35 KEYBOARD SEND-RECEIVE (KSR) SETS

35 RECEIVE-ONLY (RO) SETS

ACTUAL AND SCHEMATIC WIRING DIAGRAMS

1. GENERAL

1.01 This section is reissued to include wiring diagrams for KSR sets used in DATREX* Service for the TP186627 set logic assembly, and their related options. Wiring diagrams for RO sets used in DATA-PHONE® Service have also been included. In addition, the title has been changed to reflect the inclusion of actual wiring diagrams and the RO sets. Since it is a general revision marginal arrows ordinarily used to indicate changes and additions are omitted.

1.02 The sheet index, detached schematics, apparatus figures, and circuit notes are covered in wiring diagram 6020WD and consists of 20 pages.

1.03 The sheet index provides a complete contents listing for the detached schematics, apparatus figures, and circuit notes.

1.04 Detached schematics (B1 through B11) show the complete functioning paths of all relays and other apparatus.

1.05 The individual parts of a given relay, jack, key, or other component may perform various functions. Apparatus figures (C1 through C7) show these parts independent of the detached schematics (B1 through B11) and indicate the various functions performed. In addition, the apparatus figures serve as a convenient index for locating specific parts of areas in the associated detached schematics.

1.06 For circuit notes, refer to sheet D1.

2. WIRING DIAGRAM INDEX

TITLE	DRAWING NUMBER
ACTUALS	
Call Control Unit UCC29	8162WD
SCHEMATICS	
Set Logic Assembly (TP186627)	WDP0238
Keyboard Send-Receive Sets (35A, 35B, 35C, and 35D)	6020WD
Sheet index	A1
Detached schematics	B1
	B2
	B3
	B4
	B5
	B6
	B7
	B8
	B9
	B10
	B11

*Service Mark of AT&TCo

WIRING DIAGRAM INDEX (Continued)

TITLE	DRAWING NUMBER
Apparatus figures	C1 C2 C3 C4 C5 C6 C7
Circuit notes	D1
Call Control Unit UCC29 (Adapted for use with M35)	8163WD
Keyboard Send-Receive Sets (VSL345 and VSL346)	8228WD
Receive-Only Sets	6040WD
CIRCUIT CARDS	
Selector Magnet Driver Card	182630-35
Answer-Back Trip Magnet Card	303834

NO.	NOTES
1.	WIRING LEGEND: DISTANT TERMINATING AREA DISTANT TERMINATING DESIGNATION WIRE COLOR CODE R-12-BL
2.	WIRE COLOR CODE: O - ORANGE BK - BLACK G - GREEN BR - BROWN BL - BLUE P - PURPLE W - WHITE R - RED S - SLATE Y - YELLOW P - PURPLE
3.	ALL VOLTAGES DC, UNLESS OTHERWISE SPECIFIED.
4.	TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENTS.
5.	○ — INDICATES FEMALE TERMINAL ● — INDICATES MALE TERMINAL
6.	S-NUMBER 61,584
7.	ALL WIRES 24 AWG, UNLESS OTHERWISE SPECIFIED.
8.	* INDICATES 18 AWG WIRE △ INDICATES 20 AWG WIRE.
9.	REMOVE THE YELLOW WIRE FROM CN-F TO CN-H WHEN THE 303833 BREAK DETECTOR CIRCUIT CARD ASSEMBLY IS USED.
10.	MAIN CABLE ASSEMBLY 186431
11.	ON RO SETS SUBSTITUTE THE 181838 PLUG ASSEMBLY FOR THE "KQ" KEYBOARD PLUG ON CONNECTOR "CAE" NO. 7.

SUPPORTING INFORMATION	
CATEGORY	NO.

CONTENTS

ISSUE CONTROL RECORD

8162WD

SHEET NO.	ISSUE 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	X																	
2	X																	

REVISIONS APPLYING TO THIS CONTROL RECORD

ISSUE	DATE	AUTH. NO.
1	9-25-69	19474-R
2	4-2-70	99954

WDP

ISSUE CONTROL SHEET 1 OF 1

ACTUAL
WIRING DIAGRAM
FOR
CALL CONTROL UNIT
UCC-29
MODEL 33
8 LEVEL
AUTOMATIC SEND RECEIVE(ASR)
SEND RECEIVE (KSR)
RECEIVE ONLY (RO)

WD NUMBER 8162WD	
DRAWN	CHKD.
ENGD. RCH	APPD. RBW

TELETYPE CORPORATION

8162WD

FOR USE OF THIS FORM

SEE ISSUE CONTROL SHEET FOR NOTES

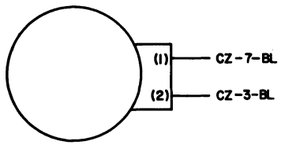
NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

8162WD

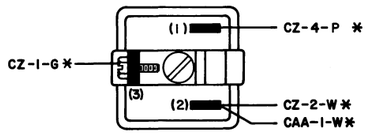
REVISIONS

ISSUE	DATE	AUTH. NO.
1	9-25-69	19474-R
2	3-31-70	99954

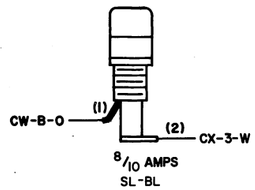
CP
ELAPSED TIME INDICATOR
186318



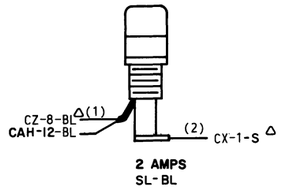
CQ
CONVENIENCE OUTLET
301713



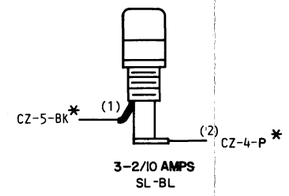
CR
FUSE HOLDER
182182



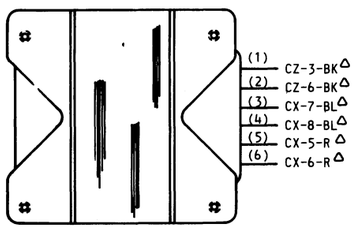
CS
FUSE HOLDER
182182



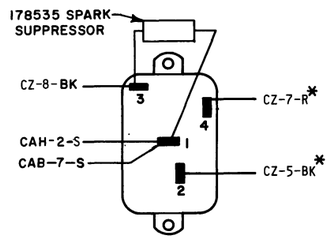
CT
FUSE HOLDER
182182



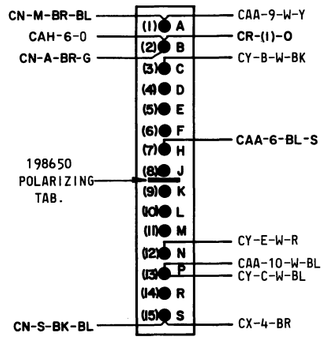
CU
TRANSFORMER ASSEMBLY
186434



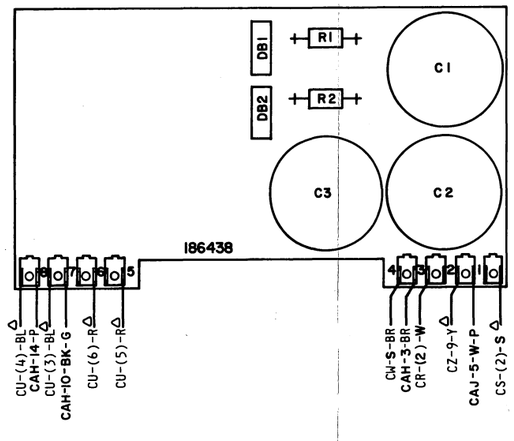
CV
MOTOR CONTROL RELAY
178306



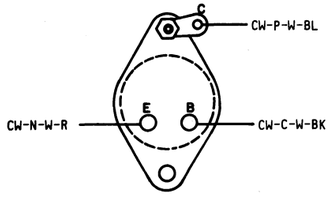
CW
SMD CARD CONNECTOR
181819



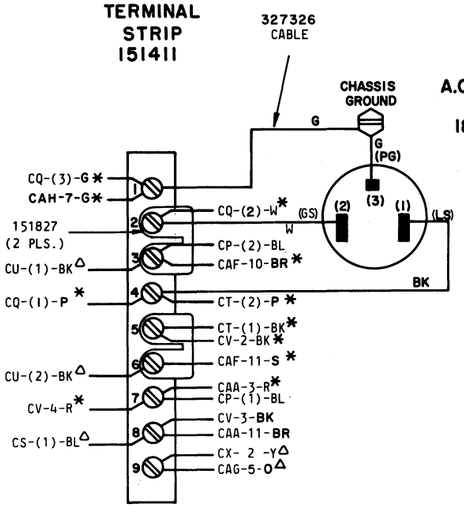
CX
CIRCUIT CARD ASSEMBLY
186438



CY
POWER TRANSISTOR
181675

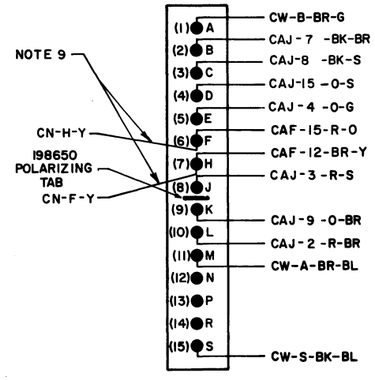


CZ
TERMINAL STRIP
151411



CM
A.C. POWER CORD
182510

CN
BREAK DETECTOR CARD CONNECTOR
181819



WDP

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1

ACTUAL
WIRING DIAGRAM
FOR
CALL CONTROL UNIT
UCC-29
MODEL 33
8 LEVEL
AUTOMATIC SEND-RECEIVE (ASR)
SEND-RECEIVE (KSR)
RECEIVE ONLY (RO)

APPROVALS

D AND R	E OF M
LD/M	

E-NUMBER

PROD. NO. 8162 W D

DATE

P.D. FILE NO. 2-165.152 AA

DRAWN MWH.	CHKD. RK
ENGD. R.C.H.	APPD. MBW

TELETYPE CORPORATION

8162WD

SEE ISSUE CONTROL SHEET FOR NOTES

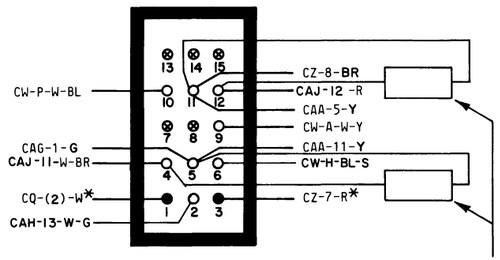
NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

8162WD

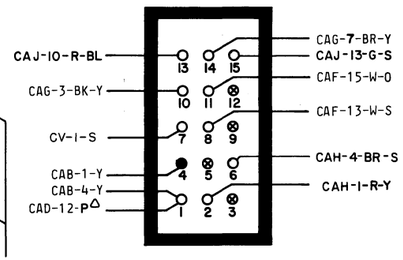
REVISIONS

ISSUE	DATE	AUTH. NO.
1	9-25-69	19474-R
2	3-31-70	99954

CAA
CONNECTOR
182539
4

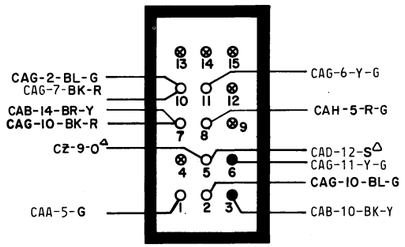


CAB
CONNECTOR
182539
3



153631 SPARK SUPPRESSORS ARE PART OF 186431 CABLE ASSEMBLY

CAG
CONNECTOR
182539
5



CAD
CONNECTOR
182539
8

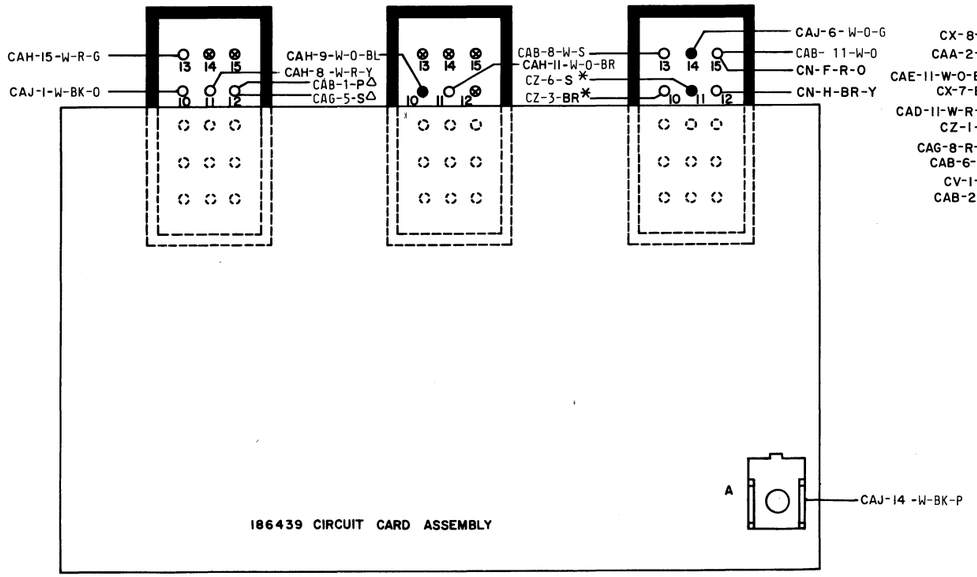
CAE
CONNECTOR
182539
7

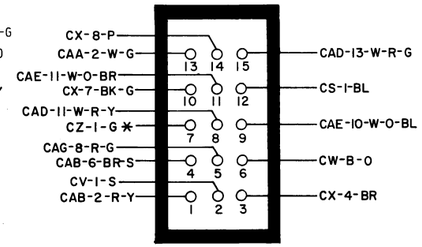
CAF
CONNECTOR
182539
6

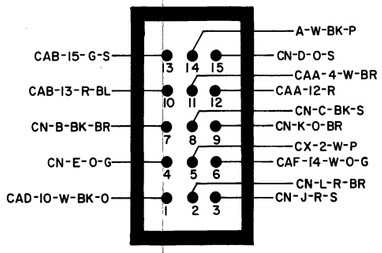
CAH
CONNECTOR
182539
1

CAJ
CONNECTOR
182539
2

NOTE:11







WDP

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 2

ACTUAL
WIRING DIAGRAM
FOR
CALL CONTROL UNIT
UCC-29
MODEL 33
8 LEVEL
AUTOMATIC SEND-RECEIVE(ASR)
SEND-RECEIVE(KSR)
RECEIVE ONLY (RO)

APPROVALS

D AND R	E OF M

E-NUMBER

PROD. NO. 8162 WD

DATE 3-21-68

P.D. FILE NO. 2-165.152AA

DRAWN MWH.	CHKD.
ENGD. R.C.H.	APPD.

TELETYPE
CORPORATION

8162WD

TC 484 (5-69)

WIRING DIAGRAM PACKAGE FOR THE 186627 SET LOGIC ASSEMBLY

WDP0238

DRAWING NO.	SHEET NO.	DESCRIPTION	ISSUE NUMBER 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1051SD	ALL	186627 SET LOGIC ASSEMBLY (SCHEMATIC DIAGRAM)	1	2																												
186627	-	SET LOGIC ASSEMBLY	1	1																												
186637	-	CIRCUIT CARD ASSEMBLY	1	1																												
303826	-	CIRCUIT CARD ASSEMBLY	1	1																												
1051CD	ALL	186627 SET LOGIC ASSEMBLY (CIRCUIT DESCRIPTION)	1	1																												

TELETYPE CORPORATION	20631-R NOTE : THE LAST COMPLETED COLUMN INDICATES THE LATEST ISSUE NUMBER OF WDP.	SHEET 1 OF 1

R&D FORM 361 (6-66)

RRS

SHEET INDEX

CONTENTS	SHEET NO.	ISSUE NO. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	SHEET NO.
SHEET INDEX SUPPORTING INFORMATION	A1	1																												A1
FS-1 SIGNAL LINE CIRCUITRY	B1	1																												B1
FS-2 CONTROL CIRCUITRY ON-DATA SET READY-OFF	B2	1																												B2
FS-3 CONTROL CIRCUITRY DATA TERMINAL READY-LOCAL	B3	1																												B3
FS-4 BREAK DETECTOR CIRCUITRY	B4	1																												B4
FS-5 DISTRIBUTOR CIRCUITRY	B4	1																												B4
FS-6 POWER SUPPLY DISTRIBUTION	B5	1																												B5
FS-7 TEST CIRCUITRY	B5	1																												B5
FS-8 ANSWER BACK CIRCUITRY	B5	1																												B5
APP. FIG. 1, 2, 3, 4	C1	1																												C1
APP. FIG. 5	C2	1																												C2
APP. FIG. 6, 7, 8, 9	C3	1																												C3
CIRCUIT NOTES EQUIPMENT NOTES INFORMATION NOTES	D1	1																												D1
SC1 ORIGINATING STATION	E1	1																												E1
SC2 ANSWERING STATION	E1	1																												E1
SC3 TERMINATE	E1	1																												E1
SC4 LOCAL	E2	1																												E2
SC5 OUT OF SERVICE	E2	1																												E2
SC6 BREAK DETECTION	E2	1																												E2

SUPPORTING INFORMATION

CATEGORY	NO.
WIRING DIAGRAM PACKAGE FOR THE 186627 SET LOGIC ASSEMBLY	WDP 0238
SCHEMATIC WIRING DIAGRAM FOR FOR MODEL 33 ASR & KSR SETS USING THE UCC29	8163 WD
BREAK DETECTION AND INDICATION MODIFICATION KIT	186630

SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND UPDATED EACH TIME ANY SHEET OF THE DRAWING IS REISSUED OR A NEW SHEET IS ADDED.
3. THE LAST COMPLETED COLUMN INDICATES THE LATEST ISSUE NUMBER OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NO.
5. ISSUE DATES WILL BE SHOWN ON THE SHEET INDEX ONLY.

REVISIONS

ISSUE	DATE	AUTH. NO.
1	6-26-70	20631-R

186627

SET LOGIC

ASSEMBLY

APPROVALS		
PROJ. SUPV. TJC	PROJ. DIR. RRS	MFG. REL. COMPL.
ENGR. A. S.	DSGNR. A. S.	
DRN. C.E.C.	DATE 10-27-69	
R & D FILE 2-165.152AA		
S-NUMBER 61,773S		

TELETYPE

1051 SD — A1

TC 641 (3-69)

FS-1
SIGNAL LINE CIRCUITRY

ISSUE 1

DATA SET

TRANSMITTED DATA — BA 2 — P2 2 — P1 2 — J1 — RL5 (6) (M) — R3 3.3K — −20VDC (CLAMPED)

RL5 (B) — TIMED BREAK GENERATOR — CR10 — R10 820 — CR11 — R15 3K 1W — +20VDC (CLAMPED) — 240 R11 — Q7 — C1 100MFD — 5.6K R12 — CR12 — R13 510 — R14 270 — −20VDC (CLAMPED) — B

RECEIVED DATA — BB 3 — P2 3 — P1 13 — J1 — R9 3.3K — CR9 — B

CR3 — R1 3.3K — R2 33K — −20VDC (CLAMPED) — CR1 — CR2 — B — Q1 — B

J3 9 P3 — J5 11 — P5 11 — BREAK CONTACT

J3 10 P3 — TB 17 — J5 9 — P5 9 — K1 4 — STOP ALL SENDERS

RL5 (5) (M) — J4 14 — P4 14 — SEND CONTACT

J3 13 P3 — TB 1 — Ⓐ — J4 1 — P4 1

Ⓑ — J4 8 — P4 8 — A −20VDC

J3 14 P3 — TB 16

J3 15 P3 — J5 13 — P5 13 — SELECTOR MAGNET DRIVER

TYPICAL TELETYPE MACHINE INTERFACE

8163WD

SHEET NOTES:
1. CONNECTOR CROSS-REFERENCE

1051SD	8163WD
P4	CAJ
P5	CAH

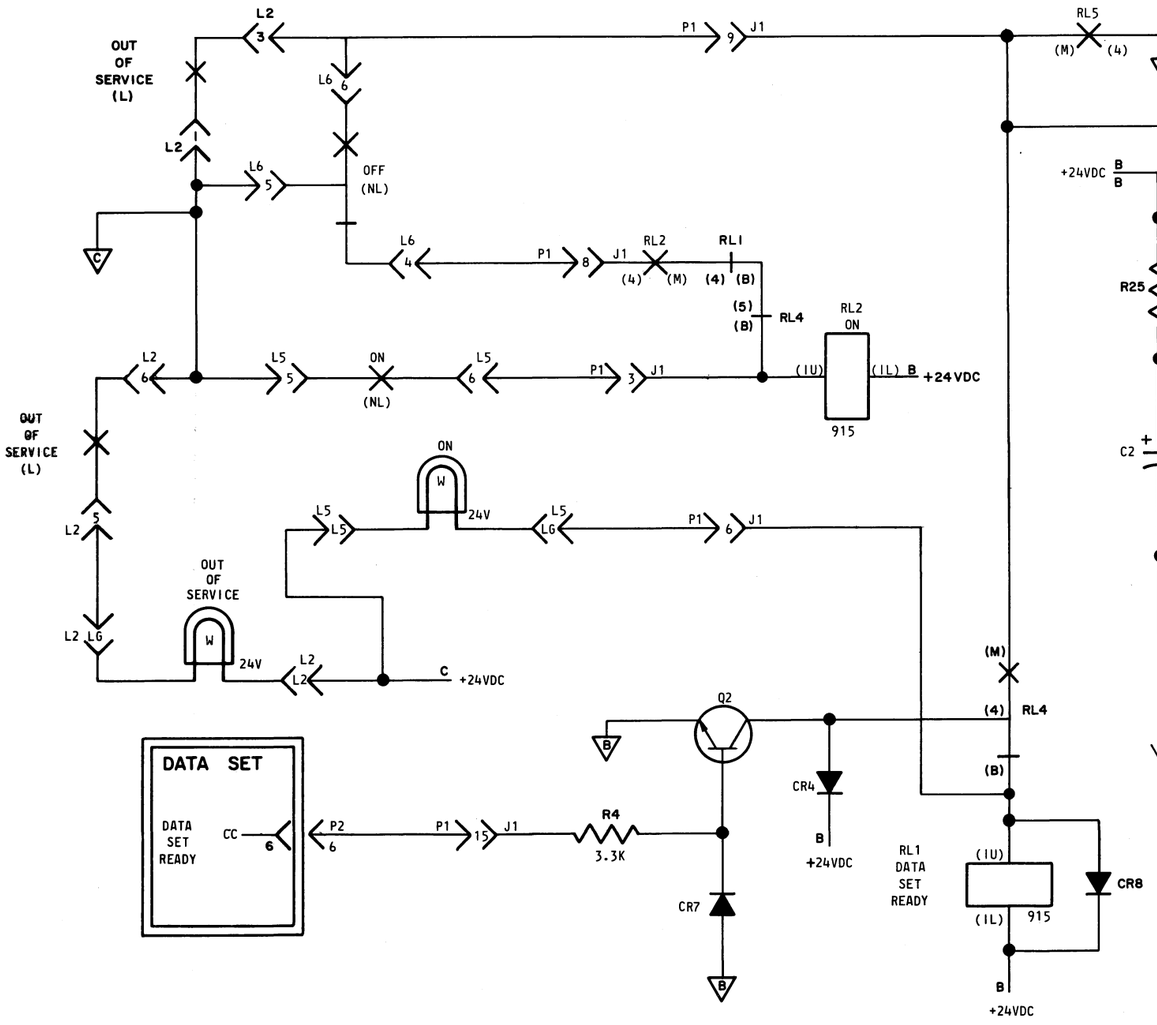
186627
SET LOGIC
ASSEMBLY

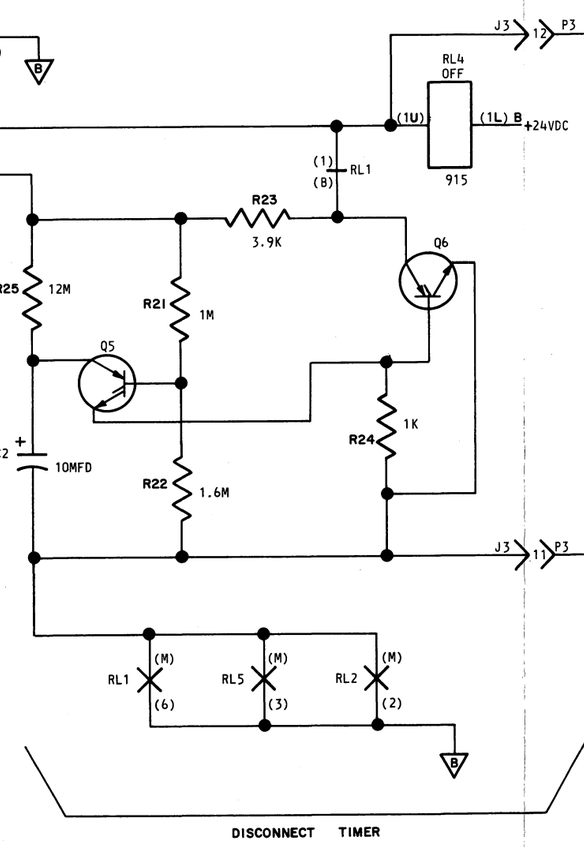
TELETYPE

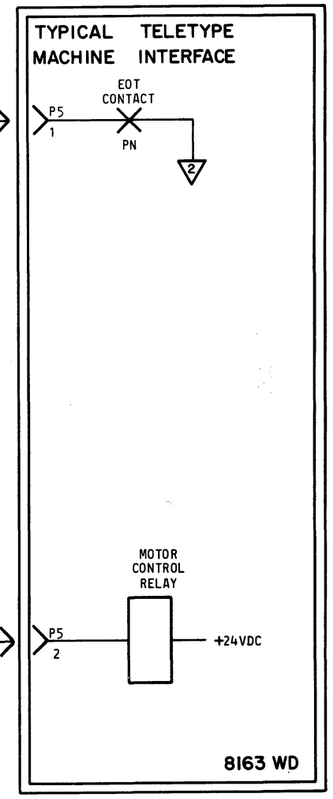
1051SD-B1

FS-2
CONTROL CIRCUITRY
ON – DATA SET READY – OFF

ISSUE 1







SHEET NOTES:

1. CONNECTOR CROSS-REFERENCE

1051 SD	8163 WD
P4	CAJ
P5	CAH

186627
SET LOGIC ASSEMBLY

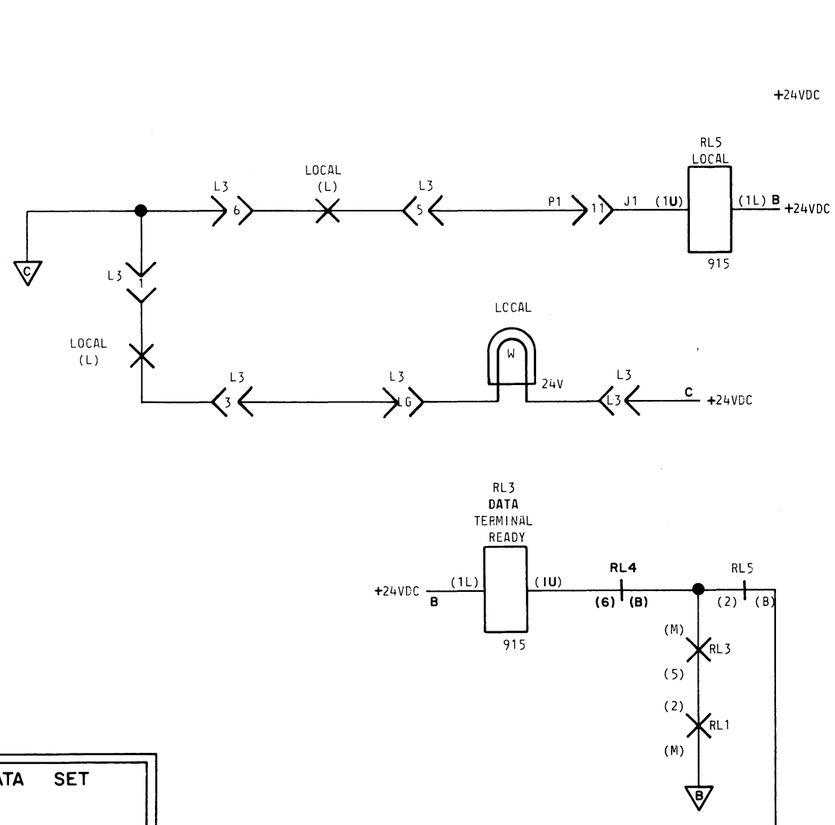
TELETYPE

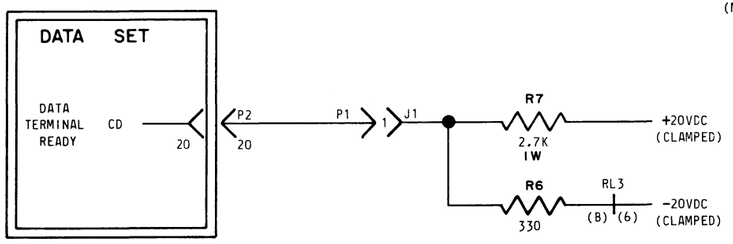
1051 SD – B2

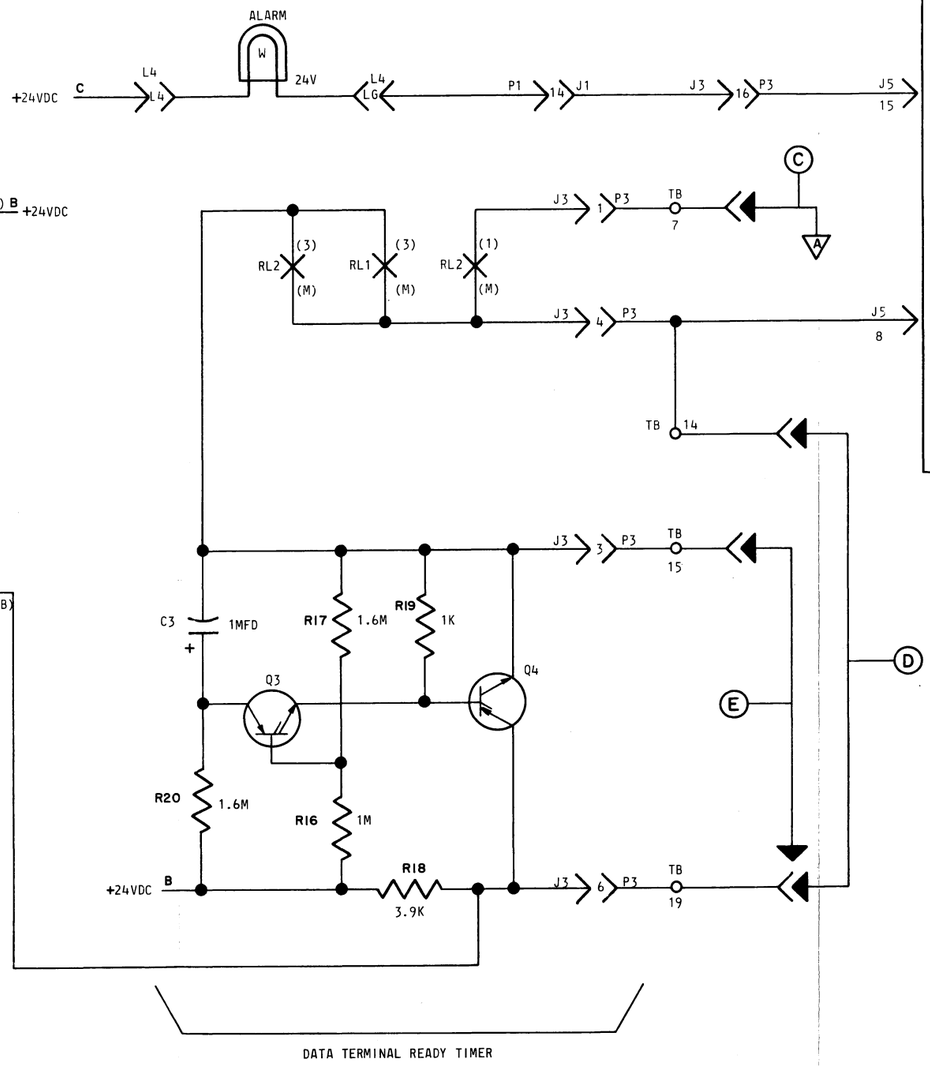
TG 640 (3-69)

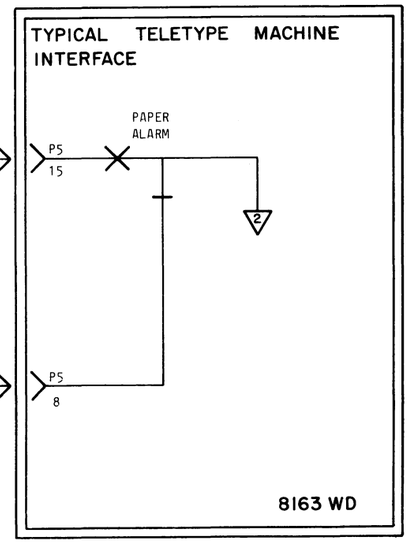
FS-3
CONTROL CIRCUITRY
DATA TERMINAL READY-LOCAL

ISSUE 1









SHEET NOTES:

1. CONNECTOR CROSS-REFERENCE

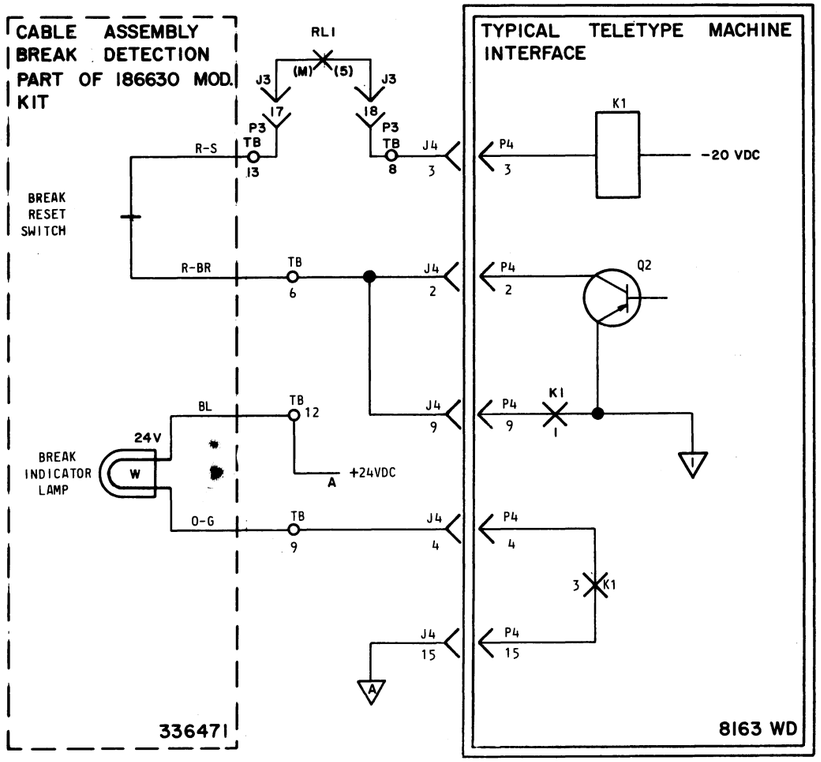
1051SD	8163WD
P4	CAJ
P5	CAH

186627 SET LOGIC ASSEMBLY	TELETYPE 1051 SD-B3

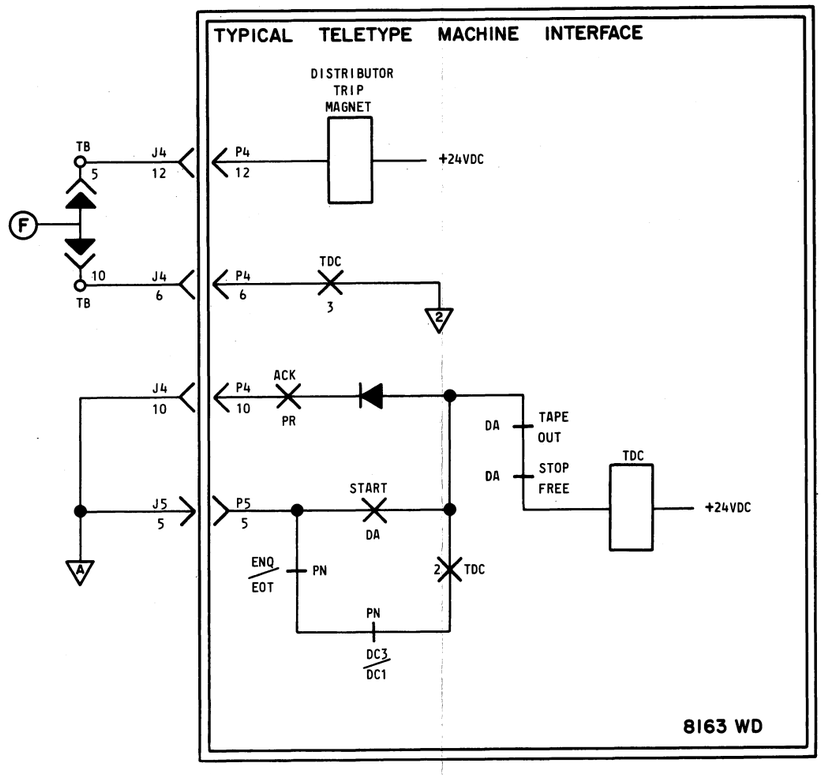
TC 640 (3-69)

ISSUE 1

FS-4
BREAK DETECTOR CIRCUITRY



FS-5
DISTRIBUTOR CIRCUITRY



SHEET NOTES:

1. CONNECTOR CROSS-REFERENCE

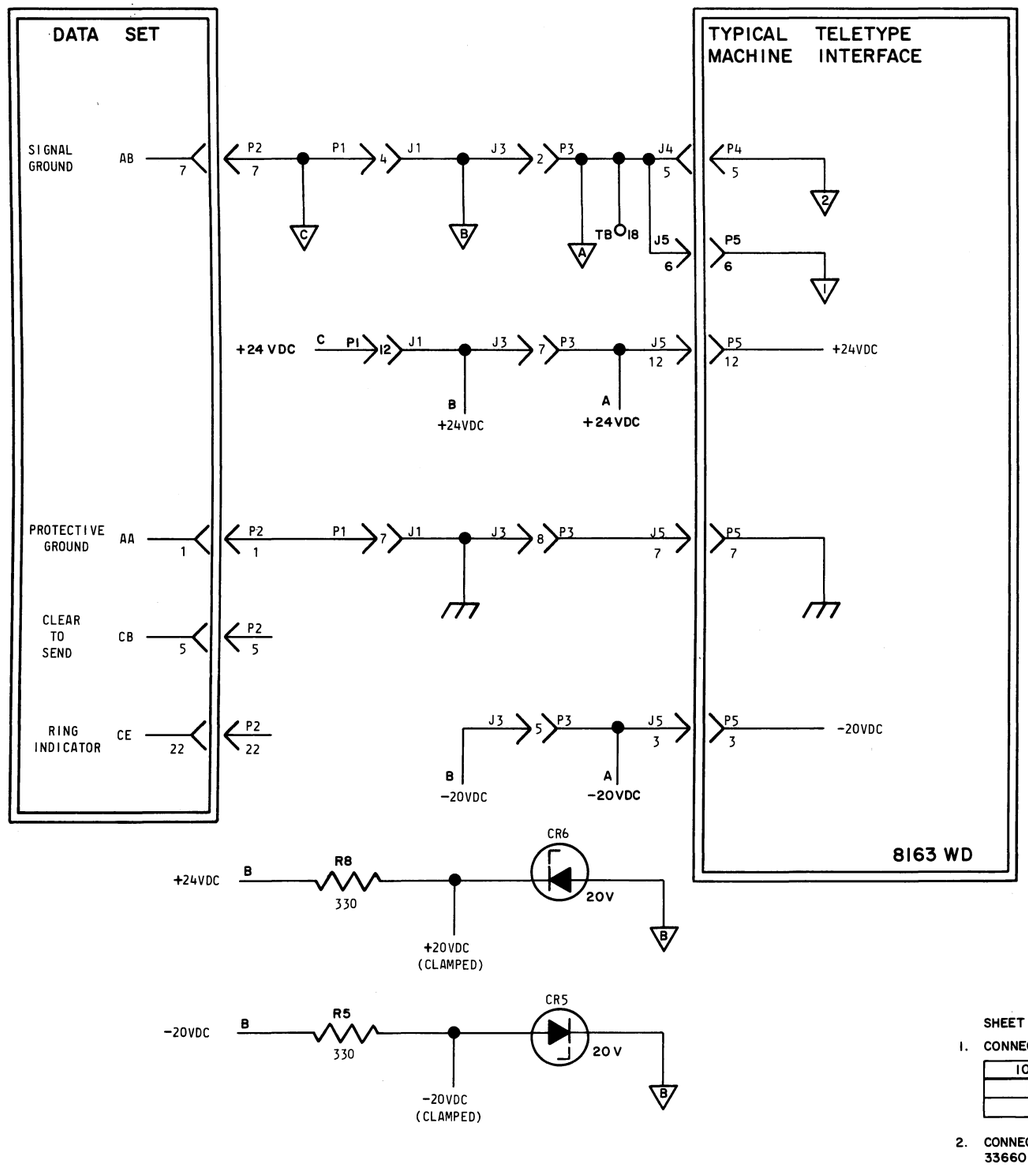
1051SD	8163WD
P4	CAJ
P5	CAH

186627 SET LOGIC ASSEMBLY	TELETYPE 1051 SD-B4

TC 640 (3-69)

ISSUE
1

FS-6
POWER SUPPLY DISTRIBUTION



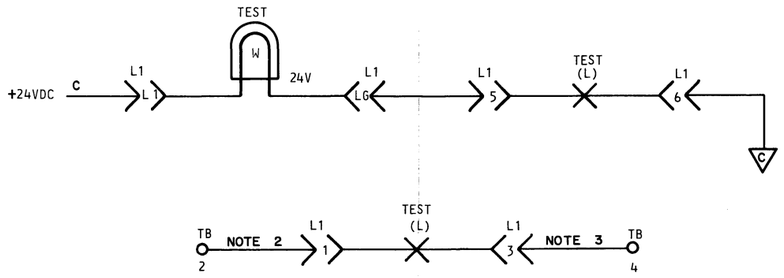
SHEET NOTES:

1. CONNECTOR CROSS-REFERENCE

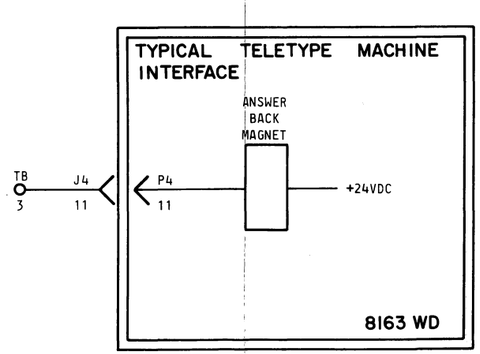
1051 SD	8163 WD
P4	CAJ
P5	CAH

2. CONNECT THE PURPLE WIRE OF THE 336601 CABLE ASSEMBLY TO TB 2.
3. CONNECT THE SLATE WIRE OF THE 336601 CABLE ASSEMBLY TO TB 4.

FS-7
TEST CIRCUITRY



FS-8
ANSWER BACK CIRCUITRY



186627 SET LOGIC ASSEMBLY	TELETYPE 1051 SD—B5

TC 640 (3-69)

ISSUE 1

APP. FIG. 1

RELAY

DESIG	RL1		RL2		RL3		RL4		RL5		DESIG
CODE	336953		336953		336953		336953		336953		CODE
OPTION											OPTION
	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	
6	EBM	2D5	EBM		EBM	3D3	EBM	3C3	EBM	1B3	6
5	EBM	4B2	EBM		EBM	3C3	EBM	2B3	EBM	1C5	5
4	EBM	2B3	EBM	2B3	EBM		EBM	2D4	EBM	2A4	4
3	EBM	3B5	EBM	3B4	EBM		EBM		EBM	2D5	3
2	EBM	3D3	EBM	2D5	EBM		EBM		EBM	3C3	2
1	EBM	2B5	EBM	3B5	EBM		EBM	4B2	EBM		1
COIL		2D4		2C3		3C3		2B6		3B3	COIL

APP. FIG. 2

CAPACITOR

DESIG	LOC	CODE
C1	1C3	336946
C2	2C4	336947
C3	3C4	336948

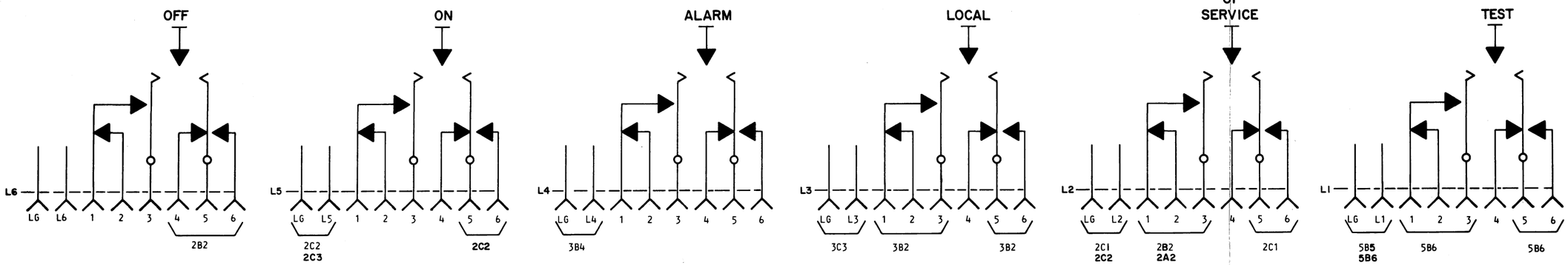
APP. FIG. 3

CORD — OPTION

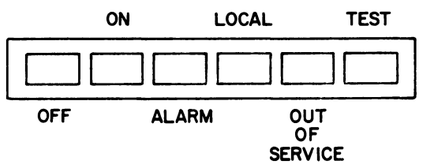
OPTION	LOC	CODE
B	1C5	156880
C	3B6	156880
F	4B5	156880

APP. FIG. 4

KEY
186683



KEYTOP
186683



LAMPS

DESIG	LOC	CODE	DESIG.	LOC	CODE
OFF	—	—	LOCAL	3C3	327061
ON	2C2	327061	OUT OF SERVICE	2C2	327061
ALARM	3B4	327061	TEST	5B5	327061

186627
SET LOGIC
ASSEMBLY

TELETYPE

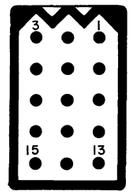
1051 SD—C1

APP. FIG. 5

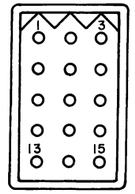
CONNECTOR

DESIG.	J1	P1	P2	J3	P3	J4	J5
CODE	RECPT.	PLUG	PLUG	PLUG	RECPT.	RECPT.	PLUG
	328733	182540	145914	325161 325163	315946	328733	328727
TERM.	LOCATION						
1	3D2	3D2	5C2	3B5	3B5	1C6	2B6
2	1B2	1B2	1B2	5B3	5B3	4C3	2C6
3	2C3	2C3	1D2	3C5	3C5	4B3	5D3
4	5B2	5B2		3B5	3B5	4C3	
5			5C2	5D3	5D3	5B3	4C5
6	2C3	2C3	2D2	3D5	3D5	4B5	5B3
7	5C2	5C2	5B2	5B3	5B3	1B6	5C3
8	2B3	2B3		5C3	5C3	1C6	3B6
9	2B3	2B3		1B5	1B5	4C3	1B6
10				1B5	1B5	4C5	
11	3B3	3B3		2C6	2C6	5D5	1B6
12	5B2	5B2		2B6	2B6	4B5	5B3
13	1D2	1D2		1C5	1C5		1D6
14	3B5	3B5		1C5	1C5	1C6	
15	2D2	2D2		1D5	1D5	4D3	3B6
16				3B6	3B6		
17				4B2	4B2		
18				4B2	4B2		
19							
20			3D2				
21							
22			5D2				
23							
24							
25							

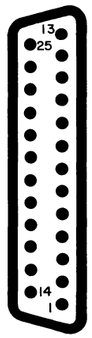
328727
PLUG



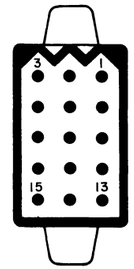
328733
RECEPTACLE



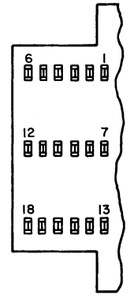
145914
PLUG



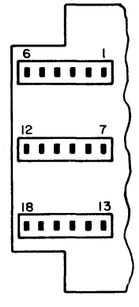
182540
PLUG



315946
RECEPTACLE



325161 & 325163
PLUG



ISSUE
1

186627 SET LOGIC ASSEMBLY	TELETYPE 1051 SD–C2

TC 640 (3-69)

ISSUE
1

APP. FIG. 6

DIODE

DESIG.	LOC	CODE
CR1	1C4	181653
CR2	1D4	177108
CR3	1D3	181653
CR4	2D3	177108
CR5	5E3	323606
CR6	5D3	323606
CR7	2D3	177108
CR8	2D4	181653
CR9	1D3	181653
CR10	1B3	181653
CR11	1B4	181653
CR12	1C3	181653

APP. FIG. 7

RESISTOR

DESIG.	LOC	CODE
R1	1D4	129851
R2	1D4	118153
R3	1B3	129851
R4	2D3	129851
R5	5E2	143661
R6	3D3	143661
R7	3D3	117729
R8	5D2	143661
R9	1D3	129851
R10	1B3	137439
R11	1B4	320440
R12	1C4	137444
R13	1C3	137603
R14	1C3	118725
R15	1B3	165867
R16	3D4	118169
R17	3C4	336950
R18	3D5	143667
R19	3C5	137440
R20	3D4	336950
R21	2B5	118169
R22	2C5	336950
R23	2B5	143667
R24	2C5	137440
R25	2B4	336951

APP. FIG. 8

TERMINAL

DESIG.	LOC	CODE
TB1	1C6	336952
TB2	5B5	336952
TB3	5D5	336952
TB4	5B6	336952
TB5	4B5	336952
TB6	4B2	336952
TB7	3B5	336952
TB8	4B2	336952
TB9	4C2	336952
TB10	4B5	336952
TB11		336952
TB12	4C2	336952
TB13	4B2	336952
TB14	3C5	336952
TB15	3C5	336952
TB16	1C6	336952
TB17	1B6	336952
TB18	5B3	336952
TB19	3D5	336952

APP. FIG. 9

TRANSISTOR — SCR — PUT

DESIG.	LOC	CODE
Q1	1D5	319304
Q2	2D3	315930
Q3	3D4	333248
Q4	3D5	336949
Q5	2C5	327946
Q6	2B6	336949
Q7	1C3	300455

186627
SET LOGIC
ASSEMBLY

TELETYPE

1051 SD — C3

CIRCUIT NOTES:

101.

