

## **SERVICE**

### **660A1M TELEPHONE SETS**

#### **1. GENERAL**

**1.01** Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

**1.02** For identification and ordering information, refer to reference Section 502-601-121.

**1.03** The 660A1M (modular) telephone set is factory wired for bridged ringing only (Fig. 1). For all other services the D4BU-29 mounting cord and 623P4 jack assembly must be removed and replaced with a D6AF-87 mounting cord, refer to Fig. 2, Tables A and B.

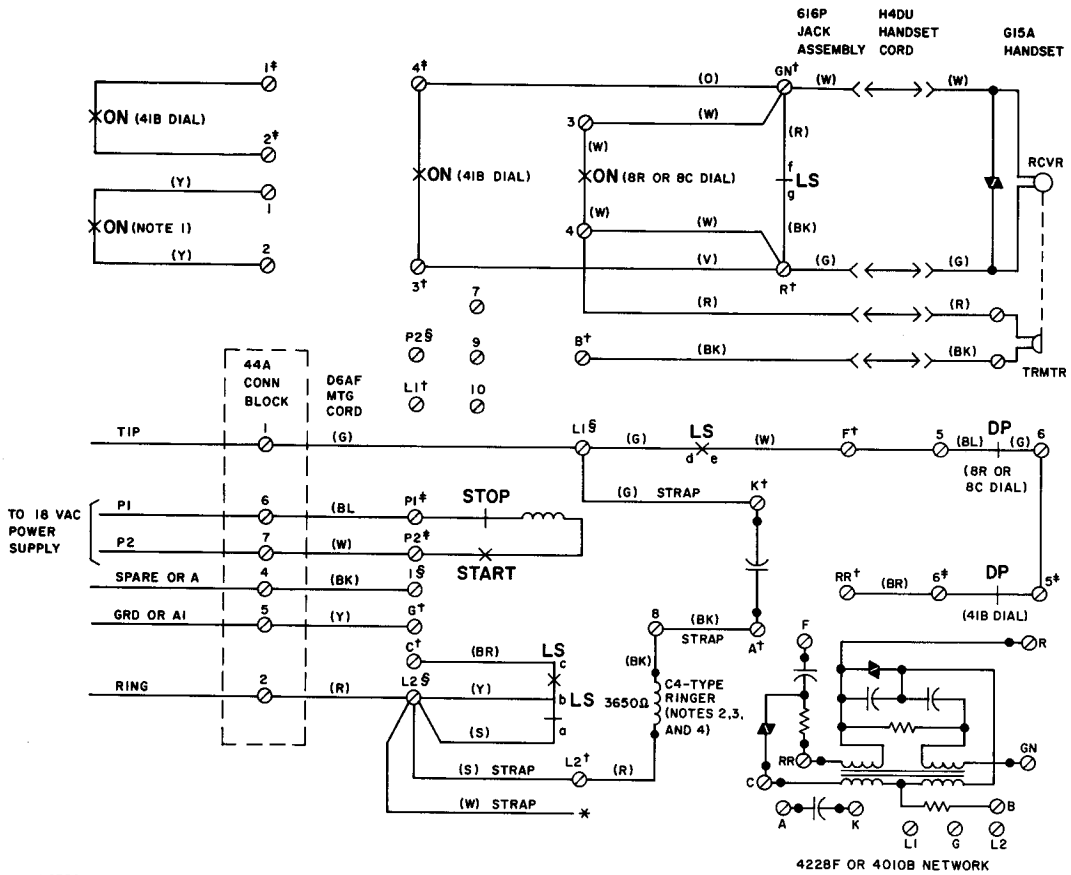
**1.04** When exclusion is provided the appropriate D-kit of parts must be installed and the D4BU-29 mounting cord and 623P4 jack assembly must be removed and replaced with a D10R-87 mounting cord, refer to Fig. 3, Tables C and D.

