

SERVICE

2630DA, 2630DAM, 2631DA, AND 2631DAM TELEPHONE SETS

1. GENERAL

1.01 This section contains connection and maintenance information for the 2630DA, 2630DAM, 2631DA, and 2631DAM CALL DIRECTOR® type telephone sets.

1.02 This section is reissued to add the 2630DAM and 2631DAM (modular) telephone sets.

2. CONNECTIONS

2.01 The 2630DA and 2631DA sets are equipped with a 635A5C (5-line pickup and hold) or a 635AD5C (4-line pickup, cutoff, and hold) in the first module position. Contact strip assemblies [required with sets equipped with a D120K (MD) or D200S (MD) mounting cord] differ between the two keys. If ordered for field replacement, the 635AD5C is furnished with a piggy-back adapter in the cut-off key position, for storing the slate mounting cord plug associated with the fifth line. The necessary contact strip assemblies (840151039 and 840151047) will be shipped with the 635AD5C and will replace the 840151120 and 840151138 assemblies supplied with the 635A5C key.

Note: Contact strips are not required with sets equipped with a D120M or D200AA mounting cord or sets equipped with a modified D120K or D200S mounting cord.

2.02 ♦The 2630DAM and 2631DAM modular telephone sets are similar to the 2630DA or 2631DA, respectively, except the modular G15A handset with its associated H4DU cord and 616E jack assembly are used in place of the hard wired G3A-type handset.♦

2.03 Because of the physical arrangement of the 635-type key, the contact strips do not extend to the chaining switch. This requires a second tip and ring conductor to each module (except the last). See Fig. 3, Sheets 1 through 5.

2.04 The line conductors of the mounting cords for these sets terminate in individual plugs on a per line basis and are connected to the rear of the keys. This permits rearrangement of line appearances either in the set or at the key equipment distribution point.

2.05 All line pickup key positions are convertible to signaling or common signaling arrangements by removing the ♦812857738♦ or P-28E773 detail from key positions involved and making the necessary wiring changes per Table C.

2.06 A KS-20419L1 (10 volt AC only) buzzer is factory-installed for use as a second audible signal, when required. This arrangement uses (S-Y) and (Y-S) mounting cord conductors from (O) binder in the second module (Fig. 3).

2.07 These sets may be used with either the 3-type or 4A speakerphone systems.

2.08 Sets may be equipped for 3-type speakerphone by the addition of a 679A transmitter in the 3rd (2630-type) or 5th (2631-type) module. Fig. 4 and Table D show wiring of sets with speakerphone and necessary field modifications.

2.09 When the 3-type speakerphone control unit is located near the telephone set and an internal transmitter (679A) is used, an A25B connector cable should be plugged into the last mounting cord plug and terminated on the control unit terminal board.

2.10 To retain the maximum number of keys in the CALL DIRECTOR telephone sets and still have 3-type speakerphone feature, a 666A (MD) or 666B transmitter and 760A 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 (Table E). When control unit and telephone set are at same location, an auxiliary mounting

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cord (D10R) may be used. Make connections per Table F. Refer to Section 512-620-440 for complete connections to 3-type speakerphone.

2.11 Refer to Section 512-730-400 for complete connections to the 4A speakerphone system.

2.12 The hold key in the first module is used as regular hold and if required *I Hold*. A second hold key is used for *Priority Hold*. When Priority Hold is to be furnished, a D-180411 Kit of Parts is required. Install as follows:

- (1) Assemble kit of parts by inserting contact strips into new 635A5C key. Install pink plug furnished with kit in hold position on key.

Note: Contact strips are not required with sets equipped with a D120M or D200AA mounting cord or sets equipped with a modified D120K or D200S mounting cord.

- (2) Disconnect all mounting cord plugs and the two contact strip leads [sets equipped with D120K (MD) or D200S (MD) mounting cord] from the key in the second module. Remove key and replace with 635A5C key from kit.

- (3) Rerminate contact strip leads and connect mounting cord plugs with exception of white plug which is insulated and stored.

- (4) Rearrange wiring per Fig. 5.

2.13 When required, these sets may be equipped with a polarity guard. Polarity guards should be installed only when specified by local instructions for end-to-end signaling purposes when battery and ground reversals are encountered. A ♦819041971♦ or P-90D197 guard assembly must be separately ordered and connected as shown in Table H.

3. MAINTENANCE

3.10 Maintenance of these sets should be limited to replacement of items available through regular supply channels. Refer to the reference Section 502-603-100 for 2630DA, ♦2630DAM, ♦2631DA, and ♦2631DAM♦ telephone sets.

3.02 Maintenance of components of these sets such as dials, ringers, etc. is covered in sections pertaining to the particular component. Maintenance information common to CALL DIRECTOR sets can be found in Section 502-600-100.

