

## 630-, 631-, 1630-, 1631-, 2630-, AND 2631-TYPE TELEPHONE SETS

### CONNECTIONS

### SPEAKERPHONE SYSTEM—3-TYPE

#### 1. GENERAL

**1.01** This section covers information for the 630-, 631-, 1630-, 1631-, 2630-, and 2631-type 18- or 30-button, rotary or TOUCH-TONE® dial telephone set when used with the 3-type (MD) speakerphone system.

**1.02** This section is reissued to:

- Show 3-type speakerphone system MD
- Show 2021B transformer MD
- Add 2012D transformer
- Add modular telephone sets.

**1.03** All single and double letter coded telephone sets are rated Manufactured Discontinued (MD). All modular telephone sets except 630DAM1, 631DAM1, 2630DAM1, and 2631DAM1 are also MD.

#### 2. MODIFICATION

**2.01** Codes -11, -12, and -13 of the 630-, 1630-, and 2630-type telephone sets and codes -16, -17, and -18 of the 631-, 1631-, and 2631-type telephone sets are factory-wired for speakerphone. Other codes can be modified by installing a transmitter in the third or fifth module and making the necessary wiring changes. In rotary sets replace the 8R or 8RA dial with an 8CA dial, where required.

**A. 630A(MD), 630B(MD), 630C(MD), 630D(MD), 631A(MD), 631B(MD), 631C(MD), 631D(MD), 1630D(MD), 1631D(MD), 2630D(MD), and 2631D(MD) Telephone Sets**

**2.02** Convert as follows.

(a) Remove telephone set faceplate and housing. (See Section 502-600-100 for procedures.)

(b) Remove key unit or apparatus blank in right-hand module position (third or fifth module) and plug in a 667B (MD) transmitter (ordered separately).

(c) Connect spade-tipped leads of transmitter as shown in Fig. 1, 2, 3, 5 and Table A.

(d) Install housing. (See Section 502-600-100 for procedures).

(e) Install new faceplate and mat (ordered separately) in which cutouts for the transmitter are provided. Refer to the appropriate Reference section in Division 502 for ordering information.

**B. 630DA(MD), 630DAM, 631DA(MD), 631DAM, 2630DA(MD), 2630DAM, 2631DA(MD), and 2631DAM Telephone Sets**

**2.03** Convert as follows.

(a) Remove faceplate and housing. (See Section 502-600-100 for procedures).

(b) Disconnect line plugs from key unit or apparatus blank in third module and remove key.

(c) Install 679A (MD) transmitter in third or fifth module and connect slate plug to receptacle on rear of transmitter. Insulate and store balance of plugs.

(d) Modify set per Fig. 4, 6 and Table D, F.

(e) Replace housing. (See Section 502-600-100 for procedures).

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- (f) Install proper faceplate and mat. Refer to the appropriate Reference section for ordering information.

### 3. CONNECTIONS



**For proper operation of the 3-type speakerphone system, ground must be present on the A1-lead. Connect ground to the appropriate terminal on the telephone set or at the 55-type (MD) control unit.**

- 3.01** Where required, ringer and buzzer operation can be interrupted through break contacts of the 55-type control unit to prevent pickup while using speakerphone.
- 3.02** Connections are also shown for busy lamp controlled by speakerphone. Where it is desired to have the busy lamp controlled by speakerphone and line switch, refer to the Service section for the set involved.
- 3.03** Either the 55A (MD) or 55B (MD) control unit may be used with sets equipped with rotary dials. Connections to the 55A control unit

are the same, whether or not the unit has been modified for TOUCH-TONE service.

- 3.04** A 55B control unit or a 55A modified for TOUCH-TONE service must be used with sets equipped with TOUCH-TONE dials. Modified 55A units are indicated by an asterisk following the code stenciled on the unit.

- 3.05** To retain the maximum number of keys in the CALL DIRECTOR® telephone sets and still have speakerphone feature, a 666A (MD) or 666B (MD) transmitter and 760A (MD) loudspeaker may be installed as adjuncts to the telephone set. Spare leads and hold key lamp leads from the first module are used to supply the external speakerphone function. When control unit and telephone set are at same location, an auxiliary mounting cord (D10R) may be used. When control unit is located at key equipment extend speakerphone leads using mounting cord and connector cable.

- 3.06** Installation and maintenance information for these sets is found in Section 502-600-100. Refer to Section 512-620-100 for installation and maintenance of speakerphone components.

TABLE A

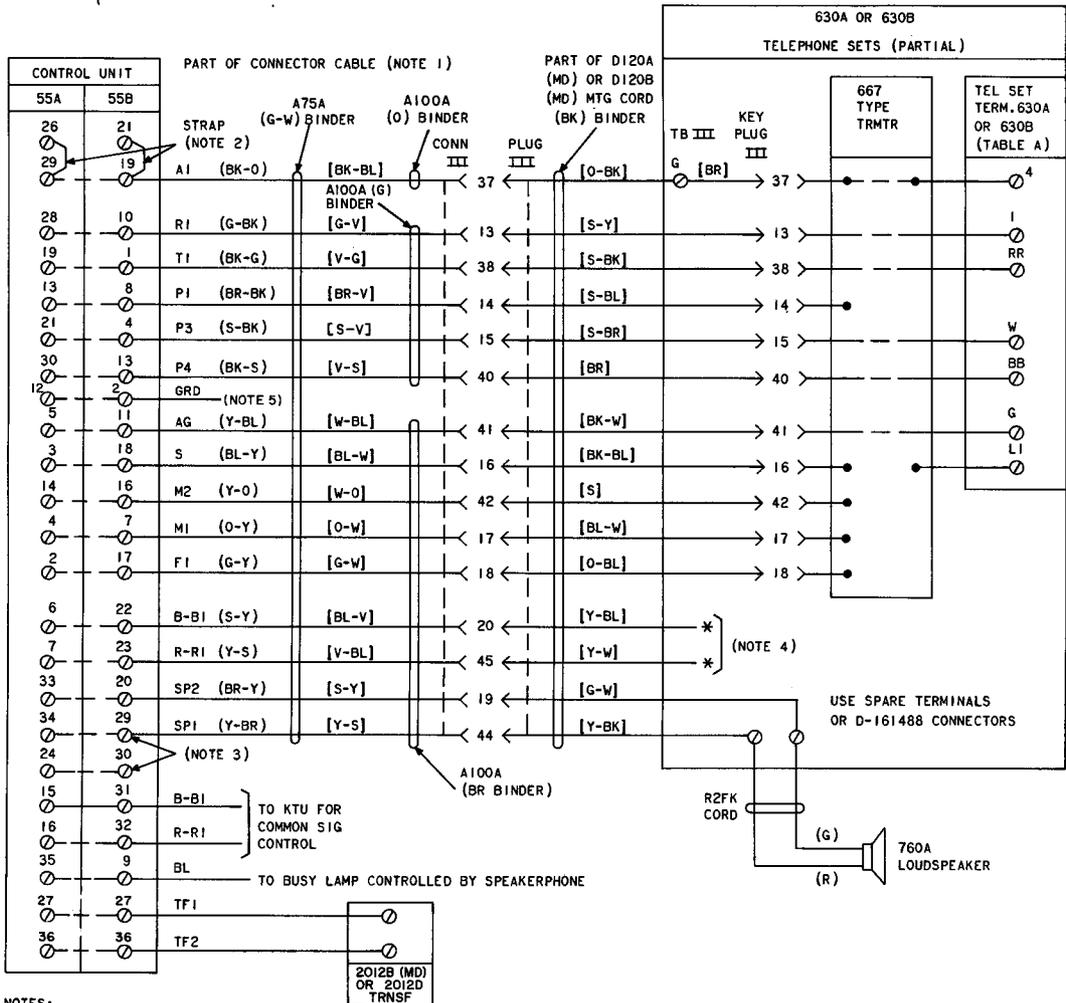
CONNECTIONS FOR 667-TYPE TRANSMITTER LEADS

