86B1 DATA SELECTIVE CALLING SERVICE
FULL-DUPLEX—100-WORD PER MINUTE DATA STATION
INSTALLATION

CONTENTS PAGE

1. GENERAL

1.01 This section describes the procedures to be followed for the installation of a model 33- or 35-type teletypewriter (TTY) data station associated with the 86B1 Data Selective Calling Service.

1.02 This section is reissued to include information pertaining to data set 108E- and 109E-Type, to make reference to the lock strip bar (card-extracting tool), and to add Fig. 10 and 11.

1.03 The 33- or 35-type TTY data station is a self-contained station which is intended to be completely assembled and tested by the distributing house prior to shipment.

1.04 ▶The customer must furnish a standard 3-wire, grounding-type, 106- to 129-volt, 59.55- to 60.45-Hz ac power receptacle (to accept a plug equipped with two parallel blades and a round-shaped grounding pin). All TTYs of a station should be connected to the same power circuit. This circuit must be adequately fused for the maximum or starting current as follows:

(a) Originate only or split operation originate/terminate (without auxiliary receiver) station—20 amps

(b) Standard originate/terminate (without auxiliary receiver) or split ASR originate/terminate (with auxiliary receiver) station —28 amps (if both machines start at the same time)

(c) Standard originate/terminate station (with auxiliary receiver)—37 amps (if all machines start at the same time)

(d) Terminate only station (without auxiliary receiver)—9 amps

(e) Terminate only station (with auxiliary receiver)—17 amps.◀

Note: The receptacle should not be under control of a switch.

1.05 Verify with the serving test center (STC) that the overall facilities meet transmission requirements specified in the section entitled Private Line Data Circuits—Voice Bandwidth Circuits For Miscellaneous Data—Overall Tests and Requirements (314-410-500).

1.06 Reference directions (left, right, front, or rear) are in respect to facing the keyboard which is located at the front of the 33- or 35-type TTY.

2. INSTALLATION

2.01 Verify that the location selected by the customer for the 33- or 35-type TTY data station is adequate for maintenance. The following TTY measurements should be exceeded to allow room for disassembly of the station if required.

- 33 ASR—22 inches wide, 34 inches high, and 19 inches deep
- 33 RO—19 inches wide, 34 inches high, and 19 inches deep

- 35 ASR—40 inches wide, 35 inches high, and 24 inches deep
- 35 RO—26 inches wide, 35 inches high, and 24 inches deep
- 35 ROTR—13-5/16 inches wide, 34 inches high, and 14 inches deep
- KS-20018-L1, -L2, -L3, ***or*** -L4 cabinet:

  L1—24 inches wide, 12 inches high, and 12 inches deep

  L2—24 inches wide, 17 inches high, and 12 inches deep

  L3—24 inches wide, 24 inches high, and 12 inches deep

  L4—24 inches wide, 30 inches high, and 12 inches deep.

2.02 Verify that the customer-provided ac power receptacle is within seven feet of the selected location.

Do not connect power to the TTY data station until instructed to do so.

2.03 To gain access to the data auxiliary set (DAS) 820A1, 820A2, or 820A6, proceed as follows:

33 ASR and 33 RO TTY

(1) Remove the two mounting screws located at the top rear of the stand.

(2) Grasp top of rear panel and lift it up to disengage panel from stand.

35 ASR TTY

(1) Remove the chad container by sliding it to the left, raising the right side, and sliding it to the right.

(2) Operate the two pushbutton fasteners located at the top of the lower front compartment panel.

(3) Depress the spring clip underneath the keyboard and pivot the lower compartment panel to the floor.

(4) Disengage the panel from pivot screws and remove panel.

35 RO TTY

(1) Same as the 35 ASR TTY with the exception that only one pushbutton fastener is used to hold the lower compartment panel and no chad container is provided.

35 ROTR TTY

Note: The data set and DAS 820A2 or 820A6 are not mounted in the 35 ROTR TTY stand (due to space limitation) when a 35 ROTR TTY is used as a primary data station. A KS-20018 type cabinet is required. In addition, DAS 804R3 and the connector assembly are mounted on the door of the stand.

(1) Apply outward pressure at the top rear of the KS-20018 type cabinet panel until the catches disengage.

(2) Lift the panel up to remove it from framework.

2.04 Verify that the proper circuit packs (CP) are installed in DAS 820A1, 820A2, or 820A6 (Fig. 1 or 2), and that the R and CS switches are positioned properly according to the service order and/or worksheet.

Note 1: An option in DAS 820A1, 820A2, or 820A6 is the encoding of the shift registers on AR18 and AR25 CPs.

Note 2: For 33 ASR or 33 RO TTYs, position DAS 820A2 or 820A6 in the maintenance position as follows:

(1) Rotate latch counterclockwise (Fig. 3). This allows DAS 820A2 or 820A6 to pivot on the 91A bracket.

(2) With both hands placed on the rear of the data auxiliary set, gently pull the top towards the rear of the station as shown in Fig. 4.

