

REFERENCE

500C/D, 500CM/DM, 501C/D, 501CM/DM, 554A/B, 554F, 554AM/BM, 554AMP/BMP, 556A/B, 556AM/BM, AND 556AMP/BMP TELEPHONE SETS

1. GENERAL

1.01 This section provides identification and connection information for general purpose 500-series telephone sets.

1.02 This section is reissued to:

- Add modular concept information.
- Delete information for telephone sets rated MD.

Since this reissue covers a general revision, arrows normally used to indicate changes have been omitted.

1.03 Code numbers such as 500C/D cover both manual and dial versions, respectively, of the same type telephone set to permit converting to either type without changing the code number stamped on the base. With the introduction of the modular telephone, additional code numbers have been added. All active code numbers of telephone sets covered by this section are listed in Table A.

2. IDENTIFICATION

2.01 The 500-, 501-, 554-, and 556-type telephone sets are single line sets for use in common battery areas, manual or dial.

2.02 The 500CM/DM telephone set (Fig. 2) is identical to the 500C/D set except the telephone set base and handset are equipped with jacks to accept a plug-ended mounting cord and handset cord. The handset cord and mounting cord are ordered separately.

2.03 501-type telephone sets are identical to a similarly coded 500-type set except for the addition of a 3-element, cold-cathode, gas-filled tube, coded 426A. The tube assembly is fastened to the set base with a single screw (Fig. 5).



Fig. 1—500C/D or 501C/D Telephone Set

2.04 554A/B, F, and 556A/B (Fig. 3) are standard, wall mounted telephone sets. The 556A/B is the same as the 554A/B except for the addition of a 426A tube. The 554F is factory equipped with a 9-foot handset cord.

2.05 The 554AM/BM or 556AM/BM telephone set is identical to the 554A/B or 556A/B set except it is a partially modular telephone set. The set base and handset are equipped with jacks to accept a plug-ended handset cord. The inside wire connections are the same as for the 554A/B or 556A/B set. The handset cord is ordered separately for this set.

2.06 The 554AMP/BMP or 556AMP/BMP telephone set (Fig. 4) is identical to the 554A/B or 556A/B set except it is fully modular. The set base and handset are equipped with jacks to accept a plug-ended handset cord. The base is also equipped with a plug that permits the set to be attached to a jack equipped, wall-mounted connecting block. The set may be removed and mounted on

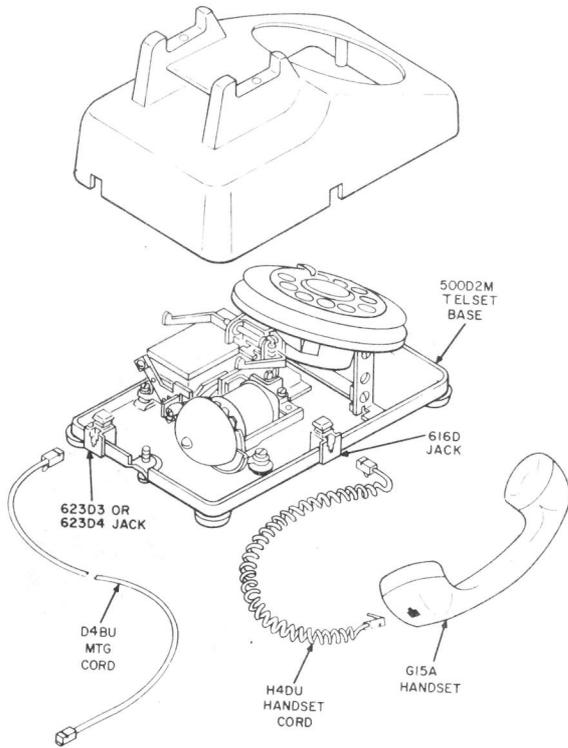


Fig. 2—500CM/DM Telephone Set



Fig. 3—554A/B or 556A/B Telephone Set with Handset in Waiting Position

these connecting blocks at different locations. The handset cord is ordered separately.

2.07 The 554-type sets are suitable for A lead control with wiring modifications (Fig. 16).

2.08 500C or 554A manual telephone sets can be ordered modified per D-180405 or D-180406 Kit of Parts, respectively. The kit modifies the set for use with semipublic single slot coin telephone set as an extension station.

2.09 The G1- or G3-type handsets in nonmodular sets may be replaced by a G6AR (MD), G6B, or D-180413 handset for impaired hearing, a G7AR (MD) or G7B for weak speech, or a G8A (MD) or G8B for noisy locations. Refer to section covering these handsets.

2.10 425A, 4-element tube may be substituted for 426A, to care for cases of excessive power induction. See section entitled Inductive Noise for additional information concerning inductive interference.

2.11 For negative stations in offices without ANI, (R) lead from 426A tube may be connected to G if ringer operation is marginal.

2.12 These sets are available in all promoted colors. Components available in color include the dial number plate, or apparatus blank, handset, handset cord, and housing.

3. INSTALLATION AND MAINTENANCE

3.01 Refer to Section 502-500-110 for installation and maintenance information for the nonmodular telephone sets covered in this section. Refer to Section 503-100-100 for additional information for the modular telephone sets covered in this section.

3.02 If ringing range extension is required, refer to Section 501-322-101 for installation and connection information on the 11A extender.



Fig. 4—554AMP/BMP or 556AMP/BMP Telephone Set on 630A4 Connecting Block

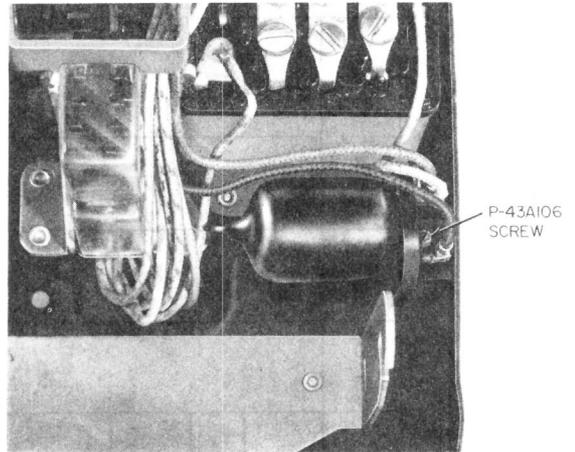


Fig. 5—501-Type Telephone Set, Tube Assembly

TABLE A
TELEPHONE SET COMPONENT PARTS

SET	CODE	FIG.	COMPONENT											
			MTG CORD	TEL SET MTG CORD JACK	HANDSET	HANDSET CORD	HANDSET CORD JACK	ELECTRON TUBE	HOUSING ASSY	BASE ASSY	DIAL	APP BLANK†	NET.	RINGER
500	C/D	1	D3BN or D4BT		G1- or G3-Type	H4CJ		426A	P-80D200		7-(MD) or 9-Type	95C	4228A or 425E	C4A or C4B†
	CM/DM	2	D4BU	623D3 or 623D4	G15A	H4DU	616D		500D2	500D2M				
501	C/D	1	D3BN or D4BT		G1- or G3-Type	H4CJ		426A	P-80D200					
	CM/DM		D4BU	623D3 or 623D4	G15A	H4DU	616D		500D2	500D2M				
554	A/B,F	3	D3BN or D4BT		G1- or G3-Type	H4CJ		426A	P-80F400					
	AM/BM*				G15A	H4DU	616C		554B2	554B2M				
	AMP/BMP	4		523A					554B2P	554B2P				
556	A/B	3	D3BN or D4BT		G1- or G3-Type	H4CJ		426A	P-80F400					
	AM/BM*				G15A	H4DU	616C		554B2	554B2M				
	AMP/BMP	4		523A					554B2P	554B2P				

* May be converted to BMP code by using 228A adapter.

