

830-, 831-, 2830-, AND 2831-TYPE TELEPHONE SETS

CONNECTIONS

SPEAKERPHONE SYSTEM—4A

1. GENERAL

1.01 This section contains information necessary to connect the 830-, 831-, 2830-, or 2831-type telephone set to provide speakerphone service. Refer to Section 512-700-100 for detailed information on components of the 4A speakerphone system.

1.02 This section is reissued to:

- Add safety information for the 85B1 power unit
- Show 223A adapter and M16C cord MD
- Add 223D adapter and M16H cord
- Add 108AA loudspeaker set
- Add 841050818 retaining clamp.

1.03 Rotary telephone sets equipped with an 8RA dial must be equipped with an 8CA dial when used with 4A speakerphone. The second set of off-normal contacts on 8CA dial shall connect to the same terminals as P3 and P4 leads from the speakerphone.

2. CONNECTIONS

A. 223-Type Adapter

2.01 The cords from the 108-type loudspeaker set, 680-type transmitter, and 85B1 power unit are installed in the proper receptacles of the 223A (MD) or 223D adapter. The cover must be fastened securely to assure proper mating of connectors.

2.02 Ringer Cutoff can be provided by connecting ringer leads as shown in Fig. 2. Ringer cutoff provides cut off of the telephone set ringer

through the loudspeaker set relay contacts while on speakerphone.

2.03 Due to insufficient mounting cord conductors in the other sets, the auxiliary relay feature can only be used in the 831DM, and 2831DM (modular) telephone sets. The auxiliary feature provides a contact closure for the operation of an auxiliary relay key telephone unit when it is desired to cut off several signals.

B. 108-Type Loudspeaker Set

2.04 Loudspeaker set and transmitter must be a minimum of one foot apart.

C. 680-Type Transmitter

2.05 Transmitter must be at least two feet from transformer or any ac powered device.

D. 85B1 Power Unit

2.06 Use an ac power outlet (not under control of a switch) as close as possible to the system being installed. A retaining clamp (841050818) will be shipped with the 85B1 power unit and should be mounted to the ac receptacle to hold power unit securely to prevent accidental loss of power.

2.07 Power can be provided by making connections as shown in Fig. 1 and 2.

2.08 The M2FG cord is furnished as part of the 223A (MD) or 223D adapter for connecting the 85B1 power unit.

2.09 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 power supply information.

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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 on the 85B1 power unit when partially withdrawn from outlet. Do not use retaining clamp on outlets where 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.♦

♦TABLE A♦

SPEAKERPHONE MODIFICATION FOR TELEPHONE SETS
EQUIPPED WITH NEW LINE SWITCH (NOTE)

TELEPHONE SET	LEAD COLOR	REMOVE FROM TERM.	CONNECT TO TERM.
830DM, 831DM, 2830DM, 2831DM, or 830CM, 831CM, 2830CM and 2831CM (MFR after 1-77)	G	16	8
830CM(MFR Before 2-77)	G	16	F
831CM(MFR Before 2-77)	G	16	F
	G		
2830CM or 2831CM(MFR Before 2-77)	G	8	16

Note: The new line switch can be identified by two additional leads which are (BL). No modification is required on sets equipped with old line switch [no (BL) leads].

