

## 711B, 712B, 712BM, 2712B, AND 2712BM TELEPHONE SETS

### CONNECTIONS

#### SPEAKERPHONE SYSTEM—4A

##### 1. GENERAL

**1.01** This section contains information on the 711B (MD), 712B (MD), 712BM (MD), 2712B, and 2712BM telephone sets. Refer to Section 512-700-100 for detailed information on the components of the 4A speakerphone system.

**1.02** The reason for reissuing this section is to add information to identify grandfathered and registered arrangements. Revision arrows are used to emphasize the more significant changes.

**1.03** To provide 4A speakerphone feature at these telephone sets, refer to (Fig. 1, 2, and 3) for layout arrangement of the components required for the system and (Fig. 4 through 10) for individual lead connections.

**1.04** The 711B (MD) telephone set is designed for non-KTS use (Fig. 4). The 712B (MD), 712BM, 2712B (MD), or 2712BM telephone sets can be used with or without 1A1 or 1A2 KTS (Fig. 5, 6, 7, 8, 9, or 10). Refer to appropriate modification table shown in Fig. 5 or 7 when connecting 712B (MD) or 2712B (MD) telephone set.

##### 2. CONNECTIONS

###### A. 223-Type Adapter

**2.01** Plug the cords from the 108-type loudspeaker set, 680-type transmitter, and 85B1 power unit into in the proper receptacle of the 223-type adapter. The cover must be fastened securely to assure proper mating of connectors.

###### B. 108-Type Loudspeaker Set

**2.02** The loudspeaker set and transmitter must be placed a minimum of one foot apart.

###### C. 680-Type Transmitter

**2.03** The transmitter must be at least two feet from transformer or any ac powered device.

###### D. 85B1 Power Unit

**Danger:** For safety, securely attach retaining clamp to ac outlet using outlet cover screw **BEFORE** attempting to install 85B1 power unit. The power unit and any other cord plugged into the ac outlet should always be unplugged completely from outlet **BEFORE** attempting to attach or remove the retaining clamp. This will prevent the possibility of a loosened retainer clamp or metallic outlet cover making contact with the ac prongs of the 85B1 power unit when partially withdrawn from outlet. Do not use retaining clamp on outlets where the cover mounting screw holds the duplex outlet in the box.

**Warning:** Care should be taken to trim and dress leads connecting to low voltage output terminals of 85B1 power unit to assure that inadvertent connection to conducting surfaces or other power source does not occur. If more than one power unit is plugged into a multiple receptacle power strip, there must be at least one inch separation between power units. Only UL listed receptacle power strips with adequate power rating shall be used. Use of a continuous terminal power strip that allows the secondary output terminals of the power unit to be in close proximity to the ac line source is not recommended.

**2.04** Power can be supplied by connecting 85B1 power unit as shown in Fig. 1, 2, 3, 6, 7, 8, 9, or 10.

##### NOTICE

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2.05 Use an ac power outlet (not under control of a switch) located as close as possible to the system being installed. An 841050818 retaining clamp will be shipped with the 85B1 power unit and should be mounted to the ac receptacle to hold power unit securely (Fig. 1, 2, or 3).

2.06 The M2FG cord is furnished as part of the 223-

type adapter for connecting the 85B1 power unit.

2.07 The 85B1 power unit should be located less than 125 feet from 108-type loudspeaker set when using 24 gauge wire or less than 85 feet when using 26 gauge wire. Refer to Section 512-700-100 for detailed information on power supply application.