† C4B ringer cannot be used if tip identifying ground is required.

‡ Required in manual version of telephone sets.

TABLE B
500C/D, 500CM/DM, 501C/D, AND 501CM/DM TELEPHONE SET LINE,
RINGER, AND TUBE CONNECTIONS
(NOTE 3)

WIRE OR LEAD	COLOR	INDIV OR BRIDGED	RING PARTY	TIP PARTY NO IDENT GRD	TIP PARTY IDENT GROUND				NEGATIVE (-) PARTIES		POSITIVE (+) PARTIES		
					NORMAL CONNECTIONS		RINGER REV. WHEN CONN TO L.L. EQUIP. (NOTE 2)		RING (1-5)	TIP (2-6)	RING (3-7)	TIP (4-8)	
					1000Ω	2650Ω	1000Ω	2650Ω					
Line Wire at Conn Block	Ring Tip Grd Spare	R G Y BK	R G Y B	R G Y B	R G Y B	R G Y B	R G Y B	R G Y B	R G Y B	R G Y B	R G Y B	R G Y B	
Mtg Cord at Conn Block		R G Y	R G G	R G Y	G R Y	G R Y	G R Y	G R Y	R G Y	G R Y	R G Y	G R Y	
Mtg Cord in Set		R G Y	L2 L1 G	L2 L1 G	L2 L1 G	L2 L1 G	L2 L1 G	L2 L1 G	L2 L1 G	L2 L1 G	L2 L1 G	L2 L1 G	
623D Jack Lead in Set		R G Y BK	L2 L1 G *	L2 L1 G *	L1 L2 G *	L1 L2 G *	L1 L2 G *	L1 L2 G *					
Line Switch Lead		S	L2	L2	L2	A	A	A	A	L2	L2	L2	L2
Ringer Leads		R BK S S-R	L2 G K A	L2 G K A	L2 G K A	K G B B	B B K G	B B G K	G K B B	G G A K	G G A K	L2 L2 A K	L2 L2 A K
426A Tube (3-element)		R BK Y								L1 or G K L2	L1 or G K L2	L2 K G	L2 K G

* Insulate and store.

Notes:

- To silence ringer permanently:
 - For the 500-type telephone sets, for all classes of service except tip party identification, connect (Y) mounting cord lead to same terminal as (R) mounting cord lead at connecting block.
 - For tip party with 1000 ohms identification ground; remove (R) ringer lead from K of network and insulate and store on unused terminal.
 - For tip party with 2650 ohms identification ground; remove the (S) ringer lead from K of network and insulate and store on unused terminal.
 - For the 501C/D telephone set connect (Y) mounting cord lead to same terminal as (R) mounting cord lead at the connecting block.
 - For the 501CM/DM telephone set, insulate and store (Y) lead of the 623D jack.
- If bell taps on stations connected to long line equipment, use these connections to retain party ground identification.
- When grounded ringer arrangements are used on 96 volt long line circuits, a D-180036 ringer isolator must be used.

TABLE C

554A/B, F, 554AM/BM, 554AMP/BMP, 556A/B, 556AM/BM, AND 556AMP/BMP
TELEPHONE SET LINE, RINGER, AND TUBE CONNECTIONS

(NOTE 3)

WIRE OR LEAD		COLOR	INDIV OR BRIDGED	RING PARTY	TIP PARTY NO IDENT GRD	TIP PARTY IDENT GROUND				NEGATIVE (-) PARTIES		POSITIVE (+) PARTIES	
						NORMAL CONNECTIONS		RINGER REV. WHEN CONN TO L.L. EQUIP. (NOTE 2)		RING (3-5)	TIP (2-6)	RING (3-7)	TIP (4-8)
						1000Ω	2650Ω	1000Ω	2650Ω				
Line Wire or 623D Jack Lead in Set	Ring Tip Grd Spare	R G Y BK	L2 L1 G *	L2 L1 G *	L1 L2 G *	L1 L2 G *	L1 L2 G *	L1 L2 G *	L2 L1 G *	L1 L2 G *	L2 L1 G *	L1 L2 G *	
Line Switch		S	L2	L2	L2	A	A	A	A				
Ringer Leads		R BK S S-R	L2 L1 K A	L2 G K A	L2 G K A	K G B B	B B K G	B B G K	G K B B	G G A K	G G A K	L2 L2 A K	L2 L2 A K
426A Tube (3-Element)		R BK Y								L1 or G K L2	L1 or G K L2	L2 K G	L2 K G

* Insulate and store

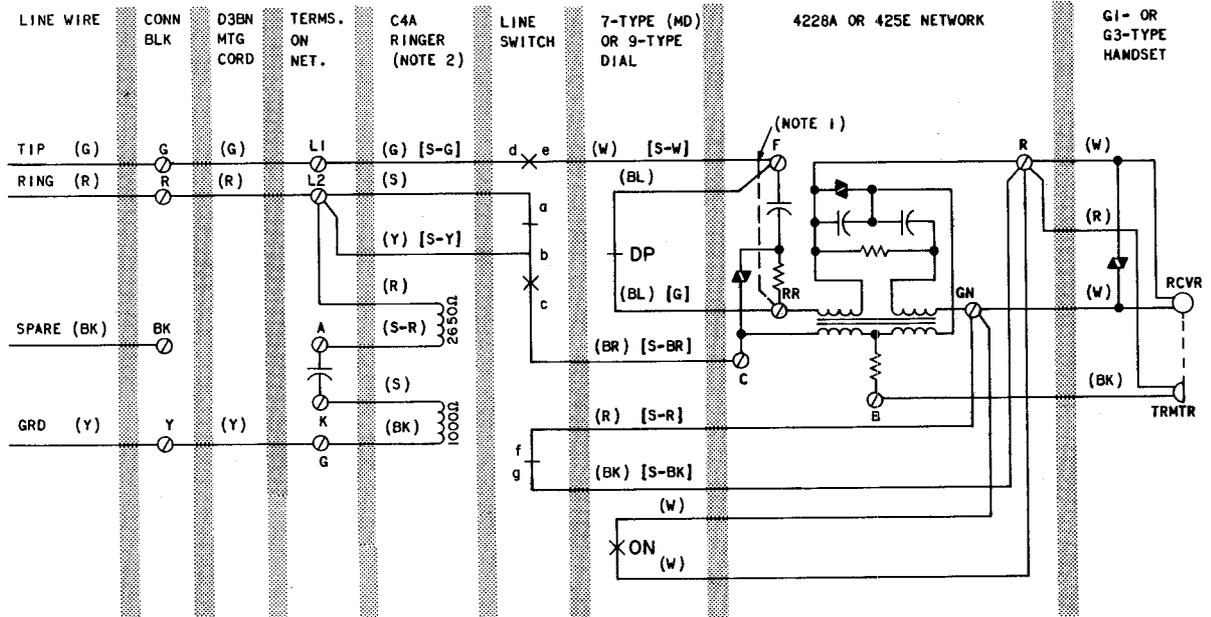
Notes:

1. To silence ringer:

- For the 554-type telephone sets, for all classes of service except tip party grd. identification, connect (S) and (BK) ringer leads on K terminal of the network.
- For tip party with 1000Ω identification ground, remove the (R) ringer lead from K of network and insulate and store or connect to spare terminal.
- For tip party with 2650Ω identification ground, remove the (S) ringer lead from K of network and insulate and store or connect to spare terminal.
- For the 556A/B, AM/BM telephone set, connect (R) and (BK) ringer leads to K terminal of network.
- For the 556AMP/BMP telephone set; insulate and store (Y) lead of the 623D jack.

2. If bell taps on stations connected to long line equipment, use these connections to retain party ground identification.

3. When grounded ringer arrangements are used on 96 volt long line circuits, a D-180036 ringer isolator must be used.



- NOTES:
- FOR MANUAL SERVICE, MOVE (w) [S-W] LEAD FROM F TO RR TERMINAL.
 - 500C/D FACTORY WIRED FOR RING PARTY. SEE TABLE B FOR ALL CLASSES OF SERVICE.
 - LINE SWITCH OFF-HOOK SEQUENCE:
 - ab BREAKS
 - de MAKES
 - bc MAKES
 - fg BREAKS
- () CURRENT COLOR CODE
 [] MD COLOR CODE
 DP DIAL PULSE CONTACT
 ON DIAL OFF-NORMAL CONTACT

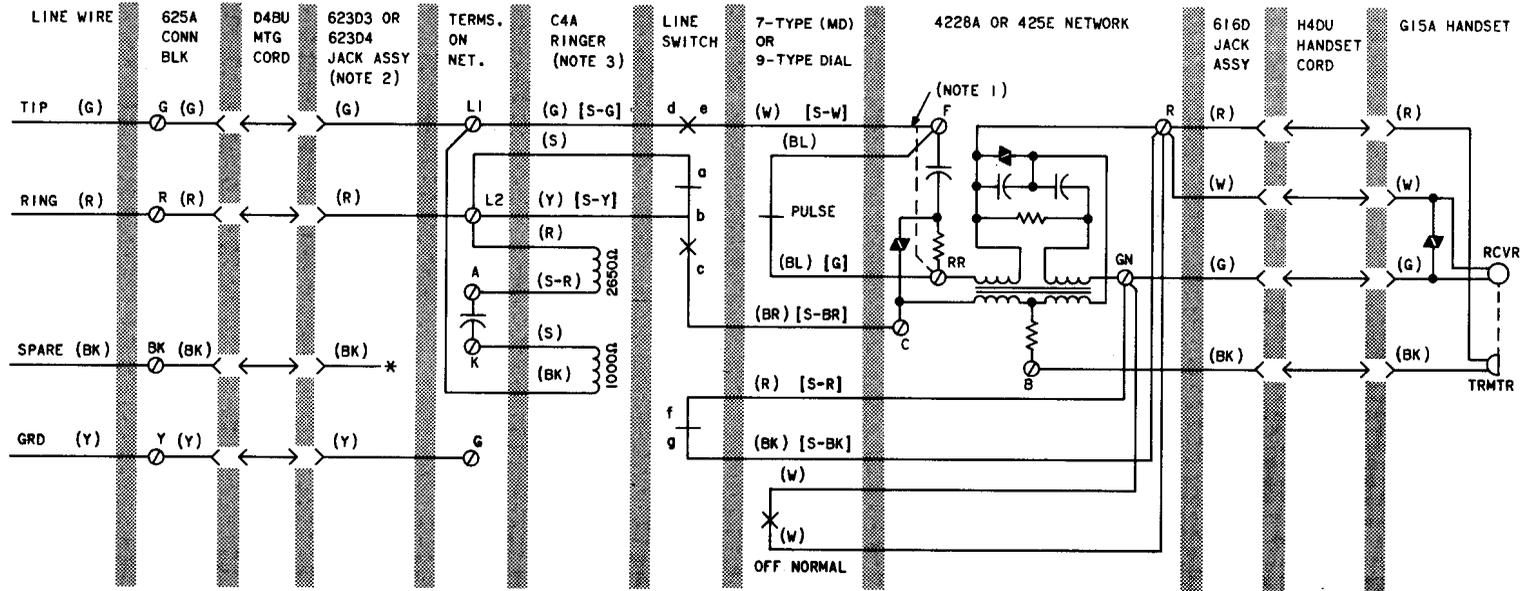
Fig. 6—500C/D Telephone Set, Connections

TABLE D
 554-TYPE TELEPHONE SETS
 MODIFICATION FOR
 "A" LEAD CONTROL
 CURRENT COLOR CODE

WIRE OR LEAD		REMOVE FROM NET.	CONNECT TO	
			NET.	TERM. STRIP
Line Switch	W	F	C	
	BR	C	G	
Ringer Lead	R	L2		3
	BK	G		4
Line Wire in Set	Ring		L1	
	Tip		F	
	"A" Lead		L2	
	A1-Grd		G	

TABLE E
 554-TYPE TELEPHONE SET
 MODIFICATIONS FOR
 "A" LEAD CONTROL
 MD COLOR CODE

WIRE OR LEAD		REMOVE FROM NET.	CONNECT TO	
			NET.	TERM. STRIP
Line Switch	S-W	F	G	
Ringer Leads	R	L2		3
	BK	L1		4
Line Wire in Set	Ring		L1	
	Tip		F	
	"A" Lead A1-Grd		L2 G	



NOTES:

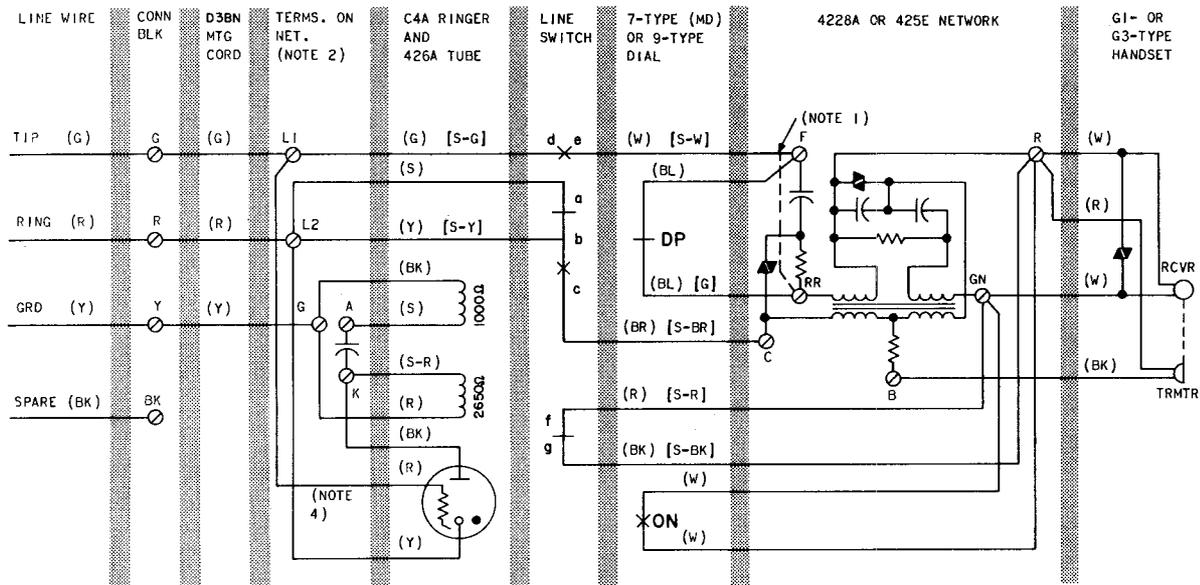
1. FOR MANUAL SERVICE, MOVE (w) [S-w] LEAD FROM F TO RR TERMINAL.
2. (BK) LEAD ON 623D4 JACK ASSEMBLY ONLY.
3. 500CM/DM FACTORY WIRED FOR BRIDGED SERVICES SEE TABLE B FOR ALL CLASSES OF SERVICE.
4. H40U-TYPE CORD AND D4BU CORD ORDERED SEPARATELY.
5. STATION GROUND SHALL BE PROVIDED FOR ALL MODULAR INSTALLATIONS EVEN WHEN NOT REQUIRED FOR THE SERVICE INITIALLY PROVIDED.
6. LINE SWITCH OFF-HOOK SEQUENCE:
 - (1) ab BREAKS
 - (2) de MAKES
 - (3) bc MAKES
 - (4) fg BREAKS

* INSULATED AND STORED

() CURRENT COLOR CODE

[] MD COLOR CODE

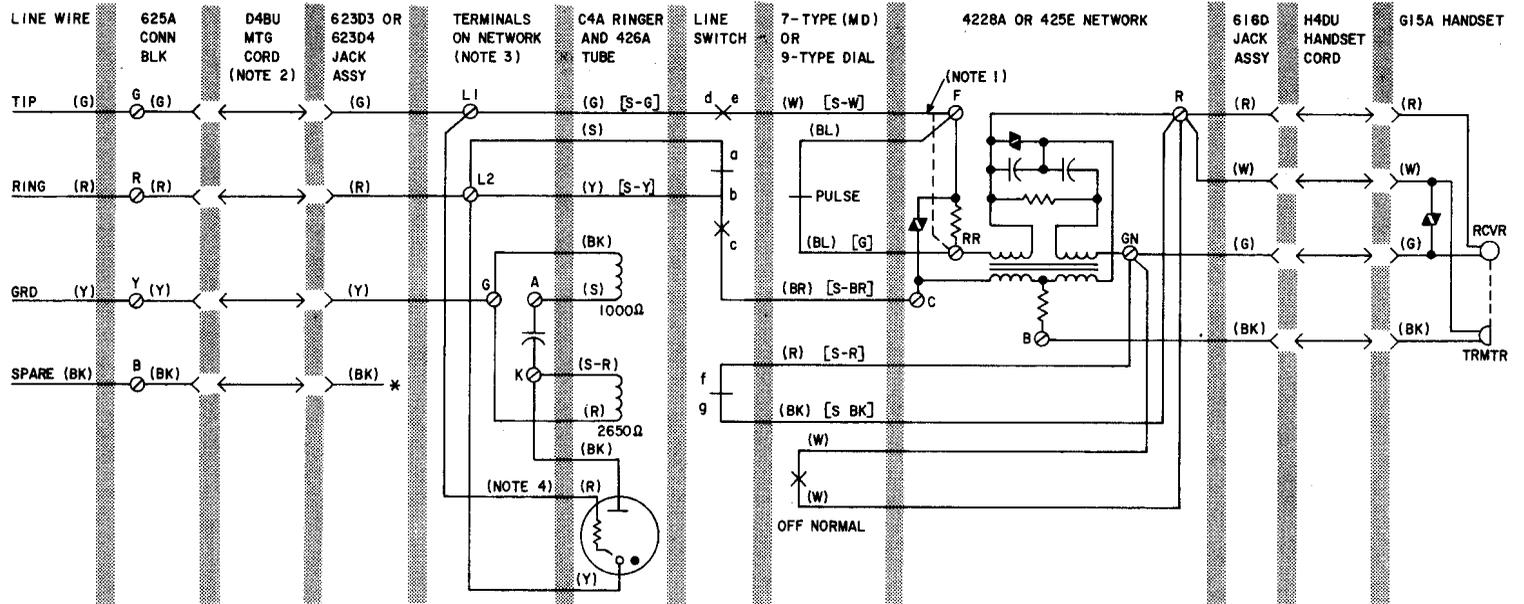
Fig. 7—500CM/DM Telephone Set, Connections



NOTES:

1. FOR MANUAL SERVICE, MOVE (w) [S-w] LEAD FROM F TO RR TERMINAL.
 2. 501C/D FACTORY WIRED FOR NEGATIVE RING PARTY. SEE TABLE B FOR ALL CLASSES OF SERVICE.
 3. LINE SWITCH OFF-HOOK SEQUENCE:
 - (1) ab BREAKS
 - (2) de MAKES
 - (3) bc MAKES
 - (4) fg BREAKS
 4. STATIONS WITHOUT ANI, (R) TUBE LEAD MAY BE CONNECTED TO G IF RINGER OPERATION IS MARGINAL. AT NEGATIVE STATIONS ON 96V LONG LINE CIRCUITS, (R) LEAD SHOULD BE CONNECTED TO G.
- () CURRENT COLOR CODE
 [] MD COLOR CODE
 DP DIAL PULSE CONTACT
 ON DIAL OFF-NORMAL CONTACT