DESIG.	FUSE AMP	POTENTIAL	ONE PER

BATTERY SYMBOL	VOLTAGE RANGE
+24 VDC	20-32
-20 VDC	18-30
+20 VDC (CLAMPED)	18-20
-20 VDC (CLAMPED)	12-20

102.

FEATURE OR OPTION	LOC	PROVIDE
A	1C5	HALF DUPLEX OPERATION. STRAP TB-16 TO TB-17
B	1C5	FULL DUPLEX OPERATION. STRAP TB-1 TO TB-16
C	3B6	ORIGINATION OF A CALL IN A LOW PAPER OR PAPER OUT CONDITION. STRAP TB-7 TO TB-18
D	3C6	DATA TERMINAL READY (CD) ON FOR DATAPHONE OPERATION. STRAP TB-14 TO TB-19
E	3D6	DISABLES THE DATA TERMINAL READY TIMING CIRCUIT. STRAP TB-15 TO TB-19
F	4B5	DISTRIBUTOR CONTROL. STRAP TB-5 TO TB-10

103.

NETWORK VALUES		
NET NO.	RESISTANCE (OHMS)	CAPACITANCE (MFD)

EQUIPMENT NOTES:

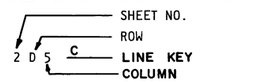
201. TERMINAL BOARD "TB" IS STRAPPED BY THE FACTORY AS SHOWN IN NOTE 202.

202.

OPTION	STRAPPING TERMINALS	
	FROM	TO
B	TB-1	TB-16
C	TB-7	TB-18
F	TB-5	TB-10

INFORMATION NOTES:

301. SHEET COORDINATE LOCATION LEGEND:



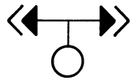
302. TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENTS.

303. ALL RESISTANCE VALUES IN OHMS UNLESS OTHERWISE SPECIFIED.

304. ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED.

305. ALL CAPACITANCE VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

306. OPTION SYMBOL.

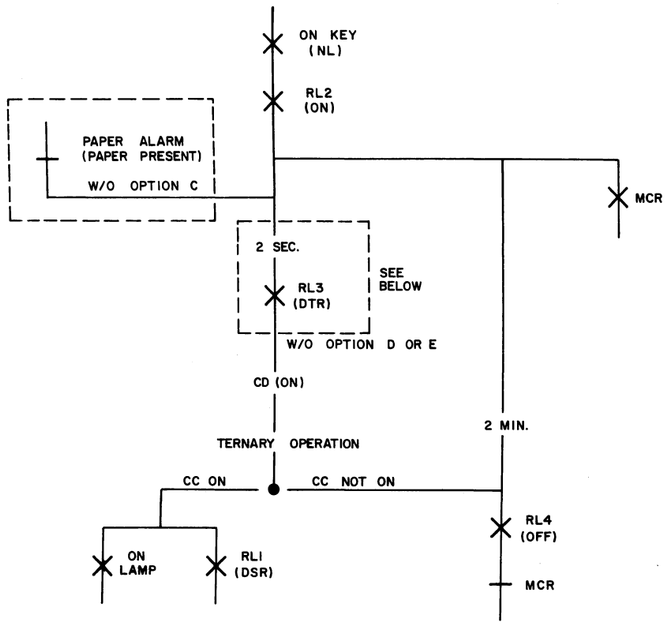


ISSUE 1

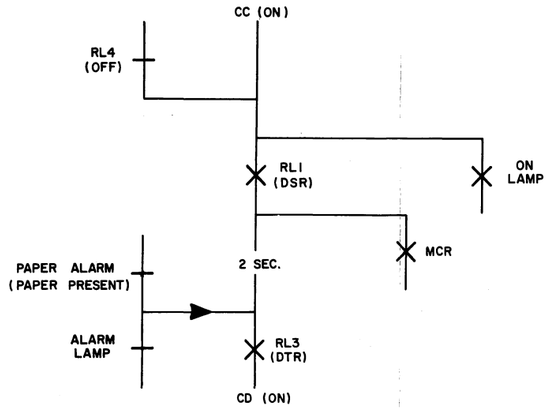
186627 SET LOGIC ASSEMBLY	TELETYPE
	1051 SD-D1

ISSUE 1

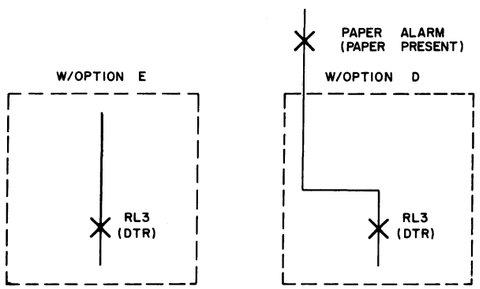
SC1
ORIGINATING STATION



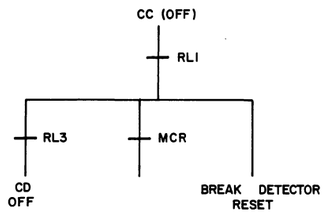
SC2
ANSWERING STATION



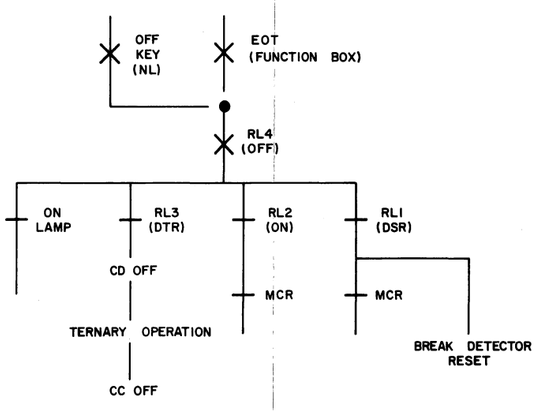
SC3
TERMINATE



ORIGINATING STATION



ANSWERING STATION

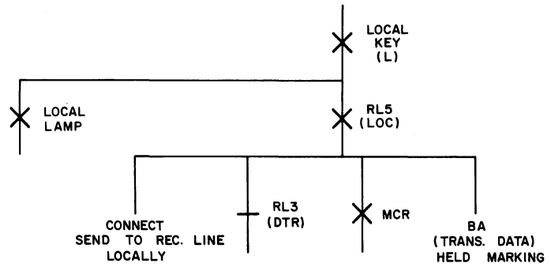


186627 SET LOGIC ASSEMBLY	TELETYPE 1051SD-E1

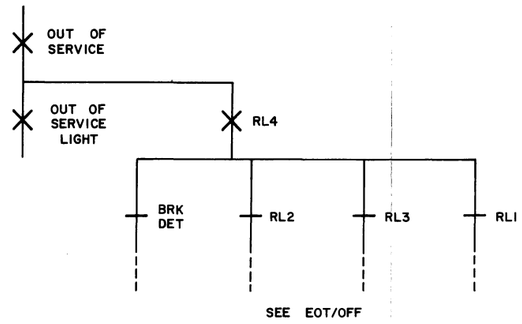
TC 640 (3-69)

ISSUE 1

SC4
LOCAL

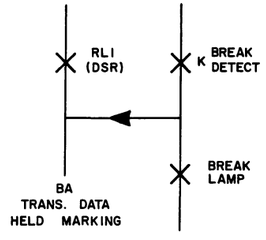


SC5
OUT OF SERVICE

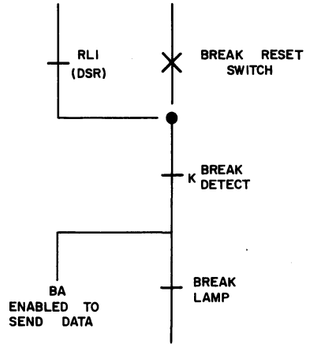


SC6
BREAK DETECTION

OPERATING



RESETTING



186627 SET LOGIC ASSEMBLY	TELETYPE
	1051 SD—E2

TG 640 (3-69)

UNTOLERANCED DIMENSIONS PER MR2003

SET LOGIC ASSEMBLY

186627

ORIGINAL USE
M33/35 FINAL
DIRECT

NOTES:

1. KEY ASSEMBLY POSITION IDENTIFICATION.

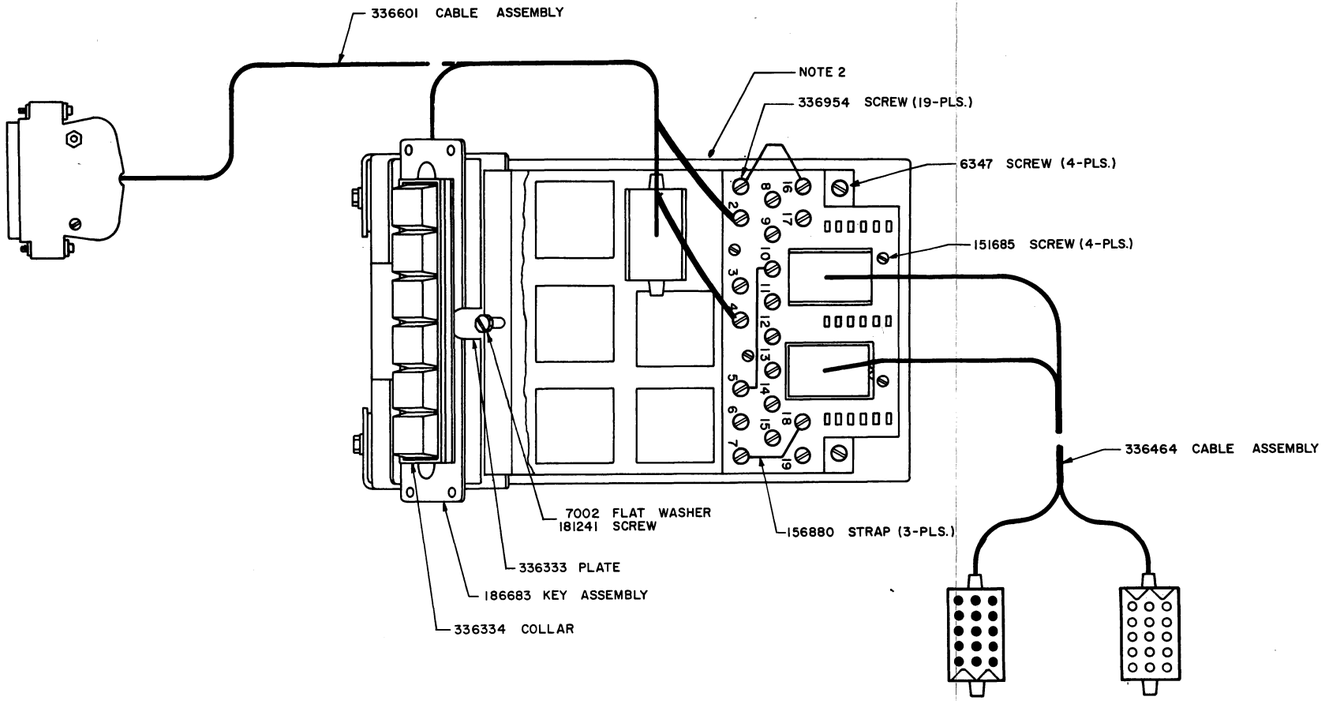
POSITION	1	2	3	4	5	6
LABEL DESIGNATION	OFF	ON	ALARM	LOCAL	OUT OF SERVICE	TEST
LABEL PART NUMBER	336631	336635	330923	336633	330906	336632
LAMP PART NUMBER	NOT REQUIRED	327061	327061	327061	327061	327061

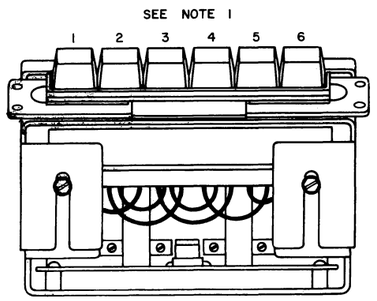
2. ATTACH PURPLE (P) WIRE OF THE 336601 CABLE ASSEMBLY TO TERMINAL NO. 2 OF THE 186637 CIRCUIT CARD ASSEMBLY.

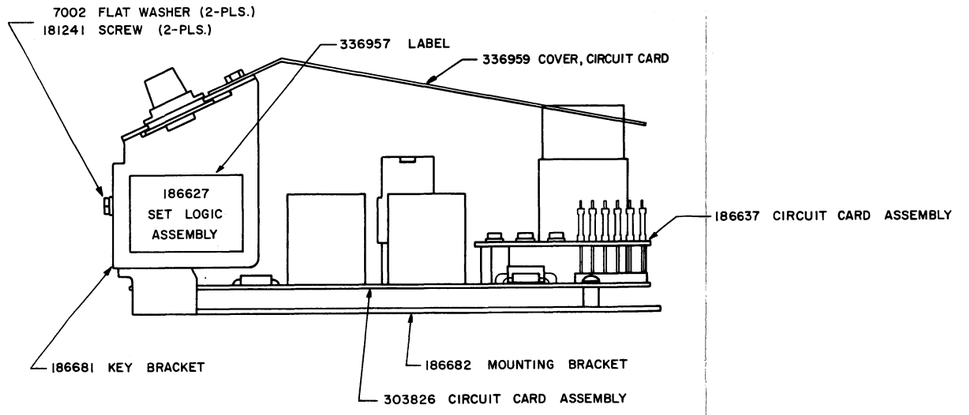
   ATTACH SLATE (S) WIRE OF THE 336601 CABLE ASSEMBLY TO TERMINAL NO. 4 OF THE 186637 CIRCUIT CARD ASSEMBLY.

3. WIRE PER AND INCLUDE ONE COPY OF WBP 0238 WITH EACH UNIT.

4. FOR SALES ORDERS ONLY FURNISH A COPY OF 50,694S.







181241 SCREW, 7002 FLATWASHER AND 121244 CABLE CLAMP TO BE ATTACHED AND SHIPPED WITH ASSEMBLY

REFER TO 1051SD FOR SCHEMATIC WIRING

PARTS REQUIRED		
PART NO.	DESCRIPTION	QTY.
336954	SCREW	19
6347	SCREW	4
7002	FLATWASHER	4
151685	SCREW	4
181241	SCREW	4
186637	CARD ASSEM.	1
186681	BRACKET	1
186682	BRACKET	1
186683	KEY ASSEM.	1
303826	CARD ASSEM.	1
327061	LAMP	5
330906	LABEL	1
330923	LABEL	1
336333	PLATE	1
336334	COLLAR	1
336464	CABLE	1
336601	CABLE	1
336631	LABEL	1
336632	LABEL	1
336633	LABEL	1
336635	LABEL	1
156880	STRAP	3
336957	LABEL	1
121244	CLAMP	1
336959	COVER	1

ISSUE	DATE	AUTH. NO.
4	8-18-70	786
3	6-23-70	635
2	5-15-70	508
1	3-3-70	20630R

REVISIONS

APPROVALS

PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.
TDC	RRS	LDW

ENGR. A.S.	DSGNR. A.S.
DRN. C.E.C.	DATE 10-15-69
S-NUMBER 61,733	
PROD. NO. 186627	
R&D FILE 2-165.152AA	

TELETYPE

186627

TELETYPE CORPORATION - COMPANY PRIVATE

SCALE 1/1

FINISH	HEAT TREAT	MATERIAL SPECIFICATION

SIMILAR TO:

TC 263 (3-69)

SHEET INDEX

1051CD

SHEET NO.	ISSUE NO. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1																	
2	1																	
3	1																	
4	1																	
5	1																	
6	1																	
7	1																	
8	1																	
9	1																	
10	1																	

REVISIONS

ISSUE	DATE	AUTH. NO.
1	6-26-70	20631-R

186627
SET LOGIC
ASSEMBLY

APPROVALS

PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.

ENGR. A. S.	DSGNR. A.S.
DRN. C. E. C.	DATE 6-26-70

R&D FILE 2-165.152AA

S-NUMBER 61,733

TELETYPE

1051CD

TC 482 (4-70)

186627
SET LOGIC
ASSEMBLY

TABLE OF CONTENTS

186627
SET LOGIC
ASSEMBLY

SECTION I - GENERAL TECHNICAL DATA

1. Purpose of Circuit

1.01 The 186627 Set Logic Assembly is a basic module designed to provide facilities for the interconnection of Teletype terminal equipment and data sets which conform to the standards of the Electronics Industries Association. In accordance with these standards, all data and control leads of the data set carry polar voltage signals.

1.02 The 186627 Set Logic Assembly accepts current-no-current data and control signals from the teletypewriter and converts them into suitable polar signals for use by the data set. In addition, it accepts polar data and control signals from the data set and converts them into current-no-current signals for use by the teletypewriter.

2. General Description of Operation

2.01 The 186627 Set Logic Assembly, consisting of a main circuit card, a customer interface and connector circuit card, and a pushbutton assembly, is mounted in the front right hand corner of an M33 or M35 terminal.

2.02 The pushbutton assembly consists of six pushbuttons, these are: OFF (non-locking, releasing), ON (non-locking, releasing), ALARM (non-locking, non-releasing), LOCAL (locking, releasing), OUT OF SERVICE (locking, releasing), and TEST (locking, releasing).

2.03 The electronic circuitry required to perform the various set functions is mounted on the main circuit card. The customer interface and connector card is fastened to the main circuit card and is accessible at the rear of the set logic assembly for customer programming.

2.04 The 186627 Set Logic Assembly obtains its operating power from the call control unit in the teletype terminal.

2.05 Data Set Interface Leads

2.05 1 AA - Protective Ground - This conductor shall be electrically bonded to the frame of the terminal apparatus. It may be further connected to external grounds as required by applicable regulations.

2.05 2 AB - Signal Ground - This conductor establishes the common-ground reference potential for all interchange circuits except Circuit AA (Protective Ground). It may be connected to Circuit AA or the frame, as required by applicable regulations, and is available at TB - 18.

2.05 3 BA - Transmitted Data - Signals on this circuit are generated by the terminal apparatus for transmission to remote data sets.

SECTION I (CONTINUED)

2.05 4 BB - Received Data - Signals on this circuit are generated by the data set in response to data signal received from remote data sets.

2.05 5 CB - Clear to Send - Signals on this circuit are generated by the data set to indicate that the data set is ready to transmit data when in the ON condition.

2.05 6 CC - Data Set Ready - Signals on this circuit are generated by the data set to indicate that it is ready to operate (ON condition). The OFF condition indicates either:

a. Any abnormal or test condition which disables or impairs normal operation.

b. That the communication channel is switched to an alternate means of communication.

c. That the data set is not connected to the communication channel.

2.05 7 CD - Data Terminal Ready - Signals on this circuit are generated by the terminal apparatus to control switching of the data set to a communications channel. The ON condition causes the data set to be connected to a communications channel. The OFF condition removes the data set from a communications channel for such reasons as terminating a call, freeing the line for alternate use, or permitting the use of the terminal apparatus for an alternate function.

2.05 8 CE - Ring Indicator - Signals on this circuit are generated by the data set to indicate that ringing current is being received from a remote station. The ON condition indicates that a ringing signal is being received with the OFF condition maintained at all other times.

2.06 Modes of Operation

2.06 1 The control circuits provide for the following modes of operation.

a. Call Origination

b. Unattended Answering

c. Local

d. Out of Service

e. Alarm

f. Test

g. Terminating a Call

SECTION I (CONTINUED)

2.07 Call Origination

2.07 1 The attendant must depress the ON pushbutton of the set logic assembly. (Refer to the appropriate data set circuit description for the correct dialing procedure, if applicable).

2.07 2 When the ON pushbutton is depressed, the Data Terminal Ready and the Disconnect Timers are activated, if the terminal is equipped with break detection circuitry, this circuitry is enabled at this time.

2.07 3 Approximately 2 seconds after the Data Terminal Ready Timer is activated, the set logic assembly transmits a Data Terminal Ready (CD) signal to the Data Set.

2.07 4 A connection must be made and the data set must have sent a Data Set Ready (CC) signal to the terminal within 2 minutes or the terminals disconnect circuitry will terminate the call.

2.08 Unattended Answering

2.08 1 If the remote terminal data set is equipped to answer a call automatically, that terminal can answer a call automatically and without an attendant being present.

2.09 Local

2.09 1 To enter the LOCAL mode, the attendant must depress the LOCAL pushbutton of the set logic assembly. This will energize the LOCAL relay which in turn puts a marking signal on the Transmit Data (BA) lead and the Data Terminal Ready (CD) lead is held in the off condition.

2.10 Out of Service

2.10 1 An OUT OF SERVICE pushbutton has been provided on the set logic assembly. When this key is depressed, such as for maintenance, a call cannot be answered automatically.

2.11 Alarm

2.11 1 An ALARM indication lamp has been provided that indicates a low paper condition.

2.12 Test

2.12 1 A TEST pushbutton has been provided on the set logic assembly, this pushbutton will activate external circuitry.

2.13 Terminating a Call

2.13 1 A call can be terminated in one of two ways, both of these procedures are recognized by the set logic assembly identically.

SECTION I (CONTINUED)

a. Transmission of an EOT code from a teletypewriter terminal.

b. Depressing the OFF pushbutton.

3. Support Information

3.01 The following documents are offered as support information for the 186627 Set Logic Assembly:

WDP0238 Wiring Diagram Package for the 186627 Set Logic Assembly.

8163WD Model 33 Automatic Send-Receive Keyboard Send-Receive and Receive only sets using the UCC29.

SECTION II - DETAILED DESCRIPTION

1. Originating a Call (FS-2)

1.01 The operator must depress the non-locking ON pushbutton. The RL2 relay energizes through the ON pushbutton. The RL2 relay is held energized through RL4-5B, RL1-4B, RL2-4M and the normally closed OFF pushbutton. When the RL2 relay energized, the RL2-2M contact closed, thus energizing the motor control relay, starting the motor and the Disconnect Timing Circuit.

1.02 When the RL2 relay energized, RL2-3M closed which started the Data Terminal Ready Timing Circuit. After 2 seconds the Data Terminal Ready Timing Circuit activated, energizing the RL3 relay through RL4-6B, RL5-2B, RL2-3M, and either the normally closed paper alarm contact or RL2-1M contact. The RL2-1M contact is an option that is provided by strapping TB-7 to TB-18, this will allow a station to originate a call in a low paper or paper out condition. The CC lead (P2-6) must go positive within 2 minutes after the ON key is depressed. The RL3 relay is now held energized through RL3-5M and RL1-2M. Normally, J1-1 is at -10 volts which indicates Data Terminal is not ready. When RL3 energizes RL3-6B opens, putting a +20V DC on J1-1 which indicates Data Terminal Ready.

1.03 When the CC lead goes positive the Q2 transistor turns on which energizes the RL1 Relay through RL4-4B, and the ON pushbutton is illuminated. Two minutes after depressing the ON pushbutton the Disconnect Timing Circuit activates and attempts to energize the RL4 Relay through RL1-1B, since the CC lead is on, the RL1 Relay would be energized opening the RL1-1B, thus preventing the RL4 Relay from being energized. If the CC lead did not turn on within 2 minutes, the RL1 Relay would not energize, thus the RL1-1B contact would be closed and the RL4 Relay would be energized which would terminate the call and turn off the motor.

1.04 If the CC lead did come up then the motor is running and the terminal is ready to transmit or receive data. At the conclusion of transmission, the call can be terminated by receiving an EOT character which causes operation of the RL4 Relay or by the operator pushing the OFF pushbutton which also operates the RL4 Relay. This causes the RL3 Relay to drop out by opening the RL4-6B contact which turns off the CD lead and transferring the RL4-4 contact which causes RL1 to drop

SECTION II (CONTINUED)

out. RL4-4M locks RL4 to ground through the Q2 transistor. When the CD lead turns off, the data set takes down the CC lead and RL4 drops out. The ON lamp is extinguished.

2. Receiving a Call (FS-2)

2.01 The Teletype terminal can answer a call unattended, as follows: the CC lead comes up turning on Q2 which energizes the RL1 Relay. With the RL1 Relay energized, RL1-5M closes which enables the break detection circuit. Once RL1 energizes, the sequence is the same as a manual start except the motor is started by the RL1-6M contact and Data Terminal Ready Timing Circuit is started by the RL1-3M contact. The CD lead (P2-20) going on indicates to the data set that the terminal is ready and the call should be maintained. If CD doesn't come up, CC will go down thus removing power from the RL1 relay and turning the motor off.

3. Send Circuit Operation (FS-1)

3.01 Half Duplex

3.01 1 When the send and break contacts are closed, -20 volts is applied to the junction R10 and CR11. Diode CR11 conducts causing the positive terminal of capacitor C1 to charge rapidly to about -15 volts from the voltage divider formed by CR11, R11 and R12 turning transistor Q7 off due to the application of this negative voltage to its base. A voltage of -8 volts is applied to the BA lead (P2-2) through the voltage divider consisting of R10, CR10, and the data set impedance indicating a mark. At the same time, a -20 volts is applied to the anode of CR1 which turns Q1 on, energizing the selector magnet driver. When either the send or break contact opens, +20 volts is applied to the BA lead (P2-2) indicating a space. The send contact opening will cause +20 volts to be applied to the anode of CR1 which turns off Q1, dropping out the selector magnet driver. The break contact opening will have no effect on CR1, therefore, it will not be recognized by the selector magnet driver. If this open contact condition lasts for more than 500 milliseconds, as would be caused by holding the BREAK key operated, capacitor C1 discharges through R12 to ground. After about 500 milliseconds of discharge, Q7 conducts and remains conducting until the open contact condition ceases. With Q7 conducting -6 volts is applied to the BA lead (P2-2) through R14, CR12 and Q7 which forms a voltage divider with the data set impedance.

3.02 Full Duplex

3.02 1 Full duplex operation would be the same as for half duplex operation, except that the path to the anode of CR1 is now open, therefore, the local selector magnet driver will not respond to incoming signals and no local copy will be received.

4. Receive Circuit Operation (FS-1)

4.01 A negative voltage of -20 volts maximum at BB (P2-3) will cause Q1 to be on, which indicates mark, causing the selector magnet driver to be energized. A positive voltage of +20 volts maximum will cause Q1 to be off, indicating space, and de-energizing the selector magnet driver.

SECTION II (CONTINUED)

5. Local Operation (FS-1 & 3)

5.01 The LOCAL locking pushbutton will energize the RL5 Relay. This closes RL5-6M which will keep the BA lead at a -20 volts. The RL5-2B contact opens the operate path for the RL3 Relay, thus maintaining the CD lead at a -10 volts indicating that the data terminal is not ready. The RL5-3M contact also closes which operates the Motor Control relay starting the station's motor. The terminal now operates locally. To get out of local and in an off condition, the OFF pushbutton is depressed which mechanically releases the LOCAL pushbutton, dropping out the RL5 Relay. When the LOCAL pushbutton is depressed, the lamp under the pushbutton is on.

6. Strapping Options

6.01 Option A - Half Duplex (FS-1)

6.01 1 By strapping TB-16 to TB-17, the send circuit signals are fed into the receive circuit and the set is in half duplex.

6.02 Option B - Full Duplex (FS-1)

6.02 1 By strapping TB-1 to TB-16, the send circuit signals are isolated from the receive circuit in an on line mode, and the set is in full duplex. (Factory wired).

6.03 Option C - Low Paper Originating (FS-3)

6.03 1 By strapping TB-7 to TB-18 (circuit common) the set will be able to originate a call in a low paper condition.

6.04 Option D - DATA-PHONE ® (FS-3)

6.04 1 By strapping TB-14 to TB-19 the data terminal ready relay will be held energized, thus indicating to the data set that the terminal is ready. This is required in automatic answer DATA-PHONE ® applications.

6.05 Option E - Data Terminal Ready Timer Bypass (FS-3)

6.05 1 By strapping TB-15 to TB-19 the data terminal ready timing circuit would be bypassed.

6.06 Option F - Distributor Control (FS-5)

6.06 1 By strapping TB-5 to TB-10 the set's distributor would be enabled.

7. Controls

7.01 Off

7.01 1 The OFF pushbutton does not contain an indicator lamp.

SECTION II (CONTINUED)

7.01 2 Depressing the OFF pushbutton operates the RL4 Relay, thus placing the terminal in the off condition. The OFF pushbutton overrides any remote start-up command and the terminal will be off as long as the pushbutton is depressed.

7.01 3 Operating the OFF pushbutton will release any locking pushbutton that had been depressed. (LOCAL, OUT OF SERVICE OR TEST).

7.02 On

7.02 1 The ON pushbutton contains an indicator lamp. The lamp is on whenever the terminal receives a Data Set Ready (CC) from the data set.

7.02 2 Depressing the ON pushbutton operates the RL2 Relay, the procedure that would follow is fully described in paragraph 1 of this section.

7.02 3 Operating the ON pushbutton will release any locking pushbutton that had been depressed.

7.03 Local

7.03 1 The LOCAL pushbutton contains an indicator lamp. The lamp is on whenever the terminal is in the Local mode.

7.03 2 Depressing the LOCAL pushbutton operates the RL5 Relay, the procedure that would follow is fully described in paragraph 5 of this section.

7.03 3 Operating the LOCAL pushbutton will release any other locking pushbutton that had been depressed.

7.04 Out of Service

7.04 1 The OUT OF SERVICE pushbutton contains an indicator lamp. The lamp is on whenever the terminal is placed in the Out of Service mode.

7.04 2 Depressing the OUT OF SERVICE pushbutton holds the RL4 Relay operated, thus placing the terminal in the Off mode.

7.04 3 Operating the OUT OF SERVICE pushbutton will release any other locking pushbutton that had been depressed.

7.05 Test

7.05 1 The TEST pushbutton contains an indicator lamp. The lamp is on whenever the TEST pushbutton is depressed.

7.05 2 Depressing the TEST pushbutton closes the L1-1/3 contact of the pushbutton assembly. This contact is presented at TB-2 and TB-4 and is intended to activate external test circuitry.

7.05 3 Operating the TEST pushbutton will not prevent the terminal from receiving a call as described in paragraph 2 of this section.

SECTION II (CONTINUED)

7.05 4 Operating the TEST pushbutton will release any other locking pushbutton that has been depressed.

8. Indicators

8.01 Alarm

8.01 1 The ALARM lamp is turned on when the terminal goes into a low paper (or paper out with sprocket feed) condition. If a message is being transmitted when a low paper condition is sensed, the operation of the terminal will remain uneffected. After the terminal is turned off, a call may be originated only if Option C (see paragraph 6.03 of this section) has been implemented, but a call cannot be received.

9. Power (FS-6)

9.01 +24 VDC and -20 VDC are supplied to the logic assembly from the call control unit (UCC29) contained in the teletypewriter.

9.02 The +24 VDC and -20 VDC together with zener diodes CR5 and CR6 and resistors R5 and R8 are used to supply -20 VDC clamped and +20 VDC clamped for EIA output leads.

10. Timing Circuit Operation (FS-2 & 3)

10.01 Component cross reference:

Designation	Disconnect Timer (2 min.)	Data Terminal Ready Timer (2 sec.)
Ra	R21	R17
Rb	R22	R16
Rc	R25	R20
C	C2	C3
Qa	Q5	Q3
Qb	Q6	Q4

10.02 When Relay RL1 or RL2 are operated, +24 VDC is applied across the RC Timing components Rc and C when the voltage at the junction of Rc and C is approximately 12.5 VDC, Qa is turned on. The turn on time is determined by time constant multiplier which is provided by the gate voltage divider Ra and R6. When Qa turns on it pulses the gate of Qb thus turning Qb on.

SECTION III - REFERENCE DATA

1. Working Limits

1.01 Ambient Temperature Range - 40°F to 110°F.

1.02 Relative Hunidity Range - 0 to 95 percent.

SECTION III - (CONTINUED)

2. Abbreviations and Functional Designations

2.01 Abbreviations Used:

AA	Protective Ground
AB	Signal Ground
BA	Transmitted Data
BB	Received Data
CB	Clear to Send
CC	Data Set Ready
CD	Data Terminal Ready
CE	Ring Indicator

2.02 Functional Designations

Designation	Meaning
C	Capacitor
CR	Diode
J1	Receptacle, Pushbutton Assembly
J3	Receptacle, "Piggyback" Card
J4	Receptacle, Call Control Unit
J5	Plug, Call Control Unit
L	Plug, Pushbutton Assembly
P1	Plug, Pushbutton Assembly cable
P2	Plug, EIA, Data Set
P3	Plug, "Piggyback" Card
Q	Transistor, SCR or PUT
R	Resistor
RL1	Relay, Data Set Ready
RL2	Relay, On
RL3	Relay, Data Terminal Ready
RL4	Relay, Off
RL5	Relay, Local
TB	Terminal Board

3. Connecting Circuits

3.01 Data sets or stations conforming to EIA RS-232-B Standard.

3.02 Teletype machines equipped with a UC629.

UNTOLERANCED DIMENSIONS PER MR2003

SET LOGIC ASSEMBLY

186627

ORIGINAL USE
M33/35 FINAL
DIRECT

PARTS REQUIRED		
PART NO.	DESCRIPTION	QTY.
336954	SCREW	19
6347	SCREW	4
7002	FLATWASHER	4
151685	SCREW	4
181241	SCREW	4
186637	CARD ASSEM.	1
186681	BRACKET	1
186682	BRACKET	1
186683	KEY ASSEM.	1
303826	CARD ASSEM.	1
327061	LAMP	5
330906	LABEL	1
330923	LABEL	1
336333	PLATE	1
336334	COLLAR	1
336464	CABLE	1
336601	CABLE	1
336631	LABEL	1
336632	LABEL	1
336633	LABEL	1
336635	LABEL	1
156880	STRAP	3
336957	LABEL	1
121244	CLAMP	1
336959	COVER	1

NOTES:

1. KEY ASSEMBLY POSITION IDENTIFICATION.

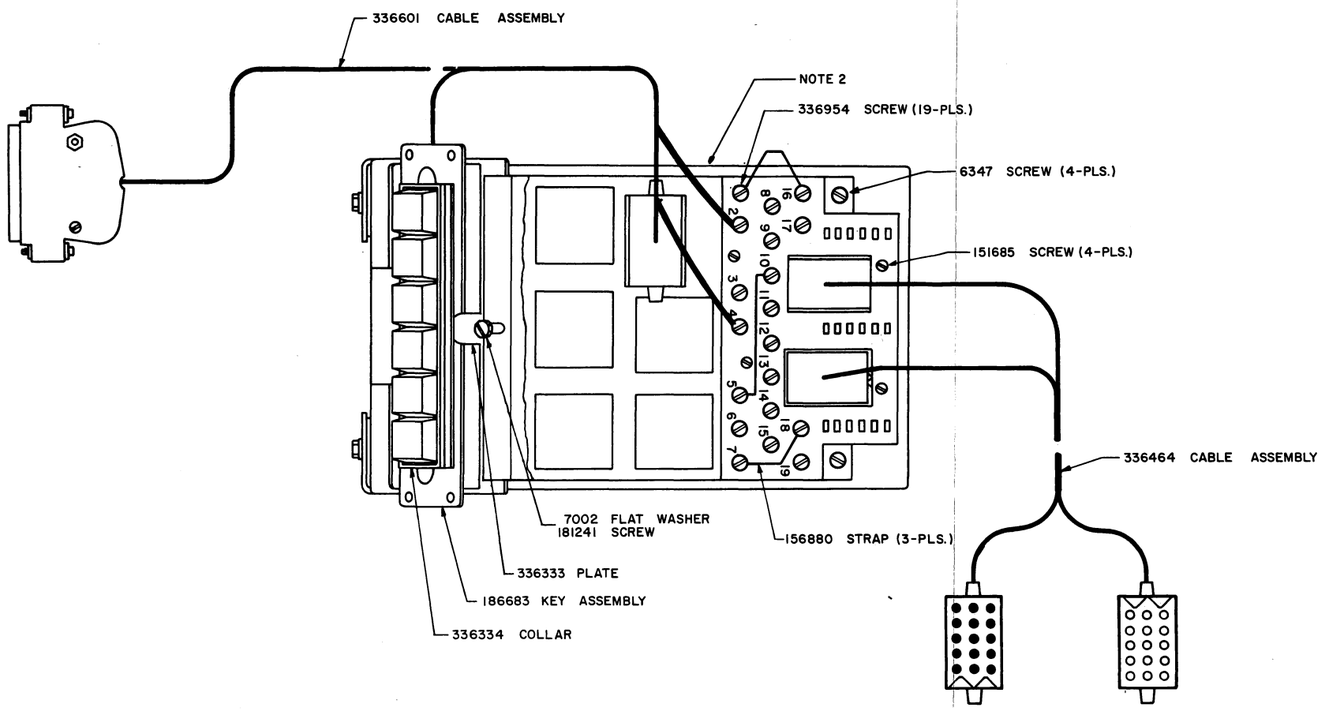
POSITION	1	2	3	4	5	6
LABEL DESIGNATION	OFF	ON	ALARM	LOCAL	OUT OF SERVICE	TEST
LABEL PART NUMBER	~~336631~~	~~336635~~	~~330923~~	336633	330906	336632
LAMP PART NUMBER	NOT REQUIRED	~~327061~~	~~327061~~	327061	327061	327061

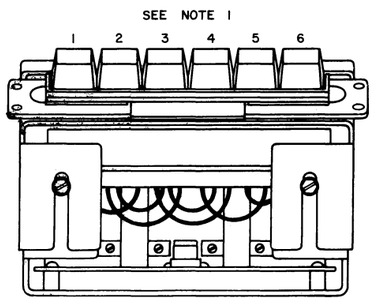
2. ATTACH PURPLE (P) WIRE OF THE ~~336601~~ CABLE ASSEMBLY TO TERMINAL NO. 2 OF THE ~~186637~~ CIRCUIT CARD ASSEMBLY.

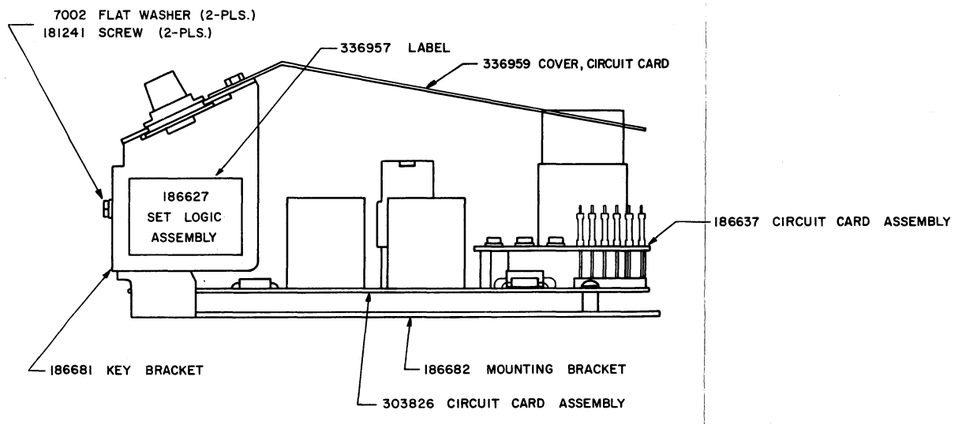
   ATTACH SLATE (S) WIRE OF THE ~~336601~~ CABLE ASSEMBLY TO TERMINAL NO. 4 OF THE ~~186637~~ CIRCUIT CARD ASSEMBLY.

3. WIRE PER AND INCLUDE ONE COPY OF WBP 0238 WITH EACH UNIT.

4. FOR SALES ORDERS ONLY FURNISH A COPY OF 50,694S.







181241 SCREW, 7002 FLATWASHER AND 121244 CABLE CLAMP TO BE ATTACHED AND SHIPPED WITH ASSEMBLY

REFER TO 1051SD FOR SCHEMATIC WIRING

ISSUE	DATE	AUTH. NO.
4	8-18-70	786
3	6-23-70	635
2	5-15-70	508
1	3-3-70	20630R

REVISIONS

APPROVALS

PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.
TDC	RRS	LDW

ENGR. A. S. | DSGNR. A. S.
DRN. C.E.C. | DATE 10-15-69
S-NUMBER 61,733
PROD. NO. 186627
R&D FILE 2-165.152AA

TELETYPE CORPORATION - COMPANY PRIVATE

SCALE 1/1

FINISH	HEAT TREAT	MATERIAL SPECIFICATION

SIMILAR TO:

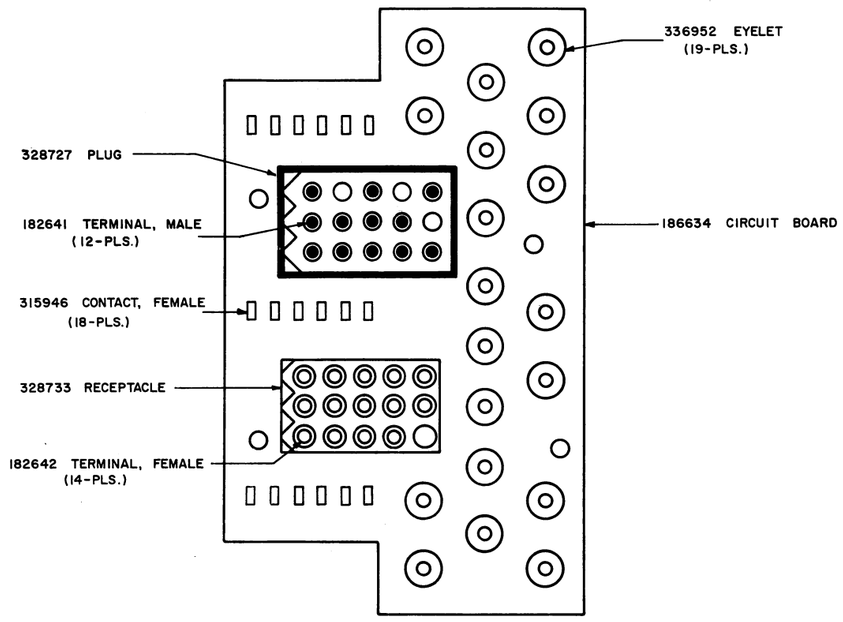
TELETYPE

186627

TC 963 (3-69)

REF. DESIG.	PART NO. REQ.	QTY.	DESCRIPTION
	328727	1	PLUG, 15 CIRCUIT
	328733	1	RECEPTACLE, 15 CIRCUIT
	182641	12	TERMINAL, MALE
	182642	14	TERMINAL, FEMALE
	315946	18	CONTACT, FEMALE
	336952	19	EYELET
	186634	1	CIRCUIT BOARD

NOTE: PRINTING SCREEN TO MADE FROM MASTER ARTWORK NO. 186637 AW. ARTWORK AVAILABLE IN R&D OFFICE SERVICE SECTION.



REFER TO 1051 SD FOR SCHEMATIC WIRING

SIMILAR TO:

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	1-21-70	20630-R

CIRCUIT CARD

186637

CIRCUIT CARD ASSEMBLY

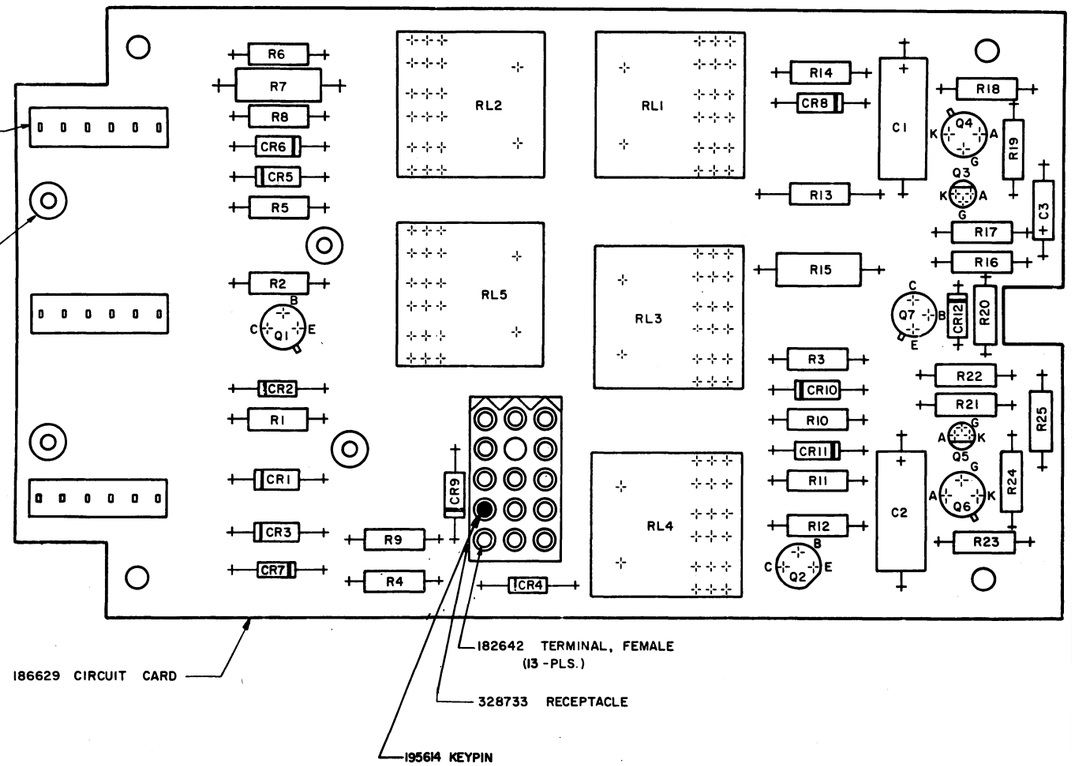
APPROVALS		
PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.
[illegible]	RRS	[illegible]
ENGR. A. S.	DSGNR. A. S.	
DRN. C.E.C.	DATE 10-9-69	
E-NUMBER		
SD-CD NO. 1051		
R&D FILE 2-165.152AA		

TELETYPE

186637

REF. DESIG.	PART NO. REQ.	QTY.	DESCRIPTION
C1	336946	1	CAPACITOR, 100MFD, 20V
C2	336947	1	CAPACITOR, 10 MFD, 35V
C3	334948	1	CAPACITOR, 1 MFD, 35V
CR1	181653	7	DIODE, IN645
CR2	177108	3	DIODE, D2
CR3			SAME AS CR1
CR4			SAME AS CR2
CR5	323606	2	DIODE, IN4747A
CR6			SAME AS CR5
CR7			SAME AS CR2
CR8			SAME AS CR1
CR9			SAME AS CR1
CR10			SAME AS CR1
CR11			SAME AS CR1
CR12			SAME AS CR1
Q1	319304	1	TRANSISTOR
Q2	315930	1	TRANSISTOR 2N3568
Q3	333248	1	PUT D13T1
Q4	336949	2	SCR 2N2323
Q5	327946	1	PUT D13T2
Q6			SAME AS Q4
Q7	300455	1	TRANSISTOR 2N697
R1	129851	4	RESISTOR 3.3K, 1/2W
R2	118153	1	RESISTOR 33K, 1/2W
R3			SAME AS R1
R4			SAME AS R1
R5	143661	3	RESISTOR, 330 Ω, 1/2W
R6			SAME AS R5
R7	117729	1	RESISTOR, 2.7K 1W
R8			SAME AS R5
R9			SAME AS R1
R10	137439	1	RESISTOR, 820 Ω, 1/2W
R11	320442	1	RESISTOR, 240 Ω, 1/2W
R12	118186	1	RESISTOR, 5.6K, 1/2W
R13	137603	1	RESISTOR, 510 Ω, 1/2W
R14	118725	1	RESISTOR, 270 Ω, 1/2W
R15	165867	1	RESISTOR 3K, 1W
R16	118169	2	RESISTOR 1M, 1/2W
R17	336950	3	RESISTOR 1.6M, 1/2W
R18	143667	2	RESISTOR 3.9K, 1/2W
R19	137440	2	RESISTOR 1K, 1/2W
R20			SAME AS R17
R21			SAME AS R16
R22			SAME AS R17
R23			SAME AS R18
R24			SAME AS R19
R25	336951	1	RESISTOR 12M, 1/2W
	336945	4	STANDOFF
	325163	3	POST, CONNECTOR
	328733	1	RECEPTACLE, 15 CIRCUIT
	182642	13	TERMINAL, FEMALE
	144495	5	TRANSISTOR PAD
	195614	1	KEYPIN
	186629	1	CIRCUIT BOARD
RL1	336953	5	RELAY
RL2			SAME AS RL1
RL3			SAME AS RL1
RL4			SAME AS RL1
RL5			SAME AS RL1

NOTE: PRINTING SCREEN TO BE MADE FROM MASTER ARTWORK NO. 303826 AW ARTWORK AVAILABLE IN R&D OFFICE SERVICE SECTION.