LEAD DESIG	TRANSMITTER		CONNECT TO*			
	667A (MD)	667B	630A 630B 630C TEL SETS	631A 631B 631C	630D 631D TEL SET	1630D, 1631D 2630D, 2631D TEL SET
R1	O-R	BL-Y	1		2	2
T1	O-G	Y-BL	RR†		RR†	10
P3 or IR	O-W	Y-G	W‡		11	11
P4 or IT	O-BL	G-Y	BB‡		12	12
AG	O	O-Y	G†		5	5
A1	Y	O-V	4		1	1
LK	O-BK	Y-O	L1†		9	9

\* Terminals on telephone set terminal board except where otherwise noted.

† Terminals on network.

‡ Terminals on dial.

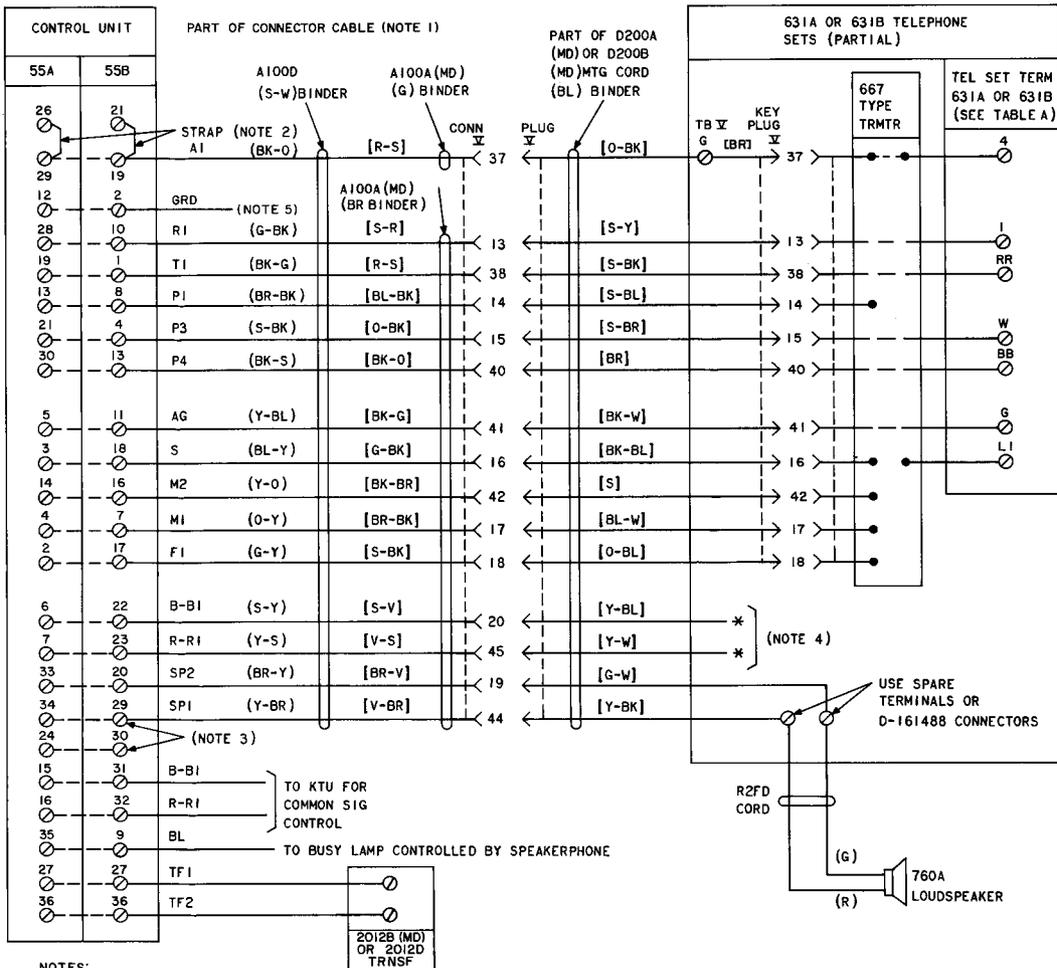


NOTES:

1. IF CONTROL UNIT IS LOCATED AT KEY EQUIPMENT EXTEND SPEAKERPHONE CONNECTIONS THROUGH APPROPRIATE LEADS IN (O), (G) AND (BR) BINDER GROUPS OF A100A (MD) OR (G-W) BINDER GROUP OF A75A CONNECTOR CABLE. FOR OTHER LOCATIONS CONNECT TO CONTROL UNIT USING A25-TYPE CONNECTOR CABLE, EVEN COUNT COLOR CODE ONLY.
2. ADD STRAP FOR STATION BUSY LAMP CONTROLLED BY SPEAKERPHONE
3. CONNECT SP1 LEAD TO TERMINAL 30 (ON 55B) OR TERMINAL 24 (ON 55A) WHEN REDUCED LOUDSPEAKER VOLUME IS DESIRED.
4. CONNECT [Y-BL] [Y-W] TO BUZZER OR RINGER (IN PLACE OF EXISTING LEADS) TO PROVIDE AUTOMATIC CUTOFF OF COMMON AUDIBLE SIGNAL DURING SPEAKERPHONE OPERATION.
5. CONNECT LOCAL GROUND.