3.03 *Do not use solvents to clean plastic parts of these sets.* Use a damp cloth only. If discolored, replace part.

TABLE A

1A, 1A1, AND 1A2 CONVERSION—2630DA OR 2630DAM TELEPHONE SET

KEY MODULE ARRANGEMENT	LEAD											
	HOLD KEY				CHAINING PLUG				CONTACT STRIP OR PLUG LEAD			LINE SW.
	Y	G	BR-V	V-BR	V-G 1ST MOD	V-G 2ND MOD	R 1ST MOD	R 2ND MOD	R 1ST MOD	R 2ND MOD	R 3RD MOD	Y
1A1/1A2 Only	10	10	*	*	5	15	13	11	13	11	21	8
1A1/1A2 — 1st, 2nd Mod 1A — 3rd Mod	10	35	21	40	5	35	13	11	13	11	40	8
1A1/1A2 — 1st Mod 1A — 2nd, 3rd Mod	10	35	11	40	35	15	13	40	13	40	21	8
1A Only	*	10	13	26	5	15	26	11	26	11	21	18

* Insulated and stored.

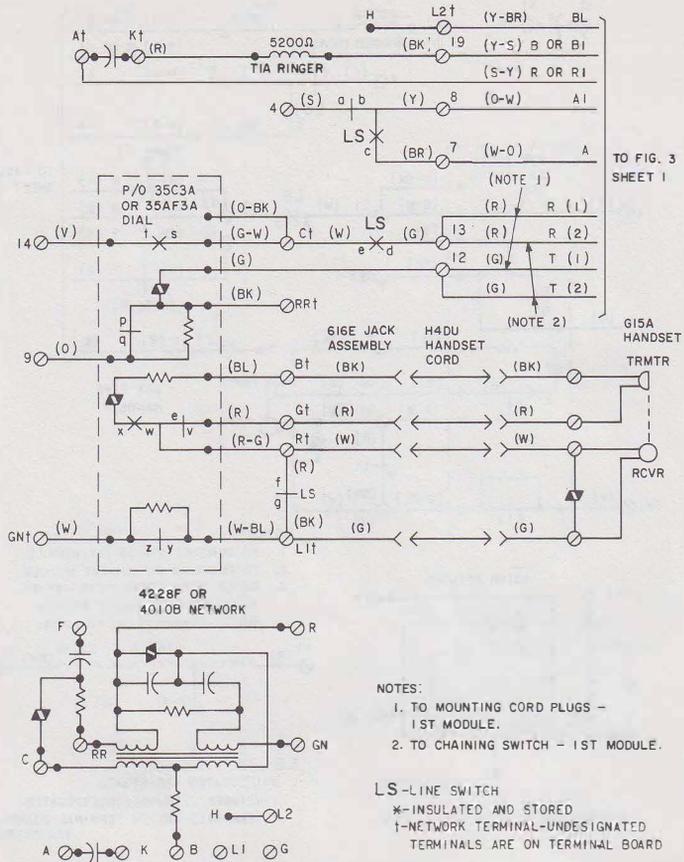


Fig. 1—2630DAM and 2631DAM Telephone Set, Connections

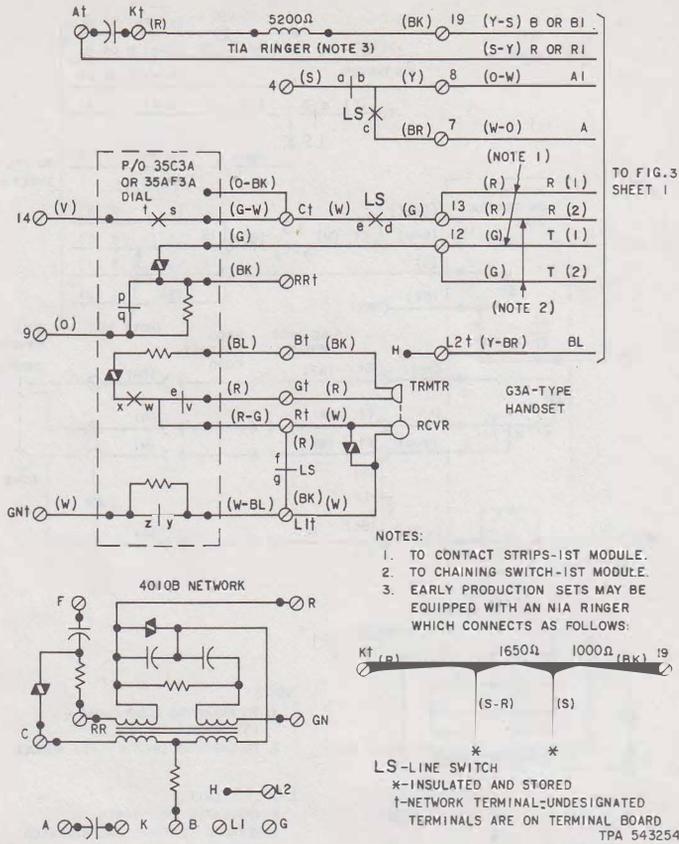


Fig. 2—2630DA and 2631DA Telephone Set, Connections

NOTES:

