

## REFERENCE

### 750-TYPE TELEPHONE SETS

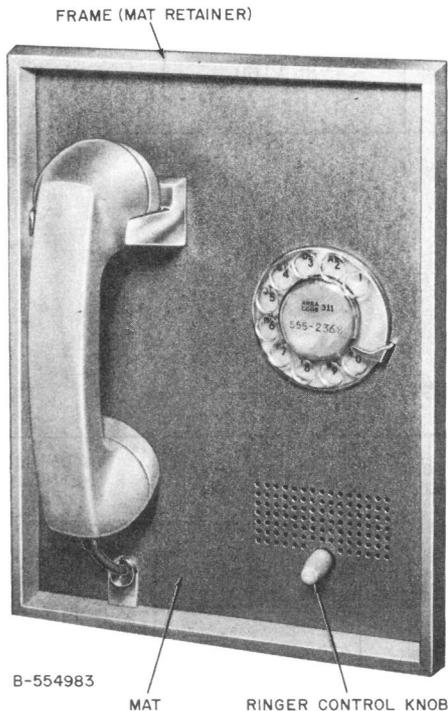


Fig. 1—750-Type Telephone Set

#### 1. GENERAL

1.01 This section contains identification, installation, maintenance, and connection information for the 750-type telephone sets.

1.02 This section is reissued to:

- Revise Tables B and D through L
- Show current panel assembly, Fig. 2
- Revise all connection diagrams
- Make reference to Section 502-700-102 for common installation and maintenance information.

Changes or additions in the body of tables are indicated by shaded areas.

#### 2. IDENTIFICATION

##### Ordering Guide

2.01 Set, Telephone, 750A-58 or 750B-60

*Note:* -58 includes white handset, aluminum mat, and light gray plastic frame. -60 includes light beige handset, copper mat, and light beige plastic frame.

2.02 *Replaceable Set Components are listed in Tables A and B.*

2.03 *Associated Apparatus or Equipment (ordered separately):*

- Apparatus Box, 113-type or 114A (recessed mounting)
- D-180071 or D-180072 Kit of Parts (surface mounting)
- Connecting Block, 71B



*Current production models are equipped with 3B cord reel. Either the 3A or 3B cord reel may be used when the telephone set is not subjected to temperatures below 40 degrees F. Below 40 degrees F only the 3A cord reel should be used.*

2.04 *Loose Parts Furnished With Set:*

- P-90D232 Cord and Plug Assembly or Cord, Mounting, D4BN-3 equipped with 423A plug
- Subscriber Instruction Booklet, SIB-2408
- P-160828 Mounting Screws (4)
- P-25E803 Card Retainer

**TABLE A**  
**COMPONENT ORDERING GUIDE (COLOR SIGNIFICANT)**

TELEPHONE SET	MAT	FRAME (MAT)	LINE SWITCH ASSEMBLY	HANDSET
750A-58	P-26E934	P-84A261* P-89C261†	P-85A161	G3K-58
750B-60	P-26E935	P-84A260* P-89C260†	P-85A160	G3K-60

\* Furnished with telephone set.

† Furnished with kit of parts used for surface mounting.

**TABLE B**  
**COMPONENT ORDERING GUIDE**

TELEPHONE SET	DIAL	RINGER	CORD REEL†	CORD AND PLUG ASSY	GROMMET‡ (HANDSET CORD)
750	8A	D1E	3A or 3B	P-90D232*	P-44E501† (Upper Half) P-44E502† (Lower Half)

\* Replaces D4BN-3 cord and 423A plug in early and later production models.

† These components replace the P-14E894 (MD) grommet assembly used in early production.

‡ Current cord reels are equipped with a solid one-piece grommet.

**2.05** ♦ In current 750-type telephone sets the terminal board (TB1) is omitted from the panel assembly and the mounting block is relocated (Fig. 2).♦

#### Design Features

**2.06** The 750-type telephone set may be recess mounted or adapted for surface mounting using a D-180071 or D-180072 Kit of Parts.

**2.07** Component parts of these sets are mounted on a steel panel. An aluminum mat retained

by a plastic frame covers the panel and gives the installation a finished appearance.

#### Application

**2.08** Can be wired for bridged, two-party flat rate, two-party message rate, or four-party full selective on CO or PBX lines.