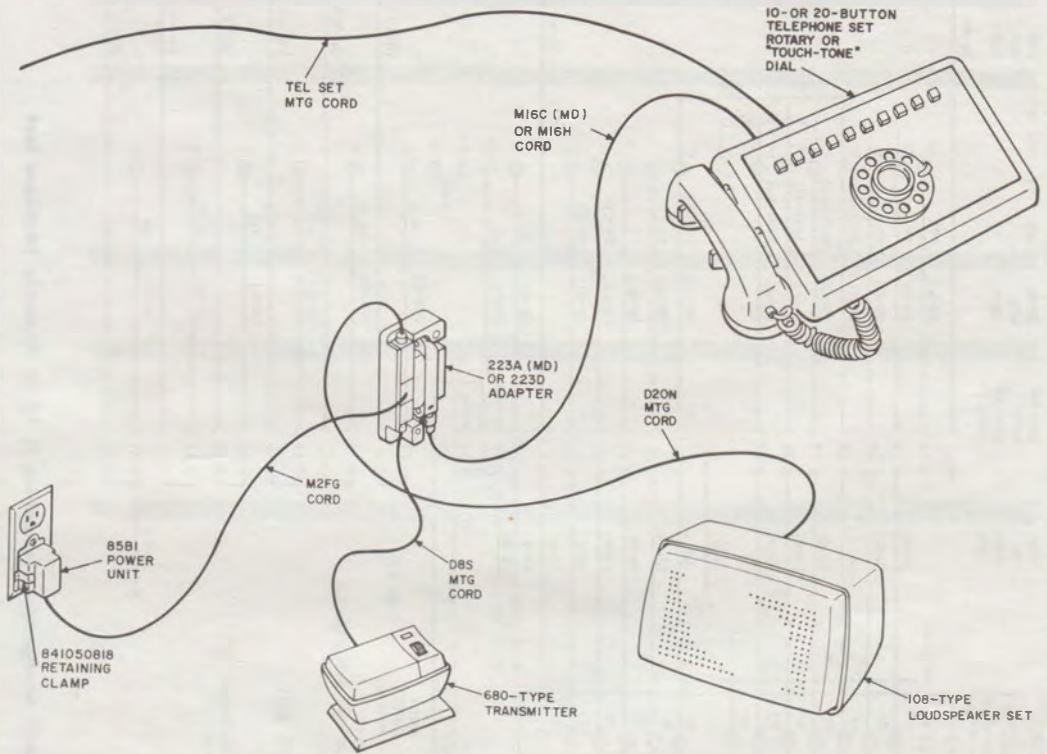


Fig. 1—4A Speakerphone System Arrangement, 10- or 20-Button Telephone Set

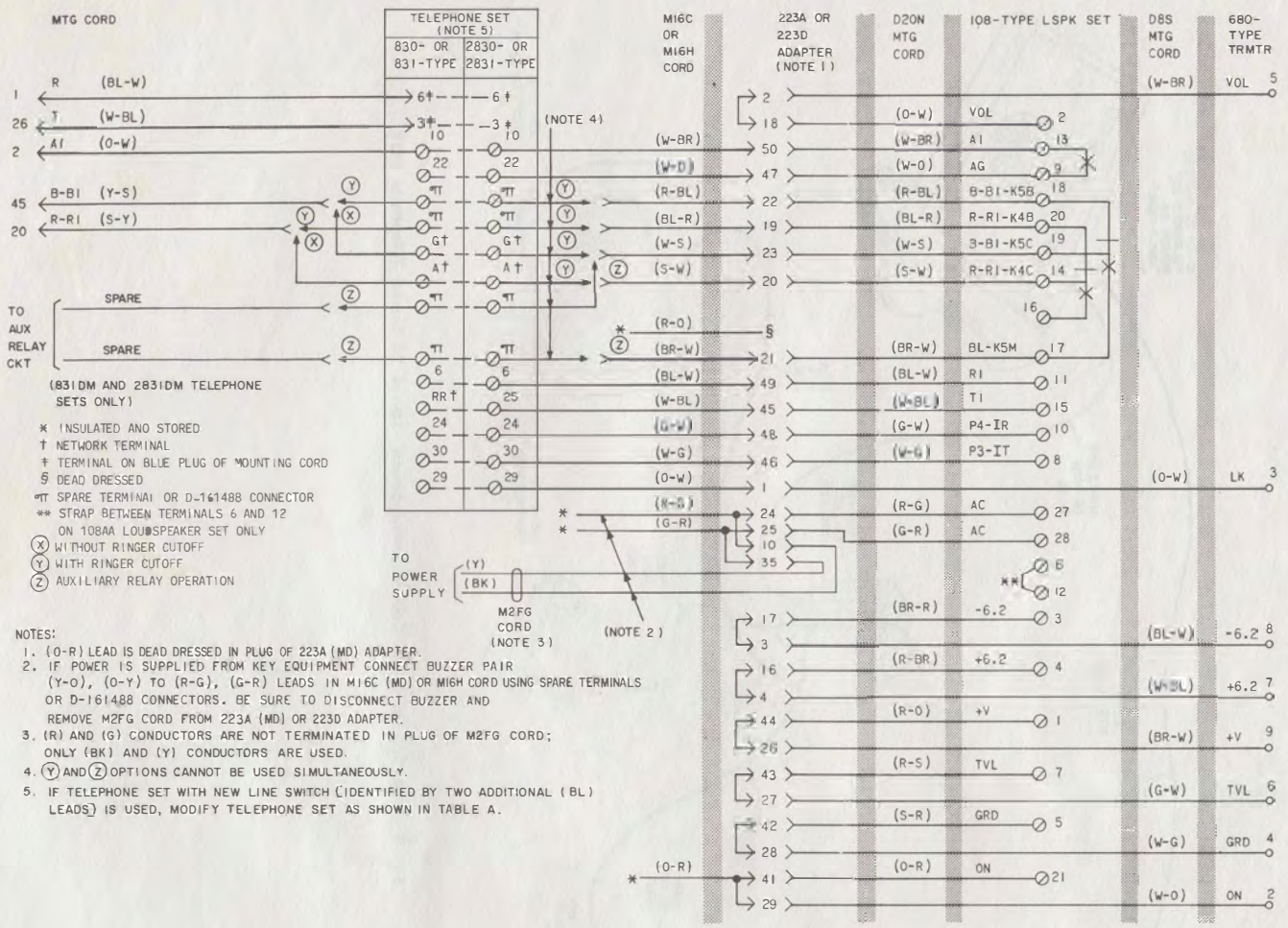


Fig. 2—4A Speakerphone System Arrangement, Connections to 10- or 20-Button Telephone Set

832-, 833-, 2832-, AND 2833-TYPE TELEPHONE SETS

CONNECTIONS

SPEAKERPHONE SYSTEM—4A

1. GENERAL

1.01 This section contains information necessary to connect the 832-, 833-, 2832-, or 2833-type telephone sets to provide 4A speakerphone service. Refer to Section 512-700-100 for detailed information on components of the 4A speakerphone system.

1.02 This section is reissued to:

- Revise safety information for the 85B1 power unit
- Add 108AA loudspeaker set.

1.03 Refer to Section 512-700-100 for detailed information on components of the 4A speakerphone system.

1.04 The 832- and 2832-type telephone sets are special 10-, 11-, or 13-button sets initially designed to work with the 7A Communication System.

1.05 The 833- and 2833-type telephone sets are special 20-button sets initially designed to work with the 14A Communication System.

2. CONNECTIONS

A. 223-Type Adapter

2.01 Telephone sets are connected to the speakerphone system by means of a 223A (MD) or 223D adapter which consists of the following.

- (a) Plastic housing.
- (b) M16C (MD) or M16H cord for connecting to telephone set.

(c) M2FG cord for connecting the power supply.

Note: Cords from the 108-type loudspeaker set, 680-type transmitter, and 85B1 power unit plug into the connector of the M16C (MD) or M16H cord.

2.02 After cords are installed in the proper receptacles of the adapter, the cover must be fastened securely to assure proper mating of connectors.

B. 108-Type Loudspeaker Set

2.03 The loudspeaker set and transmitter must be a minimum of one foot apart and not directly facing each other.

C. 680-Type Transmitter

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

D. Power Supply

2.05 Power is supplied by connecting an 85B1 power unit using M2FG cord as shown in Fig. 1 and 2.

2.06 Use an ac power outlet (not under control of a switch) located as close as possible to the system being installed. A retaining clamp (841050818) will be shipped with the 85B1 power unit and should be mounted to the ac receptacle to hold power unit securely, and to prevent accidental loss of power.

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

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512-700-100 for detailed information on power supply applications.

