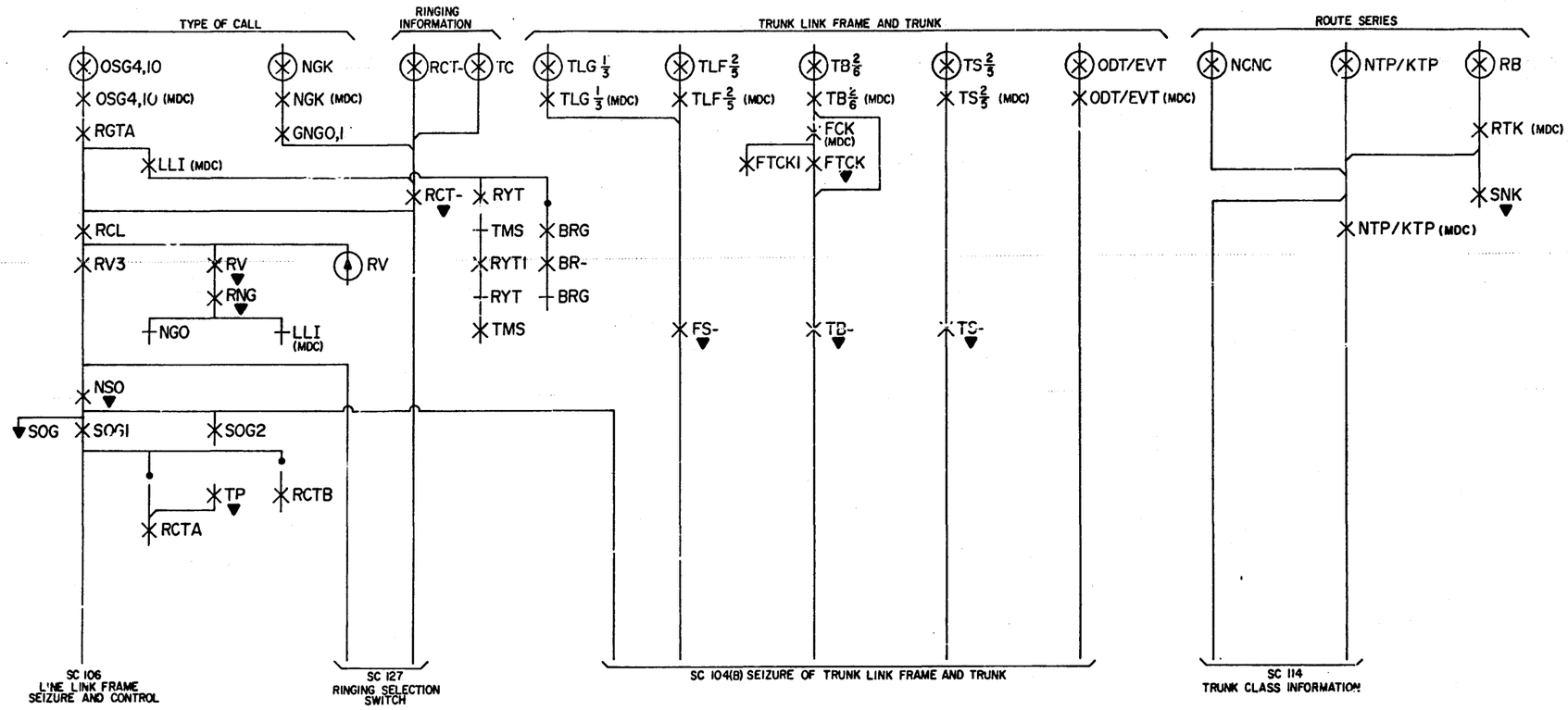
DISTRIBUTE DIRECT ACCESS TO 101 ESS




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE .58A |
| BELL LABORATORIES | SD-26002-01 | | E83 |

# SC 182
DISTRIBUTE RINGER TEST

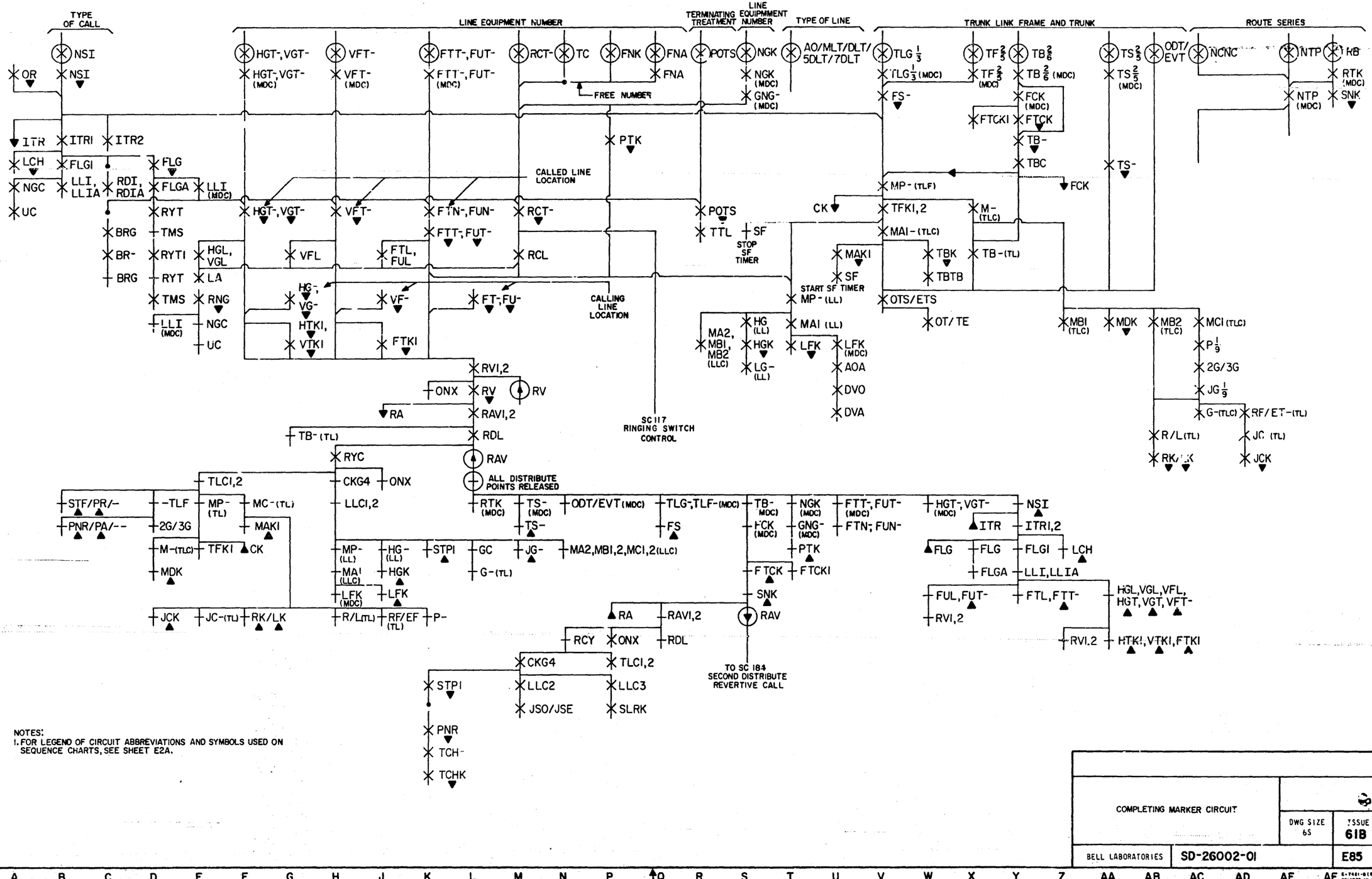



NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | | 58 |
| | DWG SIZE 6S | ISSUE 58A |
| BELL LABORATORIES | SD-26002-01 | E84 |

# SC 183
FIRST DISTRIBUTE REVERTING CALL

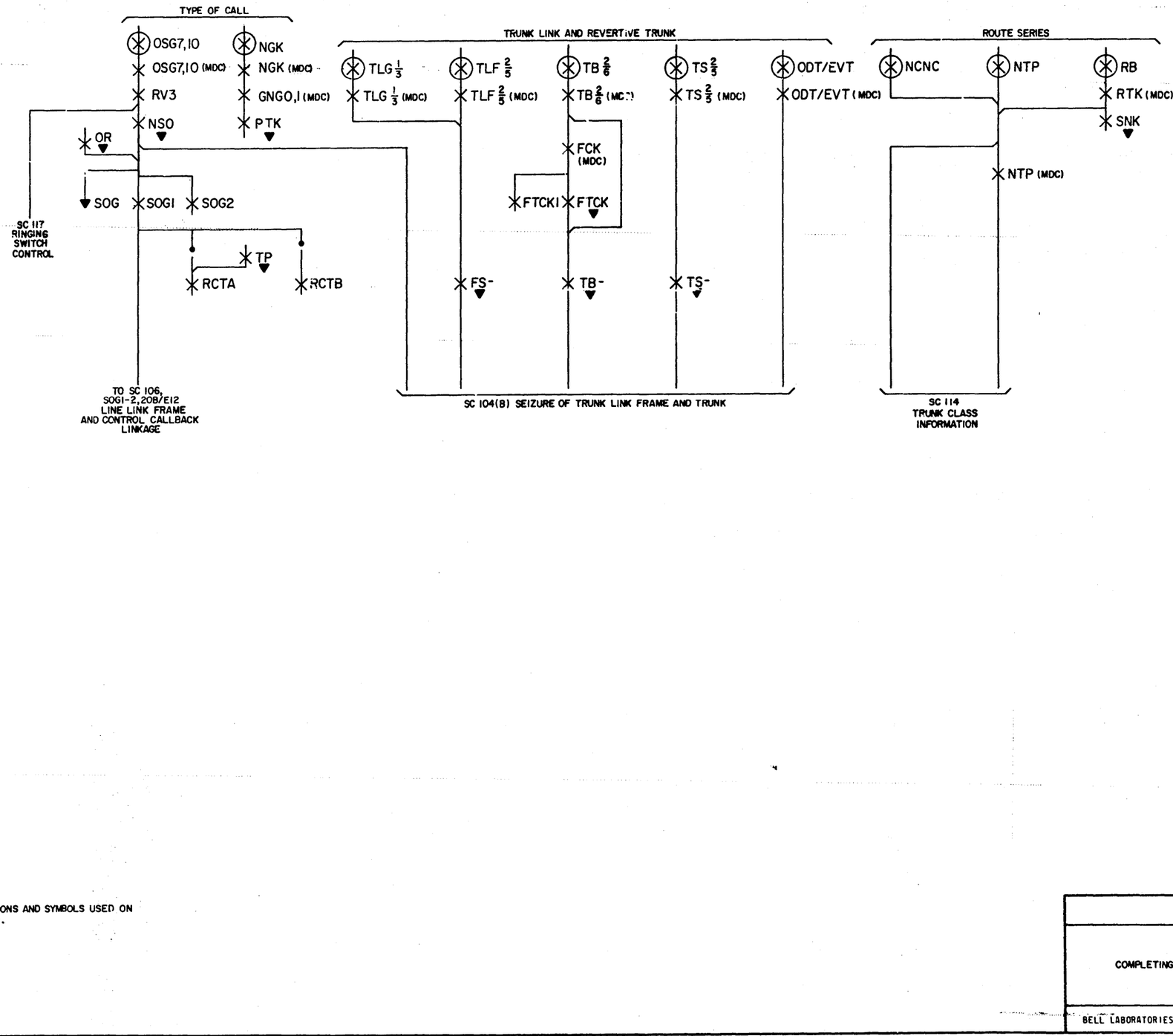



NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | |
| | | DWG SIZE 6S | ISSUE 6B |
| BELL LABORATORIES | SD-26002-01 | | E85 |

# SC 184

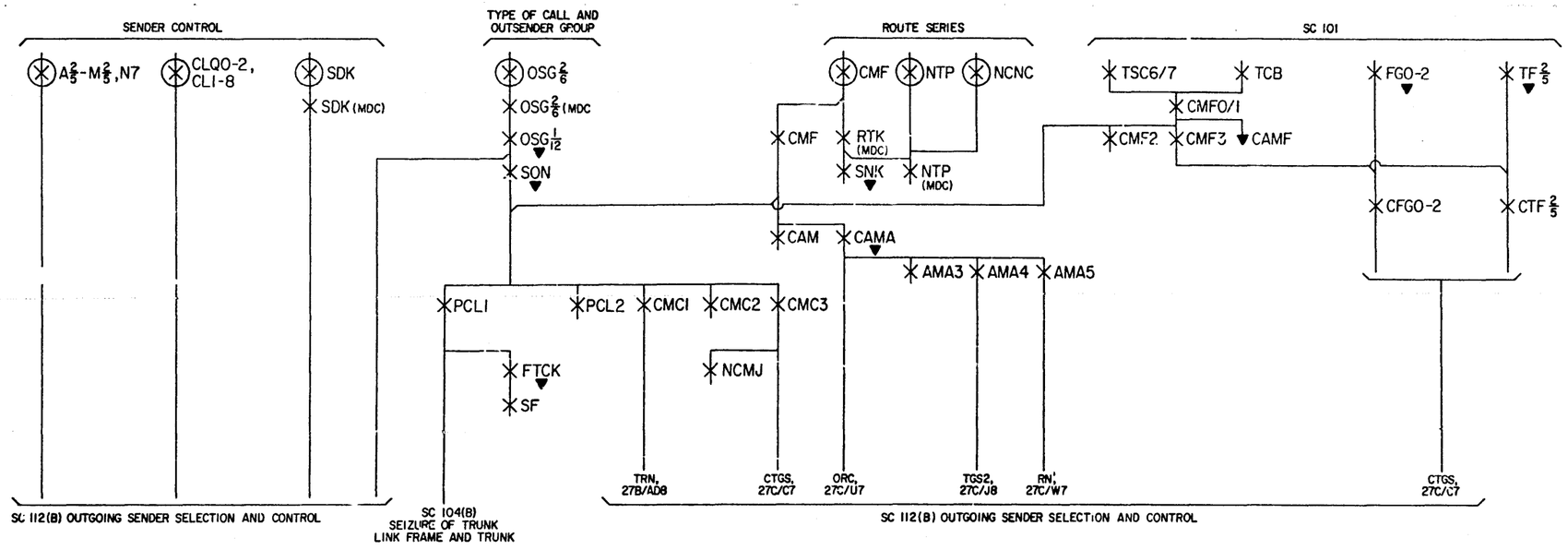
SECOND DISTRIBUTE REVERTING CALL




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | |
| | | DWG SIZE 6S | ISSUE 6IB |
| BELL LABORATORIES | SD-26002-01 | | E86 |

# SC 185
DISTRIBUTE CAMA FIRST




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

ISSUE 58A

COMPLETING MARKER CIRCUIT

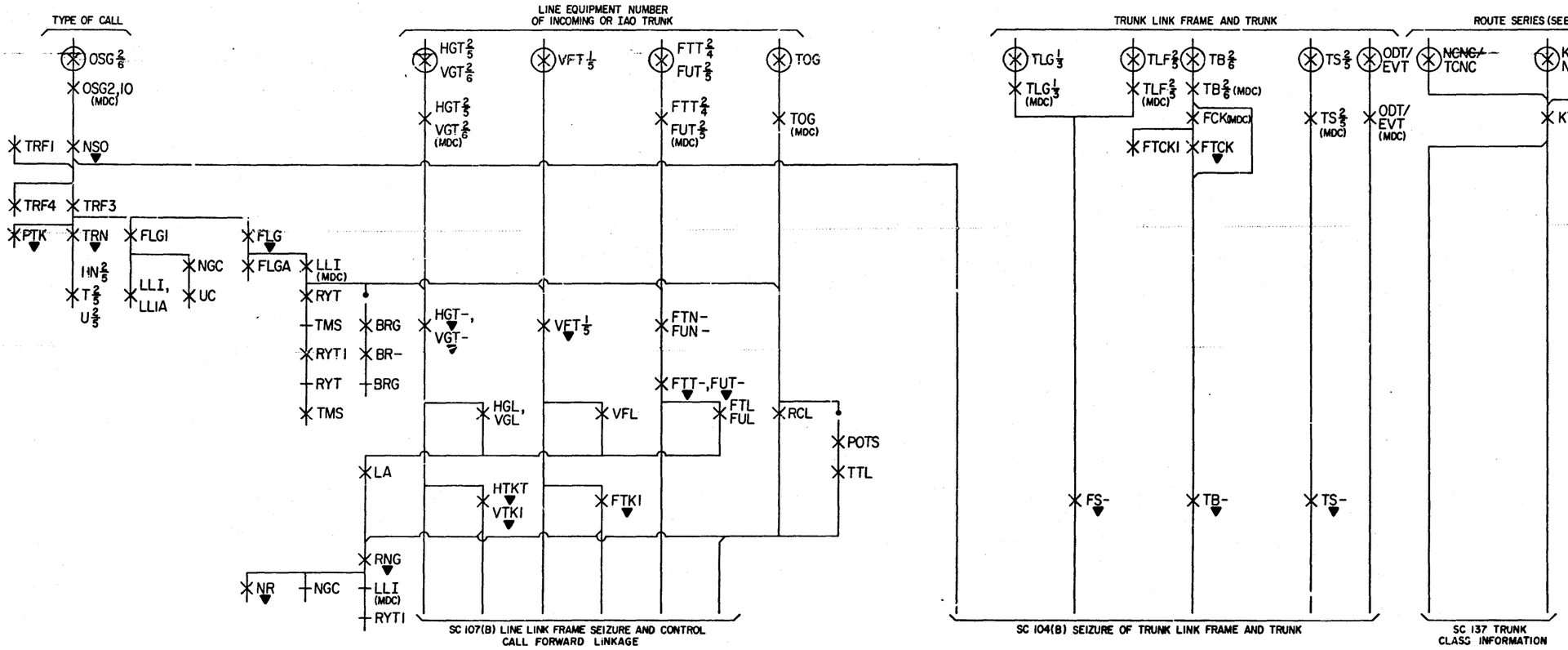
SD-26002-01-E87

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 65

# SC 186

DISTRIBUTE PHASE I OR II TRANSFER CALL (TRF)




SC 107(B) LINE LINK FRAME SEIZURE AND CONTROL CALL FORWARD LINKAGE

SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK

SC 137 TRUNK CLASS INFORMATION

NOTES:

1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHART, SEE SHEET E2A.
2.

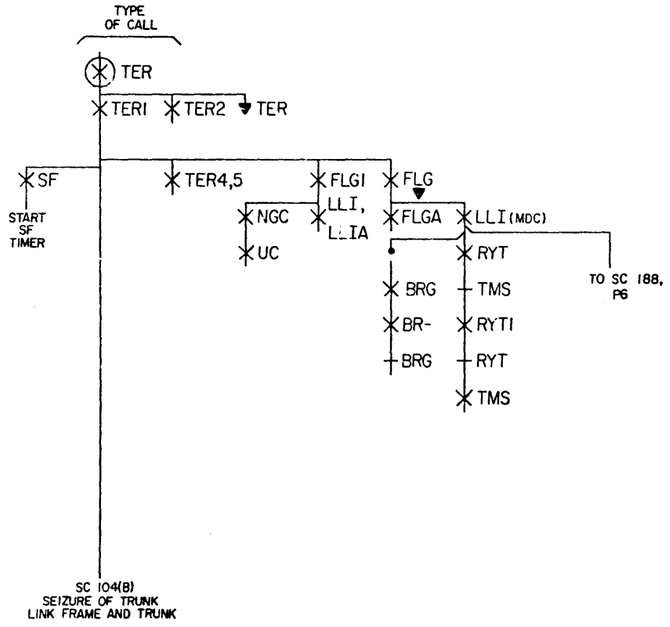
| TYPE OF CALL | DISTRIBUTE POINT OPERATION | | | |
|---|---|---|---|---|
| | NCNC | TCNC | KTP | NTP |
| TRANSFER | ✓ | - | ✓ | - |
| LISTED DIRECTORY NUMBER | - | ✓ | - | ✓ |

COMPLETING MARKER CIRCUIT

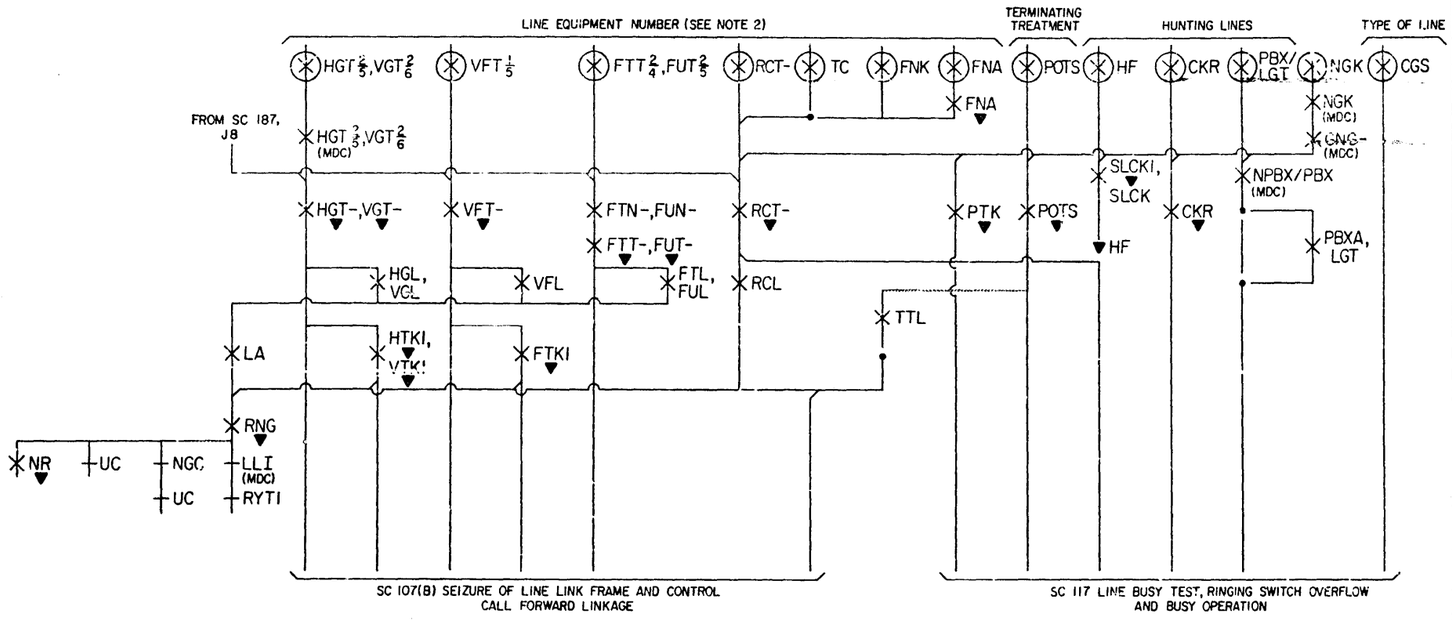
DWG SIZE 6S | ISSUE 58A

BELL LABORATORIES | SD-26002-01 | E88

## SC 187
FIRST DISTRIBUTE ATTENDANT CLASS CALL




## SC 188
SECOND DISTRIBUTE ATTENDANT CLASS CALL




NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.
2. IF CLASS OF SERVICE MISMATCH OCCURS, LINE EQUIPMENT NUMBER OF ANNOUNCEMENT MACHINE IS RETURNED.

ISSUE 58A

COMPLETING MARKER CIRCUIT

SD-26002-01-E89

BELL TELEPHONE LABORATORIES INCORPORATED

6S

## SC 189
DISTRIBUTE-DTI CALL

CLASS OF SERVICE OF TRANSFERING LINE

- CST-
  - CST-(MDC)
  - TO SC 143, CST-/CSU-,51S20
- CSU-
  - CSU-(MDC)
  - TO SC 143, CST-/CSU-,51S20

TYPE OF LINE

- MLT/DLT/5DLT/7DLT
  - TO SC 153, 58A/J1

## SC 190
FIRST DISTRIBUTE SPECIAL CALL

TYPE OF CALL

- TER
  - TERI
    - SF — START SF TIMER
    - TER4,5
      - NGC
        - UC
      - FLGI
        - LLI, LLIA
    - TER2
      - TER
        - TO SC 104(B) SEIZURE OF TRUNK LINK FRAME AND TRUNK
      - FLG
        - FLGA
          - BRG
          - BR-
          - BRG
        - LLI (MDC)
          - BRG
          - RYT
          - BR-
          - TMS
          - BRG
          - RYTI
          - RYT
          - TMS
        - TO SC 191, 90M8

## SC 191
SECOND DISTRIBUTE SPECIAL CALL

LINE EQUIPMENT NUMBER

- HGT-, VGT-
  - HGT-, VGT-(MDC)
  - FROM SC 190, 90K22
  - HGT-, VGT-
  - HCL, VGL
  - LA
  - NR
  - NGC
  - UC
  - RNG
  - LLI (MDC)
  - RYTI
- VFT-
  - VFT-
  - VFL
  - HTKI, VTKI
  - FTKI
- FTT-, FUT-
  - FTN-, FUN-
  - FTT-, FUT-
  - FTL, FUL
- RCT-
  - RCT-
  - RCL
- TC
  - PTK
- FNK
- FNA
  - FNA
- SC 107(B) SEIZURE OF LINE LINK FRAME AND CONTROL CALL FORWARD LINKAGE

TERMINAL TREATMENT

- POTS, ETC
  - POTS, ETC.
  - PTK
- SC 117 LINE BUSY, RINGING SWITCH OVERFLOW AND BUSY OPERATION

HUNTING LINE

- HF
  - SLCK, SLCKI
  - HF
- CKR
  - CKR
- PBX/NPBX
  - PBX/NPBX (MDC)
- NGK
  - NGK (MDC)
- GNG-
  - GNG- (MDC)

TYPE OF LINE

- AO/MLT/ETC
  - LGT, PBXA
- TTL

NOTES:
1. FOR LEGEND OF CIRCUIT ABBREVIATIONS AND SYMBOLS USED ON SEQUENCE CHARTS, SEE SHEET E2A.

ISSUE 63B

COMPLETING MARKING CIRCUIT

SD-26002-01-E90

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

BRUNING 44-131 24092

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE X | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RELAYS | | | | | | | | | | | | | | | | | |
| 001,002 | 1/2AK50 | | 148 | 2 | | | | | 1U(REL TST) | GRD | | | 0 | | 29 | 27.5 | SEE APP FIG |
| 010-012 | | | | | | | | | | | | | | | | | |
| 020-022 | | | | | | | | | | | | | | | | | |
| ONN | AF520 | | 24 | 15 | | | | | U(ONN) | GRD | | | 0 | | 72.5 | 69 | |
| 100-102 | 1/2AK50 | | 148 | 2 | | | | | 1U(REL TST) | GRD | | | 0 | | 29 | 27.5 | SEE APP FIG |
| 110 | | | | | | | | | | | | | | | | | |
| 112, | 1/2AK50 | | 148 | 2 | | | | | 1L(REL TST) | GRD | | | 0 | | 29 | 27.5 | SEE APP FIG |
| 120-122 | | | | | | | | | | | | | | | | | |
| 1F | AF50 | | 7 | 18 | | | (FM) O | | U(1F) | GRD | | | 0 | | 23.5 | 22 | |
| 1FA | AF50 | | 7 | 18 | | | | | U(1FA) | GRD | | | 0 | | 23.5 | 22 | |
| 1SE | AF520 | | 24 | 15 | | | | | U(1SE) | GRD | | | 0 | | 72.5 | 69 | |
| 200-202 | 1/2AK50 | | 148 | 2 | | | | | 1L(REL TST) | GRD | | | 0 | | 29 | 27.5 | SEE APP FIG |
| 210-212 | | | | | | | | | | | | | | | | | |
| 220,221 | | | | | | | | | | | | | | | | | |
| 2F | AF50 | | 7 | 18 | | | | | U(2F) | GRD | | | 0 | | 23.5 | 22 | |
| 2FA | AF114 | | 7 | 54 | | | | | U(2FA) | GRD | | | 0 | | 24.5 | 23 | |
| 2G | AJ512 | | 20 | 64 | | | | | U(2G) | GRD | | | 0 | | 90 | 85 | |
| 2L | AJ503 | RO | 22 | 249 | | | | | U(2L) | GRD | | | 0 | | 95 | 90 | |
| 2L1 | AJ512 | RO | 55 | 64 | | | | | U(2L4) | GRD | | | 0 | | 90 | 85 | |
| 2LH | AF42 | ZKD | 45 | 224 | | | | | U(2LH) | GRD | | | 0 | | 95 | 90 | |
| 2LN | AJ503 | RO | 22 | 249 | | | | | U(2LN) | GRD | | | 0 | | 95 | 90 | |
| 2LV | AJ512 | | 120 | 64 | | | | | U(2LV) | GRD | | | 0 | | 90 | 85 | |
| 2NO-9NO | AJ512 | ZQO | 170 | 64 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| 2SA | AF520 | | 24 | 15 | | | | | U(2SA) | GRD | | | 0 | | 72.5 | 69 | |
| 2TLF | AF507 | | 20 | 26 | | | (20F) NO | | U(2TLF) | GRD | | | 0 | | 37 | 35 | |
| 2-3TLF | AF507 | | 20 | 26 | | | (20F) NO | | U(2-3TLF) | GRD | | | 0 | | 37 | 35 | |
| 2W | AJ501 | | 123 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | 21 | | 0 | | 130 | 125 | |
| | | | | | | | | | U(2W) | GRD | 23 | | 0 | | 175 | 165 | |
| 2WA | AF506 | | 123 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | | 21 | | 0 | | 95 | 90 | |
| | | | | | | | | | U(2WA) | GRD | 23 | | 0 | | 130 | 120 | |
| 2WB | AF506 | | 123 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | | 21 | | 0 | | 95 | 90 | |
| | | | | | | | | | U(2WB) | GRD | 23 | | 0 | | 130 | 120 | |
| 2WC | 280AW | VG | 123 | 8 | | | | -48 | 2WC | NGB | | | 0 | -50 | | 1.1 | |
| | | | | | | | (XACS) NO | -48 | CROSS | NGB | | | NO | -50 | | 0.8 | |
| | | | | | | | | -48 | CONN | NGB | | | 0 | -50 | 4.8 | 4.5 | |
| | | | | | | | | -48 | PUNCHING | NGB | | | R | 50 | 1.1 | 1.2 | |
| 2WD | AJ503 | | 108 | 249 | | | (A04) NO | | U(2WD) | GRD | | | 0 | | 95 | 90 | |
| 2WD1-3 | AJ503 | | 108 | 249 | | | | | U(2WD1-3) | GRD | | | 0 | | 95 | 90 | |
| 2WE | AJ501 | | 81 | 249 | | | | | U(2WE) | GRD | | | 0 | | 42.5 | 40.5 | |
| 2WF | AF506 | | 81 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(2WF) | GRD | | | 0 | | 67.5 | 64 | (2WF)&(2WG) IN PARALLEL |
| 2WG | AJ501 | | 120 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(2WG) | GRD | | | 0 | | 95 | 90 | (2WG)&(2WF) IN PARALLEL |
| 2WS | AF506 | FT | 123 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(2WS) | GRD | 23 | | 0 | | 130 | 120 | |
| 3G | AF520 | | 20 | 15 | | | | | U(3G) | GRD | | | 0 | | 72.5 | 69 | |
| 3NA | AF520 | | 24 | 15 | | | | | U(3NA) | GRD | | | 0 | | 72.5 | 69 | |
| 3TLF | AF507 | | 20 | 26 | | | (20F) NO | | U(3TLF) | GRD | | | 0 | | 37 | 35 | |
| 4BK | 280AS | IX | 112 | 8 | | | | 8(ROS) | 2(DTI2) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | 114 | | | | | 8(ROS) | 2(DTI2) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 8(ROS) | 2(DTI2) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 8(ROS) | 2(DTI2) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 7(DTF2) | -48 | NGB | | S | 0 | | 11.5 | | |
| 4BK | 316N | IY | 112 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | 114 | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| 4BKC | AJ503 | | 112 | 249 | | | | | U(4BKC) | GRD | | | 0 | | 95 | 90 | |
| | | | 114 | | | | | | | | | | | | | | |
| 4LT | AF504 | | 92 | 8 | | | | | U(4LT) | GRD | | | 0 | | 80 | 72 | |
| 4NE | AF520 | | 24 | 15 | | | | | U(4NE) | GRD | | | 0 | | 72.5 | 69 | |
| 4NG | AF42 | | 60 | 224 | | | | | U(4NG) | GRD | | | 0 | | 100 | 95 | |
| 4TLF | AF507 | | 20 | 26 | | | | | U(4TLF) | GRD | | | 0 | | 37 | 35 | |
| 4W | AJ501 | | 123 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | 22 | | 0 | | 170 | 165 | |
| | | | | | | | | | U(4W) | GRD | 24 | | 0 | | 215 | 205 | |
| 4WA | AF506 | | 123 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | | 22 | | 0 | | 130 | 120 | |
| | | | | | | | | | U(4WA) | GRD | 24 | | 0 | | 155 | 145 | |
| 4WB | AF506 | | 123 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | | 22 | | 0 | | 130 | 120 | |
| | | | | | | | | | U(4WB) | GRD | 24 | | 0 | | 155 | 145 | |
| 4WC | AJ501 | | 123 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | 22 | | 0 | | 170 | 165 | |
| | | | | | | | | | U(4WC) | GRD | 24 | | 0 | | 215 | 205 | |
| 4WD | AJ501 | | 123 | 249 | | | | | U(4WD) | GRD | | | 0 | | 42.5 | 40.5 | |
| 4WE | AF506 | | 81 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(4WE) | GRD | | | 0 | | 67.5 | 64 | (4WE)&(4WF) IN PARALLEL |
| 4WF | AJ501 | | 120 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(4WF) | GRD | | | 0 | | 95 | 90 | (4WF)&(4WE) IN PARALLEL |
| 4WS | AF506 | FT | 123 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(4WS) | GRD | 24 | | 0 | | 155 | 145 | |
| 5DLT | AJ503 | | 112 | 249 | | | | | U(5DLT) | GRD | | | 0 | | 95 | 90 | |
| 5IK | 28UAS | IX | 112 | 8 | | | | 9(RDS) | 1(DTI2) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | 114 | | | | | 9(RDS) | 1(DTI2) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 9(RDS) | 1(DTI2) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 9(RDS) | 1(DTI2) | NGB | | P | R | +55 | 1 | 1.1 | |
| | | | | | | | | 8(DTF2) | -48 | NGB | | S | 0 | | 11.5 | | |
| 5IK | 316N | IY | 112 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | 114 | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| 5IKC | AJ503 | | 112 | 249 | | | | | U(5IKC) | GRD | | | 0 | | 95 | 90 | |
| | | | 114 | | | | | | | | | | | | | | |
| 5ST | AF520 | | 24 | 15 | | | | | U(5ST) | GRD | | | 0 | | 72.5 | 69 | |
| 5TLF | AF507 | | 20 | 26 | | | | | U(5TLF) | GRD | | | 0 | | 37 | 35 | |
| 6NT | AF520 | | 24 | 15 | | | | | U(6NT) | GRD | | | 0 | | 72.5 | 69 | |
| 6TFA | AF523 | | 64 | 19 | | | | | | | | | 0 | | 29.5 | 28 | WINDING ALONE |
| | | | | | | | | | U(6TFA) | GRD | | | 0 | | 66 | 62.5 | (6TFA)&(6TLF)IN PARALLEL |
| 6TLF | AF507 | | 20 | 26 | | | | | | | | | 0 | | 37 | 35 | WINDING ALONE |
| | | | | | | | | | U(6TLF) | GRD | | | 0 | | 85 | 80 | (6TLF)&(6TFA)IN PARALLEL |
| 7DLT | AJ503 | ZXM | 112 | 249 | | | | | U(7DLT) | GRD | | | 0 | | 95 | 90 | |
| 7Q | AF506 | | 19 | 8 | | | | | U(7Q) | GRD | | | 0 | | 30.5 | 29 | |
| 7RN | AF520 | | 24 | 15 | | | | | U(7RN) | GRD | | | 0 | | 72.5 | 69 | |
| 7TFA | AF522 | | 64 | 18 | | | | | | | | | 0 | | 23.5 | 22 | WINDING ALONE |
| | | | | | | | | | U(7TFA) | GRD | | | 0 | | 52.5 | 49 | (7TFA)&(7TLF) IN PARALLEL |
| 7TLF | AF507 | | 20 | 26 | | | | | | | | | 0 | | 37 | 35 | WINDING ALONE |
| | | | | | | | | | U(7TLF) | GRD | | | 0 | | 85 | 80 | (7TLF)&(7TFA) IN PARALLEL |
| 7TR | 316N | ZXM | 112 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| 7TRC | AJ503 | ZXM | 112 | 249 | | | | | U(7TRC) | GRD | | | 0 | | 95 | 90 | |
| 8NG | AF42 | | 60 | 224 | | | | | U(8NG) | GRD | | | 0 | | 100 | 95 | |
| 8SP | AF520 | | 24 | 15 | | | | | U(8SP) | GRD | | | 0 | | 72.5 | 69 | |
| 8TLF | AF507 | | 20 | 26 | | | | | U(8TLF) | GRD | | | 0 | | 37 | 35 | |
| 9NP | AF520 | | 24 | 15 | | | | | U(9NP) | GRD | | | 0 | | 72.5 | 69 | |
| 9TLF | AF507 | | 20 | 26 | | | | | U(9TLF) | GRD | | | 0 | | 37 | 35 | |
| 10LV | AJ501 | ZZM | 150 | | | | | | U(10LV) | GRD | | | 0 | | 42.5 | 40.5 | |
| 10TLF | AF507 | | 20 | 26 | | | | | U(10TLF) | GRD | | | 0 | | 37 | 35 | |
| 20X-90X | AJ512 | | 170 | 64 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| 21X-91X | | | | | | | | | | | | | | | | | |

DRAWING ISSUE: 37D MS; 39D RA; 41D

ISSUE 57B

* FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F1

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-F1

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK mA | TEST mA | READJ mA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | AJ9 | | 39 | 234 | | | | | U(11) | GRD | | | 0 | | 40 | 38 | WDG ALONE |
| 11X | AF504 | | 48 | 8 | | | | | U(11X) | GRD | | | 0 | | 80 | 72 | |
| 12LV | AJ501 | ZZM | 150 | | | | | | U(12LV) | GRD | | | 0 | | 42.5 | 40.5 | |
| 20F | AF506 | | 19 | 8 | | | | | U(20F) | GRD | | | 0 | | 30.5 | 29 | |
| 40F | AF506 | | 19 | 8 | | | | | U(40F) | GRD | | | 0 | | 30.5 | 29 | |
| 60F | AF522 | | 64 | 19 | | | | | U(60F) | GRD | | | 0 | | 23.5 | 22 | |
| A | AF55 | | 23 | 26 | | | | | U(A) | GRD | | | 0 | | 37 | 35 | |
| A0,1,2,4,7 | AF531 | | 46 | 203 | | | | U REL TST | | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| AB | AF32 | | 60 | 208 | | | | | U(AB) | GRD | | | 0 | | 32 | 30.5 | |
| ACO,1,2,4,7 | AF521 | | 49 | 21 | | | | U REL TST | | GRD | | | 0 | | 90 | 85 | |
| ACD | AJ503 | | 69 | 249 | | | | | U(ACD) | GRD | | | 0 | | 95 | 90 | |
| ACT | AJ512 | | 170 | 64 | | | | | U(ACT) | GRD | | | 0 | | 90 | 85 | |
| AD | AJ503 | YY | 26 | 249 | | | | | U(AD) | GRD | | | 0 | | 95 | 90 | |
| ADD | 1/2AK501 | ZLD | 90 | 2 | | | | | IL(ADD) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (NAD) |
| ADVA | AJ502 | | 60 | 234 | | | | | U(ADVA) | GRD | | | G | | 40 | 38 | |
| AG1-6 | AJ503 | | 115 | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | U REL TST | | GRD | | | 0 | | 190 | 180 | (AGA1-6) IN PARALLEL RESPECTIVELY WITH (AG1-6) |
| AGA1-6 | AJ503 | | 115 | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | U REL TST | | GRD | | | 0 | | 190 | 180 | (AG1-6)&(AGA1-6) IN PARALLEL RESPECTIVELY |
| AGC | AJ503 | | 130 | 249 | | | | | U(AGC) | GRD | | | 0 | | 95 | 90 | |
| AGCF | AF114 | | 130 | 54 | | | | | U(AGCF) | GRD | | | U | | 24.5 | 23 | |
| AGCK | AJ511 | | 130 | 206 | | | | | 1U(AGCK) | GRD | | P | 0 | | 21 | 20 | |
| | | | | | | | | | 2U(AGCK) | GRD | | S | 0 | | 22.5 | 21 | |
| AGP | AF507 | | 38 | 26 | | | 11,12(AGP) | | U(AGP) | GRD | | | 0 | | 38.5 | 35 | |
| AGT | 1/2AK4 | | 164 | 202 | | | 1(HT38) | | IL(AGT) | GRD | | | 0 | | 11.9 | 11.3 | MOUNTED WITH SPARE |
| AHB0-9 | 280AH | IX | 61 | 8 | | | | (AHB0-9) CROSS CONN PCHG | GRD | NGB | I | | 0 | -40 | | 0.8 | |
| | | | | | | | | | | | I | | NO | -40 | | 0.6 | |
| | | | | | | | | | | | | | 0 | -4.5 | 1.2 | 1.1 | |
| | | | | | | | | | | | | | R | 4.5 | 0.2 | 0.3 | |
| AHB0-9 | 316M | IY | 61 | | | | | | | | | | C | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| AHG | AF52 | | 60 | 19 | | | | | U(AHG) | GRD | | | U | | 29.5 | 28 | |
| AIC | AJ12 | | 158 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | 8(NGK) | | U(AIC) | GRD | | | 0 | | 95 | 90 | (AIC)&(AIC2) IN PARALLEL |
| AIC1 | AJ12 | ZXR | 51 | 220 | | | 8(NGK) | | U(AIC1) | GRD | | | 0 | | 42.5 | 40.5 | |
| AIC2 | AJ12 | | 158 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | 8(NGK) | | U(AIC2) | GRD | | | 0 | | 95 | 90 | (AIC)&(AIC2) IN PARALLEL |
| AIC3 | AJ12 | | 158 | 220 | | | | | U(AIC3) | GRD | | | 0 | | 42.5 | 40.5 | |
| AICK | AJ12 | | 158 | 220 | | | | | U(AICK) | GRD | | | 0 | | 42.5 | 40.5 | |
| AIF0 | AJ503 | | 136 | 249 | | | | | U(AIFU) | GRD | | | 0 | | 95 | 90 | |
| AIF1 | AJ503 | | 136 | 249 | | | | | U(AIF1) | GRD | | | 0 | | 95 | 90 | |
| AIOD | AJ503 | PN | 107 | 249 | | | | | U(AIOD) | GRD | | | 0 | | 95 | 90 | |
| AIS | AJ503 | | 128 | 249 | | | | | U(AIS) | GRD | | | 0 | | 95 | 90 | |
| AIS1-3 | AJ12 | | 128 | 220 | | | | | | | | | | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | U REL TST | | GRD | | | 0 | | 150 | 140 | (AIS1),(AIS2),&(AIS3) IN PARALLEL |
| AK | AF52 | | 23 | 19 | | | | | U(AK) | GRD | | | 0 | | 29.5 | 28 | |
| AL0-3 | AF514 | | 38 | 5 | | | | U REL TST | | GRD | | | 0 | | 57.5 | 54.5 | CONN DIRECT BAT. L(REL TST) |
| ALN | AJ503 | | 103 | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | U(ALN) | GRD | | | 0 | | 210 | 200 | (ALN)&(ALNI) IN PARALLEL |
| ALNI | AJ503 | | 112 | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | U(ALNI) | GRD | | | 0 | | 210 | 200 | (ALN)&(ALNI) IN PARALLEL |
| | | EC | 103 | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | U(ALNI) | GRD | | | 0 | | 210 | 200 | (ALN)&(ALNI) IN PARALLEL |

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK mA | TEST mA | READJ mA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALS0,1 | AF521 | | 60 | 21 | | | | | | | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(REL TST) | GRD | | | 0 | | 200 | 190 | (ALS0,1)&(NSSC,1) IN PARALLEL RESPECTIVELY |
| ALS2-5 | AF521 | F | 60 | 21 | | | | | | | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(REL TST) | GRD | | | 0 | | 200 | 190 | (ALS2-5)&(NSS2-5) IN PARALLEL RESPECTIVELY |
| AMA | AF507 | | 40,74 | 26 | | | | | | | | | 0 | | 37 | 35 | WDG ALONE |
| | | | | | | | | | U(AMA) | GRD | | | 0 | | 85 | 80 | (AMA)&(AMA1) IN PARALLEL |
| | | | | | | | | | U(AMA) | GRD | | | 0 | | 135 | 125 | (AMA),(AMA1)&(NCMU) IN PARALLEL |
| AMA1 | AJ501 | | 71 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | U(AMA1) | GRD | | | 0 | | 100 | 95 | (AMA)&(AMA1) IN PARALLEL |
| | | | | | | | | | U(AMA1) | GRD | | | 0 | | 150 | 140 | (AMA),(AMA1)&(NCMU) IN PARALLEL |
| AMA3 | AJ501 | M,XJ | 25 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | U(REL TST) | GRD | | | 0 | | 150 | 140 | (AMA3),(AMA4)&(AMA5) IN PARALLEL |
| | | | | | | | | | U(AMA3) | GRD | | | 0 | | 42.5 | 40.5 | (AMA3) ALONE WHEN (ANI) IS PROVIDED |
| AMA4,5 | AJ501 | M | 25 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | U(REL TST) | GRD | | | 0 | | 150 | 140 | (AMA3-5) IN PARALLEL |
| AMB | AG8 | | 13 | 448 | | | | | U(AMB) | GRD | 32 | | 0 | 20 | 7.7 | 7.3 | |
| | | | | | | | | | U(AMB) | GRD | | | H | 20 | 1.1 | | |
| | | | | | | | | | U(AMB) | GRD | | | R | 20 | 0.5 | 0.7 | |
| AN | AF121 | | 60 | 31 | | | | L(AN) | | BAT. | | | 0 | | 130 | 120 | |
| AN A0-9 | AF37 | | 61 | 8 | | | | L REL TST | | BAT. | | | 0 | | 105 | 100 | |
| ANB0-9 | AF92 | | 61 | 7 | | | | | U REL TST | GRD | | | 0 | | 72.5 | 69 | |
| ANC0,4,5,9 | AF92 | | 61 | 7 | | | | | U REL TST | GRD | | | 0 | | 72.5 | 69 | |
| AND0,4,5,9 | AF92 | | 61 | 7 | | | | | U REL TST | GRD | | | 0 | | 72.5 | 69 | |
| ANI | AJ501 | XJ | 75 | 249 | | | | | U(ANI) | GRD | | | 0 | | 42.5 | 40.5 | |
| ANIS | AJ505 | XJ | 75 | 36 | | | | | U(ANIS) | GRD | | | 0 | | 75 | 71 | |
| ANON | AF506 | | 60 | 8 | | | | | U(ANON) | GRD | | | 0 | | 30.5 | 29 | |
| ANR | AF55 | | 60 | 26 | | | | | U(ANR) | GRD | | | 0 | | 37 | 35 | |
| ANR1 | AF55 | | 60 | 26 | | | | | U(ANR1) | GRD | | | 0 | | 37 | 35 | |
| ANR2 | AF55 | | 60 | 26 | | | | | U(ANR2) | GRD | | | 0 | | 37 | 35 | |
| ANS | AJ15 | | 60 | 249 | | | | | U(ANS) | GRD | | | 0 | | 42.5 | 40.5 | |
| ANT | AJ502 | | 60 | 234 | | | | | U(ANT) | GRD | | | 0 | | 40 | 38 | |
| ANTD | AJ505 | BA | 147 | 36 | | | 2(ANTD) | | U(ANTD) | GRD | | | 0 | | 80 | 71 | |
| AOA | AJ502 | | 11 | 234 | | | | | U(AOA) | GRD | | | 0 | | 40 | 38 | |
| AOC | 280AW | WX | 11 | 8 | | | | | (AOC) | | | | 0 | | | 1.1 | |
| | | | | | | | (XACS)NO | -48 | CROSS CONN PCHG | NGB | | | NO | -50 | | 0.8 | |
| | | | | | | | | | | | | | 0 | | 4.8 | 4.5 | |
| | | | | | | | | | | | | | R | 50 | 1.1 | 1.2 | |

* FOR TEST NOTES SEE SHEET F22

ISSUE 55B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F2

BELL TELEPHONE LABORATORIES INCORPORATED 6S

E-7423(3-72)CBL

SD-26002-01

# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPTION | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRESS | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA. | TEST MA. | READ MA. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AOT | AJ503 | | 112 | | 249 | | | | | U(AOT) | GRD | | | 0 | | 95 | 90 | |
| ARK1-2 | AF531 | | 59 | | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| ARNO-4 | AF530 | | 59 | | 217 | | | | | 1U REL | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | | 2U TST | GRD | | S | 0 | | 40.5 | 46 | |
| ARN5 | AF530 | | 59 | | 217 | | | | 1L(ARN5) | 1U(ARN5) | B/G | | F | 0 | | 52 | 49.5 | |
| | | | | | | | | | | 2U(ARN5) | GRD | | S | 0 | | 48.5 | 46 | |
| ARP | AJ506 | | 59 | | 267 | | | | | U(ARP) | GRD | | | 0 | | 80 | 75 | |
| ARS | AJ506 | | 59 | | 267 | | | | | U(ARS) | GRD | | | 0 | | 80 | 75 | |
| ARTO | AJ12 | | 130 | | 220 | | | 1-5(ARTC) | | U(ARTO) | GRD | | | 0 | | 42.5 | 40.5 | |
| ART1-9 | AJ12 | | 134 | | 220 | | | 1-5(ARTC) | | U(ART-) | GRD | | | 0 | | 42.5 | 40.5 | |
| ARTA | AJ12 | | 164 | | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | U(ARTA) | GRD | | | 0 | | 80 | 74 | (ARTA)&(ARTC) IN PARALLEL |
| ARTC | AJ12 | | 130 | | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | U(ARTC) | GRD | | | 0 | | 80 | 74 | (ARTA)&(ARTC) IN PARALLEL |
| ASB | AF60 | | 27 | | 12 | | | | | U(ASB) | GRD | | | 0 | | 6.5 | 6.2 | |
| AST | AJ501 | | 43 | | 249 | | | | L(AST) | | BAT. | | | 0 | | 42.5 | 40.5 | |
| ATO-9 | ~~AF504~~ | | 51 | | 8 | | | | | U REL TST | GRD | | | 0 | | 80 | 72 | |
| ATB0 | 280AH | IX | 61 | | 8 | | | | (ATB0-9) | GRD | NGB | 1 | | 0 | -40 | | 0.8 | |
| ATB9 | | | | | | | | | CROSS | GRD | NGB | 1 | | NO | -40 | | 0.6 | |
| | | | | | | | | | CONN | GRD | NGB | | | 0 | -8.5 | 1.2 | 1.1 | |
| | | | | | | | | | PCHG | GRD | NGB | | | R | 4.5 | 0.2 | 0.3 | |
| ATB0-9 | 316M | IY | 61 | | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | | R | | 0.3 | | |
| ATT | AJ503 | PT,PS | 90 | | 249 | | | | | U(ATT) | GRD | | | 0 | | 95 | 90 | |
| ATT1 | AJ503 | | 90 | | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | | U(ATT1) | GRD | | | 0 | | 210 | 200 | (ATT1)&(ATT2) IN PARALLEL |
| ATT2 | AJ503 | | 139 | | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | | U(ATT2) | GRD | | | 0 | | 210 | 200 | (ATT1)&(ATT2) IN PARALLEL |
| AUS | 1/2AK501 | ZXB | 90 | | 2 | | | | | 1L(AUS) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (MRI) |
| AV1-6 | AJ503 | | 115 | | 249 | | | 1(RST) | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| AVK | 290AS | IX | 26 | | 8 | | | | 9(SLK2) | 0(RSC) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | | 9(SLK2) | 10(RSC) | NGB | | F | NO | -55 | | 0.9 | |
| | | | | | | | | | 9(SLK2) | 10(RSC) | NGB | | P | R | -55 | 3 | 4.2 | |
| | | | | | | | | | 9(SLK2) | 10(RSC) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | | 1(OGC) | -48 | NGB | | S | 0 | | 11.5 | | |
| AVK | 316N | IY | 26 | | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | | S | 0 | | 30 | | |
| AVK1 | AF515 | | 26 | | 31 | | | 11(AVK1) | | U(AVK1) | GRD | | | 0 | | 100 | 90 | |
| B0,B1 | AF531 | | 46 | | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| B2,B4 | | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| B7 | | | | | | | | | | | | | | | | | | |
| B147 | AF504 | | 47 | | 8 | | | | | U(B147) | GRD | | | 0 | | 80 | 72 | |
| B258 | AF504 | | 47 | | 8 | | | | | U(B258) | GRD | | | 0 | | 80 | 72 | |
| B369 | AF504 | | 47 | | 8 | | | | | U(B369) | GRD | | | 0 | | 80 | 72 | |
| BC00 | AF504 | | 3 | | 8 | | | | | | | | | 0 | | 80 | 72 | WDG ALONE |
| | | | | | | | | | | U(BC00) | GRD | | | 0 | | 170 | 160 | (BC00) & (BC10) IN PARALLEL |
| BC0, | AF521 | | 47 | | 21 | | | | | U REL | GRD | | | 0 | | 90 | 85 | |
| BC1, | | | | | | | | | | TST | | | | | | | | |
| BC2, | | | | | | | | | | | | | | | | | | |
| BC4, | | | | | | | | | | | | | | | | | | |
| BC7 | | | | | | | | | | | | | | | | | | |

DRAWING ISSUE: 18D (KHB EDM) AHD; 21D (JCR JDP RND BHL) EN LBM NHB DB EDM AHP JGS 46,40 AHP; 24D; 25D; 30D (GHS PEB AHP); 33D (GLS EDM AHD); 35D (GM TMJ AHD DBR); 37D; 39D (REL); 41D; 43D

* FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT

SD-26002-01-F3

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01

# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPTION | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRESS | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA. | TEST MA. | READ MA. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC10 | AF504 | | 2 | | 8 | | | | | | | | | 0 | | 80 | 72 | WDG ALONE |
| | | | | | | | | | | U (BC10) | GRD | | | 0 | | 170 | 160 | (BC00) & (BC10) IN PARALLEL |
| BC20 | AF504 | | 65 | | 8 | | | | | U (BC20) | GRD | | | 0 | | 80 | 72 | |
| BCA0 | AF504 | | 123 | | 8 | | | | | | | | | 0 | | 80 | 72 | WDG ALONE |
| | | | | | | | | | | U (BCA0) | GRD | | | 0 | | 170 | 160 | (BCA0) & (BCA10) IN PARALLEL |
| BCA10 | AF504 | | 123 | | 8 | | | | | | | | | 0 | | 80 | 72 | WDG ALONE |
| | | | | | | | | | | U (BCA10) | GRD | | | 0 | | 170 | 160 | (BCA0) & (BCA10) IN PARALLEL |
| BCN | AJ501 | | 167 | | 249 | | | | | U(BCN) | GRD | | | 0 | | 42.5 | 40.5 | |
| BG | AF506 | | 26 | | 8 | | | | | U(BG) | GRD | | | 0 | | 30.5 | 29 | |
| BGI | AF506 | ZXD | 26 | | 8 | | | | | U(BGI) | GRD | | | 0 | | 30.5 | 29 | |
| BL | AJ505 | CO | 41 | | 36 | | | | L(BL) | U(BL) | B/G | | | 0 | | 75 | 71 | |
| BL | AJ45 | CP | 41 | | 249 | | | | L(BL) | U(BL) | B/G | | | 0 | | 130 | 120 | |
| BLDA | AJ503 | | 104 | | 249 | | | | | U(BLDA) | GRD | | | 0 | | 95 | 90 | |
| BLR | AF32 | | 146 | | 208 | | | | | U(BLR) | GRD | | | 0 | | 32 | 30.5 | |
| BLS0-9 | AF504 | | 104 | | 6 | | | | | U(REL TST) | GRD | | | 0 | | 72.5 | 72 | |
| BLT | AJ503 | | 104 | | 249 | | | | | U(BLT) | GRD | | | 0 | | 95 | 90 | |
| BLTL | AJ503 | | 104 | | 249 | | | | | U(BLTL) | GRD | | | 0 | | 95 | 90 | |
| BLTR | AJ503 | | 104 | | 249 | | | | | U(BLTR) | GRD | | | 0 | | 95 | 90 | |
| BN | AF55 | | 22 | | 26 | | | | | U(BN) | GRD | | | 0 | | 37 | 35 | |
| BNA | AF24 | | 43 | | 8 | | | | | U(BNA) | GRD | | | 0 | | 30.5 | 29 | |
| BNB | AF53 | | 22 | | 24 | | | | | U(BNB) | GRD | | | 0 | | 31.5 | 30 | |
| BNTH | AF21 | | 22 | | 228 | | | | | 1U(BNTH) | GRD | | P | 0 | | 20.5 | 19.5 | |
| | | | | | | | | | | | | | P | NO | | 8.5 | 8.9 | |
| | | | | | | | | | 2L(BNTH) | | BAT | | S | 0 | | 22 | | |
| BR1-3 | AJ512 | | 138 | | 64 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| BRA | AF42 | | 104 | | 224 | | | | | U(BRA) | GRD | | | 0 | | 100 | 95 | |
| BRB | AF42 | | 104 | | 224 | | | | | U(BRB) | GRD | | | 0 | | 100 | 95 | |
| BRG | AJ507 | | 138 | | 21 | | | | | U(BRG) | GRD | | | 0 | | 100 | 95 | |
| BRK1-2 | AF531 | | 59 | | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| BRL | AJ68 | | 95 | | 277 | | | | | U(BRL) | GRD | | | 0 | | 28 | 27 | |
| BRNO-4 | AF530 | | 59 | | 217 | | | | | 1U REL | GRD | | P | 0 | | 52 | 49.5 | |
| BRN4 | | | | | | | | | | 2U TST | GRD | | S | 0 | | 48.5 | 46 | |
| BRP | AJ506 | | 59 | | 267 | | | | | U(BRP) | GRD | | | 0 | | 80 | 75 | |
| BRS | AJ506 | | 59 | | 267 | | | | | U(BRS) | GRD | | | 0 | | 80 | 75 | |
| BSL | AJ501 | | 167 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | U(BSL) | GRD | | | 0 | | 95 | 90 | (BSL) & (BSLA) IN PARALLEL |
| BSLA | AJ501 | | 167 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | U(BLSA) | GRD | | | 0 | | 95 | 90 | (BSL) & (BSLA) IN PARALLEL |
| BT00-4 | AF504 | | 50 | | 8 | | | | | U REL | GRD | | | 0 | | 80 | 72 | |
| BT90 | | | | | | | | | | TST | | | | | | | | |
| BTOR,S, T-BT9R, S,T | 286E | SF | 49 | | | | | | | U REL TST | GRD | | | 0 | | 125 | 115 | |
| BX | AF507 | | 29 | | 26 | | | | | U(BX) | GRD | | | 0 | | 37 | 35 | |
| BY | AF55 | | 22 | | 26 | | | | | U(BY) | GRD | | | 0 | | 37 | 35 | |
| BYK | 280AS | IX | 81 | | 8 | | | | (NRS)0 | 3(NRS) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | | 3(NRS) | 5(NRS) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | | 7(NRS) | 3(NRS) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | | | 3(NRS) | 5(NRS) | NGB | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | | | 6(BYK) | -48 | NGB | S | 0 | | 11.5 | | |
| BYK | 316M | IY | 81 | | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | | S | 0 | | 30 | | |
| C0,C1, C2,C4 C7 | AF531 | | 46 | | 203 | | | | | U REL TST | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | GRD | | | R | | 11.9 | 12.6 | |
| C4D | AJ503 | | 102 | | 249 | | | | | U(C4D) | GRD | | | 0 | | 95 | 90 | |
| CAA | AJ505 | | 41 | | 36 | | | | | U(CAA) | GRD | | | 0 | | 75 | 71 | |
| CAM | AJ503 | | 69 | | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | | U(CAM) | GRD | | | 0 | | 210 | 200 | (CAM)&(CAMA)IN PARALLEL |
| CAMA | AJ503 | | 68 | | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | | U(CAMA) | GRD | | | 0 | | 210 | 200 | (CAM)&(CAMA)IN PARALLEL |
| CAU0-9 | AJ507 | | 111 | | 21 | | | | | U(REL TST) | GRD | | | 0 | | 100 | 95 | |
| CB | AF521 | | 19 | | 21 | | | | | | | | | U | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | U(CB) | GRD | | | 0 | | 200 | 190 | (CB)&(CB1) IN PARALLEL |
| CB1 | AF521 | | 19 | | 21 | | | | | | | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | U(CB1) | GRD | | | 0 | | 200 | 190 | (CB)&(CB1) IN PARALLEL |
| CB2 | AF521 | | 13 | | 21 | | | | | U(CB2) | GRD | | | 0 | | 90 | 85 | |
| CB3 | AF521 | | 13 | | 21 | | | | | | | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | U(CB3) | GRD | | | 0 | | 200 | 190 | (CB3)&(CB4)IN PARALLEL |
| CB4 | AF521 | | 18 | | 21 | | | | | | | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | U(CB4) | GRD | | | 0 | | 200 | 190 | (CB3)&(CB4)IN PARALLEL |
| CB5 | AF521 | | 7 | | 21 | | | | | | | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | U(CB5) | GRD | | | 0 | | 200 | 190 | (CB5)&(CB6)IN PARALLEL |
| CB6 | AF521 | | 17 | | 21 | | | | | | | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | U(CB6) | GRD | | | 0 | | 200 | 190 | (CB5)&(CB6)IN PARALLEL |

DRAWING ISSUE: 18D (KHB EDM) AHD; 21D (JCR JDP AHD) EN LBM NHB DB EDM AHP JGS 46,40 AHP; 24D; 25D; 30D (GHS PEB AHP); 33D (GLS EDM AHD); 35D (GM TMJ AHD DBR); 37D; 39D (REL); 41D; 43D; 47D

* FOR TEST NOTES SEE SHEET F22.

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F3

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-F3

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | CODE | OPT. | FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CCO,1 2,4,7 | AJ521 | | 47 | | 21 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| CCO,1 2,4,7 10,15 | AJ503 | | 118 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| CDA 0-4 | AF530 | | 117 | | 217 | | | | | 1U REL<br>2U TST | GRD<br>GRD | | P<br>S | 0<br>0 | | 52<br>48.5 | 49.5 | |
| CDAP | AJ506 | | 117 | | 267 | | | | | U(CDAP) | GRD | | | 0 | | 80 | 75 | |
| CDAS | AJ506 | | 117 | | 267 | | | | | U(CDAS) | GRD | | | 0 | | 80 | 75 | |
| CDB 0-4 | AF530 | | 117 | | 217 | | | | | 1U REL<br>2U TST | GRD<br>GRD | | P<br>S | 0<br>0 | | 52<br>48.5 | 49.5 | |
| CDBP | AJ506 | | 117 | | 267 | | | | | U(CDBP) | GRD | | | 0 | | 80 | 75 | |
| CDBS | AJ506 | | 117 | | 267 | | | | | U(CDBS) | GRD | | | 0 | | 80 | 75 | |
| CDKO1 | AF51 | | 27 | | 3 | | | | | U(REL TST) | GRD | | | 0 | | 20.5 | 19.5 | |
| CDN | AJ501 | PT | 90 | | 249 | | | | | U(CDN) | GRD | | | 0 | | 42.5 | 40.5 | |
| CDNC | ~~AJ15~~ | | 94<br>112 | | 249 | | | | | U(CDNC) | GRD | | | 0 | | 42.5 | 40.5 | |
| CDNK | 280AS | IX | 94<br>112 | | 8 | | | | 10(LI)<br>10(LI)<br>10(LI)<br>10(LI)<br>4(CGS) | 2(TX1)<br>2(TX1)<br>2(TX1)<br>2(TX1)<br>-48 | NGB<br>NGB<br>NGB<br>NGB<br>NGB | | P<br>P<br>P<br>P<br>S | 0<br>NO<br>0<br>R<br>0 | -55<br>-55<br>-55<br>55<br>30 | 5<br>1<br>11.5 | 1.3<br>0.9<br>4.7<br>1.1 | |
| CDNK | 316N | IY | 94<br>112 | | | | | | | | | | P<br>P<br>S | 0<br>R<br>0 | 30 | 9.8<br>2.6<br>30 | | |
| CDPO, 1,2,4,7 10,15 | AJ503 | | 118 | | 249 | | | | | U REL TST | GRD | | | 0 | | 95 | 90 | |
| CDRO, 1,2,4,7 | AJ12 | | 119 | | 220 | | | | | U(REL TST) | GRD | | | 0 | | 42.5 | 40.5 | |
| CDRA 0-3 | AJ12 | | 119 | | 220 | | | | | U(REL TST) | GRD | | | 0 | | 42.5 | 40.5 | |
| CDS 00-39 | AJ700 | | 122 | | 500 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| CDT1-4 | AF522 | | 117 | | 18 | | | | | U(REL TST) | GRD | | | 0 | | 23.5 | 22 | |
| CE | AJ508 | | 95 | | 19 | | | (XCE)NO | L(CE) | U(CE) | B/G | | | 0 | | 75 | 71 | |
| CFG 0-2 | AJ501 | | 68 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 42.5 | 40.5 | |
| CGA | AF521 | | 34 | | 21 | | | | | U(CGA) | GRD | | | 0 | | 95 | 90 | |
| CGA1 | 2308A | WV | 33<br>109 | | 8 | | | | 6(MT11)<br>6(MT11)<br>6(MT11)<br>6(MT11)<br>6(MT11) | FR GRD<br>FR GRD<br>FR GRD<br>FR GRD<br>FR GRD | NGB<br>NGB<br>NGB<br>NGB<br>NGB | | 0<br>NO<br>0<br>NO<br>R | -120<br>-120<br>-120<br>120<br>120 | 8.8<br>2.2<br>1.3 | 2.6<br>1.9<br>8.3<br>2.4<br>1.4 | | |
| CGB | AF521 | WV | 34<br>33 | | 21 | | | | | U(CGB) | GRD | | | 0 | | 95 | 90 | |
| CGB1 | 2809A | | 109 | | 8 | | | | 8(MT11)<br>8(MT11)<br>8(MT11)<br>8(MT11)<br>8(MT11) | FR GRD<br>FR GRD<br>FR GRD<br>FR GRD<br>FR GRD | NGB<br>NGB<br>NGB<br>NGB<br>NGB | | 0<br>NO<br>0<br>NO<br>R | -120<br>-120<br>-120<br>120<br>120 | 8.3<br>2.2<br>1.3 | 2.6<br>1.9<br>8.3<br>2.4<br>1.4 | | |
| CGRA, CGRB | AF521 | | 79 | | 60 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 85 | |

DRAWING ISSUE: 30D, 33D, 35D, 39D LT, 41D

COMPLETING MARKER CIRCUIT

SD-26002-01-F4

BELL TELEPHONE LABORATORIES INCORPORATED

PRINTED IN U.S.A.

22

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | CODE | OPT. | FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CGS | AJ503 | | 90 | | 249 | | | | | U(CGS) | GRD | | | 0 | | 95 | 90 | |
| CGT | AJ502 | | 11 | | 234 | | | | | U(CGT) | GRD | | | 0 | | 40 | 38 | |
| CHO-9 | AJ503 | | 12 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| CHA | AJ503 | | 9 | | 249 | | | | | U(CHA) | GRD | | | 0 | | 95 | 90 | WDG ALONE |
| CHA1 | AJ503 | | 10 | | 249 | | | | | U(CHA) | GRD | | | 0 | | 210 | 200 | (CHA)&(CH 11) IN PAR. |
| | | | | | | | | | | U(CHA1) | GRD | | | 0 | | 95 | 90 | WDG ALONE |
| CHT | 280A | MG | 12 | | A | | | | I(CKG5) | I(CKG5) | B/G | | P | 0 | -65 | 3 | 1.5 | (CHA)&(CH 11) IN PAR. SEE TIMING REQ, PAGE 42 |
| | 280FY | MH | | | | | | | I(CKG5) | I(CKG5) | B/G | | P | NO | -65 | OC | 1.1 | |
| CHT | 280J | RK | 12 | | B | | | | I(CKG5) | I(CKG5) | B/G | | S | 0 | | 0.5 | | |
| 0-9 | | | | | | | | I(STX) | I(STX) | 2(TCHO-9) | B/G | | | 0 | -12 | | 0.3 | |
| | | | | | | | | I(STX) | I(STX) | 2(TCHO-9) | B/G | | | NO | -12 | | 0.2 | CONNECT TO (TCHO-9) |
| | | | | | | | | I(STX) | I(STX) | 2(TCHO-9) | B/G | | | 0 | -12 | 2 | 1.9 | RELAYS CORRESPONDING |
| | | | | | | | | I(STX) | I(STX) | 2(TCHO-9) | B/G | | | NO | 12 | 1.1 | 1.2 | TO (CHTO-9) RELAYS |
| | | | | | | | | I(STX) | I(STX) | 2(TCHO-9) | B/G | | | R | 12 | 0.9 | 1. | |
| CHT- | 316B | RL | 12 | | | | | | | | | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | | R | | 0.7 | | |
| | | | | | | | | | | | | | | NO | | 1.5 | | |
| CI | AJ503 | ZWE | 137 | | 249 | | | | | U(CI) | GRD | | | 0 | | 95 | 90 | |
| CIO-4 | AJ72 | | 137 | | 64 | | | 11B(CIA) | | 1U REL<br>2U TST | GRD<br>GRD | | P<br>S | 0<br>0 | | 34<br>35.5 | 32<br>33.5 | |
| CIA | AJ12 | | 137 | | 220 | | | | | U(CIA) | GRD | | | 0 | | 42.5 | 40.5 | |
| CIB | AJ512 | | 130 | | 64 | | | | | U(CIA) | GRD | | | 0 | | 90 | 85 | |
| CKG1 | AF521 | | 8 | | 21 | | | | | U(CKG1) | GRD | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 200 | 190 | (CKG1)&(CKG2)IN PAR. |
| CKG2 | AJ700 | | 7 | | 500 | | | | | U(CKG2) | GRD | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 200 | 190 | (CKG1)&(CKG2)IN PAR. |
| CKG3 | AJ700 | | 116 | | 500 | | | | | U(CKG3) | GRD | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 200 | 190 | (CKG7)&(CKG3)IN PAR. |
| CKG4 | AJ501 | | 8 | | 249 | | | | | U(CKG4) | GRD | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 95 | 90 | (CKG4)&(CKG8)IN PAR. |
| CKG5 | AF521 | | 7 | | 21 | | | | | U(CKG5) | GRD | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 200 | 190 | (CKG5)&(CKG6)IN PAR. |
| CKG6 | AJ700 | | 8 | | 500 | | | | | U(CKG6) | GRD | | | 0 | | 90 | 85 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 200 | 190 | (CKG5)&(CKG6)IN PAR. |
| CKG7 | AJ503 | TB | 8 | | 249 | | | | | U(CKG7) | GRD | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 210 | 200 | (CKG7)&(CKG3)IN PAR. |
| CKG8 | AJ501 | FE | 9 | | 249 | | | | | U(CKG8) | GRD | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | U(CKG8) | GRD | | | 0 | | 95 | 90 | (CKG4)&(CKG8)IN PAR. |
| CKO | AF42 | | 22 | | 224 | | | | | U(CKO) | GRD | | | 0 | | 100 | 95 | |
| CKR | AJ503 | | 22 | | 249 | | | | | U(CKR) | GRD | | | 0 | | 95 | 90 | |
| CL 0-5 | AF530 | | 56 | | 217 | | | | | 1U REL<br>2U TST | GRD<br>GRD | | P<br>S | 0<br>0 | | 52<br>48.5 | 49.5<br>46 | |
| CL6 | AF530 | | 75 | | 217 | | | | | 1U REL | GRD | | P | 0 | | 52 | 49.5 | |
| CL7,8 | AF530 | UQ | 75 | | 217 | | | | | 2U TST | GRD | | S | 0 | | 48.5 | 46 | |
| CL9 | AF530 | QJ | 75 | | 217 | | | | | 1U(CL9) | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | | 2U(CL9) | GRD | | S | 0 | | 48.5 | 46 | |
| CL10 | AF530 | | 183 | | 217 | | | | | 1U(CL10) | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | | 2U(CL10) | GRD | | S | 0 | | 48.5 | 46 | |
| CLG | AJ501 | XA | 26 | | 249 | | | | | U(CLG) | GRD | | | 0 | | 42.5 | 40.5 | |
| CLK | AF507 | | 26 | | 26 | | | | | U(CLK) | GRD | | | 0 | | 37 | 35 | |
| CLK | AF531 | | 56 | | 203 | | | | | U(PEL TST) | GRD | | | 0 | | 38 | 36 | |
| 1-3 | | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| CLP | AJ506 | PO | 56 | | 267 | | | | | U(CLP) | GRD | | | 0 | | 80 | 75 | |
| CLP | AJ508 | PR | 56 | | 19 | | | | | U(CLP) | GRD | | | 0 | | 75 | 71 | |
| CLS | AJ506 | | 56 | | 267 | | | | | U(CLS) | GRD | | | 0 | | 80 | 75 | |
| CLT | 280A | XA | 26 | | A | | | (CLT1)O | 8(CLG) | 6(BG) | B/G | | P | 0 | -65 | 3 | 1.5 | SEE TIMING REQT |
| | | | | | | | | | 8(CLG) | 6(BG) | B/G | | P | NO | -65 | OC | 1.1 | |
| | | | | | | | | (CLG)O | 2(CLT1) | 6(BG) | B/G | | S | 0 | | 0.5 | | |
| CLT1 | AF513 | XA | 26 | | 208 | | | (SK)O | | U(CLT1) | GRD | | | 0 | | 32.5 | 30.5 | |
| CL12 | AF522 | XA | 26 | | 18 | | | | | U(CLT2) | GRD | | | 0 | | 23.5 | 22 | |
| CM | AJ89 | | 96 | | 238 | | | | | U(CM) | GRD | | | 0 | | 80 | 75 | |
| CMC1,2 | AJ501 | | 69 | | 249 | | | | | U(CMC1) | GRD | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | | | | | 0 | | 150 | 140 | (CMC1),(CMC2)&(CMC3) IN PAR. |
| CMC3 | AJ501 | | 68 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WDG ALONE |
| | | | | | | | | | | U(CMC3) | GRD | | | 0 | | 150 | 140 | (CMC1),(CMC2)&(CMC3) IN PAR. |
| CMF | AJ505 | | 69 | | 36 | | | | | U(CMF) | GRD | | | 0 | | 75 | 71 | |

DRAWING ISSUE: 30D, 33D, 35D, 39D LT, 41D

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F4

BELL TELEPHONE LABORATORIES INCORPORATED 6S

PRINTED IN U.S.A.

SD-26002-01

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CMFO,1 | AF519 | | 68 | 224 | | | | | U REL TST | GRD | | | 0 | | 100 | 95 | |
| CMF2,3 | AF503 | | 68 | 249 | | | | | | | | | 0 | | 95 | 90 | WDG ALONE |
| | | | | | | | | | U(CMF2) | GRD | | | 0 | | 210 | 200 | (CMF2)&(CMF3) IN PARALLEL |
| CMJ | AJ505 | | 69 | - 36 | | | | | U(CMJ) | GRD | | | 0 | | 75 | 71 | |
| CMJT | AJ508 | | 147 | 19 | | | !2(CMJT) | | U(CMJT) | GRD | | | 0 | | 80 | 71 | |
| CMRO,1 | 280E | IX | 69 | B | | | | FRAME BAT. | ASSOC (CMRO,1) PCHG | NGB | ! | | 0 | -6.5 | | 1.1 | |
| | | | | | | | | | | NGB | ! | | NO | -6.5 | | 0.8 | |
| | | | | | | | | | | NGB | | | 0 | -4 | 0.4 | 0.3 | |
| | | | | | | | | | | NGB | | | R | 4 | OC | OC | |
| CMRO,3 | 316M | IY | 69 | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| CMSO,1 | AJ503 | | 68 | 249 | | | | | U REL TST | GRD | | | 0 | | 95 | 90 | |
| CMUO,1 2,4,7 | AF132 | | 96 | 61 | | | | | U REL TST | GRD | | | 0 | | 34 | 32.5 | |
| CN | 280AW | | 11 | B | | | | -48 | (CN) | NGB | | | 0 | -50 | | 1.1 | |
| | | | | | | | (XACS) NO | -48 | CROSS | NGB | | | NO | -50 | | 0.8 | |
| | | | | | | | | -48 | CONN | NGB | | | 0 | -50 | 4.8 | 4.5 | |
| | | | | | | | | -48 | PCHG | NGB | | | R | 50 | 1.1 | 1.2 | |
| CNA | AJ502 | | 11 | 234 | | | | | U(CNA) | GRD | | | 0 | | 40 | 38 | |
| CNC | AF114 | | 41 | 54 | | | | | U(CNC) | GRD | | | 0 | | 24.5 | 23 | |
| CNK | 280AS | XB | 26 | B | | | | 4(NCCN) | +2(CNK) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | 4(NCCN) | +2(CNK) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 4(NCCN) | +2(CNK) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 4(NCCN) | +2(CNK) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 5(BG) | -48 | NGB | | S | 0 | | 11.5 | | |
| CNK | 316N | GB | 26 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| CNP | AJ503 | | 141 | 249 | | | | | U(CNP) | GRD | | | 0 | | 95 | 90 | |
| CNT | AF42 | PU | 44 | 224 | | | | | U(CNT) | GRD | | | 0 | | 100 | 95 | |
| CNTA | AF114 | PU | 44 | 54 | | | | | U(CNTA) | GRD | | | 0 | | 24 | 23 | |
| CNTI | AJ503 | JK | 90 | 249 | | | | | U(CNTI) | GRD | | | 0 | | 95 | 90 | |
| CNTU | AJ50 | JY | 90 | 249 | | | | | U(CNTU) | GRD | | | 0 | | 95 | 90 | |
| CON | 280F | RK | 11 | B | | | (GT1)0 | 2(CON) TUBE | 7(GT1) | B/G | | | 0 | -16 | | 0.4 | |
| | | | | | | | | | 7(GT1) | B/G | | | NO | -16 | | 0.3 | |
| | | | | | | | | | 7(GT1) | B/G | | | 0 | -16 | 1.6 | 1.5 | |
| | | | | | | | | | 7(GT1) | B/G | | | R | 16 | 0.3 | 0.4 | |
| CON | 316B | RL | 11 | | | | | | | | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | R | | 0.7 | | |
| | | | | | | | | | | | | | NO | | 1.5 | | |
| CON1 | AJ501 | | 11 | 249 | | | | | U(CON1) | GRD | | | 0 | | 42.5 | 40.5 | |
| CON2 | AF516 | | 123 | 221 | | | | | U(CON2) | GRD | | | 0 | | 66.5 | 63 | |
| CONA | AF521 | | 11 | 21 | | | | | U(CONA) | GRD | | | 0 | | 90 | 95 | |
| CONB | 316B | | 123 | | | | | | | | | | 0 | 75 | 2.4 | | |
| | | | | | | | | | | | | | R | | 0.7 | | |
| | | | | | | | | | | | | | NO | | 1.5 | | |
| COX | AJ513 | | 30 | 208 | | | | | U(COX) | GRD | | | 0 | | 32.5 | 30.5 | |
| CP | AJ503 | | 141 | 249 | | | | | U(CP) | GRD | | | 0 | | 95 | 90 | |
| CPO-9 | AF530 | | 39 | 217 | | | | 1U | REL | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | 2U | TST | GRD | | S | 0 | | 48.5 | 46 | |
| CP10 | AF530 | | 105 | 217 | | | | 1U | REL | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | 2U | TST | GRD | | S | 0 | | 48.5 | 46 | |
| CPG | 1/2AK36 | | 172 | 16 | | | 2(STA) | IL | (CPG) | GRD | | | 0 | | 11.6 | 11 | |

* FOR TEST NOTES SEE SHEET F22

DRAWING ISSUE: 25D JGS; 30D KMI; 33D RJV & DBL AND; 35D GM; 37D *; 39D PMEL; 41D; 43D

COMPLETING MARKER CIRCUIT

SD-26002-01-F5A

BELL TELEPHONE LABORATORIES INCORPORATED

PRINTED IN U.S.A.



## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CPK1,2 | AF531 | | 39 | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| CPMA | AF530 | ZTC | 39 | 217 | | | | | | | | P | 0 | | 52 | 49.5 | WDG ALONE |
| | | | | | | | | | | | | S | 0 | | 48.5 | 46 | WDG ALONE |
| | | | | | | | | 1U | REL | GRD | 48 | P | 0 | | 130 | 120 | |
| | | | | | | | | 2U | TST | GRD | 48 | S | 0 | | 120 | 110 | |
| CPMB | AF530 | ZRR | 155 | 217 | | | | | | | | P | 0 | | 52 | 49.5 | WDG ALONE |
| | | | | | | | | | | | | S | 0 | | 48.5 | 46 | WDG ALONE |
| | | | | | | | | 1U(CPMB) | | GRD | 49 | P | 0 | | 130 | 120 | |
| | | | | | | | | 2U(CPMB) | | GRD | 49 | S | 0 | | 120 | 110 | |
| CPMC | AF530 | ZMH | 39 | 217 | | | | | | | | P | 0 | | 52 | 49.5 | WDG ALONE |
| | | | | | | | | | | | | S | 0 | | 48.5 | 46 | WDG ALONE |
| | | | | | | | | 1U | REL | GRD | 48 | P | 0 | | 130 | 120 | |
| | | | | | | | | 2U | TST | GRD | 48 | S | 0 | | 120 | 110 | |
| CPMR | AJ503 | | 120 | 249 | | | | | U(CPMR) | GRD | | | 0 | | 95 | 90 | |
| CPNT | AF114 | ZZH | 117 | 54 | | | | | U(CPNT) | GRD | | | 0 | | 24 | 23 | |
| CPNT | AF55 | AR | 117 | 26 | | | | | U(CPNT) | GRD | | | 0 | | 37 | 35 | |
| CPP | AJ506 | ZWN | 39 | 267 | | | | | U(CPP) | GRD | | | 0 | | 80 | 75 | |
| CPP | AJ508 | ZWO | 39 | 19 | | | | | U(CPP) | GRD | | | 0 | | 75 | 71 | |
| CPR | AF57 | | 92 | 216 | | | | | U(CPR) | GRD | | | 0 | | 27 | 25.5 | |
| CPS | AJ506 | | 39 | 267 | | | | | U(CPS) | GRD | | | 0 | | 80 | 75 | |
| CR | AF519 | | 42 | 27 | | | | | U(CR) | GRD | | | 0 | | 72.5 | 69 | |
| CRO-CR4 | AF530 | | 56 | 217 | | | | | 1U REL | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | 2U TST | GRD | | S | 0 | | 48.5 | 46 | |
| CRS | AF530 | | 56 | 217 | | | | 1L(CRS) | 1U REL | B/G | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | 2U TST | GRD | | S | 0 | | 48.5 | 46 | |
| CRD 0-4 | AF530 | | 97 | 217 | | | | | 1U REL | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | 2U TST | GRD | | S | 0 | | 48.5 | 46 | |
| CRDP | AJ506 | | 97 | 267 | | | | | U(CRDP) | GRD | | | 0 | | 80 | 75 | |
| CRDS | AJ506 | | 97 | 267 | | | | | U(CRDS) | GRD | | | 0 | | 80 | 75 | |
| CRK1,2 | AF531 | | 56 | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| CRP | AJ508 | ZBL | 56 | 19 | | | | | U(CRP) | GRD | | | 0 | | 75 | 71 | |
| CRP | AJ506 | ZBK | 56 | 267 | | | | | U(CRP) | GRD | | | 0 | | 80 | 75 | |
| CRS | AJ506 | | 56 | 267 | | | | | U(CRS) | GRD | | | 0 | | 80 | 75 | |
| CRUO, 1,2,4,7 | AJ503 | | 79 | 249 | | | | | U REL TST | GRD | | | 0 | | 95 | 90 | |
| CSA | AJ45 | AV | 103 | 249 | | | | | U(CSA) | GRD | | | 0 | | 130 | 120 | |
| CSK | AJ512 | | 78 | 64 | | | | | U(CSK) | GRD | | | 0 | | 90 | 95 | |
| CSP | 280BA | UG | 78 | B | | | | -48V | 1L(CSUO) | NGB | | | 0 | -120 | | 2.6 | |
| | | | | | | | | -48V | 1L(CSUO) | NGB | | | NO | -120 | | 1.9 | |
| | | | | | | | | -48V | 1L(CSUO) | NGB | | | 0 | -120 | 13.2 | 12.5 | |
| | | | | | | | | -48V | 1L(CSUO) | NGB | | | R | 120 | 2.7 | 2.9 | |
| CSS | 280BA | UG | 78 | B | | | | -48V | 2L(CSUO) | NGB | | | 0 | -120 | | 2.6 | |
| | | | | | | | | -48V | 2L(CSUO) | NGB | | | NO | -120 | | 1.9 | |
| | | | | | | | | -48V | 2L(CSUO) | NGB | | | 0 | -120 | 13.2 | 12.5 | |
| | | | | | | | | -48V | 2L(CSUO) | NGB | | | R | 120 | 2.7 | 2.9 | |
| CST0-2 | AJ502 | | 78 | 234 | | | | | U REL TST | GRD | | | 0 | | 40 | 38 | |
| CST3-5 | AJ502 | QY | 78 | 234 | | | | | U REL TST | GRD | | | 0 | | 40 | 38 | |
| CST6-9 | AJ502 | WW | 78 | 234 | | | | | U REL TST | GRD | | | 0 | | 40 | 38 | |

* FOR TEST NOTES SEE SHEET F22.

DRAWING ISSUE: 25D JGS; 30D KMI; 33D RJV & DBL AND; 35D GM; 37D *; 39D PMEL; 41D; 43D

DRAWING ISSUE 6 B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F5A

BELL TELEPHONE LABORATORIES INCORPORATED

DRAWING SIZE 6S

PRINTED IN U.S.A.

# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | CODE | OPT. | FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CSUO-9 | AJ502 | UD | 78 | 234 | | | | | U REL TST | GRD | | | 0 | | 40 | 38 | |
| CSUO-9 | AJ518 | UE | 78 | 234 | | | | | 1U REL | GRD | | P | 0 | | 33.5 | 31 | |
| | | | | | | | | | 2U TST | GRD | | S | 0 | | 33.5 | 31 | |
| CSW | AJ15 | TX | 21 | 249 | | | | | U(CSW) | GRD | | | 0 | | 42.5 | 40.5 | |
| CTO-2 | AF521 | | 33 | 21 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| CT4,7 | AF521 | WY | 33 | 21 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| CTAO-2 | AJ700 | | 33 | 500 | | | | | U REL | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | TST | GRD | | | 0 | | 200 | 190 | (CTA-) & (CTA-) IN PARALLEL |
| CTA3-5 | AJ700 | WU | 33 | 500 | | | | | U REL | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | TST | GRD | | | 0 | | 200 | 190 | (CTA-) & (CTA-) IN PARALLEL |
| CTA6-9 | AJ700 | WW | 33 | 500 | | | | | U REL | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | TST | GRD | | | 0 | | 200 | 190 | (CTA-) & (CTA-) IN PARALLEL |
| CTBO-2 | AJ700 | | 34 | 500 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| CTPO,1, 2,4,7 | AF507 | | 68 | 26 | | | | | U REL TST | GRD | | | 0 | | 37 | 35 | |
| CTGS | AF506 | | 68 | 8 | | | | | U (CTGS) | GRD | | | 0 | | 30.5 | 29 | |
| CTI | AJ503 | | 112 | 249 | | | | | U(CTI) | GRD | | | 0 | | 95 | 90 | |
| CTIL | AJ503 | | 112 | 249 | | | | | U(CTIL) | GRD | | | 0 | | 95 | 90 | |
| CTK | 316U | AV | 105 | | | | | | | | | P | 0 | 150 | 52 | | |
| | | | | | | | | | | | | R | | | 14 | | |
| | | | | | | | | | | | | S | 0 | | 3 | | |
| CTK1,2 | AJ507 | UL | 78 | 21 | | | | | U REL TST | GRD | | | 0 | | 100 | 95 | |
| CTKA | AF98 | AV | 105 | 245 | | | | | U (CTKA) | GRD | | | 0 | | 14.9 | 14.1 | |
| CTPO,1, 2,4,7 | AF531 | | 84 | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| CTUK | AF511 | JN | 78 | 32 | | | | | U(CTUK) | GRD | | | C | | 24.5 | 23 | |
| CTUK | AJ503 | JM | 78 | 249 | | | | | U(CTUK) | GRD | | | 0 | | 95 | 90 | |
| CUO-9 | AJ507 | | 109 | 21 | | | | | U REL TST | GRD | | | 0 | | 100 | 95 | |
| CUAO,1, 2,4,7 | AJ503 | | 33 | 249 | | | | | U REL TST | GRD | 39 | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 210 | 200 | |
| CUBO,1, 2,4,7 | AJ503 | | 34 | 249 | | | | | U REL TST | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 210 | 200 | (CUAO-7)&(CUBO-7) IN PARALLEL |
| CUK1,2 | AJ507 | UL | 78 | 21 | | | | | U REL TST | GRD | | | 0 | | 100 | 95 | |
| CUPO,1, 2,4,7 | AF531 | | 83 | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| CVOO-CV95 | AF514 | | 58 | 5 | | | | | U REL TST | GRD | | | 0 | | 57.5 | 54.5 | CONN DIRECT BAT. TO L (REL TST) |
| CVS | AJ505 | | 59 | 36 | | | | | U(CVS) | GRD | | | 0 | | 75 | 71 | |
| CWB | AJ15 | | 152 | 249 | | | | | U (CWB) | GRD | | | 0 | | 42.5 | 40.5 | |
| CWC1 | AF24 | | 160 | 8 | | | | | U(CWC1) | GRD | | | 0 | | 30.5 | 29 | |
| CWC2 | AJ15 | | 160 | 249 | | | | | U(CWC2) | GRD | | | 0 | | 42.5 | 40.5 | |
| CWCN | AF54 | | 153 | 25 | | | | | U (CWCN) | GRD | | | 0 | | 30.5 | 29 | |
| CWO,1, 2,4,7 | 293A | | 160 | | | | | | | | 20 | | 0 | | 9.5 | | BEFORE TURNOVER |
| | | | | | | | | | | | 20 | | 0 | | 15 | | AFTER TURNOVER |
| CWK | AJ515 | | 160 | 63 | | | | | U(CWK) | GRD | | | 0 | | 36.8 | 35 | |
| CWK1 | 1/2 AK6 | ZTR | 160 | 2 | | | | | IU(CWK1) | GRD | | | 0 | | 29.5 | 27.5 | MTD WITH(NT8) |
| CWL | 1/2AK501 | | 160 | 2 | | | | | IU(CWL) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (MT55) |
| CWL1 | 1/2 AK6 | ZTR | 160 | 2 | | | | | IU(CWL1) | GRD | | | 0 | | 29.5 | 27.5 | WDG ALONE MTD WITH (NCW) |
| | | | | | | | | | | | | | | | 65 | 40.5 | (CWL)&(CWL1)IN PAR. |
| CWNO | 1/2AK46 | | 160 | 19 | | | | | IU(CWNO) | GRD | | | 0 | | 26.3 | 25 | MTD WITH (CWN1) |
| CWN1 | 1/2AK46 | | 160 | 19 | | | | | IL(CWN1) | GRD | | | 0 | | 26.3 | 25 | MTD WITH (CWNO) |
| CWNT | AJ15 | ZTR | 160 | 249 | | | | | U(CWNT) | GRD | | | 0 | | 42.5 | 40.5 | |
| CWR | 1/2AK43 | | 160 | 20 | | | | | IL(CWR) | GRD | | | 0 | | 38.9 | 37 | MTD WITH (NCW) |
| CWS | AJ512 | | 160 | 64 | | | | | U(CWS) | GRD | | | 0 | | 90 | 85 | |
| CWTO,1, 2,4,7 | 293A | | 160 | | | | | | | | 20 | | 0 | | 9.5 | | BEFORE TURNOVER |
| | | | | | | | | | | | 20 | | 0 | | 15 | | AFTER TURNOVER |
| CWUO, 12,4,7 | 293A | | 160 | | | | | | | | 20 | | 0 | | 9.5 | | BEFORE TURNOVER |
| | | | | | | | | | | | 20 | | 0 | | 15 | | AFTER TURNOVER |
| CZ | AF54 | | 41 | 25 | | | | | U(CZ) | GRD | | | 0 | | 30.5 | 29 | |

DRAWING ISSUE: 25D JGS; 27A RLP; 28D RLP; 30D GHS; 32A JNR; 33D DB; 35D OP; 37D CBR; 39D RA; 43D; 45D

* FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT

SD-26002-01-F5B

BELL TELEPHONE LABORATORIES INCORPORATED

PRINTED IN U.S.A.

# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | CODE | OPT. | FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CZT | AF54 | | 41 | 25 | | | | | U(CZT) | BAT. | | | 0 | | 30.5 | 29 | |
| DO,1, 2,4,7 | AF531 | | 46 | 203 | | | | | U REL | GRD | | | 0 | | 36 | 36 | |
| | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| DAC | AJ503 | | 127 | 249 | | | (RYT)O | | U (DAC) | GRD | | | 0 | | 95 | 90 | |
| DACI | AJ503 | JJ | 22 | 249 | | | | | U (DACI) | GRD | | | 0 | | 95 | 90 | |
| DAHA | AJ512 | | 175 | 64 | | | | | U(DAHA) | GRD | | | 0 | | 90 | 85 | |
| DAL | AJ512 | | 175 | 64 | | | | | U(DAL) | GRD | | | 0 | | 90 | 85 | |
| DAT | AJ503 | | 104 | 249 | | | | | U(DAT) | GRD | | | 0 | | 95 | 90 | |
| DAT1 | AJ503 | PS | 90 | 249 | | | | | U(DAT1) | GRD | | | 0 | | 95 | 90 | |
| DATK | 280AS | IX | 104 | 8 | | | | 4(DAT) | 2(SP1) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | 4(DAT) | 2(SP1) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 4(DAT) | 2(SP1) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 4(DAT) | 2(SP1) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 4(BG) | -48 | NGB | | S | 0 | | 11.5 | | |
| DATK | 316N | IY | 104 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| DCI | AJ15 | YG | 8 | 249 | | | | | U(DCI) | GRD | | | 0 | | 42.5 | 40.5 | |
| DCIA | AF24 | YG | 55 | 8 | | | | | U(DCIA) | GRD | | | 0 | | 30.5 | 29 | |
| DCK | AF52 | | 13 | 19 | | | | | U DCK | GRD | | | 0 | | 29.5 | 28 | |
| DCT | 290AK | MG, | 10 | 8 | | | | 10(HMS1) | GRD | NGB | | P | 0 | -70 | | 1.7 | |
| | 280FW | MH | | | | | | 10(HMS1) | GRD | NGB | | P | NO | -70 | | 1.2 | |
| | | | | | | | | 10(HMS1) | GRD | NGB | | P | 0 | -70 | 6.8 | 6.4 | |
| | | | | | | | | 10(HMS1) | GRD | NGB | | P | R | 70 | 1.6 | 1.7 | |
| | | | | | | | 3(PR) | 2(DCT1) | 12(CKG1) | NGB | | S | 0 | | 3.9 | | |
| DCTA | AJ503 | IE | 8 | 249 | | | | | U(DCTA) | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 210 | 200 | (DCTA)& (DCTI) IN PAR. |
| DCTI | AJ512 | | 8 | 64 | | | | | U(DCTI) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 200 | 190 | (DCTI) & (DCTA) IN PAR. |
| DCT2 | AJ512 | WQ | 8 | 64 | | | | | U(DCT2) | GRD | | | 0 | | 90 | 85 | |
| DCT2 | AJ503 | WR | 8 | 249 | | | | | U(DCT2) | GRD | | | 0 | | 95 | 90 | |
| DCT3 | AJ512 | | 8 | 64 | | | | | U(DCT3) | GRD | | | 0 | | 90 | 85 | |
| DIS1 | AJ503 | | 13 | 249 | | | | | U(DCT3) | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | 3(DIS1) | | U(DIS1) | GRD | | | 0 | | 210 | 200 | (DIS1) & (DIS2) IN PARALLEL |
| DIS2 | AJ503 | | 13 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | 3(DIS1) | | U(DIS2) | GRD | | | 0 | | 210 | 200 | (DIS1) & (DIS2) IN PARALLEL |
| DISA | AJ501 | | 13 | 249 | | | 2(MB) | | U(DISA) | GRD | | | 0 | | 42.5 | 40.5 | |
| DL | AF59 | | 13 | 3 | | | 8(DL) | | U(DL) | GRD | | | 0 | | 5.5 | 5.2 | |
| DLO-DL6 | AF530 | | 56 | 217 | | | | | IU REL | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | 2U TST | GRD | | S | 0 | | 48.5 | 46 | |
| DLK1,2 | AF531 | | 56 | 203 | | | | | U(DLK-) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| DLP | AJ506 | | 56 | 267 | | | | | U(DLP) | GRD | | | 0 | | 80 | 75 | |
| DLS | AJ506 | | 56 | 267 | | | | | U(DLS) | GRD | | | 0 | | 80 | 75 | |

DRAWING ISSUE: 25D JGS CB; 27A RLP CB; 28D RLP CB; 30D GHS; JD; 32A JNR CB; 33D DB CB; 35D OP CB; 37D CBR CB; 39D RA CB; 43D CB; 44A; 45D CB

* FOR TEST NOTES SEE SHEET F22.

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F5B

BELL TELEPHONE LABORATORIES INCORPORATED

TYPE SIZE 6S

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DLT | AJ503 | | 102 | 249 | | | | | U(DLT) | GRD | | | 0 | | 95 | 90 | |
| DLTC | AF42 | | 102 | 224 | | | | | U(DLTC) | GRD | | | 0 | | 100 | 95 | |
| DLTK | 280AS | IX | 102 | 8 | | | | 1(DLT) | 2(DLTK) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | 1(DLT) | 2(DLTK) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 1(DLT) | 2(DLTK) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 1(DLT) | 2(DLTK) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 9(BG) | -48 | NGB | | S | 0 | | 11.5 | | |
| DLTK | 316N | IY | 102 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| DN | AJ503 | | 120 | 249 | | | | | U(DN) | GRD | | | 0 | | 95 | 90 | |
| DNC | AJ503 | | 69 | 249 | | | | | U(DNC) | GRD | | | 0 | | 95 | 90 | |
| DNG | AF530 | | 132 | 217 | | | | 1L(DNG) | | BAT | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | 2U(DNG) | GRD | | S | 0 | | 44 | 41.5 | |
| DNGA | AJ512 | | 132 | 64 | | | | | U(DNGA) | GRD | | | 0 | | 90 | 85 | |
| DNGB | AJ512 | | 132 | 64 | | | | | U(DNGB) | GRD | | | 0 | | 90 | 85 | |
| DNRA | AF523 | PT | 90 | 19 | | | | | U(DNRA) | GRD | | | 0 | | 29.5 | 28 | |
| DRO-7 | AF59 | | 41 | 3 | | | | | U(REL TST) | GRD | | | 0 | | 5.5 | 5.2 | |
| DR8,9 | AF59 | YC | 41 | 3 | | | | | U(REL TST) | GRD | | | 0 | | 5.5 | 5.2 | |
| DR10-DR19 | AF59 | | 70 | 3 | | | | | U REL TST | GRD | | | 0 | | 5.5 | 5.2 | |
| DRRO,1 | 28CE | IZ | 75 | 8 | | | | FRAME BAT. | ASSOC (DRRO,1) PUNCHING | NGB | 1 | | 0 | -65 | | 1.1 | |
| | | | | | | | | | | NGB | 1 | | NO | -65 | | 0.8 | |
| | | | | | | | | | | NGB | | | 0 | -4 | 0.4 | 0.3 | |
| | | | | | | | | | | NGB | | | R | 4 | QC | QC | |
| DRRO,1 | 316M | GA | 75 | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| DSI | AF42 | | 152 | 224 | | | 6B (DSI) | | U (DSI) | GRD | | | 0 | | 105 | 95 | |
| DTF | AJ503 | | 102 | 249 | | | | | U(DTF) | GRD | | | 0 | | 95 | 90 | |
| DTF1 | AJ503 | | 102 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 210 | 200 | (DTF1)&(DTF2)IN PAR. |
| | | | | | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| DTF2 | AJ503 | | 112, 114 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 210 | 200 | (DTF1)&(DTF2) IN PAR. |
| | | | | | | | | | | | | | | | 95 | 90 | WINDING ALONE |
| DTF3 | AK501 | ZQX | 102 | 2 | | | | | U(DTF3) | GRD | | | 0 | | 259 | 246 | (DTF1-3) IN PAR. |
| | | | | | | | | | | | | | | | 28.9 | 27.5 | WINDING ALONE |
| DTI | AJ503 | PS | 90 | 249 | | | | | U(DTI) | GRD | | | 0 | | 95 | 90 | |
| DTI1 | AJ503 | PS | 90 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 210 | 200 | (DTI1)&(DTI2)IN PAR. |
| | | | | | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| DTI2 | AJ503 | PS | 90 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 210 | 200 | (DTI1)&(DTI2)IN PAR. |
| | | | | | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| DTI3 | AJ503 | PS | 90 | 249 | | | | | U(DTI3) | GRD | | | 0 | | 95 | 90 | |
| DTI4 | AK501 | ZQX | 102 | 2 | | | | | U(DTI4) | GRD | | | 0 | | 144 | 137 | (DTI3)&(DTI4) IN PAR. |
| | | | | | | | | | | | | | | | 28.9 | 27.5 | WINDING ALONE |
| DTK | AF511 | | 9 | 32 | | | | | U(DTK) | GRD | | | 0 | | 24.5 | 23 | |
| DTSO-9 | AJ700 | | 102 | 500 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| DVA | AJ502 | | 10 | 234 | | | | | U(DVA) | GRD | | | 0 | | 40 | 38 | |
| DVO | AJ502 | | 10 | 234 | | | | | U(DVO) | GRD | | | 0 | | 40 | 38 | |
| DXO, DX1, DX2, DX4, DX7 | AF519 | | 36 | 27 | | | | | U(DX-) | GRD | | | 0 | | 72.5 | 69 | |

*FOR TEST NOTES SEE SHEET F22

BELL TELEPHONE LABORATORIES INCORPORATED

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22

## CIRCUIT REQUIREMENTS

DRAWING ISSUE 33D JNR CBL AND; 37D MM; 39D RA

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DZ | AJ503 | | 102 | 249 | | | | | U(DZ) | GRD | | | 0 | | 95 | 90 | |
| E0,E1, E2,E4, E7 | AJ531 | | 46 | 203 | | | | | U(E-) | GRD | | | 0 | | 30 | 36 | |
| | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| ECK | 280CE | IX | 106 | 8 | | | | 5(TLES) | -48 | NGB | | T | 0 | -FS | | 1.5 | |
| | | | | | | | | 5(TLES) | -48 | NGB | | T | NO | -FS | | 1.1 | |
| | | | | | | | | 5(TLES) | -48 | NGB | | T | 0 | -FS | 6 | 5.7 | |
| | | | | | | | | 5(TLES) | -48 | NGB | | T | R | FS | 1.4 | 1.5 | |
| | | | | | | | | 1(TLES) | | BAT. | | P | 0 | | 0.9 | | |
| | | | | | | | | 2(LLES) | | BAT. | | S | 0 | | 0.9 | | |
| ECK | 316S | IY | 106 | | | | | | | | | T | 0 | 30 | 11.6 | | |
| | | | | | | | | | | | | T | R | | 3.1 | | |
| | | | | | | | | | | | | P | 0 | | 1.5 | | |
| | | | | | | | | | | | | S | 0 | | 1.5 | | |
| ECN | AF112 | | 43 | 268 | | | | | U(ECN) | GRD | | | 0 | | 35.5 | 33.5 | |
| EG | AF52 | | 23 | 19 | | | | | U(EG-) | GRD | | | 0 | | 95 | 90 | |
| EGD | AJ503 | | 119 | 249 | | | | | U(EGD) | GRD | | | 0 | | 40 | 38 | |
| EGN | AJ503R | SP | 103 | 19 | | | | | U(EGN) | GRD | | | 0 | | 75 | 71 | |
| ELL | AJ502 | TB | 7 | 234 | | | | | U(ELL) | GRD | | | 0 | | 40 | 38 | |
| ELT | AF504 | WQ | 48 | 8 | | | | | U(ELT) | GRD | | | 0 | | 80 | 72 | |
| EN | AF515 | | 43 | 31 | | | | | U(EN) | GRD | | | 0 | | 95 | 90 | |
| ENES | AF105 | | 106 | 253 | | | | | U(ENES) | GRD | | | 0 | | 65 | 62 | |
| ESCK | AF90 | | 106 | 242 | | | | | U(ESCK) | GRD | | | 0 | | 65 | 62 | |
| ESK | 280AS | IX | 106 | 8 | | | | 6(ENES) | 2(TLES) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | 6(ENES) | 2(TLES) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 6(ENES) | 2(TLES) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 6(ENES) | 2(TLES) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 6(TLES) | -48 | NGB | | S | 0 | | 11.5 | | |
| ESK | 316N | IY | 106 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| ET | AF504 | | 52 | 8 | | | | | U(ET) | GRD | | | 0 | | 80 | 72 | |
| ETO-9 | AF504 | | 52 | 8 | | | | | U(REL TST) | GRD | | | 0 | | 80 | 72 | |
| ETS | 280AF | IX | 6 | 8 | | | (TZ)NO 3(TZ) | 3(TZ) | 5(TZ) | NGB | | S | 0 | -45 | | 1.1 | |
| | | | | | | | | 3(TZ) | 5(TZ) | NGB | | S | NO | -45 | | 0.8 | |
| | | | | | | | | 3(TZ) | 5(TZ) | NGB | | S | 0 | -45 | 4.5 | 4.2 | |
| | | | | | | | | 3(TZ) | 5(TZ) | NGB | | S | R | 45 | 0.9 | 1.0 | |
| | | | | | | | | 9(TZ) | 4(MT6) | NGB | | P | 0 | | 10.3 | | |
| ETS | 316R | IY | 6 | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | 0 | | 5.4 | | |
| EX | 316A | | 110 | 10 | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | NO | | 0.7 | | |
| EX7 | AF519 | | 36 | 27 | | | | | U(EX7) | GRD | | | 0 | | 72.5 | 69 | |
| EXA | AF521 | AS | 110 | 21 | | | | | U(EXA) | GRD | | | 0 | | 90 | 85 | |
| EXA | AJ503 | AT | 110 | 249 | | | | | U(EXA) | GRD | | | 0 | | 95 | 90 | |
| F0,F1, F2,F4, F7 | AF531 | | 46 | 203 | | | | | U(F-) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| FA | AF60 | | 13 | 12 | | | | L(FA) | | BAT. | 2.3 | | 0 | | 6.5 | 6.2 | WINDING ALONE |
| | | | | | | | | | | | | | | | 42.5 | 40.5 | |
| FA1 | AF10 | | 13 | 214 | | | 2(FA1) | | U(FA1) | GRD | | | 0 | | 7.6 | 7.2 | |
| FAC | AJ503 | | 32 | 249 | | | | | U(FAC) | GRD | | | 0 | | 95 | 90 | |
| FAC1 | AF132 | | 73 | 61 | | | | | U(FAC1) | GRD | | | 0 | | 34.5 | 32.5 | |
| FAC2 | AJ503 | GK | 48 | 249 | | | | | U(FAC2) | GRD | | | 0 | | 95 | 90 | |

ISSUE 49D CB

*FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F6

BELL TELEPHONE LABORATORIES INCORPORATED

6S

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# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPTION | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRESS | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA. | TEST MA. | READJ MA. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FACA | AJ507 | | 143 | 21 | | | | | U(FACA) | GRD | | | 0 | | 100 | 95 | |
| FAK | AJ503 | | 9 | 249 | | | | | U(FAK) | GRD | | | 0 | | 95 | 90 | |
| FB0-9 | AF4 | | 2 | 18 | | | | | U REL<br>TST | GRD | | | 0 | | 36.5 | 34.5 | |
| FB10-19 | AF4 | | 2 | 18 | | | | | U REL<br>TST | GRD | | | 0 | | 36.5 | 34.5 | |
| FB20-29 | AF4 | | 65 | 18 | | | | | U REL<br>TST | GRD | | | 0 | | 36.5 | 34.5 | |
| FBK | AJ503 | | 9 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| FBKA | AF519 | | 123 | 27 | | | | | U(FBK) | GRD | | | 0 | | 210 | 200 | (FBK) & (FBKA) IN PAR. |
| FC | AJ503 | | 69 | 249 | | | | | U(FBKA) | GRD | | | 0 | | 72.5 | 69 | WINDING ALONE |
| FC0-499 | AF24 | | 66 | 8 | | | | | U(FC) | GRD | | | 0 | | 165 | 155 | (FBKA) & (FBK) IN PAR. |
| | | | | | | | | | U(FC-) | GRD | 40 | | 0 | | 95 | 90 | |
| | | | | | | | | | | | | | | | 32 | 29 | WINDING ALONE |
| | | | | | | | | | | | | | | | 165 | 150 | (R-) & (FC-) IN PAR. |
| FCG | 280AE | RK | 11 | B | | | | -48 | 11(GLH) | NGB | | P | 0 | -23 | | 0.6 | |
| | | | | | | | | -48 | 11(GLH) | NGB | | P | NO | -23 | | 0.4 | |
| | | | | | | | | -48 | 11(GLH) | NGB | | P | 0 | -23 | 2.4 | 2.2 | |
| | | | | | | | | -48 | 11(GLH) | NGB | | P | R | 23 | 0.6 | 0.7 | |
| | | | | | | | | 12 (GLH) | GRD | NGB | | S | 0 | | 0.9 | | |
| FCG | 316D | RL | 11 | | | | | | | | | P | 0 | 8.0 | 2.7 | | |
| | | | | | | | | | | | | P | R | | 0.7 | | |
| | | | | | | | | | | | | P | NO | | 1.7 | | |
| | | | | | | | | | | | | S | 0 | 4.5 | 1.5 | | |
| | | | | | | | | | | | | S | R | | 0.4 | | |
| | | | | | | | | | | | | S | NO | | 0.9 | | |
| FCGA | 316B | | 123 | | | | | | | | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | R | | 0.7 | | |
| | | | | | | | | | | | | | NO | | 1.5 | | |
| FD0 | 1/2AK6 | | 73 | 2 | | | | 2U(FD0) | | BAT | | | 0 | | 29 | 27.5 | MOUNTED WITH FD1 |
| FD1 | 1/2AK6 | | 73 | 2 | | | | 2L(FD1) | | BAT | | | 0 | | 29 | 27.5 | MOUNTED WITH FD0 |
| FE0 | 1/2AK6 | | 73 | 2 | | | | 2U(FE0) | | BAT | | | 0 | | 29 | 27.5 | MOUNTED WITH FE1 |
| FE1 | 1/2AK6 | | 73 | 2 | | | | 2L(FF1) | | BAT | | | 0 | | 29 | 27.5 | MOUNTED WITH FE0 |
| FF1 | 1/2AK6 | GY | 73 | 2 | | | | 2L(FF1) | | BAT | | | 0 | | 29 | 27.5 | MOUNTED WITH INT |
| FG0 | AJ501 | | 5 | 249 | | | | | U(FG0) | GRD | | | 0 | | 42.5 | 40.5 | |
| FG1 | AJ501 | | 5 | 249 | | | | | U(FG1) | GRD | | | 0 | | 42.5 | 40.5 | |
| FG2 | AJ501 | ZE | 5 | 249 | | | | | U(FG2) | GRD | | | 0 | | 42.5 | 40.5 | |
| FGA | AJ503 | | 119 | 249 | | | | | U(FGA) | GRD | | | 0 | | 95 | 90 | |
| FGT | AF504 | | 142 | 8 | | | | | U(FGT) | GRD | | | 0 | | 90 | 72 | |
| FK | AJ508 | | 91 | 19 | | | | | U(FK) | GRD | | | 0 | | 75 | 71 | |
| FLG | AJ521 | | 8 | 21 | | | (TNR)O | | U(FLG) | GRD | | | 0 | | 90 | 85 | |
| FLG1 | AJ503 | | 8 | 249 | | | (TNR)O | | U(FLG1) | GRD | | | 0 | | 95 | 90 | |
| FLGA | AJ503 | JU | 18 | 249 | | | | | U(FLGA) | GRD | | | 0 | | 95 | 90 | |
| FM | AF55 | | 7 | 26 | | | (TNR)O | | U(FM) | GRD | | | 0 | | 37 | 35 | |
| FM0 | AF33 | | 4 | 16 | | | | | U(FM0) | GRD | | | 0 | | 13.5 | 12.8 | |
| FM1-4 | AF33 | | 4 | 16 | | | (TFK1)O<br>(FMG)O | | U REL<br>TST | GRD | | | 0 | | 13.5 | 12.8 | |
| FMG | AF515 | | 4 | 31 | | | | | U(FMG) | GRD | | | 0 | | 95 | 90 | |
| FMG0 | AF511 | | 3 | 32 | | | | | U(FMG0) | GRD | | | 0 | | 24.5 | 23 | |

DRAWING ISSUE 18D 21D 22D 24D 30D 33D 35D 37D

* FOR TEST NOTES SEE SHEET F22







# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPTION | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRESS | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA. | TEST MA. | READJ MA. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FMG5 | AF511 | | 3 | 32 | | | (TF1) O<br>(FMG) O | | U(FMG5) | GRD | | | 0 | | 24.5 | 23 | |
| FMG10 | AF511 | | 2 | 32 | | | (TF1) O<br>(FMG) O | | U(FMG10) | GRD | | | 0 | | 24.5 | 23 | |
| FMG15 | AF511 | | 2 | 32 | | | (TF1) O<br>(FMG) O | | U(FMG15) | GRD | | | 0 | | 24.5 | 23 | |
| FMG20 | AF511 | | 65 | 32 | | | (TF1)O<br>(FMG)O | | U(FMG20) | GRD | | | 0 | | 24.5 | 23 | |
| FMG25 | AF511 | | 65 | 32 | | | (TF1)O<br>(FMG)O | | U(FMG25) | GRD | | | 0 | | 24.5 | 23 | |
| FMK | AF513 | | 4 | 208 | | | | | U(FMK) | GRD | | | 0 | | 32.5 | 30.5 | |
| FML | AF507 | | 4 | 26 | | | | | U(FML) | GRD | | | 0 | | 37 | 35 | |
| FMP | AF42 | | 7 | 224 | | | | | U(FMP) | GRD | | | 0 | | 100 | 95 | |
| FN | AJ22 | | 40 | 234 | | | | | U(FN) | GRD | | | 0 | | 40 | 38 | |
| FNA | AJ22 | | 22 | 234 | | | | | U(FNA) | GRD | | | 0 | | 40 | 38 | |
| FNB | AJ22 | | 22 | 234 | | | | | U(FNB) | GRD | | | 0 | | 40 | 38 | |
| FS0-9 | AF40 | | 3 | 222 | | | | | U REL<br>TST | GRD | | | 0 | | 73 | 69.5 | |
| FS10-19 | AF40 | | 2 | 222 | | | | | U REL<br>TST | GRD | | | 0 | | 73 | 69.5 | |
| FS20-29 | AF40 | | 65 | 222 | | | | | U REL<br>TST | GRD | | | 0 | | 73 | 69.5 | |
| FS20-24 | AK501 | | 179 | 2 | | | | | U REL<br>TST | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH FS 25-29 |
| FS25-29 | AK501 | | 179 | 2 | | | | | U REL<br>TST | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH FS 20-24 |
| FSA | AF511 | | 4 | 32 | | | | | U(FSA) | GRD | | | 0 | | 24.5 | 23 | |
| FT0 | AF522 | | 19 | 18 | | | | | U(FT0) | GRD | | | 0 | | 23.5 | 22 | |

DRAWING ISSUE 18D 21D 22D 24D 30D 33D 35D 37D

* FOR TEST NOTES SEE SHEET F22.

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT1-3 | AF523 | | 19 | 19 | | | | | U \| REL TST | GRD | | | 0 | | 29.5 | 28 | |
| FTA0-3 | AF523 | | 64 | 19 | | | | | U \| REL TST | GRD | | | 0 | | 29.5 | 28 | WINDING ALONE |
| | | | | | | | (MXT)NO, (FTTB)O | | U \| REL TST | GRD | | | 0 | | 130 | 120 | (FTA-)&(FTB-)IN PARALLEL |
| FTA4 | AF522 | | 64 | 18 | | | | | | | | | 0 | | 23.5 | 22 | WINDING ALONE |
| | | | | | | | (MXT)NO, (FTTB)O | | U(FTA4) | GRD | | | 0 | | 100 | 95 | (FTA4)&(FTB4)IN PARALLEL |
| FTB0-3 | AF504 | | 19 | 8 | | | | | | | | | 0 | | 80 | 72 | WINDING ALONE |
| | | | | | | | (MXT)NO, (FTTB)O | | U \| REL TST | GRD | | | 0 | | 170 | 160 | (FTB-)&(FTA-)IN PARALLEL |
| FTB4 | AF504 | | 64 | 8 | | | | | | | | | 0 | | 80 | 72 | WINDING ALONE |
| | | | | | | | (MXT)NO, (FTTB)O | | U(FTB4) | GRD | | | 0 | | 120 | 110 | (FTB4)&(FTA4)IN PARALLEL |
| FTB5 | AF504 | | 64 | 8 | | | (MXT)NO, (FTTB)O | | U(FTB5) | GRD | | | 0 | | 80 | 72 | |
| FTC0-9 | AF527 | | 3 | 18 | | | | | U \| REL TST | GRD | | | 0 | | 36.5 | 34.5 | |
| FTC10-19 | AF527 | | 2 | 18 | | | | | U \| REL TST | GRD | | | 0 | | 36.5 | 34.5 | |
| FTC20-29 | AF527 | | 65 | 18 | | | | | U \| REL TST | GRD | | | 0 | | 36.5 | 34.5 | |
| FTCK | AF521 | | 4 | 21 | | | | | U(FTCK) | GRD | | | 0 | | 90 | 85 | |
| FTCK1 | AF522 | | 4 | 18 | | | | | U(FTCK1) | GRD | | | 0 | | 23.5 | 22 | |
| FTG0-9 | 316B | | 126 | | | | (FTC0-9)NO | | 1-10(GSA1) | GRD | 28,29 | | 0 | 7.5 | 2.4 | | |
| FTG10-19 | 316B | KD | 126 | | | | (FTC10-19)NO | | 1-10(GSA11) | GRD | 28,29 | | 0 | 7.5 | 2.4 | | |
| FTG20-29 | 316B | KF | 126 | | | | (FTC20-29)NO | | 1-10(GSA21) | GRD | 28,29 | | 0 | 7.5 | 2.4 | | |
| FTK1 | AJ502 | | 18 | 234 | | | | | U(FTK1) | GRD | | | 0 | | 40 | 38 | |
| FTL | AJ501 | | 22 | 249 | | | | | U(FTL) | GRD | | | 0 | | 42.5 | 40.5 | |
| FTN0-3 | 276A | | 17 | 1 | | | | 7 \| REL TST | | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| FTN4,5 | | ZE | | | | | | | | BAT. | | | NO | | 12.8 | | |
| | | | | | | | | | | BAT. | | | R | | 1.3 | | |
| FTS0-3 | AF506 | | 123 | 8 | | | | | U \| REL TST | GRD | | | 0 | | 30.5 | 29 | |
| FTT0-3 FTT4,5 | AF506 | | 19 64 | 8 | | | (MXT)NO, (FTTB)O | | U \| REL TST | GRD | | | 0 | | 30.5 | 29 | |
| FTTB | AF48 | | 19 | 28 | | | (COX)O, (MXT)NO | | U(FTTB) | GRD | | | 0 | | 95 | 90 | |
| FU0,1, 2,4,7 | AF523 | | 19 | 19 | | | | | U \| REL TST | GRD | | | 0 | | 29.5 | 23 | |
| FUL | AJ501 | | 22 | 249 | | | | | U(FUL) | GRD | | | 0 | | 42.5 | 40.5 | |
| FUN0-9 | 276A | | 17 | 1 | | | | 7 \| REL TST | | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| | | | | | | | | | | BAT. | | | NO | | 12.8 | | |
| | | | | | | | | | | BAT. | | | R | | 1.3 | | |
| FUT0-9 | AF5 | | 19 | 6 | | | 12 \| REL TST | | U \| REL TST | GRD | | | 0 | | 72.5 | 66 | |
| FV0 | AF504 | | 48 | 8 | | | | | U(FV0) | GRD | | | 0 | | 80 | 72 | |
| FX0,1, 2,4,7 | L/2AK6 | | 142 | 2 | | | | | 10 \| REL TST | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (GX0,1,2, 4,7) RESPECTIVELY |
| G0,1,2, 4,7 | AF531 | | 46 | 203 | | | | | U \| REL TST | GRD<br>GRD | | | 0<br>R | | 38<br>11.9 | 36<br>12.6 | |
| GB | AJ501 | | 23 | 249 | | | | L(GB) | U(GB) | B/G | | | 0 | | 42.5 | 40.5 | |

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GBA | AF522 | | 27 | 18 | | | | | U(GBA) | GRD | | | 0 | | 23.5 | 22 | |
| GBB | AF522 | | 27 | 13 | | | | | U(GBB) | GRD | | | 0 | | 23.5 | 22 | |
| GC | AF507 | | 20 | 26 | | | | | U(GC) | GRD | | | 0 | | 37 | 35 | |
| GCA | AF507 | | 64 | 26 | | | | | U(GCA) | GRD | | | 0 | | 37 | 35 | |
| GL | AJ15 | | 135 | 249 | | | | | U(GL) | GRD | | | 0 | | 42.5 | 40.5 | |
| GLA | AJ503 | | 135 | 249 | | | | | U(GLA) | GRD | | | 0 | | 95 | 90 | |
| GLB | AJ503 | | 135 | 249 | | | | | U(GLB) | GRD | | | 0 | | 95 | 90 | |
| GLC | AJ503 | | 135 | 249 | | | | | U(GLC) | GRD | | | 0 | | 95 | 90 | |
| GLH | AJ501 | | 11 | 249 | | | | | U(GLH) | GRD | | | 0 | | 42.5 | 40.5 | |
| GLH1 | AJ501 | | 11 | 249 | | | | | U(GLH1) | GRD | | | 0 | | 42.5 | 40.5 | |
| GLHA | AF524 | | 123 | 210 | | | | | U(GLHA) | GRD | | | 0 | | 27 | 25.5 | |
| GLR | AJ15 | | 135 | 249 | | | | | U(GLR) | GRD | | | 0 | | 42.5 | 40.5 | |
| GLT | 316B | | 135 | | | | | | | | | | 0 | 7.5 | 2.4 | | |
| GLTA | AJ503 | | 135 | 249 | | | | | U(GLTA) | GRD | | | 0 | | 95 | 90 | |
| GN | AF122 | | 103 | 49 | | | | | U(GN) | GRD | | | 0 | | 100 | 95 | |
| GP1 | AF511 | | 38 | 32 | | | (GW)O, (GZ)NO | | U(GP1) | GRD | | | 0 | | 24.5 | 23 | |
| GP2 | AF53 | | 36 | 24 | | | 8(GP2) | | U(GP2) | GRD | | | 0 | | 31.5 | 30 | |
| GPA | AF523 | | 38 | 19 | | | (GW)O | | U(GPA) | GRD | | | 0 | | 29.5 | 28 | |
| GPB | AF523 | | 38 | 19 | | | (GW)NO | | U(GPB) | GRD | | | 0 | | 29.5 | 28 | |
| GR0-7 | 2868 | | 100 | | | | | | T(REL TST) | GRD | | | 0 | | 85 | 80 | |
| GS1-5 | AJ501 | | 7 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U \| REL TST | GRD | | | 0 | | 100 | 95 | CKT COMB.(GS1-5),(GSA1-5)REL |
| | | | | | | | | | | GRD | | | 0 | | 150 | 140 | CKT COMB.(GS1-5),(GSA1-5), (GSA11-15) REL |
| | | | | | | | | | | GRD | | | 0 | | 210 | 200 | CKT COMB.(GS1-5),(GSA1-5), (GSA11-15)(GSA21-25) REL |
| GS6 | AJ501 | GU | 7 | 249 | | | | | U(GS6) | GRD | | | 0 | | 42.5 | 40.5 | |
| GSA1-5 | AJ12 | | 3 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U \| REL TST | GRD | | | 0 | | 100 | 95 | CKT COMB.(GS1-5),(GSA1-5)REL |
| | | | | | | | | | | GRD | | | 0 | | 150 | 140 | CKT COMB.(GS1-5),(GSA1-5), (GSA11-15) REL |
| | | | | | | | | | | GRD | | | 0 | | 210 | 200 | CKT COMB.(GS1-5),(GSA1-5), (GSA11-15),(GSA21-25) REL |
| GSA11-15 | AJ12 | | 2 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U \| REL TST | GRD | | | 0 | | 150 | 140 | CKT COMB.(GS1-5),(GSA1-5), (GSA11-15) REL |
| | | | | | | | | | | GRD | | | 0 | | 210 | 200 | CKT COMB.(GS1-5),(GSA1-5), (GSA11-15),(GSA21-25)REL |
| GSA21-25 | AJ12 | | 55 | 220 | | | | | U \| REL TST | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | | | | | 210 | 200 | CKT COMB.(GS1-5),(GSA1-5), (GSA11-15),(GSA21-25)REL |
| GSB1-4 | AJ131 | | 166 | 366 | | | | | U \| REL TST | GRD | | | 0 | | 44.5 | 42 | |

* FOR TEST NOTES SEE SHEET F22.

DRAWING ISSUE 37D WM

ISSUE 63B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-0i-F8A

SD-26002-0i-F8A

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT | 230FN | | 11 | 6 | | | | -48 | 11(GTK) | NGB | | P | 0 | -12 | | 0.3 | |
| | | | | | | | | -48 | 11(GTK) | NGB | | P | NO | -12 | | 0.2 | |
| | | | | | | | | -48 | 11(GTK) | NGB | | P | 0 | -12 | 1.2 | 1.1 | |
| | | | | | | | | -48 | 11(GTK) | NGB | | P | R | 12 | 0.2 | 0.3 | |
| | | | | | | | | 17(LLC3) | -48 | NGB | | S | 0 | | 1.2 | | |
| | | | | | | | | 20(LLC3) | -48 | NGB | | T | 0 | | 3.7 | | |
| GT1 | AJ503 | | 11 | 249 | | | 5(GT1) | | U(GT1) | GRD | | | 0 | | 100 | 90 | |
| GT2 | AJ501 | | 11 | 249 | | | | | U(GT2) | GRD | | | 0 | | 42.5 | 40.5 | |
| GT3 | AG9 | | 11 | 27 | | | | | | | | | 0 | FS | 9.4 | 8.9 | |
| | | | | | | | | | | | | | H | FS | 1.2 | 1.1 | WINDING ALONE |
| | | | | | | | | | | | | | R | FS | 0.8 | 0.9 | |
| | | | | | | | | | U(GT3) | GRD | | | 0 | FS | 18 | 17 | (GT3)REL & (GT3) RES |
| | | | | | | | | | U(GT3) | GRD | | | H | FS | 2.3 | 2.1 | IN PARALLEL |
| | | | | | | | | | U(GT3) | GRD | | | R | FS | 1.2 | 1.4 | |
| GT5 | AF507 | | 11 | 26 | | | | | U(GT5) | GRD | | | 0 | | 37 | 35 | |
| GTA | AJ502 | | 11 | 234 | | | | | U(GTA) | GRD | | | 0 | | 40 | 38 | |
| GTK | AJ501 | | 11 | 249 | | | | | U(GTK) | GRD | | | 0 | | 42.5 | 40.5 | |
| GTL | AF519 | | 26 | 27 | | | | | | | | | 0 | | 72.5 | 69 | WINDING ALONE |
| | | | | | | | | | U(GTL) | GRD | | | 0 | | 155 | 145 | (GTL)&(GTL2)IN PARALLEL |
| GTL2 | AJ700 | | 13 | 500 | | | | | | | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | U(GTL2) | GRD | | | 0 | | 135 | 175 | (GTL2)&(GTL)IN PARALLEL |
| GW | AF513 | | 38 | 208 | | | 8(CKG5), 6(GW) | | U(GW) | GRD | | | 0 | | 34 | 30.5 | |
| GX0,1, 2,4,7 | 1/2AK6 | | 142 | 2 | | | | | IL REL TST | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (FX0,1,2, 4,7 RESPECTIVELY |
| GZ | AF513 | | 38 | 208 | | | 3(CKG5), 12(GZ) | | U(GZ) | GRD | | | 0 | | 34 | 30.5 | |
| H0,1,2, 4,7 | AF531 | | 46 | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| HFA | AF59 | | 13 | 3 | | | (FA)NO | U(HFA) | | BAT. | | | 0 | | 5.5 | 5.2 | |
| HG0,1, 2,4,7 | AF523 | | 18 | 19 | | | | | U REL TST | GRD | | | 0 | | 29.5 | 28 | |
| HGD | AJ503 | | 119 | 249 | | | | | U(HGD) | GRD | | | 0 | | 95 | 90 | |
| HGK | AJ508 | | 9 | 19 | | | | | U(HGK) | GRD | | | 0 | | 85 | 80 | |
| HGL | AJ501 | | 22 | 249 | | | | | U(HGL) | GRD | | | 0 | | 42.5 | 40.5 | |
| HGN0-9 | 276A | | 16 | 1 | | | | 7 REL TST | | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| | | | | | | | | | | BAT. | | | NO | | 12.8 | | |
| | | | | | | | | | | BAT. | | | R | | 1.3 | | |

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HGT0-9 | AF519 | | 12 | 27 | | | 12 REL TST | | U REL TST | GRD | | | 0 | | 80 | 69 | |
| HMS1 | AJ503 | | 10 | 249 | | | | | U(HMS1) | GRD | | | 0 | | 95 | 90 | |
| HMT | 280A, 230FY | YG, YH | 10 | 4 | | | | -48 | HMT1 | NGB | | P | 0 | -65 | 3 | 1.5 | SEE TIMING REPT |
| | | | | | | | | -48 | PUNCHING | NGB | | P | NO | -65 | OC | 1.1 | |
| | | | | | | | | 4(CHA) | -48 | NGB | | S | 0 | | 0.5 | | |
| HMT1 | AF513 | | 10 | 224 | | | | | U(HMT1) | GRD | | | 0 | | 190 | 95 | |
| HN0,1, 2,4,7 | AF521 | | 54 | 21 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| HT | AJ503 | | 119 | 249 | | | | | U(HT) | GRD | | | 0 | | 95 | 90 | |
| HTK1 | AJ502 | | 13 | 234 | | | | | U(HTK1) | GRD | | | 0 | | 40 | 38 | |
| HTR | AJ501 | | 11 | 249 | | | (HTT)O | | U(HTR) | GRD | | | 0 | | 42.5 | 40.5 | |
| HTT | AF9 | | 14 | 213 | | | | L(HTT) | | BAT. | 31 | | 0 | | 3.7 | 8.2 | SEE TIMING REPT |
| HTUK | AF507 | | 22 | 26 | | | | | U(HTUK) | GRD | | | 0 | | 37 | 35 | |
| HVT0-11 | AF504 | | 39 | 8 | | | | | U REL TST | GRD | | | 0 | | 80 | 72 | |
| IA0 | 1/2AK50 | | 146 | 2 | | | | | IL(IA0) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (SMT) |
| IAT2-9 | AF504 | | 159 | 8 | | | | | U REL TST | GRD | | | 0 | | 80 | 72 | |
| IBT0,1 | AF504 | | 159 | 8 | | | | | U REL TST | GRD | | | 0 | | 80 | 72 | |
| ICC | AJ15 | PH | 90 | 249 | | | | | U(ICC) | GRD | | | 0 | | 42.5 | 40.5 | |
| IDA | AF504 | | 159 | 8 | | | | | U(IDA) | GRD | | | 0 | | 80 | 72 | |
| IDD | AJ503 | ZXI | 47 | 249 | | | (IDA)NO | | U(IDD) | GRD | | | 0 | | 95 | 90 | |
| IDN | AJ503 | ZOG | 102 | 249 | | | | | U(IDN) | GRD | | | 0 | | 95 | 90 | |
| IDP | AF515 | | 161 | 31 | | | | | U(IDP) | GRD | | | 0 | | 95 | 90 | |
| IDS | AF515 | | 161 | 31 | | | | | U(IDS) | GRD | | | 0 | | 95 | 90 | |
| IFLG | AJ501 | ZSH | 7 | 249 | | | | | U(IFLG) | GRD | | | 0 | | 42.5 | 40.5 | |
| IMG | AF519 | | 26 | 27 | | | | | U(IMG) | GRD | | | 0 | | 73 | 69 | |
| IMT | AF52 | | 13 | 19 | | | | | U(IMT) | GRD | | | 0 | | 29.5 | 23 | |
| INC | AJ503 | | 32 | 249 | | | | | U(INC) | GRD | | | 0 | | 95 | 90 | |
| INCT | AJ508 | FM | 143 | 19 | | | | | U(INCT) | GRD | | | 0 | | 75 | 71 | |
| | AJ507 | FN | 143 | 21 | | | | | U(INCT) | GRD | | | 0 | | 100 | 95 | |
| INF0 | AJ512 | | 136 | 64 | | | | | U(INF0) | GRD | | | 0 | | 90 | 35 | |
| INFR | AJ5 | | 136 | 220 | | | | | U(INFR) | GRD | | | 0 | | 13.3 | 12.6 | |
| INI | AJ503 | ZXK | 32 | 249 | | | | | U(INI) | GRD | | | 0 | | 95 | 90 | |
| INL | AJ512 | | 143 | 54 | | | | | | | | | 0 | | 90 | 35 | WINDING ALONE |
| | | | | | | | | | U(INL) | GRD | 30 | | 0 | | 200 | 190 | |

* FOR TEST NOTES SEE SHEET F22.

DRAWING ISSUE
370 WM
390 RA
410
430
450

ISSUE 51D

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F88

BELL TELEPHONE LABORATORIES INCORPORATED — FORM SIZE 6S

SD-26002-01-F88

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR ~~INSULATE~~ | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD. | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INT | 1/2AK6 | | 73 | | 2 | | | | | U(INT) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (FF1) |
| IOD | AF122 | | 83 | | 49 | | | | | U(IOD) | GRD | | | 0 | | 100 | 95 | |
| IPCO-9 | AF514 | | 62 | | 5 | | | | | U \| REL TST | GRD | | | 0 | | 57.5 | 54 | |
| IPR | AJ72 | | 119 | | 64 | | | 11(STX) | | 1U(IPR) | GRD | | P | 0 | | 34 | 32 | |
| | | | | | | | | | | 2U(IPR) | GRD | | S | 0 | | 35.5 | | |
| IPRS | AJ505 | LA | 117 | | 36 | | | | | U(IPRS) | GRD | | | 0 | | 75 | 71 | |
| IPT | AJ503 | IE | 8 | | 249 | | | | | U(IPT) | GRD | | | 0 | | 95 | 90 | |
| IRT | AF42 | U,V,J | 13 | | 224 | | | | | U(IRT) | GRD | | | 0 | | 100 | 95 | |
| ITD | AK501 | | 168 | | 2 | | | | | 1U(ITD) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (ITM) |
| ITM | AK501 | | 168 | | 2 | | | | | 1L(ITM) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (ITD) |
| ITNA,B | AF24 | SM | 82 | | 8 | | | | | U \| REL TST | GRD | | | 0 | | 30.5 | 29 | |
| ITNC,D | AF24 | | 169 | | 8 | | | | | U \| REL TST | GRD | | | 0 | | 30.5 | 29 | |
| ITR1 | AJ700 | | 8 | | 500 | | | | | | | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | U(ITR1) | GRD | | | 0 | | 200 | 190 | (ITR1)&(ITR2)IN PARALLEL |
| ITR2 | AJ503 | | 3 | | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | U(ITR2) | GRD | | | 0 | | 210 | 200 | (ITR2)&(ITR1)IN PARALLEL |
| ITR3 | AJ503 | | 152 | | 249 | | | | | U(ITR3) | GRD | | | 0 | | 95 | 90 | |
| ITRA | AF523 | | 41 | | 19 | | | | | U(ITRA) | GRD | | | 0 | | 29.5 | 28 | |
| JO,1,2 4,7 | AF531 | | 46 | | 203 | | | | | U \| REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| JB | AF52 | | 45 | | 19 | | | | | U(JB) | GRD | | | 0 | | 29.5 | 28 | |
| JCK | 280BY | IX | 9 | | B | | | -48 | | 8(TX1) | NGB | | | 0 | -5 | | 0.3 | |
| | | | | | | | | -48 | | 8(TX1) | NGB | | | NO | -5 | | 0.2 | SEE TABLE I FOR TEST CLIP DATA & SET PREP. |
| | | | | | | | | -48 | | 8(TX1) | NGB | | | 0 | -5 | 1.6 | 1.5 | |
| | | | | | | | | -48 | | 8(TX1) | NGB | | | R | +5 | 0.5 | 0.6 | |
| JCK | 316H | IY | 9 | | | | | | | | | | | G | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | | R | | 0.3 | | |
| JGO-4 | AJ503 | | 20 | | 249 | | | | | U \| REL TST | GRD | | | 0 | | 95 | 90 | |
| JGCK | 280CU | RK | 10 | | B | | | | 1(LXP1) | GRD | NGB | 1 | | 0 | -90 | | 7.5 | |
| | | | | | | | | | 1(LXP1) | GRD | NGB | 1 | | NO | -90 | | 5.5 | |
| | | | | | | | | | 1(LXP1) | GRD | NGB | 1 | | 0 | -90 | 61 | 58 | |
| | | | | | | | | | 1(LXP1) | GRD | NGB | 1 | | R | 90 | 17 | 13 | |
| JGCK | 316A | RL | 10 | | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | | NG | | 0.7 | | |
| JLE | AF507 | | 20 | | 26 | | | | | U(JLE) | GRD | | | 0 | | 37 | 35 | |
| JLO | AF507 | | 20 | | 26 | | | 6(JLE) | | U(JLO) | GRD | | | 0 | | 37 | 35 | |
| JSE | AF523 | | 20 | | 19 | | | (JSO)0 | | U(JSE) | GRD | | | 0 | | 29.5 | 28 | |
| JSO | AF523 | | 20 | | 19 | | | (JSE)0 | | U(JSO) | GRD | | | 0 | | 29.5 | 28 | |
| JSQO-5 | AF82 | | 20 | | 235 | | | (MT8)0, (LLC2)0 | | U \| REL TST | GRD | | | 0 | | 42.5 | 40.5 | |
| JSSF | AF42 | | 153 | | 224 | | | | | U(JSSF) | GRD | | | 0 | | 100 | 95 | |
| JXW | 316C | | 154 | | | | | | | | | | P | 0 | 18 | 5.9 | | |
| | | | | | | | | | | | | | P | R | | 1.6 | | |
| | | | | | | | | | | | | | S | 0 | 18 | 5.6 | | |
| | | | | | | | | | | | | | S | R | | 1.5 | | |
| JXP | 280FM | IX | 10 | | B | | | | 5(JXP) | 10(CKG1) | NGB | | P | 0 | -34 | | 0.8 | |
| | | | | | | | | | 5(JXP) | 10(CKG1) | NGB | | P | NO | -34 | | 0.6 | |
| | | | | | | | | | 5(JXP) | 10(CKG1) | NGB | | P | 0 | -34 | 3.3 | 3.1 | |
| | | | | | | | | | 5(JXP) | 10(CKG1) | NGB | | P | R | 34 | 0.7 | 0.8 | |
| | | | | | | | | | 5(JXP) | -48 | NGB | | S | 0 | | 3.1 | | |

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JXF | 316C | IY | 10 | | | | | | | | | | P | 0 | 18 | 5.9 | | |
| | | | | | | | | | | | | | P | R | | 1.6 | | |
| | | | | | | | | | | | | | S | 0 | 18 | 5.6 | | |
| | | | | | | | | | | | | | S | R | | 1.5 | | |
| JXP1 | AJ503 | | 10 | | 249 | | | | | U(JXP1) | GRD | | | 0 | | 95 | 90 | |
| JXPA | AF519 | | 10 | | 27 | | | 12(JXPA) | | U(JXPA) | GRD | | | 0 | | 72.5 | 69 | |
| JXW1 | AJ503 | | 154 | | 249 | | | | | U(JXW1) | GRD | | | 0 | | 95 | 90 | |
| JXWA | AJ503 | | 154 | | 249 | | | | | U(JXWA) | GRD | | | 0 | | 95 | 90 | |
| KO,1,2 4,7 | AF531 | | 46 | | 203 | | | | | U \| REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| KA | AF506 | | 46 | | 8 | | | | | U(KA) | GRD | | | 0 | | 30.5 | 29 | |
| KBC | AF506 | | 46 | | 8 | | | | | U(KBC) | GRD | | | 0 | | 30.5 | 29 | |
| KCV | AF109 | | 59 | | 218 | | | | | 2U(KCV) | GRD | | S | 0 | | 15.3 | 14.5 | |
| | | | | | | | | | | 1U(KCV) | GRD | | P | 0 | | 53 | | |
| KDE | AF506 | | 46 | | 8 | | | | | U(KDE) | GRD | | | 0 | | 30.5 | 29 | |
| KFG | AF506 | | 46 | | 8 | | | | | U(KFG) | GRD | | | 0 | | 30.5 | 29 | |
| KG | AF507 | | 46 | | 26 | | | 4(RSC) | | U(KG) | GRD | | | 0 | | 37 | 35 | |
| KGS1 | AF506 | R,S | 46 | | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | U(KGS1) | GRD | | | 0 | | 65 | 61.5 | (KGS1)&(KGS2)IN PARALLEL |
| KGS2 | AF506 | R,S | 46 | | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | U(KGS2) | GRD | | | 0 | | 65 | 61.5 | (KGS2)&(KGS1)IN PARALLEL |
| KGS3,4 | AF506 | IX | 46 | | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | U \| REL TST | GRD | | | 0 | | 65 | 61.5 | (KGS3),(KGS4)IN PARALLEL |
| KHJ | AF506 | | 46 | | 8 | | | | | U(KHJ) | GRD | | | 0 | | 30.5 | 29 | |
| KK | AF511 | | 46 | | 32 | | | | | U(KK) | GRD | | | 0 | | 24.5 | 23 | |
| KKL | AF506 | | 46 | | 3 | | | | | U(KKL) | GRD | | | 0 | | 30.5 | 29 | |
| KLPO-2 | AF501 | | 120 | | 34 | | | | | U \| REL TST | GRD | | | 0 | | 80 | 75 | |
| KLPR | AJ503 | | 120 | | 249 | | | | | U(KLPR) | GRD | | | 0 | | 95 | 90 | |
| KM | AJ503 | OG | 90 | | 249 | | | | | U(KM) | GRD | | | 0 | | 95 | 90 | |
| | | KG | 9 | | | | | | | | | | | | | | | |
| KTPO-2 | AF501 | | 120 | | 34 | | | | | U \| REL TST | GRD | | | 0 | | 85 | 75 | |
| KTPR | AJ503 | | 120 | | 249 | | | | | U(KTPR) | GRD | | | 0 | | 95 | 90 | |

DRAWING ISSUE: ~~37D~~ WM, 39D RA, 45D

* FOR TEST NOTES SEE SHEET F22.

TABLE I

| OPTION PROV | CONN BAT | CONN GRD | TEST SET PREP |
|---|---|---|---|
| ZZK | -48 | 8(TX1) | NGB |
| ZZL | 8(TX1) | GRD | NGB |
| ZZM | 1(10LV) | 12(12LV) | B/G |

DRAWING ISSUE: 61B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F9

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-F9

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LO,1, 2,4 | AF531 | EL | 46 | | 203 | | | | | U | REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| L7 | AF531 | | 46 | | 203 | | | | | U(L7) | | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| LA | AJ501 | | 22 | | 249 | | | | | U(LA) | | GRD | | | 0 | | 42.5 | 40.5 | |
| LB | AF42 | | 22 | | 224 | | | | | U(LB) | | GRD | | | 0 | | 100 | 95 | |
| LB 0-9 | 280AD | IX | 57 | | 8 | | | | 2(STX) | 1-10(PLI) | | B/G | 1 | | 0 | -90 | | 2.7 | CONTACTS 1-10 CORRESPONDING TO (LBO-9) RELAYS |
| | | | | | | | | | | | | | 1 | | NO | -90 | | 1.9 | |
| | | | | | | | | | | | | | | | 0 | -3.5 | 1.2 | 1.1 | |
| | | | | | | | | | | | | | | | R | 3.5 | 0.2 | 0.3 | |
| LB 0-9 | 316A | IY | 57 | | | | | | | | | | | | 0 | FS | 1.0 | | |
| | | | | | | | | | | | | | | | R | | 0.26 | | |
| LBT | 280E | IX | 10 | | 8 | | | (LIT)0, (LI)0 | 7(LI) | 1(FLG) | | NGB | 1 | | 0 | -65 | | 1.1 | |
| | | | | | | | | | | | | | | | NO | -65 | | 0.8 | |
| | | | | | | | | | | | | | | | 0 | -65 | 7.2 | 6.8 | |
| | | | | | | | | | | | | | | | R | 65 | 2.2 | 2.4 | |
| LBT | 316M | IY | 10 | | | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | | | R | | 0.3 | | |
| LBTA | AF515 | | 9 | | 31 | | | | | U(LBTA) | | GRD | | | 0 | | 95 | 90 | |
| LBTB | AJ503 | | 120 | | 249 | | | | | U(LBTB) | | GRD | | | 0 | | 95 | 90 | |
| LCDO-2 | AJ503 | | 69 | | 249 | | | | | U(REL TST) | | GRD | | | C | | 95 | 90 | |
| LCH | AF523 | | 22 | | 19 | | | | | U(LCH) | | GRD | | | 0 | | 29.5 | 28 | |
| LCK | AF519 | | 9 | | 27 | | | | | U(LCK) | | GRD | | | 0 | | 72.5 | 69 | |
| LDN | AJ503 | TK, PS | 90 | | 249 | | | | | U(LDN) | | GRD | | | 0 | | 95 | 90 | |
| LDT | AF9 | | 14 | | 213 | | | | L(LDT) | | | BAT. | 6 | | 0 | | 8.7 | 8.2 | SEE TIMING REQT, PAGE 42 |
| LEA | AF533 | | 43 | | 48 | | | | 1L(LEA) | 1U(LEA) | | B/G | | P | 0 | | 47 | 44.5 | |
| | | | | | | | | | 1L(LEA) | 1U(LEA) | | B/G | | P | NO | | 22.5 | 24.0 | |
| | | | | | | | | | | 2U(LEA) | | GRD | | S | 0 | | 44 | | CONN DIRECT BAT. TO 2L(LEA) |
| LEB | AF533 | | 43 | | 48 | | | | 1L(LEB) | 1U(LEB) | | B/G | | P | 0 | | 47 | 44.5 | |
| | | | | | | | | | 1L(LEB) | 1U(LEB) | | B/G | | P | NO | | 22.4 | 24.0 | |
| | | | | | | | | | | 2U(LEB) | | GRD | | S | 0 | | 44 | | CONN DIRECT BAT. TO 2L(LEB) |

*FOR TEST NOTES SEE SHEET F22

BELL TELEPHONE LABORATORIES INCORPORATED

PRINTED IN U.S.A.

SD-26002-01-F10A

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

330 LB Cat. No.

350 (NM THJ & HJ)

390 RA

410

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LFO-9 | 280AS | IX | 45 | | 8 | | | | 7(NT) | 1-10 (NT3) | B/G | | P | 0 | -55 | | 1.3 | GRD CONNECTED TO (NT3) REL CONTACTS 1-10 CORRESPONDING TO (LFO-9) RELAYS |
| | | | | | | | | | | | | | | NO | -55 | | 0.9 | |
| | | | | | | | | | | | | | | 0 | -55 | 4.7 | 4.4 | |
| | | | | | | | | | | | | | | R | 55 | 1 | 1.1 | |
| | | | | | | | | | | | | | S | 0 | | 10.7 | | WINDING ALONE |
| | | | | | | | | | 7(NT) | 2(NT2) | B/G | | S | 0 | | 110 | | (LFO-9) SEC WINDINGS IN PARALLEL |
| LFO-9 | 316N | IY | 45 | | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | | S | 0 | | 30 | | |
| LFK | AF523 | | 9 | | 19 | | | | | U(LFK) | GRD | | | 0 | | 29.5 | 28 | |
| LFK1 | AF511 | | 91 | | 32 | | | | | U(LFK1) | GRD | | | 0 | | 24.5 | 23 | |
| LFKA | AF169 | | 113 | | 331 | | | | | U(LFKA) | GRD | | | 0 | | 40 | 38 | |
| LGA | AJ508 | | 119 | | 19 | | | | L(LGA) | U(LGA) | B/G | | | 0 | | 75 | 71 | |
| LGT | AJ501 | | 11 | | 249 | | | | | U(LGT) | GRD | | | 0 | | 42.5 | 40.5 | |
| LHT | AF507 | | 18 | | 26 | | | | | U(LHT) | GRD | | | 0 | | 37 | 35 | |
| LI | AF518 | DZ | 22 | | 224 | | | | | U(LI) | GRD | 4 | | 0 | | 100 | 95 | |
| | AJ513 | CA | 22 | | 414 | | | | | U(LI) | GRD | | | 0 | | 105 | 100 | |
| LIA | AJ503 | QX | 22 | | 249 | | | | | U(LIA) | GRD | | | 0 | | 95 | 90 | |
| LIN | AF507 | X | 24 | | 26 | | | | | U(LIN) | GRD | | | 0 | | 37 | | |
| LIT | 280E | IX | 10 | | 8 | | | | 7(LI) | | NGB | | 1.5 | 0 | -65 | | 1.1 | |
| | | | | | | | | | | | | | 1.5 | NO | -65 | | 0.8 | |
| | | | | | | | | | | | | | 1.5 | 0 | -65 | 7.2 | 6.8 | |
| | | | | | | | | | | | | | 1.5 | R | 65 | 2.2 | 2.4 | |
| LIT | 316M | IY | 10 | | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | | R | | 0.3 | | |
| LITA | AJ503 | | 120 | | 249 | | | | | U(LITA) | GRD | | | 0 | | 95 | 90 | |

*FOR TEST NOTES SEE SHEET F22

41

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F10A

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE E5

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LK | AF511 | | 9 | 32 | | | | | U(LK) | GRD | | | 0 | | 24.5 | 23 | |
| LK1 | AJ512 | | 8 | 64 | | | | | U(LK1) | GRD | | | 0 | | 90 | 85 | |
| LK2 | AJ512 | | 8 | 64 | | | | | U(LK2) | GRD | | | 0 | | 90 | 85 | |
| LK4 | AF132 | | 171 | 61 | | | | | U(LKA) | GRD | | | 0 | | 34.5 | 32.5 | |
| LKC | AJ503 | IK | 8 | 249 | | | | | U(LKC) | GRD | | | 0 | | 95 | 90 | |
| LKD | 1/2AK50 | | 171 | 2 | | | (LK1)NO | | 1L(LKO) | GRD | | | 0 | | 29.0 | 27.5 | |
| LLO,1, 2,4,7 | AJ502 | | 7 | 234 | | | | | U(REL TST) | GRD | | | 0 | | 40 | 38 | |
| LLB | AF52 | | 9 | 19 | | | | L(LLB) | | BAT. | | | 0 | | 29.5 | 28 | |
| LLC1 | AJ702 | | 9 | 500 | | | | | U(LLC1) | GRD | | | 0 | | 42.5 | 40.5 | |
| LLC2 | AF507 | | 20 | 26 | | | | | | | | | 0 | | 37 | 35 | WINDING ALONE |
| | | | | | | | | | U(LLC2) | GRD | | | 0 | | 85 | 80 | (LLC2)&(LLC3) IN PAR. |
| LLC3 | AJ702 | | 10 | 500 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(LLC3) | GRD | | | 0 | | 100 | 95 | (LLC2)&(LLC3) IN PAR. |
| LLC4 | AJ15 | | 91 | 249 | | | | | U(LLC4) | GRD | | | 0 | | 42.5 | 40.5 | |
| LLCK | AJ501 | | 167 | 249 | | | | | U(LLCK) | GRD | | | 0 | | 42.5 | 40.5 | |
| LLES | AJ502 | | 106 | 249 | | | | | U(LLES) | GRD | | | 0 | | 95 | 90 | |
| LLI | AF506 | | 22 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(LLI) | GRD | | | 0 | | 68 | 64.5 | (LLI)&(LLIA) IN PAR. |
| LLIA | AF506 | SC | 22 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(LLIA) | GRD | | | 0 | | 68 | 64.5 | (LLI)&(LLIA) IN PAR. |
| LLKA | 316W | | 129 | | | | | | | | | | 0 | 14 | 4.6 | | |
| | | | | | | | | | | | | | R | | 2 | | |
| LLKB | AF90 | | 129 | 242 | | | | | U(LLKB) | GRD | | | 0 | | 65.5 | 62 | |
| LLP1 | AJ503 | | 88 | 249 | | | | | U(LLP1) | GRD | | | 0 | | 95 | 90 | |
| LLP2 | AJ503 | | 88 | 249 | | | | | U(LLP2) | GRD | | | 0 | | 95 | 90 | |
| LLPX | 276A | EV | 17 | 1 | | | | | 7(LLPX) | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| | | | | | | | | | | | | | NO | | 12.8 | | |
| | | | | | | | | | | | | | R | | 1.3 | | |
| LLS | AJ12 | TU | 26 | 220 | | | | | U(LLS) | GRD | | | 0 | | 42.5 | 40.5 | |
| LLT | 280CU | RK | 10 | B | | | | | | | | | 0 | -90 | | 7.5 | |
| | | | | | | | | | | | | | NO | -90 | | 5.5 | |
| | | | | | | | (TX1)O | -48 | 9(TX1) | NGB | | | 0 | -90 | 61 | 58 | |
| | | | | | | | | | | | | | R | 90 | 17 | 18 | |
| LLT | 316B | RL | 10 | | | | | | | | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | R | | 0.6 | | |
| | | | | | | | | | | | | | NO | | 1.5 | | |
| LLTA | AF519 | | 10 | 27 | | | | | U(LLTA) | GRD | | | 0 | | 72.5 | 69 | |
| LNA | AJ503 | QU | 90 | 249 | | | | | U(LNA) | GRD | | | 0 | | 95 | 90 | |
| LNP | AJ503 | | 121 | 249 | | | | | U(LNP) | GRD | | | 0 | | 95 | 90 | |
| LNPR | AJ503 | | 121 | 249 | | | | | U(LNPR) | GRD | | | 0 | | 95 | 90 | |

*FOR TEST NOTES SEE SHEET F22

BELL TELEPHONE LABORATORIES INCORPORATED

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22

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

33D LP DCL AND REG INS AND

34A

39D RA

45D

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNT | AF52 | | 45 | 19 | | | | | U(LNT) | GRD | | | 0 | | 29.5 | 28 | |
| LOF | AJ15 | | 88 | 249 | | | | | U(LOF) | GRD | | | 0 | | 42.5 | 40.5 | |
| LOL | 316M | | 121 | | | | (PLB)NO | 7(GTK) | 5(GTK) | NGB | | | 0 | | 10.4 | | |
| LOLA | AJ503 | | 129 | 249 | | | | | U(LOLA) | GRD | | | 0 | | 95 | 90 | |
| LOLB | AJ506 | | 129 | 267 | | | | | U(LOLB) | GRD | | | 0 | | 80 | 75 | |
| LOLC | 1/2AK13 | | 129 | 203 | | | | | 2U(LOLC) | GRD | | | 0 | | 24.5 | 23 | MOUNTED WITH(NOLA) |
| LOLD | AJ503 | | 129 | 249 | | | | | U(LOLD) | GRD | | | 0 | | 95 | 90 | |
| LOLE | AF22 | | 129 | 207 | | | | | U(LOLE) | GRD | | | 0 | | 65.5 | 62 | |
| LOLF | 316A | | 129 | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | R | | 0.26 | | |
| LOLK | 316C | | 129 | | | | | | | | | P | 0 | 19 | 5.9 | | |
| | | | | | | | | | | | | P | R | | 1.6 | | |
| | | | | | | | | | | | | S | 0 | 18 | 5.6 | | |
| | | | | | | | | | | | | S | R | | 1.5 | | |
| LOLP | 316N | | 129 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| LOT | AF513 | | 9 | 208 | | | | | U(LOT) | GRD | | | 0 | | 32.5 | 30.5 | |
| LOT1 | AF519 | | 9 | 27 | | | | | U(LOT1) | GRD | | | 0 | | 72.5 | 69 | |
| LP | AJ12 | | 13 | 220 | | | | | U(LP) | GRD | 7 | | 0 | | 42.5 | 40.5 | |
| LPA | AF533 | | 43 | 48 | | | | 1L(LPA) | 1U(LPA) | B/G | | P | 0 | | 45 | 44.5 | |
| | | | | | | | | 1L(LPA) | 1U(LPA) | B/G | | P | NO | | 22.5 | 24 | |
| | | | | | | | | | 2U(LPA) | GRD | 8 | S | 0 | | 43 | | |
| LPB | AF533 | | 43 | 48 | | | | 1L(LPB) | 1U(LPB) | B/G | | P | 0 | | 45 | 44.5 | |
| | | | | | | | | 1L(LPB) | 1U(LPB) | B/G | | P | NO | | 22.5 | 24 | |
| | | | | | | | | | 2U(LPB) | GRD | 9 | S | 0 | | 43 | | |
| LPI | AJ503 | | 88 | 249 | | | | | U(LPI) | GRD | | | 0 | | 95 | 90 | |
| LPMK | AF519 | | 121 | 27 | | | | | U(LPMK) | GRD | | | 0 | | 72.5 | 69 | |
| LPN | AJ45 | | 88 | 249 | | | | | U(LPN) | GRD | | | 0 | | 130 | 120 | |
| LR | AJ12 | | 13 | 220 | | | | | U(LR) | GRD | | | 0 | | 42.5 | 40.5 | |
| LR00-119 | AF504 | | 89 | 8 | | | | L(REL TST) | | BAT. | | | 0 | | 80 | 72 | |
| LRA | AF521 | | 88 | 21 | | | XN(NO), 2B(MT18) | | U(LRA) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | U(LRA) | GRD | | | 0 | | 200 | 190 | (LRA)&(LRA1) IN PAR. |
| LRA1 | AF521 | | 88 | 21 | | | 2B(MT18), (XN)NO | | U(LRA1) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | U(LRA1) | GRD | | | 0 | | 200 | 190 | (LRA)&(LRA1) IN PAR. |
| LRD | AF42 | | 88 | 224 | | | | | U(LRD) | GRD | | | 0 | | 100 | 95 | |
| LRI | AJ12 | | 112 | 220 | | | | | U(LRI) | GRD | | | 0 | | 42.5 | 40.5 | |
| LRS | AJ45 | JZ | 91 | 249 | | | | L(LRS) | | BAT. | | | 0 | | 130 | 120 | |
| LRST 0-9 | AF504 | | 88 | 8 | | | | L(REL TST) | | BAT. | | | 0 | | 80 | 72 | |
| LSC1 | AJ12 | TU | 26 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(LSC1) | GRD | | | 0 | | 95 | 90 | (LSC1)&(LSC2) IN PAR. |
| LSC2 | AJ12 | | 91 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(LSC2) | GRD | | | 0 | | 95 | 90 | (LSC1)&(LSC2) IN PAR. |

B

DRAWING ISSUE 53B

*FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-F108

BELL TELEPHONE LABORATORIES INCORPORATED

6S

PRINTED IN U.S.A.

DRAWING ISSUE: 39D RP, 43D, 45D

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE* | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LSK | AJ508 | | 167 | 19 | | | | | U(LSK) | GRD | | | 0 | | 75 | 71 | |
| LST | AJ503 | | 120 | 249 | | | | | U(LST) | GRD | | | 0 | | 95 | 90 | |
| LSW | AJ501 | | 152 | 249 | | | | | U(LSW) | GRD | | | 0 | | 42.5 | 40.5 | |
| LSWR | AJ501 | | 151 | 249 | | | | | U(LSWR) | GRD | | | 0 | | 42.5 | 40.5 | |
| LT | AF504 | | 48 | 8 | | | | | U(LT) | GRD | | | 0 | | 80 | 72 | |
| | | | | | | | | | | | | | | | | | |
| LT2 | AF504 | V2 | 48 | 8 | | | | | U(LT2) | GRD | | | 0 | | 80 | 72 | |
| LT3 | AF504 | | 143 | 8 | | | | | U(LT3) | GRD | | | 0 | | 80 | 72 | |
| LT4 | AF504 | ZLK | 51 | 8 | | | | | U(LT4) | GRD | | | 0 | | 80 | 72 | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| LTA | AF533 | | 43 | 48 | | | | 1L(LTA) | 1U(LTA) | B/G | | P | 0 | | 45 | 44.5 | |
| | | | | | | | | 1L(LTA) | 1U(LTA) | B/G | | P | NO | | 22.5 | 24 | |
| | | | | | | | | | 2U(LTA) | GRD | 44 | S | 0 | | 43 | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| LTB | AF533 | | 43 | 48 | | | | 1L(LTB) | 1U(LTB) | B/G | | P | 0 | | 43 | 44.5 | |
| | | | | | | | | 1L(LTB) | 1U(LTB) | B/G | | P | NO | | 22.5 | 24 | |
| | | | | | | | | | 2U(LTB) | GRD | 45 | S | 0 | | 43 | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| LTI | AF55 | | 91 | 26 | | | | | | | | | 0 | | 37 | 35 | |
| | | | | | | | | | | | | | | | | | |
| LTR | AF505 | | 11 | 207 | | | | | U(LTR) | GRD | | | 0 | 19 | 9 | 8.5 | |
| | | | | | | | | | | | | | | | | | |
| LWL | AJ503 | | 151 | 249 | | | | U(LWL) | L(LWL) | B/G | | | 0 | | 95 | 90 | |
| | | | | | | | | | | | | | | | | | |
| LXD | 280FM | IX | 10 | 8 | | | | | | | | P | 0 | -34 | | 0.8 | |
| | | | | | | | | | | | | P | NO | -34 | | 0.6 | |
| | | | | | | | | 9(GLHI) | 9(CKGI) | NGB | | P | 0 | -34 | 3.3 | 3.1 | |
| | | | | | | | | | | | | P | R | 34 | 0.7 | 0.8 | |
| | | | | | | | | | -48 | | | S | 0 | | 3.1 | | |
| | | | | | | | | | | | | | | | | | |
| LYP | 316C | IY | 10 | | | | | | | | | P | 0 | 18 | 5.9 | | |
| | | | | | | | | | | | | P | R | | 1.6 | | |
| | | | | | | | | | | | | S | 0 | 18 | 5.6 | | |
| | | | | | | | | | | | | S | R | | 1.5 | | |
| LXPI | AJ503 | | 10 | 249 | | | | | U(LXPI) | GRD | | | C | | 95 | 90 | |
| | | | | | | | | | | | | | | | | | |
| LXPA | AF519 | | 10 | 27 | | | 12(LXPA) | | 12(LXPA) | GRD | | | C | | 76 | 69 | |
| | | | | | | | | | | | | | | | | | |
| LXW | 316C | | 154 | | | | | | | | | P | 0 | 18 | 5.9 | | |
| | | | | | | | | | | | | P | R | | 1.6 | | |
| | | | | | | | | | | | | S | 0 | 18 | 5.6 | | |
| | | | | | | | | | | | | S | R | | 1.5 | | |
| LXWI | AJ503 | | 154 | 249 | | | | | U(LXWI) | GRD | | | 0 | | 95 | 90 | |
| LXWA | AJ503 | | 154 | 249 | | | | | U(LXWA) | GRD | | | 0 | | 95 | 90 | |
| | | | | | | | | | | | | | | | | | |
| MO-9 | S69 | | 44 | | | | | RBI (REL TST) | 2RT (REL TST) | B/G | | P | 0 | | 750 | 710 | |
| | | | | | | | | | (REL TST) | B/G | | P | NO | | 595 | 630 | |
| | | | | | | | | | LBI (REL TST) | GRD | | S | 0 | | 90 | | |
| | | | | | | | | | | | | | | | | | |
| MAK | AF511 | | 13 | 32 | | | | | U(MAK) | GRD | 42 | | C | | 24.5 | 23 | |
| MAKI | AF519 | | 9 | 27 | | | | | U(MAKI) | GRD | | | 0 | | 72.5 | 69 | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| MB | AF21 | | 13 | 228 | | | | | 1U(MB) | GRD | 41 | P | 0 | | 20.5 | 19.5 | |
| | | | | | | | | | 1U(MB) | GRD | 41 | P | NO | | 8.5 | 8.9 | |
| | | | | | | | (CATI)O | | 2U(MB) | GRD | 41 | S | 0 | | 22 | | |
| | | | | | | | | | | | | | | | | | |
| MBC | 1/2AK6 | | 156 | 2 | | | | | 1L(MBC) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (MBCK) |
| MBCK | 1/2AK6 | | 156 | 2 | | | | | 1U(MBCK) | GRD | | | 0 | | 29 | 27.5 | MTD WITH MBC) |
| | | | | | | | | | | | | | | | | | |
| MBK | AJ512 | BX | 40 | 64 | | | | | U(MBK) | GRD | | | 0 | | 90 | 85 | |
| MBK | AF511 | BW | 40 | 32 | | | | | U(MBK) | GRD | | | 0 | | 24.5 | 23 | |
| | | | | | | | | | | | | | | | | | |
| MBK1, MBK3 | AF531 | | 40 | 203 | | | | | U(REL TST) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | GRD | | | R | | 11.9 | 12.6 | |
| | | | | | | | | | | | | | | | | | |
| MBK4, MBK5 | AF531 | | 40, 74 | 203 | | | | | U(REL TST) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | GRD | | | R | | 11.9 | 12.6 | |
| | | | | | | | | | | | | | | | | | |
| MBK6 | AF531 | | 105 | 203 | | | | | U(MBK6) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | GRD | | | R | | 11.9 | 12.8 | |
| | | | | | | | | | | | | | | | | | |
| MBSC-9 | AJ508 | | 40 | 19 | | | | | U(REL TST) | GRD | | | 0 | | 85 | 80 | |
| | | | | | | | | | | | | | | | | | |
| MBT9 | AJ45 | WT | 82 | 249 | | | | | U(MBT9) | GRD | | | 0 | | 130 | 120 | |
| MCBO | AF506 | | 13 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | 6(MB) | | U(MCBO) | GRD | 32 | | 0 | | 67.5 | 64 | (MCBO)&(MCB1) IN PAR |
| | | | | | | | | | | | | | 0 | | 105 | 100 | (MCBO)&(MCB1)&(MCB2) IN PAR |
| MCB1 | AJ702 | | 13 | 500 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | 6(MB) | | U(MCB1) | GRD | 32 | | 0 | | 100 | 95 | (MCBO)&(MCB1) IN PAR |
| | | | | | | | | | | | | | 0 | | 150 | 140 | (MCBO),(MCB1)&(MCB2) IN PAR |
| MCB2 | AF506 | | 177 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | 6(MB) | | U(MCB2) | GRD | 32 | | 0 | | 105 | 100 | (MCBO),(MCB1)&(MCB2) IN PAR |

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE* | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER 30AK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCK | AF511 | | 13 | 32 | | | | | U(MCK) | GRD | 42 | | 0 | | 24.5 | 23 | |
| MCS | AJ15 | | 96 | 249 | | | | | U(MCS) | GRD | | | 0 | | 42.5 | 40.5 | |
| MDO,2 | 1/2AK5CI | | 161 | 2 | | | | | 1U(REL TST) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (MDI,3) |
| MDI,3 | 1/2AK5DI | | 161 | 2 | | | | | 1L(REL TST) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (MDO,2) |
| MD7 | AF531 | | 161 | 203 | | | | | U(MD7) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | GRD | | | R | | 11.9 | 12.6 | |
| MDI | 1/2AK10 | ZSN | 42 | 7 | | | | | 1U(MDI) | GRD | | | 0 | | 7.8 | 7.4 | MTD WITH SPARE |
| MDK | AF522 | | 9 | 18 | | | | | U(MDK) | GRD | | | 0 | | 23.5 | 22 | |
| MF | AJ12 | WN | 42 | 220 | | | | | U(MF) | GRD | | | 0 | | 42.5 | 40.5 | |
| MFK | AF169 | | 113 | 331 | | | | | U(MFK) | GRD | | | 0 | | 40 | 38 | |
| MFL | AF96 | | 113 | 46 | | | | | 1U(MFL) | GRD | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | | | F | NO | | 80 | 85 | |
| | | | | | | | | | | | | | | | | | |
| MLT | AJ503 | | 102 | 249 | | | | | U(MLT) | GRD | | | 0 | | 95 | 90 | |
| | | | | | | | | | | | | | | | | | |
| MM | AJ89 | | 96,182 | 238 | | | (PUI)NC | | U(MM) | GRD | | | C | | 80 | 75 | |
| MMK | AF531 | | 151 | 203 | | | | L(MMK) | U(MMK) | B/G | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | | | | | | | |
| MN | AF25 | | 44 | 11 | | | | | U(MN) | GRD | | | C | | 80 | 72 | |
| MNI | AF59 | | 44 | 3 | | | | | U(MNI) | GRD | | | 0 | | 5.5 | 5.2 | |
| | | | | | | | | | | | | | | | | | |
| MON | AF520 | | 13 | 15 | | | | | U(MON) | GRD | | | 0 | | 72.5 | 69 | |
| MONI | AF35 | | 13 | 26 | | | | | U(MONI) | GRD | | | 0 | | 37 | 35 | |
| | | | | | | | | | | | | | | | | | |
| MPO-2 | AJ700 | | 96 | 500 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| | | | | | | | | | | | | | | | | | |
| MPT | S29 | | 44 | | | | | | 2RT(MPT) | GRD | | | C | | 4.6 | 4.3 | |
| | | | | | | | | | 2RT(MPT) | GRD | | | NC | | 3.6 | 3.8 | |
| | | | | | | | | | | | | | | | | | |
| MR | 280AW | | 11 | 8 | | | | | (MR) | | | | 0 | -50 | | 1.1 | |
| | | | | | | | (XACS)NO | -48 | CROSS CONN PUNCHING | NGB | | | NO | -50 | | 0.8 | |
| | | | | | | | | | | | | | U | -50 | 4.8 | 4.5 | |
| | | | | | | | | | | | | | R | 50 | 1.1 | 1.2 | |
| | | | | | | | | | | | | | | | | | |
| MRA | AJ502 | | 11 | 234 | | | | | U(MRA) | GRD | | | 0 | | 40 | 33 | |
| | | | | | | | | | | | | | | | | | |
| MRI | AJ5C3 | ZXA | 90 | 249 | | | | | U(MRI) | GRD | | | 0 | | 95 | 90 | |
| | 1/2AK5CI | ZXB | 90 | 2 | | | | | 1U(MRI) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (2LS) |
| MRL | AF9 | | 14 | 213 | | | | L(MRL) | | BAT. | 46 | | 0 | | 8.7 | 8.2 | SEE TIMING CHART |
| MRLI | AJ5 | | 13 | 220 | | | | | U(MRLI) | GRD | | | 0 | | 13.3 | 12.6 | |
| | | | | | | | | | | | | | | | | | |
| MS | AF512 | | 121 | 207 | | | | | U(MS) | GRD | | | 0 | | 26.3 | 22 | |
| | | | | | | | | | | | | | | | | | |
| MSK | AF511 | | 13 | 32 | | | | | U(MSK) | GRD | 42 | | 0 | | 24.5 | 23 | |
| MT | AF24 | | 13 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(MT) | GRD | | | C | | 70 | 64.5 | (MT) & (MT43)IN PAR. |
| | | | | | | | | | | | | | | | | | |
| MTI | AJ12 | | 13 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MTI) | GRD | | | 0 | | 100 | 95 | (MTI) & (MT27) IN PAR. |
| | | | | | | | | | | | | | 0 | | 150 | 140 | (MTI), (MT27) & (MT29) IN PAR. |
| | | | | | | | | | | | | | | | | | |
| MT2 | AF88 | | 27 | 42 | | | | | U(MT2) | GRD | | | 0 | | 33.5 | 31.5 | |
| MT3 | AJ15 | | 146 | 249 | | | | | U(MT3) | GRD | | | 0 | | 43 | 40.5 | |
| | | | | | | | | | | | | | | | | | |
| MT4 | AJ12 | | 3 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT4) | GRD | | | 0 | | 100 | 95 | (MT4)&(MTI4) IN PAR. |
| | | | | | | | | | | | | | 0 | | 150 | 140 | (MT4),(MTI4)&(MT24) IN PAR. |
| | | | | | | | | | | | | | | | | | |
| MT5 | AJ702 | | 6 | 500 | | | | | U(MT5) | GRD | | | 0 | | 42.5 | 40.5 | |
| | | | | | | | | | | | | | | | | | |
| MT6 | AJ15 | | 6 | 249 | | | 6,12(MT6) | | U(MT6) | GRD | | | 0 | | 44.5 | 40.5 | |
| | | | | | | | | | | | | | | | | | |
| MT7 | AJ12 | | 20 | 220 | | | | | U(MT7) | GRD | | | 0 | | 42.5 | 40.5 | |

* FOR TEST NOTES SEE SHEET F22.

DRAWING ISSUE: 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-FIIA

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-FIIA

E-7423 (4-66)

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MT8 | AJ501 | | 20 | 219 | | | | | U(MT8) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT8A | AF33 | ZY | 20 | 16 | | | | | | | | | 0 | | 13.5 | 12.8 | WINDING ALONE |
| | | | | | | | | | U(MT8A) | GRD | | | 0 | | 20.9 | 19.5 | (MT8A) REL & (MR8) RES IN PAR. |
| MT9 | AJ501 | | 4 | 249 | | | | | U(MT9) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT10 | AJ12 | | 55 | 220 | | | | | U(MT10) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT11 | AJ501 | | 13 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT11) | GRD | | | 0 | | 95 | 90 | (MT11) & (MT17) IN PAR. |
| | | | | | | | | | U(MT11) OR U(MT17) | GRD | | | 0 | | 150 | 140 | (MT11), (MT17) & (MT39) IN PAR. |
| MT12 | AJ501 | | 13 | 249 | | | | | U(MT12) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT13 | AJ12 | | 13 | 220 | | | 12(MT13) | | | | | | 0 | | 48.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT13) | GRD | | | 0 | | 100 | 95 | (MT13)&(MT56) IN PAR. |
| MT14 | AJ12 | | 2 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT14) | GRD | | | 0 | | 100 | 95 | (MT4) & (MT14) IN PAR. |
| | | | | | | | | | U(MT14) | GRD | | | 0 | | 150 | 140 | (MT4), (MT14) & (MT24) IN PAR. |
| MT15 | AJ12 | | 55 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT15) | GRD | | | 0 | | 100 | 95 | (MT15) & (MT35) IN PAR. |
| | | | | | | | | | U(MT15) | GRD | | | 0 | | 150 | 140 | (MT15) (MT35) & (MT36) IN PAR. |
| MT16 | [illegible] | | [illegible]0 | | | | | | U(MT16) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT17 | AF33 | | 13 | 42 | | | | | | | | | 0 | | 33.5 | 31.5 | WINDING ALONE |
| | | | | | | | | | U(MT17) | GRD | | | 0 | | 73.5 | 70 | (MT11) & (MT17) IN PAR. |
| | | | | | | | | | U(MT11) OR U(MT17) | GRD | | | 0 | | 150 | 140 | (MT11), (MT17) & (MT39) IN PAR. |
| MT18 | AJ501 | | 13 | 249 | | | | | U(MT18) | [illegible] | | | 0 | | 42.5 | 40.5 | |
| MT19 | AJ12 | | 55 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT19) | GRD | | | 0 | | 100 | 95 | (MT19) & (MT20) IN PAR. |
| MT20 | AJ501 | | 13 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT20) | GRD | | | 0 | | 95 | 90 | (MT19) & (MT20) IN PAR. |
| MT21 | AJ12 | | 38 | 220 | | | | | U(MT21) | GRD | | | 0 | | 42.5 | 40.5 | |

BELL TELEPHONE LABORATORIES INCORPORATED

PRINTED IN U.S.A.

SD-26002-01-F11B

CGINS 4495

22

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

32A GLS GAL AND
33D GLS GAL AND
34A KEG THIS A.D.
35D KEG THIS AND
39D RA
41D

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MT22 | AJ12 | QL | 55 | 220 | | | | | U(MT22) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT23 | AJ12 | | 123 | 220 | | | | | U(MT23) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT24 | AJ12 | | 65 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT24) | GRD | | | 0 | | 150 | 140 | (MT4), (MT14) & (MT24) IN PAR. |
| MT25 | AF38 | SW | 75 | 42 | | | | | U(MT25) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT26 | AF12 | SW | 65 | 220 | | | | | U(MT26) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT27 | AJ12 | MB | 13 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT27) | GRD | | | 0 | | 100 | 95 | (MT27) & (MT1) IN PAR. |
| | | | | | | | | | | | | | 0 | | 150 | 140 | (MT1), (MT27) & (MT29) IN PAR. |
| MT28 | AJ12 | | 120 | 220 | | | | | U(MT28) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT29 | AJ12 | EF | 13 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT29) | GRD | | | 0 | | 100 | 95 | (MT1) & (MT29) IN PAR. |
| | | | | | | | | | | | | | 0 | | 150 | 140 | (MT1), (MT27) & (MT29) IN PAR. |
| MT30-MT32 | AJ12 | | 120 | 220 | | | | | U(REL TST) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 135 | 125 | (MT30), (MT31) & (MT32) IN PAR. |
| MT33 | AG10 | | 120 | 35B | | | | | U(MT33) | GRD | | | 0 | | 10.8 | 10.2 | |
| | | | | | | | | | | | | | R | 30 | 1.2 | 1.4 | |
| MT34 | AJ12 | | 120 | 220 | | | | | U(MT34) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT35 | AJ12 | | 120 | 220 | | | | | U(MT35) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 100 | 95 | (MT15)&(MT35) IN PAR. |
| | | | | | | | | | | | | | 0 | | 150 | 140 | (MT15), (MT35) & (MT36) IN PAR. |
| MT36 | AJ12 | | 127 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT36) | GRD | | | 0 | | 100 | 95 | (MT15)&(MT36) IN PAR. |
| | | | | | | | | | U(MT36) | GRD | | | 0 | | 150 | 140 | (MT15), (MT35) & (MT36) IN PAR. |
| MT37 | AJ12 | | 130 | 220 | | | | | U(MT37) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT38 | AJ12 | | 130 | 220 | | | | | U(MT38) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT39 | AJ12 | | 116 | 220 | | | | | U(MT39) | GRD | | | 0 | | 150 | 140 | (MT11), (MT17) & (MT39) IN PAR. |
| | | | | | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| MT40 | AJ12 | | 120 | 220 | | | | | U(MT40) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT41 | AJ12 | | 138 | 220 | | | | | U(MT41) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT42 | AJ15 | | 146 | 249 | | | | | U(MT42) | GRD | | | 0 | | 43 | 40.5 | |
| MT43 | AJ15 | | 152 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT43) | GRD | | | 0 | | 95 | 90 | (MT43)&(MT) IN PAR. |
| MT44 | AJ15 | | 156 | 249 | | | | | U(MT44) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT45 | AJ12 | | 152 | 220 | | | | | U(MT45) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT46 | AJ12 | | 151 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT46) | GRD | | | 0 | | 95 | 90 | (MT46)&(MT50) IN PAR |

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COMPLETING MARKER CIRCUIT (2) SD-26002-01-F11B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MT47 | AJ15 | | 152 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT47) | GRD | | | 0 | | 95 | 90 | (MT47) & (MT48) IN PAR. |
| MT48 | AJ15 | | 152 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT48) | GRD | | | 0 | | 95 | 90 | (MT48) & (MT47) IN PAR. |
| MT49 | AJ15 | | 152 | 249 | | | | | U(MT49) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT50 | AJ12 | | 151 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT50) | GRD | | | 0 | | 95 | 90 | (MT50) & (MT46) IN PAR. |
| MT51 | AF24 | | 154 | 8 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT51) | GRD | | | 0 | | 95 | 90 | (MT51) & (MT54) IN PAR. |
| MT52 | AJ12 | | 154 | 220 | | | | | U(MT52) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT53 | AJ12 | | 154 | 220 | | | | | U(MT53) | GRD | | | 0 | | 42.5 | 40.5 | |
| MT54 | AJ12 | | 154 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(MT54) | GRD | | | 0 | | 95 | 90 | (MT51) & (MT54) IN PAR. |
| MT55 | 1/2AK501 | | 160 | 2 | | | | | 1L(MT55) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (CWL) |
| MT56 | AJ12 | ZVR | 20 | 220 | | | | | | | | | | | | | |
| | | | | | | | | | U(MT56) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| MT57 | 1/2AK22 | ZSI | 25 | 216 | | | | | 1L(MT57) | GRD | | | 0 | | 100 | 95 | (MT13) & (MT56) IN PAR. |
| MTA | AF24 | ZVI | 154 | 8 | | | | | U(MTA) | GRD | | | 0 | | 27.5 | 26 | MTD WITH SPARE |
| MXI | AF52 | | 30 | 19 | | | | | U(MXI) | GRD | | | 0 | | 30.5 | 29 | |
| NAD | 1/2AK501 | ZLO | 90 | 2 | | | | | 1U(MAD) | GRD | | | 0 | | 29.5 | 28 | |
| NAI | AJ503 | | 128 | 249 | | | | | U(NAI) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (ADD) |
| NAIC | AJ12 | ZXR | 23 | 220 | | | | | U(NAIC) | GRD | | | 0 | | 95 | 90 | |
| NANS | AF507 | | 60 | 26 | | | | | U(NANS) | GRD | | | 0 | | 42.5 | 40.5 | |
| NAR1 | AJ503 | | 60 | 249 | | | | | U(NAR1) | GRD | | | 0 | | 37 | 35 | |
| | | | | | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| NAR2 | AJ503 | | 60 | 249 | | | | | U(NAR2) | GRD | | | 0 | | 210 | 200 | (NAR1)&(NAR2) IN PAR. |
| | | | | | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| NCCN | AJ505 | | 41 | 36 | | | | | U(NCCN) | GRD | | | 0 | | 210 | 200 | (NAR1)&(NAR2) IN PAR. |
| | | | | | | | | | | | | | | | 75 | 71 | |
| NCMJ | AF506 | | 68 | 8 | | | 2(CMC3) | | U(NCMJ) | GRD | | | 0 | | 32.5 | 29 | |
| NCNC | AJ505 | | 41 | 36 | | | | | U(NCNC) | GRD | | | 0 | | 75 | 71 | |
| NCRA | AJ72 | | 144 | 64 | | | | | 1U(NCRA) | GRD | | P | 0 | | 34 | 32 | |
| | | | | | | | | | 2U(NCRA) | GRD | | S | 0 | | 35.5 | 33.5 | |
| NCTD | AJ508 | | 147 | 19 | | | 2(NCTD) | | U(NCTD) | GRD | | | 0 | | 80 | 71 | |
| NCW | 1/2AK43 | | 160 | 20 | | | | | 1U(NCW) | GRD | | | 0 | | 10.5 | 10 | MTD WITH (CWR) |
| NCWI | 1/2AK6 | ZTR | 160 | 2 | | | | | 1L(NCWI) | GRD | | | 0 | | 29.5 | 27.5 | WDG ALONE, MTD WITH (CWL) |
| | | | | | | | | | | | | | | | 52.5 | 50 | (NCW) & (NCWI) IN PAR. |
| ND1 | AF21 | VP | 26 | 228 | | | 1O(ND1) | | 1L(ND1) | | | P | 0 | | 21.5 | 19.5 | |
| | | | | | | | 1O(ND1) | | 1U(ND1) | | | C | NO | | 8.5 | 8.9 | |
| | | | | | | | | | 2U(ND1) | GRD | | S | 0 | | 22 | | |
| ND1 | AF128 | VQ | 26 | 254 | | | 1O(ND1) | | 1U(ND1) | GRD | | P | 0 | | 23.5 | 22 | |
| | | | | | | | 1O(ND1) | | 2U(ND1) | GRD | | S | 0 | | 25 | 23.5 | |
| NDK | 1/2AK522 | | 26 | 18 | | | | | U(NDK) | GRD | | | 0 | | 23.5 | 22 | |
| NE | AF511 | | 55 | 32 | | | | | U(NE) | GRD | | | 0 | | 24.5 | 23 | |
| NET | AJ506 | | 116 | 267 | | | | | U(NET) | GRD | | | 0 | | 80 | 75 | |
| NGB | AF52 | | 22 | 19 | | | | L(NGB) | | BAT. | | | 0 | | 29.5 | 28 | |
| NGC | AJ702 | | 23 | 500 | | | | | U(NGC) | GRD | | | 0 | | 42.5 | 40.5 | |
| NGK | AF523 | | 22 | 19 | | | | | U(NGK) | GRD | | | 0 | | 29.5 | 28 | |

* FOR TEST NOTES SEE SHEET F22.

BELL TELEPHONE LABORATORIES INCORPORATED — PRINTED IN U.S.A.

HIGGINS 4465

SD-26002-01-F11C

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## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NGK1 | AF518 | | 22 | 224 | | | | 1L(NGK1) | U(NGK1) | B/G | | | 0 | | 100 | 95 | |
| NGP | AF20 | VP | 22 | 205 | | | | | U(NGP) | GRD | | | 0 | | 36 | 34 | |
| NGP | AJ21 | VQ | 22 | 259 | | | | | U(NGP) | GRD | | | 0 | | 100 | 95 | |
| NGSA-NGSH | AJ9 | | 60 | 234 | | | | | U(REL TST) | GRD | | | 0 | | 40 | 38 | |
| NGSK | AF55 | | 60 | 26 | | | | | U(NGSK) | GRD | | | 0 | | 37 | 35 | |
| NGTA-NGTH | 230AH | IX | 60 | 8 | | | | 2-9(TNA) FOR NGTA-H RELAYS RESP | GRD | NGB | | | 0 | -40 | | 0.8 | |
| | | | | | | | | | | | | | NO | -40 | | 0.6 | |
| | | | | | | | | | | | | | 0 | -4.5 | 1.2 | 1.1 | ADJUSTED WITH RELAY SHUNTED BY 500Ω±1% RESISTOR |
| | | | | | | | | | | | | | R | 4.5 | 0.2 | 0.3 | |
| NGTA-H | 316M | IY | 60 | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| NH | AF50 | JI | 45 | 13 | | | | | U(NH) | GRD | | | 0 | | 23.5 | 22 | |
| NH | AF55 | JH | 45 | 26 | | | | | U(NH) | GRD | | | 0 | | 37 | 35 | |
| NID | AF122 | | 83 | 49 | | | | | U(NID) | GRD | | | 0 | | 100 | 95 | |
| NLA | AJ503 | | 121 | 249 | | | | | U(NLA) | GRD | | | 0 | | 95 | 90 | |
| NMR | AJ15 | | 96 | 249 | | | | | U(NMR) | GRD | | | 0 | | 42.5 | 40.5 | |
| NOB | AJ302 | | 40, 176 | 234 | | | 8(MT17) | | U(NOB) | GRD | | | 0 | | 40 | 38 | |

* FOR TEST NOTES SEE SHEET F22.

DRAWING ISSUE

| | |
|---|---|
| 32A | GLS, COIL AND |
| 33D | GLS, COIL AND |
| 35D | KM, FIL AND |
| 36A | WNT |
| 37D | VLA |
| 39D | RP |
| 41D | |
| 43D | |
| 44A | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F11C

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S — PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE* | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOC | AF523 | XA | 26 | | 19 | | | | | U(NOC) | GRD | | | 0 | | 29.5 | 28 | |
| NOLA | 1/2AK13 | | 129 | | 203 | | | | | 2L(NOLA) | GRD | | | 0 | | 24.5 | 23 | MOUNTED WITH (LOLC) |
| NPC | AJ512 | | 120 | | 64 | | | | | U(NPC) | GRD | | | 0 | | 90 | 85 | |
| NPCA | AJ501 | | 120 | | 249 | | | | | U(NPCA) | GRD | | | 0 | | 42.5 | 40.5 | |
| NPM | AJ512 | | 120 | | 64 | | | | | U(NPM) | GRD | | | 0 | | 90 | 85 | |
| NPRC | AJ503 | | 119 | | 249 | | | | | J(NPRC) | GRD | | | 0 | | 95 | 90 | |
| NR | AF519 | PB | 22 | | 27 | | | | | U(NR) | GRD | | | 0 | | 72.5 | 69 | |
| NR | AJ503 | PC | 22 | | 249 | | | | | U(NR) | GRD | | | 0 | | 95 | 90 | |
| NRCD | 1/2AK508 | | 184 | | 2 | | | | 2U(NRCD) | 1U(NRCD) | B/G | | | 0 | | 120 | 115 | MOUNTED WITH (RCDT) |
| NRD | AJ503 | | 146 | | 249 | | | | | U(NRD) | GRD | | | 0 | | 95 | 90 | |
| NRR | 316M | | 146 | | | | | | | | | | P | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | P | R | | 0.3 | | |
| NRS | AJ501 | | 81 | | 249 | | | | | U(NRS) | GRD | | | 0 | | 42.5 | 40.5 | |
| NSA | AF42 | | 146 | | 27 | | | | | U(NSA) | GRD | | | 0 | | 100 | 95 | |
| NSI | AF507 | | 26 | | 26 | | | | | U(NSI) | GRD | | | 0 | | 37 | 35 | |
| NSKI | AF531 | | 39 | | 203 | | | | | U(NSKI) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| NSO | AF507 | | 26 | | 26 | | | | | U(NSO) | GRD | | | 0 | | 37 | 35 | |
| NSS | AJ108 | | 116 | | 2 | | | | | U(NSS) | GRD | | | 0 | | 2.3 | 2.1 | |
| NSSO,1 | AF521 | | 54 | | 21 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | U(REL TST) | GRD | | | 0 | | 200 | 190 | (NSSO,1)&(ALSO,1)IN PAR. RESPECTIVELY |
| NSS2-5 | AF521 | F | 54 | | 21 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | U(REL TST) | GRD | | | 0 | | 200 | 190 | (NSS2-5) &(ALS2-5)IN IN PAR. RESPECTIVELY |
| NST | AJ501 | | 120 | | 249 | | | | | U(NST) | GRD | | | 0 | | 42.5 | 40.5 | |
| NT | AF82 | | 45 | | 235 | | | | | U(NT) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | | | | | | 95 | 90 | (NT)&(NT6) IN PAR. |
| NT1 | AF24 | | 45 | | 8 | | | | | U(NT1) | GRD | | | 0 | | 30.5 | 29 | |
| NT2 | AF36 | | 45 | | 14 | | | 10(NT2) | | U(NT2) | GRD | | | 0 | | 15.5 | 14.1 | |
| NT3 | AF24 | | 45 | | 8 | | | | | U(NT3) | GRD | | | 0 | | 30.5 | 29 | |
| NT4 | AF33 | | 45 | | 16 | | | | | U(NT4) | GRD | | | 0 | | 13.5 | 12.8 | |
| NT5 | AF100 | | 45 | | 252 | | | | | U(NT5) | GRD | | | 0 | | 41.5 | 39.5 | |
| NT6 | AJ15 | ZTR | 160 | | 249 | | | | | U(NT6) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | | | | | | 95 | 90 | (NT6)&(NT) IN PAR. |
| NTA | AF4 | | 121 | | 18 | | | (RAV1,2) NO | L(NTA) | | BAT. | | | 0 | | 36.5 | 34.5 | |
| NTB | 1/2AK6 | ZTR | 160 | | 2 | | | | | 1L(NTB) | GRD | | | 0 | | 29.5 | 27.5 | MOUNTED WITH (CWK1) |
| NTC | AG14 | | 45 | | 458 | | | | | 1U(NTC) | GRD | 10 | P | 0 | | 31.5 | 30 | |
| | | | | | | | | | | 1U(NTC) | GRD | | P | H | | 4.7 | 4.4 | |
| | | | | | | | | | | 1U(NTC) | GRD | | P | R | | 3.3 | 3.6 | |
| NTD | AF522 | BD | 147 | | 19 | | | | | U(NTD) | GRD | | | 0 | | 23.5 | 22 | |
| NTH | AG6 | | 45 | | 2398 | | | | | U(NTH) | GRD | | | 0 | | 9.3 | 8.8 | |
| | | | | | | | | | | U(NTH) | GRD | | | H | | 1.6 | 1.5 | |
| | | | | | | | | | | U(NTH) | GRD | | | R | | 0.8 | 1.0 | |
| NTL | 316A | IS | 129 | | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | | R | | 0.26 | | |
| NTMR | 1/2AK501 | DX | 96 | | 2 | | | | | 2L(NTMR) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH TMR |
| NTR | AG7 | | 45 | | 2418 | | | | | U(NTR) | GRD | | | 0 | | 17.5 | 16.5 | |
| | | | | | | | | | | U(NTR) | GRD | | | H | | 3.2 | 3.0 | |
| | | | | | | | | | | U(NTR) | GRD | | | R | | 1.6 | 1.9 | |
| NTT | AF55 | | 45 | | 26 | | | | | U(NTT) | GRD | | | 0 | | 37 | 35 | |
| NW | AJ503 | | 152 | | 249 | | | | | U(NW) | GRD | | | 0 | | 95 | 90 | |
| NWB | AJ503 | | 133 | | 249 | | | | | L(NWB) | GRD | | | 0 | | 95 | 90 | |
| NWL | 316M | | 152 | | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | | R | | 0.3 | | |
| NWLA | AF515 | | 156 | | 31 | | | | | U(NWLA) | GRD | | | 0 | | 95 | 90 | |
| NWT | AJ501 | | 152 | | 249 | | | | | U(NWT) | GRD | | | 0 | | 42.5 | 40.5 | |
| OA | AF521 | | 43 | | 21 | | | | | U(OA) | GRD | | | 0 | | 90 | 85 | |

*FOR TEST NOTES SEE SHEET F22

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-F12A

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## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE* | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OACO | AJ502 | | 130 | | 249 | | | (ACC) NO | | U(OACO) | GRD | | | 0 | | 95 | 90 | |
| OACI-9 | AJ503 | | 134 | | 249 | | | (AGC) NO | | U(OAC-) | GRD | | | 0 | | 95 | 90 | |
| OAT | AF523 | | 14 | | 19 | | | 9(MB) | | U(OAT) | GRD | | | 0 | | 29.5 | 28 | |
| OATI | AF511 | | 14 | | 32 | | | (MIT) 3 | | U(OATI) | GRD | | | 0 | | 24.5 | 23 | |
| OB | AF521 | | 43 | | 21 | | | | | U(OB) | GRD | | | 0 | | 90 | 85 | |
| OBS | AJ502 | | 40, 176 | | 234 | | | 3(MT17) | | U(OBS) | GRD | | | 0 | | 40 | 39 | |
| OC | AJ513 | | 107 | | 414 | | | | | U(OC) | GRD | | | 0 | | 105 | 100 | |
| OCN | AF112 | | 43 | | 268 | | | | | U(OCN) | GRD | | | C | | 35.4 | 33.5 | |
| OD | AJ503 | YY | 26 | | 249 | | | | | U(OD) | GRD | | | 0 | | 95 | 90 | |
| OFCO-4 | AJ503 | | 129 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| OFH | AJ501 | | 21 | | 249 | | | | | U(OFH) | GRD | | | 0 | | 42.5 | 40.5 | |
| OFHI | AF52 | | 21 | | 19 | | | | | U(OFHI) | GRD | | | 0 | | 29.5 | 28 | |
| OFK | AF58 | | 22 | | 219 | | | 12(OFK) | | U(OFK) | GRD | | | 0 | | 11.7 | 10.6 | |
| OGC | AF506 | | 26 | | 8 | | | O(RSC) | | U(OGC) | GRD | | | 0 | | 30.5 | 29 | |
| OGRI,2 | 2930 | | 131 | | | | | | | | | 11 | | 0 | | 15 | | |
| OHS | AJ503 | | 121 | | 249 | | | | | U(OHS) | GRD | | | 0 | | 95 | 90 | |
| OLI | AJ503 | | 85 | | 249 | | | | | U(OLI) | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | U(OLI) | GRD | | | 0 | | 210 | 200 | (OLI) & (OLIA) IN PAR. |
| OLIA | AJ503 | | 85 | | 249 | | | | | U(OLIA) | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | U(OLIA) | GRL | | | 0 | | 210 | 200 | (OLI) & (OLIA) IN PAR. |
| OLIT | AF504 | | 85 | | 8 | | | | | U(OLIT) | GRD | | | 0 | | 80 | 72 | |
| ONX | AF506 | | 29 | | 8 | | | | | U(ONX) | GRD | | | 0 | | 30.5 | 29 | |
| OPO-4 | AJ503 | UZ | 91 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| OPE | AF15 | | 36 | | 216 | | | (DXO) O | | U(OPE) | GRD | | | 0 | | 7.1 | 6.7 | |
| OPR | AF519 | | 41 | | 27 | | | | | U(OPR) | GRD | | | 0 | | 72.5 | 69 | |
| OPSO-OPS3 | AF514 | | 41 | | 5 | | | | | U REL TEST | GRD | | | 1 | | 57.5 | 54.5 | |
| OR | AJ503 | | 32 | | 249 | | | | | U(OR) | GRD | | | 0 | | 95 | 90 | |
| ORI | AJ503 | QK | 48 | | 249 | | | | | U(ORI) | GRD | | | 0 | | 95 | 90 | |
| ORA | AJ507 | | 143 | | 21 | | | | | U(ORA) | GRD | | | 0 | | 100 | 95 | |
| ORC | AF506 | | 68 | | 8 | | | | | U(ORC) | GRD | | | 0 | | 30.5 | 29 | |
| ORCO-2 | AJ503 | | 68 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| ORKI | AF514 | | 46 | | 5 | | | | | U(ORKI) | GRD | | | 0 | | 57.5 | 54.5 | |
| ORK2 | AF508 | | 46 | | 11 | | | | L(ORK2) | | BAT. | | | 0 | | 30 | 72 | |
| ORT | AF42 | UVJ | 13 | | 224 | | | | | U(ORT) | GRD | | | 0 | | 100 | 95 | |
| OSO-OS4 | AF518 | | 27 | | 224 | | | | | U REL TEST | GRD | | | 0 | | 100 | 95 | |

DRAWING ISSUES

| | |
|---|---|
| 32A | UNR GDL APP. |
| 33D | UNR APP. GDL |
| 35D | TS TM APP. |
| 37D | WM APP. |
| 39D | APP. |
| 41D | |
| 43D | |
| 44A | |

CR

ISSUE 63B

*FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-F12A

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OSC | AF521 | | 26 | 21 | | | (RSC)0 | | U(OSC) | GRD | | | 0 | | 90 | 85 | |
| OSE | AF507 | | 27 | 26 | | | | | U(OSE) | GRD | | | 0 | | 37 | 35 | |
| OSE1 | AF523 | | 27 | 19 | | | | | U(OSE1) | GRD | | | 0 | | 29.5 | 28 | |
| OSG0-4 | AJ700 | | 27 | 500 | | | | | U REL<br>TST | GRD | | | 0 | | 90 | 85 | |
| OSG5-9 | AJ700 | | 28 | 500 | | | | | U REL<br>TST | GRD | | | 0 | | 90 | 85 | |
| OSG10<br>OSG11 | AJ700 | | 67 | 500 | | | | | U REL<br>TST | GRD | | | 0 | | 90 | 85 | |
| OSK | AF507 | | 27 | 26 | | | | | U(OSK) | GRD | | | 0 | | 37 | 35 | |
| OSKA | AJ501 | | 27 | 23 | | | | | U(OSKA) | GRD | | | 0 | | 40 | 38 | |
| OST | 280A,<br>280FY | MG,<br>MH | 26 | A | | | (OST1)0<br>(OST1)0 | 4(OST1)<br>4(OST1)<br>7(OST1) | 12(BG)<br>12(BG)<br>11(BG) | NGB<br>NGB<br>NGB | | P<br>P<br>S | 0<br>NO<br>0 | -65<br>-65 | 3<br>OC<br>0.5 | 1.5<br>1.1 | SEE TIMING REQT |
| OST1 | AF518 | | 26 | 224 | | | | | U(OST1) | GRD | | | 0 | | 100 | 95 | |
| OST2 | AF519 | | 26 | 224 | | | | | U(OST2) | GRD | | | 0 | | 100 | 95 | |
| OT | AJ510 | | 6 | 39 | | | 3(TZ)<br>6(TSO) | 1L(OT)<br>1U(OT)<br>2U(OT) | 1U(OT)<br>1L(OT)<br>2U(OT) | B/G<br>B/G<br>GRD | | P<br>P<br>S | 0<br>NO<br>0 | | 250<br>205<br>49.5 | 240<br>215 | |
| OTF | AJ12 | AH | 30 | 220 | | | | | U(OTF) | GRD | | | 0 | | 43 | 40.5 | |
| OTS | 280AF | IX | 6 | 8 | | | (TZ)NO<br>1(TZ) | 9(TZ)<br>9(TZ)<br>9(TZ)<br>9(TZ)<br>3(TZ) | 1(TZ)<br>1(TZ)<br>1(TZ)<br>1(TZ)<br>1L(OT) | NGB<br>NGB<br>NGB<br>NGB<br>NGB | | S<br>S<br>S<br>S<br>P | 0<br>NO<br>0<br>R<br>0 | -45<br>-45<br>-45<br>45 | 4.5<br>0.9<br>10.3 | 1.1<br>0.8<br>4.2<br>1.0 | |
| OTS | 316R | IY | 6 | | | | | | | | | P<br>P<br>S | 0<br>R<br>0 | 40 | 13.3<br>3.3<br>5.4 | | |
| OTT | AF522 | | 26 | 18 | | | | | U(OTT) | GRD | | | 0 | | 23.5 | 22 | |
| OTTA | AJ12 | | 116 | 220 | | | | | U(OTTA) | GRD | | | 0 | | 42.5 | 40.5 | |
| OV | AJ15 | | 22 | 249 | | | | | U(OV) | GRD | | | 0 | | 42.5 | 40.5 | |
| OVC | AJ15 | TY | 22 | 249 | | | | | U(OVC) | GRD | | | 0 | | 42.5 | 40.5 | |
| OVK | 280AS | | 90 | B | | | | 11(CDN)<br>11(CDN)<br>11(CDN)<br>11(CDN)<br>12(RDO) | 6(TRF1)<br>6(TRF1)<br>6(TRF1)<br>6(TRF1)<br>-48 | NGB<br>NGB<br>NGB<br>NGB<br>NGB | | P<br>P<br>P<br>P<br>S | 0<br>NO<br>0<br>R<br>0 | -55<br>-55<br>-55<br>55 | 5<br>1<br>11.5 | 1.3<br>0.9<br>4.7<br>1.1 | |
| OVP | 1/2AK6 | | 145 | 2 | | | | | 1U(OVP) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (OVS) |
| OVS | 1/2AK6 | | 145 | 2 | | | | | 1L(OVS) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH (OVP) |

DRAWING ISSUE

BELL TELEPHONE LABORATORIES INCORPORATED

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## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

DRAWING ISSUE

32A UNF 60L AHA

33D UNF 60L AHA

35D GM TYL 4x1 WH

37D

CB

ISSUE 63B

COMPLETING MARKER CIRCUIT

SD-26002-01-F12B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

PRINTED IN U.S.A.

22

## CIRCUIT REQUIREMENTS

DRAWING ISSUE: 5D, 18D, 22D, 25D, 33D

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPTION | APPARATUS FIG | MECH REQT BSP FIG | MECH REQT CONT PRESS | MECH REQT ARM TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PO | AF521 | | 20 | 21 | | | | | U(PO) | GRD | | | O | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(PO) | GRD | | | C | | 200 | 190 | (PO) & (POA) IN PARALLEL |
| POA | AF517 | | 64 | 223 | | | | | | | | | O | | 85 | 80 | WDG ALONE |
| | | | | | | | | | U(POA) | GRD | | | O | | 190 | 180 | (POA) & (PO) IN PARALLEL |
| P1 | AF521 | | 20 | 21 | | | | | U(P1) | GRD | | | C | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P1) | GRD | | | O | | 200 | 190 | (P1) & (P1A) IN PAFALLEL |
| P1A | AF517 | | 64 | 223 | | | | | | | | | O | | 85 | 80 | WDG ALONE |
| | | | | | | | | | U(P1A) | GRD | | | O | | 190 | 180 | (P1A) & (P1) IN PAWALLEL |
| P2 | AF521 | | 20 | 21 | | | | | U(P2) | GRD | | | O | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P2) | GRD | | | O | | 200 | 190 | (P2) & (P2A) IN PARALLEL |
| P2A | AF517 | | 64 | 223 | | | | | | | | | O | | 85 | 80 | WDG ALONE |
| | | | | | | | | | U(P2A) | GRD | | | C | | 190 | 180 | (P2A) & (P2) IN PARALLEL |
| P3 | AF521 | | 20 | 21 | | | | | U(P3) | GRD | | | O | | 90 | 85 | |
| P4 | AF521 | | 20 | 21 | | | | | U(P4) | GRD | | | O | | 90 | 85 | |
| P5 | AF521 | | 20 | 21 | | | | | U(P5) | GRD | | | O | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P5) | GRD | | | O | | 200 | 190 | (P5) & (P5A) IN PARALLEL |
| P5A | AF517 | | 64 | 223 | | | | | | | | | C | | 85 | 80 | WDG ALONE |
| | | | | | | | | | U(P5A) | GRD | | | O | | 190 | 180 | (P5A) & (P5) IN PARALLEL |
| P6 | AF521 | | 20 | 21 | | | | | U(P6) | GRD | | | O | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P6) | GRD | | | O | | 200 | 190 | (P6) & (P6A) IN PARALLEL |
| P6A | AF517 | | 64 | 223 | | | | | | | | | C | | 85 | 80 | WDG ALONE |
| | | | | | | | | | U(P6A) | GRD | | | C | | 190 | 180 | (P6A) & (P6) IN PARALLEL |
| P7 | AF521 | | 20 | 21 | | | | | U(P7) | GRD | | | C | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P7) | GRD | | | C | | 200 | 190 | (P7) & (P7A) IN PARALLEL |
| P7A | AF517 | | 64 | 223 | | | | | | | | | O | | 85 | 80 | WDG ALONE |
| | | | | | | | | | U(P7A) | GRD | | | C | | 190 | 180 | (P7A) & (P7) IN PARALLEL |
| P8 | AF521 | | 20 | 21 | | | | | U(P8) | GRD | | | O | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P8) | GRD | | | O | | 200 | 190 | (P8) & (P8A) IN PARALLEL |
| P8A | AF521 | | 64 | 21 | | | | | | | | | C | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P8A) | GRD | | | C | | 200 | 190 | (P8A) & (P8) IN PAFALLEL |
| P9 | AF521 | | 20 | 21 | | | | | U(P9) | GRD | | | - | | 90 | 85 | WDG ALONE |
| | | | | | | | | | U(P9) | GRD | | | O | | 200 | 190 | (P9) & (P9A) IN PARALLEL |
| P9A | AF517 | | 64 | 223 | | | | | | | | | C | | 85 | 80 | WDG ALONE |
| | | | | | | | | | U(P9A) | GRD | | | O | | 190 | 180 | (P9A) & (P9) IN PARALLEL |





## CIRCUIT REQUIREMENTS

DRAWING ISSUE: 5D, 18D, 22D, 25D, 33D

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPTION | APPARATUS FIG | MECH REQT BSP FIG | MECH REQT CONT PRESS | MECH REQT ARM TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PA | AF505 | | 20 | 8 | | | | | U(PA) | GRD | | | O | | 30.5 | 29 | |
| PAN | AF521 | JT,JU | 90 | 21 | | | (RIP)NO | | U(PAN) | GRD | | | O | | 90 | 85 | |
| PAN | AJ72 | JV | 90 | | | | (RIP)NO | | IU(PAN) | GRD | | P | O | | 34 | 32 | |
| | | | | | | | | 2L(PAN) | | BAT | | S | O | | 35.5 | 33.5 | |
| PB | AF506 | | 20 | 8 | | | | | U(PA) | GRD | | | O | | 30.5 | 29 | |
| PBN | AF52 | | 22 | 19 | | | 12(PBN) | L(PBN) | U(PBN) | B/G | | | O | | 29.5 | 28 | |
| PBX1 | AJ103 | | 23 | 249 | | | | | U(PBX1) | GRD | | | O | | 95 | 90 | WDG ALONE |
| | | | | | | | | | | | | | O | | 210 | 200 | (PBX1) & (PBX2) IN PARALLEL |

# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE* | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PBX2 | AJ503 | | 23 | 249 | | | | | U(PBX2) | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 210 | 200 | (PBX1) & (P9X2) IN PARALLEL |
| PBXA | AJ502 | | 11 | 234 | | | (GT2)0 | | U(PBXA) | GRD | | | 0 | | 40 | 38 | |
| PBY | AJ505 | CQ | 41 | 36 | | | | L(PBY) | U(PBY) | B/G | | | 0 | | 75 | 71 | |
| PBY | AJ45 | CP | 41 | 249 | | | | L(PBY) | U(PBY) | B/G | | | 0 | | 130 | 120 | |
| PC | AF506 | | 20 | | | | | | U(PC) | GRD | | | 0 | | 30.5 | 29 | |
| PCOO -27 | AF514 | | 37 | 5 | | | | | U REL TST | GRD | | | 0 | | 57.5 | 54 | |
| PC28 -39 | AF514 | | 72 | 5 | | | | | U REL TST | GRD | | | 0 | | 57.5 | 54 | |
| PCCL | AF523 | L | 25 | 19 | | | | | U(PCCL) | GRD | | | 0 | | 29.5 | 28 | |
| PCDO,1 | AF42 | L | 32 | 224 | | | | | U REL TST | GRD | | | 0 | | 100 | 95 | |
| PCL1 | AJ702 | L | 25 | 500 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONG |
| | | | | | | | | | U(PCL1) | GRD | | | 0 | | 100 | 95 | (PCL1) & (PCL2) IN PARALLEL |
| PCL2 | AJ501 | L | 25 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(PCL2) | GRD | | | 0 | | 100 | 95 | (PCL1) & (PCL2) IN PARALLEL |
| PCN | AJ505 | | 41 | 36 | | | | | U(PCN) | GRD | | | 0 | | 75 | 71 | |
| PCR | AF42 | L | 32 | 224 | | | | | U(PCR) | GRD | | | 0 | | 100 | 95 | |
| PD | AF519 | | 42 | 27 | | | | | U(PD) | GRD | | | 0 | | 72.5 | 69 | |
| PDCO | AJ505 | | 94 | 36 | | | | | U(PDCO) | GRD | | | 0 | | 75 | 71 | |
| PDC1 | AJ505 | | 94 | 36 | | | | | U(PDC1) | GRD | | | 0 | | 75 | 71 | |
| PDK | 280AS | IX | 94 | 8 | | | | 4(PDCO) | 9(DCT1) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | 4(PDCO) | 9(DCT1) | NGB | | P | NO | -55 | | .9 | |
| | | | | | | | | 4(PDCO) | 9(DCT1) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 4(PDCO) | 9(DCT1) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 8(BG) | -48 | NGB | | S | 0 | | 11.5 | | |
| PDK | 316N | IY | 94 | | | | | | | | | P | 0 | 30 | 9.9 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| PDKA | AJ15 | | 94 | 249 | | | | | U(PDKA) | GRD | | | 0 | | 42.5 | 40.5 | |
| PDL | 293D | ZTO | 131 | | | | | | | | 11 | | 0 | | 15 | | |
| PE | AF506 | | 64 | 8 | | | | | U(PE) | GRD | | | 0 | | 30.5 | 29 | |
| PEG | AF506 | II, IK | 8 | 8 | | | | | U(PEG) | GRD | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | | | | | | 68 | 64.5 | (PEG) & (PEG1) IN PAR. |
| PEG1 | AF506 | IS, IK | 8 | 8 | | | | | U(PEG1) | GRD | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | | | | | | 68 | 64.5 | (PEG) & (PEG1) IN PAR. |
| PEG2 | ~~AJ503~~ | | 164 | 249 | | | | | U(PEG2) | GRD | | | 0 | | 42.5 | 40.5 | |
| PEG 20,30 | AF506 | ZTK | 165 | 8 | | | | | U REL TST | GRD | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | | | | | | 68 | 64.5 | (PEG20) & (PEG30) IN PAR. |
| PG00-14 | AF504 | | 116 | 8 | | | | | U REL TST | GRD | | | 0 | | 80 | 72 | |
| PGR00 -14 | 293D | | 131 | | | | | | | | 11 | | 0 | | 15 | | |
| PHB | AJ513 | ZMK | 88 | 414 | | | | L(PHB) | | BAT. | | | 0 | | 105 | 100 | |

*FOR TEST NOTES SEE SHEET F22

BELL TELEPHONE LABORATORIES INCORPORATED

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# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE* | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHC | AF514 | | 43 | 5 | | | | | U(PHC) | GRD | | | 0 | | 57.5 | 54 | |
| PK | AF519 | IT | 42 | 27 | | | | | U(PK) | GRD | | | 0 | | 72.5 | 69 | |
| PKI | AJ512 | | 143 | 64 | | | | | U(PKI) | GRD | | | 0 | | 90 | 85 | |
| PK | AJ503 | IU | 42 | 249 | | | | | U(PK) | GRD | | | 0 | | 95 | 90 | |
| PL | 280BH | | 57 | 8 | | | | 12(PL1) | 4(CKG5) | B/G | | P1 | 0 | -75 | | 1.3 | |
| | | | | | | | | 12(PL1) | 4(CKG5) | B/G | | P1 | NO | -75 | | 1.2 | |
| | | | | | | | | 12(PL1) | 4(CKG5) | B/G | | P1 | 0 | -75 | 9.5 | 9 | |
| | | | | | | | | 12(PL1) | 4(CKG5) | B/G | | P1 | R | 75 | 0.4 | 0.5 | |
| | | | | | | | | 12(PL1) | 11(PL1) | B/G | | P1/P2 | 0 | | 4.8 | | |
| PL1 | AF83 | | 57 | 8 | | | | | | | | | 0 | | 8.2 | 7.8 | WINDING ALONE |
| | | | | | | | | | U(PL1) | GRD | 12 | | 0 | | | | PAR. COMB (PL1) REL IN ALL W SPG COMP MKR |
| PLB | AJ512 | | 121 | 249 | | | (PU1) NO | | U(PLB) | GRD | | | 0 | | 90 | 85 | |
| PLB1 | AJ501 | | 121 | 249 | | | | | U(PLB1) | GRD | | | 0 | | 42.5 | 40.5 | |
| PLBA | AJ501 | | 121 | 249 | | | | | U(PLBA) | GRD | | | 0 | | 42.5 | 40.5 | |
| PLFK | AJ508 | | 121 | 19 | | | | | U(PLFK) | GRD | | | 0 | | 75 | 71 | |
| PMO | AF21 | | 22 | 228 | | | | 1L(PMO) | | BAT. | | P | 0 | | 20.5 | 19.5 | |
| | | | | | | | | 1L(PMO) | | BAT. | | P | NO | | 8.5 | 8.9 | |
| | | | | | | | | | 2U(PMO) | GRD | | S | 0 | | 22 | | |
| PML | AJ503 | | 121 | 249 | | | | | U(PML) | GRD | | | 0 | | 95 | 90 | |
| PMLL | AJ503 | | 121 | 249 | | | | | U(PMLL) | GRD | | | 0 | | 95 | 90 | |
| PN | AF515 | | 43 | 31 | | | | | U(PN) | GRD | | | 0 | | 95 | 90 | |
| PNC | AJ505 | | 41 | 36 | | | | | U(PNC) | GRD | | | 0 | | 75 | 71 | |
| PNR | AF506 | | 20 | 8 | | | | | U(PNR) | GRD | | | 0 | | 30.5 | 29 | |
| POTS | AF521 | | 86 | 21 | | | | | U(POTS) | GRD | | | 0 | | 90 | 95 | |
| PP | AJ503 | | 152 | 249 | | | | | U(PP) | GRD | | | 0 | | 95 | 90 | |
| PPX | AJ505 | | 41 | 36 | | | | | U(PPX) | GRD | | | 0 | | 75 | 71 | |
| PR | AJ501 | | 19 | 249 | | | | | U(PR) | GRD | | | 0 | | 45 | 40.5 | |
| PRAO-4 | AJ503 | | 116 | 249 | | | | | U REL TST | GRD | | | 0 | | 95 | 90 | |
| PRC | AJ503 | | 119 | 249 | | | | | U(PRC) | GRD | | | 0 | | 95 | 90 | |
| PREO-4 | AJ503 | | 116 | 249 | | | | | U REL TST | GRD | | | 0 | | 95 | 90 | |
| PRI | AJ506 | | 116 | 207 | | | | | U(PRI) | GRD | | | 0 | | 80 | 75 | |
| PRL | AF96 | | 113 | 46 | | | | | 1U(PRL) | GRD | | P | 0 | | 100 | 95 | |
| | | | | | | | | | 1U(PRL) | GRD | | P | NO | | 80 | 75 | |
| PRLO-4 | AJ509 | | 120 | 235 | | | | | U REL TST | GRD | | | 0 | | 33.5 | 31.5 | |
| PRLL | AJ12 | | 113 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(PRLL) | GRD | | | 0 | | 95 | 90 | (PRLL) & (PRLLA) IN PARALLEL |
| PRLLA | AJ12 | IN | 113 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(PRLLA) | GRD | | | 0 | | 95 | 90 | (PRLL) & (PRLLA) IN PARALLEL |
| PRR | AF32 | | 119 | 208 | | | | | U(PRR) | GRD | | | 0 | | 32.5 | 30.5 | |
| PS | AF515 | | 42 | 31 | | | | | U(PS) | GRD | | | 0 | | 95 | 90 | |
| PS1 | AF517 | | 172 | 223 | | | (STA)0 | | | | | | 0 | | 85 | 80 | WINDING ALONE |
| | | | | | | | | | U(PS1) | GRD | | | 0 | | 110 | 105 | (PS1) RES IN PAR. |
| PS2 | 1728K36 | | 172 | 16 | | | | | | | | | 0 | | 145 | 105 | WINDING ALONE |
| | | | | | | | (PST)0 | 1U(PS2) | | BAT. | | | 0 | | 155 | 145 | (PS2) RES IN PAR. |
| PSA | AJ512 | | 172 | 64 | | | | | | | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | U(PSA) | GRD | | | 0 | | 140 | 130 | (PSA) & (PSA3) IN PAR. |

*FOR TEST NOTES SEE SHEET F22

DRAWING ISSUE

330 (4W 8PL 4WP)
350 (PW PC)
390 (MF)
41D
43D
45C

CB

ISSUE 53B

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-F14A

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 6S

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE* | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PSA1 | AF132 | | 172 | | 61 | | | (SNK) 0 | | U(PSA1) | GRD | | | 0 | | 34.5 | 32.5 | |
| PSA2 | 1/2AK501 | | 172 | | 2 | | | | | | | | | 0 | | 29 | 27.5 | WINDING ALONE |
| | | | | | | | | | | | | | | | | | | MOUNTED WITH(PSTA) |
| | | | | | | | | | | IL (PSA2) | GRD | | | 0 | | 61.5 | 58.5 | (PSA1) AND(PSA2) IN PAR. |
| PSA3 | 1/2AK501 | ZML | 172 | | 2 | | | | | | | | | 0 | | 29 | 27.5 | WINDING ALONE |
| | | | | | | | | | | IL (PSA3) | GRD | | | 0 | | 120 | 110 | (PSA) AND(PSA3) IN PAR. |
| | | | | | | | | | | | | | | | | | | MOUNTED WITH SPARE |
| PSG | AF55 | | 172 | | 26 | | | | | U(PSG) | GRD | | | 0 | | 37 | 35 | |
| PSL | AJ507 | | 172 | | 21 | | | | | U(PSL) | GRD | | | 0 | | 100 | 95 | |
| PSR | AF113 | | 42 | | 274 | | | | | U(PSR) | GRD | | | 0 | | 7.1 | 6.7 | |
| PST | AJ507 | | 172 | | 21 | | | | | U(PST) | GRD | | | 0 | | 100 | 95 | WINDING ALONE |
| | | | | | | | | | | | | | | | | 150 | 145 | (PST) AND (PSTA) |
| | | | | | | | | | | | | | | | | | | IN PARALLEL |
| PSTA | 1/2AK501 | | 172 | | 2 | | | | | U(PSTA) | GRD | | | 0 | | 29 | 27.5 | WINDING ALONE |
| | | | | | | | | | | | | | | | | | | MOUNTED WITH (PSA2) |
| | | | | | | | | | | | | | | | | 110 | 105 | (PST) AND (PSTA) |
| | | | | | | | | | | | | | | | | | | IN PARALLEL |
| PTK | AF525 | | 22 | | 19 | | | | | U(PTK) | GRD | | | 0 | | 29.5 | 28 | |
| PTR | 1/2AK6 | | 127 | | 2 | | | (TR1)NO | 2L(PTM) | | BAT. | | | 0 | | 29.5 | 27.5 | MTD WITH (TLT) |
| PTN | AF515 | | 43 | | 31 | | | | | U(PTN) | GRD | | | 0 | | 95 | 90 | |
| PU | S10 | | 11 | | | | | (LGT)0 | 3(GTK) | | BAT. | | | 0 | 360 | 255 | 240 | |
| | | | | | | | | (LGT)0 | 3(GTK) | | BAT. | | | NO | 360 | 200 | 215 | |
| PUI | AF52 | | 22 | | 19 | | | | | U(PUI) | GRD | | | 0 | | 29.5 | 28 | |
| PUL | AF16 | | 22 | | 204 | | | | | U(PUL) | GRD | | | 0 | | 30.5 | 29 | |
| R- | 286L | SG | 1 | | | | | | | U(R-) | GRD | 13 | | 0 | | 125 | 115 | WINDING ALONE |
| | 286E | SF | | | | | | | | U(R-) | GRD | 13 | | 0 | | 155 | 150 | (R-) AND (FC-) |
| | 286L | | | | | | | | | | | | | | | | | IN PARALLEL |
| RA1-6 | AF122 | | 7 | | 49 | | | | L REL TST / U REL TST | | B/G | | | 0 | | 100 | 95 | |
| RAV1 | AJ702 | | 7 | | 500 | | | | | | | | | 0 | | 42.5 | 40.5 | (RAV1),(RAV2), AND |
| | | | | | | | | | | U(RAV1) | GRD | | | 0 | | 100 | 95 | (RAV3) IN PARALLEL |
| RAV2 | AJ12 | | 7 | | 220 | | | | | U(RAV2) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | | | | | | 100 | 95 | (RAV1),(RAV2), AND |
| | | | | | | | | | | | | | | | | | | (RAV3) IN PARALLEL |
| | | | | | | | | | | | | | | 0 | | 127.5 | 121.5 | (RAV1),(RAV2), AND |
| | | | | | | | | | | | | | | | | | | (RAV3) IN PARALLEL |
| RAV3 | AJ12 | ZQ8 | 6 | | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(RAV3) | GRD | | | 0 | | 127.5 | 121.5 | (RAV1),(RAV2), AND |
| | | | | | | | | | | | | | | | | | | (RAV3) IN PARALLEL |
| RBT | AJ112 | | 7 | | 268 | | | | | U(RBT) | GRD | | | 0 | | 35.4 | 33.5 | |
| RCCK | AF50 | | 13 | | 18 | | | | | U(RCCK) | GRD | | | 0 | | 23.5 | 22 | |
| RCD | AJ503 | | 146 | | 249 | | | | | U(RCD) | GRD | | | 0 | | 95 | 90 | |
| RCDT | 1/2 AK508 | | 184 | | 2 | | | | 2L(RCDT) | IL(RCDT) | B/G | | | 0 | | 120 | 115 | MOUNTED WITH (NRCD) |
| RCK1 | 280AS | IX | 21 | | 8 | | | | 3(CKG6) | 3(SOG2) | B/G | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | | 3(CKG6) | 3(SOG2) | B/G | | P | NO | -55 | | 0.9 | |
| | | | | | | | | | 3(CKG6) | 3(SOG2) | B/G | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | | 3(CKG6) | 3(SOG2) | B/G | | P | R | -55 | 1 | 1.1 | |
| | | | | | | | | | 4(FLG1) | 1(TLC2) | B/G | | S | 0 | | 11.5 | | YL OPTION |
| | | | | | | | | | 4(FLG1) | 11(TLC2) | B/G | | S | 0 | | 11.5 | | YK OPTION |
| RCK1 | 316N | IY | 21 | | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | | S | 0 | | 30 | | |
| RCK2 | AF515 | | 21 | | 31 | | | | | U(RCK2) | GRD | | | 0 | | 90 | 85 | |
| RCK3 | AF519 | | 21 | | 27 | | | | | U(RCK3) | GRD | | | 0 | | 72.5 | 69 | |
| RCL | AF521 | | 22 | | 21 | | | | | U(RCL) | GRD | | | 0 | | 95 | 90 | |
| RCN1-15 | 276A | | 16 | | 1 | | | | 7 REL TST | | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| | | | | | | | | | | | BAT. | | | NO | | 12.8 | | |
| | | | | | | | | | | | BAT. | | | R | | 1.3 | | |
| RCR | 316M | | 146 | | | | | | | | | | P | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | P | R | | 0.3 | | |
| RCT1-3,6,8 | AF514 | | 21 | | 5 | | | | | U REL TST | GRD | | | 0 | | 57.5 | 54.5 | |

*FOR TEST NOTES SEE SHEET F22

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-F14B

22

## CIRCUIT REQUIREMENTS

DRAWING ISSUE: 33D 4JV 6DL 8NP; 35D MWL 7NJ 8ND; 39D RA

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RCT4-5,9 | AF514 | UN | 21 | | 5 | | | | | U REL TST | GRD | | | 0 | | 57.5 | 54.5 | |
| RCT4-5,9 | AF521 | UO | 21 | | 21 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| RCT10 | AF521 | | 21 | | 21 | | | (XRC)NO | | U REL TST | GRD | | | 0 | | 90 | 95 | |
| RCT11-15 | AF514 | | 21 | | 5 | | | | | U REL TST | GRD | | | 0 | | 57.5 | 54.5 | |
| RCTA | AF513 | | 11 | | 208 | | | | | U(RCTA) | GRD | | | 0 | | 32.5 | 30.5 | WINDING ALONE |
| | | | | | | | | | | U(RCTA) | | | | 0 | | 71.5 | 67.5 | (RCTA) & (RCTC) |
| | | | | | | | | | | | | | | | | | | IN PARALLEL |
| RCTB | AG9 | | 11 | | 264B | | | | | | | | | 0 | 19 | 9.4 | 8.9 | WINDING ALONE |
| | | | | | | | | | | | | | | H | 19 | 1.2 | 1.1 | WINDING ALONE |
| | | | | | | | | | | | | | | R | 19 | 0.9 | 0.9 | WINDING ALONE |
| | | | | | | | | | | U(RCTB) | GRD | | | 0 | 34 | 17 | 16 | COMBINATION OF |
| | | | | | | | | | | | GRD | | | H | 34 | 2.1 | 2.0 | (RCTB) RELAY AND |
| | | | | | | | | | | | GRD | | | R | 34 | 1.3 | 1.4 | (RCTB) RESISTOR |
| RCTC | AF212 | | 123 | | 207 | | | | | U(RCTC) | GRD | | | 0 | | 25.5 | 25 | WINDING ALONE |
| | | | | | | | | | | | | | | 0 | | 58.4 | 55 | (RCTC) & (RCTA) |
| | | | | | | | | | | | | | | | | | | IN PARALLEL |
| RCTS | AJ505 | | 117 | | 36 | | | | | U(RCTS) | GRD | | | 0 | | 75 | 71 | |
| RCY | AF88 | | 7 | | 42 | | | | | U(RCY) | GRD | | | 0 | | 33.5 | 31.5 | WINDING ALONE |
| | | | | | | | | | | | | | | 0 | | 74 | 69.5 | (RCY) & (RCY1) |
| | | | | | | | | | | | | | | | | | | IN PARALLEL |
| RCY1 | AF52 | | 7 | | 19 | | | | | U(RCY1) | GRD | | | 0 | | 29.5 | 28 | WINDING ALONE |
| | | | | | | | | | | | | | | 0 | | 65.5 | 62 | (RCY) & (RCY1) |
| | | | | | | | | | | | | | | | | | | IN PARALLEL |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-F14B

## CIRCUIT REQUIREMENTS

| APPARATUS | | | | | MECH REQT | | | CIRCUIT PREPARATION | | | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | CODE | OPT | FIG. | | BSP FIG. | CONT PRES | ARM. TRVL. | BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | | | TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | |
| RCY2 | AJ15 | | 22 | | 249 | | | | | U(RCY2) | GRD | | | 0 | | 42.5 | 40.5 | |
| RCY3 | AF52 | | 22 | | 19 | | | | | U(RCY3) | GRD | | | 0 | | 29.5 | 28 | |
| RCY4 | AJ15 | | 22 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(RCY4) | GRD | | | 0 | | 95 | 90 | (RCY4)&(RCY5) IN PAR. |
| RCY5 | AJ15 | TY | 22 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(RCY5) | GRD | | | 0 | | 95 | 90 | (RCY4)&(RCY5) IN PAR. |
| RDCK | AF531 | | 151 | | 203 | | | | | U(RDCK) | GRD | | | 0 | | 37.8 | 36 | |
| RDI, RDIA | AJ501 | | 90 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | | | | | 0 | | 95 | 90 | (RDI)&(RDIA) IN PAR. |
| RDK1,2 | AF522 | | 97 | | 18 | | | | | U(REL TST) | GRD | | | 0 | | 23.5 | 22 | |
| RDL | AF10 | | 13 | | 214 | | | | | U(RDL) | GRD | | | 0 | | 7.6 | 7.2 | |
| RDL1 | AF10 | | 152 | | 214 | | | (DS1)O, &(RDL1) | | U(RDL1) | GRD | | | 0 | | 8.4 | 7.2 | |
| RDO | AJ12 | PT,JO | 90 | | 220 | | | | | U(RDO) | GRD | | | 0 | | 42.5 | 40.5 | |
| RDR | AJ512 | PS | 90 | | 64 | | | | | | | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | U(RDR) | GRD | | | 0 | | 200 | 190 | (RDR)&(RDR1) IN PAR. |
| RDR1 | AJ503 | PS | 90 | | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | U(RDR1) | GRD | | | 0 | | 210 | 200 | (RDR)&(RDR1) IN PAR. |
| RDS | AJ503 | | 112 | | 249 | | | | | U(RDS) | GRD | | | 0 | | 95 | 90 | |
| RE | AJ503 | PT | 90 | | 249 | | | | | U(RE) | GRD | | | 0 | | 95 | 90 | |
| RF | AF50 | | 7 | | 18 | | | (FM)O | | U(RF) | GRD | | | 0 | | 23.5 | 22 | |
| RFA | AF52 | | 7 | | 19 | | | 6(RFA) | | U(RFA) | GRD | | | 0 | | 31 | 28 | |
| RG1-6 | AJ508 | | 115 | | 249 | | | (SR1)NO, (REA)NO | | U(REL TST) | GRD | | | 0 | | 75 | 71 | |
| RGA | AJ503 | | 115 | | 249 | | | | | U(RGA) | GRD | | | 0 | | 95 | 90 | |
| RGA1-6 | AJ15 | | 115 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 42.5 | 40.5 | |
| RGT | AF118 | | 43 | | 401 | | | | | U(RGT) | GRD | | | 0 | | 14 | 13.3 | CONTACT 4 SHALL MAKE BEFORE CONTACT 6 BREAKS |
| RGTA | AJ15 | | 22 | | 249 | | | | | U(RGTA) | GRD | | | 0 | | 42.5 | 40.5 | |
| RI | AJ122 | ZQP | 22 | | 249 | | | | | IU(RI) | GRD | P | | 0 | | 31 | 29.5 | |
| | | | | | | | | | 2L(RI) | | BAT. | S | | 0 | | 33 | 31 | |
| RI | AF55 | ZQQ | 22 | | 26 | | | | | U(RI) | GRD | | | 0 | | 37 | 35 | |
| RIA | AF24 | | 43 | | 8 | | | | | U(RIA) | GRD | | | 0 | | 30.5 | 29 | |
| RIB | AF53 | | 22 | | 24 | | | | | U(RIB) | GRD | | | 0 | | 31.5 | 30 | |
| RIK | AF523 | | 90 | | 19 | | | | | U(RIK) | GRD | | | 0 | | 29.5 | 28 | |
| RIP | AF55 | ZQW | 22 | | 26 | | | | | U(RIP) | GRD | | | 0 | | 37 | 35 | |
| RIPA | AF24 | ZQW | 43 | | 8 | | | (XN)NO | | U(RIPA) | GRD | | | C | | 30.5 | 29 | |
| RIW | AJ15 | | 152 | | 249 | | | 12(RIW) | | U(RIW) | GRD | | | 0 | | 44.5 | 40.5 | |
| RK | AF511 | | 9 | | 32 | | | | | U(RK) | GRD | | | 0 | | 24.5 | 23 | |
| RK1 | AF508 | | 9 | | 11 | | | | L(RK1) | | BAT. | | | 0 | | 80 | 72 | |
| RK2 | AF514 | | 9 | | 5 | | | | | U(RK2) | GRD | | | 0 | | 57.5 | 54.5 | |
| RK3 | AF507 | | 9 | | 26 | | | | | U(RK3) | GRD | | | 0 | | 37 | 35 | |
| RKA | AF132 | | 171 | | 61 | | | | | U(RKA) | GRD | | | 0 | | 34.5 | 32.5 | |
| RLG | AF13 | | 42 | | 215 | | | | | U(RLG) | GRD | | | 0 | | 13.1 | 12.4 | |
| RLL | AJ503 | | 120 | | 249 | | | | | U(RLL) | GRD | | | 0 | | 95 | 90 | |
| RLT | AF32 | TU | 26 | | 208 | | | | | U(HLT) | GRD | | | 0 | | 32.5 | 30.5 | |
| RM-- | AF504 | | 99 | | 8 | | | (RG1-5)NO | | U(RM--) | GRD | | | 0 | | 80 | 72 | |
| RN | AF506 | M | 25 | | 8 | | | | | U(RN) | GRD | | | 0 | | 30.5 | 29 | |
| RNO,1, 2,4,7 | AF531 | M | 25 | | 203 | | | | | U REL | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | TST | GRD | | | R | | 11.9 | 12.6 | |
| RN2K | 1/2AK502 | ZRL | 71 | | 216 | | | | | IU(RN2K) | GRD | | | 0 | | 27.5 | 26 | MTD WITH (RN2T) |
| RN2T | 1/2AK502 | ZRL | 71 | | 216 | | | | | IL(RN2T) | GRD | | | 0 | | 27.5 | 26 | MTD WITH (RN2K) |
| RNG | AJ501 | | 22 | | 249 | | | | | U(RNG) | GRD | | | 0 | | 42.5 | 40.5 | |
| RNH | AJ503 | | 104 | | 249 | | | | | U(RNH) | GRD | | | 0 | | 95 | 90 | |

## CIRCUIT REQUIREMENTS

| APPARATUS | | | | | MECH REQT | | | CIRCUIT PREPARATION | | | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | CODE | OPT | FIG. | | BSP FIG. | CONT PRES | ARM. TRVL. | BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | | | TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | |
| RNK1 | AF514 | | 25 | | 5 | | | | | U(RNK1) | GRD | | | 0 | | 57.5 | 54.5 | |
| RNK2 | AF508 | | 25 | | 11 | | | | L(RNK2) | | BAT. | | | 0 | | 90 | 72 | |
| RNT | 280A, 280FY | MG, MH | 25 | | 8 | | | | 6(RNT1) | 3(AMA5)OR | NGB | | P | 0 | -65 | 3 | 1.5 | SEE TIMING REQT |
| | | | | | | | | (RNT1)O | 5(RNT1) | 9(PCL1) | NGB | | P | NO | -65 | 0.5 | 1.1 | |
| | | | | | | | | | 4(RNT1) | 6(RNT1) | NGB | | S | 0 | | 0.5 | | |
| RNT1 | AF518 | | 25 | | 224 | | | | | U(RNT1) | GRD | | | 0 | | 100 | 95 | |
| RNT2 | AF518 | | 25 | | 224 | | | | | U(RNT2) | GRD | | | 0 | | 100 | 95 | |
| RNT20 | AJ12 | ZRL | 71 | | 220 | | | | | U(RNT20) | GRD | | | 0 | | 43 | 40.5 | |
| RO | AJ503 | AZ | 32 | | 249 | | | | | U(RO) | GRD | | | C | | 82 | 78 | |
| RO | AF90 | AY | 32 | | 242 | | | | | U(RO) | GRD | | | 0 | | 65.5 | 62 | |
| ROI-3 | AJ15 | | 115 | | 249 | | | | | U(REL TST) | GRD | | | 0 | | 42.5 | 40.5 | |
| ROA | AF52 | UN | 8 | | 19 | | | | | U(ROA) | GRD | | | 0 | | 29.5 | 28 | |
| ROA | AJ15 | UO | 8 | | 249 | | | | | U(ROA) | GRD | | | 0 | | 42.5 | 40.5 | |
| ROH | AF55 | | 172 | | 26 | | | PST(NO) | | IU(ROH) | GRD | | | 0 | | 37 | 35 | |
| RON | AF51 | | 13 | | 3 | | | (TGT)O | | U(RON) | GRD | | | 0 | | 20.5 | 19.5 | |
| ROT | AJ503 | | 119 | | 249 | | | | | U(ROT) | GRD | | | 0 | | 95 | 90 | |
| RP | AJ501 | | 32 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(RP) | GRD | | | 0 | | 100 | 95 | (RP)&(RPA) IN PAR. |
| | | | | | | | | | | | GRD | | | 0 | | 150 | 140 | (RP),(RPA)&(RPB) IN PAR. |
| RPA | AF506 | | 33 | | 3 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | U(RPA) | GRD | | | 0 | | 67 | 63.5 | (RP)&(RPA) IN PAR. |
| | | | | | | | | | | | GRD | | | 0 | | 105 | 100 | (RP),(RPA)&(RPB) IN PAR. |
| RPB | AF506 | | 34 | | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | U(RPB) | GRD | | | 0 | | 105 | 100 | (RP),(RPA)&(RPB) IN PAR. |
| RPK | AF522 | | 40, 74 | | 13 | | | | | U(RPK) | GRD | | | 0 | | 23.5 | 22 | |
| RQ | AF506 | | 19 | | 8 | | | | | U(RQ) | GRD | | | 0 | | 30.5 | 29 | |
| RR | AF59 | | 42 | | 3 | | | | | U(RR) | GRD | | | 0 | | 5.5 | 5.2 | |
| RRC | AF13 | | 42 | | 215 | | | | | U(RRC) | GRD | | | 0 | | 13.1 | 12.4 | |
| RRK | AF531 | | 42 | | 203 | | | | | U(RRK) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | U(RRK) | GRD | | | R | | 11.9 | 12.6 | |

DRAWING ISSUE

| | |
|---|---|
| 37D | ROT |
| 39D | RP |

DRAWING ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F15A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

SD-26002-01-F15A

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RSO-9 | AF522 | | 21 | 18 | | | | | U REL TST | GRD | | | C | | 23.5 | 22 | |
| RSC | AJ503 | | 26 | 249 | | | | | U(RSC) | GRD | | | 0 | | 95 | 90 | |
| RSK | AF507 | | 21 | 26 | | | | | U(RSK) | GRD | | | 0 | | 37 | 35 | |
| RSMK | AJ501 | | 151 | 249 | | | | | U(RSMK) | GRD | | | 0 | | 42.5 | 40.5 | |
| RST | AF48 | | 119 | 28 | | | (RYT)0 | | U(RST) | GRD | | | 0 | | 95 | 90 | |
| RSW | AJ501 | | 151 | 249 | | | | | U(RSW) | GRD | | | 0 | | 42.5 | 40.5 | |
| RTO-RT4 | AF115 | BR | 41 | 274 | | | | | U REL TST | GRD | | | 0 | | 7.1 | 6.7 | |
| RTO-RT4 | 1/2AK4 | BS | 41 | 202 | | | | | 2L REL TST | GRD | | | 0 | | 11.9 | 11.3 | MOUNTED WITH (RT5-RT9) RESPECTIVELY |
| RT5-RT9 | 1/2AK4 | BS | 41 | 202 | | | | | 2U REL TST | GRD | | | 0 | | 11.9 | 11.3 | MOUNTED WITH (RTO-RT4) RESPECTIVELY |
| RT20-24 30-34 | 1/2AK4 | | 165 | 202 | | | | | 2L REL TST | GRD | | | C | | 11.9 | 11.3 | MOUNTED WITH (RT25-29, 35-39) RESPECTIVELY |
| RT25-29 35-39 | 1/2AK4 | | 165 | 202 | | | | | 2U REL TST | GRD | | | 0 | | 11.9 | 11.3 | MOUNTED WITH (RT20-24, 30-34) RESPECTIVELY |
| RTC2-5 | AJ131 | | 165 | 336 | | | | | U REL TST | GRD | | | 0 | | 44.5<br>210 | 42<br>200 | WINDING ALONE<br>(RTC 2,3,4,& 5) IN PAR. |
| RTA | AJ503 | MT | 13 | 249 | | | | | U(RTA) | GRD | | | 0 | | 95 | 90 | |
| RTC | AJ501 | BR | 41 | 249 | | | | | U(RTC) | GRD | | | 0 | | 42.5 | 40.5 | |
| RTC | AJ131 | BS | 41 | 336 | | | | | U(RTC) | GRD | | | 0 | | 44.5 | 42 | |
| RTCI | AJ131 | BS | 41 | 336 | | | | | U(RTCI) | GRD | | | 0 | | 44.5 | 42 | |
| RTN | AJ513 | | 71 | 414 | | | | | U(RTN) | GRD | 26 | | 0 | | 105 | 100 | |
| RTNA | AJ12 | | 71 | 220 | | | | | U(RTNA) | GRD | | | 0 | | 42.5 | 40.5 | |
| RTST | AF507 | | 13 | 26 | | | 12(RTST) | | U(RTST) | GRD | | | 0 | | 38.5 | 35 | |
| RUK | 316B | | 151 | | | | | | | | | | 0<br>R<br>NO | 7.5 | 2.4<br>0.7<br>1.5 | | |
| RUKI | AF531 | | 151 | 203 | | | | | U(RUKI) | GRD | | | 0 | | 38 | 36 | |
| RUN | AJ513 | | 71 | 414 | | | | | U(RUN) | GRD | 26 | | 0 | | 105 | 100 | |
| RUNA | AJ12 | | 71 | 220 | | | | | U(RUNA) | GRD | | | 0 | | 42.5 | 40.5 | |
| RV | AF55 | | 22 | 26 | | | | | U(RV) | GRD | | | 0 | | 37 | 35 | |
| RVI | AF6 | | 22 | 29 | | | | L(RVI) | U(RVI) | B/G | | | 0 | | 100 | 95 | |
| RV2 | AF90 | | 22 | 242 | | | | | U(RV2) | GRD | | | 0 | | 65.5 | 62 | |
| RV3 | AF521 | | 8 | 21 | | | | | U(RV3) | GRD | | | 0 | | 90 | 85 | |
| RVT | AF32 | | 151 | 208 | | | | | U(RVT) | GRD | | | 0 | | 32 | 30.5 | |
| RWCN | AJ501 | | 153 | 249 | | | | | U(RWCN) | GRD | | | 0 | | 42.5 | 40.5 | |
| RWL | AJ508 | | 151 | 19 | | | | | U(RWL) | GRC | | | 0 | | 75 | 71 | |
| RYC | AJ15 | | 7 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(RYC) | GRD | | | 0 | | 95 | 90 | (RYC) & (RYCI) IN PAR. |
| RYCI | AJ15 | | 152 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(RYCI) | GRD | | | 0 | | 95 | 90 | (RYCI) & (RYC) IN PAR. |
| RYK | AJ503 | | 112 | 249 | | | | | U(RYK) | GRD | | | 0 | | 95 | 90 | |
| RYT | AF522 | | 14 | 18 | | | (RYTI)0 | | U(RYT) | GRD | | | 0 | | 23.5 | 22 | |
| RYTI | AF512 | | 14 | 207 | | | (RYT)0 | | U(RYTI) | GRD | | | 0 | | 26.5 | 25 | |
| S00-S59 | AF506 | | 35 | 8 | | | | | U REL TST | GRD | 25 | | 0 | | 30.5 | 29 | |
| S60-S119 | AF506 | | 35 | 8 | | | | | U REL TST | GRD | 25 | | 0 | | 30.5 | 29 | |

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S120. S179 | AF506 | | 35 | 8 | | | | | U REL TST | GRD | 25 | | 0 | | 30.5 | 29 | |
| SA | AF42 | | 105 | 224 | | | | | U(SA) | GRD | | | 0 | | 100 | 95 | |
| SA0-SA9 | AF519 | | 55 | 27 | | | | | U REL TST | GRD | | | 0 | | 72.5 | 69 | |
| SAC | AF521 | | 55 | 21 | | | | | U(SAC) | GRD | | | 0 | | 90 | 85 | |
| SACI | AF519 | | 23 | 27 | | | | | U(SACI) | GRD | | | 0 | | 72.5 | 69 | |
| SAE | AJ22 | | 23 | 234 | | | | | U(SAE) | GRD | | | 0 | | 40 | 38 | |
| SAK | AF40 | RO | 22 | 222 | | | | | U(SAK) | GRD | | | 0 | | 73 | 69.5 | |
| SAR | 1/2AK7 | | 146 | 203 | | | | 2U(SAR) | 1U(SAR) | B/G | | | 0 | | 28 | 25.5 | MOUNTED WITH (MT3) |
| SCO-3 | AJ513 | | 162 | 414 | | | | | U(REL TST) | GRD | 47 | | 0 | | 105 | 100 | |
| SCAK | AF122 | | 121 | 49 | | | | L(SCAK) | U(SCAK) | NGB | | | 0 | | 100 | 95 | |
| SCAL | AF89 | | 120 | 418 | | | (4WF)0 | | U(SCAL) | GRD | | | 0 | | 47.5 | 45 | |
| SCBI | AF504 | | 8 | 9 | | | | | | | | | 0 | | 80 | 72 | WINDING ALONE |
| | | | | | | | | | U(SCBI) | GRD | | | 0 | | 170 | 160 | (SCBI)&(SCB2) IN PAR. |
| SCB2 | AJ503 | | 8 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(SCB2) | GRD | | | 0 | | 210 | 200 | (SCBI)&(SCB2) IN PAR. |
| SCB3 | AJ503 | | 152 | 249 | | | | | U(SCB3) | GRD | | | 0 | | 95 | 90 | |
| SCBAO,1 | AF61 | | 27 | 23 | | | | | U(REL TST) | GRD | | | 0 | | 5.8 | 5.5 | |
| SCBA2,3 | AF61 | | 28 | 23 | | | | | U(REL TST) | GRD | | | 0 | | 5.8 | 5.5 | |
| SCBBO,1 | AF61 | | 27 | 23 | | | | | U(REL TST) | GRD | | | 0 | | 5.8 | 5.5 | |
| SCBB2,3 | AF61 | | 28 | 23 | | | | | U(REL TST) | GRD | | | 0 | | 5.8 | 5.5 | |

DRAWING ISSUE
370 ROT
390
430
450

* FOR TEST NOTES SEE SHEET F22

ISSUE 51D

COMPLETING MARKER CIRCUIT

SD-26002-01-F15B (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-F15B

## CIRCUIT REQUIREMENTS

| APPARATUS | | | | MECH REQT | | | CIRCUIT PREPARATION | | | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | CODE | OPT | FIG. | BSP FIG. | CONT PRES | ARM. TRVL. | BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | | | TEST WDG | TEST FOR | AFTER SOAK mA | TEST mA | READJ mA | |
| SCC | AF522 | | 40,74 | 18 | | | | | U(SCC) | GRD | | | 0 | | 23.5 | 22 | |
| SCCK | AF515 | ZWZ | 32 | 31 | | | | | U(SCCK) | GRD | | | 0 | | 95 | 90 | |
| SCCK | AJ512 | ZVA | 32 | 64 | | | | | U(SCCK) | GRD | | | 0 | | 90 | 85 | |
| SCK | AF519 | | 42 | 27 | | | | | U(SCK) | GRD | | | 0 | | 72.5 | 69 | |
| SCL | AF523 | | 56 | 19 | | | | | U(SCL) | GRD | | | 0 | | 29.5 | 28 | |
| SCL0, SCL2-3, SCL5 | AF523 | L | 25 | 19 | | | | | U REL TST | GRD | | | 0 | | 29.5 | 28 | |
| SCN | AF519 | | 42 | 27 | | | | | U(SCN) | GRD | | | 0 | | 72.5 | 69 | |
| SCR | AF4 | | 23 | 18 | | | | L(SCR) | U(SCR) | B/G | | | 0 | | 36.5 | 34.5 | |
| | | | | | | | | | | | | | R | | 7.1 | 7.5 | |
| SCT | AF519 | | 13 | 27 | | | | | U(SCT) | GRD | | | 0 | | 72.5 | 69 | |
| SDT | AF9 | | 14 | 213 | | | | L(SDT) | | BAT | | | 0 | | 8.7 | 8.2 | CONN DIR GRD TO U(SDT); SEE TIMING REQT |
| SF | AF523 | | 14 | 19 | | | | L(SF) | | BAT | | | 0 | | 29.5 | 28 | |
| SFNK | AF42 | | 153 | 224 | | | | | U(SFNK) | GRD | | | 0 | | 100 | 95 | |
| SFR | AJ501 | | 45 | 249 | | | | | U(SFR) | GRD | | | 0 | | 42.5 | 40.5 | |
| SFT | AF134 | | 14 | 230 | | | | | U(SFT) | GRD | | | 0 | | 10.8 | 9.8 | |
| | | | | | | | | | | | | | NO | | 4.6 | 4.9 | |
| SG | AF16 | | 117 | 204 | | | | | U(SG) | GRD | | | 0 | | 30.5 | 29 | |
| SGA | AJ503 | | 119 | 249 | | | | | U(SGA) | GRD | | | 0 | | 95 | 90 | |
| SHK | 280CU | IX | 26 | B | | | | 4(SLK1) | GRD | NGB | 1 | | 0 | -90 | | 7.5 | |
| | | | | | | | | | | | | | NO | -90 | | 5.5 | |
| | | | | | | | | | | | | | 0 | -90 | 61 | 58 | |
| | | | | | | | | | | | | | R | 90 | 17 | 18 | |
| SHK | 316A | IY | 26 | | | | | | | | | | 0 | FS | 1.0 | | |
| | | | | | | | | | | | | | R | | 0.26 | | |
| SHKA | AF519 | | 26 | 27 | | | | | U(SHKA) | GRD | | | 0 | | 72.5 | 69 | |
| SIA | AF527 | | 27 | 18 | | | | | U(SIA) | GRD | | | 0 | | 36.5 | 34.5 | |
| SIB | AF527 | | 27 | 18 | | | | | U(SIB) | GRD | | | 0 | | 36.5 | 34.5 | |
| SK | AF519 | | 26 | 27 | | | | | U(SK) | GRD | | | 0 | | 72.5 | 69 | |
| SKA | AJ512 | | 27 | 64 | | | | | U(SKA) | GRD | | | 0 | | 90 | 85 | |
| SKB | AJ512 | | 27 | 64 | | | | | U(SKB) | GRD | | | 0 | | 90 | 85 | |
| SL | 280CB | | 10 | B | | | | -48 | -(TX1) | NGB | | | 0 | -45 | | 1.8 | |
| | | | | | | | | | | | | | NO | -45 | | 1.3 | |
| | | | | | | | | | | | | | 0 | -45 | 20 | 19 | |
| | | | | | | | | | | | | | NO | 45 | 8 | 8.5 | |
| SLO-SL9 | 280CU | IX | 55 | B | | | O(MT10) & O(MT19) RELAYS | 1-10(MT19) FOR (SLO-SL9) RESP | 1-10(MT10) FOR (SLO-SL9) RESP | B/G | 1 | | 0 | -90 | | 7.5 | |
| | | | | | | | | | | | | | NO | -90 | | 5.5 | |
| | | | | | | | | | | | | | 0 | 70 | 61 | 58 | |
| | | | | | | | | | | | | | R | 90 | 17 | 18 | |

## CIRCUIT REQUIREMENTS

| APPARATUS | | | | MECH REQT | | | CIRCUIT PREPARATION | | | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIG | CODE | OPT | FIG. | BSP FIG. | CONT PRES | ARM TRVL | BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | | | TEST WDG | TEST FOR | AFTER SOAK mA | TEST mA | READJ mA | |
| SLO-SL9 | 3164 | IY | 55 | | | | | | | | | | 0 | FS | 1.0 | | |
| | | | | | | | | | | | | | R | | 0.26 | | |
| SLA | AJ503 | | 10 | 249 | | | | | U(SLA) | GRD | | | 0 | | 95 | 90 | |
| SLCK | AF35 | | 23 | 238 | | | | L(SLCK) | U(SLCK) | B/G | | | 0 | | 70 | 66 | |
| SLCK1 | AF32 | | 25 | 208 | | | | | U(SLCK1) | GRD | | | 0 | | 32.5 | 30.5 | |
| SLK | 316F | IY | 26 | | | | | | | | | P | 0 | 30 | 9.6 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 9.8 | | |
| SLK | 280HC | | 26 | B | | | | (OGC)0 | -5(SLK) | 7(XSS) | NGB | P | 0 | -47 | | 1.1 | |
| | | | | | | | | | | | | P | NO | -47 | | 0.8 | |
| | | | | | | | | | | | | P | 0 | -47 | 6.3 | 6 | |
| | | | | | | | | | | | | P | R | 47 | 1.9 | 2 | |
| | | | | | | | | | | -48 | NGB | S | 0 | | 6.3 | | |
| SLK1 | AF523 | | 26 | 19 | | | | | U(SLK1) | GRD | | | 0 | | 29.5 | 28 | |
| SLK2 | AF521 | | 26 | 21 | | | | | U(SLK2) | GRD | | | 0 | | 90 | 85 | |
| SLN | AJ503 | | 121 | 249 | | | | | U(SLN) | GRD | | | 0 | | 95 | 90 | |
| SLPR | AJ5C7 | | 120 | 25 | | | | | U(SLPR) | GRD | | | 0 | | 37 | 35 | |
| SLRK | AF523 | | 10 | 19 | | | | | U(SLRK) | GRD | | | 0 | | 29.5 | 28 | |
| SMB | 1/2AK6 | | 56 | 2 | | | | | IL(SMB) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (VLO) |
| SMC | AJ503 | | 146 | 249 | | | | | U(SMC) | GRD | | | 0 | | 95 | 90 | |
| SMK | 316F | | 146 | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| SMP | AF32 | | 145 | 208 | | | | | U(SMP) | GRD | | | 0 | | 32 | 30.5 | |
| SMR | AJ501 | | 146 | 249 | | | | | U(SMR) | GRD | | | 0 | | 42.5 | 40.5 | |
| SMT | 1/2A501 | | 146 | 2 | | | | | IU(SMT) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (IAO) |
| SNG1 | AF521 | | 43 | 21 | | | | | U(SNG1) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 200 | 190 | (SNG1)& (SNG2) IN PAR. |
| SNG2 | AF504 | | 22 | B | | | | | U(SNG2) | GRD | | | 0 | | 80 | 72 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 170 | 160 | (SNG1) &(SNG2) IN PAR. |
| SNK | AF507 | | 7 | 26 | | | | | U(SNK) | GRD | | | 0 | | 37 | 35 | |
| SOG1 | AJ700 | | 8 | 210 | | | | | U(SOG1) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 185 | 175 | (SOG1) & (SOG2) IN PAR. |

DRAWING ISSUE 450

45

* FOR TEST NOTES SEE SHEET 22.

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-F16A

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S — PRINTED IN U.S.A.

E-7423 (NJ-69) CBL

# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE X | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK ma | TEST ma | READJ ma | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOG2 | AJ503 | | 8 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(SOG2) | GRD | | | 0 | | 210 | 200 | (SOG1)&(SOG2) IN PAR. |
| SON | AF521 | | 26 | 21 | | | | | U(SON) | GRD | | | 0 | | 90 | 85 | |
| SP | AJ12 | | 8 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | (TRL1)O | | U(SP) | GRD | | | 0 | | 94 | 90 | (SP)&(SP1) IN PAR. |
| SP1 | AJ12 | TB | 8 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | (TRL1)O | | U(SP1) | GRD | | | 0 | | 94 | 90 | (SP)&(SP1) IN PAR. |
| SPC | AF114 | | 45 | 54 | | | | | U(SPC) | GRD | | | 0 | | 24.5 | 23 | |
| SPH | AF114 | RD | 45 | 54 | | | | | U(SPH) | GRD | | | 0 | | 24.5 | 23 | |
| SPH | AJ12 | RE | 45 | 220 | | | | | U(SPH) | GRD | | | 0 | | 42.5 | 40.5 | |
| SPL | AF55 | | 45 | 26 | | | | | | | | | 0 | | 37 | 35 | WINDING ALONE |
| | | | | | | | | | U(SPL) | GRD | | | 0 | | 85 | 80 | (SPL)&(SPL1) IN PAR. |
| | | | | | | | | | | | | | 0 | | 255 | 240 | (SPL),(SPL1)& (SPL2) IN PAR. |
| | | | | | | | | | | | | | 0 | | 110 | 105 | (SPL),(SPL1)& (SPL2)OR (SPL3) IN PAR. |
| | | | | | | | | | | | | | 0 | | 150 | 140 | (SPL),(SPL1),(SPL2) & (SPL3) IN PAR. |
| SPL1 | AJ501 | | 45 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(SPL1) | GRD | | | 0 | | 100 | 95 | (SPL) &(SPL1)IN PAR. |
| | | | | | | | | | | | | | 0 | | 130 | 125 | (SPL),(SPL1) & (SPL2)OR (SPL3) IN PAR. |
| | | | | | | | | | | | | | 0 | | 175 | 165 | (SPL),(SPL1), (SPL2)& (SPL3) IN PAR. |
| SPL2 | AJ501 | RE | 45 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(SPL2) | GRD | | | 0 | | 130 | 125 | (SPL),(SPL1) &(SPL2) IN PAR. |
| | | | | | | | | | | | | | 0 | | 175 | 165 | (SPL),(SPL1), (SPL2)& (SPL3) IN PAR. |
| SPL3 | AJ12 | ZTR | 160 | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(SPL3) | GRD | | | C | | 130 | 125 | (SPL),(SPL1)&(SPL3)IN PAR |
| | | | | | | | | | | | | | 0 | | 170 | 165 | (SFL),(SPL1),(SPL2) & (SPL3) IN PAR. |
| SPT | AF21 | | 23 | 228 | | | | | IU(SPT) | GRD | | P | 0 | | 20.5 | 19.5 | |
| | | | | | | | | | | | | P | NO | | 8.5 | 8.9 | |
| | | | | | | | | 2L(SPT) | | BAT. | | S | 0 | | 22 | | |
| SQO | AF52 | | 20 | 19 | | | O(MT8) | | U(SQO) | GRD | | | 0 | | 29.5 | 28 | |
| SQT | ~~AF30~~ | | 20 | ~~25~~ | | | O(MT8) | | U(SQ1) | GRD | | | 0 | | 30.5 | 29 | |
| SQA | AF87 | | 20 | 240 | | | O(MT8) | | U(SQA) | GRD | | | 0 | | 14.3 | 13.6 | |
| SR1-3 | AJ503 | | 119 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| SRK | AJ513 | | 21 | 208 | | | | | U(SRK) | GRD | | | 0 | | 32.5 | 30.5 | |
| SSA | AF507 | | 27 | 26 | | | | | U(SSA) | GRD | | | 0 | | 37 | 35 | |
| SSB | AF507 | | 27 | 26 | | | | | U(SSB) | GRD | | | 0 | | 37 | 35 | |



DRAWING ISSUE 45D

# CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE X | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK ma | TEST ma | READJ ma | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SSUO,1 2,4,7 | AJ503 | | 87 | 249 | | | | | U(REL TST) | GRD | 43 | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 210 | 200 | |
| ST | AJ11 | | 172 | 2 | | | | | U(ST) | GRD | | | 0 | | 16 | 15 | |
| ST7 | AF531 | EL | 46 | 203 | | | | | U(ST7) | GRD | | | 0 | | 38 | 36 | |
| | | | | | | | | | | | | | R | | 11.9 | 12.6 | |
| STA | 1/2AK501 | | 172 | 2 | | | | | IL(STA) | GRD | | | 0 | | 29.0 | 27.5 | |
| STF | AJ501 | | 19 | 249 | | | | | U(STF) | GRD | | | 0 | | 42.5 | 40.5 | |
| STK | AJ513 | | 120 | 414 | | | | | U(STK) | GRD | | | 0 | | 105 | 100 | |
| STKA | AJ501 | | 120 | 249 | | | | | U(STKA) | GRD | | | 0 | | 42.5 | 40.5 | |
| STL0-5 | AJ503 | | 120 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| STM | AF501 | | 120 | 34 | | | | | U(STM) | GRD | | | 0 | | 80 | 75 | |
| STOK | AG55 | | 120 | 768 | | | | | IU(STOK) | GRD | | P | 0 | | 16 | 15 | |
| | | | | | | | | | | | | P | R | | 1.6 | 1.9 | |
| | | | | | | | (LST)O | 2L(STOK) | 2U(STOK) | B/G | | S | 0 | | 48 | 45.5 | |
| STP | AF517 | | 20 | 223 | | | | | U(STP) | GRD | | | 0 | | 85 | 80 | |
| STP1 | AF515 | | 20 | 31 | | | | | U(STP1) | GRD | | | 0 | | 95 | 90 | |
| STP2 | AJ503 | | 20 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(STP2) | GRD | | | 0 | | 210 | 200 | (STP2)&(STP2A) IN PAR. |
| STP2A | AF514 | | 64 | 5 | | | | | | | | | 0 | | 57.5 | 54.5 | WINDING ALONE |
| | | | | | | | | | U(STP2A) | GRD | | | 0 | | 135 | 125 | (STP2A)&(STP2) IN PAR. |
| STP3 | AF52 | | 20 | 19 | | | | | U(STP3) | GRD | | | 0 | | 29.5 | 28 | |
| STPA | AF35 | ZSD | 113 | 248 | | | | | U(STPA) | GRD | | | 0 | | 70 | 66 | |
| STPA | AJ503 | ZSF | 113 | 249 | | | | | U(STPA) | GRD | | | 0 | | 95 | 90 | |
| STPR | AF507 | | 120 | 26 | | | | | U(STPR) | GRD | | | 0 | | 37 | 35 | |
| STSO-5 | AJ520 | | 125 | 336 | | | (STLO-5)NO | | U(REL TST) | GRD | | | 0 | | 80 | 75 | |
| STSK | AJ520 | | 125 | 336 | | | | | U(STSK) | GRD | | | 0 | | 80 | 75 | |
| STX | AJ502 | | 30 | 254 | | | | | | | | | 0 | | 40 | 38 | WINDING ALONE |
| | | | | | | | | | U(STX) | GRD | | | 0 | | 70 | 65 | (STX)&(STXA) IN PAR. |
| STXA | AJ501 | | 125 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | (TSTS)O | | U(STXA) | GRD | | | 0 | | 95 | 90 | (STX)&(STXA) IN PAR. |
| SWAT | AJ503 | | 163 | 249 | | | | | U(SWAT) | GRD | | | 0 | | 95 | 90 | |

X FOR TEST NOTES SEE SHEET F22.

ISSUE 49D

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-F16B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

E-7423(10-69)CBL

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | CODE | OPT. | FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T0,1, 2,4,7 | AF521 | | 54 | 21 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| TA | AJ503 | JC | 4 | 249 | | | | | U(TA) | GRD | | | 0 | | 95 | 90 | |
| TACO | AJ503 | | 130 | 249 | | | (AGC) NO | | U(TACO) | GRD | | | 0 | | 95 | 90 | |
| TAC 1-9 | AJ503 | | 134 | 249 | | | (AGC) NO | | U(TAC) | GRD | | | 0 | | 95 | 90 | |
| TAL | AF59 | | 13 | 3 | | | 10(TAL) | | U(TAL) | GRD | | | 0 | | 5.5 | 5.2 | |
| TAM1 | AF506 | WS | 82 | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | U(TAM1) | GRD | | | 0 | | 67.5 | 64 | (TAM1) &(TAM2) IN PAR. |
| TAM2 | AJ501 | WS | 82 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(TAM2) | GRD | | | 0 | | 95 | 90 | (TAM1) & (TAM2) IN PAR. |
| TAN | AJ503 | | 32 | 249 | | | | | U(TAN) | GRD | | | 0 | | 95 | 90 | |
| TBO - TB5 | AF513 | | 5 | 224 | | | | | U REL TST | GRD | | | 0 | | 100 | 95 | |
| TB6-9 | AJ503 | | 149 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| TB6-9 | AF513 | BM | 123 | 224 | | | | | U(REL TST) | GRD | | | 0 | | 100 | 95 | |
| TBA | 1/2AK50 | | 171 | 2 | | | | | 1U(TBA) | GRD | | | 0 | | 29.0 | 27.5 | |
| TBC | AF515 | | 4 | 31 | | | | | U(TBC) | GRD | | | 0 | | 95 | 90 | |
| TBH | AF55 | | 21 | 26 | | | | | U(TBH) | GRD | | | 0 | | 37 | 35 | |
| TBI | AF55 | | 22 | 26 | | | | | U(TBI) | GRD | | | 0 | | 37 | 35 | |
| TBI1 | AJ503 | | 123 | 249 | | | | | U(TBI1) | GRD | | | 0 | | 95 | 90 | |
| TB1A | AF24 | | 43 | 8 | | | | | U(TB1A) | GRD | | | 0 | | 30.5 | 29 | |
| TB1B | AJ501 | | 22 | 249 | | | | | U(TB1B) | GRD | | | 0 | | 42.5 | 40.5 | |
| TBK | AF519 | | 4 | 27 | | | | | U(TBK) | GRD | | | 0 | | 72.5 | 69 | |
| TBS 0-3 | AJ700 | | 86 | 500 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| TBT | 280A | | 4 | A | | | | -48 | 6(MT17) | NGB | | P | 0 | -65 | 3 | 1.5 | SEE TIMING REQT |
| | | | | | | | | -48 | 6(MT17) | NGB | | P | NO | -65 | OC | 1.1 | |
| | | | | | | | | 2(TBC) | -48 | NGB | | S | 0 | | 0.5 | | |
| TBTA | AF51 | UN | 4 | 3 | | | | | U(TBTA) | GRD | | | 0 | | 20.5 | 19.5 | |
| TBTA | AF52 | UO | 4 | 19 | | | | | U(TBTA) | GRD | | | 0 | | 29.5 | 28 | |
| TBTB | AJ501 | | 4 | 249 | | | | | U(TBTb) | GRD | | | 0 | | 42.5 | 40.5 | |
| TBW | AF500 | | 22 | 33 | | | | L(TBW) | U(TBW) | B/G | | | 0 | | 185 | 175 | |
| TBX | AJ507 | | 171 | 21 | | | | | U(TBX) | GRD | | | 0 | | 100 | 95 | |
| TC | AF523 | | 41 | 19 | | | | | U(TC) | GRD | | | 0 | | 29.5 | 28 | |
| TCA, TCB | AJ512 | | 53 | 64 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| TCAA, TCBA | AJ700 | DX | 96 | 500 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| TCC | 280AS | XB | 26 | B | | | | 10(TCCN) | 9(TOS) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | 10(TCCN) | 9(TOS) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 10(TCCN) | 9(TOS) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 10(TCCN) | 9(TOS) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 3(BG) | -48 | NGB | | S | 0 | | 11.5 | | |
| TCC | 316N | GB | 26 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| TCCA | AJ501 | ZYH | 18 | 249 | | | | | U(TCCA) | GRD | | | 0 | | 42.5 | 40.5 | |

BELL TELEPHONE LABORATORIES INCORPORATED

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SD-26002-01-F17

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## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | CODE | OPT. | FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCCK | AF515 | FA | 32 | 31 | | | | | U(TCCK) | GRD | | | 0 | | 95 | 90 | |
| | AJ512 | FD | 32 | 64 | | | | | U(TCCK) | GRD | | | 0 | | 90 | 85 | |
| TCCN | AF505 | | 41 | 36 | | | | | U(TCCN) | GRD | | | 0 | | 75 | 71 | |
| TCGA | AJ502 | NS | 109 | 234 | | | | | U(TCGA) | GRD | | | 0 | | 40 | 38 | |
| TCGA | AJ507 | QQ | 109 | 21 | | | | | U(TCGA) | GRD | | | 0 | | 100 | 95 | |
| TCGB | AJ502 | NS | 109 | 234 | | | | | U(TCGB) | GRD | | | 0 | | 40 | 38 | |
| TCGB | AJ507 | QQ | 109 | 21 | | | | | U(TCGB) | GRD | | | 0 | | 100 | 95 | |
| TCH | AF523 | | 22 | 19 | | | | | U(TCH) | GRD | | | 0 | | 29.5 | 28 | |
| TCH 0-9 | AF524 | | 12 | 210 | | | | | U REL TST | GRD | | | 0 | | 27 | 25.5 | |
| TCHK | AF519 | | 9 | 27 | | | | | U(TCHK) | GRD | | | 0 | | 72,5 | 69 | |
| TCK | 230AS | IX | 21 | B | | | | 2(TR2B) | 5(TER2) | B/G | | P | 0 | -55 | | 1.3 | |
| | | | | | | | (TER2)Q | 2(TR2B) | 5(TER2) | B/G | | P | NO | -55 | | 0.9 | |
| | | | | | | | | 2(TR2B) | 5(TER2) | B/G | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | 2(TR2B) | 5(TER2) | B/G | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | 14(TERI) | -48 | NGB | | S | 0 | | 11.5 | | |
| TCK | 316N | IY | 21 | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | S | 0 | | 30 | | |
| TCNC | AJ505 | | 41 | 36 | | | | | U(TCNC) | GRD | | | 0 | | 75 | 71 | |
| TCT | 316F | | 146 | | | | | | | | | P | 0 | 24 | 8.1 | | |
| | | | | | | | | | | | | P | R | | 4.3 | | |
| TD | AF522 | BD | 147 | 18 | | | 4(TD) | | U(TD) | GRD | | | 0 | | 24.5 | 22 | |
| TDK | AF531 | | 147 | 203 | | | | | U(TDK) | GRD | | | 0 | | 38 | 36 | |
| TE | AJ510 | JC | 6 | 39 | | | 1(TZ) | 1L(TE) | 1U(TE) | B/G | | P | 0 | | 250 | 240 | |
| | | | | | | | | 1L(TE) | 1U(TE) | B/G | | P | NO | | 205 | 215 | |
| | | | | | | | 6(TSO) | | 2U(TE) | GRD | | S | 0 | | 49.5 | | |
| TEA | AF507 | | 3 | 25 | | | | | U(TEA) | GRD | | | 0 | | 37 | 35 | |
| TERI | AJ700 | | 9 | 500 | | | | | U(TERI) | GRD | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | | | | 0 | | 200 | 190 | (TERI)&(TER2) IN PAR. |
| TER2 | AJ503 | | 9 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(TER2) | GRD | | | 0 | | 210 | 200 | (TERI)&(TER2) IN PAR. |
| TER3 | AJ503 | | 117 | 249 | | | | | U(TER3) | GRD | | | 0 | | 95 | 90 | |
| TER4 | AJ503 | RT | 8 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(TER4) | GRD | | | 0 | | 215 | 200 | (TER4)&(TER6) IN PAR. |
| TER5 | AJ503 | EQ | 7 | 249 | | | | | U(TER5) | GRD | | | 0 | | 95 | 90 | |
| TER6 | AJ5C1 | | 152 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(TER6) | GRD | | | 0 | | 95 | 90 | (TER6) & (TER4) IN PAR. |
| TF0,1 2,4,7 | AF523 | | 5 | 19 | | | | | U REL TST | GRD | | | 0 | | 29.5 | 28 | |
| TFK1 | AJ503 | | 4 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(TFK1) | GRD | | | 0 | | 210 | 200 | (TFK1)&(TFK2) IN PAR. |
| TFK2 | AJ503 | | 4 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(TFK2) | GRD | | | 0 | | 210 | 200 | (TFK1)&(TFK2) IN PAR. |
| TFK3 | AF521 | | 4 | 21 | | | (TEA)0 | | U(TFK3) | GRD | | | 0 | | 95 | 90 | |
| TG | AF511 | | 26 | 32 | | | | | U(TG) | GRD | | | 0 | | 24.5 | 23 | |
| TGO- TG9 | AF530 | | 5 | 217 | | | | | 1U REL | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | 2U TST | GRD | | S | 0 | | 48.5 | 46 | |
| TGA | AJ503 | | 119 | 249 | | | | | U(TGA) | GRD | | | 0 | | 95 | 90 | |
| TGBK | 316B | | 125 | | | | | | 10(TSTS) | GRD | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | R | | 0.65 | | |

DRAWING ISSUE

| | | |
|---|---|---|
| 32A | E.P. | ADL AMB |
| 33D | E.P. | GM AMB |
| 35D | LP | TM TYD |
| 37D | WM | |
| 39D | RP | |
| 43D | | |

ISSUE 53B CB

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F17

BELL TELEPHONE LABORATORIES INCORPORATED SHEET 65

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TGCK | 280CU | RK | 10 | | 8 | | | | | | | | | 0 | -90 | | 7.5 | |
| | | | | | | | | | 2(LXP1) | GRD | NGB | 1 | | NO | -90 | | 5.5 | |
| | | | | | | | | | | | | | | 0 | -90 | 61 | 58 | |
| | | | | | | | | | | | | | | R | 90 | 17 | 18 | |
| TGCK | 316A | RL | 10 | | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | | NO | | 0.6 | | |
| TGP | AJ506 | | 5 | | 267 | | | | | U(TGP) | GRD | | | 0 | | 80 | 75 | |
| TGS | AJ506 | | 5 | | 267 | | | | | U(TGS) | GRD | | | 0 | | 80 | 75 | |
| TGS1 | AJ702 | | 56 | | 500 | | | 2(RSC) | | U(TGS1) | GRD | | | 0 | | 42.5 | 40.5 | |
| TGS2 | AF506 | | 4074 | | 8 | | | | | U(TGS2) | GRD | | | 0 | | 30.5 | 29 | |
| TGS3 | AF506 | | 83 | | 8 | | | | | U(TGS3) | GRD | | | 0 | | 30.5 | 29 | |
| TGT | AF507 | | 26 | | 26 | | | | | U(TGT) | GRD | | | 0 | | 37 | 35 | |
| TGTS | 316A | | 146 | | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | | NO | | 0.6 | | |
| TH0, TH1, TH2, TH4, TH7 | AF521 | | 54 | | 21 | | | | U | REL TST | GRD | | | 0 | | 95 | 90 | |
| THC | AF514 | | 43 | | 5 | | | | | U(THC) | GRD | | | 0 | | 57.5 | 54.5 | |
| THK 0,1* | 1/2AK50I | EQ | 82 | | 2 | | | | | 1U(THK0) | GRD | | | 0 | | 29 | 27.5 | (THK0)MTD WITH (THK1) |
| | | | | | | | | | | 1L(THK1) | GRD | | | 0 | | 29 | 27.5 | |
| THK 2,3 | 1/2AK50I | ZTZ | 82 | | 2 | | | | | 1U(THK2) | GRD | | | 0 | | 29 | 27.5 | (THK2)MTD WITH (THK3) |
| | | | | | | | | | | 1L(THK3) | GRD | | | 0 | | 29 | 27.5 | |
| THT 0,1 | AF524 | ZZA | 43 | | 210 | | | | | U(THT0,1) | GRD | | | 0 | | 27 | 25.5 | |
| | AJ501 | ZZB | 43 | | 249 | | | | | U(THT0,1) | GRD | | | 0 | | 43 | 40.5 | |
| THT 0-3 | 1/2AK502 | ZZT | 43 | | 216 | | | | | 1U(THT0,2) | GRD | | | 0 | | 27.5 | 26 | (THT0)MTD WITH (THT1) |
| | | | | | | | | | | 1L(THT1,3) | GRD | | | 0 | | 27.5 | 26 | (THT2)MTD WITH (THT3) |
| TID | AJ12 | | 83 | | 220 | | | | | U(TID) | GRD | | | 0 | | 42.5 | 40.5 | |
| TIN | AF507 | X | 24 | | 26 | | | | | U(TIN) | GRD | | | 0 | | 37 | 35 | |
| TIR | AJ516 | | 138 | | 299 | | | | | U(TIP) | GRD | | | 0 | | 41 | 39 | |
| TK | AJ512 | | 9 | | 64 | | | | | U(TK) | GRD | | | 0 | | 90 | 85 | |
| TKT | 1/2AK22 | | 112 | | 216 | | | | | 2U(TKT) | GRD | | | 0 | | 28 | 26 | MOUNTED WITH (XI) |
| TLC1 | AJ700 | | 9 | | 500 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | U(TLC1) | GRD | | | 0 | | 210 | 200 | (TLC1)&(TLC2)IN PAR |
| TLC2 | AF521 | | 9 | | 21 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | U(TLC2) | GRD | | | 0 | | 210 | 200 | (TLC1)&(TLC2) IN PARALLEL |
| TLES | AJ501 | | 106 | | 249 | | | | | U(TLES) | GRD | | | 0 | | 95 | 90 | |
| TLK | AJ72 | | 127 | | 64 | | | | 1L(TLK) | | BAT. | | ° | 0 | | 34 | 32 | |
| | | | | | | | | | | 2U(TLK) | GRD | | S | 0 | | 35.5 | | |
| TLS | AJ12 | TU | 26 | | 220 | | | | | U(TLS) | GRD | | | 0 | | 42.5 | 40.5 | |
| TLT | [illegible] | | 127 | | 2 | | | (TR1)NO | 2U(TLT) | | BAT. | | | 0 | | 29.5 | 27.5 | MOUNTED WITH (PTM) |
| TM | AJ507 | | 13 | | 21 | | | | | U(TM) | GND | | | 0 | | 100 | 95 | |
| TMB | AJ504 | | 156 | | 57 | | | | | U(TMB) | GRD | | | 0 | | 11.8 | 11.2 | |
| TMK | 280AA | | 26 | | 8 | | | | -48 | 1(DCT3) | NGB | | | 0 | -40 | | 0.9 | |
| | | | | | | | | | -48 | 1(DCT3) | NGB | | | NO | -40 | | 0.6 | |
| | | | | | | | | | -48 | 1(DCT3) | NGB | | | 0 | -40 | 3.2 | 3 | |
| | | | | | | | | | -48 | 1(DCT3) | NGB | | | R | 40 | 0.1 | 0.2 | |
| TMR | 1/2AK50I | DX | 96 | | 2 | | | 4(CSK) | | 2U(TMR) | GRD | | | 0 | | 29 | 27.5 | MOUNTED WITH(NTMR) |

*FOR TEST NOTES SEE SHEET F22

BELL TELEPHONE LABORATORIES INCORPORATED

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## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TMS | AF513 | | 14 | | 208 | | | | | U(TMS) | GRD | | | 0 | | 32 | 30.5 | |
| TN | AF515 | | 43 | | 31 | | | | | U(TN) | GRD | | | 0 | | 95 | 90 | |
| TNA | AJ15 | | 60 | | 249 | | | | | U(TNA) | GRD | | | 0 | | 42.5 | 40.5 | |
| TNAN | AJ505 | DK | 117 | | 36 | | | | | U(TNAN) | GRD | | | 0 | | 75 | 71 | |
| TNK | AF52 | | 21 | | 19 | | | (XRC)NO | | | | | | 0 | | 29.5 | 28 | |
| TNR | AF114 | | 22 | | 54 | | | | | U(TNR) | GRD | | | 0 | | 24.5 | 23 | |
| TOA | AF100 | ZYI | 8 | | 252 | | | | | U(TOA) | GRD | | | 0 | | 41.5 | 39.5 | |
| | AJ501 | ZYJ | 8 | | 249 | | | | | U(TOA) | GRD | | | 0 | | 42.5 | 40.5 | |
| TOB | AF530 | | 40, 178 | | 217 | | | | | 1U(TOB) | GRD | | P | 0 | | 52 | 49.5 | |
| | | | | | | | | | | 2U(TOB) | GRD | | S | 0 | | 48.5 | | |
| TOBS | AF52 | | 40, 178 | | 19 | | | | | U(TOBS) | GRD | | | 0 | | 29.5 | 28 | |
| TOG1 | AJ702 | | 8 | | 500 | | | (TOG5)NO | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | (TOG5)NO | | U(TOG1) | GRD | | | 0 | | 100 | 95 | (TOG1) & (TOG2) IN PAR. |
| | | | | | | | | (TOG5)NO | | U(TOG1) | GRD | | | 0 | | 150 | 140 | (TOG1), (TOG2) & (TOG6) IN PAR. |
| TOG2 | AJ501 | | 8 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | (TOG5)NO | | U(TOG2) | GRD | | | 0 | | 100 | 95 | (TOG2) & (TOG1) IN PAR. |
| | | | | | | | | (TOG5)NO | | U(TOG2) | GRD | | | 0 | | 150 | 140 | (TOG1), (TOG2) & (TOG6) IN PAR. |
| TOG3 | AJ501 | WS | 82 | | 249 | | | | | U(TOG3) | GRD | | | 0 | | 42.5 | 40.5 | |
| TOG4 | AJ501 | | 81 | | 249 | | | | | U(TOG4) | GRD | | | 0 | | 95 | 90 | |
| TOG5 | AJ501 | ZYH | 18 | | 249 | | | | | U(TOG5) | GRD | | | 0 | | 42.5 | 40.5 | |
| TOG6 | AJ501 | | 152 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(TOG6) | GRD | | | 0 | | 150 | 140 | (TOG6), (TOG1) & (TOG2) IN PAR. |
| TOK | AJ520 | | 125 | | 336 | | | 7B(XST) | | U(TOK) | GRD | | | 0 | | 80 | 75 | |
| TOKA | AJ501 | | 125 | | 249 | | | (TOK)O | | U(TOKA) | GRD | | | 0 | | 42.5 | 40.5 | |
| TOKL | 316B | | 125 | | | | | (TSTS)NO | | 1(LST) | GRD | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | | R | | 0.65 | | |
| TOL | AJ503 | | 32 | | 249 | | | | | U(TOL) | GRD | | | 0 | | 95 | 90 | |
| TOS | AJ505 | | 41 | | 36 | | | | | U(TOS) | GRD | | | 0 | | 75 | 71 | |
| TP | AJ501 | | 32 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WIND ALONE |
| | | | | | | | | | | U(TP) | GRD | | | 0 | | 100 | 95 | (TP)&(TPA)IN PARALLEL |
| | | | | | | | | | | U(TP) | GRD | | | 0 | | 150 | 140 | (TP),(TPA)&(TPS) IN PARALLEL |
| TPA | AJ506 | | 33 | | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | U(TPA) | GRD | | | 0 | | 67 | 63.5 | (TP)&(TPA)IN PARALLEL |
| | | | | | | | | | | U(TPA) | GRD | | | 0 | | 105 | 100 | (TP),(TPA)&(TPB) IN PARALLEL |
| TPB | AF506 | | 34 | | 8 | | | | | | | | | 0 | | 30.5 | 29 | WINDING ALONE |
| | | | | | | | | | | U(TPB) | GRD | | | 0 | | 105 | 100 | (TP),(TPA)&(TPB) IN PARALLEL |
| TPK | AF522 | | 41 | | 18 | | | | | U(TPK) | GRD | | | 0 | | 23.5 | 22 | |
| TPMK | AF519 | | 121 | | 27 | | | | | U(TPMK) | GRD | | | 0 | | 72.5 | 69 | |
| TPS | AF114 | | 41 | | 54 | | | | | U(TPS) | GRD | | | 0 | | 24.5 | 23 | |
| TPT | 1/2AK50I | | 172 | | 2 | | | (PST)NO | | 1U(TPT) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (STA) |

* FOR TEST NOTES SEE SHEET F22.

DRAWING ISSUE

| | |
|---|---|
| 33D | 61 GOLANG |
| 34A | RPT TH1 BRA |
| 35D | RPT TH1 BRA |
| 37D | 4 |
| 38A | RP |
| 39D | RP |
| 45D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

DRG SIZE 6S

SD-26002-01-F18

PRINTED IN U.S.A.

