

TELEPHONE SETS 608 AND 618 TYPES CONNECTIONS

1. GENERAL

1.01 This section shows connections for the 608-type (30-button) and 618-type (18-button) telephone sets (Fig. 1 and 2). It also shows connector cable conductor assignments.

1.02 This section is reissued to revise connections for the 667B transmitter and to replace Issue 5 which was not given general distribution. Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 These sets are used with either 2- or 4-wire central office or private line service.

1.04 The 608- and 618-type telephone sets are equipped with even-count color-coded mounting cords. The 608-type set uses a D200F cord and the 618-type set uses a D120C cord.

1.05 These sets may be equipped with optional modular units (Table A).

2. APPLICATION

SYSTEMS

2.01 The 608- and 618-type telephone sets are used with the following systems:

- (a) SD-69449-01—4-wire private line circuit arranged for 2- and 4-wire key telephone terminations.
- (b) SD-69294-01—visual and audible signal circuits in 1A, 1A1, 1A2, and 6A key telephone systems.
- (c) SD-69270-01—1A1, 1A2, CO, or PBX line circuit key telephone systems arranged for common battery operation.

(d) SD-69414-01—4-wire subscriber line circuits arranged for common battery operation.

(e) SD-69487-01—speakerphone system for 2- and 4-wire lines.

2.02 A special station busy-lamp control circuit for handset or headset operation is included in this section. Using a 6C KTU, the A1 ground is connected to one side of relay winding and controlled by the A battery from an operated line circuit (see Fig. 7).

RELAY

2.03 The FW relay (Fig. 1 and 2) switches the receiver from 2- to 4-wire circuitry as follows:

- (a) On 2-wire lines, the nonoperated relay connects the receiver to the network.
- (b) On 4-wire lines, the relay operates and disconnects the receiver from the network and connects it to the RR and RT leads. The transmitter and network then function in the usual manner as a common battery transmitter circuit. The receiver leads are switched by the relay to impedance-matching repeating coils in associated line circuits.

OPTIONAL CONDUCTORS

2.04 Optional mounting cord conductors (Fig. 1, 2, 6, and 8) are insulated and stored in the telephone set.



Use electrician scissors or diagonal pliers to remove insulators. Do not use long-nose pliers which may damage the conductor or pull off the spade tip.

KEY UNITS

2.05 Supplementary key units may be converted to common signaling and private or intercommunicating lines (Table B).

3. CONNECTION INDEX

Table A—Telephone Set Codes and Modular Arrangements

Table B—Conversion of Pickup Keys to Signaling

Table C—Connections for 599B Key

Fig. 1—608B or 618A Telephone Set

Fig. 2—608C or 618B Telephone Set

Fig. 3—599A Key

Fig. 4—599B Key

Fig. 5—598A Key

Fig. 6—667B Transmitter

Fig. 7—Busy Lamp Control Circuit for 1A1 and 1A2 KTS

Fig. 8—Cord and Cable Connections

TABLE A
TELEPHONE SET CODES AND MODULAR ARRANGEMENTS

TELEPHONE SET		SET EQUIPPED WITH				
		LEFT MODULE	2nd MODULE	3rd MODULE	4th MODULE	5th MODULE
TYPE	CODE	KEY	KEY	KEY	KEY	KEY
608B or 608C	3	599A	598A	598A	598A	598A
	12	599B				667B*
	17	599A				
	20	599B				
618A or 618B	2	599A		598A	598A	
	7	599B				
	11	599A				
	13	599B				

* Used with 3A speakerphone system. (It is not recommended or intended that the headset and speakerphone be used at the same time.)

TABLE B

CONVERSION OF PICKUP TO SIGNALING (NONLOCKING)

NO. OF PICKUP REMAINING KEYS PER KEY	NO. OF SIG KEYS CONVERTED FROM PICKUP KEYS			NO. OF PRIVATE AND INTERCOM LINES WITH COM SIG KEYS	KEY LEAD TERMINATIONS						
	599A ORIG KEY	599B ORIG KEY	598A SUPL KEY		O-W	S-W	G-R	BL-BK	BR-BK	Y-O SUPL KEY ONLY	O-Y SUPL KEY ONLY
6					A-H*	A-H*	A-H*	A-H*	A-H*	A-H*	G*
5			1		A-H*	A-H*	A-H*	A-H*	A-H*	C	G*
4	1		2		A-H*	A-H*	A-H*	A-H*	C	C	G*
3	2	1	3		A-H*	A-H*	A-H*	C	C	C	G*
2	3	2	4		A-H*	A-H*	C	C	C	C	G*
1	4	3	5		A-H*	C	C	C	C	C	G*
			6		C	C	C	C	C	C	G*
5			1	2	A-H*	A-H*	A-H*	C	C	C	G*
5			1	3	A-H*	A-H*	C	C	C	C	G*
5			1	4	A-H*	C	C	C	C	C	G*
5			1	5	C	C	C	C	C	C	G*

* On terminal board associated with key.

Note 1: To convert a key position from pickup to signaling, remove screw detail P-10E837 from plunger at key position to be converted.

Note 2: The sixth key of any supplementary key unit may be converted for use as a common signaling key on several private or intercommunicating lines. The signaling is directed to the S or S1 lead of the lines to be signaled. The 1A1 or 1A2 system automatic cutoff feature cannot be used on a line connected to the common signaling key.

Note 3: Provide an M1W strap or equivalent between the SG and C terminals on TB6.