Fig. 8—501C/D Telephone Set, Connections



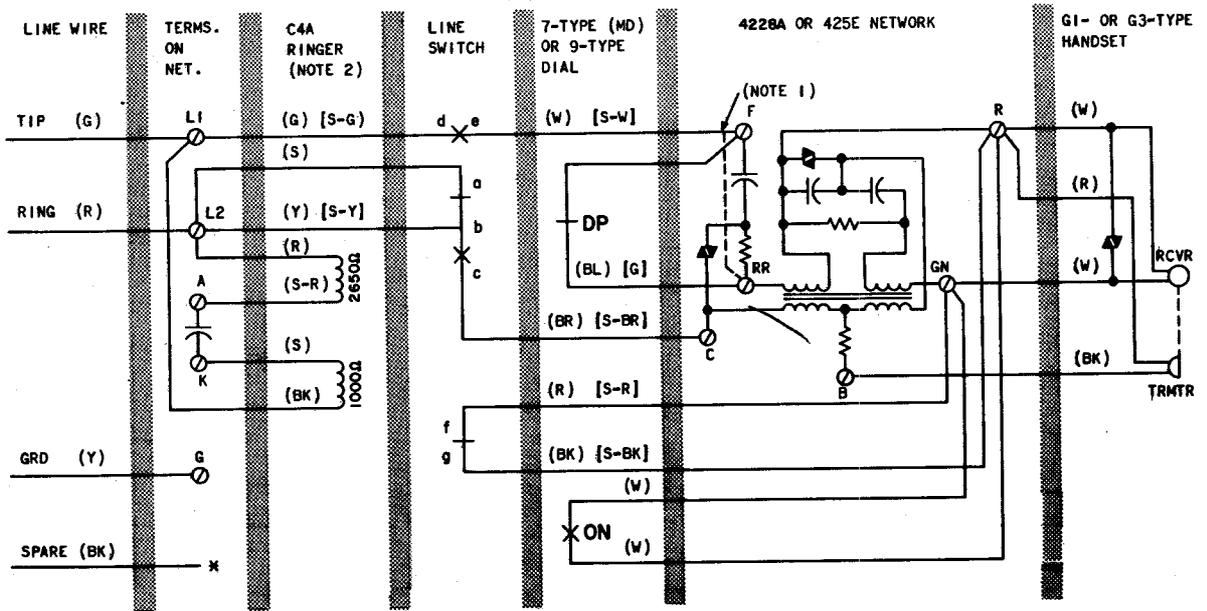
NOTES:

1. FOR MANUAL SERVICE, MOVE (W) [S-W] LEAD FROM F TO RR TERMINAL.
2. (BK) LEAD ON 623D4 JACK ASSEMBLY ONLY.
3. SET FACTORY WIRED FOR NEGATIVE RING PARTY. SEE TABLE B FOR ALL CLASSES OF SERVICE.
4. STATIONS WITHOUT ANI, (R) TUBE LEAD MAY BE CONNECTED TO G IF RINGER OPERATION IS MARGINAL. AT NEGATIVE STATIONS ON 96V LONG LINE CIRCUITS, (R) LEAD SHOULD BE CONNECTED TO G.
5. STATION GROUND SHALL BE PROVIDED FOR ALL INSTALLATIONS.
6. H4DU-TYPE CORD AND D4BU CORD ORDERED SEPARATELY.
7. LINE SWITCH OFF-HOOK SEQUENCE:

ab BREAKS	bc MAKES
de MAKES	fg BREAKS

* INSULATED AND STORED
 () CURRENT COLOR CODE
 [] MD COLOR CODE

Fig. 9—501CM/DM Telephone Set, Connections

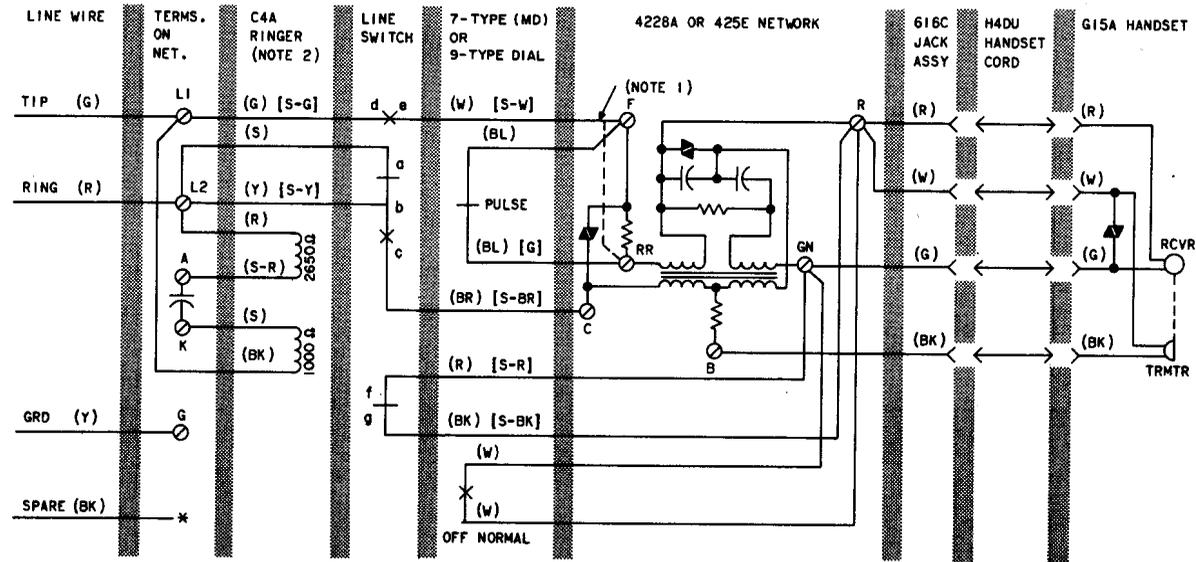


NOTES:

1. FOR MANUAL SERVICE, MOVE (W) [S-W] LEAD FROM F TO RR TERMINAL.
2. 554A/B, F FACTORY WIRED FOR BRIDGED SERVICE. SEE TABLE C FOR ALL CLASSES OF SERVICE.
3. LINE SWITCH OFF-HOOK SEQUENCE:
 - (1) ab BREAKS
 - (2) de MAKES
 - (3) bc MAKES
 - (4) fg BREAKS