2.05 Remove lock strip (card-retaining) bar by loosening the two screws holding it to the

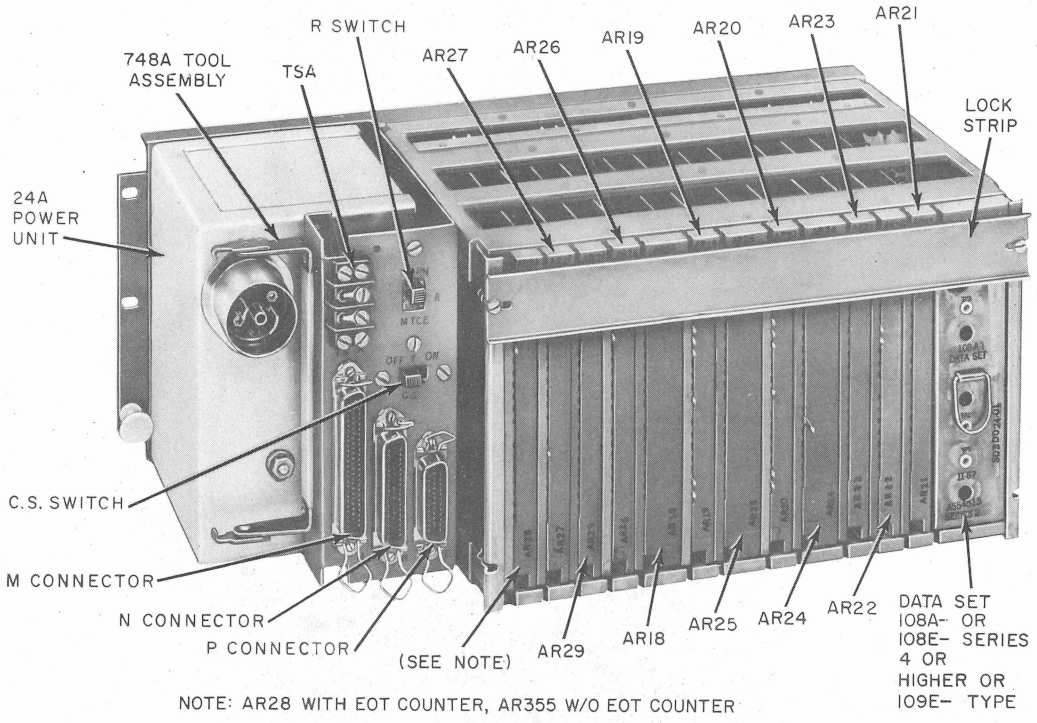

Fig. 1—DAS 820A1 or A2—Locations of Circuit Packs and Components

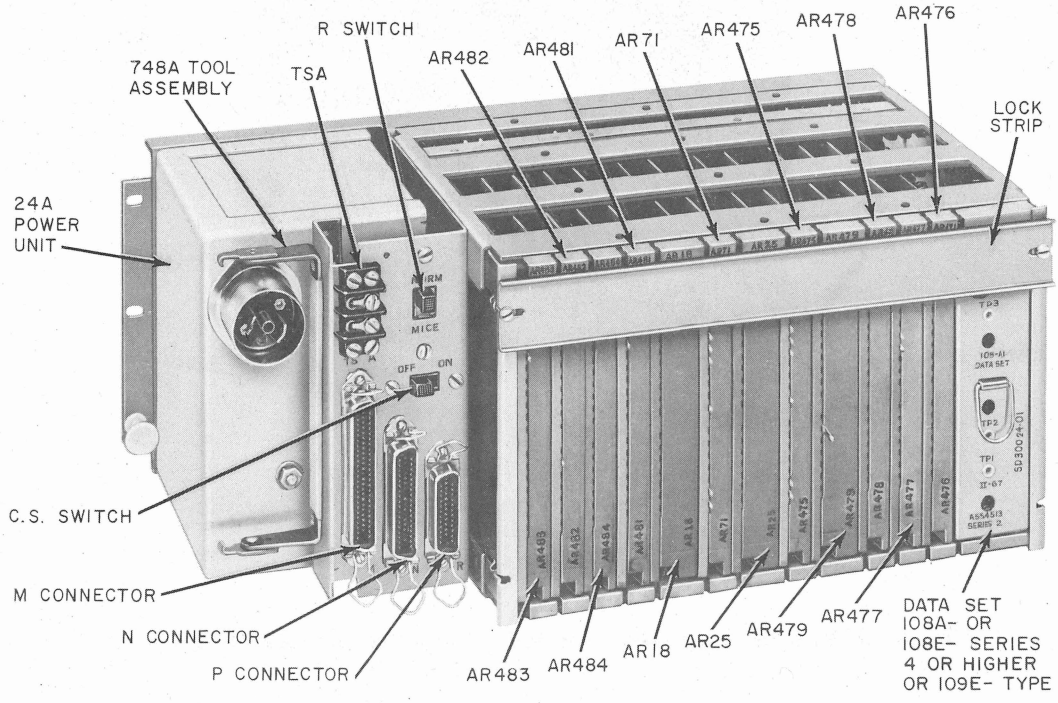

Fig. 2—DAS 820A6—Locations of Circuit Packs and Components

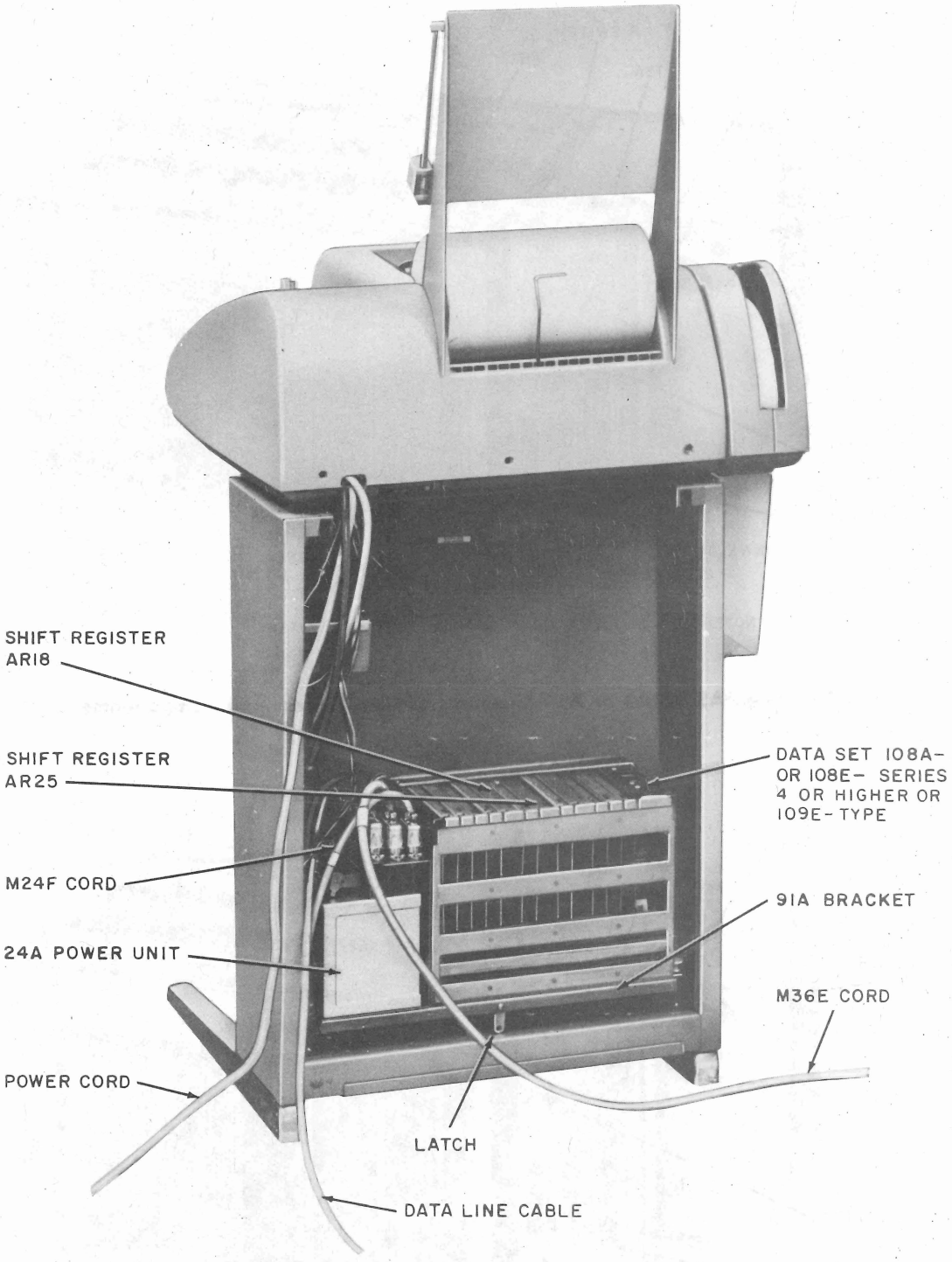

Fig. 3—DAS 820A-Type—Location in 33-Type TTY (33 ASR Illustrated)