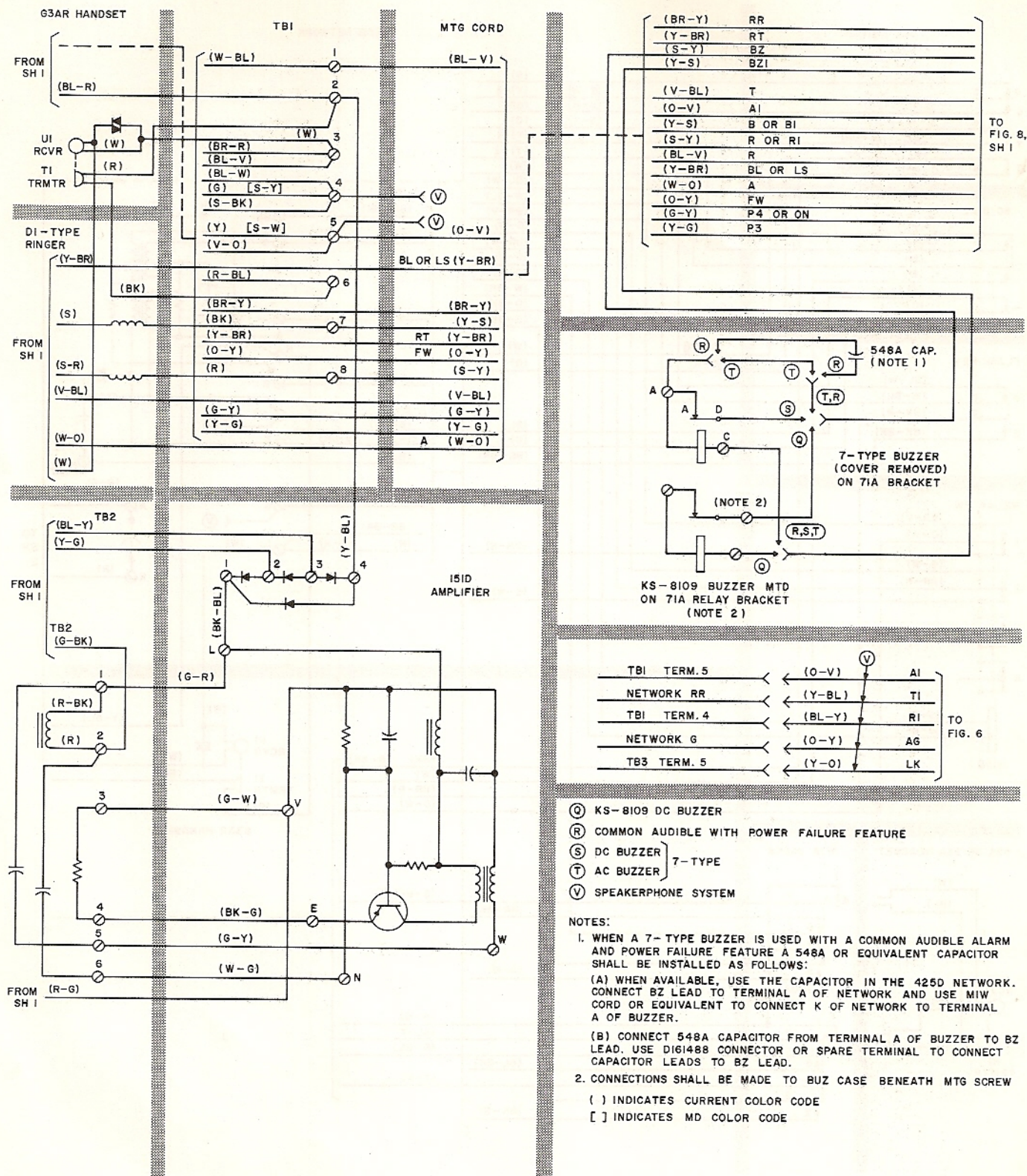


Fig. 1—608B or 618A Telephone Set (Sheet 2 of 2)

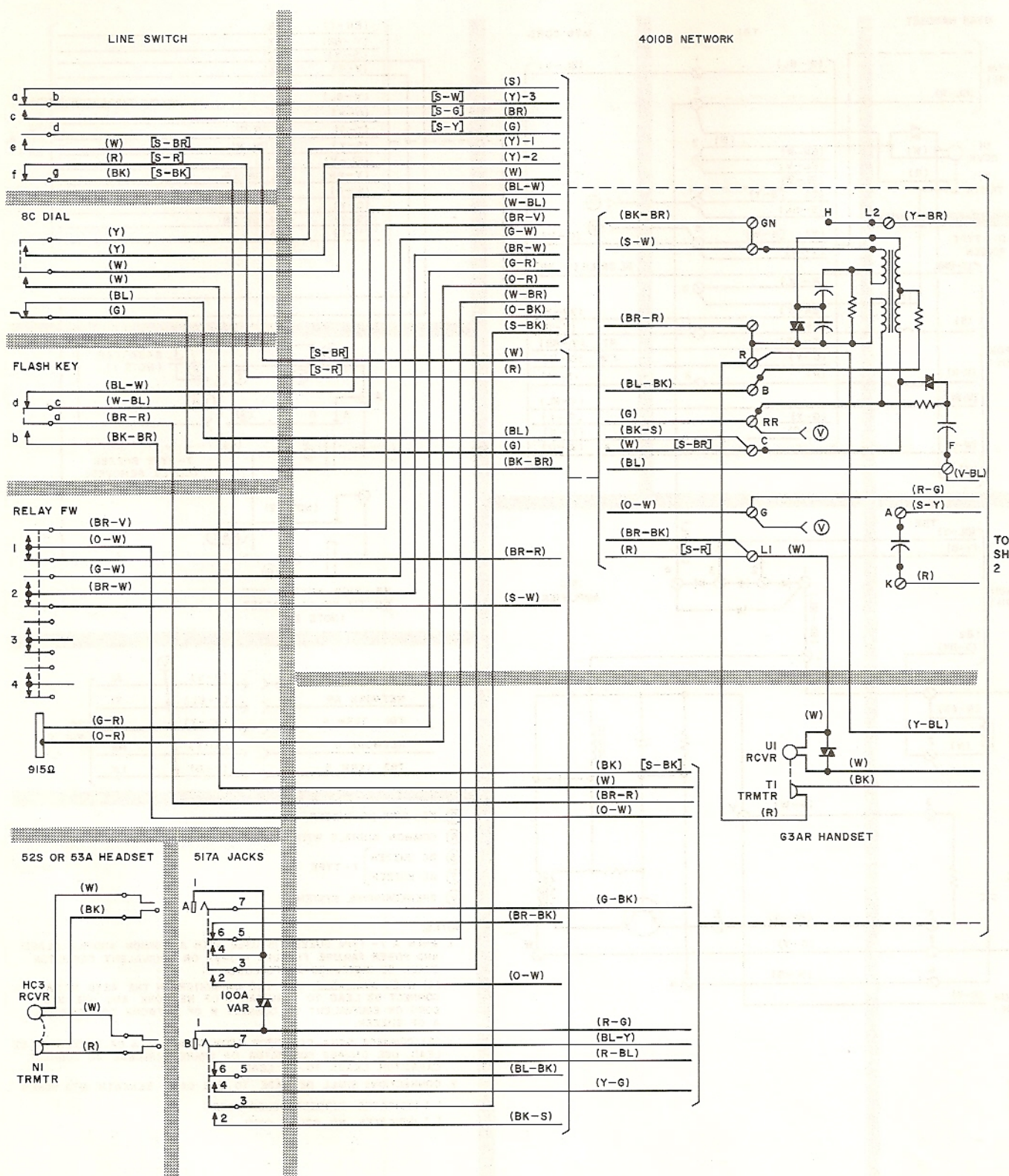


Fig. 2—608C or 618B Telephone Set (Sheet 1 of 2)

