

SERVICE

2630- AND 2631-TYPE TELEPHONE SETS

1. GENERAL

1.01 This section contains connection and maintenance information for 18- and 30-button general purpose CALL DIRECTOR[®] telephone sets equipped with 12-button TOUCH-TONE[®] dials.

1.02 Connection information for these sets was formerly contained in Section 502-630-420 which is hereby canceled.

2. CONNECTIONS

2.01 Optional features, such as polarity guard for TOUCH-TONE dial, buzzer, and 599H key for supplementary hold, must be ordered separately and installed as required for customer service.



Due to differing line circuit time-out functions, 1A2 system lines should not be mixed with 1A1 system line circuits within a CALL DIRECTOR station. Line circuits of 1A and 1A1 or 1A2 KTS must not be connected to the same 6-button key module.

2.02 At the key telephone system, connector cable conductor termination for sets equipped with even-count color-coded mounting cords differ from those for sets equipped with MD color-coded cords. If 2630- or 2631-type telephone sets are used to replace MD telephone sets, it will be necessary to rearrange the connector cable leads at the key telephone system.



Some spade-tipped conductors or mounting cord leads are insulated with tubing which should be cut off with electrician scissors or diagonal pliers. Other conductors are insulated with stiff plastic pockets. Pinch open the mouth to release the spade tips.

2.03 T, R, A, and L leads of lines wired for supplementary hold or I hold must be routed per SD-69530-01 rather than directly to line circuits. To transfer A lead from ground to -24V for I hold features, connect stored (BR-V) lead from 1st module plug to any spare mounting cord lead using spare terminal or D-161488 connector. Mounting cord lead becomes a SP lead at key equipment. Refer to SD-69530-01 and appropriate section in Division 518 for detailed connections.

TABLE A

P-90D197 GUARD ASSEMBLY CONNECTIONS (Note)

WIRE OR LEAD	COLOR	REMOVE FROM	CONNECT TO	
		NET.	GUARD ASSY.	NET.
Dial	BK	RR	T	
	G-W	C	S	
Line Switch	W	C	S	
Guard Assembly	G			RR
	W			C*

* (O-BK) dial lead remains connected to C of network.

Note: For use when specified by local instructions for end-to-end signaling installations.

TABLE B
PICKUP-SIGNAL KEY CONVERSION (3RD OR 5TH MODULE)

CONVERSION OPTIONS (NOTES 1 AND 2)	598A OR 656A KEY						
	O-W	S-W	G-R	BL-BK	BR-BK	Y-O	O-Y
PPPPPP	A-H	A-H	A-H	A-H	A-H	A-H	G
PPPPPS	A-H	A-H	A-H	A-H	A-H	SG	G
PPPPSS	A-H	A-H	A-H	A-H	SG	SG	G
PPSSSS	A-H	A-H	A-H	SG	SG	SG	G
PSSSSS	A-H	SG	SG	SG	SG	SG	G
SSSSSS	SG	SG	SG	SG	SG	SG	G
PPPP*P*S	A-H	A-H	A-H	C	C	A-H†	C
PPP*P*P*S	A-H	A-H	C	C	C	A-H†	C
PP*P*P*P*S	A-H	C	C	C	C	A-H†	C
P*P*P*P*P*S	C	C	C	C	C	A-H†	C

Notes:

1. Convert buttons on right hand key module first.
2. All key positions are arranged in the shop, as pickup positions. To convert to signaling (nonlocking), remove the screw detail P-10E837 from the plunger at the key position to be converted. Make the necessary connection changes as shown in Table D.

*These arrangements use line switch controlled ground for common signal key used with private or intercommunicating lines. Common signal should be used to operate a common signal relay. Do not wire directly to a buzzer.

† Terminal A-H used with 1A1 or 1A2 KTS, and terminal 5 used with 1A KTS.

NOTES:

1. WITH 599A OR 657A KEY IN FIRST MODULE; SPADE TIPPED LEADS FROM KEY PLUG I AND MOUNTING CORD BINDER GROUP (BL-W) ARE INSULATED AND STORED AS SHOWN

WITH 599B OR 657B KEY IN FIRST MODULE; (BR-BK) LEAD MUST BE REMOVED FROM A-H OF TBI, INSULATED AND STORED.