REFER TO 1051 SD FOR SCHEMATIC WIRING

BOTTOM VIEWS

TRANSISTOR

Q1, Q2, Q7

SCR

Q4, Q6

PUT

Q3,Q5

REVISIONS		
ISSUE	DATE	AUTH NO.
1	1-21-70	20630-R
2	5-18-70	508

CIRCUIT CARD
EC 826
303826
CIRCUIT CARD
ASSEMBLY

APPROVALS		
PROJ. SUPV. TDC	PROJ. DIR. RRS	MFG. REL. COMPL.
ENGR. A.S.	DSGNR. A.S.	
DRN. C.E.C.	DATE 10-7-69	
E-NUMBER		
SD-CD NO. 1051		
R&D FILE 2-165.152AA		

TELETYPE

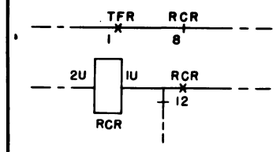
303826

SIMILAR TO:

TC 637 (3-69)

NOTES

1. FOR CROSS REFERENCE OF BELL AND TELETYPE CODES, SEE E.S.I. 4.002-35.
2. ISSUE 1 OF THIS ISSUE CONTROL SHEET REPLACES ISSUE 33 OF 6020WD-A1.
3. 27K RESISTOR IS NOT PRESENT ON SOME SETS
4. FUSE IS NOT PRESENT ON SOME SETS.
5. C FUSE TERMINATION TR-2 CHANGED TO R-1 WHEN AG FUSE ADDED.
6. WIRING STATUS:
   RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES
   00-B — NOTE NUMBER
   B - DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.
   00-A
   A - DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.
7. WIRING WAS CHANGED TO PROVIDE MAKE BEFORE BREAK TRANSFER CONTACT FOR ENERGIZING RCR RELAY. FORMER WIRING WAS AS FOLLOWS:



8. SOME UNITS DO NOT HAVE THIS NETWORK.
9. ON ISSUE 13 OF SHEET B4, DIODE CR11A WAS ABSENT.

SUPPORTING INFORMATION

CATEGORY		NO.
TECHNICAL MANUAL MODEL 35 KEYBOARD SEND-RECEIVE (KSR) AND RECEIVE-ONLY (RO) TELETYPEWRITER SETS		BULLETIN 281B
DATA SET	101C	BSP 591-013-100 BSP 591-013-200 BSP 591-013-300
	105A	BSP 591-018-100 BSP 591-018-200 BSP 591-018-300
DIALER (CONTINUED BELOW)	8G	BSP 501-162-100 BSP 501-162-300
	25F1	BSP 501-164-105
	26C	BSP 501-164-106
	41A	BSP 501-163-101
DATA SYSTEMS ATTENDANT CIRCUIT		SD-3D009-01
DATA STATION CIRCUIT	101C	CD-3D007-01
	105A	CD-3D008-01
DIALER CONTINUED	35N1A	BSP501-164-115
	36J	BSP501-164-116

RELATED ACTUAL WIRING DIAGRAMS AND DRAWINGS:	
ANSWER-BACK	4726WD
LP806 (FRICTION)	4786WD
LP805 (SPROCKET)	4787WD
LPR801 OR LPR804	4937WD
LP SMD	4970WD
LK802 OR LK805	5812WD
LESU300	5821WD
LP SMD WITH 193440 CARD	5826WD
LRB300	5846WD
LESU306 WITH 193440 CARD	5864WD
LESU306 WITH 182630 CARD	7170WD
LCCU300	5824WD
LMU3	2900WD
LP SMD WITH 182630 CARD	5983WD
CIRCUIT CARD ASSEMBLY	182630
CIRCUIT CARD ASSEMBLY	193440

CONTENTS

	SHEET NO.
FS-1 CALL PROGRESS OR DIAL TONE FS-2 TEST FS-3 BREAK RELEASE FS-4 RESTRAIN FS-5 CLEAR FS-6 ANSWER FS-7 ORIGINATE	B1
FS-8 ROTARY DIAL AND PULSING CARD DIALER FS-9 AMPLIFIER	B2
FS-10 TOUCH TONE DIALER	B3
FS-11 SIGNAL GENERATORS AND SELECTOR MAGNET DRIVERS	B4
FS-12 ANSWER-BACK CONTROL	B5
FS-13 FORM-OUT MAGNET FS-14 PAPER-OUT DISCONNECT FS-15 EOT DISCONNECT	B6
FS-16 LOCAL FS-17 MOTOR CONTROL RELAY	B7
FS-18 OUT-OF-SERVICE INDICATOR FS-19 RINGER CIRCUIT AND OFF HOOK CIRCUIT	B8
FS-20 PAPER ALARMS	B9
FS-21 ROTR CONTROL	B10
FS-22 POWER AND CABINET	B11
APP. FIG. 1 (PART OF)	C1
APP. FIG. 1 (PART OF)	C2
APP. FIG. 1 (PART OF)	C3
APP. FIG. 2	C4
APP. FIG. 3	C5
APP. FIG. 4	C6
APP. FIG. 5 APP. FIG. 11 APP. FIG. 6 APP. FIG. 12 APP. FIG. 7 APP. FIG. 8 APP. FIG. 9 APP. FIG. 10	C7
CIRCUIT NOTES 101-104	D1
SC-1 ANSWER-BACK AT ORIGINATING STATION SC-2 ANSWER-BACK AT ANSWERING STATION	E1
SC-3 HORIZ. OR VERT. TAB OR FORM FEED SC-4 FORM-OUT ON DISCONNECT SC-5 MOTOR CONTROL	E2
SC-6 LOW PAPER ALARMS SC-7 ROTR CONTROL	E3
SC-8 RIBBON SHIFT (OR PRINT SUPPRESSION) MAGNET ON AUX. ROTR	E4

ISSUE CONTROL RECORD

SHEET NO.	ISSUE 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
B1	X	X	X	X	X	X												
B2	X	X	X	X	X	X	X	⊠	⊠									
B3	X	X	X	X	X	X	X	X	⊠									
B4	X	X	X	X	X	X	X	X	X	X	X	⊠	⊠					
B5	X	X	X	X	X	X												
B6	X	X	X	X	X	X	X	X	⊠									
B7	X	X	X	X	X	X												
B8	X	X	X	X	X													
B9	X	X	X	X														
B10	X	X	X	X	X	X	X	X	X	⊠	⊠							
B11	X	X	X	X	X	X	X	X	X	X	X	X	X					
C1	X	X																
C2	X	X	X	⊠	X													
C3	X	X	X	X	X	X	X	X	⊠	⊠	⊠							
C4	X	X	X	⊠	⊠													
C5	X	X																
C6	X	X																
C7	X	X	X	X														
D1	X	X	X	X	X													
E1	X																	
E2	X																	
E3	X																	
E4	X																	

REVISIONS APPLYING TO THIS CONTROL RECORD

ISSUE	DATE	AUTH. NO.
1	4-12-66	90544
2	6-10-66	90658
3	10-27-66	91933-1
4	8-29-67	94201
5	8-18-67	94324-B
6	5-8-68	95523-4
7	6-10-68	95947
8	11-15-68	96529
9	12 17 68	96463
10	5-19-69	99164
11	1-6-70	99875
12	2-4-70	144
13	5-7-70	8

WDP

ISSUE CONTROL SHEET 1 OF 1

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35A, 35A-X3, 35B, 35B-X3, 35C, 35C-X3, 35D, 35D-X3

TELETYPEWRITER SETS (KSR)

WD NUMBER	6020WD
DRAWN C.J.R.	CHKD.
ENGD. G.E.W.	APPD.

TELETYPE CORPORATION

6020 WD

6020WD

TC 482 8-66 SEE R&D ROUTINE #5 FOR USE OF THIS FORM

INDICATES COMMON RETURN TO THE POWER SUPPLY - NOT RELATED TO CHASSIS POTENTIAL.

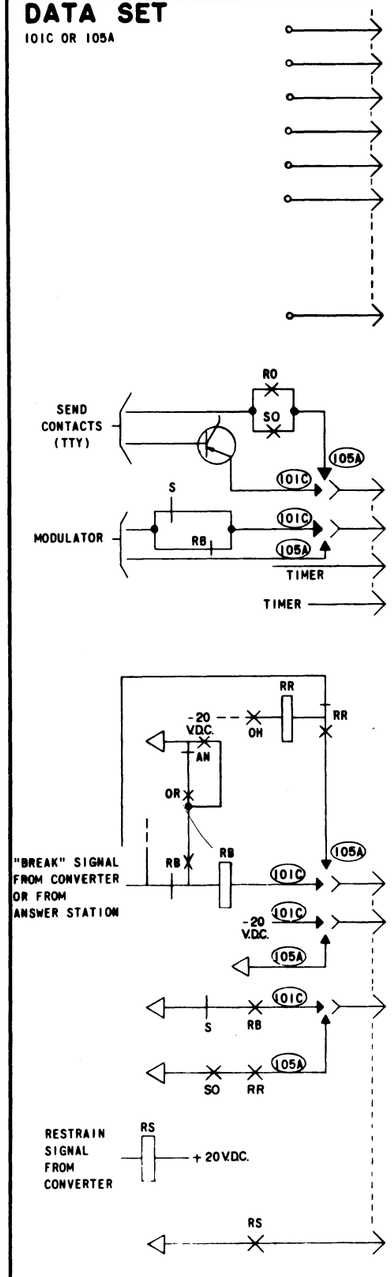
NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6020WD-BI

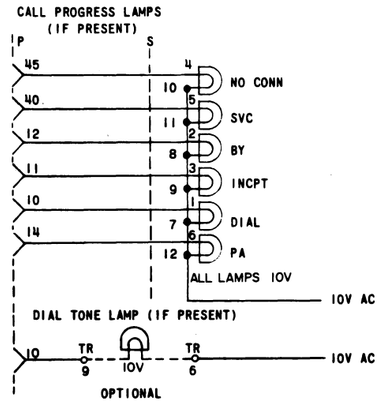
REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	10-12-64	84221
4	12-10-64	83562
5	2-2-65	85509
6	3-16-65	86307
7	8-4-65	87593

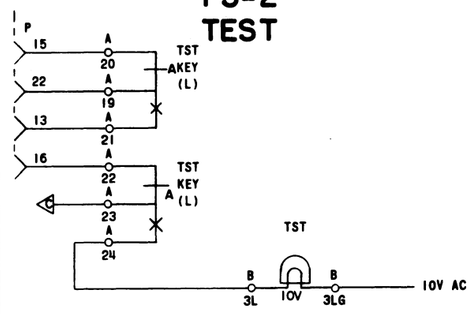
DATA SET
101C OR 105A



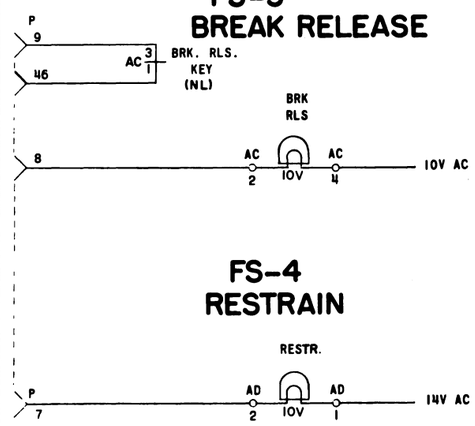
FS-1
CALL PROGRESS OR DIAL TONE LAMPS



FS-2
TEST

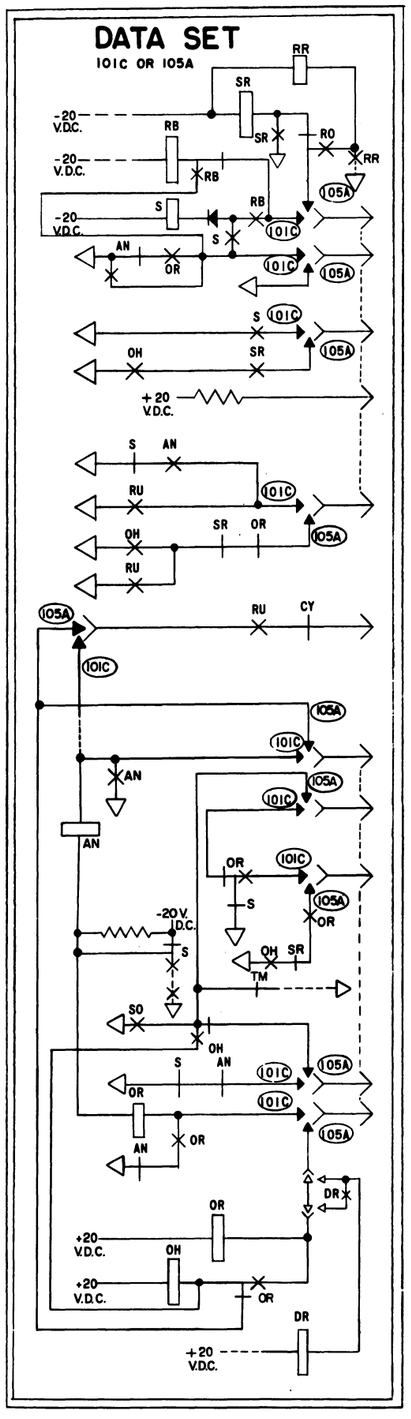


FS-3
BREAK RELEASE

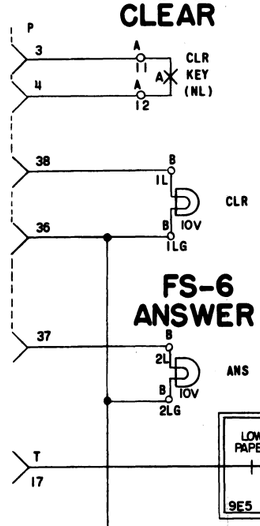


FS-4
RESTRAIN

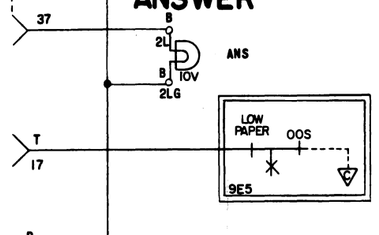
DATA SET
101C OR 105A



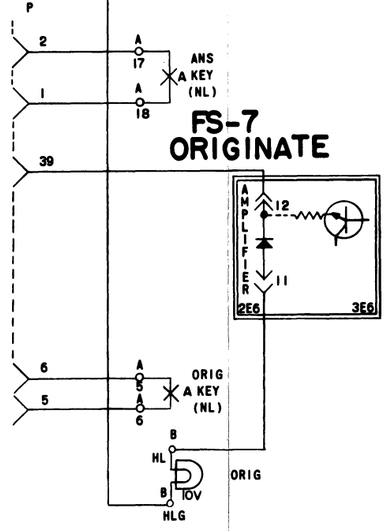
FS-5
CLEAR



FS-6
ANSWER



FS-7
ORIGINATE



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B1

APPROVALS

D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6020WD-BI

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P.	CHKD. K.T.P.
ENGD. R.D.S.	APPD. O.A.L.

TELETYPE CORPORATION

6020WD-BI

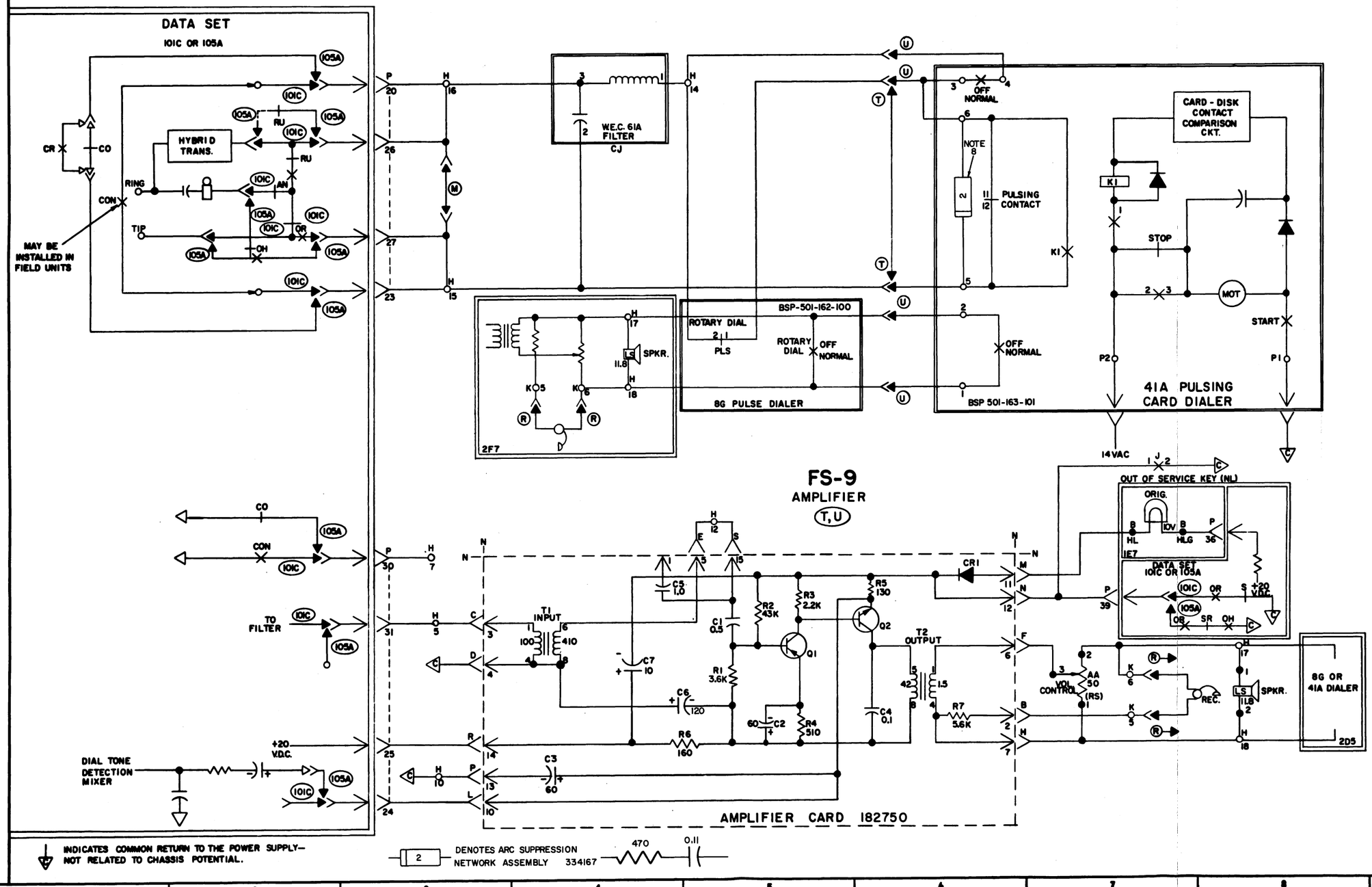
NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

6020WD-B2

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	8-31-64	83141
5	10-12-64	84221
6	2-2-65	85509
7	3-16-65	86307
8	8-4-65	87593
9	12-17-68	96463
10	5-7-70	8

FS-8
ROTARY DIAL & PULSING CARD DIALER
(T,U)



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3
35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B2

APPROVALS

D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6020WD-B2

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P.	CHKD. R.T.V.
ENGD. R.D.S.	APPD. O.A.L.

TELETYPE CORPORATION

6020WD-B2

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

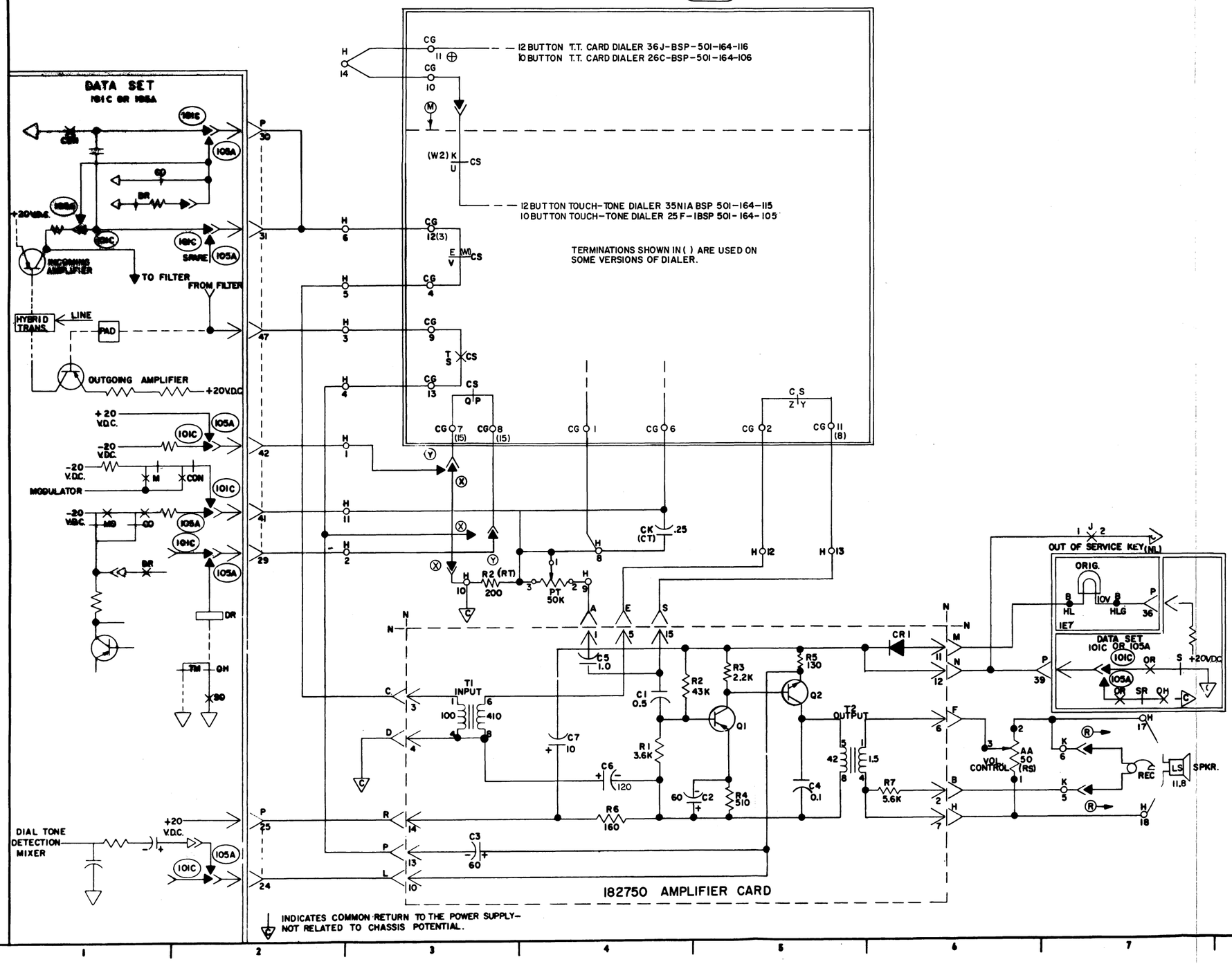
6020WD-B3

REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	12-9-63	79390
4	10-12-64	84221
5	2-2-65	85509
6	3-16-65	86307
7	8-4-65	87593
8	10-18-65	88321
9	5-15-69	99164
10	5-7-70	8

FS—10

TOUCH-TONE DIALER & AMPLIFIER CIRCUIT (M, X, Y)



WDP

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3
35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B3

APPROVALS	
D AND R O.A.L.	E OF M

E-NUMBER

PROD. NO. 6020WD-B3

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P. CHKD. R.P.

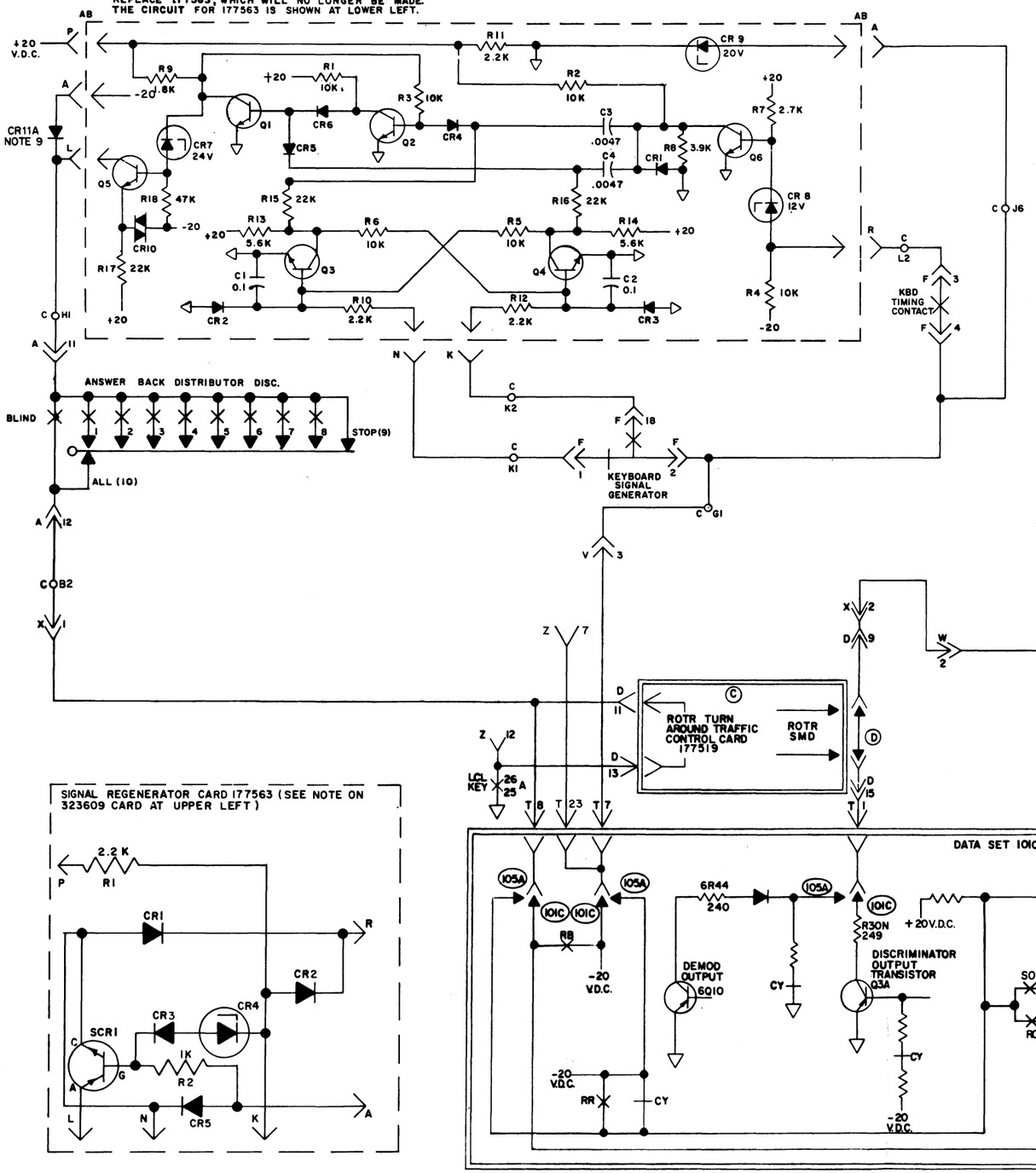
ENGD. R.S.D. APPD. O.A.L.

TELETYPE CORPORATION

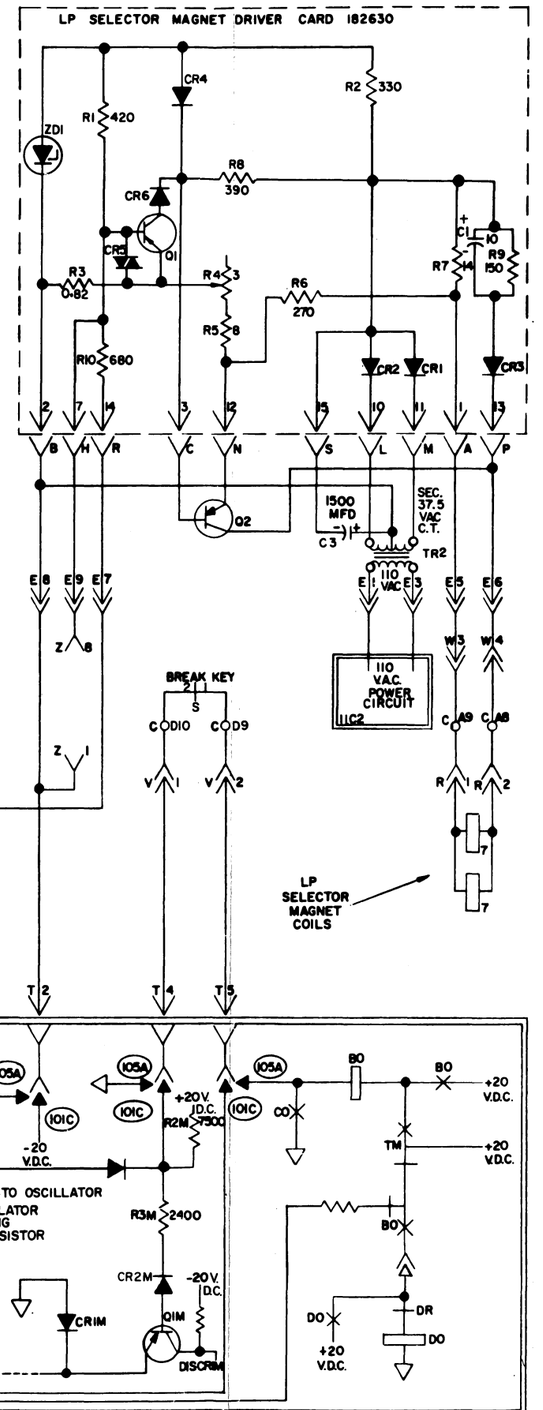
6020WD-B3

FS-II
SIGNAL GENERATORS AND SELECTOR MAGNET DRIVERS

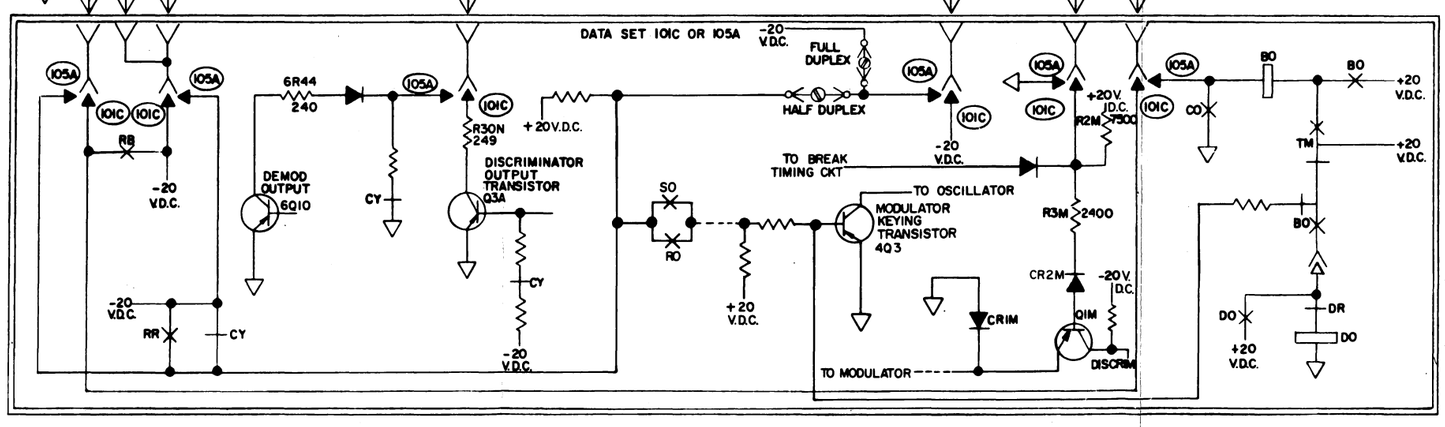
SIGNAL REGENERATOR CARD 323609.
NOTE: THIS IS A PREFERRED CIRCUIT CARD, AND WILL REPLACE 177563, WHICH WILL NO LONGER BE MADE. THE CIRCUIT FOR 177563 IS SHOWN AT LOWER LEFT.



LP SELECTOR MAGNET DRIVER CARD 182630



SIGNAL REGENERATOR CARD 177563 (SEE NOTE ON 323609 CARD AT UPPER LEFT)



NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

6020WD-B4

REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	4-3-64	81121
4	10-12-64	84221
5	12-23-64	83811
6	2-2-65	85509
7	3-16-65	86307
8	5-10-65	86507-1
9	8-4-65	87593
10	4-12-66	90544
11	6-10-66	90658
12	10-27-66	91933-1
13	5-7-68	95523-4
14	1-6-70	99875

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B4

APPROVALS

D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6020WD-B4

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P. | CHKD. K.K.P.

ENGD. A.B. R.D.S. | APPD. O.A.L.

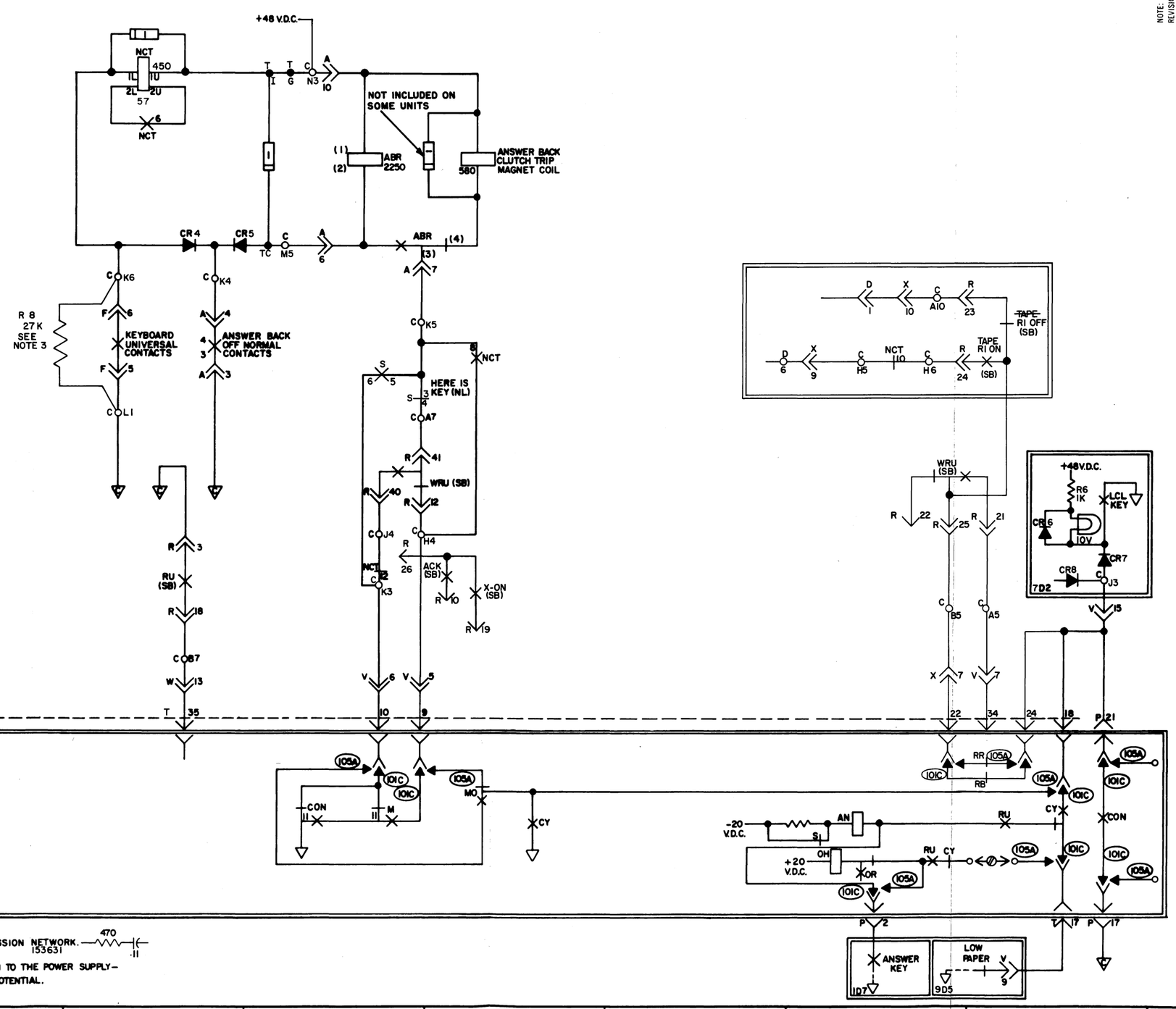
TELETYPE CORPORATION

6020WD-B4

TC 634 (2-68)

SEE ISSUE CONTROL SHEET FOR NOTES.

FS-12
ANSWER BACK CONTROL CIRCUIT



DENOTES ARC SUPPRESSION NETWORK. 470 153631 .11

INDICATES COMMON RETURN TO THE POWER SUPPLY— NOT RELATED TO CHASSIS POTENTIAL.

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD WHICH IS A PART OF THIS DRAWING.

6020WD-B5

REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	10-12-64	84221
4	3-16-65	86307
5	8-4-65	87593
6	6-29-67	94201
7	8-21-67	94324-B

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B5

APPROVALS

D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6020WD-B5

DATE 8-20-62

P.D. FILE NO. G-A151AA

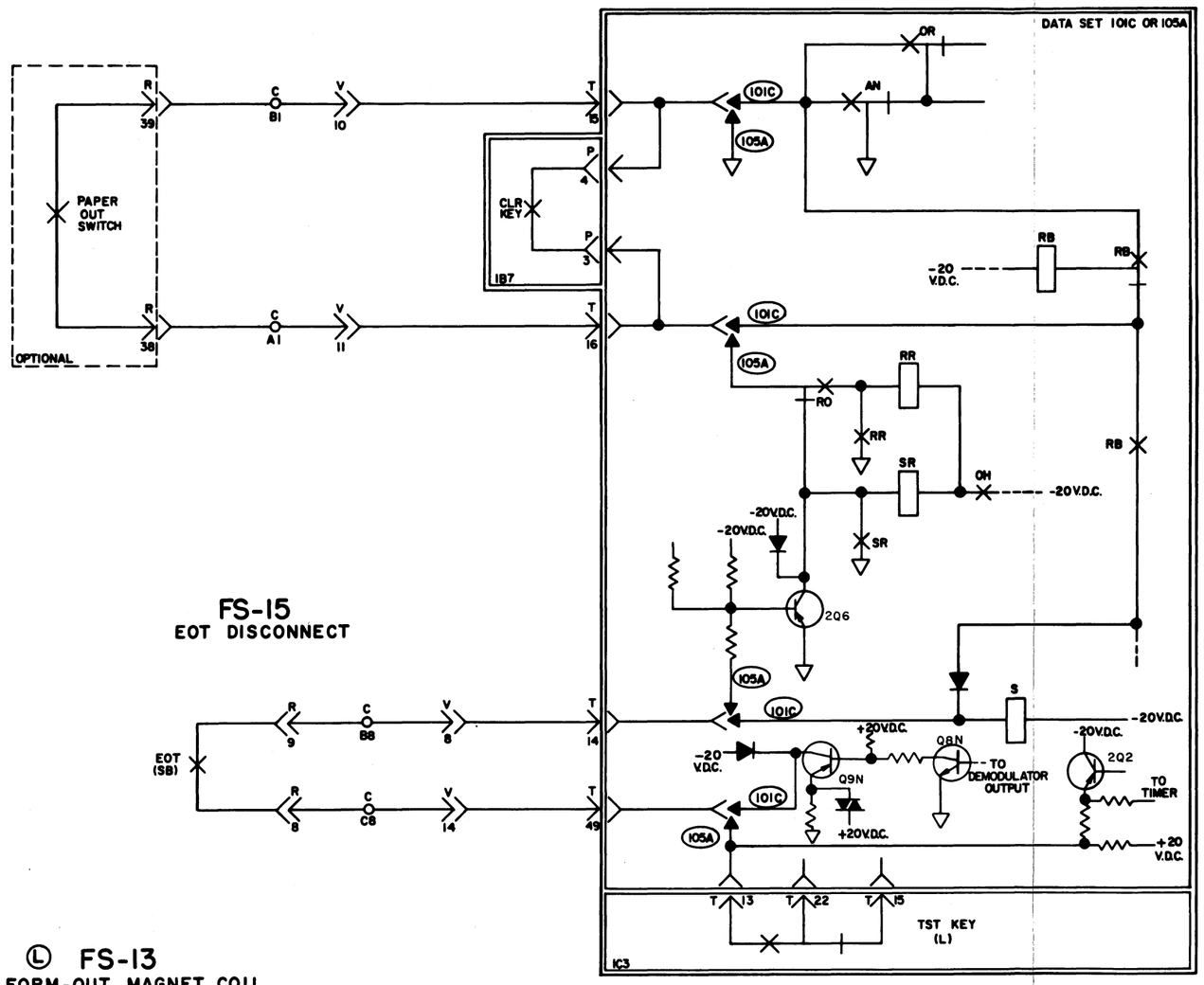
DRAWN J.A.P.	CHKD. A.L.M.
ENGD. A.B. R.D.S.	APPD. O.A.L.

TELETYPE CORPORATION

6020WD-B5

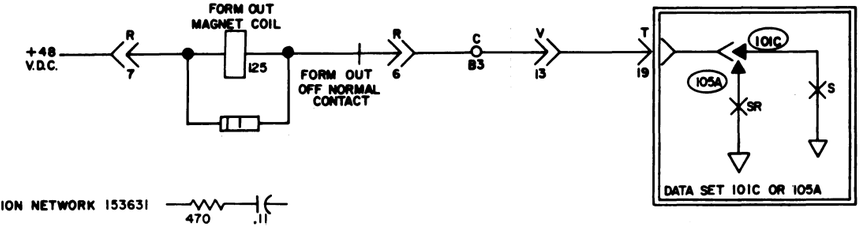
7

FS-14
PAPER OUT DISCONNECT



FS-15
EOT DISCONNECT

Ⓛ FS-13
FORM-OUT MAGNET COIL



DENOTES ARC SUPPRESSION NETWORK 153631 — 470 — .11

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

6020WD-B6

REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	10-12-64	84221
4	2-2-65	85509
5	8-10-64	81109-1
6	10-30-64	81109-2
7	3-16-65	86307
8	8-4-65	87593
9	4-12-66	90544
10	6-10-68	95947

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3
35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B6

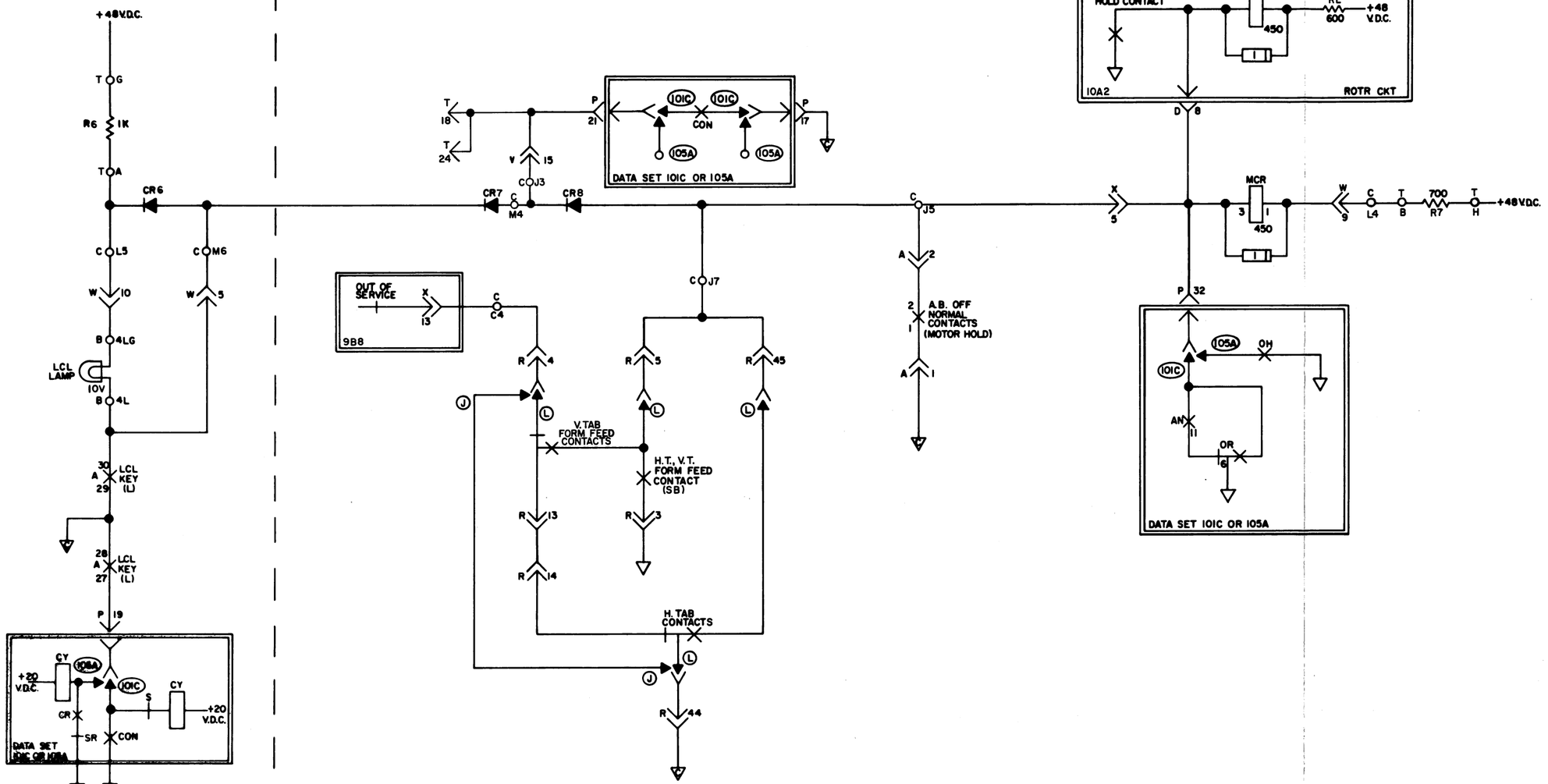
APPROVALS	
D AND R O.A.L.	E OF M
E-NUMBER	
PROD. NO. 6020WD-B6	
DATE 8-20-62	
P.D. FILE NO. G-A151AA	
DRAWN J.A.P.	CHKD.
ENGD. A.B.	APPD. O.A.L.

TELETYPE CORPORATION

6020WD-B6

FS-16
LOCAL

FS-17
MOTOR CONTROL RELAY CIRCUIT



NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6020WD-B7

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	10-12-64	84221
5	2-2-65	85509
6	3-16-65	86307
7	8-4-65	87593

DENOTES ARC SUPPRESSION NETWORK. 153631 (.11, 470)

INDICATES COMMON RETURN TO THE POWER SUPPLY— NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B7

APPROVALS	
D AND R O.A.L.	E OF M

E-NUMBER	
PROD. NO. 6020WD-B7	
DATE 8-20-62	
P.D. FILE NO. G-A151AA	
DRAWN J.A.P.	CHKD.
ENGD. A.B. R.D.S.	APPD. O.A.L.