1. THE 635AD5C KEY IS SUPPLIED WITH AN ADAPTER IN THE CUTOFF KEY POSITION. THE SLATE MOUNTING CORD PLUG CONNECTS TO THE ADAPTER. BALANCE OF PLUGS CONNECT DIRECTLY TO KEY.
2. IN SETS EQUIPPED WITH A 658A KEY THE (G) CONTACT STRIP LEAD IS TERMINATED ON 17 AND (R) ON 18. IF A 658A KEY IS ADDED IN THE FIELD, LEADS MUST BE MOVED FROM PRECEEDING MODULE CHAINING CIRCUIT TO TERMINALS 17 AND 18.
3. PROVISIONS ARE MADE FOR MECHANICALLY STORING THE LIGHT BEIGE PLUG ON THE 658A KEY. NO ELECTRICAL CONNECTION IS MADE.
4. WHEN THE 658A KEY IS REQUIRED AS A DUAL PURPOSE KEY, REMOVE STRAP BETWEEN TERMINALS 17 AND 18. USE MIW CORD OR EQUIVALENT TO CONNECT TERMINAL 17 TO A DISSIMILAR GROUND OR NONGROUNDED CIRCUIT.
5. MODULE MAY ALSO BE EQUIPPED WITH A 679A TRANSMITTER FOR SPEAKERPHONE. SEE FIG. 4 AND TABLE D.
6. TO SUPPLY "I" HOLD FEATURE TERMINATE (Y-BR) MOUNTING CORD LEAD FROM SECOND MODULE ON TERMINAL 24. LEAD BECOMES SP LEAD AT EQUIPMENT.
7. IF HOLD POSITION LAMP IS REQUIRED CONNECT (G-Y) AND (Y-G) LAMP LEADS TO SPARE PAIR USING SPARE TERMINAL OR D-161488 CONNECTORS. LAMP MUST BE SEPARATELY ORDERED AND INSTALLED. HOLD POSITION LAMP CANNOT BE ILLUMINATED WHEN EXTERNAL TRANSMITTER IS WIRED PER TABLE E.
8. THE BZ (S-Y) AND BZ1 (Y-S) CORD CONDUCTORS OF THE (O) BINDER IN THE SECOND MODULE WILL BE USED WHEN THE TELEPHONE SET IS FACTORY EQUIPPED WITH KS-20419-L1 BUZZER AND WILL TERMINATE ON TERMINALS 22 AND 27, RESPECTIVELY. THE L AND LG LEADS NORMALLY TERMINATED ON THESE TERMINALS WILL BE TAPED AND STORE ON SETS MANUFACTURED AFTER DECEMBER 15, 1972.
9. THESE CONTACT STRIPS ARE REQUIRED WHEN TELEPHONE SET IS EQUIPPED WITH THE D120K (MD) OR THE D200S (MD) MOUNTING CORD. THESE CONTACT STRIPS SHOULD NOT BE USED WHEN TELEPHONE SET IS EQUIPPED WITH THE D120M OR D200AA MOUNTING CORD OR WHEN TELEPHONE SET IS EQUIPPED WITH A MODIFIED D120K OR D200S MOUNTING CORD.
* INSULATED AND STORED.