SD-26002-01-F18

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPYK | 316N | GB | 26 | | | | | | | | | | P | 0 | 30 | 9.8 | | |
| | | | | | | | | | | | | | P | R | | 2.6 | | |
| | | | | | | | | | | | | | S | 0 | | 30 | | |
| TPYK | 280AS | XB | 26 | | B | | | | 5(TP) | 7(TER2) | NGB | | P | 0 | -55 | | 1.3 | |
| | | | | | | | | | 5(TP) | 7(TER2) | NGB | | P | NO | -55 | | 0.9 | |
| | | | | | | | | | 5(TP) | 7(TER2) | NGB | | P | 0 | -55 | 5 | 4.7 | |
| | | | | | | | | | 5(TP) | 7(TER2) | NGB | | P | R | 55 | 1 | 1.1 | |
| | | | | | | | | | 2(BG) | -48 | NGB | | S | 0 | | 11.5 | | |
| TR1 | AF55 | | 13 | | 26 | | | (TRST)NO, (TRR)0 | | U(TR1) | GRD | | | 0 | | 37 | 35 | |
| TR1A | AF24 | | 55 | | 8 | | | | | U(TR1A) | GRD | | | 0 | | 30.5 | 29 | |
| TR2 | AJ12 | | 8 | | 220 | | | | | U(TR2) | GRD | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(TR2) | GRD | | | 0 | | 95 | 90 | (TR2)&(TR2F)IN PAR. |
| TR2A | AF24 | | 55 | | 8 | | | | | U(TR2A) | GRD | | | 0 | | 30.5 | 29 | |
| TR2B | AJ12 | | 8 | | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(TR2B) | GRD | | | 0 | | 100 | 95 | (TR2B)&(TR2C)IN PAR. |
| | | | | | | | | | | U(TR2B) | GRD | | | 0 | | 150 | 140 | (TR2B,C&E) IN PAR. |
| TR2C | AJ12 | | 11 | | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(TR2C) | GRD | | | 0 | | 100 | 95 | (TR2B)&(TR2C) IN PAR. |
| | | | | | | | | | | U(TR2C) | GRD | | | 0 | | 150 | 140 | (TR2B,C&E) IN PAR. |
| TR2D | AJ501 | | 120 | | 249 | | | 12(TRA),10(TRA) | | U(TR2D) | GRD | | | 0 | | 42.5 | 40.5 | |
| TR2E | AJ12 | ZY | 10 | | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(TR2E) | GRD | | | 0 | | 150 | 140 | (TR2B).(TR2C)& (TR2E) IN PAR. |
| TR2F | AJ12 | | 152 | | 220 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(TR2F) | GRD | | | 0 | | 95 | 90 | (TR2F)&(TR2)IN PAR. |
| TRA | AF40 | | 13 | | 214 | | | 12(TRA), 10(TRA) | | U(TRA) | GRD | 14 | | 0 | | 8 | 7.2 | |
| TRB | AF507 | | 13 | | 26 | | | | | | | | | 0 | | 37 | 35 | WINDING ALONE |
| 1,2 | | | | | | | | | | U REL | GRD | | | 0 | | 85 | 80 | (TRB1) & (TRB2) IN PAR. |
| | | | | | | | | | | TST | GRD | | | 0 | | 130 | 125 | (TRB1), (TRB2) & (TRB3) IN PAR. |
| TRB3 | AJ15 | | 154 | | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | | U(TRB3) | GRD | | | 0 | | 150 | 140 | (TRB3), (TRB1), & (TRB2) IN PAR. |
| TRC | 276A | UZ | 17 | | 1 | | | | 7(TRC) | | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| | | | | | | | | | | | | | | NO | | 12.8 | | |
| | | | | | | | | | | | | | | R | | 1.3 | | |
| TRF | AJ503 | PW | 32 | | 249 | | | | | U(TRF) | GRD | | | 0 | | 95 | 90 | |
| TRF 1-4 | AJ503 | PT | 90 | | 249 | | | | | U REL | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | | TST | GRD | | | 0 | | 210 | 200 | (TRF1&2)OR(TRF3&4) IN PAR. |
| TRL | AJ501 | | 13 | | 249 | | | | | U(TRL) | GRD | | | 0 | | 42.5 | 40.5 | |
| TRL1 | AF88 | | 13 | | 42 | | | | | U(TRL1) | GRD | | | 0 | | 33.5 | 31.5 | |
| TRN | AJ700 | | 55 | | 500 | | | | | U(TRN) | GRD | | | 0 | | 90 | 85 | |
| TRR | AF55 | | 13 | | 26 | | | (TRST)NO | | U(TRR) | GRD | | | 0 | | 37 | 35 | |
| TRRA | AJ501 | | 120 | | 249 | | | (TRR)NO | | U(TRRA) | GRD | | | 0 | | 42.5 | 40.5 | |
| TRS | AJ501 | | 13 | | 249 | | | | | U(TRS) | GRD | | | 0 | | 42.5 | 40.5 | |
| TRSA | AF54 | | 13 | | 25 | | | | | U(TRSA) | GRD | | | 0 | | 30.5 | 29 | |
| TRST | AF55 | | 13 | | 26 | | | | | U(TRST) | GRD | | | 0 | | 37 | 35 | |
| TRT | AJ501 | | 14 | | 249 | | | | | U(TRT) | GRD | | | 0 | | 42.5 | 40.5 | |
| TRTR | AF9 | | 14 | | 213 | | | | L(TRTR) | | BAT. | 18 | | 0 | | 8.7 | 8.2 | SEE TIMING REQT TABLE |

* FOR TEST NOTES SEE SHEET F22



## CIRCUIT REQUIREMENTS

DRAWING ISSUE 33D 35D 39D 43D

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE * | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TS | AF514 | | 105 | | 5 | | | (AVK1)NO | | U(TS) | GRD | | | 0 | | 57.5 | 54.5 | |
| TS 0-9 | AF518 | | 6 | | 224 | | | 6 REL TST | | U REL TST | GRD | | | 0 | | 105 | 95 | |
| TSE1 | AJ503 | | 6 | | 249 | | | (MT1)0 | | U(TSE1) | GRD | | | 0 | | 95 | 90 | |
| TSE2 | AJ700 | | 6 | | 500 | | | | | U(TSE2) | GRD | | | 0 | | 90 | 85 | |
| TSK | AJ508 | | 152 | | 19 | | | | | U(TSK) | GRD | | | 0 | | 75 | 71 | |
| TST | AF52 | | 13 | | 19 | | | | | U(TST) | GRD | | | 0 | | 29.5 | 28 | |
| TSTS | AJ520 | | 125 | | 336 | | | (TOK)NO | | U(TSTS) | GRD | | | 0 | | 80 | 75 | |
| TSC 0-9 | AJ512 | | 53 | | 64 | | | | | U REL TST | GRD | | | 0 | | 90 | 85 | |
| TT | AJ512 | | 143 | | 64 | | | | | | | | | 0 | | 90 | 85 | WINDING ALONE |
| | | | | | | | | | | U(TT) | GRD | 27 | | 0 | | 200 | 190 | |
| TT 0-9 | 280FK | IX | 6 | | B | | | (MT6)0, (TSO-9)0 | | 2(TSO-9) | B/G | 16,17 | P | 0 | -60 | | 1.1 | |
| | | | | | | | | | | | B/G | 16,17 | P | NO | -60 | | 0.8 | |
| | | | | | | | | | | | B/G | 17 | P | 0 | -6 | 2.5 | 2.3 | |
| | | | | | | | | | | | B/G | 17 | P | NO | -6 | 1.4 | 1.5 | |
| | | | | | | | | | | | B/G | 17 | P | R | -6 | 0.7 | 0.8 | |
| | | | | | | | | 1,3,5,7,9, 13,15,17, 19,21 (TSE2) | | | | | | | | | | |
| | | | | | | | | 2,4,6,8,10, 14,16,18, 20,22(TSE2) | | 4(TSO-9) | B/G | 17 | S | 0 | | 2.5 | | |
| TT 0-9 | 316K | IY | 6 | | | | | | | | | | P | 0 | 7.5 | 2.5 | | |
| | | | | | | | | | | | | | P | NO | | 1.6 | | |
| | | | | | | | | | | | | | P | R | | 0.8 | | |
| | | | | | | | | | | | | | S | 0 | | 2.7 | | |
| TTA | AF506 | | 68 | | 8 | | | | L(TTA) | | BAT. | | | | | 30.5 | 29 | |
| TTF | AJ501 | ZE | 19 | | 249 | | | | | U(TTF) | GRD | | | 0 | | 43 | 40.5 | |
| TTK | AF522 | | 26 | | 18 | | | | | U(TTK) | GRD | | | 0 | | 23.5 | 22 | |
| TTL | AJ503 | | 86 | | 249 | | | | | U(TTL) | GRD | | | 0 | | 95 | 90 | |
| TVA | AF522 | | 40, 74 | | 18 | | | (MT17)0 | | U(TVA) | GRD | | | 0 | | 23.5 | 22 | |
| TW | AF512 | | 6 | | 207 | | | 6(TW), 10(TZ) | | U(TW) | GRD | | | 0 | | 26.5 | 25 | WINDING ALONE |
| | | | | | | | | | | | | | | 0 | | 53.5 | 48.5 | (TW)&(TZ) IN PAR. |
| TWT 0-2 | AF44 | SA | 27 | | 3 | | | | | U REL | GRD | | | 0 | | 50.5 | 18 | |
| | AF5 | SB | 27 | | 6 | | | | | TST | GRD | | | 0 | | 69.5 | 66 | |
| TWT 3,4 | AF5 | TD | 27 | | 6 | | | | | U REL TST | GRD | | | 0 | | 69.5 | 66 | |
| TX | AJ12 | | 29 | | 220 | | | | | | | | | | 15 | | | |
| TX1 | AJ12 | | 10 | | 220 | | | | | | | | | | 15 | | | |
| TXC 0-9 | AF5 | | 36 | | 6 | | | | | U REL TST | GRD | | | 0 | | 69.5 | 66 | |
| TXD | AF37 | | 36 | | 8 | | | | | U(TXD) | GRD | | | 0 | | 145 | 135 | |
| TYM | 280A, | MG | 23 | | A | | | | | 2(TYM) | NGB | | P | 0 | -65 | 3 | 1.5 | SEE TIMING REQT |
| | 280FY | MH | | | | | | | | 2(TYM) | NGB | | P | NO | -65 | OC | 1.1 | |
| | | | | | | | | 7(HTUK) | | -48 | NGB | | S | 0 | | 0.5 | | |
| TYM1 | 280A, | MG | 60 | | A | | | (NGK1)0, (UK)0 | | 1(NAR2) | NGB | | P | 0 | -65 | 3 | 1.5 | SEE TIMING REQT |
| | 280FY | MH | | | | | | | | 1(NAR2) | NGB | | P | NO | -65 | OC | 1.1 | |
| | | | | | | | | 7(NGK1) | | -48 | NGB | | S | 0 | | 0.5 | | |
| TYMA | AF55 | | 23 | | 26 | | | | | U(TYMA) | GRD | | | 0 | | 37 | 35 | |
| TZ | AJ500 | | 6 | | 226 | | | 10(TZ), 6(TW) | | U(TZ) | GRD | | | 0 | | 18 | 17 | WINDING ALONE |
| | | | | | | | | | | | | | | 0 | | 47.5 | 43 | (TW) & (TZ) IN PAR. |

CB

ISSUE 61B

* FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-F19A

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| U0,1,2, 4,7 | AF521 | | 55 | 21 | | | | | U(REL TST) | GRD | | | 0 | | 90 | 85 | |
| UA | AJ503 | RQ | 22 | 249 | | | 7(SAK) | | U(UA) | GRD | | | 0 | | 95 | 90 | |
| UC | AF507 | | 55 | 26 | | | | | U(UC) | GRD | | | 0 | | 37 | 35 | |
| UK | AF522 | | 22 | 18 | | | | | U(UK) | GRD | | | 0 | | 23.5 | 22 | |
| UKA | 316D | | 144 | 3 | | | | | | | | S | 0 | 4.5 | 1.5 | | |
| | | | | | | | | | | | | S | R | | 0.4 | | |
| | | | | | | | | | | | | P | 0 | 8 | 2.7 | | |
| | | | | | | | | | | | | P | R | | .7 | | |
| UT | AF50 | | 23 | 18 | | | | | U(UT) | GRD | | | 0 | | 23.5 | 22 | |
| VCI | AJ15 | YG | 8 | 249 | | | | | U(VCI) | GRD | | | 0 | | 42.5 | 40.5 | |
| VCIA | AF24 | YG | 55 | 8 | | | | | U(VCIA) | GRD | | | 0 | | 30.5 | 29 | |
| VF0-4 | AF522 | VP | 18 | 18 | | | | | U(REL TST) | GRD | | | 0 | | 23.5 | 22 | |
| VF0-4 | AF523 | VQ | 18 | 19 | | | | | U(REL TST) | GRD | | | 0 | | 29.5 | 28 | |
| VFL | AJ501 | | 22 | 249 | | | | | U(VFL) | GRD | | | 0 | | 42.5 | 40.5 | |
| VFN0-4 | 276A | | 16 | 1 | | | | | | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| | | | | | | | | 7(REL TST) | | BAT. | | | NO | | 12.8 | | |
| | | | | | | | | | | BAT. | | | R | | 1.3 | | |
| VFT0-4 | AF519 | LG | 18 | 27 | | | 12(REL TST) | | U(REL TST) | GRD | | | 0 | | 80 | 69 | |
| | AJ503 | LH | 18 | 249 | | | | | | GRD | | | 0 | | 100 | 90 | |
| VG | AF16 | | 117 | 204 | | | | | U(VG) | GRD | | | 0 | | 30.5 | 29 | |
| VG0,1, 2,4,7, | AF523 | | 18 | 19 | | | | | U(REL TST) | GRD | | | 0 | | 29.5 | 28 | |
| VGL | AJ501 | | 22 | 249 | | | | | U(VGL) | GRD | | | 0 | | 42.5 | 40.5 | |
| VGN0-11 | 276A | | 17 | 1 | | | | | | BAT. | | | 0 | 50 | 16 | | SEE BSP |
| | | | | | | | | 7(REL TST) | | BAT. | | | NO | | 12.8 | | |
| | | | | | | | | | | BAT. | | | R | | 1.3 | | |
| VGT0-7 | AF519 | | 18 | 27 | | | 10(REL TST) | | U(REL TST) | GRD | | | 0 | | 80 | 69 | |
| VGT8-11 | AF519 | Z | 18 | 27 | | | 10(REL TST) | | U(REL TST) | GRD | | | 0 | | 80 | 69 | |
| VLO | 1/2AK6 | | 156 | 2 | | | | | 1U(VLG) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (SMB) |
| VLB | 1/2AK6 | | 156 | 2 | | | | | 1L(VLB) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (VLR) |
| VLR | 1/2AK6 | | 156 | 2 | | | | | 1U(VLR) | GRD | | | 0 | | 29 | 27.5 | MTD WITH (VLB) |
| VP | AJ505 | | 41 | 36 | | | | L(VP) | U(VP) | B/G | | | 0 | | 75 | 71 | |
| VTC | AJ503 | | 69 | 249 | | | | | U(VTC) | GRD | | | 0 | | 95 | 90 | |
| VTK1 | AJ502 | | 18 | 234 | | | | | U(VTK1) | GRD | | | 0 | | 40 | 38 | |
| VWC | AJ503 | | 156 | 249 | | | | | U(VWC) | GRD | | | 0 | | 95 | 90 | |
| WAT | AJ503 | | 152 | 249 | | | | | U(WAT) | GRD | | | 0 | | 95 | 90 | |

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WB | AJ503 | | 133 | 249 | | | | | U(WB) | GRD | | | 0 | | 95 | 90 | |
| WB0-2 | AJ503 | | 152 | 249 | | | (WBC1)NO | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| WBA | AJ503 | | 152 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(WBA) | GRD | | | 0 | | 210 | 200 | (WBA) AND (WBA1) IN PAR. |
| WBA1 | AJ503 | | 152 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(WBA1) | GRD | | | 0 | | 210 | 200 | (WBA) AND (WBA1) IN PAR. |
| WBC1 | AJ501 | | 152 | 249 | | | | | U(WBC1) | GRD | | | 0 | | 42.5 | 40.5 | |
| WBC2 | AF504 | | 152 | 8 | | | | | | | | | 0 | | 80 | 72 | WINDING ALONE |
| | | | | | | | | | U(WBC2) | GRD | | | 0 | | 180 | 160 | (WBC2) AND (WBC3) IN PAR. |
| WBC3 | AJ503 | | 152 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(WBC3) | GRD | | | 0 | | 215 | 200 | (WBC3) AND (WBC2) IN PAR. |
| WBK | AJ503 | | 133 | 249 | | | | | U(WBK) | GRD | | | 0 | | 95 | 90 | |
| WBKA | 316M | | 133 | | | | | | | | | | 0 | | 10.4 | | |
| | | | | | | | | | | | | | R | | 7.2 | | |
| WBL | AJ501 | | 167 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(WBL) | GRD | | | 0 | | 95 | 90 | (WBL) & (WBLA) IN PAR. |
| WBLA | AJ501 | | 167 | 249 | | | | | | | | | 0 | | 42.5 | 40.5 | WINDING ALONE |
| | | | | | | | | | U(WBLA) | GRD | | | 0 | | 95 | 90 | (WBL) & (WBLA) IN PAR. |
| WBR | AJ503 | | 133 | 249 | | | | | U(WBR) | GRD | | | 0 | | 95 | 90 | |
| WBS | AJ503 | | 133 | 249 | | | | | U(WBS) | GRD | | | 0 | | 95 | 90 | |
| WBT0,2 | AJ503 | | 152 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| WCGK | 316A | | 167 | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | NO | | 0 7 | | |
| WCH0-9 | AJ503 | | 153 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| WCHA | AJ503 | | 153 | 249 | | | | | U(WCHA) | GRD | | | 0 | | 95 | 90 | |
| WCK | AJ503 | | 153 | 249 | | | | | U(WCK) | GRD | | | 0 | | 95 | 90 | |
| WCN | AJ503 | | 153 | 249 | | | | | U(WCN) | GRD | | | 0 | | 95 | 90 | |
| WCT0 9 | 316B | | 153 | | | | | | | | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | R | | 0.7 | | |
| | | | | | | | | | | | | | NO | | 1.5 | | |
| WCV | AJ503 | | 156 | 249 | | | | | U(WCV) | GRD | | | 0 | | 95 | 90 | |
| WDC1 | AJ503 | | 154 | 249 | | | 12(WDC1) | | U(WDC1) | GRD | | | 0 | | 100 | 90 | |
| WDCA | AJ515 | | 154 | 63 | | | | | U(WDCA) | GRD | | | 0 | | 37 | 35 | |
| WDCT | 280FW | | 154 | B | | | | 9(WHS1) | GRD | NGB | | P | 0 | -70 | | 1.7 | |
| | | | | | | | | | | NGA | | P | NG | -70 | | 1.2 | |
| | | | | | | | | | | NGB | | P | C | -70 | 6.8 | 6.4 | |
| | | | | | | | | | | NGB | | P | R | 70 | 1.6 | 1.7 | |
| | | | | | | | | | 1(WBC2) | NGB | | S | 0 | | 3.9 | | |
| WDP | AJ501 | ZRR | 155 | 249 | | | | | U(WDP) | GRD | | | 0 | | 42.5 | 40.5 | |
| WDTF | AJ503 | | 163 | 249 | | | | | U(WDTF) | GRD | | | 0 | | 95 | 90 | |
| WDTI | AJ503 | | 163 | 249 | | | | | U(WDTI) | GRD | | | 0 | | 95 | 90 | |
| WDZ | AF518 | | 39 | 224 | | | | L(WDZ) | | BAT. | | | 0 | | 100 | 95 | |
| WFC1,2 | 316C | | 153 | | | | | | | | | P | C | 18 | 5.9 | | |
| | | | | | | | | | | | | P | R | | 1.6 | | |
| | | | | | | | | | | | | S | 0 | 18 | 5.6 | | |
| | | | | | | | | | | | | S | R | | 1.5 | | |

DRAWING ISSUE: 390RP, 40A, 430

DRAWING ISSUE: 53B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F198

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-F198

C-7423 (4-66)

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WFCK | AJ513 | | 153 | 414 | | | | | U(WFCK) | GRD | | | 0 | | 105 | 100 | |
| WFCT | AJ503 | | 153 | 249 | | | | | U(WFCT) | GRD | | | 0 | | 95 | 90 | |
| WFMP | AF42 | | 153 | 224 | | | | | U(WFMP) | GRD | | | 0 | | 100 | 95 | |
| WHS1,2 | AJ5C3 | | 154 | 249 | | | | | | | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(REL TST) | GRD | | | 2 | | 205 | 200 | (WHS1) AND (WHS2) IN PAR. |
| WJGK | 316A | | 154 | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | NO | | 0.7 | | |
| WKC | AJ5C3 | | 69 | 249 | | | | | U(WKC) | GRD | | | 0 | | 95 | 90 | |
| WLO-9 | AJ503 | | 151 | 249 | | | | | U(REL TST) | GRD | | | 0 | | 95 | 90 | |
| WLA | AJ5C3 | | 151 | 249 | | | | | U(WLA) | GRD | | | 0 | | 95 | 90 | |
| WLB | AF515 | | 156 | 31 | | | | | U(WLB) | GRD | | | C | | 95 | 90 | |
| WLBT | 316F | | 136 | | | | | | | | | P | 0 | 24 | 8.1 | | |
| | | | | | | | | | | | | P | R | | 4.3 | | |
| WLC | AJ5C7 | | 152 | 21 | | | | | | | | | 0 | | 100 | 95 | WINDING ALONE |
| | | | | | | | | | U(WLC) | GRD | | | 0 | | 220 | 210 | (WLC) AND (WLC1) IN PAR. |
| WLC1 | AJ507 | | 152 | 21 | | | | | | | | | 0 | | 100 | 95 | WINDING ALONE |
| | | | | | | | | | U(WLC1) | GRD | | | 0 | | 220 | 210 | (WLC1) AND (WLC) IN PAR. |
| WLFK | AJ5G3 | | 152 | 249 | | | | | U(WLFK) | GRD | | | 0 | | 95 | 90 | |
| WLW | 316A | | 151 | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | NO | | 0.7 | | |
| WLXT | 316B | | 136 | | | | | | | | | | 0 | 7.5 | 2.4 | | |
| | | | | | | | | | | | | | R | | 0.6 | | |
| | | | | | | | | | | | | | NO | | 1.5 | | |
| WLKB | AF42 | | 151 | 224 | | | | | U(WLKB) | GRD | | | 0 | | 100 | 95 | |
| WLTO-9 | 316W | | 151 | | | | | | | | | | 0 | 14 | 4.6 | | |
| | | | | | | | | | | | | | R | | 2 | | |
| WMR | 316M | | 156 | | | | | | | | | | 0 | 3.3 | 1.1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| WMBA | AF515 | | 156 | 31 | | | | | U(WMBA) | GRD | | | 0 | | 95 | 90 | |
| WMM | AJ503 | | 156 | 249 | | | | | U(WMM) | GRD | | | 0 | | 95 | 90 | |
| WMXT | AF531 | | 155 | 203 | | | | | U(WMXT) | GRD | | | 0 | | 38 | 36 | |
| WONX | AJ501 | | 152 | 249 | | | | | U(WONX) | GRD | | | 0 | | 42.5 | 40.5 | |
| WPGO | 1/2AK501 | | 153 | 2 | | | 8(WPGO) | | IU(WPGO) | GRD | | | C | | 30.5 | 27.5 | MTD WITH (WPG1) |
| WPG1 | 1/2AK501 | | 153 | 2 | | | 5(WPG1) | | IL(WPG1) | GRD | | | 0 | | 30.5 | 27.5 | MTD WITH (WPGO) |
| WPG2 | 1/2AK501 | | 153 | 2 | | | | | IU(WPG2) | GRD | | | 0 | | 29 | 27.5 | MTD WITH SPARE |
| WPP | AJ501 | ZRR | 155 | 249 | | | | | U(WPP) | GRD | | | 0 | | 42.5 | 40.5 | |
| WRA | AJ503 | | 156 | 249 | | | | | U(WRA) | GRD | | | 0 | | 95 | 90 | |
| WRM | AJ503 | | 156 | 249 | | | | | U(WRM) | GRD | | | 0 | | 95 | 90 | |
| WRM1 | AJ503 | ZQV | 152 | 249 | | | | | U(WRM1) | GRD | | | 0 | | 95 | 90 | |
| WRV | AF32 | | 133 | 208 | | | | | U(WRV) | GRD | | | C | | 32 | 30.5 | |
| WSI | 316A | | 154 | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | NO | | 0.7 | | |
| WSLA | AJ503 | | 154 | 249 | | | | | U(WSLA) | GRD | | | 0 | | 95 | 90 | |
| WSRK | AJ501 | | 154 | 249 | | | | | U(WSRK) | GRD | | | 0 | | 42.5 | 40.5 | |

## CIRCUIT REQUIREMENTS

| APPARATUS DES.G | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WT | AF9 | | 14 | 213 | | | | L(WT) | | BAT | 19 | | 0 | | 8.7 | 8.2 | SEE TIMING REQT |
| WTC | AJ507 | | 152 | 21 | | | | | U(WTC) | GRD | | | 0 | | 100 | 95 | |
| WTFK | AJ503 | | 152 | 249 | | | | | U(WTFK) | GRD | | | 0 | | 95 | 90 | |
| WTGO-9 | AJ501 | | 167 | 249 | | | | | U REL TST | GRD | | | 0 | | 42.5 | 40.5 | |
| WTGK | 316A | | 154 | | | | | | | | | | 0 | 3 | 1 | | |
| | | | | | | | | | | | | | R | | 0.3 | | |
| | | | | | | | | | | | | | NO | | 0.7 | | |
| WTK | AJ501 | | 151 | 249 | | | | | U(WTK) | GRD | | | 0 | | 42.5 | 40.5 | |
| XOX | AJ512 | | 170 | 64 | | | | | U(XOX) | GRD | | | 0 | | 90 | 85 | |
| XIX | AJ512 | | 170 | 64 | | | | | U(X.X) | GRD | | | 0 | | 90 | 85 | |
| XII | AF504 | | 48 | 8 | | | | | U(XII) | GRD | | | 0 | | 80 | 72 | |
| XIIA | AJ503 | | 90 | 249 | | | | | U(XIIA) | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(XIIA) | GRD | | | 0 | | 210 | 200 | (XIIA) AND (XIIB) IN PAR. |
| XIIB | AJ503 | TP | 90 | 249 | | | | | U(XIIB) | GRD | | | 0 | | 95 | 90 | WINDING ALONE |
| | | | | | | | | | U(XIIB) | GRD | | | 0 | | 210 | 200 | (XIIB) AND (XIIA) IN PAR. |
| XACH | AF51 | | 29 | 3 | | | (COX)O | | U(XACH) | GRD | | | 0 | | 20.5 | 19.5 | |
| XACS | AF51 | UL, WX | 29 | 3 | | | (COX)O | | U(XACS) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAF | AF51 | | 29 | 3 | | | (COX)O | | U(XAF) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAFT | AF51 | | 30 | 3 | | | (COX)O | | U(XAFT) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAH | AF52 | | 60 | 19 | | | (COX)O | | U(XAH) | GRD | | | C | | 29.5 | 28 | |
| XAJC | AF51 | | 29 | | | | (COX)O | | U(XAJC) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAJG | AF51 | | 29 | 3 | | | (COX)O | | U(XAJG) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAJS | AF113 | | 29 | 54 | | | (COX)O | | U(XAJS) | GRD | | | 0 | | 21.5 | 23 | |
| XALC | AF51 | | 29 | 3 | | | (COX)O | | U(XALC) | GRD | | | 0 | | 20.5 | 17.2 | |
| XALLC | AF51 | | 167 | 3 | | | (COX)O | | U(XALLC) | GRD | | | 0 | | 20.5 | 19.5 | |
| XALR | AF51 | | 29 | 3 | | | (COX)O | | U(XALR) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAN | 280BE | IX | 60 | 8 | | | | -48 | S(ANON) | NGB | | P | 0 | -13 | | 0.3 | |
| | | | | | | | | -48 | S(ANGN) | NGB | | P | NO | -13 | | 0.2 | |
| | | | | | | | | -48 | S(ANON) | NGB | | P | 0 | -13 | 1.2 | 1.1 | |
| | | | | | | | | -48 | S(ANGN) | NGB | | P | R | 13 | 0.2 | 0.3 | |
| | | | | | | | | LI(ANGM) | -48 | NGB | | S | 0 | | 3.9 | | |
| XAN | 316L | IY | 60 | | | | | | | | | P | 0 | 7.5 | 2.5 | | |
| | | | | | | | | | | | | P | R | | 0.7 | | |
| | | | | | | | | | | | | S | 0 | | 9.5 | | |
| XARN | AF97 | | 59 | 46 | | | | | IU(XARN) | GRD | | P | 0 | | 225 | 215 | |
| | | | | | | | (COX)O | | IU(XARN) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | ZU(XARN) | GRD | | S | 0 | | 44 | | |
| XARS | AF51 | | 29 | 3 | | | (COX)O | | U(XARS) | GRD | | | 0 | | 20.5 | 19.5 | |
| XATS | AF51 | | 29 | 3 | | | (COX)O | | U(XATS) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAVGB | AF51 | | 29 | 3 | | | (COX)O | | U(XAVGB) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAWCH | AF51 | | 155 | 3 | | | (COX)O | | U(XAWCH) | GRD | | | 0 | | 20.5 | 19.5 | |
| XAWTS | AF51 | | 155 | 3 | | | (COX)O | | U(XAWTS) | GRD | | | 0 | | 20.5 | 19.5 | |

DRAWING ISSUE

~~33D~~ EP GBL AND

~~35D~~ BR TNJ AWJ

~~390~~ RP

41D

44A

51D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F19C

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-F19C

E-7425 (4-66)

## CIRCUIT REQUIREMENTS

DRAWING ISSUE

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XBRL | AF71 | | 95 | 4 | | | (COX)O | | 1U(XBRL) | GRD | | P | O | | 12.4 | 11.9 | |
| | | | | | | | | | 2U(XBRL) | GRD | | S | O | | 13.1 | | |
| XBRN | AF71 | | 59 | 46 | | | (COX)O | | 1U(XBRN) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XBRN) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 1U(XBRN) | GRD | | S | O | | 44 | | |
| XBT | AF71 | | 117 | 46 | | | (COX)O | | 1U(XBT) | GRD | | P | O | | 12.4 | 11.8 | |
| | | | | | | | | | 2U(XBT) | GRD | | S | O | | 13.1 | | |
| XCDA | AF97 | | 117 | 46 | | | (COX)O | | 1U(XCDA) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XCDA) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XCDA) | GRD | | S | O | | 44 | | |
| XCDB | AF97 | | 117 | 46 | | | (COX)O | | 1U(XCDB) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XCDB) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XCDB) | GRD | | S | O | | 44 | | |
| XCDS | AF97 | | 116 | 46 | | | (COX)O | | 1U(XCDS) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XCDS) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XCDS) | GRD | | S | O | | 44 | | |
| XCE | AF104 | | 95 | 46 | | | (COX)O | | 1U(XCE) | GRD | | P | O | | 215 | 205 | |
| | | | | | | | | | 1U(XCE) | GRD | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XCE) | GRD | | S | O | | 42 | | |
| XCH | S514 | | 29 | | | | (COX)O | | 1(STX) | GRD | | | O | | 2 | 1.9 | |
| | | | | | | | | | 1(STX) | GRD | | | NO | | 1.6 | 1.7 | |
| XCHS | AF96 | | 171 | 46 | | | (CKG5)NO | 1L(XCHS) | | BAT. | | P | O | | 100 | 95 | |
| | | | | | | | (CKG6)NO | 1L(XCHS) | | BAT. | | P | NO | | 80 | 85 | |
| | | | | | | | (TRR)NO | | 2U(XCHS) | GRD | | S | O | | 29.5 | | |
| XCKR | AF71 | | 30 | 4 | | | (COX)O | | 1U(XCKR) | GRD | | P | O | | 12.4 | 11.8 | |
| | | | | | | | | | 2U(XCKR) | GRD | | S | O | | 13.1 | | |
| XCL | AF97 | | 30 | 46 | | | (COX)O | | 1U(XCL) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XCL) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XCL) | GRD | | S | O | | 44 | | |
| XCLC | AJ510 | | 30 | 39 | | | (COX)O | | 1U(XCLC) | GRD | | P | O | | 250 | 240 | |
| | | | | | | | | | 1U(XCLC) | GRD | | P | NO | | 205 | 215 | |
| | | | | | | | | | 2U(XCLC) | GRD | | S | O | | 49.5 | | |
| XCP | AF97 | | 39 | 46 | | | (COX)O | | 1U(XCP) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XCP) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XCP) | GRD | | S | O | | 44 | | |
| XCR | AF97 | | 30 | 46 | | | (COX)O | | 1U(XCR) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XCR) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XCR) | GRD | | S | O | | 44 | | |
| XCS | 280AP | GC | 29 | B | | | | -48 | 12(CSUO) | NGB | | P | O | -FS | | 1.5 | |
| | | | | | | | | -48 | 12(CSUO) | NGB | | P | NO | -FS | | 1.1 | |
| | | | | | | | | -48 | 12(CSUO) | NGB | | P | O | -FS | 6.1 | 5.8 | |
| | | | | | | | | -48 | 12(CSUO) | NGB | | P | NO | FS | 3.2 | 3.4 | |

BELL TELEPHONE LABORATORIES INCORPORATED

PRINTED IN U.S.A.





## CIRCUIT REQUIREMENTS

DRAWING ISSUE 390 RA 430

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XCS | 316T | GD | 29 | | | | | | | | | P | O | 16 | 5.3 | | |
| | | | | | | | | | | | | P | NO | | 3.3 | | |
| | | | | | | | | | | | | P | R | | 1.4 | | |
| | | | | | | | | | | | | S | O | | 5.6 | | |
| XCS | 280BR | WX | 29 | B | | | | 9(BX) | -48 | NGB | | P | O | -FS | | 0.5 | |
| | | | | | | | (COX)O, (BX)NO | 9(BX) | -48 | NGB | | P | NO | -FS | | 0.3 | |
| | | | | | | | | 9(BX) | -48 | NGB | | P | O | -FS | 2.3 | 2.1 | |
| | | | | | | | | 9(BX) | -48 | NGB | | P | R | FS | 0.4 | 0.5 | |
| | | | | | | | | -48 | +1(XLS) | NGB | | S | O | | 3.4 | | |
| XCW | 316R | | 160 | | | | | | | | | P | O | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | O | | 5.4 | | |
| XDL | AF97 | | 30 | 46 | | | (COX)O | | 1U(XDL) | GRD | | P | O | | 225 | 215 | |
| | | | | | | | | | 1U(XDL) | GRD | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XDL) | GRD | | S | O | | 44 | | |
| XF | 280AF | IX | 29 | B | | | | 2(BX) | -48 | NGB | | S | O | -FS | | 1.1 | |
| | | | | | | | (COX)O, (BX)NO | 2(BX) | -48 | NGB | | S | NO | -FS | | 0.8 | |
| | | | | | | | | 2(BX) | -48 | NGB | | S | O | -FS | 3.8 | 3.6 | |
| | | | | | | | | 2(BX) | -48 | NGB | | S | R | FS | 0.6 | 0.7 | |
| | | | | | | | | -48 | 12(FTBO) | NGB | | P | O | | 8.9 | | |
| XF | 316R | IY | 29 | | | | | | | | | P | O | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | O | | 5.4 | | |
| XFC | S23 | | 64 | | | | (COX)O | | 2RT(XFC) | GRD | | | O | | 4.1 | 3.9 | |
| | | | | | | | | | 2RT(XFC) | GRD | | | NO | | 3.3 | 3.5 | |
| XFR | AF96 | | 151 | 46 | | | (COX)O | 1L(XFR) | 1U(XFR) | B/G | | P | O | | 100 | 95 | |
| | | | | | | | (COX)O | 1L(XFR) | 1U(XFR) | B/G | | P | NO | | 80 | 85 | |
| | | | | | | | (COX)O | | 2U(XFR) | GRD | | S | O | | 29.5 | | |
| XFT | S504 | | 30 | | | | (COX)O | | 2RT(XFT) | GRD | | | O | | 7.8 | 7.4 | |
| | | | | | | | | | 2RT(XFT) | GRD | | | NO | | 6.2 | 6.6 | |
| XFTG | 1/2 AK9 | | 125 | 5 | | | (XAFT)NO | | 1U(XFTG) | GRD | | | O | | 7.7 | 7.3 | MOUNTED WITH (XLSB) |
| XFTN | 280BE | IX | 29 | B | | | | -48 | 1(FTNO) | NGB | | P | O | -13 | | 0.3 | |
| | | | | | | | | -48 | 1(FTNO) | NGB | | P | NO | -13 | | 0.2 | |
| | | | | | | | | -48 | 1(FTNO) | NGB | | P | O | -13 | 1.2 | 1.1 | |
| | | | | | | | | -48 | 1(FTNO) | NGB | | P | R | 13 | 0.2 | 0.3 | |
| | | | | | | | | 3(CKG5) | -48 | NGB | | S | O | | 3.9 | | |
| XFTN | 316L | IY | 29 | | | | | | | | | P | O | 7.5 | 2.5 | | |
| | | | | | | | | | | | | P | R | | 0.7 | | |
| | | | | | | | | | | | | S | O | | 9.5 | | |
| XFUN | 280BE | IX | 29 | B | | | | -48 | 1(FUNO) | NGB | | P | O | -13 | | 0.3 | |
| | | | | | | | | -48 | 1(FUNO) | NGB | | P | NO | -13 | | 0.2 | |
| | | | | | | | | -48 | 1(FUNO) | NGB | | P | O | -13 | 1.2 | 1.1 | |
| | | | | | | | | -48 | 1(FUNO) | NGB | | P | R | 13 | 0.2 | 0.3 | |
| | | | | | | | | 2(CKG5) | -48 | NGB | | S | O | | 3.9 | | |
| XFUN | 316L | IY | 29 | | | | | | | | | P | O | 7.5 | 2.5 | | |
| | | | | | | | | | | | | P | R | | 0.7 | | |
| | | | | | | | | | | | | S | O | | 9.5 | | |
| XHG | AF104 | | 30 | 46 | | | (COX)O | | 1U(XHG) | GRD | | P | O | | 215 | 205 | |
| | | | | | | | | | 1U(XHG) | GRD | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XHG) | GRD | | S | O | | 42 | | |
| XI | 1/2AK22 | | 112 | 216 | | | | | 2L(XI) | GRD | | | O | | 28 | 26 | MOUNTED WITH (TKI) |
| XJC | 316U | IY | 129 | | | | | | | | | P | O | 150 | 52 | | |
| | | | | | | | | | | | | P | R | | 14 | | |
| | | | | | | | | | | | | S | O | | 3 | | |

ISSUE 55B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F19D

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET SIZE 6S

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | CODE | OPT. | FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XJC | 280BJ | IX | 29 | B | | | (COX)O, (BX)NO | -48 | 12(LK2) | NGB | | P | 0. | -315 | | 7.5 | |
| | | | | | | | | | | | | P | NO | -315 | | 5.5 | |
| | | | | | | | | | | | | P | 0 | -315 | 29 | 27.5 | |
| | | | | | | | | | | | | P | R | 315 | 6.2 | 6.6 | |
| | | | | | | | | 12(BX) | -48 | | | S | 0 | | 1.6 | | |
| XJG | 280AF | IX | 29 | B | | | (COX)O | GRD | 8(JG4) | NGB | | S | 0 | -FS | | 1.1 | |
| | | | | | | | | | | | | S | NO | -FS | | 0.8 | |
| | | | | | | | | | | | | S | 0 | -FS | 3.8 | 3.6 | |
| | | | | | | | | | | | | S | R | +FS | C.6 | 0.7 | |
| | | | | | | | | 8(JG4) | 8(TR2) | B/G | | P | 0 | | 8.9 | | |
| XJG | 316R | IY | 29 | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | 0 | | 5.4 | | |
| XJS | 280AF | IX | 29 | B | | | | | | | | S | 0 | -FS | | 1.1 | |
| | | | | | | | | 3(ONX) | 10(ONX) | B/G | | S | NO | -FS | | 0.8 | |
| | | | | | | | | | | | | S | 0 | -FS | 3.8 | 3.6 | |
| | | | | | | | | | | | | S | R | +FS | 0.6 | 0.7 | |
| | | | | | | | | | 12(CHO) | | | P | 0 | | 8.9 | | ZZK WIRING PROVIDED |
| | | | | | | | | 10(ONX) | 2(XJS) | | | P | 0 | | 8.9 | | ZZL WIRING PROVIDED |
| | | | | | | | | | 12(12LV) | | | P | 0 | | 8.9 | | ZZM WIRING PROVIDED |
| XJS | 316R | IY | 29 | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | 0 | | 5.4 | | |
| XJS1 | 316R | | 150 | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | 0 | | 5.4 | | |
| XLC | 280BJ | IX | 29 | B | | | | | | | | P | 0 | -315 | | 7.5 | |
| | | | | | | | | -48 | 10(BX) | NGB | | P | NO | -315 | | 5.5 | |
| | | | | | | | (COX)O, (BX)NO | | | | | P | 0 | -315 | 29 | 27.5 | |
| | | | | | | | | | | | | P | R | 315 | 6.2 | 6.6 | |
| | | | | | | | | 3(BX) | -48 | | | S | 0 | | 1.6 | | |
| XLC | 316U | IY | 29 | | | | | | | | | P | 0 | 150 | 52 | | |
| | | | | | | | | | | | | P | R | | 14 | | |
| | | | | | | | | | | | | S | 0 | | 3 | | |
| XLF | AF104 | | 91 | 46 | | | | | 1U(XLF) | | | P | 0 | | 215 | 205 | |
| | | | | | | | (COX)O | | 1U(XLF) | GRD | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XLF) | | | S | 0 | | 42 | | |
| XLG | AF102 | | 30 | 46 | | | | | 1U(XLG) | | | P | 0 | | 175 | 165 | |
| | | | | | | | (COX)O | | 1U(XLG) | GRD | | P | NO | | 135 | 145 | |
| | | | | | | | | | 2U(XLG) | | | S | 0 | | 49 | | |
| XLLC | 316T | | 167 | | | | | | | | | P | 0 | 16 | 5.3 | | |
| | | | | | | | | | | | | P | NO | | 3.3 | | |
| | | | | | | | | | | | | P | R | | 1.1 | | |
| | | | | | | | | | | | | S | 0 | | 5.6 | | |
| XLO | AF71 | | 30 | 4 | | | | | 1U(XLO) | GRD | | P | 0 | | 12.4 | 11.8 | |
| | | | | | | | (COX)O | | 2U(XLO) | | | S | 0 | | 13.1 | | |
| XLR | 280AF | IX | 29 | B | | | (COX)O, (Bx)NO | | 6(BX) | B/G | | S | 0 | -45 | | 1.1 | |
| | | | | | | | | | | | | S | NO | -45 | | 0.8 | |
| | | | | | | | | | | | | S | 0 | -45 | 3.8 | 3.6 | |
| | | | | | | | | | | | | S | R | 45 | 0.6 | 0.7 | |
| | | | | | | | | -48 | 10(LK2) | NGB | | P | 0 | | 8.9 | | |
| XLR | 316R | IY | 29 | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | 0 | | 5.4 | | |
| XLRL | AF71 | | 121 | 4 | | | (COX)O | | 1U(XLRL) | GRD | | P | 0 | | 12.4 | 11.8 | |
| | | | | | | | | | 2U(XLRL) | | | S | 0 | | 13.1 | | |

DRAWING ISSUE: 30D EN; 33D CMC; 39D RP

COMPLETING MARKER CIRCUIT

SD-26002-01-F20A

BELL TELEPHONE LABORATORIES INCORPORATED

PRINTED IN U.S.A.



## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | CODE | OPT. | FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XLS | AF96 | | 30 | 46 | | | (COX)O | 1L(XLS) | | BAT. | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | | | P | NO | | 80 | 85 | |
| | | | | | | | | | 2U(XLS) | GRD | | S | 0 | | 29.5 | | |
| XLSB | 1/2AK9 | | 125 | 5 | | | (XLS)NO | 2L(XLSB) | | BAT. | | | 0 | | 25.5 | 24 | MTD WITH (XFTG) |
| XLSS | AF104 | | 167 | 4 | | | (COX)O | | 1U(XLSS) | GRD | | P | 0 | | 215 | 205 | |
| | | | | | | | | | | | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XLSS) | | | S | 0 | | 42 | | |
| XLV | AF97 | | 30 | 46 | | | (COX)O | | 1U(XLV) | GRD | | P | 0 | | 225 | 215 | |
| | | | | | | | | | | | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XLV) | | | S | 0 | | 44 | | |
| XMB | AF71 | | 155 | 4 | | | (COX)O | | 1U(XMB) | GRD | | P | 0 | | 12.4 | 11.8 | |
| | | | | | | | | | 2U(XMB) | GRD | | S | 0 | | 13 | 12.4 | |
| XMRL | AF71 | | 30 | 4 | | | (COX)O | | 1U(XMRL) | GRD | | P | 0 | | 12.4 | 11.8 | |
| | | | | | | | | | 2U(XMRL) | | | S | 0 | | 13.1 | | |
| XN | AF51 | YF | 30 | 3 | | | (COX)O | | U(XN) | GRD | | | 0 | | 20.5 | 19.5 | |
| XN | AF96 | YG | 30 | 46 | | | (COX)O | | 1U(XN) | GRD | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | | | P | NO | | 80 | 85 | |
| | | | | | | | | | 2U(XN) | | | S | 0 | | 29.5 | | |
| XNS | AJ510 | | 54 | 39 | | | (COX)O | | 1U(XNS) | GRD | | P | 0 | | 250 | 240 | |
| | | | | | | | | | 1U(XNS) | | | P | NO | | 205 | 215 | |
| XNX | AJ512 | | 170 | 64 | | | | | U(XNX) | GRD | | O | | | 90 | 85 | |
| XOB | AF96 | | 90B | 46 | | | (COX)O | | 1U(XOB) | GRD | | P | 0 | | 100 | 95 | |
| | | | | | | | | | 1U(XOB) | | | P | NO | | 80 | 85 | |
| | | | | | | | | | 2U(XOB) | | | S | 0 | | 29.5 | | |
| XPLF | AF104 | | 121 | 46 | | | (COX)O | | 1U(XPLF) | GRD | | P | 0 | | 215 | 205 | |
| | | | | | | | | | 1U(XPLF) | | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XPLF) | | | S | 0 | | 42 | | |
| XPG | AF96 | | 30 | 46 | | | (COX)O | | 1U(XPG) | GRD | | P | 0 | | 100 | 95 | |
| | | | | | | | | | 1U(XPG) | | | P | NO | | 80 | 85 | |
| | | | | | | | | | 2U(XPG) | | | S | 0 | | 29.5 | | |
| XPRE | AF97 | | 116 | 46 | | | (COX)O | | 1U(XPRE) | GRD | | P | 0 | | 225 | 215 | |
| | | | | | | | | | 1U(XPRE) | | | P | NO | | 190 | 190 | |
| | | | | | | | | | 2U(XPRE) | | | S | 0 | | 44 | | |
| XPT | AJ510 | | 30 | 39 | | | (COX)O | | 1U(XPT) | GRD | | P | 0 | | 250 | 240 | |
| | | | | | | | | | 1U(XPT) | | | P | NO | | 205 | 215 | |
| | | | | | | | | | 2U(XPT) | | | S | 0 | | 48.5 | | |
| XRC | AJ73 | SC | 30 | 5 | | | (COX)O | | 1U(XRC) | GRD | | P | 0 | | 27.5 | 26 | |
| | | | | | | | | | 2U(XRC) | | | S | 0 | | 10 | | |
| XRD | AF97 | | 97 | 46 | | | (COX)O | | 1U(XRD) | GRD | | P | 0 | | 225 | 215 | |
| | | | | | | | | | 1U(XRD) | | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XRD) | | | S | 0 | | 44 | | |
| XRL | AF71 | | 30 | 4 | | | (COX)O | | 1U(XRL) | GRD | | P | 0 | | 12.4 | 11.8 | |
| | | | | | | | | | 2U(XRL) | | | S | 0 | | 13.1 | | |

DRAWING ISSUE: 30D EN; 33D CMC; 39D RP

DRAWING ISSUE 61B

COMPLETING MARKER CIRCUIT

SD-26002-01-F20A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XRS1 | S533 | | 29 | | | | (COX) 0 | 6(RS4) | | BAT. | | | 0 | | 85 | 80 | |
| | | | | | | | | | | | | | NO | | 63 | 72 | |
| XRS2 | S533 | | 29 | | | | (COX) 0 | 6(RS5) | | BAT. | | | 0 | | 85 | 80 | |
| | | | | | | | | | | | | | NO | | 63 | 72 | |
| XRS3 | AF96 | | 29 | 46 | | | (COX) 0 | | 1U REL TST | GRD | | P | 0 | | 100 | 95 | |
| XRS4 | | | | | | | | | | | | P | NO | | 80 | 85 | |
| | | | | | | | | | 2U | | | S | 0 | | 29.5 | | |
| XRSC | AF104 | | 151 | 4 | | | (COX) 0 | | 1U(XRSC) | GRD | | P | 0 | | 215 | 205 | |
| | | | | | | | | | 1U(XRSC) | GRD | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XRSC) | GRD | | S | 0 | | 42 | | |
| XSA | AF96 | | 30 | 46 | | | (COX) 0 | | 1U REL TST | GRD | | P | 0 | | 100 | 95 | |
| XSA | | E | 26 | | | | | | | | | P | NO | | 80 | 85 | |
| | | | | | | | | | 2U | | | S | 0 | | 29.5 | | |
| XSCA | AF104 | | 121 | 46 | | | (COX) 0 | 1L(XSCA) | 1U(XSCA) | NGB | | P | 0 | | 215 | 205 | |
| | | | | | | | | | | | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XSCA) | GRD | | S | 0 | | 42 | | |
| XSL | AF12 | | 30 | 20 | | | (COX) 0 | | 1U(XSL) | GRD | | P | 0 | | 19.5 | 18.5 | |
| | | | | | | | | | 2U(XSL) | | | S | 0 | | 11.7 | | |
| XSP | 316R | | 146 | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | P | R | | 3.3 | | |
| | | | | | | | | | | | | S | 0 | | 5.4 | | |
| XSS | AF95 | ZPW | 30 | 244 | | | 6 (XSS), (COX) 0 | 2(XSS) | U(XSS) | B/G | | | 0 | | 130 | 115 | |
| | | | | | | | | | | | | | NO | | 41 | 43 | |
| XSS | AF157 | ZPX | 30 | 39 | | | (COX) 0 | 1L(XSS) | 1U(XSS) | B/G | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | | | P | NO | | 80 | 85 | |
| | | | | | | | | | 2U(XSS) | GRD | | S | 0 | | 29.5 | | |
| XST | AF70 | | 125 | 202 | | | (COX) 0 | | 1U(XST) | GRD | | P | 0 | | 17.5 | 16.5 | |
| | | | | | | | | | 2U(XST) | GRD | | S | 0 | | 10.4 | | |
| XST1 | 316H | | 125 | | | | | | 9(TSTS) | GRD | | | 0 | | 10.4 | | |
| XST2 | 316H | | 125 | | | | | | 7(TSTS) | GRD | | | 0 | | 10.4 | | |
| XST3 | 316H | | 125 | | | | | | 5(TSTS) | GRD | | | 0 | | 10.4 | | |
| XST4 | 316H | | 125 | | | | | | 3(TSTS) | GRD | | | 0 | | 10.4 | | |
| XST5 | 316H | | 125 | | | | | | 1(TSTS) | GRD | | | 0 | | 10.4 | | |
| XSTC | AF97 | | 121 | 46 | | | (COX) 0 | | 1U(XSTC) | GRD | | P | 0 | | 225 | 215 | |
| | | | | | | | | | | | | P | NO | | 180 | 190 | |
| | | | | | | | | | 2U(XSTC) | | | S | 0 | | 44 | | |
| XSTG | 316H | | 125 | | | | | | 12(TSTS) | GRD | | | 0 | | 10.4 | | |
| XT | AJ510 | | 30 | 39 | | | (COX) 0 | | 1U(XT) | GRD | | P | 0 | | 250 | 240 | |
| | | | | | | | | | | | | P | NO | | 205 | 215 | WITH XO OPTION |
| | | | | | | | | | 2U(XT) | | | S | 0 | | 49.5 | | |
| XT1 | 230AP | TX | 29 | B | | | (COX) 0 | -43 | 12(TX) | NGB | | P | 0 | -65 | | 1.5 | |
| | | | | | | | | | | | | P | NO | -65 | | 1.1 | |
| | | | | | | | | | | | | P | 0 | -65 | 6.1 | 5.8 | |
| | | | | | | | | | | | | P | NO | 65 | 3.2 | 3.4 | |

DRAWING ISSUE

BELL TELEPHONE LABORATORIES INCORPORATED

22

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT. | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | TEST CLIP DATA CONN BAT. | TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XT1 | 316T | TY | 29 | | | | | | | | | P | 0 | 16 | 5.3 | | |
| | | | | | | | | | | | | P | NO | | 3.3 | | |
| | | | | | | | | | | | | P | R | | 1.4 | | |
| | | | | | | | | | | | | S | 0 | | 5.6 | | |
| XT2 | 230AP | TX | 29 | B | | | (COX) 0 | -43 | 10(TX) | NGB | | P | 0 | -65 | | 1.5 | |
| | | | | | | | | | | | | P | NO | -65 | | 1.1 | |
| | | | | | | | | | | | | P | 0 | -65 | 6.1 | 5.8 | |
| | | | | | | | | | | | | P | NO | 65 | 3.2 | 3.4 | |
| XT2 | 316T | TY | 29 | | | | | | | | | P | 0 | 16 | 5.3 | | |
| | | | | | | | | | | | | P | NO | | 3.3 | | |
| | | | | | | | | | | | | P | R | | 1.4 | | |
| | | | | | | | | | | | | S | 0 | | 5.6 | | |
| XT3 | 230AP | TX | 29 | B | | | (COX) 0 | -43 | 9(TX) | NGB | | P | 0 | -65 | | 1.5 | |
| | | | | | | | | | | | | P | NO | -65 | | 1.1 | |
| | | | | | | | | | | | | P | 0 | -65 | 6.1 | 5.8 | |
| | | | | | | | | | | | | P | NO | 65 | 3.2 | 3.4 | |
| XT3 | 316T | TY | 29 | | | | | | | | | P | 0 | 16 | 5.3 | | |
| | | | | | | | | | | | | P | NO | | 3.3 | | |
| | | | | | | | | | | | | P | R | | 1.4 | | |
| | | | | | | | | | | | | S | 0 | | 5.6 | | |
| XT5 | AF114 | | 29 | 54 | | | (COX) 0 | | U(XT5) | GRD | | | 0 | | 24.5 | 23 | |
| XTA | 220BJ | XP | 30 | B | | | (COX) 0, (TX) 0 | -48 | 6(RO) | NGB | | P | 0 | -315 | | 7.5 | |
| | | | | | | | | | | | | P | NO | -315 | | 5.2 | |
| | | | | | | | | | | | | P | 0 | -315 | 29 | 27.5 | |
| | | | | | | | | | | | | P | R | 315 | 6.2 | 6.6 | |
| | | | | | | | | 1(TX) | -43 | | | S | 0 | | 1.6 | | |
| XT3 | 316U | MK | 10 | | | | | | | | | P | 0 | 150 | 52 | | |
| | | | | | | | | | | | | P | R | | 14 | | |
| | | | | | | | | | | | | S | 0 | | 3.0 | | |
| XT61 | AF103 | | 30 | 46 | | | (COX) 0 | 1L(XT61) | | BAT. | | P | 0 | | 125 | 115 | |
| | | | | | | | | | | | | P | NO | | 95 | 100 | |
| | | | | | | | | | 2U(XT61) | GRD | | S | 0 | | 30 | | |
| XTC | AF104 | | 155 | 4 | | | (COX) 0 | | 1U(XTC) | GRD | | P | 0 | | 215 | 205 | |
| | | | | | | | | | 1U(XTC) | GRD | | P | NO | | 170 | 180 | |
| | | | | | | | | | 2U(XTC) | GRD | | S | 0 | | 42 | | |
| XTG1 | AF71 | | 30 | 4 | | | (COX) 0 | | 1U(XTG1) | GRD | | P | 0 | | 12.4 | 11.3 | |
| | | | | | | | | | 2U(XTG1) | | | S | 0 | | 13.1 | 12.4 | |
| XTRK | AF71 | | 30 | 4 | | | (COX) 0 | | 1U(XTRK) | GRD | | P | 0 | | 12.4 | 11.3 | |
| | | | | | | | | | 2U(XTRK) | | | S | 0 | | 13.1 | 12.4 | |
| XTRL | AF71 | | 30 | 4 | | | (COX) 0 | | 1U(XTRL) | GRD | | P | 0 | | 12.4 | 11.8 | |
| | | | | | | | | | 2U(XTRL) | | | S | 0 | | 13.1 | | |

DRAWING ISSUE

330 DR
350 KM
390 RA

ISSUE 51D

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F208

BELL TELEPHONE LABORATORIES INCORPORATED 65

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XTS | 280AF | IX | 29 | | B | | | | GRD | 11(ONX) | NGB | | S | 0 | -45 | | 1.1 | |
| | | | | | | | | | | | | | | NO | | | 0.8 | |
| | | | | | | | | | | | | | | 0 | | 3.8 | 3.6 | |
| | | | | | | | | | | | | | | R | 45 | 0.6 | 0.7 | |
| | | | | | | | | (TSE1)O | (TSE1)O | GRD | | | P | 0 | | 8.9 | | |
| XTS | 316R | IY | 29 | | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | | | R | | 3.3 | | |
| | | | | | | | | | | | | | S | 0 | | 5.4 | | |
| XTSI | AF71 | | 30 | | 4 | | | (COX)O | | 1U(XTSI) | GRD | | P | 0 | | 12.4 | 11.8 | |
| | | | | | | | | | | 2U(XTSI) | | | S | | | 13.1 | | |
| XTV | AF96 | | 40,74 | | 46 | | | (COX)O | | 1U(XTV) | GRD | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | 2U(XTV) | | | | NO | | 80 | 85 | |
| | | | | | | | | | | | | | S | 0 | | 29.5 | | |
| XVF | AF96 | | 155 | | 46 | | | (COX)O | | 1U(XVF) | GRD | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | 2U(XVF) | | | | NO | | 80 | 85 | |
| | | | | | | | | | | | | | S | 0 | | 29.5 | | |
| XVGB | S65 | WZ | 29 | | | | | (COX)O | | 17(LLC1) | GRD | | | 0 | | 73.5 | 70 | |
| | S68 | VA | | | | | | | | | | | | NO | | 59 | 62.5 | |
| | | | | | | | | | | | | | | 0 | | 155 | 150 | |
| | | | | | | | | | | | | | | NO | | 115 | 130 | |
| XWB | AJ503 | | 133 | | 249 | | | | | U(XWB) | GRD | | | 0 | | 95 | 90 | |
| XWBA | 316H | | 133 | | | | | | | | | | | 0 | | 10.4 | | |
| | | | | | | | | | | | | | | R | | 7.2 | | |
| XWCH | S514 | | 155 | | | | | (COX)O | | 2(STX) | GRD | | | 0 | | 2 | 1.9 | |
| | | | | | | | | | | | | | | NO | | 1.6 | 1.7 | |
| XWJS | AF96 | | 155 | | 46 | | | (COX)O | 1L(XWJS) | | BAT. | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | 2U(XWJS) | GRD | | | NO | | 80 | 85 | |
| | | | | | | | | | | | | | S | 0 | | 29.5 | | |
| XWLS | AF96 | | 155 | | 46 | | | (COX)O | 1L(XWLS) | | BAT. | | P | 0 | | 100 | 95 | |
| | | | | | | | | | | 2U(XWLS) | GRD | | | NO | | 80 | 85 | |
| | | | | | | | | | | | | | S | 0 | | 29.5 | | |
| XWSL | AF12 | | 155 | | 20 | | | (COX)O | | 1U(XWSL) | GRD | | P | 0 | | 19.5 | 18.5 | |
| | | | | | | | | | | 2U(XWSL) | | | S | | | 11.7 | | |

E-7423 (4-66)

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE | DIRECT CURRENT FLOW REQT TEST WDG | TEST FOR | AFTER SOAK MA | TEST MA | READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XWTS | 316R | | 155 | | | | | | | | | | P | 0 | 40 | 13.3 | | |
| | | | | | | | | | | | | | | R | | 3.3 | | |
| | | | | | | | | | | | | | S | 0 | | 5.4 | | |
| XWVG | AJ510 | | 155 | | 39 | | | (COX)O | 1U(XWVG) | | BAT. | | P | 0 | | 250 | 240 | |
| | | | | | | | | | | 2U(XWVG) | GRD | | | NO | | 205 | 215 | |
| | | | | | | | | | | | | | S | 0 | | 49.5 | | |
| XXN | AJ512 | ZQ0 | 170 | | 64 | | | | | U(XXN) | GRD | | | 0 | | 90 | 85 | |
| XXO | AJ503 | ZQ0 | 170 | | 249 | | | | | U(XXO) | GRD | | | 0 | | 95 | 90 | |

DRAWING ISSUE: 390 AAL

DRAWING ISSUE: 51D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-F20C

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

## CIRCUIT REQUIREMENTS

| APPARATUS DESIG | APPARATUS CODE | APPARATUS OPT | APPARATUS FIG. | MECH REQT BSP FIG. | MECH REQT CONT PRES | MECH REQT ARM. TRVL | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BAT. | CIRCUIT PREPARATION TEST CLIP DATA CONN GRD | TEST SET PREP | SEE TEST NOTE X | DIRECT CURRENT FLOW REQT TEST WDG | DIRECT CURRENT FLOW REQT TEST FOR | DIRECT CURRENT FLOW REQT AFTER SOAK MA | DIRECT CURRENT FLOW REQT TEST MA | DIRECT CURRENT FLOW REQT READJ MA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ELECTRON TUBE | | | | | | | | | | | | | | | | | |
| CON | 313CA | | 11 | | | | | | | | | | | | | | SEE BSP |
| CONA | 313CA | | 76 | | | | | | | | | | | | | | SEE BSP |
| HTT | 313CC | | 14 | | | | | | | | | | | | | | SEE BSP |
| LDT | 313CC | | 14 | | | | | | | | | | | | | | SEE BSP |
| OAT | 313CC | | 14 | | | | | | | | | | | | | | SEE BSP |
| PTO-9 | 313C | | 44 | | | | | | | | | | | | | | SEE BSP |
| PTL | 313C | | 44 | | | | | | | | | | | | | | SEE BSP |
| SDT | 313CC | | 14 | | | | | | | | | | | | | | SEE BSP |
| TRTR | 313CC | | 14 | | | | | | | | | | | | | | SEE BSP |
| WT | 313CC | | 14 | | | | | | | | | | | | | | SEE BSP |
| DIODES | | | | | | | | | | | | | | | | | |
| H80-9 | 426F | MX | 38 | | | | | 2 DIODF<br>1 TEST | | BAT. 33,35<br>BAT. 33,36 | | | | | | | FWD RES TEST<br>REV RES TEST |
| J0-9, L0-9, 10-9 | KS-15724, L3 | DE | 12 | | | | | | | 33,34 | | | | | | | |
| | 446F | DF | 17 | | | | | | | 33,38 | | | | | | | |
| JH,LH, SH,TH | KS-15701, L3 | | | | | | | | | 33,37 | | | | | | | |
| SRK1 | 426F | | 81 | | | | 5(OFH)<br>9(NRS),<br>4-7(BYK) | 2 DIODE<br>1 TEST | | BAT. 33,35<br>BAT. 33,36 | | | | | | | FWD RES TEST<br>REV RES TEST |
| SRK2 | 426F | | 81 | | | | | 2 DIODE<br>1 TEST | | BAT. 33,35<br>BAT. 33,36 | | | | | | | FWD RES TEST<br>REV RES TEST |

## TIMING REQUIREMENTS

| APPARATUS DESIG | APPARATUS FEATURE OR OPTION | APPARATUS FIG. | CIRCUIT PREPARATION BLOCK OR INSULATE | CIRCUIT PREPARATION TEST CLIP DATA CONN BK | CONN R | CONN W | TEST SET PREP SEND KEY | TEST SET PREP REC SW START | TEST SET PREP REC SW STOP | SEE NOTE | TIME REQT MSEC MIN | TIME REQT MSEC MAX | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHT | 45 | 12 | (CKG5)O<br>(TK)O (NT)O | GRD | 6(TR) | 4(CHT) | BK<br>BK | GRD<br>GRD | O C<br>O C | 1<br>1 | 7<br>34 | 10<br>41 | 300 OHM BIAS<br>4000 OHM BIAS |
| CLT | | 26 | (SG)O<br>(CLG)O<br>6(CLG) | GRD | 3(CLG) | 9(NOC) | BK<br>MK | -48<br>O C | O C<br>-48 | | 50<br>12 | 55<br>25 | OPERATE TIME<br>RELEASE TIME |
| GL | | 135 | (GLTA)O | GRD | U(MAK1) | 21(SOG1) | MK | GRD | O C | | 95 | 120 | INCLUDES OPERATE TIME OF (MAK1) AND (GLT) RELAYS |
| HMT | | 10 | (ARA)O<br>(CKG2)O<br>(CHA)O<br>(LLC3)O<br>(CHA1)O | GRD | 4(CHA) | 4(HMT) | BK | GRD | O C | | 26<br>42<br>43<br>63<br>59 | 32<br>49<br>50<br>75<br>69 | 775 OHM BIAS<br>1659 OHM BIAS<br>1700 OHM BIAS<br>4130 OHM BIAS<br>3300 OHM BIAS |
| HTT | | 14 | 5M(HTR) | GRD | U(HTR) | 6(HTT) | MK | GRD | O C | | 960 | 1600 | |
| LDT | | 14 | (TRT)NO | GRD | U(SFT) | 2(LDT) | MK | O C | GRD | | 4600 | 7500 | |
| MRL | | 14 | (TAL)NO | | | | | | | 2,3 | | | |
| OST | P<br>P<br>N<br>N | 26 | (OGC)O<br>(BG)O<br>(OST1)O<br>(MON)O<br>(TMS)R<br>1(OST:) | GRD | 4(OST1) | 2(OST1) | BK<br>MK<br>BK<br>MK | -48<br>O C<br>-48<br>O C | O C<br>-48<br>O C<br>-48 | | 9<br>15<br>29<br>16 | 10<br>21<br>35<br>23 | OPERATE TIME<br>RELEASE TIME<br>OPERATE TIME<br>RELEASE TIME |
| RNT | P<br>P<br>N<br>N | 25 | (AMA5)O<br>OR(PCL1)O<br>(RNT1)O<br>10(RNT2) | GRD | 6(RNT1) | 4(RNO)<br>OR<br>21(PCL1) | BK<br>MK<br>BK<br>MK | O C<br>-48<br>O C<br>-49 | -48<br>O C<br>-48<br>O C | | 9<br>15<br>29<br>16 | 10<br>21<br>35<br>23 | OPERATE TIME<br>RELEASE TIME<br>OPERATE TIME<br>RELEASE TIME |
| SDT | 45<br>ZXC | 14 | (TRT)<br>NO (HTT)O | GRD | U(SFT) | 2(SDT) | MK | O C | GRD | | 2600<br>1100<br>38 | 4250<br>1900<br>41 | ETS OPERATION |
| TBT | | 4 | (TBTB)O<br>(TBC)O (MT17)O<br>(SMK)NO (PSA)O | GRD | 2(TBC) | 4(TBTB) | BK | -48 | GRD | | 27.5<br>79.5<br>140 | 30.5<br>95.5<br>180 | NON ETS OPERATION |
| TRTR | | 14 | (TRA)NO | GRD | U(TRT) | 10(TRTR) | MK | -48 | GRD | | 2000 | 3250 | |
| TYM | | 23 | (NGC)O<br>(CKG6)O<br>(HTUK)O | GRD | 7(HTUK) | 12(RGTA) | BK | GRD | O C | | 67<br>19 | 93<br>23.6 | NON ETS OPERATION<br>ETS OPERATION |
| TYM1 | | 60 | (NAR2)O<br>(NGK1)O<br>(UK)O | GRD | 6(UK) | 4(TYM1) | BK | BAT | O C | | 65 | 90 | BLOCK OPERATED (LIN) OR (TIN) REL. IF A OPTION IS REQD |
| WT | | 14 | (TRT)NO | GRD | U(TMS) | 2(WT) | MK | O C | GRD | | 450 | 605 | |

TEST NOTES:

1. CONNECT DIRECT GRD TO 9(CHO).
2. TO MEASURE THE TIME OF THE (MRL) TIMER, OPERATE RELAY (OAT). RELAY (MRL) SHOULD OPERATE IN MIN 9.6 SECONDS AND MAX 15.4 SECONDS.
3. TIMES (OAT) TUBE.

DRAWING ISSUE: 37D WM, 41D

DRAWING ISSUE: 61B



* FOR TEST NOTES SEE SHEET F22

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F21

BELL TELEPHONE LABORATORIES INCORPORATED 6S

CIRCUIT REQUIREMENT TEST NOTES:

1. ADJUSTED WITH RELAY SHUNTED BY 500Ω±1% RESISTANCE.

2. CONNECT DIRECT GRD TO U(FA) RELAY AND REMOVE THE (FA) LAMP IN ASSOCIATED CIRCUIT

3. CIRCUIT COMBINATION OF (FA) RELAY AND (FA1) RESISTANCE IN MISCELLANEOUS FRAME CIRCUIT.

4. EARLY MAKE POSITION #12 SHOULD BE CLOSED BEFORE BREAK POSITION #7 OPENS.

5. CONNECT GRD TO MIDPOINT OF (LIT) RESISTOR.

6. CONNECT DIRECT GRD TO U(LDT) RELAY

7. OPERATE (LP) KEY ASSOCIATED WITH MARKER IN MASTER TEST CONTROL CIRCUIT.

8. CONNECT DIRECT BAT. TO 2L(LPA) RELAY.

9. CONNECT DIRECT BAT. TO 2L(LPB) RELAY.

10. "S" WINDING SHORT CIRCUITED. ARMATURE BACK TENSION MAXIMUM 80 GRAMS, READJUST 85 GRAMS TEST.

11. PROCEDURE FOR TESTING DRY REED RELAYS
PREPARATION:
(a) CONNECT DIRECT BAT. TO TERMINAL L2 OF TEST SET.
(b) CONNECT DIRECT GRD TO TERMINAL S OF TEST SET.
(c) PLACE L KEY IN NEUTRAL POSITION.
(d) ADJUST RED RHEOSTAT 4 AND THE THREE 4 SWITCHES FOR MINIMUM RESISTANCE.
(e) CONNECT TEST SET GRD TO RELAY UNDER TEST (15,25,35, 45,55).
(f) CONNECT SLEEVE OF TEST T & R JACK TO LOAD CONTACTS (13,23,33,43,53).
(g) CONNECT TIP OF 4W JACK TO TERMINALS OF RELAY UNDER TEST (14,24,34,44,54).
(h) CONNECT SLEEVE OF 4W JACK TO TERMINALS OF RELAY UNDER TEST (12,22,32,42,52).
(i) FOR USE OF KS-16751 INDICATOR SEE NOTE 301.

| STEP | ACTION | INDICATION | CHECKS |
|---|---|---|---|
| A | CLOSE OPERATE KEY | LAMP LIGHTED | CLOSURE OF LOAD CONTACT |
| B | CLOSE 4 KEY AND OPEN OPERATE KEY | LAMP REMAINS LIGHTED | CLOSURE OF LOCKING CONTACT |
| C | OPEN 4 KEY | LAMP EXTINGUISHED | OPEN OF LOAD CONTACT |
| D | CLOSE 4 KEY | LAMP REMAINS EXTINGUISHED | OPEN OF LOCKING CONTACT |
| E | OPEN 4 KEY | | |

12. MULTIPLY READJUST AND TEST VALUES BY THE NO. OF WIRE SPRING COMPLETING MARKER IN MARKER GROUP.

13. CONNECT DIRECT BAT. TO L OF (RELAY TEST).

14. EARLY MAKE POSITION #12 SHOULD CLOSE BEFORE MAKE POSITION #2 CLOSES.

15. NO ELECTRICAL ADJUSTMENTS REQUIRED; MECHANICAL ADJUSTMENTS REQUIRED.

16. CONNECT 500Ω±1% RESISTANCE ACROSS TEST LEADS.

CIRCUIT REQUIREMENT TEST NOTES: (CONT)

17. 1,3,5,7,9,13,15,17,19, & 21 CONTACT OF (TSE2) RELAY IS ASSOCIATED WITH PRIMARY WINDING OF (TTO-9) RELAY RESPECTIVELY. 2,4,6,8,10,14,16,18,20, & 22 CONTACT OF (TSE2) RELAY IS ASSOCIATED WITH SECONDARY WINDING OF (TTO-9) RELAY RESPECTIVELY. (TSO-9) RELAY IS ASSOCIATED WITH (TTO-9) RELAY RESPECTIVELY. USE ONLY ONE OF (TSE2) RELAY CONTACTS AND OPERATE ONLY ONE OF (TSO-4) RELAYS ASSOCIATED WITH RESPECTIVE (TTO-9) RELAYS.

18. CONNECT DIRECT GRD TO U(TRTR) RELAY.

19. CONNECT DIRECT GRD TO U(WT) RELAY.

20. PROCEDURE FOR TESTING DRY REED RELAYS
PREPARATION:
(a) CONNECT DIRECT BAT. TO TERMINAL L2 OF TEST SET.
(b) PLACE L KEY IN NEUTRAL POSITION.
(c) CONNECT TEST SET GRD TO TERMINAL (-5) OF RELAY UNDER TEST.
(d) CONNECT TIP OF 4W JACK TO TERMINAL 54 OF RELAY UNDER TEST.
(e) CONNECT SLEEVE OF TEST T & R JACK TO LOAD CONTACT (-2) OF RELAY UNDER TEST.
(f) FOR USE OF KS-16751 INDICATOR SEE NOTE 301.

| STEP | ACTION | INDICATION | CHECKS |
|---|---|---|---|
| A | CLOSE OPERATE KEY | LAMP LIGHTED | CLOSURE OF LOAD CONTACT |
| B | CLOSE 4 KEY AND OPEN OPERATE KEY | LAMP REMAINS LIGHTED | CLOSURE OF LOCKING CONTACT |
| C | OPEN 4 KEY | LAMP EXTINGUISHED | OPEN OF LOAD CONTACT |
| D | CLOSE 4 KEY | LAMP REMAINS EXTINGUISHED | OPEN OF LOCKING CONTACT |
| E | OPEN 4 KEY | | |

21. 2W,2WA,& 2WB IN PARALLEL.
22. 4W,4WA,4WB,& 4WC IN PARALLEL.
23. 2W, 2WA, 2WB, & 2WS IN PARALLEL.

24. 4W, 4WA, 4WB, 4WC & 4WS IN PARALLEL.

25. FOR PARALLEL REQUIREMENT MULTIPLY WINDING ALONE REQUIREMENT BY THE NUMBER OF RELAYS IN MULT.

26. 2PM IN POSITION 4 & 9 SHALL MAKE BEFORE ALL BM, EBM, OR EMB SPRINGS FUNCTION.

27. (TT) IN PARALLEL WITH TRANSLATOR RELAY.

28. CONN GRD TO (GSA-) CONTACT ASSOCIATED WITH RELAY UNDER TEST.

29. BLOCK NON-OPERATED (FTC-) RELAY ASSOCIATED WITH RELAY UNDER TEST.

30. (INL) IN PARALLEL WITH TRANSLATOR RELAY.

31. CONNECT DIRECT GRD TO U(HTT).

32. ON MASTER TEST FRAME INSERT PLUG IN (TBMC OR DBTC) (MB)JACKS OF CONN SERVED BY MARKER UNDER TEST. THE (MKR MB) PLUG SHOULD THEN BE REMOVED. THE TEST CAN ALSO BE MADE DURING LIGHT TRAFFIC PERIODS WITH THE (MB)PLUG REMOVED.

33. MAKE ALL VOLTAGE MEASUREMENTS WITH VOLTMETERS WITH SENSITIVITIES OF 20,000 OHMS PER VOLT DC OR HIGHER. THE KS-14510 VOLTMETER IS SATISFACTORY.

CIRCUIT REQUIREMENT TEST NOTES: (CONT)

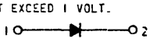
34. PROCEDURE FOR TESTING DIODES:
A. REVERSE RESISTANCE TEST:
BLOCK (STX)O.
BLOCK (TCH-)O ASSOCIATED WITH DIODES UNDER TEST.
CONNECT GROUND TO 2(TCH-) ASSOCIATED WITH DIODES UNDER TEST.
THE VOLTAGE MEASURED ACROSS THE 1910 OHM SECTION OF THE (JO-9),(LO-9), OR (TO-9) RESISTORS, ASSOCIATED WITH THE DIODE UNDER TEST SHALL BE:

| TEMPERATURE | MAX VOLTAGE |
|---|---|
| 70°F | 1.0 |
| 90°F | 1.5 |
| 110°F | 2.5 |

B. FORWARD RESISTANCE TEST
INSULATE 1(STX).
CONNECT GROUND TO 1(STX).
BLOCK (TCH-)O ASSOCIATED WITH DIODES UNDER TEST.
CONNECT -48 TO 2(TCH-) ASSOCIATED WITH DIODES UNDER TEST.
THE VOLTAGE MEASURED ACROSS THE DIODE UNDER TEST SHALL BE:

| TEMPERATURE | MAX VOLTAGE |
|---|---|
| 70°F TO 110°F | 1.0 |

35. FORWARD RESISTANCE TEST.
CONNECT GROUND TO TERMINAL (1) OF DIODE UNDER TEST, ADJUST CURRENT TO 100 MA. VOLTAGE MEASURED ACROSS TERMINALS (1) AND (2) OF 426F DIODE SHALL NOT EXCEED 1 VOLT.



426F DIODE TERMINALS

36. REVERSE RESISTANCE TEST.
CONNECT GROUND THROUGH 0.1 MEG RESISTOR TO TERMINAL (2) OF DIODE UNDER TEST. MOMENTARILY GROUND TERMINAL (1) OF DIODE UNDER TEST AND ADJUST CURRENT FLOW TEST SET TO 100 MA. REMOVE GROUND FROM TERMINAL (1) OF DIODE WITH TEST SET KEY OPERATED. THE VOLTAGE ACROSS THE 0.1 MEG SHOULD NOT EXCEED 10 VOLTS. THIS MEASUREMENT SHOULD BE MADE STARTING ON THE 50 OR 60 VOLT SCALE.

37. PROCEDURE FOR TESTING DIODES.
A. REVERSE RESISTANCE TEST:

| DIODE | CONNECT GROUND THROUGH 500 OHMS RES TO | CONNECT -48 TO |
|---|---|---|
| JH | 7(HMT1) | 5(JXP) |
| LH | 4(HMT1) | 4(DVA) |
| SH | 7(SHKA) | 5(SLK) |
| TH | 9(HMT1) | (TH) CAP. THAT CONNECTS TO THE (TXP) LAMP |

THE VOLTAGE MEASURED ACROSS THE 500 OHM RESISTOR SHALL BE:

| TEMPERATURE | MAX VOLTAGE |
|---|---|
| 70°F | 0.25 |
| 90°F | 0.37 |
| 110°F | 0.62 |

B. FORWARD RESISTANCE TEST:

| DIODE | CONNECT GROUND TO | CONNECT -48 THROUGH 500 OHMS RES TO |
|---|---|---|
| JH | 5(JXP) | 7(HMT1) |
| LH | 4(DVA) | 4(HMT1) |
| SH | 5(SLK) | 7(SHKA) |
| TH | - | 9(HMT1) |

THE VOLTAGE MEASURED ACROSS THE DIODE SHALL BE:

| TEMPERATURE | MAX VOLTAGE |
|---|---|
| 70°F TO 110°F | 1.0 |

CIRCUIT REQUIREMENT TEST NOTES: (CONT)

38. PROCEDURE FOR TESTING DIODES:
A. REVERSE RESISTANCE TEST
BLOCK (STX)O.
BLOCK (TCH-)O ASSOCIATED DIODES UNDER TEST.
CONNECT GROUND TO 2(TCH-) ASSOCIATED WITH DIODES UNDER TEST.
THE VOLTAGE MEASURED BETWEEN 1(STX) AND 2,3, OR 4(CH-) ASSOCIATED WITH DIODE UNDER TEST (2 (CH-) FOR (L-) DIODES, 3(CH-) FOR (J-)DIODES, AND 4(CH-) FOR (T-)DIODES) SHALL BE:

| TEMPERATURE | MAX VOLTAGE |
|---|---|
| 70°F TO 110°F | 1.0 |

B. FORWARD RESISTANCE TEST
INSULATE 1(STX).
CONNECT GROUND TO 1(STX).
BLOCK (TCH-)O ASSOCIATED WITH DIODES UNDER TEST.
CONNECT -48V TO 2(TCH-) ASSOCIATED WITH DIODES UNDER TEST.
THE VOLTAGE MEASURED BETWEEN 2(TCH-) ASSOCIATED WITH DIODES UNDER TEST AND 2,3, OR 4(CH-) ASSOCIATED WITH DIODE UNDER TEST (2(CH-) FOR(L-) DIODES, 3(CH-) FOR(J-DIODES, AND 4(CH-) FOR(T-) DIODES) SHALL BE:

| TEMPERATURE | MAX VOLTAGE |
|---|---|
| 70°F TO 110°F | 1.0 |

39. (CUAC,1,2,4,7) & (CUBO,1,2,4,7) OR (SSUO,1,2,4,7) IN PAR.

40. CONNECT DIRECT BATTERY TO L OR (REL TST).

41. ON MASTER TEST FRAME INSERT PLUG IN MB JACKS OF REGISTER CONNECTORS SERVED BY MARKER UNDER TEST. THE (MKR MB) PLUG SHOULD THEN BE REMOVED. THE TEST CAN ALSO BE MADE DURING LIGHT TRAFFIC PERIODS, WITH THE MAKE BUSY PLUG REMOVED.

42. INSULATE (MS) RELAY CONTACT IN THE FIRST PREFERRED MARKER CONNECTOR IN THE PREFERENCE CHAIN WHICH CONTROLS THE LEAD ASSOCIATED WITH THE RELAY BEING TESTED.

43. (CUAO,1,2,4,7) & (SSUO,1,2,4,7) IN PAR.

44. CONNECT DIRECT BATTERY TO 2L(LTA).

45. CONNECT DIRECT BATTERY TO 2L(LTB).

46. CONNECT DIRECT GRD TO U(MRL).

47. PM IN POSITION 9 SHALL MAKE BEFORE ALL BM EBM, EMB, OR PMFB SPRINGS FUNCTION.

48. (CPMA) AND (OSG-) RELAYS IN PARALLEL.

49. (CPMB) AND (OSG-) RELAYS IN PARALLEL.

| DRAWING ISSUE | |
|---|---|
| 32A | KEG CAL AND |
| 33D | KEG CAL AND |
| 35D | BX TNS AND |
| 37D | WM |
| 39D | RP |
| 430 | |

DRAWING ISSUE
47D

COMPLETING MARKER CIRCUIT (2) SD-26002-01-F22

BELL TELEPHONE LABORATORIES INCORPORATED 6S PRINTED IN U.S.A.

HIGGINS 4465

INDEX FOR APP FIG.

| APP FIG. | FRAME OR UNIT | CAD | SHEET |
|---|---|---|---|
| 1 | J28760 C,R | 112 | G119-124 |
| 2 | J28760 AA | 2 | G3 |
| 3 | J28760 AA | 3 | G3 |
| 4 | J28760 AB | 4 | G4 |
| 5 | J28760 AC | 5 | G4 |
| 6 | J28760 AD | 6 | G5 |
| 7 | J28760 AE | 7 | G6A,5 |
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| 13 | J28760 AK | 13 | G12,13 |
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| 15 | J28760 AM | 15 | G14 |
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| 18 | J28760 AP | 18 | G15A |
| 19 | J28760 AQ | 19 | G15B |
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| 21 | J28760 AS | 21 | G16 |
| 22 | J28760 AT | 22 | G18A,B,19 |
| 23 | J28760 AU | 23 | G19 |
| 24 | J28760 AV | 24 | G20 |
| 25 | J28760 AW | 25 | G20 |
| 26 | J28760 AX | 26 | G21 |
| 27 | J28760 AY | 27 | G18A,B,22 |
| 28 | J28760 AZ | 28 | G23 |
| 29 | J28760 BA | 29 | G22 |
| 30 | J28760 BB | 30 | G25A |
| 31 | J28760 BC | 31 | G25A |
| 32 | J28760 CA | 32 | G25A,B |
| 33 | J28760 DD | 33 | G25B,26 |
| 34 | J28760 CC | 34 | G26 |
| 35 | J28760 CD | 35 | G26 |
| 36 | J28760 CE | 36 | G27 |
| 37 | J28760 CF | 37 | G27 |
| 38 | J28760 CG | 38 | G27 |
| 39 | J28760 CH | 39 | G27 |
| 40 | J28760 CI | 40 | G29 |
| 41 | J28760 CJ | 41 | G27,30 |
| 42 | J28760 CK | 42 | G30 |
| 43 | J28760 CL | 43 | G31 |
| 44 | J28760 CD | 44 | G31 |
| 45 | J28760 BE | 45 | G32A,B |
| 46 | J28760 CM | 46 | G34 |
| 47 | J28760 CN | 47 | G34 |
| 48 | J28760 CO | 48 | G34 |
| 49 | J28760 B | 49 | G35 |
| 50 | J28760 CP | 50 | G36 |
| 51 | J28760 CQ | 51 | G36 |
| 52 | J28760 CR | 52 | G36 |
| 53 | J28760 CS | 53 | G36 |
| 54 | J28760 CT | 54 | G37 |
| 55 | J28760 CU | 55 | G38 |
| 56 | J28760 CV | 56 | G39 |
| 57 | J28760 BF | 57 | G39 |
| 58 | J28760 FB | 58 | G40 |
| 59 | J28760 EA | 59 | G40 |
| 60 | J28760 FA | 60 | G41 |
| 61 | J28760 FB | 61 | G43 |
| 62 | J28760 CW | 62 | G43 |
| 63 | J28760 FC | 63 | G43 |
| 64 | J28760 BG | 64 | G43 |
| 65 | J28760 GA | 65 | G44 |
| 66 | J28760 CB | | |
| 67 | J28760 AX | 67 | G44 |
| 68 | J28760 BH | 68 | G45 |
| 69 | J28760 CX | 69 | G45 |
| 70 | J28760 CY | 70 | G46 |
| 71 | J28760 BI | 71 | G46 |
| 72 | J28760 CZ | 72 | G46 |
| 73 | J28760 DA | 73 | G46 |
| 74 | J28760 DB | 74 | G47 |
| 75 | J28760 DC | 75 | G47 |

| APP FIG. | FRAME OR UNIT | CAD | SHEET |
|---|---|---|---|
| 78 | J28760 BJ<br>J28760 BK<br>J28760 BM | 78 | G49 |
| 79 | J28760 DE | 79 | G49 |
| 81 | J28760 BL | 81 | G50 |
| 82 | J28760 DF | 82 | G51 |
| 83 | J28760 DG | 83 | G51 |
| 84 | | | |
| 85 | J28760 AQ | 85 | G51 |
| 86 | J28760 BQ | P6 | G52,53 |
| 87 | J28760 DE | 87 | G53 |
| 88 | J28760 JA | 88 | G54 |
| 89 | J28760 JC | 89 | G55 |
| 90 | J28760 BM | 90 | G56,57 |
| 91 | J28760 JB | 91 | G57 |
| | | | |
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| 94 | J28760 DH | 94 | G59 |
| 95 | J28760 HC | 95 | G59 |
| 96 | J28760 BP | 96 | G60 |
| 97 | J28760 HG | 97 | G61 |
| | | | |
| 99 | J28760LA | 99 | G62 |
| 100 | J28760L | 500 | G301 |
| 101 | J28760BL | 501 | G301 |
| 102 | J28760RB | 502 | G302 |
| 103 | J28760BQ | 503 | G303 |
| 104 | J28760RC | 504 | G303,304 |
| 105 | J28760RA,<br>SB,SC | 505 | G304,305 |
| 106 | J28760RD | 506 | G305 |
| 107 | J28760DA | 507 | G305 |
| 108 | J28760RE | 508 | G305 |
| 109 | J28760RF | 509 | G306 |
| 110 | J28760AK | 510 | G307 |
| 111 | J28760BQ | 511 | G307 |
| 112 | J28760BS | 512 | G307 |
| 113 | J28760RA | 513 | G308 |
| 114 | J28760BT | 514 | G308 |
| 115 | J28760LB | 515 | G308 |
| 116 | J28760MC | 516 | G309 |
| 117 | J28760MD | 517 | G310 |
| 118 | J28760MA | 518 | G311 |
| 119 | J28760LC | 519 | G311 |
| 120 | J28760NA | 520 | G312,313 |
| 121 | J28760NB | 521 | G314 |
| 122 | J28760MB | 522 | G315 |
| 123 | J28760RG | 523 | G316,<br>317,318 |
| | | | |
| 125 | J28760NC | 525 | G319 |
| 126 | J28760ND | 526 | G319 |
| 127 | J28760RH | 527 | G319 |
| 128 | J28760RM | 528 | G320,321 |
| 129 | J28760RK | 529 | G321 |
| 130 | J28760RP | 530 | G322 |
| 131 | J28760RJ | 531 | G322 |
| 132 | J28760RI | 532 | G323 |
| 133 | J28760RL | 533 | G323 |
| 134 | J28760RQ | 534 | G324 |
| 135 | J28760RO | 535 | G324 |
| 136 | J28760DA | 536 | G325 |
| 137 | J28760RT | 537 | G325 |
| 138 | J28760RS | 538 | G325 |
| 139 | J28760BT | | |
| | | | |
| 141 | J28760RW | 541 | G328 |
| 142 | J28760RR | 542 | G328 |
| 143 | J28760CE | 543 | G329 |

| APP FIG. | FRAME OR UNIT | CAD | SHEET |
|---|---|---|---|
| 144 | J28760AH | 544 | G329 |
| 145 | J28760CE | 545 | G329 |
| 146 | J28760RY | 546 | G329 |
| 147 | J28760RZ | 547 | G330 |
| 148 | J28760LD | 548 | G330 |
| 149 | J28760SA | 549 | G330 |
| 150 | J28760 BL | 550 | G330 |
| 151 | J28760 TA | 551 | G331 |
| 152 | J28760 TB | 552 | G331,332 |
| 153 | J28760 TC | 553 | G333 |
| 154 | J28760 TD | 554 | G333 |
| 155 | J28760 TE | 555 | G334 |
| 156 | J28760 TF | 556 | G334 |
| 157 | J28760 TG | 557 | G334 |
| 158 | J28760 SF | 558 | G335 |
| 159 | J28760 SD | 559 | G335,336 |
| 160 | J28760SE | 560 | G337 |
| 161 | J28760SH | 561 | G338 |
| 162 | J28760SJ | 562 | G339 |
| 163 | J28760TJ | 563 | G339 |
| 164 | J28760SG | 564 | G340 |
| 165 | J28760SL | 565 | G341 |
| 166 | J28760SM | 566 | G342 |
| 167 | J28760TK | 567 | G343 |
| 168 | J28760BS<br>J28760BT | 568 | G343 |
| 169 | J28760DA | 569 | G343 |
| 170 | J28760SP | 570 | G344 |
| 171 | J28760BL | 571 | G344 |
| 172 | J28760SN | 572 | G345 |
| | | | |
| | | | |
| 175 | J28760DA | 575 | G346 |
| 176 | J28760DB | 576 | G346 |
| 177 | J28760AX | 577 | G21 |
| 178 | J28760DB | 578 | G346 |
| 179 | J28760SR | 579 | G346 |
| 180 | J28760CM | 580 | G346 |
| 181 | J28760AX | 581 | G346 |
| 182 | J26760A<br>(REF LIST 27) | 582 | G346 |
| 183 | J28760DC | 583 | G346 |
| 184 | J28760SQ | 584 | G347 |

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 63B |

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CAD INDEX
INDEX FOR SWITCHBOARD CABLING AND CROSS CONNECTIONS

| DESCRIPTION | FRAME | CAD | SHEET |
|---|---|---|---|
| SWBD CABLE TO IRMC FR (WS) | J28760A,B | 100 | G63,64,65 |
| SWBD CABLE TO ORMC FR (WS) | J28760A,B | 101 | G65,G66A, G66B,G67 |
| SWBD CABLE TO LLC FR (WS) | J28760A | 102 | G68,69 |
| SWBD CABLE TO TLC FR & ATLC FR (WS) | J28760A | 103 | G69,70,71 |
| SWBD CABLE TO NGC FR (WS) | J28760A,B | 104 | G73,74 |
| SWBD CABLE TO OSC FR (WS) | J28760A,B | 105 | G74,75,76 |
| SWBD CABLE TO MTC FR (U-TYPE) | J28760A,B | 106 | G77-94 |
| SWBD CABLE FROM T&CT TO CE FR | J28760B | 107 | G95-106G |
| SWBD CABLE FROM CE TO T&CT FR | J28760A | 108 | G95-106G |
| COM EQPT FR CROSS CONN | J28760A | 109 | G107,108 |
| T&CT FR CROSS CONN | J28760B | 110A | G109 |
| | J28760B | 110B | G110 |
| | J28760B | 110C | G111 |
| | J28760B | 110D | G111 |
| | J28760B | 110E | G112 |
| | J28760B | 110F | G113A |
| | J28760B | 110G | G113B |
| | J28760B | 110H | G113B |
| | J28760B | 110J | G114 |
| | J28760B | 110K | G115A |
| | J28760B | 110L | G115B |
| | J28760B | 110M | G115C |
| T&CT FR CROSS CONN (MFR DISC) | J28760B | 110N | G116A |
| T&CT FR CROSS CONN | J28760B | 110N1 | G116B,116C |
| | J28760B | 110PQ,V | G117A |
| | J28760A,B,L | 110V,111 | G117B,118 |
| SWBD CABLE TO ROUTE RELAY FR | | | |
| ROUTE RELAY FRAME WIRING FOR EACH MARKER AND 100 ROUTE RELAYS | J28760C (APP FIG.1) | 112A | G119,120, 121,122 |
| ROUTE RELAY FRAME WIRING COMMON TO 4 MARKERS AND 100 ROUTES | J28760C (APP FIG.1) | 112B | G122 |
| ROUTE RELAY WIRING FOR RELAY RACK MOUNTED UNITS | J28760R (APP FIG.1) | 112RA, RB,RC | G123 |
| INDEX TABLE FOR CAD 112 | - | - | G124* |
| CONNECTIONS TO SPECIAL MARKER UNITS | J28760A | 113 | G125 |
| SWBD CABLE TO PBX ALLOTTER FR | J28760A,B | 114 | G126 |
| SWBD CABLE TO CODE CONVERSION FR | J28760A,B,L | 115 | G126 |
| SWBD CABLE TO PRTD FR | J28760A | 116 | G127 |
| SWBD CABLE TO TRAFFIC USAGE RECORDER FR | J28760A | 117 | G127 |
| SWBD CABLE TO RELAY RACK FR | J28760A,B | 118 | G127 |
| BAT & GRDS FROM CE & T&CT FR | J28760A | 119 | G128A,128B |
| SWBD CABLE TO TRAFFIC REGISTER CKT | J28760A,B | 120 | G129A,B,C |
| SWBD CABLE TO OTHER MARKERS IN SAME GR | J28760A,B | 121 | G130A,130B, 131 |
| SWBD CABLE TO FAT CONN FR | J28760A,B,L | 122 | G132 |
| SWBD CABLE TO MA TST FR, PLANT REG CKT, ROT FR AND AUTO RANGE EXT TST FR | J28760A | 123 | G133A, 133B, 133C |
| SWBD CABLE FROM CODE CONVERSION FR | J28760D | 124A | G134 |
| CODE CONVERSION RELAY CROSS CONN | J28760D | 124B | G134 |
| CODE CONVERSION ARBITRARY DIGIT CROSS CONNECTIONS | J28760D | 124C | G135A |
| SWBD CABLE TO SUPL SERVICE TREATMENT FR | J28760B,L | 125 | G135B |
| SWBD CABLE FROM SST FR TO T&CT & RM FR | J28760E,L | 126A | G136 |
| SST FR CROSS CONNECTIONS | J28760E | 126B | G136 |
| | J28760E | 126C,D | G137A-C |
| SWBD CABLE TO SDR FRAMES | J28760A | 127 | G138 |
| TO CE & T&CT FR FROM BPX ALLR FR | J28760F | 128A | G139 |
| PBX ALLR FR CROSS CONNECTIONS | J28760F | 128B | G140 |
| SWBD CABLE TO IRMC FR (U-TYPE) | J28760A,B | 129 | G141,142 |
| SWBD CABLE TO ORMC FR (U-TYPE) | J28760A,B | 130 | G143,144 |
| SWBD CABLE TO LLC FR (U-TYPE) | J28760A | 131 | G145,146 |
| SWBD CABLE TO TLC FR (U-TYPE) | J28760A | 132 | G146,147 148 |
| SWBD CABLE TO NGC FR (U-TYPE) | J28760A,B | 133 | G149,150 |
| SWBD CABLE TO OSC FR (U-TYPE) | J28760A,B | 134 | G151,152 |
| FC REL FR WIRING - FOR EACH MKR & 100 FC REL | J28760G (APP FIG.66) | 136A | G153 |
| INDEX TABLE FOR CAD 136A | - | - | G153 |
| FC REL FR WIRING COMMON TO 4 MARKERS AND 100 ROUTES | J28760G (APP FIG.66) | 136B | G154 |
| SWBD CABLE FROM FCR FR TO TLC & MTFCC FR | J28760G (APP FIG.66) | 136C | G154 |
| SWBD CABLE FROM FCR FR | J28760G | 137 | G155 |
| SWBD CABLE TO FCR FR | J28760A | 138 | G155 |

* SEE APP FIG. INDEX TABLE FOR CAD 112, G124
** MARKER UNITS MOUNTED ON RELAY RACK

| DESCRIPTION | FRAME | CAD. | SHEET |
|---|---|---|---|
| SWBD CABLE FROM CE TO 4W FR (MFR DISC.) | J28760A | 139 | G156, 157,158 |
| SWBD CABLE FROM T&CT TO 4W FR (MFR DISC.) | J28760B | 141 | G160, 161,162 |
| 4W FR CROSS CONN | J28760M | 147A | G166A-E |
| | J28760M | 147B | G167,168 |
| SWBD CABLE FROM AST FR TO SST FR,T & CT FR, AND RM FR | J28760E | 151A | G170 |
| AST FR CROSS CONNECTIONS | J28760E | 151B | G170 |
| AST FR CROSS CONNECTIONS (MFR DISC.) | J28760E | 151C | G171A |
| AST FR CROSS CONNECTIONS | J28760E | 151C | G171B,C |
| SWBD CABLE TO ORLM FR | J28760A | 152 | G172 |
| SWBD CABLE TO OLI UNIT AND LLMC VIA OLI UNIT | J28760A,B | 153 | G172 |
| SWBD CABLE FROM CE TO LLP FR | J28760A | 154 | G173A,B |
| SWBD CABLE FROM LLP TO CE FR | J28760J | 155 | 174A,B |
| SWBD CABLE FROM T&CT TO LLP FR | J28760B | 156 | G175 |
| SWBD CABLE FROM LLP TO T&CT FR | J28760J | 157 | G176,177 |
| SWBD CABLE FROM LLP TO PBX ALLR FR | J28760J | 158 | G177 |
| LLP CROSS CONN | J28760J | 159A | G178 |
| LLP CROSS CONN | J28760J | 159B | G179 |
| LLP CROSS CONN | J28760J | 159C | G180 |
| LLP CROSS CONN | J28760J | 159D | G179 |
| LLP CROSS CONN | J28760J | 159E | G179 |
| LLP CROSS CONN | J28760J | 159F | G179 |
| CABLE FROM ALLP FR TO LLP FR AND CABLE FROM ALLP FR (0),(1),(2) TO ALLP FR (0),(1),(2) | J28760K | 160 | G181, 182 |
| ALLP CROSS CONN | J28760K | 161A | G182 |
| | J28760K | 161B | G182 |
| | J28760K | 161C | G183 |
| | J28760K | 161D | G184 |
| | J28760K | 161E | G184 |
| | J28760K | 161F | G184 |
| SWBD CABLE FROM RM FR TO T&CT FR | J28760L | 162 | G185A |
| SWBD CABLE FROM T&CT FR TO RM FR | J28760B | 163 | G185A |
| SWBD CABLE FROM RM FR TO PC AUX FR OR PC AUX UNIT ON RR | J28760L | 164 | G185B |
| RM CROSS CONN | J28760L | 165A | G186 |
| | J28760L | 165B | G186 |
| | J28760L | 165C | G188 |
| | J28760L | 165D | G189,190 |
| | J28760L | 165E | G191 |
| | J28760L | 165F | G191,192 193 |
| | J28760L | 165G | G193 |
| | J28760L | 165H | G193 |
| SWBD CABLE FROM 4-WIRE FR TO RM FR | J28760H | 166 | G195 |
| SWBD CABLE FROM CE FR TO RM FR | J28760A | 167 | G195 |
| SWBD CABLE TO OFFICE TEST FRAME | J28760A,B | 168A | G196,197 G198A |
| SWBD CABLE FOR OTHER CIRCUITS TO OFFICE TEST FRAMES OTH VIA MARKER | J28760A,B | 168B | G198A |
| SWBD CABLE TO MARKER TRAFFIC SAMPLE CONTROL UNIT (J28760RA)** AND TO TRAFFIC SAMPLE CKT | J28760B | 169 | G199 |
| SWBD CABLE FROM COM EQPT FR TO DIAL TRANSFER UNIT (J28760RB)** | J28760A | 170A | G199 |
| SWBD CABLE FROM T&CT FR TO DIAL TRANSFER UNIT (J28760RB)** | J28760B | 170B | G200 |
| SWBD CABLE FROM COM EQPT FR TO BUSY LINE DON'T ANSWER TRANSFER UNIT MOUNTED ON RELAY RACK | J28760A | 171 | G200 |
| SWBD CABLE FROM COM EQPT FR TO MISC MARKER RELAY UNITS MOUNTED ON RELAY RACK | J28760A | 172 | G201 |
| SWBD CABLE FROM COM EQPT FR TO PER CENT LOAD UNIT (J28760BJ)** | J28760A | 173 | G201 |
| SWBD CA FROM RM FR TO COM EQPT FR | J28760L | 174 | G202 |

| DESCRIPTION | FRAME | CAD | SHEET |
|---|---|---|---|
| SWBD CA FROM RM FR TO 4W FR | J28760L | 175 | G202 |
| SWBD CA FROM COM EQPT FR TO 4W FR | J28760A | 176 | G203 |
| SWBD CA FROM 4W FR TO COM EQPT FR | J28760M | 177 | G203,204 |
| SWBD CA FROM T&CT FR TO 4W FR | J28760B | 178 | G205,206 |
| SWBD CA FROM 4W FR TO T&CT FR | J26760M | 179 | G207,208 |
| SWBD CA FROM COM EQPT,T&CT,& | J28760A J28760B J28760M | 180 | G209-G213A |
| SWBD CA FROM 4W PRE FR TO OTHER | J28760N | 181 | G214, G215A-D |
| SWBD CA FROM 4W PRE FR TO STATUS CONN FR | J28760N | 182 | G216 |
| 4W PRE FR CROSS CONNECTION | J28760N | 183 | G216 |
| SWBD CA TO DIRECT ACCESS PRT CONN | J28760R4, J28760A, J28760B | 184 | G217 |
| SWBD CA TO NO. 101 ESS DIRECT ACCESS UNIT ON MISC REL RACK | J28760A, J28760B | 185 | G218 |
| SWBD CA FROM MKR FRAMES TO DUAL NG UNIT (J28760R-) | J28760A, J28760B | 186 | G218 |
| SWBD CA TO TRAFFIC DATA PROCESSOR UNIT | J28760A, J28760B | 187 | G219 |
| SWBD CA TO RANGE EXTENSION UNIT | J28760A, J28760B | 188 | G219 |
| SWBD CA TO WIDEBAND SWITCHING UNIT ON MISC REL RACK | J28760RL | 189 | G220 |
| SWBD CA TO SENDER GROUP BUSY CKT | J28760A | 190 | G220 |
| SWBD CA TO AIS UNIT | J28760A, J28760B | 191 | G221, G222 |
| SWBD CA FROM COM EQPT & T&CT FRAMES TO ACS GR CONT INPUT AND AUX ACS GR CONT INPUT UNITS | J28760A, J28760B | 192 | G223 |
| SWBD CA TO ACS GR CONTROLLERS | J28760RP, J28760RQ | 193 | G223 |
| SWBD CA FROM COM EQPT FR TO MARKER CLARE DETECTION UNIT | J28760A | 194 | G224 |
| SWBD CA TO MARKER CONT IMMEDIATE RING UNIT | J28760A, J28760B | 195 | G224 |
| SWBD CA TO LINE ROUTE RELAY RACK UNIT | J28760RU, J28760RV | 196 | G225 |
| SWBD CA TO CALLING LINE IDENTIFICATION UNIT | - | 197 | G226 |
| SWBD CA TO TRK GROUP TRAFFIC SAMPLING UNIT | J28760A, J28760B | 198 | G226 |
| SWBD CABLE TO ROUTE DIST AND SUPL ROUTE DIST FRAMES | J28760A, J28760B | 199 MFR DISC. | G227 |
| SWBD CA TO PBX TOLL DIVERSION UNIT | J28760B | 200 | G228 |
| SWBD CA TO F-G DIGIT TRANSLATOR UNIT | J28760B | 201 | G228 |
| ARM CROSS CONNECTION | J28760P | 202A | G229,230 |
| | | 202B | G231 |
| | | 202C | G231,232 |
| | | 202D | G232 |
| SWBD CA TO TRK BLOCK UNIT ON REL RACK | J28760AM | 203 | G232 |
| SWBD CA FROM MKR WB FR TO OTHER MKR FRAMES | J28760T | 204 | G233,234, 235 |
| SWBD CA TO WIDEBAND LINE LINK CONN FR | J28760T | 205 | G236 |
| SWBD CA TO WIDEBAND TRK LINK CONN FR | J28760T | 206 | G237 |
| CROSS CONNECTION ON MARKER WIDEBAND FR | J28760T | 207 | G238 |
| LOCAL CA TO JUNCTOR SWITCH PREF CKT | J28760T | 208 | G238 |
| LOCAL CA TO CONTINUITY TEST CKT | J28760T | 209 | G238 |
| SWBD CA TO WB TRK TST REG FR | J28760T | 210 | G238 |

| DESCRIPTION | FRAME | CAD | SHEET |
|---|---|---|---|
| SWBD CA TO AIS UNIT ON AIS SDR CONN FR (A&M ONLY) | J28760SF | 211 | G239A |
| SWBD & LOCAL CA TO AIS SDR CONN FR (A&M ONLY) | J27964K | 212 | G239B |
| SWBD CA TO AUX LIMITED A,B & C DIGIT TRANSLATOR UNIT | J28760B, J28760SD | 213 | G240 |
| SWBD CA TO CALL WAITING UNIT | J28760A, J28760B, J28760SE | 214 | G241 |
| SWBD CA TO IDDD UNIT | J28760A, J28760B, J28760SH | 215 | G242 |
| SWBD CA TO SUPL ROUTE TRANSFER UNIT | J28760SL | 215 | G243 |
| SWBD CA TO ROUTE SERVICE RELAY GROUND SUPPLY CONTROL UNIT ON RELAY RACK | J28760SM | 217 | G244 |
| SWBD CA TO ROTL REG CKT | J28760A | 219 | G245A |
| | J28760RY | | |
| SWBD CA TO ROTL TRK MAKE BUSY CKT | J28760C | 220 | G245A |
| | J28760TK | | |
| SWBD CA TO PERM SIG TEST UNIT | J28760A | 221 | G245A,B |
| SWBD CA TO AREA CODE TRANSLATOR | J28760B | 222 | G246 |
| SWBD CA TO DISTRIBUTOR AND SCANNER CKT | J28760A | 223 | G246 |
| SWBD CA TO COMPUTER LINE VERIFICATION ACCESS CKT | J28760A | 224 | G247 |
| | J28760B | | |
| SWBD CA FROM ST FR TO AST FR, SAST AND T&CT FR | J28760E | 225A | G248 |
| SWBD CA FROM SAST FR TO ST FR, T&CT FR | J28760E | 226A | G252 |
| SAST FR CROSS CONN | J28760E | 226B | G252 |
| SWBD CA TO DISTRIBUTOR AND SCANNER CKT FOR ETS (DAS ETS) | J28760A,B J28760SN, J28760RQ, J28760RB | 227 | G255, G256, G257 |
| SWBD CA TO MARKER DISTRIBUTOR CONTROL (MDC) CKT FOR ETS | J28760A, J28760B J28760SP, J2376ORB, | 228 | G258, G259, G260, G261 |
| SWBD CA TO ETS POWER AND DATA INTERFACE (PDI) CKT | J28760A, J28760B, J28760RT | 229 | G261 |
| SWBD CA TERMINATIONS FOR ETS | J28760A | 230 | G262 |
| SWBD CA TERMINATIONS FOR ETS | J28760B | 231 | G263 |
| SWBD CA FOR CDT | J28760A J28760B | 232 | G264 |
| SWBD CA TO MINI ROTL SYS | J28760A J28760B | 233 | G265 |
| SWBD CA TO EOTT/RTMB | J28760A | 234 | G266 |
| RELAY RACK UNIT CROSS CONN — DIAL TR UNIT | J28760RB | 502 | G302 |
| BUSY LINE TR UNIT | J28760RC | 504 | G303,304 |
| AIS UNIT | J28760RM | 528 | G320,321A |
| INDIV CUST GR INCPT ANN. UNIT | J28760RT | 537 | G325 |
| MKR CONT INTER RING UNIT | J28760RY | 538 | |
| TRK GR TR SAMPLING MKR UNIT | J28760RY | 546 | G329 |
| AUX LIMIT DIGIT TR UNIT | J28760SD | 559 | G335,336 |
| SUPL ROUTE TR UNIT | J28760SL | 565 | G341 |
| AREA CODE TRANSLATION UNIT | J28760SP | 570 | G344 |

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 67B |

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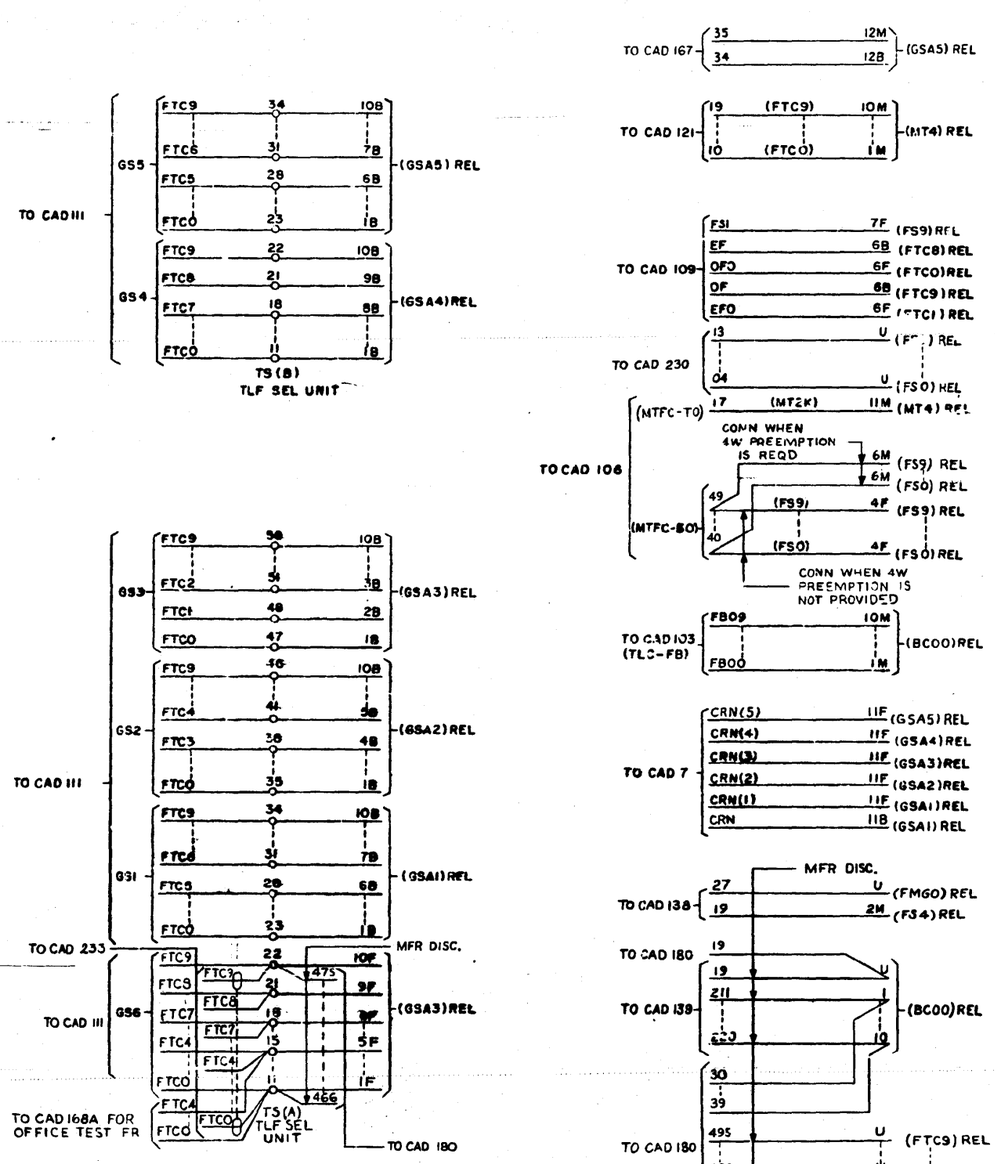
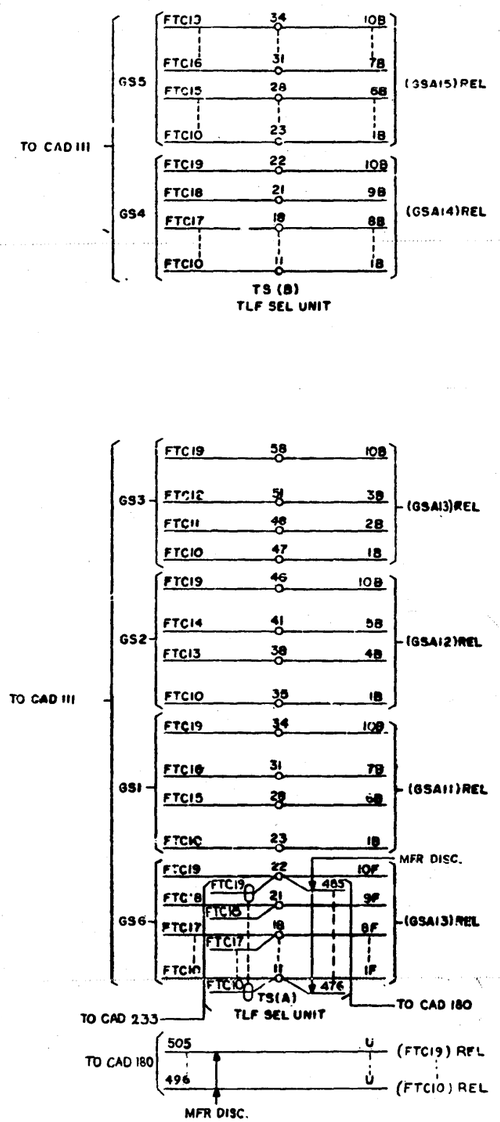
## CAD 3
(FOR APP. FIG. 3)




## CAD 2
(FOR APP. FIG. 2)




DRAWING ISSUE

| | |
|---|---|
| 1 | |
| 2D | |
| 5D | |
| 6A | |
| 8D | |
| 22D | |
| 26D | |
| 28D | |
| 30D | |
| 32A | |
| 35D | |
| 39D | FA |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

ISSUE 65B

SD-26002-01-G3

SD-26002-01-G3

# CAD 4

(FOR APP FIG. 4)

TO CAD 230 26 — 9M (FTCK) REL
(MFR DISC.)
TO CAD 114 01 — 10M (TFK2) REL
TO CAD 154 183
TO CAD 153 00 (ACL) 10F (FML) REL
01 (RB) 10M (TBTA) REL
TO CAD 108 509
96 4B (TFK3) REL
TO CAD 113 01 12M (MT9) REL
00 11M (TFK3) REL
TO CAD 111 NSI 8M (FSA) REL
FG2 3B (MT9) REL
FS2 U (FSA) REL
TO CAD 109 0F20 10F (FM4) REL
EF20 10F (FM3) REL
439 8B (TBK) REL
8M (TBTA) REL (A&M ONLY)
361 (MT9K) 1F (MT9) REL
TO CAD 108 184 (FAC) 7B (TBK) REL
294 4M (MAK1) REL
(MTFC-T1) 37 (MT3K) 1M (MT9) REL
51 (TB) 4F (TBTA) REL
(MTFC-T0) 19 (LK3) 12M (FML) REL
(MTFC-C2) 50 (FTCK) U (FTCK) REL
TO CAD 106 (MTFC-C1) 43 (MAK1) 12F (MAK1) REL
(MTFC-C0) 32 (FCK) U (TBC) REL
39 (CK) 12M (TFK3) REL
(MTFC-A2) 23 (NSI) 8F (FSA) REL
(MTFC-A1) 28 (TBK) 7F (TBTB) REL
(MTFC-A0) 59 (FML) U (FML) REL
TO CAD 180 599 8 (TBTA) REL
TO CAD 7 15
(RT ADV UNIT)
10 (TBK) 4M (FTCK1) REL
TO CAD 103 (TLC-MA1) 0 (MAK) U (MAK1) REL
(TLC-M) 0 (BSO) 5M (TFK2) REL
TO CAD 15 FR 1F (TFK3) REL
TO CAD 103 (TLC-MA2) 01 (GL) 11 (TFK2) REL
TO CAD 108 211 11M (FML) REL
TO CAD 221 26B 12
58 3 (TBTB) REL
TO CAD 176 57 10 (TA) REL
42A 8
53A 6B (TBTB) REL
TO CAD 221 14A 6
33A 2M (TBK) REL
23A 3 (TBC) REL

TO CAD 230 03 — U (FTCK1) REL
57 11F (FM3) REL
56 11F (FM4) REL
53 11F (FM2) REL
52 11F (FM1) REL
51 11F (FM0) REL
50 6F (FM4) REL
49 6F (FM3) REL
TO CAD 138 48 6F (FM2) REL
47 6F (FM1) REL
46 6F (FM0) REL
37 1M (MT9) REL
31 6M (FM4) REL
30 T (FM) RES
26 11M (FM4) REL
23 4F (FML) REL
20 U (FSA) REL
TO CAD 203 37
TO CAD 180 18 7 (FML) REL
18
60 6 (MT9) REL
40
83 6
84 6B (TBK) REL
TO CAD 139 85 12
86 12M (FTCK) REL
242 8B
06
241 2M (TBK) REL
(MFR DISC.) 07
TO CAD 176 582 9 (TA) REL
383 6
382 6M (TFK1) REL
381 6B (MT9) REL
379 12 (FTCK) REL
TO CAD 180 376 11M (TFK2) REL
353 6 (FTCK1) REL
327 6M (FTCK) REL
326 6 (TBK) REL
325 6B (FTCK) REL
314 6M (TBK) REL
313 2B (TBTB) REL
55 10 (MAK1) REL
154 4F (TBTB) REL
95 3M
TO CAD 230 97 11 (FML) REL
136 +2 (TBT) REL
131 (TFT1) REL
130 (TFTO) REL
JC
(MFR DISC.)
TO CAD 108 OR TO CAD 230 856 8 (TFK1) REL

# CAD 5

(FOR APP FIG. 5)

(A & M ONLY)
TO CAD 230 34 8B (TGS) REL
123 2M (TOG9) REL
(MTFC-A3) 13 (XTG) 4M (TG1) REL
12 (XTB) 8M (TB1) REL
59 (TG19) 12F (TG9) REL
58 (TG18) 12F (TG8) REL
57 (TG17) 12F (TG7) REL
56 (TG16) 12F (TG6) REL
55 (TG15) 12F (TG5) REL
54 (TG14) 12F (TG4) REL
53 (TG13) 12F (TG3) REL
52 (TG12) 12F (TG2) REL
51 (TG11) 12F (TG1) REL
TO CAD 106 50 (TG10) 12F (TG0) REL
49 (TG9) 10F (TG9) REL
(MTFC-A2) 48 (TG8) 10F (TG8) REL
47 (TG7) 10F (TG7) REL
46 (TG6) 10F (TG6) REL
45 (TG5) 10F (TG5) REL
44 (TG4) 10F (TG4) REL
43 (TG3) 10F (TG3) REL
42 (TG2) 10F (TG2) REL
41 (TG1) 10F (TG1) REL
40 (TG0) 10F (TG0) REL
35 (TB5) 11F (TB5) REL
30 (TB0) 11F (TB0) REL
54 (TG19) 6F (TG9) REL
53 (TG18) 6F (TG8) REL
52 (TG17) 6F (TG7) REL
51 (TG16) 6F (TG6) REL
(TLC-MA2) 50 (TG15) 6F (TG5) REL
44 (TG14) 6F (TG4) REL
43 (TG13) 6F (TG3) REL
42 (TG12) 6F (TG2) REL
41 (TG11) 6F (TG1) REL
40 (TG10) 6F (TG0) REL
TO CAD 103
54 (TG9) 9F (TG9) REL
53 (TG8) 9F (TG8) REL
52 (TG7) 9F (TG7) REL
51 (TG6) 8F (TG6) REL
50 (TG5) 9F (TG5) REL
(TLC-MA1) 44 (TG4) 8F (TG4) REL
43 (TG3) 9F (TG3) REL
42 (TG2) 9F (TG2) REL
41 (TG1) 8F (TG1) REL
40 (TG0) 9F (TG0) REL
51 11M
TO CAD 203 11 L (TB0) REL

(MFR DISC.)
TO CAD 180 42 8M (TG2) REL
TO CAD 203 28
20 (TB5) 4F (TB5) REL
(TLC-M) 14 (TB4) 4F (TB4) REL
10 (TB0) 4F (TB0) REL
ST29 10M
ST20 1M (FG2) REL
TO CAD 103 ST19 10M
(TLC-ST) ST10 1M (FG1) REL
ST09 10M
ST00 1M (FG0) REL
NTB (NTB) RES
TBC5 U (TB5) REL
TBC0 U (TB0) REL
TO CAD 111 TGC19 2U (TG9) REL
TGC10 2U (TG0) REL
TGC09 1U (TG9) REL
TGC00 1U (TG0) REL
733 (TSTC) 12M
732 (TSTB) 12B (FG2) REL
731 (TSTA) 12M (FG0) REL
00 (FG2) U (FG2) REL
TO CAD 108 08 (TF7) U (TF7) REL
07 (TF4) U (TF4) REL
06 (TF2) U (TF2) REL
05 (TF1) U (TF1) REL
04 (TF0) U (TF0) REL
03 (FG1) U (FG1) REL
TO CAD 109 02 (FG0) U (FG0) REL
(MFR DISC.)
225 6B (TB5) REL
35
51
66 4B
47
46 (TB0) REL
TO CAD 139 65 4M
57
45
64 9B (TB5) REL
45
44
61 14M (TB0) REL
58
41
TO CAD 203
TO CAD 180

DRAWING HEIGHT
29A CM
30D CM
31D CM
32A KB CM AM
34A TS
35D TS
37D AM
39D RA
41D

ISSUE 60A

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

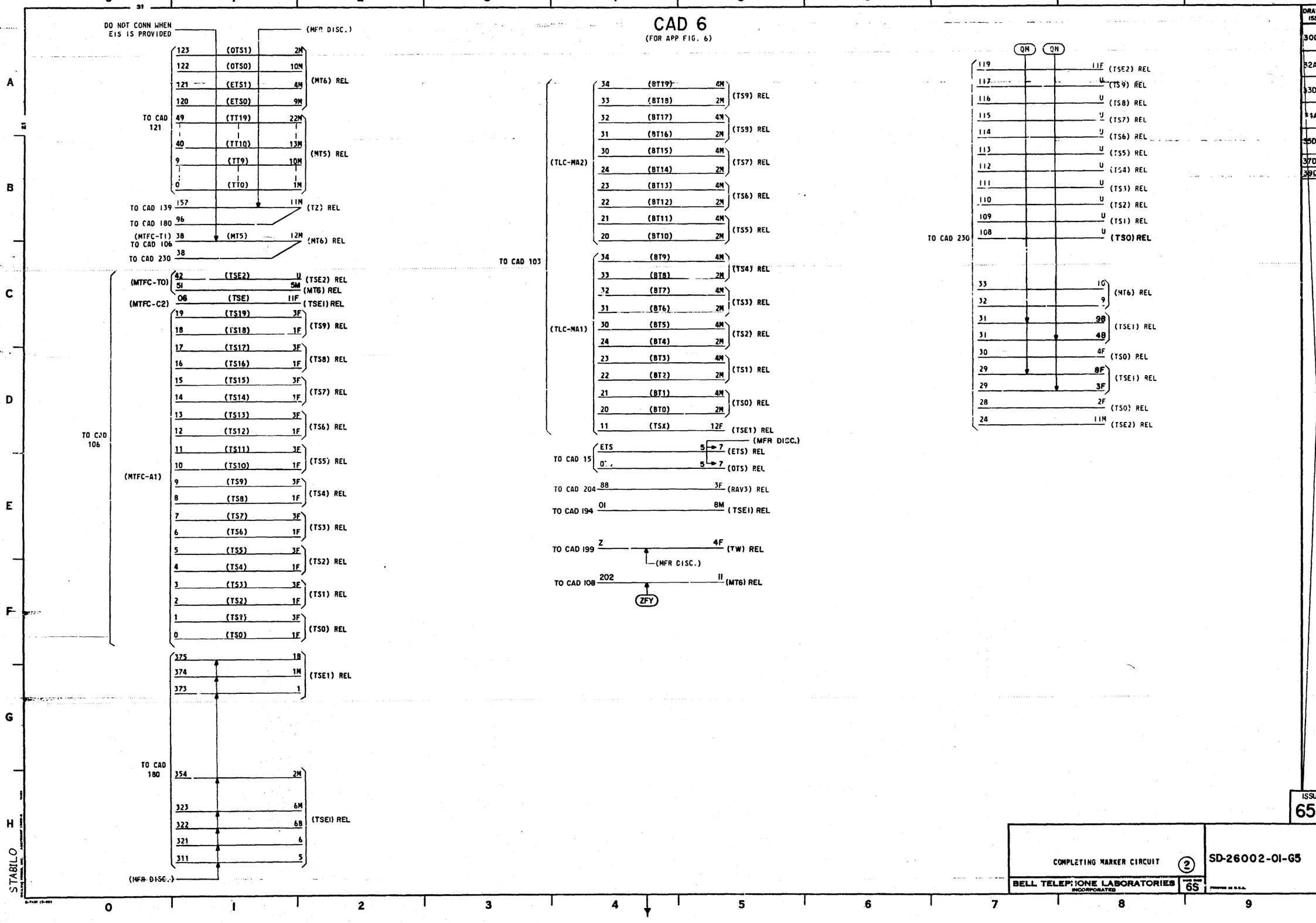
6S

SD-26002-01-G4

PRINTED IN U.S.A.

# CAD 6

(FOR APP FIG. 6)




ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G5

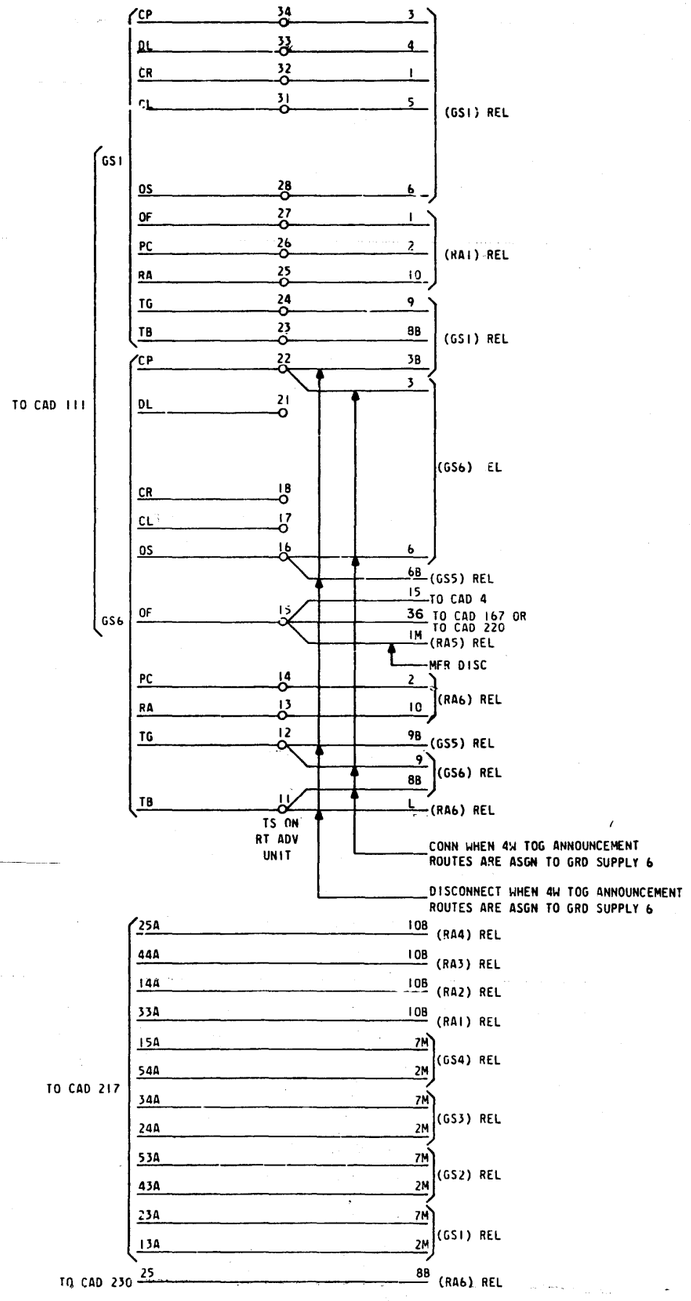
BELL TELEPHONE LABORATORIES INCORPORATED

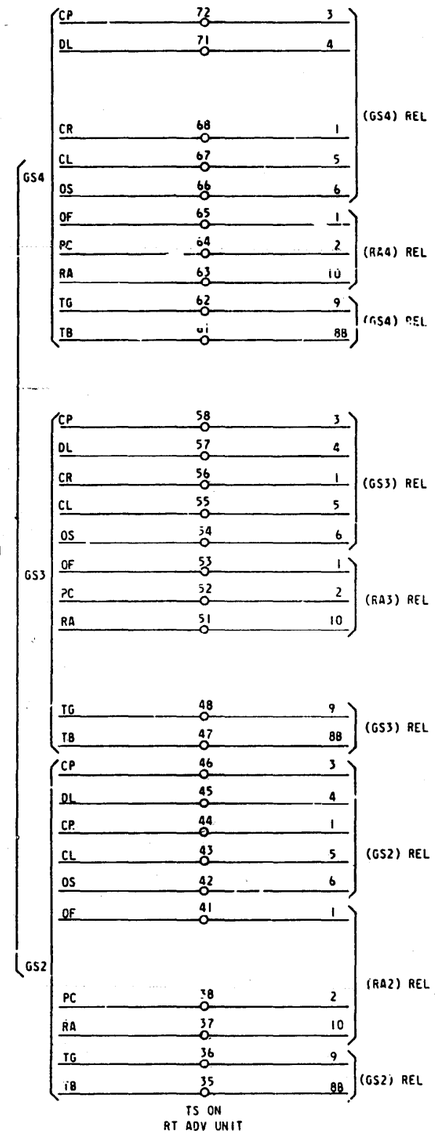
SHEET NUMBER 65

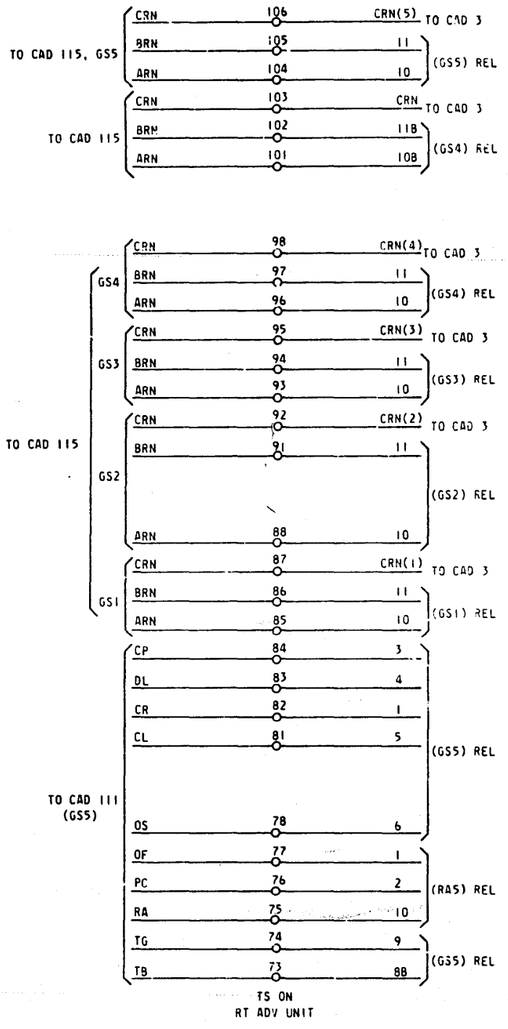
SD-26002-01-G5

STABILO

# PART OF CAD 7
(FOR APP FIG 7)




| DRAWING ISSUE |
|---|
| 41D |
| 45D |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

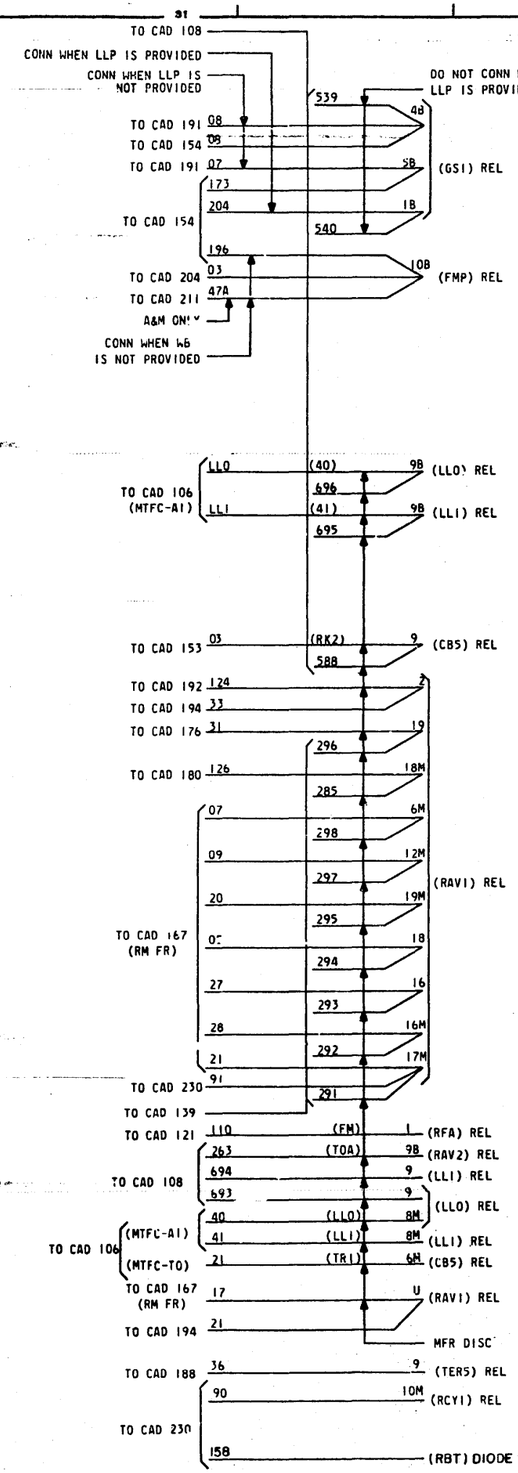
SD-26002-01-G6

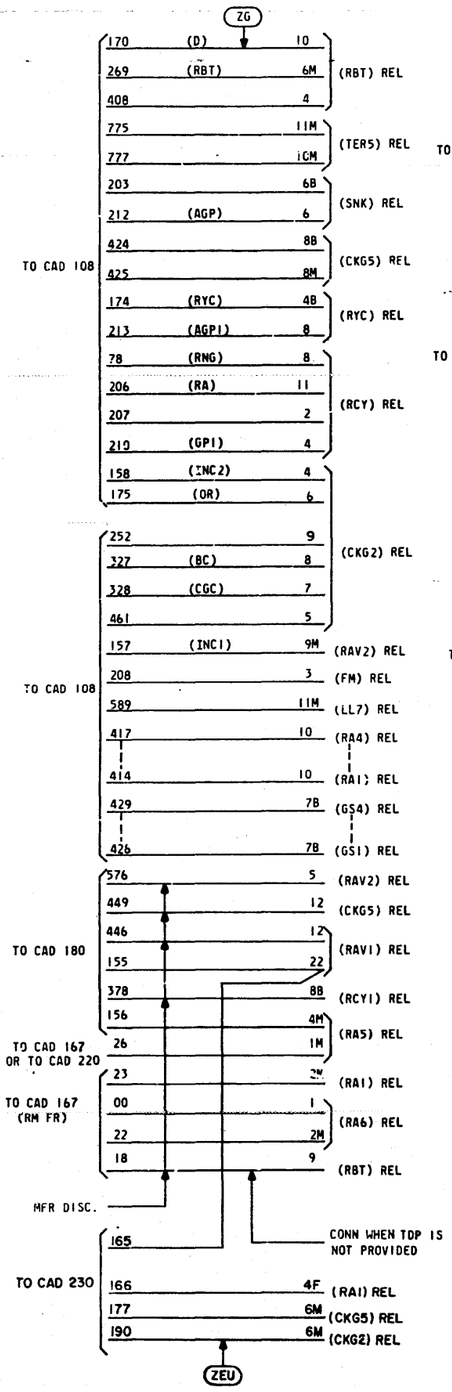
BELL TELEPHONE LABORATORIES INCORPORATED

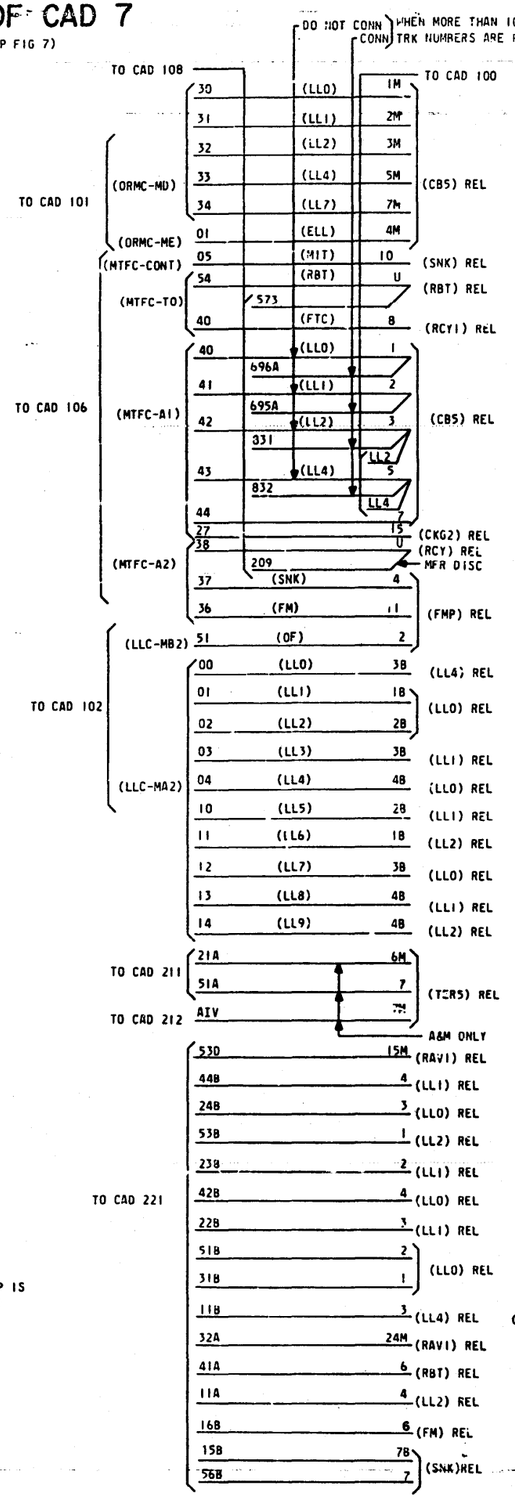
SIZE 6S

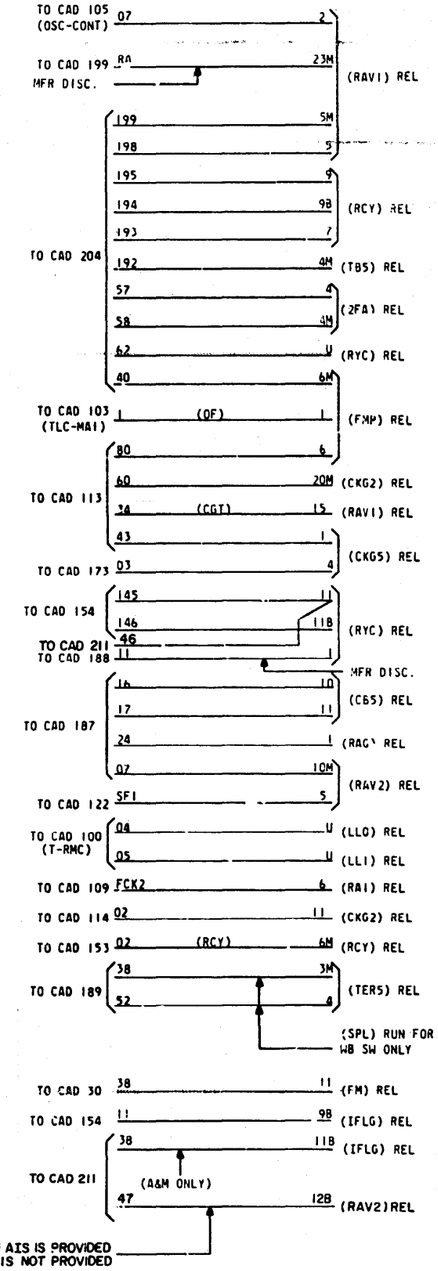
# PART OF CAD 7

(FOR APP FIG 7)




DRAWING ISSUE
41D
43D
45D

DRAWING ISSUE
65B

COMPLETING MARKER CIRCUIT (2)

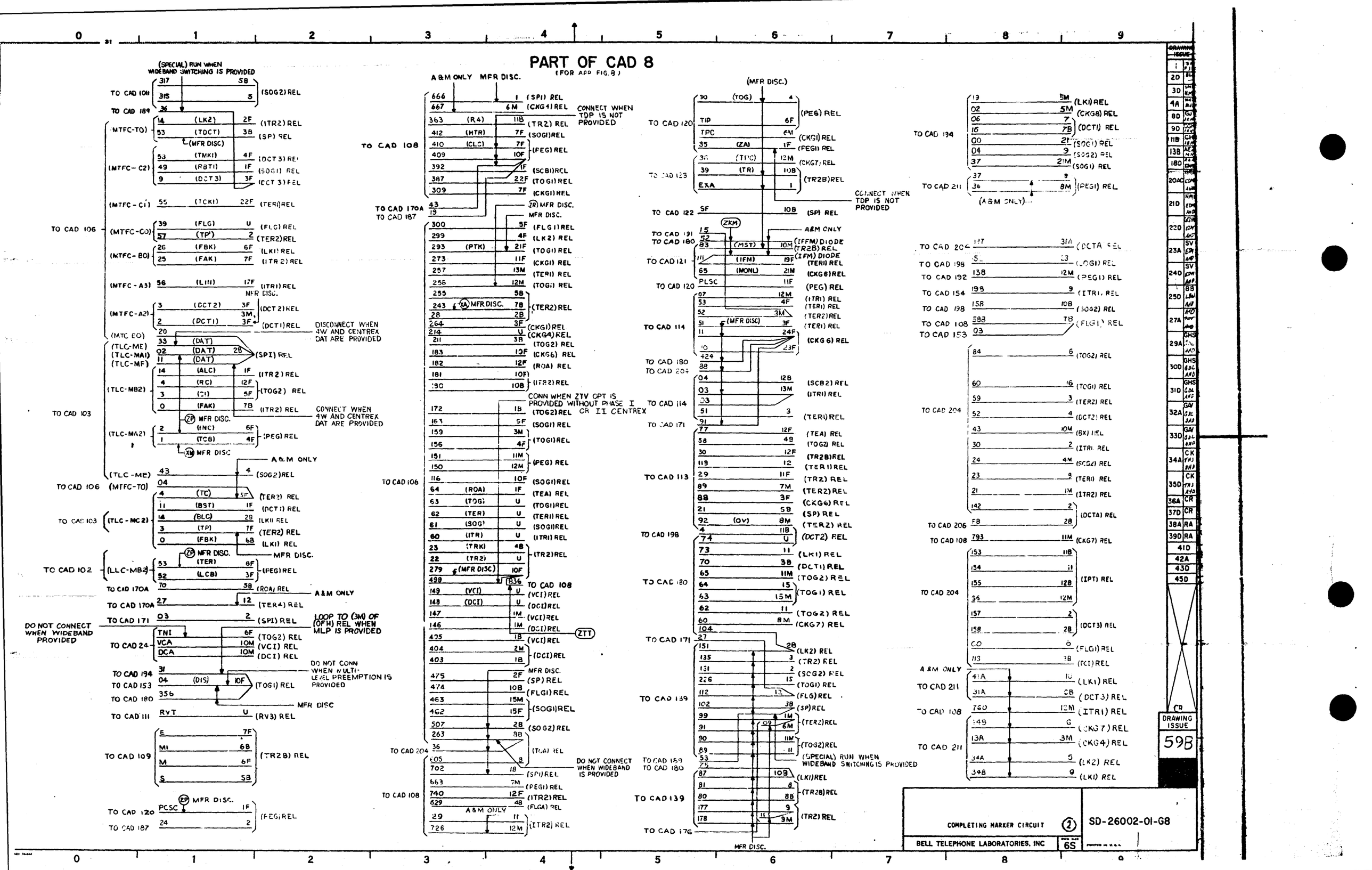
SD-26002-01-67

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-67

# PART OF CAD 8
(FOR APP FIG. 8)




| DRAWING ISSUE |
|---|
| 59B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G8

BELL TELEPHONE LABORATORIES, INC

6S

# PART OF CAD 8

(FOR APP FIG. 8 AND 22)

CONN WHEN AIS IS NOT PROVIDED

~~CONN WHEN~~ TDP IS NOT PROVIDED

(A&M ONLY) (MFR DISC.)

739 — 1M (PEG1) REL
737 — 11M (ROA) REL
736 — 11 (ROA) REL
675 — 6 (SOG2) REL
674 — 6B (SOG2) REL
611 — 9 (TR2B) REL
604 — 3B (SPI) REL
TO CAD 108 587 — 9M (CKG6) REL
580 — 9 (TR2B) REL
761 — 4 (CKG4) REL
579 — 4M (CKG4) REL
572 — 6 (PEG1) REL
571 — 5 (PEG1) REL
532 — 9M (TER4) REL
303 — 22M (TOG1) REL
TO CAD 191 17

CONN WHEN AIS USING DEDICATED SENDERS IS PROVIDED

109 — 6 (TOA) REL
108 (PRI) — 6B (TOA) REL
107 — 5 (TER4) REL
TO CAD 139 27 (B12-BAT.) — L (CKG7) REL
28 — U (CKG7) REL
88 — U (DCT1) REL
09
98
E
186 — 1 (TER4) REL
180 — 10 (TER4) REL
130 — 9B (DCT1) REL
127 — 7 (SCB2) REL
124 — 7B (SCB2) REL
116 — 4 (TER4) REL
113, 57 — 24M (CKG6) REL
TO CAD 154 101 — 11B (TER4) REL
100 — U (TOG2) REL
94 — 3M (TER4) REL
95 — 5M (SCB1) REL
92 — 2 (TER4) REL
G
91 — 5B (SCB2) REL
82 — 10B (SCB2) REL
39 — 1M (CKG7) REL
23 — 3M (CKG7) REL
18 — 6 (TOG2) REL
TO CAD 176 00
TO CAD 194 13
TO CAD 221 16D
TO CAD 230 83, 105

CONN WHEN ETS IS PROVIDED AND GLARE DETECTION IS NOT PROVIDED

DO NOT CONN WHEN ETS IS PROVIDED AND GLARE DETECTION IS NOT PROVIDED

CONN WHEN TDP IS NOT PROVIDED

(MFR DISC.)

TO CAD 191 04 — 2M (CKG7) REL
16
12 — 5M (FLG) REL
11 — 3 (PEG1) REL
TO CAD 154 — 17M (TOG1) REL
98 (RNG) REL
06 — U (TER2) REL
05 — 2M (UCI) REL
TO CAD 187 12

24 — 16M (SOG1) REL
13 (PCR2) — 16 (SOG1) REL
11 — 11
TO CAD 167 10 — 11B (CKG7) REL
04 — 6
01 — 6M (PEG1) REL
00 — 5M
TO CAD 192 23 — 11M
(MFR DISC.)

TO CAD 171 85 — 11M (CKG6) REL

DO NOT RUN WHEN WIDEBAND SWITCHING IS PROVIDED

442 — 8M (FLG1) REL
441 — 5B (TER4) REL
415 — 5 (TER4) REL
414 — 5M (DCTA) REL
413 — 5 (DCTA) REL
412 — 6M (DCT2) REL
411 — 6 (DCT2) REL
399 — 10 (SP1) REL
386 — 3 (TR2) REL
TO CAD 180

328 — 6B (TER4) REL
312 — 11 (SP1) REL
170 — 10B (IPT) REL
50 — 14 (SOG1) REL
583 — 5M (TER4) REL
403 — 8B (IPT) REL
525 — 4 (DCTA) REL
450 — 1 (CKG4) REL
TO CAD 230 86

TO CAD 186 48 — 1 (TOG1) REL
46 — 1M (TOG1) REL
45 — 5 (CKG4) REL
TO CAD 187 02 — 20 (TER1) REL
00 — 3B (LKC) REL
04 — 2B (LKC) REL
20 — 11 (TGA) REL
125 — 8M (CKG4) REL
TO CAD 192 122 — 11 (PEG1) REL
112 — 12 (PEG1) REL
18 — 12B (TR2B) REL
37 — 6 (CKG7) REL
26 — 3M (CKG4) REL
TO CAD 191 39 — 3M (DCI) REL
02 — 10B (DCI) REL
TO CAD 211 35

ZGX

LOOP AT UNEQUIPPED POSITION

(A&M ONLY)

(SPECIAL) RUN FOR WIDEBAND SWITCHING ONLY

TO CAD 139 39 — 1 (IPT) REL
37 — 3B (IPT) REL
TO CAD 133 24 — 4 (SOG1) REL
02 — 4B (SOG1) REL
23 — 7 (SP1) REL
16 — 4 (RV3) REL
TO CAD 187 21 — 3M (ROA) REL
TO CAD 169 03 — 2 (ITR2) REL

TO CAD 170A 71 — 6B (IPT) REL
TO CAD 203 38 — 12 (TOA) REL
TO CAD 168A 10 — 1M (TR2) REL
TO CAD 204 156 — 10 (TR2D) REL
TO CAD 108 981 — 9B (TR2D) REL

(MFR DISC.)

TO CAD 123 56 — 9 (PEG1) REL
TO CAD 214 110 — 9M (PEG1) REL
TO CAD 192 448 — U (PEG1) REL
16 — 11 (LKP) REL
11 — 11B (LKP) REL
TO CAD 216 PEG — 6M (PEG1) REL
TO CAD 204 238 — 12B (DCTA) REL

TO CAD 204 244 — U (SP) REL
243 — 4 (DCT1) REL
242 — 6M (TCG1) REL
TO CAD 221 270 — 12 (TR2B) REL
260 — 4B (SP) REL

TO CAD 188 37 — 3 (RV3) REL
TO CAD 230 140 — 7M (CKG6) REL
141 — 18M (TER1) REL
142 — U (TOA) REL
56 — 4F (CKG6) REL
73 — 9F (FLG1) REL
159 — 8B (SCB2) REL
TO CAD 167 38 — 7F (TOA) REL

| DRAWING ISSUE |
|---|
| 30D KEG |
| 32A LLF |
| 33D LLF |
| 34A TS |
| 35D TS |
| 36A MO |
| 39D RP |
| 40A |
| 41D |
| 42A |
| 43D |
| 44A |
| 45D |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G9

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-G9

STABILO

# CAD 9

(FOR APP FIG 9)

MFR DISC.

TO CAD 103 (TLC-MC2)
12 (BRT) 10F
13 (BTT) 11F (FBK) REL
10 (BSM) 12F
TO CAD 81
162
163
TO CAD 180
98 8 (LLCI) REL
223 132 6 (TLCI) REL
164 77 3M
165 89 1M (FAK) REL
TO CAD 139 132 88 7 (TLCI) REL
168 10
169 85 11 (FAK) REL
94 U
(LCK) 0 (TLC-MC1) (LCK) REL
30 (RK) U (RK) REL
23 (LK) U (LK) REL
(TLC-MB2) 13 (ATT) 11M
12 (ART) 10M (FAK) REL
11 (AST) 6M
10 (ASM) 12F
TO CAD 103
4 (MDK) U (MDK) REL
(TLC-M) 3 (BS3) 4M
1 (BS1) 2M (TLCI) REL
TO CAD 119 (CE-COM) 00 (BS4) 5M
14 (G) 8F (LOT) REL
13 (DTK) U (DTK) REL
(LLC-MB2) 12 (LOK) 10F
11 (LOB) 2F (LOT) REL
10 (LO) 4F
TO CAD 102 MFR DISC.
(LLC-MA1) 1 (BS1) 3M
0 (BS0) 2M (LLCI) REL
03 (B92) 16M
(B) TMB L (LLB) REL
TO CAD 204 05 (WLLB)
TO CAD 120 TCH MFR DISC. 8M (CHA) REL
TO CAD 114 05 XZ 8 (LBTA) REL
TO CAD 153 05 (LK) 7B (RK3) REL
30
TO CAD 152
TO CAD 109 LL52 U (LBTA) REL
TO CAD 106 (MTFC-TO) 21 3B (CHA) REL
TO CAD 108 564 5
(MFR DISC.)
TO CAD 171 50 18M (LLCI) REL
368 12 (LBTA) REL
331 6M
330 8M (HGK) REL
TO CAD 180 519 2B
316 3 (LBTA) REL
317 3M
TO CAD 194 07 4M (CHA) REL
LOOP TO GRD (A42) WHEN GLARE DETECTION IS NOT PROVIDED
29 7B (TK) REL
28 4 (HGK) REL
27 6M
TO CAD 204 26 6 (LCK) REL
160 1 (FBK) REL
159 1 (FAK) REL

TO CAD 86 42 4M
41 4F (TLCI) REL
16 6F (LOT) REL
TO CAD 113 46 1F
93 6B (CHA) REL
TO CAD 86 2M U (KM) REL
TO CAD 106 (MTC-EO) 41
CONN WHEN PBX TOLL DIVERSION IS PROVIDED
TO CAD 108 646 U
CHA) REL
TO CAD 109 AC1 11M
AC2
CONN WHEN HW SWITCHING IS NOT PROVIDED
BAT
TO CAD 109 (MFR DISC) OR CAD 139 TO CAD 180 SPF (193) 24F (TLCI) REL
112
477 9M (TK) REL
446 4F (RKI) REL
295 2M (RK3) REL
271 12M (TK) REL
TO CAD 108 245 1M (RK3) REL
185 2B (CHA) REL
152 12F (LLCI) REL
242 22 (TCLI) REL
458 3M (TK) REL
3 (TRT) 10F
2 (TTT) 11F (FAK) REL
(MTFC-TO) 3 (TRT) 10M
2 (TTT) 11M (FBK) REL
TO CAD 106 52 (BY) 6F (CHA) REL
(MTFC-C1) 45 (HTR) 1M (TK) REL
(MFR DISC)
TO CAD 204 133
54 (HGK) 10M (HGK) REL
(MTFC-CO) 36 (TCHK) U (TCHK) REL
(ABM) ONLY
(MTFC-A3) 19 (XAB) 3M (FBK) REL
(MTFC-A2) 4 (TK) 3B (FBK) REL
TO CAD 106 (MFR DISC.)
45 (JCK) 2F (JCK) REL
23 (RK3) 11F (RK3) REL
(MTFC-AI) 22 (RK2) 2F (RK2) REL
(MTFC-AO) 38 (LBI) 13F (LLCI) REL
MFR DISC.
(SPECIAL) RUN WHEN WIDEBAND SWITCHING IS PROVIDED
141 15 (LLCI) REL
97 10
TO CAD 154 117 10B (LBTA) REL
85 7 (TK) REL
134 16 (LLCI) REL
45D
TO CAD 221 58 5 (FAK) REL
TO CAD 189 57 5M (FBK) REL
56 5M (FAK) REL
55 7 (LBTA) REL
TO CAD 108 534
CONN WHEN ETS IS PROVIDED
DO NOT CONNECT WHEN ETS IS PROVIDED
795 4B (TK) REL
TO CAD 823 8M (MDK) REL
TO CAD 102 (LLC-MAI) 2 (LFK) U (LFK) REL
TO CAD 106 (MTFC-AI) 25
TO CAD 204 02

TO CAD 204 233 12B (LKC) REL
232 1
47 8
46 8B (LFK) REL
TO CAD 204 148 10M
161 1M (FAK) REL
81 13
163 24 (LLCI) REL
162 8
TO CAD 103 855 15M (TLCI) REL
TO CAD 211 45A 14M (LLCI) REL
27A 12 (MTA) REL
53A 11 (LBTA) REL
TO CAD 214 41E 10M (LLCI) REL
41E 2 (LBTA) REL
47D 10 (TCHK) REL
37D U (LOT) REL
TO CAD 221 46D 3M (LLCI) REL
36D 3
43A 5 (TLC2) REL
17D 7B (DTK) REL
TO CAD 108 267 1 (LLCI) REL
58D 17M
48D 17
TO CAD 221 38D 5 (LLCI) REL
28D 5M
TO CAD 188 38 10M
94 5M (RK3) REL
TO CAD 230 54 7B (LCK) REL
125 10M (TLC2) REL

# CAD 10

(FOR APP FIG 10)

TO CAD 232
TO CAD 204 96 U (CHAI) REL
A&M ONLY
TO CAD 194 10 10 (SLRK) REL
11 12 (HMSI) REL
17 1M (SLRK) REL
TO CAD 113 18 5F (LXPI) REL
53 4 (DCT) REL
TO CAD 204 165 9M
164 9 (HMSI) REL
TO CAD 158 25 4 (LLT) REL
TO CAD 103 EMTI 2 (HMT) REL
TO CAD 188 03 9B (TXI) REL
420 (BITH) 1B
224 12
TO CAD 108 34 (NCR) 12M (CHAI) REL
666 2
89 (JXPA) 2F (JXPA) REL
TO CAD 106 47 (LLJ) 6F (CHAI) REL
(MTFC-TI) 49 (EXT) 11F (HMTI) REL
(MTFC-TO) 51 (DCT) 3 (DCT) REL
(MTFC-C2) 55
TO CAD 204
(MTFC-CO) 56 (SL) 3F (SLA) REL
31 (TLH) 5F (CHAI) REL
(MTFC-BO) 27 (HMSI) U (HMSI) REL
(MTFC-A2) 7 (JXPI) 7F (JXPI) REL
0 (LXPI) 7F (LXPI) REL
(MTFC-AO) 37 (LXPA) 2F (LXPA) REL
DO NOT CONN WHEN WB IS PROVIDED
MD
TO CAD 103 (TLC-MBI) 40 (JSO) 8B (TXI) REL
95
TO CAD 139 32 4 (LXPI) REL
121 7 (CHAI) REL
TO CAD 154 131 10B (LXPI) REL
TO CAD 180 49
TO CAD 176 13
TO CAD 103 (TLC-ME) 43 A&M ONLY 2B (TXI) REL
TO CAD 108 702
TO CAD 106 10
(MTFC-TI) 139 6M (SLA) REL
TO CAD 192 155 MD 18M (LLC3) REL
TO CAD 198 EX 9B (CHAI) REL
TO CAD 109 822
TO CAD 108 315 4M
319 9M (HMSI) REL
TO CAD 180 318 3
332 13M (LLC3) REL
301 2
54 1M (HMTI) REL
TO CAD 189 48 2B (DVA) REL
(SPECIAL) RUN WHEN WB SWITCHING IS PROVIDED
TO CAD 169 10 4B (SLRK)
58 1M
TO CAD 125 57 1B (TR2E) REL
541 12
TO CAD 108 420 12M
PCSC 10 (JXPA) REL
TO CAD 120 340 17M (LLC3) REL
TO CAD 22 TCH 6 (JAPA) REL
TO CAD 120 35 1 (HMTI) REL
TO CAD 188 34 10M (SLRK) REL

| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 3D |
| 4A |
| 5D |
| 6A |
| 8D |
| 9D |
| 10B |
| 13B |
| 17D |
| 18D |
| 210 |
| 220 |
| 23A |
| 240 |
| 25D |
| 27A |
| 28D |
| 29A |
| 30D |
| 31D |
| 32A |
| 330 |
| 34A |
| 350 |
| 36A |
| 37D |
| 39D |
| 40A |
| 41D |
| 43D |
| 44A |
| 45D |

CB

| DRAWING ISSUE |
|---|
| 57B |

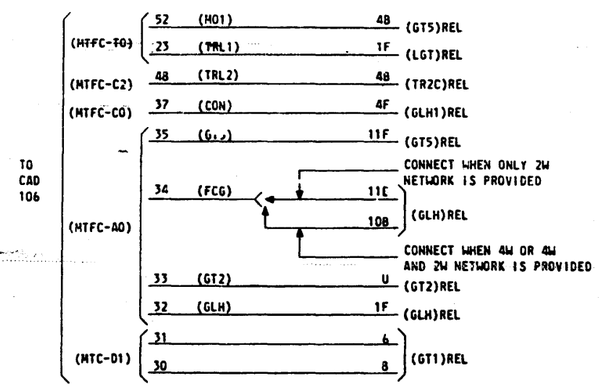
COMPLETING MARKER CIRCUIT — 1

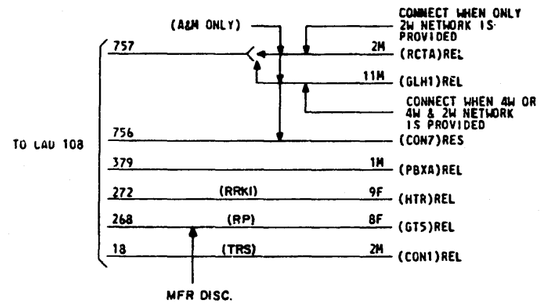
SD-26002-01-G10

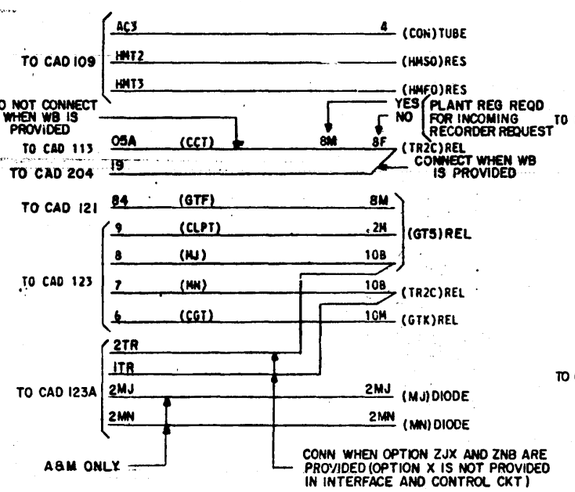
BELL TELEPHONE LABORATORIES, INC

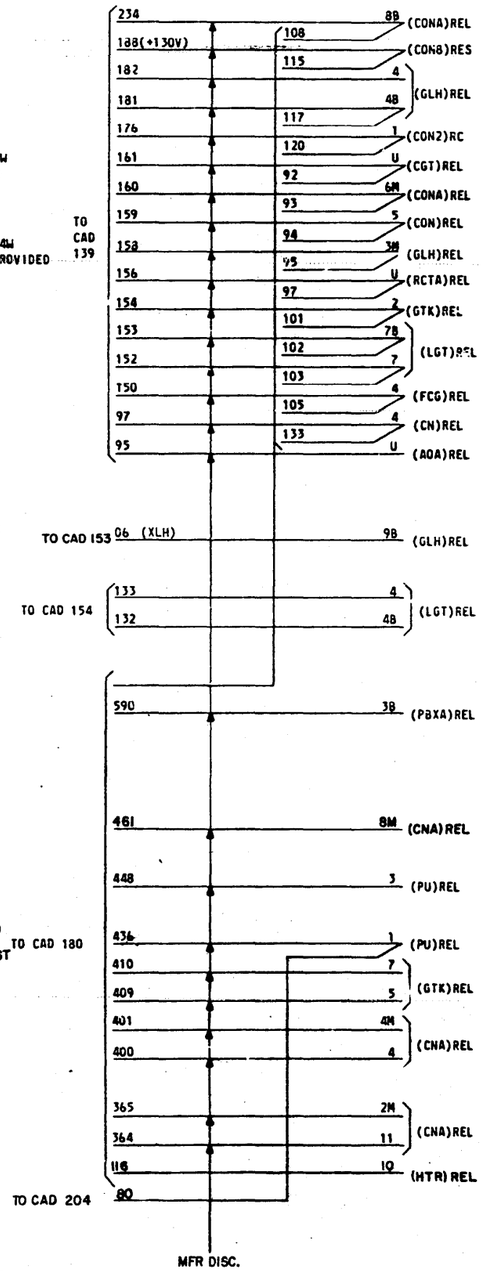
6S

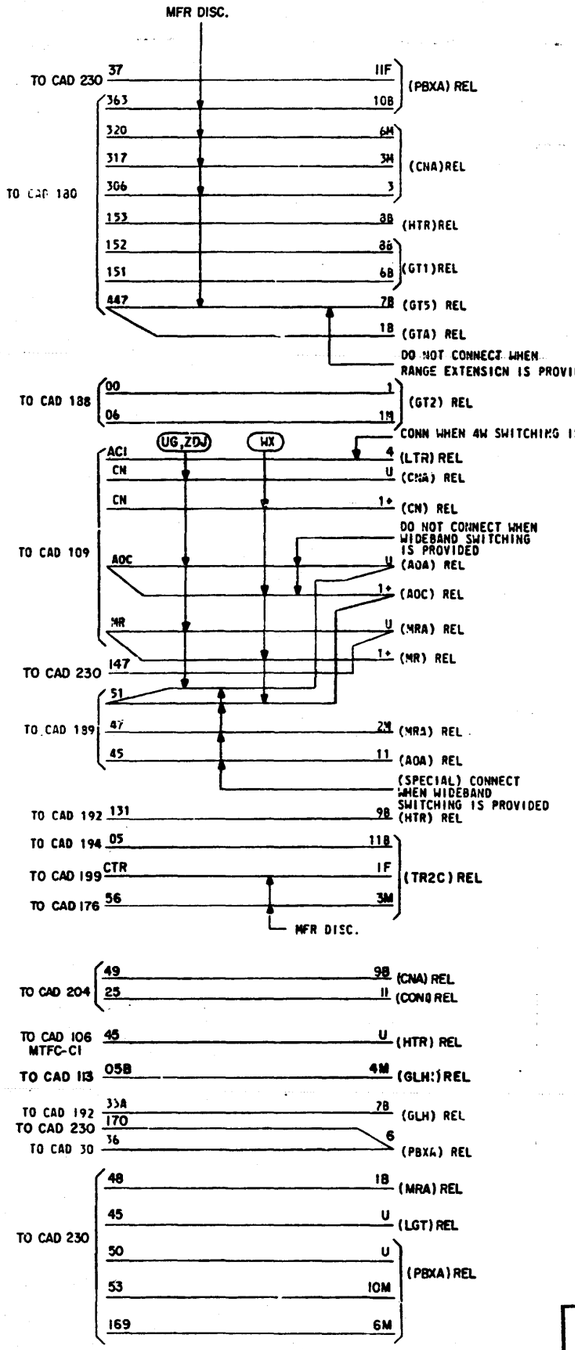
# CAD 11
(FOR APP FIG. 11)

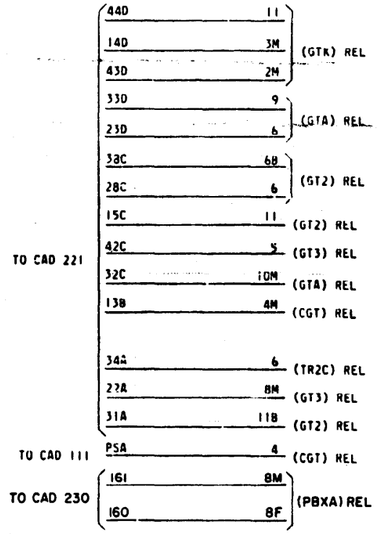



| DRAWING ISSUE | |
|---|---|
| 30D | KEG |
| 32A | RLB |
| 33D | RLB |
| 34A | TS |
| 35D | TS |
| 37D | MD |
| 39D | RP |
| 40A | |
| 41D | |
| 43D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-GII

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-GII

STABILO

# CAD 12

(FOR APP FIG. 12)

TO CAD 113
- 56 (CH9) → 4 → 3 (CH19) REL
- 47 (CHO) → 4 → 3 (CHTO) REL
- 45 → 1 (CHT1) RES
- 44 → 8

TO CAD 109
- OT9 → 7 → 2 (CHT9) REL
- IN5 → 8 (TCH5) REL
- OT4 → 7 → 2 (CHT4) REL
- INO → 8 (TCHO) REL

MFR DISC.

TO CAD 106 (MTFC-A1)
- 39 (CH9) 7 (CH9) REL
- 30 (CHO) 7 (CHO) REL
- 29 (CHA) 1 (CHA) REL

TO CAD 103 (TCL-MB1)
- 54 (JS9) 12M (CH9) REL
- 50 (JS5) 12M (CH5) REL
- 44 (JS4) 12M (CH4) REL
- 41 (JS1) 12M (CH1) REL
- 34 (LH9) 4 (CH9) REL
- 30 (LH5) 4 (CH5) REL
- 24 (LH4) 4 (CH4) REL
- 20 (LHO) 4 (CHO) REL
- 14 (J9) 3 (CH9) REL
- 10 (J5) 3 (CH5) REL
- 4 (J4) 3 (CH4) REL
- 0 (JO) 3 (CHO) REL

TO CAD 102 (LLC-MA2)
- 54 (LB5) 5M (CH9) REL
- 50 (LB3) 5M (CH5) REL
- 44 (LB4) 5M (CH4) REL
- 40 (LBO) 5M (CHO) REL
- 34 (SM9) 11 (CH9) REL
- 30 (SM5) 11 (CH5) REL
- 24 (SM4) 11 (CH4) REL
- 20 (SMO) 11 (CHO) REL

TO CAD 120 PCSC — MFR DISC. — 6 (CHO) REL

TO CAD 173
- 15 (PL9) 1 (CH9) REL
- 06 (PLO) 1 (CHO) REL

TO CAD 188
- 04 5 (CH9) REL
- 20 9 (CHO) REL

TO CAD 108 647 — 10B (CH9) REL
CONN WHEN PBX TOLL DIVERSION IS PROVIDED

TO CAD 204 38 — 9M (CH9) REL
TO CAD 230 47
CONN WHEN PBX TOLL DIVERSION IS NOT PROVIDED

TO CAD 221
- 24A 10 (INT) REL
- 13A 6M (MT17) REL
- 52A 6
- 51A 4B (RTST) REL

TO CAD 211 38 — 9B (MTI3) REL
A&M ONLY

TO CAD 108 849 — 2 (MTI3) REL

TO CAD 230
- 102 7F (MRLI) REL
- 137 U (MTI3) REL

TO CAD 108 851 — 4B (TRB2) REL

TO CAD 230
- 35 8M (TST) REL
- 175 U (DISA) REL
- 158 (RBT) DIODE

TO CAD 123 MTK — 1 (IMT) REL

TO CAD 123 32
- 6M
- 6B (MONI) REL

TO CAD 195 1 — MFR DISC

TO CAD 121
- 134 — 8
- 133 — 4M (IRT) REL
- 132 — 6 (ORT) REL
- 131 — 4B (IRT) REL

- 53 — 7 (MT17) REL
- 50 (SB) — 3B (MT1) REL
- 47 (ROG) — 1 (MT17) REL
- 44 (MT12) — U (MT12) REL

(MTFC-TO)
- 41 (TSE1) 1M
- 34 (DIS) 9 (MT1) REL
- 24 (TRR) 4 (TRR) REL
- 20 (MTH) 11M (MT) REL
- 14 (LK2) 3B (MT17) REL

(MTFC-C2)
- 59 (TM) 7 (MAK) REL
- 46 (M) 11 (MOM) REL

(MTFF-B0) 28 (DCK) U (DCK) REL

(MTFC-A1) 20 (SRT) 2 (IMT) REL

TO CAD 105

(MTFC-CONT)
- 28 (RTST [1]) 6M (RTST) REL
- 09 (C1) 4 (TRST) REL
- 08 (TRST) 12M (TRSA) REL
- 07 (MKT) 1 (TST) REL
- 06 (MT) U (MT) REL
- 04 (MB) 2U (MB) REL
- 03 (MKB) 4M (TRST) REL
- 02 (MKA) 8 (TRB1) REL
- 01 (TRB) 2M (TRR) REL
- 00 (RCCK) U (RCCK) REL

TO CAD 103
- (TLC-M) 21 (TLF) 9 (LP) REL
- (TLC-MC2) 12 (ES) 9B
- (T..-MC2) 13 (ESK) 11B (MT11) REL

TO CAD 104 (NGC-MCE) C (NGF) 7 (LP) REL

TO CAD 106 (MTC-01)
- 42 (DNGC) — 200 — 1M
- 50 (DNGD) — 238 — 1B
- 02 (LLES) — 246 — 12M
- 01 (TLES) — 245 — 12
- 03 (LESK) — 237 — 10M
- 00 (TESK) — 236 — 11M

68, 69, 71, 72 — 9M, 9, 10, 11 (MT11) REL

TO CAD 139
TO CAD 180
MFR DISC.

TO CAD 186 44 — 1
TO CAD 172
- 03 — 6B
- 04 — 8B

(MTII) REL

TO CAD 108
- 268 — 11 (MTI3) REL
- 609 — 3B
- 608 — 3
- 37 — 3M (MTI8) REL

TO CAD 121
TO CAD 104 (NGC-MCD) 10 — 10M (MT27) REL
TO CAD 113 101 — 5B (MTI7) REL

# PART OF CAD 13

(FOR APP FIG. 13)

TO CAD 176
MFR DISC. — MFR DISC.

TO CAD 139
- 240 — 4 (ORT) REL
- 71 — 21 — 9 (MTI) REL
- 73 — 05 — 7B (TR1) REL
- 100 — 7B (DIS1) REL
- 143 — 8 (MON) REL
- 144 — 18 — U (TRR) REL
- 145 — 19 — 2M (RTST) REL
- 239 — 26 — 4M (RTST) REL
- 20

TO CAD 102 (LLC-MB2) 01 — 12B (MTII) REL

TO CAD 101 (ORMC)
- 23 — 12
- 20 — 9
- 13 — 8
- 10 — 5
- 03 — 4
- 00 — 1

(MCB0) REL

TO CAD 100 (IRMC)
- 23 — 12
- 20 — 9
- 13 — 8
- 10 — 5
- 03 — 4
- 0C — 1

(MCB1) REL

TO CAD 100 (IRMC-D) D GRD — GRD
LOOP WHEN OT FR IS PROVIDED IN MKR GROUPS WITH LLP

TO CAD 154 00 — 10 (MT17) REL
127 (LLPT) — 10M

TO CAD 121 61 (INGA) 1M (MT12) REL
TO CAD 114 12 — 1
LOOP WHEN OT FR IS PROVIDED IN MKR G OUPS WITH NO. GR SLOTTING

TO CAD 154 115 — 7B
TO CAD 113 37 — 7 (MT11) REL

TO CAD 86 27 (LAN) 5 (MT17) REL
TO CAD 108 741

TO CAD 102
- (LLC-MB2) 03 (ESK) 10B (MT11) REL
- (LLC-MA1) 54 (LLF) 8 (LP) REL
- (LLC-MB2) 1 (NT) 11 (MT) REL
- (LLC-MA1) 00
- 4 — 8
- 3,11 — 02 — 6
- 01
- 38 — 5 (MT11) REL
- 72 — 12 (MT12) REL
- 04 — 4
- 91 — 4M (RON) REL
- 19 — 2B (MT11) REL
- 13 — 5M (MON1) REL
- 73 — 10B (RTST) REL

TO CAD 172
TO CAD 121
- 187 — 6
- 153 — 6M (AMB) REL

TO CAD 108
- 673 — 11B
- 143 — 11 (MT17) REL

TO CAD 154 (A&M ONLY) — MFR DISC.
TO CAD 176 36 — 7 (RDL) REL
TO CAD 194 35 — 7B (MTI) REL

DRAWING ISSUE

| | | |
|---|---|---|
| 25D | BB | |
| 26A | BB | |
| 27A | MS | |
| 30D | MS | |
| 31D | MS | |
| 32A | RLB | |
| 33D | RLB | |
| 34A | TS | |
| 35D | TS | |
| 37D | MS | |
| 39D | RP | |
| 410 | | |

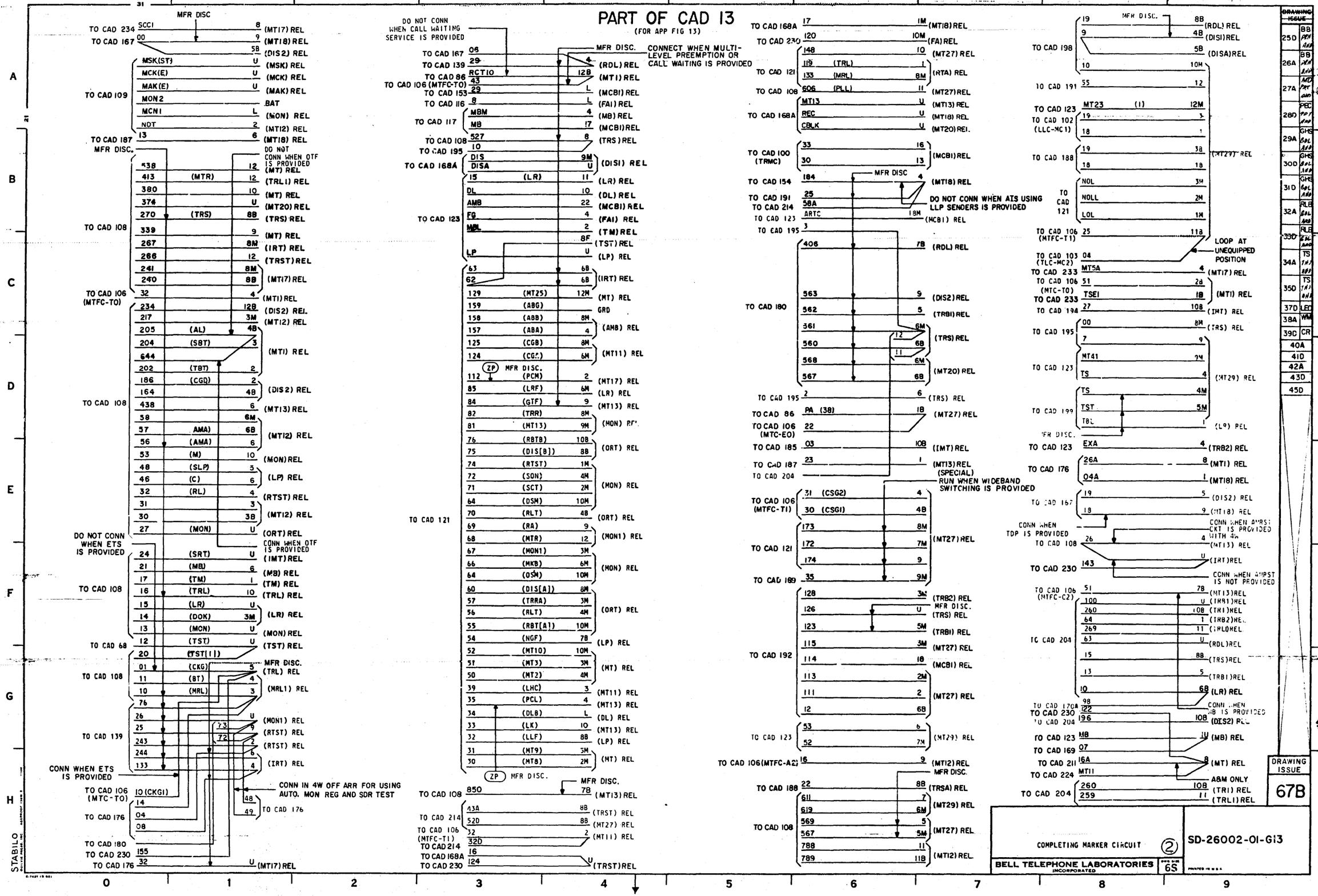
ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G12

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF CAD 13

(FOR APP FIG 13)




| DRAWING ISSUE |
|---|
| 25D BB |
| 26A BB |
| 27A MD |
| 28D PEC |
| 29A GHS |
| 30D GHS |
| 31D GHS |
| 32A RLB |
| 33D RLB |
| 34A TS |
| 35D TS |
| 37D LEO |
| 38A WM |
| 39D CR |
| 40A |
| 41D |
| 42A |
| 43D |
| 45D |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-GI3

BELL TELEPHONE LABORATORIES INCORPORATED

SYS DIV 6S

DRAWING ISSUE 67B

SD-26002-01-GI3

STABILO

# CAD 14
(FOR APP. FIG. 14)

TO CAD 116 +130V (E) B (OAT4) RES

TO CAD 214 21D 9M (TRT) REL

TO CAD 113
- 97 5F (SFT) REL
- 24 3F
- 25 1F } SDT REL
- 59 8 (SDT) COND

TO CAD 230
- 156 9M
- 157 9F } (HTT) REL

TO CAD 106 (MTFC-C2)
- 4 (LDT) 2F (LDT) REL
- 3 (SDT) 2F (SDT) REL
- 2 (WT) 2F (WT) REL

TO CAD 108 802 8 (RYT1) REL

TO CAD 185 08 8M

TO CAD 180
- 528 6B (SF) REL
- 575 4 (TRT) REL

TO CAD 169 08 7M (TRT) REL

TO CAD 204
- 167 8
- 166 8M } (WT) REL

MFR DISC.

# CAD 15
(FOR APP. FIG. 15)

MX — UPPER TERMINALS

TO CAD 109
- CS29 29 (CS29) RES
- CS00 0 (CS00) RES

RESISTOR STRIP ON RESISTOR UNIT

MX — "C" LOWER TERMINALS

| | | | |
|---|---|---|---|
| 54 | (CS29) | 29 | (CS29) RES |
| 50 | (CS25) | 25 | (CS25) RES |
| 44 | (CS24) | 24 | (CS24) RES |
| 40 | (CS20) | 20 | (CS20) RES |
| 34 | (CS19) | 19 | (CS19) RES |
| 30 | (CS15) | 15 | (CS15) RES |
| 24 | (CS14) | 14 | (CS14) RES |
| 20 | (GS10) | 10 | (CS10) RES |
| 14 | (CS 9) | 9 | (CS 9) RES |
| 10 | (CS5) | 5 | (CS5) RES |
| 4 | (CS4) | 4 | (CS4) RES |
| 0 | (CS0) | 0 | (CS0) RES |

TO CAD 102 (LLC-MB1)

RESISTOR STRIP ON RESISTOR UNIT

TO CAD 29 XRS2 35 (XRS2) RES

TO CAD 21 XRS1 34 (XRS1) RES

TO CAD 4 FR 32 (FR) RES

TO CAD 6
- OTS 33 (OTS) RES
- ETS 31 (ETS) RES

TO FUSE PAN D
- DG (BAT) 13 B (XRS2) RES
- DT (BAT) 11 B (OTS) RES

T.S. ON RESISTOR UNIT

# CAD 16
(FOR APP. FIG. 16)

TO CAD 106 (MTFC-C2)
- 45 (RCT13) 1 (RCN13) REL
- 42 (RCT12) 1 (RCN12) REL
- 41 (RCT11) 1 (RCN11) REL
- 39 (RCT9) 1 (RCN 9) REL
- 35 (RCT5) 1 (RCN 5) REL
- 32 (RCT2) 1 (RCN 2) REL
- 31 (RCT1) 1 (RCN1) REL (MFR DISC.)

DO NOT CONNECT WHEN MULTILEVEL PREEMPTION IS PROVIDED

TO CAD 104
- 54 (HG9) 7 (HGN9) REL
- (NGC-MCD)
  - 50 (HG5) 7 (HGN5) REL
  - 44 (HG4) 7 (HGN4) REL
- 40 (HG0) 7 (HGN0) REL

TO CAD 104
- 54 (VF4) 7 (VFN4) REL
- 50 (VF0) 7 (VFN0) REL
- 44 (RC15) 7 (RCN15) REL
- (NGC-MCC)
  - 40 (RC11) 7 (RCN11) REL
  - 36 (RC10) 7 (RCN10) REL
- 30 (RC6) 7 (RCN6) REL
- 24 (RC5) 7 (RCN5) REL
- 20 (RC1) 7 (RCN1) REL

TO CAD 180
- 573 1 (RCN11) REL
- 572 1 (RCN10) REL

TO CAD 188 13

TO CAD 214 410

TO CAD 106 (MFTC-T0) 43 (RCT)

MFR DISC.

DO NOT CONNECT WHEN MULTILEVEL PREEMPTION OR CALL WAITING IS PROVIDED

# CAD 17
(FOR APP. FIG. 17)

TO CAD 106 (MTFC-C0)
- 53 (FTT3) 2 (FTN3) REL
- 50 (FTT0) 2 (FTN0) REL
- 49 (FUT9) 2 (FUN9) REL
- 40 (FUT0) 2 (FUN0) REL
- 29 (HGT9) 1 (HGN9) REL
- 20 (HGT0) 1 (HGN0) REL
- 19 (VFT4) 1 (VFN4) REL
- 15 (VFT0) 1 (VFN0) REL
- 11 (VGT11) 1 (VGN11) REL
- 0 (VGT0) 1 (VGN0) REL

TO CAD 104
- (NGC-MCE) 31 (TNX) 7 (TRC) REL
- (NGC-MCD)
  - 34 (VG9) 7 (VGN9) REL
  - 30 (VG5) 7 (VGN5) REL
  - 24 (VG4) 7 (VGN4) REL
  - 20 (VG0) 7 (VGN0) REL
  - 14 (VG11) 7 (VGN11) REL
  - 13 (VG10) 7 (VGN10) REL
  - 12 (FT5) 7 (FTN5) REL
  - 11 (FT4) 7 (FTN4) REL
- (NGC-MCB)
  - 54 (FU9) 7 (FUN9) REL
  - 50 (FU5) 7 (FUN5) REL
  - 44 (FU4) 7 (FUN4) REL
  - 40 (FU0) 7 (FUN0) REL
  - 4 (FT3) 7 (FTN3) REL
  - 1 (FT0) 7 (FTN0) REL
- (NGC-MCC) 02 7
  - 29 3 (LLPX) REL
  - TO CAD 188 56 1
  - TO CAD 86 C1

MFR DISC. CONN WHEN T88 IS NOT PROVIDED

CONN WHEN CUSTOMER GROUP IS IDENT BY CROSS CONN ING (ZSW OPT)

DRAWING ISSUE

| | |
|---|---|
| 1 | A1 F1 |
| 2D | A4 C |
| 3D | S1 M1 |
| 5D | K4 M1 |
| 7D | B4 L2 |
| 21D | G1 S1 |
| 22D | S5 W T1 |
| 30D | G1 S1 |
| 32A | R4 G1 |
| 33D | R4 G1 |
| 34A | K1 M1 |
| 39D | R4 |
| 43D | |
| 45D | |

ISSUE 59B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G14

BELL TELEPHONE LABORATORIES, INC 65

# CAD 18

(FOR APP FIG 18)

DRAWING ISSUE: 390 FLK, 410, 430, 44A, 45D

## (LLC-MB2)

| | | | |
|---|---|---|---|
| 44 | (LH4) | 8F | (VFT4) REL |
| 40 | (LHO) | 8F | (VFTO) REL |
| 24 | (V4) | 2F | (VFT4) REL |
| 20 | (V0) | 2F | (VFTO) REL |

## (LLC-MA1)

| | | | |
|---|---|---|---|
| 54 | (HG9) | 10M | (HGT9) REL |
| 50 | (HG5) | 10M | (HGT5) REL |
| 44 | (HG4) | 10M | (HGT4) REL |
| 40 | (HGO) | 10M | (HGTO) REL |
| 34 | (VGB9) | 8M | (VGT9) REL |
| 30 | (VGB5) | 8M | (VGT5) REL |
| 24 | (VGB4) | 8M | (VGT4) REL |
| 20 | (VGBO) | 8M | (VGTO) REL |
| 14 | (VGB11) | 8M | (VGT11) REL |
| 13 | (VGB10) | 8M | (VGT10) REL |
| 12 | (HGK) | 7B | (LHT) REL |
| 10 | (BS) | 8M | (FTK1) REL |

TO CAD 102

TO CAD 108 — 293 — 12M — (TOG5) REL

TO CAD 214 — 22D — 8M — (VFT4) REL

## TO CAD 106

| | | | |
|---|---|---|---|
| (MFTC-A2) 28 | (VTK1) | U | (VTK1) REL |
| (MFTC-A2) 11 | (XLH) | 11F | (LHT) REL |
| (MFTC-A1) 26 | (GTL) | U | (GTL2) REL |
| (MFTC-A0) 26 | (FTK1) | U | (FTK1) REL |
| (MFTC-A0) 25 | (HTK1) | U | (HTK1) REL |

## TO CAD 108 (TCCA) REL

| | | |
|---|---|---|
| 790 | U | |
| 185 | R | |

## TO CAD 102 (LLC-MB2)

| | | | |
|---|---|---|---|
| 34 | (VFT4) | 9 | (VFT4) REL |
| 30 | (VFTO) | 9 | (VFTO) REL |

## (ORMC-ME)

| | | | |
|---|---|---|---|
| 44 | (VF4) | 24M | |
| 40 | (VFO) | 20M | |
| 24 | (VG7) | 14M | |
| 23 | (VG4) | 13M | |
| 22 | (VG2) | 12M | |
| 21 | (VG1) | 11M | |
| 20 | (VGO) | 10M | |
| 13 | (FT3) | 4M | |
| 10 | (FTO) | 1M | (GTL2) REL |

TO CAD 101

## (ORMC-MD)

| | | | |
|---|---|---|---|
| 54 | (HG7) | 19M | |
| 53 | (HG4) | 18M | |
| 52 | (HG2) | 17M | |
| 51 | (HG1) | 16M | |
| 50 | (HGO) | 15M | |
| 44 | (FU7) | 9M | |
| 43 | (FU4) | 8M | |
| 42 | (FU2) | 7M | |
| 41 | (FU1) | 6M | |
| 40 | (FU0) | 5M | |

## TO CAD 154

| | | | |
|---|---|---|---|
| 122 | | 10 | (VFT4) REL |
| 121 | | 10 | |
| 120 | | 10 | |
| 119 | | 10 | |
| 118 | | 10 | (VFTO) REL |
| 79 | | 2 | (VGT9) REL |
| 70 | | 2 | (VGTO) REL |
| 69 | | 2 | (HGT9) REL |
| 60 | | 2 | (HGTO) REL |
| 27 | | 10M | (VFTO) REL |
| 25 | | 2M | (VGTO) REL |
| 24 | | 2M | (HGTO) REL |
| 59 | | 2 | (VGT11) REL |
| 58 | | 2 | (VGT10) REL |

MFR DISC

## TO CAD 105 (OSC-MC2)

| | | | |
|---|---|---|---|
| 54 | (VF4) | U | (VF4) REL |
| 50 | (VFO) | U | (VFO) REL |
| 44 | (HG7) | U | (HG7) REL |
| 43 | (HG4) | U | (HG4) REL |
| 42 | (HG2) | U | (HG2) REL |
| 41 | (HG1) | U | (HG1) REL |
| 40 | (HGO) | U | (HGO) REL |
| 34 | (VG7) | U | (VG7) REL |
| 33 | (VG4) | U | (VG4) REL |
| 32 | (VG2) | U | (VG2) REL |
| 31 | (VG1) | U | (VG1) REL |
| 30 | (VGO) | U | (VGO) REL |
| 24 | (VG10) | U | (VG10) REL |

## TO CAD 68 OR TO CAD 105 (OSC-MC2) (MFR DISC)

| | | | |
|---|---|---|---|
| 23 | (FT3) | 4F | |
| 22 | (FT2) | 3F | |
| 20 | (FTO) | 1F | |
| 14 | (FU7) | 9F | |
| 13 | (FU4) | 8F | |
| 12 | (FU2) | 7F | |
| 11 | (FU1) | 6F | |
| 10 | (FU0) | 5F | (GTL2) REL |

MFR DISC.

## TO CAD 104 (NGC-MCB)

| | | | |
|---|---|---|---|
| 14 | (BNK) | 8F | (HTK1) REL |
| 23 | | 1F | (CB2) REL |
| 07 | | 6M | (VF4) REL |
| 311 | | 8B | (HTK1) REL |
| 524 | | 9M | (VFTO) REL |

## TO CAD 192

| | | |
|---|---|---|
| 23 | 7M | |
| 17 | 7B | (FLGA) REL |

## TO CAD 204

| | | |
|---|---|---|
| 145 | 3M | (FTK1) REL |
| 144 | 12M | (VTK1) REL |
| 137 | 10M | (HTK1) REL |
| 152 | 2M | |
| 151 | 2B | |
| 150 | 2 | (FLGA) REL |
| 189 | 10 | (HTK1) REL |
| 190 | 3 | (FTK1) REL |

## TO CAD 108 (TCCA) REL

| | | |
|---|---|---|
| 839 | 4B | |
| 838 | 4 | |
| 20T | 9 | |

TO CAD 101 (ORMC-ME) — ORI — 9M

TO CAD 167 — 37 — 7B — (TOG5) REL

## TO CAD 205

| | | |
|---|---|---|
| 44A | 3 | (VFT4) REL |
| 40A | 3 | (VFTO) REL |
| 41A | 12 | (VGT11) REL |
| 40A | 12 | (VGT10) REL |
| 34A | 12 | (VGT9) REL |
| 30A | 12 | (VGT5) REL |
| 24A | 12 | (VGT4) REL |
| 2uA | 12 | (VGTO) REL |
| 24D | 8 | (HGT9) REL |
| 20D | 8 | (HGT5) REL |
| 14C | 8 | (HGT4) REL |
| 10D | 8 | (HGTO) REL |
| 47A | 1M | (FLGA) REL |
| 17A | 11M | (VFTO) REL |
| 13A | 2 | (FTK1) REL |

## TO CAD 214

| | | |
|---|---|---|
| VF4 | 11 | (VFT4) REL |
| VF3 | 11 | (VFT3) REL |
| VF2 | 11 | (VFT2) REL |
| VF1 | 11 | (VFT1) REL |
| VF0 | 11 | (VFTO) REL |

TO CAD 108 — 263 — 1 — (TOG5) REL

TO CAD 204 — 36 — 221 — 10M — (TCCA) REL

DO NOT CONN WHEN WIDEBAND IS PROVIDED

## TO CAD 108 (TOG5) REL

| | | |
|---|---|---|
| 5DG' | 10 | |
| 4DG' | 9 | |
| 5DG | 10B | |
| 4DG | 9B | |

ISSUE 62A

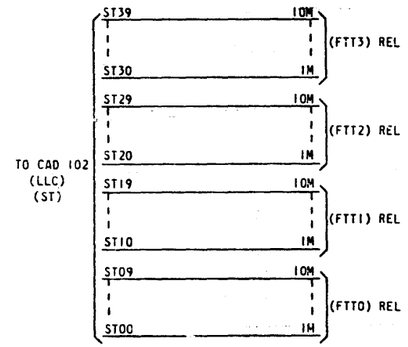
COMPLETING MARKER CIRCUIT (2)

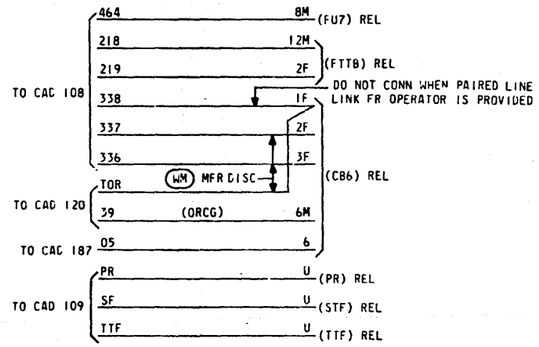
SD-26002-01-G15A

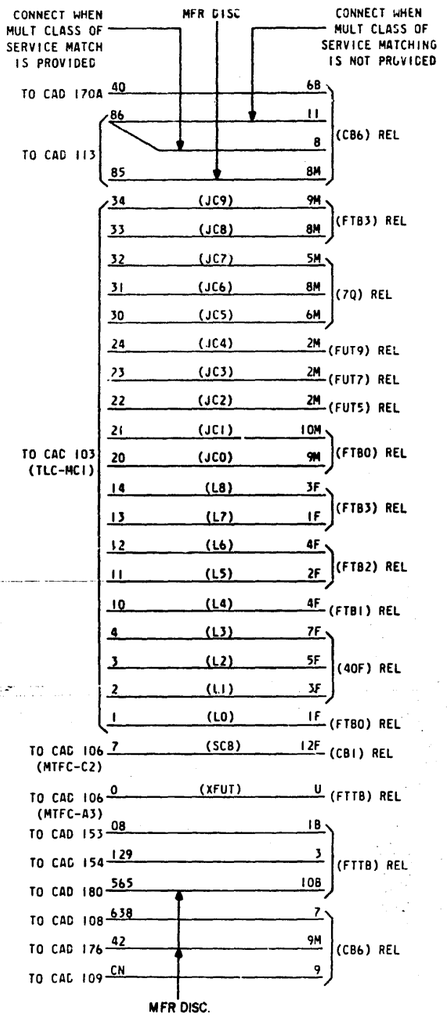
BELL TELEPHONE LABORATORIES INCORPORATED 6S

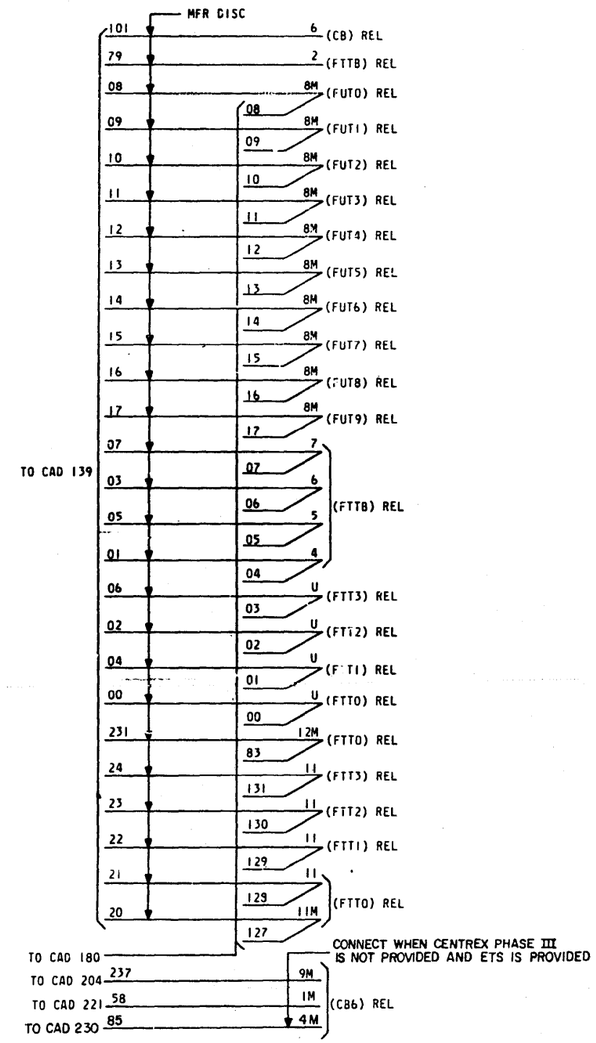
SD-26002-01-G15A

# CAD 19
(FOR APP FIG 19)




| DRAWING ISSUE | |
|---|---|
| 39D | FLK |
| 44A | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-28002-01-G158

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# CAD 20
(FOR APP FIG. 20)

45 (JSQ5) 8M
44 (JSQ4) 6M
43 (JSQ3) 4M — (MT8A) REL
40 (JSQ0) 1M
59 (TCH9) 12M
58 (TCH8) 11M — (P9) REL
57 (TCH7) 10M
56 (TCH6) 9M (P8) REL
55 (TCH5) 7M (P9) REL
54 (TCH4) 5M (P8) REL
53 (TCH3) 4M (P9) REL
52 (TCH2) 3M (P8) REL
51 (TCH1) 2M — (P9) REL
50 (TCH0) 1M
(MTFC-T1) 49 (MT7) U (MT7) REL.
46 (KJSQ) 8M (MT8) REL
45 (JSQ5) U (JSQ5) REL
41 (EZ) (JSQ1) U (JSQ1) REL.
40 (JSQ0) 6F (JLE) REL.
TO CAD 106 — 39 (MT8K) 9 (MT8) REL.
MFR DISC.
(MTFC-C2) 35 (STP2) U (STP2) REL
34 (STP1) 12F (STP1) REL
49 (PNR) 9F
48 (PC) 6F
(MTFC-A1) 47 (PB) 7F — (STP2) REL
46 (PA) 12F
24 (SQA) 10F (SQA) REL
(MTFC-A0) 54 (JG4) 5F — (STP2) REL
50 (JG0) 1F
TO CAD 198 32

(TLC-M) 51 (SEF) 12M (P6) REL
54 (P9) U (P9) REL.
(TLC-MC1) 50 (P5) U (P5) REL.
44 (P4) U (P4) REL.
40 (P0) U (P0) REL.
TO CAD 103 — 54 (G4) 5M — (GC) REL.
50 (G0) 1M
(TLC-MB2) 44 (G0A) 9M
24 (R) 10M — (JG4) REL.
22 (L) 11M
21 (EF) 12M
20 (RF) 1M

TO CAD 204 — 39 10M (STP2) REL
31 10B (LLC2) REL
TO CAD 113 — 81 6B (STP) REL.

TO CAD 180 — 98
TO CAD 109 (MFR DISC) OR CAD 139
SZD (186) (SZD) NET
SZC (SZC) NET
SZB (SZB) NET
SZA (SZA) NET
MFR DISC.

TO CAD 109
SZ10 U (10 TLF) REL.
SZ3 U (3 TLF) REL.
SZ 2-3 U (2-3 TLF) REL.
SZ2 U (2 TLF) REL.

TO CAD 108 — 362 (MT10K) MFR DISC. 9B (MT8) REL.
(MT10K) 7B (MT8A) REL

09 (LSP5) 9M (JSQ5) REL
10 (LSP4) 9M (JSQ4) REL
TO CAD 153 — 11 (LSP3) 9M (JSQ3) REL
12 (LSP2) 9M (JSQ2) REL
13 (LSP1) 9M (JSQ1) REL
14 (LSP0) 9M (JSQ0) REL
15 (LSP) 1M (SQ0) REL
03 (R03) 2 (JSQ2) REL
02 (R02) 2 (JSQ1) REL
TO CAD 167 — 01 (R01) 2
29 2M — (JSQ0) REL
TO CAD 144 — 08 11B
15 11M — (MT7) REL
TO CAD 123 — 55 7M
54 8M — (MT56) REL
TO CAD 108 — 792 12B (MT56) REL
TO CAD 121 — 30 U (MT8) REL
117 6M (MT56) REL
TO CAD 108 — 511 1B
510 1 — (MT8) REL
CONN WHEN PERM SIG TEST IS PROVIDED
TO CAD 221 — 33 12M (MT7) REL

# CAD 21
(FOR APP FIG. 21)

TO CAD 195 3
TO CAD 138 26 8M (RS4) REL
TO CAD 113 24
27 11F (RCT10) REL
16 U (RS6) REL
14 U (RS4) REL
TO CAD 188 — 15 10
09 11M — (RCT 10) REL
TO CAD 230 — 02
11 12M

26 7F (RCT 10) REL.
TO CAD 113 — 87 T (RCK 1) RES.
94 11F (RCK 2) REL.
98 12M (SRK) REL
TO CAD 74 — TB1B 12F (TBH) REL.
T 2F (RCT15) REL.
TO CAD 198 — 33 8 (RS4) REL
737 4F
736 4B — (OFH) REL.
ARM ONLY
706 (CKQD) 8F (RCT9) REL.
TO CAD 108 — MFR DISC.
381 12M (TNK) REL.
365 7M (RCT10) REL.
162 8F (RCT15) REL.
09 (F) 8B (OFH1) REL
TO CAD 154 — 07 9M
TO CAD 187 — 10 9 (OFH) REL.

40 (RCT10) U (RCT10) REL.
MTFC-C2 — 29 (RS9) U (RS9) REL.
20 (RS0) U (RS0) REL.
TO CAD 106 —
59 (LI) 10F (SRK) REL.
58 (RCK2) U (RCK2) REL.
(MTFC-C1) — 57 (SRK) 12F (SRK) REL.
54 (TBH) U (TBH) REL
53 (OFH) U (OFH) REL
TO CAD 139 — 118
TO CAD 106 — (MTFC-A2) 18 (RCK3) U (RCK3) REL
(MTFC-B5) OR (MTFC-C2) 19 OR 15 (CSW) U (CSW) REL
TO CAD 154 — 29 6B
30 G (TNK) REL
TO CAD 113 (MFR DISC.) — 105

54 (RS9) 6F (RS9) REL
50 (RS5) GF (RS5) REL.
(TLC-MC2) 44 (RS4) GF (RS4) REL
TO CAD 103 — 40 (RS0) GF (RS0) REL
1 (RSK) U (RSK) REL
(TLC-MA2) 14 (HF) 11F (RCT10) REL.
TO CAD 109 NRG
TO CAD 15 XRS1 12F (RSK) REL
TO CAD 180 421 7 (CSW) REL
TO CAD 192 133 5M (OFH) REL.
TO CAD 189 — 44
43 G (CSW) REL
TO CAD 214 — 48A
27C
MFR DISC.
(SPECIAL-RUN FOR WB SWITCHING ONLY)

MFR DISC.
TO CAD 230 — 36 10F (RCT1) REL
30 4 (TCK) REL
31 4 OR 5 (RCK1) REL
TO CAD 170A — 06 1+ 2+ (TCK) REL
58 2 (RCT10) REL
104 2 (RCK2) REL
117 3 (PCK1) REL
TO CAD 139 — 126 1M
128 3M — (OFH) REL
123 4 (RCK2) REL
TO CAD 180 — 355
MFR DISC.

TO CAD 106 (MTFC-C2)
45 (RCT15) U (RCT15) REL
RCT15 — (RCT15)
44 (RCT14)
RCT14 — (RCT14) U (RCT14) REL
43 (RCT13)
RCT13 — (RCT13) U (RCT13) REL
42 (RCT12)
RCT12 — (RCT12) U (RCT12) REL
RCT11 — (RCT11) U (RCT11) REL
39 (RCT9)
RCT9 — (RCT9) U (RCT9) REL
RCT8 — (RCT8) U (RCT8) REL
TO CAD 86 — RCT7 — (RCT7) U (RCT7) REL
RCT6 — (RCT6) U (RCT6) REL
35 (RCT5)
RCT5 — (RCT5) U (RCT5) REL
34 (RCT4)
RCT4 — (RCT4) U (RCT4) REL
33 (RCT3)
RCT3 — (RCT3) U (RCT3) REL
32 (RCT2)
RCT2 — (RCT2) U (RCT2) REL
RCT1 — (RCT1) U (RCT1) REL
TNK — (TNK) 12 (TNK) REL
TO CAD 106 (MTFC-C1) — 50 (TNK) U
31 (TNK)
TO CAD 104 (NGC-MCE) TO CAD 108 TO CAD 214 — 237 A&M ONLY
CONN DO NOT JOIN
WHEN CALL WAITING SERVICE IS PROVIDED
18A 11M
451 3B (OFH) REL
357 3
TO CAD 180 — 395 7 3 (RCK1) REL
594 5 (RCT10) REL
CONNECT WHEN MULTILEVEL PREEMPTION IS PROVIDED
TO CAD 106 (MTFC-C2) — 31
TO CAD 185 — 14 12M (RCT14) REL
TO CAD 191 — 20 8
19 2M
TO CAD 113 — 111
97 10B
96 MFR DISC. 10 (TNK) REL
TO CAD 204 — 95 4B
14 4
13 10F
TO CAD 230 — 47 10M (RCK3) REL
TO CAD 154 — 25B 3M (CSW) REL
TO CAD 211 — 14B 11 (TBH) REL
A&M ONLY

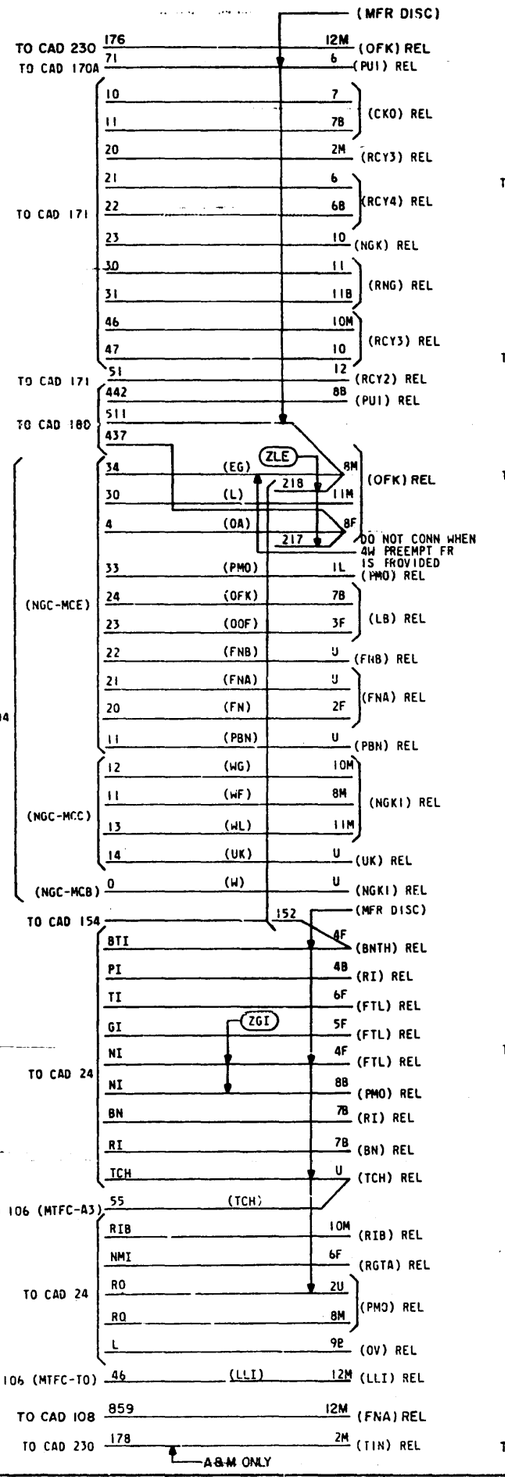
DRAWING ISSUE
63B

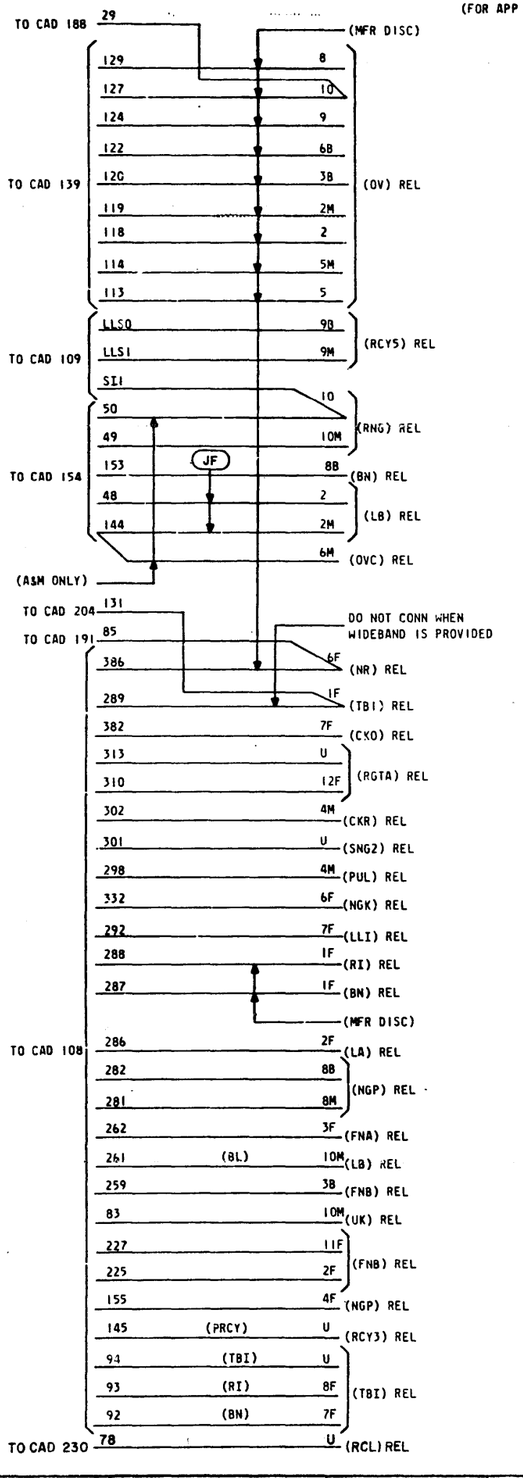
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G16
BELL TELEPHONE LABORATORIES, INC 6S

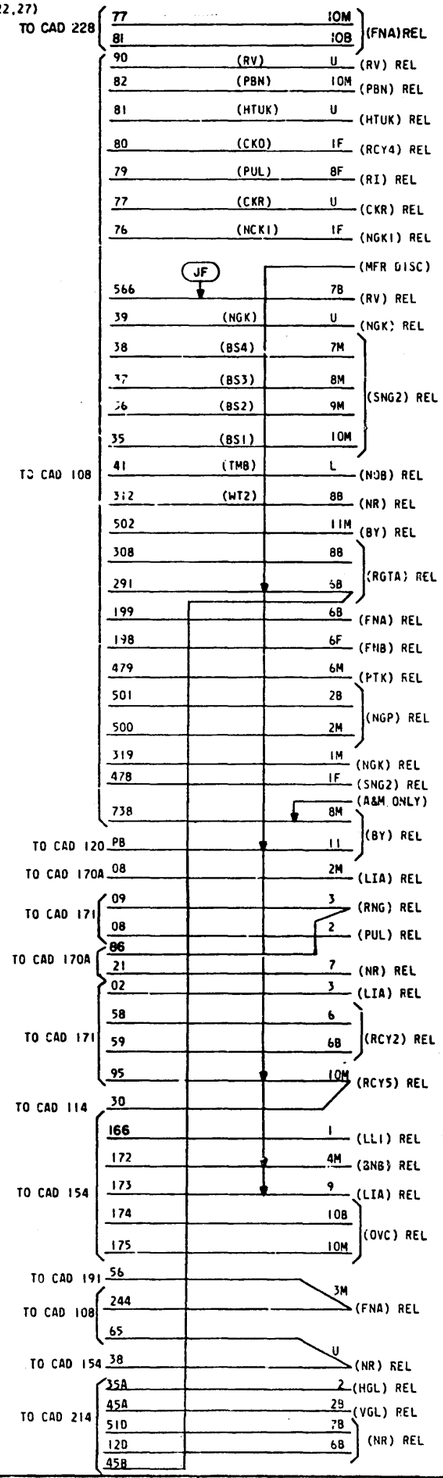
SD-26002-01-G16

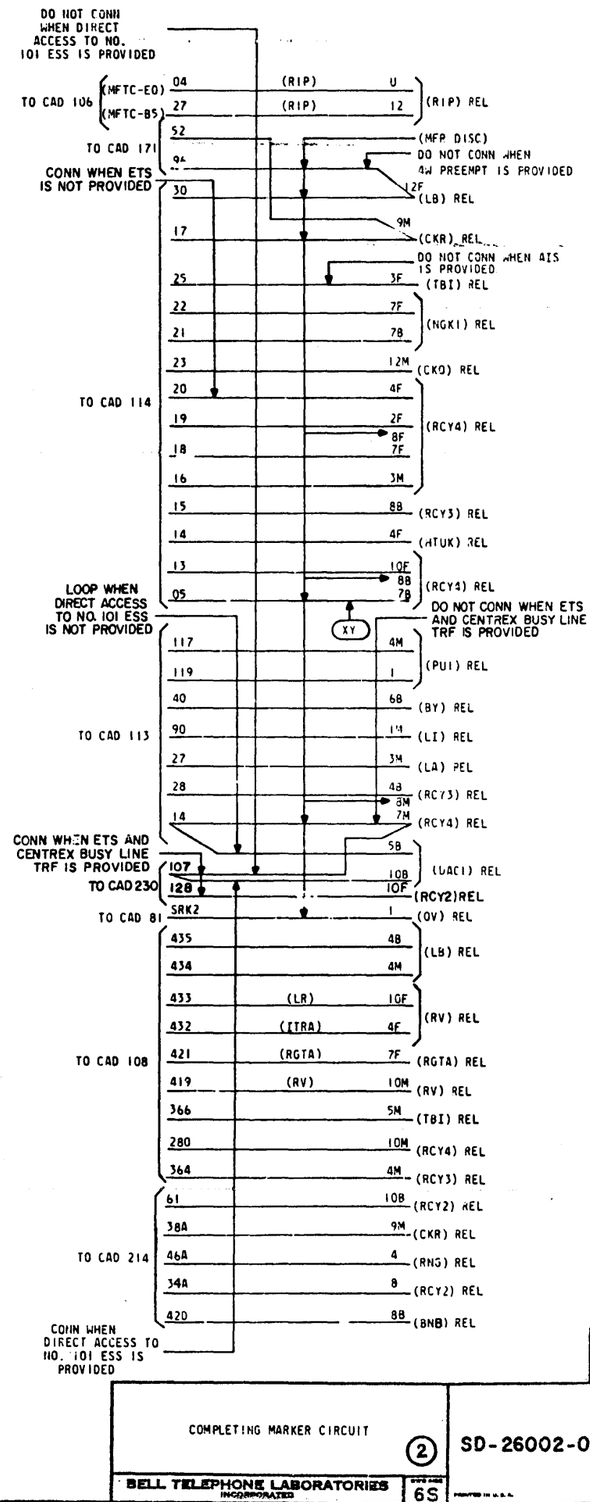
# PART OF CAD 22

(FOR APP FIG 22,27)




| DRAWING ISSUE |
|---|
| 40A |
| 41D |
| 43D |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-GI8A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 22

(FOR AFP FIG 22,27)

TO CAD 114 20A — 4M — (RCY4) REL
TO CAD 230 148 — 4B

114 — U — (OVC) REL
112 — 3M — (RNG) REL
111 — 5 — (BN) REL
110 — 5M
105 — 3 — (LLI) REL
104 — 2
103 — 5
102 — 4

TO CAD 154 176 — 2M — (CKO) REL
181 — 1 — (RCY3) REL
37 — 3M — (OVC) REL
36 — 1 — (NR) REL
32 — 3 — (RCL) REL
31 — 10B — (CKR) REL
26 — 12M — (CKO) REL
13 — 1 — (LA) REL
53 — 12 — (PTK) REL
41 — 10M — (RCY4) REL
280

(MFR DISC)

270 — 5B — (LA) REL
528 — 9b — (OVC) REL
TO CAD 108 536 (LRD) — 6 — (RV) REL
635 — 6M — (RIP) REL
734

DO NOT CONN WHEN ICG INTERCEPT ANN IS PROVIDED

668 — 10 — (LI) REL
(A&M ONLY)

47 — 11M — (LIA) REL
TO CAD 176 34 — 7B — (RI) REL
33 — U — (LB) REL
TO CAD 230 135
TO CAD 191 22
21 — 7 — (RV) REL
TO CAD 204 212

LOOP TO CONTACT 12 OF (LB) REL WHEN 4W PREEMPT IS PROVIDED

TO CAD 121 150 — 5M — (OVC) REL
TO CAD 189 49 — U — (PUI) REL

(SPECIAL) RUN FOR WIDEBAND SERVICE ONLY

(TX) (TY)

41 — 4M — (RVI) REL
40 — 1F — (RCL) REL
42 — 3M — (RV) REL
49 — 3M
TO CAD 230 51 — 2F — (CKR) REL
74 — 1M
52 — 8M — (RNG) REL
75 — 4F — (FTL) REL
75 — 8B — (PMO) ~~REL~~

(MFR DISC)

TO CAD 154 86 — 11B — (FTL) REL
346

445 — 2M — (PBN) REL
432 — 12M — (TBI) REL
433 — 5B — (TBIB) REL
TO CAD 180 435 — 7 — (RIP) REL
429 — 5A — (CKR) REL
427 — 3 — (SNG2) REL
342 — 7
343 — 7M — (RCL) REL

CONN WHEN MLP IS NOT PROVIDED

TO CAD 24 15 — 10M — (BNB) REL
417

418 — 9B — (OV) REL
361 — 2B — (LIA) REL
517 — 1 — (BN) REL
518 — 6 — (RIP) REL
407 — 6 — (BNB) REL
384 — 1M — (FTL) REL
385 — 9M — (LA) REL
404 — 11 — (RCL) REL
334 — 12
TO CAD 180 396 — 5B — (LIA) REL
464 — 11B — (RCY5) REL
569 — 5 — (RNG) REL
588 — 1 — (LA) REL
587 — 1 — (RCY4) REL
595 — 1M — (RCY5) REL
419 — 8B — (BY) REL
592 — 1 — (RCY5) REL
593 — 10B
591 — 10 — (LIA) REL

DO NOT CONN WHEN AIS IS PROVIDED

29 — 1M
TO CAD 114 11 — (TBI) REL
27 — 2M
40
109 — 8M — (CKR) REL
00
TO CAD 154 87 — 9 — (RCY5) REL
14

DO NOT CONN WHEN PHASE I OR II CENTREX (A&M ONLY) IS PROVIDED

17 — 4M — (BNTH) REL
TO CAD 191 19
TO CAD 230 89

CONN WHEN WIDEBAND IS PROVIDED WITH MULT CLASS OF SERVICE MATCH

TO CAD 204 83 — 7 — (RIP) REL
1 — (PUL) REL

CONN WHEN WIDEBAND IS PROVIDED WITHOUT MULT CLASS OF SERVICE MATCH

(A&M) ONLY

134 — 1M — (LIA) REL
126 — 9 — (CKR) REL
TO CAD 204 56 — 6 — (PBN) REL
149 — 12B — (TBIB) REL
TO CAD 211 25A — 2M — (NGKI) REL
TO CAD 212 8NTH — 6 — (BNTH) ~~REL~~
12A — 9 — (RGTA) REL
17A — 4 — (PUL) REL
37A — 6M — (TBI) REL
TO CAD 211 27A — 6M — (SNG2) REL
42A — 7
32A — 4M — (NGK) REL

TO CAD 113 117A — 2M — (PUI) REL
TO CAD 211 18A — 3 — (TBI) REL
51 — 10M
TO CAD 154 205 — 10 — (BNTH) REL
TO CAD 185 20 — 3M — (VFL) REL
TO CAD 230 126
TO CAD 30 34 — 4 — (BY) REL
211
TO CAD 154 212 — 11 — (OVC) REL
234 — 1 — (OV) REL
TO CAD 204 235 — 5B — (RCY5) REL
236 — 5
TO CAD 108 567 — 3 — (CKO) REL
TO CAD 154 214 — 3M
TO CAD 211 55B — 2 — (NGKI) REL
TO CAD 154 215 — MFR DISC. — 2L — (RI) REL
TO CAD 221 57D — 5 — (LLI) REL
180 — 4
TO CAD 188 26 — 7M — (HGL) REL
TO CAD 170A 90 — 10M — (LI) REL
16A — 2
TO CAD 221 26A — 3 — (LLI) REL
36A — 1
31 — 6B
10 CAD 188 30 — 6 — (RCL) REL
32 — 12M — (LI) REL

DO NOT CONN — CONN — FOR ETS WHEN PHASE III CENTREX IS PROVIDED

146 — 7F — (PUL) REL
TO CAD 230 72 — 10F — (PUI) REL
76 — 4B — (PUI) REL
108 — (RIP) REL

LOOP AT UNEQUIPPED POSITION

| DRAWING ISSUE |
|---|
| 41D |
| 42A |
| 43D |
| 44A |

DRAWING ISSUE 60A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G18B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

PRINTED IN U.S.A.

SD-26002-01-G18B

# PART OF CAD 22

ZEC (FOR APP FIG. 8,22) A&M ONLY

LOOP WHEN MULTICLASS OF SER MATCH FOR CNTX SER IS NOT PROVIDED

TO CAD 211 28A
TO CAD 191 54
(MFR DISC)

TO CAD 192: 121 → 4M; 22 → 4B (IPT)REL
50 → 3 (RI)REL
48 → 9 (BN)REL (A&M)
47 → 9 (RI)REL (ARI)
TO CAD 191: 36 → 8M; 35 → 8 (BNTH)REL
33 → 9M (BN)REL
32 → 3M (RI)REL
30 → 2M; 29 → 2 (BNTH)REL
27 → 9 (TBI) REL
20 → 2B (VFL) REL
06 → 3 (BNB)REL
05 → 12M (PU1)REL
ZEF ZED
03 → 10 (TB1B) REL
TO CAD 211 47 → 10 (NGB) REL
TO CAD 186 43 → 12 (NGK) REL
TO CAD 191 125 → 8B
TO CAD 211 428 → 8M; 28AA (NGK) REL
TO CAD 108 31; 30 → 8
16 → 4M; 19 → 11; 15 → 4B (DAC1)REL
TO CAD 185: 13 → 2B (HGL) REL; 19 → 11; 12 → 2 (VFL) REL
11 → U (DAC1) REL (DAC)
10 → 11 (RGTA) REL
07 → 8 (DAC1) REL
18 → 11B (VFL) REL
02 → 4 (PMO) REL
(MFR DISC.)
465 → 11M; 397 → 11 (RCY5)REL
TO CAD 180 372 → 6 (RCL) REL
371 → 8 (TB1B) REL
TO CAD 154 136 → 7 (OVC) REL
171 → 8M (PBN) REL
TO CAD 180 305
TO CAD 171 96
TO CAD 121 151 → 7M (OVC) REL
TO CAD 114 06 → 10 (NGB) REL
TO CAD 180 304 → 6M (BNB) REL
TO CAD 176 35
TO CAD 191 38 → 9 (TB1B) REL
TO CAD 195 0 → 5M (RCL) REL
TO CAD 108 612 → 12M (PUL) REL
640 → 2 (SNG2) REL
TO CAD 180 348 → 3M (LB) REL
TO CAD 154 170 → 7B (RV) REL
A&M ONLY
TO CAD 191 57
TO CAD 211 54B; 38A → 3 (BN) REL

# CAD 23

(FOR APP FIG. 23)

DO NOT CONNECT WHEN WIDEBAND IS PROVIDED

TO CAD 111: NSO → 7F; NSR → 7M (RV3) REL
TO CAD 113: 31 → 6M (PBX1) REL; 00 → 11 (UA) REL
TO CAD 204 91
36 → 8B (UT) REL
34 → 17F (NGC) REL
TO CAD 114: 33 → 6F; 32 → 11M (PBX1) REL
31 → 10M (EG) REL
(MFR DISC.)
TO CAD 154 40 → 4 (SAE) REL
TO CAD 113 113 → 12M (2L) REL
57 → LOOP AT UNEQUIPPED POSITION
84 → 12M (UA) REL
83 → 12M (2LN) REL
36 → 10; 34 → 9; 33 → 9M (2L) REL
TO CAD 171: 29 → 4M; 28 → 4 (SAC1) REL
25 → 12 (2LN) REL
24 → 7M (UA) REL
18 → 5B (SPT) REL
16 → 10M (NGC) REL
571 → 12M (SLCK1) REL
597 → 12M; 596 → 12 (PBK2) REL
TO CAD 180: 589 → 16M (NGC) REL; 430 → 8M (GB) REL; 422 → 8 (UT) REL; 444 → 2 (SAE) REL; 367 → 4M (EG) REL; 366 → 18 (SAE) REL; 329 → 8 (NGC) REL
(MFR DISC.)
TO CAD 185: 04 → 10 (SPT) REL; 05 → 7 (NGC) REL; 06 → 1M (TYMA) REL

TO CAD 104 (NGC-MCE): 32 (OHB) → 4B (A) REL; 14 (OTB) → 4M; 13 (LA) → U (SCR) REL; 12 (AK) → 4F (EG) REL; 10 (SCK) → 4M (PBX1) REL
(NGC-MCC): 4 (SPT) → 2 (SPT) REL; 3 (LGC) → 5 (PBX2) REL
TO CAD 104
TO CAD 171 26
TO CAD 106 (MTFC-B5) 26 → U (2LN) REL
(MTFC-T1) 00 → 12 (2L) REL
287 → 5M (PBX2) REL
577 → 2 (UA) REL
574 (G29) → L (SAK) REL
(MFR DISC.)
568 → 11M; 567 → 11; 565 → 7M (2L) REL
562 → 11M (UA) REL
561 → 4B; 560 → 4 (2L) REL
TO CAD 108: 557 → 7 (2LN) REL; 544 → 1 (2L) REL; 543 → 1 (UA) REL; 385 → 7F (GB) REL; 384 → 1M (PBX1) REL; 383 → 6M (SAE) REL; 378 → 8M (UT) REL; 377 → L (GB) REL; 376 → 3F (A) REL; 375 → U (SAC1) REL
373 → 5F; 372 → 4F; 371 → 3F; 370 → 2F; 369 → 1F (GB) REL
TO CAD 191 01 → 6; TO CAD 121 150 (MFR DISC.) → 6M (EG) REL
TO CAD 191 51 → 2M (NGC) REL
TO CAD 211 57A → 18M (NGC) REL
A&M ONLY

TO CAD 230: 164 → 1F (NGC) REL; 163 → 2 (TYM) REL
TO CAD 108: 367 → 4F (AK) REL; 316 → 3M (EG) REL; 314 (XN) → 6F (SAE) REL; 290 → 9B (SLCK1) REL; 285 → 4M (NGC) REL; 120 (SLCK) → 6B (SLCK1) REL; 119 (PBX1) → U (PBX2) REL; 87 (EG) → 2F (EG) REL; 85 → 2 (2L) REL; 85 (SAE) → U (SAE) REL; 94 (A) → U (A) REL; 40 (LHB) → 6B (GB) REL
TO CAD 154 42
TO CAD 180 426
DO NOT CONNECT WHEN 4W PRE FR IS PROVIDED
MFR DISC.
TO CAD 204: 87 → 5; 86 → 5M; 85 → 5B (PBX1) REL
TO CAD 108 79 → 3 (NGC) REL
TO CAD 204 A&M ONLY 79 → 6M (SLCK1) REL
TO CAD 211: 14A → 4 (SPT) REL; 48A; 11A → L; 538 → 4M (NAIC) REL; 25 → 1; 29 → 5
TO CAD 114 LOOP AT UNEQUIPPED POS 25A → 9M (NGC) REL
TO CAD 214: 15A → 1B; TO FR GRD → 1 (2LN) REL
TO CAD 214 18E → 7B (2L) REL
TO CAD 211: 35B → 13M; 58A → 18 (NGC) REL
A&M ONLY
TO CAD 230: 103 → 9F (NGC) REL; 92 → 9F (NSO) REL

| DRAWING ISSUE | |
|---|---|
| 300 | 18 GAL AND |
| 32A | GAV GAL AND |
| 330 | GAV GAL AND |
| 34A | DP T&S R&S |
| 350 | DP T&S AND |
| 370 | T/S |
| 390 | ESM |
| 410 | |
| 42A | |
| 430 | |
| 44A | |
| 450 | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G19

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-G19

STABILO

# CAD 24

(FOR APP FIG. 24)

TO CAD 154 — 151 — 5M — MFR DISC. (LIN) REL

| | | | |
|---|---|---|---|
| 331 | | 1M | (9NP) REL |
| 319 | | 6M | (9NP) REL |
| 318 | | 6F | (4NE) REL |
| 307 | | 1F | (4NE) REL |
| 306 | | 1F | (6NT) REL |
| 305 | | 1F | (9NP) REL |
| 304 | | 1F | (3NA) REL |
| 297 | | 6F | (6NT) REL |
| 283 | | 6F | (9NP) REL |

TO CAD. 108

| | | | |
|---|---|---|---|
| 135 | (ONN) | U | (ONN) REL |
| 129 | (9NP) | U | (9NP) REL |
| 128 | (8SP) | U | (8SP) REL |
| 127 | (7RN) | U | (7RN) REL |
| 126 | (6NT) | U | (6NT) REL |
| 125 | (5ST) | U | (5ST) REL |
| 124 | (4NE) | U | (4NE) REL |
| 123 | (3NA) | U | (3NA) REL |
| 122 | (2SA) | U | (2SA) REL |
| 121 | (1SE) | U | (1SE) REL |

TO CAD 198 — 12 — 8 — 11 — 8M — (9NP) REL

TO CAD. 106 (MTFC-A3) — 57 (TIN) — 10F — (7RN) REL
TO CAD 191 — 30 — 11M
TO CAD 108 — 627 — 11 — (3NA) REL
TO CAD 191 — 28 — 5M
TO CAD 108 — 628 — 9
46 — 9M — (1SE) REL
45 — 11M — (4NE) REL
TO CAD 191 — 44 — 9M — (6NT) REL
43 — 11M
42 — 9M — (9NP) REL
TO CAD 198 — 41 — 11M
2 — 3
3 — 3M

CONN WHEN TRK LK INDICATES TRK AS TO L LK FULL SEL OR MAN.

A&M ONLY — 58 — A&M ONLY

| | | | |
|---|---|---|---|
| 57 | PI | PI | TO CAD 22 |
| 56 | TTI | 12F | |
| 55 | TNI | 9F | |
| 54 | NMI | 3F | (TIN) |
| 53 | BTI | 5F | |
| 52 | GI | 1F | |
| 51 | NI | 2F | |
| 48 | DNI | (DND)43 | TO CAD 176 |
| 47 | DIR | 111 | TO CAD. 139 |
| TTI 46 | TLI | TI | T. CAD. 22 |
| TNI 45 | TNL | 12F | (LIN) REL |
| NMI 44 | NML | 9F | TO CAD. 8 |
| | | 3F | 291 TO CAD. 22 |
| | | BTI | TO CAD. 503 |
| BTI 43 | BTL | 151 | TO CAD 503 |
| GI 42 | GL | 5F | BTI |
| NI 41 | NL | 1F | GI TO CAD 22 |
| RO 38 | | 2F | NI |
| | | 213 | MFR DISC. TO CAD 204 |
| RO 37 | | | RO |
| BN 36 | | | |
| RI 35 | | | ZGI |
| BN 34 | | | TO CAD. 22 |
| RI 33 | | | MFR DISC |
| BN 32 | | | BN |
| RI 31 | | | RI |
| 28 | TBIB | | TBIB TO CAD. 21 |
| 27 | RIB | | RIB TO CAD. 22 |
| 26 | C | | 11F (TIN) REL |
| 25 | VCA | | VCA |
| 24 | DCA | | DCA TO CAD. 8 |
| 23 | PLB | | 512 |
| 22 | | | 516 TO CAD 180 DO NOT CONN WHEN MLP IS PROVIDED |
| TO CAD 230 138 | | | 21 38 TO CAD 176 |
| 18 | ID | | 10B (LIN) REL |
| 17 | L | | L TO CAD 22 |
| 16 | T | | T TO CAD 21 |
| 15 | BNB | | 418 TO CAD 180 15 TO CAD 22 |
| 14 | CCH | | 14 TO CAD 68 |
| | | | 24 TO CAD 191 |
| | | | 12 (ISE) REL |
| 13 | TCH | | TCH TO CAD 22 |
| 12 | LCH | | 55 MFR DISC. 12F (9NP) REL |
| 11 | MAN | | 54 12E (8SP) REL |

T.S. ON INC TRK CLASS UNIT MKR FR

TO CAD 106 (MTFC-A3)

CH TO CAD 228

DO NOT CONN WHEN ETS AND AIS USING LLP SENDERS ARE PROVIDED

CROSS CONN AS SPEC BY SECTION D

# CAD 25

TO CAD 230 — 87 — LP AT UNEQUIPPED POS

| | | | |
|---|---|---|---|
| TO CAD. 103 (TLC-MA2) 10 | (AD) | 10M | (RN) REL |
| 04 | (OD) | 9M | |
| TO CAD. 108 456 | | | |
| SPC | | 6F | (PCLI) REL |
| TO CAD. 109 PRV | | 6M | |
| AMA | MFR DISC. | 3M | (AMA3) REL |
| 442 | | 7M | |
| 437 | | 3M | (AMA4) REL |
| 436 | | 3F | |
| 431 | | T | (NTOB) RES |
| | | 9 | (AMA5) REL |
| 334 | | 20F | (PCLI) REL |
| 398 | | 11F | (AMA3) REL |
| 391 | | 7M | (AMA4) REL |
| 390 | | U | (SCL5) REL |
| 389 | | U | (SCL3) REL |
| 388 | | U | (SCL2) REL |
| | | | MFR DISC. |
| TO CAD 108 237 | | 9F | (AMA3) REL |
| 235 | | 11M | |
| 233 | | 10B | (RNT2) REL |
| 232 | | U | (RNT1) REL |
| 231 | | 8B | (RN7) REL |
| 230 | | 6F | (AMA5) REL |
| 229 | | 7F | (AMA4) REL |
| 223 | | 11F | (RN) REL |
| 115 | (NAMA) | 10 | (AMA3) REL |
| 187 | | 9B | |
| 176 | | U | (PCL2) REL |
| 171 | | 1B | |
| 153 | | 8F | (AMA3) REL |
| TO CAD 188 01 | | 3 | (PCLI) REL |
| TO CAD 198 0 | | 64 | (RNKI) REL |
| 115 | (NAMA) | 5F | (AMA5) REL |
| TO CAD 108 107 | (RNK) | 4F | (RNK2) REL |
| | | 128 | |
| 47 | (TSRI) | 5F | (AMA3) REL |
| | | 5B | |
| 27 | (RNT2) | U | (RNT2) REL |
| TO CAD 106 (MTFC-A2) 26 | (CLG) | 1F | (AMA4) REL |
| 19 | (CLK) | 2M | |
| 238 | | U | (AMA3) REL |
| TO CAD 108 473 | | U | (AMA4) REL |
| TO CAD. 154 | | 128 4 | (AMA3) REL |
| TO CAD 230 84 | | | |

CONN WHEN ETS IS PROVIDED — XA MFR DISC.

DO NOT CONN WHEN ETS IS PROVIDED

CONNECT WHEN TRAFFIC SAMPLING OF 7 DIGIT SOG CALLS ONLY IS PROVIDED

CONNECT WHEN TRAFFIC SAMPLE CKT IS NOT PROVIDED FOR MARKER

CONNECT WHEN TRAFFIC SAMPLING OF 7 AND 10 DIGIT SOG AND ITR TRAFFIC IS PROVIDED

MFR DISC.

| | | | |
|---|---|---|---|
| 619 | | 5 | (AMA3) REL |
| 582 | | 5M | |
| 134 | | U | (RN7) REL |
| TO CAD 108 133 | | U | (RN4) REL |
| 132 | | U | (RN2) REL |
| 131 | | U | (RNI) REL |
| 130 | | U | (RNO) REL |
| 504 | | 2M | (MT57) REL |
| 56 | | 1 | |
| TO CAD 121 132 | | 2 | |

TO CAD 106 (MTFC-T1) — 26 — IL (MT57) REL

TO CAD 106 (MTFC-B5) — 58

A&M ONLY

CONNECT WHEN MA TST FR CONN IS ARRANGED FOR SINGLE (A&M ONLY) OR DOUBLE SIDED TBL RCRD CARDS

CONNECT WHEN MA TST FR CONN HAS BEEN CONVERTED FROM SINGLE SIDED TO DOUBLE SIDED TBL RCRD CARDS

| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 3D |
| 4A |
| 8D |
| 9D |
| 11B |
| 13B |
| 18D |
| WORN DRAWING REPRODUCED WITHOUT CHANGE 6-5-81 N.M.F. |
| 20AC |
| 21D |
| 22D |
| 23A |
| 25D |
| 27A |
| 30D |
| 31D |
| 33D |
| 34A |
| 35D |
| 37D |
| 39D |
| 41D |
| 43D |
| 45D |

DRAWING ISSUE 64A

COMPLETING MARKER CIRCUIT (2)

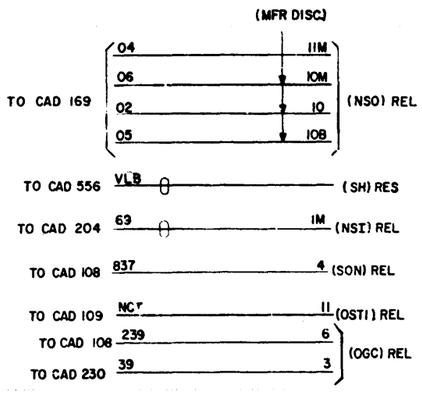
SD-26002-01-G20

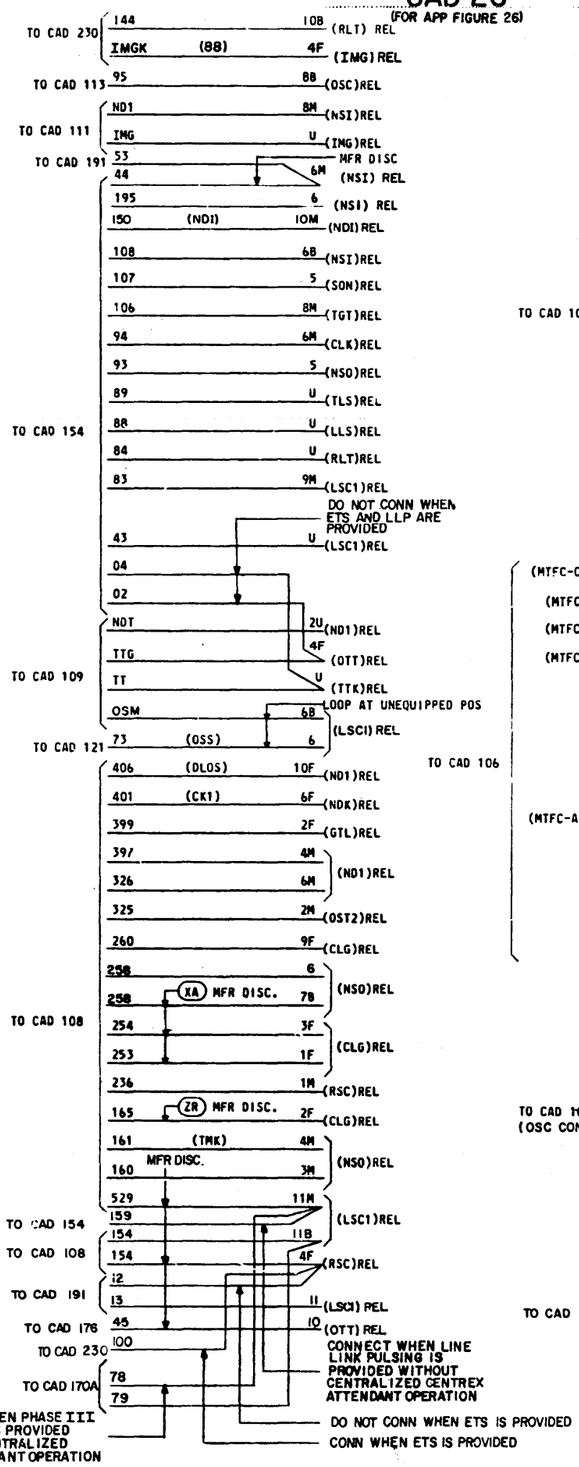
BELL TELEPHONE LABORATORIES INCORPORATED — 6S

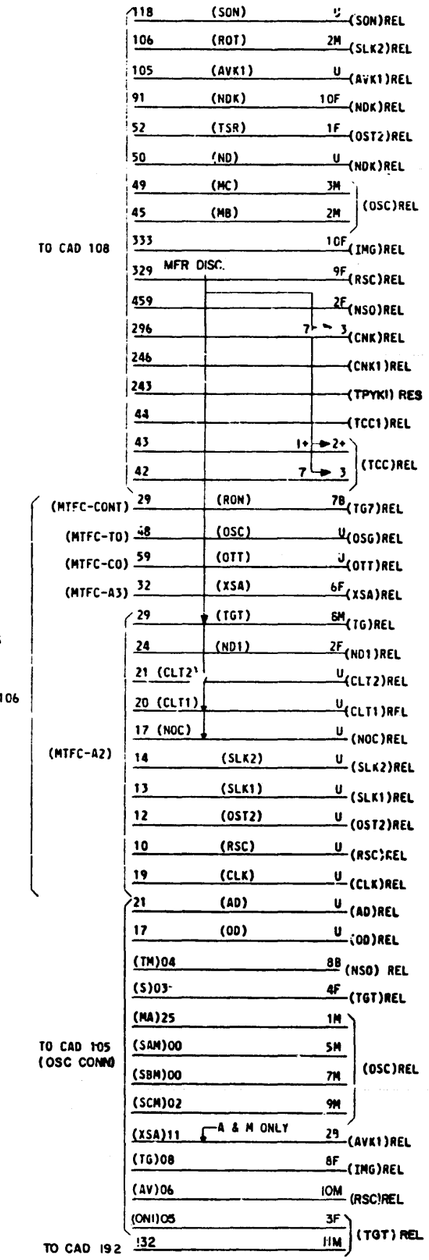
SD-26002-CI-G20

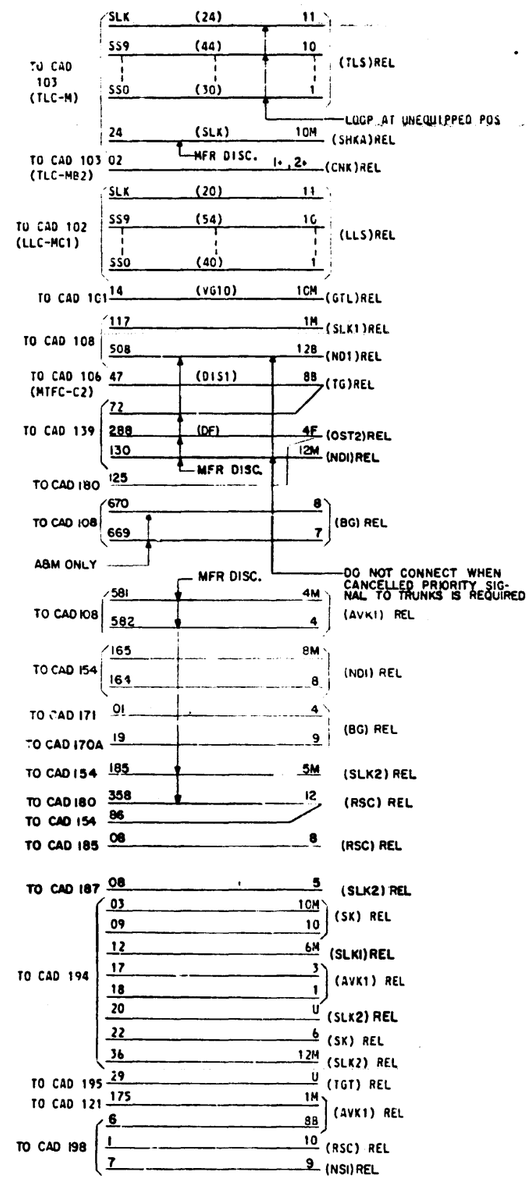
# CAD 26

(FOR APP FIGURE 26)




| DRAWING ISSUE | |
|---|---|
| 22D | SSW EPM AMD |
| 23A | WB EPM AMD |
| 24D | WB EPM AMD |
| 25D | WB AMD |
| 27A | AMD |
| 29A | RN AMD |
| 30D | RN AMD |
| 31D | RN AMD |
| 32A | TS AML AMD |
| 33D | TS AML AMD |
| 34A | RLS TMJ AMD |
| 35D | TMJ AMD |
| 37D | SSL |
| 39D | RP |
| 41D | |
| 45D | |

ISSUE 64A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G21

BELL TELEPHONE LABORATORIES INCORPORATED

6S

STABILO

# CAD 27

(FOR APPLICATION)

| | | | |
|---|---|---|---|
| 324 | | 6F | (CDK1) REL |
| 323 | | 15F | (OSGO) REL |
| 393 | | 6B | (OSK) REL |
| 144 | (SSB) | 6F | (SKB) REL |
| 143 | (SSA) | 6F | (SKA) REL |
| 137 | (OSK) | U | (OSK) REL |
| 136 | (OSE) | 2F | (OSE1) REL |
| 99 | (OS4) | 9F | |
| 98 | (OS3) | 7F | |
| 97 | (OS2) | 11F | (MT2) REL |
| 96 | (OS1) | 6F | |
| 95 | (OSO) | 6F | |
| 88 | (TWT) | 8F | (TWT2) REL |
| 530 | | 4B | (OSE1) REL |
| 531 | | 20M | (OSGO) REL |
| 436 | | 6M | (ASB) REL |

TO CAD 108

| | | | |
|---|---|---|---|
| 30 | (MTK) | 2M | |
| 16 | (SIB) | 1F | (MT2) REL |
| 15 | (SIA) | 3F | |
| 9 | (TOS4) | 8F | |
| 8 | (TOS3) | 6F | |
| 7 | (TOS2) | 10F | (OSE) REL |
| 6 | (TOS1) | 7F | |
| 5 | (TOSO) | 4F | |

TO CAD 106 (MTFC-TO)

| | | | |
|---|---|---|---|
| 54 | (OS4) | 8B | |
| | | 6B | |
| | | 10B | (OSE) REL |
| | | 7B | |
| 50 | (OSO) | 4B | |
| 69 | (SKB) | 6B | (GBB) REL |
| 68 | (SKA) | 6B | (GBA) REL |
| 44 | (OSGB4) | 6M | (OSG4) REL |
| 40 | (OSGBO) | 6M | (OSGO) REL |
| 34 | (OSGA4) | 5M | (OSG4) REL |
| 30 | (OSGAO) | 5M | (OSGO) REL |
| 59 | (S4) | 1F | (OS4) REL |
| 55 | (SO) | 1F | (OSO) REL |

TO CAD 105 (OSC-CONT)

| | | | |
|---|---|---|---|
| 44 | (SS9) | 11M | |
| 41 | (SS6) | 8M | |
| 40 | (SS5) | 6M | (SSB) REL |
| 34 | (SS4) | 5M | |
| 30 | (SSO) | 1M | |

TO CAD 103 (TLC-M)

MFR DISC.

| | | | |
|---|---|---|---|
| 35 | (ST) | 18F | (OSGO) REL |
| 21 | (SCBBI) | U | (SCBBI) REL |
| 20 | (SCBBO) | U | (SCBBO) REL |
| 17 | (SCBAI) | U | (SCBAI) REL |
| 16 | (SCBAO) | U | (SCBAO) REL |

TO CAD 123

| | | | |
|---|---|---|---|
| SIB4 | | 23F | (OSG4) REL |
| SIBO | | 23F | (OSGO) REL |
| SIA4 | | 3F | (OSG4) REL |
| SIAO | | 3F | (OSGO) REL |
| 104 | (ASB4) | 17F | (OSG4) REL |
| 100 | (ASBO) | 17F | (OSGO) REL |
| 94 | (A4) | 14F | (OSG4) REL |
| 90 | (AO) | 14F | (OSGO) REL |
| 58 | (ASB) | 4M | (MT2) REL |

TO CAD 121

| | | | |
|---|---|---|---|
| 4 | (OSG4) | 16F | (OSG4) REL |
| 0 | (OSGO) | 16F | (OSGO) REL |

TO CAD 120

| | | | |
|---|---|---|---|
| OSC4 | | U | (OSG4) REL |
| OSCO | | U | (OSGO) REL |
| DKI | | U | (CDK1) REL |
| DKO | | U | (CDKO) REL |
| TWT4 | | U | (TWT4) REL |
| | (24) MFR DISC | | |
| TWTO | | U | (TWTO) REL |
| DKA2 | | | |

TO CAD 111

TO CAD 109

| | | | |
|---|---|---|---|
| TW4 | | 6F | (TWT4) REL |
| TWO | | 6F | (TWTO) REL |
| SDG1 | | 4F | (CDK1) REL |
| SDGO | | 4F | (CDKO) REL |
| GBB4 | | 8M | (OSG4) REL |
| GBBO | | 8M | (OSGO) REL |
| GBA4 | | 7M | (OSG4) REL |
| GBAO | | 7M | (OSGO) REL |
| SDB4 | | 10M | (OSG4) REL |
| SDBO | | 10M | (OSGO) REL |
| SDA4 | | 9M | (OSG4) REL |
| SDAO | | 9M | (OSGO) REL |
| OSM4 | | 18M | (OSG4) REL |
| OSMO | | 18M | (OSGO) REL |
| SK4 | | 15M | (OSG4) REL |
| SKO | | 15M | (OSGO) REL |
| SKDI | | 6M | (CDK1) REL |
| SKDO | | 6M | (CDKO) REL |

TO CAD 109

| | | | |
|---|---|---|---|
| 37 | SIAII | 37 | TO CAD 67 |
| 36 | SIAIC | 36 | |
| 35 | SIA4 | 3M | (OSG4) REL |
| 34 | SIA3 | 3M | (OSG3) REL |
| 33 | SIA2 | 3M | (OSG2) REL |
| 32 | SIAI | 3M | (OSG1) REL |
| 31 | SIAO | 3M | (OSGO) REL |
| 25 | SIAC4(1) | 11B | |
| 24 | SIAC3(1) | 9B | |
| 23 | SIAC2(1) | 7B | (SCBAI) REL |
| 22 | SIAC1(1) | 5B | |
| 21 | SIACO(1) | 3B | |
| 15 | SIAC4(0) | 11B | |
| 14 | SIAC3(0) | 9B | |
| 13 | SIAC2(0) | 7B | (SCBAO) REL |
| 12 | SIAC1(0) | 5B | |
| 11 | SIACO(0) | 3B | |

T.S. ON SDR GRP AND SDR CONN SEL UNIT FOR OSGO-4

| | | | |
|---|---|---|---|
| 67 | SIBII | 67 | TO CAD 67 |
| 66 | SIBIO | 66 | |
| 65 | SIB4 | 23M | (OSG4) REL |
| 64 | SIB3 | 23M | (OSG3) REL |
| 63 | SIB2 | 23M | (OSG2) REL |
| 62 | SIBI | 23M | (OSG1) REL |
| 61 | SIBO | 23M | (OSGO) REL |
| 55 | SIBC4(1) | 11B | |
| 54 | SIBC3(1) | 9B | |
| 53 | SIBC2(1) | 7B | (SCBBI) REL |
| 52 | SIBC1(1) | 5B | |
| 51 | SIBCO(1) | 3B | |
| 45 | SIBC4(0) | 11B | |
| 44 | SIBC3(0) | 9B | |
| 43 | SIBC2(0) | 7B | (SCBBO) REL |
| 42 | SIBC1(0) | 5B | |
| 41 | SIBCO(0) | 3B | |

T.S. ON SDR GRP AND SDR CONN SEL UNIT FOR OSGO-4

| | | | |
|---|---|---|---|
| TO CAD 169 | 00 | 11M | (SKA) REL |
| TO CAD 139 | 136 | 10 | (TWTO) REL |
| | 137 | 10 | (TWT1) REL |
| | 138 | 10 | (TWT2) REL |
| | 37 | 10 | (TWT4) REL |
| | 36 | 10 | (TWT3) REL |
| | 35 | 3F | (TWT4) REL |
| | 31 | 3F | (TWTO) REL |
| | 30 | 3M | (TWTO) REL |

MFR DISC.

| | | | |
|---|---|---|---|
| TO CAD 154 | 48 | 7 | (ASB) REL |
| | 126 | 3M | (SKA) REL |
| | 123 | 3F | |
| | 90 | 12M | (SSA) REL |
| | 15 | 20F | (OSGO) REL |
| TO CAD 187 | 09 | 16M | |
| TO CAD 230 | 145 | U | (ASB) REL |
| | 99 | | |

DO NOT CONN WHEN ETS IS PROVIDED

CONN WHEN ETS IS PROVIDED

| | | | |
|---|---|---|---|
| TO CAD 194 | 39 | 11 | (SKB) PSI |
| | 38 | 1 | (OSK) REL |
| TO CAD 139 | 256 | 2 | (TWTO) REL |
| | 255 | 2M | (TWT1) REL |
| | 254 | 2M | (TWT3) REL |
| | 253 | 2M | (TWT2) REL |
| | 252 | 2M | (TWT1) REL |
| | 251 | 2M | (TWTO) REL |

MFR DISC.

| | | | |
|---|---|---|---|
| TO CAD 121 | 164 | 4M | (OSG4) REL |
| | 160 | 4M | (OSGO) REL |
| TO CAD 123 | 44 | 11M | (OSG4) REL |
| | 40 | 11M | (OSGO) REL |

| DRAWING ISSUE | |
|---|---|
| 1 | PD |
| 2D | BLG |
| 3D | GE |
| 4A | |
| 5D | |
| 8D | |
| 10B | |
| 19D | |
| 22D | |
| 24D | |
| 30D | |
| 33D | |
| 35D | |
| 39D | RP |

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

ISSUE 6

SD-26002-01-G22

SD-26002-01-G22

# CAD 28
(FOR APP FIG. 28)

109 (ASB9) 17F (OSG9) REL
105 (ASB5) 17F (OSG5) REL
TO CAD 121 — 99 (A9) 14F (OSG9) REL
95 (A5) 14F (OSG5) REL
SIB9 23F (OSG9) REL
SIB5 23F (OSG5) REL
SIA9 3F (OSG9) REL
SIA5 3F (OSG5) REL

9 (OSG9) 16F (OSG9) REL
TO CAD 120 — 5 (OSG5) 16F (OSG5) REL

OSC9 U (OSG9) REL
TO CAD 111 — OSC5 U (OSG5) REL

GBB9 8M (OSG9) REL
GBB5 8M (OSG5) REL
GBA9 7M (OSG9) REL
GBA5 7M (OSG5) REL
SDB9 10M (OSG9) REL
SDB5 10M (OSG5) REL
TO CAD 109 — SDA9 9M (OSG9) REL
SDA5 9M (OSG5) REL
SK9 15M (OSG9) REL
SK5 15M (OSG5) REL
OSM9 18M (OSG9) REL
OSM5 18M (OSG5) REL

49 (OSGBB) 6M (OSG9) REL
45 (OSGB5) 6M (OSG5) REL
TO CAD 105 (OSC CONT) — 39 (OSGA9) 5M (OSG9) REL
35 (OSGA5) 5M (OSG5) REL

37 SIA11 37
36 SIA10 36 — TO CAD 67
35 SIA9 3M (OSG9) REL.
34 SIA8 3M (OSG8) REL.
33 SIA7 3M (OSG7) REL
32 SIA6 3M (OSG6) REL
31 SIA5 3M (OSG5) REL.

25 SIAC4(3) 11B
24 SIAC3(3) 9B
23 SIAC2(3) 7B — (SCBA3) REL.
22 SIACI(3) 5B
21 SIACO(3) 3B

15 SIAC4(2) 11B
14 SIAC3(2) 9B
13 SIAC2(2) 7B — (SCBA2) REL.
12 SIACI(2) 5B
11 SIACO(2) 3B

T.S. ON SDR GRP AND SDR CONN SEL UNIT FOR OSGS-9

67 SIB11 67
66 SIB10 66 — TO CAD 67
65 SIB9 23M (OSG9) REL
64 SIB8 23M (OSG8) REL
63 SIB7 23M (OSG7) REL
62 SIB6 23M (OSG6) REL
61 SIB5 23M (OSG5) REL

55 SIBC4(3) 11B
54 SIBC3(3) 9B
53 SIBC2(3) 7B — (SCBB3) REL
52 SIBCI(3) 5B
51 SIBCO(3) 3B

45 SIBC4(2) 11B
44 SIBC3(2) 9B
43 SIBC2(2) 7B — (SCBB2) REL
42 SIBCI(2) 5B
41 SIBCO(2) 3B

T.S. ON SDR GRP AND SDR CONN SEL UNIT FOR OSGS-9

TS ON SDR GRP AND SDR CONN SEL UNIT FOR OSGO-4

23 (SCBB3) U (SCBB3) REL
22 (SCBB2) U (SCBB2) REL
19 (SCBB3) U (SCBB3) REL
TO CAD 123 — 18 (SCBB2) U (SCBB2) REL
49 11M (OSG9) REL
45 11M (OSG5) REL
169 4M (OSG9) REL
TO CAD 121 — 165 4M (OSG5) REL

# CAD 29
(FOR APP FIG 29)

TO CAD 104 — 116 (XACS) REL

MFR DISC.
TO CAD 79 — 15 → 7 → 3 (XCS) REL
TO CAD 113 — 73 → 5 → 7 (XLC) REL

411 (XT3) 9B
228 10B
TO CAD 108 — 216 12B (TX) REL
TO CAD 230 — 60 3F
58 12F

53 (XRSI) 6F (XRS4) REL
40 (XTS) 6F (XTS) REL
35 (XCH) 6F (XACH) REL.
28 (XJS) 6F (XAJS) REL
25 (XLC) 6F (XALC) REL
24 (XLR) 6F (XALR) REL
TO CAD 106 (MTFC-A3) — 23 (XJG) 6F (XAJG) REL
22 (XJC) 6F (XAJC) REL
21 (XF) 6F (XAF) REL
20 (XVGB) 6F (XAVGB) REL
18 (XTS) 6F (XATS) REL
14 (XCS) 6F (XACS) REL

TO CAD 15 — XRS2 5F (ONX) REL

MFR DISC
TO CAD 139 — 180 4B (BX) REL
TO CAD 180 — 107
80 4
TO CAD 154 — 81 8M (XAF) REL
TO CAD 180 — 566 4 (XFTN) REL
TO CAD 176 — 03 8M (XACH) REL
TO CAD 198 — 5 U (XTS) REL

14 9 (BX) REL
TO CAD 109 — 13 P10 (XJS) REL

18E 2
18A 3
TO CAD 214 — 57A 1 (XVGB) REL
37A (TX) (IY) U (XAVGB) REL
61 5
61 4
TO CAD 230 — 59 2 (XT2) REL
59 1

DRAWING ISSUE 57B

COMPLETING MARKER CIRCUIT (7)
BELL TELEPHONE LABORATORIES, INC
SD-26002-01-G23
SHEET 65

# CAD 30

(FOR APP FIG. 30)

MFR DISC.

TO CAD 180 303 — 6 (MXT) REL
TO CAD 168A MXT — U
TO CAD 204 102
TO CAD 113 20 — 8F (XSL) REL
TO CAD 108 402 (XCR) — 6F (XCR) REL
TO CAD 139 289
TO CAD 176 24

400 — 1U (XN) REL
396 — 1U (XDL) REL
395 — 1U (XCL) REL
TO CAD 108 394 — 1U (XCR) REL
178 — 1U (XCLC) REL
177 — 1U (XTA) REL
177 — 1U (XT) REL
TO CAD 105 (OSC-CONT) 24 (XS) — 1U (XS) REL
TO CAD 139 82 — 8M (XTSI) REL
(MFR DISC.)

CONN WHEN MTC IS ARR FOR 2/5 TRC
TO CAD 198 156 — 11M (STX) REL
4M

52 (XRS)
51 (XSS) — 3F (XSS) REL
50 (XLO) — 6F (XLO) REL
49 (XSL) — 1L (XSL) REL
TO CAD 106 (MTFC-A3) 48 (XCKR) — 6F (XCKR) REL
47 (XRL) — 6F (XRL) REL
44 (XMRL) — 6F (XMRL) REL
43 (XTRL) — 6F (XTRL) REL
42 (XBT) — 6F (XBT) REL
TO CAD 108 221
41 (XTRK) — 6F (XTRK) REL
39 (XTGI) — 6F (XTGI) REL
38 (XTSI) — 6F (XTSI) REL
36 (XN) — 6F (XN) REL
TO CAD 106 (MTFC-A3) 34 (XLS) — 6F (XLS) REL
33 (XTBI) — 6F (XTBI) REL
31 (XS) — 6F (XS) REL
30 (XLV) — 6F (XLV) REL
27 (XHG) — 6F (XHG) REL
26 (XLG) — 6F (XLG) REL

DO NOT CONN WHEN WB IS PROVIDED
19 (MXT) — 8M (MXT) REL
TO CAD 204 115

17 (XPT) — 6F (XPT) REL
16 (XCLC) — 6F (XCLC) REL
TO CAD 106 (MTFC-A3) 15 (XT) — 6F (XT) REL
9 (XDL) — 6F (XDL) REL
7 (XCL) — 6F (XCL) REL
2 (XPG) — 6F (XPG) REL
TO CAD 106 (MTFC-C0) 14 (XFT) — 6F (XAFT) REL
TO CAD 120 30 — 3B (PRLLA) REL
TO CAD 230 27 — 1U (XTGI) REL

TO CAD 230 149 — 6M (XTRK) REL
79 — 2U (XTGI) REL
106
TO CAD 167 33 — 11B
TO CAD 173 00 — 2 (STX) REL
TO CAD 224 STX — U
513
570 — 1U (XTGI) REL
463 — 8 (XAFT) REL
TO CAD 180 462 — 8 (XLS) REL
416 — 4 (XSS) REL
405 — 8M (XCL) REL
300 — 6B (MXT) REL
TO CAD 103 (TLC-M) 22 (XFT) — 2RT (XFT) REL
(TLC-MB2) 01 (LVK) — 1U (XLV) REL

MFR DISC.
TO CAD 120 68 — 3M
67 — 2M
620 — 2
621 — 2B (PRLLA) REL

TO CAD 108 240 — 9B
16 — 8B
15 — 1M
14 — 8M
13 — 7M
12 — 6M (OTF) REL
TO CAD 168A 11 — 4
9 — 3M
8 — 2B
7 — 2M
6 (OTF) — U

170 — 2
TO CAD 204 169 — 2B (STX) REL
168 — 4B (COX) REL
TO CAD 211 16A — 10 (OTF) REL

LOOP WHEN ZUN OPTION IS REQD
TO CAD 22 34 — 7
TO CAD 180 162 — 7B
TO CAD 11 36 — 6
TO CAD 180 161 — 6B
TO CAD 7 38 — 5 (PRLLA) REL
TO CAD 180 60 — 5B
59 — 5M
TO CAD 120 37 — 6M
35 — 7M
LOOP WHEN ZTL OPTION IS REQUIRED
TO CAD 214 56A — 8B (MXT) REL
TO CAD 230 168 — 2U (XCR) REL

# CAD 31

(FOR APP FIG. 31)

TO CAD 230 139 — (HBS) LAMP
TO CAD 121 155 (±AUD OR AC-DC AUD) — T (CON) LAMP
TO CAD 107 226 — T (FN) LAMP
(MFR DISC.)
TO CAD 139 224 — (TFS) LAMP
TO CAD 180 78
TO CAD 108 645 (G19 BAT.) — (LBS2) LAMP
71 — (LF) LAMP
138 — (TBS) LAMP
62 — (NBS1) LAMP
63 — (NBS2) LAMP
64 — (NBS3) LAMP
65 — (NBS4) LAMP
TO CAD 230 101 — (NGKB) LAMP
70 — (NGB) LAMP
66 — (UBS) LAMP
67 — (WL) LAMP
68 — (WG) LAMP
69 — (WF) LAMP
TO CAD 108 858 (G20) BAT. — (LF) LAMP

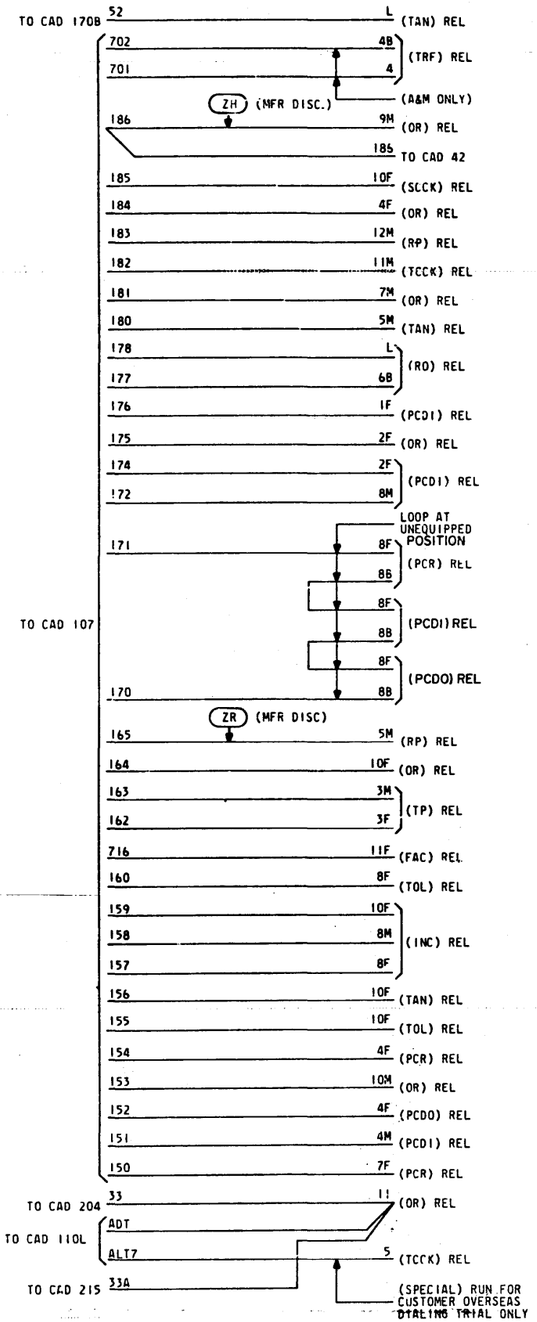
COMPLETING MARKER CIRCUIT

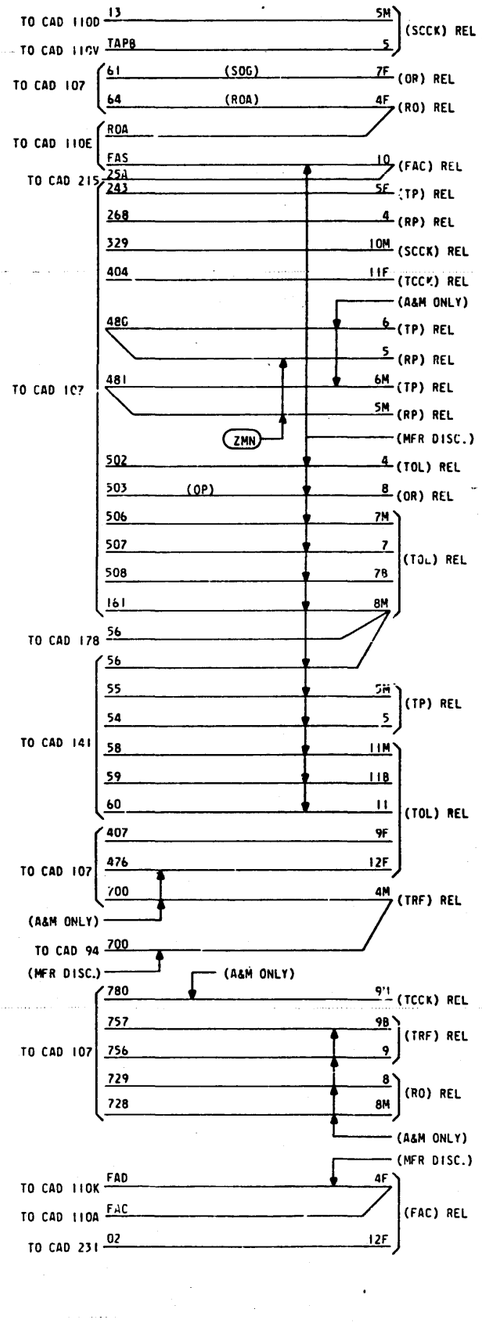
| DWG SIZE | ISSUE |
|---|---|
| 6S | 61B |

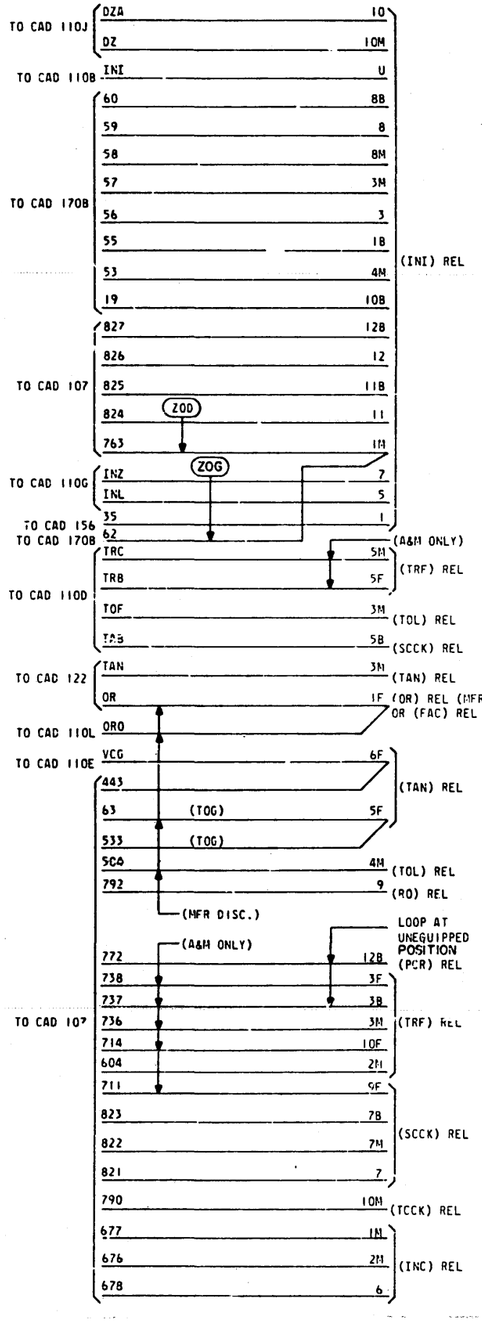
BELL LABORATORIES | SD-26002-01- | G25A

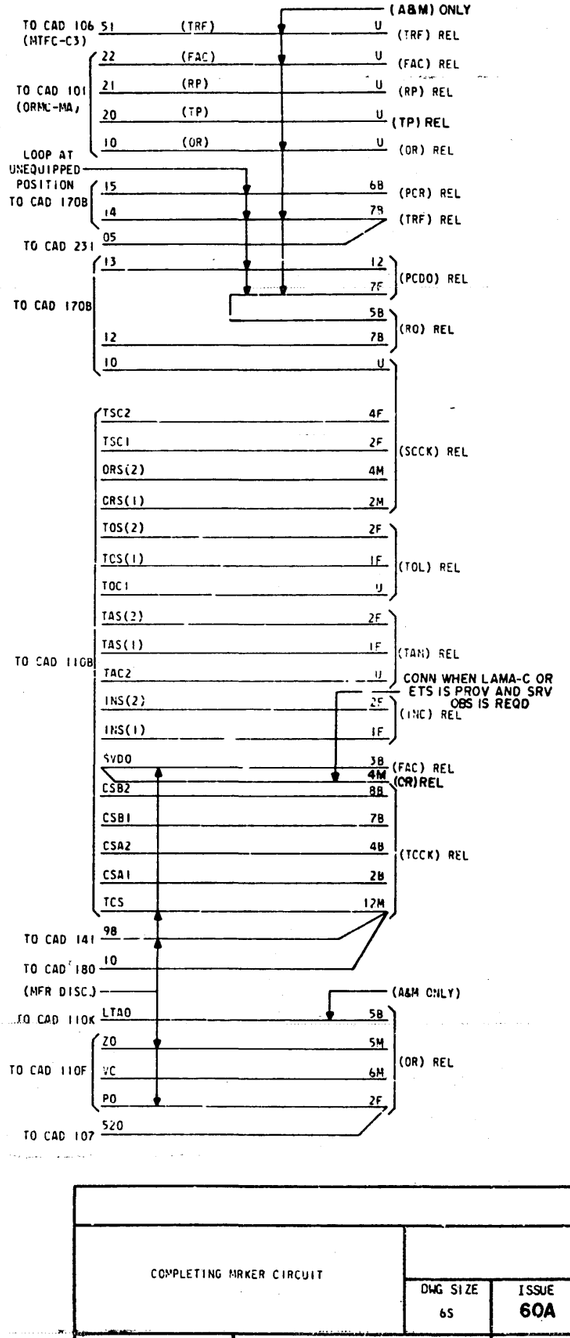
# PART OF CAD 32

(FOR APP FIG. 32)




COMPLETING MRKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 60A |

| BELL LABORATORIES | SD-26002-01- | G25B |
|---|---|---|

## PART OF CAD 32
(FOR APP FIG. 32)

TO CAD 100 (IRMC-MA)
- 52 (INC) — U (INC) REL
- 4 (RO) — U (RO) REL

TO CAD 106 (MTFC-81)
- 49 (PCDI) — U (PCDI) REL
- 48 (PCD) — U (PCDO) REL
- 47 (PCR) — U (PCR) REL

ZD

TO CAD 110U — TPCI, TPCO, TPC — CONNECT FOR MORE THAN ONE TAN, OR TOLL CLASS, OR CAMA

TO CAD 122 TAN — 3M (TAN) REL

TO CAD 110A LSB — 12M (SCCK) REL

TO CAD 110L
- ID2 — 2B
- ID1 — 2

TO CAD 170B
- 54 — 2M
- 64 — 9M
- 63 — 9B

TO CAD 107
- 852
- 846 — 9

(*NI) REL

TO CAD 231
- 20 — 1F (RP) REL
- 37 — 3F (TAN) REL
- 32 — 5F (TP) REL
- 01 — 9M (RP) REL
- 04 — 10F OR 11B (PCR) OR (TAN) REL

TO CAD 110F
- TOV — 6M (TOL) REL
- TAV — 6M (TAN) REL
- FOVC — 6M
- POI — 2F (FAC) REL
- PCR — 11F (PCR) REL
- PCDI — 11F (PCDI) REL
- PCDO — 11F (PCDO) REL
- INV — 6M (INC) REL

TO CAD 107 715 — 4M
TO CAD 123 RO — 9M (RO) REL

## PART OF CAD 33
(FOR APP FIG. 33)

TO CAD 108 (A&M ONLY) OR TO CAD 110A
- SWT3 (2A) — 8F
- SWT0 (2A) — 5F (TPA) REL
- SWT3 (2A) — 4F
- SWT0 (2A) — 1F
- SWR3 (2A) — 8F
- SWR0 (2A) — 5F (RPA) REL
- SWR3 (1A) — 4F
- SWR0 (1A) — 1F

TO CAD 170B 17 — 6M (CTO) REL

TO CAD 107
- 857 — 24M
- 856 — 24F

(CTAO) REL

WITH 2 SORTS
WITH 4 SORTS

WW

| | | | | |
|---|---|---|---|---|
| SWC99 | (2A) | (4A) | 22F | (CTA9) REL |
| SWC90 | (2A) | (4A) | 13F | |
| SWC89 | (2A) | (4A) | 22F | (CTA8) REL |
| SWC80 | (2A) | (4A) | 13F | |
| SWC79 | (2A) | (4A) | 22F | (CTA7) REL |
| SWC70 | (2A) | (4A) | 13F | |
| SWC69 | (2A) | (4A) | 22F | (CTA6) REL |
| SWC60 | (2A) | (4A) | 13F | |
| SWC59 | (2A) | (4A) | 22F | (CTA5) REL |
| SWC50 | (2A) | (4A) | 13F | |
| SWC49 | (2A) | | 22F | (CTA4) REL |
| SWC40 | (2A) | | 13F | |
| SWC39 | (2A) | | 22F | (CTA3) REL |
| SWC30 | (2A) | | 13F | |
| SWC29 | (2A) | | 22F | (CTA2) REL |
| SWC20 | WU (2A) | | 13F | |
| SWC19 | (2A) | | 22F | (CTA1) REL |
| SWC10 | (2A) | | 13F | |
| SWC09 | (2A) | | 22F | (CTAO) REL |
| SWC00 | (2A) | | 13F | |
| SWC99 | (1A) | (3A) | 10F | (CTA9) REL |
| SWC90 | (1A) | (3A) | 1F | |
| SWC89 | (1A) | (3A) | 10F | (CTA8) REL |
| SWC80 | (1A) | (3A) | 1F | |
| SWC79 | (1A) | (3A) | 10F | (CTA7) REL |
| SWC70 | (1A) | (3A) | 1F | |

TO CAD 110B

WITH 4 SORTS
WITH 2 SORTS

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 60A |
| BELL LABORATORIES | SD-26002-01- | | G25C |

# PART OF CAD 33

(FOR APP. FIG. 33)

WITH 4 SORTS
WITH 2 SORTS

| | | | | | |
|---|---|---|---|---|---|
| SWC 69 | (1A) | (3A) | (WV) | 10F | (CTA6) REL. |
| SWC 60 | (1A) | (3A) | | 1F | |
| SWC 59 | (1A) | (3A) | | 10F | (CTA 5) REL. |
| SWC 50 | (1A) | (3A) | | 1F | |
| SWC 49 | (1A) | | | 10F | (CTA4) REL. |
| SWC 40 | (1A) | | | 1F | |
| SWC 39 | (1A) | | | 10F | (CTA 3) REL. |
| SWC 30 | (1A) | | | 1F | |
| SWC 29 | (1A) | | | 10F | (CTA 2) REL. |
| SWC 20 | (1A) | | (WV) | 1F | |
| SWC 19 | (1A) | | | 10F | (CTA 1) REL. |
| SWC 10 | (1A) | | | 1F | |
| SWC 09 | (1A) | | | 10F | (CTA 0) REL. |
| SWC 00 | (1A) | | | 1F | |

TO CAD 110B

| | | |
|---|---|---|
| GRD | 9M | (CT 7) REL. |

| | | |
|---|---|---|
| SWP3(2A) | 8M | |
| SWP0(2A) | 5M | |
| SWP3(1A) | 4M | (TPA) REL. |
| SWP0(1A) | 1M | |

TO CAD 110A

| | | |
|---|---|---|
| 200 | U | (CBA) REL |
| 201 | U | (CGB) REL |
| 692 | 5F | (CT0) REL. |
| 691 | 5F | (CT1) REL. |
| 690 | 5F | (CT2) REL |
| 689 | 5F | (CT4) REL. |
| 688 | 5F | (CT7) REL. |
| 687 | 10F | (CUA0) REL. |
| 686 | 10F | (CUA1) REL. |
| 685 | 10F | (CUA2) REL. |
| 684 | 10F | (CUA4) REL. |
| 683 | 10F | (CUA7) REL. |
| 09 | 23 | (CTA9) REL |
| 00 | 23 | (CTA0) REL |
| 11 | 1 | (CUA7) REL |

TO CAD 107

TO CAD 170B

| | | | |
|---|---|---|---|
| 197 | (CTA2) | U | (CT2) REL. |
| 196 | (CTA1) | U | (CT1) REL. |
| 195 | (CTA0) | U | (CT0) REL |
| 194 | (CU7) | U | (CUA7) REL. |
| 193 | (CU4) | U | (CUA4) REL. |
| 192 | (CU2) | U | (CUA2) REL. |
| 191 | (CU1) | U | (CUA1) REL. |
| 190 | (CU0) | U | (CUA0) REL. |
| 189 | (CTA7) | U | (CT7) REL. |
| 188 | (CTA4) | U | (CT4) REL. |
| 660 | | 11M | (CTA0) REL |
| 659 | | 11 | (CTA9) REL |
| 650 | | 11 | (CTA0) REL |

(WY)

# CAD 34

(FOR APP. FIG. 34)
ANT ONLY SEE NOTE 306

| | | |
|---|---|---|
| CGB0 | 2M | (CGB) REL. |
| CGA0 | 2M | (CGA) REL. |
| CGB2 | 2M | (CGB) REL |
| CGB1 | 1M | |
| CGA2 | 2M | (CGA) REL |
| CGA1 | 1M | |
| SWT3(2B) | 8F | |
| SWT0(2B) | 5F | (TPB) REL |
| SWT3(1B) | 4F | |
| SWT0(1B) | 1F | |
| SWR3(2B) | 8F | |
| SWR0(2B) | 5F | |
| SWR3(1B) | 4F | (RPB) REL |
| SWR0(1B) | 1F | |
| SWC29(2B) | 22F | |
| SWC20(2B) | 13F | (CTB2) REL |
| SWC19(2B) | 22F | |
| SWC10(2B) | 13F | (CTB1) REL |
| SWC9(2B) | 22F | |
| SWC0(2B) | 13F | (CTB0) REL |
| SWC29(1B) | 10F | |
| SWC20(1B) | 1F | (CTB2) REL. |
| SWC19(1B) | 10F | |
| SWC10(1B) | 1F | (CTB1) REL. |
| SWC9(1B) | 10F | |
| SWC0(1B) | 1F | (CTB0) REL. |

TO CAD 110B

TO CAD 110A

| | | |
|---|---|---|
| SWP3(2B) | 8M | |
| SWP0(2B) | 5M | |
| SWP3(1B) | 4M | (TPB) REL. |
| SWP0(1B) | 1M | |

TO CAD 107

| | | | |
|---|---|---|---|
| 665 | | 9 | |
| 664 | | 8 | (CGB) REL |
| 652 | | 9 | |
| 651 | | 8 | (CGA) REL |
| 650 | | 7 | |
| 201 | (CGB) | U | (CGB) |
| 200 | (CGA) | U | (CGA) |

# CAD 35

(FOR APP. FIG. 35)

LOOSE WIRE MULT USO-11 ON THIS AND OTHER UNITS TO PROVIDE THE REQUIRED NUMBER OF (S) RELS FOR EACH SET OF 12 SC POINTS. (CONN ON FRONT)

| | | | |
|---|---|---|---|
| SC- USC11 | 66 | 12F | |
| SC- USC10 | 65 | 11F | |
| SC- USC9 | 64 | 10F | |
| SC- USC8 | 63 | 9F | |
| SC- USC7 | 62 | 8F | |
| SC- USC6 | 61 | 7F | |
| SC- USC5 | 36 | 6F | 9TH (S) REL. ON UNIT |
| SC- USC4 | 35 | 5F | |
| SC- USC3 | 34 | 4F | |
| SC- USC2 | 33 | 3F | |
| SC- USC1 | 32 | 2F | |
| SC- USC0 | 31 | 1F | |
| SC- USC11 | 56 | 12F | S.W. MULT TO 10TH, 11TH, & 12TH RELS. |
| SC- USC10 | 55 | 11F | |
| SC- USC9 | 54 | 10F | |
| SC- USC8 | 53 | 9F | |
| SC- USC7 | 52 | 8F | |
| SC- USC6 | 51 | 7F | 5TH(S) REL. ON UNIT |
| SC- USC5 | 25 | 6F | |
| SC- USC4 | 25 | 5F | |
| SC- USC3 | 24 | 4F | |
| SC- USC2 | 23 | 3F | |
| SC- USC1 | 22 | 2F | |
| SC- USC0 | 21 | 1F | |
| SC- USC11 | 46 | 12F | S.W MULT TO 6TH, 7TH & 8TH RELS. |
| SC- USC10 | 45 | 11F | |
| SC- USC9 | 44 | 10F | |
| SC- USC8 | 43 | 9F | |
| SC- USC7 | 42 | 8F | |
| SC- USC6 | 41 | 7F | 1ST (S) REL. ON UNIT |
| SC- USC5 | 16 | 6F | |
| SC- USC4 | 15 | 5F | |
| SC- USC3 | 14 | 4F | |
| SC- USC2 | 13 | 3F | |
| SC- USC1 | 12 | 2F | |
| SC- USC0 | 11 | 1F | |

TO CAD 110F ON T&CT FR OR TO CAD 126 ON SST FR OR TO CAD 151A ON AST FR AS REQ FOR SC APPEARANCES IN CODE TREATMENT FIELD (LOOSE WIRE CONN ON REAR)

T.S.(S) ON SERVICE TREATMENT RELAY UNIT

S.W. MULT TO 2ND, 3RD & 4TH RELS.

