

## TELEPHONE SETS

### THE CALL DIRECTOR

#### 630 AND 631 TYPES (600A AND 601A)

#### CONNECTIONS

##### 1.00 INTRODUCTION

**1.01** This section covers connections for various service-feature arrangements of 630-type (18-button) and 631-type (30-button) telephone sets. It includes terminal board connections in the set, mounting cord and connector cable conductors, and their associated plugs and connectors.

**1.02** This section is reissued to:

- Add information on the D120C and D200F mounting cords.
- Provide both old and new circuit designation from apparatus cabinet to keys in 630- and 631-type CALL DIRECTOR sets using either Manufacture Discontinued (MD) or even-count color-coded cords and cable connectors.

**1.03** To facilitate the use of this practice, the circuit leads follow a straight line pattern as near as possible from the apparatus cabinet to the key. Key connector pins (Fig. 1 through 7) are so placed in this section to overlay into corresponding module plug pins in the new even-count CALL DIRECTOR sets. (See Fig. 8.) However, when keys (Fig. 1 through 7) are overlaid into the old (MD) count CALL DIRECTOR sets (Fig. 9), it is necessary to match key connector pins to module plug pins.

**1.04** Fig. 8 shows the even-count color-coded telephone set circuit and cords using either (MD) or even-count cable connectors for both 18- or 30-button sets. Fig. 9 shows the (MD) count color-coded telephone set circuit using either (MD) or even-count cable connectors.

**1.05** Even-count color codes and lead designations are shown in red and (MD) count in green.

**1.06** Conversion to standard even-count color code and lead designations should be accomplished whenever practicable so that plug ended and CALL DIRECTOR key telephone sets may be used interchangeably.

**1.07** Due to extensive changes marginal arrows have been omitted.

##### 2.00 GENERAL

**2.01** The 630-type telephone set supersedes the 600A telephone set. The 631-type telephone set supersedes the 601A telephone set. Connection figures in this section pertain to 630- and 631-type telephone sets only. However, these figures also apply to 600A and 601A telephone sets.



*Mounting cord conductor color codes for the D120A, B (MD) and D200A, B (MD) are identical. Except for the following differences, terminal designations are the same.*

- S terminals of A cord omitted on B cord.
- A and H terminals of A cord combined to form A-H terminal on B cord.
- X and Y added to B cord for spares.
- PB terminal added to B cord for 6A key telephone system add-on.

**2.02** For connections to 1A, 1A1, 6A line, and signaling circuits, see appropriate sections covering these key telephone systems.

**2.03** For connections to 1A, 1A1, or 3A speaker-phone systems, see appropriate sections covering these systems.

TABLE A

TELEPHONE SET CODES AND MODULE ARRANGEMENTS

Telephone Set		Set Equipped With									
		Left Module		2nd Module		3rd Module		4th Module		5th Module	
Type	Code	Key	Fig.	Key	Fig.	Key	Fig.	Key	Fig.	Key	Fig.
630	1	599A	1	598A	2	105B					
	2					598A	2				
	3 (MD)					661A	4				
	4					617A	6				
	5 (MD)					661A	4				
	6	599B	3	598A	2	105B					
	7					598A	2				
	8 (MD)					661A	4				
	9	598A	2	598A	2	105B					
	10					598A	2				
	11	599A	1	617A	6	667A	5				
	12										
	13										
	14	599B	3	598A	2						
	15	599A	2								
	599B	3			59A	7					
631	1	599A	1	598A	2	598A	2	105B			
	2									105B	
	3							598A	2	598A	2
	4							617A	6	59A	7
	5							617A	6	59A	7
	6 (MD)							105B		661A	4
	7 (MD)							598A	2	661A	4
	8 (MD)							617A	6	661A	4
	9							617A	6	59A	7
	10	599B	3	598A	2	598A	2	105B		105B	
	11							598A	2	598A	2
	12							598A	2	598A	2
	13	598A	2					105B		105B	
	14							598A	2	598A	2
	15							598A	2	598A	2
	16	599A	1					105B		667A	5
	17							598A	2		
	18							617A	6		
	19							598A	2		

**3.00 APPLICATION OF 630- and 631-TYPE TELEPHONE SETS**

**3.01** The 630- and 631-type telephone sets may be used with 1A, 1A1, and 6A key telephone systems. The sets are manufactured for use with 1A1 key telephone systems. When connected to line circuits of both 1A and 1A1 systems, 1A1 system lines must be connected to originating key units, with 1A system lines to supplementary key units as required. *Line circuits of both 1A and 1A1 key telephone systems shall not be connected to the same 6-button key unit.* Tables B, C, and D show connections necessary for combining different key telephone system line circuits within a CALL DIRECTOR set.

**3.02** Tables E, F, and G show connections necessary for various pick-up-signaling key options within a CALL DIRECTOR set.

**3.03** When the 599B (cutoff) key is used, external speakerphone system equipment cannot be provided at the station. For speakerphone use, a 661A or 667A transmitter unit may be used in the third key position of an 18-button set or fifth key position of a 30-button set.

**3.04** When using a 599B key for 1A system line cutoff, a slave relay arrangement (such as the 5A key telephone unit) should be used to control circuit leads.

**TABLE B**  
**NO. 1A1 AND 1A SYSTEM CONVERSION**  
**CONNECTIONS FOR SETS USING D120A (MD) OR D200A (MD) MOUNTING CORD**

Key Telephone System Central Office or PBX Line Feature	Leads													
	Hold Key					Chaining Switch					Switchhook			
						630 and 631, 600A and 601A Sets			631, 601 Sets Only					
	BK-BL	BK-W	S-W	S-Y	S-BK	BL-W 1st Key	BL-W 2nd Key	BL-W 3rd Key	BL-W 4th Key	BL-W 5th Key	R*	BR*	S-G	
No. 1A1 Only (as furnished by shop)	A1 (I)	H1 (I)	†	†	†	A1 (I)	A2 (II)	A3 (III)	A4 (IV)	A5 (V)	R (I)	1B (VI)	‡	
First Key Unit No. 1A1; Remaining Key Units No. 1A	A1 (I)	H1 (I)	†	1§ (I)	R (II)	H1 (I)	A2 (II)	A3 (III)	A4 (IV)	A5 (V)	R (I)	1B (VI)	‡	
First and Second Key Units No. 1A1; Remaining Key Units No. 1A	A1 (I)	H1 (I)	H2 (II)	1§ (II)	R (III)	A1 (I)	H2 (II)	A3 (III)	A4 (IV)	A5 (V)	R (I)	1B (VI)	‡	
First, Second, and Third Key Units No. 1A1; Remaining Key Units No. 1A	631, 601A Sets Only	A1 (I)	H1 (I)	H3 (III)	1§ (III)	R (IV)	A1 (I)	A2 (II)	H3 (III)	A4 (IV)	A5 (V)	R (I)	1B (VI)	‡
First Through Fourth Key Units No. 1A1; Fifth Key Unit No. 1A		A1 (I)	H1 (I)	H4 (IV)	1§ (IV)	R (V)	A1 (I)	A2 (II)	A3 (III)	H4 (IV)	A5 (V)	R (I)	1B (VI)	‡
No. 1A Only (See Connection Note 3 in Fig. 9)		H1 (I)	A1 (I)	†	R1§ (VI)	R (I)	A1 (I)	A2 (II)	A3 (III)	A4 (IV)	A5 (V)	R1 (VI)	SG (VI)	L2

**Note:** Roman numerals in parentheses indicate terminal board designations.  
 \* R lead connects to S-Y switch lead at terminal 1 of ringer terminal board.  
 BR lead connects to S-W switch lead at terminal 4 of ringer terminal board.  
 † Lead is spade tipped, taped and stored.  
 ‡ S-G lead connects to terminal G of network with no connection to station busy lamp circuit or to terminal L2 of network when station busy lamp is used.  
 § Disconnect, tape and store R (R-W) chaining lead.

**TABLE C**  
**NO. 1A1 AND 1A SYSTEM CONVERSION**  
**CONNECTIONS FOR SETS USING D120B (MD) OR D200B (MD) MOUNTING CORD**

Key Telephone System Central Office or PBX Line Feature	Leads													
	Hold Key					Chaining Switch					Switchhook			
						630 and 631 Sets			631 Set Only					
	BK-BL	BK-W	S-W	S-Y	S-BK	BL-W 1st Key	BL-W 2nd Key	BL-W 3rd Key	BL-W 4th Key	BL-W 5th Key	R*	Y*	S-G	
No. 1A1 Only (as furnished by shop)	A-H (I)	A-H (I)	†	†	†	A-H (I)	A-H (II)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡	
First Key Unit No. 1A1; Remaining Key Units No. 1A	A-H (I)	X (VI)	†	1§ (I)	R (II)	X (VI)	A-H (II)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡	
First and Second Key Units No. 1A1; Remaining Key Units No. 1A	A-H (I)	X (VI)	†	1§ (II)	R (III)	A-H (I)	X (VI)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡	
First, Second, and Third Key Units No. 1A1; Remaining Key Units No. 1A	631 Set Only	A-H (I)	X (VI)	†	1§ (III)	R (IV)	A-H (I)	A-H (II)	X (VI)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡
First Through Fourth Key Units No. 1A1; Fifth Key Unit No. 1A		A-H (I)	X (VI)	†	1§ (IV)	R (V)	A-H (I)	A-H (II)	A-H (III)	X (VI)	A-H (V)	R (I)	1B (VI)	‡
No. 1A Only (See Connection Note 3 in Fig. 9)		X (VI)	A-H (I)	†	R1 (VI)	R (I)	A-H (I)	A-H (II)	A-H (III)	A-H (IV)	A-H (V)	R1 (VI)	SG (VI)	L2

**Note:** Roman numerals in parentheses indicate terminal board designations.  
 \* R lead connects to S-Y switch lead at terminal 1 of ringer terminal board.  
 Y lead connects to S-W switch lead at terminal 4 of ringer terminal board.  
 † Lead is spade tipped, taped and stored.  
 ‡ S-G lead connects to terminal G of network with no connection to station busy lamp circuit or to terminal L2 of network when station busy lamp circuit is used.  
 § Disconnect, tape and store R (R-W) chaining lead.