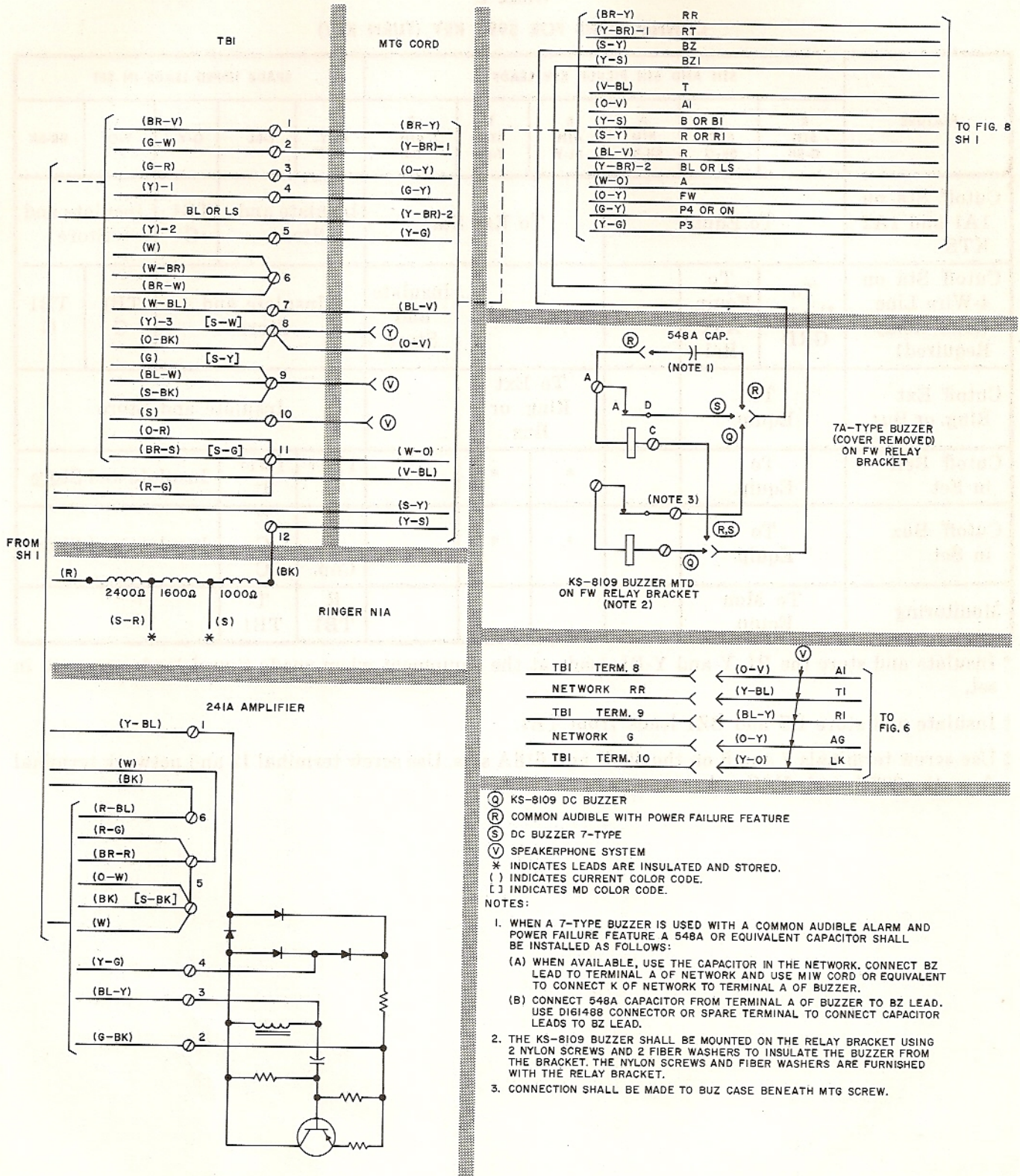


Fig. 2—608C or 618B Telephone Set (Sheet 2 of 2)

TABLE C
CONNECTIONS FOR 599B KEY (TURN KEY)

FEATURE	5TH AND 6TH PICKUP KEY LEADS						SPADE TIPPED LEADS IN SET				
	R 5TH G-BK	T 5TH BK-G	A 5TH BK-BR	R 6TH BL-Y	T 6TH Y-BL	A 6TH Y-O	BL-Y	Y-BL	O-Y	Y-O	BR-BK
Cutoff Sta on 1A1 and 1A2 KTS	To Equip.			To Ext Sta			Insulate and Store		TB1 G	Insulate and Store	
Cutoff Sta on 4-Wire Line (Aux Relay Required)	To Equip. GRD	To Equip. Aux Rel				Insulate and Store	Insulate and Store		TB1 G	TB1 G	
Cutoff Ext Ring. or Buz	To Equip.			To Ext Ring. or Buz			Insulate and Store				
Cutoff Bell in Set	To Equip.			*	*		TB1† 7‡	TB1† 8‡	Insulate and Store		
Cutoff Buz in Set	To Equip.			*	*		D A Cap.	C C C	Insulate and Store		
Monitoring	To Mon Equip.						R TB1	T TB1			

* Insulate and store the BL-Y and Y-BL leads at the equipment when spade tipped leads are used in set.

† Insulate and store BZ and BZ1 leads from TB1.

‡ Use screw terminals 7 and 8 on the 608B and 618A sets. Use screw terminal 12 and network terminal A on the 608C and 618B sets.