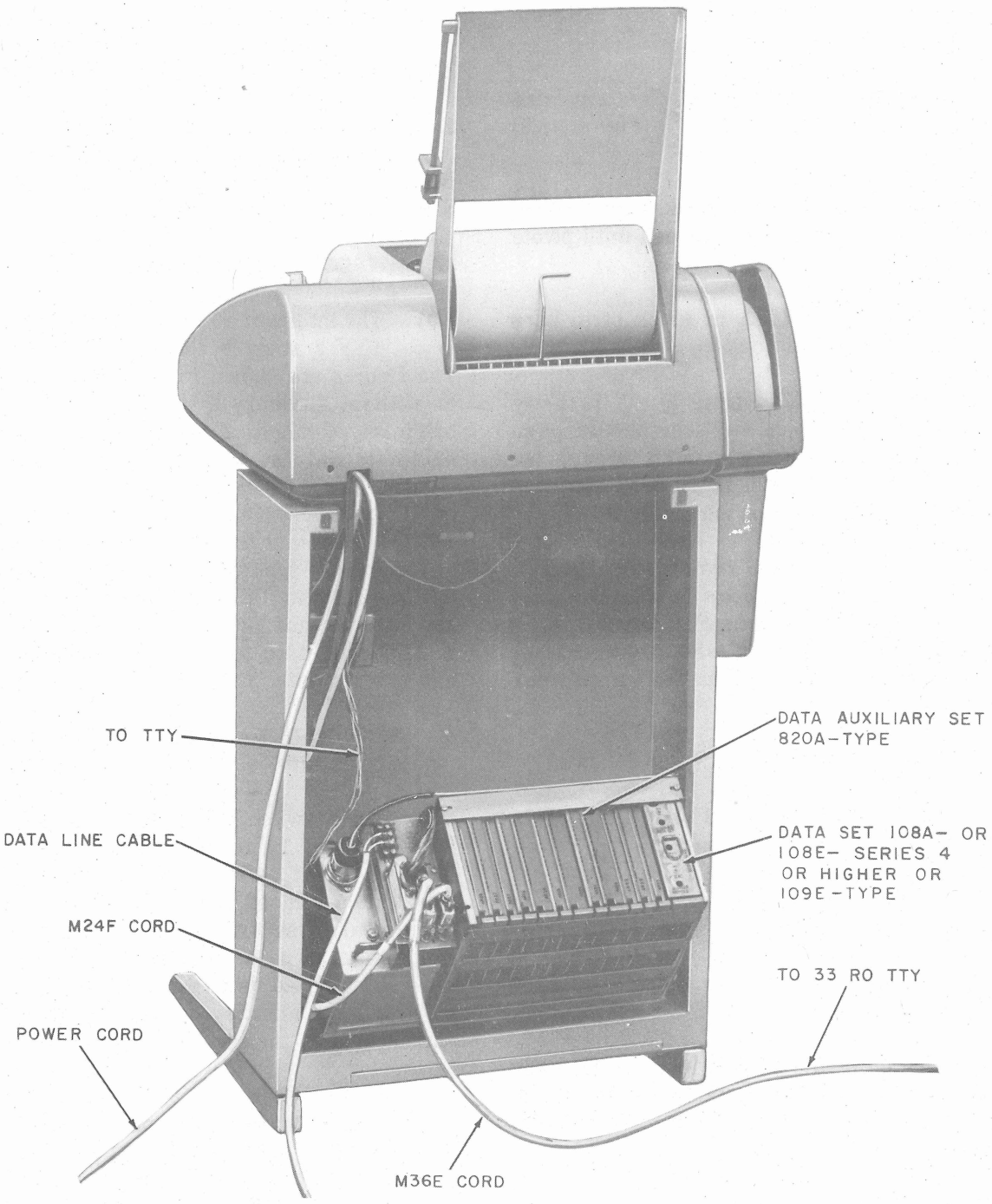

Fig. 4—33 ASR TTY—Rear View With Controller in Maintenance Position

apparatus mounting. Slide the lock strip bar from beneath the screws to remove it.

2.06 Using the 748A tool or ▶lock strip bar◀ remove AR18 and AR25 CPS (Fig. 1 or 2) as follows:

(1) Place pivots of 748A or ▶lock strip bar◀ on faceplate of CP and gently push until pivots engage faceplate.

(2) Grasp handle of 748A or ▶lock strip bar◀ and pull CP straight out.

2.07 Inspect shift register (Fig. 5). A properly encoded AR18 shift register should have ***two*** 36-gauge insulated wires running through the eight tubes. The AR25 shift register should have ***one*** wire running through the eight tubes.

In the event that the shift register is not encoded, refer to the section entitled 86B1 Data Selective Calling Service—Full-Duplex—100-Word Per Minute Data Station—Maintenance (581-136-302).

2.08 Replace AR18 and AR25 CPs as follows:

(1) Insert AR18 CP in slot 9 and AR25 CP in slot 14.

(2) Verify that the CPs are seated properly in their connectors.

(3) Remove the 748A tool or ▶lock strip bar◀ assembly.

2.09 Installation of the 33-type TTY should be in accordance with the section entitled 32 and 33 Teletypewriter Set—Installation (574-100-201) with the following exceptions:

- No answer-back drum is used.
- Do not connect power until instructed to do so in this section.

2.10 Installation of the 35 RO TTY should be in accordance with the section entitled 35 Receive Only Page Printer Set—Installation (574-200-200).

2.11 Installation of the 35 ASR TTY should be in accordance with the section entitled 35 Automatic Send Receive Set—Installation (574-202-200).

2.12 Installation of the 35 ROTR TTY should be in accordance with the section entitled 35 Receive Only Typing Reperforator (ROTR) Sets—Installation (574-203-200).

3. INTERCONNECTION OF STATION

3.01 The interconnection of the 33- and/or 35-type TTY station is shown in Fig. 6, 7, and 8. The figures are shown for a primary station (with or without auxiliary TTY). Fig. 6 illustrates an originate/terminate station, Fig. 7 illustrates an originate only station, and Fig. 8 illustrates a terminate only station.

3.02 Verify that the TTY is properly option-wired for the type of station being installed. The options for the TTY should be specified on the service order and/or worksheet. Tables A through K should be used to check for the proper options and connections.

4. PREOPERATIVE ADJUSTMENTS AND TESTS—DATA SET 108-TYPE

4.01 Screw switch D (Fig. 9 ▶for data set 108A-type or Fig. 10 for data set 108E-type)◀ may have been set to provide maximum sensitivity (maximum gain of the receive buffer amplifier) during manufacturing tests. The gain may be reduced in steps as indicated in Table L. ▶The gain must be adjusted to meet the requirements of each installation by setting the screw switches as indicated on the service order and Table L.