TO CAD 151B

| | | |
|---|---|---|
| S11 | 12M | (S120, 121, 122 ETC. 179 REL.) |
| S0 | 1M | |

MULT TO RELS (S120-178)

TO CAD 151A

| | | |
|---|---|---|
| 031 (BAT) | L | (S179) REL. |
| SW179 | U | (S179) REL. |
| SW120 | U | (S120) REL. |

TO CAD 226B

| | | |
|---|---|---|
| S11 | 12M | (S180, 181, 182 ETC TO 239 REL) |
| S0 | 1M | |

TO CAD 110M OR TO CAD 225B

| | | |
|---|---|---|
| S11 | 12M | (S0, 1, 2 ETC 59 REL.) |
| S0 | 1M | |

CONN ONLY WHEN (S) RELAYS ARE LOCATED ON THE T&CT FR

TO CAD 110A

| | | |
|---|---|---|
| SW59 | U | (S59) REL. |
| SW0 | U | (S0) REL. |

TO CAD 225A

| | | |
|---|---|---|
| SW59 | | |
| SW00 | | |

MULT TO RELS. (S60-118)

TO CAD 126A

| | | |
|---|---|---|
| F6 (BAT) | L | (S119) REL. |
| SW119 | U | (S119) REL. |
| SW60 | U | (S60) REL. |

TO CAD 126B

| | | |
|---|---|---|
| S11 | 12M | (S60, 61, 62 ETC. 119 REL.) |
| S0 | 1M | |

MULT TO REL (S00-58)

TO CAD 225A F5 (BAT.) L (S59) REL

MULT TO REL (S180-238)

TO CAD 226A

| | | |
|---|---|---|
| H8 (BAT.) | L | (S239) REL |
| SW239 | U | (S239) REL |
| SW180 | U | (S180) REL |

| DRAWING ISSUE | |
|---|---|
| 1 | TD Prg |
| 2D | BLC — |
| 3D | SWP HM |
| 5D | SWP YP |
| 17D | CGB CGA HM |
| 19AC | HM EDM |
| 21D | EDM HAD |
| 22D | CGT AHC PEC |
| 24D | EDM HAD |
| 25D | EN PYS AHD |
| 27A | HM STM AHD |
| 35D | LP TXJ HAD |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

ISSUE 60A

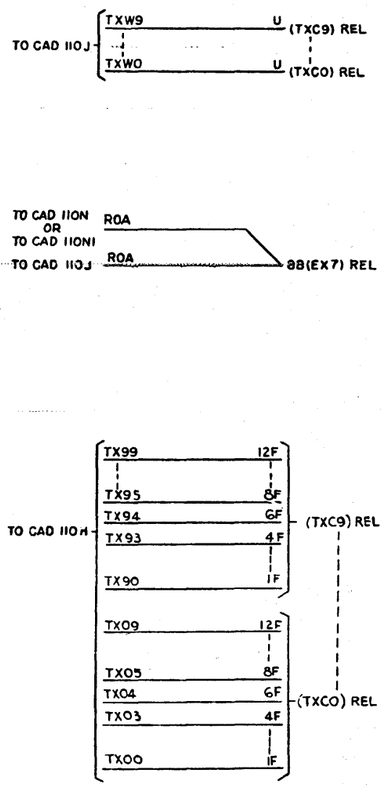
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G26

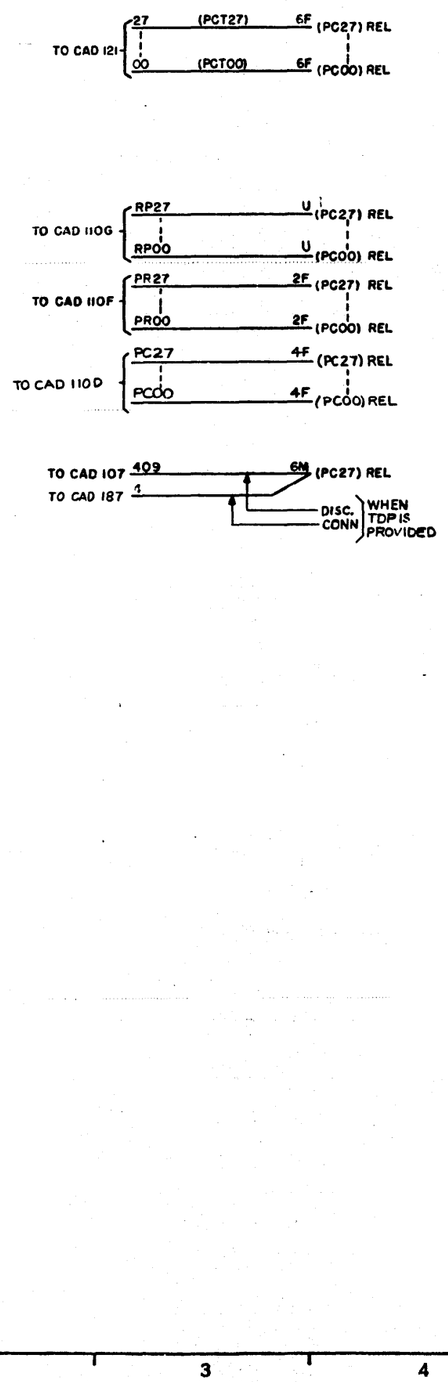
BELL TELEPHONE LABORATORIES, INC

6S

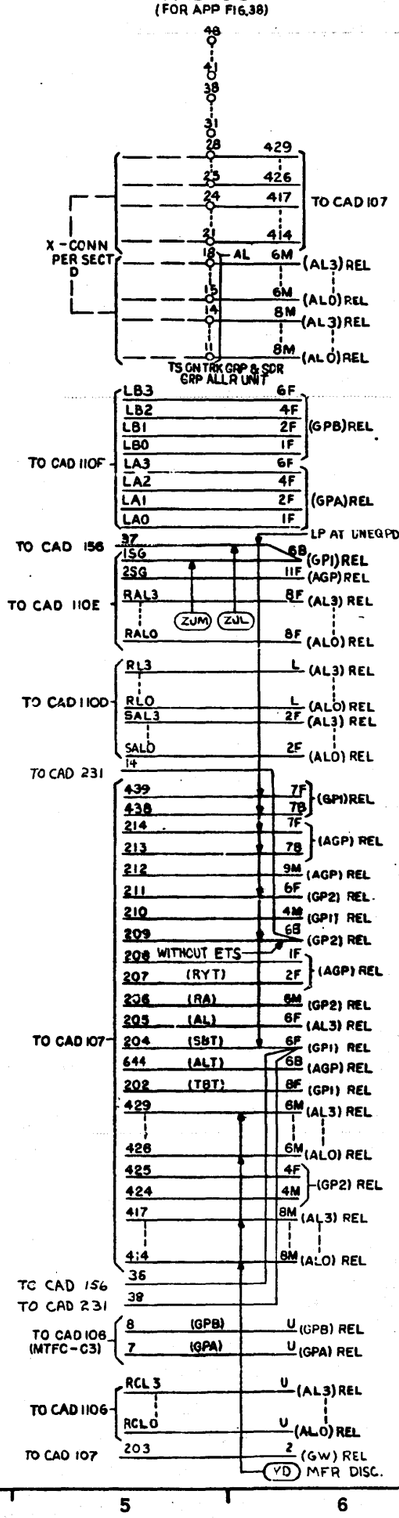
## CAD 36
(FOR APP FIG. 36)



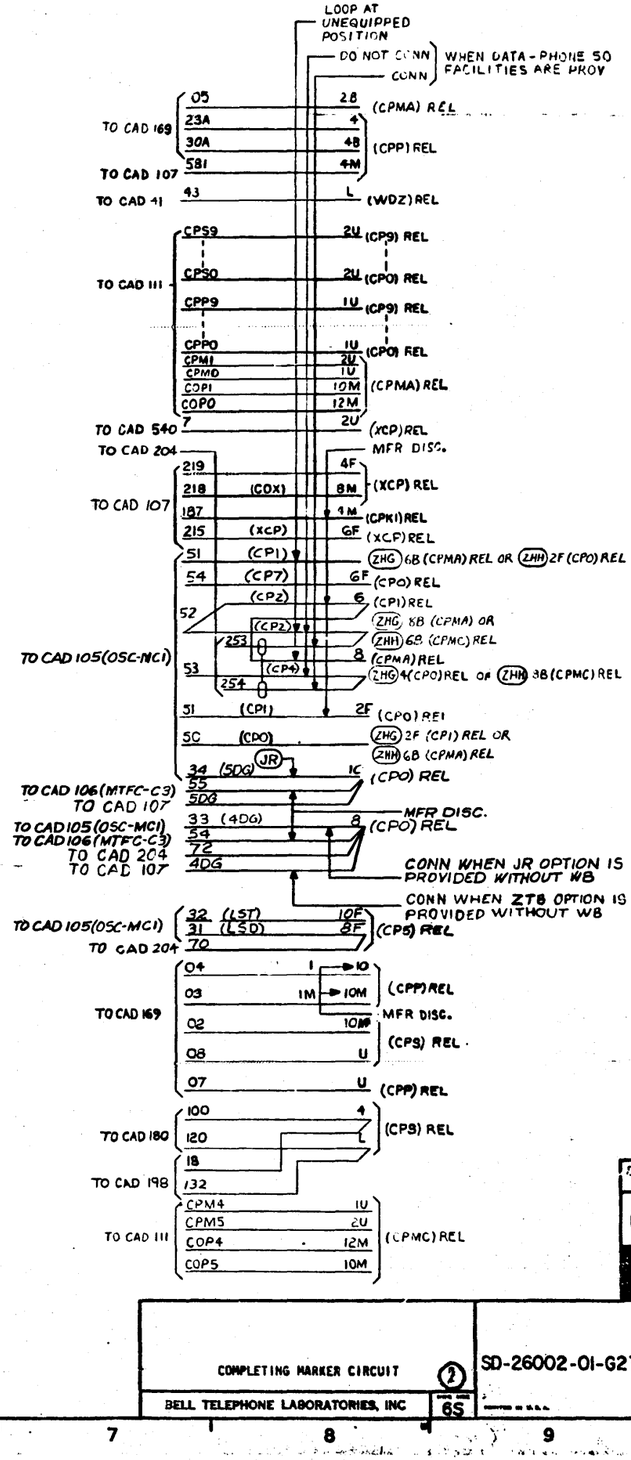

## CAD 37
(FOR APP FIG. 37)




## CAD 38
(FOR APP FIG.38)




## CAD 39
(FOR APP FIG. 39)




| DRAWING ISSUE |
|---|
| 1 |
| 2D |
| 3D |
| 4A |
| 10B |
| 13B |
| 22D |
| 24D |
| 25D |
| 27A |
| 30D |
| 33D |
| 34A |
| 35D |
| 36A |
| 37D |
| 38A |
| 39D |
| 41D |
| 43D |

DRAWING ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-G27

65

# CAD 40
(FOR APP FIG 40)

TO CAD 106 (MTFC-C3) 36 (NOB) U (NOB) REL
35 (OBS) U (OBS) REL
(MTFC-A5) 58 (RPK) 6F (RPK) REL.
(RPK) U (RPK) REL.
TO CAD 107 34 (TOB) 6F (TOB) REL
33 (TOBS) 1F (TOBS) REL
(ZA) MFR DISC.
44 (MB7) 12F
43 (MB6) 11F
42 (MB2) 3F (FN) REL.
41 (MB1) 2F
40 (MB0) 1F
TO CAD 105 (OSC-MC1) 21 (NOB) 9F (NOB) REL.
20 (OBS 9F (OBS) REL.
14 (RP) 1M
13 (TP) 2M (AMA) REL.
TO CAD 105 (OSC-MB1) 31 (TVT) 6F (TVA) REL.
30 (SC) 6F (SCC) REL.
TO CAD 105 (OSC-MB2) 21 (NOB)
TO CAD 105 (OSC-MC1) 20A (OBS)
MFR DISC.
TO CAD 101 (ORMC-MC) 22 (OBS) 4B (TOB) REL.
455
TO CAD 107
TO CAD 110B SVD9 2M (MBS9) REL.
SVD1 2M (MBS1) REL.
TO CAD 191 37 U
TO CAD 156 38 8
26 8M (AMA) REL
(EZ)
TO CAD 169 25 (20) 8B
TO CAD 198 111
TO CAD 169 11 4M (MBK4) REL
12 10 (MBK5) REL
19 (OBS) RES
22 12M (TGS2) REL
05 10M (MBS0) REL
TO CAD 231 OR TO CAD 232A 41 4B (FN) REL
TO CAD 191 38
TO CAD 110E CPG 6M
TO CAD 200 11 8M
9 8B (MBK) REL
TO CAD 107 647 8
TO CAD 110E MBK 2M
MB9 1M (MBS9) REL
MB0 1M (MBS0) REL
TO CAD 107 859 6F (FN) REL
CONN
DO NOT CONN
WHEN OPT ZHZ IS PROVIDED

TO CAD 118 (SORC-C2) 00 (CK) 4M (TOB) REL.
(SORC-C1) 02 (SOC) 10M
0 12M
TO CAD 198 8 12 (MBS0) REL
TO CAD 125
TO CAD 110C MBS9 U (MBS9) REL.
MBS0 U (MBS0) REL.
TO CAD 231 OR TO CAD 232A 42
436 3M (AMA) REL
431 8B (TOBS) REL
430 8F (TOBS) REL.
245 11M (TGS2) REL.
244 4B (OBS) REL.
243 MFR DISC. (ZR) 2F (AMA) REL.
242 12M (TOBS) REL.
241 U (TVA) REL.
240 U (SCC) REL.
239 12M (OBS) REL.
MFR DISC.
237 4F (MBKI) REL.
236 4F (AMA) REL.
235 11F (TGS2) REL.
234 12F (AMA) REL.
TO CAD 107 233 1M (OBS) REL.
232 1F
231 4F (MBK5) REL.
230 4M
229 U (TGS2) REL.
228 7F
227 U
226 10F (FN) REL.
225 10M
224 8B (TOB) REL.
223 9F (AMA) REL.
222 (XMB) 10M (MBSI) REL.
221 (XTV) 6F (XTV) REL.
220 (XOB) 6F (XOB) REL.
116 U (TOBS) REL.
58 10B (AMA) REL.
57 10F (AMA) REL.
LOOP AT UNEQUIPPED POS
TO CAD 198 1 A & M ONLY
DO NOT CONN WHEN TR SAMP BY SEL TRK GRP IS PROVIDED
CONN WHEN TR SAMP BY SEL TRK GRP IS PROVIDED
335 U (AMA) REL
117 6B (TOBS) REL
TO CAD 107 482 9N (OBS) REL
446 8F (RPK) REL
TO CAD 101 (ORMC-MC) OBS 8M (FN) REL
(ZI)
3 4N
TO CAD 198 2 4 (MBK3) REL
5 12 (MBSI) REL
481 2M (MBS0) REL
TO CAD 107 504 6 (MBK3) REL

# PART OF CAD 41
(FOR APP FIG 41)

TO CAD 110E IC 6F (ITRA) REL
ITRA 432 12M (ITRA) REL
ITPA U (AA) REL
CA 339 CONN WHEN BILLING OR ROUTE SERIES RELAY CONTROL BY ROUTE GRD SUPPLY
DO NOT CONN
(LR) 433 4G (ITRA) REL.
TO CAD 110F LR 1F (ITRA) REL.
IAA SCG TO GRD
TO CAD 110D IB 6M (ITRA) REL.
IA 6B
OV L (BL) REL.
TO CAD 107 604 MFR DISC.
NN U (NCNC) REL
TO CAD 110C NC U (NCCN) REL
TN U (TCNC) REL
TC U (TCCN) REL
DO NOT CONN WHEN OPTION ETS IS PROV
TO CAD 231 36
TO CAD 110C TO U (TOS) REL.
TO CAD 125 TO
528 U (ITRA) REL
442 8F (TPS) REL
437 2M (PCN) REL
434 4F
435 MFR DISC (ZR) 12F (ITR4) REL.
262 8F
296 U (CNC) REL
260 4M (NCCN) REL
259 2M (TC) REL
43 9 (TOS) REL
258 8M
257 (PDI) 4F
256 (PCN) 5F (PCN) REL
TO CAD 107 255 9B (TOS) REL.
254 10M (CAA) REL.
253 5B (PBY) REL.
252 U
251 (RT4) 7 11B
250 (RT3) 4 7B (RTC) REL.
249 (RT2) 3 5B
248 (RTI) 2 3B
247 (RTO) 1 1B
246 (CN) 4F (NCCN) REL.
199 MFR DISC. 8M (PPX) REL
29 10M (CAA) REL
28 U (TPK) REL
TO CAD 168 15A 48 10B (CZ) REL
43 TO CAD 70
WDZ 43 TO CAD 39
ZRT9 42 8F (DR9) REL.
ZRT8 41 8F (DR8) REL.
ZRT7 38 8F (DR7) REL.
ZRTO 31 8F (DRO) REL
X-CONN PER SECT D
CZT 28 CZT L (CZT) REL.
TO CAD 70
CZ 27 CZ L (CZ) REL.
NN 26
NC 25
TN 24
X-CONN PER SECT D
TC 23
ZRS9 22 8M (DR9) REL
ZRS8 21 8M (DR8) REL
ZRS7 18 8M (DR7) REL
ZRSO 11 8M (DRO) REL
TS ON ROUTE SERIES AND ROUTE TRANSFER UNIT

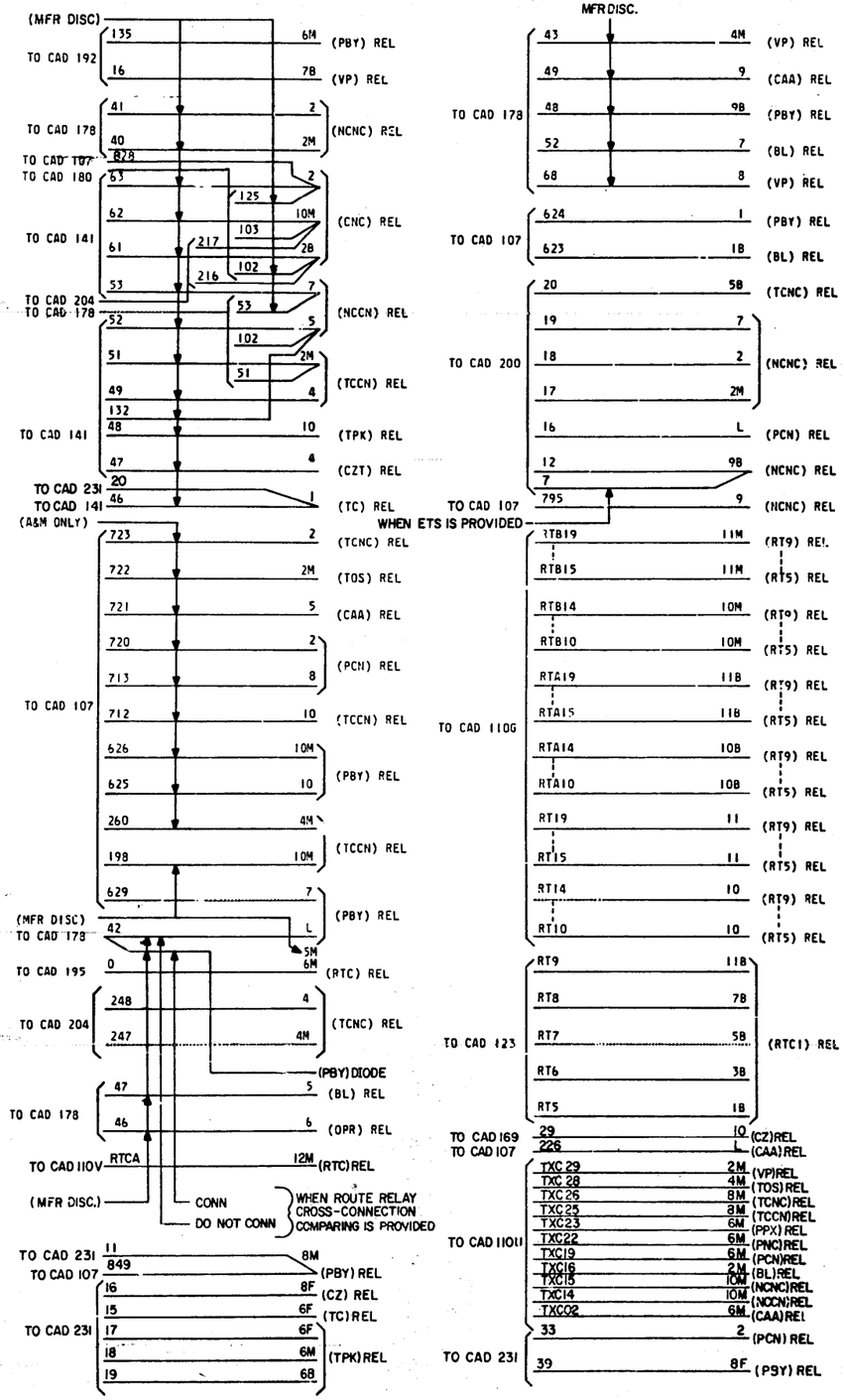
TO CAD 204 37
TO CAD 107 263
TO CAD 110E PB U (PBY) REL DO NOT CONN WHEN WIDE BAND IS PROVIDED
MFR DISC. PM U (PCN) REL
TO CAD 110N OR TO CAD 110N1 PN U (PNC) REL
PP L (PP) REL
PP
TO CAD 110N (MFR DISC.) OR TO CAD 110L TO CAD 125 DR9 U (DR9) REL.
DR9
DRO U (DRO) REL.
DRO
TO CAD 110N OR TO CAD 110N1 BL U (BL) REL.
TO CAD 107 261 (BL)
TO CAD 141 66 7B (CAA) REL.
CONN WHEN FAILED LINK ARE NOT PROVIDED TO CAD 130 07 CONN WHEN FAILED LINK ARE PROVIDED WITHOUT 4A TYPE
TO CAD 120 TCO 6F (PBY) REL
TO CAD 107 620
TO CAD 180 27 MFR DISC.
CONN WHEN FAILED LINK ARE PROVIDED TO CAD 187 2 10 (DRO) REL
OS3 U (OPS3) REL.
OSO U (OPSO) REL.
TO CAD 110G RT9 8F 3 (RT4) REL.
RT5 8F 3 (RTO) REL.
RT4 2F (RT4) REL.
RTO 2F (RTO) REL.
DR9 10F (DR9) REL.
TO CAD 121 DRO 10F (DRO) REL.
TXC 30
TO CAD 110U OP3 4F (OPS3) REL.
OPO 4F (OPSO) REL.
R 39 8M 3M (RT4) REL.
RT85 8M 3M (RTO) REL.
RT84 2M (RT4) REL.
RT80 2M (RTC) REL.
TO CAD 110F RTA9 8B 3B (RT4) REL.
RTA5 8B 3B (RTO) REL.
RTA4 2B (RT4) REL.
RTA 2B (RTO) REL.
RR9 6F (DR9) REL.
RRO 6F (DRO) REL.
VP U (VP) REL.
IAA 1F (ITRA) REL
15 (TC) U (TC) REL
TO CAD 106 (MTFC-B3) (TC) 10F (PCN) REL
TO CAD 107 44 (XA) MFR DISC.
TO CAD 106 (MTFC-A5) 57 (OPR) U (OPR) REL
(MTFC-A4) 9 (DR) 4F (DRC) REL

| DRAWING ISSUE | |
|---|---|
| 1 | P2 |
| 2D | BLC |
| 3D | RS HM |
| 4A | WCM RM |
| 5A | PCT JER |
| 8D | PCT JER |
| 9D | PCT JER |
| 11B | PCT JER |
| 13B | XCO WE |
| 19D | PCT EDM |
| 20AC | EDM AID |
| 21D | EDM AID |
| 22D | EDM AID |
| 24D | EDM AID |
| 25D | EDM AID |
| 27A | EDM AID |
| 30D | EDM AID |
| 31D | EDM AID |
| 33D | XEG WE, AID |
| 34A | KMT THJ |
| 35D | KMT THJ |
| 36A | DM |
| 37D | DM |
| 39D | RP |
| 41D | |
| 43C | |
| 45D | |

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
6S
SD-26002-01-G29
ISSUE 66A

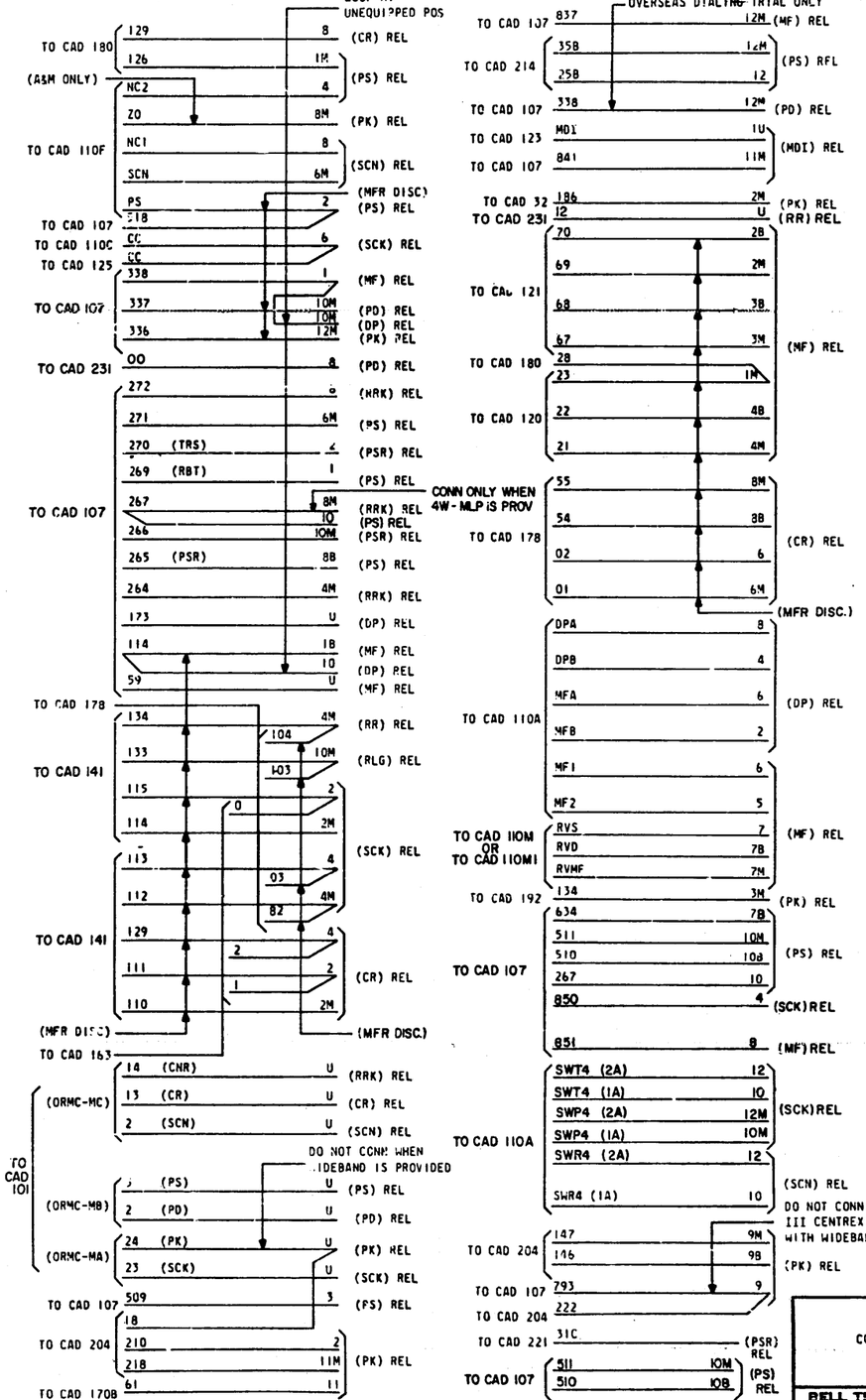
# PART OF CAD 41

(FOR APP FIG 41)




# CAD 42

(FOR APP FIG 42)



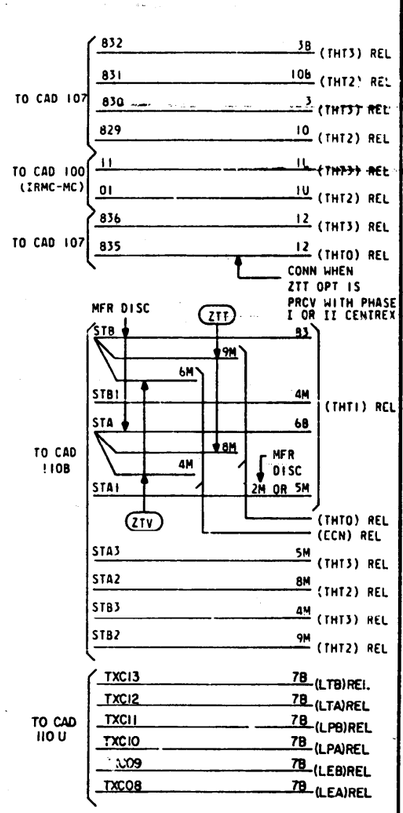

(SPECIAL) RUN FOR CUSTOMERS OVERSEAS DIALING TRIAL ONLY




DO NOT CONN WHEN PHASE III CENTREX IS PROVIDED WITH WIDEBAND

# PART OF CAD 43

(FOR APP FIG 43)




| DRAWING ISSUE | |
|---|---|
| 37D | MAT |
| 39D | RP |
| 43D | |
| 45D | |

DRAWING ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G30

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

SD-26002-01-G30

# PART OF CAD 43
(FOR APP FIG 43)

# CAD 44
(FOR APP FIG 44)

| DRAWING ISSUE | |
|---|---|
| 37D | CR |
| 38A | RA |
| 41D | |
| 43D | |
| 45D | |

FL5 1M (LEB) REL
FL4 1M (LTB) REL
FL3 1M (LPB) REL
FL2 1M (LEA) REL
FL1 1M (LTA) REL
FLO 1M (LPA) REL
TO CAD 110F
BER 4M (LEB) REL
AER 4M (LEA) REL
BTR 4M (LTB) REL
ATR 4M (LTA) REL
BPR 4M (LPB) REL
APR 4M (LPA) REL

TO CAD 21: (A&M ONLY)

RIPST 4M (RIPA) REL
BAN 1
BEN 5
BPN 2
BTN 3
(OB) REL
STB 6M
STA 4M (ECN) REL
TO CAD 110B TBIST 4M MFR DISC (TBIA) REL
RIST 4M (RIA) REL
BNST 4M (BNA) REL
AAN 1
AEN 5
APN 2
ATN 3
(OA) REL
104 4
123 00 5M
122 09 5
119 08 10M
TO CAD 180 (MFR DISC) 118 07 10 (TBIA) REL
117 06 9
115 05 1
113 04 2
111 03 3
109 02 8M
TO CAD 191 31 2 (BNA) REL
TO CAD 114 (MFR DISC) 03 8B (PTN) REL
TO CAD 156 71
695A 118,38 (THTI) REL
TO CAD 107 696A 118,108 (THTO) REL
694A 11,3 (THTI) REL
693A 11,10 (THTO) REL
TO CAD 180A MFR DISC
DO NOT CONN WHEN AIS USING DEDICATED SENDERS IS PROVIDED

9 (DAP) 12M (THC) REL
8 (BSN) 12
TO CAD 185 6 9 (SNGI) REL
5 (DAC) 9M
TO CAD 106 (MTFC-B3) 52 (THTI) U,1L (THTI) REL
51 (THTO) U,1U (THTO) REL
TO CAD 100 (IRMC-MC) 23 (PHC) U (PHC) REL
22 (OB) U (OB) REL
21 (OA) U (OA) REL
4 (THC) U (THC) REL

TO CAD 1708
LEB 2U (LEB) REL
LEA 2U (LEA) REL
LTB 2U (LTB) REL
TO CAD 110G LTA 2U (LTA) REL
LPB 2U (LPB) REL
LPA 2U (LPA) REL
REB 1U (LEB) REL
REA 1U (LEA) REL
RTB 1U (LTB) REL
TO CAD 110J RTA 1U (LTA) REL
RPB 1U (LPB) REL
RPA 1U (LPA) REL
RIPA U (RIPA) REL
RIA U (RIA) REL
TO CAD 110E BNA U (BNA) REL
TBIA U
TBIU 3M (TBIA) REL
RIU 3M (RIA) REL
BNU 3M (BNA) REL
TBITB 2M (TBIA) REL
RITB 2M (RIA) REL
TO CAD 110P BNTB 2M (BNA) REL
TBIHB 1M (TBIA) REL
RIHB 1M (RIA) REL
BNHB 1M (BNA) REL
RIPHB 1M
RIPTB 2M (RIPA) REL
RIPU 3M
TO CAD 110A AST L (AST) REL
51 (PTN) 2M
50 (TN) 4M
TO CAD 106 (MTFC-A4) 49 (PN) 10M (SNGI) REL
48 (EN) 3M
42 (SNG) 12
TO CAD 107 641 11
TO CAD 191 10A 3
30
TO CAD 107 31 3M (PTN) REL
ZEF ZED

TBI 6 (TBIA) REL
RIA 6 (RIA) REL
TO CAD 121 BNA 6 (BNA) REL
RIP 6 (RIPA) REL
10 11 (LPB) REL
09 11M (LEB) REL
ZEE
08 11M (LEA) REL
07 11M (LTB) REL
06 11M (LTA) REL
TO CAD 191 05 11M (LPB) REL
04 11M (LPA) REL
03 10M
02 10 (PTN) REL
01 2M
00 2
13 (EN) 7
12 (PTN) 4
TO CAD 104 (NGC-MCA) 11 (TN) 8 (AST) REL
10 (PN) 12

TO CAD 178 OR TO CAD 101 (MF) REL 66 U (OCN) REL
754 1
753 4 (LPA) REL
752 10B (RGT) REL
740 8 (LPA) REL
628 11M (OB) REL
627 11M (OA) REL
532 5M
531 5 (SNGI) REL
502 8B
501 2
500 1 (ECN) REL
TO CAD 107 319 9 (OB) REL
318 10 (LEB) REL
316 6M
314 (XN) 10 (BNA) REL
313 (XN) 3
312 (XT2) 10M (RGT) REL
311 12M (AST) REL
310 3M
309 4M (RGT) REL
308 7 (PTN) REL
307 5M
306 3M (OB) REL
RGT 6M (RGT) REL
TO CAD 110D LCC 2L (LPA) REL
ZI
TO CAD 204 211 10 (RGT) REL
TO CAD 215 23A L (OA) REL

305 2M
304 1M (OB) REL
303 7M
302 5 (BNA) REL
301 U (SNGI) REL
300 6 (LPB) REL
299 12M (TBIA) REL
298 12
297 10 (LTB) REL
734 (MFR DISC) U (RIPA) REL
295 6B
294 6 (SNGI) REL
TO CAD 107 293 (PTK) 1 (PTN) REL
292 12M
291 (NMI) 11 (PN) REL
290 6
289 U (TBIA) REL
288 1
287 1M (SNGI) REL
286 7B (PN) REL
285 3
284 1 (BNA) REL
283 10 (LPB) REL
282 6
281 4 (ECN) REL
280 5M
279 4 (BNA) REL
DO NOT CONN WHEN AIS USING LLP SENDERS IS PROVIDED
278 1
TO CAD 191 32
19
TO CAD 156 18
277 (ENI) 9 (AST) REL
276 (PTNI) 2
275 (TNI) 6
274 (PNI) 10
62 (TER) 10 (OB) REL
TO CAD 107 405 U (RIA) REL
403 U
400 L (BNA) REL
479 6M (SNGI) REL
575 1M
576 2M (OCN) REL
TO CAD 141 75
74
225 7M (SNGI) REL
765 12 (THTO) REL
TO CAD 107 764 12
767 12M (THTI) REL
766 12M (THTO) REL
MFR DISC

LC B (MFR DISC)
015 58 RB1 (MPT) REL
TO CAD 113 119 57 1
118 56 4 (CNT) REL
117 55 4B
54
53
52 52 2 (MPT) REL
51
48
47
46 46 12M
45 45 7 (CNT) REL
44 44 7B
43 43 2 (CNTA) REL
42 42 2B (CNT) REL
41 41 3 (MPT) REL
38 38 2RT (M0-1) REL
37 37 2RT (M2-3) REL
36 36 2RT (M4-5) REL
35 35 2RT (M6-7) REL
34 34 RB1
33 33 2RT (M8-9) REL
TO CAD 45 32 32 3
31 31 4M (MNI) REL
28 26 1 (PT9) TUBE
27 27 1 (PT8) TUBE
26 26 1 (PT7) TUBE
25 25 1 (PT6) TUBE
24 24 1 (PT5) TUBE
23 23 1 (PT4) TUBE
22 22 1 (PT3) TUBE
21 21 1 (PT2) TUBE
18 18 1 (PT1) TUBE
17 17 1 (PTC) TUBE
16 16 1 (MPT) REL
15 15 7B
14 14 2 (MN) REL
13 13 1 (PTL) TUBE
12 12 6M
11 11 6 (MNI) REL
SWBO CA OR LW
TS (A) ON MESSAGE REG DETR UNIT

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G31
BELL TELEPHONE LABORATORIES INCORPORATED
SHEET 65

# PART OF CAD 45
(FOR APP. FIG. 45)

## T.S. (A) ON NO. TEST UNIT

LC "B" (MFR DISC.)

| | | | |
|---|---|---|---|
| 39 | 58 | 8 | (NH) REL |
| 38 | 57 | 8M | |
| 37 | 56 | 10M | (SPL) REL |
| 36 | 55 | 2B | MULT CLASS OF SERVICE MATCHING PROVIDED |
| 35 | 54 | 2M | (SPLI) REL |
| 34(CGT) | 53 | 1F | (SPL) REL — MULT CLASS OF SERVICE MATCHING NOT PROVIDED |
| 33 | 52 | 9F | (SPLI) REL |
| 32 | 51 | 9B | |
| 31 | 48 | 6F | (SPL) REL |
| 30 | 47 | 6B | |
| 29 | 46 | 8B | (SPH) REL |
| 28 | 45 | 8F | |
| 27 | 44 | 6F | (SPLI) REL |
| 26 | 43 | 6F | (SPH) REL |
| 25 | 42 | 6B | (NTT) REL |
| 24 | 41 | 6F | |
| 23 | 38 | 10B | (SPLI) REL |
| 22 | 37 | 10F | |
| 21 | 36 | 6F | (NT5) REL |
| 20 | 35 | 6B | |
| 19(LHMT) | 34 | 8F | |
| 18 | 33 | 8B | DO NOT CONN WHEN CW IS PROVIDED |
| TO CAD 113 — 17 | 32 | 4F | (NTT) REL |
| 32A | | | |
| 16 | 31 | 4B | |
| 15(LB) | 28 | 7B | (SPLI) REL |
| 14 | 27 | 7F | |
| 13 | 26 | 7F | (SPL) REL |
| 12 | 25 | 7B | |
| 11 | 24 | 10F | (NH) REL |
| 10 | 23 | 12B | (SPLI) REL |
| 09(SPL) | 22 | U | |
| 22A | | | |
| 08(NN) | 21 | U | (SPH) REL |
| 07(NH) | 18 | 12F | (SPLI) REL |
| 06(NH) | 17 | U | (NH) REL |
| 05(CCT) | 16 | 8F | (SPL) REL |
| 04 | 15 | 1M | (SPLI) REL |
| 03 | 14 | 8M | (SPH) REL |
| 02 | 13 | 10M | (NH) REL |
| 01 | 12 | 3B | (SPLI) REL |
| 00 | 11 | 3F | |
| | | 11F | |

(1H) MFR DISC.) — (21)

## T.S. (B) ON NO. TEST UNIT

LC "B" (MFR DISC.)

| | | | |
|---|---|---|---|
| ZBA | | | |
| ZBB | | | |
| 101 | 58 | 2B | (SPL2) REL |
| 100 | 57 | 2 | |
| 103 | 56 | 2B | (SPL2) REL |
| 102 | 55 | 2 | |
| 105 | 54 | 10 | |
| 104 | 53 | 10M | |
| TO CAD 113 — 107 | 52 | 12B | |
| 106 | 51 | 12 | |
| 83 | 48 | 2M | (SPH) REL |
| 84 | 47 | 2 | |
| 108 | 46 | 5 | |
| J31 / J30 | | | |
| 109 | 45 | 5M | |
| 112 | | | |
| TO CAD 191 — 153 | 44 | 6 | (SPL2) REL |
| TO MASTER TEST FRAME CONN. — SPC | 43 | U | (SPC) REL |
| SP | 42 | 4M | (SPLI) REL |
| J27 | | | |
| NTR | 41 | 12M | |
| LL9 | 38 | 10M | |
| LL8 | 37 | 9M | |
| LL7 | 36 | 8M | |
| LL6 | 35 | 7M | |
| TO MASTER TEST CONTROL CKT. FROM MKR "0" ONLY — LL5 | 34 | 6M | (MT16) REL |
| LL4 | 33 | 5M | |
| LL3 | 32 | 4M | |
| LL2 | 31 | 3M | |
| LL1 | 28 | 2M | |
| LL0 | 27 | 1M | |
| NTLH | 26 | 11M | |
| TO OTHER SPL MKR NO. TST UNIT — 99 | 25 | 10F | (NTH) REL |
| 98 | 24 | 4F | (LNT) REL |
| 97 | 23 | 4M | (SPC) REL |
| 96 | 22 | 10F | (SFR) REL |
| 95 | 21 | 10M | |
| 94 | 18 | 2M | (LNT) REL |
| TO CAD 113 — 93 | 17 | 7F | (NTC) REL |
| 92(OV) | 16 | 1F | (NTT) REL |
| 168 | | | |
| 91 | 15 | 6F | (SPC) REL |
| 90 | 14 | 12M | |
| 89 | 13 | 12F | (LNT) REL |
| 88 | 12 | 1M | |
| 87 | 11 | 1F | |

LC "B" (MFR DISC.)

## T.S. (C) ON NO. TEST UNIT

LC "B" (MFR DISC.) — FOR ETS TRANSITION ONLY — (ZI)

| | | | |
|---|---|---|---|
| TO CAD 191 — 152 | | | |
| 111 | 58 | 8F | (SPLI) REL |
| 78 | 57 | 7B | (THK) DIODE |
| 77 | 56 | 5F | (SPL2) REL |
| 76(NT) | 55 | 9M | (NT) REL |
| 75(MPT) | 54 | 5F | (NT4) REL |
| 74(NTT) | 53 | U | (NTT) REL |
| 73 | 52 | 2F | (NT5) REL |
| 72 | 51 | U | |
| 71(LL3) | 48 | 10B | |
| 70(LL8) | 47 | 9B | |
| 69(LL7) | 46 | 8B | |
| 68(LL6) | 45 | 7B | |
| 67(LL5) | 44 | 6B | (MT16) REL |
| 66(LL4) | 43 | 5B | |
| 65(LL3) | 42 | 4B | |
| 64(LL2) | 41 | 3B | |
| 63(LL1) | 38 | 2B | |
| 62(LLO) | 37 | 1B | |
| (21M) | | | |
| 61 | 36 | 8M | (SPL2) REL |
| 60 | 35 | 5F | (NTT) REL |
| 59 | 34 | 6M | |
| TO CAD 113 — 58(LK1) | 33 | 12B | (MT16) REL |
| 32C | | | |
| 57 | 32 | 12F | (NT3) REL |
| (MFR DISC.) | | | |
| 56(CH9) | 31 | 7 → 3 | (LF9) REL |
| 55(CH8) | 28 | 7 → 3 | (LF8) REL |
| 54(CH7) | 27 | 7 → 3 | (LF7) REL |
| 53(CH6) | 26 | 7 → 3 | (LF6) REL |
| 52(CH5) | 25 | 7 → 3 | (LF5) REL |
| 51(CH4) | 24 | 7 → 3 | (LF4) REL |
| 50(CH3) | 23 | 7 → 3 | (LF3) REL |
| 49(CH2) | 22 | 7 → 3 | (LF2) REL |
| 48(CH1) | 21 | 7 → 3 | (LF1) REL |
| 47(CHO) | 18 | 7 → 3 | (LF0) REL |
| 46 | 17 | 5 → 7 | (LF9) REL |
| 45 | 16 | T | (CHT2) REL |
| 44 | 15 | 4B | (NT) REL |
| 43 | 14 | 4F | |
| 42 | 13 | 9M | (NT5) REL |
| 41 | 12 | 9F | |
| 40 | 11 | 3M | |

## T.S. (D) ON NO. TEST UNIT

L.C. B (MFR DISC.) — (MFR DISC.) — ZOC — ZOM

| | | | |
|---|---|---|---|
| | | RR26 | TO FR GRD BAR |
| E2 | 58 | L | (NTI) RES |
| D16 | 57 | T | (SP) LAMP |
| D14 | 56 | L | (IT5) REL |
| TO CAD 113 — D13 | 55 | L | (NTI6) REL |
| 36 | 54 | 1 | (SPL2) REL |
| 35 | 53 | 1B | |
| A52 | 52 | T | (LF) NET. |
| TO CAD 44 — 52 | | | |
| 82 | 51 | 6M | (NH) REL |
| TO CAD 113 — 79 | 48 | 2M | (SPL2) REL |
| 110 | 47 | 11M | |
| 46 | 46 | 3 | (NTT) REL |
| 45 | 45 | U | (NT5) REL |
| 44 | 44 | 12 | |
| 43 | 43 | 11M | (SPL) REL |
| 42 | 42 | 1M | (NT5) REL |
| (MFR DISC.) 41 | 41 | 12M | (NTI) REL |
| 38 | 38 | 9- → 5 | (LF1) REL |
| 37 | 37 | 9- → 5 | (LF3) REL |
| 36 | 36 | 9- → 5 | (LF5) REL |
| 35 | 35 | 9- → 5 | (LF7) REL |
| 34 | 34 | 8- → 6 | (LF9) REL |
| 33 | 33 | 9- → 5 | |
| 32 | 32 | E | (JB) REL |
| 31 | 31 | 4M | (NTT) REL |
| 28 | 28 | 10F | (NTI) REL |
| TO CAD 44 — 27 | 27 | 9F | |
| 26 | 26 | 8F | |
| 25 | 25 | 7F | |
| 24 | 24 | 6F | |
| 23 | 23 | 5F | |
| 22 | 22 | 4F | |
| 21 | 21 | 3F | |
| 18 | 18 | 2F | |
| 17 | 17 | 1F | |
| 16 | 16 | 5B | (NT4) REL |
| 15 | 15 | 5F | (SPL) REL |
| 14 | 14 | 2M | (NTH) REL |
| 13 | 13 | 11F | (NTI) REL |
| TO CAD 113 — 81 | 12 | 5B | (SPLI) REL |
| TO CAD 44 — 12 | 11 | 5F | |
| TO CAD 113 — 80 | | | |

WIRED IA OR LW

TRAP WHEN MESSAGE REG NOT PROVIDED

| DRAWING ISSUE |
|---|
| 2D RM — |
| 3D QS RM |
| 4A RJS |
| 8D JEM |
| 10B PCF JEM |
| 11B CH |
| 22D JB |
| 23A JM |
| 24D JM |
| 25D WJT |
| 29A CML |
| 33D WB |
| 35D LP |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 |
| 43D |
| 44A |
| 45D |

DRAWING ISSUE 45D

COMPLETING MARKER CIRCUIT (2)

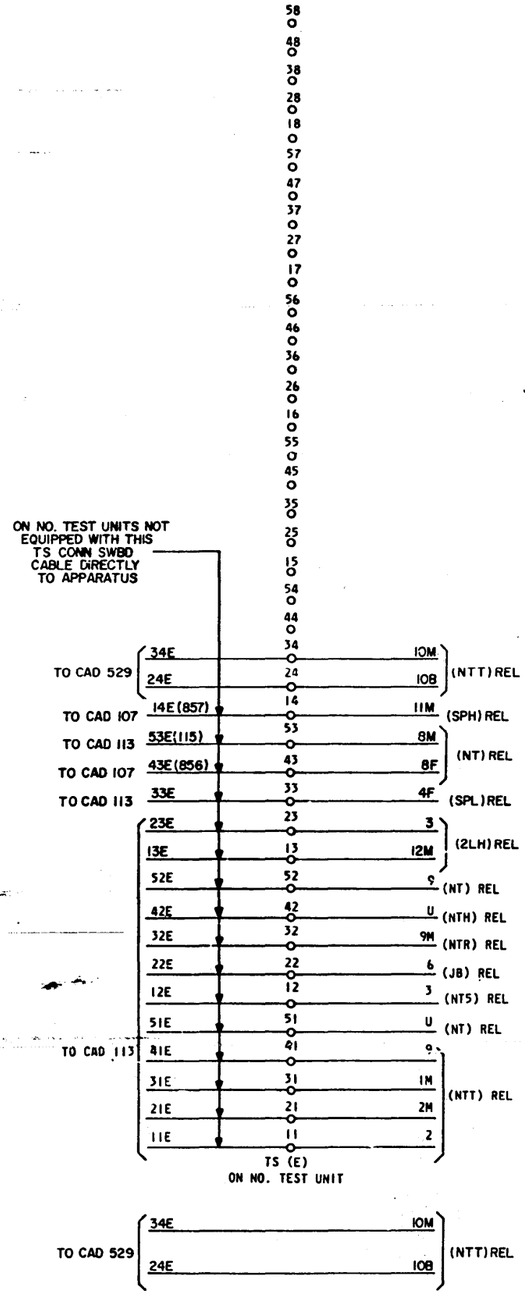
BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-632A

SD-26002-01-632A

# PART OF CAD 45

(FOR APP FIG 45)




| DRAWING ISSUE |
|---|
| 44A |

| ISSUE |
|---|
| 59B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G32B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 46

(FOR APP FIG. 46)

| | | | |
|---|---|---|---|
| 54 | (D7) | U | (D7) REL |
| 53 | (D4) | U | (D4) REL |
| 52 | (D2) | U | (D2) REL |
| 51 | (D1) | U | (D1) REL |
| 50 | (D0) | U | (D0) REL |
| 44 | (C7) | U | (C7) REL |
| 43 | (C4) | U | (C4) REL |
| 42 | (C2) | U | (C2) REL |
| 41 | (C1) | U | (C1) REL |
| TO CAD 105 (OSC-MA1) 40 | (C0) | U | (C0) REL |
| 34 | (B7) | U | (B7) REL |
| 33 | (B4) | U | (B4) REL |
| 32 | (B2) | U | (B2) REL |
| 31 | (B1) | U | (B1) REL |
| 30 | (B0) | U | (B0) REL |
| 24 | (A7) | U | (A7) REL |
| 23 | (A4) | U | (A4) REL |
| 22 | (A2) | U | (A2) REL |
| 21 | (A1) | U | (A1) REL |
| 20 | (A0) | U | (A0) REL |

TO CAD 110G: J (J) 10 (B4) REL; H (H) 108 (B0) REL

| | | | |
|---|---|---|---|
| 54 | (M7) | 12M | |
| 44 | (L7) | 11M | |
| 43 | (L4) | 10M | (KKL) REL |
| 42 | (L2) | 9M | |
| 41 | (L1) | 8M | |
| (IRMC-ME) 40 | (L0) | 7M | |
| 34 | (K7) | 12M | (KHJ) REL |
| 33 | (K4) | 4M | |
| 32 | (K2) | 3M | (KKL) REL |
| 31 | (K1) | 2M | |
| 30 | (K0) | 1M | |

TO CAD 100 — (IRMC-ME):

| | | | |
|---|---|---|---|
| 24 | (J7) | 11M | |
| 23 | (J4) | 10M | |
| 22 | (J2) | 9M | |
| 21 | (J1) | 8M | |
| 20 | (J0) | 7M | (KHJ) REL |

(IRMC-MD):

| | | | |
|---|---|---|---|
| 53 | (H4) | 4M | |
| 52 | (H2) | 3M | |
| 51 | (H1) | 2M | |
| 50 | (H0) | 1M | |

(IRMC-MB) 50 (H7) 12M (KFG) REL

TO CAD 101 (ORMC-MG):

| | | |
|---|---|---|
| 14 | 11M | |
| 13 | 10M | |
| 12 | 9M | (KA) REL |
| 11 | 8M | |
| 10 | 7M | |

TO CAD 215: 57A 8B; 47A 4M (L7) REL

CAD [illegible] 29 6F (KA) REL

TO CAD 107: 289 3; 512 OR 513 2; 1

TO CAD 580

TO CAD 1.0K LT 1 (KK) REL

| | | | |
|---|---|---|---|
| 326 | | 6M | (ORK1) REL |
| 325 | | 2M | (ORK2) REL |
| 324 | | L | |
| 323 | | U | (ORK1) REL |
| 322 | (SABC) | 8B | (C7) REL |
| TO CAD 107 321 | (SAB) | 8B | (B7) REL |
| 320 | (SA) | 8B | (A7) REL |
| 52 | (TSR) | 8M | (KK) REL |
| 534 | | 7B | (ORK2) REL |
| 530 | | 7 | |
| 529 | | U | (KGS 3) REL |

EL

| | | | |
|---|---|---|---|
| 54 | (L7) | U | (L7) REL |
| 53 | (L4) | U | (L4) REL |
| 52 | (L2) | U | (L2) REL |
| 51 | (L1) | U | (L1) REL |
| 50 | (L0) | U | (LC) REL |
| (OSC-MB1) 44 | (K7) | U | (K7) REL |
| 43 | (K4) | U | (K4) REL |
| 42 | (K2) | U | (K2) REL |
| 41 | (K1) | U | (K1) REL |
| 40 | (K0) | U | (K0) REL |
| 12 | (M7) | 12F | (KKL) REL |

TO CAD 105:

| | | | |
|---|---|---|---|
| 54 | (J7) | U | (J7) REL |
| 53 | (J4) | U | (J4) REL |
| 52 | (J2) | U | (J2) REL |
| 51 | (J1) | U | (J1) REL |
| 50 | (J0) | U | (J0) REL |
| 44 | (H7) | U | (H7) REL |
| 43 | (H4) | U | (H4) REL |
| 42 | (H2) | U | (H2) REL |
| 41 | (H1) | U | (H1) REL |
| 40 | (H0) | U | (H0) REL |
| 34 | (G7) | U | (G7) REL |
| (OSC-MA2) 33 | (G4) | U | (G4) REL |
| 32 | (G2) | U | (G2) REL |
| 31 | (G1) | U | (G1) REL |
| 30 | (G0) | U | (G0) REL |
| 24 | (F7) | U | (F7) REL |
| 23 | (F4) | U | (F4) REL |
| 22 | (F2) | U | (F2) REL |
| 21 | (F1) | U | (F1) REL |
| 20 | (F0) | U | (F0) REL |
| 14 | (E7) | U | (E7) REL |
| 13 | (E4) | U | (E4) REL |
| 12 | (E2) | U | (E2) REL |
| 11 | (E1) | U | (E1) REL |
| 10 | (E0) | U | (E0) REL |
| TO CAD 107 113 | (ORK) | 6F | (ORK1) REL |

TO CAD 105 (OSC-MC1):

| | | |
|---|---|---|
| 21 | 11 | |
| 20 | 10 | |
| 03 | 9 | (KA) REL |
| 02 | 8 | |
| 01 | 7 | |

TO CAD 215: 37A 4B; 27A 4M (ST7) REL

# CAD 47

(FOR APP FIG. 47)

| | | | |
|---|---|---|---|
| TO CAD 222 | CN | 11M | (CC0) REL |
| | BN | 8 | (BC1) REL |
| TO CAD 107 | 328 | 4F | (CC0) REL |
| | 327 | 4F | (BC0) REL |
| TO CAD 111 | CPX | 12 | |
| TO CAD 213 | 30A | L | (IDS) REL |
| TO CAD 110L | ALT14 | 8M | |
| | MLT10 | U | |

TO CAD 100:

(IRMC-MB):

| | | | |
|---|---|---|---|
| | C4 (C7) | U | (CC7) REL |
| | 03 (C4) | U | (CC4) REL |
| | 02 (C2) | U | (CC2) REL |
| | 01 (C1) | U | (CC1) REL |
| | 00 (C0) | U | (CC0) REL |

(IRMC-MA):

| | | | |
|---|---|---|---|
| | 34 (B7) | U | (BC7) REL |
| | 33 (B4) | U | (BC4) REL |
| | 32 (B2) | U | (BC2) REL |
| | 31 (B1) | U | (BC1) REL |
| | 30 (B0) | U | (BC0) REL |
| TO CAD 213 | 29A | 10M | (B369) REL |
| | 20A | 1M | |
| | 99 | 10F | (B369) REL |
| | 90 | 1F | |
| | 89 | 10F | (B258) REL |
| TO CAD 49 | 80 | 1F | |
| | 79 | 10F | (B147) REL |
| | 70 | 1F | |
| TO CAD 107 | 841 | 6B | (CC7) REL |

| | | | |
|---|---|---|---|
| TO CAD 107 TO CAD 100 (IRMC-ME) | 639 | 5M | (ORI) REL |
| | 50 | 5 | |
| | LT8 | | |
| TO CAD 110L | MLT0 | U | (LT) REL |
| TO CAD 110A | NSL0 | 11 | (LT2) REL |
| TO CAD 204 | 32 | 4 | (AC0) REL |
| | LT6 | 6 | (ORI) REL |
| | LT4 | 3 | |
| TO CAD 110L | ALT6 | 4 | |
| | ALT4 | 3 | |
| | 11 | 4M | (FAC2) REL |
| TO CAD 100 (IRMC-ME) | 10 | 3M | |
| TO CAD 204 | 16 | L | (LT) REL |

(SPECIAL) RUN FOR CUSTOMER OVERSEAS DIALING TRIAL ONLY

| | | | |
|---|---|---|---|
| | 9A | 10M | (FVD) REL |
| TO CAD 213 | 0A | 1M | |
| | 31A | L | (11X) REL |
| | AC7 | 11 | (AC7) REL |
| TO CAD 107 | 735 | 2 | (ORI) REL |

LOOP AT UNEQUIPPED POSITION

| | | | |
|---|---|---|---|
| TO CAD 198 | 36 | 8 | (FAC2) REL |
| TO CAD 110L | MLT13 | 10 | |

# CAD 48

(FOR APP FIG. 48)

| | | | |
|---|---|---|---|
| TO CAD 110L | MLT1 | U | |
| | ELT | | |
| | ELT8 | 10F | (ELT) REL |
| TO CAD. 110K | ELT1 | 2F | |
| | X11 | 2 | (X11) REL |
| | LT | U | (LT) REL |
| TO CAD. 107 | 513 | | |
| | FVD9 | 10F | |
| | MFR DISC | | (FVD) REL |
| | FVD0 | 1F | |
| | 11X9 | 10F | |
| | 11X2 | 3F | (11X) REL |
| | 11X0 | 1F | |
| | LT29 | 10F | |
| TO CAD. 110K | LT21 | 2F | (LT2) REL |
| | LTA9 | 10F | |
| | LT1A | 2F | (LT) REL |
| | X119 | 10F | |
| | X112 | 3F | (X11) REL |
| | X110 | 1F | |

| | | | |
|---|---|---|---|
| | 11 (FVD) | U | (FVD) |
| TO CAD. 100 (IRMC-ME) | 50 (A11) MLT6 | U | (X11) |
| | 10 (11) MLT8 | U | (11X) |
| | 24 (A7) MLT7 | | (AC7) REL |
| | 23 (A4) | U | (AC4) REL |
| TO CAD. 100 (IRMC-MA) | 22 (A2) | U | (AC2) REL |
| | 21 (A1) | U | (AC1) REL |
| | 20 (A0) | U | (AC0) REL |
| TO CAD 110L TO CAD 111 | CPX | 8M | (ORI) REL |
| | NSL | 11F | (LT) REL |
| TO CAD 110A | NSL2 | 11F | (ELT) REL |
| | NSX | 11F | (X11) REL |
| | ELS | 12M | (ELT) REL |
| TO CAD 110B | LS | 12M | (LT) REL |
| | 1XS | 2F | (1 X) REL |
| | LS2 | 12M | (LT2) REL |
| TO CAD 122 | OR | 1 | (FAC2) REL |
| TO CAD 110L | ORO | | (MFR DISC) |
| TO CAD 110K | FD | 12M | (11X) REL |
| TO CAD 110 A | FD | | CONN ONLY WHEN PHASE III [illegible] PROVIDED |
| TO CAD 110L | MLT2 | U | (LT2) REL |
| | ATN | 12M | |
| | 727 | | (X11) REL |
| | 726 | 11M | |
| | 739 | 7 | (AC7) REL — DISC. CONN WHEN TOP IS PROVIDED |
| TO CAD 107 | 724 | 7M | (AC4) REL |
| | 572 | 10M | |
| | 571 | 9M | (ORI) REL |
| TO CAD 187 | 5 | | |
| TO CAD 106 | ORI | | |
| TO CAD 107 | 379 | 4 | |
| | 190 | 12M | |
| TO CAD 141 | 189 | 11M | |
| MFR DISC | 14 | 4M | |
| TO CAD 189 | 4LTO | 7B | (ORI) REL |
| TO CAD 110L | 4ZO | 7M | |
| TO CAD 110F | 14 | | |
| TO CAD 180 | 13 | | |
| TO CAD 107 | 854 | 10 | |

A & M ONLY (MFR DISC.)

| DRAWING ISSUE | |
|---|---|
| 1 | 4A, 4B, 4D |
| 2D | FTB |
| 3D | 9A, 9M, 9N |
| 4A | 9AA, 9AB |
| 16 B | 9AE, 9AF, 9AG, 9AH |
| 18D | 9AJ, 9AK, 9AL, 9AM |
| 21D | EDM, AMD |
| 220 | EN, EUN, AMD |
| 240 | JM, EDM, AMD |
| 250 | WJT, EDM, AMD |
| 300 | LPW, EDM, AMD |
| 310 | LPW, EDM, AMD |
| 32A | TS, EDM, AMD |
| 33D | TS, EDM, AMD |
| 350 | LP, TAU, AMD |
| 370 | SSL |
| 390 | RA |
| 410 | |
| 430 | |
| 44A | |
| 450 | |

DRAWING ISSUE 60A

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC 6S

SD-26002-01-G34

SD-26002-01-G34

# CAD 49

(FOR APP FIG. 49)

| | | |
|---|---|---|
| 599 | 999 | 54 |
| 595 | 995 | 50 |
| 594 | 994 | 44 |
| 590 | 990 | 40 |
| 589 | 989 | 34 |
| 585 | 985 | 30 |
| 584 | 984 | 24 |
| 580 | 980 | 20 |
| 579 | 979 | 14 |
| 575 | 975 | 10 |
| 574 | 974 | 04 |
| 570 | 970 | 00 |
| 569 | 969 | 54 |
| 565 | 965 | 50 |
| 564 | 964 | 44 |
| 560 | 960 | 40 |
| 559 | 959 | 34 |
| 555 | 955 | 30 |
| 554 | 954 | 24 |
| 550 | 950 | 20 |
| 549 | 949 | 14 |
| 545 | 945 | 10 |
| 544 | 944 | 04 |
| 540 | 940 | 00 |
| 539 | 939 | 54 |
| 535 | 935 | 50 |
| 534 | 934 | 44 |
| 530 | 930 | 40 |
| 529 | 929 | 34 |
| 525 | 925 | 30 |
| 524 | 924 | 24 |
| 520 | 920 | 20 |
| 519 | 919 | 14 |
| 515 | 915 | 10 |
| 514 | 914 | 04 |
| 510 | 910 | 00 |

(BTT5---9)REL.

TO CAD 110H

(BTS5---9)REL.

(BTR5---9) REL.

| | | |
|---|---|---|
| 099 | 499 | 54 |
| 095 | 495 | 50 |
| 094 | 494 | 44 |
| 090 | 490 | 40 |
| 089 | 489 | 34 |
| 085 | 485 | 30 |
| 084 | 484 | 24 |
| 080 | 480 | 20 |
| 079 | 479 | 14 |
| 075 | 475 | 10 |
| 074 | 474 | 04 |
| 070 | 470 | 00 |
| 069 | 469 | 54 |
| 065 | 465 | 50 |
| 064 | 464 | 44 |
| 060 | 460 | 40 |
| 059 | 459 | 34 |
| 055 | 455 | 30 |
| 054 | 454 | 24 |
| 050 | 450 | 20 |
| 049 | 449 | 14 |
| 045 | 445 | 10 |
| 044 | 444 | 04 |
| 040 | 440 | 00 |
| 039 | 439 | 54 |
| 035 | 435 | 50 |
| 034 | 434 | 44 |
| 030 | 430 | 40 |
| 029 | 429 | 34 |
| 025 | 425 | 30 |
| 024 | 424 | 24 |
| 020 | 420 | 20 |
| 019 | 419 | 14 |
| 015 | 415 | 10 |
| 014 | 414 | 04 |
| 010 | 410 | 00 |

(BTT0---4)REL.

TO CAD 110K

(BTS0---4)REL.

(BTR0---4)REL.

| | |
|---|---|
| BTT9 | U (BTT9) REL |
| BTT0 | U (BTT0) REL |
| BTS9 | U (BTS9) REL |
| BTS0 | U (BTS0) REL |
| BTR9 | U (BTR9) REL |
| BTR0 | U (BTR0) REL |

TO CAD 110L

XCONN

| | | |
|---|---|---|
| 33 | 69 | 54 |
| 35 | 65 | 50 |
| 34 | 64 | 44 |
| 30 | 60 | 40 |
| 29 | 59 | 34 |
| 25 | 55 | 30 |
| 24 | 54 | 24 |
| 20 | 50 | 20 |
| 19 | 49 | 14 |
| 15 | 45 | 10 |
| 14 | 44 | 04 |
| 10 | 40 | 00 |

TS (BTS)

BARE WIRE STRAP MULT TO RELS BTS0-9

| | | |
|---|---|---|
| 39 | | 54 |
| 35 | | 50 |
| 34 | | 44 |
| 30 | | 40 |
| 29 | | 34 |
| 25 | | 30 |
| 24 | | 24 |
| 20 | | 20 |
| 19 | | 14 |
| 15 | | 10 |
| 14 | | 04 |
| 10 | | 00 |

TS (BTR)

BARE WIRE STRAP MULT TO RELS BTR0-9

| | | |
|---|---|---|
| 99 | 69 | 54 |
| 95 | 65 | 50 |
| 94 | 64 | 44 |
| 90 | 60 | 40 |
| 89 | 59 | 34 |
| 85 | 55 | 30 |
| 84 | 54 | 24 |
| 80 | 50 | 20 |
| 79 | 49 | 14 |
| 75 | 45 | 10 |
| 74 | 44 | 04 |
| 70 | 40 | 00 |

TO CAD 47

TS (BTT)

BARE WIRE STRAP MULT TO RELS BTT0-9

| DRAWING ISSUE | | |
|---|---|---|
| 1 | | |
| 2D | ETS | |
| 240 | DB ESM AMP LP | |
| 350 | | |

COMPLETING MARKER CIRCUIT

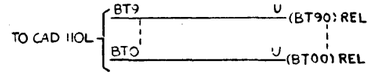
SD-26002-01-G35

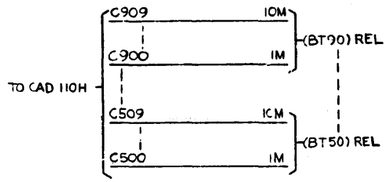
BELL TELEPHONE LABORATORIES, INC

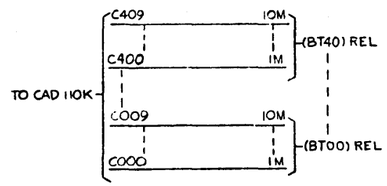
SHEET 6S

35

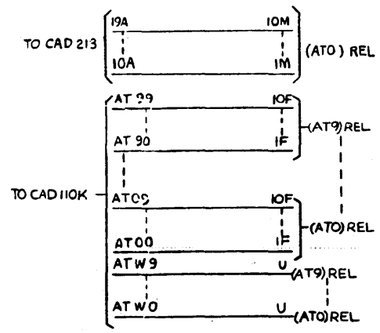
## CAD 50
(FOR APP FIG. 50)

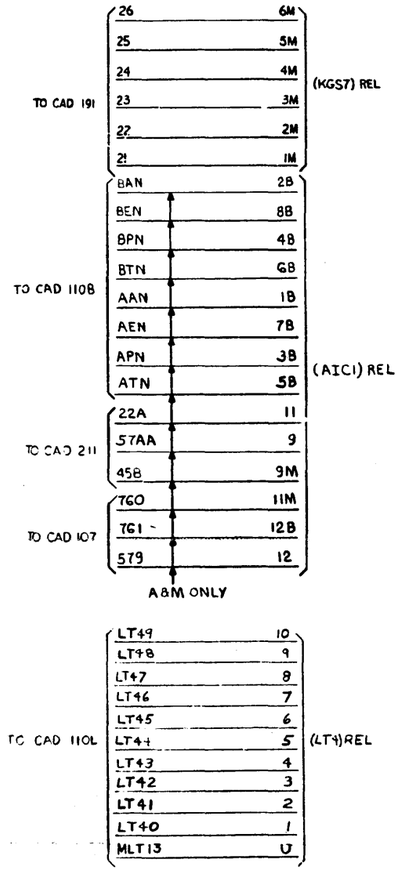


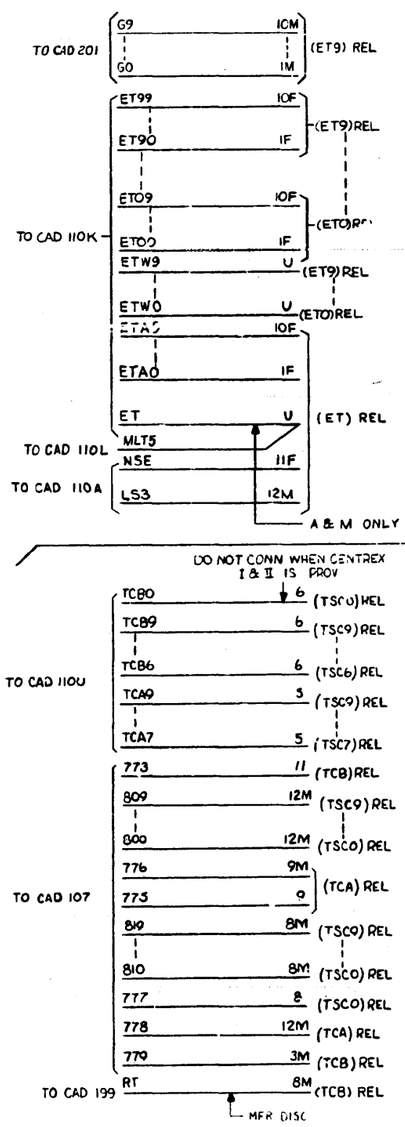




## CAD 51
(FOR APP FIG. 51)

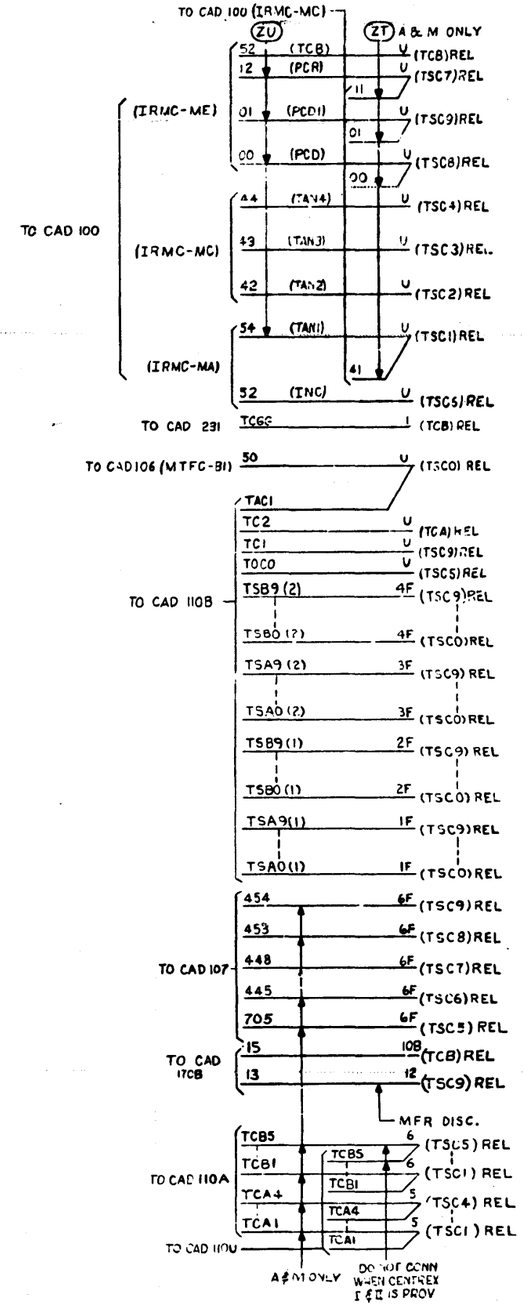



## CAD 52
(FOR APP FIG. 52)




## CAD 53
(FOR APP FIG. 53)




| DRAWING 166ME | |
|---|---|
| 1 | WT PD |
| 2D | BL |
| 3D | AS BM |
| 6A | PP |
| 7B | BS DP |
| 10B | JB |
| 11D | GI |
| | EM |
| 24D | SV |
| | EM |
| 25D | WT |
| 30D | RN |
| | S |
| 33D | |
| 34A | |
| 35D | |
| 37D | SSL |
| 39D | RA |
| 41D | |
| 44A | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

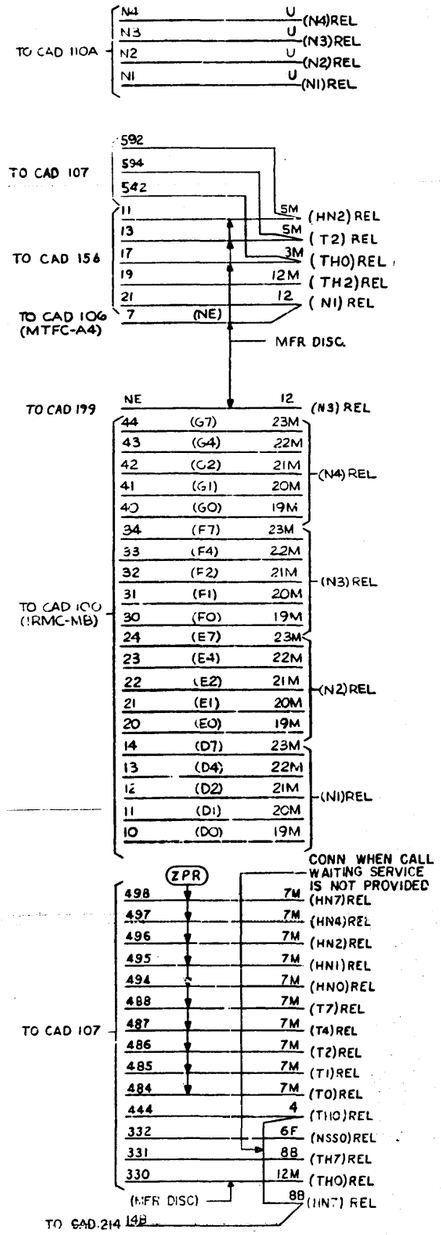
SD-26002-01-G36

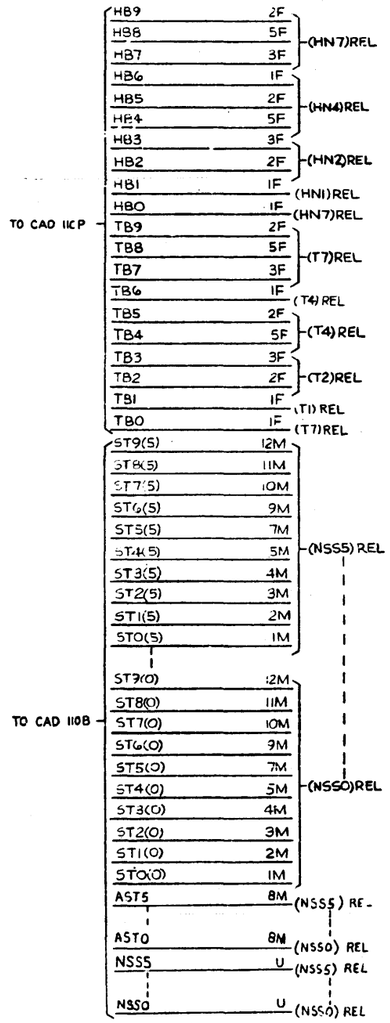
ISSUE 6 2 4

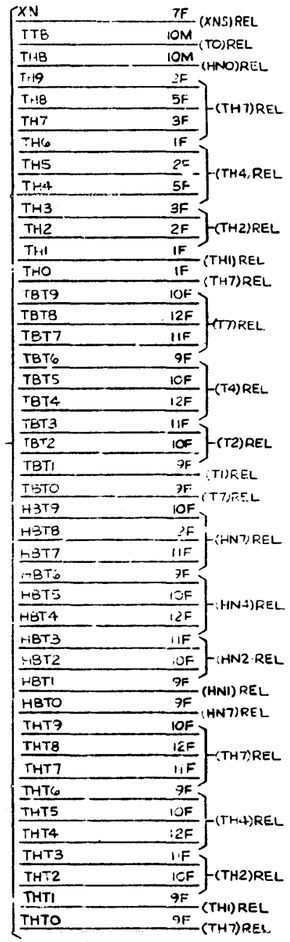
6S

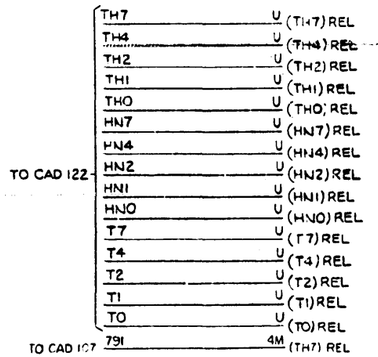
# CAD 54

(FOR APP FIG 54)




DRAWING ISSUE

| | | |
|---|---|---|
| 1 | PD | J.F.O. |
| 2D | BLG | WFO |
| 8D | | TO |
| 18D | | AND |
| 22D | EN | A |
| 24D | SV | CB |
| 25D | | |
| 35D | | |
| 37D | | BCB |
| 39D | RA | |
| 41D | | CB |
| 43D | | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-G37

6S

ISSUE 5ID

SD-26002-01-G37

# CAD 55

(FOR APP FIG. 55)

DO NOT CONNECT WHEN AIS USING LINE LINK PULSING SENDERS IS PROVIDED

TO CAD 156
39 7B (NE) REL
23 1 (TR2A) REL
20 U (NE) REL
MFR DISC.
15 5M (U2) REL
10 U (MT22) REL

TO CAD 106 (MTFC-A4)
A (TRN) 20 (TRN) REL
07

TO CAD 107
596
567
MFR DISC.

TO CAD 106 (MTFC-C3)
2 (FAD) 2
1 (HFA) 1 (MT15) REL

44 (UT7) 15M
43 (UT4) 12M
42 (UT2) 9M
41 (UT1) 6M
40 (UTO) 3M
34 (TT7) 14M
33 (TT4) 11M
32 (TT2) 8M
31 (TT1) 5M (TRN) REL
30 (TTO) 2M
24 (HT7) 13M
23 (HT4) 10M
22 (HT2) 7M
21 (HT1) 4M
20 (HTO) 1M

(IRMC-MD)
TO CAD 100
(IRMC-MC)

24 (ECN) 21M
3 (OCN) 22M
LOOP WHEN DUP NO. GR OPERATION IS PROVIDED

DCST 4M (DCIA) REL
TO CAD 108
VCST 4M

VCHB 1M
VCTB 2M (VCIA) REL
VCU 3M

TO CAD 110P
DCHB 1M
DCTB 2M (DCIA) REL
DCU 3M

SL9 2M (SA9) REL
TO CAD 168A
SLO 2M (SAO) REL

TO CAD 156
56 23M (TRN) REL
55 4 (NE) REL

TO CAD 110E
VCIA
DCIA

TO CAD 107
MFR DISC.
147 U (VCIA) REL
146 U (DCIA) REL

U9 2
U8 5
U7 3 (U7) REL

U6 1
TO CAD 110P U5 2
U4 5 (U4) REL

U3 3
U2 2 (U2) REL

U1 1 (U1) REL
U0 1 (U7) REL

CONN
TO CAD 69 U0
DO NOT CONN
WHEN CALL WAITING SERVICE IS PROVIDED
MFR DISC.
TO CAD 107 386
TO CAD 214 548 4 (U0) REL

759 (SLB) 11M (MT22) REL
744 4B (MT15) REL
577 11M (TR2A) REL

570 6M
563 6B
562 6 (MT15) REL
569 5M
568 5
MFR DISC.

566 12M
TO CAD 107 565 12
564 12B
560 11 (MT22) REL

561 12 (SAC) REL
A & M ONLY
559 4B
558 4M (MT15) REL
556 4
557 4 (SAO) REL
555 1B (2LA) REL
554 (2L9) 10
545 (2LO) 1 (2LA) REL
TO CAD 169 32 8M (MT15) REL

ZPR
LOOP WHEN DUP NO. GR OPERATION IS NOT PROVIDED

544 U (2LA) REL
543 1M (TRIA) REL
499 17F (TRN) REL
493 7M (U7) REL
492 7M (U4) REL
491 7M (U2) REL
490 7M (U1) REL
489 7M (UO) REL
441 (CAM) 3 (MT15) REL
387 U (TRN) REL
385 U (SAC) REL
384 7
383 10 (UC) REL
382 U
381 16 (TRN) REL
380 U (MT10) REL
TO CAD 107
379 16M (TRN) REL
378 11 (TRIA) REL
377 6A (SAO) REL
376 6B
375 6 (SAC) REL
374 11 (MT10) REL
373 10M (SA8) REL
372 10M (SA6) REL
371 10M (SA4) REL
370 10M (SA2) REL
369 10M (SAO) REL
368 7 (NE) REL
367 7M (SAC) REL
366 8M
365 8 (NE) REL
364 U (TR2A) REL
363 U (TRIA) REL
362 (MT10K) 12
361 (MT9K) 12M (MT10) REL
360 (MT19) 11M
582 88 MFR DISC.
619 (MT15) REL
TO CAD 169 37

LOOP WHEN DUP NO. GR OPERATION IS NOT PROVIDED

359 (S9) 10
350 (SO) 1
349 (S9) 10M (MT19) REL
340 (SO) 1M
TO CAD 107 339 U (MT15) REL
279 17M (TRN) REL

85 (SAE) 4 (SAO) REL
84 (A) 7 (SAC) REL
75 (U9) 6M (SA9) REL
66 (UO) 6M (SAO) REL
LOOP WHEN DUP NO. GR OPERATION IS PROVIDED

TO CAD 178 OR TO CAD 101 (MF) REL
67
77 21
TO CAD 141 76 22 (TRN) REL

FAD MFR DISC. 2B
TO CAD 118 HFA 1B (MT15) REL
CAMA 3B

U7 U (U7) REL
U4 U (U4) REL
TO CAD 122 U2 U (U2) REL
U1 U (U1) REL
U0 U (U0) REL

VCI 6 (VCIA) REL
TO CAD 121
DCI 6 (DCIA) REL

17 7
TO CAD 169 18 AV 7B
TO CAD 110U CT
6H 8
583 7M
591 9B
590 9 (MT15) REL
TO CAD 107 698 10M
697 11M
710 10
707 11
610 12M

MFR DISC.
TO CAD 180 108 L (DCIA) REL
TO CAD 180A 01

DRAWING ISSUE
23A MLT CLK AP
240 MLT CLK AP
25D MD 2A1 AP
27A MD 2D1 AP
28D MD 2A1 AP
350 MFS 6AL AP
310 MFS 2AL AP
32A GM 4AL AP
330 GM 6AL AP
350 UP MJ AP
370 SSL
390 RP
410
430
44A

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G38

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-G38

STABILO

# CAD 56

CONN WHEN ETS IS PROVIDED

411 (XT3) 11F (CR2) REL
406 (DLOS) 2U (DLO) REL
399 12F
398 11F (TGS1) REL
397 22F
396 L (DLS) REL
395 L (CLS) REL
394 L (CRP) REL
TO CAD 107 393 16F
392 16M (TGS1) REL
391 U
390 8M
389 6M (SCL) REL
388 4M
1F (CL1) REL
1 (CL3) DIODE
216 11F (DLP) REL
334 U (SCL) REL
2 (CL3) DIODE
217 6B (CL1) REL

CONN WHEN ETS IS NOT PROVIDED

53 (CL6) 4F (CL5) REL
52 (CL5) 6F OR 8F (CL10) REL OR (SCL) REL
50 (DL6) 6F (DL6) REL
44 (DL5) 6F (DL5) REL
(OSC-MB2) 43 (DL4) 6F (DL4) REL
42 (DL3) 6F (DL3) REL
41 (DL2) 6F (DL2) REL
40 (DL1) 6F (DL1) REL

MFR DISC.
24 (CR7) 10F
TO CAD 105 23 (CR4) 8F (CRO) REL
(OSC-MB1) 22 (CR2) 8F (CR1) REL
21 (CR1) 4F (CRO) REL
20 (CRO) 4F (CR1) REL
4 (CL4) 4F (CL1) REL
(OSC-MA1) 3 (CL3) 6F (SCL) REL
2 (CL2) 4F
12B
1 (CL1) OR 6F (CL10) REL OR (DLP) REL

TO CAD 106 (MTFC-B1) 12
TO CAD 107 30
25 10F (CRO) REL
24 8F
TO CAD 231 23 8F (CR1) REL
22 4F (CRO) REL
21 4F (CR1) REL

MFR DISC.
TO CAD 180 09
CR7 10F
CR4 8F (CRO) REL
TO CAD 69 CR2 8F (CR1) REL
CR1 4F (CRO) REL
CRO 4F (CR1) REL
MFR DISC.
02 00 6M (CLS) REL
03 6F (CL2) REL
109 24M
TO CAD 143 108 79 23M
78
188 158 21
187 157 20 (TGS1) REL
TO CAD 178 06 10F
05 9F
TO CAD 115 04 8F
03 7F
01 4M (CRK1) REL

CLS5 2U (CL5) REL
CLSO 2U (CLO) REL
CLP5 1U (CL5) REL
CLPO 1U (CLO) REL
TO CAD 111 DLS6 2U (DL6) REL
DLS1 2U (DL1) REL
DLP6 1U (DL6) REL
DLPO 1U (DLO) REL

CRS5 2U (CR5) REL
CRS4 2U (CR4) REL
CRS3 2U (CR3) REL
CRS2 2U (CR2) REL
CRS1 2U (CR1) REL
CRSO 2U (CRO) REL
TO CAD 107 845
CRP5 1U (CR5) REL
CRP4 1U (CR4) REL
TO CAD 111 CRP3 1U (CR3) REL
CRP2 1U (CR2) REL
CRP1 1U (CR1) REL
CRPO 1U (CRO) REL
TO CAD 107 844
TO CAD 178 32 19M (TGS1) REL
05 18M
MFR DISC.
26 48
27 6B (SCL) REL
28 8B
TO CAD 231 30 4F (DLK1) REL
31 4M (CRK1) REL

# CAD 57
(FOR APP FIG. 57)

A & M ONLY
38
TO CAD 173 16 37 (LB9) RES
36 (R8) (R8) RES
35 (R7) (R7) RES
34 (R6) (R6) RES
33 (R5) (R5) RES
32 (REG2) 12M
31 (REG1) 11M
15 28 10M
14 27 9M
13 26 8M
12 25 7M
11 24 6M
10 23 5M (PL1) REL
TO CAD 173 09 22 4M
08 21 3M
07 18 2M
06 17 1M
05 16 U
04 15 L
03 14 -6
02 13 3 (PL) REL
01 12 7
00 11 -4 (LB9) REL
MFR DISC. → T.S. ON PER CENT LOAD UNIT

TO CAD 121 154 (PL) L (PL1) REL
114 (PL1) U (PL1) REL
TO CAD 113 22 7 (PL) REL
TO CAD 102 (LLC-MB2) 50 (PL) 3 (PL) REL
MFR DISC.

58 (R8) (R8) RES
57 (R7) (R7) RES
56 (R6) (R6) RES
55 (R5) (R5) RES
54 (REG2) 12M
53 (REG1) 11M (PL1) REL
52
51
48
47
46
45
44
43
42
41
38
37
36
35
34
33
32

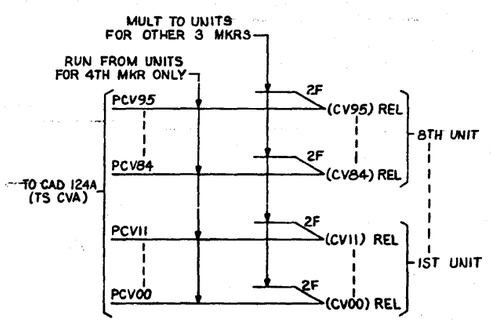
16 31 (BAT.) (LB9) RES
15 (PL9) 28 1
14 (PL8) 27 9M
13 (PL7) 26 8M
12 (PL6) 25 7M
11 (PL5) 24 6M
10 (PL4) 23 5M (PL1) REL
TO CAD 173 09 (PL3) 22 4M
08 (PL2) 21 3M
07 (PL1) 18 2M
06 (PL0) 17 1M
05 (PL1) 16 U
04 (PL) 15 L
03 14 -6
02 (PL) 13 3 (PL) REL
01 12 7
MFR DISC.
00 11 -9 -4 (LB9) REL
T.S. ON PER CENT LOAD UNIT

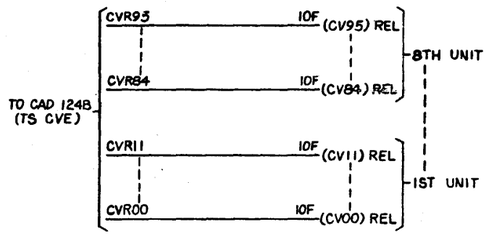
DRAWING ISSUE
23A
24D
25D
30D
33D
35D
39D

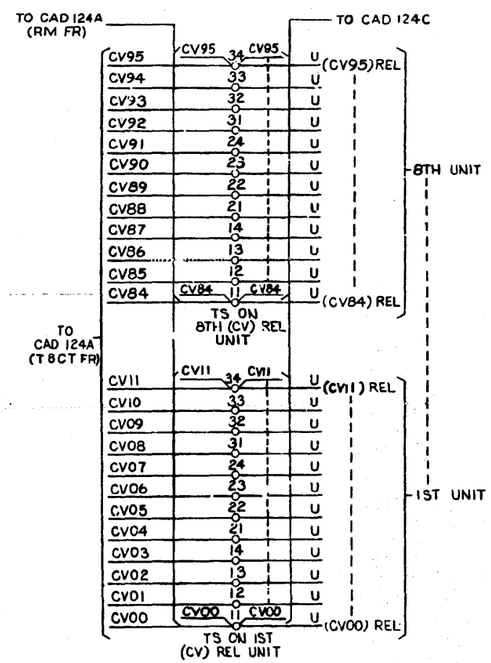
ISSUE 63B

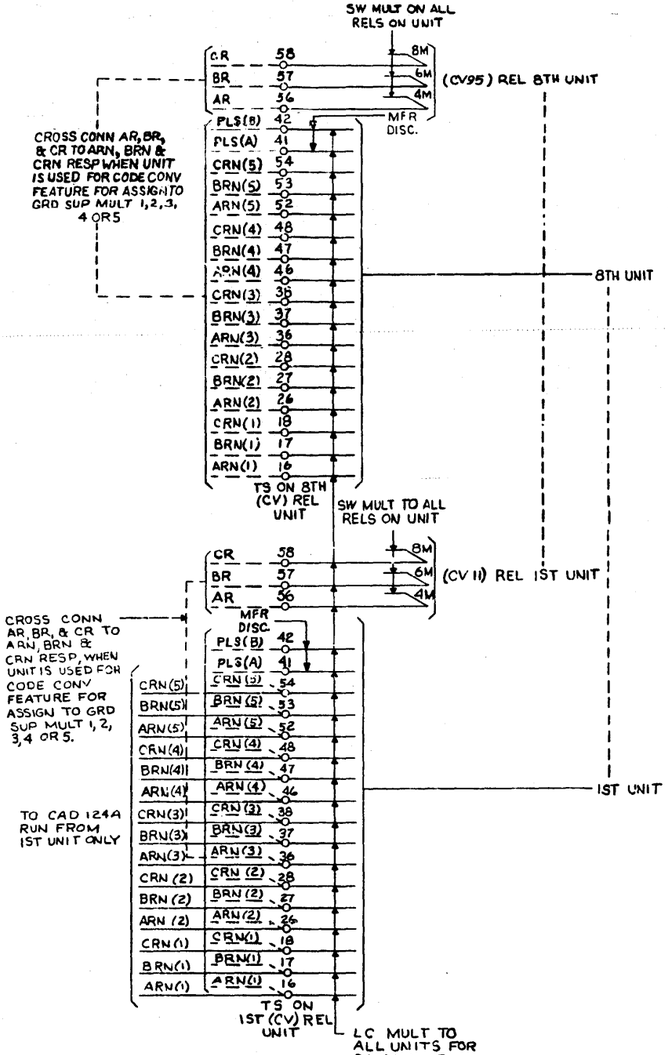
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G 39
BELL TELEPHONE LABORATORIES INCORPORATED 6S

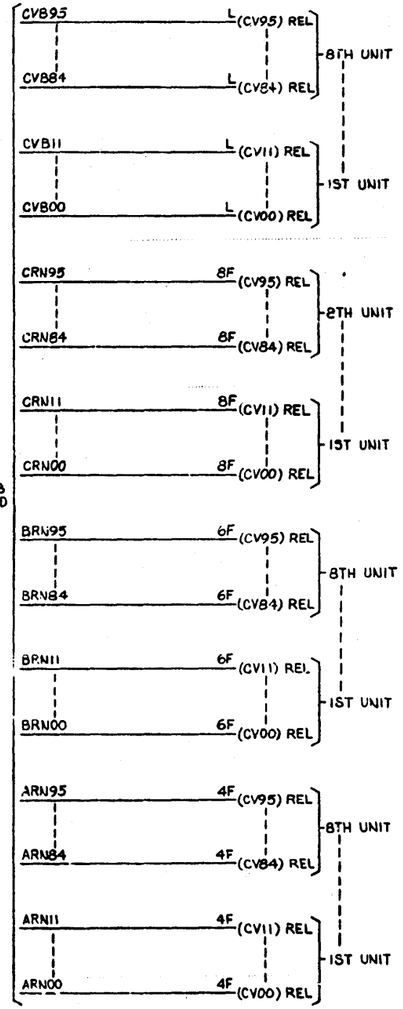
# CAD 58
(FOR APP FIG. 58)



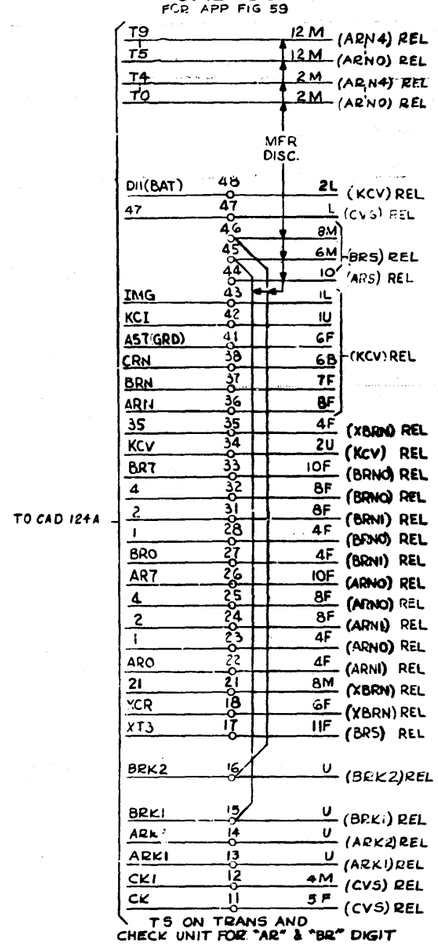



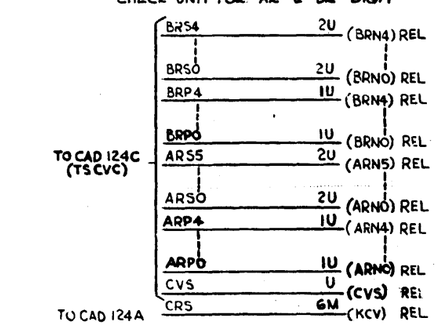




# CAD 59
FOR APP FIG 59




DRAWING ISSUE 20 — 3D — 4B — 18D — 40AC — 21D — 22D — 24D — 30D — 35D

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

SD-26002-01-G40

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G40 ISSUE 53B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# CAD 60
(FOR APP FIG. 60)

59 L (ANON) REL
58 L (NGSA) REL
57 L (ALSO) REL

53 3F
52 3B
51 4F
50 6 (NAR2) REL
(NAR1) REL

(MFR DISC.)
48 10 (AB) REL
47 5 → 7 (XAN) REL
46 4F (XAH) REL
45 3F (AN) REL
44 U (AHG) REL
43 9B (ANT) REL
42 1F (NANS) REL
41 4M (NAR2) REL
40 12M (XAH) REL
39 1B (NARI) REL
38 13B (ANRI) REL
37 7 → 3 (XAN) REL

34 3 (TYMI) REL
33 6M (AHG) REL
32 11F
31 9F
30 9B
29 5F
28 5B
27 6F
26 (A55 GRD) 6B
25 7F
24 7B
23 6M (NAR2) REL
22 -6 (TYMI) REL
21 +2 (TYMI) REL
20 11M (ANS) REL
19 10F
18 7B (NARI) REL
17 7F
16 8B (NAR2) REL
15 7F (ANR) REL
14 11M (NAR2) REL
13 4F (NAR2) REL
12 U (TNA) REL
11 U (ANON) REL
10 6B (ANRI) REL
08 1B (ADVA) REL
09 4F (ANT) REL
07 9F (NAR2) REL
06 2M (ANRI) REL
05 9F (ANR) REL
04 2F (NARI) REL
03 1F (NARI) REL
02 10M (AB) REL
01 2F
00 2B
36 4F
07A (ADVA) REL
35 4B
C8A

TO CAD 128A (CE)

THT9 12M
THT8 11M
THT7 10M
THT6 9M
THT5 7M
THT4 5M
THT3 4M
THT2 3M
THT1 2M
THT0 1M (ALS5) REL

TO CAD 128B

THT9 12M
THT8 11M
THT7 10M
THT6 9M
THT5 7M
THT4 5M
THT3 4M
THT2 3M
THT1 2M
THT0 1M (ALSO) REL

XN 5M (ANON) REL
NS35 U (ALS5) REL
NS54 U (ALS4) REL
N3S3 U (ALS3) REL
NS52 U (ALS2) REL
NS51 U (ALS1) REL
NS50 U (ALS0) REL
TB 3M (NGSA) REL
PTN 3F (ADVA) REL
UO 4F (NGSA) REL
TTP 1B (ANT) REL
THB 2B (ANT) REL

TO CAD 128A (T & CT)

THT9 12F
THT8 11F
THT7 10F
THT6 9F
THT5 7F
THT4 5F
THT3 4F
THT2 3F
THT1 2F
THT0 1F (ALSO) REL

02 1M (NGSA) REL
01 4M (ANT) REL
05 U (ADVA) REL
09 5 (ANON) REL

TO CAD 128A (LLP)

ALS5 8M (ALS5) REL

TO CAD 128B

ALS0 8M (ALSO) REL

NGTH 9M
NGTA 2M (TNA) REL

TO CAD 128A RUN FROM FOURTH MKR ONLY (NGT)

MULT TO OTHER CAD 60 WHEN MASTER TST FR IS PROVIDED

A & M ONLY

NGTH 9M
NGTA 2M (TNA) REL

TO CAD 128A

(MFR DISC.)
H1 10F
G1 8F
F1 6F
E1 4F (BNG) REL
D1 5 (NGTD) REL
C1 5 (NGTC) REL
B1 5 (NGTB) REL
A1 5 (NGTA) REL

TO CAD 128B

H2 7 → 2 (NGTD) REL
G2 7 → 2 (NGTC) REL
F2 7 → 2 (NGTB) REL
E2 7 → 2 (NGTA) REL
D2 7 → 2 (NGTF) REL
C2 7 → 2 (NGTE) REL
B2 7 → 2 (NGTG) REL
A2 7 → 2 (NGTH) REL

NS2 6M
NS1 6B
AB2 4M (ANR2) REL
AB1 4B
BNG U BNG(REL)
4NG U 4NG(REL)
NNG 1 NAN(RES)
ANI 3F (ANON) REL

TO CAD 63

55 6M
54 6 (ALSO) REL

TO CAD 128A

127 U
93 7B (NGSA) REL
92 6 (ANR2) REL

TO CAD 204

DRAWING ISSUE
2D
3D
4A
5D
10B
22D
24D
25D
29A
33D
35D
41A

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G41
41
BELL TELEPHONE LABORATORIES INCORPORATED
6S

# CAD 61

| | | | |
|---|---|---|---|
| TNH9 | 12M | (AND9) REL | |
| TNG9 | 3M | | |
| TNF9 | 12M | (ANC9) REL | |
| TNE9 | 3M | | |
| TND9 | 12M | (ANB9) REL | |
| TNC9 | 3M | | |
| TNB9 | 3M | (ANA9) REL | |
| TND8 | 12M | (ANB8) REL | |
| TNC8 | 3M | | |
| TNB8 | 3M | (ANA8) REL | |
| TND7 | 12M | (ANB7) REL | |
| TNC7 | 3M | | |
| TNB7 | 3M | (ANA7) REL | |
| TND6 | 12M | (ANB6) REL | |
| TNC6 | 3M | | |
| TNB6 | 3M | (ANA6) REL | |
| TNH5 | 12M | (AND5) REL | |
| TNG5 | 3M | | |
| TNF5 | 12M | (ANC5) REL | |
| TNE5 | 3M | | |
| TND5 | 12M | (ANB5) REL | |
| TNC5 | 3M | | |
| TNB5 | 3M | (ANA5) REL | |
| TNH4 | 12M | (AND4) REL | |
| TNG4 | 3M | | |
| TNF4 | 12M | (ANC4) REL | |
| TNE4 | 3M | | |
| TND4 | 12M | (ANB4) REL | |
| TNC4 | 3M | | |
| TNB4 | 3M | (ANA4) REL | |
| TND3 | 12M | (ANB3) REL | |
| TNC3 | 3M | | |
| TNB3 | 3M | (ANA3) REL | |
| TND2 | 12M | (ANB2) REL | |
| TNC2 | 3M | | |
| TNB2 | 3M | (ANA2) REL | |
| TND1 | 12M | (ANB1) REL | |
| TNC1 | 3M | | |
| TNB1 | 3M | (ANA1) REL | |
| TNH0 | 12M | (AND0) REL | |
| TNG0 | 3M | | |
| TNF0 | 12M | (ANC0) REL | |
| TNE0 | 3M | | |
| TND0 | 12M | (ANB0) REL | |
| TNC0 | 3M | | |
| TNB0 | 3M | (ANA0) REL | |

TO CAD 128B

| | | | |
|---|---|---|---|
| HBH9 | 11M | (AND9) REL | |
| HBG9 | 2M | | |
| HBF9 | 11M | (ANC9) REL | |
| HBE9 | 2M | | |
| HBD9 | 11M | (ANB9) REL | |
| HBC9 | 2M | | |
| HBB9 | 2M | (ANA9) REL | |
| HBD8 | 11M | (ANB8) REL | |
| HBC8 | 2M | | |
| HBB8 | 2M | (ANA8) REL | |
| HBD7 | 11M | (ANB7) REL | |
| HBC7 | 2M | | |
| HBB7 | 2M | (ANA7) REL | |
| HBD6 | 11M | (ANB6) REL | |
| HBC6 | 2M | | |
| HBB6 | 2M | (ANA6) REL | |
| HBH5 | 11M | (AND5) REL | |
| HBG5 | 2M | | |
| HBF5 | 11M | (ANC5) REL | |
| HBE5 | 2M | | |
| HBD5 | 11M | (ANB5) REL | |
| HBC5 | 2M | | |
| HBB5 | 2M | (ANA5) REL | |
| HBH4 | 11M | (AND4) REL | |
| HBG4 | 2M | | |
| HBF4 | 11M | (ANC4) REL | |
| HBE4 | 2M | | |
| HBD4 | 11M | (ANB4) REL | |
| HBC4 | 2M | | |
| HBB4 | 2M | (ANA4) REL | |
| HBD3 | 11M | (ANB3) REL | |
| HBC3 | 2M | | |
| HBB3 | 2M | (ANA3) REL | |
| HBD2 | 11M | (ANB2) REL | |
| HBC2 | 2M | | |
| HBB2 | 2M | (ANA2) REL | |
| HBD1 | 11M | (ANB1) REL | |
| HBC1 | 2M | | |
| HBB1 | 2M | (ANA1) REL | |
| HBH0 | 11M | (AND0) REL | |
| HBG0 | 2M | | |
| HBF0 | 11M | (ANC0) REL | |
| HBE0 | 2M | | |
| HBD0 | 11M | (ANB0) REL | |
| HBC0 | 2M | | |
| HBB0 | 2M | (ANA0) REL | |

TO CAD 128B

| | | | |
|---|---|---|---|
| THH9 | 10M | (AND9) REL | |
| THG9 | 1M | | |
| THF9 | 10M | (ANC9) REL | |
| THE9 | 1M | | |
| THD9 | 10M | (ANB9) REL | |
| THC9 | 1M | | |
| THB9 | 1M | (ANA9) REL | |
| THD8 | 10M | (ANB8) REL | |
| THC8 | 1M | | |
| THB8 | 1M | (ANA8) REL | |
| THD7 | 10M | (ANB7) REL | |
| THC7 | 1M | | |
| THB7 | 1M | (ANA7) REL | |
| THD6 | 10M | (ANB6) REL | |
| THC6 | 1M | | |
| THB6 | 1M | (ANA6) REL | |
| THH5 | 10M | (AND5) REL | |
| THG5 | 1M | | |
| THF5 | 10M | (ANC5) REL | |
| THE5 | 1M | | |
| THD5 | 10M | (ANB5) REL | |
| THC5 | 1M | | |
| THB5 | 1M | (ANA5) REL | |
| THH4 | 10M | (AND4) REL | |
| THG4 | 1M | | |
| THF4 | 10M | (ANC4) REL | |
| THE4 | 1M | | |
| THD4 | 10M | (ANB4) REL | |
| THC4 | 1M | | |
| THB4 | 1M | (ANA4) REL | |
| THD3 | 10M | (ANB3) REL | |
| THC3 | 1M | | |
| THB3 | 1M | (ANA3) REL | |
| THD2 | 10M | (ANB2) REL | |
| THC2 | 1M | | |
| THB2 | 1M | (ANA2) REL | |
| THD1 | 10M | (ANB1) REL | |
| THC1 | 1M | | |
| THB1 | 1M | (ANA1) REL | |
| THH0 | 10M | (AND0) REL | |
| THG0 | 1M | | |
| THF0 | 10M | (ANC0) REL | |
| THE0 | 1M | | |
| THD0 | 10M | (ANB0) REL | |
| THC0 | 1M | | |
| THB0 | 1M | (ANA0) REL | |

TO CAD 128B

| | | | |
|---|---|---|---|
| NGH9 | 9F | (AND9) REL | |
| NGG9 | 8F | | |
| NGF9 | 9E | (ANC9) REL | |
| NGE9 | 8F | | |
| NGD9 | 9F | (ANB9) REL | |
| NGC9 | 8F | | |
| NGB9 | 9F | (ANA9) REL | |
| NGA9 | 8F | | |
| NGD8 | 9F | (ANB8) REL | |
| NGC8 | 8F | | |
| NGB8 | 9F | (ANA8) REL | |
| NGA8 | 8F | | |
| NGD7 | 9F | (ANB7) REL | |
| NGC7 | 8F | | |
| NGB7 | 9F | (ANA7) REL | |
| NGA7 | 8F | | |
| NGD6 | 9F | (ANB6) REL | |
| NGC6 | 8F | | |
| NGB6 | 9F | (ANA6) REL | |
| NGA6 | 8F | | |
| NGH5 | 9F | (AND5) REL | |
| NGG5 | 8F | | |
| NGF5 | 9F | (ANC5) REL | |
| NGE5 | 8F | | |
| NGD5 | 9F | (ANB5) REL | |
| NGC5 | 8F | | |
| NGB5 | 9F | (ANA5) REL | |
| NGA5 | 8F | | |
| NGH4 | 9F | (AND4) REL | |
| NGG4 | 8F | | |
| NGF4 | 9F | (ANC4) REL | |
| NGE4 | 8F | | |
| NGD4 | 9F | (ANB4) REL | |
| NGC4 | 8F | | |
| NGB4 | 9F | (ANA4) REL | |
| NGA4 | 8F | | |
| NGD3 | 9F | (ANB3) REL | |
| NGC3 | 8F | | |
| NGB3 | 9F | (ANA3) REL | |
| NGA3 | 8F | | |
| NGD2 | 9F | (ANB2) REL | |
| NGC2 | 8F | | |
| NGB2 | 9F | (ANA2) REL | |
| NGA2 | 8F | | |
| NGD1 | 9F | (ANB1) REL | |
| NGC1 | 8F | | |
| NGB1 | 9F | (ANA1) REL | |
| NGA1 | 8F | | |
| NGH0 | 9F | (AND0) REL | |
| NGG0 | 8F | | |
| NGF0 | 9F | (ANC0) REL | |
| NGE0 | 8F | | |
| NGD0 | 9F | (ANB0) REL | |
| NGC0 | 8F | | |
| NGB0 | 9F | (ANA0) REL | |
| NGA0 | 8F | | |

TO CAD 128B

(MFR DISC.)

| | | | |
|---|---|---|---|
| ATB9 | q → 4 | (ATB9) REL | |
| ATB0 | q → 4 | (ATB0) REL | |
| AHB9 | q → 4 | (AHB9) REL | |
| AHB0 | q → 4 | (AHB0) REL | |
| ATH9 | 5 | (ATB9) REL | |
| ATH0 | 5 | (ATB0) REL | |

TO CAD 128B

TO CAD 128A (CE)

| | | |
|---|---|---|
| 47 | 14 | (ATB0) REL |
| 56 | L | (AND4) REL |

RUN FROM 4TH MKR ONLY

| | | | |
|---|---|---|---|
| OVF9 | 6F | (ANA9) REL | |
| OVF0 | 6F | (ANA0) REL | |

TO CAD 128A (OVF)

MULT TO OTHER CAD 61 ON SAME FR

| | | | |
|---|---|---|---|
| 29 | 12 | (ANA9) REL | |
| 20 | 12 | (ANA0) REL | |
| 03 | 7 | (ANA0) REL | |

TO CAD 128A (LLP)

| | | | |
|---|---|---|---|
| ANA 9 | 10F | (ANA9) REL | |
| ANA 0 | 10F | (ANA0) REL | |
| THA9 | 7M | (ANA9) REL | |
| THA0 | 7M | (ANA0) REL | |

TO CAD 128B

# CAD 62

(FOR APP FIG 62)

| | | | |
|---|---|---|---|
| IPC9 | 6F | (IPC9) REL | |
| IPC0 | 6F | (IPC0) REL | |

TO CAD 120

| | | | |
|---|---|---|---|
| IPC9 | U | (IPC9) REL | |
| IPC0 | U | (IPC0) REL | |

TO CAD 110G

| | | | |
|---|---|---|---|
| IR09 | 2F | (IPC9) REL | |
| IR00 | 2F | (IPC0) REL | |

TO CAD 110F

| | | |
|---|---|---|
| 408 | 6M | (IPC0) REL |

TO CAD 107

# CAD 63

(FOR APP FIG. 63)

| | | | |
|---|---|---|---|
| MKR3(ANI)RES | 34 | ANI | MKR3 |
| MKR2(ANI)RES | 33 | ANI | MKR2 |
| MKR1(ANI)RES | 32 | ANI | MKR1 |
| MKR0(ANI)RES | 31 | ANI | MKR0 |

TO CAD 60

| | | | |
|---|---|---|---|
| MKR3(ANI)RES | B 14 | 57 | MKR3 |
| MKR2(ANI)RES | B 13 | 57 | MKR2 |
| MKR1(ANI)RES | B 12 | 57 | MKR1 |
| MKR0(ANI)RES | B 11 | 57 | MKR0 |

TO CAD 128A

TS ON RES UNIT 8X ALLR FR

SW ON FRONT OF T.S.

# CAD 64

(FOR APP FIG. 64)

| | | | |
|---|---|---|---|
| 30 | (PE) | 4F | (STP2A) REL |
| 02 | (FTT5) | 12F | (FTT5) REL |
| 01 | (FTT4) | 12F | (FTT4) REL |

TO CAD 106 (MTFC-BS)

| | | | |
|---|---|---|---|
| ST59 | 10M | | |
| ST50 | 1M | (FTT5) REL | |
| ST49 | 10M | | |
| ST40 | 1M | (FTT4) REL | |

TO CAD 102 (LLC-ST)

| | | |
|---|---|---|
| 43 | 2RT | (XFG) REL |

TO CAD 138

| DRAWING ISSUE | | |
|---|---|---|
| 2D | MKW | WFO |
| 4A | MKS | WFO |
| 5D | LRA AP | JFD |
| 6A | NO CHG | JRC |
| 10D | P&P 6A | PP |
| 22D | DSW LSM AWD | |
| 24D | DS LSM AWD | |
| 33D | WB LSL AWD | |
| 35D | UP PWI BWD | |

COMPLETING MARKER CIRCUIT (1)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-G43

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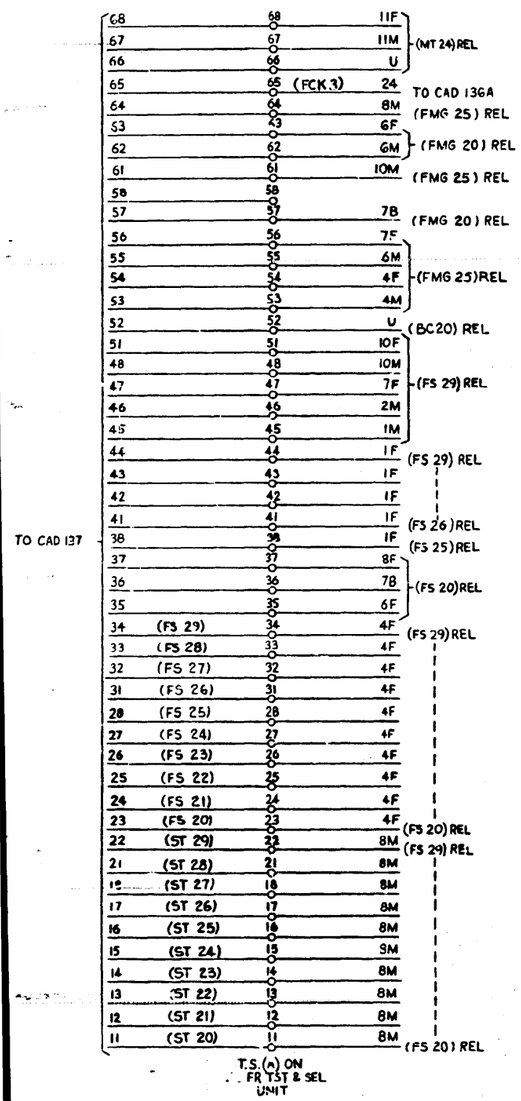
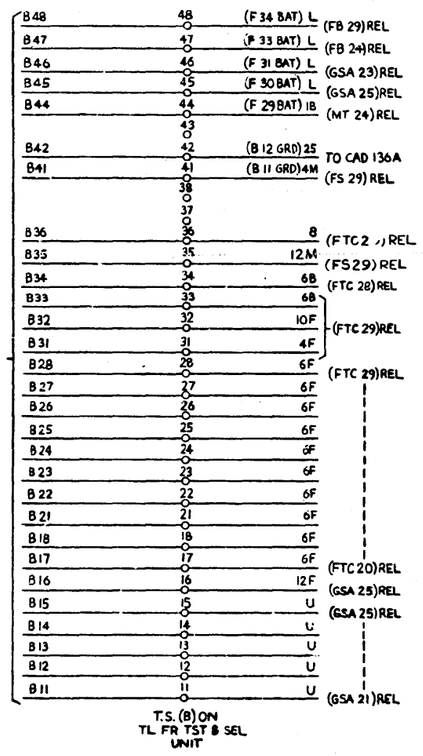
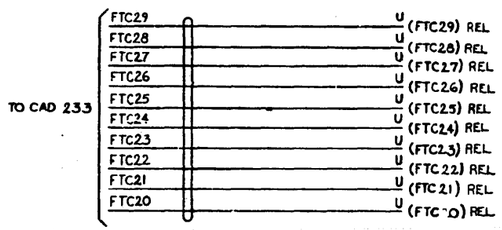
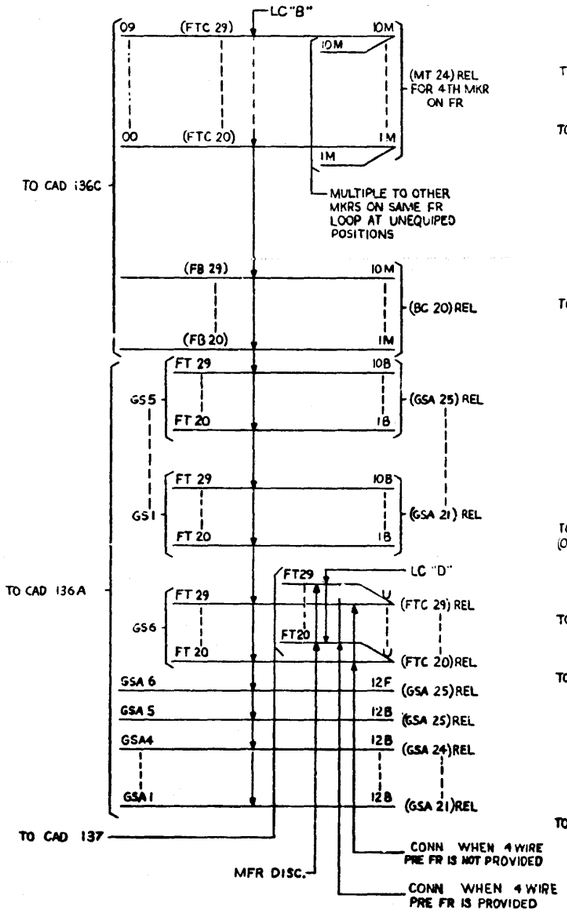
# CAD 65

(FOR APP FIG 65)



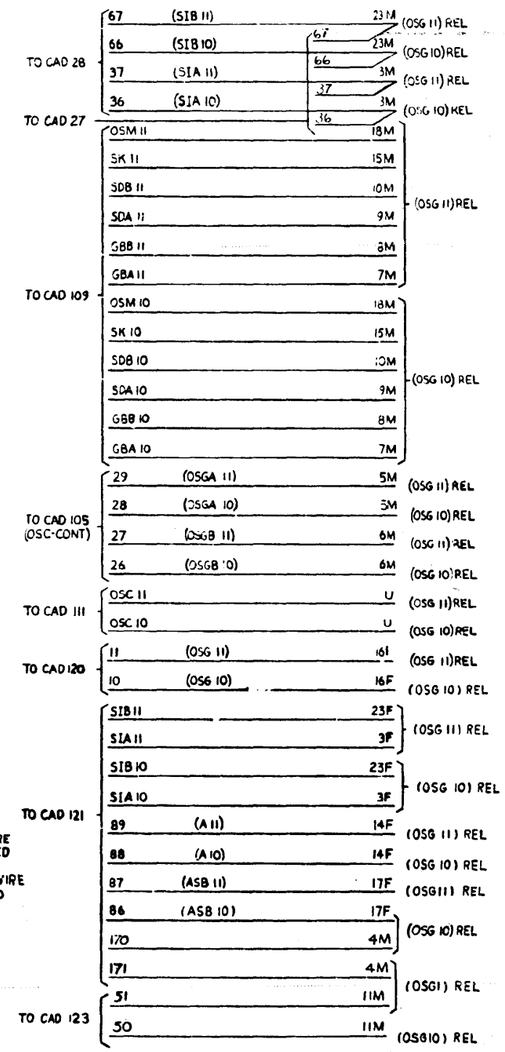




# CAD 67

(FOR APP FIG 67)






COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-644

ISSUE 65B

65

0 1 2 3 4 5 6 7 8 9

## CAD 68

LOOP AT UNEQUIPPED POS
TO CAD 108 773 9 (CMSO) REL
772 9B (CMSI) REL
TO CAD 13 12 (TST) 12B (CMSI) REL
TO CAD 108 12 12F (CMSO) REL
400 L (CAMA) REL
TO CAD 106 (MTFC-TO) 56 9M (NCMJ) REL
455 9F
454 U (CMSI) REL
453 U (CMSO) REL
452 12F (CMF2) REL
451 - (CMC3) REL
450 11M (CMF2) REL
170 7F
TO CAD 108 449 2M (CMF3) REL
448 U (CMFI) REL
447 11M (CMS1) REL
445 U (CMFO) REL
444 12M (CMC3) REL
443 2F (CMF3) REL
441 4F
07 (CAM)
418
440 U (CAMA) REL
35 (CAMA)
MFR DISC.
TO CAD 106 (MTFC-B5) 767 6 6M (CTGS) REL
766 5 5M
TO CAD 108 877 1M (CMFO) REL
MFR DISC
TO CAD 111 DKQ 2F (CFGO) REL
TO CAD 122 13 (CMF) 2M (CMF2) REL
12 (CMSI) 5F (CMSI) REL
11 (CMSO) 5F (CMSO) REL
TO CAD 121 79 (TTA) 8F
78 (TTM) 6F
77 (OTT) 4M
36 (DISC) 1F (TTA) REL
TO CAD 103 (TLC-MB2) 33 (TTM) 6M
32 (TTA) 8M
TO CAD 108 774 9M (CMSI) REL
TO CAD 106 (MTFC-AO) LOOP AT UNEQUIPPED POS
MFR DISC
ZTX ZTZ
14 (FU7) 3F
14 3M NCMJ REL
13 (FU4) 7F
12 TO CAD 106 (MTFC-AO)
13 7M
12 (FU2) 6F
12 6M
11 (FU1) 5F
TO CAD 18
11 5M
10 (FU0) 4F (NCMJ) REL
10 4M
22 (FT2) 3F
22 3M
21 (FT1) 2F
21 2M
20 (FT0) 1F
20 1M
TO CAD 105 (OSC-MC2)

LOOP AT UNEQUIPPED POS
TO CAD 106 (MTFC-B5) 37 (CAMS) 8M (CMSO) REL
36 (CAMF) U (CMF3) REL
20 3 (CAMA) REL
TO CAD 105 (OSC-CONT) 20 (ORC2) 9F
19 (ORC1) 11F (ORC) REL
18 (ORCO) 10F
TO CAD 154 100 6M (CMSO) REL
TO CAD 188 09 7B (CMC3) REL
TO CAD 108 622 3B (CAMA) REL
533 CONN WHEN ETS IS PROVIDED

DO NOT CONN WHEN ETS IS PROVIDED
CONNECT WHEN TRAFFIC SAMPLING BY SEL TRUNK GRP IS PROVIDED
DO NOT CONN WHEN TRAFFIC SAMPLING BY SEL TRUNK GRP IS PROVIDED

58
57
CMS29 56 12M
CMS28 55 11M
CMS27 54 10M
CMS26 53 9M
CMS25 52 8M (CFG2) REL
CMS24 51 7M
CMS23 48 6M
CMS22 47 5M
CMS21 46 4M
CMS20 45 3M
CMS19 44 12M
CMS18 43 11M
CMS17 42 10M
CMS16 41 9M
CMS15 38 8M (CFG1) REL
CMS14 37 7M
CMS13 36 6M
CMS12 35 5M
CMS11 34 4M
CMS10 33 3M
CMS9 32 12M
CMS8 31 11M
CMS7 28 10M
CMS6 27 9M
CMS5 26 8M (CFGO) REL
CMS4 25 7M
CMS3 24 6M
CMS2 23 5M
CMS1 22 4M
CMSO 21 3M
ORC2 18 9M
ORC1 17 11M (ORC) REL
ORCO 16 10M
ORC 15 457 TO CAD 108
SGC3 14 14
SGC2 13 13 TO CAD 109
SGC1 12 12
SGCO 11 11
T3 ON CAMA UNIT CE FR

CROSS CONN AS SPEC BY SECTION D
CROSS CONN AS SPEC BY SECTION D

TO CAD 108
784 4 (CMSI) REL
783 4 (CMSO) REL
782 1 (CMFI) REL
781 1 (CMFO) REL
TO CAD 24 14 10M (CMSO) REL
TO CAD 108 842 4
843 3
01 4M (CTGS) REL
TO CAD 105 (OSC-MC2) 834
00 3M
833

## CAD 69

TO CAD 200
461 9 (CMRO) REL
472 (ACO) U (ACD) REL
471 (VTC) U (VTC) REL
470 (DNC) U (DGN) REL
469 (LCD2) U (LCD2) REL
468 (LCDI) U (LCDI) REL
467 (LCDO) U (LCDO) REL
466 (WKC) U (WKC) REL
465 (FC) U (FC) REL
TO CAD 107 404 12M (CMCI) REL
460 L (CAM) REL
457 23 4F (CMJ) REL
456 22 2F
452 U (CMCI) REL
451 L (CMC2) REL
450 8F (CMF) REL
440 24 10F (CMJ) REL
386 12B (CMC2) REL
TO CAD 55 U0 12F
TO CAD 214 158
TO CAD 106 (MTFC-B3) DO NOT CONN CONN WHEN CALL WAITING SERVICE IS PROVIDED
LOOP AT UNEQUIPPED POS
MFR DISC.
24 54 10F
23 53 24 10B
22 52 23 9B
21 51 22 8B
20 50 21 7F
TO CAD 105 (OSC-MB2) 14 20 6B (CMC2) REL
14 5B
13 21 4F
13 4B
12 3F
12 3B
11 2F
11 2B
10 1F
TO CAD 115 10 1B
CR7 5B
24 5F
CR4 4B
23 4F
TO CAD 56 CR2 3B (CMCI) REL
22 3F
CR1 2B
21 2F
CRO 1B
TO CAD 105 (OSC-MB1) 40 1F
(MFR DISC.)
TO CAD 110N OR TO CAD 110N1 CMR1 1+ (CMR1) REL
CMRO 1F (CMRO) REL
CTOR 7 2 (CMR1) REL
CTAR 7 2 (CMRO) REL
VTC 10M (VTC) REL
FRC 10M (FC) REL
DNC 10M (DNC) REL
TO CAD 110F LCD2 8M (LCD2) REL
LCDI 8M (LCDI) REL
LCDO 8M (LCDO) REL
CMJ U (CMJ) REL
TO CAD 110E CMF U (CMF) REL
HAT 8M (ACD) REL

LOOP AT UNEQUIPPED POS
TO CAD 107 769 7 (CMF) REL
774 12 (LCDO) REL
TO CAD 110U TXC04 8M (CMJ) REL
TXC03 4M (CMF) REL
TO CAD 231 34 6F
13 7F (CMJ) REL
TO CAD 101 (ORMC-MCI) 22 7B
TO CAD 231 07 7M (CAM) REL

DRAWING ISSUE
60 ACT 118 138 180 210 220 240 350 34A 390 410 430

COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES INCORPORATED
65
ISSUE 60A
SD-26002-01-G45

## CAD 70

TO CAD 121
- DR19 — 10F — (DR19) REL
- DR10 — 10F — (DR10) REL

TO CAD 110L
- DR19 — U — (DR19) REL
- DR10 — U — (DR10) REL

TO CAD 110F
- RR19 — 6F — (DR19) REL
- RR10 — 6F — (DR10) REL

48

- WDZ — 43 — 43 — TO CAD 41
- ZRT19 — 42 — 8F — (DR19) REL.
- ZRT18 — 41 — 8F — (DR18) REL.
- ZRT17 — 38 — 8F — (DR17) REL.
- ZPT10 — 31 — 8F — (DR10) REL.

CROSS CONN. PER SECT. D

- CZT — 28 — CZT
- CZ — 27 — CZ

TO CAD 41

- NN — 26 — NN
- NC — 25 — NC
- TN — 24 — TN
- TC — 23 — TC

TO CAD 110N OR TO CAD 110NI

CROSS CONN. PER SECT. D

- ZRS19 — 22 — 8M — (DR19) REL.
- ZRS18 — 21 — 8M — (DR18) REL.
- ZRS17 — 18 — 8M — (DR17) REL.
- ZRS10 — 11 — 8M — (DR10) REL.

TS ON SUPL. DIVERTED ROUTE SERIES RELAY UNIT

## CAD 71

FOR APP FIG. 71

TO CAD 103 (TLC-MC2)

| | | | |
|---|---|---|---|
| 34 | (9NP) | 10F | (RUNA) REL |
| 33 | (8SP) | 9F | |
| 32 | (7RN) | 8F | |
| 31 | (6NT) | 7F | |
| 30 | (5ST) | 6F | |
| 24 | (4NE) | 5F | |
| 23 | (3NA) | 4F | |
| 22 | (2SA) | 3F | |
| 21 | (1SE) | 2F | |
| 20 | (ONN) | 1F | |

TO CAD 103 (TLC-ME)

| | | | |
|---|---|---|---|
| 24 | (RN19) | 10F | (RTNA) REL |
| 23 | (RN18) | 9F | |
| 22 | (RN17) | 8F | |
| 21 | (RN16) | 7F | |
| 20 | (RN15) | 6F | |
| 14 | (RN14) | 5F | |
| 13 | (RN13) | 4F | |
| 12 | (RN12) | 3F | |
| 11 | (RN11) | 2F | |
| 10 | (RN10) | 1F | |

| | | | |
|---|---|---|---|
| TO CAD 108 | 785 | | 12M |
| | 335 | | U |
| TO CAD 109 | NTR2 | | 6F (AMAI) REL |
| | NTR1 | | 5M |
| | 37 | | 3 (RUN) REL |
| TO CAD 176 | 17 | | 2 (AMAI) REL |
| | 16 | | 1 |
| TO CAD 198 | 8 | | 8M (RUN) REL |
| | 23 | | |

MFR DISC.

| | | | |
|---|---|---|---|
| TO CAD 103 (TLC-ME) | 42 | (RN25) | 6 (RNT20) REL |
| | 41 | (RN24) | 5 |
| | 40 | (RN23) | 4 |
| | 32 | (RN22) | 3 |
| | 31 | (RN21) | 2 |
| | 30 | (RN20) | 1 |
| TO CAD 105 (OSC-CONT) | 19 | | 4 |
| TO CAD 106 (MTFC-A2) | RNT20 | | 3M (AMAI) REL |

## CAD 72

TO CAD 121
- 66 (PCT 39) — 6F — (PC39) REL
- 55 (PCT 28) — 6F — (PC28) REL

TO CAD 110G
- RP39 — U — (PC39) REL
- RP28 — U — (PC28) REL

TO CAD 110F
- PR39 — 2F — (PC39) REL
- PR28 — 2F — (PC28) REL

TO CAD 110D
- PC39 — 4F — (PC39) REL
- PC28 — 4F — (PC28) REL

## CAD 73

TO CAD 110F
- INT1 — 10M

TO CAD 110E
- INPB — 10B
- INT — 10F — (INT) REL
- 477 — 8F
- 459 — 12M
- 458 — 12F

TO CAD 107
- 475 — 12M
- 474 — 4F — (FAC1) REL
- 478 — 4M
- 463 — 1M
- 462 — 11F
- 540 — 2

TO CAD 110L
- DY0 — 8M — (FD0) REL
- DY1 — 8M — (FE0) REL
- DY2 — 1M — (FE1) REL
- DY3 — 1B — (FF1) REL

TO CAD 215
- 45A
- 53A — 1U — (INT) REL

| DRAWING ISSUE | | |
|---|---|---|
| 9D | PCM JCB | PP |
| 10B | EDB LSB | PP |
| 11B | W.O. JCB | PP |
| 24D | DS DM AM2 | C |
| 30D | RN CAL AM2 | |
| 32A | CMC GH AM2 | |
| 35D | RCD TMS AM2 | |
| 37D | TS | C |
| 38A | LT | C |
| 39D | MLP | C |
| 41D | | C |
| 43D | | C |

DRAWING ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G46

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# CAD 74

ZR MFR DISC
ZJC
A&M ONLY

455 (35) 455 TO CAD 106 (MTFC-C3)
446 8 (RPK) REL
436 3M (AMA) REL
245 11M (TGS2) REL
243 2 (AMA) REL
241 U (TVA) REL
240 U (SCC) REL
TO CAD 107 239 12M (OBS) REL
236 4 (AMA) REL
235 11 (TGS2) REL
234 12 (AMA) REL
229 U (TGS2) REL
224 10 (NOB) REL
223 9 (AMA) REL
221 (XTV) 6 (XTV) REL
220 (XOB) 6 (XOB) REL

TO CAD 106 (MTFC-A5) 38 (RPK) U
(RPK) 6 (RPK) REL

TO CAD 106 (MTFC-C3) 36 (NOB) U (NOB) REL
35 (OBS) U (OBS) REL

TO CAD 105 (OSC-MC1) 21 (NOB) 9 (NOB) REL
20 9 (OBS) REL
20A
14 (RP) 1M
13 (TP) 2M (AMA) REL

TO CAD 105 (OSC-MB1) 31 (TVT) 6 (TVA) REL
30 (SC) 6 (SCC) REL

TO CAD 105 (OSC-MB2) 21
785 12M
TO CAD 107 58 8
57 10
TO CAD 198 1
111
38 8 (AMA) REL
TO CAD 156 26 8M
25 8B
25 (26) EZ

11 4M (4BK4) REL
TO CAD 169 12 10 (4BK5) REL
19 (OBS) RES
22 12M (TGS2) REL
TO CAD 191 37 U (AMA) REL
MFR DISC

DO NOT CONNECT WHEN TRAFFIC SAMPLING BY SELECTED TRUNK GROUP IS PROVIDED

CONNECT WHEN TRAFFIC SAMPLING BY SELECTED TRUNK GROUP IS PROVIDED

NOTES:
1. DO NOT CONNECT WHEN ANI OUTPULSING INSTRUCTIONS TO THE MF SDR ON DIGIT 8 CUT-THROUGH FOR EPSCS IS PROVIDED.

# CAD 75
(FOR APP FIG. 75)

TO CAD 111 CLS6 2U
CLP6 1U (CL6) REL

TO CAD 110N DRR1 1+ (DRR1) REL
DRR0 1+ (DRR0) REL

TO CAD 110F NRS1 7 2 (DRR1) REL
NRS0 7 (DRR0) REL

SEE NOTE 1 TO CAD 110E ANIS U (ANIS) REL

TO CAD 107 461 5 (DRR0) REL
56 10
TO CAD 105 (OSC-MC1) 24 10B (ANI) REL
TO CAD 105 (OSC-MA1) 03 (CL3) 3
238 2
TO CAD 107 473 2B (ANI) REL
30 3B
31 3M
TO CAD 101 (ORMC-MC) 23 1M

TO CAD 111 CLP7 1U
CLS7 2U (CL7) REL
CLP8 1U
CLS8 2U (CL8) REL

TO CAD 105 (OSC-MB1) 33 (CL8) 2 CONNECT WHEN LLP IS PROVIDED (CL8) REL
(CL8) 2 (CL8) REL
32 (CL7) 2 (CL7) REL (A&M ONLY) OR (CL7) RES

TO CAD 191 35 9B
TO CAD 231 35
TO CAD 199 35
540 9
TO CAD 107 539 1
538 L
DO NOT CONNECT WHEN AIS USING LLP SENDERS IS PROVIDED 537 (MT26) 12M CONNECT WHEN LLP IS NOT PROVIDED
TO CAD 156 57

TO CAD 111 CLS9 2U
CLP9 1U (CL9) REL
38 10M (ANIS) REL
TO CAD 191 36 10
34 2 (MT25) REL
33 1 (MT26) REL
TO CAD 107 770 6M
771 6B
13 6 (MT25) REL
TO CAD 191 17 8
TO CAD 211 138 LOOP AT UNEQUIPPED POSITION
A&M ONLY
MFR DISC
TO CAD 199 CR1 3 (MT25) REL

29
27 8M
TO CAD 200 26 8 (ANIS) REL
12 5B
MFR DISC.
TO CAD 110U TXC00 2M
TO CAD 231 34 6F (ANI) REL

TO CAD 231 06 4B (ANI)REL

DRAWING ISSUE
34A LP T&S ANI
35D LP T&S ANI
36A T&S
37D T&S
39D LT
41D
43D

ISSUE 68A

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G47
BELL TELEPHONE LABORATORIES INCORPORATED
6S

SD-26002-01-G47

# CAD 78
(FOR APP FIG. 78)

CS90 8 (CST9) REL
CS80 8 (CST8) REL
CS70 8 (CST7) REL
CS60 8 (CST6) REL
CS50 8 (CST5) REL
CS40 8 (CST4) REL
CS30 8 (CST3) REL
CS29 3 (CSU9) REL
TO CAD. 109
CS20 3 (CSU0) REL
CS19 2 (CSU9) REL
CS10 2 (CSU0) REL
CS09 1 (CSU9) REL
CS00 1 (CSU0) REL

TO CAD 172
CS19 — 14 — 05 — CS10
MFR DISC.
U OR 1U (CSU9) REL
U OR 1U (CSU0) REL
189 CS9 U (CST9) REL OR 2U (CSU9) REL
186 CS6 U (CST6) REL
185 CS5 U (CST5) REL
23 21 CS4 U (CST3) REL
183 CS2 U (CST2) REL
17 182 CSI U (CST1) REL
19 181 CS0 U (CST0) REL OR 2U (CSU0) REL
180
TO CAD. 102 (LLC-MB1)
TO CAD 230
A&M ONLY

CST9 6F (CST9) REL
CST0 6F (CST0) REL
CSU9 6F (CSU9) REL
CSU0 6F (CSU0) REL
TO CAD. 120

MFR DISC.

26 16 25 (CSU7) RES 15 12B (CSU0) REL
15 TO CAD. 29
24 (CSU4) RES 14 11B
23 (CSU2) RES 13 12B (CSU2) REL
22 (CSU1) RES 12 12B
21 (CSU0) RES 11 11B (CSU1) REL
TS (A)
26 16 25 (CST7) RES 15 TO CAD 172 26 28 (CST0) REL
24 (CST4) RES 14 27 1B
23 (CST2) RES 13 3B (CST5) REL
3B (CST2) REL
22 (CST1) RES 12 3B (CST1) REL
3B (CST0) REL
21 (CSTQ) RES 11 28 (CST1) REL
18
TS (B)
3B (CST4) REL
3B (CST3) REL
MFR DISC.

ZGA ZIR,ZIC
TO CAD. 106 (MTFC-AO) 36 (CTUK) U (CTUK) REL
TO CAD 230 TCGG (144) 1M (CS.) REL
(144) 1 (CS) DIODE
TO CAD 170A 37 10M (CTUK) REL
80 6 (CSK) REL
79 5 (CSU9) REL
TO CAD 171
70 5 (CSU0) REL
69 3M (CST9) REL
60 3M (CST0) REL
18 2 (CSS) REL
TO CAD 172
16 2
15 5 (CSP) REL
TO CAD 230
144
A&M ONLY

TO CAD 204
81 10 (CTUK) REL
0T99 12M (CST9) REL
0T98 12M (CST8) REL
0T97 12M (CST7) REL
0T89 11M (CST9) REL
0T88 11M (CST8) REL
0T87 11M (CST7) REL
0T79 4M (CST9) REL
0T78 4M (CST8) REL
0T77 4M (CST7) REL
0T66 12M (CST6) REL
0T65 12M (CST5) REL
0T64 12M (CST4) REL
TO CAD 96
0T56 11M (CST6) REL
0T55 11M (CST5) REL
0T54 11M (CST4) REL
0T46 4M (CST6) REL
0T45 4M (CST5) REL
0T44 4M (CST4) REL
0T33 12M (CST3) REL
0T32 12M (CST2) REL
0T31 12M (CST1) REL
0T23 11M (CST3) REL
0T22 11M (CST2) REL
0T21 11M (CST1) REL
0T13 4M (CST3) REL
0T12 4M (CST2) REL
0T11 4M (CST1) REL
0T00 4M (CST0) REL
665 11
364 4 (CST5) REL
659 12
658 11 (CST9) REL
657 4
656 12
655 11 (CST6) REL
654 4
TO CAD 108
653 12
652 11 (CST3) REL
651 4
650 4 (CS10) REL

A&M ONLY
CS59 8 (CSU9) REL
CS50 8 (CSUC) REL
CS49 7 (CSU9) REL
TO CAD 109
CS40 7 (CSU0) REL.
CS39 5 (CSU9) REL
CS30 5 (CSU0) REL

TO CAD 172
27 6
26 4 (CST) COMPONENT ASSEMBLY

# CAD 79
(FOR APP FIG. 79)

TO CAD 107
179 U (CRU7) REL
169 U (CRU4) REL
168 U (CRU2) REL
167 U (CRU1) REL
166 U (CRU0) REL
201 U (CGR8) REL
200 U (CGR4) REL

TWC19 10
TWC18 7
TWC15 11
TWC14 5 (CGR8) REL
TWC13 12
TWC12 3
TO CAD 110A
TWC10 1
TWC09 10
TWC06 7
TWC05 11 (CGR4) REL
TWC04 5
TWC00 1

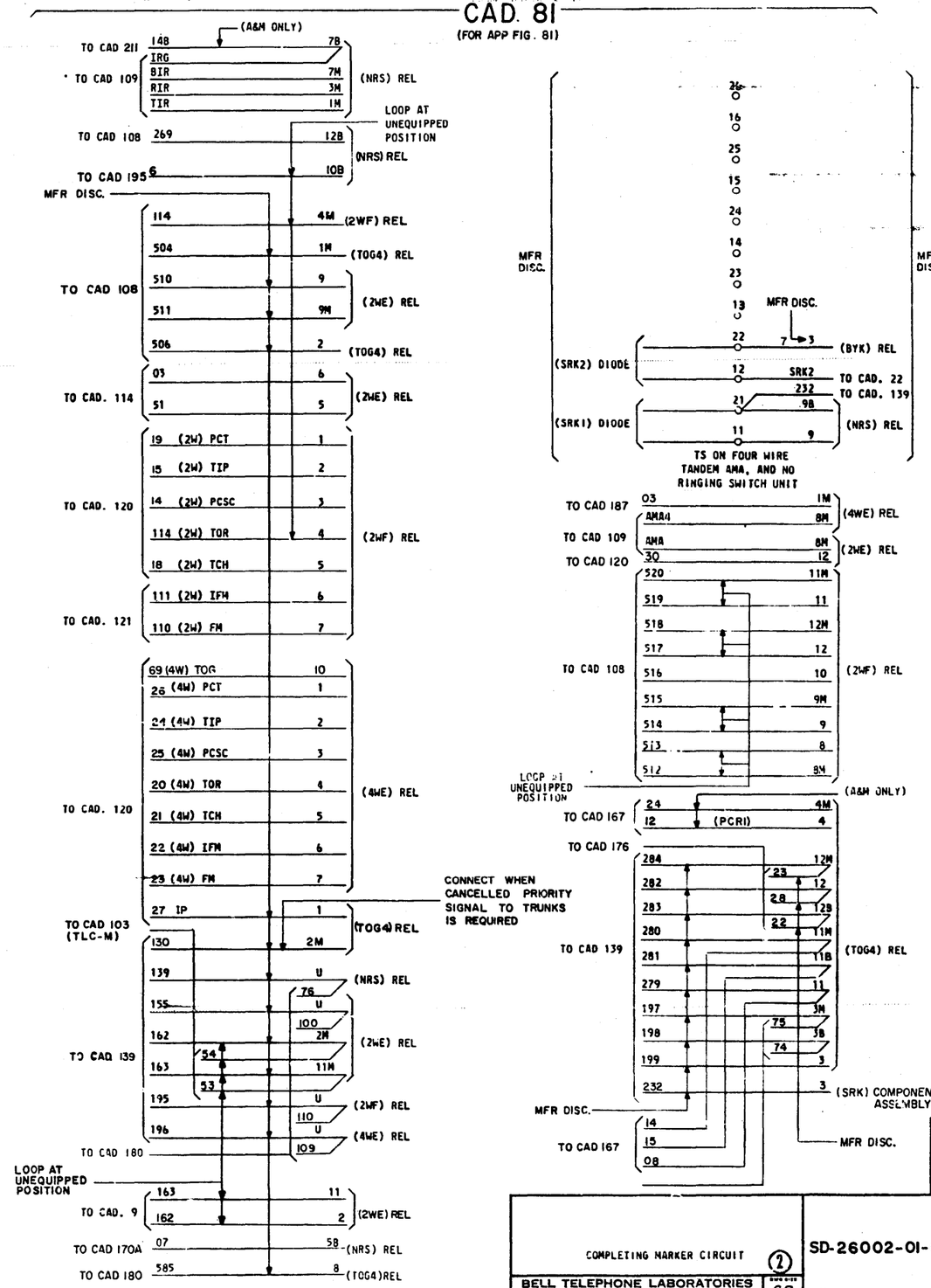
DRAWING ISSUE
18D
21D
22D
24D
25D
28D
31D
35D
39D

ISSUE 61B

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES INCORPORATED
SD-26002-01-G49
6S

# CAD. 81

(FOR APP FIG. 81)




| DRAWING ISSUE |
|---|
| 57B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G50

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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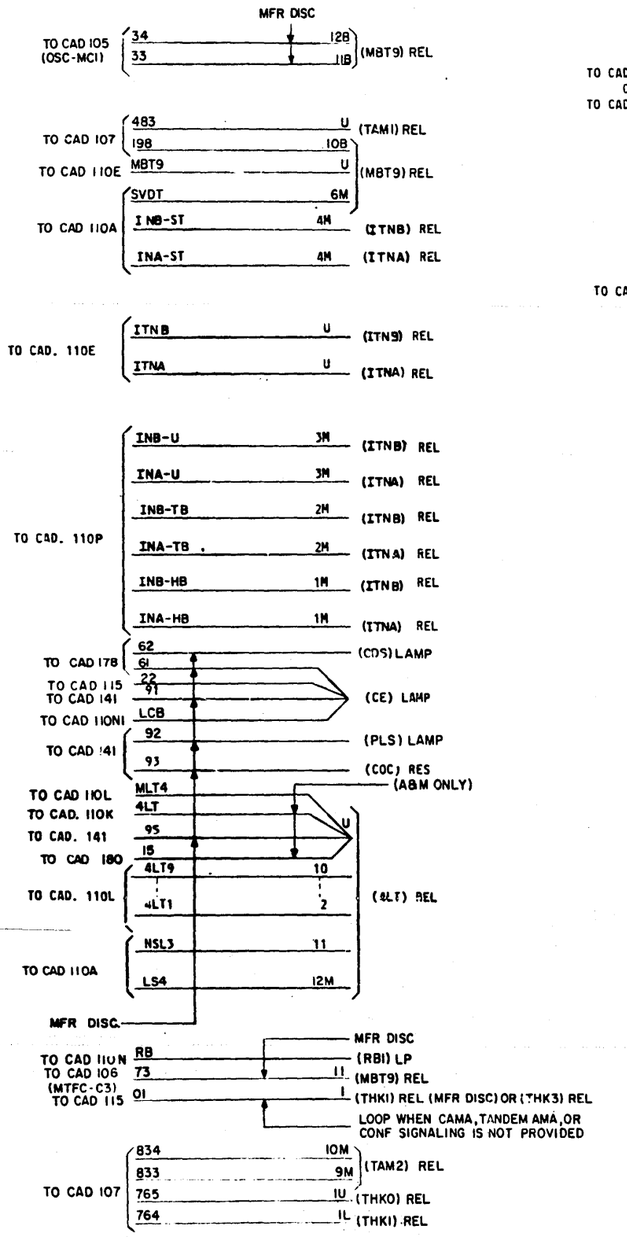
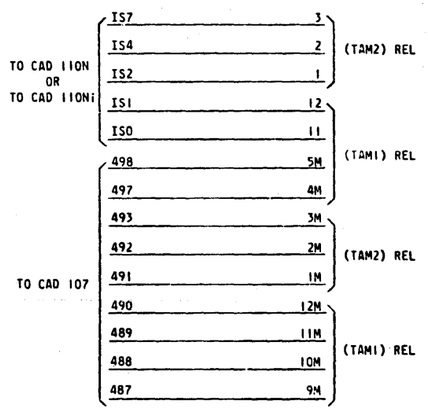
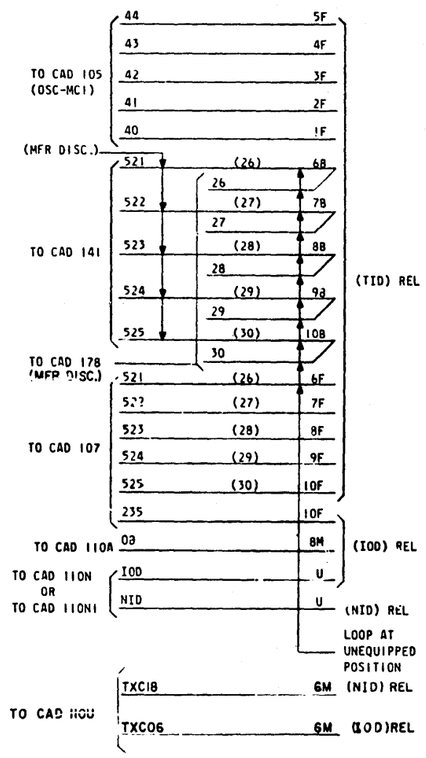
SD-26002-01-G50

# CAD 82
(FOR APP FIG. 82)

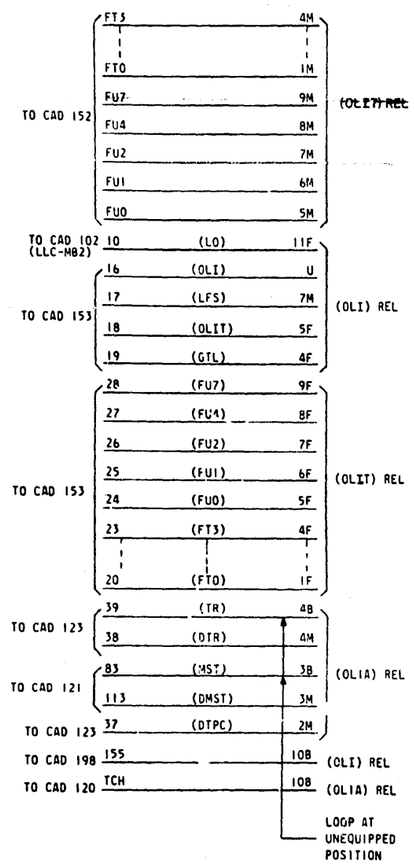



# CAD 83
(FOR APP FIG. 83)




# CAD 85
(FOR APP FIG. 85)




| DRAWING ISSUE | |
|---|---|
| 18D | ACL TMJ |
| 21D | ACT EDM AMC |
| 22D | DLP CLK AMC |
| 24D | SV EEP AMC |
| 25D | PEC KM KM |
| 27A | CL TAT AMP |
| 30D | UFW KM AMD |
| 33D | GM ADL AMD |
| 35D | TCC AMJ AMJ |
| 36A | MD |
| 38A | RA |
| 39D | RA |
| 41D | |
| 43D | |
| 44A | |
| 45D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G51

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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# PART OF CAD 86

(FOR APP FIG. 86)

DO NOT CONN WHEN CALL WAITING SERVICE IS PROVIDED

58 RCT9
57 RCT8
56 RCT15
55 RCT14
54 RCT13
53 RCT12
52 RCT11
51 RCT10 — TO CAD 13
459
48 RCT7
MFR DISC. 47 RCT6
46 RCT5
45 RCT4 — TO CAD 21
44 RCT3
43 RCT2
42 RCT1
458 — TO CAD 180
41 (158) LRS — TO CAD 154
617 — TO CAD 108
38 PA — TO CAD 13
MFR DISC.
37 AR6
36 AR5
35 AR4
34 AR3 — TO CAD 90
33 AR2
32 AR1
31 AR0
28 (12) REH — TO CAD 188
MFR DISC
27 (LAN)27 — TO CAD 13
LAN
26 POTS
25 TNK — TO CAD 21
743 — TO CAD 108
24 PAN
PAN MRI — TO CAD 90
23 MRI
(RNA8) 21 (TBS3) REL
MFR DISC
22 LLPI — TO TS(B)
21 (RNA8) 21 (TBS2) REL
18 (RNA8) 21 (TBS1) REL
17 (RNA8) 21 (TBS0) REL
16 (457) LPT5
15 (456) LPT4
14 (455) LPT3
13 (454) LPT2
12 (453) LPT1
11 (452) LPT0 — TO CAD 180
TS(A) ON TENS BLK SCRN UNIT
MFR DISC.

CROSS CONN AS SPECIFIED IN SECT D

04 (TBS3) U (TBS3)REL
03 (TBS2) U (TBS2)REL
02 (TBS1) U (TBS1)REL
01 (TBS0) U (TBS0)REL
TO CAD 104 (NGC-MCD)

CROSS CONN AS SPECIFIED IN SECT D

58 (RNATN) 10F (TBS3)REL
57 (RNATN) 10F (TBS2)REL
56 (RNATN) 10F (TBS1)REL
55 (RNATN) 10F (TBS0)REL
54 (RNA15) 9F (TBS3)REL
53 (RNA15) 9F (TBS2)REL
52 (RNA15) 9F (TBS1)REL
51 (RNA15) 9F (TBS0)REL
48 (RNA14) 8F
47 (RNA13) 7F
46 (RNA12) 6F
45 (RNA9) 5F
44 (RNA5) 4F (TBS3)REL
43 (RNA4) 3F
42 (RNA3) 2F
41 (RNA2) 1F
38 (RNA14) 8F
37 (RNA13) 7F
36 (RNA12) 6F
35 (RNA9) 5F
34 (RNA5) 4F (TBS2)REL
33 (RNA4) 3F
32 (RNA3) 2F
31 (RNA2) 1F
28 (RNA14) 8F
27 (RNA13) 7F
26 (RNA12) 6F
25 (RNA9) 5F
24 (RNA5) 4F (TBS1)REL
23 (RNA4) 3F
22 (RNA3) 2F
21 (RNA2) 1F
18 (RNA14) 8F
17 (RNA13) 7F
16 (RNA12) 6F
15 (RNA9) 5F
14 (RNA5) 4F (TBS0)REL
13 (RNA4) 3F
12 (RNA3) 2F
11 (RNA2) 1F
TS(TBA) ON TENS BLK SCRN UNIT

CROSS CONN AS SPECIFIED IN SECT D

125 4M
33 3M (TTL)REL
23 6
19 12M (POTS) REL
TO CAD 154

MFR DISC.

58 (387) ICPT — TO CAD 180
57 INR6
193
56 INR5
192
55 INR4
191
54 INR3
190 — TO CAD 90
53 INR2
189
52 INR1
188
51 INR0
187
48 KM — TO CAD 9
591
47 (TST) 590 — TO CAD 108
14 — TO CAD 106 (MTC-EO)
46
45 — TO CAD 154

CROSS CONN AS SPECIFIED IN SECT D

44 (29) OSC11
43 (28) OSC10 — TO CAD 106 (MTFC-BS)
42 (OSC9) 112
41 (OSC8) 111
38 (OSC7) 110
37 (OSC6) 109
36 (OSC5) 108
35 (OSC4) 104 — TO CAD 108
34 (OSC3) 103
33 (OSC2) 102
32 (OSC1) 101
31 (OSC0) 100
118
28 BLT — TO CAD 90
LAN
27 (POTS) U (PCTS) REL
TO CAD 108 744
119
26 (POTS) (POTS)
25 MRI — TO TS(A)
MRI
(PAN) — TO CAD 90
23 LDN
A&M ONLY
22 (LLP1) (LLP1) 22 — TO CAD 154
CROSS CONN AS SPECIFIED IN SECT D
21 BLDA — TO CAD 90
121
18 DAT
123
ZHU OR ZHT (MARKERS 2-11)
17 I6
16 I5
15 I4
14 I3 — TO CAD 90
13 I2
12 I1
11 I0
10 — TO CAD 110F
TO CAD 204
TS(B) ON TENS BLK SCRN UNIT
ZNA
ZWT (MARKERS 0&1 ONLY)

MFR DISC.
TO CAD 171 38 6
392 68
TO CAD 180 390 6M (POTS) REL
398 12
TO CAD 180 (TTL) REL
TO CAD 170A 59 5
TO CAD 230 118

CROSS CONN AS SPECIFIED IN SECT D

58 (RNBTN) 20F (TBS3) REL
57 (RNBTN) 20F (TBS2) REL
56 (RNBTN) 20F (TBS1) REL
55 (RNBTN) 20F (TBS0) REL
54 (RNB15) 19F (TBS3) REL
53 (RNB15) 19F (TBS2) REL
52 (RNB15) 19F (TBS1) REL
51 (RNB15) 19F (TBS0) REL
48 (RNB14) 18F
47 (RNB13) 17F
46 (RNB12) 16F
45 (RNB9) 15F (TBS3)REL
44 (RNB5) 14F
43 (RNB4) 13F
42 (RNB3) 12F
41 (RNB2) 11F
38 (RNB14) 18F
37 (RNB13) 17F
36 (RNB12) 16F
35 (RNB9) 15F (TBS2)REL
34 (RNB5) 14F
33 (RNB4) 13F
32 (RNB3) 12F
31 (RNB2) 11F
28 (RNB14) 18F
27 (RNB13) 17F
26 (RNB12) 16F
25 (RNB9) 15F (TBS1)REL
24 (RNB5) 14F
23 (RNB4) 13F
22 (RNB3) 12F
21 (RNB2) 11F
18 (RNB14) 18F
17 (RNB13) 17F
16 (RNB12) 16F
15 (RNB9) 15F (TBS0)REL
14 (RNB5) 14F
13 (RNB4) 13F
12 (RNB3) 12F
11 (RNB2) 11F
TS(TBB) ON TENS BLK SCRN UNIT

DRAWING ISSUE
22D
23A
24D
25D
27A
30D
32A
33D
34A
35D
39D
41D
43D
45D

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G52

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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SD-26002-01-G52

## PART OF CAD 86

(FOR APP FIG. 86)

(A&M ONLY) CI — TO CAD 17

58 CI4
57 CI3
56 CI2
55 CI1
54 CI0
— TO CAD 537

53 (RN88) 22 (TBS3) REL
52 (RN88) 22 (TBS2) REL
51 (RN88) 22 (TBS1) REL
48 (RN88) 22 (TBS0) REL

47
MFR DISC.
46 (DN)44 TO CAD 176
45
44
43
42
41
38 (PGR1) 39 TO CAD 176
37
36
35
34
33
32
31
28 CTI 824
TO CAD 512
TO CAD 108
27
26
25
24
23
22 (2L9) 554
21 (2L8) 553
18 (2L7) 552
17 (2L6) 551
13 (2L5) 550
13 (2L4) 549
14 (2L3) 548
12 (2L2) 547
12 (2L1) 546
11 (2L0) 545

CROSS CONN AS SPECIFIED IN SECT. D

CONNECT WHEN PHASE III CENTREX IS PROVIDED WITHOUT CENTRALIZED ATTENDANT OPERATION

CONNECT WHEN PHASE III CENTREX IS PROVIDED WITH CENTRALIZED ATTENDANT OPERATION

TO CAD 108

TS (C) ON MTG PLT BELOW TENS BLK SCAN UNIT

TO CAD 1708

## CAD 87

(FOR APP FIG. 87)

49 12 (SSU7) REL
48 12 (SSU1) REL
47 12M (SSU0) REL
46 12M
45 11 (SSU4) REL
44 11 (SSU0) REL
43 11M
42 10 (SSU2) REL
41 10M (SSU1) REL
40 10M
39 3 (SSU7) REL
38 3 (SSU1) REL
37 3M (SSU0) REL
36 3M
35 2 (SSU4) REL
34 2 (SSU0) REL
33 2M
32 1 (SSU2) REL
31 1M (SSU1) REL
30 1M (SSU7) REL
29 1M
28 10M (SSU4) REL

DRAWING ISSUE

| | |
|---|---|
| 24D | 3V |
| 25D | EN |
| 27A | E |
| 30D | LPW |
| 35D | CK |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 41D | |
| 45D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

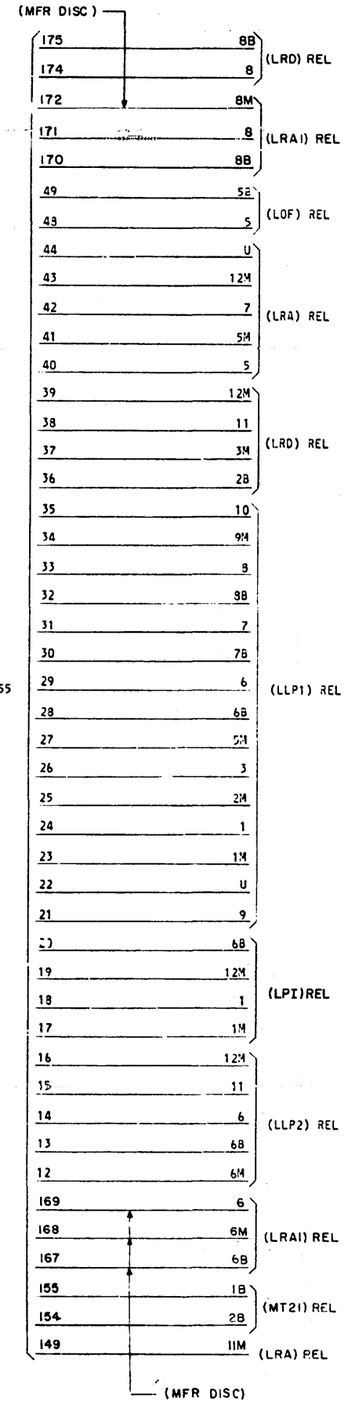
SD-26002-01-G53

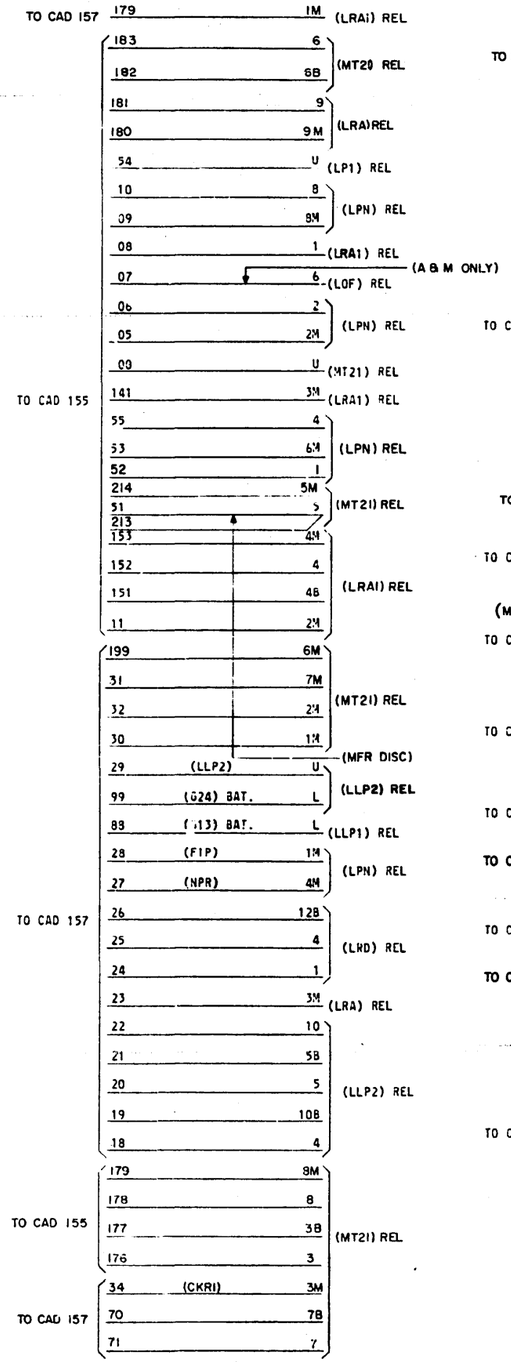
BELL TELEPHONE LABORATORIES INCORPORATED

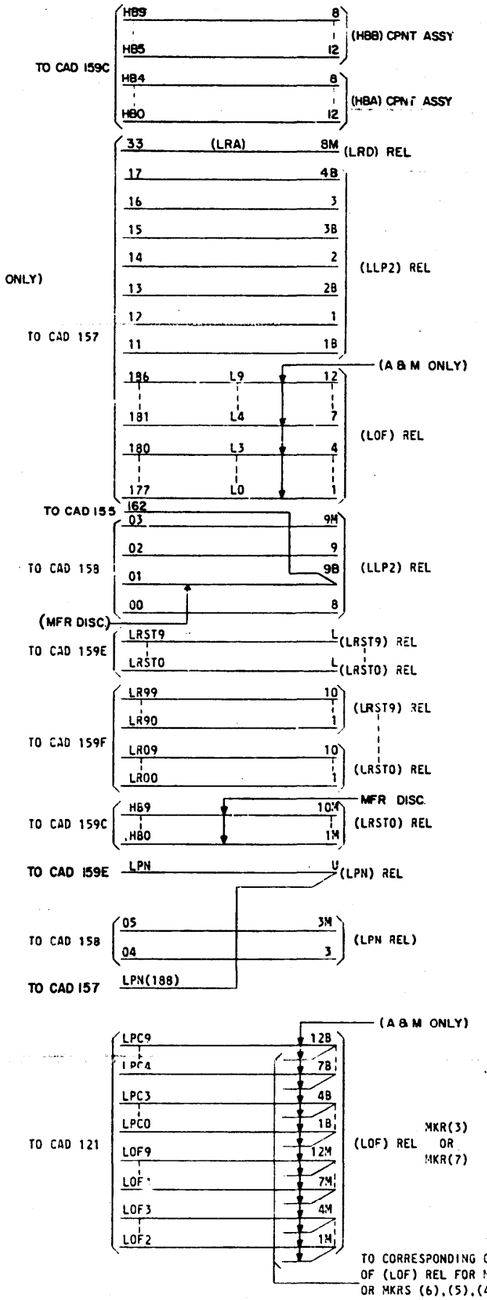
SIZE 6

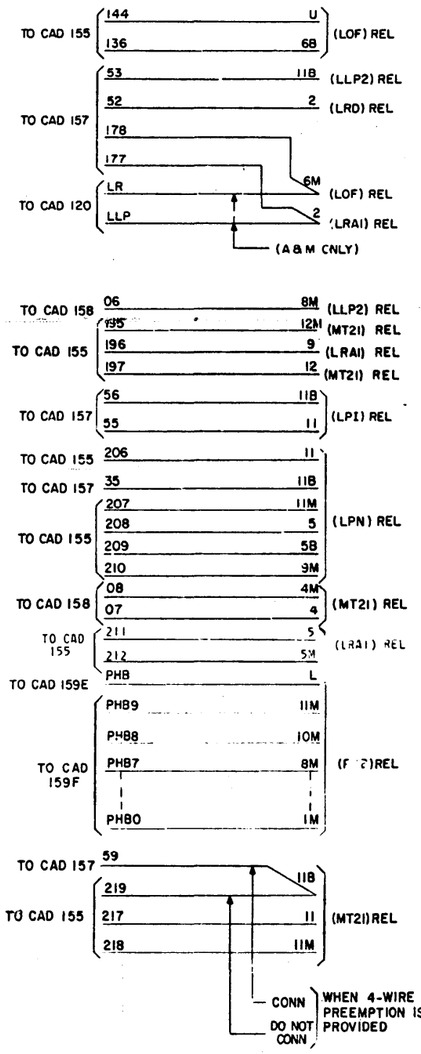
# CAD 88

(FOR APP FIG. 88)




| DRAWING ISSUE | | |
|---|---|---|
| 23A | PEG | |
| | SPEG | |
| 24D | | |
| 25D | EN | |
| | JRR | |
| 26A | | |
| 27A | | |
| 31D | LPN | |
| 32A | KEG | |
| 33D | KEG | |
| 34A | CK | |
| 35D | CK | |
| 37D | MD | |
| 41D | | |
| 43D | | |
| 44A | | |

ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G54

BELL TELEPHONE LABORATORIES INCORPORATED

SYS SIZE 6S

PRINTED IN U.S.A.

STABILO

# CAD 89

(FOR APP FIG. 89)

PROVIDED ON LLP FRAME

TO CAD 155: 59 (HGT9) 10M; 60 (HGTO) 1M (HVTO) REL

TO CAD 160: 77 (G16) BAT. L (HVT6)OR(HVT9) REL

TO CAD 157: 90 (G15) BAT. L (HVTO) REL

TO CAD 159D OR 161D: LCR119 6 (LR119) REL; LCR00 6 (LR00) REL

TO CAD 159B OR 161B: LCL119 9 (LR119) REL; LCL00 9 (LR00) REL; LDL119 5 (LR119) REL; LDL00 5 (LR00) REL

TO CAD 159E OR 161E: LRW119 L (LR119) REL; LRW00 L (LR00) REL

TO CAD 161D: LRL11 12M (LR119) REL; LRL10 12M (LR109) REL; LRL09 12M (LR99) REL; LRL08 12M (LR89) REL; LRL07 12M (LR79) REL; LRL06 12M (LR59) REL; LRL05 12M (LR59) REL; LRL04 12M (LR49) REL; LRL03 12M (LR39) REL; (A&M ONLY)

TO CAD 161D: LRU119 U (LR119) REL; LRU30 U (LR30) REL; LRL119 12M (LR119) REL; LRL30 12M (LR30) REL

TO CAD 159D: LRU29 U (LR29) REL; LRU00 U (LR00) REL; LRL29 12M (LR29) REL; LRL00 12M (LR00) REL

(A&M ONLY)

TO CAD 159D: LRL02 12M (LR29) REL; LRL01 12M (LR19) REL; LRL00 12M (LR09) REL

TO CAD 161D: LRU11 U (LR119) REL; LRU10 U (LR109) REL; LRU09 U (LR99) REL; LRU08 U (LR89) REL; LRU07 U (LR79) REL; LRU06 U (LR69) REL; LRU05 U (LR59) REL; LRU04 U (LR49) REL; LRU03 U (LR39) REL

TO CAD 159D: LRU02 U (LR29) REL; LRU01 U (LR19) REL; LRU00 U (LR09) REL

TO CAD 159D OR TO CAD 161D: LNST119 4M (LR119) REL; LNST00 4M (LR00) REL

TO CAD 159B OR TO CAD 161B: LNTB119 2M (LR119) REL; LNTB00 2M (LR00) REL; LNHB119 1M (LR119) REL; LNHB00 1M (LR00) REL

TO CAD 160: 91 (HGT9) 10M (HVT3) REL OR (HVT6) REL OR (HVT9) REL; 82 (HGTO) 1M; 76 (G15) BAT. L (HVT3) REL; 142 U (HVT11)(HVT8)OR(HVT5) REL; 141 U (HVT10)(HVT7)OR(HVT4) REL; 140 U (HVT9)(HVT6) OR (HVT3) REL

TO CAD 160: 132 11M; 131 8M — TO 21ST (LR-) REL FOR EACH MKR ON AUX LINE LK PULSING FR 0, 1, OR 2

MULT TO OTHER (LR-) RELAYS FOR SAME MKR ON FR. LOOP AT UNEQUIPPED POSITION

(A & M ONLY)

TO CAD 160: LRG11 11M (LR119) REL; LRG03 11M (LR39) REL; 139 (L9) 11 (LR39),(LR69)OR(LR99) REL; 130 (LO) 11 (LR30),(LR60)OR(LR90) REL; 129 9M; 128 6M; 127 5M (LR39) REL OR (LR69) REL OR (LR99) REL; 126 4; 125 2; 124 1

TO CAD 155: 72 U (HVT2) REL; 70 U (HVTO) REL

TO CAD 120: LRG02 11M (LR29) REL; LRG01 11M (LR19) REL; LRG00 11M (LR09) REL

TO CAD 157: 176 9M; 175 5M; 174 5M; 173 4; 172 2; 171 1 (LR29) REL

TO CAD 121: LPC- 11 30TH (LR-) REL ON FR; LPC- 11 1ST (LR-) REL ON FR; LOF- 8 30TH (LR-) REL ON FR; LOF- 8 1ST (LR-) REL ON FR — FOR 4TH MKR ON FR

MULT TO LIKE NUMBERED (LR) RELAYS FOR OTHER 3 MARKERS ON FR, LOOP AT UNEQUIPPED POSITION

PROVIDED ON RELAY PACK

TO CAD 196: 58 2; 48 1; 38 A; 28 9A (LR9) REL; 18 (LR90) NET; LRU119 U (LR119) REL; LRU00 U (LR00) REL; LRL119 12A (LR119) REL; LRL00 12A (LR00) REL; LRW119 L (LR119) REL; LRW00 L (LR00) REL; LCL119 9 (LR119) REL; LCL00 9 (LR00) REL; LNHB119 1M (LR119) REL; LNHB00 1M (LR00) REL; LNTB119 2M (LR119) REL; LNTB00 2M (LR00) REL; LNST119 4M (LR119) REL; LNST00 4M (LR00) REL; BATT L; 69 10M (HVT -) REL; 60 1M; 0 (SEE TABLE A) U (HVT-) REL

TABLE A

| U | HVT - RELAY |
|---|---|
| 59 | 11 |
| 58 | 10 |
| 79 | 9 |
| ⋮ | ⋮ |
| 70 | 0 |

| DRAWING ISSUE | |
|---|---|
| 23A | PEC GM AM |
| 24D | PEC GM AM |
| 25D | MD PM AND |
| 33D | GSM GAL AND |
| 34A | RCB TM3 AND |
| 35D | RCB TM3 AND |

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G55

BELL TELEPHONE LABORATORIES INCORPORATED 65

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# PART OF CAD 90

(FOR APP FIG 90)

TO CAD 109 7DT — 7 (DATI)REL

LOOP AT UNEQUIPPED POSITION (TRF2) REL

TO CAD 113 00 — 2

TO CAD 106 (MTFC-CONT) 27 — 3M (DTI) REL — CONNECT WHEN CENTREX FEATURE IS PROVIDED WITHOUT MULTIPLE CLASS OF SERVICE MATCHING

692 1B
691 2B
690 3B
689 4B
688 5B
681 9B — (RDI) REL

CONNECT WHEN MULTIPLE CLASS OF SERVICE MATCHING IS PROVIDED WITHOUT INTRAMARKER GROUP SERVICE OR WHEN MULTIPLE CLASS OF SERVICE MATCHING IS NOT PROVIDED

2M (X11B) REL (MFR DISC)

687 1B
686 2B
685 3B
684 4B
683 7B — (RDIA) REL

TO CAD 108 708 — 1 (ATK) REL; 11 (AUS) REL — CONNECT WHEN NO MULTIPLE CLASS OF SERVICE MATCHING IS PROVIDED

CONNECT WHEN MULTIPLE CLASS OF SERVICE MATCHING IS PROVIDED WITH INTRAMARKER GROUP SERVICE

700 SPL 11B
260 12B
299 2
723 7
722 7M — (TRF3) REL
721 1
720 1M — (TRF4) REL
719 (IF) 4B
718 (IG) 4M
717 (IE) 4
755 (LDA) 2M — (DURA) REL
713 1B — (CDN) REL
712 1M

TO CAD 230 87 — LOOP AT UNEQUIPPED POSITION

729 5
716 9
705 U — (ATT) REL
476 9M
407 9B
404 1M
682 9
715 9B — (DTI) REL
680 10 — (DATI) REL (MFR DISC)
753 1B
752 1
751 (IRS6) 12M
750 (IRS5) 11M
TO CAD 108 749 (IRS4) 10M — (X11B) REL
748 (IRS3) 9M
747 (IRS2) 6M
746 (IRS1) 3M
745 (IRS0) 4M — (X11A) REL
727 U
724 11M
714 5B
711 U — (RE) REL
709 (CKC) 6
699 9B — LOOP WHEN (LDN) REL IS NOT PROVIDED
671 9M — (LDN) REL
742 (MRI) — (MFR DISC)
MRT U — (MAT) REL
TO CAD 86 PAN 10 — U (PAN) REL
TO CAD 108 743 (PAN)
101 — CONNECT WHEN PHASE III CENTREX IS PROVIDED WITHOUT CENTRALIZED ATTENDANT OPERATION
TO CAD 113 39 — 3M (LDN) REL
6M (ATT) REL
A & M ONLY
TO CAD 106 (MTC-E2) 55 — U (DATI) REL — DO NOT CONN WHEN PHASE III CENTREX IS PROVIDED WITH WIDEBAND (MKR 0 & 1 ONLY)
54 — U
TO CAD 204 TO CAD 108 827 — 204 (DTI) REL
CONNECT WHEN PHASE III CENTREX I PROVIDED WITH CENTRALIZED ATTENDANT OPERATION

A&M ONLY

197 9B
196 7B — (RDR) REL
195 6B — (RDO) REL
194 (CUA7) 1M
193 (CUA4) 2M — 5B
192 (CUA2) 3M — 4B
191 (CUA1) 4M — 3B
TO CAD 109 — (RDR) REL
190 (CUA0) 5M — 2B
189 1B
138 10B — 9B — LOOP AT UNEQUIPPED POSITION

201
200
31 (CT2) 8M
30 (CT1) 9M
29 (CT0) 10M — (RDO) REL
TO CAD 106 (MTFC-AC) 28 (CT7) 6M
27 (CT4) 7M — DO NOT CONNECT WHEN CLASS OF SERVICE SELECTION IS ON A ONE OUT OF THIRTY BASIS

TO CAD 108 852
853
TO CAD 106 (MTFC-E0) 03 (PAN) — 12 (PAN) REL
01
LDN — U (LDN) REL
TO CAD 86 835 — 2B (TRF3) REL
TO CAD 108 CXS (ZMG)
(ZMF)
TO CAD 113 102 — 9M
I6 12B
I5 11B
I4 10B — (X11B) REL
I3 6B
I2 6B
I1 3B
I0 4B — (X11A) REL
INR6 9
INR5 11
INR4 10 — (ATT1) REL
INR3 9
INR2 6
INR1 4
INR0 4 — (ATT) REL
TO CAD 86 DAT 1
124
BLT 3 — (ICC) REL
120
BLDA 2
122 — (ZAT) (MARKERS DAT ONLY)
AR6 2M
AR5 1M
AR4 10M
AR3 8M — (ATT1) REL
AR2 6M
AR1 4M
AR0 4M — (ATT) REL
TO CAD 108 CXC
TO CAD 204 (ZMG) (ZAT OR ZAU) (MARKERS 2-11)

DO NOT CONN WHEN ETS IS PROVIDED
LOOP WHEN (DTI3) REL IS NOT PROVIDED

TO CAD 120 TBR (38) — 6M
LDN (37) — 5M — (LDN) REL
TO CAD 106 (MTFC-A2) 33 — 3B
162
TO CAD 230 TO CAD 109 209 — 3 — (DTI3) REL

DO NOT CONNECT WHEN OFFICE TEST FRAME IS PROVIDED

CONNECT WHEN OFFICE TEST FRAME IS PROVIDED

TO CAD 106 (MTFC-C1) 16 — 2B
TO CAD 108 16 — (DTI) REL
51 — (CNTI OR ICC) REL
TO CAD 204 50 — 5 (ICC) REL
48 — 2M (COS) REL

A & M ONLY
(RDI) REL
54 (CTT7) — 7M — 6
53 (CTT4) — 4M — 7
52 (CTT2) — 3M — 8
51 (CTT1) — 2M — 9
TO CAD 103 (ATLC-ME) 50 (CTT0) — 1M — 10 — (RDO) REL
04 (CUT7) — 7M — 1
03 (CUT4) — 4M — 2
02 (CUT2) — 3M — 3
01 (CUT1) — 2M — 4
00 (CUT0) — 1M — 5 — (RDIA) REL

LOOP WHEN (DTI1) REL IS NOT PROVIDED

TO CAD 103 (TLC-MC2) 03 TP — 12 (DTI1) REL
TO CAD 103 (TLC-MA2) 02 (DTR) — 7 (ICC) REL
02 (DTR) — 4 (LNA) REL
TO CAD 103 (ATLC-ME) 44 (CV) — 5M (ATT) REL
43 (CDN) — 12M (CDN) REL

CONNECT FOR (A&M ONLY), CENTREX I, II DIAL TRANSFER OR LOOP (SPL) FOR INTRA MKR GR ADD ON FEATURE

704
A&M ONLY
706 (CK30) — 4 (MRI) REL
TO CAD 108 725 (TR4) — 10B (TRF2) REL
2B (CDN) REL
754 — 1M (X11B) REL
52 — CONNECT WHEN MULTIPLE CLASS OF SERVICE MATCH IS NOT PROVIDED
CONNECT WHEN MULTIPLE CLASS OF SERVICE MATCH IS PROVIDED

TO CAD 154 35 — 10B
34 — 9M — (LDN) REL
21 — 3B
20 — 6 (PAN) REL
38 (TRF) — 10B
37 (LDN) — 12M — (CDN) REL
36 (INCS) — 1B
TO CAD 120 35 (ITCS) — 1M — (X11A) REL
DTF (33) — 3B
32 (DTF) — 1M — (ATT) REL
ATT — 6M
ATT — 1C
TTRF — 9M
TO CAD 121 TLDN — 12M — (LDN) REL
TTRF — 6B
TLDN — 6M — (CDN) REL
LOOP AT UNEQUIPPED POSITION OR FOR CENTREX PHASE I BII
TO CAD 204 207 — 10M
208 — 10M — (DATI) REL

DRAWING ISSUE: 58A

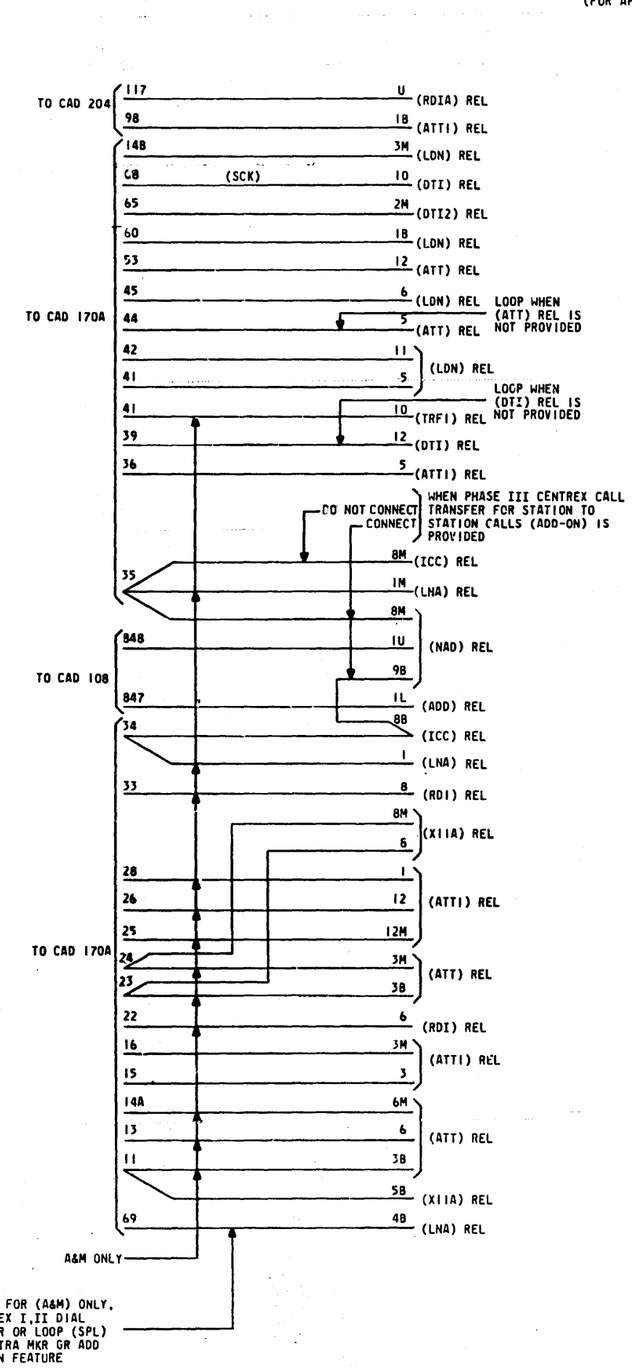
COMPLEMENTING MARKER CIRCUIT (2)

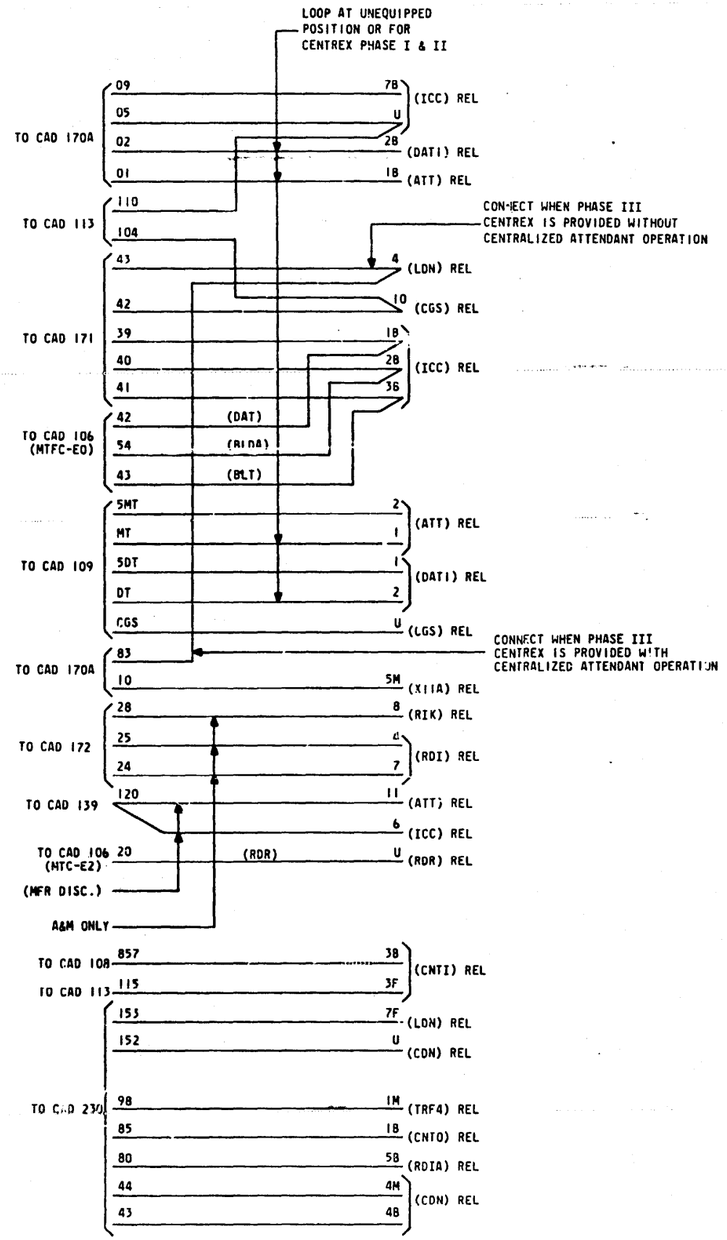
SD-26002-01-656A

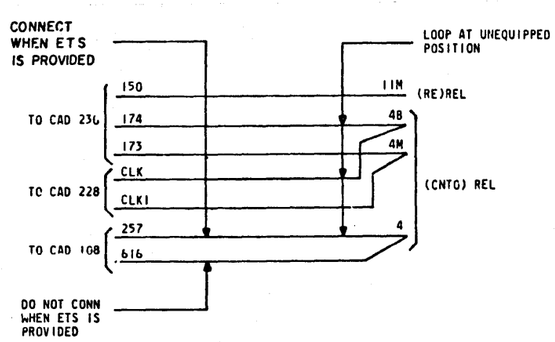
BELL TELEPHONE LABORATORIES INCORPORATED — SHEET 65

SD-26002-01-656A

# PART OF CAD 90
(FOR APP FIG. 90)




ISSUE 59B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-G56B |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

# PART OF CAD 90
(FOR APP FIG. 90)

LOOP AT UNEQUIPPED POSITION
443 7 (ATT1) REL
TO CAD 108 613 7M
752 5 (CNT0) REL
107 12B
TO CAD 113 76 5 (CNT1) REL
35 12
735 106
TO CAD 108 (CNT0) REL
615 U
TO CAD 230 127 5B (CNT1) REL
TO CAD 187 01 9M (ATT) REL
TO CAD 170A 43 1 (TRF1) REL (A&M ONLY)
TO CAD 103 (TLC-ME) CNT (34) U (CNT1) REL
TO CAD 103 (TLC-MF) 10
TO CAD 106 (MTC-B8) 10
TO CAD 191 19 9 (TRF3) REL

LOOP WHEN (RDR) REL IS NOT PROVIDED
34 5
33 4
TO CAD 101 (ORMC-ME) 32 3
31 2
30 1 (RDR) REL
22 8
TO CAD 101 (ORMC-MD) 21 7
20 6
TO CAD 101 (ORMC-ME) 04 10
03 9

CONN WHEN MULT CLASS-OF-SERVICE MATCH IS PROVIDED WITHOUT INTRAMARKER GROUP SERVICE OR WHEN MORE THAN ONE NON-TERMINAL HUNTING OR ANY TERMINAL HUNTING RESTRICTED INCOMING TREATMENT REQUIRED WITHOUT MULT CLASS MATCH
TO CAD 106 MTC-E0 02
TO CAD 108 742(MRI) MFR DISC
TO CAD 86 MRI 1U,U (MRI) REL A&M ONLY
1 (AUS) REL
(SPL) CONN WHEN MULT CLASS-OF-SERVICE MATCH IS PROVIDED WITH INTRAMARKER GROUP SERVICE

TO CAD 204 188 4M (DTI3) REL
TO CAD 109 7MT 7 (ATT) REL
TO CAD 170A 84 11
TO CAD 106 (MTC-E2) 14 9M (DTI2) REL
TO CAD 204 241 4M (X11B) REL
240 10B (X11A) REL
TO CAD 108 AC7 4 (X11B) REL
TO CAD 170A 96 U (DTI3) REL
TO CAD 108 846 7M (LDN) REL

WHEN L LK PULSING FRAME IS PROVIDED
MFR DISC — LOOP AT UNEQUIPPED POSITION
173 9B (LSC2) REL
173A
166 9 (LTI) REL
165 1M (OP4) REL
164 1B
163 9 (LRS) REL
159 1 (OP0) REL
147 9M (LSC2) REL
146 3B
145 3 (LRS) REL
07 1
144
143 4B (LLC4) REL
142 (LF) 4
140 (XLF) 6 (XLF) REL
139 (FK) 12 (FK) REL
133 (FK) U
137 (LFK1) U (LFK1) REL (A&M ONLY)
135 (BY) 5 (LLC4) REL
134 (LSB2) LP
133 6
132 6M
131 5M
TO CAD 155 130 4M (LLC4) REL
129 3
128 3B
127 2
126 2M
125 1
124 1B
123 1M
122 U (OP4) REL
121 U (OP3) REL
120 U (OP2) REL
119 U (OP1) REL
118 U (OP0) REL
117 2 (FK) REL
116 2M
115A 10 (LFK1) REL (MFR DISC)
115 11
114 11M
113 10B
57 (LRS) REL
112 9B
111 7
110 7M
109 2
108 12
107 12M
106 10B
105 5 (LTI) REL
104 3
103 2
102 1
101 7
100 4B
99 12
98 12B
97 12M (LSC2) REL
96 11
95 11M
198 10
47 10B (LLC4) REL
ZCZ & ZBI — ZCQ — NOT REQUIRED WHEN LLP IS PROVIDED WITHOUT AIS USING LLP SENDERS

# CAD 91
(FOR APP FIG. 91)

201 9
194 5M
94 3
93 3B
92 3M
91 6B
90 5
89 5B (LSC2) REL
33 5M
87 3M
86 2B
85 2
TO CAD 155 84 1M
83 4
82 4M (LFK1) REL
81 3M
80 4 (XLF) REL
56 10 (LRS) REL
46 9M
45 7M
04 7
03 7B (LLC4) REL
02 9
01 9B
95 (G20)BAT. (LF) LP MFR DISC
94 (G19)BAT. (LSB2) LP
93 (G18)BAT. L (OP4) REL
92 (G17)BAT. L (LTI) REL
39 (G14)BAT. (LRS) LP
39 6B
TO CAD 157 33 2M (LRS) REL
37 3
36 3B (LSC2) REL
10 12M (LRS) REL (MFR DISC.)
LRK (139)
LATH9 (149) CONN WHEN CENT. CTX ATND OPER IS PROVIDED
LATH0 (190) DO NOT CONN
TO CAD 155 TO CAD 159E 5I LRK (LN) RES
LATH9 (LA9) RES
TO CAD 159C LATH0 (LA0) RES
CRP0 7M (OP0) RES
TO CAD 155 216
29 (LA9) RES
TO CAD 153 20 (LA0) RES
OP4 4 (OP4) REL
TO CAD 159B OP1 4 (OP1) REL
DLS4 4 (OP0) REL
DLS0 4 (OP4) REL
TO CAD 159A 4 12 (OP4) REL
0 12 (OP1) REL
136 3M
TO CAD 155 185 3B (LRS) REL
184 3
TO CAD 159E LRS L
LRS(187)
54 U (LLC4) REL
TO CAD 157 57 10
202 7B (LSC2) REL
203 7
TO CAD 155 204 10B
205 12 (LRS) REL

WHEN L LK PULSING CONT UNIT IS MTD ON REL RACK (FOR AIS)
124 53 1B (LLC4) REL
123 57 1M
117 56 2 (FK) REL
116 55 2M
103 54 12
107 53 12M
106 52 10B
105 51 5
104 43 3 (LTI) REL
103 47 2
102 46 1
101 45 7
100 44 4B
99 43 12
98 42 12B
97 41 12M
96 39 11
95 37 11M
94 36 9
TO CAD 154 93 35 9B (LSC2) REL
92 34 9M
91 33 6B
90 32 5
39 31 5B
33 23 5M
37 27 3M
36 26 2B
35 25 2
34 24 1M
33 23 4 (LFK1) REL
32 22 4M
31 21 3M (XLF) REL
30 13 4
196 17 11M
46 16 9M
45 15 7M
04 14 7 (LLC4) REL
03 13 7B
02 12 9
01 11 9B

TS (A) ON L LK PULSING CONT UNIT FOR REL RACK MTG

WHEN L LK PULSING CONT UNIT IS MTD ON REL RACK (FOR AIS)
55 53 (G20-BAT.) (LF) LP
94 57 (G19-BAT.) (LSB2) LP
56 MFR DISC
55
54
53
52
RR15 TO FR GRD BAR
51 1 (LSC2) REL
TO CAD 156 92 48 (G17-BAT.) L (LTI) REL
47
46
45
37 44 3
76 43 3B (LSC2) REL
42
41
13
37
36
TO CAD 154 198 35 10
47 34 10B (LLC4) REL
TO CAD 156 54 33 U
43 32 U (LSC2) REL
31
156 29 9 (LTI) REL
143 27 4B (LLC4) REL
142 26 4
140 25 6 (XLF) REL
139 24 12 (FK) REL
133 23 U MFR DISC
TO CAD 154 137 22 U (LFK1) REL
134 21 (LSB2) LP
133 13 6
132 17 6M
130 16 4M
129 15 3 (LLC4) REL
123 14 3B
127 13 2
126 12 2M
125 11 1

TS (B) ON L LK PULSING CONT UNIT FOR REL RACK MTG

DRAWING ISSUE
32A TS
33D TS
34A BK
35D BK
37D MD
39D RA
44A
45D

ISSUE 69B

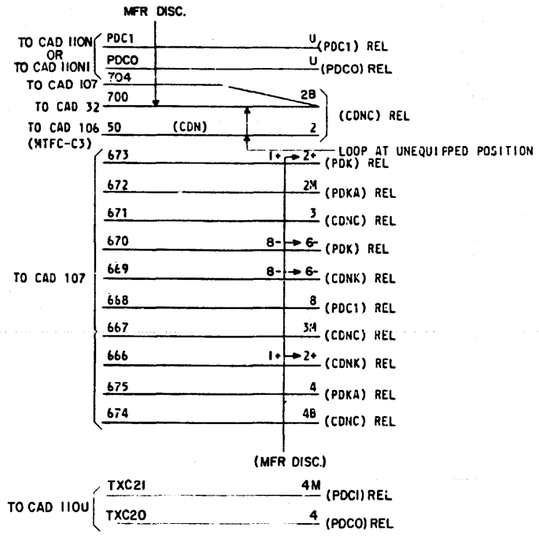
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G57
BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

SD-26002-01-G57

HIGGINS 4465 QUICK PEAK INC. ASPROOF JAWS

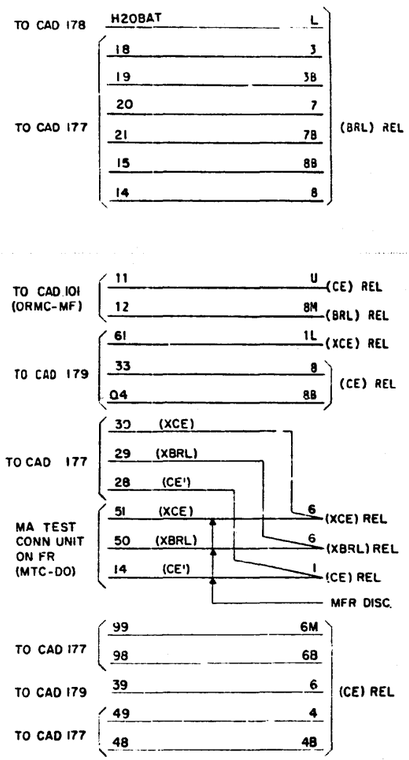
# CAD 94 (A&M ONLY)

(FOR APP FIG. 94)




# CAD 95 (MFR DISC.)

(FOR APP FIG. 95)




| DRAWING ISSUE | | |
|---|---|---|
| 23A | JM | CLK AMP |
| 24D | JM | CLK AMP |
| 25D | NF | PPH AMP |
| 27A | P | E AMP |
| 30D | RH | SAC AMP |
| 33D | KEG | 6A AMP |
| 35D | BX | TB AMP |
| 39D | RA | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G59

BELL TELEPHONE LABORATORIES INCORPORATED SHEET SIZE 6S PRINTED IN U.S.A.

# CAD 96
(FOR APP FIG. 96)

TO CAD 106 (MTFC-C2)
14 (NMR) U (NMR) REL
LOOP AT UNEQUIPPED POS
2 (NTMR) REL
MFR DISC
05 (CM) U (CM) REL
TO CAD 230 80 6 (MCS) REL
56 (MCS) 48 (NMR) REL

TO CAD 108
662 G22(BAT) L (MPO)REL
661 G21(BAT) L (MM)REL
660 2 (MCS)REL
TO CAD 139 120 3 (MCS)REL
MFR DISC.
MP 2 U (MP2)REL
1 U (MP1)REL
CROSS CONN AS SPEC IN SECT. D
0 U (MPO)REL
CM U (CM)REL
MM 20 (MPO) REL MM TO TS ON RIGHT OF SAME UNIT
TS ON LEFT OF MULTIPLE CLASS OF SERVICE MATCHING UNIT

A&M ONLY (CENTREX I,II)
TO CAD 108
687 U (CMUO)
686 U (CMU1)
685 U (CMU2)
684 U (CMU4)
683 U (CMU7)
CROSS CONN AS SPEC IN SECT. D
TO CAD 170A 12 4 (MCS)REL
TO CAD 154 57 78 (MM) REL
TO CAD 108
687 12
686 11
685 10
684 8
683 7
(MCS) REL
LOOP FOR CEXTREX WITHOUT MULTIPLE CLASS OF SERVICE MATCHING

TO CAD 180 443 58 (MM) REL
LOOP AT UNEQUIPPED POS

TO CAD 108 776 3 (NTMR) REL
TO CAD 204 81 5 (MCS) REL
TO CAD 108 727 4 (NMR) REL

OT
39 OT33
38 OT32 TO CAD 78
37 OT31
23 OT23
22 OT22 TO CAD 78
21 OT21
13 OT13
12 OT12 TO CAD 78
11 OT11
00 OT00 TO CAD 78
TS ON LEFT OF MULTIPLE CLASS OF SERVICE MATCHING UNIT

OT
79 OT79
78 OT78 TO CAD 78
77 OT77
66 OT66
65 OT65 TO CAD 78
64 OT64
56 OT56
55 OT55 TO CAD 78
54 OT54
46 OT46
45 OT45 TO CAD 78
44 OT44
CROSS CONN AS SPEC IN SECT. D
TS ON LEFT OF MULTIPLE CLASS OF SERVICE MATCHING UNIT

OT
99 OT99
98 OT98 TO CAD 78
97 OT97
89 OT89
88 OT88 TO CAD 78
87 OT87
CROSS CONN AS SPEC IN SECT. D
TS ON LEFT OF MULTIPLE CLASS OF SERVICE MATCHING UNIT

TO CAD 108
819 10
810 1 (TCBA) REL
779 U
809 20
800 11
778 U
TUA9 20M
TUAO 11M (TCAA) REL
TTA9 10M
TTAO 1M
TO CAD 109
TUB9 20M
TUBO 11M
TTB9 10M
TTBO 1M (TCBA) REL

MM MM TO TS ON LEFT OF SAME UNIT
NTMR
9 0 2L (NTMR) REL
OU
29 20 10 (MP2)REL
19 10 10 (MP1)REL
MMU
29 20 20M 11M (MP2)REL
19 10 20M 11M (MP1) REL
MU
9 0 10
TU
9 10M
8 9M
7 8M
6 7M
5 6M
4 5M
3 4M
2 3M
1 2M
0 1M
(MPO)REL
MT
9 0 659 650 TO CAD 108
TS ON RIGHT OF MULTIPLE CLASS OF SERVICE MATCHING UNIT
CROSS CONN AS SPEC IN SECT. D

DRAWING ISSUE
22D
23A
25D
27D
29A
30D
32A
35D
38A
39D

ISSUE 60A

COMPLETING MARKER CIRCUIT (1) SD-26002-01-G60
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-660

STABILO

# CAD 97 (MFR DISC.)

(FOR APP FIG. 97)

TO CAD 177
- 25 — (RCD7) RES
- 24 — 6 (XRD) REL

TO CAD 106 (MTC-D2)

TO CAD 179
- 14(CDA7') — 169 — 10 (RCD0) REL
- 13(CDA4') — 168 — 8 (RCD0) REL
- 12(CDA2') — 167 — 8 (RCD1) REL
- 11(CDA1') — 166 — 4 (RCD0) REL
- 10(CDA0') — 165 — 4 (RCD2) REL
- H7-BAT — 1L (XRD) REL
- 158 — U (RDK2) REL
- 157 — U (RDK1) REL

TO CAD 166
- 19 RD4S — 2U
- 14 RD4P — 1U — (RCD4) REL
- 18 RD3S — 2U
- 13 RD3P — 1U — (RCD3) REL
- 17 RD2S — 2U
- 12 RD2P — 1U — (RCD2) REL
- 16 RD1S — 2U
- 11 RD1P — 1U — (RCD1) REL
- 15 RD0S — 2U
- 10 RD0P — 1U — (RCD0) REL

TO CAD 180
- 26 — 4M (RDK2) REL

| DRAWING ISSUE | |
|---|---|
| 24D | DS CLK |
| 25D | WD |
| 30D | LPA |
| 35D | LP |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

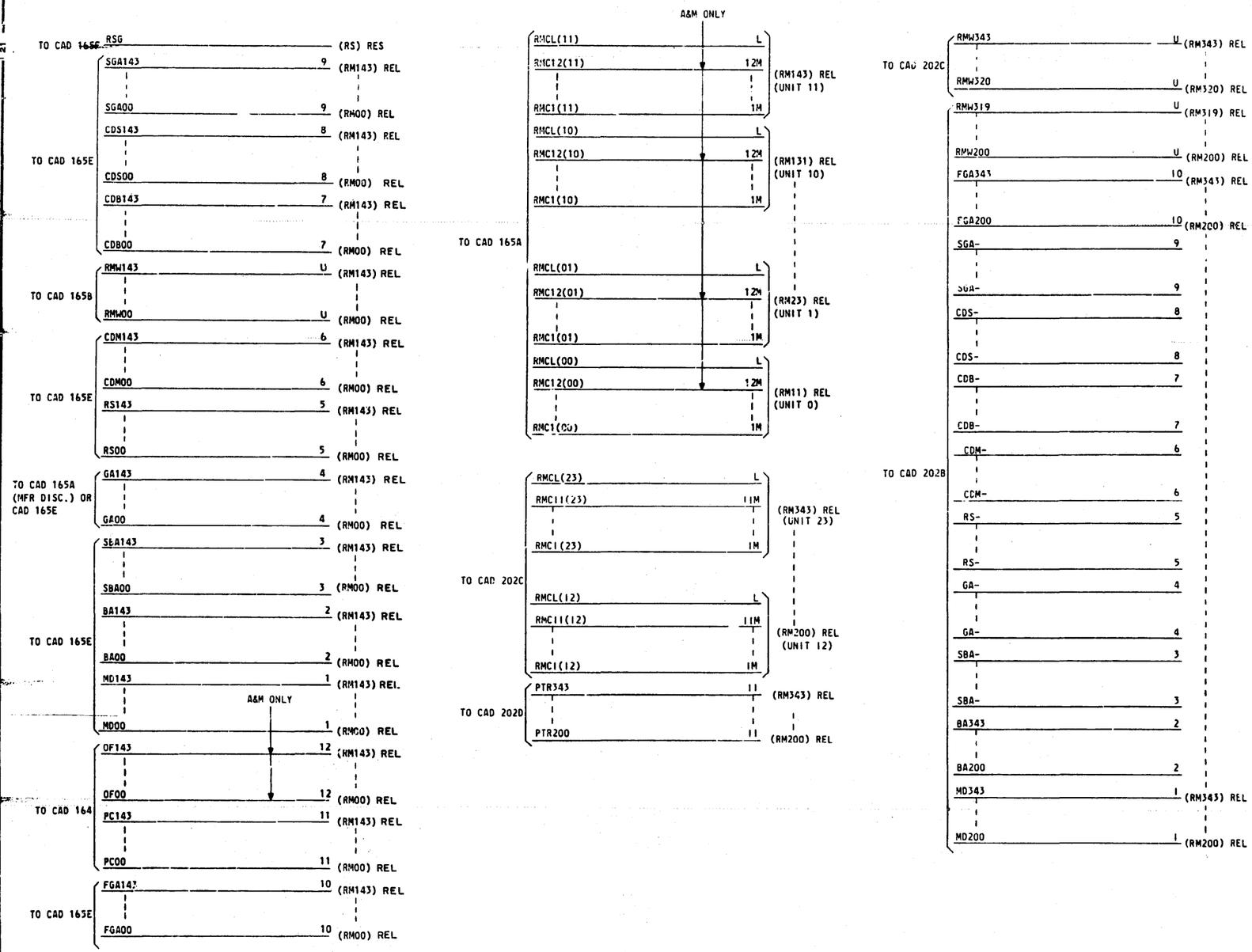
SD-26002-01-661

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 99 (A&M ONLY)

(FOR APP FIG 99)




DRAWING ISSUE

| | |
|---|---|
| 300 | OS 4/A 11B |
| 35D | LP TP-1 11A |
| 390 | FLK |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G62

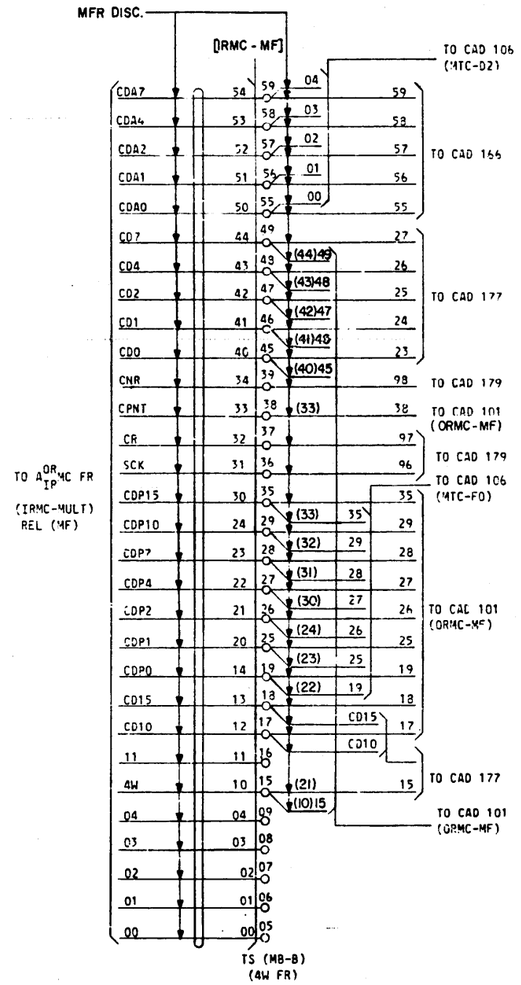
BELL TELEPHONE LABORATORIES INCORPORATED 6S

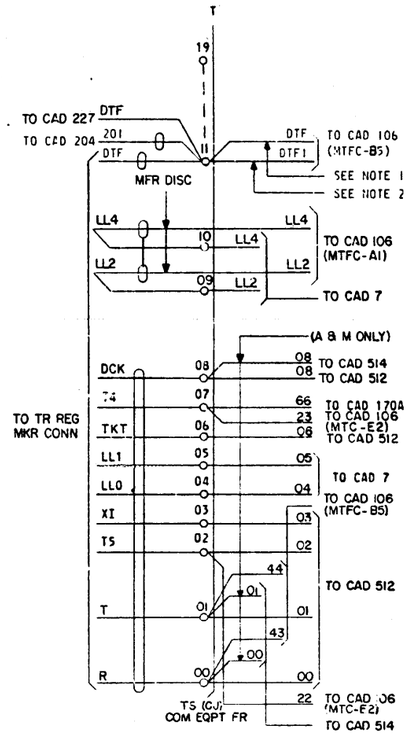
SD-26002-01-G62

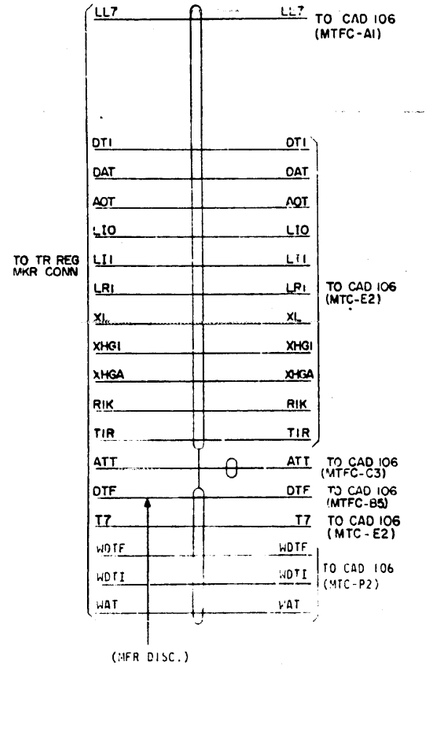
STABILOK

# PART OF CAD 100

(FOR SWBD CABLE TO INC REG MKR CONN & TO TR REG MKR CONN)




NOTES

1. DO NOT CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.
2. CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.

| DRAWING ISSUE | |
|---|---|
| 25D | EN |
| 27A | |
| 29A | |
| 32A | |
| 35D | |
| 39D | |
| 44D | |
| 430 | |
| 450 | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

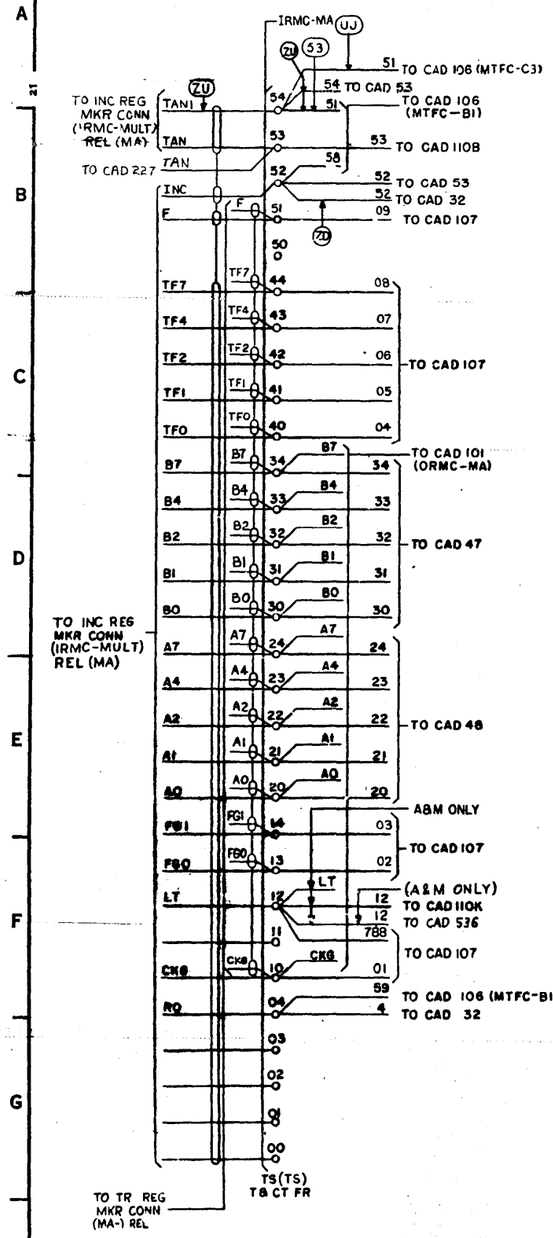
SD-26002-01-G63

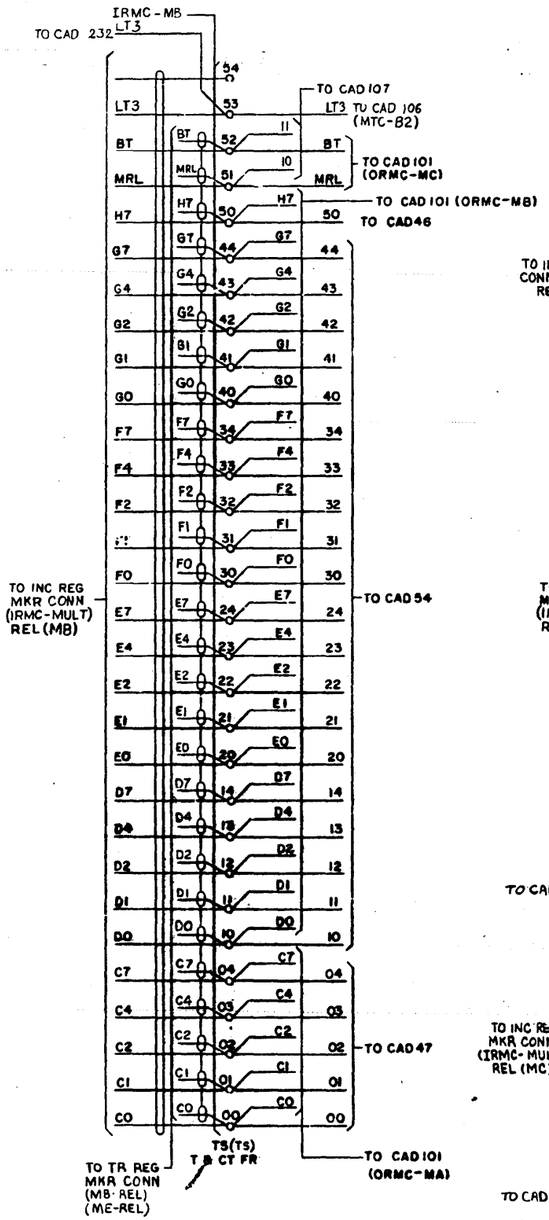
BELL TELEPHONE LABORATORIES INCORPORATED

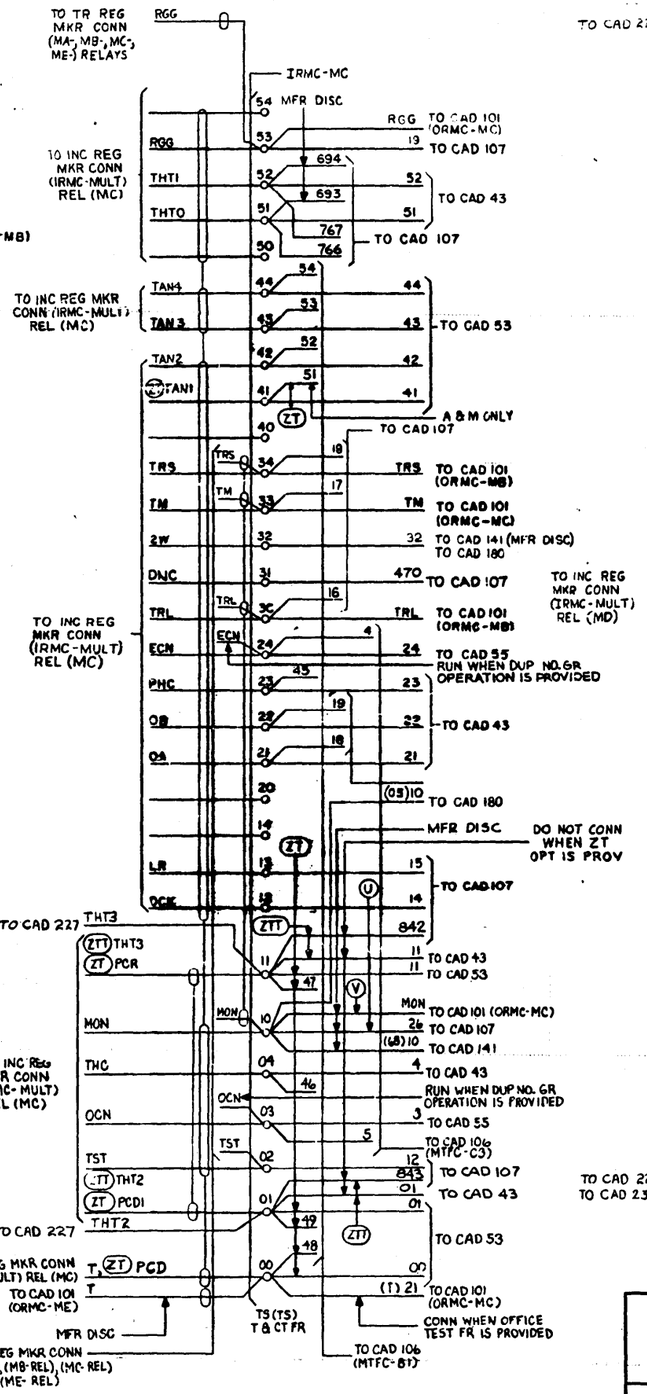
SIZE 6S

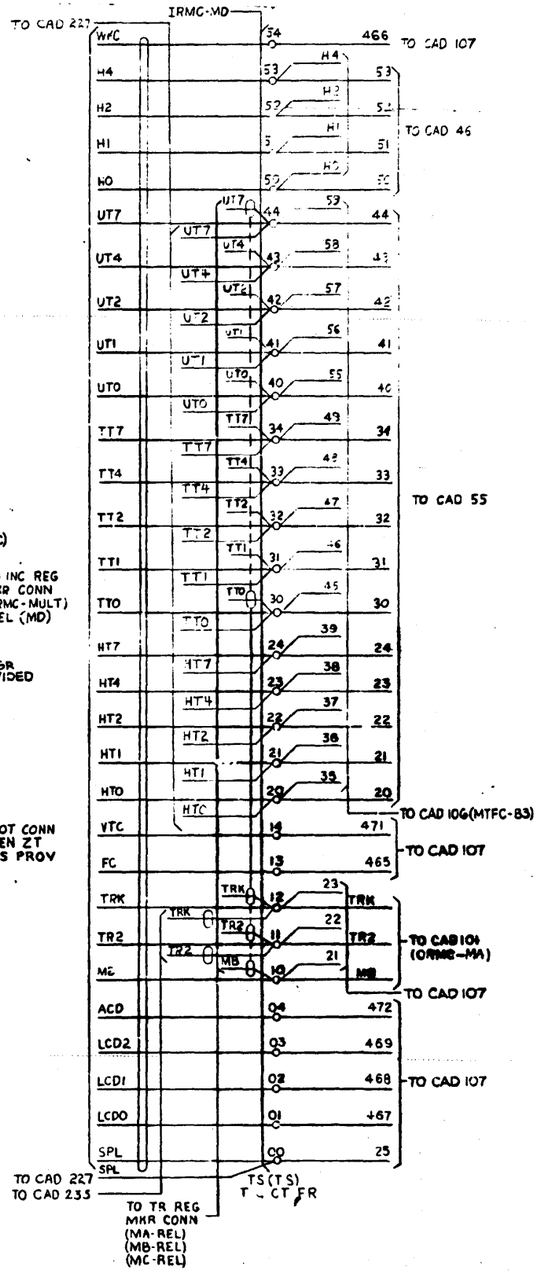
# PART OF CAD 100

(FOR SWBD CABLE TO INC REG MKR CONN & TO TR REG MKR CONN)




DRAWING ISSUE

| | |
|---|---|
| 5D | |
| 6A | |
| 7B | |
| 8D | |
| 10B | |
| 14B | |
| 18D | |
| 21D | SGB |
| 22D | |
| 24D | |
| 25D | |
| 27A | |
| 29A | |
| 30D | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 37D | SSL |
| 39D | RAR |
| 41D | |
| 45D | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

ISSUE 6JB

SD-26002-01-G64

SD-26002-01-G64

# PART OF CAD 100

(FOR SWBD CABLE TO INC REG MKR CONN AND TO TRANSFER REG MKR CONN)

IRMC-ME

TO TRANSFER REG MKR CONN (MC-REL) TO CAD 227

TO INC REG MKR CONN (IRMC-MULT) REL (ME)

TO CAD 101 2DT (ORMC-ME)

TO CAD 101 (ORMC-MC)

TCB, TCC, TCB, 2DT, XII, L7, L4, L2, L1, L0, K7, K4, K2, K1, K0, J7, J4, J2, J1, J0, TT, TCA, FVD, TOL, SRT, FG2, CB3, CB2, CB1, CB0

WY, ET, VD, XII, ZLM, M7, L7, L4, L2, L1, L0, K7, K4, K2, K1, K0, J7, J4, J2, J1, J0

TO CAD 46

TO CAD 543 (A&M ONLY)

TO CAD 106 (MTFC-B3)

TO CAD 53

TO CAD 106 (MTFC-B1)

TO CAD 110K

TO CAD 101 (ORMC-MA)

TO CAD 48

TO CAD 536

TO CAD 110K (A&M ONLY)

TO CAD 106 (MTFC-B3)

TO CAD 110B

TO CAD 53

TO CAD 106 (MTFC-B1)

TO CAD 543 OR TO CAD 48 FOR CUSTOMER OVERSEAS DIALING TRIAL

TO CAD 48

TO CAD 101 (ORMC-MA) (A&M ONLY)

TO CAD 106 (MTFC-B3) (53)

TO CAD 107

TO CAD 53

TO CAD 106

TO CAD 53

TO CAD 13

TS (TS) T & CT FR

TS (CF) COM EQPT FR

TRMC-CB

TO TRMC FR 0

TO INC REG MKR CONN (IRMC-MULT) REL (ME)

TO TRANSFER REG MKR CONN (MA) REL

TO OR IR MC FRAMES 2 OR 3 (MARKERS 8-11 ONLY)

TO IRMC (MARKERS 0-7 ONLY)

TO OR IR MC FRAMES 0 OR 1 (MARKERS 8-11 ONLY)

TO TRMC

TO IRMC (MARKERS 0-7 ONLY)

TO OR MC FR IR (MARKERS 8-11 ONLY)

IRMC2, IRMC1, IRMC0, CB8, CB7, CB6, CB5, CB4, CB3, CB2, CB1, CB0, FR2, FR1, FR0

TO CAD 13

TS (CF) COM EQPT FR

TRMC-D, IRMC-D, "D" GRD

TO CAD 153

TO CAD 13

BARE WIRE STRAP

TO CAD 101

TS (CG) COM EQPT FR

IRMC-MSK, IRMC-MCK, IRMC-MAK, MSK-E, MCK-E, MAK-E, MSK-ST, MCK-ST, MAK-ST, MSK(C3), MCK(C3), MAK(C3), MSK(CO), MCK(CO), MAK(CO), Q2, ST, E

TO IRMC (A&M ONLY)

TO IRMC (A&M ONLY)

SHOWN ON CAD 109

TO IST APPEARANCE OF IRMC

TRMC-MSK, TRMC-MCK, TRMC-MAK

TO TRANSFER REG MKR CONN FR

TO A OR IR MC FR (IRMC-MULT REL (MF))

4W, (25) 4W, TO CAD 180

# PART OF CAD 101

(FOR SWBD CABLE TO ORIG REG MKR CONN AND TO TRANSFER REG MKR CONN)

ORMC-MA

TO ORIG REG MKR CONN (ORMC-MULT) REL (MA)

TO CAD 204

TO ORIG REG MKR CONN (ORMC-MULT) REL (MA)

TO TRANS REG MKR CONN REL (ME)

TO ORIG REG MKR CONN (ORMC-MULT) REL (MA)

TO TRANS REG MKR CONN REL (MD)

TO ORIG REG MKR CONN (ORMC-MULT) REL (MA)

TO CAD 189

C7, C4, C2, C1, C0, B7, B4, B2, B1, B0, A7, A4, A2, A1, A0, PK, SCK, FAC, RP, TP, II, XII, LT, MB, QR, CKG, TRK, TR2

TO CAD 106 (MTFC-B2)

TO CAD 100 (IRMC-MB)

TO CAD 100 (IRMC-MA)

DO NOT CONNECT WHEN WIDEBAND IS PROVIDED

TO CAD 42

TO CAD 106 (MTFC-B1)

TO CAD 32

TO CAD 543

TO CAD 32

TO CAD 106 (MTFC-B3)

TO CAD 100 (IRMC-ME)

TO CAD 100 (IRMC-MA)

TO CAD 100 (IRMC-MD)

TO CAD 536

TO CAD 100 (IRMC-MD)

TO CAD 543

TO CAD 32

TO CAD 106 (MTFC-C3) (A&M ONLY)

TO CAD 100 (IRMC-MA)

TO CAD 100 (IRMC-MD)

TO CAD 543 (A&M ONLY)

TS (TS) T & CT FR

RUN WHEN 4W FEATURE PROVICED WITHOUT CALL PRIVILEGE CONTROL

RUN WHEN DUP NUMBER GROUP FEATURE IS PROVIDED IN 2W OFFICE

TO A OR IR MC FR (ORMC-MULT) REL (MF)

4W, ECN, OCN, (25) 4W, (67) ECN, (56) OCN

TO CAD 180

TO CAD 178 OR CAD 55

TO CAD 178 OR CAD 43

TO (ORMC-MULT) REL (MF)

ORMC-MB

TO ORIG REG MKR CONN (ORMC-MULT) REL (MB)

TO CAD 201

H7, H4, H2, H1, H0, G7, G4, G2, G1, G0, F7, F4, F2, F1, F0, E7, E4, E2, E1, EC, D7, D4, D2, D1, D0, TRL, PS, PD, TRS, LT3

TO CAD 106 (MTFC-B2)

TO CAD 100 (IRMC-MB)

TO CAD 100 (IRMC-MD)

TO CAD 100 (IRMC-MC)

TO CAD 42

TO CAD 100 (IRMC-MC)

TO CAD 106 (MTFC-B1)

TO CAD 543

TO CAD 110J

TS (TS) T & CT FR

(A&M ONLY)

| DRAWING ISSUE |
|---|
| 50 |
| 7A |
| 08 |
| 38 |
| 4B |
| 7D |
| 22D |
| 24D |
| 25D |
| 27A |
| 29A |
| 30D |
| 33D |
| 35D |
| 37D |
| 39D |
| 41D |
| 43D |

ISSUE 5

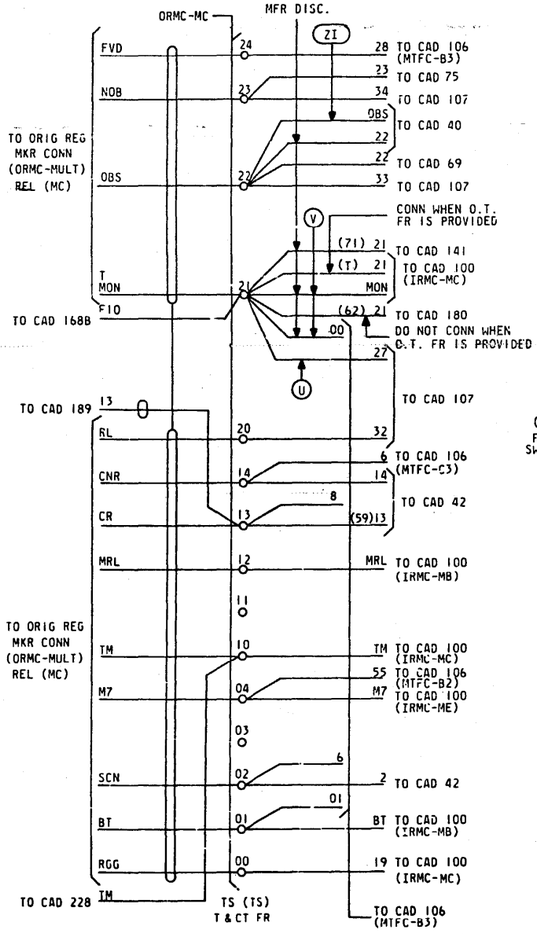
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G65

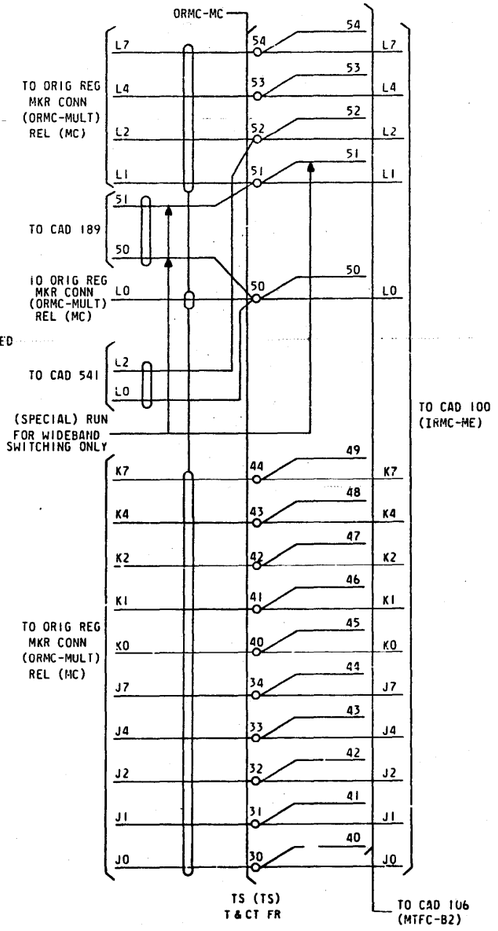
BELL TELEPHONE LABORATORIES, INC 65

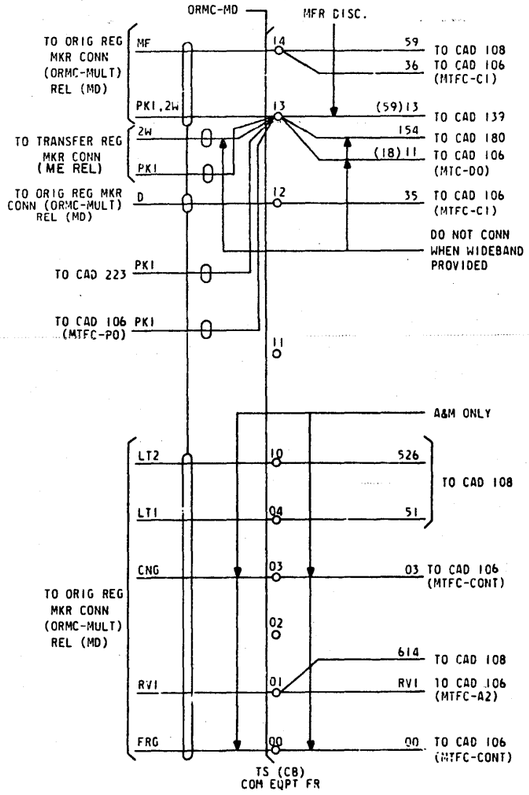
PRINTED IN U.S.A.

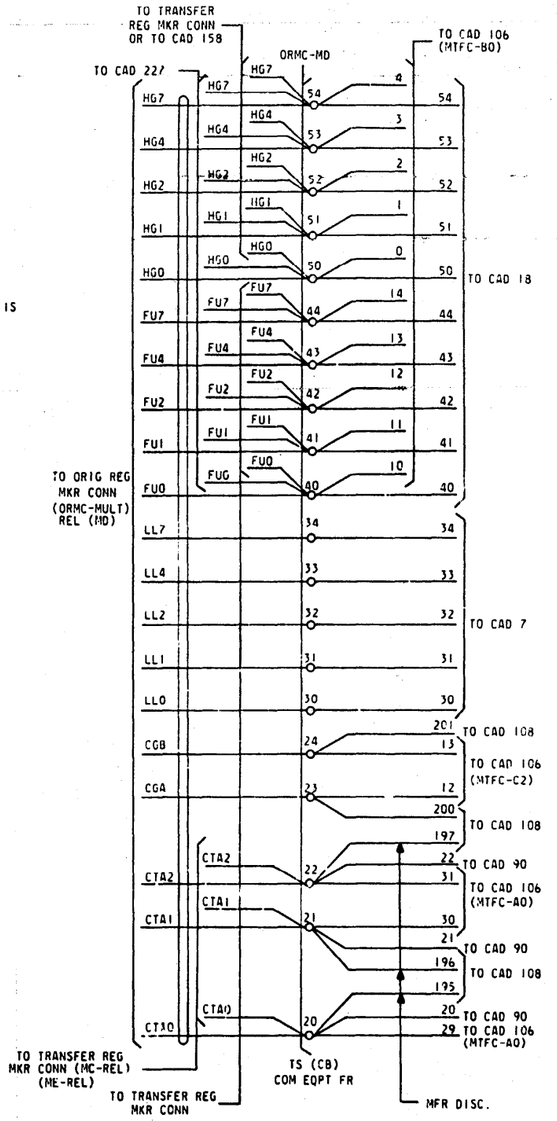
# PART OF CAD 101

(FOR SWBD CABLE TO ORIG REG MKR CONN AND TRANSFER REG MKR CONN)



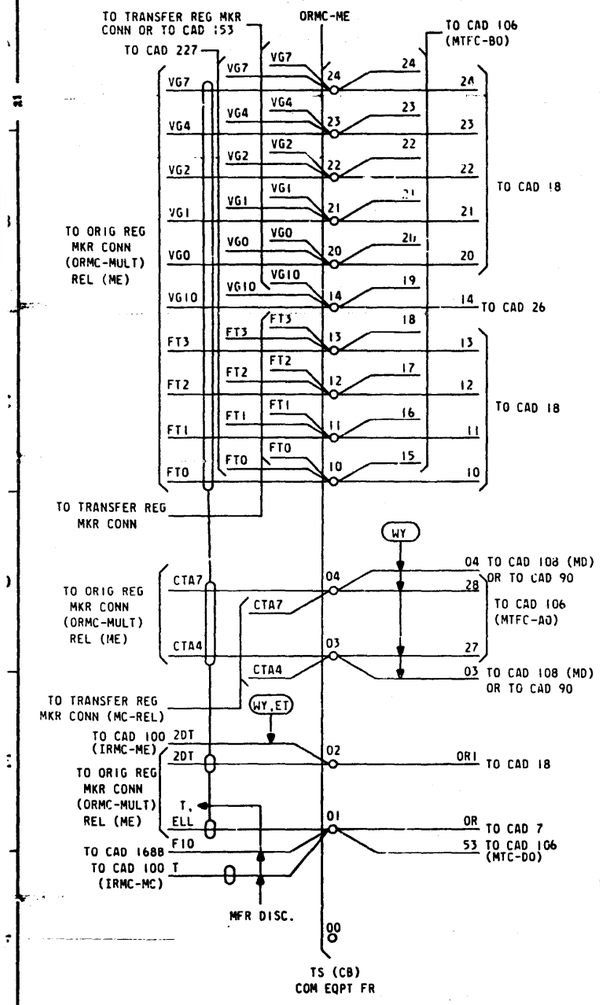



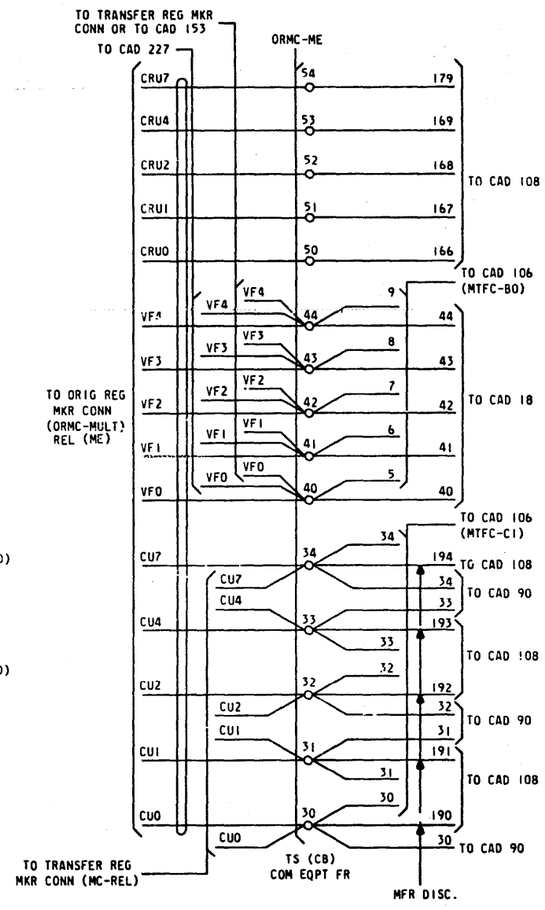

ISSUE 57B

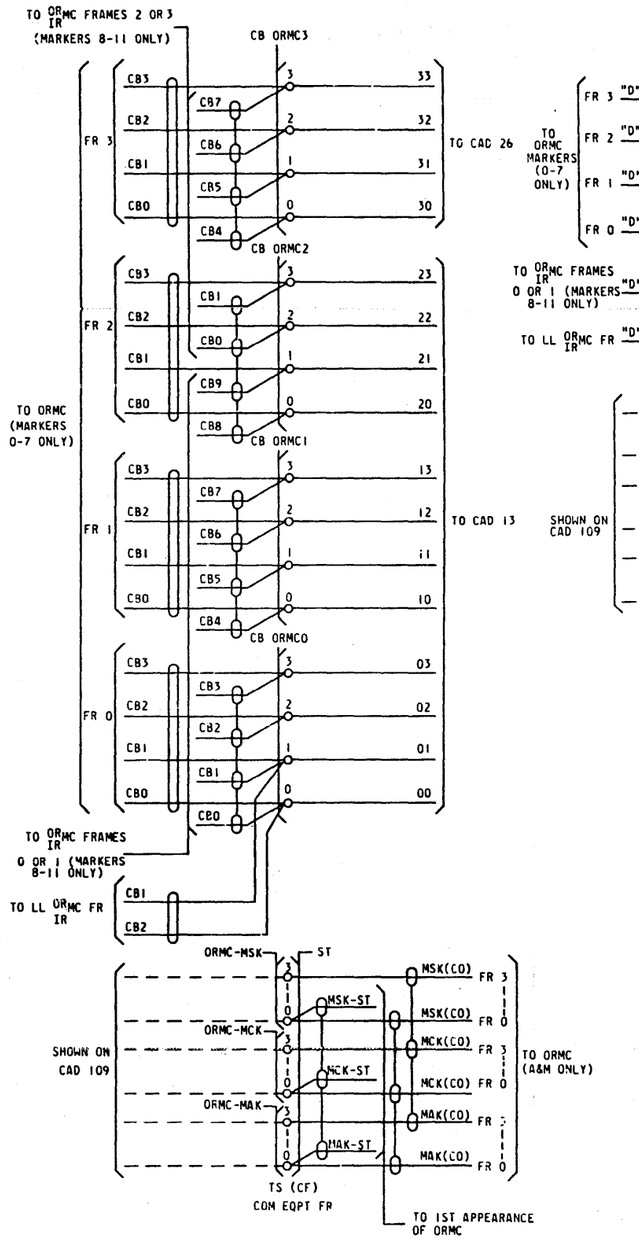
| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-G66A |
| BELL TELEPHONE LABORATORIES INCORPORATED | DWG SIZE 6S |

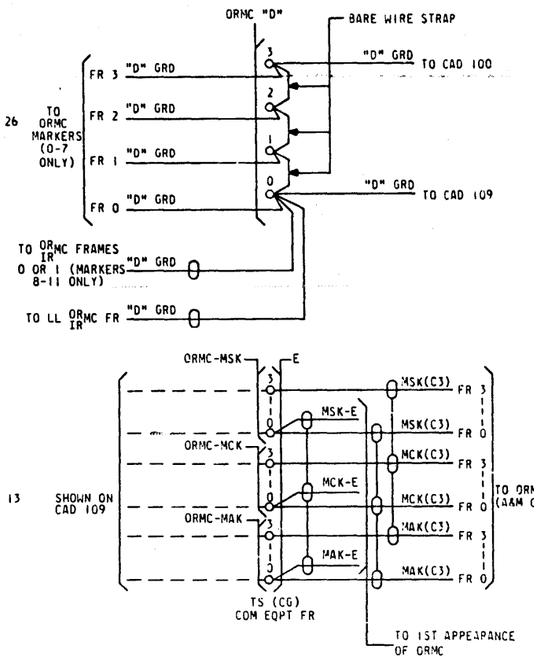
# PART OF CAD 101

(FOR SWBD CABLE TO ORIG REG MKR CONN AND TRANSFER REG MKR CONN)




ISSUE 60A

COMPLETING MARKER CKT

SD-26002-01-G668

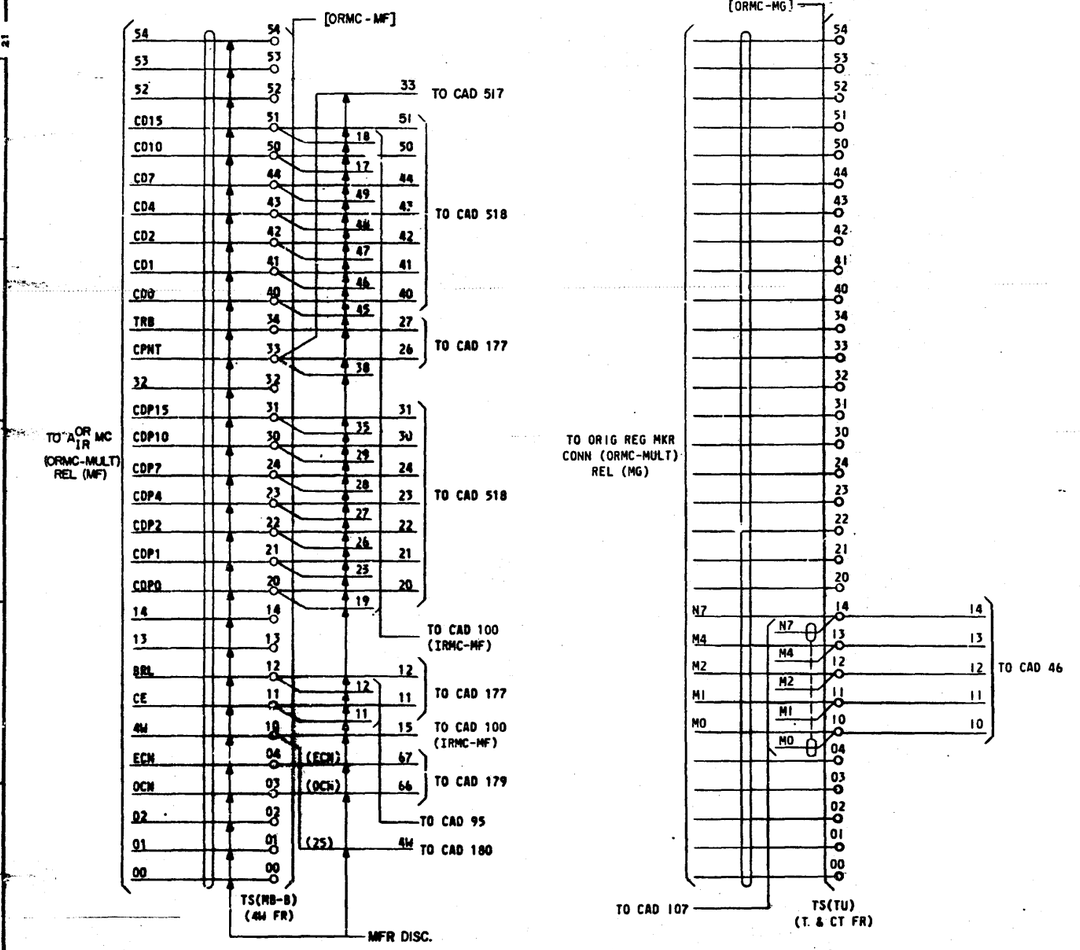
BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

PRINTED IN U.S.A.

# PART OF CAD 101

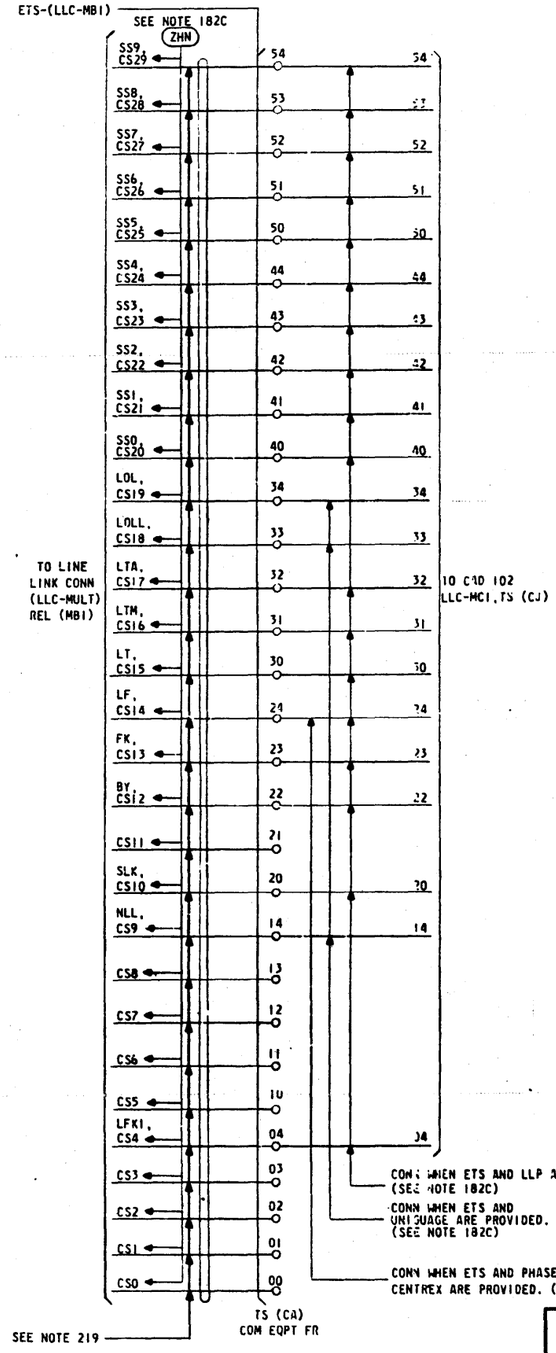
(FOR SWBD CABLE TO ORIG REG MKR CONN AND TRANSFER REG MKR CONN)


[ORMC-MF]
54
53
52
CD15
CD10
CD7
CD4
CD2
CD1
CD0
TRB
CPNT
32
CDP15
CDP10
CDP7
CDP4
CDP2
CDP1
CDP0
14
13
8RL
CE
4W
ECN
OCN
02
01
00
51
50
44
43
42
41
40
34
33
31
30
24
23
22
21
20
18
17
49
48
47
46
45
38
35
29
28
27
26
19
12
11
10
04
03
33
TO CAD 517
TO CAD 518
TO CAD 177
TO CAD 518
TO CAD 100 (IRMC-MF)
TO CAD 177
TO CAD 100 (IRMC-MF)
(ECN)
(OCN)
TO CAD 179
TO CAD 95
(25)
TO CAD 180
TO A OR IR MC (ORMC-MULT) REL (MF)
TS(RB-B) (4W FR)
MFR DISC.




# PART OF CAD 102

(FOR SWBD CABLE TO LINE LINK CONN)
(FOR SWBD CABLE CONNECTIONS TO FLAT SPRING REL LINE LINK CONN, SEE CAD 131)




| DRAWING ISSUE | |
|---|---|
| 350 | TS [illegible] |
| 370 | PK |
| 390 | DM |
| 430 | |

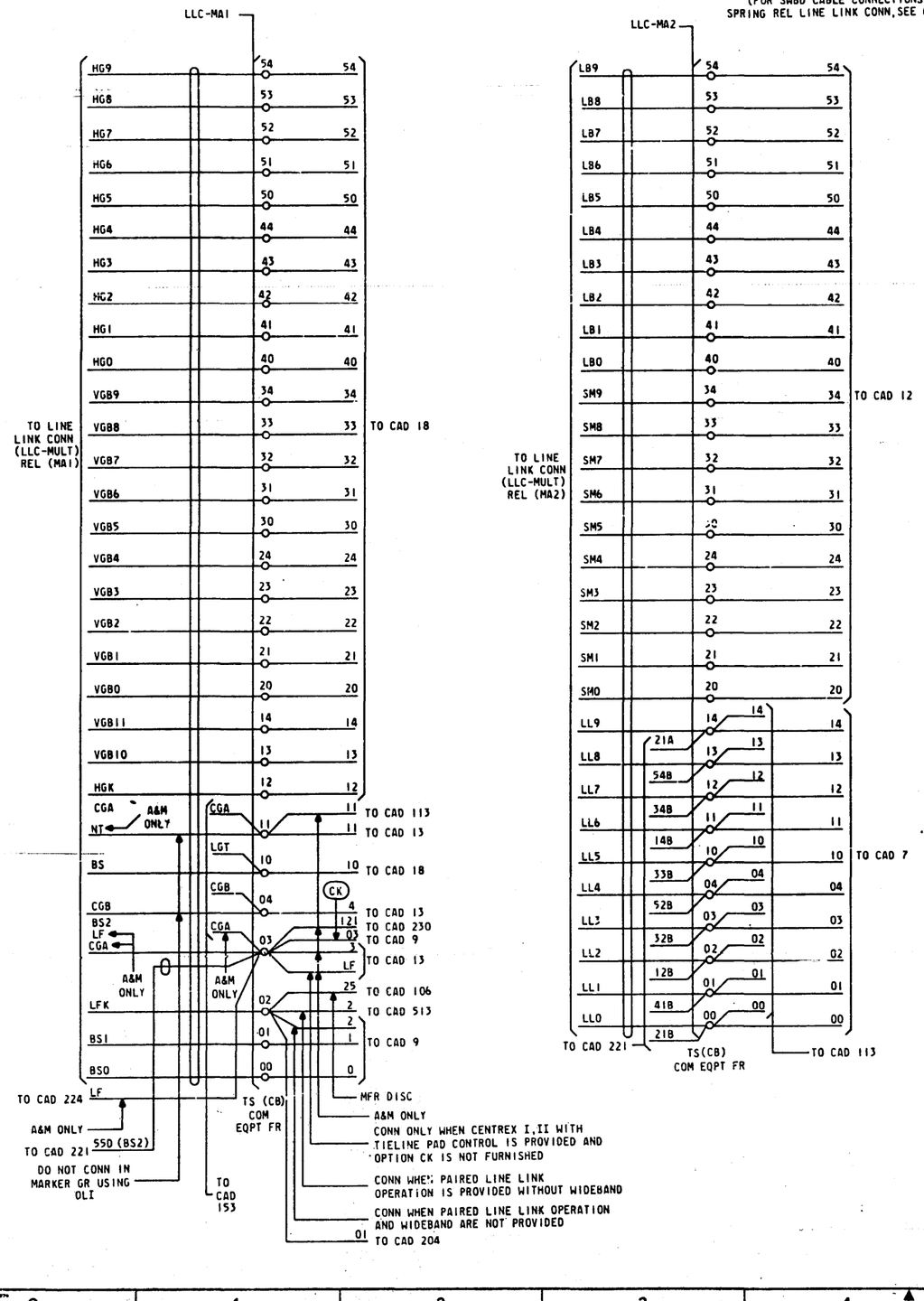
ISSUE 65B

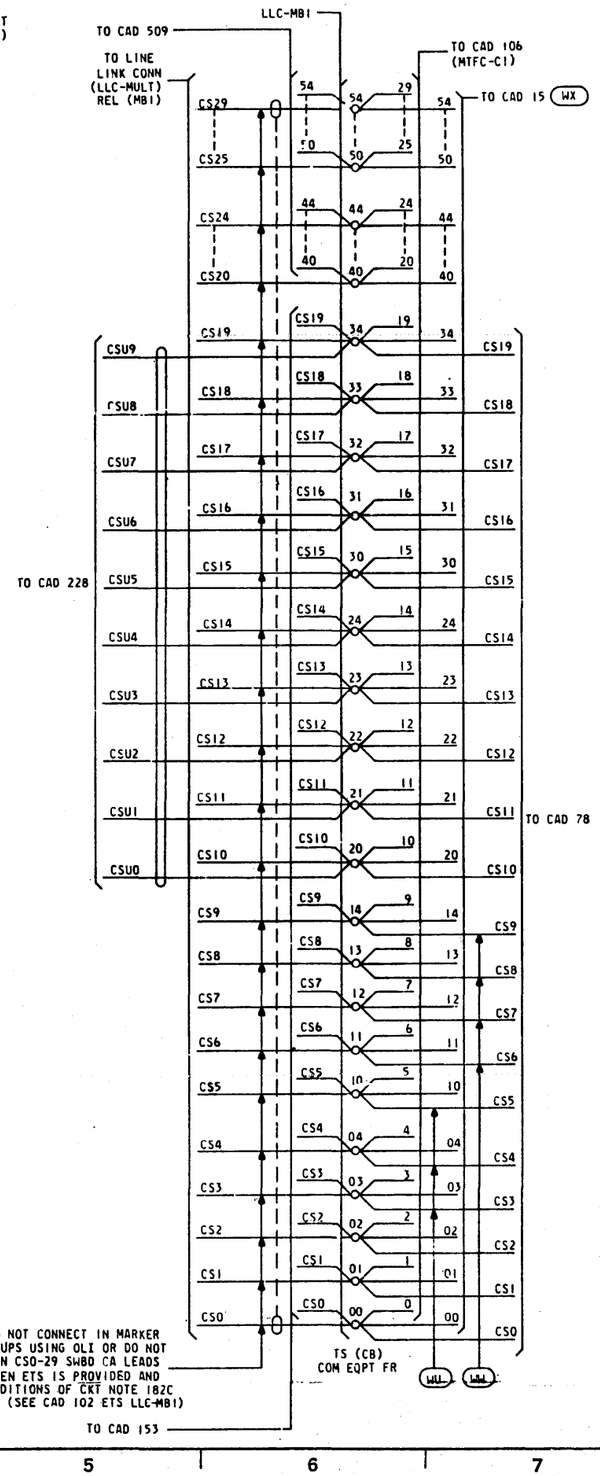
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G67

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF CAD 102

(FOR SWBD CABLE TO LINE LINK CONN)
(FOR SWBD CABLE CONNECTIONS TO FLAT SPRING REL LINE LINK CONN, SEE CAD 131)

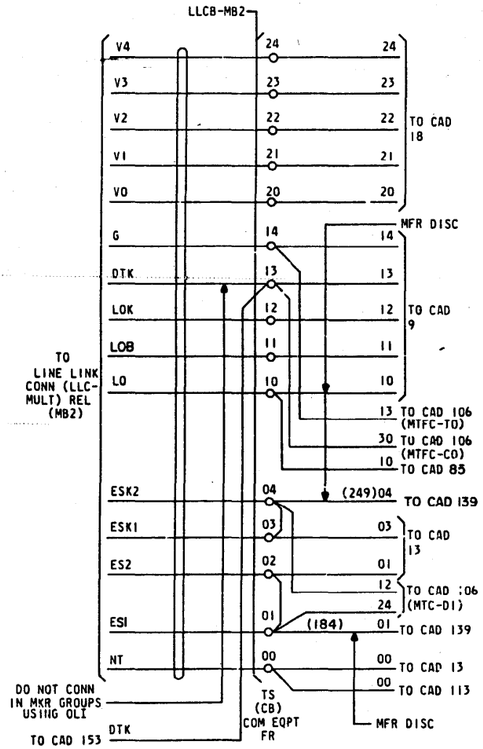


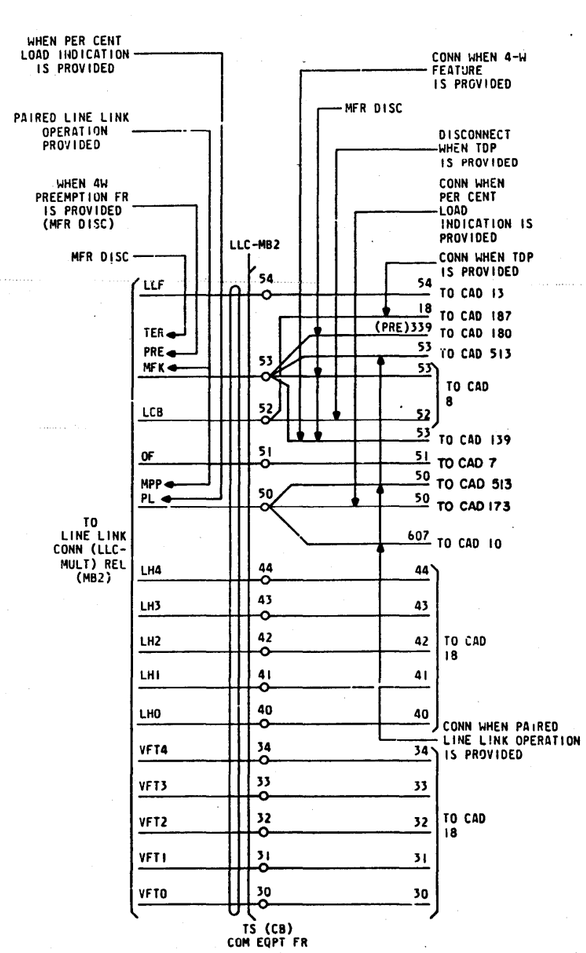



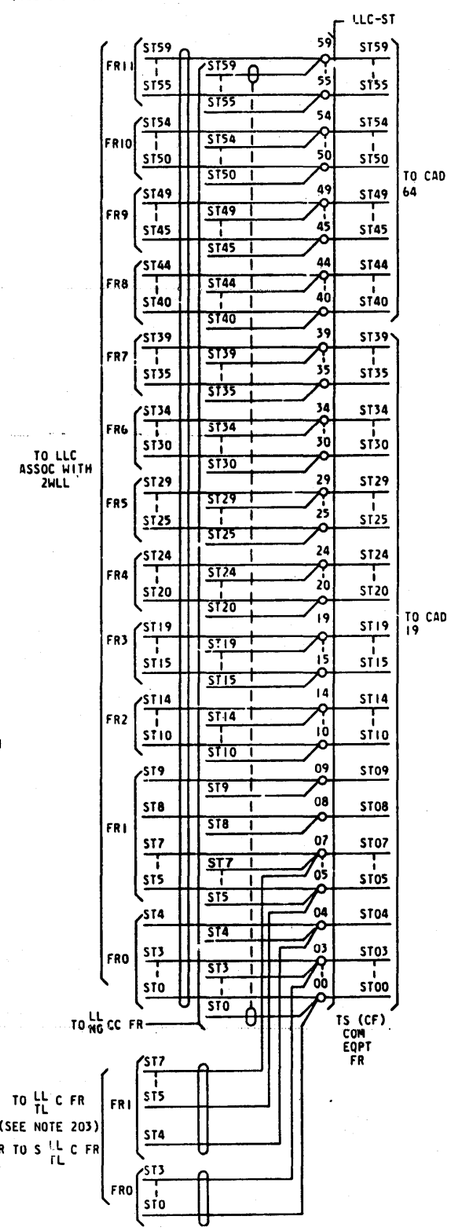

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 61B |
| BELL LABORATORIES | SD-26002-01- | | G68A |

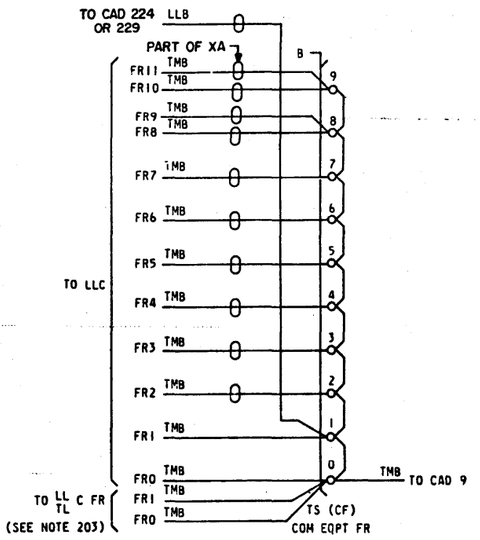
# PART OF CAD 102

(FOR SWBD CABLE TO LINE LINK CONN)
(FOR SWBD CABLE CONNECTION TO FLAT SPRING REL LINE LINK CONN, SEE CAD 131)




| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | DWG SIZE 6S | ISSUE 63B |
| BELL LABORATORIES | SD-26002-01- | G68B |

# PART OF CAD 102

(FOR SWBD CABLE OF LINE LINK CONN)

(FOR SWBD CABLE CONNECTION TO FLAT SPRING REL LINE LINK CONN, SEE CAD 131)

CONN WHEN LLP AND ETS ARE PROVIDED

TO CAD 228

FKA

BYI

LLC - MCI

SS9 54 54 — TO CAD 102 ETS-(LLC-MB1),TS (CA)

SS8 53 53 53

SS7 52 52 52

SS6 51 51 51

SS5 50 50 50

SS4 44 44 44 — TO CAD 26

SS3 43 43 43

SS2 42 42 42

SS1 41 41 41

SS0 40 40 40

LOL 34 34 05 — TO CAD 188

LOLL 33 33 18 — CONN WHEN LLP AND ETS ARE PROVIDED; TO CAD 13

LTA 32 32 15 121 — TO CAD 230

BYPS

LTM 31 31 14 — TO CAD 106 (MTC-CONT)

LT 30 30 (45) 30 — DO NOT CONN WHEN LLP AND ETS ARE PROVIDED

TO LINE LINK CONN (LLC-MULT) REL (MC1)

LF 24 26 (142) 24

FK 23 23 (138) 23 — TO CAD 154

BY 22 22 (135) 22

BYP 21 333 584 — DO NOT CONN WHEN 4W PRE FR IS PROVIDED; TO CAD 180

SLK 20 20 20 — TO CAD 26 CONN WHEN LLP IS PROVIDED AND ETS IS NOT PROVIDED

NLL 14 14 19 — TO CAD 13

13

RL 12 302

PRI 11 340 — TO CAD 180

PRO 10 341

04 04 (137) 04 — MFR DISC.; TO CAD 154

LFK1

03

02

WLLB 01 200 — TO CAD 204

00

TO CAD 224 LF

TO CAD 228 LF

TS(CJ) ON CE FR

TO LINE LINK CONN ASSOC WITH 4W LL

ST 39 — C39 — TO CAD 523 (ON 4W CONT UNIT)

STOO — C00

TO LINE LINK CONN WLK — 143 — TO CAD 204

TO LINE LINK CONN CALL WAITING LINK CONN ON REL RACK REL (MCW)

CWH7 35C

CWH4 25C

CWH2 15C

CWH1 54C

CWH0 44C

CWT7 34C

CWT4 24C

CWT2 14C

CWT1 53C

CWT0 43C

CWU7 33C

CWU4 23C

CWU2 13C

CWU1 52C

CWU0 42C — TO CAD 560

CWN1 32C

CWN0 22C

CWS 12C

CWT 51C

CWL 41C

CWK 31C

NCW 21C

XCW 11C

TERMINALS SHOWN ON CAD 214

VF4 — CW 39 — VF4

VF3 38 VF3

VF2 37 VF2 — TO CAD 18

VF1 36 VF1

VF0 35 VF0

TS(CH) ON CE FR

# PART OF CAD 103

TO LLC FR TL ASSOC WITH 4W NET

FR I: STO3 D43; STO2 D42

FR O: STO1 D41; STO0 D40

TO TLC CONT FR ASSOC WITH 4W NET

ST19 D59

STO0 D40

TO TLC FR ASSOC WITH 4W TL FR

FBE OR FBO (19) D39

FBE OR FBO (00) D20 — TO CAD 523 (4W CONT UNIT)

TO TLC ASSOC WITH 2W NET

FR I: STO3 C43; STO2 C42

FR O: STO1 C41; STO0 C40

TO TLC CONT FR ASSOC WITH 2W NET

ST19 C59

STO0 C40

TLC 9 8 7 6 5 4 3 2 1 0

TO TRK LINK CONN BS5 — BS5 TO CAD 9

TS (CF) ON CE FR

TLC-MF

54 53 52 51 50 44 43 42 41 40 34 33 32 31 30 24

TO TRK LINK CONN (TLC-MULT) REL(MF)

TB9 23 23 — TO CAD 103 TLC-ME

TB8 22 22 22 — TO CAD 203

TB7 21 21 21

TB5 20 20 20 — TO CAD 103 TLC-M

SBA2 14 14 13 — TO CAD 29

SBA1 13 13 — TO CAD 550

12LV 12 12

DAT 11 11 — TO CAD 8

CNT 10 10 — TO CAD 90

04 — CONN FOR CNTX BUSY VERIF WITH 4W OPERATION

03 — CONN FOR DIAL TRFR WITH 4W OPERATION

02 — CONN WHEN ALL TL FR ARE EQUIPPED WITH 12 LEVEL JUNCTOR SW

01

00

TO CAD 180 47

TS (CH) ON CE FR

(A8M ONLY) CONNECT WHEN 4W IS PROVIDED WITH ANY TRK LK FR EQUIPPED WITH 12 LEVEL JUNCTOR SWITCHES BUT FIG.149 NOT PROVIDED

DRAWING ISSUE

| | |
|---|---|
| 22D | NMP EQN AND |
| 24D | EN CLK AMP |
| 25D | MCI SEN AMP |
| 30D | CMI SDU SAU |
| 33D | CM SDL AMP |
| 34A | CK TXU AMP |
| 35D | CK TRI AMP |
| 37D | TS |
| 39D | DM |
| 40A | |
| 41D | |
| 43D | |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-669

BELL TELEPHONE LABORATORIES INCORPORATED

6S

STABILO

# PART OF CAD 103
(FOR SWBD CABLE TO TPK LINK CONN)

TLC-ME

MFR DISC.

A&M ONLY

TO CAD 106 (MTFC-T1)

TO CAD 90

CTT7 54 09 54

CTT4 53 08 53 (TGA4) 510

CTT2 52 07 52 (TGA3) 509

CTT1 51 06 51 (TGA2) 508 TO CAD 180

CTT0 50 05 50 (TGA1) 507

OV 44 44 506 (PRD) 338 (OVK) 44 TO CAD 106 (MTFC-TO)

MFR DISC.

CDN 43 43 A&M ONLY

RN25 TB9 42 701 TO CAD 108

RN24 TB8 42(50) 41 (70) 42 TO CAD B

RN23 TB7 41(49) 40 23 (69) 41 TO CAD 10 TO CAD 102 (TLC-MF)

40(48) 22 (68) 40 CNTK BUSY VERIF 4W NOT PROV

21

CNT CNT TO CAD 90

PRI 34 (134) 34 (PRI) 337 TO CAD 180

DAT

ATTB (4W) 33 (170) 33 TO CAD 139

RN22 ARTB 33(124) 32 33 TO CAD 8

RN21 BTTB 32(123) 31 (171) 32

RN20 BRTB 31(122) 30 (172) 31

30(121) (173) 30

TO AUX TRK LINK CONN FR REL (ME)

TO TRK LINK CONN (TLC-MULT) REL (M)

CONN FOR DIAL TRFR WITHOUT 4W OPERATION

RN19 24 24

RN18 23 23

RN17 22 22

RN16 21 21

RN15 20 42 20 TO CAD 71

RN14 14 41 14

RN13 13 40 13

RN12 12 32 12

RN11 11 31 11

RN10 10 30 10

CUT7 04 19 04

CUT4 03 18 03

CUT2 02 17 02 TO CAD 90

CUT1 01 16 01

CUT0 00 15 00 TO CAD 106 (MTFC-T1)

(ME C5) 20 SHOWN ON CAD 119 (CE-COM)

TS(CH) ON COM EQPT FR

TO CAD 130

CONN WHEN MORE THAN 20 AMA RECORDERS ARE PROVIDED

DO NOT CONN

TLC-M

TO CAD 81

TO(TLC-MC2) IN SAME CAD(A+M)ONLY

BRT 54 (162) 54 TO CAD.139

BTT 53 (163) 53 (90) 54 (91) 53 TO CAD 180

52 23 TO CAD 106 (MTFC-B5)

SEF 51 51 TO CAD 20

TTF 50 24 TO CAD 106(MTFC-B5)

50 TO CAD 109

SS9 44 44

SS8 43 43

SS7 42 42

SS6 41 41

SS5 40 40 TO CAD 27 MFR DISC OR TO CAD 26

SS4 34 34

SS3 33 33

SS2 32 32

SS1 31 31

SS0 30 30

SLK 24 24 TO CAD 26

IOLV, TB6 23 20 TO CAD 103 (TLC-MF)

(67) 23 TO CAD.139

(47) 23 TO CAD 180

XFT 22 22 TO CAD 30 MFR DISC.

TLF 21 21 TO CAD 13

23 TO CAD 550

TB5 20 20

TB4 14 14

TB3 13 13 TO CAD 5

TB2 12 12

TB1 11 11

TB0 10 10

BS4 MDK 04 4 DO NOT CONN WHEN SOME BUT NOT ALL TRK LINK FRAMES ARE EQUIPPED WITH 12 LEVEL JCTR SW

SEE NOTE 1

BS3 03 3 TO CAD9

BS2 02 2

BS1 01 1

BS0 00 0 TO CAD4

DO NOT CONN IN MKR GROUPS USING OLI

CONN IN MKR GROUPS USING OLI

TS (CE) COM EQPT FR

TO TRK LINK CONN (TLC-MULT) REL (MA1)

TLC-MA1

TG9 54 54

TG8 53 53

TG7 52 52

TG6 51 51

TG5 50 50 TO CAD 5

TG4 44 44

TG3 43 43

TG2 42 42

TG1 41 41

TG0 40 40

BT9 34 34

BT8 33 33

BT7 32 32

BT6 31 31

BT5 30 30

BT4 24 24 TO CAD 6

BT3 23 23

BT2 22 22

BT1 21 21

BT0 20 20

TRA 14 14 TO CAD 108 (MTFC-CONT)

TSK 13 45 TO CAD 106 (MTFC-T3)

TST 12 12 TO CAD 106 (MTFC-CONT)

TSX 11 11 TO CAD 6

TBK 10 10 TO CAD 4

04 A & M ONLY

MDK 03 03 TO CAD 152

DAT DT (LOLP) 02 20 TO CAD 106 (MTC-EO)

02 TO CAD 8

17 TO CAD 188

OF 01 01 TO CAD7

MAK 00 00 TO CAD 4

TS (CE) COM EQPT FR

MFR DISC (SEE NOTE 201)

TLC-MA2

TG19 54 54

TG18 53 53

TG17 52 52

TG16 51 51

TG15 50 50 TO CAD 5

TG14 44 44

TG13 43 43

TG12 42 42

TG11 41 41

TG10 40 40

BT19 34 34

BT18 33 33

BT17 32 32

BT16 31 31

BT15 30 30 TO CAD 6

BT14 24 24

BT13 23 23

BT12 22 22

BT11 21 21

BT10 20 20

HF 14 19 TO CAD 106 (MTFC-C2)

14 TO CAD 21 MFR DISC

NN 13 16 13

NT 12 18 12 TO CAD 113

NH 11 11

AD 10 05 10 TO CAD 106 (MTFC-B5)

QD 04 38 04 TO CAD 25

WBS 03 (PRE) 336 TO CAD 80

PRE 22 TO CAD 139

DTR 02 21 TO CAD 106 (MTC-EO)

INC 2 TO CAD 8

BT 59 TO CAD 189

TCB 01 1 TO CAD 8

(XM) MFR DISC

(BL) CI TO CAD 4

00 (ZP) MFR DISC

(XM) MFR DISC 02 TO CAD 90

(ZP) MFR DISC A & M ONLY

TS (CE) COM EQPT FR

(SPECIAL) RUN WHEN WIDEBAND SW IS PROVIDED

TO TRK LINK CONN (TLC-MULT) REL (MA2)

TLC-MB1

JS9 54 54

JS8 53 53

JS7 52 52

JS6 51 51

JS5 50 50

JS4 44 44 TO CAD 12

JS3 43 43

JS2 42 42

JS1 41 41

JS0 40 40 TO CAD 10

LH9 34 34

LH8 33 33

LH7 32 32

LH6 31 31

LH5 30 30

LH4 24 24

LH3 23 23

LH2 22 22

LH1 21 21

LH0 20 20 TO CAD 12

J9 14 14

J8 13 13

J7 12 12

J6 11 11

J5 10 10

J4 04 04

J3 03 03

J2 02 02

J1 01 01

J0 00 00

TS (CE) COM EQPT FR

TO TRK LINK CONN (TLC-MULT) REL (MB1)

| DRAWING ISSUE | |
|---|---|
| 80 | GJT |
| 90 | EXT |
| 118 | CH |
| 148 | CCS |
| 180 | KAS |
| 21D | KDH |
| 22D | HC |
| 240 | DA |
| 25D | KM |
| 27A | MC |
| 29A | CM |
| 300 | CM |
| 330 | CM |
| 350 | LP |
| 370 | VK |
| 390 | RP |
| 410 | |
| 42A | |
| 450 | |

DRAWING ISSUE 57B

SHEET NOTE

1. LEAD DESIGNATION MDK IS USED IN MKR GROUPS WITHOUT OLI, DESIGNATION BS4 IS USED IN MKR GROUPS WITH OLI

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G70

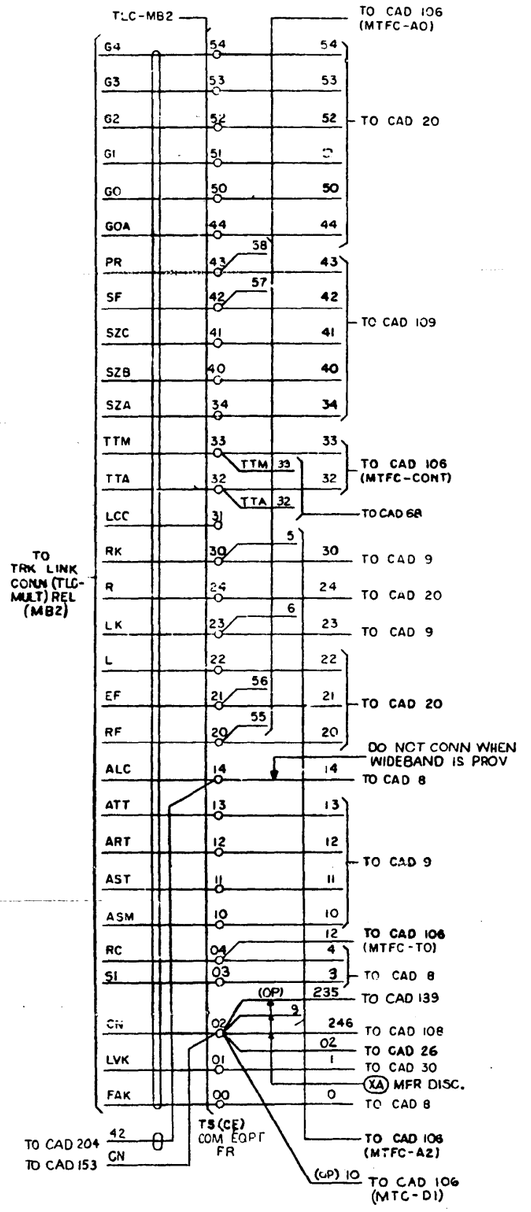
BELL TELEPHONE LABORATORIES INCORPORATED

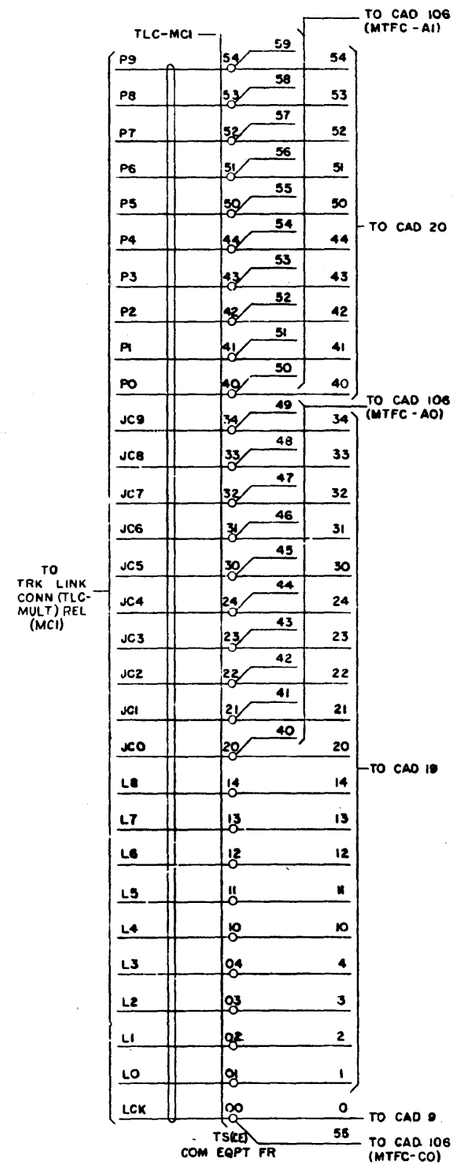
65

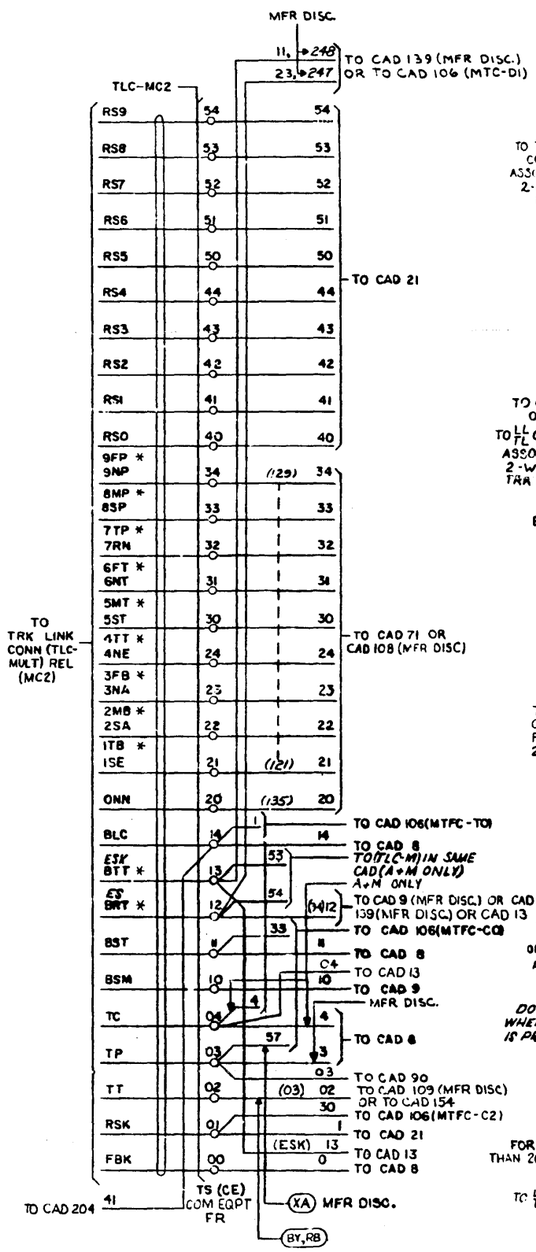
SD-26002-01-G70

# PART OF CAD 103

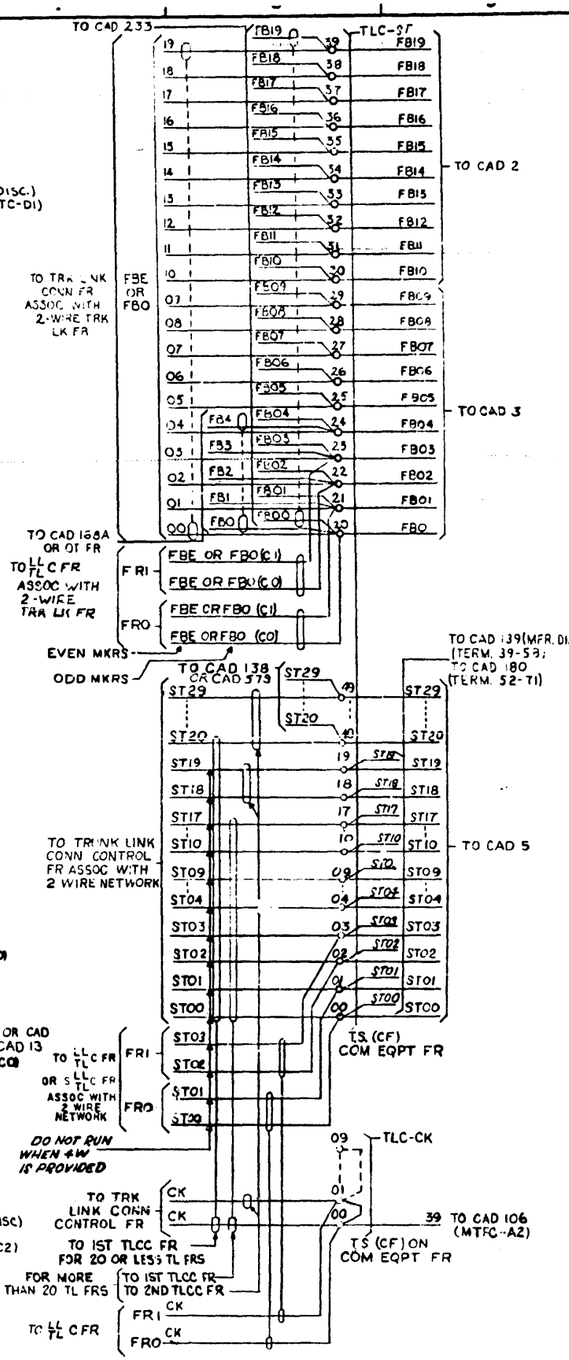
( FOR SWBD CABLE TO TRK LINK CONN)




* (A & M ONLY)

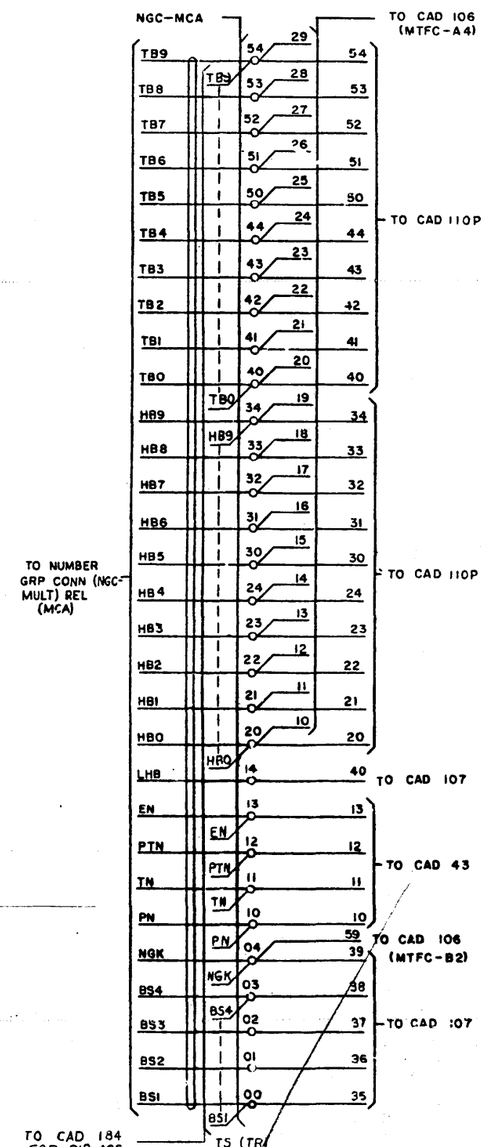


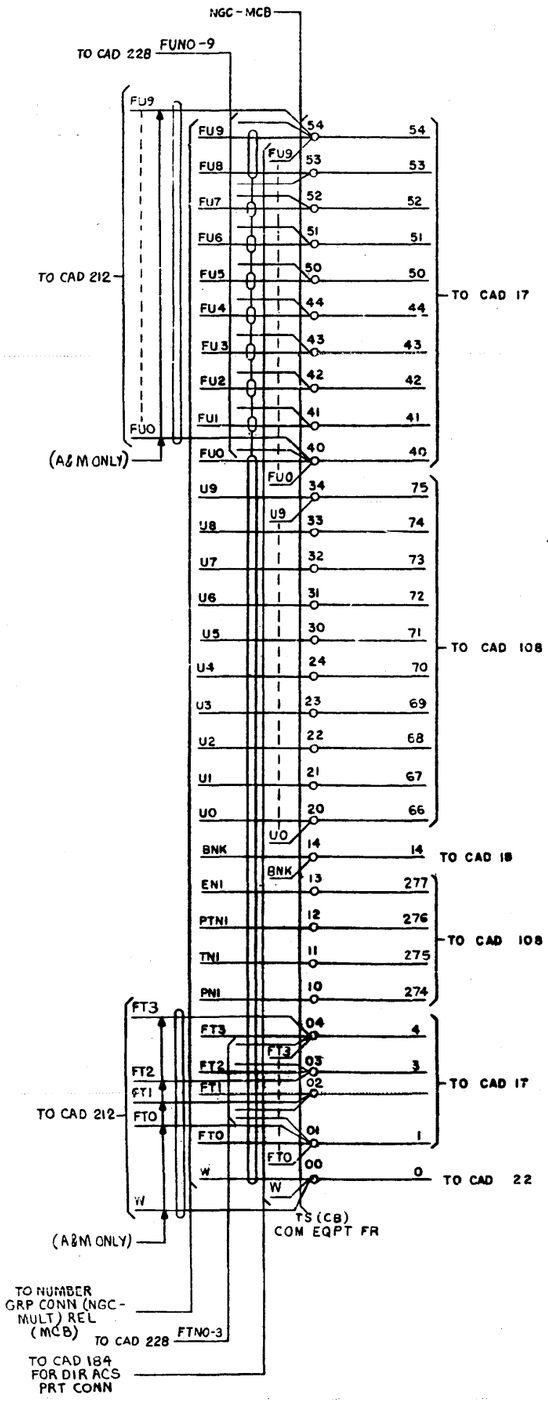

| DRAWING ISSUE | |
|---|---|
| 50 | CO |
| 80 | AT |
| 90 | AT |
| 108 | TLC |
| 138 | XLT |
| 148 | CAL |
| 180 | DBP |
| 200AC | EDN AMA |
| 210 | AMF EDN AMD |
| 220 | DBM TMI AMD |
| 23A | DB CLK AMD |
| 250 | BB PRT AMD |
| 27A | PBE TRC AMD |
| 280 | UNT PRT AMD |
| 300 | RLS AMD |
| 350 | LP TMI AMD |
| 370 | TG |
| 390 | RP |
| 430 | |

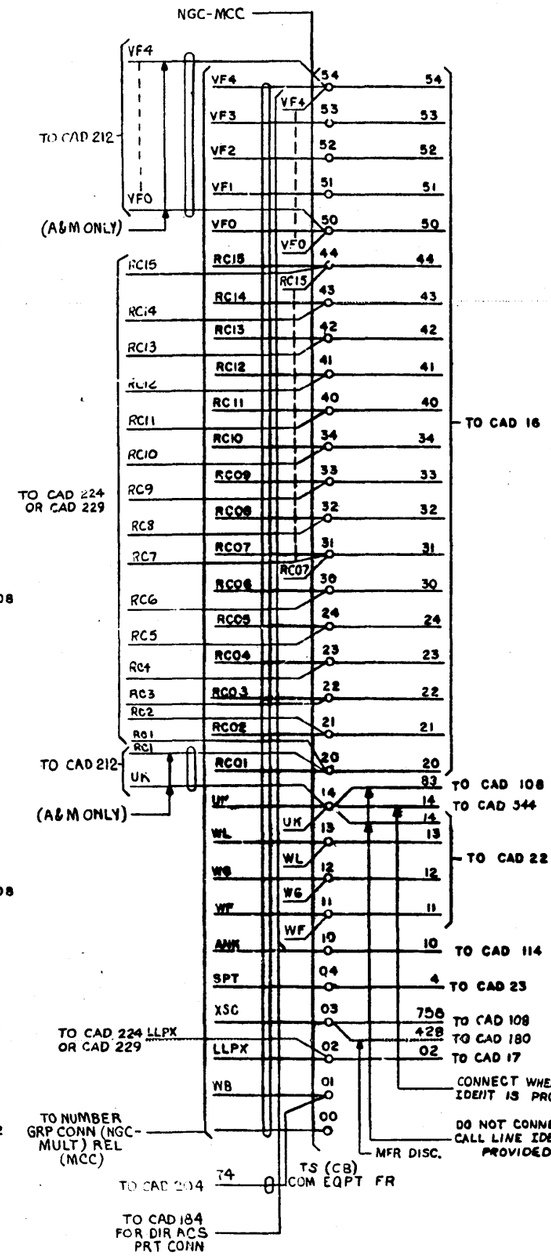
| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | ISSUE 65B |
| BELL TELEPHONE LABORATORIES, INC 6S | SD-26002-01-G71 |

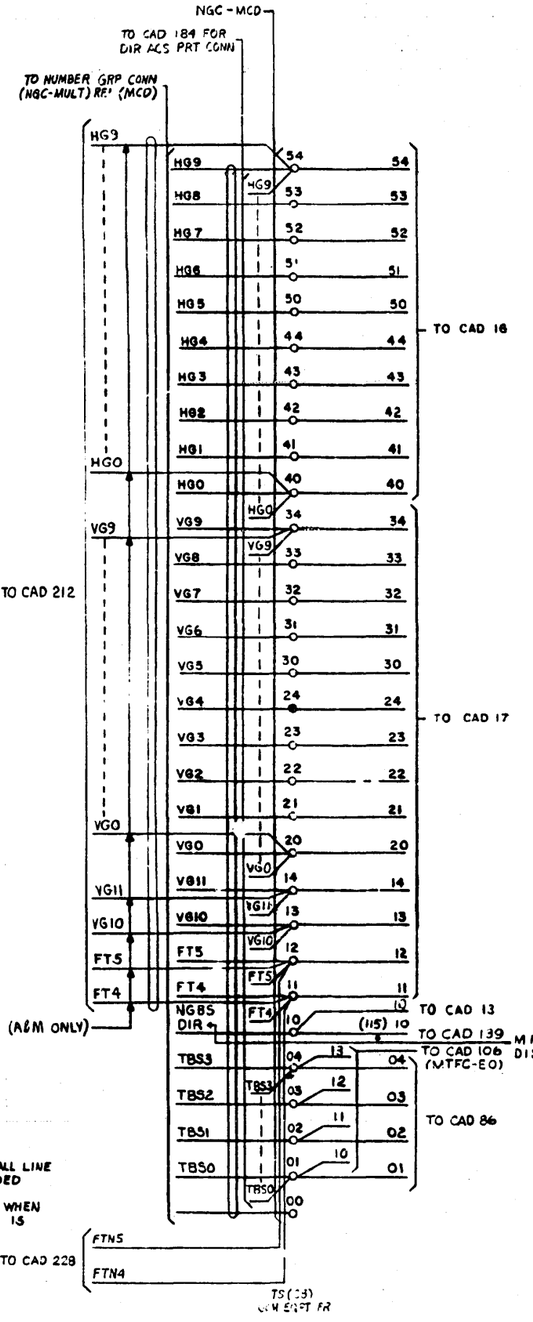
# PART OF CAD 104

(FOR SWBD CABLE TO NUMBER GRP CONN)




| DRAWING ISSUE | |
|---|---|
| 5D | |
| 14B | |
| 18D | |
| 22D | |
| 24D | |
| 27A | |
| | FRR |
| 30D | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 36A | LEO |
| 39D | WM |
| 40A | |
| 41D | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

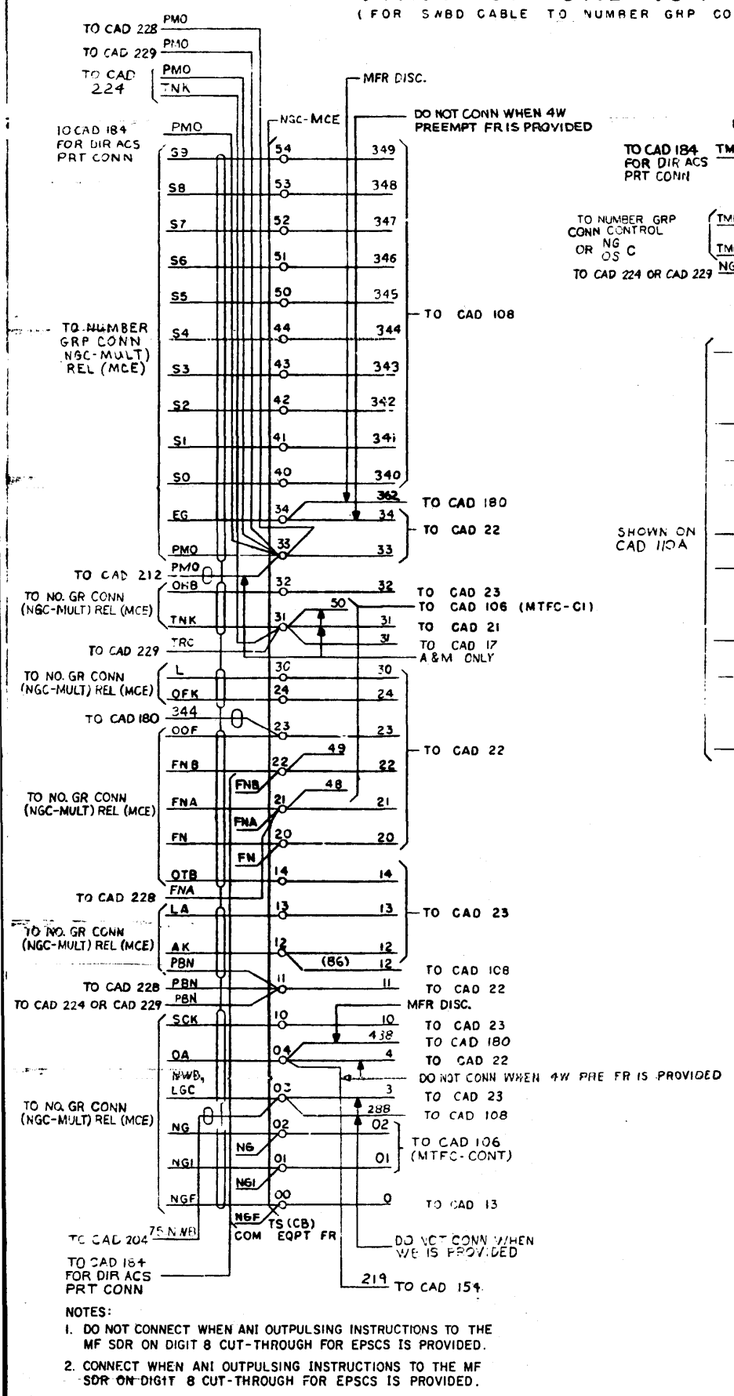
ISSUE 57B

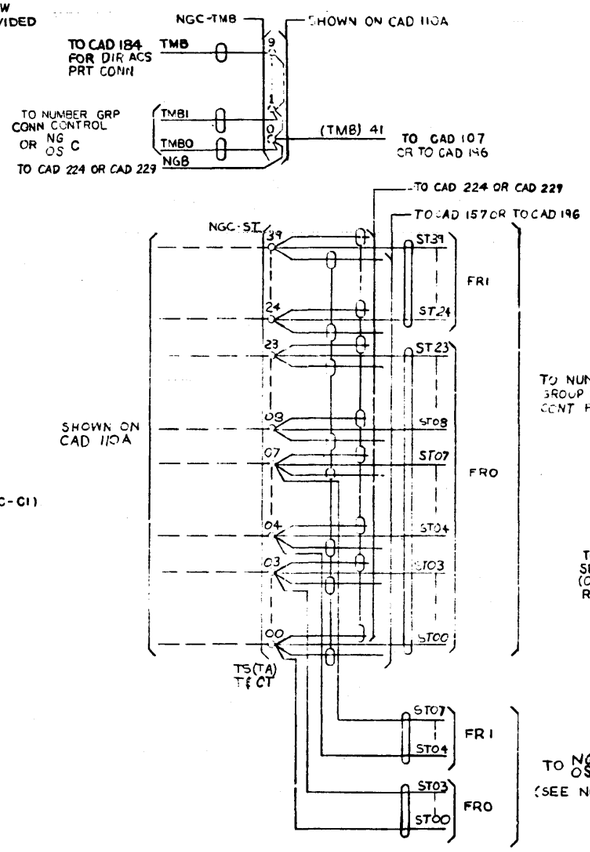
SD-26002-01-G73

SD-26002-01-G73

# PART OF CAD 104

( FOR SWBD CABLE TO NUMBER GRP CONN )



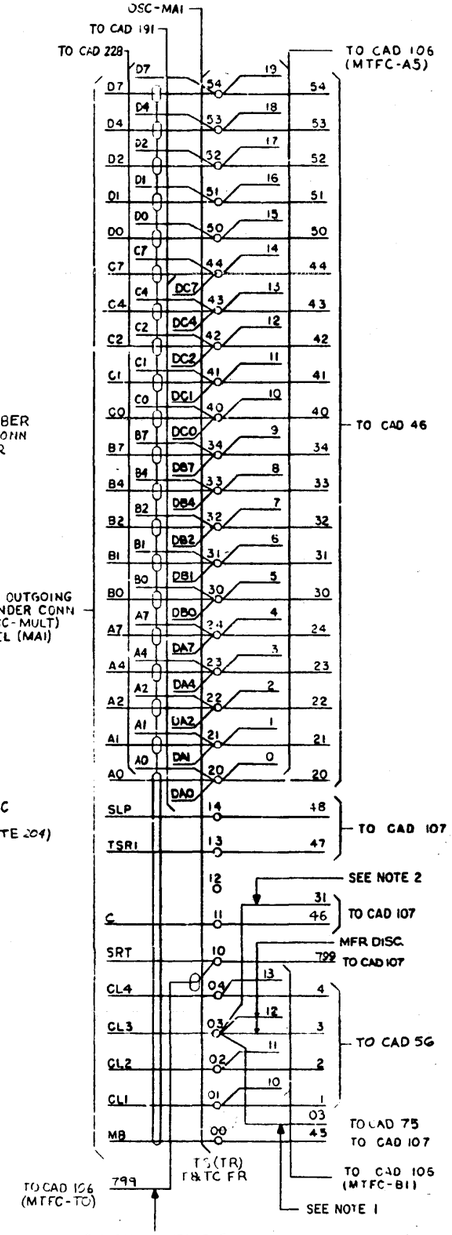



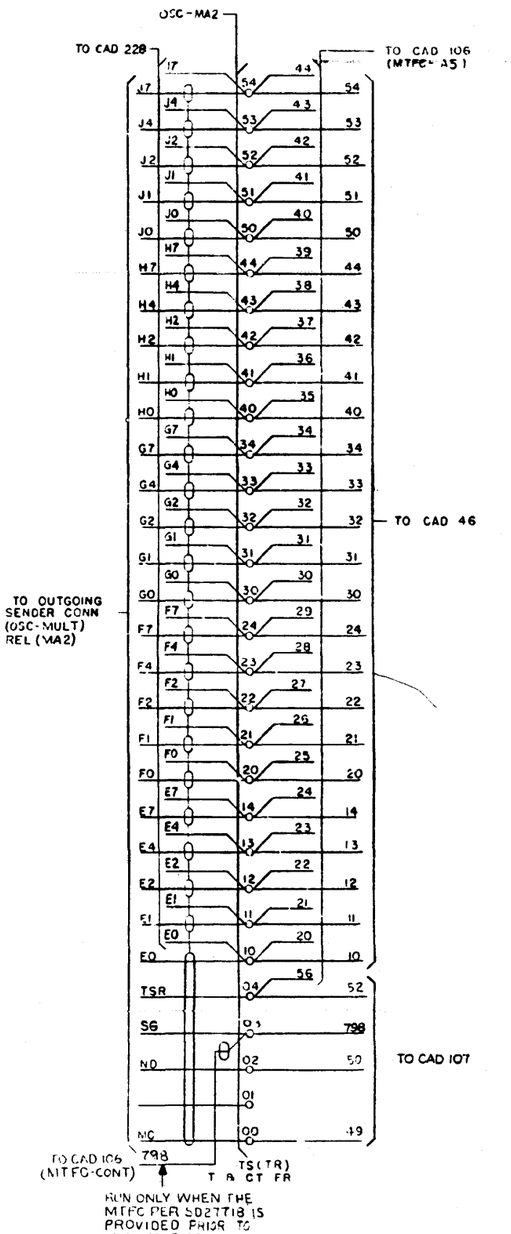




# PART OF CAD 105

( FOR SWBD CABLE TO OUTGOING SENDER CONN)




NOTES:

1. DO NOT CONNECT WHEN ANI OUTPULSING INSTRUCTIONS TO THE MF SDR ON DIGIT 8 CUT-THROUGH FOR EPSCS IS PROVIDED.
2. CONNECT WHEN ANI OUTPULSING INSTRUCTIONS TO THE MF SDR ON DIGIT 8 CUT-THROUGH FOR EPSCS IS PROVIDED.

| DRAWING ISSUE |
|---|
| 5D |
| 6A |
| 4B |
| 2CM |
| 21D |
| 29D |
| 24D |
| 27A |
| 30D |
| 32A |
| 33D |
| 34A |
| 35D |
| 39D |
| 41D |
| 45D |

ISSUE 6B1

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

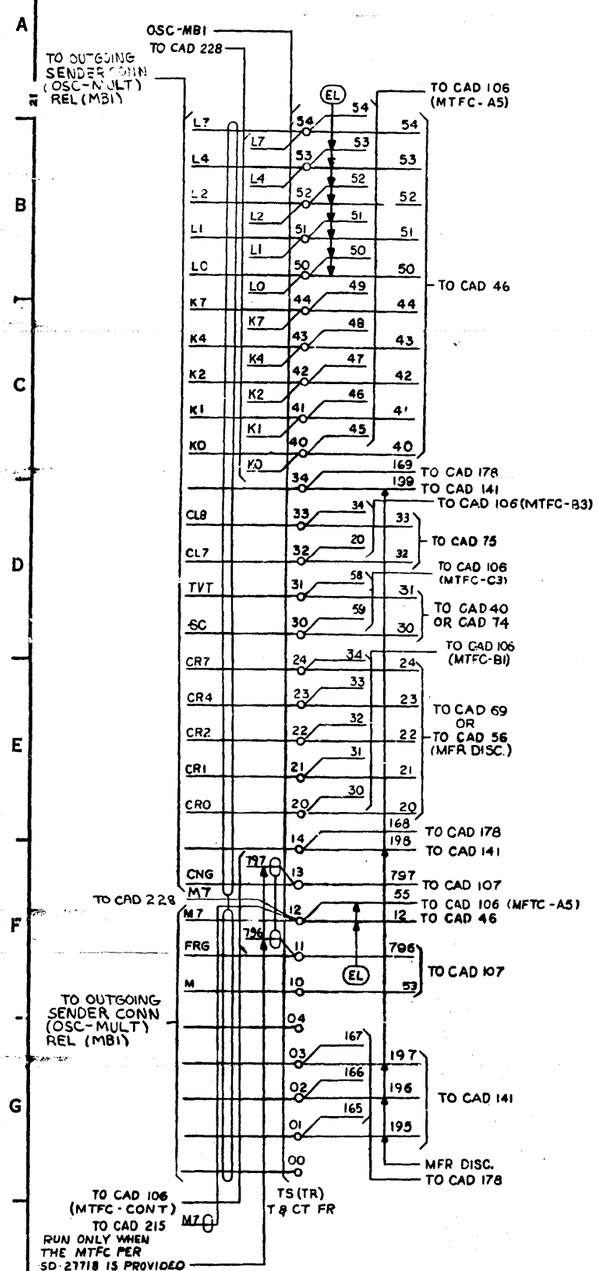
SD-26002-01-G74

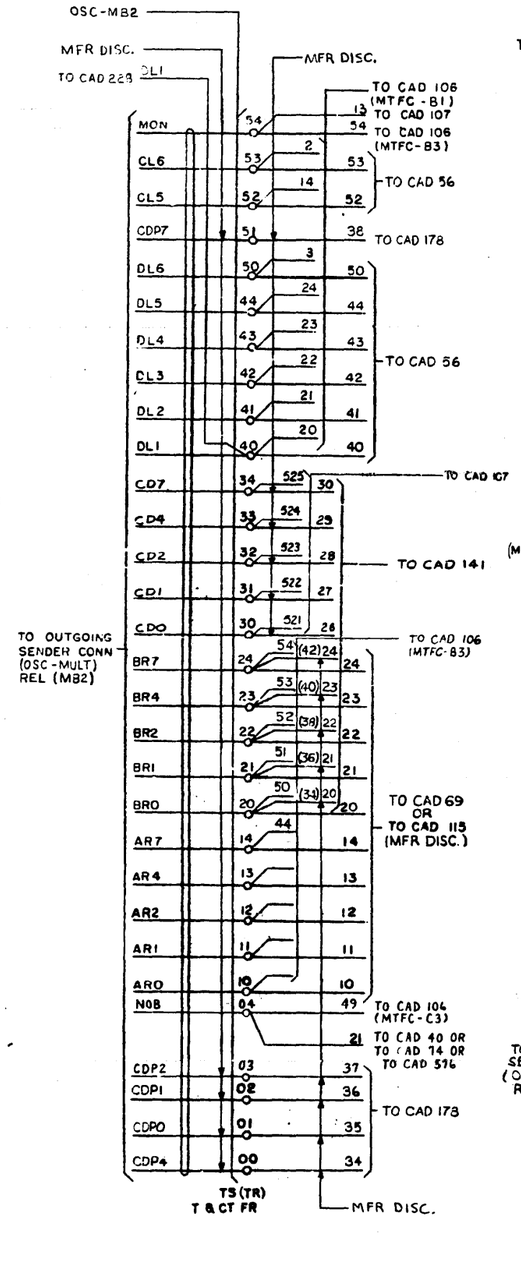
2

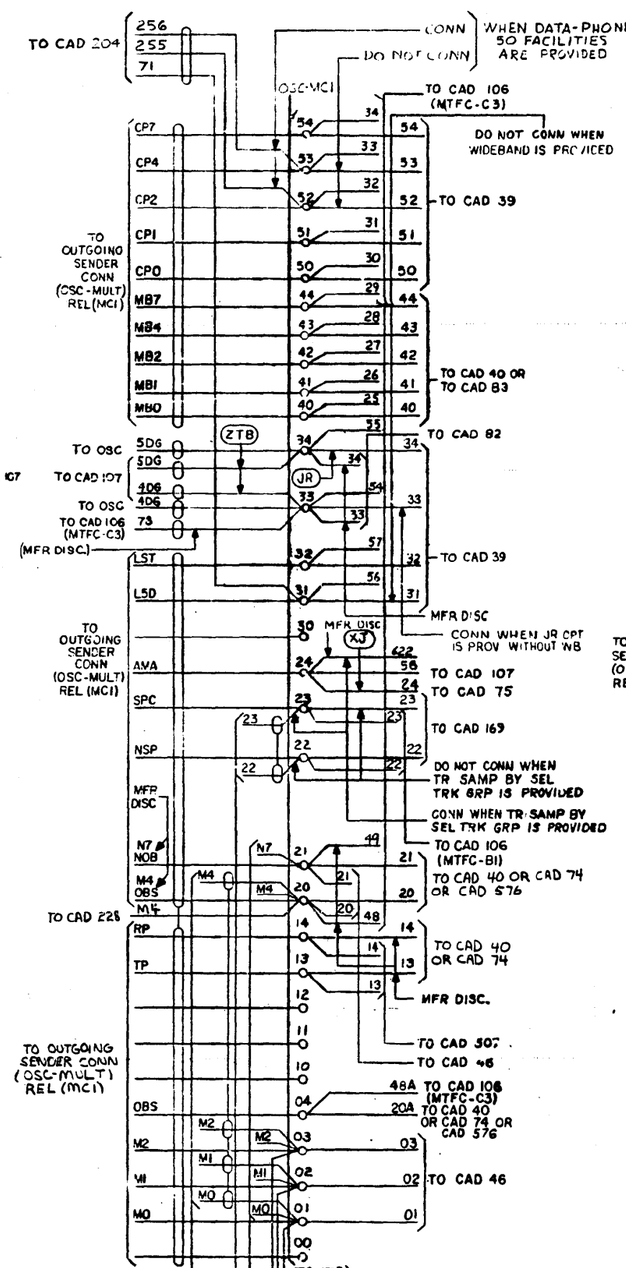
6S

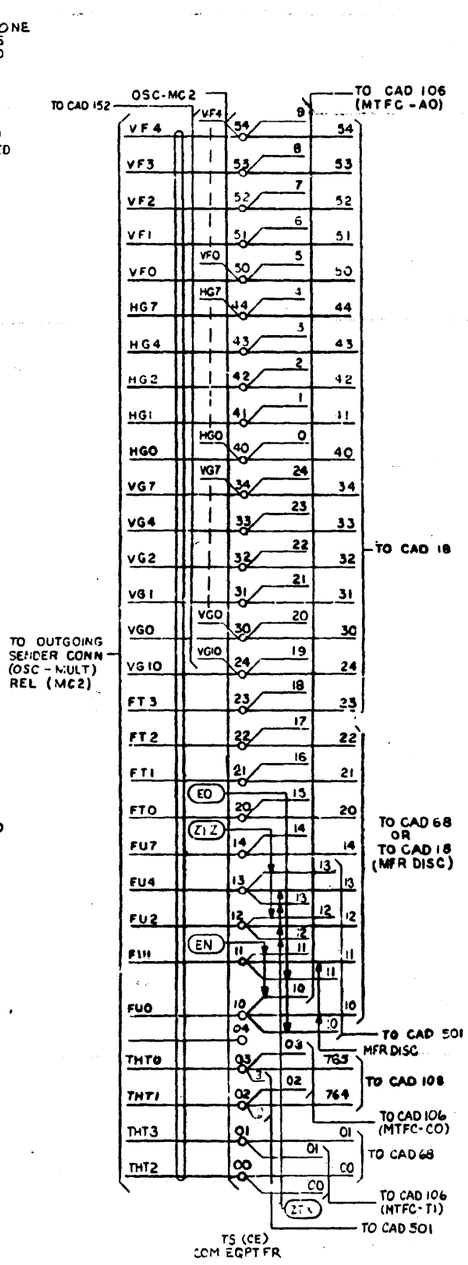
# PART OF CAD 105

(FOR SWBD CABLE TO OUTGOING SENDER CONN.)




| DRAWING ISSUE |
|---|
| 58A |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G75

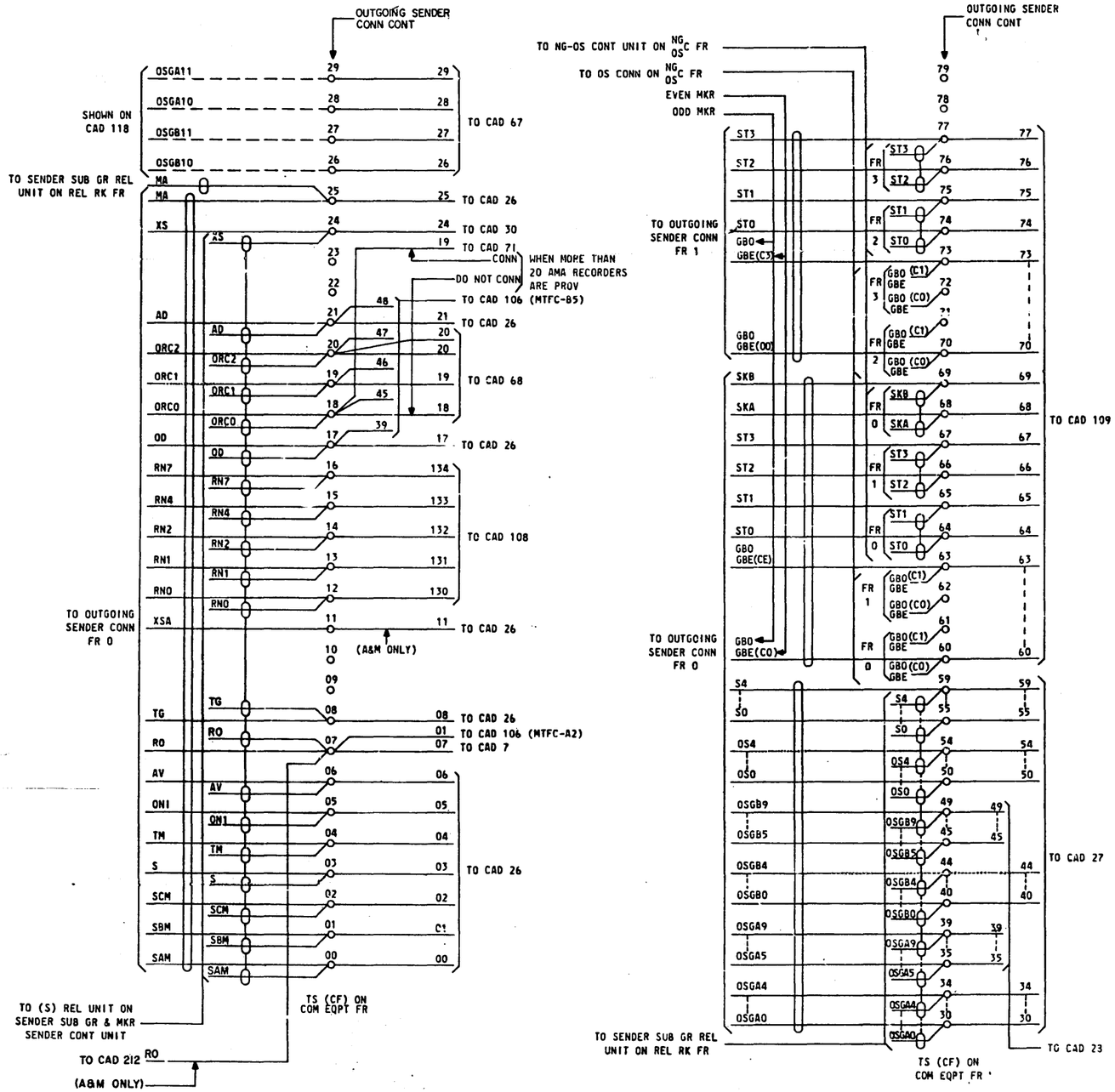
BELL TELEPHONE LABORATORIES, INC

SIZE 6S

SD-26002-01-G75

# PART OF CAD 105

(FOR SWBD CABLE TO OUTGOING SENDER CONN)







| DRAWING ISSUE | |
|---|---|
| 350 | CCS TJ1 AMA |
| 39D | ESM |
| 41D | |
| DRAWING ISSUE | |
| 47D | |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G76

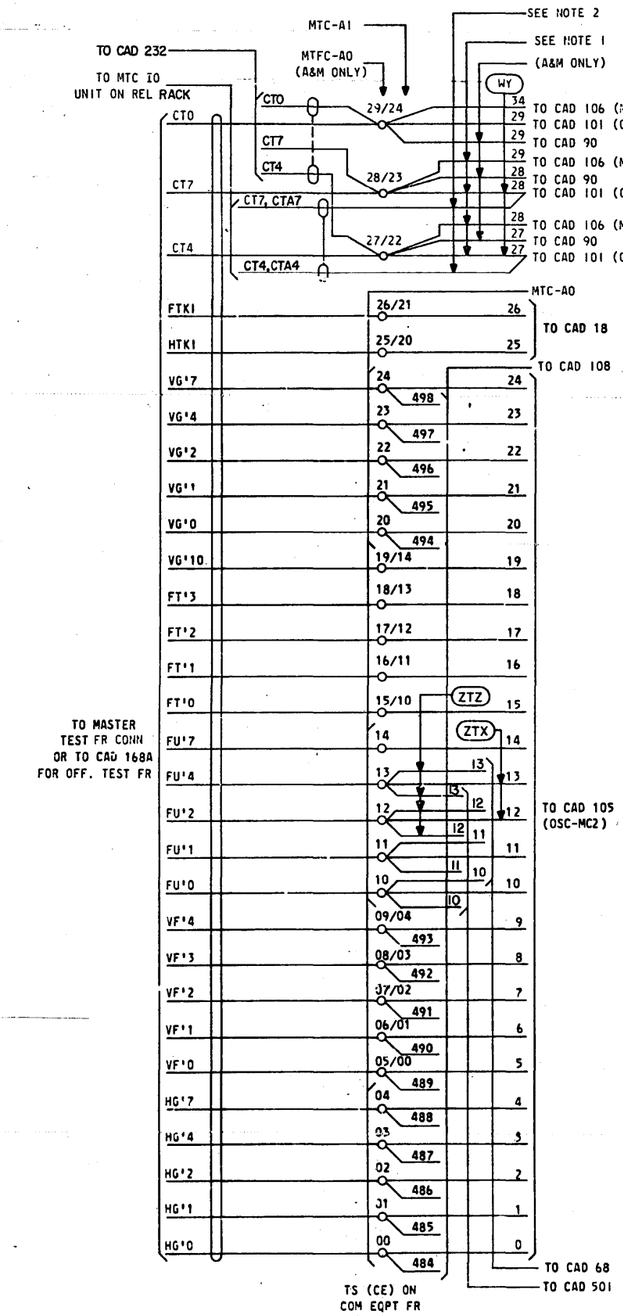
BELL TELEPHONE LABORATORIES INCORPORATED

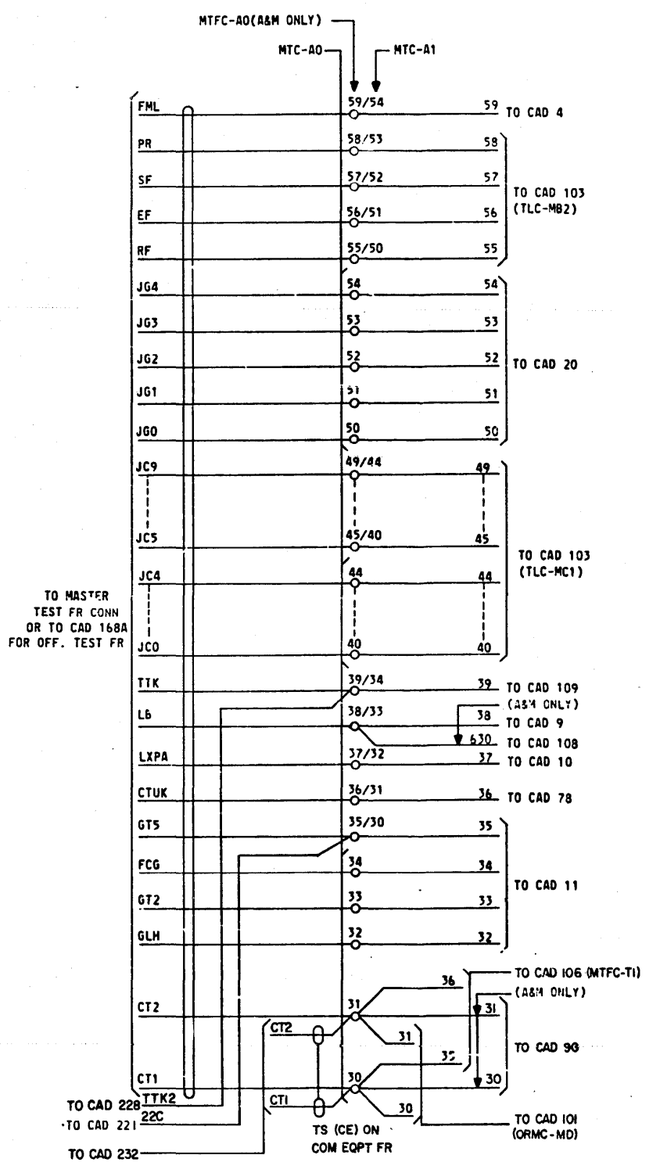
6S

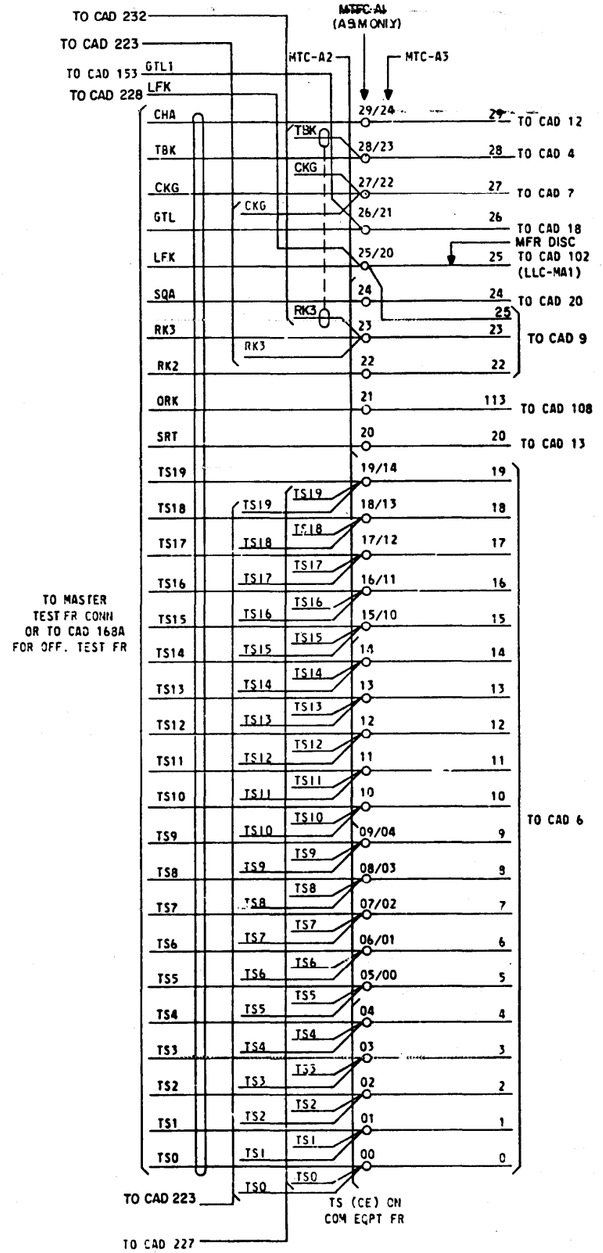
PRINTED IN U.S.A.