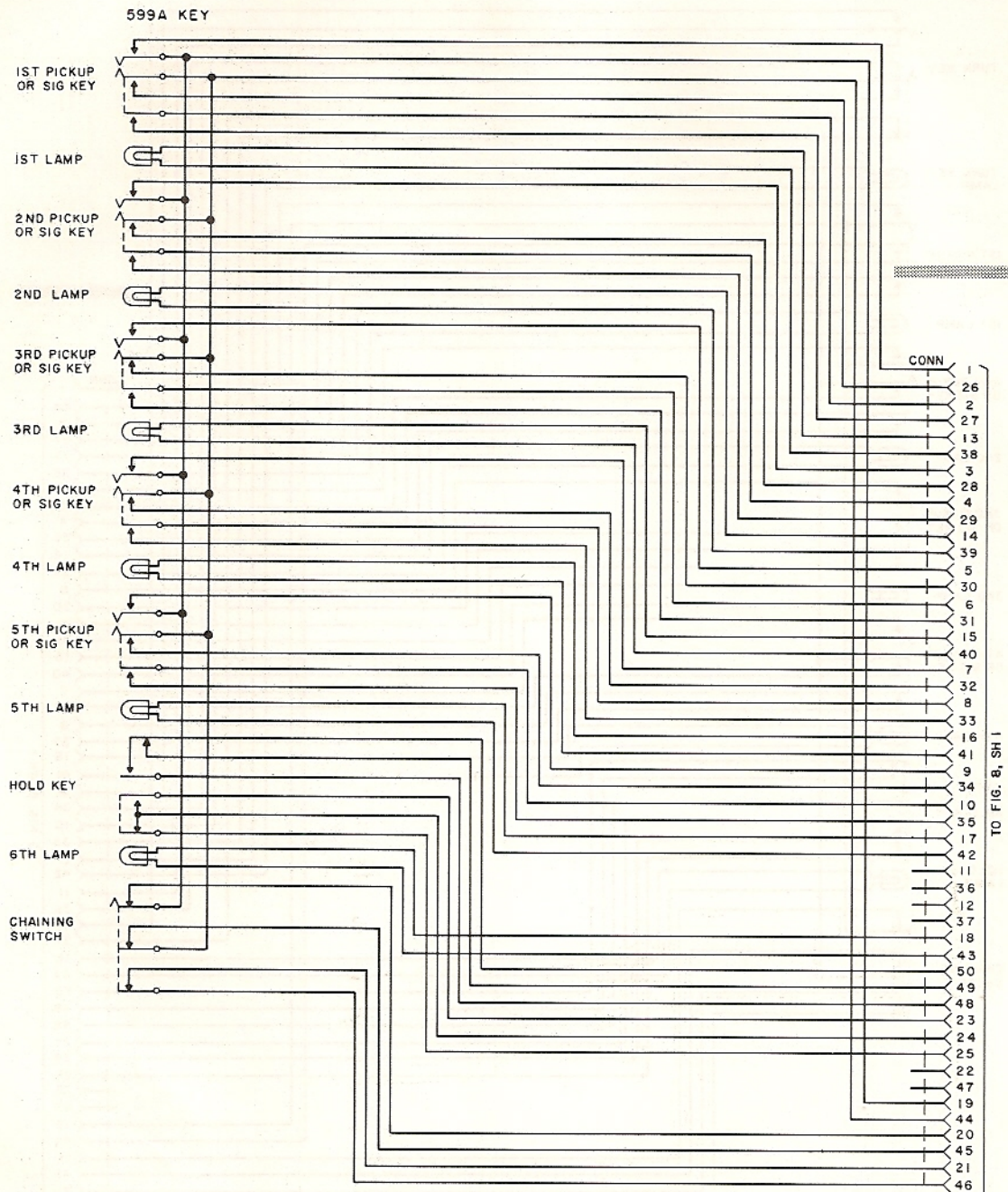


Fig. 3—599A Key

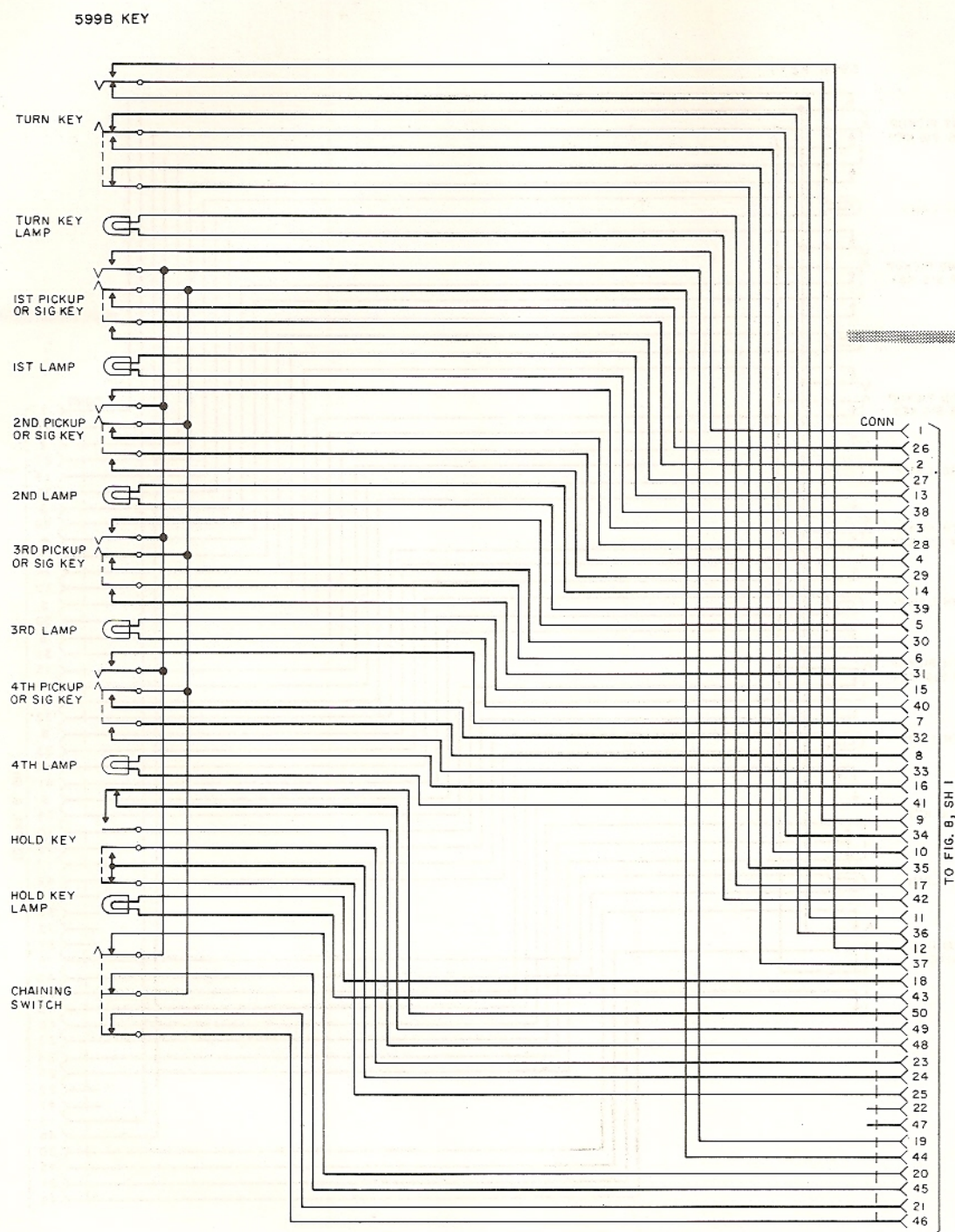


Fig. 4—599B Key

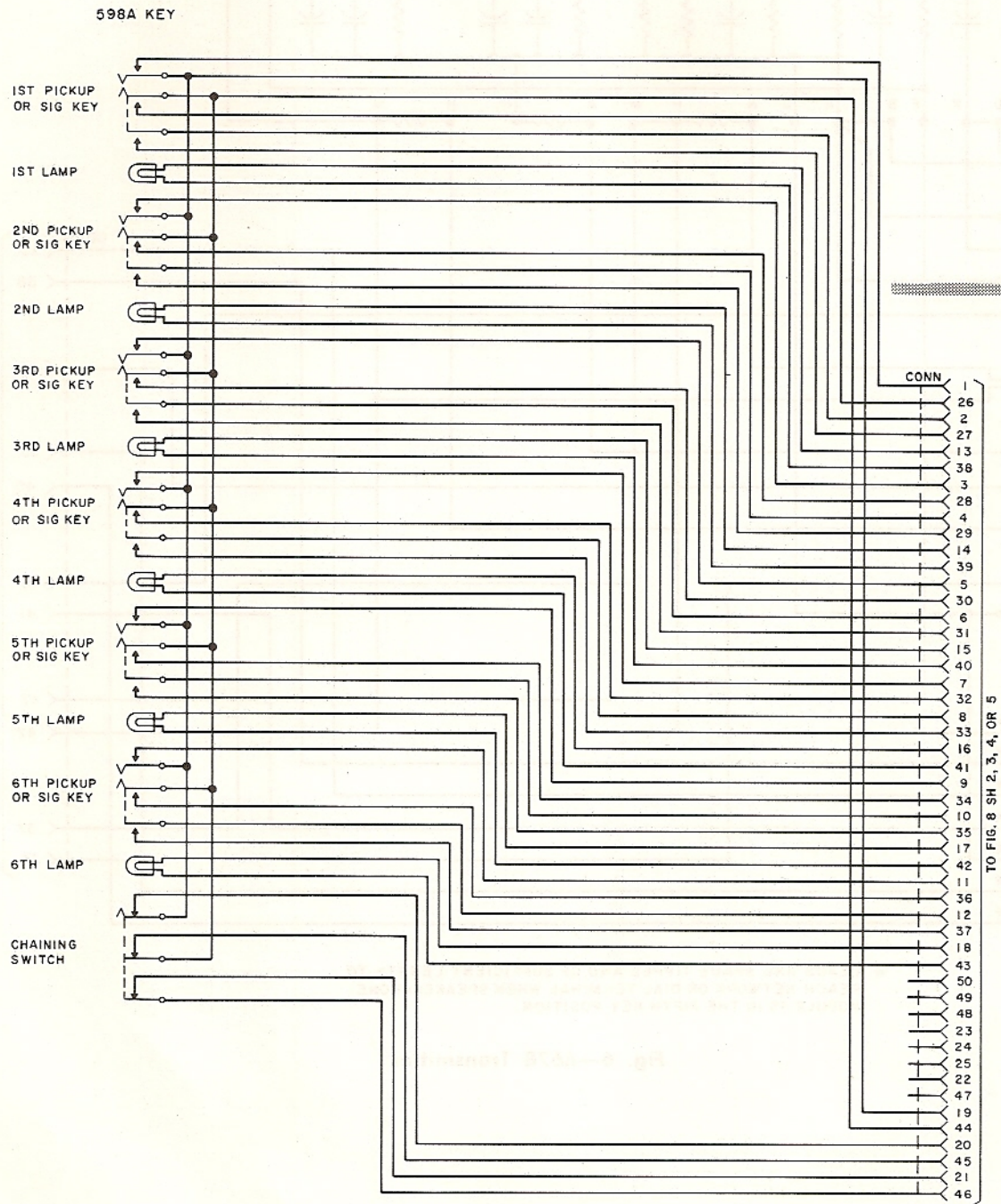


Fig. 5—598A Key

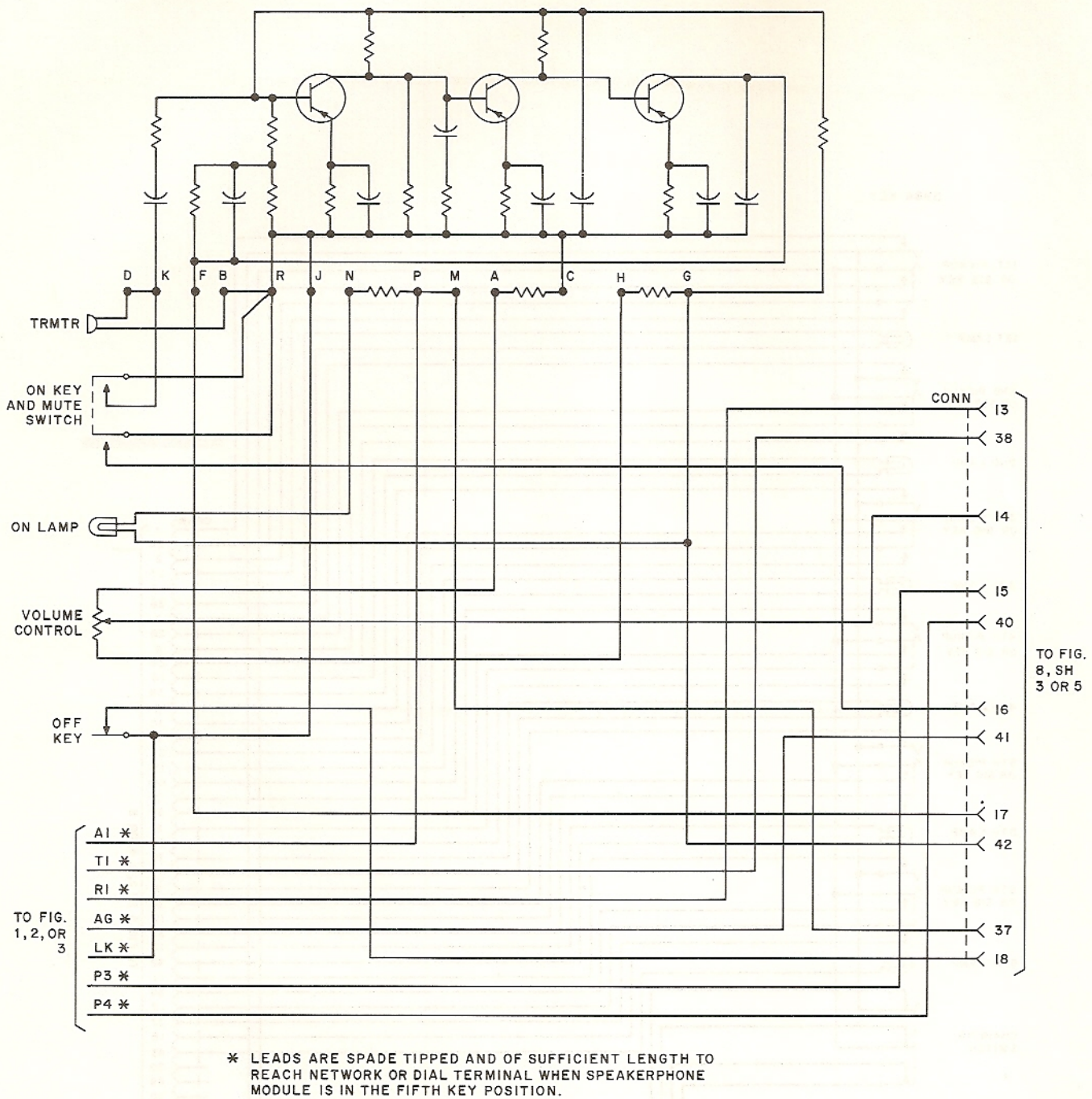
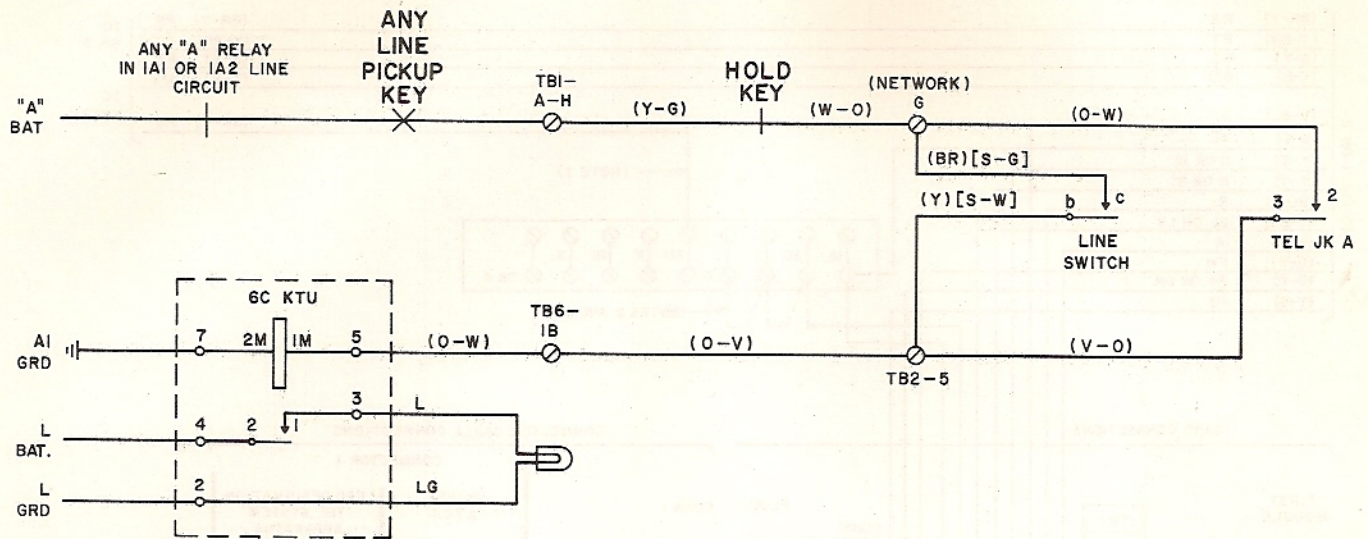


Fig. 6—667B Transmitter



RANGE OF "A" RELAY AND 6C KTU

14 VOLTS FOR 190 Ω MAX. TO OPERATE BOTH RELAYS IN SERIES.
 20 VOLTS FOR 520 Ω MAX. TO OPERATE BOTH RELAYS IN SERIES.
 26 VOLTS FOR 840 Ω MAX. TO OPERATE BOTH RELAYS IN SERIES.
 LEAD (Y-BR) DESIGNATION BL OR LS NOT USED.

() INDICATES CURRENT COLOR CODE

[] INDICATES MD COLOR CODE

Fig. 7—Busy Lamp Control Circuit for 1A1 and 1A2 KTS

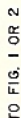


Fig. 8—Cord and Cable Connections (Sheet 1 of 5)