**2.09** Can be modified for use with 1A1 or 1A2 KTS. Refer to Table C.

### 3. INSTALLATION AND MAINTENANCE

**3.01** ♦ Refer to Section 502-700-102 for installation and maintenance information.♦

**TABLE C**  
**MODIFICATIONS FOR USE WITH 1A1 OR 1A2 KTS**

WIRE OR LEAD		REMOVE FROM	CONNECT TO
Incoming Line at 71B Conn Block	Tip	(1) [1]	(3) [3]
	Ring	(2) [2]	(1) [1]
	GRD-A1	(3) [3]	(2) [2]
	A		(4) [4]
Ringer	(R)	(L1) † [R] *	(GN) ‡ [Y] *
	(BK)	(L2) †	(C) †
Line Switch	(BR) [S-SR]	(C) † [C] †	(L2) † [BK] *
Strap	(BK)	(§)	(L2) †
	(Y)	(L2) † [§]	(C) † [C] †

\* Terminal on 283B plug.

† Terminal on network.

‡ Terminal on P-14E055 mounting block assembly.

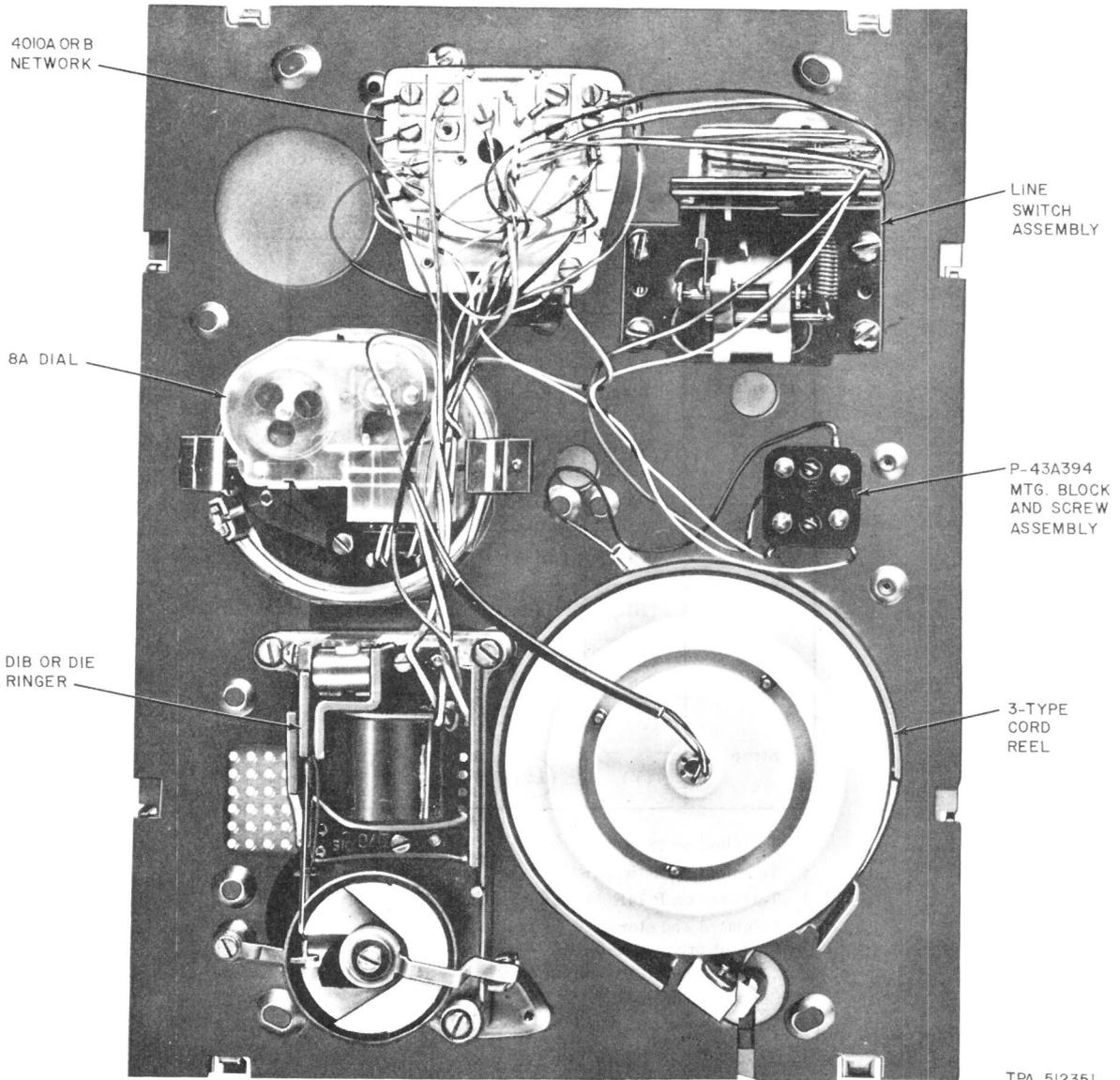
§ Insulated and stored.

○ Current production model.

□ Early and later production models.