WITH 598A OR 656A KEY IN FIRST MODULE; CONNECT (V-O) STRAP FROM A-H OF TBI TO TERMINAL 5 ON TELEPHONE SET TERMINAL BOARD.

CONNECT (Y-O) AND (BR-BK) LEADS FROM KEY PLUG I TO A-H OF TBI.

TO EXTEND LAMP LEADS CONNECT (S-V) AND (V-S) KEY PLUG LEADS TO (G-Y) AND (Y-G) MOUNTING CORDS LEADS RESPECTIVELY USING SPARE TERMINALS OR D-161488 CONNECTORS.

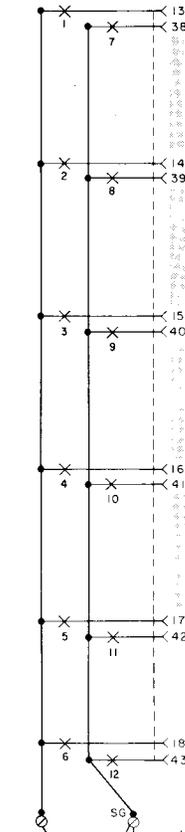
2. FOR USE WITH IA KEY SYSTEM ONLY, MOVE A1 (O-V) STRAP FROM IB TO SG ON TBXI AND MAKE CONVERSION SHOWN IN TABLE C.

3. FOR ADD-ON CONFERENCE CONTROL IN THE 6A KEY TELEPHONE SYSTEM, CONNECT (BR-Y) MOUNTING CORD LEAD (O-W BINDER GROUP) TO TBXI-PB. ALSO REMOVE COMMON LEAD OF ADD-ON CONFERENCE BUTTON (CONVERTED TO SIGNALING) FROM A-H TERMINAL AND CONNECT TO PB. THE 617A KEY MAY ALSO BE USED IN A SIMILAR MANNER. ALSO SEE NOTE 4.

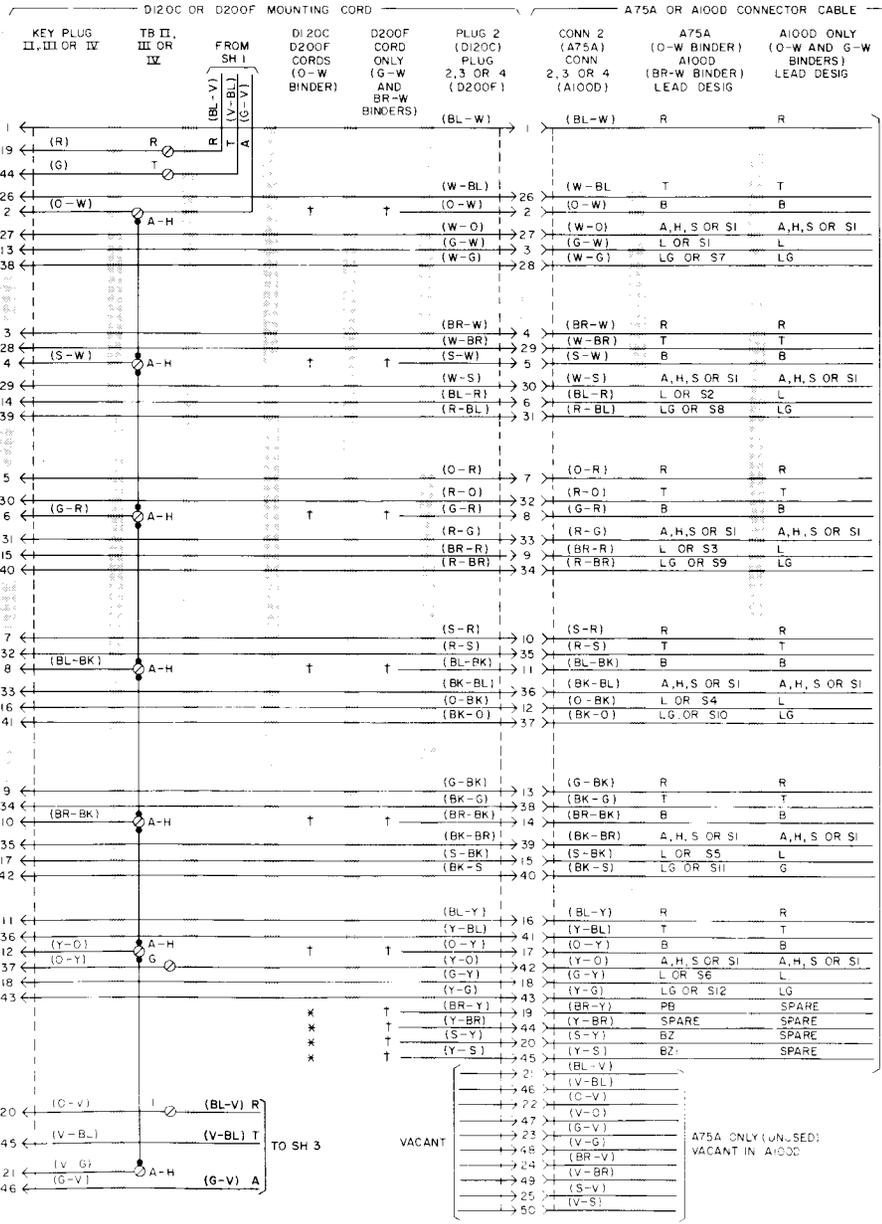
4. WHEN THE 617A KEY IS REQUIRED AS A DUAL-PURPOSE KEY, THE BRASS STRAP BETWEEN THE SI AND SG TERMINALS OF THE KEY MAY BE REMOVED. USE MIW CORD OR EQUIVALENT TO CONNECT SI TERMINAL OF 617A KEY TO A DISSIMILAR GROUND OR A NONGROUNDED CIRCUIT.