**1.05** To install exclusion switch, or for common installation and maintenance information, refer to Section 502-600-102. Speakerphone connections are found in Division 512.

**1.06** When a 660A1M telephone set is used as a speakerphone set and is multiplied with any other set capable of furnishing speakerphone feature, speakerphone leads (T1, R1, P3, P4, AG, and LK) at sets not having speakerphone must be disconnected, insulated, and stored either at the telephone set or at the multiplying point. If not disconnected, the speakerphone leads will provide a common connection between the circuits of the multiplied telephone sets.

**1.07** For additional information on the modular concept, refer to Section 503-100-100.





NOTES:

1. OFF-NORMAL CONTACTS AND ASSOCIATED (Y) LEAD ARE ON 8C DIAL ONLY.
2. IF CAPACITOR IS NOT REQUIRED IN RINGER CIRCUIT MOVE (BK) RINGER STRAP FROM A TO TERMINAL K ON NETWORK. FOR LINE AND RINGER CONNECTIONS REFER TO TABLE A.
3. TO SILENCE RINGER PERMANENTLY, REMOVE (BK) RINGER STRAP FROM A OF NETWORK AND CONNECT TO TERMINAL 8 OF TB2.
4. SET IS FACTORY-WIRED FOR BRIDGED RINGING. CONNECTIONS FOR C4B RINGER SHOWN, FOR LINE AND RINGER CONNECTIONS REFER TO TABLE A. C4A RINGER MUST BE USED FOR TIP PARTY IDENTIFICATION, FOR LINE AND RINGER CONNECTIONS REFER TO TABLE B.
5. LINE SWITCH SEQUENCE, OFF-HOOK SEQUENCE:
 

bc - MAKES	ab - BREAKS
de - MAKES	fg - BREAKS

\* - INSULATED AND STORED

† - NETWORK TERMINAL, UNDESIGNATED TERMINALS ARE ON TB2

‡ - TERMINAL ON 41B DIAL

§ - TERMINAL ON TB1

DP - DIAL PULSE CONTACTS

LS - LINE SWITCH

ON - DIAL OFF-NORMAL CONTACTS

Fig. 2—660A1M Telephone Set (Equipped with D6AF Mounting Cord), Connections



TABLE A

**LINE AND C4B RINGER CONNECTIONS  
(680A1M TELEPHONE SET EQUIPPED WITH D6AF MOUNTING CORD)**

WIRE OR LEAD			INDIV OR BRIDGED	RING PARTY	TIP PARTY	1A1 OR 1A2 KEY TEL SYSTEM (NOTE)
					TO IDENT GROUND	
Line Wire	Tip Ring Grd A1 A P1 P2	Connecting Block	1	1	1	1
			2	2	2	2
			5*	5	5	5
			—	—	—	4
			6	6	6	6
			7	7	7	7
Mtg Cord	G R Y BK BL W	Connecting Block	1	1	2	1
			2	2	1	2
			5	5	5	5
			4	4	4	4
			6	6	6	6
			7	7	7	7
Mtg Cord in Set	G R Y BK	TB1	L1 L2 G† 1	L1 L2 G† 1	L1 L2 G† 1	L1 L2 G† 1
		41B Dial	P1 P2	P1 P2	P1 P2	P1 P2
Line Switch	S Y BR G	TB1	L2 L2 C† L1	L2 L2 C† L1	L2 L2 C† L1	G† G† 1 L2
Strap	G		K† to L1 of TB1	K† to G†	K† to G†	K† to L1 of TB1

\* Ground may be omitted if not required for service. Not required for protection of 41B dial power supply.

† Terminal on network.