> ***Note:*** When data set 108-type is provided, a series 4, or later, model must be used. The data set optons should be specified on the service order or line record card. When data set 108E-type is used, Options S, U, X and Y are required. For information on providing the required options, refer to the BSP entitled Data Sets 108D- and 108E-Types Used in Station Applications—Description (591-028-100).◀

HYBRID NETWORK STRAPPING

4.02 Strapping of the hybrid is determined by the loop impedance of the facility. The loop

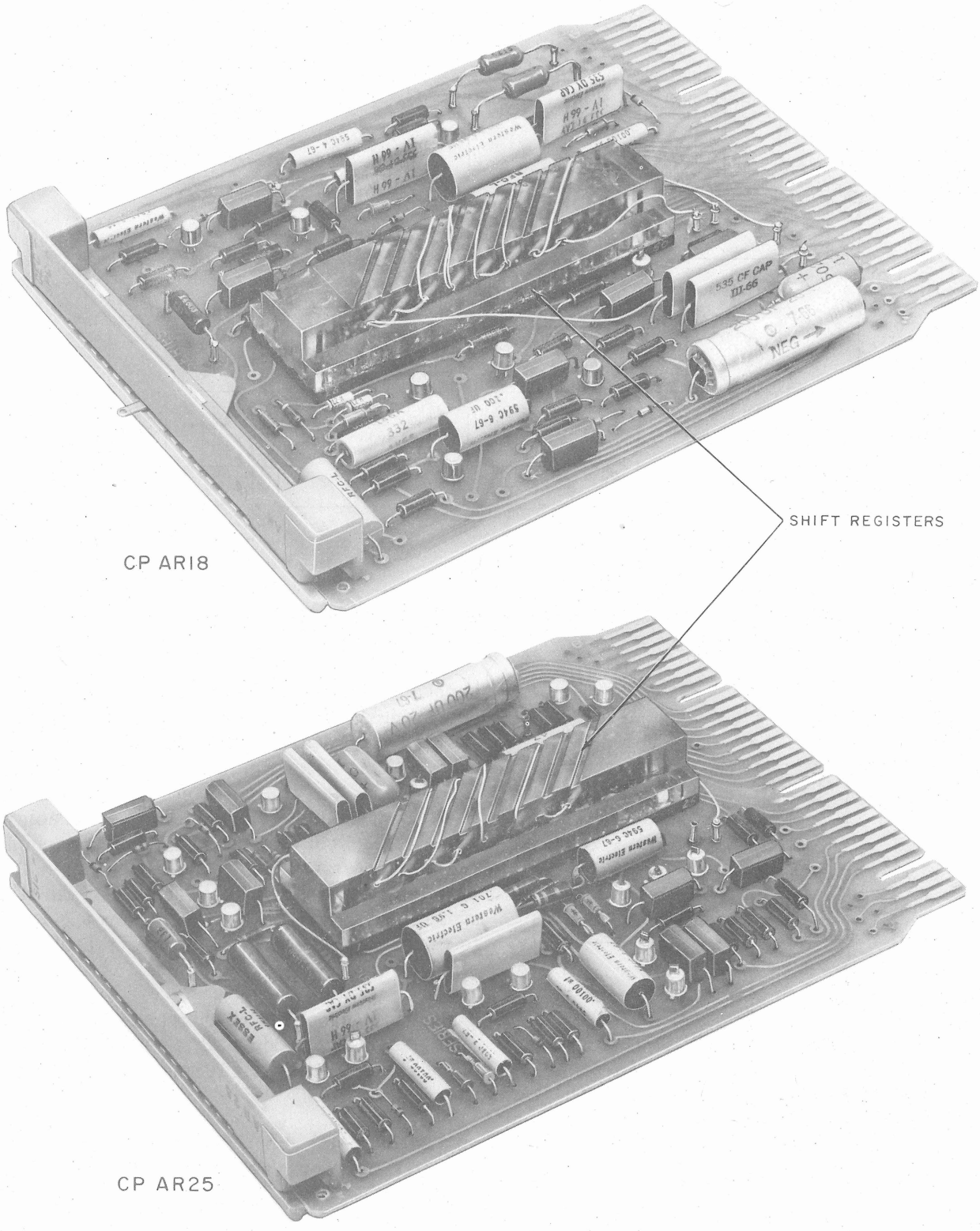

Fig. 5—Circuit Packs AR18 and AR25—Locations of Shift Registers

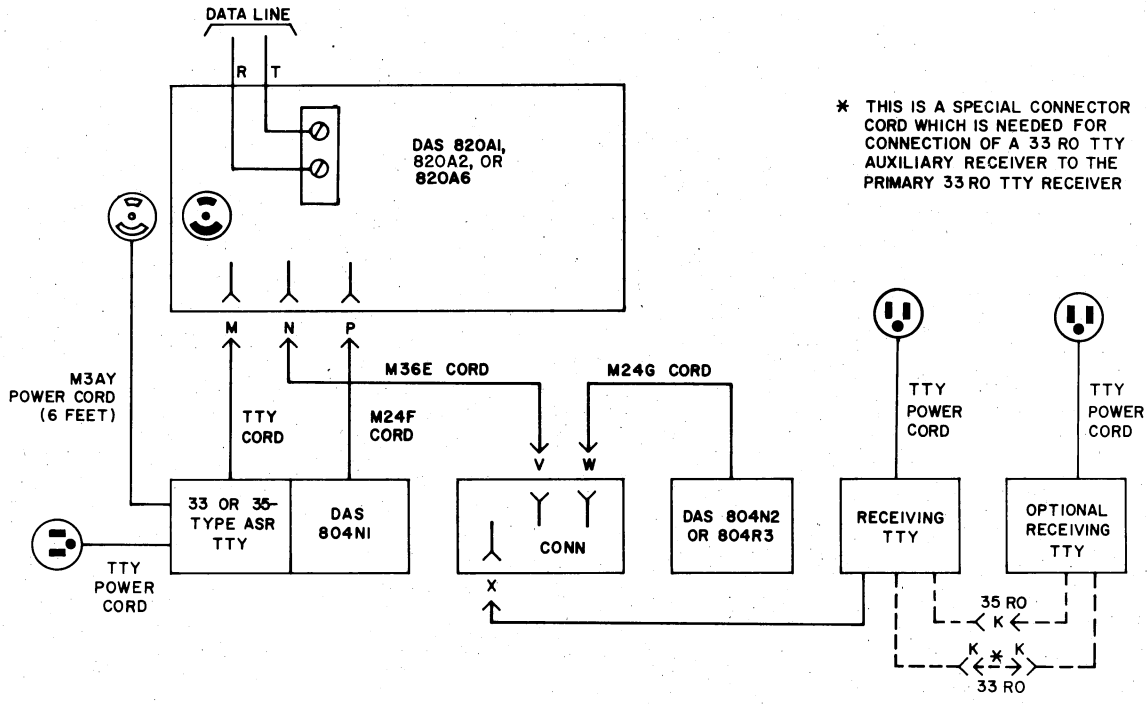

Fig. 6—Interconnections for 33- and/or 35-Type ORIG/TERM Station

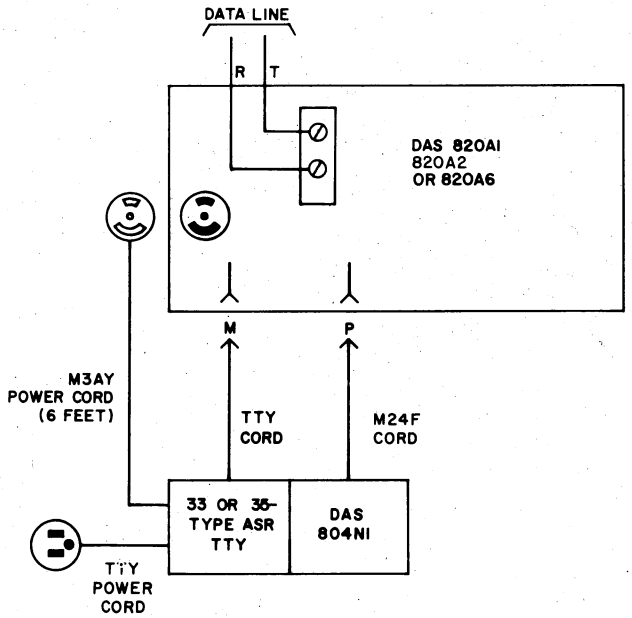

Fig. 7—Interconnections for 33- and/or 35-Type Originate Only Station

impedance should be shown on the service order and/or circuit layout record card. Table M shows typical loop impedance that can be used when the cable makeup is known. Select the proper facility makeup from the Typical Loop Facility column ▶or find the measured loop impedance in Table M. The screw-switch settings and strapping required for optimum trans-hybrid balance is given in Table M. Refer to Fig. 9 for the location of the screw switches and strap for data set 108A-type. Refer to Fig. 10 for the location of data set 108E-type screw switches.◀