* INSULATED AND STORED
† DEAD ENDED

617A KEY
2ND MODULE
(2630-TYPE SETS)
4TH MODULE
(2631-TYPE SETS)



656A OR 598A KEY
2ND MODULE (2630-TYPE SETS)
2ND, 3RD OR 4TH MODULE
(2631-TYPE SETS)



TO KEY TELEPHONE SYSTEMS IA, IA1, IA2 AND 6A

Fig. 2—Module Arrangements and Cord and Cable Connections for Sets Equipped With Even-Count Color-Coded Cords (Sheet 2 of 3)

TABLE C
2630D AND 2631D TELEPHONE SETS — 1A, 1A1, AND 1A2 CONVERSIONS

KEY TELEPHONE SYSTEM CENTRAL OFFICE OR PBX LINE FEATURE	LEADS													
	HOLD KEY					CHAINING SWITCH					STRAP		LINE SWITCH	
						2630 AND 2631 SETS			2631 SETS 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	BR	
1A1 or 1A2 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 1A1 or 1A2; remaining key units 1A	A-H (I)	§	*	1† (I)	R (II)	§	A-H (II)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	†	
First and second key units 1A1 or 1A2; remaining key units 1A	A-H (I)	§	*	1† (II)	R (III)	A-H (I)	§	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (VI)	†	
First, second, and third key units 1A1 or 1A2; remaining key units 1A	2631 sets only	A-H (I)	§	*	1† (III)	R (IV)	A-H (I)	A-H (II)	§	A-H (IV)	A-H (V)	R (I)	1B (VI)	†
First through fourth key units 1A1 or 1A2; fifth key unit 1A		A-H (I)	§	*	1† (IV)	R (V)	A-H (I)	A-H (II)	A-H (III)	X (VI)	A-H (V)	R (I)	1B (VI)	†
1A only (see connection note 2, Fig. 2)	§	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)	6¶	

Note: Roman numerals in parentheses indicate terminal board designations.

* Lead is spade tipped, insulated, and stored.

† BR lead connects to terminal 5 when station busy lamp circuit is not required or to terminal 6 of telephone set terminal board when station busy lamp is required.

‡ Disconnect, insulate and store R (BL-V) chaining lead.

§ Connect to terminal X of TBIV on 18-button sets or to terminal X of TBVI, on 30-button sets.

¶ Terminal on telephone set terminal board.