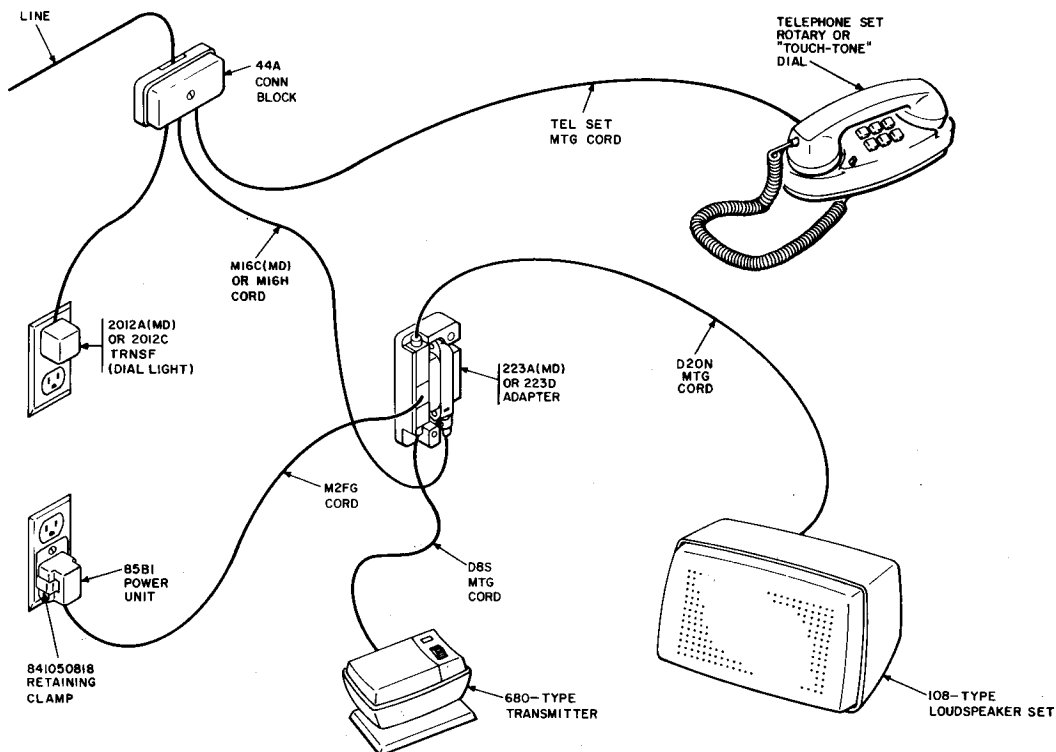
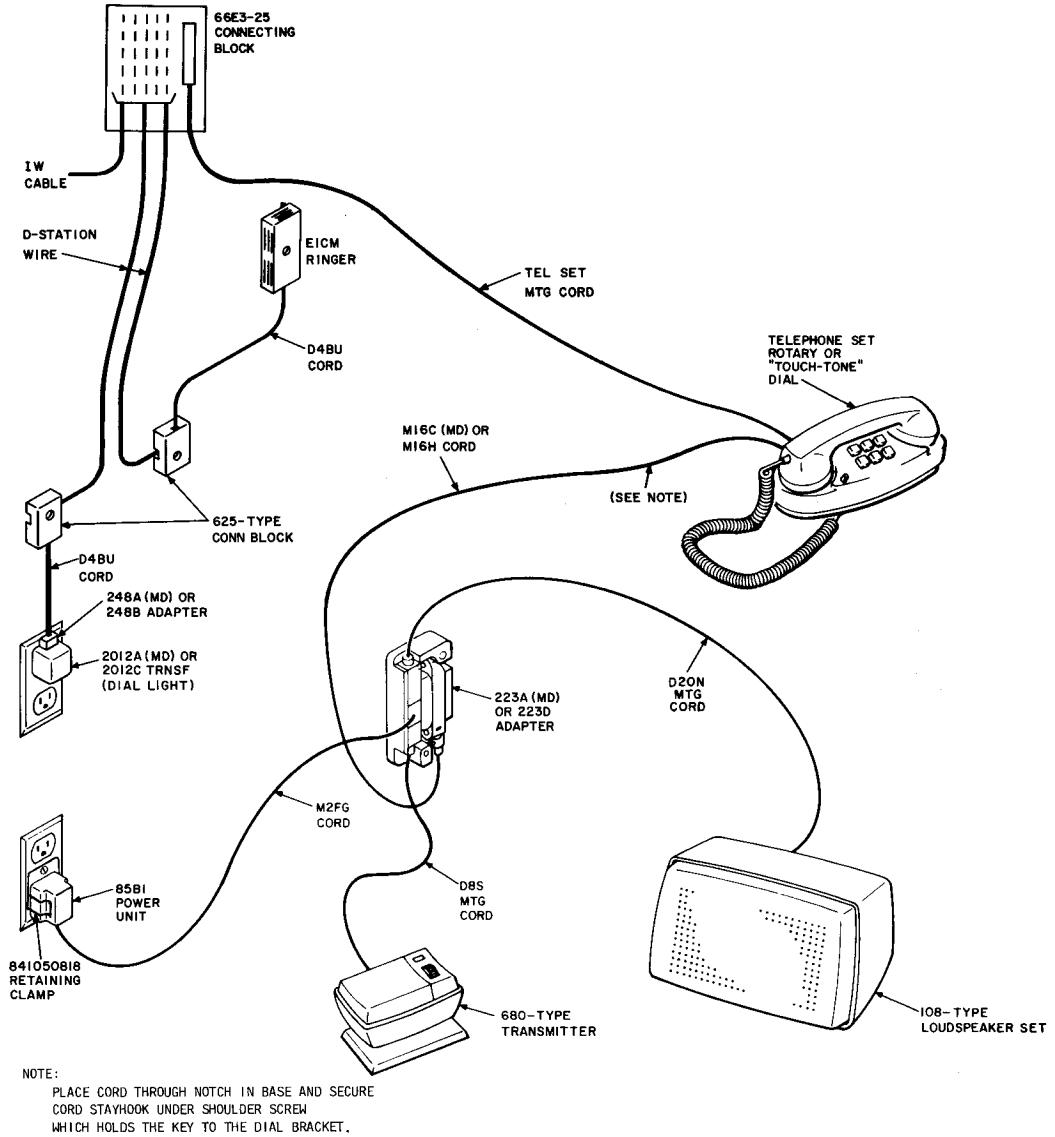
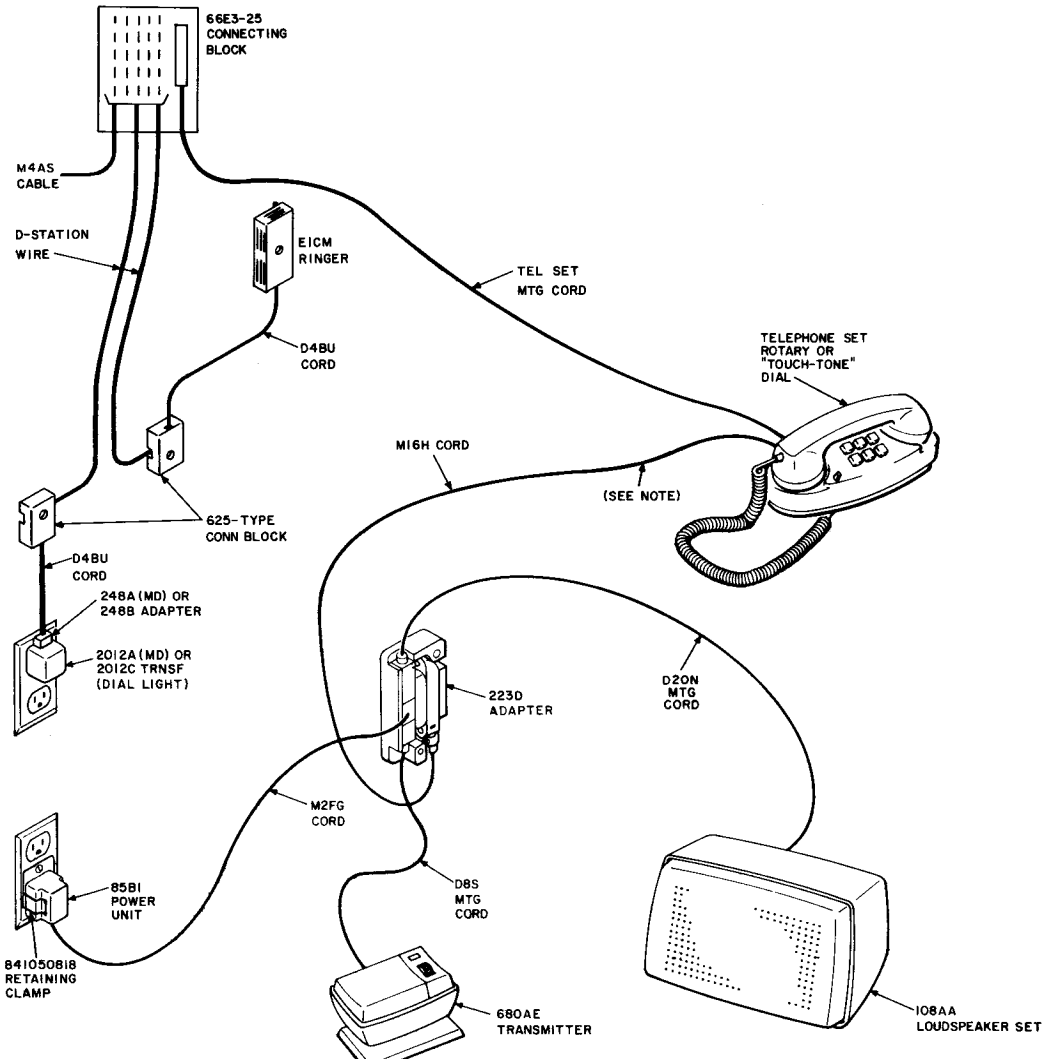