TELETYPE CORPORATION

6020WD-B7

TC 484 (5-65)

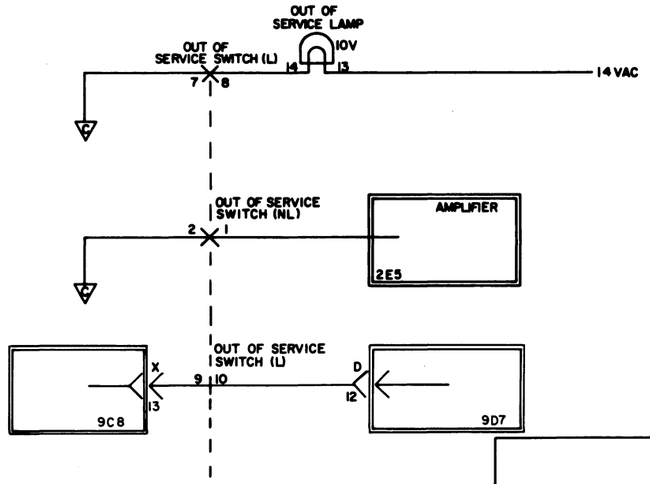
NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6020WD-B8

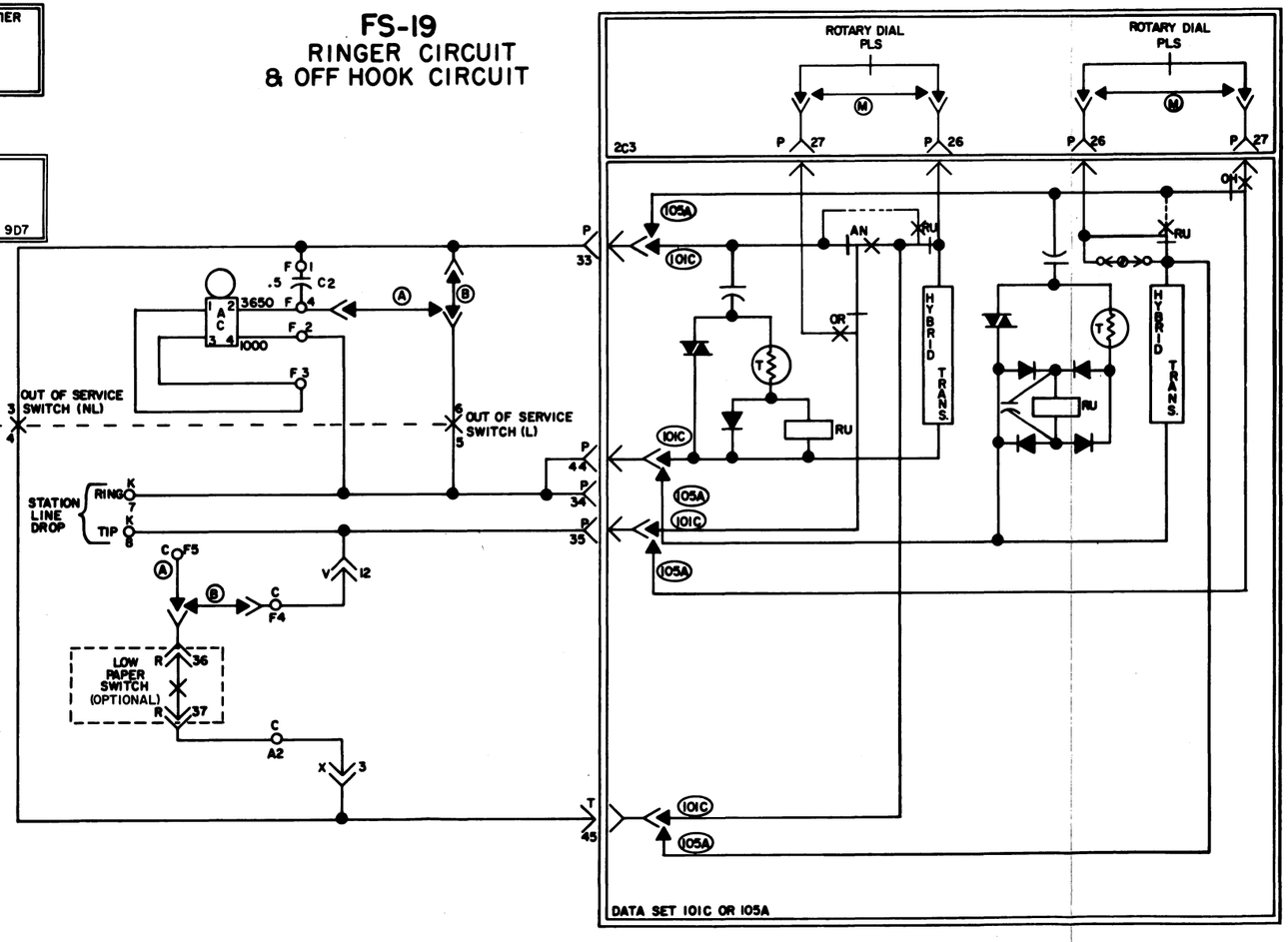
REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	8-10-64	81109-1
4	10-30-64	81109-2
5	3-16-65	86307
6	8-4-65	87593

FS-18
OUT OF SERVICE



FS-19
RINGER CIRCUIT & OFF HOOK CIRCUIT



OUT OF SERVICE IS A THREE POSITION TWIST UNIT.
NORMAL - AS SHOWN
LOCKING - CCW TWIST FROM NORMAL
NON-LOCKING - CW TWIST FROM NORMAL.

INDICATES COMMON RETURN TO THE POWER SUPPLY - NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B8

APPROVALS

D AND R	E OF M
DATE	

E-NUMBER

PROD. NO. 6020WD-B8

DATE 8-20-62

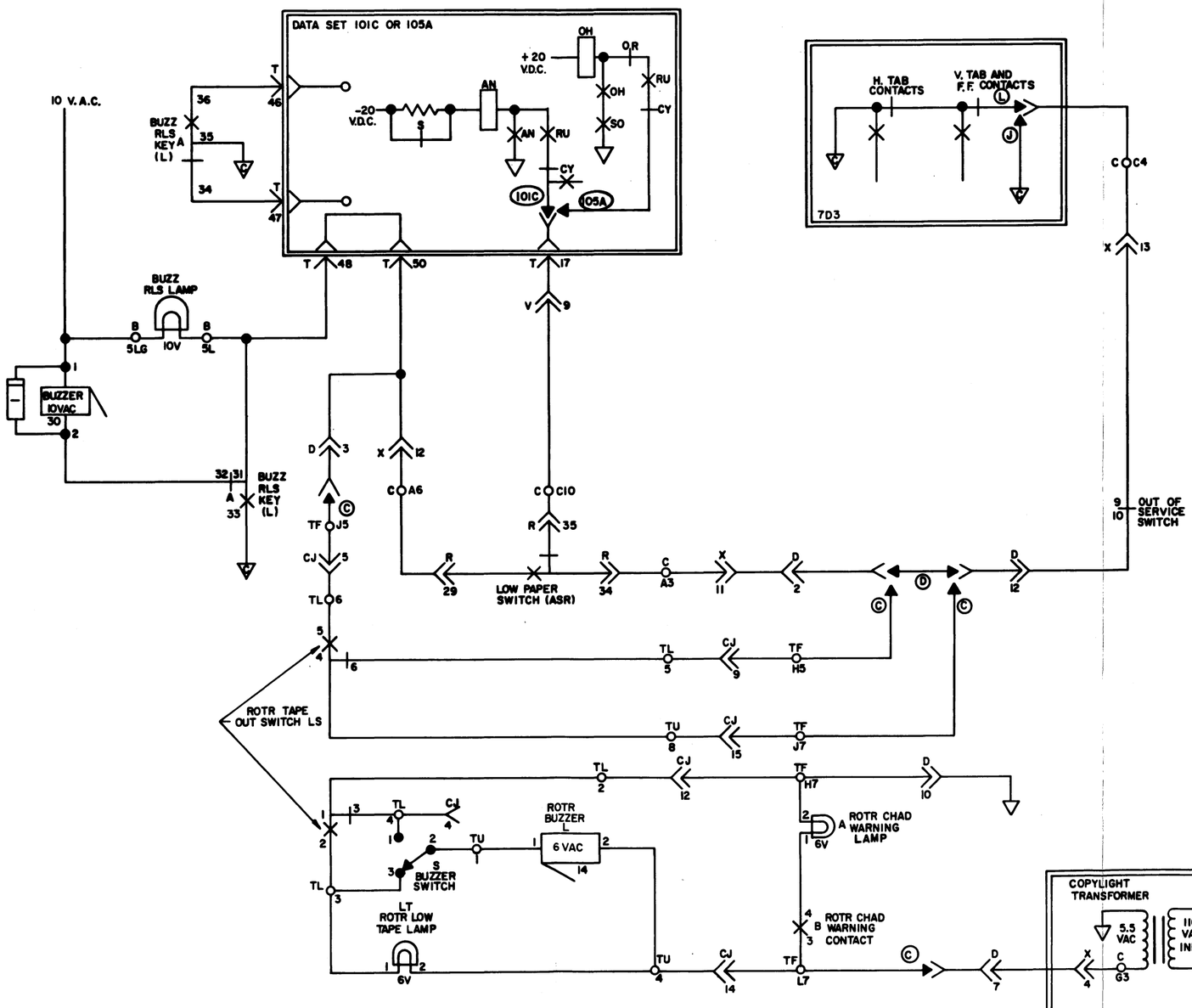
P.D. FILE NO. G-A151AA

DRAWN J.A.P.	CHKD.
ENGD. A.B. R.D.S.	APPD. DATE

TELETYPE CORPORATION

6020WD-B8

FS-20
PAPER ALARM



ROTR TAPE OUT SWITCH CONTACTS ARE SHOWN WITH FULL TAPE ROLL.

DENOTES ARC SUPPRESSION NETWORK 153631 — 470 .11

INDICATES COMMON RETURN TO THE POWER SUPPLY — NOT RELATED TO CHASSIS POTENTIAL.

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECOPD, WHICH IS PART OF THIS W.D.

6020WD-B9

REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	10-12-64	84221
4	3-16-65	86307
5	8-4-65	87593

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B9

APPROVALS

D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6020WD-B9

DATE 8-20-62

P.D. FILE NO. G-A151AA

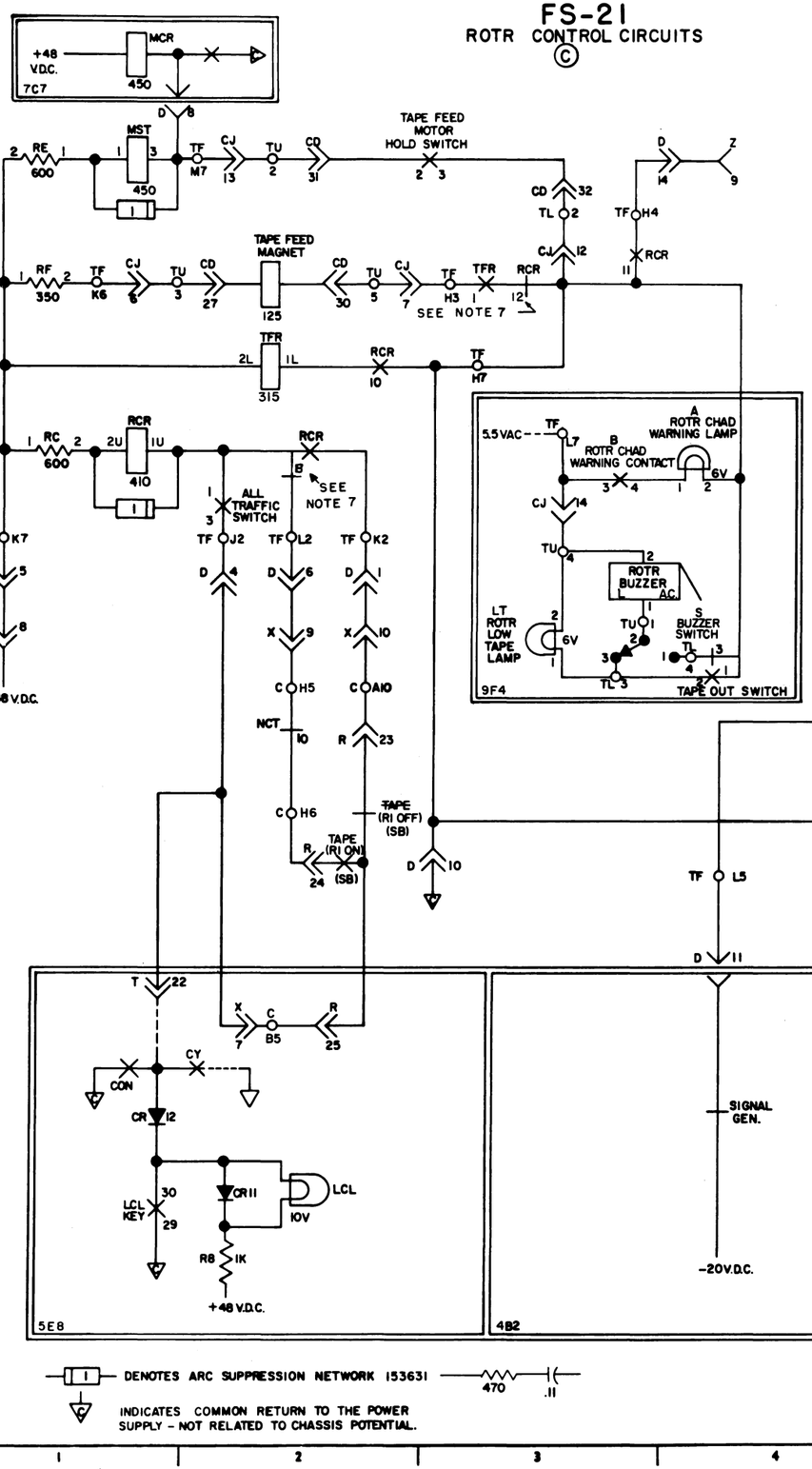
DRAWN J.A.P. | CHKD. A.B.

ENGD. A.B. R.D.S. | APPD. O.A.L.

TELETYPE CORPORATION

6020WD-B9

FS-21
ROTR CONTROL CIRCUITS
©



DENOTES ARC SUPPRESSION NETWORK 153631 (470 Ω, .1 μF)

INDICATES COMMON RETURN TO THE POWER SUPPLY – NOT RELATED TO CHASSIS POTENTIAL.

6020WD-B10

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	4-24-64	79414-1
5	10-12-64	84221
6	2-2-65	85509
7	3-16-65	86306
8	5-10-65	86507-1
9	8-4-65	87593
10	1-4-66	89490
11	5-7-68	95523-4
12	11-15-68	96529

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W D

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3
35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B10

APPROVALS	
D AND R	E OF M
0.9L	

E-NUMBER

PROD. NO. 6020WD-B10

DATE 8-20-62

P.D. FILE NO. 6-A75/AA

DRAWN J.A.P. | CHKD.

ENGD. A.B. R.D.S. | APPD.

TELETYPE CORPORATION

12

6020WD-B10

SEE ISSUE CONTROL SHEET FOR NOTES.

FS-22
POWER AND CABINET CIRCUITS

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

6020WD-B11

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	3-5-63	75882
5	3-10-64	81103
6	4-24-64	81824
7	6-16-64	82025
8	10-12-64	84221
9	1-5-65	85704
10	2-2-65	85509
11	3-15-65	84599-1
12	8-4-65	87593
13	8-6-65	88293
14	8-21-67	94324-B

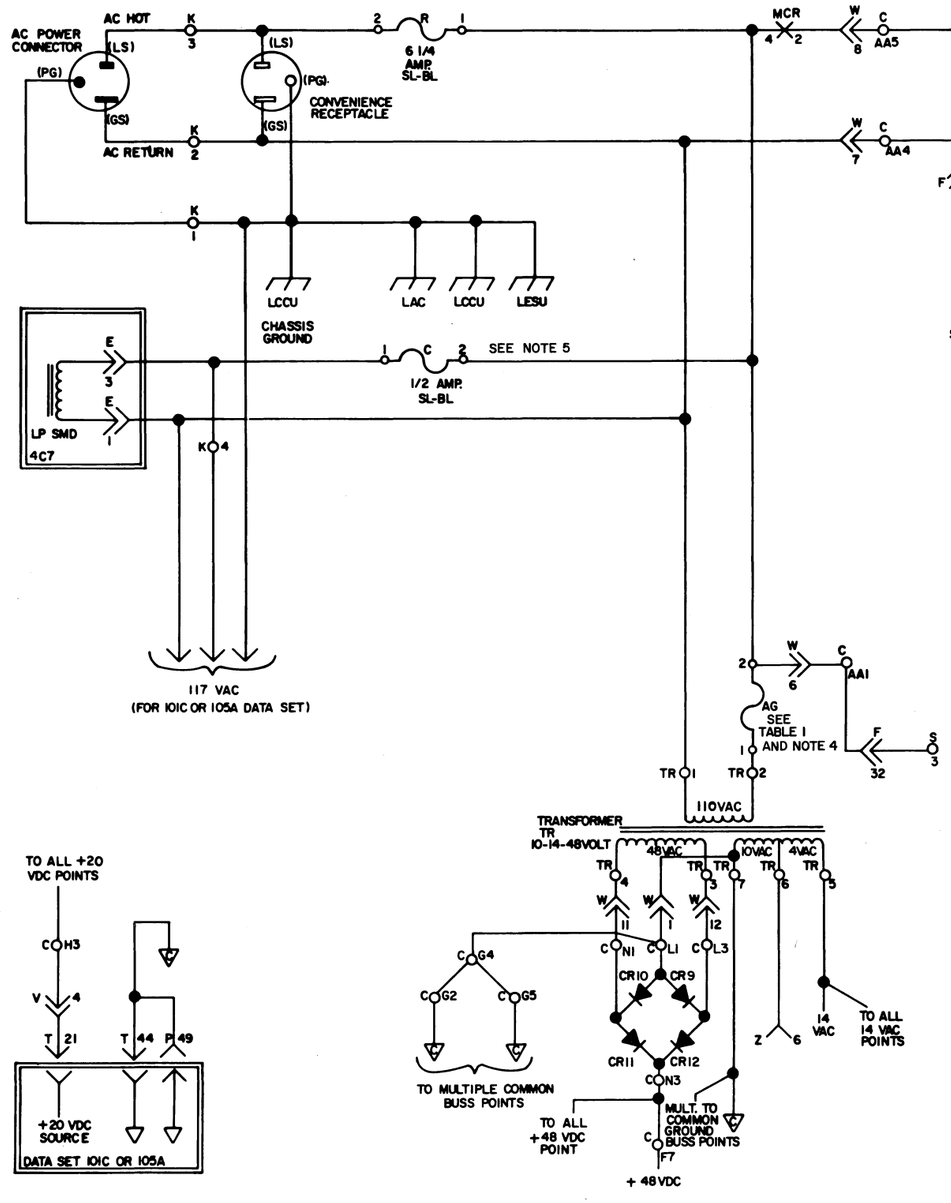


TABLE I:

TRANSFORMER	FUSE AG	PART NO.
181879	1/2 AMP. SL-BL	117176
182657	8/10AMP. SL-BL	162360

INDICATES COMMON RETURN TO THE POWER SUPPLY- NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, 35D-X3

TELETYPEWRITER SETS (KSR)

SHEET B11

APPROVALS

D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6020WD-B11

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P.	CHKD. R.W.
ENGD. A.B. R.D.S.	APPD. O.A.L.

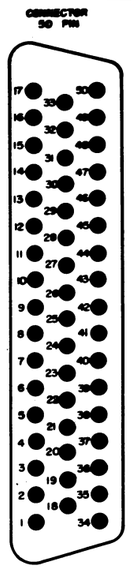
TELETYPE CORPORATION

6020WD-B11

DESIG.	C
PART NO.	192422
TERM.	LOC.
AA1	11B4
AA2	11C6
AA3	
AA4	11B5
AA5	MA5
A1	6B4
A2	8F5
A3	9E6
A4	
A5	10E1
A6	9D4
A7	6C4
A8	4D6
A9	4D7
A10	10D8
B1	6C4
B2	4D1
B3	6B5
B4	
B5	
B6	
B7	
B8	6F4
B9	
B10	
C1	
C2	
C3	
C4	9E5
C5	
C6	
C7	
C8	6E4
C9	
C10	9D5
D1	
D2	
D3	
D4	
D5	
D6	
D7	
D8	
D9	4D8
D10	4D7
E1	
E2	
E3	
E4	
E5	
E6	
E7	
F1	11E7
F2	
F3	
F4	8E4
F5	8E3
F6	
F7	11F4
G1	4C3
G2	
G3	11C7
G4	11E3
G5	11E3

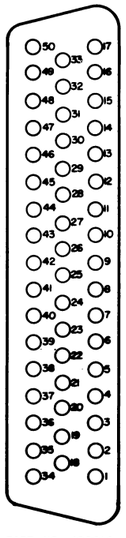
TERM.	LOC.
H1	4C1
H2	
H3	11E2
H4	5B4
H5	10B8
H6	10B2
H7	
J3	7C4
J4	5B4
J5	7D5
J6	4C3
J7	7D4
K1	4C2
K2	4B2
K3	5B4
K4	5B3
K5	5C4
K6	5B2
K7	
L1	11E4
L2	4B4
L3	11F3
L4	7C7
L5	7D1
L6	
L7	
M1	
M2	
M3	
M4	7C4
M5	5B4
M6	7D2
M7	
N1	11E4
N2	
N3	11F4
N4	
N5	
N6	
N7	
P1	
P2	
P3	
P4	
P5	
P6	
P7	
R1	
R2	
R3	
R4	
R5	
R6	
R7	
S1	
S2	
S3	
S4	
S5	
S6	
S7	
T1	
T2	
T3	
T4	
T5	
T6	
T7	

CONNECTOR
50 PIN



PART NO. 192013

CONNECTOR
50 PIN



PART NO. 192014

CONNECTOR

DESIG.	F	R
PART NO.	[illegible]	[illegible]
TERM.	LOC.	LOC.
1	4C2	4D6
2	4C3	4D6
3	4B4	TE4
4	4B4	TB4
5	5C2	TB4
6	5C3	6A8
7	4B7	6A8
8	11E7	6F3
9		6F4
10		
11		
12		5D4
13		TE4
14		TE4
15		
16		
17	11B5	11D6
18	4C2	
19		
20		
21		10E1
22		
23		10E3
24		10E2
25		
26		
27		
28		
29		9E4
30		
31		
32	11D4	
33		
34		9E5
35		9D5
36		8F3
37		8F3
38		6D3
39		6C3
40		5D4
41		5C4
42		
43		
44		7F4
45		7E5
46		
47		
48		
49		
50	11B6	11D7

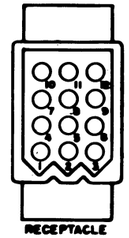
PRINTED CIRCUIT CARDS

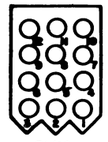
DESIG.	PART NO.	LOC.
LP SELECTOR MAGNET DRIVER	182630	4B6
SIGNAL REGENERATOR	177543	4A2

PINS FOR 192013		
PART NO.		
CRIMP	SOLDER	WIRE GAGE
177716	173941	24
192177		18

(PAR: 8F)

APPARATUS FIGURE 1





PART NO.	182648	182647
MTG.	CHASSIS	CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END.

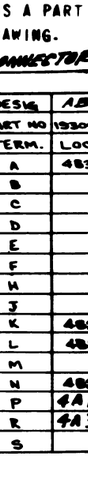
TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE.

INSERT	PART NO.
MALE	182643
FEMALE	182644

CONNECTOR

DESIG.	A
PART NO.	[illegible]
TERM.	LOC.
1	TE5
2	TD5
3	5C3
4	5C3
5	
6	5B4
7	5B4
8	
9	
10	6B4
11	4C1
12	4B1

15 PIN RECEPTACLE



E.O.L. LIGHT ON COVER

E.O.L. LIGHT NEAR KEYBOARD

CONNECTOR

DESIG.	COPY LIGHT	COPY LIGHT
PART NO.	[illegible]	[illegible]
TERM.	LOC.	LOC
1	11C7	11C7
2	11C7	11C7
3		11C7
4		11C7

PART NO. 193040

TERMINALS ON BOTTOM OF RECEPTACLE ARE WIRE WRAP.

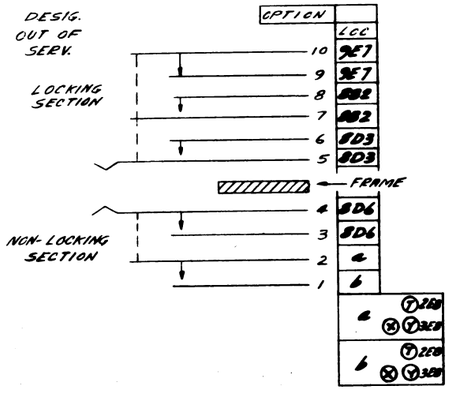
NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

CONNECTOR

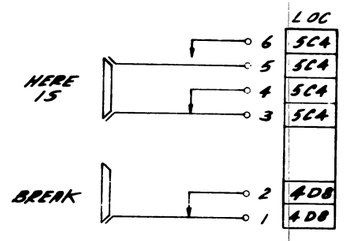
DESIG.	AB
PART NO.	193040
TERM.	LOC.
A	4B3
B	
C	
D	
E	
F	
H	
J	
K	4B2
L	4B1
M	
N	4B2
P	4A1
R	4A3
S	

KEY

PART NO. 182688



"S" KEYSET



TURRET

DESIG.	T
PART NO.	[illegible]
TERM.	LOC.
A	TC1
B	TC8
C	5B3
D	
E	
F	
G	TC1
H	TC8
I	5B3
J	
K	
L	

RELAY

DESIG	NCT
	[illegible]
	AA-22
CONT ARR	LOC
12 B	5D4
11	
10 B	10E2
9	
8 M	8C5
7	
6 BM	5B3
5	
4 M	
3	
2 B	
1	
COIL	5B3

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURE FOR 28A, 35A-X8, 35B-X8, 35C-X8, 35D-X5, 35E-X5, 35B 35C, 35D TELETYPEWRITER SET (KSR)

APPROVALS

D AND B

E OF M

E-NUMBER

PROD. NO. 6020WD-C1

DATE: 10-5-62

P.D. FILE NO. G-A1S1AA

DRAWN GCK | CHKD.

ENGD. WEC | APPD.

TELETYPE CORPORATION

6020WD-C1

ISSUE	DATE	AUTH NO.
2	10-2-62	84221
3	2-2-65	85509

6020WD-C1

(PART OF)
APPARATUS FIGURE 1

"A" KEYSET

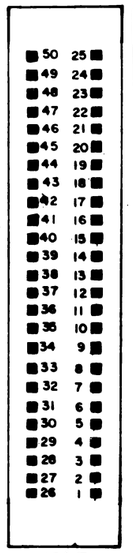
6020 WD-C2

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	10-12-64	84221
4	6-10-66	90658
5	5-7-68	95523-4
6	5-16-69	93164

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

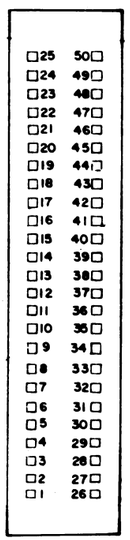
SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

182732 CONNECTOR



MALE

182733 CONNECTOR



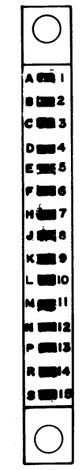
FEMALE

CONNECTOR

DESIG.	P	T
PART NO.	182733	182732
TERM.	LOC.	LOC.
1	1D7	4F6
2	1D7	4F7
3	1B7	
4	1B7	4F7
5	1F7	4F8
6	1F7	
7	1F2	4F4
8	1E2	4F1
9	1E2	5F4
10	1B2	5F4
11	1B2	
12	1B2	
13	1D2	
14	1B2	6F5
15	1C2	6C5
16	1D2	6D5
17	5F7	9C5
18		5F7
19	7E2	6B6
20	2C3	
21	5F7	11E2
22	1C2	10E2
23	2C3	4E3
24	a	
25	b	
26	2C3	
27	2C3	
28		
29	3E2	
30	3B2	
31	c	
32	7D6	
33	8D6	
34	8E6	10E1
35	8E6	
36	1C7	
37	1C7	
38	1C7	
39	1E7	
40	1B2	
41	3D2	
42	3D2	
43		
44	8E6	11E2
45	1A2	8F6
46	1E2	9B4
47	3C2	9B4
48		9C4
49	11E2	6F5
50		9C4

a ⓉT 2F3 ⓍⓎ 3F2
b ⓉT 2F3 ⓍⓎ 3F2
c ⓉT 2E3 ⓍⓎ 3B2

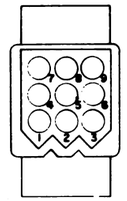
15 PIN RECEPTACLE

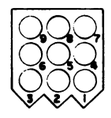


PART NO. 181819
SOME UNITS CONTAIN 182536 CONNECTOR.

CONNECTOR

DESIG.	SMD
PART NO.	181819
TERM.	LOC.
A	4C6
B	4C5
C	4C5
D	
E	
F	
H	
J	
K	
L	
M	4C6
N	4C5
P	4C6
R	4C5
S	4C6





PART NO.	182716	182645
MTG.	CHASSIS	CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END

TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE

INSERT	PART NO.
MALE	182643
FEMALE	182644

CONNECTOR

DESIG.	E
PART NO.	182645 182716
TERM.	LOC.
1	4D5
2	
3	4D6
4	
5	4C6
6	4C6
7	4C5
8	4E6
9	

TERMINAL BOARD

DESIG	H	H
PART NO.	182717	182717
OPTION	ⓉⓊ	ⓈⓋⓌ
TERM.	LOC.	LOC.
1		3D2
2		3E2
3		3C2
4		3F3
5	2E3	3E3
6		3B2
7		
8		3E4
9		3E4
10	2F3	3E3
11		3D2
12	2E5	3E5
13		3E6
14	2C5	3A2
15	2C3	
16	2C3	
17	2F7	3F8
18	2F7	3F8

TERMINAL BLOCK

DESIG.	K
PART NO.	151411
TERM	LOC.
1	11B2
2	11B2
3	11A2
4	11D3
5	a.
6	b.
7	8E5
8	8E5
9	
a ⓉT	2F7
ⓍⓎ	3F7
b. ⓉT	2F7
ⓍⓎ	3F7

BUZZER

DESIG.	LOC.	PART NO.
BUZZER	9C3	182718

RINGER

DESIG.	LOC.	PART NO.
RINGER	8D5	182503

CORD

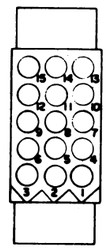
DESIG	LOC.	PART NO.
U	11B2	182510

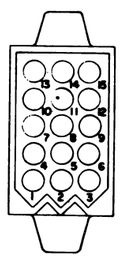
SPEAKER

DESIG	LOC	PART NO.
AB	a	1834T8
a ⓉT	2F8	
ⓍⓎ	3F8	

CONVENIENCE RECEPTACLE

DESIG	LOC.	PART NO.
M	11B3	178831



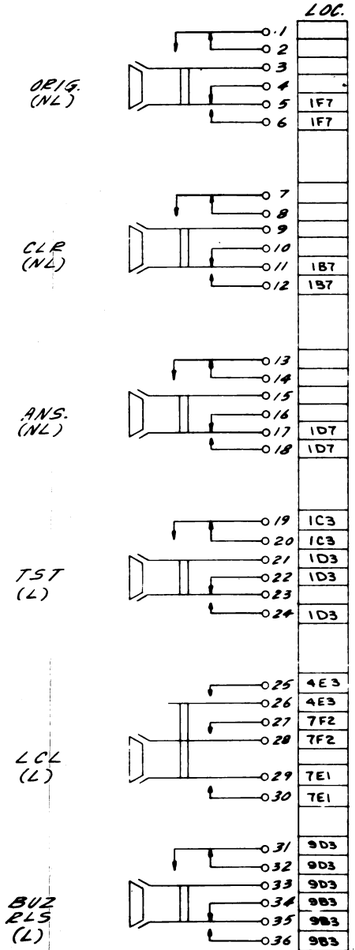


PART NO.	182539	182540
MTG.	CHASSIS	CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END

TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE

INSERT	PART NO.
MALE	182643
FEMALE	182644



CONNECTOR

DESIG.	D	D	V	W	X
PART NO.	182539	182539 182540	182539 182540	182539 182540	182539 182540
OPTION	C	D			
TERM.	LOC.	LOC.	LOC.	LOC.	LOC.
1	10D3		4E7	11E4	4D1
2	9E6	9E6	4E8	4D5	4D5
3	9C5		4D4	4D6	8F5
4	10E2		11E2	4D6	11E7
5	10C1		5E4	7D2	7D6
6	10D2		5E4	11D4	
7	9B8		10E1	11B5	10E2
8	7C6	7C6	6F5	11B5	10D1
9	4E5	4E5	9C5	7C7	10D2
10	10E3		6C4	7D1	10D3
11	10E3		6D4	11E4	9E6
12	9E7	9E7	8E4	11E3	9D4
13	10E5		6B5		9E5
14			4E5		
15	4E5	4E5	5E7		

APPARATUS FIGURE FOR 35A, 35B, 35C, 35D 35A-X8, 35B-X8 35C-X8, & 35D-X8. TELETYPEWRITER SET (KSR)

APPROVALS

D AND P	E OF M

E-NUMBER

PROD NO 6020WD-C2

DATE: 10-5-62

P.D. FILE NO. G-A1S1AA

DRAWN GCK | CHKD.

ENGD. WEC | APPD.

TELETYPE CORPORATION

6020WD-C2

SEE ISSUE CONTROL SHEET FOR NOTES.

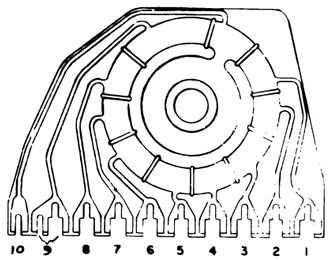
(PART OF)
APPARATUS FIGURE 1

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

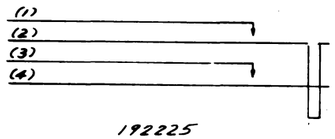
6020 WD-C3

ISSUE	DATE	AUTH. NO.
2	3-5-63	76002
3	3-10-64	81108
4	10-12-64	84221
5	2-2-65	85509
6	2-15-65	84598
7	8-6-65	88293
8	9-2-65	88068
9	6-18-67	94324-B
10	5-8-68	96523-4
11	12-16-68	96463
12	12-31-69	99875

DISTRIBUTOR DISC



DESIG.	
PART NO	180887
TERM	LOC.
1	4C1
2	4C1
3	4C1
4	4C2
5	4C2
6	4C2
7	4C2
8	4C2
9	4C2
10	4C1



192225

SWITCH

DESIG.	A.B. OFF NORMAL
PART NO.	192225
TERM.	LOC.
1	7E5
2	7E5
3	6C3
4	5C3

SIGNAL GENERATOR KBD

DESIG.	B
PART NO	165352
TERM.	LOC.
1	4C2
2	4C2
3	4C2

MAGNET COILS

DESIG.	LOC.	PART NO.
A.B. CLUTCH TRIP	5B5	274M

MOTOR

DESIG.	LOC.	PART NO.
LMU 3	11C5	151785

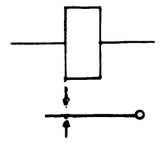
TERMINAL STRIP

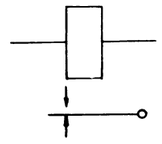
DESIG.	S	F
PART NO.	151415	151445
TERM.	LOC.	LOC.
1	11B5	8D6
2	11B5	8E5
3	11B4	8D5
4		8D5

SWITCH

DESIG.	LOC.	PART NO.
KBD TIMING CONTACT	4B4	192486
KBD UNIVERSAL	5C2	178144
MARGIN INDICATOR	11F8	158163

RELAY





BELL

DESIG.	LOC.	PART NO.
BELL	11C6	193451

DIODES

DESIG.	LOC.	PART NO.
CR4	5B3	171541 OR 182520
CR5	5B3	171541 OR 182520
CR6	7D1	171541 OR 182520
CR7	7D3	171541 OR 182520
CR8	7D4	171541 OR 182520
CR9	11F4	171541 OR 182520
CR10	11F4	171541 OR 182520
CR11	11F4	171541 OR 182520
CR12	11F4	171541 OR 182520
CR11A	4B1	197464 NOTE 9

NETWORKS

DESIG.	LOC.	PART NO.
ABR	5B4	153631
MCR	7C6	153631
BUZZER	9C2	153631
NCT	5A3	153631
CARD DIAL	2C6	334167

TRANSFORMER

DESIG.	LOC.	PART NO.
TR2	4D6	380393
TR	11E4	182657
COPYLIGHT	11B7	193412

← SOME UNITS CONTAIN 182782 TRANSFORMER

LAMP

DESIG.	LOC.	PART NO.
NO COM	1A3	182529
SVC	1B3	182529
BY	1B3	182529
INCPT	1B3	182529
DIAL	1B3	182529
PA	1B3	182529
TST	1D3	182529
BRK RLS	1E3	182529
REST	1F3	182529
CLR	1C7	182529
AMS	1C7	182529
ORIG.	1F7	182529
LCL	7D1	182529
OUT OF SERVICE	8B3	182529
BUZZ RLS	9C3	182529
(2) COPY	11C7	154882
MARGIN INDICATOR	11D7	142183

CAPACITOR

DESIG.	LOC.	PART NO.	VALUE
C3	4C6	182501	1500MFD
C2	8D5	182761	.5MFD

RESISTOR

DESIG.	LOC.	PART NO.	VALUE	NOTE
R5	4B6	182617	35Ω	
R6	7C1	165330	1KΩ	
R7	7C8	171524	700Ω	
AA	a	182688	50Ω	
a ⓨ ⓧⓨ	2F7 3F7			
R8	5C2	118187	27KΩ	3

FUSE

DESIG.	LOC.	PART NO.	VALUE	NOTE
C	11C4	117176	½ AMP. SL-BL	
R	11B3	161136	6¼ AMP. SL-BL	
AG	11D5	117176	⅓ AMP. SL-BL	4
		162360	5/10 AMP. SL-BL	4

W DP⁵

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D:

APPARATUS FIGURE FOR 35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3 & 35D-X3. TELETYPEWRITER SET (KSR)

APPROVALS

D AND P	E OF M

E-NUMBER

PROD. NO. 6020WD-C3

DATE: 10-5-62

P.D. FILE NO. G-A15IAA

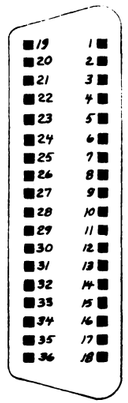
DRAWN GCK | CHKD.

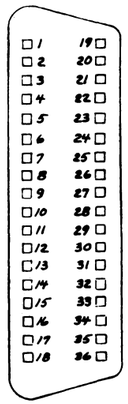
ENGD. WEC | APPD.

TELETYPE CORPORATION

6020WD-C3

APPARATUS FIGURE 2





CONNECTOR

DESIG.	CD
PART NO.	161233 161235
TERM.	LOC.
1	10E7
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	10E7
20	
21	
22	
23	
24	
25	
26	
27	10B2
28	
29	
30	10B2
31	10A2
32	10B4
33	10D5
34	10D5
35	
36	

15 PIN RECEPTACLE

PART NO. 193040
TERMINALS ON BOTTOM OF RECEPTACLE ARE WIRE WRAP.

CONNECTOR

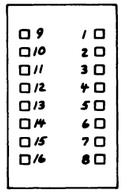
DESIG.	CA	CB
PART NO.	193040	193040
TERM.	LOC.	LOC.
A		10D3
B	10C7	
C	10C7	10C5
D		
E		10E3
F	10C8	
H	10C6	10E5
J	10C7	
K	10C7	
L	10C8	
M	10C8	10D5
N	10C6	
P	10C6	10D5
R	10C7	
S	10C8	

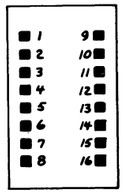
TERMINAL BOARD

DESIG.	TF
PART NO.	193848
TERM.	LOC.
AA1	10E7
AA2	10C7
AA3	
AA4	
AA5	10C7
AA6	10C7
AA7	
H1	10D6
H2	
H3	10B3
H4	10A4
H5	9D6
H6	
H7	10B3
J1	
J2	10C2
J3	10D6
J4	
J5	9C5
J6	
J7	9D7
K1	
K2	10C2
K3	
K4	
K5	
K6	10B1
K7	10C1
L1	
L2	10C2
L3	
L4	
L5	10E4
L6	10E5
L7	9B8
M1	10C8
M2	10C8
M3	
M4	
M5	
M6	
M7	

TERMINAL BOARD

DESIG.	TL	TU
PART NO.	151411	151411
TERM.	LOC.	LOC.
1	10D7	
2	10B4	10A2
3	9B6	10B2
4		9B7
5	9C6	10B3
6	9C6	10C8
7	10D7	10C8
8	10D7	9C7
9	10D7	10F7
10		
11		
12		
13		
14		
15		
16		
17		
18		





CONNECTOR

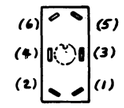
DESIG.	CJ
PART NO.	150241 150242
TERM.	LOC.
1	10C7
2	10C7
3	10F7
4	
5	9C6
6	10B2
7	10B3
8	10C8
9	9D6
10	
11	10C7
12	10B4
13	10A2
14	9B7
15	9D7
16	10C8

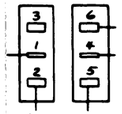
RELAY

DESIG	TFR	RCR
CODE	AK-1	AK-1
PART NO.	193834	193834
	CONT ARR LOC	CONT ARR LOC
12		EBM 10B3
11		EBM 10A4
10		M 10B3
9		B 10C6
8		EMB 10C2
7		
6		
5	B	
4	B	
3		
2	EBM	
1	M 10B3	
COIL	10B2	10C2

SWITCH

DESIG.	ALL TRAFFIC
PART NO.	130778
TERM.	LOC.
1	10D2
2	
3	10D2
4	
5	
6	





SWITCH

DESIG.	TAPE OUT
PART NO.	194220
TERM.	LOC.
1	9C7
2	9C7
3	
4	9C6
5	
6	9C6

MAGNET COILS

DESIG	LOC.	PART NO.
ROTR	10D8	271M
RIBBON SHIFT	10E7	224M
TAPE FEED	10B2	224M

MOTOR

DESIG.	LOC.	PART NO.
ROTR	10D7	170764

RESISTOR

DESIG.	LOC.	PART NO.	VALUE
RE	10A1	153455	600Ω
RF	10B1	773462	350Ω
RC	10C1	153455	600Ω
RD	10C8	193439	32Ω

NETWORKS

DESIG.	LOC.	PART NO.
RCR	10C2	153631
MST	10B2	153631

FUSES

DESIG.	LOC.	PART NO.	VALUE
FA	10C7	153269	3/8A.
FB	10D7	129819	4A.

CORD

DESIG.	LOC.	PART NO.
CE	10F8	114467

TRANSFORMER

DESIG.	LOC.	PART NO.
TR3	10C8	330785

(SOME UNITS CONTAIN 182519 TRANSFORMER)

CAPACITOR

DESIG	LOC.	PART NO.	VALUE
CA	10C8	182501	1500MFD

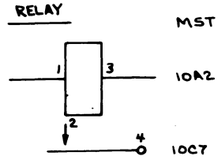
LAMPS

DESIG.	LOC.	PART NO.
ROTR LOW TAPE	9B7	151982
ROTR CHAD WARNING	9B8	151982

SWITCHES

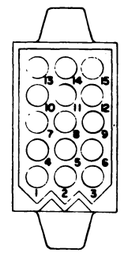
DESIG.	LOC.	PART NO.
ROTR CHAD WARNING	9C8	158163
TAPE FEED MOTOR HOLD	10A3	195005
PS	10D7	178714

RELAY



PRINTED CIRCUIT CARD

DESIG.	PART NO.	LOCATION
ROTR SELECTOR MAGNET DRIVER	193440	10A7 PAGE 1
ROTR SELECTOR MAGNET DRIVER	182630	10A7 PAGE 2



182540
CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END

TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE

INSERT	PART NO.
MALE	182643
FEMALE	182644

CONNECTOR

DESIG.	D
PART NO.	182540
TERM.	LOC.
1	10D3
2	9E6
3	9C5
4	10E2
5	10C1
6	10D2
7	9B8
8	7C6
9	4E5
10	10E3
11	10E3
12	9E7
13	10E5
14	10A4
15	4E5

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

ISSUE	DATE	AUTH NO
K2	1-6-64	79999
3	5-7-67	79919-2
4	10-12-64	84221
5	5-8-68	95523-4
6	11-18-6	96529

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURE FOR 35A, 35B, 35C, 35D
35A-XB, 35B-XB, 35C-XB & 35D-XB.
TELETYPEWRITER SET (KSR)

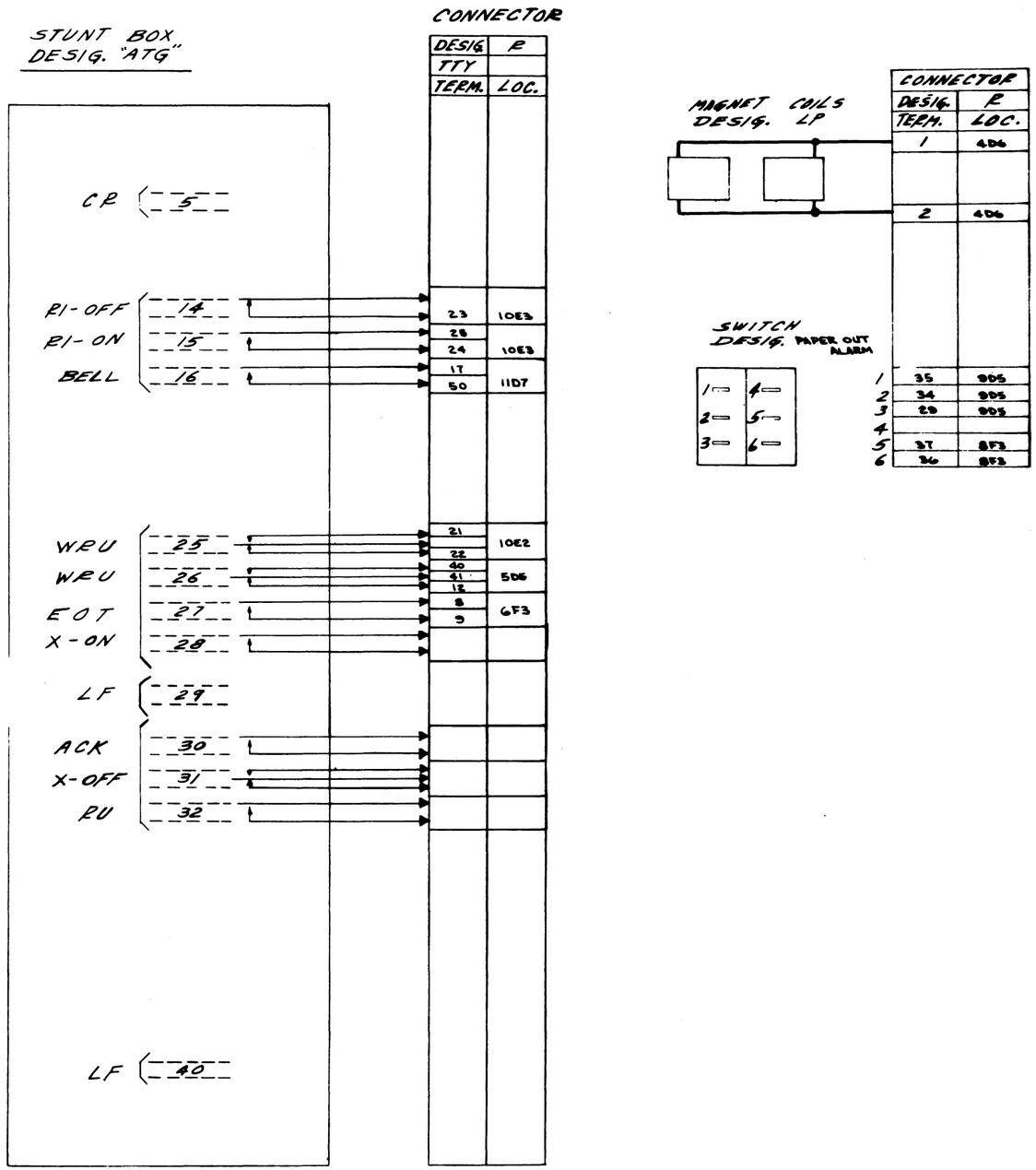
APPROVALS
DRAWING OFFICE
ENGINEER
PROD NO 6020WD-C4
DATE 10-5-62
DRAWN G-AIELLA
CK'D GCK CHK'D
ENG WEC APP'D

TELETYPE CORPORATION

6020WD-C4

6

APPARATUS FIGURE 3



NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

6020WD-C5

ISSUE	DATE	AUTH NO.
X2	4-20-64	81597
X3	10-12-64	84221

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURE FOR 35A, 35B, 35C, 35D ~~35A-X3, 35B-X3~~ 35C-X3 & 35D-X3. TELETYPEWRITER SET (KSR)

APPROVALS

D AND D	E OF M

E-NUMBER

PROD. NO. 6020WD-C5

DATE: 10-5-62

P.D. FILE NO. G-A151AA

DRAWN G.C.K.	CHKD.
ENGD. W.E.C.	APPD.

TELETYPE CORPORATION

6020WD-C5

APPARATUS FIGURE 4

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

6020WD-C6

ISSUE	DATE	AUTH. NO.
2	5-8-64	81597-1
3	10-12-64	84221

STUNT BOX DESIG.
"ATH" STUNT BOX

FUNCTION	SLOT	CONNECTOR DESIG. ZDBB TTY TERM.	CONNECTOR R LOC.
CR	5		
HOR & VERT TAB	12		
FF	13	3	7F4
RI-OFF	14	23	10E3
RI-ON	15	25	
BELL	16	24	10E3
H-TAB	17	17	
		50	11D7
WRU	25	21	10E2
WRU	26	22	
EOT	27	40	
X-ON	28	41	5D8
		12	
		8	6F3
L.F.	29	9	
ACK	30		
X-OFF	31		
RU	32		
L.F.	40		
V-TAB	41		
FF	42		

MAGNET COILS
DESIG. LP

SWITCH DESIG. H. TAB

SWITCH DESIG. FORM OUT

MAGNET COIL DESIG. FORM OUT

SWITCH
DESIG. PAPER OUT ALARM

1	4	7
2	5	8
3	6	9

SWITCH DESIG. V. TAB

CONNECTOR DESIG.	R TERM	R LOC.
	1	4D6
	2	4D6
	45	7E5
	44	7F4
	14	7E4
	6	6B4
	7	6B3
	1	
	2	8F3
	3	8E3
	4	9D5
	5	9D5
	6	9D4
	7	
	8	6C3
	9	6D3
	5	7E5
	13	7E4
	4	7D4

NETWORK

DESIG.	LOC.	PART NO.
FORM OUT	6A3	153631

SWITCH (K)
DESIG. PAPER JAM ALARM

1	5
2	6
3	7
4	8

TERM.	LOC.
1	
2	6D2
3	
4	6D2
5	9E5
6	9E5
7	
8	9E5

PART OF R CONN. LOC
25 → 9E5

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURE FOR 33A, 33B, 33C, 33D ~~33A-XB, 33B-XB, 33C-XB & 33D-XB.~~ TELETYPEWRITER SET (KSR)

APPROVALS

D AND R	E OF M

E-NUMBER

PROG. NO. 6020WD-C6

DATE: 10-5-62

P.D. FILE NO. 6-A1S1AA

DRAWN GCK	CHKD.
ENGR. WEC	APPD.