4.03 Upon completion of hybrid network strapping and installation of the required data set options, plug the data set 108-type into DAS 820A1, 810A2, or 820A6.

▶ADJUSTMENT OF DATA SET 108-TYPE TRANSMIT LEVEL

Verify that proper options are installed in the replacement data set 108-type.

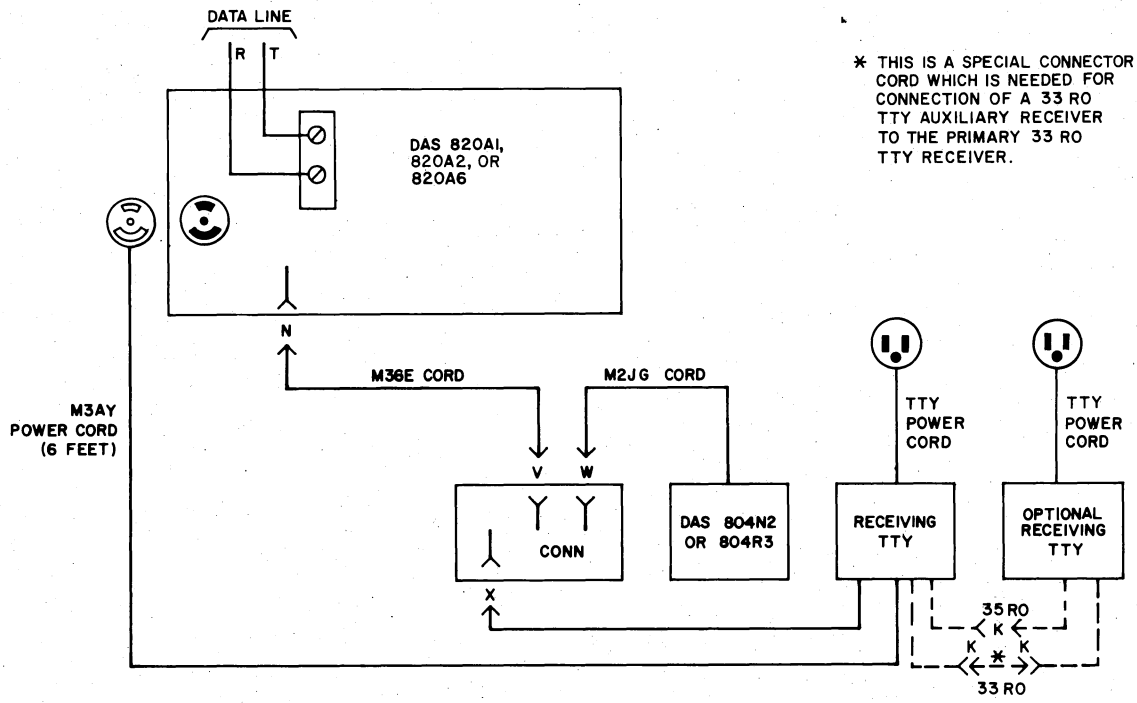

Fig. 8—Interconnections for 33- and/or 35-Type Terminate Only Station

TABLE A

33 ASR OPTIONS

FEATURE OR OPTION	OPTION DESIGNATION
No auxiliary receiver	1 & 2
Friction feed	5, 8, & 9
Sprocket feed	7
Print suppression	3
Receive only relay option	4

TABLE B

33 RO OPTIONS

FEATURE OR OPTION	OPTION DESIGNATION
Primary receiver without auxiliary RO TTY (TERMINATE ONLY)	1
Auxiliary receiver	2, 4, 5, & 6
Primary receiver with auxiliary RO (master)	3, 6, & 7
Friction feed	9 & 10
Sprocket feed	8
Print suppression	5

4.04 Disconnect the incoming data line from the tip (T) and ring (R) terminals on the controller.◀

4.05 Connect terminals + and – of portable station test set TTS-28 to TP1 and TP2 of the data set (Fig. 9 or ▶10◀). Set FUNCTION switch of TTS-28 to DBM 900O TERM 0 position.

4.06 Connect TTY power cord to the customer-provided ac receptacle.

4.07 Adjust R11 on data set 108A or ▶R18 on data set 108E◀ for the output level specified on service order and/or circuit layout record card (see Fig. 9 or ▶10◀).