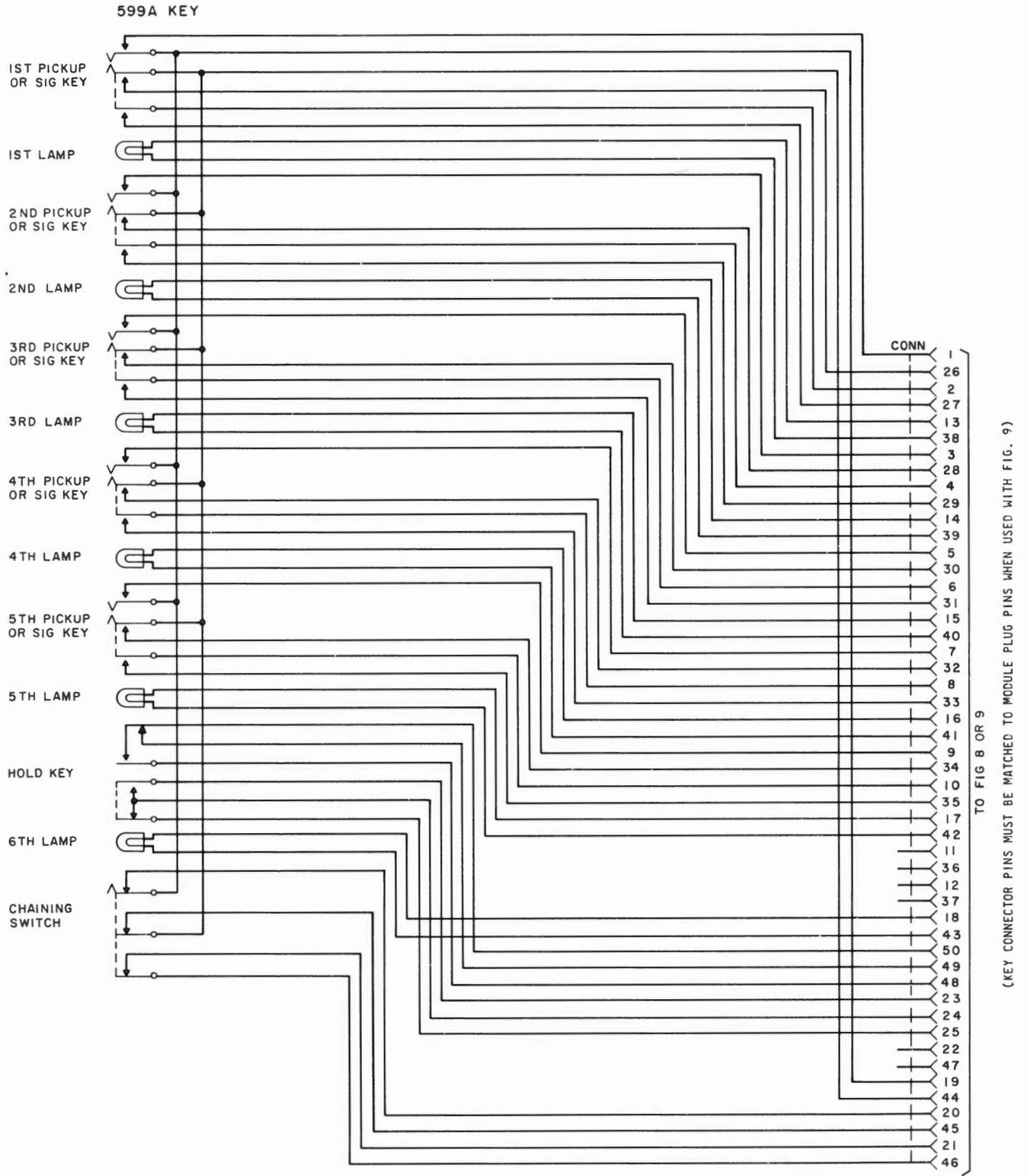


Fig. 1 - 599A Key

**TABLE D**  
**NO. 1A1 AND 1A SYSTEM CONVERSION**  
**CONNECTIONS FOR SETS USING D120B OR D200F MOUNTING CORD**

Key Telephone System Central Office or PBX Line Feature	Leads													
	Hold Key					Chaining Switch					Switchhook			
						630 and 631 Sets			631 Set Only					
	Y-G	G-Y	V-O	BR-V	V-BR	V-G 1st Key	V-G 2nd Key	V-G 3rd Key	V-G 4th Key	V-G 5th Key	BL-V *	O-V *	S-G	
No. 1A1 Only (as furnished by shop)	A-H (I)	A-H (I)	†	†	†	A-H (I)	A-H (II)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡	
First Key Unit No. 1A1; Remaining Key Units No. 1A	A-H (I)	X (VI)	†	1§ (I)	R (II)	X (VI)	A-H (II)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡	
First and Second Key Units No. 1A1; Remaining Key Units No. 1A	A-H (I)	X (VI)	†	1§ (II)	R (III)	A-H (I)	X (VI)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡	
First, Second, and Third Key Units No. 1A1; Remaining Key Units No. 1A	631 Set Only	A-H (I)	X (VI)	†	1§ (III)	R (IV)	A-H (I)	A-H (II)	X (VI)	A-H (IV)	A-H (V)	R (I)	1B (VI)	‡
First Through Fourth Key Units No. 1A1; Fifth Key Unit No. 1A		A-H (I)	X (VI)	†	1§ (IV)	R (V)	A-H (I)	A-H (II)	A-H (III)	X (VI)	A-H (V)	R (I)	1B (VI)	‡
No. 1A Only (See Connection Note 3 in Fig. 8)		X (VI)	A-H (I)	†	R1 (VI)	R (I)	A-H (I)	A-H (II)	A-H (III)	A-H (IV)	A-H (V)	R1 (VI)	SG (VI)	L2

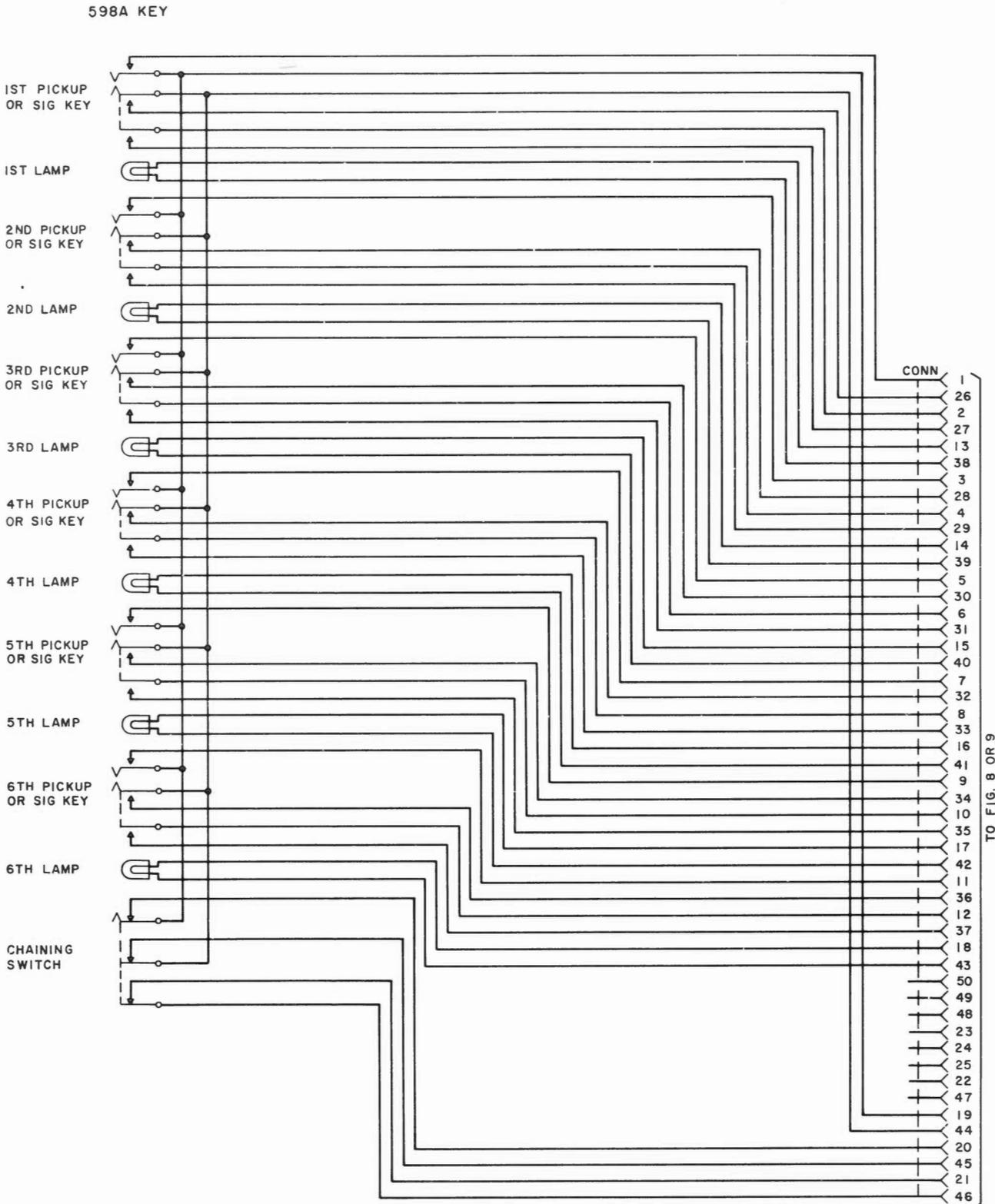
*Note:* Roman numerals in parentheses indicate terminal board designations.

\* BL-V lead connects to S-Y switch lead at terminal 1 of ringer terminal board. O-V lead connects to S-W switch lead at terminal 4 of ringer terminal board.

† Lead is spade tipped, taped and stored.

‡ S-G lead connects to terminal G of network with no connection to station busy lamp circuit or to terminal L2 of network when station busy lamp circuit is used.

§ Disconnect, tape and store R (BL-V) chaining lead.



