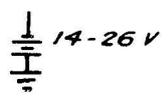




- CIRCUIT NOTES:**
101. PROVIDE ONE 1 $\frac{1}{2}$  AMP FUSE PER CKT. INCLUDING FIG. B AND C WHEN PROVIDED.
  102. PROVIDE FIG. C WHEN DIALING IS REQUIRED. PROVIDE FIG. B WHEN IT IS NECESSARY TO TRIP MACHINE RINGING BUT NO DIALING IS REQUIRED. PROVIDE FIG. A WHEN IT IS NOT NECESSARY TO TRIP MACHINE RINGING.
  103. THE MANUFACTURE OF "X" WIRING FOR THE CIRCUIT HAS BEEN DISCONTINUED. "X" WIRING IS SUPERSEDED BY "Y" WIRING ON ISSUE: 5-B. PRIOR TO ISSUE: 5-B "Y" WIRING WAS NOT SHOWN AND "X" WIRING WAS PART OF FIG. C.

104.

105. THE MANUFACTURE OF THE 2-E TYPE DIAL FOR USE ON THIS CIRCUIT HAS BEEN DISCONTINUED. THE 2-E TYPE DIAL IS SUPERSEDED BY THE 4-E TYPE DIAL ON ISSUE 7-D OF THIS CIRCUIT. PRIOR TO ISSUE 7-D THE 4-E TYPE DIAL WAS NOT SHOWN.
106. THE MANUFACTURE OF "W" WIRING FOR USE IN THIS CIRCUIT HAS BEEN DISCONTINUED. "W" WIRING IS SUPERSEDED BY "Z" WIRING AND APPARATUS ON ISSUE 8-D. PRIOR TO ISSUE 8-D "Z" WIRING AND APPARATUS WERE NOT SHOWN AND "W" WIRING WAS A PART OF THE MAIN FIG.
107. PRIOR TO ISSUE 8-D THE VARISTOR WAS NOT SHOWN.
108. THE MANUFACTURE OF THE 4-E TYPE DIAL FOR USE IN THIS CIRCUIT HAS BEEN DISCONTINUED. THE 4-E TYPE DIAL IS SUPERSEDED BY THE 5-E TYPE DIAL ON ISSUE 10-D. PRIOR TO ISSUE 10-D, THE 5-E TYPE DIAL WAS NOT SHOWN.
109. THE (SR) 148AT REL. IS RATED "A & M ONLY" FOR USE IN THIS CKT AND IS SUPERSEDED BY THE 149CP REL. ON ISSUE 12-B. PRIOR TO ISSUE 12-B REL. 149CP WAS NOT SHOWN.
110. THE USE OF "V" APPARATUS IN THIS CIRCUIT IS RATED "A & M ONLY". IT IS SUPERSEDED BY "U" APPARATUS ON ISSUE 15-D. PRIOR TO ISSUE 15-D "U" APPARATUS WAS NOT SHOWN.



**WORKING LIMITS:**

- |  |                     |
|--|---------------------|
| WHEN USED WITH LINE TO CENT. OFF.        |                     |
| MAX. COND. LOOP RES.                     |                     |
| TO MAN. CENT. OFF.                       | 1590 <sup>w</sup>   |
| TO STEP BY STEP CENT. OFF.               | 3000 <sup>w</sup>   |
| TO PANEL CENT. OFF.                      | 1675 <sup>w</sup>   |
| MIN. INS. RES.                           |                     |
| TO MANUAL OR PANEL CENT. OFF.            | 10,000 <sup>w</sup> |
| TO STEP BY STEP CENT. OFF.               | 15,000 <sup>w</sup> |
| WHEN USED WITH LINE TO P.B.X.            |                     |
| MAX. COND. LOOP RES.                     |                     |
| TO 550-C, 550-SC, 551-A, OR 551-B P.B.X. | 110 <sup>w</sup>    |
| TO 600-C P.B.X.                          | 110 <sup>w</sup>    |
| TO 605-A, 701-A, OR 711-A P.B.X.         | 465 <sup>w</sup>    |
| TO 700-C OR 710-C P.B.X.                 | 255 <sup>w</sup>    |
| TO 740-A OR 740-B P.B.X.                 | 10 <sup>w</sup>     |
| TO 740-C P.B.X.                          | 1200 <sup>w</sup>   |
| MIN. INS. RES.                           |                     |
| MANUAL OR PANEL AREAS                    | 20,000 <sup>w</sup> |
| STEP BY STEP AREAS                       | 30,000 <sup>w</sup> |

SUPV.