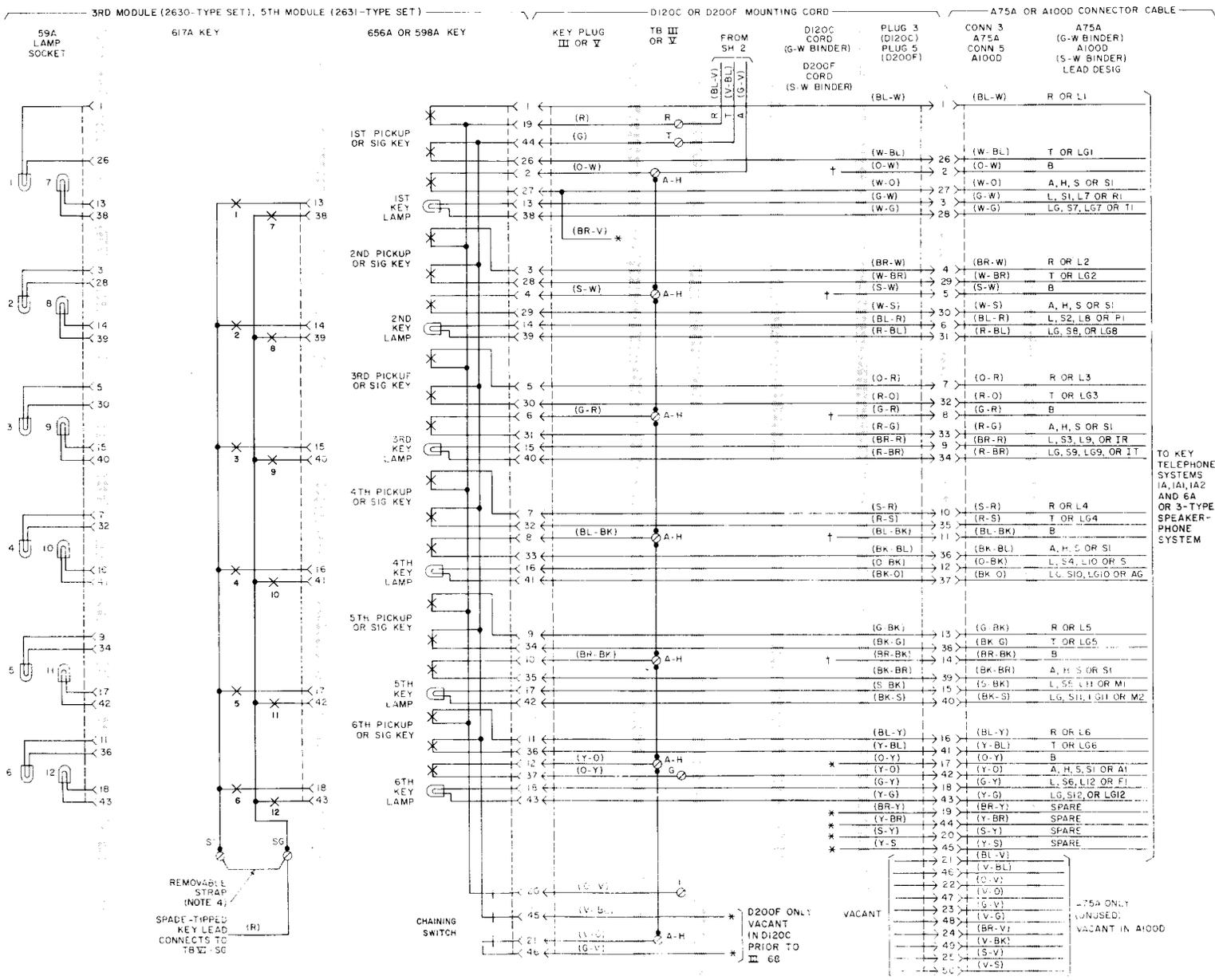


Fig. 2—Module Arrangements and Cord and Cable Connections for Sets Equipped With Even-Count Color-Coded Cords (Sheet 3 of 3)