TO FIG. 8 OR 9  
(KEY CONNECTOR PINS MUST BE MATCHED TO MODULE PLUG PINS WHEN USED WITH FIG. 9)

Fig. 2 - 598A Key

**TABLE E**  
**PICKUP-SIGNALING CONVERSION OF KEYS FROM LOCKING TO NONLOCKING OPERATION**  
**FOR SETS USING D120A (MD) AND D200A (MD) CORDS**

(See Connection Notes 5 and 6 and Change Set Leads as Follows)

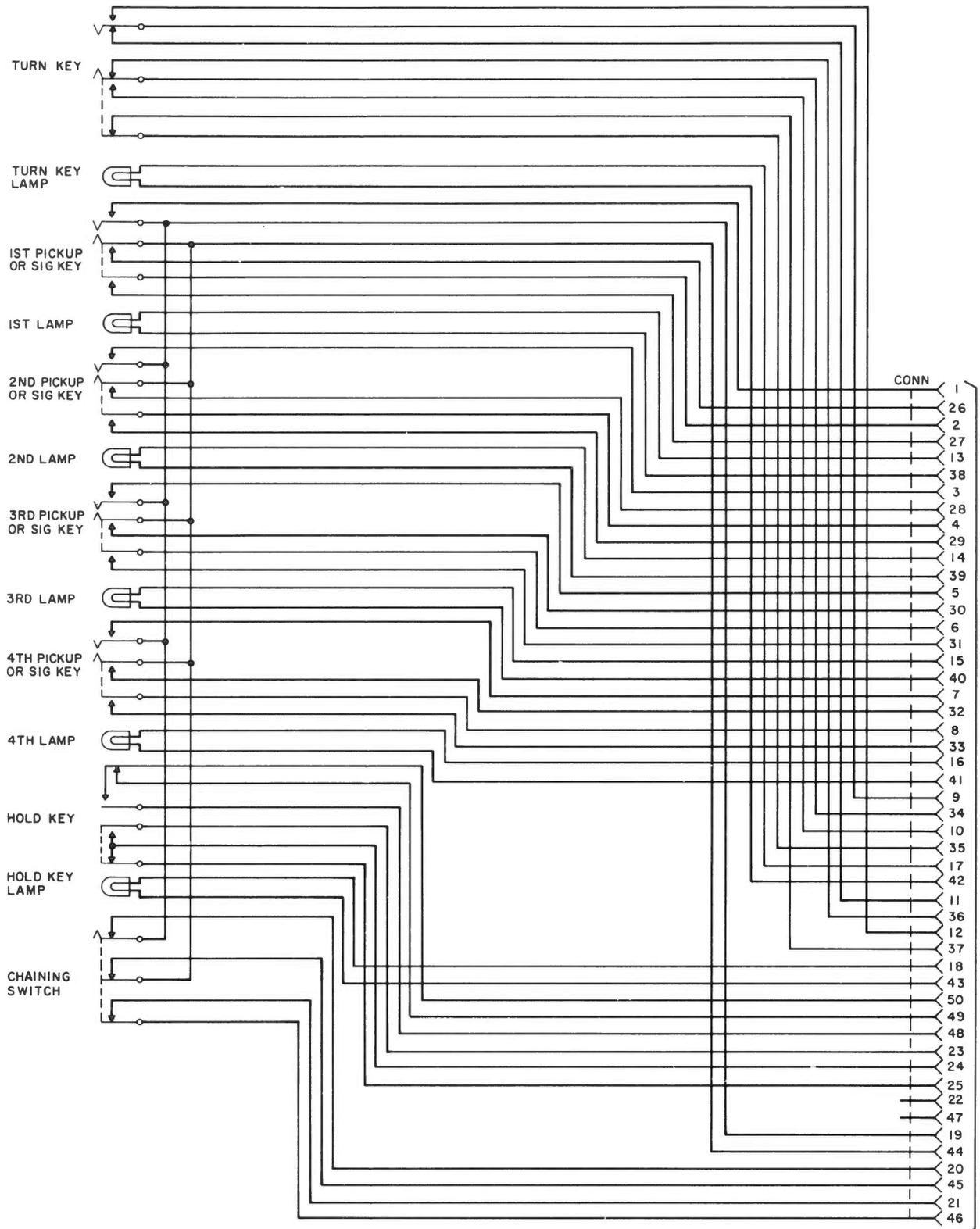
No. of Pickup Keys	No. of Signal Keys Converted from Pickup Keys			No. of Private and Intercom Lines with Com Sig Keys (per Key Unit)	Key Leads and Terminals of Key Units Involved						
	599A	599B	598A		BK	BR-G	BR-W	R-BL	G-BL	S-BR Supl Key Only	BR Supl Key Only
6					A	A	A	A	A	A	G
5			1		A	A	A	A	A	S	G
4	1		2		A	A	A	A	S	S	G
3	2	1	3		A	A	A	S	S	S	G
2	3	2	4		A	A	S	S	S	S	G
1	4	3	5		A	S	S	S	S	S	G
			6		S	S	S	S	S	S	G
5			1	2	A	A	A	C	C	C	S
5			1	3	A	A	C	C	C	C	S
5			1	4	A	C	C	C	C	C	S
5			1	5	C	C	C	C	C	C	S

**TABLE F**  
**PICKUP-SIGNALING KEY CONVERSION OF KEYS FROM LOCKING TO NONLOCKING OPERATION**  
**FOR SETS USING D120B (MD) and D200B (MD) CORDS**

(See Connection Notes 5 and 6 and Change Set Leads as Follows)

No. of Pickup Keys	No. of Signal Keys Converted from Pickup Keys			No. of Private and Intercom Lines with Com Sig Keys (per Key Unit)	Key Leads and Terminals of Key Units Involved						
	599A	599B	598A		BK	BR-G	BR-W	R-BL	G-BL	S-BR Supl Key Only	BR Supl Key Only
6					AH	AH	AH	AH	AH	AH	G
5			1		AH	AH	AH	AH	AH	C	G
4	1		2		AH	AH	AH	AH	C	C	G
3	2	1	3		AH	AH	AH	C	C	C	G
2	3	2	4		AH	AH	C	C	C	C	G
1	4	3	5		AH	C	C	C	C	C	G
			6		C	C	C	C	C	C	G
5			1	2	AH	AH	AH	C	C	C	G
5			1	3	AH	AH	C	C	C	C	G
5			1	4	AH	C	C	C	C	C	G
5			1	5	C	C	C	C	C	C	G

599B KEY



TO FIG. 8 OR 9  
(KEY CONNECTOR PINS MUST BE MATCHED TO MODULE PLUG PINS WHEN USED WITH FIG. 9)

Fig. 3 - 599B Key

**TABLE G**  
**PICKUP-SIGNALING KEY CONVERSION OF KEYS FROM LOCKING TO NONLOCKING OPERATION**  
**FOR SETS USING D120C and D200F CORDS**

(See Connection Notes 5 and 6 and Change Set Leads as Follows)

No. of Pickup Keys	No. of Signal Keys Converted from Pickup Keys			No. of Private and Intercom Lines with Com Sig Keys (per Key Unit)	Key Leads and Terminals of Key Units Involved						
	599A	599B	598A		O-W	S-W	G-R	BL-BK	BR-BK	Y-O Supl Key Only	O-Y Supl Key Only
6					AH	AH	AH	AH	AH	AH	G
5			1		AH	AH	AH	AH	AH	C	G
4	1		2		AH	AH	AH	AH	C	C	G
3	2	1	3		AH	AH	AH	C	C	C	G
2	3	2	4		AH	AH	C	C	C	C	G
1	4	3	5		AH	C	C	C	C	C	G
			6		C	C	C	C	C	C	G
5			1	2	AH	AH	AH	C	C	C	G
5			1	3	AH	AH	C	C	C	C	G
5			1	4	AH	C	C	C	C	C	G
5			1	5	C	C	C	C	C	C	G