Fig. 1—Typical Grandfathered 4A Speakerphone System Arrangement, 711B (MD), 712B (MD), or 2712B (MD) Telephone Set, Using 223A (MD) or 223D Adapter

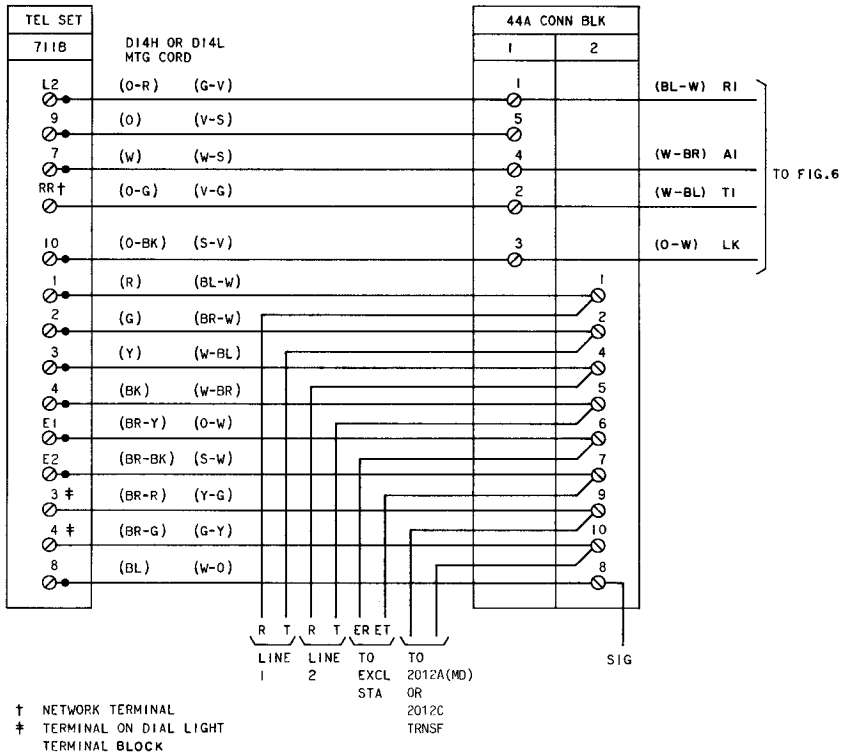


**Fig. 2—Typical Grandfathered 4A Speakerphone System Arrangement, 712BM or 2712BM Telephone Set Using 223A (MD) or 223D Adapter**