\* INSULATED AND STORED  
 ( ) CURRENT COLOR CODE  
 [ ] MD COLOR CODE

Fig. 1—630A or 630B Telephone Set, Connections



NOTES:

1. IF CONTROL UNIT IS LOCATED AT KEY EQUIPMENT, EXTEND SPEAKERPHONE CONNECTIONS THROUGH APPROPRIATE LEADS IN (G) AND (BR) BINDER GROUP OF A100A (MD) OR (S-W) BINDER GROUP OF A100D CONNECTOR CABLE. FOR OTHER LOCATIONS, CONNECT TO CONTROL UNIT USING A25A CONNECTOR CABLE, EVEN COUNT COLOR CODE ONLY.
  2. ADD STRAP FOR STATION BUSY LAMP CONTROLLED BY SPEAKERPHONE.
  3. CONNECT SPI LEAD TO TERMINAL 30(ON 55B) OR TERMINAL 24(ON 55A) WHEN REDUCED LOUDSPEAKER VOLUME IS DESIRED.
  4. CONNECT [Y-BL] [Y-W] TO BUZZER OR RINGER (IN PLACE OF EXISTING LEADS) TO PROVIDE AUTOMATIC CUTOFF OF COMMON AUDIBLE SIGNAL DURING SPEAKERPHONE OPERATION.
  5. CONNECT LOCAL GROUND.
- \* INSULATED AND STORED  
 ( ) CURRENT COLOR CODE  
 [ ] MD COLOR CODE