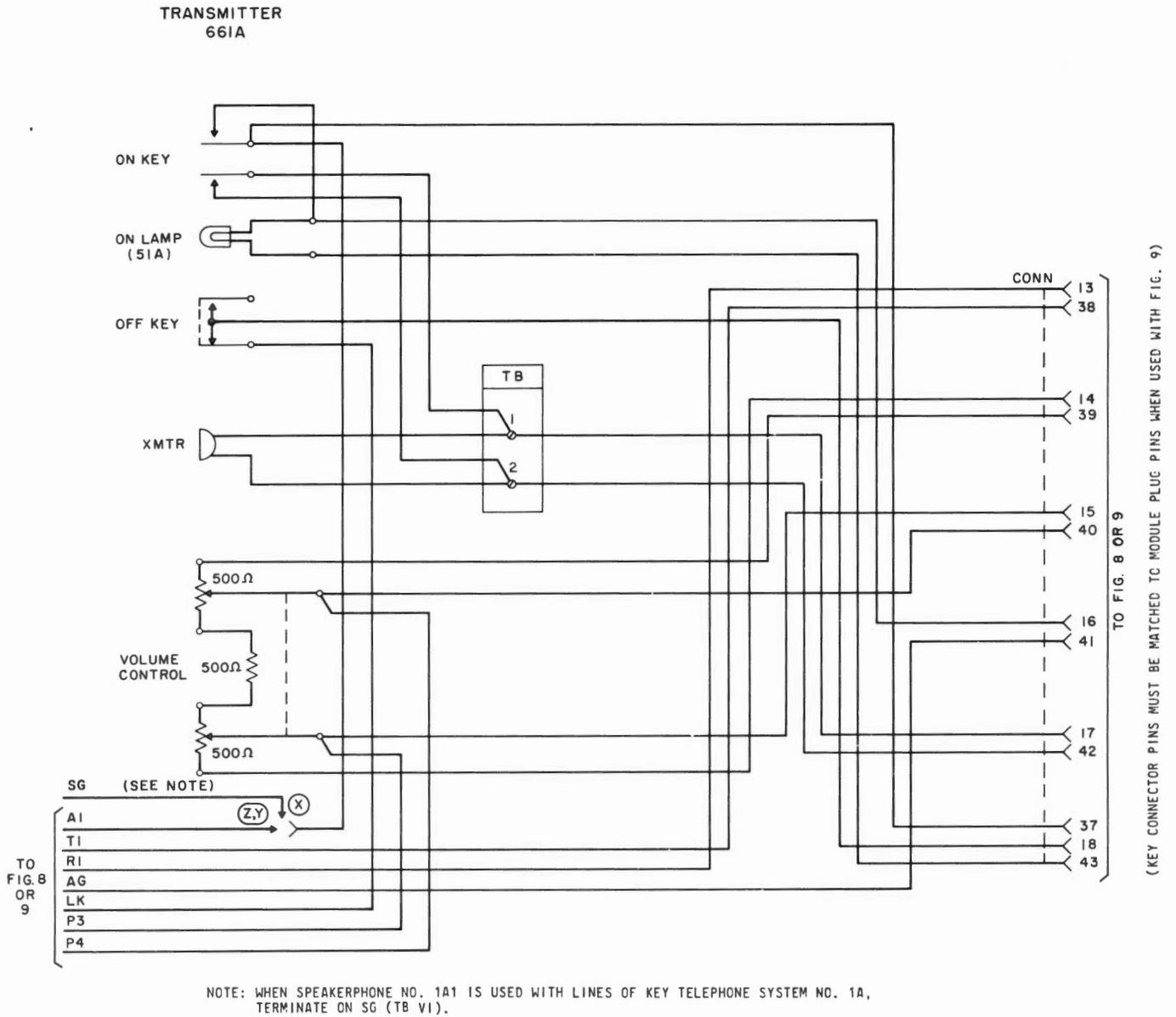


Fig. 4 - 661A Transmitter

TRANSMITTER  
667A

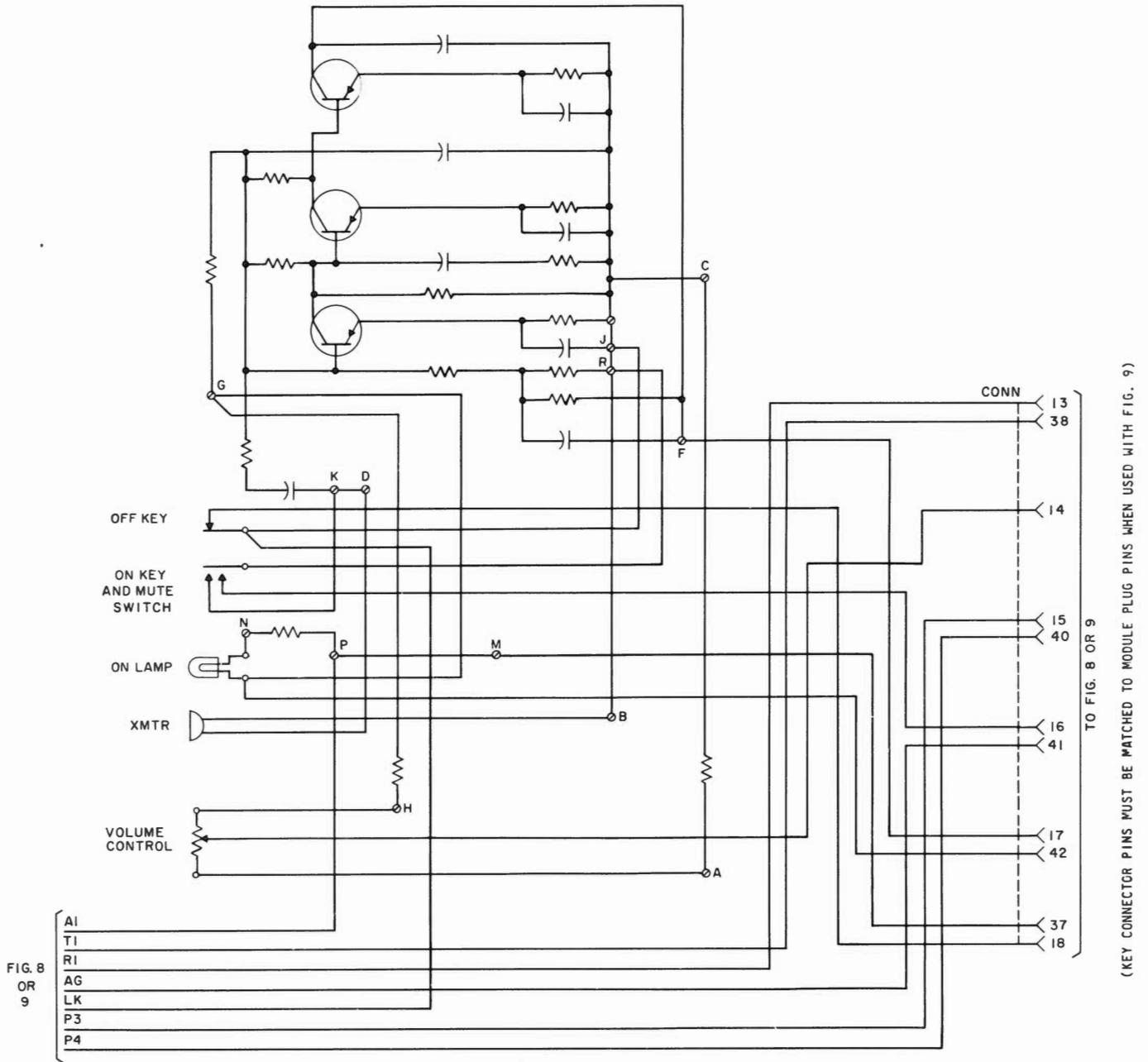


Fig. 5 - 667A Transmitter

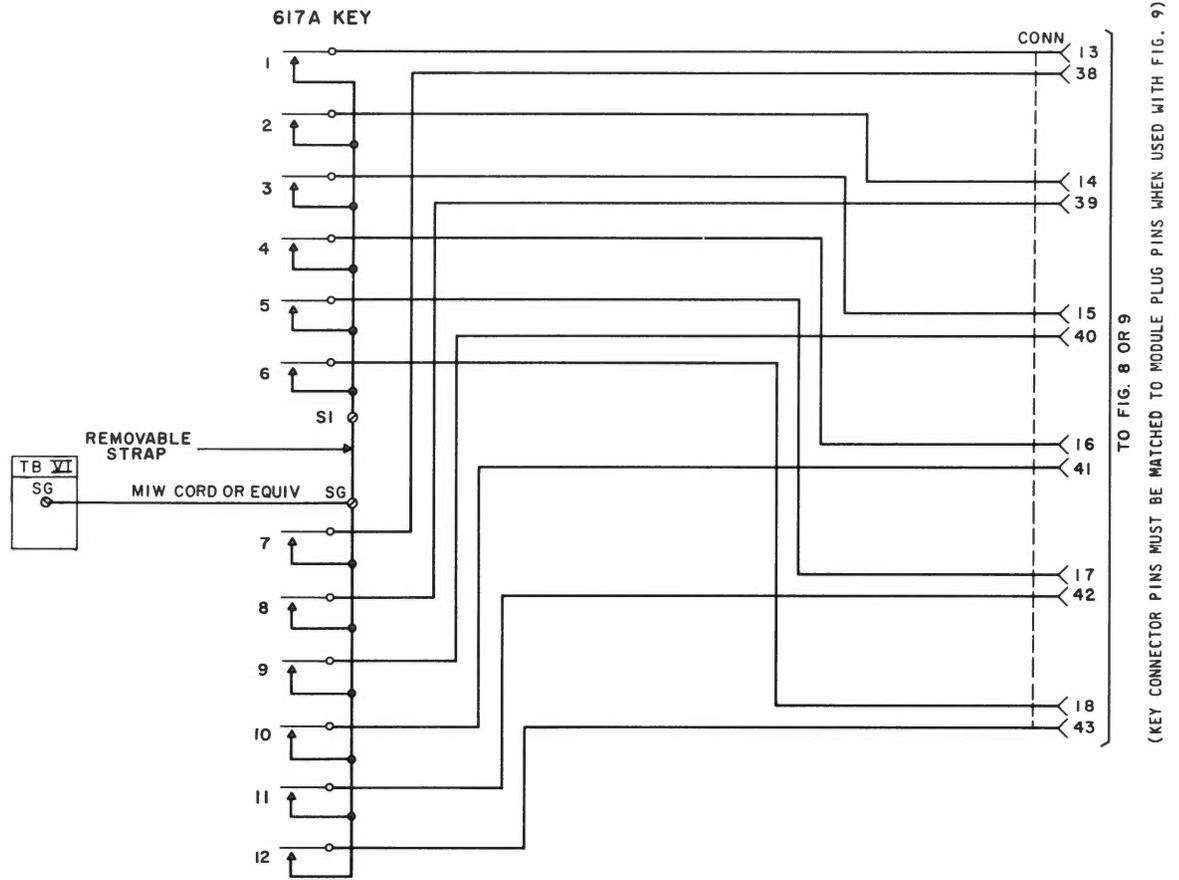


Fig. 6 - 617A Key

59A LAMP SOCKET (USE 51A LAMPS)

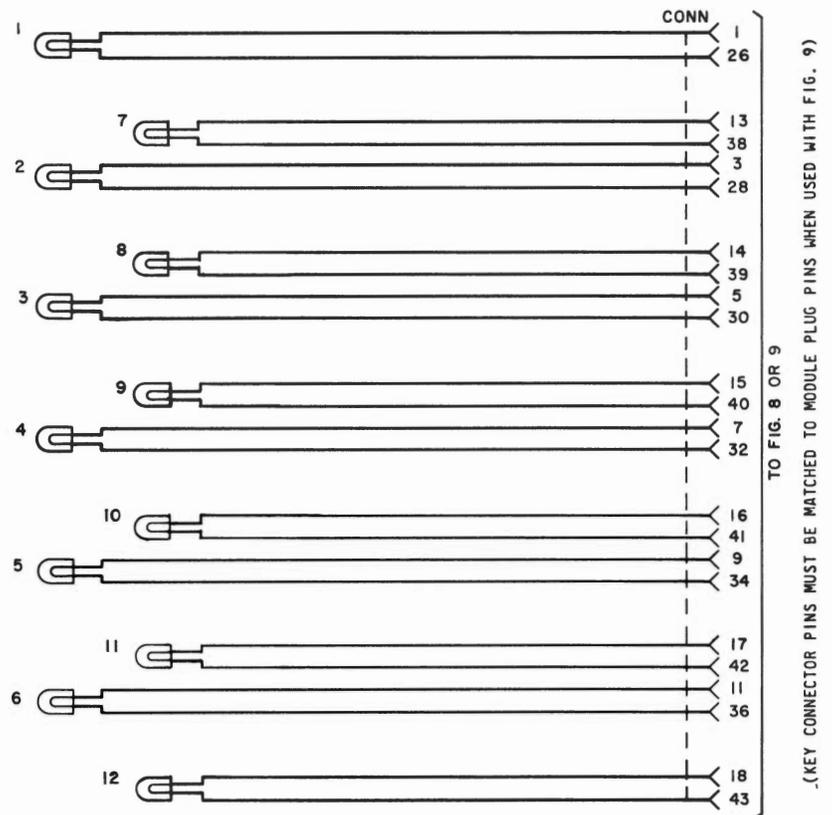
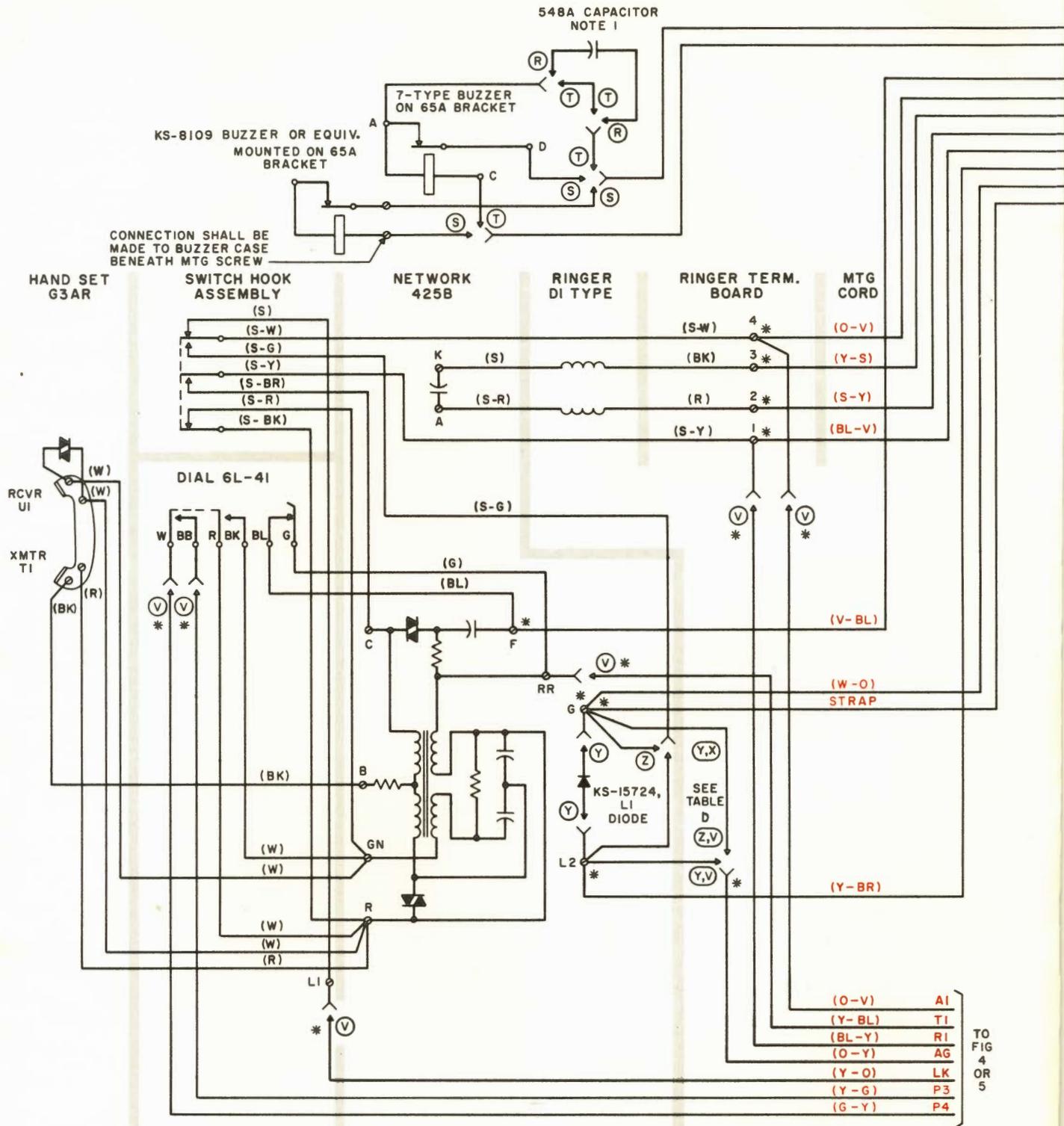