TRANSMISSION TEST REQUIREMENTS  
(1000 CYCLE LOSS BETWEEN 600<sup>w</sup> LINES)

MAX. ALLOWABLE CIRCUIT LOSS	
WIRING	BRIDG. TRANS.
A	4.3 11.3
B & C	4.0 10.5

ALLOWABLE INDIVIDUAL APPARATUS LOSSES					
APPARATUS	DESIG.	CODE	MAX. LOSS	MIN. LOSS	REMARKS
CONDENSER	P.P.10'S	2M.F.	14.5	11.5	
IND. COIL		62	11.0	8.4	
RELAY	BR	G92	0.4		
RET. COIL	S	85D	0.9		
VARISTOR		3A			SEE NOTE 1

NOTES:  
1. FOR METHOD OF MAKING INDIVIDUAL APPARATUS LOSS TEST, SEE BSP IN "K" SERIES.  
REQUIREMENTS USING 12 db PAD.  
ROOM TEMPERATURE 70° 80° 90° 100° 105°  
INDIVIDUAL LOSS 2.1 2.7 3.4 4.1 4.5  
LOSSES FOR TEMPERATURES OTHER THAN THOSE LISTED ABOVE MAY BE DETERMINED BY INTERPOLATION.  
2. \*INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSSES ARE NOT REQUIRED.