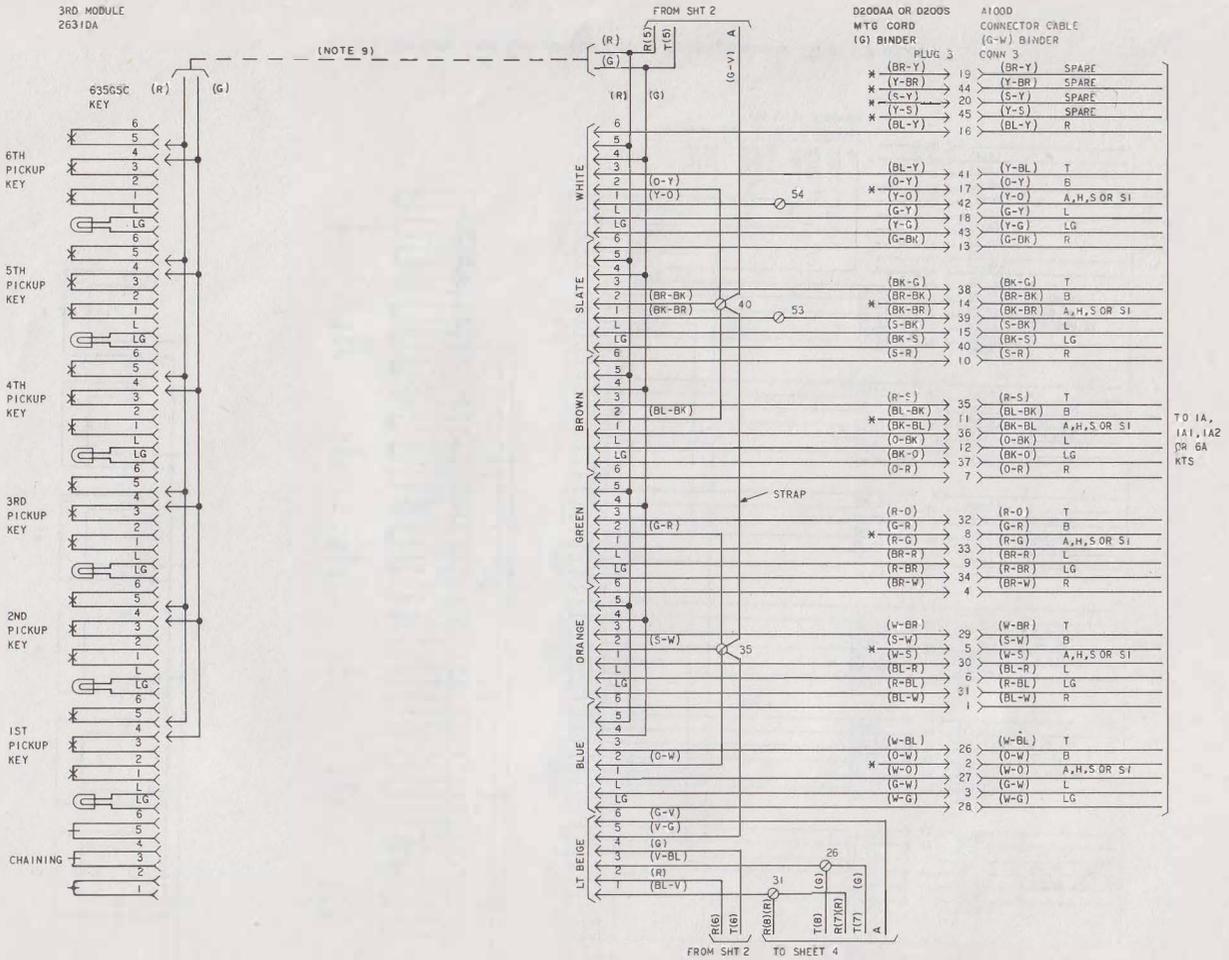


Fig. 3—Module and Connector Cable Arrangements (Sheet 3 of 5)