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 on the 85B1 power unit when partially withdrawn from outlet. Do not use retaining clamp on outlets where 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.⚡

2.08 These sets are not provided with **ringer cutoff** or **auxiliary relay** optional features associated with most CALL DIRECTOR® sets when using 4A speakerphone. The wiring changes shown in the top portion of Table A serve to reduce the tone or voice level on incoming calls while in speakerphone mode.

TABLE A
SPEAKERPHONE CONNECTIONS

WIRE OR LEAD	LEAD DESIG	COLOR	REMOVE	CONNECT TO TEL SET TERM.
Line Switch Lead		W-S	Term. 1 of Amplifier PWB Assy	Connect these leads together using spare terminal in set or D-161488 connector
Leads in Adapter Cord*		S-W		
		BL-R		Term. 1 of amplifier PWB Assy
	T1	W-BL		§
	R1	BL-W		6
	AG	W-O		8
	LK	O-W		29
	P3† IT‡	W-G		30
	P4† IR‡	G-W		24
A1	W-BR		10	
(See Note)		O	27	22

Note: This change is necessary on modular type sets. On early production sets, (O) lead is on terminal 22.

* Insulate and store spare leads.

† Rotary dial telephone set.

‡ TOUCH-TONE® telephone set.

§ Terminal RR of network for rotary dial sets. Terminal 25 for TOUCH-TONE dial sets.