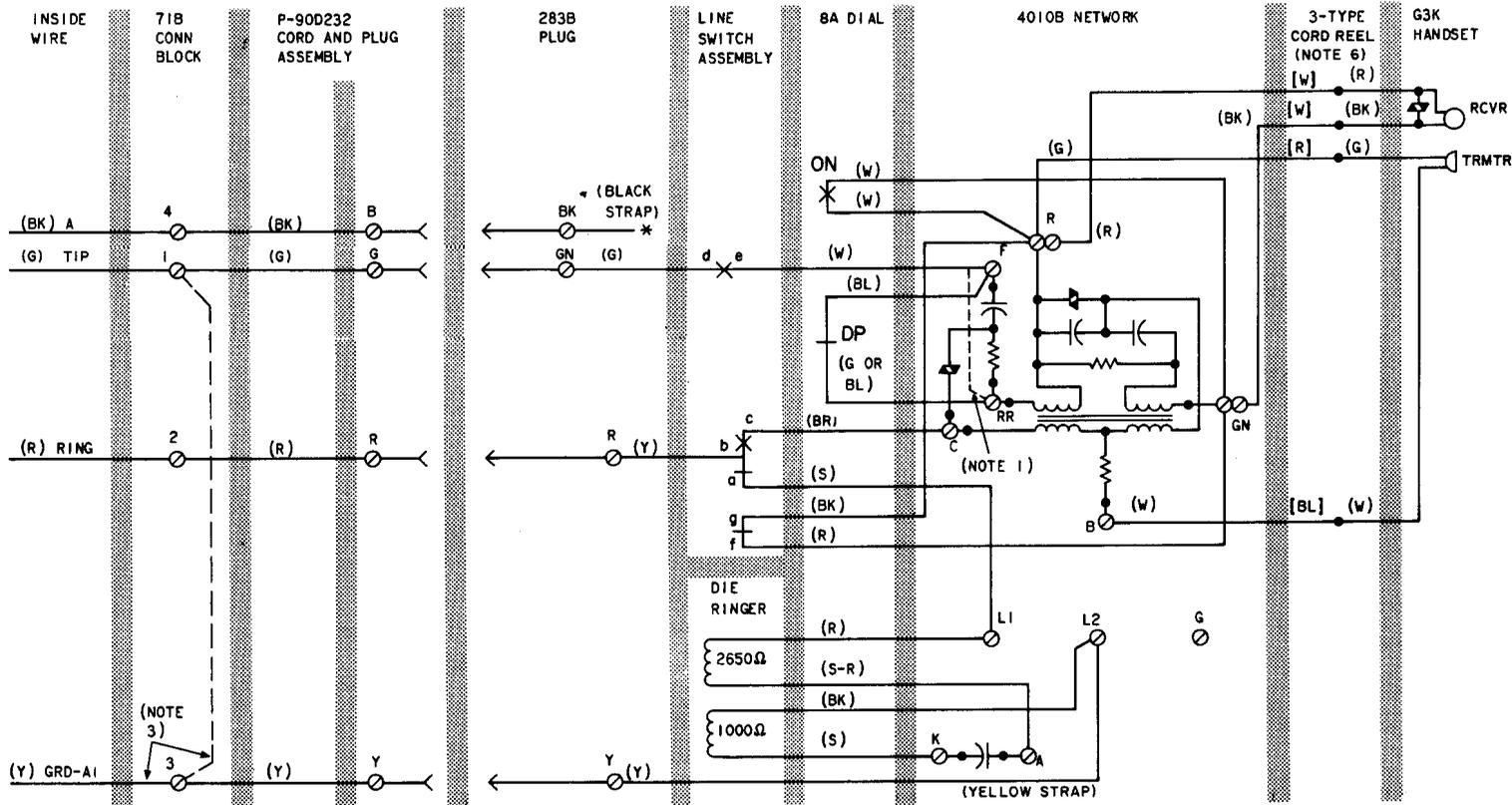
( ) Current color code.

[ ] MD color code.