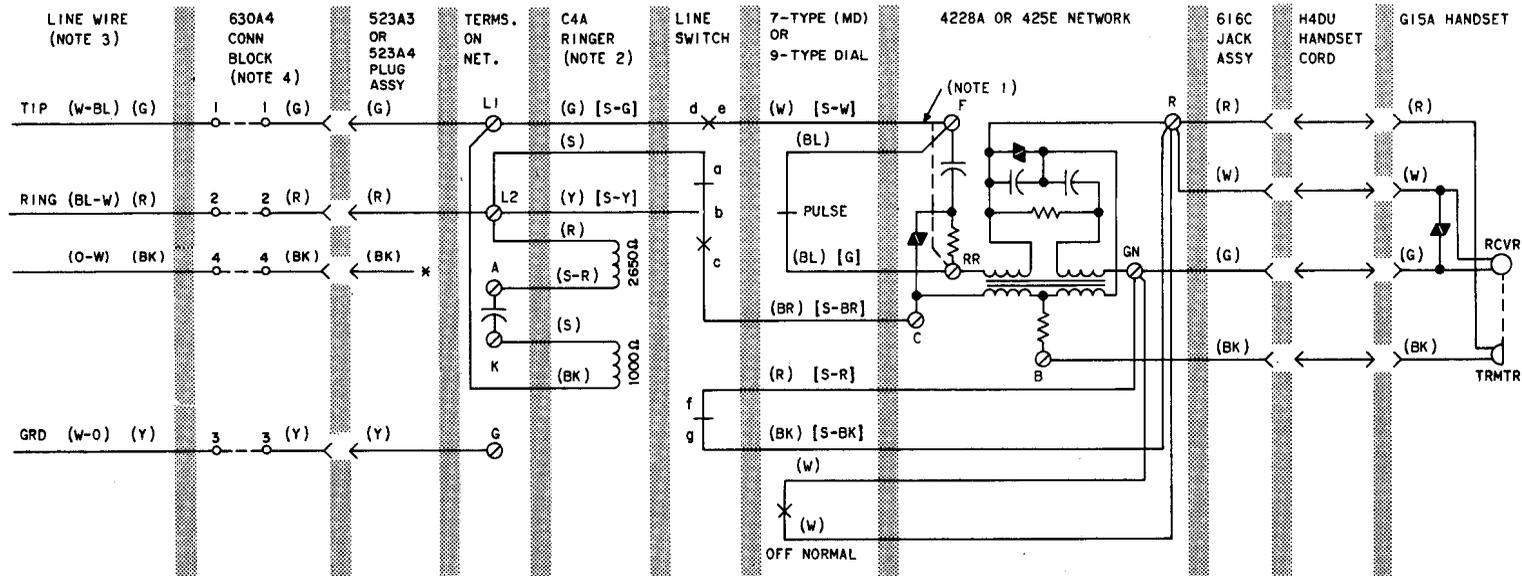
- x INSULATED AND STORED
- () CURRENT COLOR CODE
- [] MD COLOR CODE
- DP DIAL PULSE CONTACT
- ON DIAL OFF-NORMAL CONTACT

Fig. 10—554A/B, F Telephone Set, Connections



- NOTES:
1. FOR MANUAL SERVICE, MOVE (w) [S-W] LEAD FROM F TO RR TERMINAL.
 2. 554 AM/BM FACTORY WIRED FOR BRIDGED SERVICE. SEE TABLE C FOR ALL CLASSES OF SERVICE.
 3. STATION GROUND SHALL BE PROVIDED FOR ALL MODULAR INSTALLATIONS EVEN WHEN NOT REQUIRED FOR THE SERVICE INITIALLY PROVIDED.
 4. H4DU-TYPE CORD ORDERED SEPARATELY.
 5. LINE SWITCH OFF-HOOK SEQUENCE:
 - (1) db BREAKS
 - (2) de MAKES
 - (3) bc MAKES
 - (4) fg BREAKS
- * INSULATED AND STORED
 () CURRENT COLOR CODE
 [] NO COLOR CODE

Fig. 11—554AM/BM Telephone Set, Connections

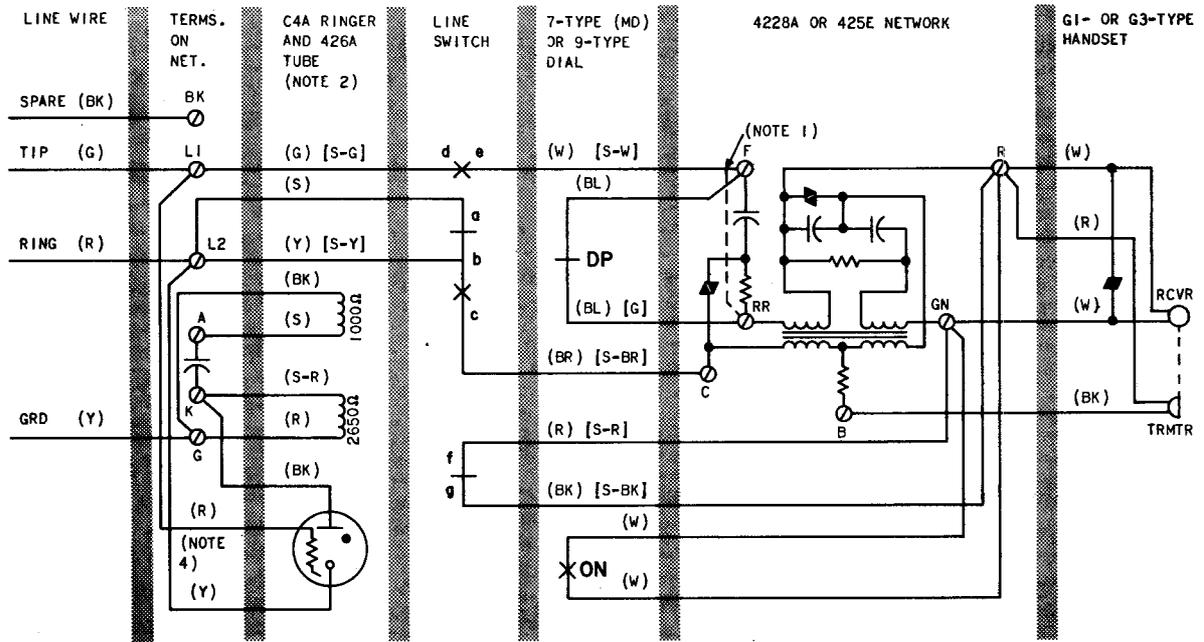


NOTES:

1. FOR MANUAL SERVICE, MOVE (W) [S-W] LEAD FROM F TO RR TERMINAL.
2. 554AMP/BMP FACTORY WIRED FOR BRIDGED SERVICE. SEE TABLE C FOR ALL CLASSES OF SERVICE.
3. SINGLE COLOR CODE CONDUCTOR - "d" STATION WIRE
TWO COLOR CODE CONDUCTOR - INSIDE WIRE OR "b" STATION WIRE
4. QUICK CONNECT TERMINALS ON 630A4 CONNECTING BLOCK
5. STATION GROUND SHALL BE PROVIDED FOR ALL MODULAR INSTALLATIONS EVEN WHEN NOT REQUIRED FOR SERVICE INITIALLY PROVIDED.
6. H4DU-TYPE CORD ORDERED SEPARATELY.
7. LINE SWITCH OFF-HOOK SEQUENCE:
 - (1) ab BREAKS
 - (2) de MAKES
 - (3) bc MAKES
 - (4) fg BREAKS