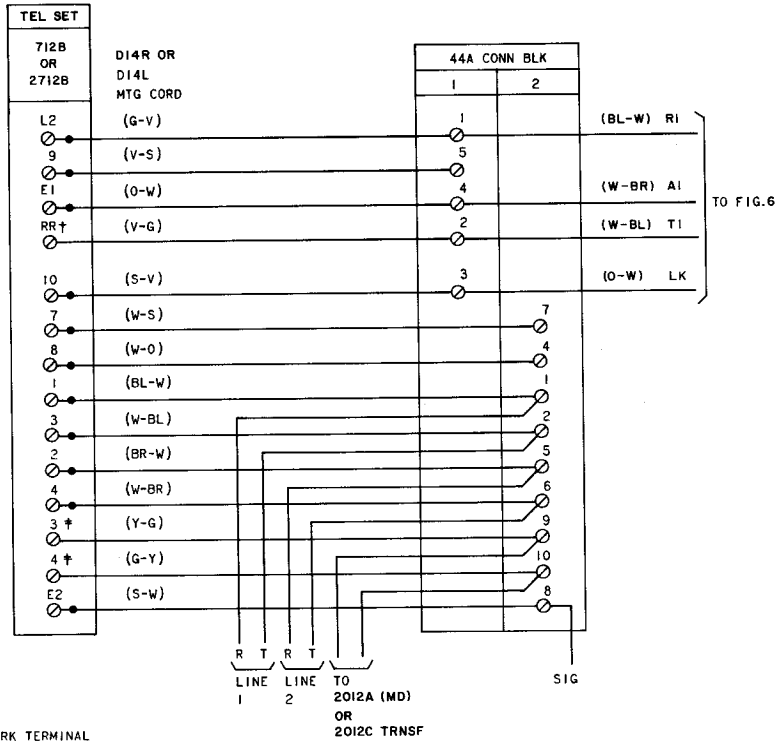


NOTE:  
 PLACE CORD THROUGH NOTCH IN BASE AND SECURE  
 CORD STAYHOOK UNDER SHOULDER SCREW  
 WHICH HOLDS THE KEY TO THE DIAL BRACKET.

**Fig. 3 — Registered 4A Speakerphone System Arrangement, 712BM or 2712BM Telephone Set Using 223D Adapter**



**Fig. 4—Grandfathered 4A Speakerphone System Arrangement, Connections to 711B (MD) Telephone Set Wired for 2-Line Pickup, Exclusion on Line 1, and Signaling (Not to be Used With 1A1 or 1A2 KTS)**



† NETWORK TERMINAL  
‡ TERMINAL ON DIAL LIGHT  
TERMINAL BLOCK

712B OR 2712B TELEPHONE SET  
MODIFICATION FOR 4A SPEAKERPHONE  
(NOT TO BE USED WITH KTS)

WIRE OR LEAD	COLOR	REMOVE FROM		CONNECT TO
		TERM. STRIP	NET.	TERM. STRIP
638B LINE KEY	(w)	7		E1
LINE SWITCH	(BR)	E1		9
	(S)		LI	10

**Fig. 5—Grandfathered 4A Speakerphone System Arrangement, Connections to 712B (MD) or 2712B (MD) Telephone Set Wired for 2-Line Pickup, Hold on Line 1, and Signaling (Not to be Used With 1A1 or 1A2 KTS)**