FIG. A  
SEE NOTE  
102

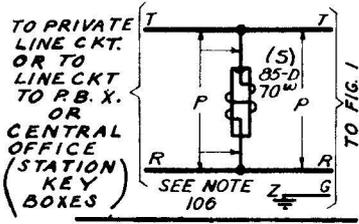


FIG. 1  
TELEPHONE  
CIRCUIT

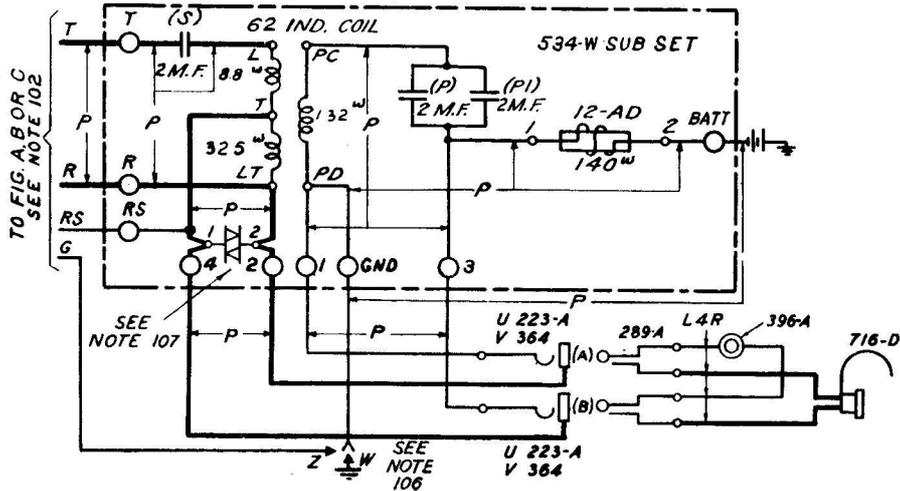


FIG. B  
TRIPPING  
CKT.  
SEE NOTE  
102

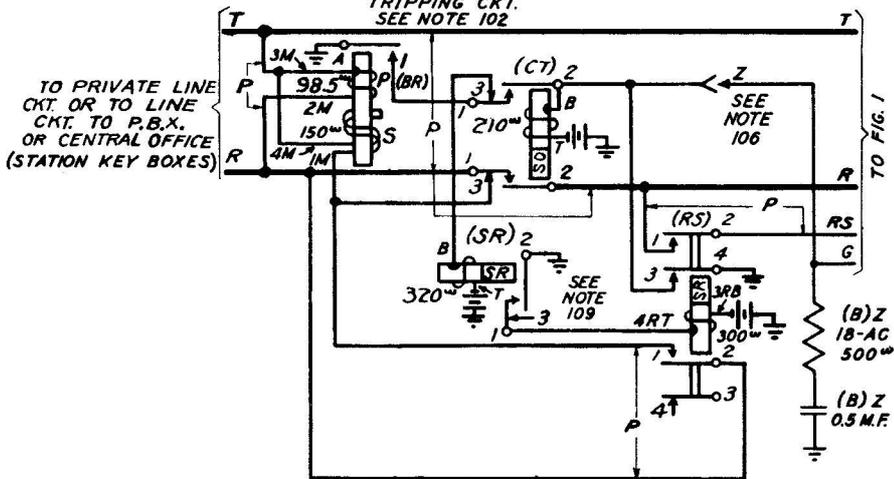
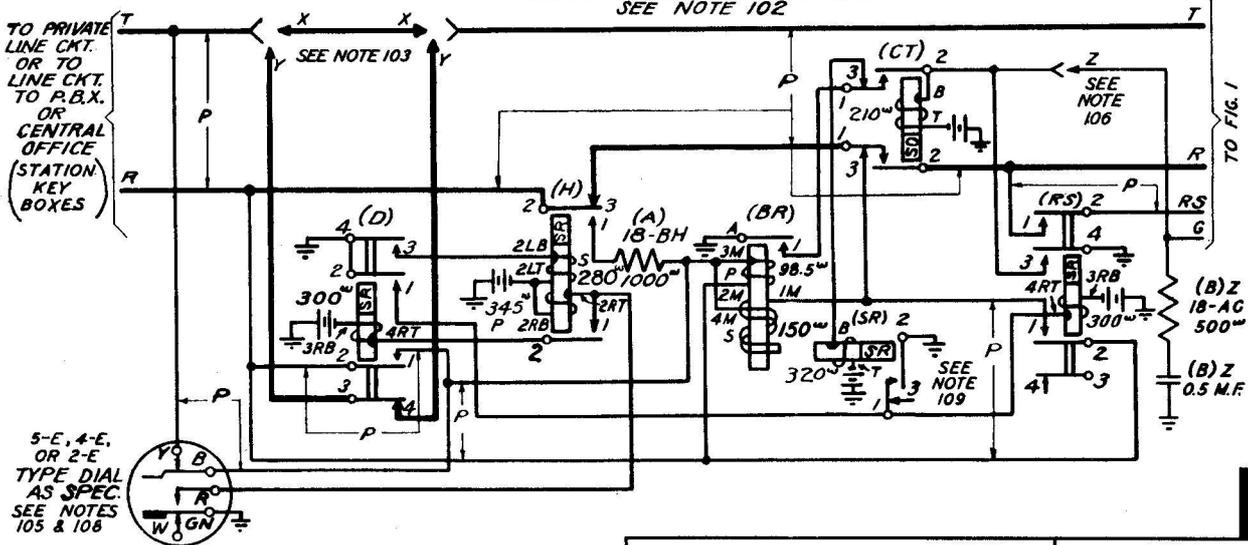


FIG. C  
DIALING AND  
TRIPPING  
CKT.  
SEE NOTE  
102



CIRCUIT REQUIREMENTS

NO. 100 KEY EQUIPMENT, TELEPHONE, DIAL, AND TRIPPING CIRCUIT

APPARATUS				MECH REQ		CIRCUIT PREPARATION				TEST SET PREP	SEE TEST NOTE	DIRECT CURRENT FLOW REQ					REMARKS
DESIG	CODE	OPTION	FIG.	BSP FIG.	CONT PRESS.	ARM. TRVL.	BLOCK OR INSULATE	TEST CLIP DATA				TEST WDG	TEST FOR	AFTER SOAK MA.	TEST MA.	READJ MA.	
								CONN BAT.	CONN GRD								
<b>RELAYS</b>																	
BR	G92		B	6		.030	(CT)0 (CT)0	2M(BR) 2M(BR)	4M(BR) 4M(BR)	B/G B/G	2	P P	0 R	.0055 .0003	.0052 .0004		
BR	G92		C			.030	(CT)0 (CT)0	2M(BR) 2M(BR)	4M(BR) 4M(BR)	B/G B/G		P P	0 R	.0055 .0003	.0052 .0004		
CT	178-AW		B,C	DD					3T(RS) 3T(RS)	GRD GRD		0 NO	.059 .0395	.056 .042	INSULATE 2T(CT) INSULATE 2T(CT)		
D	R189		C	11/10	H	.015	(H)NO		RT(D)	GRD		0	.033	.031			
H	R188		C	3/1	H	.020	(D)NO		RT(H) LB(H)	GRD GRD		P S	0 H	.027 .026	.025 .0245	INSULATE 2B(H)	
RS	R189		B	11/10	H	.015	(CT)NO		RT(RS)	GRD		0	.033	.031			
RS	R189		C	11/10	H	.020	(CT)NO		RT(RS)	GRD	3	0	.035	.033	1T AND 2T MUST MAKE BEFORE 3T AND 4T		
SR	149AT		B,C	C			(RS)NO		3T(CT) 3T(CT)	GRD GRD		0 R	.025 O.C.	.0235 O.C.	MAX ARM. TRAVEL .025 IN.		
SR	149CP		B,C	C			RS(NO)		3T(CT) 3T(CT)	GRD GRD		0 R	.025 O.C.	.0235 O.C.	MAX ARM. TRAVEL .025 IN.		