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




NOTES:

1. DO NOT CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.
2. CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.

DRAWING ISSUE

| | |
|---|---|
| 35D | PVS |
| 38A | ESM |
| 39D | ESM |
| 41D | |
| 43D | |
| 45D | |

ISSUE 63B

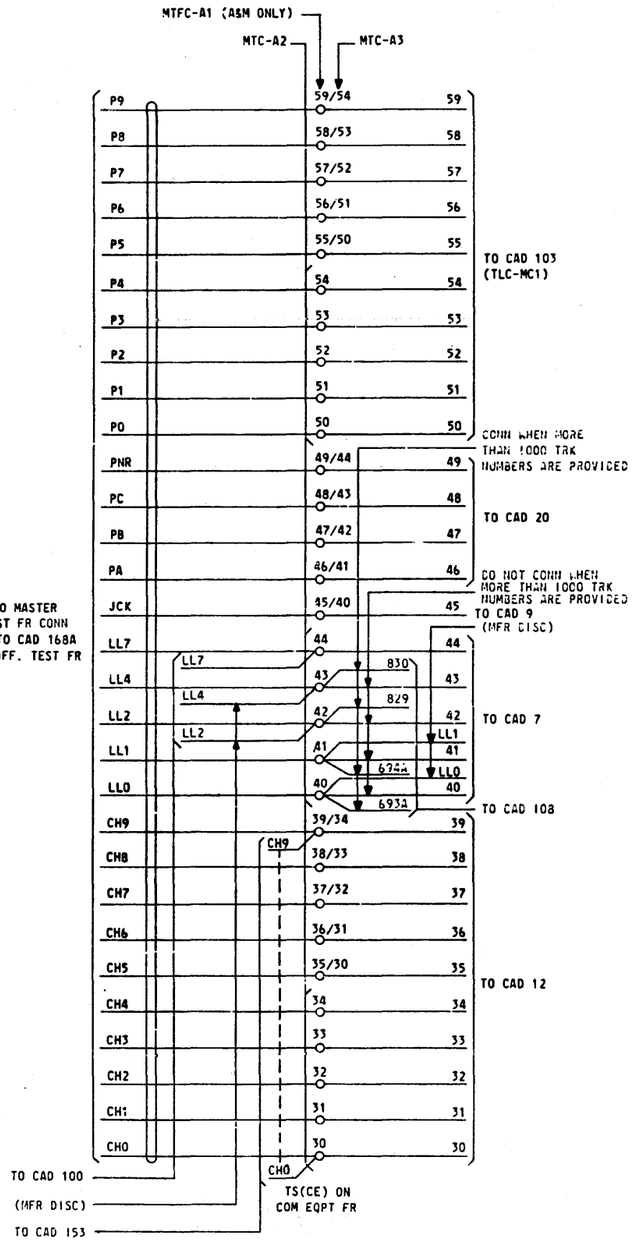
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G77

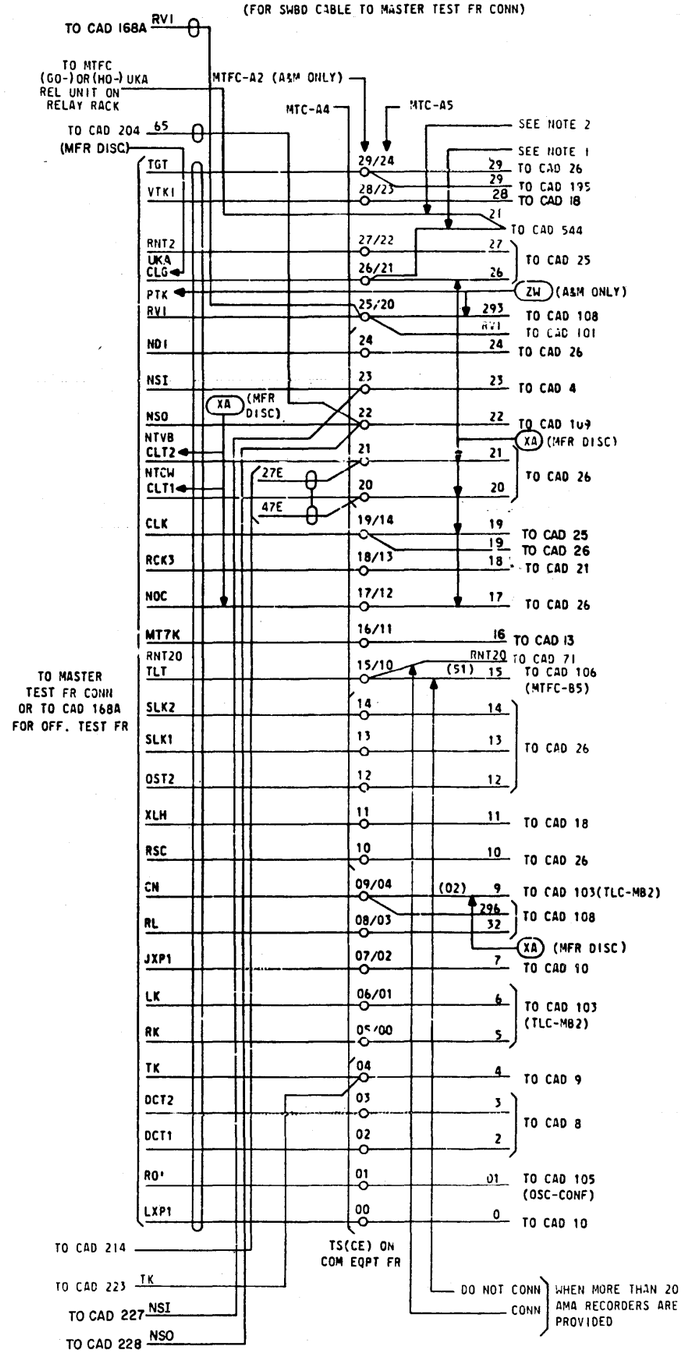
BELL TELEPHONE LABORATORIES INCORPORATED 6S

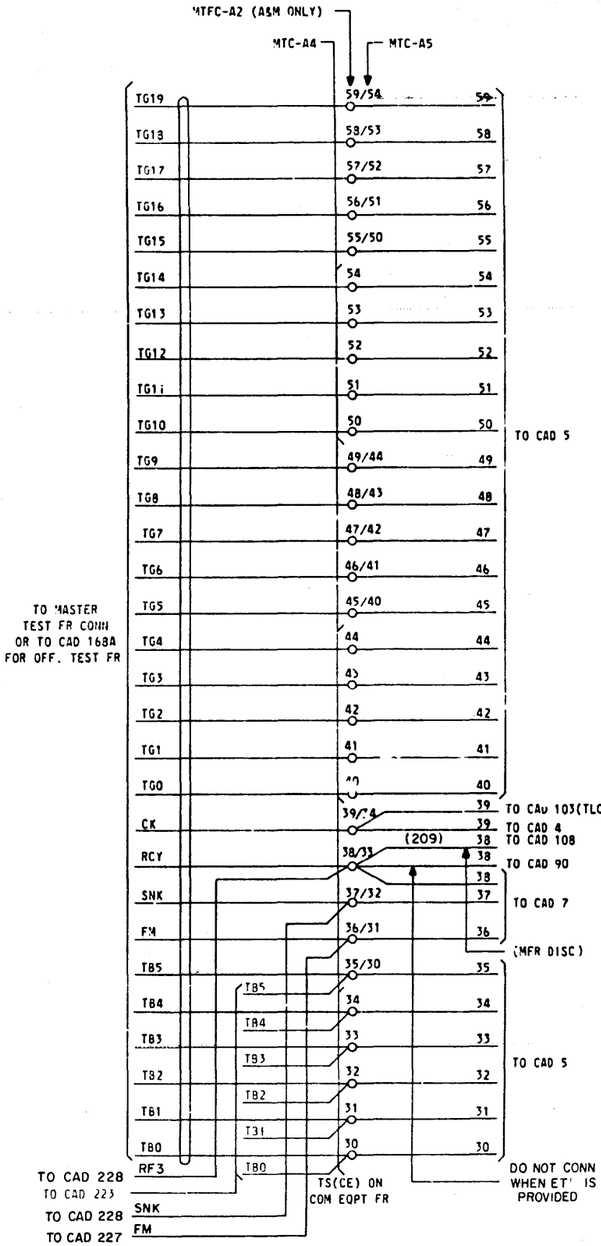
SD-26002-01-G77

HIGGINS 4465 K&E

# PART OF CAD 106
(FOR SWBD CABLE TO MASTER TEST FR CONN)




NOTES:

1. DO NOT CONN WHEN OFFICE IS ARRANGED FOR THE MARKER TO CONNECT TO MTFC CKT SD-25805-01.
2. DO NOT CONN WHEN OFFICE IS ARRANGED FOR THE MARKER TO CONNECT TO MTFC CKT SD-27718-01.

| DRAWING ISSUE | |
|---|---|
| 35D | BX, FAD, AHD |
| 37D | BX |
| 39D | RP |
| 41D | |
| 45D | |

DRAWING ISSUE 67B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G78

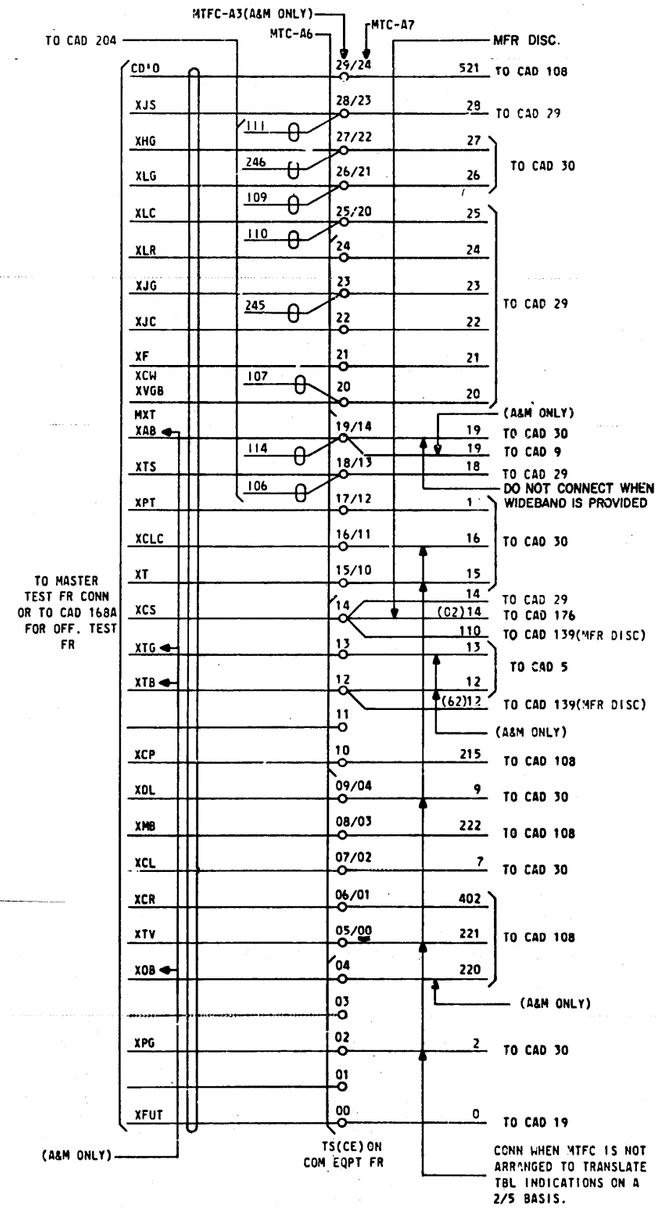
BELL TELEPHONE LABORATORIES INCORPORATED

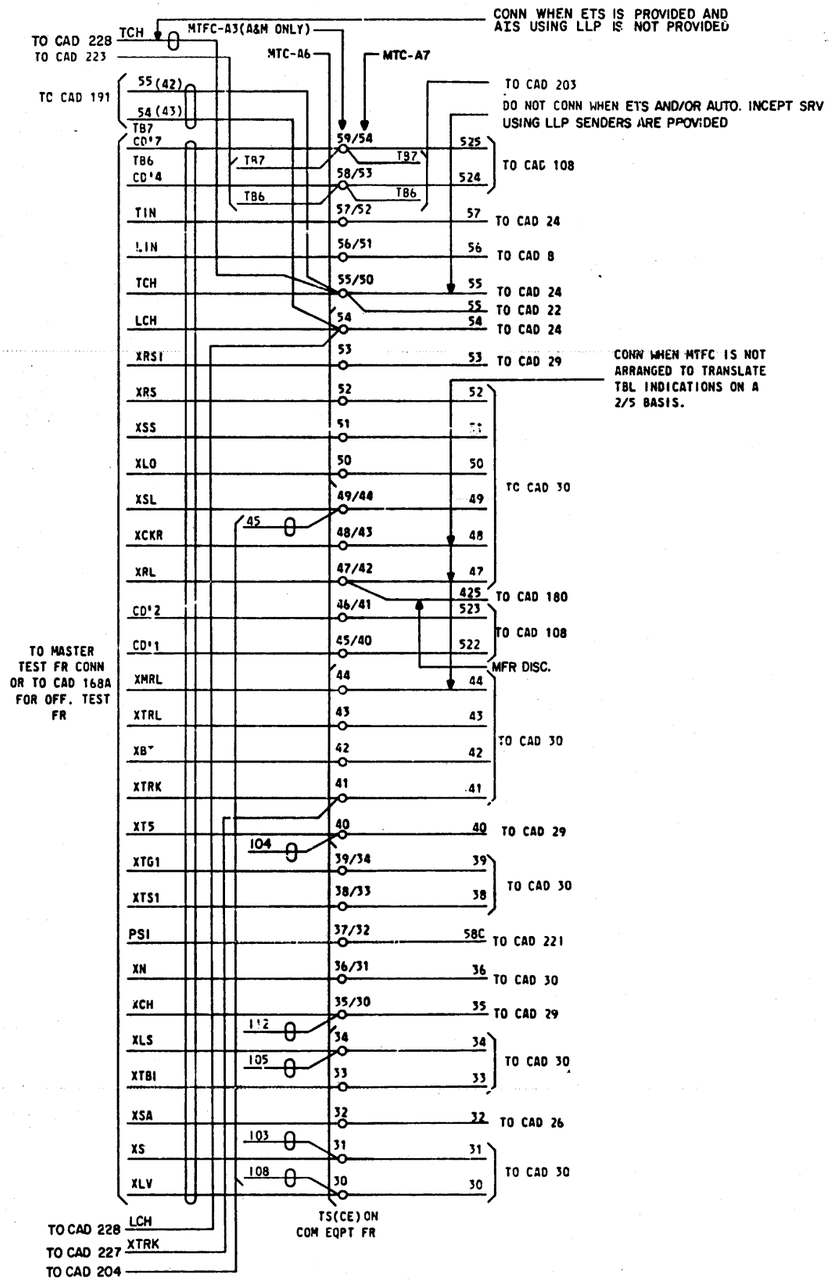
SIZE 6S

HIGGINS 4465 K&E

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE

| | |
|---|---|
| 35D | GE CAF 791 440 |
| 39D | RP |
| 41D | |
| 42A | |
| 43D* | |

DRAWING ISSUE 61B

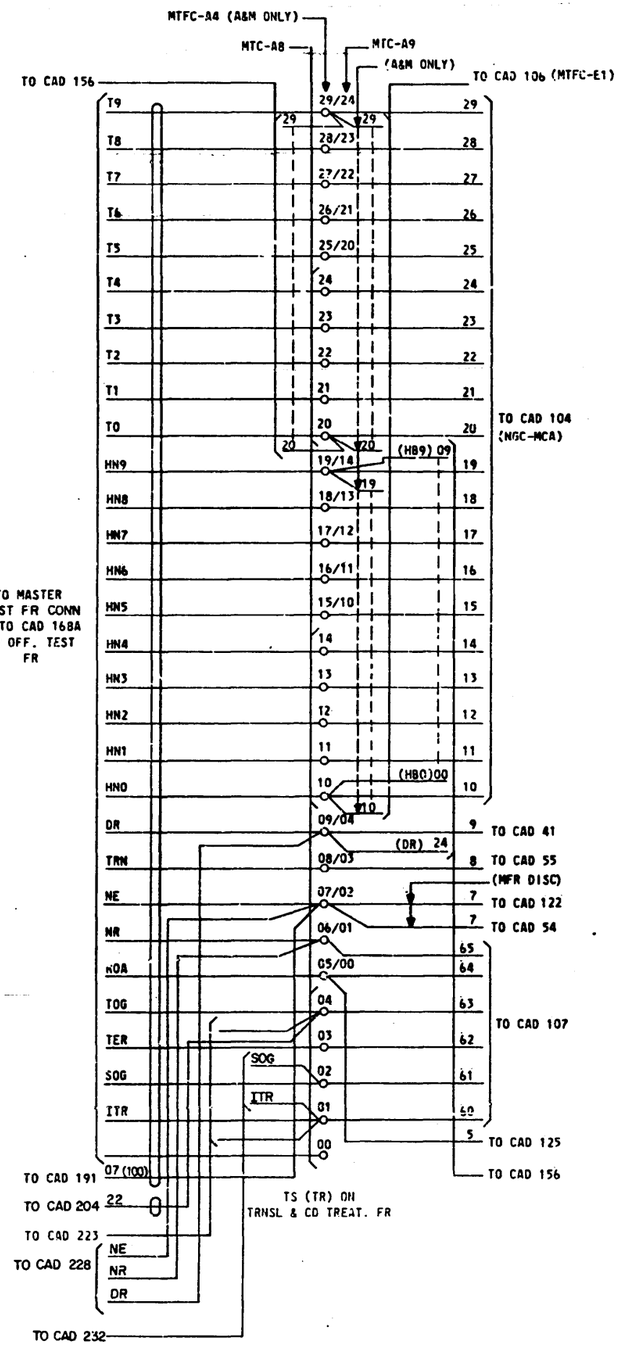
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G79

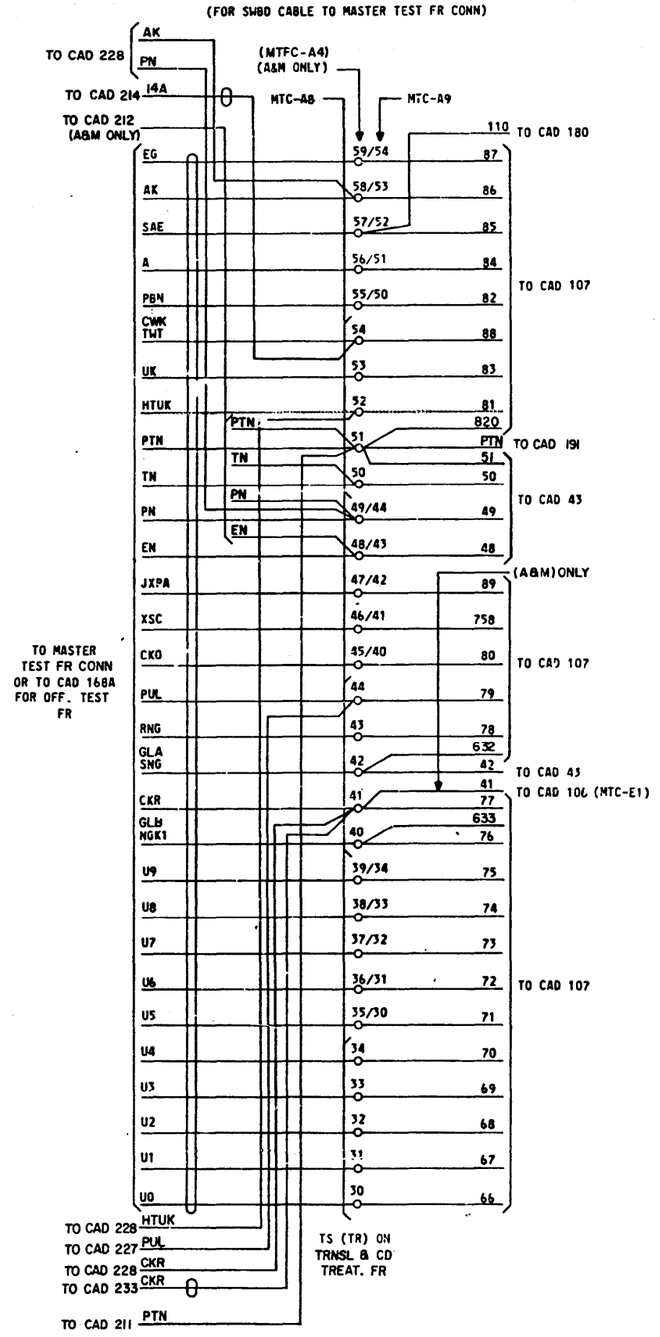
BELL TELEPHONE LABORATORIES INCORPORATED 6S

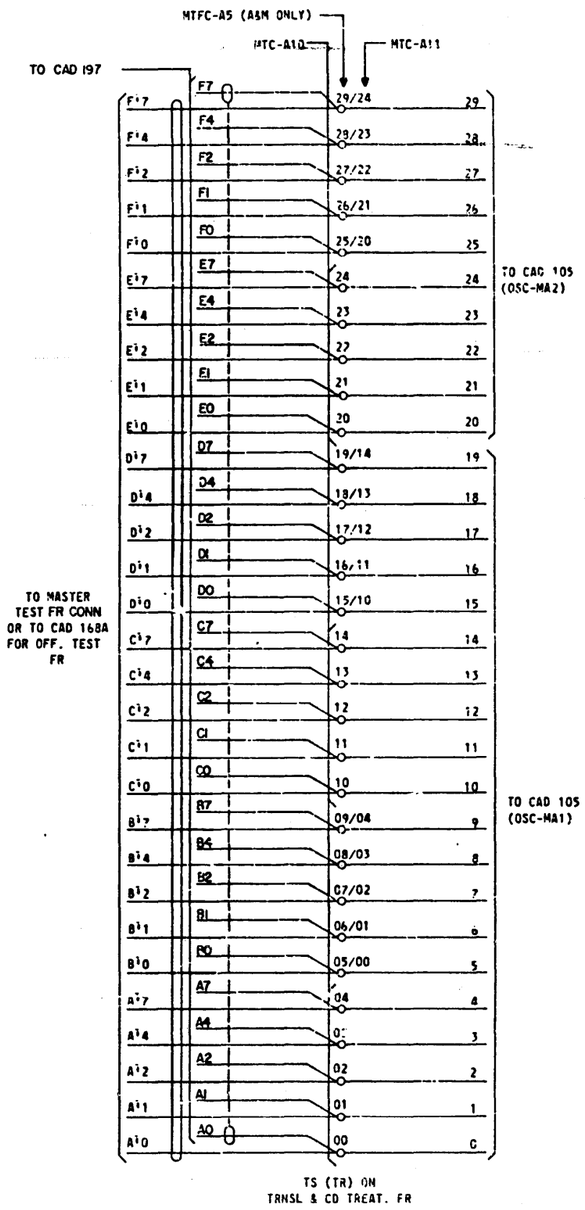
SD-26002-01-G79

HIGGINS 4465 K&E

# PART OF CAD 106
(FOR SWBO CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE

| | | |
|---|---|---|
| 35D | G.E. | |
| B7D | Dx | |
| 39D | RP | |
| 41D | | |
| 43D | | |

ISSUE 65B

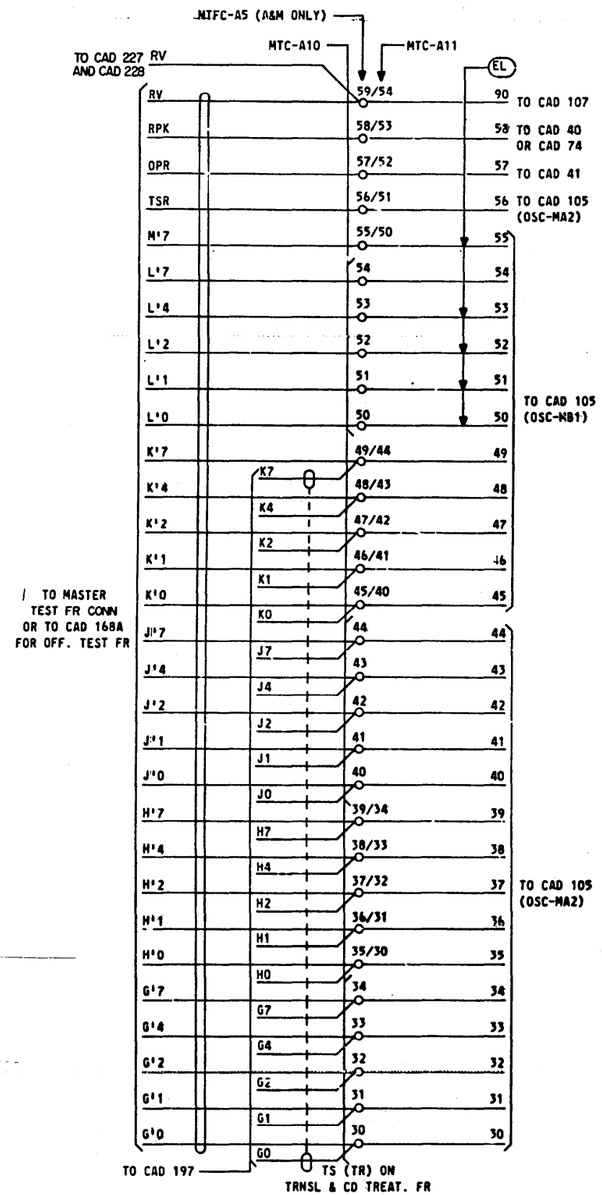
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G80

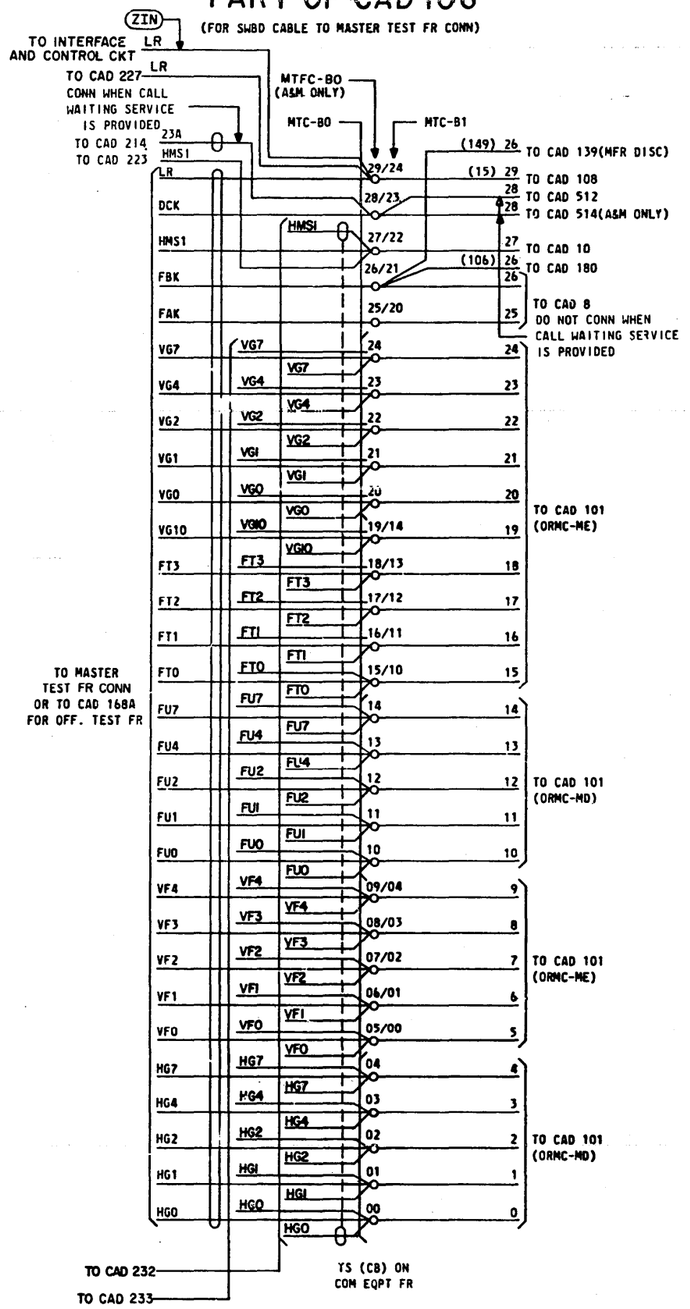
BELL TELEPHONE LABORATORIES INCORPORATED 6S

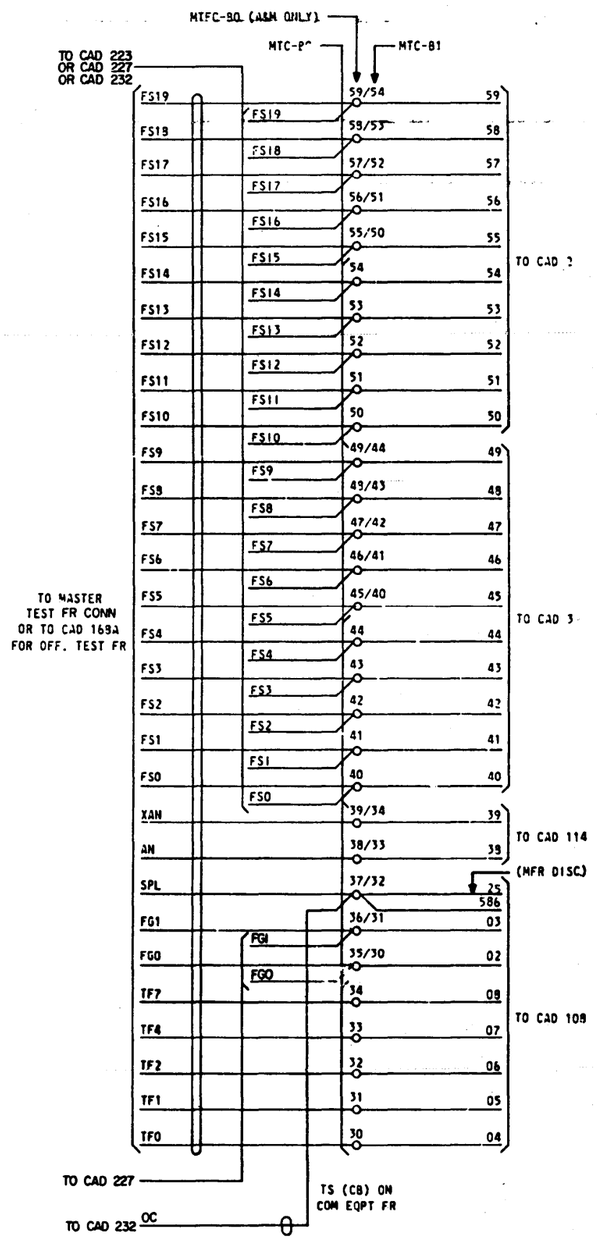
0 1 2 3 4 5 6 7 8 9

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE

| | |
|---|---|
| 35D | |
| 37D | LEN |
| 43D | |
| 45D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-681

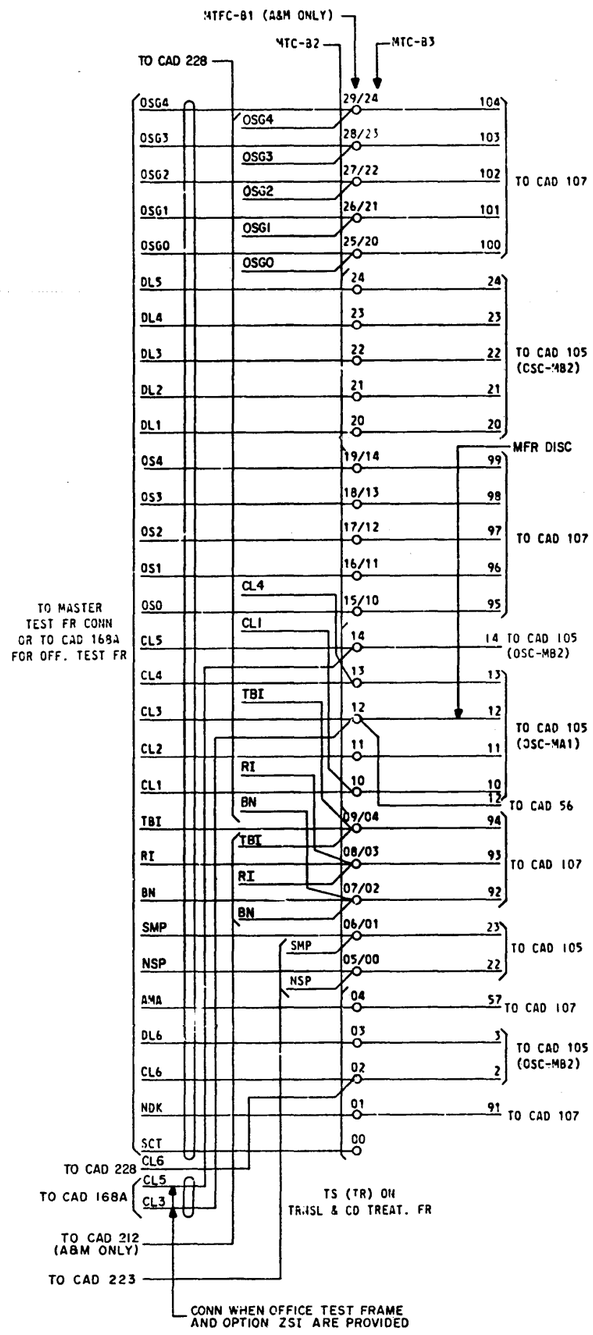
BELL TELEPHONE LABORATORIES INCORPORATED

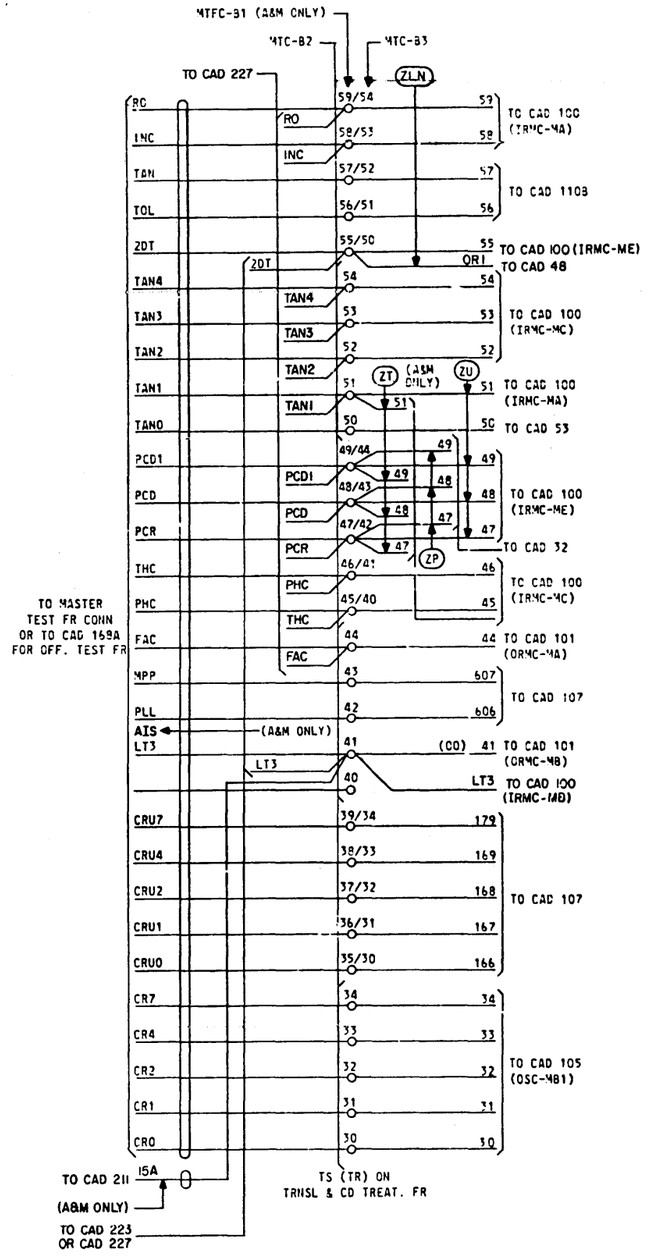
CODE NO. 6S

SD-26002-01-681

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




| DRAWING ISSUE | |
|---|---|
| 35D | RR TAJ MA |
| 37D | TJS |
| 39D | JHW |
| 41D | |

ISSUE 63B

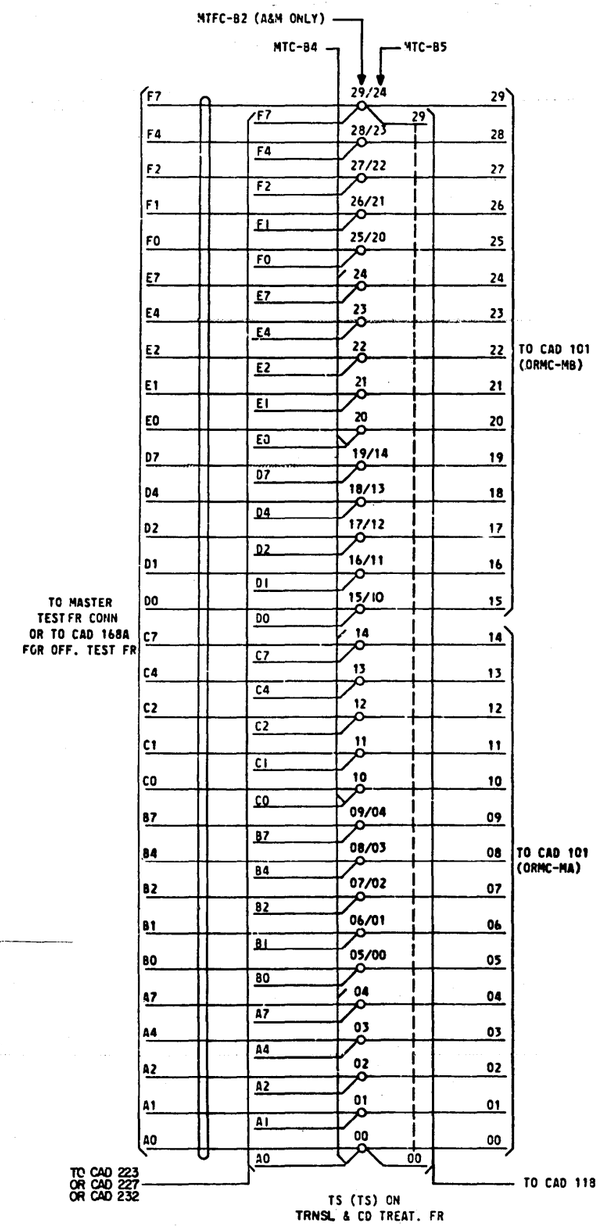
COMPLETING MARKER CIRCUIT (2)

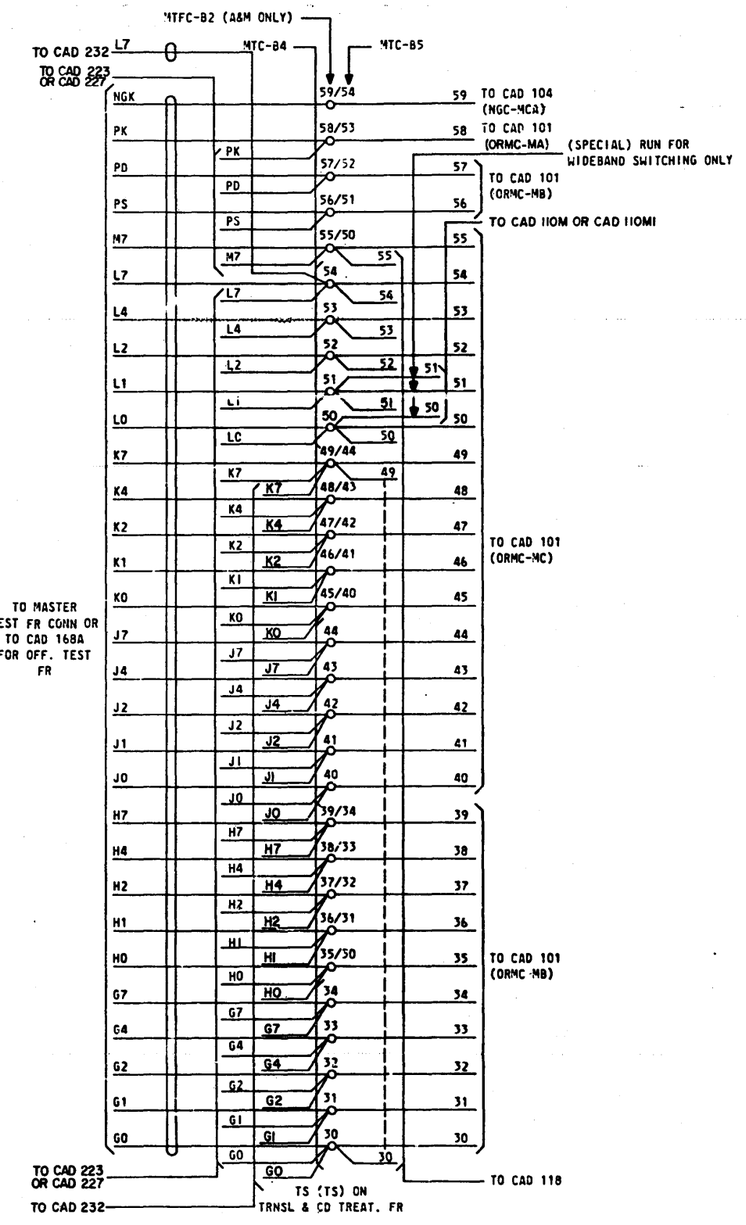
SD-26002-01-G82

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 106
(FOR SWBD CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE
350 (NO DR FAJ W/D)
37D (FJ)
41D

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G83

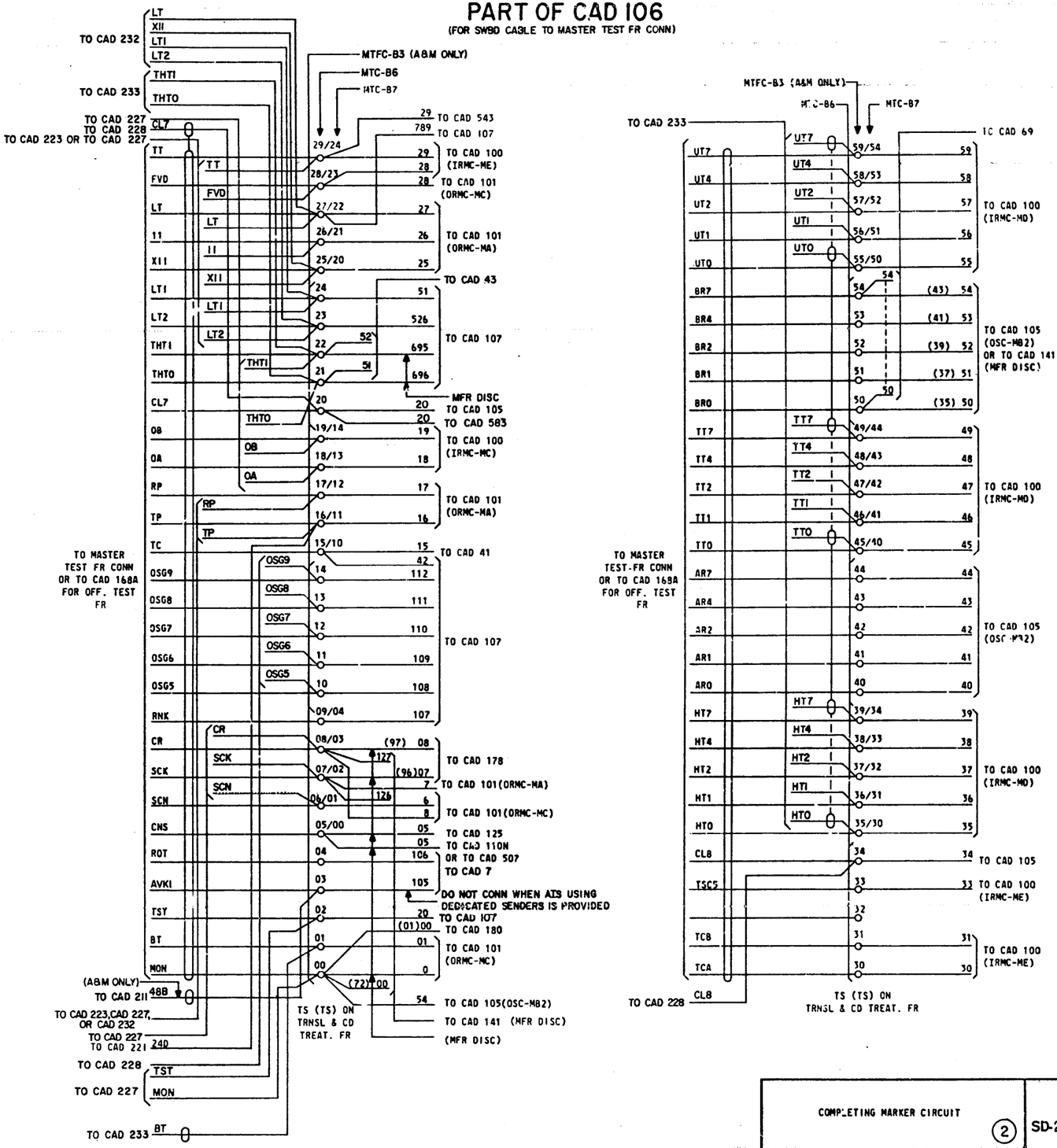
BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G83

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)







| DRAWING ISSUE- | |
|---|---|
| 35D | PS CX TH AM |
| 37D | TC |
| 41D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G84

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF CAD 106

(FOR SW80 CABLE TO MASTER TEST FR CONN)

## Left section

MTFC-B5 (A&M ONLY)

MTC-B8

MTC-B9

TO CAD 223 OR CAD 227 OR CAD 232

TO CAD 228

OSG11 — 29/24 — 29 — TO CAD 86

OSG10 — 28/23 — 28 — TO CAD 111

RIP — 27/22 — 27 — (A&M ONLY) TO CAD 113

2LN — 26/21 — 27 TO CAD 22; 26 TO CAD 23

FK — 25/20 — (139) 25 — TO CAD 154

FKB — MFR DISC

TTF — 24 — 24 — TO CAD 103 (TLC-M)

SEF — 23 — 23

FS29 — 22 — 22

FS28 — 21 — 21 — TO CAD 138

FS27 — 20 — 20

DNC — 19/14 — 470

LCD2 — 18/13 — 469

LCD1 — 17/12 — 468 — TO CAD 108

LCD0 — 16/11 — 467

VTC — 15/10 — 471

TO MASTER TEST FR CONN

FS26 — 14 — 14

FS25 — 13 — 13

FS24 — 12 — 12 — TO CAD 138

FS23 — 11 — 11

FS22 — 10 — 10

WKC — 09/04 — 466

FC — 08/03 — 465

CAM — 07/02 — 441 — TO CAD 108

ACD — 06/01 — 472

AD — 05/00 — 24 TO CAD 198; 05 TO CAD 103 (TLC-MA2)

FS21 — 04 — 04

FS20 — 03 — 03 — TO CAD 138

FTT5 — 02 — 02

FTT4 — 01 — 01 — TO CAD 64

FG2 — 00 — 00 TO CAD 108; 527 TO CAD 180

TO CAD 223

TO CAD 227

TS (CA) ON COM EQPT FR

(MFR DISC.)

NOTES:

1. DO NOT CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.
2. CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.

## Middle section

ZIO

TO INTERFACE AND CONTROL CKT TO CAD 227 TO CAD 168A

TO TR REG MKR CONN

TO CAD 191 TO CAD 211

LRI — CNTI — LCLL — LRI — 55(16) 33A

(A&M ONLY)

MTC-B8

MTFC-B5(A&M ONLY)

MTC-B9

(A&M ONLY) 58 TO CAD 25 CONN FOR CNTX I WITHOUT T8S

TIR — 59/54 — 54

MT57 — 58/53 — 53 — TO CAD 514 (A&M ONLY)

LRI

DLTK — 57/52 — (21) 52 — TO CAD 106 (MTC-E0)

LOLL — 56/51 — (18) 56 — TO CAD 188

AIS — 55/50

(MFR DISC.)

AGCK — 54 — 54

MT38K — 53 — 53 — TO CAD 192

CNT — 52 — 10 TO CAD 90; 15 TO CAD 106 (MTFC-A2)

TLT — 51 — 51 — TO CAD 185

DAC — 50 — 50

CSW — 49/44 — 420 TO CAD 190; 49 TO CAD 21

RNT'1 AD' — 48/43 — 48

ORC'2 — 47/42 — 47

ORC'1 — 46/41 — 46 — TO CAD 105 (OSC-CONT)

RNT'2 ORC'0 — 45/40 — 45

TH'3 4B — 44 — 842 — TO CAD 108

THT2 R — 43 — 843 — TO CAD 100

5Z — 42 — 42 — TO CAD 512

TH'3 4B — 41 — 834 — TO CAD 514 (A&M ONLY)

TH'2 DLT — 40 — 833 — (29) TO CAD 170A

RNT'0 OD' — 39/34 — 39 TO CAD 105 (OSC-CONT); 526 TO CAD 180

OD — 38/33 — 38 TO CAD 103 (TLC-MA2)

CAMS — 37/32 — 37

CAMF — 36/31 — 36 — TO CAD 68

CAMA — 35/30 — 35

ROM DTF — 34 — DO NOT CONNECT WHEN PHASE III CENTREX IS PROVIDED WITH WIDEBAND (MKR 0 & 1 ONLY) — 36 TO CAD 170A

48C TO CAD 221

PSI ALN — 33 — 33 TO CAD 503

TCGB — 32 — 32

TCGA — 31 — 31 — TO CAD 172

PE — 30 — 30 TO CAD 64

CSW

T

DLT

ALN

DTF

201

DTF

TO CAD 168A

TO MTC IO UNIT ON REL RACK

TO CAD 204

TO CAD 100

SEE NOTE 2

SEE NOTE 1

DTF1 TO CAD 100

TS (CA) ON COM EQPT FR

(MFR DISC.)

CONN WHEN OFFICE TEST FR AND LINE LINK PULSING ARE PROVIDED

TO MASTER TEST FR CONN OR TO CAD 168A FOR OFF. TEST FR

## Right section

MTFC-C0 (A&M ONLY)

MTC-C0

MTC-C1

TO CAD 223 OR CAD 228

HGT9 — 29/24 — 29

HGT8 — 29/23 — 29

HGT7 — 27/22 — 27

HGT6 — 26/21 — 25

HGT5 — 25/20 — 25

HGT4 — 24 — 24

HGT3 — 23 — 23

HGT2 — 22 — 22 — TO CAD 17

HGT1 — 21 — 21

HGT0 — 20 — 20

VFT4 — 19/14 — 19

VFT3 — 18/13 — 19

VFT2 — 17/12 — 17

VFT1 — 16/11 — 16

VFT0 — 15/10 — 15

XFT — 14 — 14 — TO CAD 30

TO MASTER TEST FR CONN OR TO CAD 168A FOR OFF. TEST FR

TH'1 — 13 — 02

TH'0 — 12 — 03 — TO CAD 105 (OSC-MC2)

VGT11 — 11 — 11

VGT10 — 10 — 10

VGT9 — 09/04 — 9

VGT8 — 08/03 — 3

VGT7 — 07/02 — 7

VGT6 — 06/01 — 6

VGT5 — 05/00 — 5 — TO CAD 17

VGT4 — 04 — 4

VGT3 — 03 — 3

VGT2 — 02 — 2

VGT1 — 01 — 1

VGT0 — 00 — 0

TO CAD 153

TS (C8) ON COM EQPT FR

DRAWING ISSUE

35D 8B TWJ MP

37D WM

39D HW

41D

42A

43D

45D

DRAWING ISSUE 65B

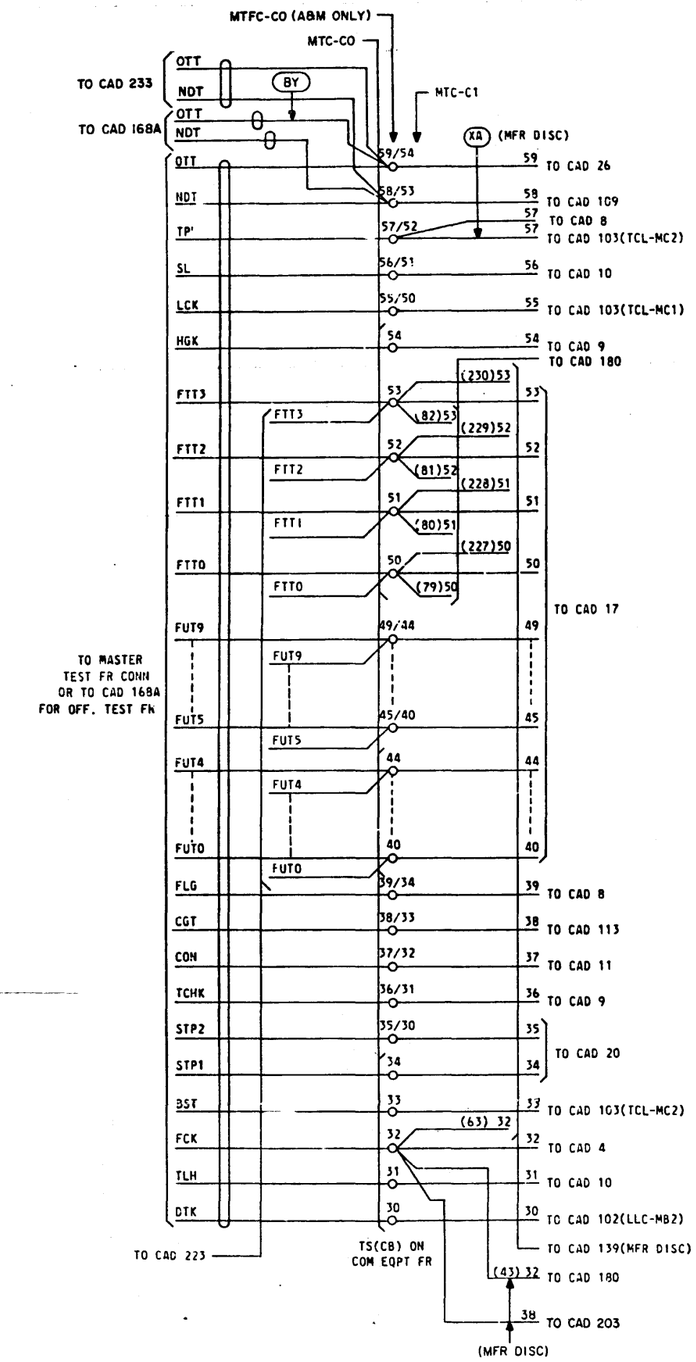
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G85

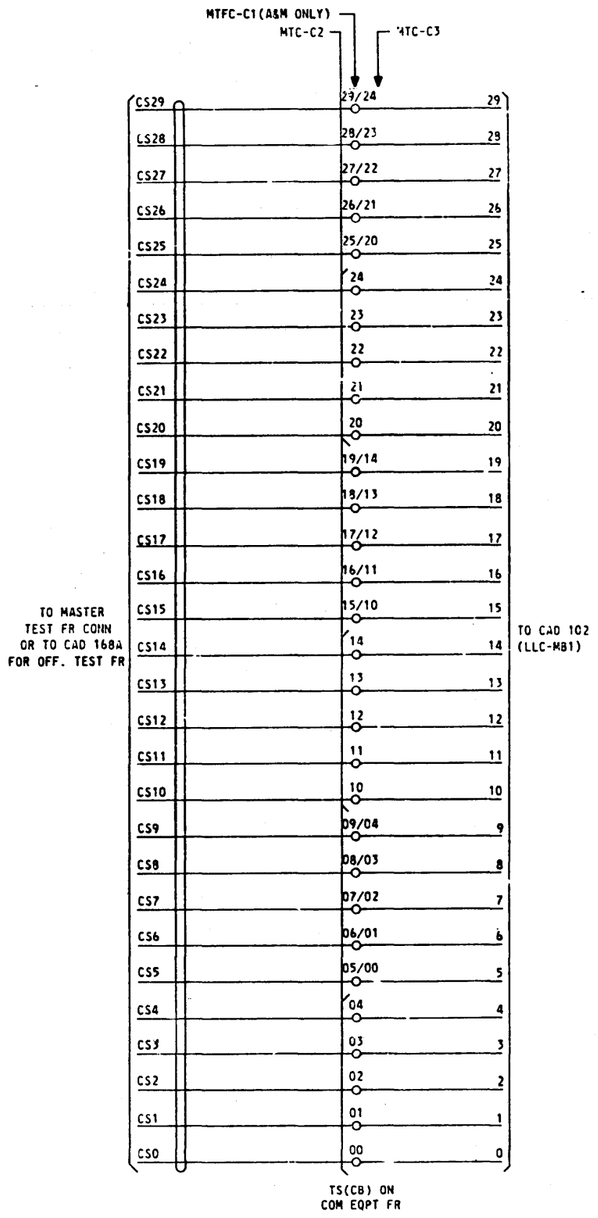
BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

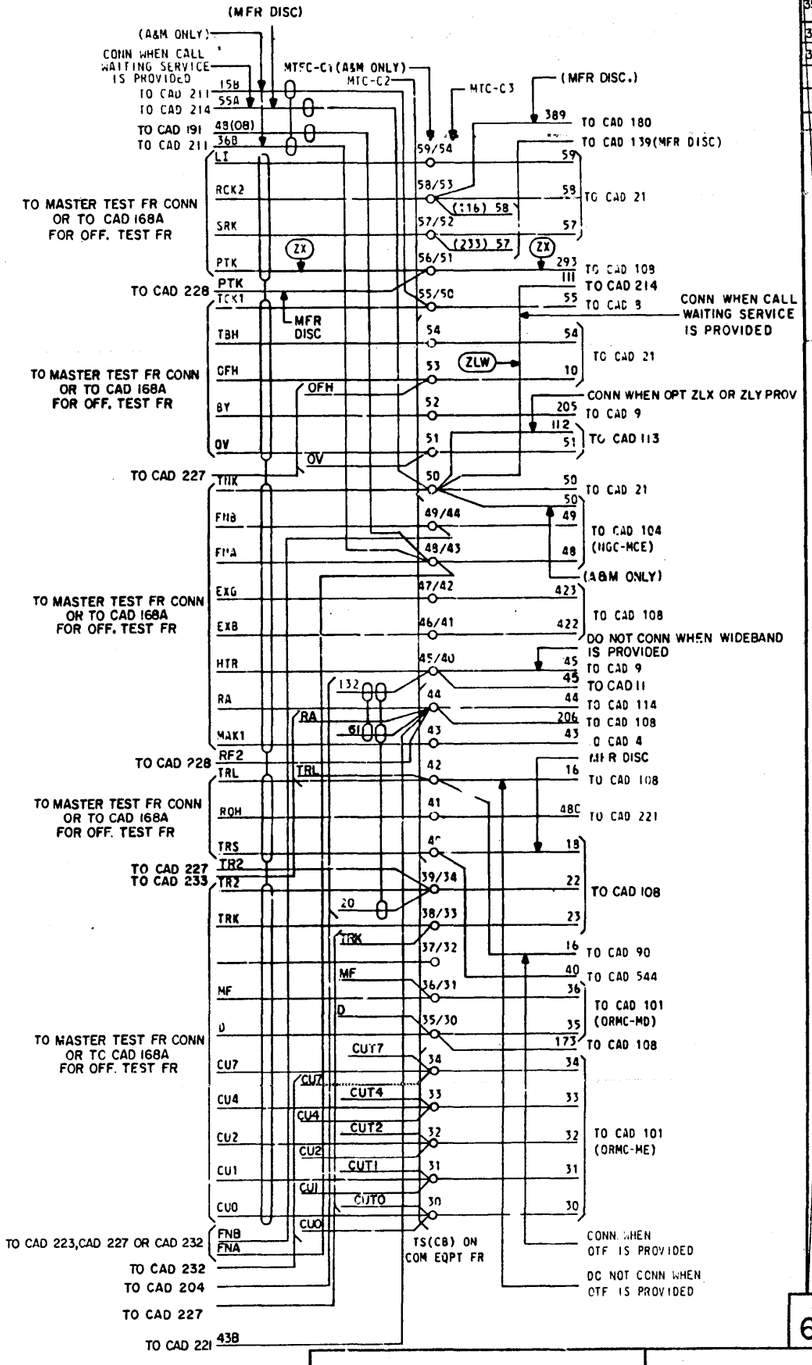
SD-26002-01-G85

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




| DRAWING ISSUE | |
|---|---|
| 35D | LP |
| 37D | WM |
| 39D | HM |
| 40A | |
| 41D | |
| 43D | |

ISSUE 67B

COMPLETING MARKER CIRCUIT

SD-26002-01-G86

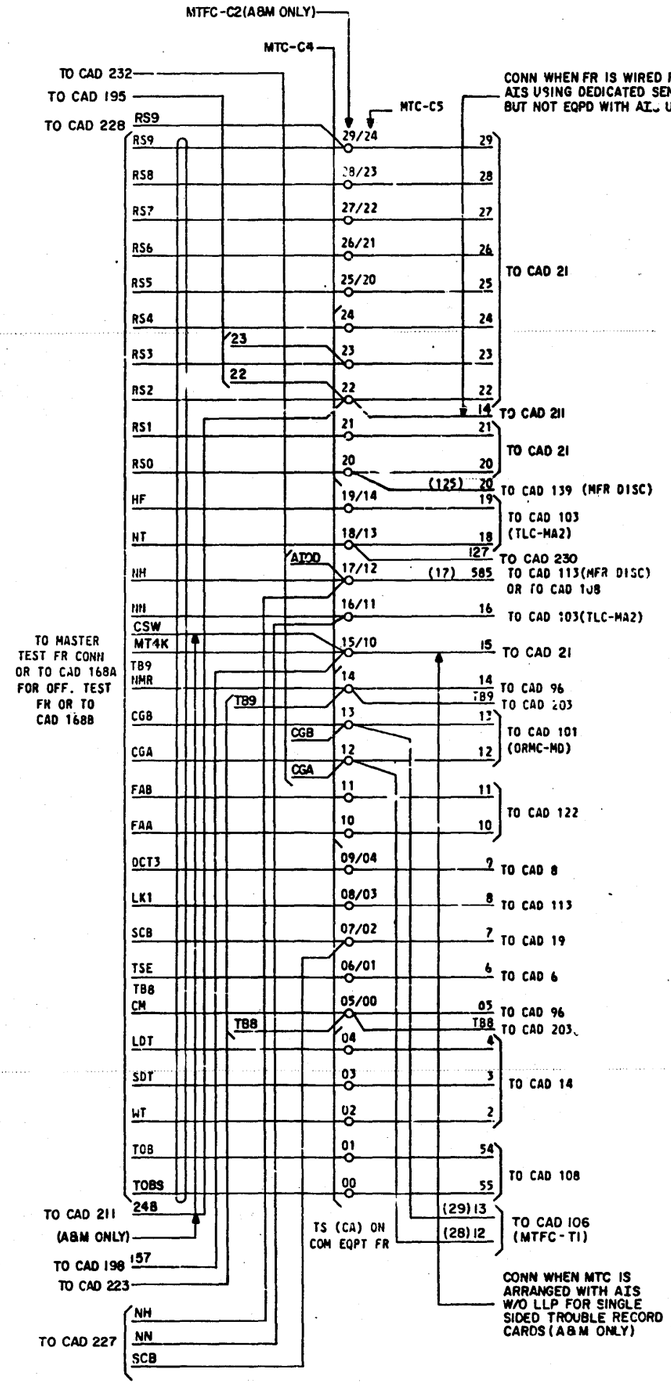
BELL TELEPHONE LABORATORIES INCORPORATED

6S

HIGGINS 4465 K&E

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE

34A
35D
36A
37D
39D
41D
42A
43D

ISSUE 65B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G87

BELL TELEPHONE LABORATORIES INCORPORATED

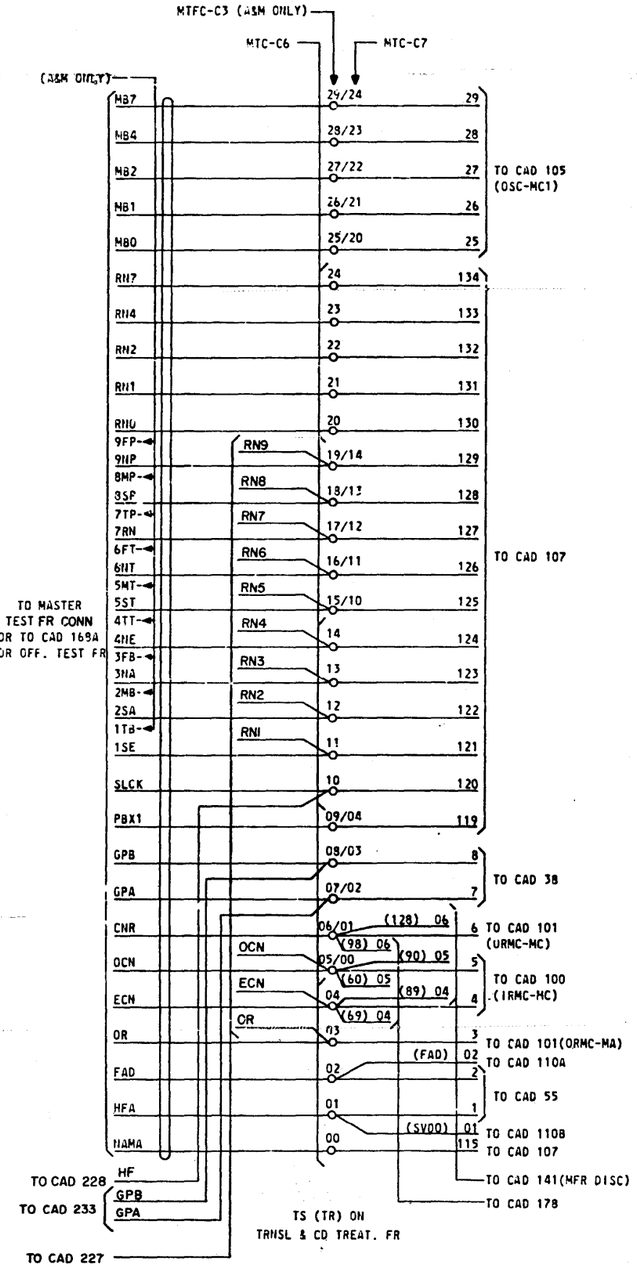
6S

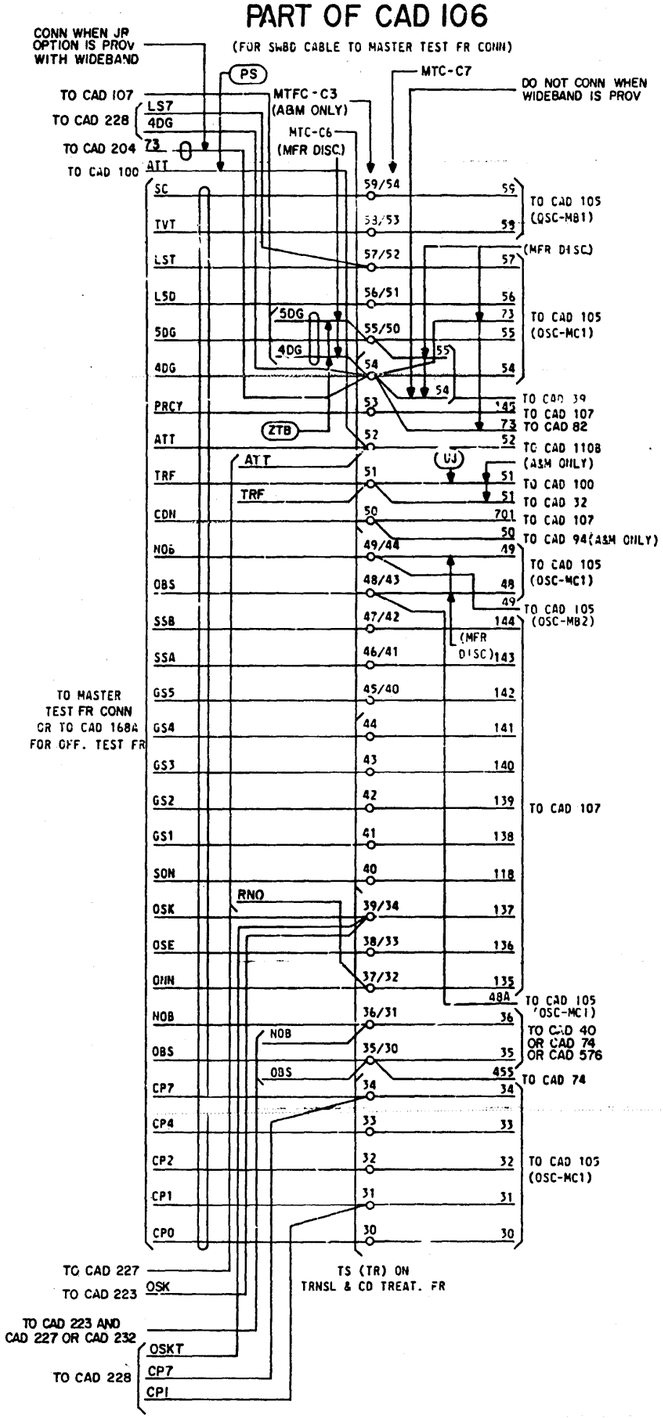
SD-26002-01-G87

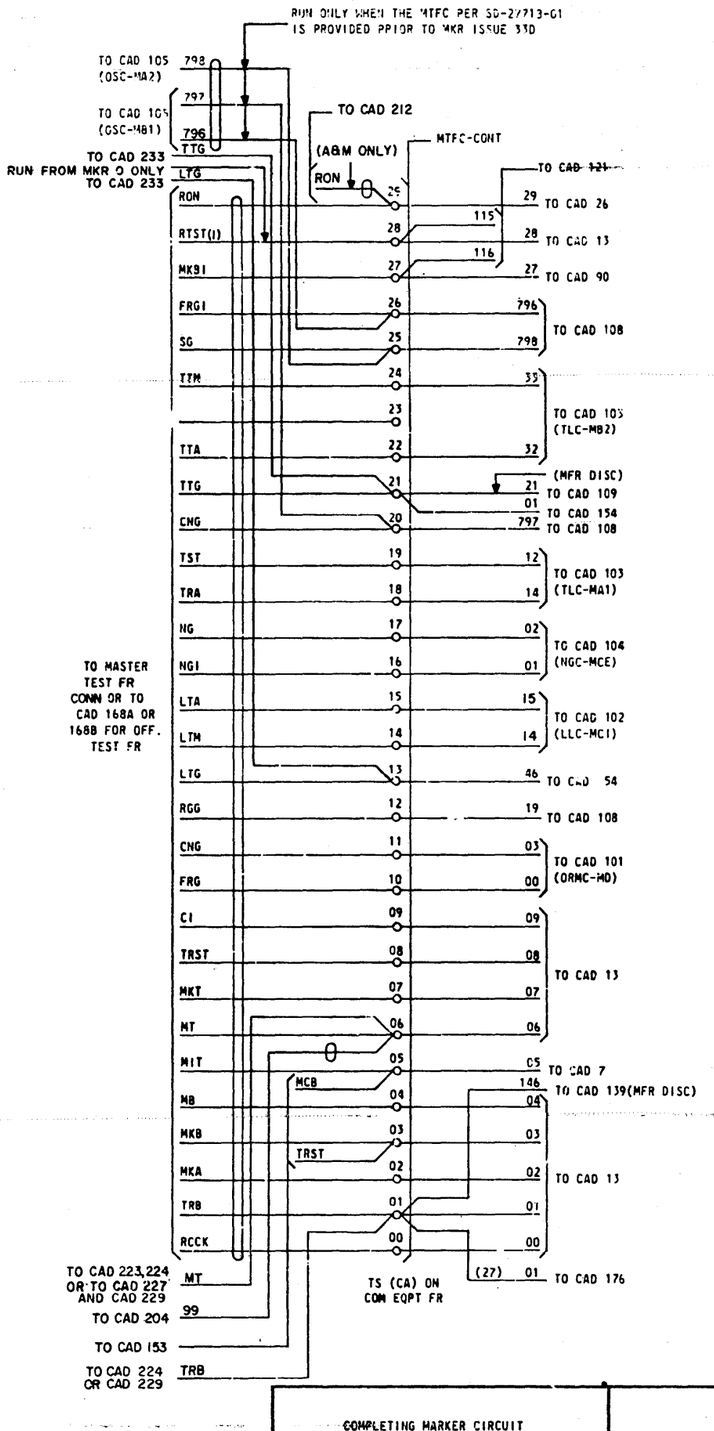
HIGGINS 4465 K-3E

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE

| | |
|---|---|
| 35D | G.E. |
| 37D | |
| 59D | LFP |
| 41D | |
| 43D | |
| 44A | |

ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-G88

BELL TELEPHONE LABORATORIES INCORPORATED

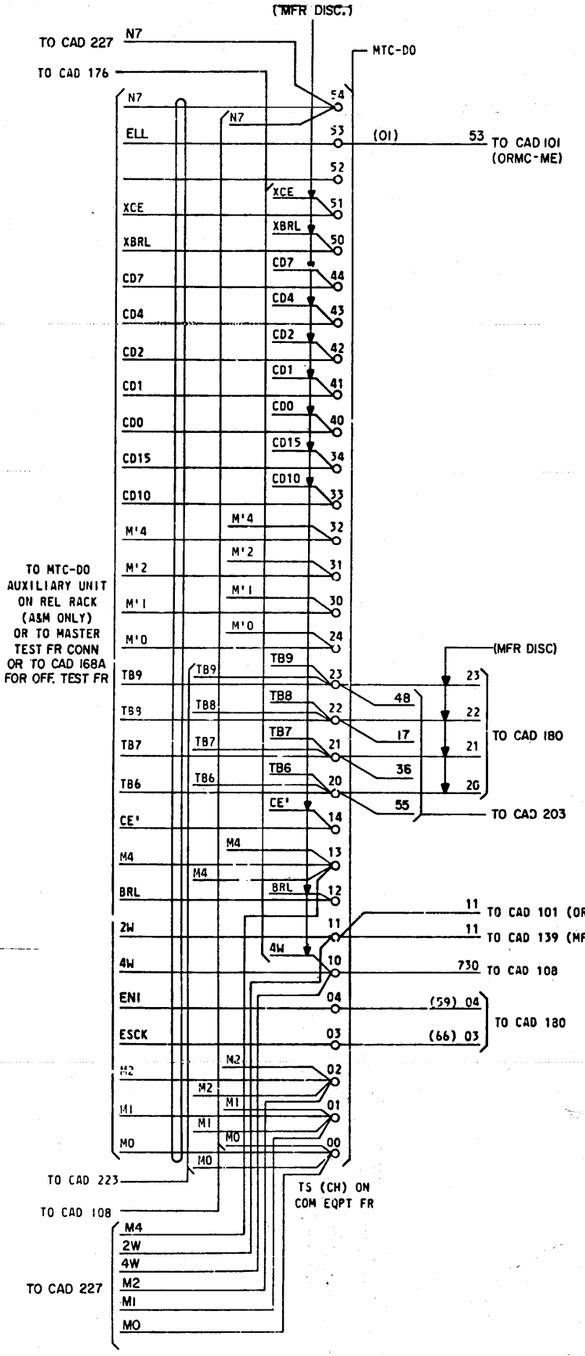
SHEET 6S

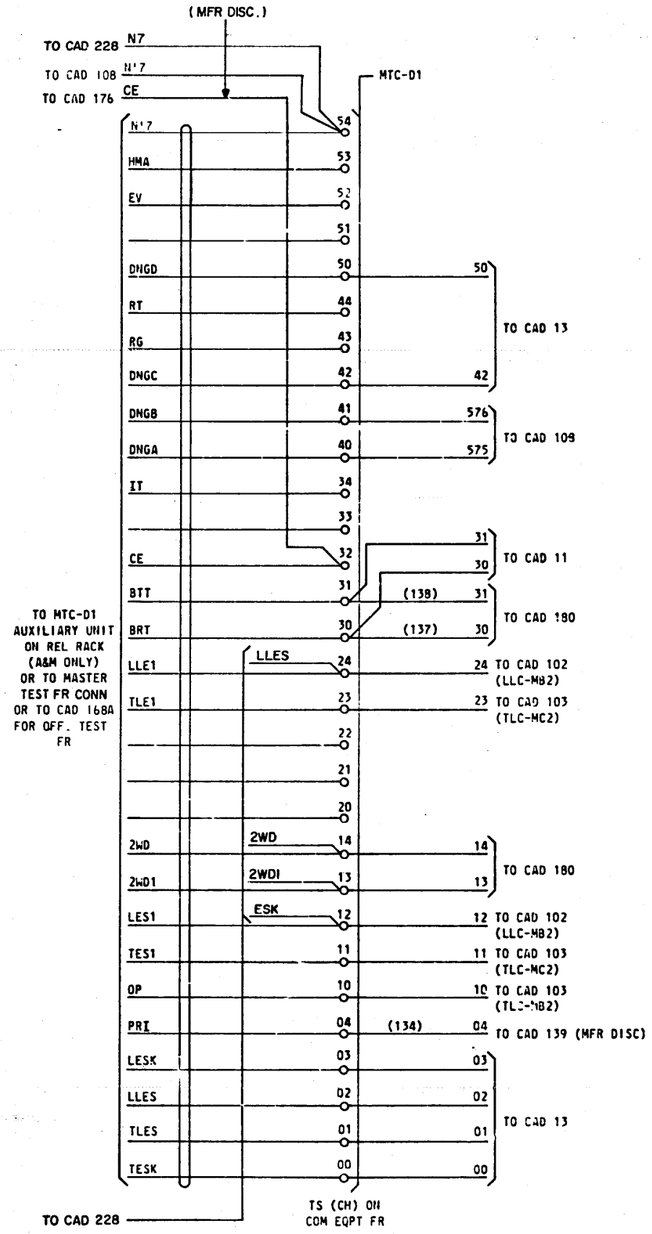
PRINTED IN U.S.A.

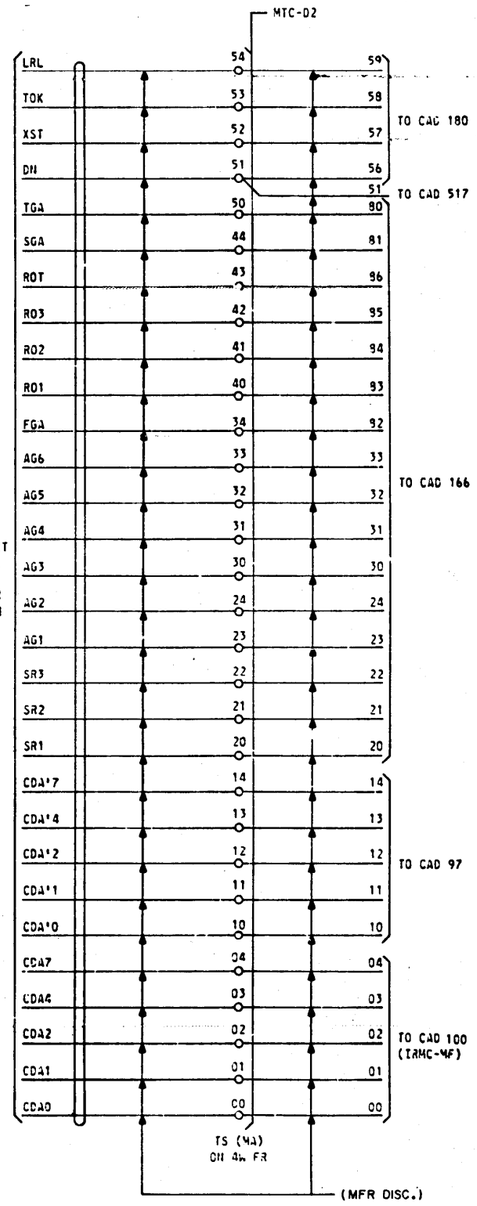
HIGGINS 4465 K&E

# PART OF CAD 106

(FOR SHBD CABLE TO MASTER TEST FR CONN)




| DRAWING ISSUE | |
|---|---|
| 34A | DF TAU MAS |
| 35D | DF TAU MAS |
| 370 | TF |
| 390 | MAS |
| 410 | |
| 430 | |

ISSUE 57B

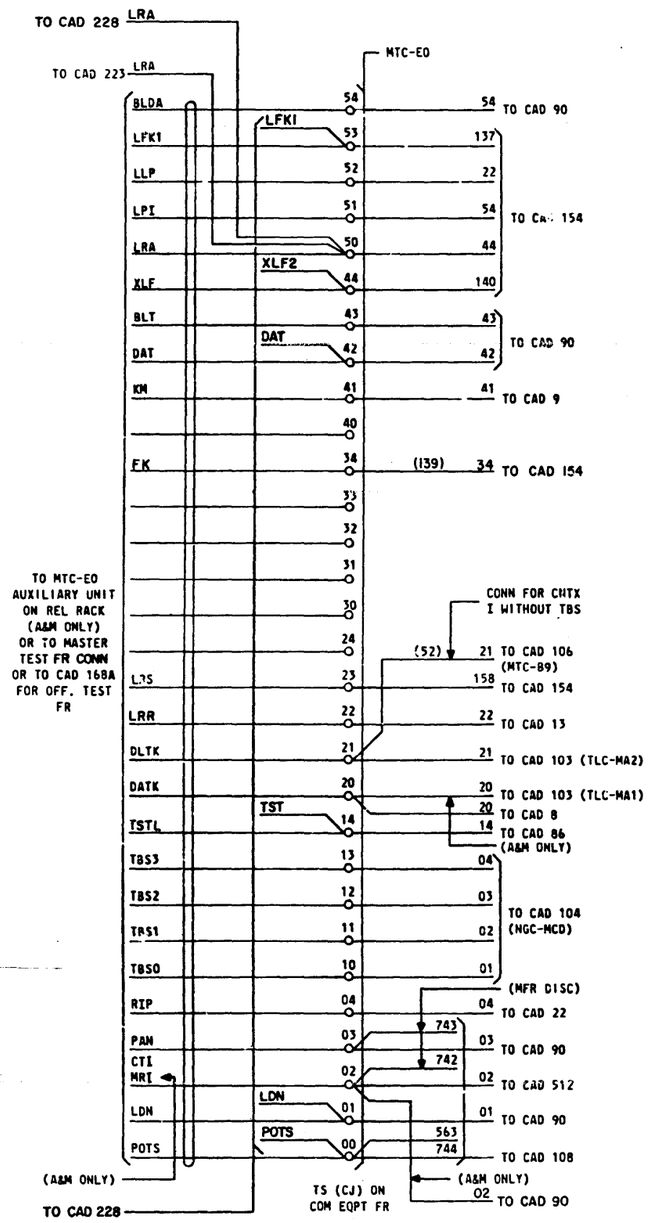
SD-26002-01-G89

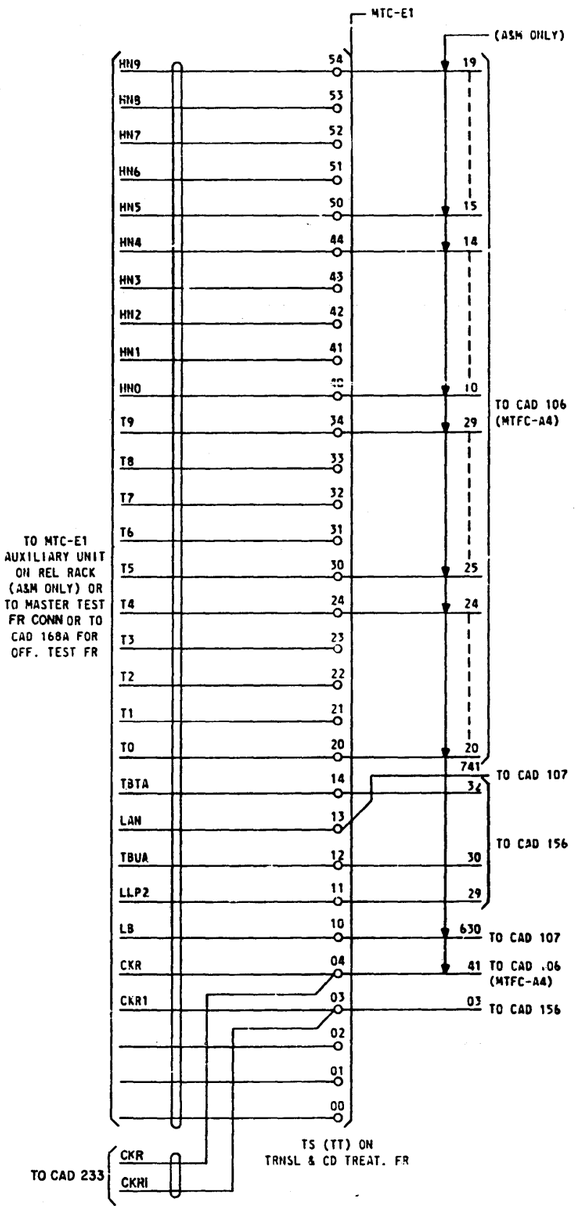
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G89

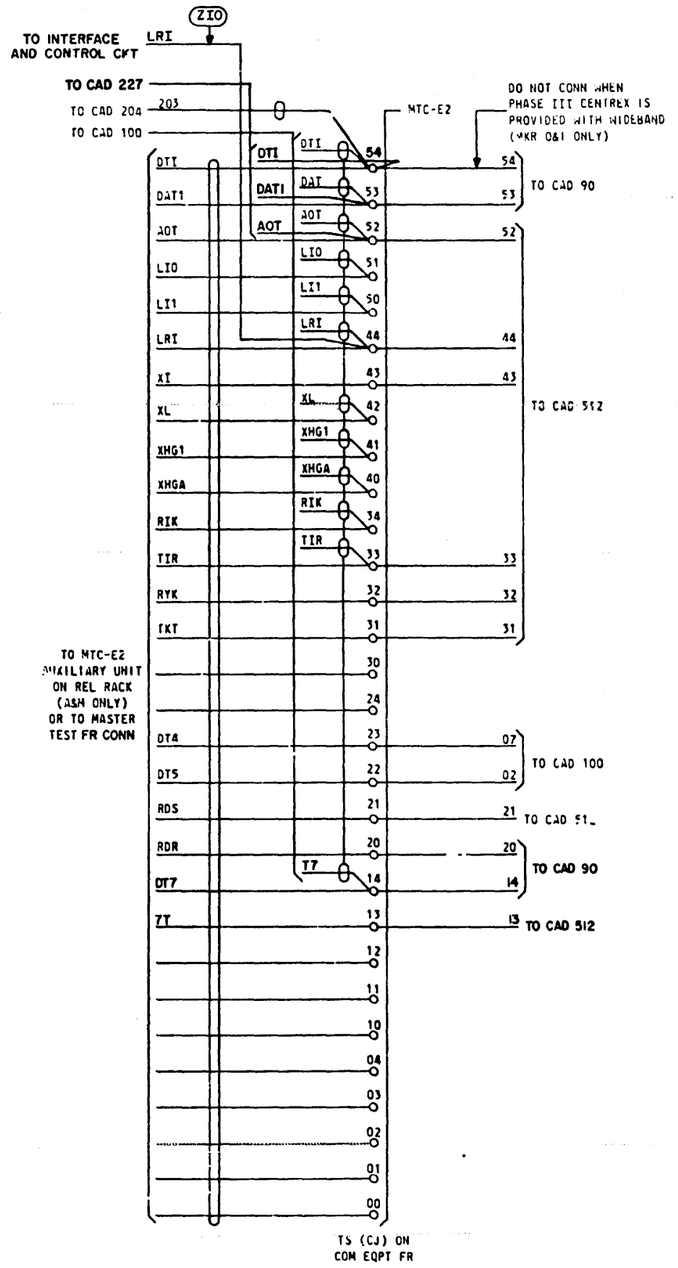
BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE

| | |
|---|---|
| 33D | DP, TM, PP |
| 39D | LT |
| 41D | CK |
| 43D | |

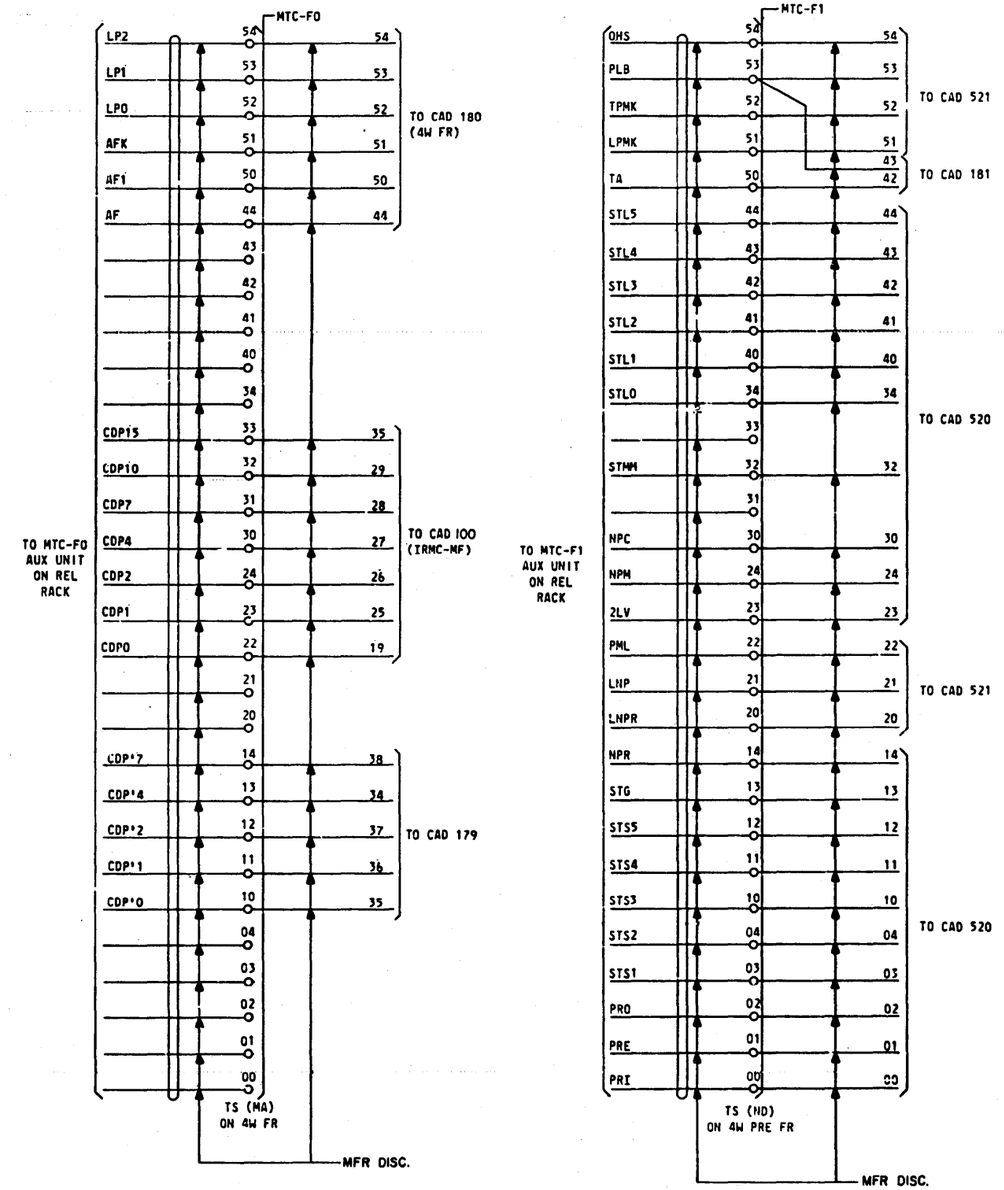
ISSUE 65B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-690

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




DRAWING ISSUE

35D G.E. GR 1A1 AH2

39D LT

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-691

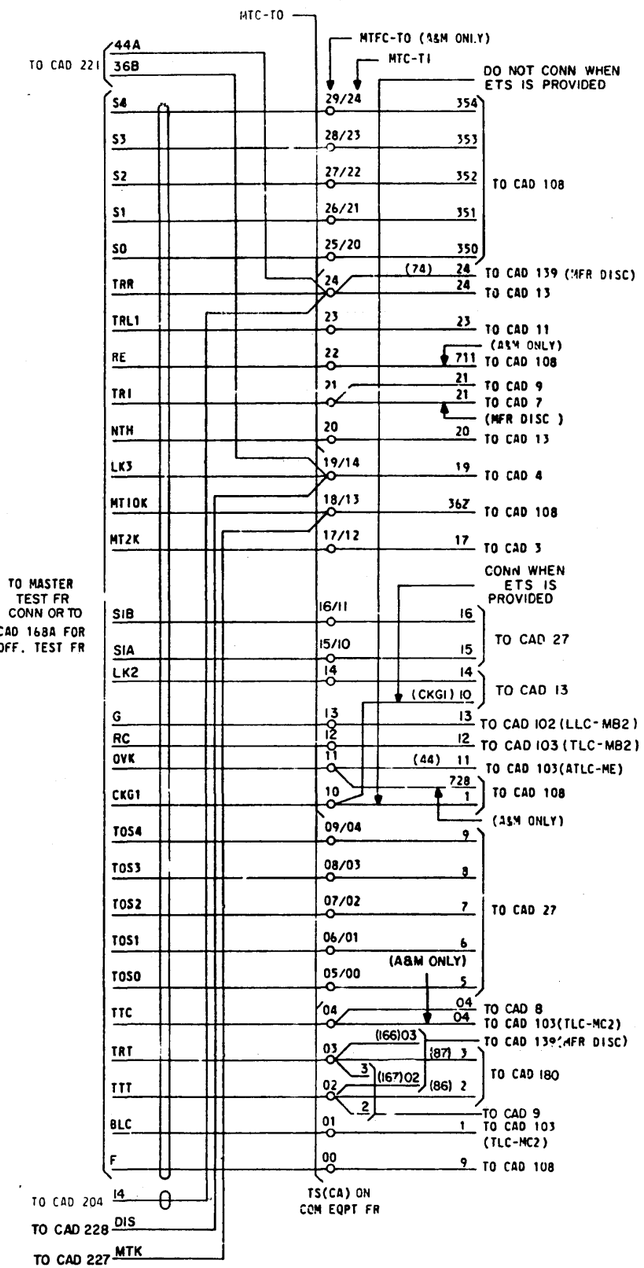
6S

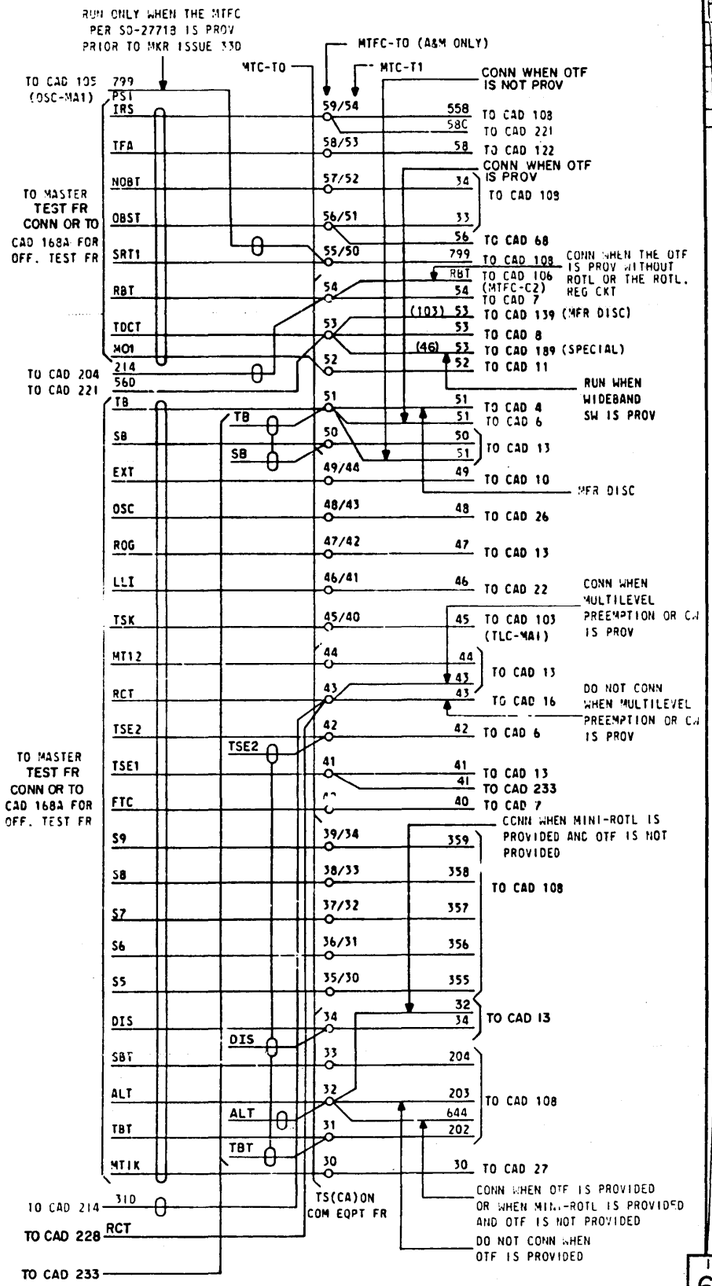
SD-26002-01-691

HIGGINS 4465 K/E

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)




| DRAWING ISSUE | |
|---|---|
| 34A | G.E. CA, FA, AN |
| 35D | CK, CA, FA, AN |
| 37D | LE |
| 39D | LT |
| 40A | |
| 430 | |
| 450 | |

ISSUE 67B

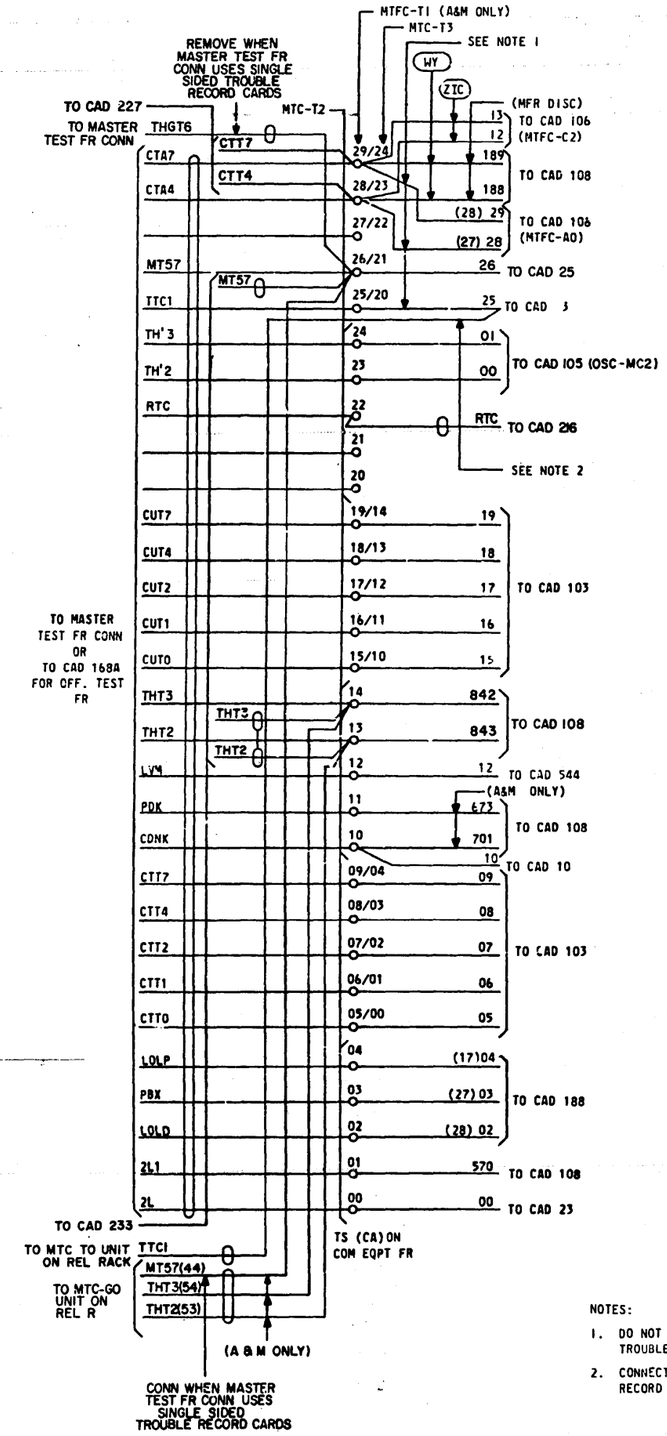
COMPLETING MARKER CIRCUIT (2)

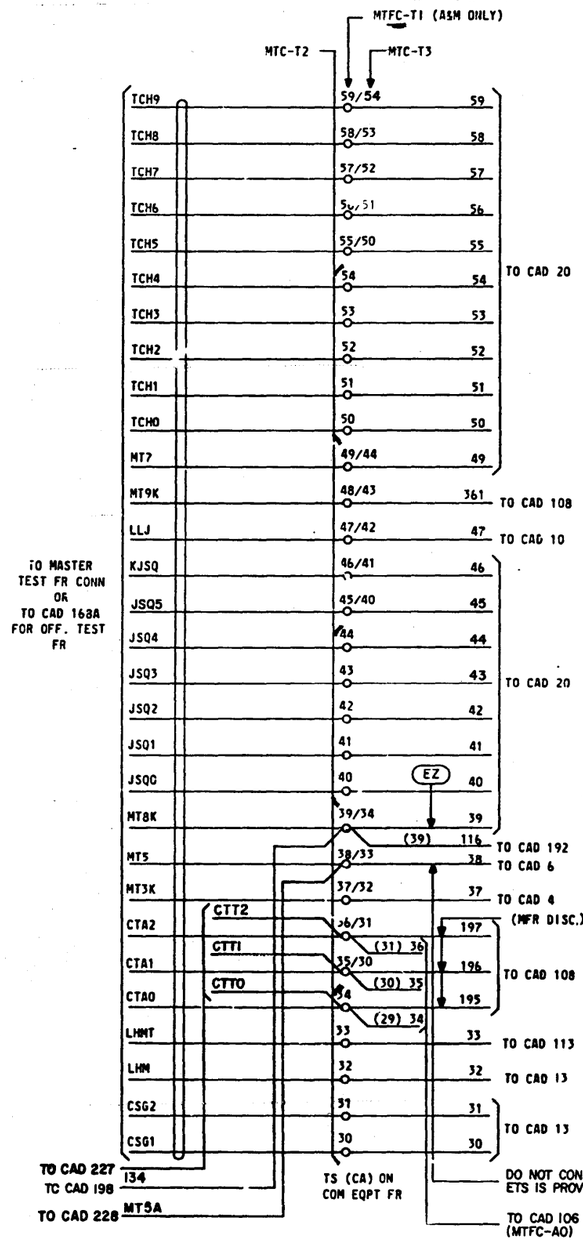
SD-26002-01-G92

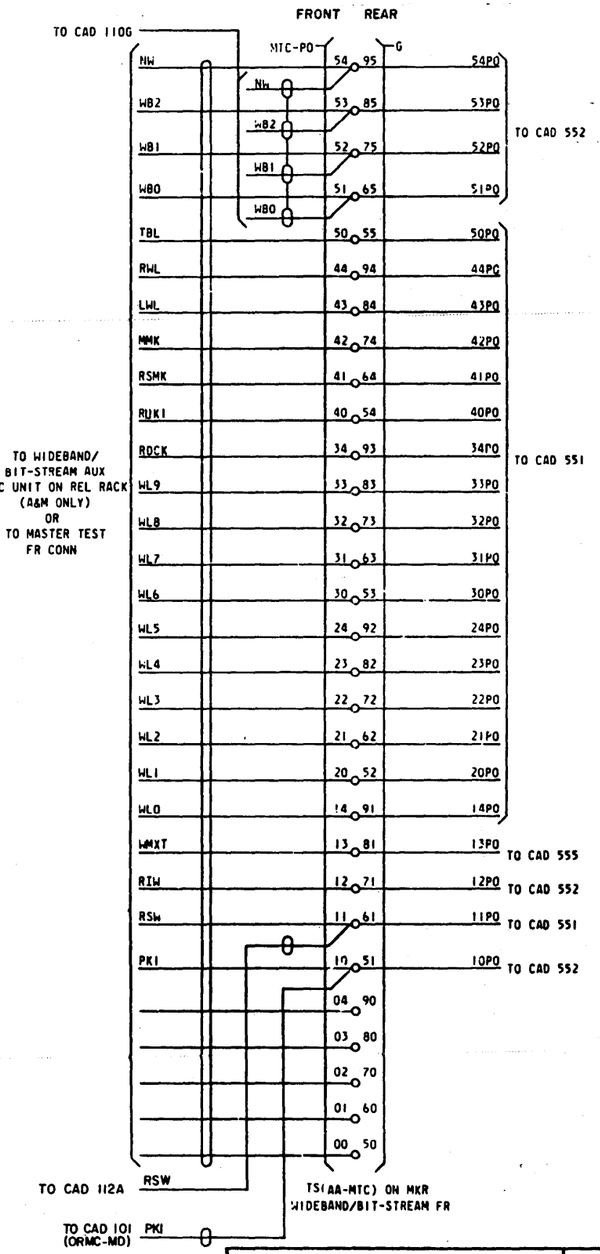
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# PART OF CAD 106
(FOR SWBD CABLE TO MASTER TEST FR CONN)




NOTES:

1. DO NOT CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.
2. CONNECT WHEN THE MTC IS ARRANGED FOR DOUBLE SIDED TROUBLE RECORD CARDS PER TABLE IF OF SD-25805-01.

| DRAWING ISSUE | |
|---|---|
| 35D | C.E. [illegible] |
| 36A | DM |
| 37D | DM |
| 39D | RP |
| 43D | |
| 45D | |

DRAWING ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-693

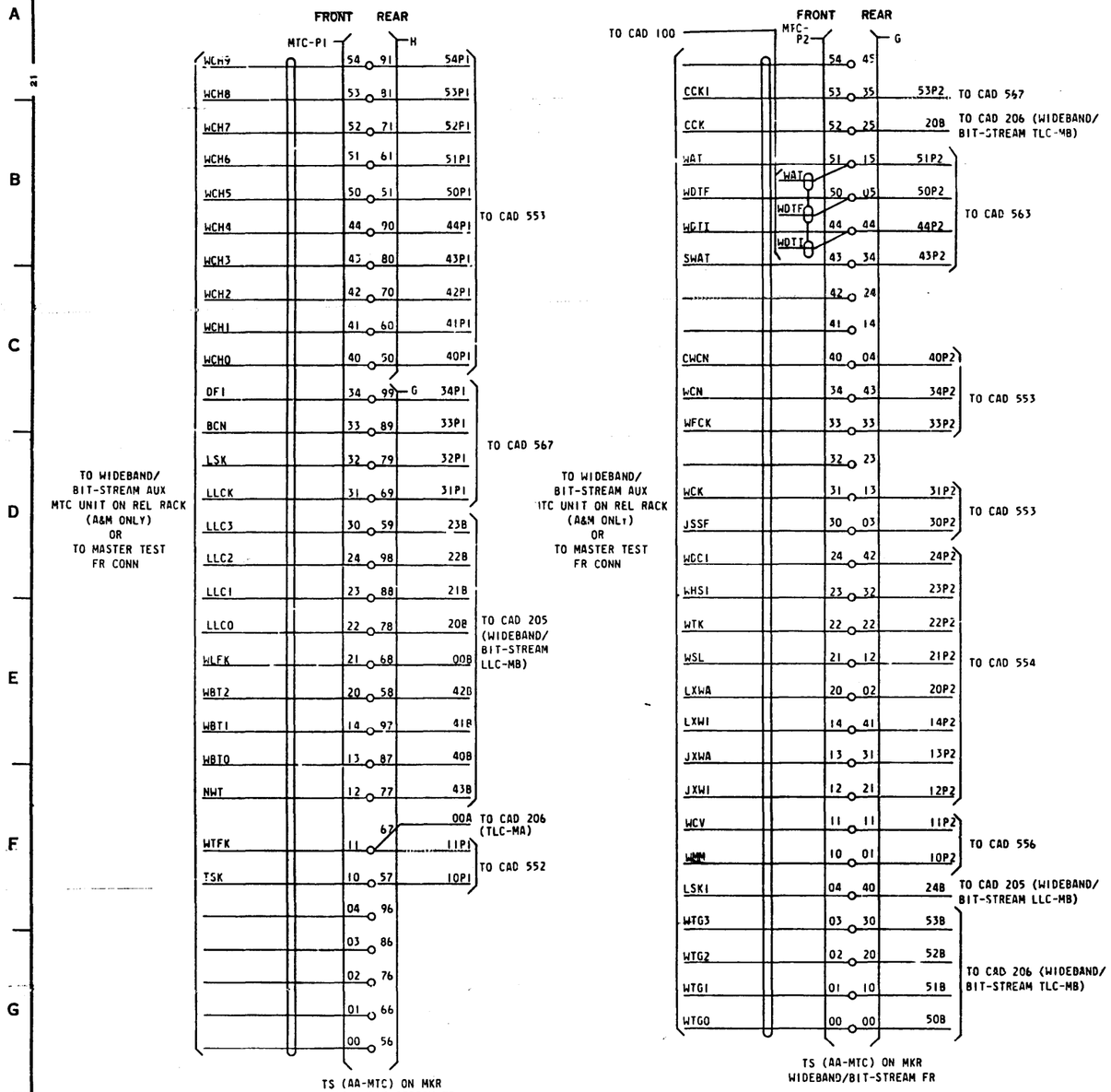
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-693

HIGGINS 4465 K&E

# PART OF CAD 106

(FOR SWBD CABLE TO MASTER TEST FR CONN)







DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

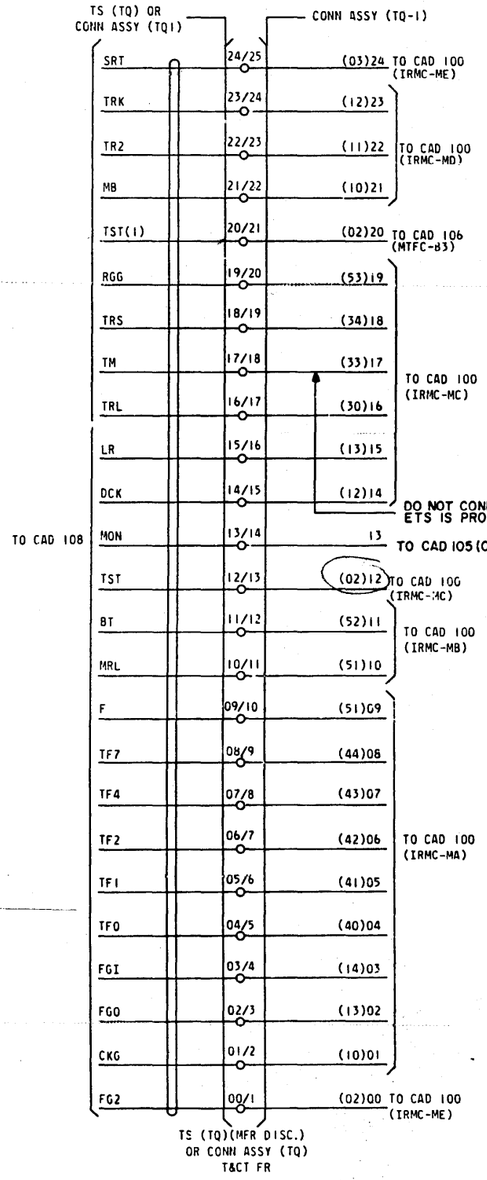
SD-26002-01-G94

BELL TELEPHONE LABORATORIES INCORPORATED

6S

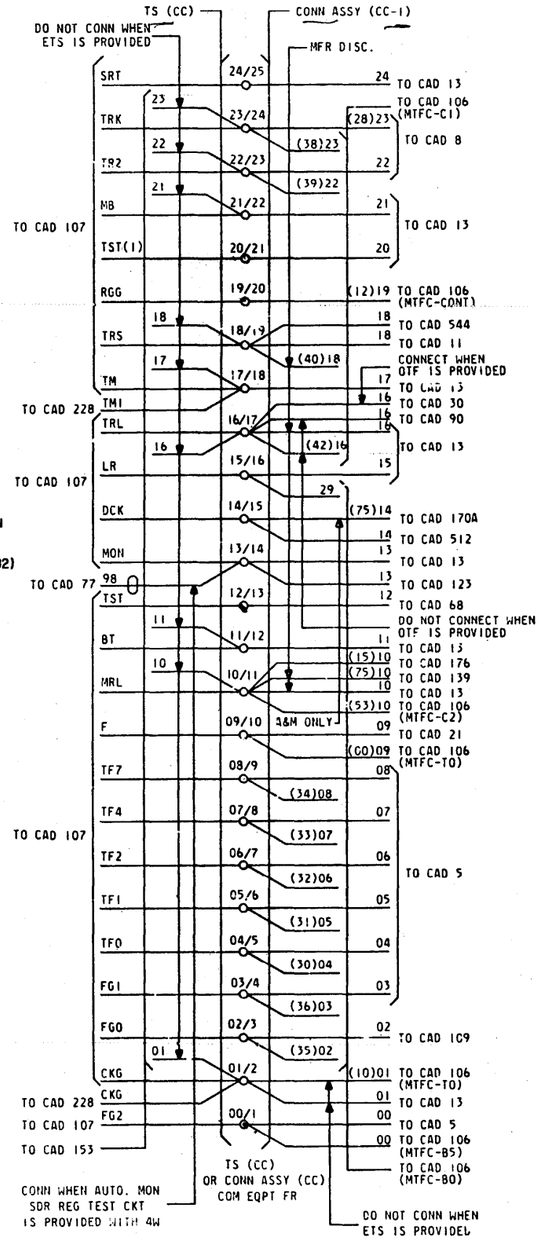
# PART OF CAD 107

(SWITCHBOARD CABLE FROM T&CT TO CE FR)
SEE NOTE 215



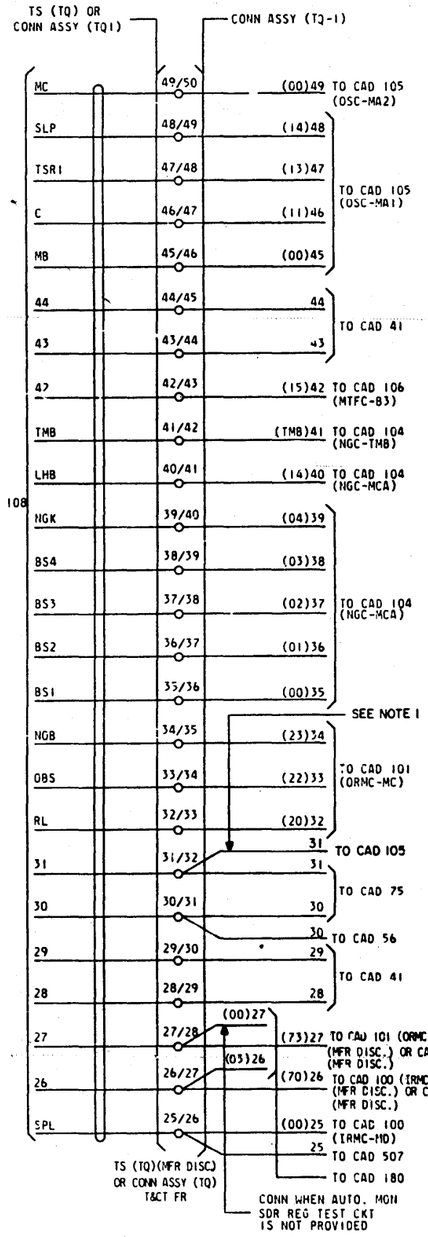

# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T&CT FR)
SEE NOTE 215



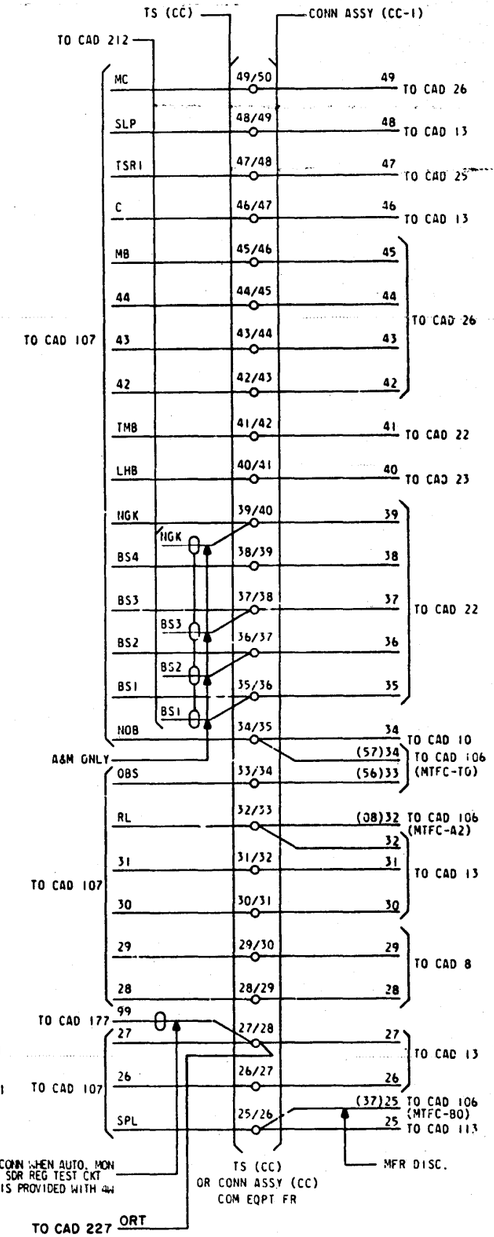

# PART OF CAD 107

(SWITCHBOARD CABLE FROM T&CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T&CT FR)
SEE NOTE 215




NOTES:
1. CONNECT WHEN ANI OUTPULSING INSTRUCTIONS TO THE MF SDR ON DIGIT 8 CUT-THROUGH FOR EPSCS IS PROVIDED.

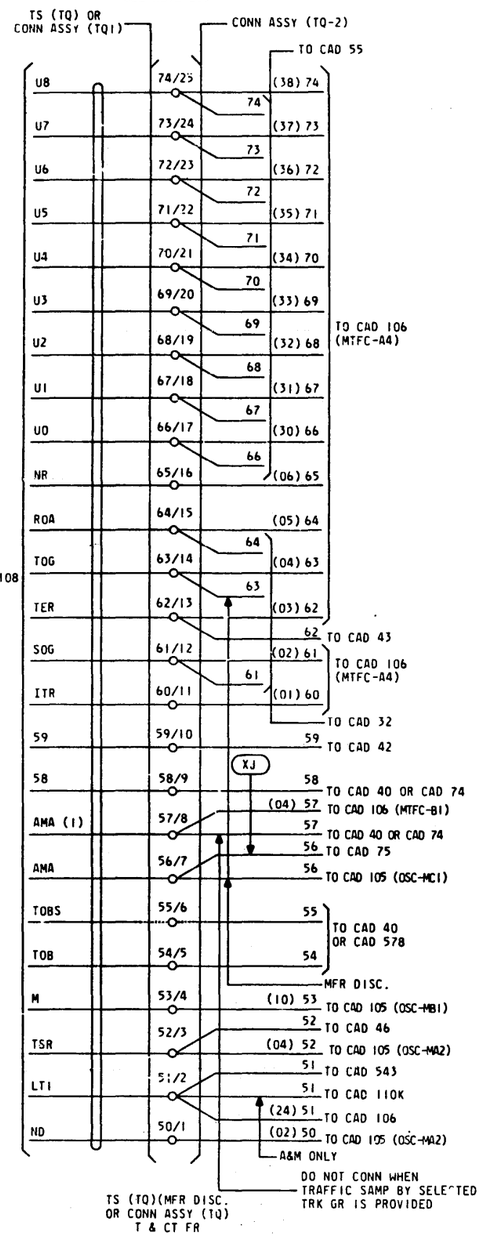
ISSUE 68A

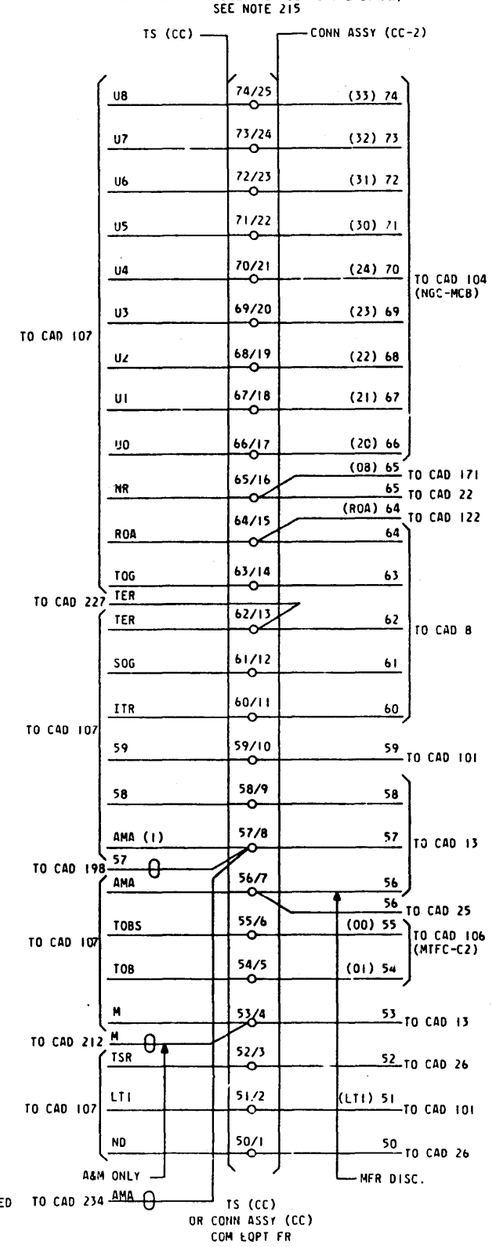
COMPLETING MARKER CIRCUIT

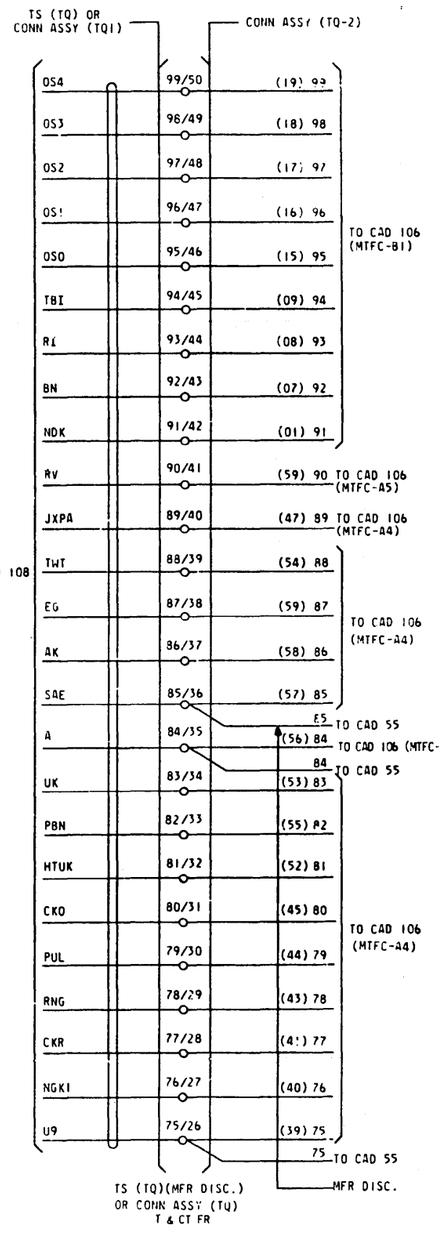
SD-26002-01-G95

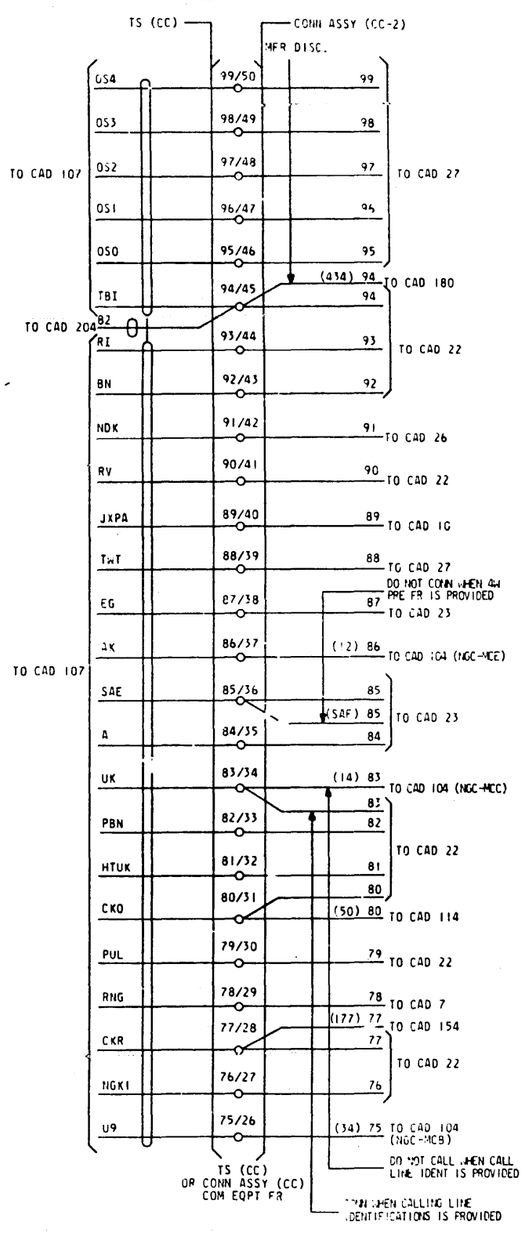
BELL TELEPHONE LABORATORIES INCORPORATED

6S



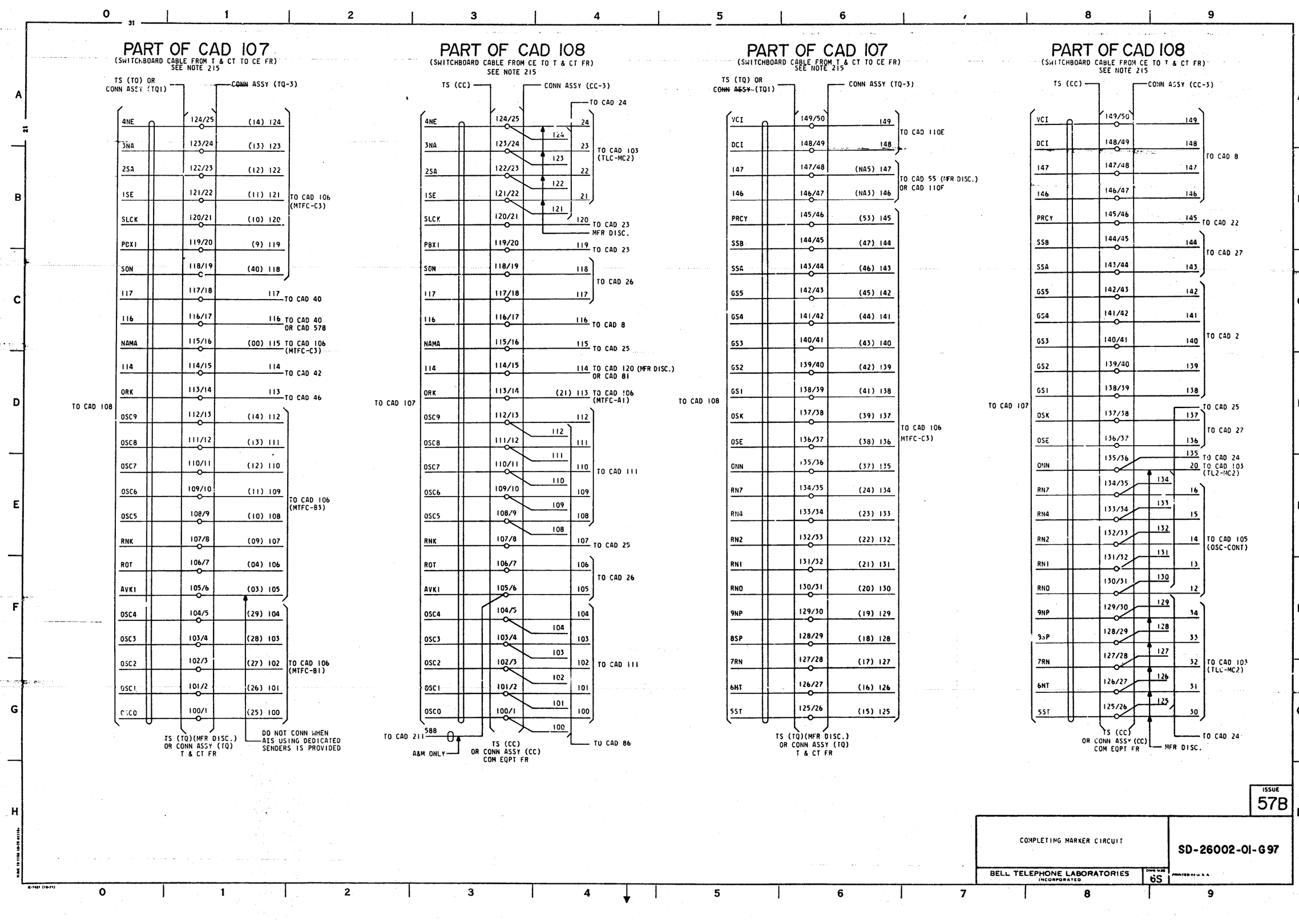

ISSUE 67B

COMPLETING MARKER CIRCUIT

SD-26002-01-696

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S


PART OF CAD 107
(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215
TS (TQ) OR CONN ASSY (TQ1)
CONN ASSY (TQ-3)
4NE 124/25 (14) 124
3NA 123/24 (13) 123
2SA 122/23 (12) 122
1SE 121/22 (11) 121
SLCK 120/21 (10) 120
PBX1 119/20 (9) 119
SON 118/19 (40) 118
TO CAD 106 (MTFC-C3)
117 117/18 117 TO CAD 40
116 116/17 116 TO CAD 40 OR CAD 578
NAMA 115/16 (00) 115 TO CAD 106 (MTFC-C3)
114 114/15 114 TO CAD 42
ORK 113/14 113 TO CAD 46
TO CAD 108
OSC9 112/13 (14) 112
OSC8 111/12 (13) 111
OSC7 110/11 (12) 110
OSC6 109/10 (11) 109
OSC5 108/9 (10) 108
TO CAD 106 (MTFC-B3)
RNK 107/8 (09) 107
ROT 106/7 (04) 106
AVK1 105/6 (03) 105
OSC4 104/5 (29) 104
OSC3 103/4 (28) 103
OSC2 102/3 (27) 102
OSC1 101/2 (26) 101
OSC0 100/1 (25) 100
TO CAD 106 (MTFC-B1)
TS (TQ)(MFR DISC.) OR CONN ASSY (TQ) T & CT FR
DO NOT CONN WHEN AIS USING DEDICATED SENDERS IS PROVIDED
PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215
TS (CC)
CONN ASSY (CC-3)
TO CAD 24
4NE 124/25 24
3NA 123/24 23
2SA 122/23 22
1SE 121/22 21
TO CAD 103 (TLC-MC2)
SLCK 120/21 120 TO CAD 23 MFR DISC.
PBX1 119/20 119 TO CAD 23
SON 118/19 118
TO CAD 26
117 117/18 117
116 116/17 116 TO CAD 8
NAMA 115/16 115 TO CAD 25
114 114/15 114 TO CAD 120 (MFR DISC.) OR CAD 81
ORK 113/14 (21) 113 TO CAD 106 (MTFC-A1)
TO CAD 107
OSC9 112/13 112
OSC8 111/12 111
OSC7 110/11 110
OSC6 109/10 109
OSC5 108/9 108
TO CAD 111
RNK 107/8 107 TO CAD 25
ROT 106/7 106
TO CAD 26
AVK1 105/6 105
OSC4 104/5 104
OSC3 103/4 103
OSC2 102/3 102
OSC1 101/2 101
OSC0 100/1 100
TO CAD 111
TO CAD 211 588
A&M ONLY
TS (CC) OR CONN ASSY (CC) COM EQPT FR
TO CAD 86
PART OF CAD 107
(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215
TS (TQ) OR CONN ASSY (TQ1)
CONN ASSY (TQ-3)
VCI 149/50 149
DCI 148/49 148
TO CAD 110E
147 147/48 (NA5) 147
146 146/47 (NA3) 146
TO CAD 55 (MFR DISC.) OR CAD 110F
PRCY 145/46 (53) 145
SSB 144/45 (47) 144
SSA 143/44 (46) 143
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(SWITCHBOARD CABLE FROM CE TO T & CT FR)
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RN4 133/34 133
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9NP 129/30 129
34
8SP 128/29 128
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7RN 127/28 127
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5ST 125/26 125
30
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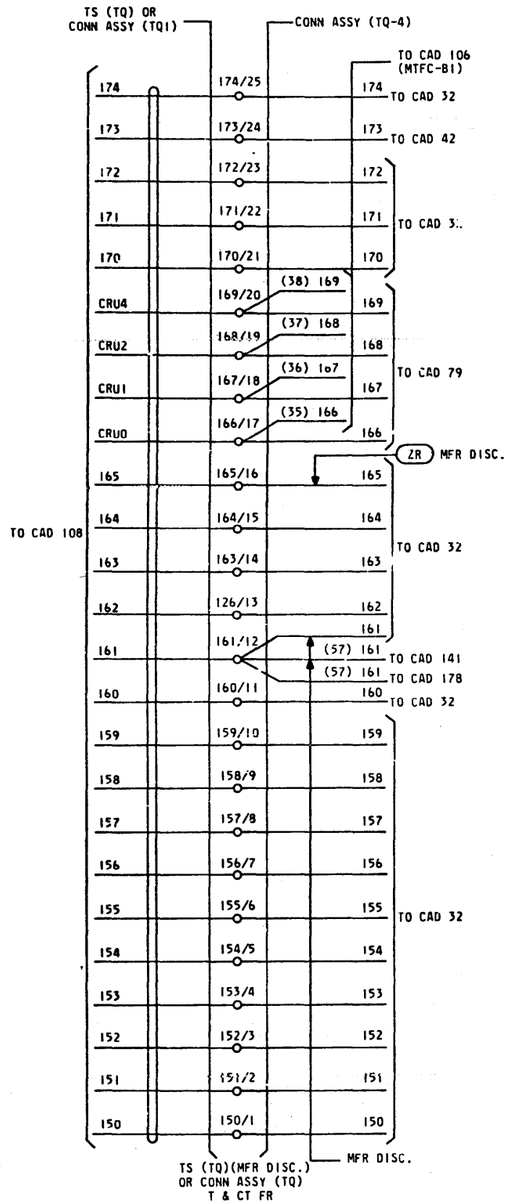
MFR DISC.
TO CAD 24
ISSUE 57B
COMPLETING MARKER CIRCUIT
SD-26002-01-G97
BELL TELEPHONE LABORATORIES INCORPORATED
6S

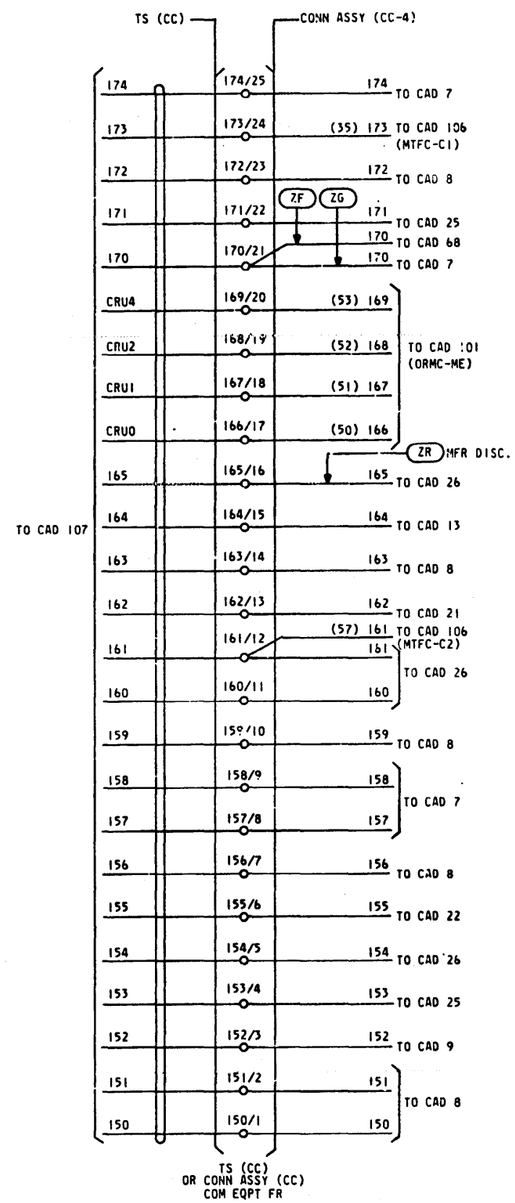
# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



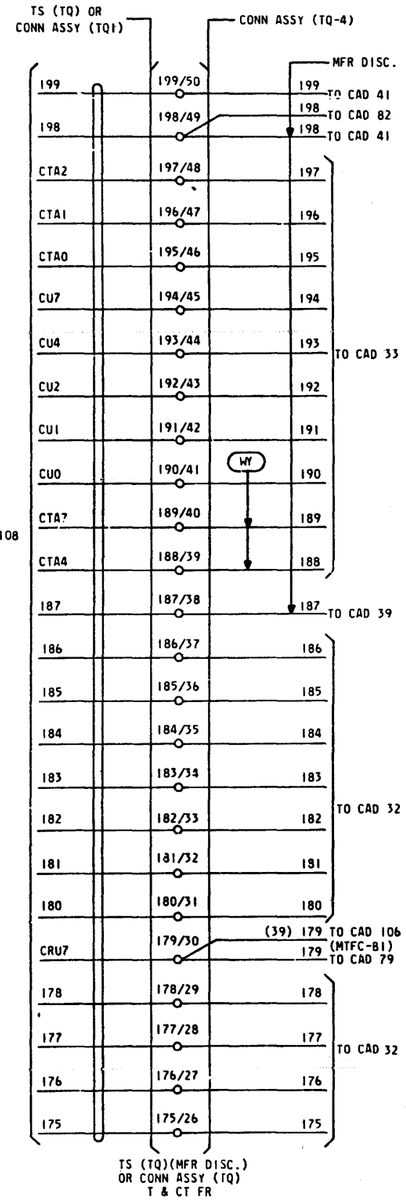

# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



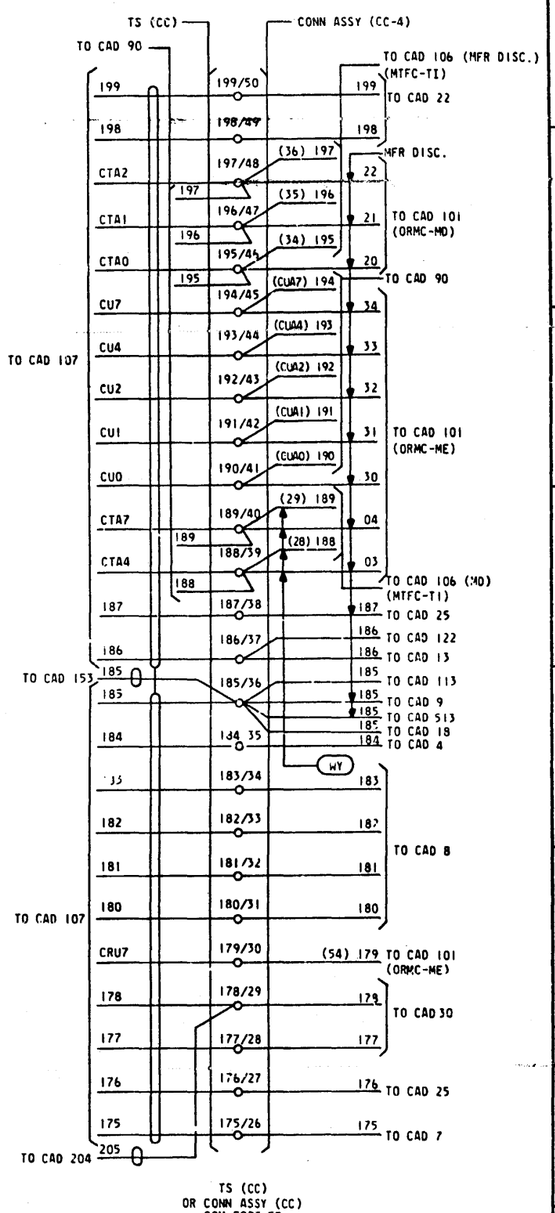

# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




ISSUE 58A

COMPLETING MARKER CIRCUIT

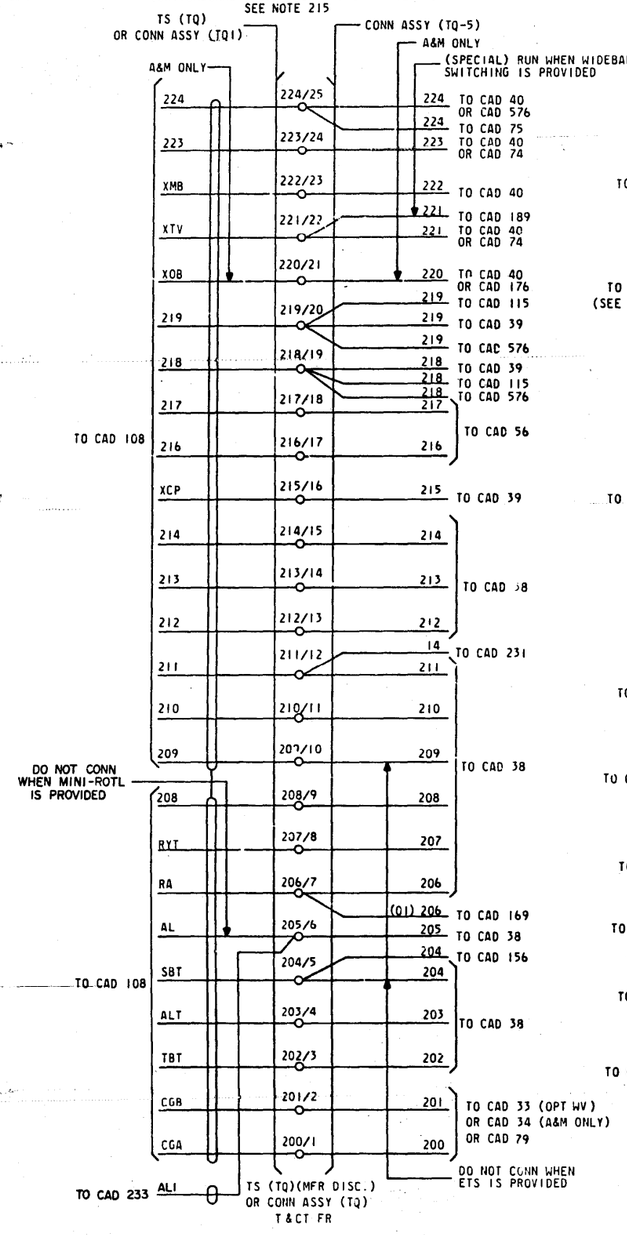
SD-26002-01-G98

BELL TELEPHONE LABORATORIES INCORPORATED

6S

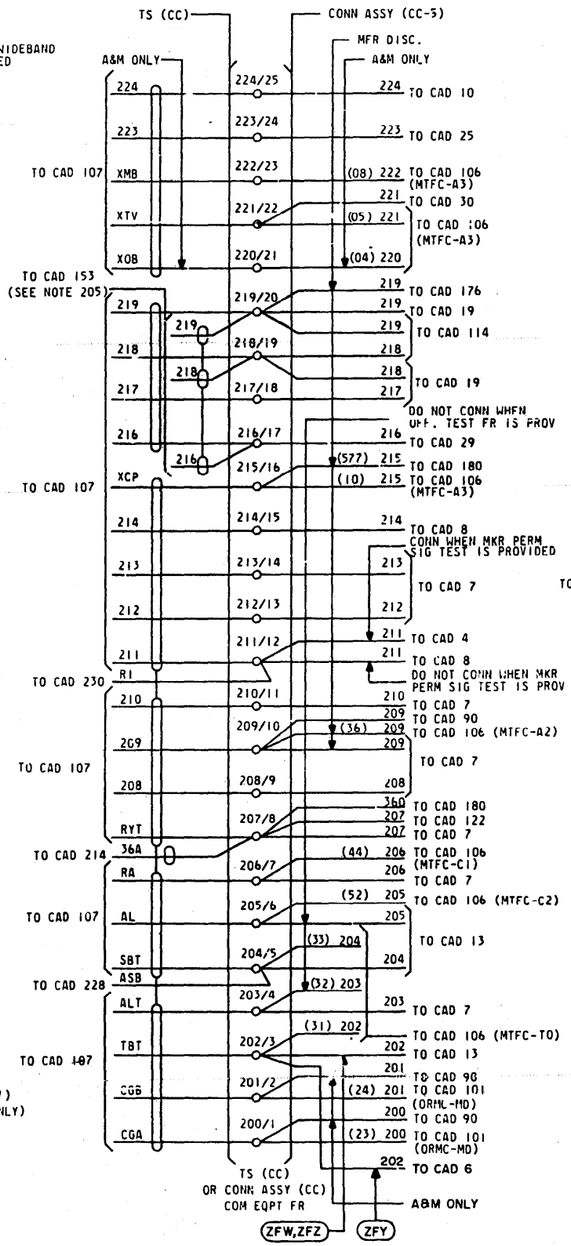
# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



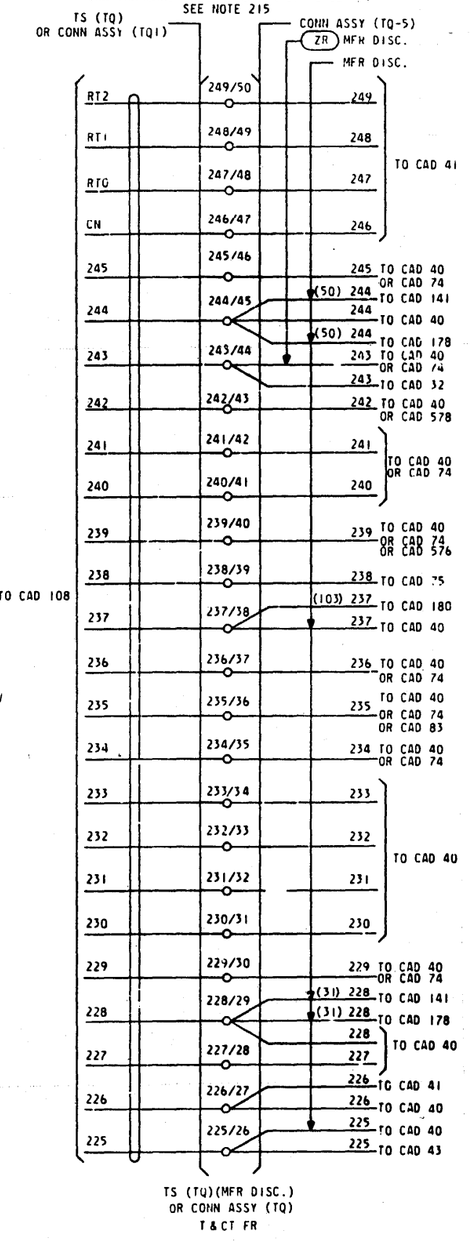

# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T&CT FR)
SEE NOTE 215



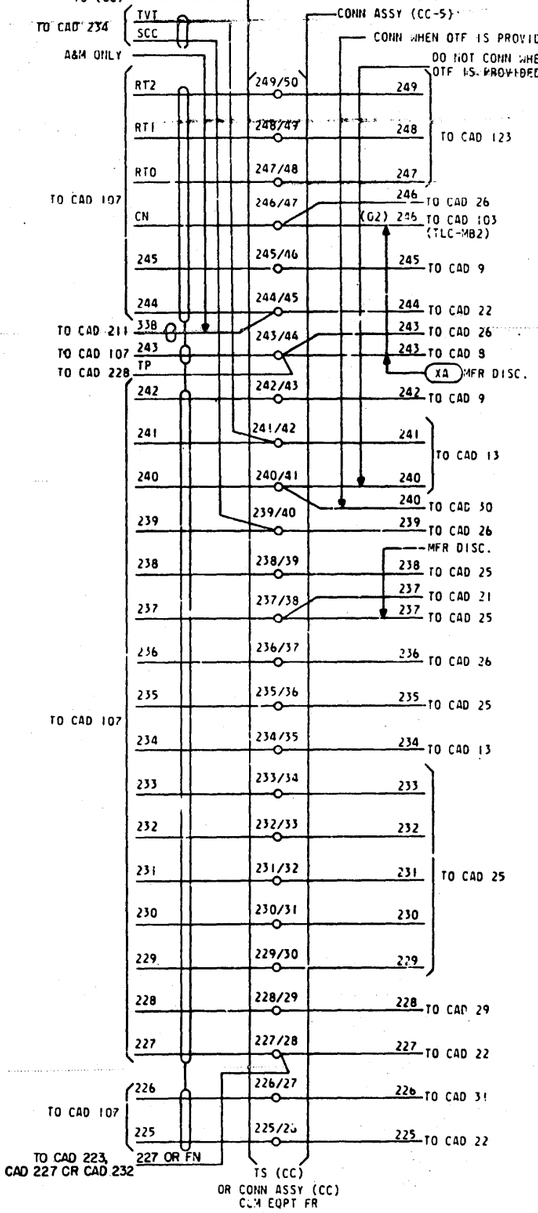

# PART OF CAD 107

(SWITCHBOARD CABLE FROM T&CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
(SEE NOTE 215)




ISSUE 67B

COMPLETING MARKER CIRCUIT

SD-26002-01-G99

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

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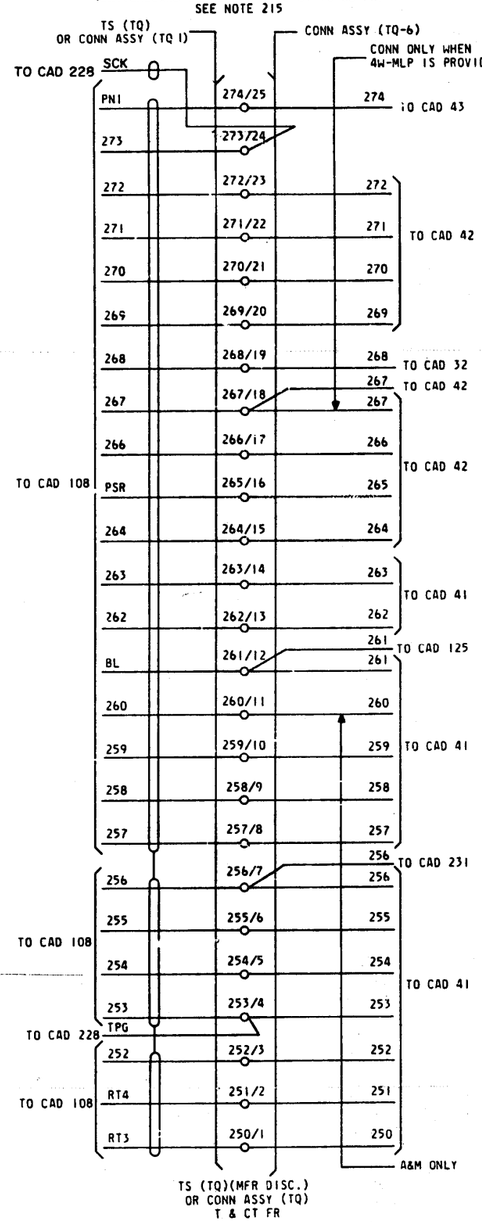
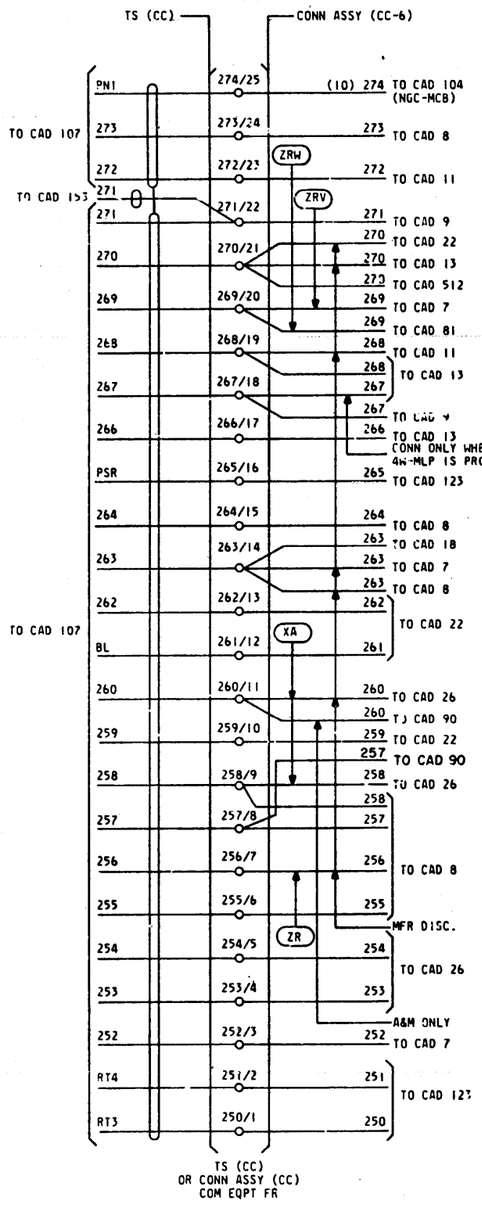
# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



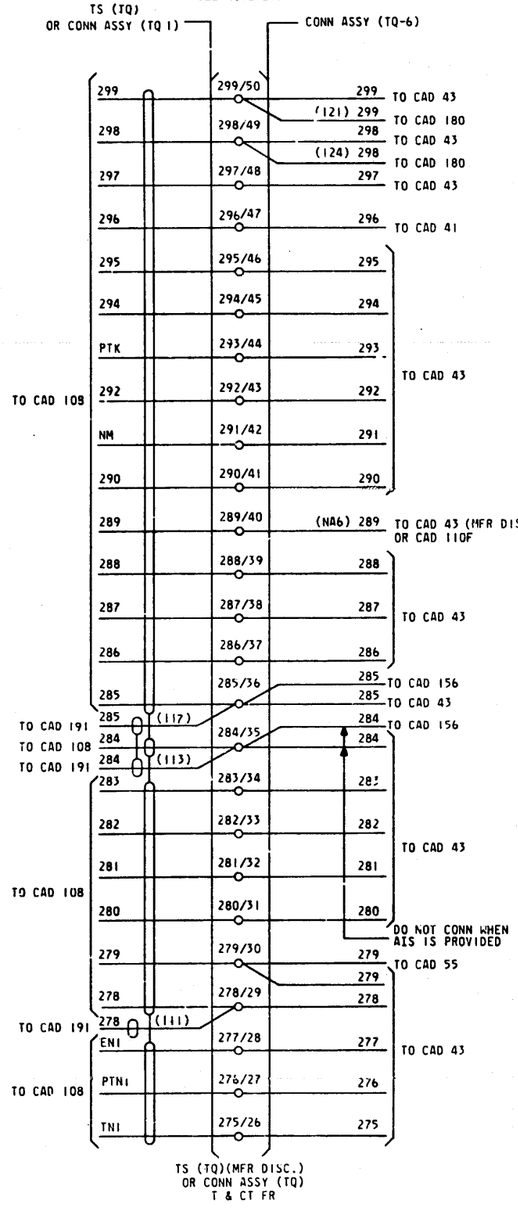

# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



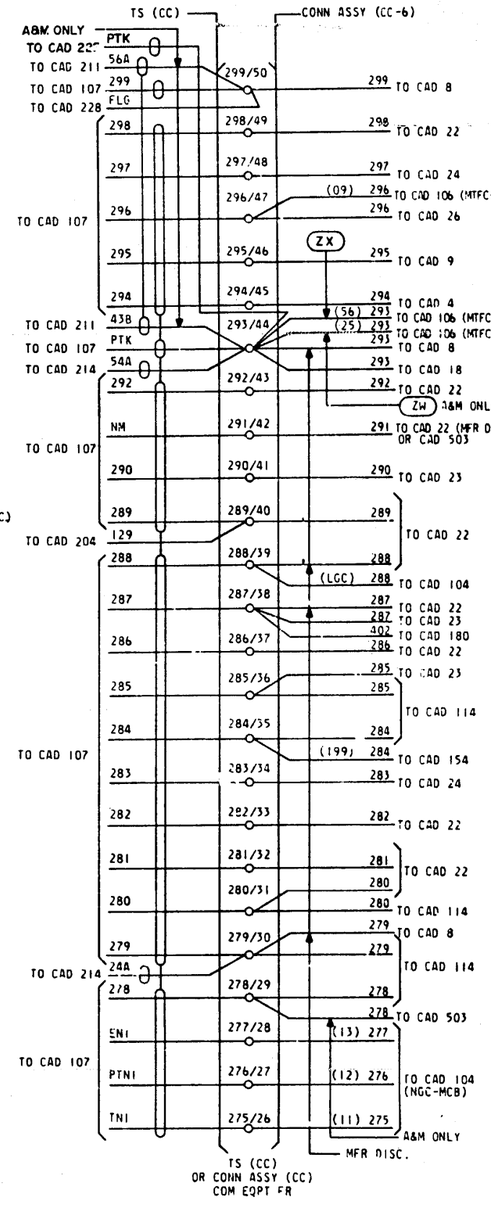

# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




ISSUE 60A

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-G100 |
| BELL TELEPHONE LABORATORIES INCORPORATED | DWG SIZE 6S |

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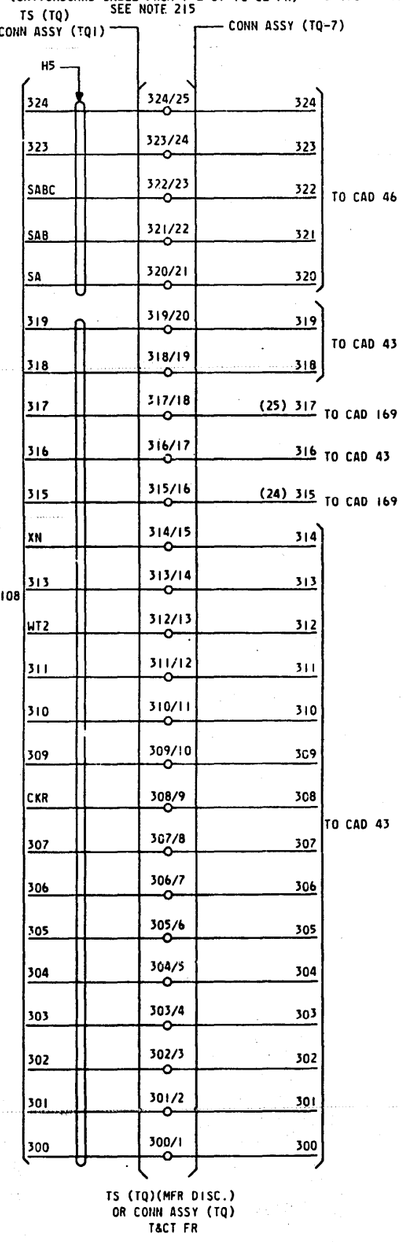
C-7481 (10-71)

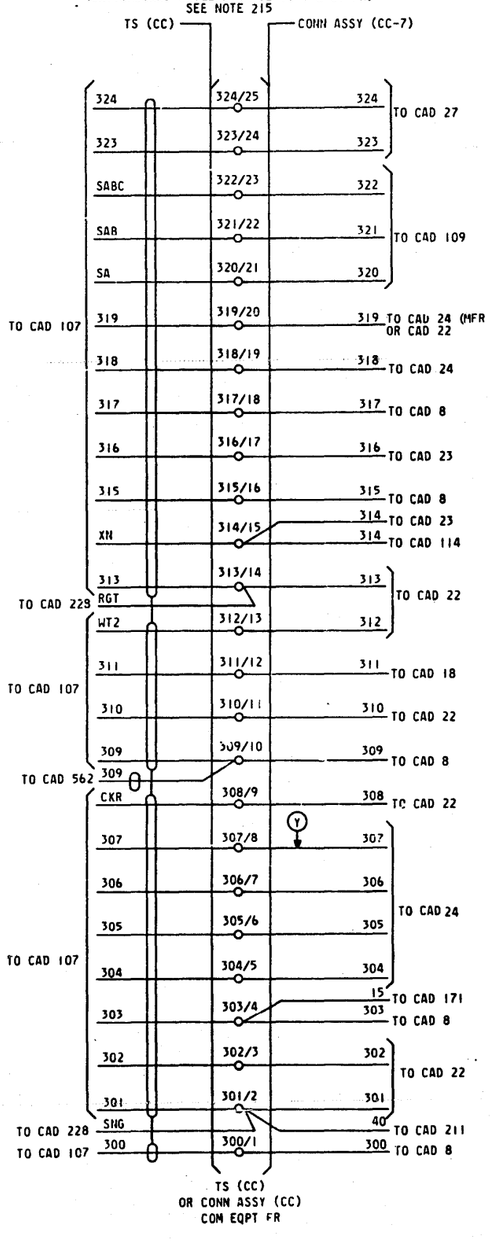
## PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



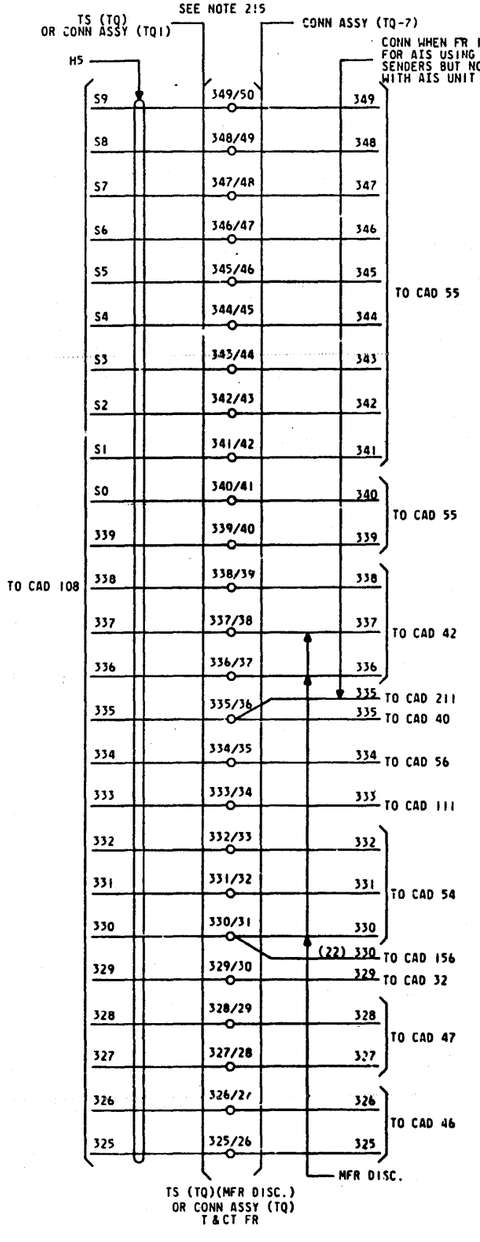

## PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



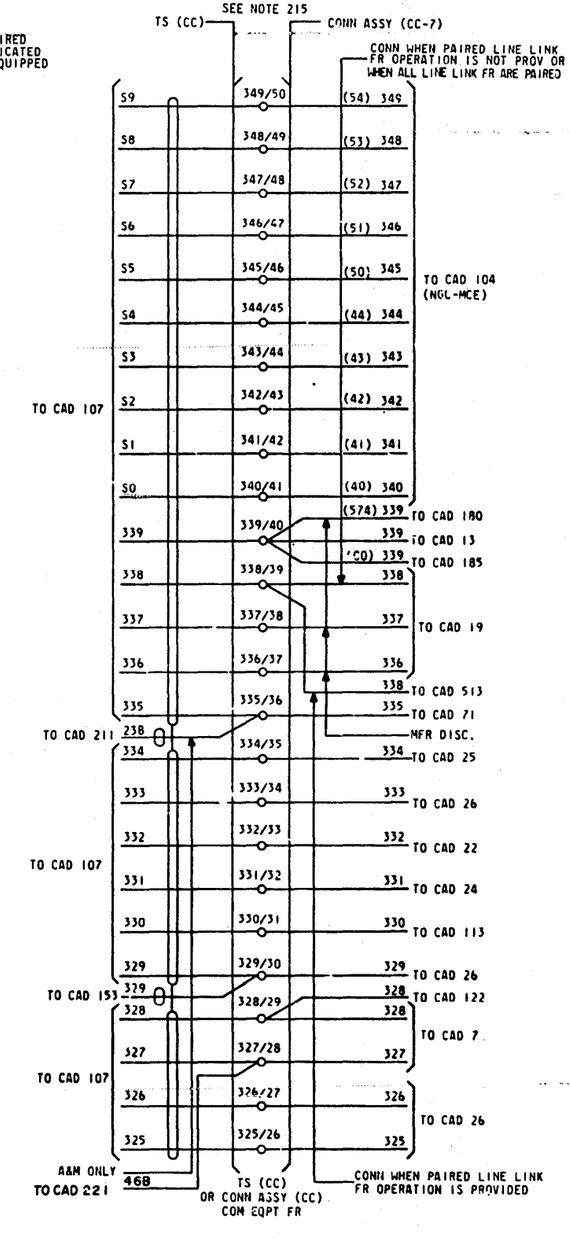

## PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




## PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




ISSUE 59B

COMPLETING MARKER CIRCUIT

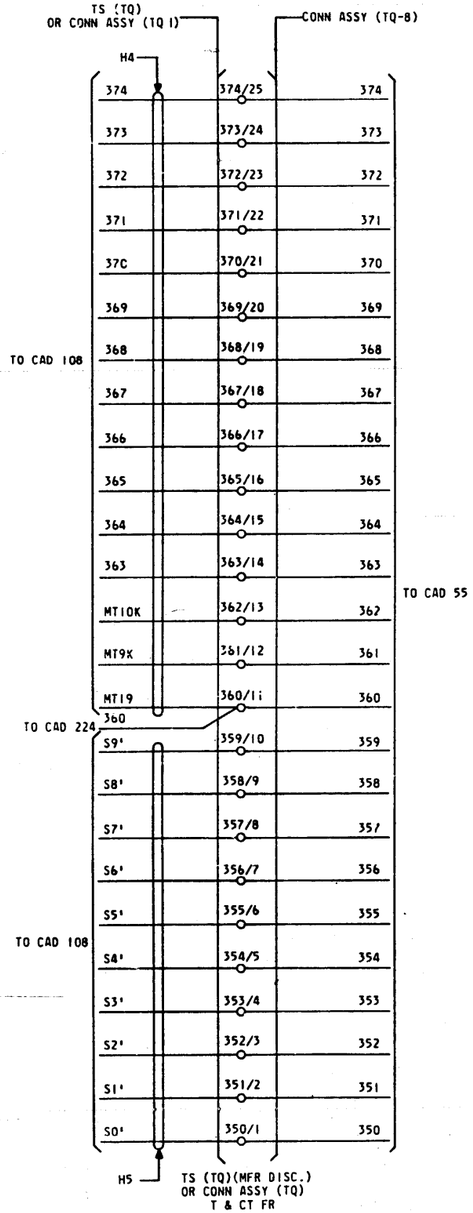
SD-26002-01-G101

BELL TELEPHONE LABORATORIES INCORPORATED

6S

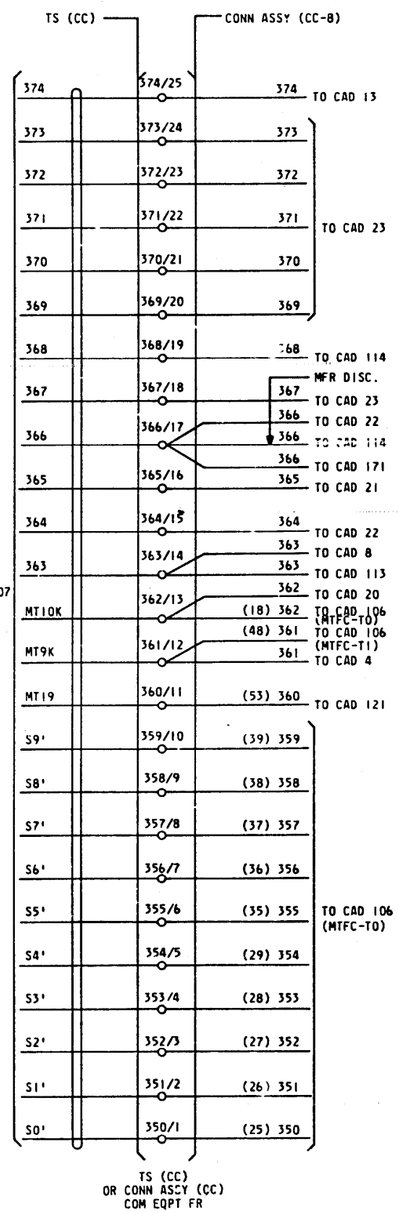
## PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



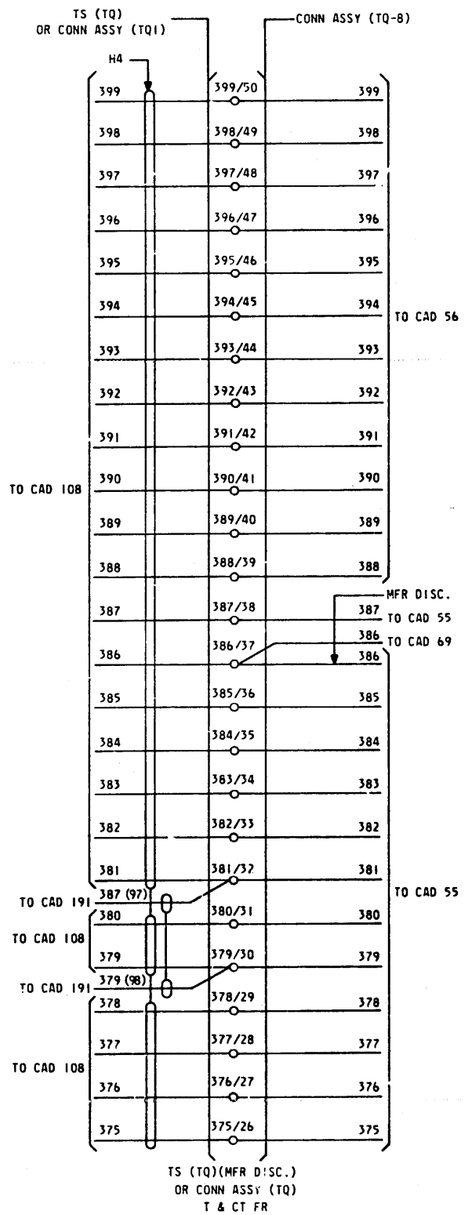

## PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



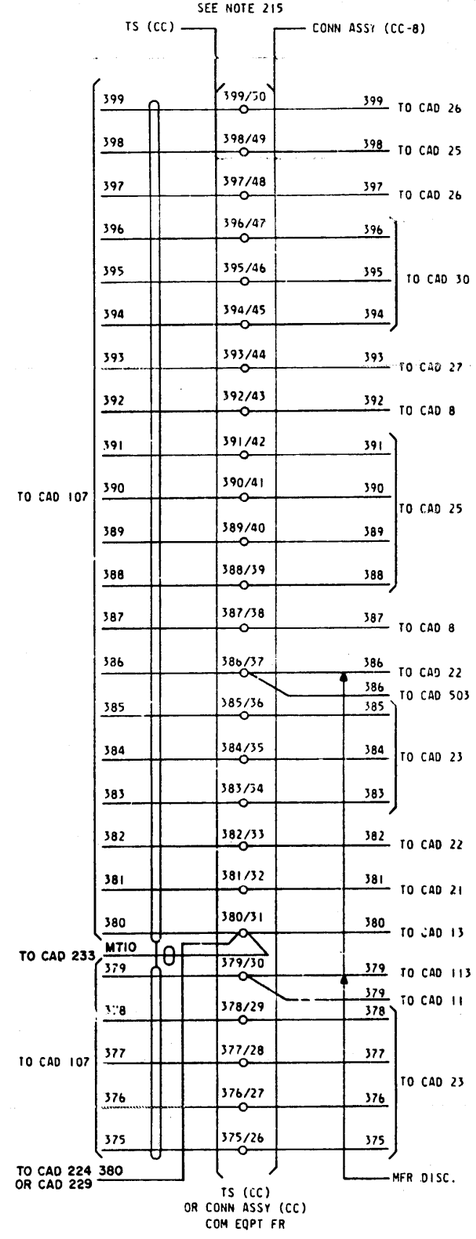

## PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




## PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




ISSUE
65B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-G102 |
| BELL TELEPHONE LABORATORIES INCORPORATED | DWG SIZE 6S |

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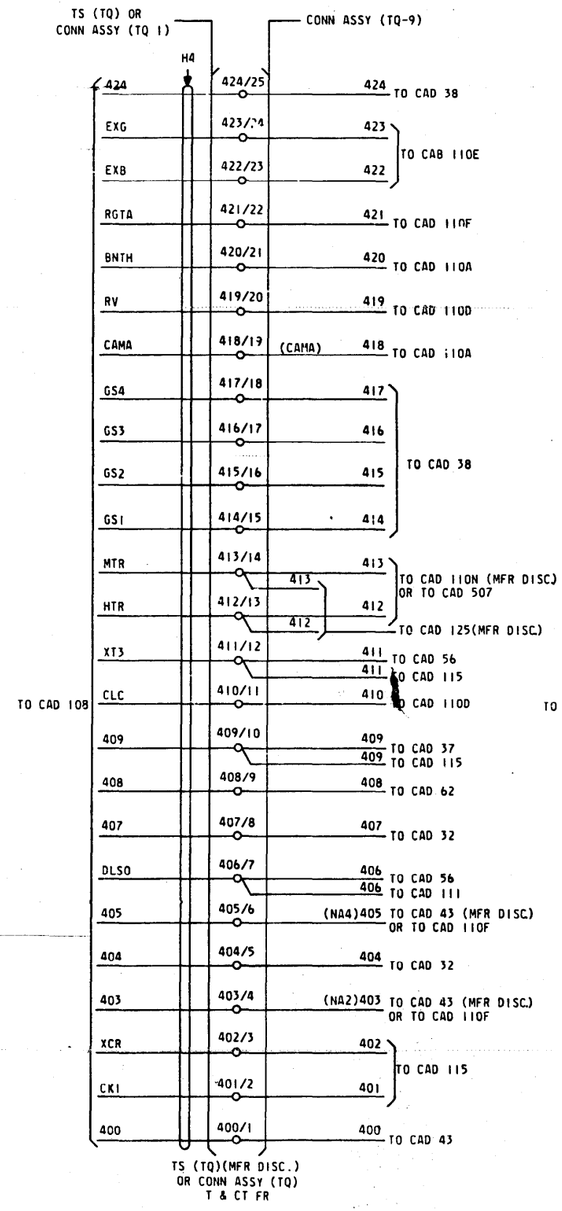
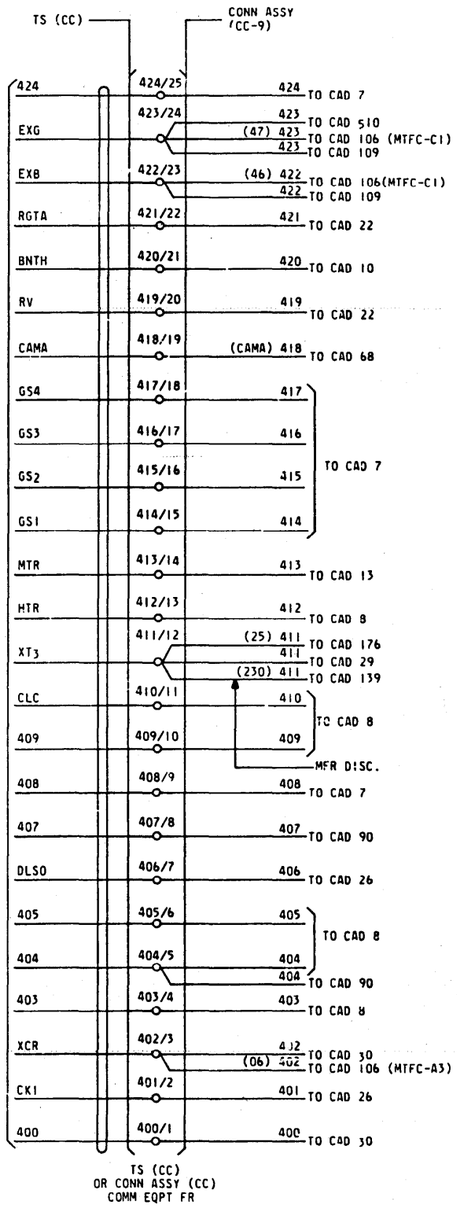
# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



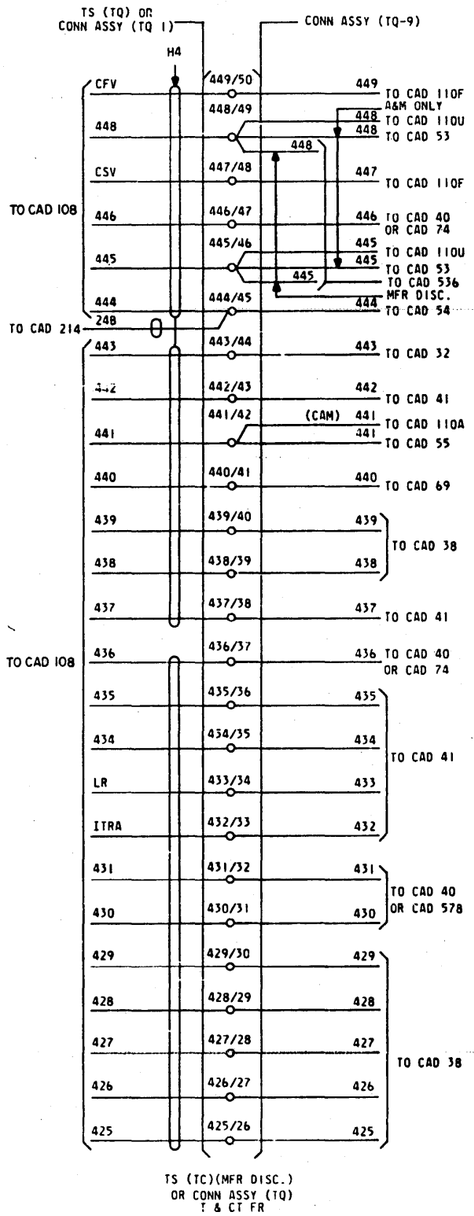

# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



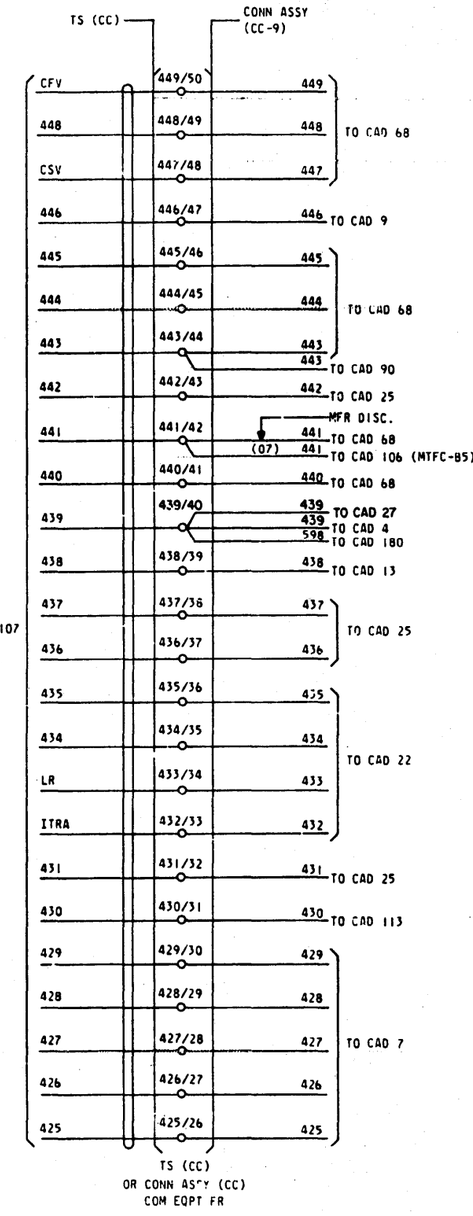

# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




ISSUE 69B

COMPLETING MARKER CIRCUIT

SD-26002-01-G103

BELL TELEPHONE LABORATORIES INCORPORATED

6S

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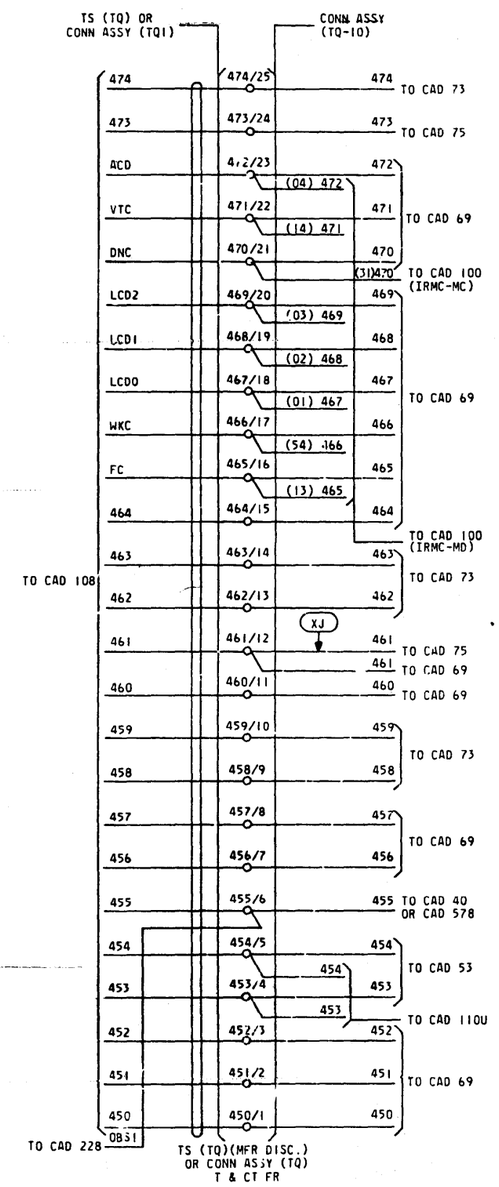
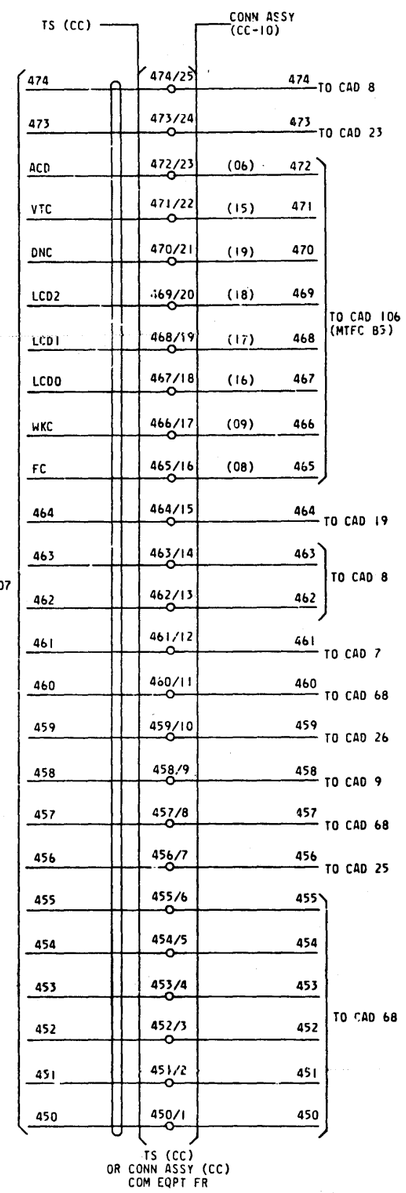
E-7421 (10-77)

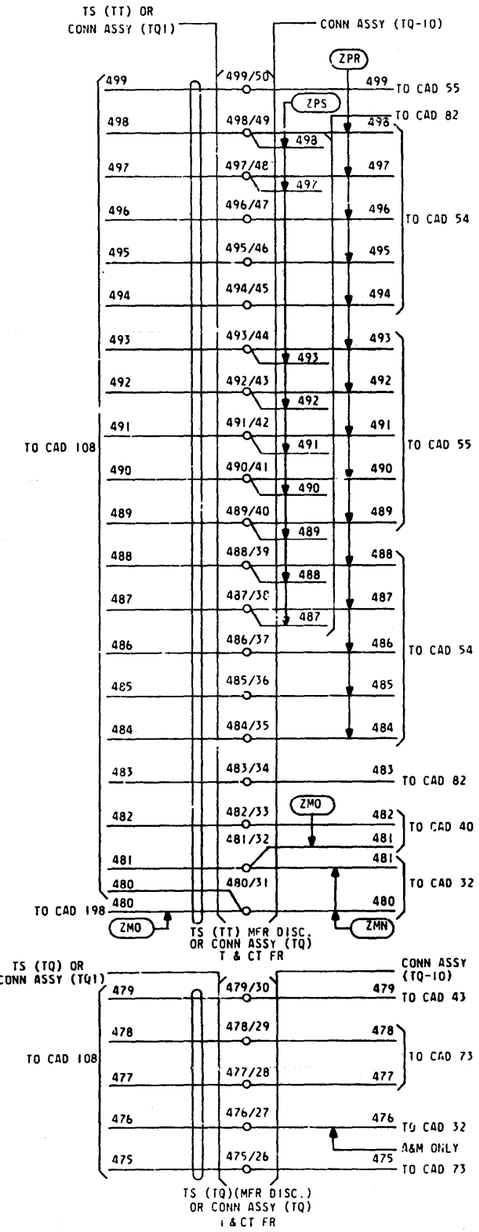
# PART OF CAD 107
(SWITCHBOARD CABLE FROM T &CT TO CE FR)
SEE NOTE 215



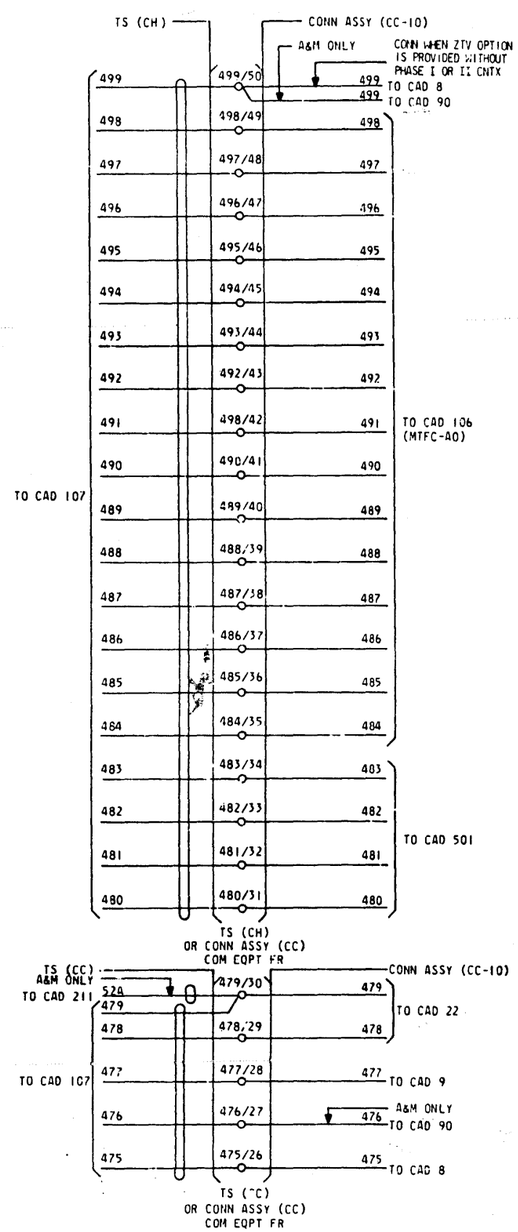

# PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T&CT FR)
SEE NOTE 215




# PART OF CAD 107
(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T&CT FR)
SEE NOTE 215




ISSUE 57B

COMPLETING MARKER CIRCUIT

SD-26002-01-6104

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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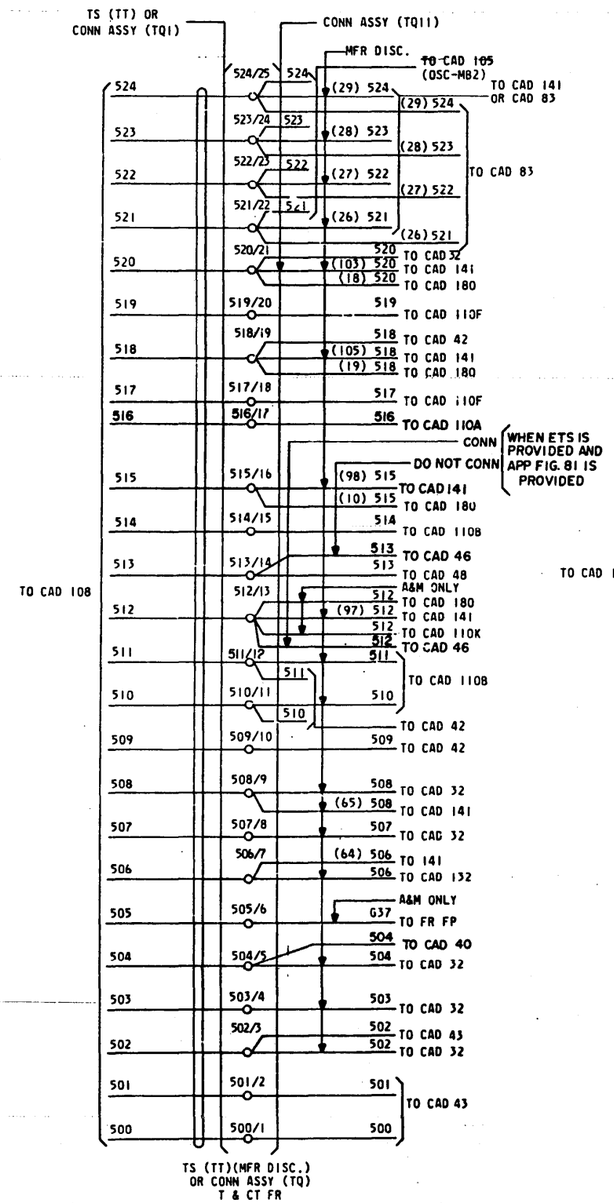
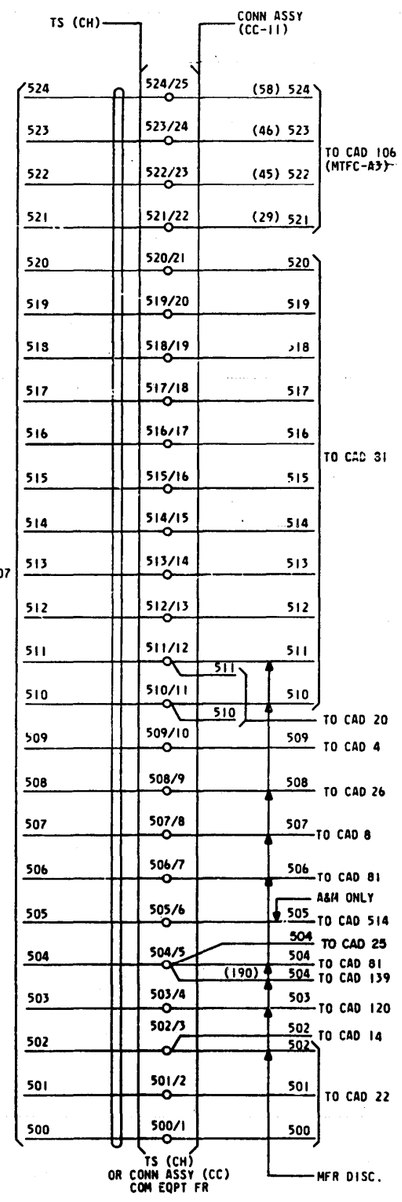
# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



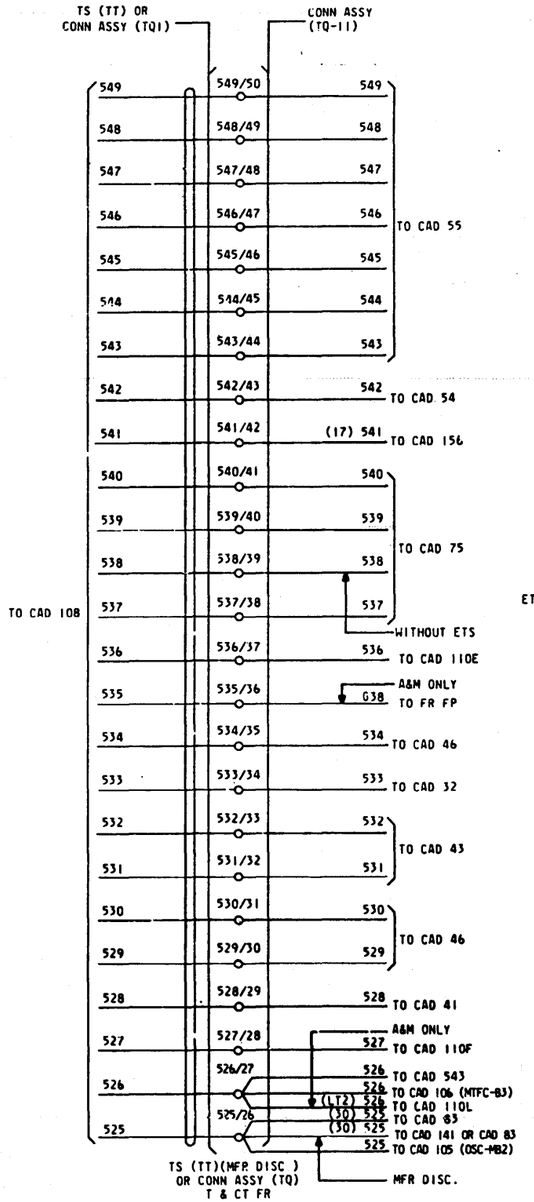

# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



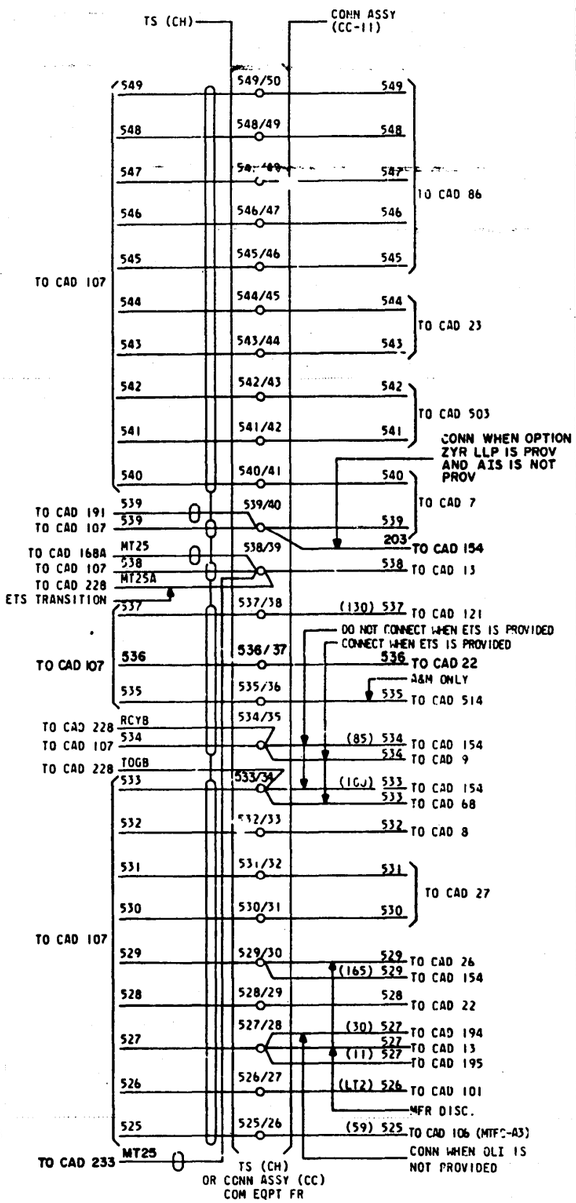

# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




ISSUE 65B

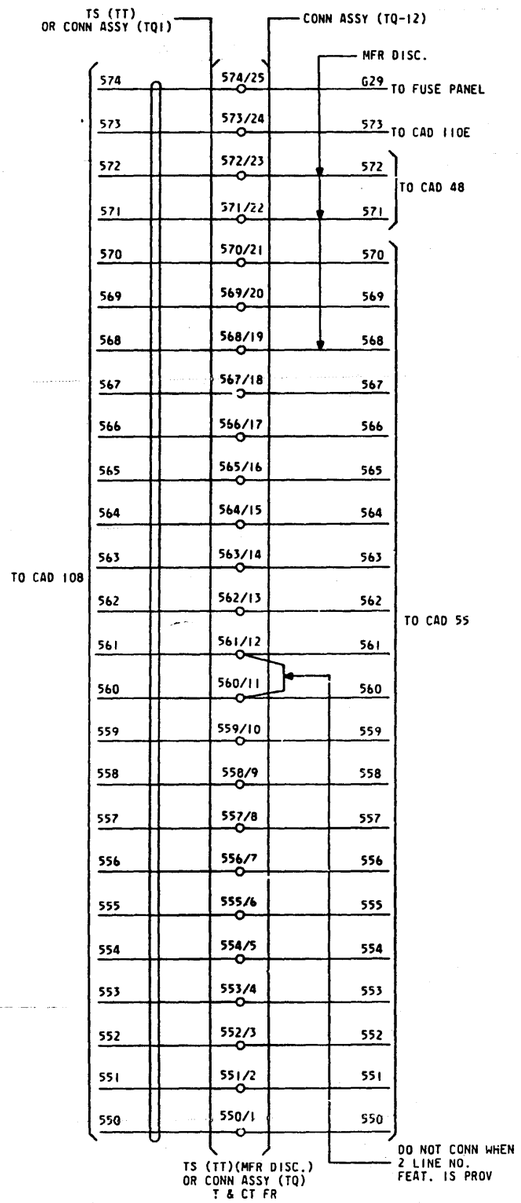
COMPLETING MARKER CIRCUIT

SD-26002-01-G105

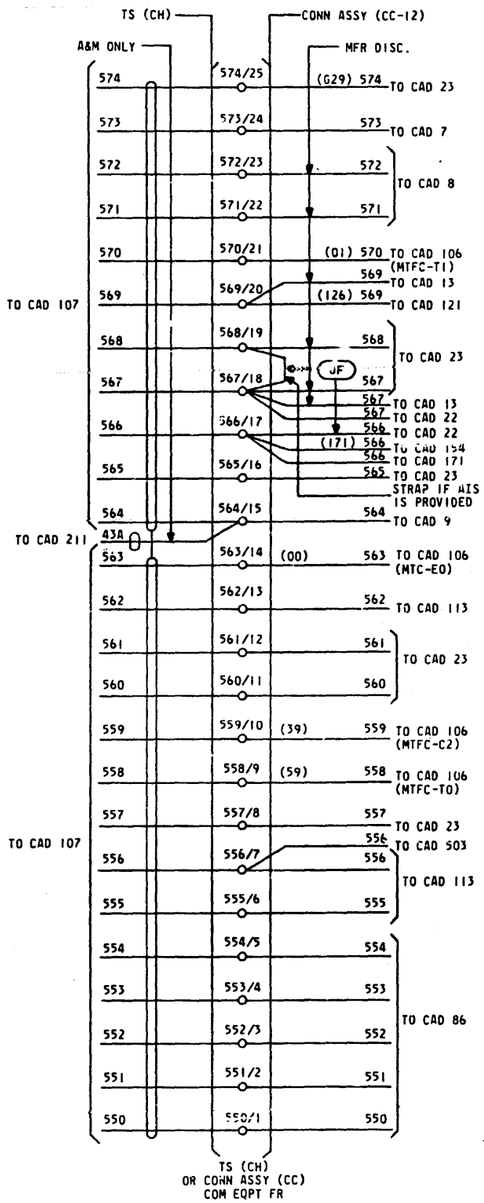
BELL TELEPHONE LABORATORIES INCORPORATED

6S

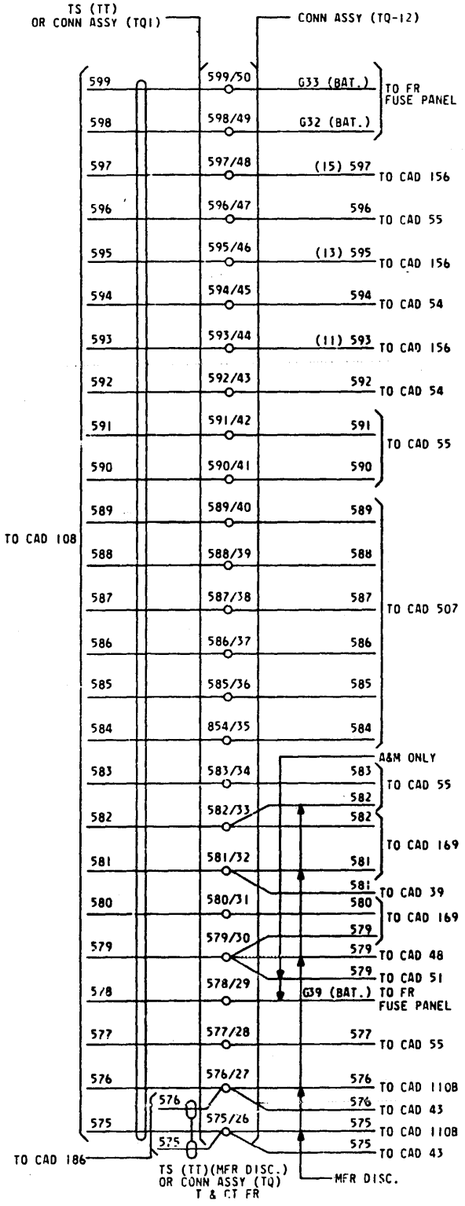
## PART OF CAD 107
(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



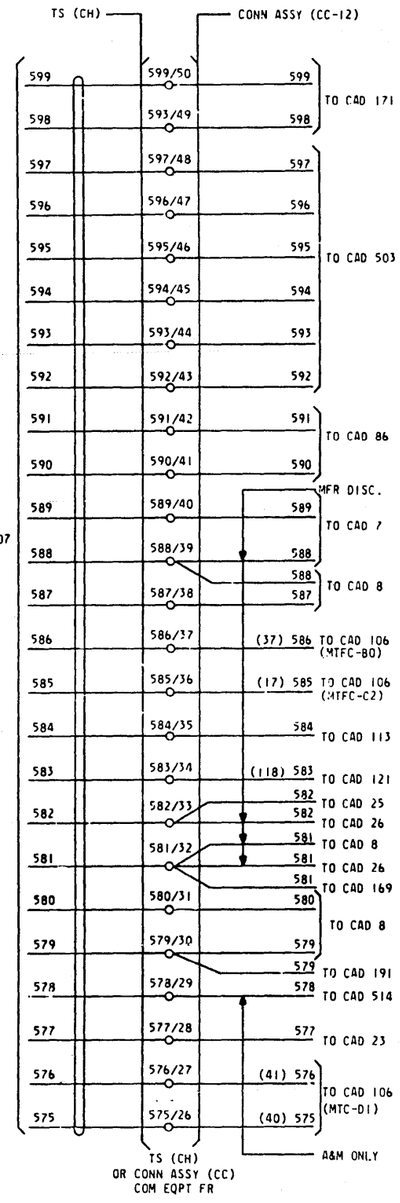

## PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




## PART OF CAD 107
(SWITCHBOARD CABLE FROM T & CT TO CE FR )
SEE NOTE 215




## PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215




ISSUE 65B

COMPLETING MARKER CIRCUIT

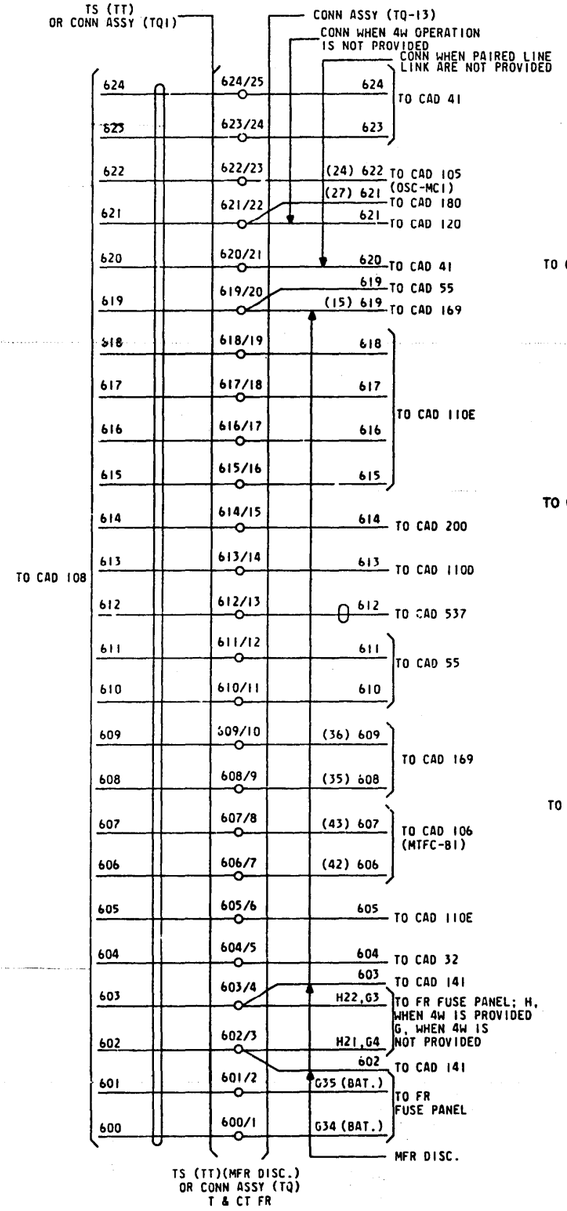
SD-26002-01-G106A

BELL TELEPHONE LABORATORIES INCORPORATED

65

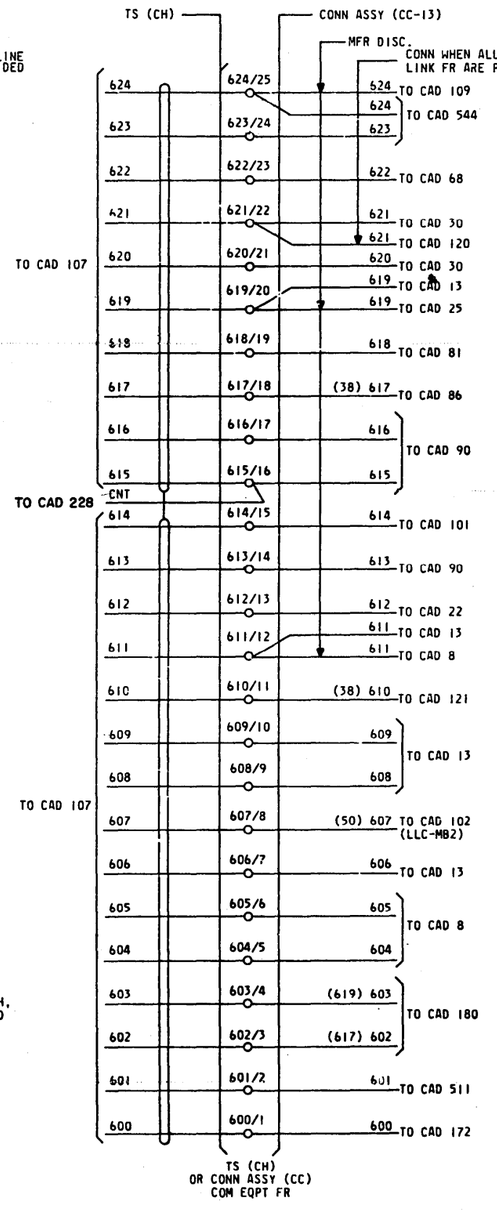
# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



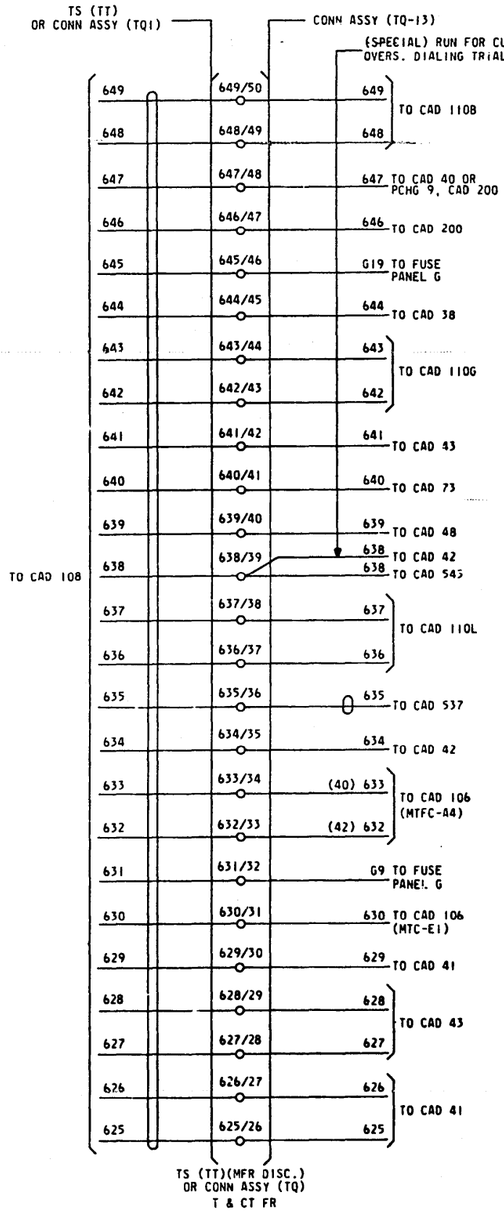

# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



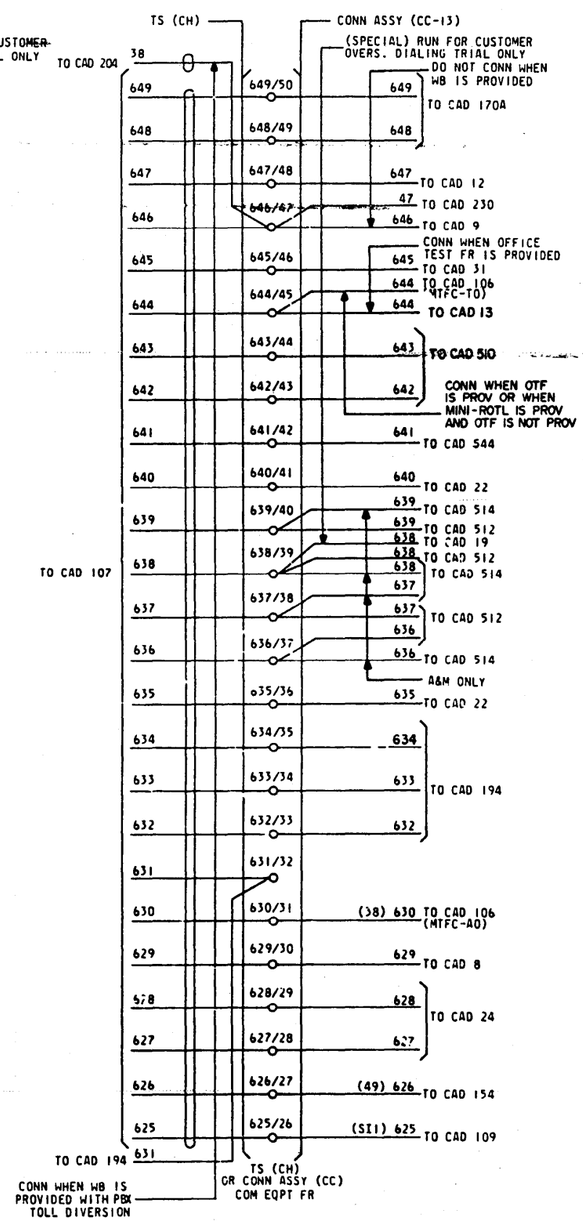

# PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



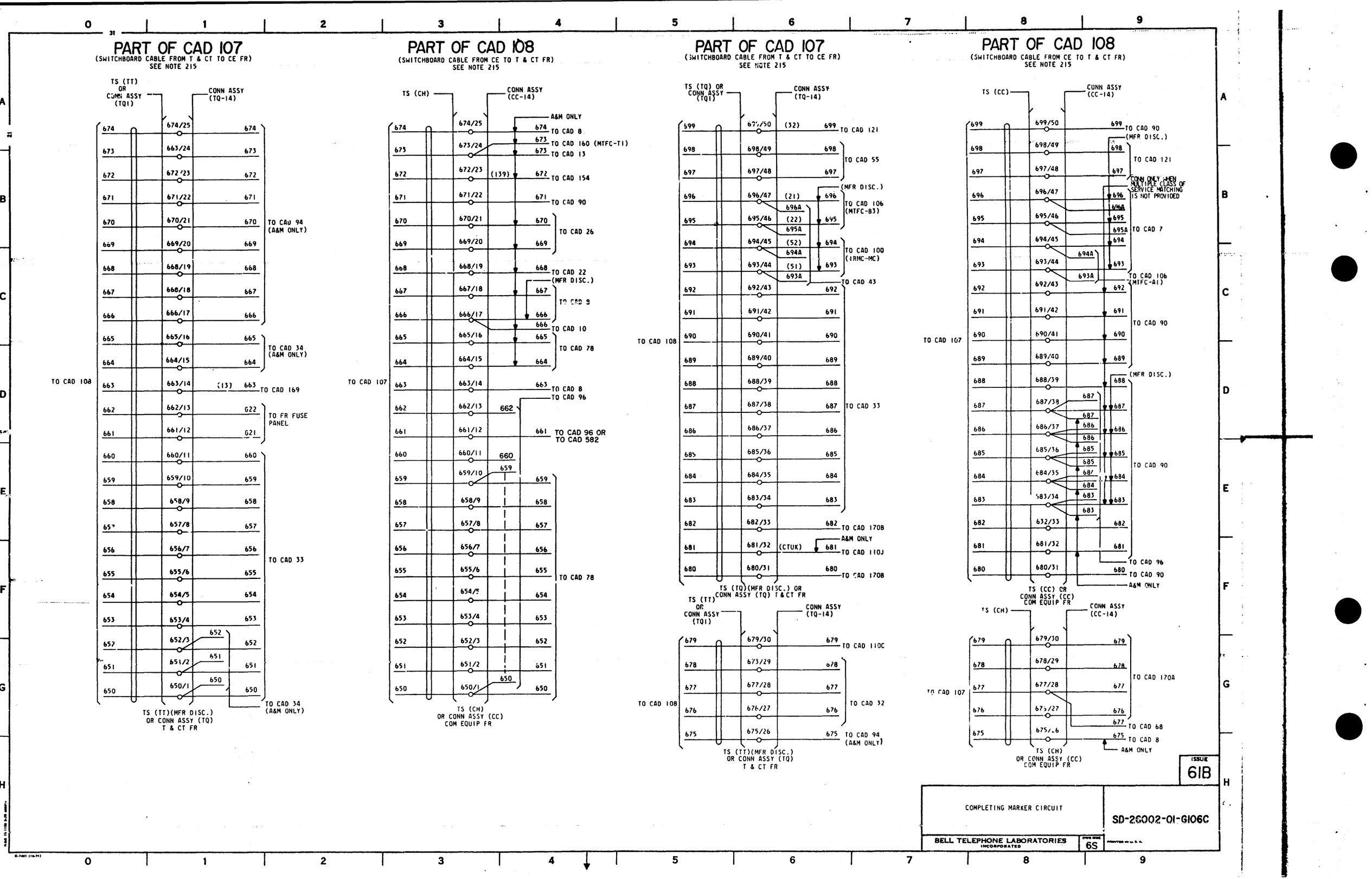

ISSUE 64A

COMPLETING MARKER CIRCUIT

SD-26002-01-G106B

BELL TELEPHONE LABORATORIES INCORPORATED

6S




ISSUE 61B

COMPLETING MARKER CIRCUIT

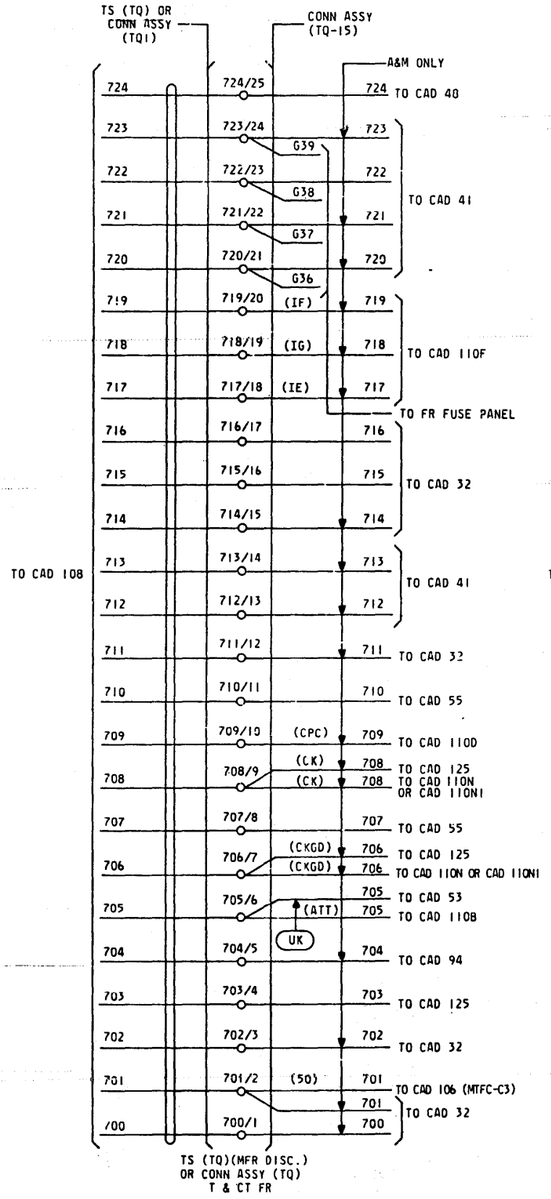
SD-26002-01-G106C

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

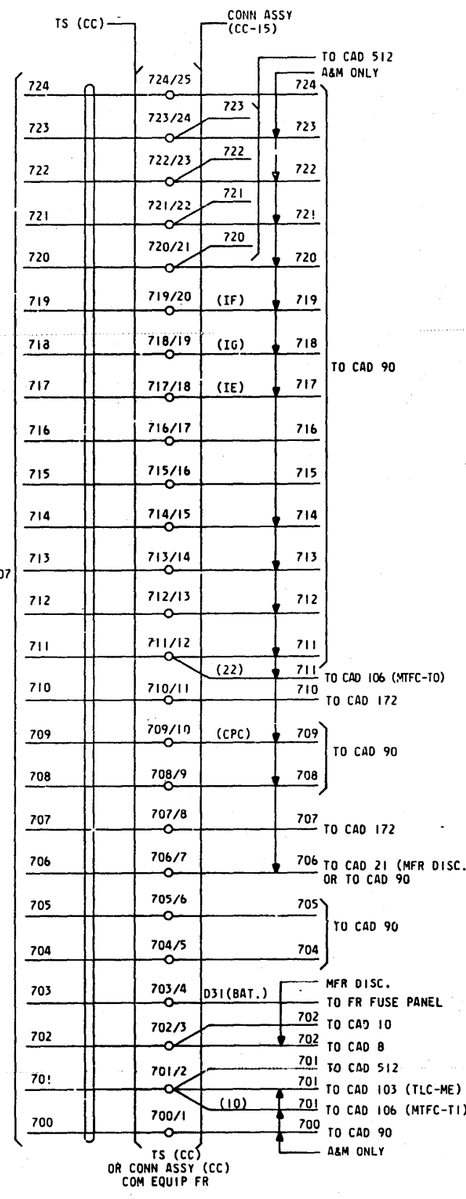
## PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



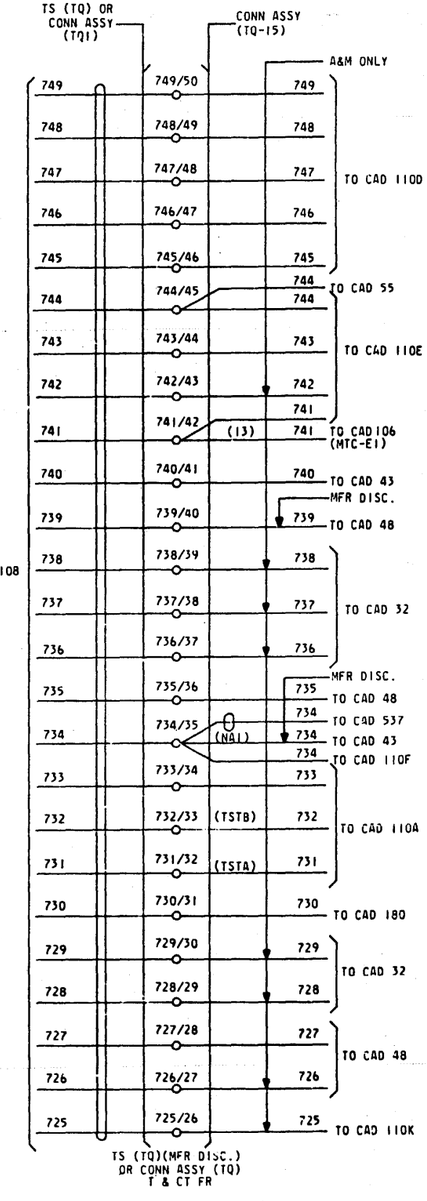

## PART OF CAD 108

(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



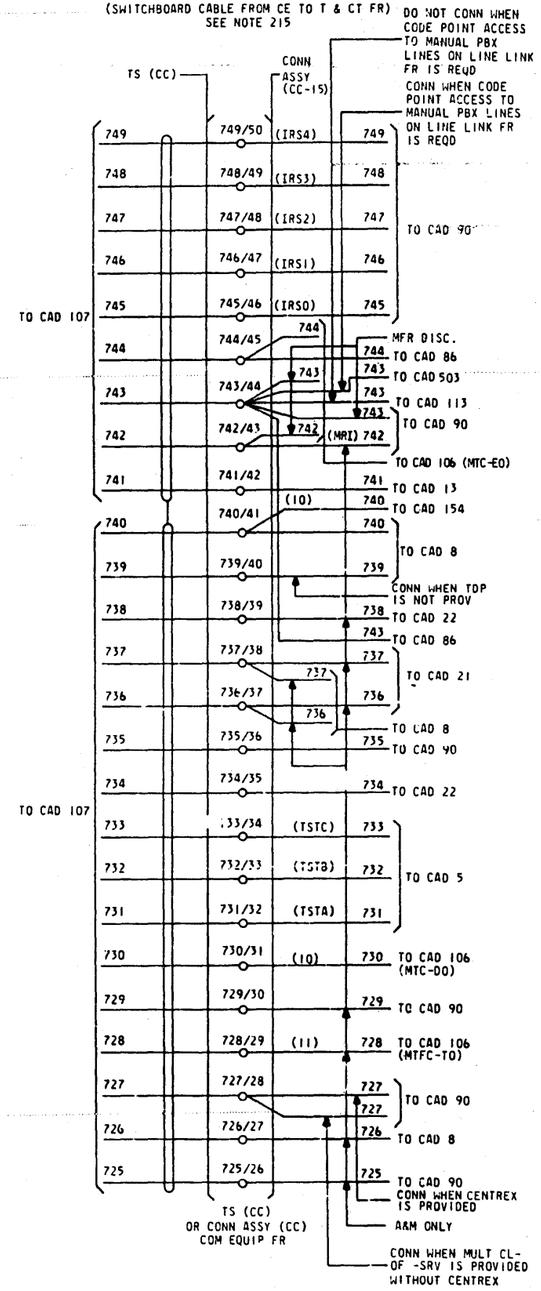

## PART OF CAD 107

(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




## PART OF CAD 108

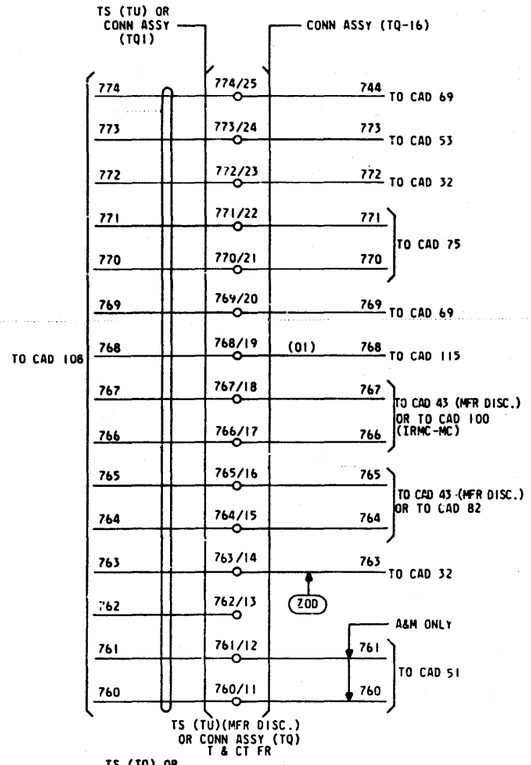
(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215

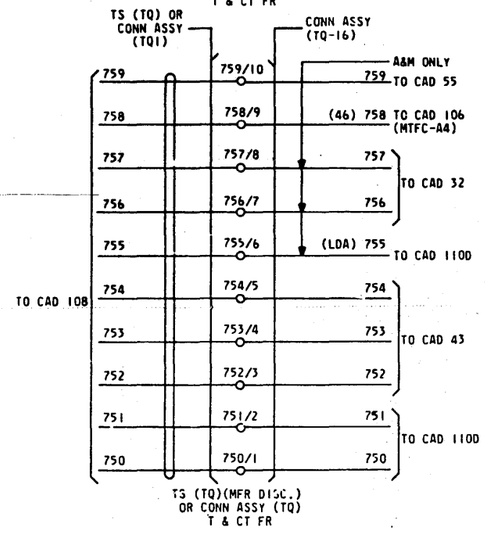



ISSUE 57B

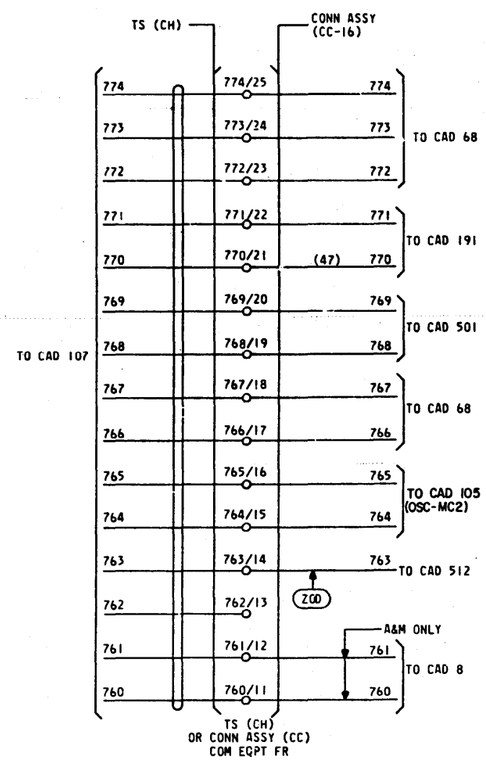
| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-G106D |
| BELL TELEPHONE LABORATORIES INCORPORATED | DWG SIZE 6S |

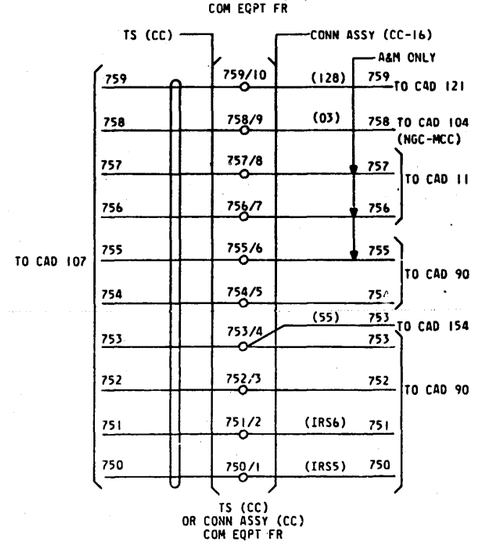
# PART OF CAD 107
(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215



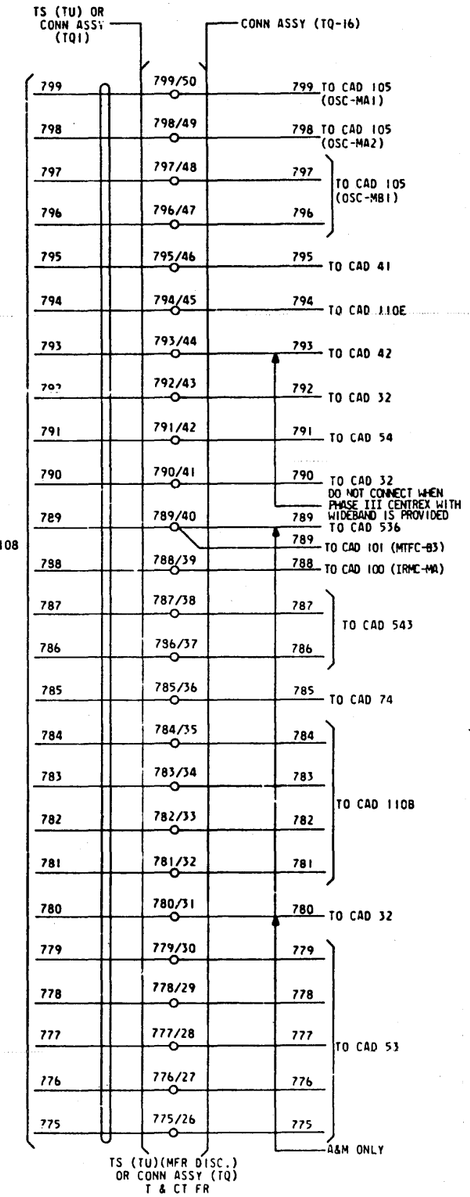




# PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215

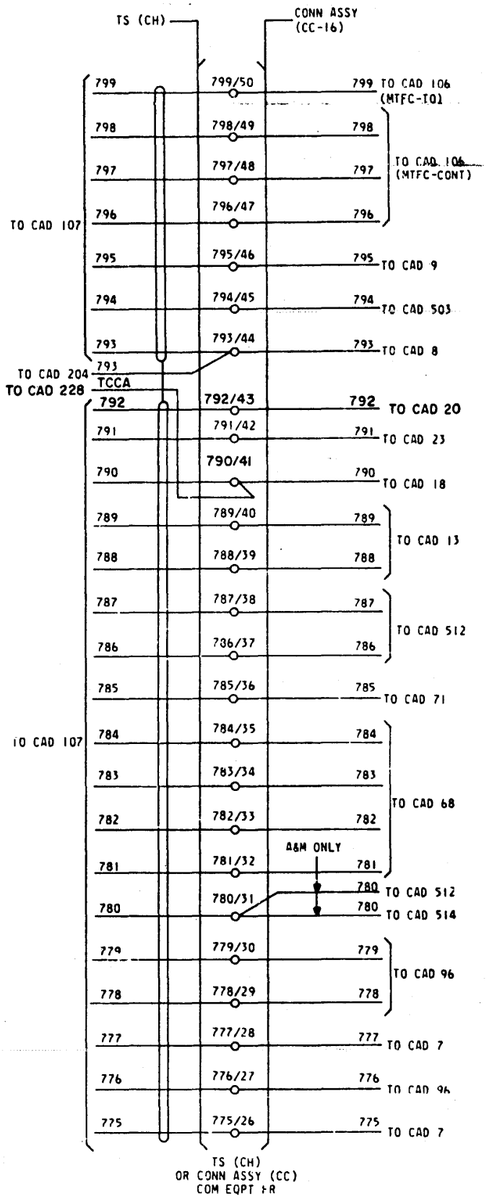



# PART OF CAD 107
(SWITCHBOARD CABLE FROM T & CT TO CE FR)
SEE NOTE 215




# PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T & CT FR)
SEE NOTE 215



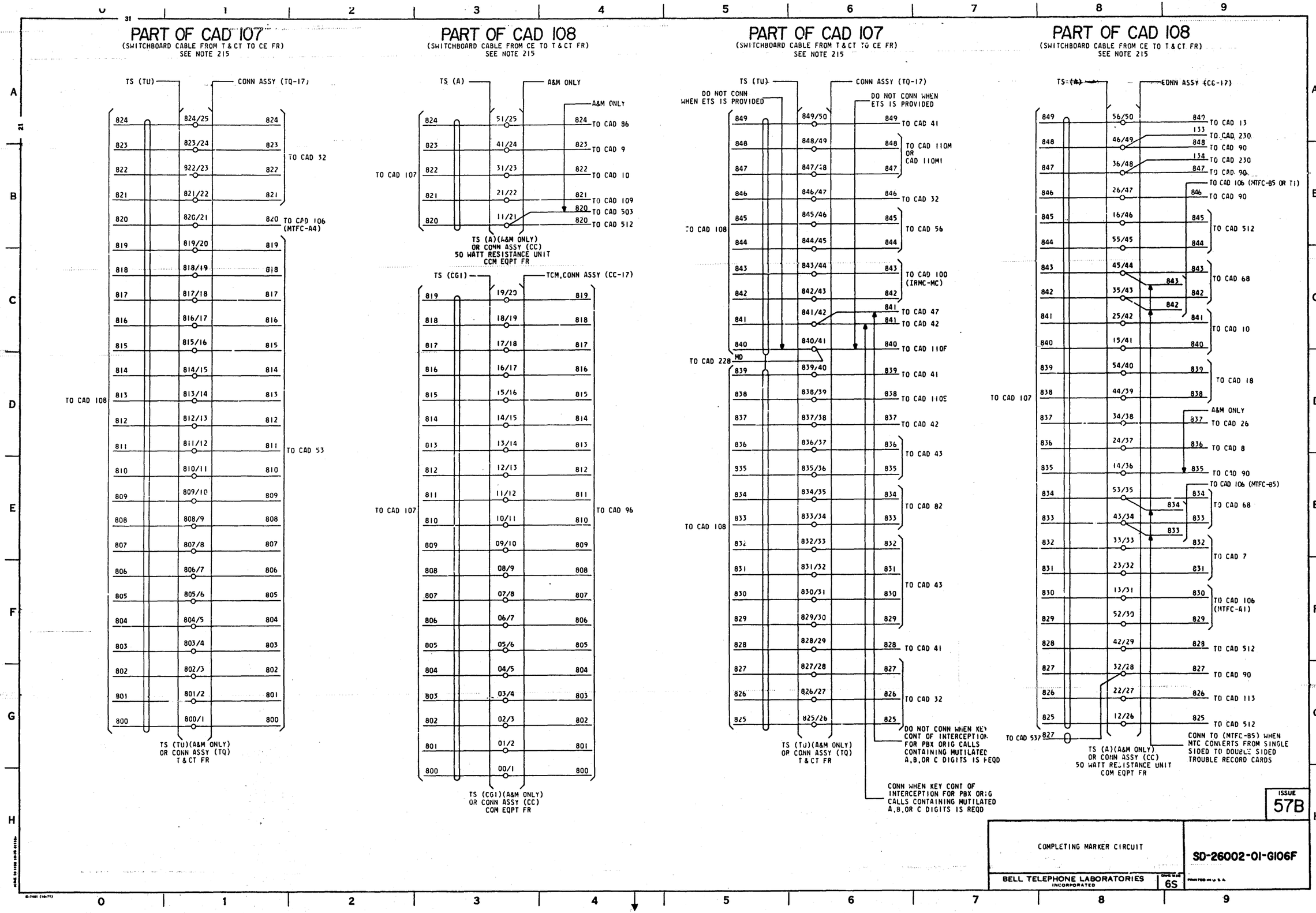

ISSUE 61B

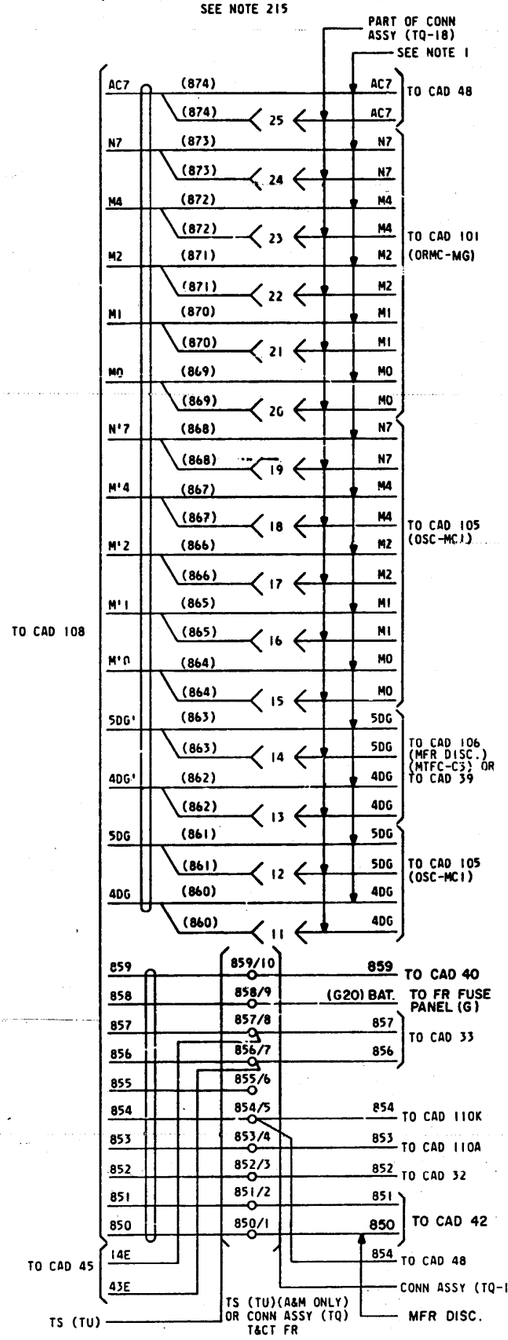
COMPLETING MARKER CIRCUIT

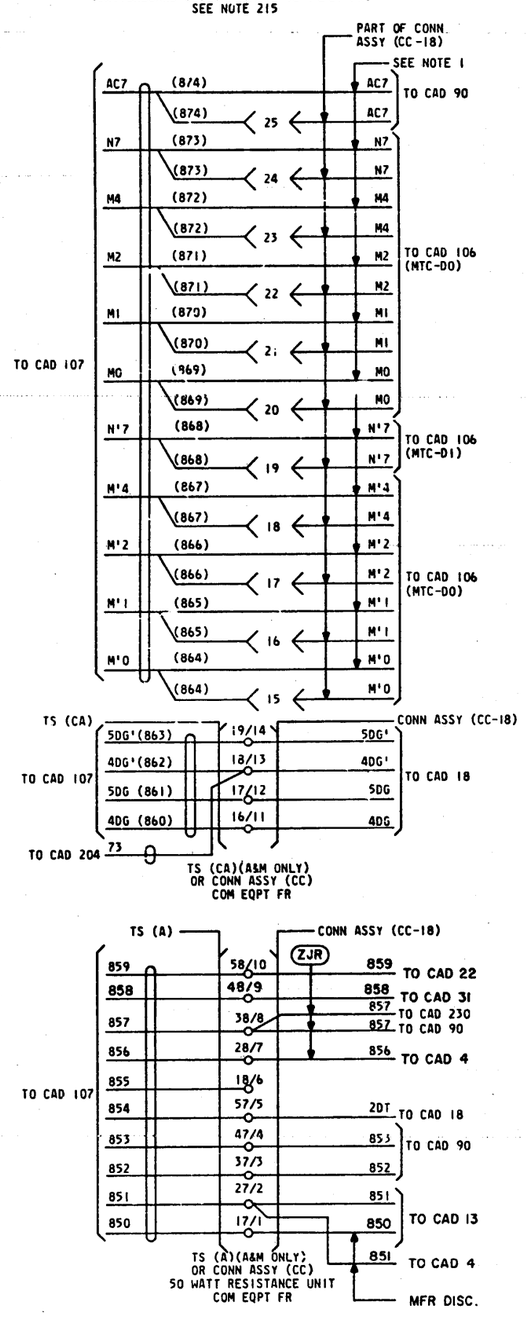
SD-26002-01-G106E

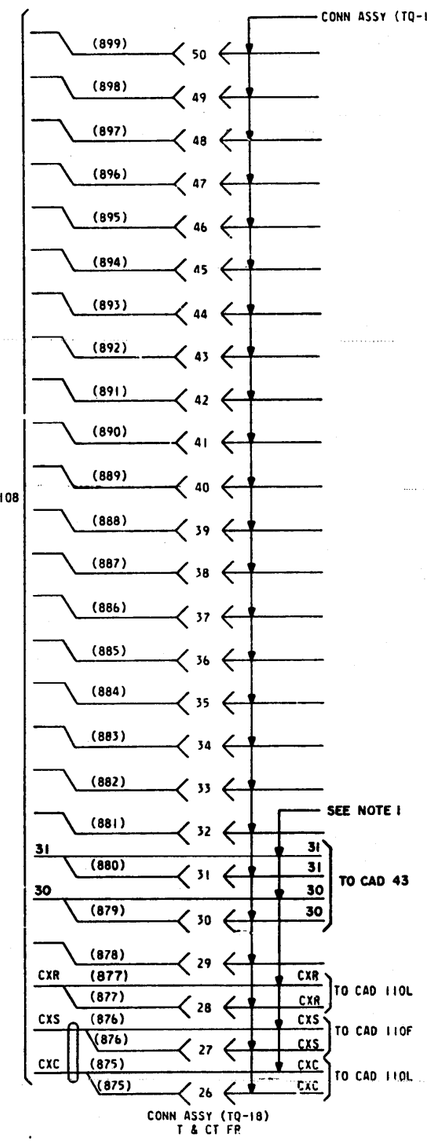
BELL TELEPHONE LABORATORIES INCORPORATED

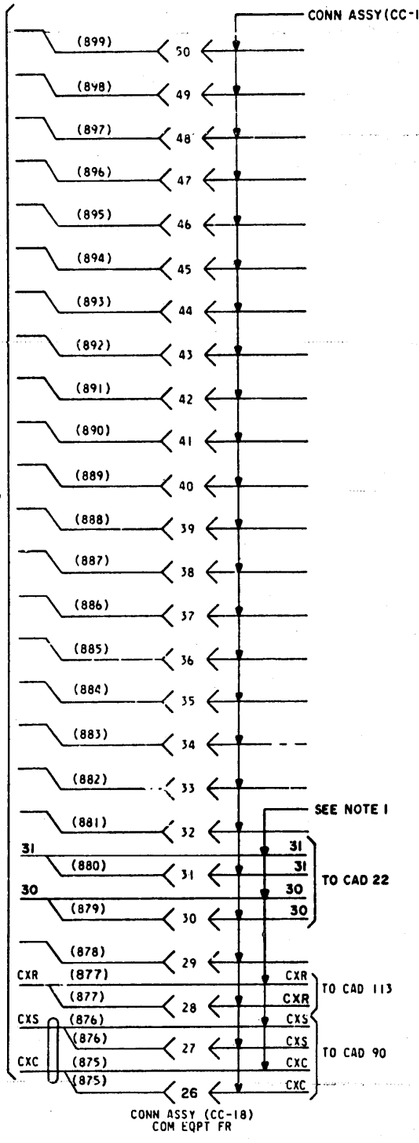
6S


PART OF CAD 107
(SWITCHBOARD CABLE FROM T&CT TO CE FR)
SEE NOTE 215
TS (TU)
CONN ASSY (TQ-17)
824 824/25 824
823 823/24 823
822 922/23 822
821 821/22 821
TO CAD 32
820 820/21 820 TO CAD 106 (MTFC-A4)
819 819/20 819
818 818/19 818
817 817/18 817
816 816/17 816
815 815/16 815
814 814/15 814
TO CAD 108 813 813/14 813
812 812/13 812
811 811/12 811
TO CAD 53
810 810/11 810
809 809/10 809
808 808/9 808
807 807/8 807
806 806/7 806
805 805/6 805
804 804/5 804
803 803/4 803
802 802/3 802
801 801/2 801
800 800/1 800
TS (TU)(A&M ONLY)
OR CONN ASSY (TQ)
T&CT FR
PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T&CT FR)
SEE NOTE 215
TS (A)
A&M ONLY
A&M ONLY
824 51/25 824 TO CAD 86
823 41/24 823 TO CAD 9
TO CAD 107 822 31/23 822 TO CAD 10
821 21/22 821 TO CAD 109
820 11/21 820 TO CAD 503
820 TO CAD 512
TS (A)(A&M ONLY)
OR CONN ASSY (CC)
50 WATT RESISTANCE UNIT
CCM EQPT FR
TS (CG1)
TCM,CONN ASSY (CC-17)
819 19/20 819
818 18/19 818
817 17/18 817
816 16/17 816
815 15/16 815
814 14/15 814
813 13/14 813
812 12/13 812
TO CAD 107 811 11/12 811 TO CAD 96
810 10/11 810
809 09/10 809
808 08/9 808
807 07/8 807
806 06/7 806
805 05/6 805
804 04/5 804
803 03/4 803
802 02/3 802
801 01/2 801
800 00/1 800
TS (CG1)(A&M ONLY)
OR CONN ASSY (CC)
COM EQPT FR
PART OF CAD 107
(SWITCHBOARD CABLE FROM T&CT TO CE FR)
SEE NOTE 215
TS (TU)
CONN ASSY (TQ-17)
DO NOT CONN
WHEN ETS IS PROVIDED
DO NOT CONN WHEN
ETS IS PROVIDED
849 849/50 849 TO CAD 41
848 848/49 848 TO CAD 110M OR CAD 110M1
847 847/48 847
846 846/47 846 TO CAD 32
TO CAD 108 845 845/46 845 TO CAD 56
844 844/45 844
843 843/44 843 TO CAD 100 (IRMC-MC)
842 842/43 842
841 841/42 841 TO CAD 47
841 TO CAD 42
TO CAD 228 840 840/41 840 TO CAD 110F
MD
839 839/40 839 TO CAD 41
838 838/39 838 TO CAD 110S
837 837/38 837 TO CAD 42
836 836/37 836 TO CAD 43
835 835/36 835
834 834/35 834 TO CAD 82
TO CAD 108 833 833/34 833
832 832/33 832
831 831/32 831 TO CAD 43
830 830/31 830
829 829/30 829
828 828/29 828 TO CAD 41
827 827/28 827
826 826/27 826 TO CAD 32
825 825/26 825
DO NOT CONN WHEN KEY
CONT OF INTERCEPTION
FOR PBX ORIG CALLS
CONTAINING MUTILATED
A,B,OR C DIGITS IS REQD
TS (TU)(A&M ONLY)
OR CONN ASSY (TQ)
T&CT FR
CONN WHEN KEY CONT OF
INTERCEPTION FOR PBX ORIG
CALLS CONTAINING MUTILATED
A,B,OR C DIGITS IS REQD
PART OF CAD 108
(SWITCHBOARD CABLE FROM CE TO T&CT FR)
SEE NOTE 215
TS (A)
CONN ASSY (CC-17)
849 56/50 849 TO CAD 13
133 TO CAD 230
848 46/49 848 TO CAD 90
134 TO CAD 230
847 36/48 847 TO CAD 90
TO CAD 106 (MTFC-B5 OR T1)
846 26/47 846 TO CAD 90
845 16/46 845 TO CAD 512
844 55/45 844
843 45/44 843 TO CAD 68
843
842 35/43 842
842
841 25/42 841 TO CAD 10
840 15/41 840
839 54/40 839 TO CAD 18
TO CAD 107 838 44/39 838
A&M ONLY
837 34/38 837 TO CAD 26
836 24/37 836 TO CAD 8
835 14/36 835 TO CAD 90
TO CAD 106 (MTFC-B5)
834 53/35 834 TO CAD 68
834
833 43/34 833
833
832 33/33 832 TO CAD 7
831 23/32 831
830 13/31 830 TO CAD 106 (MTFC-A1)
829 52/30 829
828 42/29 828 TO CAD 512
827 32/28 827 TO CAD 90
826 22/27 826 TO CAD 113
825 12/26 825 TO CAD 512
TO CAD 537 827
CONN TO (MTFC-B5) WHEN
MTC CONVERTS FROM SINGLE
SIDED TO DOUBLE SIDED
TROUBLE RECORD CARDS
TS (A)(A&M ONLY)
OR CONN ASSY (CC)
50 WATT RESISTANCE UNIT
COM EQPT FR
ISSUE
57B
COMPLETING MARKER CIRCUIT
SD-26002-01-G106F
BELL TELEPHONE LABORATORIES
INCORPORATED
6S




NOTES:
1. (MFR DISC.) DIRECT SWITCHBOARD CABLING IS REQUIRED WHEN ALL APPLICABLE TERMINAL STRIP PUNCHINGS ARE EXHASTED AND THE MARKER FRAMES ARE NOT ARRANGED FOR CONNECTOR ASSEMBLIES.

ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-G1066

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 109

(COM EQPT FR CROSS CONN)

X CONN AS SPECIFIED BY SECTION D

SDB
SDB11 — TO CAD 67
SDB10
SDB9 — TO CAD 28
SDB5
SDB4 — TO CAD 27
SDB0
T.S. (CF) ON COM EQPT. FR.

STBC
77
75 — TO CAD 105 (OSC-CONT)
67
65
T.S. (CG) ON COM EQPT. FR.

SDA
SDA11 — TO CAD 67
SDA10
SDA9 — TO CAD 28
SDA5
SDA4 — TO CAD 27
SDA0
T.S. (CF) ON COM EQPT. FR.

STAC
76
74 — TO CAD 105 (OSC-CONT)
66
64
T.S. (CG) ON COM EQPT. FR.

SK
SK11 — TO CAD 67
SK10
SK9 — TO CAD 28
SK5
SK4 — TO CAD 27
SK0
T.S. (CF) ON COM. EQPT. FR.

PRV — TO CAD 25
SPC
SABC
SAB — TO CAD 108
SA
SKD
SKD1 — TO CAD 27
SKD0
T.S. (CG) ON COM. EQPT. FR.

OSM
OSM11 — TO CAD 67
OSM10
OSM9 — TO CAD 28
OSM5
OSM4 — TO CAD 27
OSM0
T.S. (CF) ON COM. EQPT. FR.

OSM
MFR DISC.
(OSS) 73 — TO CAD 121
OSM — TO CAD 26
T.S. (CG) ON COM. EQPT. FR.

X CONN TO OSCO-II IN CAD 111 AS SPECIFIED BY SECTION D

AMA4 — TO CAD 81
AMA
AMA — TO CAD 23 (MFR DISC) OR TO CAD 81
SDG1
SDG0
TW4
TW3
TW2
TW1
TW0 — TO CAD 27
NS0
22
NS0
TS (CG) ON COM EQPT FR

X CONN AS SPECIFIED BY SECTION D

LLS2
LLS2 — MFR DISC.
520 — TO CAD 9 TO CAD 180
LLS1
LLS1
LLS0
LLS0 — TO CAD 22
T S (CJ) ON COM EQPT FR

X CONN AS SPECIFIED BY SECTION D

GBB
GBB11 — TO CAD 67
GBB10
GBB9 — TO CAD 23
GBB5
GBB4 — TO CAD 27
GBB0
T.S. (CF) ON COM. EQPT. FR.

GBBC
73
71
63 — TO CAD 105 (OSC-CONT)
61
GBA
GBA11 — TO CAD 67
GBA10
GBA9 — TO CAD 28
GBA5
GBA4 — TO CAD 27
GBA0
T. S. (CF) ON COM EQPT FR

X CONN AS SPECIFIED BY SECTION D

GBAC
72
70
62 — TO CAD 105 (OSC-CONT)
60
T.S. (CG)

CROSS CONN AS SPEC BY SECT. D

TIR
RIR
IRG
BIR
NRG — TO CAD 81 / TO CAD 21

X CONN AS SPECIFIED BY SECTION D

OT9
OT4 — TO CAD 12

X CONN AS SPECIFIED BY SECTION D

E
M — TO CAD 8

X CONN AS SPECIFIED BY SECTION D

IN5
INO — TO CAD 12

X CONN AS SPECIFIED BY SECTION D

MI
S — TO CAD 8

X CONN AS SPECIFIED BY SECTION D

HMT
HMT3 — TO CAD 11
HMT2
HMT1 — TO CAD 10

X CONN AS SPECIFIED BY SECTION D

SZ
MFR DISC.
SZ10
SZ3 — TO CAD 20
SZ2-3
SZ2
(99) SZD — TO CAD 180 TO CAD 20 (MFR DISC) OR TO CAD 139
SZD
SZC
SZB — TO CAD. 20
SZA

PR — TO CAD 103 (TLC-MB2)
SF — TO CAD 19

X CONN AS SPECIFIED BY SECTION D

SPF (113) SPF — TO CAD. 9 (MFR DISC) OR TO CAD 180 (MFR DISC) OR TO CAD 180
SPF4 (111) SPF4
SZD4 (114) SZD4 — TO CAD 139 (MFR DISC) OR TO CAD. 180

X CONN TO BAT OR GRD TEST POINTS AS SPECIFIED BY SECTION D

TTF — TO CAD 19 TO CAD 103 (TLC-M)
EXG
EXB — TO CAD 108

X CONN AS SPECIFIED BY SECTION D

OF30
EF30 — TO CAD 138
OF20
EF20 — TO CAD 4
OF10
EF10 — TO CAD 2
OFO
EFO
OF
EF — TO CAD 3
T.S. (CG) ON COM EQPT FR

X CONN AS SPECIFIED BY SECTION D

NTR2
NTR1 — TO CAD 71

X CONN AS SPECIFIED BY SECTION D

TT
TTG — TO CAD 106 (MTFC-CONT) TO CAD 26
MFR DISC.
(TTK) 39 — TO CAD 26 TO CAD 106 (MTFC-A0)
TO CAD 228 OT2
OT2 — TO CAD 103 (TLC-MC2)

X CONN AS SPECIFIED BY SECTION D

DKA
DKA2 — TO CAD 27
DKA1 — TO CAD 111

X CONN AS SPECIFIED BY SECTION D

NDT
NDT — TO CAD 26
56 — TO CAD 106 (MTFC-CO)
39 — TO CAD 121
ND — TO CAD 13

X CONN AS SPECIFIED BY SECTION D

FCK
FCK3 — TO CAD 138
FCK2 — TO CAD 7
54 — TO GRD BAR A

DO NOT CONN WHEN MORE THAN 20 TRK LK FR FCR ETS ARE PROVIDED

X CONN AS SPECIFIED BY SECTION D

MON
(B) 80 — TO CAD 121
MON2
MON1 — TO CAD 13

TO CAD 579 22A

X CONN AS SPECIFIED BY SECTION D

FS
FS3 — TO CAD 2
FS2 — TO CAD 4
FS1 — TO CAD 3

CONN WHEN MORE THAN 20 TRK LK FR FOR ETS ARE PROVIDED

AC
AC1 — TO CAD 11
AC2 — TO CAD 9
36 — TO CAD 121 TO CAD 11
AC3
DO NOT CONN — CONN WHEN TW SWITCHING IS PROVIDED

X CONN AS SPECIFIED BY SECTION D

FG
FG2 — TO CAD 4
02 — TO CAD 108
02 — TO CAD 5

X CONN TO OSCO-II IN CAD III PER SECT D

SGC
14
13
12 — TO CAD 68
11
TS (CG) ON COM EQPT FR

DRAWING ISSUE

| | |
|---|---|
| 5D | CGM |
| 8D | |
| 9D | |
| 18D | |
| 20AC | |
| 21D | |
| 22D | JB |
| 23A | DB |
| 25D | HPR |
| 30D | DTA |
| 35D | LP |
| 37D | LEO |

DRAWING REFURBISHED WITHOUT CHANGE 10-8-68

DRAWING ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-6107

# PART OF CAD 109
(COM EQPT FR CROSS CONN)

CST
TO CAD 78
TO CAD 511
TO CAD 78(A&M ONLY) OR TO CAD 511
TO CAD 78
TO CAD 15
TO CAD 509
TS(CG) COM EQPT FR
CROSS CONN AS SPECIFIED BY SECTION D
TO CAD 180
TS(CF)COM EQPT FR

TO CAD 228
(MFR DISC)
TO CAD 153
TO CAD 189
TO CAD 11
DO NOT RUN WHEN WIDEBAND SW IS PROVIDED
TO CAD 19
TS (CG) COM EQPT FR
(SPECIAL) RUN WHEN WIDEBAND SW IS PROVIDED
(19)AI TO CAD 191
TO CAD 170A
TO CAD 90
TO CAD 568
TO CAD 180
MFR DISC.
TO CAD 139
TO CAD 180
TO CAD 139
TO CAD 568
TO CAD 90
TO CAD 568
TO CAD 90
TS(CF)COM EQPT FR

CROSS CONN AS SPECIFIED BY SECTION D
TO CAD 101
SHOWN ON CAD 100
SHOWN ON CAD 101
TS(CG) COM EQPT FR
TS(CF) COM EQPT FR
TO CAD 13
TS(CG) COM EQPT FR
TS(CF) COM EQPT FR
TS(CG) COM EQPT FR
TS(CF) COM EQPT FR

SHOWN ON CAD 153
(SPECIAL) RUN WHEN WIDEBAND SW IS PROVIDED
TO CAD 189
TO CAD 121
TO CAD 22
TO CAD 108
TO FR GRD BAR
CROSS CONN AS SPECIFIED BY SECTION D
MFR DISC.
TO CAD 108
TO CAD 10
TO FR GRD BAR (A47)
TO CAD 510
TS (CF) COM EQPT FR
TO CAD 96
TS (CJ) COM EQPT FR
CROSS CONN AS SPECIFIED BY SECT D
TO CAD 197
TO CAD 26
TO CAD 544
TO CAD 108
TO CAD 189
TS (CG) COM EQPT FR
MFR DISC.

DRAWING ISSUE
25D
30D
31D
32A
33D
35D
37D
41D
45D

DRAWING ISSUE
63B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G108
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 65

# CAD 110A

(A&M ONLY) SEE NOTE 205
SWP-SORT 2B
SWP3 (2B)
SWP0 (2B)
SWP-SORT 1B
SWP3 (1B)
SWP0 (1B)
TO CAD. 34 (A&M ONLY) SEE NOTE 205
SWP4 (2A)
TO CAD. 42
SWP3 (2A)
SWP-SORT 2A
TO CAD. 33
SWP0 (2A)
SWP4 (1A)
TO CAD. 42
SWP3 (1A)
SWP-SORT 1A
TO CAD. 33
SWP0 (1A)
SW179
SW59
SW179
TO CAD 178 (MFR DISC.) OR CAD 141 (MFR DISC.) (RUN FROM ONE GROUP OF 60 SW-POINTS ONLY)
SW120
TO CAD. 151A
SW0
SWR4 (2A)
TO CAD. 42
SWR3 (2A)
SWR-SORT 2A
TO CAD. 33
SWR0 (2A)
SWR4 (1A)
TO CAD. 42
SWR3 (1A)
SWR-SORT 1A
TO CAD. 33
SWR0 (1A)
SWT4 (2A)
TO CAD. 42
SWT3 (2A)
SWT-SORT 2A
TO CAD. 33
SWT0 (2A)
SWT4 (1A)
TO CAD. 42
SWT3 (1A)
SWT-SORT 1A
TO CAD. 33
SWT0 (1A)
SW119
SW60
TO CAD. 126
LC OR SWBD CABLE
SW59
SW00
TO CAD 35 WHEN (S) RELAYS ARE LOCATED ON T&CT FR OR TO CAD 225A
TWC19
TWC00
TO CAD. 79
FAC
TO CAD 32
FAD (FAD) 02
TO CAD. 108 (MTFC-C3)
FD
TO CAD. 48
CAM 441
CAMA 418
TO CAD. 107
OB
TO CAD. 83
TS (TA) T&CT FR

CROSS CONN AS SPECIFIED BY SECT. D

CROSS CONN AS SPECIFIED BY SECT. D

NGC-TMB
SHOWN ON CAD 104
TO CAD 224 OR CAD 229
AST
NGC-ST
AS
AS TO CAD. 157
CROSS CONN TO STO-5 FOR NGSO-5 STA, STB, STAI, STBI, TBIST, RIST, OR BNST IN CAD 110B
AST TO CAD 43
BNTH
BNTH TO CAD. 157
BNTH TO CAD 196
420 TO CAD. 107
NSL2 TO CAD 48
NSL1
19
18
TO CAD. 122
NSL TO CAD 48
NSE
NSE TO CAD. 52
NSX
NSX TO CAD 48
CROSS CONN AS SPEC BY SECT. D, PART 32
N4
N3
N2
N1
TO CAD 54
(MFR DISC.)
I4W (05) I4W (11) I4W TO CAD. 180
CSW
124
105
(25) CSW19
25
(6) CSW00
06
(125) CDG9
95
(116) CDG0
86
CDG GW7
GW7
GW0
00
GW TO CAD. 141
SSG
SSG4
TO CAD. 110E
SSG0
INB-ST
INA-ST
TO CAD. 82
SVDT
AOLS (67) AOLS
TO CAD. 141
4WS 101
17 TO CAD. 180
2WS 516 TO CAD. 107
(MFR DISC.)
NSL3 TO CAD. 82
TSTA 731
TSTB 732
TSTC 733
TO CAD. 107
TS (TA) T&CT FR

CROSS CONN AS SPECIFIED BY SECT. D

CI-ST
CI4ST
CIOST
TO CAD. 537
LS7
LS6
LS5
TO CAD. 543
LS4
TO CAD. 82
LS3
TO CAD. 52
LS4 TO CAD. 110D
CROSS CONN TO STO-9 IN CAD 110B AS SPEC BY SECT. D
NGS
TO CAD. 110F
LS9
LS8
853 TO CAD 107
LS8 TO CAD 32
NG9
NG0
TO CAD. 110M OR TO CAD 110M1
NSL4
TO CAD. 543
NSL0
TO CAD. 48
DPA
DPB
MFA
MFB
MF1
MF2
TO CAD. 42
IND-ST
INC-ST
ITND
ITNC
TO CAD 569
TCB
TCB5
TCB4
TCB3
TCB2
TCB1
TO CAD. 53
TCA
TCA4
TCA3
TCA2
TCA1
TS (TA) T&CT FR

| DRAWING ISSUE | | |
|---|---|---|
| 50 | CAM AD | LFD |
| 60 | B2D 10B 07B JEM 44A 46A | BD PD |
| 108 | | PD |
| 13B | | W5 |
| 16P | DEL VEC MAA | A CB |
| 17D | DEL ESM | WNE |
| 18D | REL ESE | AHD |
| 19AC | ENG ESM | AHD |
| 20AC | BJS ESM | AHD |
| 210 | BJS ESM | AHD WNE |
| 220 | ESM | B CB |
| 240 | OB CLK | AHD CB |
| 250 | PPR DEN | AHD CB |
| 27A | CL PLT | AHD CB |
| 300 | FES APR | AHD C CL |
| 330 | GLS GDL | AHD |
| 350 | TS TAI | AHD CB |
| 370 | TS | CB |
| 390 | PCL | CB |
| 450 | | CB |

| DRAWING ISSUE | |
|---|---|
| 57B | |

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC
SD-26002-01-G109
SD-26002-01-G109

# CAD 110B

CWSI — CWSI — TO CAD 214
INI — INI — TO CAD 32

SWC-SORT 2A
99 — SWC99(2A)
00 — SWC00(2A)
SWC-SORT 1A
99 — SWC99(1A)
00 — SWC00(1A)
T.S. (TB)
— TO CAD 33

ATT — 705 — TO CAD 107
52 — TO CAD 105 (MTFC-C3)

TAC
57 — TO CAD 106 (MTFC-B1)
2 — TAC2 — TO CAD 32
1 — TAC1 — TO CAD 53
53 — TO CAD 100 (IRMC-MA)

TOC
2 — 56 — TO CAD 106 (MTFC B1)
1 — TOC1 — TO CAD 32
0 — TOC0 — TO CAD 53
04 — TO CAD 100 (IRMC-ME)
TCA — TO CAD 543

CROSS CONN AS SPECIFIED BY SECTION D

TC
2 — 13 — TO CAD 100 (IRMC-ME)
2 — TC2 — TO CAD 53
1 — TC1 — DO NOT CONNECT WHEN CAMA OR MULTIPLE TAN-LOL CLASSES ARE PROVIDED
T.S. (TB) T&CT FR.

CONNECT WHEN CAMA OR MULTIPLE TAN-LOL CLASSES ARE PROVIDED

TS-SORT 2B
(2)TSB9
(2)TSB0
TS-SORT 2A
(2)TSA9
(2)TSA0
TS-SORT 1B
(1)TSB9
(1)TSB0
TS-SORT 1A
(1)TSA9
(1)TSA0
— TO CAD 53
T.S. (TB) T&CT FR

SEE NOTE 205 (A&M ONLY)

SWR-SORT 2B
3 — SWR3(2B)
0 — SWR0(2B)
SWR-SORT 1B
3 — SWR3(1B)
0 — SWR0(1B)
SWT-SORT 2B
3 — SWT3(2B)
0 — SWT0(2B)
SWT-SORT 1B
3 — SWT3(1B)
0 — SWT0(1B)
— TO CAD 34 (A&M ONLY) SEE NOTE 205

SWC-SORT 2B
29 — SWC29(2B)
00 — SWC00(2B)
SWC-SORT 1B
29 — SWC29(1B)
00 — SWC00(1B)
(A&M ONLY)
SWR-SORT 2A
3 — SWR3(2A)
0 — SWR0(2A)
SWR-SORT 1A
3 — SWR3(1A)
0 — SWR0(1A)
SWT-SORT 2A
3 — SWT3(2A)
0 — SWT0(2A)
SWT-SORT 1A
3 — SWT3(1A)
0 — SWT0(1A)
— TO CAD 33
T.S. (TB) T&CT FR

CROSS CONN AS SPECIFIED BY SECTION D

ETS AND AIS W/O LLP IS NOT PROVIDED

LSI — LSI
LSO — LSO — TO CAD 543

(MFR DISC)
TCS — TO CAD 228
TCS — TO CAD 32
514 — TO CAD 107

BAN — BAN
AAN — AAN
BEN — BEN — BEN
AEN — AEN — AEN
BTN — BTN — BTN
ATN — ATN — ATN
BPN — BPN — BPN
APN — APN — APN
— TO CAD 43 OR TO CAD 51 (A&M ONLY)

NS
5 — NSS5 — NSS5
0 — NSS0 — NSS0
— TO CAD 54

2 — CSB — CSB2
1 — CSB2 — TO CAD 32

CWSO — CWSO — TO CAD 214

SEE NOTE 205 (A&M ONLY)
2 — CGB — CGB2
1 — CGB1
0 — CGB0
— TO CAD 34 (A&M ONLY) SEE NOTE 205

WITH 4 SORTS
2 — TSC — TSC2
1 — TSC1
2 — CSA — CSA2
1 — CSA1
— TO CAD 32

SEE NOTE 205 (A&M ONLY)
2 — CGA2
1 — CGA1
0 — CGA0
CGA — GRD — TO CAD 33

SORT2
INS — INS(2)
TOS — TOS(2)
TAS — TAS(2)
ORS — ORS(2)
— TO CAD 32

SORT 1
INS — INS(1)
TOS — TOS(1)
TAS — TAS(1)
ORS — ORS(1)
LS — LS — TO CAD 110D
ELS — ELS
IXS — IXS — TO CAD 48
LS2 — LS2

D — DNG — 511 — (MFR DISC.)
C — 510 — TO CAD 107
B — 74
A — 75 — TO CAD 141
576
TS (TB) T&CT FR — 575 — TO CAD 107

ST83 — ST83
ST82 — ST82 — TO CAD 48
RPST — RIPST
VCST — VCST
DCST — DCST — TO CAD 55
TO CAD 137

NGS5
9 — ST — ST9(5)
0 — STO(5)
NGS0
9 — ST9(0)
0 — STO(0)
— TO CAD 54

CROSS CONN TO NGC; STOO-39 AST OR BNTH IN CAD 110A AS SPECIFIED BY SECTION D

TBI — TBIST
RI — RIST
BN — BNST — TO CAD 43
B — STB
A — STA
PLBST — 105 — TO CAD 180

5 — AST — AST5
0 — AST0
— TO CAD 54

STAI — STA1
STBI — STB1
STA3 — STA3
STA2 — STA2
— TO CAD 43

SVD
SVD9
SVD1 — TO CAD 40
SVD0 — TO CAD 32
SVD8 — TO CAD 108 (MTFC-C3)

DTS — SORT1 — 648
DTS — SORT2 — 649
3 — CM — 784 — TO CAD 107
0 — 781
SNW — 141
SW82 — 140
SW81 — 139 — TO CAD 204
SW80 — 138
TS (TB) T&CT FR

CROSS CONN AS SPECIFIED BY SECTION D

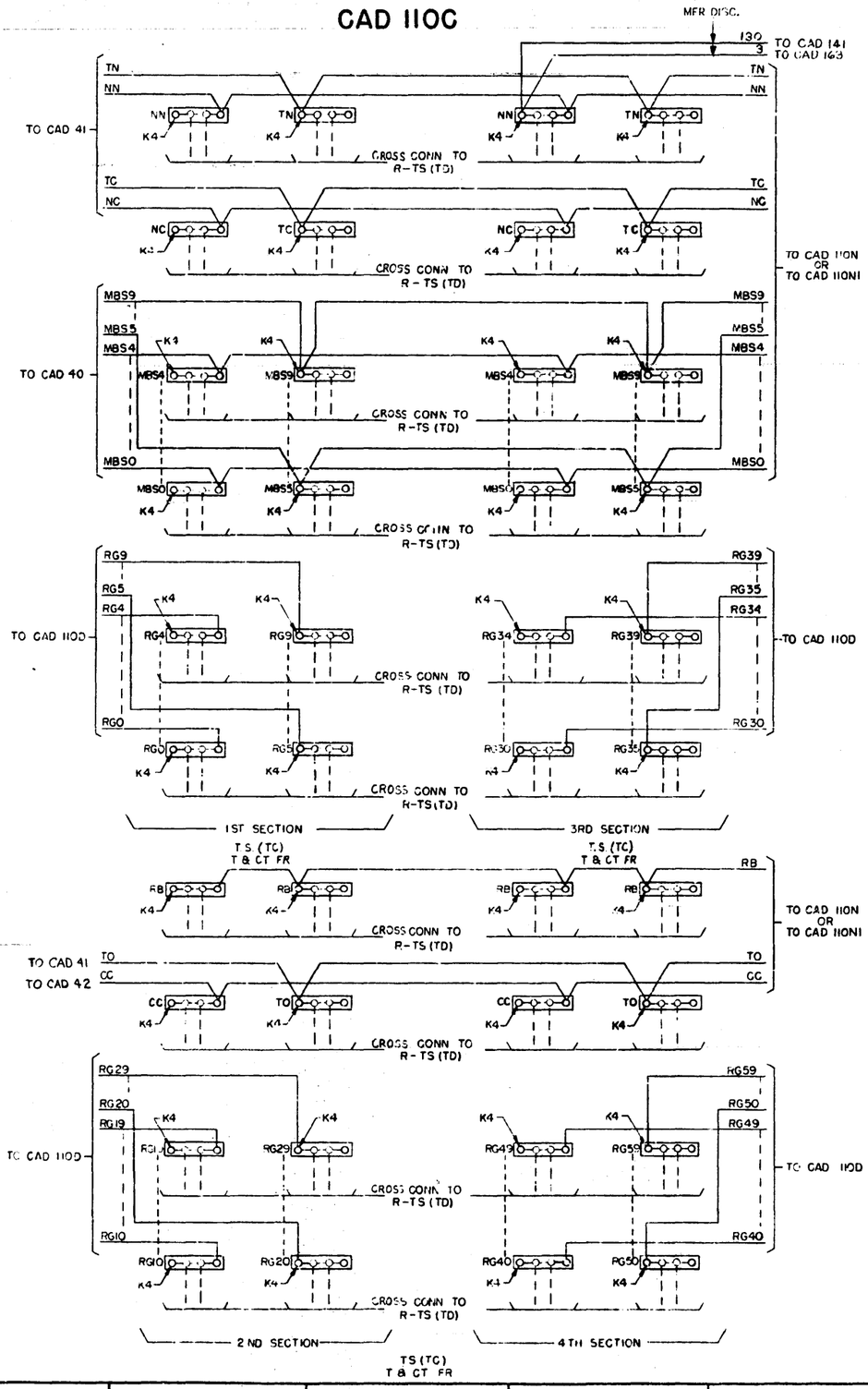
DRAWING ISSUE

| | |
|---|---|
| 50 | |
| 64 | |
| 78 | |
| 90 | |
| 108 | |
| 168 | |
| 17D | |
| 18D | |
| 19AC | |
| 20AC | |
| 210 | |
| 220 | |
| 240 | |
| 250 | |
| 27A | |
| 300 | |
| 330 | |
| 350 | |
| 390 | |
| 410 | |
| 430 | |
| 450 | |

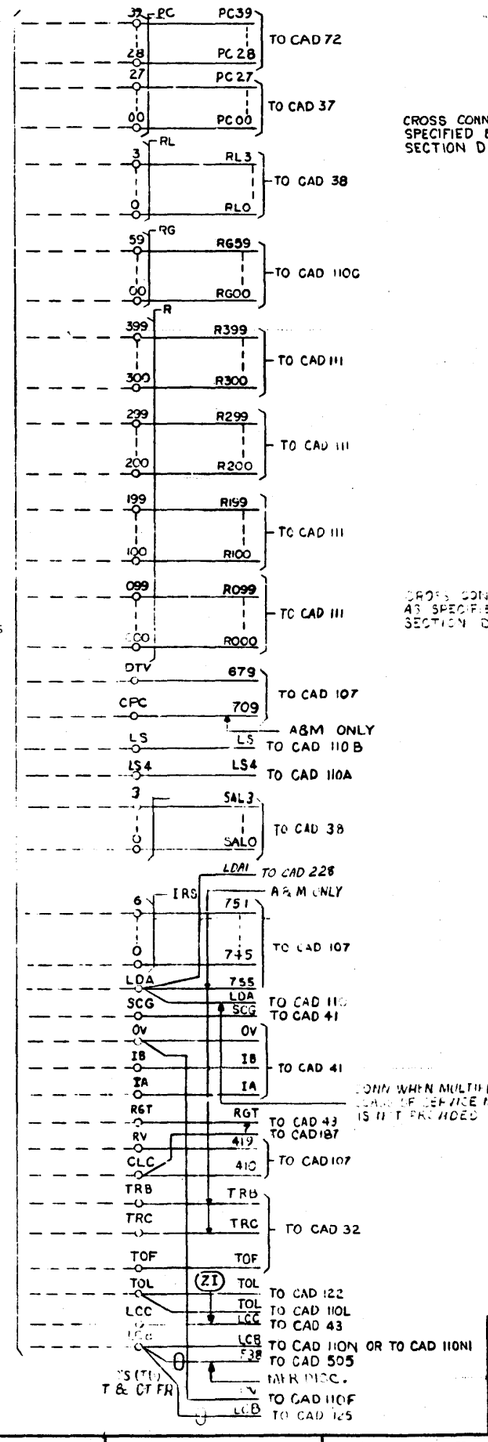
ISSUE 50B

COMPLETING MARKER CIRCUIT
BELL TELEPHONE LABORATORIES, INC.
SD-26002-01-GIIO
2
DWG SIZE 6S
PRINTED IN U.S.A.