Fig. 7 - 59A Lamp Socket  
 (Use 51A Lamps)



- (R) COMMON AUDIBLE WITH POWER FAILURE FEATURE
- (S) DC BUZZER
- (T) AC BUZZER
- (V) SPEAKERPHONE SYSTEM

- (X) 1A KEY TELEPHONE SYSTEM
- (Y) WITH STATION BUSY LAMP
- (Z) WITHOUT STATION BUSY LAMP

(S-Y) BZ  
(Y-S) BZI

(V-BL) T  
(O-V) AI  
(Y-S) B OR BI  
(S-Y) R OR RI  
(BL-V) R  
(Y-BR) BL OR LS  
(W-O) A  
STRAP

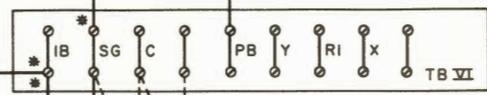
(BR-Y) PB

NOTE 3 AND TABLE D

NOTE 4

NOTE 2

NOTE 5



CORD CONNECTIONS

CONNECTOR CABLE

CONNECTOR I

FIRST MODULE

TBI

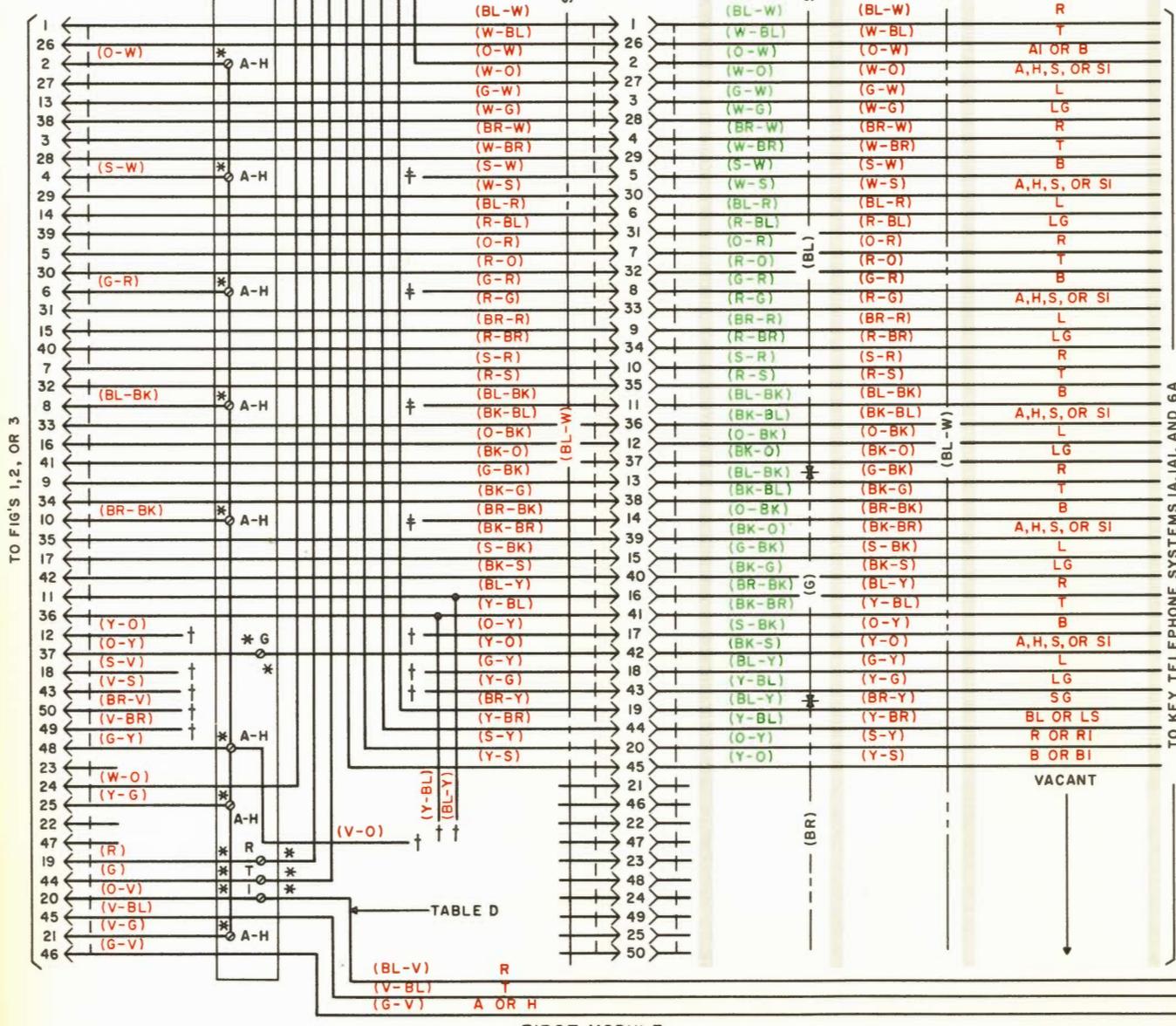
D120C  
D200F

PLUG I CONN I

A100A

A100D  
A75A

LEAD DESIGNATION  
TEL SYSTEM  
APPARATUS  
CABINET



TO FIG'S 1,2, OR 3

TO KEY TELEPHONE SYSTEMS IA, IAI, AND 6A

TABLE D

FIRST MODULE

(BL-V) R  
(V-BL) T  
(G-V) A OR H

VACANT

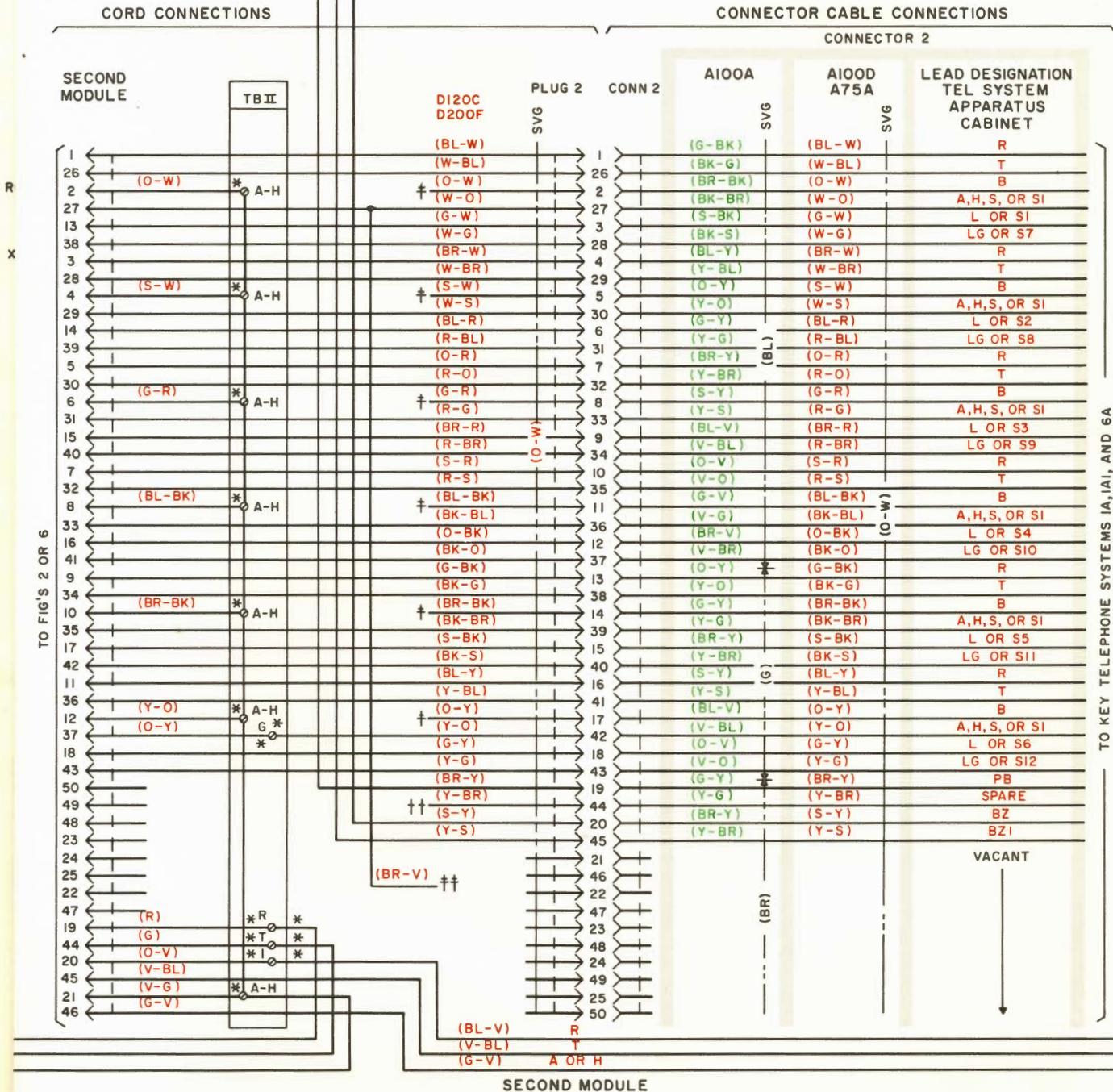
(S-Y) BZ  
 (Y-S) BZI  
 (BR-Y) PB

CIRCUIT SYMBOLS:

- \* INDICATES LEADS ARE SPADE TIPPED.
- † INDICATES LEADS ARE SPADE TIPPED, INSULATED WITH KS-19147, L1 INSULATOR AND STORED.
- ‡ INDICATES LEADS ARE CUT DEAD AND INSULATED AT THE BUTT.
- †† INDICATES LEADS ARE SPADE TIPPED, INSULATED WITH KS-19147, L1 INSULATOR AND STORED IN LAST MODULE OF 18 AND 30 BUTTON SETS.
- ††† INDICATES LEADS ARE SPADE TIPPED, INSULATED WITH KS.19147, L1 INSULATOR AND STORED IN FIRST AND LAST MODULES EQUIPPED WITH 598A KEY AND CUT DEAD AND INSULATED AT THE BUTT IN INTERMEDIATE MODULES.
- ‡ NOT REQUIRED FOR SPEAKERPHONE SYSTEM 3A

RED INDICATES EVEN COUNT COLOR CODE AND LEAD DESIGNATIONS.

GREEN INDICATES (MD) COLOR CODE AND LEAD DESIGNATIONS.



R  
X

TO FIG'S 2 OR 6

TO KEY TELEPHONE SYSTEMS 1A, 1A1, AND 6A

SECOND MODULE

NOTE 1: WHEN A 7-TYPE BUZZER IS USED WITH A COMMON AUDIBLE ALARM AND POWER FAILURE FEATURE, A 548A OR EQUIVALENT CAPACITOR SHALL BE INSTALLED AS FOLLOWS:

WHEN AVAILABLE, USE THE CAPACITOR IN THE 425B NETWORK, CONNECT BZ LEAD TO TERMINAL A OF NETWORK AND USE A M1W STRAP OR EQUIVALENT TO CONNECT TERMINAL K OF NETWORK TO TERMINAL A OF BUZZER.

CONNECT 548A CAPACITOR FROM TERMINAL A OF BUZZER TO BZ LEAD. USE A D-161488 CONNECTOR OR SPARE TERMINAL TO CONNECT CAPACITOR LEAD TO BZ LEAD.

NOTE 2: WITH 599A OR 599B KEY IN FIRST MODULE, THE FOLLOWING LEADS ARE SPADE TIPPED, INSULATED, AND STORED: (G-Y), (S-V), (Y-G), (V-S), (Y-O), (BL-Y), (Y-BL), AND (O-Y).

WITH 599B KEY IN FIRST MODULE (BR-BK) SHOULD BE INSULATED AND STORED.

WITH 598A KEY IN FIRST MODULE, THESE SAME LEADS ARE CONNECTED AS FOLLOWS:

TO EXTEND A LEAD CONTROL, STRAP TERMINAL G OF NETWORK TO A TO EXTEND LAMP LEADS, CONNECT (G-Y) TO (S-V) AND (Y-G) TO CONNECTORS OR SPARE TERMINALS.

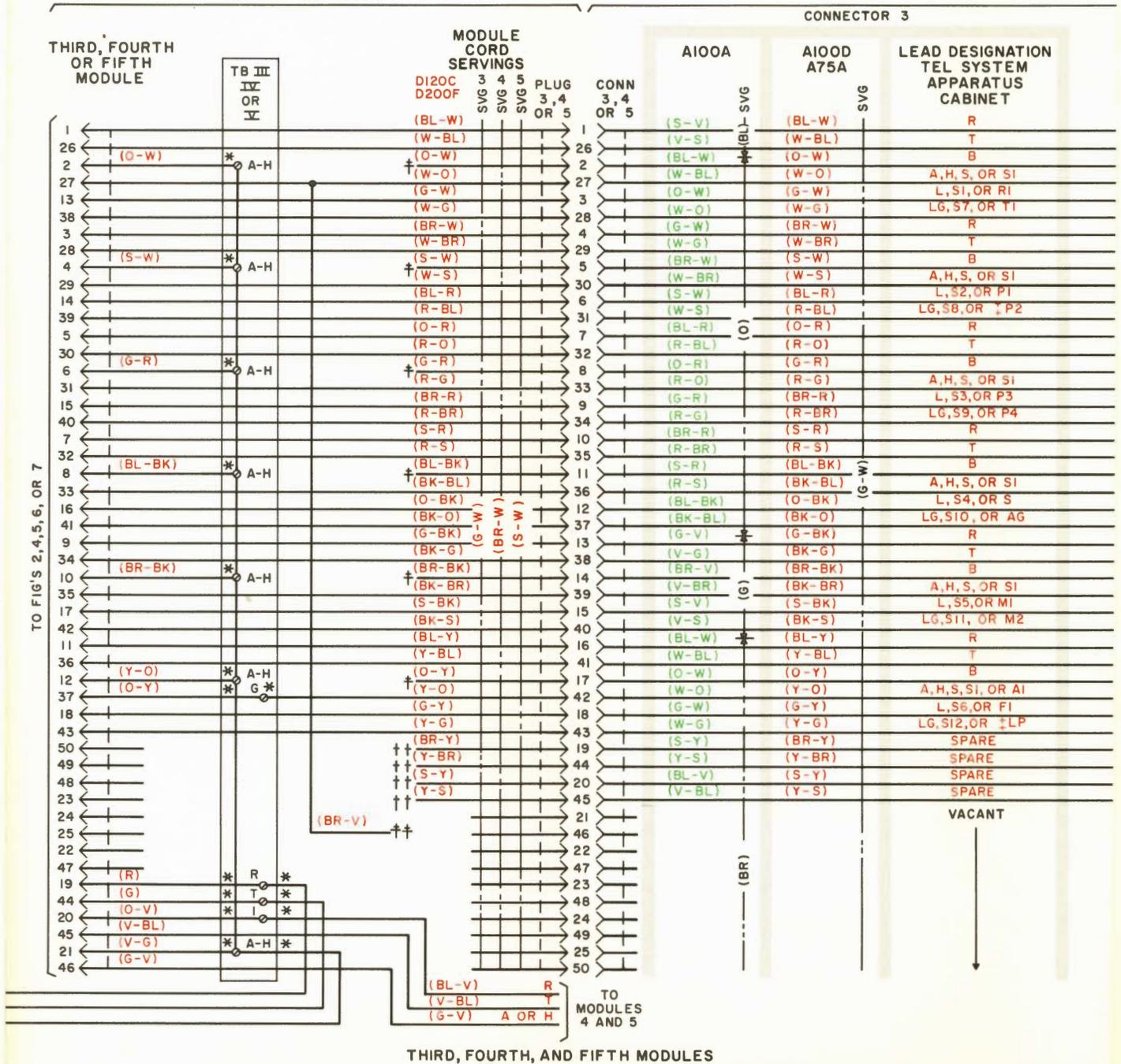
CONNECT (Y-O) AND (BR-BK) (IF STORED) TO A-H TERMINAL ON (BL-Y), (Y-BL), AND (O-Y) LEADS REMAIN STORED.

NOTE 3: WHEN 1A KEY SYSTEM ONLY IS USED, MOVE STRAP A1 (O-V) AND MAKE CONVERSIONS IN TABLE B.

NOTE 4: THE PB LEAD IS FOR ADD-ON CONFERENCE CONTROL OF THE 6

NOTE 5: WHEN SIGNALING KEYS OTHER THAN THE 617A ARE TO BE PRO LEADS ASSOCIATED WITH THE CONVERTED PICKUP KEYS SHALL BE CONN ON TB VI. IF ADDITIONAL TERMINALS ARE REQUIRED, PROVIDE AN M BETWEEN THE C OR S AND SG TERMINALS ON TB VI.

CORD CONNECTIONS



-H TERMINAL ON TB1.  
(V-S) USING D-161488

NOTE 6: 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.

TB1.