Fig. 2—631A or 631B Telephone Set, Connections

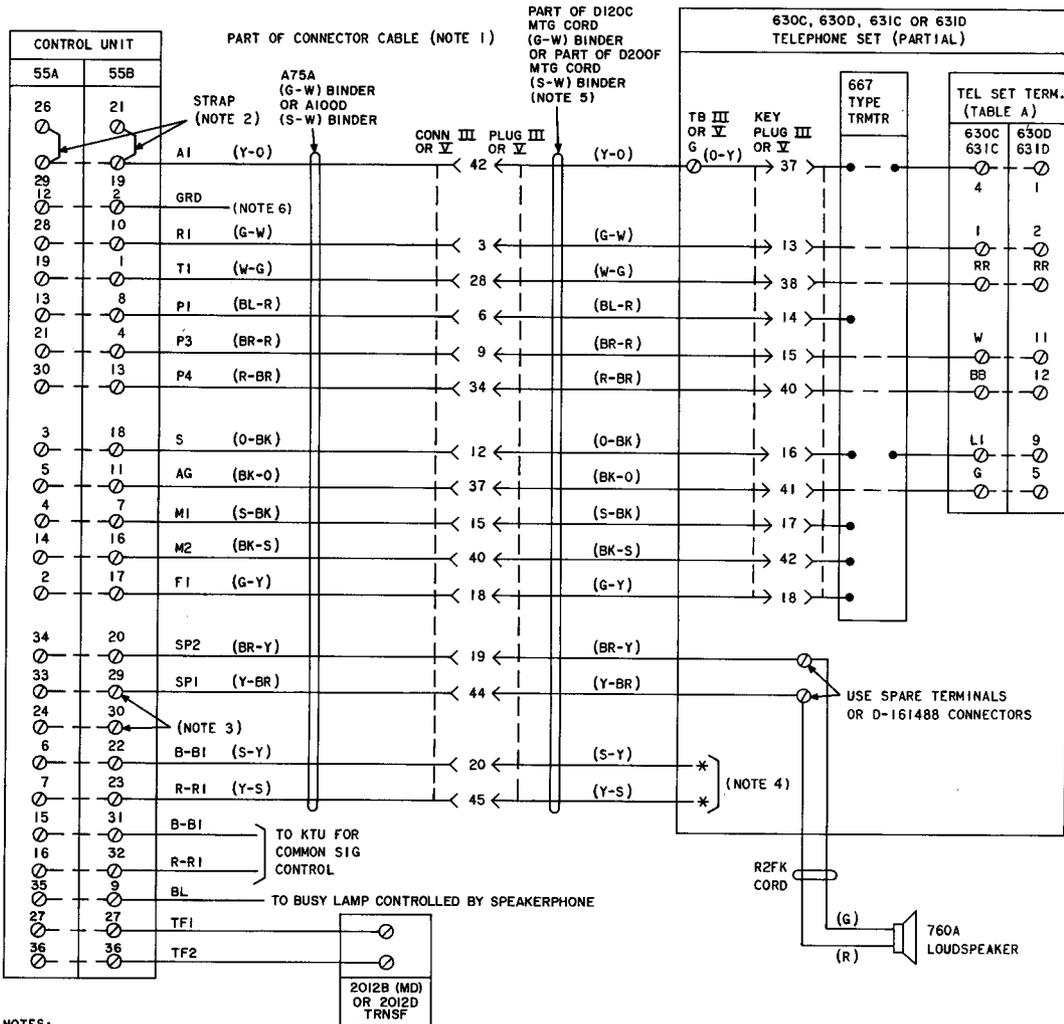


Fig. 3—630C, 630D, 631C, or 631D Telephone Set, Connections

SECTION 512-620-440

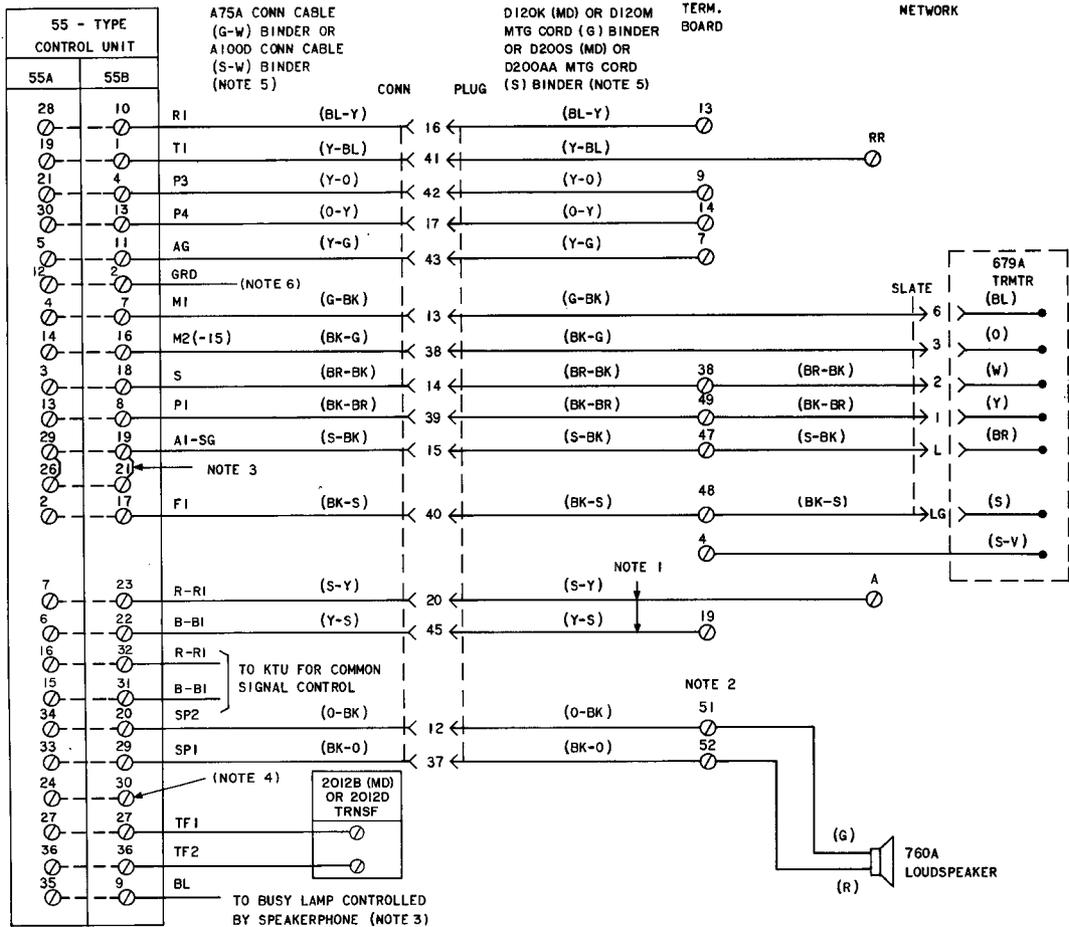