*Note:* Provide M1W strap between C and K of network

TABLE B

**LINE AND C4A RINGER CONNECTIONS  
(660A1M TELEPHONE SET EQUIPPED WITH D6AF MOUNTING CORD)**

WIRE OR LEAD			INDIV OR BRIDGED	RING PARTY	TIP PARTY			1A1 OR 1A2 KEY TEL SYSTEM
					NO IDENT GROUND	IDENTIFYING GROUND		
						1000Ω	2650Ω	
Line Wire	Tip Ring Grd A1 A P1 P2	Connecting Block	1	1	1	1	1	1
			2	2	2	2	2	2
			5*	5	5	5	5	5
			—	—	—	—	—	—
			6	6	6	6	6	6
			7	7	7	7	7	7
			Mtg Cord	G R Y BK BL W	Connecting Block	1	1	2
2	2	1				1	1	2
5	5	5				5	5	5
4	4	4				4	4	4
6	6	6				6	6	6
7	7	7				7	7	7
Mtg Cord in Set	G R Y BK	TB1				L1	L1	L1
			L2	L2	L2	L2	L2	L2
	BK	TB1	G†	G†	G†	G†	G†	G†
			1	1	1	1	1	1
	BL W	41B Dial	P1	P1	P1	P1	P1	P1
			P2	P2	P2	P2	P2	P2
Ringer Leads	R BK S S-R	TB2	L2†	L2†	L2†	K†	B†	L2†
			8	8	8	8	8	8
			9	9	9	9	9	9
			10	10	10	10	10	10
Ringer Straps	BK	TB2	8 to L1†	8 to G†	8 to G†	8 to B†	8 to B†	8 to C†
			†	9 to K†	9 to K†	9 to B†	9 to K†	9 to K†
			†	10 to A†	10 to A†	10 to B†	10 to G†	10 to A†
Strap	G	TB1	L1 to L1†	L1 to L1†	L1 to L1†	L1 to L1†	L1 to L2†	L1 to C†
Line Switch	S Y BR G	TB1	L2	L2	L2	A†	A†	G†
			L2	L2	L2	L2	L2	G†
			C†	C†	C†	C†	C†	1
			L1	L1	L1	L1	L1	L2

\* Ground may be omitted if not required for service. Not required for protection of 41B dial power supply.

† Terminals on network.

‡ Straps must be provided, use M1W cord or equivalent.

**TABLE C**  
**LINE AND C4B RINGER CONNECTIONS**  
**(660A1M TELEPHONE SET EQUIPPED WITH D10R MOUNTING CORD)**

WIRE OR LEAD			INDIV OR BRIDGED	RING PARTY	TIP PARTY	1A1 OR 1A2 KEY TEL SYSTEM
					NO IDENT GROUND	
Line Wire	Tip Ring Grd A1 A T1 R1 P1 P2	Connecting Block	1	1	1	1
			2	2	2	2
			5*	5	5	5
			—	—	—	4
			7	7	7	7
			6	6	6	6
			3	3	3	3
			8	8	8	8
Mtg Cord	W-BL BL-W O-W W-O	Connecting Block	1	1	2	1
			2	2	1	2
			5	5	5	5
			4	4	4	4
	W-G G-W W-BR BR-W W-S S-W		7	7	7	7
			6	6	6	6
			9	9	9	9
			10	10	10	10
8	8	8	8			
3	3	3	3			
Mtg Cord in Set	W-BL BL-W O-W W-O W-G G-W W-BR BR-W W-S S-W		2†	2†	2‡	2‡
			L2†	L2†	L2‡	L2‡
			G†	G†	G‡	L2§
			1§	1§	1§	1§
			6‡	6‡	6‡	6‡
			5‡	5‡	5‡	5‡
			7‡	7‡	7‡	7‡
			8‡	8‡	8‡	8‡
			P2¶	P2¶	P2¶	P2¶
			P1¶	P1¶	P1¶	P1¶
			Ringer Leads	R BK	TB2	L2† 8
Ringer Strap	BK	TB2	8 to A†	8 to A†	8 to A†	8 to A†
Line Switch	S Y BR G	TB1	L2 L2 C† 2‡	L2 L2 C† 2‡	L2 L2 C† 2‡	L2 L2 1 2†
Straps	G	NET.	K to 2‡	K to G	K to G	K to 2‡
	S		L2 to L2§	L2 to L2§	L2 to L2§	L2 to 1‡
	W	Excn Switch	1 to L2§	1 to L2§	1 to L2§	2 to C†

\* Ground may be omitted if not required for service. Not required for protection of 41B dial power supply.