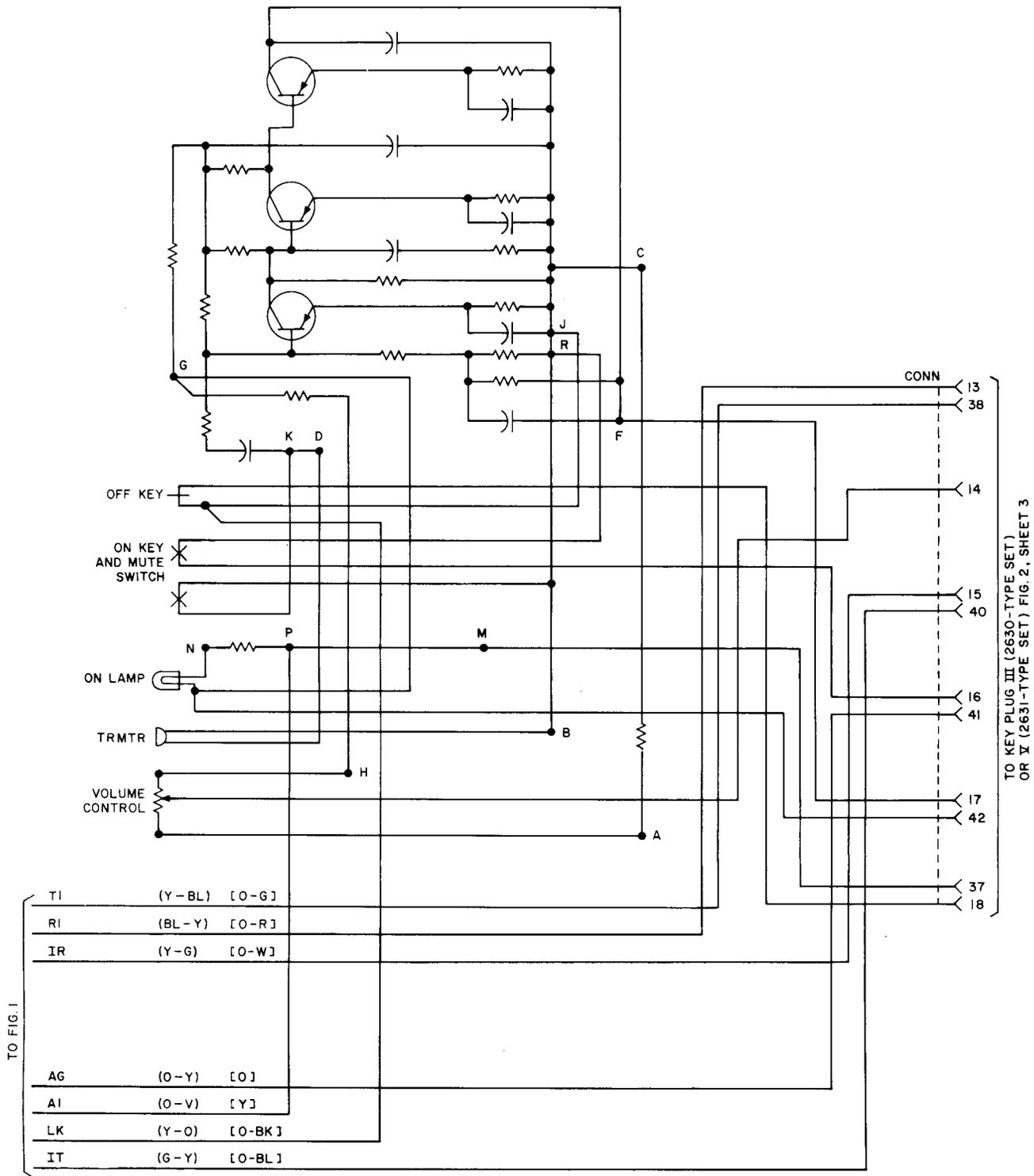


Fig. 3—667-Type Transmitter

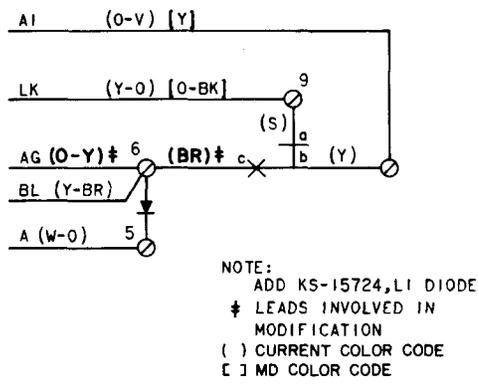
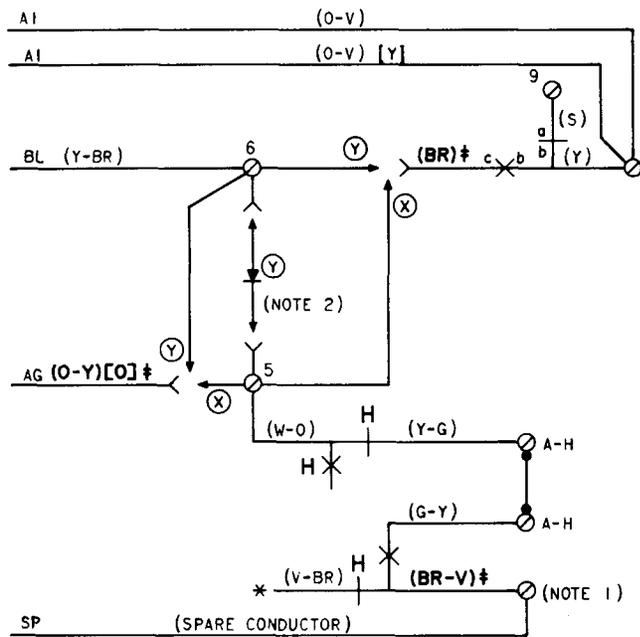
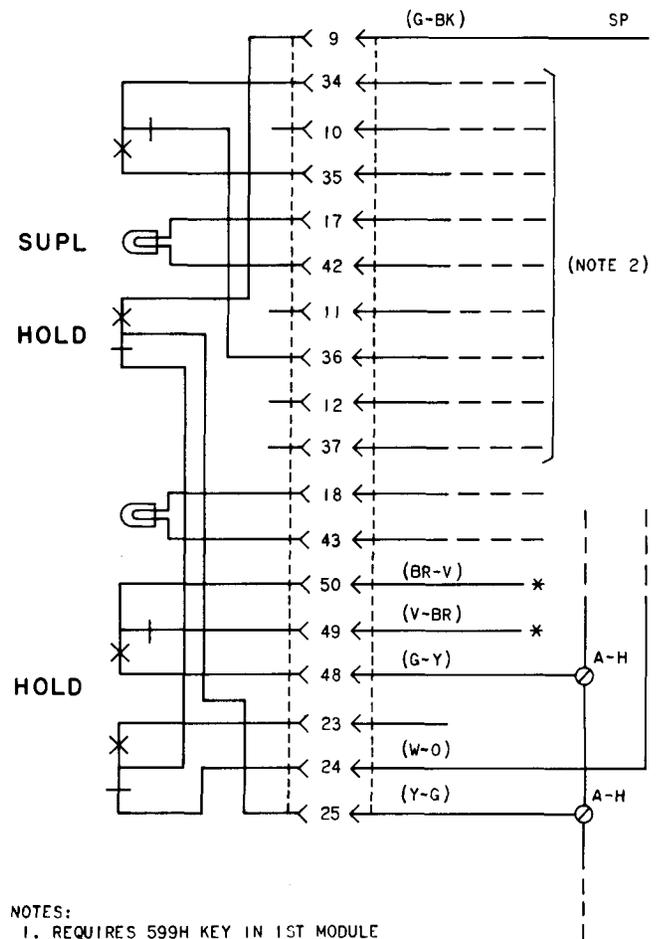


Fig. 4—Station Busy Lamp Circuit



- NOTES:
1. SPARE TERMINAL OR D161488 CONNECTOR
 2. ADD KS-15724, L1 DIODE
- (X) WITHOUT STATION BUSY LAMP
 (Y) WITH STATION BUSY LAMP
 * INSULATED AND STORED
 ‡ LEADS INVOLVED IN MODIFICATION
 () CURRENT COLOR CODE
 [] MD COLOR CODE