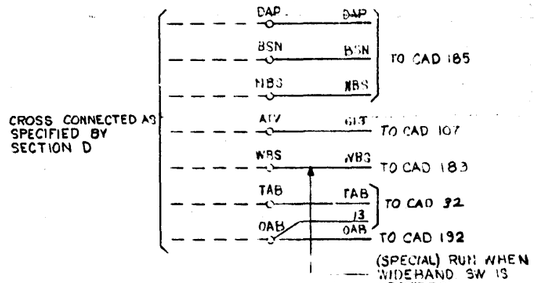
## CAD 110C



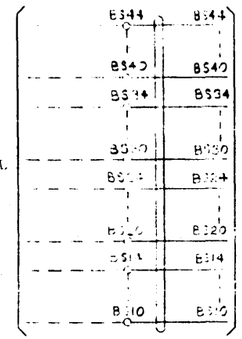

## CAD 110D




CROSS CONNECTED AS SPECIFIED BY SECTION D




CROSS CONNECTED AS SPECIFIED BY SECTION D




| DRAWING ISSUE |
|---|
| 50 |
| 80 |
| 90 |
| 08 |
| 20 |
| 180 |
| 210 |
| 220 |
| 240 |
| 250 |
| 26A |
| 27A |
| 300 |
| 330 |
| 350 |
| 370 |
| 390 |
| 410 |
| 430 |
| 450 |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

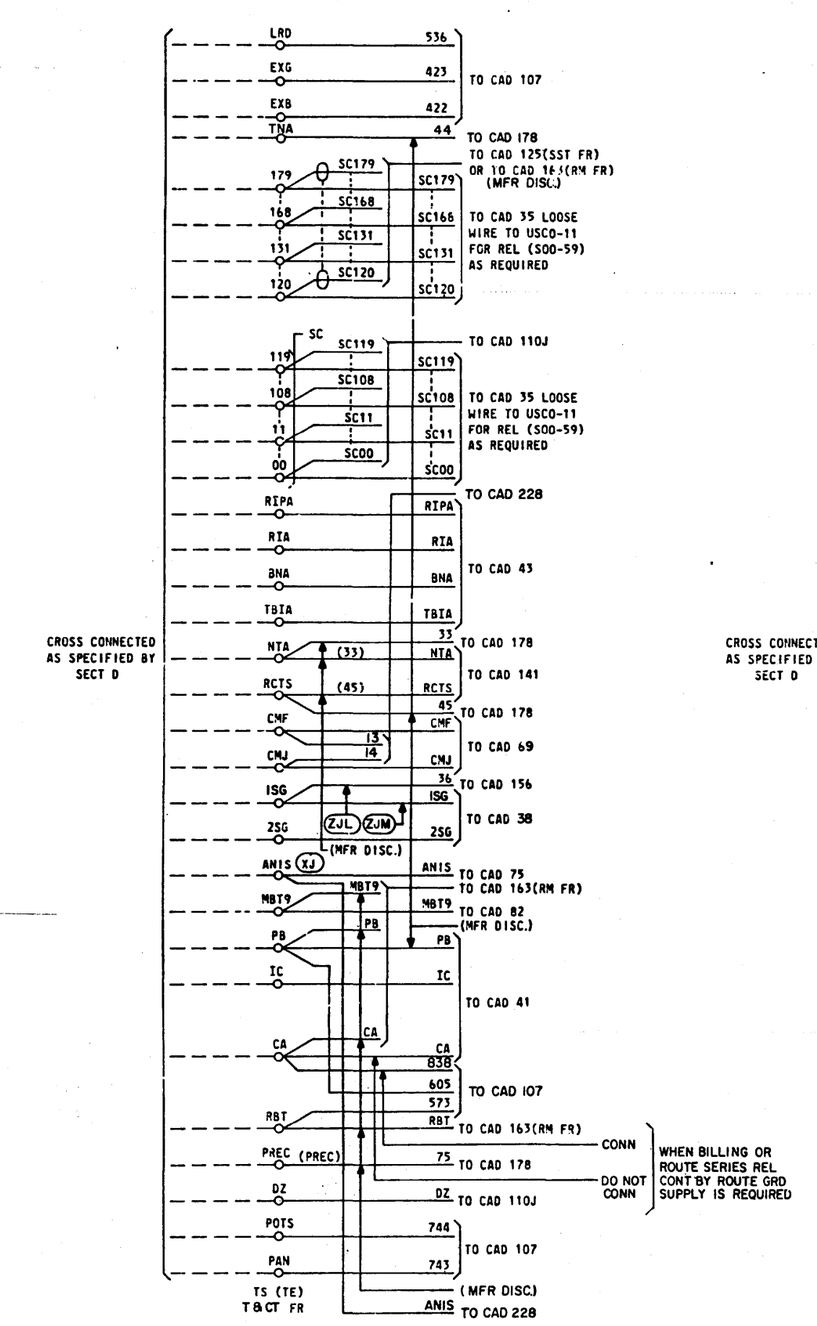
6S

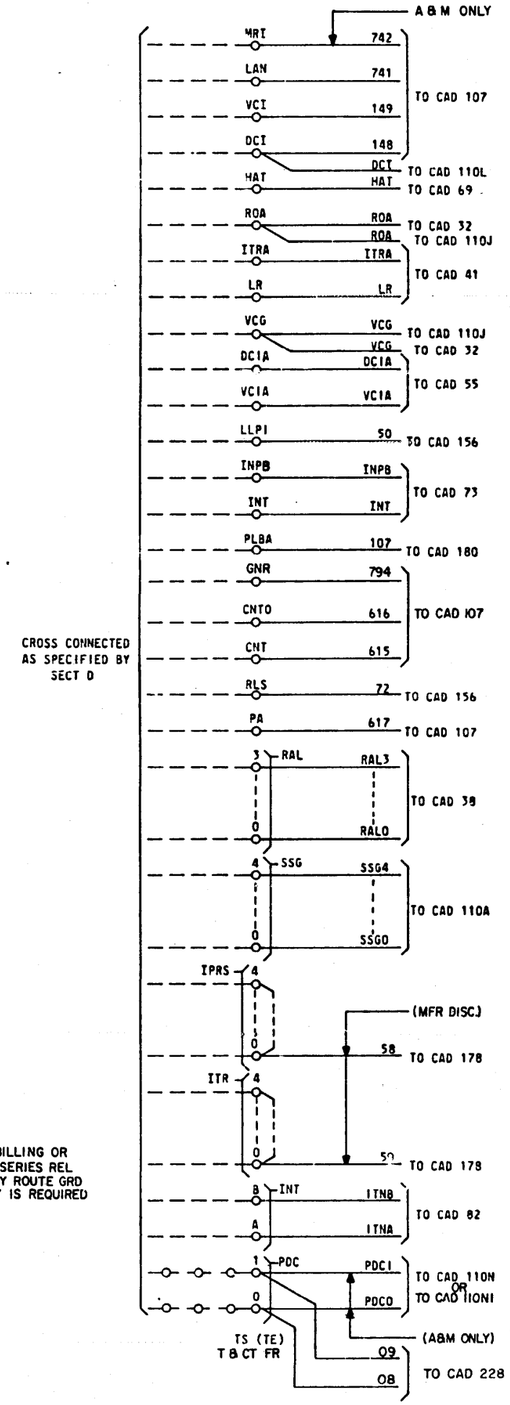
ISSUE 60A

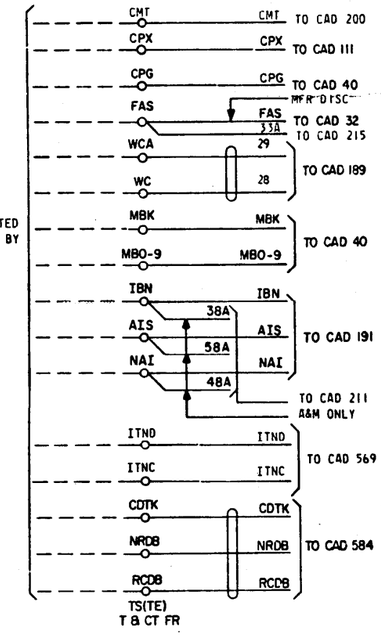
SD-26002-01-G111

SD-26002-01-G111

# CAD 110E




| DRAWING ISSUE |
|---|
| 32A |
| 33D |
| 34A |
| 35D |
| 36A |
| 37D |
| 39D |
| 41D |
| 43D |
| 45D |

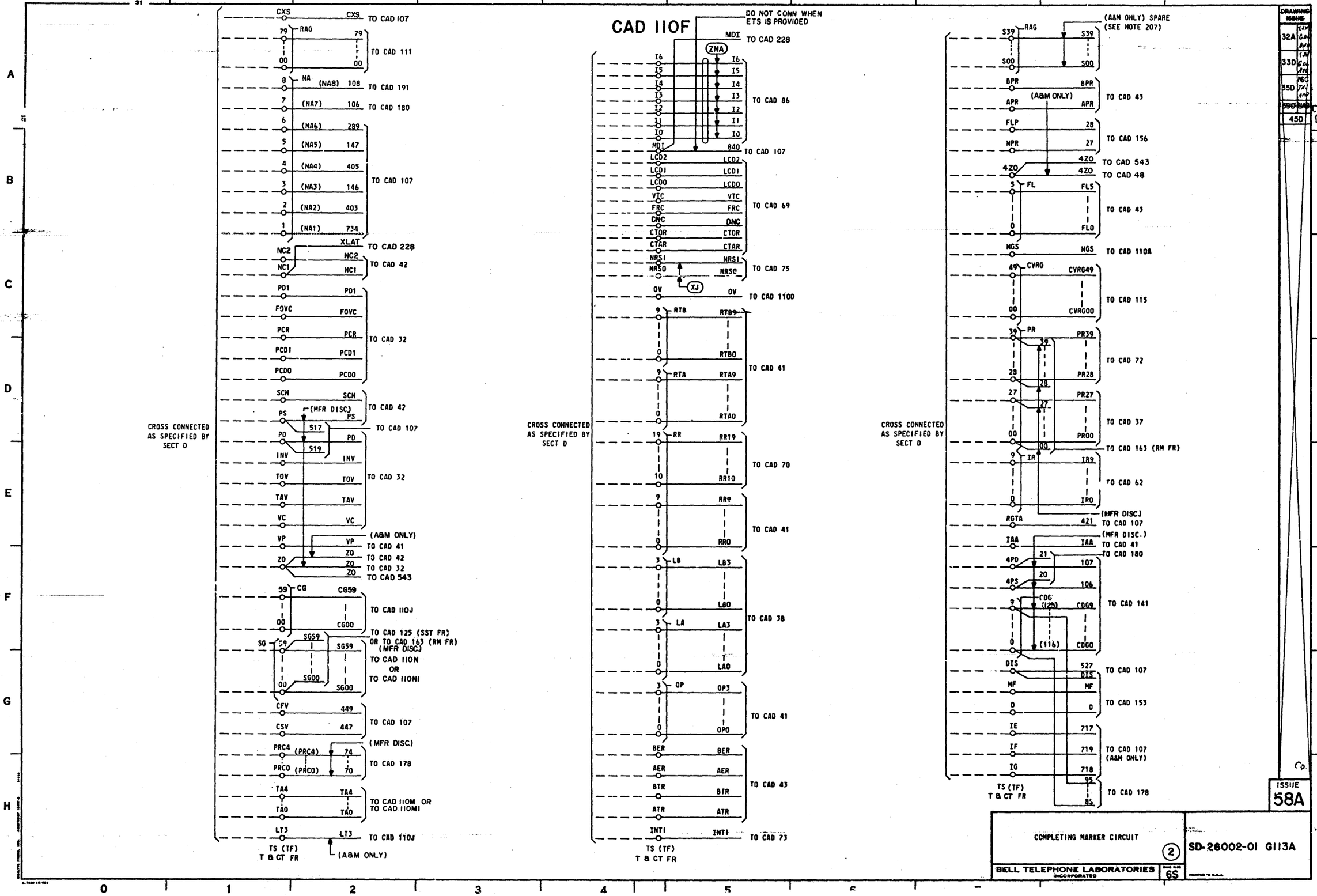
| DRAWING ISSUE |
|---|
| 63B |

COMPLETING MARKER CIRCUIT (2)

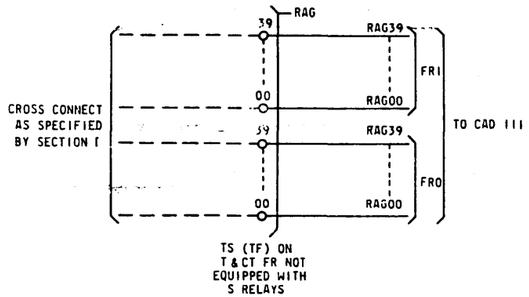
SD-26002-01-GII2

BELL TELEPHONE LABORATORIES INCORPORATED

6S


CAD 110F
CXS
CXS TO CAD 107
79 RAG 79
00 00
TO CAD 111
8 NA (NA8) 108 TO CAD 191
7 (NA7) 106 TO CAD 180
6 (NA6) 289
5 (NA5) 147
4 (NA4) 405
3 (NA3) 146
2 (NA2) 403
1 (NA1) 734
TO CAD 107
XLAT
NC2 NC2
NC1 NC1
TO CAD 228
TO CAD 42
PD1 PD1
FOVC FOVC
PCR PCR
PCD1 PCD1
PCDO PCDO
TO CAD 32
SCN SCN
TO CAD 42
PS (MFR DISC) PS
517
TO CAD 107
PD PD
519
INV INV
TOV TOV
TO CAD 32
TAV TAV
VC VC
VP VP (A&M ONLY)
TO CAD 41
ZO ZO TO CAD 42
ZO ZO TO CAD 32
ZO TO CAD 543
59 CG CG59
00 CG00
TO CAD 110J
TO CAD 125 (SST FR) OR TO CAD 163 (RM FR) (MFR DISC)
SG SG59 SG59
00 SG00 SG00
TO CAD 110N OR TO CAD 110NI
CFV 449
CSV 447
TO CAD 107
(MFR DISC)
PRC4 (PRC4) 74
PRCO (PRCO) 70
TO CAD 178
TA4 TA4
TA0 TA0
TO CAD 110M OR TO CAD 110MI
LT3 LT3 TO CAD 110J
TS (TF) T & CT FR
(A&M ONLY)
CROSS CONNECTED AS SPECIFIED BY SECT D
DO NOT CONN WHEN ETS IS PROVIDED
MDI TO CAD 228
ZNA
I6 I6
I5 I5
I4 I4
I3 I3
I2 I2
I1 I1
I0 I0
TO CAD 86
MDI 840 TO CAD 107
LCD2 LCD2
LCD1 LCD1
LCD0 LCD0
VTC VTC
FRC FRC
CNC CNC
CTOR CTOR
CTAR CTAR
TO CAD 69
NRSI NRSI
NRSO NRSO
XJ
TO CAD 75
OV OV TO CAD 110D
9 RTB RTB9
0 RTB0
9 RTA RTA9
0 RTA0
TO CAD 41
19 RR RR19
10 RR10
TO CAD 70
9 RR9
0 RR0
TO CAD 41
3 LB LB3
0 LB0
3 LA LA3
0 LA0
TO CAD 38
3 OP OP3
0 OP0
TO CAD 41
BER BER
AER AER
BTR BTR
ATR ATR
TO CAD 43
INTI INTI TO CAD 73
TS (TF) T & CT FR
CROSS CONNECTED AS SPECIFIED BY SECT D
(A&M ONLY) SPARE (SEE NOTE 207)
S39 RAG S39
S00 S00
BPR BPR
APR APR
(A&M ONLY)
TO CAD 43
FLP 28
NPR 27
TO CAD 156
4ZO 4ZO TO CAD 543
4ZO 4ZO TO CAD 48
5 FL FL5
0 FL0
TO CAD 43
NGS NGS TO CAD 110A
49 CVRG CVRG49
00 CVRG00
TO CAD 115
39 PR PR39
28 PR28
TO CAD 72
27 PR27
00 PR00
TO CAD 37
TO CAD 163 (RM FR)
9 IR IR9
0 IR0
TO CAD 62
(MFR DISC)
RGTA 421 TO CAD 107
(MFR DISC.)
IAA IAA TO CAD 41 TO CAD 180
4PD 21 107
4PS 20 106
9 CDG (125) CDG9
0 (116) CDG0
TO CAD 141
DIS 527 DIS TO CAD 107
MF MF
D 0 TO CAD 153
IE 717
IF 719 TO CAD 107 (A&M ONLY)
IG 718
95
85
TO CAD 178
TS (TF) T & CT FR
DRAWING MARKING
32A
33D
35D
45D
ISSUE 58A
COMPLETING MARKER CIRCUIT
2
SD-26002-01 G113A
BELL TELEPHONE LABORATORIES INCORPORATED
SHEET NO. 65
SD-26002-01-G113A

# CAD 110F1




| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | | SD-26002-01-6113B |
| BELL TELEPHONE LABORATORIES INCORPORATED | | 6S | PRINTED IN U. S. A. |

ISSUE 55B

# CAD 110G

GWD → 642 — TO CAD 107
BWD → 643 — TO CAD 125
OACO → OACO — TO CAD 110V
LEB, LEA, LTB, LTA, LPB, LPA — TO CAD 43 — TO CAD 111CL
RP 39 RP39 … 28 RP28 — TO CAD 72
RCL 3 RCL3 … 0 RCL0 — TO CAD 38
G3 FATL 3 FATL3(3) … 0 FATL1(3) — TO CAD 122
FATA 3 FATA3(3) … 1 FATA1(3)
GO FATL 3 FATL3(0) … 0 FATL1(0)
FATA 3 FATA3(0) … 1 FATA1(0)
OS 3 OS3 … 0 OSO — TO CAD 41
RT 9 RT9 … 0 RTO
TS (TG) T & CT FR

CROSS CONNECTED AS SPECIFIED BY SECTION D

IDS, IDP — TO CAD 215
INZ, INL — TO CAD 32
RP 27 RP27 … 00 RPOO — TO CAD 37 — TO CAD 110L
RC 399 RC399 … 000 RC000 — TO CAD 111
RC300, RC299, RC200, RC199, RC100, RC099 — TO CAD 110L
SG 119 SG119 … 60 SG60 — TO CAD 125 (SST FR) OR TO CAD 163 (RM FR) (MFR DISC.) — TO CAD 110N
CV 95 CV95 … 00 CVOO
IP 9 IP9 … 0 IPO — TO CAD 110L — TO CAD 62
RTB 19 RTB19 … 10 RTB10
RTA 19 RTA19 … 10 RTA10 — TO CAD 41
RT 19 RT19 … 10 RT10
CW 9 … 0 — SEE CAD 214
TS (TG) ON T & CT FR

CROSS CONNECTED AS SPECIFIED BY SECTION D

ACH 29 ACR29 … 00 ACR00 — TO CAD 222
WRA 35, WPP 34, NA10 09, WNBA 08, TWB 220 — TO CAD 204
OWB2 WB2, OWB1 WB1, OWB0 WB0, NW NW — TO CAD 106 (MTFC-PO)
OPP 179, NA9 130, IWS 180 — TO CAD 204
TS (TG) ON T & CT FR ON MARKERS ARRANGED FOR WIDEBAND ONLY

CROSS CONNECTED AS SPECIFIED BY SECTION D

FATE 3 G3 FATE3(3), 2 FATE2(3), 1 FATE1(3)
FATE 3 G2 FATE3(2), 2 FATE2(2), 1 FATE1(2)
FATE 3 G1 FATE3(1), 2 FATE2(1), 1 FATE1(1) — TO CAD 122
FATE 3 G0 FATE3(0), 2 FATE2(0), 1 FATE1(0)
PGR 21C — TO CAD 221
J J, H H — TO CAD 46
ROH 51C, PST 13D, PSR 54D, PSO 12C, PSG 41C — TO CAD 221
TO CAD 112A OR CAD 112RA
SMPA SMPA
SMP 15 SMP15 … 01 SMP01 — TO CAD 125
NRCD NRCD
RCD RCD — TO CAD 110N OR CAD 110NI
TS(TG)ON T & CT FR — TO CAD 584

CROSS CONNECTED AS SPECIFIED BY SECTION D

# CAD 110H

TX 39 C Tx99 … 00 TxCC — TO CAD 36
999 C999 … 910 C9-0 — TO CAD 49
909 C909 … 900 C900 — TO CAD 50
899 C899 … 810 C810 — TO CAD 49
809 C809 … 800 C800 — TO CAD 50
799 C799 … 710 C710 — TO CAD 49
709 C709 … 700 C700 — TO CAD 50
699 C699 … 610 C610 — TO CAD 49
609 C609 … 600 C600 — TO CAD 50
599 C599 … 510 C510 — TO CAD 49
509 C509 … 500 C500 — TO CAD 50
199 FAR FAR199 … 000 FAR000 — TO CAD 122
TS (TP) T & CT FR

| DRAWING ISSUE |
|---|
| 39D RP |
| 40A |
| 41D |
| 42A |
| 43D |

ISSUE 66A

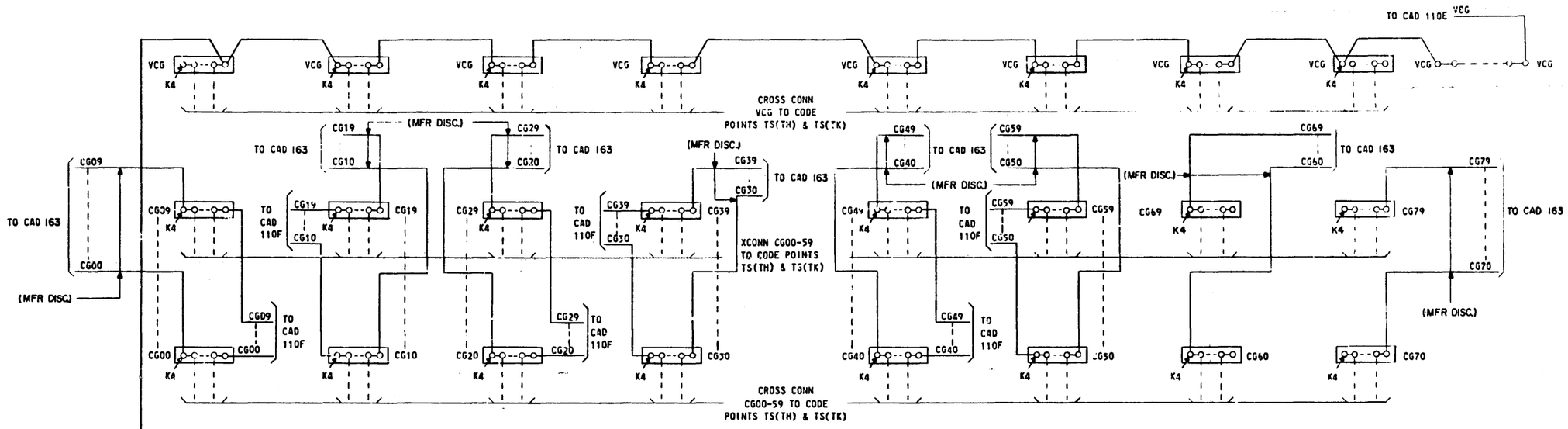
COMPLETING MARKER CIRCUIT (2)

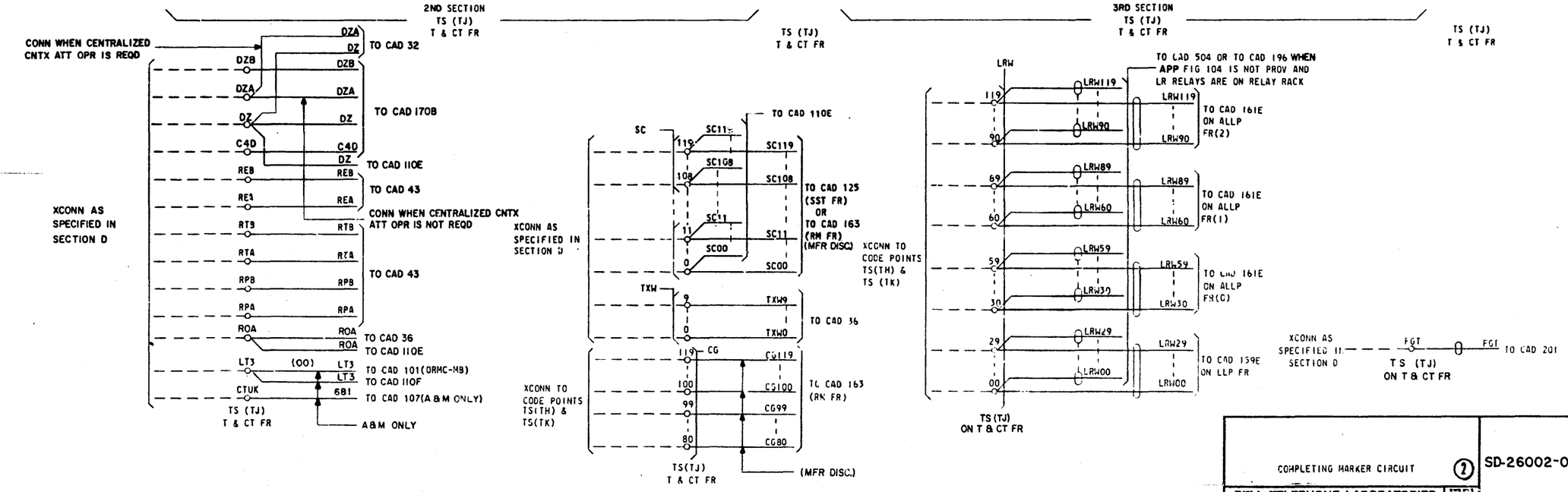
SD-26002-01-G113C

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-G113C

# CAD 110J




DRAWING ISSUE

| | |
|---|---|
| 22D | GE CLK AMP |
| 24D | SV CLK AMP |
| 25D | BB |
| 27A | JHT PWR AMP |
| 30D | DM |
| 33D | RAC |
| 35D | UP AMP |
| 38A | TK |
| 37D | DM |
| 39D | TS |
| 41D | |
| 42A | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-6114

BELL TELEPHONE LABORATORIES INCORPORATED 6S

## CAD 110K

CROSS CONN AS SPECIFIED BY SECTION D

C
499 C499 TO CAD 49
410 C410
409 C409 TO CAD 50
400 C400
339 C399 TO CAD 49
310 C310
309 C309 TO CAD 50
300 C300
299 C299 TO CAD 49
210 C210
209 C209 TO CAD 50
200 C200
199 C199 TO CAD 49
110 C110
109 C109 TO CAD 50
100 C100
099 C099 TO CAD 49
010 C010
009 C009 TO CAD 50
000 C000

TS (TK)
T & CT FR

CROSS CONN AS SPECIFIED BY SECTION D

FVD
9 FVD9
0 FVD0
X11
9 X119
2 X112
0 X110 TO CAD 48
11X
9 11X9
2 11X2
0 11X0
LTA
9 LTA9
1 LTA1
0 LTAO TO CAD 543
LTAO TO CAD 32 (A&M ONLY)
ATW
9 ATW9 TO CAD 51
0 ATWO
ETA
9 ETA9
0 ETAO TO CAD 52
ETW
9 ETW9
F9
F0
0 ETWO TO CAD 201
AT
99 AT99 TO CAD 51
00 ATOO
ET
99 ET99 TO CAD 52
00 ET00

TS (TK)
T & CT FR

CROSS CONN AS SPECIFIED BY SECTION D

(MFR DISC)
CONN WHEN MULTIPLE CLASS OF SERVICE MATCH IS NOT PROVIDED
NCPN 04 TO CAD 141
04 TO CAD 178
TRAI TO CAD 228
TRA 725 TO CAD 107
LDA (A&M ONLY) TO CAD 110D
9 LT29 TO CAD 48
0 LT21
0 LT20 TO CAD 543
LRA 33 TO CAD 156 (A & M ONLY)
4LT (ZLM) 4LT TO CAD 82
2DT 51 TO CAD 100 (IRMC-ME)
2DT TO CAD 107
ET ET TO CAD 52
TT 14 TO CAD 100 (IRMC-ME)
12 TO CAD 100 (IRMC-MA)
LT LT TO CAD 48
LT TO CAD 536
512 TO CAD 107
LT TO CAD 46
FAD FAD TO CAD 32
LTI 51 TO CAD 107
ELT ELT
9 ELT ELT9
2 ELT2 TO CAD 48
1 ELT1
A9 TO CAD 222
A2
0 ELTO TO CAD 543
FD FD TO CAD 48
3Z0 3Z0
2Z0 2Z0 TO CAD 543
1Z0 1Z0

TS (TK)
T & CT FR

## PART OF CAD 110L

CROSS CONN AS SPECIFIED BY SECTION D

9 LT 636 TO CAD 107
8 LT8 TO CAD 48
7 637 TO CAD 107
LT6 TO CAD 48
6 LT6
5 LT5 TO CAD 543
LT4
4 LT4
3 LT3
0 LTO

TS (TL)
T & CT FR

TO CAD 48
(SPECIAL) RUN FOR CUSTOMER OVERSEAS DIALING TRIAL ONLY

DRAWING ISSUE
32A GN
33D GN
35D KMC
36A KMC
37D KMC

DRAWING ISSUE
60A

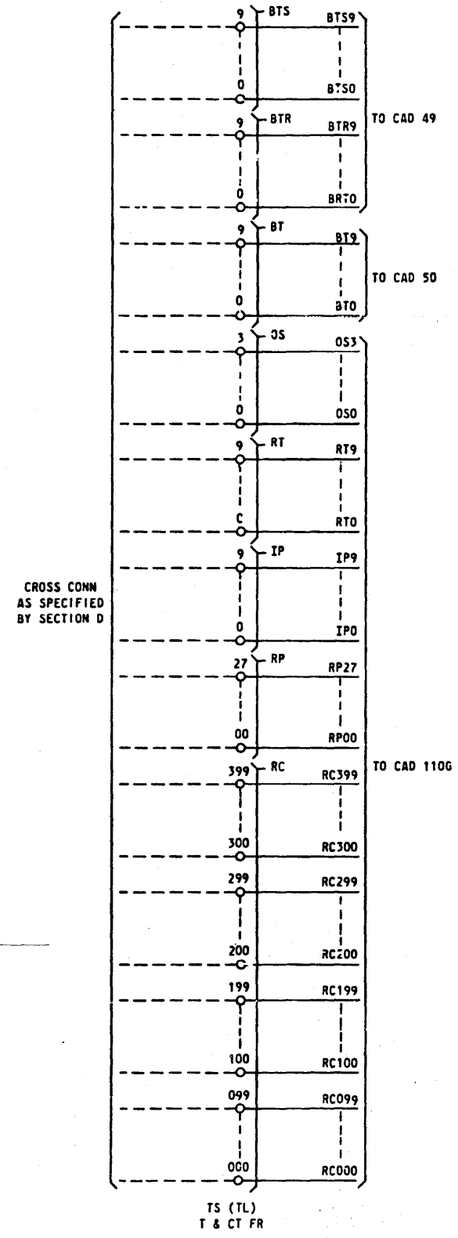
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G115A

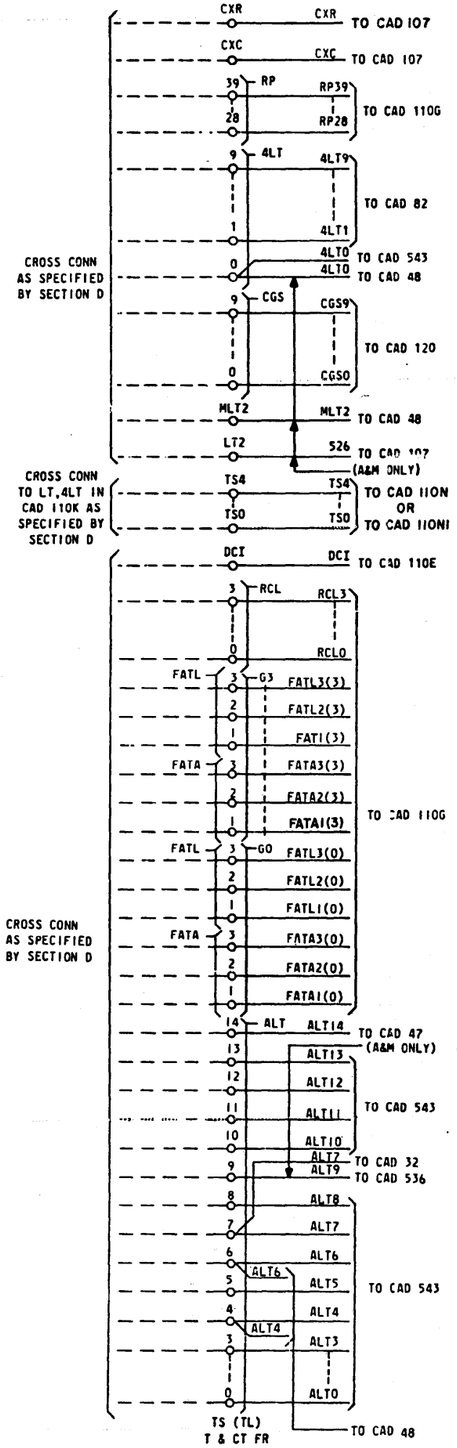
BELL TELEPHONE LABORATORIES INCORPORATED 6S

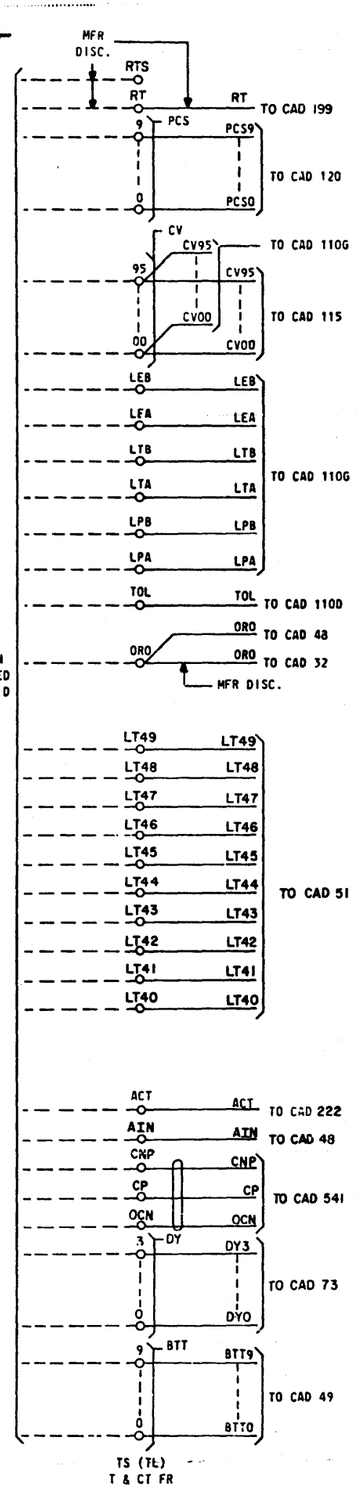
SD-26002-01-G115A

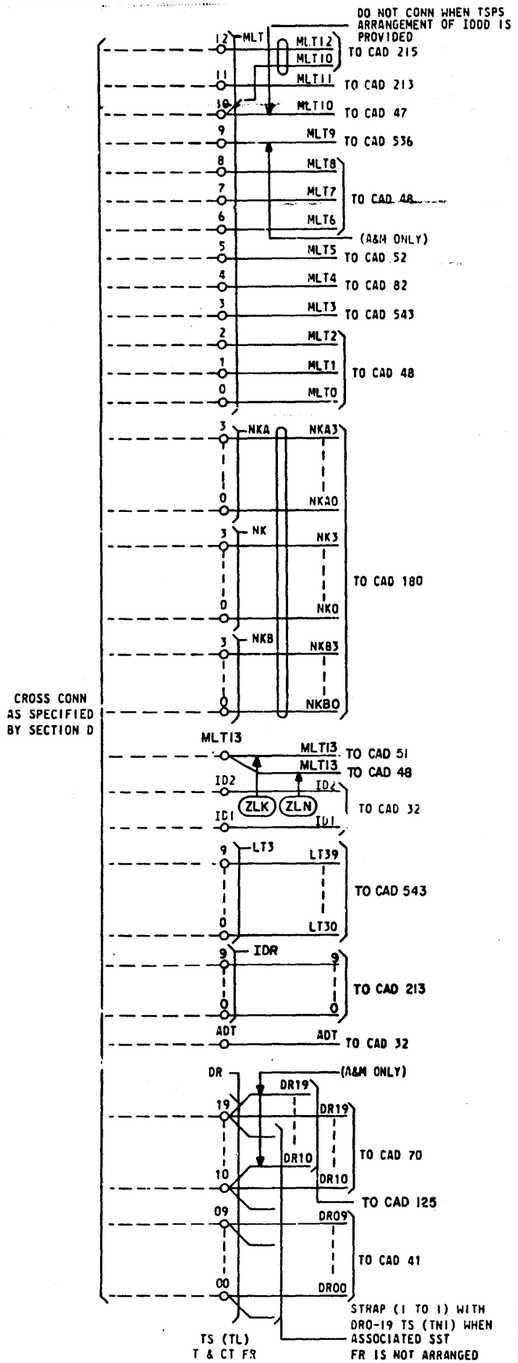
HIGGINS 4465

# PART OF CAD 110L



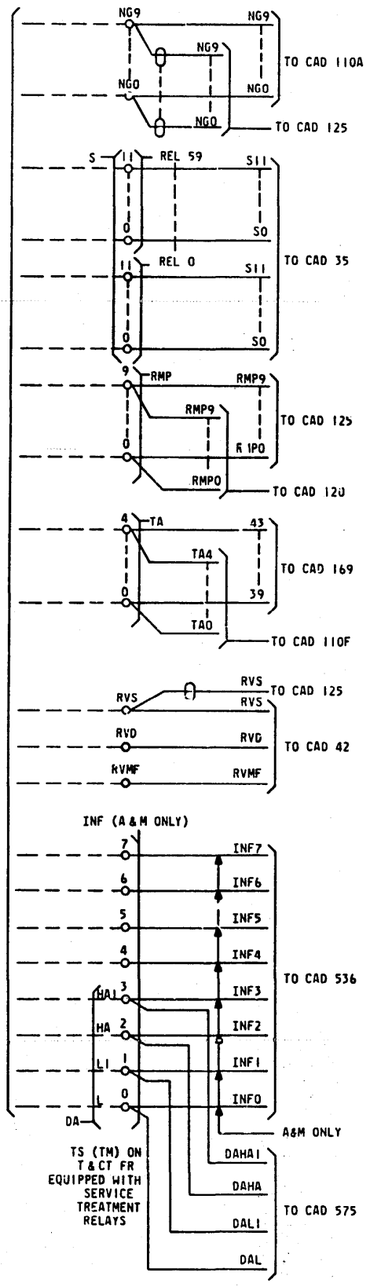

| DRAWING ISSUE |
|---|
| 35D KMC (TN1 AND) |
| 36A KS |
| 37D KS |
| 38A ABA |
| 41D |
| 42A |
| 43D |

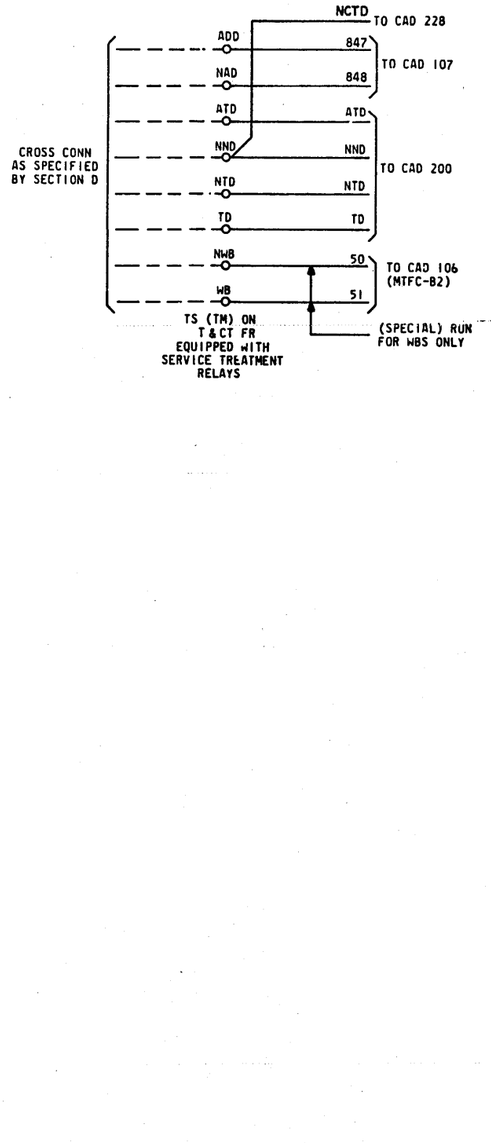
DRAWING ISSUE 59B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G115B

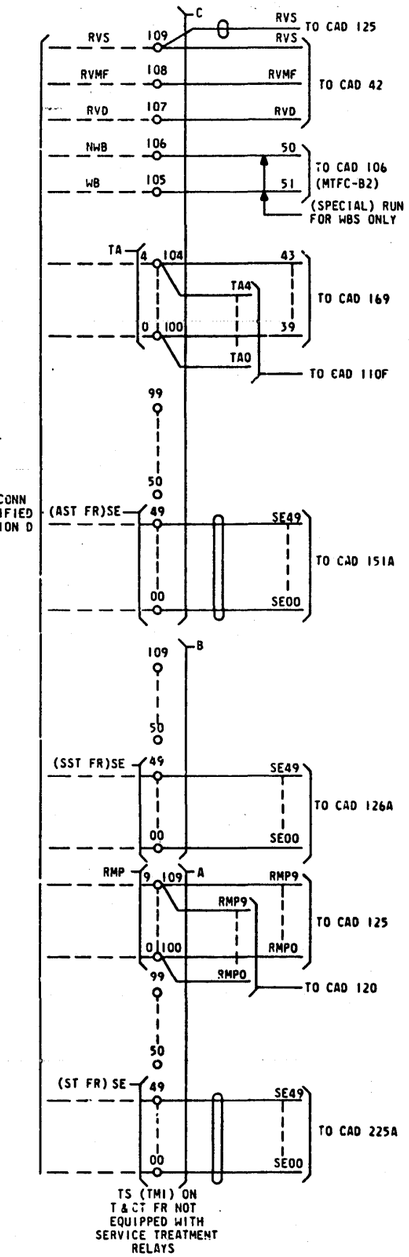
BELL TELEPHONE LABORATORIES INCORPORATED 6S

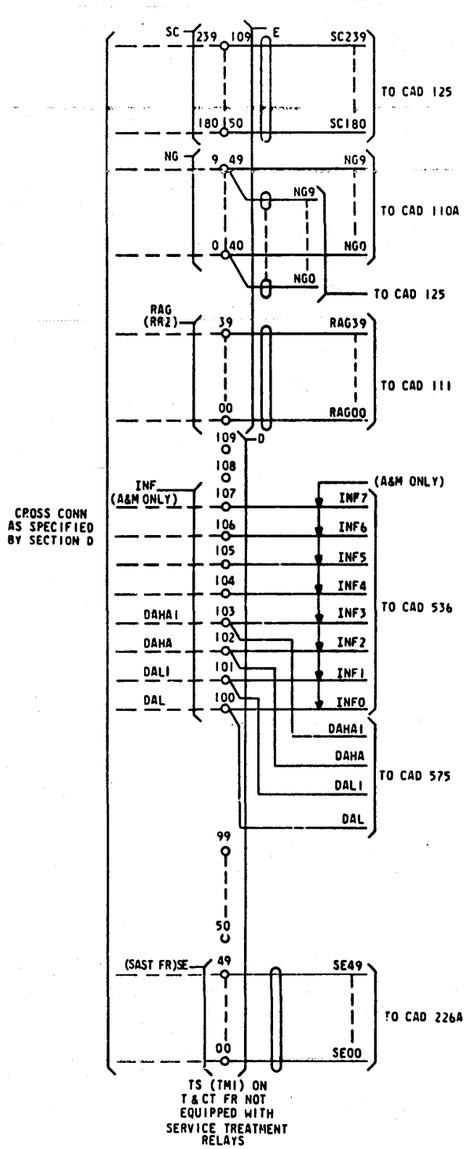
# CAD 110M




# PART OF CAD 110MI




ISSUE 59B

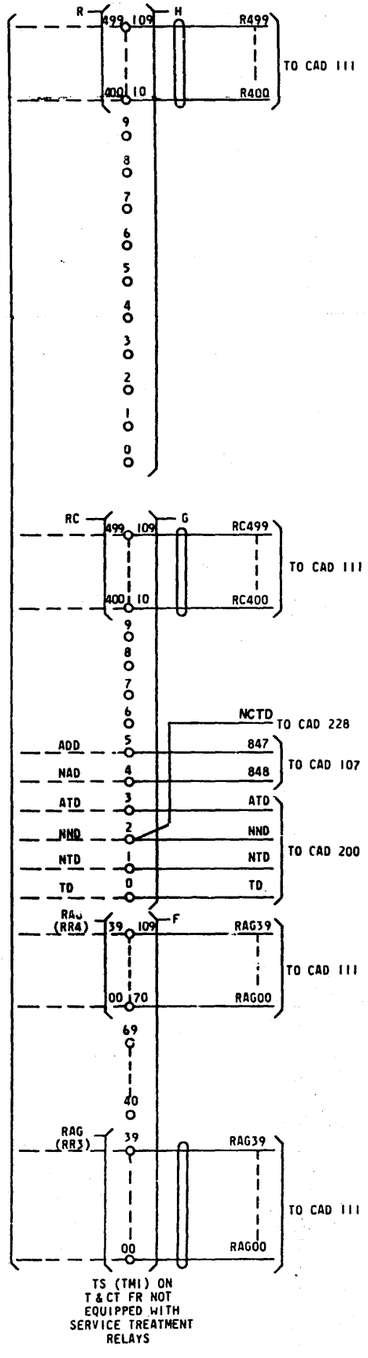
COMPLETING MARKER CIRCUIT

SD-26002-01-G115C

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

PART OF CAD 110MI




ISSUE 59B

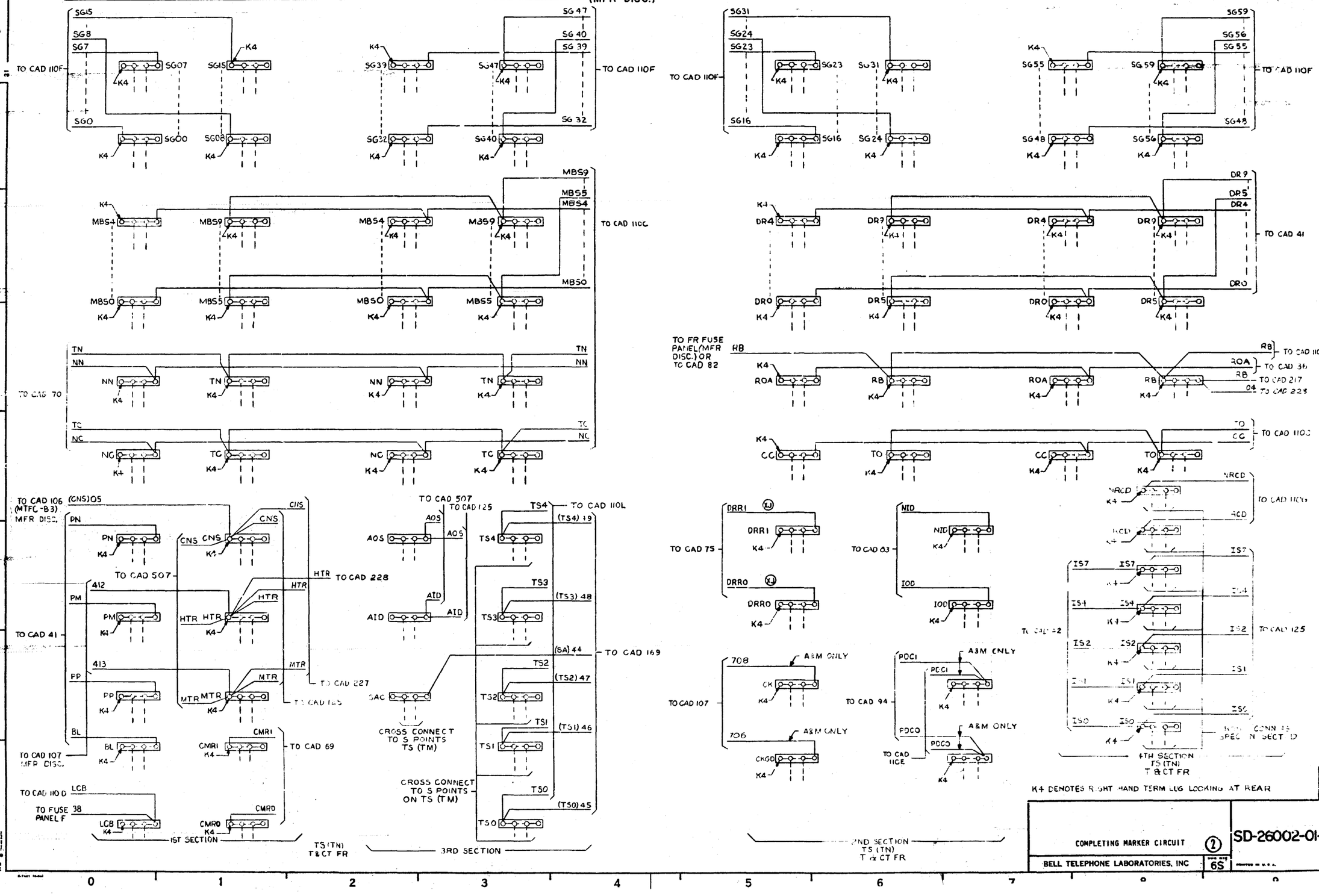
COMPLETING MARKER CIRCUIT

SD-26002-01-G115D

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 110N
(MFR DISC.)




K4 DENOTES RIGHT HAND TERMINAL LUG LOOKING AT REAR

DRAWING REFURBISHED WITHOUT CHANGE 10-68

| ISSUE | |
|---|---|
| 66A | SD-26002-01-G116A |

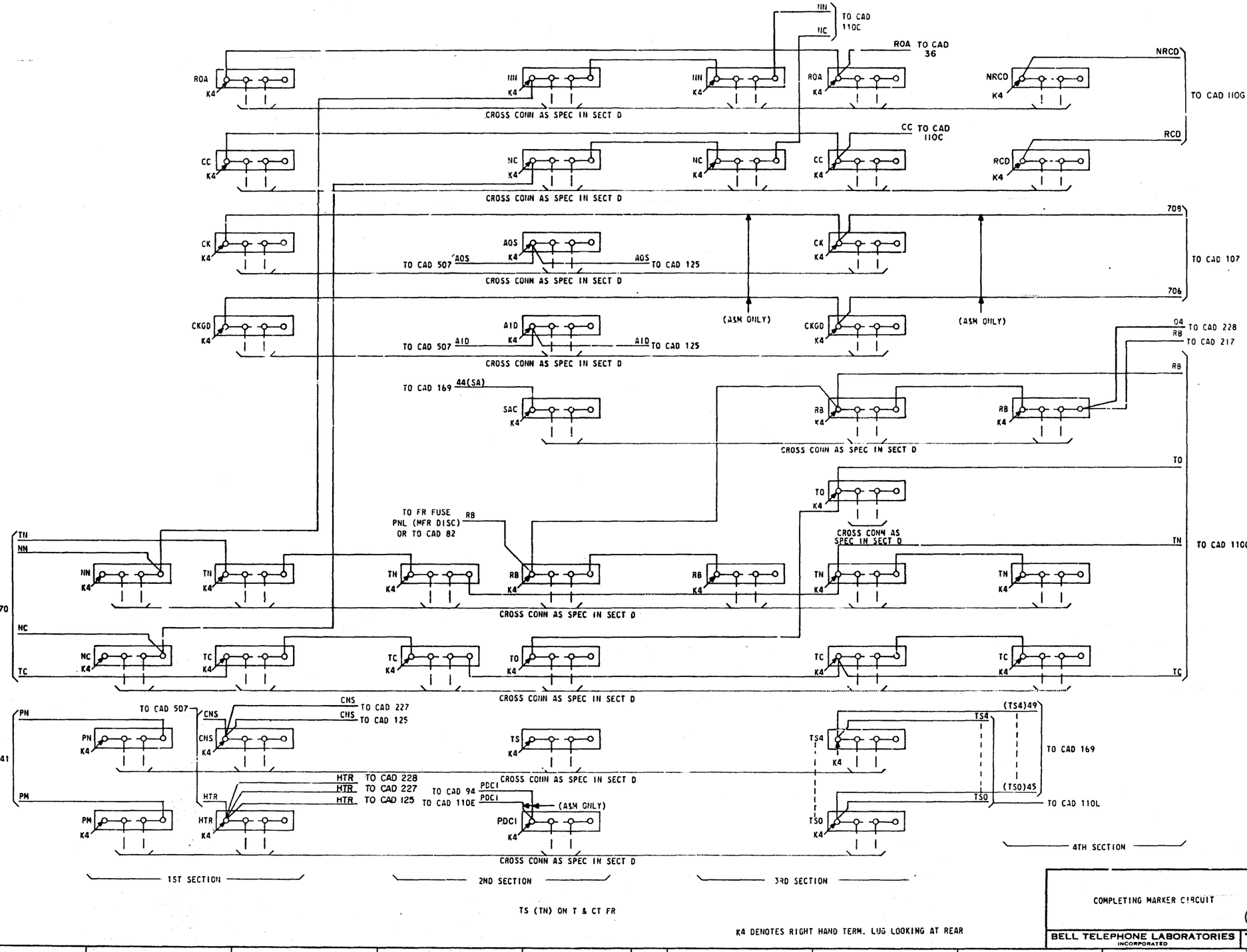
COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES, INC

PAGE 65

SD-26002-01-G116A

# PART OF CAD 110NI




TS (TN) ON T & CT FR

K4 DENOTES RIGHT HAND TERM. LUG LOOKING AT REAR

DRAWING ISSUE

| | |
|---|---|
| 33D | RCB 604 8-67 |
| 36D | JRL 7-1-68 |
| 45D | |

ISSUE 66A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-GI68

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

HIGGINS 4465

# PART OF CAD 110N1

TO CAD 41

PP — PP K4 — TO CAD 507 MTR — MTR K4 — MTR TO CAD 228 — MTR TO CAD 227 — MTR TO CAD 125 — TO CAD 94 PDCO — TO CAD 110E PDCO — (A&M ONLY) — PDCO K4 — SGI39 K4 — SGI39 — TO CAD 125

CROSS CONN AS SPEC IN SECT D

BL — BL K4 — TO CAD 69 CMR1 — CMR1 K4 — TO CAD 83 NID — NID K4 — SGI20 K4 — SGI20

CROSS CONN AS SPEC IN SECT D

TO CAD 82 LCB — TO CAD 110D LCB — TO FUSE PAN. F 38 — (MFR DISC) — LCB K4 — TO CAD 69 CMRO — CMRO K4 — TO CAD 83 IOD — IOD K4

CROSS CONN AS SPEC IN SECT D

TO CAD 82 — IS7 — IS4 — IS2 — IS1 — IS0 — TO CAD 125

CROSS CONN AS SPECIFIED IN SECT D

STRAP (1 TO 1) WITH DR00-19 TS (TL) WHEN ASSOCIATED SST FR IS NOT ARRANGED FOR DR- GROUPING

TO CAD 110F

SG59 SG40 SG39 SG20 SG19 SG00 — SG19 K4 — SG39 K4 — SG59 K4 — SG79 K4 — (A&M ONLY) DRI9 DRG19 K4 — (A&M ONLY) DR19 DRG19 — TO CAD 125 — DRO DRG00 — (A&M ONLY) DRO DRG00 K4 — SG00 K4 — SG20 K4 — SG40 K4 — SG60 K4 — SG99 K4 — SG119 K4 — SG80 K4 — SG100 K4 — SGI19 SGI00 SG99 SG80 SG79 SG60 — TO CAD 110G

CROSS CONN AS SPEC IN SECT D

MBS9 — MBS9 K4 — MBS9 K4 — MBS9 K4 — MBS9 K4 — MBS5 — TO CAD 110C

CROSS CONN AS SPEC IN SECT D

MBS5 — MBS5 K4 — MBS5 K4 — MBS5 K4 — MBS5 K4 — MBS4

CROSS CONN AS SPEC IN SECT D

MBS4 — MBS4 K4 — MBS4 K4 — MBS4 K4 — MBS4 K4 — MBS0

CROSS CONN AS SPEC IN SECT D

MBS0 — MBS0 K4 — MBS0 K4 — MBS0 K4 — MBS0 K4

1ST SECTION — 2ND SECTION — 3RD SECTION — 4TH SECTION

T: (TN) ON T& CT FR

K4 DENOTES RIGHT HAND TERM. LUG LOOKING AT REAR.

DRAWING ISSUE

| | |
|---|---|
| 33D | RCE |
| 35D | GM |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

410

ISSUE 58A

COMPLETING MARKER CIRCUIT

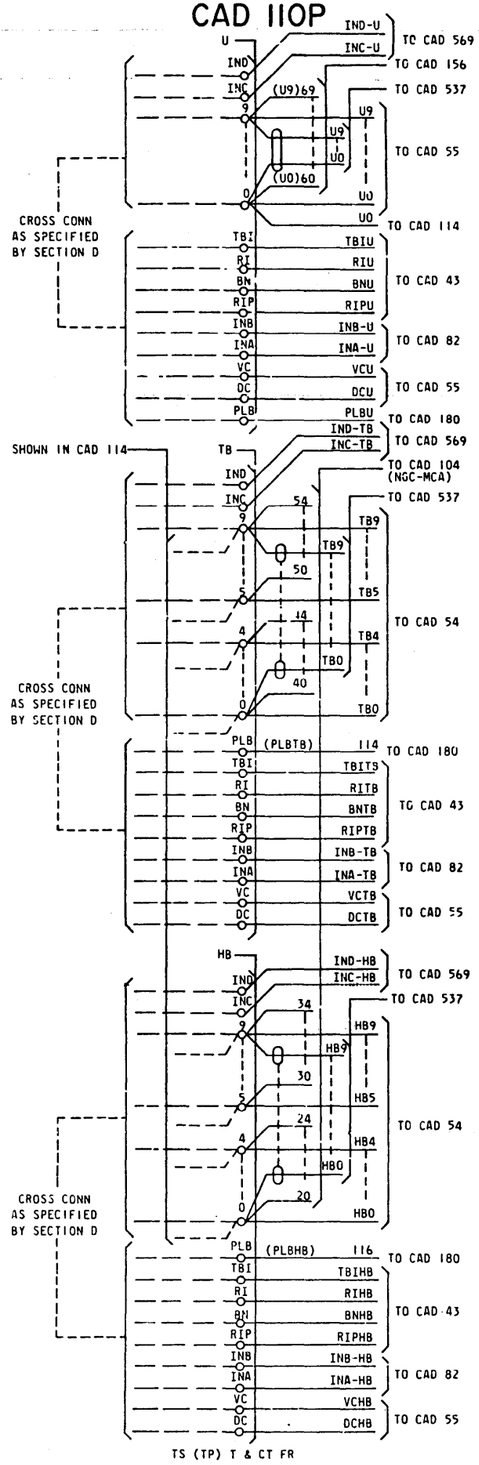
SD-26002-01-GII6C

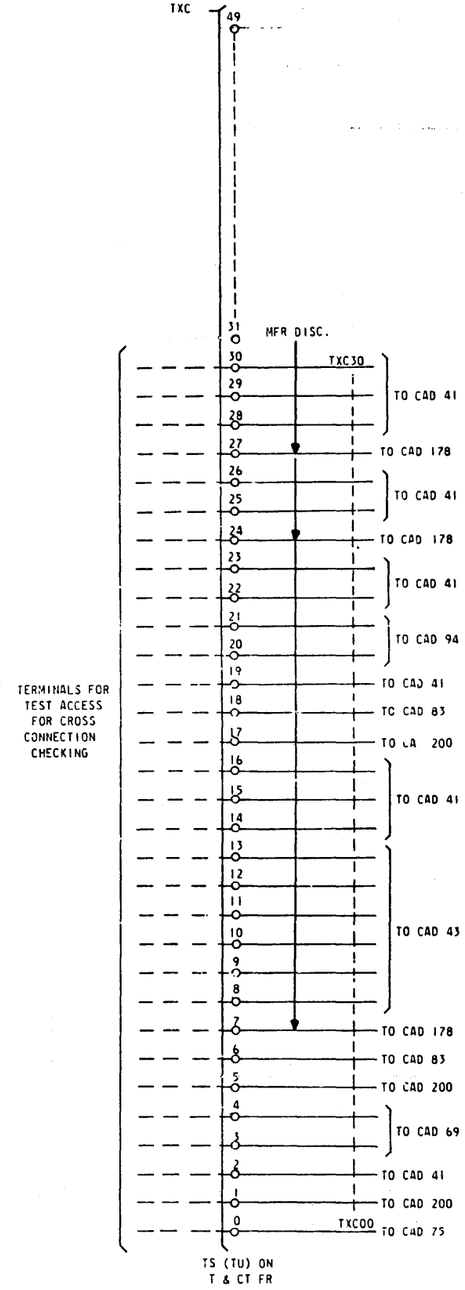
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-GII6C

HIGGINS 4465




ISSUE 57B

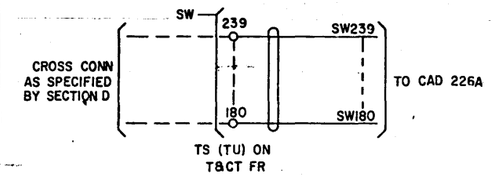
COMPLETING MARKER CIRCUIT

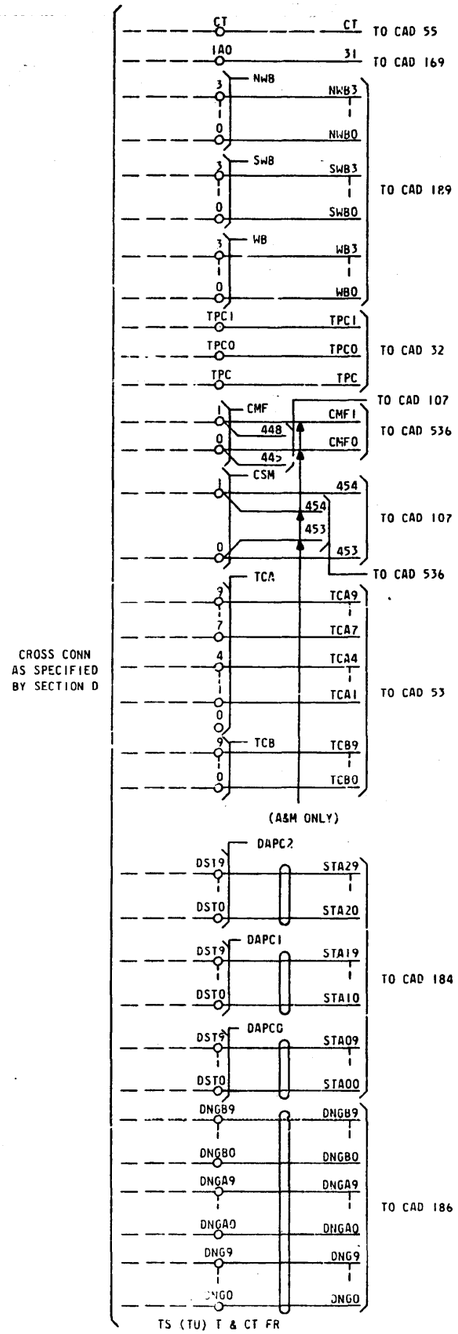
SD-26002-01-6116D

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET SIZE 6S

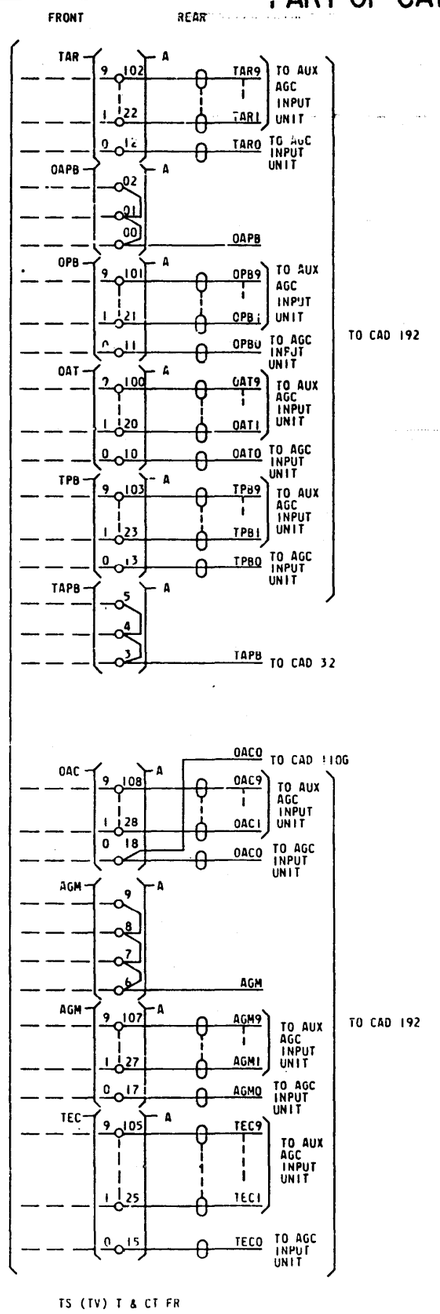
## PART OF CAD 110U



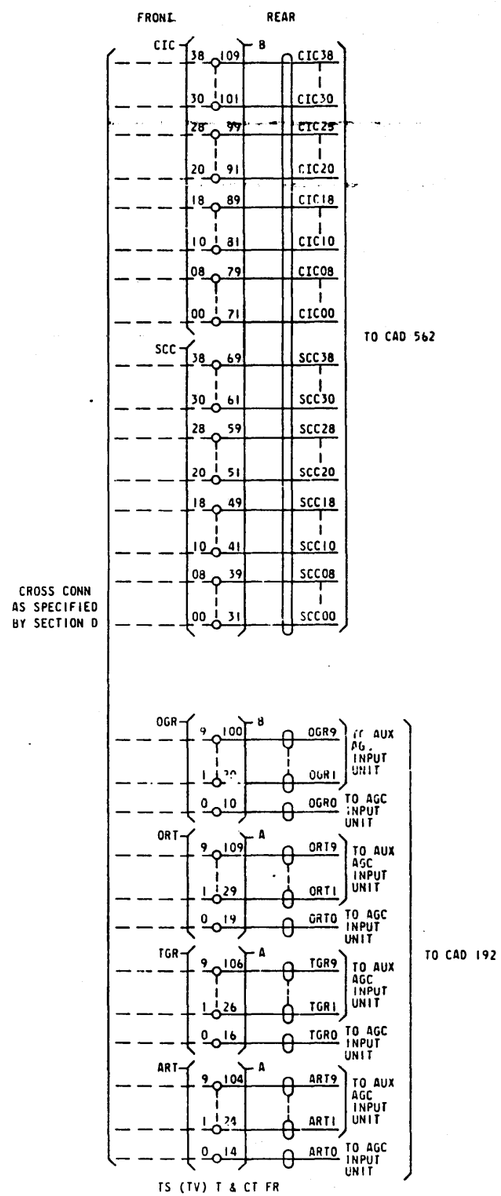




CROSS CONN AS SPECIFIED BY SECTION D

## PART OF CAD 110V




CROSS CONN AS SPECIFIED BY SECTION D




ISSUE
43D
44A
45D

DRAWING ISSUE
55B

COMPLETING MARKER CIRCUIT

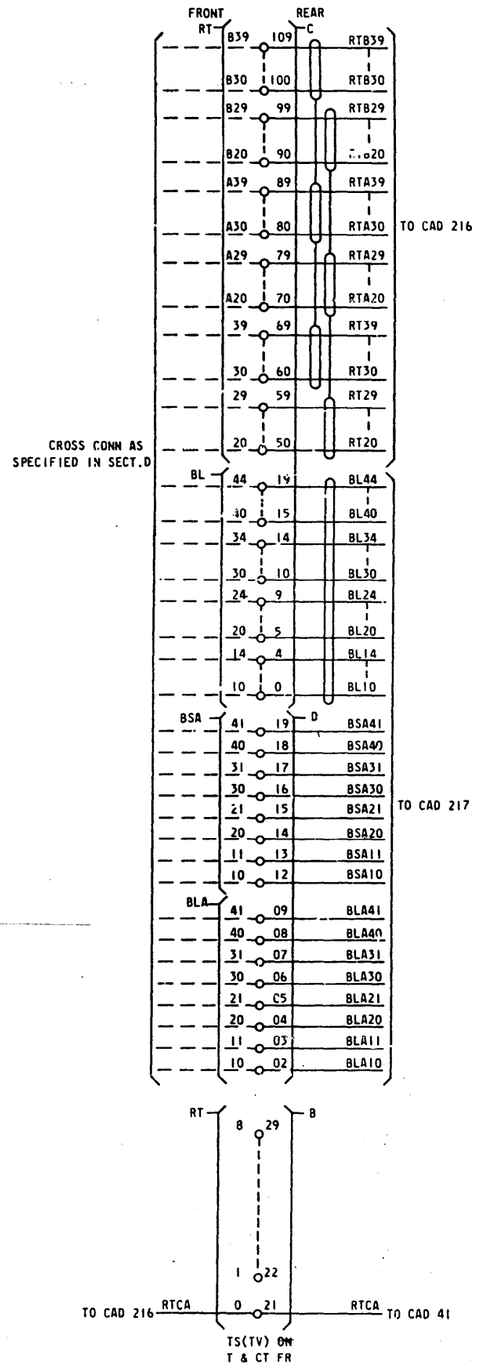
(2) SD-26002-01-0117A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

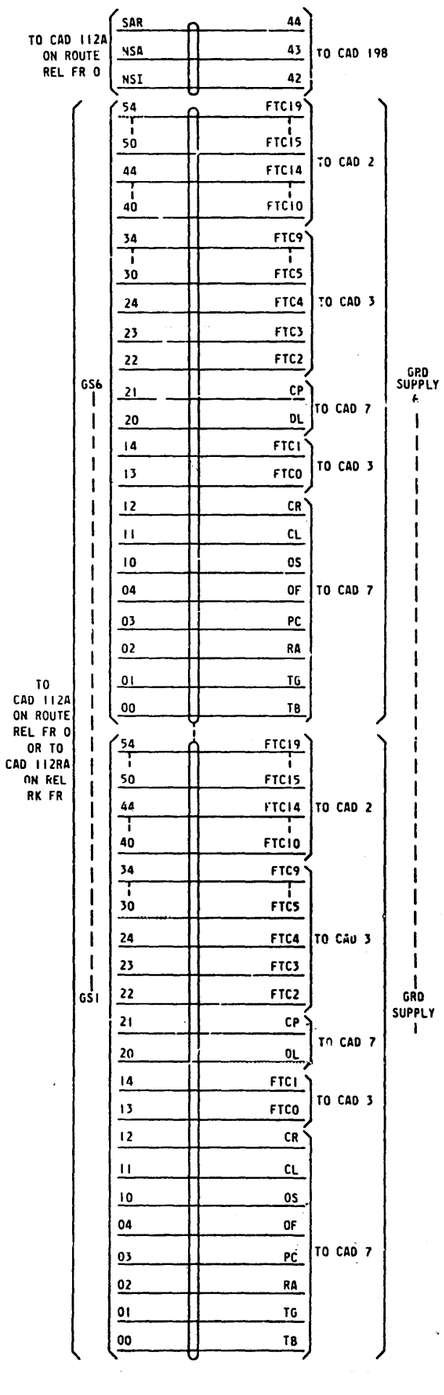
SD-26002-01-0117A

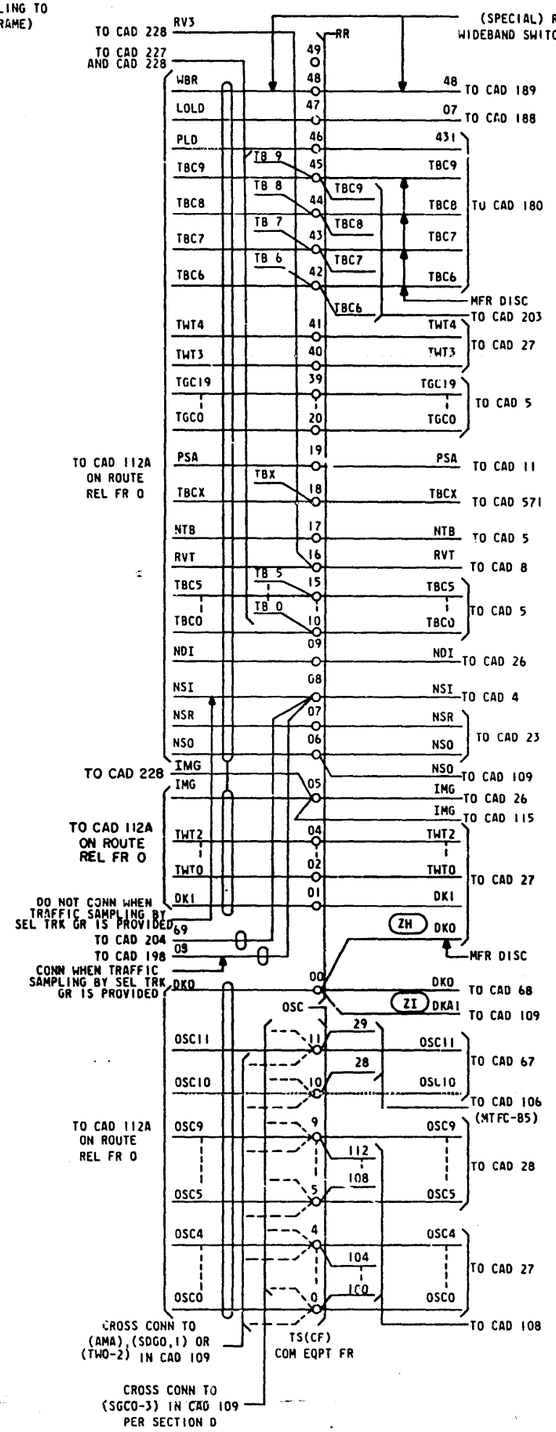
# PART OF CAD 110V




# PART OF CAD 111

(SWITCHBOARD CABLING TO ROUTE RELAY FRAME)




| DRAWING ISSUE |
|---|
| 44A |
| 45D |

ISSUE 58A

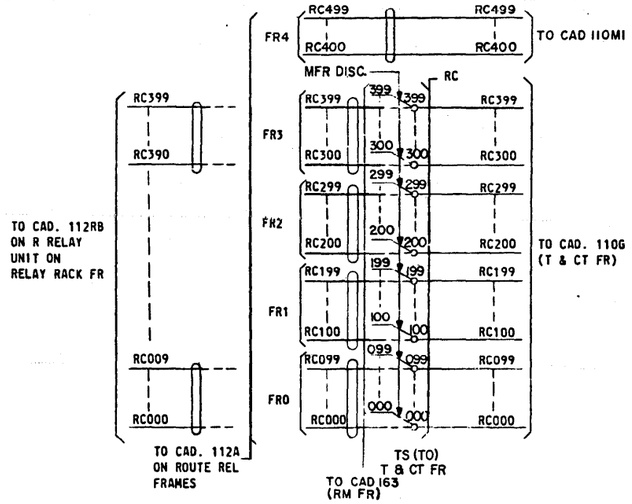
COMPLETING MARKER CIRCUIT

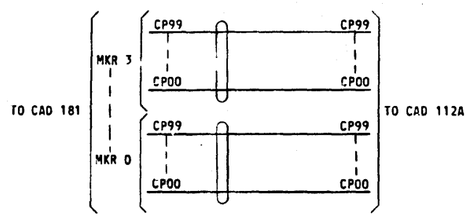
(2) SD-26002-01-C117B

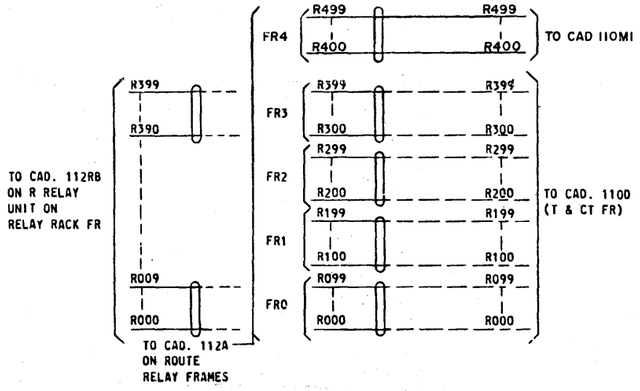
BELL TELEPHONE LABORATORIES INCORPORATED

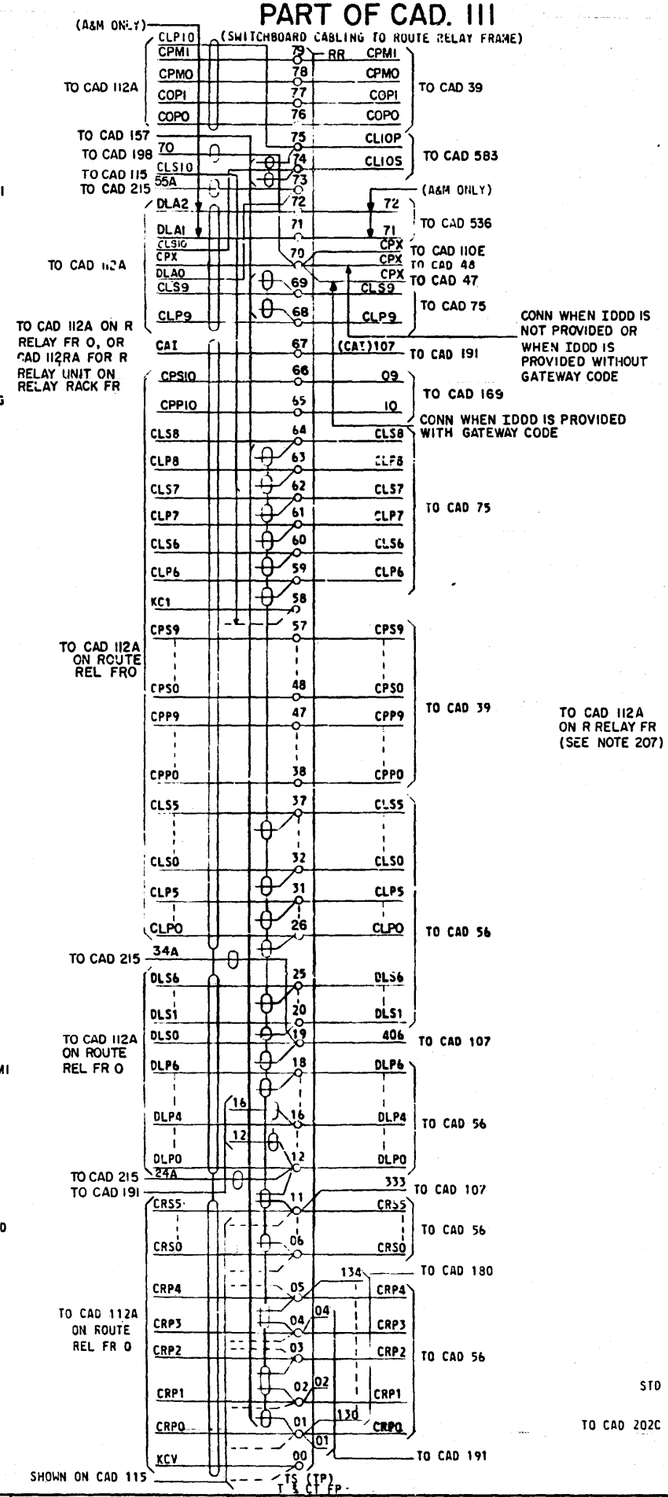
SHEET 65

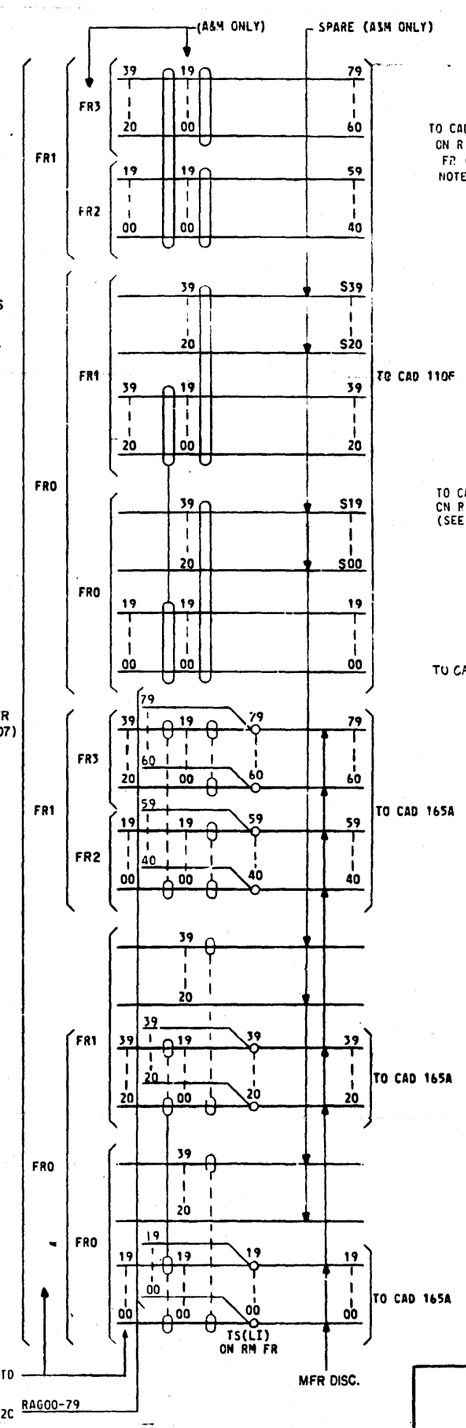
# PART OF CAD. 111

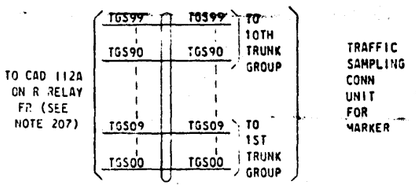


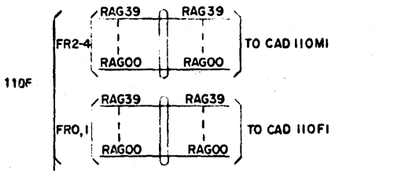



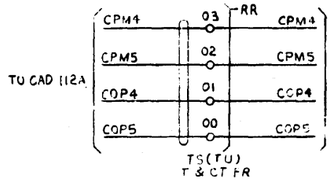




ISSUE 63B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G118

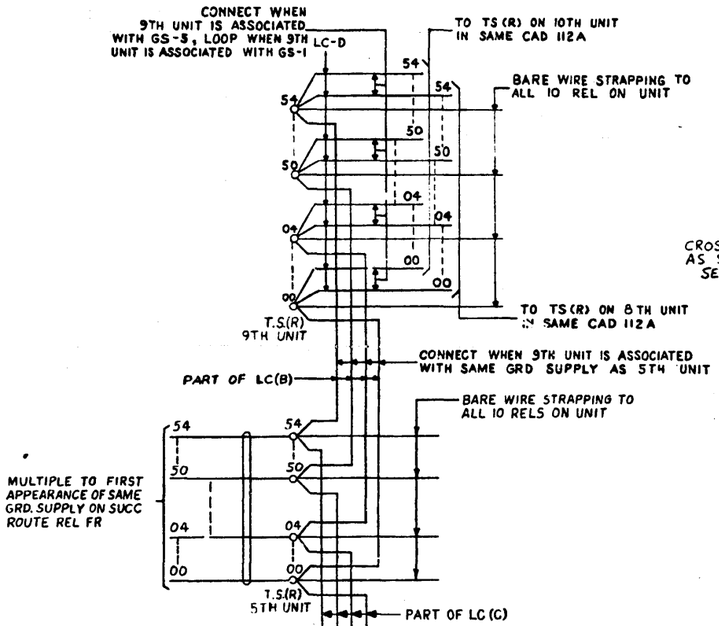
BELL TELEPHONE LABORATORIES INCORPORATED 6S

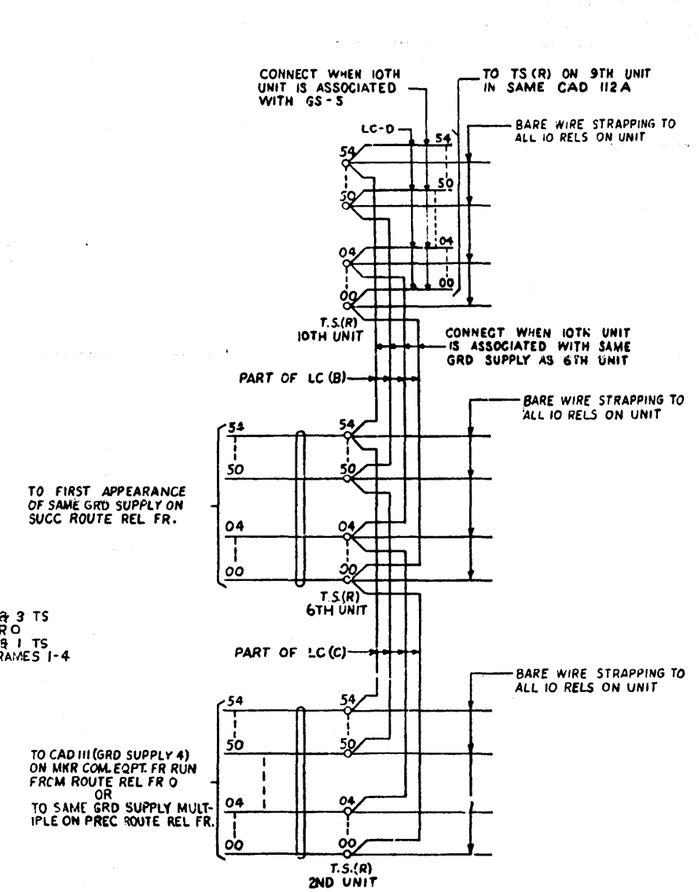
SD-26002-01-G118

# PART OF CAD 112A

(ROUTE RELAY FRAME WIRING FOR EACH MARKER AND 100 ROUTE RELAYS)

SEE TABLE 112A-H FOR NUMERICAL ASSIGNMENTS FOR ROUTE RELAY NUMBERS AND GROUND SUPPLY NUMBERS

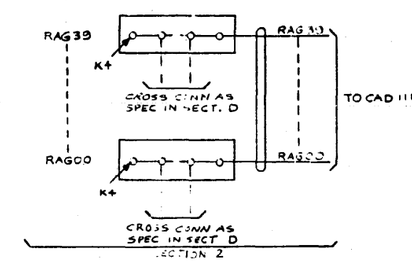






## CAD 112AA



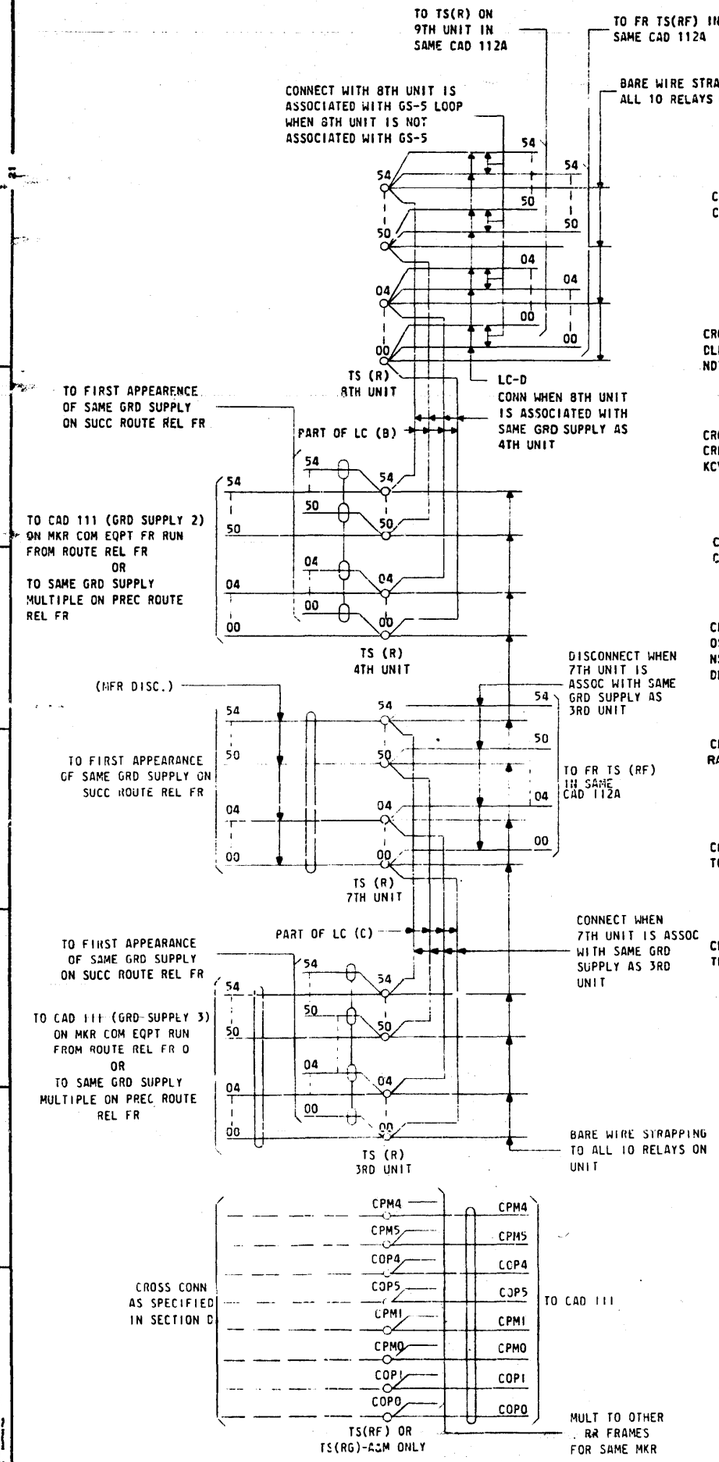

| DRAWING ISSUE |
|---|
| 55B |

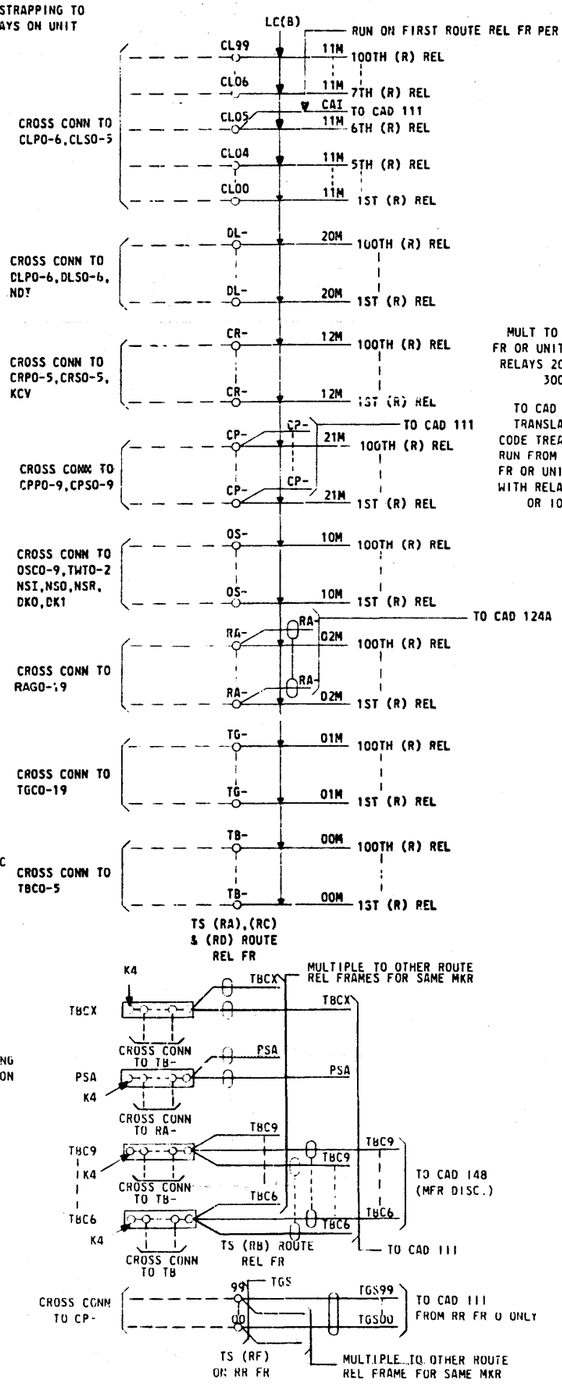
COMPLETING MARKER CIRCUIT (2) SD-26002-01-6119

BELL TELEPHONE LABORATORIES, INC

# PART OF CAD 112A

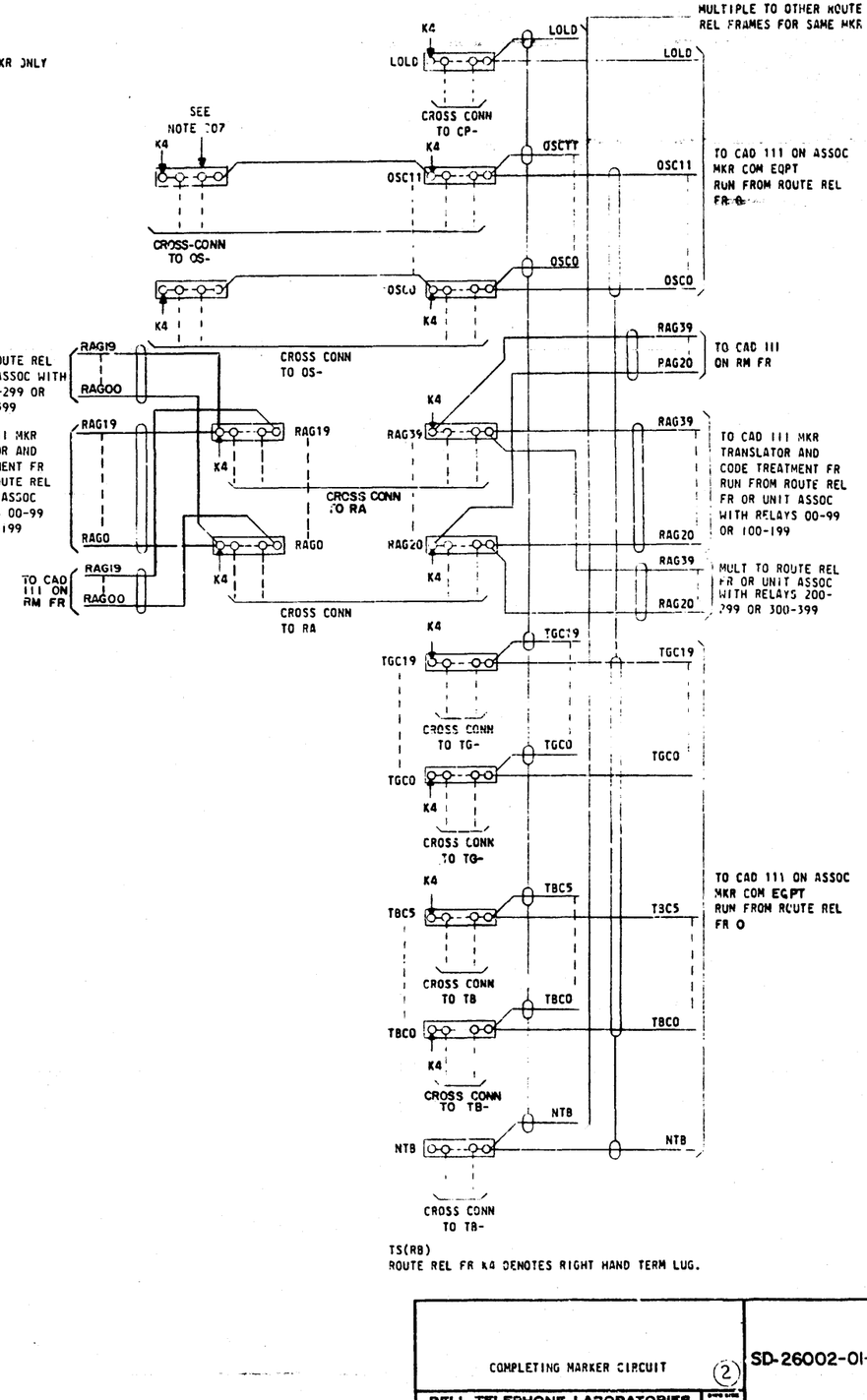
(ROUTE RELAY FRAME WIRING FOR EACH MARKER AND 100 ROUTE RELAYS)
SEE TABLE 112A-H FOR NUMERICAL ASSIGNMENTS
FOR ROUTE RELAY NUMBERS AND GROUND SUPPLY NUMBERS










| DR WIRING ISSUE | |
|---|---|
| 24D | ARS CLK |
| 30D | DM |
| 32A | DR |
| 33D | DR |
| 35D | TR |
| 39D | TR |
| 43U | |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G120

BELL TELEPHONE LABORATORIES INCORPORATED

6S

STABILO

# PART OF CAD 112A

ROUTE RELAY FRAME WIRING FOR EACH MARKER AND 100 ROUTE RELAYS

SEE TABLE 112A-H FOR NUMERICAL ASSIGNMENTS FOR ROUTE RELAY NUMBERS AND GROUND SUPPLY NUMBERS

(SPECIAL) RUN FOR WBS ONLY

NJA — K4 — CROSS-CONN TO OS

WBR — K4 — CROSS-CONN TO CP-

(19) CLP10 — K4 — CROSS CONN TO CL-

CLP9 — K4 — CROSS CONN TO CL-

CLP8 — K4 — CROSS CONN TO CL-

CLP0 — K4 — CROSS CONN TO CL-

(SEE NOTE 207)

DKI — K4 — CROSS CONN TO OS-

DKO — K4 — CROSS CONN TO OS-

TO CAD 222 NSR — K4 — CROSS CONN TO OS-

NSO — K4 — CROSS CONN TO OS-

NSI — K4 — (42) — CROSS CONN TO OS-

TWT2 — K4 — CROSS CONN TO OS-

TWTO — K4 — CROSS CONN TO OS-

SAR — K4 — CROSS-CONN TO CP — TS(RB) ROUTE REL FR

NSA, WBR, CLP10, CLP9, CLP8, CLP0, DKI, DKO, NSR, NSO, NSI, TWT2, TWTO, SAR

MULTIPLE TO OTHER ROUTE REL FRAMES FOR SAME MKR

TO CAD III ON ASSOC MKR COM EQPT FR RUN FROM ROUTE REL FR O

TO CAD III ON ASSOC MKR TRANSLATOR AND CODE TREATMENT FR RUN FROM ROUTE REL FR O

DO NOT CONN WHEN TRAFFIC SAMPLING BY SELECTED TRK GRP IS PROVIDED

CONN WHEN TRAFFIC SAMPLING BY SELECTED TRK GRP IS PROVIDED.

TO CAD III ON ASSOC MKR COM EQPT FR RUN FROM ROUTE REL FR O

TO CAD III ON ASSOC MKR TRANSLATOR AND CODE TREATMENT FR RUN FROM ROUTE REL FR O

(A&M ONLY)

DLA2 — K4 — CROSS CONN TO DL-

DLPG — K4 — CROSS CONN TO DL-

DLPO — K4 — DLA1 — CROSS CONN TO DL-

DLA0 — K4 — CROSS CONN TO DL-

CR55 — K4 — CROSS CONN TO CR-

CRSO — K4 — CROSS CONN TO CR-

KCI — K4 — CROSS CONN TO CR-

KCV — K4 — CROSS CONN TO CR-

IMG — K4 — CROSS CONN TO CR-

CRP4 — K4 — CROSS CONN TO CR-

CRP0 — K4 — CROSS CONN TO CR-

CLS10 — K4 — CROSS CONN TO CR-

CLS9 — K4 — CROSS CONN TO CL-

CLS4 — K4 — CROSS CONN TO CL-

TO CAD 562 CL2S, CL3S — CLS3 — K4 — CLS2 — K4 — CROSS CONN TO CL-

CLS1 — K4 — CLS0 — CROSS CONN TO CL- TS (RB) ROUTE REL FR

DLA2, DLPG, DLPO, DLA1, DLA0, CR55, CRSO, KCI, KCV, IMG, CRP4, CRP0, CLS10, CLS9, CLS4, CLS3, CLS2, CLS1, CLS0

MULTIPLE TO OTHER ROUTE REL FRS FOR SAME MKR

TO CAD III ON ASSOC MKR TRANSLATOR AND CODE TREATMENT FR RUN FROM ROUTE REL FR O

TO CAD III ON ASSOC MKR TRANSLATOR AND CODE TREATMENT FR RUN FROM ROUTE REL FR O

TO CAD 562

K4 — CPX — CROSS CONN TO CP-

CPS10 — K4 — CROSS CONN TO CP-

CPS0 — K4 — CROSS CONN TO CP-

CPP10 — K4 — CROSS CONN TO CP-

CPP0 — K4 — CROSS CONN TO CP-

DLSG — K4 — CROSS CONN TO CP-

DLSO — K4 — CROSS CONN TO DL-

NDI — K4 — CROSS CONN TO DL-

RVT — K4 — CROSS CONN TO DL-

PLD — K4 — CROSS CONN TO DL-

CSC — K4 — TS (RB) ROUTE REL FR

CPX, CPS10, CPS0, CPP10, CPP0, DLSG, DLSO, NDI, RVT, PLD, CSC

MULTIPLE TO OTHER ROUTE REL FRAMES FOR SAME MKR

TO CAD III ON ASSOC MKR TRANSLATOR AND CODE TREATMENT FR RUN FROM ROUTE REL FR O

TO CAD III ON ASSOC MKR COM EQPT FR RUN FROM ROUTE REL FR O

TO CAD 562

K4 DENOTES RIGHT HAND TERM. LUG LOOKING AT REAR.

| DRAWING ISSUE | |
|---|---|
| 50 | CSR MP |
| 6A | CBD |
| 120 | CAD |
| 210 | BJS EDN AHQ PDJ |
| 240 | CJC AMP |
| 250 | BB |
| 300 | MRS |
| 330 | CDL |
| 350 | LP |
| 370 | JBR |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 430 | LB |

ISSUE 8

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G121

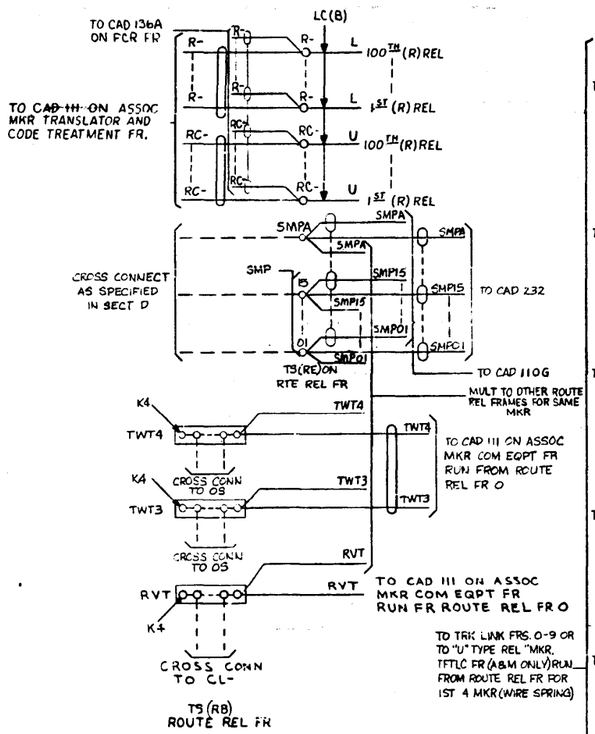
BELL TELEPHONE LABORATORIES, INC

SIZE 6S

# PART OF CAD 112 A

(ROUTE RELAY FRAME WIRING FOR EACH MARKER AND 150 ROUTE RELAYS)

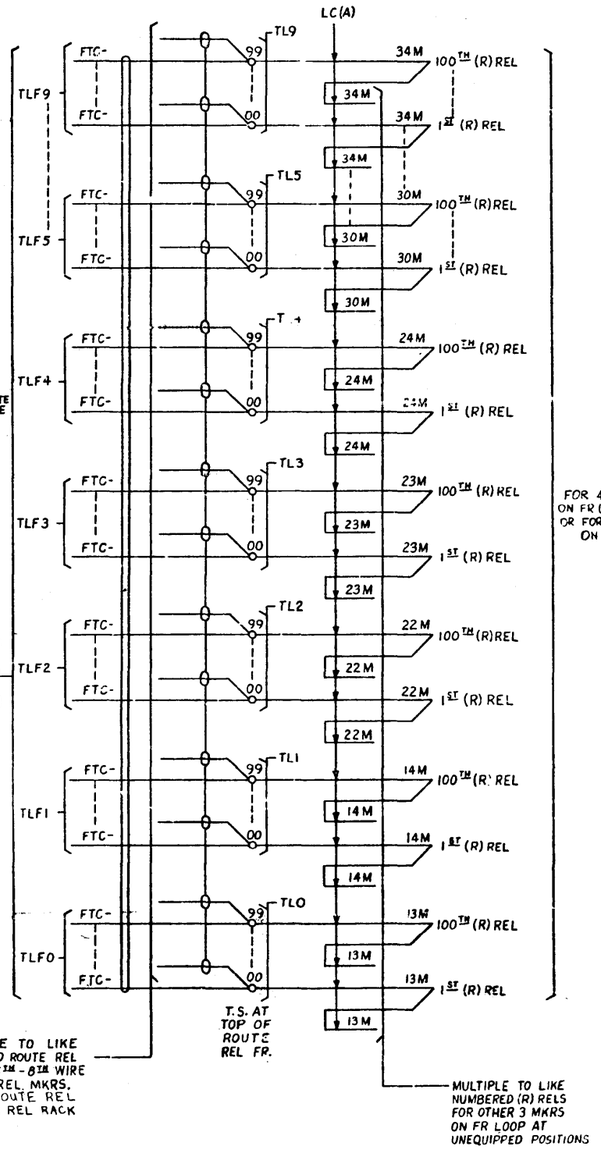
SEE TABLE 112A-H FOR NUMERICAL ASSIGNMENTS FOR ROUTE RELAY NUMBERS AND GROUND SUPPLY NUMBER

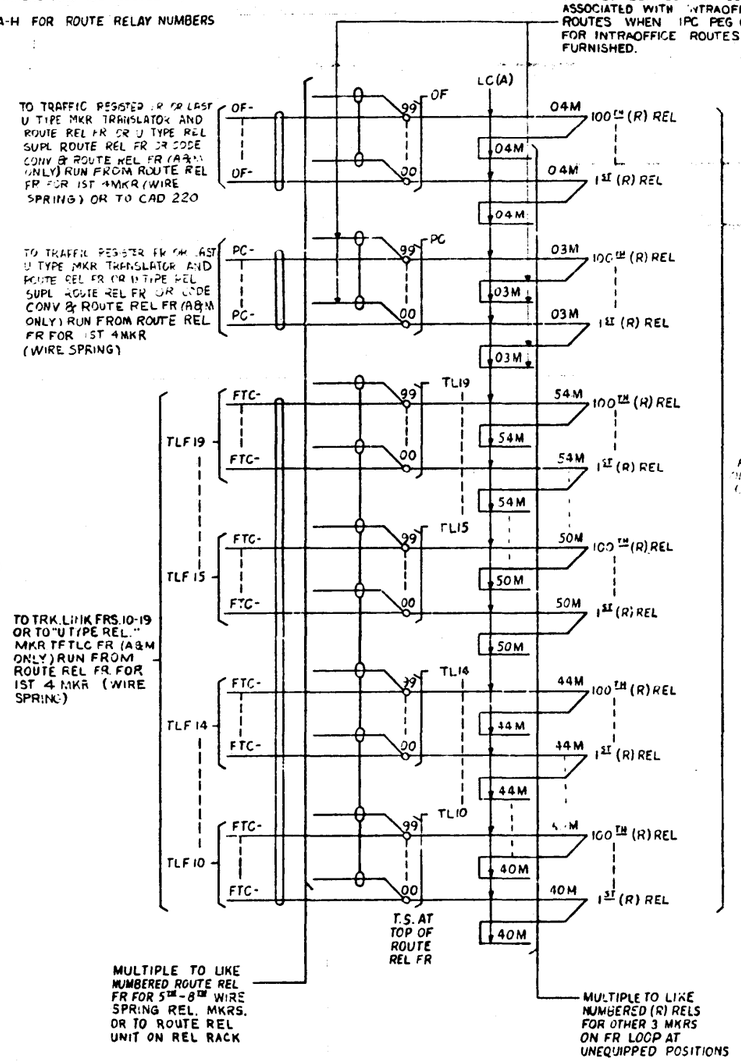



# CAD 112B

(ROUTE RELAY FRAME WIRING COMMON TO 4 MARKERS AND 100 ROUTES)

SEE TABLE 112A-H FOR ROUTE RELAY NUMBERS




| DRAWING ISSUE | |
|---|---|
| 5D | PJS AD |
| 6A | AD CNA |
| 18D | REL EDM |
| 22D | EN PCM AD |
| 24D | REL CLA AD BB |
| 25D | PCM KLD |
| 32A | TS SPA AND |
| 33D | TS SPA AND |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-78 | |
| 41D | |

SD-26002-01-G122

ISSUE 65B

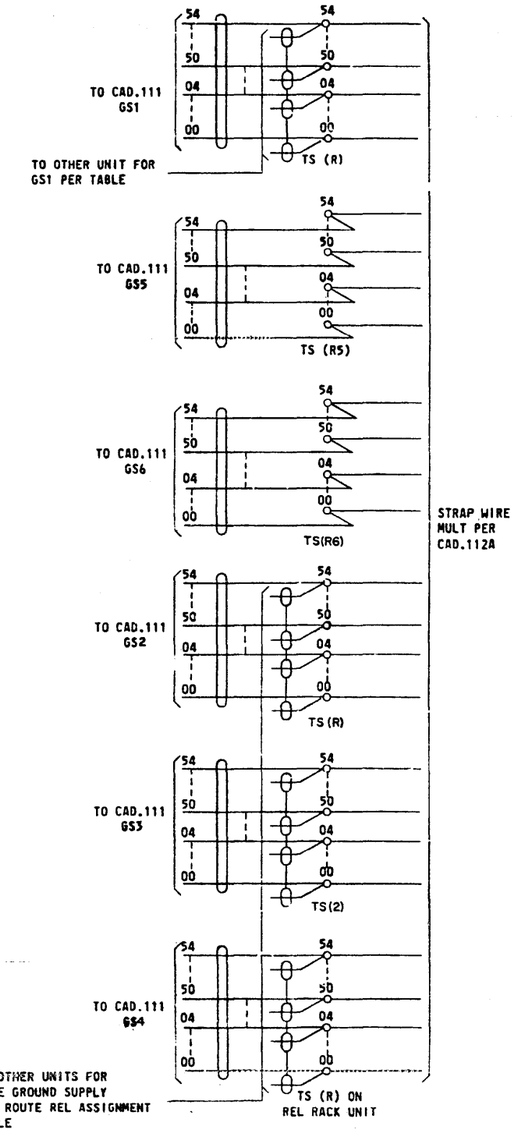
COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES, INC

SD-26002-01-G122

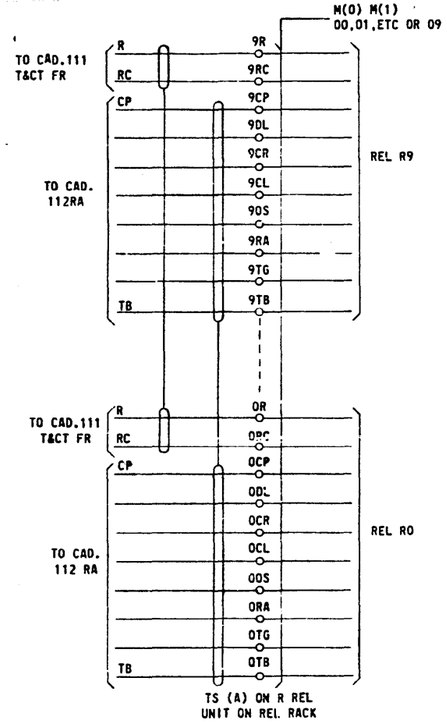
# CAD. 112RA

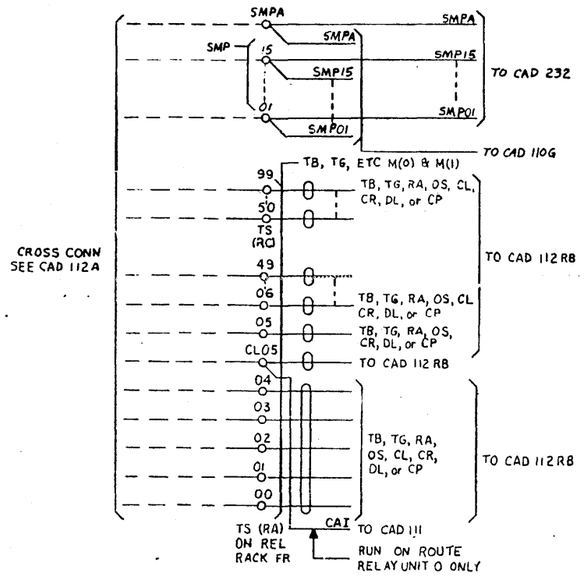
(RELAY RACK MOUNTED ROUTE RELAY UNIT WIRING)
SEE TABLE 112 FOR NUMERICAL ARRANGEMENTS FOR ROUTE RELAY NUMBERS AND GROUND SUPPLY NUMBERS.(SEE SHEET NOTE 1.)




# CAD. 112RB

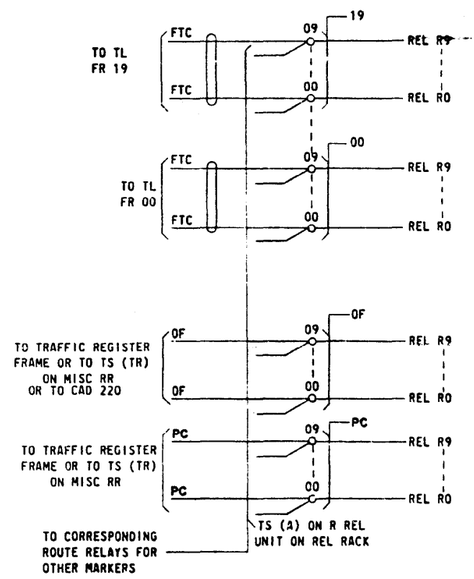
(RELAY RACK MOUNTED ROUTE RELAY UNIT WIRING)




# CAD. 112 RC

(RELAY RACK MOUNTED ROUTE RELAY UNIT WIRING)




SHEET NOTE:
1. CAD. 112 RA INFORMATION FOR TS(RB) ON RELAY RACK FRAME-SEE CAD. 112A TS(RB) ONLY.

DRAWING ISSUE
8D REL TAU
22D JB CLK AMP
24D JAT CLK AMP
33D LP GDL AMP
DRAWING REFURBISHED WITH-OUT CHANGE 10-1-68
41D

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-GI23
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

# INDEX TABLE FOR CAD 112

| CONDITION | | PROVIDE WIRE SPRING ROUTE REL FRAMES FOR EACH 4 WIRE SPRING RELAY COMPLETING MARKERS | | |
|---|---|---|---|---|
| | | ROUTE REL NO. | ROUTE REL FR NO. | REL NOS. AND GRD SUPPLY NOS. SHOWN BY |
| MKR CRP EQUIPPED WITH W.S. REL MKRS ONLY | | 00-99 | 0 | 112A |
| | | 100-199 | 1 | 112B |
| | | 200-299 | 2 | 112C |
| | | 300-399 | 3 | 112D |
| | | 400-499 | 4 | 112L |
| A & M ONLY | EXISTING U TYPE MKRS EQUIPPED FOR 100* ROUTES | 00-99 | 0 | 112A |
| | EXISTING U TYPE MKRS EQUIPPED FOR 220* ROUTES NO CODE CONV | 00-99 | 0 | 112A |
| | | 100-199 | 1 | 112B |
| | | 200-219 | 2 | 112C(PART) |
| | EXISTING U TYPE MKRS EQUIPPED FOR 400* ROUTES NO CODE CONV | 00-99 | 0 | 112A |
| | | 100-199 | 1 | 112B |
| | | 200-299 | 2 | 112C |
| | | 300-369 | 3 | 112D |
| | EXISTING U TYPE MKRS EQUIPPED FOR 330* ROUTES NO CODE CONV | 00-99 | 0 | 112A |
| | | 220-319 | 1 | 112E |
| | | 320-419 | 2 | 112F |
| | | 420-449 | 3 | 112G(PART) |
| | EXISTING U TYPE MKRS EQUIPPED FOR 220* ROUTES WITH CODE CONV | 00-99 | 0 | 112A |
| | | 450-549 | 1 | 112J |
| | | 550-569 | 2 | 112K |
| | EXISTING U TYPE MKRS EQUIPPED FOR 340*ROUTES WITH CODE CONV | 00-99 | 0 | 112A |
| | | 100-199 | 1 | 112B |
| | | 200-219<br>450-529 | 2 | 112H |
| | | 530-569 | 3 | 112I |
| | EXISTING U TYPE MKRS EQUIPPED FOR 40C* ROUTES WITH CODE CONV | 00-99 | 0 | 112A |
| | | 220-319 | 1 | 112E |
| | | 320-419 | 2 | 112F |
| | | 420-519 | 3 | 112G |

*DETERMINED BY T & RR, SRR 2/MKRS SRR 1/MKR, AND CC & RR FRAMES AS EQUIPPED FOR U TYPE MKRS.

## ROUTE RELAY ASSIGNMENT TABLES**

| UNIT CN FR PER MKR | 112A | | 112B | | 112C | | 112D | | 112E | | 112F | | 112G | | 112H | | 112I | | 112J | | 112K | | 112L | | UNIT CN FR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP. | ROUTE REL NO. | GRD SUP | ROUTE REL NO. | GRD SUP | |
| 1ST | 0-4,6,7,8* | 1,5,6 | 100-109 | 1 | 200-209 | 3 | 300-309 | 1 | 220-229 | 1 | 320-329 | 3 | 420-429 | 1 | 200-209 | 3 | 530-539 | 1 | 450-459 | 1 | 550-559 | 3 | 400-409 | 3 | 1ST |
| 2ND | 10-19 | 4 | 110-119 | 2 | 210-219 | 4 | 310-319 | 2 | 230-239 | 2 | 330-339 | 4 | 430-439 | 2 | 210-219 | 4 | 540-549 | 2 | 460-469 | 2 | 560-569 | 4 | 410-419 | 4 | 2ND |
| 3RD | 20-29 | 3 | 120-129 | 3 | 220-229 | 1 | 320-329 | 3 | 240-249 | 3 | 340-349 | 1 | 440-449 | 3 | 450-459 | 1 | 550-559 | 3 | 470-479 | 3 | | | 420-429 | 1 | 3RD |
| 4TH | 30-39 | 2 | 130-139 | 4 | 230-239 | 2 | 330-339 | 4 | 250-259 | 4 | 350-359 | 2 | ** | 4 | 460-469 | 2 | 560-569 | 4 | 480-489 | 4 | | | 430-439 | 2 | 4TH |
| 5TH | 40-49 | 1 | 140-149 | 1 | 240-249 | 3 | 340-349 | 1 | 260-269 | 1 | 360-369 | 3 | 450-459 | 1 | 470-479 | 3 | | | 490-499 | 1 | | | 440-449 | 3 | 5TH |
| 6TH | 50-59 | 4 | 150-159 | 2 | 250-259 | 4 | 350-359 | 2 | 270-279 | 2 | 370-379 | 4 | 460-469 | 2 | 480-489 | 4 | | | 500-509 | 2 | | | 450-459 | 4 | 6TH |
| 7TH | 60-69 | 3 | 160-169 | 3 | 260-269 | 1 | 360-369 | 3 | 280-289 | 3 | 380-389 | 1 | 470-479 | 3 | 490-499 | 1 | | | 510-519 | 3 | | | 460-469 | 1 | 7TH |
| 8TH | 70-79 | 2 OR 5 | 170-179 | 4 | 270-279 | 2 | 370-379 | 4 | 280-299 | 4 | 390-399 | 2 | 480-489 | 4 | 500-509 | 2 | | | 520-529 | 4 | | | 470-479 | 2 | 8TH |
| 9TH | 80-89 | 1 OR 5 | 180-189 | 1 | 280-289 | 3 | 380-389 | 1 | 300-309 | 1 | 400-409 | 3 | 490-499 | 1 | 510-519 | 3 | | | 530-539 | 1 | | | 480-489 | 3 | 9TH |
| 10TH | 90-99 | 4 OR 5 | 190-199 | 2 | 290-299 | 4 | 390-399 | 2 | 310-319 | 2 | 410-419 | 4 | 500-509 | 2 | 520-529 | 4 | | | 540-549 | 2 | | | 490-499 | 4 | 10TH |

* WIRING FOR RELAY POS 5 & 9 SHALL BE OMITTED.
** NUMERICALS FOR FTC, PC- AND CF- LEADS OF CAD-112B AND R-, RC-, TB-, TG-, RA-, CS-, CL-, CR-, DL-, & CP- LEADS AND PUNCHINGS OF CAD-112A SHALL AGREE WITH ASSOCIATED ROUTE RELAY NUMBERS AS SHOWN BY TABLES 112.A-K.

DRAWING ISSUE
50 CCH 1/7
18D REL TM
24D JAT C-1 1-69

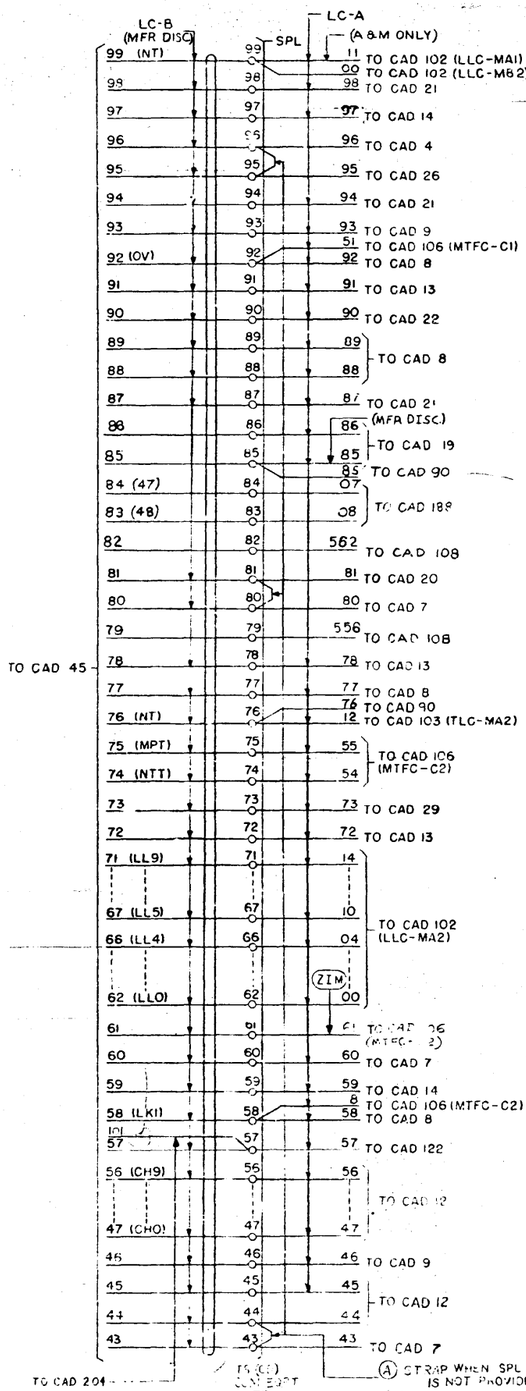
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

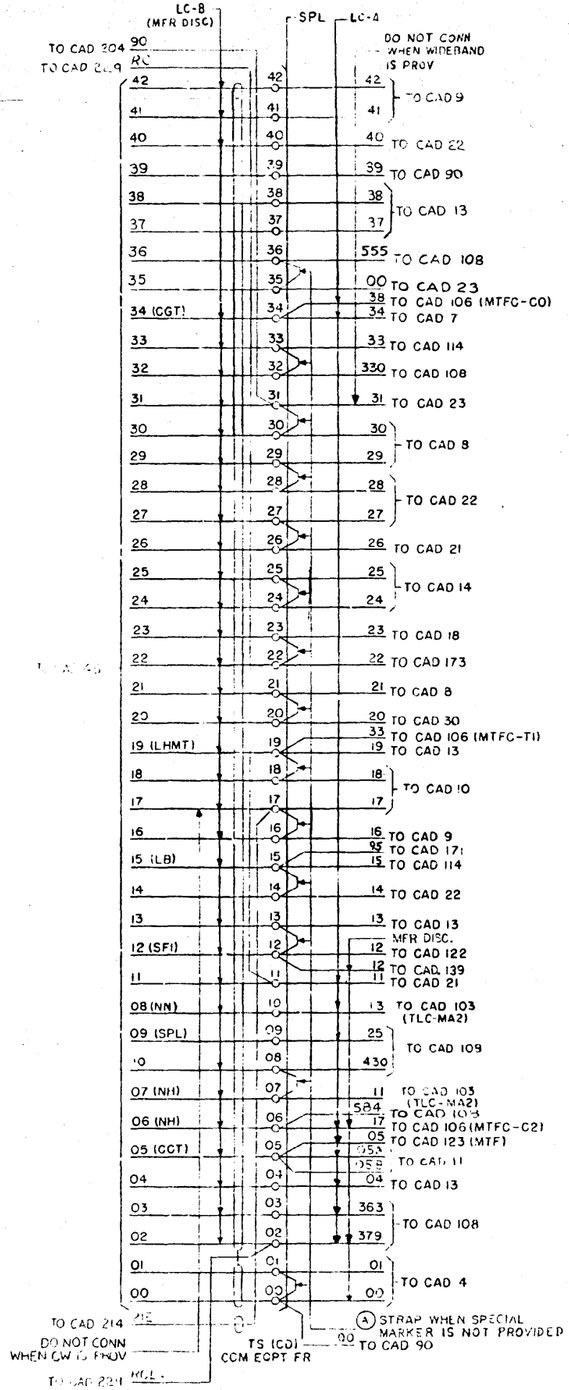
ISSUE 55B

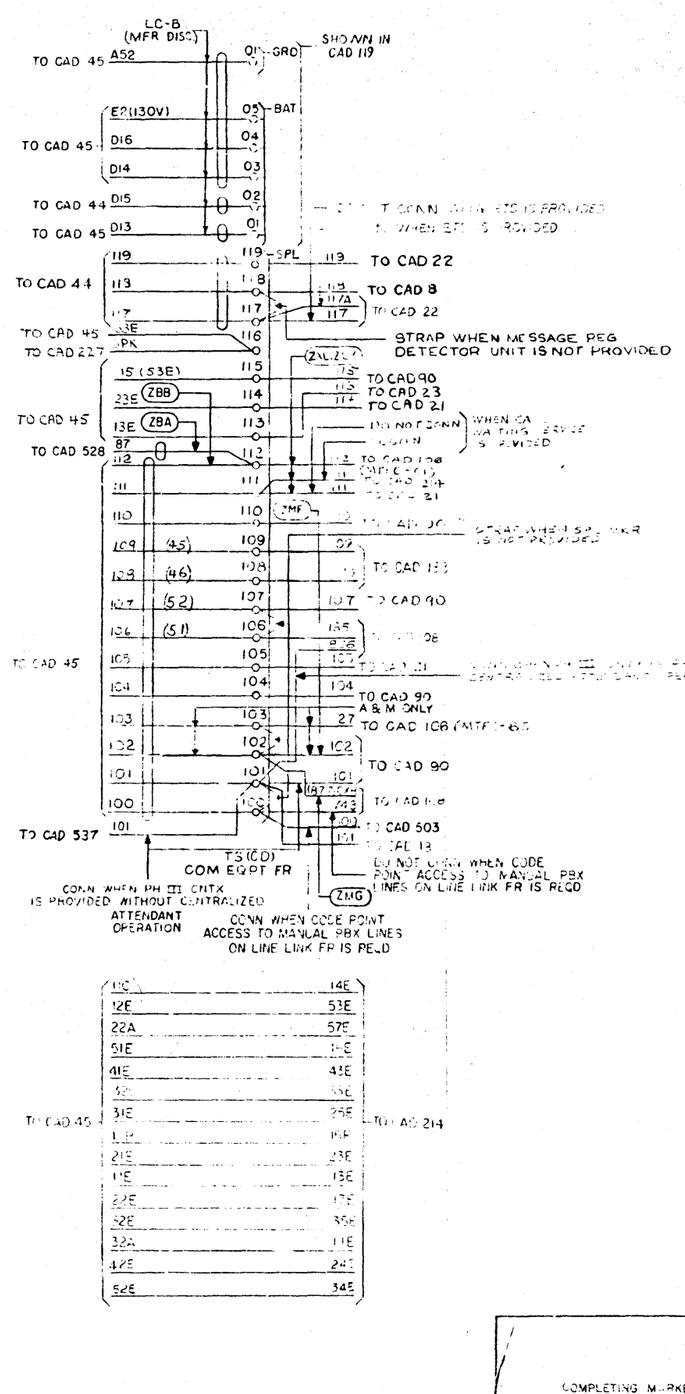
COMPLETING MARKER CIRCUIT (2)
BELL TELEPHONE LABORATORIES, INC
SD-26002-01-G124

# CAD 113

(CONNECTIONS TO SPECIAL MARKER UNITS)




| | |
|---|---|
| 11C | 14E |
| 12E | 53E |
| 22A | 57E |
| 51E | 11E |
| 41E | 43E |
| 32 | 55E |
| 31E | 25E |
| 11E | 19E |
| 21E | 23E |
| 13E | 13E |
| 22E | 17E |
| 52E | 35E |
| 32A | 11E |
| 42E | 24E |
| 52E | 34E |

TO CAD 45 — TO CAD 214

| DRAWING ISSUE | |
|---|---|
| 5D | FLS |
| 10B | ATT JEK |
| 11B | CH JEK |
| 13B | FOR JEK |
| 18D | EN |
| 22D | EDM UNI |
| 23A | NP CLS SHP |
| 24D | NO |
| 25D | |
| 26A | |
| 29A | |
| 30D | |
| 32A | |
| 33D | |
| 34A | |
| 35D | |
| 37C | LEJ |
| 39D | LFP |
| 40A | |
| 43D | |
| 430 | |
| 44A | |
| 450 | |

DRAWING ISSUE 6FB

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

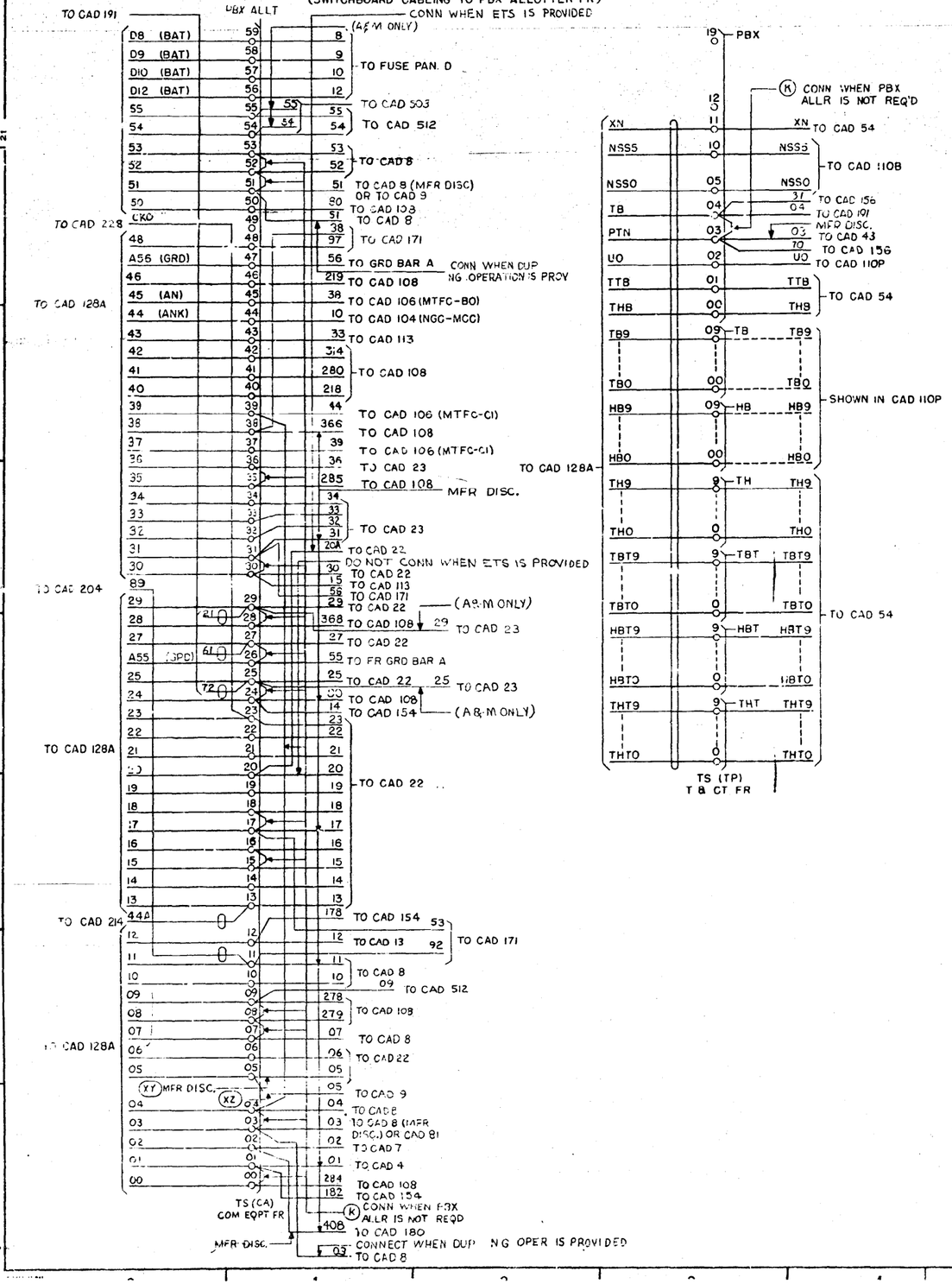
65

SD-26002-01-G125

SD-26002-01-G125

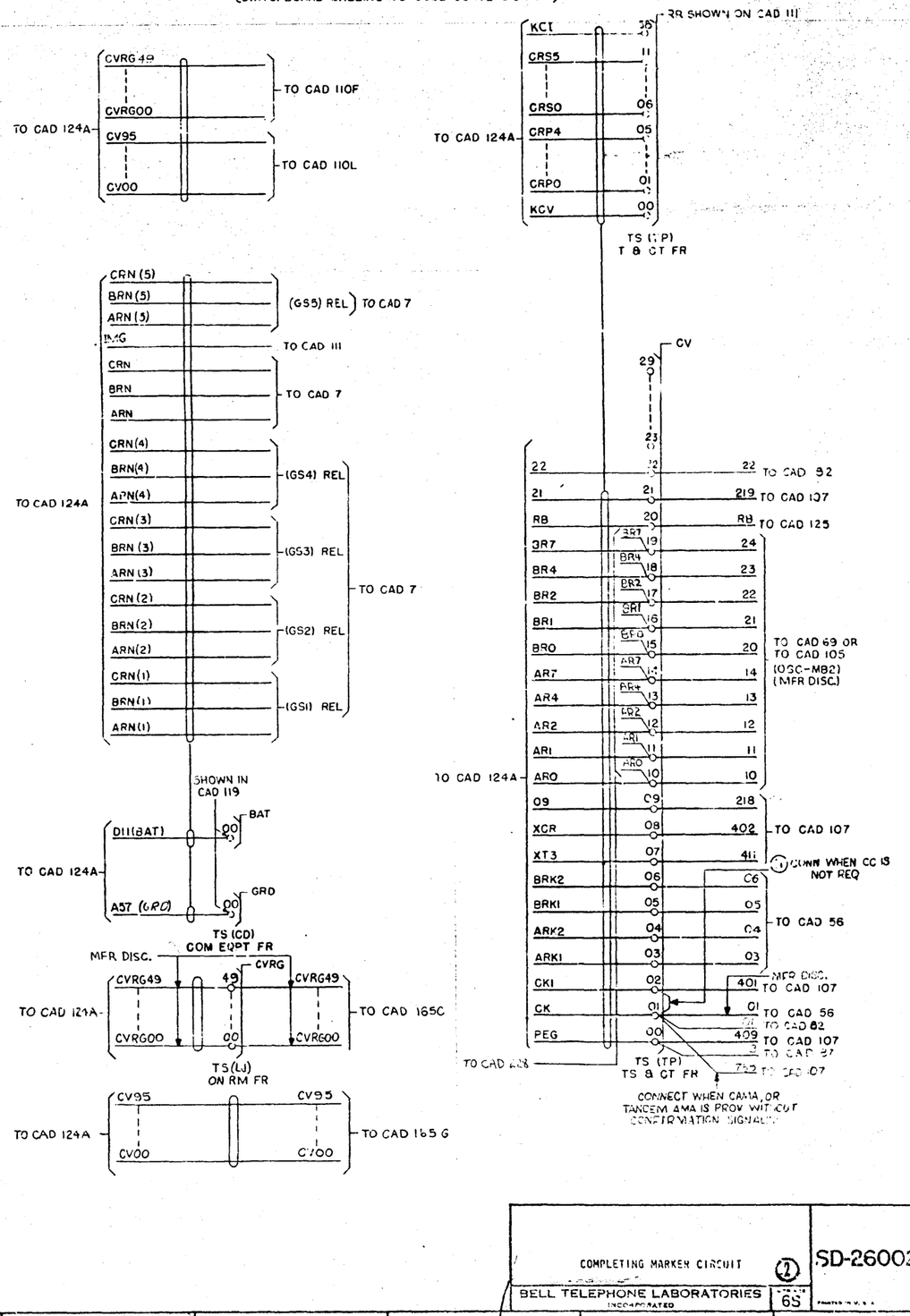
# CAD 114

(SWITCHBOARD CABLING TO PBX ALLOTTER FR)




# CAD 115

(SWITCHBOARD CABLING TO CODE CONVERSION FR)




DRAWING ISSUE

50 CSH JFD
80 CAA LCN PD
138 CAD LCN WS
180 BAS ECM AHD
210 DWP ECM GHD
220 JEB LCN MS
REL
240 CAS LCN CB
WLT
250 LCN
270 LCN
300 GAV LCN
310 GAV LCN
324 LCN LP
330 LCN
340 IEK LCN
350 IEK LCN
390 LFP
410
430

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

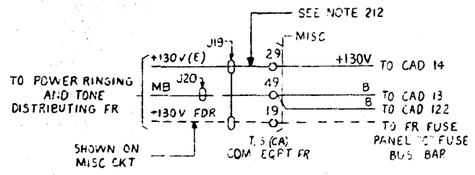
6S

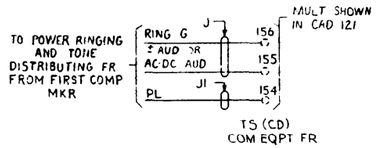
SD-26002-01-G126

ISSUE 513

# CAD 116

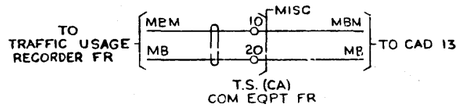
(SWITCHBOARD CABLING TO POWER RINGING AND TONE DISTRIBUTING FR)



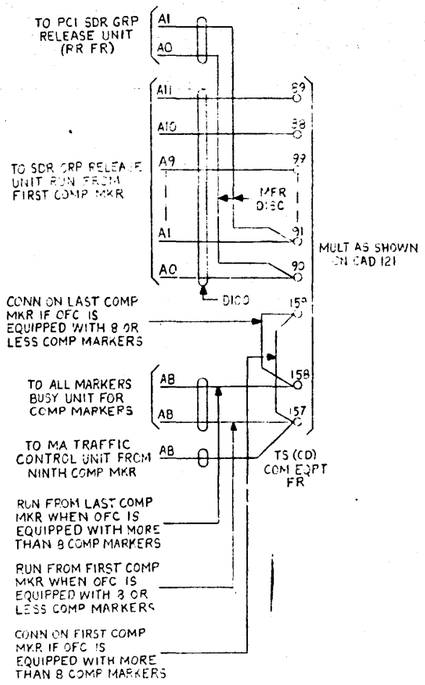

# CAD 117

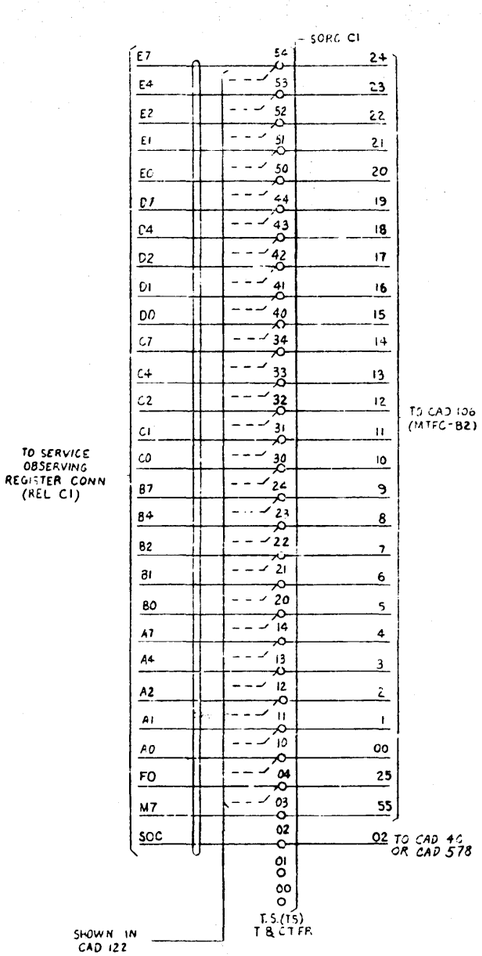
(SWITCHBOARD CABLING TO TRAFFIC USAGE RECORDER FR.)

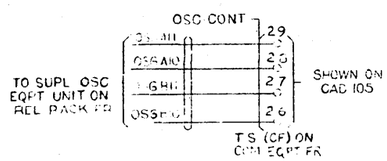


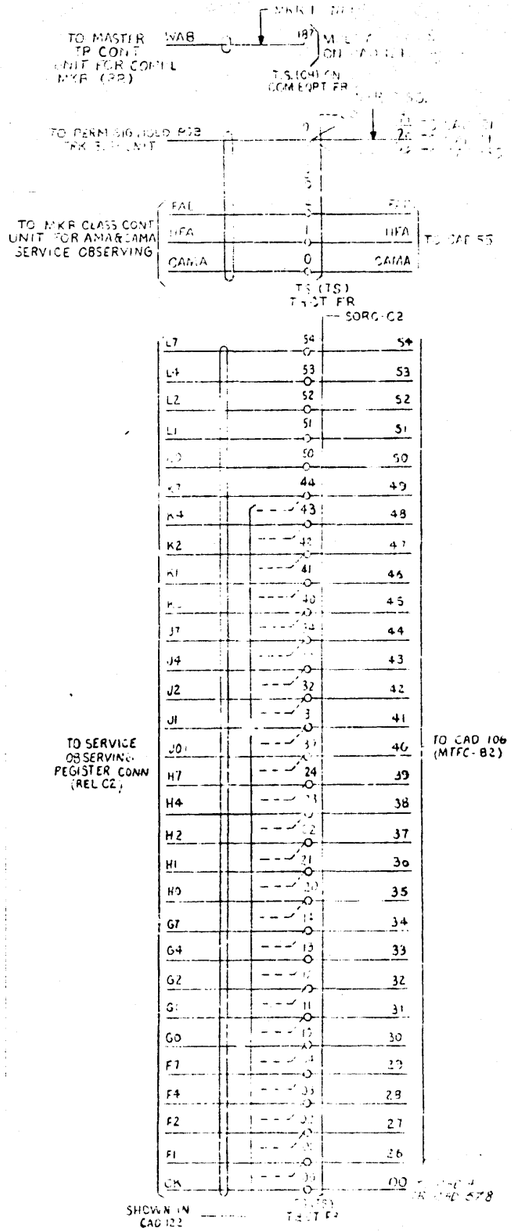

# CAD 118

(SWITCHBOARD CABLING TO RELAY RACK FR)




| DRAWING ISSUE | |
|---|---|
| 50 | CGH WF |
| 6A | JW CMD |
| 8D | JD JEM |
| 9J | AM JW |
| 103 | AM JEM |
| 118 | CH JEM |
| 138 | CH CGH JW EN |
| 1240 | KW JWS |
| 250 | WF CH CGH |
| 300 | CHR JW JEM |
| 32A | LP GDC |
| 350 | PCS TWS AMD |
| 370 | PCS |
| 390 | PCS |
| 410 | |
| 430 | |

ISSUE 578

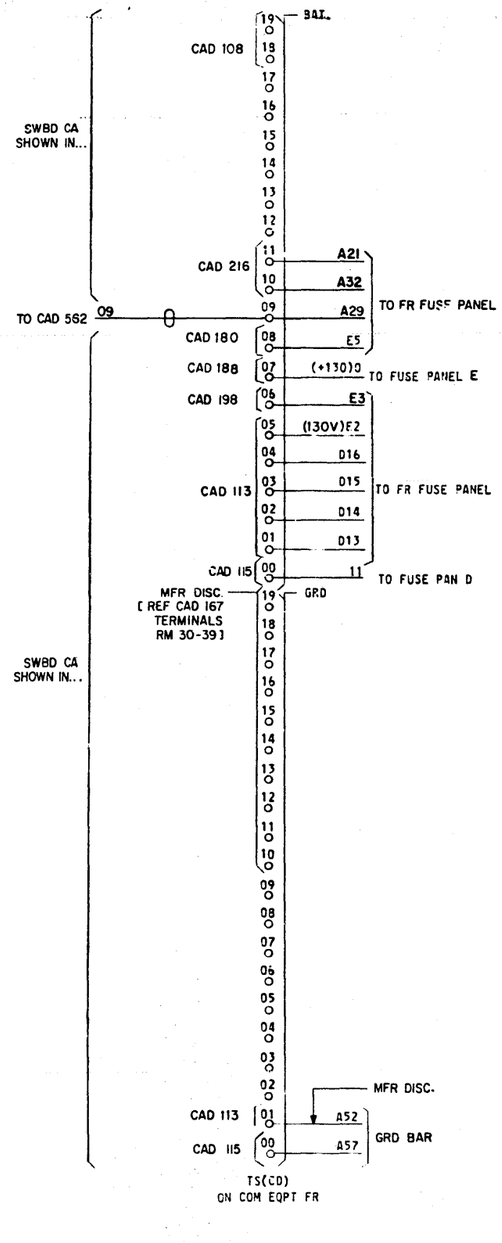
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G127

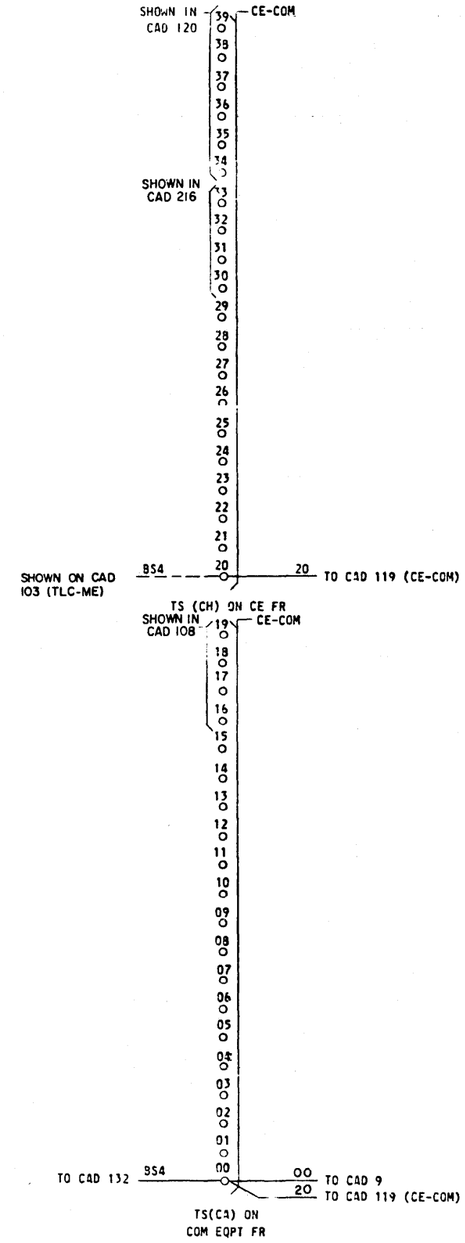
BELL TELEPHONE LABORATORIES, INC 6S

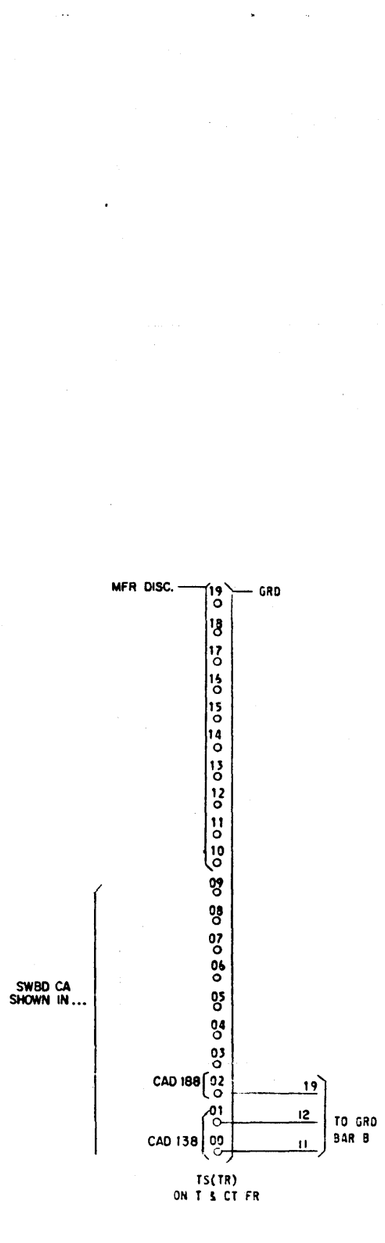
SD-26002-01-G127

# PART OF CAD 119

BAT. & GRD FROM CC, & T & CT FRAMES




DRAWING ISSUE

| | |
|---|---|
| 24D | EN GRN AND |
| 30D | LF WHT AND |
| 32A | LD GRL AND |
| 33D | LD GRL AND |
| 35D | RCV BRN WHT AND |

DRAWING REFURBISHED WITH-OUT CHANGE 10-1-68

430

44A

45D

DRAWING ISSUE

69B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G128A

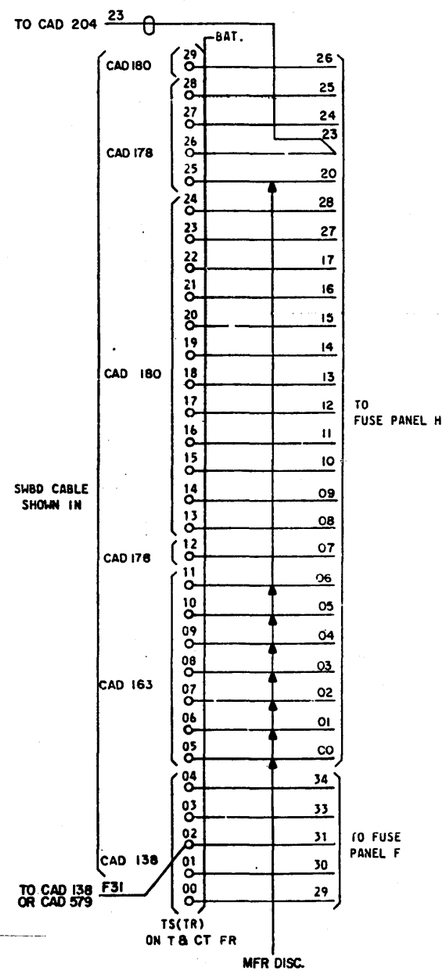
BELL TELEPHONE LABORATORIES INCORPORATED

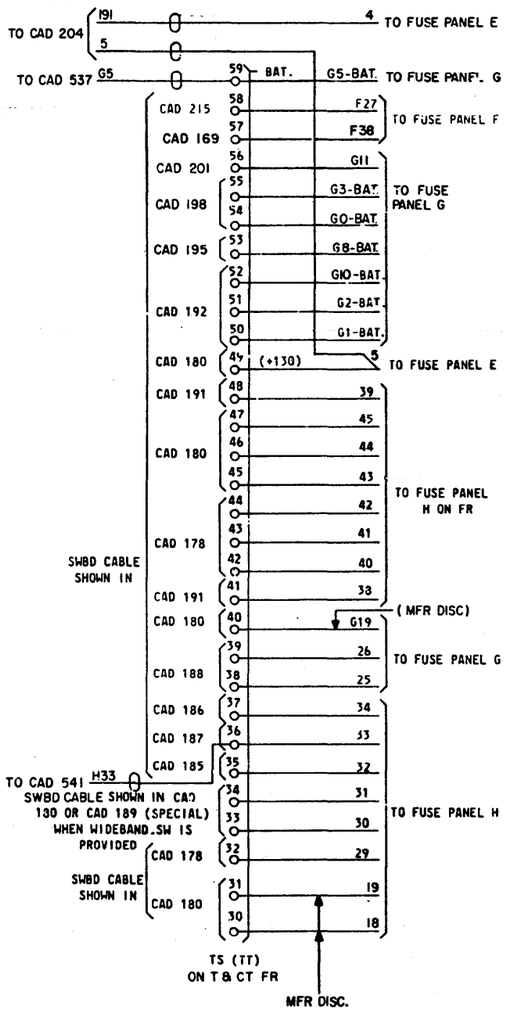
SIZE 6S

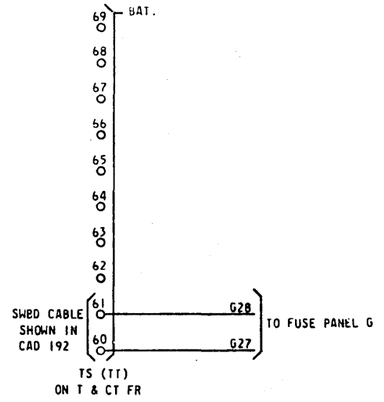
PRINTED IN U.S.A.

SD-26002-01-G128A

# PART OF CAD 119




| DRAWING ISSUE |
|---|
| 30D |
| 32A |
| 33D |
| 34A |
| 35D |
| 37D |
| 39D LFP |
| 41D |
| 43D |

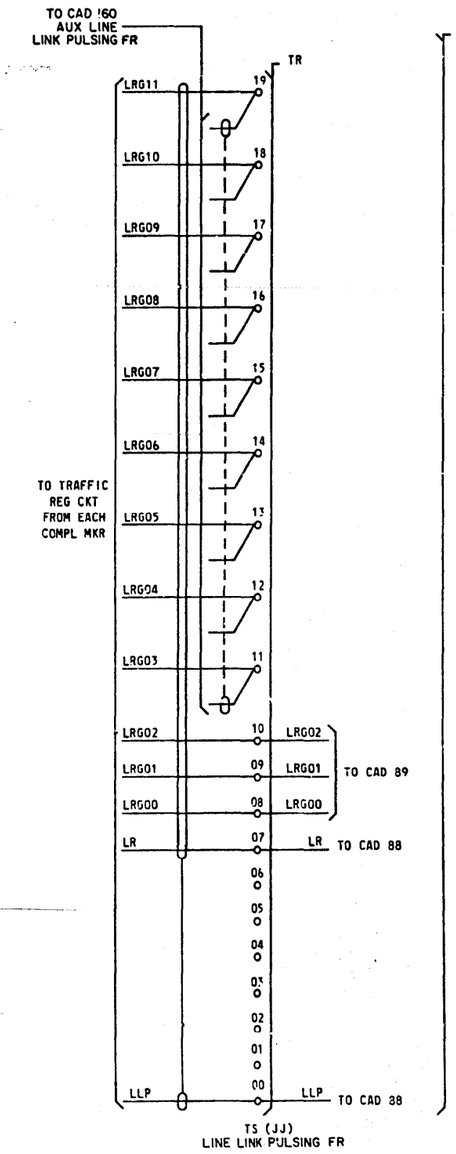
ISSUE 57B

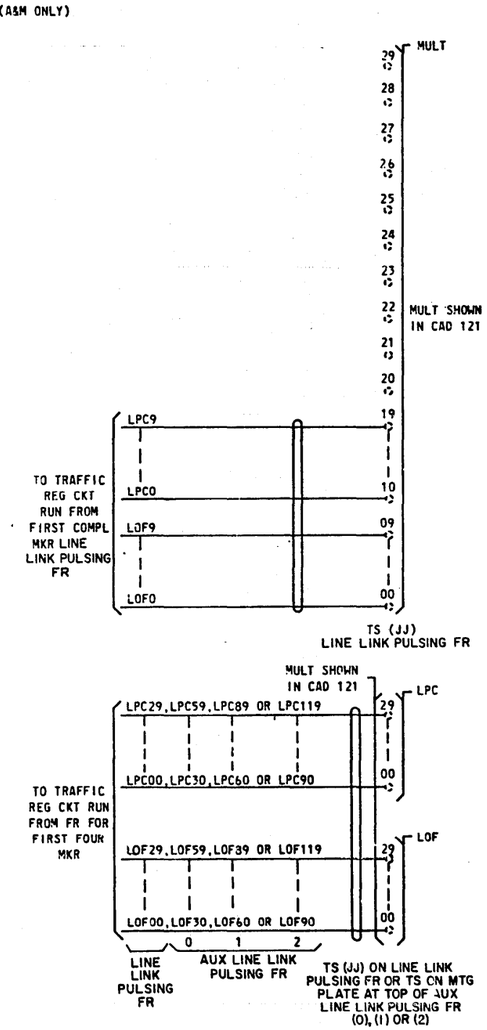
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G128B

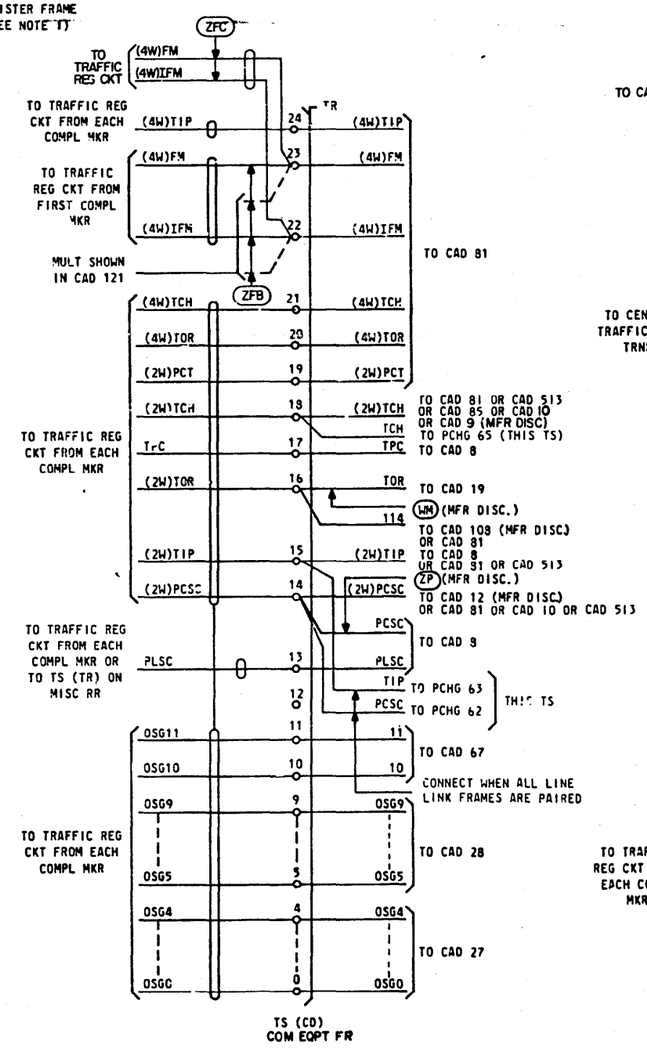
BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

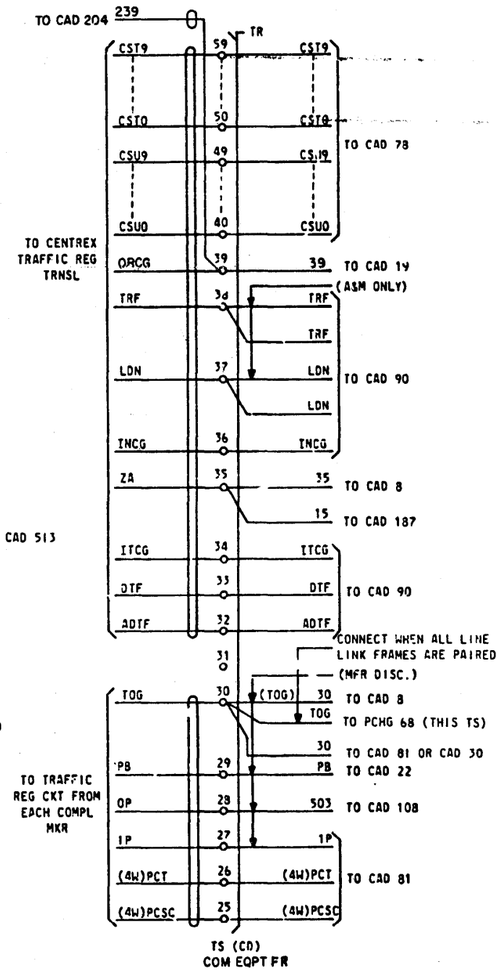
# PART OF CAD 120

SWITCHBOARD CABLING TO TRAFFIC REGISTER FRAME (SEE NOTE 1)




SHEET NOTES:

1. THE SWITCHBOARD CABLE TO THE TRAFFIC REG CKT TERMINATES ON THE TRAFFIC REG FR, THE TRAFFIC REG CABINET AND/OR TDC.

| DRAWING ISSUE | |
|---|---|
| 32A | GA/GBL AND |
| 33 | GA/GBL AND |
| 34A | GA/THS AND |
| 44A | GE |
| 63B | |

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G129A

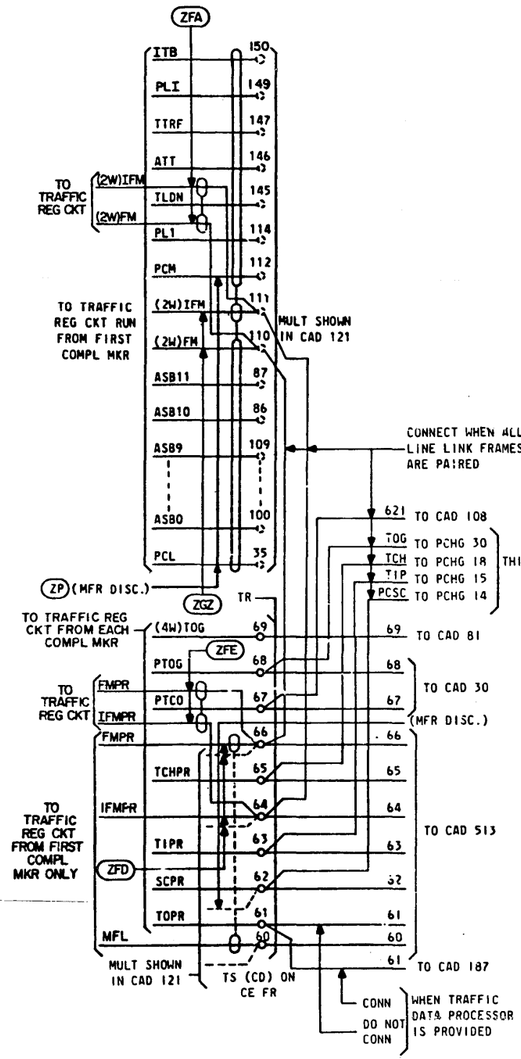
BELL TELEPHONE LABORATORIES INCORPORATED

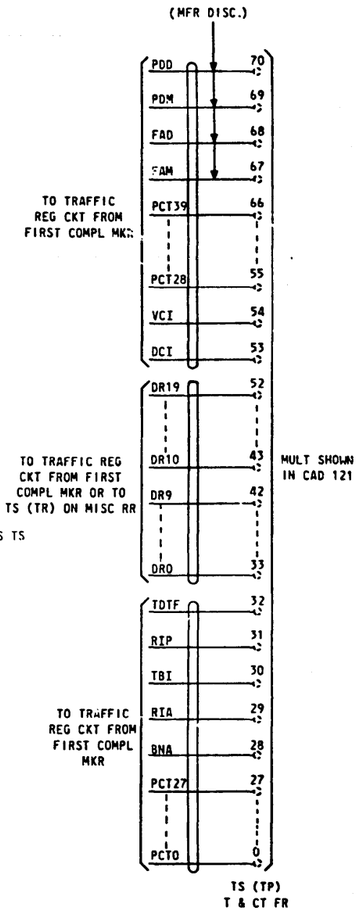
6S

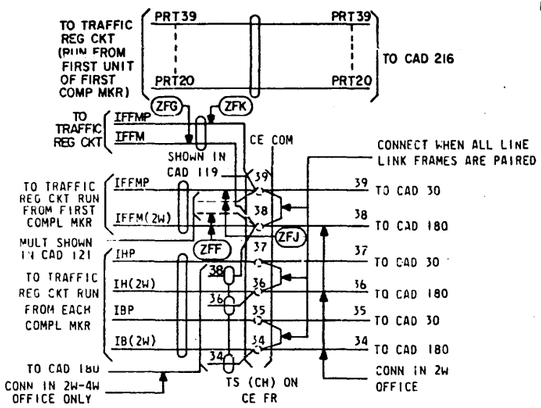
SD-26002-01-G129A

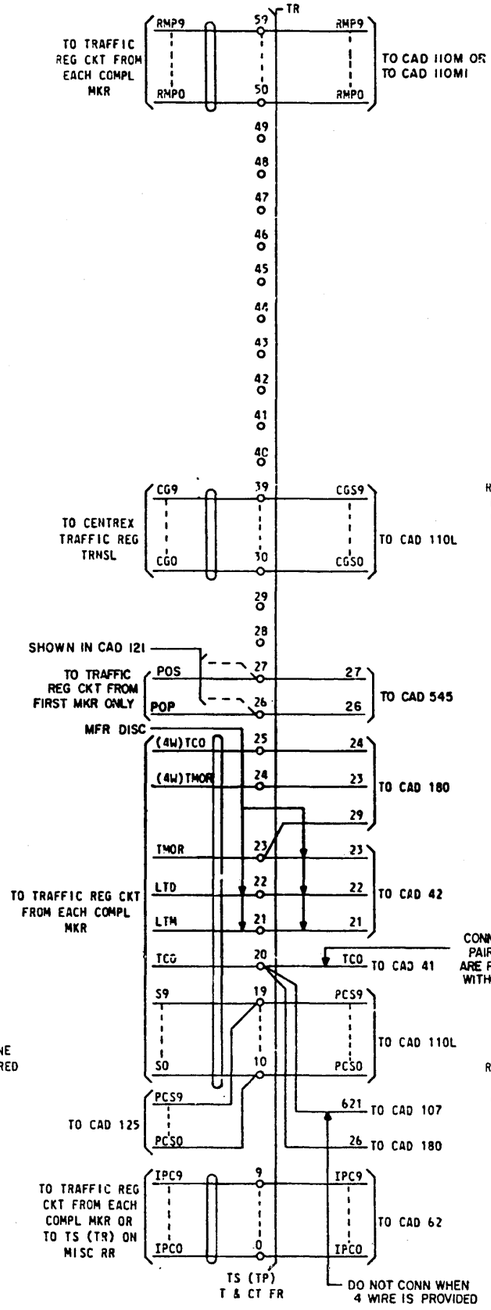
# PART OF CAD 120

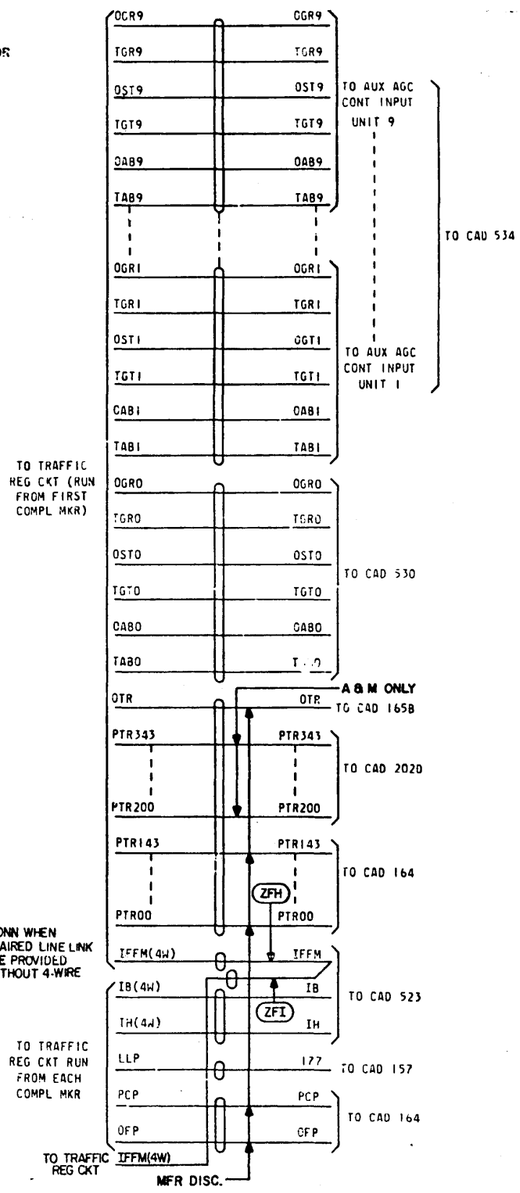
SWITCHBOARD CABLING TO TRAFFIC REGISTER CKT (SEE NOTE 1)




SHEET NOTES:

1. THE SWITCHBOARD CABLE TO THE TRAFFIC REG CKT TERMINATES ON THE TRAFFIC REG FR, THE TRAFFIC REG CABINET AND/OR TDC.

| DRAWING ISSUE | |
|---|---|
| 32A | GAV COL AND |
| 33D | GAV COL AND |
| 34A | JAN THU AND |
| 35D | JAN SAT AND |
| 39D | LT |
| 41D | |
| 43D | |
| 45D | |

DRAWING ISSUE 63B

COMPLETING MARKER CIRCUIT

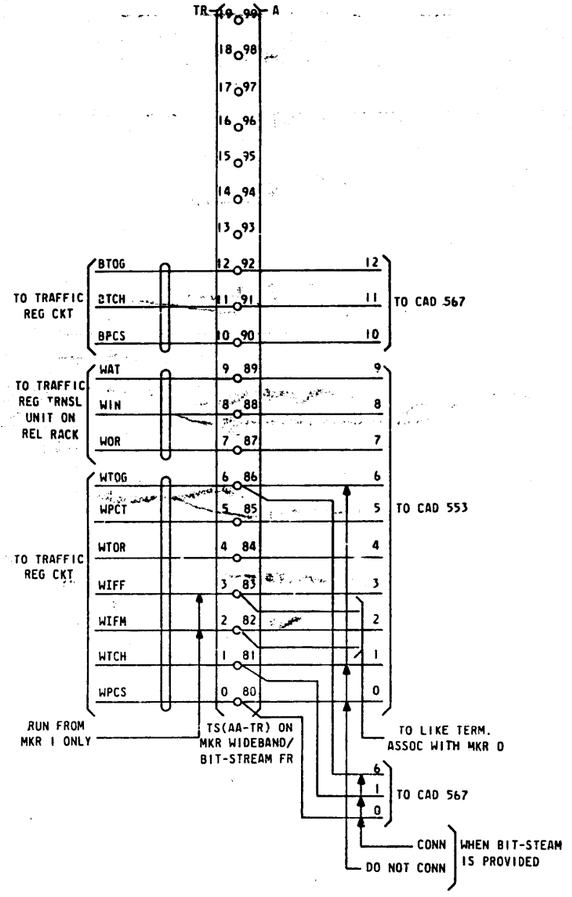
(2) SD-26002-01-G129B

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 65

# PART OF CAD 120

SWITCHBOARD CABLING TO
TRAFFIC REGISTER CKT
(SEE NOTE 1)




NOTES:

1. THE SWITCHBOARD CABLE TO THE TRAFFIC REG CKT TERMINATES ON THE TRAFFIC REG FR, THE TRAFFIC REG CABINET AND/OR TDC.

DRAWING ISSUE 44A

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G129C

BELL TELEPHONE LABORATORIES INCORPORATED

65

SD-26002-01-G129C

# PART OF CAD 121

(SWITCHBOARD CABLE TO OTHER MARKERS IN SAME GRP)

TO FIRST COMPL MKR-CAMA FR(U TYPE)
TO LAST COMPL MKR-CE FR(U TYPE)
MULT TO ALL OTHER COMPL MKRS W SPG
TO LAST COMPL MKR-T&RR FR(U TYPE)
DO NOT RUN WHEN OT FR IS PROV
(ZP) MFR DISC.

SHOWN CAD 120
DO NOT RUN WHEN OT FR IS PROVIDED
SHOWN ON CAD 123
MULT
MFR DISC.

OSM 64 — TO CAD 13
BRL 63 — 63
DK 62 — 62 — TO CAD 13
TNGA 61 — 179 TO CAD 154 / 61 TO CAD 13
DIS 60 — 60 — TO CAD 13
NDT 59 — 59 — TO CAD 109
ASB 58 — 58 — TO CAD 27
TRR (1) 57 — 57
RLT (1) 56 — 56
RBT (1) 55 — 55 — TO CAD 13
NGF 54 — 54
TO CAD 229 MT19 53 — (53) 360 — TO CAD 108
MT10 52 — 52
MT3 51 — 51 — TO CAD 13
TO CAD 210 MT2 50 — 50
TT19 49 — 49
TT10 40 — 40 — TO CAD 6
LHC 39 — 39 — TO CAD 13
SAC 38 — 610 — TO CAD 108
MULT TO OTHER COMPL MARKERS SSC 37 — 37 — TO CAD 13
DISC 36 — 36 — TO CAD 68
(ZP) MFR DISC.
PCL 35 — 35
DLB 34 — 34
LK 33 — 33
LLF 32 — 32 — TO CAD 13
TO MT9 CAD 210 MT9 31 — 31
MT8 30 — 30 — TO CAD 20
FTC19 29 — 29 — TO CAD 2
FTC10 20 — 20 — CONN WHEN OFFICE TEST FRAME IS NOT PROVIDED
FTC9 19 — 19 — TO CAD 3
FTC0 10 — 10 — CONN WHEN OFFICE TEST FRAME IS PROVIDED
TO CAD 210 TT9 9 — 9 — TO CAD 6
TT0 0 — 0

TO FIRST DIAL TONE MARKER FROM LAST COMPL MARKER (INITIAL INSTALLATION ONLY)
TS(CD) ON COM EQPT FR

MULT TO OTHER COMPL MARKERS

OMST 113 — 113 — TO CAD 85
PCM 112 — 112 — (ZP) MFR DISC. / TO CAD 13
(2W)IFM 111 — 111 — TO CAD 8 OR CAD 81 OR CAD 513
(2W)FM 110 — 110 — TO C..D 7 OR CAD 81 OR CAD 513
AS89 109 — 109
(ZGZ)
AS85 105 — 105 — TO CAD 28
AS84 104 — 104
AS80 100 — 100 — TO CAD 27
A9 99 — 99
A5 95 — 95 — TO CAD 28
A4 94 — 94
A0 90 — 90 — TO CAD 27
A11 89 — 89
A10 88 — 88
ASB11 87 — 87 — TO CAD 67
ASB10 86 — 86
LRF 85 — 85
GTF 84 — 84 — TO CAD 13
MST 83 — 83 — TO CAD 11
TRR 82 — 82 — TO CAD 8 TO CAD 85
MT13 81 — 81 — TO CAD 13
8 80 — 80 — TO CAD 109
TTA 79 — 79
TTM 78 — 78 — TO CAD 68
OTT 77 — 77
RBT 76 — 76
DIS 75 — 75 — TO CAD 13
RTST 74 — 74
OSS 73 — 73 — TO CAD 109 / TO CAD 26 MFR DISC.
SON 72 — 72
SCT 71 — 71
RLT 70 — 70
RA 69 — 69 — TO CAD 13
MTR 68 — 68
MON1 67 — 67
MKB 66 — 66
MONL 65 — 65 — TO CAD 8

DO NOT RUN WHEN OT FR IS PROV SHOWN ON CAD 123
TS(CD) ON COM EQPT FR

SHOWN ON CAD 190
SHOWN ON CAD 118
SHOWN ON CAD 120
SHOWN ON CAD 123
MULT

TO CAD 229 CGBI — MFR DISC.
CGAI
FMPR
IEMPR — MULT TO OTHER COMPL MARKERS
MFL
SCPR
(ZFD)
66 — TR (SHOWN ON CAD 120)
64
60
62

SHOWN ON CAD 123 TO CAD 210 — MULT
TRTI 142 — (73) 142 — TO CAD 170A
MULT TO ALL WIRE SPRING COMPL MARKERS CTR 141 — 141
TTR 140 — 140 — TO CAD 512
TO SUCC W SPG COMPL MKR IPRL 139 — 436 (31) 139 — TO FR GRD BAR FROM LAST W SPG COMPL MKR ONLY
TO PREC W SPG COMPL MKR IPRL 138 — (30) 138 — TO CAD 167
MULT TO ALL W SPG COMPL MKR IPR 137 — (10) 137
TO LAST W SPG DIAL TONE MKR FROM IST W SPG COMPL MKR — CGBI 136 — 132 — TO CAD 25
MULT TO ALL WIRE SPRING MARKERS ONLY — CGBI 135 — 696 — MFR DISC
CGAI 134 — 697 — TO CAD 108
DO NOT RUN WHEN OT FR IS PROVIDED — 134 — 134
133 — 133 — 133
132 — 132 — TO CAD 13
MULT TO ALL WIRE SPRING COMPL MARKERS ONLY — 131 — 131
MT26 130 — 537 — TO CAD 108 — CONN WHEN MINI-ROTL IS PROVIDED
MT25 129 — 129 — TO CAD 13
SLB 128 — 759 — TO CAD 108
LLPT 127 — 127 — TO CAD 13
NTLS 126 — 213 51 — TO CAD 154
MULT TO ALL OTHER MARKERS MT57A 125 — 569 — TO CAD 108
TO ALL OTHER COMPL MARKERS CGB 124 — 125 — TO CAD 13
CGA 123 — 124
OTSI 122 — 123
OTSO 121 — 122
MULT TO ALL WIRE SPRING COMPL MARKERS ONLY ETSI 120 — 121 — TO CAD 6
ETSO 119 — 120
TRL 118 — 119 — TO CAD 13
TO LAST W SPG DIAL TONE MKR FROM IST W SPG COMPL MKR PLI 117 — 583 — TO CAD 108
MULT TO ALL OTHER W SPG COMPL MKR SA 116 — 117 — TO CAD 20
CHT 115 — 116 — TO CAD 106
MKBI 114 — 115 — TO CAD 106 MTFC CONT
(I) RTST — MULT TO OTHER COMPL MKR
TO LAST COMPL MKR T & RR(U-TYPE) — 114 — TO CAD 173
MULT TO ALL OTHER COMPL MARKERS W SPG SHOWN ON CAD 120 (ZFB) — 23 — TR(SHOWN ON CAD 120)
MULT TO OTHER COMPL MARKERS (4W)FM 22 / (4W)1FM 21
TO CAD 229 CGB / CGA — TS(CD) ON COM EQPT FR

SHOWN ON CAD 120 — MULT
79
32
PSB 71 — 71 — TO CAD 112 — MFR DISC.
POD 70 — 70
MULT TO ALL COMPL MKRS PDM 69 — 69
FAD 68 — 68 — TO CAD 42
FAM 67 — 67
MULT TO ALL OTHER W SPG COMPL MKR PCT39 66 — 66 — TO CAD 72
PCT28 55 — 55
MULT TO ALL COMPL MKRS VCI 54 — VCI
DCI 53 — DCI — TO CAD 55
DR19 52 — DR19
MULT TO ALL OTHER W SPG COMPL MKRS — TO CAD 70
DR10 43 — DR10
DR9 42 — DR9
DR0 33 — DR0 — TO CAD 41
TDTF 32 — 699 — TO CAD 107
MULT TO ALL COMPL MARKERS RIP 31 — RIP
TBI 30 — TBI
RIA 29 — RIA — TO CAD 43
BNA 28 — BNA
PCT27 27 — PCT27
MULT TO ALL OTHER WIRE SPRING COMPL MARKERS — TO CAD 37
PCT20 20 — PCT20
PCT19 19 — PCT19
MULT TO ALL COMPL MARKERS
PCT0 0 — PCT0
POS 27 — TR — 27 — TO CAD 120
POP 26 — 26

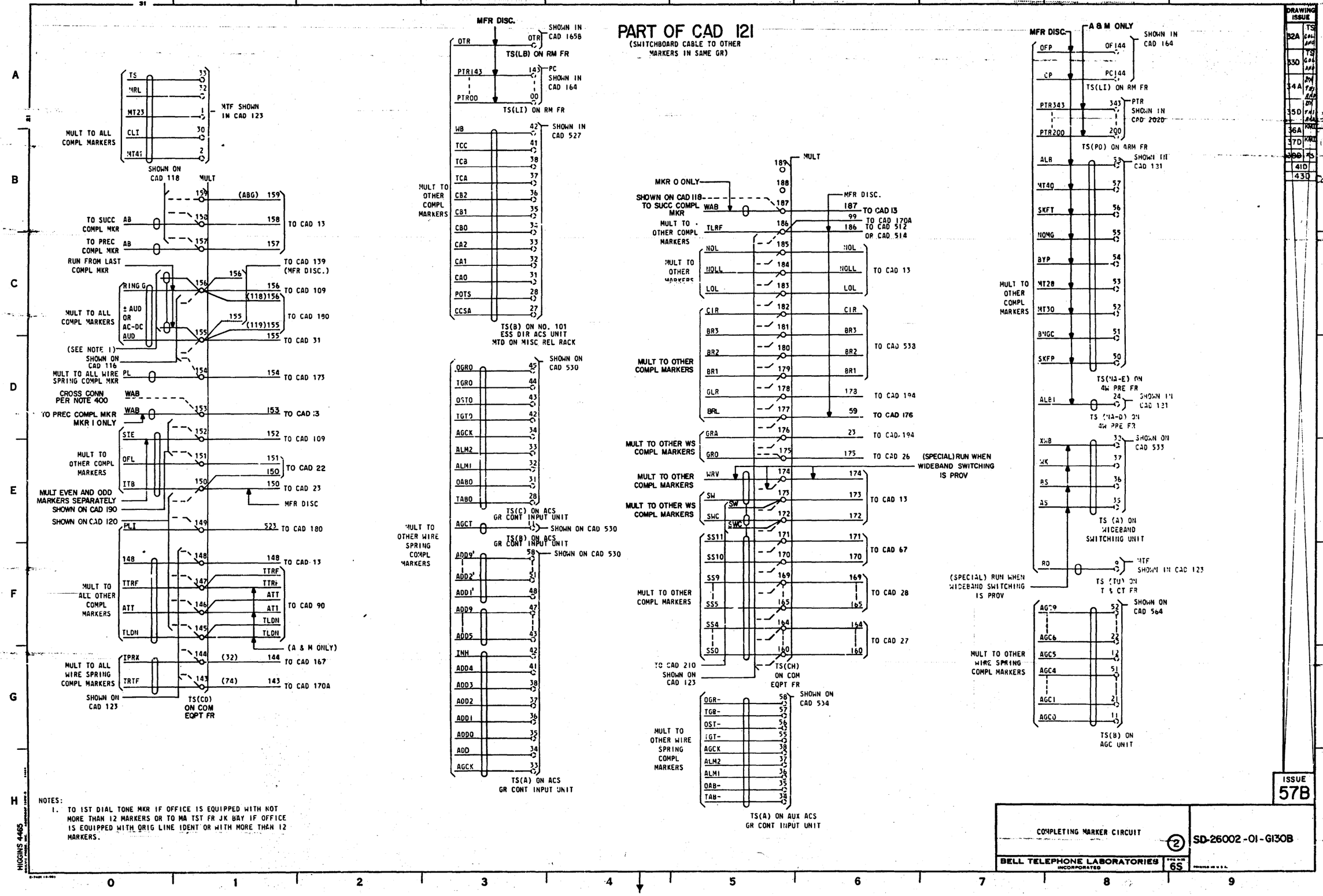
TS (TP) ON T & CT FR

| DRAWING ISSUE |
|---|
| 23A DB |
| 24D DB |
| 25D FES |
| 27A MD |
| 28D RLP |
| 30D LF |
| 32A TS |
| 33D TS |
| 34A |
| 35D |
| 39D LFP |
| 41D |
| 42A |
| 43D |
| 44A |
| 45D |

DRAWING ISSUE 64A

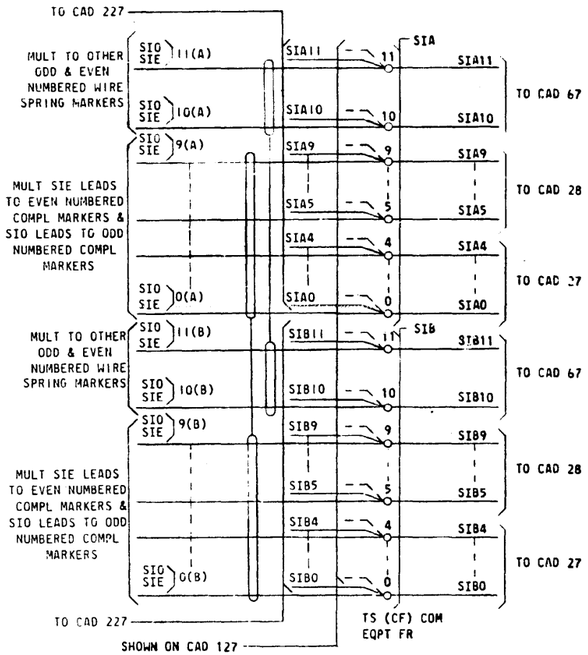
COMPLETING MARKER CIRCUIT (2) SD-26002-01-GI30A

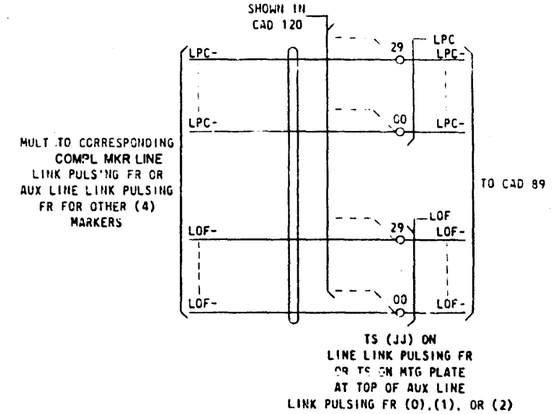
BELL TELEPHONE LABORATORIES INCORPORATED 63

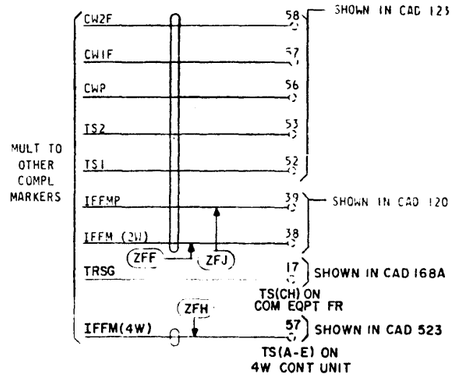

PART OF CAD 121
(SWITCHBOARD CABLE TO OTHER MARKERS IN SAME GR)
MULT TO ALL COMPL MARKERS
MTF SHOWN IN CAD 123
SHOWN ON CAD 118
MULT
TO SUCC COMPL MKR
TO PREC COMPL MKR
TO CAD 13
RUN FROM LAST COMPL MKR
TO CAD 139 (MFR DISC.)
TO CAD 109
TO CAD 190
TO CAD 31
(SEE NOTE 1)
SHOWN ON CAD 116
MULT TO ALL WIRE SPRING COMPL MKR
TO CAD 173
CROSS CONN PER NOTE 400
TO PREC COMPL MKR MKR I ONLY
TO CAD 13
TO CAD 109
MULT TO OTHER COMPL MARKERS
TO CAD 22
MULT EVEN AND ODD MARKERS SEPARATELY SHOWN ON CAD 190
TO CAD 23
MFR DISC
SHOWN ON CAD 120
TO CAD 180
TO CAD 13
MULT TO ALL OTHER COMPL MARKERS
TO CAD 90
(A & M ONLY)
MULT TO ALL WIRE SPRING COMPL MARKERS
TO CAD 167
TO CAD 170A
SHOWN ON CAD 123
TS(CO) ON COM EQPT FR
MFR DISC.
SHOWN IN CAD 165B
TS(LB) ON RM FR
PC SHOWN IN CAD 164
TS(LI) ON RM FR
SHOWN IN CAD 527
MULT TO OTHER COMPL MARKERS
TS(B) ON NO. 101 ESS DIR ACS UNIT MTD ON MISC REL RACK
SHOWN ON CAD 530
TS(C) ON ACS GR CONT INPUT UNIT
SHOWN ON CAD 530
TS(B) ON ACS GR CONT INPUT UNIT
SHOWN ON CAD 530
MULT TO OTHER WIRE SPRING COMPL MARKERS
TS(A) ON ACS GR CONT INPUT UNIT
MULT
MKR O ONLY
SHOWN ON CAD 118 TO SUCC COMPL MKR
MFR DISC.
TO CAD 13
MULT TO OTHER COMPL MARKERS
TO CAD 170A
TO CAD 512 OR CAD 514
MULT TO OTHER MARKERS
TO CAD 13
MULT TO OTHER COMPL MARKERS
TO CAD 538
TO CAD 194
TO CAD 176
MULT TO OTHER WS COMPL MARKERS
TO CAD 194
TO CAD 26
(SPECIAL) RUN WHEN WIDEBAND SWITCHING IS PROV
MULT TO OTHER COMPL MARKERS
MULT TO OTHER WS COMPL MARKERS
TO CAD 13
TO CAD 67
MULT TO OTHER COMPL MARKERS
TO CAD 28
TO CAD 27
TO CAD 210 SHOWN ON CAD 123
TS(CH) ON COM EQPT FR
SHOWN ON CAD 534
MULT TO OTHER WIRE SPRING COMPL MARKERS
TS(A) ON AUX ACS GR CONT INPUT UNIT
A & M ONLY
MFR DISC
SHOWN IN CAD 164
TS(LI) ON RM FR
PTR SHOWN IN CPD 2020
TS(PD) ON ARM FR
SHOWN IN CAD 131
MULT TO OTHER COMPL MARKERS
TS(MA-E) ON 4W PRE FR
TS (MA-D) ON 4W PRE FR
SHOWN ON CAD 533
TS (A) ON WIDEBAND SWITCHING UNIT
(SPECIAL) RUN WHEN WIDEBAND SWITCHING IS PROV
MTF SHOWN IN CAD 123
TS (TU) ON T & CT FR
SHOWN ON CAD 564
MULT TO OTHER WIRE SPRING COMPL MARKERS
TS(B) ON AGC UNIT
NOTES:
1. TO 1ST DIAL TONE MKR IF OFFICE IS EQUIPPED WITH NOT MORE THAN 12 MARKERS OR TO MA TST FR JK BAY IF OFFICE IS EQUIPPED WITH ORIG LINE IDENT OR WITH MORE THAN 12 MARKERS.
DRAWING ISSUE
ISSUE 57B
COMPLETING MARKER CIRCUIT
SD-26002-01-G130B
BELL TELEPHONE LABORATORIES INCORPORATED
6S
SD-26002-01-G130B

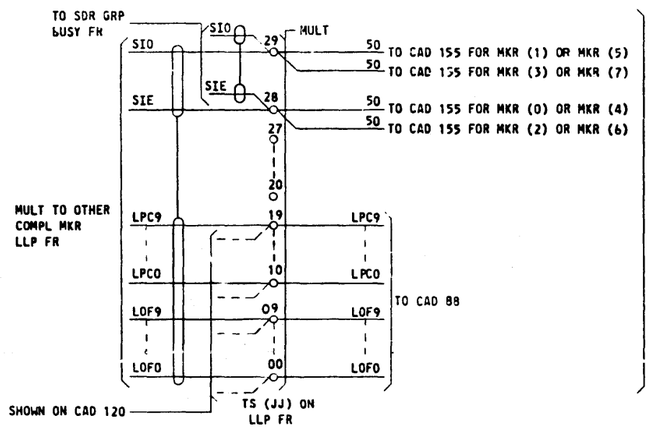
# PART OF CAD 121

(SWITCHBOARD CABLE TO OTHER MARKERS IN SAME GR)




(A&M ONLY)

| DRAWING ISSUE | |
|---|---|
| 23A | DB |
| 24D | DB |
| 29A | CRB |
| 30D | CRB |
| 32A | TS |
| 33D | TB |
| 39D | MTR |
| 43D | |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-GI31

BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

# CAD 122

(SWITCHBOARD CABLING TO FOREIGN AREA TRANSLATOR CONNECTOR FR)

TO CAD 228

TO CAD 212 (A&M ONLY)

CONN WHEN, FOREIGN AREA TRANSLATOR CONN, ROUTE DIST, AIS WITHOUT LINE LINK PULSING OR CALL WAITING IS PROVIDED

SORC C1 SHOWN ON CAD 118

E7 54
E4 53
E2 52
E1 51
E0 50
D7 44
D4 43
D2 42
D1 41
D0 40
C7 34
C4 33
C2 32
C1 31
C0 30
B7 24
B4 23
B2 22
B1 21
B0 20
A7 14
A4 13
A2 12
A1 11
A0 10
FC 04

TO FOREIGN AREA TRNSL CONN FOR 1ST GROUP OF 3 FOREIGN AREAS (GROUP 0)

SORC C2 SHOWN ON CAD 118

K7 44
K4 43
K2 42
K1 41
K0 40
J7 34
J4 33
J2 32
J1 31
J0 30
H7 24
H4 23
H2 22
H1 21
H0 20
G7 14
G4 13
G2 12
G1 11
G0 10
F7 04
F4 03
F2 02
F1 01

TO FOREIGN AREA TRNSL CONN FOR 1ST GROUP OF 3 FOREIGN AREAS (GROUP 0)

TS(TS) T & CT FR

TH7 TH7 37 FAT TH7
TH4 TH4 38 TH4
TH2 TH2 37 TH2
TH1 TH1 36 TH1
TH0 TH0 35 TH0
HN7 HN7 34 HN7
HN4 HN4 33 HN4
HN2 HN2 32 HN2
HN1 HN1 31 HN1
HNO HNC HNO 30 HNO
T7 TN7 29 T7
T4 TN4 28 T4
T2 TN2 27 T2
T1 TN1 26 T1
TO TNO 25 TO
U7 U7 24 U7
U4 U4 23 U4
U2 U2 22 U2
U1 U1 21 U1
U0 U0 20 U0

TO CAD 54

TO CAD 55

TO CAD 214

LT1 19 19 TO CAD 110A
LT 18 18
NE 17 21 TO CAD 156
07 TO CAD 106 (MTFC-A4)
TOL 14 TOL MFR DISC. TO CAD 110D
TAN 13 TAN TO CAD 32
OR 12 OR TO CAD 48

TO FOREIGN AREA TRNSL CONN FOR 2ND GROUP OF 3 FOREIGN AREAS

FAT3(E) FATE3(1)
FAT2(E) FATE2(1)
FAT1(E) FATE1(1)
FAT3(A) 11 FATA3(1)
FAT2(A) 10 FATA2(1)
FAT1(A) 09 FATA1(1)
FAT3(L) 08 FATL3(1)
FAT2(L) 07 FATL2(1)
FAT1(L) 06 FATL1(1)

TO CAD 110G

FAT3(E) FATE3(0)
FAT2(E) FATE2(0)
FAT1(E) FATE1(0)
FAT3(A) 05 FATA3(0)
FAT2(A) 04 FATA2(0)
FAT1(A) 03 FATA1(0)
FAT3(L) 02 FATL3(0)
FAT2(L) 01 FATL2(0)
FAT1(L) 00 FATL1(0)

TO FOREIGN AREA TRNSL CONN FOR 1ST GROUP OF 3 FOREIGN AREAS

TS (TS) T&CT FR

FAT

TO FOREIGN AREA TRNSL CONN FOR 4TH GROUP OF 3 FOREIGN AREAS

FAT3(E) FATE3(3)
FAT2(E) FATE2(3)
FAT1(E) FATE1(3)
FAT3(A) 49 FATA3(3)
FAT2(A) 48 FATA2(3)
FAT1(A) 47 FATA1(3)
FAT3(L) 46 FATL3(3)
FAT2(L) 45 FATL2(3)
FAT1(L) 44 FATL1(3)

TO CAD 110G

TO FOREIGN AREA TRNSL CONN FOR 3RD GROUP OF 3 FOREIGN AREAS

FAT3(E) FATE3(2)
FAT2(E) FATE2(2)
FAT1(E) FATE1(2)
FAT3(A) 43 FATA3(2)
FAT2(A) 42 FATA2(2)
FAT1(A) 41 FATA1(2)
FAT3(L) 40 FATL3(2)
FAT2(L) 16 FATL2(2)
FAT1(L) 15 FATL1(2)

TS (TS) T & CT FR

TO CAD 224 OR CAD 229

TO CAD 232

SFI 19 FAT
14
MBK
MB
CMF 13 13
CMS1 12 12 TO CAD 68
CMS0 11 11
TFA 10 58 TO CAD 106 (MTFC-T0)
FAB 9 11 TO CAD 106 (MTFC-C2)
FAA 8 10
12 TO CAD 113
SF1 7 SF1 TO CAD 7
SF 6 SF TO CAD 139
MFR DISC. SF TO CAD 8
MB 5 MB TO CAD 123
B 4 B TO CAD 116
57 TO CAD 113
RYT 3 207
RO 2 (RCA)64 TO CAD 108
CGD 1 186
CGC 0 328
RYT TS(CA)

TO FOREIGN AREA TRNSL CONN FR FOR 4TH GROUP OF 3 FOREIGN AREAS (GROUP 3)

TO CAD 184 FOR DIR ACS PRT CONN

TO CAD 228 RYT

TO CAD 204 172 171

TS(TS) T & CT FR

TO FOREIGN AREA TRNSL CONN FR FOR 2ND GROUP OF 3 FOREIGN AREAS (GROUP 1) WHEN A MAX OF 200 "FAR" LEADS PER MKR IS REQUIRED)

FAR 99 FAR199
FAR 00 FAR100

TO CAD 110H

TO FOREIGN AREA TRANSL CONN FR FOR 1ST GROUP OF 3 FOREIGN AREAS (GROUP 0)

FAR 99 FAR099
FAR 00 FAR000

MFR DISC.

TO FOREIGN AREA TRNSL CONN FR 1 FOR 2ND GROUP OF 3 FOREIGN AREAS WHEN A MAX OF 200 "FAR" LEADS PER MKR IS REQUIRED

FAR 99 199 FAR199
FAR 00 100 FAR100

TO CAD 165A ON RM FR

TO FOREIGN AREA TRNSL CONN FR 0 FOR 1ST GROUP OF 3 FOREIGN AREAS (GROUP 0)

FAR 99 99 FAR99
FAR 00 00 FAR00

TS(LJ) ON RM FR

| DRAWING ISSUE | | |
|---|---|---|
| 24D | DB | |
| 28D | CM | |
| 30D | CM | |
| 32A | CM | |
| 33D | CM | |
| 37D | MKL | |
| 39D | ESM | |
| 41D | | |
| 43D | | |

ISSUE 65B

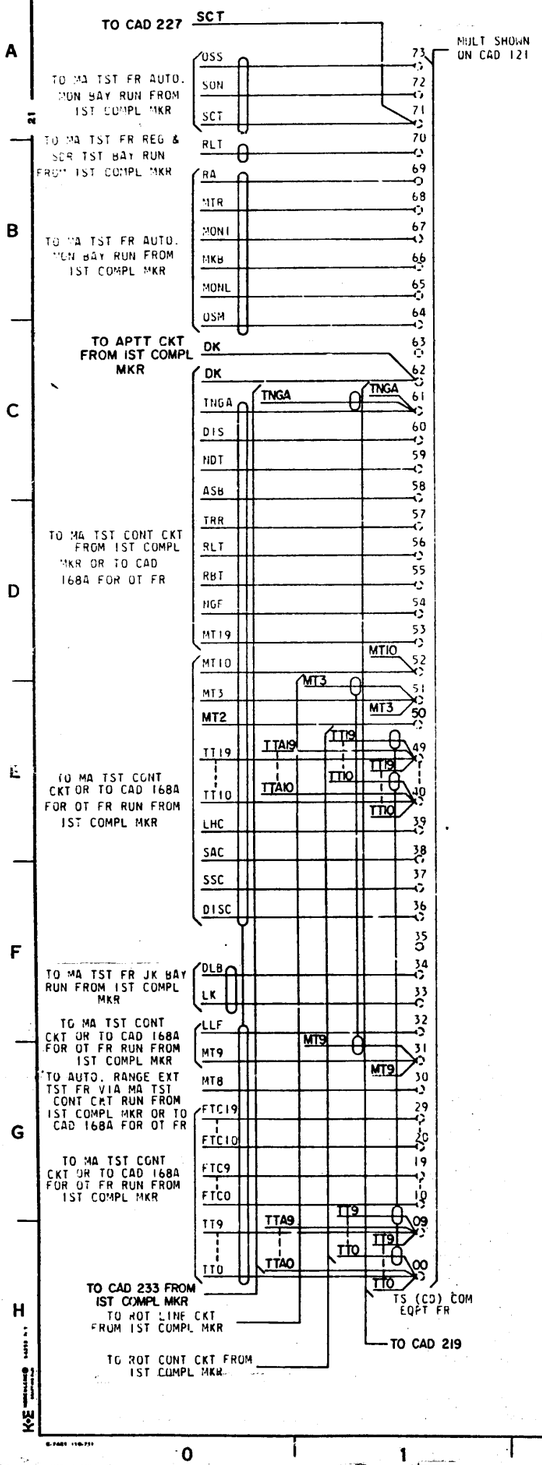
COMPLETING MARKER CIRCUIT (2) SD-26002-01-GI32

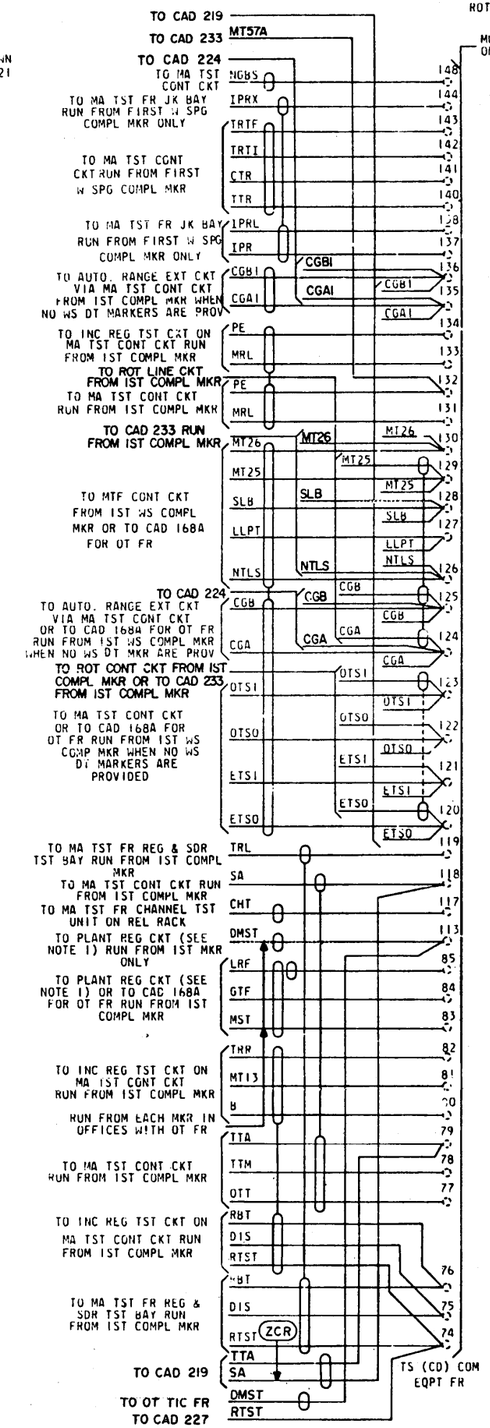
BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

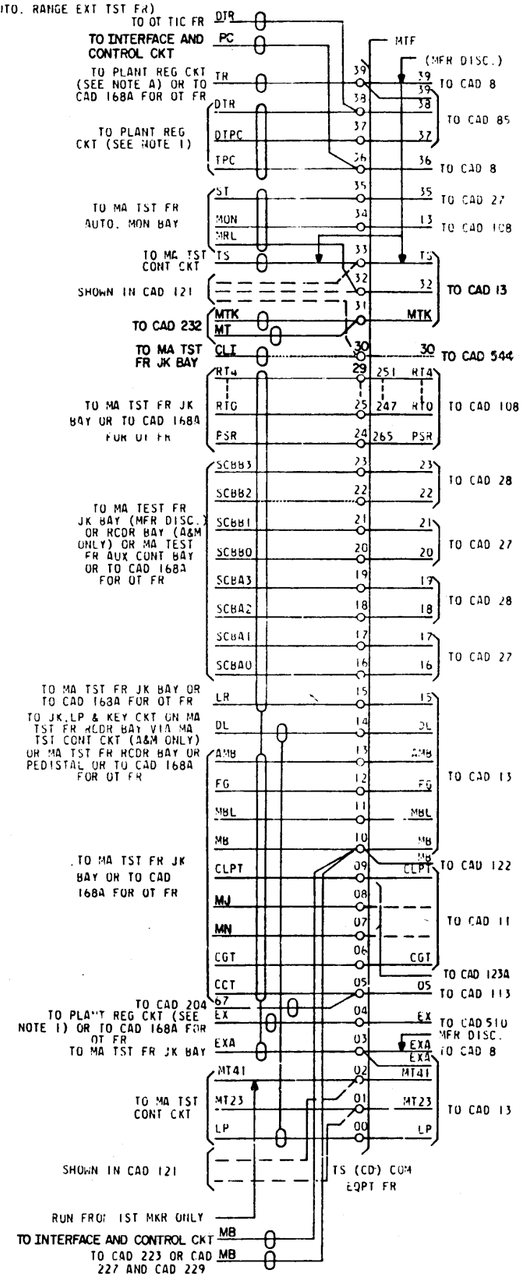
STABILO

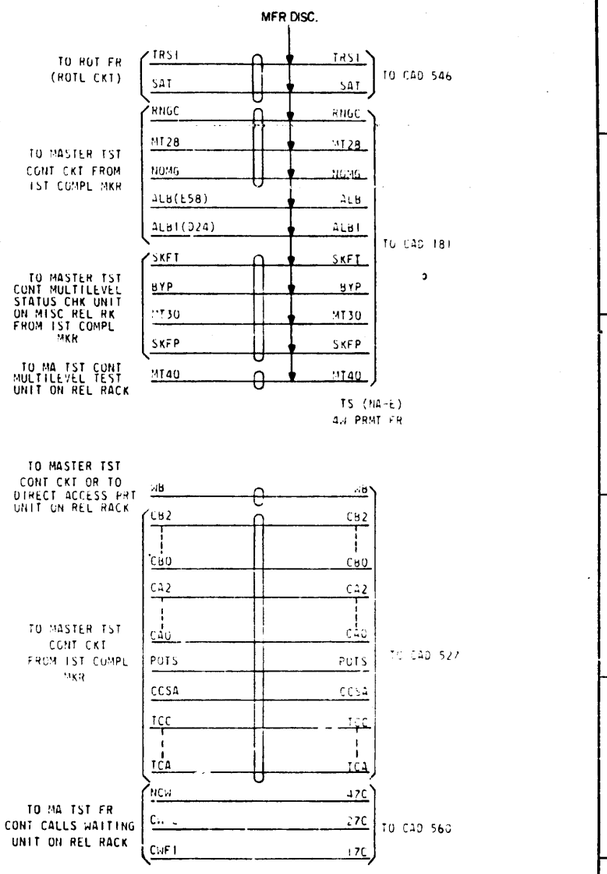
# PART OF CAD 123

(SWITCHBOARD CABLING TO MASTER TST FR, PLANT REG CKT, HOT FR AND AUTO. RANGE EXT TST FR)

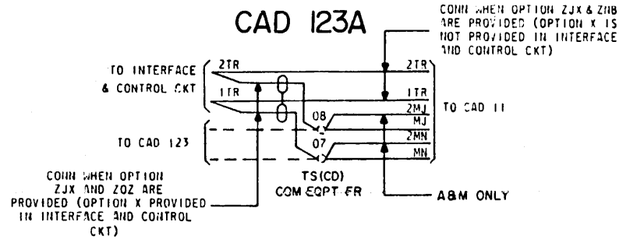



## CAD 123A




NOTES:
1. THE PLANT REGISTERS MAY BE LOCATED ON THE MA TST FR RCDR BAY (A&M ONLY), OR PLANT REG CABINET.

ISSUE 67B

COMPLETING MARKER CIRCUIT

(2)

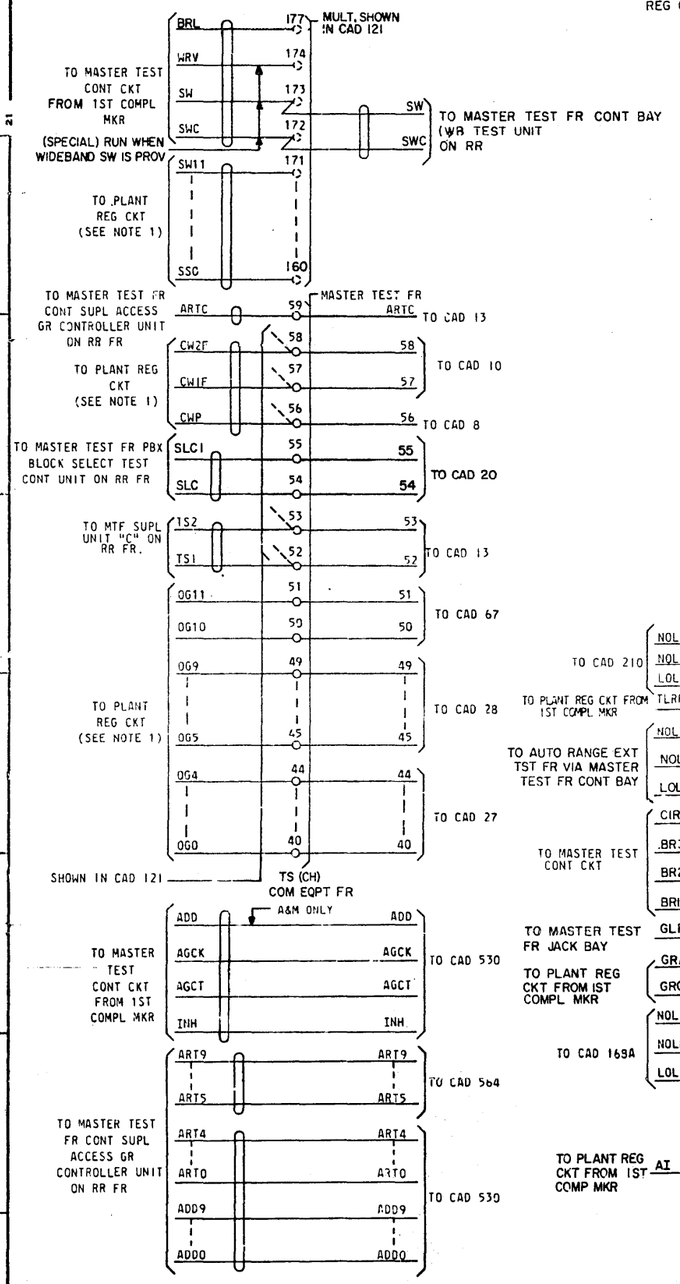
SD-26002-01-6133A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

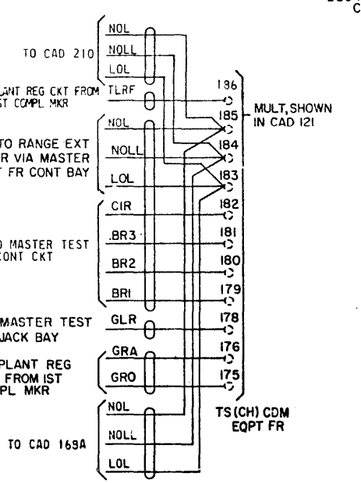
# PART OF CAD 123

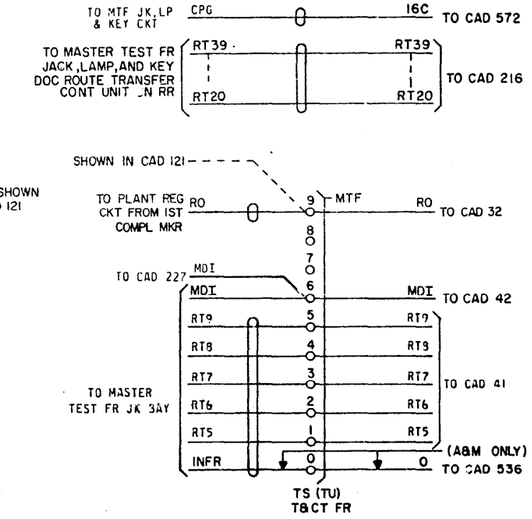
(SWITCHBOARD CABLING TO MASTER TEST FR, PLANT REG CKT, AND AUTO RANGE EXT TST FR)

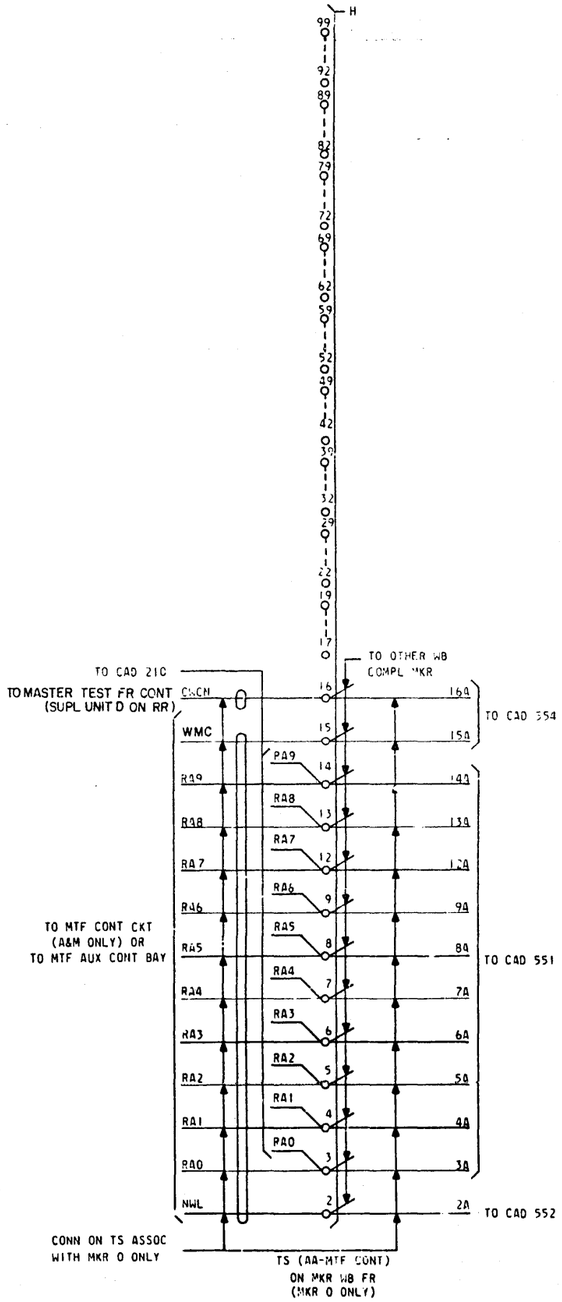



NOTE:

1. THE PLANT REGISTER MAY BE LOCATED ON THE MASTER TEST FR RCDR BAY (A & M ONLY), PLANT REG CABINET, OR RR UNIT ON RR.




| DRAWING ISSUE |
|---|
| ~~ISSUE~~ |
| 32A |
| 33D |
| 34A |
| 35D |
| 36A |
| 37D |
| 39D |
| 41D |
| 42A |
| 43D |
| 44A |
| 45D |

DRAWING ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

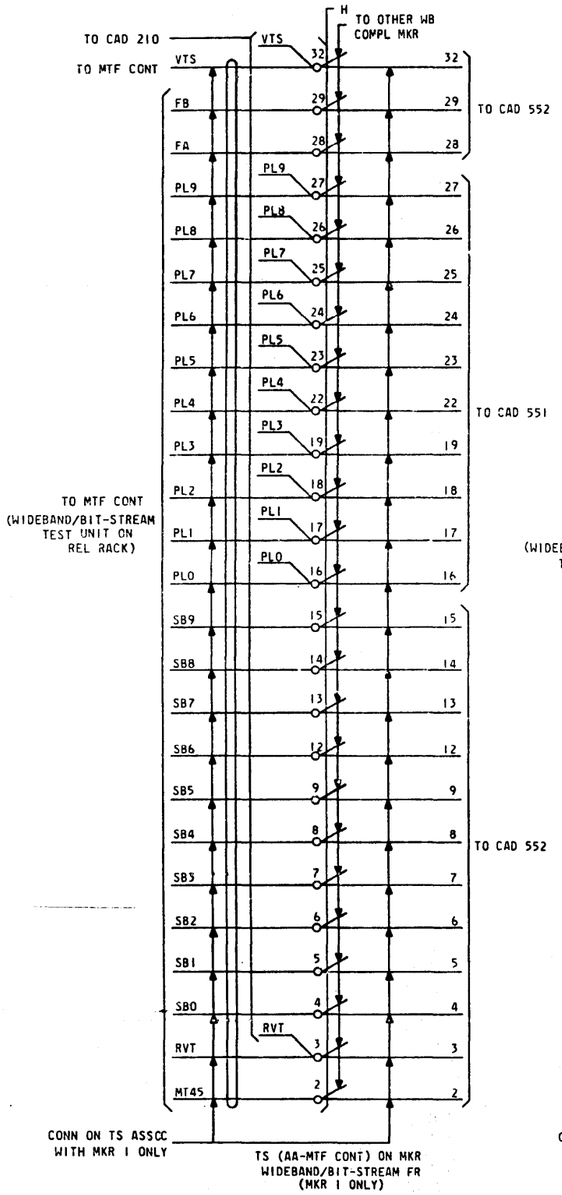
SD-26002-01-G133B

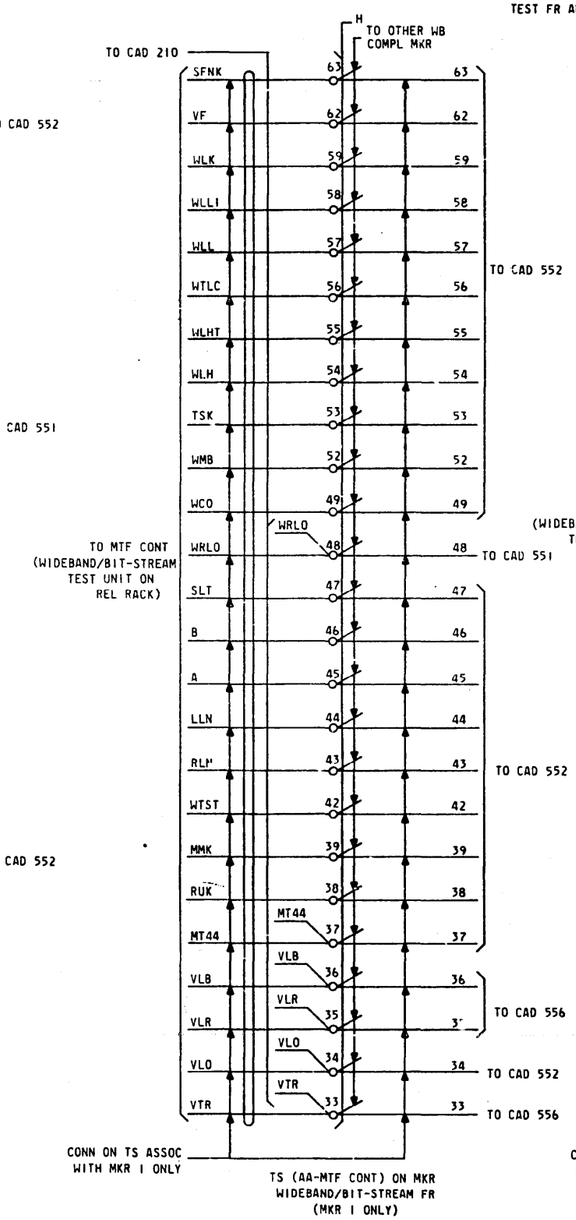
BELL TELEPHONE LABORATORIES INCORPORATED 6S

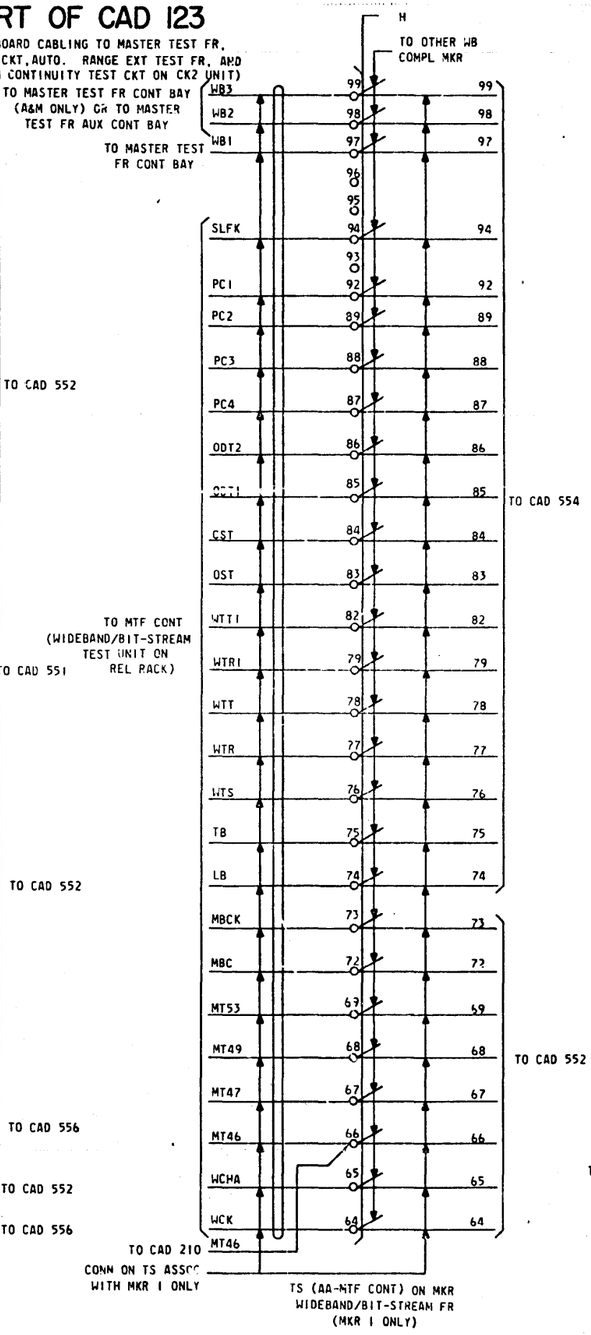
SD-26002-01-G133B

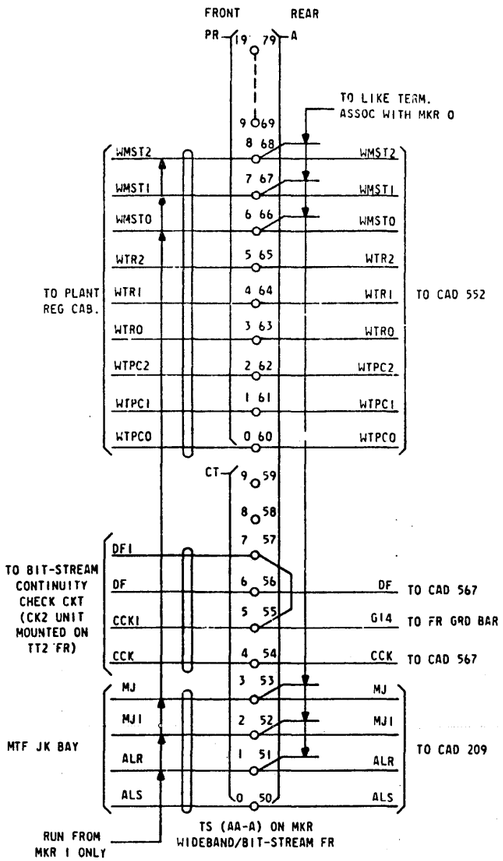
# PART OF CAD 123

(SWITCHBOARD CABLING TO MASTER TEST FR, PLANT REG CKT, AUTO. RANGE EXT TEST FR, AND BIT-STREAM CONTINUITY TEST CKT ON CK2 UNIT)




| DRAWING ISSUE |
|---|
| 39D RP |
| 40A |
| 41D |
| 44A |

| DRAWING ISSUE |
|---|
| 47D |

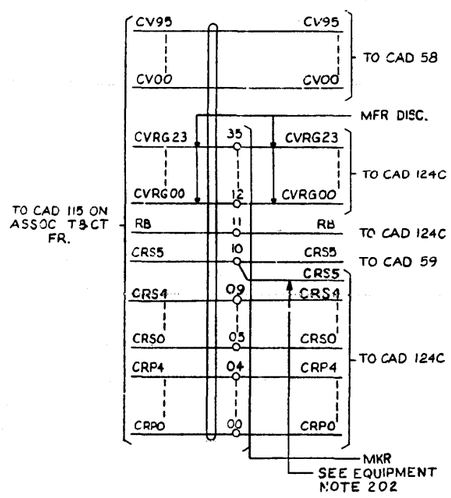
COMPLETING MARKER CIRCUIT (2)

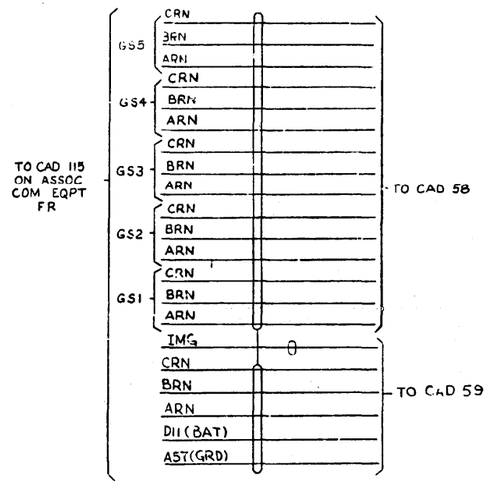
SD-26002-01-G133C

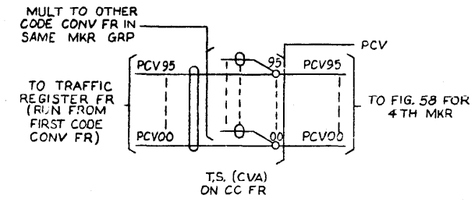
BELL TELEPHONE LABORATORIES INCORPORATED

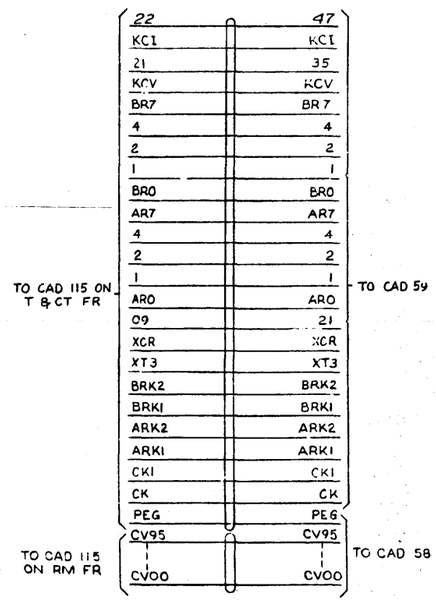
6S

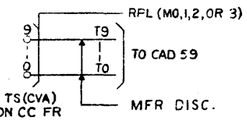
# CAD 124A
(SWITCHBOARD CABLING FROM CODE CONVERSION FRAME)

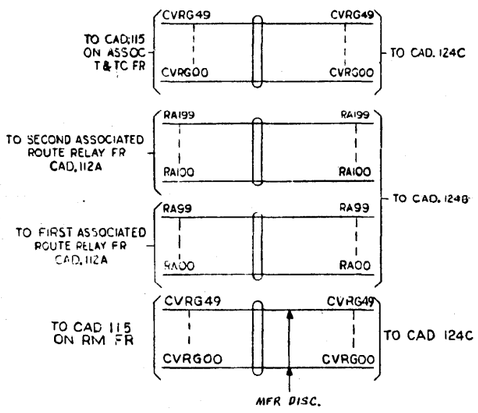


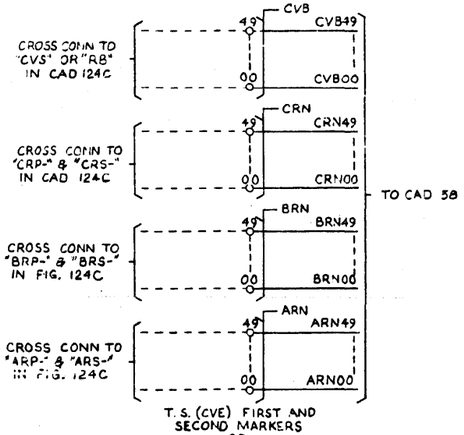



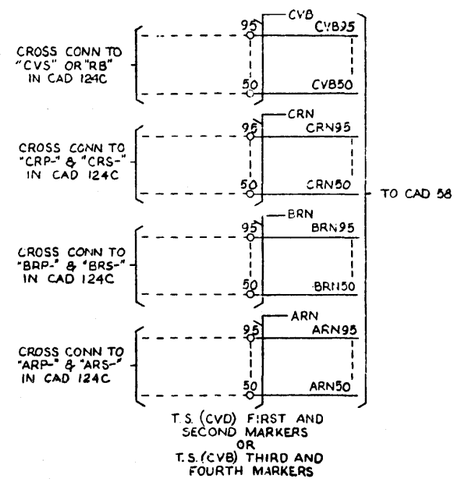



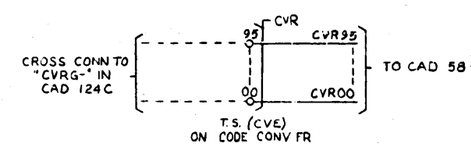




# CAD 124B
(CODE CONVERSION RELAY CROSS CONNECTION)




| DRAWING ISSUE | | |
|---|---|---|
| 50 | CGH | JFD |
| 108 | CGH | FD |
| 148 | KJG DST | CB AND |
| 180 | CJ FBM | |
| 210 | SGB DP AHJ | |
| 220 | JE EPM | CB |
| 240 | DB FBE | CB |
| 300 | AHJ FES JFD | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

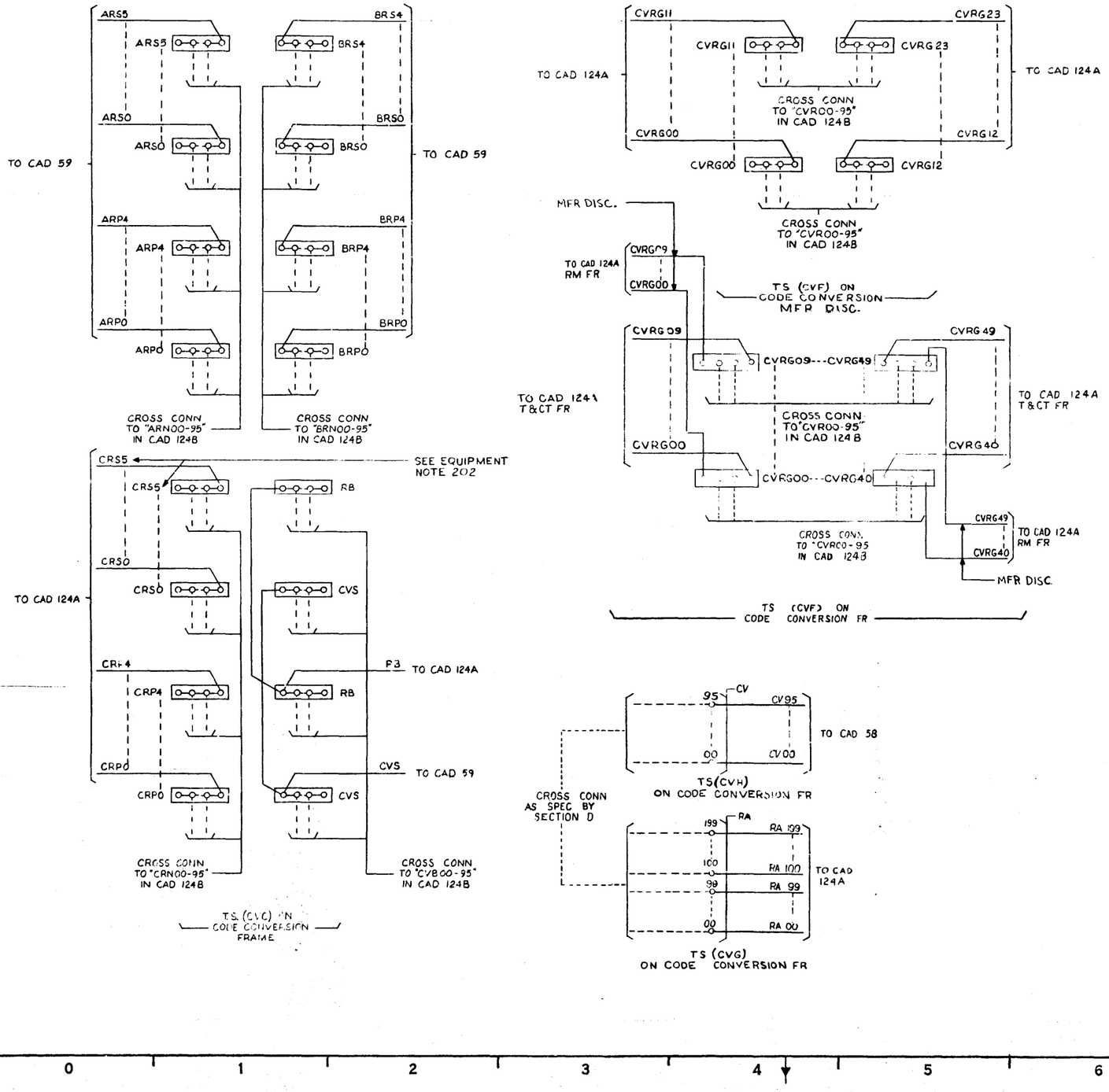
SD-26002-01G134

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 124C

(CODE CONVERSION ARBITRARY DIGIT CROSS CONNECTIONS)




| DRAWING ISSUE | |
|---|---|
| 50 | |
| 6D | |
| 14B | |
| 21D | |
| 24D | |
| 25D | |
| 27A | |
| 30D | |
| 33D | |

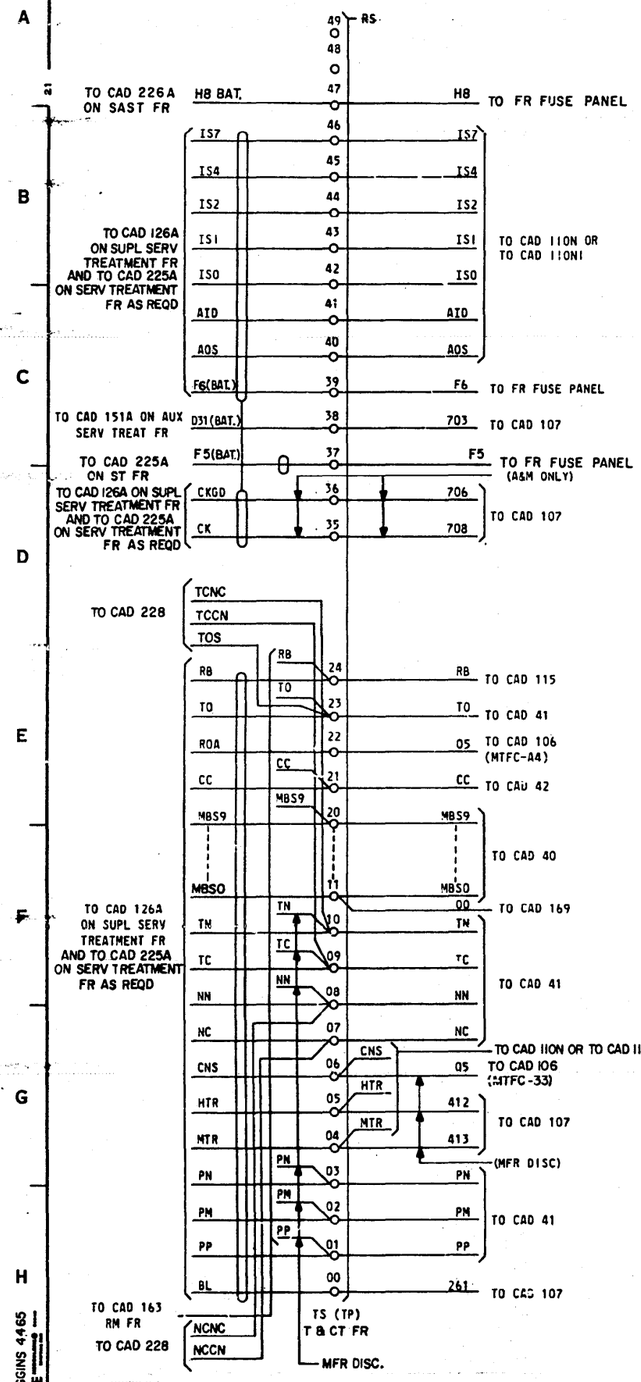
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

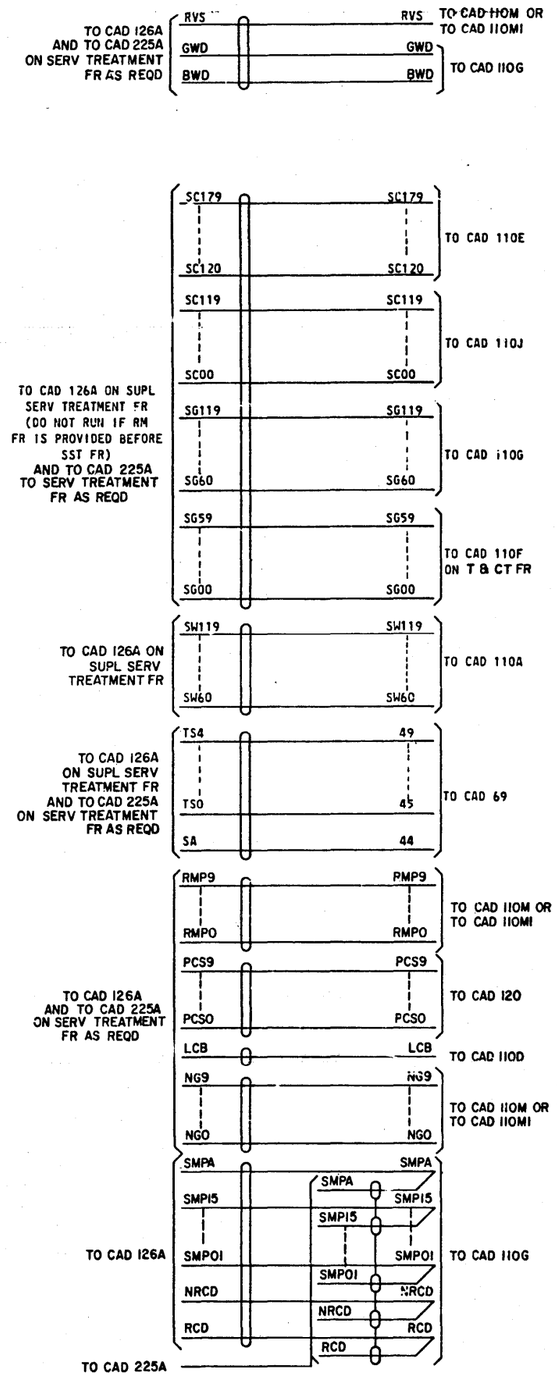
| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | (2) | SD-26002-01-G135A |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S | ISSUE 57B |

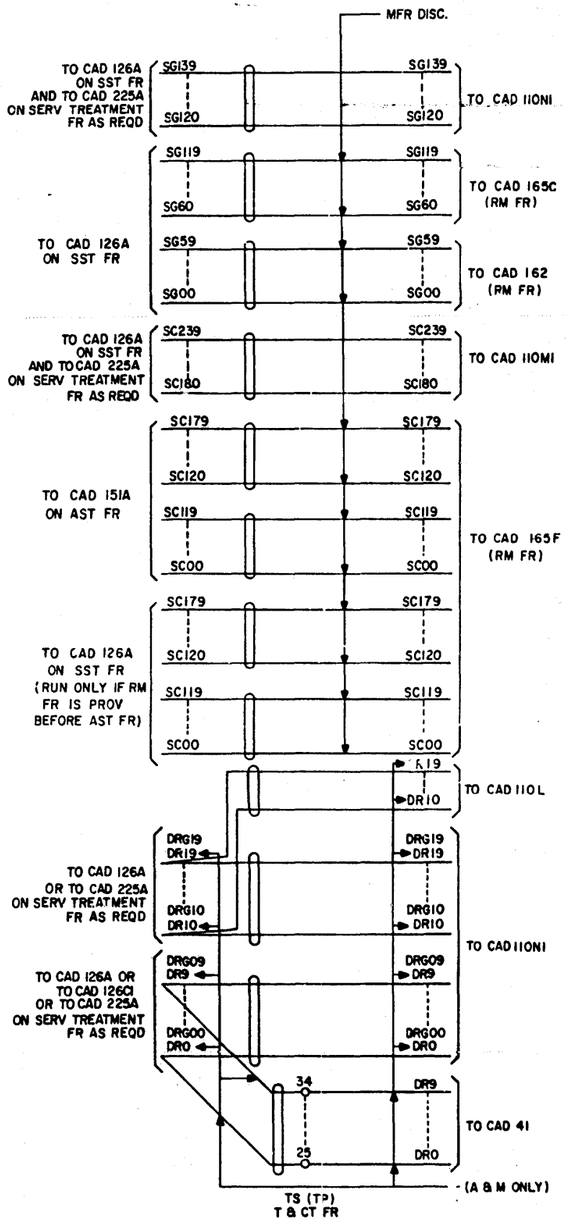
PRINTED IN U. S. A.

# CAD 125

(SWITCHBOARD CABLING TO SUPL SERV TREATMENT FR)




DRAWING ISSUE

| | |
|---|---|
| 330 | T.J.H. G.A.C. A.W.S. |
| 350 | DP T.W.L. A.J.C. |
| 390 | MS |
| 430 | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G135B

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-G135B

HIGGINS 4465 K&E

# CAD 126A

SWITCHBOARD CABLING FROM SST FR TO T&CT, AST AND RM FR

TO CAD 151A ON AUX SERV TREAT. FR

(A & M ONLY)

TO CAD 125 ON T&CT FR

TO CAD 126C OR TO CAD 126C1

TO CAD 126C1

TO CAD 126C

TO CAD 35

TS (STA) ON SUPL SERV TREAT. FR

TO CAD 151A ON AST FR OR TO CAD 125 (RM FR)

TO CAD 125 ON T&CT FR (DO NOT RUN IF RM FR IS PROVIDED BEFORE SST FR)

TO CAD 35 LOOSE WIRE AS REQ TO TSCO-11 FOR RELS. (56⁰-119)

TS (STA) ON SUPL SERV TREAT. FR

MFR DISC.

TO CAD 125 ON RM FR

TO CAD 126C OR TO CAD 126C1

TO CAD 125 ON T&CT FR (DO NOT RUN IF RM FR IS PROVIDED BEFORE SST FR)

TO CAD 126B

TO CAD 151A ON AUX SERV TREAT. FR

TO CAD 125 ON T&CT FR

TO CAD 126C1

TO CAD 125 ON T&CT FR

TO CAD 151A ON AUX SERV TREAT. FR

TO CAD 126B

TO CAD 125

TO CAD 125 (T&CT FR)

TO CAD 126C OR TO CAD 126C1

TO CAD 151A (AST FR)

TO CAD 110M1

TO CAD 151A ON AST FR

TO CAD 125

TO CAD 15 A ON AST FR OR TO CAD 125 ON RM FR

TO CAD 125 ON T & CT FR (DO NOT RUN IF RM FR IS PROVIDED BEFORE SST FR)

TO CAD 35 LOOSE WIRE AS REQUIRED TO TSCO-11 FOR RELAYS (56⁰-119)

TO CAD 126B

TO CAD 151A

TS (STD) FOR MKR 0,1,4,5,8,9
TS (STE) FOR MKR 2,3,6,7,10,11

| DRAWING ISSUE |
|---|
| 5D |
| 8A |
| 8D |
| 9D |
| 21D |
| 24D |
| 25D |
| 30D |
| 33D |
| 35D |
| 39D |
| 43D |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G136A

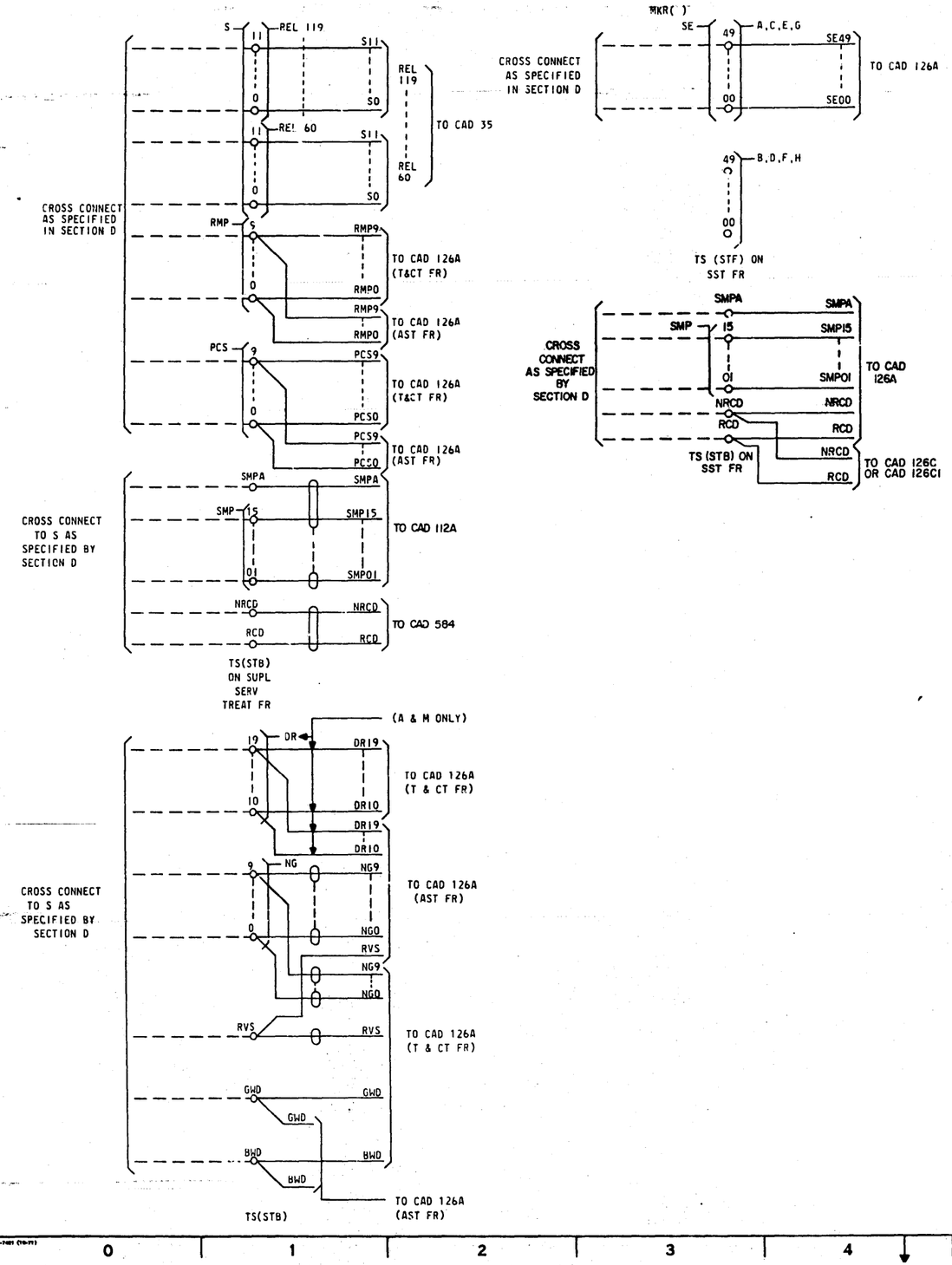
ISSUE 65B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 126B

(SST FR CROSS CONNECTIONS)





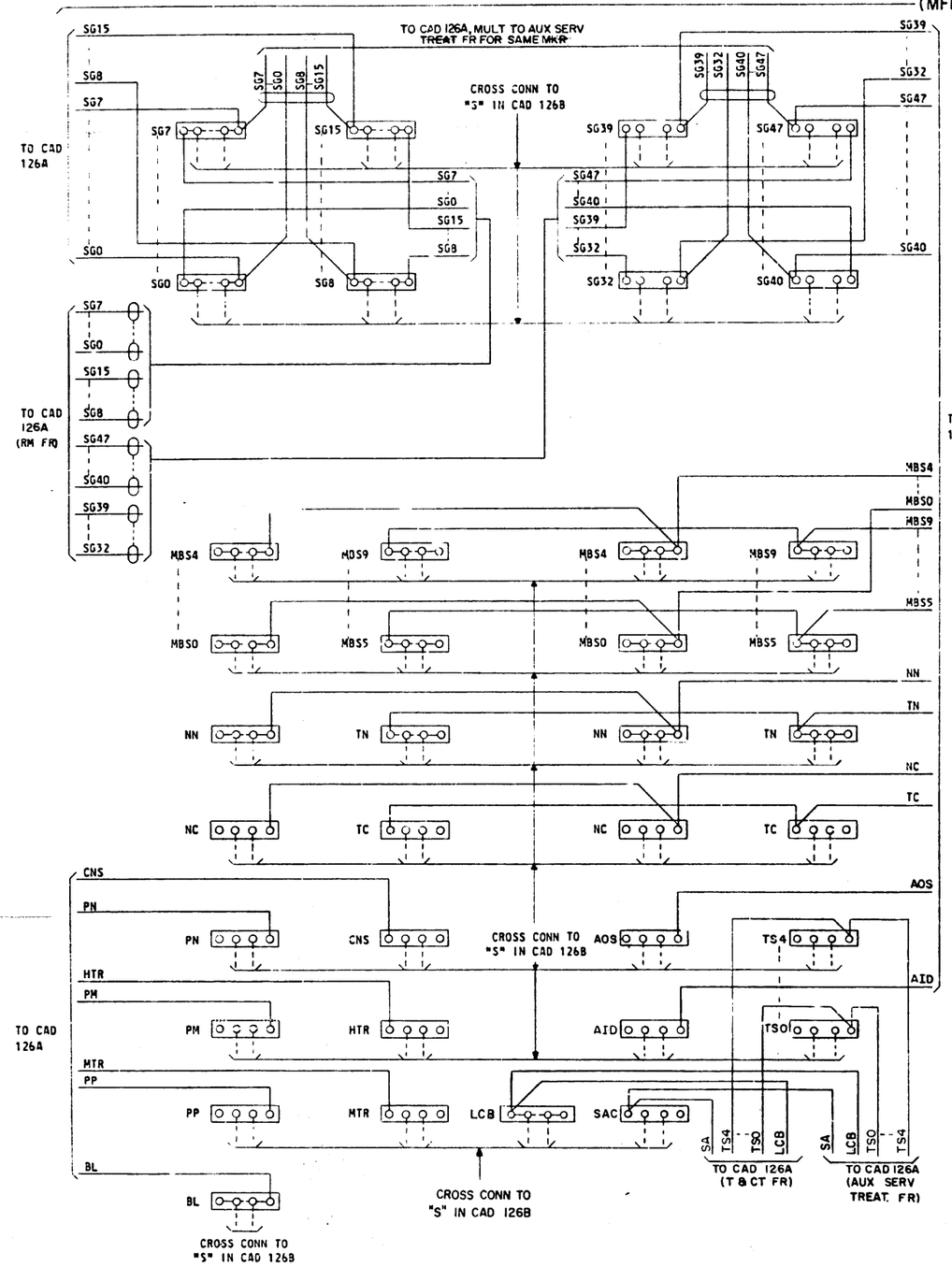


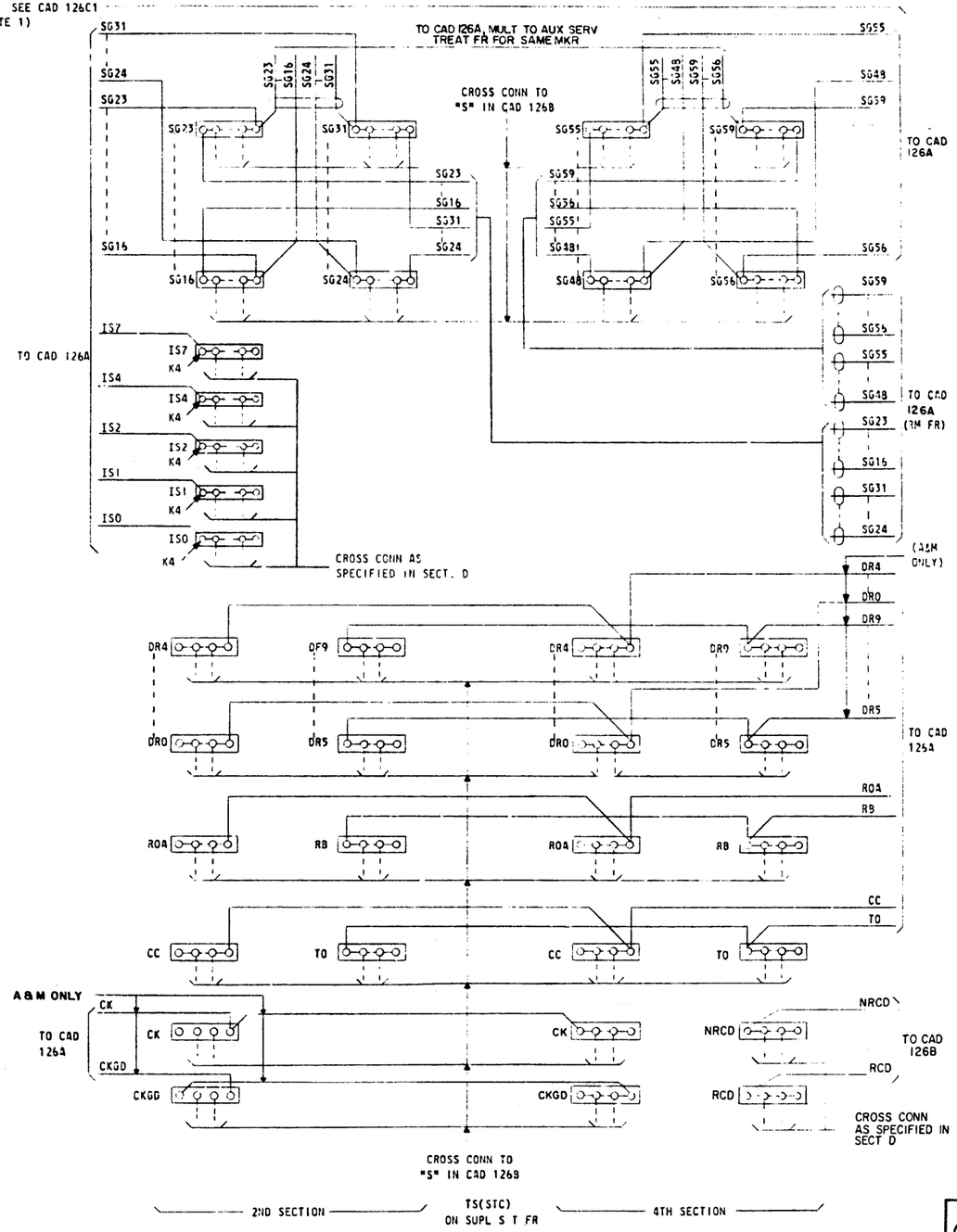
ISSUE 66A

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-GI36B |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

# CAD 126C

(SST FR CROSS CONNECTIONS)
(MFR DISC) SEE CAD 126C1
(SEE NOTE 1)




NOTES:
1. ALTHOUGH THE TS (STC) IS MFR DISC SOME A&M C LY CABLING MAY BE REQUIRED WHEN ADDING NEW T&CT FRAMES TO EXISTING OFFICES. (MARKER ISSUE 33 OR LATER)

DRAWING ISSUE
240 MRS
25D EM
30D CM GLS
33D TS
35D
43D

ISSUE 66A

COMPLETING MARKER CIRCUIT (2)

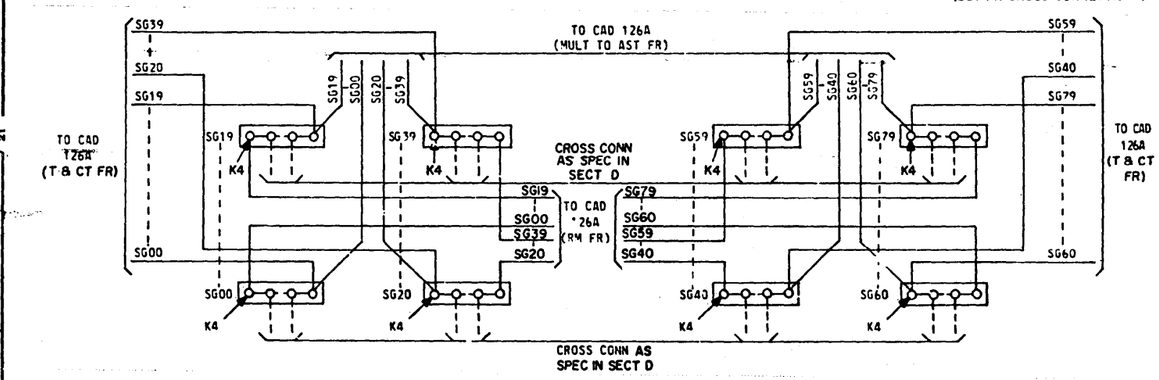
SD-26002-01-G137A

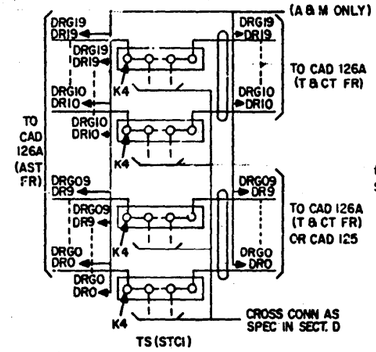
BELL TELEPHONE LABORATORIES INCORPORATED

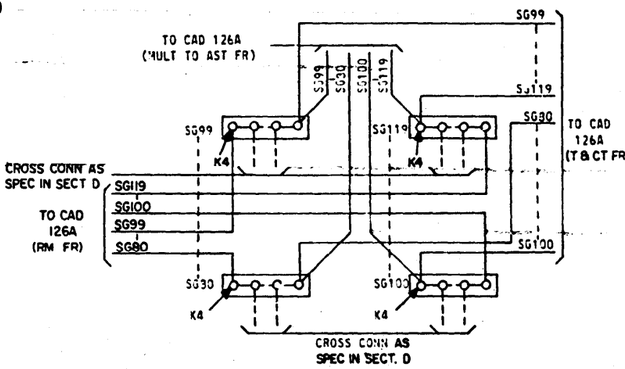
6S

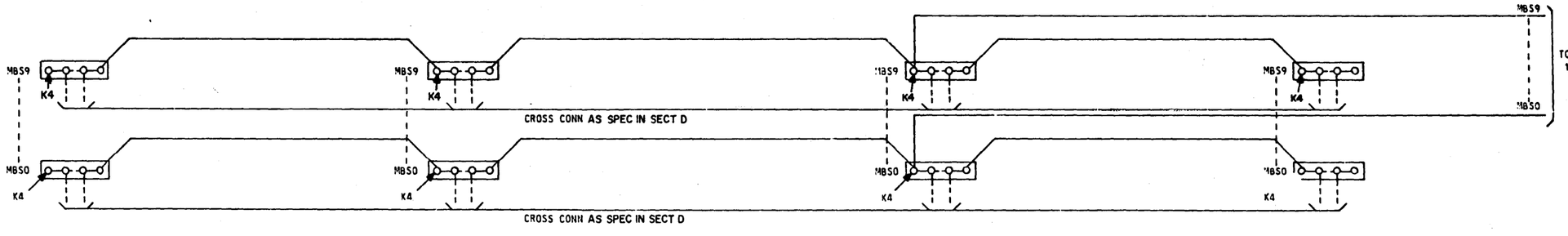
# PART OF CAD 126CI

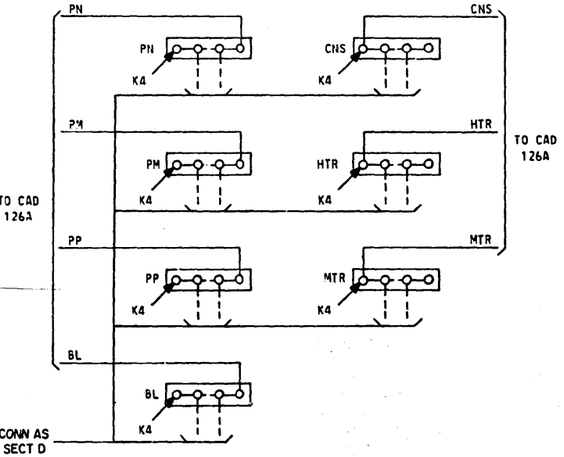
(SST FR CROSS CONNECTIONS)

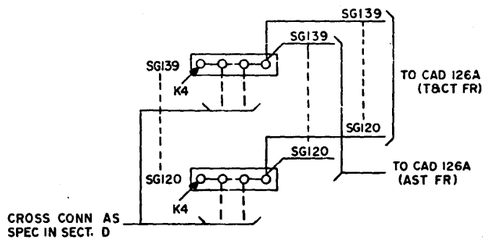


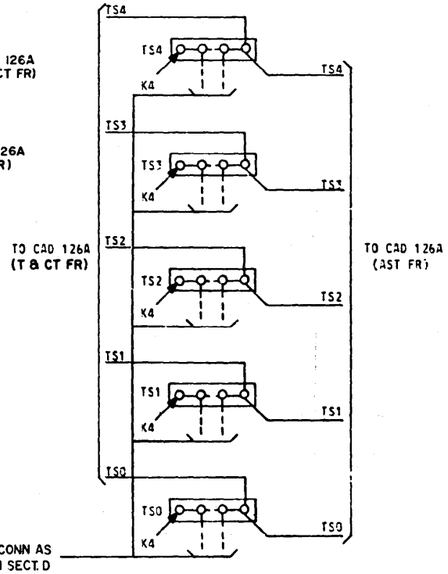




1ST SECTION — TS (STC) ON SST FR — 2ND SECTION — 3RD SECTION — TS (STC) ON SST FR — 4TH SECTION

K4 DENOTES RIGHT HAND TERM. LUG LOOKING AT REAR.

| DRAWING ISSUE | |
|---|---|
| 330 | ORS |
| 350 | OP |

ISSUE 55B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-GI37B

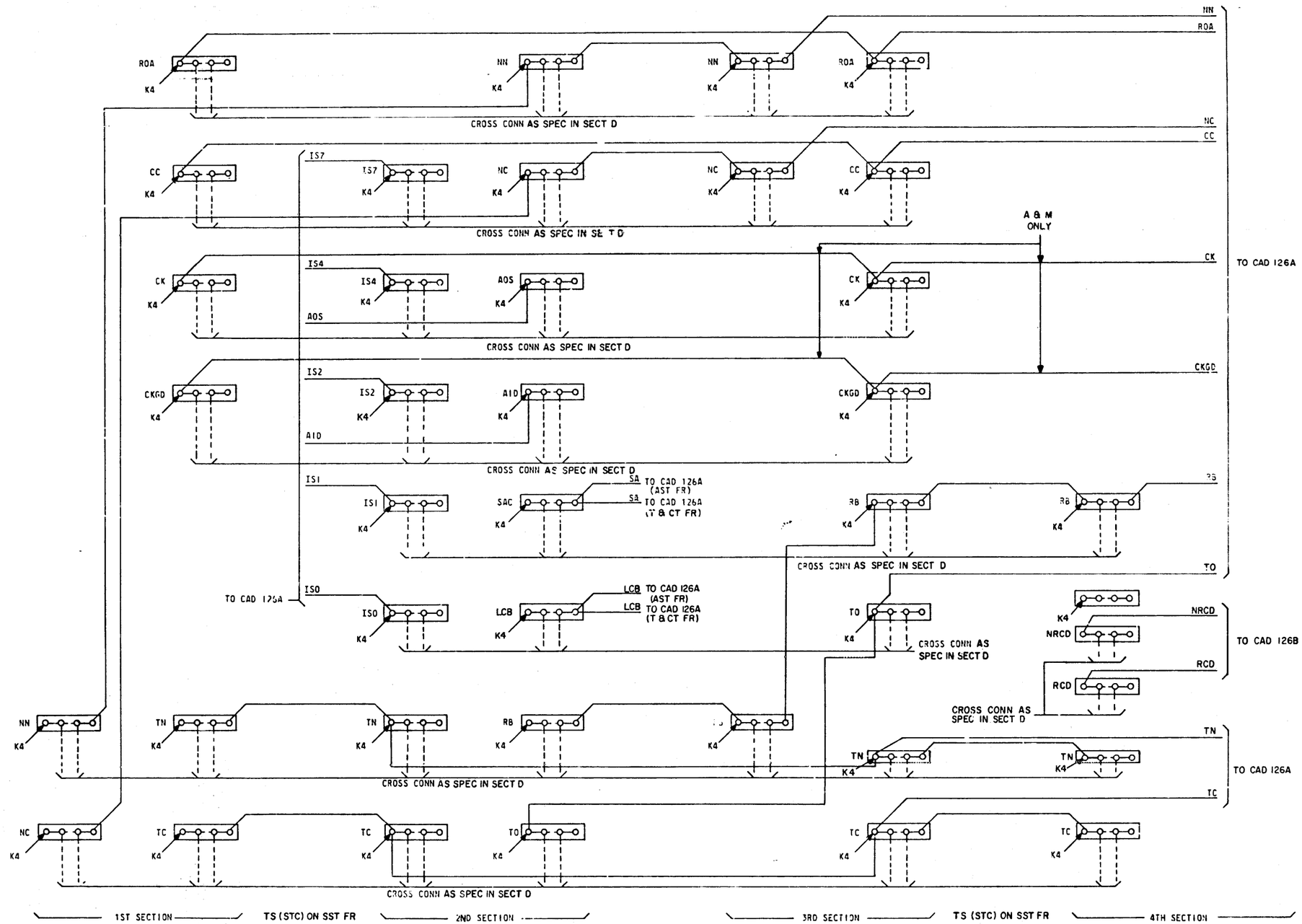
BELL TELEPHONE LABORATORIES INCORPORATED 65

SD-26002-01-GI37B

HIGGINS 4465 KYE

# PART OF CAD 126CI

(SST FR CROSS CONNECTIONS)




K4 DENOTES RIGHT HAND TERM. LUG LOOKING AT REAR

DRAWING ISSUE

330 CR; GOL ARA

OP

350 TA OIL

430

ISSUE 66A

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G137C

BELL TELEPHONE LABORATORIES INCORPORATED

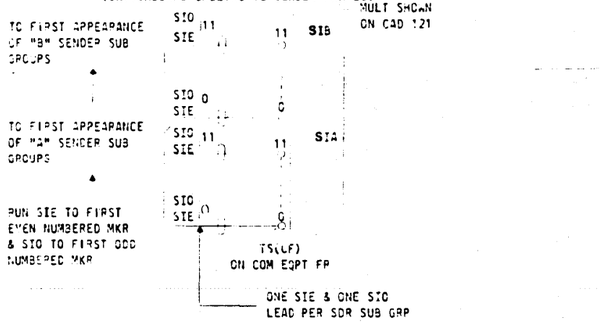
SIZE 6S

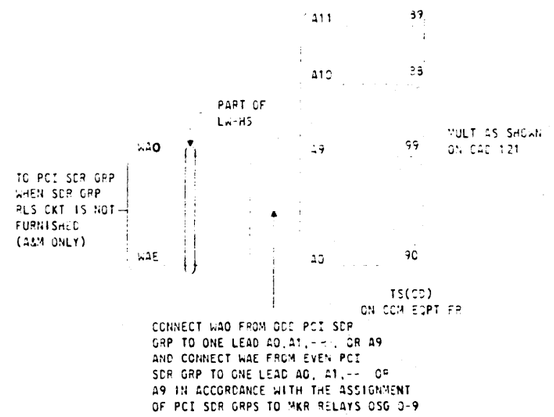
PRINTED IN U.S.A.

HIGGINS 4465 K&E

# CAD 127

(SWITCHBOARD CABLING TO SENDER FRAMES)




| DRAWING ISSUE | |
|---|---|
| 24D | PEC EDR 6-49 |
| 25D | MD 1-54 |

| | |
|---|---|
| CROSSBAR SYSTEMS<br>NO. 5<br>COMPLETING MARKER CIRCUIT (2) | SD-26002-01-G138 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

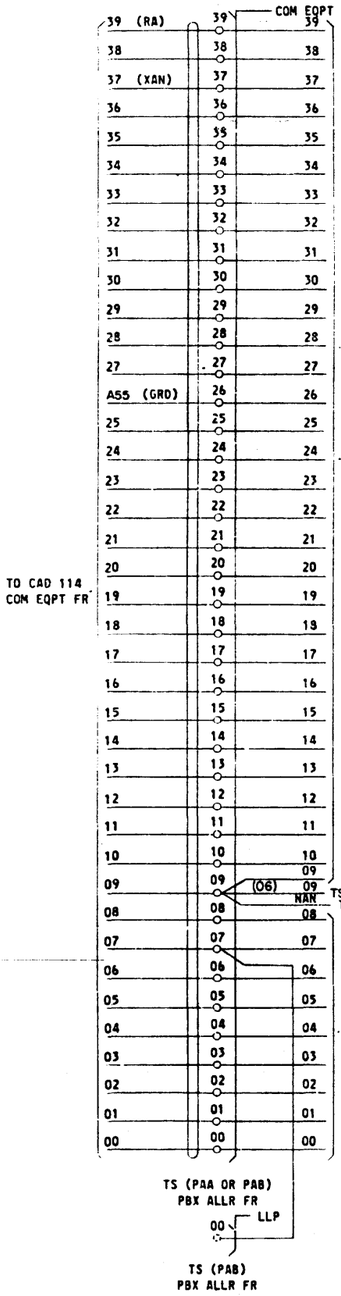
25

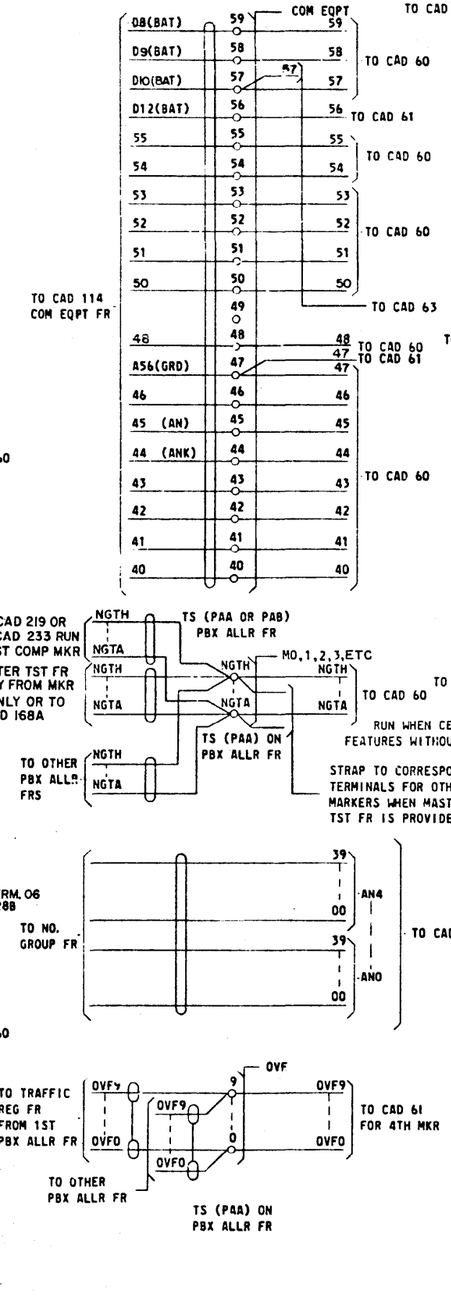
SD-26002-01-G138

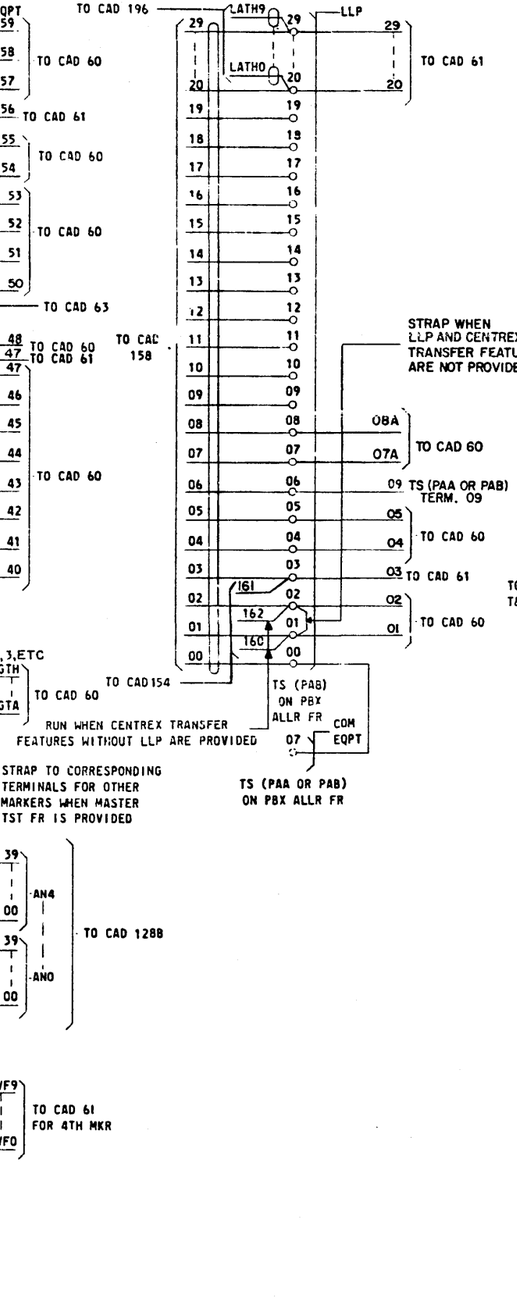
# CAD 128 A

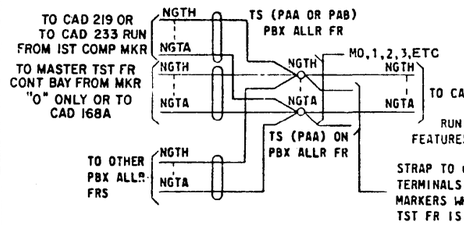
(SWITCHBOARD CABLING TO COM EQPT FR AND T & CT FR)

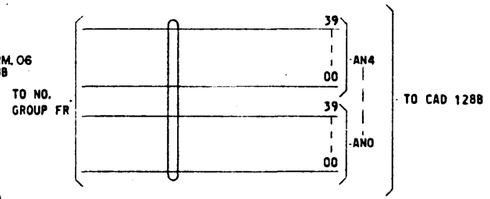
(FOR PBX ALLR FRAME)



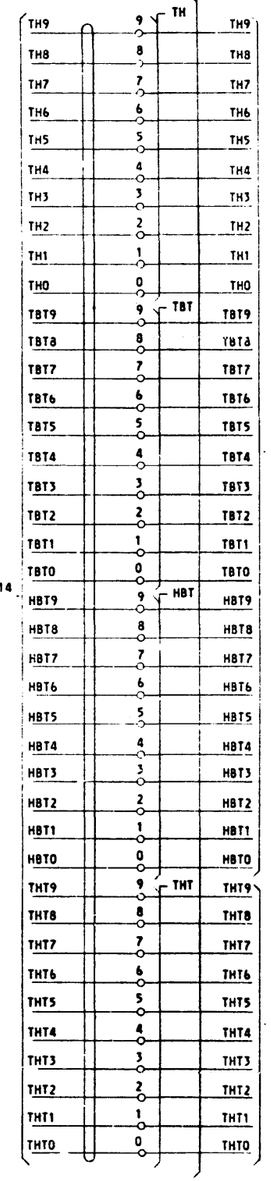



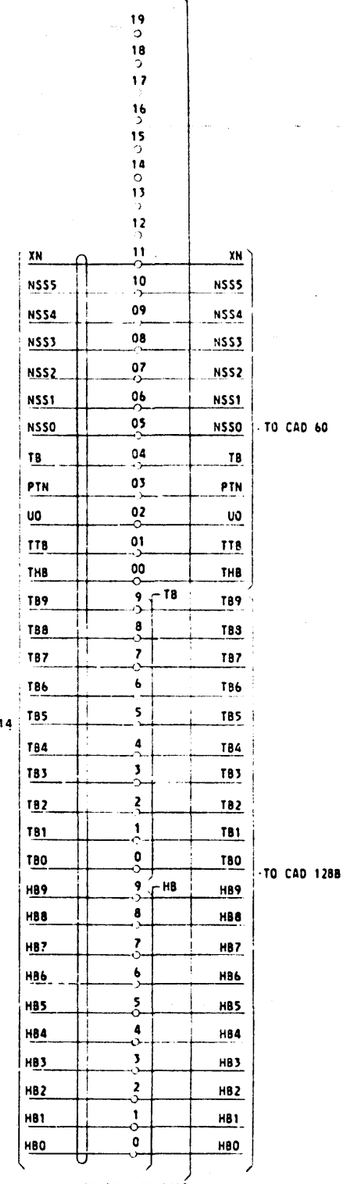










| DRAWING ISSUE | |
|---|---|
| 22D | CDH ETM AND |
| 24D | OB ETM AND |
| 25D | RSG CEY AND |
| 28D | SAW TRT AND |
| 34A | CK TH1 AND |
| 35D | CK TH AND |
| 39D | MS |
| 41D | |

ISSUE 65B

COMPLETING MARKER CIRCUIT (2)

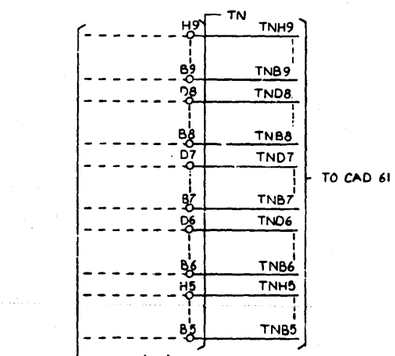
BELL TELEPHONE LABORATORIES INCORPORATED

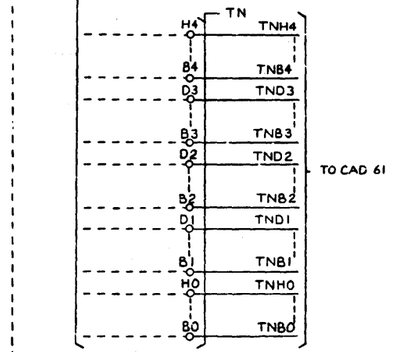
SD-26002-01-G139

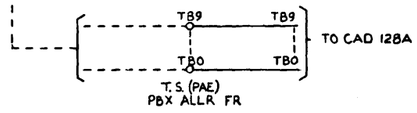
6S

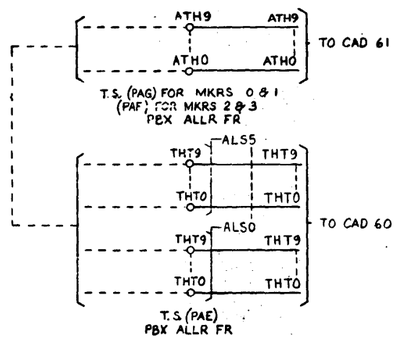
0 1 2 3 4 5 6 7 8 9

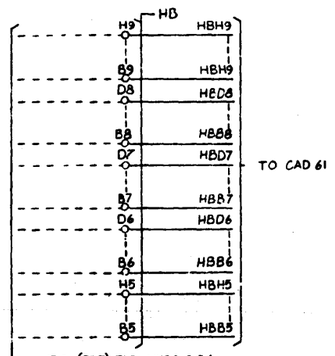
# CAD 128B
(PBX ALLR FR CONN)

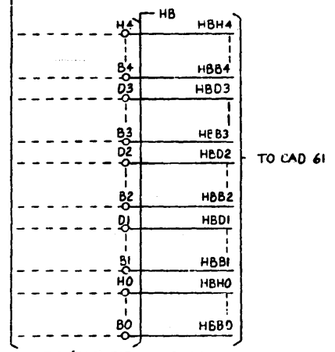


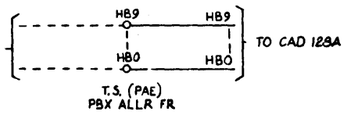



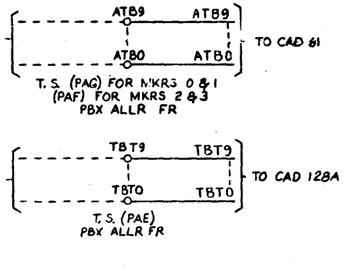



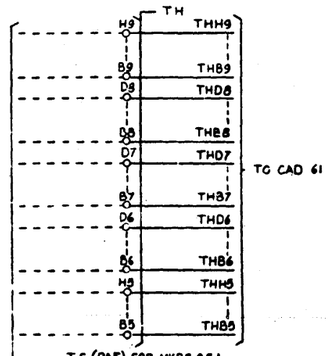



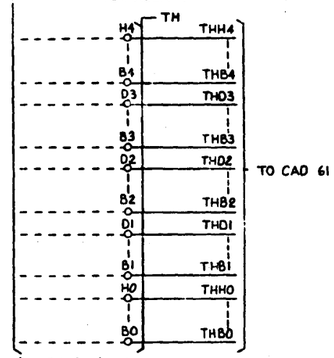



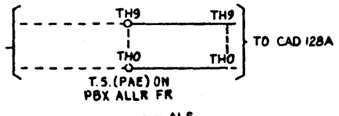



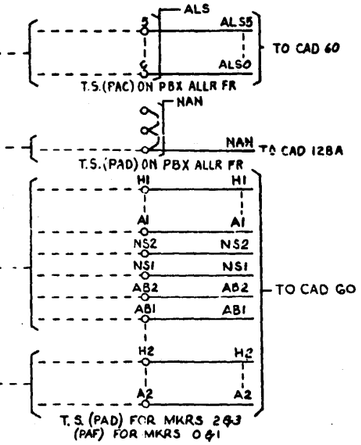



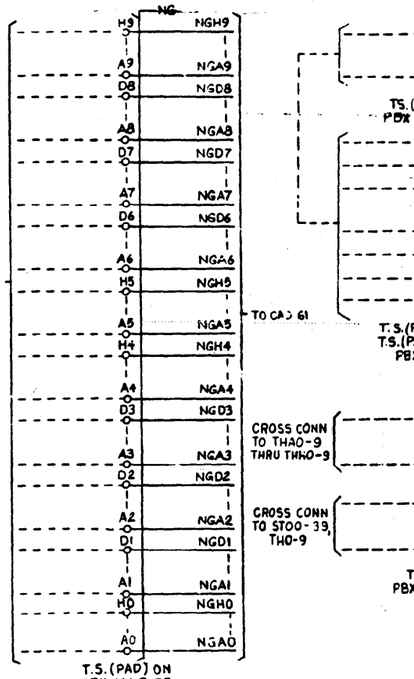



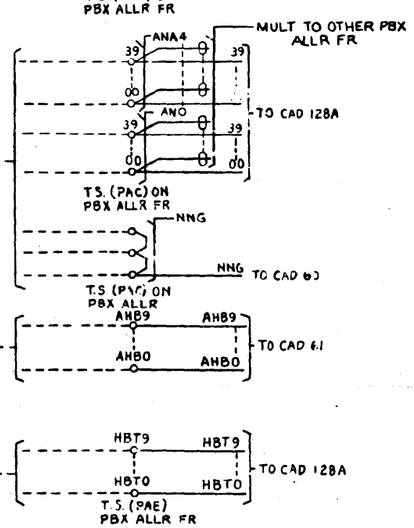




DRAWING ISSUE

| | | |
|---|---|---|
| 5D | 7/71 | WP |
| 10B | 6/74 | PD |
| 22D | JB | CDM AMD |
| 24D | JAT | CPM AMD |

CROSSBAR SYSTEMS
NO.5
COMPLETING MARKER CIRCUIT
(2)

BELL TELEPHONE LABORATORIES
INCORPORATED
6S

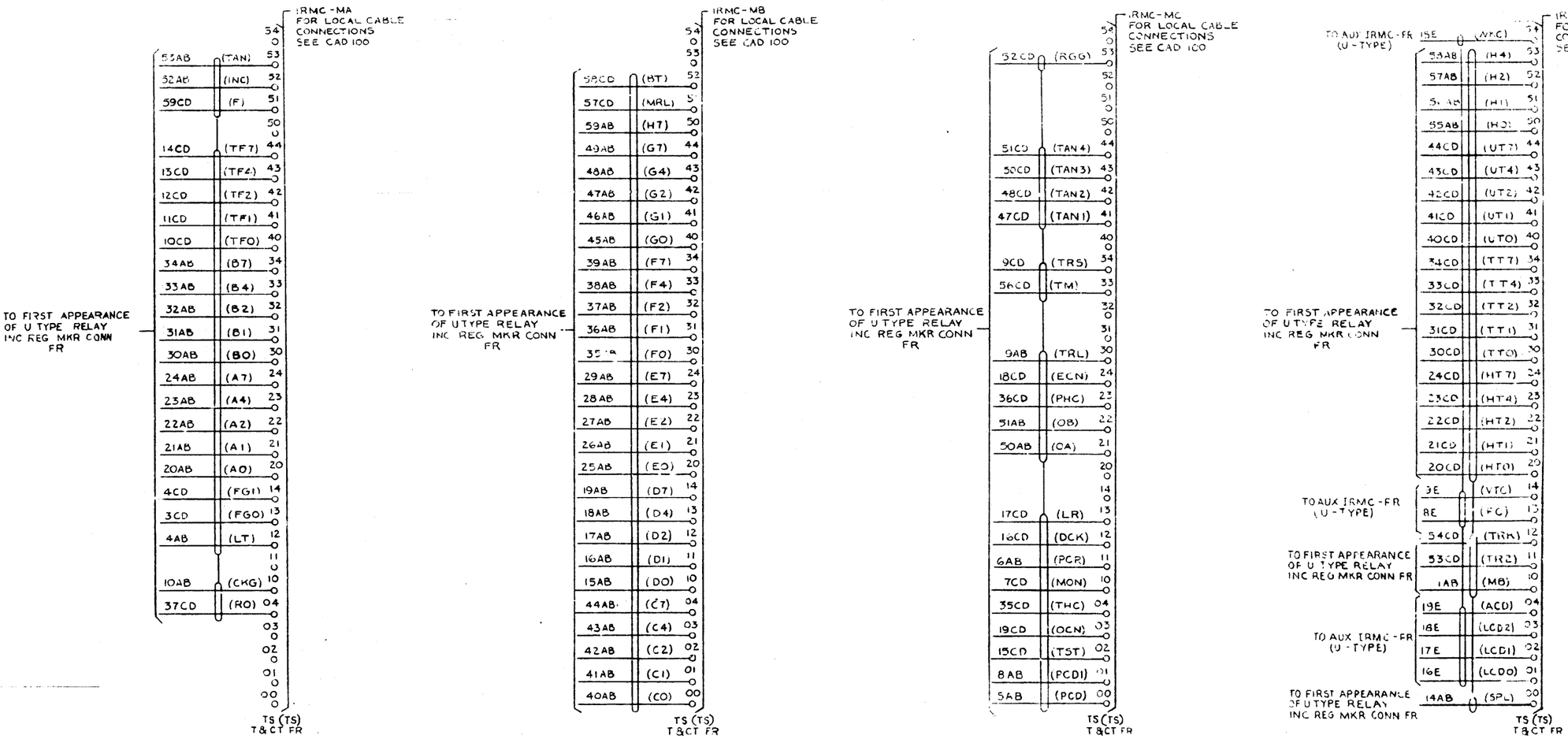
24
SD-26002-01-G140

SD-26002-01-G140

# PART OF CAD 129

(FOR SWBD CABLE TO U TYPE RELAY INC REG MKR CONN)

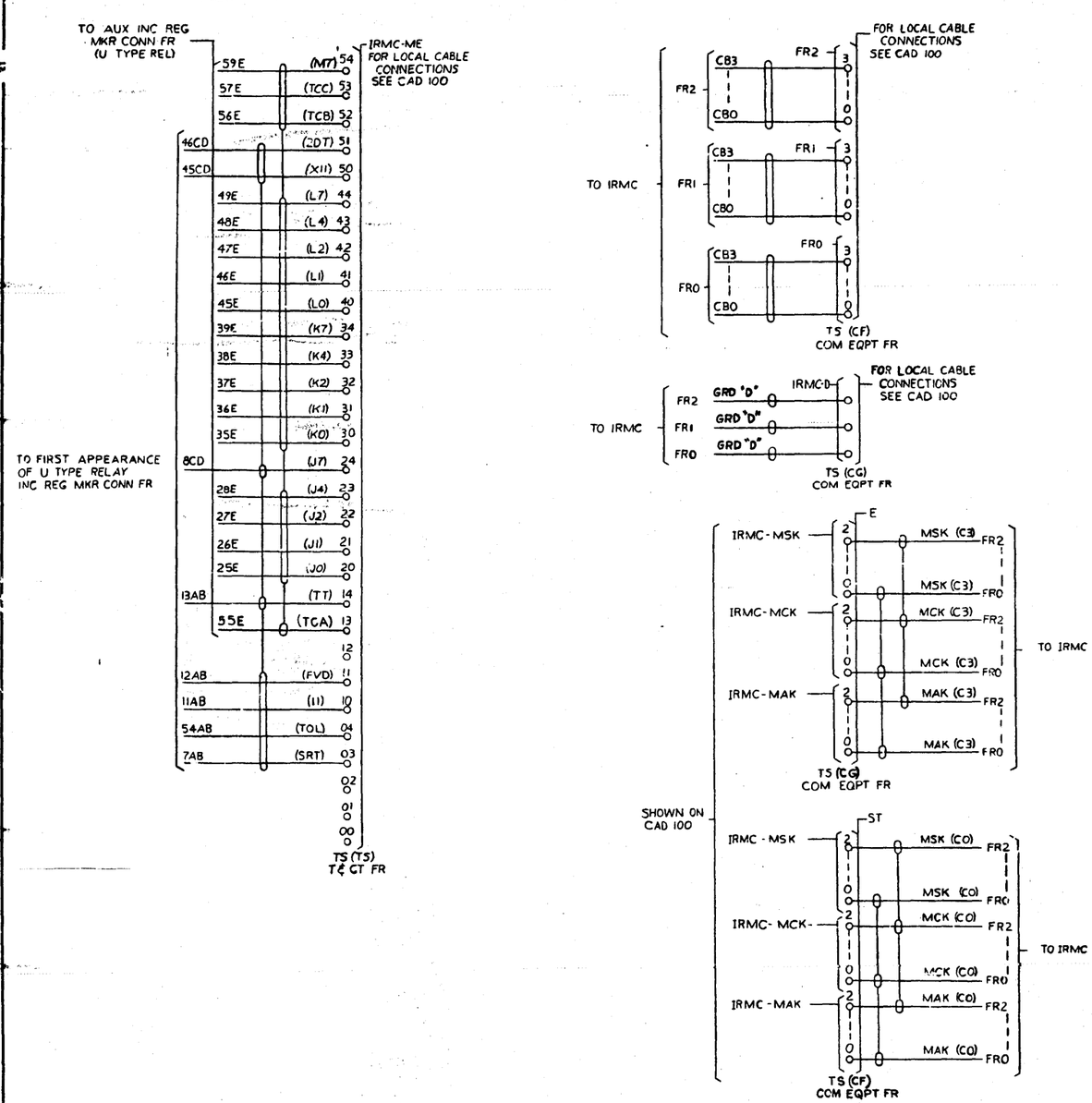
| DRAWING ISSUE | |
|---|---|
| 50 | CDK JAT |
| 78 | JAT JEM |
| 80 | JAT JBM |
| 108 | DTT JBM JAT |
| 240 | BTM AMT |




| | |
|---|---|
| CROSSBAR SYSTEMS<br>NO. 5<br>COMPLETING MARKER CIRCUIT (2)<br>BELL TELEPHONE LABORATORIES INCORPORATED | 24<br>SD-26002-01-G141<br>6S |

# PART OF CAD 129

(FOR SWBD CABLE TO U TYPE RELAY INC REG MKR CONN)




| DRAWING ISSUE | | |
|---|---|---|
| 5D | VSS JR | J.R.D. |
| 7B | JB JLA | J.P.D. |
| 24D | JM DW JMP | CB CB |

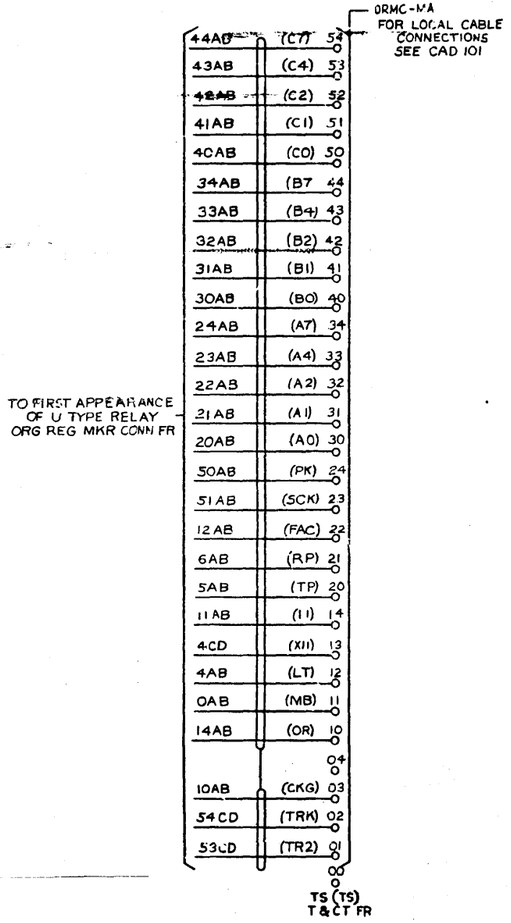
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

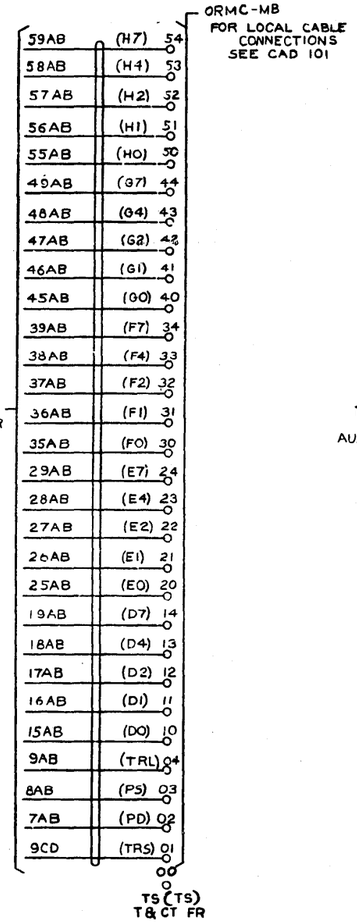
| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | 24 SD-26002-01-GI42 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

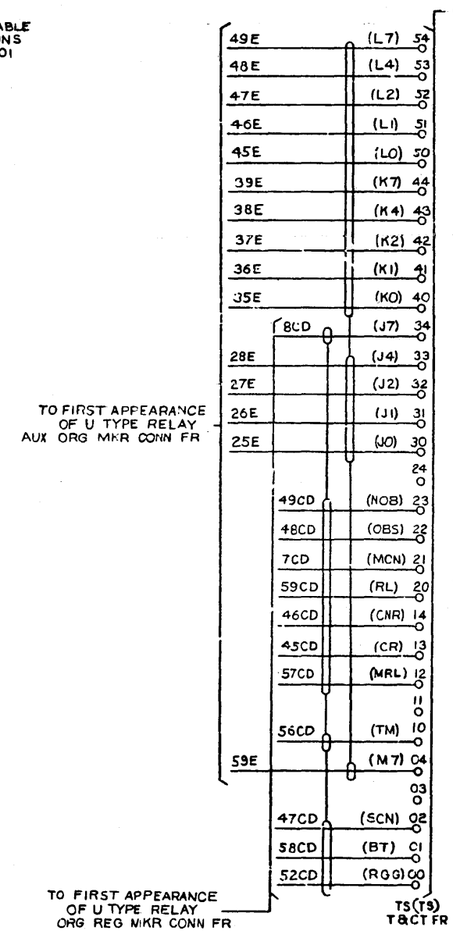
SD-26002-01-GI42

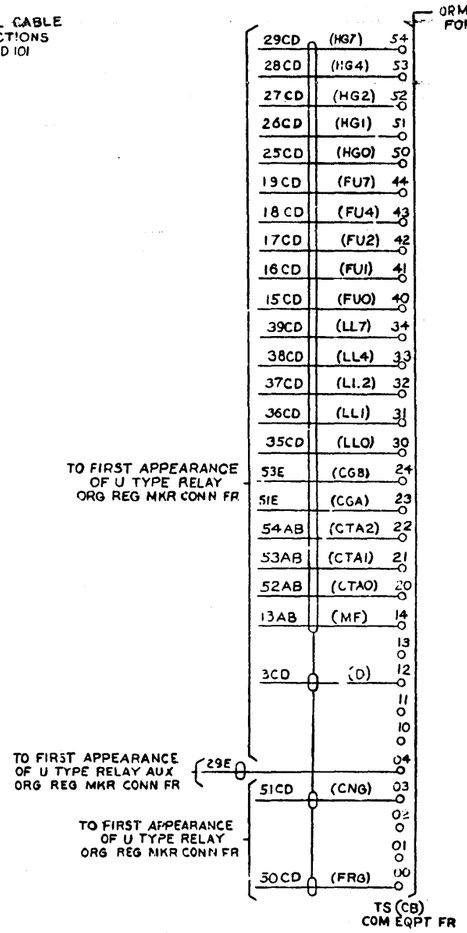
# PART OF CAD 130

(FOR SWBD CABLE TO U TYPE RELAY ORG REG MKR CONN)




| DRAWING ISSUE | | |
|---|---|---|
| 50 | COR | J.F.D. |
| 168 | Add Info | WJG CB |
| 240 | JM Cor Add Info | CB |
| 280 | Add Info | A |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | | CB |

28

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G143

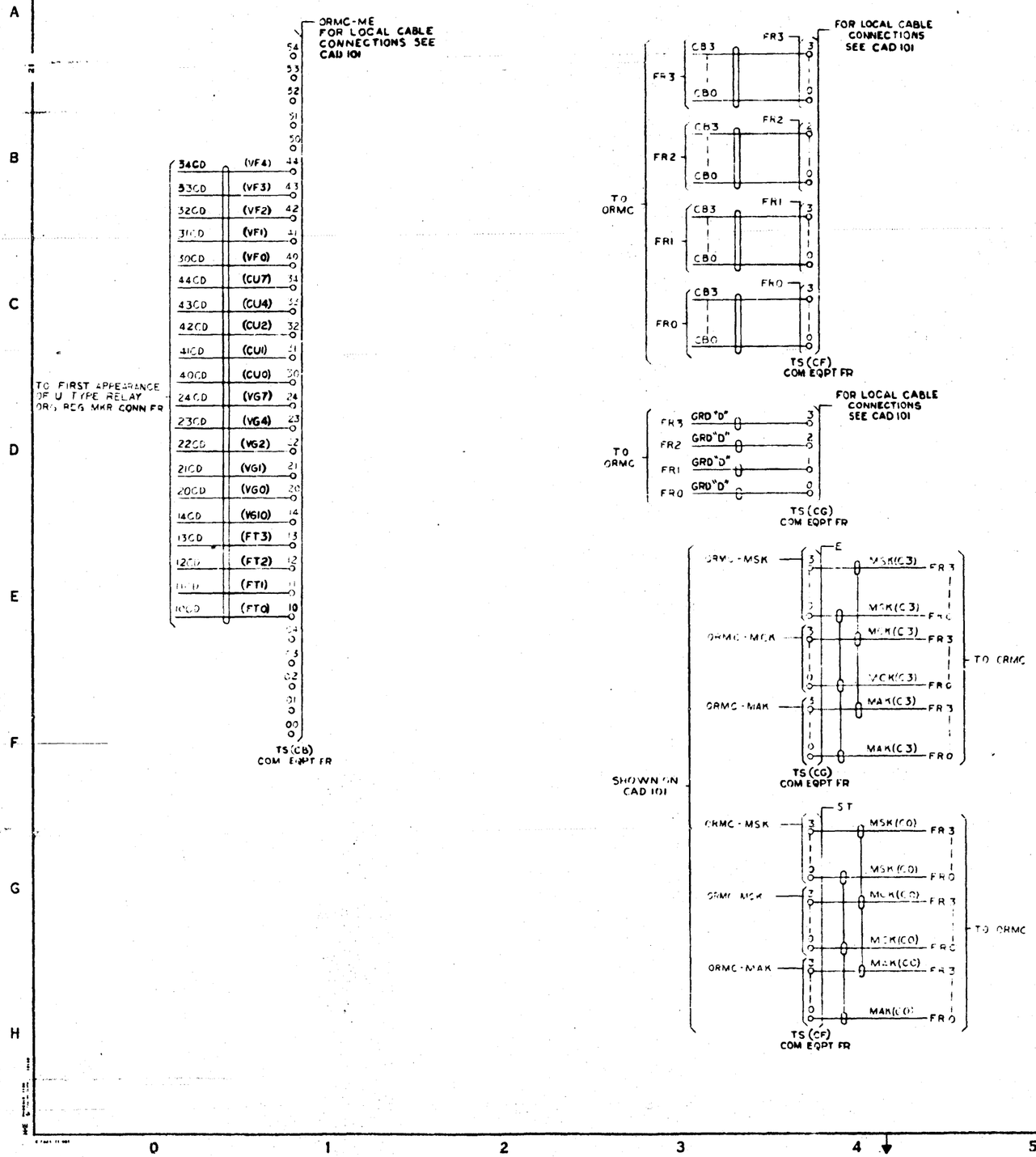
BELL TELEPHONE LABORATORIES INCORPORATED

FORM 65

PRINTED IN U.S.A.