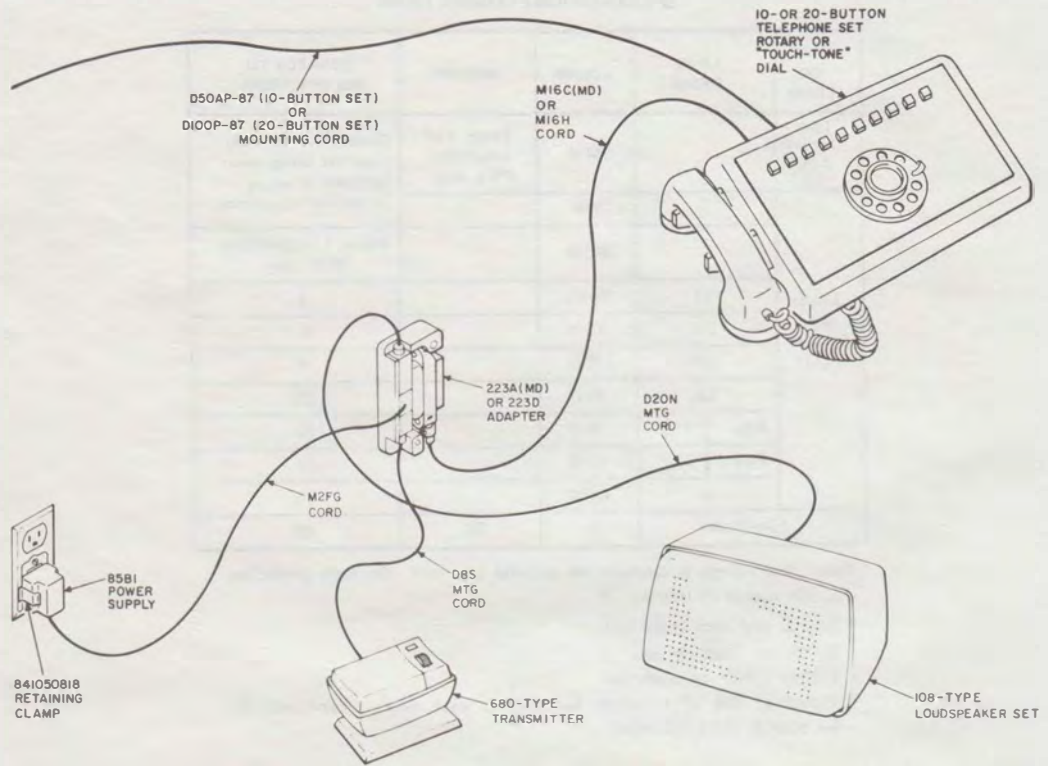


Fig. 1—4A Speakerphone System Arrangement, 10- or 20-Button Telephone Set

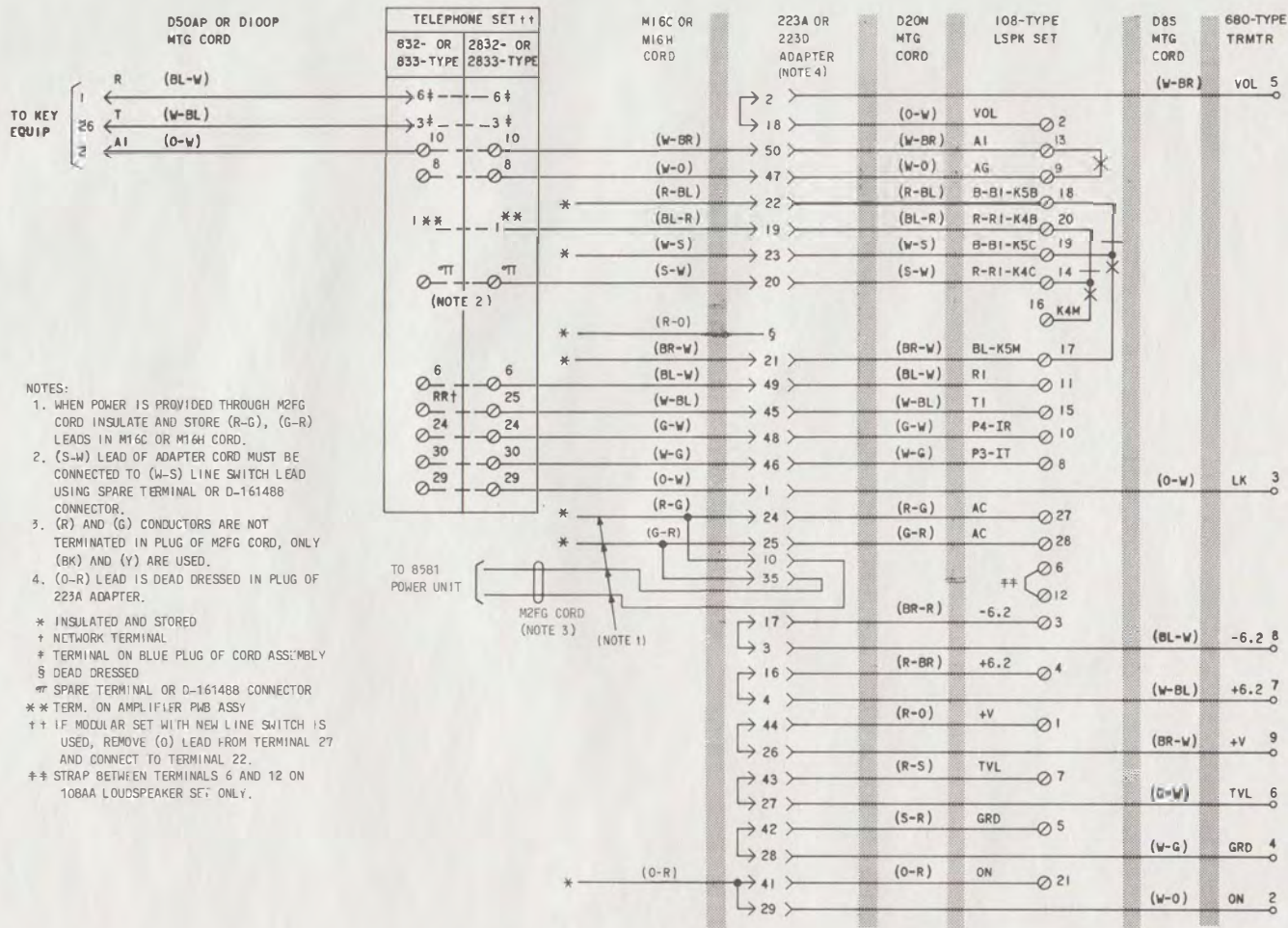


Fig. 2—4A Speakerphone System Arrangement, Connections to 10- or 20-Button Telephone Set