Fig. 4—630DA/DAM or 631DA/DAM Telephone Set, Connections

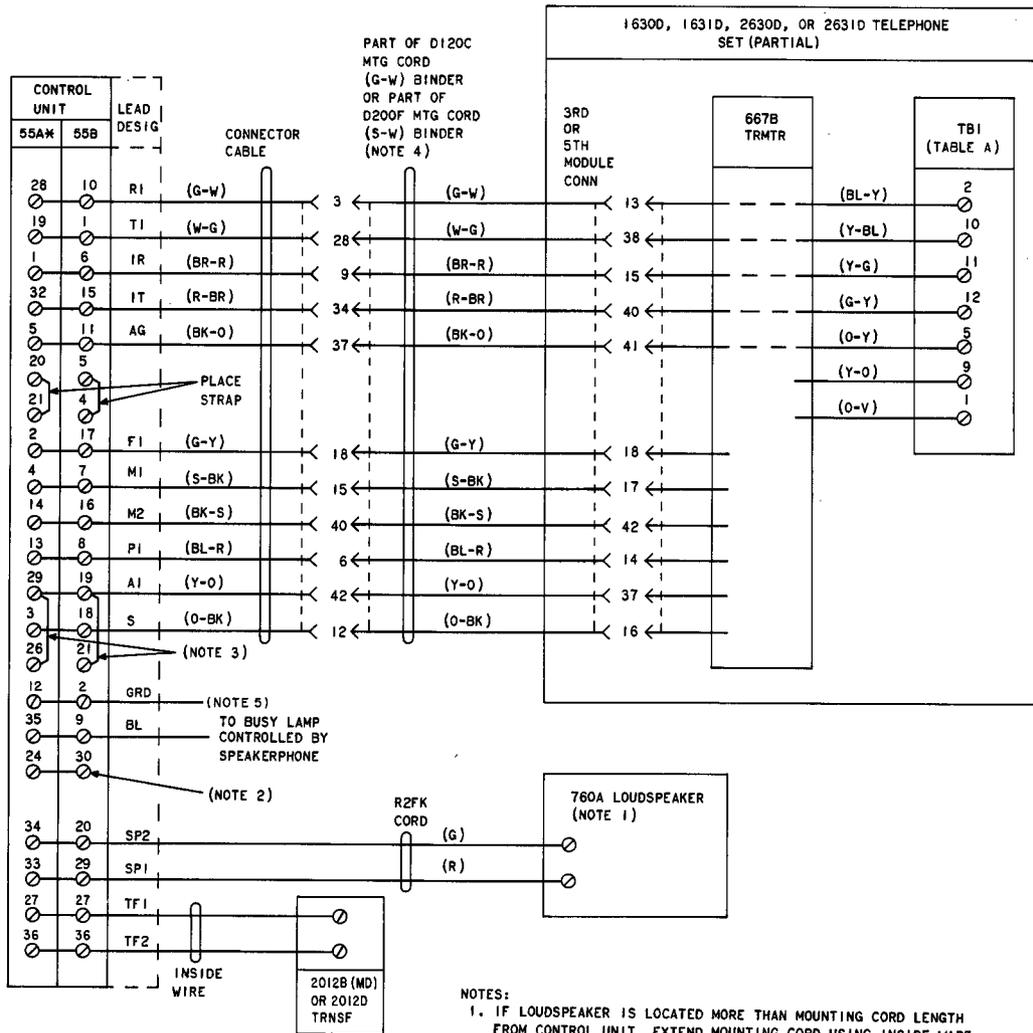


Fig. 5—1630D, 1631D, 2630D, or 2631D Telephone Set, Connections

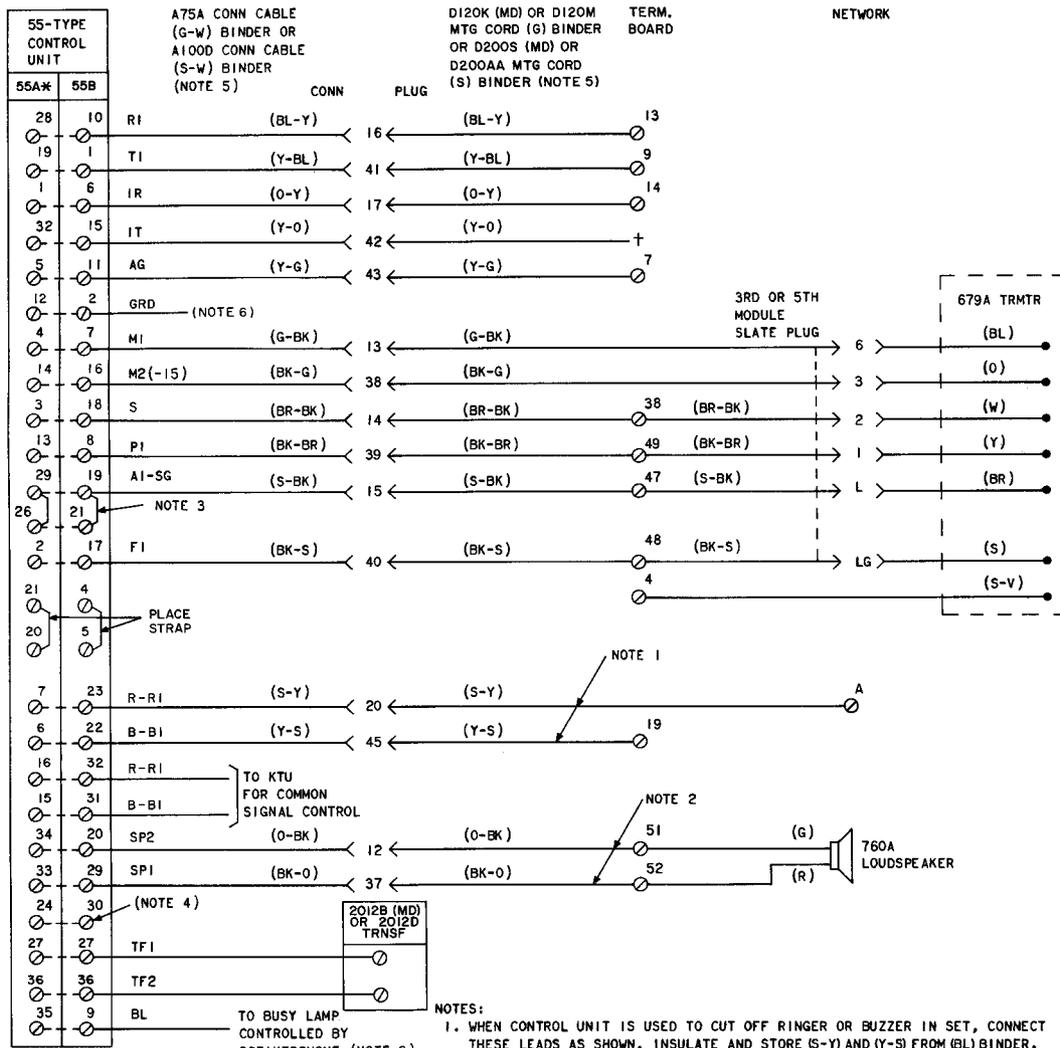
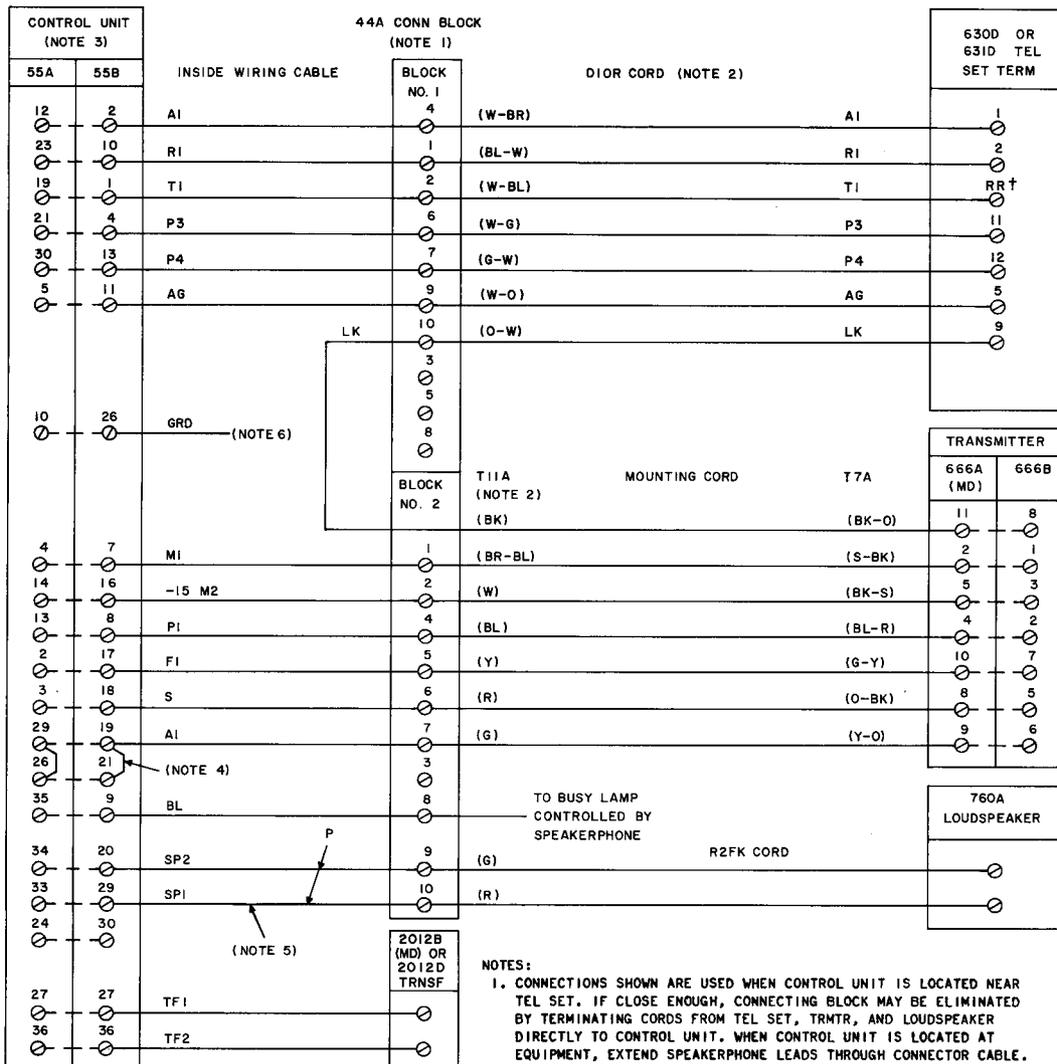