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Fig. 2—Current 750-Type Telephone Set, Rear View



NOTES:

1. FOR MANUAL SERVICE MOVE (W) LINE SWITCH LEAD FROM NETWORK TERM. F TO RR AND (W) DIAL LEAD FROM TERM. R TO GN. DIAL REMAINS IN SET.
2. CONNECT A LEAD AS SHOWN FOR USE WITH 1A1 OR 1A2 KEY TELEPHONE SYSTEMS; SEE TABLE C FOR SET WIRING MODIFICATIONS.
3. GROUND MAY BE OMITTED AND TERMINALS STRAPPED AS SHOWN (MIW CORD) FOR INDIVIDUAL OR BRIDGED RINGER CONNECTION.
4. SET FACTORY-WIRED FOR RING PARTY. SEE TABLE D, E, AND F FOR CLASSES OF SERVICE NOT SHOWN.
5. LINE SWITCH OFF-HOOK SEQUENCE.  
 (1) bc - MAKES      (3) ab - BREAKS  
 (2) de - MAKES    (4) fg - BREAKS

6. [ ] DENOTES LEAD COLOR FOR 3A CORD REEL.  
 ( ) DENOTES LEAD COLOR FOR 3B CORD REEL.
- \* INSULATE OR STORE ON SPARE TERMINAL.  
 ON DIAL OFF-NORMAL CONTACT  
 DP DIAL PULSE CONTACT

Fig. 3—750A and 750B Telephone Sets, Connections (Current Models)

TABLE D

## 750A AND 750B TELEPHONE SETS (CURRENT MODELS) LINE AND RINGER CONNECTIONS

WIRE OR LEAD		COLOR	INDIVIDUAL OR BRIDGED (FACTORY WIRING)	RING PARTY	TIP PARTY	TIP PARTY WITH IDENTIFICATION GROUND							
						NORMAL CONNECTIONS				RINGER REVERSAL (NOTE 1)			
						1000 OHMS	2650 OHMS	1000 OHMS	2650 OHMS	1000 OHMS	2650 OHMS	1000 OHMS	2650 OHMS
			71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK	71B CONN BLOCK
CO Line at Term. Strip	Ring	R	2	2	1	1	1	1	1	1	1	1	1
	Tip	G	1	1	2	2	2	2	2	2	2	2	2
	GRD	Y	Strap 3 to 1†	3	3	3	3	3	3	3	3	3	3
Ringer Leads (Note 3)			NET.	NET.	NET.	NET.	NET.	NET.	NET.	NET.	NET.	NET.	NET.
		R	L1	L1	L1	B	B	K	L2				
		BK	L2	L2	L2	B	B	L2	K				
		S	K	K	K	L2	K	B	B				
		S-R	A	A	A	K	L2	B	B				
Line Switch		S	L1	L1	L1	A	A	A	A				

\*Insulate and store.

†Use M1W cord.

**Notes:**

- Use normal connections for tip party identification ground station. If bell taps on station connected to long-line equipment, reverse ringer leads as shown in this column to retain proper tip party identification. Grounded ringing arrangements on 96-volt long line circuits require a ringer isolator. Refer to sections on Ringing Bridge Limitations and Inductive Noise.
- To permanently silence ringer for all classes of service except identifying ground, connect (Y) strap to R terminal on 283B plug.
  - For 1000 $\Omega$  identifying ground insulate, store, or place (R) ringer lead on unused terminal.
  - For 2650 $\Omega$  identifying ground insulate, store, or place (BK) ringer lead on unused terminal.
- Connections to network terminals A and K may be interchanged.

TABLE E

750A AND 750B TELEPHONE SETS (CURRENT MODELS) LINE, RINGER, AND 426A TUBE CONNECTIONS  
FOR SELECTIVE RINGING SERVICE

WIRE OR LEAD		COLOR	NEGATIVE (-) PARTIES						POSITIVE (+) PARTIES					
			RING STATION 1 AND 5			TIP STATION 2 AND 6			RING STATION 3 AND 7			TIP STATION 4 AND 8		
			71B CONN BLOCK	283B PLUG	NET.†	71B CONN BLOCK	283B PLUG	NET.†	71B CONN BLOCK	283B PLUG	NET.†	71B CONN BLOCK	283B PLUG	NET.†
CO Line at Term. Strip	Ring	R	2			1			2			1		
	Tip	G	1			2			1			2		
	GRD	Y	3			3			3			3		
Ringer Leads		R			L2			L2			L2			L2
		BK			L2			L2			L2			L2
		S			A			A			A			A
		S-R			K			K			K			K
Straps		Y		Y ↔ L2			Y ↔ L2			Y ↔ L1			Y ↔ L1	
		BK		BK ↔ K			BK ↔ K			BK ↔ K			BK ↔ K	
426A Tube (3-Element)		BK	4			4			4			4		
		R	1			1			2			2		
		Y	2			2			3			3		
Line Switch		S			*			*			L2			L2

\*Insulate and store.

†Connections to network terminals A and K may be interchanged.

