

## 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.

#### NOTICE

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Bell System except under written agreement

**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].

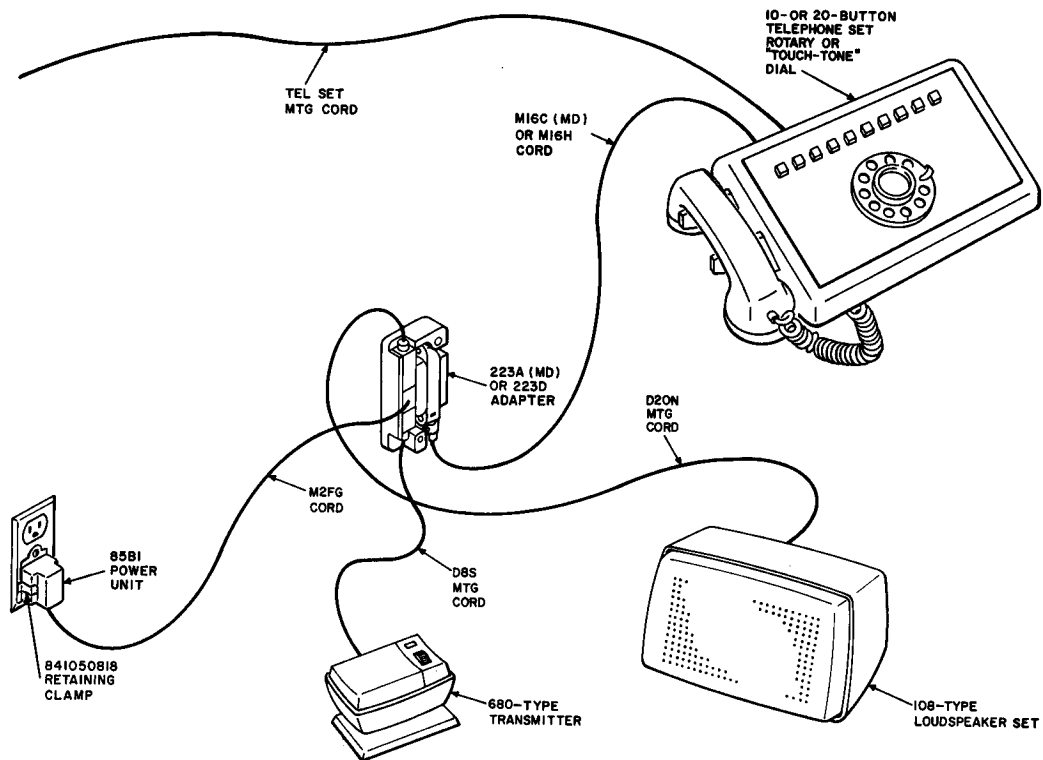


Fig. 1—4A Speakerphone System Arrangement, 10- or 20-Button Telephone Set

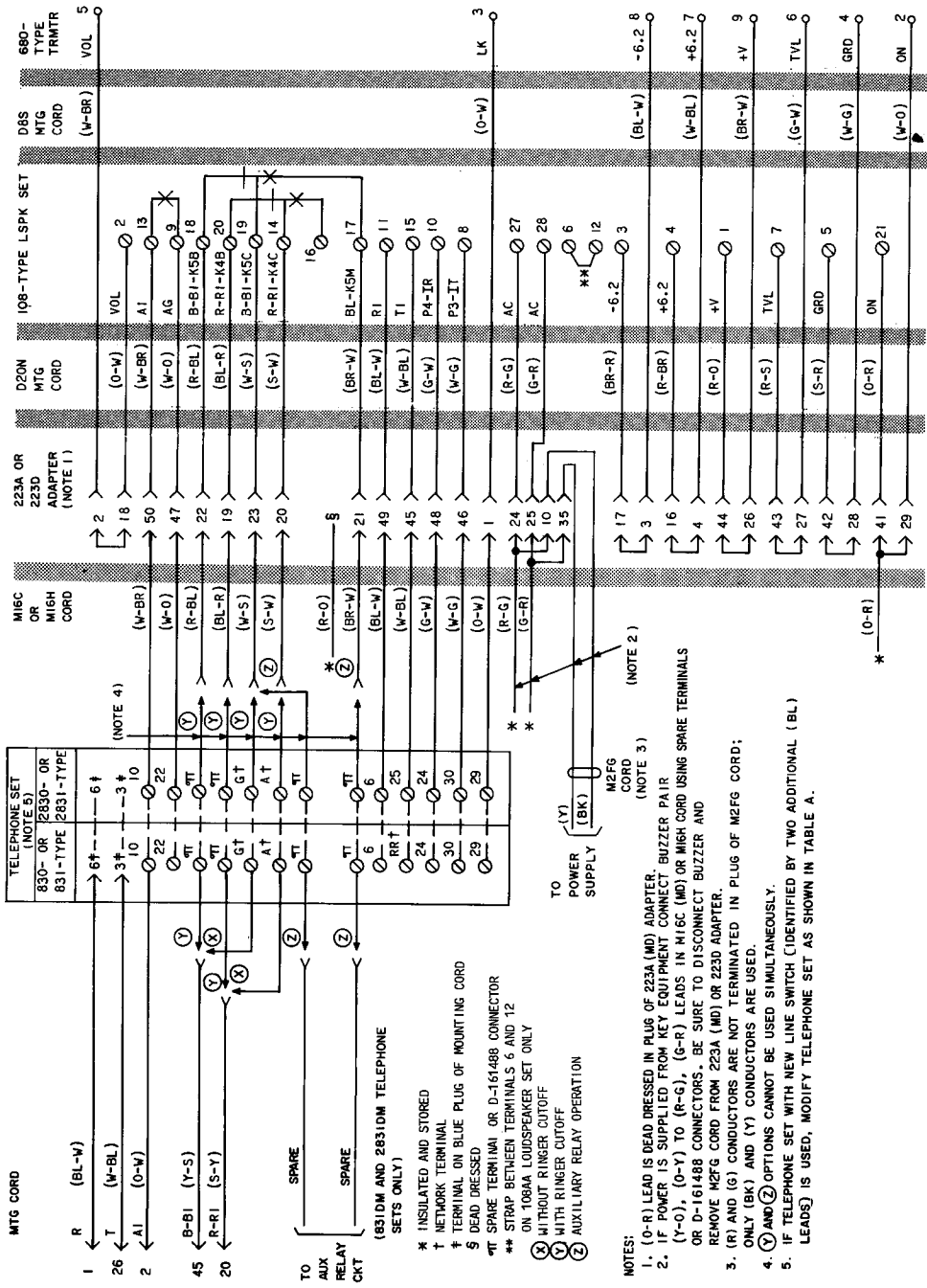


Fig. 2—4A Speakerphone System Arrangement, Connections to 10- or 20-Button Telephone Set