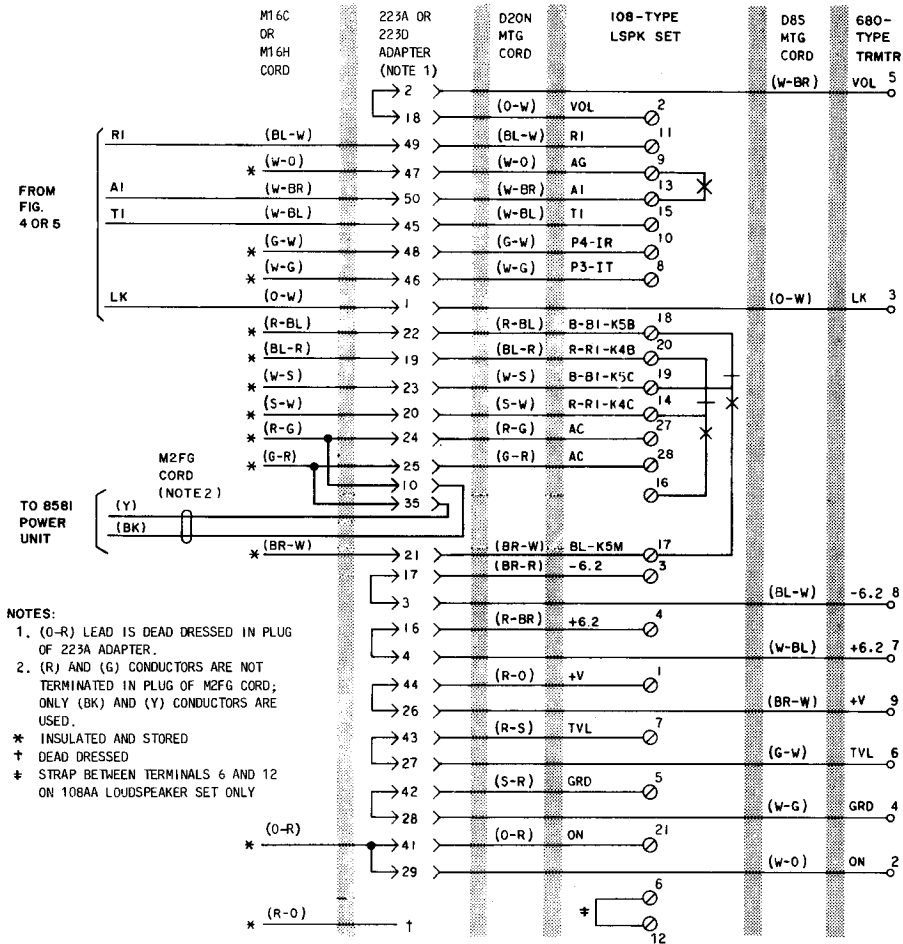
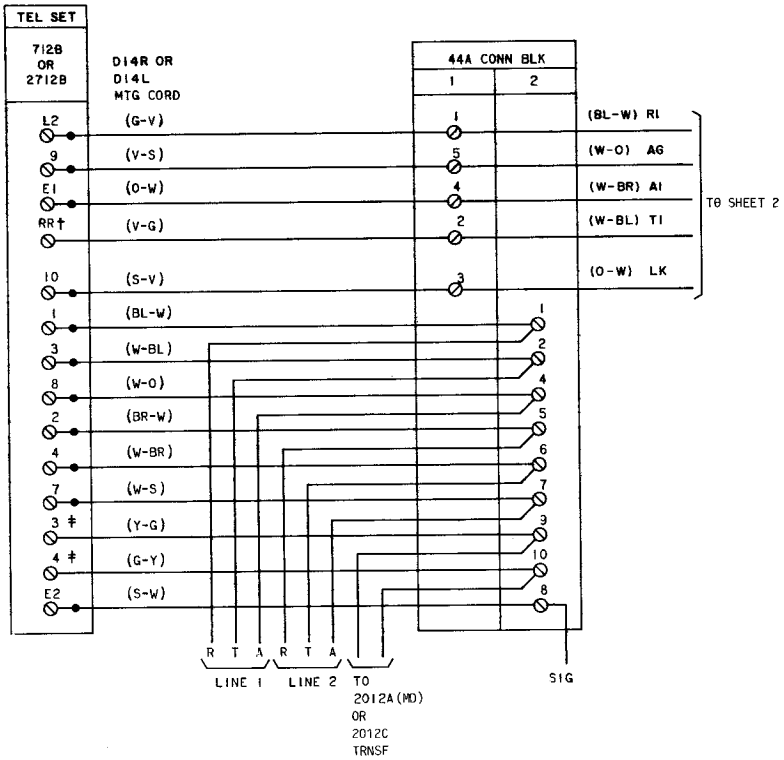


Fig. 6—Grandfathered 4A Speakerphone System Arrangement, Connections for Telephone Sets Shown in Fig. 4 and 5



712B OR 2712B TELEPHONE SET  
 MODIFICATION FOR 4A SPEAKERPHONE  
 (USED WITH 1A1 OR 1A2 KTS)

WIRE OR LEAD	COLOR	REMOVE FROM		CONNECT TO
		NET	TERM. STRIP	TERM. STRIP
LINE SWITCH	(BR)		E1	9
	(S)	LI		10
638B LINE KEY	(W-O)	G		9
	(O-BK)		10	8
	(O)		9	7
	(S)		8	*
	(W)		7	E1
EXCLUSION SWITCH	(BR)		1	*
	(W)		3	*
	(BK)		3	*

Fig. 7—4A Speakerphone System Arrangement, Connections to 712B (MD) or 2712B (MD) Telephone Set Wired for 2-Line Pickup, Hold on Line 1, and Signaling (Used With 1A1 or 1A2 KTS) (Sheet 1 of 2)