† Terminals on network.

‡ Terminal on exclusion switch terminal board.

§ TB1.

¶ Terminal on 41B dial.

**TABLE D**  
**LINE AND C4A RINGER CONNECTIONS**  
**(660A1M TELEPHONE SET EQUIPPED WITH D10R MOUNTING CORD)**

WIRE OR LEAD		INDIV OR BRIDGED	RING PARTY	TIP PARTY			1A1 OR 1A2 KEY TEL SYSTEM	
				NO IDENT GROUND	IDENTIFYING GROUND			
					1000Ω	2650Ω		
Line Wire	Tip	Connecting Block	1	1	1	1	1	
	Ring		2	2	2	2	2	
	Grd A1		5¶	5	5	5	5	
	A		—	—	—	—	4	
	T1		7	7	7	7	7	
	R1		6	6	6	6	6	
	P1		3	3	3	3	3	
	P2		8	8	8	8	8	
Mtg Cord	W-BL	Connecting Block	1	1	2	2	1	
	BL-W		2	2	1	1	2	
	O-W		5	5	5	5	5	
	W-O		4	4	4	4	4	
	W-G		7	7	7	7	7	
	G-W		6	6	6	6	6	
	W-BR		9	9	9	9	9	
	BR-W		10	10	10	10	10	
	W-S		8	8	8	8	8	
	S-W		3	3	3	3	3	
Mtg Cord in Set	W-BL	Connecting Block	2‡	2‡	2‡	2‡	2‡	
	BL-W		L2‡	L2‡	L2‡	L2‡	L2‡	
	O-W		G‡	G‡	G‡	G‡	L2§	
	W-O		1§	1§	1§	1§	1§	
	W-G		6‡	6‡	6‡	6‡	6‡	
	G-W		5‡	5‡	5‡	5‡	5‡	
	W-BR		7‡	7‡	7‡	7‡	7‡	
	BR-W		8‡	8‡	8‡	8‡	8‡	
	W-S		P2¶	P2¶	P2¶	P2¶	P2¶	
	S-W		P1¶	P1¶	P1¶	P1¶	P1¶	
Ringer Leads	R	TB2	L2‡	L2‡	L2‡	K‡	B‡	L2‡
	BK		8	8	8	8	8	8
	S		9	9	9	9	9	9
	S-R		10	10	10	10	10	10
Ringer Straps	BK	TB2	8 to G‡	8 to G‡	8 to G‡	8 to G‡	8 to B‡	8 to C‡
	**		9 to K‡	9 to K‡	9 to K‡	9 to B‡	9 to K‡	9 to K‡
Line Switch	S	TB1	L2	L2	L2	A‡	A‡	L2
	Y		L2	L2	L2	L2	L2	L2
	BR		C‡	C‡	C‡	C‡	C‡	1
	G		2‡	2‡	2‡	2‡	2‡	L2‡
Straps	G	NET.	L1 to 2‡	L1 to G	L1 to G	L1 to G	L1 to G	C to 2‡
	S		L2 to L2§	L2 to L2§	L2 to L2§	L2 to L2§	L2 to L2§	L2 to 1‡
	W	Excn Switch	1 to L2§	1 to L2§	1 to L2§	1 to L2§	1 to L2§	1‡ to *

\* Insulate and store.

‡ Terminal on network.

‡ Terminal on exclusion switch terminal board.

§ TB1.

¶ Ground may be omitted if not required for service. Not required for protection of 41B dial.

\*\* Provide M1W cord or equivalent.