# PART OF CAD 130

(FOR SWBD CABLE TO U TYPE RELAY ORG REG MKR CONN)




DRAWING ISSUE

5D

24D

SD-26002-01-G144

CROSSBAR SYSTEMS

NO. 5 COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

6S

24

SD-26002-01-G144

# PART OF CAD 131

(FOR SWBD CABLE TO U TYPE RELAY LINE LINK CONN)
(FOR SWBD CABLE TO W/S RELAY LINE LINK CONN SEE CAD 102)

| DRAWING ISSUE | |
|---|---|
| 50 | CGS JJ |
| | JM |
| 240 | STM JMM |

LLC-MA1 FOR LOCAL CABLE CONNECTIONS SEE CAD 102

TO FIRST APPEARANCE OF U TYPE RELAY LINE LINK CONN FR

| | | |
|---|---|---|
| 54A | (HG9) | 54 |
| 53A | (HG8) | 53 |
| 52A | (HG7) | 52 |
| 51A | (HG6) | 51 |
| 50A | (HG5) | 50 |
| 44A | (HG4) | 44 |
| 43A | (HG3) | 43 |
| 42A | (HG2) | 42 |
| 41A | (HG1) | 41 |
| 40A | (HG0) | 40 |
| 24A | (VGB9) | 34 |
| 23A | (VGB8) | 33 |
| 22A | (VGB7) | 32 |
| 21A | (VGB6) | 31 |
| 20A | (VGB5) | 30 |
| 14A | (VGB4) | 24 |
| 13A | (VGB3) | 23 |
| 12A | (VGB2) | 22 |
| 11A | (VGB1) | 21 |
| 10A | (VGB0) | 20 |
| 31A | (VGB11) | 14 |
| 30A | (VGB10) | 13 |
| 34A | (HGK) | 12 |
| 4A | (NT) | 11 |
| 3A | (BS) | 10 |
| | | 04 |
| | | 03 |
| 2A | (LFK) | 02 |
| 1A | (BS1) | 01 |
| 0A | (BS0) | 00 |

T5 (CB) COM EQPT FR

LLC-MA2 FOR LOCAL CABLE CONNECTIONS SEE CAD 102

TO FIRST APPEARNCE OF U TYPE RELAY LINE LINK CONN FR

| | | |
|---|---|---|
| 19A | (LB9) | 54 |
| 18A | (LB8) | 53 |
| 17A | (LB7) | 52 |
| 16A | (LB6) | 51 |
| 15A | (LB5) | 50 |
| 9A | (LB4) | 44 |
| 8A | (LB3) | 43 |
| 7A | (LB2) | 42 |
| 6A | (LB1) | 41 |
| 5A | (LB0) | 40 |
| 39A | (SM9) | 34 |
| 38A | (SM8) | 33 |
| 37A | (SM7) | 32 |
| 36A | (SM6) | 31 |
| 35A | (SM5) | 30 |
| 29A | (SM4) | 24 |
| 28A | (SM3) | 23 |
| 27A | (SM2) | 22 |
| 26A | (SM1) | 21 |
| 25A | (SM0) | 20 |
| 59A | (LL9) | 14 |
| 58A | (LL8) | 13 |
| 57A | (LL7) | 12 |
| 56A | (LL6) | 11 |
| 55A | (LL5) | 10 |
| 49A | (LL4) | 04 |
| 48A | (LL3) | 03 |
| 47A | (LL2) | 02 |
| 46A | (LL1) | 01 |
| 45A | (LL0) | 00 |

T3 (CB) COM EQPT FR

SEE NOTE 219

LLC-MB1 FOR LOCAL CABLE CONNECTIONS SEE CAD 102

TO FIRST APPEARANCE OF U TYPE RELAY LINE LINK CONN FR

| | | |
|---|---|---|
| 59B | (CS29),(SS9) | 54 |
| 58B | (CS28),(SS8) | 53 |
| 57B | (CS27),(SS7) | 52 |
| 56B | (CS26),(SS6) | 51 |
| 55B | (CS25),(SS5) | 50 |
| 54B | (CS24),(SS4) | 44 |
| 53B | (CS23),(SS3) | 43 |
| 52B | (CS22),(SS2) | 42 |
| 51B | (CS21),(SS1) | 41 |
| 50B | (CS20),(SS0) | 40 |
| 49B | (CS19) | 34 |
| 48B | (CS18) | 33 |
| 47B | (CS17),(LTA) | 32 |
| 46B | (CS16),(LTM) | 31 |
| 45B | (CS15),(LT) | 30 |
| 44B | (CS14) | 24 |
| 43B | (CS13),(FR) | 23 |
| 42B | (CS12),(BY) | 22 |
| 41B | (CS11) | 21 |
| 40B | (CS10),(SLK) | 20 |
| 39B | (CS09) | 14 |
| 38B | (CS08) | 13 |
| 37B | (CS07) | 12 |
| 36B | (CS06) | 11 |
| 35B | (CS05) | 10 |
| 34B | (CS04),(LFKI) | 04 |
| 33B | (CS03) | 03 |
| 32B | (CS02) | 02 |
| 31B | (CS01) | 01 |
| 30B | (CS00) | 00 |

T5 (CB) COM EQPT FR

LLC-MB2 FOR LOCAL CABLE CONNECTIONS SEE CAD 102

TO FIRST APPEARANCE OF U TYPE RELAY LINE LINK CONN FR

| | | |
|---|---|---|
| 0B | (LLF) | 54 |
| 9B | (TER) | 53 |
| 7B | (LCB) | 52 |
| 6B | (OF) | 51 |
| 5B | (PL) | 50 |
| 24B | (LH4) | 44 |
| 23B | (LH3) | 43 |
| 22B | (LH2) | 42 |
| 21B | (LH1) | 41 |
| 20B | (LH0) | 40 |
| 29B | (VFT4) | 34 |
| 28B | (VFT3) | 33 |
| 27B | (VFT2) | 32 |
| 26B | (VFT1) | 31 |
| 25B | (VFT0) | 30 |
| 19B | (V4) | 24 |
| 18B | (V3) | 23 |
| 17B | (V2) | 22 |
| 16B | (V1) | 21 |
| 15B | (V0) | 20 |
| 10B | (G) | 14 |
| 3B | (DTK) | 13 |
| 2B | (LOK) | 12 |
| 1B | (LO3) | 11 |
| 0B | (LO) | 10 |
| | | 04 |
| | | 03 |
| | | 02 |
| | | 01 |
| | | 00 |

T5 (CB) COM EQPT FR

COMPLETING MARKER CIRCUIT (2)

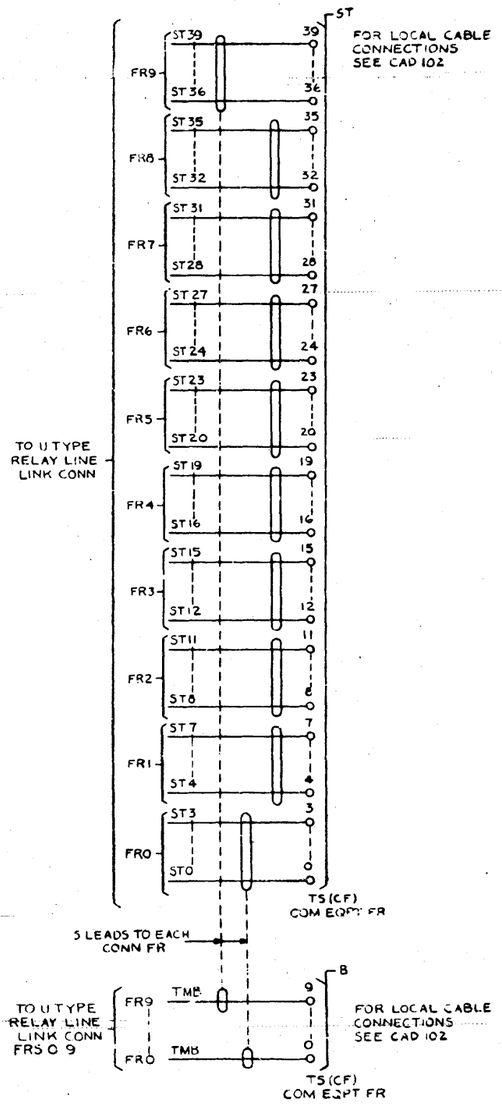
BELL TELEPHONE LABORATORIES INCORPORATED — 6S

ISSUE 65B

SD-26002-01-G145

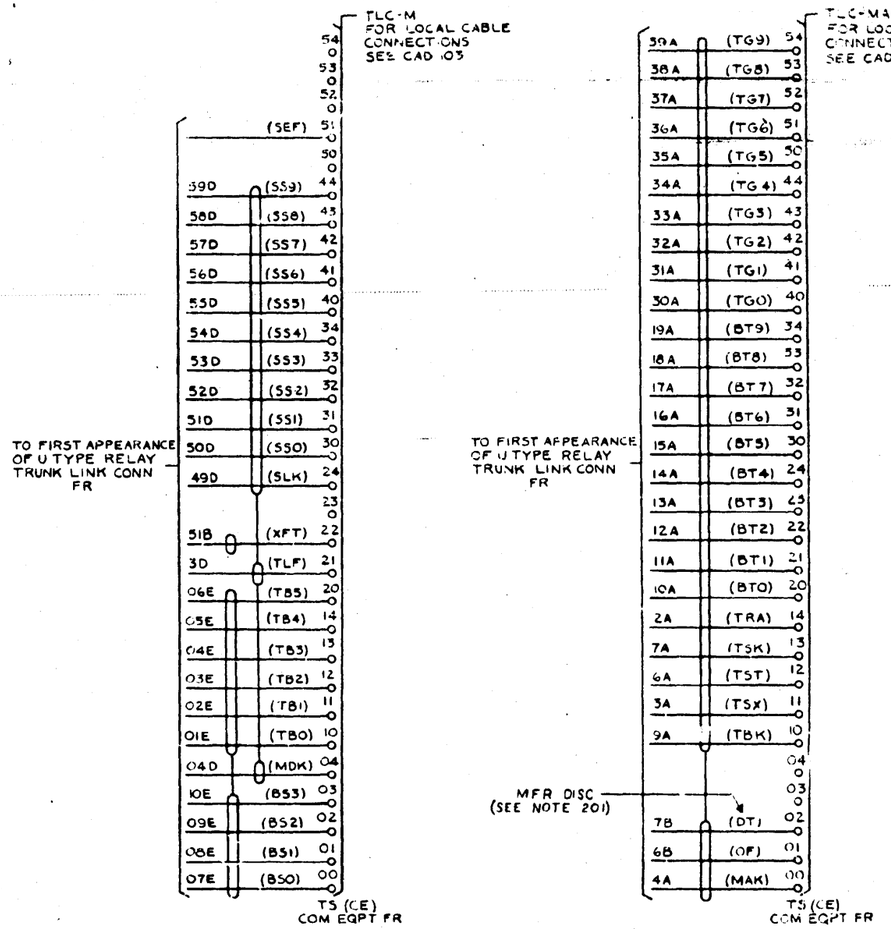
## PART OF CAD 131

(FOR SWBD CABLE TO U TYPE RELAY LINE LINK CONN)




## PART OF CAD 132

(FOR SWBD CABLE TO U TYPE RELAY TRUNK LINK CONN)




DRAWING ISSUE
5D
14B
240

CROSSBAR SYSTEMS
NO. 5
COMPLETING MARKER CIRCUIT
2
BELL TELEPHONE LABORATORIES INCORPORATED
65
24
SD-26002-01-G146

SD-26002-01-G146

# PART OF CAD 132

(FOR SWBD CABLE TO U TYPE RELAY TRUNK LINK CONN)

TO FIRST APPEARANCE OF U TYPE RELAY TRUNK LINK CONN FR

TLC-MA2 FOR LOCAL CABLE CONNECTIONS SEE CAD 103

| | | |
|---|---|---|
| 49A | (TG19) | 54 |
| 48A | (TG18) | 53 |
| 47A | (TG17) | 52 |
| 46A | (TG16) | 51 |
| 45A | (TG15) | 50 |
| 44A | (TG14) | 44 |
| 43A | (TG13) | 43 |
| 42A | (TG12) | 42 |
| 41A | (TG11) | 41 |
| 40A | (TG10) | 40 |
| 29A | (BT19) | 34 |
| 28A | (BT18) | 33 |
| 27A | (BT17) | 32 |
| 26A | (BT16) | 31 |
| 25A | (BT15) | 30 |
| 24A | (BT14) | 24 |
| 23A | (BT13) | 23 |
| 22A | (BT12) | 22 |
| 21A | (BT11) | 21 |
| 20A | (BT10) | 20 |
| 4B | (HF) | 14 |
| 2B | (NN) | 13 |
| 1B | (NT) | 12 |
| 0B | (NH) | 11 |
| 9C | (AD) | 10 |
| 3B | (OD) | 04 |
| | | 03 |
| 9B | (INC) | 02 |
| 8B | (TCB) | 01 |
| | | 00 |

TS (CE) COM EQPT FR

TO FIRST APPEARANCE OF U TYPE RELAY TRUNK LINK CONN FR

TLC-MB1 FOR LOCAL CABLE CONNECTIONS SEE CAD 103

| | | |
|---|---|---|
| 29B | (JS9) | 54 |
| 28B | (JS8) | 53 |
| 27B | (JS7) | 52 |
| 26B | (JS6) | 51 |
| 25B | (JS5) | 50 |
| 24B | (JS4) | 44 |
| 23B | (JS3) | 43 |
| 22B | (JS2) | 42 |
| 21B | (JS1) | 41 |
| 20B | (JS0) | 40 |
| 39B | (LH9) | 34 |
| 38B | (LH8) | 33 |
| 37B | (LH7) | 32 |
| 36B | (LH6) | 31 |
| 35B | (LH5) | 30 |
| 34B | (LH4) | 24 |
| 33B | (LH3) | 23 |
| 32B | (LH2) | 22 |
| 31B | (LH1) | 21 |
| 30B | (LH0) | 20 |
| 19B | (J9) | 14 |
| 18B | (J8) | 13 |
| 17B | (J7) | 12 |
| 16B | (J6) | 11 |
| 15B | (J5) | 10 |
| 14B | (J4) | 04 |
| 13B | (J3) | 03 |
| 12B | (J2) | 02 |
| 11B | (J1) | 01 |
| 10B | (J0) | 00 |

TS (CE) COM EQPT FR

TO FIRST APPEARANCE OF U TYPE RELAY TRUNK LINK CONN FR

TLC-MB2 FOR LOCAL CABLE CONNECTIONS SEE CAD 103

| | | |
|---|---|---|
| 34C | (G4) | 54 |
| 33C | (G3) | 53 |
| 32C | (G2) | 52 |
| 31C | (G1) | 51 |
| 30C | (G0) | 50 |
| 35C | (GOA) | 44 |
| 56C | (PR) | 43 |
| 55C | (SF) | 42 |
| 52C | (SZC) | 41 |
| 51C | (SZB) | 40 |
| 50C | (SZA) | 34 |
| 58C | (TTM) | 33 |
| 57C | (TTA) | 32 |
| 59C | (LCC) | 31 |
| 38C | (RK) | 30 |
| 36C | (R) | 24 |
| 39C | (LK) | 23 |
| 37C | (L) | 22 |
| 54C | (EF) | 21 |
| 53C | (RF) | 20 |
| 49B | (ALC) | 14 |
| 48B | (ATT) | 13 |
| 47B | (ART) | 12 |
| 46B | (AST) | 11 |
| 45B | (ASM) | 10 |
| 50B | (RC) | 04 |
| 43B | (SI) | 03 |
| 40B | (CN) | 02 |
| 5B | (LVK) | 01 |
| 53B | (FAK) | 00 |

TS (CE) COM EQPT FR

TO FIRST APPEARANCE OF U TYPE RELAY TRUNK LINK CONN FR

TLC-MC1 FOR LOCAL CABLE CONNECTIONS SEE CAD 103

| | | |
|---|---|---|
| 19C | (P9) | 54 |
| 18C | (P8) | 53 |
| 17C | (P7) | 52 |
| 16C | (P6) | 51 |
| 15C | (P5) | 50 |
| 14C | (P4) | 44 |
| 13C | (P3) | 43 |
| 12C | (P2) | 42 |
| 11C | (P1) | 41 |
| 10C | (P0) | 40 |
| 29C | (JC9) | 34 |
| 28C | (JC8) | 33 |
| 27C | (JC7) | 32 |
| 26C | (JC6) | 31 |
| 25C | (JC5) | 30 |
| 24C | (JC4) | 24 |
| 23C | (JC3) | 23 |
| 22C | (JC2) | 22 |
| 21C | (JC1) | 21 |
| 20C | (JC0) | 20 |
| 8C | (L8) | 14 |
| 7C | (L7) | 13 |
| 6C | (L6) | 12 |
| 5C | (L5) | 11 |
| 4C | (L4) | 10 |
| 3C | (L3) | 04 |
| 2C | (L2) | 03 |
| 1C | (L1) | 02 |
| 0C | (L0) | 01 |
| 52B | (LCK) | 00 |

TS (CE) COM EQPT FR

| DRAWING ISSUE | | |
|---|---|---|
| 5D | CSK AC | JFD |
| 8D | CLY JEM | PP |
| 24D | JM EMT AC | CB |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

DIST CODE 6S

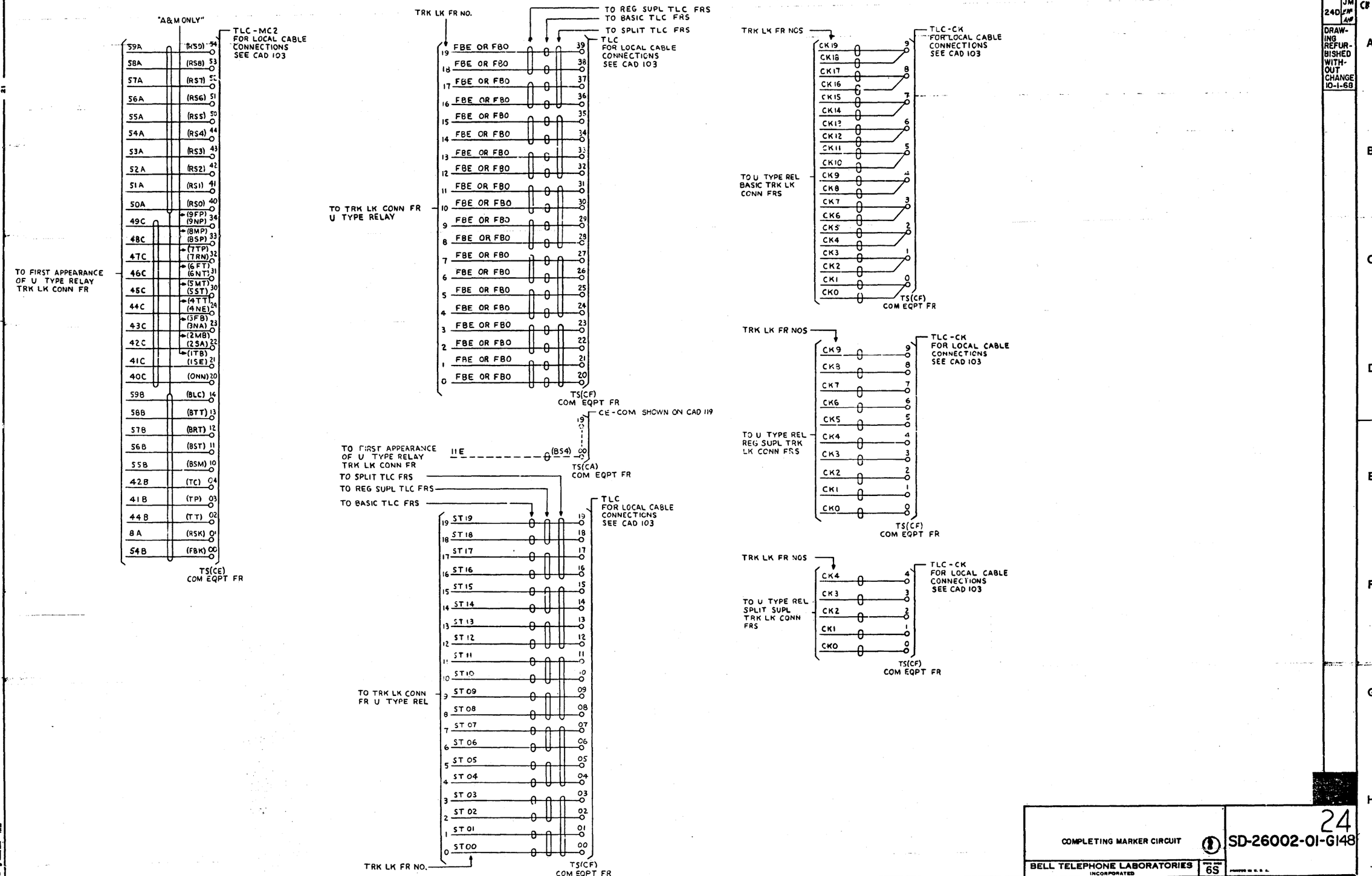
PRINTED IN U. S. A.

24

SD-26002-01-G147

# PART OF CAD 132

(FOR SWBD CABLE TO U TYPE RELAY TRK LK CONN)




DRAWING ISSUE
50 COM ACC JFR
240 JM LM AMP CB
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-G148

24

SD-26002-01-G148

# PART OF CAD 133

(FOR SWBD. CABLE TO U TYPE RELAY NUMBER GROUP CONN)

| DRAWING ISSUE | | |
|---|---|---|
| 50 | CGK | |
| 24D | JM | |
| | EFM | |
| | JAP | |

TO FIRST APPEARANCE OF U TYPE RELAY NUMBER GROUP CONN FR

NGC-MCA FOR LOCAL CABLE CONNECTIONS SEE CAD 104

| | | |
|---|---|---|
| 44A | (TB9) | 54 |
| 43A | (TB8) | 53 |
| 42A | (TB7) | 52 |
| 41A | (TB6) | 51 |
| 40A | (TB5) | 50 |
| 34A | (TB4) | 44 |
| 33A | (TB3) | 43 |
| 32A | (TB2) | 42 |
| 31A | (TB1) | 41 |
| 30A | (TB0) | 40 |
| 24A | (HB9) | 34 |
| 23A | (HB8) | 33 |
| 22A | (HB7) | 32 |
| 21A | (HB6) | 31 |
| 20A | (HB5) | 30 |
| 14A | (HB4) | 24 |
| 13A | (HB3) | 23 |
| 12A | (HB2) | 22 |
| 11A | (HB1) | 21 |
| 10A | (HB0) | 20 |
| 54A | (LHB) | 14 |
| 7B | (EN) | 13 |
| 52A | (PTN) | 12 |
| 51A | (TN) | 11 |
| 50A | (PN) | 10 |
| 4A | (NGK) | 04 |
| 3A | (BS4) | 03 |
| 2A | (BS3 | 02 |
| 1A | (BS2) | 01 |
| 0A | (BS1) | 00 |

T5 (TR) T& CT FR

TO FIRST APPEARANCE OF UTYPE RELAY NUMBER GROUP CONN FR

NGC-MCB FOR LOCAL CABLE CONNECTIONS SEE CAD 104

| | | |
|---|---|---|
| 39A | (FU9) | 54 |
| 38A | (FU8) | 53 |
| 37A | (FU7) | 52 |
| 36A | (FU6) | 51 |
| 35A | (FU5) | 50 |
| 29A | (FU4) | 44 |
| 28A | (FU3) | 43 |
| 27A | (FU2) | 42 |
| 26A | (FU1) | 41 |
| 25A | (FU0) | 40 |
| 19A | (U9) | 34 |
| 18A | (U8) | 33 |
| 17A | (U7 | 32 |
| 16A | (U6) | 31 |
| 15A | (U5) | 30 |
| 9A | (U4) | 24 |
| 8A | (U3) | 23 |
| 7A | (U2) | 22 |
| 6A | (U1) | 21 |
| 5A | (U0) | 20 |
| 53A | (BNK) | 14 |
| 6B | (ENI) | 13 |
| 58A | (PTNI) | 12 |
| 57A | (TNI) | 11 |
| 56A | (PNI) | 10 |
| 49A | (FT3) | 04 |
| 47A | (FT2) | 03 |
| 46A | (FT1) | 02 |
| 45A | (FTO) | 01 |
| 59A | (W) | 00 |

T5 (CB) COM EQPT FR

TO FIRST APPEARANCE OF U TYPE RELAY NUMBER GROUP CONN FR

NGC-MCC FOR LOCAL CABLE CONNECTIONS SEE CAD 104

| | | |
|---|---|---|
| 39B | (VF4) | 54 |
| 38B | (VF3) | 53 |
| 37B | (VF2) | 52 |
| 36B | (VF1) | 51 |
| 35B | (VF0) | 50 |
| 34B | (RC15) | 44 |
| 33B | (RC14) | 43 |
| 32B | (RC13) | 42 |
| 31B | (RC12) | 41 |
| 30B | (RC11) | 40 |
| 29B | (RC10) | 34 |
| 28B | (RC09) | 33 |
| 27B | (RC08) | 32 |
| 26B | (RC07) | 31 |
| 25B | (RC06) | 30 |
| 24B | (RC05) | 24 |
| 23B | (RC04) | 23 |
| 22B | (RC03) | 22 |
| 21B | (RC02) | 21 |
| 20B | (RC01) | 20 |
| 3B | (UK) | 14 |
| 2B | (WL) | 13 |
| 1B | (WG) | 12 |
| 0B | (WF) | 11 |
| 49A | (ANK) | 10 |
| 55A | (SPT) | 04 |
| | | 03 |
| | | 02 |
| | | 01 |
| | | 00 |

T5 (CB) COM EQPT FR

TO FIRST APPEARANCE OF U TYPE RELAY NUMBER GROUP CONN FR

NGC-MCD FOR LOCAL CABLE CONNECTIONS SEE CAD 104

| | | |
|---|---|---|
| 19B | (HG9) | 54 |
| 18C | (HG8) | 53 |
| 17B | (HG7) | 52 |
| 16B | (HG6) | 51 |
| 15B | (HG5) | 50 |
| 14B | (HG4) | 44 |
| 13B | (HG3) | 43 |
| 12B | (HG2) | 42 |
| 11B | (HG1) | 41 |
| 10B | (HG0) | 40 |
| 49B | (VG9) | 34 |
| 48B | (VG8) | 33 |
| 47B | (VG7) | 32 |
| 46B | (VG6) | 31 |
| 45B | (VG5) | 30 |
| 44B | (VG4) | 24 |
| 43B | (VG3) | 23 |
| 42B | (VG2) | 22 |
| 41B | (VG1) | 21 |
| 40B | (VG0) | 20 |
| 51B | (VGI | 14 |
| 50B | (VG10) | 13 |
| | | 12 |
| | | 11 |
| | | 10 |
| | | 04 |
| | | 03 |
| | | 02 |
| | | 01 |
| | | 00 |

T5 (CB) COM EQPT FR

CROSSBAR SYSTEMS

NO. 5 COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

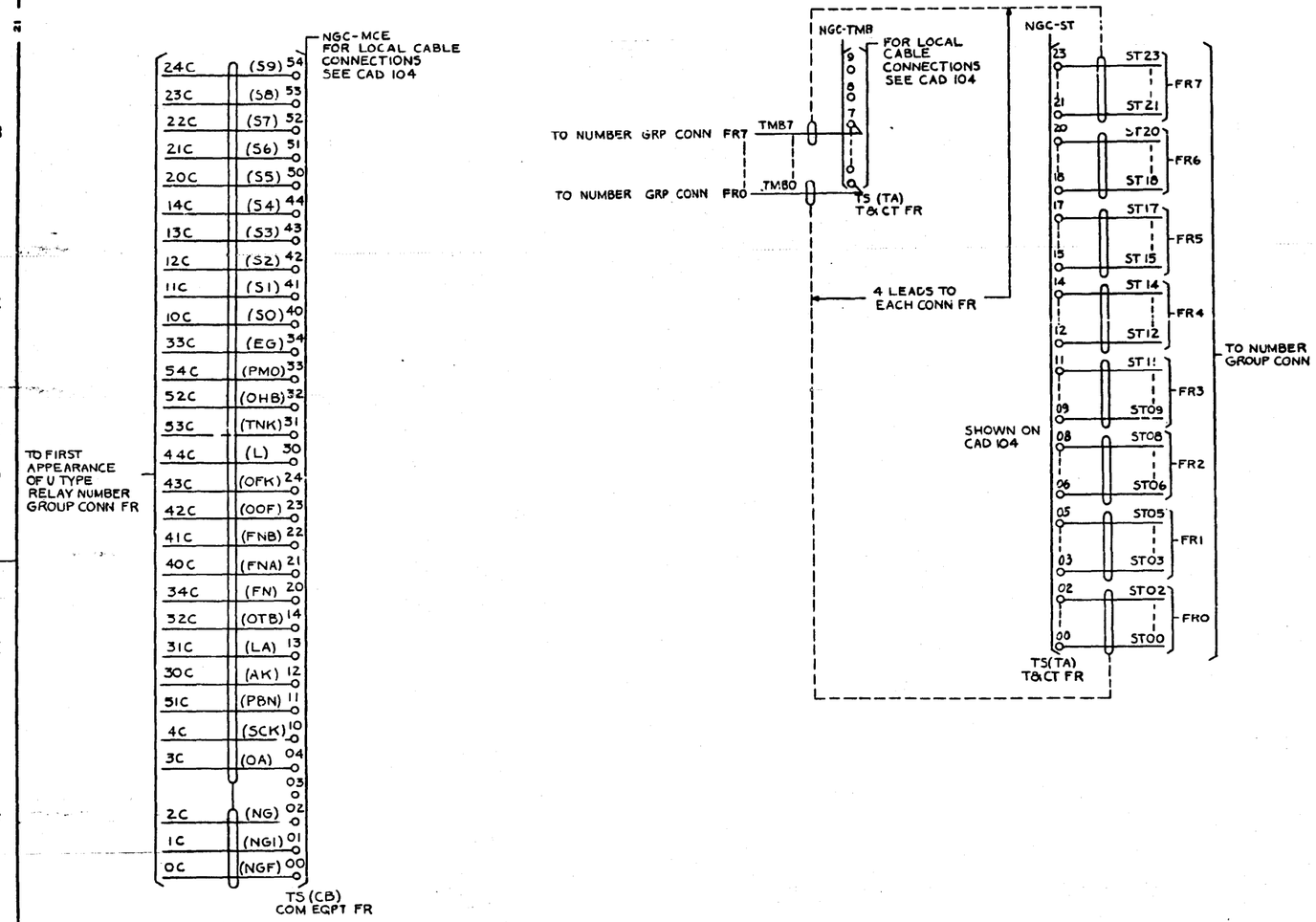
SIZE 6S

24

SD-26002-01-G149

# PART OF CAD 133

(FOR SWBD CABLE TO U TYPE RELAY NUMBER GROUP CONN)




| DRAWING ISSUE | | |
|---|---|---|
| 50 | [illegible] | LRQ |
| 240 | JM EPM | CB CB |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

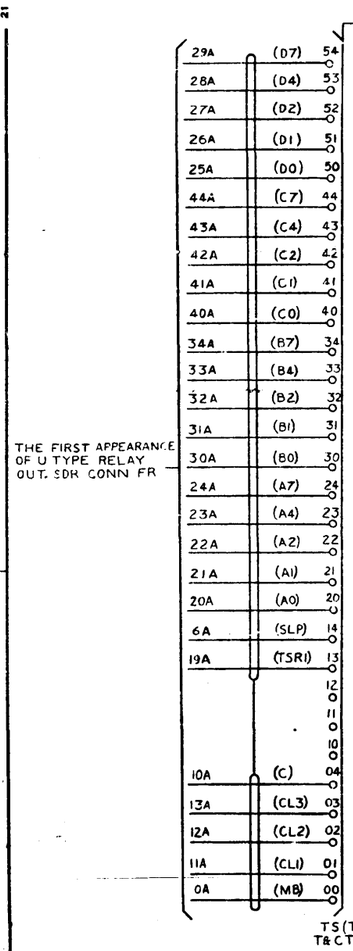
6S

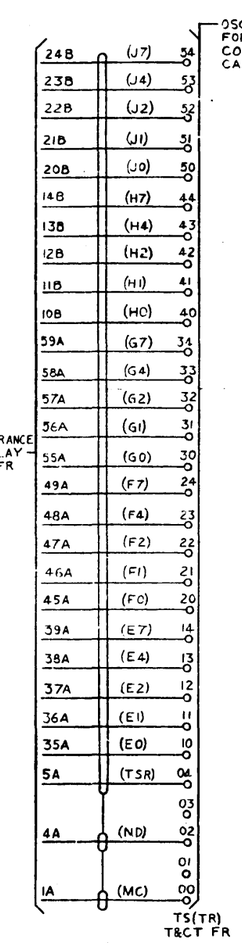
24

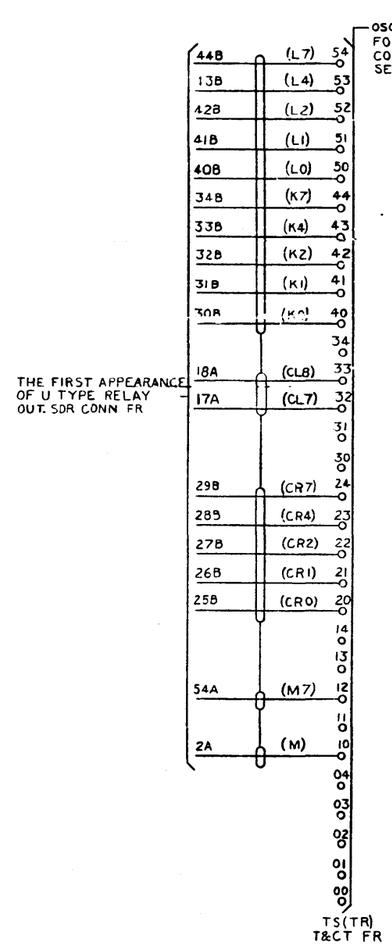
SD-26002-01-G150

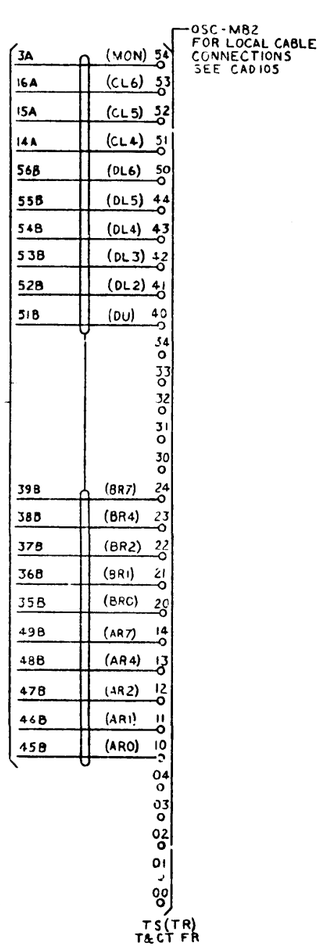
# PART OF CAD 134

(FOR SWBD CABLE TO U TYPE RELAY OUT. SDR CONN)




| DRAWING ISSUE | | |
|---|---|---|
| 50 | COR WP | JFD |
| 240 | JM STH AMP | CB |
| 280 | FLP (MW AMD | CB |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | | |

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

28

SD-26002-01-G151

PRINTED IN U.S.A.

# PART OF CAD 134

(FOR SWBD CABLE TO U TYPE RELAY OUT. SDR CONN)

OSC-MC1 FOR LOCAL CABLE CONNECTIONS SEE CAD 105

| | | |
|---|---|---|
| 39C | (CP7) | 54 |
| 38C | (CP4) | 53 |
| 37C | (CP2) | 52 |
| 36C | (CP1) | 51 |
| 35C | (CP0) | 50 |
| 44C | (MB7) | 44 |
| 43C | (MB4) | 43 |
| 42C | (MB2) | 42 |
| 41C | (MB1) | 41 |
| 40C | (MB0) | 40 |
| 51C | (5DG) | 34 |
| 50C | (4DG) | 33 |
| 52C | (LST) | 32 |
| 53C | (L5D) | 31 |
| | | 30 |
| 45C | (AMA) | 24 |
| 56C | (TVT) | 23 |
| 55C | (SC) | 22 |
| 49C | (NOB) | 21 |
| 48C | (OBS) | 20 |
| 47C | (RP) | 14 |
| 46C | (TP) | 13 |

TO FIRST APPEARANCE OF U TYPE RELAY AUX OUT. SDR CONN FR

TS(TR) TB CFTR

OSC-MC2 FOR LOCAL CABLE CONNECTIONS SEE CAD 105

| | | |
|---|---|---|
| 34C | (VF4) | 54 |
| 33C | (VF3) | 53 |
| 32C | (VF2) | 52 |
| 31C | (VF1) | 51 |
| 30C | (VF0) | 50 |
| 29C | (HG7) | 44 |
| 28C | (HG4) | 43 |
| 27C | (HG2) | 42 |
| 26C | (HG1) | 41 |
| 25C | (HG0) | 40 |
| 24C | (VG7) | 34 |
| 23C | (VG4) | 33 |
| 22C | (VG2) | 32 |
| 21C | (VG1) | 31 |
| 20C | (VG0) | 30 |
| 14C | (VG10) | 24 |
| 13C | (FT3) | 23 |
| 12C | (FT2) | 22 |
| 11C | (FT1) | 21 |
| 10C | (FT0) | 20 |
| 19C | (FU7) | 14 |
| 18C | (FU4) | 13 |
| 17C | (FU2) | 12 |
| 16C | (FU1) | 11 |
| 15C | (FU0) | 10 |

TO FIRST APPEARANCE OF U TYPE RELAY AUX OUT. SDR CONN FR

TS(CE) COMPLETER

OSC-CONT FOR LOCAL CABLE CONNECTIONS SEE CAD 105

| | |
|---|---|
| (OSGA9) | 39 |
| (OSGA8) | 38 |
| (OSGA7) | 37 |
| (OSGA6) | 36 |
| (OSGA5) | 35 |
| (OSGA4) | 34 |
| (OSGA3) | 33 |
| (OSGA2) | 32 |
| (OSGA1) | 31 |
| (OSGA0) | 30 |
| | 29 |
| | 28 |
| | 27 |
| | 26 |
| (MA) | 25 |
| (XS) | 24 |
| | 23 |
| | 22 |
| | 21 |
| | 20 |
| | 19 |
| | 18 |
| | 17 |
| | 16 |
| (RN7) | 15 |
| (RN4) | 14 |
| (RN2) | 13 |
| (RN1) | 12 |
| (RN0) | 11 |
| (XSA) | 10 |
| | 09 |
| | 08 |
| (TG) | 07 |
| (RO) | 06 |
| (AV) | 05 |
| (SN) | 04 |
| (TM) | 03 |
| (SI) | 02 |
| (SCM) | 01 |
| (SBM) | 00 |
| (SAM) | |

TO OUT. SDR CONN FR O U TYPE RELAY

TO AUX OUT. SDR CONN FR U TYPE RELAY

TS(CF) COMPLETER

OSC-CONT FOR LOCAL CABLE CONNECTIONS SEE CAD 105

| | | |
|---|---|---|
| FR3 | SKB | 79 |
| | SKA | 78 |
| FR1 | SKB | 77 |
| | SKA | 76 |
| FR2 | SKB | 75 |
| | SKA | 74 |
| FR3 | ST(R) | 73 |
| | ST(A) | 72 |
| FR2 | ST(B) | 71 |
| | ST(A) | 70 |
| FR3 | GBE OR GBO(B) | 69 |
| | GBE OR GBO(A) | 68 |
| FR2 | GBE OR GBO(B) | 67 |
| | GBE OR GBO(A) | 66 |
| FR0 | SKB | 65 |
| | SKA | 64 |
| FR1 | ST(B) | 63 |
| | ST(A) | 62 |
| FR0 | ST(B) | 61 |
| | ST(A) | 60 |
| FR1 | GBE OR GBO(B) | 59 |
| | GBE OR GBO(A) | 58 |
| FR0 | GBE OR GBO(B) | 57 |
| | GBE OR GBO(A) | 56 |
| | (S4) | 55 |
| | (S3) | 54 |
| | (S2) | 53 |
| | (S1) | 52 |
| | (S0) | 51 |
| | (OSG4) | 50 |
| | (OSG3) | 49 |
| | (OSG2) | 48 |
| | (OSG1) | 47 |
| | (OSG0) | 46 |
| FR0 | (OSGB9) | 45 |
| | (OSGB8) | 44 |
| | (OSGB7) | 43 |
| | (OSGB6) | 42 |
| | (OSGB5) | 41 |
| | (OSGB4) | 40 |
| | (OSGB3) | 39 |
| | (OSGB2) | 38 |
| | (OSGB1) | 37 |
| | (OSGB0) | 36 |

TO CUT. SDR CONN FR U TYPE RELAY

TS(F) COMPLETER

| DRAWING ISSUE | |
|---|---|
| 5D | CSK PJK |
| 240 | JM PJK JMP |

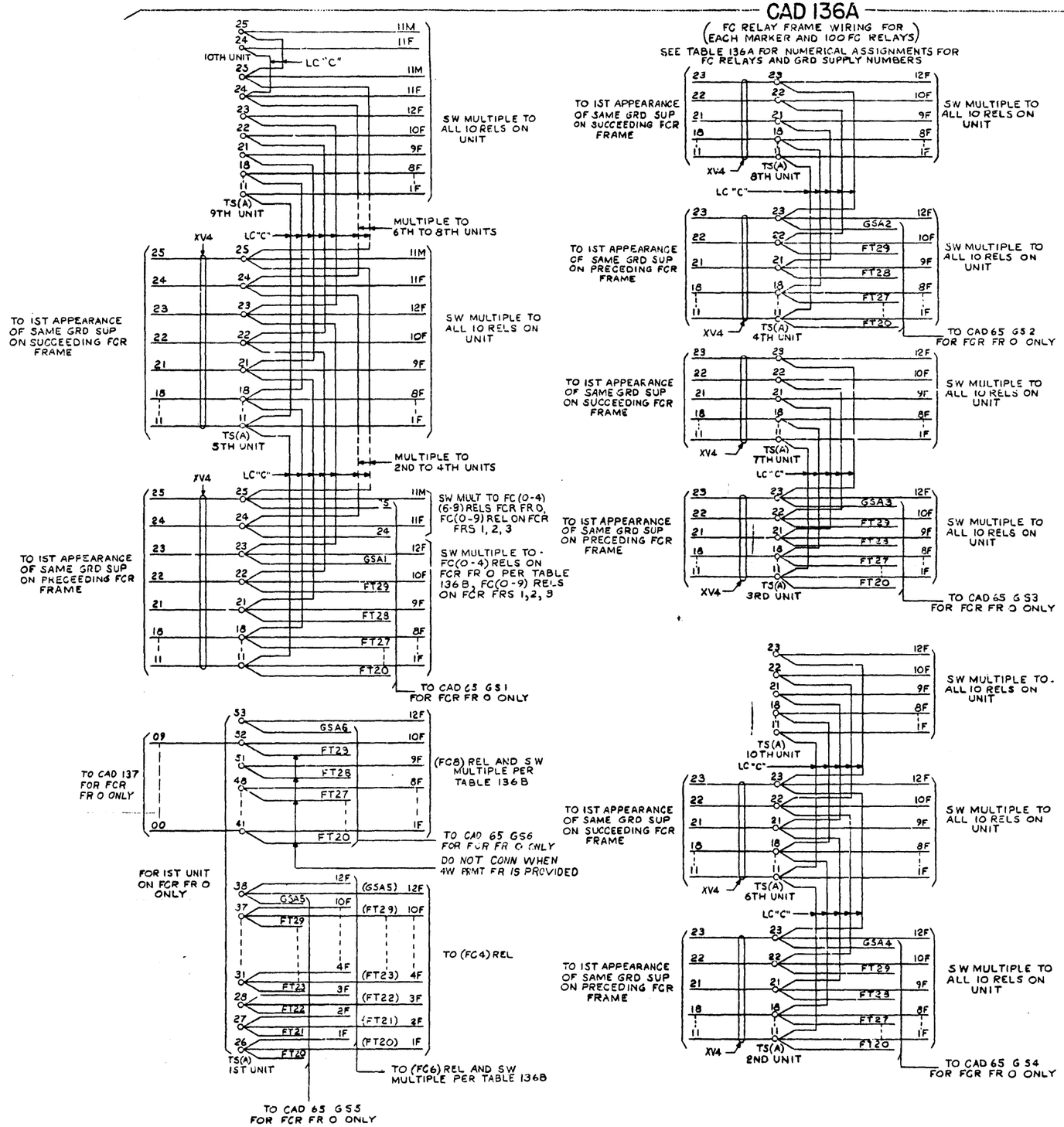
| | |
|---|---|
| CROSSBAR SYSTEMS | 24 |
| NO. 5 COMPLETING MARKER CIRCUIT | SD-26002-01-G152 |
| BELL TELEPHONE LABORATORIES INCORPORATED | SYS CODE 6S |

SD-26002-01-G152

# CAD 136A

(FC RELAY FRAME WIRING FOR EACH MARKER AND 100 FC RELAYS)

SEE TABLE 136A FOR NUMERICAL ASSIGNMENTS FOR FC RELAYS AND GRD SUPPLY NUMBERS




## TABLE 136A

(FC) RELAY ASSIGNMENT TABLE

(NUMERICALS FOR FTG - LEADS OF CAD 136B AND R-, RC- LEADS SHALL AGREE WITH ASSOCIATED (FC) RELAY NUMBERS AS SHOWN BELOW)

| UNIT ON FR PER MKR | FCR FR 0 | | FCR FR 1 | | FCR FR 2 | | FCR FR 3 | | FCR FR 4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | FC REL NO. | GRD SUP | FC REL NO. | GRD SUP | FC REL NO. | GRD SUP | FC REL NO. | GRD SUP | FC REL NO. | GRD SUP |
| 1ST | 0-4,6,7,8* | 1,5,6 | 100-109 | 1 | 200-209 | 3 | 300-309 | 1 | 400-409 | 3 |
| 2ND | 10-19 | 4 | 110-119 | 2 | 210-219 | 4 | 310-319 | 2 | 410-419 | 4 |
| 3RD | 20-29 | 3 | 120-129 | 3 | 220-229 | 1 | 320-329 | 3 | 420-429 | 1 |
| 4TH | 30-39 | 2 | 130-139 | 4 | 230-239 | 2 | 330-339 | 4 | 430-439 | 2 |
| 5TH | 40-49 | 1 | 140-149 | 1 | 240-249 | 3 | 340-349 | 1 | 440-449 | 3 |
| 6TH | 50-59 | 4 | 150-159 | 2 | 250-259 | 4 | 350-359 | 2 | 450-459 | 4 |
| 7TH | 60-69 | 3 | 160-169 | 3 | 260-269 | 1 | 360-369 | 3 | 460-469 | 1 |
| 8TH | 70-79 | 2 | 170-179 | 4 | 270-279 | 2 | 370-379 | 4 | 470-479 | 2 |
| 9TH | 80-89 | 1 | 180-189 | 1 | 280-289 | 3 | 380-389 | 1 | 490-489 | 3 |
| 10TH | 90-99 | 4 | 190-199 | 2 | 290-299 | 4 | 390-399 | 2 | 490-499 | 4 |

* WIRING FOR RELAY POSITION 5 AND 9 SHALL BE OMITTED.

## TABLE 136B

SW MULTIPLE FOR 1ST UNIT ON FCR FR 0 MUST BE ASSIGNED ON A JOB BASIS:

| RELAYS | MAY BE DIVIDED BETWEEN |
|---|---|
| 0-4 | GRD SUPPLY 1 AND GRD SUPPLY 5 |
| 6-8 | GRD SUPPLY 3 AND GRD SUPPLY 6 |

DRAWING ISSUE

| | |
|---|---|
| 5D | 4W, 2W |
| 10B | 6W, 4W |
| 240 | 4W, 2W, 4W |
| 300 | 6W, 4W, 4W |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

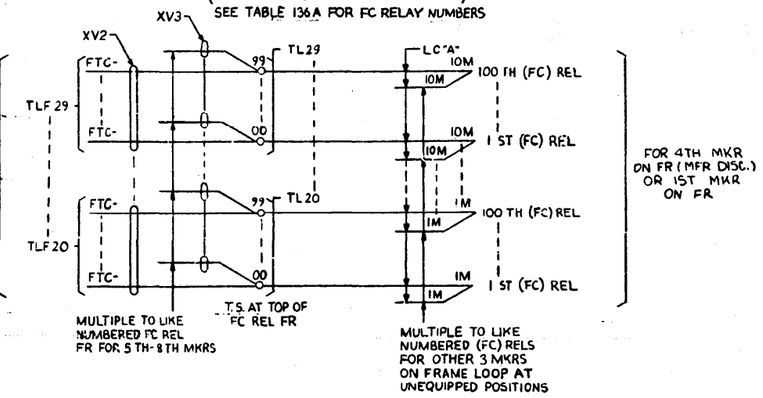
6S

ISSUE 55B

SD-26002-01-G153

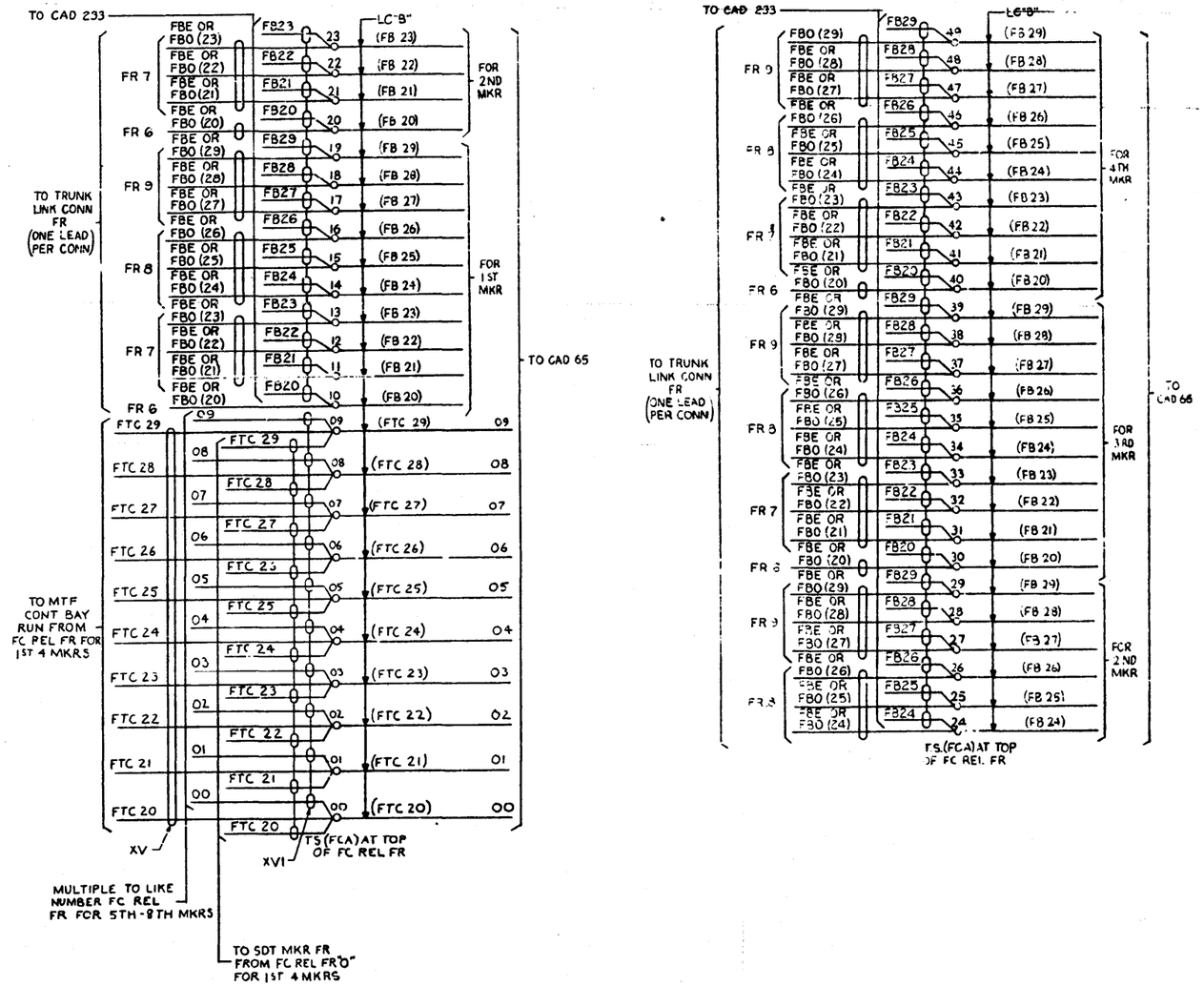
# CAD 136 B

(FC RELAY FRAME WIRING COMMON TO 4 MARKERS AND 100 ROUTES
SEE TABLE 136A FOR FC RELAY NUMBERS




# CAD 136 C

(SWBOARD CABLING FROM FR TO LOG MTFCC FR)
AND TO MAIN FL INTERFACE CKT




DRAWING ISSUE
5D
10B
24D
DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

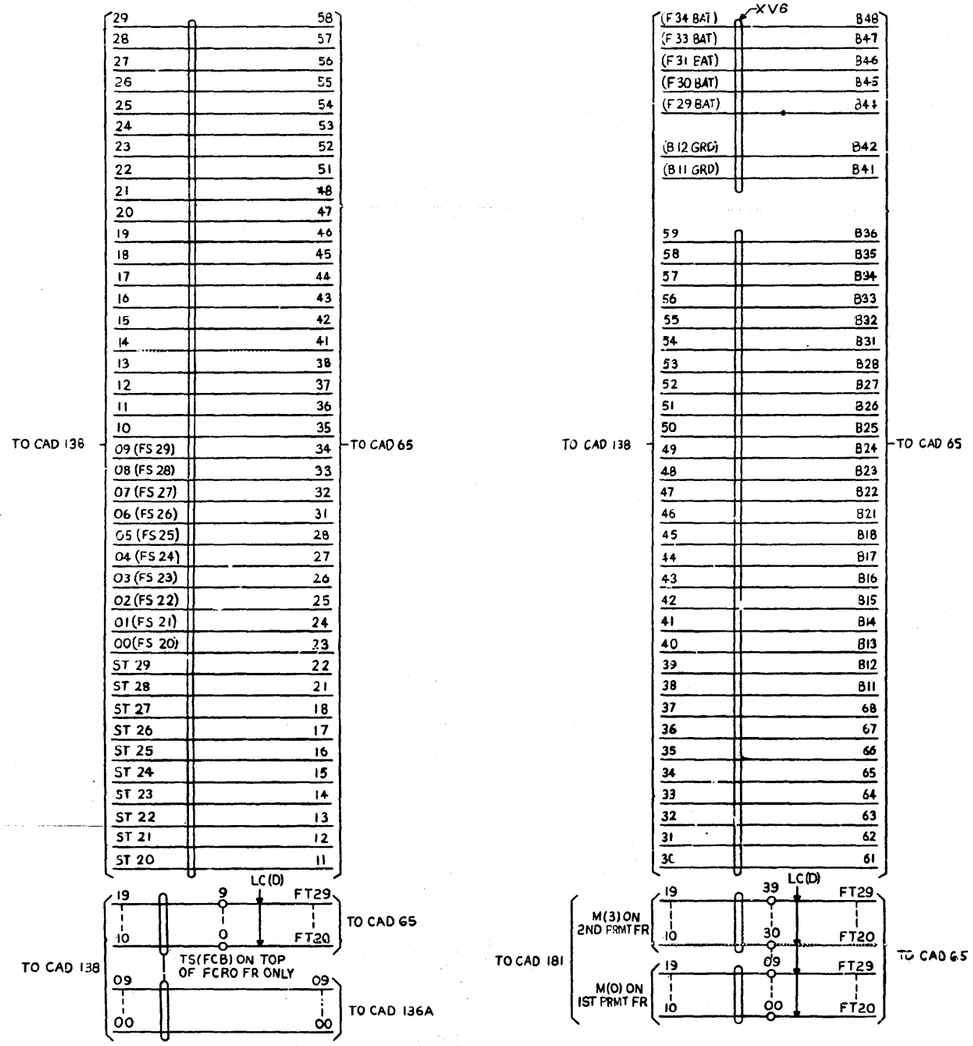
65

ISSUE 65B

SD-26002-01-G154

## CAD 137

(SWITHBOARD CABLE FROM FCR FR)

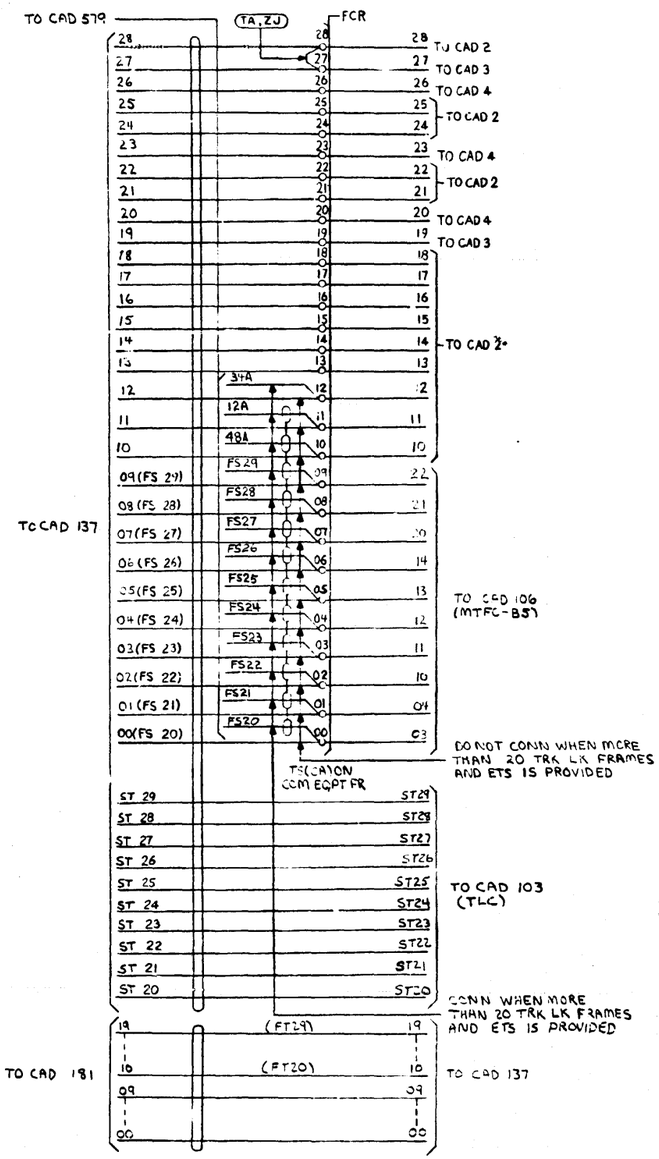


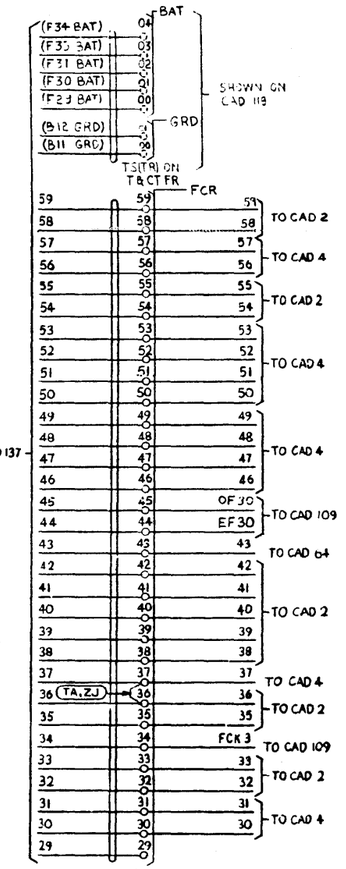




## CAD 138

(SWITCHBOARD CABLING TO FCR FR CR TRK LK FR SEL UNIT FOR ETS)



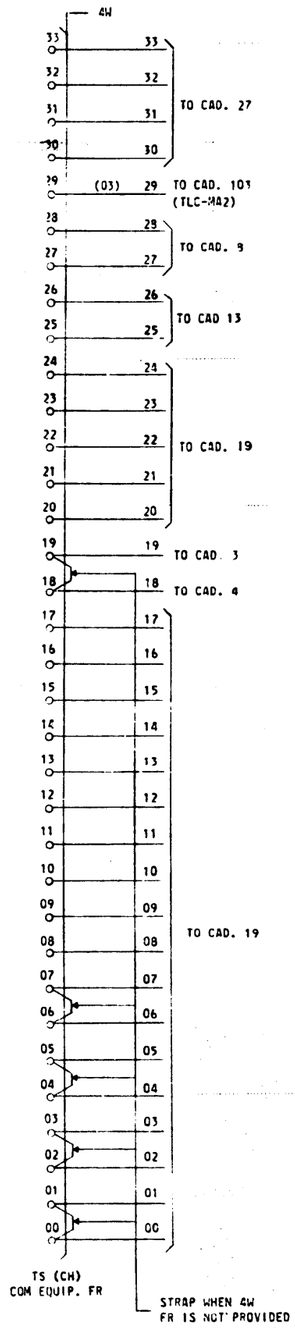



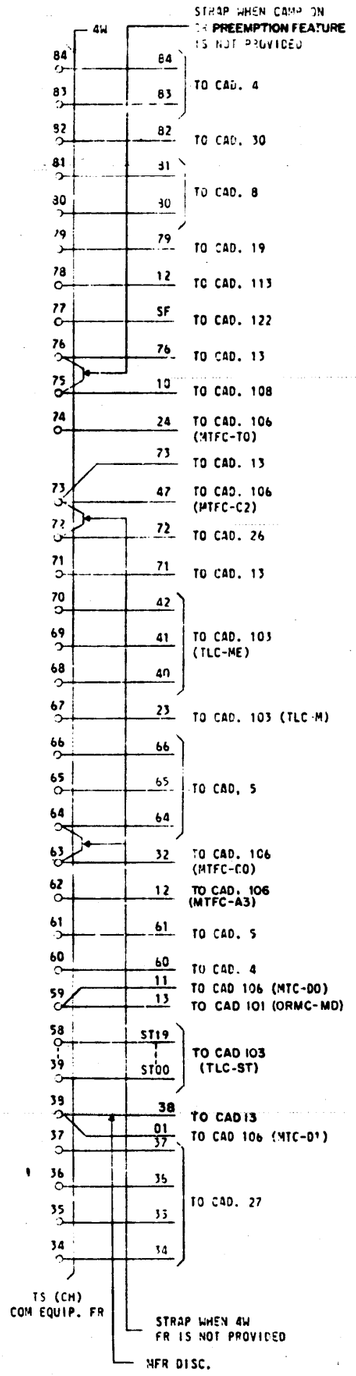


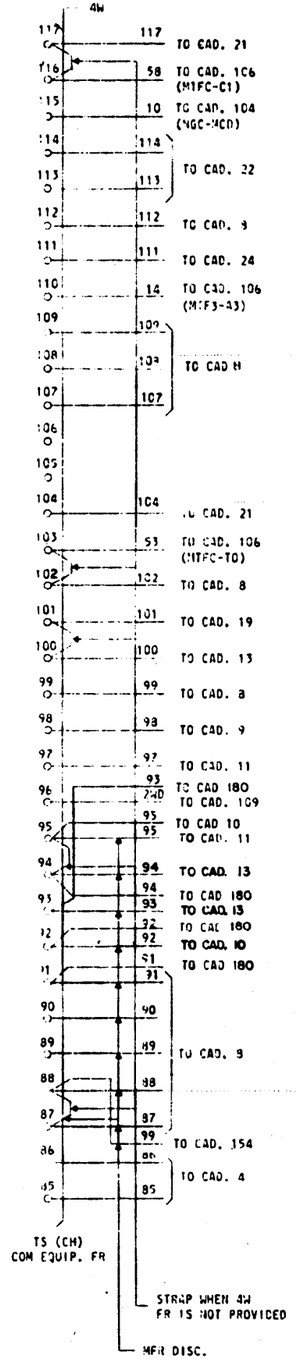

DRAWING ISSUE

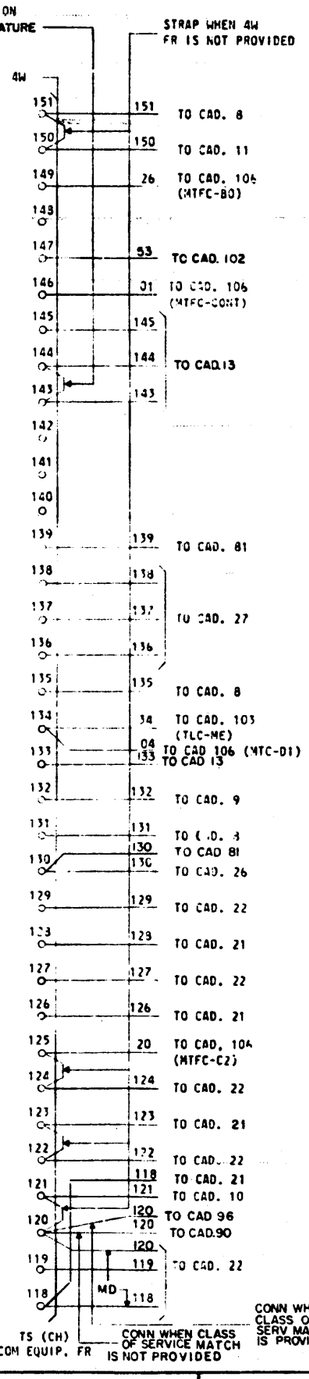
| | | |
|---|---|---|
| 5D | KA KB | JFD |
| 6A | CKS CKT | |
| 108 | CG CH | FD |
| 220 | HC HD | |
| | EEM EEN | |
| | AM AN | |
| 240 | UM UN | |
| | EEM EEN | |
| 300 | LE LF | |
| | YYD YYE | |
| 32A | LE LF | |
| | YYD YYE | |

# PART OF CAD. 139 (MFR DISC.)
(SEE NOTE 209)




| DRAWING ISSUE | |
|---|---|
| 18D | BM CTM |
| 20AC | DBM SDM RMD |
| 21D | DBM SDM RMD |
| 22D | JB CLA |
| 24D | DB BSM MC |
| 25D | RMD BSM BM |
| 26A | RMD CLA MD |
| 27A | JMT BSM RMD |
| 29A | LF BM RMD |
| 30D | LF BM RMD |
| 31D | LF BM RMD |

AH6 4

31

CROSSBAR SYSTEMS

NO. 5
COMPLETING MARKER CIRCUIT (2)

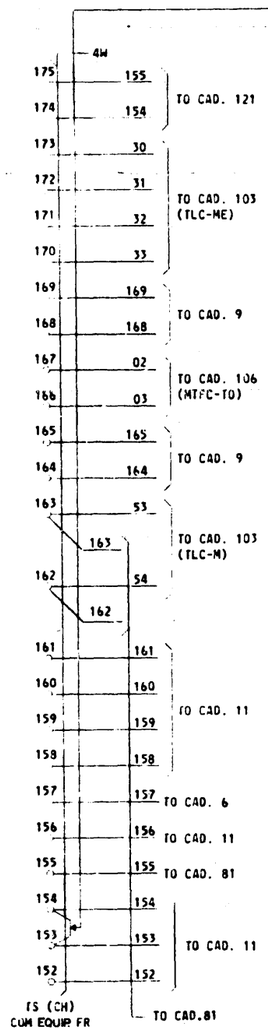
SD-26002-01-G156

BELL TELEPHONE LABORATORIES INCORPORATED

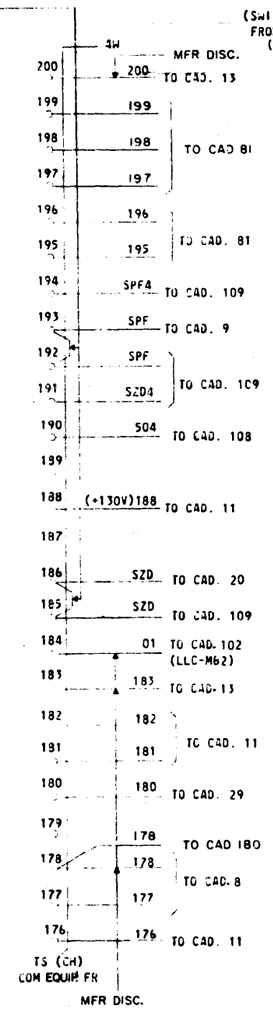
6S

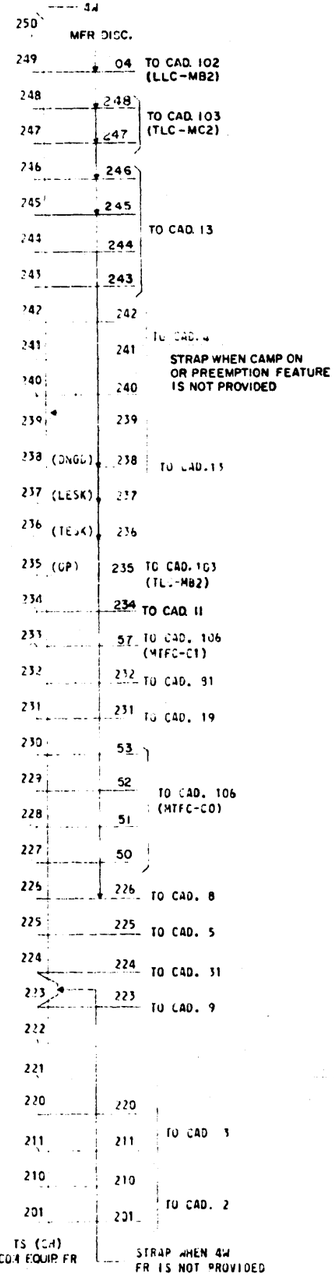
SD-26002-01-G156

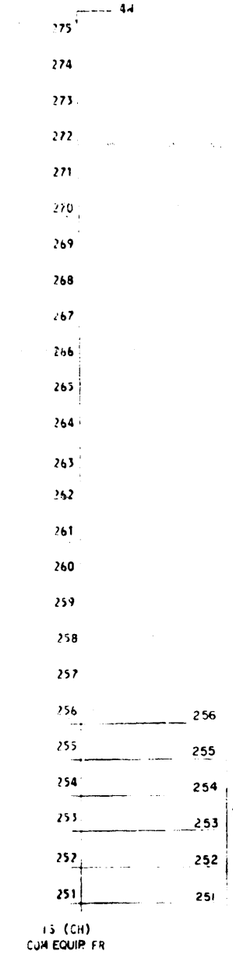
# PART OF CAD. 139 (MFR DISC.)




(SWITCHBOARD CABLING FROM CE FR TO 4W FR) (SEE NOTE 209)




| DRAWING ISSUE |
|---|
| 18D |
| 20AC |
| 22D |
| 23A |
| 24D |
| 25D |
| 3CD |

CROSSBAR SYSTEMS

NO. 5 COMPLETING MARKER CIRCUIT (2)

SD-26002-01-GI57

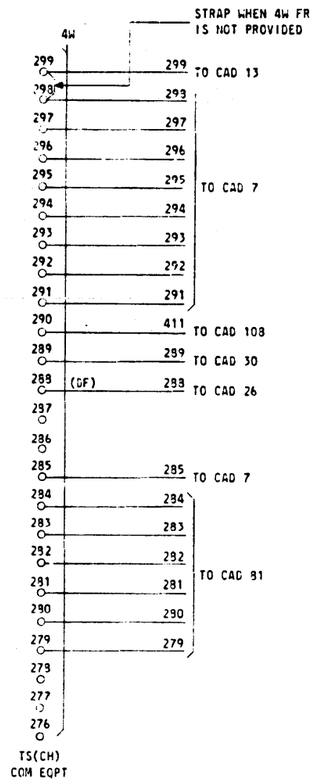
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

0 1 2 3 4 5 6 7 8 9

# PART OF CAD 139 (MFR DISC.)

SWITCHBOARD CABLING FROM
CE FR TO 4W FR
(SEE NOTE 209)




DRAWING ISSUE
300 GN GOL AHS

SD-26002-01-G158

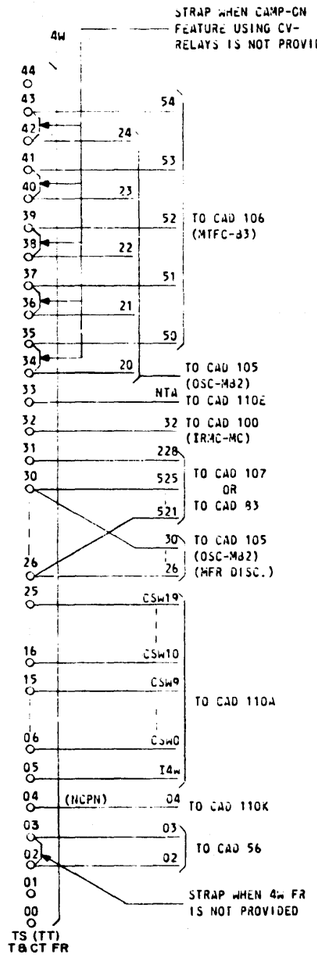
30

| | |
|---|---|
| CROSSBAR SYSTEMS<br>NO. 5<br>COMPLETING MARKER CIRCUIT (2) | SD-26002-01-G158 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

# PART OF CAD 141 (MFR DISC.)

(SWITCHBOARD CABLING FROM T & CT FR TO 4W FR)

(SEE NOTE 209)




DRAWING ISSUE

30D MFR 1 AL 4W

A B C D E F G H

30

CROSSBAR SYSTEMS

NO. 5 COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G160

BELL TELEPHONE LABORATORIES INCORPORATED

65

# PART OF CAD. 141 (MFR DISC.)

(SWITCHBOARD CABLING FROM T & CT FR TO 4W FR)

(SEE NOTE 209)

STRAP WHEN TEST SET TESTING IS PROVIDED FOR 2-WIRE REGISTER

STRAP WHEN 4W FR IS NOT PROVIDED

STRAP WHEN AUTO MON REG & SDR TST CKT, OR OFFICE TST FR IS PROVIDED

4W

| | | |
|---|---|---|
| 73 | 27 | TO CAD. 107 — CONNECT WHEN AUTO. MON REG AND SDR TEST CKT IS PROVIDED |
| 72 | 00 | TO CAD. 106 (MTFC-83) |
| 71 | 21 | TO CAD. 101 (ORMC-MC) |
| 70 | 26 | TO CAD. 107 |
| 69 | | |
| 68 | 10 | TO CAD. 100 (IRMC-MC) |
| 67 | AOLS | TO CAD 110A |
| 66 | 66 | TO CAD 41 |
| 65 | 508 | TO CAD. 107 |
| 64 | 506 | |
| 63 | 63 | |
| 62 | 62 | TO CAD. 41 |
| 61 | 61 | |
| 60 | 60 | |
| 59 | 59 | TO CAD. 32 |
| 58 | 58 | |
| 57 | 161 | TO CAD. 107 |
| 56 | 56 | |
| 55 | 55 | TO CAD. 32 |
| 54 | 54 | |
| | | MFR DISC. |
| 53 | 53 | |
| 52 | 52 | TO CAD. 41 |
| 51 | 51 | |
| | 51 | TO CAD 169 |
| 50 | 244 | TO CAD. 107 |
| 49 | 49 | |
| 48 | 48 | |
| 47 | 47 | TO CAD. 41 |
| 46 | 46 | |
| 45 | RCTS | TO CAD. 110E |

TS (TT) T&CT FR

4W

| | | |
|---|---|---|
| 99 | | |
| 98 | 98 | TO CAD 32 |
| | 515 | |
| 97 | 512 | TO CAD. 107 |
| 96 | 96 | TO CAD 118 |
| 95 | 95 | TO CAD. 82 |
| 94 | | |
| | | MFR DISC. |
| 93 | 93 | |
| 92 | 92 | TO CAD. 82 |
| 91 | 91 | |
| 90 | 05 | TO CAD. 106 (MTFC-C3) |
| 89 | 04 | |
| 88 | G10-BAT. | |
| 87 | G9-BAT. | |
| 86 | G8-BAT. | |
| 85 | G7-BAT. | |
| 84 | G6-BAT. | |
| 93 | G5-BAT. | TO FRAME FUSE PANEL |
| 92 | G4-BAT. | |
| | 602 | |
| 81 | G3-BAT. | |
| | 603 | |
| 80 | G2-BAT. | |
| 79 | G1-BAT. | |
| 78 | G0-BAT. | |
| | | TO CAD 107 |
| 77 | 77 | |
| 76 | 76 | TO CAD. 55 |
| 75 | 75 | |
| 74 | 74 | TO CAD. 43 |
| | (DNGA)75 | |
| | (DNGB)74 | TO CAD. 1109 |
| | | MFR DISC. |

TS (TT) T&CT FR

DRAWING ISSUE

| | | |
|---|---|---|
| 18D | F23 F30 | AND |
| 22D | EN CM | |
| 23A | SV | |
| 24D | SV | |
| 25D | RLF | |
| 30D | MRS | |

CROSSBAR SYSTEMS

NO. 5 COMPLETING MARKER CIRCUIT

SD-26002-01-G161

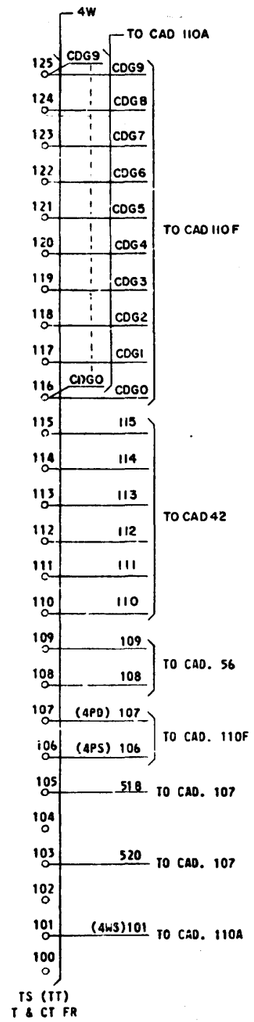
BELL TELEPHONE LABORATORIES INCORPORATED

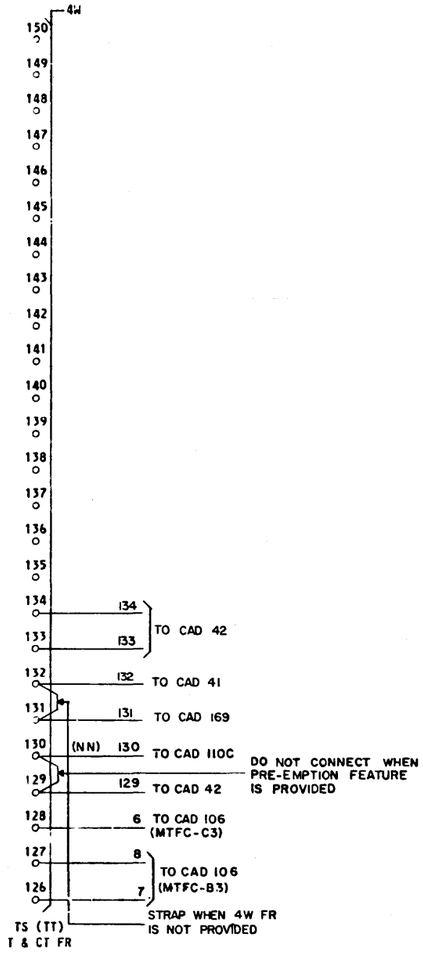
SD-26002-01-G161

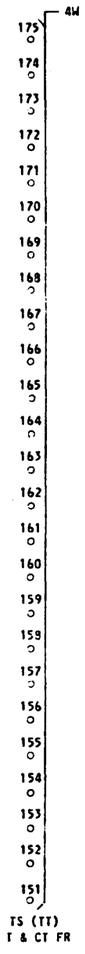
30

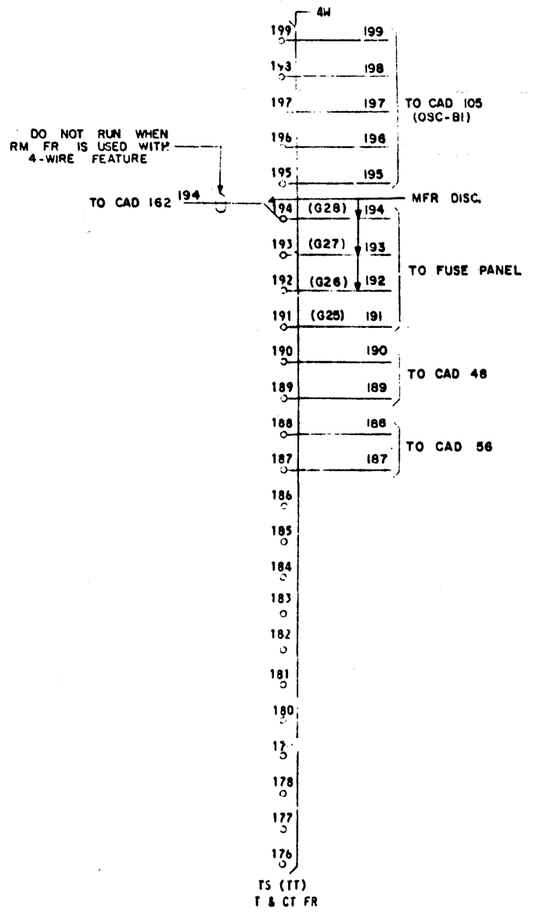
# PART OF CAD 141 (MFR DISC.)

(SWITCHBOARD CABLING FROM T&TC FR TO 4W FR)
(SEE NOTE 209)




| DRAWING ISSUE | |
|---|---|
| 18D | AHD |
| 22D | EN |
| 24D | SV |
| 25D | WJT |
| 26A | WJT |
| 30D | HFR |



CROSSBAR SYSTEMS
NO.5
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G162

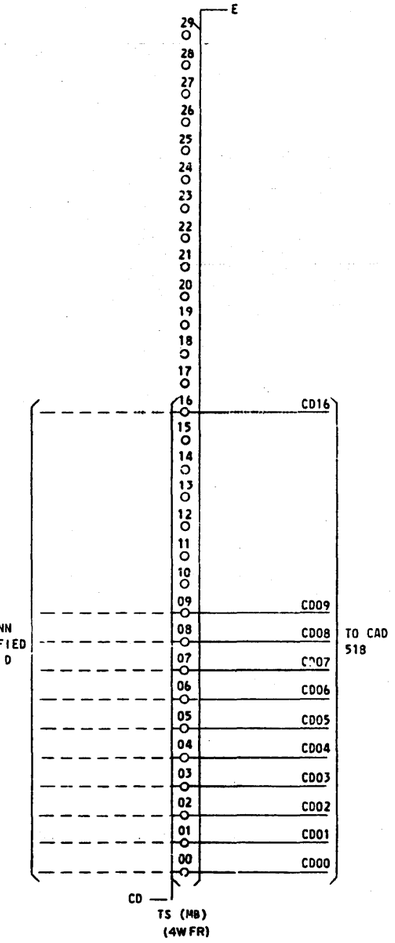
BELL TELEPHONE LABORATORIES INCORPORATED

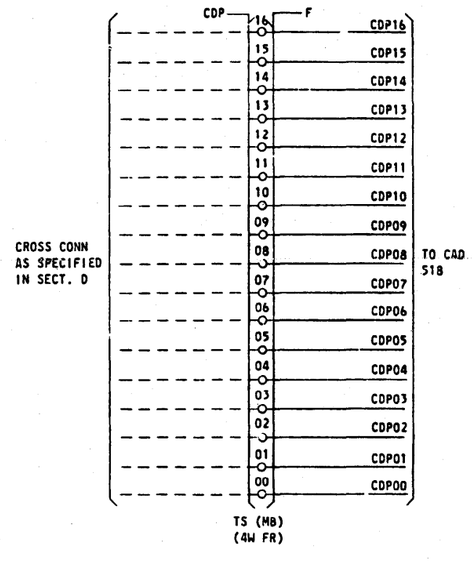
SHEET SIZE 6S

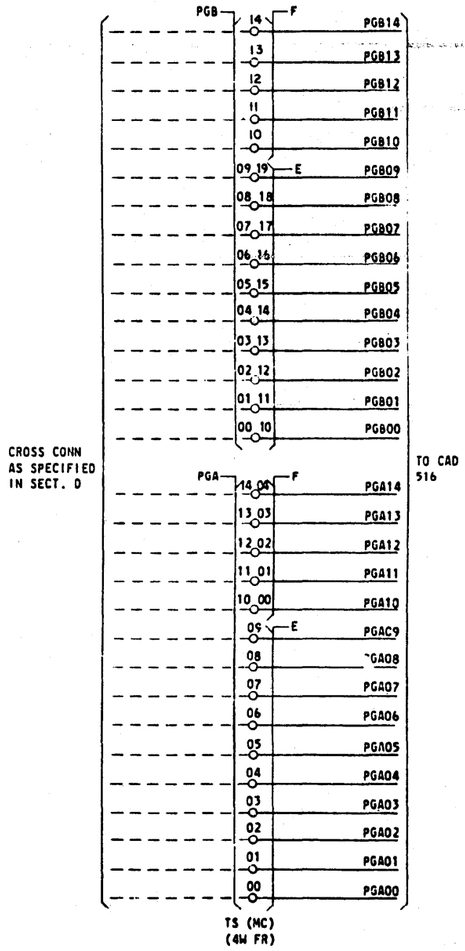
PRINTED IN U.S.A.

# PART OF CAD 147A (MFR DISC.)

(4W FR CROSS CONN)




DRAWING ISSUE

| | |
|---|---|
| 300 | PEC |
| 350 | TS |

ISSUE 57B

SD-26002-01-G166A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G166A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 147A (MFR DISC.)

4W FR CROSS CONNECTIONS

DRAWING ISSUE 30D PEC 6AL AM2

CROSS CONNECT AS SPEC IN SECT. D

PGD

| | | | |
|---|---|---|---|
| 14 | 34 | F | PGD14 |
| 13 | 33 | | PGD13 |
| 12 | 32 | | PGD12 |
| 11 | 31 | | PGD11 |
| 10 | 30 | | PGD10 |
| 09 | 39 | E | PGD09 |
| 08 | 38 | | PGD08 |
| 07 | 37 | | PGD07 |
| 06 | 36 | | PGD06 |
| 05 | 35 | | PGD05 |
| 04 | 34 | | PGD04 |
| 03 | 33 | | PGD03 |
| 02 | 32 | | PGD02 |
| 01 | 31 | | PGD01 |
| 00 | 30 | | PGD00 |

PGC

| | | | |
|---|---|---|---|
| 14 | 24 | F | PGC14 |
| 13 | 23 | | PGC13 |
| 12 | 22 | | PGC12 |
| 11 | 21 | | PGC11 |
| 10 | 20 | | PGC10 |
| 09 | 29 | E | PGC09 |
| 08 | 28 | | PGC08 |
| 07 | 27 | | PGC07 |
| 06 | 26 | | PGC06 |
| 05 | 25 | | PGC05 |
| 04 | 24 | | PGC04 |
| 03 | 23 | | PGC03 |
| 02 | 22 | | PGC02 |
| 01 | 21 | | PGC01 |
| 00 | 20 | | PGC00 |

TO CAD 516

TS (MC) 4W FR

CROSS CONNECT AS SPEC IN SECT. D

PGF

| | | | |
|---|---|---|---|
| 14 | 04 | H | PGF14 |
| 13 | 03 | | PGF13 |
| 12 | 02 | | PGF12 |
| 11 | 01 | | PGF11 |
| 10 | 00 | | PGF10 |
| 09 | 09 | G | PGF09 |
| 08 | 08 | | PGF08 |
| 07 | 07 | | PGF07 |
| 06 | 06 | | PGF06 |
| 05 | 05 | | PGF05 |
| 04 | 04 | | PGF04 |
| 03 | 03 | | PGF03 |
| 02 | 02 | | PGF02 |
| 01 | 01 | | PGF01 |
| 00 | 00 | | PGF00 |

PGE

| | | | |
|---|---|---|---|
| 14 | 44 | F | PGE14 |
| 13 | 43 | | PGE13 |
| 12 | 42 | | PGE12 |
| 11 | 41 | | PGE11 |
| 10 | 40 | | PGE10 |
| 09 | 49 | E | PGE09 |
| 08 | 48 | | PGE08 |
| 07 | 47 | | PGE07 |
| 06 | 46 | | PGE06 |
| 05 | 45 | | PGE05 |
| 04 | 44 | | PGE04 |
| 03 | 43 | | PGE03 |
| 02 | 42 | | PGE02 |
| 01 | 41 | | PGE01 |
| 00 | 40 | | PGE00 |

TO CAD 516

TS (MC) 4W FR

CROSS CONNECT AS SPEC IN SECT. D

PGH

| | | | |
|---|---|---|---|
| 14 | 24 | H | PGH14 |
| 13 | 23 | | PCH13 |
| 12 | 22 | | PGH12 |
| 11 | 21 | | PGH11 |
| 10 | 20 | | PGH10 |
| 09 | 29 | G | PGH09 |
| 08 | 28 | | PGH08 |
| 07 | 27 | | PGH07 |
| 06 | 26 | | PGH06 |
| 05 | 25 | | PGH05 |
| 04 | 24 | | PGH04 |
| 03 | 23 | | PGH03 |
| 02 | 22 | | PGH02 |
| 01 | 21 | | PGH01 |
| 00 | 20 | | PGH00 |

PGG

| | | | |
|---|---|---|---|
| 14 | 14 | H | PGG14 |
| 13 | 13 | | PGG13 |
| 12 | 12 | | PGG12 |
| 11 | 11 | | PGG11 |
| 10 | 10 | | PGG10 |
| 09 | 19 | G | PGG09 |
| 08 | 18 | | PGG08 |
| 07 | 17 | | PGG07 |
| 06 | 16 | | PGG06 |
| 05 | 15 | | PGG05 |
| 04 | 14 | | PGG04 |
| 03 | 13 | | PGG03 |
| 02 | 12 | | PGG02 |
| 01 | 11 | | PGG01 |
| 00 | 10 | | PGG00 |

TO CAD 516

TS (MC) 4W FR

CROSS CONNECT AS SPEC IN SECT. D

PGK

| | | | |
|---|---|---|---|
| 14 | 44 | H | PGK14 |
| 13 | 43 | | PGK13 |
| 12 | 42 | | PGK12 |
| 11 | 41 | | PGK11 |
| 10 | 40 | | PGK10 |
| 09 | 44 | G | PGK09 |
| 08 | 48 | | PGK08 |
| 07 | 47 | | PGK07 |
| 06 | 46 | | PGK06 |
| 05 | 45 | | PGK05 |
| 04 | 44 | | PGK04 |
| 03 | 43 | | PGK03 |
| 02 | 42 | | PGK02 |
| 01 | 41 | | PGK01 |
| 00 | 40 | | PGK00 |

PGJ

| | | | |
|---|---|---|---|
| 14 | 34 | H | PGJ14 |
| 13 | 33 | | PGJ13 |
| 12 | 32 | | PGJ12 |
| 11 | 31 | | PGJ11 |
| 10 | 30 | | PGJ10 |
| 09 | 39 | G | PGJ09 |
| 08 | 38 | | PGJ08 |
| 07 | 37 | | PGJ07 |
| 06 | 36 | | PGJ06 |
| 05 | 35 | | PGJ05 |
| 04 | 34 | | PGJ04 |
| 03 | 33 | | PGJ03 |
| 02 | 32 | | PGJ02 |
| 01 | 31 | | PGJ01 |
| 00 | 30 | | PGJ00 |

TO CAD 516

TS (MC) 4W FR

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G166B

BELL TELEPHONE LABORATORIES INCORPORATED

FORM 6S

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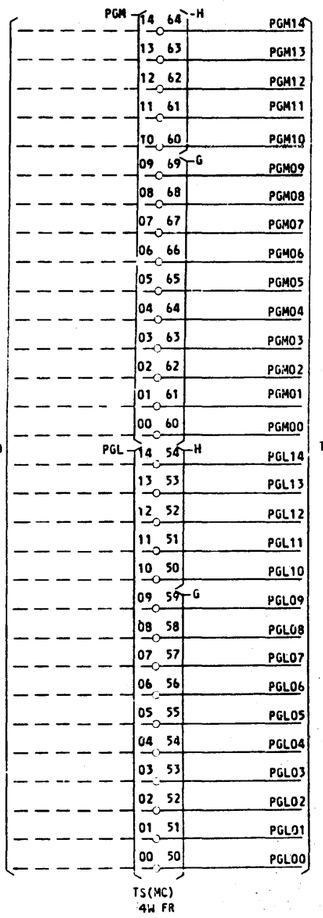
STABILO

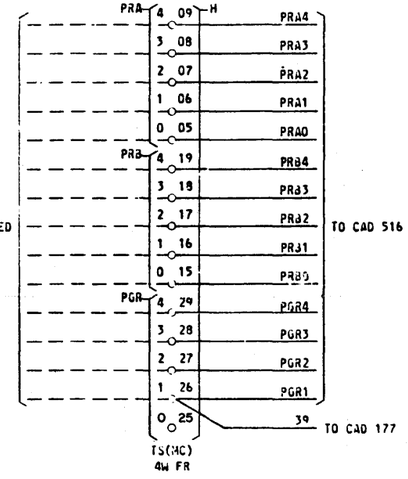
# PART OF CAD 147A (MFR DISC.)
(4W FR CROSS CONN)

DRAWING ISSUE
500 TJW 6DL AHO




CROSS CONN AS SPECIFIED IN SECT. D

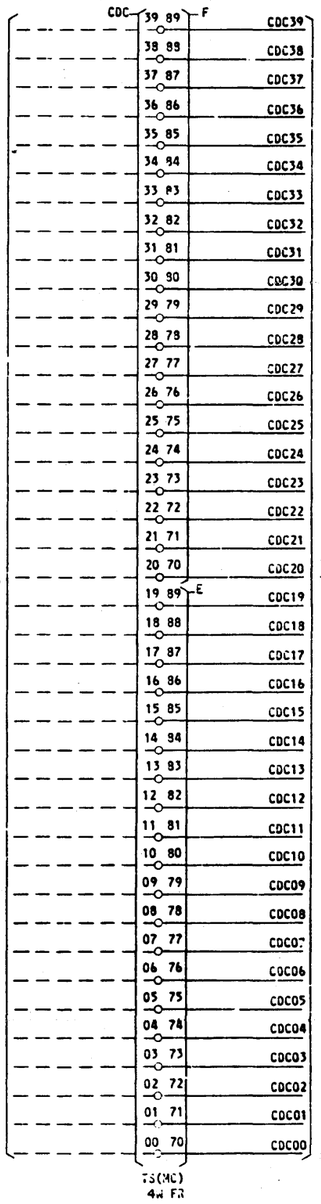
TO CAD 516




CROSS CONN AS SPECIFIED IN SECT. D

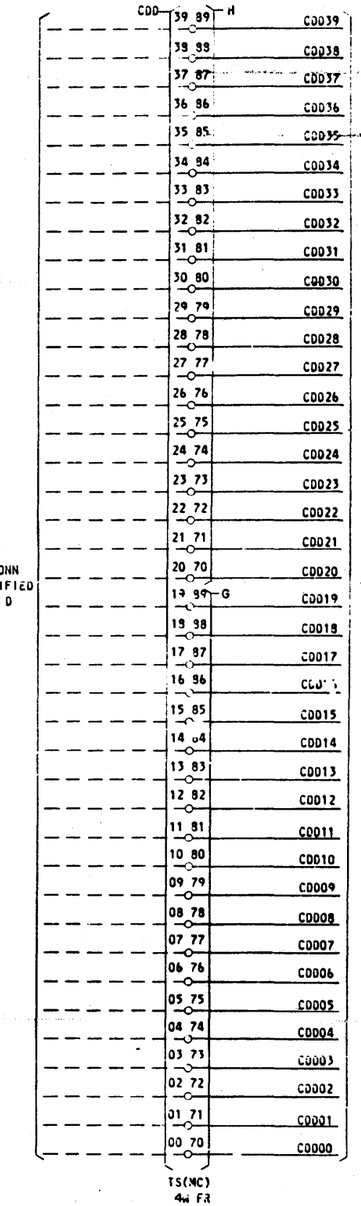
TO CAD 516

TO CAD 177




CROSS CONN AS SPECIFIED IN SECT. D

TO CAD 522




TO CAD 522

ISSUE
57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G166C

SD-26002-01-G166C

STABILO

# PART OF CAD 147A (MFR DISC.)

(4W FR CROSS CONN)

CROSS CONN AS SPECIFIED IN SECT. D

SRN 39 D79 SRN39
00 A70 SRN00
SRM 39 D69 SRM39
00 A60 SRM00
SRL 39 D59 SRL39
00 A50 SRL00
SRK 39 D49 SRK39
00 A40 SRK00
SRJ 39 D39 SRJ39
00 A30 SRJ00
SRH 39 D29 SRH39
00 A20 SRH00
SRG 39 D19 SRG39
00 A10 SRG00 — TO CAD 522
SRF 39 D09 SRF39
00 A00 SRF00

TS(ME) 4W FR

SRE 39 D49 SRE39
00 A40 SRE00
SRD 39 D39 SRD39
00 A30 SRD00
SRC 39 D29 SRC39
00 A20 SRC00
SRB 39 D19 SRB39
00 A10 SRB00
SRA 39 D09 SRA39
00 A00 SRA00

TS(MC) 4W FR

CROSS CONN AS SPECIFIED IN SECT. D

SRX 39 H69 SRX39
00 E60 SRX00
SRW 39 H59 SRW39
00 E50 SRW00
SRV 39 H49 SRV39
00 E40 SRV00
SRU 39 H39 SRU39
00 E30 SRU00 — TO CAD 522
SRT 39 H29 SRT39
00 E20 SRT00
SRS 39 H19 SRS39
00 E10 SRS00
SRR 39 H99 SRR39
00 E00 SRR00
SRQ 39 D99 SRQ39
00 A90 SRQ00
SRP 39 D89 SRP39
00 A80 SRP00

TS(ME) 4W FR

CROSS CONN AS SPECIFIED IN SECT. D

BN 99 G BN — TO CAD 180
NPRC 98 98
PRC 97 97 — TO CAD 166
SGR 96 SGR — TO CAD 517
SGNR 95 (SGNR) 53
SGTR 94 87 — TO CAD 166
NSS 93 NSS — TO CAD 516
OHS 92 OHS — TO CAD 190
SR 21 91 SR21
20 90 SR20
19 99 F SR19
18 98 SR18
17 97 SR17
16 96 SR16
15 95 SR15
14 94 SR14
13 93 SR13
12 92 SR12
11 91 SR11
10 90 SR10 — TO CAD 522
09 99 E SR09
08 98 SR08
07 97 SR07
06 96 SR06
05 95 SR05
04 94 SR04
03 93 SR03
02 92 SR02
01 91 SR01
00 90 SR00

TS(MC) 4W FR

DRAWING ISSUE
30D TJW GDL AHB
32A LP GDL AHB

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-GI66D

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

STABILOWE

# PART OF CAD 147A (MFR DISC.)

(4W FR CROSS CONN)

| DRAWING ISSUE | |
|---|---|
| 300 | TJW (CDL 2WD) |
| 32A | LP (GPL 4WD) |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |

CROSS-CONN AS SPEC IN SECT D

EGU

EG

EGL

TO CAD 519

TS (MC-E)
(4W FR)

TS (MC-F)
(4W FR)

TS (MC-G)
(4W FR)

TS (MC-H)

TS (MC-H)
(4W FR)

ISSUE
57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G166E

SD-26002-01-G166E

# PART OF CAD 147B (MFR DISC.)

(4W FR CROSS CONN)

| DRAWING ISSUE | |
|---|---|
| 22D | JB EDM AMR |
| 23A | PDT EDM AMR |
| 30D | SCM WPM JJH KMF Tm RMD |
| 35D | |

PG14 PG12 PG11 PG08 PG07 PG04 PG03 PG00

TO CAD 516

95 94 93 90 89 86

CDG8 CDG9 CDG4 CDG7 CDG0 CDG3

TO CAD 179

PRE4 PRE3 PRE0

TO CAD 516

(19) (39) (59) (79) (18) (38) (58) (78) (77) (53) (73) (30) (50) (70) (08) (28) (48) (68) (00) (20) (40) (60)

K4

1ST SECTION TS (MD) 4W FR

CROSS CONN AS SPECIFIED IN SECTION D

2ND SECTION TS (ND) 4W FR

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G167

BELL TELEPHONE LABORATORIES INCORPORATED 6S

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STABILO

# PART OF CAD 147B (MFR DISC.)

(4W FR CROSS CONN)

TO CAD 179

TO CAD 517

SW56 SW52 SW48 SW44 SW40 SW36 SW32 SW28 SW24 SW20 SW16 SW12 SW08 SW04 SW00 GW4 GW0

SW57 SW53 SW49 SW45 SW41 SW37 SW33 SW29 SW25 SW21 SW17 SW13 SW09 SW05 SW01 GW5 GW1

SW58 SW54 SW50 SW46 SW42 SW38 SW34 SW30 SW26 SW22 SW18 SW14 SW10 SW06 SW02 GW6 GW2

SW59 SW55 SW51 SW47 SW43 SW39 SW35 SW31 SW27 SW23 SW19 SW15 SW11 SW07 SW03 GW7 GW3

CDA4P CDA3P CDA2P CDA1P CDA0P (70)CDE0 CDE0 TPR CPN VG SG (09) (08) (07) (06) (05) (04) (03) (02) (01) (00)

CDA4S CDA3S CDA2S CDA1S CDA0S CDE1 (33) (32) (31) (30) (29) (28) (27) (26) (25) (24) (23) (22) (21) (20)

CDB4P CDB3P CDB2P CDB1P CDB0P (72)CDE2 CDE2 (RI) (52) (51) (50) (49) (48) (47) (46) (45) (44) (43) (42) (41) (40)

CDB4S CDB3S CDB2S CDB1S CDB0S CDE3(73) CDE3 RI G CKG3 42(PLC) PLC (69) (68) (67) (66) (65) (64) (63) (62) (61) (60)

TO CAD 166 CDE(71)

TO CAD 166

TO CAD 177 38(RI)

TO CAD 517

TO CAD 516

TO CAD 177

54

CROSS CONN AS SPECIFIED IN SECTION D

CROSS CONN AS SPECIFIED IN SECTION D

CROSS CONN AS SPECIFIED IN SECTION D 3RD SECTION TS (MD) 4W FR

4TH SECTION TS (MD) 4W FR

K4

DRAWING ISSUE

300 RLS

32A UP

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

ISSUE 57B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-G168

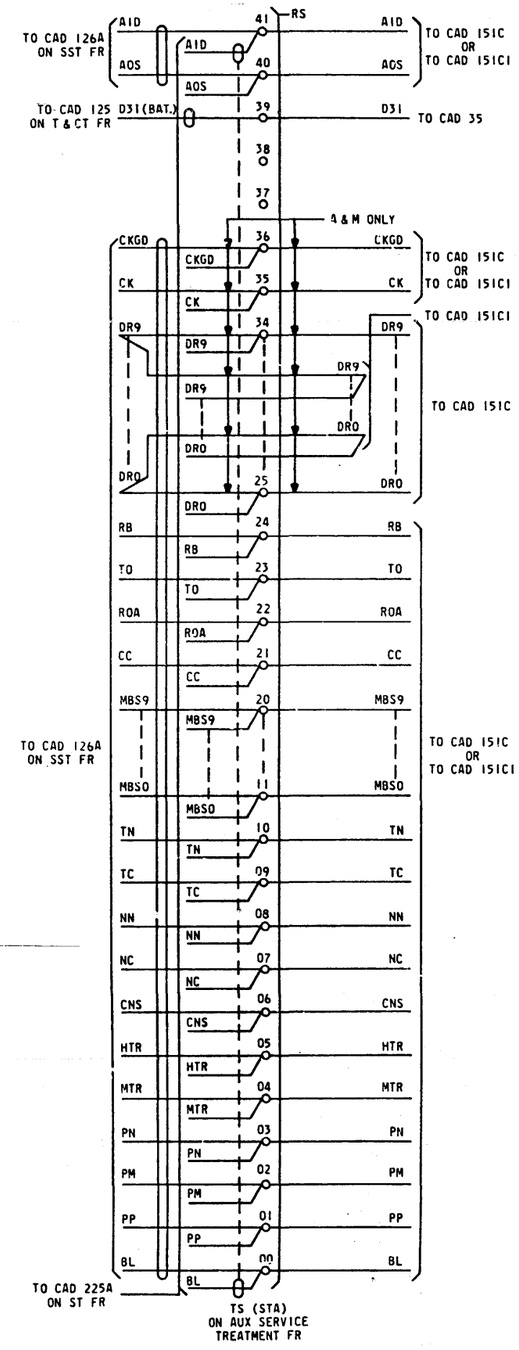
2

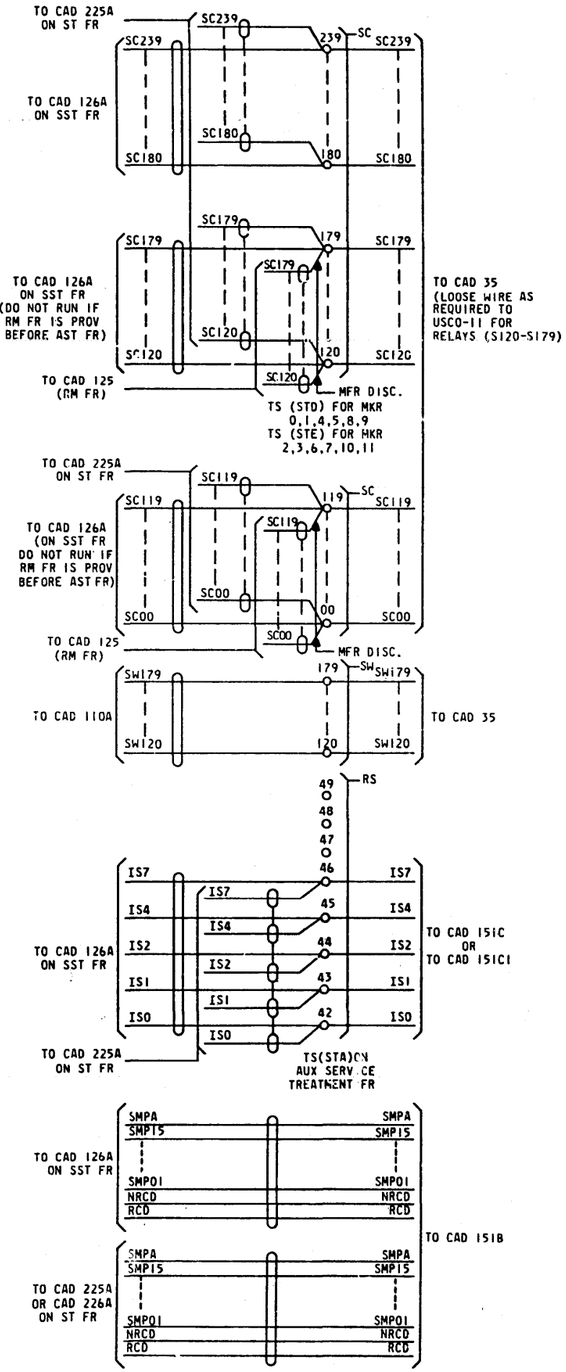
6S

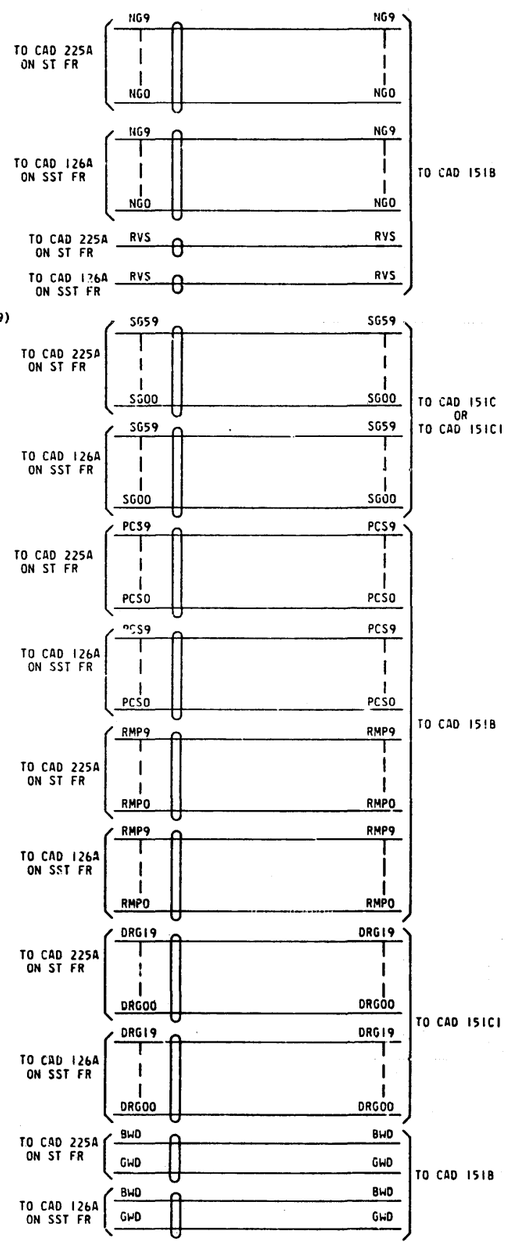
SD-26002-01-G168

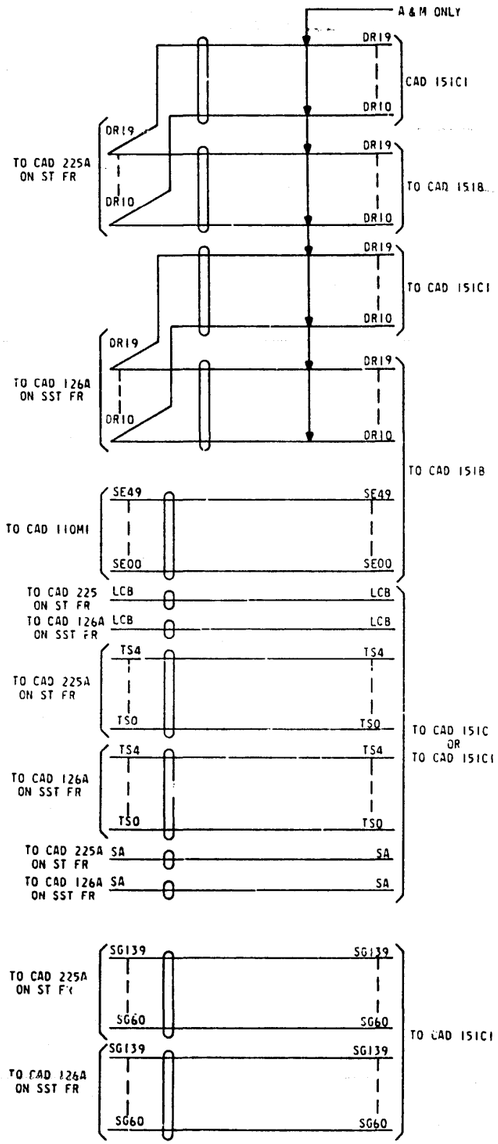
# CAD 151A

SWITCHBOARD CABLING FROM AST FR
TO SST FR, T&CT FR AND RM FR




ISSUE 65B

COMPLETING MARKER CIRCUIT

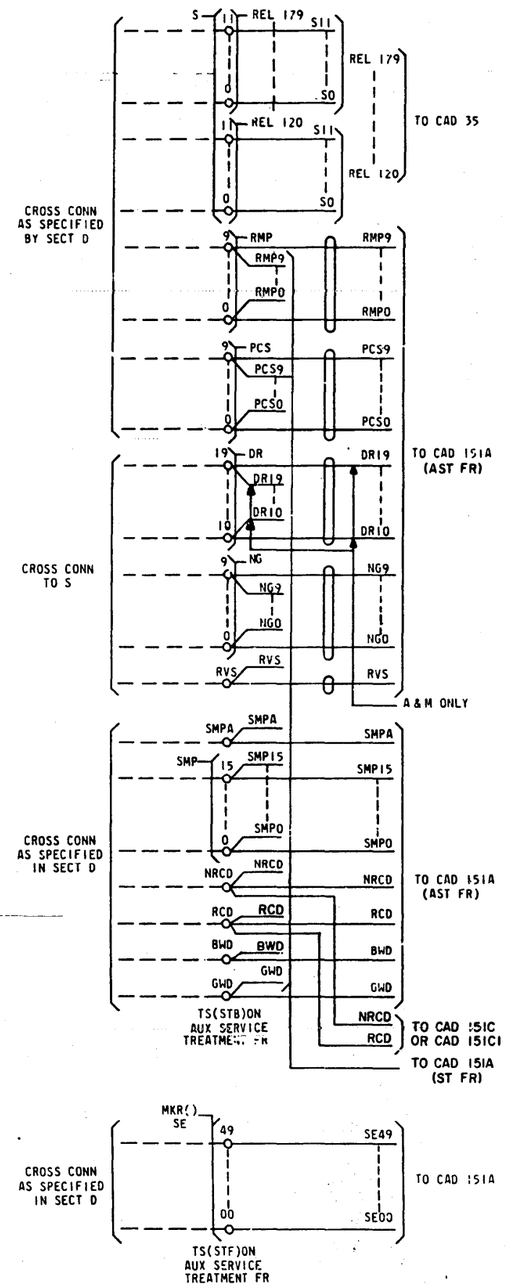
BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-GI70A

DATE ISSUED 6S

PRINTED IN U.S.A.

# CAD 151B
AST FR CROSS CONN




ISSUE 66A

COMPLETING MARKER CIRCUIT

SD-26002-01-G170B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 151C

(AST FR CROSS CONNECTIONS)

(MFR DISC) SEE CAD 151C1 (SEE NOTE 1)

SG15 SG8 SG7 SG0 — SG7 SG15 SG0 SG8 — SG23 SG31 SG16 SG24 — CROSS CONN. TO "S" IN CAD 1518

MBS4 MBS0 MBS9 MBS5 — MBS4 MBS9 MBS0 MBS5 — CROSS CONN TO "S" IN CAD 1518

TO CAD 151A

NN TN — NN TN — CROSS CONN TO "S" IN CAD 1518

TO CAD 151A

NC TC — NC TC — CROSS CONN TO "S" IN CAD 1518

CNS PN — PN CNS — AOS TS4 TS0 — CROSS CONN. TO "S" IN CAD 1518

HTR PM — PM HTR — AID TS0 — CROSS CONN. TO "S" IN CAD 1518

MTR PP — PP MTR — SAC — SA — CROSS CONN. TO "S" IN CAD 1518

BL — BL — LCB — CROSS CONN TO "S" IN CAD 1518

1ST SECTION — TS (STC) ON AUX S.T FR — 3RD SECTION

TO CAD 151A

SG47 SG40 SG39 SG32 — SG39 SG47 SG32 SG40 — SG55 SG48 SG59 SG56 — CROSS CONN. TO "S" IN CAD 1518

DR4 DR0 DR9 DR5 — DR4 DR9 DR0 DR5 — DR4 DR0 DR9 DR5 (A&M ONLY) — CROSS CONN. TO "S" IN CAD 1518

TO CAD 151A

ROA RB — ROA RB — ROA RB — CROSS CONN. TO "S" IN CAD 1518

CC TO — CC TO — CC TO — CROSS CONN. TO "S" IN CAD 1518

A & M ONLY

CK — CK — CK — CROSS CONN TO "S" IN CAD 1518

CKGD — CKGD — CKGD — CROSS CONN TO "S" IN CAD 1518

TO CAD 151A

IS7 K4 — IS4 K4 — IS2 K4 — IS1 K4 — IS0 K4 — CROSS CONN AS SPEC IN SECT D

2ND SECTION

NRCD RCD — TO CAD 151B

CROSS CONN AS SPEC IN SECT D

TS (STC) ON AUX ST FR — 4TH SECTION

NOTES:

1. ALTHOUGH TS (STC) IS MFR DISC., SOME A+M ONLY CABLING MAY BE REQUIRED WHEN ADDING NEW T+CT FRAMES TO EXISTING OFFICES. (MARKER ISSUE 33D OR LATER)

DRAWING ISSUE:

| | |
|---|---|
| 21D | GKS |
| 22D | PM CLS |
| 24D | WB |
| 25D | EB |
| 33D | CRS |
| 35D | TS |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | |
| 43D | |

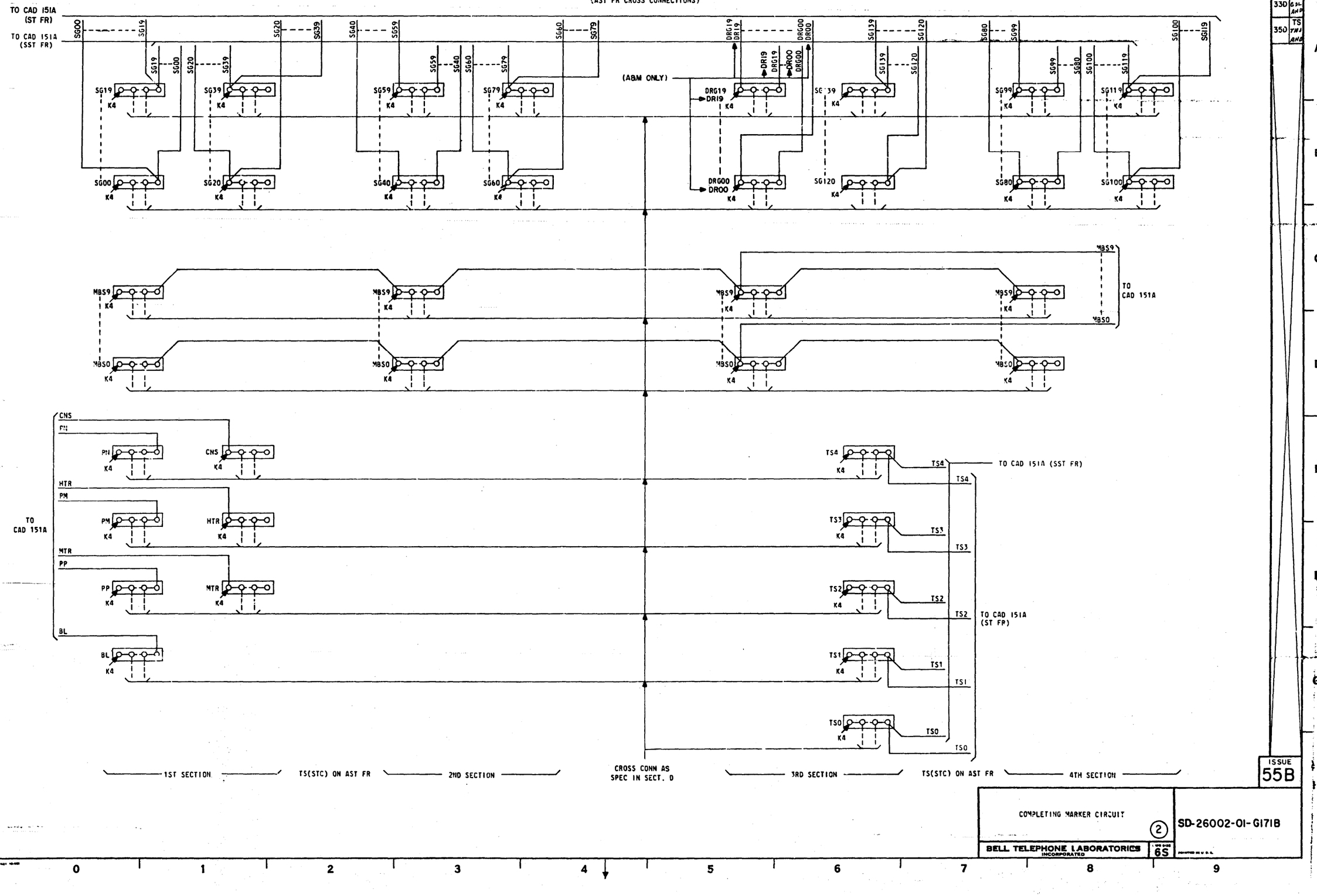
ISSUE 66A

COMPLETING MARKER CIRCUIT (2) — SD-26002-01-GI71A

BELL TELEPHONE LABORATORIES INCORPORATED — 6S

# PART OF CAD 151C1

(AST FR CROSS CONNECTIONS)




| DRAWING ISSUE | |
|---|---|
| 330 | THJ GJL AHD |
| 350 | TS THJ AHD |

ISSUE 55B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G1718

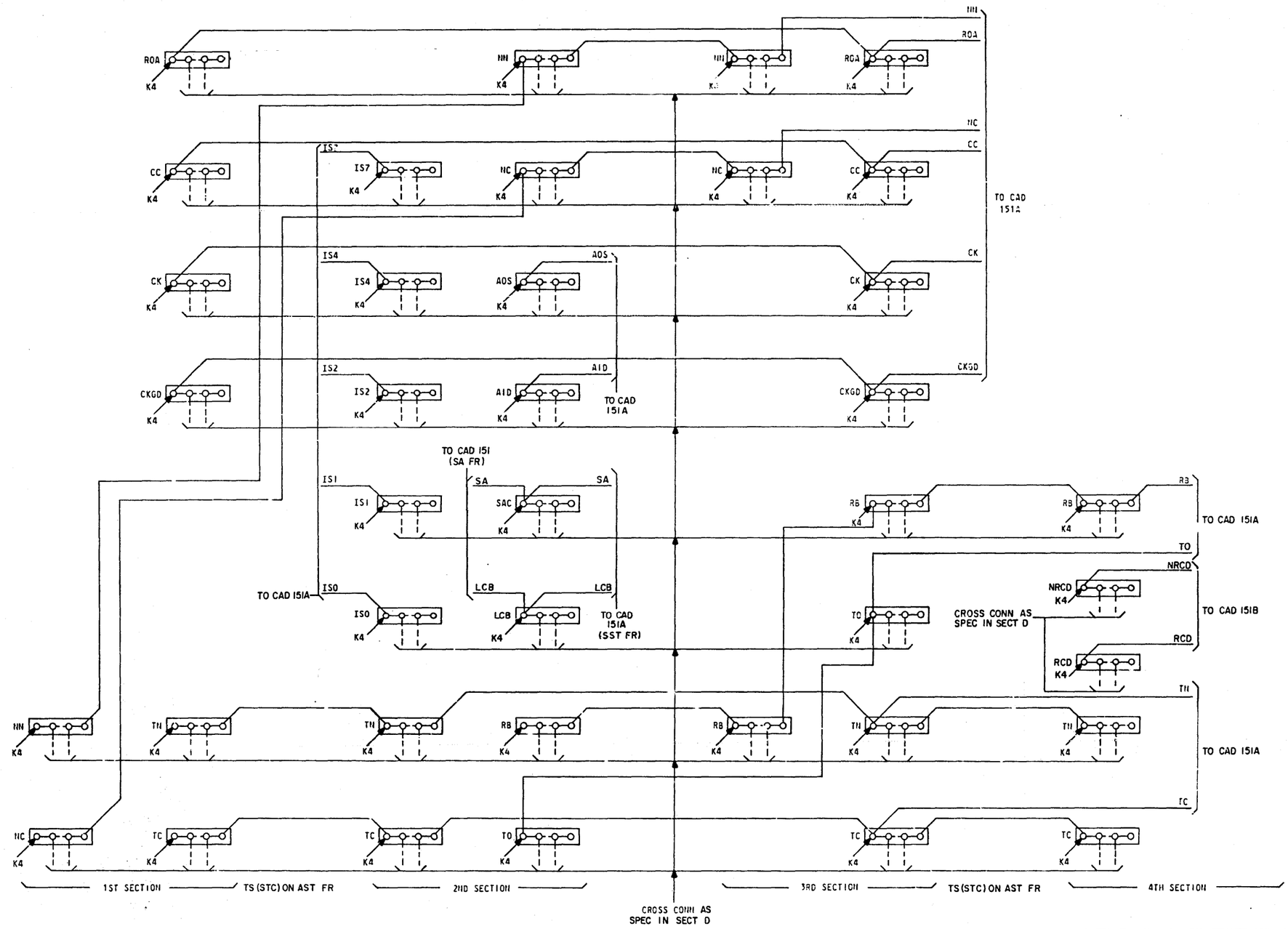
BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G1718

HIGGINS 4465 M-E

# PART OF CAD 151C1
(AST FR CROSS CONNECTIONS)




| DRAWING ISSUE | |
|---|---|
| 33D | TH, SL AND |
| 35D | TS TH, SL AND |
| 43D | TS |

ISSUE 66A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-GI7IC

BELL TELEPHONE LABORATORIES INCORPORATED

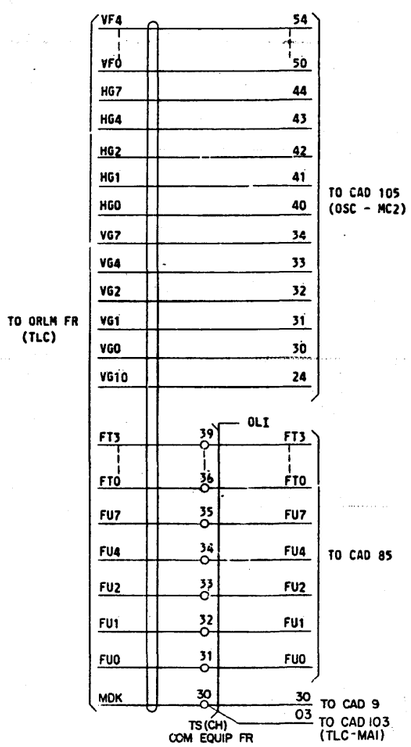
SIZE 6S

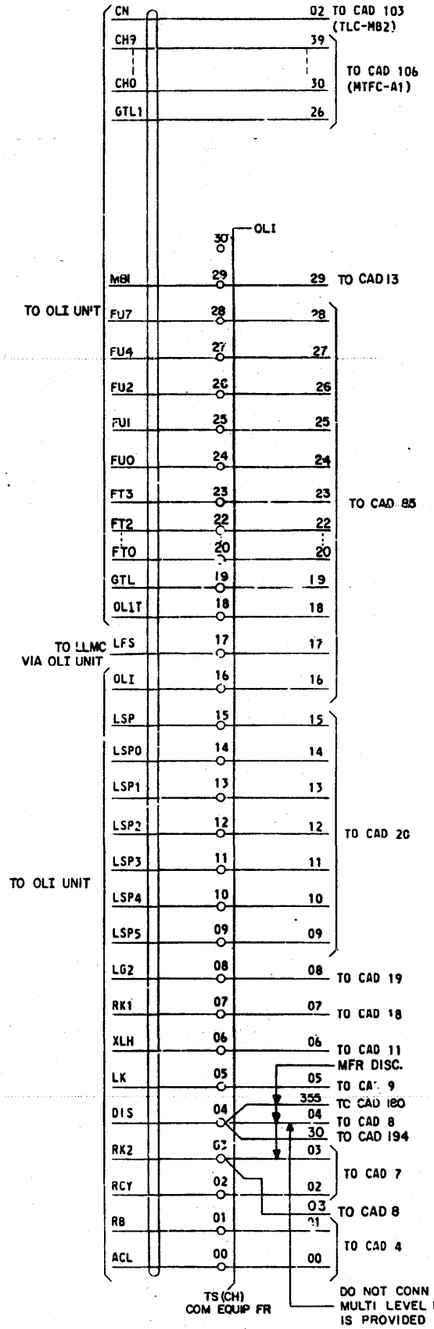
PRINTED IN U.S.A.

HIGGINS 4465

# CAD 152

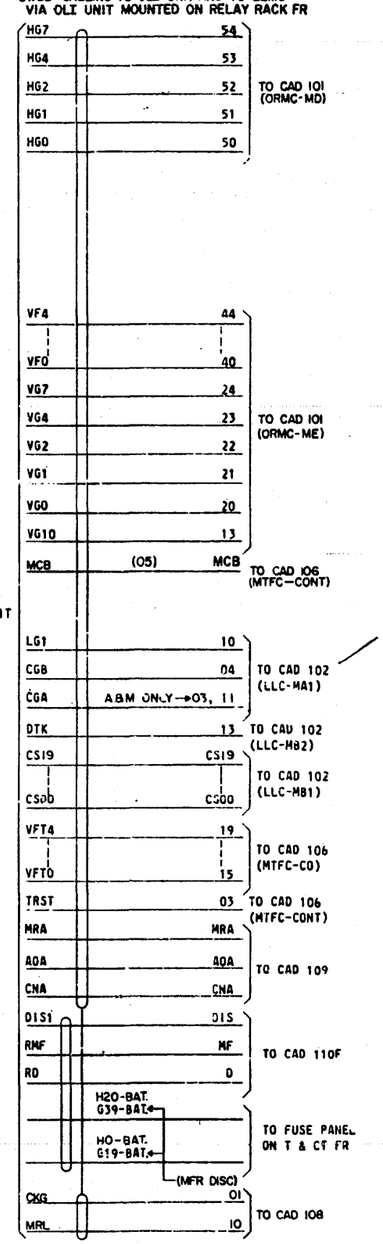
SWBD CABLING TO ORLM FR

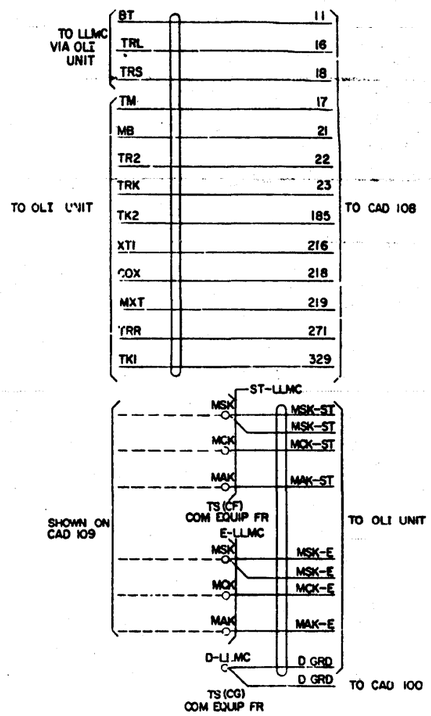



# CAD 153

SWBD CABLING TO OLI UNIT AND TO LLMC VIA OLI UNIT MOUNTED ON RELAY RACK FR




41

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-G172

SD-26002-01-G172

STABILO

# PART OF CAD 154

(SWITCHBOARD CABLE FROM CE FR TO LLP FR OR TO LLP CONTROL UNIT ON MISC RELAY RACK)

TO CAD 191

TO CAD 537 27

LLP

29 → 29 TO CAD 21

34 → 28 → 28 TO CAD 35

27 → 27 TO CAD 18

26 → 26 TO CAD 22

25 → 25 MFR DISC → 24 TO CAD 18

24 → 24 TO CAD 512

23 → 23 TO CAD 8

22 → 22 TO CAD 86

(LLP) 52 TO CAD 106 (MTFC-E0)

21 → 20 → 21 TO CAD 90

20 → 20

19 → 19 TO CAD 86

18 → 18 TO CAD 8

17 → 17 TO CAD 22

16 → 16 TO CAD 8

10 → MFR DISC

15 → 15 TO CAD 27

14 → 24 TO CAD 114

13 → 13 TO CAD 22

12 → 12 TO CAD 8

11 → 12 TO CAD 187

10 → 740 TO CAD 108

11 TO CAD 7

09 → 09 TO CAD 8

08 → 08

07 → 07 TO CAD 21

11 TO CAD 137

06 → 06 TO CAD 8

05 → 05

04 → 04 TO CAD 26

03 → (TT) 02 TO CAD 103 (TLC-MC2)

02 → 02 TO CAD 26

01 → (TTS) 21 TO CAD 106 (MTFC-CONT)

00 → 00 TO CAD 13

DO NOT CONN WHEN LLP FR IS PROVIDED

TO CAD 155 OR 91

LLPR

TTKI

OTI

LLPT

TO CAD 233

CONN WHEN ETS AND LLP ARE PROVIDED

TS (CJ) ON CE FR

DO NOT CONN WHEN ETS AND LLP ARE PROVIDED

TO CAD 196

TO CAD 228

59 TTK3

58 OI3

59 → 59 MFR DISC → 59 TO CAD 13

58 → 58 → 58

57 → 57 → 57 TO CAD 96

57 TO CAD 8 OR CAD 96 OR CAD 582

56 → 56 → 56 TO CAD 170A

STRAP WHEN LLP FR IS NOT PROVIDED

55 → 55 → 753 TO CAD 108

54 → 54 → (LPI) 51 TO CAD 106 (MTFC-)

00 → 53 → 53 TO CAD 22

52 → 52 → 52 TO CAD 90

51 → 51 → (NTLS) 51 TO CAD 121

(A&M ONLY)

50 → 50 → 50 TO CAD 22

626 TO CAD 108

49 → 49 → 49

JF → 48 → 48 TO CAD 22

48 → 48 TO CAD 27

47 → 47 → 47 TO CAD 21

198 TO CAD 154

46 → 46 → (LTG) 13 TO CAD 106 (MTFC-CONT)

45 → 45 → (LT) 30 TO CAD 102 (LLC-MC1)

(50) (LRA) 44 → 44 → 44 TO CAD 106 (MTFC-E0)

52 → 43 → 43 MFR DISC → 43 TO CAD 26

40 → 42 → 42 → 42 TO CAD 23

64 → 41 → 41 → 41 TO CAD 22

40 → 40 → 40 TO CAD 23

39 → 39 → 39 TO CAD 8

38 → 38 → 38

65 → 37 → 37 → 37 TO CAD 22

36 → 36 → 36

35 → 35 → 35 TO CAD 90

34 → 34 → 34

33 → 33 → 33 TO CAD 96

32 → 32 → 32

31 → 31 → 31 TO CAD 22

30 → 30 → 30 TO CAD 21

CONN WHEN ETS IS PROVIDED AND LLP IS NOT PROVIDED

TO CAD 155 OR 91

LLP

TO CAD 191

TLS

LLS

TO CAD 228

RCYA

RLT

89 → 89 → 89 TO CAD 26

88 → 88 → 88

87 → 87 → 87 TO CAD 22

MFR DISC

86 → 86 → 86 TO CAD 26

DO CONNECT WHEN LLP FR IS PROVIDED

85 → 85 → 85 TO CAD 9

534 TO CAD 108

84 → 84 → 84

83 → 83 → 83 TO CAD 26

DO NOT CONN WHEN ETS IS PROVIDED

OL1 → 82 → 82 TO CAD 8

OL2 → 81 → 81 → 81

XLFL → 80 → 80 TO CAD 29

XLFI → 79 → 79 → 79

78 → 78 → 78

77 → 77 → 77

76 → 76 → 76

75 → 75 → 75

74 → 74 → 74

73 → 73 → 73

72 → 72 → 72

71 → 71 → 71

70 → 70 → 70 TO CAD 18

(HGT9) 69

(HGT8) 63

(HGT7) 67

(HGT6) 66

(HGT5) 65

(HGT4) 64

(HGT3) 63

(HGT2) 62

(HGT1) 61

(HGT0) 60

TO CAD 228

TS (CJ) ON CE FR

TO CAD 196

CONN WHEN ZWE OPTION IS PROVIDED

TO CAD 537 119 118

TO CAD 191 02

CONN WHEN ZWE OPTION IS NOT PROVIDED

LLP

CONN WHEN LLP IS NOT

119 → 119 → 119 TO CAD 18

118 → 118 → 118

TO CAD 155 OR 91

ZCZ → ZCQ → 117 → 117 TO CAD 9

FCK → 116 → 116 TO CAD 8

FKD → 115 → 115 TO CAD 13

TO CAD 528 86

114 → 114 → 114 TO CAD 22

MFR DISC

113 → 113 → 113 TO CAD 8

163 1738/E4

112 → 112 → 112

111 → 111 → 111

110 → 110 → 110 TO CAD 22

109 → 109 → 109 TO CAD 512

LTI → 108 → 108

LTTL → 107 → 107 TO CAL 26

QLTL → 106 → 106

CONN WHEN ETS IS PROVIDED AND LLP FR IS NOT PROVIDED

4GL → 105 → 105

VGL → 104 → 104

FTL → 103 → 103 TO CAD 22

FDL → 102 → 102

MFR DISC

CONNECT WHEN LLP IS PROVIDED

101 → 101 → 101 TO CAD 3

100 → 100 → 100 TO CAD 68

TOGA → 533 TO CAD 108

DC6 → 99 → 99 TO CAD 139

DC8 → 98 → 98 TO CAD 180

92 TO CAD 3

DO NOT CONN WHEN ETS IS PROVIDED

97 → 97 → 97 TO CAD 9

DC7 → 96 → 96

DC9 → 95 → 95 TO CAD 8

DC10 → 94 → 94

DO NOT CONNECT WHEN LLP FR IS PROVIDED

DC3 → 93 → 93 TO CAD 26

DC1 → 92 → 92

DC2 → 91 → 91 TO CAD 3

MFR DISC

RYTT → 14 TO CAD 194

TOSX → 90 → 90 TO CAD 27

DO NOT CONN WHEN ETS IS PROVIDED

TO CAD 228

TS (CJ) ON CE FR

| DRAWING ISSUE | |
|---|---|
| 34A | NSD |
| 35D | NSD |
| 37D | WN |
| 41D | |
| 45D | |

ISSUE 69B

COMPLETING MARKER CIRCUIT

SD-26002-01-GI73A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 154

SWITCHBOARD CABLE FROM CF FR TO LLP FRAME OR TO LLP CONTROL UNIT ON MISC RELAY RACK

CONN WHEN ETS IS PROVIDED

CONN WHEN LLP FR IS NOT PROV

DO NOT CONN WHEN LLP AND ETS IS PROVIDED

CONN WHEN AIS IS PROVIDED WITHOUT USING LLP AND LLP IS PROVIDED

TO CAD 196

TO CAD 191

TO CAD 228

LLP

TO CAD 503

TO CAD 26

TO CAD 7

TO CAD 211

DO NOT CONN WHEN AIS USING LLP SENDERS IS PROVIDED

TO CAD 22

CONN WHEN LLP AND ETS IS PROVIDED

TO CAD 13

PDK

A&M ONLY

CONNECT ONLY WHEN LLP IS PROVIDED

TO CAD 102 (LLC-MCI)

CONN FOR POST ETS (LLP) WHEN MTFC REL 85 OR 89 ARE NOT PROV (A&M ONLY)

TO CAD 9

LLC4

TO CAD 180

(XLF) 44

TO CAD 106(MTFC-E0)

FK8

TO CAD 103

TO CAD 106 (MTFC-B5)

(FK)25

A&M ONLY

(FK)23

TO CAD 102 (LLC-MCI)

(LFK1)04

TO CAD 106 (MTFC-E0)

(LFK1)53

TO CAD 22

DO NOT CONNECT WHEN 4W PRMT FR IS PROVIDED

(BY) 22

TO CAD 102 (LLC-MCI)

MFR DISC

TO CAD 9

CGT1

CGT2

BY2

LFG

TTL3

TTL7

TTL6

TTL2

TTL5

TO CAD 10

TO CAD 8

TO CAD 19

TO CAD 25

TO CAD 8

TO CAD 27

TO CAD 86

TO CAD 8

TO CAD 27

TO CAD 18

TO CAD 155 OR 91

TO CAD 537

CONN WHEN ZWE OPTION IS NOT PROVIDED

CONN WHEN ZWE OPTION IS PROVIDED

TS (CJ) ON CE FR

CONN WHEN ETS IS NOT PROVIDED

CONN WHEN LLP FR IS NOT PROVIDED

RUN WHEN CENTREX X-FER FEATURES WITHOUT LLP ARE PROVIDED

TO CAD 121

TO CAD 114

TO CAD 108

CONNECT WHEN LLP IS NOT PROVIDED

TO CAD 22

MFR DISC

TO CAD 7

TO CAD 512

TO CAD 514

TO CAD 228 VFL

TO CAD 529

TO CAD 165

TO CAD 170

TO CAD 164

173A/B9

(23)163

TO CAD 191

TO CAD 162

CONN WHEN LLP IS PROVIDED WITHOUT CENTRALIZED CNTX ATT OPERATION

TO CAD 503

TO CAD 159

TO CAD 170A

(38) LRS

TO CAD 86

(23) 158

TO CAD 106 (MTC-E0)

TO CAD 171

TO CAD 503 CONN WHEN PH III CNTX IS PROVIDED WITH CENTRALIZED ATT OPERATION

A&M ONLY

TO CAD 503

TO CAD 171

TO CAD 24

TO CAD 26

DO NOT CONNECT WHEN LLP FR IS PROVIDED

TO CAD 128A

TO CAD 196

TO CAD 228 NDI

TS (CJ) ON CE FR

MFR DISC

TO CAD 155 OR 91

TO CAD 228 FLH

CONN WHEN OPTION ZYR LLP IS PROVIDED AND AIS IS NOT PROVIDED

TO CAD 512

TO CAD 503

TO CAD 22

TO CAD 7

TO CAD 108

TO CAD 191

TO CAD 155 OR 91

TO CAD 196 EGN

TO CAD 8

TO CAD 503

TS (CG) ON CE FR

CONN WHEN ETS IS PROVIDED AND LLP FR IS NOT PROVIDED

TO CAD 154

TO CAD 204

TO CAD 26

CONN WHEN W8 IS PROVIDED

CONN WHEN W8 IS NOT PROVIDED

TO CAD 114

TO CAD 4

TO CAD 13

TO CAD 86

TO CAD 155 OR 91

TO CAD 191

TS (CJ) ON CE FR

CONNECT WHEN LLP IS NOT PROVIDED

TO CAD 104

TO CAD 512

TO CAD 155

TO CAD 228

TS (CJ) ON CE FR

DRAWING ISSUE

34A NSC THS AMP

35D NSC THS AMP

37D

39D

41D

43D

44A

45D

65B

COMPLETING MARKER CIRCUIT

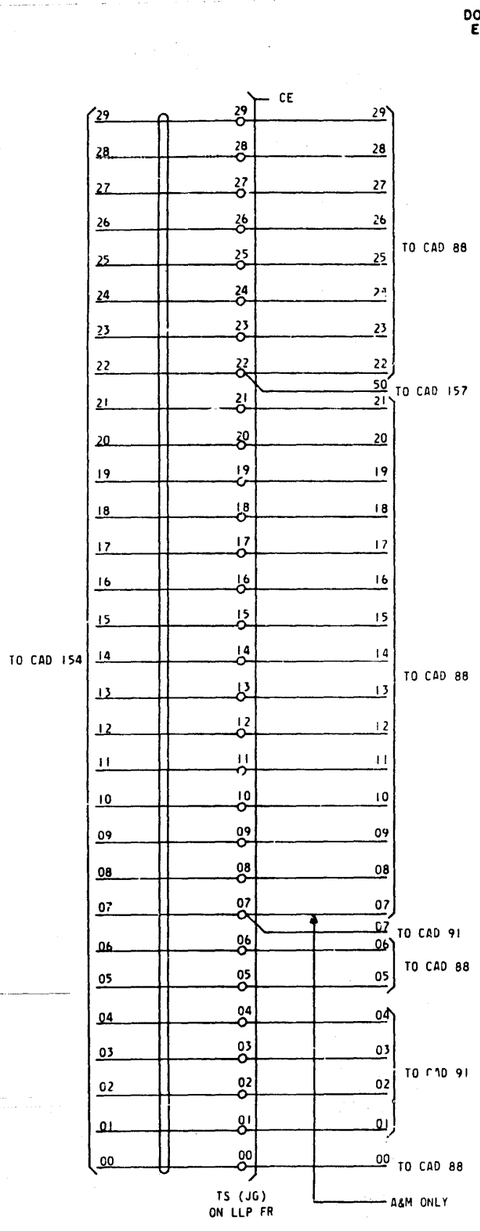
SD-26002-01-GI73B

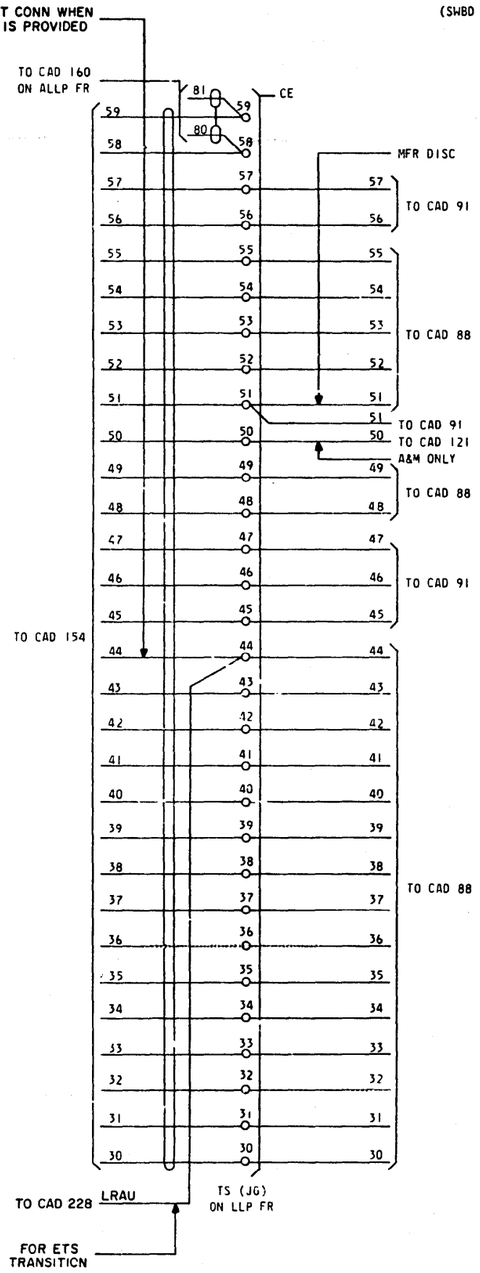
BELL TELEPHONE LABORATORIES INCORPORATED

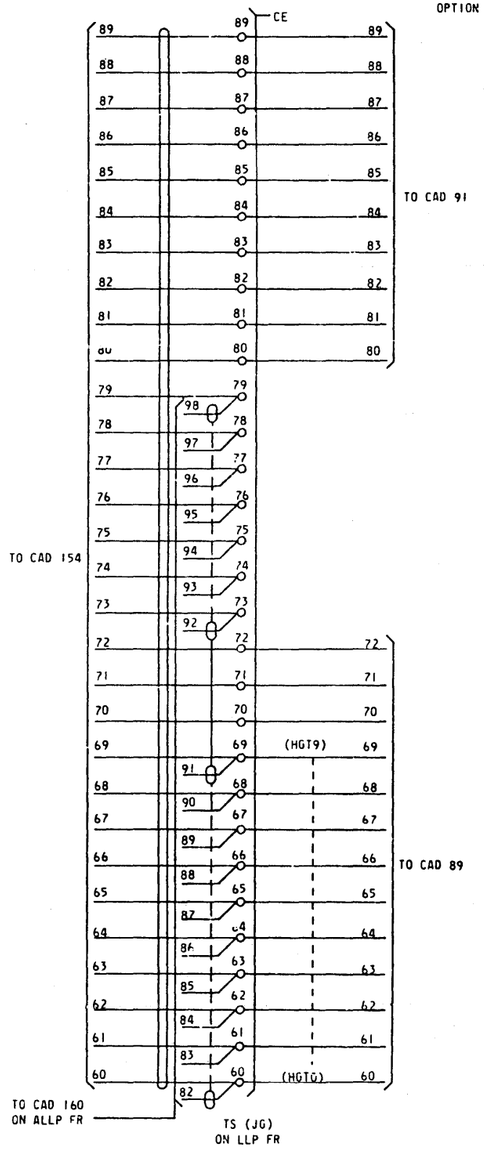
SD-26002-01-GI73B

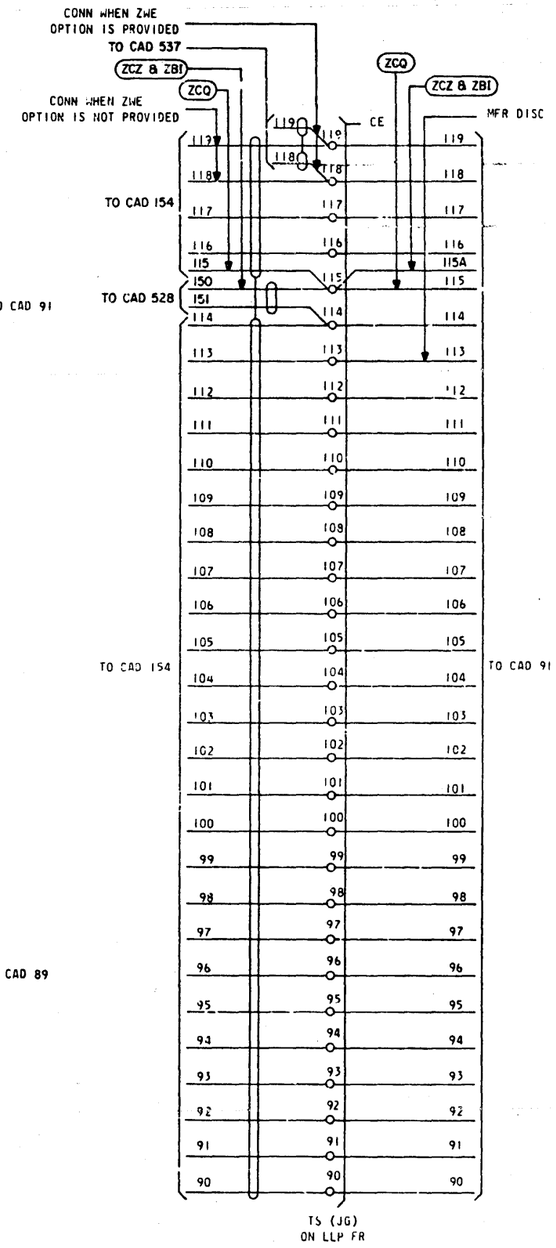
# PART OF CAD 155

(SWBD CA FROM LLP FR TO CE FR)
(SEE NOTE 206)




DRAWING ISSUE 41D

ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

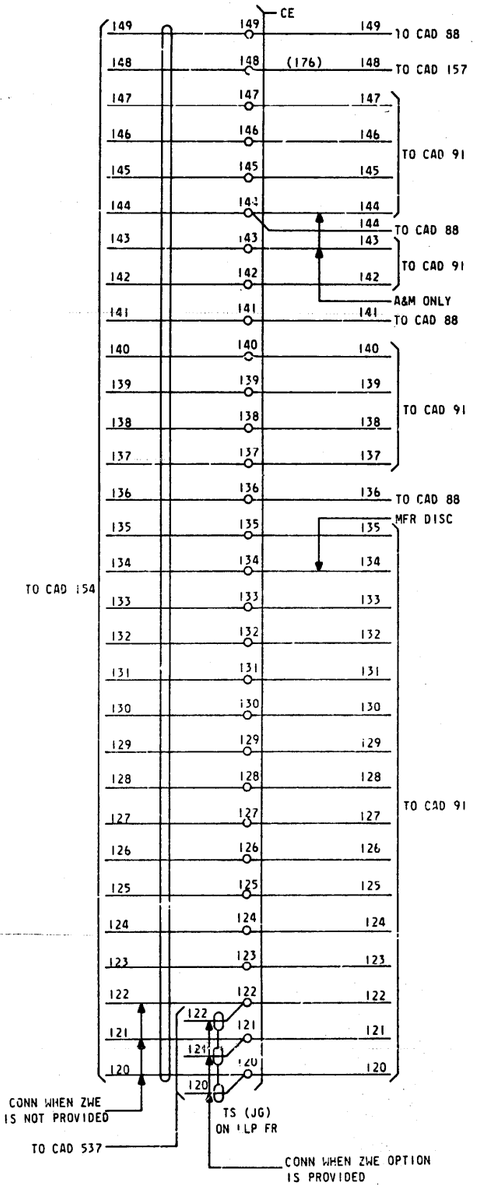
SD-26002-01-GI74A

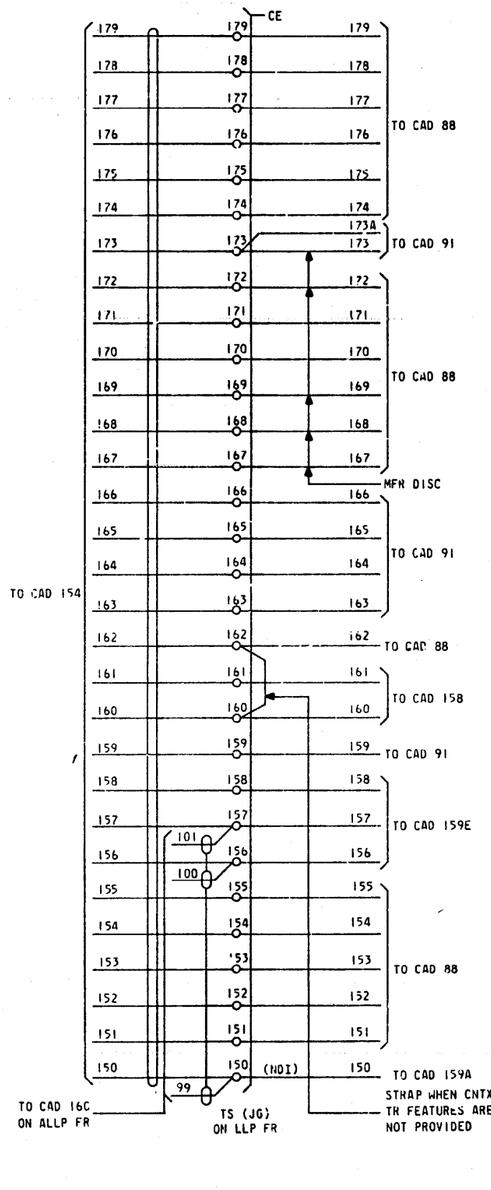
BELL TELEPHONE LABORATORIES INCORPORATED

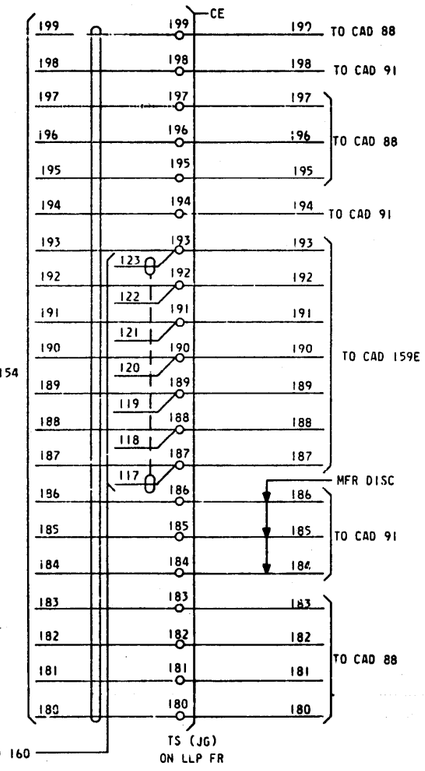
SHEET 6S

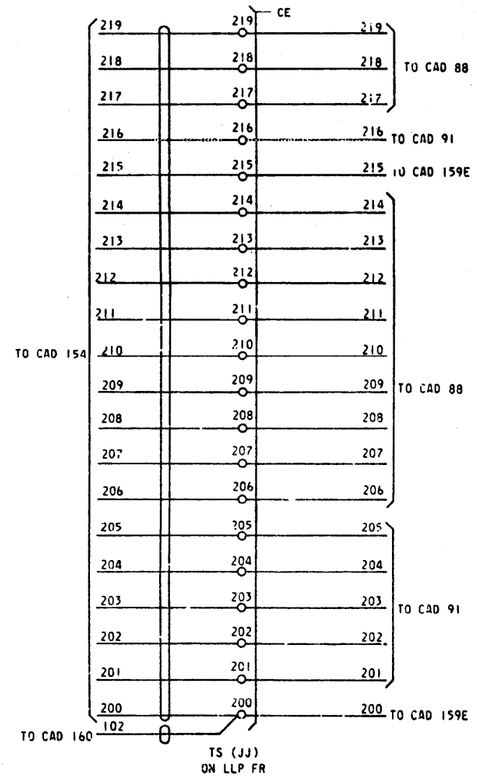
# PART OF CAD 155

(SWBD CA FROM LLP FR TO CE FR)
(SEE NOTE 206)




| ISSUE |
|---|
| 41D |
| 43D |
| 44A |
| 45D |

DRAWING ISSUE 55B

COMPLETING MARKER CIRCUIT (2)

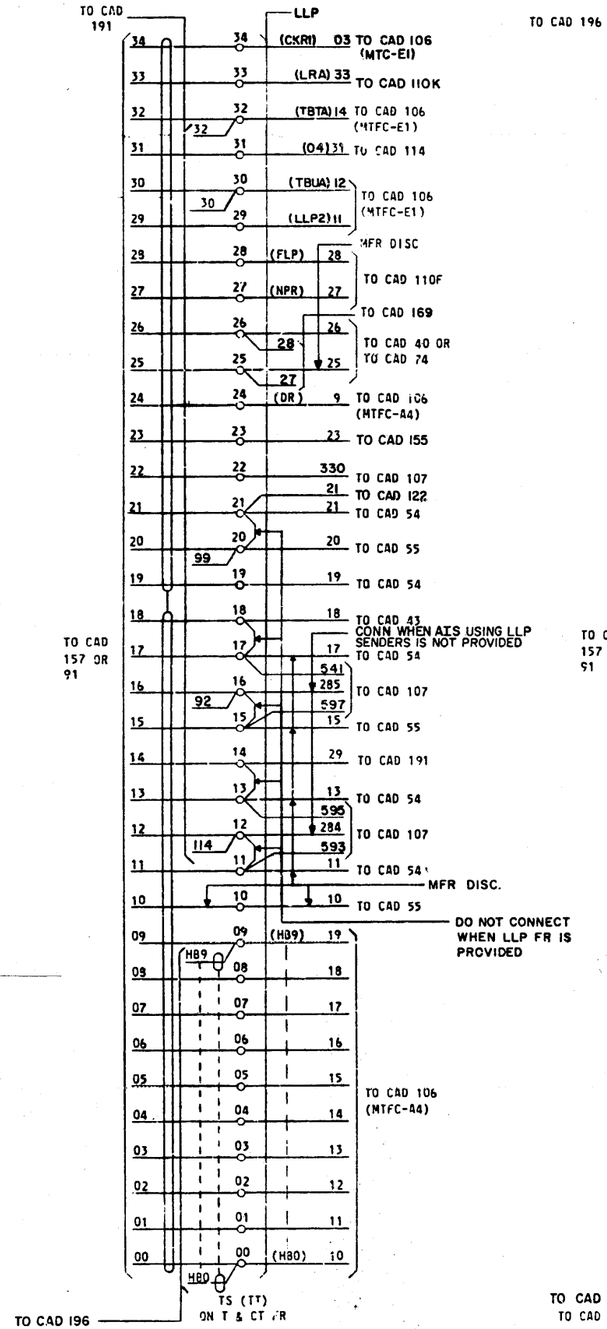
SD-26002-01-G174B

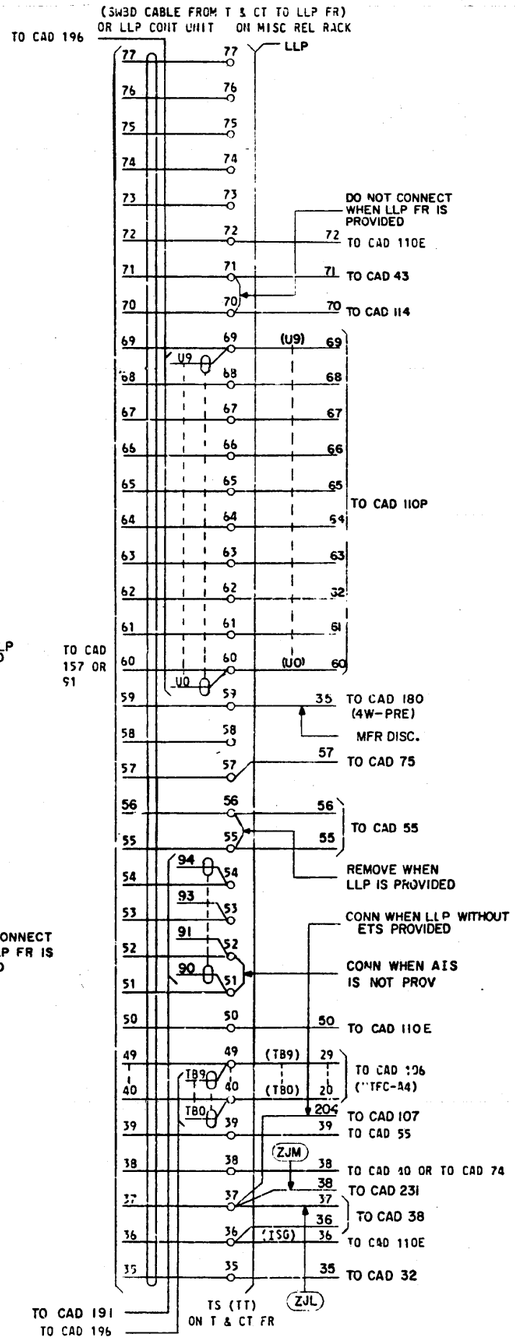
BELL TELEPHONE LABORATORIES INCORPORATED

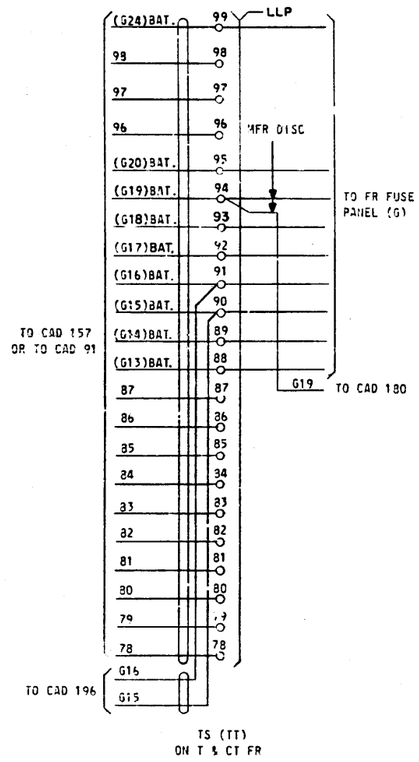
6S

SD-26002-01-G174B

# CAD. 156




| DRAWING ISSUE | |
|---|---|
| 22D | CSW |
| 23A | JAT |
| 24D | JAT |
| 25D | JAT |
| 26A | RLP |
| 27A | RLP |
| 28D | RLP |
| 29A | JAS |
| 31D | JAS |
| 32A | LP |
| 33D | LP |
| 34A | PA |
| 35D | JSX |
| 36A | WM |
| 37D | WM |
| 39D | LT |
| 41D | |

ISSUE 57B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | SD-26002-01-G175 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

# PART OF CAD 157

(SWBD CABLE FROM LLP FR TO T&CT FR AND ALLP FR (SEE NOTE 206)

T & CT

39 38 37 36 35 34 (CKRI) 33 (LRA) 32 (TBTA) 31 30 (TBUA) 29 (LLP2) 28 (FLP) 27 (NPR) 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 09 (H89) 08 07 06 05 04 03 02 01 00 (H80)

TO CAD 91
TO CAD 88
TO CAD 156
TO CAD 88
MFR DISC. TO CAD 91
TO CAD 159C
TO CAD 160

TS (JH) ON LLP FR

T & CT

87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 (187) 71 70 69 (U9) 68 (U8) 67 (U7) 66 (U6) 65 (U5) 64 (U4) 63 (U3) 62 (U2) 61 (U1) 60 (U0) 59 58 57 56 55 54 53 52 51 (189) 50 (22) 49 TB9 40 TB0

TO CAD 156
TO CAD 157
TO CAD 88
TO CAD 111
TO CAD 159C
TO CAD 88
TO CAD 91
TO CAD 88
TO CAD 91
TO CAD 156
TO TERM. 189 IN SAME CAD
TO CAD 155
TO CAD 159C
TO CAD 160

TS (JH) ON LLP FR

T & CT

TO CAD 160
TO CAD 111
TO CAD 159A
TO CAD 111
TO CAD 110A
TO CAD 159E
TO CAD 111
TO CAD 159A
TO CAD 159C
TO CAD 88
TO CAD 88
MFR DISC. TO CAD 91
TO CAD 89
TO CAD 91
TO CAD 88

CLP10 CLS10 LOP4 LOP3 LOP2 LOP1 LOP0 CLS9 CLP9 AS BNTH DLS6 DLS0 DLP6 DLP0 CLS8 CLS0 CLP8 CLP0 CRS5 CRS0 CRP4 CRP0

TS (JH) ON LLP FR

T & CT

LATH9 LATH8 LATH7 LATH6 LATH5 LATH4 LATH3 LATH2 LATH1 LATH0 LRK LPN LRS (L9) (L3) (L2) (L1) (L0) (LLP) 177

TO CAD 91 (MFR DISC.) OR TO CAD 159C
TO TERM. 55 IN SAME CAD
TO CAD 91
TO CAD 88
TO CAD 91
TO CAD 157
TO CAD 88
TO CAD 155
TO CAD 89
TO CAD 88
TO CAD 120 (TR REG) A&M ONLY

TS (JH) ON LLP FR

DRAWING ISSUE

| | |
|---|---|
| 22D | NF |
| 23A | PM |
| 24D | PM |
| 25D | |
| 25A | JNT |
| 27A | RLP |
| 28D | RLP |
| 29A | JAS |
| 31D | JAS |
| 33D | LP |
| 34A | JEK |
| 35D | JEK |
| 37D | RA |
| 39D | RA |
| 41D | |

ISSUE 61B

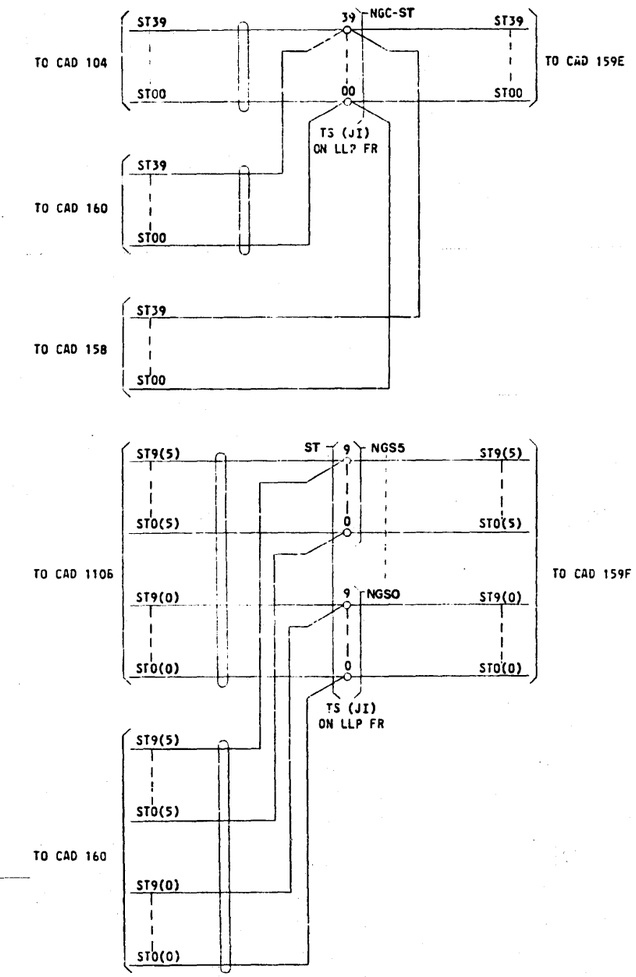
COMPLETING PARKER CIRCUIT (1)

SD-26002-01-GI76

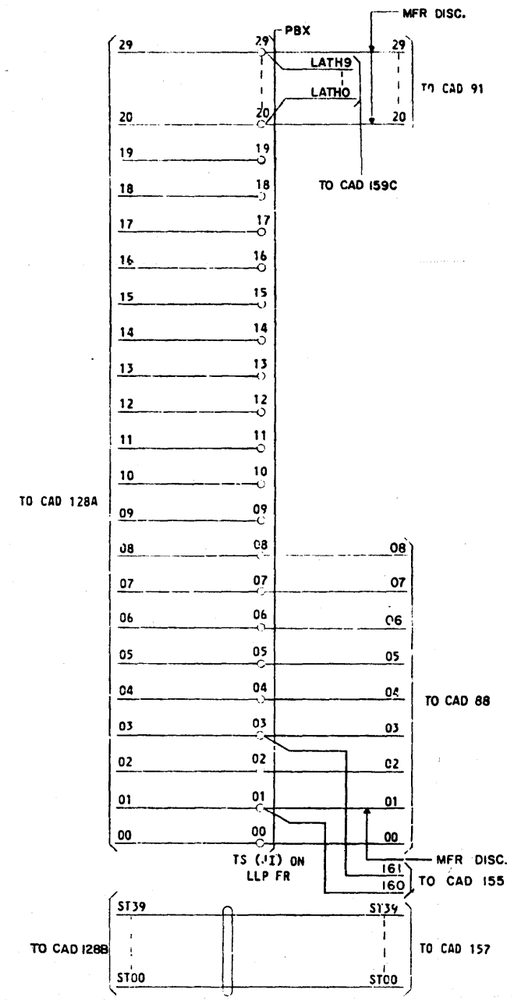
BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-GI76

# PART OF CAD 157
(SWBD CABLE FROM LLP FR TO T & CT FR)
(SEE NOTE 206)




# CAD 158
(SWBD CABLE FROM LLF FR TO PBX ALLR FR)




DRAWING ISSUE

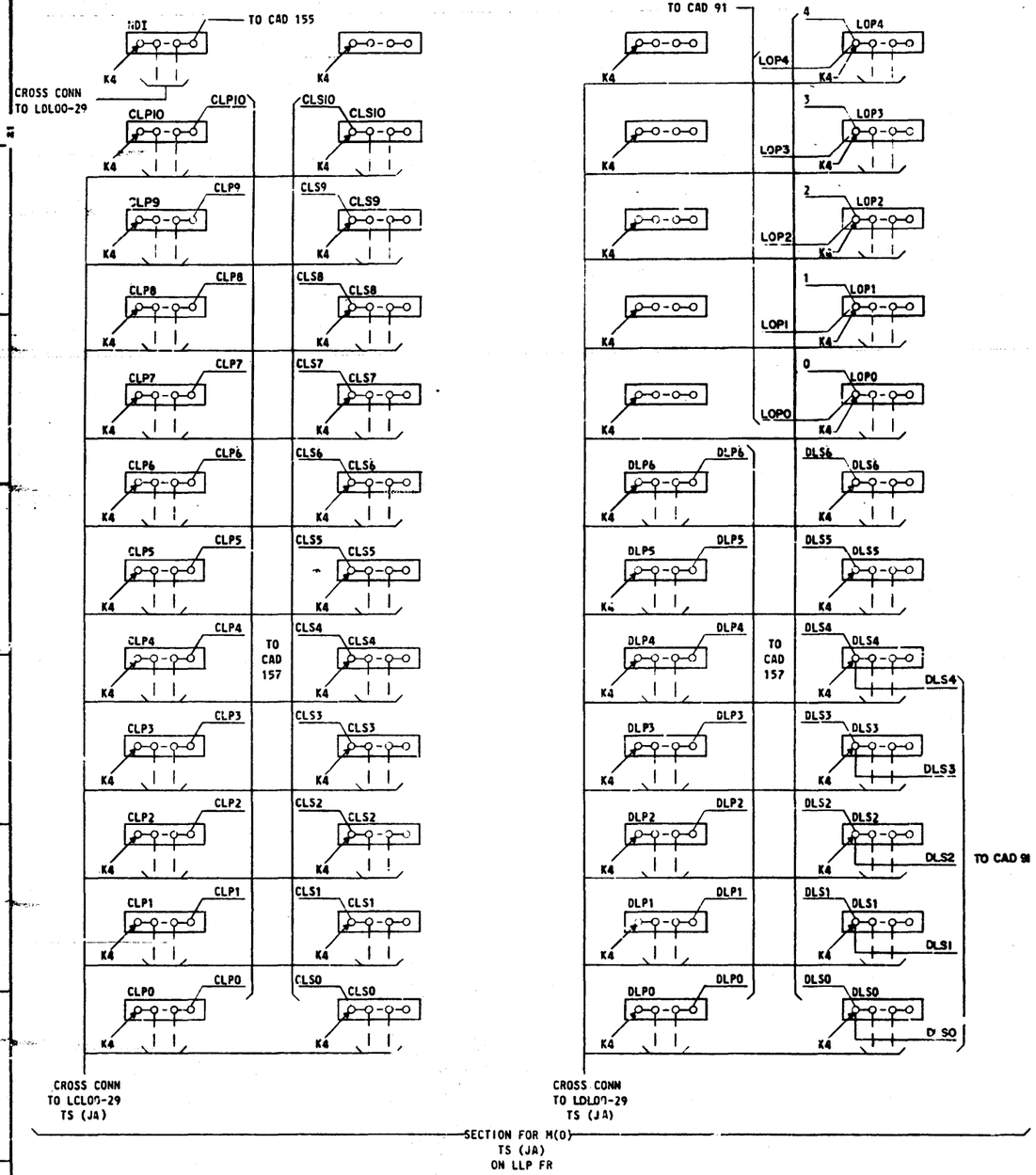
| | |
|---|---|
| 24D | WLC EPM AMF |
| 25D | JRR CWL AMF |
| 29A | JAS WWP AMF |
| 34A | JEK TWJ AMF |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68
41D

41

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-6177
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S
PRINTED IN U.S.A.

# CAD 159A




| DRAWING ISSUE | |
|---|---|
| 23A | PNS EBM AND |
| 24D | PNS CTM AM |
| 25D | WJ EBM AM |

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

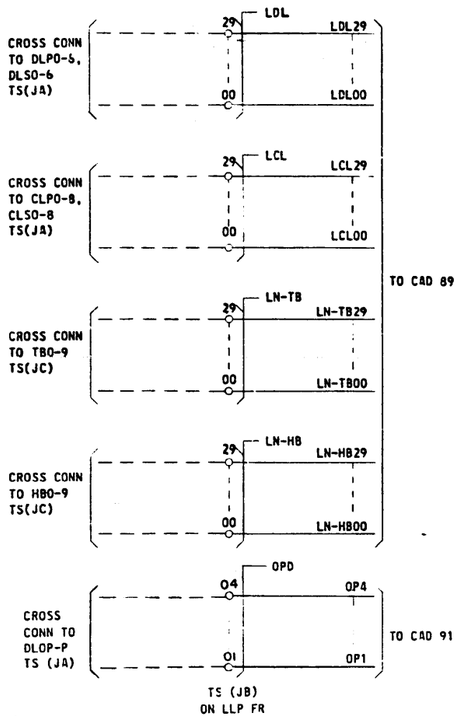
SD-26002-01-G178

BELL TELEPHONE LABORATORIES INCORPORATED 6S

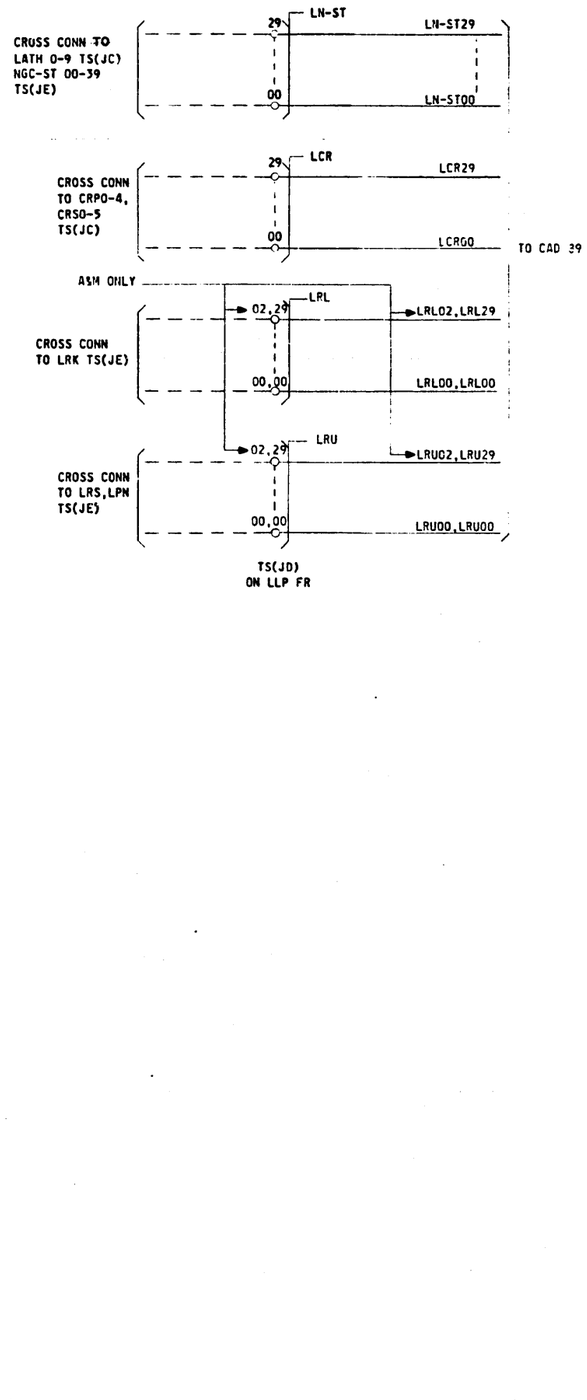
STABILO

SD-26002-01-G178

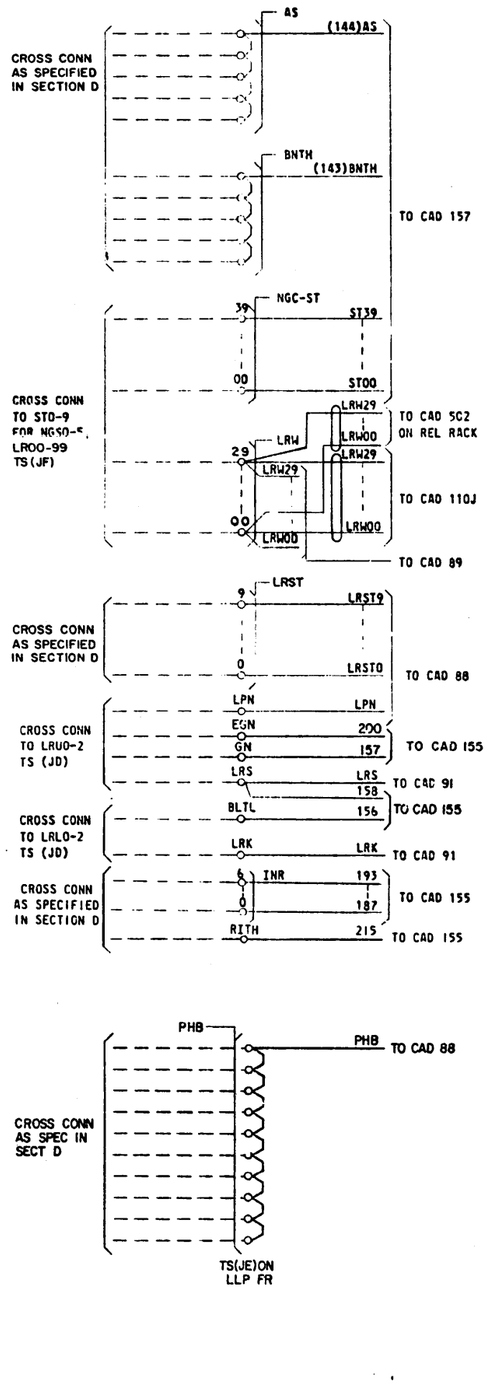
## CAD 159B



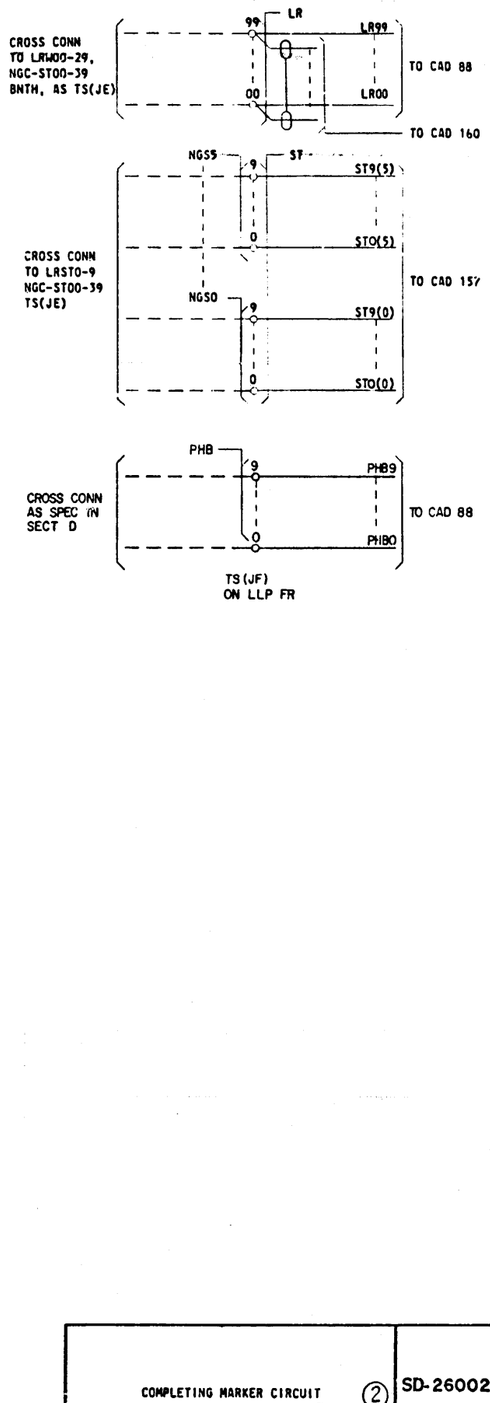

## CAD 159D




## CAD 159E




## CAD 159F




DRAWING ISSUE

| | |
|---|---|
| 23A | TLC ERN AMD |
| 24D | TLC ERN AMD |
| 25D | WJT AMD |
| 33D | LP GOL AMD |
| 34A | LP TRL AMD |
| 35D | LP TAJ AMD |
| 37D | |

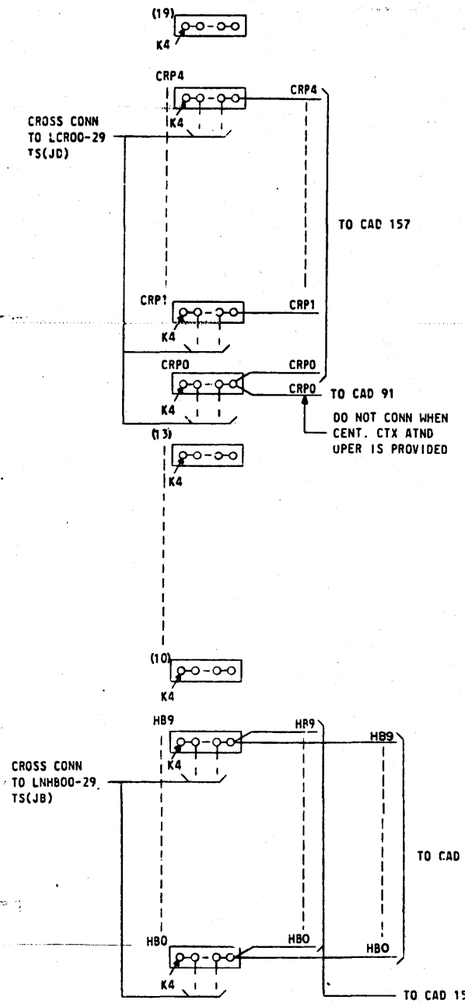
DRAWING ISSUE 53B

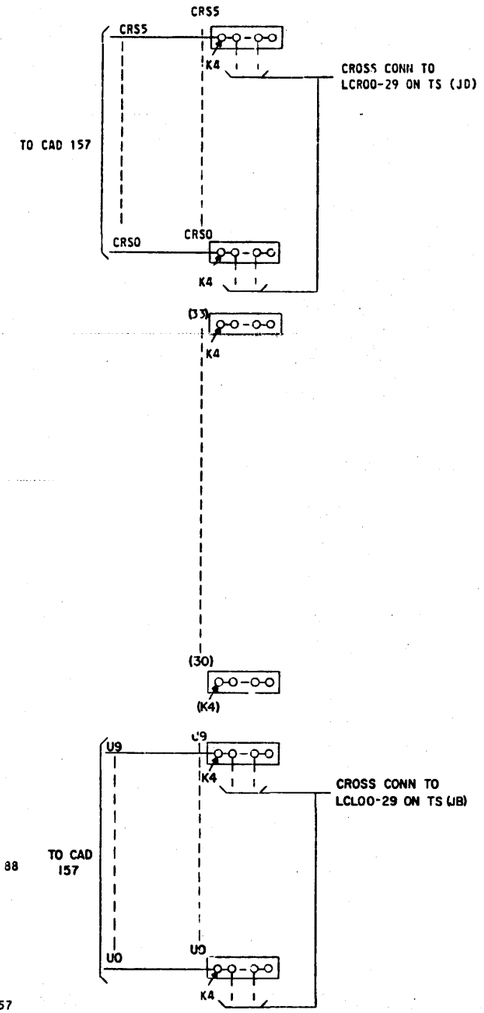
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G179

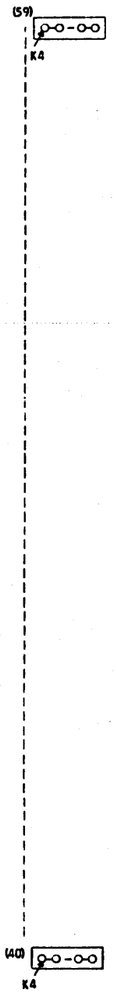
BELL TELEPHONE LABORATORIES INCORPORATED 6S

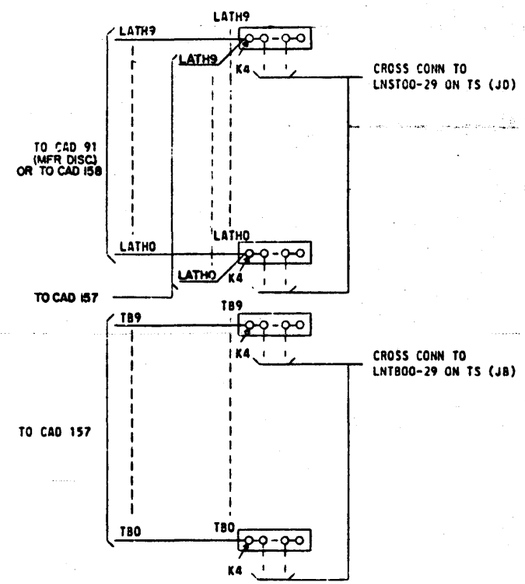
STABILO

# CAD 159C




SECT FOR M(0) TS(JC) ON LLP FR

| DRAWING ISSUE | |
|---|---|
| 23A | EN |
| 24D | EN |
| 27A | RLP |
| 28D | RLP |
| 29A | JAS |

ISSUE 51D

COMPLETING MARKER CIRCUIT (2)

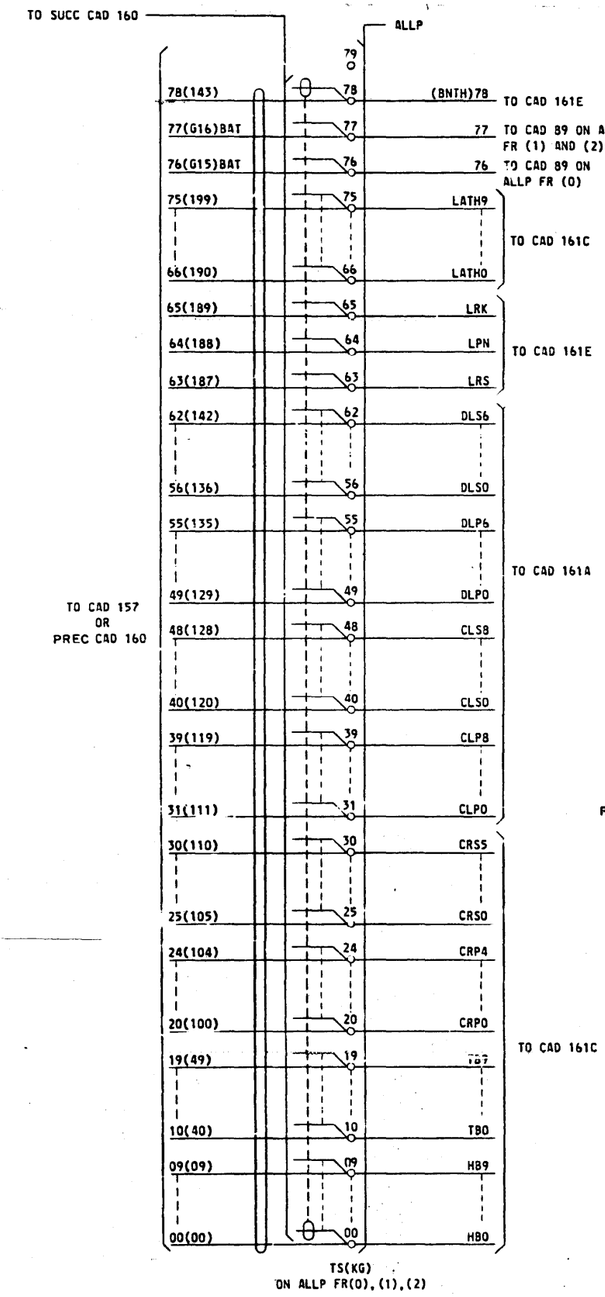
SD-26002-01-G180

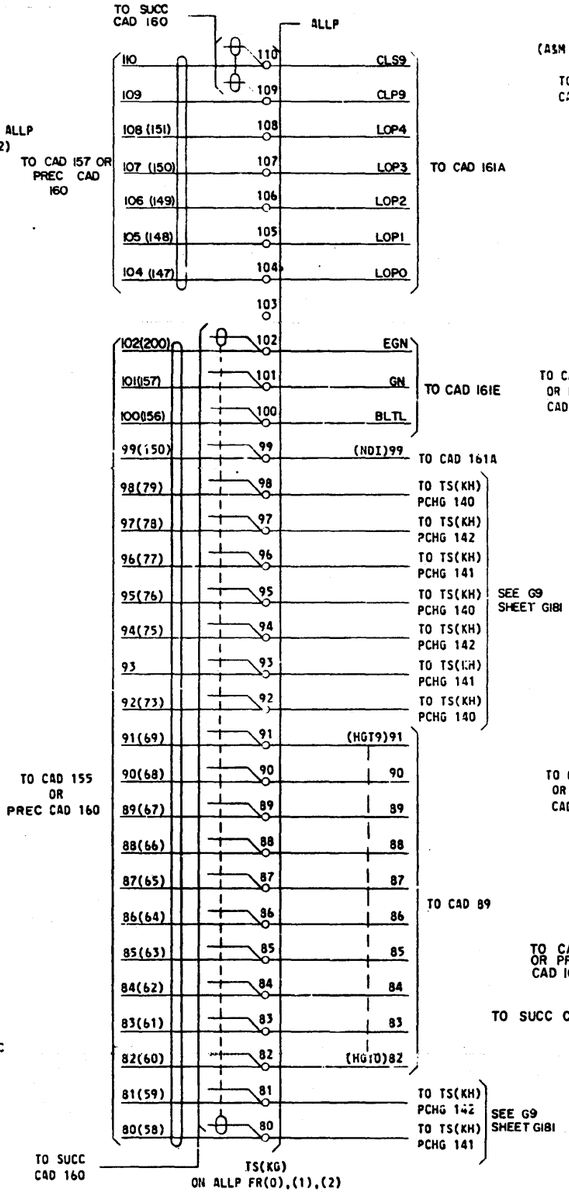
BELL TELEPHONE LABORATORIES INCORPORATED 6S

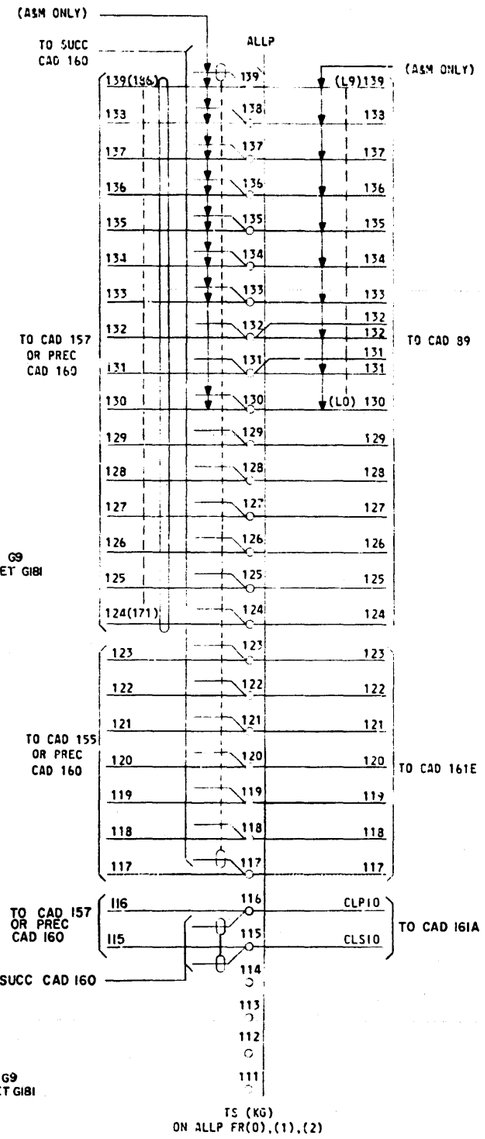
SD-26002-01-G180

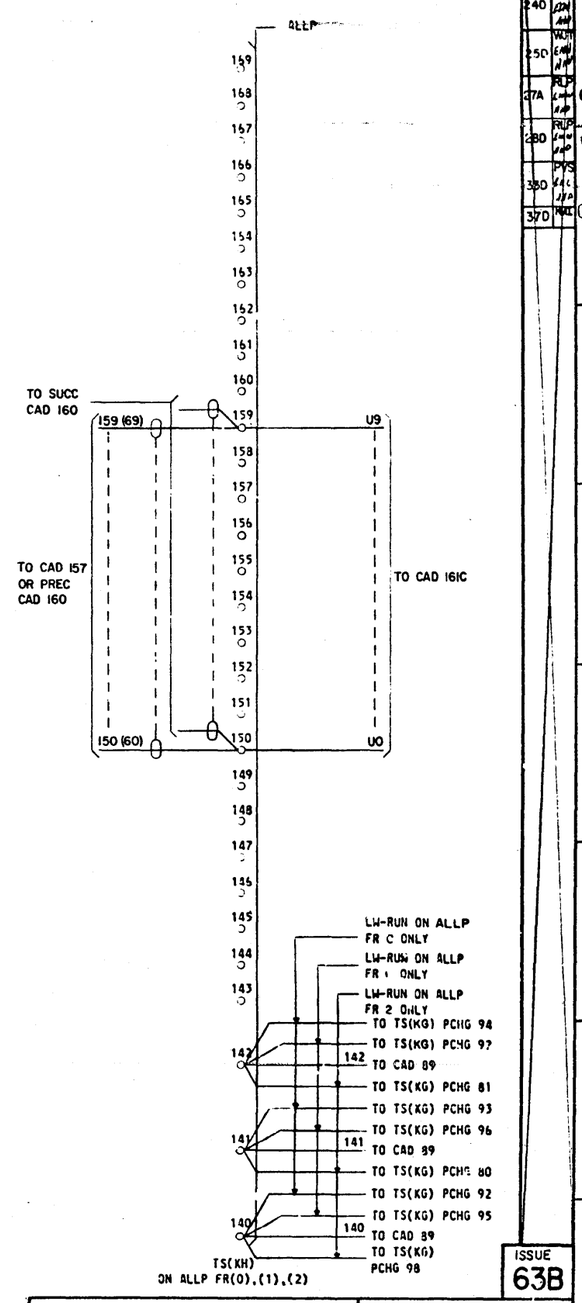
# PART OF CAD 160

CABLE FROM ALLP FR TO LLP FR AND
CABLE FROM ALLP FR(0),(1),(2) TO ALLP FR(0),(1),(2)




| DRAWING ISSUE | |
|---|---|
| 23A | PM ZSN AM |
| 24D | PM ZSN AM |
| 25D | WUT EMG AM |
| 27A | RLP LMG AM |
| 28D | RLP LMG AM |
| 38D | PVS LMG JPD |
| 37D | RAL CB |

ISSUE 63B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | SD-26002-01-G181 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

1819-10-200982-SD

STABILO KE

PART OF CAD 160

CAD 161A

CAD 161B

TR(A & M ONLY)

TO CAD 120 ON LLP FR

LRG-

TO CAD 99

CROSS CONN TO LCL 00-29 TS(K8)

NGC-ST

ST39

ST00

TO CAD 161E

NGS5

NGS0

ST9(5)

ST0(5)

ST9(0)

ST0(0)

TO CAD 161F

TO SUCC CAD 160

TS(KH) ON ALLP FR(0),(1),(2)

LR

LR99

LR00

TO CAD 159F OR PREC CAD 160

TO CAD 161F

TS(KI) ON ALLP FR(0),(1),(2)

TO CAD 160

99

NDI

K4

CLPIO

CLSIO

CLP9

CLS9

CLP8

CLS8

CLP7

CLS7

CLP6

CLS6

CLP5

CLS5

CLP4

CLS4

CLP3

CLS3

CLP2

CLS2

CLP1

CLS1

CLPO

CLSO

TO CAD 160

CROSS CONN TO LDL 00-29 TS(K8)

LOP4

LOP3

LOP2

LOPI

LOPO

DLP6

DLS6

DLP5

DLS5

DLP4

DLS4

DLP3

DLS3

DLP2

DLS2

DLP1

DLS1

DLPO

DLSO

TO CAD 160

SECTION FOR M(0) TS(K4) ON ALLP (0),(1),(2)

LDL

59,89,119

30,60,90

LDL-

CROSS CONN TO DLP0-6, DLS0-6 TS(K4)

LCL

LCL-

CROSS CONN TO CLP0-8, CLS0-8 TS(K4)

TO CAD 99

LN-T8

LN-T8-

CROSS CONN TO T80-9 TS(KC)

LN-H8

LN-H8-

CROSS CONN TO H80-9 TS(KC)

TS(K8) ON ALLP FR(0),(1),(2)

DRAWING ISSUE

23A PCI EPM MMP

24D PCI EPM AMP

25D NLT EMM A-7

33D PVS A/L AAA

DRAWING REFURBISHED WITH-OUT CHANGE 10-1-68

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G182

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 65

SD-26002-01-G182

STABILO

CROSS CONN TO LLR- ON TS(KD)

(19) K4

CRP4 K4

CRP4

TO CAD 160

CRPO K4

CRPO

(13) K4

(10) K4

CROSS CONN TO LN HB- ON TS(KB)

HB9 K4

HB9

TO CAD 160

HB0 K4

HB0

TO CAD 160

CRS5 K4

CRS5

CROSS CONN TO LLR- ON TS(KD)

CRSO K4

CRSO

(33) K4

(30) K4

U9 K4

U9

CROSS CONN TO LCL- ON TS (KB)

U0 K4

U0

(59) K4

(40) K4

LATH9 K4

LATH9

CROSS CONN TO LNST- ON TS(KD)

LATHO K4

LATHO

TB9 K4

TB9

CROSS CONN TO LNT3- ON TS(KB)

TBO K4

TBO

TO CAD 160

TJ CAD 160

SECTION FOR M(0) TS(KC) ON ALL FP (0),(1),(2)

| DRAWING ISSUE | |
|---|---|
| 23A | TBD |
| 24D | TBD |
| 27A | |
| 28D | |

A B C D E F G H

28

CROSSBAR SYSTEMS

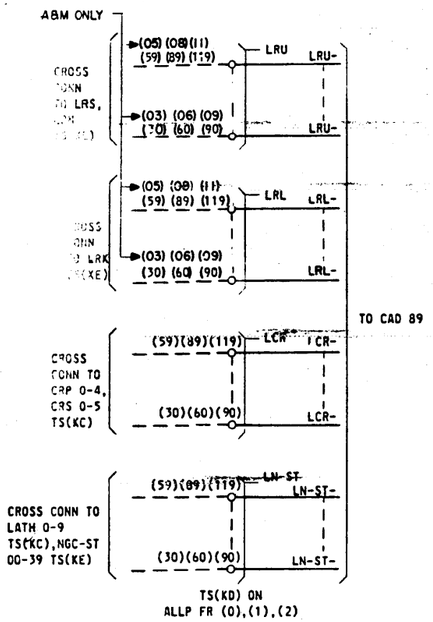
NO. 5 COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G183

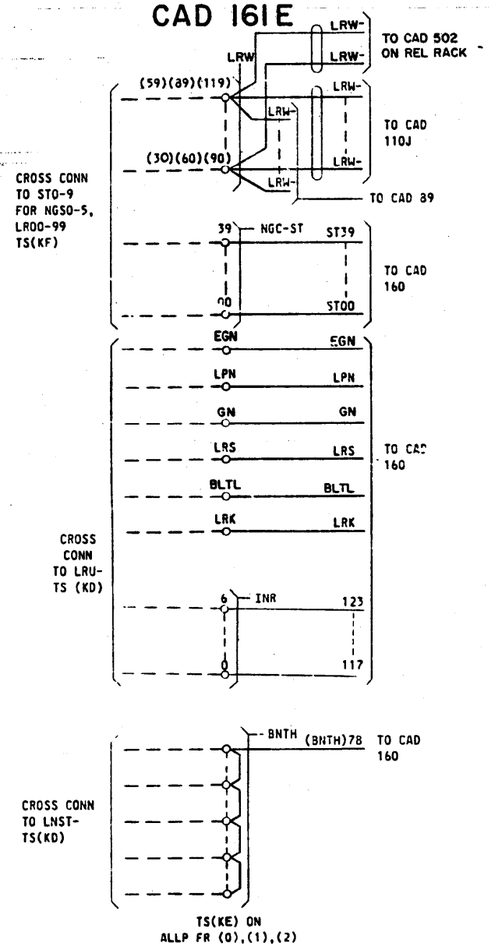
BELL TELEPHONE LABORATORIES INCORPORATED

6S

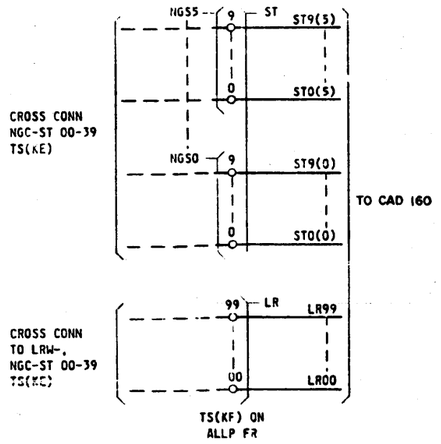
## CAD 161D




## CAD 161E




## CAD 161F




| DRAWING ISSUE | |
|---|---|
| 23A | JM EBM AHD |
| 24D | JM EBM AHD |
| 25D | NLF EMG AHD |
| 33D | LP EDL AHD |
| 34A | LP TBJ |
| 370 | |

SD26002-01-G184



COMPLETING MARKER CIRCUIT (2)

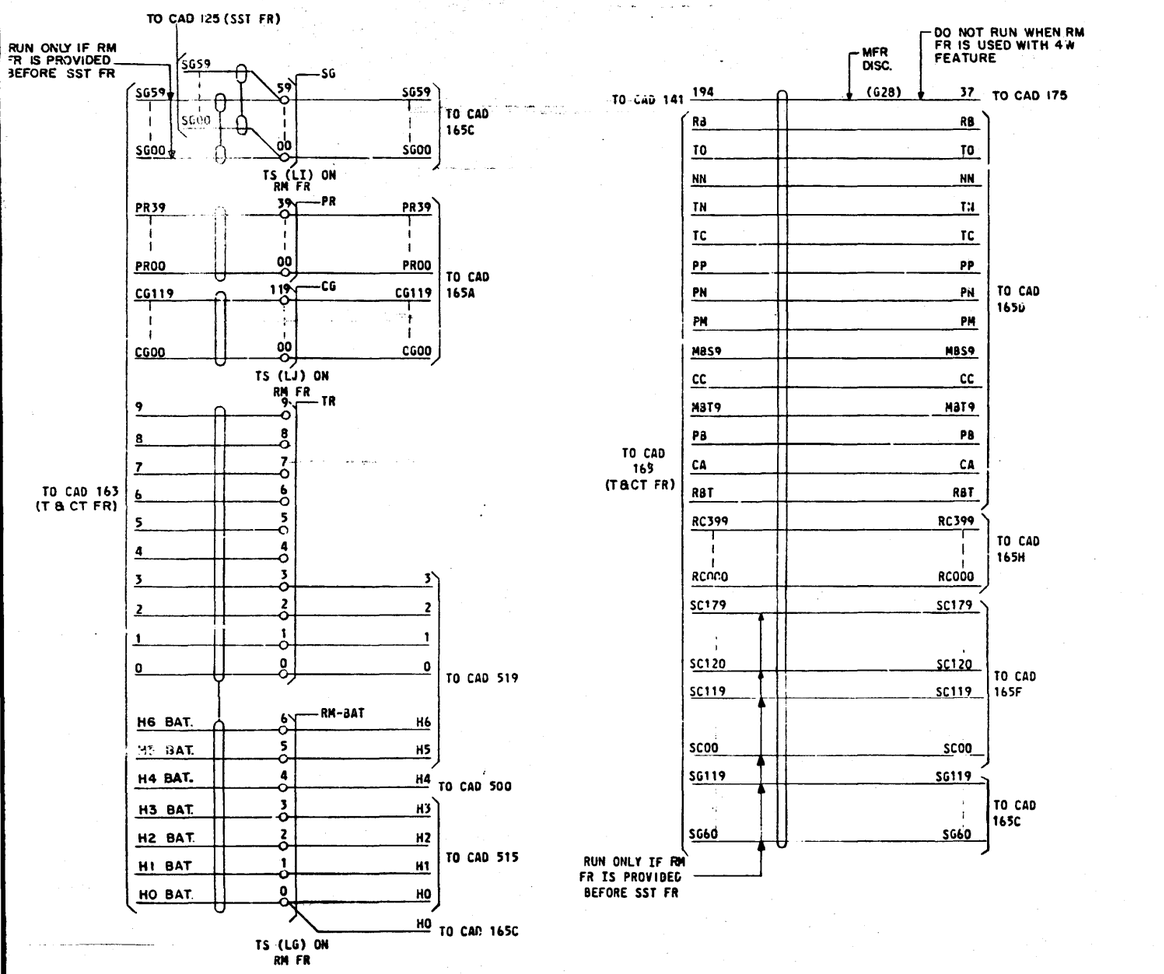
SD26002-01-G184

BELL TELEPHONE LABORATORIES INCORPORATED

6S

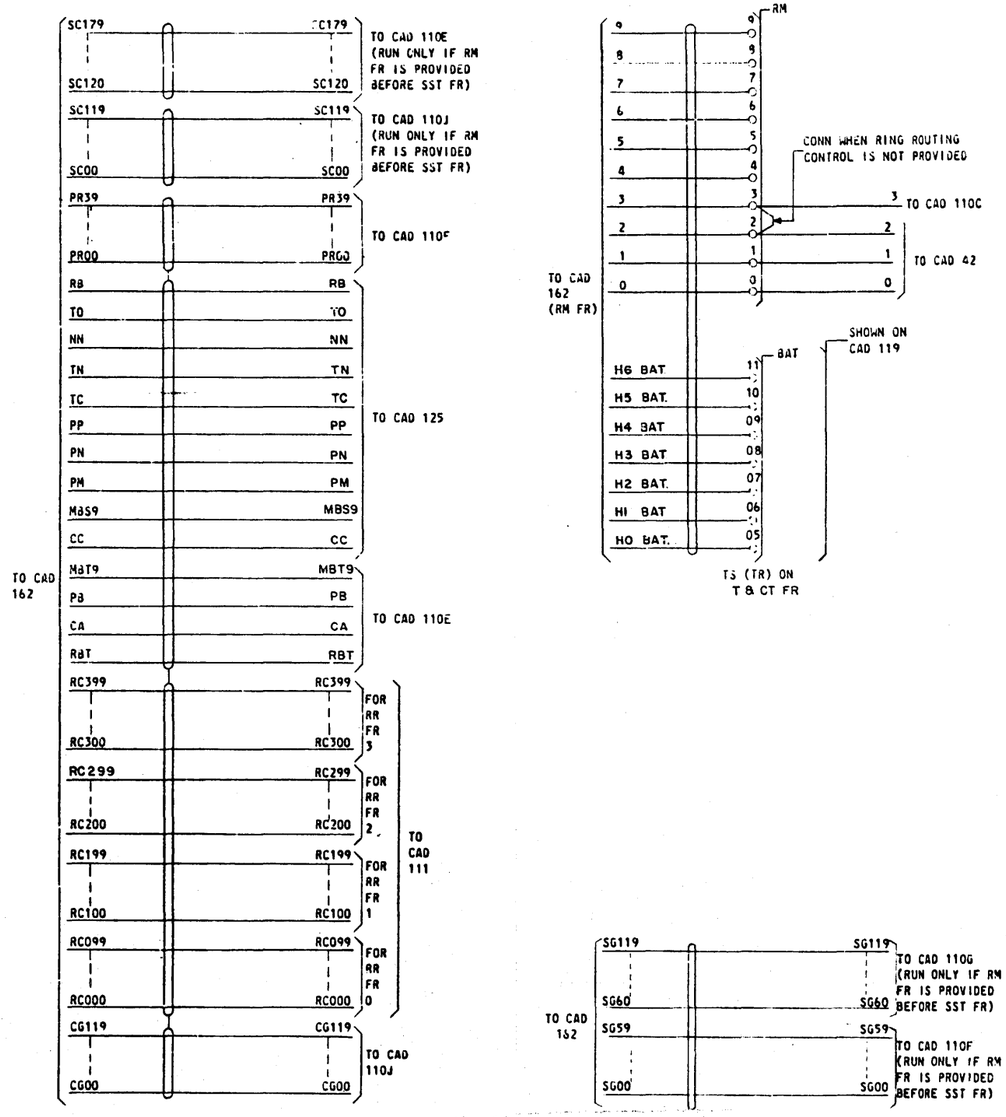
# CAD 162 (MFR DISC.)

(SWBD CA FROM RM FR TO T & CT FR)




# CAD 163 (MFR DISC.)

(SWBD CA FROM T & CT FR TO RM FR)




DRAWING ISSUE

300 A4 LP

330 A4

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

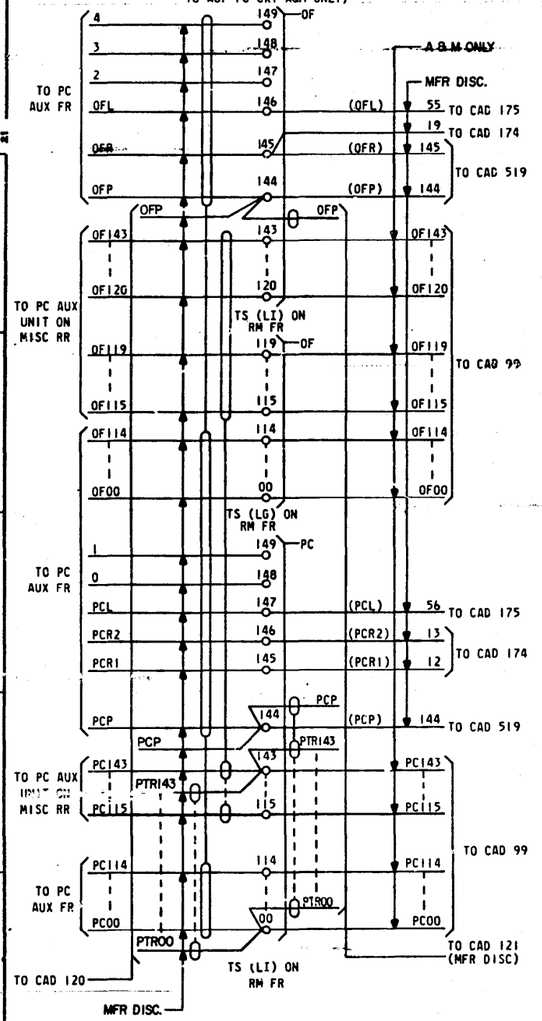
SD-26002-01-GI85A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 164

(SWBD CA FROM RM FR TO AUX PC CKT-A&M ONLY)



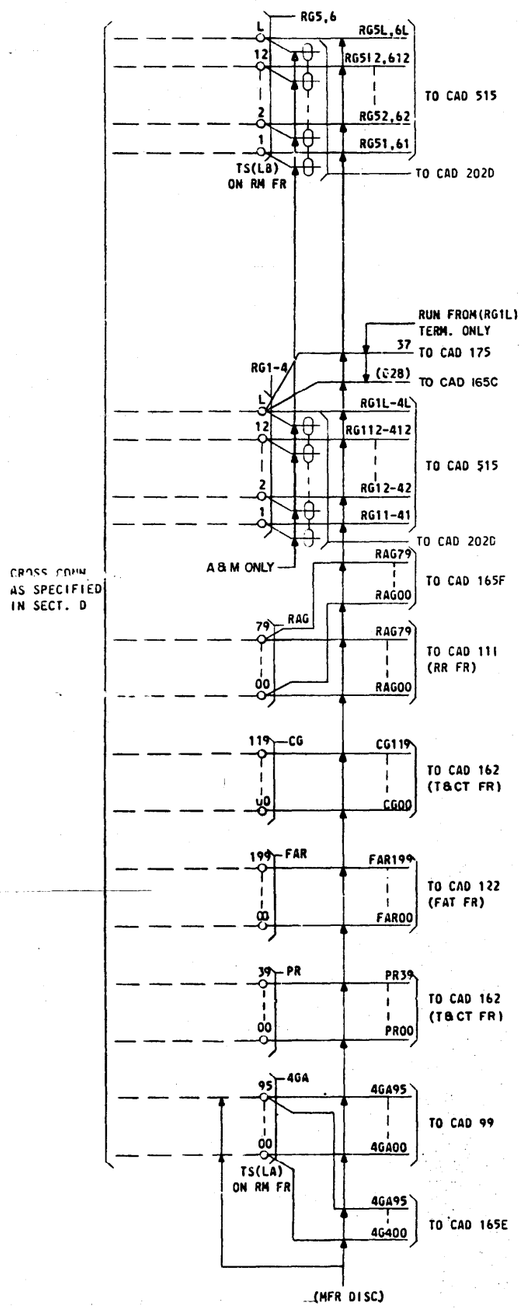

| DRAWING ISSUE | |
|---|---|
| 30D | ASS 60 ANS |
| 39D | RA |

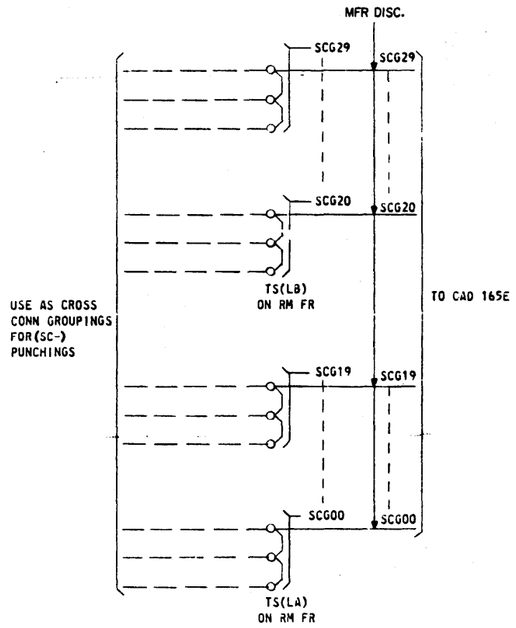
ISSUE 57B

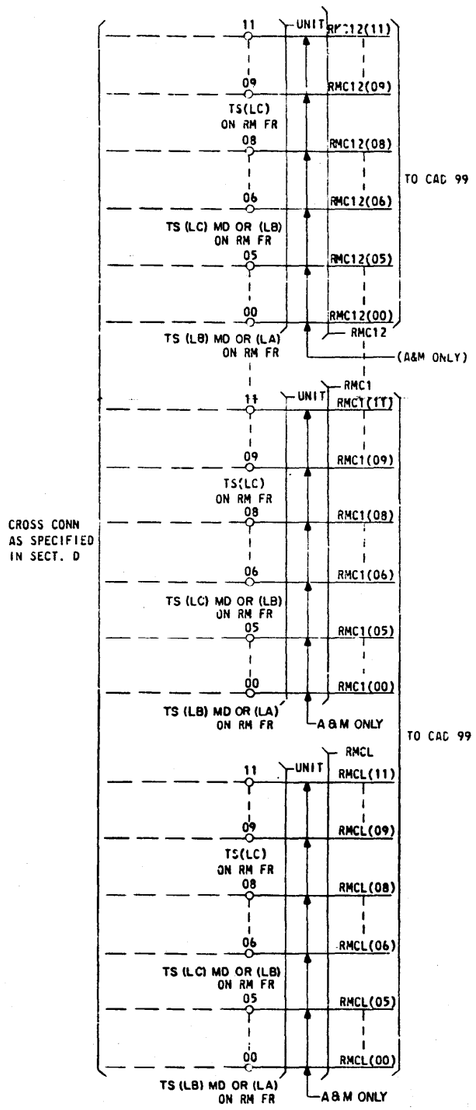
COMPLETING MARKER CIRCUIT (2) SD-26002-01-GI85B

BELL TELEPHONE LABORATORIES INCORPORATED 6S

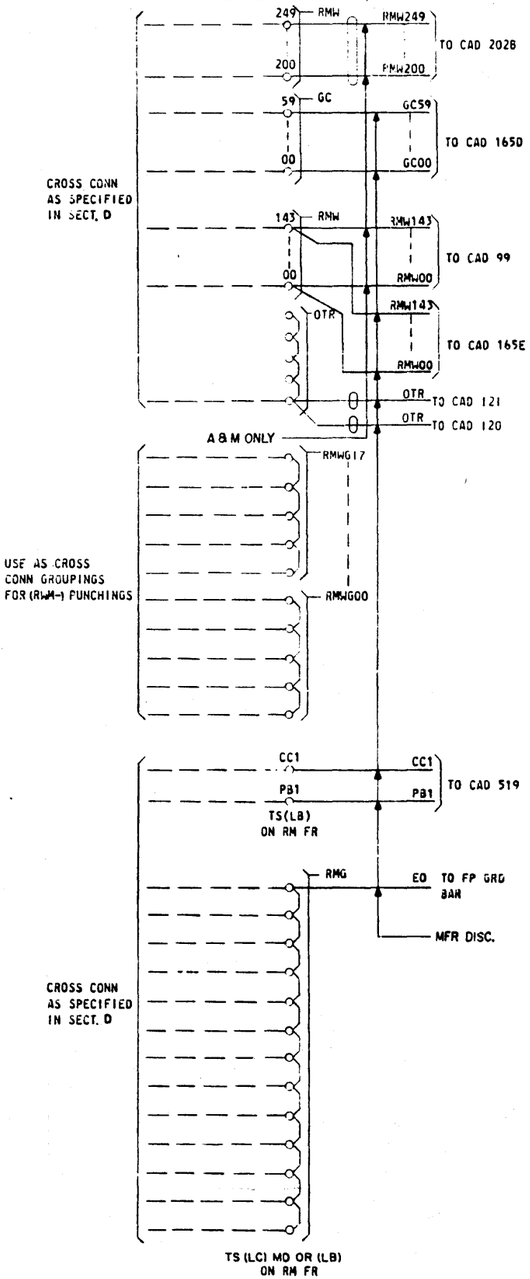
# CAD 165A (A&M ONLY)




# CAD 165B (A&M ONLY)




| DRAWING ISSUE | |
|---|---|
| 30D | ASL 4DL AND |
| 39D | RA |

ISSUE 57B

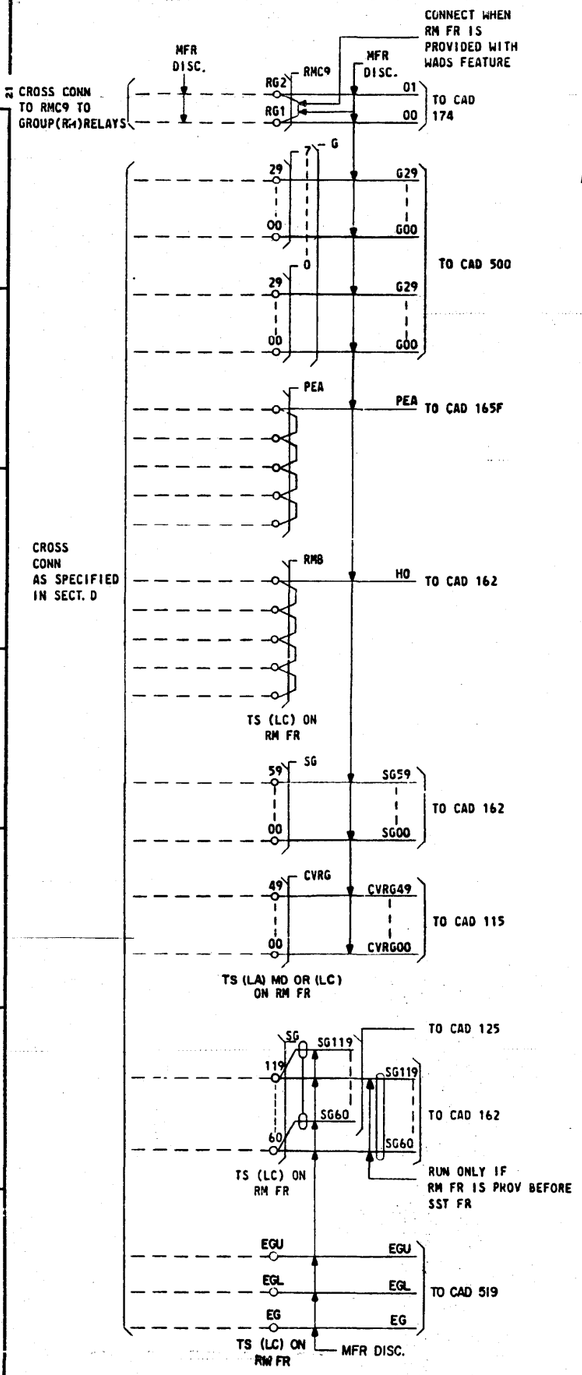
COMPLETING MARKER CIRCUIT (2)

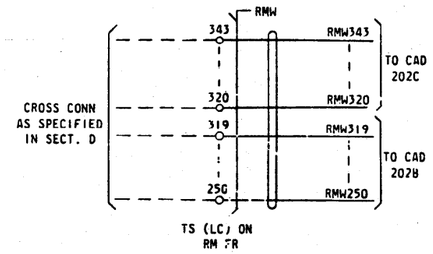
SD-26002-01-G186

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# CAD 165C (A & M ONLY)




| DRAWING ISSUE | | |
|---|---|---|
| 30D | DP | |
| 32A | LP | |
| 33D | LP | |
| 39D | | |

ISSUE 57B

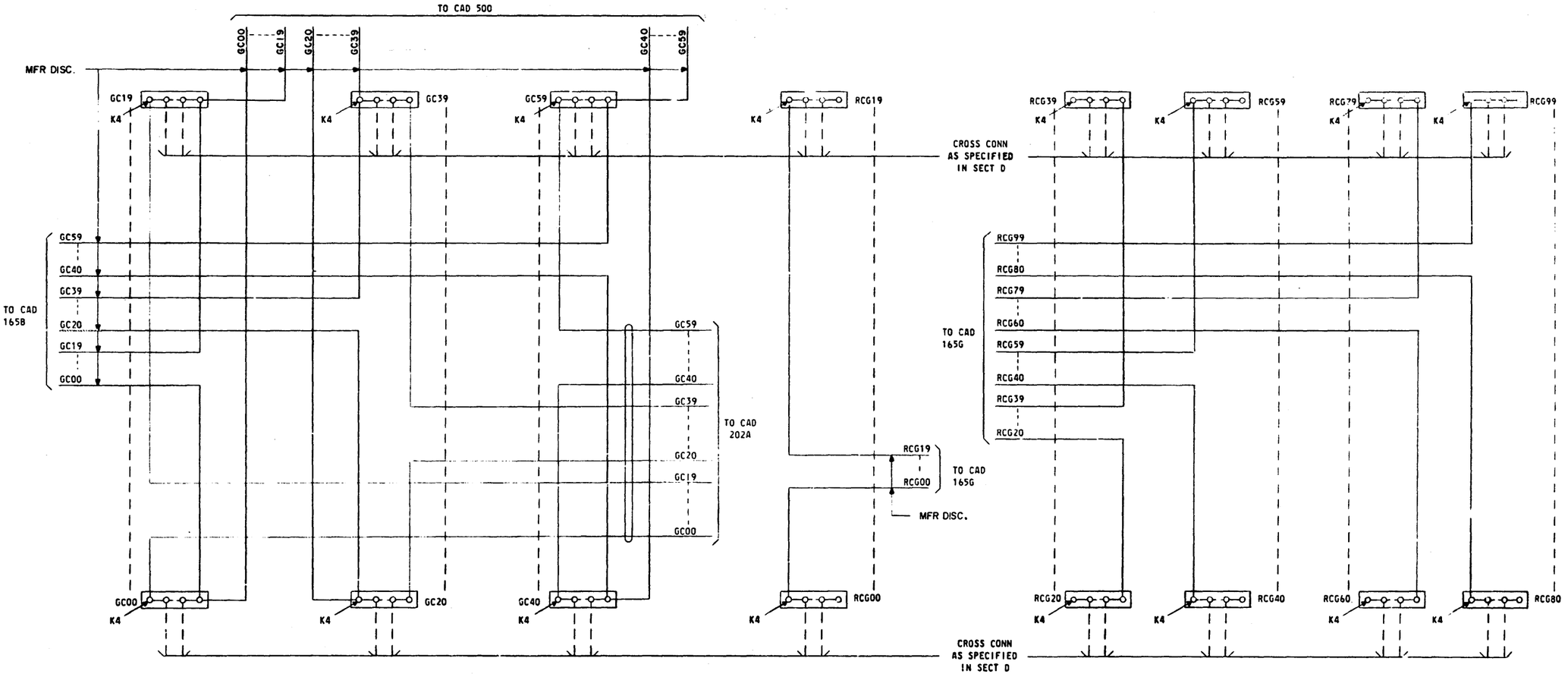
SD-26002-01-G188

COMPLETING ~~MARKER CIRCUIT~~ (2) SD-26002-01-G188

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILOHM

# PART OF CAD 165D (A&M ONLY)




| DRAWING ISSUE | |
|---|---|
| 24D | UA |
| | EP |
| | LA |
| | CB |
| 300 | MA |
| | AP |
| 390 | MB |

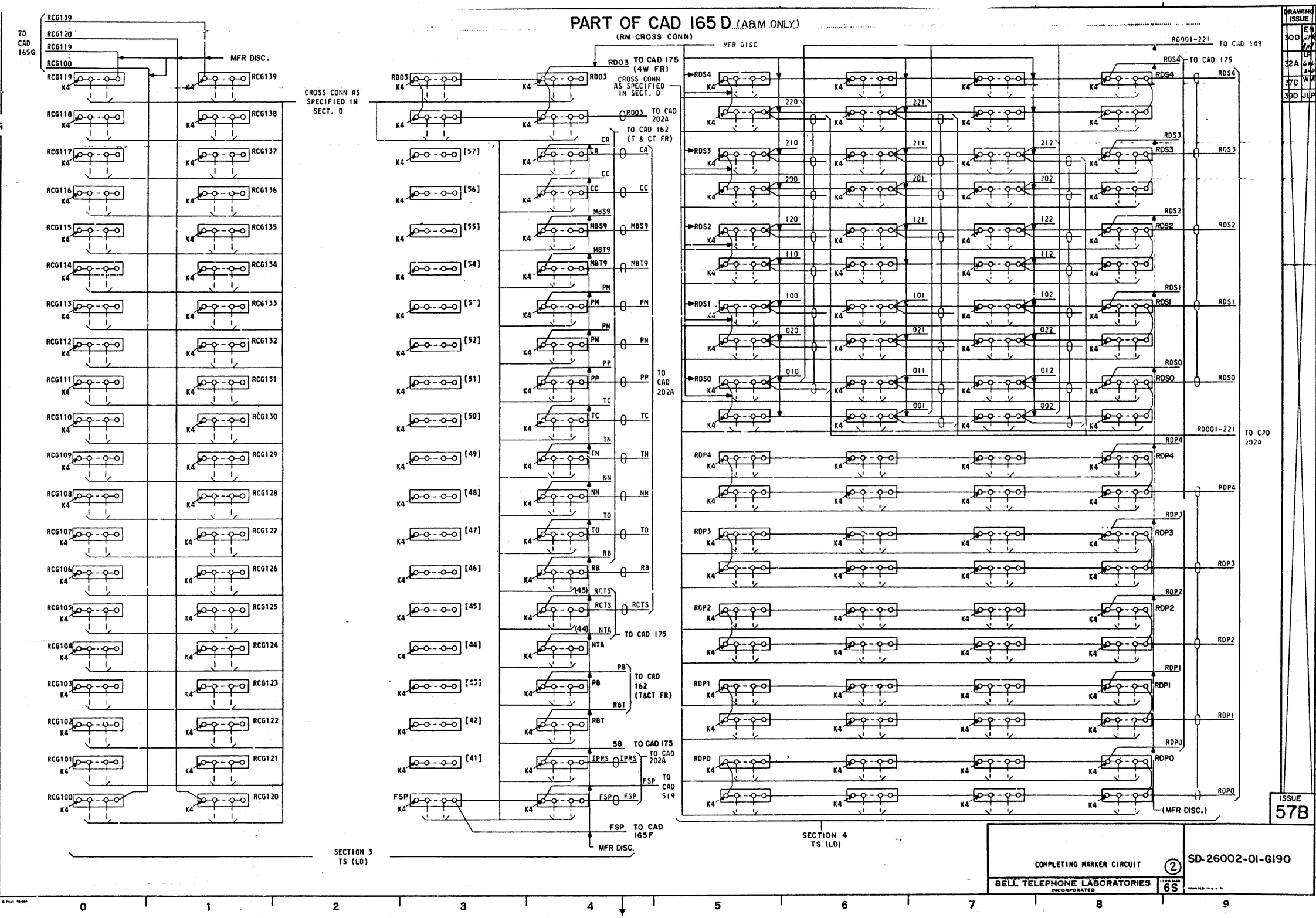
ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G189

BELL TELEPHONE LABORATORIES INCORPORATED 6S

# PART OF CAD 165 D (A&M ONLY)

(RM CROSS CONN)




| DRAWING ISSUE | |
|---|---|
| 30D | EM |
| 32A | LF |
| 37D | WM |
| 39D | JUP |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G190

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G190

## CAD 165E (A&M ONLY)

FGA
143 FGA143
00 FGA00

SGA OR RPC
143 SGA143
00 SGA00

CDS OR RM8
143 CDS143
00 CDS00

CDB OR RM7
143 CDB143
00 CDB00

CDM OR RM6
143 CDM143
00 CDM00

CROSS CONN AS SPECIFIED IN SECTION D

RS OR RM5
143 RS143
00 RS00

GA OR RM4
143 GA143
00 GA00

TO CAD 165A (MFR DISC) OR TO CAD 99 (A&M ONLY)

SBA OR RM3
143 SBA143
00 SBA00

BA OR RM2
143 BA143
00 BA00

TO CAD 99 (A&M ONLY)

MD OR RM1
143 MD143
00 MD00

DESIG WHEN RING ROUTE CONTROL IS PROVIDED

DESIG WHEN WADS RATING AND ROUTE SEP IS PROVIDED

TS (LE) ON RM FR

TO CAD 99 (A&M ONLY)

MFR DISC.

RMW
143 RMW143
120 RMW120
119 RMW119
00 RMW00

CROSS CONN AS SPECIFIED IN SECT D

TS (LF) ON RM FR

TO CAD 165B

SCG
29 SCG29
00 SCG00

CROSS CONN TO SC-PUNCHINGS IN CAD 165F

TO CAD 165A

TS (LE) ON RM FR

[19] K4

[02] K4

TO CAD 174 (MFR DISC) OR TO CAD 519

ERA (17)

ERA K4

MFR DISC.

TO CAD 519

EA

EA K4

## PART OF CAD 165F (A&M ONLY)

[39] K4

[22] K4

ERA K4

EA K4

SCI79 K4

SCI60

TO CAD 125 FOR AST FR

SCI19 K4

SCO0

CROSS CONN AS SPECIFIED IN SECTION D

TO CAD 125 FOR SST FR

MFR DISC.

SCI79
SCI60
TO CAD 162 FOR T&CT FR

SCI19
SCO0
TO CAD 162 FOR T&CT FR

TO CAD 125 FOR SST FR

MFR DISC.

ERA
EA
SCI79
SCI60
SCI19
SCO0
TO CAD 202C

CROSS CONN AS SPECIFIED IN SECTION D
SECTION I
T.S.(LF)

DRAWING ISSUE
24D WB GM AM
FAC
30D 2/12 GM
33D GM
39D DM

ISSUE 57B

COMPLETING ~~MARKER CIRCUIT~~ (2) SD-26002-01-G191

BELL TELEPHONE LABORATORIES INCORPORATED 6S

PRINTED IN U.S.A.

# PART OF CAD 165F (A&M ONLY)

TO CAD 125 FOR AST FR

TO CAD 125 FOR SST FR

SC20 SC39 SC40 SC59 SC60 SC79 SC80 SC99

(MFR DISC.)

MFR DISC.

CROSS CONN AS SPECIFIED IN SECTION D

TO CAD 162 FOR T & CT FR

TO CAD 162 FOR T&CT FR

SC99 SC80 SC79 SC60

SC59 SC40 SC39 SC20

TO CAD 125 FOR SST FR

SC59 SC40

SC99 SC90

SC20 SC40 SC60 SC90

K4

SECTION 2 TS(LF)

SECTION 3 TS(LF)

SC119 SC100 SC139 SC120 SC159 SC140

TO CAD 125 FOR AST FR

TO CAD 125 FOR SST FR

SC159 SC140 SC139 SC120

TO CAD 162 FOR T&CT FR

SC159 SC140 SC139 SC120 SC119 SC100

SC100 SC120 SC140

MFR DISC.

FGAP LGA SGAP ROT PEA SLB SKB SLS SGD FSP LGAS HTP HGD EGD SKS

TO CAD 519

TO CAD 165C

TO CAD 165D

MFR DISC.

(64)

(50)

LGA SC159 SC20

TO CAD 202C

ASM ONLY

DRAWING ISSUE

240 300 52A 33D 350 300

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

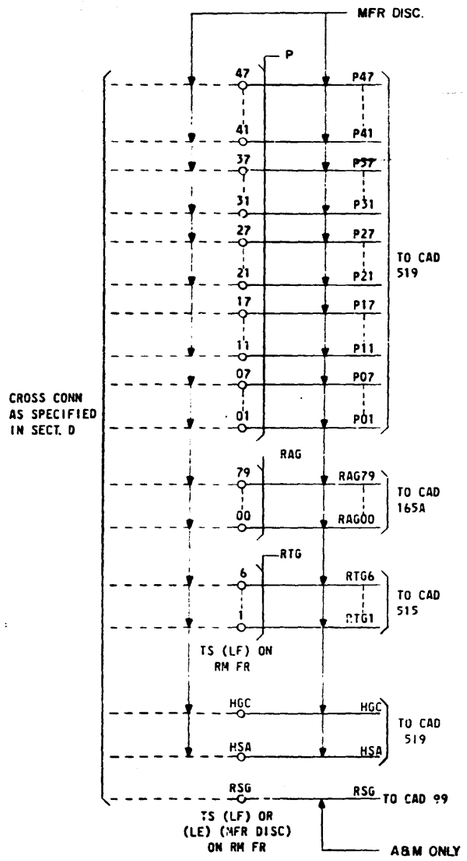
SD-26002-01-G192

BELL TELEPHONE LABORATORIES INCORPORATED 6S

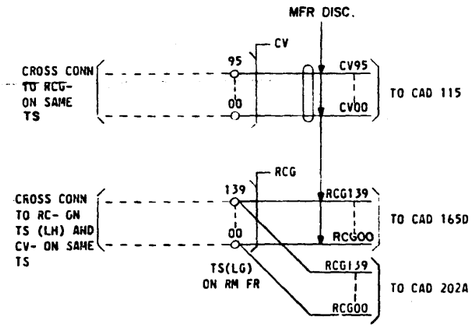
SD-26002-01-G192

STABILOID

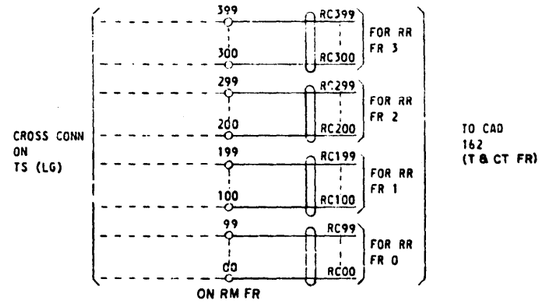
## PART OF CAD 165F (A&M ONLY)




## CAD 165G (A&M ONLY)




## CAD 165H (MFR DISC.)




DRAWING ISSUE
300 CM 4-1-69
390 L

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G193

BELL TELEPHONE LABORATORIES INCORPORATED 6S

TAGLIO

# CAD 166 (MFR DISC.)

(SWBD CA FROM 4W FR TO RM FR)

41 — TO CAD 177
40

39 89 59
38 88 58
37 87 57
36 86 56
35 85 55
TO CAD 100 (IRMC-MF)

34 84 (AG6) 33
33 83 (AG5) 32
32 82 (AG4) 31
31 81 (AG3) 30
30 80 (AG2) 24 — TO CAD 106 (MTC-D2)
29 79 (AG1) 23
28 78 (SR3) 22
27 77 (SR2) 21
26 76 (SR1) 20

25 75 — CONN WHEN RM FR IS NOT PROVIDED
24 74 29 — TO CAD 177
23 73 CDE3
22 72 CDE2
21 71 CDE1 — TO CAD 1478
20 70 CDE0

TO CAD 175 (RM FR)

19 69 (RD4S) 19
18 68 (RD3S) 18
17 67 (RD2S) 17
16 66 (RD1S) 16
15 65 (RD0S) 15 — TO CAD 97
14 64 (RD4P) 14
13 63 (RD3P) 13
12 62 (RD2P) 12
11 61 (RD1P) 11
10 60 (RD0P) 10

23
22 — TO CAD 177
09 59 (RD03) 28
08 58 08 — TO CAD 516

07 57 (GW7) 07
06 56 (GW6) 06
05 55 (GW5) 05
04 54 (GW4) 04
03 53 (GW3) 03
02 52 (GW2) 02
01 51 (GW1) 01
00 50 (GW0) 00
TO CAD 179

TS (MC-A) (4W FR)

79 79
78 78
77 77
76 76
75 75
74 74
73 73
72 72
71 71
70 70
69 69
68 68
67 67
66 66 66
65 65 65
64 64 64 — TO CAD 516
63 63 63
62 62 62
61 61 61

TO CAD 175 (RM FR)

60 60 60
59 59 59
58 58 58 — TO CAD 517
57 TO CAD 179
56 56 — A&M ONLY
55 55 — TO CAD 516
55 — TO CAD 179
54 54 — TO CAD 147B
53 53 — TO CAD 147A
52 52 — TO CAD 517
51 51 — TO CAC 180
50 50 (22) 50 — TO CAD 179 / TO CAD 180
TS (MC-B) (4W FR)

49 99 (21) 49 — TO CAD 180
48 98 (NPRC) 98 — TO CAD 147A
47 97 (PRC) 97
46 96 31 — TO CAD 177
45 95 (RCTS) 45 — TO CAD 179
44 94 (NTA) 33
43 93 43
42 92 42 — TO CAD 516
41 91 41
40 90 (HT) 40

TS (MC-A) (4W FR)

99
98
97
96
95
94
93
92
91
90
89 89 (91) H7 BAT. — TO CAD179
88 88 88 — TO CAD 516
87 87 87 — TO CAD 147A
86 96 (ROT) 96
85 85 (RO3) 85
84 84 (RO2) 84
TO CAD 175 — 93 93 (RO1) 93 — TO CAD 106 (MTC-D2)
82 82 (FGA) 82
81 81 (SGA) 81
80 80 (TGA) 80

TS (MC-B) (4W FR)

# CAD 167 (MFR DISC.)

(SWBD CA FROM CE FR TO RM FR)

SHOWN IN CAD 234
TO CAD 220
CONN WHEN ROTL TRK, MAKE BUSY IS PROV WITH ROUTING CONT
DO NOT CONN WHEN ROTL TRK, MAKE BUSY IS PROV WITH ROUTING CONT

RM
CONN WHEN ROUTING CONT AND ROTL TRK MAKE BUSY ARE NOT PROV
CONN WHEN ROTL TRK MAKE BUSY IS PROV WITHOUT ROUTING CONT

39 39
38 38 38 — TO CAD 8
37 37 37 — TO CAD 18
36 36 36 — CONN WHEN ROUTING IS NOT PROV
35 35 35 — TO CAD 3
34 34 34
33 33 33 — TO CAD 30
32 32 (IPRX) 32
31 31 (IPRL) 139 — TO CAD 121
30 30 (IPRL) 138
29 29 29 — TO CAD 20
28 28 28
27 27 27 — TO CAD 7
36 26 26 A&M ONLY 26
25 25 (15) 25
24 24 24 — TO CAD 8
TO CAD 81
23 23 23
22 22 22 — TO CAD 7
21 21 21
20 20 20 — STRAP WHEN PC AUX CKT IS PROV
TO CAD 174 (RM FR)
19 19 19 — TO CAD 13
18 18 18
17 17 17 — TO CAD 7
CONN
DO NOT CONN — WHEN TDP IS PROV
16 16
15 15 15 — TO CAD 91
14 14 14 (MFR DISC.)
13 13 (PCR2) 13 — TO CAD 8
12 12 (PCR1) 12 — TO CAD 31
11 11 A&M ONLY 11
10 10 (IPR) 10 — TO CAD 8
09 09 (IPR) 137 — TO CAD 121
09 09 — TO CAD 7
08 08 08 — TO CAD 81
07 07 07 — TO CAD 7
06 06 06 — TO CAD 13
05 05 05 — TO CAD 7
04 04 14 — TO CAD 187
04 — TO CAD 9
03 03 (RO3) 03
02 02 (RO2) 02 — TO CAD 20
(RO1) 01
01 01 01
00 00 00 — TO CAD 8
00 — TO CAD 7
00 — TO CAD 13
TO CAD 106 ('MT) (MFR DISC.)
TS (CD) ON CE FR ('MFR DISC)

DRAWING ISSUE
300 RAC MWK AMP TJL
33A GBH AMD CKC
33D GDL AMD JEK
34A TWH JMB
37D RK
39D JHV
40A
41D

ISSUE 69B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G195
BELL TELEPHONE LABORATORIES INCORPORATED
6S

SD-26002-01-G195

STABILO

# PART OF CAD 168A

(SWITCHBOARD CABLE TO OFFICE TEST FRAME)

TO OFFICE TST FR (OT FR TST CKT)

MT25 (538) MT25 — TO CAD 108
MT23 — MT23 — TO CAD 191
LHMI — 57C
SW — 52D
SWC — 18C
NCW — 47C
— TO CAD 560

SHOWN ON CAD 121

OT

GLH 18 — 18 — TO CAD 11
TRSG 17 — 17
TRST 16 — 16 — TO CAD 13
RET 15 — 15
TRL 14 — 14
MRL 13 — 13 — TO CAD 30
BT 12 — 12
SD 11 — 11
TRK 10 — 10 — TO CAD 8
TRG 9 — 9
TR2B 8 — 8 — TO CAD 30
TR2A 7 — 7
OTF 6 — 6
DISA 5 — DISA
DIS 4 — DIS
MT13 3 — MT13 — TO CAD 13
REC 2 — REC
CBLK 1 — CBLK
MXT 0 — MXT — TO CAD 30

TO OFFICE TST FR (OT FR TIC CKT)

TO CAD 204 102

TS(CH) ON CE FR

OT

SL9 9 — SL9
SL8 8 — SL8
SL7 7 — SL7
SL6 6 — SL6
SL5 5 — SL5 — TO CAD 55
SL4 4 — SL4
SL3 3 — SL3
SL2 2 — SL2
SL1 1 — SL1
SL0 0 — SL0

TO OFFICE TST FR (OT FR TST CKT)

TS (TT) ON T & CT FR

RUN FROM 1ST COMPL MKR ONLY WHEN NO DT MKR IS PROVIDED

AL — AL (MTFC-C2)
ALT — ALT (MTFC-T0)
AMA- — AMA- (MTFC-B1) — TO CAD 106
ETS0 — ETS0
ETS1 — ETS1 — TO CAD 123
FB0 … FB4 — FB0 … FB4 — TO CAD 103 (TLC-ST)
FTC0 … FTC4 — FTC0 … FTC4 — TO CAD 3
GPA — GPA
GPB — GPB (MTFC-C3)
HN0 … HN9 — HN0 … HN9 (MTC-E1)
JSQ0 … JSQ5 — JSQ0 … JSQ5 (MTFC-T1)
KJSQ — KJSQ — TO CAD 106

MFR DISC

TO OFFICE TST FR (OT FR TST CKT)

LLPT — LLPT
MB — MB — TO CAD 123
MT5 — MT5
MT7 — MT7 — TO CAD 106 (MTFC-T1)
MT8 — MT8
MT10 — MT10 — TO CAD 123
MT19 — MT19
NGTA … NGTH — NGTA … NGTH — TO CAD 128A
NTLS — NTLS
OTS0 — OTS0
OTS1 — OTS1 — TO CAD 123
S0 … S9 — S0 … S9 (MTFC-T0)
STP1 — STP1
STP2 — STP2 (MTFC-C0) — TO CAD 106
T0 … T9 — T0 … T9 (MTC-E1)
TBTA — TBTA
TBUA — TBUA
TB — 5I
TBT — 3I (MTC-T0)
CKRI — CKRI (MTC-E1)
CKR — CKR
CWK — CWK (MTFC-A4)
LHMT — LHMT
CSW — CSW — MTFC-T1, MTFC-B5
SPL — SPL — MTFC-B0

AIS — AIS (MTFC-B5)
TBI — TBI
RI — RI (MTFC-B1)
2DT — 2DT (MTFC-B1)
A0 — A0
A1 — A1
A2 — A2
A4 — A4
A7 — A7 (MTFC-B2)
AMA — AMA (MTFC-B1)
AVK1 — AVK1
AR0 — AR0
AR1 — AR1
AR2 — AR2
AR4 — AR4
AR7 — AR7 (MTFC-B3)

TO OFFICE TST FR (OT FR TIC)

B0 — B0
B1 — B1
B2 — B2
B4 — B4
B7 — 37 (MTFC-B2)
BN — BN (MTFC-B1)
BR0 — BR0
BR1 — BR1
BR2 — BR2
BR4 — BR4
BR7 — BR7 (MTFC-B3)
C0 — C0
C1 — C1
C2 — C2
C4 — C4
C7 — C7 (MTFC-B2)
TCH0 … TCH9 — TCH0 … TCH9 (MTFC-T1)
TCHK — TCHK (MTFC-C0)
TNGA — TNGA — TO CAD 123
TSE1 — TSE1
TSE2 — TSE2 — TO CAD 106 (MTFC-T0)
TT0 … TT19 — TT0 … TT19 — TO CAD 123
LTG — LTG (MTFC-CONT)
OTT — OTT (MTFC-C0)
TTG — TTG (MTFC-CONT)
RI — RI (MTFC-B1) — TO CAD 106

BY — RUN FROM 1ST COMPL MKR ONLY

TO CAD 106

| DRAWING ISSUE | |
|---|---|
| 28D | KY PBX AND |
| 34A | JEK TMJ AND |
| 35D | JEK TMJ AND |
| 36A | HKL |
| 37D | HKL |
| 39D | LT |
| 41D | |
| 43D | |
| 44A | |

DRAWING ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

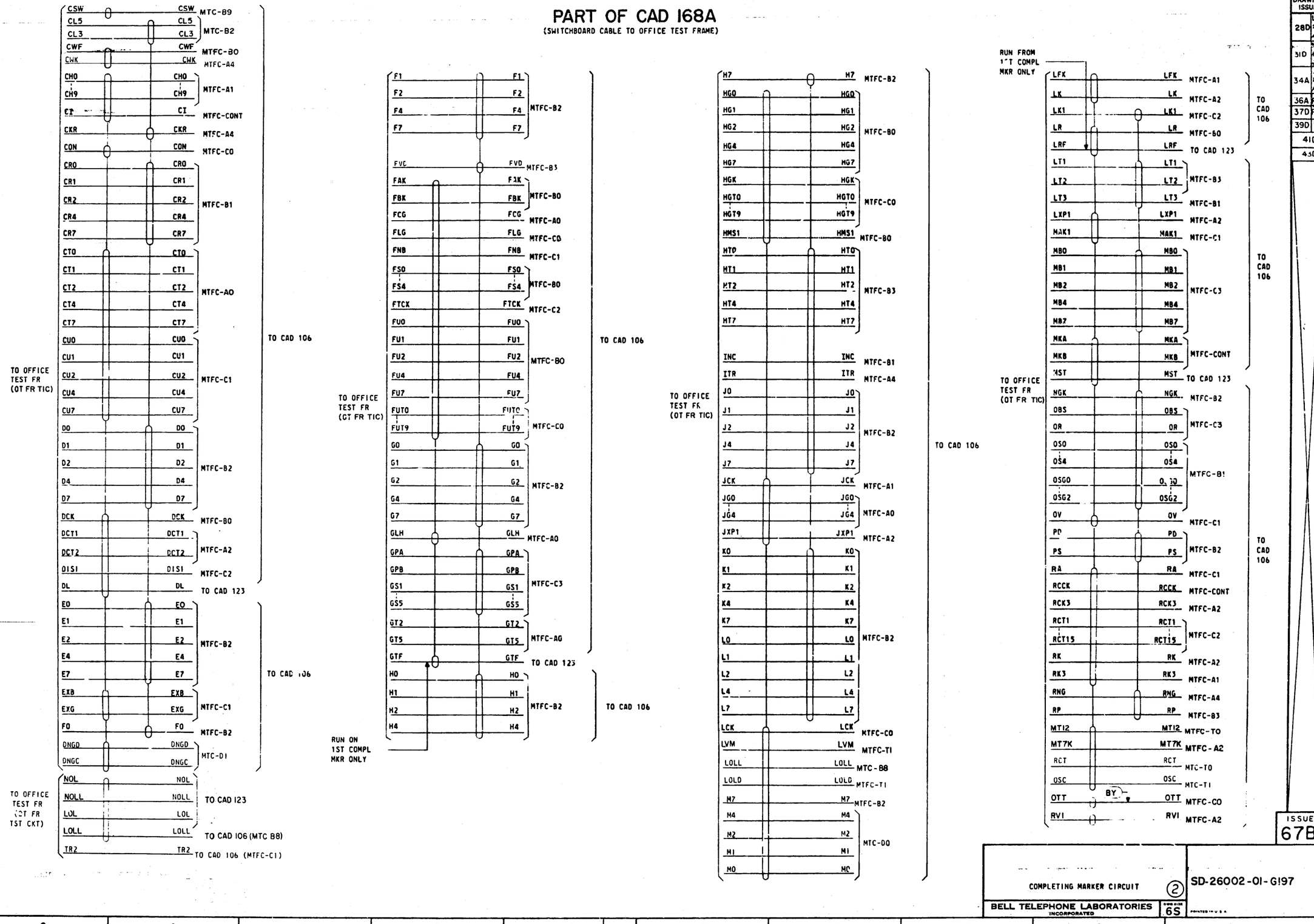
SD-26002-01-6196

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

STABILOK

# PART OF CAD 168A

(SWITCHBOARD CABLE TO OFFICE TEST FRAME)




| DRAWING ISSUE | | |
|---|---|---|
| 28D | LPW | |
| 31D | RPS | |
| 34A | JEK | |
| 36A | PAZ | |
| 37D | PAZ | |
| 39D | LT | |
| 41D | | |
| 43D | | |

ISSUE 67B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G197

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

SD-26002-01-G197

STABILO K+E

# PART OF CAD 168A

(SWITCHBOARD CABLE TO OFFICE TEST FRAME)

CONN WHEN REMOTE OFFICE TEST LINE REGISTER IS ARRANGED TO PERFORM DC TEST ON TRUNK CONDUCTORS

TO OFFICE TEST FR (OT FR TIC)

11 2W AL BT CGA CGB CKG1 CRU0 CRU1 CRU2 CRU4 CRU7 CTA0 CTA1 CTA2 CTA4 CTA7 DCT DIS (MTFC-B3)
EX TO CAD 123 (A&M ONLY)
FCK (MTFC-C0)
FG0 FG1 FT0 FT3 (MTFC-B0)
FTC (MTFC-T0)
LHM LHMT (MTFC-T1)
LK2 LK3 (MTFC-T0)
LT (MTFC-B3)
MB MIT (MTFC-CONT)
MOI (MTFC-T0)
MRL (MTFC-C2)
MT (MTFC-CONT)
MT5 (MTFC-T1)
MT1K MT2K (MTFC-T0)
MT8K MT9K (MTFC-T1)
TO CAD 106

MT57 MT10K NDT NOB PK RBT RBTI ROG RSC RSK RV SB SCB SCK SDT SL SLK2 SOG SSA SSB STP2 TAN TB TBO TB5 TCHK TDCT TER TFO TF1 TF2 TF4 TF7 TGT TK TM TOG TOL TP TR2 TR TRB TRK T89 T86
(MTFC-T1) (MTFC-T0) (MTFC-C0) (MTFC-C3) (MTFC-B2) (MTFC-T0) (MTFC-C2) (MTFC-T0) (MTFC-A2) (MTFC-C2) (MTFC-A5) (MTFC-T0) (MTFC-C2) (MTFC-B3) (MTFC-C2) (MTFC-C0) (MTFC-A2) (MTFC-A4) (MTFC-C3) (MTFC-C0) (MTFC-B1) (MTFC-T0) (MTFC-A2) (MTFC-C0) (MTFC-T0) (MTFC-A4) (MTFC-B0) (MTFC-A2) (MTFC-C2) (MTFC-A4) (MTC-B1) (MTFC-B3) (MTFC-C1) TO CAD 123 (MTFC-CONT) (MTFC-C1) (MTC-D0)
TO CAD 106

TO OFFICE TEST FR (OT FR TIC)

TRL TRL1 TRL2 TRS TRST TS0 TS19 TSE1 TSE2 TT0 TT1 TT2 TT4 TT7 TTC TTC1 TTG UT0 UT1 UT2 UT4 UT7 VF0 VF4 VFT0 VFT4 VG0 VG1 VG2 VG4 VG7 VG10 VGT0 VGT11 WT X11 XLH XRL XT5 XCW
(MTFC-C1) (MTFC-T0) (MTFC-C2) (MTFC-C1) (MTFC-CONT) (MTFC-A1) (MTFC-T0) (MTFC-B3) (MTFC-T0) (MTFC-T1) (MTFC-CONT) (MTFC-B3) (MTFC-B0) (MTFC-C0) (MTFC-B0) (MTFC-C0) (MTFC-C2) (MTFC-B3) (MTFC-A2) (MTFC-A3)
TO CAD 106

TO OFFICE TEST FR (OT FR TIC)

TT TP' RC PCR PCD1 PCD OB OA HN9 HN0 FG2 FAC F ECN CKR1 BY ALT THT3 THT2 THT1 THT0 TCB TCA TBUA TBTA TBT TAN4 TAN1 T9 T0 SBT S9 S0 RS1 RSC TMK1 TMK AI
MTFC-B3 MTFC-C0 MTFC-T0 MTFC-B1 MTFC-B3 MTFC-A4 MTFC-B5 MTFC-B1 MTFC-T0 MTFC-C3 MTC-E1 MTFC-C1 MTFC-T0 MTFC-T1 MTFC-B3 MTC-E1 MTFC-T0 MTFC-B1 MTC-E1 MTFC-T0 MTFC-C2
(468)
AI TO CAD 558
TO CAD 106

| DRAWING ISSUE | |
|---|---|
| 37D | 4AD |
| 43D | 3B |
| 45D | |

ISSUE 60A

COMPLETING MARKER CIRCUIT (2)

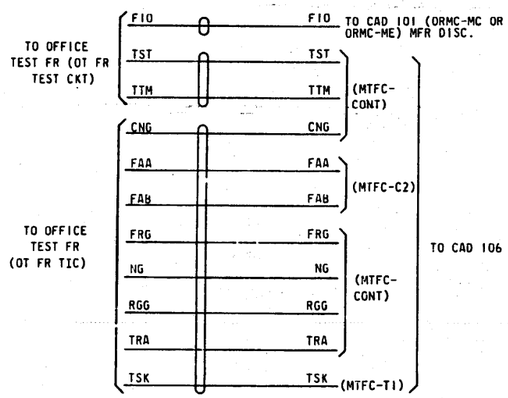
SD-26002-01-G198A

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 168B

(SWITCHBOARD CABLE FOR OTHER CIRCUITS
TO OFFICE TEST FRAME RUN VIA MARKER)





ISSUE 51D

COMPLETING MARKER CIRCUIT

SD-26002-01-G198B

BELL TELEPHONE LABORATORIES INCORPORATED

2

6S

SD-26002-01-G198B

# CAD 169

(SWBD CABLING TO TRAFFIC SAMPLE CONTROL UNIT (J28760RA) MOUNTED ON REL RACK, TRAFFIC SAMPLE CKT, AND TRAFFIC SAMPLE MONITOR CKT

TO 1ST TR SAMPLE CKT — SA
TO TR SAMPLE MONITOR AND TEST UNIT — SPC

TRS

25 → 317 TO CAD 107
24 → 315
CONNECT ONLY ON MARKERS NOT PROVIDED WITH TR SAMPLE CKT BUT OTHER MARKERS IN MKR GR REQUIRE TR SAMPLE CKT
23 → 22 TO CAD 40 OR CAD 74; 23A TO CAD 39
22 → (NSP) 22 TO CAD 105 (OSC-MC1)
21 → (SPC) 23
CONNECT WHEN AIOD IS NOT FURNISHED
20 → 19 TO CAD 40 OR CAD 74; SA TO TERM. 44 IN SAME CAD
19 → 18 TO CAD 55
18 → 17
18 TO CAD 507 — CONN WHEN YC OPT IS PROVIDED
15A TO CAD 41
16 → 582
19A → 663
15 → 619
TO CAD 107
14 → 579
14 TO CAD 48
DO NOT CONN WHEN TR SAMPLE BY SELECTOR TRK GROUP IS PROVIDED
13
MFR DISC.
12 → 12 TO CAD 40 OR CAD 74
TO CAD 505 — 11 → 11
10 → (CPP10) 10
09 → (CPS10) 09 TO CAD 111
CONN WHEN TR SAMPLE CKT IS NOT PROVIDED FOR MKR
08 → 08 TO CAD 39
07 → 07
MFR DISC.
101 TO CAD 178
06 → 131 TO CAD 141
06 → 51
05 → 05 TO CAD 40
DO NOT CONN WHEN TR SAMPLE BY SELECTOR TRK GROUP IS PROVIDED
04 → 04
05
03 → 03 TO CAD 39
02 → 02
51 TO CAD 178
01 → 206 TO CAD 107
01
00 → (MBSO) 00 TO CAD 125
CONN ONLY WHEN TR SAMPLE CKT IS PROVIDED FOR MKR

TO CAD 198
TS (TT) ON T & CT FR
CONN WHEN TR SAMPLE BY SELECTOR TRK GROUP IS PROVIDED

TSM

MFR DISC.
TO CAD 505 — 32
TO IST TR SAMPLE UNIT — T8R
TO 1ST TR SAMPLE MONITOR AND TEST UNIT — MB
28
27
26
TO CAD 505 — 24
23
31
25 — CTK
TO IST TRAFFIC SAMPLE UNIT

MFR DISC.
19
18
11
10 → 10 TO CAD 10
09
CONNECT WHEN AV OPTION IS NOT PROVIDED
08 → 08 TO CAD 14
07 → 07 TO CAD 13
06 → 581 TO CAD 105
06
05 → 05 TO CAD 26
04 → 04
03 → 03 TO CAD 8
02 → 02 TO CAD 26
01
CONNECT WHEN AV OPTION IS NOT PROVIDED
00 → 60 TO CAD 27

TS (CGI) ON CE FR

TRS

TO CAD 125 — 49 → 49 (TS4) 49
TO 5TH TR SAMPLE CKT — TS4
TO 4TH TR SAMPLE CKT — TS3 — 48 → 48 (TS3) 48
TO CAD 110N OR TO CAD 110NI
TO 3RD TR SAMPLE CKT — TS2 — 47 → 47 (TS2) 47
TO 2ND TR SAMPLE CKT — TSI — 46 → 46 (TSI) 46
TO IST TR SAMPLE CKT — TSO — 45 → 45 (TSO) 45
CONNECT WHEN AIOD IS NOT FURNISHED
SA TO TERM.18 IN SAME CAD
44 → 44 TO CAD 110N OR TO CAD 110NI
44 TO CAD 507
TO 5TH TR SAMPLE CKT — TA4 — 43 → (TA4) 43
TO 4TH TR SAMPLE CKT — TA3 — 42 → (TA3) 42
TO 3RD TR SAMPLE CKT — TA2 — 41 → (TA2) 41
TO CAD 110M OR TO CAD 110MI
TO 2ND TR SAMPLE CKT — TAI — 40 → (TAI) 40
TAO — 39 → (TAO) 39
TO IST TR SAMPLE CKT — T — 38 → 37 TO CAD 55
CT — 37 → 580
581
TO CAD 505 — 37 → 36 (36) 609
TO CAD 107
TO IST TR SAMPLE CKT — SL — 35 (35) 608
MFR DISC.
34
TO CAD 505 — 33 → 34 TO CAD 198
TO CAD 198 — 33
32 → 32 TO CAD 55
TO CAD 505 — 31 → 31 TO CAD 110U
30A
TO CAD 198 — 26 → 30 → 30A TO CAD 39
29 → 29
29 TO CAD 41
28 → 28 (26) 28
TO CAD 505 — 27 → 27 (25) 27 TO CAD 156
26 → 26
CONN WHEN TR SAMPLE CKT IS NOT PROVIDED FOR MKR
25 → 25 TO CAD 40 OR TO CAD 74
TO CAD 198 — F38 — 52 SHOWN IN CAD 119 (EZ)
TO CAD 505 — F38A

TS (TT) ON T & CT FR

# PART OF CAD 170A

(SWBD CABLE FROM CE FR TO DIAL TRANSFER UNIT MOUNTED ON REL RACK)

TO CAD 204 — 126 → DT
CONN WHEN DIAL TRANSFER IS NOT PROVIDED
42 → 42
41 → 41 TO CAD 90
40 → 40 TO CAD 19
39 → 39 TO CAD 90
38 → 81 TO CAD 171
38 TO CAD 503
37 → 37 TO CAD 78
36 → 36
35 → 35 TO CAD 90
34 → 34
33 → 33
32 → 32 → 43 TO CAD 171
31 → 31
30 → 30 TO CAD 21
29 → (DLT) 40 TO CAD 106 (MTFC-B5)
28 → 28 TO CAD 90
27 → 27 TO CAD 8
26 → 26
25 → 25
24 → 24 TO CAD 90
23 → 23
22 → 22
TO CAD 502 ON REL RACK
14 TO CAD 171
21 → 21 TO CAD 22
20 → 20 TO CAD 503
19 → 19 TO CAD 26
18 → 84 TO CAD 191
17 → 17 TO CAD 503
16 → 16
15 → 15 (48 / 14A) TO CAD 90
14 → 14
13 → 13
12 → 12 TO CAD 96
11 → 11
10 → 10 TO CAD 90
09 → 09
08 → 08 TO CAD 22
07 → 07 TO CAD 81
06 → 06 TO CAD 21
05 → 05 TO CAD 90
04 → (DTF) 34 TO CAD 106 (MTFC-B5)
03 → (CGS) 03 TO CAD 109
02 → (DT) 02
01 → (MT) 01 TO CAD 90
00 → "A63" GRD TO FR GRD BAR
DO NOT CONN WHEN PHASE III CENTREX IS PROVIDED WITH WIDEBAND (MARKERS 0 & 1 ONLY)

TO CAD 204 — 202
TS (CJ) ON CE FR

TO CAD 502 ON REL RACK

DT
89 → 89 TO CAD 512
88 → 88
87 → 87 TO CAD 171
86 → 86 TO CAD 22
85 → 85 TO CAD 112
84 → 84
83 → 83 TO CAD 90
82 → 82
81 → 81 TO CAD 512
80 → 80
79 → 79
78 → 78 TO CAD 26
77 → 159 TO CAD 154
76
75 → 75 TO CAD 512
74 → 143 TO CAD 121
73 → 142
72 → 72 TO CAD 512
71 → 71 TO CAD 22
70 → 70 → 71 TO CAD 8
MFR DISC.
69 → 69 TO CAD 90
68 → (SCK) 68
CONN WHEN DIAL TRANSFER IS NOT PROVIDED
TO CAD 204 — 125
67 → 67 TO CAD 512
66 → (07) 66 TO CAD 100 (TRMC)
65 → 65 TO CAD 90
64 → 64
63 → 63
62 → 62 TO CAD 512
61 → 61
60 → 60 TO CAD 90
59 → 59 TO CAD 86
58 → 53 TO CAD 21
57 → 57 TO CAD 512
56 → 56 TO CAD 154
55 → 55
54 → 54 TO CAD 512
(A&M ONLY)
53 → 53 TO CAD 90
52 → 52 TO CAD 514
52 TO CAD 512
51 → (676) 51
50 → (649) 50
49 → (677) 49
48 → (648) 48 TO CAD 108
47 → (679) 47
46 → (678) 46
45 → 45
44 → 44 TO CAD 90
CONN WHEN TDP IS NOT PROVIDED
43 → 43 TO CAD 8
43 TO CAD 90
TS (CJ) ON CE FR

| DRAWING ISSUE |
|---|
| 55B |

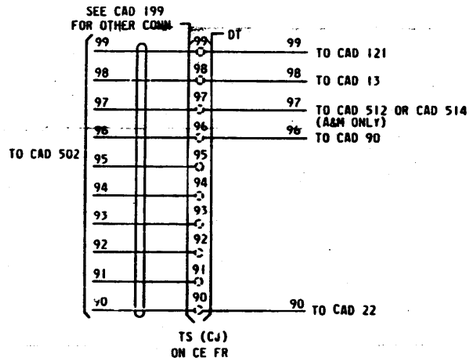
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G199A

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE D6S

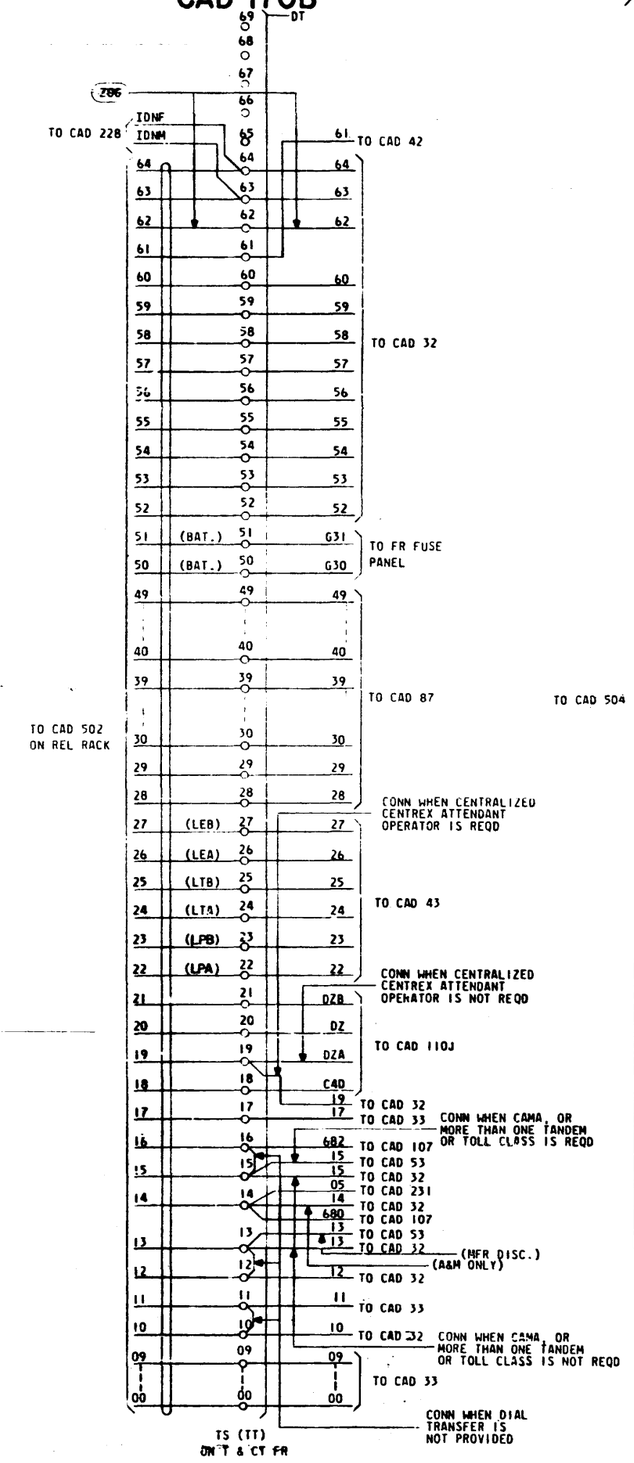
PRINTED IN U.S.A.

# PART OF CAD 170A

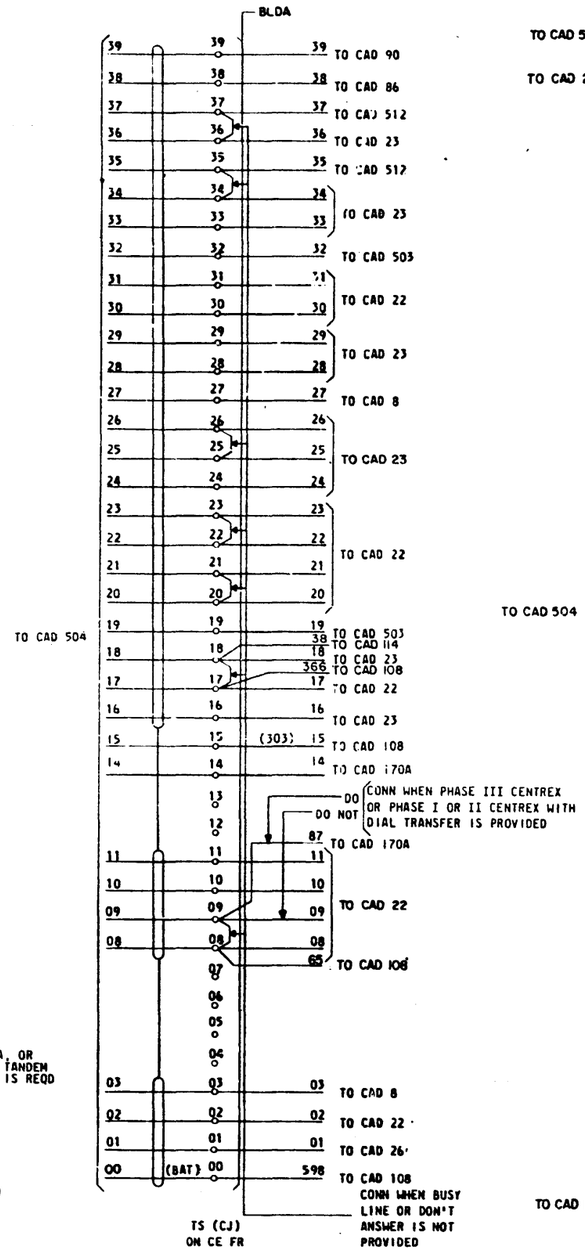


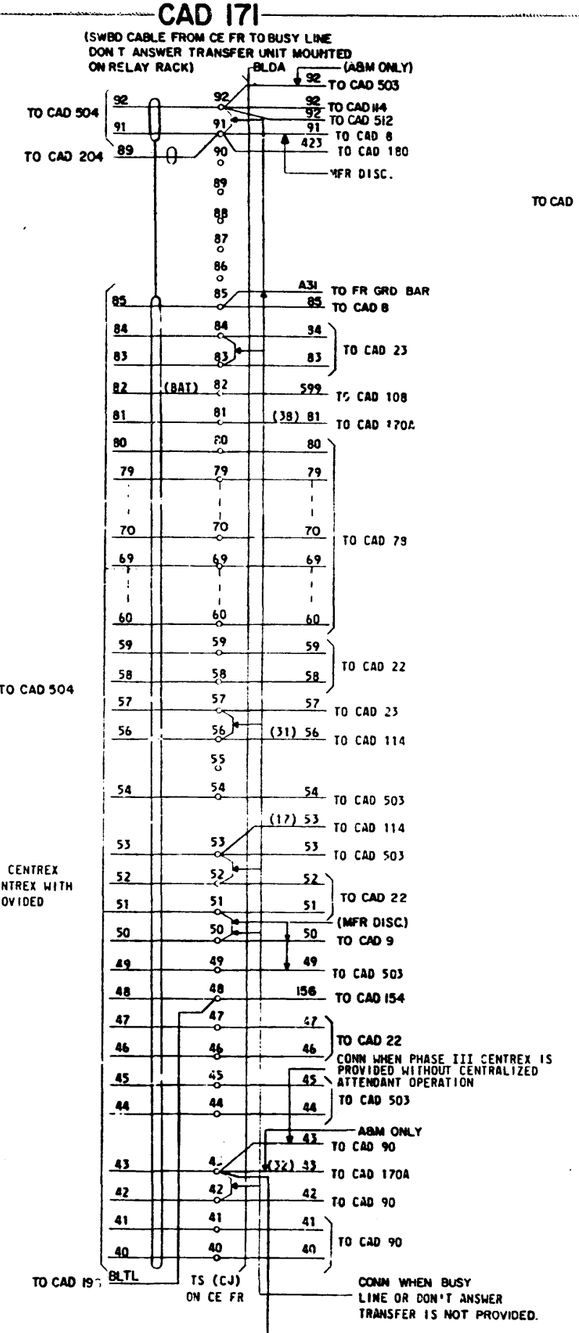

| | |
|---|---|
| ISSUE 5ID | |
| COMPLETING MARKER CIRCUIT ② | SD-26002-01-G199B |
| BELL TELEPHONE LABORATORIES INCORPORATED | SYS CODE 6S |

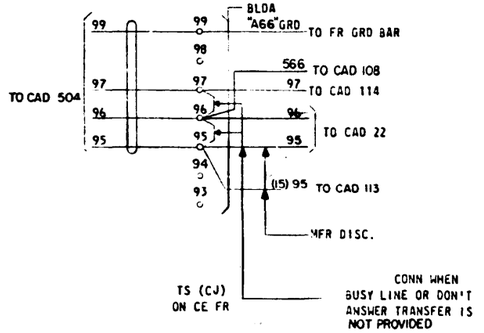
# CAD 170B




# CAD 171




| DRAWING ISSUE | |
|---|---|
| 25D | NLF |
| 26A | NLF |
| 27A | LAB |
| 29A | LAB |
| 30D | LP |
| 32A | LP |
| 33D | LP |
| 38A | |
| 35D | |
| 39D | |
| 40A | |
| 41D | |
| 43D | |

ISSUE 60A

COMPLETING MARKER CIRCUIT (2)

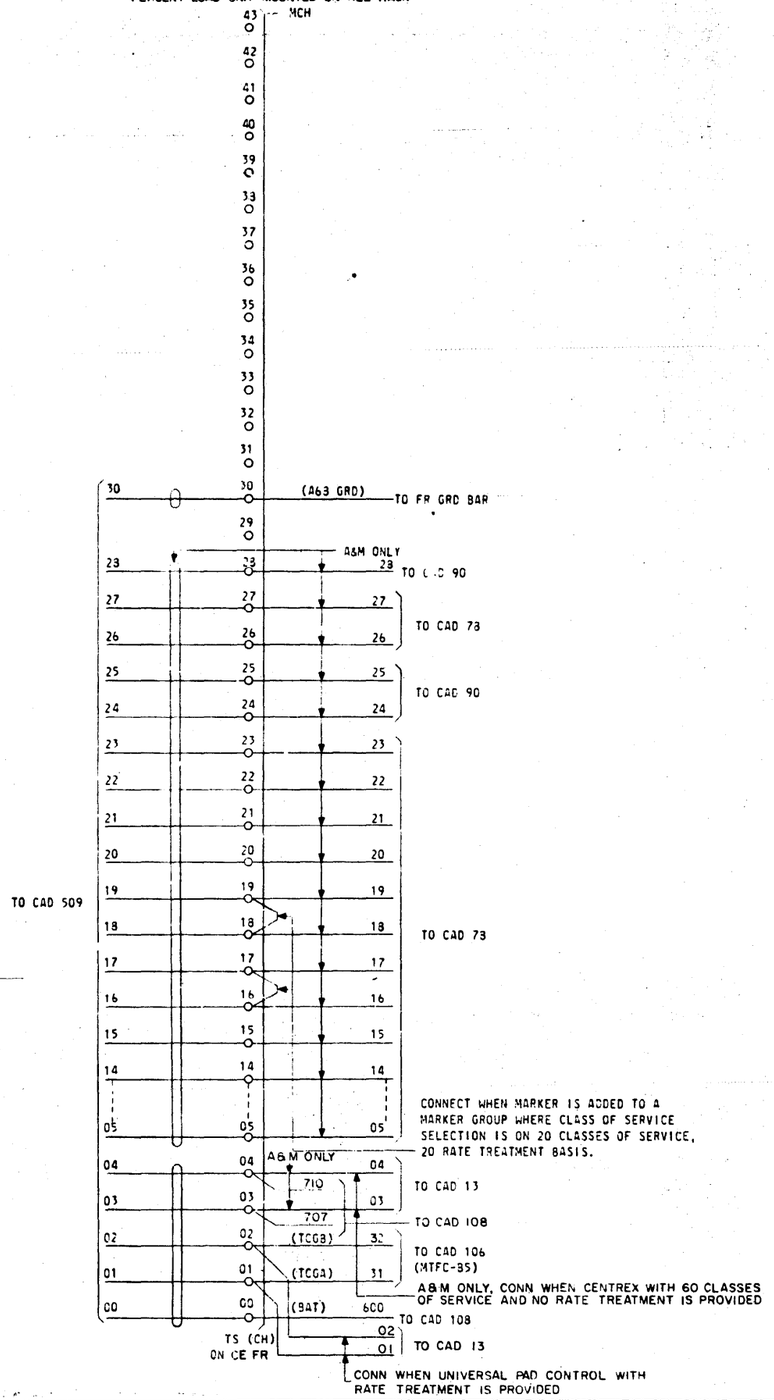
SD-26002-01-G200

BELL TELEPHONE LABORATORIES INCORPORATED

6S

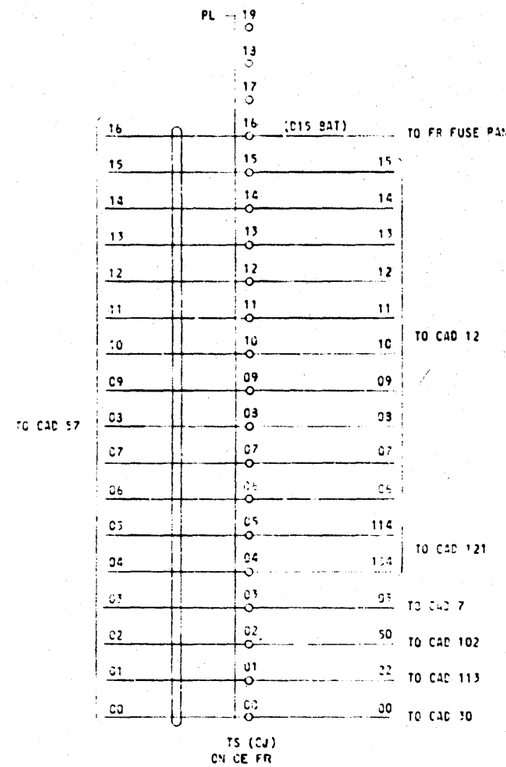
# CAD 172

SWBD CABLE FROM COMMON EQPT FR TO PERCENT LOAD UNIT MOUNTED ON REL RACK




# CAD 173

SWBD CABLE FROM COMMON EQPT FR TO PERCENT LOAD UNIT MOUNTED ON REL RACK




| DRAWING ISSUE | |
|---|---|
| 25D | DEC |
| 27A | MAY |
| 29A | MAY |
| 30D | JAS |

SD-26002-01-G201

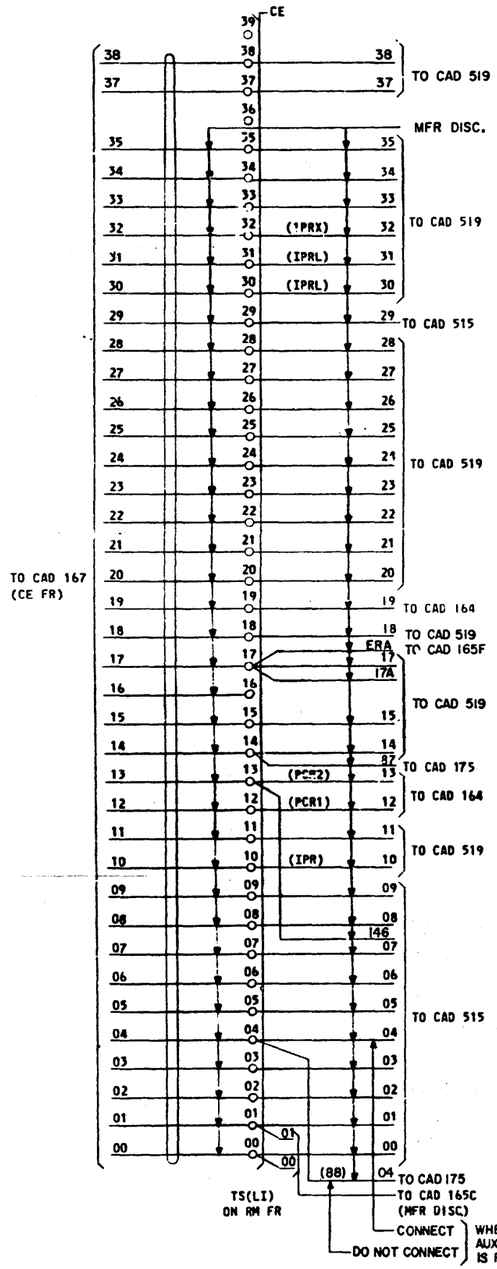
30

CROSSBAR SYSTEMS
NO. 5
COMPLETING MARKER CIRCUIT
(2)
SD-26002-01-G201

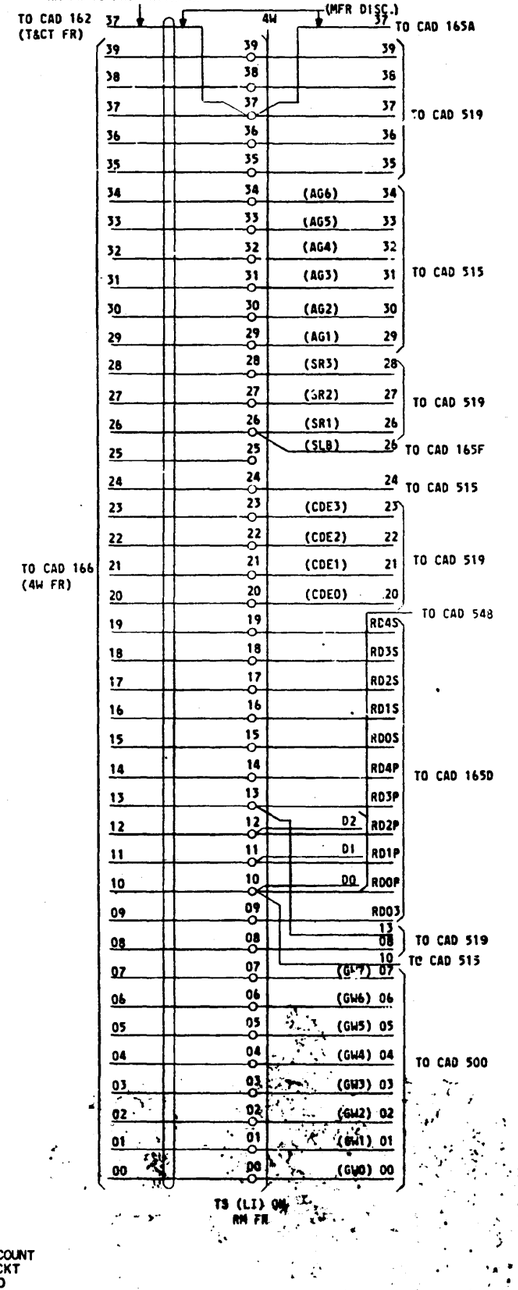
BELL TELEPHONE LABORATORIES INCORPORATED
6S

## CAD 174 (MFR DISC.)

(SWITCHBOARD CABLE FROM RM FR TO CE FR)

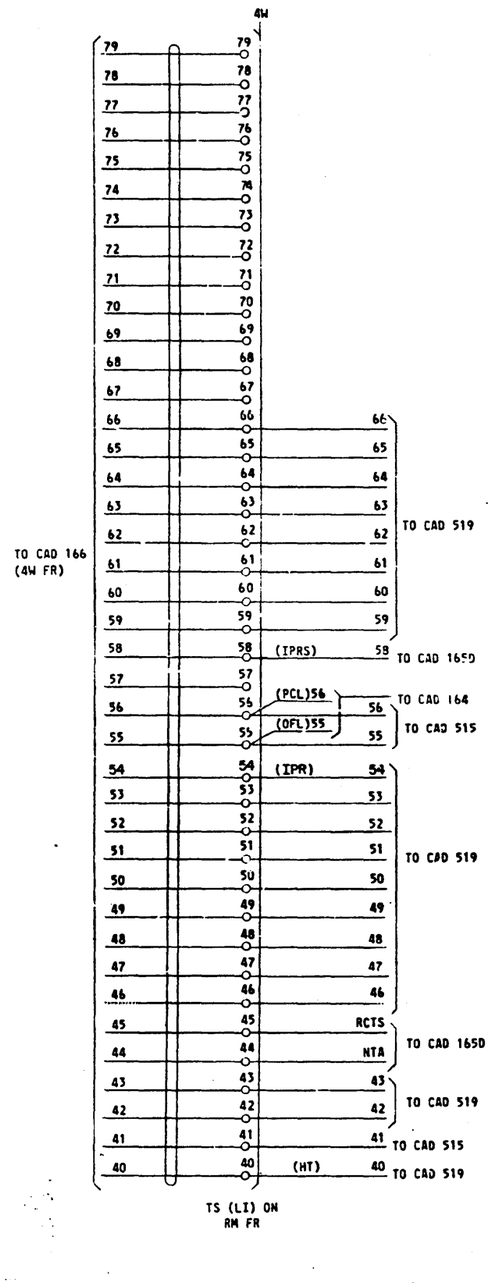


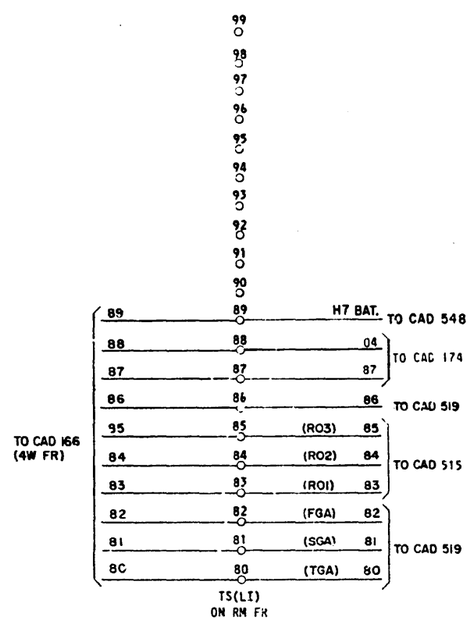

DO NOT RUN WHEN RM FR IS PROV WITH 4W




## CAD 175 (MFR DISC.)

(SWITCHBOARD CABLE FROM RM FR TO 4W FR)




| DRAWING ISSUE | | |
|---|---|---|
| 50D | GA | |
| 52A | UP | CB |
| 37D | GAL | CB |
| 39D | AMP | CB |
| 40A | JAN | CB |

ISSUE 58A

COMPLETING MARKER CIRCUIT

SD-26002-01-G2

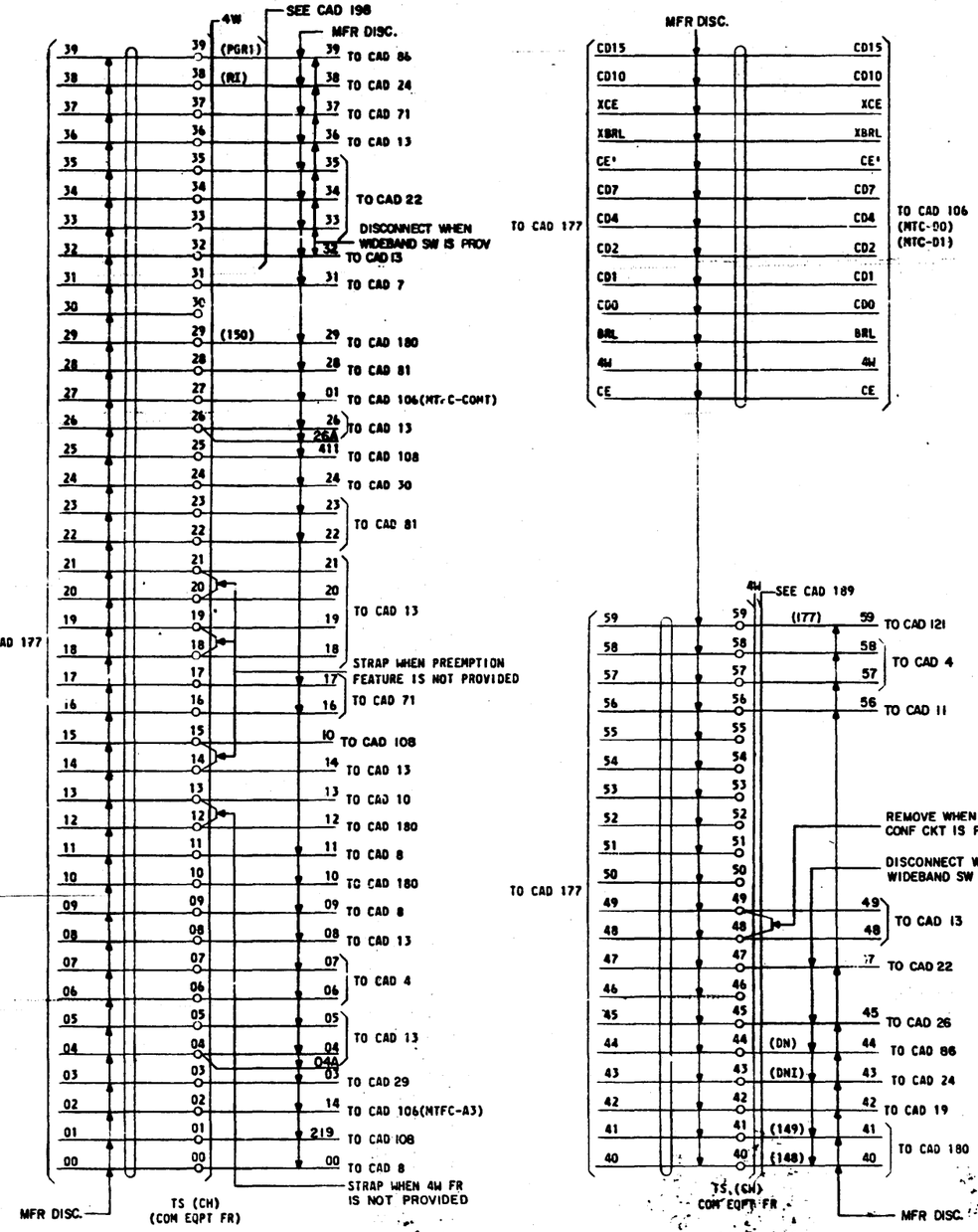
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

STABILO

## CAD 176 (MFR DISC.)

(SWBD CA FROM CE FR TO 4W FR)



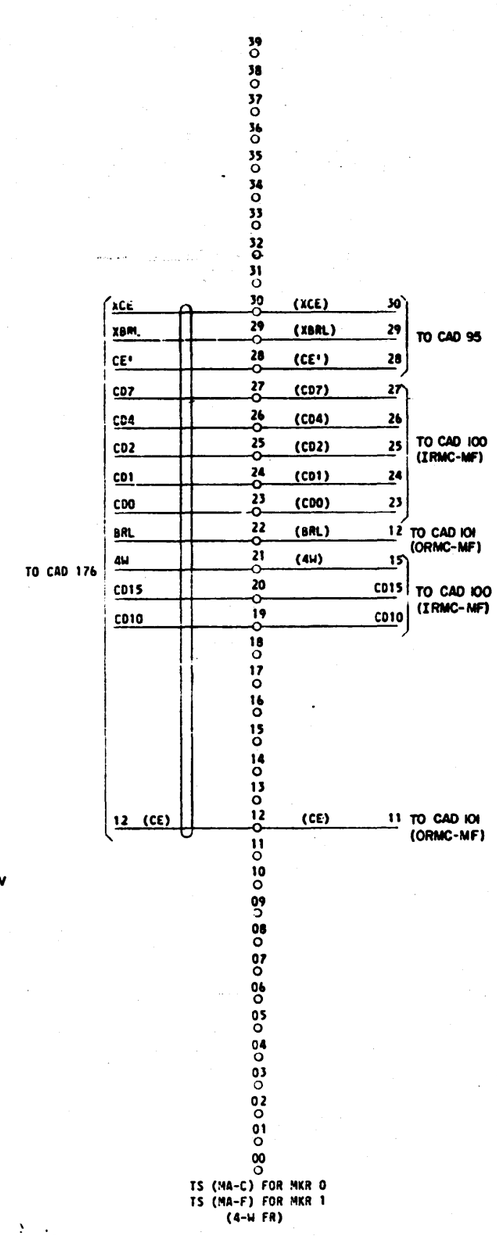


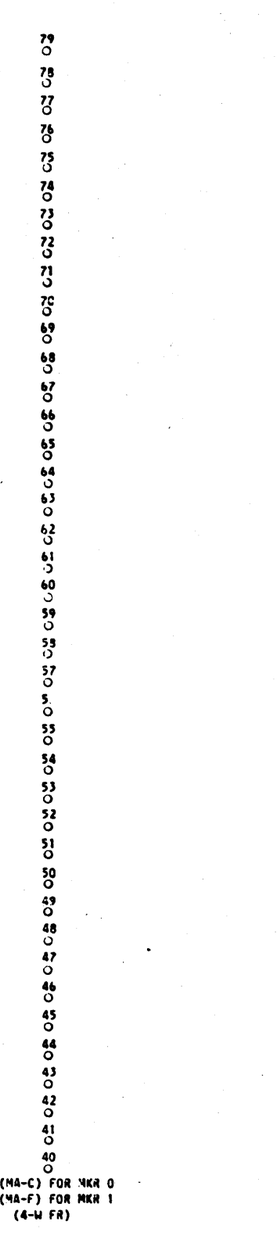





## PART OF CAD 177 (MFR DISC.)

(SWBD CA FROM 4W FR TO CE FR)



ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G203

BELL TELEPHONE LABORATORIES INCORPORATED

6S

STABILO

# PART OF CAD 177 (MFR DISC.)

(SWBD CA FROM 4W FR TO CE FR)

TS (MA-C) FOR MKR 0
TS (MA-F) FOR MKR 1
(4-W FR)

TS(MB-G)
(4W FR)

MFR DISC

TO CAD 176

TO CAD 147A
TO CAD 147B
TO CAD 517
TO CAD 516
TO CAD 166
TO CAD 101 (ORMC-MF)
TO CAD 517
TO CAD 97
TO CAD 166
TO CAD 95
TO CAD 517
TO CAD 95
TO CAD 517
TO CAD 516

(PGA1)
(RI)
(96)
(74)
(59)
(63)
(60)
26A
04A

TO CAD 176

TO CAD 517
TO CAD 95
TO CAD 517
TO CAD 516
TO CAD 517
TO CAD 1478
TO CAD 166

(PLC)
(89)
(88)

TO CAD 108

CONN WHEN AUTO. CONF CKT IS NOT PROVIDED

TO CAD 95
TO CAD 179

TS(MB-G)
(4-W FR)

| DRAWING ISSUE | |
|---|---|
| 30D | 6,D,L,M,P,T,W |
| 32A | CP,C,D,L,M,P,T,W |
| 35D | JE,M,P,T,W |
| 37D | C,D,M,P,T,W |
| 39D | M,P,T |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

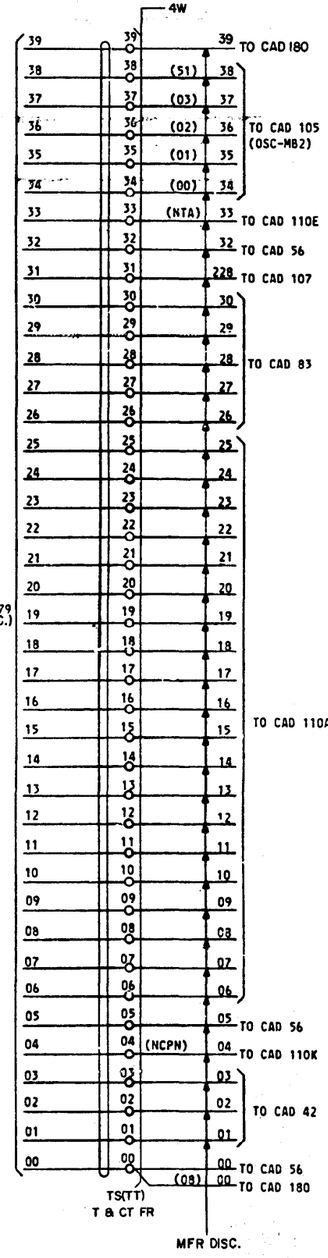
SD-26002-01-6204

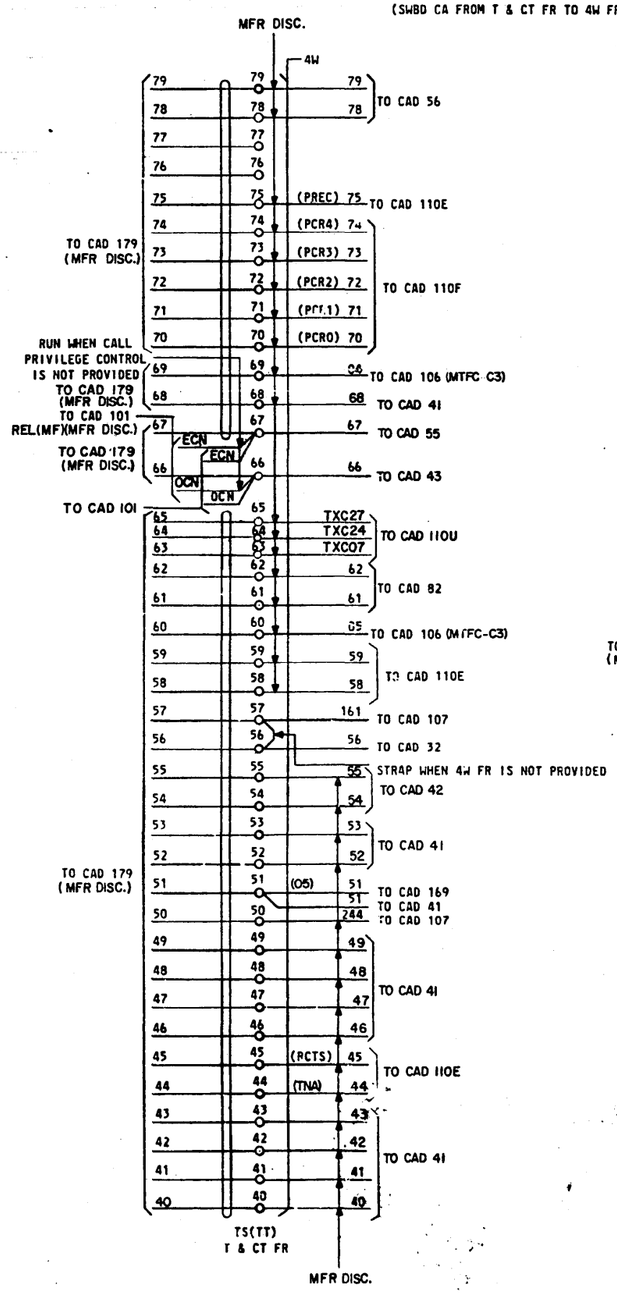
BELL TELEPHONE LABORATORIES INCORPORATED

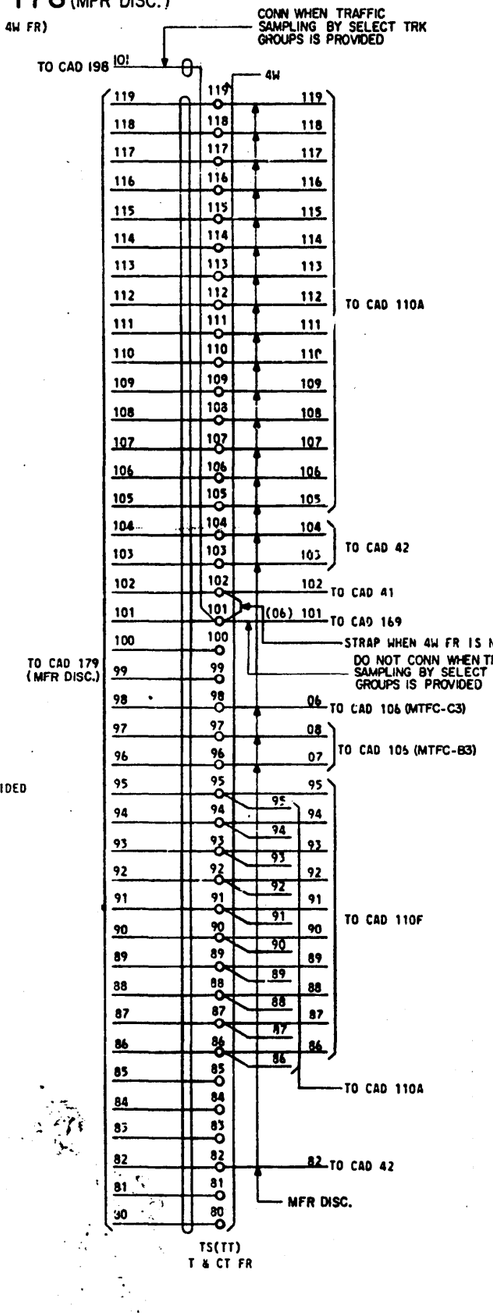
6S

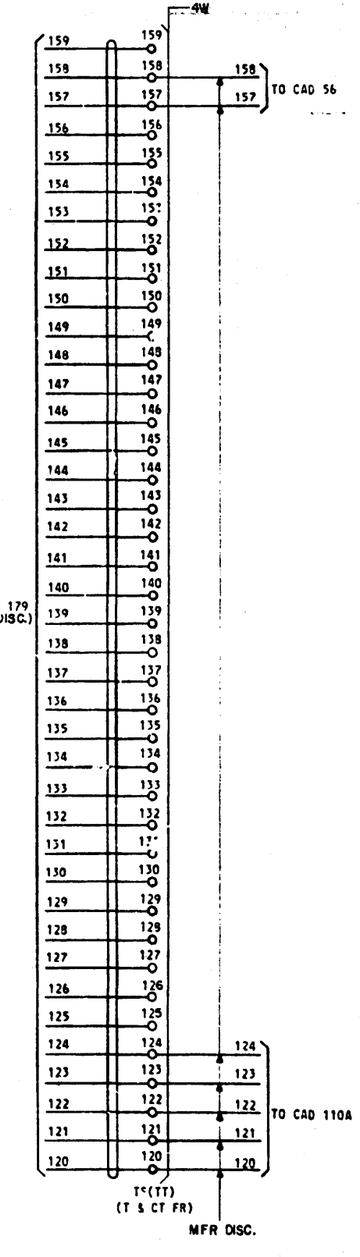
# PART OF CAD 178 (MFR DISC.)