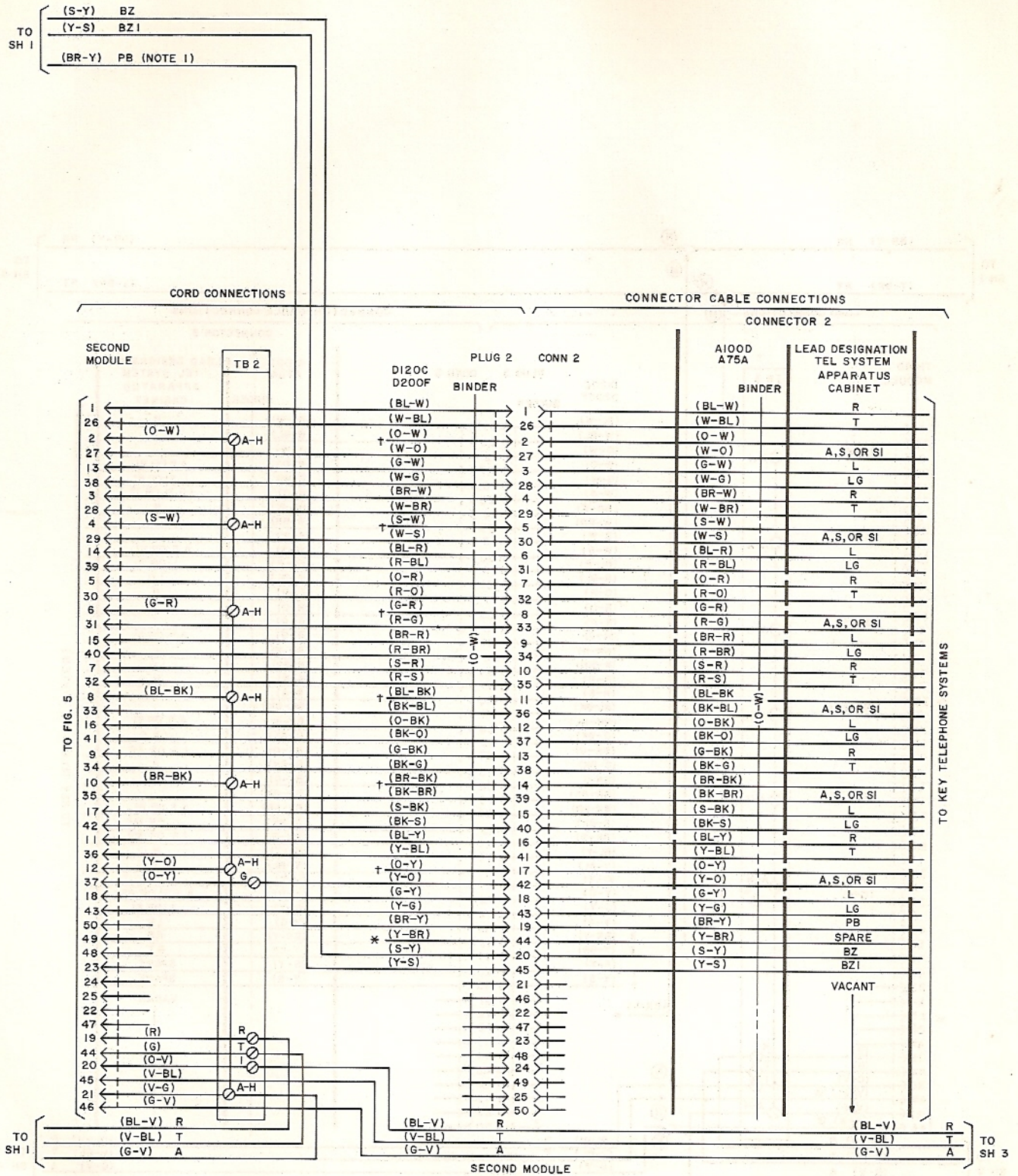


Fig. 8—Cord and Cable Connections (Sheet 2 of 5)

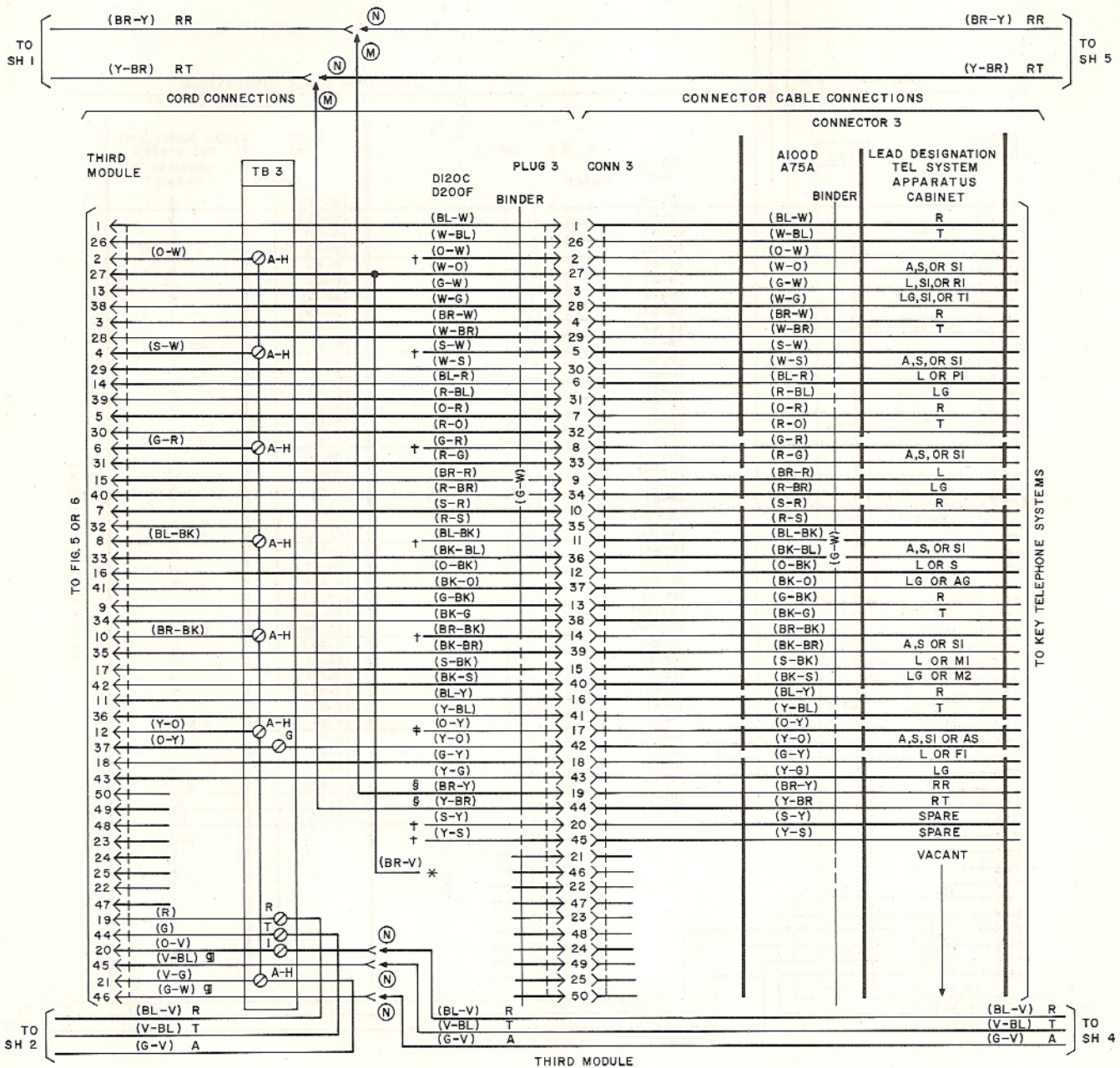


Fig. 8—Cord and Cable Connections (Sheet 3 of 5)