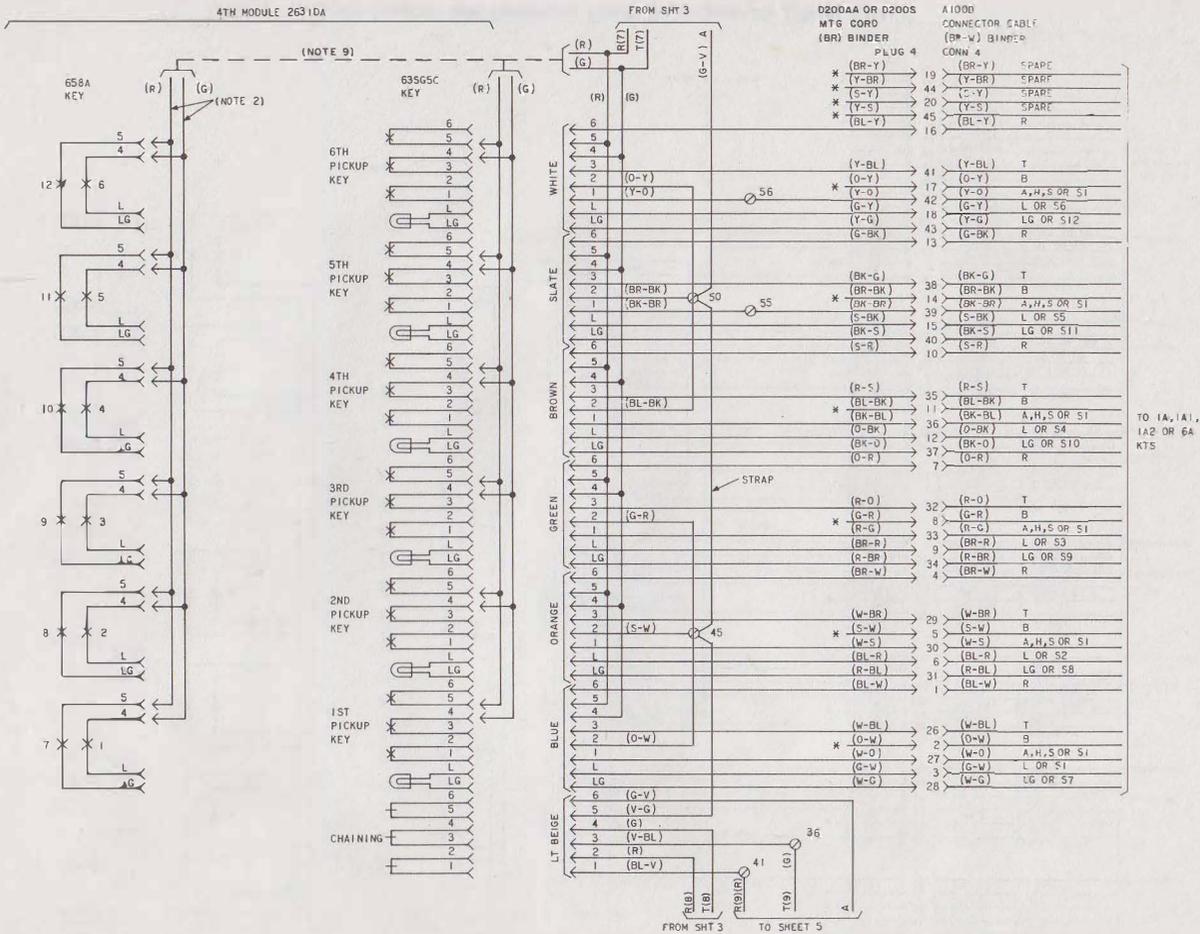


Fig. 3—Module and Connector Cable Arrangements (Sheet 4 of 5)