TELETYPE CORPORATION

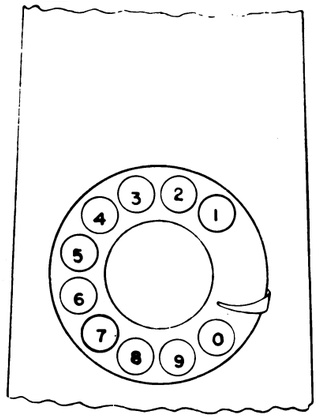
6020WD-C6

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD WHICH IS A PART OF THIS DRAWING.

6020WD-C7		
ISSUE	DATE	AUTH NO.
2	12-13-62	75364
3	12-9-63	79390
4	10-12-64	84221
5	5-19-69	99164

APP. FIG. 5

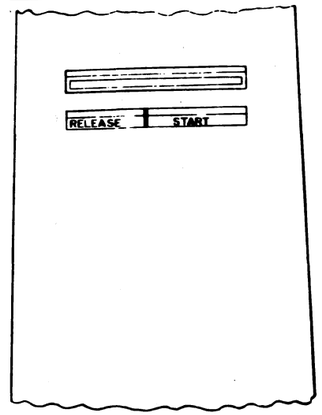
DIALER



DESIG. 8G PULSE DIALER
LOC. 2C5, 2F8
OPTION
CODE WECO 8G
BSP SECTION
501-162-100
TELETYPE NO.
182500

APP. FIG. 6

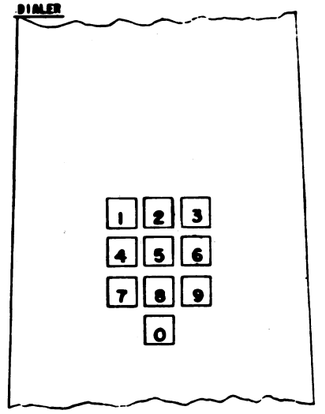
DIALER



DESIG. 41A PULSE DIALER
LOC. 2B7
OPTION
CODE WECO 41A
BSP-SECTION
501-163-101
TELETYPE NO.
182622

APP. FIG. 7

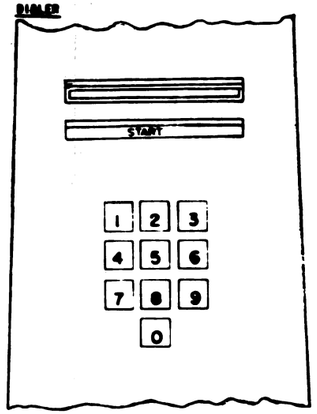
DIALER



DESIG. TOUCH-TONE DIALER 25FI-49
LOC. 3C4
OPTION
CODE WECO 25FI-49
BSP SECTION
501-164-105
TELETYPE PART
NO. 182620

APP. FIG. 8

DIALER



DESIG. TOUCH-TONE CARD DIALER 26-C-49
LOC. 3B4
OPTION
CODE WECO 26C-49
BSP SECTION
501-164-106
TELETYPE NO.
182621

15 PIN RECEPTACLE

PART NO. 182536

CONNECTOR

DESIG.	N	N
PART NO.	182536-	182536
OPTION	T.U.	M.X.Y
TERM.	LOC.	LOC.
A		3E4
B	2F7	3F7
C	2E4	3F3
D	2F4	3F3
E	2E5	3E4
F	2F7	3F7
H	2F7	3F7
J		
K		
L	2F4	3F3
M	2E7	3E7
N	2E7	3E7
P	2F4	3F3
R	2F4	3F3
S	2E5	3E5

FILTER
DESIG. CJ
LOC. 2C4
OPTION
TELETYPE NO.
182532

APP. FIG. 9

DESIG.-REC.
LOC. -A
OPTION
PART NO. 182662
WECO CODE
731A61
A 2F7
3F8

APP. FIG. 10

PRINTED CIRCUIT CARDS

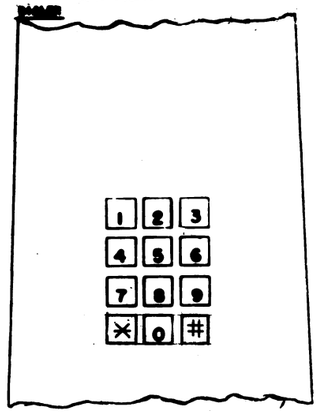
DESIG	PART NO	LOC
TURN AROUND TRAFFIC CONTROL	177519	1D4

RESISTOR			
DESIG.	LOC.	PART NO.	VALUE
R2	3E3	182765	200Ω
PT	3E4	182804	500Ω

CAPACITOR			
DESIG.	LOC	PART NO.	VALUE
CK	3D5	182795	.25mfd

APP. FIG. 11

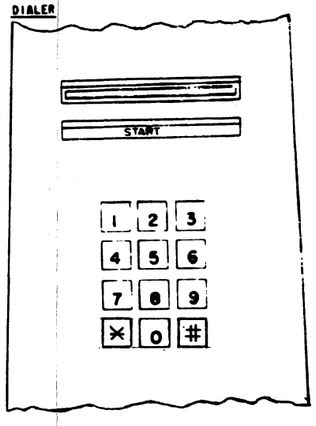
DIALER



DESIG. TOUCH-TONE DIALER 35NIA
LOC. 3C4
OPTION
CODE WECO 35NIA
BSP SECTION
501-164-115
TELETYE PART
NO. 186595

APP. FIG. 12

DIALER



DESIG. TOUCH-TONE CARD DIALER 36J
LOC. 3B4
OPTION
CODE WECO 36J
BSP SECTION
501-164-115
TELETYPE NO.
186596

PRINTED CIRCUIT CARD

DESIG.	PART NO.	LOC.
AMPLIFIER CARD	182743	a

a 2F5 3F5

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURES FOR 35A, 35B, 35C, 35D, 35A-X3, 35B-X3, 35C-X3, & 35D-X3. TELETYPEWRITER SET (KSR)

APPROVALS

D AND R	E OF M

E-NUMBER

PROD NO 6020WD-C7

DATE. 10-5-62

P.D FILE NO. G-A151AA

DRAWN GCK | CHKD.

ENGD. WEC | APPD.

TELETYPE CORPORATION

6020WD-C7

SEE ISSUE CONTROL
SHEET FOR NOTES.

101.

DESIG.	FUSE AMP	POTENTIAL	ONE PER	TERM. DESIG.	NOTE
C	1/2	+115VAC	APP. FIG. 1	TR-2 R-1	5
R	6¼	+115VAC	APP. FIG. 1	K-3	
FA	3/8	+115VAC	APP. FIG. 2	TF-2AA	
FB	4	+115VAC	APP. FIG. 2	TL-1	
		+ 10VAC		TR-6	
		+14 VAC		TR-5	
		+48VAC		TR-4	
		+48VDC		C-3N	
		TRANS. PRIMARY COMMON		TR-1	
		TRANS. SECOND. COMMON		TR-7	
		COMMON FOR 48VDC		C-1L	
AG	1/2 OR 9/10	+115VAC	APP FIG 1	C-2	4

102.

FEATURE OR OPTION		PROVIDE APP. FIG.	PROVIDE APP. OR WRG.	PROVIDE QUANTITY
BASIC SET EXCLUDING OPTIONAL APPARATUS (PRINTER, ROTR AND DIALER).		1		1 PER STATION
DO NOT ANSWER (LOW PAPER OR OUT OF SERVICE).			A	
MAKE BUSY (LOW PAPER OR OUT OF SERVICE).			B	
AUXILIARY ROTR		2	C	1 PER STATION
FRICTION FEED PRINTER		3	J	1 PER STATION
SPROCKET FEED PRINTER		4	K,L	1 PER STATION
ROTARY DIALER (8G)		5	T	1 PER STATION
PULSING CARD DIALER (41A)		6	U1	1 PER STATION
TOUCH-TONE MF DIALER (25F1) OR (35N1A)	DIAL-TONE DETECTION	7 OR 11	X	1 PER STATION
	DIAL-TONE DETECTION NOT REQUIRED		Y	
TOUCH-TONE CARD DIALER (28C) OR (36J)		8 OR 12	M X Y	1 PER STATION
HAND HELD RECEIVER		9	R	1 PER STATION
TURN AROUND TRAFFIC CONTROL	ROTR	10	G	1 PER STATION

103.

NETWORK VALUES			
NETWORK NO.	NETWORK CODE	RESISTANCE IN OHMS	CAPACITANCE IN μf
1	185A	470	0.11

104.

RECORD OF APP. FIGURES, WIRING AND APPARATUS CHANGES							
CHANGED ON ISSUE	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURNISHED	SEE NOTE	USED IN CIRCUIT			

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

6020 WD-D1

ISSUE	DATE	AUTH NO.
2	10-12-64	84221
3	2-15-65	84599-1
4	8-6-65	88293
5	8-18-67	94324-B
6	5-19-69	99164

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

CIRCUIT NOTES FOR
35A, 35B, 35C, 35D
35A-X3, 35B-X3, 35C-X3
& 35D-X3.
TELETYPEWRITER
SET (KSR)

APPROVALS

D AND R	E OF M

E-NUMBER
PROD NO 6020WD-D1
DATE: 10-5-62
P.D FILE NO. G-A1B1AA
DRAWN GCK
CHKD.
ENGD. WEC
APPD.

TELETYPE
CORPORATION

6020WD-D1

SHEET INDEX

CONTENTS	SHEET NO.	ISSUE NO. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	SHEET NO.
CONTROL CIRCUITS	1	X	X	X																										
SIGNAL GENERATORS, SELECTOR MAGNET DRIVER AND BREAK DETECTOR	2	X	X	X																										
POWER CIRCUITS	3	X	X	X																										
NOTES	4	X	X																											

SUPPORTING INFORMATION

CATEGORY	NO.
WIRING DIAGRAM PACKAGE	WDP0152

SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND UPDATED EACH TIME ANY SHEET OF THE DRAWING IS REISSUED OR A NEW SHEET IS ADDED.
3. THE LAST COMPLETED COLUMN INDICATES THE LATEST ISSUE NUMBER OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NO.
5. ISSUE DATES WILL BE SHOWN ON THE SHEET INDEX ONLY.

REVISIONS

ISSUE	DATE	AUTH. NO.
1	6-6-69	19474-R
2	9-26-69	99475
3	4-1-70	99954

WDP

SCHEMATIC
WIRING DIAGRAM
FOR MODEL33
AUTOMATIC SEND-RECEIVE
KEYBOARD SEND-RECEIVE
AND
RECEIVE ONLY
SETS
USING THE UCC 29

APPROVALS		
PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.

ENGR. R.C.H.	DSGNR.
DRN. J.L.	DATE 7-2-69
R&D FILE	2-165.152AA
S-NUMBER	61.584S-734S

TELETYPE

8163WD

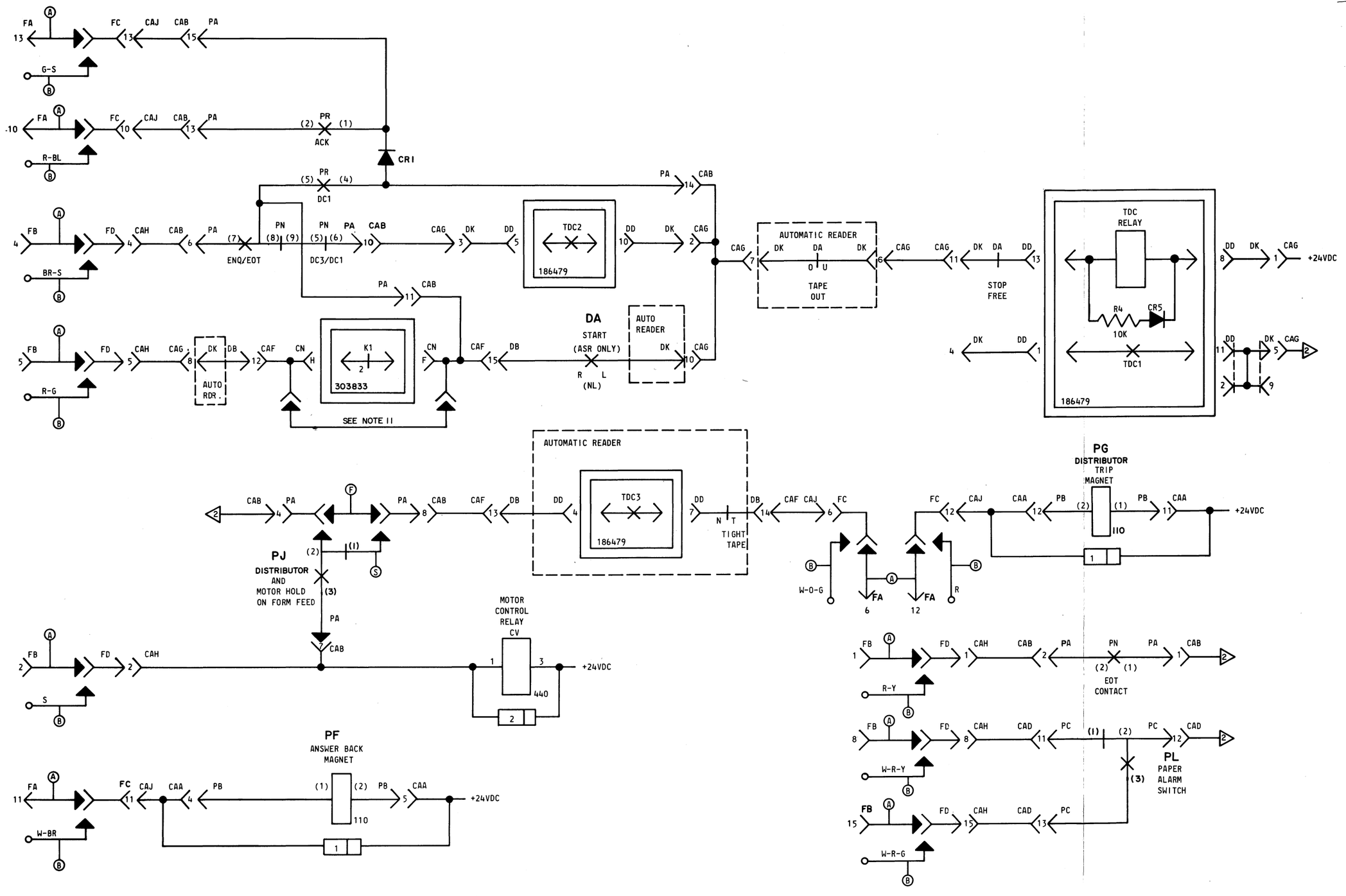
TC 641 (3-69)

SEE SHEET 4 FOR NOTES

CONTROL CIRCUITS

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	6-6-69	19474-R
2	9-26-69	99475
3	3-31-70	99954



WDP SHEET 1

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SCHEMATIC
WIRING DIAGRAM
FOR MODEL33
AUTOMATIC SEND-RECEIVE
KEYBOARD SEND-RECEIVE
AND
RECEIVE ONLY
SETS
USING THE UCC 29

APPROVALS		
PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.

ENGR. R.C.H	DSGNR.
DRN. J.L.	DATE 7-1-69
R&D FILE 2-165.152AA	
S-NUMBER 61.584S-734S	

TELETYPE

8163WD

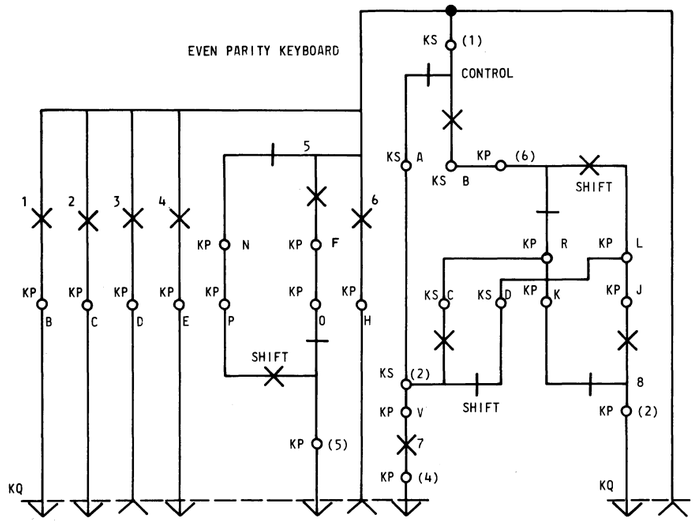
TC 434 (3-69)

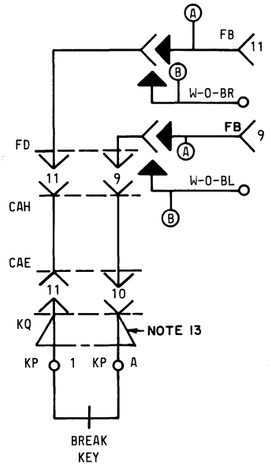
SEE SHEET 4 FOR NOTES

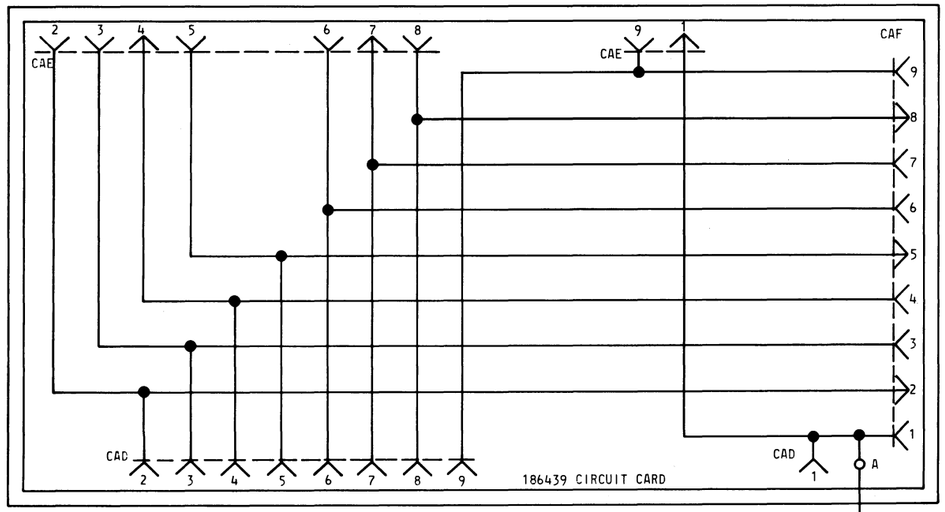
SIGNAL GENERATORS, SELECTOR MAGNET DRIVER AND BREAK DETECTOR

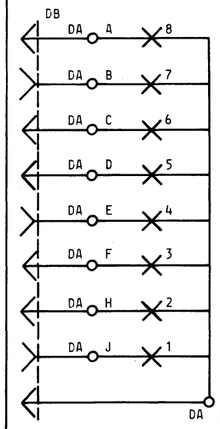
NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

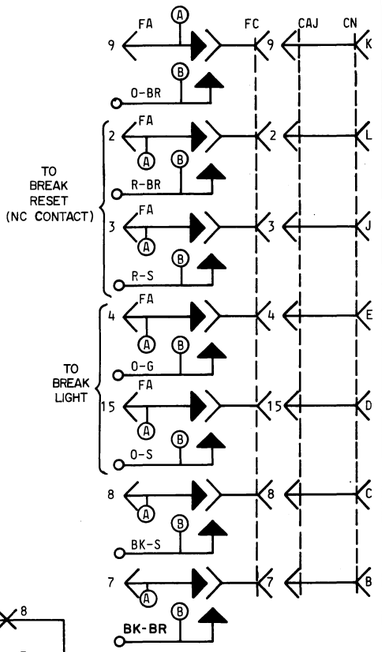
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	6-6-69	19474-R
2	9-26-69	99475
3	4-1-70	99954

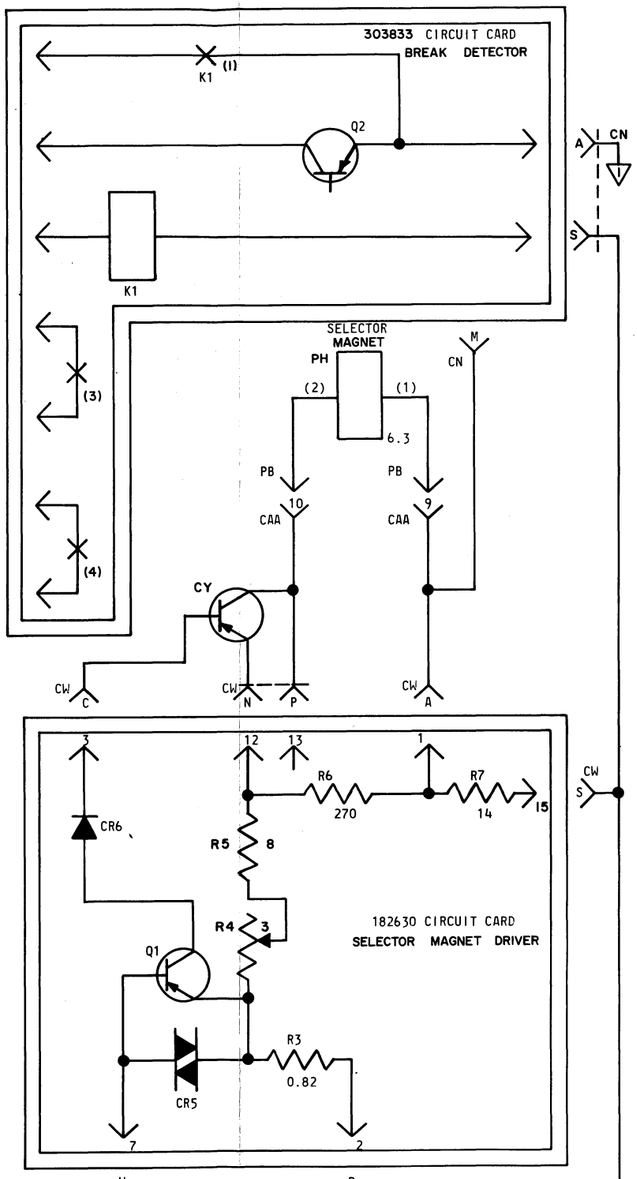


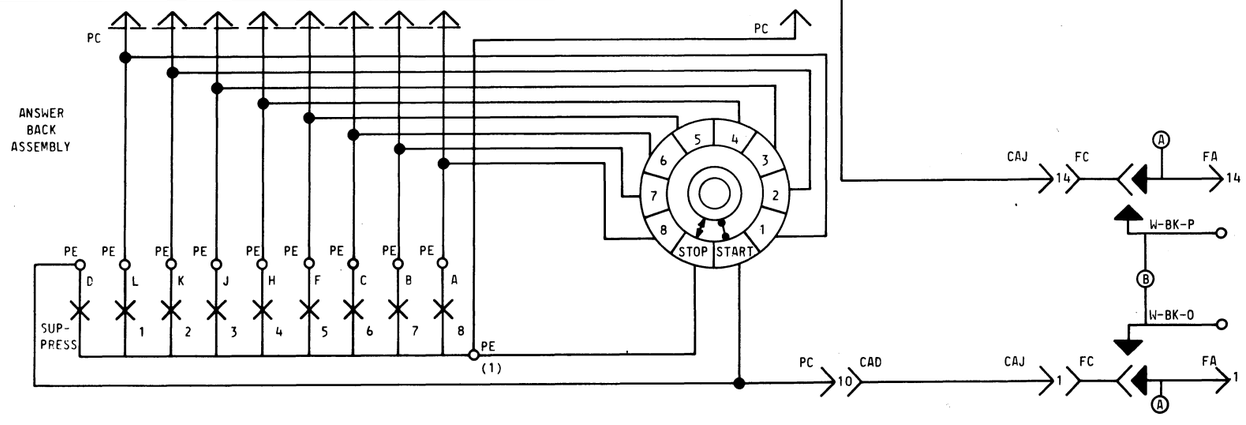


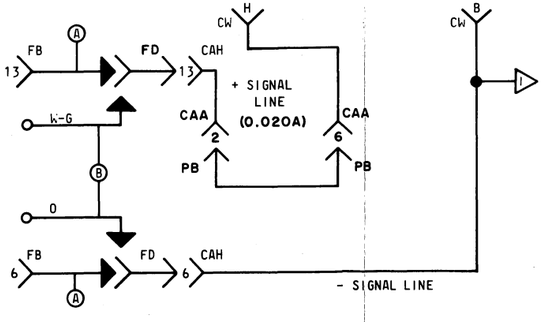












-20

WDP SHEET 2

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SCHEMATIC
WIRING DIAGRAM
FOR MODEL 33
AUTOMATIC SEND-RECEIVE
KEYBOARD SEND-RECEIVE
AND
RECEIVE ONLY
SETS
USING THE UCC 29

APPROVALS		
PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.
ENGR. R.C.H.	DSGNR.	
DRN. J.L.	DATE	
R&D FILE 2-165.152AA		
S-NUMBER 61,584S-734S		

TELETYPE

8163WD

TC 434 (3-69)

SEE SHEET 4 FOR NOTES

POWER CIRCUITS

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	6-6-69	19474-R
2	9-26-69	99475
3	4-1-70	99954

CM
AC POWER CORD

CQ CONVENIENCE OUTLET

CV MOTOR CONTROL RELAY

3 2/10 AMP SL-BL

CP ELAPSED TIME INDICATOR

WITH 181870 MOTOR

2 1/4 AMP SL-BL

88-108 MFD

2 MB 181877 MOTOR START RELAY 0.14

SYNCHRONOUS MOTOR

WITH 182241 MOTOR

2 AMP SL-BL

MB 181877 MOTOR START RELAY 0.14

SYNCHRONOUS MOTOR

115 V AC 4.1 TRANSFORMER CU

0.23 22V AC

0.86 20V AC

186438

CS 2 AMP SL-BL

CR 8/10 AMP SL-BL

+24V DC

-20V DC

ASR ONLY

DG POWER RESISTOR 850

R1 22

F1 3/4 AMP

C1A 200

R3 56K

C1B

C2 0.22

R2 12K

DC READER FEED MAGNET 100

186479 CIRCUIT CARD

READER FEED CONTACT

WDP SHEET 3

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SCHEMATIC
WIRING DIAGRAM
FOR MODEL 33
AUTOMATIC SEND-RECEIVE
KEYBOARD SEND-RECEIVE
AND
RECEIVE ONLY
SETS
USING THE UCC 29

APPROVALS		
PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.

ENGR. R C.H	DSGNR.
DRN. J.L.	DATE
R&D FILE 2-165.152AA	
S-NUMBER 61,584S-734S	

TELETYPE

8163WD

TC 434 (3-69)

NO.	NOTES
1.	ALL VOLTAGES DC UNLESS OTHERWISE SPECIFIED.
2.	RESISTANCE VALUES ARE IN OHMS.
3.	CAPACITANCE VALUES ARE IN MICROFARADS.
4.	INDICATES FEMALE TERMINAL INDICATES MALE TERMINAL
5.	* NETWORK SYMBOL
6.	SL-BL DENOTES SLOW BLOWING
7.	WIRE COLOR CODE: O - ORANGE Y - YELLOW R - RED P - PURPLE W - WHITE G - GREEN S - SLATE BL - BLUE BR - BROWN BK - BLACK
8.	LEGEND FOR SHEET REFERENCE: SHEET 2 D 8 COLUMN ROW
9.	INDICATES OPTION A 336464 CABLE TERMINATES AT EACH END IN TWO 15 PIN CONNECTORS. B 336463 CABLE TERMINATES IN 30 SPADE TERMINALS ON ONE END. F FRICTION FEED PRINTER. S SPROCKET FEED PRINTER.
10.	INDICATES COMMON RETURN TO +24VDC INDICATES COMMON RETURN TO -20VDC
11.	CONNECTION BETWEEN CN-F AND CN-H IS REMOVED WHEN 303833 CIRCUIT CARD IS USED.
12.	REFERENCE: 8162WD ACTUAL WIRING DIAGRAM UCC29 CALL CONTROL UNIT.
13.	ON RO SETS SUBSTITUTE THE 181838 PLUG ASSEMBLY ON CONNECTOR NO 7 "CAE".

NETWORK NO.	TELETYPE NO.		
1	151631	470 OHM	0.1IMFD
2	178535	470 OHM	0.1IMFD

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	9-26-69	99475
2	4-1-70	99954

WDP SHEET 4

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SCHEMATIC
WIRING DIAGRAM
FOR MODEL 33
AUTOMATIC SEND-RECEIVE
KEYBOARD SEND-RECEIVE
AND
RECEIVE ONLY
SETS
USING THE UCC 29

APPROVALS		
PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.

ENGR. R.C.H	DSGNR.
DRN. J.L.	DATE 7-2-69
R&D FILE 2-165,152AA	
S-NUMBER 6 1,584S-734S	

TELETYPE

8163WD

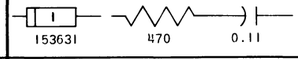
TG 434 (3-68)

ISSUE CONTROL RECORD

8228WD

NOTES

1. REFERENCE SPECIFICATION FOR TELETYPE CORPORATION EMPLOYEES ONLY: 60,491S
2. SL-BL INDICATES SLOW-BLOWING.
3. LEGEND:
   - ▶>— INDICATES OPTION
   - >> A CONNECTOR, ANSWER-BACK
   - O B LAMP STRIP - LCCU
   - O C WIRING FIELD - LESU
   - >> D CONNECTOR AND STRAP PLUG - LCCU
   - >> E CONNECTOR, TYPING UNIT SMD -LCCU
   - >> F CONNECTOR, KEYBOARD BASE
   - O F TERMINAL BOARD, RINGER - LCCU
   - O H TERMINAL STRIP - LCCU
   - O K TERMINAL BOARD - LCCU
   - >> N AMPLIFIER CARD RECEPTACLE - LCCU
   - >> P CONNECTOR - LCCU
   - >> R CONNECTOR - PAGE PRINTER
   - O S TERMINAL BOARD - KEYBOARD
   - >> T CONNECTOR, PLUG - LCCU
   - >> V CONNECTOR - LCCU - LESU
   - >> W CONNECTOR - LCCU - LESU
   - >> X CONNECTOR - LCCU - LESU
   - >> AB CONNECTOR, SIG. REGEN. - LESU
4. ALL APPARATUS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITION.
5. RESISTANCE VALUES IN OHMS, UNLESS OTHERWISE SPECIFIED.
6. ALL CAPACITANCE VALUES IN MICROFARADS, UNLESS OTHERWISE SPECIFIED.
7. NETWORK VALUES:

8. ALL VOLTAGES DC, UNLESS OTHERWISE SPECIFIED.
9. TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE FOR REFERENCE AND ARE NOT MARKED ON COMPONENT.
10. OPTION LEGEND:
    - (C) AUXILIARY ROTR SET
    - (D) NO AUXILIARY ROTR SET
    - (J) FRICTION FEED PAGE PRINTER
    - (L) SPROCKET FEED PAGE PRINTER
    - (M) TOUCH TONE CARD DIALER
    - (U) ROTARY CARD DIALER
    - (X) TOUCH TONE DIALER
    - (Y) TOUCH TONE DIALER
11. 27KΩ RESISTOR IS NOT PRESENT ON SOME SETS.
12. **WIRING STATUS:**

    RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES

    B - DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.

    A - DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.

SUPPORTING INFORMATION

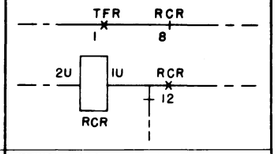
CATEGORY		NO.
TECHNICAL MANUAL MODEL 35 KEYBOARD SEND-RECEIVE (KSR) AND RECEIVE-ONLY (RO) TELETYPEWRITER SETS		BULLETIN 281B
DATA SET	101C	BSP 591-013-100 BSP 591-013-200 BSP 591-013-300
	105A	BSP 591-018-100 BSP 591-018-200 BSP 591-018-300
DIALER (CONTINUED BELOW)	8G	BSP 501-162-100 BSP 501-162-300
	25F1	BSP 501-164-105
	26C	BSP 501-164-106
	41A	BSP 501-163-101
DATA SYSTEMS ATTENDANT CIRCUIT		SD-3D009-01
DATA STATION CIRCUIT	101C	CD-3D007-01
	105A	CD-3D008-01
DIALER (CONTINUED)	35NIA	BSP 501-164-115
	36J	BSP 501-164-116

RELATED ACTUAL WIRING DIAGRAMS AND DRAWINGS:

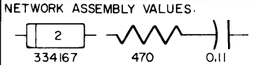
192002 ANSWER-BACK ASSEMBLY	4726WD
LP831RX/AVA PAGE PRINTER (FRICTION)	8139WD
LP846RX/AUZ PAGE PRINTER(SPROCKET)	8192WD
LP SELECTOR MAGNET DRIVER CARD	182630
193485 SEL. MAGNET DRIVER ASSEMBLY	5983WD
LESU300 ELECTRICAL SERVICE UNIT	5821WD
LK807 KEYBOARD BASE	5812WD
LAC305 CABINET	7584WD
LCCU300 CALL CONTROL UNIT	5824WD
LMU3 MOTOR UNIT	2900WD

NOTES

13. **WIRING WAS CHANGED TO PROVIDE MAKE BEFORE BREAK TRANSFER CONTACT FOR ENERGIZING RCR RELAY. FORMER WIRING WAS AS FOLLOWS.**

14. NETWORK ASSEMBLY VALUES.

    SOME UNITS DO NOT HAVE THIS NETWORK ASSEMBLY.

CONTENTS

ISSUE

SHEET NO.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1																		
2	X	X																
3	X																	
4																		
5	X	X																
6	X																	
7																		
8																		
9																		
10	X																	
11																		

REVISIONS APPLYING TO THIS CONTROL RECORD

ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R
2	6-29-67	94201
3	8-21-67	94324-B
4	6-10-68	95947
5	11-15-68	96529
6	12-16-68	96463
7	5-19-69	99164
8	5-7-70	8

ISSUE CONTROL SHEET 1 OF 1

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER SETS (KSR) VSL 345 AND VSL 346

WD NUMBER 8228WD	
DRAWN	CHKD. Tol
ENGD. RHL	APPD. RRS

TELETYPE CORPORATION

8228WD

SEE CONTROL SHEET 1 FOR NOTES

INDICATES COMMON RETURN TO THE POWER SUPPLY - NOT RELATED TO CHASSIS POTENTIAL.

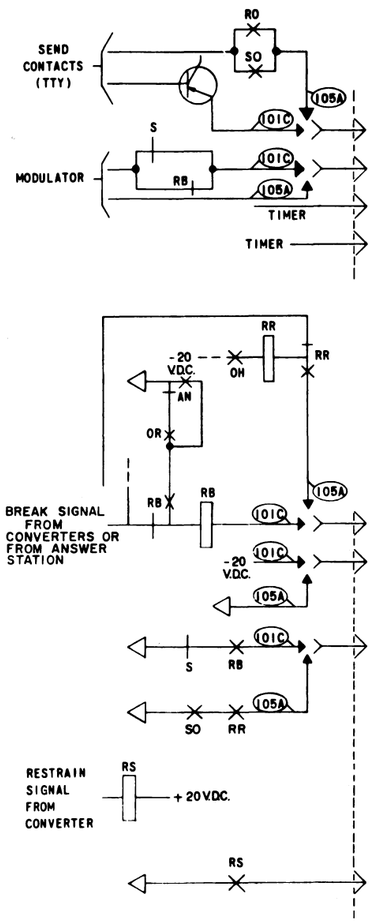
NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

8228 WD

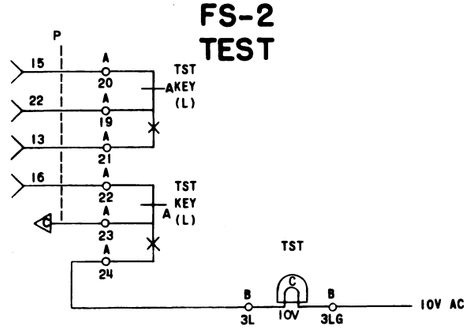
REVISIONS

ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R

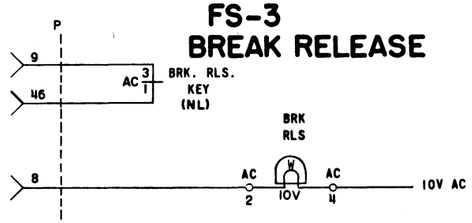
DATA SET
101C OR 105A



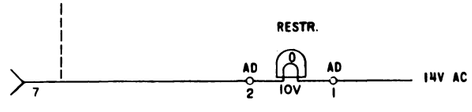
FS-2 TEST



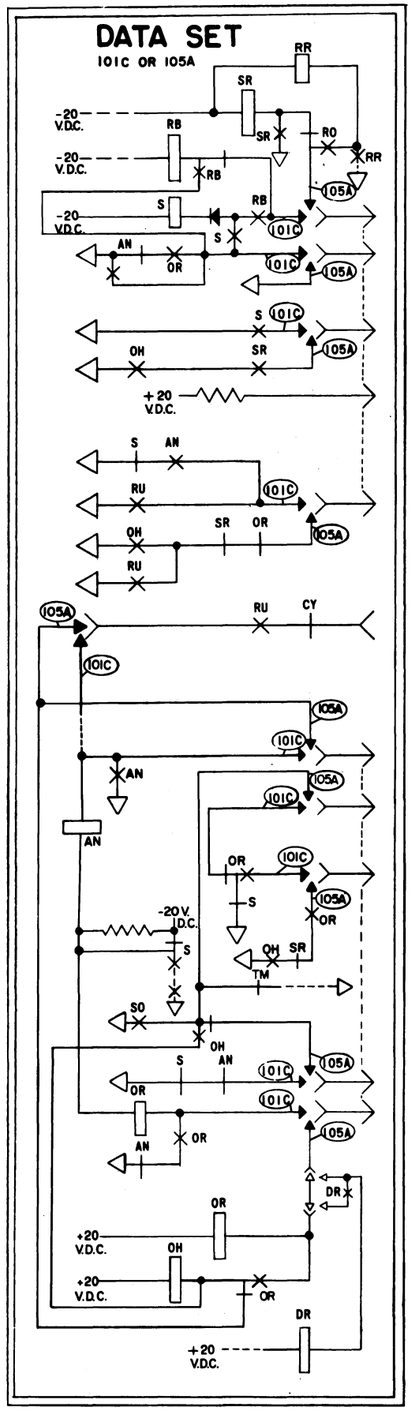
FS-3 BREAK RELEASE



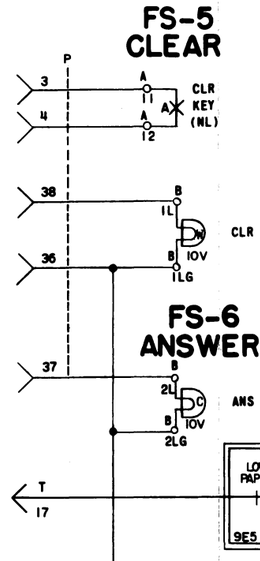
FS-4 RESTRAIN



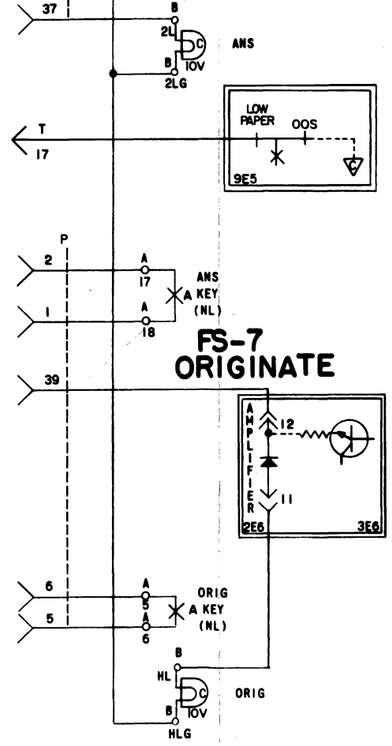
DATA SET
101C OR 105A



FS-5 CLEAR



FS-6 ANSWER



FS-7 ORIGINATE

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR) VSL345, 346

APPROVALS	
D AND R	E OF M
HK	

E-NUMBER	
PROD. NO. 8228WD	
DATE 10/13/66	
P.D. FILE NO. G-151.219A	
DRAWN	CHKD. TW
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

8228 WD

SEE CONTROL SHEET 1 FOR NOTES

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

8228WD

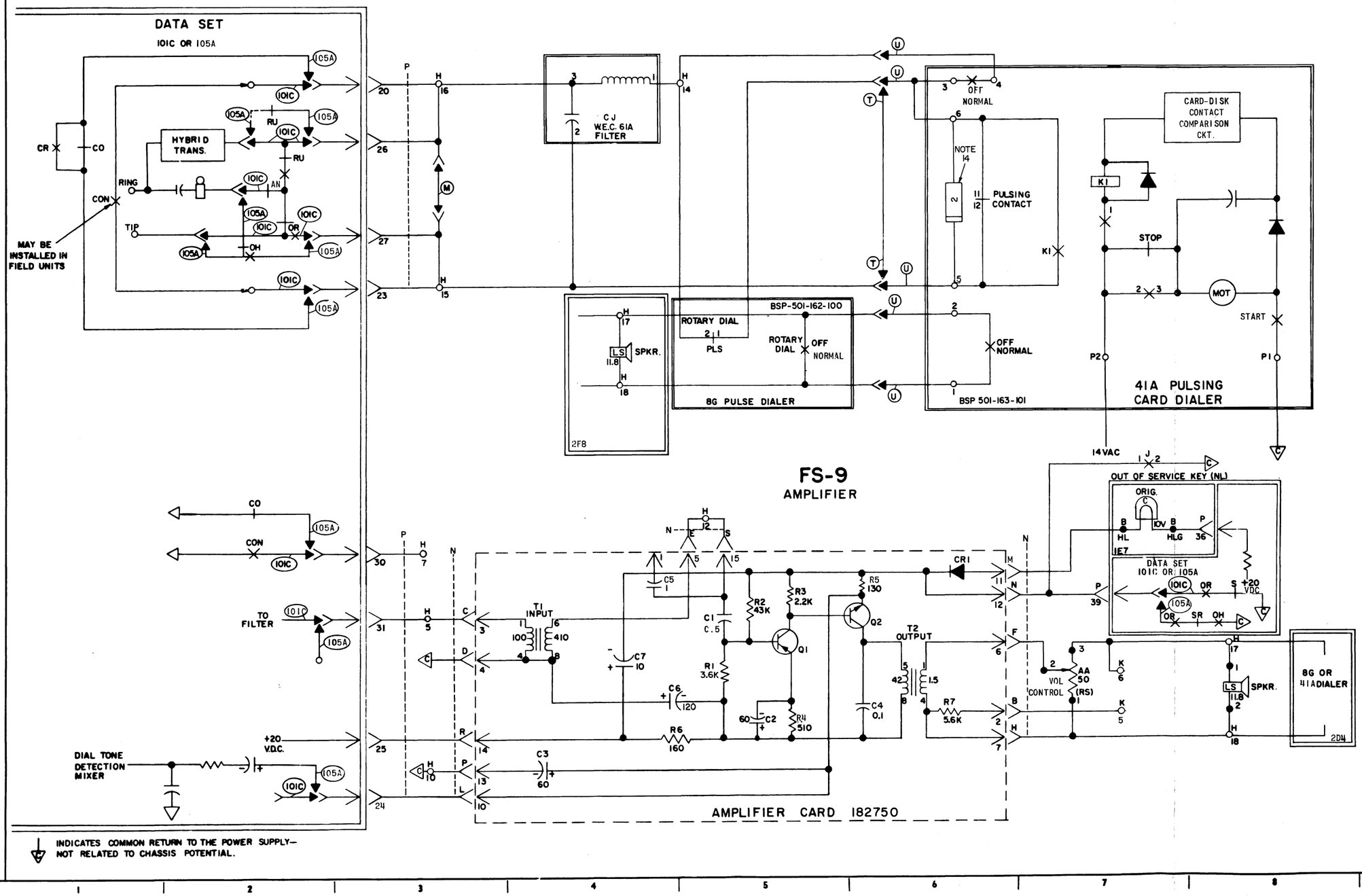
REVISIONS

ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R
2	12-16-68	96463
3	5-7-70	8

FS-8

ROTARY DIAL & PULSING CARD DIALER

(T,U)



INDICATES COMMON RETURN TO THE POWER SUPPLY— NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 2

DETACHED SCHMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR) VSL345,346

APPROVALS

D AND R	E OF M

E-NUMBER	
PROD. NO.	8228WD
DATE	10/13/66
P.D. FILE NO.	G-151.219A
DRAWN	CHKD.
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

8228 WD

SEE CONTROL SHEET 1 FOR NOTES

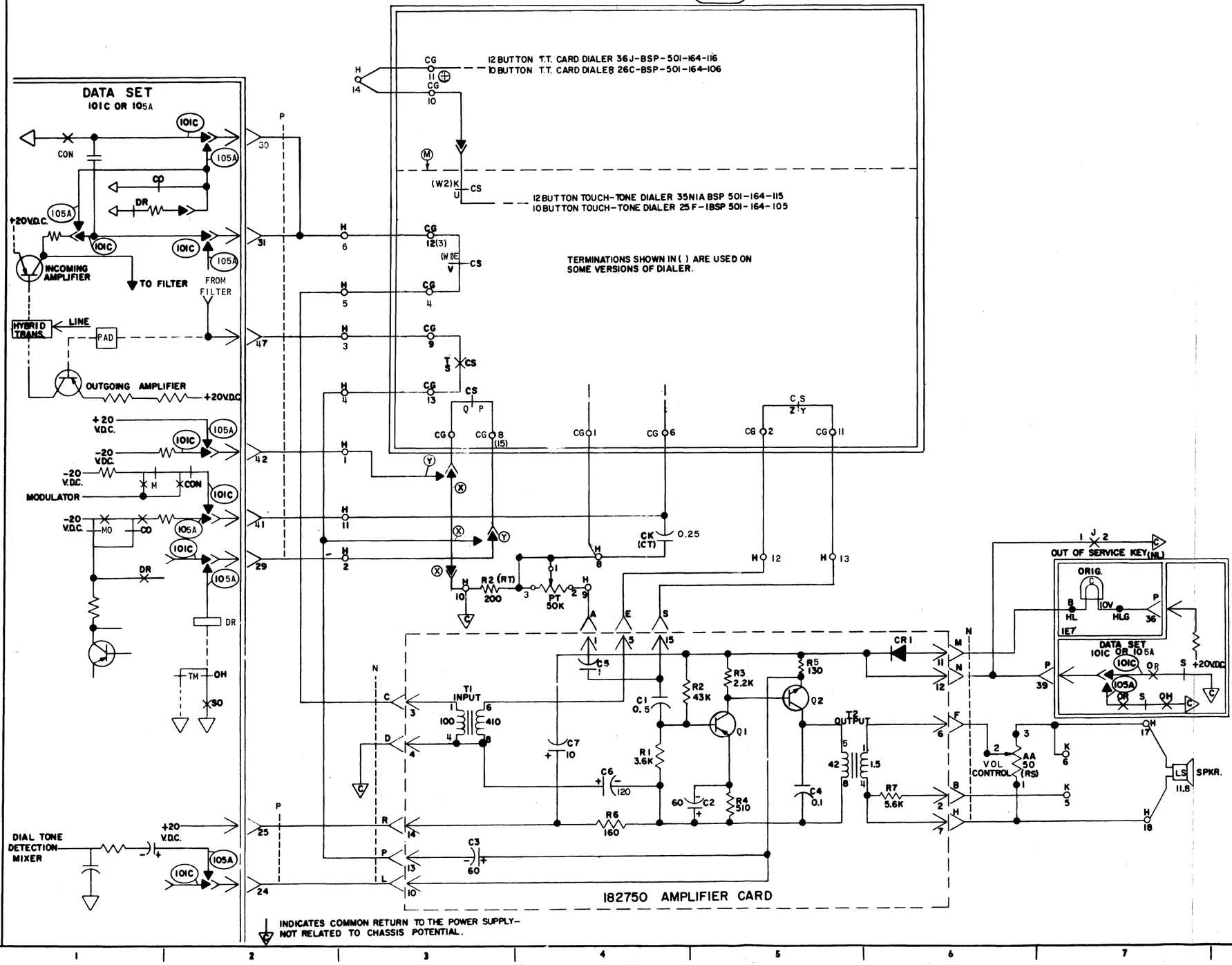
NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

8228 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R
2	5-19-69	99164
3	5-7-70	8

FS-10
TOUCH-TONE DIALER & AMPLIFIER CIRCUIT (M,X,Y.)