FROM 1B TO SG

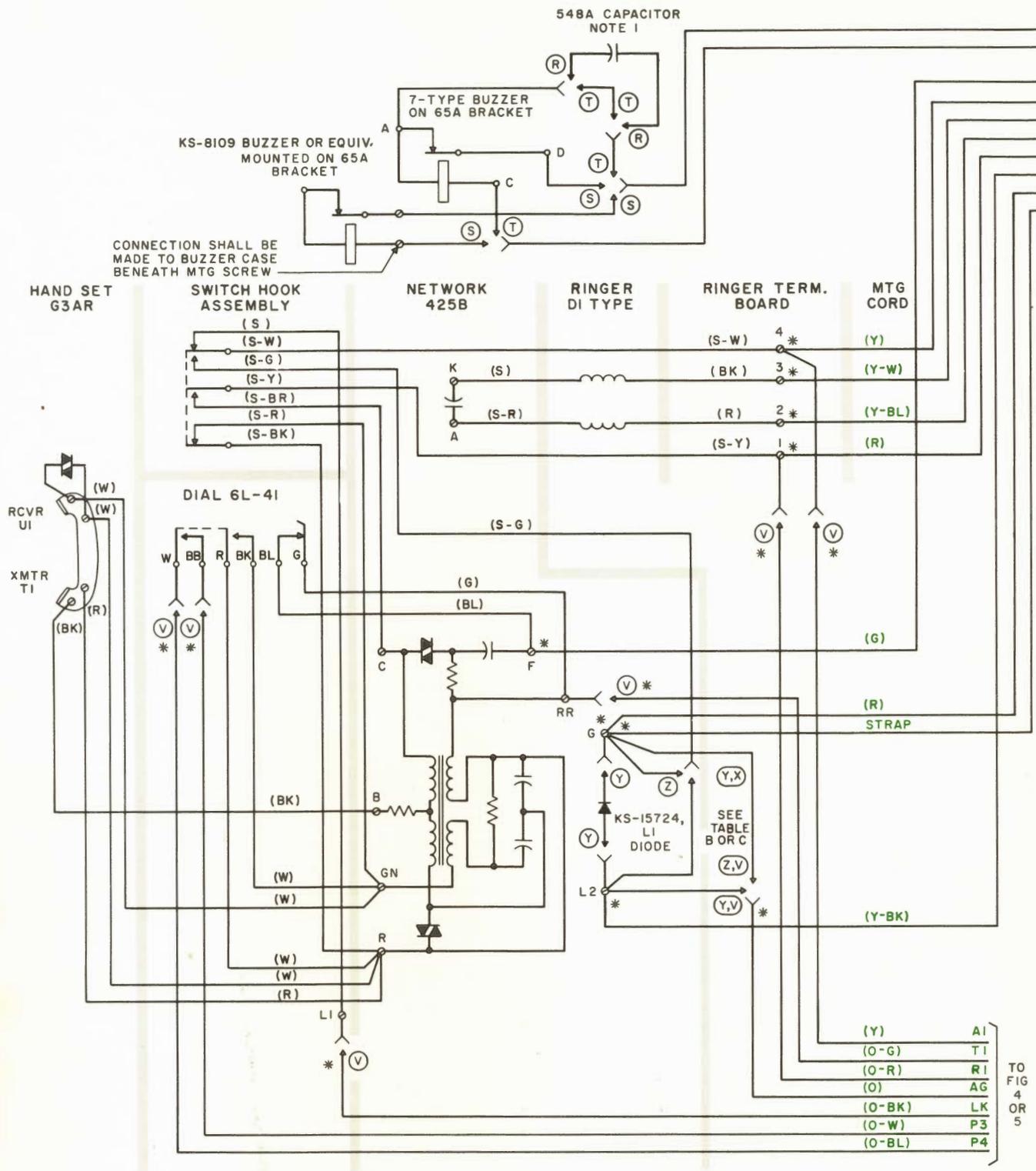
A KEY TELEPHONE SYSTEM.

VIDED, THE SPADE-TIPPED  
ECTED TO THE SG TERMINAL  
1W STRAP, OR EQUIVALENT,

CONNECTOR 4			CONNECTOR 5		
AIOOA	AIOOD	LEAD DESIGNATION TEL SYSTEM APPARATUS CABINET	AIOOA	AIOOD	LEAD DESIGNATION TEL SYSTEM APPARATUS CABINET
(O-BK)	(BL-W)	R	(BR-V)	(BL-W)	R OR L7
(BK-O)	(W-BL)	T	(V-BR)	(W-BL)	T OR LG7
(G-BK)	(O-W)	B	(S-V)	(O-W)	B
(BK-G)	(W-O)	A,H,S, OR SI	(V-S)	(W-O)	A,H,S, OR SI
(BR-BK)	(G-W)	L OR SI	(BL-W)	(G-W)	L,SI, OR RI
(BK-BR)	(W-G)	LG OR S7	(W-BL)	(W-G)	LG,S7, OR TI
(S-BK)	(BR-W)	R	(O-W)	(BR-W)	R OR LB
(BK-S)	(W-BR)	T	(W-O)	(W-BR)	T OR LG8
(BL-Y)	(S-W)	B	(G-W)	(S-W)	B
(Y-BL)	(W-S)	A,H,S, OR SI	(W-G)	(W-S)	A,H,S, OR SI
(O-Y)	(BL-R)	L OR S2	(BR-W)	(BL-R)	L,S2, OR PI
(Y-O)	(R-BL)	LG OR S8	(W-BR)	(R-BL)	LG,S8, OR P2
(G-Y)	(O-R)	R	(S-W)	(O-R)	R OR L9
(Y-G)	(R-O)	T	(W-S)	(R-O)	T OR LG9
(BR-Y)	(G-R)	B	(BL-R)	(G-R)	B
(Y-BR)	(R-G)	A,H,S, OR SI	(R-BL)	(R-G)	A,H,S, OR SI
(S-Y)	(BR-R)	L OR S3	(O-R)	(BR-R)	L,S3, OR P3
(Y-S)	(R-BR)	LG OR S9	(R-O)	(R-BR)	LG,S9, OR P4
(BL-V)	(S-R)	R	(G-R)	(S-R)	R OR L10
(V-BL)	(R-S)	T	(R-G)	(R-S)	T OR LG10
(O-V)	(BL-BK)	B	(BR-R)	(BL-BK)	B
(V-O)	(BK-BL)	A,H,S, OR SI	(R-BR)	(BK-BL)	A,H,S, OR SI
(G-V)	(O-BK)	L OR S4	(S-R)	(O-BK)	L,S4, OR S
(V-G)	(BK-O)	LG OR S10	(R-S)	(BK-O)	LG,S10, OR AG
(BR-W)	(G-BK)	R	(S-R)	(G-BK)	R OR L11
(W-BR)	(BK-G)	T	(R-S)	(BK-G)	T OR LG11
(S-W)	(BR-BK)	B	(BL-BK)	(BR-BK)	B
(W-S)	(BK-BR)	A,H,S, OR SI	(BK-BL)	(BK-BR)	A,H,S, OR SI
(BL-R)	(S-BK)	L OR S5	(O-BK)	(S-BK)	L,S5, OR MI
(R-BL)	(BK-S)	LG OR S11	(BK-O)	(BK-S)	LG,S11, OR M2
(O-R)	(BL-Y)	R	(G-BK)	(BL-Y)	R OR L12
(R-O)	(Y-BL)	T	(BK-G)	(Y-BL)	T OR LG12
(G-R)	(O-Y)	B	(BR-BK)	(O-Y)	B
(R-G)	(Y-O)	A,H,S, OR SI	(BK-BR)	(Y-O)	A,H,S, SI, OR AI
(BR-R)	(G-Y)	L OR S6	(S-BK)	(G-Y)	L,S6, OR FI
(R-BR)	(Y-G)	LG OR S12	(BK-S)	(Y-G)	LG,S12, OR LP
(O-V)	(BR-Y)	VACANT	(BR-V)	(BR-Y)	SPARE
(V-O)	(Y-BR)	VACANT	(V-BR)	(Y-BR)	SPARE
(G-V)	(S-Y)	VACANT	(S-V)	(S-Y)	SPARE
(V-G)	(Y-S)	VACANT	(V-S)	(Y-S)	SPARE
		VACANT			VACANT

TO KEY TELEPHONE SYSTEMS IA,IAI AND 6A  
OR SPEAKERPHONE SYSTEMS IAI AND 3A

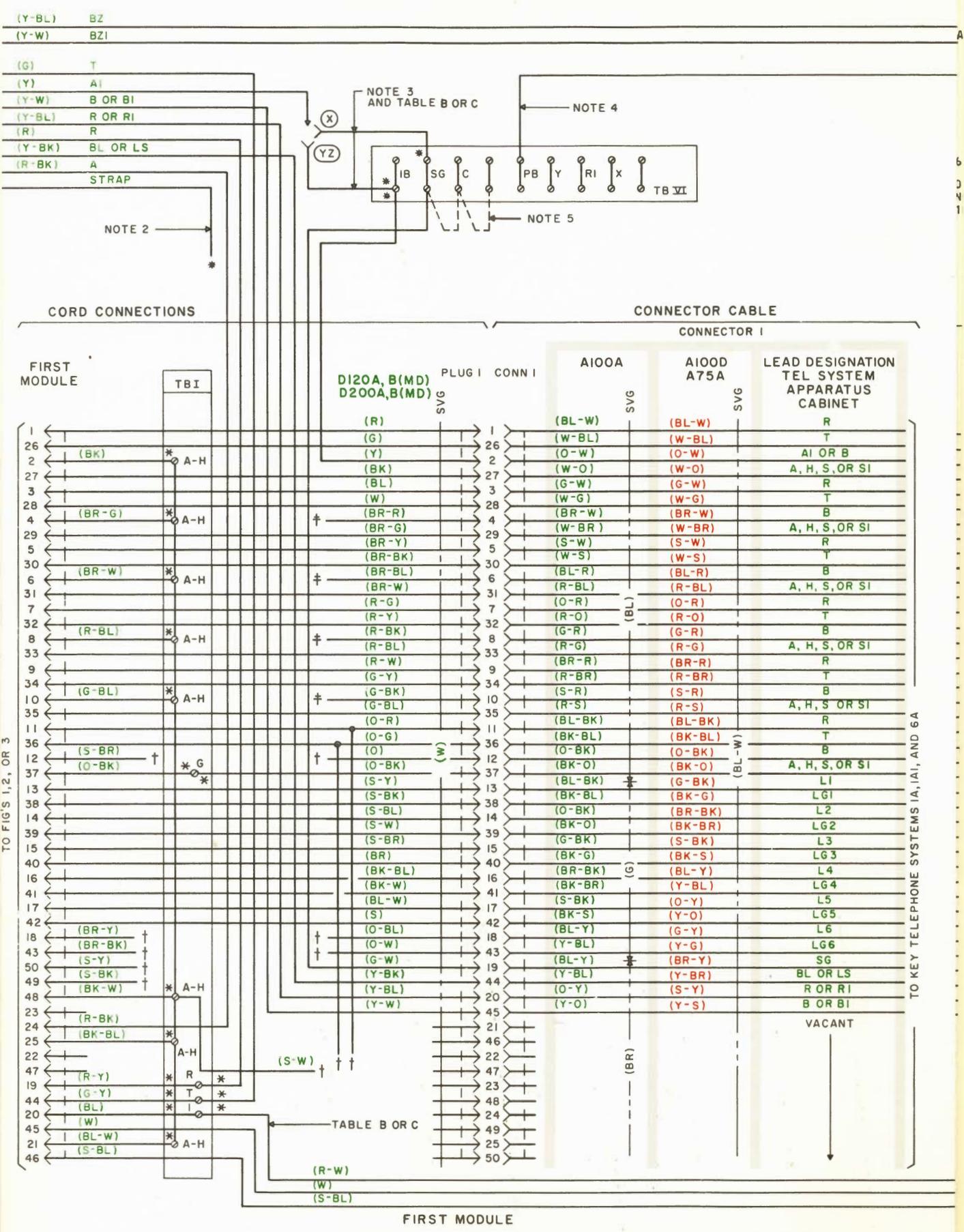
Fig. 8 - Telephone Set Circuit, Cord Connections and Cable Connections for 630- and 631-Type Telephone Sets Equipped with Even-Count Color-Coded Cords



- (R) COMMON AUDIBLE WITH POWER FAILURE FEATURE
- (S) DC BUZZER
- (T) AC BUZZER
- (V) SPEAKERPHONE SYSTEM

- (X) 1A KEY TELEPHONE SYSTEM
- (Y) WITH STATION BUSY LAMP
- (Z) WITHOUT STATION BUSY LAMP

(Y)	A1
(O-G)	T1
(O-R)	R1
(O)	AG
(O-BK)	LK
(O-W)	P3
(O-BL)	P4



TO FIGS 1, 2, OR 3

TO KEY TELEPHONE SYSTEMS 1A, 1A1, AND 6A

FIRST MODULE

(Y-BL) BZ  
 (Y-W) BZI  
 (G-W) PB

CIRCUIT SYMBOLS:

- \* INDICATES LEADS ARE SPADE TIPPED.
- † INDICATES LEADS ARE SPADE TIPPED, INSULATED WITH KS-19147, L1 INSULATOR, AND STORED.
- ‡ INDICATES LEADS ARE CUT DEAD AND INSULATED AT THE BUTT.
- †† INDICATES LEADS ARE SPADE TIPPED, INSULATED WITH KS-19147, L1 INSULATOR, AND STORED IN LAST MODULE OF 18 AND 30 BUTTON SETS.
- ††† INDICATES LEADS ARE SPADE TIPPED, INSULATED WITH KS-19147, L1 INSULATOR, AND STORED IN FIRST AND LAST MODULES EQUIPPED WITH 598A KEY AND CUT DEAD AND INSULATED AT THE BUTT IN INTERMEDIATE MODULES.
- ‡ NOT REQUIRED FOR SPEAKERPHONE SYSTEM 3A

RED INDICATES EVEN COUNT COLOR CODE AND LEAD DESIGNATIONS.