Fig. 6—2630DA/DAM or 2631DA/DAM Telephone Set, Connections



- NOTES:
1. CONNECTIONS SHOWN ARE USED WHEN CONTROL UNIT IS LOCATED NEAR TEL SET. IF CLOSE ENOUGH, CONNECTING BLOCK MAY BE ELIMINATED BY TERMINATING CORDS FROM TEL SET, TRMTR, AND LOUDSPEAKER DIRECTLY TO CONTROL UNIT. WHEN CONTROL UNIT IS LOCATED AT EQUIPMENT, EXTEND SPEAKERPHONE LEADS THROUGH CONNECTOR CABLE.
  2. INSULATE AND STORE SPARE CONDUCTORS IN DIOR AND T11A CORDS.
  3. EITHER THE 55B OR 55A CONTROL UNIT MAY BE USED WITH THESE TELEPHONE SETS. CONNECTIONS TO THE 55A CONTROL UNIT ARE THE SAME WHETHER OR NOT THE UNIT HAS BEEN MODIFIED FOR "TOUCH-TONE".
  4. PLACE STRAP WHEN BUSY LAMP IS PROVIDED.
  5. CONNECT SPI LEAD TO TERMINAL 30 (ON 55B) OR TERMINAL 24 (ON 55A) WHEN REDUCED LOUDSPEAKER VOLUME IS DESIRED.
  6. CONNECT LOCAL GROUND.
- †-NETWORK TERMINAL

Fig. 7—630D or 631D Telephone Set Connections Using Auxiliary Cord and External Transmitter

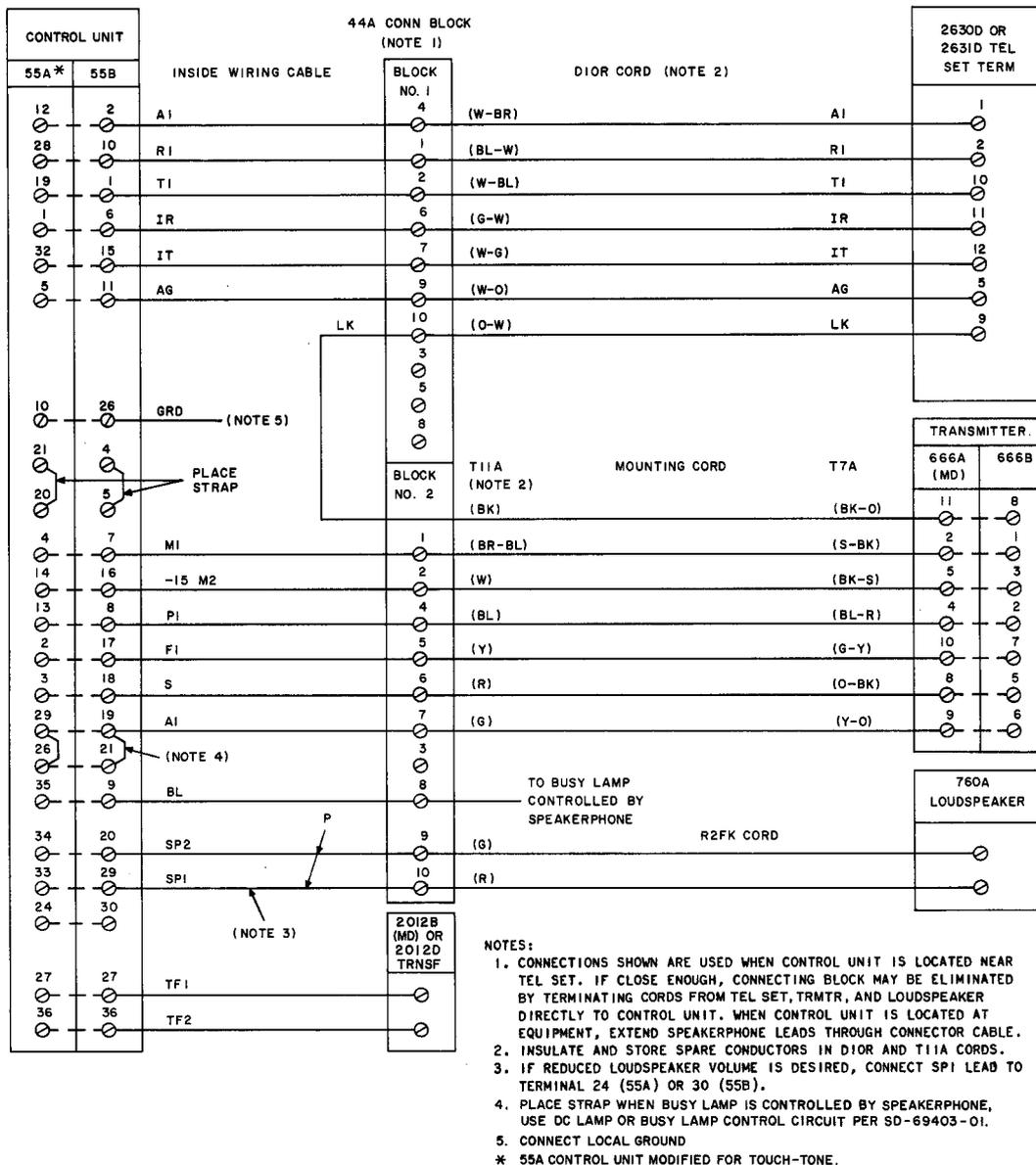


Fig. 8—2630D or 2631D Telephone Set Connections Using Auxiliary Cord and External Transmitter