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 3

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR) VSL345, 346

APPROVALS

D AND R	E OF M

E-NUMBER	
PROD. NO.	8228WD
DATE	10/13 66
P.D. FILE NO.	G-151.219A
DRAWN	CHKD. TDR
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

8228 WD

SEE ISSUE CONTROL SHEET 1 FOR NOTES

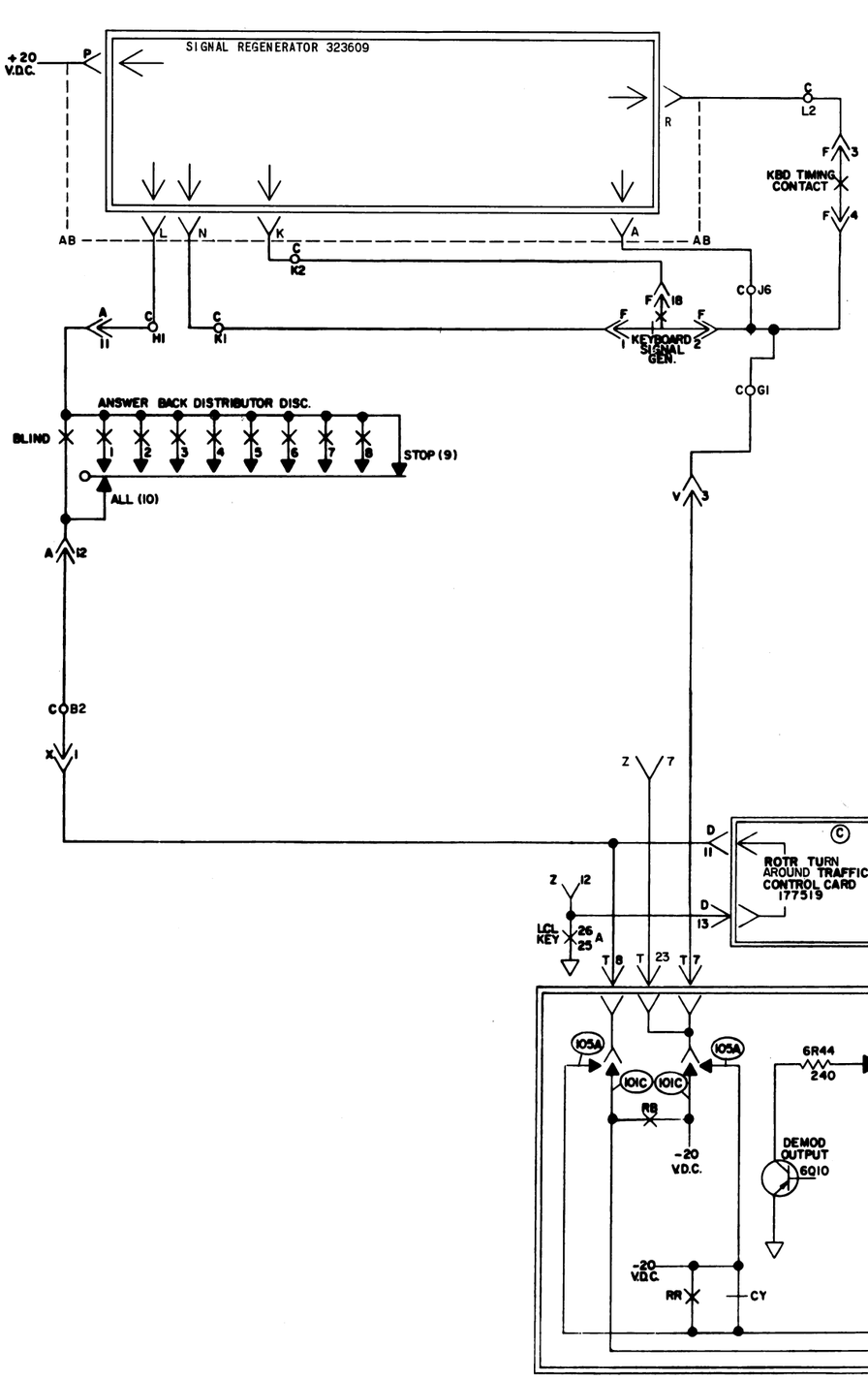
FS-11 SIGNAL GENERATOR AND SELECTOR MAGNET DRIVER

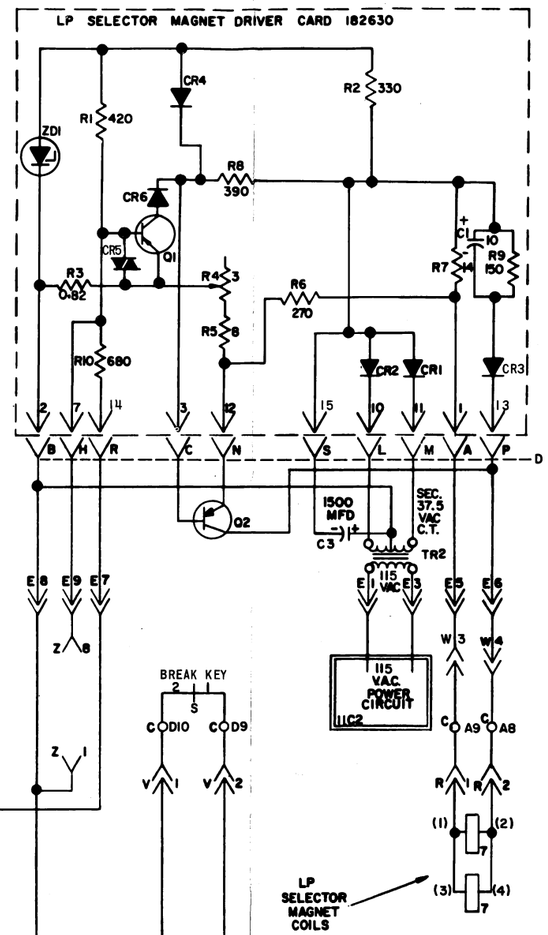
NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

8228 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R





SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 4

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR) VSL345, 346

APPROVALS

D AND R	E OF M
[illegible]	[illegible]

E-NUMBER	
PROD. NO.	8228WD
DATE	10/12/66
P.D. FILE NO.	G-151A.219A
DRAWN	CHKD. Tal
ENGD. R.H.L.	APPD. RRS

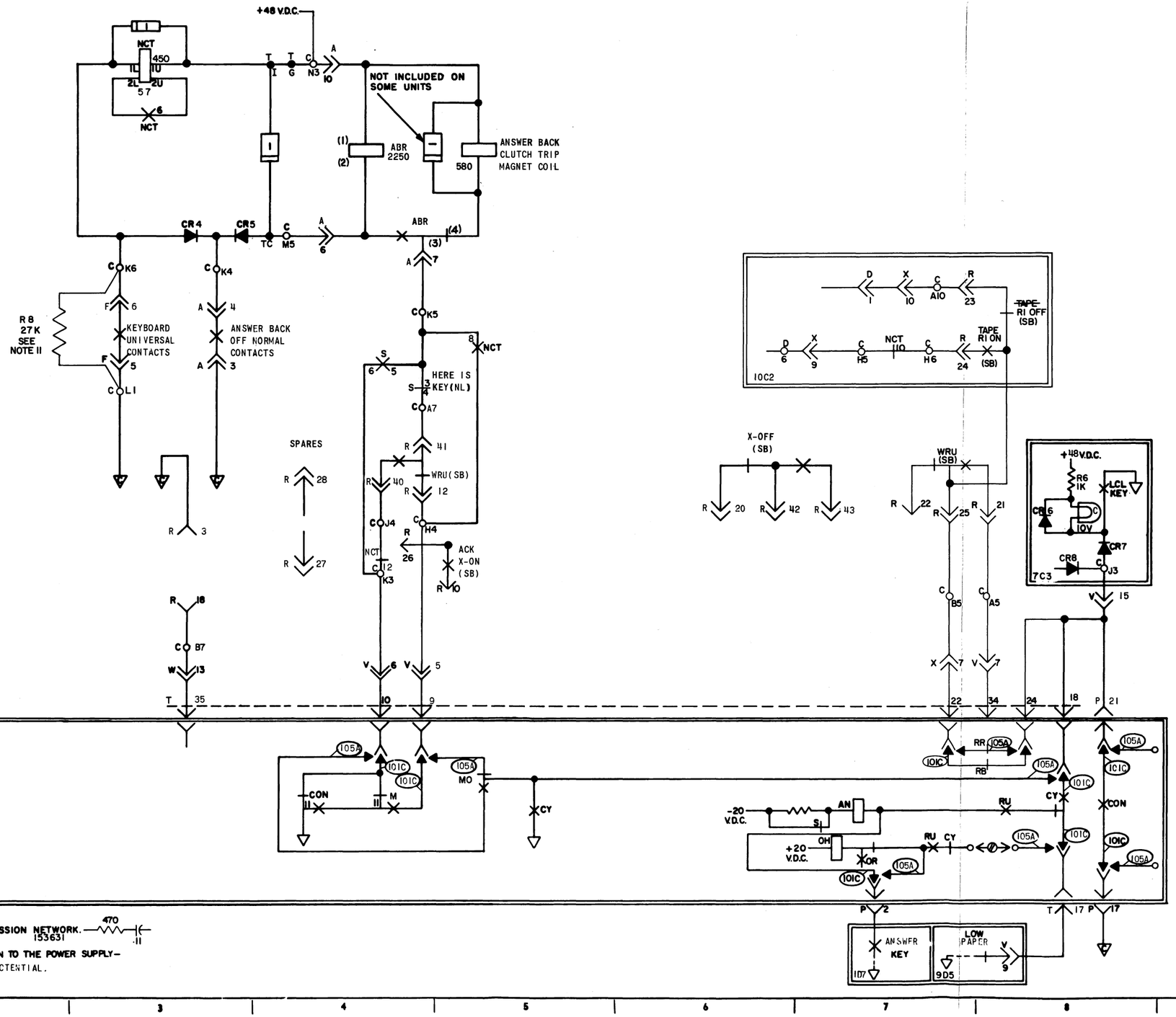
TELETYPE CORPORATION

8228 WD

SEE CONTROL SHEET 1 FOR NOTES.

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

FS-12
ANSWER BACK CONTROL CIRCUIT



8228 WD		
REVISIONS		
ISSUE	**DATE**	**AUTH. NO.**
1	12-20-66	18124-R
2	6-29-67	94201
3	8-21-67	94324-B

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 5

DETACHED SCHEMATIC
WIRING DIAGRAM
FOR
TELETYPEWRITER (KSR)
VSL345, 346

APPROVALS	
D AND R	E OF M

E-NUMBER	
PROD. NO.	8228WD
DATE	10-17-66
P.D. FILE NO.	G-151.219A
DRAWN	CHKD.
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

8228WD

SEE ISSUE CONTROL SHEET 1 FOR NOTES

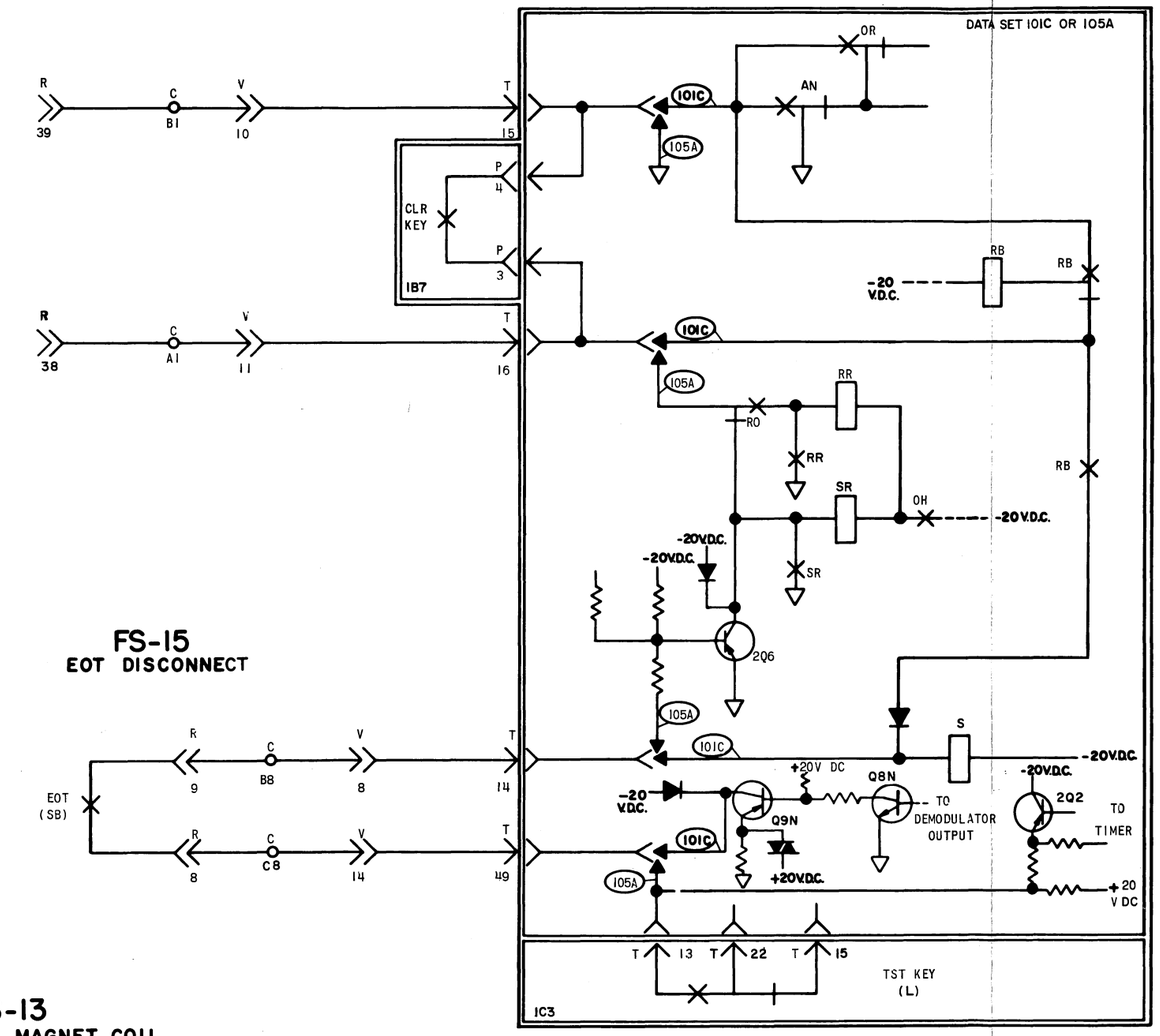
NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

8228 WD

REVISIONS

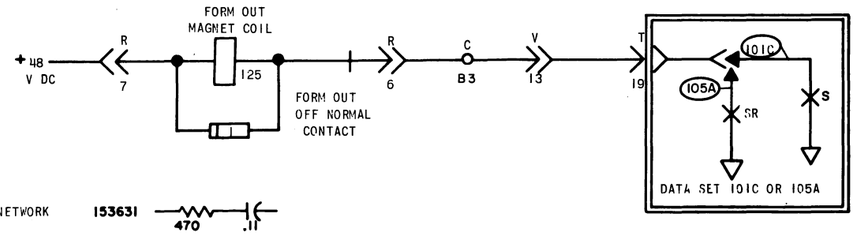
ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R
2	6-10-68	95947

FS-14
PAPER OUT DISCONNECT



FS-15
EOT DISCONNECT

Ⓛ FS-13
FORM-OUT MAGNET COIL



DENOTES ARC SUPPRESSION NETWORK 153631 470 .11

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 6

DETACHED SCHEMATIC
WIRING DIAGRAM
FOR
TELETYPEWRITER (KSR)
VSL345, 346

APPROVALS

D AND R	E OF M

E-NUMBER

PROD. NO. 8228 WD

DATE 10-17-66

P.D. FILE NO. G-151.219A

DRAWN	CHKD.
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

8228 WD

SEE CONTROL SHEET 1 FOR NOTES

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

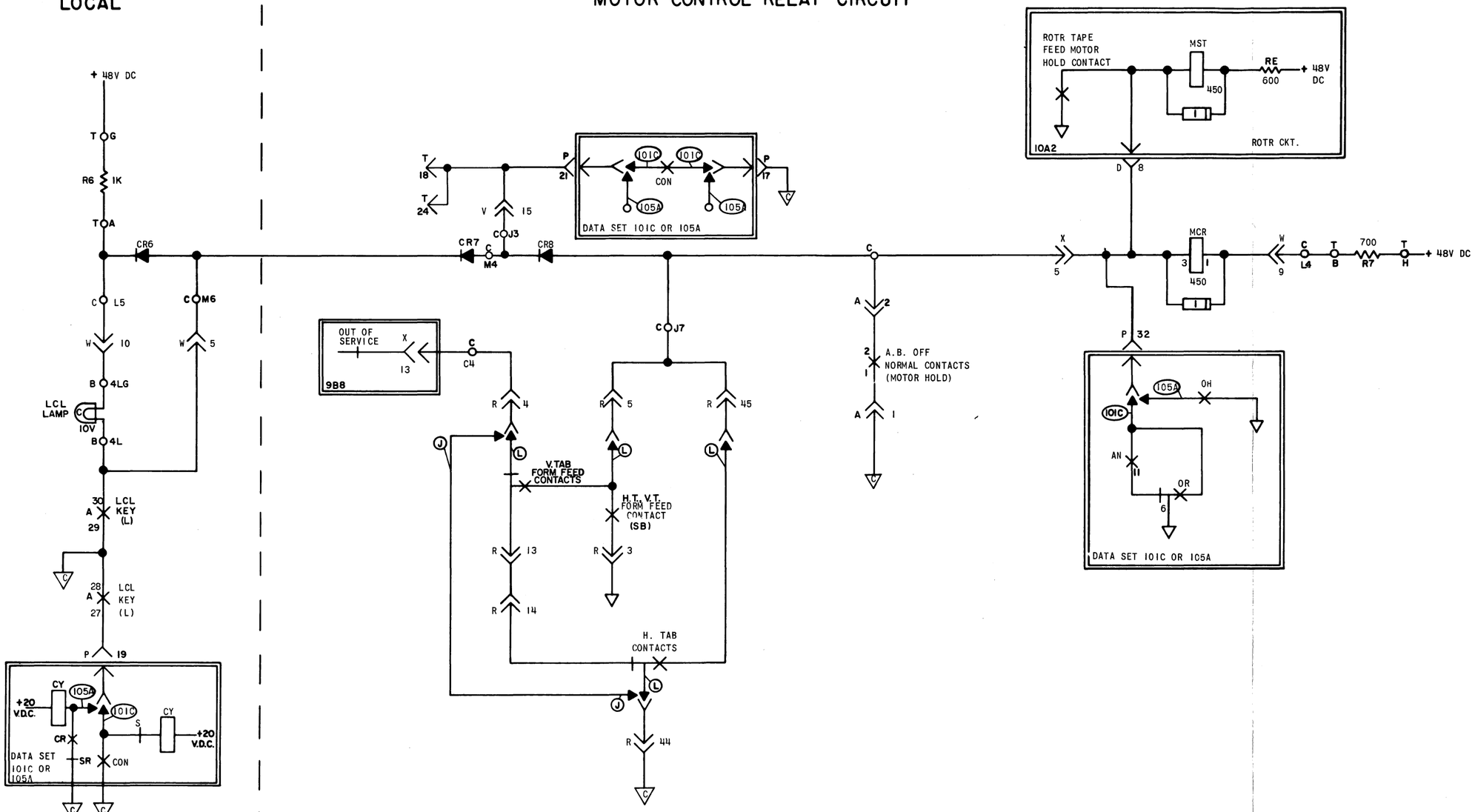
8228WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R

FS-16
LOCAL

FS-17
MOTOR CONTROL RELAY CIRCUIT



DENOTES ARC SUPRESSION NETWORK. 153631 (.11 / 470)

INDICATES COMMON RETURN TO THE POWER SUPPLY— NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 7

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR) VSL345, 346

APPROVALS

D AND R	E OF M

E-NUMBER

PROD. NO. 8228WD

DATE 10/19/66

P.D. FILE NO. S-1513.219A

DRAWN	CHKD. TW
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

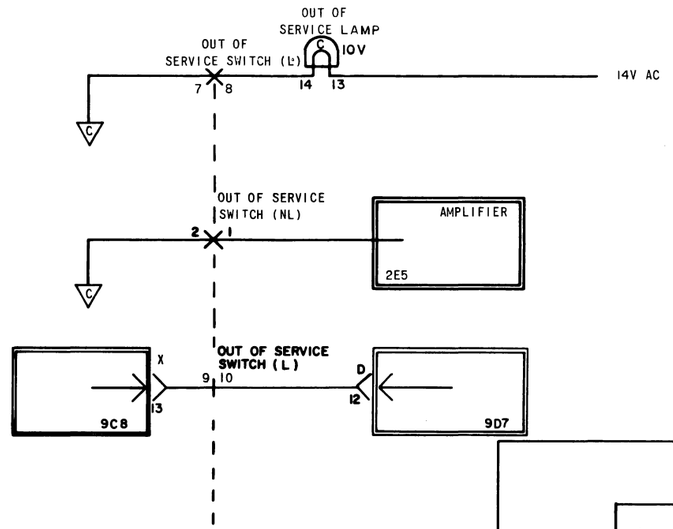
8228WD

SEE ISSUE CONTROL SHEET 1 FOR NOTES

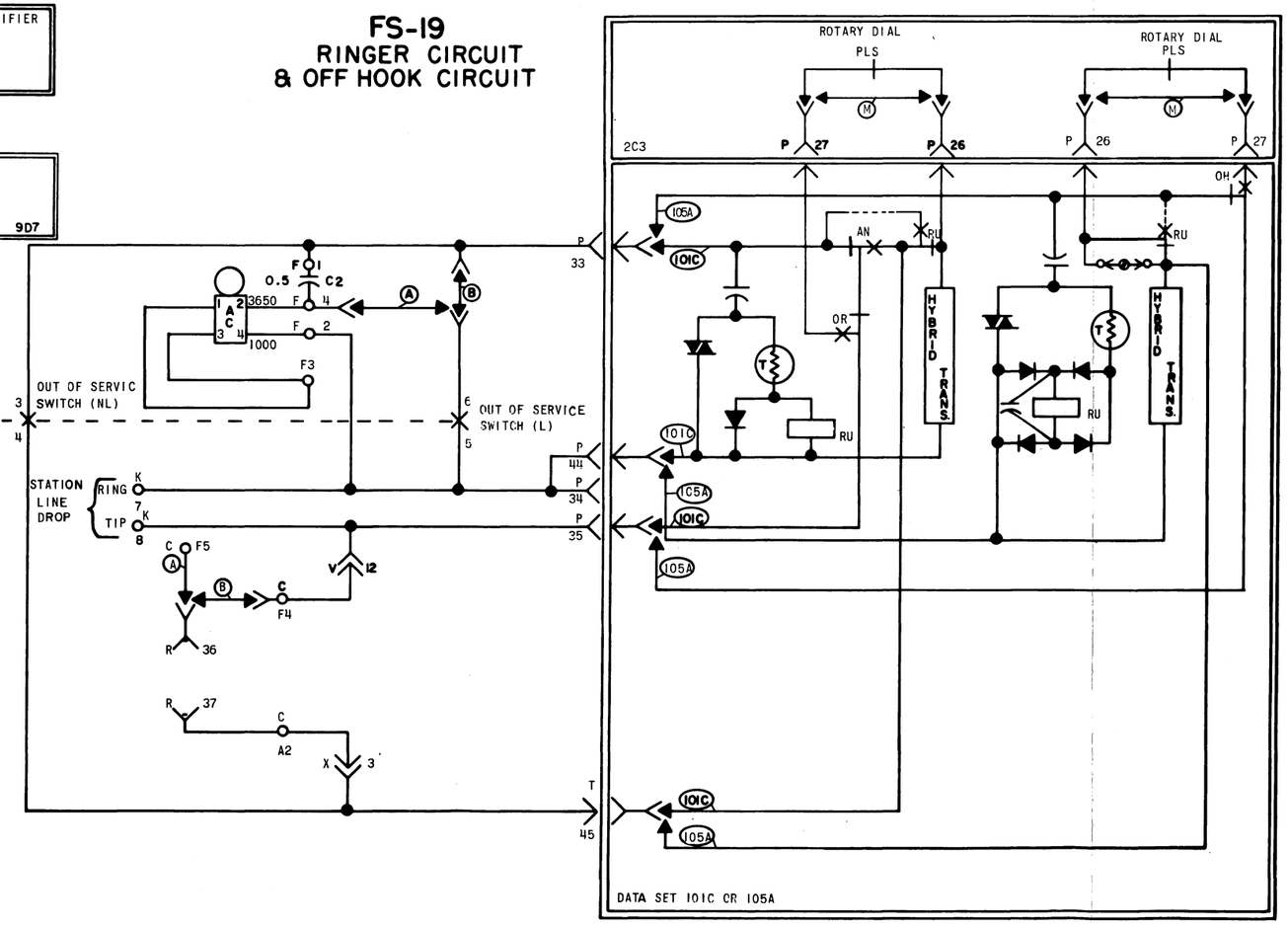
: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

8228 WD		
REVISIONS		
ISSUE	**DATE**	**AUTH. NO.**
1	12-20-66	18124-R

FS-18
OUT OF SERVICE



FS-19
RINGER CIRCUIT & OFF HOOK CIRCUIT



OUT OF SERVICE IS A THREE POSITION TWIST UNIT.
NORMAL- AS SHOWN
LOCKING- CCW TWIST FROM NORMAL
NON-LOCKING- CW TWIST FROM NORMAL

C — INDICATES COMMON RETURN TO THE POWER SUPPLY NON RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 8

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR) VSL345, 346

APPROVALS	
D AND R	E OF M

E-NUMBER	
PROD. NO.	8228 WD
DATE	1-17-66
P.D. FILE NO.	151.219A
DRAWN	CHKD. TSL
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

8228 WD

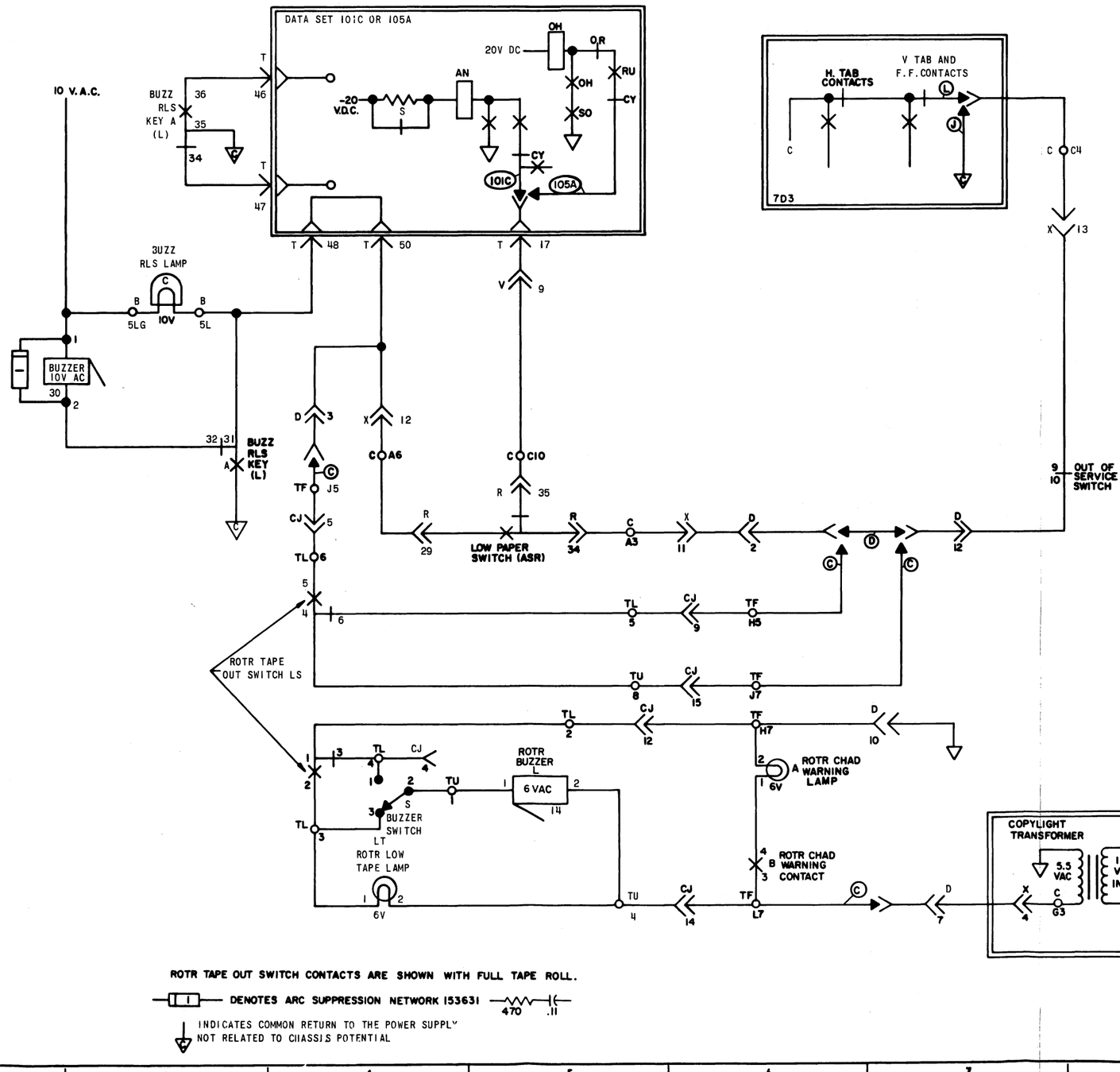
SEE CONTROL SHEET 1 FOR NOTES

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

8228 WD

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R

FS-20
PAPER ALARM



ROTR TAPE OUT SWITCH CONTACTS ARE SHOWN WITH FULL TAPE ROLL.

DENOTES ARC SUPPRESSION NETWORK 153631 (470 Ω, .1 μF)

INDICATES COMMON RETURN TO THE POWER SUPPLY NOT RELATED TO CHASSIS POTENTIAL

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 9

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR)

VSL345, 346

APPROVALS	
D AND R	E OF M

E-NUMBER	
PROD. NO.	8228WD
DATE	10-17-66
P.D. FILE NO.	G-151A.219A
DRAWN	CHKD. TAP
ENGD. R.H.L.	APPD. RRJ

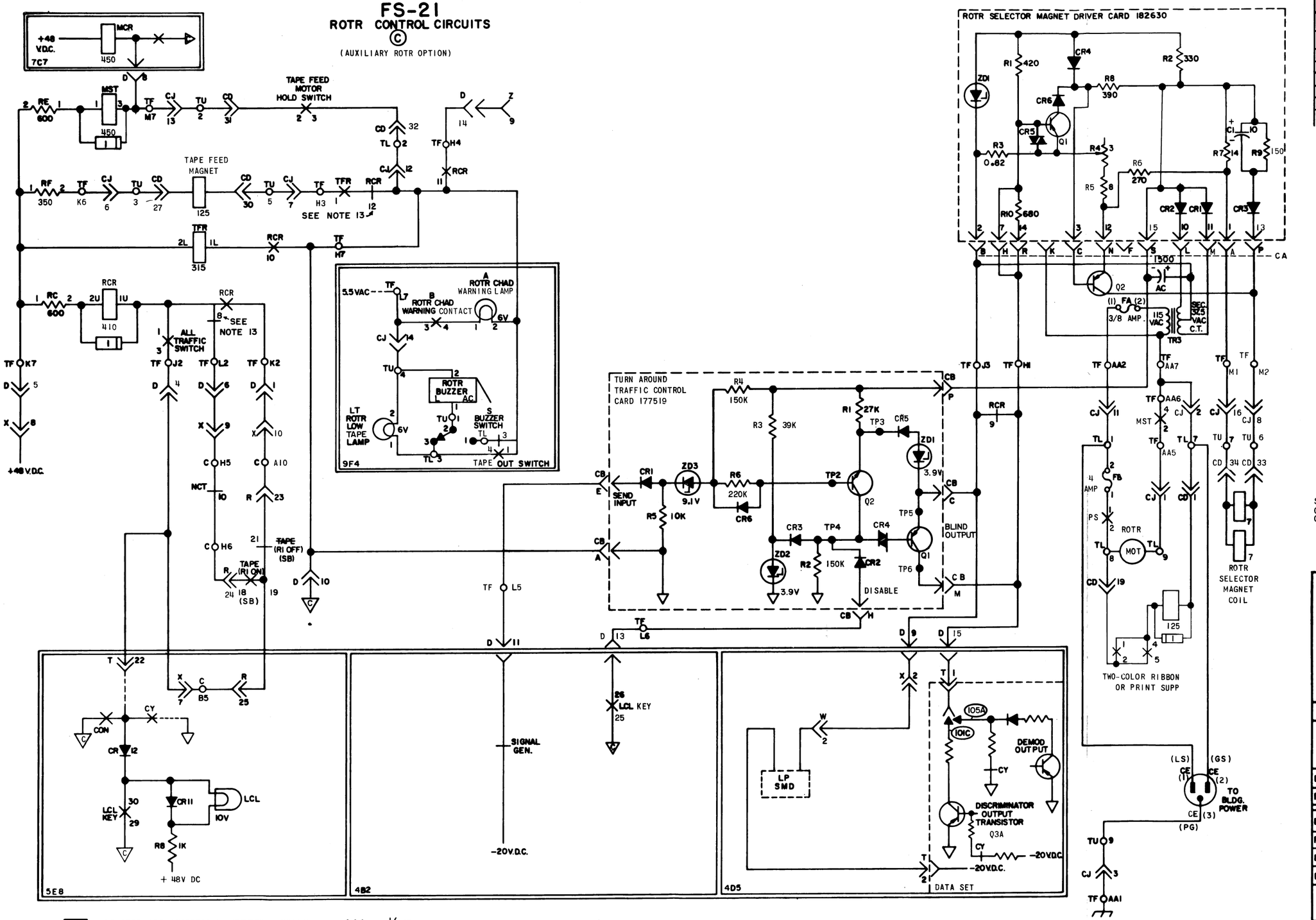
TELETYPE CORPORATION

8228 WD

SEE CONTROL SHEET 1 FOR NOTES

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

FS-21
ROTR CONTROL CIRCUITS
Ⓒ
(AUXILIARY ROTR OPTION)



DENOTES ARC SUPPRESSION NETWORK 153631 (470 Ω, .1 μF)

INDICATES COMMON RETURN TO THE POWER SUPPLY - NOT RELATED TO CHASSIS POTENTIAL.

8228 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R
2	11-15-68	96529

SHEET 10

DETACHED SCHEMATIC WIRING DIAGRAM FOR TELETYPEWRITER (KSR) VSL 345,346

APPROVALS

D AND R	E OF M

E-NUMBER	
PROD. NO.	8228WD
DATE	
P.D. FILE NO.	G-151A.219A
DRAWN	CHKD.
ENGD. R.H.L.	APPD. RRS

TELETYPE CORPORATION

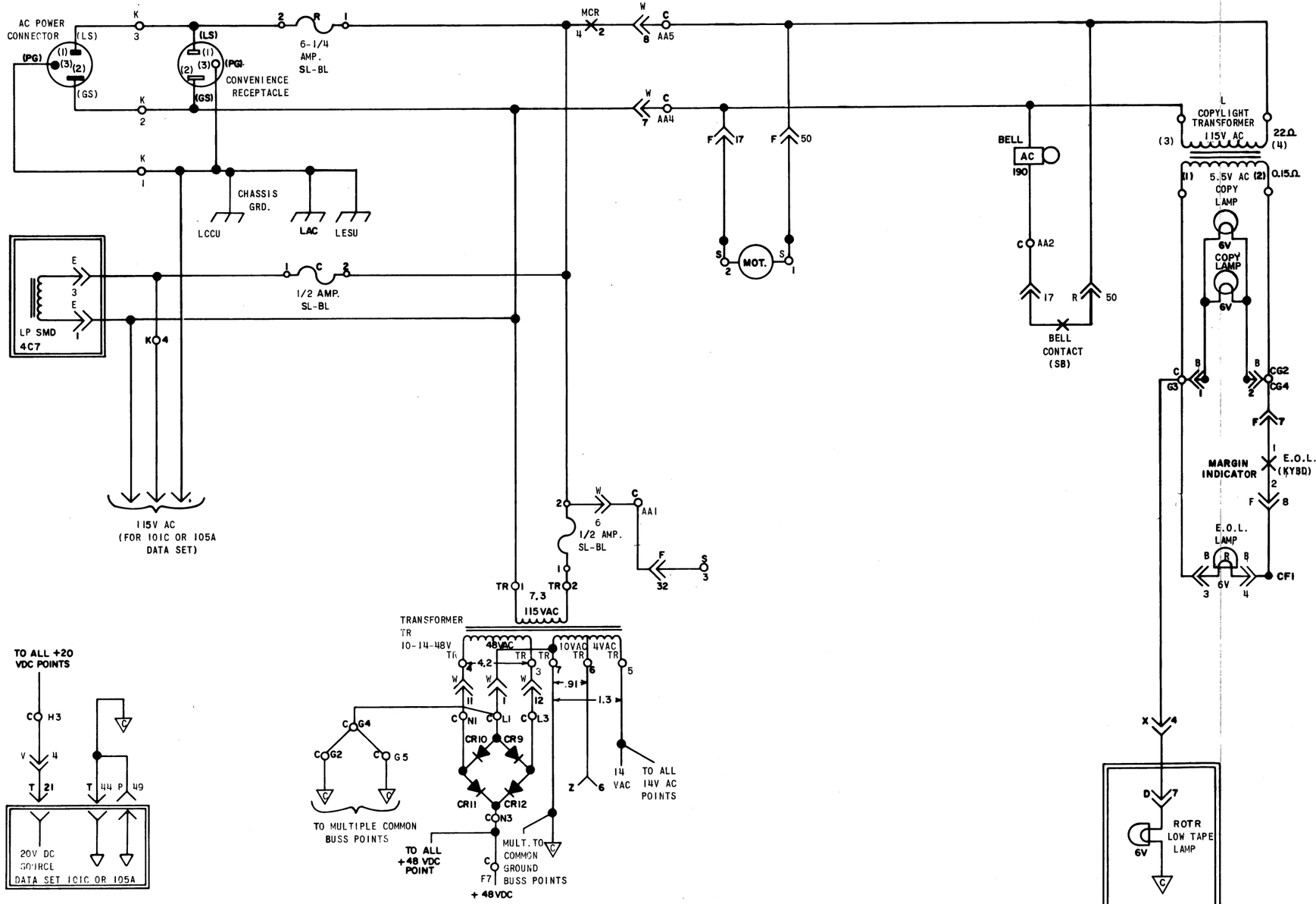
8228 WD

SEE CONTROL SHEET 1 FOR NOTES

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

FS-22
POWER AND CABINET CIRCUITS

8228 WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	12-20-66	18124-R



INDICATES COMMON RETURN TO THE POWER SUPPLY- NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 11

DETACHED SCHEMATIC
WIRING DIAGRAM
FOR
TELETYPEWRITER (KSR)
VSL345, 346

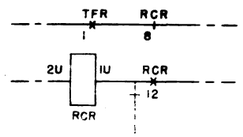
APPROVALS	
D AND R	E OF M
E-NUMBER	
PROD. NO. 8228WD	
DATE 10/14/66	
P.D. FILE NO. G-151A.219A	
DRAWN	CHKD.
ENGD. R.H.L.	APPD.

TELETYPE CORPORATION

8228 WD

ISSUE CONTROL RECORD

6040WD

NO.	NOTES
1.	FOR CROSS REFERENCE OF BELL AND TELETYPE CODES, SEE E.S.I. 4.002-35.
2.	ISSUE 1 OF THIS ISSUE CONTROL SHEET REPLACES ISSUE 23 OF 6040WD-A1.
3.	WIRING WAS CHANGED TO PROVIDE MAKE BEFORE BREAK TRANSFER CONTACT FOR ENERGIZING RCR RELAY. FORMER WIRING WAS AS FOLLOWS. 

SUPPORTING INFORMATION

CATEGORY		NO.
TECHNICAL MANUAL MODEL 35 KEYBOARD SEND-RECEIVE (KSR) AND RECEIVE-ONLY (RO) TELETYPEWRITER SETS		BULLETIN 2818
DATA SET	101C	BSP 591-013-100 BSP 591-013-200 BSP 591-013-300
	105A	BSP 591-018-100 BSP 591-018-200 BSP 591-018-300
DATA SYSTEMS ATTENDANT CIRCUIT		SD-30009-01
DATA STATION CIRCUIT	101C	SD-30007-01
	105A	SD-30008-01

RELATED ACTUAL WIRING DIAGRAMS AND DRAWINGS:	
ANSWER-BACK	4726WD
LP806 (FRICTION)	4786WD
LP805 (SPROCKET)	4787WD
LPR801 OR LPR804	4957WD
LP SMD	4970WD
LESU302	5823WD
LCCU301	5825WD
LP SMD WITH 193440 CARD	5826WD
LRB300	5846WD
LB800	5857WD
LESU306 WITH 193440 CARD	5864WD
LESU306 WITH 182630 CARD	7170WD
CIRCUIT CARD ASSEMBLY, SELECTOR MAGNET DRIVER	182630
CIRCUIT CARD ASSEMBLY, SELECTOR MAGNET DRIVER	193440

CONTENTS

	SHEET NO.
FS-1 TEST FS-2 CLEAR FS-3 ANSWER FS-4 ORIGINATE	B1
FS-5 SIGNAL GENERATOR AND SELECTOR MAGNET DRIVERS	B2
FS-6 ANSWER-BACK CONTROL	B3
FS-7 FORM-OUT MAGNET FS-8 PAPER-OUT DISCONNECT FS-9 EOT DISCONNECT	B4
FS-10 MOTOR CONTROL RELAY	B5
FS-11 OUT-OF-SERVICE INDICATOR FS-12 RINGER CIRCUIT AND OFF HOOK CIRCUIT	B6
FS-13 PAPER ALARMS	B7
FS-14 ROTR CONTROL	B8
FS-15	B9
APP. FIG. 1 (PART OF)	C1
APP. FIG. 1 (PART OF)	C2
APP. FIG. 2	C3
APP. FIG. 3	C4
APP. FIG. 4	C5
CIRCUIT NOTES 101-104	D1
SC-1 ANSWER-BACK AT ORIGINATING STATION SC-2 ANSWER-BACK AT ANSWERING STATION	E1
SC-3 HORIZONTAL OR VERTICAL TAB OR FORM FEED SC-4 FORM FEED ON DISCONNECT SC-5 MOTOR CONTROL	E2
SC-6 LOW PAPER ALARMS SC-7 ROTR CONTROL	E3
SC-8 RIBBON SHIFT (OR PRINT SUPPRESSION) MAGNET ON AUX. ROTR	E4

SHEET NO.	ISSUE 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
B1	X	X	X															
B2	X	X	X	X	X	X	X	X										
B3	X	X	X	X														
B4	X	X	X	X	X													
B5	X	X	X	X														
B6	X	X	X	X	X													
B7	X	X	X	X														
B8	X	X	X	X	X	X	X	X	X									
B9	X	X	X	X	X	X	X	X	X									
C1	X	X	X															
C2	X	X	X	X	X													
C3	X	X	X	X														
C4	X																	
C5	X																	
D1	X	X																
E1	X																	
E2	X																	
E3	X																	
E4	X																	

6

REVISIONS APPLYING TO THIS CONTROL RECORD

ISSUE	DATE	AUTH. NO.
1	4-12-66	90544
2	6-29-67	94201
3	5-8-68	95523-4
4	5-9-68	95838
5	6-10-68	95947
6	11-15-68	96529

ISSUE CONTROL SHEET 1 OF 1

DETACHED SCHEMATIC
WIRING DIAGRAM
FOR
35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

WD NUMBER	6040WD
DRAWN	CHKD.
ENGD. G.E.W	APPD.

TELETYPE CORPORATION

6040WD

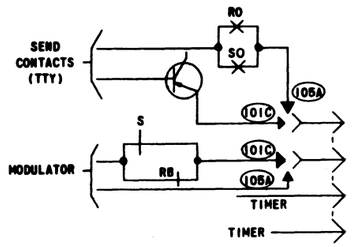
TC 482 8-68 SEE R&D ROUTINE 5 FOR USE OF THIS FORM

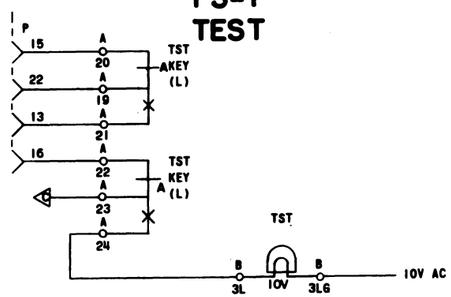
INDICATES COMMON RETURN TO THE POWER SUPPLY - NOT RELATED TO CHASSIS POTENTIAL.

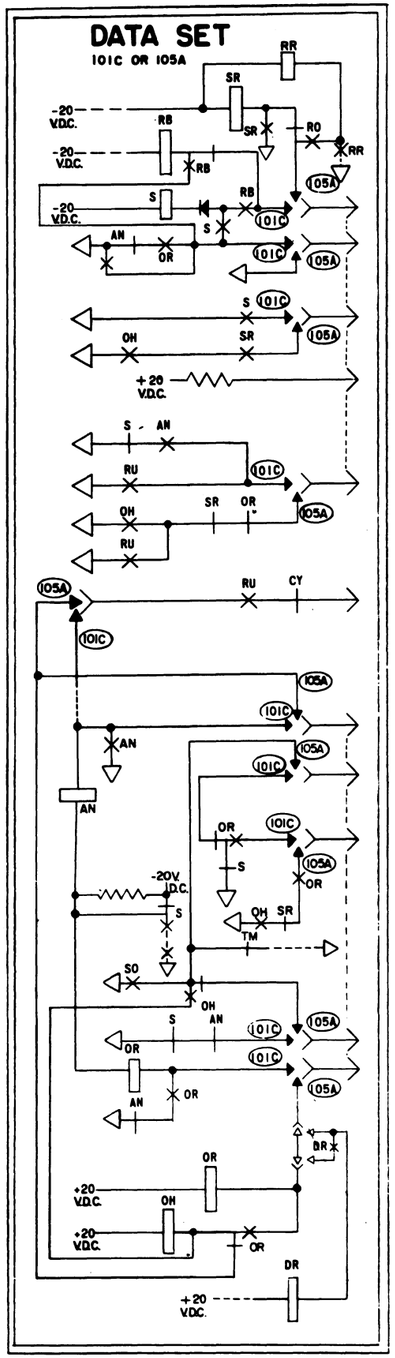
NOTE:
REVISION INFORMATION MUST ALSO BE REPLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

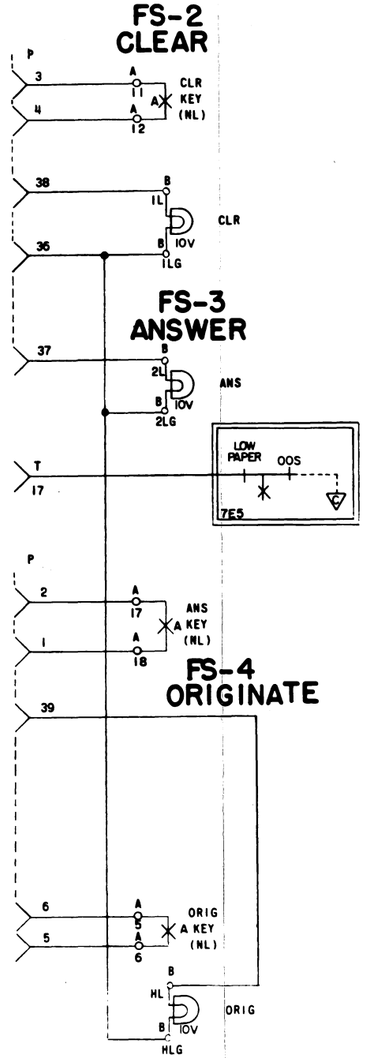
6040WD-BI		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	3-19-65	86306
4	8-4-65	87593

DATA SET
101C OR 105A









SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35E, 35F, 35G, 35H

TELETYPEWRITER SETS
(RO)

SHEET B1

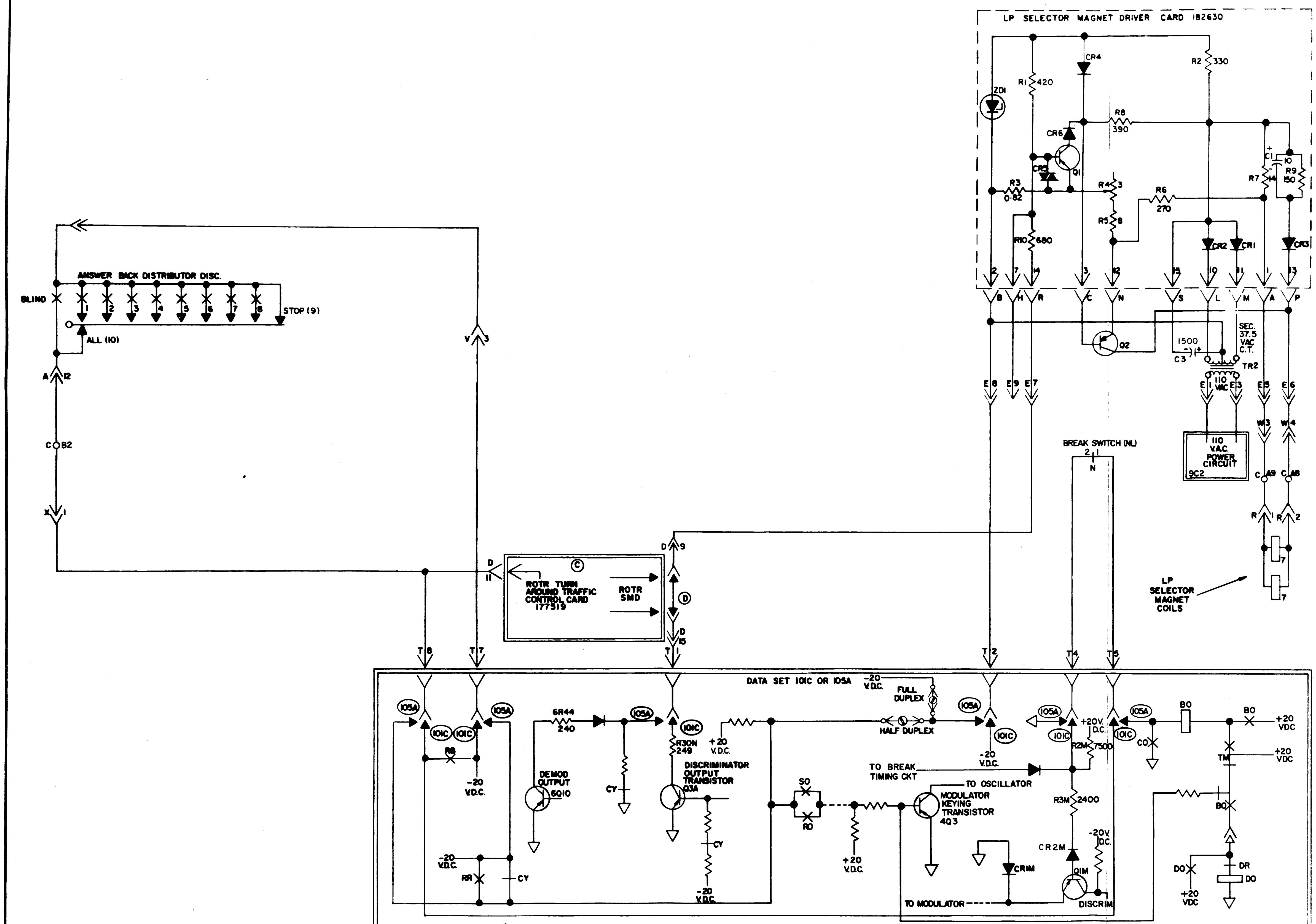
APPROVALS	
D AND R	E OF M
O.K.	