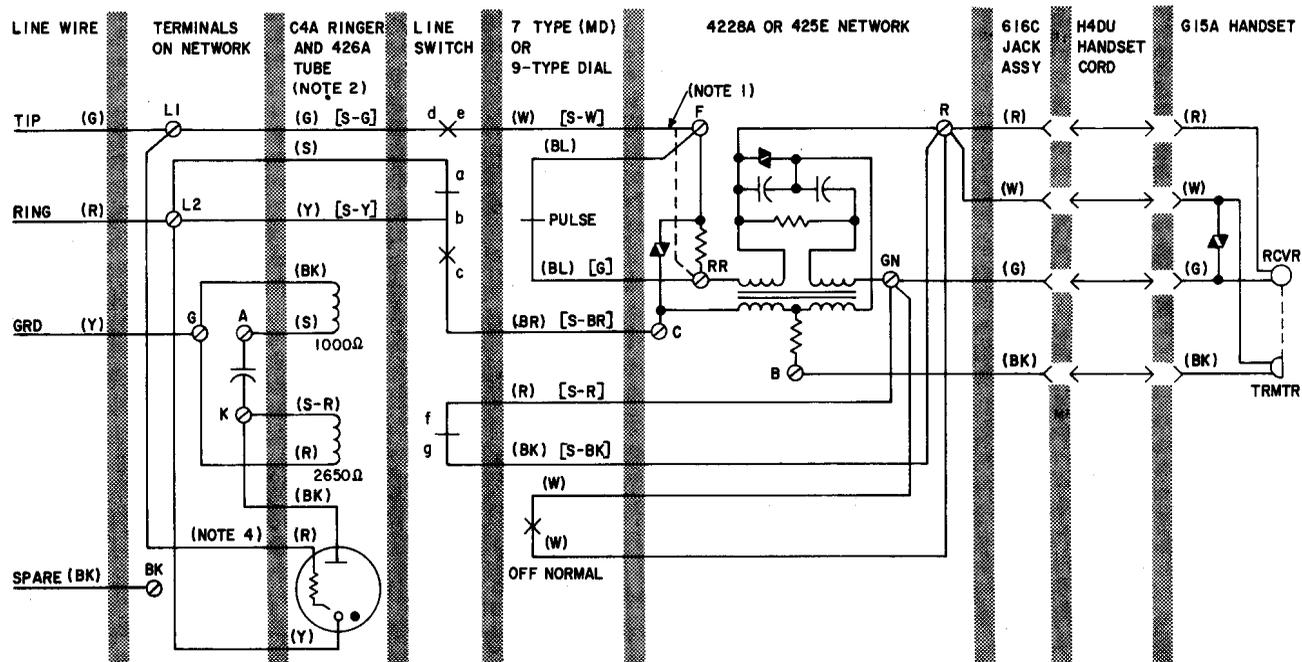
* INSULATED AND STORED
() CURRENT COLOR CODE
[] MD COLOR CODE

Fig. 12—554AMP/BMP Telephone Set, Connections



- NOTES:
1. FOR MANUAL SERVICE, MOVE (w) [S-W] LEAD FROM F TO RR TERMINAL.
 2. 556A/B FACTORY WIRED FOR NEGATIVE RING PARTY, SEE TABLE C FOR ALL CLASSES OF SERVICE.
 3. LINE SWITCH OFF-HOOK SEQUENCE:
 - (1) ab BREAKS
 - (2) de MAKES
 - (3) bc MAKES
 - (4) fg BREAKS
 4. STATIONS WITHOUT ANI, (R) TUBE LEAD MAY BE CONNECTED TO G IF RINGER OPERATION IS MARGINAL. AT NEGATIVE STATIONS ON 96V LONG LINE CIRCUITS, (R) LEAD SHOULD BE CONNECTED TO G.
- () CURRENT COLOR CODE
 [] MD COLOR CODE
 DP DIAL PULSE CONTACT
 ON DIAL OFF-NORMAL CONTACT

Fig. 13—556A/B Telephone Set, Connections



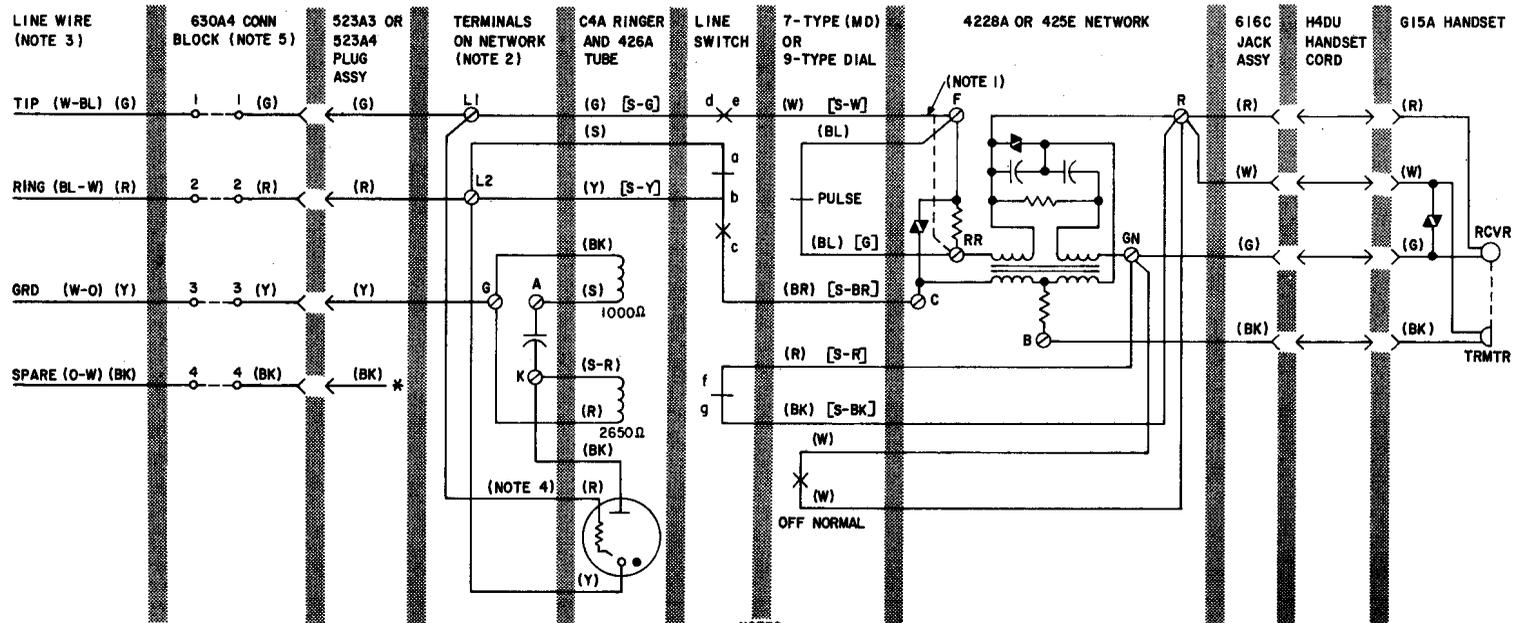
NOTES:

1. FOR MANUAL SERVICE, MOVE (w) [S-W] LEAD FROM F TO RR TERMINAL.
2. 556AM/BM FACTORY WIRED FOR NEGATIVE RING PARTY. SEE TABLE C FOR ALL CLASSES OF SERVICE.
3. H4DU-TYPE CORD ORDERED SEPARATELY.
4. STATIONS WITHOUT ANI, (R) LEAD MAY BE CONNECTED TO G IF RINGER OPERATION IS MARGINAL. AT NEGATIVE STATIONS ON 96V LONG LINE CIRCUITS, (R) LEAD SHOULD BE CONNECTED TO G.
5. SIGNAL GROUND SHALL BE PROVIDED FOR ALL MODULAR INSTALLATIONS EVEN WHEN NOT REQUIRED FOR THE SERVICE INITIALLY PROVIDED.
6. LINE SWITCH OFF HOOK SEQUENCE:

ab BREAKS	bc MAKES
de MAKES	fg BREAKS

() CURRENT COLOR CODE
 { } MD COLOR CODE

Fig. 14—556AM/BM Telephone Set, Connections



NOTES:

1. FOR MANUAL SERVICE, MOVE (W) [W-S] LEAD FROM F TO RR TERMINAL.
2. 556 AMP/BMP FACTORY WIRED FOR NEGATIVE RING PARTY. SEE TABLE C FOR ALL CLASSES OF SERVICE.
3. SINGLE COLOR CODE CONDUCTOR—"d" STATION WIRE TWO COLOR CODE CONDUCTOR—INSIDE WIRE OR "b" STATION WIRE.
4. STATIONS WITHOUT AN1, (R) TUBE LEAD MAY BE CONNECTED TO G IF RINGER OPERATION IS MARGINAL. AT NEGATIVE STATIONS ON 96V LONG LINE CIRCUITS, (R) LEAD SHOULD BE CONNECTED TO G.
5. QUICK CONNECT TERMINALS ON 630A4 CONNECTING BLOCK.
6. SIGNAL GROUND SHALL BE PROVIDED FOR ALL MODULAR INSTALLATIONS EVEN WHEN NOT REQUIRED FOR THE SERVICE INITIALLY PROVIDED.
7. H4DU-TYPE CORD ORDERED SEPARATELY.
8. LINE SWITCH OFF-HOOK SEQUENCE:

ab BREAKS	bc MAKES
dø MAKES	fg BREAKS

* INSULATED AND STORED
 () CURRENT COLOR CODE
 [] MD COLOR CODE

Fig. 15—556AMP/BMP Telephone Set, Connections

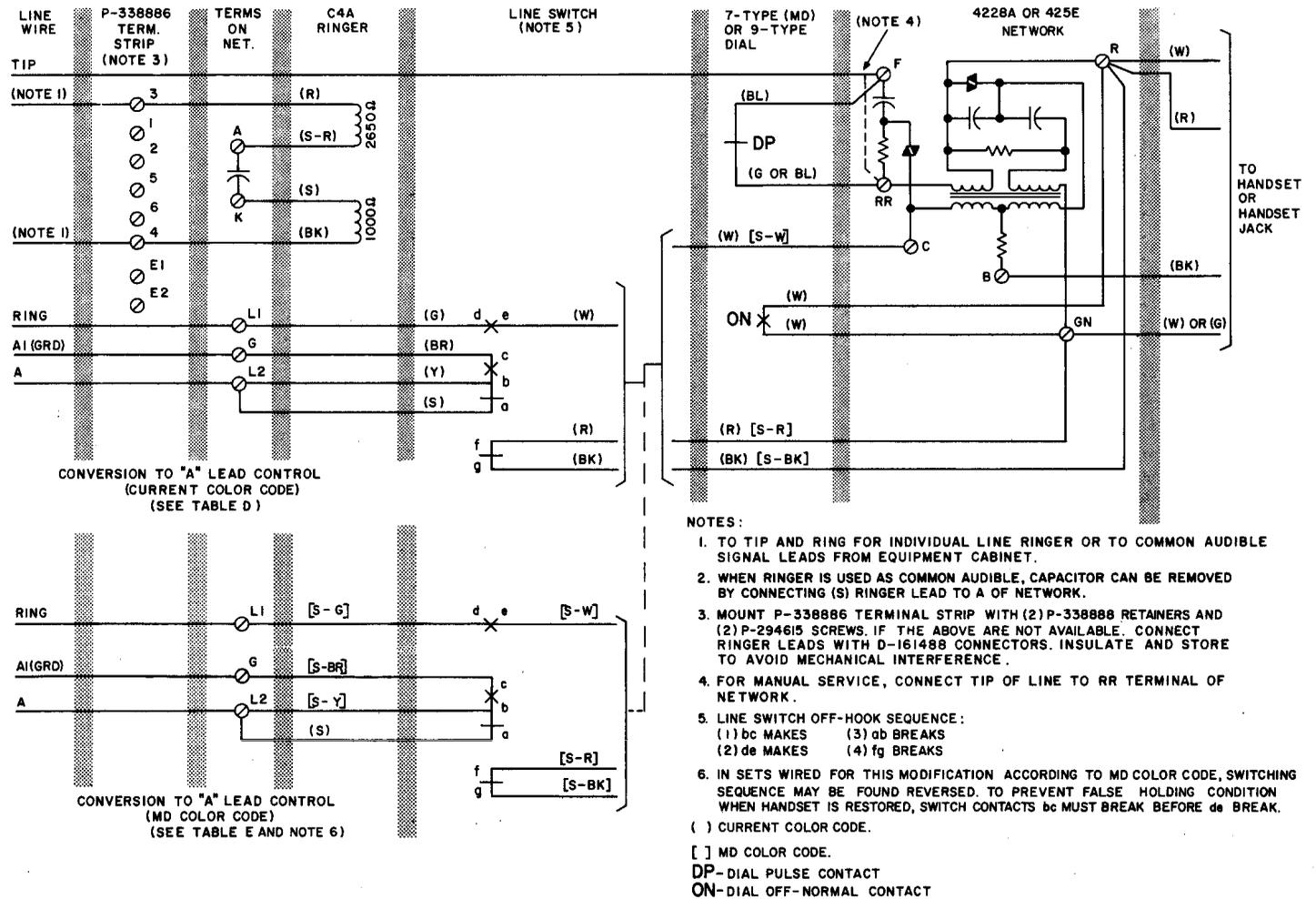


Fig. 16—554-Type Telephone Set, Modification for "A" Lead Control