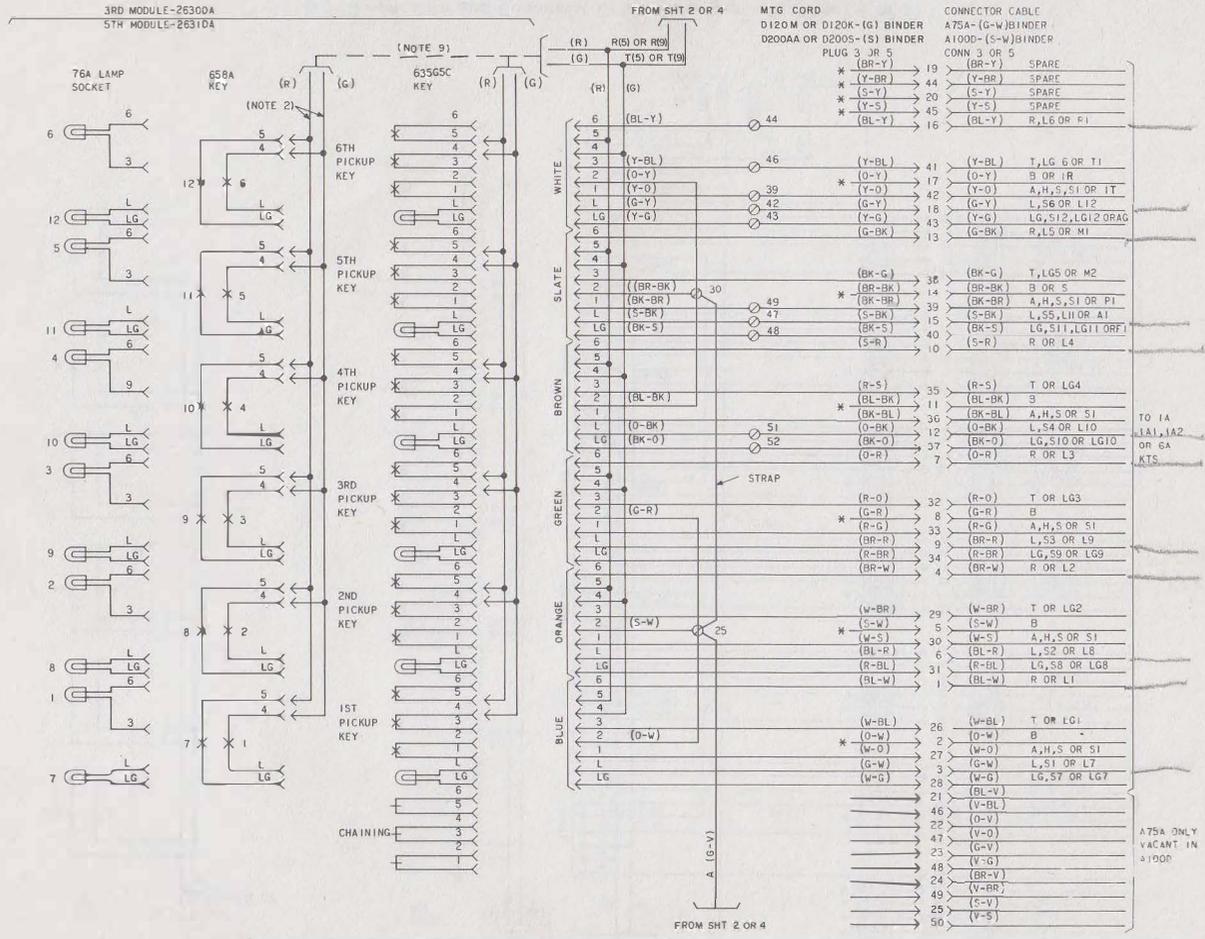


Fig. 3—Module and Connector Cable Arrangements (Sheet 5 of 5)

TABLE B

1A, 1A1, AND 1A2 CONVERSION—2631DA OR 2631DAM TELEPHONE SET

KEY MODULE ARRANGEMENT	LEAD																		LINE SW.
	HOLD KEY				CHAINING PLUG								CONTACT STRIP OR PLUG LEAD					Y	
	Y	G	BR-V	V-BR	V-G 1ST MOD	V-G 2ND MOD	V-G 3RD MOD	V-G 4TH MOD	R 1ST MOD	R 2ND MOD	R 3RD MOD	R 4TH MOD	R 1ST MOD	R 2ND MOD	R 3RD MOD	R 4TH MOD	R 5TH MOD		
1A1/1A2 Only	10	10	*	*	5	15	35	45	13	11	21	31	13	11	21	31	41	8	
1A1/1A2 — 1st, 2nd, 3rd, 4th Mod. 1A — 5th Mod.	10	22†	41	3†	5	15	35	22	13	11	21	31	13	11	21	31	3	8	
1A1/1A2 — 1st, 2nd, 3rd Mod. 1A — 4th, 5th Mod.	10	22†	31	3†	5	15	22	45	13	11	21	3	13	11	21	3	41	8	
1A1/1A2 — 1st, 2nd Mod. 1A — 3rd, 4th, 5th Mod.	10	22†	21	3†	5	22	35	45	13	11	3	31	13	11	3	31	41	8	
1A1/1A2 — 1st Mod. 1A — 2nd, 3rd, 4th, 5th Mod.	10	22†	11	3†	22	15	35	45	13	3	21	31	13	3	21	31	41	8	
1A Only	*	10	13	3†	5	15	35	45	3	11	21	31	3	11	21	31	41	18	

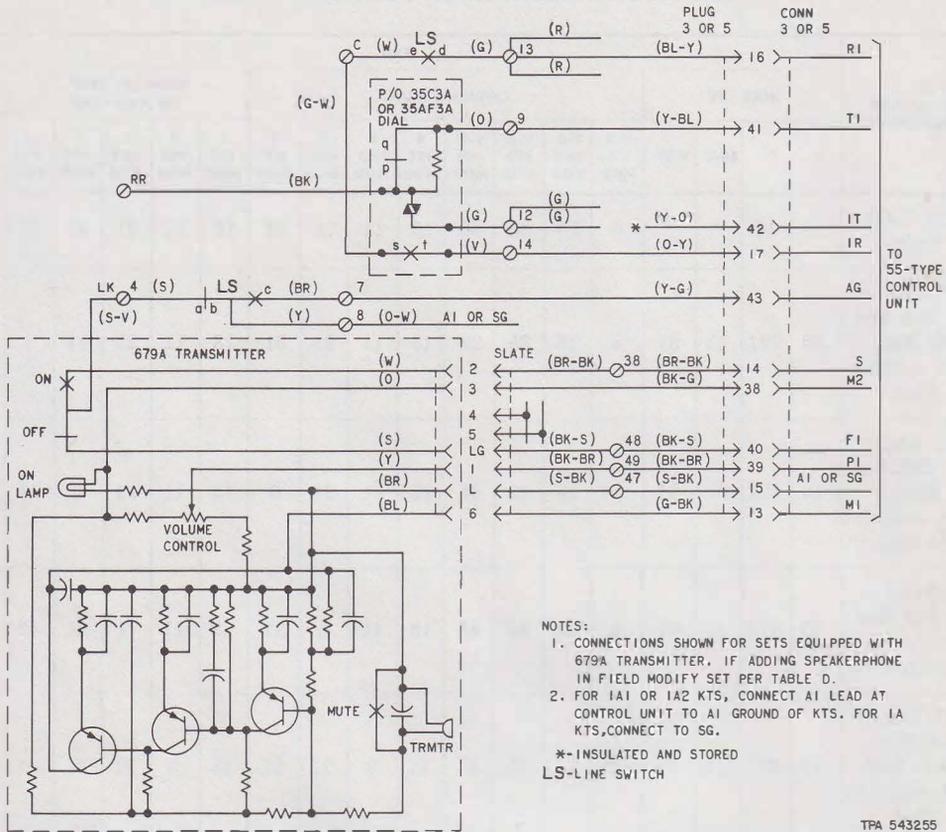
* Insulated and stored.