TEST NOTES:

- WHEN TESTING OR READJUSTING, OPERATE RELAY THRU PRI WDG, APPLY HOLD CURRENT TO SEC WDG AND THEN OPEN THE PRI CKT.
- (A) THE ARMATURE STOP PIN SHALL TOUCH CORE ON .0085 AMP.  
(B) READJUST THE CONTACT FOLLOW AND ARMATURE TRVL TO THE MAX THAT WILL PERMIT OPERATION ON THE READJUST OPERATE CURRENT.
- PRIOR TO ISSUE 8-D THE ARM. TRVL WAS .015", THE TEST OPR WAS .033 AMP, THE READJ OPR WAS .031 AMP, AND THE REQUIREMENT IN THE REMARKS COLUMN FOR THE (RS) RELAY WAS NOT SHOWN.

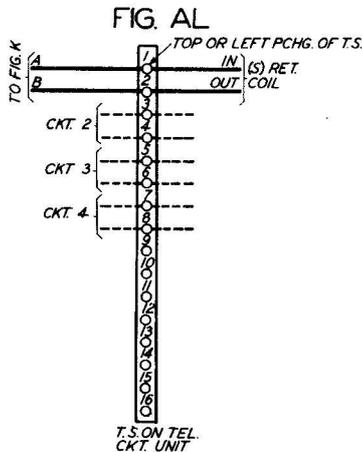
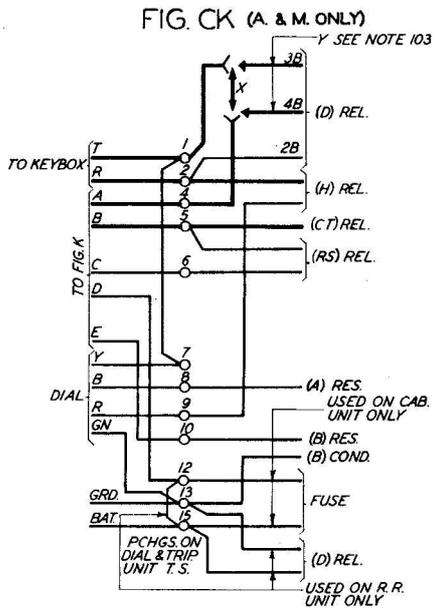
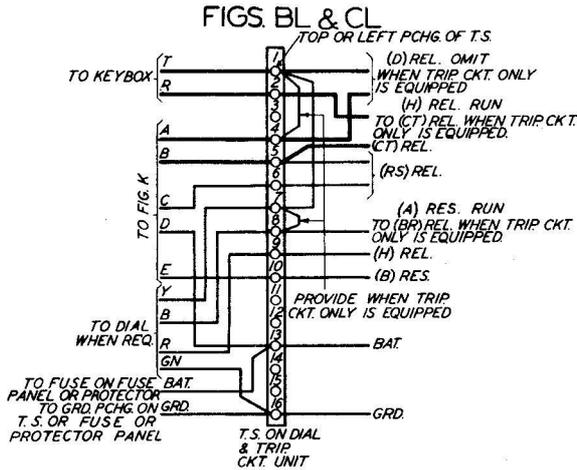
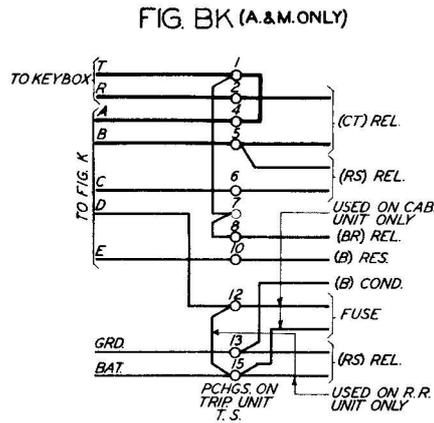
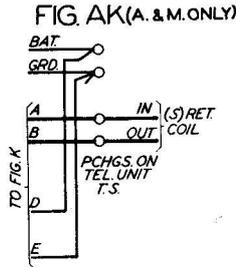
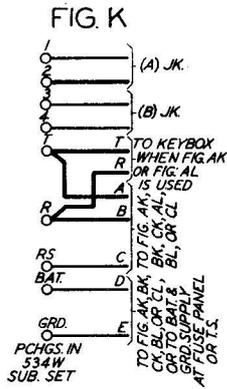
NO. 100 KEY EQUIPMENT  
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