Note: If no output level is measured, operate carrier squelch (CS) switch on DAS 820A1, 820A2, or 820A6 to OFF. Restore CS switch

TABLE C

35 ASR OPTIONS

FEATURE OR OPTION	OPTION DESIGNATION
No auxiliary receiver	A
Friction feed	B
Sprocket feed	C
Auxiliary receiver is 35 ROTR	D
Print suppression	F
Tape not required in unattended mode	G

TABLE D

35 RO OPTIONS

FEATURE OR OPTION	OPTION DESIGNATION
Primary receiver without auxiliary RO TTY (TERMINATE ONLY)	A
Auxiliary receiver	B
Primary receiver with auxiliary RO TTY (master)	C
Friction feed	D
Sprocket feed	E
Print suppression	F
Master station to ROTR set	G

TABLE E

35 ROTR OPTIONS

FEATURE OR OPTION	OPTION DESIGNATION
Terminate only station	A
Auxiliary receiver	B

after adjustment of R11 or ▶R18◀ and remove TTS-28.

4.08 Connect the incoming data line, removed in 4.04, to the T and R terminals on TS A located on DAS 820A1, 820A2, or 820A6.

4.09 Perform installation tests in accordance with the section entitled 86B1 Data Selective Calling Service—Full-Duplex—100-Word Per Minute Data Station—Test Procedures (581-136-502).

5. ▶PREOPERATIVE ADJUSTMENTS AND TESTS—DATA SET 109E-TYPE

5.01 When data set 109E-type is used, the correct options must be installed and the line resistance pads must be set. The line pad screw switches are set to obtain a total loop resistance of approximately 2000 ohms.

5.02 Three adjustable screw switches (S1, S2, and S3) are used to select options on data set 109E-type (Fig. 11). Screw switch S1 is subdivided into two sections (S1A and S1B); screw switch S3 is further subdivided into twelve sections. Two of these sections (S3-1 and S3-2) are used for options; eight of the remaining sections (S3-4 through S3-7, and S3-9 through S3-12) are used in selecting the proper line pad resistance (Table N). Sections S3-3 and S3-8 are not used and should not be equipped with screws.

5.03 Install the required options and line padding in the replacement data set in accordance with Table N, Table O, the service order and the data set 109E-type being replaced.

5.04 Connect the incoming data line to the T and R terminals of the DAS 810A1, 820A2, or 820A6.

The data line must be connected to the DAS 820A1, 820A2, or 820A6 correctly, ie, tip to T terminal and ring to R terminal, due to the polar signals used by this data set. The tip lead can be identified by the positive potential from the STC when the STC data set 109B-type is in the marking conditon.

5.05 Connection of the data line completes the installation of the data set 109E-type. To verify that the unit is operating properly, the entire station can be tested as outlined in the practice entitled 86B1 Data Selective Calling Service Full-Duplex—100-Word Per Minute Data Station—Test Procedure (581-136-502)◀

TABLE F

CONTROL OPTIONS FOR 35 RO TTY PRIMARY RECEIVER

WITH AUXILIARY RECEIVER BEING 35 ROTR TTY

FEATURE OR OPTION		OPTION DESIGNATION
Manual connect with auxiliary receiver key	Without auto tape feed-out	H, J, K
	With auto tape feed-out	H, J, K, L, R
Auto connect with stunt box (DC2)	Without auto tape feed-out	J, K, M
	ETX disconnect with auto tape feed-out	J, M, N, R
	DC4 disconnect with auto tape feed-out	K, M, P, R
	ETX or DC4 disconnect with auto tape feed-out	J, K, M, N, P, R
Manual and auto connect with auxiliary receiver key and stunt box (DC2)	Without auto tape feed-out	J, K, M
	Key or ETX disconnect with auto tape feed-out	J, L, M, N, R
	Key or DC4 disconnect with auto tape feed-out	K, L, M, P, R
	Key or ETX or DC4 disconnect with auto tape feed-out	J, K, L, M, N, P, R

TABLE G

33 ASR TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELDS B	WIRING FIELDS C	WIRING FIELDS D	K CONNECTOR	T TERM. BLOCK	REMARKS
1					7 — 9	omit
2					8 — 9	
3			2 — 3			
4		4 —	— 4			
5						PA 4 — PA 8
6						M C3 — M D4
						M C1 — M C2
7	3 —					uc 11 omit
	3 —					uc 12
8	1 —					uc 13 omit
	1 —					uc 17
9						PA 3 — PA 6

TABLE H

33 RO TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELDS A	WIRING FIELDS B	WIRING FIELDS C	WIRING FIELDS D	K CONN	T TERM. BLOCK	REMARKS
1*	2			4	4	1	Omit
					3	8	Omit
						8 — 9	
	4					A	CA
			2			4	UA
			2			8	UA Disconnect Tape & Tuck
			2			27	A
2†	2			4	4	1	
					3	8	
						8 — 9	Omit
			1		2		
			3		8		
			2			27	A Disconnect Tape & Tuck
			2		6		
				2	5		
			2			8	UA
				2		4	UA
					11	7	UA
					13	6	UA
					14	3	UA

TABLE H (Cont)

33 RO TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELDS A	B	C	D	K CONN	T TERM. BLOCK	REMARKS
3‡	3				2		CA
	2				8		
	4						A
	2			4			Omit
					11		UA
						7	
					2		UA
						4	
					2		
						6	
			2			5	
							UA
			2			8	Omit
							A Lead taped
			2			27	to cable at wiring field
							UA
					14	3	
							UA
					13	6	
4						8 — 9	Omit
5							UA
						7 — 1	
	4					20	ROR relay
6						7 — 9	
7						8 — 9	UC
		3				11	Omit
8		3					UC
						12	
9		1					UC
						13	Omit

TABLE H (Cont)

33 RO TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELDS				K CONN	T TERM. BLOCK	REMARKS
	A	B	C	D			
		1					UC 12
10							UA — UA 3 — 6

* Connect "A" connector
† Connect "K" connector
‡ Connect "A" and "K" connectors

TABLE I

35 ASR TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELD		K CONNECTOR	REMARKS
	B	C		
A	1H — 4B 6C — 5B	1A — 2A		
B	6C — 5C	1B — 6D 3D — 5A		
C		3B — 6D		
D	6C — 5B 5A — 1A			
E	5A — 1A 6C		6	(GN Wire)
F G	1G — 5H			Requires mode kit TP 198500

TABLE J

35 RO TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELD C	K CONNECTOR	REMARKS
A	4A — 1E 2C — 3B 3D 6B — 6D		MST 1 (WH-OR wire)
B*	2C — 3B 4C 6B — 6D 1C 4B 4C 4D 6D 3E 6F 1E 3F 4E 6E 3B 2E 3C	 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MST 1 (WH-OR wire) (WH-BK wire) (BR wire) (RD wire) (OR wire) (YEL wire) (GN wire) (BL wire) (VIO wire) (WH wire) (WH-BL wire) (BK wire) (SL wire) (WH-GN wire) (WH-BR wire)
C†	1A 1E — 4A 4C 1C 6C 3A 4C 6D 6B 6F 2C 3F 4E	 1 2 3 4 5 6 7 8 9 10	ROR 1U (RD wire) MST 1 (WH-OR wire) (WH-BK wire) (BR wire) (RD wire) (OR wire) (YEL wire) (GN wire) (BL wire) (VIO wire) (WH wire) (WH-BL wire)