E-NUMBER	
PROD. NO.	6040WD-BI
DATE	8-20-62
P.D. FILE NO.	G-A151AA
DRAWN JAP	CHKD.
ENGD. RDS	APPD.

TELETYPE CORPORATION

6040WD-BI

FS-5
SIGNAL GENERATOR AND SELECTOR MAGNET DRIVER



6040WD-B2		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	11-27-64	84307
5	3-19-65	86306
6	5-10-65	86507-1
7	8-4-65	87593
8	4-12-66	90544
9	5-7-68	95523-4

NOTE
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

SHEET B2

APPROVALS	
D AND R	E OF M

E-NUMBER

PROD. NO. 6040WD-B2

DATE 8-20-62

P.D. FILE NO. G-A151AA

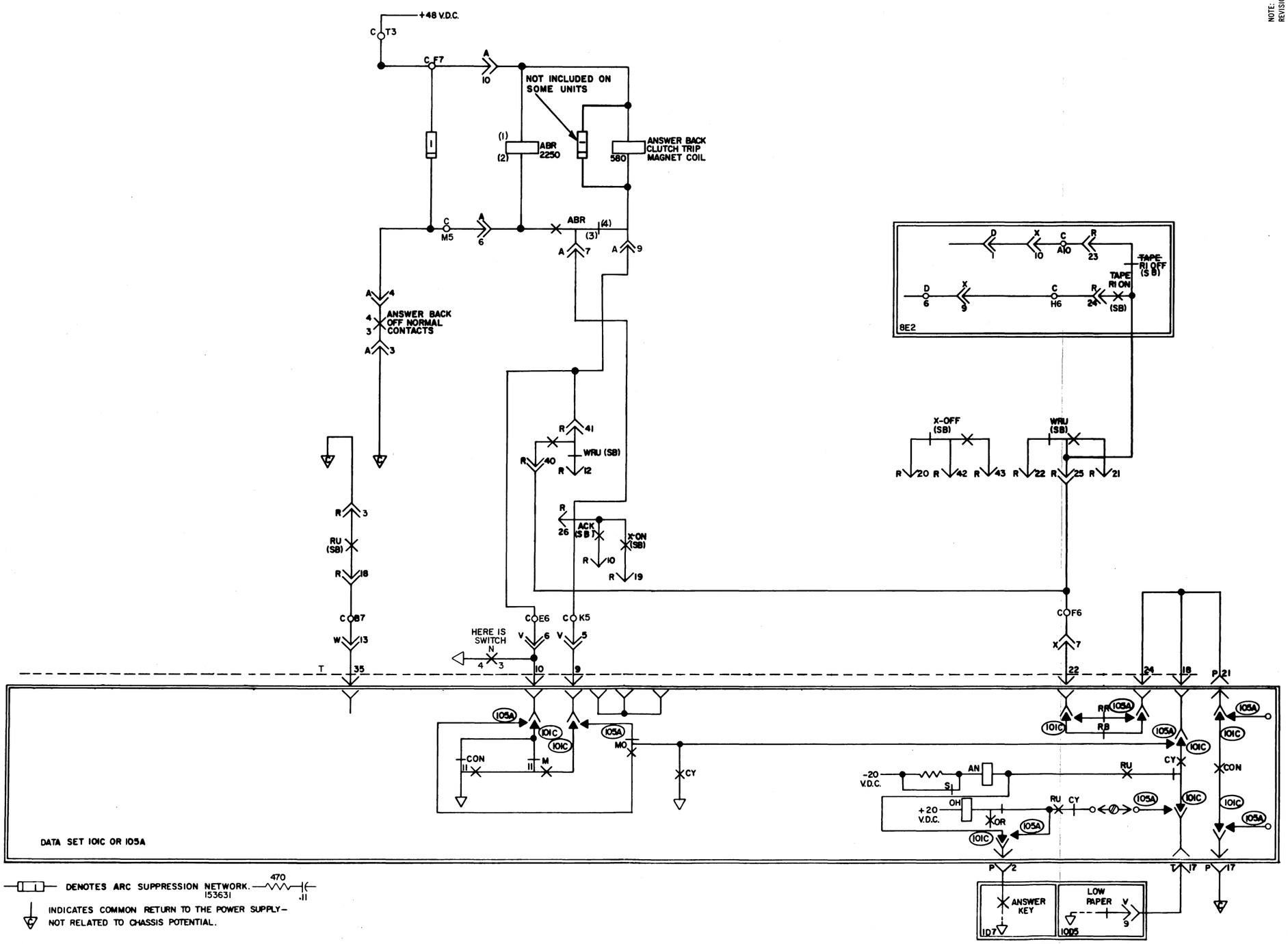
DRAWN J.A.P.	CHKD.
ENGD. A.B. R.D.S.	APPD.

TELETYPE CORPORATION

9

6040WD-B2

FS-6
ANSWER BACK CONTROL CIRCUITS



NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

6040WD-B3

REVISIONS

ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	3-19-65	86306
4	8-4-65	87593
5	6-29-67	94201

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

SHEET B3

APPROVALS

D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6040WD-B3

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P.	CHKD. R.D.S.
ENGD. A.B. R.D.S.	APPD. C.H.L.

TELETYPE CORPORATION

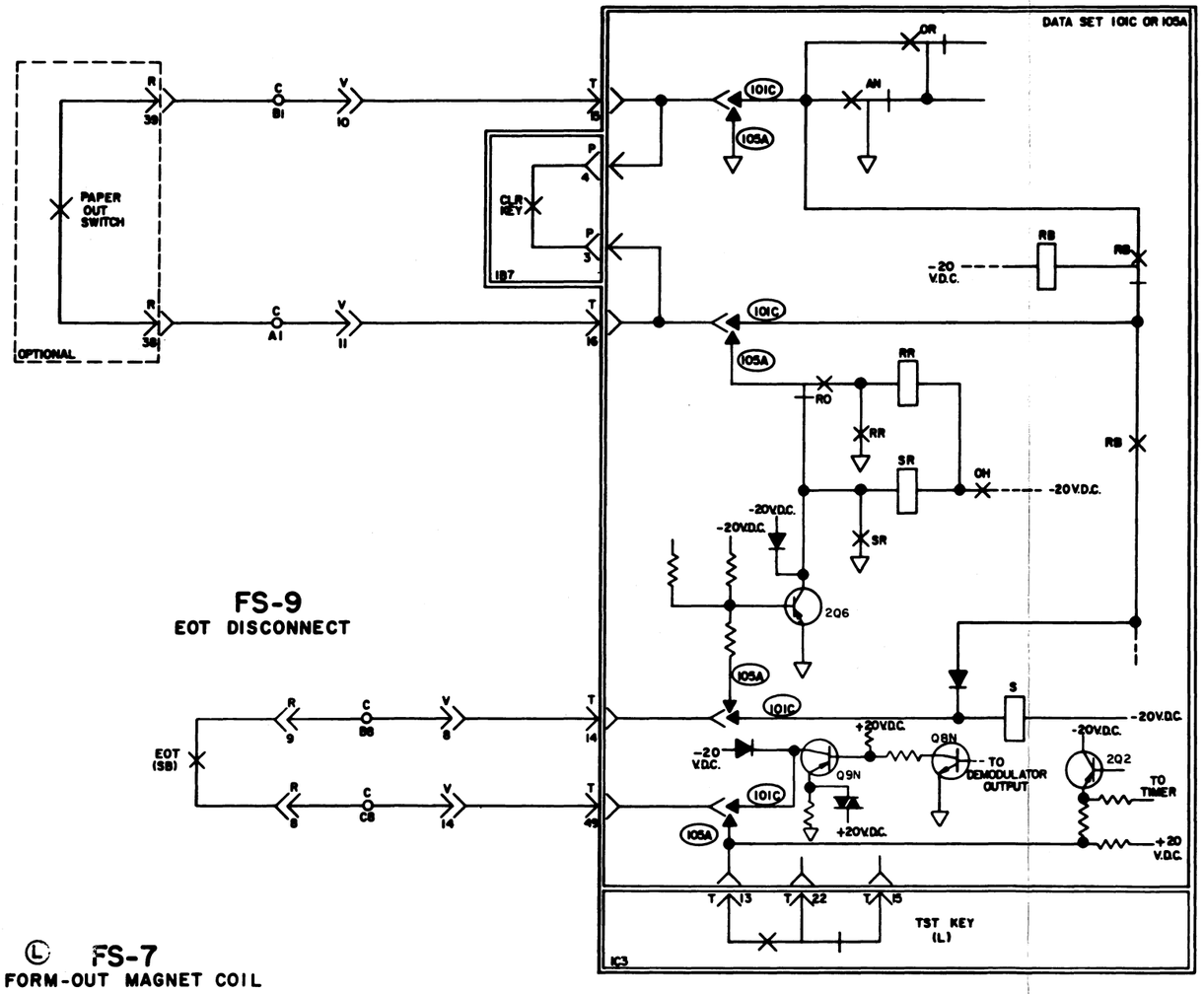
6040WD-B3

5

6040WD-B4		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	12-13-62	75364
3	8-10-64	81109-1
4	8-4-65	87593
5	4-12-66	90544
6	6-10-68	95947

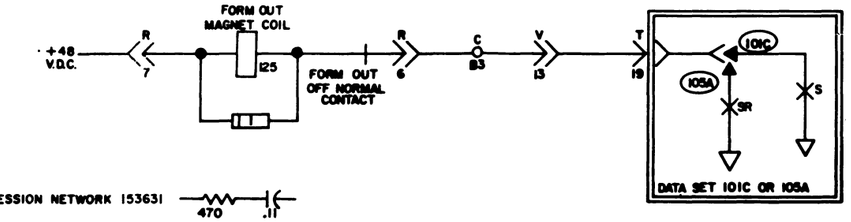
NOTE. REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL REC. ORD. WHICH IS A PART OF THIS DRAWING.

FS-8
PAPER OUT DISCONNECT



FS-9
EOT DISCONNECT

Ⓛ FS-7
FORM-OUT MAGNET COIL



DENOTES ARC SUPPRESSION NETWORK 153631 — 470 .1Ω

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

SHEET B4

APPROVALS	
D AND R	E OF M
OK	

E-NUMBER

PROD. NO. 6040WD-B4

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P.	CHKD.
ENGD. A.B.	APPD.

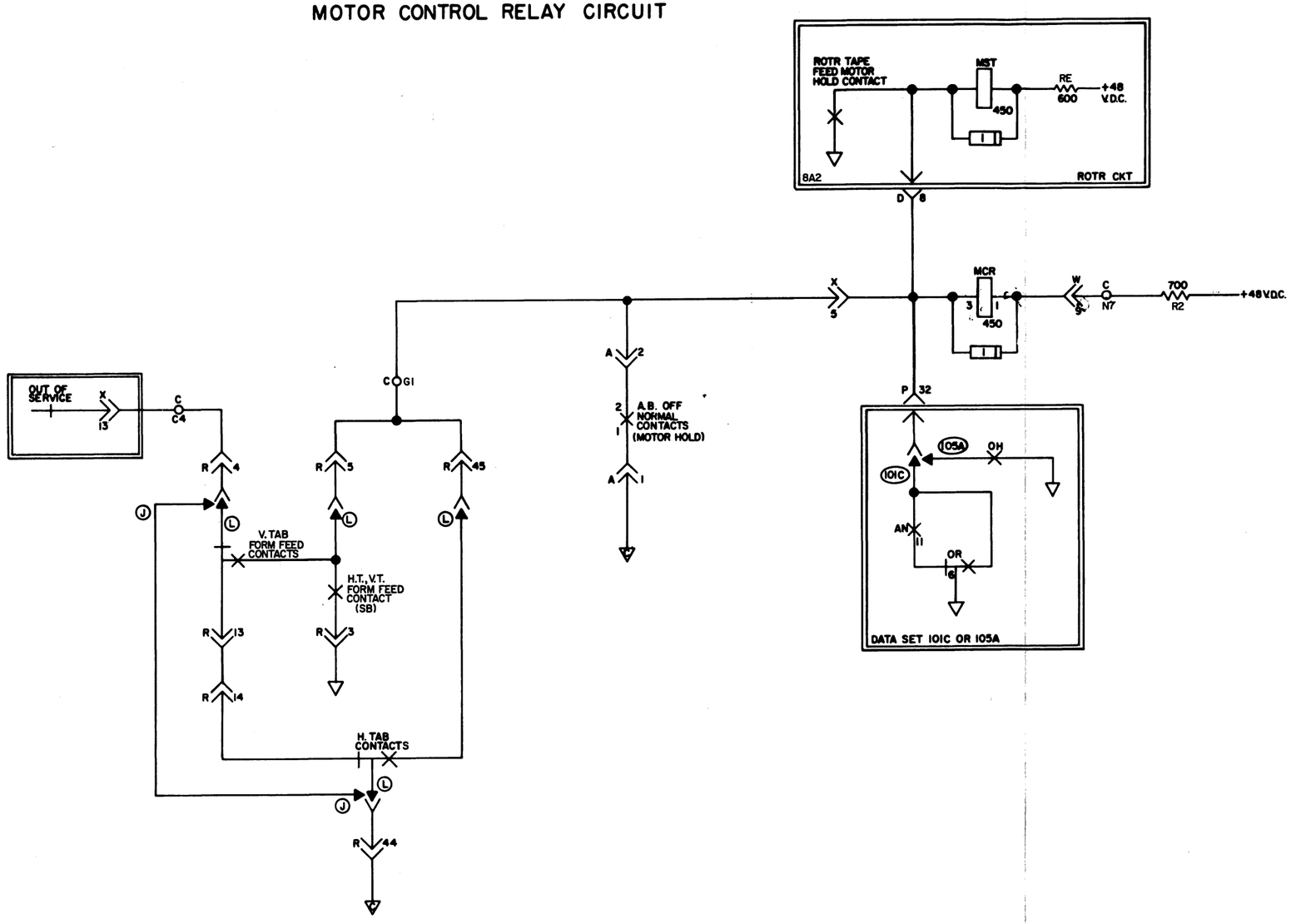
TELETYPE CORPORATION

6040WD-B4

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6040WD-B5		
REVISIONS		
ISSUE	**DATE**	**AUTH. NO.**
2	11-12-62	75072
3	12-13-62	75364
4	3-19-65	86306
5	8-4-65	87593

FS-10
MOTOR CONTROL RELAY CIRCUIT



DENOTES ARC SUPPRESSION NETWORK. 153631 — .11 — 470

INDICATES COMMON RETURN TO THE POWER SUPPLY— NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

SHEET B5

APPROVALS	
D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6040WD-B5

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P.	CHKD. R.D.S.
ENGD. A.B. R.D.S.	APPD. O.A.L.

TELETYPE CORPORATION

6040WD-B5

TC 484 (5-65)

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD WHICH IS A PART OF THIS DRAWING.

6040WD-B6

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	8-4-65	87593
5	4-12-66	90544
6	5-8-68	95838

FS-11
OUT OF SERVICE

OUT OF SERVICE LAMP
OUT OF SERVICE SWITCH (L)
10V
14 VAC
OUT OF SERVICE SWITCH (NL)
OUT OF SERVICE SWITCH (L)
7C8
7D7

FS-12
RINGER CIRCUIT
& OFF HOOK CIRCUIT

STRAP ADDED BY CUSTOMER
F1
.5
C2
3650
1000
F2
F3
OUT OF SERVICE SWITCH (NL)
OUT OF SERVICE SWITCH (L)
STATION LINE DROP
RING
TIP
F5
F4
LOW PAPER SWITCH (OPTIONAL)
HAND HELD RECEIVER
WITHOUT HAND HELD REC.
WITHOUT HAND HELD REC.
105A
101C
AN
AU
OR
RU
CON
SPARE
+20VDC
INCOMING AMPLIFIER
601(105A) Q1D(101C)
DATA SET 101C OR 105A

OUT OF SERVICE IS A THREE POSITION TWIST UNIT.
NORMAL - AS SHOWN
LOCKING - CCW TWIST FROM NORMAL
NON-LOCKING - CW TWIST FROM NORMAL.

INDICATES COMMON RETURN TO THE POWER SUPPLY - NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR
35E, 35F, 35G, 35H

TELETYPEWRITER SETS
(RO)

SHEET B6

APPROVALS	
D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6040WD-B6

DATE 8-20-62

P.D. FILE NO. 6-A151AA

DRAWN J.A.P.	CHKD. R.M.
ENGD. A.B. R.D.S.	APPD. O.A.L.

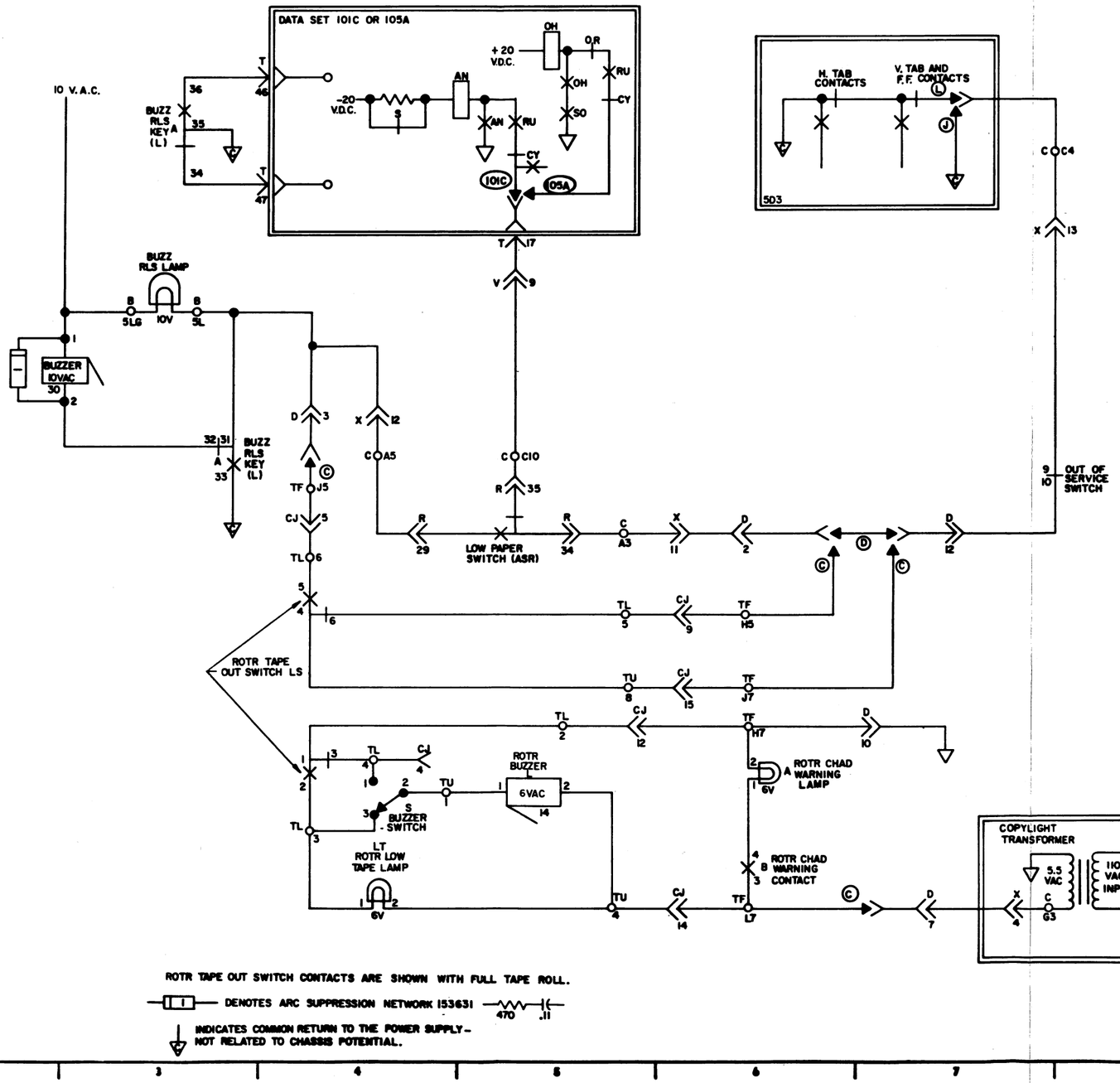
TELETYPE CORPORATION

6040WD-B6

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6040WD-B7		
REVISIONS		
ISSUE	**DATE**	**AUTH. NO.**
2	11-12-62	75072
3	12-13-62	75364
4	3-19-65	86306
5	8-4-65	87593

FS-13
PAPER ALARMS



ROTR TAPE OUT SWITCH CONTACTS ARE SHOWN WITH FULL TAPE ROLL.

DENOTES ARC SUPPRESSION NETWORK 153631 (470, .11)

INDICATES COMMON RETURN TO THE POWER SUPPLY - NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

SHEET B7

APPROVALS	
D AND R	E OF M

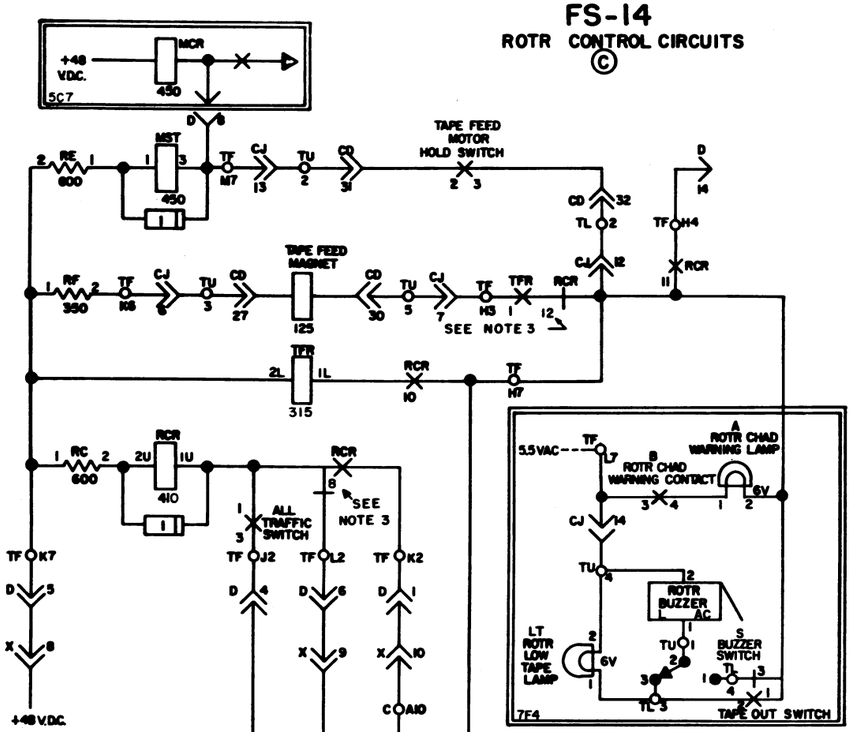
E-NUMBER	
PROD. NO.	6040WD-B7
DATE	8-20-62
P.D. FILE NO.	G-A151AA
DRAWN J.A.P.	CHKD.
ENGR. A.B. R.D.S.	APPD.

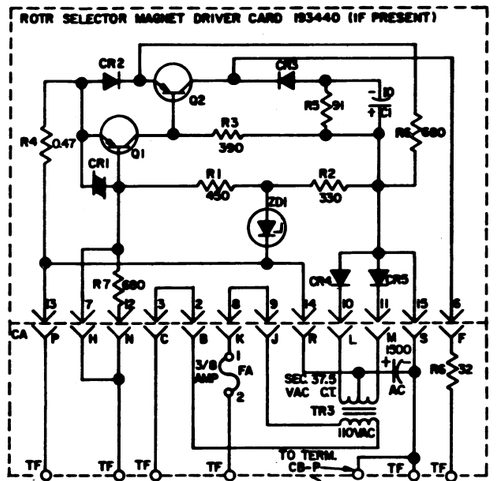
TELETYPE CORPORATION

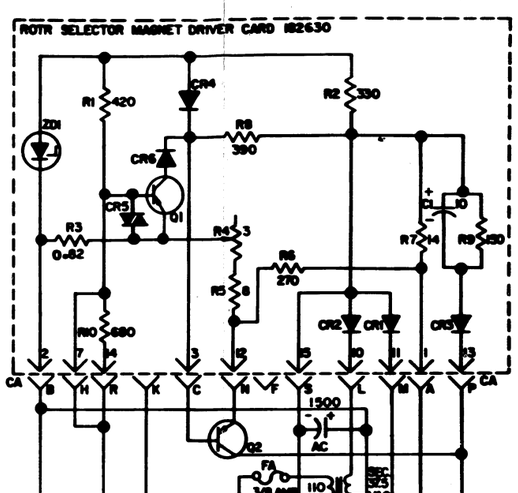
6040WD-B7

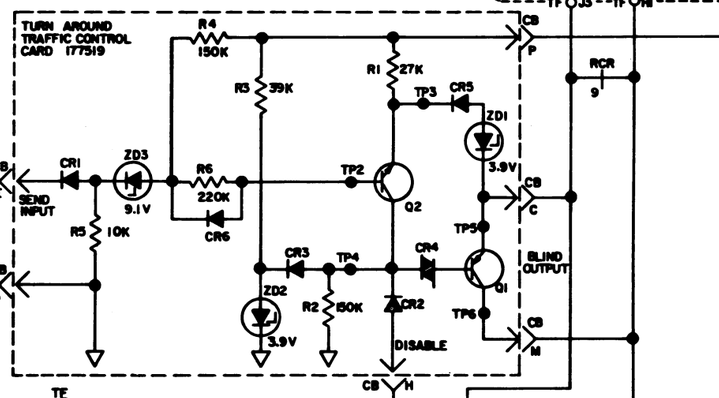
FS-14
ROTR CONTROL CIRCUITS
©

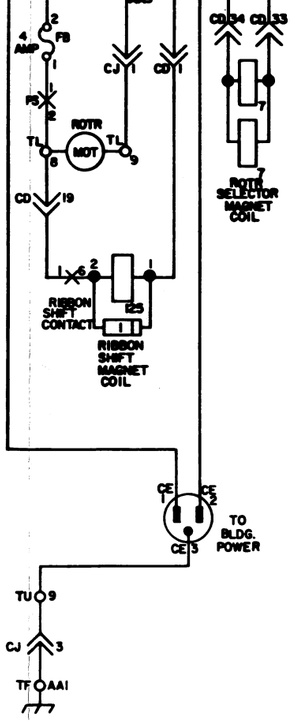
6040WD-B8		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	4-24-64	79414-1
5	3-19-65	86306
6	5-10-65	86507-1
7	8-4-65	87593
8	1-4-66	89490
9	5-7-68	95523-4
10	11-15-68	96529











NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

SHEET B8

APPROVALS	
D AND R	E OF M
O.A.L.	

E-NUMBER

PROD. NO. 6040WD-B8

DATE 8-20-62

P.D. FILE NO. 6-A75/AA

DRAWN J.A.P.	CHKD. R.M.
ENGD. A.B. R.D.S.	APPD. O.A.L.

TELETYPE CORPORATION

6040WD-B8

10

▭ DENOTES ARC SUPPRESSION NETWORK 153631 (470 Ω, .1 μF)

INDICATES COMMON RETURN TO THE POWER SUPPLY – NOT RELATED TO CHASSIS POTENTIAL.

FS-15
POWER AND CABINET CIRCUITS

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6040WD-B9

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-12-62	75072
3	12-13-62	75364
4	3-10-64	81103
5	6-18-64	82025
6	1-5-65	85704
7	3-15-65	84599-1
8	8-4-65	87593
9	8-6-65	88293
10	9-24-65	88320

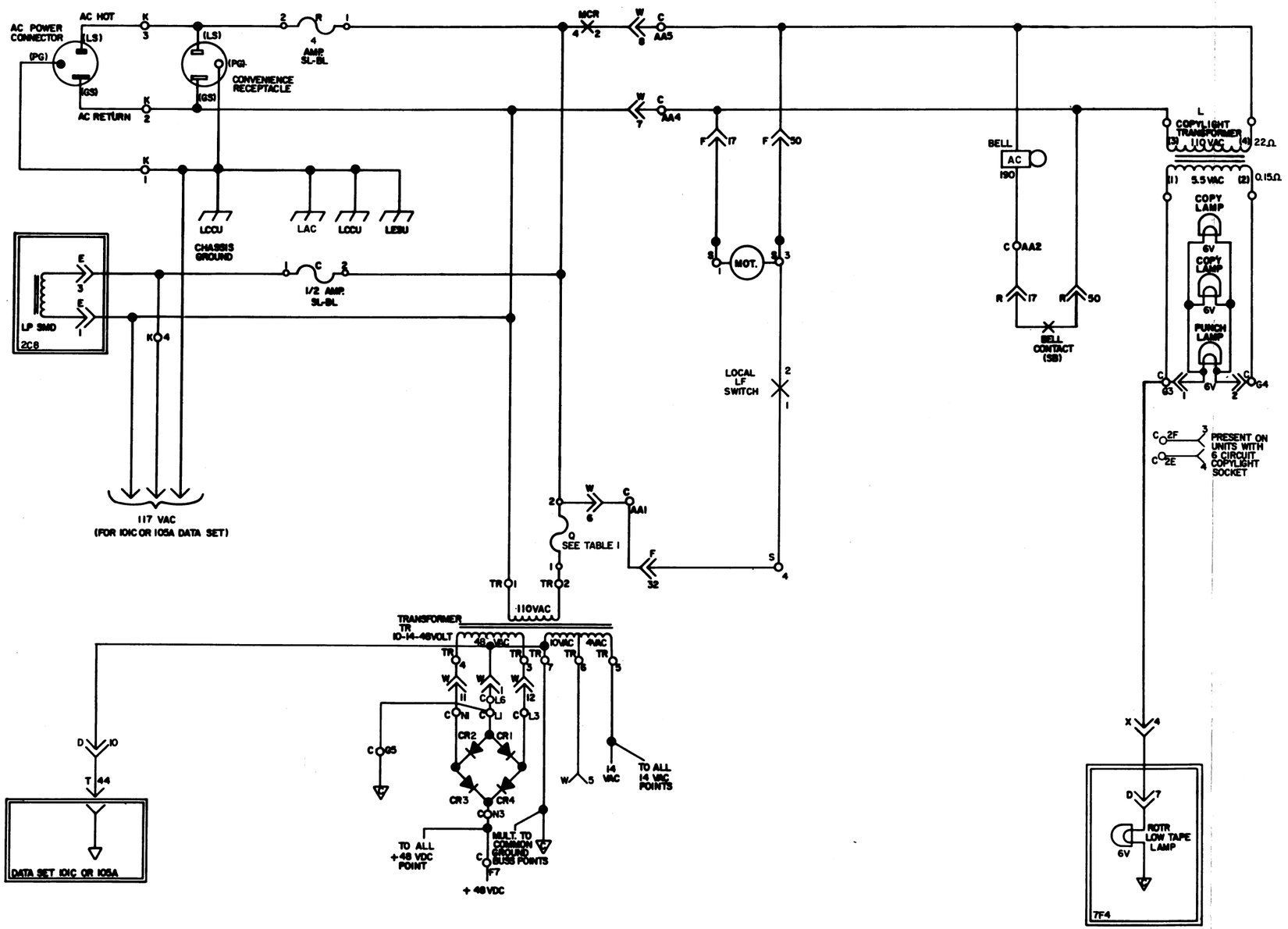


TABLE I

TRANSFORMER	FUSE Q	PART NO.
181879	1/2 AMP. SL-BL	117176
182657	8/10 AMP. SL-BL	162360

INDICATES COMMON RETURN TO THE POWER SUPPLY- NOT RELATED TO CHASSIS POTENTIAL.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

DETACHED SCHEMATIC WIRING DIAGRAM FOR 35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

SHEET B9

APPROVALS	
D AND R	E OF M

E-NUMBER

PROD. NO. 6040WD-B9

DATE 8-20-62

P.D. FILE NO. G-A151AA

DRAWN J.A.P. CHKD.

ENGD. A.B. R.D.S. APPD.

TELETYPE CORPORATION

6040WD-B9

PART OF APPARATUS FIGURE 1

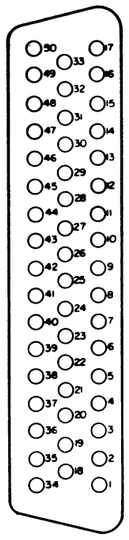
PINS FOR 192014		
PART NO.		WIRE GAGE
CRIMP	SOLDER	
193716	193941	24
192177	—	18

TERMINAL BOARD

DESIG.	C
PART NO.	193422
TERM.	LOC.
AA1	9B5
AA2	9B6
AA3	
AA4	9A6
AA5	9A6
A1	4D4
A2	6F5
A3	7D4
A4	7C3
A5	7D3
A6	
A7	
A8	2D7
A9	2D7
A10	8D3
B1	4C4
B2	2C1
B3	4A5
B4	
B5	
B6	
B7	
B8	4F4
B9	
B10	
C1	
C2	
C3	
C4	7E3
C5	
C6	
C7	
C8	4F3
C9	
C10	
D1	
D2	
D3	
D4	
D5	
D6	
D7	
D8	
D9	
D10	
E1	2C2
E2	
E3	
E4	
E5	
E6	3C5
E7	
F1	
F2	
F3	
F4	6E4
F5	6E4
F6	3C3
F7	9D2
G1	5C4
G2	
G3	9C7
G4	
G5	9C3

TERM.	LOC.
H1	
H2	
H3	
H4	
H5	
H6	8D2
H7	
J3	
J4	
J5	
J6	
J7	
K1	
K2	
K3	
K4	
K5	3B5
K6	
K7	
L1	9D3
L2	
L3	9D2
L4	
L5	
L6	9D3
L7	
M1	
M2	
M3	
M4	
M5	3A6
M6	
M7	
N1	9D4
N2	
N3	9E2
N4	
N5	9E2
N6	
N7	5C8

CONNECTOR 50 PIN



PART NO. 192014

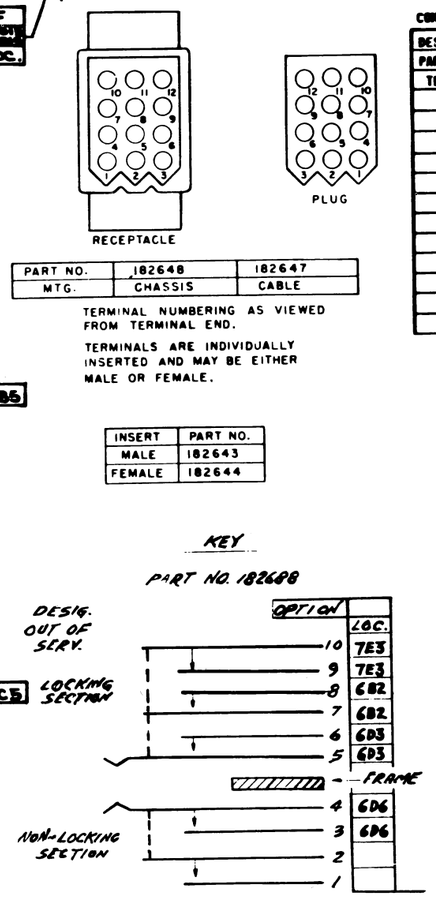
192013
192014

DESIG.	A	F
PART NO.	192013	
TERM.	LOC.	LOC.
1	2E7	
2	2E7	
3	5D4	
4	7E3	
5	5D4	
6	4A4	
7	4A2	
8	4F3	
9	4F4	
10		
11		
12		
13	5D3	
14	5D3	
15		
16		
17	9C6	9B5
18		
19		
20		
21		
22		
23	8E3	
24	8E3	
25	3D4	
26		
27		
28		
29	7D3	
30		
31		
32		9C5
33		
34	7D4	
35	7C3	
36	6E3	
37	6F3	
38	4D3	
39	4C3	
40	3C4	
41	3C5	
42		
43		
44	5E3	
45	5E4	
46		
47		
48		
49		
50	9C6	9B5

DESIG. OUT OF SERV.

LOCKING SECTION

NON-LOCKING SECTION



RECEPTACLE

PLUG

PART NO.	182648	182647
MTG.	CHASSIS	CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END.

TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE.

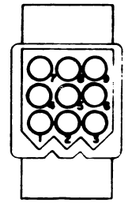
INSERT	PART NO.
MALE	182643
FEMALE	182644

KEY

PART NO. 182688

CONNECTOR

DESIG.	A
PART NO.	182647 182648
TERM.	LOC.
1	5D5
2	5C5
3	3A5
4	3A5
5	
6	3B6
7	3B6
8	
9	3B6
10	3B7
11	2C2
12	2C1



PART NO.	182716	182645
MTG.	CHASSIS	CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END

TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE

INSERT	PART NO.
MALE	182643
FEMALE	182644

CONNECTOR

DESIG.	E
PART NO.	182716 182645
TERM.	LOC.
1	2D6
2	
3	2D6
4	
5	2D7
6	2D7
7	2D4
8	2D6
9	

182645
182716

CONNECTOR

DESIG.	P	T
PART NO.	182733	182732
TERM.	LOC.	LOC.
1	1D7	2E4
2	1D7	2E6
3	1B7	
4	1B7	2E2
5	1F7	2E2
6	1F7	
7		2E2
8		2E1
9		3B2
10		
11		
12		
13	1B2	
14		4F5
15	1C2	4C5
16	1B2	4D5
17		7C3
18		3E2
19		
20		
21	3F2	
22	1C2	3C2
23		
24		3E2
25		
26	6C6	
27	6C7	
28		
29		
30		
31	6E6	
32	5C7	
33	6D6	
34	6E6	
35	6E6	
36	1C7	
37	1C7	
38	1C7	
39	1E7	
40		
41		
42		
43		
44	6E6	9F4
45		6F6
46		
47		
48		
49		4E5
50		

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

ISSUE	DATE	AUTH NO
2	12-13-62	78364
3	5-8-68	95523-4
4	5-9-68	95838

6040WD-C1

100657
100658
2 CIRCUIT

6 CIRCUIT
199322
CHASSIS

CONNECTOR

DESIG.	COPYLIGHT	COPYLIGHT
PART NO.	100657 100658	199322
OPTION		
TERM.	LOC.	LOC.
1	9B7	9B8
2	9B6	9B8
3		9B8
4		9B8

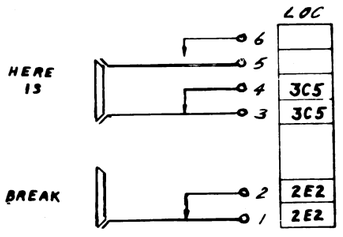
182650
CABLE

PRINTED CIRCUIT CARDS

DESIG.	PART NO.	LOC.
LP SELECTOR MAGNET DRIVER	182630	2B6

PINS FOR 192013		
PART NO.		WIRE GAGE
CRIMP	SOLDER	
193715	193940	24
192176	—	18

"S" KEYSET



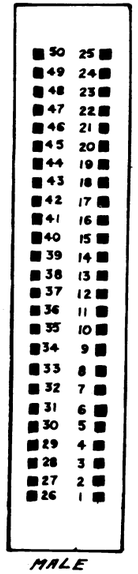
15 PIN RECEPTACLE

CONNECTOR

DESIG.	SMD
PART NO.	181819
TERM.	LOC.
A	2C7
B	2C5
C	2C6
D	
E	
F	2C7
H	
J	
K	
L	2C7
M	2C7
N	2C6
P	2C7
R	2C6
S	2C5

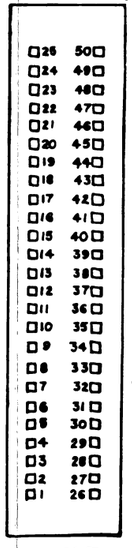
PART NO. 181819
SOME UNITS CONTAIN 182536 CONNECTOR

182732 CONNECTOR



MALE

182733 CONNECTOR



FEMALE

APPARATUS FIGURE FOR 35E, 35F, 35Q, 35H TELETYPEWRITER SET (RO)

APPROVALS	
D AND R	E OF M
E-NUMBER	
PROD NO 6040-C1	
DATE: 10-5-62	
P.D. FILE NO. G-A1S1AA	
DRAWN GCK	CHKD.
ENGD. WEC	APPD.

TELETYPE CORPORATION

6040WD-C1

4

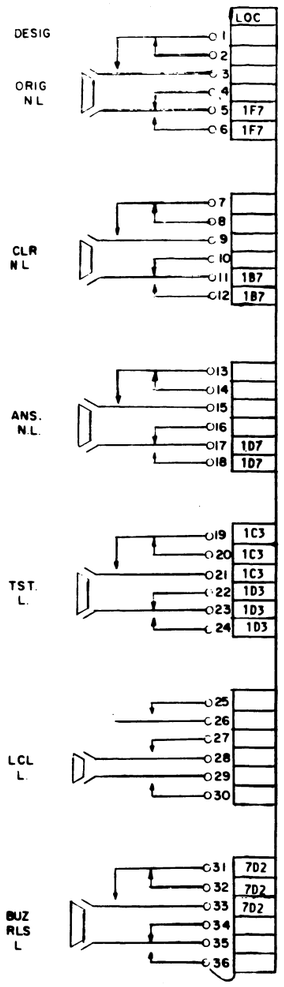
PART OF
APPARATUS FIGURE 1

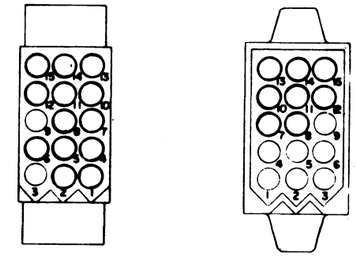
6040WD-C2

ISSUE	DATE	AUTH. NO.
1/2	3-10-64	81103
3	2-15-65	84597-1
4	8-6-65	88293
5	9-2-65	88068
6	5-8-68	95523-4

SWITCH ASSEMBLY

PART NO. 182582





PART NO.	182539	182540
MTG.	CHASSIS	CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END

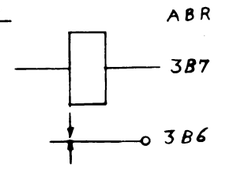
TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE

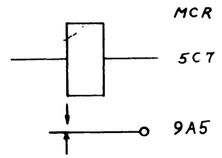
INSERT	PART NO.
MALE	182643
FEMALE	182644

CONNECTOR

DESIG.	V	W	X	D	D
PART NO.	182539 182540	182539 182540	182539 182540	182539	182539 182540
OPTION				C	D
TERM.	LOC.	LOC.	LOC.	LOC.	LOC.
1		9D4	2D1	8D3	
2				7D4	7D4
3	2D2	2D7	6F5	7D3	
4		2D7	9D7	8E2	
5	3B2		5C6	8C1	
6	3C5	9C5		8D2	
7		9A5	3C2	7E7	
8	4F5	9A5	8D1	8A2	
9	7C3	5C8	8D2	2D4	2D4
10	4C4		8D3	8E3	
11	4D4	9D4	7D4	2D2	
12	6E4	9D2	7D3	7E3	7E3
13	4A5		7E3		
14	4E5				
15				2E4	2E4

RELAY





LAMPS

DESIG.	PART NO.	LOC.
(2) COPY	151982	9C8
TST	182529	1D3
CLR	182529	1C7
ANS	182529	1C7
ORIG	182529	1F7
OUT OF SERVICE	182659	6B3
BUZZ RLS	182529	7C2

CAPACITORS

DESIG.	LOC.	PART NO.	VALUE
C1	2C7	182501	1500MFD
C2	6D6	182761	.5MFD

FUSES

DESIG.	LOC	PART NO.	VALUE
C	9B4	117178	1½ AMP SLO-BLO
R	9A6	129919	10 AMP SLO-BLO
Q	9C5	117178	1½ AMP SLO-BLO

NOTE: Q FUSE NOT INCLUDED ON SOME SETS.

RESISTORS

DESIG.	LOC.	PART NO.	VALUE
R1	2C7	182517	35Ω
R2	5C8	171524	700Ω

BELL

DESIG.	LOC.	PART NO.
BELL	9B6	103451

DIODES

DESIG.	LOC.	PART NO.
CR1	9D2	171541 OR 182520
CR2	9D2	171541 OR 182520
CR3	9D2	171541 OR 182520
CR4	9D2	171541 OR 182520

NETWORKS

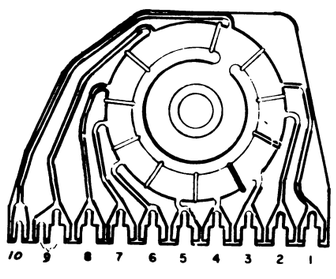
DESIG.	LOC.	PART NO.
ABR	3A7	153631
MCR	5C7	153631
BUZZ	7C1	153631

TRANSFORMERS

DESIG.	LOC.	PART NO.
TR2	2C7	330793
TR	9B3	182687
COPY LIGHT	9C8	103412

SOME UNITS CONTAIN 182722 TRANSFORMER

DISTRIBUTOR DISC



DESIG.	
PART NO.	180987
TERM.	LOC.
1	2C2
2	2C2
3	2C2
4	2C2
5	2B2
6	2B2
7	2B2
8	2B2
9	2B2
10	2C2

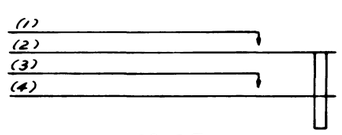
TERMINAL BOARD

DESIG.	S	F
PART NO.	151415	151415
TERM.	LOC.	LOC.
1	9B5	6D6
2	9B5	6D5
3	9B5	6D5
4	9B5	6D5

MOTOR

DESIG.	LOC.	PART NO.
LMU3	9B5	151795

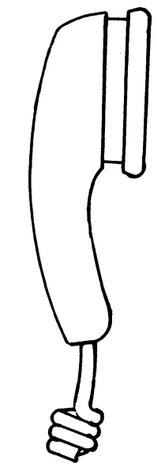
SWITCH



192225

DESIG.	A.S. OFF NORMAL
PART NO.	192225
TERM	LOC.
1	5D5
2	5D5
3	3A5
4	3A5

RECEIVER



DESIG.- REC
LOC. — 6E5
OPTION
PART NO. 182662
WECO CODE
731A61

BUZZER

DESIG.	LOC.	PART NO.
BUZZER	7D1	182718

CORD

DESIG.	LOC.	PART NO.
U	9A1	182510

CONVENIENCE RECEPTACLE

DESIG.	LOC.	PART NO.
M	9A2	178851

RINGER

DESIG.	LOC.	PART NO.
RINGER	6D5	182503

MAGNET COIL

DESIG.	PART NO.	LOC.
AB CLUTCH TRIP	274M	3C7

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURE FOR 35E, 35F, 35G, 35H TELETYPEWRITER SET (RO)

APPROVALS

D AND P	E OF M

E-NUMBER

PROD NO 6040WD-C2

DATE: 10-5-62

P.D FILE NO. G-A151AA

DRAWN GCK | CHKD.

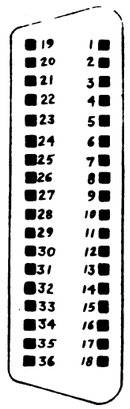
ENGD WEC | APPD.

TELETYPE CORPORATION

6

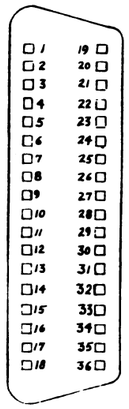
6040WD-C2

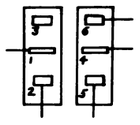
APPARATUS FIGURE 2



CONNECTOR

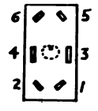
DESIG.	CD
PART NO.	182838 182839
TERM.	LOC.
1	8E7
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	8E7
20	
21	
22	
23	
24	
25	
26	
27	8B2
28	
29	
30	8B2
31	8A2
32	8A4
33	8D8
34	8D8
35	
36	





SWITCH

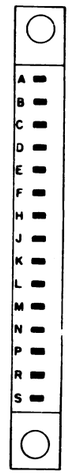
DESIG.	TAPE OUT
PART NO.	194220
TERM.	LOC.
1	7E5
2	7E5
3	
4	7D3
5	7D3
6	7D3



SWITCH

DESIG.	ALL TRAFFIC
PART NO.	139778
TERM.	LOC.
1	8D2
2	
3	8D2
4	
5	
6	

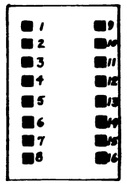
15 PIN RECEPTACLE



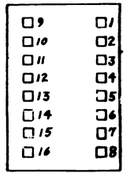
PART NO. 193040
TERMINALS ON BOTTOM OF RECEPTACLE ARE WIRE WRAP.