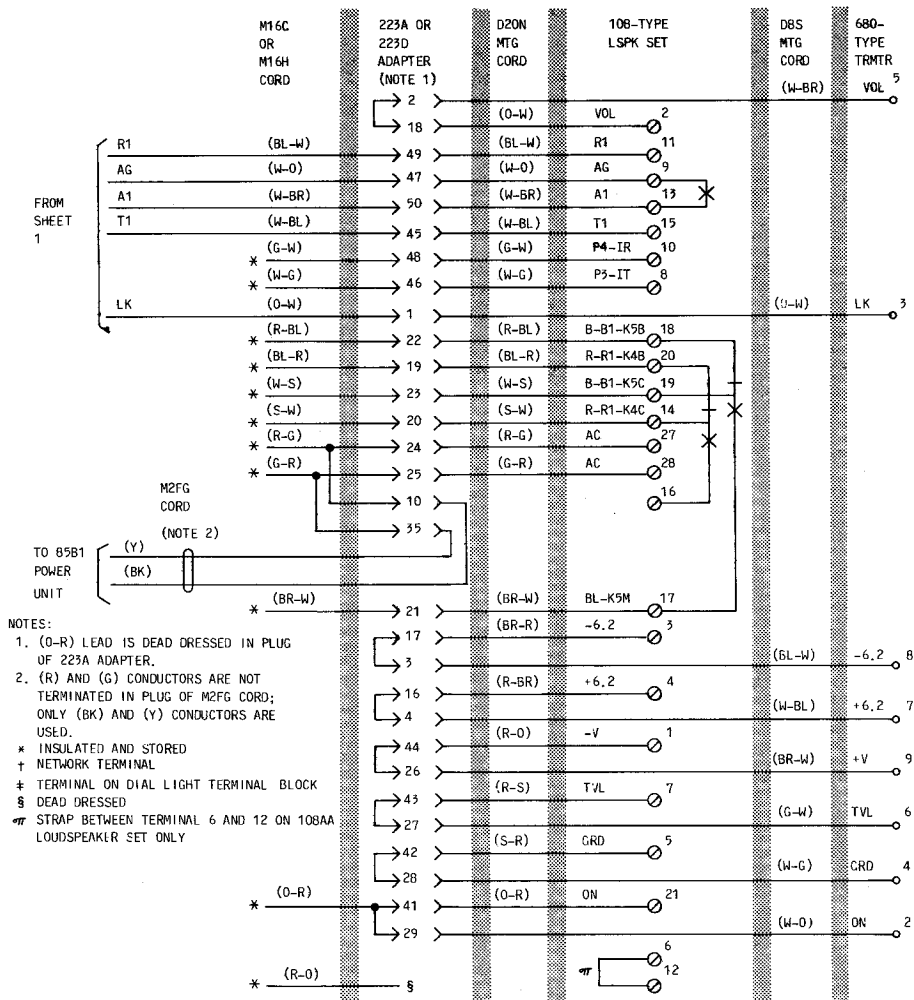
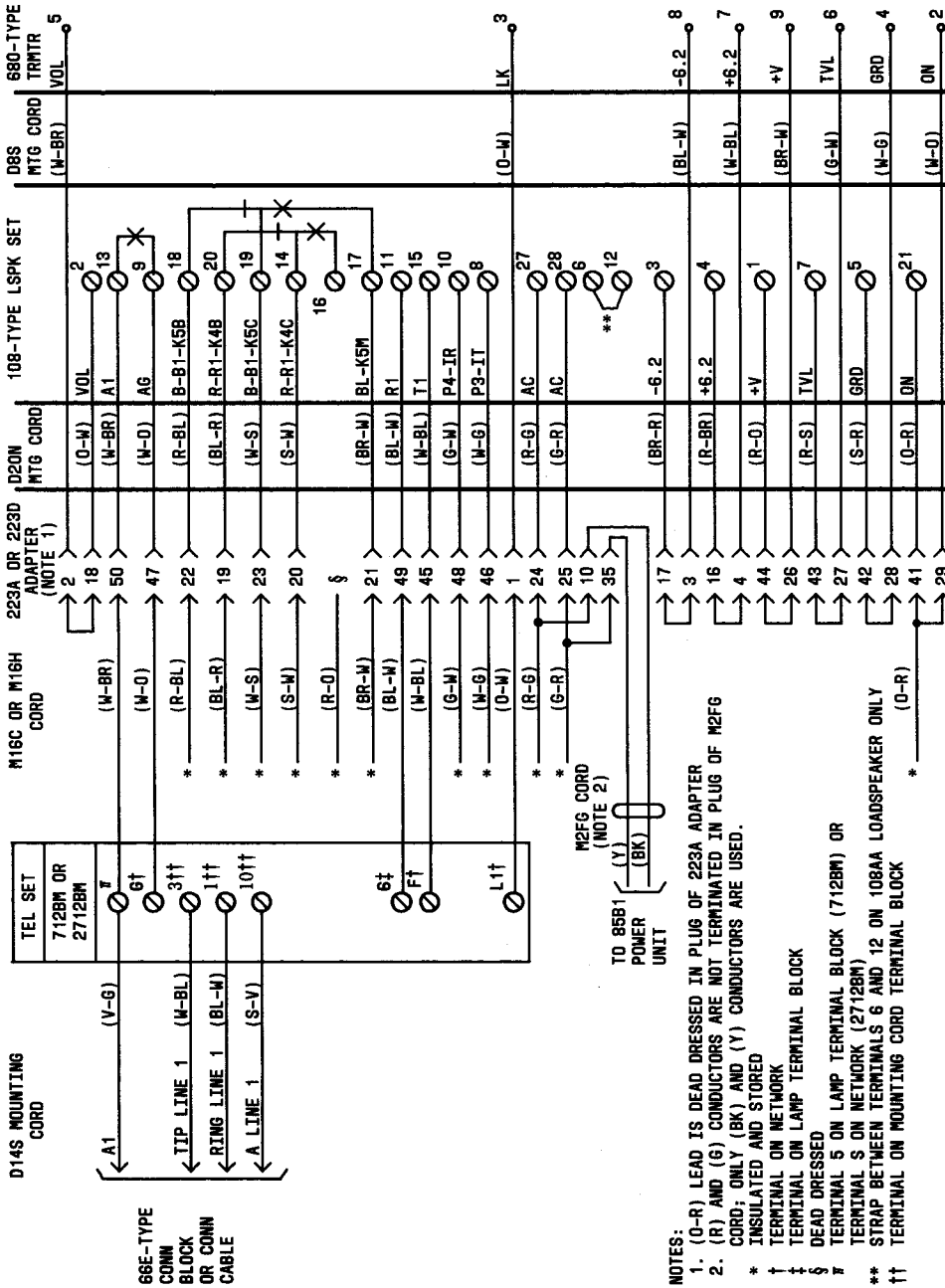
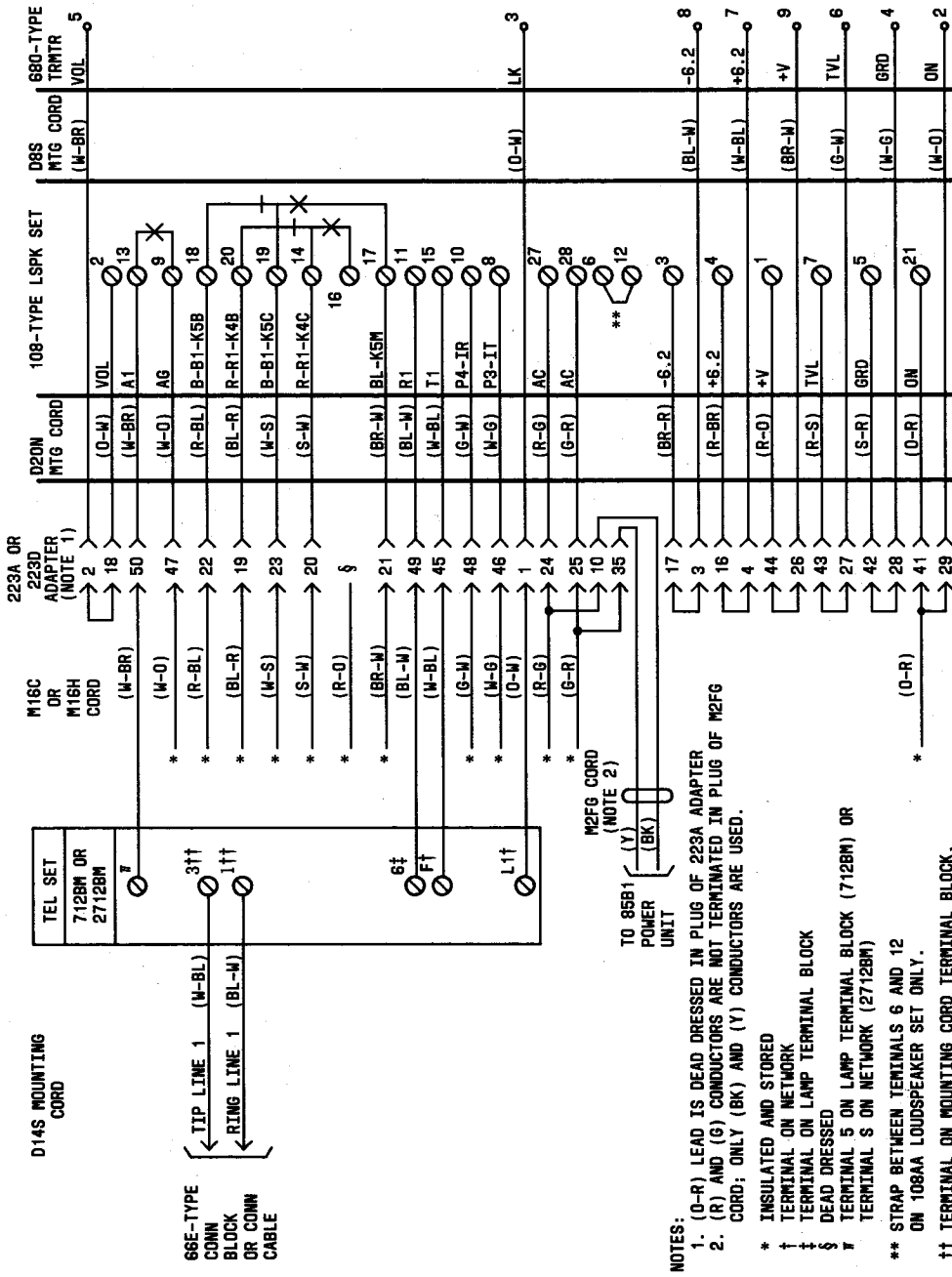