TABLE J (Cont)

35 RO TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELD C	K CONNECTOR	REMARKS
	6E — 11		(BK wire)
	3B — 12		(SL wire)
	2E — 13		(WH-GN wire)
	3C — 14		(WH-BR wire)
D	4E — 5F		
	2E — 3C		
	4F — 6B		
E	2F — 5F		
F	‡ 2B — 5D		Requires mod kit TP 198500 and TP 323084 cable assembly
G†	1A		ROR 1U (RD wire)
	1E — 4A		
	4C		MST 1 (WH-OR wire)
	1C	1	(WH-BK wire)
	6C	2	(BR wire)
	3A	3	(RD wire)
	4C	4	(OR wire)
	6D	5	(YEL wire)
	6F	7	(BL wire)
	2C	8	(VIO wire)
	3F	9	(WH wire)
	4E	10	(WH-BL wire)
	6E	11	(BK wire)
	3B	12	(SL wire)
	2E	13	(WH-GN wire)
	3C	14	(WH-BR wire)
H	3F — 5C		
J	3F — 4G		
K	1B — 4G		
L	3E		P Connector No. 3 (WH wire)

TABLE J (Cont)

35 RO TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELD C	K CONNECTOR	REMARKS
M	5A		R Connector No. 25 (GN-SL wire)
N	3E		R Connector No. 49 (YEL-GN wire)
P	3E		R Connector No. 47 (WH-RD-GN wire)
R	5B	6	(GN wire)

* 35 RO used as auxiliary set requires a "K" connector per TP 323036 cable. To be ordered separately.

† 35 RO used as master set with associated auxiliary RO or ROTR requires a "K" connector per TP 323037 cable. To be ordered separately.

‡ Strap C5D to C2B if printer is equipped with print control solenoid and print suppression is not required.

TABLE K

35 ROTR TTY OPTION CONNECTIONS

OPTION DESIGNATION	WIRING FIELD C	K CONNECTOR	REMARKS
A	(1E)——(4A) (3D)—— Remove YEL wire on (5H) and connect to (5G). Remove BR wire on (3G) and connect to (3H) .		MST 1 (WH-OR wire) Use "A" connector
B	Remove (1E)——(4A) (4C)—— Move YEL wire from (5G) to (5H) . Move BR wire from (3H) to (3G) .		MST 1 (WH-OR wire) Use "K" connector

→ TABLE L ←

DATA SET 108-TYPE
SCREW SWITCH D SETTINGS
FOR REDUCING GAIN OF THE
RECEIVE BUFFER AMPLIFIER

LOOP FACILITY WITH 2300 HZ LOSSES (DB)	DATA SET 108A-TYPE			DATA SET 108E-TYPE		
	REDUCTION IN GAIN (DB)	SCREW SWITCH D		REDUCTION IN GAIN (DB)	SCREW SWITCH D	
		CLOSED	OPEN		CLOSED	OPEN
0 to 3	8		1-2, 3-4	6		1-2
3.1 to 7	4	1-2	3-4			
7.1 and Greater	0	3-4	1-2	0	1-2	