† Remove (Y-O) mounting cord lead. Insulate and store.

‡ Remove (Y-G) mounting cord and key plug leads from terminal 22, insulate and store. If hold lamp position is being used, these leads must be terminated on a D-161488 connector.

MTG CD
 D120M OR D120K-(G) BINDER
 D200AA OR D200S-(S) BINDER

CONN CA



- NOTES:
1. CONNECTIONS SHOWN FOR SETS EQUIPPED WITH 679A TRANSMITTER. IF ADDING SPEAKERPHONE IN FIELD MODIFY SET PER TABLE D.
 2. FOR IA1 OR IA2 KTS, CONNECT AI LEAD AT CONTROL UNIT TO AI GROUND OF KTS. FOR IA KTS,CONNECT TO SG.
- *-INSULATED AND STORED
 LS-LINE SWITCH

TFA 543255

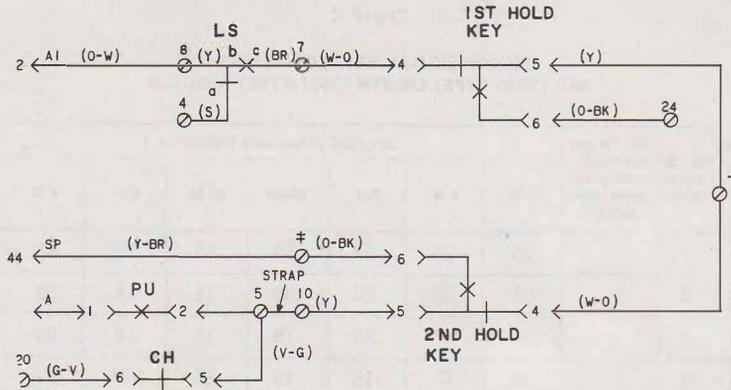
Fig. 4—3-Type Speakerphone Connections Using Internal 679A Transmitter

TABLE C
PICKUP-SIGNAL KEY CONVERSION
3RD (2630-TYPE) OR 5TH (2631-TYPE) MODULE

NO. OF SIGNAL KEYS	NO. OF PVT OR INTER-COM LINES (COM. SIG) NOTE 1	KEY PLUG LEADS AND TERMINALS						
		O-W	S-W	G-R	BL-BK	BR-BK	O-Y	Y-O
1		25	25	25	30	30	18	39
2		25	25	25	30	18	18	39
3		25	25	25	18	18	18	39
4		25	25	18	18	18	18	39
5		25	18	18	18	18	18	39
6		18	18	18	18	18	18	39
	2	25	25	25	39	39	30	39
	3	25	25	39	39	39	30	39
	4	25	39	39	39	39	30	39
	5	39	39	39	39	39	30	39

Notes:

1. When using converted 6th pickup button as common signaling key, remove, insulate and store (Y-O) mounting cord lead from terminal 39.
2. If more than six signal keys are required, replace 635G5C key with a 658A key. If more than five private or intercom lines are required, convert keys in 2nd (2630-type) or 4th (2631-type) module in same order. Connect plug leads to terminal 39 to utilize common signal key. If additional terminals are required, use any spare terminal and strap to 39.

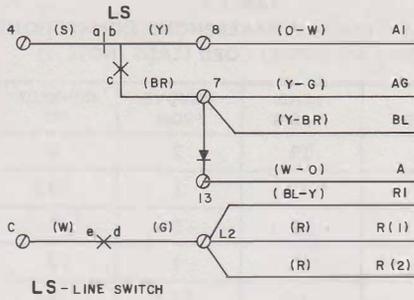


LS - LINE SWITCH
 PU - PICKUP KEY
 CH - CHAINING SWITCH

MODIFICATION		
WIRE OR LEAD	FROM	TO
1ST HOLD KEY (Y)	10	†
2ND HOLD KEY (0-BK)		‡
(Y)		10
(W-0)		†
(Y-BR)	*	‡

- * STORED LOCATION (O BINDER).
- † CONNECT (Y) LEAD FROM 1ST HOLD KEY AND (W-0) LEAD OF 2ND HOLD KEY TO THE SAME SPARE TERMINAL OR D-161488 CONNECTOR.
- ‡ CONNECT (0-BK) LEAD OF 2ND HOLD KEY AND (Y-BR) MOUNTING CORD LEAD TO THE SAME SPARE TERMINAL OR D-161488 CONNECTOR.