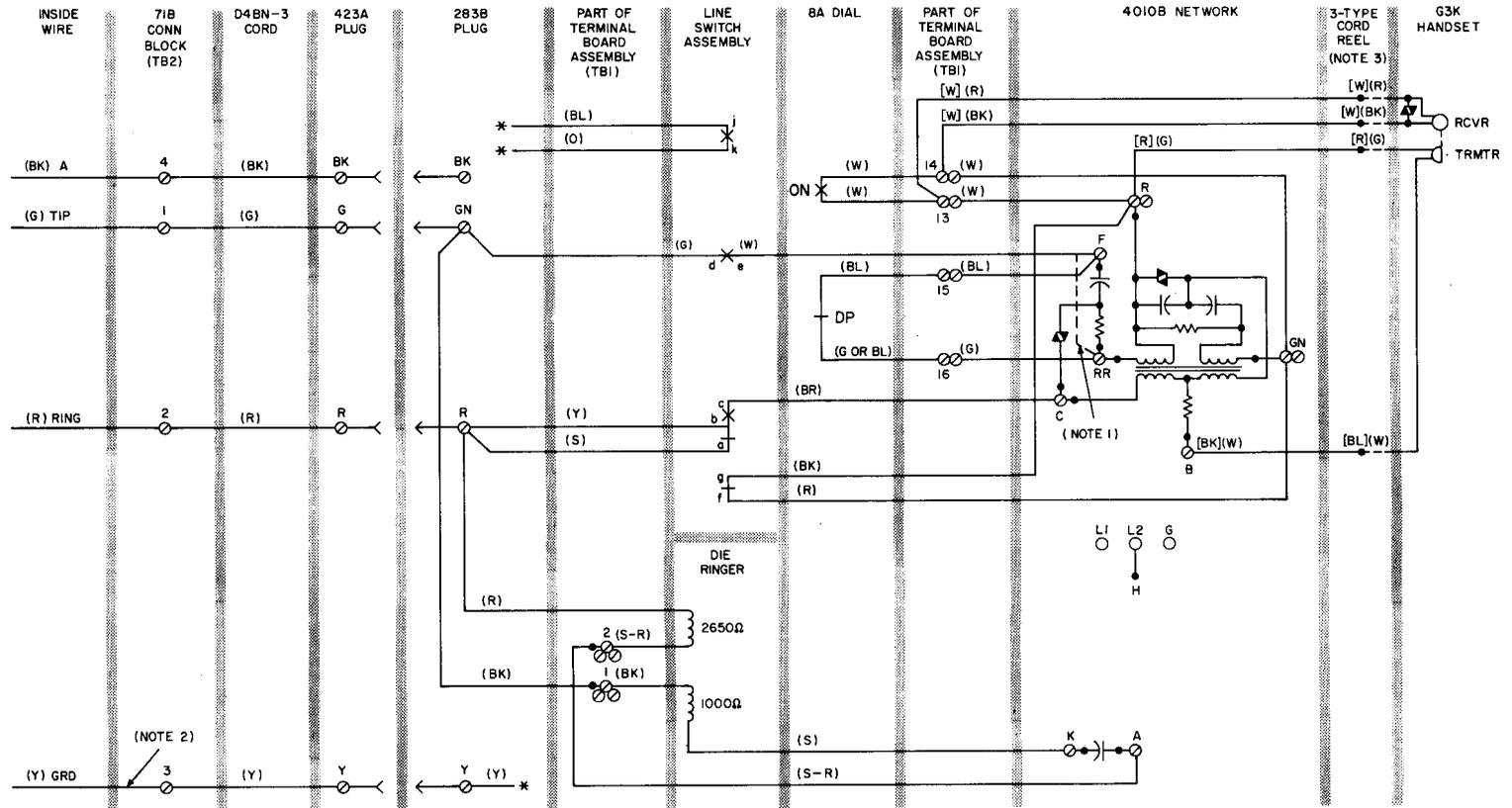
TABLE F

**750A AND 750B TELEPHONE SETS (CURRENT MODELS) LINE, RINGER, AND 425A TUBE CONNECTIONS  
FOR SELECTIVE RINGING SERVICE AND NOISE REDUCTION**

WIRE OR LEAD		COLOR	NEGATIVE (-) PARTIES						POSITIVE (+) PARTIES					
			RING STATION 1 AND 5			TIP STATION 2 AND 6			RING STATION 3 AND 7			TIP STATION 4 AND 8		
			71B CONN BLOCK	283B PLUG	NET†	71B CONN BLOCK	283B PLUG	NET†	71B CONN BLOCK	283B PLUG	NET†	71B CONN BLOCK	283B PLUG	NET.†
CO Line at Term.	Ring	R	2			1			2			1		
	Tip	G	1			2			1			2		
	GRD	Y	3			3			3			3		
Ringer Leads	R				K			K			K			K
	BK				A			A			A			A
	S				L2			L2			L2			L2
	S-R				L2			L2			L2			L2
Straps	Y			Y ↔ L1			Y ↔ L1		Y ↔ L2			Y ↔ L2		
	BK			BK ↔ K			BK ↔ K		BK ↔ K			BK ↔ K		
425A Tube (4-Element)	R		1			1			2			2		
	G		2			2			1			1		
	BK		3			3			2			2		
	Y		4			4			4			4		
Line Switch		S			L2			L2			*			*

\*Insulate and store.