Fig. 7—4A Speakerphone System Arrangement, Connections to 712B (MD) or 2712B (MD) Telephone Set Wired for 2-Line Pickup, Hold on Line 1, and Signaling (Used With 1A1 or 1A2 KTS) (Sheet 2 of 2)



- NOTES:
1. (O-R) LEAD IS DEAD DRESSED IN PLUG OF 223A ADAPTER
  2. (R) AND (G) CONDUCTORS ARE NOT TERMINATED IN PLUG OF M2FG CORD; ONLY (BK) AND (Y) CONDUCTORS ARE USED.
- \* INSULATED AND STORED
  - † TERMINAL ON NETWORK
  - ‡ TERMINAL ON LAMP TERMINAL BLOCK
  - § DEAD DRESSED
  - ¶ TERMINAL 5 ON LAMP TERMINAL BLOCK (712BM) OR TERMINAL 5 ON NETWORK (2712BM)
  - \*\* STRAP BETWEEN TERMINALS 6 AND 12 ON 108AA LOADSPEAKER ONLY
  - †† TERMINAL ON MOUNTING CORD TERMINAL BLOCK

Fig. 8—4A Speakerphone System Arrangement, Connections to 712BM or 2712BM Telephone Set Wired for 2-Line Pick-up. Exclusion on Line 1, and Signaling (Used With 1A1 or 1A2 KTS)