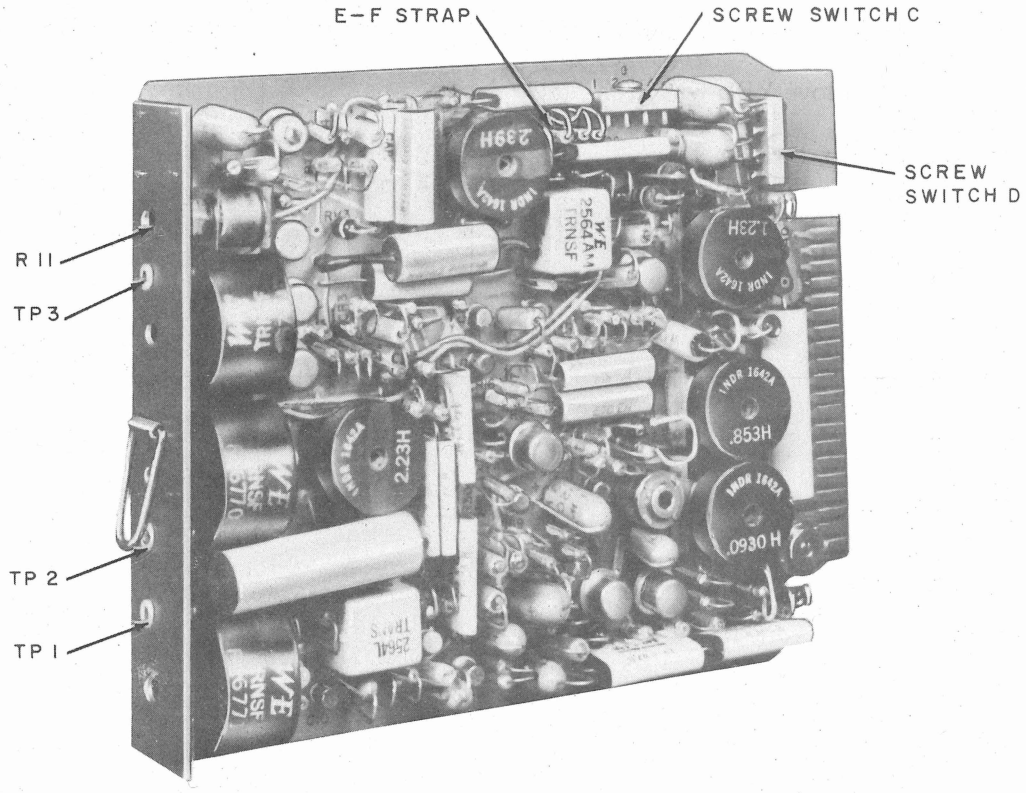

Fig. 9—Data Set 108A-Type—Locations of Test Points and Screw Switches

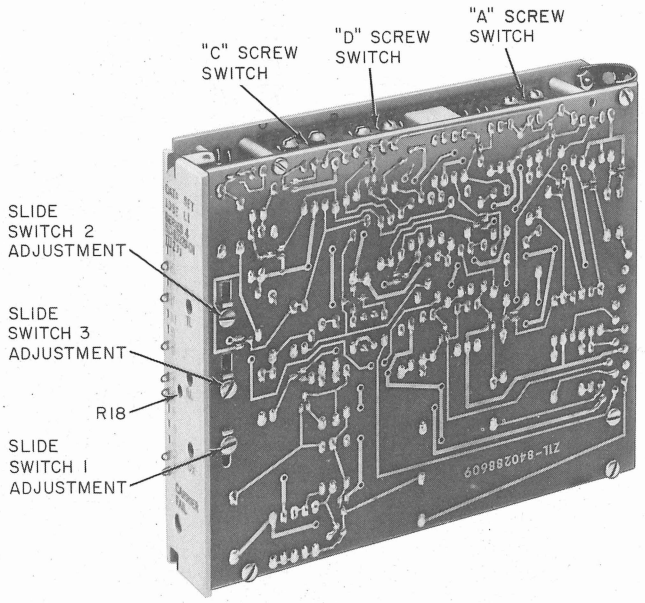

Fig. 10—Data Set 108E-Type—Locations of Test Points and Screw Switches

→ TABLE M ←

DATA SET 108-TYPE
HYBRID NETWORK

TYPICAL LOOP FACILITY	TYPICAL 2-WIRE LOOP IMPEDANCE MEASURED AT 2125 HZ	DATA SET 108E-TYPE				DATA SET 108A-TYPE		
		SCREW SWITCH C		SCREW SWITCH D		SCREW SWITCH C		E-F CONNECTION
		OPEN	CLOSE	OPEN	CLOSE	OPEN	CLOSE	
—	900*	1-2,3-4	2-3		3-4	1-2,3-4	2-3	STRAPPED
—	850	2-3,3-4	1-2	3-4		2-3,3-4	1-2	CUT
—	750	1-2,2-3	3-4	3-4		1-2,2-3	3-4	CUT
26 NL (HC)	650	2-3	1-2,3-4	3-4		2-3	1-2,3-4	CUT
24 NL (HC)	500	2-3,3-4	1-2		3-4	2-3,3-4	1-2	STRAPPED
22 NL (HC)	400	1-2,2-3	3-4		3-4	1-2,2-3	3-4	STRAPPED
19 NL (HC)	280	2-3	1-2,3-4		3-4	2-3	1-2,3-4	STRAPPED
16 NL (HC)	200	2-3	1-2,3-4		3-4	2-3	1-2,3-4	STRAPPED
26 H88 (HC)	1300	1-2,3-4	2-3	3-4		1-2,3-4	2-3	CUT
24 H88 (HC)	1260	1-2,3-4	2-3	3-4		1-2,3-4	2-3	CUT
22 H88 (HC)	1250	1-2,3-4	2-3	3-4		1-2,3-4	2-3	CUT
19 H88 (HC)	1240	1-2,3-4	2-3	3-4		1-2,3-4	2-3	CUT
16 H88 (HC)	1340	1-2,3-4	2-3	3-4		1-2,3-4	2-3	CUT

NL — Nonloaded (HC) — High Capacity

*Compromise hybrid network switching

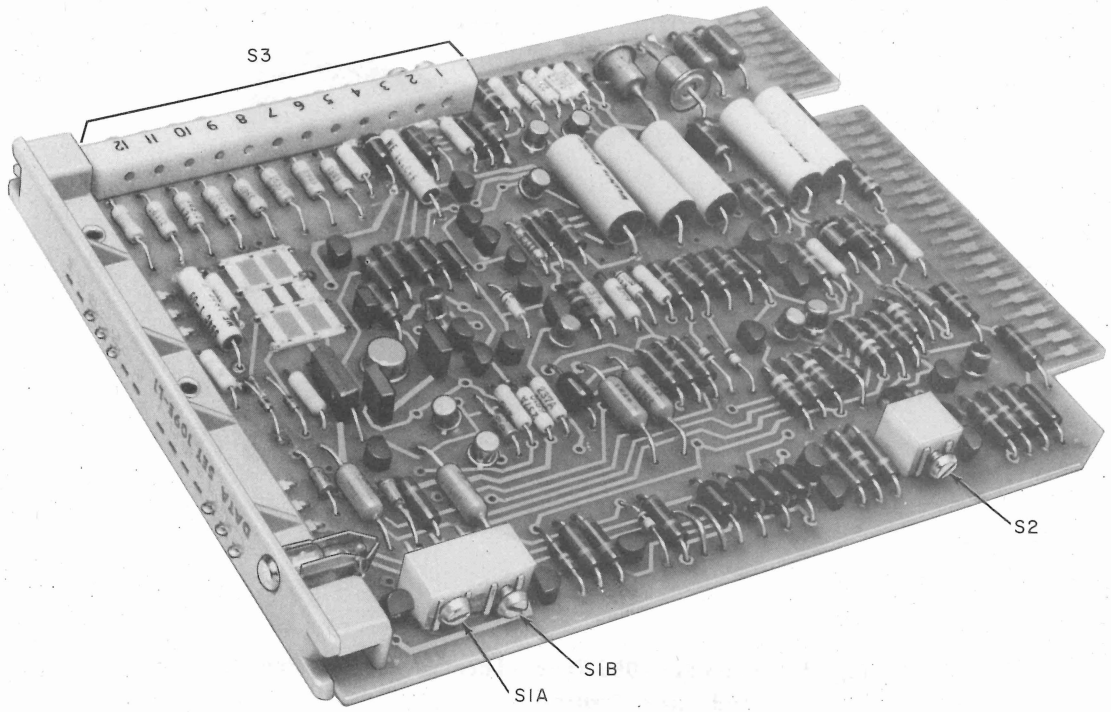

Fig. 11—Data Set 109E-Type—Locations of Screw Switches

→ TABLE N ←

DATA SET 109E-TYPE
LINE PAD ADJUSTMENTS

LINE PAD RESISTANCE (OHMS)	SCREW SWITCH S3 SETTINGS	
	CLOSE S3-	OPEN S3-
00.0	4,5,6,7,9,10,11,12	
136.2	4,5,6,10,11,12	7,9
266.0	4,5,7,9,11,12	6,10
402.2	4,5,11,12	6,7,9,10
522.0	4,6,7,9,10,12	5,11
658.2	4,6,10,12	5,7,9,11
788.0	4,7,9,12	5,6,10,11
924.2	4,12	5,6,7,9,10,11
1022.0	5,6,7,9,10,11	4,12
1158.2	5,6,10,11	4,7,9,12
1288.0	5,7,9,11	4,6,10,12
1424.2	5,11	4,6,7,9,10,12
1544.0	6,7,9,10	4,5,11,12
1680.2	6,10	4,5,7,9,11,12
1810.0	7,9	4,5,6,10,11,12
1946.2		4,5,6,7,9,10,11,12

→ TABLE O ←

SCREW SWITCH SETTINGS FOR OPTIONS
ON DATA SET 109E

FUNCTION PROVIDED		OPTION DESIG	FACTORY EQUIPPED	SCREW SWITCH SETTING	
				CLOSE	OPEN
Current Squelch		Z	√	S2	
No Current Squelch		Y	†		S2
BB LEAD	SPACE HOLD	V		S1A*	S1B*
	MARK HOLD	U	√	S1B*	S1A*
CROSSOVER SHIFT	SPACE	R		S3-2	S3-1
	MARK	Q	√		S3-1 & S3-2
	NONE	P		S3-1	S3-2

*Screw switch should not be inserted in the center positions of screw switch S1A and S1B.

† Y option must be installed for this service.