Fig. 5—I Hold Arrangement (With or Without Station Busy Lamp Feature)



- NOTES:
1. REQUIRES 599H KEY IN 1ST MODULE
 2. DO NOT USE THESE LEADS FOR OTHER FEATURES WHEN ASSOCIATED WITH 599H KEY

Fig. 6—Priority Hold Circuit

TABLE D
CONNECTIONS FOR 599B OR 657B KEY (TURN KEY)

FEATURE	FIRST MODULE LEADS									
	5TH PICKUP KEY POSITION				6TH PICKUP KEY POSITION				STORED	
	R	T	A	A-H	R	T	A	A-H		
Even-count color code	G-BK	BK-G	BK-BR	BR-BK	BL-Y	Y-BL	O-Y Y-O	Y-O	BL-Y	Y-BL
Cord pin numbers	9-13	34-38	35-39	10-AH	11-16	36-41	37-G G-42	12-†	11-†	36-†
Cutoff station on 1A1 or 1A2 system	To equip.			Insulate and Store		To ext sta		Insulate and Store		
Cutoff station on 1A system without hold feature	To equip.			Insulate and Store	To ext sta			Insulate and Store		
Cutoff station on 1A system with hold feature	To aux relay to cutoff T, R, B, & H			SG TBVI				SG TB VI	Insulate and Store	
Cutoff ext ringer or buzzer	To equip.			Insulate and Store	To ext ringer or buzzer			Insulate and Store		
Cutoff ringer in set	To equip.			Insulate and Store				Insulate and Store	3† Tel Set Term. Board (Note)	A† Net. Term. (Note)
Cutoff buzzer in set	To equip.			Insulate and Store				Insulate and Store	Buzzer* (Note)	
									D	C
									A	C
Monitoring	To mon equip.								R	T
									TB1	TB1

Note: The BL-Y and Y-BL mounting cord leads should be insulated and stored at the equipment when the bridged spade tipped leads are used in set.

* Insulate and store BZ and BZ1 leads to buzzer.

† Indicates leads are factory insulated and stored.

‡ Insulate and store the S-Y lead from terminal A of the network and the Y-S lead from terminal 3 of telephone set terminal board.

3. MAINTENANCE

3.01 Maintenance of handset, dials, ringers, and modular keys is outlined in sections covering these components.

3.02 Refer to the appropriate Reference section in Division 502 for replaceable components.

3.03 To eliminate mechanical vibration pickup in the 667-type transmitter, install a modified 667B transmitter which includes a 1-inch vinyl sleeve which is to be placed over the pivot bar spring. Order as "Transmitter, 667B modified per D-180196."

3.04 To remove a defective NIA ringer proceed as follows:

- (1) Remove housing.
- (2) Loosen dial mounting plate and move to left.
- (3) Disconnect ringer leads.
- (4) Remove three ringer mounting screws from underside of baseplate (Fig. 7).
- (5) Lift out ringer.

3.05 When an operated pickup key does not remain depressed or release any previously operated key:

- (1) Check that key latch arm is properly inserted in the pivot bar.

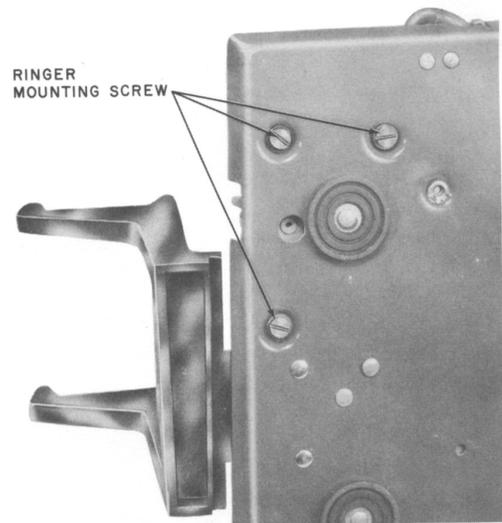


Fig. 7—Location of Ringer Mounting Screws

(2) Minor adjustment of the key can be made by loosening the mounting screws and shifting key within limits of oversized hole provided for the mounting screw before refastening mounting screws.

(3) If malfunction is related to one key module, test key for proper operation.