†Connections to network terminals A and K may be interchanged.



NOTES:

1. FOR MANUAL SERVICE MOVE (W) LINE SWITCH LEAD FROM NETWORK TERM F TO RR AND (W) DIAL LEAD FROM TERM 14 TO TERM 13. DIAL REMAINS IN SET.
2. GROUND MAYBE OMITTED IF NOT REQUIRED FOR SERVICE.
3. [ ] 3A CORD REEL LEAD COLORS.  
( ) 3B CORD REEL LEAD COLORS.
4. SET FACTORY WIRED FOR BRIDGED SERVICE REFER TO TABLES G, H, AND I FOR CLASSES OF SERVICE NOT SHOWN.
5. LINE SWITCH OFF-HOOK SEQUENCE:  
(1) bc - MAKES (4) ab - BREAKS  
(2) de - MAKES (5) fg - BREAKS  
(3) jk - MAKES
6. CONNECT A LEAD AS SHOWN FOR USE WITH 1A1 OR 1A2. KEY TELEPHONE SYSTEMS, SEE TABLE C FOR SET WIRING MODIFICATIONS.

- ⊙ INDICATES TERMINAL WITH SCREW
- INDICATES TERMINAL WITHOUT SCREW
- \* INSULATE AND STORE
- ON DIAL OFF-NORMAL CONTACT
- DP DIAL PULSE CONTACT

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Fig. 4—750A and 750B Telephone Sets, Connection (Later Models)

TABLE G

## 750A AND 750B TELEPHONE SETS (LATER MODELS) LINE AND RINGER CONNECTIONS

WIRE OR LEAD		COLOR	INDIVIDUAL OR BRIDGED (FACTORY WIRING)			RING PARTY			TIP PARTY			TIP PARTY WITH IDENTIFICATION GROUND												
												NORMAL CONNECTIONS						RINGER REVERSAL (NOTE 1)						
			1000 OHMS			2650 OHMS			1000 OHMS			2650 OHMS												
			TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	
CO Line At Term Strip	Ring	R	2			2			1			1			1			1			1			
	Tip	G	1			1			2			2			2			2			2			
	GRD	Y	3*			3			3			3			3			3			3			
Ringer Leads			TB1	283B PLUG	NET†	TB1	283B PLUG	NET†	TB1	283B PLUG	NET†	TB1	283B PLUG	NET†	TB1	283B PLUG	NET†	TB1	283B PLUG	NET†	TB1	283B PLUG	NET†	
		R		R			R			R			2			2			1				Y	
		BK	1			1			1			2			2				Y			1		
		S			K			K			K		Y		1				2			2		
		S-R	2			2			2			1				Y			2			2		
TB1 Straps (Note 2)		BK		GN			Y			Y				K			K			K			K	
		S-R			A			A			A			B			B			B			B	
Line Switch		S		R			R			R				A			A			A			A	

\*Ground may be omitted if not required for service.

†Connections to network terminals A and K may be interchanged.

**Note 1:** Use normal connections for tip party identification ground station. If bell taps on station connected to long line equipment, reverse ringer leads as shown in this column to retain proper tip party identification. Grounded ringing arrangements on 96-volt long line circuits require ringer isolator. Refer to sections on Ringing Bridge Limitations and Inductive Noise.

**2:** One end of straps permanently soldered to TB1, other end equipped with spade tip terminal.

**3:** To permanently silence ringer for all classes of service identifying ground, remove (S) ringer lead from terminal K and store on terminal G of network.

(a) For 1000  $\Omega$  identifying ground insulate, store, or place (R) ringer lead on unused terminal.

(b) For 2650  $\Omega$  identifying ground insulate, store, or place (BK) ringer lead on unused terminal.