Fig. 5—Modifications for Priority Hold

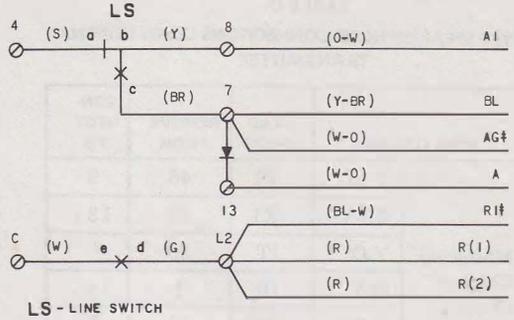


MODIFICATION		
LEAD	FROM	TO
Y-BR	L2 *	7
W-O	7	13
KS-15724L1 DIODE		7-13
G	13	L2 *
R †	13	L2 *
BL-Y †	13	L2 *

* NETWORK TERMINAL.
 † MOVE BOTH (R) LEADS FROM TERMINAL 13 TO L2.

Fig. 6—Station Busy Lamp Circuit with 3-Type Speakerphone System

*DIALER 95B TRANS
 COMMON T&R TO BL-W
 OW BACK TO TERM. S WHERE
 T&R CAME OFF.*



MODIFICATION		
LEAD	FROM	TO
Y-BR	L2 *	7
W-O †	7	13
KS-15724L1 DIODE		7-13
G	13	L2 *
R †	13	L2 *
BL-W †	13	L2 *

NOTE:
 FOR BUSY LAMP CONTROLLED BY SPEAKERPHONE ONLY, MOVE (BR) LINE SWITCH LEAD FROM TERMINAL 7 TO 13.

* -NETWORK TERMINAL, UNDESIGNATED TERMINALS ARE ON TERMINAL BOARD
 † -MOVE BOTH (R) LEADS FROM TERMINAL 13 TO L2
 ‡ -LEAD IN M16C CORD

Fig. 7—Station Busy Lamp Circuit with 4A Speakerphone System

*2630 ↑
 W-BR-8
 W-O-7
 BL-W-13
 W-BL-9
 G-W-14
 W-G-STORE
 O-W-4*

85B TRANS

TABLE D
3-TYPE SPEAKERPHONE CONNECTIONS USING INTERNAL TRANSMITTER

WIRE OR LEAD		LEAD DESIG	REMOVE FROM	CONNECT TO
Mounting 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.

‡ Provides busy lamp only when speakerphone is turned on.

Notes:

1. Mounting cord conductors from G (2630-type) or S (2631-type) binder.
2. Connect the slate plug from the 3rd or 5th module to the 679A transmitter (Fig. 3). All other plugs in the module are insulated and stored.

TABLE E
3-TYPE EXTERNAL SPEAKERPHONE CONNECTIONS USING MOUNTING CORD LEADS (NOTE 1)

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	22 *	7
G-Y	LK	27 *	4

*Insulate and store.

†Stored location.

‡ Provides busy lamp only when speakerphone is turned on.

Notes:

1. Connections shown are used when control unit and apparatus unit are at same location. Leads are in (BL) binder.
2. Lamp in hold position cannot be supplied due to lack of spare lead conductors.

TABLE F
3-TYPE EXTERNAL SPEAKERPHONE CONNECTIONS USING AUXILIARY CORD (SEE NOTE)

DIOR MTG CORD	LEAD DESIG	CONNECT TO
W-BL	T1	9
BL-W	R1	13
W-O	AG	7
O-W	LK	4
W-G	IT	*
G-W	IR	14
W-BR	A1	8

*Insulate and store.

Note: Connections shown are used when control unit and telephone set are at same location.

TABLE G
CUT OFF KEY (635AD5C) CONNECTIONS

FEATURE	635AD5C KEY ADAPTER		MOUNTING CORD (BL) BINDER		CONNECTOR CABLE (BL-W) BINDER			RINGER	PLACE STRAP
	BL-Y	Y-BL	BL-Y	Y-BL	G-BK	BK-G	BK-BR	BK	
Cutoff Ringer in Set (Note 1)	TB1-1	TB1-2	*	*	Note 2			TB1-1	A (Net.) to TB1-2
Cutoff Ext Ringer or Buzzer (Note 1)	TB1-1	TB1-2	TB1-1	TB1-2	Note 3				
Cutoff Ext Station (Note 4)	*	*	TB1-1	TB1-2		To Aux. Relay	To Relay Gr d		

* Insulate and store.

Notes:

1. Remove (BR-BK) and (BK-BR) slate plug leads from terminals 10 and 29, insulate and store.
2. To individual line or common ringer circuit at equipment.
3. To external ringer or buzzer. Connect ringer or buzzer circuit to (BL-Y) (Y-BL) connector cable leads at equipment.
4. Connect T, R, and A leads from equipment and station to be cut off through contacts of auxiliary relay. Connect battery to relay winding. Use 227B or 421A KTU.

TABLE H
819041971 OR 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.