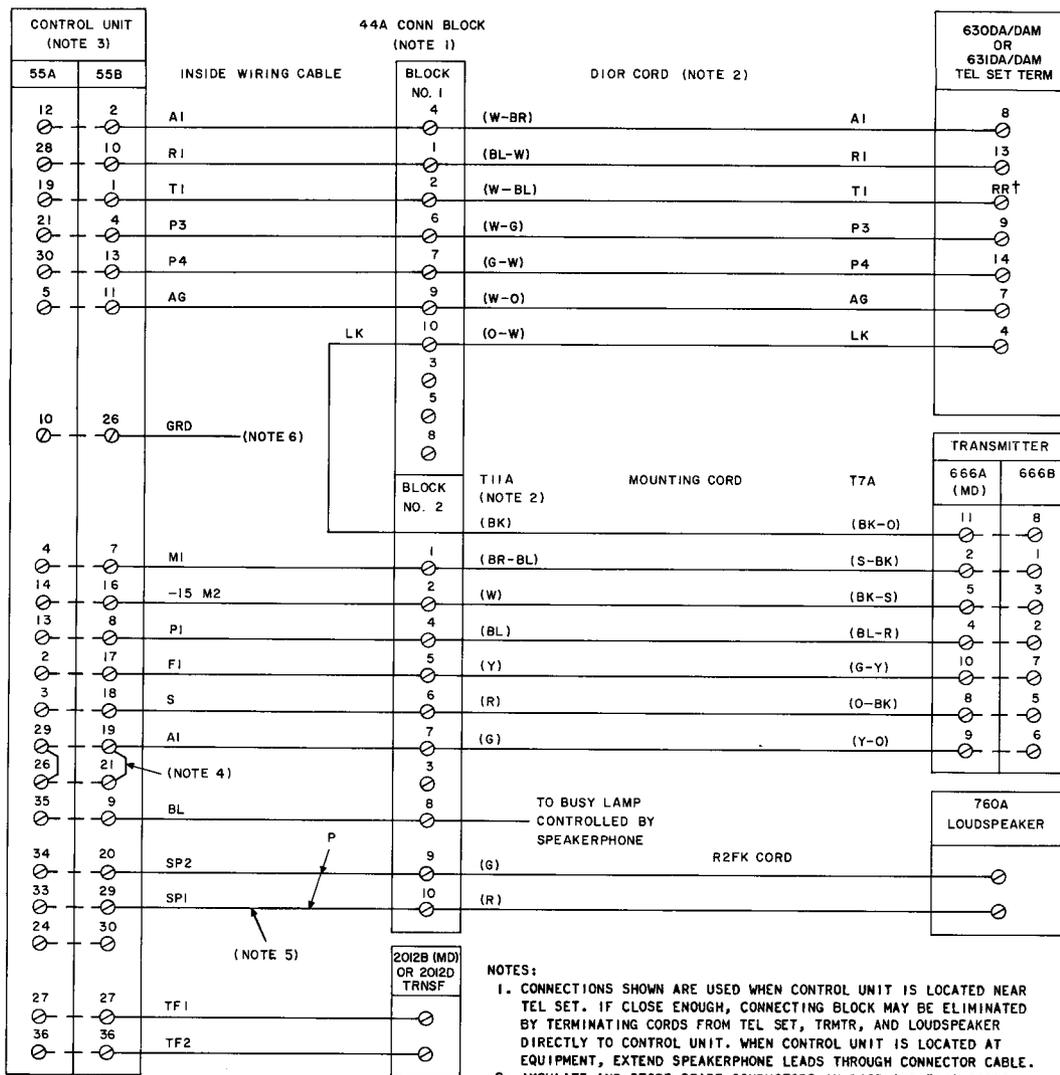


Fig. 9—630DA/DAM or 631DA/DAM Telephone Set Connections Using Auxiliary Cord and External Transmitter