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SECTION 502-608-400

CIRCUIT SYMBOLS:

- * INDICATES LEADS ARE SPADE TIPPED, INSULATED AND STORED.
- † INDICATES LEADS ARE DEAD ENDED.
- ‡ INDICATES LEADS ARE SPADE TIPPED, INSULATED AND STORED IN THIRD MODULE OF 18-BUTTON SETS AND DEAD ENDED IN 30-BUTTON SETS.
- § DEAD ENDED IN 30-BUTTON SETS.
- ¶ LEADS NOT PROVIDED IN 18-BUTTON SETS.

OPTIONS:

- USE "M" WIRING WITH 18-BUTTON SETS.
- USE "N" WIRING WITH 30-BUTTON SETS.

NOTES:

1. THE PB LEAD IS FOR ADD-ON CONFERENCE CONTROL OF THE 6A KEY TELEPHONE SYSTEM.
2. WHEN SIGNALING KEYS OTHER THAN THE 617A ARE PROVIDED, CONNECT THE SPADE TIPPED LEADS ASSOCIATED WITH THE CONVERTED PICKUP KEYS TO THE SG TERMINAL ON TERMINAL BLOCK 6. IF ADDITIONAL TERMINALS ARE REQUIRED, PROVIDE AN MIW STRAP, OR EQUIVALENT, BETWEEN THE C OR S AND SG TERMINALS ON TERMINAL BLOCK 6.
3. WHEN MORE THAN FIVE PRIVATE AND INTERCOMMUNICATING LINES WITH COMMON SIGNAL KEY ARE REQUIRED PER TELEPHONE SET, AND WHERE THE 617A KEY IS NOT USED, STRAP TOGETHER C TERMINALS OF RESPECTIVE 6-BUTTON KEY UNITS REQUIRING COMMON SIGNALING FEATURE.

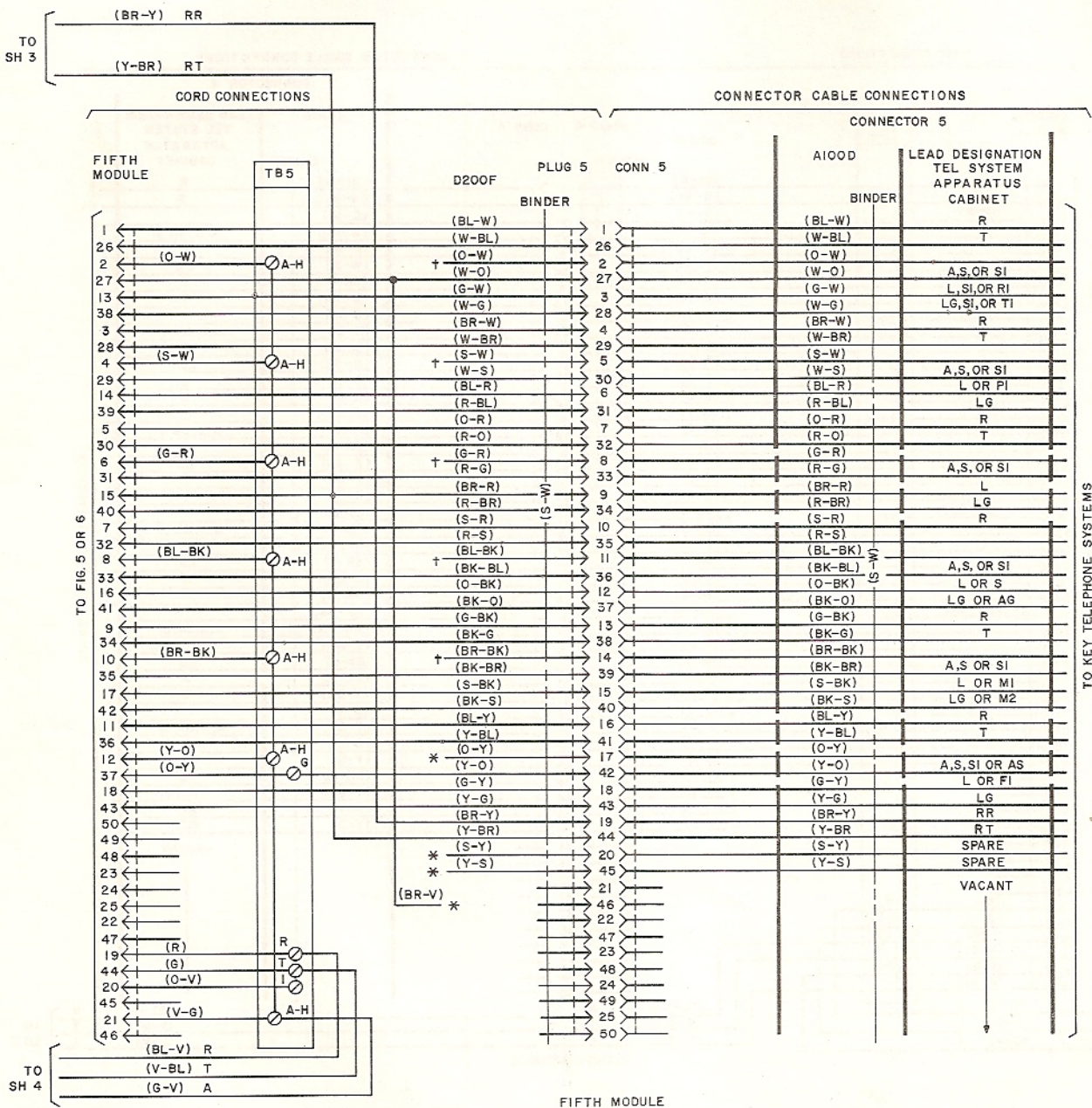


Fig. 8—Cord and Cable Connections (Sheet 5 of 5)