**TABLE H**  
**750A AND 750B TELEPHONE SETS (LATER MODELS) LINE, RINGER, AND 426A TUBE CONNECTIONS**  
**FOR SELECTIVE RINGING SERVICE**

WIRE OR LEADS		COLOR	NEGATIVE (—) PARTIES								POSITIVE (+) PARTIES							
			RING STATION 1 AND 5				TIP STATION 2 AND 6				RING STATION 3 AND 7				TIP STATION 4 AND 8			
			TB2	TB1	283B PLUG	NET*	TB2	TB1	283B PLUG	NET*	TB2	TB1	283B PLUG	NET*	TB2	TB1	283B PLUG	NET*
CO Line at Term. Strip	Ring	R	2				1				2				1			
	Tip	G	1				2				1				2			
	GRD	Y	3				3				3				3			
Ringer Leads		R		1				1				1			1			
		BK		1				1				1			1			
		S				A				A				A				A
		S-R		2				2				2			2			
TB1 Straps (Note)		BK			Y				Y			R				R		
		S-R				K				K			K				K	
426A Tube (3-element)		BK				K				K			K				K	
		R			GN				GN			R				R		
		Y			R				R			Y				Y		

\*Connections to network terminals A and K may be interchanged.

Note: One end of straps permanently soldered to TB1, other end equipped with spade tip terminal.

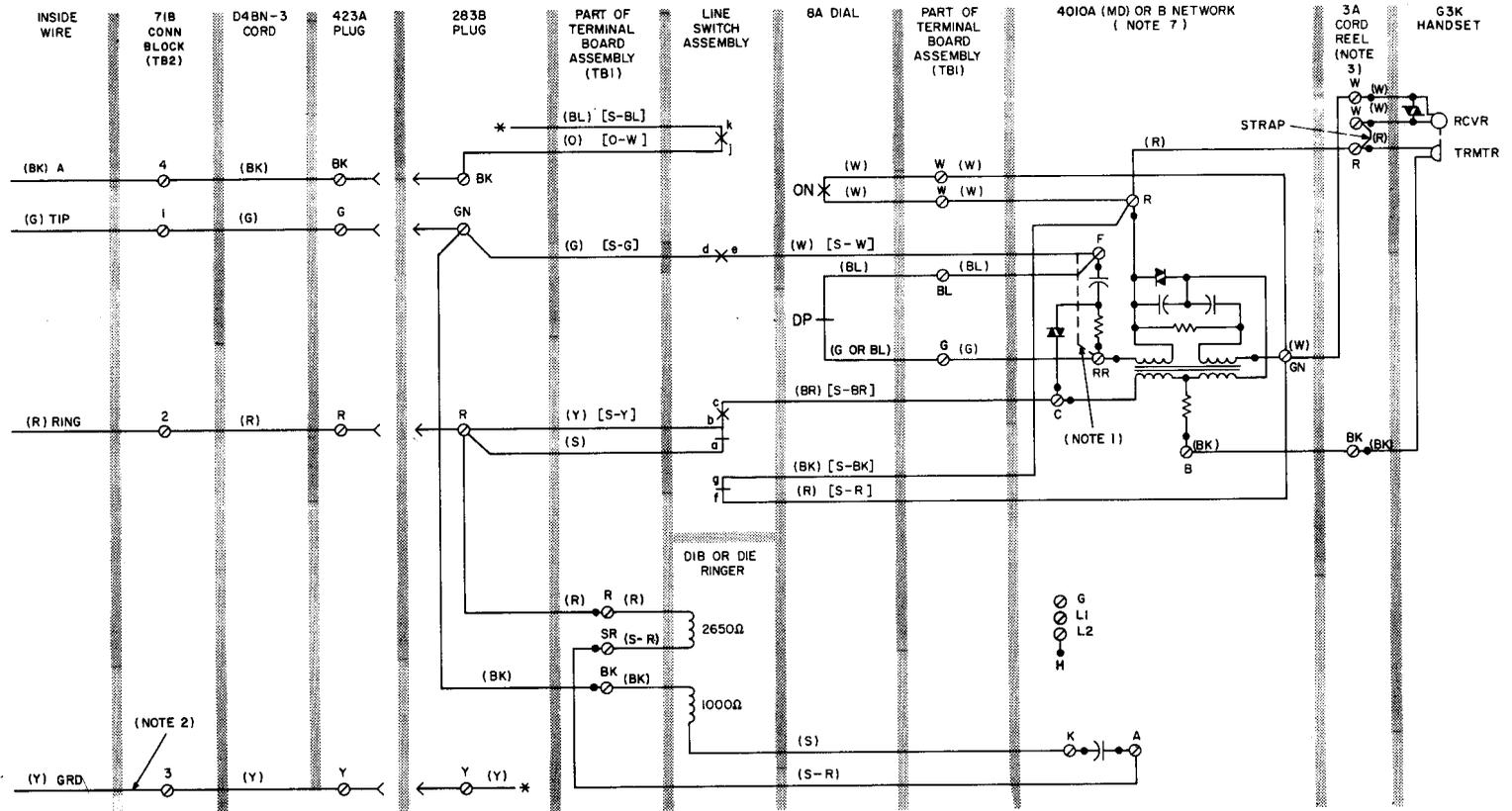
TABLE I

**750A AND 750B TELEPHONE SETS (LATER MODELS) LINE, RINGER, AND 425A TUBE CONNECTIONS  
FOR SELECTIVE RINGING SERVICE AND NOISE REDUCTION**