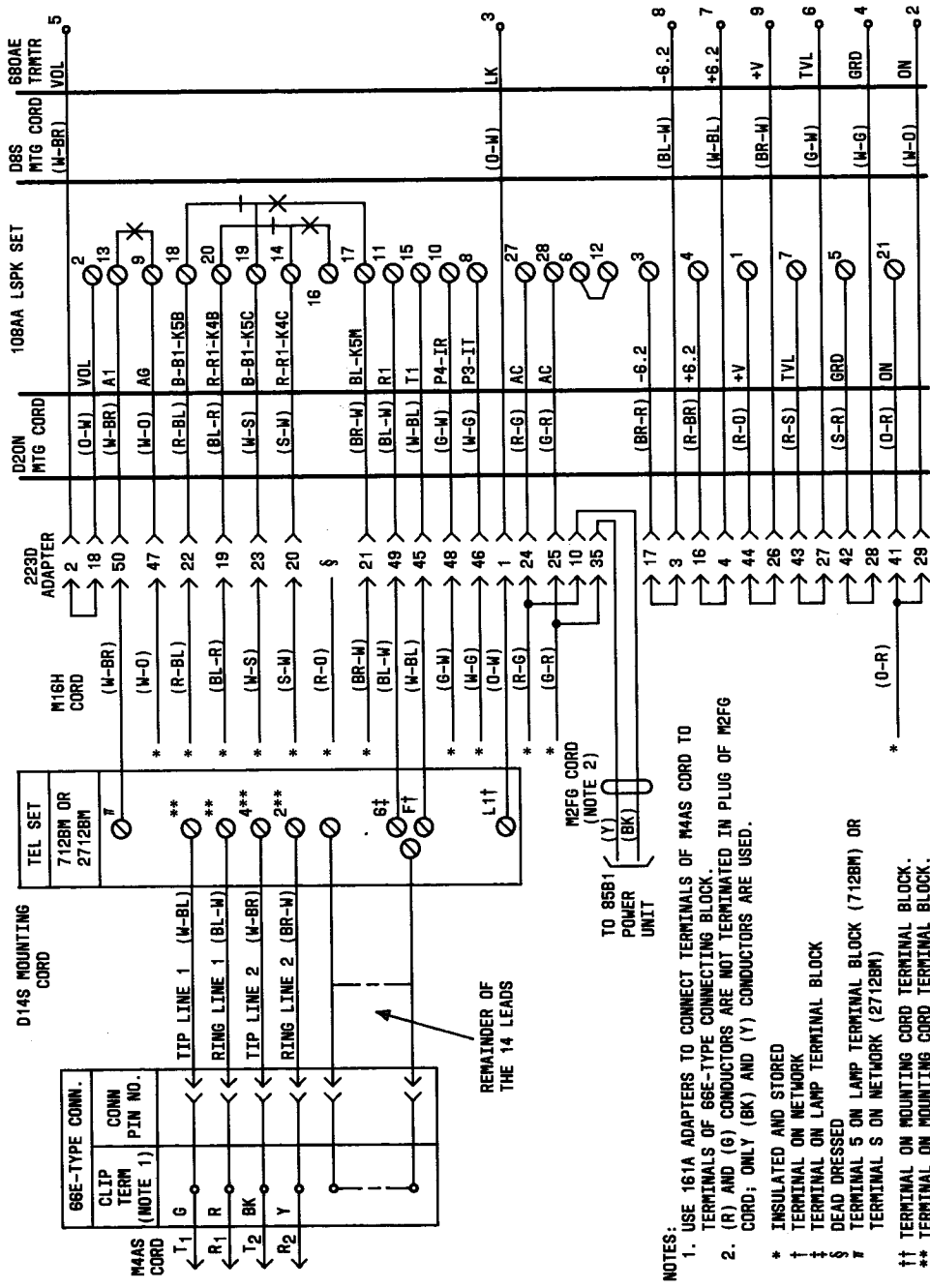


NOTES:

1. (O-R) LEAD IS DEAD DRESSED IN PLUG OF 223A ADAPTER
2. (R) AND (G) CONDUCTORS ARE NOT TERMINATED IN PLUG OF M2FG CORD; ONLY (BK) AND (Y) CONDUCTORS ARE USED.

\* INSULATED AND STORED  
† TERMINAL ON NETWORK  
‡ TERMINAL ON LAMP TERMINAL BLOCK  
§ DEAD DRESSED  
¶ TERMINAL 5 ON LAMP TERMINAL BLOCK (712BM) OR TERMINAL 5 ON NETWORK (2712BM)  
\*\* STRAP BETWEEN TERMINALS 6 AND 12 ON 108AA LOUSPEAKER SET ONLY.  
†† TERMINAL ON MOUNTING CORD TERMINAL BLOCK.

Fig. 9—M4A Speakerphone System Arrangement, Connections to 712BM or 2712BM Telephone Set Wired for 2-Line Pick-up, Exclusion on Line 1, and Signaling (Not to be Used With 1A1 or 1A2 KTS)¶



- NOTES:
1. USE 161A ADAPTERS TO CONNECT TERMINALS OF M4AS CORD TO TERMINALS OF 66E-TYPE CONNECTING BLOCK. (R) AND (G) CONDUCTORS ARE NOT TERMINATED IN PLUG OF M2FG CORD; ONLY (BK) AND (Y) CONDUCTORS ARE USED.
  2. \* INSULATED AND STORED  
† TERMINAL ON NETWORK  
‡ TERMINAL ON LAMP TERMINAL BLOCK  
§ DEAD DRESSED  
¶ TERMINAL 5 ON LAMP TERMINAL BLOCK (712BM) OR TERMINAL 5 ON NETWORK (2712BM)  
†† TERMINAL ON MOUNTING CORD TERMINAL BLOCK.  
\*\* TERMINAL ON MOUNTING CORD TERMINAL BLOCK.

Fig. 10—Registered 4A Speakerphone Arrangement, Connections to 712BM or 2712BM Telephone Set Wired for 2-Line Pickup, Exclusion on Line 1, and Signaling