(SWBD CA FROM T & CT FR TO 4W FR)




DRAWING ISSUE

| | | |
|---|---|---|
| 30D | CFS | |
| 32A | LP | |
| 33D | LP | |
| 34A | RCS | |
| 35D | RCS | |
| 39D | MTC | |

ISSUE 57B

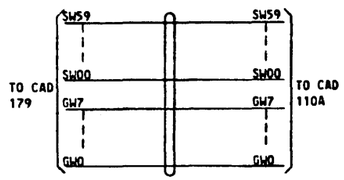
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G205

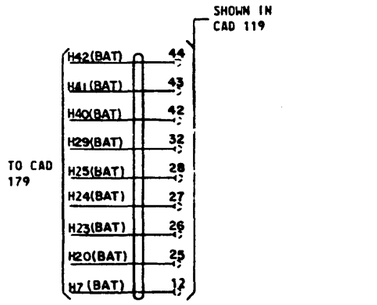
BELL TELEPHONE LABORATORIES INCORPORATED 6S

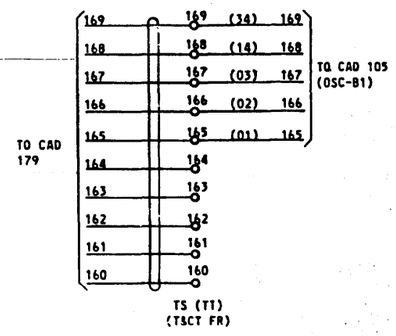
SD-26002-01-G205

# PART OF CAD 178 (MFR DISC)

(SWBD CA FROM T & CT FR TO 4W FR)




DRAWING ISSUE 300 CFS

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-6206

6S

# PART OF CAD 179 (MFR DISC.)

(SWBD CA FROM 4W FR TO T&CT FR)

CONN WHEN AUTO. CONF CKT IS NOT PROVIDED

39 TO CAD177

39 TO CAD 95

39 TO CAD 106 (MTC-FO)

(14)38

(12)37

(11)36

(10)35

(13)34

TO CAD 517

(NTA) 33 TO CAD 95

32 TO CAD 166

TO CAD 517

TO CAD 178

TO CAD 522

TO CAD 517

TO CAD 95

TO CAD 516

TO CAD 517

TS (MB-C) (4W FR)

(ECN) 67 TO CAD 101 (ORMC-MF)

TO CAD 517

(OCN) 66 TO CAD 101 (ORMC-MF)

TO CAD 517

TO CAD 522

TO CAD 95

TO CAD 517

TO CAD 166

TO CAD 178

(51) 55 TO CAD 166

TO CAD 517

(RCTS) 45 TO CAD 166

TO CAD 517

TS (MB-C) (4W FR)

TO CAD 178

TO CAD 1478

82 TO CAD 516

TO CAD 517

TO CAD 516

TS (MB-D) (4W FR)

TS (MB-C) (4W FR)

TO CAD 522

TO CAD 179

TO CAD 517

(CNR) 98

(CR) 97 TO CAD 100 (IRMC-MF)

(SCK) 96

TO CAD 147B

TS (MB-D) (4W FR)

DRAWING ISSUE

30D

32A LP

34A JEB

35D

39D

41D

ISSUE 57B

COMPLETING MIRROR CIRCUIT (2)

SD-26002-01-G207

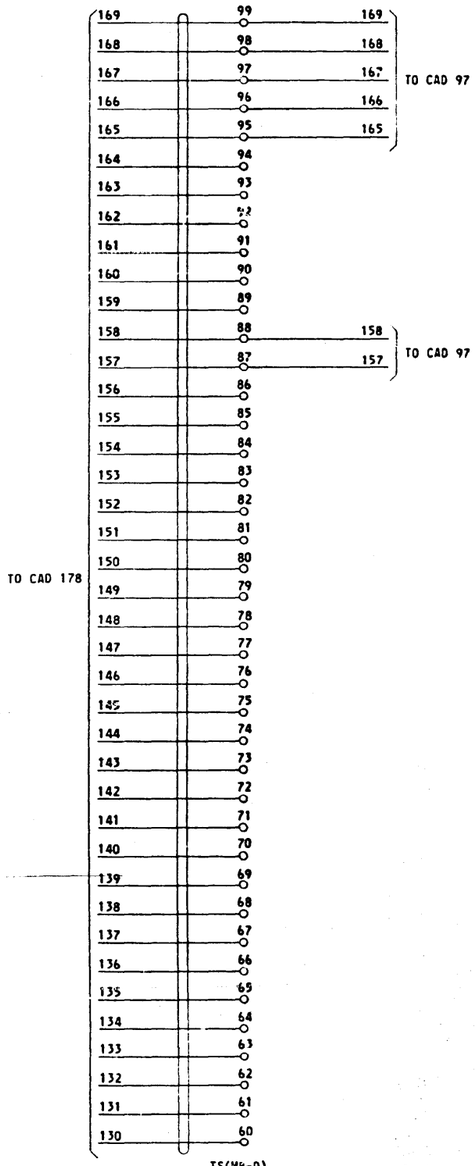
BELL TELEPHONE LABORATORIES INCORPORATED

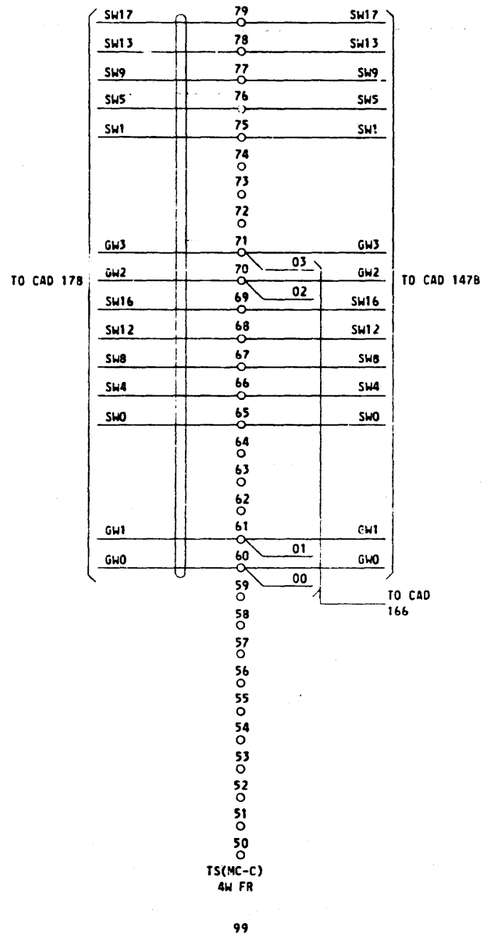
6S

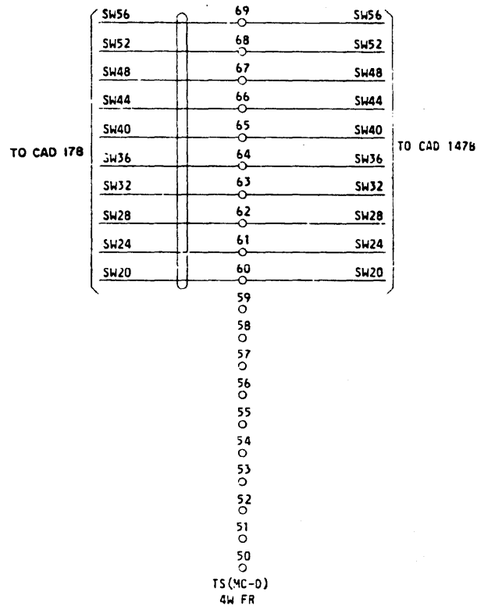
SD-26002-01-G207

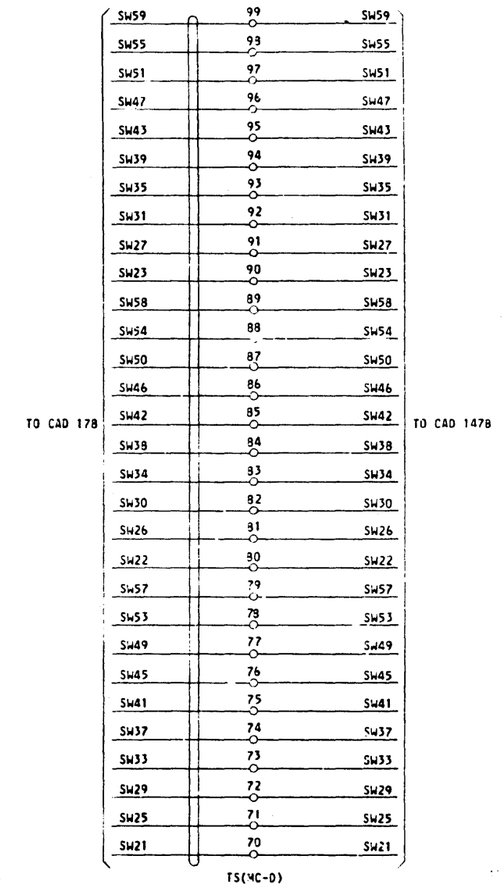
# PART OF CAD 179 (MFR DISC.)

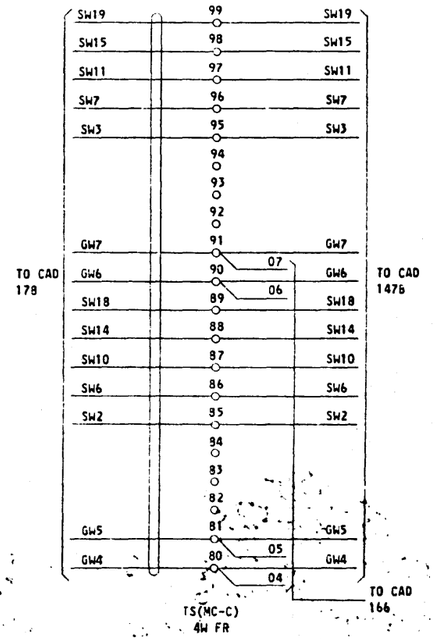
SWBD CA FROM 4W FR TO T & CT FR

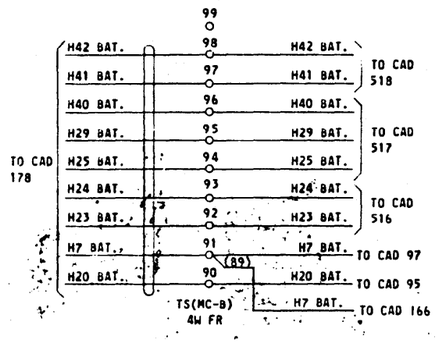



DRAWING ISSUE
300 MC COL AEC
370 WM CB

ISSUE 57B

COMPLETING MARKER CIRCUIT

SD-26002-01-G208

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 180 (MFR DISC.)

(SWBD CA FROM THE COM EQPT, T&CT & 4W FRAME TO THE 4W PRE FRAME OR TO MISC MKR REL RACK UNITS WHEN 4W PRE FRAME IS NOT PROVIDED)

TO CAD 181 (4W PRE FR)

24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 09 08 07 06 05 04 03 02 01 00

TO CAD 517

TO CAD 166

TO CAD 517

TO CAD 516

TS (MB-H) (4W FR) (MFR DISC)

MFR DISC.

TO CAD 181 (4W PRE FR)

49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25

44 TO CAD 106 (MTC-FO)

34 TO CAD 517

33 32 TO CAD 516

29 TO CAD 517

BN OHS TO CAD 147A

26 TO CAD 97

4W TO CAD 101 (ORMC-MF)

TS (MB-H) (4W FR) (MFR DISC)

MFR DISC.

74 73 72 71 70 69 68 67 66 65 64 63 62 61 60

TO CAD 181 (4W PRE FR)

59 (LRL) 58 (TOK) 57 (XST) 56 (DN) 55 54 53 52 51 50

TO CAD 106 (MTC-D2)

TO CAD 106 (MTC-FO)

TS (MB-H) (4W FR) (MFR DISC.)

MFR DISC.

99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75

TS (MB-H) (4W FR) (MFR DISC.)

| DRAWING ISSUE | |
|---|---|
| 32A | CR & DL AAD |
| 33D | CR & DL AAD |
| 35D | JEK TWL AAD |

ISSUE 57B

CR

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G209

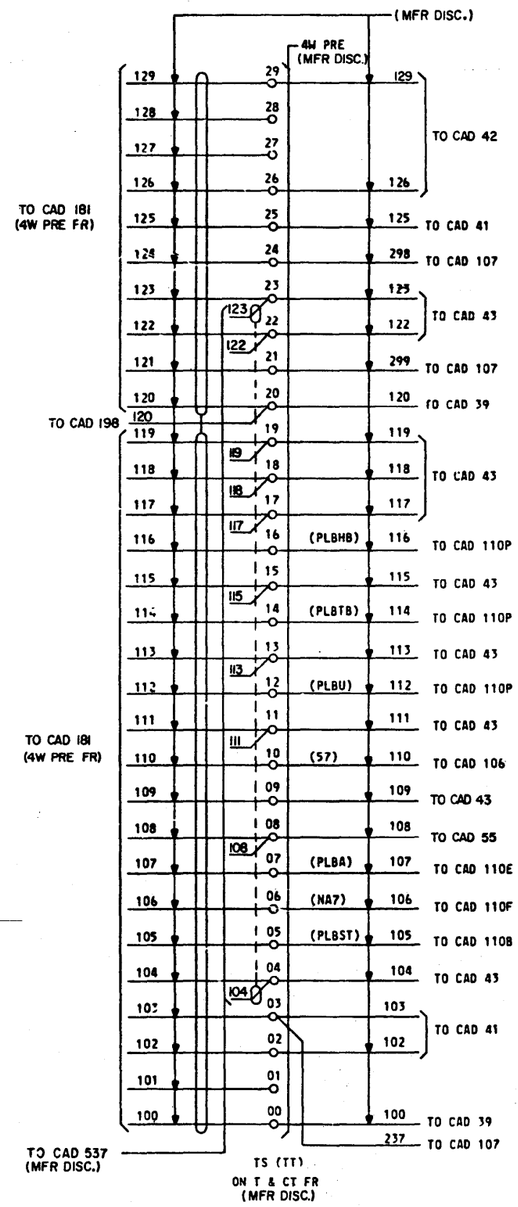
BELL TELEPHONE LABORATORIES INCORPORATED

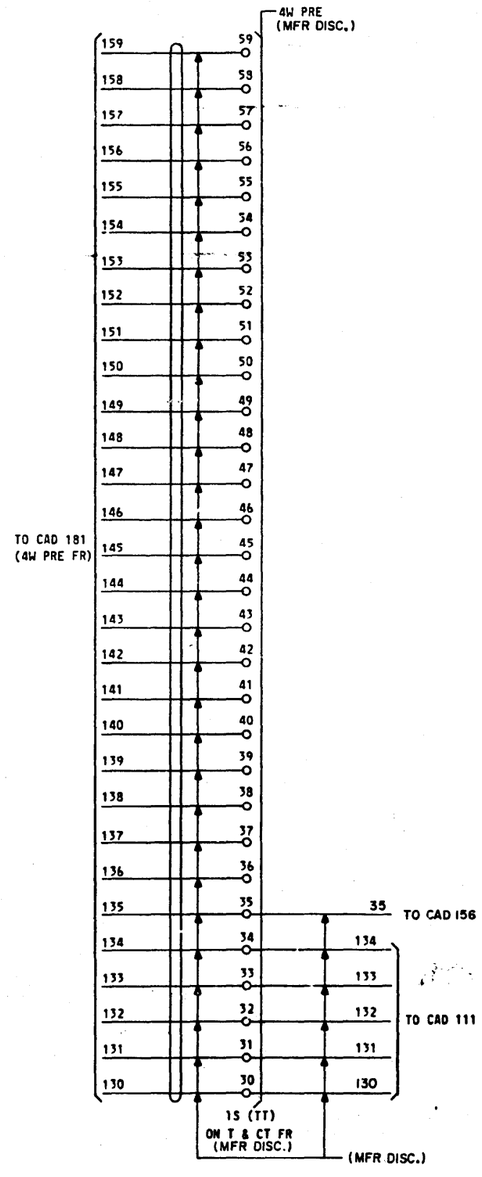
SD-26002-01-G 209

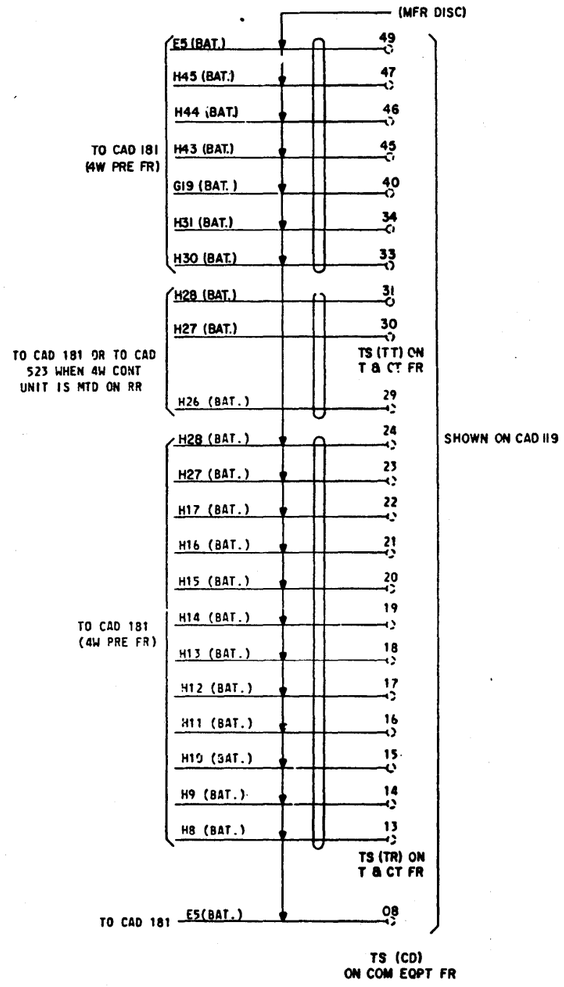
HIGGINS 4465

# PART OF CAD 180

(SWITCHBOARD CABLE FROM THE COM EQPT, T & CT & 4W FR TO THE 4W PRE FR OR TO MISC MKR REL RACK UNITS WHEN 4W PRE FR IS NOT PROVIDED)




| DRAWING ISSUE | |
|---|---|
| 32A | KMS, GOL AND |
| 34A | RET AND |
| 350 | RET AND |
| 39D | RET |
| 41D | |

ISSUE 57B

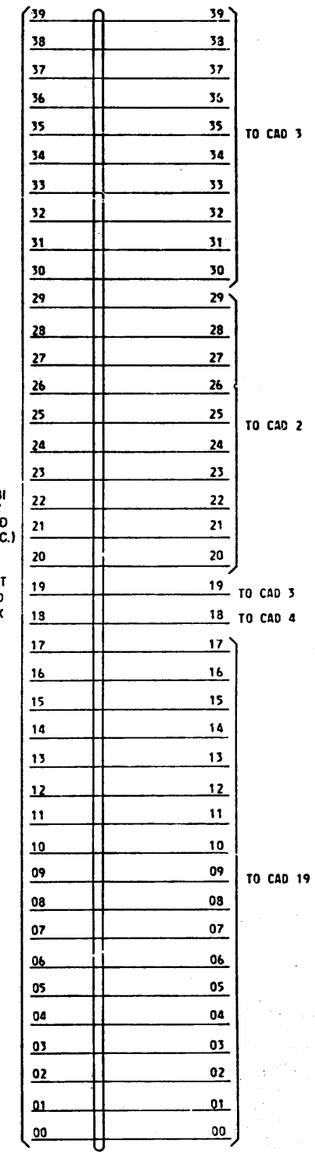
COMPLETING MARKER CIRCUIT (2)

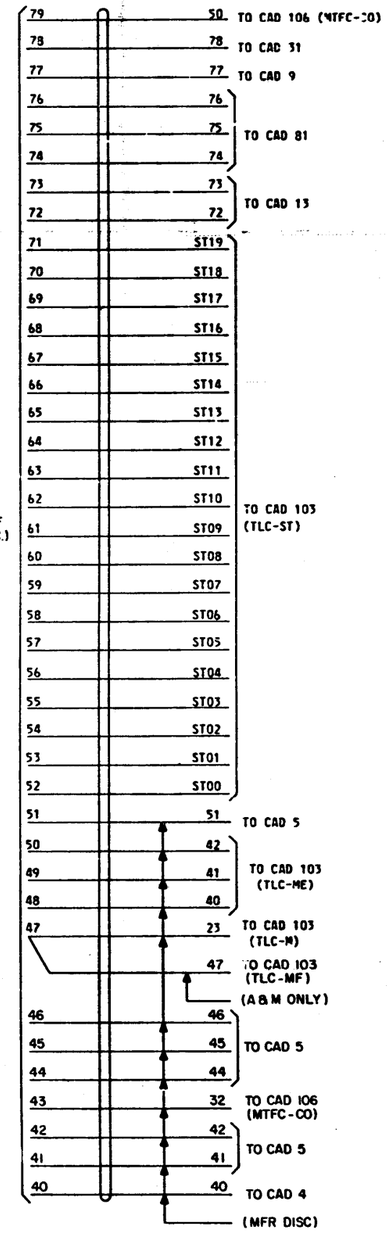
SD-26002-01-G210

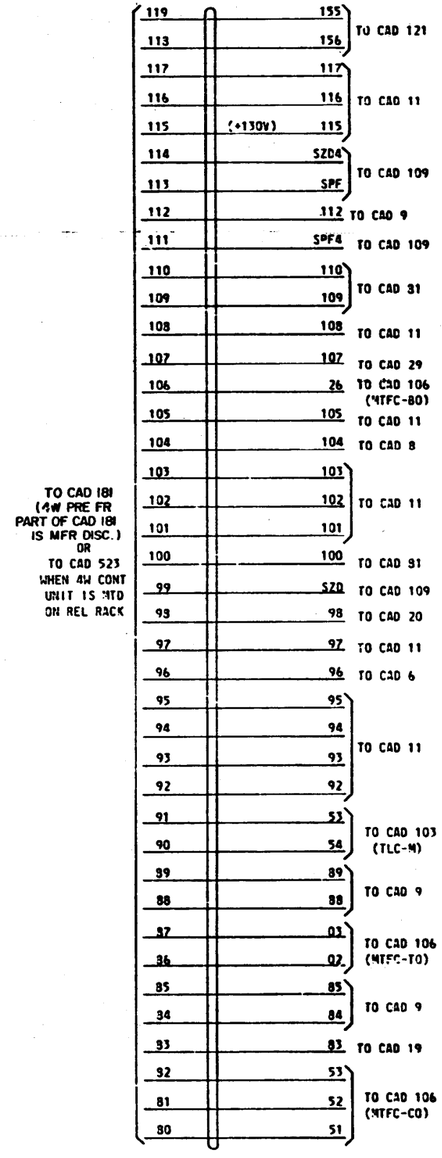
BELL TELEPHONE LABORATORIES INCORPORATED 6S

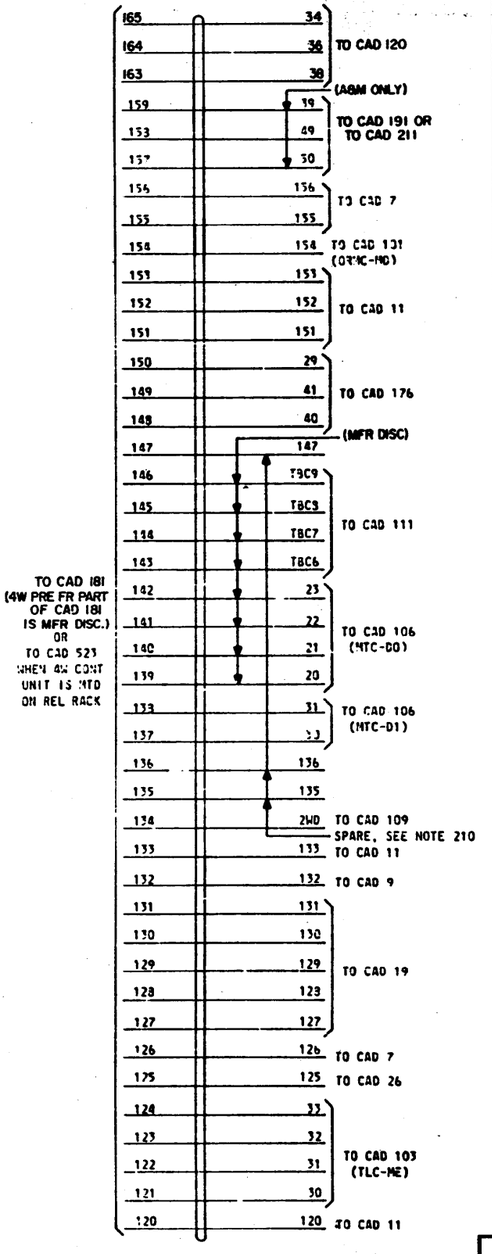
# PART OF CAD 180

(SWITCHBOARD CABLE FROM THE COM EQPT T & CT, AND 4W FR TO THE 4W PRE FR OR TO MISC MKR REL RACK UNITS WHEN 4W PRE FR IS NOT PROV)




| DRAWING ISSUE | |
|---|---|
| 32A | TS |
| 33D | TS |
| 37D | PAZ |
| 39D | |
| 41D | |
| 42A | |
| 43D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G211A

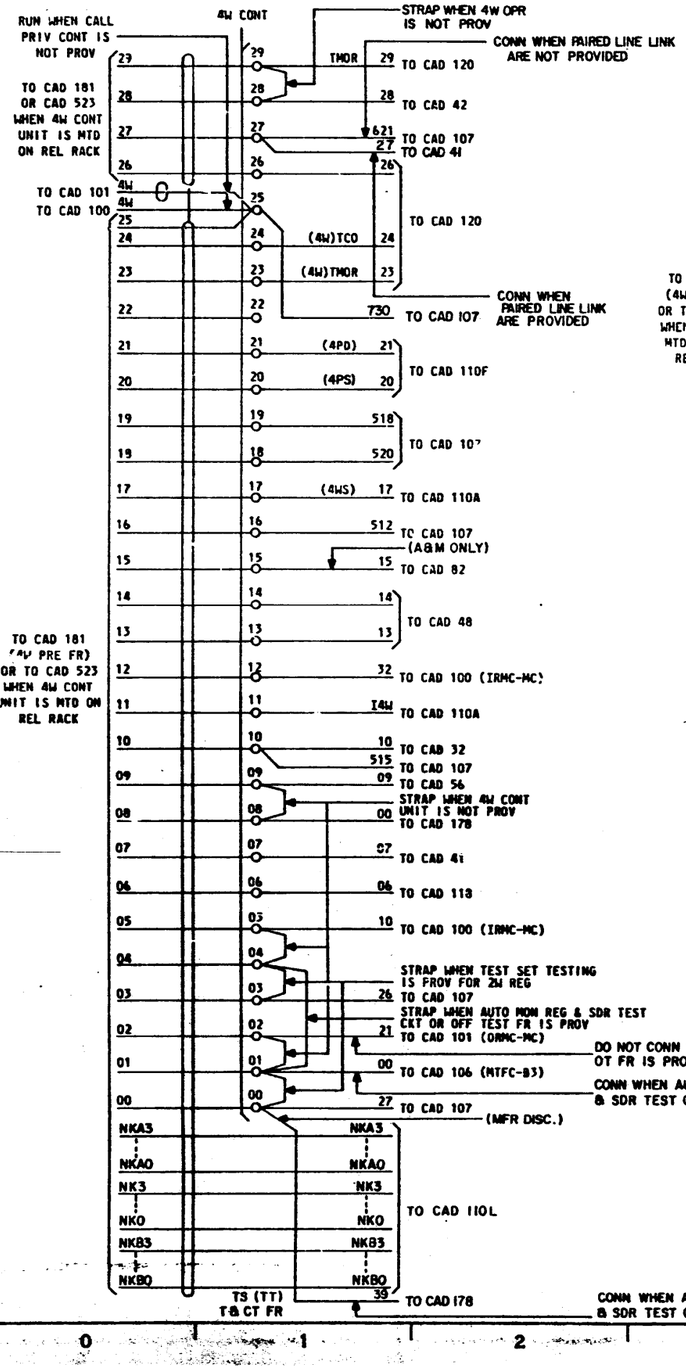
BELL TELEPHONE LABORATORIES INCORPORATED 6S

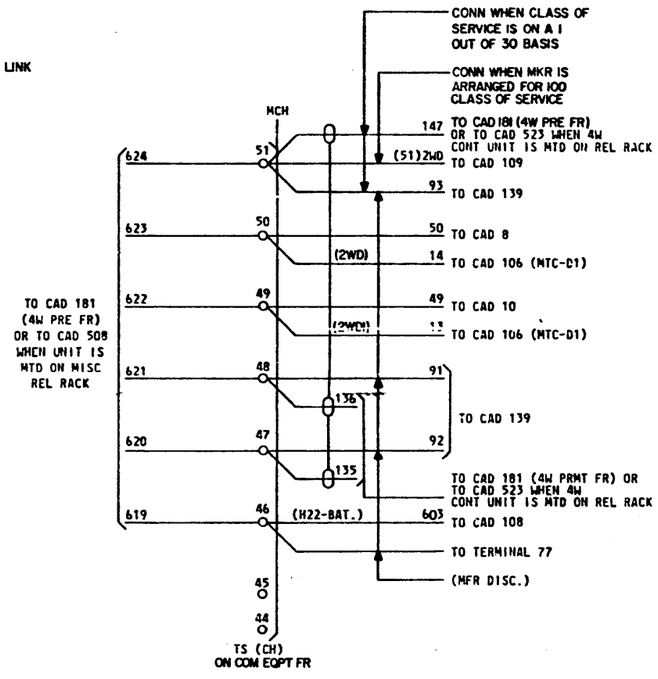
SD-26002-01-G211A

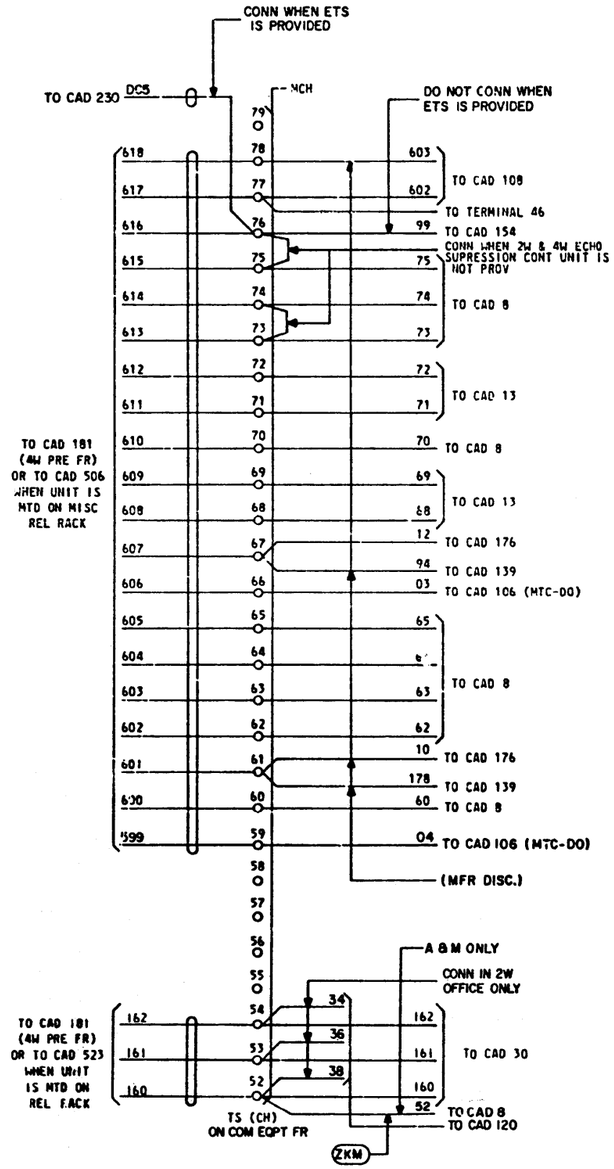
HIGGINS 4449

# PART OF CAD 180

(SWITCHBOARD CABLE FROM THE COM EQPT T & CT & 4W PRE FR OR TO MISC MKR REL RACK UNITS WHEN 4W PRE FR IS NOT PROV)




| DRAWING ISSUE | | |
|---|---|---|
| 32A | TS | 6W AMP |
| 33D | TS | 6W AMP |
| 34A | KMC | 2W AMP |
| 35D | KMC | 2W AMP |
| 390 | JW | |
| 430 | CB | |

ISSUE 59B

COMPLETING MARKER CIRCUIT

SD-26002-01-G2118

BELL TELEPHONE LABORATORIES INCORPORATED

6S

HIGGINS 4465

# PART OF CAD 180

(SWITCHBOARD CABLE FROM THE COMEQPT, T & CT & 4W FR TO THE 4W PRE FR OR TO MISC MKR REL RACK UNITS WHEN 4W PRE FR IS NOT PROV)

| DRAWING ISSUE | |
|---|---|
| 32A | TS 64 AWG |
| 33D | TS 64 AWG |
| 34A | TS 64 AWG |
| 35D | TS 64 AWG |
| 36A | WM |
| 39D | WM |

339 TO CAD 102
338
337 TO CAD 103
336
335
334 TO CAD 22
333 TO CAD 102
332 TO CAD 10
331
330 TO CAD 9
329 TO CAD 23
328 TO CAD 8
327
326 TO CAD 4
325
324 TO CAD 3
323
322 TO CAD 6
321
320 TO CAD 11
TO CAD 181 (MFR DISC.) 319
318 TO CAD 10
317 TO CAD 11
316 TO CAD 9
315 TO CAD 10
314
313 TO CAD 4
312 TO CAD 8
311
310 TO CAD 6
309
307 TO CAD 9 SPARE, SEE NOTE 210
306 TO CAD 11
305 TO CAD 22
170 TO CAD 8
304 TO CAD 22
303 TO CAD 30
302 TO CAD 102
301 TO CAD 10
300 TO CAD 30
(MFR DISC.)

379 TO CAD 4
378 TO CAD 7
377 TO CAD 3
376 TO CAD 4
375
374 TO CAD 6
373
372
371 TO CAD 22
370
369
368 TO CAD 9
367
366 TO CAD 23
365
364 TO CAD 11
TO CAD 181 (MFR DISC.) 363
362 TO CAD 104
361 TO CAD 22
360 TO CAD 108
359
MFR DISC.
358 TO CAD 26
357 TO CAD 21
356 TO CAD 8
355 TO CAD 153
355 TO CAD 194
354 TO CAD 6
353 TO CAD 4
352
351
350
349
348 TO CAD 22
347
346 TO CAD 22
345
344 TO CAD 104 (NGC-MCE)
343
342 TO CAD 22
341
340 TO CAD 102
SPARE, SEE NOTE 210

MFR DISC.
419
418 TO CAD 22
418 TO CAD 24
417 TO CAD 22
416 TO CAD 30
415
414
413 TO CAD 9
412
411
410
409 TO CAD 11
(02) 408 TO CAD 114
407 TO CAD 22
406 TO CAD 13
405 TO CAD 30
404 TO CAD 22
403 TO CAD 9
287 TO CAD 108
401
TO CAD 181 (MFR DISC.) 400 TO CAD 11
399 TO CAD 8
398 TO CAD 96
397
396 TO CAD 22
395 TO CAD 21
394
393 TO CAD 90
(37) 392 TO CAD 96
391 TO CAD 90
(35) 390 TO CAD 86
(58) 389 TO CAD 106
388
387 TO CAD 96
386 TO CAD 8
385
384 TO CAD 22
383
382 TO CAD 4
381
380 TO CAD 3
SPARE, SEE NOTE 210

459
458
457 LPT5
456 LPT4
455 LPT3 TO CAD 36
454 LPT2
453 LPT1
452 LPTO
451 TO CAD 21
450 TO CAD 8
449 TO CAD 7
448
447 TO CAD 11
MFR DISC
446 TO CAD 7
445 TO CAD 22
444 TO CAD 23
443 TO CAD 96
TO CAD 181 (MFR DISC.) 442 TO CAD 8 OR TO CAD 22 WHEN WB SWITCHING IS PROVIDED
441
440 TO CAD 8
439 TO CAD 154 SPARE, SEE NOTE 210
(04) 439 TO CAD 104
437 TO CAD 22
436 TO CAD 11
435 TO CAD 22
94 TO CAD 109
433
432 TO CAD 22
431 TO CAD 111
430 TO CAD 23
429 TO CAD 22
(03) 428 TO CAD 104
427 TO CAD 22
426 TO CAD 23
(47) 425 TO CAD 106
424 TO CAD 8
423 TO CAD 171
422 TO CAD 23
421 TO CAD 21
(49) 420 TO CAD 106

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G212

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-G212

HIGGINS 4465 KE

# PART OF CAD 180

(SWITCHBOARD CABLE FROM THE COM EQPT, T & CT AND 4W FR TO THE 4W PRE FR OR TO MISC MKR REL RACK UNITS WHEN 4W PRE FR IS NOT PROV)

| | | | |
|---|---|---|---|
| 499 | | 499 | TO CAD 2 |
| 498 | | 498 | |
| 497 | | 497 | |
| 496 | | 496 | |
| 495 | | 495 | TO CAD 3 |
| 494 | | 494 | |
| 493 | | 493 | |
| 492 | | 492 | |
| 491 | | 491 | |
| 490 | | 490 | |
| 489 | | 489 | |
| 488 | | 488 | |
| 487 | | 487 | |
| 486 | | 486 | |
| 485 | | 485 | TO CAD 2 |
| 484 | | 484 | |
| 483 | | 483 | |
| 482 | | 482 | |
| 481 | | 481 | |
| 480 | | 480 | |
| 479 | | 479 | |
| 478 | | 478 | |
| 477 | | 477 | |
| 476 | | 476 | |
| 475 | | 475 | TO CAD 3 |
| 474 | | 474 | |
| 473 | | 473 | |
| 472 | | 472 | |
| 471 | | 471 | |
| 470 | | 470 | |
| 469 | | 469 | |
| 468 | | 468 | |
| 467 | | 467 | |
| 466 | | 466 | |
| 465 | | 465 | TO CAD 22 |
| 464 | | 464 | |
| 463 | | 463 | TO CAD 30 |
| 462 | | 462 | |
| 461 | | 461 | TO CAD 11 |
| 460 | | 460 | SPARE, SEE NOTE 210 |

TO CAD 181 (MFR DISC.)

SPARE, SEE NOTE 210

| | | | |
|---|---|---|---|
| 539 | | 539 | |
| 538 | | 538 | |
| 537 | | 537 | |
| 536 | | 536 | |
| 535 | | 535 | |
| 534 | | 534 | |
| 533 | | 533 | |
| 532 | | 532 | |
| 531 | | 531 | |
| 530 | | 530 | |
| 529 | | 529 | TO CAD 194 |
| 528 | | 528 | TO CAD 14 |
| 527 | | 527 | TO CAD 106 (MTFC-B5) |
| 526 | | 526 | |
| 525 | | 525 | TO CAD 8 |
| 524 | | 524 | TO CAD 18 |
| 523 | (PLI) | 523 | TO CAD 121 |
| 522 | (139) | 522 | TO CAD 154 |
| 521 | | 521 | |
| 520 | (LLS2) | 520 | TO CAD 109 |
| 519 | | 519 | TO CAD 9 |
| 518 | | 518 | TO CAD 22 |
| 517 | | 517 | |
| 516 | | 516 | TO CAD 24 |
| 515 | (138) | 515 | TO CAD 154 |
| 514 | (140) | 514 | |
| 513 | | 513 | TO CAD 30 |
| 512 | | 512 | TO CAD 26 |
| 511 | (34) | 511 | TO CAD 22 |
| 510 | (53) | 510 | TO CAD 103 |
| 509 | (52) | 509 | |
| 508 | (51) | 508 | |
| 507 | (50) | 507 | |
| 506 | (44) | 506 | |
| 505 | | 505 | TO CAD 2 |
| 504 | | 504 | |
| 503 | | 503 | |
| 502 | | 502 | |
| 501 | | 501 | |
| 500 | | 500 | |

TO CAD 181 (MFR DISC.)

| | | | |
|---|---|---|---|
| 579 | | 579 | |
| 578 | | 578 | |
| 577 | (577) | 215 | TO CAD 103 |
| 576 | | 576 | TO CAD 7 |
| 575 | | 575 | TO CAD 14 |
| 574 | (574) | 339 | TO CAD 108 |
| 573 | | 573 | TO CAD 16 |
| 572 | | 572 | |
| 571 | | 571 | TO CAD 23 |
| 570 | | 570 | TO CAD 30 |
| 569 | | 569 | TO CAD 22 |
| 568 | | 568 | TO CAD 13 |
| 567 | | 567 | |
| 566 | | 566 | TO CAD 29 |
| 565 | | 565 | TO CAD 19 |
| 563 | | 563 | TO CAD 13 |
| 562 | | 562 | |
| 561 | | 561 | |
| 560 | | 560 | |
| 559 | | 559 | |
| 558 | | 558 | |
| 557 | | 557 | |
| 556 | | 556 | |
| 555 | | 555 | |
| 554 | | 554 | |
| 553 | | 553 | |
| 552 | | 552 | |
| 551 | | 551 | |
| 550 | | 550 | |
| 549 | | 549 | |
| 548 | | 548 | |
| 547 | | 547 | |
| 546 | | 546 | |
| 545 | | 545 | |
| 544 | | 544 | |
| 543 | | 543 | |
| 542 | | 542 | |
| 541 | | 541 | |
| 540 | | 540 | SPARE, SEE NOTE 210 |

TO CAD 181 (MFR DISC.)

TO CAD 181 (4W PRE FR PART OF CAD 181 IS MFR DISC.) OR TO CAD 508 WHEN UNIT IS MTD ON MISC REL RACK

(MFR DISC.)

| | | |
|---|---|---|
| 2WD | 2WD | |
| 2WD3 | 2WD3 | TO CAD 109 |
| 2WD1 | 2WD1 | |
| 2WDM | 2WDM | |
| 2WDA | 2WDA | |

TO CAD 131

| | | |
|---|---|---|
| H31(BAT.) | H31(BAT.) | TO CAD 119 |
| H30(BAT.) | H30(BAT.) | |

| | | | |
|---|---|---|---|
| 599 | | 599 | TO CAD 4 |
| 593 | (439) | 598 | TO CAD 108 |
| 597 | | 597 | TO CAD 23 |
| 596 | | 596 | |
| 595 | | 595 | TO CAD 22 |
| 594 | | 594 | TO CAD 21 |
| 593 | | 593 | TO CAD 22 |
| 592 | | 592 | |
| 591 | | 591 | |
| 590 | | 590 | TO CAD 11 |
| 589 | | 589 | TO CAD 23 |
| 588 | | 588 | TO CAD 22 |
| 587 | | 587 | |
| 586 | | 586 | |
| 585 | | 585 | TO CAD 81 |
| 584 | | 584 | TO CAD 102 (LLC-MCI) |
| 583 | | 583 | TO CAD 8 |
| 582 | | 582 | TO CAD 4 |
| 581 | | 581 | TO CAD 90 |
| 580 | | 580 | SPARE, SEE NOTE 210 |

TO CAD 131

(MFR DISC.)

| DRAWING ISSUE | | |
|---|---|---|
| 32A | TS | 0 AND |
| 33D | TS | 0 AND |
| 34A | 0 | AND |
| 35D | 0 | AND |
| 39D | LFP | |

ISSUE 57B

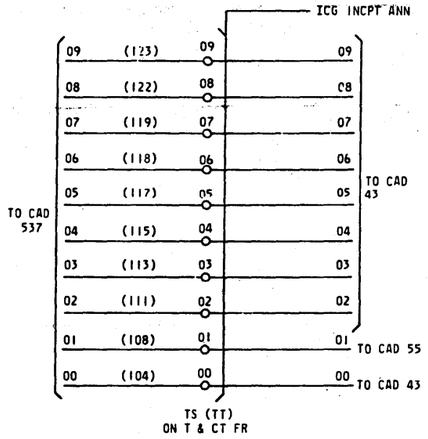
COMPLETING MARKER CIRCUIT

SD-26002-01-G213A (2)

BELL TELEPHONE LABORATORIES INCORPORATED

FORM 65

CAD 180A




ISSUE 57B

COMPLETING MARKER CIRCUIT

SD-26002-01-G2138

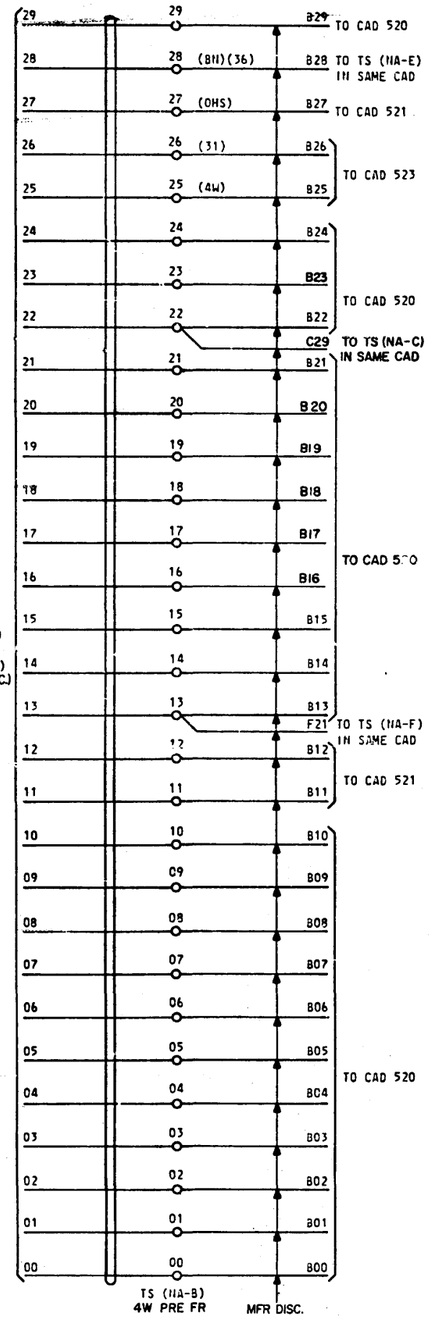
BELL TELEPHONE LABORATORIES INCORPORATED

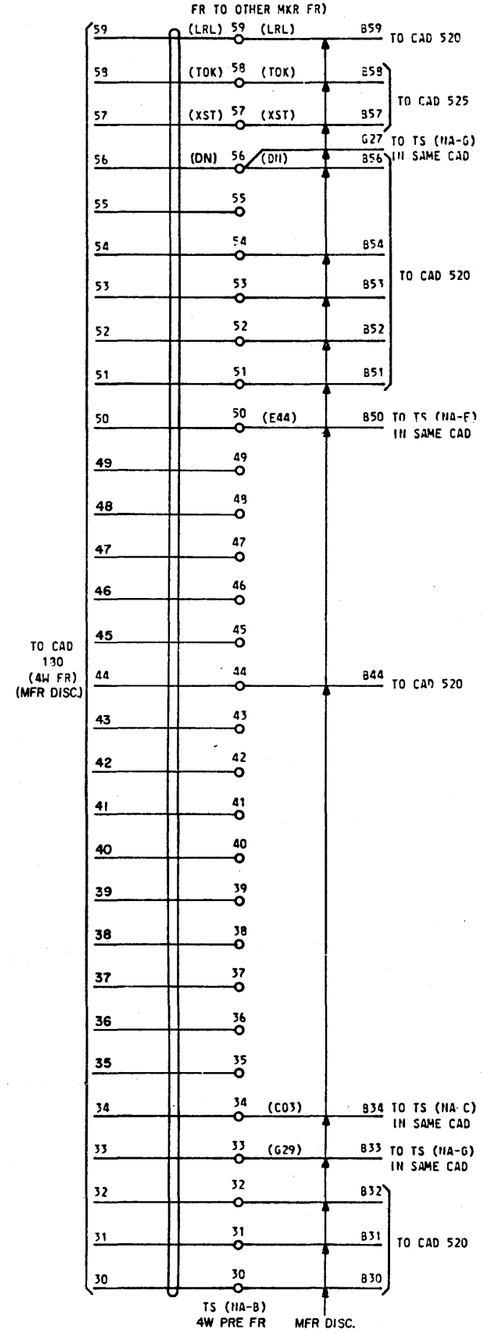
DWG SIZE 6S

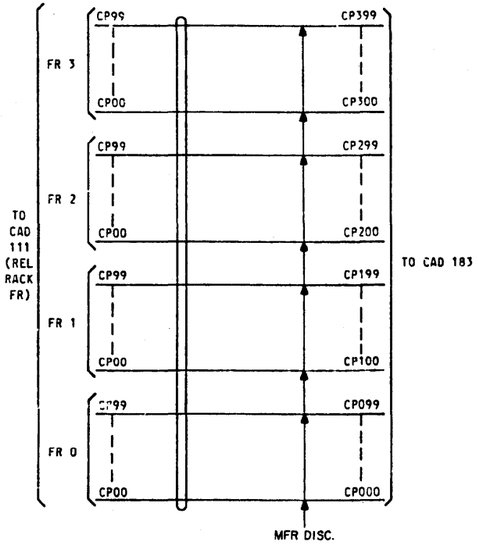
PRINTED IN U.S.A.

# PART OF CAD 181

(SWITCHBOARD CABLE FROM 4W PRE FR TO OTHER MKR FR)




| DRAWING ISSUE | |
|---|---|
| 32A | KLW CAL RAD |
| 35D | TM ANA |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G214

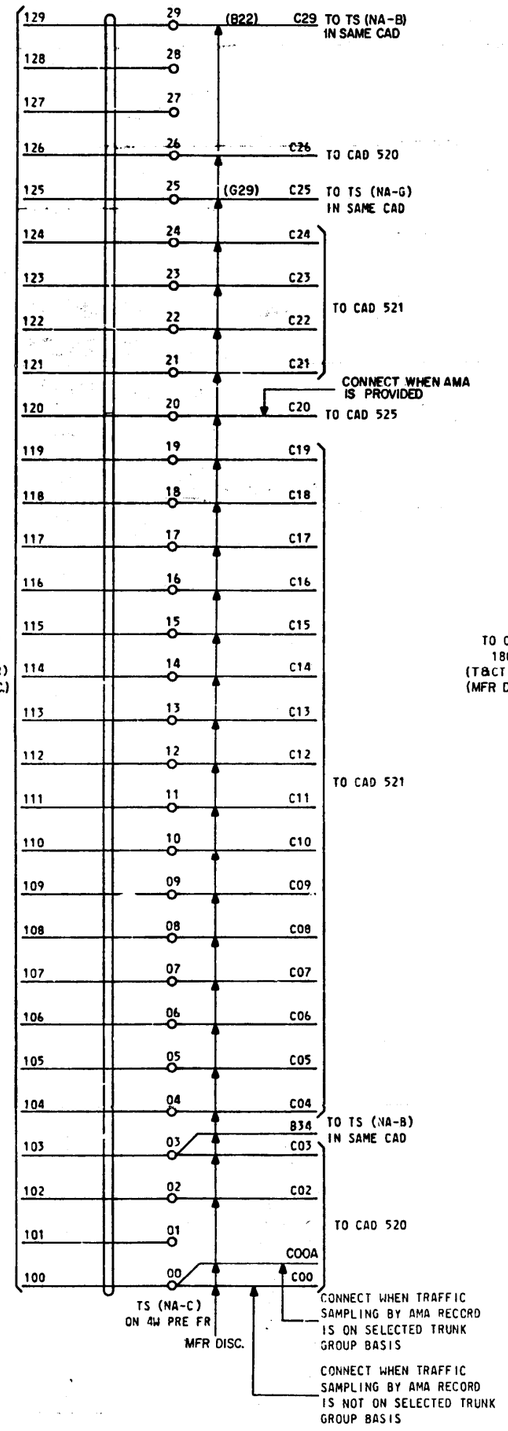
BELL TELEPHONE LABORATORIES INCORPORATED

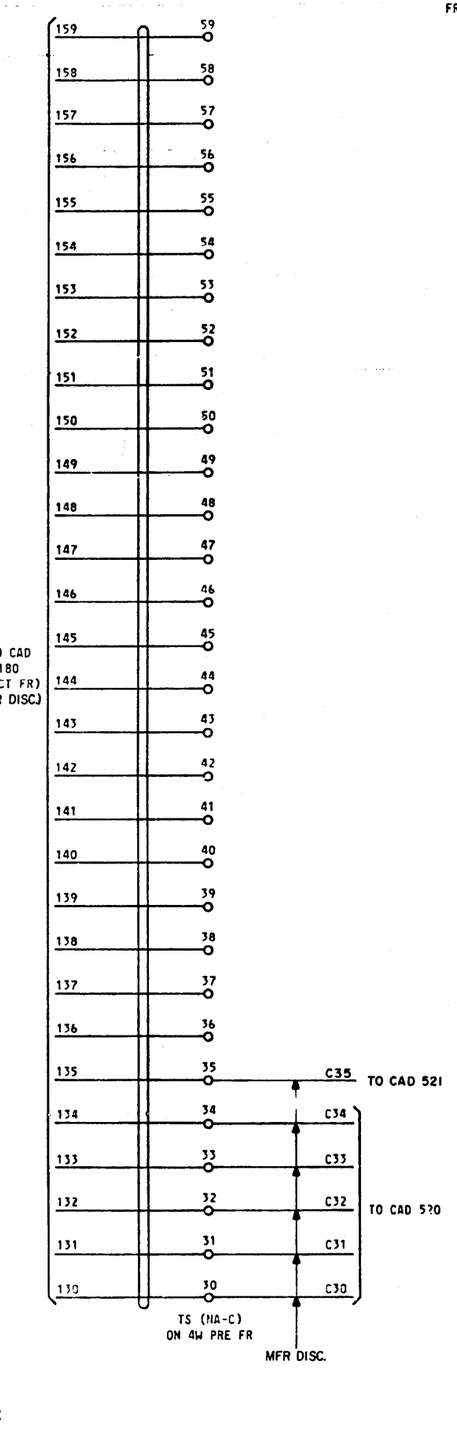
FORM SIZE 6S

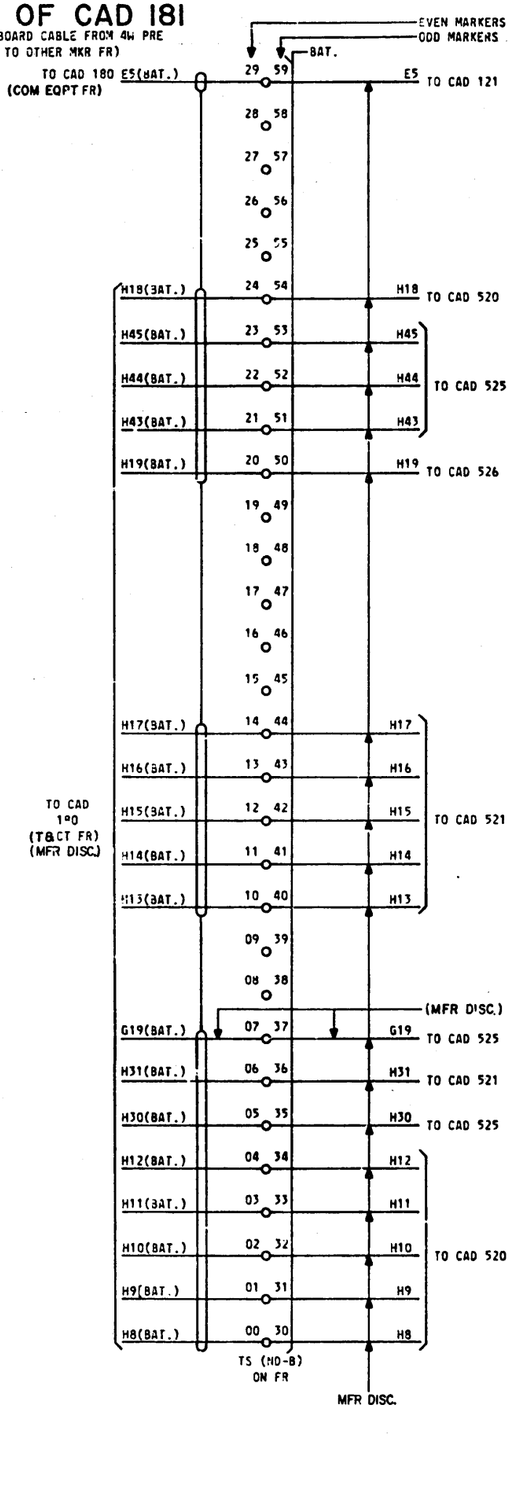
PRINTED IN U.S.A.

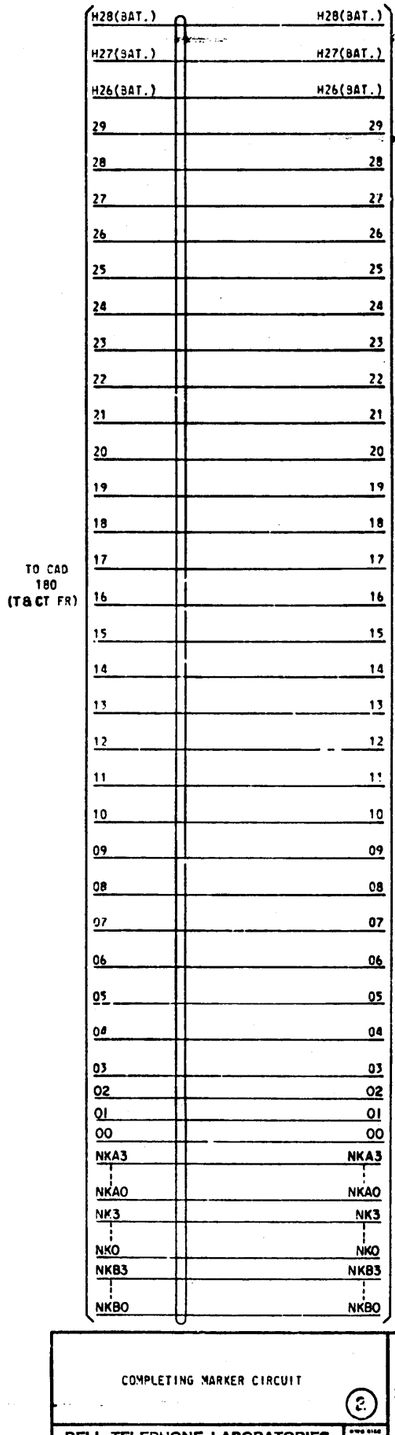
# PART OF CAD 181

(SWITCHBOARD CABLE FROM 4W PRE FR TO OTHER MKR FR)




DRAWING ISSUE

| | | |
|---|---|---|
| 32A | KJM | O.K. AND |
| 34A | KMD | THIS AND |
| 35D | KMD | THIS AND |
| 38A | LFP | |

ISSUE 57B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-G215A

SIZE 6S

SD-26002-01-G215A

HIGGINS 4465 MADE IN U.S.A.

# PART OF CAD 181

MFR DISC.

| | | | |
|---|---|---|---|
| 568 | 29 | D29 | |
| 568 | 28 | D28 | |
| 567 | 27 | D27 | TO CAD 180 (COM EQPT FR) (MFR DISC.) |
| 566 | 26 | D26 | |
| 565 | 25 | D25 | |
| AL81 | 24 | D24 | MULT SHOWN IN CAD 121 TO CAD 123 (MFR DISC.) |
| 563 | 23 | D23 | TO CAD 520 |
| 562 | 22 | D22 | |
| 561 | 21 | D21 | TO CAD 180 (COM EQPT FR) (MFR DISC.) |
| 560 | 20 | D20 | |
| 19 | 19 (FT29) | D19 | |
| 18 | 18 (FT28) | D18 | |
| 17 | 17 (FT27) | D17 | |
| 16 | 16 (FT26) | D16 | |
| 15 | 15 (FT25) | D15 | |
| 14 | 14 (FT24) | D14 | |
| 13 | 13 (FT23) | D13 | |
| 12 | 12 (FT22) | D12 | |
| 11 | 11 (FT21) | D11 | |
| 10 | 10 (FT20) | D10 | TO CAD 526 |
| 09 | 09 | D09 | |
| 08 | 08 | D08 | |
| 07 | 07 | D07 | |
| 06 | 06 | D06 | |
| 05 | 05 | D05 | |
| 04 | 04 | D04 | |
| 03 | 03 | D03 | |
| 02 | 02 | D02 | |
| 01 | 01 | D01 | |
| 00 | 00 | D00 | |

TS (NA-D) ON 4W PRE FR

TO CAD 180 (FCR FR) (MFR DISC.)

MFR DISC.

(SWITCHBOARD CABLE FROM 4W PRE FR TO OTHER MKR FR)

| | | | |
|---|---|---|---|
| 599 | 59 | D59 | TO CAD 521 |
| 598 | 58 | D58 | |
| 597 | 57 | D57 | |
| 596 | 56 | D56 | |
| 595 | 55 (D55) | A19 | TO CAD 182 |
| 594 | 54 | D54 | TO CAD 521 |
| 593 | 53 | D53 | TO CAD 520 |
| 592 | 52 | D52 | TO CAD 521 |
| 591 | 51 | D51 | TO CAD 520 |
| 590 | 50 | D50 | TO CAD 521 |
| 589 | 49 | D49 | TO CAD 520 |
| 588 | 48 | D49 | TO CAD 521 |
| 587 | 47 | D47 | |
| 586 | 46 | | |
| 585 | 45 | D045 | |
| 584 | 44 | D44 | TO CAD 520 |
| 583 | 43 (53) | 43 | TO CAD 106 MTC-F1 |
| 582 | 42 (50) | 42 | |
| 581 | 41 | D41 | TO CAD 520 |
| 580 | 40 | D40 | |
| 579 | 39 | D39 | |
| 578 | 38 | D38 | TO CAD 521 |
| 577 | 37 | D37 | |
| 576 | 36 | D36 | TO CAD 520 |
| 575 | 35 | D35 | |
| 574 | 34 | D34 | |
| 573 | 33 | D33 | |
| 572 | 32 | D32 | TO CAD 525 |
| 571 | 31 | D31 | |
| 570 | 30 | D30 | |

TS (NA-D) ON 4W PRE FR

TO CAD 180 (COM EQPT FR) (MFR DISC.)

MFR DISC.

| | | | |
|---|---|---|---|
| 503 | 29 | E29 | |
| 502 | 28 | E28 | |
| 501 | 27 | E27 | |
| 500 | 26 | E26 | |
| 499 | 25 | E25 | |
| 498 | 24 | E24 | |
| 497 | 23 | E23 | |
| 496 | 22 | E22 | |
| 495 | 21 | E21 | |
| 494 | 20 | E20 | |
| 493 | 19 | E19 | |
| 492 | 18 | E18 | |
| 491 | 17 | E17 | |
| 490 | 16 | E16 | |
| 489 | 15 | E15 | |
| 488 | 14 | E14 | TO CAD 526 |
| 487 | 13 | E13 | |
| 486 | 12 | E12 | |
| 485 | 11 | E11 | |
| 484 | 10 | E10 | |
| 483 | 09 | E09 | |
| 482 | 08 | E08 | |
| 481 | 07 | E07 | |
| 480 | 06 | E06 | |
| 479 | 05 | E05 | |
| 478 | 04 | E04 | |
| 477 | 03 | E03 | |
| 476 | 02 | E02 | |
| 475 | 01 | E01 | |
| 474 | 00 | E00 | |

TS (NA-E) ON FR

SHOWN IN CAD 182 (59 D)

MULT SHOWN IN CAD 121

MFR DISC.

| | | | |
|---|---|---|---|
| ALB | 58 | E58 | |
| MT40 | 57 | E57 | |
| SKFT | 56 | E56 | |
| NCMG | 55 | E55 | |
| BYP | 54 | E54 | TO CAD 520 |
| MT28 | 53 | E53 | |
| MT30 | 52 | E52 | |
| RNGC | 51 | E51 | |
| SKFP | 50 | E50 | |
| 529 | 49 | E49 | |
| 528 | 48 | E48 | TO CAD 525 |
| 527 | 47 | E47 | |
| 526 | 46 | E46 | TO CAD 520 |
| 525 | 45 | E45 | |
| 524 | 44 | L44 | |
| | | B50 | TO TS NA-B IN SAME CAD |
| 523 | 43 | E43 | |
| 522 | 42 | E42 | TO CAD 521 |
| 521 | 41 | | |
| 520 | 40 | E40 | |
| 519 | 39 | E39 | TO CAD 520 |
| 518 | 38 | E38 | |
| 517 | 37 | E37 | TO CAD 521 |
| 516 | 36 (3H) | B28 | TO TS (NA-B) IN SAME CAD |
| 515 | 35 | E35 | TO CAD 520 |
| 514 | 34 | E34 | TO CAD 521 |
| 513 | 33 | E33 | TO CAD 525 |
| 512 | 32 | E32 | TO CAD 521 |
| 505 | 31 | E31 | |
| 504 | 30 | E30 | TO CAD 526 |

TS (NA-E) ON FR

TO CAD 180 (COM EQPT FR) (MFR DISC.)

TO CAD 123 (MFR DISC.)

| DRAWING ISSUE | |
|---|---|
| 32A | TS (NA-D) AWP |
| 34A | TS (NA-D) AWP |
| 35D | TS (NA-D) AWP |
| 39D | LFP |

ISSUE 57B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G2151B

BELL TELEPHONE LABORATORIES INCORPORATED

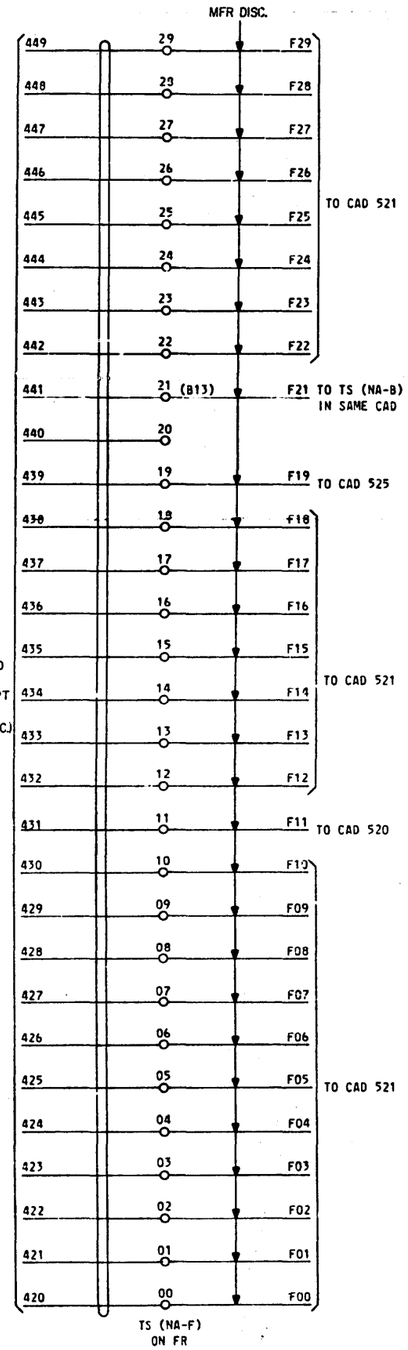
6S

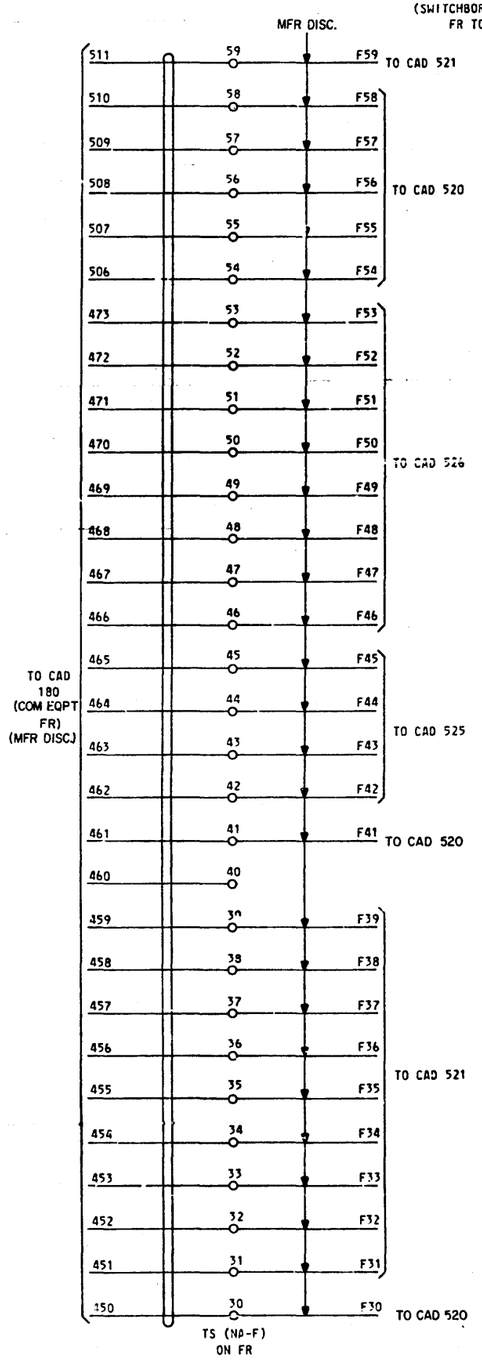
SD-26002-01-G2.5B

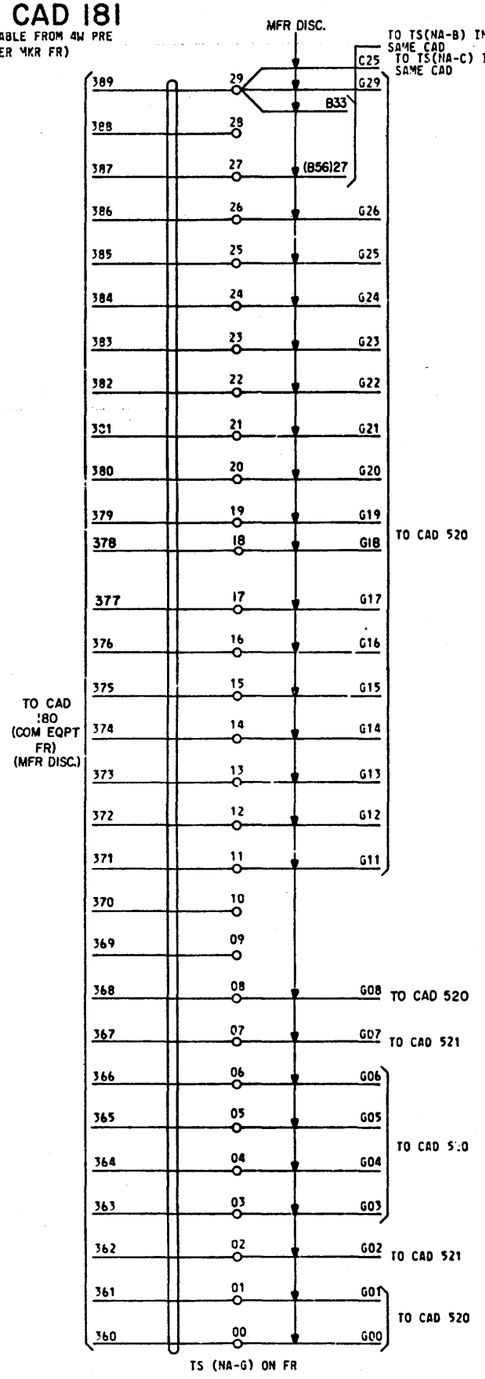
HIGGINS 4465 K&E

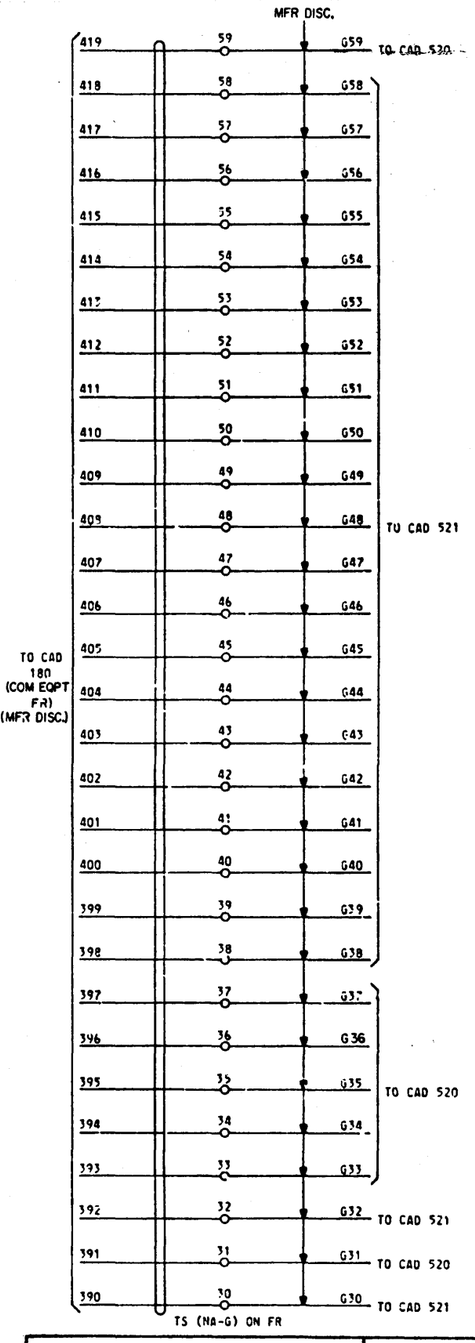
# PART OF CAD 181

(SWITCHBORAD CABLE FROM 4W PRE FR TO OTHER 4KR FR)




| DRAWING ISSUE | |
|---|---|
| 32A | TAK GOI HAR |
| 34A | RCL GOI I-2 |
| 35D | RCL GOI AMP |
| 39D | LFP |

ISSUE 57B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G215C

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G215C

HIGGINS & KE 4465

# PART OF CAD 181

(SWITCHBOARD CABLE FROM 4W PRE FR TO OTHER MKR FR)

MFR DISC.

| | | |
|---|---|---|
| 329 | 29 | H29 TO CAD 525 |
| 328 | 28 | H28 TO CAD 520 |
| 327 | 27 | H27 TO CAD 525 |
| 326 | 26 | H26 |
| 325 | 25 | H25 |
| 324 | 24 | H24 |
| 323 | 23 | H23 |
| 322 | 22 | H22 |
| 321 | 21 | H21 |
| 320 | 20 | H20 |
| 319 | 19 | H19 |
| 318 | 18 | H18 |
| 317 | 17 | H17 |
| 316 | 16 | |
| 315 | 15 | H15 |
| TO CAD 180 (COM EQPT FR) 314 | 14 | H14 TO CAD 520 |
| 313 | 13 | H13 |
| 312 | 12 | H12 |
| 311 | 11 | H11 |
| 310 | 10 | H10 |
| 309 | 09 | |
| | 08 | |
| 307 | 07 | H07 |
| 306 | 06 | H06 |
| 305 | 05 | H05 |
| 304 | 04 | H04 |
| 303 | 03 | H03 |
| 302 | 02 | H02 |
| 301 | 01 | H01 |
| 300 | 00 | H00 |

TS (NA-H) ON FR

MFR DISC.

| | | |
|---|---|---|
| 359 | 59 | TO CAD 521 |
| 358 | 58 | H58 |
| 357 | 57 | H57 |
| 356 | 56 | H56 |
| 355 | 55 | H55 |
| 354 | 54 | H54 |
| 353 | 53 | H53 |
| 352 | 52 | |
| 351 | 51 | |
| 350 | 50 | |
| 349 | 49 | |
| 348 | 48 | H48 |
| 347 | 47 | |
| 346 | 46 | H46 |
| TO CAD 180 (COM EQPT FR) 345 | 45 | |
| 344 | 44 | H44 TO CAD 520 |
| 343 | 43 | H43 |
| 342 | 42 | H42 |
| 341 | 41 | H41 |
| 340 | 40 | H40 |
| 339 | 39 | H39 |
| 338 | 38 | H38 |
| 337 | 37 | H37 |
| 336 | 36 | H36 |
| 335 | 35 | |
| 334 | 34 | H34 |
| 333 | 33 | H33 |
| 332 | 32 | H32 |
| 331 | 31 | H31 |
| 330 | 30 | H30 |

TS (NA-H) ON FR

| | | |
|---|---|---|
| TO CAD 180 (COM EQPT FR) 2WDE | 2WDE | |
| 2WDD | 2WDD | |
| 2WDC | 2WDC | |
| 2WDB | 2WDB | |
| 2WDA | 2WDA | |
| 624 | 624 | TO CAD 508 |
| 623 | 623 | |
| 622 | 622 | |
| 621 | 621 | |
| 620 | 620 | |
| 619 | 619 | |
| 618 | 618 | |
| 617 | 617 | |
| 616 | 616 | |
| 615 | 615 | |
| 614 | 614 | |
| 613 | 613 | |
| 612 | 612 | |
| 611 | 611 | |
| 610 | 610 | |
| 609 | 609 | TO CAD 506 |
| 608 | 608 | |
| 607 | 607 | |
| 606 | 606 | |
| 605 | 605 | |
| 604 | 604 | |
| 603 | 603 | |
| 602 | 602 | |
| 601 | 601 | |
| 600 | 600 | |
| 599 | 599 | |

MFR DISC. A&M ONLY

| | | |
|---|---|---|
| 165 | 165 | |
| 160 | 160 | |
| 159 | 159 | |
| 147 | 147 | |
| 146 | 146 | |
| 139 | 139 | |
| 138 | 138 | |
| 74 | 74 | |
| 73 | 73 | |
| 72 | 72 | TO CAD 523 |
| 71 | 71 | |
| 52 | 52 | |
| 51 | 51 | |
| TO CAD 180 (COM EQPT FR) 48 | 48 | |
| 47 | 47 | |
| 46 | 46 | |
| 40 | 40 | |
| 39 | 39 | |
| 00 | 00 | |
| 2WD | 2WD | |
| 2WD3 | 2WD3 | |
| 2WD2 | 2WD2 | |
| 2WD1 | 2WD1 | |
| 2WDM | 2WDM | |
| 2WDL | 2WDL | |
| 2WDK | 2WDK | TO CAD 508 |
| 2WDJ | 2WDJ | |
| 2WDI | 2WDI | |
| 2WDH | 2WDH | |
| 2WDG | 2WDG | |
| 2WDF | 2WDF | |

DRAWING ISSUE

| | | |
|---|---|---|
| 32A | 4W COL RMR | |
| 35D | TS GD AMR | |
| 37D | WM | |
| 39D | LFP | |
| 41D | | |
| 43D | | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G215D

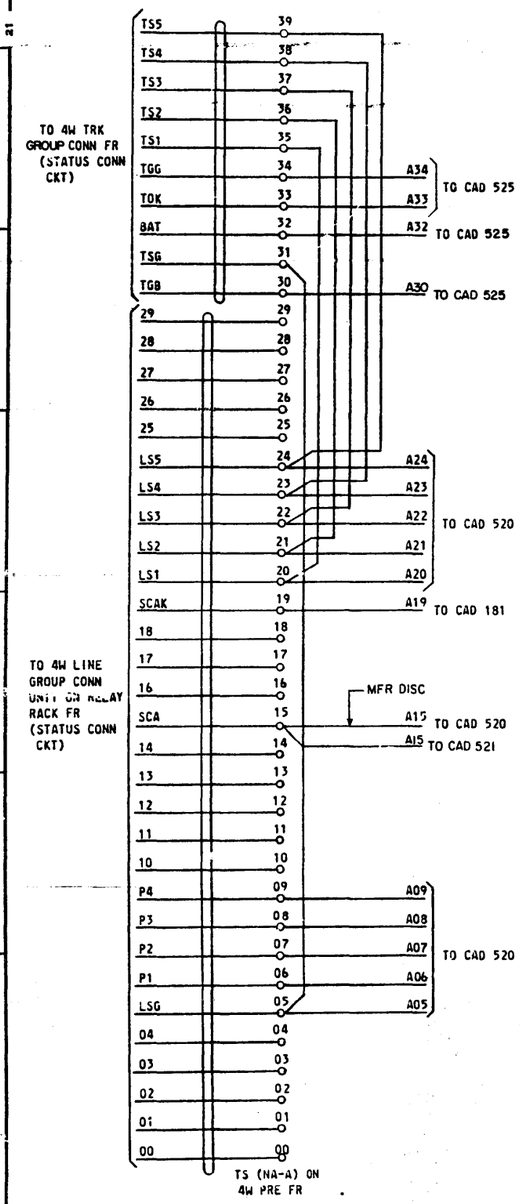
BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S PRINTED IN U.S.A.

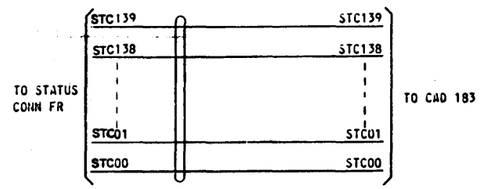
HIGGINS 4465 K&E

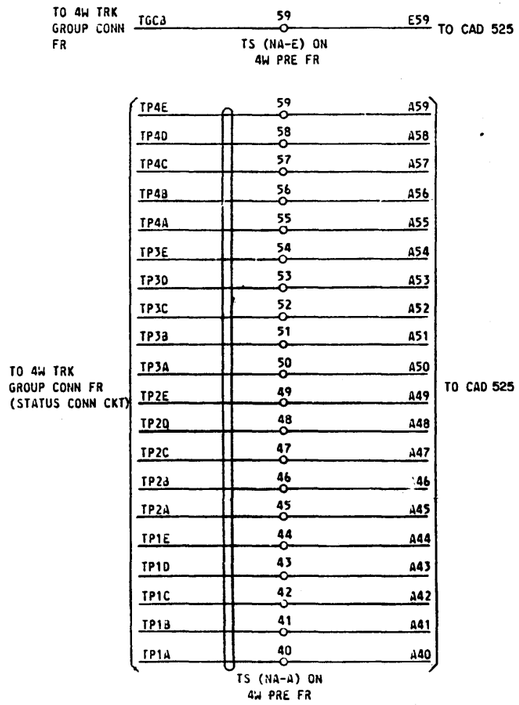
SD-26002-01-G215D

# CAD 182 (MFR DISC.)

(SWBD CA FROM 4W PRE FR TO STATUS CONN FR)

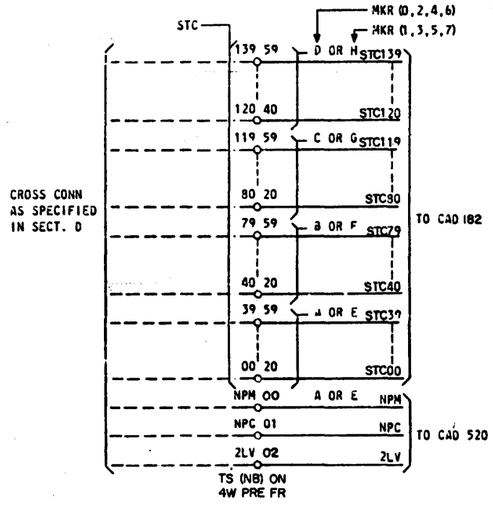


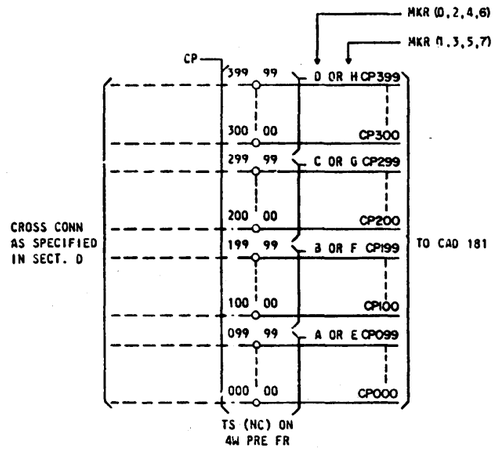




# CAD 183 (MFR DISC.)

(4W PRE FR CROSS CONNECTIONS)




| DRAWING ISSUE | |
|---|---|
| 30D | GEL G.D. AMD |
| 35D | BK 6.D. AMD |
| 39D | ESM |

ISSUE 57B

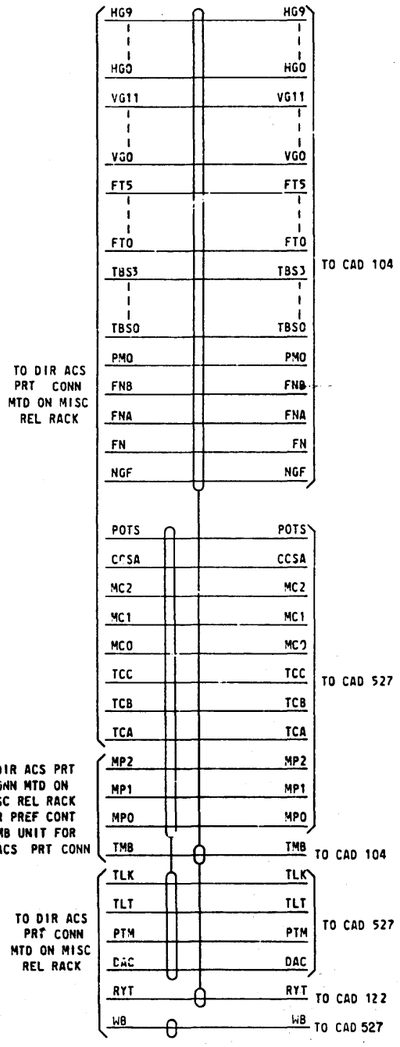
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G216

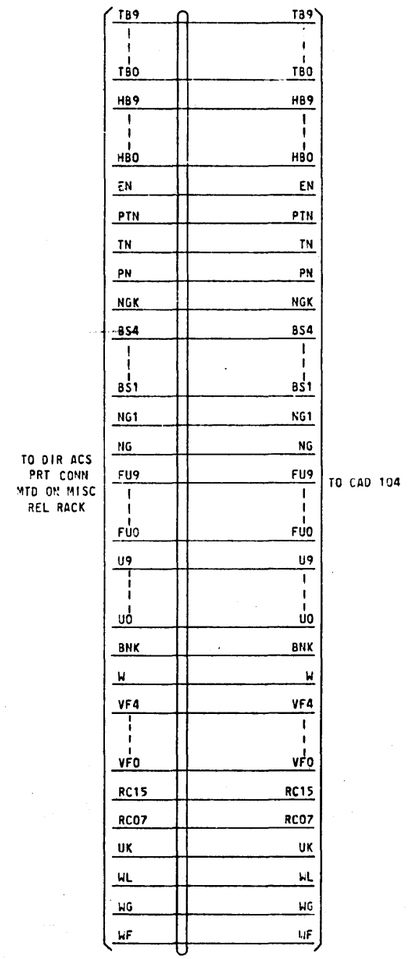
BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

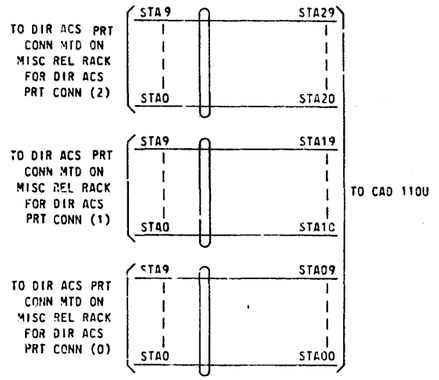
SD-26002-01-G216

STABILO

# CAD 184
(SWITCHBOARD CABLE
TO DIR ACS PRT CONN)




DRAWING ISSUE

| | |
|---|---|
| 33D | TS 6PL AMJ |
| 39D | RP |

39

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G217

BELL TELEPHONE LABORATORIES INCORPORATED

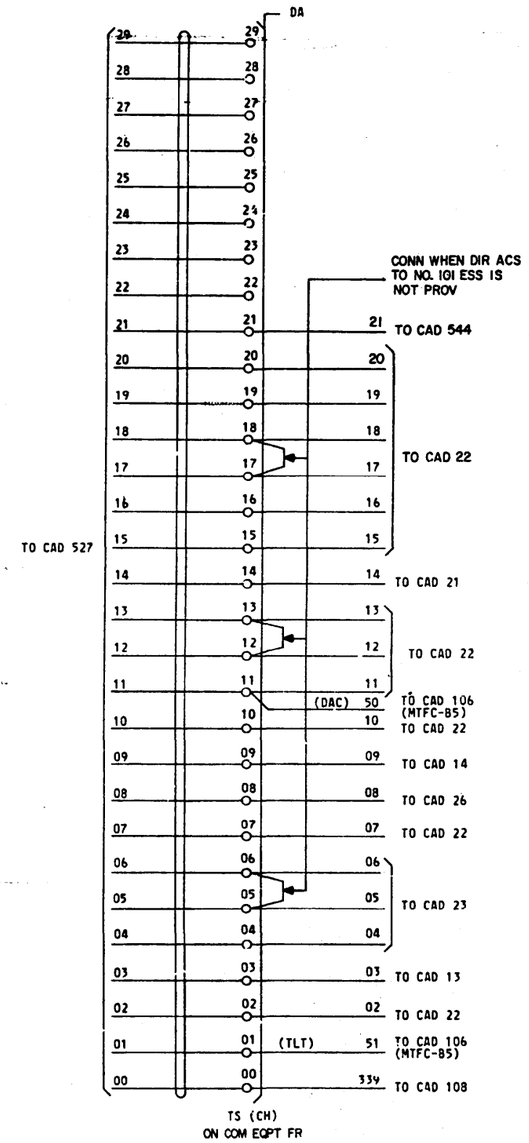
SIZE 6S

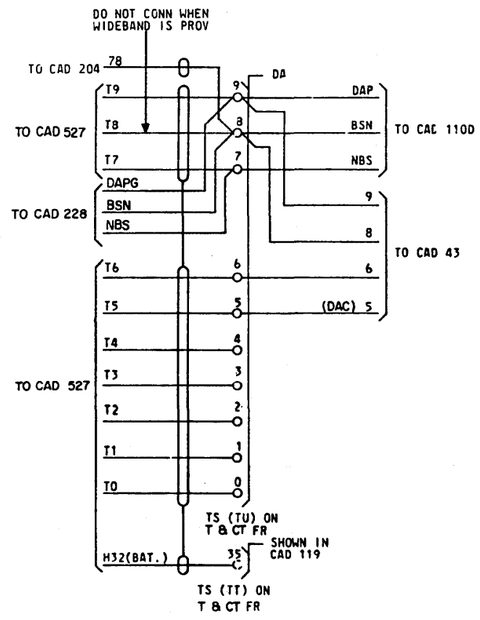
SD-26002-01-G217

HIGGINS 4465

# CAD 185

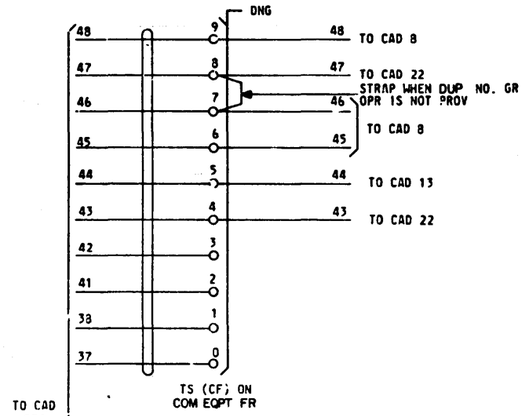
(SWITCHBOARD CABLE TO NO. 101 ESS DIR ACS UNIT ON MISC REL RACK)

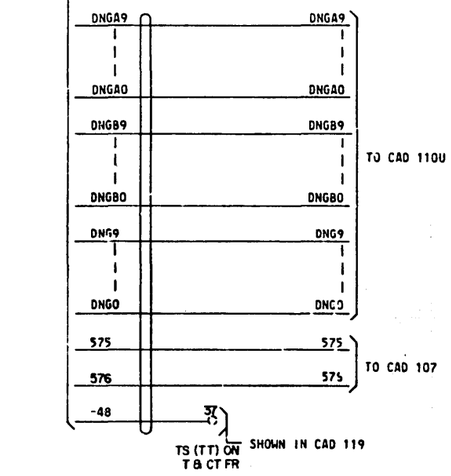



# CAD 186

(SWITCHBOARD CABLE TO DUP NO. GR UNIT)




DRAWING ISSUE

| | | |
|---|---|---|
| 33D | TS | Col and Pair |
| 370 | | |
| 390 | RF | |
| 41D | | |

CB CA A

ISSUE 57B CB

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G218

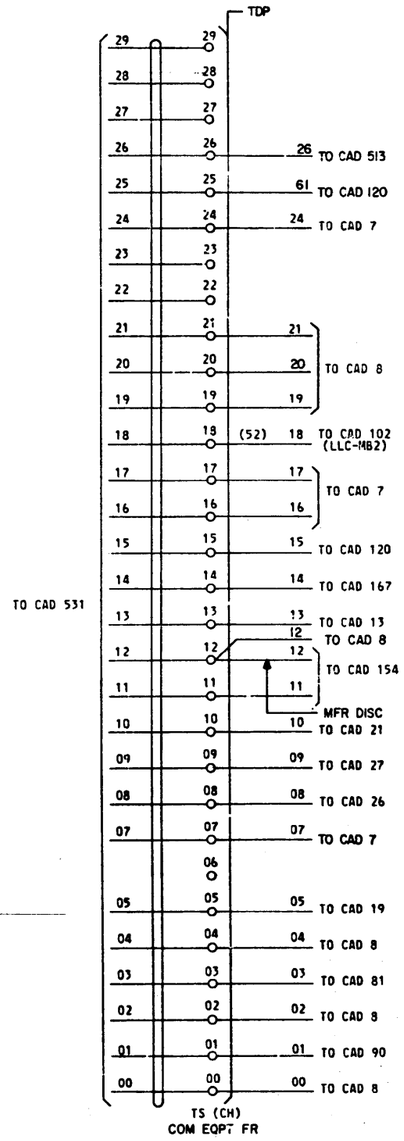
BELL TELEPHONE LABORATORIES INCORPORATED 6S

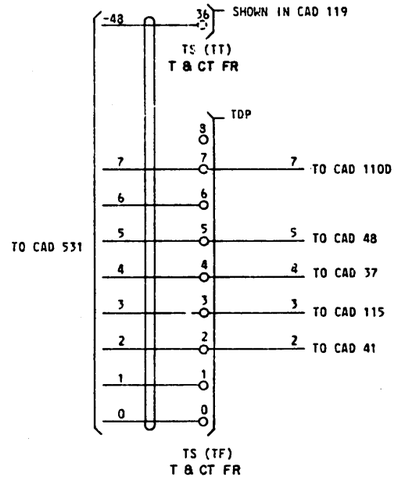
SD-26002-01-G218

HIGGINS 4465 K&E

# CAD 187

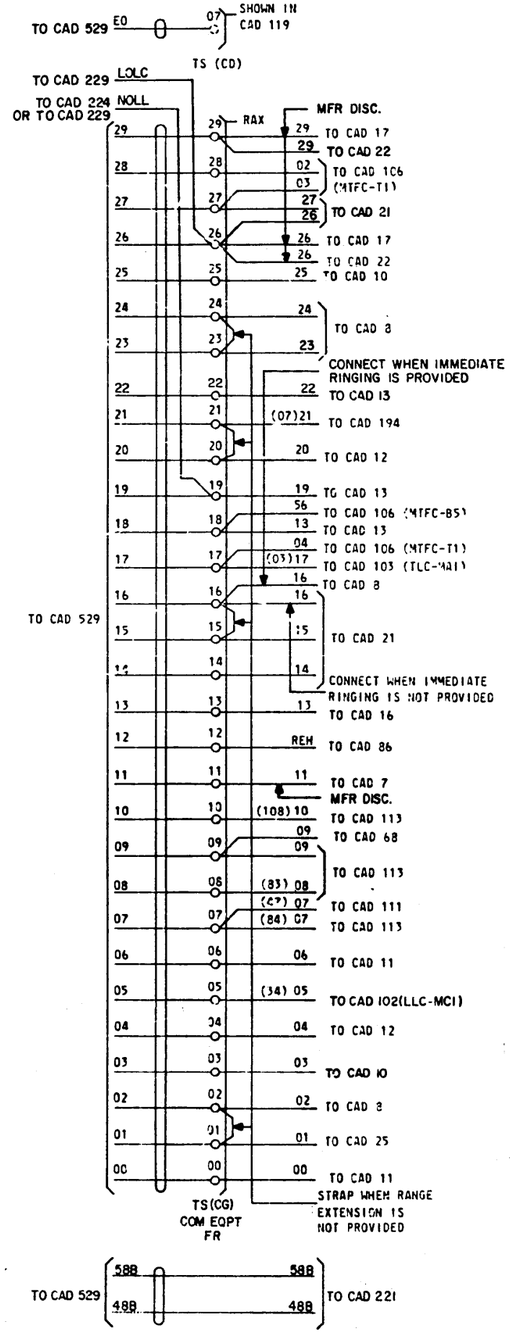
(SWBD CABLE TO TRAFFIC DATA PROCESSOR UNIT)

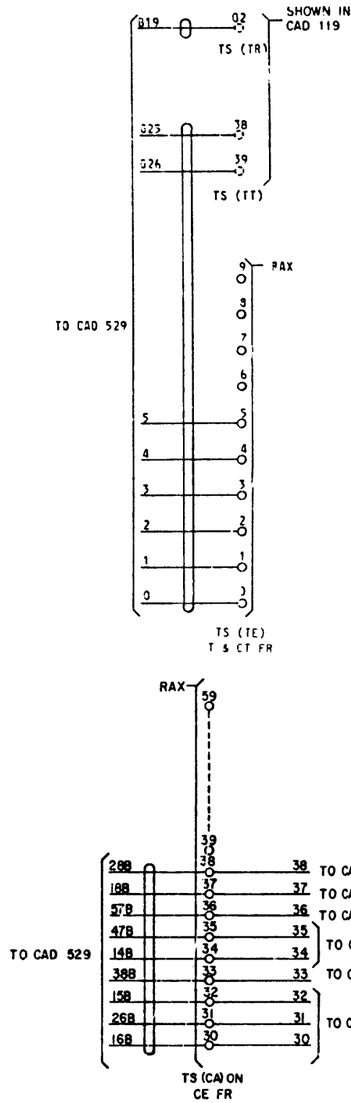



# CAD 188

(SWBD CABLE TO RANGE EXTENSION UNIT)







| DRAWING ISSUE | |
|---|---|
| 33D | REL |
| 34A | TS |
| 35D | TS |
| 39D | RR |
| 41D | |
| 43D | |
| 45D | |

ISSUE 61B

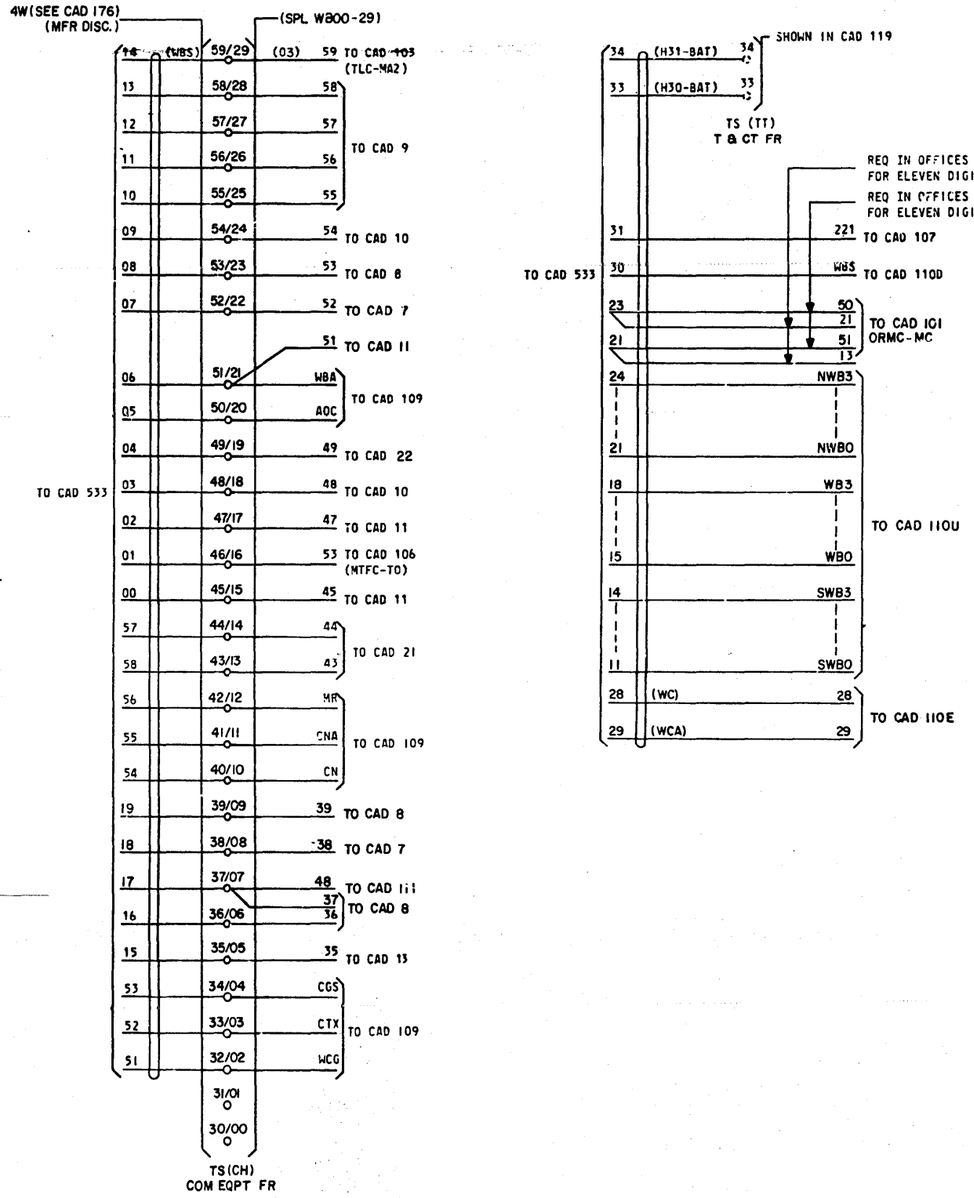
COMPLETING MARKER CIRCUIT (2) SD-26002-01-6219

BELL TELEPHONE LABORATORIES INCORPORATED 6S

HIGGINS #4465 KE

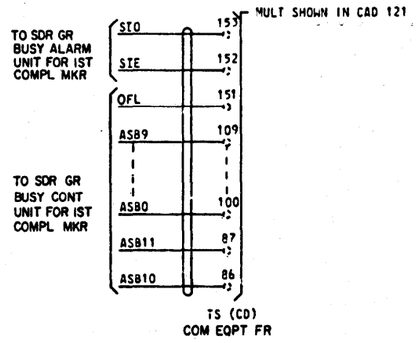
# CAD 189 (SPECIAL)

SWITCHBOARD CABLE TO WIDEBAND
SWITCHING UNIT ON MISC REL RACK




# CAD 190

SWITCHBOARD CABLE TO SDR
GR BUSY CKT




DRAWING ISSUE

| | |
|---|---|
| 33D | GA/ GO4 AW |
| 35D | KM/ GO4 AW |
| 36A | GA |
| 37D | GA |
| 42A | GB |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G220

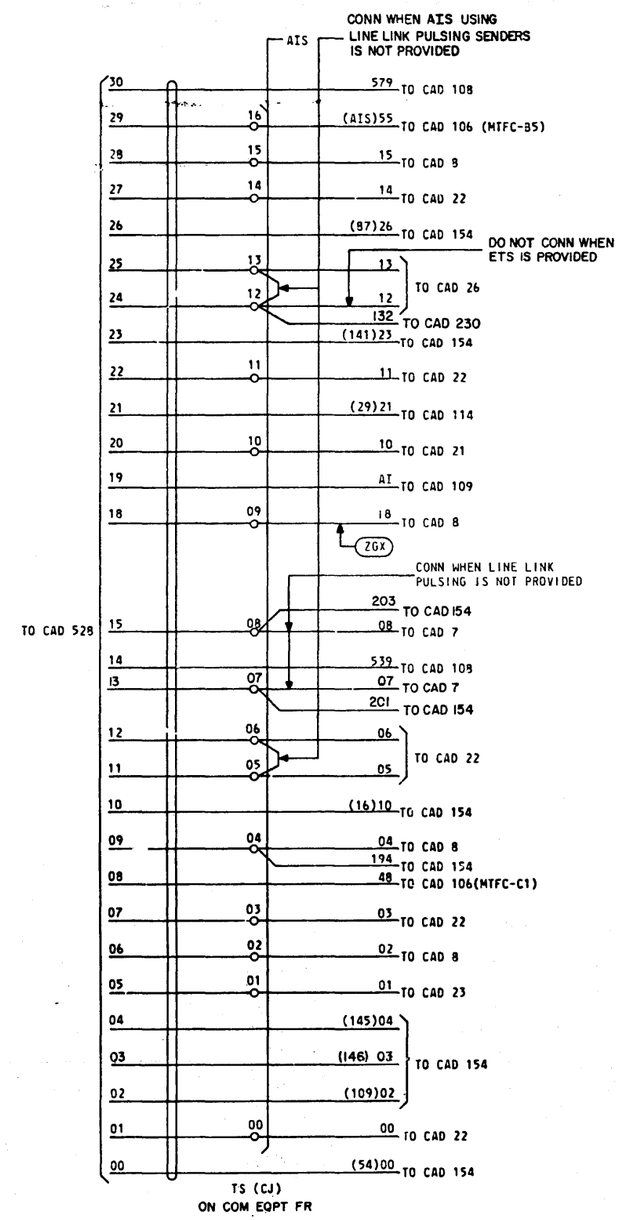
BELL TELEPHONE LABORATORIES INCORPORATED — DRAWING SIZE 6S

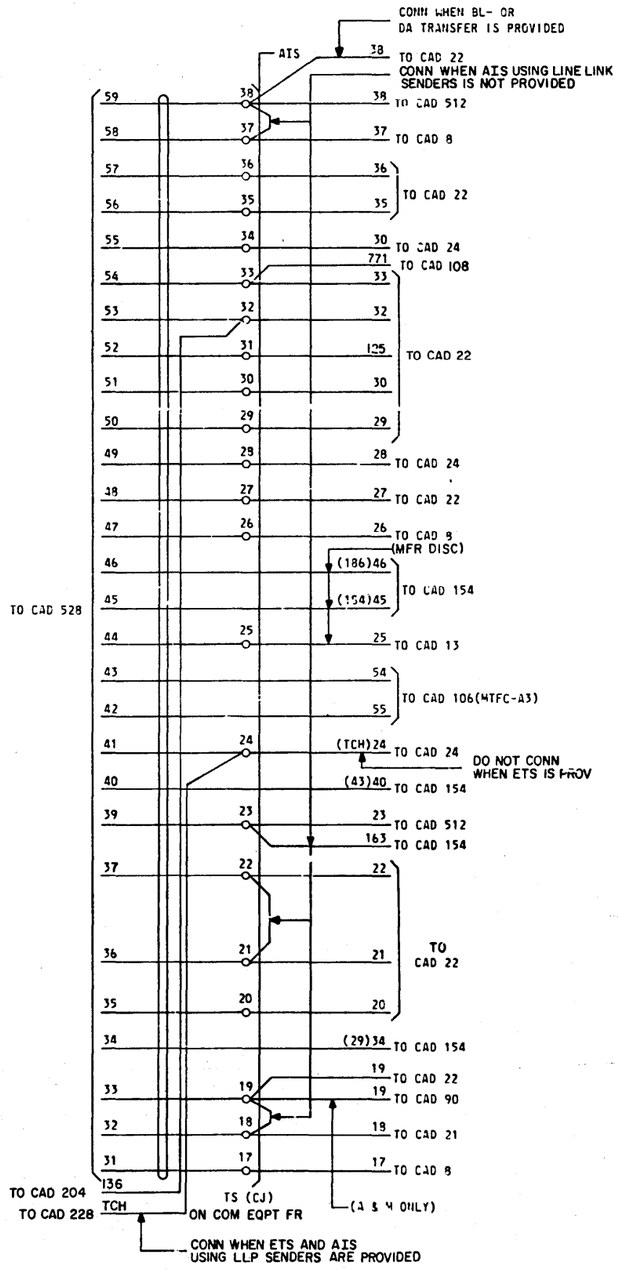
SD-26002-01-G220

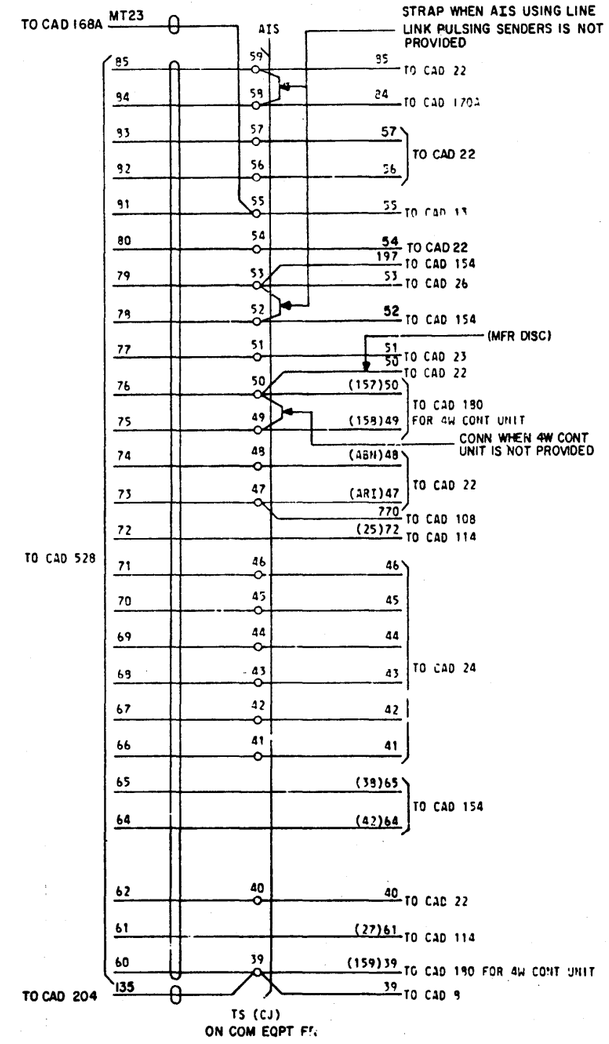
HIGGINS 4465 K-E

# PART OF CAD 191

(SWITCHBOARD CABLE TO AIS UNIT)




| DRAWING ISSUE | KEY |
|---|---|
| 33D | GAL AMP |
| 34A | TS GA AMP |
| 37D | J4 |
| 39D | RP |
| 41D | |
| 43D | |
| 45D | |

ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G221

BELL TELEPHONE LABORATORIES INCORPORATED

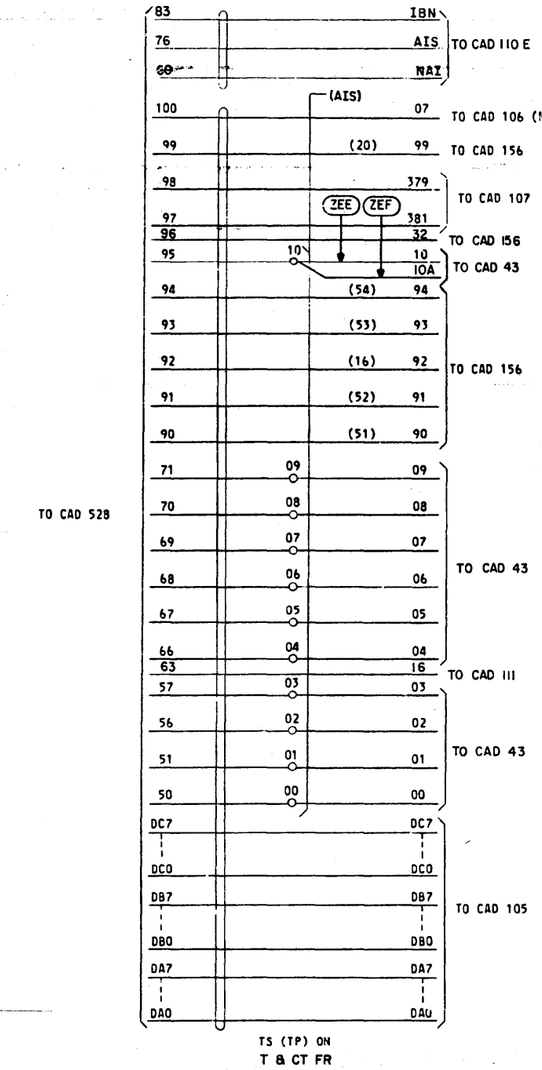
SIZE 63

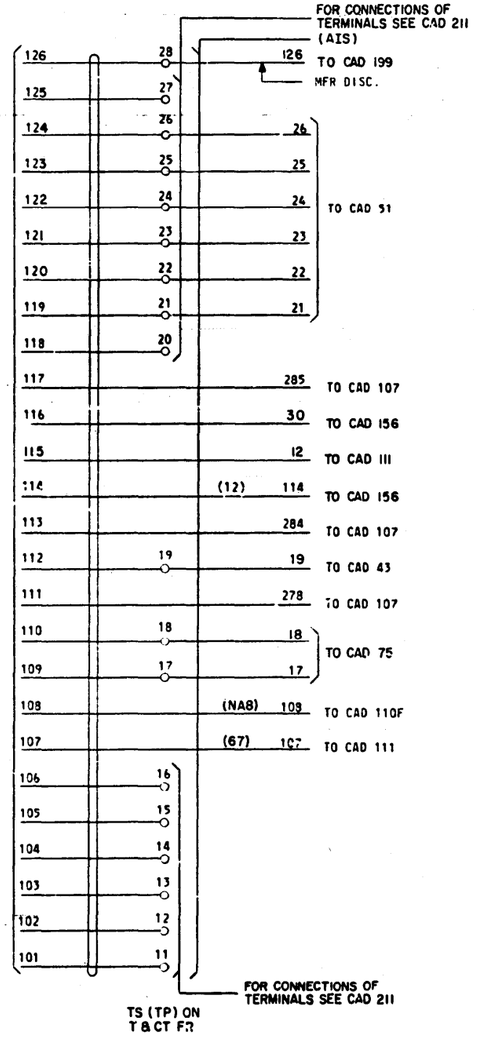
SD-26002-01-G221

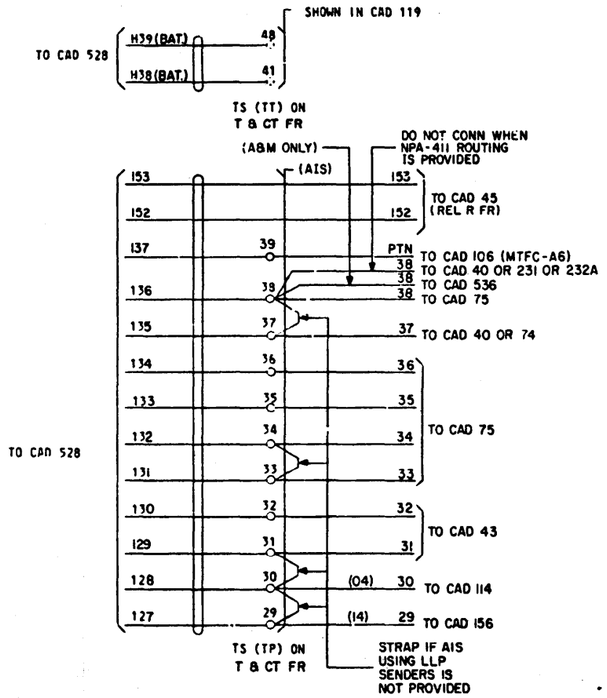
H1GGINS 4495

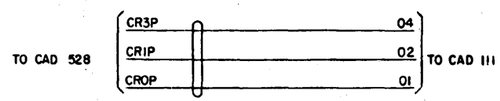
# PART OF CAD 191

(SWITCHBOARD CABLE TO AIS UNIT)




| DRAWING ISSUE | |
|---|---|
| 33D | DP GOL AND |
| 34A | RLT GC AND |
| 35D | RLT GC AND |
| 37D | SL C |
| 39D | ESA |
| 41D | |

ISSUE 69B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G222

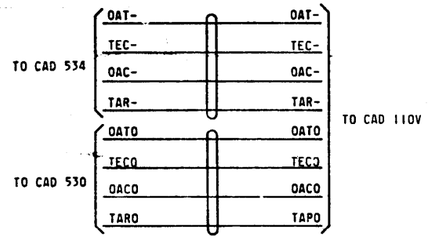
BELL TELEPHONE LABORATORIES INCORPORATED 6S

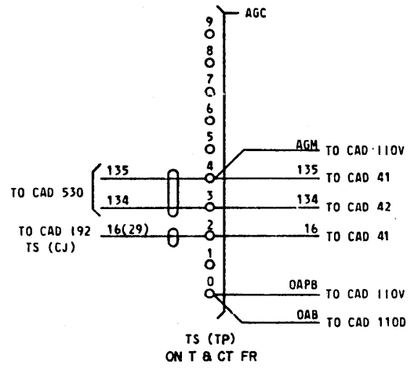
SD-26002-01-G222

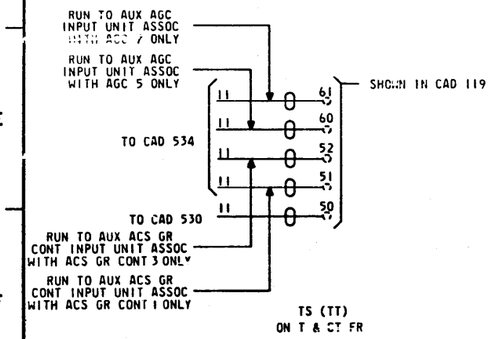
KIMBERLY-CLARK

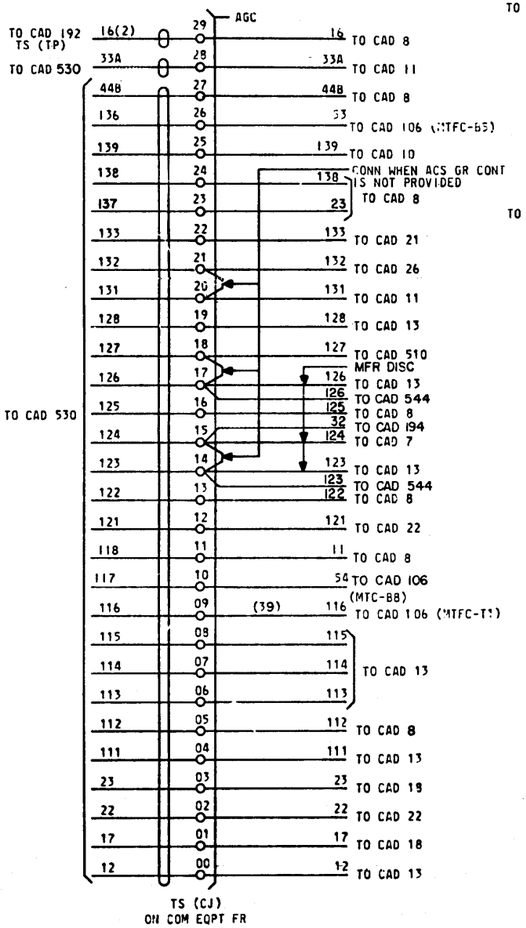
# CAD 192

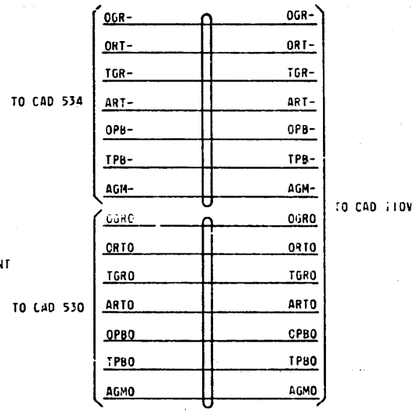
SWBD CA FROM COM EQPT AND T & CT FRAMES
TO ACS GR CONT INPUT AND AUX ACS GR CONT INPUT UNITS AND AGC UNIT



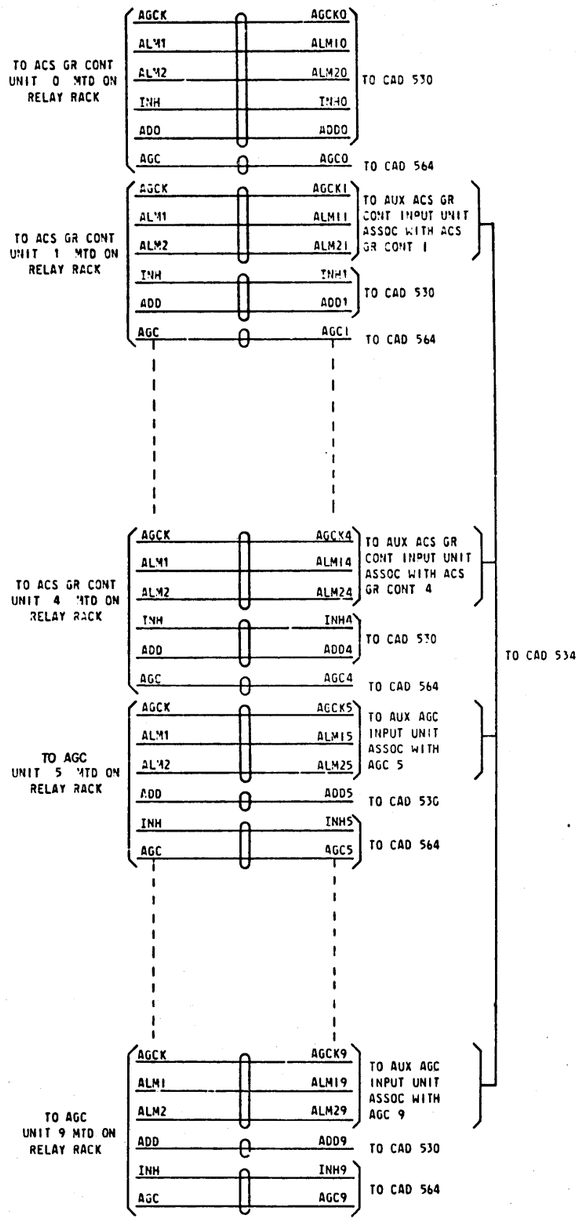




# CAD 193

SWBD CA TO ACCESS GROUP CONTROLLERS




DRAWING ISSUE
33D
35D
36A
37D
42A
43D
CBA
CB
ISSUE 49D

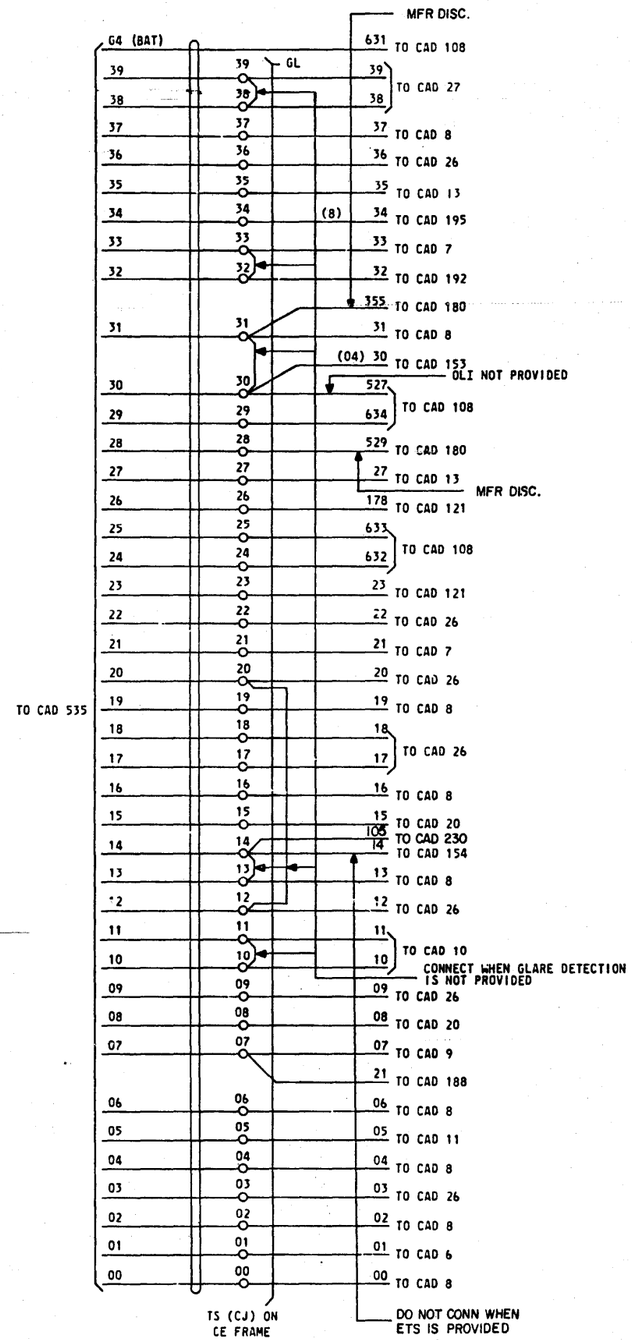
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G223
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

HIGGINS 4465 K&E

0 1 2 3 4 5 6 7 8 9

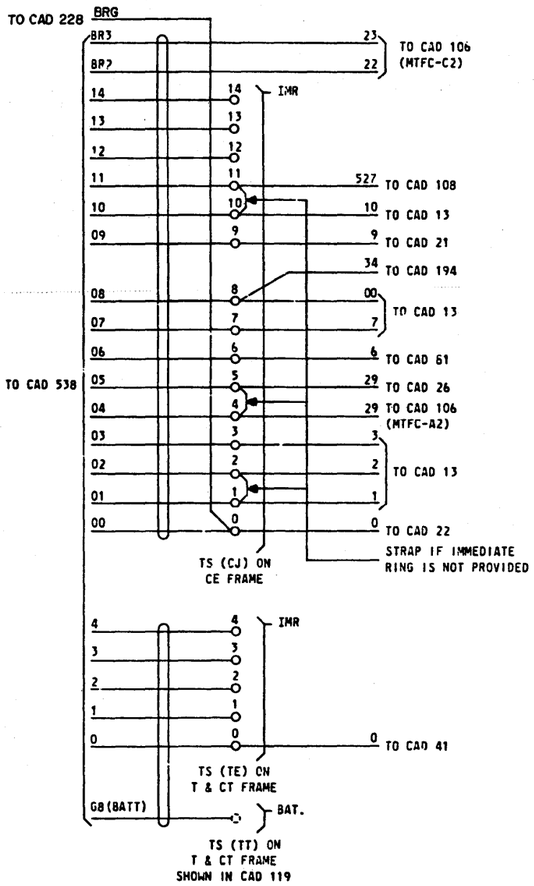
# CAD 194

(SWITCHBOARD CABLE FROM CE FRAME TO MARKER GLARE DETECTION UNIT)




# CAD 195

(SWITCHBOARD CABLE TO MARKER CONTROL IMMEDIATE RING UNIT)




| DRAWING ISSUE | |
|---|---|
| 34A | NSC GDL AMC |
| 35D | NSC GDL AMC |
| 39D | ESM |
| 45D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G224

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-G224

# CAD 196

(SWITCHBOARD CABLE TO LINE ROUTE RELAY RACK UNIT)

| DRAWING ISSUE | |
|---|---|
| 35D | NSC GDL AND |
| 37D | WM |
| 39D | LFP |

TO CAD 154 (RUN FROM FIRST UNIT ONLY) OR MULT TO PRECEDING UNIT FOR SAME MARKER

155 154 149 148 — 58 48 38 28 — 155 154 149 148 — 58 48 38 28 — TO CAD 89

13 — RR23 — TO FRAME GROUND

57 47 37 27 17

59 63 67 66 65 64 63 62 61 60 — 56 46 36 26 16 55 45 35 25 15 — 69 58 67 66 65 64 63 62 61 60

TO CAD 154 RUN FROM FIRST UNIT FOR SAME MARKER, OR MULT TO PRECEDING UNIT FOR SAME MARKER

MULT TO SUCCEEDING UNIT FOR SAME MARKER

LRW(-)9 LRW(-)8 LRW(-)7 LRW(-)6 LRW(-)5 LRW(-)4 LRW(-)3 LRW(-)2 LRW(-)1 LRW(-)0 — 54 44 34 24 14 53 43 33 23 13 — LRW(-)9 LRW(-)8 LRW(-)7 LRW(-)6 LRW(-)5 LRW(-)4 LRW(-)3 LRW(-)2 LRW(-)1 LRW(-)0

TO CAD 502

TO CAD 504 OR CAD 110J WHEN APP FIG 104 IS NOT PROVIDED

52 42 32 22 12

TO CAD 154 (SEE TABLE A) — a — 51 — a — TO CAD 39 (SEE TABLE A)

41 31 21

TO CAD 156 RUN FROM HVT0 OR MULT FOR HVT1-5 (G15)

TO CAD 156 RUN FROM HVT6 OR MULT FOR HVT7-11 (G16)

MULT FOR HVT1-5 OR MULT FOR HVT7-11

11 — BATT — TO CAD 89

TS (A) ON CENTREX LR- RELAY UNIT

M( ) — MULT TO RESPECTIVE TERMINALS ON PRECEEDING UNIT FOR SAME MARKER

ST 39 — ST39 — TO CAD 104 FROM FIRST BLOCK FOR SAME MARKER — ST00 — 00

HB 9 — HB9 — HB0 — 0

TB 9 — TB9 — TB0 — 0

U 9 — U9 — U0 — 0

CROSS CONNECT AS SPECIFIED IN SECTION D

OR TO RESPECTIVE TERMINALS ON PRECEEDING UNIT FOR SAME MARKER

LATH 9 — LATH9 — TO CAD 122A FROM FIRST BLOCK FOR SAME MARKER — LATH0 — 0

GN — GN — TO CAD 154 FROM FIRST BLOCK FOR SAME MARKER

BLTL — BLTL — TO CAD 171 FROM FIRST BLOCK FOR SAME MARKER

BNTH — BNTH — TO CAD 110A FROM FIRST BLOCK FOR SAME MARKER

EGN — EGN — TO CAD 154 FROM FIRST BLOCK FOR SAME MARKER

TS (A) ON LR RELAY RACK UNIT

LN-ST(-) 9 — LN-ST(-)9 — LN-ST(-)0 — 0

LRL(-) 9 8 7 6 5 4 3 2 1 0 — LRL(-)9 LRL(-)8 LRL(-)7 LRL(-)6 LRL(-)5 LRL(-)4 LRL(-)3 LRL(-)2 LRL(-)1 LRL(-)0

CROSS CONNECT AS SPECIFIED IN SECTION D — TO CAD 89

LRU(-) 9 8 7 6 5 4 3 2 1 0 — LRU(-)9 LRU(-)8 LRU(-)7 LRU(-)6 LRU(-)5 LRU(-)4 LRU(-)3 LRU(-)2 LRU(-)1 LRU(-)0

(ASM ONLY) STRAP WHEN MARKER GR HAS MULTIPLED LR- RELAY OPERATION

TS (B) ON LR RELAY RACK UNIT

LCL(-) 9 — LCL(-)9 — LCL(-)0 — 0

LN-TB(-) 9 — LN-TB(-)9 — LN-TB(-)0 — 0

CROSS CONNECT AS SPECIFIED IN SECTION D — TO CAD 89

LN-HB(-) 9 — LN-HB(-)9 — LN-HB(-)0 — 0

TS (B) ON LR RELAY RACK UNIT

TABLE A

| a | HVT(-)REL |
|---|---|
| 58 | 10 |
| 59 | 11 |
| 70 | 0 |
| 71 | 1 |
| 72 | 2 |
| 73 | 3 |
| 74 | 4 |
| 75 | 5 |
| 76 | 6 |
| 77 | 7 |
| 78 | 8 |
| 79 | 9 |

39

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G225

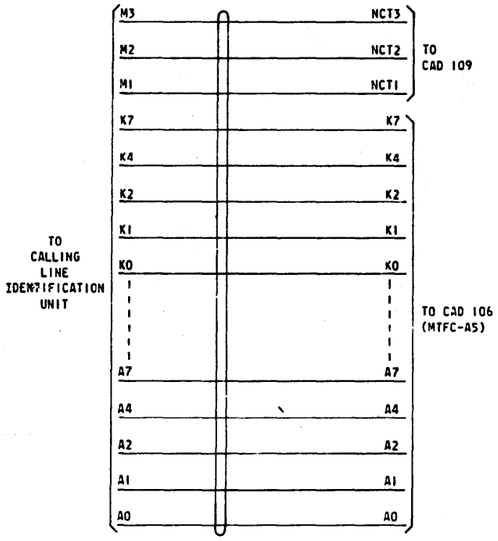
BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 65

PRINTED IN U.S.A.

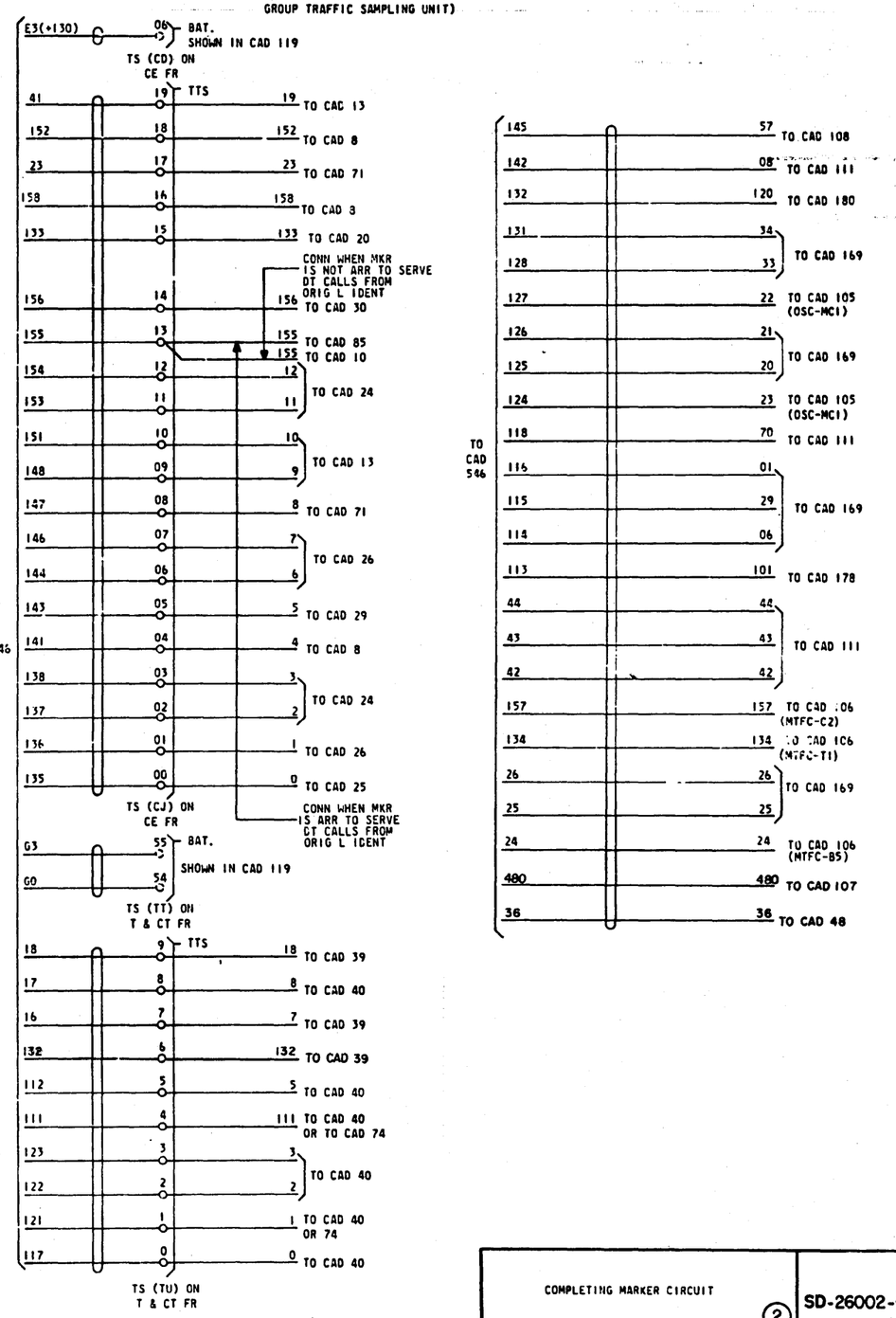
# CAD 197

(SWITCHBOARD CABLE TO CALLING LINE IDENTIFICATION UNIT)




# CAD 198

(SWITCHBOARD CABLE TO TRUNK GROUP TRAFFIC SAMPLING UNIT)




DRAWING ISSUE
36A
38A
390

ISSUE 55B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G226

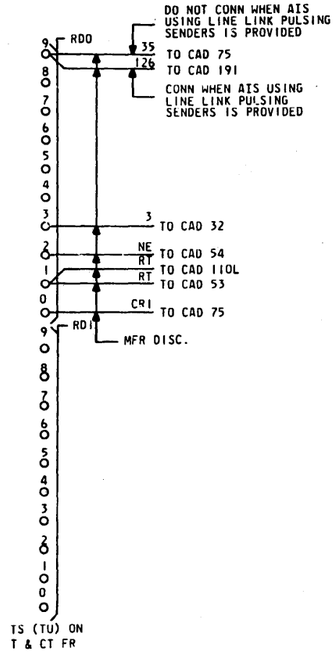
BELL TELEPHONE LABORATORIES INCORPORATED

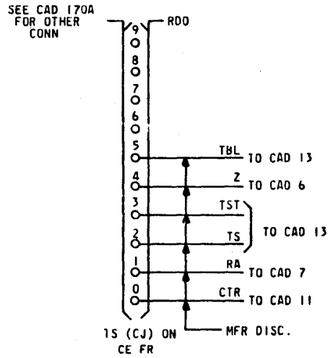
SIZE 6S

SD-26002-01-G226

# CAD 199 (MFR DISC.)

(SWITCHBOARD CABLE TO ROUTE DISTRIBUTOR, AND SUPPLEMENTARY ROUTE DISTRIBUTOR FRAMES)




ISSUE 49D

COMPLETING MARKER CIRCUIT

(2)

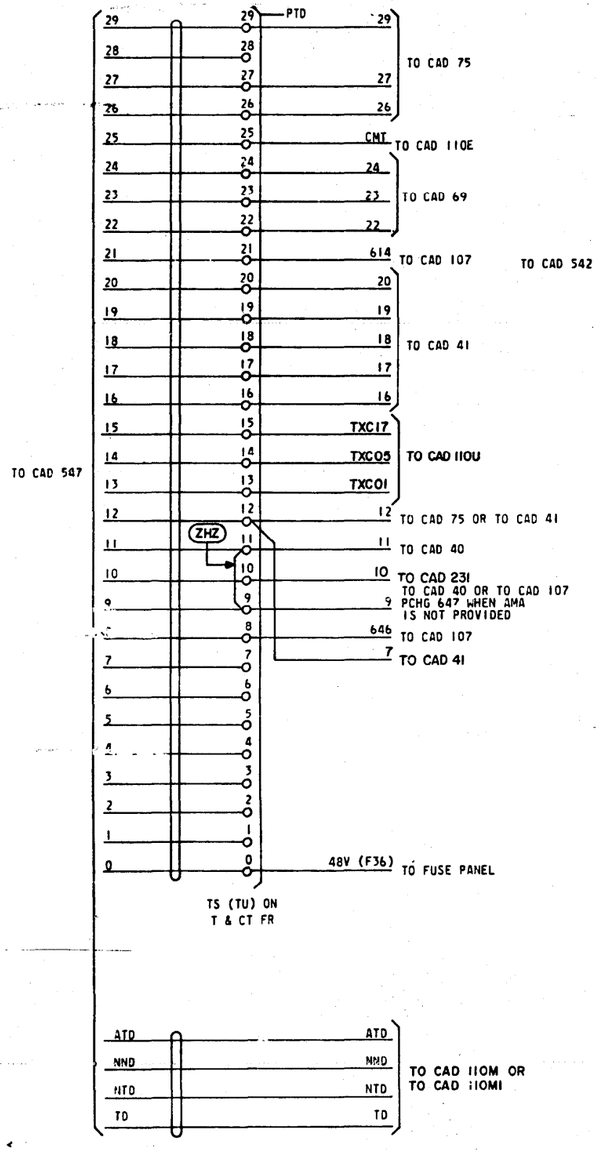
SD-26002-01-G227

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

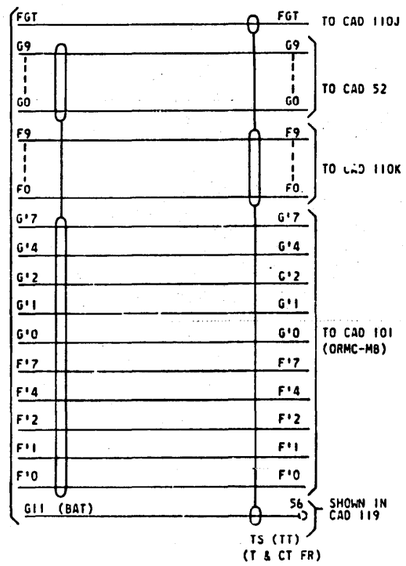
# CAD 200

(SWBD CABLE TO PBX TOLL DIVERSION UNIT)




# CAD 201

(SWBD CABLE TO F-G DIGIT TRANSLATOR UNIT)




DRAWING ISSUE
370 JLF
390 JLF
430 CB

ISSUE 61B

COMPLETING MARKER CIRCUIT (2)

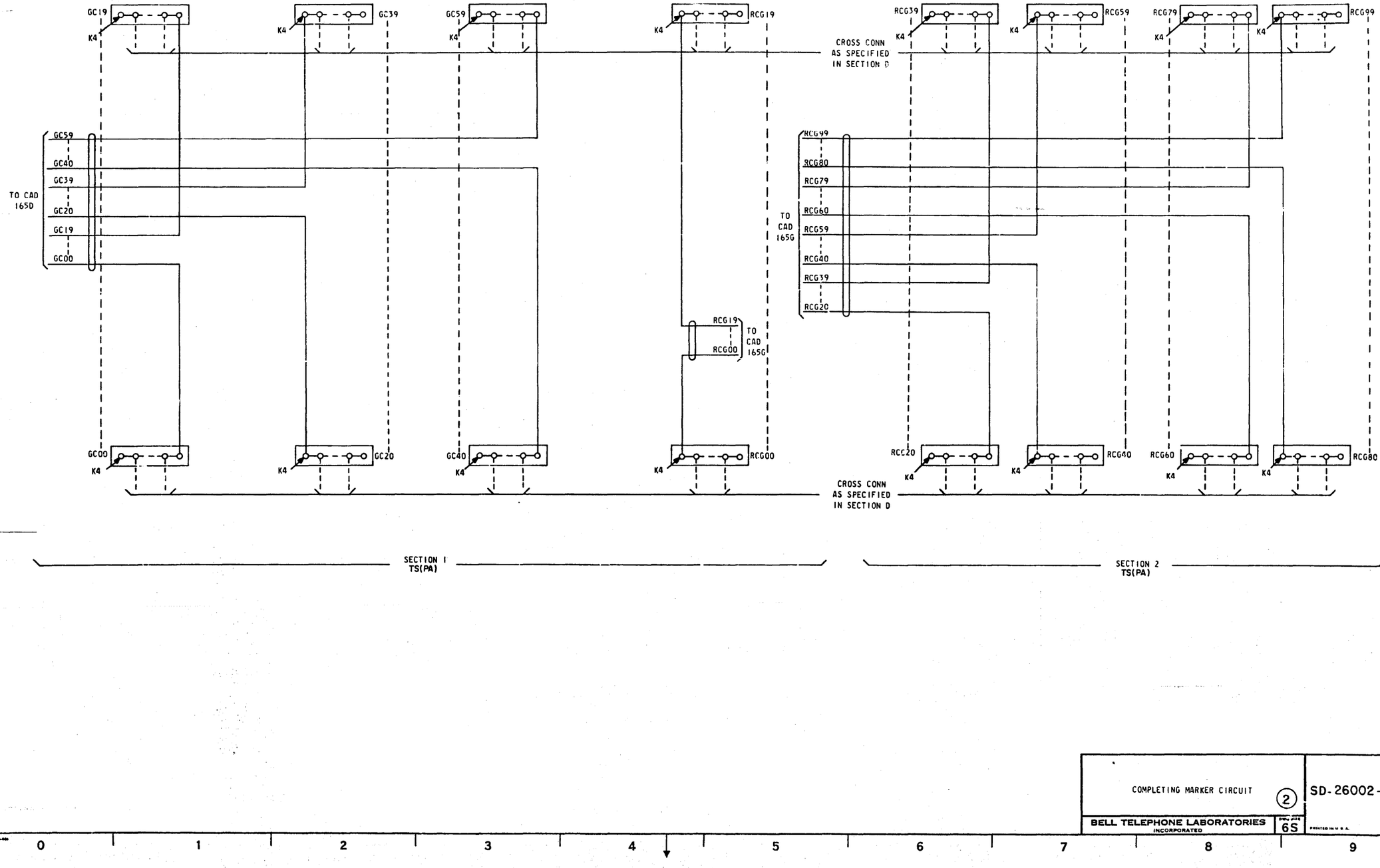
SD-26002-01-G228

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 65

# PART OF CAD 202A (A&M ONLY)

(ARM CROSS CONN)




DRAWING ISSUE 39D

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G229

BELL TELEPHONE LABORATORIES INCORPORATED

DRW SIZE 6S

PRINTED IN U.S.A.

# PART OF CAD 202A (A&M ONLY)

(ARM CROSS CONN)

TO CAD 165G

RCG139
RCG120
RCG119
RCG100

RCG119 RCG118 RCG117 RCG116 RCG115 RCG114 RCG113 RCG112 RCG111 RCG110 RCG109 RCG108 RCG107 RCG106 RCG105 RCG104 RCG103 RCG102 RCG101 RCG100

RCG139 RCG138 RCG137 RCG136 RCG135 RCG134 RCG133 RCG132 RCG131 RCG130 RCG129 RCG128 RCG127 RCG126 RCG125 RCG124 RCG123 RCG122 RCG121 RCG120

CROSS CONN AS SPECIFIED IN SECT. D

RD03 TO CAD 165D

[57] [56] [55] [54] [53] [52] [51] [50] [49] [48] [47] [46] [45] [44] [43] [42] [41]

CA CC MBS9 MBT9 PM PN PP TC TN NN TO RB RCTS [64] [63] [62] IPRS FSP

TO CAD 165D

CROSS CONN AS SPECIFIED IN SECT. D

[19] [39] [59] [58] [34] [10]

RD220 RD221 RD210 RD211 RD212 RD200 RD201 RD202 RD120 RD121 RD122 RD110 RD112 RD100 RD101 RD102 RD020 RD021 RD022 RD010 RD011 RD012 RD001 RD002

RD RD51 RDS4 RDS3 RDS2 RDS1 RDS0

TO CAD 165D

RDP4 RDP3 RDP2 RDP1 RDP0

SECTION 3 TS (PA)

SECTION 4 TS (PA)

DRAWING ISSUE 39D LT

ISSUE 57B

COMPLETING MARKER CIRCUIT

SD-26002-01-G230

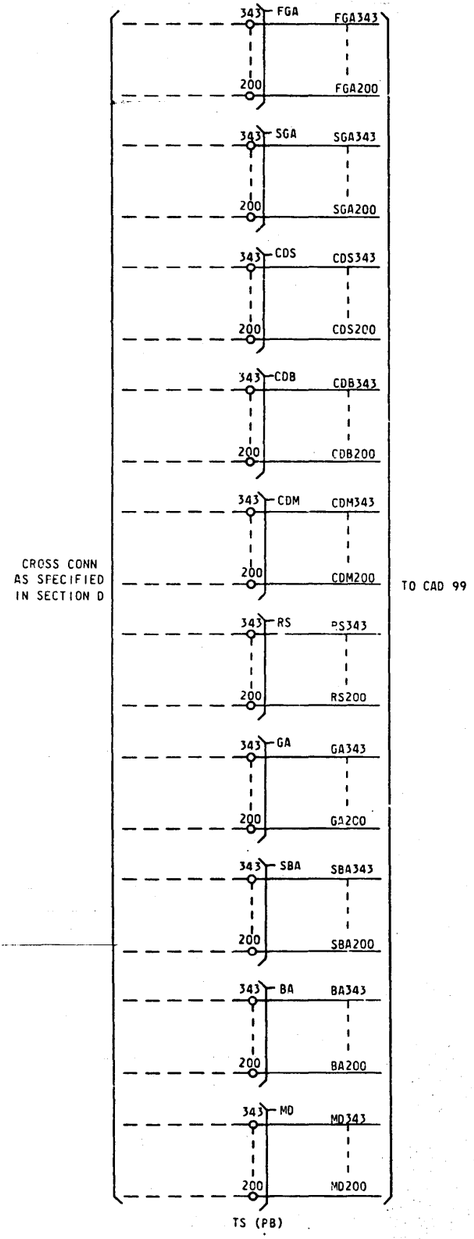
(2)

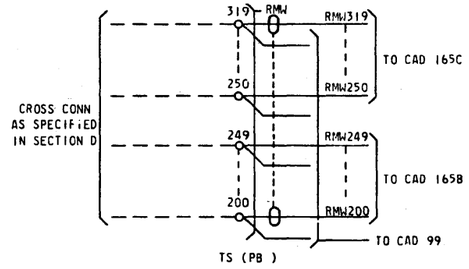
BELL TELEPHONE LABORATORIES INCORPORATED

6S

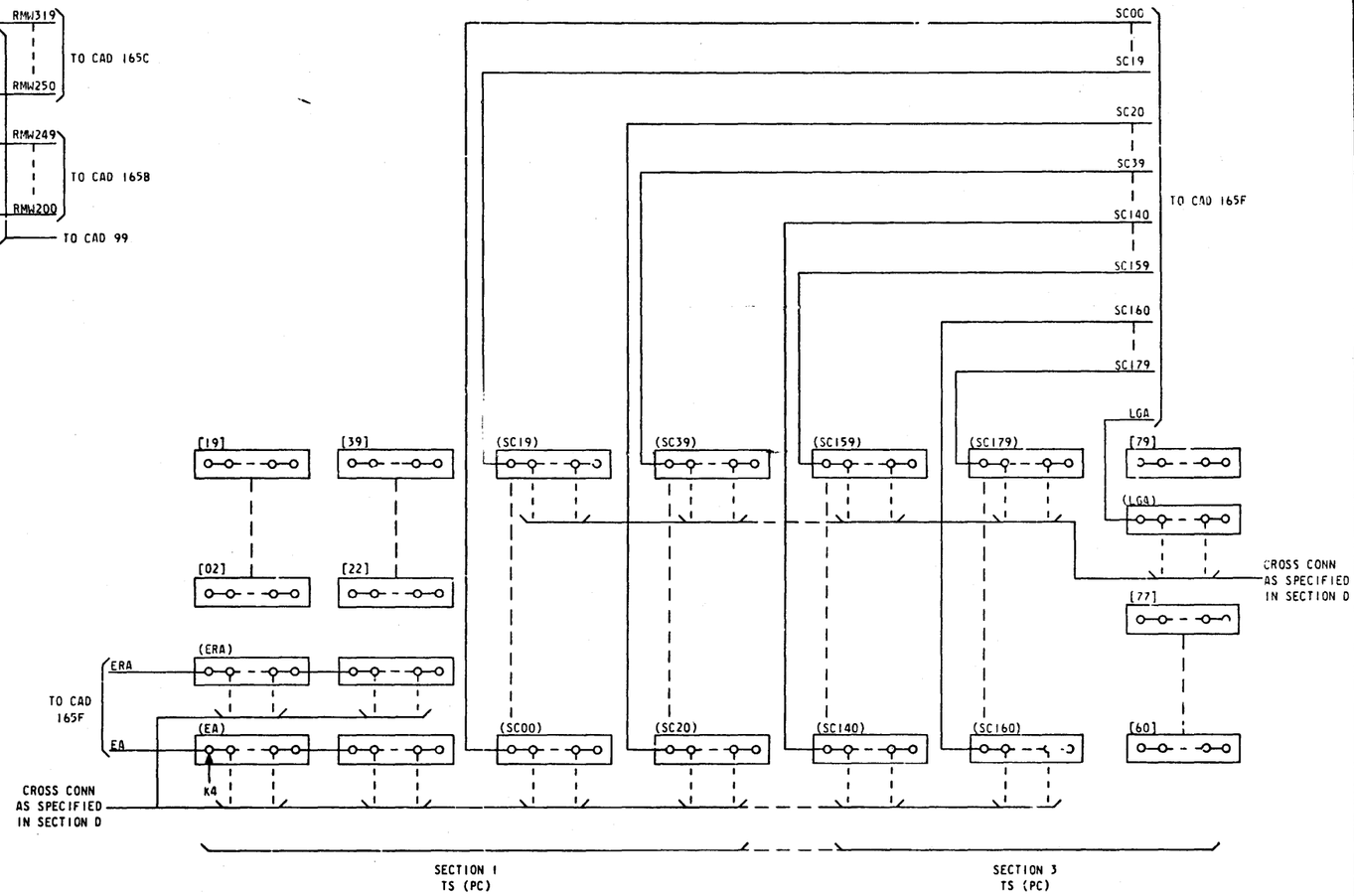
SD-26002-01-G230

## CAD 202B (A&M ONLY)




## PART OF CAD 202C (A&M ONLY)




NOTES:
1. ALL GROUPS OF COMMON TERMINALS ON THIS SHEET HAVE TERMINALS IDENTIFIED AS SHOWN ON GROUP (EA) BY THE DESIGNATION K4.

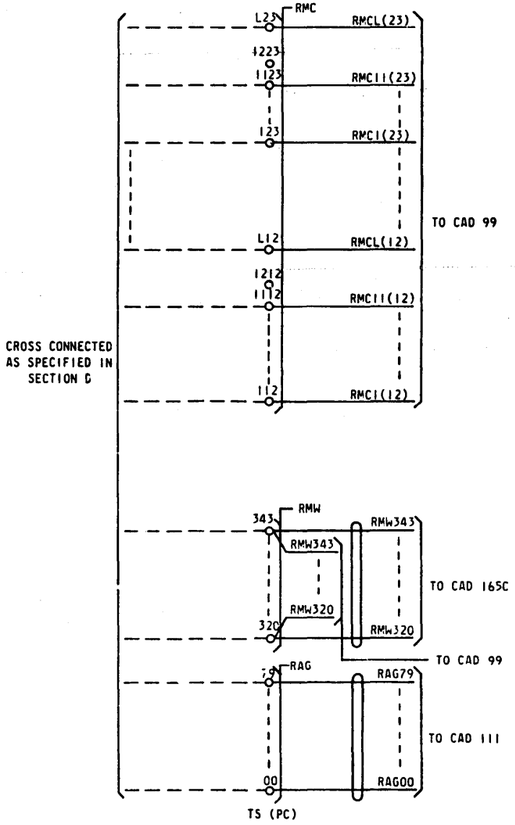
DRAWING ISSUE 39D PA2

ISSUE 57B

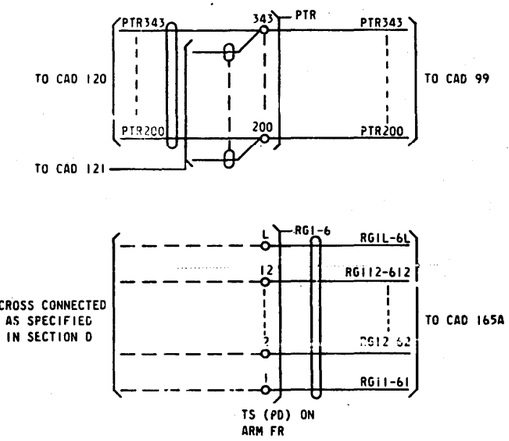
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G231

BELL TELEPHONE LABORATORIES INCORPORATED SIZE 6S

## PART OF CAD 202C (A&M ONLY)

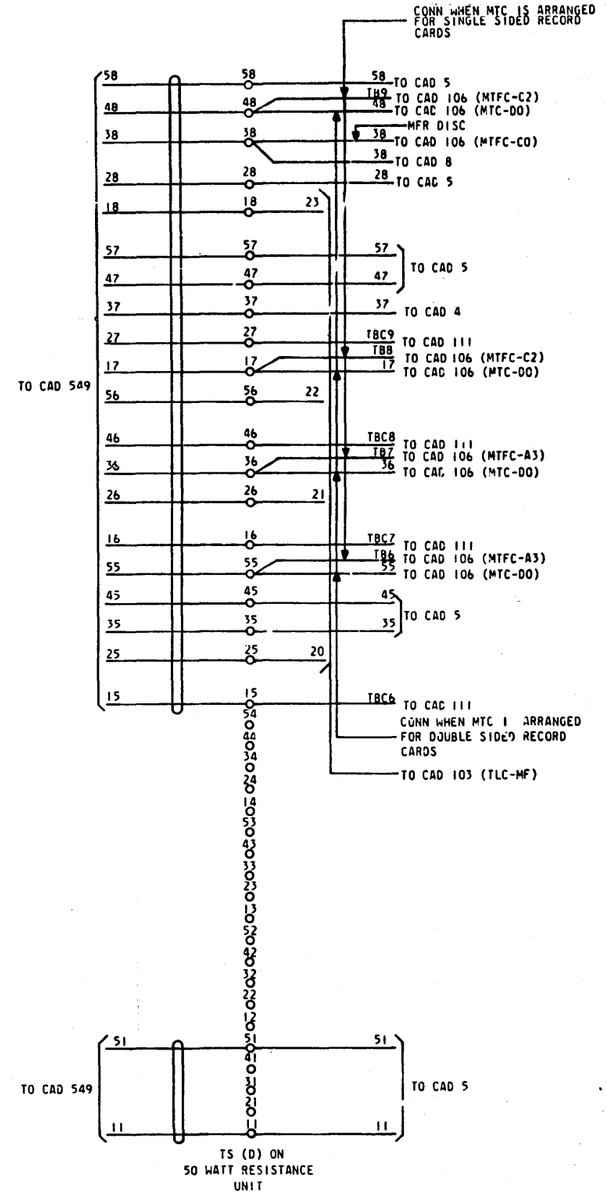



## CAD 202D (A&M ONLY)




## CAD 203

(SWBD CABLE TO TRK BLK UNIT ON REL RACK)




DRAWING ISSUE

| | |
|---|---|
| 39D | KMP |
| 42A | |
| 45D | |

ISSUE 57B

COMPLETING MARKER CIRCUITS

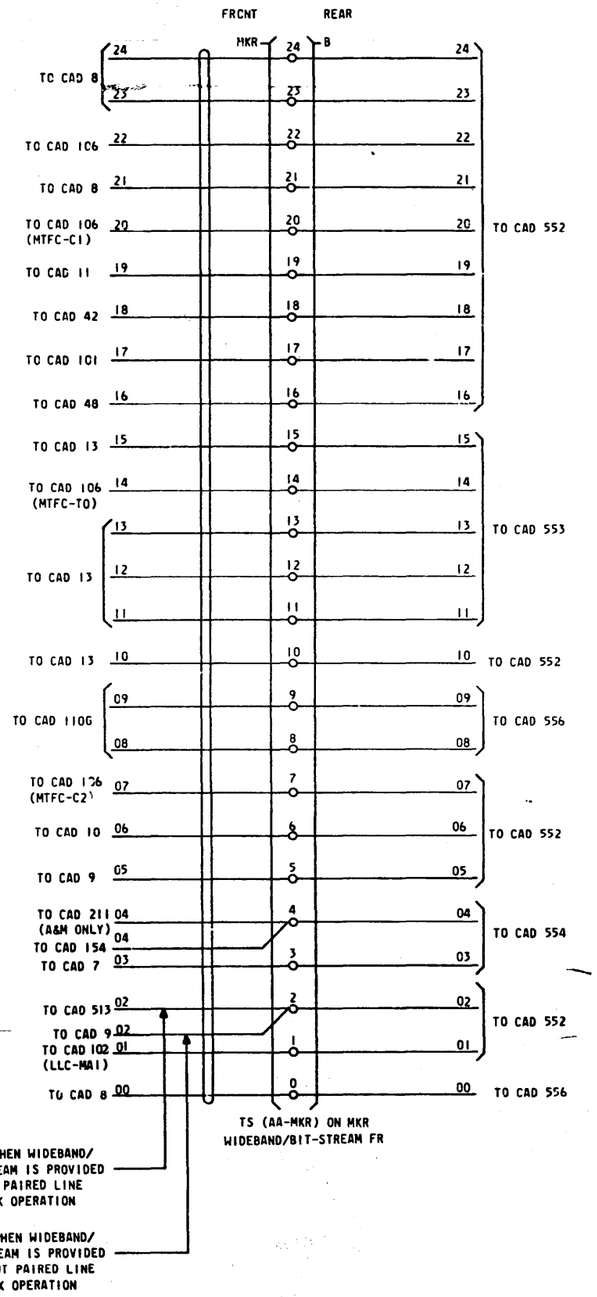
SD-26002-01-G232 (2)

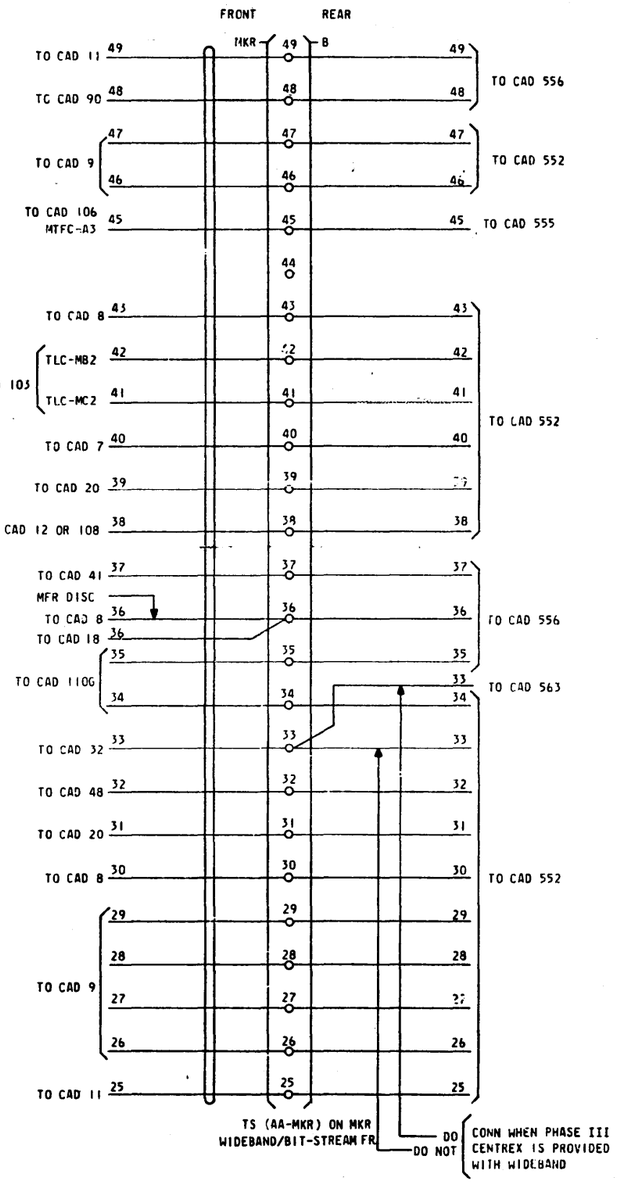
BELL TELEPHONE LABORATORIES INCORPORATED

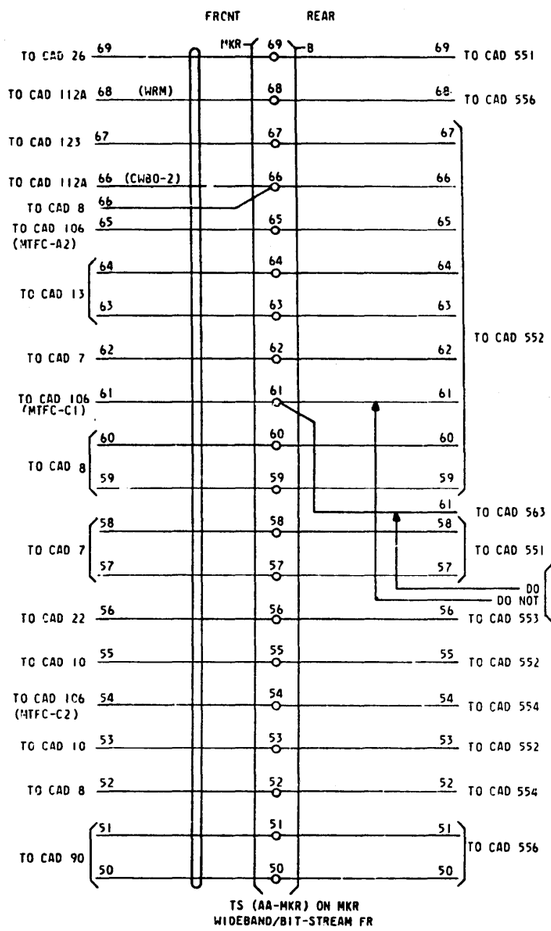
6S

SD-26002-01-G232

# PART OF CAD 204




| DRAWING ISSUE |
|---|
| 39D |
| 40A |
| 41D |
| 43D |
| 47D |

COMPLETING MARKER CIRCUIT

(2)

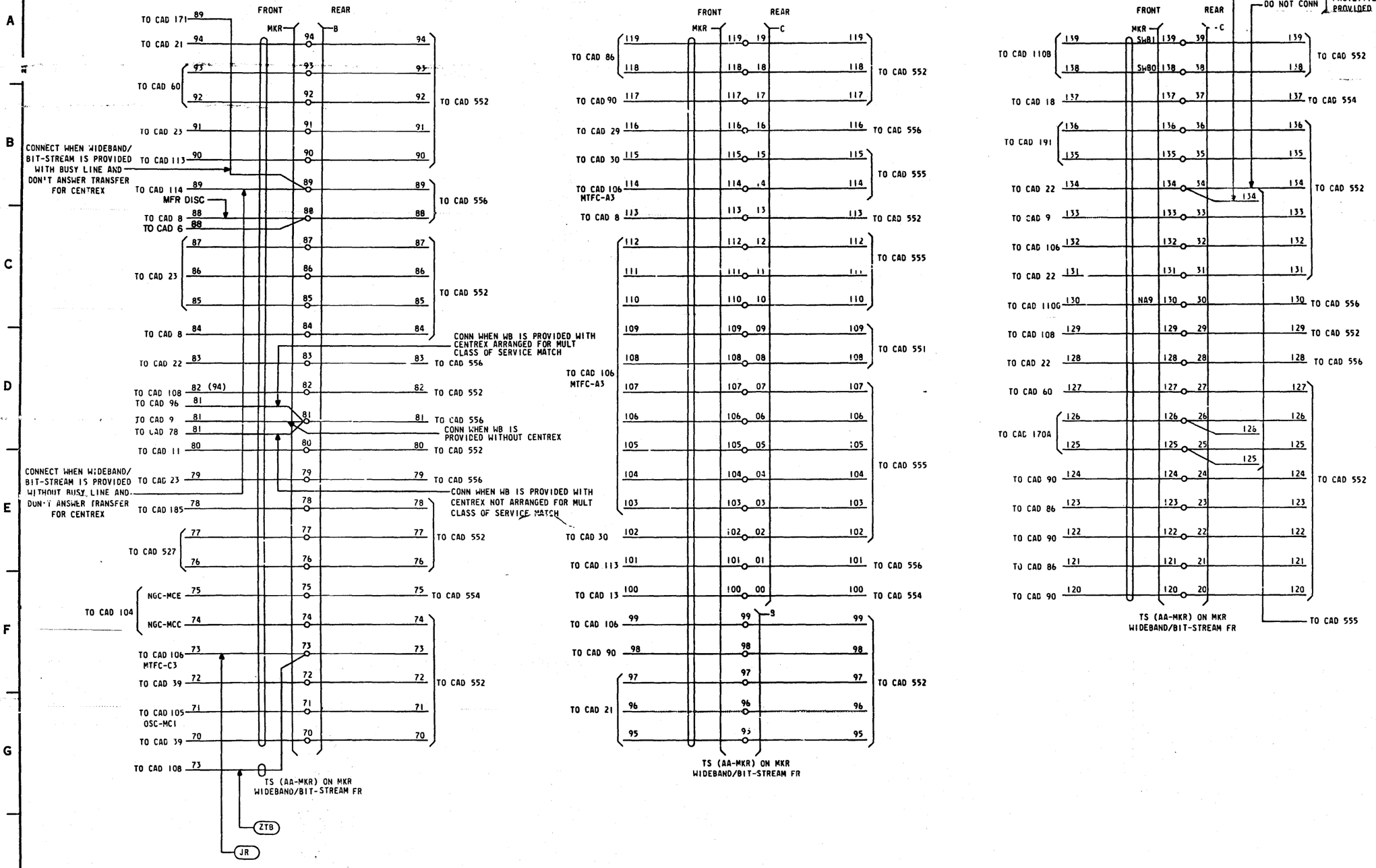
SD-26002-01-G233

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G233

# PART OF CAD 204




DRAWING ISSUE
390 RA
40A
41C

DRAWING ISSUE
63B

COMPLETING MARKER CIRCUIT (2)

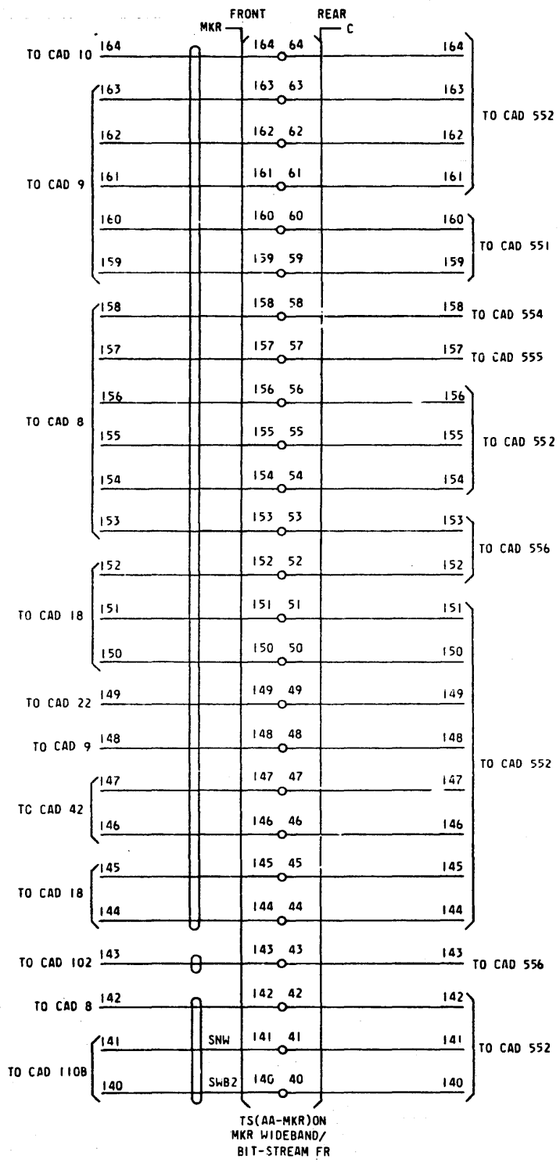
SD-26002-01-G234

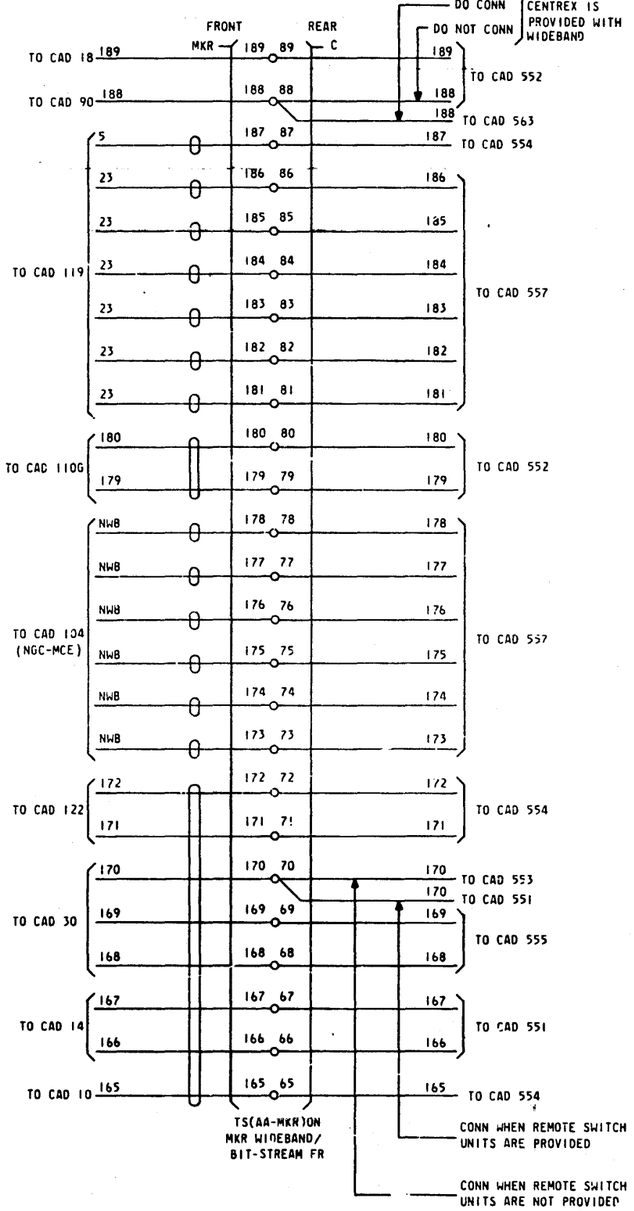
BELL TELEPHONE LABORATORIES INCORPORATED

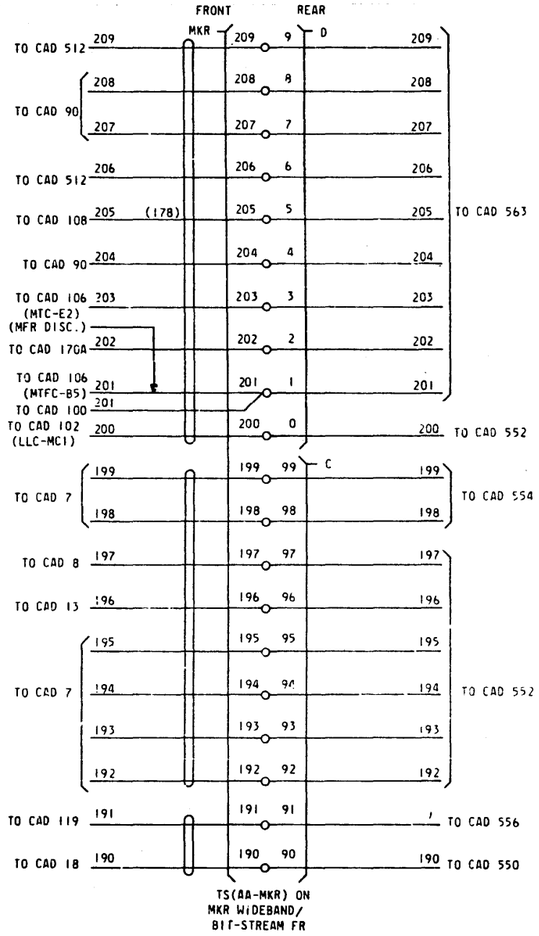
6S

SD-26002-01-G234

# PART OF CAD 204




| DRAWING ISSUE |
|---|
| 39D |
| 40A |
| 41D |
| 43D |

| DRAWING ISSUE |
|---|
| 61B |

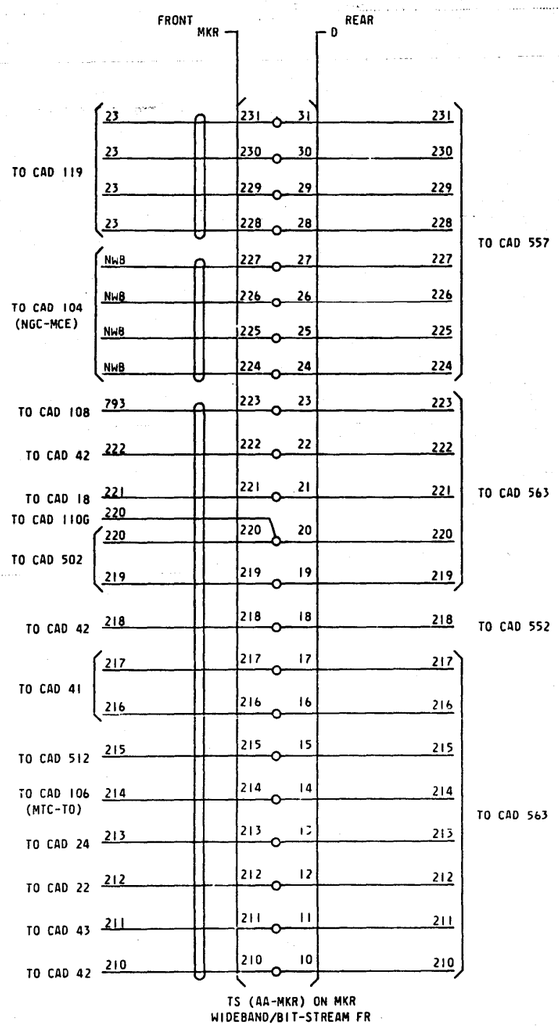
COMPLETING MARKER CIRCUIT (2)

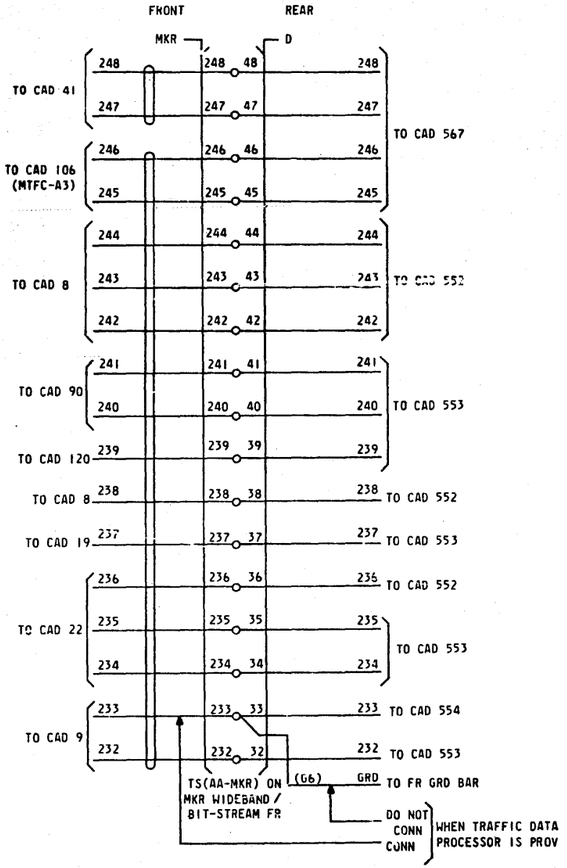
SD-26002-01-G235A

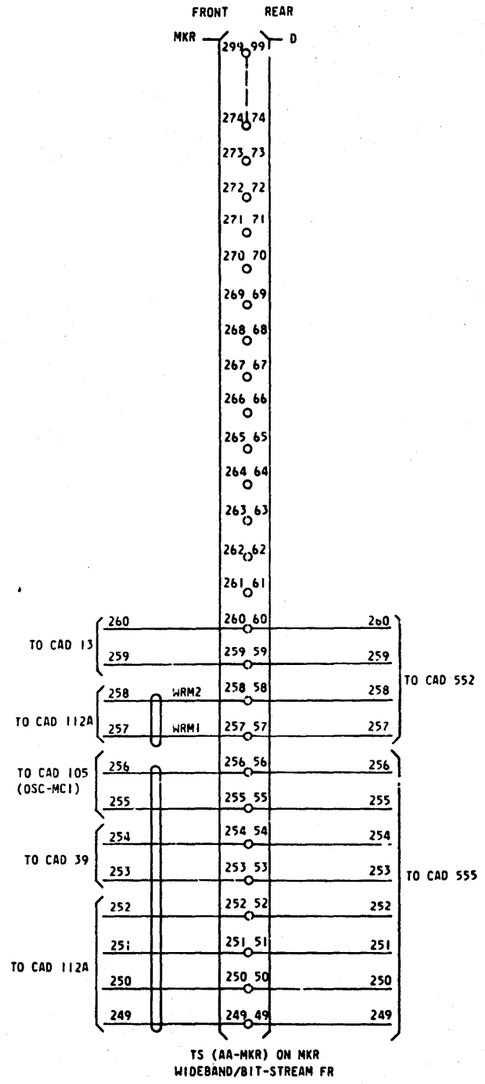
BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 204




DRAWING ISSUE
43D
44A

DRAWING ISSUE
53B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G235B

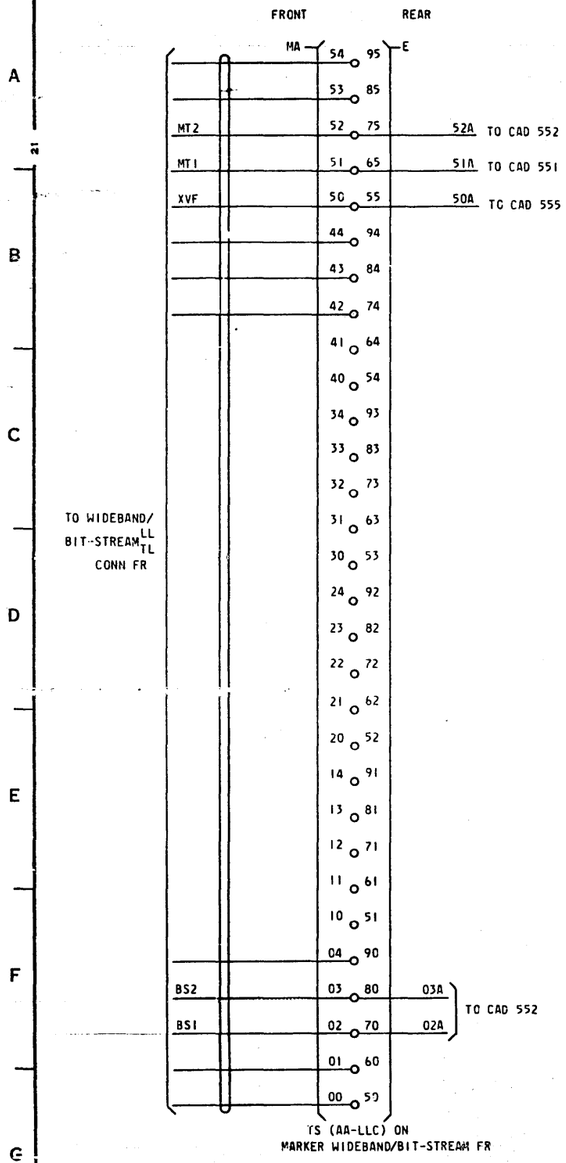
BELL TELEPHONE LABORATORIES INCORPORATED

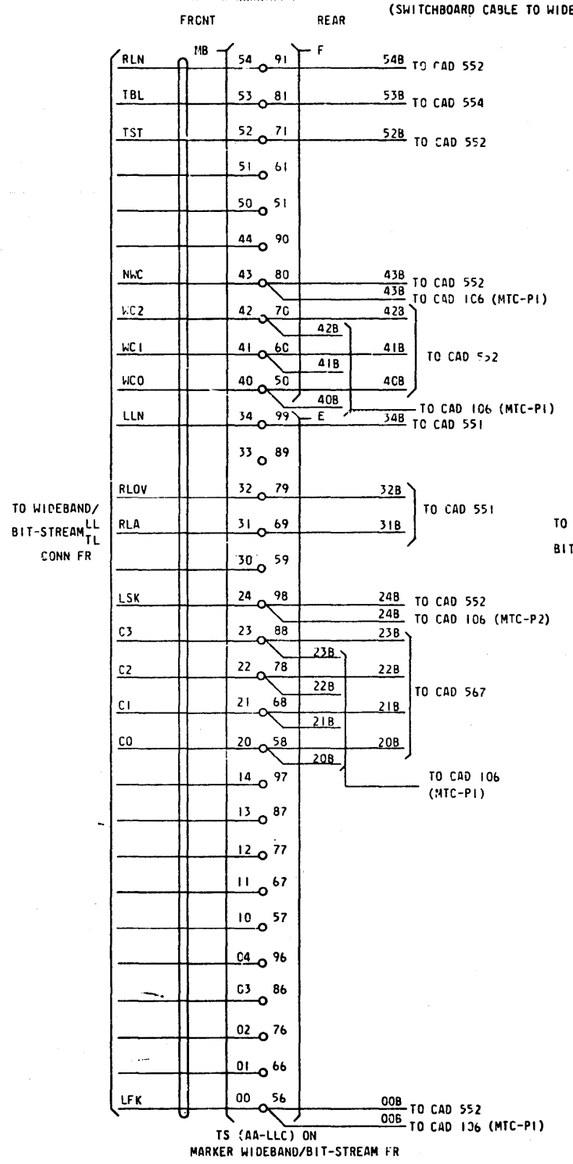
6S

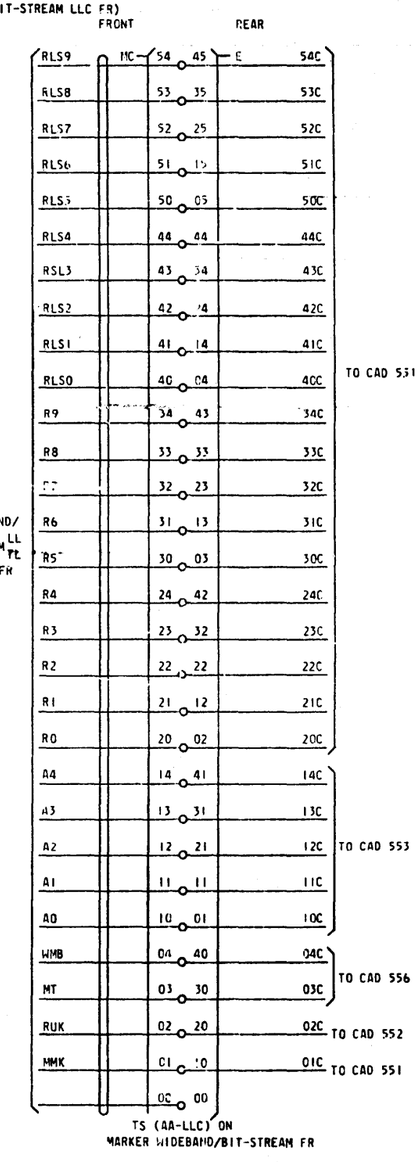
SD-26002-01-G235B

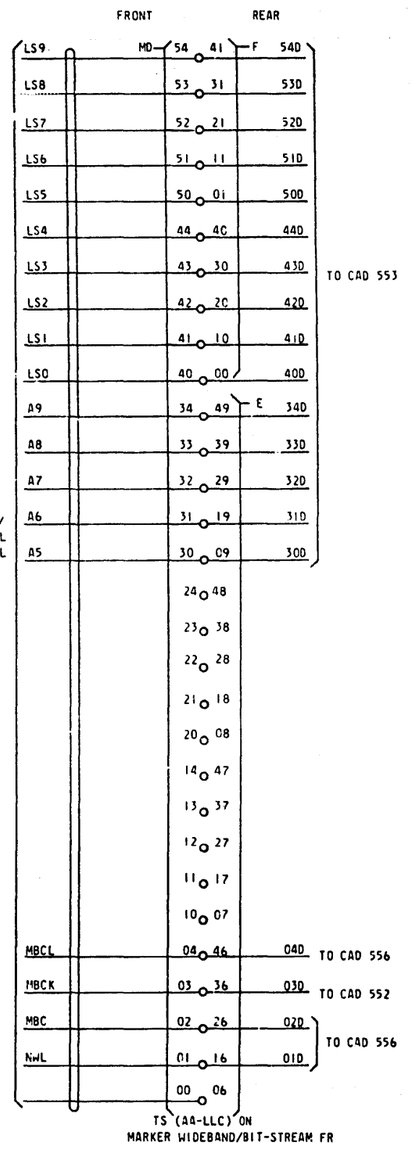
# CAD 205

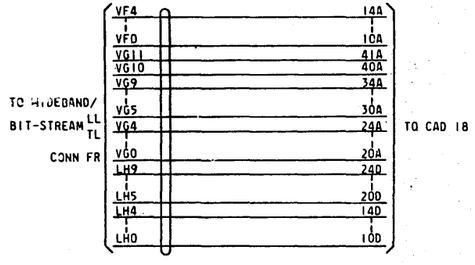
(SWITCHBOARD CABLE TO WIDEBAND/BIT-STREAM LLC FR)




DRAWING ISSUE

| | |
|---|---|
| 390 | KMC DLB |
| 41D | |
| 43D | |
| 44A | |
| 47D | |

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-G236

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G236

# CAD 206

(SWITCHBOARD CABLE TO WIDEBAND/BIT-STREAM TRUNK LINK CONNECTOR FRAME)

TO WIDEBAND/BIT-STREAM LL/TL CONN FR (1)

TO WIDEBAND/BIT-STREAM LL/TL CONN FR (2)

TO WIDEBAND/BIT-STREAM LL/TL CONN FR

TO WIDEBAND/BIT-STREAM LL/TL CONN FR (0)

TO WIDEBAND/BIT-STREAM LL/TL CONN FR

FRONT MA — REAR F

| | | | | |
|---|---|---|---|---|
| CC | 54 97 | | F | 54A |
| R1 | 53 87 | | | 53A |
| T1 | 52 77 | | | 52A |
| R | 51 67 | | | 51A |
| T | 50 57 | | | 50A |
| JS9 | 44 96 | | | 44A |
| JS8 | 43 86 | | | 43A |
| JS7 | 42 76 | | | 42A |
| JS6 | 41 66 | | | 41A |
| JS5 | 40 56 | | | 40A |
| JS4 | 34 95 | | | 34A |
| JS3 | 33 85 | | | 33A |
| JS2 | 32 75 | | | 32A |
| JS1 | 31 65 | | | 31A |
| JS0 | 30 55 | | | 30A |
| B9 | 24 94 | | | 24A |
| B8 | 23 84 | | | 23A |
| B7 | 22 74 | | | 22A |
| B6 | 21 64 | | | 21A |
| B5 | 20 54 | | | 20A |
| B4 | 14 93 | | | 14A |
| B3 | 13 83 | | | 13A |
| B2 | 12 73 | | | 12A |
| B1 | 11 63 | | | 11A |
| B0 | 10 53 | | | 10A |
| TS | 04 92 | | | 04A |
| SLT | 03 82 | | | 03A |
| | 02 72 | | | |
| TSK | 01 62 | | | 01A |
| TFK | 00 52 | | | 00A |

TO CAD 553

TO CAD 552

TO CAD 106 (MTC-P1)

TS (AA-TLC) ON MKR WIDEBAND/BIT-STREAM FR

TO WIDEBAND/BIT-STREAM LL/TL CONN FR

FRONT MB — REAR F

| | | | |
|---|---|---|---|
| TSG3 | 53 37 | | 53B |
| TSG2 | 52 27 | | 52B |
| TSG1 | 51 17 | | 51B |
| TSG0 | 50 07 | | 50B |
| | 44 46 | | |
| | 43 36 | | |
| | 42 26 | | |
| | 41 16 | | |
| | 40 06 | | |
| | 34 45 | | |
| | 33 35 | | |
| | 32 25 | | |
| | 31 15 | | |
| | 30 05 | | |
| | 24 44 | | |
| | 23 34 | | |
| | 22 24 | | |
| | 21 14 | | |
| CCK | 20 04 | | 20B |
| DSI | 14 43 | | 14B |
| RFB | 13 33 | | 13B |
| RFA | 12 23 | | 12B |
| FB | 11 13 | | 11B |
| FA | 10 03 | | 10B |
| | 04 42 | | |
| | 03 32 | | |
| | 02 22 | | |
| | 01 12 | | |
| | 00 02 | | |

TO CAD 567

TO CAD 106 (MTC-P2)

TO CAD 552

TO CAD 551

TO CAD 552

TO CAD 8 FB

TS (AA-TLC) ON MKR WIDEBAND/BIT-STREAM FR

FRONT F — REAR F

| | | | |
|---|---|---|---|
| | 19 99 | | |
| | 18 89 | | |
| | 17 79 | | |
| | 16 69 | | |
| | 15 59 | | |
| | 14 98 | | |
| | 13 88 | | |
| | 12 78 | | |
| | 11 68 | | |
| | 10 58 | | |
| | 9 49 | | |
| | 8 39 | | |
| | 7 29 | | |
| | 6 19 | | |
| | 5 09 | | |
| | 4 48 | | |
| | 3 38 | | |
| | 2 28 | | |
| BSO | 1 18 | | 01 |
| WTLC | 0 08 | | 00 |

TO WIDEBAND/BIT-STREAM LL/TL CONN FR

TO WB LLC ONLY

TO CAD 552

TO CAD 552

TS (AA-TLC) ON MKR WIDEBAND/BIT-STREAM FR

DRAWING ISSUE

390 41D 43D

47D

SD-26002-01-G237

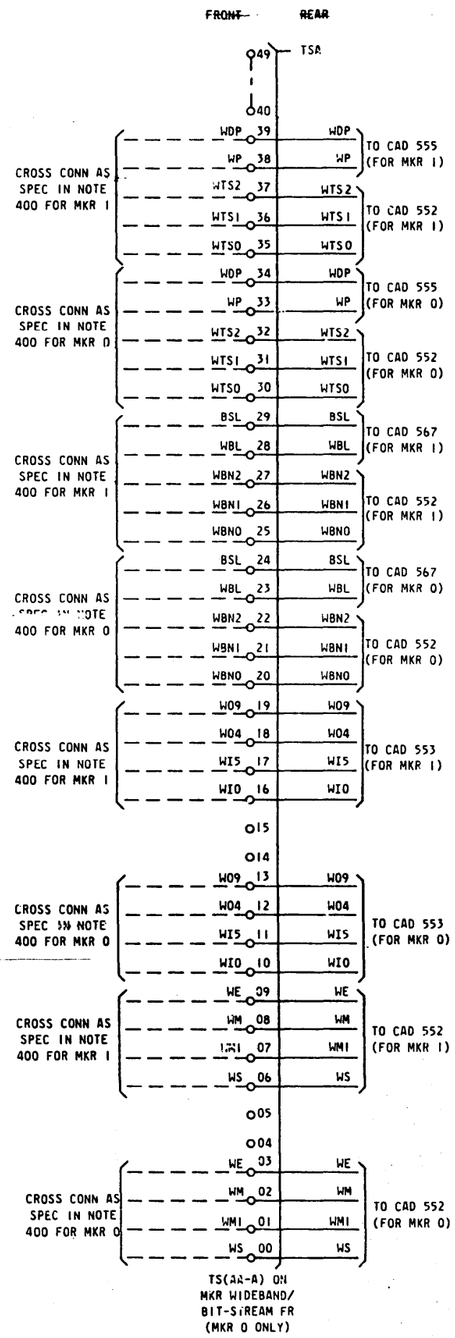
COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G237

BELL TELEPHONE LABORATORIES INCORPORATED 6S

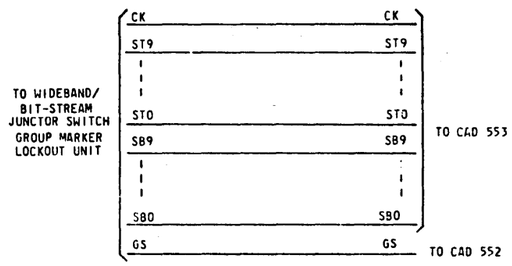
## CAD 207

CROSS CONNECT ON MARKER WIDEBAND/BIT-STREAM FR



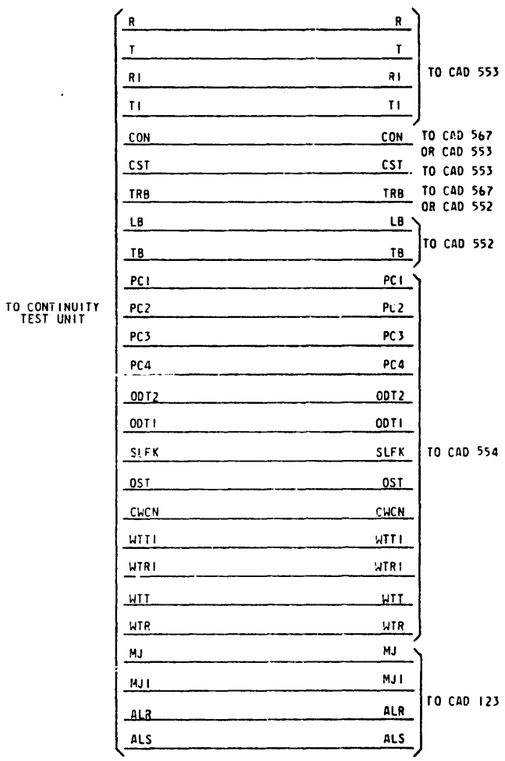

## CAD 208

LOCAL CABLE TC WIDEBAND/BIT-STREAM JUNCTOR LINK MKR LOCKOUT UNIT



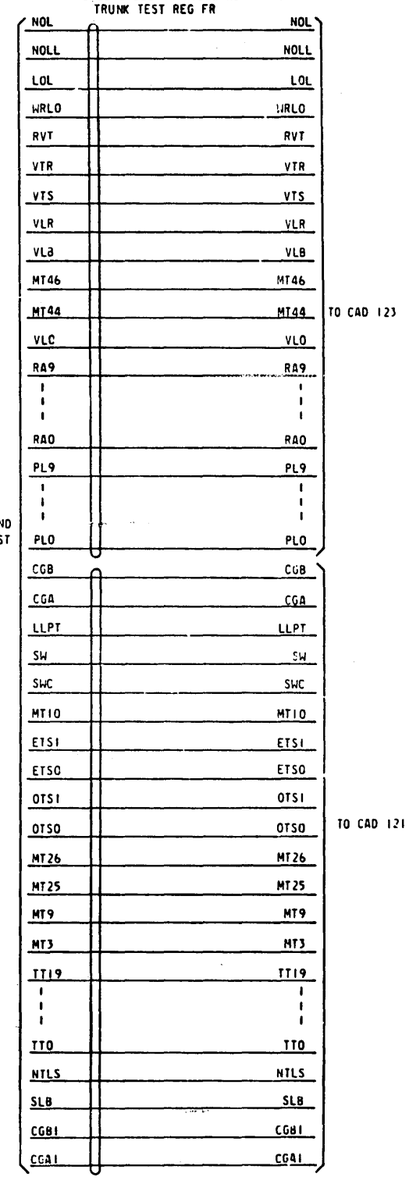

## CAD 209

LOCAL CABLE TO CONTINUITY TEST UNIT




## CAD 210

SWBD CABLE TO WIDEBAND TRUNK TEST REG FR




| DRAWING ISSUE |
|---|
| 39D |
| 41D |
| 42A |

| DRAWING ISSUE |
|---|
| 47D |

COMPLETING MARKER CIRCUIT (2)

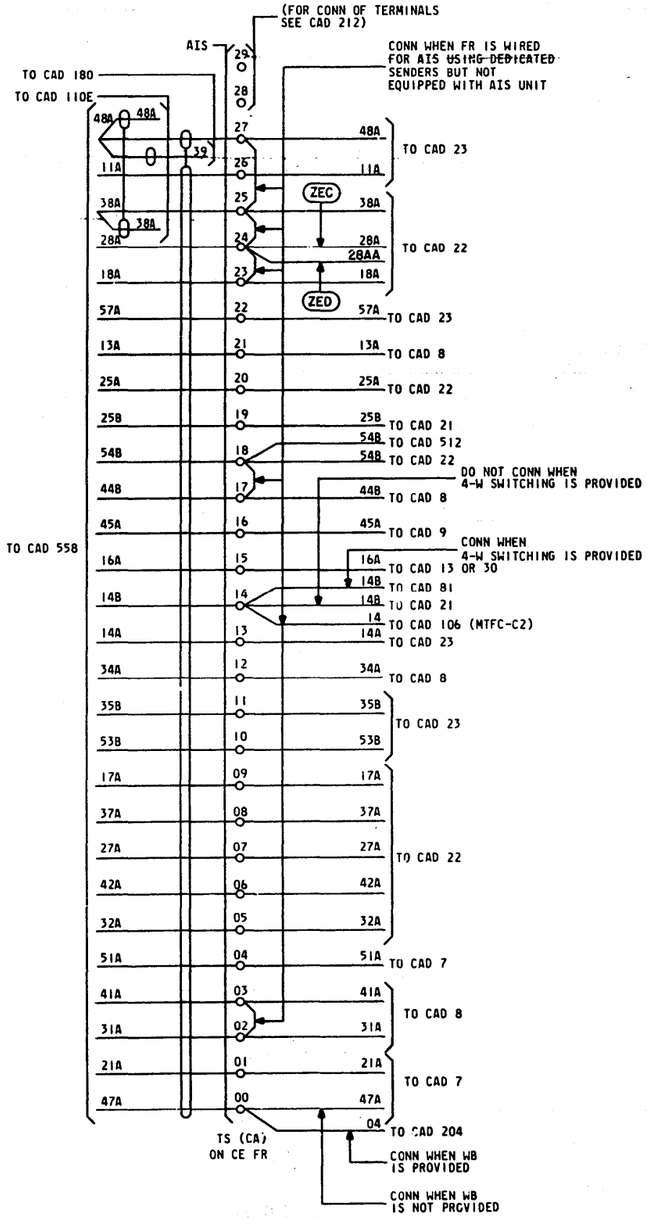
SD-26002-01-G238

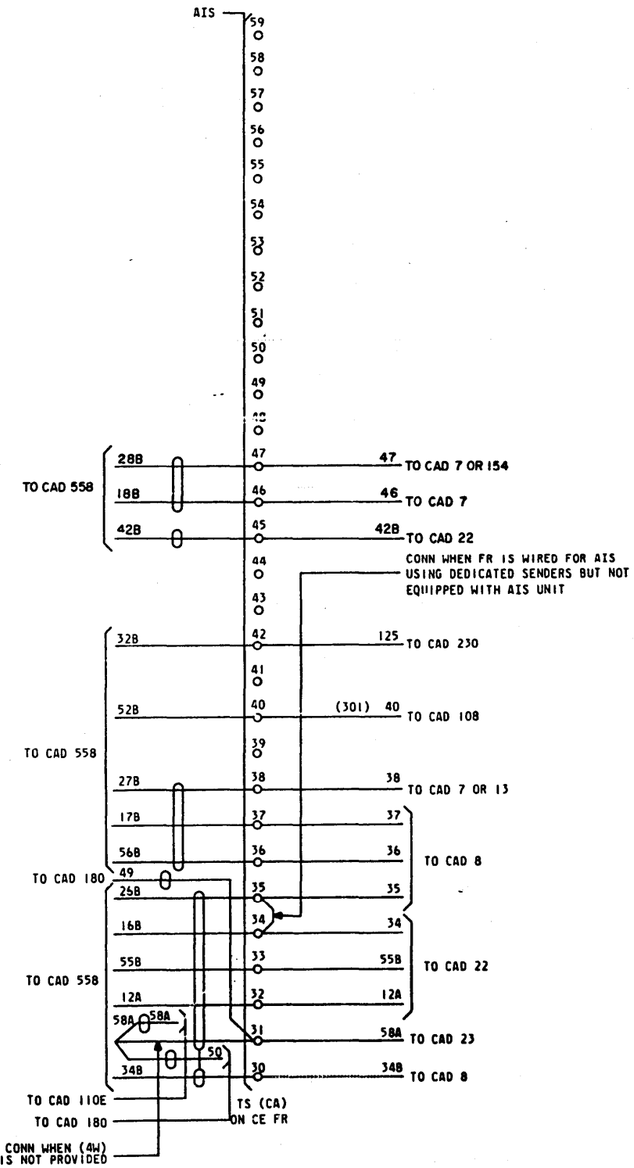
BELL TELEPHONE LABORATORIES INCORPORATED

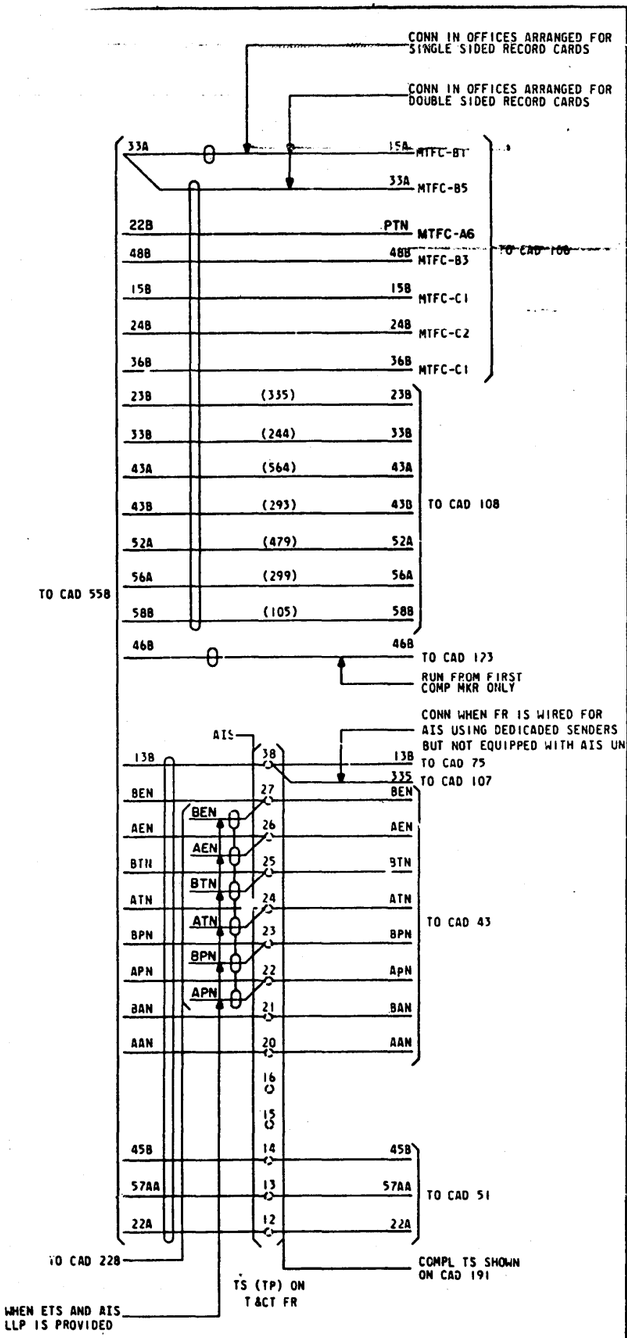
SHEET 6S

# CAD 211 (A&M ONLY)

(SWBD CA TO AIS UNIT ON AIS SDR CONN FR)




ISSUE 65B

COMPLETING MARKER CIRCUIT

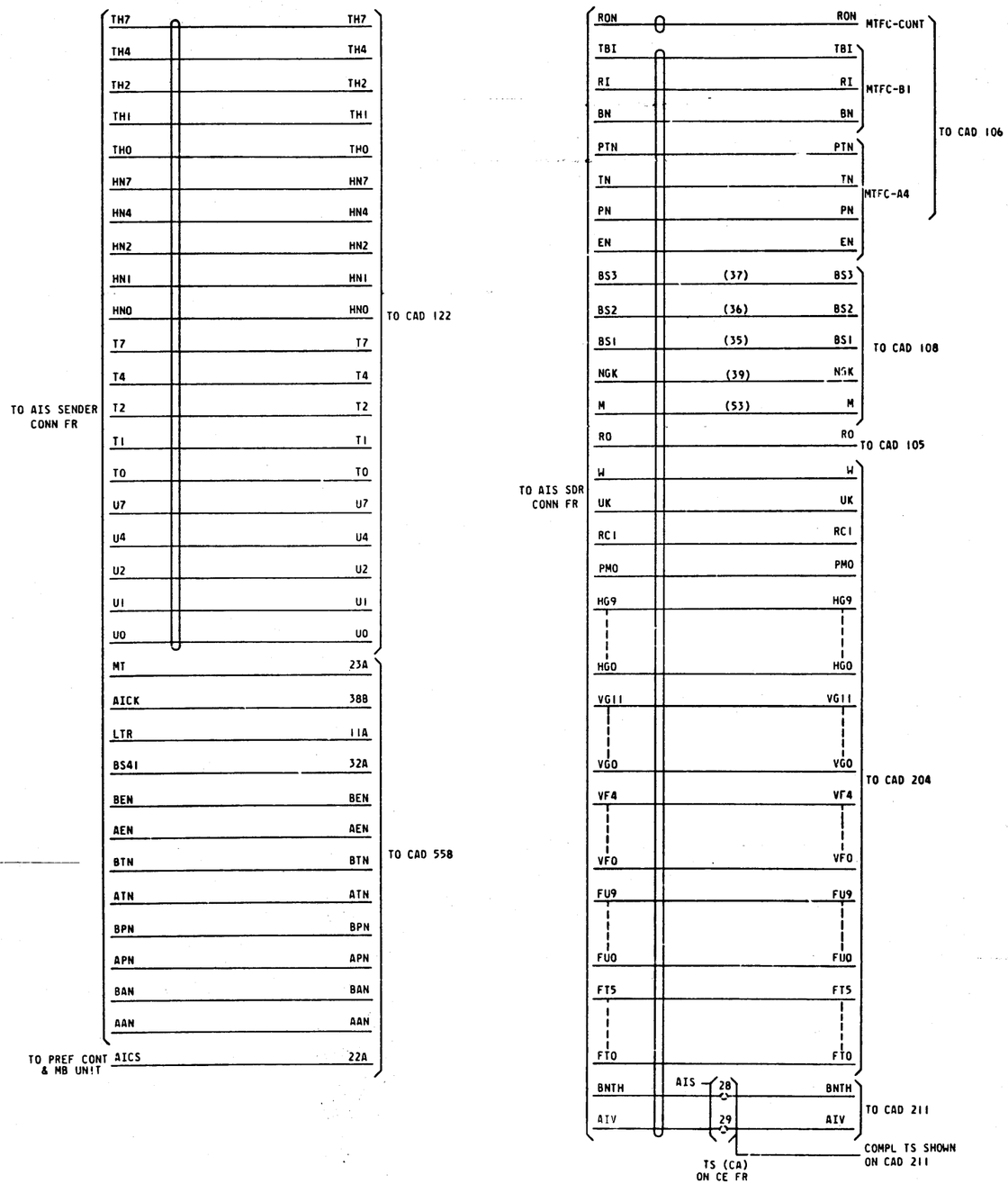
SD-26002-01-6239A

BELL TELEPHONE LABORATORIES INCORPORATED

SAS SHT 65

# CAD 212 (A 8M ONLY)

(SWBD CA AND LOC CA TO AIS SDR CONN FR)




ISSUE 6IB

COMPLETING MARKER CIRCUIT

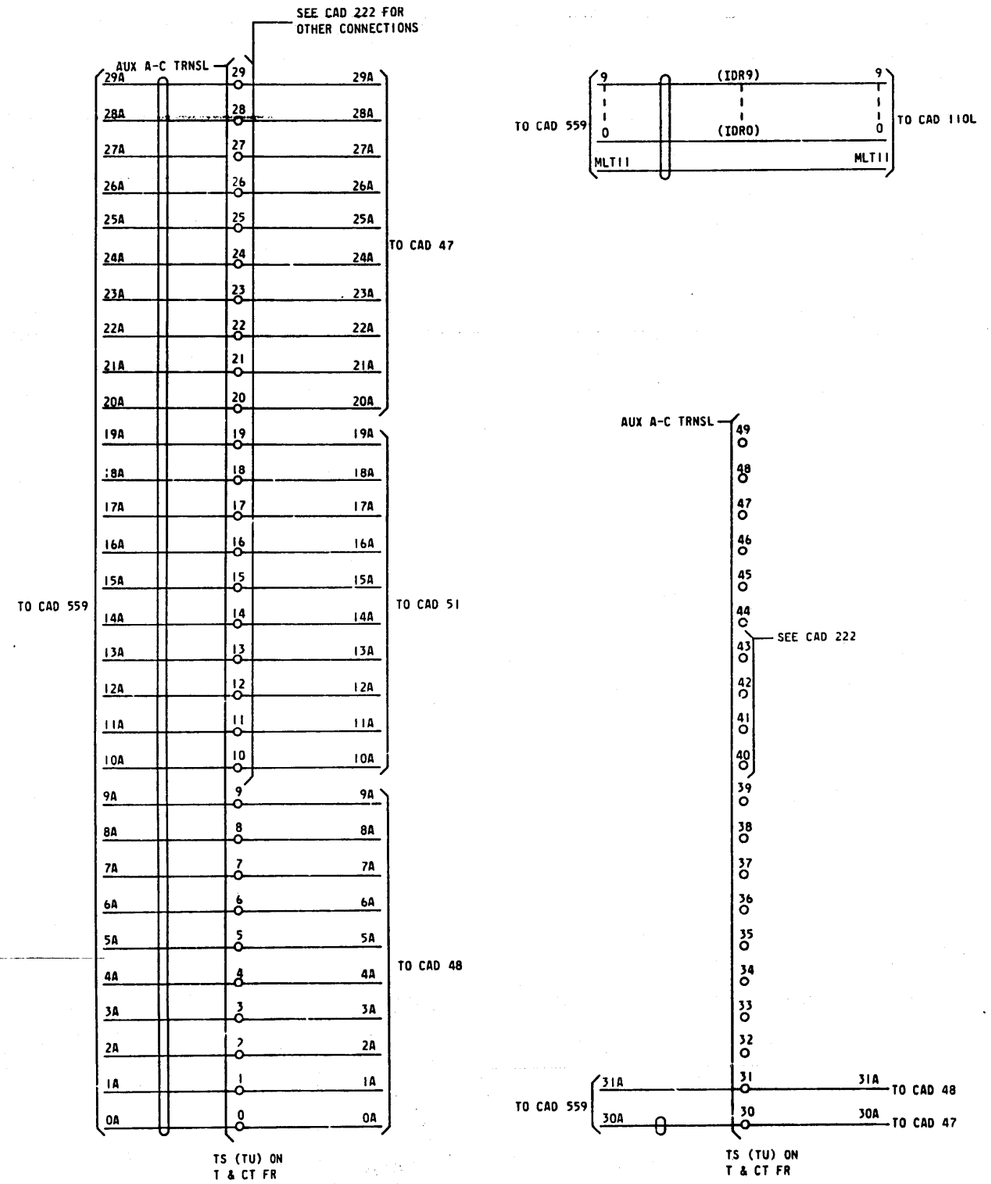
SD-26002-01-G2398

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# CAD 213

(SWBD CA TO AUX LTD A,B, & C DIG. TRNSL UNIT)










ISSUE 41D

ISSUE 51D

COMPLETING MARKER CIRCUIT

SD-26002-01-G240

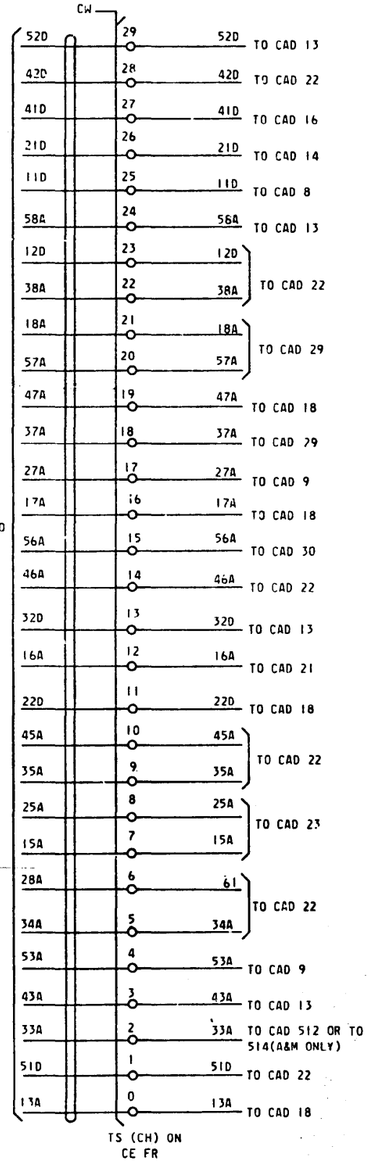
BELL TELEPHONE LABORATORIES INCORPORATED

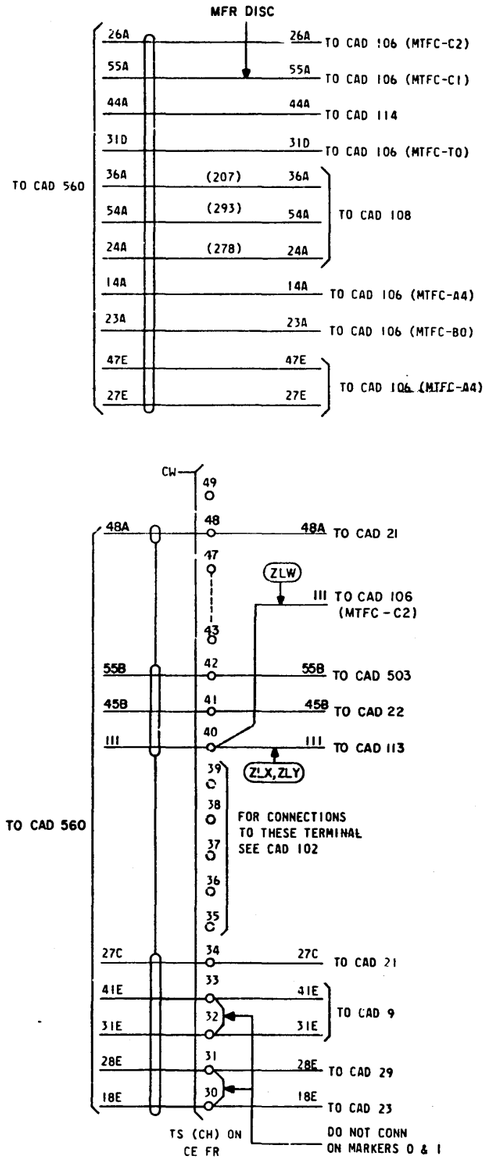
6S

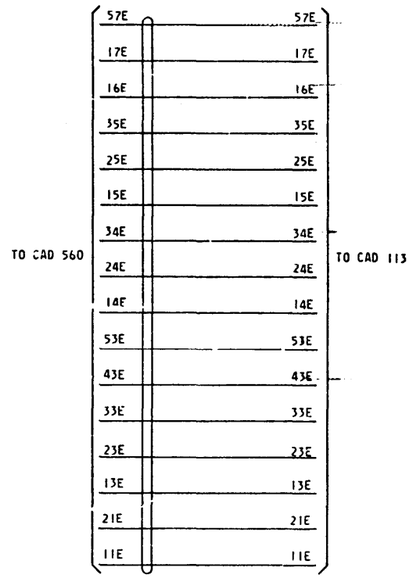
SD-26002-01-G240

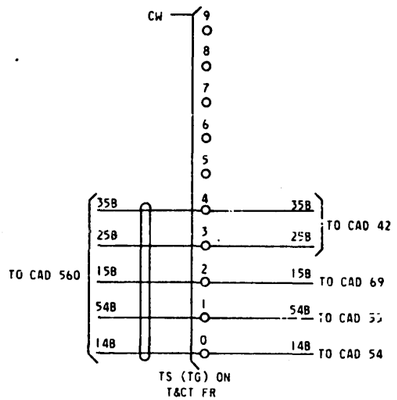
# CAD 214

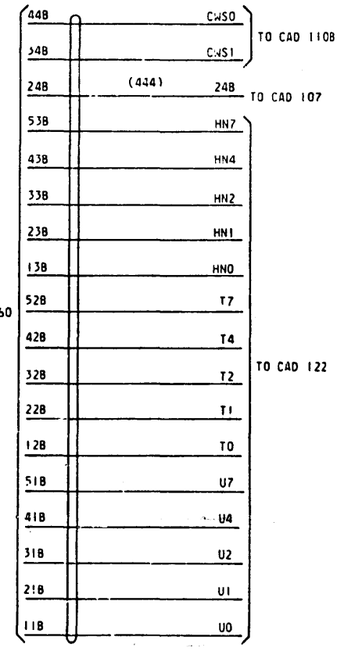
SWITCHBOARD CABLE TO CALL WAITING UNIT OR TO CALL WAITING UNIT FOR SPECIAL MARKER




DRAWING ISSUE 43D 44A

DRAWING ISSUE 55B

COMPLETING MARKER CIRCUIT

(2) SD-26002-01-G241

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

# CAD 215

SWITCHBOARD CABLE TO INTERNATIONAL DIRECT DISTANCE DIALING UNIT

DRAWING ISSUE 430

SHOWN ON CAD 1-?

TO CAD 56 118 58

TS (TT) ON T & CT FR

IDD

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

| | | | |
|---|---|---|---|
| 27A | 8 | 27A | TO CAD 46 |
| 37A | 7 | 37A | |
| 47A | 6 | 47A | |
| 57A | 5 | 57A | |
| 45A | 4 | 45A | TO CAD 73 |
| 53A | 3 | 53A | |
| | | DO NOT CONN | WHEN OFF-NET SCREENING FOR 2 WAY OFF-NET ACCESS LINES PROVIDED |
| | | CONN | |
| 33A | 2 | 33A | TO CAD 110E |
| | | 33A | TO CAD 32 |
| 25A | 1 | 25A | |
| 23A | 0 | 23A | TO CAD 43 |

TO CAD 561

TS (TU) ON T & CT FR

CONN WHEN TSPS ARRANGEMENT OF IDDD IS NOT PROVIDED

TO CAD 561

| | | |
|---|---|---|
| 58A | M7 | TO CAD 105 (OSC-MCI) |
| 48A | M6 | |
| 38A | M2 | TO CAD 105 (OSC-MCI) |
| 28A | M1 | |
| 18A | M0 | |
| 55A | 55A | TO CAD 111 |
| 34A | 34A | |
| 24A | 24A | |
| 35A | IDS | TO CAD 110G |
| 45A | IDP | |
| 15A | MLTIC | TO CAD 110E |
| 13A | MLTIB | |

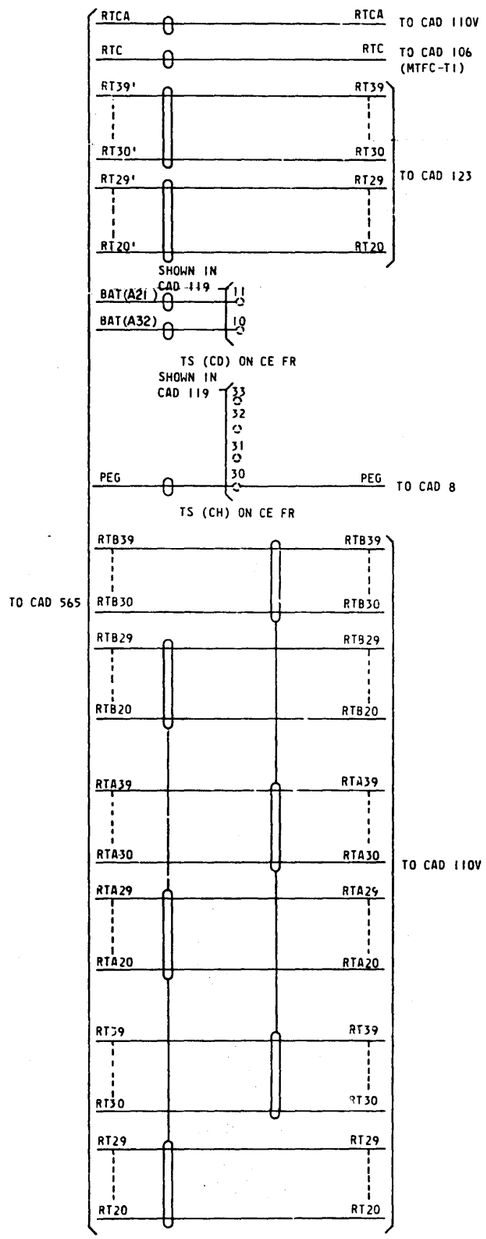
43

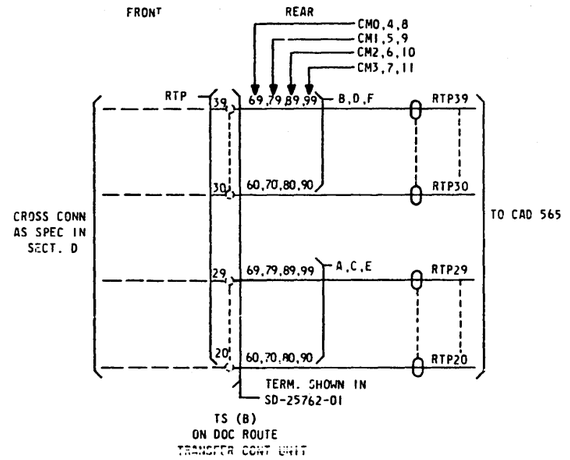
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G242

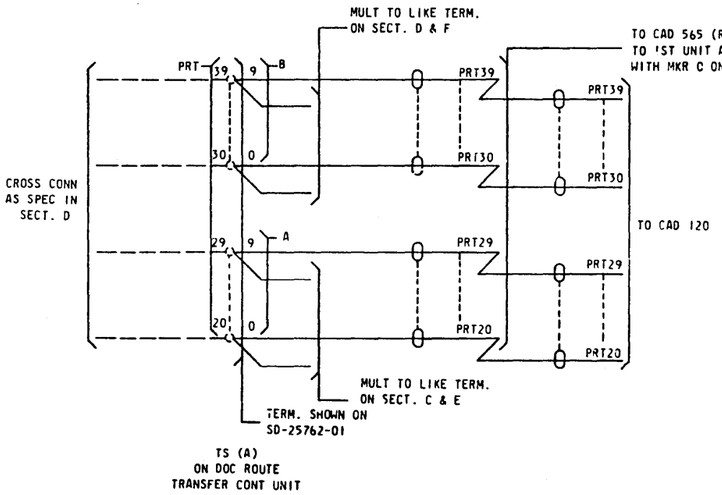
BELL TELEPHONE LABORATORIES INCORPORATED 6S

# CAD 216

SWBD CABLE TO SUPL ROUTE TRANSFER UNIT




DRAWING ISSUE 45D CB

ISSUE 57B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT (2) | SD-26002-01-G243 |
| BELL TELEPHONE LABORATORIES INCORPORATED | SIZE 6S |

# CAD 217

SWITCHBOARD CABLE TO ROUTE SERVICE
RELAY GROUND SUPPLY CONTROL UNIT ON RELAY RACK

| | | |
|---|---|---|
| 58B | BL44 | |
| 18B | BL40 | |
| 57B | BL34 | |
| 17B | BL30 | TO CAD 110V |
| 56B | BL24 | |
| 16B | BL20 | |
| 55B | BL14 | |
| 15B | BL10 | |
| 54B | BS44 | |
| 14B | BS40 | |
| 53B | BS34 | |
| 13B | BS30 | |
| 52B | BS24 | TO CAD 110D |
| 12B | BS20 | |
| 51B | BS14 | |
| 11B | BS10 | TO CAD 566 |
| 35A | RB | TO CAD 110N (MFR DISC) OR CAD 110N1 |

| | | |
|---|---|---|
| 58A | BLA40 | |
| 48A | BSA40 | |
| 38A | BLA41 | |
| 28A | BSA41 | |
| 18A | BLA30 | |
| 57A | BSA30 | |
| 47A | BLA31 | |
| 37A | BSA31 | TO CAD 110V |
| 27A | BLA20 | |
| 17A | BSA20 | |
| 56A | BLA21 | |
| 46A | BSA21 | |
| 36A | BLA10 | |
| 26A | BSA10 | |
| 16A | BLA11 | |
| 55A | BSA11 | |

TO CAD 566

COMPL TS SHOWN IN CAD 218

| | | | |
|---|---|---|---|
| 11A | 33 | (D20)BP* | TO FR FUSE PNL |
| 25A | 23 | 25A | |
| 15A | 13 | 15A | |
| 54A | 52 | 54A | |
| 44A | 42 | 44A | |
| 34A | 32 | 34A | |
| 24A | 22 | 24A | TO CAD 7 |
| 14A | 12 | 14A | |
| 53A | 51 | 53A | |
| 43A | 41 | 43A | |
| 33A | 31 | 33A | |
| 23A | 21 | 23A | |
| 13A | 11 | 13A | |

TS (C) ON
50 WATT RESISTANCE
UNIT

# CAD 218

(SPARE PUNCHINGS)

58 48 38 28 18 57 47 37 27 17 56 46 36 26 16 55 45 35 25 15 54 44 34 24 14 53 43 33 23 13 52 42 32 22 12 51 41 31 21 11

SEE CAD 217

TS (C) ON
50 WATT RESISTANCE
UNIT

DRAWING ISSUE 45D

ISSUE 51D

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-6244

6S

SD-26002-01-6244

# CAD 219

(SWITCHBOARD CABLE TO ROTL REG CKT)

TO ROTL REG CKT

| SA | SA | TO CAD 123 |
|---|---|---|
| TTA | TTA | |
| TRS1 | TRS1 | TO CAD 546 |
| SAT | SAT | |
| TT19 | TT19 | TO CAD 123 |
| TT0 | TT0 | |
| SLB | SLB | |
| OTS1 | OTS1 | |
| OTS0 | OTS0 | |
| NTLS | NTLS | |
| MT26 | MT26 | |
| MT25 | MT25 | |
| MTI0 | MTI0 | |
| MT9 | MT9 | |
| MT3 | MT3 | |
| LLPT | LLPT | |
| ETS1 | ETS1 | |
| ETS0 | ETS0 | |
| CGB1 | CGB1 | |
| CGB | CGB | |
| CGA1 | CGA1 | |
| CGA | CGA | |
| TNGA | TNGA | |
| NGTH | NGTH | TO CAD 128A |
| NGTA | NGTA | |

# CAD 220

(SWITCHBOARD CABLE TO ROTL TRUNK MAKE BUSY CKT)

TO ROTL TRUNK MAKE BUSY CKT

| RRA | 26 | TO CAD 167 OR CAD 7 |
|---|---|---|
| RR | 36 | |
| OF- | OF- | TO CAD 112B OR CAD 112RC |
| OF- | OF- | |

# PART OF CAD 221

(SWITCHBOARD CABLE TO PERM SIGNAL TEST UNIT)

PERM SIG TST

TO CAD 572

| | | | |
|---|---|---|---|
| 38C | 39 | 38C | CONN WHEN MTC USED SINGLE SIDED TBL RCRD PER TABLE I |
| 28C | 38 | 28C | |
| 15C | 37 | 15C | TO CAD 11 |
| 42C | 36 | 42C | |
| 32C | 35 | 32C | |
| | 34 | | CONN WHEN MTC USES DOUBLE SIDED TBL RCRD CARDS PER TABLES 1B,1F |
| 17B | 33 | 33 | TO CAD 20 |
| 26B | 32 | 26B | TO CAD 4 |
| 16B | 31 | 16B | |
| 15B | 30 | 15B | |
| 44B | 29 | 44B | |
| 24B | 28 | 24B | TO CAD 7 |
| 53B | 27 | 53B | |
| 23B | 26 | 23B | |
| 13B | 25 | 13B | TO CAD 11 |
| 42B | 24 | 42B | |
| 22B | 23 | 22B | |
| 51B | 22 | 51B | TO CAD 7 |
| 31B | 21 | 31B | |
| 11B | 20 | 11B | |
| 15B | 19 | 15B | |
| 56B | 18 | 56B | TO CAD 7 |
| 58C(PSI) | 17 | 58C | MTFC-TO |
| | | 58C | MTC-A7 |
| | | 58C | MTFC-B5 |
| 48C(ROH) | 16 | 48C | MTC-C2 |
| | | 48C | MTFC-C2 |
| 34A | 15 | 34A | TO CAD 11 |
| 24A | 14 | 24A | TO CAD 13 |
| 14A | 13 | 14A | |
| 53A | 12 | 53A | TO CAD 4 |
| 43A | 11 | 43A | TO CAD 9 |
| 33A | 10 | 33A | |
| 23A | 09 | 23A | TO CAD 4 |
| 13A | 08 | 13A | |
| 52A | 07 | 52A | TO CAD 13 |
| 42A | 06 | 42A | TO CAD 4 |
| 32A | 05 | 32A | TO CAD 7 |
| 22A | 04 | 22A | TO CAD 11 |
| 51A | 03 | 51A | TO CAD 13 |
| 41A | 02 | 41A | TO CAD 7 |
| 31A | 01 | 31A | TO CAD 11 |
| 11A | 00 | 11A | TO CAD 7 |

TS (CA) ON CE FR

CONN WHEN MTC USES DOUBLE SIDED TBL RCRD CARDS PER TABLES 1A,1E

PERM SIG TST

TO CAD 572

| | | | |
|---|---|---|---|
| | 59 | | |
| 15D | 58 | 58 | TO CAD 19 |
| | 57 | | |
| 18D | 56 | 18D | |
| 57D | 55 | 57D | TO CAD 22 |
| 47D | 54 | 47D | |
| 37D | 53 | 37D | TO CAD 9 |
| 27D | 52 | 27D | TO CAD 8 |
| 17D | 51 | 17D | |
| 46D | 50 | 46D | TO CAD 9 |
| 36D | 49 | 36D | |
| 26D | 48 | 26D | |
| 16D | 47 | 16D | TO CAD 8 |
| 44D | 46 | 44D | TO CAD 11 |
| 34D | 45 | 34D | TO CAD 10 |
| 14D | 44 | 14D | TO CAD 11 |
| 53D | 43 | 53D | TO CAD 7 |
| 43D | 42 | 43D | |
| 33D | 41 | 33D | TO CAD 11 |
| 23D | 40 | 23D | |

TS (CA) ON CE FR

TO CAD 572

| | | | |
|---|---|---|---|
| 55D | | 55D | |
| 54B | | 54B | |
| 34B | | 34B | |
| 14B | | 14B | |
| 33B | | 33B | |
| 52B | | 52B | |
| 32B | | 32B | TO CAD 102 (LLC-MA2) |
| 12B | | 12B | |
| 41B | | 41B | |
| 21B | | 21B | |
| 21A | | 21A | |
| 54D | (PSR) | 54D | |
| 13D | (PST) | 13D | |
| 12C | (PSO) | 12C | TO CAD 110G |
| 51C | (ROM) | 51C | |
| 41C | (PSG) | 41C | |
| 31C | | 31C | TO CAD 42 |
| 24D | | 24D | MTFC-B3 |
| 44A | | 44A | |
| 56D | | 56D | MTC-10 |
| 22C | | 22C | MTFC-A0 |
| 43B | | 43B | MTFC-C1 |
| 36B | | 36B | MTC-TO |
| 58B | | 58B | TO CAD 188 |
| 48B | | 48B | |
| 21C | | 21C | TO CAD 110G |
| 468 | (327) | 468 | TO CAD 108 |

TO CAD 106

ISSUE 67B

COMPLETING MARKER CIRCUIT

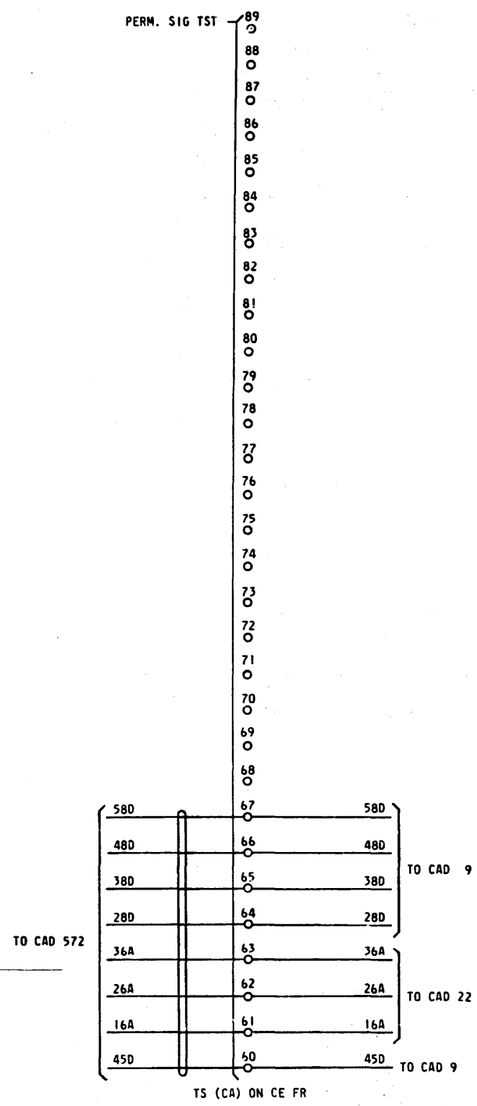
(2)

SD-26002-01-G245A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PART OF CAD 221




ISSUE 53B

COMPLETING MARKER CIRCUIT

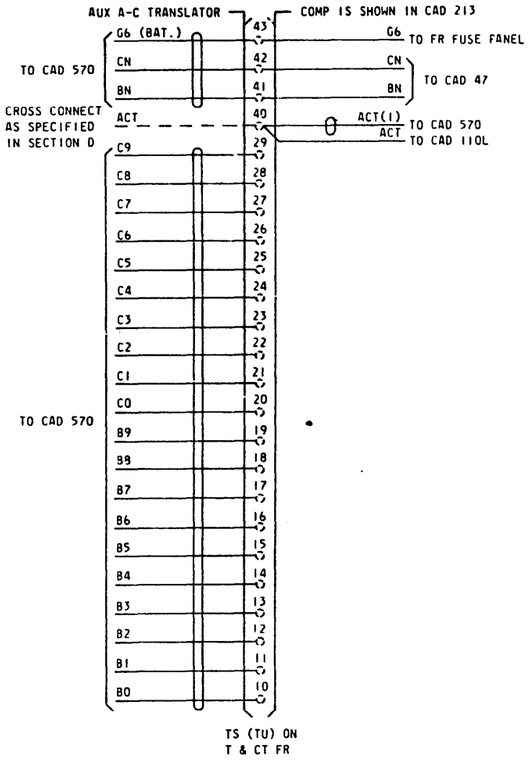
BELL TELEPHONE LABORATORIES INCORPORATED

SD-26002-01-G245B

SD-26002-01-G245B

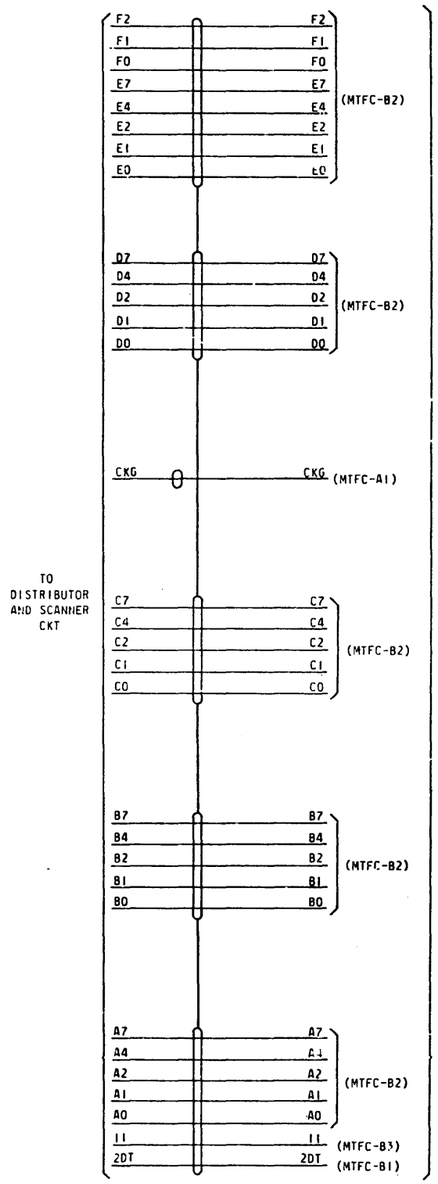
# CAD 222

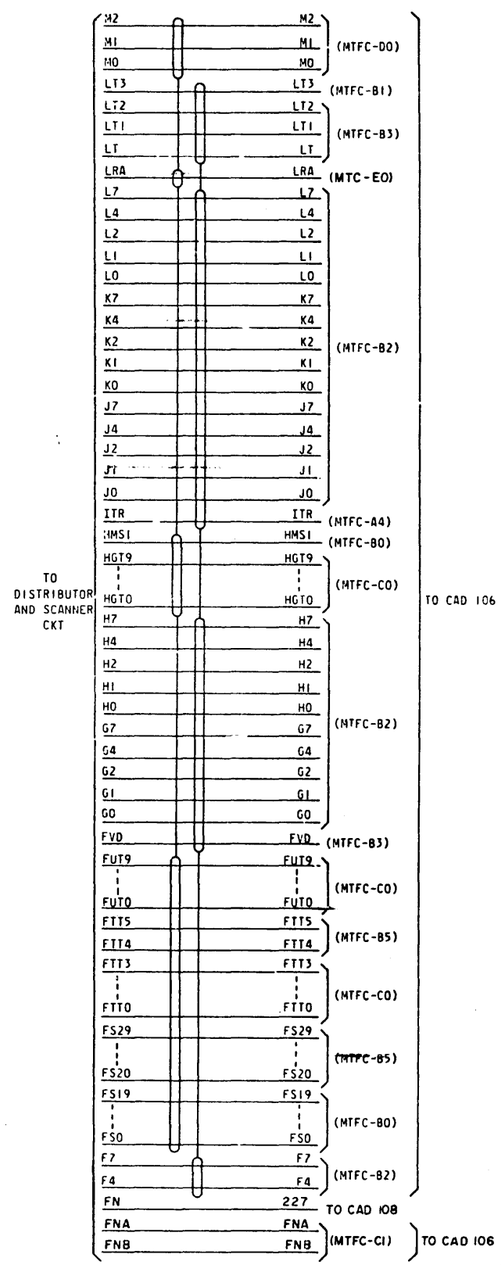
SWITCHBOARD CABLE
TO AREA CODE TRANSLATOR

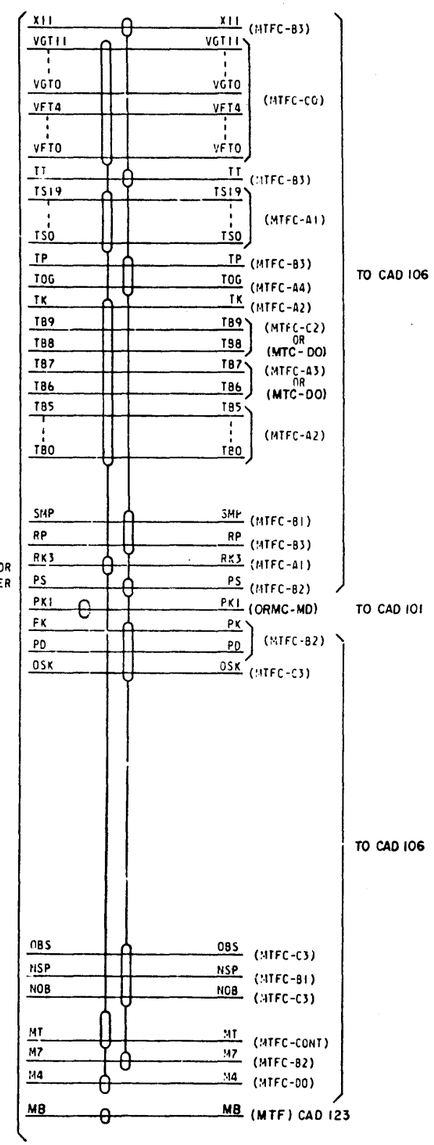


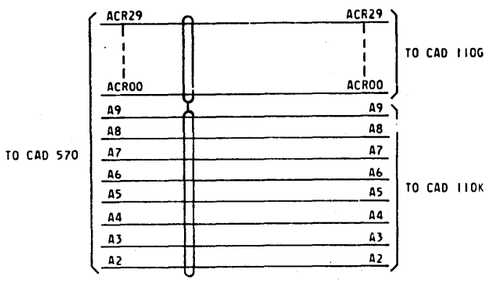

# PART OF CAD 223

(SWITCHBOARD CABLE TO DISTRIBUTOR AND SCANNER CIRCUIT)




ISSUE 54A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G246

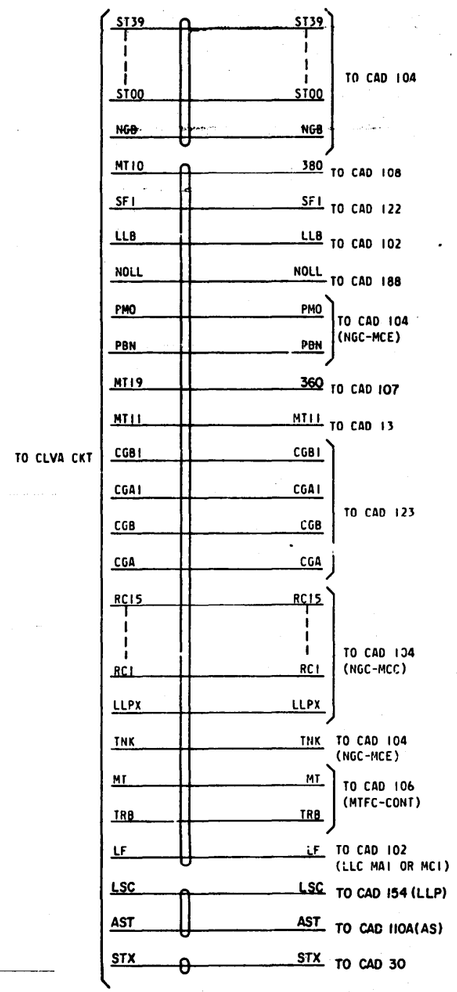
BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

UNITED STATES OF AMERICA

# CAD 224

SWITCHBOARD CABLE TO THE
COMPUTER LINE VERIFICATION ACCESS CKT




ISSUE 52A

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-G247

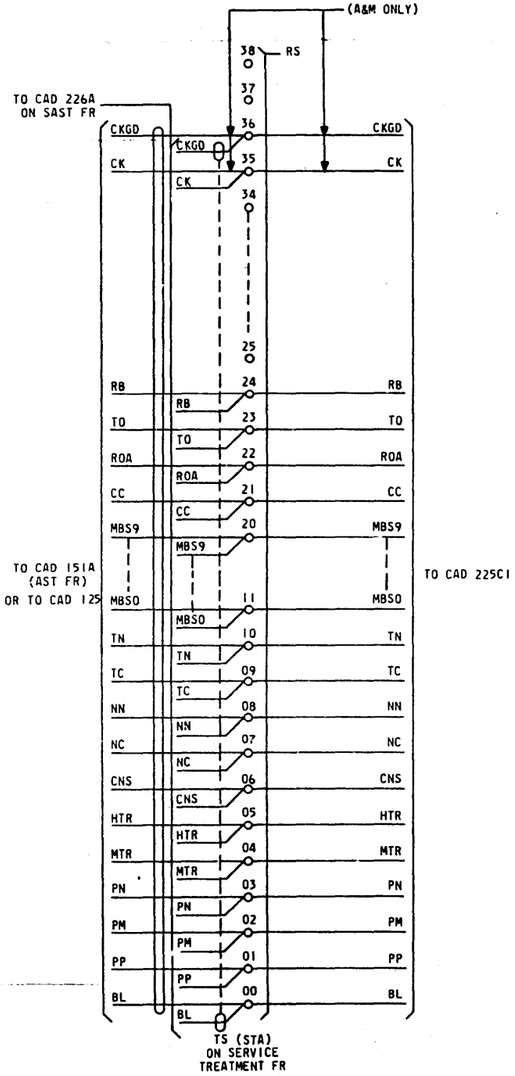
BELL TELEPHONE LABORATORIES INCORPORATED

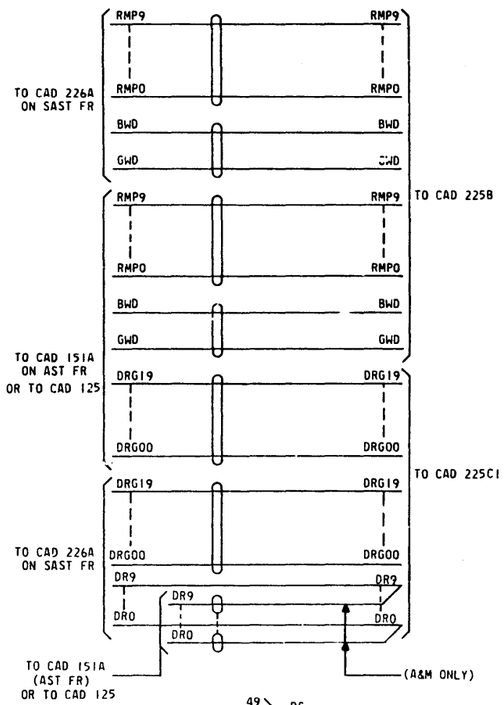
SIZE 6S

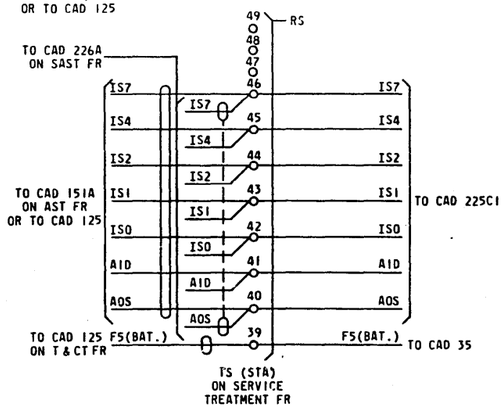
SD-26002-01-G247

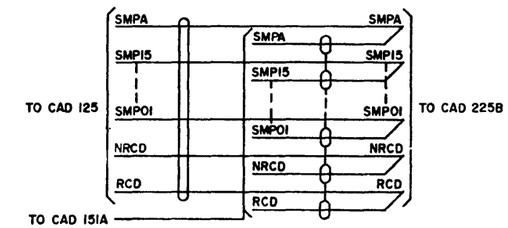
# CAD 225A

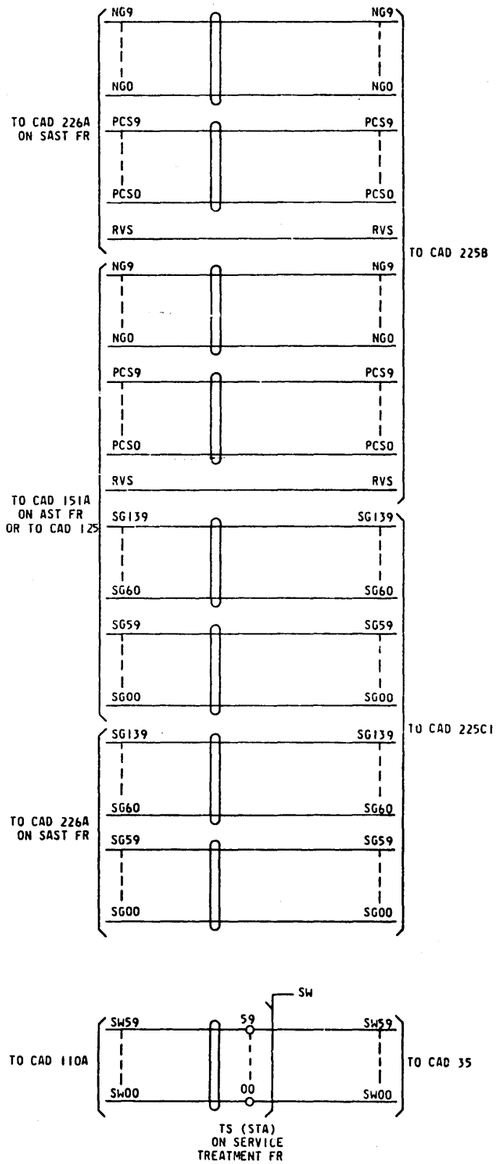
SWITCHBOARD CABLING FROM ST FR TO AST FR,
SAST FR AND T&CT FR



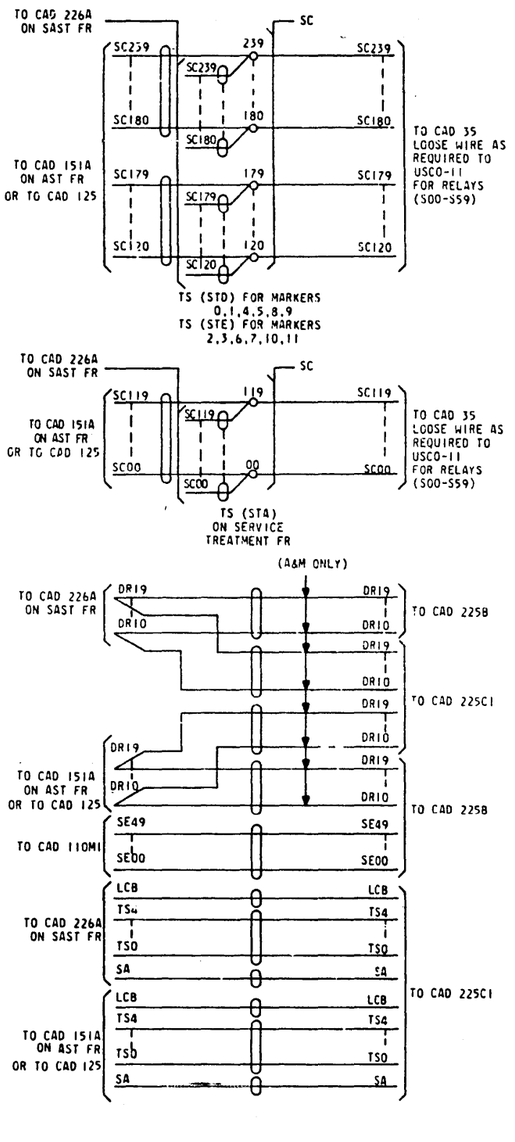







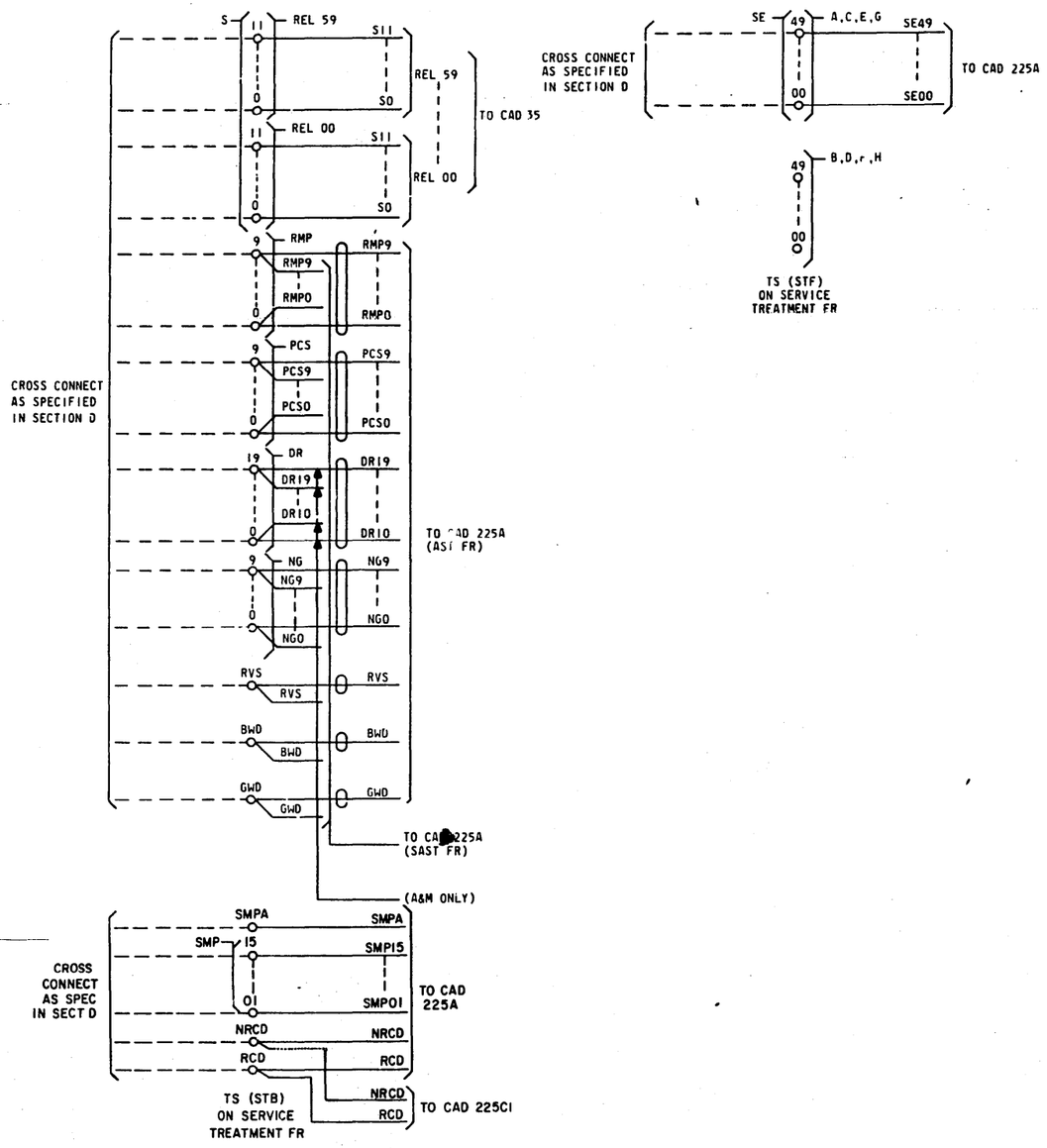



ISSUE 65B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-G248 |
| BELL TELEPHONE LABORATORIES INCORPORATED | 6S |

# CAD 225B

ST FR CROSS CONNECTION




ISSUE 66A

COMPLETING MARKER CIRCUIT

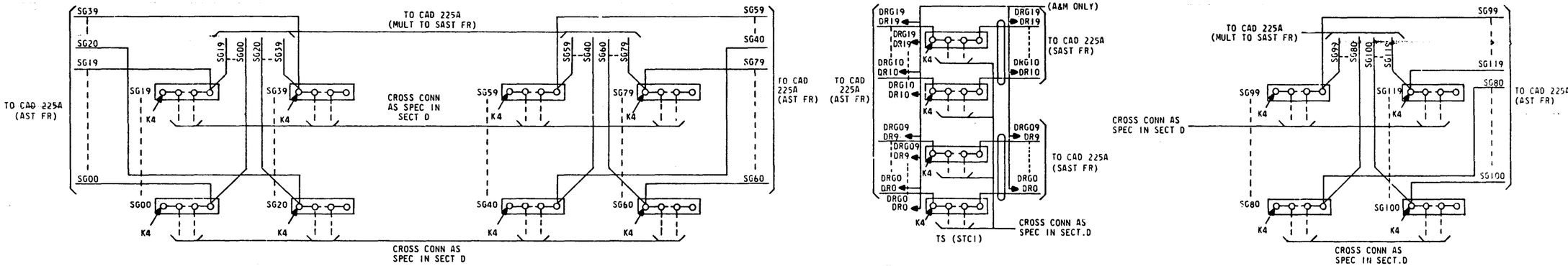
SD-26002-01-G249

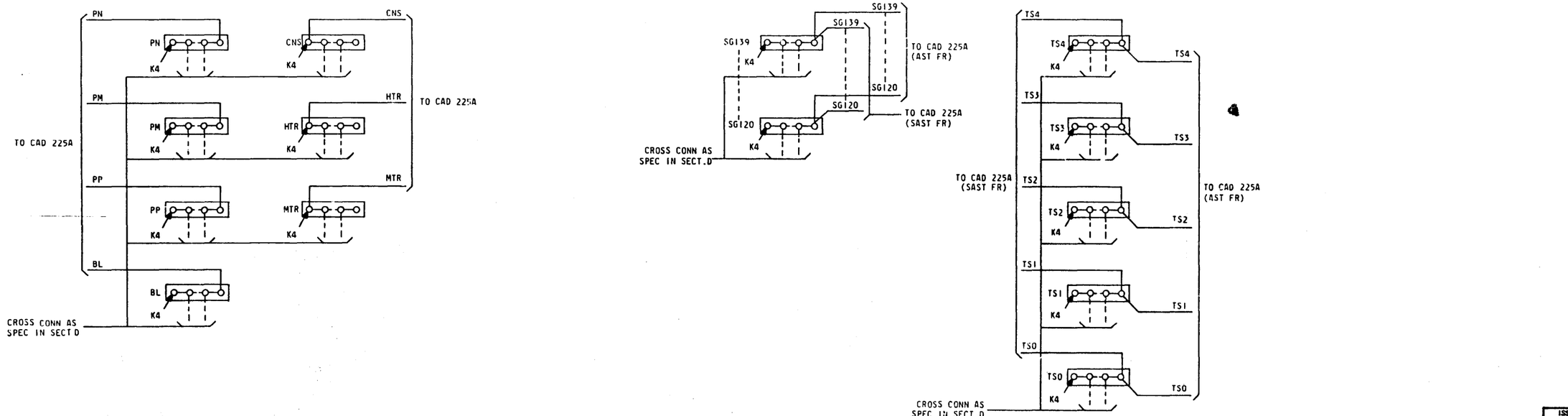
BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 225CI

(ST FR CROSS CONNECTIONS)




1ST SECTION — TS (STC) ON ST FR — 2ND SECTION — 3RD SECTION — TS (STC) ON ST FR — 4TH SECTION

ISSUE 55B

COMPLETING MARKER CIRCUIT

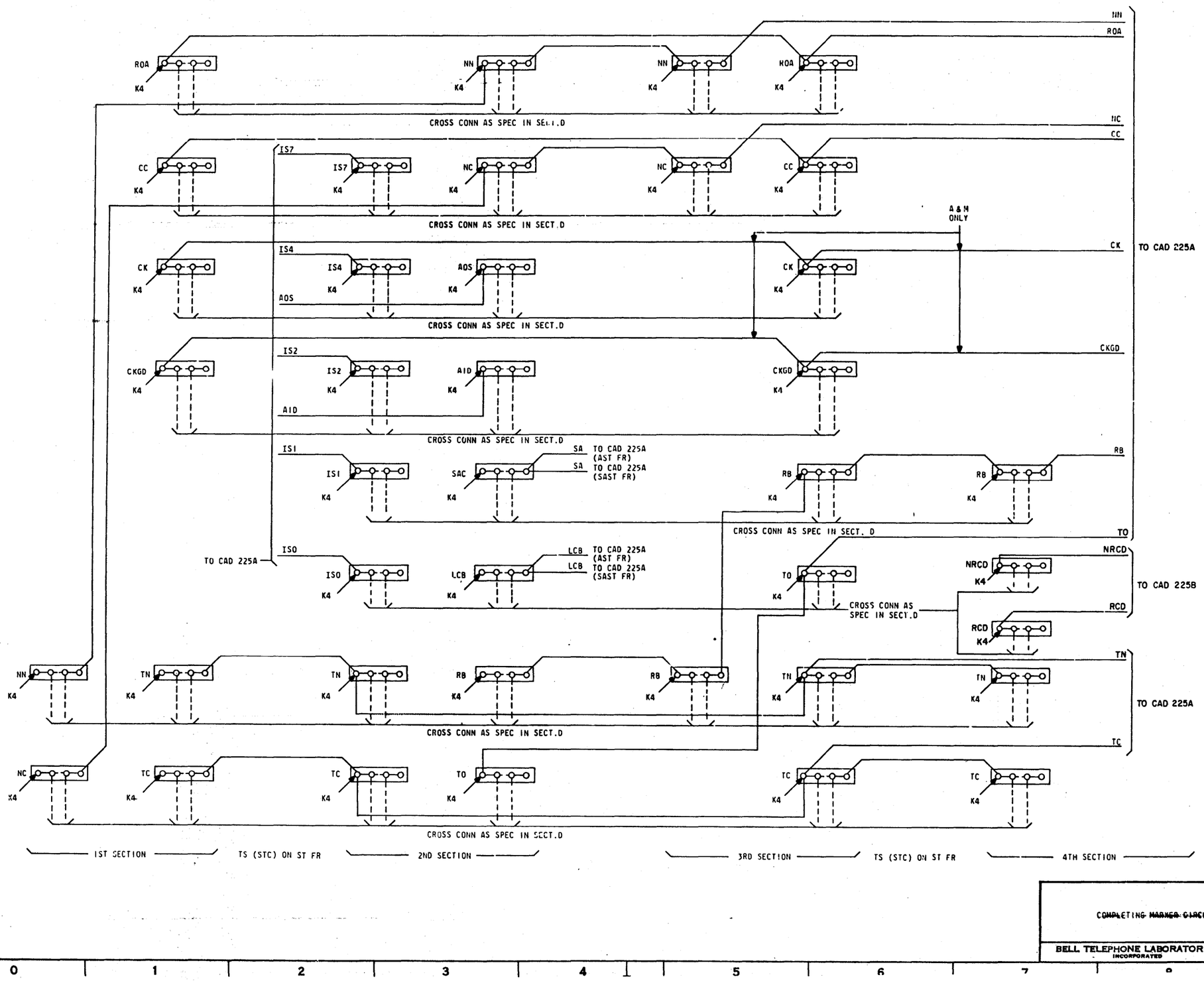
SD-26002-01-G250

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 225CI

(ST FR CROSS CONNECTIONS)




ISSUE 66A

COMPLETING ~~MARKER~~ CIRCUIT

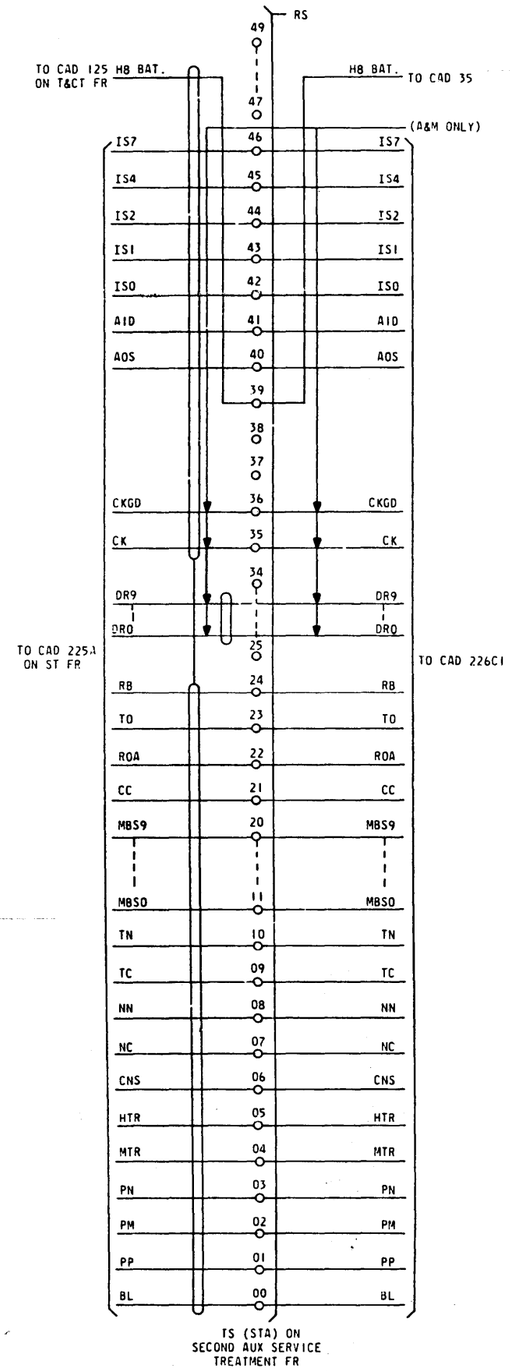
SD-26002-01-G25I

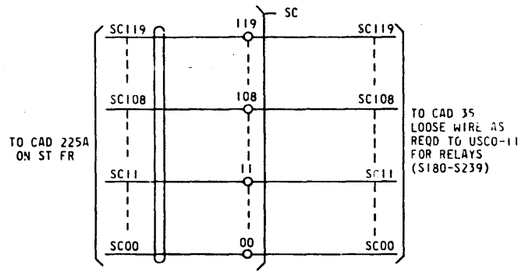
BELL TELEPHONE LABORATORIES INCORPORATED

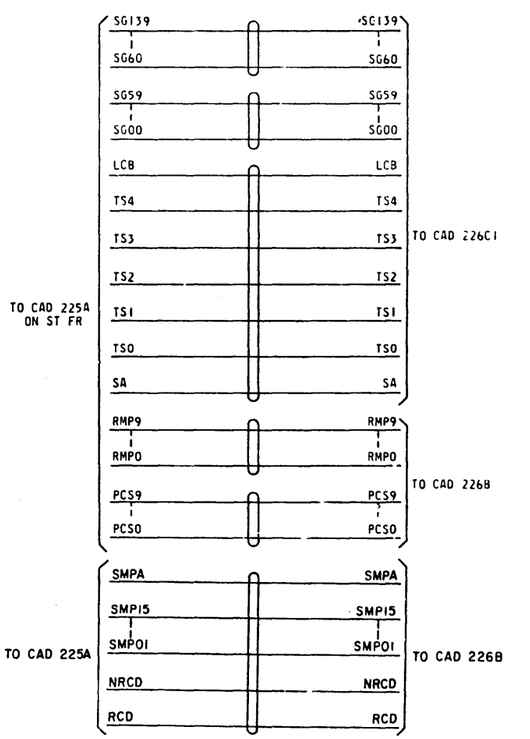
6S

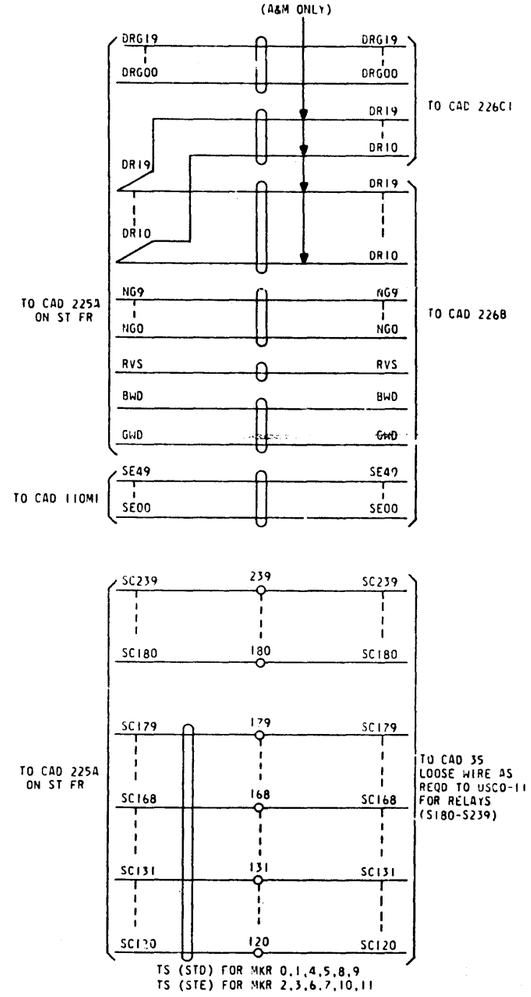
# CAD 226A

SWITCHBOARD CABLING FROM SAST FR TO FR, T & CT FR



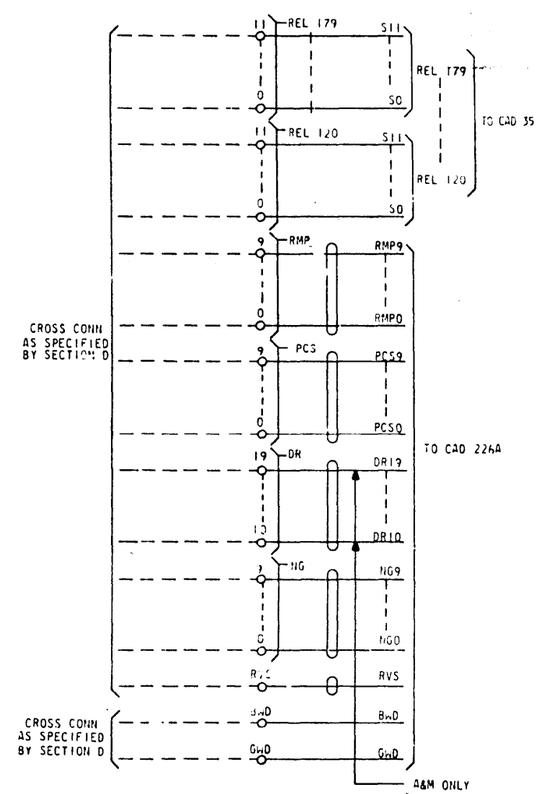



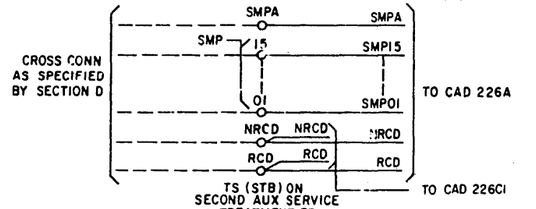



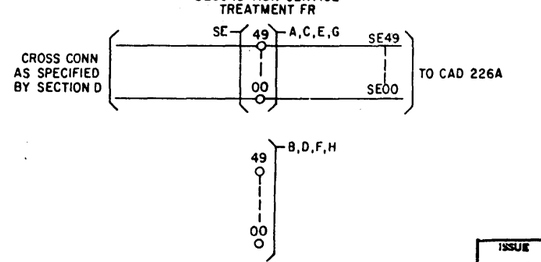




# CAD 226B

SAST FR CROSS CONN




ISSUE 66A

COMPLETING MARKER CIRCUIT

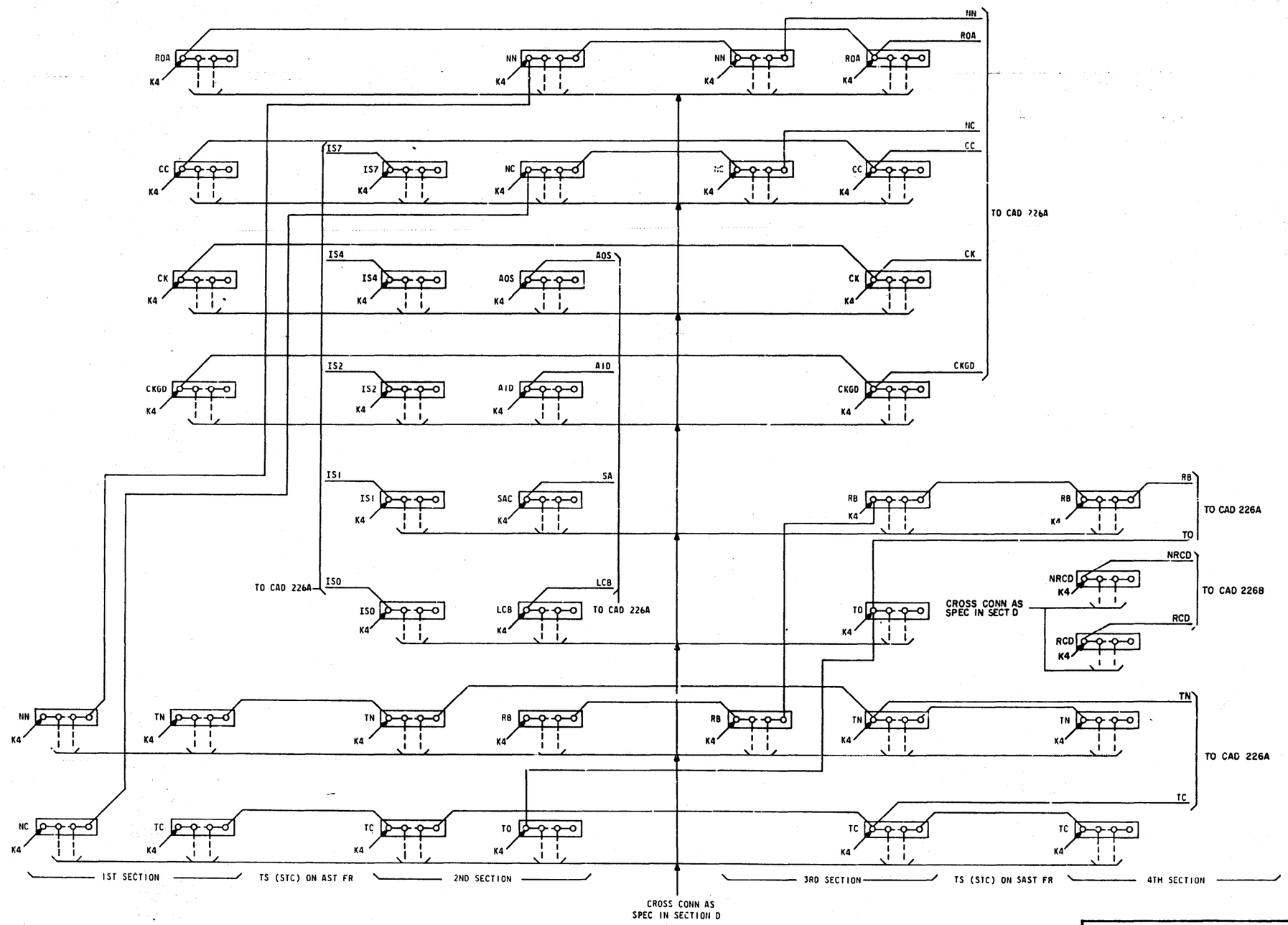
SD-26002-01-G252

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 226CI

(SAST FR CROSS CONNECTIONS)




ISSUE 66A

COMPLETING MARKER CIRCUIT

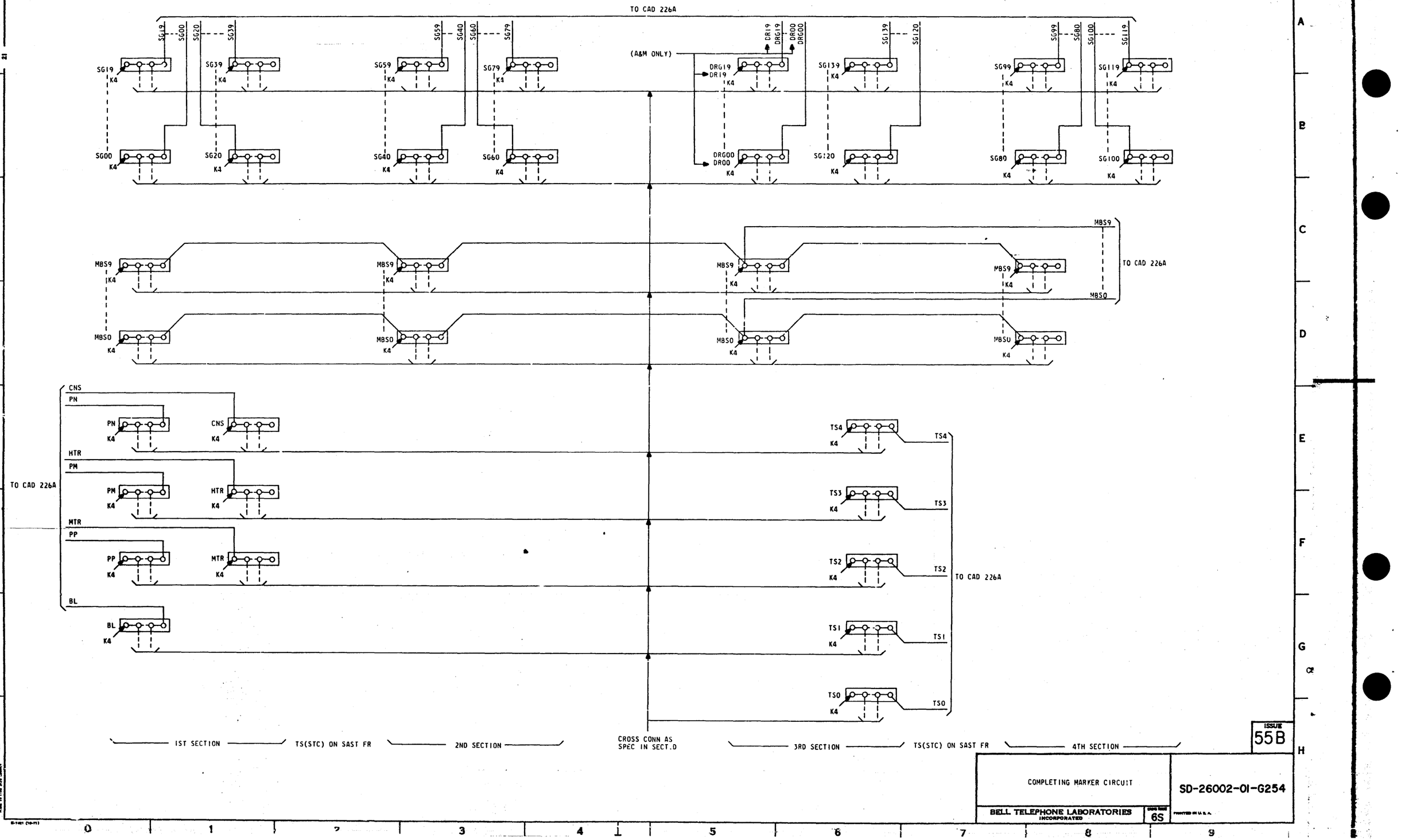
SD-26002-01-G253

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 226CI

(SAST FR CROSS CONNECTIONS)




ISSUE 55B

| | |
|---|---|
| COMPLETING MARKER CIRCUIT | SD-26002-01-G254 |
| BELL TELEPHONE LABORATORIES INCORPORATED | SIZE 6S |

# PART OF CAD 227

SWITCHBOARD CABLE FROM MARKER TO
DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS)

DISTRIBUTE LEADS

TO DAS ETS

| | | | |
|---|---|---|---|
| ADD | (134) | ADD | TO CAD 230 |
| CNS | | CNS | TO CAD 110N OR TO CAD 110N1 |
| HTR | | HTR | TO CAD 110N OR TO CAD 110N1 |
| LTR | (157) | LTR | TO CAD 230 |
| MTR | | MTR | TO CAD 110N OR TO CAD 110N1 |
| NAD | (133) | NAD | TO CAD 230 |
| NSI | | NSI | TO CAD 106 (MTFC-A2) |
| TER | (62) | TER | TO CAD 108 |
| XTRK | | XTRK | TO CAD 106 (MTFC-A3) |

SCANNER LEADS

TO DAS ETS

| | | | |
|---|---|---|---|
| 11 | | 11 | TO CAD 106 (MTFC-B3) |
| 2DT | | 2DT | TO CAD 106 (MTFC-B1) |
| 2W | | 2W | TO CAD 106 (MTC-D0) |
| 4W | | 4W | |
| A0 | | A0 | TO CAD 106 (MTFC-B2) |
| A1 | | A1 | |
| A2 | | A2 | |
| A4 | | A4 | |
| A7 | | A7 | |
| ACD | | ACD | TO CAD 106 (MTFC-B5) |
| AOT | | AOT | TO CAD 106 (MTC-E2) |
| ASB | (145) | ASB | TO CAD 230 |
| ATB | (154) | ATB | |
| ATT | | ATT | TO CAD 106 (MTFC-C3 |
| B0 | | B0 | TO CAD 106 (MTFC-B2) |
| B1 | | B1 | |
| B2 | | B2 | |
| B4 | | B4 | |
| B7 | | B7 | |
| C0 | | C0 | |
| C1 | | C1 | |
| C2 | | C2 | |
| C4 | | C4 | |
| C7 | | C7 | |
| CDN | (152) | CDN | TO CAD 230 |
| CNTI | | CNTI | TO CAD 106 (MTFC-B5) |
| CR | | CR | TO CAD 106 (MTFC-B3) |
| CTT0 | | CTT0 | TO CAD 106 (MTFC-T1) |
| CTT1 | | CTT1 | |
| CTT2 | | CTT2 | |
| CTT4 | | CTT4 | |
| CTT7 | | CTT7 | |

SCANNER LEADS

TO DAS ETS

| | | | |
|---|---|---|---|
| CUT0 | | CUT0 | TO CAD 106 (MTC-C2) |
| CUT1 | | CUT1 | |
| CUT2 | | CUT2 | |
| CUT4 | | CUT4 | |
| CUT7 | | CUT7 | |
| D | | D | TO CAD 106 (MTFC-C1) |
| D0 | | D0 | TO CAD 106 (MTFC-B2) |
| D1 | | D1 | |
| D2 | | D2 | |
| D4 | | D4 | |
| D7 | | D7 | |
| DAT1 | | DAT1 | TO CAD (MTC-E2) |
| DK | (35) | DK | TO CAD 230 |
| DNC | | DNC | TO CAD 106 (MTFC-B5) |
| DR | (140) | DR | TO CAD 230 |
| DTF | | DTF | TO CAD 100 |
| DTI | | DTI | TO CAD 106 (MTC-E2) |
| E0 | | E0 | TO CAD 106 (MTFC-B2) |
| E1 | | E1 | |
| E2 | | E2 | |
| E4 | | E4 | |
| E7 | | E7 | |
| ECN | | ECN | TO CAD 106 (MTFC-C3) |
| F0 | | F0 | TO CAD 106 (MTFC-B2) |
| F1 | | F1 | |
| F2 | | F2 | |
| F4 | | F4 | |
| F7 | | F7 | |
| FAC | | FAC | TO CAD 106 (MTFC-B1) |
| FC | | FC | TO CAD 106 (MTFC-B5) |
| FG0 | | FG0 | TO CAD 106 (MTFC-B0) |
| FG1 | | FG1 | |
| FG2 | | FG2 | TO CAD 106 (MTFC-B5) |
| FM | | FM | TO CAD 106 (MTFC-A2) |

SCANNER LEADS

TO DAS ETS

| | | | |
|---|---|---|---|
| FN | (227) | FN | TO CAD 108 |
| FNA | (48) | FNA | TO CAD 106 (MTFC-C1) |
| FNB | (49) | FNB | |
| FS00 | | FS00 | TO CAD 106 (MTFC-B0) |
| FS19 | | FS19 | |
| FS20 | | FS20 | TO CAD 106 (MTFC-B5) |
| FS29 | | FS29 | |
| FT0 | | FT0 | TO CAD 101 (ORMC-ME) |
| FT1 | | FT1 | |
| FT2 | | FT2 | |
| FT3 | | FT3 | |
| FU0 | | FU0 | TO CAD 101 (ORMC-MD) |
| FU1 | | FU1 | |
| FU2 | | FU2 | |
| FU4 | | FU4 | |
| FU7 | | FU7 | |
| FV0 | | FV0 | TO CAD 106 (MTFC-93) |
| G0 | | G0 | TO CAD 106 (MTFC-B2) |
| G1 | | G1 | |
| G2 | | G2 | |
| G4 | | G4 | |
| G7 | | G7 | |
| GLC | (148) | GLC | TO CAD 535 |
| H0 | | H0 | TO CAD 106 (MTFC-B2) |
| H1 | | H1 | |
| H2 | | H2 | |
| H4 | | H4 | |
| H7 | | H7 | |

ISSUE 59B

COMPLETING MARKER CIRCUIT

SD-26002-01-G255

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

# PART OF CAD 227

SWITCHBOARD CABLE FROM MARKER TO
DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS)

SCANNER LEADS

| | | | |
|---|---|---|---|
| HG0 | | HG0 | |
| HG1 | | HG1 | |
| HG2 | | HG2 | TO CAD 101 (ORMC-MD) |
| HG4 | | HG4 | |
| HG7 | | HG7 | |
| HT0 | | HT0 | |
| HT1 | | HT1 | |
| HT2 | | HT2 | TO CAD 100 (IRMC-MD) |
| HT4 | | HT4 | |
| HT7 | | HT7 | |
| INC | | INC | TO CAD 106 (MTFC-B1) |
| IRT | (143) | IRT | TO CAD 230 |
| J0 | | J0 | |
| J1 | | J1 | |
| TO DAS ETS J2 | | J2 | TO CAD 106 (MTFC-B2) |
| J4 | | J4 | |
| J7 | | J7 | |
| K0 | | K0 | |
| K1 | | K1 | |
| K2 | | K2 | |
| K4 | | K4 | |
| K7 | | K7 | TO CAD 106 (MTFC-B2) |
| L0 | | L0 | |
| L1 | | L1 | |
| L2 | | L2 | |
| L4 | | L4 | |
| L7 | | L7 | |
| LB | (135) | LB | TO CAD 230 |
| LCD0 | | LCD0 | |
| LCD1 | | LCD1 | TO CAD 106 (MTFC-B5) |
| LCD2 | | LCD2 | |
| LCK | (129) | LCK | TO CAD 230 |
| LR | | LR | TO CAD 106 (MTFC-B0) |
| LRI | (57) | LRI | TO CAD 230 |

SCANNER LEADS

| | | | |
|---|---|---|---|
| LT | | LT | |
| LT1 | | LT1 | TO CAD 106 (MTFC-B3) |
| LT2 | | LT2 | |
| LT3 | | LT3 | TO CAD 106 (MTFC-B1) |
| M0 | | M0 | |
| M1 | | M1 | |
| M2 | | M2 | TO CAD 106 (MTC-D0) |
| M4 | | M4 | |
| M7 | | M7 | TO CAD 106 (MTFC-B2) |
| MB | (MTF-10) | MB | |
| MDI | | MDI | TO CAD 123 |
| MF | | MF | TO CAD 106 (MTFC-C1) |
| MON | (00) | MON | TO CAD 106 (MTFC-B3) |
| MT | | MT | TO CAD 106 (MTFC-CONT) |
| TO DAS ETS MT13 | | MT13 | TO CAD 230 |
| MTK | | MTK | TO CAD 106 (MTFC-T0) |
| N7 | | N7 | TO CAD 106 (MTC-D0) |
| NH | | NH | |
| NN | | NN | TO CAD 106 (MTFC-C2) |
| NOB | | NOB | TO CAD 106 (MTFC-C3) |
| NPU | (146) | NPU | TO CAD 230 |
| NT | (127) | NT | |
| OA | | OA | TO CAD 106 (MTFC-B3) |
| OB | | OB | |
| OBS | | OBS | |
| OCN | | OCN | TO CAD 106 (MTFC-C3) |
| OFH | | OFH | TO CAD 106 (MTFC-C1) |
| OR | | OR | TO CAD 106 (MTF3-C3) |
| ORT | (27) | ORT | TO CAD 108 |
| OV | | OV | TO CAD 106 (MTFC-C1) |
| PCD | | PCD | |
| PCD1 | | PCD1 | TO CAD 106 (MTFC-B1) |
| PCR | | PCR | |
| PD | | PD | TO CAD 106 (MTFC-B2) |
| PHC | | PHC | TO CAD 106 (MTFC-B1) |

SCANNER LEADS

| | | | |
|---|---|---|---|
| PK | | PK | TO CAD 106 (MTFC-B2) |
| PS | | PS | |
| PS1 | | PS1 | TO CAD 572 |
| PSG | | PSG | |
| PUL | | PUL | TO CAD 106 (MTFC-A4) |
| RAV | (91) | RAV | |
| RCY | (90) | RCY | TO CAD 230 |
| RE | (150) | RE | |
| RN0 | | RN0 | TO CAD 230 |
| ⋮ | | ⋮ | |
| RN9 | | RN9 | TO CAD 106 (MTFC-C3) |
| RO | | RO | TO CAD 106 (MTFC-B1) |
| ROH | | ROH | TO CAD 572 |
| RP | | RP | TO CAD 106 (MTFC-B3) |
| RTST | (74) | RTST | TO CAD 123 |
| TO DAS ETS RV | | RV | TO CAD 106 (MTFC-A5) |
| SCB | | SCB | TO CAD 106 (MTFC-C2) |
| SCK | | SCK | TO CAD 106 (MTFC-B3) |
| SCN | | SCN | |
| SCT | (71) | SCT | TO CAD 123 |
| SIA0 | | SIA0 | |
| ⋮ | | ⋮ | |
| SIA11 | | SIA11 | TO CAD 121 |
| SIB0 | | SIB0 | |
| ⋮ | | ⋮ | |
| SIB11 | | SIB11 | |
| SPK | | SPK | TO CAD 113 |
| SPL | | SPL | TO CAD 100 (IRMC-MD) |
| TAN | | TAN | TO CAD 100 (IRMC-MA) |
| TAN1 | | TAN1 | |
| TAN2 | | TAN2 | TO CAD 106 (MTFC-B1) |
| TAN3 | | TAN3 | |
| TAN4 | | TAN4 | |
| TB0 | | TB0 | |
| ⋮ | | ⋮ | TO CAD 111 |
| TB9 | | TB9 | |

SCANNER LEADS

| | | | |
|---|---|---|---|
| TBX | | TBX | TO CAD 111 |
| TCA | | TCA | TO CAD 100 (IRMC-ME) |
| TCB | | TCB | |
| THC | | THC | TO CAD 106 (MTFC-B1) |
| THT0 | | THT0 | TO CAD 106 (MTFC-B3) |
| THT1 | | THT1 | |
| THT2 | | THT2 | TO CAD 100 (IRMC-MC) |
| THT3 | | THT3 | |
| TOL | | TOL | TO CAD 100 (IRMC-ME) |
| TP | | TP | TO CAD 106 (MTFC-B3) |
| TR2 | | TR2 | TO CAD 106 (MTFC-C1) |
| TRF | | TRF | TO CAD 106 (MTFC-C3) |
| TRK | | TRK | TO CAD 106 (MTFC-C1) |
| TRST | (124) | TRST | TO CAD 230 |
| TST | (02) | TST | TO CAD 106 (MTFC-B3) |
| TS0 | | TS0 | |
| ⋮ | | ⋮ | TO CAD 106 (MTFC-A1) |
| TS19 | | TS19 | |
| TT | | TT | TO CAD 106 (MTFC-B3) |
| TT0 | | TT0 | |
| TT1 | | TT1 | |
| TT2 | | TT2 | |
| TT4 | | TT4 | |
| TT7 | | TT7 | TO CAD 100 (IRMC-MD) |
| UT0 | | UT0 | |
| UT1 | | UT1 | |
| UT2 | | UT2 | |
| UT4 | | UT4 | |
| UT7 | | UT7 | |
| VF0 | | VF0 | |
| ⋮ | | ⋮ | TO CAD 101 (ORMC-ME) |
| VF4 | | VF4 | |

ISSUE 58A

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

DRAWING SIZE 6S

SD-26002-01-G256

PRINTED IN U.S.A.

E-74421 (10-71)

# PART OF CAD 227

SWITCHBOARD CABLE FROM MARKER TO
DISTRIBUTOR AND SCANNER APPLICATION FOR ETS (DAS ETS)

SCANNER LEADS

| | | | |
|---|---|---|---|
| TO DAS ETS | VG0 — VG0 | | |
| | VG1 — VG1 | | |
| | VG2 — VG2 | | |
| | VG4 — VG4 | TO CAD 101 (ORMC-ME) | |
| | VG7 — VG7 | | |
| | VG10 — VG10 | | |
| | VTC — VTC | TO CAD 106 (MTFC-B5) | |
| | WKC — WKC | | |
| | X11 — X11 | TO CAD 106 (MTFC-B3) | |

GROUND LEADS

| | | | |
|---|---|---|---|
| | ANG (153) ANG | TO CAD 230 | |
| | HMG (37) HMG | TO CAD 231 | |
| TO DAS ETS | LTRG (156) LTRG | | |
| | NSIG (56) NSIG | | |
| | RGTG (147) RGTG | TO CAD 230 | |
| | TERG (141) TERG | | |
| | XTRKG (149) XTRKG | | |

ISSUE 64A

COMPLETING MARKER CIRCUIT

SD-26002-01-G257

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

PRINTED IN U.S.A.