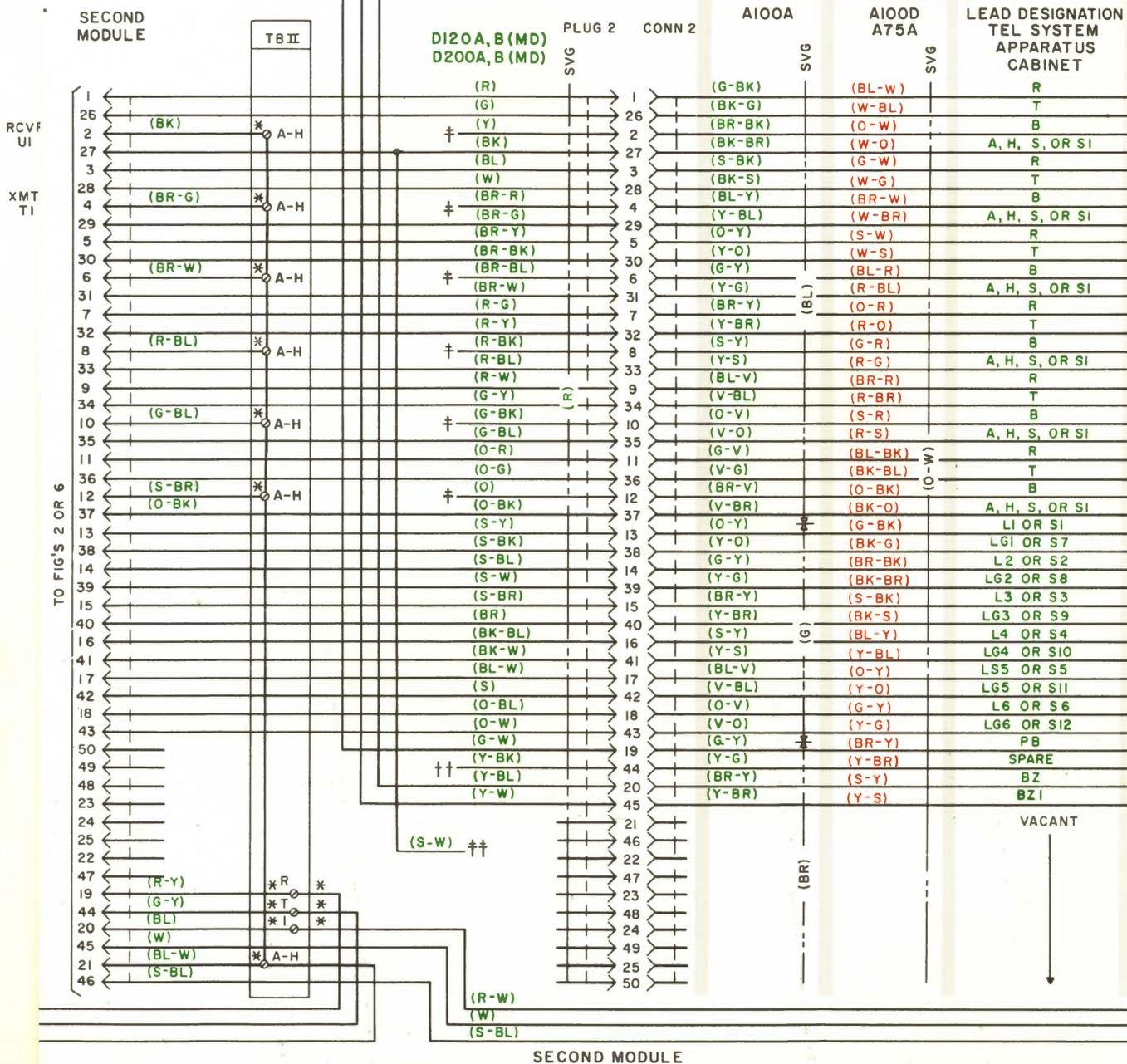
GREEN INDICATES (MD) COLOR CODE AND LEAD DESIGNATIONS.

H

CORD CONNECTIONS

CONNECTOR CABLE CONNECTIONS

CONNECTOR 2



TO KEY TELEPHONE SYSTEMS IA, IAI, AND 6A

SECOND MODULE



-H TERMINAL ON TB1.  
TO (BR-BK) USING

NOTE 6: 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.

TB1.

FROM 1B TO 5G

A KEY TELEPHONE SYSTEM

VIDED, THE SPADE-TIPPED  
ECTED TO THE 5G TERMINAL  
W STRAP, OR EQUIVALENT,

CONNECTOR CABLE CONNECTIONS

CONNECTOR 4			CONNECTOR 5		
AIOOA	AIOOD	LEAD DESIGNATION TEL SYSTEM APPARATUS CABINET	AIOOA	AIOOD	LEAD DESIGNATION TEL SYSTEM APPARATUS CABINET
(O-BK)	(BL-W)	R	(BR-V)	(BL-W)	R OR L7
(BK-O)	(W-BL)	T	(V-BR)	(W-BL)	T OR LG7
(G-BK)	(O-W)	B	(S-V)	(O-W)	B
(BK-G)	(W-O)	A, H, S, OR SI	(V-S)	(W-O)	A, H, S, OR SI
(BR-BK)	(G-W)	R	(BL-W)	(G-W)	R OR L8
(BK-BR)	(W-G)	T	(W-BL)	(W-G)	T OR LG8
(S-BK)	(BR-W)	B	(O-W)	(BR-W)	B
(BK-S)	(W-BR)	A, H, S, OR SI	(W-O)	(W-BR)	A, H, S, OR SI
(BL-Y)	(S-W)	R	(G-W)	(S-W)	R OR L9
(Y-BL)	(W-S)	T	(W-G)	(W-S)	T OR LG9
(O-Y)	(BL-R)	B	(BR-W)	(BL-R)	B
(Y-O)	(R-BL)	A, H, S, OR SI	(W-BR)	(R-BL)	A, H, S, OR SI
(G-Y)	(O-R)	R	(S-W)	(O-R)	R OR L10
(Y-G)	(R-O)	T	(W-S)	(R-O)	T OR LG10
(BR-Y)	(G-R)	B	(BL-R)	(G-R)	B
(Y-BR)	(R-G)	A, H, S, OR SI	(R-BL)	(R-G)	A, H, S, OR SI
(S-Y)	(BR-R)	R	(O-R)	(BR-R)	R OR L11
(Y-S)	(R-BR)	T	(R-O)	(R-BR)	T OR LG11
(BL-V)	(S-R)	B	(G-R)	(S-R)	B
(V-BL)	(R-S)	A, H, S, OR SI	(R-G)	(R-S)	A, H, S, OR SI
(O-V)	(BL-BK)	R	(BR-R)	(BL-BK)	R OR L12
(V-O)	(BK-BL)	T	(R-BR)	(BK-BL)	T OR LG12
(G-V)	(O-BK)	B	(S-R)	(O-BK)	B
(V-G)	(BK-O)	A, H, S, OR SI	(R-S)	(BK-O)	A, H, S, SI, OR AI
(BR-W)	(G-BK)	L1 OR S1	(S-R)	(G-BK)	L1, S1, OR R1
(W-BR)	(BK-G)	LG1 OR S7	(R-S)	(BK-G)	LG1, S7, OR T1
(S-W)	(BR-BK)	L2 OR S2	(BL-BK)	(BR-BK)	L2, S2, OR P1
(W-S)	(BK-BR)	LG2 OR S8	(BK-BL)	(BK-BR)	LG2, S8, OR P2
(BL-R)	(S-BK)	L3 OR S3	(O-BK)	(S-BK)	L3, S3, OR P3
(R-BL)	(BK-S)	LG3 OR S9	(BK-O)	(BK-S)	LG3, S9, OR P4
(O-R)	(BL-Y)	L4 OR S4	(G-BK)	(BL-Y)	L4, S4, OR S
(R-O)	(Y-BL)	LG4 OR S10	(BK-G)	(Y-BL)	LG4, S10, OR AG
(G-R)	(O-Y)	L5 OR S5	(BR-BK)	(O-Y)	L5, S5, OR M1
(R-G)	(Y-O)	LG5 OR S11	(BK-BR)	(Y-O)	LG5, S11, OR M2
(BR-R)	(G-Y)	L6 OR S6	(S-BK)	(G-Y)	L6, S6, OR F1
(R-BR)	(Y-G)	LG6 OR S12	(BK-S)	(Y-G)	LG6, S12, OR L P
(O-V)	(BR-Y)	SPARE	(BR-V)	(BR-Y)	SPARE
(V-O)	(Y-BR)	SPARE	(V-BR)	(Y-BR)	SPARE
(G-V)	(S-Y)	SPARE	(S-V)	(S-Y)	SPARE
(V-G)	(Y-S)	SPARE	(V-S)	(Y-S)	SPARE
		VACANT			VACANT

TO KEY TELEPHONE SYSTEMS IA, IAI AND 6A OR SPEAKERPHONE SYSTEMS IAI AND 3A

Fig. 9 - Telephone Set Circuit, Cord Connections and Cable Connections for 630- and 631-Type Telephone Sets Equipped with D120A, B (MD) or D200A, B (MD) Color-Coded Cords