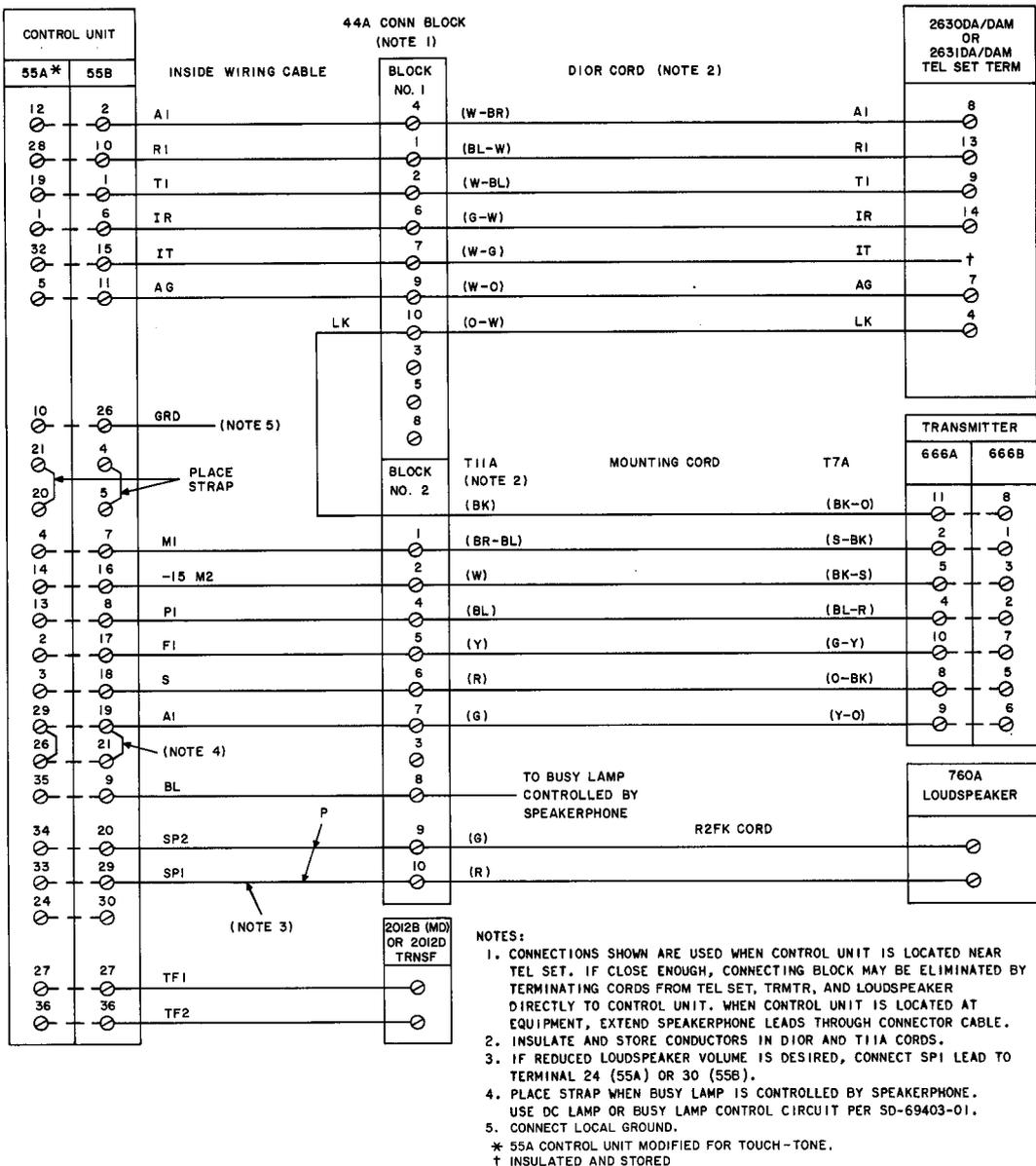


Fig. 10—2630DA/DAM or 2631DA/DAM Telephone Set Connections Using Auxiliary Cord and External Transmitter

TABLE B

CONNECTIONS FOR EXTERNAL SPEAKERPHONE  
630D OR 631D TELEPHONE SETS

WIRE OR LEAD	COLOR	LEAD DESIG.	REMOVE FROM	CONNECT TO
Mtg. Cord (BL-W Binder)	BL-Y	R1	*	2
	Y-BL	T1	*	RR†
	O-Y	AG	*	5
	Y-O	LK	G	9
	G-Y	P4	*	12
	Y-G	P3	*	11

\* Stored location.

† Network terminal.

TABLE C

CONNECTIONS FOR EXTERNAL SPEAKERPHONE  
2630D OR 2631D TELEPHONE SET

WIRE OR LEAD	COLOR	LEAD DESIG.	REMOVE FROM	CONNECT TO
Mtg. Cord (BL-W Binder)	BL-Y	R1	*	2
	Y-BL	T1	*	10
	O-Y	AG	*	5
	Y-O	LK	G	9
	Y-G	IR	*	11
	G-Y	IT	*	12

\* Stored location.

TABLE D

SPEAKERPHONE CONNECTIONS USING INTERNAL  
TRANSMITTER 630DA/DAM OR 631DA/DAM TELEPHONE  
SET

WIRE OR LEAD	COLOR	LEAD DESIG	FROM	TO
Mtg Cord (Note 3)	Y-BL	T1	46	RR†
	BL-Y	R1	44	13
	Y-O	P3	39	9
	O-Y	P4	*	14
	Y-G	AG	43	7 (Note 6)
	BR-BK	S	*	38
Slate Key Plug	BR-BK		30	
679A(MD) TRMTR	S-V	LK		4

\* Insulated and stored location.

† Terminal on network.

**Note 1:** Connections shown are used when transmitter is part of telephone set and speakerphone leads are connected through the mounting cord.

**Note 2:** When control unit is located near the telephone set an A25B connector cable may be plugged into the 3rd mounting cord plug (630DA/DAM) or 5th plug (631DA/DAM) and terminate on the control unit.

**Note 3:** Mounting cord conductors from (G) (630DA/DAM) or (S) (631DA/DAM) binder.

**Note 4:** Connect the slate plug from the 3rd or 5th module to the 679A transmitter. All other plugs in the module are insulated and stored.

**Note 5:** Set intended for speakerphone use must be equipped with an 8CA dial for the second set of off-normal contacts (P3 and P4 leads).

**Note 6:** Connect to L2† if busy lamp is also furnished.

TABLE E

## EXTERNAL SPEAKERPHONE CONNECTIONS USING MOUNTING CORD LEADS (NOTE 1) 630DA/DAM OR 631DA/DAM TELEPHONE SET

COLOR	LEAD DESIG	FROM	TO
Y-BL	T1	2	RR†
BL-Y	R1	1	13
Y-O	P3	3	9
O-Y	P4	*	14
Y-G	AG	*	7 (Note 2)
G-Y	LK	*	4

\* Insulated and stored.

† Network terminal.

**Note 1:** Connections shown are used when control unit and apparatus unit are at same location. Leads are in (BL) binder.

**Note 2:** Connect to L2† if busy lamp is also furnished.

TABLE G

## EXTERNAL SPEAKERPHONE CONNECTIONS USING MOUNTING CORD LEADS (NOTE 1) 2630DA/DAM OR 2631DA/DAM TELEPHONE SET

COLOR	LEAD DESIG	REMOVE FROM	CONNECT TO
Y-BL	T1	2	9
BL-Y	R1	1	13
Y-O	IT	3	*
O-Y	IR	†	14
Y-G	AG	*	7
G-Y	LK	*	4

\* Insulate and store.

† Stored location.

**Note 1:** Connections shown are used when control unit and apparatus unit are at same location. Leads are in (BL) binder.

**Note 2:** Lamp in hold position cannot be supplied due to lack of spare lead conductors.

TABLE F

## SPEAKERPHONE CONNECTIONS USING INTERNAL TRANSMITTER 2630DA/DAM OR 2631DA/DAM TELEPHONE SET

WIRE OR LEAD	LEAD DESIG	REMOVE FROM	CONNECT TO	
Mtg Cord (Note 1)	Y-BL	T1	46	9
	BL-Y	R1	44	13
	Y-O	IT	39	*
	O-Y	IR	†	14
	Y-G	AG	43	7
	BR-BK	S	†	38
Plug Strap	BR-BK		30	
679A TRMTR	S-V	LK		4

\* Insulate and store.

† Stored location.

**Note 1:** Mounting cord conductors from G (2630DA/DAM) or S (2631DA/DAM) binder.

**Note 2:** Connect the slate plug from the 3rd or 5th module to the 679A transmitter. All other plugs in the module are insulated and stored.