# PART OF CAD 228

SWITCHBOARD CABLE FROM MARKER TO THE
MARKER DISTRIBUTOR CONTROL (MDC) CKT FOR ETS

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| 2WD | | 2WD | TO CAD 106 (MTC-D1) |
| 2WD1 | | 2WD1 | |
| 4DG | | 4DG | TO CAD 106 (MTFC-C3) |
| 5DLT | (00) | 5DLT | TO CAD 230 |
| 7DLT | (01) | 7DLT | |
| A0 | | A0 | TO CAD 105 (OSC-MA1) |
| A1 | | A1 | |
| A2 | | A2 | |
| A4 | | A4 | |
| A7 | | A7 | |
| ADD | (134) | ADD | TO CAD 230 |
| AEN | | AEN | TO CAD 211 OR CAD 110B |
| AK | | AK | TO CAD 106 (MTFC-A4) |
| APN | | APN | TO CAD 211 OR CAD 110B |
| ATN | | ATN | |
| ANIS | | ANIS | TO CAD 110E |
| AO | | AO | TO CAD 109 |
| AR0 | | AR0 | TO CAD 115 |
| AR1 | | AR1 | |
| AR2 | | AR2 | |
| AR4 | | AR4 | |
| AR7 | | AR7 | |
| ASB | (204) | ASB | TO CAD 108 |
| B0 | | B0 | TO CAD 105 (OSC-MA1) |
| B1 | | B1 | |
| B2 | | B2 | |
| B4 | | B4 | |
| B7 | | B7 | |
| BEN | | BEN | TO CAD 211 OR CAD 110B |
| BN | | BN | TO CAD 106 (MTFC-B1) |
| BPN | | BPN | TO CAD 211 OR CAD 110B |
| BR0 | | BR0 | TO CAD 115 |
| BR1 | | BR1 | |
| BR2 | | BR2 | |
| BR4 | | BR4 | |
| BR7 | | BR7 | |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| BRA | (107) | BRA | TO CAD 230 |
| BRA1 | | BRA1 | TO CAD 504 |
| BRAL | | BRAL | |
| BRG | | BRG | TO CAD 195 |
| BS1 | (62) | BS1 | TO CAD 230 |
| BS4 | (65) | BS4 | |
| BS5 | (66) | BS5 | |
| BS6 | (138) | BS6 | |
| BS7 | (139) | BS7 | |
| BS8 | (67) | BS8 | |
| BS9 | (68) | BS9 | |
| BS10 | (69) | BS10 | |
| BS11 | (70) | BS11 | |
| BS12 | (101) | BS12 | |
| BS13 | (71) | BS13 | |
| BSN | | BSN | TO CAD 185 |
| BTN | | BTN | TO CAD 211 OR CAD 110B |
| BY1 | | BY1 | TO CAD 102 (LLC-MC1) |
| BY2 | | BY2 | TO CAD 154 |
| C0 | | C0 | TO CAD 105 (OSC-MA1) |
| C1 | | C1 | |
| C2 | | C2 | |
| C4 | | C4 | |
| C7 | | C7 | |
| CAM | | CAM | TO CAD 231 |
| CB | (85) | CB | TO CAD 230 |
| CGS | | CGS | TO CAD 109 |
| CGT1 | (133) | CGT1 | TO CAD 154 |
| CGT2 | (132) | CGT2 | |
| CH | | CH | TO CAD 24 |
| CHA | (46) | CHA | TO CAD 230 |
| CHAG | (47) | CHAG | |
| CKG | (01) | CKG | TO CAD 108 |
| CKG1 | (155) | CKG1 | TO CAD 230 |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| CKO | | CKO | TO CAD 114 |
| CKO1 | (103) | CKO1 | TO CAD 230 |
| CKR | | CKR | TO CAD 106 (MTFC-A4) |
| CL1 | | CL1 | TO CAD 106 (MTFC-B1) |
| CL2 | | CL2 | TO CAD 231 |
| CL3 | | CL3 | |
| CL4 | | CL4 | TO CAD 106 (MTFC-B1) |
| CL5 | | CL5 | TO CAD 231 |
| CL6 | | CL6 | TO CAD 106 (MTFC-B1) |
| CL7 | | CL7 | TO CAD 106 (MTFC-B3) |
| CL8 | | CL8 | |
| CLG | (20) | CLG | TO CAD 231 |
| CLK | (171) | CLK | TO CAD 230 |
| CLK1 | (172) | CLK1 | |
| CMF | | CMF | TO CAD 110E |
| CMJ | | CMJ | |
| CN | | CN | TO CAD 109 |
| CNT | (615) | CNT | TO CAD 108 |
| CP1 | | CP1 | TO CAD 106 (MTFC-C3) |
| CP7 | | CP7 | |
| CR0 | (21) | CR0 | TO CAD 231 |
| CR1 | (22) | CR1 | |
| CR2 | (23) | CR2 | |
| CR4 | (24) | CR4 | |
| CR7 | (25) | CR7 | |
| CST0 | | CST0 | TO CAD 230 |
| CST9 | | CST9 | |
| CSU0 | | CSU0 | TO CAD 102 |
| CSU9 | | CSU9 | |
| CTG | (73) | CTG | TO CAD 230 |
| CTUK | (80) | CTUK | |
| D0 | | D0 | TO CAD 105 (OSC-MA1) |
| D1 | | D1 | |
| D2 | | D2 | |
| D4 | | D4 | |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| D7 | | D7 | TO CAD 105 (OSC-MA1) |
| DAPG | | DAPG | TO CAD 185 |
| DAT | | DAT | TO CAD 106 (MTC-E0) |
| DC1 | (93) | DC1 | TO CAD 154 |
| DC2 | (92) | DC2 | |
| DC3 | (94) | DC3 | |
| DC4 | (39) | DC4 | TO CAD 230 |
| DC5 | (82) | DC5 | |
| DC6 | (99) | DC6 | TO CAD 154 |
| DC7 | (97) | DC7 | |
| DC8 | (98) | DC8 | |
| DC9 | (96) | DC9 | |
| DC10 | (95) | DC10 | |
| DIS | | DIS | TO CAD 106 (MTFC-T0) |
| DISI | (94) | DISI | TO CAD 230 |
| DISA | | DISA | |
| DLI | | DLI | TO CAD 105 (OSC-MB2) |
| DLT | | DLT | TO CAD 502 |
| DR | | DR | TO CAD 106 (MTFC-A4) |
| DVO | (48) | DVO | TO CAD 230 |
| E0 | | E0 | TO CAD 105 (OSC-MA2) |
| E1 | | E1 | |
| E2 | | E2 | |
| E4 | | E4 | |
| E7 | | E7 | |
| EB | (32) | EB | TO CAD 230 |
| ESK | | ESK | TO CAD 106 (MTC-D1) |
| ET | (28) | ET | TO CAD 230 |
| ETS | (29) | ETS | |
| F0 | | F0 | TO CAD 105 (OSC-MA2) |
| F1 | | F1 | |
| F2 | | F2 | |
| F4 | | F4 | |
| F7 | | F7 | |
| FC1 | (123) | FC1 | TO CAD 230 |
| FC2 | (86) | FC2 | |

ISSUE 6IB

COMPLETING MARKER CIRCUIT

SD-26002-01-G258

BELL TELEPHONE LABORATORIES INCORPORATED

6S

PRINTED IN U.S.A.

# PART OF CAD 228

SWITCHBOARD CABLE FROM MARKER TO THE
MARKER DISTRIBUTOR CONTROL (MDC) CKT FOR ETS

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| FCK | (25) | FCK | TO CAD 230 |
| FKA | | FKA | TO CAD 102 (LLC-MC1) |
| FKB | | FKB | TO CAD 106 (MTFC-B5)(MFR DISC) OR TO CAD 154 |
| FKC | (117) | FKC | TO CAD 154 |
| FKD | (116) | FKD | |
| FLG | (299) | FLG | TO CAD 108 |
| FLH | (196) | FLH | TO CAD 154 |
| FM | (159) | FM | |
| FM1 | (160) | FM1 | TO CAD 230 |
| FM2 | (161) | FM2 | |
| FNA | | FNA | TO CAD 104 |
| FNK | (77) | FNK | TO CAD 230 |
| FTCG | (02) | FTCG | |
| FTCK | | FTCK | TO CAD 106 (MTFC-C2) |
| FTCK1 | (03) | FTCK1 | TO CAD 230 |
| FTL | | FTL | TO CAD 154 |
| FTN0 | | FTN0 | TO CAD 104 |
| FTN5 | | FTN5 | |
| FS0 | (04) | FS0 | TO CAD 230 |
| FS19 | (23) | FS19 | |
| FS20 | | FS20 | TO CAD 579 |
| FS29 | | FS29 | |
| FUL | | FUL | TO CAD 154 |
| FUN0 | | FUN0 | TO CAD 104 |
| FUN9 | | FUN9 | |
| G0 | | G0 | TO CAD 105 (OSC-MA2) |
| G1 | | G1 | |
| G2 | | G2 | |
| G4 | | G4 | |
| G7 | | G7 | |
| GTK | (74) | GTK | TO CAD 230 |
| GTK1 | (37) | GTK1 | |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| H0 | | H0 | TO CAD 105 (OSC-MA2) |
| H1 | | H1 | |
| H2 | | H2 | |
| H4 | | H4 | |
| H7 | | H7 | |
| HF | | HF | TO CAD 106 (MTFC-C3) |
| HGL | | HGL | TO CAD 154 |
| HGT0 | | HGT0 | TO CAD 106 (MTFC-C0) |
| HGT9 | | HGT9 | |
| HN0 | | HN0 | TO CAD 122 |
| HN1 | | HN1 | |
| HN2 | | HN2 | |
| HN4 | | HN4 | |
| HN7 | | HN7 | |
| HTR | | HTR | TO CAD 110N OR 110N1 |
| HTUK | | HTUK | TO CAD 106 (MTFC-A4) |
| IB1 | | IB1 | TO CAD 154 |
| IB2 | | IB2 | |
| IDNF | | IDNF | TO CAD 170B |
| IDNM | | IDNM | |
| IH | (169) | IH | TO CAD 230 |
| IH1 | (170) | IH1 | |
| IMG | | IMG | TO CAD 111 |
| IMGK | (88) | IMGK | TO CAD 230 |
| ING | (75) | ING | |
| J0 | | J0 | TO CAD 105 (OSC-MA2) |
| J1 | | J1 | |
| J2 | | J2 | |
| J4 | | J4 | |
| J7 | | J7 | |
| JC | (95) | JC | TO CAD 230 |
| JC1 | (96) | JC1 | |
| K0 | | K0 | TO CAD 105 (OSC-MB1) |
| K1 | | K1 | |
| K2 | | K2 | |
| K4 | | K4 | |
| K7 | | K7 | |
| KG | (100) | KG | TO CAD 230 |
| KK | (29) | KK | TO CAD 231 |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| KN | (132) | KN | TO CAD 230 |
| L0 | | L0 | TO CAD 105 (OSC-MB1) |
| L1 | | L1 | |
| L2 | | L2 | |
| L4 | | L4 | |
| L7 | | L7 | |
| LB | (128) | LB | TO CAD 230 |
| LCH | | LCH | TO CAD 106 (MTFC-A3) |
| LDA | (44) | LDA | TO CAD 230 |
| LDA1 | | LDA1 | TO CAD 110D |
| LDN | | LDN | TO CAD 106 (MTC-E0) |
| LF | | LF | TO CAD 102 (LLC-MC1) |
| LFG | | LFG | TO CAD 154 |
| LFK | | LFK | TO CAD 106 (MTFC-A1) |
| LFK1 | | LFK1 | TO CAD 106 (MTC-E0) |
| LGT | (45) | LGT | TO CAD 230 |
| LLC4 | | LLC4 | TO CAD 154 |
| LLES | | LLES | TO CAD 106 (MTC-D1) |
| LLPA | (104) | LLPA | TO CAD 230 |
| LLPB | | LLPB | TO CAD 154 |
| LLS | (88) | LLS | |
| LOLD | | LOLD | TO CAD 529 |
| LRA | | LRA | TO CAD 106 (MTC-E0) |
| LRAU | | LRAU | TO CAD 155 |
| LSC1 | (43) | LSC1 | TO CAD 154 |
| LST | | LST | TO CAD 106 (MTFC-C3) |
| LTI | | LTI | |
| LTIL | | LTIL | TO CAD 154 |
| M0 | | M0 | TO CAD 105 (OSC-MC1) |
| M1 | | M1 | |
| M2 | | M2 | |
| M4 | | M4 | |
| M7 | | M7 | TO CAD 105 (OSC-MB1) |
| MD | (840) | MD | TO CAD 107 |
| MD1 | | MD1 | TO CAD 110F |
| MLT | | MLT | TO CAD 502 |
| MRA | (147) | MRA | TO CAD 109(MFR DISC) OR TO CAD 230 |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| MT5 | (38) | MT5 | TO CAD 230 |
| MT5A | | MT5A | TO CAD 106 (MTFC-T1) |
| MT25 | (538) | MT25 | TO CAD 231 |
| MT25A | (538) | MT25A | TO CAD 108 |
| MTR | | MTR | TO CAD 110N OR 110N1 |
| N7 | | N7 | TO CAD 106 (MTC-D1) |
| NAD | (133) | NAD | TO CAD 230 |
| NBS | | NBS | TO CAD 185 |
| NCCN | | NCCN | TO CAD 125 |
| NCNC | | NCNC | |
| NCRA | | NCRA | TO CAD 230 |
| NCTD | | NCTD | TO CAD 110M OR CAD 110M1 |
| NDI | | NDI | TO CAD 154 |
| NE | | NE | TO CAD 106 (MTFC-A4) |
| NGS | (125) | NGS | TO CAD 230 |
| NR | | NR | TO CAD 106 (MTFC-A4) |
| NSO | | NSO | TO CAD 106 (MTFC-A2) |
| NSR | | NSR | TO CAD 112A |
| NTC | (15) | NTC | TO CAD 231 |
| NTP | (19) | NTP | |
| OB | (33) | OB | TO CAD 230 |
| OBS | (33) | OBS | TO CAD 231 |
| OBS1 | (455) | OBS1 | TO CAD 107 |
| OL1 | (83) | OL1 | TO CAD 154 |
| OL2 | (82) | OL2 | |
| OLTL | | OLTL | |
| OSG | (56) | OSG | TO CAD 230 |
| OSG0 | | OSG0 | TO CAD 106 (MTFC-B1) |
| OSG4 | | OSG4 | |
| OSG5 | | OSG5 | TO CAD 106 (MTFC-B3) |
| OSG9 | | OSG9 | |
| OSG10 | | OSG10 | TO CAD 106 (MTFC-B1) |
| OSG11 | | OSG11 | |

ISSUE 6IB

COMPLETING MARKER CIRCUIT

SD-26002-01-G259

BELL TELEPHONE LABORATORIES INCORPORATED

6S

# PART OF CAD 228

SWITCHBOARD CABLE FROM MARKER TO THE
MARKER DISTRIBUTOR CONTROL (MDC) CKT FOR ETS

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| OSK | (99) | OSK | TO CAD 230 |
| OSKT | (39) | OSKT | TO CAD 106 (MTFC-C3) |
| OT | (30) | OT | TO CAD 230 |
| OTI | | OTI | TO CAD 154 |
| OT2 | | OT2 | TO CAD 109 |
| OT3 | | OT3 | TO CAD 154 |
| OTS | (31) | OTS | TO CAD 230 |
| OVC | (89) | OVC | |
| PBN | | PBN | TO CAD 104 |
| PBX | (50) | PBX | TO CAD 230 |
| PBXI | (51) | PBXI | |
| PBX2 | (52) | PBX2 | |
| PBY | (39) | PBY | TO CAD 231 |
| PBYG | (11) | PBYG | |
| PDCO | | PDCO | TO CAD 110E |
| PDCI | | PDCI | |
| PDK | | PDK | TO CAD 154 |
| PMO | | PMO | TO CAD 104 |
| PN | | PN | TO CAD 106 (MTFC-A4) |
| POTS | | POTS | TO CAD 106 (MTC-E9) |
| PSR | | PSR | TO CAD 572 |
| PSRI | | PSRI | |
| PST | | PST | |
| PTK | (293) | PTK | TO CAD 106 (MTFC-C1) (MFR DISC) OR TO CAD 108 |
| PUI | (72) | PUI | TO CAD 230 |
| RI | (211) | RI | TO CAD 108 |
| R2 | (97) | R2 | TO CAD 230 |
| RAI | (166) | RAI | |
| RAG | (165) | RAG | |
| RB | | RB | TO CAD 110N OR 110NI |
| RBT | (158) | RBT | TO CAD 230 |
| RCL | (78) | RCL | |
| RCT | | RCT | TO CAD 106 (MTFC-T0) |
| RCTI | | RCTI | TO CAD 106 (MTFC-C2) |
| RCT9 | | RCT9 | |
| RCTII | | RCTII | |
| RCTI5 | | RCTI5 | |
| RCY2 | (148) | RCY2 | TO CAD 230 |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| RCYA | | RCYA | TO CAD 154 |
| RCYB | (534) | RCYB | TO CAD 108 |
| RFI | (14) OR (162) | RFI | TO CAD 230 OR 231 |
| RF2 | (44) | RF2 | TO CAD 106 (MTFC-C1) |
| RF3 | (209) | RF3 | TO CAD 106 (MTFC-A2) |
| RGT | (313) | RGT | TO CAD 108 |
| RGTR | (42) | RGTR | TO CAD 230 |
| RI | | RI | TO CAD 106 (MTFC-B1) |
| RLT | (84) | RLT | TO CAD 154 |
| RR | (12) | RR | TO CAD 231 |
| RS | (02) | RS | TO CAD 230 |
| RS6 | (36) | RS6 | |
| RS9 | (29) | RS9 | TO CAD 106 (MTFC-C2) |
| RV | | RV | TO CAD 106 (MTFC-A5) |
| RVI | (40) | RVI | TO CAD 230 |
| RV3 | | RV3 | TO CAD 111 |
| RVIT | (41) | RVIT | TO CAD 230 |
| RYT | | RYT | TO CAD 122 |
| RYTI | | RYTI | TO CAD 230 |
| RYTT | | RYTT | TO CAD 154 |
| SC | (00) | SC | TO CAD 231 |
| SCG | (01) | SCG | |
| SCK | (273) | SCK | TO CAD 107 |
| SKI | (30) | SKI | TO CAD 231 |
| SK2 | (31) | SK2 | |
| SK3 | (06) | SK3 | |
| SKA | (93) | SKA | TO CAD 230 |
| SKB | (92) | SKB | |
| SNG | (301) | SNG | TO CAD 108 |
| SNGI | (102) | SNGI | TO CAD 230 |
| SNK | | SNK | TO CAD 106 (MTFC-A2) |
| TI | (33) | TI | TO CAD 231 |
| T2 | (98) | T2 | TO CAD 230 |
| T3 | (87)(34) | T3 | TO CAD 230 AND CAD 231 |
| T4 | (36) | T4 | TO CAD 231 |
| TASB | (38) | TASB | |
| TBO | | TBO | TO CAD 111 |
| TB9 | | TB9 | |
| TBG | (26) | TBG | TO CAD 230 |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| TBI | | TBI | TO CAD 106 (MTFC-B1) |
| TBII | (76) | TBII | TO CAD 230 |
| TBT | (130) | TBT | |
| TBTL | (131) | TBTL | |
| TBTS | (136) | TBTS | |
| TBX | | TBX | TO CAD 111 |
| TC | (81) | TC | TO CAD 230 |
| TCCA | (790) | TCCA | TO CAD 108 |
| TCCK | (05) | TCCK | TO CAD 231 |
| TCCN | | TCCN | TO CAD 125 |
| TCG | (04) | TCG | TO CAD 231 |
| TCGG | (144) | TCGG | TO CAD 230 OR 509 |
| TCH | (32) OR (55) | TCH | TO CAD 191 OR TO CAD 106 (MTFC-A3) |
| TCN | (16) | TCN | TO CAD 231 |
| TCNC | | TCNC | TO CAD 125 |
| TGTK | (53) | TGTK | TO CAD 230 |
| TH0 | | TH0 | TO CAD 122 |
| TH1 | | TH1 | |
| TH2 | | TH2 | |
| TH4 | | TH4 | |
| TH7 | | TH7 | |
| TING | (178) | TING | TO CAD 230 |
| TLGT | (49) | TLGT | |
| TLS | (89) | TLS | TO CAD 154 |
| TM | (10) | TM | TO CAD 101 (ORMC-MC) |
| TMI | (17) | TMI | TO CAD 108 |
| TMG | (55) | TMG | TO CAD 230 |
| TMS | (54) | TMS | |
| TN0 | | TN0 | TO CAD 122 |
| TN1 | | TN1 | |
| TN2 | | TN2 | |
| TN4 | | TN4 | |
| TN7 | | TN7 | |
| TOA | (142) | TOA | TO CAD 230 |
| TOGA | (100) | TOGA | TO CAD 154 |
| TOGB | (533) | TOGB | TO CAD 108 (CH) |
| TOS | | TOS | TO CAD 125 |

TO MARKER DISTRIBUTOR CONTROL CKT

| | | | |
|---|---|---|---|
| TOSK | (90) | TOSK | TO CAD 154 |
| TP | (243) | TP | TO CAD 108 |
| TPI | (32) | TPI | TO CAD 231 |
| TPG | (253) | TPG | TO CAD 107 |
| TPK | (18) | TPK | TO CAD 231 |
| TRA | (43) | TRA | TO CAD 230 |
| TRAI | | TRAI | TO CAD 110K |
| TS0 | | TS0 | TO CAD 230 |
| TS9 | | TS9 | |
| TSE | | TSE | |
| TSEI | (24) | TSEI | |
| TSG | (34) | TSG | |
| TST | | TST | TO CAD 106 (MTC-E0) |
| TTLI | (83) | TTLI | TO CAD 230 |
| TTL2 | | TTL2 | TO CAD 154 |
| TTL3 | | TTL3 | |
| TTL4 | (84) | TTL4 | TO CAD 230 |
| TTL5 | | TTL5 | TO CAD 154 |
| TTL6 | | TTL6 | |
| TTL7 | | TTL7 | |
| TTKI | | TTKI | |
| TTK2 | | TTK2 | TO CAD 106 (MTFC-A0) |
| TTK3 | | TTK3 | TO CAD 154 |
| TTL | (118) | TTL | TO CAD 230 |
| TTP | (17) | TTP | TO CAD 231 |
| TYM | (163) | TYM | TO CAD 230 |
| TYMI | (164) | TYMI | |
| U0 | | U0 | TO CAD 122 |
| U1 | | U1 | |
| U2 | | U2 | |
| U4 | | U4 | |
| U7 | | U7 | |
| VFL | | VFL | TO CAD 154 |

ISSUE 62A

COMPLETING MARKER CIRCUIT

SD-26002-01-G260

BELL TELEPHONE LABORATORIES INCORPORATED

CAD SIZE 6S

PRINTED IN U.S.A.

# PART OF CAD 228

SWITCHBOARD CABLE FROM MARKER TO THE MARKER DISTRIBUTOR CONTROL (MDC) CKT FOR ETS

TO MARKER DISTRIBUTOR CONTROL CIRCUIT

| | | | |
|---|---|---|---|
| VFTO | | VFTO | TO CAD 106 (MTFC-CO) |
| VFT4 | | VFT4 | |
| VGL | | VGL | TO CAD 154 |
| VGTO | | VGTO | TO CAD 106 (MTFC-CO) |
| VGTII | | VGTII | |
| XB | (61) | XB | TO CAD 230 |
| XIMG | (168) | XIMG | |
| XLAT | | XLAT | TO CAD 110F |
| XLATI | (02) | XLATI | TO CAD 231 |
| XLFI | | XLFI | TO CAD 154 |
| XLF2 | (44) | XLF2 | TO CAD 106 (MTFC-EO) |
| XLFL | | XLFL | TO CAD 154 |
| XR | (167) | XR | TO CAD 230 |
| XT | | XT | |
| XTI | (58) | XTI | |
| XT2 | (59) | XT2 | |
| XT3 | (60) | XT3 | |
| XTG | (27) | XTG | |
| XTS | (79) | XTS | |

# CAD 229

SWITCHBOARD CABLE FROM MARKER TO THE ETS POWER AND DATA INTERFACE (PDI) CKT

TO ETS POWER & DATA INTERFACE CKT

| | | | |
|---|---|---|---|
| AST | | AST | TO CAD 110A(AS) |
| CGA | | CGA | TO CAD 121 |
| CGAI | | CGAI | |
| CGB | | CGB | |
| CGBI | | CGBI | |
| CI | | CI | TO CAD 537 |
| CIO | | CIO | |
| CI4 | | CI4 | |
| LF | (121) | LF | TO CAD 230 |
| LLB | | LLB | TO CAD 102 |
| LLPX | | LLPX | TO CAD 104 |
| LOLC | | LOLC | TO CAD 188 |
| LSC | (43) | LSC | TO CAD 154 |
| MB | (MTF-10) | MB | TO CAD 123 |
| MBG | (120) | MBG | TO CAD 230 |
| MT | | MT | TO CAD 106 (MTFC-CONT) |
| MTIO | (380) | MTIO | TO CAD 108 |
| MTII | (122) | MTII | TO CAD 230 |
| MTI9 | | MTI9 | TO CAD 121 |
| NGB | | NGB | TO CAD 104 |
| NOLL | | NOLL | TO CAD 188 |
| OFK | (176) | OFK | TO CAD 230 |
| PBN | | PBN | TO CAD 104 |
| PMO | | PMO | |
| RCI | | RCI | |
| RC15 | | RC15 | |
| RC | (11) | RC | TO CAD 113 |
| RCL | (02) | RCL | |
| SFI | | SFI | TO CAD 122 |
| ST00 | | ST00 | TO CAD 104 |
| ST39 | | ST39 | |
| STX | (106) | STX | TO CAD 230 |
| TRB | | TRB | TO CAD 106 (MTFC-CONT) |
| TRC | | TRC | TO CAD 104 |

ISSUE 65B

COMPLETING MARKER CIRCUIT

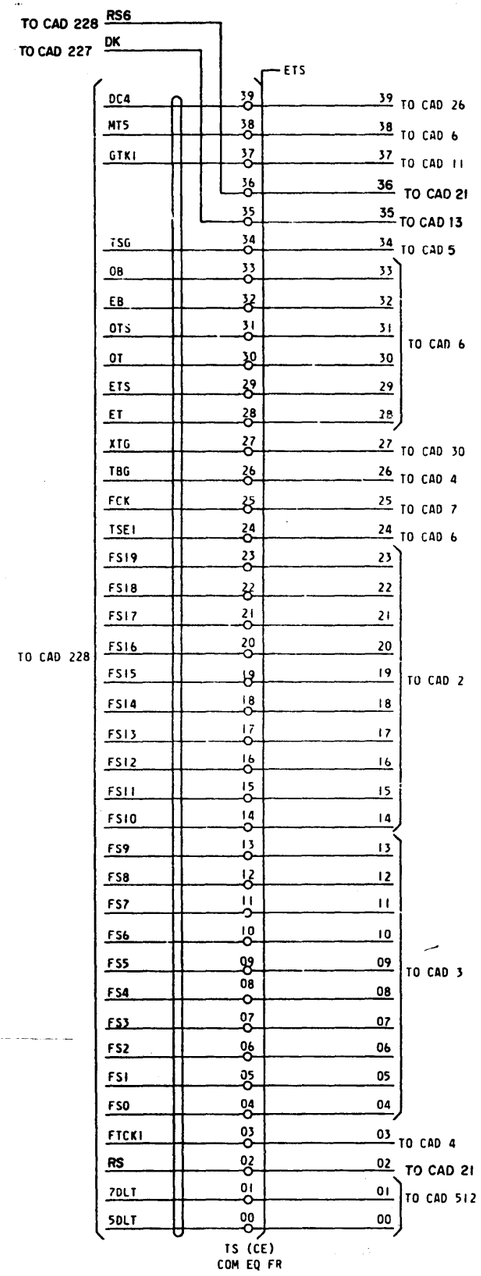
SD-26002-01-6261

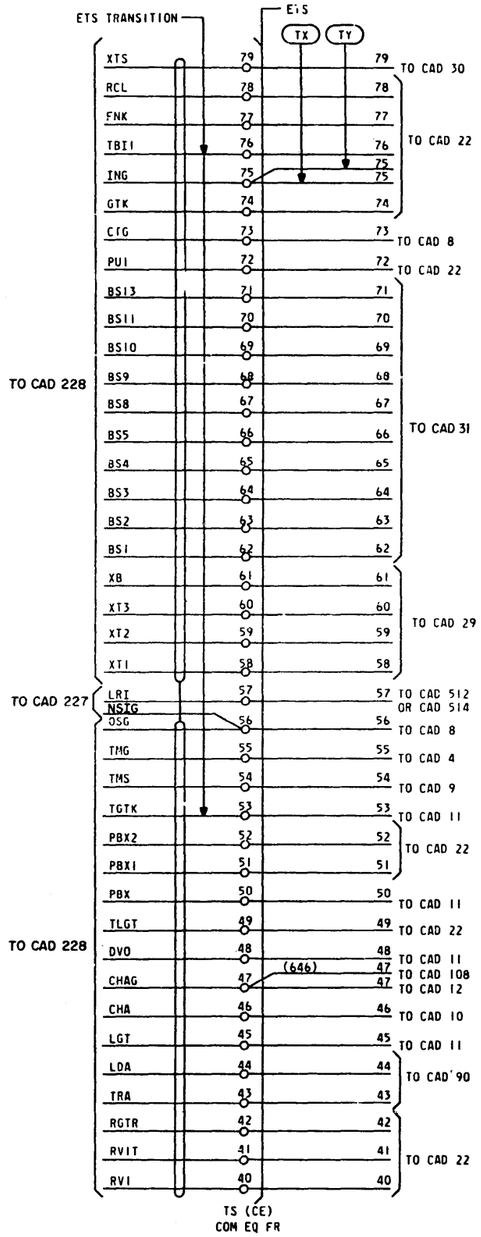
BELL TELEPHONE LABORATORIES INCORPORATED

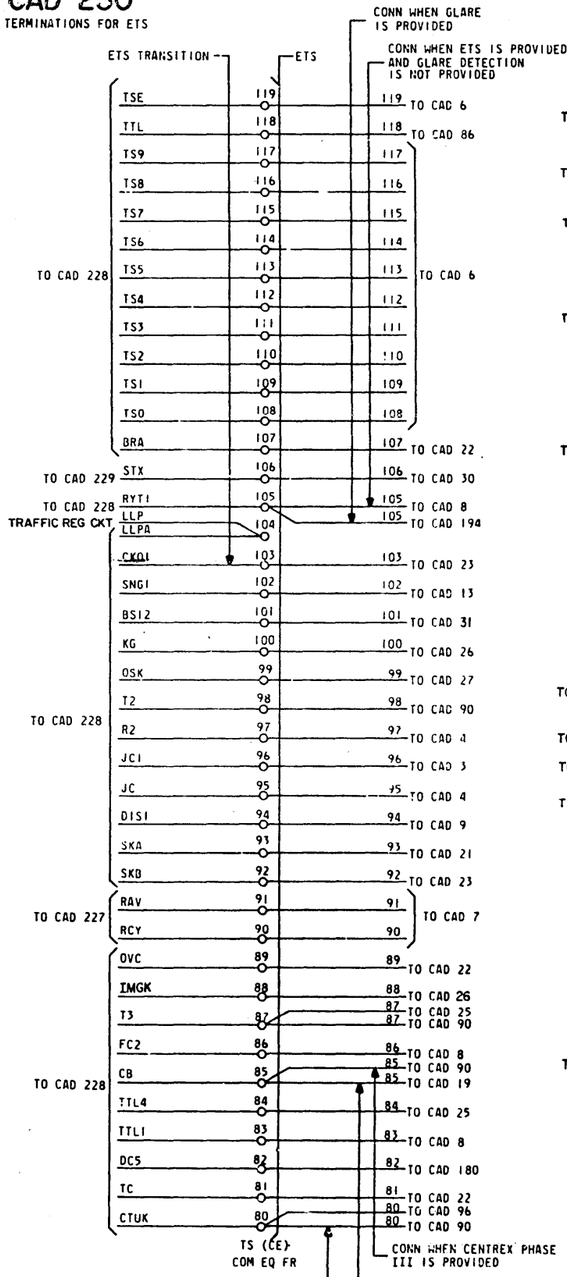
6S

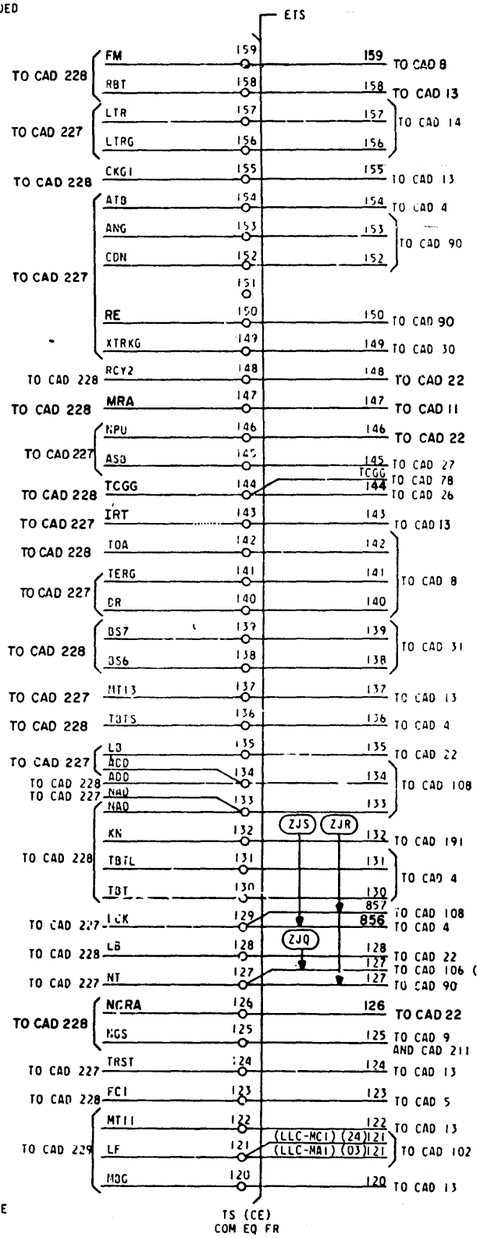
# PART OF CAD 230

SWITCHBOARD CABLE TERMINATIONS FOR ETS




ISSUE 65B

COMPLETING MARKER CIRCUIT

SD-26002-01-G262A

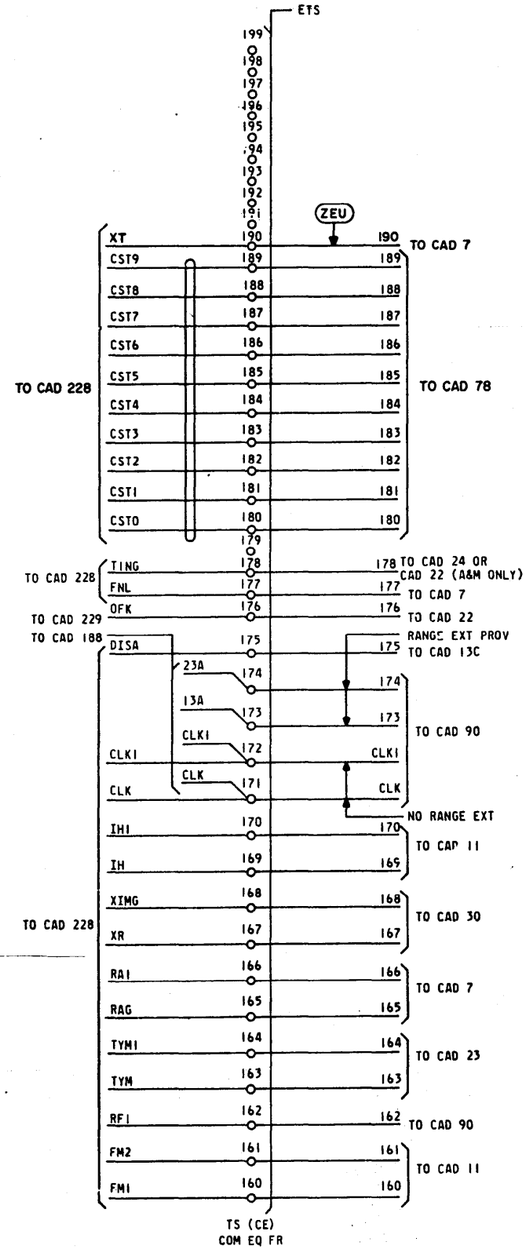
BELL TELEPHONE LABORATORIES INCORPORATED

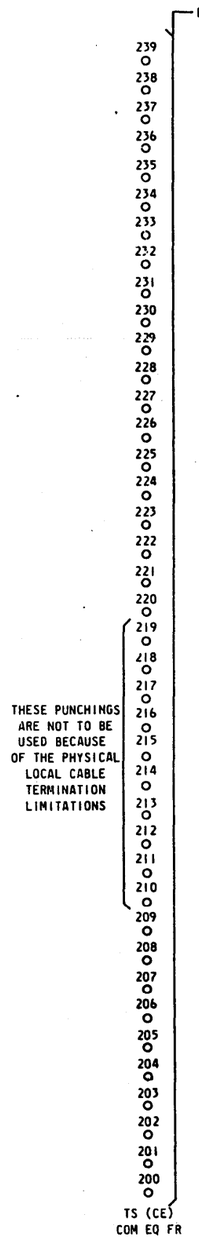
SIZE 6S

PRINTED IN U.S.A.

# PART OF CAD 230

SWITCHBOARD CABLE TERMINATION FOR ETS

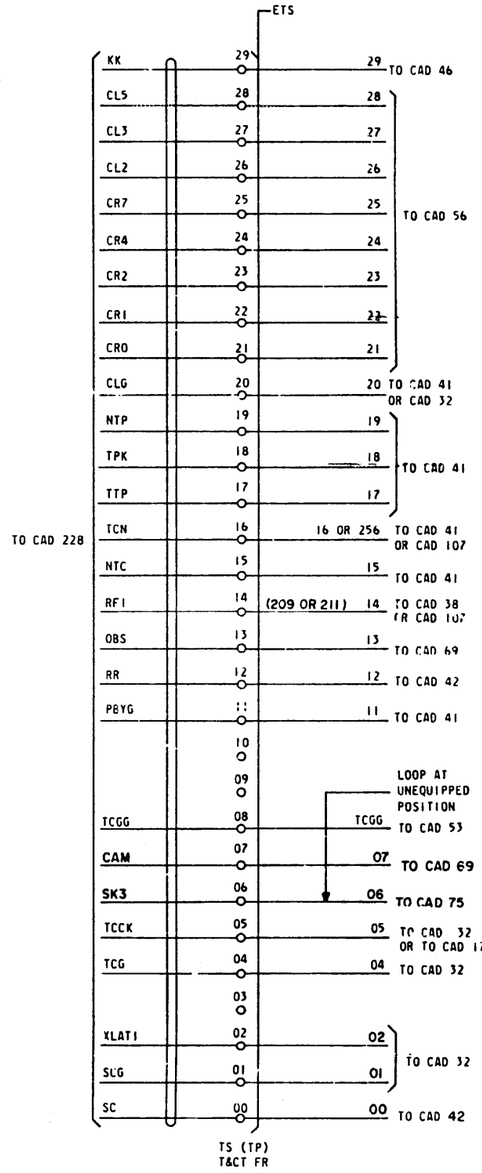


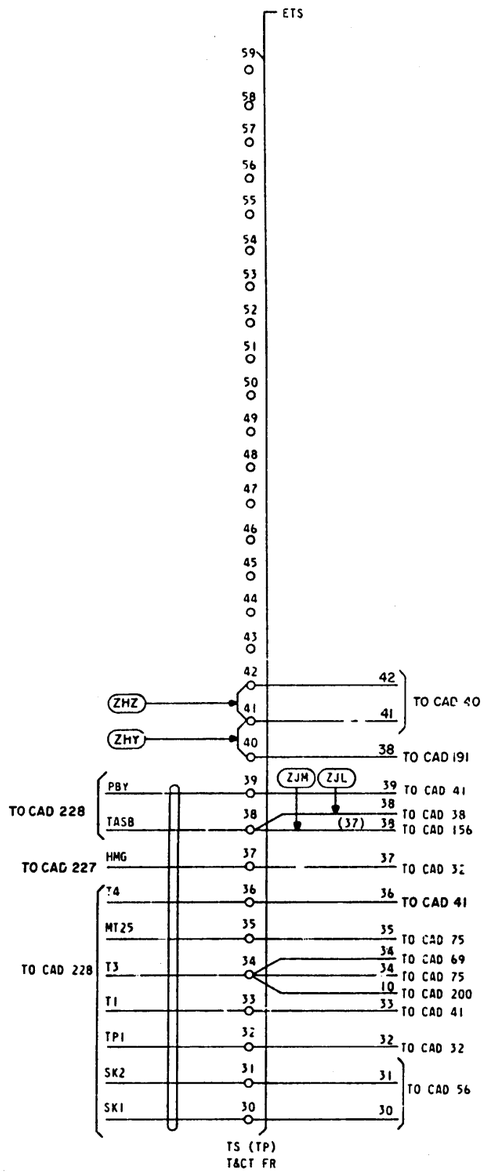




| | | |
|---|---|---|
| COMPLETING MARKER CIRCUIT | | |
| | DWG SIZE 6S | ISSUE 65B |
| BELL LABORATORIES | SD-26002-01 | G262B |

# CAD 231

SWITCHBOARD CABLE TERMINATIONS FOR ETS




| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 62A |
| BELL LABORATORIES | SD-26002-01- | | G263 |

# CAD 232

FOR SWBD CA TO CDT
(SWBD CA LEADS SHALL BE 26 GAUGE)

TO CDT APPL CKT

| | | |
|---|---|---|
| CT7 | CT7 | TO CAD 106 (MTFC-A0) |
| CT4 | CT4 | |
| CT2 | CT2 | |
| CT1 | CT1 | |
| CT0 | CT0 | |
| CKG | CKG | TO CAD 106 (MTFC-A1) |
| CGB | CGB | TO CAD 106 (MTFC-C2) |
| CGA | CGA | |
| C7 | C7 | TO CAD 106 (MTFC-B2) |
| C4 | C4 | |
| C2 | C2 | |
| C1 | C1 | |
| C0 | C0 | |
| B7 | B7 | |
| B4 | B4 | |
| B2 | B2 | |
| B1 | B1 | |
| B0 | B0 | |
| AIOD | AIOD | TO CAD 106 (MTFC-C2) |
| A7 | A7 | TO CAD 106 (MTFC-B2) |
| A4 | A4 | |
| A2 | A2 | |
| A1 | A1 | |
| A0 | A0 | |
| FNB | FNB | TO CAD 106 (MTFC-C1) |
| FNA | FNA | |
| FN | FN | TO CAD 108 |
| F7 | F7 | TO CAD 106 (MTFC-B2) |
| F4 | F4 | |
| F2 | F2 | |
| F1 | F1 | |
| F0 | F0 | |
| E7 | E7 | |
| E4 | E4 | |
| E2 | E2 | |
| E1 | E1 | |
| E0 | E0 | |
| D7 | D7 | |
| D4 | D4 | |
| D2 | D2 | |
| D1 | D1 | |
| D0 | D0 | |
| CU7 | CU7 | TO CAD 106 (MTFC-C1) |
| CU4 | CU4 | |
| CU2 | CU2 | |
| CU1 | CU1 | |
| CU0 | CU0 | |

TO CDT APPL CKT

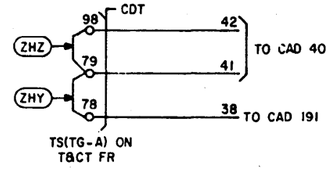
| | | |
|---|---|---|
| H7 | H7 | TO CAD 106 (MTFC-B2) |
| H4 | H4 | |
| H2 | H2 | |
| H1 | H1 | |
| H0 | H0 | |
| G7 | G7 | |
| G4 | G4 | |
| G2 | G2 | |
| G1 | G1 | |
| G0 | G0 | |
| FU7 | FU7 | TO CAD 106 (MTFC-B0) |
| FU4 | FU4 | |
| FU2 | FU2 | |
| FU1 | FU1 | |
| FU0 | FU0 | |
| FT3 | FT3 | |
| FT2 | FT2 | |
| FT1 | FT1 | |
| FT0 | FT0 | |
| FS29 | FS29 | |
| FS00 | FS00 | |
| L7 | L7 | TO CAD 106 (MTFC-B2) |
| K7 | K7 | |
| K4 | K4 | |
| K2 | K2 | |
| K1 | K1 | |
| K0 | K0 | |
| J7 | J7 | |
| J4 | J4 | |
| J2 | J2 | |
| J1 | J1 | |
| J0 | J0 | |
| ITR | ITR | TO CAD 106 (MTFC-A4) |
| HMS1 | HMS1 | TO CAD 106 (MTFC-B0) |
| HG7 | HG7 | TG CAD 106 (MTFC-B0) |
| HG4 | HG4 | |
| HG2 | HG2 | |
| HG1 | HG1 | |
| HG0 | HG0 | |
| LT | LT | TO CAD 106 (MTFC-B3) |
| LT1 | LT1 | |
| LT2 | LT2 | |
| LT3 | LT3 | TO CAD 100 (IRMC-MB) |

TO CDT APPL CKT

| | | |
|---|---|---|
| TP | TP | TO CAD 106 (MTFC-B3) |
| TBK | TBK | TO CAD 106 (MTFC-A1) |
| SOG | SOG | TO CAD 106 (MTFC-A4) |
| SMPA | SMPA | TO CAD 112A OR TO CAD 112RA |
| SMP15 | SMP15 | |
| SMP01 | SMP01 | |
| RP | RP | TO CAD 106 (MTFC-B3) |
| RK3 | RK3 | TO CAD 106 (MTFC-A1) |
| RCD1 | RCD1 | TO CAD 584 |
| RCD0 | RCD0 | |
| OC | OC | TO CAD 106 (MTFC-B0) |
| OBS | OBS | TO CAD 106 (MTFC-C3) |
| NRD1 | NRD1 | TO CAD 584 |
| NRD0 | NRD0 | |
| NOB | NOB | TO CAD 106 (MTFC-C3) |
| MTK | MTK | TO CAD 123 |
| MT | MT | |
| MBK | MBK | TO CAD 122 |
| MB | MB | |
| VG10 | VG10 | TO CAD 106 (MTFC-B0) |
| VG7 | VG7 | |
| VG4 | VG4 | |
| VG2 | VG2 | |
| VG1 | VG1 | |
| VG0 | VG0 | |
| VF4 | VF4 | |
| VF3 | VF3 | |
| VF2 | VF2 | |
| VF1 | VF1 | |
| VF0 | VF0 | |
| XII | XII | TO CAD 106 (MTFC-B3) |

# CAD 232A

STRAP ARRANGEMENT FOR CDT




TS(TG-A) ON T&CT FR

| | | | |
|---|---|---|---|
| COMPLETING MARKER CIRCUIT | | DWG SIZE 6S | ISSUE 66A |
| BELL LABORATORIES | SD-26002-01- | | G264 |

E-7481 (6-75) PRINTED IN U.S.A.

# CAD 233

(SWBD CA TO MINI-ROTL SYS)

ALI (205) ALI — TO CAD 107

ALT ALT (MTFC-T0)
ALTI ALTI (MTFC-C2)
BT BT (MTFC-B3)
CKR CKR (MTFC-A4) OR (MTC-E1)
CKRI CKRI (MTC-E1)
DIS DIS (MTFC-T0)
— TO CAD 106

ETS0 ETS0
ETS1 ETS1
— TO CAD 123

FB0 FB0 … FB19 FB19 — TO CAD 103

FB20 FB20 … FB29 FB29 — TO CAD 136C

TO MINI-ROTL INTERFACE CKT

FT0 FT0
FT1 FT1
FT2 FT2
FT3 FT3
— TO CAD 106 (MTFC-B0)

FTC0 FTC0 … FTC9 FTC9 — TO CAD 3

FTC10 FTC10 … FTC19 FTC19 — TO CAD 2

FTC20 FTC20 … FTC29 FTC29 — TO CAD 65

FU0 FU0
FU1 FU1
FU2 FU2
FU4 FU4
FU7 FU7
— TO CAD 106 (MTFC-B0)

GPA GPA
GPB GPB
— TO CAD 106 (MTFC-C3)

HG0 HG0
HG1 HG1
HG2 HG2
HG4 HG4
HG7 HG7
— TO CAD 106 (MTFC-B0)

HT0 HT0
HT1 HT1
HT2 HT2
HT4 HT4
HT7 HT7
— TO CAD 106 (MTFC-B3)

LLPT (00) LLPT — TO CAD 154

LTG LTG (MTFC-CONT)
MRL MRL (MTFC-C2)
— TO CAD 106

MT5A MT5A TS(CG)ON CE FR MT5A — TO CAD 13

TO MINI-ROTL INTERFACE CKT

MT10 (380) MT10
MT25 (538) MT25
— TO CAD 108

MT26 MT26 — TO CAD 123
MT57 MT57 — TO CAD 160(MTFC-T1)
MT57A (132) MT57A — TO CAD 123
NDT NDT — TO CAD 106(MTFC-C0)

NGTA NGTA
NGTB NGTB
NGTC NGTC
NGTC NGTD
NGTE NGTE
NGTF NGTF
NGTG NGTG
NGTH NGTH
— TO CAD 128A

NTLS NTLS
OTS0 OTS0
OTS1 OTS1
— TO CAD 123

OTT OTT (MTFC-C0)
RA RA (MTFC-C1)
SB SB (MTFC-T0)
— TO CAD 106

SLB SLB — TO CAD 123

TB TB
TBT TBT
— TO CAD 106 (MTFC-T0)

THT0 THT0
THT1 THT1
— TO CAD 106 (MTFC-B3)

THT2 THT2
THT3 THT3
— TO CAD 106 (MTFC-T1)

TNGA TNGA — TO CAD 123

TR2 TR2
TRK TRK
— TO CAD 100 (MTFC-M0)

TRL TRL — TO CAD 106(MTFC-C1)

TSE2 TSE2
TSE1 TSE1
ZFZ ZFY 41
TS(CG) ON CE FR
— TO CAD 106 (MTC-T0); TO CAD 13

TO MINI-ROTL INTERFACE CKT

TT0 TT0
TT1 TT1
TT2 TT2
TT4 TT4
TT7 TT7
— TO CAD 106 (MTFC-B3)

TTA0 TTA0 … TTA19 TTA19 — TO CAD 123

TTG TTG — TO CAD 106 (MTFC-C0NT)

UT0 UT0
UT1 UT1
UT2 UT2
UT4 UT4
UT7 UT7
— TO CAD 106 (MTFC-B3)

VF0 VF0
VF1 VF1
VF2 VF2
VF3 VF3
VF4 VF4
VG0 VG0
VG1 VG1
VG2 VG2
VG4 VG4
VG7 VG7
VG10 VG10
— TO CAD 106 (MTFC-B0)

COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 65B |

BELL LABORATORIES | SD-26002-01- | G265

# CAD 234

SWBD CA TO EXPANDED OPERATIONAL TRK TST
AND REMOTE TRK MAKE BUSY CKT

TO
EXPANDED OPERATIONAL
TRK TEST & REMOTE
TRK MAKE BUSY CKT

AMA (57) AMA
TVT (241) TVT — TO CAD 108
SCC (239) SCC
SCC1 SCC1/39 SCC1 — TO CAD 13

TS (CD-F)
COM EQPT FR

COMPLETING MARKER CIRCUIT

| | | |
|---|---|---|
| BELL LABORATORIES | SD-26002-01- | G266 |
| | DWG SIZE 6S | ISSUE 69B |

## CAD 500 (MFR DISC.)
(FOR APP FIG. 100)

7 G29 54M
G05 10M
G04 04M
G00 00M
(GR7) REL

6 G29 54M
G05 10M
G04 04M
G00 00M
(GR6) REL

5 G29 54M
G05 10M
G04 04M
G00 00M
(GR5) REL

4 G29 54M
G05 10M
G04 04M
G00 00M
(GR4) REL

TO CAD 165C

3 G29 54M
G05 10M
G04 04M
G00 00M
GR3) REL

2 G29 54M
G05 10M
G04 04M
G00 00M
(GR2) REL

1 G29 54M
G05 10M
G04 04M
G00 00M
(GR1) REL

0 G29 54M
G05 10M
G04 04M
G00 00M
(GR0) REL

TO CAD 162 (RM BAT.) H4 8 (GR7) REL
07 (GW7) T
TO CAD 175
06 T (GR6) REL
05 T (GR5) REL
04 T (GR4) REL
03 T (GR3) REL
02 T (GR2) REL
01 T (GR1) REL
00 (GW0) T (GR0) REL

GC59 54 54
GC35 10 10
GC34 04 04
GC30 00 00
TS(GRR)
STRAP WIRE MULT THRU REL (GR4-7)

TO CAD 165D

GC29 54 54
GC05 10 10
GC04 04 04
GC00 00 00
TS (GRL)
STRAP WIRE MULT THRU REL (GR0-3)

## CAD 501
(FOR APP FIG. 101)

TO CAD 108
483 1
482 4
481 2M
480 2
769 6B
768 6

TO CAD 105 11 5 (TOG3) REL

TO CAD 106
11 5B
10 10B

TO CAD 105
10 10
3 10M
2 5M

13 9

TO CAD 105 (OSC-MC2)
13 9B
12 8
12 8B

TO CAD 106 (MTFC-AO)
LOOP AT UNEQUIPPED POS

| DRAWING ISSUE | | |
|---|---|---|
| 23A | EN | CLK |
| 24D | EN | CLK |
| 30D | RN | |
| 35D | | KWL |
| 36A | | |
| 37D | | |
| 38A | | |
| 450 | | |

CB
CB
C9

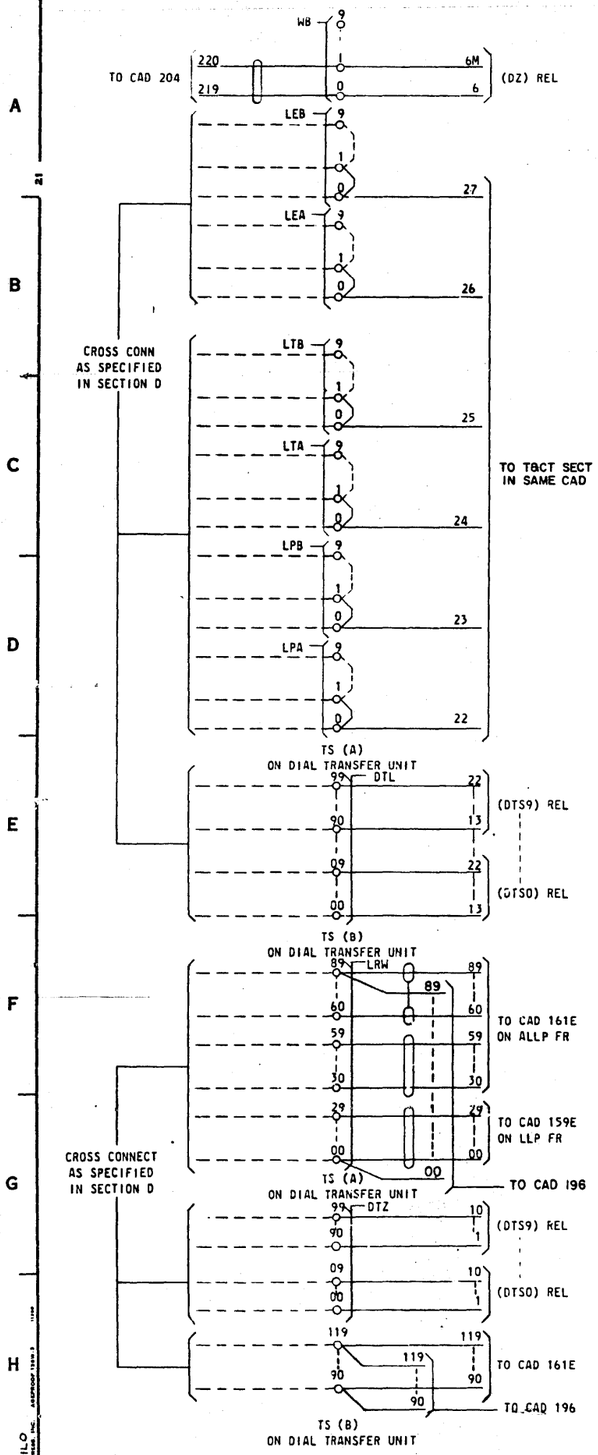
ISSUE 57B

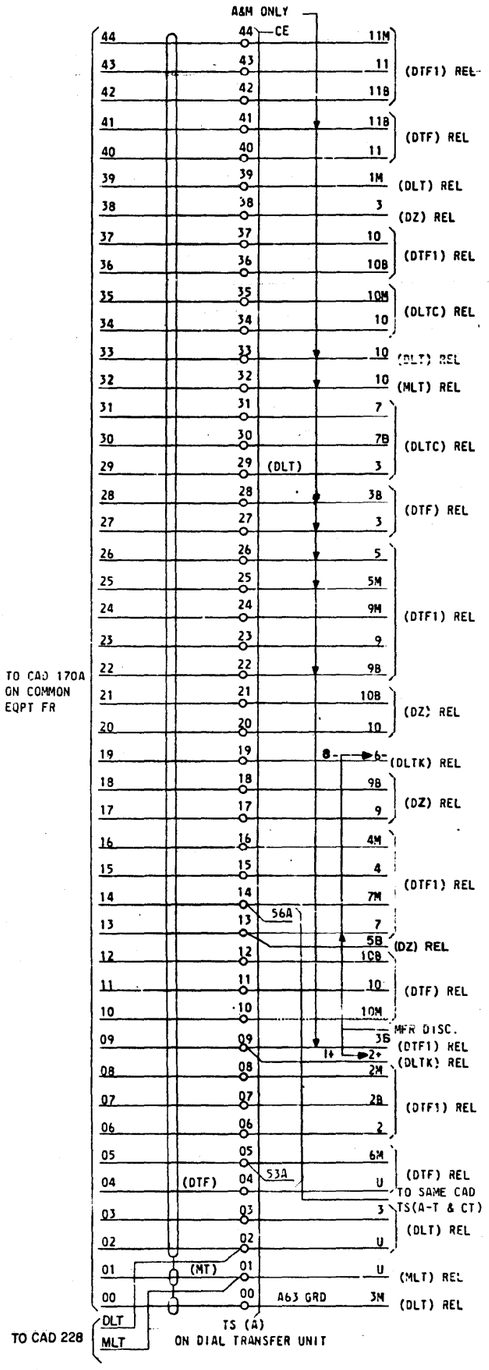
COMPLETING MARKER CIRCUIT (2)
SD-26002-01-6301
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S
PRINTED IN U.S.A.

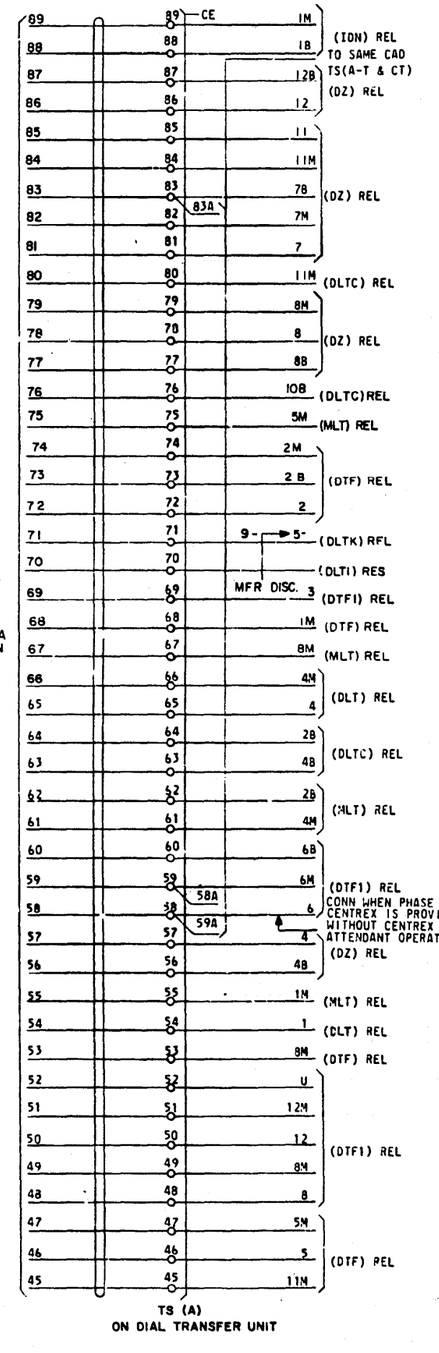
STABILO
K&E

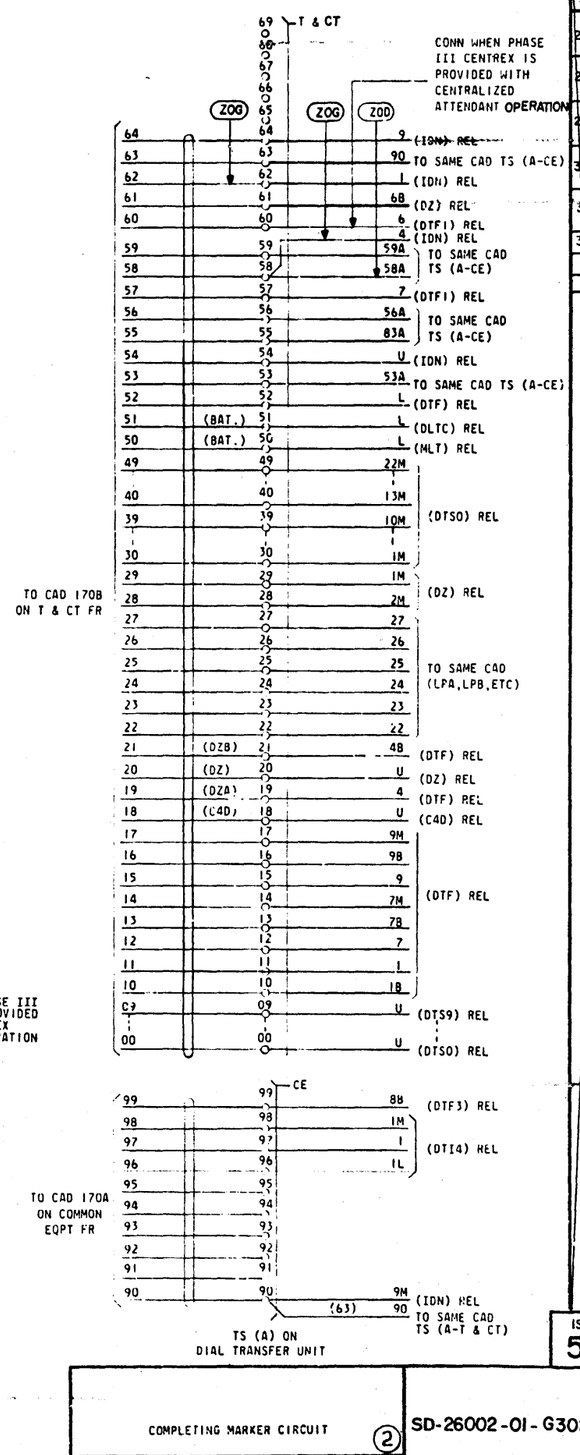
# PART OF CAD 502

(FOR APP FIG. 102)




DRAWING ISSUE

| | |
|---|---|
| 25D | DEC 1974 |
| 27A | MAY 1975 |
| 29A | MAR 1976 |
| 33D | NOV 1976 |
| 35D | MAR 1977 |
| 39D | |
| 41D | |
| 43D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G302

BELL TELEPHONE LABORATORIES INCORPORATED

6S

PRINTED IN U.S.A.

SD-26002-01-G302

STABILO BELLE PRAIRIE INC.

# CAD 503

(FOR APP FIG. 103) CE FRAME

820 — 11M (ALNI) REL — LOOP AT UNEQUIPPED POS

397 — 7
596 — 7B
595 — 10
594 — 10B
TO CAD 109 — 593 — 9 (ALN) REL
592 — 9B
542 — 1B
541 — 1
291 — 3
TO CAD 214 — 558 — 3B
157 (GN) — U (GN) REL
156 (BLTL) — 6
155 — 10M (ALN) REL
154 — 9M
TO CAD 154 — 151 — 6 (GN) REL
149 — 1M
148 — 11 (ALN) REL
147 — 11B
TO CAD 24 — BTI — 6B (GN) REL
54 — 2M
53 — 2
TO CAD 171 — 49 — 12M (GN) REL
45 — 1M
44 — 1
TO CAD 170A — 38 — 4M (MFR DISC.)
TO CAD 106 (MTFC-B5) — 33 (ALN) — U
32 — 2B
TO CAD 171 — 19 — 5M (ALN) REL

CONN WHEN PHASE III CENTREX IS PROVIDED WITH CENTRALIZED ATTENDANT OPERATION

20 — 10B
TO CAD 170A — 17 — 8B
TO CAD 154 — 208 — 4 (GN) REL
TO CAD 108 — 386 — 8
TO CAD 114 — 55 — 3
54 — 3M
TO CAD 108 — 278 — 2M
TO CAD 154 — 162 — 9
161 — 9M (ALNI) REL
160 — 9B
TO CAD 171 — 92 — 1M
TO CAD 154 — 200 (EGN) — U
TO CAD 113 — 100 — 8B
78? — 9 (EGN) REL
TO CAD 108 — 556 — 8M
794 — 4M

# PART OF CAD 504

(FOR APP FIG 104)

TO CAD 228 BRAL

34 — 34 CE — 10M (BLT) REL
33 — 33 — 9M
32 — 32 — 12M (BLTL) REL
31 — 31 — 12
30 — 30 — 1M (BLT) REL
29 — 29 — 5M (RNH) REL
28 — 28 — 5
27 — 27 — 12M (BLTR) REL
26 — 26 — 2B
25 — 25 — 2
24 — 24 — 7
23 — 23 — 8 (BRA) REL
22 — 22 — 8B
21 — 21 — 6B
20 — 20 — 6 (BRB) REL
19 — 19 — 6M
TO CAD 171 (COM EQPT) — 18 — 18 — 3
17 — 17 — 3B (RNH) REL
16 — 16 — 2
15 — 15 — 8M (BLTR) REL
14 — 14 — 8
13 — 10F (BRB) REL
12
11 — 11 — 4M
10 — 10 — 4 (RNH) REL
09 — 09 — 8 (BRB) REL
08 — 08 — 4 (BRA) REL
07
06
05
04 — MFR DISC. 1+ → 2+
03 — 03 — (DATK) REL
02 — 02 — 4H (DAT) REL
01 — 01 — 8- → 6- (DATK) REL
00 — 00 — (BAT.) L (BLSO) REL

TS(A) ON BLDA TRANSFER UNIT

TO CAD 228 BRAI

79 — 79 CE — 10M
(BLSO) REL
70 — 70 — 1M
69 — 69 — U (BLS9) REL
60 — 60 — U (BLSO) REL
59 — 59 — U (RNH) REL
58 — 58 — 2M
57 — 57 — 2
56 — 56 — 2B
55
TO CAD 171 (COM EQPT) — 54 — 54 — 5M (BLTL) REL
53 — 53 — 5B
52 — 52 — 5
51 — 51 — 4B
1 (RNH) REL
50 — 50 — 4
49 — 49 — 4M (BLTL) REL
48 — 48 — 7
(MFR DISC.)
47 — 47 — 1 (BLTR) REL
46 — 46 — U (BRA) REL
45 — 45 — 3M (BLTL) REL
44 — 44 — U (BLTR) REL
(MFR DISC.) 5 → 7
43 — 43 — (DATK) REL
42 — 42 — 2 (DAT) REL
41 — 41 — U (BLT) REL
40 — 40 — U (BLDA) REL
39 — 39 — U
38 — 38 — 12M (DAT) REL
37 — 37 — 10
36 — 36 — 10B (BLT) REL
35 — 35 — 9 (DAT) REL

TS(A) ON BLDA TRANSFER UNIT

TO CAD 171 (COM EQPT)

99 — 99 CE (466 GRD) 11 — (BLTL) REL
98
97 — 97 — 9
96 — 96 — 3B (BLTL) REL
95 — 95 — 3
94
93
92 — 92 — 8B
91 — 91 — 8 (BLTR) REL
90
89
88
87
86
85 — 85 — 6B
84 — 84 — 4B (BLTR) REL
83 — 83 — 4
82 — 82 — (BAT.) L (BLDA) REL
81 — 3 (BRA) REL
80 — 3M (BLTL) REL

TS(A) ON BLDA TRANSFER UNIT

DRAWING ISSUE

| | |
|---|---|
| 25D | |
| 27A | |
| 29A | |
| 32 | |
| 33D | |
| 34A | |
| 37D | |
| 39D | |
| 40A | |
| 41D | |

ISSUE 57B

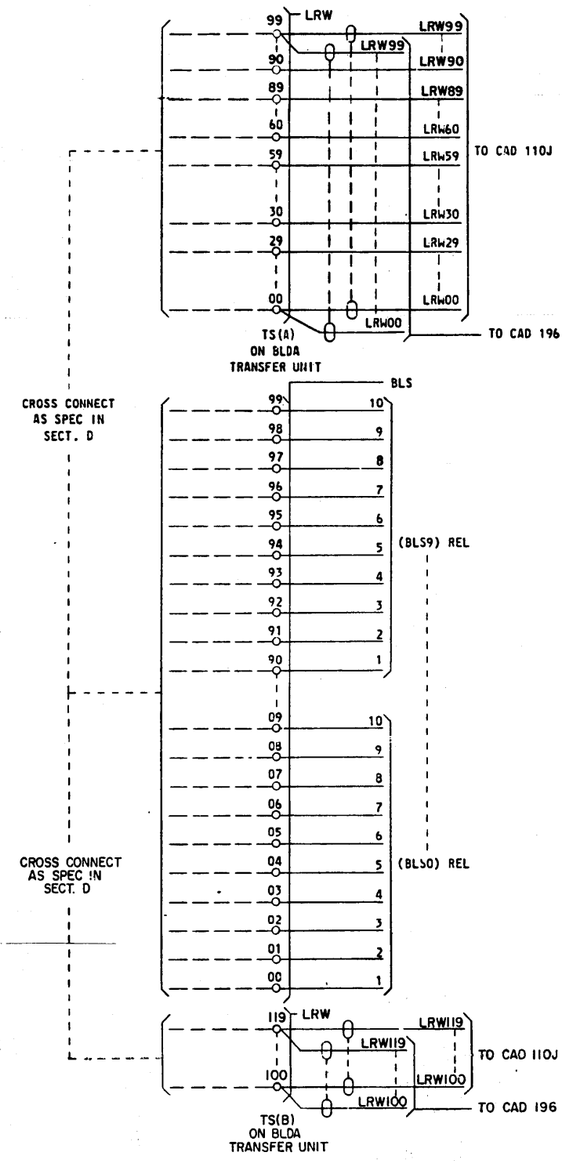
COMPLETING MARKER CIRCUIT (2) — SD-26002-01-G303

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

STAGILO

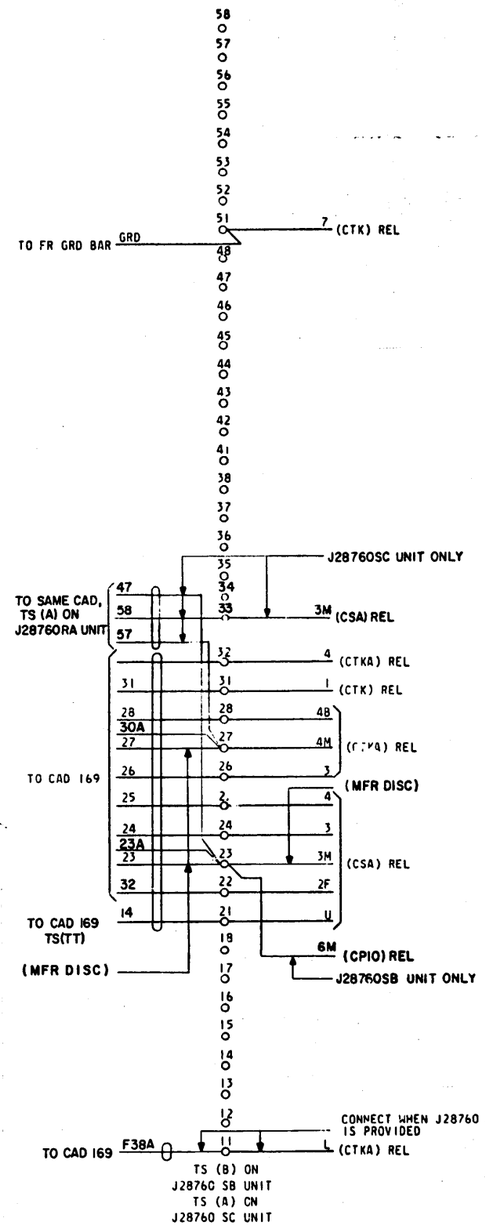
# PART OF CAD 504

(FOR APP FIG. 104)




# PART OF CAD 505

(FOR APP FIG. 105)




| DRAWING ISSUE | |
|---|---|
| 25D | 1A |
| 35D | KWL |
| 39D | DM |
| 41D | |
| 44A | |

44

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G304

BELL TELEPHONE LABORATORIES INCORPORATED

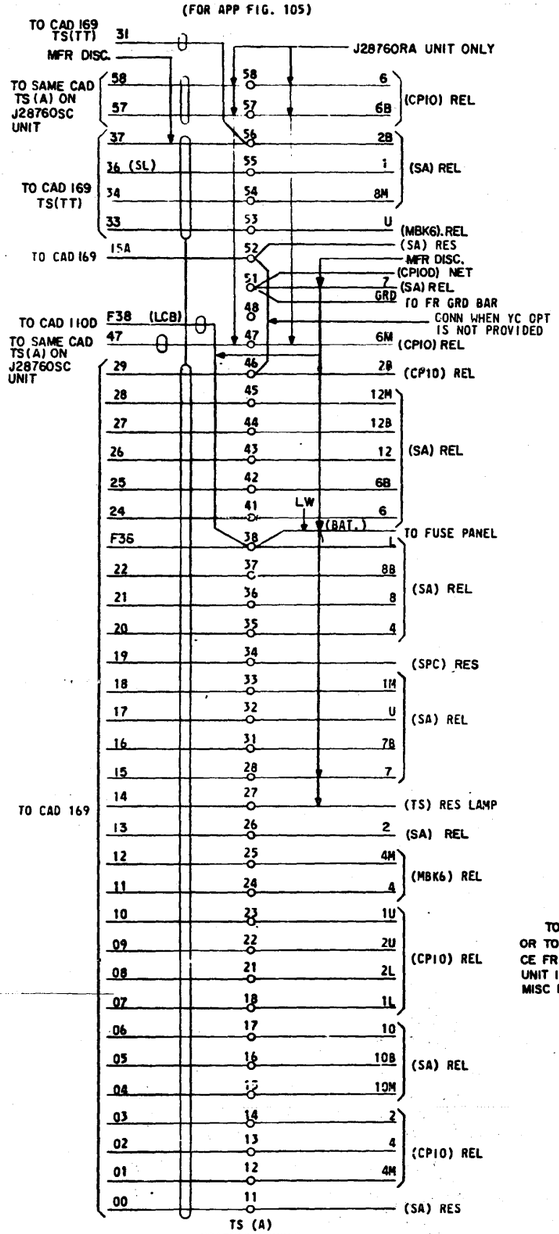
6S

SD-26002-01-G304

STABILO

# PART OF CAD 505

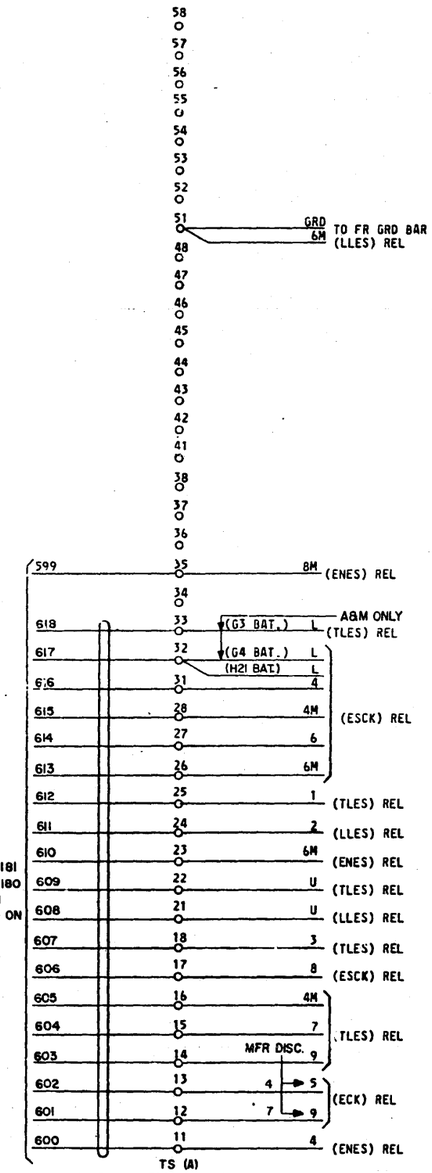
(FOR APP FIG. 105)




TS (A)
TRAFFIC SAMPLE CONTROL UNIT
ON J2876ORA UNIT (MFR DISC)
OR J2876OSB UNIT

# CAD 506

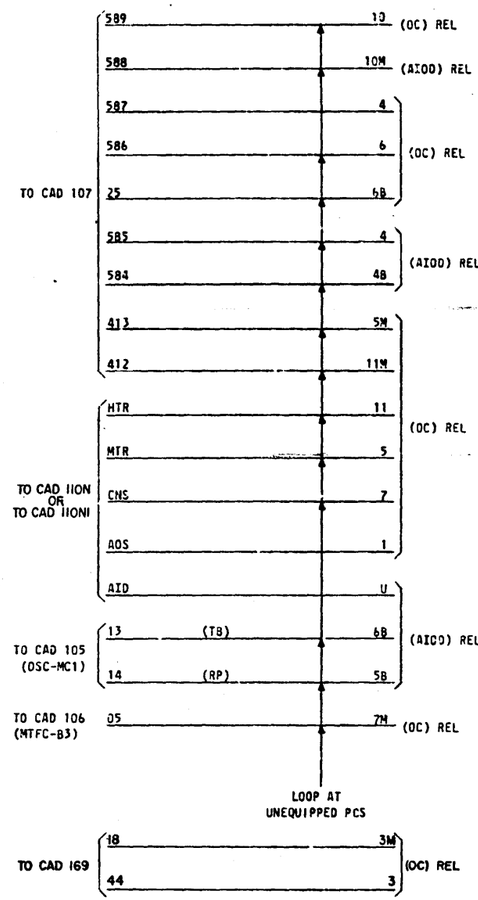
(FOR APP FIG. 106)




TS (A)
ON 2W UNIVERSAL PAD CONTROL AND 4W ECHO SUPPRESSOR CONTROL UNIT

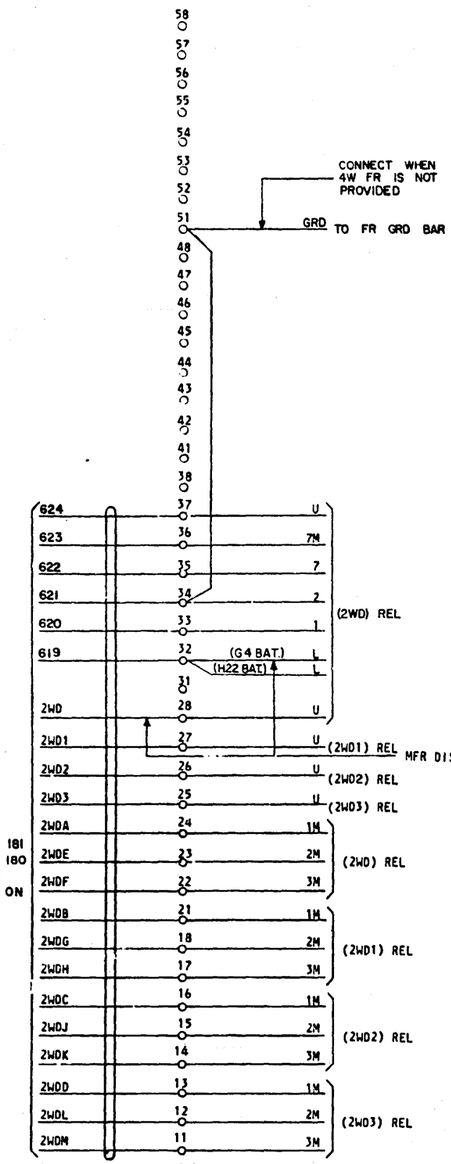
# CAD 507

(FOR APP FIG. 107)




# CAD 508

(FOR APP FIG. 108)




TS (A)
ON 2W UNIVERSAL PAD CONTROL AND 4W ECHO SUPPRESSOR SCREENING UNIT

| DRAWING ISSUE | |
|---|---|
| 25D | |
| 27A | |
| 30D | |
| 31D | |
| 33D | |
| 34A | |
| 35D | |
| 37D | |
| 39D | |
| 41C | |
| 44A | |

ISSUE 51D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G305

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

STABILO

SD-26002-01-G305

# CAD 509

FOR APP FIG. 109

| DRAWING ISSUE | | |
|---|---|---|
| 25D | FMC | RM AM |
| 35D | LP | TM AM |

DRAWING REFURBISHED WITHOUT CHANGE 10-1-68

CB

58 57 56 55 54 53 52 51 48 47 46 45 44 43 42 41

| | | | |
|---|---|---|---|
| 23 | 38 | 3 | |
| 22 | 37 | 2 | (TCGB) REL |
| 21 | 36 | 1 | |
| 28 | 35 | 4M | |
| 27 | 34 | 4B | (TCGA) REL |
| 26 | 33 | 4B | (TCGB) REL |
| 25 | 32 | 4 | (TCGA) REL |
| 24 | 31 | 4 | (TCGB) REL |
| 15 | 28 | 4B | |
| 14 | 27 | 1 | (CU9) REL |
| 13 | 26 | 1 | (CU8) REL |
| 20 | 25 | 3 | |
| 19 | 24 | 1 | |
| 18 | 23 | 1M | (TCGA) REL |
| 17 | 22 | 2 | |
| 16 | 21 | 2M | |
| 07 | 18 | 1 | (CU2) REL |
| 06 | 17 | 1 | (CU1) REL |
| 05 | 16 | 1 | (CU0) REL |
| 12 | 15 | 1 | (CU7) REL |
| 11 | 14 | 1 | (CU6) REL |
| 10 | 13 | 1 | (CU5) REL |
| 09 | 12 | 1 | (CU4) REL |
| 08 | 11 | 1 | (CU3) REL |

TO CAD 172

(A&M ONLY)

TS (A)
ON CENTREX CLASS UNIT

58 57 56 55 54 53 52 51 48 47 46 45 44 43 42 41

TO CAD 102 (LLC-MB1)

| | | | |
|---|---|---|---|
| 54 | 46 | (CS29) U | (CU9) REL |
| 53 | 45 | (CS28) U | (CU8) REL |
| 52 | 44 | (CS27) U | (CU7) REL |
| 51 | 43 | (CS26) U | (CU6) REL |
| 50 | 42 | (CS25) U | (CU5) REL |
| 44 | 41 | (CS24) U | (CU4) REL |
| 43 | 38 | (CS23) U | (CU3) REL |
| 42 | 37 | (CS22) U | (CU2) REL |
| 41 | 36 | (CS21) U | (CU1) REL |
| 40 | 35 | (CS20) U | (CU0) REL |
| TRT19 | 34 | 11M | (CU9) REL |
| TRTI8 | 33 | 11M | (CU8) REL |
| TRTI7 | 32 | 11M | (CU7) REL |
| TRTI6 | 31 | 11M | (CU6) REL |
| TRTI5 | 28 | 11M | (CU5) REL |
| TRTI4 | 27 | 11M | (CU4) REL |
| TRTI3 | 26 | 11M | (CU3) REL |
| TRTI2 | 25 | 11M | (CU2) REL |
| TRTI1 | 24 | 11M | (CU1) REL |
| TRT10 | 23 | 11M | (CU0) REL |
| TRT09 | 22 | 12M | (CU9) REL |
| TRTO8 | 21 | 12M | (CU8) REL |
| TRTO7 | 18 | 12M | (CU7) REL |
| TRTO6 | 17 | 12M | (CU6) REL |
| TRTO5 | 16 | 12M | (CU5) REL |
| TRTO4 | 15 | 12M | (CU4) REL |
| TRTO3 | 14 | 12M | (CU3) REL |
| TRTO2 | 13 | 12M | (CU2) REL |
| TRTO1 | 12 | 12M | (CU1) REL |
| TRTO0 | 11 | 12M | (CU0) REL |

TO CAD 109

TS (B)
ON CENTREX CLASS UNIT

58 57 56 55 54 53 52 51 48 47 46 45 44 43 42 41 38 37 36 35 34 33 32 31 28 27 26 25 24 23 22 21 18 17 16 15 14 13 12 11

| | | | |
|---|---|---|---|
| TO CAD 228 TCGG | 57 | 5 | (CGB1) REL |
| TO CAD 172 30 | 51 (A68 GRD) | 8 | (TCGA) REL |

| | | | |
|---|---|---|---|
| 04 | 15 | -4 | (CGB1) REL |
| 03 | 14 | -4 | (CGA1) REL |
| TO CAD 172 02 | 13 | U | (TCGB) REL |
| 01 | 12 | U | |
| 00 | (G34 BAT) 11 | L | (TCGA) REL |

TS (C)
ON 2-WIRE UNIVERSAL
PAD CONTROL AND
CENTREX CLASS UNIT

ISSUE 593

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G306

BELL TELEPHONE LABORATORIES INCORPORATED

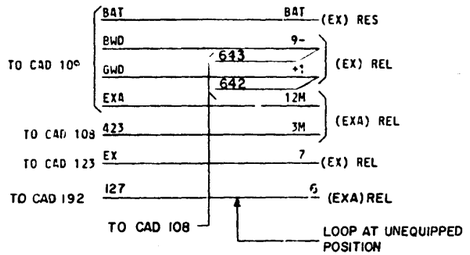
PROJECT 6S

SD-26002-01-G306

STARLO

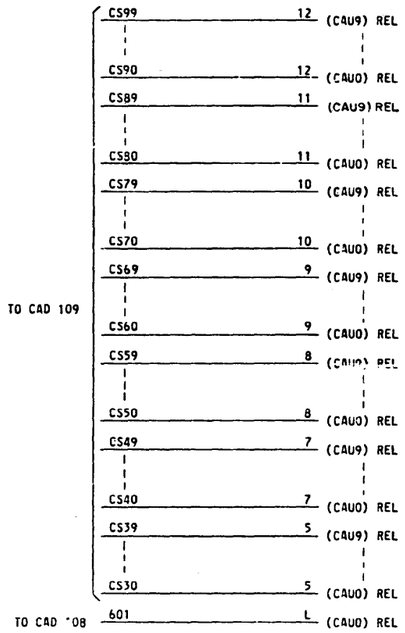
# CAD 510

(FOR APP FIG. 110)



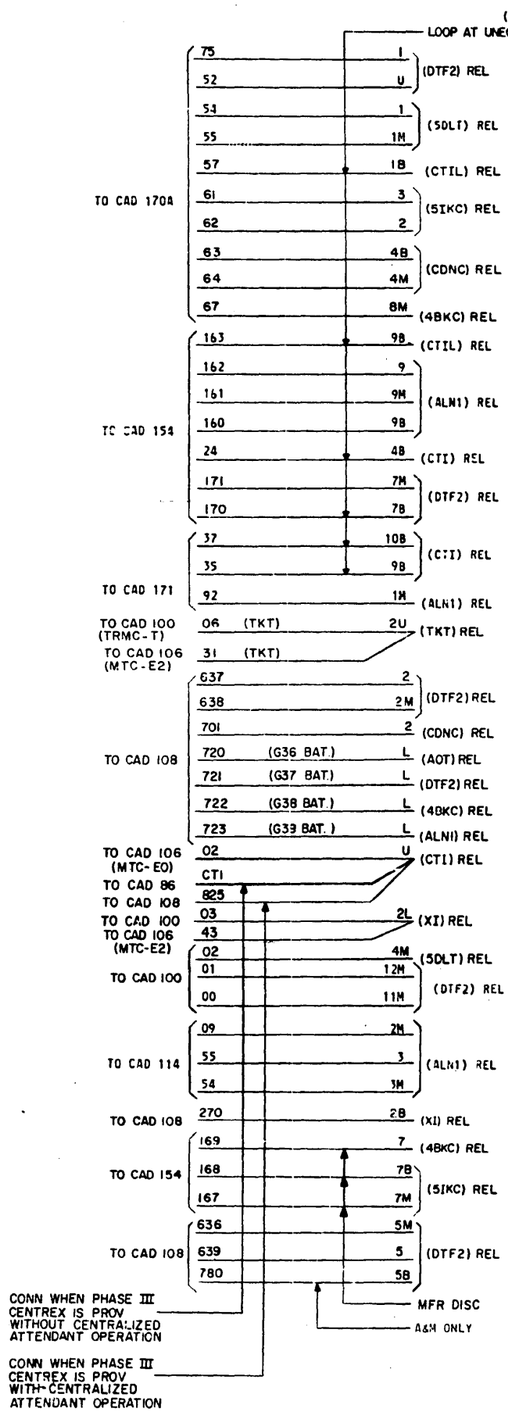

# CAD 511

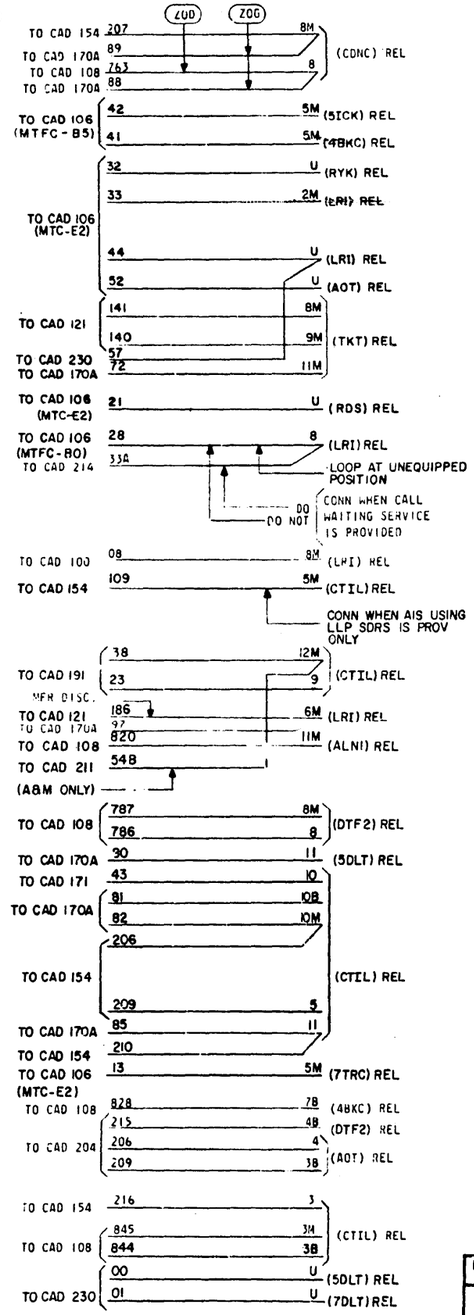
(FOR APP FIG. 111)




# CAD 512

(FOR APP FIG. 112)




DRAWING ISSUE

57B

COMPLETING MARKER CIRCUIT

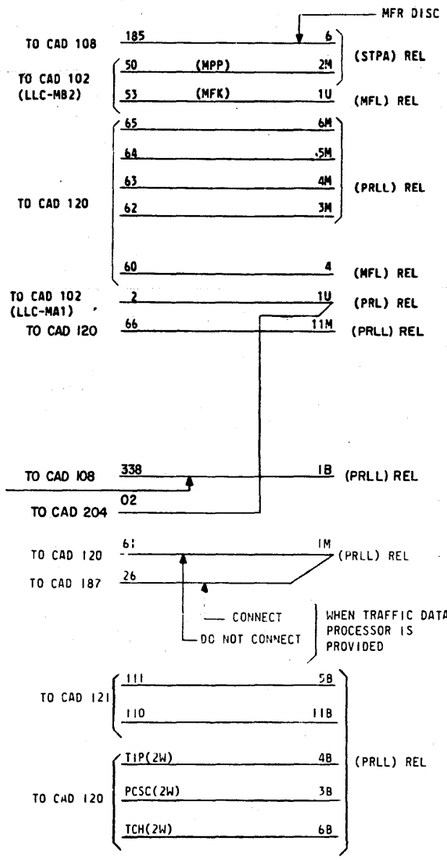
SD-26002-01-G307

BELL TELEPHONE LABORATORIES INCORPORATED

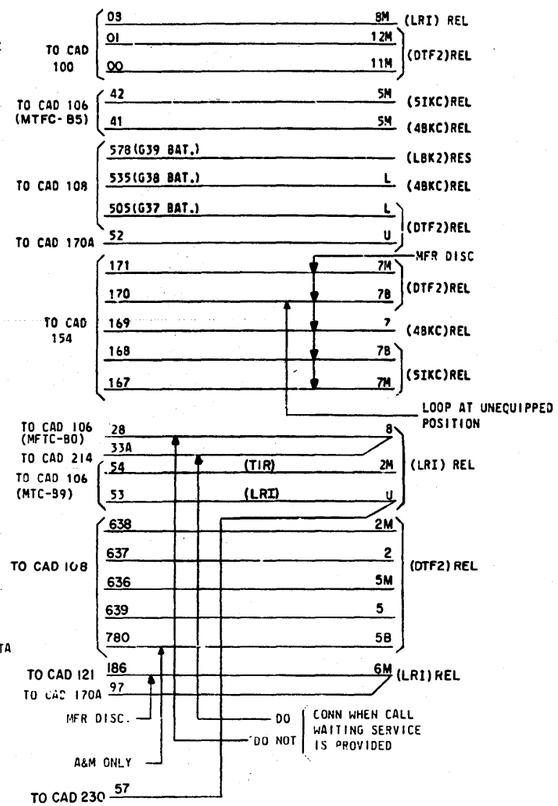
6S

STARILO

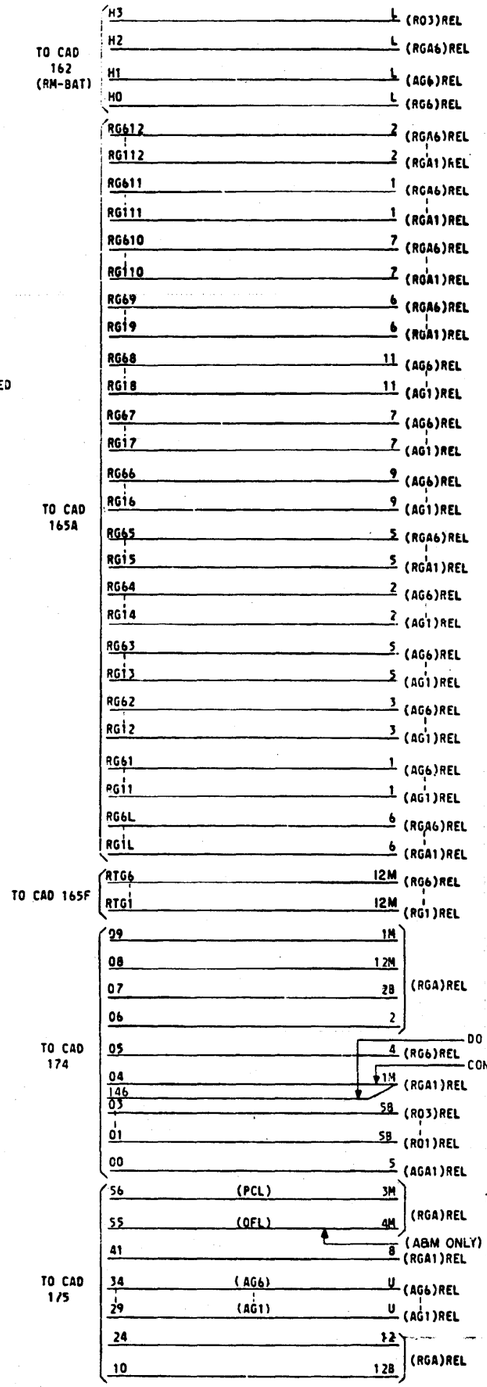
# CAD 513
(FOR APP FIG. 30,113)




# CAD 514 (A & M ONLY)
(FOR APP FIG. 114)




# CAD 515 (MFR DISC.)
(FOR APP FIG. 115)




DRAWING ISSUE
57B

COMPLETING MARKER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-G308

SD-26002-01-G308

# CAD 516 (MFR DISC.)

FOR APP FIG. 116

| | | |
|---|---|---|
| NSS | 6 | (NSS) REL |
| PGA14 | 1 | (PG14) REL |
| PGA00 | 1 | (PG00) REL |
| PGB14 | 2 | (PG14) REL |
| PGB00 | 2 | (PG00) REL |
| PGC14 | 3 | (PG14) REL |
| PGC00 | 3 | (PG00) REL |
| PGD14 | 4 | (PG14) REL |
| PGD00 | 4 | (PG00) REL |
| PGE14 | 5 | (PG14) REL |
| PGE00 | 5 | (PG00) REL |
| PGF14 | 6 | (PG14) REL |
| PGF00 | 6 | (PG00) REL |
| PGG14 | 7 | (PG14) REL |
| TO CAD 147A | | |
| PGG00 | 7 | (PG00) REL |
| PGH14 | 8 | (PG14) REL |
| PGH00 | 8 | (PG00) REL |
| PGJ14 | 9 | (PG14) REL |
| PGJ00 | 9 | (PG00) REL |
| PGK14 | 10 | (PG14) REL |
| PGK00 | 10 | (PG00) REL |
| PGL14 | 11 | (PG14) REL |
| PGL00 | 11 | (PG00) REL |
| PGM14 | 12 | (PG14) REL |
| PGM00 | 12 | (PG00) REL |
| PGR4 | 12M | (PG00) REL |
| PGR3 | 11M | |
| PGR2 | 10M | |
| PGR1 | 8M | |

| | | |
|---|---|---|
| PRA4 | 6 | (PRE4) REL |
| PRA0 | 6 | (PRE0) REL |
| TO CAD 147A | | |
| PRB4 | 12 | (PRE4) REL |
| PRB3 | 6 | (OTTA) REL |
| PRB0 | 3 | |
| CKG3 | 23 | (CKG3) REL |
| G | 23M | |
| PG14 | U | (PG14) REL |
| TO CAD 147B | | |
| PG00 | U | (PG00) REL |
| PRE4 | U | (PRE4) REL |
| PRE0 | U | (PRE0) REL |
| 08 | 20 | (CKG3) REL |
| 40 | 18 | |
| 41 | 19 | |
| 42 | 16 | |
| 43 | 15 | |
| 55 | 21 | |
| TO CAD 166 | | |
| 56 | 22 | |
| 57 | 21M | |
| 98 | 22M | (A&M ONLY) |
| 66 | 7 | (PRE4) REL |
| 62 | 7 | (PRE0) REL |
| 00 | U | (CKG3) REL |
| 31 | 17 | |
| 32 | U | (MT39)REL |
| 33 | 8M | (PRE4) REL |
| TO CAD 177 | | |
| 34 | 9 | |
| 35 | 11M | |
| 36 | 11B | |
| 45 | U | (OTTA) REL |
| 01 | 7 | (CKG3) REL |
| 02 | 5M | (PG00) REL |
| 03 | 3M | |
| 70 | 5 | (PRE0) REL |
| 74 | 5 | (PRE4) REL |
| TO CAD 179 | | |
| 75 | 5M | (PRE0) REL |
| 92 | 6 | (CKG3) REL |
| H-23 BAT. | | (XPRE) LAMP |
| H-26 BAT. | | (XCOS) LAMP |

| | | |
|---|---|---|
| TO CAD 180 | | |
| 00 | 10 | (PRE0) REL |
| 01 | 11 | |
| 02 | 11M | |
| 03 | 11B | |
| 04 | 10 | (PRE1) REL |
| 05 | 11 | |
| 06 | 10 | (PRE2) REL |
| 07 | 10 | (PRE3) REL |
| 08 | 11 | |
| 09 | 11B | |
| 10 | 10 | (PRE4) REL |
| 11 | 8 | |
| 12 | 9B | |
| 13 | 11 | |
| 23 | 11M | (PRE3) REL |
| 31 | 2 | (PRE4) REL |
| 30 | 2B | |

| DRAWING ISSUE | | |
|---|---|---|
| 30D | JAS GDL AND | CB |
| 32A | CLS GDL AND | CB |
| 35D | LF TMA AND | CB |
| 39D | LF | CB |
| 40A | | CB |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G309

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET NO. 6S

# CAD 517 (MFR DISC.)

FOR APP FIG. 117

| | | | |
|---|---|---|---|
| | CDA4P | 1U | (CDA4) REL |
| | CDA0P | 1U | (CDA0) REL |
| | CDA4S | 2U | (CDA4) REL |
| | CDA0S | 2U | (CDA0) REL |
| TO CAD 1478 | CDB4P | 1U | (CDB4) REL |
| | CDB0P | 1U | (CDB0) REL |
| | CDB4S | 2U | (CDB4) REL |
| | CDB0S | 2U | (CDB0) REL |
| | SG | U | (SG) REL |
| | VG | U | (VG) REL |
| | 59 | 1 | (VG) REL |
| TO CAD 166 | 60 | 1 | (SG) REL |
| | 61 | 1M | (VG) REL |
| TO CAD 101 | 33 | | |
| | 01 | 4 | |
| | 02 | 6 | (XCDA) REL |
| | 03 | 8M | |
| | 04 | U | MFR DISC |
| | 05 | 7 | |
| | 06 | 4 | (CPNT) REL |
| | 07 | 4M | |
| TO CAD 177 | 08 | 12M, 6M | |
| | 09 | U | (TER3) REL |
| | 10 | 6 | |
| | 11 | 6M | (SG) REL |
| | 12 | 7 | |
| | 13 | 7B | |
| | 37 | 3M | (TER3) REL |
| | 00 | 4 | (CDT1) REL — LOOP AT UNEQUIPPED POS |
| | 05 | U | (CDT4) REL |
| | 26 | 4 | (CDA1) REL |
| | 27 | 4 | (CDA0) REL |
| TO CAD 179 | 28 | 8 | (CDA1) REL |
| | 29 | 8 | (CDA0) REL |
| | 30 | 10 | |
| | 31 | 1 | (CDA) CPNT ASSY |
| | 32 | U | (CDT3) REL |
| | 43 | 9B | |
| TO CAD 177 | 44 | 9 | (TER3) REL |
| | 47 | 8 | |
| | 17 | 2 | |
| | 16 | 1 | |
| | 59 | 11, 10 | (CPNT) REL |

| | | | |
|---|---|---|---|
| | 65 | 2M | (TNAN) REL |
| | 64 | 4M | (RCTS) REL |
| | 63 | 4M | |
| | 41 | 2 | (IPRS) REL |
| | 40 | 2M | |
| | 34 | 8 | (CD80) REL |
| | 35 | 4 | (CD82) REL |
| | 36 | 4 | (CD80) REL |
| | 37 | 8 | (CD81) REL |
| | 38 | 10 | (CD80) REL |
| | 45 | U | |
| | 50 | 2 | (RCTS) REL |
| | 51 | 2M | |
| | 53 | 6M | (IPRS) REL |
| TO CAD 179 | 56 | 7 | (TNAN) REL |
| | 57 | 9B | (RCTS) REL |
| | 60 | 11M | |
| | 66 | 11 | (TER3) REL |
| | 67 | 12 | |
| | 69 | 12M | |
| | 78 | U | (CDT2) REL |
| | 79 | U | (CDT1) REL |
| | 101 | 5 | (RCTS) REL |
| | 102 | 5B | MFR DISC (IPRS) REL |
| | 103 | 12, 6 | |
| | 104 | 8B | (CPNT) REL |
| | H-25 BAT | 1L | (XCDB) REL |
| | H-29 BAT. | 2L | |
| | H-40 BAT. | L | LOOP AT UNEQUIPPED POS |
| | 14 | 2M | |
| | 15 | 1M | |
| | 16 | 3 | |
| | 17 | 5 | |
| | 18 | 5M | |
| | 19 | 5B | |
| | 20 | 7B | |
| TO CAD 180 | 24 | 6B | (TER3) REL |
| | 29 | 3B | |
| | 32 | 8M | |
| | 33 | 10 | |
| | 34 | 10B | |
| | 23 | 8M | (IPRS) REL |
| | 21 | 9B | |
| TO CAD 106 (MTC-D2) | 51 | 9M | (TER3) REL |
| TO CAD 179 | 59 | 10 | |
| | 54 | 8 | (IPRS) REL |
| | 58 (IPRS) | U | |
| TO CAD 166 | 53 | 4B | |
| | 52 | 4M | (SG) REL |
| TO CAD 147A | SGR | 4 | |

| | | | |
|---|---|---|---|
| | 42 | | (PBY) RES |
| | 43 | 4 | |
| | 44 | U | |
| | 46 | 5 | |
| TO CAD 179 | 47 | 5B | |
| | 48 | 4 | (TNAN) REL |
| | 49 | 9B | |
| | 52 | 8M | |
| | 68 | 8 | |
| | 26A | 10B | |
| | 04A | 10 | |
| TO CAD 177 | 58 | 6 | (CPNT) REL |
| | 57 | 6B | |
| | 56 | 6M | |

DRAWING ISSUE

| | | |
|---|---|---|
| 30D | UAS | CB |
| 32A | GLS | CB |
| 34A | | |
| 37D | | CB |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G310

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

## CAD 518 (MFR DISC.)
(FOR APP FIG. 118)

TO CAD 101 (ORMC-MF)

| | | |
|---|---|---|
| 51 | U | (CD15) REL |
| 50 | U | (CD10) REL |
| 44 | U | (CD7) REL |
| 43 | U | (CD4) REL |
| 42 | U | (CD2) REL |
| 41 | U | (CD1) REL |
| 40 | U | (CD0) REL |
| 31 | U | (CDP15) REL |
| 30 | U | (CDP10) REL |
| 24 | U | (CDP7) REL |
| 23 | U | (CDP4) REL |
| 22 | U | (CDP2) REL |
| 21 | U | (CDP1) REL |
| 20 | U | (CDP0) REL |
| CDP16 | 10 | (CDP1) REL |
| CDP15 | 10 | (CDP0) REL |
| CDP14 | 9 | (CDP4) REL |
| CDP13 | 9 | (CDP7) REL |
| CDP12 | 9 | (CDP2) REL |
| CDP11 | 9 | (CDP1) REL |
| CDP10 | 9 | (CDP0) REL |
| CDP9 | 8 | |
| CDP8 | 7 | (CDP7) REL |
| CDP7 | 6 | |
| CDP6 | 8 | |
| CDP5 | 7 | (CDP4) REL |
| CDP4 | 6 | |
| CDP3 | 6 | |
| CDP2 | 5 | (CDP2) REL |
| CDP1 | 5 | (CDP1) REL |
| CDP0 | 5 | (CDP7) REL |
| CD16 | 10 | (CD1) REL |
| CD9 | 8 | |
| CD8 | 7 | (CD7) REL |
| CD7 | 6 | |
| CD6 | 8 | |
| CD5 | 7 | (CD4) REL |
| CD4 | 6 | |
| CD3 | 6 | |
| CD2 | 5 | (CD2) REL |
| CD1 | 5 | (CD1) REL |
| CD0 | 5 | (CD7) REL |

TO CAD 147A

TO CAD 179

| | | |
|---|---|---|
| H42 (BAT) | L | (CDP0) REL |
| H41 (BAT) | L | (CD0) REL |

TO CAD 162

| | | |
|---|---|---|
| 3 | 11B | (PRC) REL |
| 2 | 11 | |
| 1 | 2M | (IPR) REL |
| 0 | 2 | |

TO CAD 162 (RM-BAT)

| | | |
|---|---|---|
| H6 | L | (NPRC) REL |
| H5 | L | (TGA) REL |

TO CAD 164

| | | | |
|---|---|---|---|
| 145 | (OFR) | 4M | (NPRC) REL |
| 144 | (PCP) | 10B | (IPR) REL |
| 144 | (OFP) | 9B | (PRA4) REL |

TO CAD 1658

| | | |
|---|---|---|
| PBI | 8M | |
| CC1 | 5M | (NPRC) REL |

TO CAD 165D

| | | |
|---|---|---|
| FSP | 8 | (PRA4) REL |
| PEA | 5M | (PRC) REL |
| LGAS | U | (LGA) REL |
| LGA | 2 | (TGA) REL |
| HTP | U | (HT) REL |
| HGD | 3 | (HGD) REL |
| FGAP | 8M | (CDRA0) REL |
| EGD | 3 | (EGD) REL |
| EA | 9 | (ROT) REL |
| 47 | 7 | (PRA4) REL |
| 07 | 7 | (PRA0) REL |
| 46 | 6 | (PRA4) REL |
| 06 | 6 | (PRA0) REL |
| 45 | 5 | (PRA4) REL |
| 05 | 5 | (PRA0) REL |
| 44 | 4 | (PRA4) REL |
| 04 | 4 | (PRA0) REL |
| 43 | 3 | (PRA4) REL |
| 03 | 3 | (PRA0) REL |
| 42 | 2 | (PRA4) REL |
| 02 | 2 | (PRA0) REL |
| 41 | 1 | (PRA4) REL |
| 01 | 1 | (PRA0) REL |
| ROT | 12 | (HT) REL |

TO CAD 165F

## CAD 519 (MFR DISC.)
(FOR APP FIG. 119)

TO CAD 165F

| | | | |
|---|---|---|---|
| ERA | | | |
| SLS | | 8 | (CDRA0) REL |
| SLB | | 4M | (FGA) REL |
| SKS | | 11 | (TGA) REL |
| SKB | | 2 | (HGD) REL |
| SGD | | 4M | (CDRA0) REL |
| SGAP | | A | |
| 33 | | 11M | |
| 32 | (IPRX) | 11 | (IPR) REL |
| 31 | (IPRL) | 3M | |
| 30 | (IPRL) | 3 | |
| 28 | | 2M | |
| 27 | | 2 | (RST) REL |
| 26 | | 6M | |
| 25 | | 6 | |
| 24 | | 3M | (NPRC) REL |
| 23 | | 1M | |
| 22 | | 1 | |
| 21 | | 7 | (RST) REL |
| 20 | | 7M | (SR3) REL |
| 17 | | 9M | (ROT) REL |
| | | 6M | (EGD) REL |
| 15 | | 5 | (HT) REL |
| 14 | | 6 | (EGD) REL |
| 11 | | 1M | |
| 10 | (IPR) | 1 | (IPR) REL |
| | | | MFR DISC |
| 42 | | 12 | (PRR) REL |
| 40 | (HT) | 8M | (HT) REL |
| 39 | (CDA7) | U | (CDR7) REL |
| 38 | (CDA4) | U | (CDR4) REL |
| 37 | (CDA2) | U | (CDR2) REL |
| 36 | (CDA1) | U | (CDR1) REL |
| 35 | (CDA0) | U | (CDR0) REL |
| 28 | (SR3) | U | (SP3) REL |
| 27 | (SR2) | U | (SR2) REL |
| 26 | (SR1) | U | (SR1) REL |
| 23 | (CDE3) | 9 | (CDRA3) REL |
| 22 | (CDE2) | 9 | (CDRA2) REL |
| 21 | (CDE1) | 9 | (CDRA1) REL |
| 20 | (CDE0) | 9 | (CDRA0) REL |
| 13 | | 12B | (SR1) REL |
| 08 | | 5M | (TGA) REL |
| 53 | | 2 | (CDRA0) REL |
| 52 | | 28 | |

TO CAD 174

TO CAD 175

| | | | |
|---|---|---|---|
| 86 | (ROT) | U | (ROT) REL |
| 82 | (FGA) | U | (FGA) REL |
| 81 | (SGA) | U | (SGA) REL |
| 80 | (TGA) | U | (TGA) REL |
| 66 | | U | (PRA4) REL |
| 62 | (IPR) | U | (PRA0) REL |
| 61 | | 4B | (LGA) REL |
| 60 | | 11M | |
| 59 | | 6 | (HT) REL |
| 48 | (NPRC) | 10 | (NPRC) REL |
| 47 | (PRC) | 10 | (PRC) REL |
| 54 | | 1U | (IPR) REL |
| 51 | | 9M | |
| 50 | | 9 | (PRC) REL |
| 49 | | 9M | (NPRC) REL |
| 46 | | 7 | (SR3) REL |
| 43 | | 3B | (RST) REL |

TO CAD 175

TO CAD 147A

| | | |
|---|---|---|
| EGU | 2M | (PRC) REL |
| EG | 2M | (NPRC) REL |
| EGL | 6M | (HT) REL |

TO CAD 165F

| | | |
|---|---|---|
| HGC | 12M | |
| HSA | 8 | (NPRC) REL |
| 35 | 8M | |
| 34 | 8 | (SR2) REL |
| 17A | 8A | (SR3) REL |
| 18 | 4 | (PRC) REL |
| 37 | 10B | |
| 38 | 10F | (SR1) REL |

TO CAD 174

DRAWING ISSUE

| | |
|---|---|
| 90D | FLP |
| | TS |
| 32A | |
| | PT |
| 350 | TW |
| 370 | |
| 390 | LFP |
| 40A | |

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G311

BELL TELEPHONE LABORATORIES INCORPORATED

65

STABILO

# PART OF CAD 520 (MFR DISC.)

(FOR APP FIG. 120)

TO CAD 106 (NTC-F1)

| | | | |
|---|---|---|---|
| 44 | (STL5) | 5 | (STL5) REL |
| 34 | (STLO) | 5 | (STLO) REL |
| 32 | (STMM) | 10 | (TRRA) REL |
| 30 | (NPC) | U | (NPCA) REL |
| 24 | (NPM) | 4 | (NPM) REL |
| 23 | (2LV) | 4 | (2LV) REL |
| 14 | (NPR) | 9 | (MT35) REL |
| 13 | (STG) | 7M | (MT28) REL |
| 12 | (STS5) | 12M | |
| 11 | (STS4) | 11M | |
| 10 | (STS3) | 10M | |
| 04 | (STS2) | 9M | |
| 03 | (STS1) | 8M | |
| 02 | (PRO) | 12 | (MT30) REL |
| 01 | (PRE) | 10 | |
| 00 | (PRI) | 11 | |
| E56 | (SKFT) | 5M | (MT32) REL |
| E55 | (NOMG) | 4 | |
| E54 | (BYP) | 7M | (MT35) REL |
| E53 | (MT28) | 12 | |
| E52 | (MT30) | 11 | |
| E51 | (RNGO) | 4M | (MT28) REL |
| E50 | (SKFP) | 3M | (MT31) REL |
| B59 | (LRL) | 7 | (RLL) REL |
| B56 | (DN) | U | (DN) REL |
| B32 | | 11M | |
| B29 | | 3 | (STKA) REL |
| B24 | | 6 | (NST) REL |
| B22 | | 1 | (STK) REL |
| B21 | | 1 | (PRL4) REL |
| B20 | | 12B | (NST) REL |
| B19 | | 6 | (STOK) REL |
| B18 | | 5M | (NST) REL |
| B17 | | 5B | |
| B16 | | 3 | (2LV) REL |
| B15 | | 2 | (4WF) REL |
| B14 | | 1 | |
| B13 | | 7M | |
| B10 | | 6B | (NPCA) REL |
| B09 | | 8M | (KLP2) REL |
| B08 | | 2B | (L1TA) REL |
| B07 | | 7B | (NPCA) REL |
| B06 | | 8B | |
| B05 | | 8B | (KLP1) REL |
| B04 | | 9B | (NPCA) REL |

TO CAD 181

TO CAD 131

| | | | |
|---|---|---|---|
| B31 | | 3M | (STL4) REL |
| B30 | | 3M | (STL5) REL |
| B03 | | 3 | (L1TA) REL |
| B02 | | 4M | |
| B01 | | 6M | (KLP1) REL |
| B00 | | 10 | (NPCA) REL |
| D58 | | 1M | (PRL4) REL |
| D53 | | 2B | (RLL) REL |
| D49 | | 8 | (SCAL) REL |
| D44 | | 7 | (MT35) REL |
| E47 | | 2M | (4WF) REL |
| E46 | | 1M | |
| D41 | | 6M | (MT35) REL |
| D40 | | 6 | |
| D39 | | 5 | (NPC) REL |
| D38 | | 4M | |
| D36 | | 4M | (MT32) REL |
| D35 | | 4 | |
| D34 | | U | (MT35) REL |
| D33 | | 12M | (4WF) REL |
| D32 | | 5M | |
| D29 | | 5B | (MT32) REL |
| D28 | | 5M | |
| D27 | | 5 | |
| D26 | | 4B | (MT28) REL |
| D25 | | 4 | |
| D23 | | 12 | (TRRA) REL |
| D22 | | 6B | |
| D21 | | 6M | |
| D20 | | 6 | |
| E57 | | 10 | (MT35) REL |
| E40 | | 8 | (2WG) REL |
| D51 | | | |
| E39 | | 7M | |
| E35 | | 4B | (4WF) REL |
| F58 | (TGA4) | 7 | (STL4) REL |
| F57 | (TGA3) | 7 | (STL3) REL |
| F56 | (TGA2) | 7 | (STL2) REL |
| F55 | (TGA1) | 7 | (STL1) REL |
| F54 | (XTG1) | 4 | (LST) REL |
| G37 | | 8B | (TR2D) REL |
| G36 | | 7 | (MT34) REL |
| G35 | | 4 | (DN) REL |
| G34 | | 9M | |
| G33 | | 9B | |
| G31 | | 10B | |
| G29 | | 4 | (2WG) REL |
| G26 | | U | (TR2D) REL |
| G25 | | 9M | (2WG) REL |
| G24 | | 9 | |
| G23 | | 6B | (LST) REL |
| G22 | | 6M | |
| G21 | | 6 | |

TO CAD 181

| | | | |
|---|---|---|---|
| G20 | | 5B | (LST) REL |
| G19 | | 5M | |
| G18 | | 5 | |
| G17 | | 1M | (STL5) REL |
| G16 | | 1 | (MT31) REL |
| G15 | | 2L | (STOK) REL |
| G14 | | 7B | (MT31) REL |
| G13 | | 3B | (MT31) REL |
| G08 | | 5B | (L1TA) REL |
| G06 | | 4 | (SCAK) REL |
| G05 | | 11B | (4WF) REL |
| G04 | | 3M | |
| G03 | | 3 | |
| G01 | | 4M | (RLL) REL |
| G00 | | 4 | |
| H58 | | 11B | (STKA) REL |
| H57 | | 5M | (NST) REL |
| H56 | | 6 | (2WG) REL |
| H55 | | 6M | |
| H54 | | 3M | (NST) REL |
| H53 | | 3 | |
| H46 | | 11 | (STKA) REL |
| H43 | | 2B | (STLC) REL |
| H42 | | 2 | |
| H41 | | 12 | (MT32) REL |
| H40 | | 11 | |
| H39 | | 10 | |
| H38 | | 12 | (MT30) REL |
| H37 | | 11 | |
| H36 | | 10 | |
| H34 | | 7B | (SLPR) REL |
| H33 | | 4 | (4WF) REL |
| H32 | | 6 | |
| H31 | | 9 | |
| B51 | (AFK) | 4M | |

TO CAD 181

| | | | |
|---|---|---|---|
| H30 | | 8 | (4WF) REL |
| H28 | | 9 | (NST) REL |
| H26 | | 10 | (STK) REL |
| H25 | | 8M | (STL1) REL |
| H24 | | 11 | (NST) REL |
| H23 | | 6B | (STKA) REL |
| H22 | | 6M | (STM) REL |
| H21 | | 12 | (NST) REL |
| H20 | | 2 | (KLPO) REL |
| H19 | | 11M | (4WF) REL |
| H18 | | 8M | (STPR) REL |
| H17 | | 3M | (STKA) REL |
| H16 | | 3M | (KLPR) REL |
| H15 | | 10M | (4WF) REL |
| H14 | | 6M | (NST) REL |
| H13 | | 6B | |
| H12 | | U | (LST) REL |
| H11 | | 8 | (STL1) REL |
| H07 | | 8B | (SLPR) REL |
| H06 | | U | |
| H05 | | 7 | (4WF) REL |
| H04 | | 7B | |
| H03 | | 6 | (LBTB) REL |
| H02 | | 7 | (RLL) REL |
| H01 | | 8M | |
| H00 | | 8B | |
| H12 (BAT) | | L | (PRLO) REL |
| H11 (BAT) | | L | (STL3) REL |
| H10 (BAT) | | L | (STLO) REL |
| H9 (BAT) | | L | (LST) REL |
| H8 (BAT) | | L | (KLPO) REL |
| H8 (BAT) | | L | (MT28) REL |
| H10 | | 12 | (STKA) REL |

| DRAWING ISSUE | | |
|---|---|---|
| 30D | D.S. | |
| 32A | LA | |
| 34A | LA | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G312

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G312

STABILO

# PART OF CAD 520 (MFR DISC.)

(FOR APP FIG. 120)

| | | MFR DISC | |
|---|---|---|---|
| TO CAD 182 | A24 | 12B | (MT28) REL |
| | A23 | 11B | |
| | A22 | 10B | |
| | A21 | 9B | |
| | A20 | 8B | |
| | A15 | U | (SCAL) REL |
| | A09 | 1 | (TR2D) REL |
| | A08 | 3 | (STL3) REL |
| | A07 | 3 | (STL2) REL |
| | A06 | 3 | (STL1) REL |
| | A05 | 7B | (MT28) REL |
| TO CAD 183 | 2LV | U | (2LV) REL |
| | NPC | U | (NPC) REL |
| | NPM | U | (NPM) REL |
| | F11 | 2M | (PRLO) REL |
| | C34 | 2 | (PRL4) REL |
| | C30 | 2 | (PRLO) REL |
| | C03 | 4M | (DN)REL |
| | C02 | 4B | |
| | C00 | 12 | (2WG)REL |
| | C26 | 3M | |
| TO CAD 181 | B54 (LP2) | 10 | (MT32) REL |
| | B53 (LP1) | 11 | |
| | B52 (LP0) | 12 | |
| | B44 (AF) | 8M | (MT35) REL |
| | E44 (AF1) | 8B | |
| | E45 | 8 | |
| | F4H | 5 | (2WG) REL |
| | G59 | 2 | |
| | G11 | 2M | |
| | G12 | 2B | |
| | F30 | 5B | (MT35) REL |
| | B23 | 1 | |
| | E49 | 2B | (STL5) REL |
| | E58 (ALB) | 10 | (MT33) REL |
| | D24 (ALB1) | 11 | |
| | C00A | 12B | (2WG) REL |

| DRAWING ISSUE | |
|---|---|
| 30D | D.S. CONN AND |
| 32A | TS CONN AND |
| 34A | UP THRU AND |
| 35D | UP THRU AND |
| 38A | UP |
| 39D | UP |
| 41D | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G313

BELL TELEPHONE LABORATORIES INCORPORATED 6S

STABILO WE

# CAD 521 (MFR DISC.)

(FOR APP FIG. 121)

TO CAD 181 — B27

| | | |
|---|---|---|
| 54 (OHS) | U | (OHS) REL |
| 53 (PLB) | U | (PLB) REL |
| 52 (TPMK) | 10 | (TPMK) REL |
| TO CAD 106 (MTC-F1) 51 (LPMK) | 10 | (LPMK) REL |
| 22 (PML) | U | (PML) REL |
| 21 (LNP) | U | (LNP) REL |
| 20 (LNPR) | U | (LNPR) REL |
| D59 | 10 | (NTA) REL |
| D58 | 10M | |
| D57 | 9B | (PMLL) REL |
| D56 | 9M | |
| D54 | 1M | (PML) REL |
| D52 | 1M | (PMLL) REL |
| D50 | 10 | (PML) REL |
| D48 | 5 | (PMLL) REL |
| D47 | 5B | (PML) REL |
| D45 | 8 | (LNP) REL |
| D37 | 6 | (XSTC) REL |
| C24 | 12 | (PLB1) REL |
| C23 | 5M | |
| C22 | 5 | |
| TO CAD 181 C21 | 12M | |
| C19 | 10M | |
| C18 | 10 | (PLBA) REL |
| C17 | 9 | |
| C16 | 1M | |
| C15 | 1 | |
| C14 | 2M | |
| C13 | 2 | |
| C12 | 3M | |
| C11 | 3 | |
| C10 | 11B | (NLA) REL |
| C09 | 6M | (PLBA) REL |
| C08 | L | |
| C07 | U | |
| C06 | 6M | (PLB1 |
| C05 | 4M | (PLBA) REL |
| C04 | 4 | |
| B12 | 9 | (PLB1) REL |
| B11 | 8M | |

TO CAD 181

| | | |
|---|---|---|
| F34 (LPT2) | 5 | (P) CPNT ASSY |
| F33 (LPT1) | 3 | |
| F32 (LPTO) | 1 | |
| F31 | 8 | (LPMK) REL |
| F29 | 8 | (PML) REL |
| F28 | 5 | (LOL) REL |
| F27 | 4 | |
| F26 | 4 | (NTA) REL |
| F25 | 11M | (PLB1) REL |
| F24 | 11 | |
| F23 | 5B | (PLB) REL |
| F22 | 5 | |
| ZLD ZLE F18 | 2B | (NLA) REL |
| C35 | 2 | |
| F17 | | |
| F16 | 3M | (PLB) REL |
| F15 | 4 | |
| F14 | 4 | (PLB1) REL |
| F13 | 3B | |
| F12 | 3 | |
| F10 | 8M | (NLA) REL |
| F09 | 8 | |
| F08 | 6M | (XSCA) REL |
| F07 | 6 | |
| F06 | 11 | (NLA) REL |
| F05 | 6 | (XLRL) REL |
| F04 | 7B | (PLB) REL |
| F03 | 7 | (PLB) REL |
| F02 | 8B | (NLA) REL |
| F01 | 11B | (LNP) REL |
| F00 | 1M | (PML) REL |
| E43 | 6 | (PLBA) REL |
| E42 | 12 | (PLFK) REL |
| E38 | 6B | (PLB1) REL |
| E37 | 6 | |
| E34 | 6 | (XPLF) REL |
| E32 | 10M | (PLB1) REL |
| E5 (BAT) | | (PLF) RES |

TO CAD 181

| | | |
|---|---|---|
| H31 (BAT) | 1L | (XSTC) REL |
| H17 (BAT) | | (SCA) LP |
| H16 (BAT) | | (PLF) LP |
| H15 (BAT) | L | (PML) REL |
| H14 (BAT) | L | (SLN) REL |
| H13 (BAT) | L | (LNP) REL |
| G58 | 10B | (PLB1) REL |
| G57 | 10 | |
| G56 | 4 | (XSTC) REL |
| G55 | 7 | (LOL) REL |
| G54 | 4 | (LPMK) REL |
| G53 | U | |
| G52 | 6 | (TPMK) REL |
| G51 | U | |
| G50 | 9 | (LOL) REL |
| G49 | 1 | |
| G48 | 12M | (PLB) REL |
| G47 | 12M | (PLB1) REL |
| G46 | 12 | |
| G45 | 8M | (XSTC) REL |
| G44 | 12M | (LNPR) REL |
| G43 | 12M | (PMLL) REL |
| G42 | | LGC RES LP |
| G41 | 4M | (PML) REL |
| G40 | 4 | |
| G39 | 4M | (PLFK) REL |
| G38 | 12M | (OHS) REL |
| G32 | 10 | |
| G30 | 9 | |
| G07 | 7 | (PMLL) REL |
| G02 | 8 | |
| F59 | 8B | |
| H48 | 9M | (PLB) REL |
| H44 | 9 | |
| F39 (H) | 10 | (P) CPNT ASSY |
| F38 (NH) | 12 | |
| F37 (LPT5) | 5 | (PA) CPNT ASSY |
| F36 (LPT4) | 3 | |
| F35 (LPT3) | 1 | |
| TO CAD 182 A15 | 2M | (PMLL) REL |

| DRAWING ISSUE | |
|---|---|
| 30D | RLP WPK AMD |
| 32A | GAV CAL AMD |
| 34A | LP TAU AMD |
| 39D | LFR |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G314

BELL TELEPHONE LABORATORIES INCORPORATED — SHEET 65

SD-26002-01-G314

STABILO

# CAD 522 (MFR DISC.)

(FOR APP FIG 122)

| | | |
|---|---|---|
| SRD39 | 4 | (CDS39) REL |
| SRD00 | 4 | (CDS00) REL |
| SRC39 | 3 | (CDS39) REL |
| SRC00 | 3 | (CDS00) REL |
| SRB39 | 2 | (CDS39) REL |
| SRB00 | 2 | (CDS00) REL |
| SRA39 | 1 | (CDS39) REL |
| SRA00 | 1 | (CDS00) REL |
| SR21 | 22M | |
| SR20 | 21M | |
| SR19 | 20M | |
| SR18 | 19M | |
| SR17 | 18M | |
| SR16 | 17M | |
| SR15 | 16M | |
| SR14 | 15M | |
| SR13 | 14M | |
| TO CAD 147A — SR12 | 13M | |
| SR11 | 12M | (CDS00) REL |
| SR10 | 11M | |
| SR09 | 10M | |
| SR08 | 9M | |
| SR07 | 8M | |
| SR06 | 7M | |
| SR05 | 6M | |
| SR04 | 5M | |
| SR03 | 4M | |
| SR02 | 3M | |
| SR01 | 2M | |
| SR00 | 1M | |
| CDD39 | 24 | (CDS39) REL |
| CDD00 | 24 | (CDS00) REL |
| CDC39 | 23 | (CDS39) REL |
| CDC00 | 23 | (CDS00) REL |

| | | |
|---|---|---|
| SRS39 | 17 | (CDS39) REL |
| SRS00 | 17 | (CDS00) REL |
| SRR39 | 16 | (CDS39) REL |
| SRRC0 | 16 | (CDS00) REL |
| SRQ39 | 15 | (CDS39) REL |
| SRQ00 | 15 | (CDS00) REL |
| SRP39 | 14 | (CDS39) REL |
| SRP00 | 14 | (CDSC0) REL |
| SRN39 | 13 | (CDS39) REL |
| SRN00 | 13 | (CDS00) REL |
| SRM39 | 12 | (CDS39) REL |
| SRM00 | 12 | (CDS00) REL |
| TO CAD 147A — SRL39 | 11 | (CDS39) REL |
| SRL00 | 11 | (CDS00) REL |
| SRK39 | 10 | (CDS39) REL |
| SRK00 | 10 | (CDS00) REL |
| SRJ39 | 9 | (CDS39) REL |
| SRJ00 | 9 | (CDSC0) REL |
| SRH39 | 8 | (CDS39) REL |
| SRH00 | 8 | (CDS00) REL |
| SRG39 | 7 | (CDS39) REL |
| SRG00 | 7 | (CDS00) REL |
| SRF39 | 6 | (CDS39) REL |
| SRF00 | 6 | (CDS00) REL |
| SRE39 | 5 | (CDS39) REL |
| SRE00 | 5 | (CDS00) REL |

| | | |
|---|---|---|
| 124 | U | (CDS39) REL |
| 105 | U | (CDS20) REL |
| TO CAD 179 — 62 | L | (CDS00) REL |
| 25 | U | (CDS19) REL |
| 06 | U | (CDS00) REL |
| SRX39 | 22 | (CDS39) REL |
| SRX00 | 22 | (CDS00) REL |
| SRW39 | 21 | (CDS39) REL |
| SRW00 | 21 | (CDS00) REL |
| SRV39 | 20 | (CDS39) REL |
| TO CAD 147A — SRV00 | 20 | (CDS00) REL |
| SRU39 | 19 | (CDS39) REL |
| SRU00 | 19 | (CDS00) REL |
| SRT39 | 19 | (CDS39) REL |
| SRT00 | 19 | (CDS00) REL |

| DRAWING ISSUE | |
|---|---|
| 300D | 6F 6G- AND UP |
| 350D | 7H AND UP |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G315

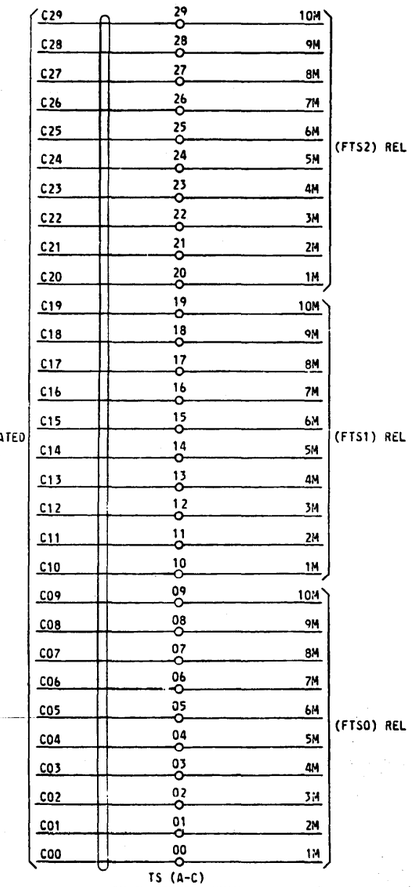
BELL TELEPHONE LABORATORIES INCORPORATED

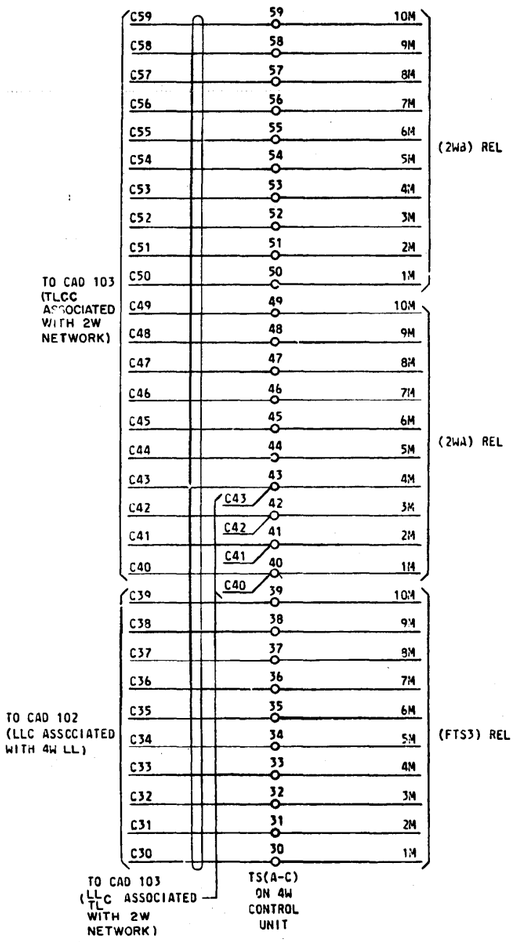
SIZE 6S

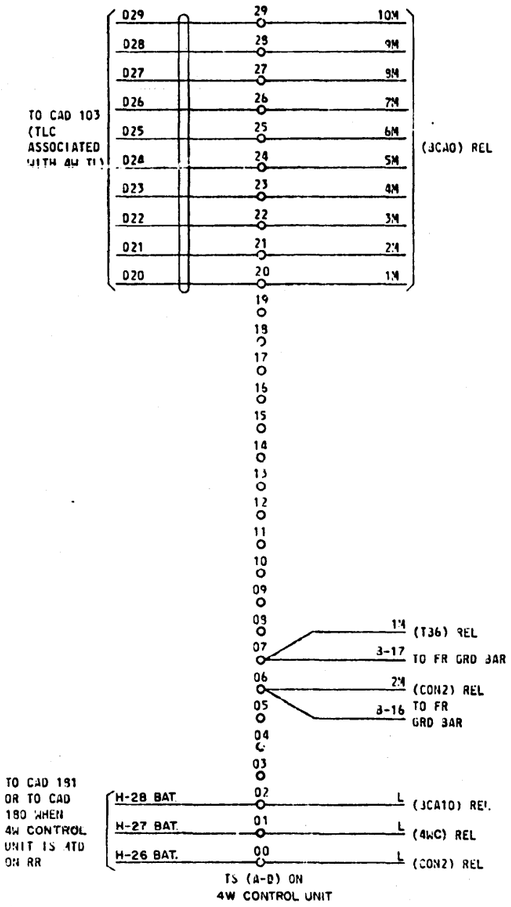
PRINTED IN U.S.A.

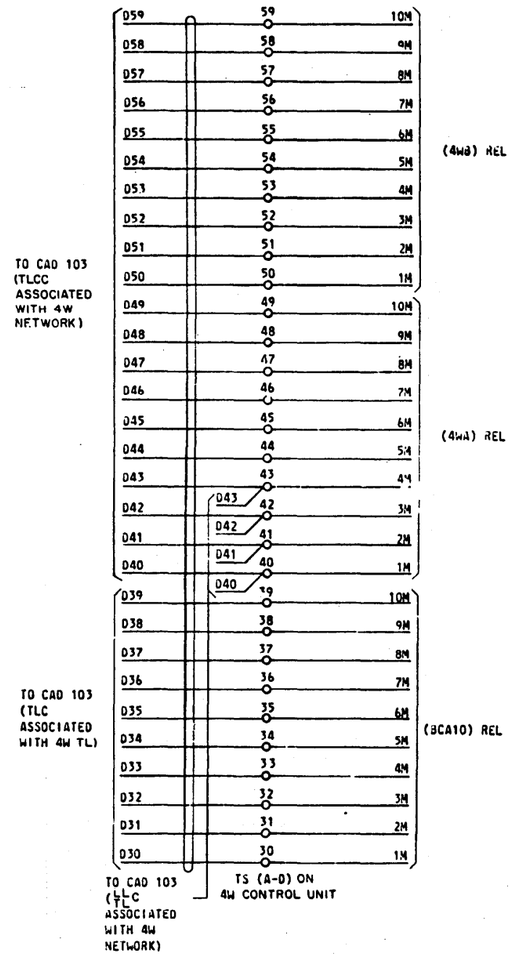
# PART OF CAD 523
(FOR APP FIG. 123)

DRAWING ISSUE
30D C.S. COL AND
35D LP TH) AND




35

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G316

BELL TELEPHONE LABORATORIES INCORPORATED 6S

PART OF CAD 523

TO CAD 180
(T & CT FR) RUN
WHEN 4W FRAME
IS NOT PROVIDED

TO CAD 181 B25
(4W FR)

| | | | |
|---|---|---|---|
| 29 | 29 | 6 | |
| 28 | 28 | 6M | |
| 27 | 27 | 10M | (2W)REL |
| 26 | 26 | 10 | |
| (4W) 25 | 25 | U | |
| 24 | 24 | 9 | (4W)REL |
| 23 | 23 | 2 | |
| 22 | 22 | | (A&M ONLY) |
| 21 | 21 | 11 | |
| 20 | 20 | 9 | |
| 19 | 19 | 9M | |
| 18 | 18 | 11M | (4WD) REL |
| 17 | 17 | 10 | |
| 16 | 16 | 12M | |
| 15 | 15 | 12 | |
| 14 | 14 | 11 | |
| 13 | 13 | 10 | (4WC) REL |
| 12 | 12 | (H-35) 12 | TO TS (A-H) IN SAME CAD |
| 11 | 11 | U | (2WB) REL |
| 10 | 10 | 6 | |
| 09 | 09 | 6M | (4W) REL |
| 08 | 08 | 1 | (4WC) REL |
| 07 | 07 | 1 | (2W) REL |
| 06 | 06 | 11 | |
| 05 | 05 | 11M | (4WA) REL |
| 04 | 04 | 10 | (4W) REL |
| 03 | 03 | 11M | (2W) REL |
| 02 | 02 | 10M | |
| 01 | 01 | 12 | (4W) REL |
| 00 | 00 | 12M | (2W) REL |
| | | 12M | (4W) REL |

TS (A-E)
ON 4W CONTROL UNIT

CONN WHEN
AUTO. CONF IS
NOT PROV

TO CAD 181(T & CT FR)
OR TO CAD 180
(T & CT FR) WHEN
4W CONTROL UNIT
IS MTD ON RELAY RACK

TO CAD
120

| | | | |
|---|---|---|---|
| IB | 59 | 7 | |
| IH | 58 | 6 | (4WS) REL |
| IFFM | 57 | 5 | |

MULT SHOWN
IN CAD 121

ZFH

| | | | |
|---|---|---|---|
| | 56 | | |
| | 55 | | |
| | 54 | | |
| | 53 | | |
| | 52 | | |
| | 51 | | |
| | 50 | | |
| | 49 | | |
| | 48 | | |
| | 47 | | |
| | 46 | | |
| | 45 | | |
| | 44 | | |
| | 43 | | |
| | 42 | | |
| NKA3 | 41 | 4 | |
| NKA2 | 40 | 3 | |
| NKA1 | 39 | 2 | |
| NKA0 | 38 | 1 | (2WS) REL |
| NK3 | 37 | 4M | |
| NK2 | 36 | 3M | |
| NK1 | 35 | 2M | |
| NK0 | 34 | 1M | |
| NKB3 | 33 | 4 | |
| NKB2 | 32 | 3 | |
| NKB1 | 31 | 2 | (4WS) REL |
| NKB0 | 30 | 1 | |

TS (A-E)
ON 4W CONTROL UNIT

TO CAD 181 (T & CT FR)
OR TO CAD 180
(T & CT FR) WHEN
4W CONTROL UNIT
IS MTD ON RELAY RACK

| | | | |
|---|---|---|---|
| 29 | 29 | 10 | |
| 28 | 28 | 9 | |
| 27 | 27 | 8 | |
| 26 | 26 | 7 | |
| 25 | 25 | 6 | |
| 24 | 24 | 5 | (BCA10) REL |
| 23 | 23 | 4 | |
| 22 | 22 | 3 | |
| 21 | 21 | 2 | |
| 20 | 20 | 1 | |
| 19 | 19 | 5 | (2W) REL |
| 19 | 18 | 5M | (4W) REL |
| 17 | 17 | 10 | |
| 16 | 16 | 9 | |
| 15 | 15 | 8 | |
| 14 | 14 | 7 | |
| 13 | 13 | 6 | (FTS3) REL |
| 12 | 12 | 5 | |
| 11 | 11 | 4 | |
| 10 | 10 | 3 | |
| 09 | 09 | 2 | |
| 08 | 08 | 1 | |
| 07 | 07 | 8M | |
| 06 | 06 | 7M | |
| 05 | 05 | 6M | (4WC) REL |
| 04 | 04 | 5M | |
| 03 | 03 | 9 | |
| 02 | 02 | 8 | |
| 01 | 01 | 7 | (2W) REL |
| 00 | 00 | 4 | |

TS (A-F)
ON 4W CONTROL UNIT

TO CAD 181 (CE FR)
OR TO CAD 180
(CE FR) WHEN 4W
CONTROL UNIT IS
MTD ON RELAY RACK

| | | | |
|---|---|---|---|
| 59 | 59 | 8 | |
| 58 | 58 | 7 | |
| 57 | 57 | 6 | |
| 56 | 56 | 5 | |
| 55 | 55 | 4 | |
| 54 | 54 | 3 | (4WA) REL |
| 53 | 53 | 2 | |
| 52 | 52 | 1 | |
| | 51 | 6 | (MFR DISC) |
| | 50 | 4 | (TB6) REL |
| | 49 | 4 | (TB9) REL |
| | 48 | 4 | (TB9) REL |
| | 47 | 4 | (TA7) REL |
| | 46 | 4 | (TA6) REL |
| | 45 | 4M | (TB9) REL |
| | 44 | 8 | (A&M ONLY) |
| | 43 | 9B | (TB6) REL |
| | 42 | 8M | |
| | 41 | 12M | (TB9) REL |
| | 40 | 1 | |
| 39 | 39 | 10 | |
| 38 | 38 | 9 | |
| 37 | 37 | 8 | |
| 36 | 36 | 7 | |
| 35 | 35 | 6 | |
| 34 | 34 | 5 | (BCA0) REL |
| 33 | 33 | 4 | |
| 32 | 32 | 3 | |
| 31 | 31 | 2 | |
| 30 | 30 | 1 | |

TS (A-F)
ON 4W CONTROL UNIT

TO CAD 181 (T & CT FR)
OR TO CAD 180
(T & CT FR) WHEN
4W CONTROL UNIT
IS MTD ON RELAY RACK

| DRAWING ISSUE | |
|---|---|
| 300 | C.S. COIL AMP |
| 32A | GA 6 AWG |
| 33D | GA 6 AWG |
| 35D | R |
| 37D | |
| 39D | LP |
| 41D | |
| 430 | |
| 44A | |

ISSUE
63B

COMPLETING ~~MARKER CIRCUIT~~ (2)

SD-26002-01-G317

BELL TELEPHONE LABORATORIES
INCORPORATED

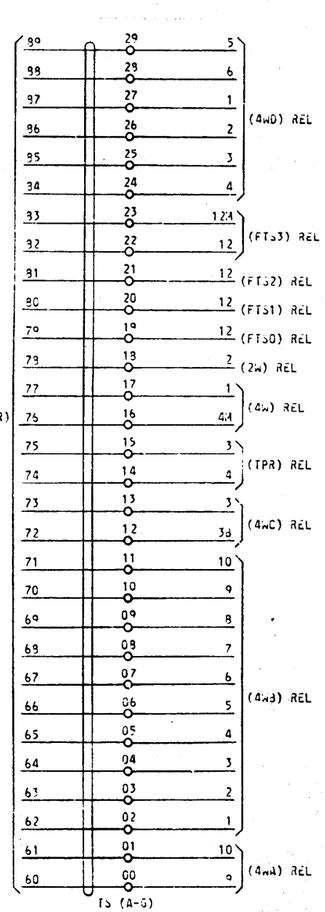
SIZE 6S

SD-26002-01-G317

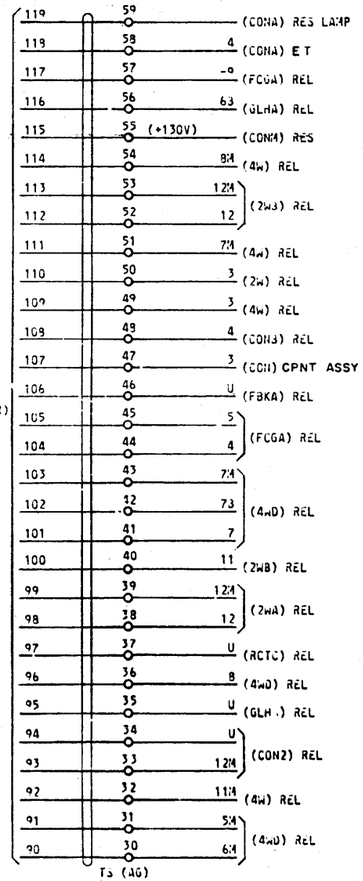
STABILIA

# PART OF CAD 523
(FOR APP FIG. 123)

| DRAWING ISSUE | |
|---|---|
| 30D | C.S |
| 32 A | LP |
| 33D | LP |
| 35D | LP |
| 37D | |
| 39D | |
| 43D | |

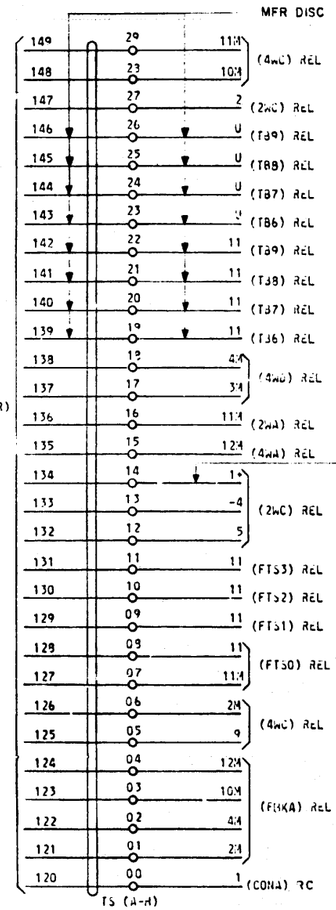



TO CAD 181 (CE FR) OR TO CAD 180 (CE FR) WHEN 4W CONTROL UNIT IS MTD ON RELAY RACK

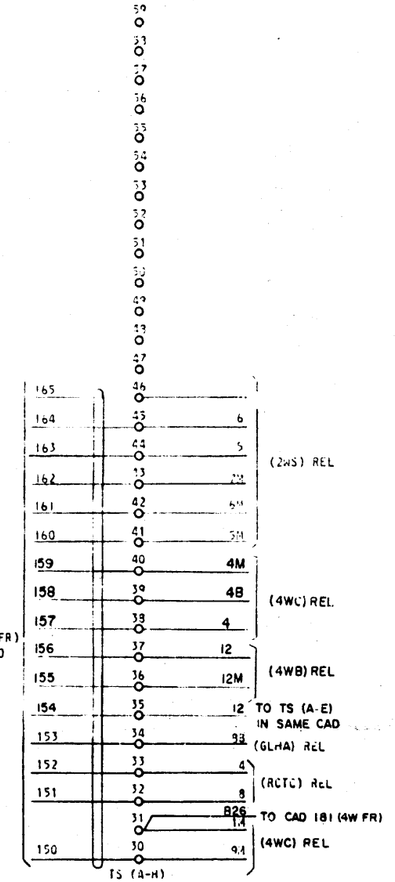



TO CAD 181 (CE FR) OR TO CAD 180 (CE FR) WHEN 4W CONTROL UNIT IS MTD ON RELAY RACK

MFR DISC




CONNECT WHEN MARKER IS ARRANGED FOR CUSTOMER CLASS OF SERVICE SELECTION ON 1 OUT OF 30 BASIS




TO CAD 181 (CE FR) OR TO CAD 180 (CE FR) WHEN 4W CONTROL UNIT IS MTD ON RELAY RACK

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COMPLETING MARKER CIRCUIT (2) SD-26002-01-G318

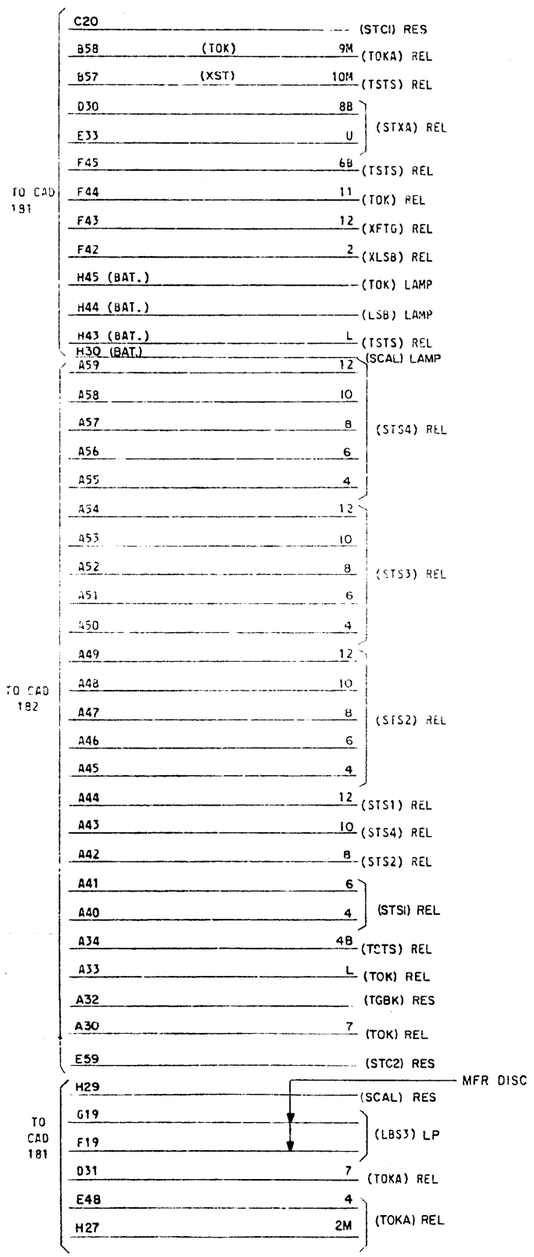
BELL TELEPHONE LABORATORIES INCORPORATED 6S

PRINTED IN U.S.A.

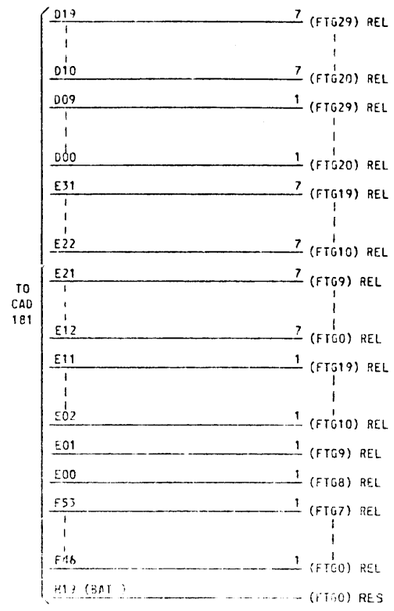
SD-26002-01-G318

STABILO

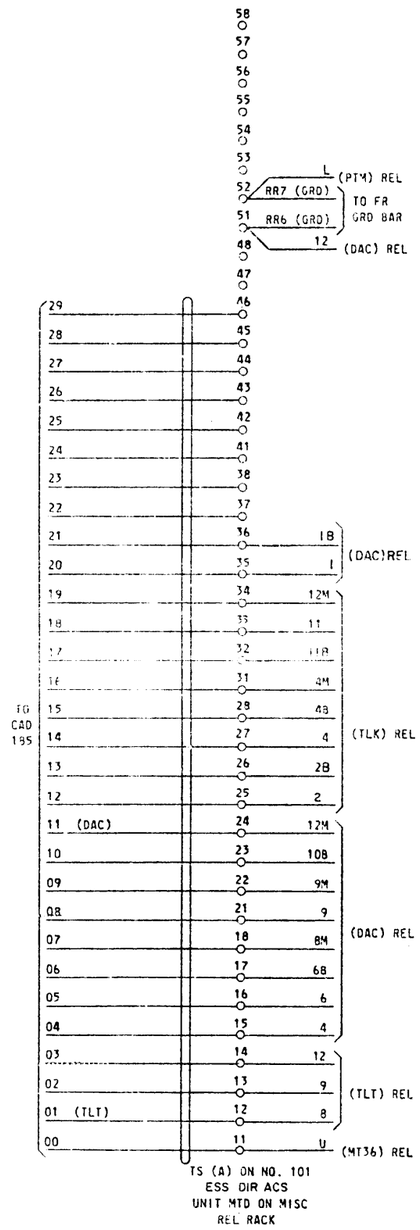
## CAD 525 (MFR DISC.)
(FOR APP FIG. 125)

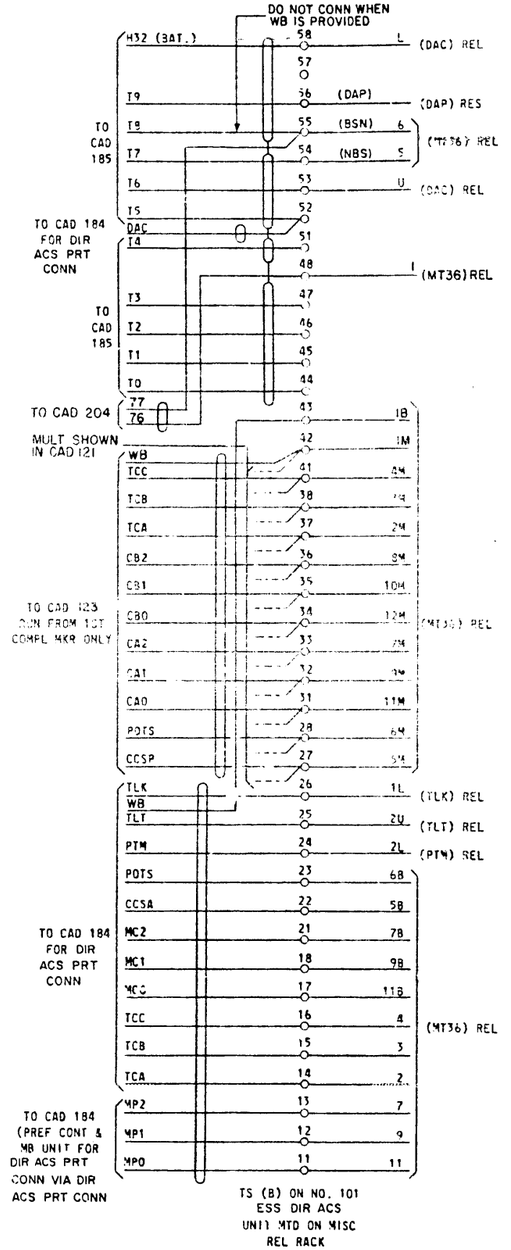



## CAD 526 (MFR DISC.)
(FOR APP FIG. 126)




## CAD 527
(FOR APP FIG. 127)




| DRAWING ISSUE | | |
|---|---|---|
| 30D | 6A | COL AMP |
| 32A | TS | COL AMP |
| 33D | TS | COL AMP |
| 34A | KNI | TYCO AMP |
| 37D | LE | |
| 39D | ESM | |
| 41D | | |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

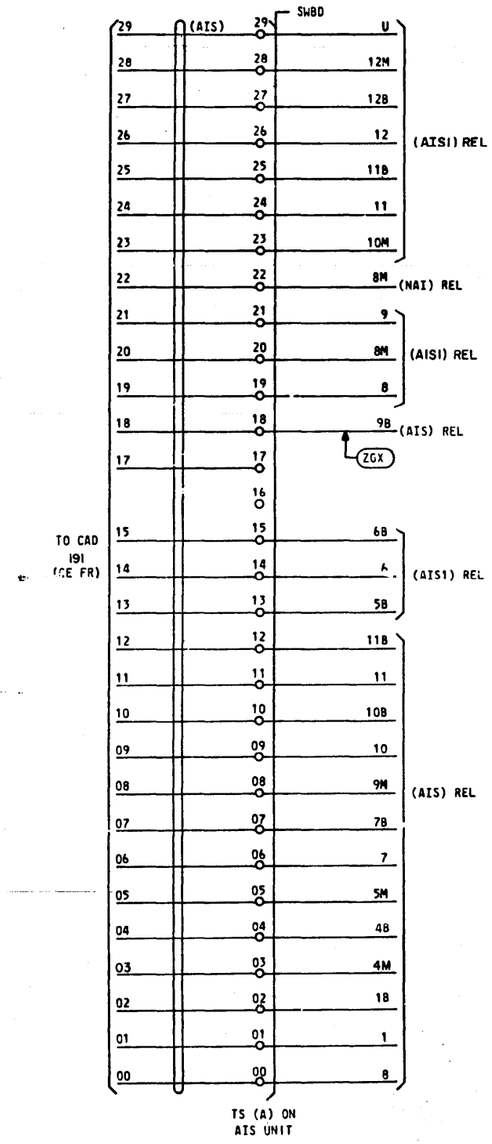
SD-26002-01-G319

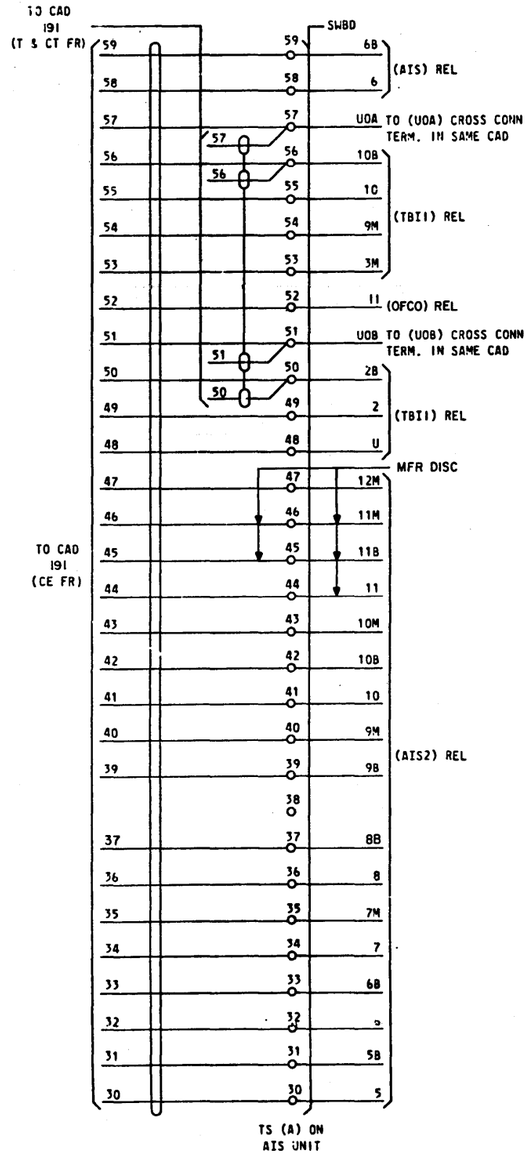
BELL TELEPHONE LABORATORIES INCORPORATED 6S

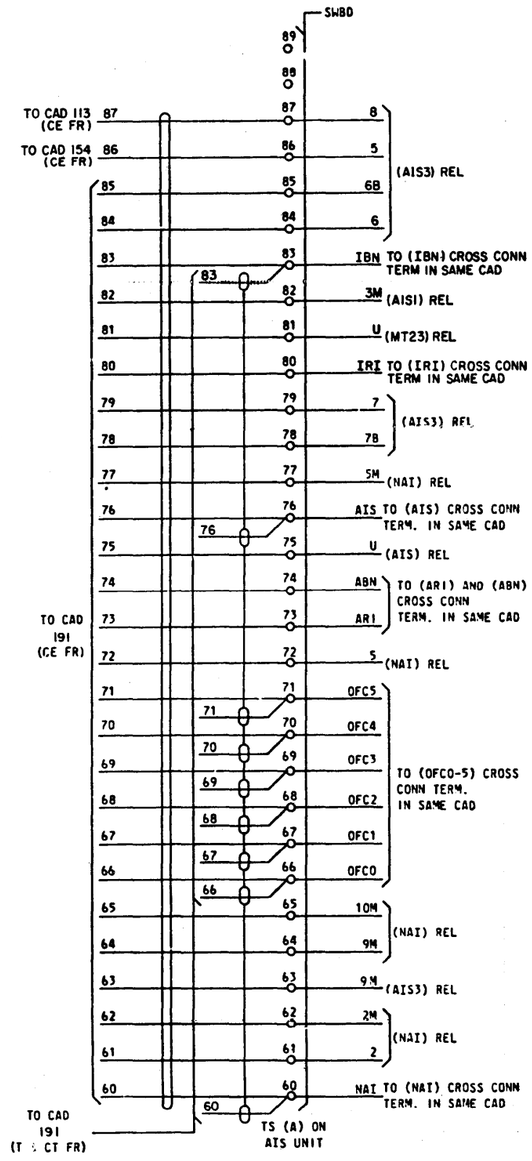
SD-26002-01-G319

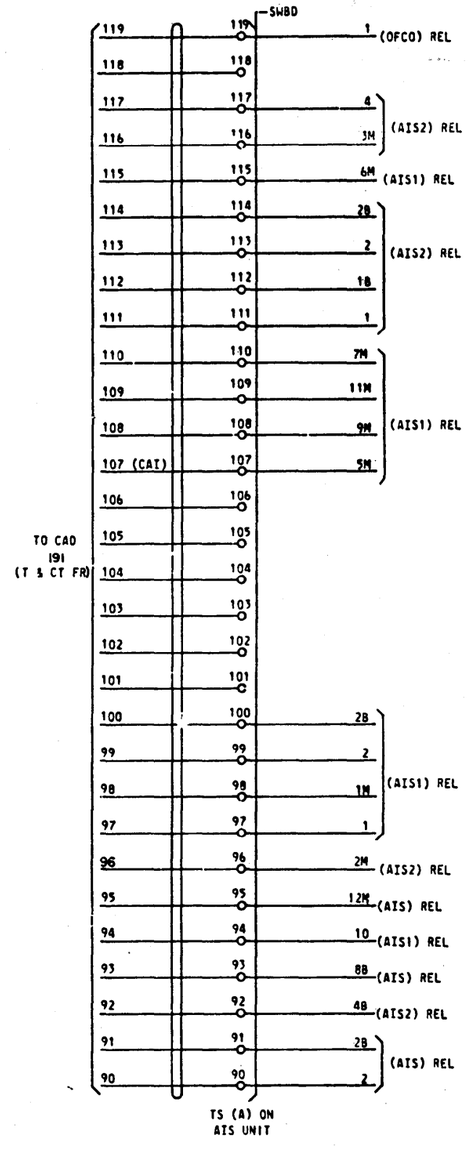
STABILO

# PART OF CAD 528
(FOR APP FIG. 128)




DRAWING ISSUE

| | |
|---|---|
| 33D | T.S. CAL AND |
| 34A | MAR T AND |
| 39D | FSN |
| 45D | |

ISSUE 69B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G320

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-G320

HIGGINS 4465

# PART OF CAD 528

(FOR APP FIG. 128)

SWBD

TO CAD 191 — 153 — 8B; 152 — 8M; (AIS3) REL

TO CAD 155 (LLP FR) — 151 — 5M; 150 — 5B

H39-BAT — 139 — L (AIS2) REL

H38-BAT — 138 — L (AIS1) REL

137 — 137 — 11B (OFC5) REL

136 — 136 — 3; 135 — 36 (AIS1) REL

134 — 134 — 10B (AIS3) REL

133 — 133 — 7B (AIS1) REL

132 — 132 — 9; 131 — 98 (AIS3) REL

TO CAD 191 (T & CT FR)

130 — 130 — 2B; 129 — 3B; 128 — 3 (MT23) REL

127 — 127 — 3B (AIS2) REL

126 — 126 — 7 (AIS1) REL — MFR DISC.

125 — 125

124 — 124 — 6; 123 — 5; 122 — 4; 121 — 3; 120 — 2 (OFCO) REL

TS (A) ON AIS UNIT

CROSS CONN AS SPEC IN SECT D

IBN — IBN TO TERM (SWBD 83) IN SAME CAD

IRI — IRI TO TERM (SWBD 80) IN SAME CAD

U0B — 2M (TBII) REL; U0B TO TERM (SWBD 51) IN SAME CAD

U0A — 10M (TBII) REL; U0A TO TERM (SWBD 57) IN SAME CAD

ATBI — 9 (TBII) REL

OFC — 5 — OFC5; U; 0 — OFC0 — TO TERM (SWBD 66-71) IN SAME CAD

U — (OFC0-5) REL

2C — 5 — 1M (OFC5) REL; 0 — 1M (OFC0) REL

1C — 5 — 4M (OFC5) REL; 0 — 4M (OFC0) REL

2B — 5 — 2M (OFC5) REL; 0 — 2M (OFC0) REL

1B — 5 — 5M (OFC5) REL; 0 — 5M (OFC0) REL

2A — 5 — 3M (OFC5) REL; 0 — 3M (OFC0) REL

1A — 5 — 6M (OFC5) REL; 0 — 6M (OFC0) REL

ABN — ABN TO TERM (SWBD 74) IN SAME CAD

ARI — ARI TO TERM (SWBD 73) IN SAME CAD

AIS — AIS TO TERM (SWBD 76) IN SAME CAD

NAI — U (NAI) REL; NAI TO TERM (SWBD 60) IN SAME CAD

ITB — 3 (TBII) REL

TS (A) ON AIS UNIT

CROSS CONN AS SPEC IN SECT D

DC — 7 DC7; 4 DC4; 2 DC2; 1 DC1; 0 DC0

DB — 7 DB7; 4 DB4; 2 DB2; 1 DB1; 0 DB0 — TO CAD 191 (T & CT FR)

DA — 7 DA7; 4 DA4; 2 DA2; 1 DA1; 0 DA0

CR3P CR3P; CR1P CR1P; CROP CROP

GRD — 2 RR12; 1 RR11 — TO FR GRD BAR

5 (AIS1) REL

10 (NAI) REL

TS (A) IN AIS UNIT

# PART OF CAD 529

(FOR FIG. 129)

MFR DISC.

TO CAD 188 (CE FR) — E0 — (+130) — 58 — (LOLK) RES

TO CAD 188 (T & CT FR) — 5 — 57

TO CAD 188 (CE FR) — 29 — 56 — 8M (LOLC) REL; 28 — 55 — 12M; 27 — 54 — 5M (LOLD) REL

TO CAD 188 — 26 — 53 — 2U (LOLC) REL

4 — 52

TO CAD 188 (T & CT FR) — B19 — 51 — L (LOLB) REL

13A — 3 — 48 — 8F (LOLD) REL

25 — 47 — 10M (LOLB) REL

24 — 46 — 9B; 23 — 45 — 9; 22 — 44 — 1+ (LOLA) REL

TO CAD 188 (CE FR)

21 — 43 — 7; 20 — 42 — 5 (NTL) REL; (LOLP) REL

23A — 2 — 41 — 10F (LOLD) REL

TO CAD 188 (T & CT FR)

19 — 38 — 2 (REM1) DIODE; 18 — 37 — 1L (LOLA) REL — CONN WHEN TENS PLK SCN IS PROVIDED

17 — 36 — U (LOLA) REL; +1 (LOLP) REL

16 — 35 — 9; 15 — 34 — 10 (LOLA) REL

14 — 33 — 10M; 13 — 32 — 8 (LOLC) REL

TO CAD 188 (CE FR) — 12 — 31 — 1 (REM1) DIODE

11 — 28 — 9M (LOLC) REL

10 — 27 — -9 MFR DISC. (NTL) REL

09 — 26 — 5; 08 — 25 — 6M; 07 — 24 — U (LOLD) REL

06 — 23 — 7 (DCTK) REL

05 — 22 — 2

CLK1

TO CAD 188 (T & CT FR) — 1 — 21 — 10M (LOLD) REL

G26 — (-48) — 18 — +2 (LOLK) REL

04 — 17 — 8; 03 — 16 — 8B (LOLE) REL

TO CAD 188 (CE FR) — 02 — 15 — 10B; 01 — 14 — 10 (LOLA) REL

00 — 13 — 7B (LLKB) REL

CLK

TO CAD 188 (T & CT FR) — 0 — 12 — 10B (LOLD) REL

G25 — (-48) — 11 — L (LLKB) REL

TO CAD 228 — LOLD

TS (A) ON RANGE EXTENSION UNIT

DRAWING ISSUE

| | |
|---|---|
| 33D | TS GAU PRA |
| 34A | XML T+I TYP |
| 35D | XML T+I PRA |
| 37D | UP |
| 39D | ESM |
| 41D | |

ISSUE 69B

COMPLETING MARKER CIRCUIT

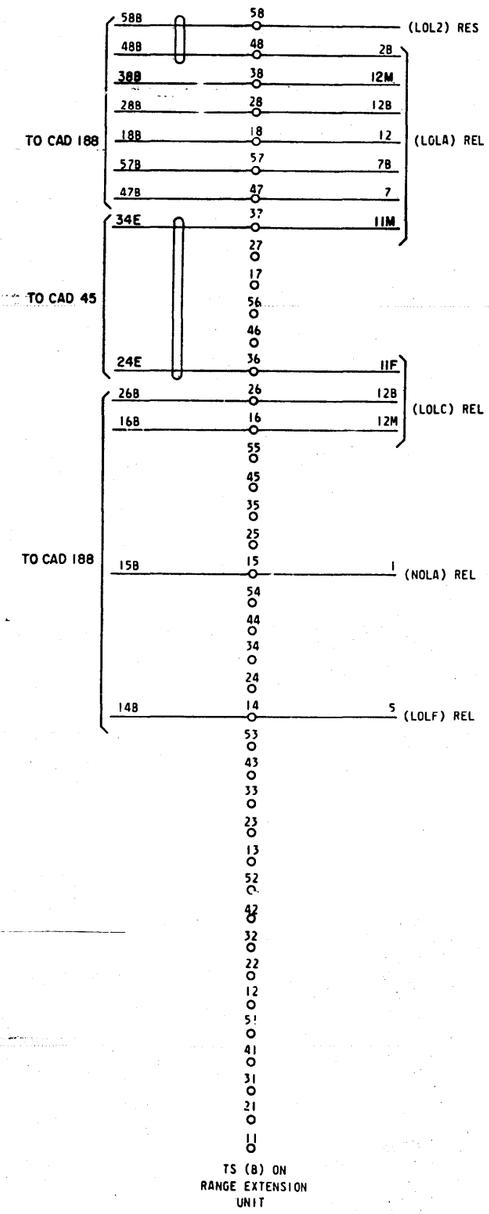
SD-26002-01-G321A

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

PRINTED IN U.S.A.

# PART OF CAD 529
(FOR APP FIG. 129)




ISSUE 59B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G321B

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G321B

# CAD 530
(FOR APP FIG. 130)

MULT SHOWN IN CAD 121

ADD9 58 12M
ADD8 57 11M
ADD7 56 10M
ADD6 55 9M
TO CAD 123 — ADD5 54 8M
ADD4 53 5M (MT37) REL
ADD3 52 4M
ADD2 51 3M
ADD1 48 2M
ADD9 47 12B
ADD8 46 11B
TO CAD 193 — ADD7 45 10B
ADD6 44 9B
ADD5 43 8B
TO CAD 123 — INH 42 1M (MT38) REL
ADD4 41 5B
ADD3 38 4B
TO CAD 193 — ADD2 37 3B
ADD1 36 2B
ADD0 35 1B (MT37) REL
A & M ONLY — ADD 34 1M
TO CAD 123 — AGCK 33 6M
ADD0 32 5
27 31 5
26 28 10B (ARTC) REL
(4) 25 27 10
24 ART4 26 4 (MT37) REL
27 25 4
26 24 9B (ARTC) REL
(3) TO AUX ACS GR CONT INPUT UNIT 25 ART3 23 9
24 22 3 (MT37) REL
27 21 3
26 18 8B (ARTC) REL
(2) ASSOC WITH ACS GR CONT UNIT 25 ART2 17 8
24 16 2 (MT37) REL
27 15 2
26 14 7B (ARTC) REL
(1) 25 ART1 13 7
24
INH4
INH3
INH2
INH1
INH0 ARTQ 12 6 (ARTC) REL
TO CAD 534
TO CAD 193
TO CAD 123 — 11
TS (A) ON ACS GR CONT INPUT UNIT

TO CAD 534 — (9) TC AUX (8) AGC INPUT UNIT (7) ASSOC UNIT (6) WITH AGC UNIT (5)
27 58 12
27 57 11
27 56 10 (MT37) REL
27 55 9
27 54 8
53
TO CAD 192 33A
TO CAD 534 46
52
24A 51 1 (MT38) REL
33A 48
TO CAD 564 — 53A 47 6M (AGC) REL
43B 46 1 (TACO) REL
43A 45 2
TO CAD 192 44B 44 5 (AGC) REL
TO CAD 564 — 23A 43 5M (AGCK) REL
13A 42 5
139 41 7 (MT37) REL
138 38 5M (MT38) REL
137 37 7M (MT37) REL
136 36 11 (ARTC) REL
135 35 4M
134 34 12
133 33 4 (AGC) REL
132 32 3B
131 31 3
128 28 10M
127 27 6B
126 26 6
125 25 6M (AGCF) REL
124 24 2B
TO CAD 192 — 123 23 2
122 22 6B
121 21 6M (AGCK) REL
118 18 CONN TO TS(C) PCHG 16
117 17 8B (AGCK) REL
116 16 3M
115 15 2
114 14 1B (MT38) REL
113 13 U
112 12 6B (MT37) REL
111 11
TO CAD 564 — 14A
TO CAD 123 — AGCT
RUN FROM 1ST MKR ONLY
MULT TO ALL W SPG COMPL MARKERS SHOWN IN CAD 121
TS (B) ON ACS GR CONT INPUT UNIT

58
57
56
55
54
53
52
51 4 (TACO) REL TO FR GRD BAR
48
47
46

MULT SHOWN IN CAD 121

TO CAD 120 — OGRQ 45 1M (OACO) REL
TGRQ 44 1M (TACO) REL
OSTO 43 2M (OACO) REL
TGTO 42 2M (TACO) REL
TO CAD 192 — OGRQ 41 7
ORTO 38 7M
TGRQ 37 8 (ARTO) REL
ARTO 36 8M
AGMO 35 1M
AGCK 34 7M (OACO) REL
TO CAD 193 — ALM2 33 4B (ARTO) REL
ALM1 32 4M
TO CAD 120 — OABO 31 3 (OACO) REL
TABO 28 3 (TACO) REL
OATO 27 5B (ARTO) REL
TECO 26 U (TACO) REL
OACO 25 U (OACO) REL
TARO 24 6B (ARTO) REL
23 23 7
22 22 6 (TACO) REL
21 21 5
TO CAD 192 — 18 18 4M CONN TO TS(B) PCHG 18
17 17 7
16 16 6 (OACO) REL
15 15 5
TPBO 14 6M
OPBO 13 5M (ARTO) REL
12 12 2M
11 (G1-BAT.) 11 L (TACO) REL
TO CAD 534
TO CAD 564 — 11A
TS (C) ON ACS GR CONT INPUT UNIT

# CAD 531
(FOR APP FIG. 131)

29 58
28 57
27 56
26 55 35 (PDL) REL
25 54 34
24 53 23 (OGR2) REL
23 52 22
8 51
22 48
21 47 53 (PGRI4) REL
20 46 15 (OGRI) REL
19 45 15 (PGR00) REL
18 44 41 (PGR13) REL
17 43 42
7 42 33 (PGR12) REL
6 41
16 32
15 37 23 (PGR11) REL
5 36 22
TO CAD 197 — 4 35 13 (PGR10) REL
3 34 53 (PGR09) REL
14 33 43 (PGR08) REL
13 32 42
2 31 33 (PGR07) REL
12 28 23 (PGR06) REL
11 27 13 (PGR05) REL
10 26 12
09 25 53 (PGR04) REL
08 24 52
07 23 43 (PGR03) REL
22 42 TO FR GRD BAR
1 21
05 18 33 (PGR02) REL
04 17 32
03 16 23 (PGR01) REL
02 15 22
01 14 13
00 13 12 (PGR00) REL
0 12
-48 (H33-BAT.) 11 11
TS (A) (ON TDP UNIT)
(MFR DISC.)

DRAWING ISSUE

| | | |
|---|---|---|
| 33D | TS CA... | |
| 35D | KND TRI AND | |
| 36A | WM | |
| 37D | WM | |
| DRAWING REFURBISHED WITHOUT CHANGE 10-1-68 | | |
| 42A | | CB |
| 43C | | CB |

ISSUE 57B

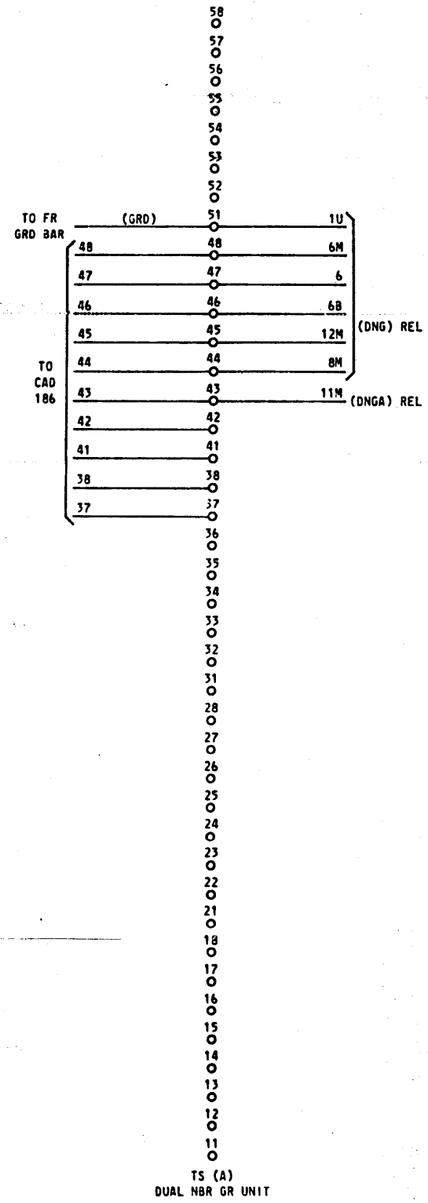
COMPLETING MARKER CIRCUIT (2) SD-26002-01-G322

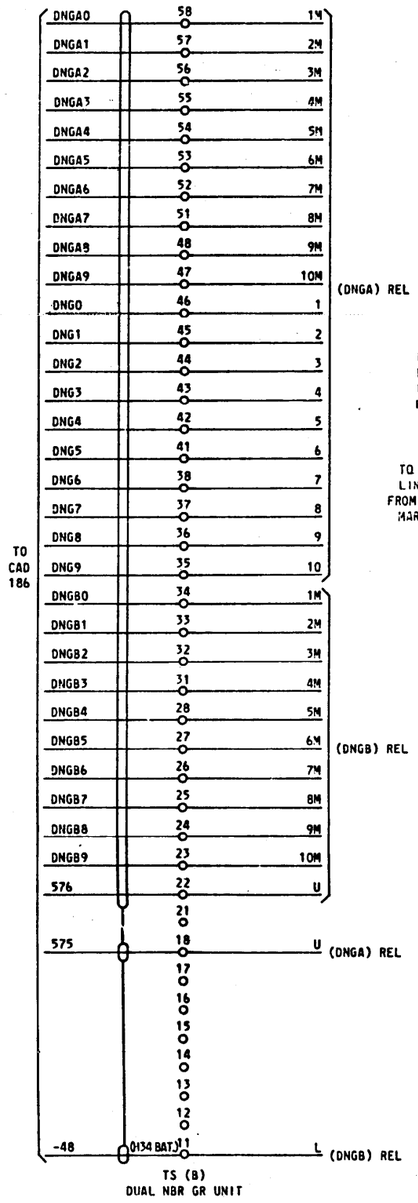
BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-G322

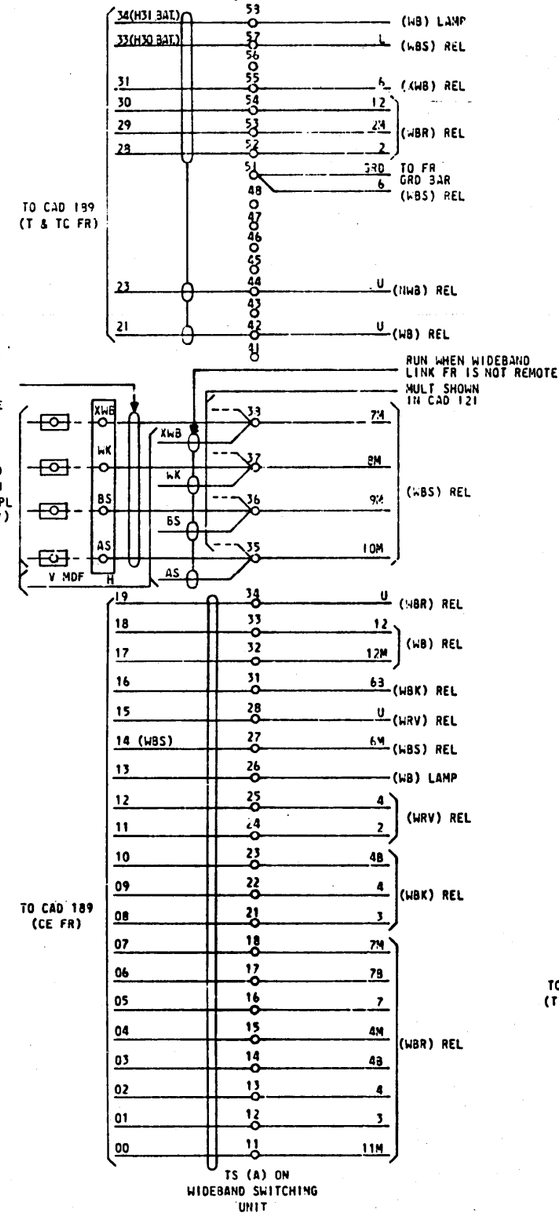
HIGGINS 4469

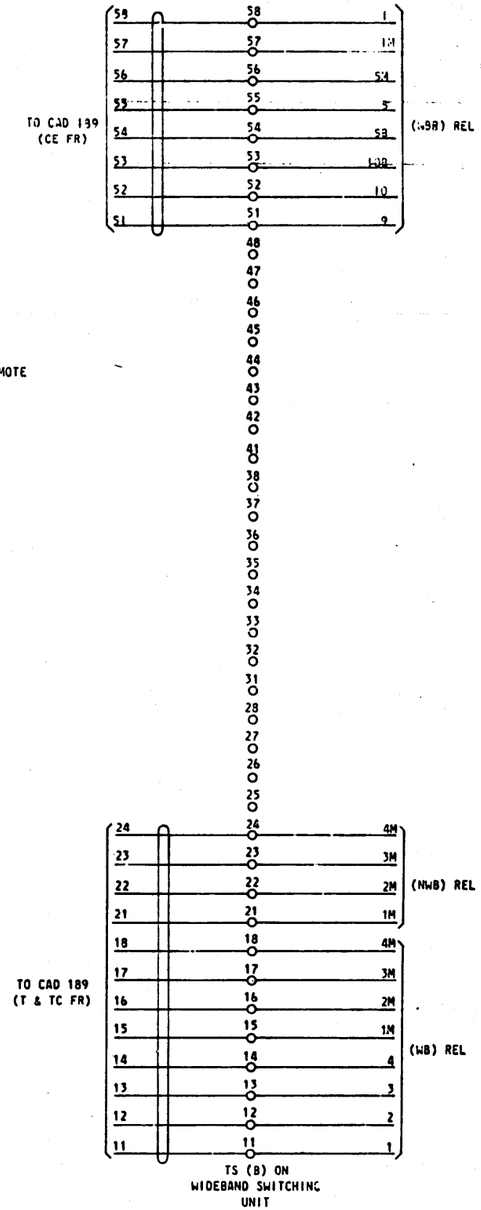
# CAD 532
(FOR APP FIG. 132)




# CAD 533 (SPECIAL)
(FOR APP FIG 133)




| DRAWING ISSUE | |
|---|---|
| 33D | TS CAL AND |
| 35D | DY TAS AND |
| 36A | WM |
| 37D | WM |

37

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G323

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE DWG NO 6S

SD-26002-01-G323

HIGGINS 4465

# CAD 534
(FOR APP FIG. 134)

TO SUCC AUX ACS GR CONT INPUT UNIT

RUN ON UNIT ASSOC WITH ACS GR CONT (1) ONLY

TO CAD 530

TPB-

OPB-

TO PREC AUX ACS GR CONT INPUT UNIT

(TAC-) REL

(OAC-) REL

(ART-) REL

CONN ON AUX AGC UNITS ASSOC WITH AGC 1,3,5,7 OR 8

TO SUCC CAD 534

TO CAD 192

TO PREC CAD 534

CONN ON AUX AGC UNITS ASSOC WITH AGC 2,4,6,8 OR 9

TS (A) ON AUX ACS GR CONT INPUT UNIT ASSOC WITH ACS GR CONT

OGR-

TGR-

OST-

TGT-

TO CAD 120

(OAC-) REL

(TAC-) REL

(OAC-) REL

(TAC-) REL

RUN ON UNIT ASSOC WITH ACS GR CONT (1) ONLY

TO FR GRD BAR

TO SUCC AUX AGC INPUT UNIT

TO CAD 564

TO CAD 530

TO PREC AUX AGC INPUT UNIT

ORT-

TGR-

ART-

AGM-

TO CAD 192

(TAC-) REL

(ART-) REL

AGCK-

ALM2-

AL41-

TO CAD 193

(TAC-) REL

(ART-) REL

OAB-

TAB-

TO CAD 120

(OAC-) REL

(TAC-) REL

MULT SHOWN IN CAD 121

OAT-

TEC-

OAC-

TAR-

TO CAD 192

(ART-) REL

(TAC-) REL

(OAC-) REL

(ART-) REL

TO CAD 564

TO CAD 530

(ART-) REL

CONN ON ASSOC AGC 1-4 ONLY

TS (A) ON AUX ACS GR CONT INPUT UNIT ASSOC WITH ACS GR CONT

# CAD 535
(FOR APP FIG 135)

TO CAD 194

(GLC) REL

(GLB) REL

(GLR) REL

(GLB) REL

(GLA) REL

(GLC) REL

(GLR) REL

(GLC) REL

(GLR) REL

(GLB) REL

(GLR) REL

(GLA) REL

(GL) REL

(GLR) REL

(GLA) REL

TO RELAY RACK GROUND BAR

(GLB) REL

(GLA) REL

(GLC) REL

TO GL TIME DELAY CONTROL UNIT

TS (A) ON GLARE DETECTION UNIT

TO CAD 227

TO CAD 194

(GLC) REL

(GLA) REL

(A&M ONLY) CONNECT WHEN LEADS ARE REQUIRED AND TS (B) IS NOT PROVIDED

TS (B) ON GLARE DETECTION UNIT

DRAWING ISSUE

| | |
|---|---|
| 33D | T3 426 409 |
| 35D | 16C 741 440 |
| 37D | PM2 |
| 39D | DLB |
| 42A | CB |
| 43D | CB |

ISSUE 57B

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-G324

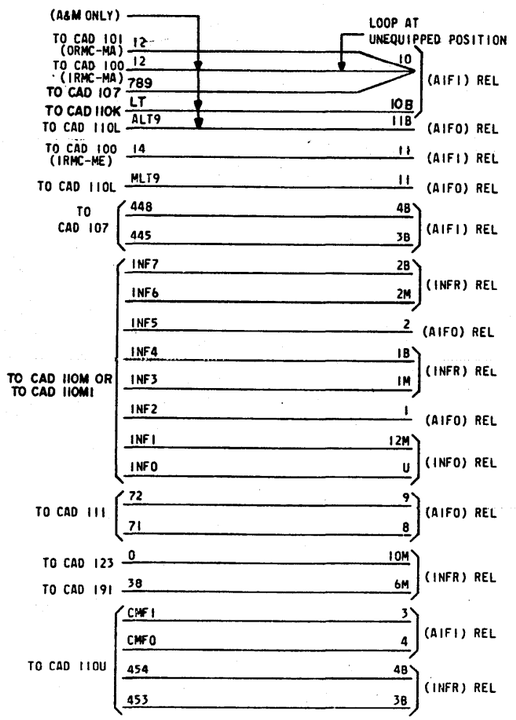
BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

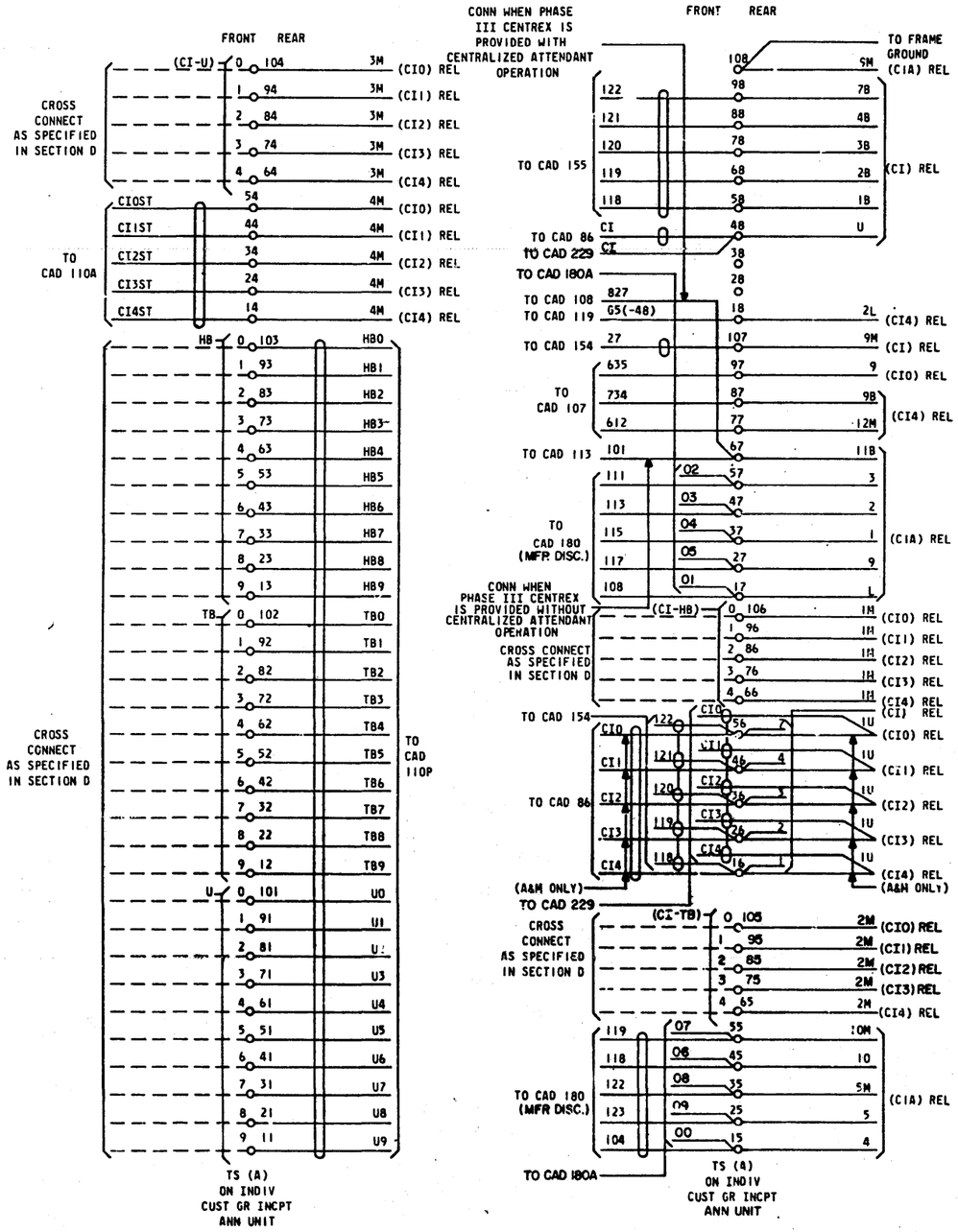
PRINTED IN U.S.A.

SD-26002-01-G324

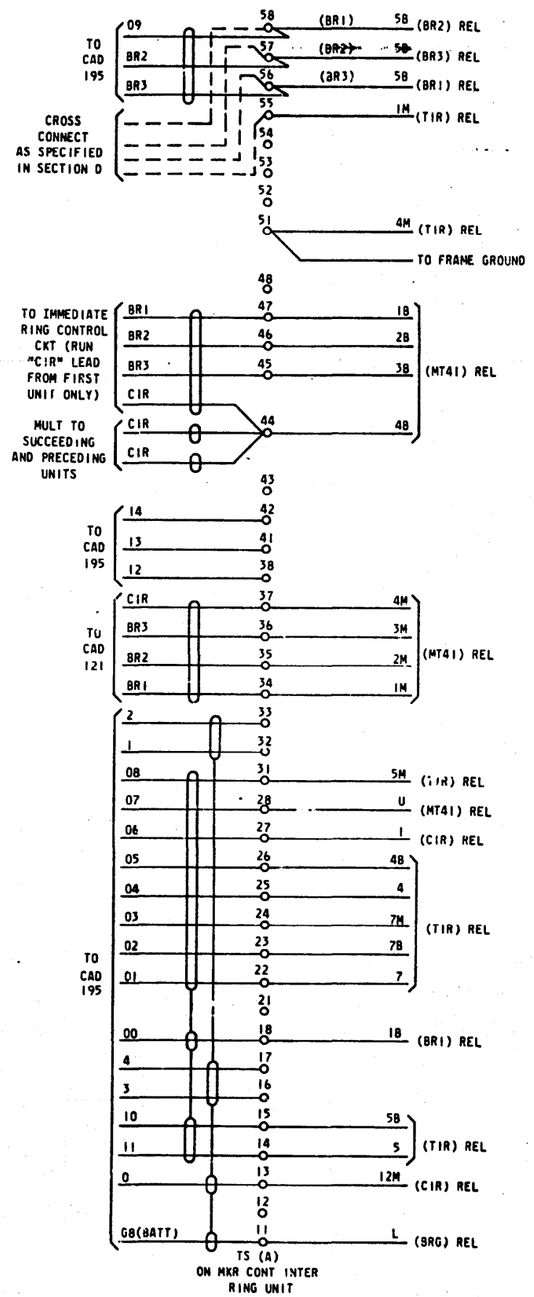
## CAD 536 (A&M ONLY)
(FOR APP FIG 136)




## CAD 537
(FOR APP FIG 137)




## CAD 538
(FOR APP FIG 138)




DRAWING ISSUE 39D RP 41D

ISSUE 58A

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G325

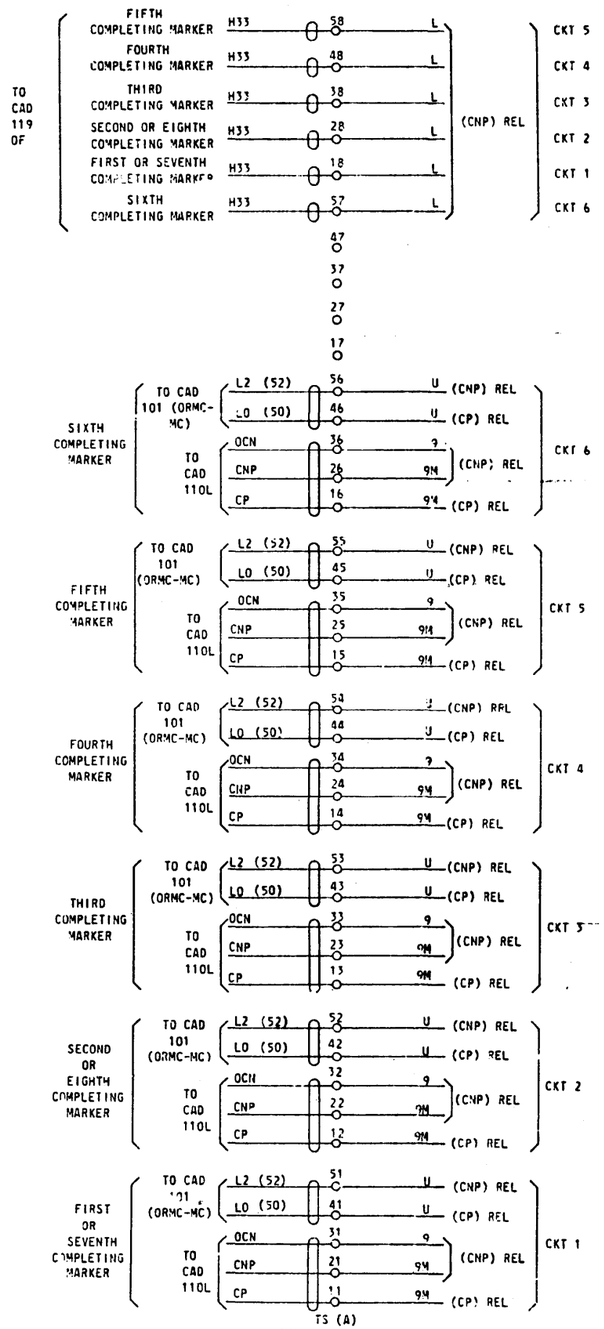
BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G325

# CAD 541 (SPECIAL)

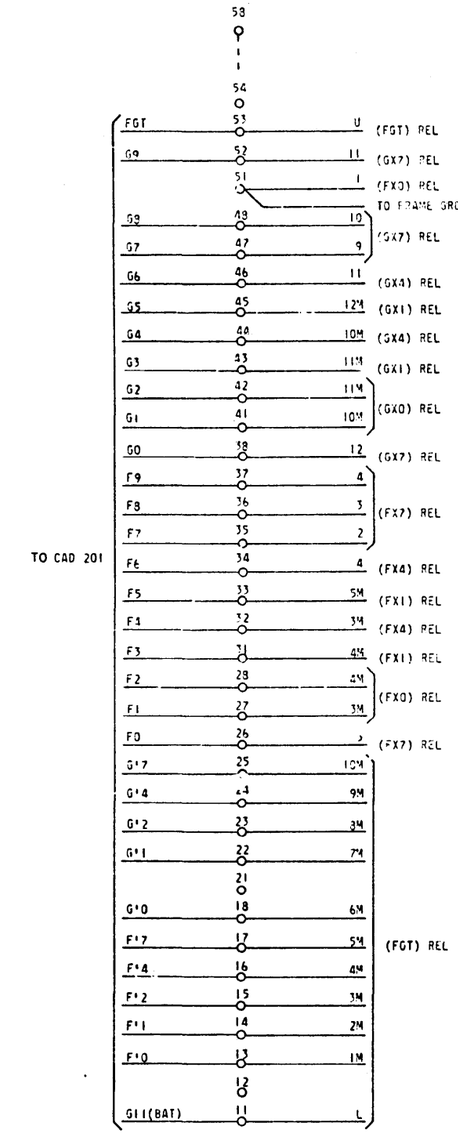
(FOR APP FIG 141)




TS (A)
ON COIN STA DIAL
TONE FIRST UNIT

# CAD 542

(FOR APP FIG 142)




TS (A) ON
F-G DIGIT
TRANSLATOR UNIT

| DRAWING ISSUE | |
|---|---|
| 35D | N6C THIS SHT CAK |
| 37D | CAK |
| 39D | RP |

CB

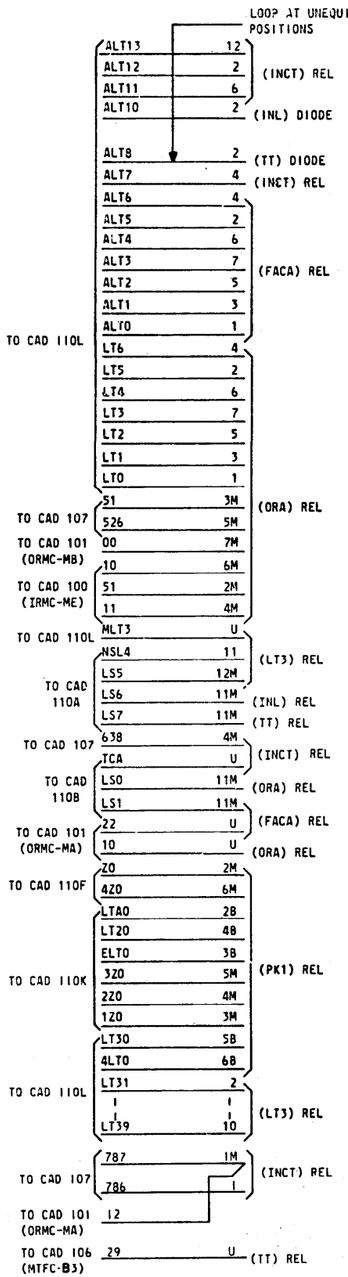
39

COMPLETING MARKER CIRCUIT (2) SD-26002-01-G328

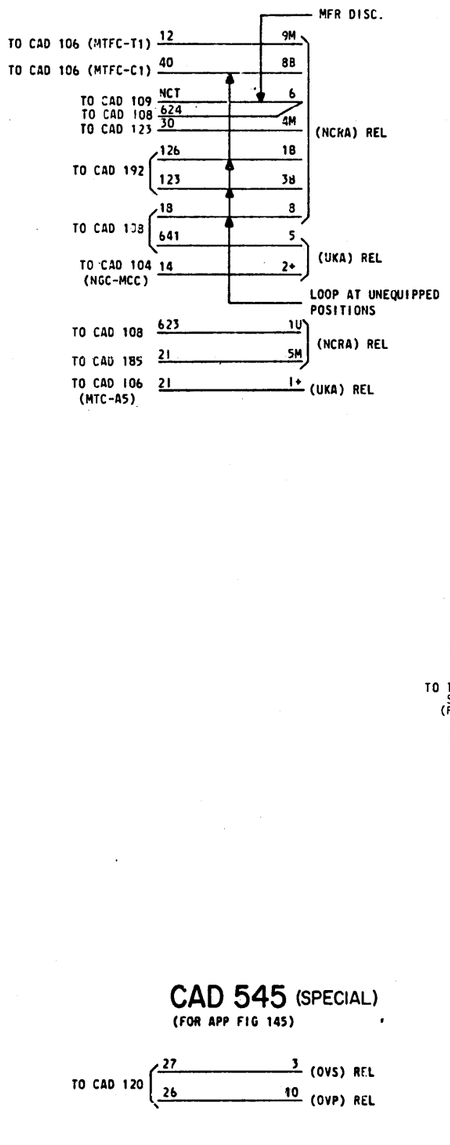
BELL TELEPHONE LABORATORIES INCORPORATED 6S PRINTED IN U.S.A.

SD-26002-01-G328

## CAD 543
(FOR APP FIG 143)



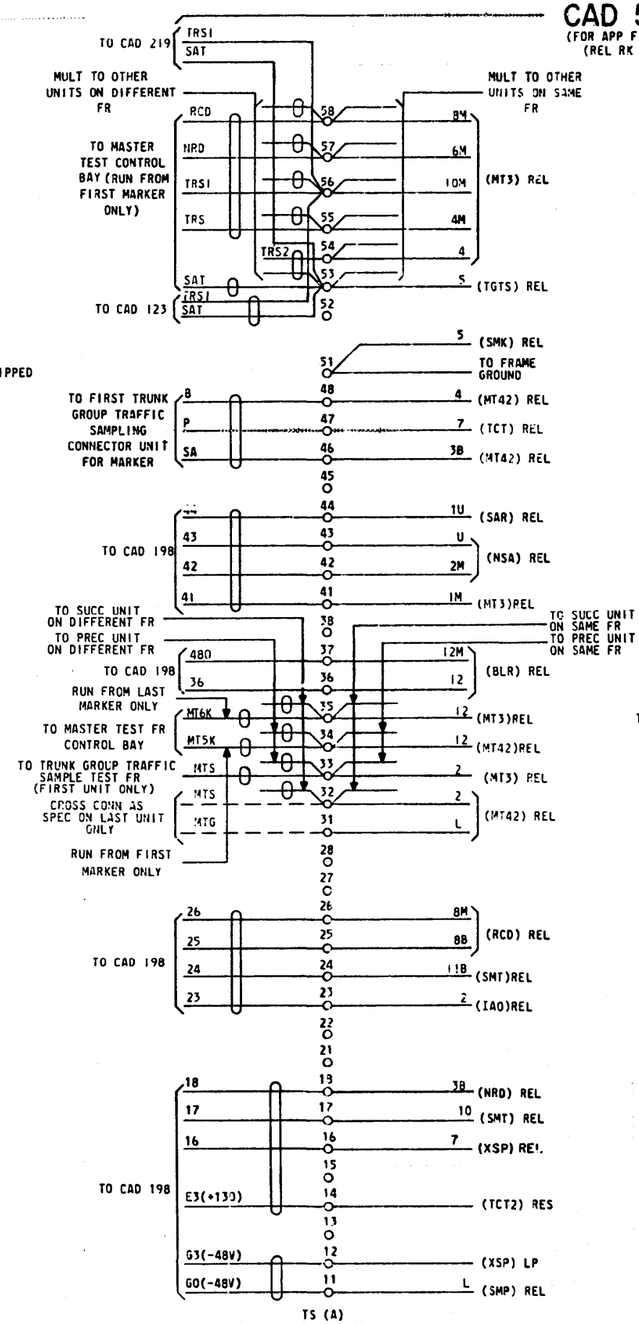

## CAD 544
(FOR APP FIG 144)

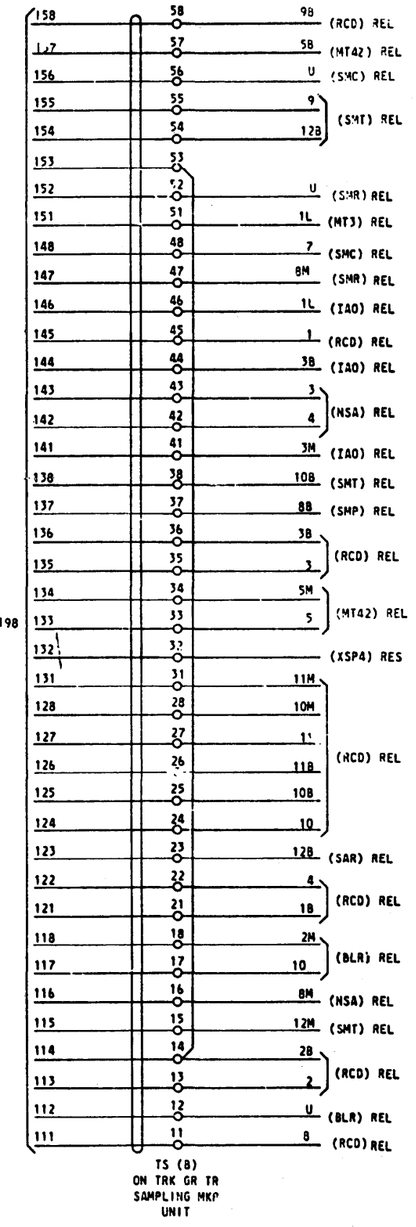



## CAD 545 (SPECIAL)
(FOR APP FIG 145)




## CAD 546
(FOR APP FIG 146)
(REL RK MTD)




| DRAWING ISSUE |
|---|
| 35D |
| 36A |
| 38A |
| 41D |
| 43D |

DRAWING ISSUE 53B

COMPLETING MARKER CIRCUIT (2)

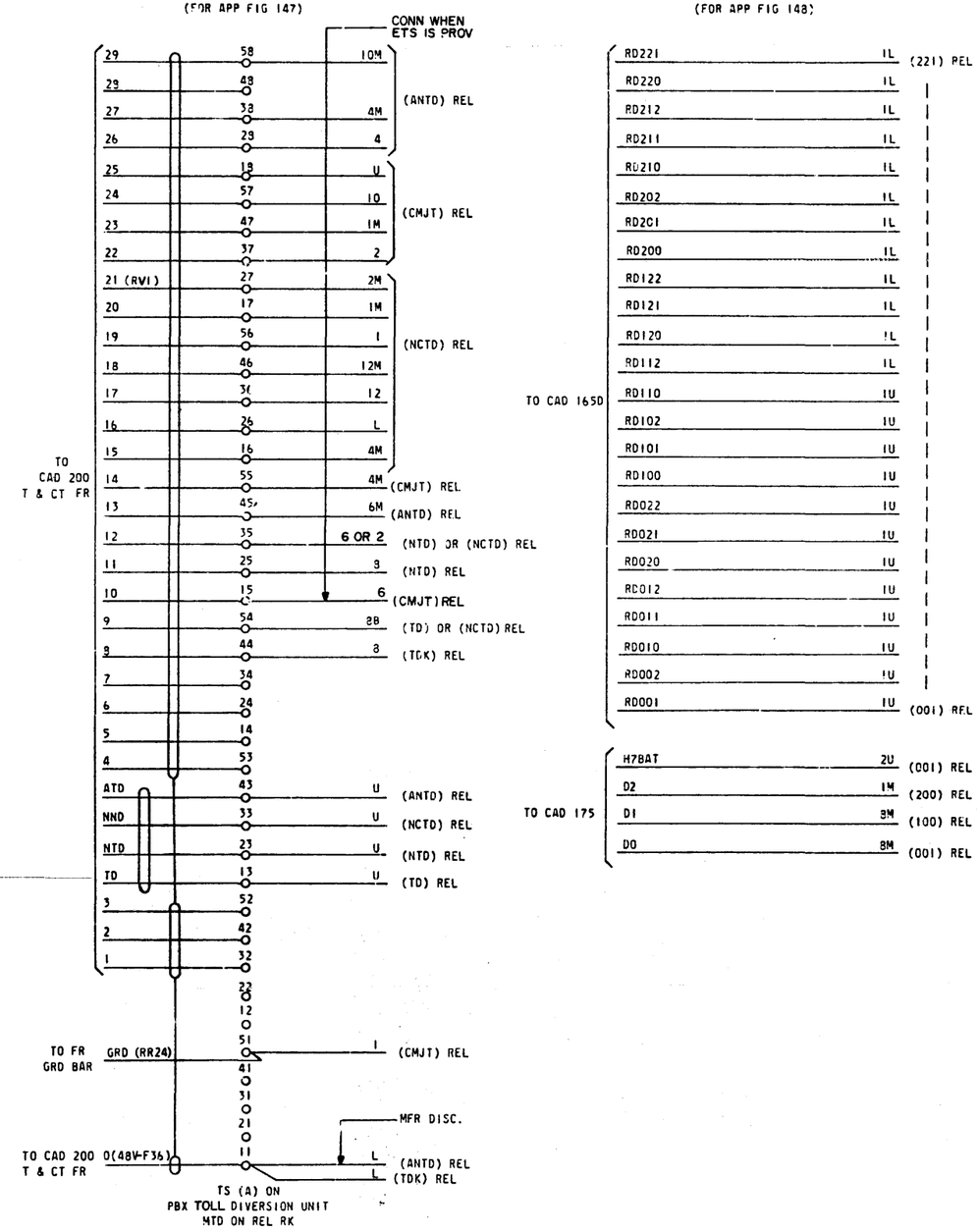
SD-26002-01-G329

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

SD-26002-01-G329

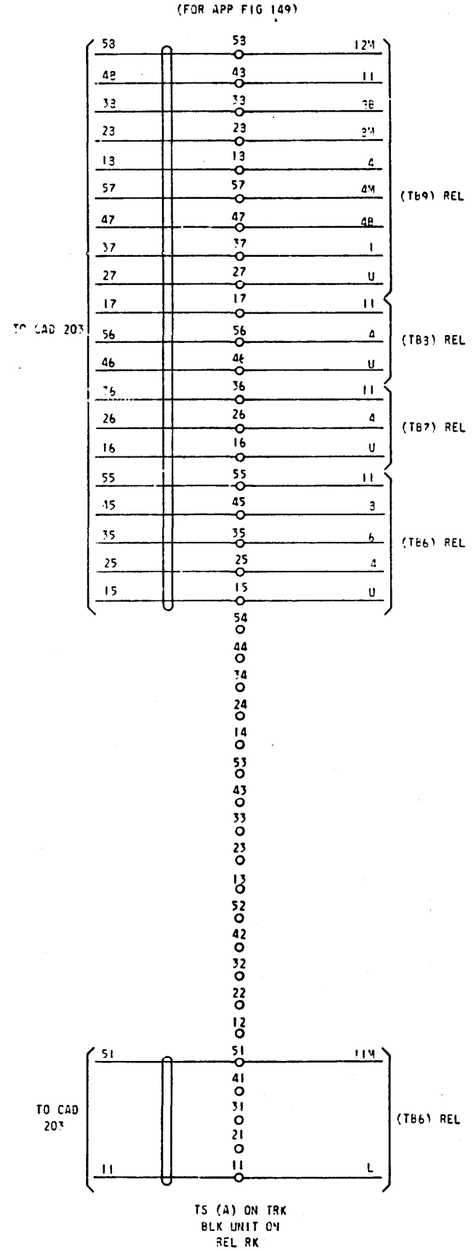
## CAD 547
(FOR APP FIG 147)



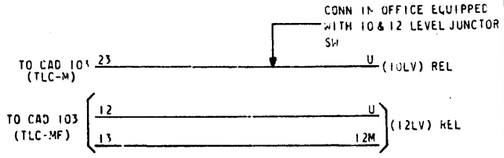

## CAD 548 (MFR DISC.)
(FOR APP FIG 148)




## CAD 549
(FOR APP FIG 149)




## CAD 550
(FOR APP FIG 150)




| DRAWING ISSUE | | |
|---|---|---|
| 37D | RP | CR |
| 39D | RP | CR |
| 41D | | CR |
| 43D | | CR |

ISSUE 57B

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G330

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G330

# CAD 551
(FOR APP FIG 151)

50P0 — 8 (RUK1) REL
44P0 — 12 (RWL) REL
43P0 — 4M (LWL) REL
42P0 — 6M (MMK) REL
41P0 — U (RSMK) REL
40P0, 34P0 — 4, 6 (RUK1) REL
33P0 — U (WL9) REL
32P0, 31P0, 30P0, 24P0, 23P0, 22P0, 21P0, 20P0 — U
TO CAD 106 MTC-P0
14P0 — U (WL0) REL

109 — 6 (XRSC) REL
TO CAD 204: 108 — 6 (XFR) REL
69 — 5M (RSW) REL
TO CAD 106 MTC-P0: 11P0 — U

TO CAD 204: 58, 57 — 3M, 3 (WLKB) REL

14A, 13A, 12A, 9A, 3A — 10, 9, 8, 7, 1 (MT50) REL

TO CAD 123: 48, 4/, 22, 19, 18, 17, 16 — 12, 10M, 5M, 4M, 3M, 2M, 1M (MT46) REL

TO CAD 205 WIDEBAND/BIT-STREAM LLC-MA: 51A — 12M

TO CAD 205 WIDEBAND/BIT-STREAM LLC-MC: 01C — L (MMK) REL

TO CAD 204: 170, 167, 166, 160, 159 — 4, 12, 1, 4, 2 (RSW) REL (RWL) REL (RSMK) REL (RVT REL)

34C, 33C, 32C, 31C, 30C, 24C, 23C, 22C, 21C, 20C — 10M, 9M, 8M, 7M, 6M, 5M, 4M, 3M, 2M, 1M (MT50) REL

TO CAD 205 WIDEBAND/BIT-STREAM LLC-MB: 34B — U (LWL) REL

TO CAD 206 WIDEBAND/BIT-STREAM TLC-MB: 13B, 12B — 4B, 2B (RVT) REL

54C, 53C, 52C, 51C, 50C, 44C, 43C, 42C, 41C, 40C — 4 (WL9) REL

TO CAD 205 WIDEBAND/BIT-STREAM LLC-MC: 32B, 31B — 11M, 12M (WLKB) REL (WL0) REL

# PART OF CAD 552
(FOR APP FIG 152)

47, 46 — 2M, 2 (MT44) REL
43 — 4 (SCB3) REL
42, 41 — 1, 1B (ITR3) REL
40, 39 — 7B, 7 (WBC3) REL
38 — 8 (WBA) REL
34 — 4M (NW) REL
33, 32 — 4, 4B (PP) REL
31, 30, 29, 28 — 8B, 8, 12B, 12 (WBC1) REL
TO CAD 204
27 — 6M (TSK) REL
26, 25 — 11B, 11 (WBC1) REL
24 — U (SCB3) REL
23 — U (TER6) REL
22 — U (TOG6) REL
21 — U (ITR3) REL
20 — U (TR2F) REL

TO CAD 106 MTC-P0: 10P0 — U
18, 17 — 2B, 2 (PP) REL
16 — (PP) RES
TO CAD 204: 10, 156 — 1, 1B (WBA1) REL

07 — 12B (TR2F) REL
06 — 9 (NW) REL
WMST2, WMST1, WMST0, WTR2, WTR1, WTR0 — 8M, 7M, 6M, 8B, 7B, 6B (TR2F) REL
TO CAD 123

WTPC2, WTPC1, WTPC0 — 6M (WB2) REL, (WB1) REL, (WB0) REL
TO CAD 204: 200 — 9 (WLC1) REL

TO CAD 204: 85, 84, 82 — 9B, 9, 12M (WBC3) PEL, (RTW) REL
TO CAD 106 MTC-P0: 12P0 — U
80 — 2M (TER6) REL
78, 77, 76 — 10, 10B, 10M (WBC1) REL

MFR DISC.
74 — 4M (WBA) REL
73, 72, 71, 70 — 12B, 12, 11B, 11 (WBC3) REL
66 — U (CWB) REL
65 — 4M (WRM1) REL
TO CAD 204: 64 — 6B, 4 (WBC1) REL
63 — 2 (RDL1) REL
62 — U (RYC1) REL
61 — 10B (CWB) REL
60, 59 — 6M, 6 (TER6) REL
55, 53 — 3, 2 (WBC1) REL
218 — 11 (FP) REL
164 — 7B (DS1) REL
236 — 12M (TER6) REL
238 — 5 (ITR3) REL
242, 243 — 2, 2B (WBC3) REL
244 — 9M (TOG6) REL

WBN2, WBN1, WBN0 — 8M (WB2) REL, (WB1) REL, (WB0) REL
TO CAD 207
TO CAD 205 WIDEBAND/BIT-STREAM LLC-MB: 24B — 3M (WLC1) REL

WTS2, WTS1, WTS0 — 12M (WB2) REL, (WB1) REL, (WB0) REL
TO CAD 207

258, 257, 260, 259 — 6M, U, 3B, 3 (WRM1) REL, (WBC3) REL
TO CAD 204

DRAWING ISSUE
39D ESM
40A
41D
43D
44A

DRAWING ISSUE
57B

COMPLETING MARKER CIRCUIT (2)
SD-26002-01-G331
BELL TELEPHONE LABORATORIES INCORPORATED
6S

SD-26002-01-G331

# PART OF CAD 552
(FOR APP FIG 152)

| | | | |
|---|---|---|---|
| | 197 | 2M | (ITR3) REL |
| | 196 | 5 | |
| | 195 | 7 | (WTFK) REL |
| | 98 | 6 | |
| | 124 | 10B | |
| | 123 | 10 | |
| TO CAD 204 | 122 | 11B | |
| | 121 | 11L | (WBA) REL |
| | 120 | 12B | |
| | 119 | 12M | |
| | 118 | 12 | |
| | 117 | 6B | |
| | 99 | U | (MT43) REL |
| TO CAD 123 | 2 | 12M | |
| | 97 | 5M | |
| | 96 | 5 | |
| | 95 | 6M | |
| | 94 | 6 | (WBC3) REL |
| | 93 | 1 | |
| TO CAD 204 | 92 | 1B | |
| | 91 | 8B | |
| | 90 | 8 | |
| | 87 | 4B | (MT43) REL |
| | 86 | 4M | |
| | 198 | U | (NW) REL |
| | 54P0 | U | (WB2) REL |
| | 53P0 | U | (WB1) REL |
| TO CAD 106 MTC-P0 | 52P0 | U | (WB0) REL |
| | 51P0 | U | |
| | 180 | 8B | (PP) REL |
| TO CAD 204 | 179 | 9M | |
| TO CAD 206 WIDEBAND/BIT-STREAM TLC-MA | 03A | 3M | (LSW) REL |
| | 04A | 6B | (DS1) REL |
| TO CAD 123 | 3 | 9M | (MT43) REL |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MB | 54B | 5M | (WLC1) REL |
| | 136 | 4B | |
| TO CAD 204 | 135 | 4M | (RIW) REL |
| | 113 | 4 | |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MB | 52B | 1M | |
| | 55 | 2M | |
| | 42 | 1 | (MT49) REL |
| | 29 | 5M | |
| | 28 | 6M | |
| TO CAD 123 | 69 | 1 | |
| | 68 | 7 | |
| | 67 | 8 | (MT43) REL |
| | 66 | 5 | |
| | 49 | 1 | |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MA | 52A | 1M | (MT45) REL |
| | 02 | 2B | |
| | 01 | 2 | (WBA) REL |
| TO CAD 204 | 05 | 9M | (WLC1) REL |
| | 148 | 10M | (MT47) REL |

| | | | |
|---|---|---|---|
| | 134 | 9B | (WBA) REL |
| | 133 | 1 | |
| | 132 | 1B | (WBC1) REL |
| | 131 | 1 | |
| TO CAD 204 | | | (RIW) REL |
| | 129 | 1B | |
| | 126 | 7M | |
| | 125 | 7 | (WBA) REL |
| | 00B | U | (WLFK) REL |
| | | | |
| | 42B | U | (WBT2) REL |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MB | 41B | U | (WBT1) REL |
| | 40B | U | (WBT0) REL |
| | 43B | U | (NWT) REL |
| | 145 | 12 | |
| TO CAD 204 | 144 | 11 | |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MA | 02A | 2M | (WLC) REL |
| TO CAD 206 WIDEBAND/BIT-STREAM TLC-F | 01 | 6B | |
| TO CAD 204 | 142 | 3M | |
| TO CAD 206 WIDEBAND/BIT-STREAM TLC-MB | 11B | 3 | (DS1) REL |
| | 10B | 1 | |
| TO CAD 206 WIDEBAND/BIT-STREAM TLC-MA | 01A | 1M | (WTC) REL |
| TO CAD 106 MTC - P1 | 11P1 | U | (WTFK) REL |
| | 10P1 | 12 | (TSK) REL |
| | 141 | 10M | (NW) REL |
| TO CAD 204 | 140 | 11M | (WB2) REL |
| | 139 | 11M | (WB1) REL |
| | 138 | 11M | (WB0) REL |
| | WE | 5 | |
| | WM | 4 | |
| TO CAD 207 | WM1 | 4B | (TR2F) REL |
| | WS | 3B | |
| TO CAD 206 | 00 | 9B | |
| TO CAD 204 | 19C | 7M | |
| | 73 | 2 | |
| | 72 | 1 | |
| | 65 | 4M | |
| | 64 | 3 | |
| | 63 | 11M | (MT47) REL |
| TO CAD 123 | 62 | 7 | |
| | 59 | 1C | |
| | 58 | 12M | |
| | 57 | 6M | |
| | 56 | 9M | |
| | 53 | 8M | |

DO NOT CONNECT WHEN BIT-STREAM IS PROVIDED

| | | | |
|---|---|---|---|
| | 127 | 1M | |
| TO CAD 204 | 67 | 4B | (WBC3) REL |
| | 19 | 4 | |
| | TRB | 10M | (WBC2) REL |
| TO CAD 209 | L8 | 4B | |
| | T8 | 4M | (TOG6) REL |
| | 37 | 11 | |
| | 34 | 6 | (MT43) REL |
| | 15 | 12M | |
| | 14 | 11M | |
| | 13 | 10M | |
| | 12 | 9M | |
| TO CAD 123 | 9 | 8M | (MT45) REL |
| | 8 | 7M | |
| | 7 | 6M | |
| | 6 | 5M | |
| | 5 | 4M | |
| | 4 | 3M | |
| TO CAD 208 | GS | 7 | (WBC2) REL |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MC | 02C | 1M | (WLC1) REL |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MD | 03D | 1Q | (MT43) REL |
| TO CAD 205 WIDEBAND/BIT-STREAM LLC-MA | 03A | 1M | (WLC) REL |
| TO CAD 206 WIDEBAND/BIT-STREAM TLC-MB | 14B | 11 | (DS1) REL |
| | 163 | 2M | |
| | 162 | 1M | (WB0) REL |
| | 161 | 6M | (WONX) REL |
| | 155 | 4 | (CWB) REL |
| | 154 | 11M | (MT43) REL |
| TO CAD 204 | 151 | 8 | (NWT) REL |
| | 150 | 2B | |
| | 149 | 8 | (TER6) REL |
| | 147 | 9 | |
| | 146 | 8 | (PP) REL |
| | 189 | 1M | |
| | 54 | 1 | |
| | 52 | 3 | |
| | 47 | 4 | |
| | 46 | 6 | |
| TO CAD 123 | 45 | 5 | (MT48) REL |
| | 44 | 7 | |
| | 43 | 8 | |
| | 39 | 9 | |
| | 38 | 10 | |
| | 2A | 2 | |
| | 194 | 7B | |
| TO CAD 204 | 193 | 6 | (RYC1) REL |
| | 192 | 5B | |

| DRAWING ISSUE |
|---|
| 390 FAZ |
| 40A |
| 41D |
| 43015 |

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

BELL TELEPHONE LABORATORIES INCORPORATED — SIZE 6S

SD-26002-01-G332

SD-26002-01-G332

## CAD 553
(FOR APP FIG 153)

TO CAD 106 (MTC-P2)
- 31P2 — U — (WCK) REL
- 30P2 — I — (JSSF) REL
- 33P2 — U — (WFCK) REL
- 40P2 — U — (LWCN) REL
- 34P2 — U — (WCN) REL

CON — DO NOT CONN WHEN BIT-STREAM IS PROV

TO CAD 209
- R — 9
- T — 10
- RI — 11
- TI — 12

(RWCN) REL

CST — 9 — (WCN) REL

TO CAD 205 (WIDEBAND / BIT-STREAM LLC-MC)
- 14C — 11 — (WCH4) REL
- 13C — 11 — (WCH3) REL
- 12C — 11 — (WCH2) REL
- 11C — 11 — (WCH1) REL
- 10C — 11 — (WCH0) REL

TO CAD 205 (WIDEBAND/ BIT-STREAM LLC-MD)
- 54D — 12 — (WCH9) REL
- 53D — 12 — (WCH8) REL
- 52D — 12 — (WCH7) REL
- 51D — 12 — (WCH6) REL
- 50D — 12 — (WCH5) REL
- 44D — 12 — (WCH4) REL
- 43D — 12 — (WCH3) REL
- 42D — 12 — (WCH2) REL
- 41D — 12 — (WCH1) REL
- 40D — 12 — (WCH0) REL
- 34D — 11 — (WCH9) REL
- 33D — 11 — (WCH8) REL
- 32D — 11 — (WCH7) REL
- 31D — 11 — (WCH6) REL
- 30D — 11 — (WCH5) REL

TO CAD 204
- 17O — 9 — (WCTO) REL
- 56 — 4B — (CWCN) REL
- 15 — 4 — (CWCN) REL
- 14 — 3M — (WCN) REL
- 13 — 8B — (CWCN) REL
- 12 — 7M — (WCN) REL
- 11 — 8 — (CWCN) REL

TO CAD 207
- W09 — 7 — (WCT9) REL
- W04 — 7 — (WCT4) REL
- WI5 — 5 — (WCT5) REL
- WIO — 5 — (WCTO) REL

TO CAD 204
- 232 — 4M — (WFCK) REL
- 237 — 8 — (WCHA) REL

TO CAD 120
- 4 — 10M — (WPGO) REL
- 3 — 11M — (WFMP) REL
- 2 — 3M — (WFMP) REL
- 1 — 6M — (WCHA) REL
- 0 — 6M — (WCHO) REL

TO CAD 206 (WIDEBAND/ BIT-STREAM TLC-MA)
- 54A — 7B — (RWCN) REL
- 53A — 11 — (WFCT) REL
- 52A — 12 — (WFCT) REL
- 51A — 9 — (WFCT) REL
- 50A — 10 — (WFCT) REL
- 44A — I — (WCH9) REL
- 43A — I — (WCH8) REL
- 42A — I — (WCH7) REL
- 41A — I — (WCH6) REL
- 40A — I — (WCH5) REL
- 34A — I — (WCH4) REL
- 33A — I — (WCH3) REL
- 32A — I — (WCH2) REL
- 31A — I — (WCH1) REL
- 30A — I — (WCH0) REL
- 24A — 7 — (WCH9) REL
- 23A — 7 — (WCH8) REL
- 22A — 7 — (WCH7) REL
- 21A — 7 — (WCH6) REL
- 20A — 7 — (WCH5) REL
- 14A — 7 — (WCH4) REL
- 13A — 7 — (WCH3) REL
- 12A — 7 — (WCH2) REL
- 11A — 7 — (WCH1) REL
- 10A — 7 — (WCH0) REL

TO CAD 106 (MTC-P1)
- 54P1 — U — (WCH9) REL
- 53P1 — U — (WCH8) REL
- 52P1 — U — (WCH7) REL
- 51P1 — U — (WCH6) REL
- 50P1 — U — (WCH5) REL
- 44P1 — U — (WCH4) REL
- 43P1 — U — (WCH3) REL
- 42P1 — U — (WCH2) REL
- 41P1 — U — (WCH1) REL
- 40P1 — U — (WCH0) REL

TO CAD 208
- ST9 — 4M — (WCH9) REL
- STO — 4M — (WCHO) REL
- CK — 10 — (WCK) REL
- SB9 — 2M — (WCM9) REL
- SBO — 2M — (WCMO) REL

TO CAD 120
- 9 — 8M — (WPG2) REL
- 8 — 1M — (WPG1) REL
- 7 — 2M — (WPG1) REL
- 6 — 12M — (WPGO) REL
- 5 — 11M — (WPGO) REL
- 234 — 3 — (WFMP) REL
- 235 — 11 — (WFMP) REL

TO CAD 204
- 241 — 8 — (WPG2) REL
- 240 — 1 — (WPG1) REL
- 239 — 2 — (WPG1) REL

## CAD 554
(FOR APP FIG 154)

TO CAD 123
- 15A — 4M
- 92 — 12M
- 89 — 11M
- 88 — 10M
- 87 — 9M
- 84 — 7M
- 83 — 6M
- 76 — 2M
- 16A — 5M

(MT51) REL

TO CAD 209
- PC1 — 12
- PC2 — 11
- PC3 — 10
- PC4 — 9
- SLFK — 8
- OST — 6
- CWCN — 5
- WTTI — 12B
- WTRI — 11B
- WTT — 12B
- WTR — 9B

(MT52) REL

TO CAD 123
- 82 — 12M
- 79 — 11M
- 78 — 10M
- 77 — 9M
- 86 — 4M
- 85 — 3M
- 75 — 8M
- 74 — 9M

(MT53) REL
(MT54) REL

TO CAD 209
- ODT2 — 4
- ODT1 — 3

(MT53) REL

TO CAD 204
- 187 — (WJHI) RES
- 172 — 10
- 171 — L

(WFAI) REL

- 165 — 1Z — (WHSI) REL

TO CAD 204
- 158 — 7B
- 137 — 1C

(WHSI) REL

- 100 — U — (TRB3) REL
- 54 — 5 — (WDCI) REL
- 52 — 4 — (WDCA) REL
- 24P2 — U — (WDCI) REL
- 23P2 — 8M — (WHSI) REL
- 22P2 — U — (WTK) REL

TO CAD 106 (MTC-P2)
- 21P2 — 7M — (WSLA) REL
- 20P2 — 7M — (LXWA) REL
- 14P2 — 7M — (LXWI) REL
- 13P2 — 7M — (JXWA) REL
- 12P2 — 7M — (JXWI) REL

TO CAD 205 (WIDEBAND/BIT-STREAM LLC-MB)
- 53B — 5
- 199 — 1M
- 198 — I

(TRB3) REL

TO CAD 204
- 04 — 6M
- 03 — 6
- 75 — 1B

(MT54) REL

- 99 — 3M
- 98 — 2M
- 97 — 1M

TO CAD 123
- 233 — 11

TO CAD 204

| DRAWING ISSUE |
|---|
| 39D JLP |
| 40A |
| 41D |
| 42A |
| 43D |
| 44A |

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-6333

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-6333

## CAD 555
(FOR APP FIG 155)

TO CAD 205 (WBLLC-MA) 50A — 1U (XVF) REL

TO CAD 204
- 169 — 2RT (XWCH) REL
- 168 — 8M (XAWTS) REL
- 157 — 1U (XWSL) REL

TO CAD 204
- 115 — 6
- 114 — 6B
- TO CAD 106 (MTC-P0) 13P0 — 6M

(WMXT) REL

- 112 — 6 (XAWCH) REL
- 111 — 6 (XWJS) REL
- 110 — 6 (XTC) REL
- 107 — 6 (XWVG) REL
- 106 — 6 (XAWTS) REL
- 105 — 6 (XWLS) REL
- 104 — 6 (XMB) REL
- 103 — 6 (XVF) REL
- 102 — 4 (WMXT) REL
- 45 — 1 (XWSL) REL

TO CAD 204
- 256 — 8B
- 255 — 6B
- 254 — 8
- 253 — 6
- 252 — 10M
- 251 — 12M

(CPM8) REL

- 250 — 10
- 249 — 12

- 126 — 5
- 125 — 5M
- 134 — 4B

(WDP) REL

- WDP — U
- TO CAD 207 WP — U (WPP) REL

## CAD 556
(FOR APP FIG 156)

TO CAD 204
- 143 — 4B
- 128 — 7B (VWC) REL
- 81 — 7
- 116 — 5M (WCV) REL
- 101 — 4M (SMB) REL
- 89 — 7
- 88 — 7B
- 83 — 4 (WMM) REL
- 79 — 3B
- 68 — U (WRM) REL
- 37 — 10B
- 36 — 10 (WRA) REL
- 35 — 10B
- 130 — 12B
- 08 — 10M
- 09 — 12M (WMBA) REL

TO CAD 205 (WBLLC-MC) 04C — 9- (WMB) REL

TO CAD 205 (WBLLC-MD)
- 04D — 1 (MT44) REL
- 01D — 9- (NWL) REL
- 02D — 10

(MT44) REL

TO CAD 204
- 153 — U
- 152 — U (WRA) REL

TO CAD 205 (WBLLC-MC) 03C — 10 (VLO) REL

TO CAD 123
- 36 — 12
- 35 — 11
- 33 — 9
- 32 — 7

(MT44) REL

TO CAD 106 (MTC-P2)
- 11P2 — U (WCV) REL
- 10P2 — U (WMM) REL

TO CAD 204
- 51 — 11
- 50 — 10
- 49 — 10B
- 48 — 11B

(VWC) REL

- 00 — 3 (WMM) REL

28
21
18
14
13 — (VLB) RES — 8B (VLR) REL
12
11 — TO CAD 204 191 — (VLB) RES

TS(A) ON WIDEBAND LINE BUSY TEST UNIT

## CAD 557
(FOR APP FIG 157)

TO CAD 204
- 181-186
- 173-178

(WBA) RES LP (MKR 2-7)

- 228-231
- 224-227

(WBA) RES LP (MKR 8-11)

DRAWING ISSUE
39D FIK
40A
41D
43D

DRAWING ISSUE
47D

COMPLETING MARKER CIRCUIT

SD-26002-01-G334

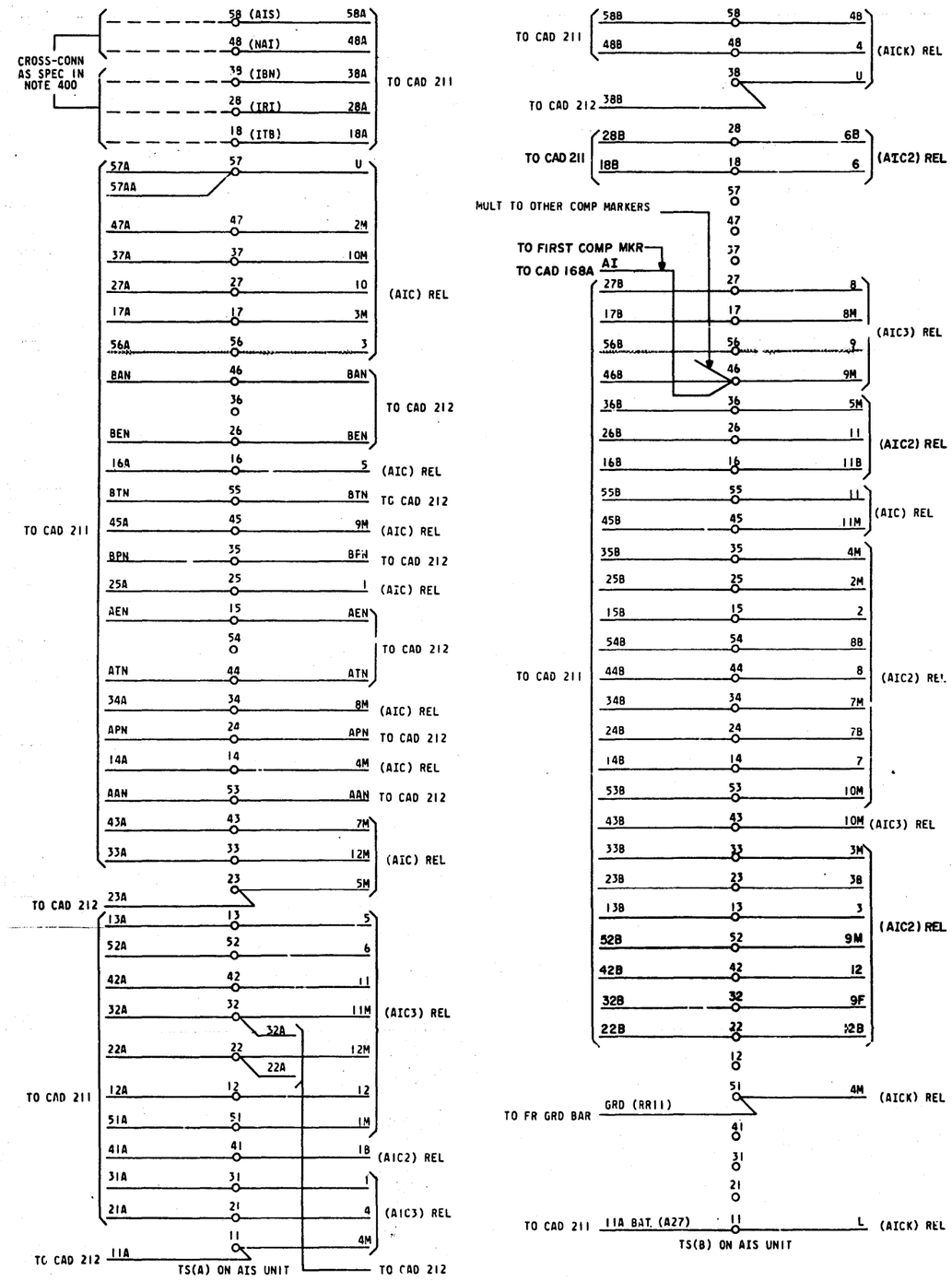
BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-G334

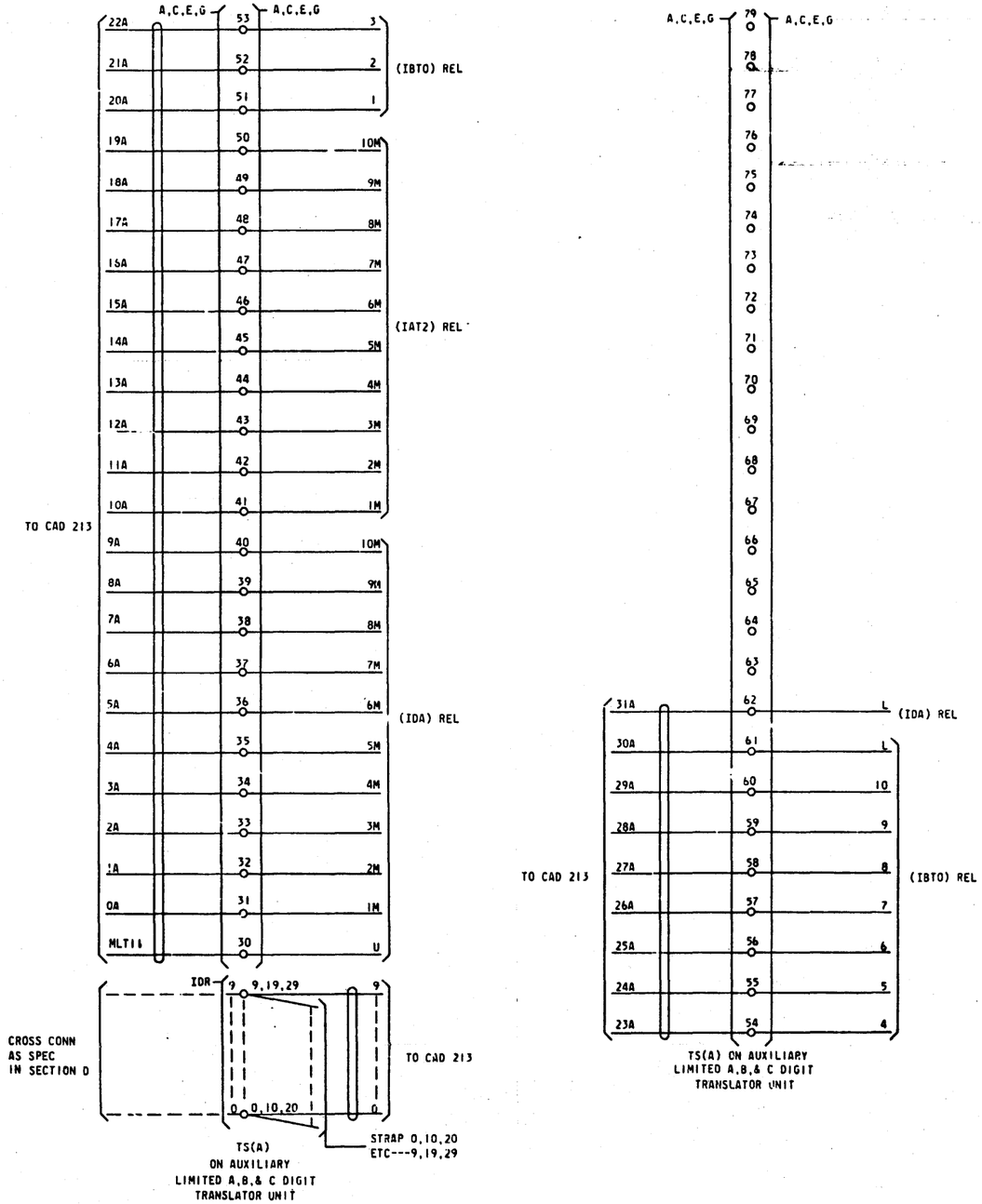
# CAD 558 (A&M ONLY)

(FOR APP FIG 158)




# PART OF CAD 559

(FOR APP FIG 159)




| DRAWING ISSUE |
|---|
| 41D |
| 42A CR |
| 43D |
| 44A |
| DRAWING ISSUE 65B |

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G335

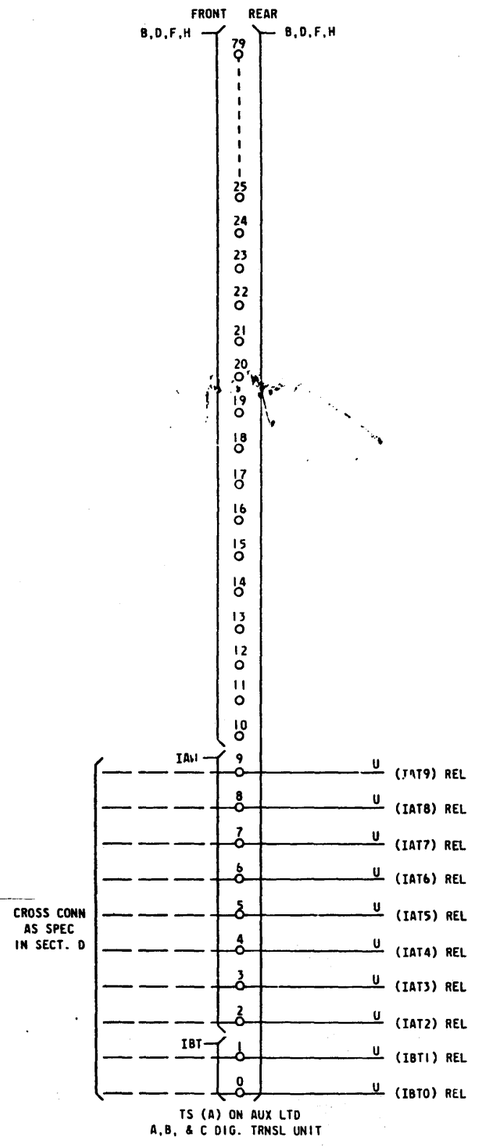
BELL TELEPHONE LABORATORIES INCORPORATED

6S

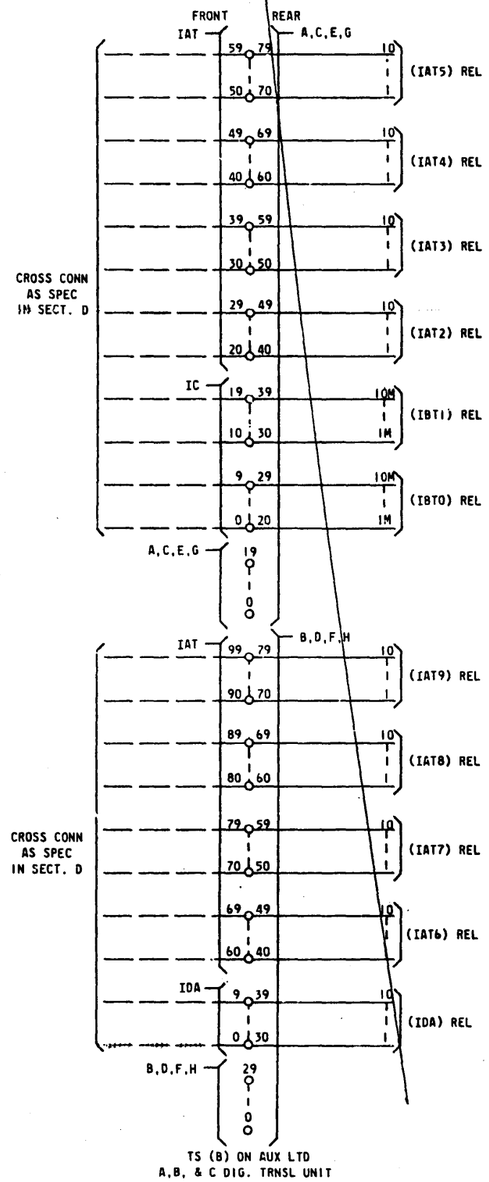
SD-26002-01-G335

# PART OF CAD 559

(FOR APP FIG 159)




TS (A) ON AUX LTD
A,B, & C DIG. TRNSL UNIT




TS (B) ON AUX LTD
A,B, & C DIG. TRNSL UNIT

DRAWING ISSUE 41D

41

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-6336

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-6336

# PART OF CAD 560
(FOR APP FIG 160)

DRAWING ISSUE
43D
44A

58A 58 10 (CWK) REL
48A 48 2 (MT55) REL
38A 38 5 (CWR) REL
28A 28 8
18A 18 8B (CWL) REL
57A 57 10
47A 47 9 (CWNO) REL
37A 37 10 (CWS) REL
27A 27 11 (MT55) REL
17A 17 11M (CWS) REL
2 (MT55) REL
DO NOT CONN
CONN
} WHEN OFF. TST FR IS PROVIDED
56A 56 5 (XCW) REL
46A 46 7M (CWK) REL
36A 36 7
TO CAD 214
26A 26 9M
16A 16 9B (CWC2) REL
111
55A 55 9
45A 45 6B
35A 35 6
25A 25 4B
15A 15 4 (CWK) REL
54A 54 3
44A 44 5M
34A 34 5
24A 24 3M (CWR) REL
14A 14 4
53A 53 5M
43A 43 5 (CWS) REL
33A 33 7B
23A 23 7
13A 13 11M (CWL) REL
MFR DISC.
52
42
32
22
12
51 12M (CWC1) REL
TO FR GRD BAR GRD
41
TO PRTD
(B)BAT. (B)BAT. 31 (CWS) RES LP
21
TO FR FUSE PAN
(A)BAT. (A)BAT. 11 L (CWC1) REL
CONN WHEN UNIT IS MTD ON MISC REL RK
CONN WHEN UNIT IS MTD ON MKR REL RK
TS (A) ON CALL
WAITING UNIT OR CALL
WAITING UNIT FOR SPECIAL MARKERS

58 48 38 28 18 57 47 37 27 17 56 46 36 26 16

55B 55 7
45B 45 7B (CWC2) REL
35B 35 11M (CWS) REL
25B 25 11 (CWL) REL
15B 15 12B (CWC2) REL
54B 54 12
44B 44 11 (CWNO) REL
34B 34 2 (CWN1) REL
24B 24 11B
14B 14 11
53B 53 4
43B 43 3 (CWC2) REL
33B 33 2
23B 23 1
TO CAD 214
13B 13 11
52B 52 10
42B 42 9
32B 32 8
22B 22 7
12B 12 6 (CWC1) REL
51B 51 5
41B 41 4
31B 31 3
21B 21 2
11B 11 1
TS (B) ON CALL
WAITING UNIT OR CALL
WAITING UNIT FOR SPECIAL MARKERS

WHEN OFF. TST FR IS PROVIDED
DO NOT CONN
CONN
TO CAD 214 27C
TO CAD 168A 57C 57 4M
47C(NCW) 47C 47 5M (MT55) REL
NCW
TO CAD 123 37
27C(CWF2) 27 2M
CWF2
18C
17C(CWF1) 17 1M
CWF1
56
TO DIAL TONE MKR FR
MULT TO OTHER MARKERS WHEN MA TST FR IS PROVIDED
45
36
26
16
55
45
35
25
15
54
44
34
24
14
53
3
33
23
13

CONN ON CW UNIT FOR SPL MARKERS ONLY
(SPL3) REL
CONN ON CW UNIT ONLY
35C(CWH7) 35 55 (CWH7) REL
25C(CWH4) 25 8 45 (CWH4) REL
15C(CWH2) 15 9 35 (CWH2) REL
54C(CWH1) 54 10 25 (CWH1) REL
44C(CWHO) 44 11 15 (CWHO) REL
34C(CWT7) 34 55 (CWT7) REL
24C(CWT4) 24 45 (CWT4) REL
14C(CWT2) 14 35 (CWT2) REL
53C(CWT1) 53 25 (CWT1) REL
43C(CWTO) 43 15 (CWTO) REL
33C(CWU7) 33 55 (CWU7) REL
TO CAD 102
23C(CWU4) 23 45 (CWU4) REL
13C(CWU2) 13 35 (CWU2) REL
52C(CWU1) 52 25 (CWU1) REL
42C(CWUO) 42 15 (CWUO) REL
32C(CWN1) 32 4
22C(CWNO) 22 3 (CWS) REL
12C(CWS) 12 2 (CWR) REL
51C(CWT) 51 1 3M (MT55) REL
41C(CWL) 41 1U (CWL) REL
31C(CWK) 31 8 (CWS) REL
21C(NCW) 21 1U (NCW) REL
11C(XCW) 11 1CM (CWS) REL
TS (C) ON CALL
WAITING UNIT OR CALL
WAITING UNIT FOR SPECIAL MARKERS

CONN WHEN OFF. TST FR IS NOT PROVIDED
TO CAD 168A 52D 52 1B
42D 42 1
32D 32 4B (MT55) REL
22D 22 4
12D 12 10B
TO CAD 214
51D 51 10 (CWC2) REL
41D 41 8B
31D 31 8 (CWK) REL
21D 21 9 (CWS) REL
11D 11 10M (CWK) REL
TS (D) ON CALL
WAITING UNIT OR CALL
WAITING UNIT FOR SPECIAL MARKERS

DRAWING ISSUE
55B

COMPLET~~ING MARKER~~ CIRCUIT
2
SD-26002-01-6337
BELL TELEPHONE LABORATORIES INCORPORATED
SIZE 6S

SD-26002-01-6337

# PART OF CAD 560

(FOR APP FIG 160)

TO MASTER TEST CONN (GO) OR (HO) REL UNIT ON REL RACK

NTCW

NTVB

DO NOT CONN — WHEN MASTER TEST CONN CKT IS SD-27718-01

CONN

(A&M ONLY)

| | | | |
|---|---|---|---|
| 28E | 28 | 78 | (SPL3) REL |
| 18E | 18 | 7 | |
| 57E | 57 | U | |
| 47E | 47 | 9M | |
| 27E | 27 | 2M | (NTB) REL |
| 17E | 17 | 5B | |
| 16E | 16 | U | (NT6) REL |
| 35E | 35 | 10 | (CWK1) REL |
| 25E | 25 | 8M | |
| 15E | 15 | 8 | |

TO CAD 214

| | | | |
|---|---|---|---|
| 34E | 34 | 2 | (CWNT) REL |
| 24E | 24 | 2B | |
| 14E | 14 | 11M | |
| 53E | 53 | 11 | |
| 43E | 43 | 12M | |
| 33E | 33 | 9M | |
| 23E | 23 | 7M | |
| 13E | 13 | 7 | |
| 41E | 41 | 12B | (CWL1) REL |
| 31E | 31 | 12 | |
| 21E | 21 | 10 | |
| 11E | 11 | 10B | |

TS (E) ON CALL WAITING UNIT FOR SPECIAL MARKERS

# CAD 561

(FOR APP FIG 161)

| | | | |
|---|---|---|---|
| 58A | 58 | U | (MD7) REL |
| 48A | 48 | 1L | (MD4) REL |
| 38A | 38 | 1U | (MD2) REL |
| 28A | 28 | 1L | (MD1) REL |
| 18A | 18 | 1U | (MD0) REL |
| 57A | 57 | 12 | |
| 47A | 47 | 10 | |
| 37A | 37 | 10B | (MD7) REL |
| 27A | 27 | 8B | |

TO CAD 215

| | | | |
|---|---|---|---|
| 55A | 55 | 4 | (IDS) REL |
| 45A | 45 | 7 | |
| 35A | 35 | 2M | |
| 25A | 25 | 2 | |
| 15A | 15 | U | |
| 34A | 34 | 4B | (IDP) REL |
| 24A | 24 | 4M | |
| 53A | 53 | 7 | |
| 43A | 43 | 2M | |
| 33A | 33 | 2B | |
| 23A | 23 | L | |
| 13A | 13 | U | |
| 11A | 11 | L | (M07) REL |

TS (A) ON IDOD UNIT

DRAWING ISSUE
43D
44A

DRAWING ISSUE
46A

COMPLETING MARKER CIRCUIT (2) SD-26002-01-6338

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-26002-01-6338

# CAD 562
(FOR APP FIG 162)

TO CAD 119 09 58 L
57
TO CAD 108 309 56 9M
55
(SC3) REL

| | | | |
|---|---|---|---|
| CIC38 | 54 | 11M | (SC3) REL |
| CIC28 | 53 | 11M | (SC2) REL |
| CIC18 | 52 | 11M | (SC1) REL |
| CIC08 | 51 | 11M | (SC0) REL |
| CIC37 | 48 | 10M | (SC3) REL |
| CIC27 | 47 | 10M | (SC2) REL |
| CIC17 | 46 | 10M | (SC1) REL |
| CIC07 | 45 | 10M | (SC0) REL |
| CIC36 | 44 | 8M | (SC3) REL |
| CIC26 | 43 | 8M | (SC2) REL |
| CIC16 | 42 | 8M | (SC1) REL |
| CIC06 | 41 | 8M | (SC0) REL |
| CIC35 | 38 | 7M | (SC3) REL |
| CIC25 | 37 | 7M | (SC2) REL |
| CIC15 | 36 | 7M | (SC1) REL |
| CIC05 | 35 | 7M | (SC0) REL |
| CIC34 | 34 | 6M | (SC3) REL |
| CIC24 | 33 | 6M | (SC2) REL |
| CIC14 | 32 | 6M | (SC1) REL |
| CIC04 | 31 | 6M | (SC0) REL |
| CIC33 | 28 | 5M | (SC3) REL |
| CIC23 | 27 | 5M | (SC2) REL |
| CIC13 | 26 | 5M | (SC1) REL |
| CIC03 | 25 | 5M | (SC0) REL |
| CIC32 | 24 | 4M | (SC3) REL |
| CIC22 | 23 | 4M | (SC2) REL |
| CIC12 | 22 | 4M | (SC1) REL |
| CIC02 | 21 | 4M | (SC0) REL |
| CIC31 | 18 | 3M | (SC3) REL |
| CIC21 | 17 | 3M | (SC2) REL |
| CIC11 | 16 | 3M | (SC1) REL |
| CIC01 | 15 | 3M | (SC0) REL |
| CIC30 | 14 | 1M | (SC3) REL |
| CIC20 | 13 | 1M | (SC2) REL |
| CIC10 | 12 | 1M | (SC1) REL |
| CIC00 | 11 | 1M | (SC0) REL |

TO CAD 110V

TS (A) ON
REROUTE SDR
CLASS CIRL UNIT

58
CSC 57 2 (SC0) REL
TO CAD 112A CL2S 56 2B
CL3S 55 2M (SC3) REL

| | | | |
|---|---|---|---|
| SCC38 | 54 | 11 | (SC3) REL |
| SCC28 | 53 | 11 | (SC2) REL |
| SCC18 | 52 | 11 | (SC1) REL |
| SCC08 | 51 | 11 | (SC0) REL |
| SCC37 | 48 | 10 | (SC3) REL |
| SCC27 | 47 | 10 | (SC2) REL |
| SCC17 | 46 | 10 | (SC1) REL |
| SCC07 | 45 | 10 | (SC0) REL |
| SCC36 | 44 | 8 | (SC3) REL |
| SCC26 | 43 | 8 | (SC2) REL |
| SCC16 | 42 | 8 | (SC1) REL |
| SCC06 | 41 | 8 | (SC0) REL |
| SCC35 | 38 | 7 | (SC3) REL |
| SCC25 | 37 | 7 | (SC2) REL |
| SCC15 | 36 | 7 | (SC1) REL |
| SCC05 | 35 | 7 | (SC0) REL |
| SCC34 | 34 | 6 | (SC3) REL |
| SCC24 | 33 | 6 | (SC2) REL |
| SCC14 | 32 | 6 | (SC1) REL |
| SCC04 | 31 | 6 | (SC0) REL |
| SCC33 | 28 | 5 | (SC3) REL |
| SCC23 | 27 | 5 | (SC2) REL |
| SCC13 | 26 | 5 | (SC1) REL |
| SCC03 | 25 | 5 | (SC0) REL |
| SCC32 | 24 | 4 | (SC3) REL |
| SCC22 | 23 | 4 | (SC2) REL |
| SCC12 | 22 | 4 | (SC1) REL |
| SCC02 | 21 | 4 | (SC0) REL |
| SCC31 | 18 | 3 | (SC3) REL |
| SCC21 | 17 | 3 | (SC2) REL |
| SCC11 | 16 | 3 | (SC1) REL |
| SCC01 | 15 | 3 | (SC0) REL |
| SCC30 | 14 | 1 | (SC3) REL |
| SCC20 | 13 | 1 | (SC2) REL |
| SCC10 | 12 | 1 | (SC1) REL |
| SCC00 | 11 | 1 | (SC0) REL |

TO CAD 110V

TS (B) ON
REROUTE SDR
CLASS CIRL UNIT

# CAD 563
(FOR APP FIG 163)

TO CAD 204

| | | |
|---|---|---|
| 223 | 10 | (WDTF) REL |
| 222 | 10B | |
| 221 | 10 | (WDTI) REL |
| 220 | 10B | (WAT) REL |
| 219 | 7M | (WDTF) REL |

TO CAD 106 (MTC-P2)

| | | |
|---|---|---|
| 51P2 | U | (WAT) REL |
| 50P2 | U | (WDTF) REL |
| 44P2 | U | (WDTI) REL |
| 43P2 | U | |

| | | |
|---|---|---|
| 217 | 2M | (SWAT) REL |
| 216 | 2B | |
| 215 | 2 | |

| | | |
|---|---|---|
| 214 | 3M | (WDTI) REL |
| 213 | 11M | (WAT) REL |
| 212 | 3M | (SWAT) REL |
| 211 | 2B | (WDTF) REL |
| 210 | 2 | |

TO LAD 204

| | | |
|---|---|---|
| 209 | 3 | (WAT) REL |
| 208 | 3B | |
| 207 | 4B | |
| 206 | 4 | |
| 205 | | (DTI) REL |
| 204 | 11B | (WDTI) REL |
| 203 | 11 | |
| 202 | 11B | (WDTF) REL |
| 201 | 11 | |
| 33 | 4 | |
| 188 | 8 | (WDTI) REL |
| 61 | 3B | |

DRAWING ISSUE 43D

43

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-6339

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-26002-01-6339

# CAD 564

(FOR APP FIG 164)

| DRAWING ISSUE |
|---|
| 43D |

TO CAD 123

TO CAD 193

TO CAD 534

TO AUX AGC INPUT UNIT ASSOC WITH AGC

9 — ART9 — INH9 — (ART4) REL — (PEG2) REL

8 — ART8 — INH8 — (ART4) REL — (PEG2) REL

7 — ART7 — INH7 — (ART4) REL — (PEG2) REL

6 — ART6 — INH6 — (ART4) REL — (PEG2) REL

5 — ART5 — INH5 — (ART4) REL

4 — AGC9

3 — AGC8

2 — AGC7

1 — AGC6

TO CAD 530

TO CAD 193

MULT SHOWN IN CAD 121

IS(8) ON AGC UNIT

TO CAD 530 — (ART4) REL

TO CAD 530 — (AGT) REL

TO CAD 530 — (PEG2) REL

TO FR GND BAR GRD — (AGT) REL

TO CAD 530 — (PEG2) REL

IS(4) ON AGC UNIT

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-6340

BELL TELEPHONE LABORATORIES INCORPORATED

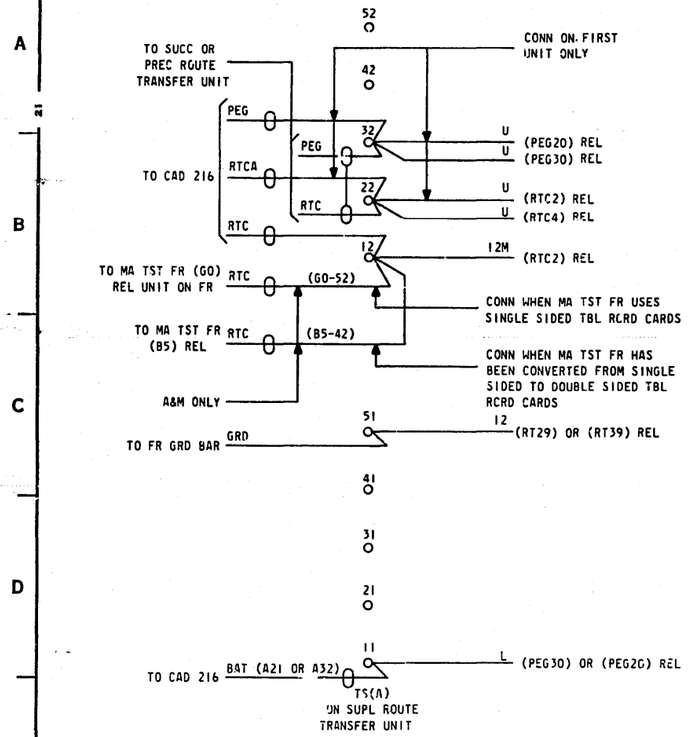
6S

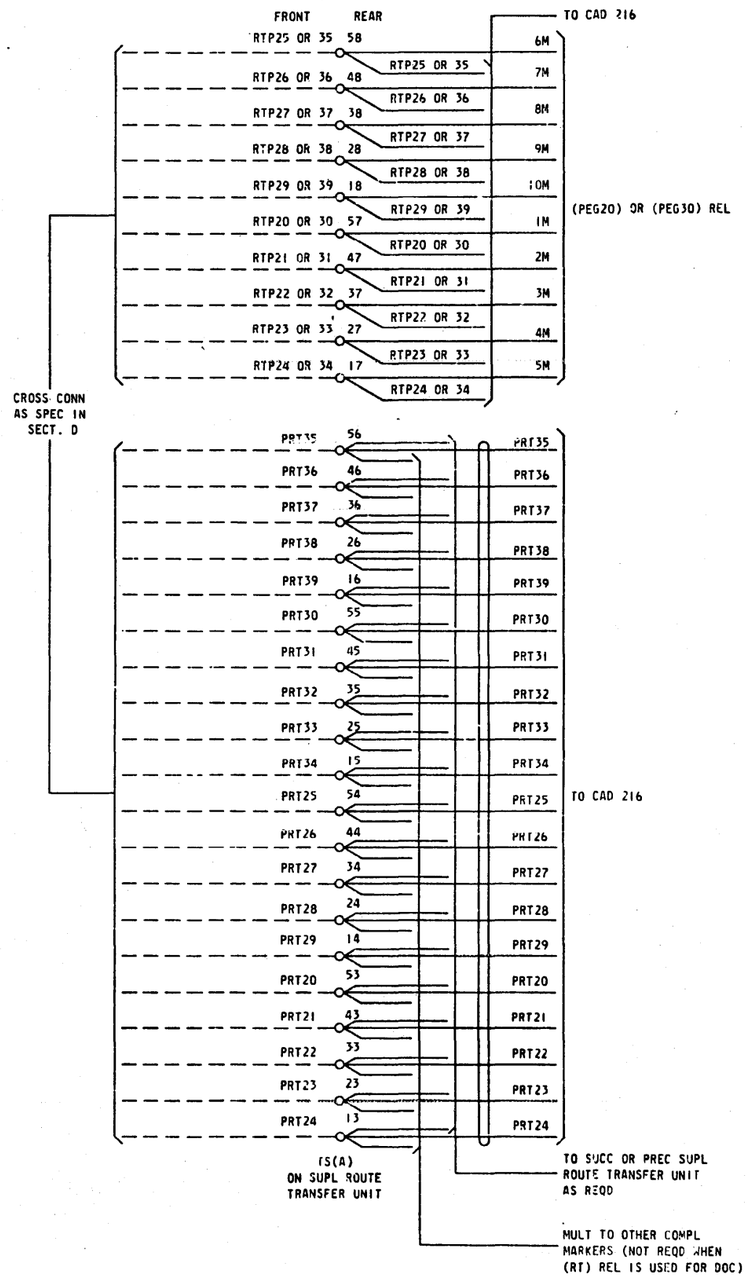
43

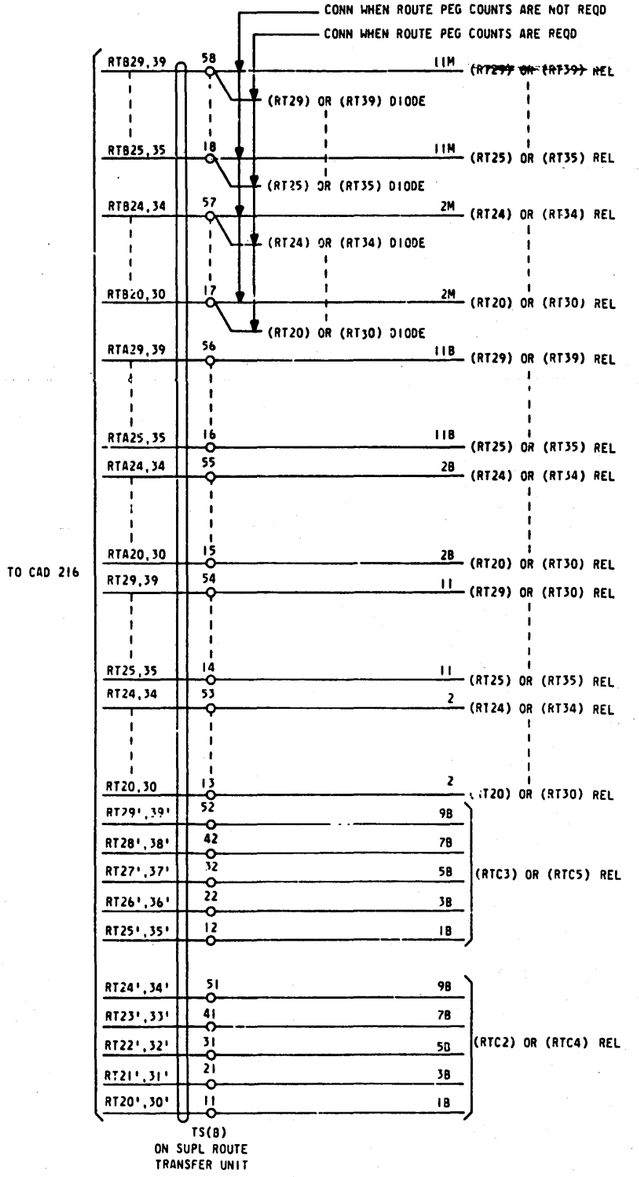
SD-26002-01-6340

# CAD 565

(FOR APP FIG 165)




DRAWING ISSUE 45D

45

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G341

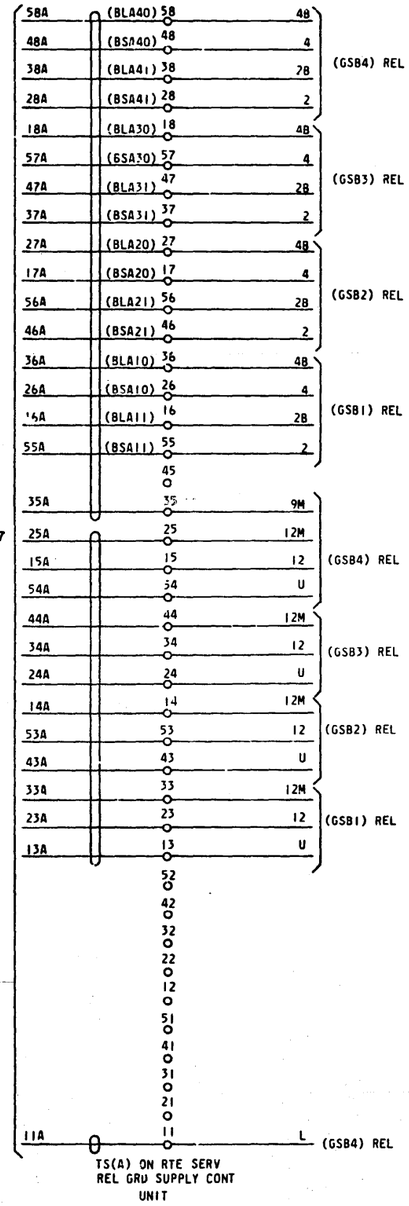
BELL TELEPHONE LABORATORIES INCORPORATED

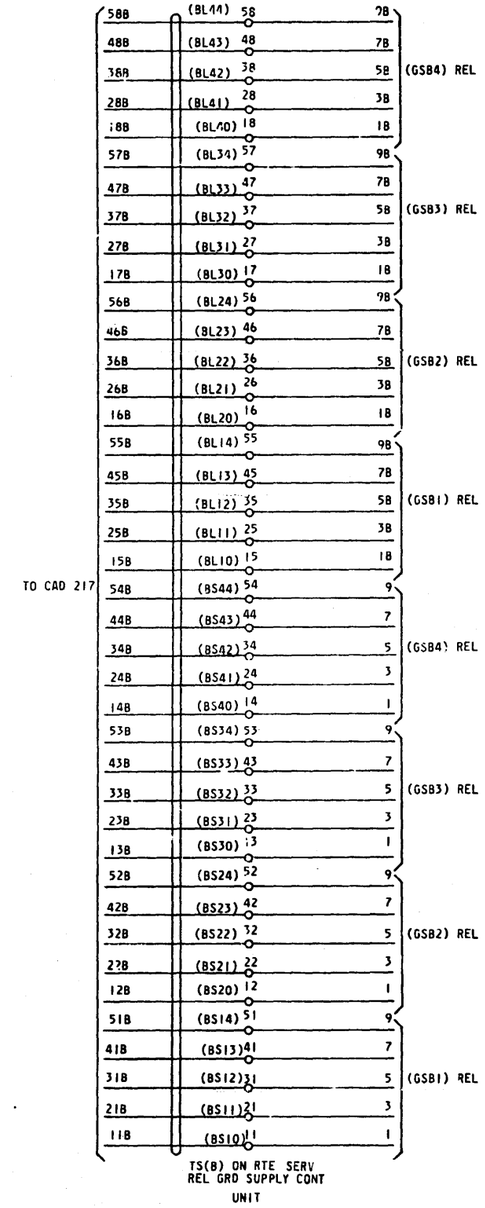
SIZE 6S

SD-26002-01-G341

# CAD 566

(FOR APP FIG 166)




DRAWING ISSUE 450

ISSUE 51D

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-G342

BELL TELEPHONE LABORATORIES INCORPORATED

SHEET 6S

SD-26002-01-G342

## CAD 567

(FOR APP FIG. 167)

- TO CAD 206 (WIDEBAND/BIT-STREAM TLC-MB)
  - 53B — U (WTG3) REL
  - 52B — U (WTG2) REL
  - 51B — U (WTG1) REL
  - 50B — U (WTG0) REL
- TO CAD 106 (MTC-P1)
  - 31P1 — U (LLCK) REL
- TO CAD 205 (WIDEBAND/BIT-STREAM LLC-MB)
  - 23B — 3 (WTG3) REL
  - 22B — 3 (WTG2) REL
  - 21B — 3 (WTG1) REL
  - 20B — 3 (WTG0) REL
- TO CAD 120
  - 12 — 3M
  - 11 — 2M
  - 10 — 1M
  - (BSL1) REL
  - 6 — 3M
  - 1 — 2M
  - 0 — 1M
  - (BSL1) REL
- TO CAD 204
  - 246 — 6 (XLSS) REL
  - 245 — 6 (XALLC) REL
- TO CAD 106 (MTC-P1)
  - 32P1 — 2 (LSK) REL
  - 33P1 — U
- TO CAD 206 (WIDEBAND/BIT-STREAM TLC-MB)
  - 20B — 5
  - (BCN) REL
- TO CAD 204
  - 248 — 2
  - 247 — 2M
- TO CAD 106 (MTC-P1)
  - 34P1
- TO CAD 123
  - DF
- TO CAD 207
  - BSL — U (BSL) REL
  - WBL — U (WBL) REL
- TO CAD 209
  - CON — 10M
  - TRB — 2
  - (WBL) REL
- TO CAD 106 (MTC-P2)
  - 53P2 — 1M (BCN) REL
- TO CAD 123
  - CCK

## CAD 568

(FOR APP FIG. 168)

- TO CAD 109
  - ITD — 1U
  - DT — 8M
  - (ITD) REL
  - ITM — 1L
  - MT — 1M
  - (ITM) REL

## CAD 569

(FOR APP FIG. 169)

- TO CAD 110A
  - ITND — 4M (ITND) REL
  - ITNC — 4M (ITNC) REL
- TO CAD 110P
  - IND-HB — 1M (INTD) REL
  - INC-HB — 1M (ITNC) REL
  - IND-TB — 2M (ITND) REL
  - INC-TB — 2M (ITNC) REL
  - IND-U — 3M (ITND) REL
  - INC-U — 3M (ITNC) REL
- TO CAD 110E
  - ITND — U (ITND) REL
  - ITNC — U (ITNC) REL

DRAWING ISSUE 47D

COMPLETING MARKER CIRCUIT (2)

SD-26002-01-G343

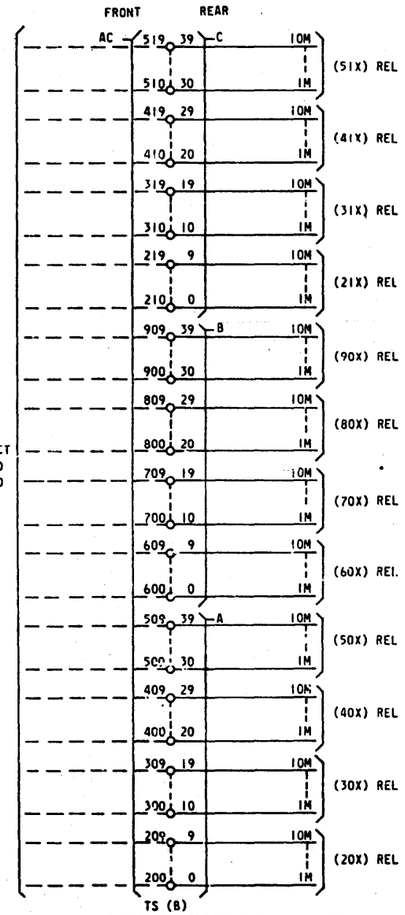
BELL TELEPHONE LABORATORIES INCORPORATED

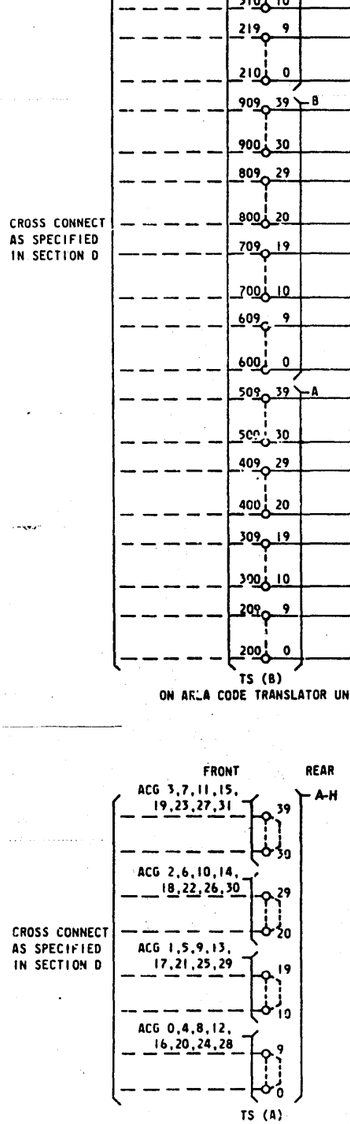
6S

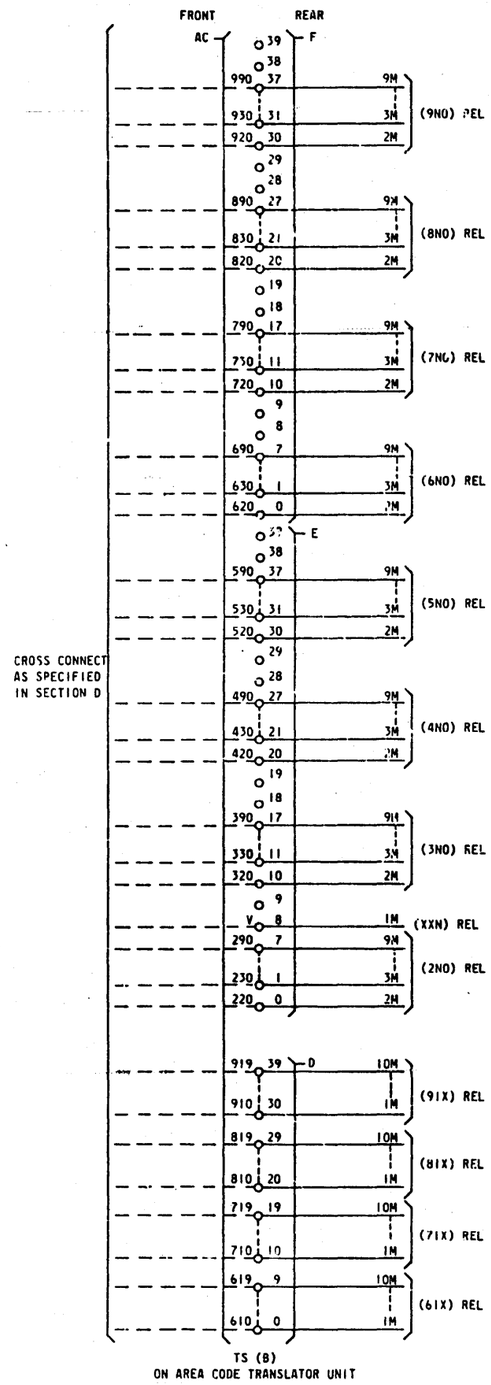
SD-26002-01-G343

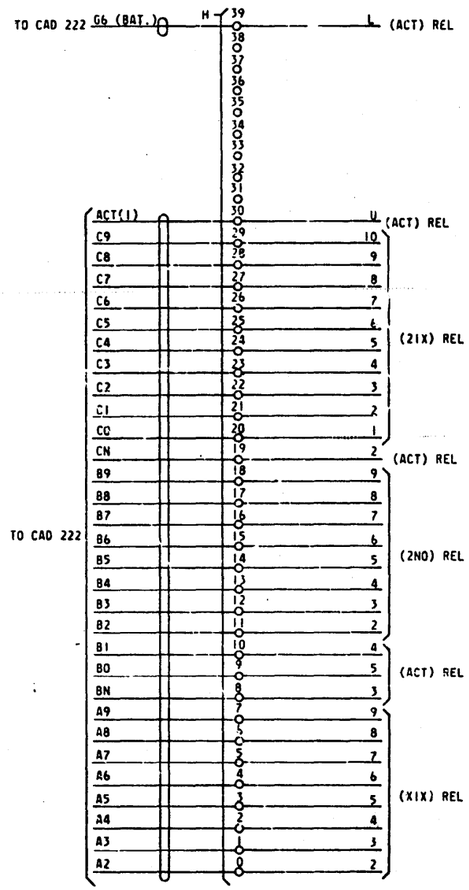
# CAD 570

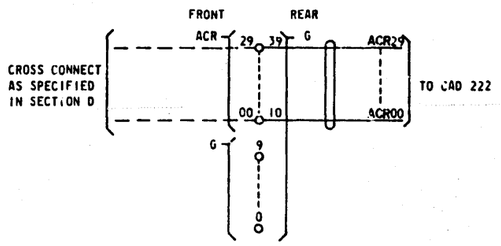
(FOR APP FIG. 170)




# CAD 571

(FOR APP FIG. 171)

TO CAD 111 T8CX U (T8X) REL

ISSUE 58A

COMPLETING MARKER CIRCUIT

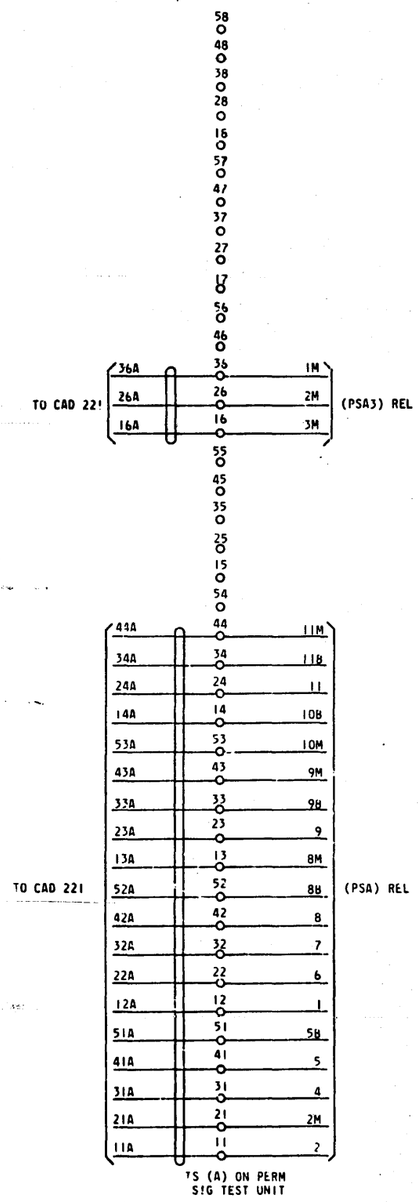
(2) SD-26002-01-6344

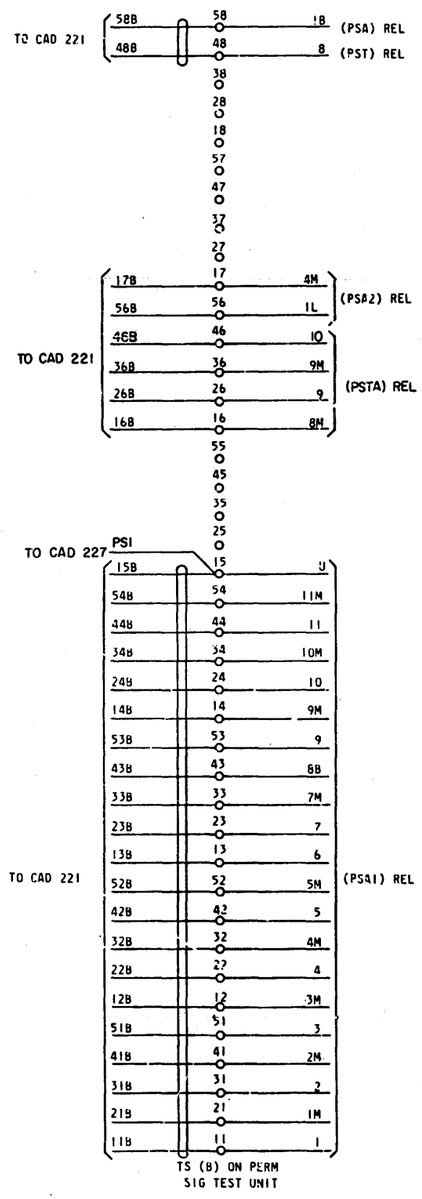
BELL TELEPHONE LABORATORIES INCORPORATED

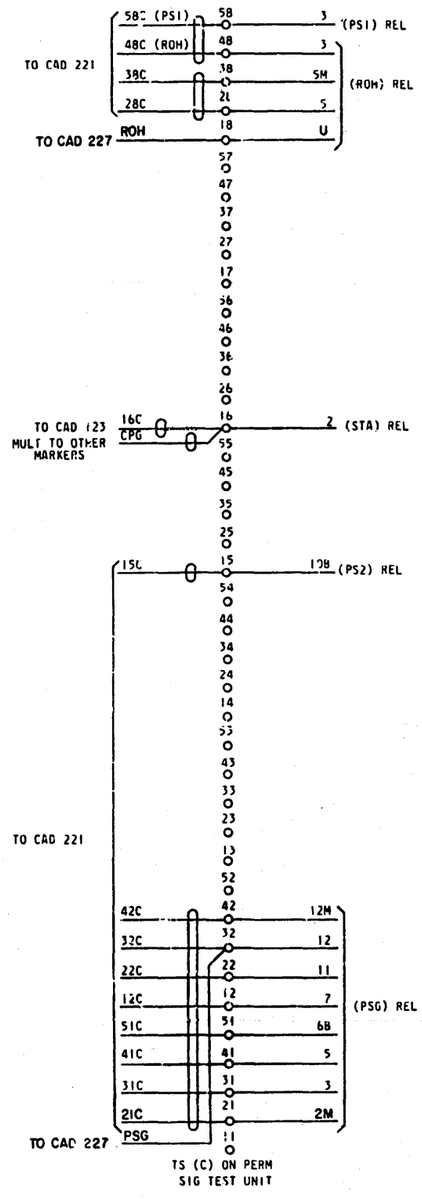
SIZE 6S

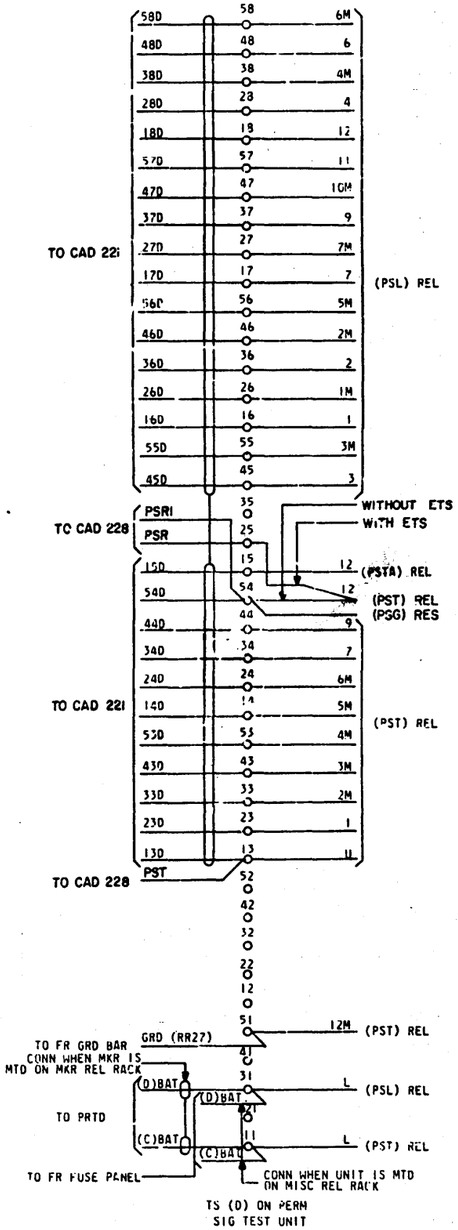
# CAD 572

(FOR APP FIG. 172)




ISSUE 63B

COMPLETING MARKER CIRCUIT

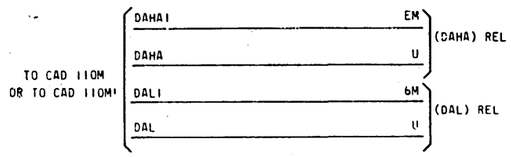
(2)

SD-26002-01-6345

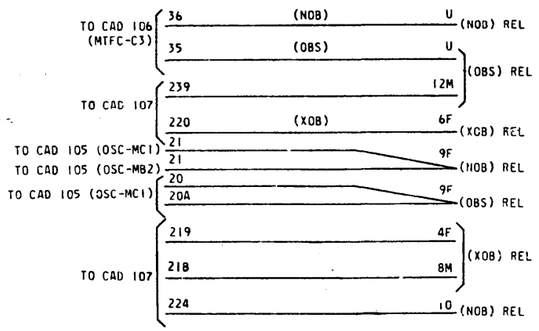
BELL TELEPHONE LABORATORIES INCORPORATED

6S

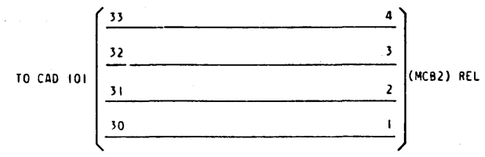
## CAD 575
(FOR APP FIG. 175)



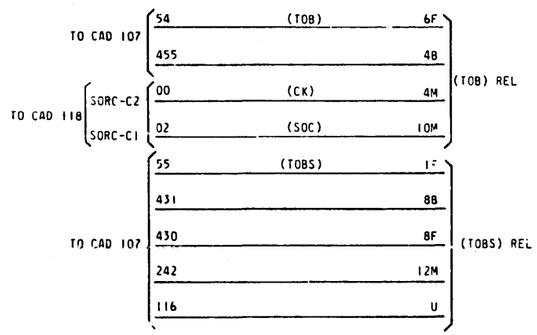

## CAD 576
(FOR APP FIG. 176)



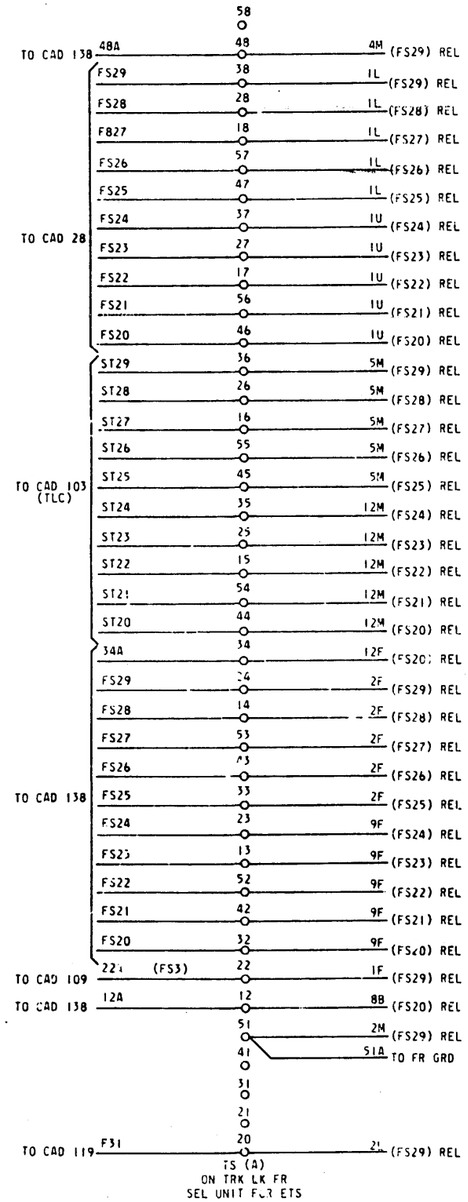

## CAD 577
(FOR APP FIG. 177)



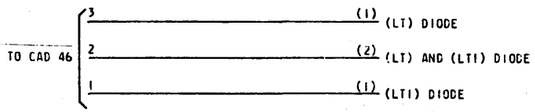

## CAD 578
(FOR APP FIG. 178)



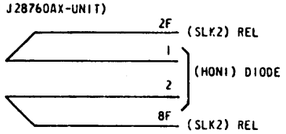

## CAD 579
(FOR APP FIG. 179)



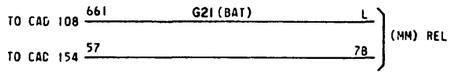

## CAD 580
(FOR APP FIG 180)



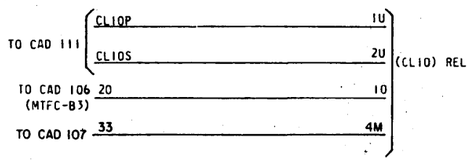

## CAD 581
(FOR APP FIG 181)
(MTD ON J28760AX-UNIT)




## CAD 582
(FOR APP FIG 182)




## CAD 583
(APP FIG 183)




ISSUE 69B

COMPLETING MARKER CIRCUIT

(2)

SD-26002-01-G346

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

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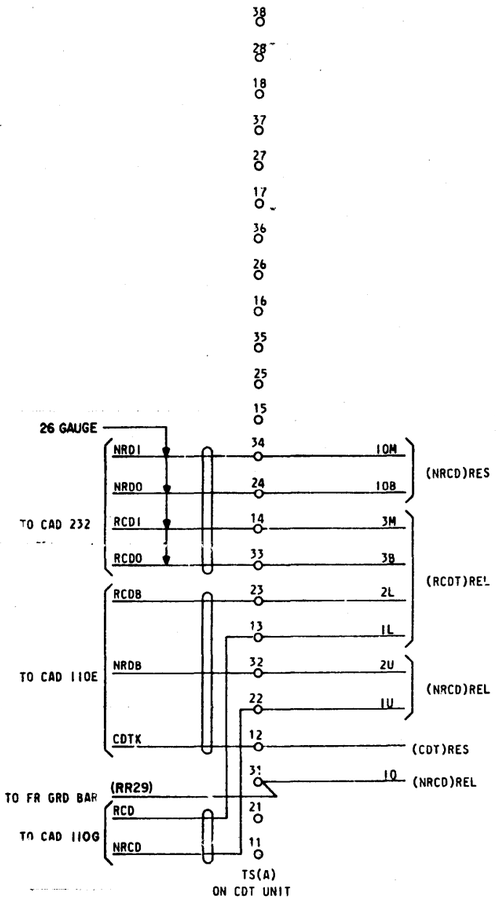
# CAD 584

FOR APP FIG 184




COMPLETING MARKER CIRCUIT

| DWG SIZE | ISSUE |
|---|---|
| 6S | 65B |

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