CONNECTOR

DESIG.	CA	CB
PART NO.	193040	193040
TERM.	LOC.	LOC.
A		8D3
B	8C7	
C	8C7	8D5
D		
E		8E3
F	8C8	
H	8C6	8E5
J	8C7	
K	8C7	
L	8C7	
M	8C8	8D5
N	8C6	
P	8C6	8D5
R	8C7	
S	8C8	



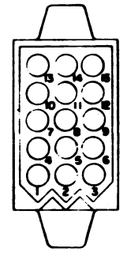
159541



159542

CONNECTOR

DESIG.	CJ
PART NO.	182641 182642
TERM.	LOC.
1	8D7
2	8C8
3	8F7
4	
5	
6	8B2
7	8B3
8	8C8
9	
10	
11	8D7
12	8B4
13	8A2
14	7D6
15	
16	8C8



182540
CABLE

TERMINAL NUMBERING AS VIEWED FROM TERMINAL END

TERMINALS ARE INDIVIDUALLY INSERTED AND MAY BE EITHER MALE OR FEMALE

INSERT	PART NO.
MALE	182643
FEMALE	182644

CONNECTOR

DESIG.	D
PART NO.	182540
TERM.	LOC.
1	8D3
2	7D4
3	7D3
4	8E2
5	8C1
6	8D2
7	7E7
8	8A2
9	2D4
10	8E3
11	2D2
12	7E3
13	
14	
15	2E4

TERMINAL BOARD

DESIG.	TF
PART NO.	193040
TERM.	LOC.
AA1	8E7
AA2	8C7
AA3	
AA4	
AA5	8C7
AA6	8C7
AA7	
H1	8D6
H2	
H3	8B3
H4	
H5	
H6	
H7	8B3
J1	
J2	8C2
J3	8D6
J4	
J5	
J6	
J7	
K1	
K2	8C3
K3	
K4	
K5	
K6	8B1
K7	8C1
L1	
L2	8C2
L3	
L4	
L5	8E3
L6	
L7	7D6
M1	8C8
M2	8C8
M3	
M4	
M5	
M6	
M7	

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

TERMINAL BOARD

DESIG.	TU	TL
PART NO.	151411	151411
TERM.	LOC.	LOC.
1		8D7
2	8A2	8B4
3	8B2	7E5
4	7E5	
5	8B3	
6	8C8	
7	8C8	8C7
8		8D7
9	8F7	8D7
10		
11		
12		
13		
14		
15		
16		
17		
18		

TRANSFORMERS

DESIG.	LOC.	PART NO.
TR3		330795

(SOME UNITS CONTAIN 182519 TRANSFORMER)

RELAY

DESIG	RCR	TFR
CODE	AK-1	AK-1
PART NO.	193834	193834
	CONT ARR / LOC	CONT ARR / LOC
12	EBM 8B3	
11	EBM	
10	M 8B3	
9	B 8C6	
8	EMB 8C2	
7		
6		
5		B
4		B
3		
2		EBM
1		M 8B3
COIL	8C2	8B2

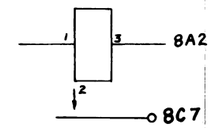
PRINTED CIRCUIT CARDS

DESIG.	PART NO.	LOCATION
ROTR SELECTOR MAGNET DRIVER	193440	8B7 PAGE1
ROTR SELECTOR MAGNET DRIVER	182630	8B7 PAGE2

RESISTORS

DESIG.	LOC.	PART NO.	VALUE
RE	8A1	153455	600
RF	8B1	77362	350
RC	8C1	153455	600
RD	8C8	193489	32

RELAY MST



MAGNET COILS

DESIG.	LOC.	PART NO.
ROTR	8D8	271M
TAPE FEED	8B2	224M
RIBBON SHIFT	8E7	224M

FUSES

DESIG.	LOC.	PART NO.	VALUE
FA	8C7	159269	3/8A.
FB	8D7	129915	4A.

LAMPS

DESIG.	PART NO.	LOC
ROTR LOW TAPE	151982	7D5
ROTR CHAD WARNING	151982	7E6

CAPACITOR

DESIG.	LOC.	PART NO.	VALUE
C2	8C8	182601	1500MFD

NETWORKS

DESIG.	LOC.	PART NO.
MST	8B2	153631
RCR	8C2	153631

SWITCHES

DESIG.	LOC.	PART NO.
ROTR CHAD WARNING	7E6	150443
TAPE FEED MOTOR HOLD	8A3	138005
PS	8D7	178714

MOTOR

DESIG.	LOC.	PART NO.
ROTR	8D7	170764

CORD

DESIG.	LOC.	PART NO.
CE	8F8	114467

6040WD-C3

ISSUE	DATE	AUTH NO
K2	1-4-69	17414
3	5-7-69	17919-2
4	5-15-68	95523-4
5	11-18-68	96529

APPARATUS FIGURE FOR 35E, 35F, 35G, 35H TELETYPEWRITER SET (RO)

APPROVALS

D AND P	E OF M

E-NUMBER

PROD. NO 6040WD-C3

DATE: 10-5-62

P.D. FILE NO. G-A151AA

DRAWN GCK | CHKD.

ENGD. WEC | APPD.

TELETYPE CORPORATION

6040WD-C3

APPARATUS FIGURE 3

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

6040WD-C4		
ISSUE	DATE	AUTH. NO.
2	5-8-64	81597-1

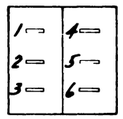
STUNT BOX
DESIG. "ATG"

	CONNECTOR DESIG.	P
	TTY	
	TERM.	LOC.
CR 5		
RI-OFF 14	23	8E3
	25	
RI-ON 15	24	8E3
	17	
BELL 16	50	9C6
WRU 25	21	3C5
	22	
WRU 26	40	3C5
	41	
EOT 27	8	4F4
	9	
X-ON 28		
LF 29		
ACK 30		
X-OFF 31		
RU 32		
LF 40		

MAGNET COILS
DESIG. LP

CONNECTOR DESIG.	P
TERM.	LOC.
1	2E7
2	2E7

SWITCH
DESIG.



1	35	TD3
2	34	TD3
3	29	TD3
4		
5	37	6F3
6	36	6F3

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURE FOR 35E, 35F, 35G, 35H TELETYPEWRITER SET (RO)

APPROVALS

D AND R	E OF M

E-NUMBER

PROD NO 6040WD-C4

DATE 10-5-62

P.D FILE NO G-A1618A

DRAWN GCK	CHKD
ENGD WEC	APPD

TELETYPE CORPORATION

2 6040WD-C4

APPARATUS FIGURE 4

APP. FIG. 5

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

6040WD-C5		
ISSUE	DATE	AUTH NO
A	4-20-64	81597

STUNT BOX DESIG.
"ATH" STUNT BOX

FUNCTION	SLOT	CONNECTOR DESIG. CODE TIY TERM.	CONNECTOR R LOC.
CR	5		
HOR & VERT. TAB	12		
FF	13		5D3
RI-OFF	14	23	8E3
RI-ON	15	25	3D4
BELL	16	24	8E2
H-TAB	17	17	9C6
		50	9C6
WRU	25	21	3D5
WRU	26	22	
EOT	27	40	3C5
X-ON	28	41	
L.F.	29	8	4F4
		9	
ACK	30		
X-OFF	31		
RU	32	3	5D5
L.F.	40		
V-TAB	41		
FF	42		

MAGNET COILS
DESIG. LP

SWITCH DESIG. H. TAB

SWITCH DESIG. FORM OUT

MAGNET COIL DESIG. FORM OUT

SWITCH
DESIG. PAPER OUT ALARM

SWITCH DESIG. V. TAB

CONNECTOR DESIG. TERM	R LOC.
1	2E7
2	2E7
45	5E4
44	5E3
14	5D3
6	4A4
7	4A2
1	
2	6F3
3	6E3
4	7C3
5	7D4
6	7D3
7	
8	4C3
9	4D3
5	5B4
13	5D3
4	5C3

NETWORK

DESIG.	LOC.	PART NO.
FORM OUT	4B3	153631

SWITCH (K)
DESIG. PAPER TAPE ALARM

TERM.	LOC.
1	
2	4D3
3	
4	4D3
5	7C3
6	7C3
7	
8	7C3

PART OF R CONN. 35 → LOC 7C3

PRINTED CIRCUIT CARDS

DESIG.	PART NO.	LOC.
TURN AROUND TRAFFIC CONTROL	177519	9D4

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

APPARATUS FIGURE FOR 35E, 35F, 35G, 35H TELETYPEWRITER SET (RO)

APPROVALS

D AND R	E OF M

E-NUMBER

PROD. NO. 6040WD-C5

DATE: 10-5-62

P.D. FILE NO. G-A151AA

DRAWN GCR	CHKD.
ENGD. WEC	APPD.

TELETYPE CORPORATION

2

6040WD-C5

101.

DESIG.	FUSE AMP	POTENTIAL	ONE PER	TERM. DESIG.
C	3/8	+115 VAC	APP. FIG. 1	TR-2 R-1
R	6 1/4	+115VAC	APP. FIG. 1	K-2
FA	3/8	+115VAC	APP. FIG. 2	TF-2AA
FB	4	+115VAC	APP. FIG. 2	TL-1
		+10VAC		TR-6
		+14VAC		TR-5
		+48VAC		TR-4
		+48VDC		C-7F
		TRANS. PRIMARY COMMON		TR-1
		TRANS. SECOND. COMMON		TR-7
		COMMON FOR 48VDC		C-1L
Q	1/2 OR 8/10	115VAC	APP. FIG 1	C-2

ON UNITS WITHOUT Q FUSE

ON UNITS WITH Q FUSE

NOTE: Q FUSE NOT INCL. ON SOME SETS.

103.

NETWORK VALUES			
NETWORK		RESISTANCE IN OHMS	CAPACITANCE IN MF
NO.	CODE		
1	185A	470	0.11

104.

RECORD OF APP. FIGURES, WIRING AND APPARATUS CHANGES							
CHANGED ON ISSUE	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURNISHED	SEE NOTE	USED IN CIRCUIT			

102.

FEATURE OR OPTION	PROVIDE		
	APP. FIG.	APP. OR WRG.	QUANTITY
BASIC SET EXCLUDING OPTIONAL APPARATUS(PRINTER AND ROTR).	1		1 PER STATION
DO NOT ANSWER (LOW PAPER OR OUT OF SERVICE).		A	
MAKE BUSY (LOW PAPER OR OUT OF SERVICE).		B	
AUXILIARY ROTR	2	C	1 PER STATION
FRICTION FEED PRINTER	3	J	1 PER STATION
SPROCKET FEED PRINTER	4	K,L	1 PER STATION
TURN AROUND TRAFFIC CONTROL ROTR	5	G	1 PER STATION

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS A PART OF THIS DRAWING.

6040WD-D1

ISSUE	DATE	AUTH. NO.
2	2-15-65	84599-1
3	8-6-65	88293

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

CIRCUIT NOTES FOR 35E, 35F, 35G, 35H TELETYPEWRITER SET (RO)

APPROVALS

D AND R	E OF M

E-NUMBER

PROD NO 6040WD-D1

DATE: 10-6-62

P.D. FILE NO. G-A1618A

DRAWN GCK	CHKD.
ENGD. WEC	APPD.

TELETYPE CORPORATION

6040WD-D1

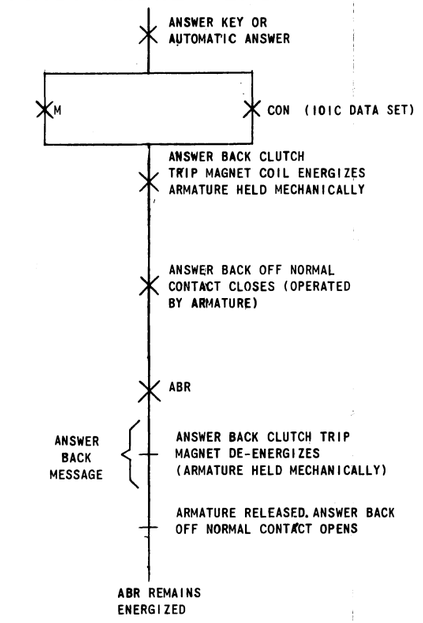
NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6040WD-E1

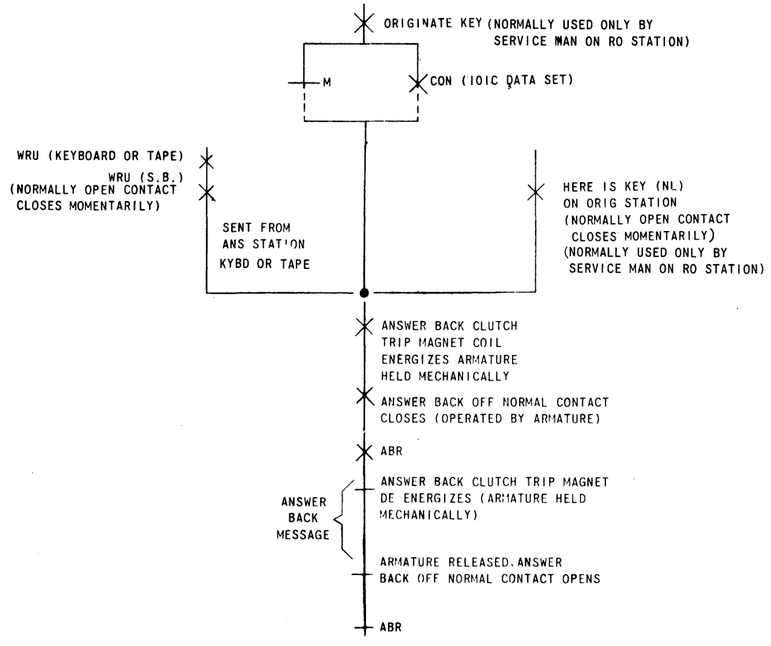
REVISIONS

ISSUE	DATE	AUTH. NO.
2	3-19-65	86306

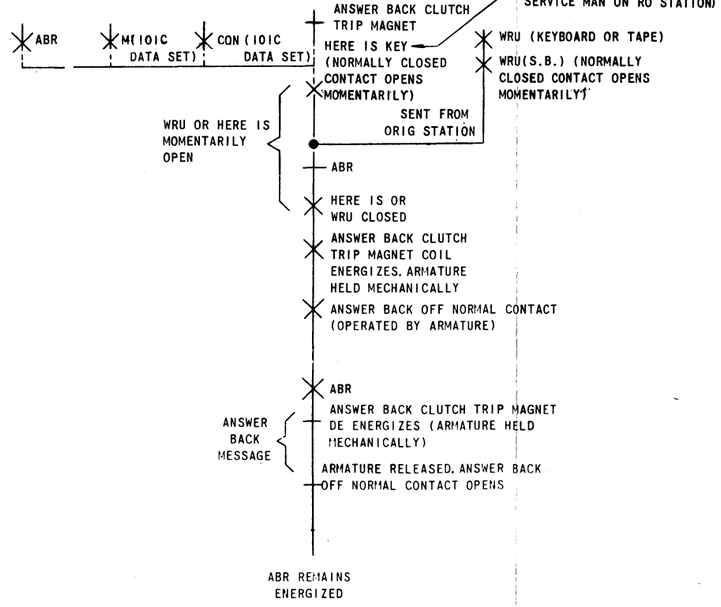
SC-2
ANSWERING STATION
FIRST ANSWER BACK



SC-1
ANSWER BACK AT ORIGINATING STATION



SUBSEQUENT ANSWER BACKS



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SEQUENCE CHARTS FOR

35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

APPROVALS	
D AND R	E OF M

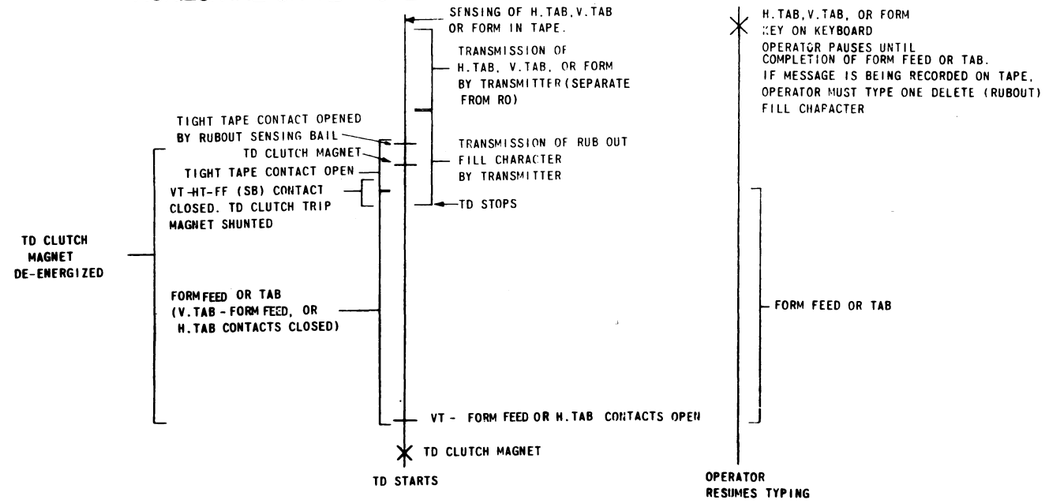
E-NUMBER	
PROD. NO.	6040WD-E1
DATE	
P.D. FILE NO.	G A151AA
DRAWN L.G.M.	CHKD.
ENGD. G.E.W.	APPD.

TELETYPE CORPORATION

6040WD-E1

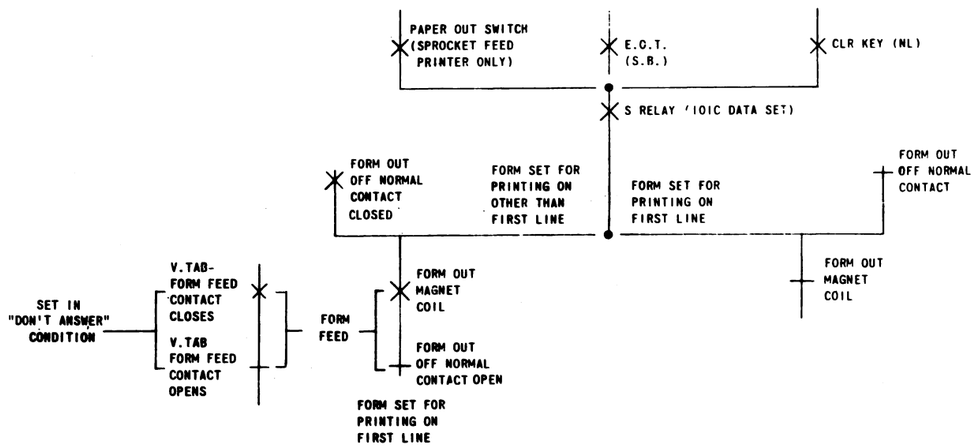
SC-3

HORIZONTAL OR VERTICAL TAB OR FORM FEED



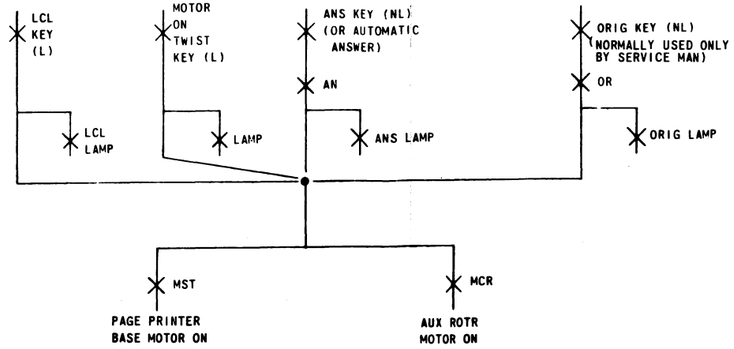
SC-4

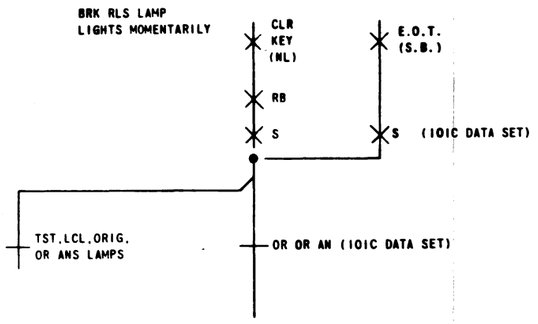
FORM OUT ON DISCONNECT



SC-5

MOTOR CONTROL





MCR AND MST DE-ENERGIZE UNLESS ANY OF THE FOLLOWING CONTACTS AND KEYS ARE IN OPERATED CONDITION:

- MOTOR ON TWIST KEY (L)
- AB OFF NORMAL CONTACTS
- H.TAB CONTACTS
- V.TAB-FF CONTACTS
- FORM OUT OFF NORMAL CONTACTS

MCR AND MST WILL DE-ENERGIZE WHEN ALL OF ABOVE RETURN TO UNOPERATED CONDITION.

NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6040WD-E2

REVISIONS

ISSUE	DATE	AUTH. NO.
2	3-19-65	86306

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SEQUENCE CHARTS FOR

35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

APPROVALS	
D AND R	E OF M

E-NUMBER

PROD. NO. 6040WD-E2

DATE

P.D. FILE NO. G-A151AA

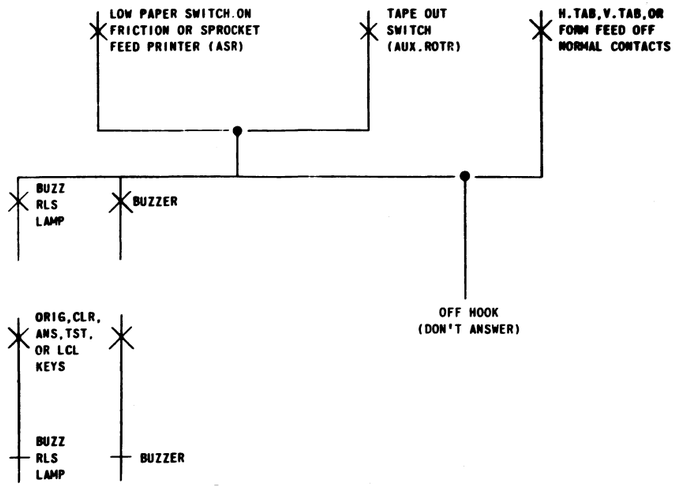
DRAWN T.J.M. CHKD.

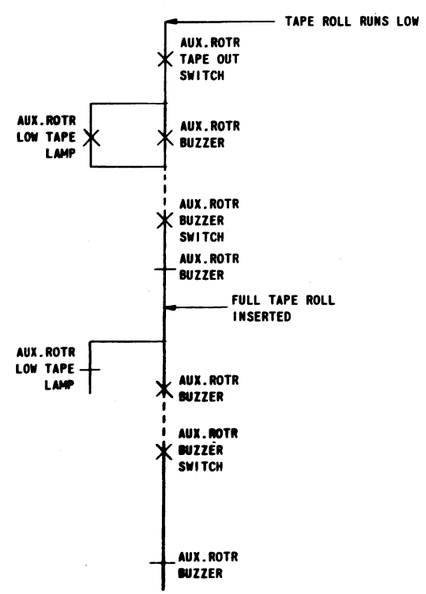
ENGR. G.E.W. APPD.

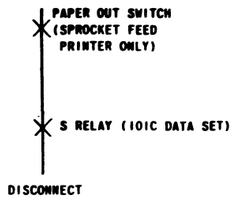
TELETYPE CORPORATION

6040WD-E2

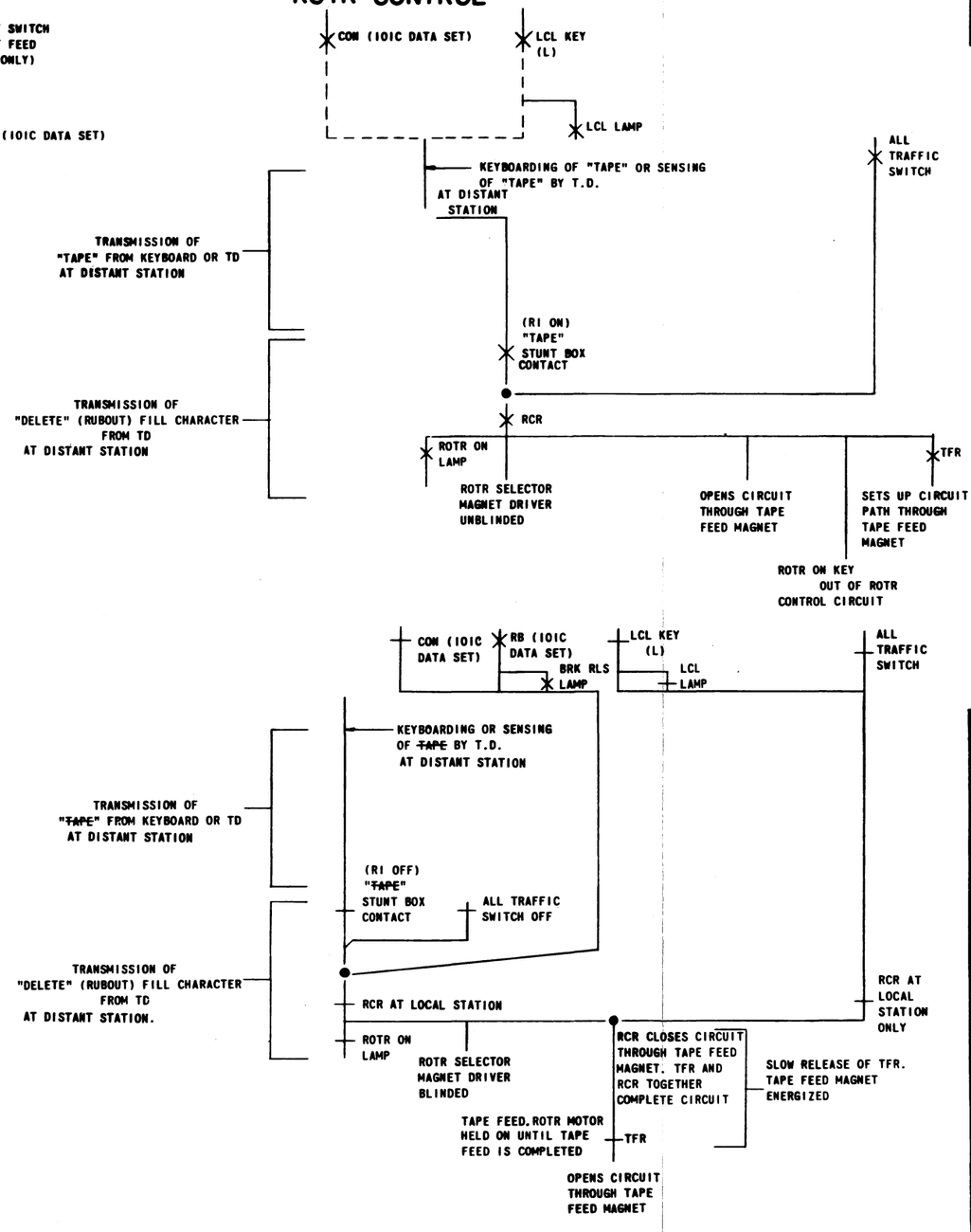
SC-6
LOW PAPER ALARM







SC-7
ROTR CONTROL



NOTE:
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD. WHICH IS PART OF THIS W.D.

6040WD-E3

REVISIONS

ISSUE	DATE	AUTH. NO.
2	3-19-65	86306

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SEQUENCE CHARTS FOR

35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

APPROVALS	
D AND R	E OF M

E-NUMBER	
PROD. NO.	6040WD-E3
DATE	
P.D. FILE NO.	G-A151AA
DRAWN J.A.P.	CHKD.
ENGD. G.E.W.	APPD.

TELETYPE
CORPORATION

6040WD-E3

NOTE

REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS W.D.

6040WD-E4

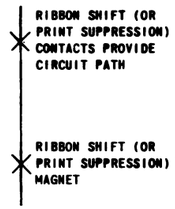
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	3-19-65	86306

SC-8

RIBBON SHIFT (OR PRINT SUPPRESSION) MAGNET
ON AUX ROTR

GRAPHIC CHARACTERS

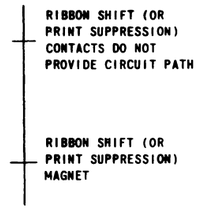
(6TH CODE PULSE SPACING, 7TH MARKING OR 6TH CODE PULSE MARKING, 7TH SPACING)



BLACK PRINTING

CONTROL CHARACTERS

(6TH & 7TH CODE PULSES MARKING OR 6TH & 7TH CODE PULSES SPACING)



NO PRINTING

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SEQUENCE CHART FOR

35E, 35F, 35G, 35H

TELETYPEWRITER SETS (RO)

APPROVALS	
D AND R	E OF M

E-NUMBER

PROD. NO. 6040WD-E4

DATE

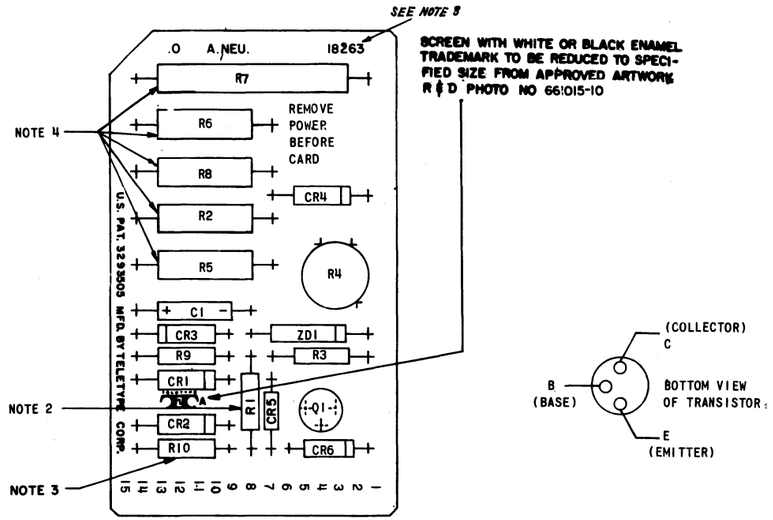
P.D. FILE NO. G-A151AA

DRAWN T.J.H.	CHKD.
ENGD. G.E.W.	APPD.

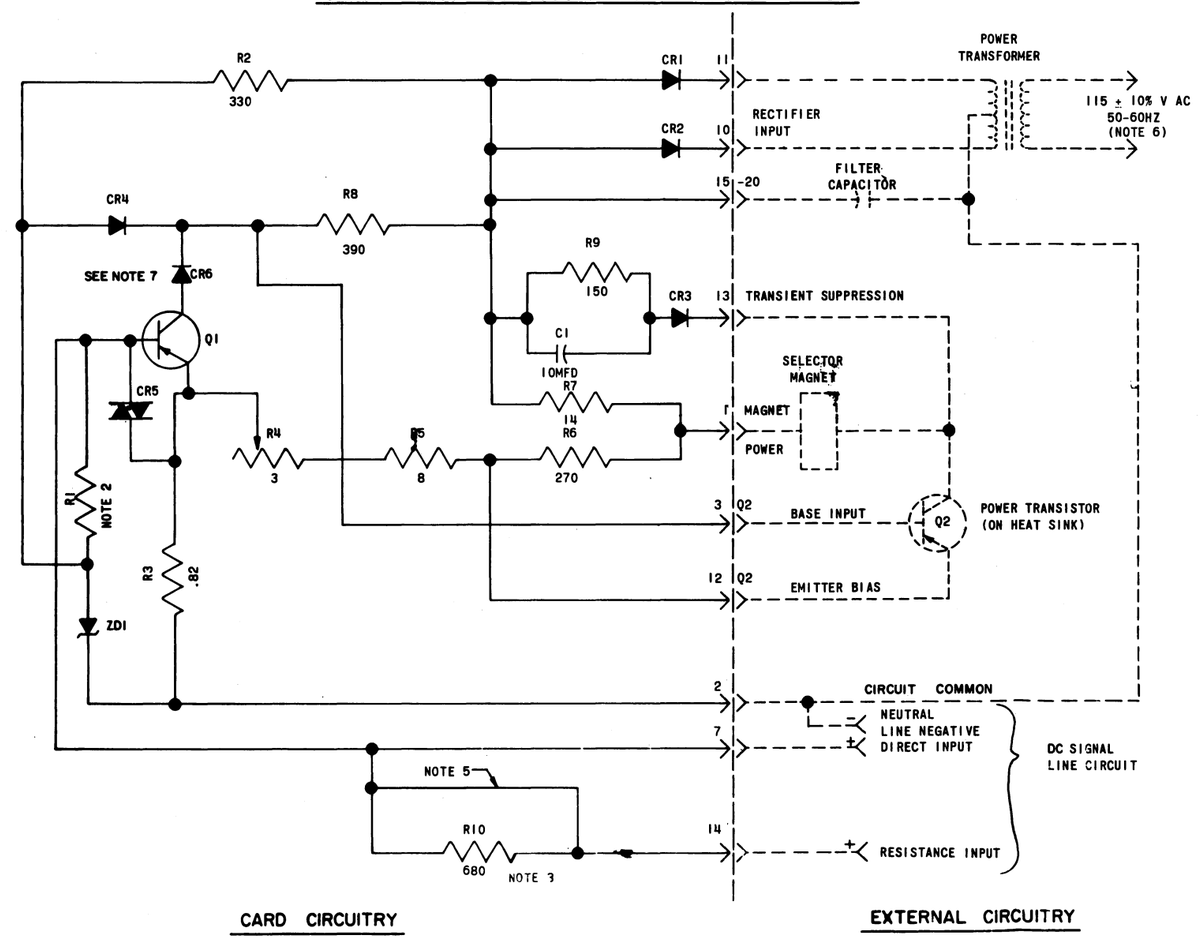
TELETYPE CORPORATION

6040WD-E4

NO.	NOTES
1.	REFER TO 5906WD FOR CARD MARKING INFORMATION.
2.	THE SELECTION OF THIS RESISTOR DEPENDS ON THE APPLICATION IN WHICH THE DRIVER IS TO BE USED.
3.	RIO IS USED ON 182630 ASSEMBLY ONLY.
4.	RAISE R2,5,6,7,8 1/32 TO 1/16 ABOVE CIRCUIT CARD.
5.	THE 39603RM STRAP IS USED ON THE 182631 AND 182632 ASSEMBLIES
6.	SEE 5983WD FOR APPROPRIATE POWER INPUT.
7.	DIODE CR6 WAS ADDED TO PROTECT Q1 FROM DESTRUCTION BY ACCIDENTAL GROUNDING OF THE COLLECTOR OF Q2. 181653 DIODE WAS USED FIRST BUT CHANGED TO 199442 TO REDUCE "LEAKAGE" CURRENT DURING SPACING PULSES.
8	.020 A NEU 182630 .060 A NEU 182631 .040A NEU 182632



CONSTANT CURRENT .500 SELECTOR MAGNET DRIVER



CIRCUIT CARD ASSEMBLY

REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME & DESIGNATION	LOCATING FUNCTION	USED ON	FOR
R1	182779	SELECT ONE SEE NOTE 2	RESISTOR 420 OHMS 1/2W	.010 AMP. SWITCHING	182630	.020A NEUTRAL LINE
"	182797		RESISTOR 135 OHMS 1/2W	.030 AMP. SWITCHING	182631	.060A " "
"	182180		RESISTOR 200 OHMS 1/2W	.020 AMP. SWITCHING	182632	.040A " "
R10	182777	1	RESISTOR 680 OHMS 1/2W	INPUT CURRENT LIMITING	182630	DATA SET OPERATION
R10	39603R1	1	STRAP	.030 AMP.SWITCHING	182631	.060A NEUTRAL LINE
R10	39603RM	1	STRAP	.020 AMP. SWITCHING	182632	.040A " "
R2	181669	1	RESISTOR 330 OHMS 2.1/2W	ZENER CURRENT LIMITING		
R3	182778	1	RESISTOR 0.82 OHM 1/2W	COMMON EMITTER BIAS		
R4	182773	1	RHEOSTAT 3 OHMS 2.1/2W	OUTPUT CURRENT ADJUST		
R5	181717	1	RESISTOR 8 OHMS 5W	Q2 EMITTER BIAS		
R6	182770	1	RESISTOR 270 OHMS 4W	Q2 EMITTER BIAS		
R7	182772	1	RESISTOR 14 OHMS 10W	Q2 COLLECTOR LOAD		
R8	182627	1	RESISTOR 390 OHMS 4 W	Q1 COLLECTOR LOAD		
R9	182776	1	RESISTOR 150 OHMS 1/2W	Q2 COLLECTOR LOAD TRANSIENT LIMITING		
CR1	182520	2	DIODE IN3193	POWER RECTIFIER		
CR2	182520		SAME AS CR1	POWER RECTIFIER		
CR3	181619	2	DIODE IN482	COLLECTOR TRANSIENT LIMITING		
CR4	181619		SAME AS CR3	VOLTAGE CLAMPING		
CR5	178844	1	VARISTOR 100A	INPUT PROTECTION		
CR6	199442	1	DIODE, IN270	SEE NOTE 7		
ZD1	182774	1	DIODE, ZENER 4.7V 5% 1W.	REFERENCE		
C1	182628	1	CAPACITOR, 10 MFD, 25WVDC	COLLECTOR TRANSIENT LIMITING		
Q1	181671	1	TRANSISTOR, HIGH GAIN	INPUT SWITCH		
EC	182775	1	CIRCUIT BOARD, ETCHED			

CIRCUIT DESCRIPTION

THE SELECTOR MAGNET DRIVER CIRCUIT IS POWERED FROM A SOURCE OF 117 VOLT ALTERNATING CURRENT THROUGH A STEP DOWN ISOLATION TRANSFORMER. DIODES CR1 AND CR2 PROVIDE FULL WAVE RECTIFICATION OF THE REDUCED VOLTAGE TO -20 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY FILTER CAPACITOR IS CONNECTED BETWEEN TERMINALS 2 AND 15.

THE DIRECT CURRENT SIGNAL LINE CIRCUIT IS CONNECTED THROUGH TERMINALS 7 AND 2. WITH AN ALTERNATE CONNECTION THROUGH R10 AT TERMINAL 14 PROVIDING A CURRENT LIMITING FUNCTION.

IN THE MARKING CONDITION, Q1 IS OFF-BIASED. WITH Q1 OFF, THE BASE OF Q2 WILL BE CLAMPED AT THE ZENER REFERENCE VOLTAGE BY DIODE CR4. THIS VOLTAGE CLAMP IS THEN TRANSLATED TO CURRENT REGULATION BY THE TRANSISTOR ACTION OF Q2. THE REGULATED MAGNET CURRENT IS ADJUSTED TO .500 AMPERES BY RHEOSTAT R4.

WITH THE SIGNAL LINE IN THE OPEN OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1. THE POTENTIAL AT THE COLLECTOR OF Q1 WILL BE NEAR ZERO. OFF-BIASING Q2. WITH Q2 OFF, NO SELECTOR MAGNET CURRENT FLOWS, ALLOWING THE MAGNET TO RELEASE. DURING THE TURN OFF OF Q2 THE INDUCTIVE TRANSIENT DEVELOPED AT THE COLLECTOR IS SUPPRESSED BY THE NETWORK CONSISTING OF CR3, R9, AND C1.

"SNAP-ACTION" IS SUPPLIED TO THE CIRCUIT TRANSITIONS BY FEEDBACK IN THE EMITTER CIRCUITS OF TRANSISTORS Q1 AND Q2.

182630-35

REVISIONS

ISSUE	DATE	AUTH. NO.
2	8-8-62	30-1259
3	11-27-62	30-5388
4	12-17-62	30-5445
5	1-23-63	30-5580
6	3-20-64	81340
7	5-21-64	81761
8	4-26-65	86507
9	6-10-65	86507-2
10	9-19-66	88816
11	10-25-66	88816-1
12	12-14-66	92190
13	2-7-67	93101
14	5-3-67	93502
15	6-20-68	19358-R
16	7-9-68	95948
17	12-20-68	98266

APPROVALS

D AND R	E OF M
HJK	

E-NUMBER

PROD. NO. 182630-35

DATE 6-2-62

P.D. FILE NO. 30-158AAA

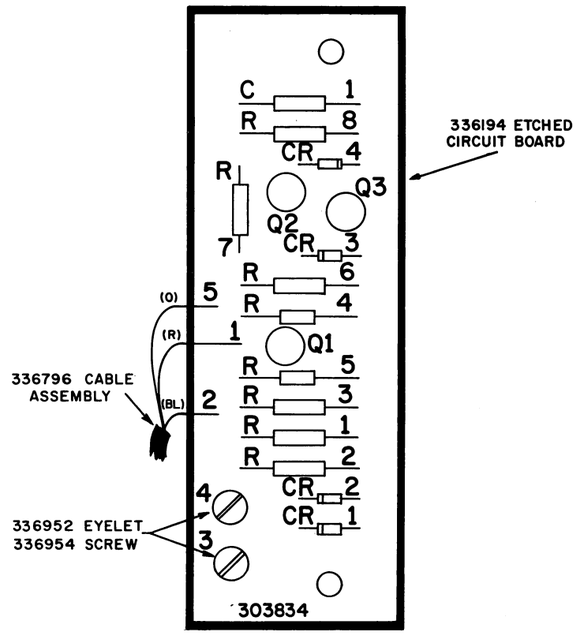
DRAWN E.R. REG	CHKD.
ENGD. R.J.M.	APPD.

TELETYPE CORPORATION

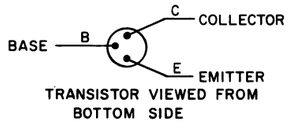
182630-35

REF. DESIG.	PART NO. REQ.	QTY.	DESCRIPTION
R1,R2	118186	2	RESISTOR,5.6K±5%1/2W
R3	118720	1	RESISTOR,100K±5%1/2W
R4	320275	1	RESISTOR,10K±5% 1/4W
R5	318801	1	RESISTOR,47K±5% 1/4W
R6	118144	1	RESISTOR,2.7K±5%1/2W
R7	143661	1	RESISTOR,330±5% 1/2W
R8	118180	1	RESISTOR,10K±5% 1/2W
CR1,CR2	197464	2	DIODE,
CR3	171602	1	DIODE
CR4	197464	1	SAME AS CR1
C1	333730	1	CAPACITOR,22MFD±10%35V
Q1,Q2	315930	2	TRANSISTOR, 2N3568
Q3	321166	1	TRANSISTOR, 2N1893
	336194	1	ETCHED CIRCUIT BOARD
	336796	1	CABLE ASSEMBLY
	336952	2	EYELETS, THREADED
	336954	2	SCREWS

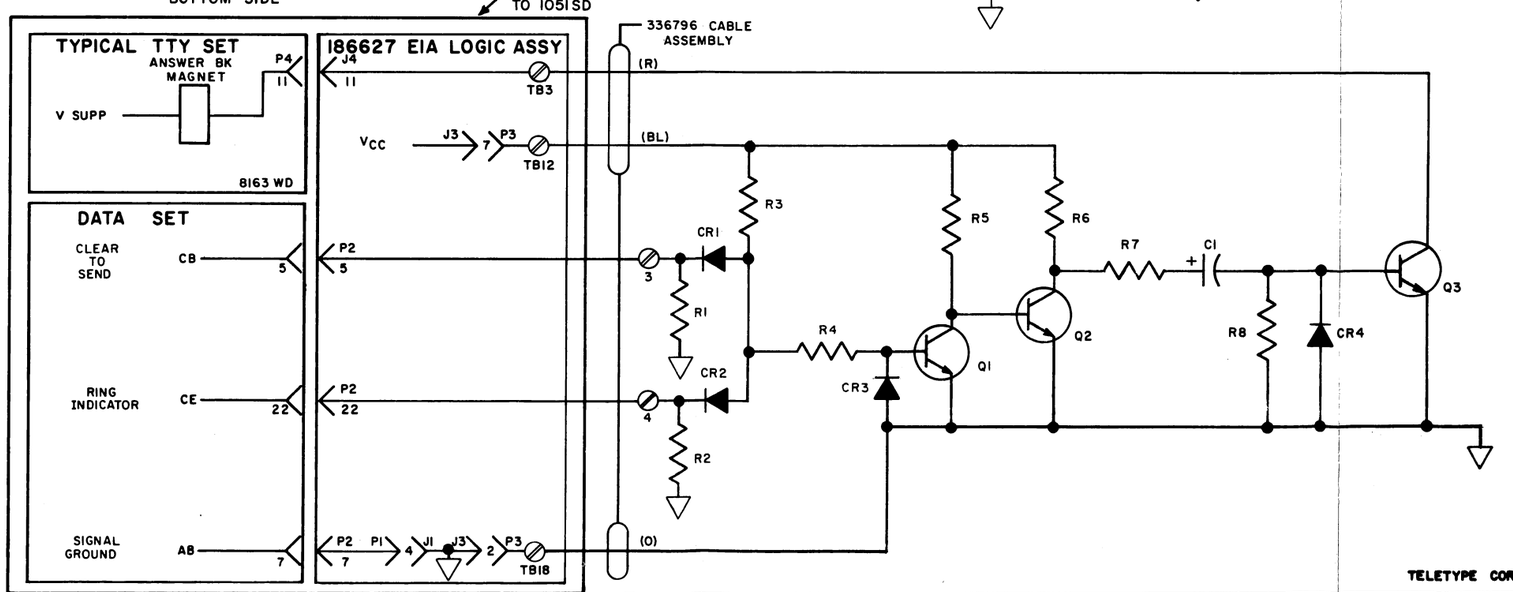
NOTES:
1. MANUFACTURE PER MR 2001
2. PRINTING SCREEN TO BE MADE FROM MASTER ARTWORK# 303834 AW. ARTWORK AVAILABLE IN R&D OFFICE SERVICE SECTION.
3. ASSEMBLE TAPPED EYELETS FROM COMPONENT SIDE OF CARD.



336194 ETCHED CIRCUIT BOARD



TRANSISTOR VIEWED FROM BOTTOM SIDE



ANSWER BACK TRIP MAGNET DRIVER

THE TRIP MAGNET DRIVER CARD PROVIDES A TIMED (8 TO 350 MS), 350 MA (MAXIMUM) PATH THROUGH THE ANSWER BACK TRIP MAGNET TO GROUND, (TERMINAL 1) IN RESPONSE TO THE SIMULTANEOUS APPLICATION OF TWO EIA "ON" VOLTAGES (+3V TO +25V) AT INPUT TERMINALS 3 AND 4. (THE SIMULTANEOUS "ON" VOLTAGE INPUT DURATION MUST EXCEED 350 MS.)

THE CIRCUIT OPERATION IS STRAIGHTFORWARD. AN "OFF" INPUT (-3V TO -25V) ON EITHER TERMINAL 3 OR 4 WILL REVERSE BIAS THE Q1 EMITTER BASE JUNCTION HOLDING Q1 OFF. TRANSISTOR Q2, WILL BE "ON" AND C1 (GROUNDED AT BOTH SIDES) IS UNCHARGED. THE SIMULTANEOUS APPLICATION OF TWO "ON" VOLTAGE TURNS ON Q1, TURNING OFF Q2 AND ALLOWING C1 TO CHARGE. THE C1 CHARGING CURRENT (THROUGH THE BASE EMITTER JUNCTION OF Q3, R6, AND R7) WILL TURN ON Q3 HOLDING IT ON LONG ENOUGH TO ASSURE TRIPPING THE ANSWER BACK MAGNET, BUT NOT SO LONG AS TO CAUSE DOUBLE TRIPPING. THE RETURN TO THE OFF STATE OF EITHER INPUT WILL TURN ON Q2 DISCHARGING C1 THROUGH R7, Q2 AND CR4. (DISCHARGE TIME IS APPROXIMATELY 35 MS.)

INPUT / OUTPUT REQUIREMENTS (SEE TEST CIRCUIT)

INPUT REQUIREMENTS

STATE	TERM	VOLTAGE	DURATION
"ON"	3 AND 4	+3 < V < +25	T >350 MS
"OFF"	3 OR 4	-3 < V < -25	T >50 MS

OUTPUT REQUIREMENTS

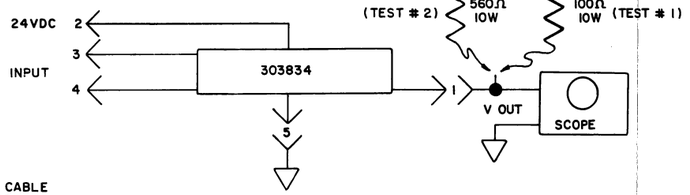
STATE	TERM	VOLTAGE	DURATION
"ON"	1	V OUT < .5V	8 MS < T < 350 MS
"OFF"	1	V OUT =V SUPP.	———

POWER REQUIREMENTS

V_{CC} - 20 VDC MIN., 33 VDC MAX.
500 MW MAX.

V SUPP. - 60VDC MAX., 120MA
30VDC MAX., 350MA

TEST CIRCUIT



ORIGINAL USE
186627 M33/35 FINAL
336192 DIRECT

REVISIONS

ISSUE	DATE	AUTH. NO.
1	2-17-70	20632-R

CIRCUIT CARD
MC834
303834
CURCUIT CARD
ASSEMBLY

APPROVALS

PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.
		ADM
ENGR. R.L.C.	DSGNR. R.L.C.	
DRN. R.A.P	DATE 12-16-69	
S-NUMBER 61,756		
SD-CD NO.		
R&D FILE 3-A132AA		

TELETYPE

303834

TELETYPE CORPORATION -