WIRE OR LEAD		COLOR	NEGATIVE (-) PARTIES								POSITIVE (+) PARTIES							
			RING STATION 1 AND 5				TIP STATION 2 AND 6				RING STATION 3 AND 7				TIP STATION 4 AND 8			
			TB2	TB1	283B PLUG	NET*	TB2	TB1	283B PLUG	NET*	TB2	TB1	283B PLUG	NET*	TB2	TB1	283B PLUG	NET*
CO Line At Terminal Strip	Ring	R	2				1				2				1			
	Tip	G	1				2				1				2			
	GRD	Y	3				3				3				3			
Ringer Leads		R		1				1					K					K
		BK		1				1			2				2			
		S				K				K			Y				Y	
		S-R		2				2					Y				Y	
TB1 Straps (Note)		BK				L1				L1			R				R	
		S-R					A				A			A				A
425A Tube (4-element)		R			GN				GN			1			1			
		G			R				R			GN				GN		
		BK			Y				Y			1			1			
		Y				L1				L1				K				K
M1W					R<>A				R<>A									

\*Connections to network terminals A and K may be interchanged.

Note: One end of straps permanently soldered to TB1, other end equipped with spade tip terminal.



NOTES:

1. FOR MANUAL SERVICE MOVE (W) [S-W]. LINE SWITCH LEAD FROM NETWORK TERMINAL F TO RR AND (W) STRAP FROM GN TO R OF NETWORK. DIAL REMAINS IN SET.
2. GROUND MAY BE OMITTED IF NOT REQUIRED FOR SERVICE.
3. LATE PRODUCTION CORD REELS ARE NOT EQUIPPED WITH TERMINAL STRIP.
4. SET FACTORY-WIRED FOR BRIDGED SERVICE, REFER TO TABLES J, K, AND L FOR CLASSES OF SERVICE NOT SHOWN.

5. LINE SWITCH OFF-HOOK SEQUENCE:

- (1) bc - MAKES (4) ab - BREAKS
- (2) de - MAKES (5) fg - BREAKS
- (3) jk - MAKES

6. CONNECT A LEAD AS SHOWN FOR USE WITH IA1 OR IA2 KEY TELEPHONE SYSTEMS; SEE TABLE C FOR SET WIRING MODIFICATIONS.

7. 4010B NETWORK IS EQUIPPED WITH TERMINALS G, L1, L2, AND H.

- \* INSULATE AND STORE.  
 ( ) CURRENT COLOR CODE.  
 [ ] MD COLOR CODE.  
 ON DIAL OFF - NORMAL CONTACT  
 DP DIAL PULSE CONTACT

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Fig. 5—750A and 750B Telephone Sets, Connection (Early Models)†

TABLE J

750A AND 750B TELEPHONE SETS (EARLY MODELS) LINE AND RINGER CONNECTIONS

WIRE OR LEAD		COLOR	INDIVIDUAL OR BRIDGED (FACTORY WIRING)			RINGER PARTY			TIP PARTY			TIP PARTY WITH IDENTIFICATION GROUND												
												NORMAL CONNECTIONS						RINGER REVERSAL (NOTE 1)						
			1000 OHMS			2650 OHMS			1000 OHMS			2650 OHMS												
			TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.	TB2	283B PLUG	NET.†	
CO Line at Term. Strip	Ring	R	2			2			1			1			1			1			1			
	Tip	G	1			1			2			2			2			2			2			
	GRD	Y	3*			3			3			3			3			3			3			
Ringer Leads			TB1	283B PLUG	NET.†	TB1	283B PLUG	NET.†	TB1	283B PLUG	NET.†	TB1	283B PLUG	NET.†	TB1	283B PLUG	NET.†	TB1	283B PLUG	NET.	TB1	283B PLUG	NET	
		R	R			R			R			SR			SR			BK				Y		
		BK	BK			BK			BK			SR			SR			Y			BK			
		S				K			K			K			Y			BK			SR			SR
		S-R	SR			SR			SR						BK				Y		SR			SR
TB1 Straps (Note 2)		R		R			R			R			R			R			R			R		
		BK		GN			Y			Y					K			K			K			K
		S-R				A			A			A			B			B			B			B
Line Switch		S		R			R			R				A			A			A			A	

\*Ground may be omitted, if not required for service.

†Connections to network terminals A and K may be interchanged.

Note 1: Use normal connections for tip party identification ground station. If bell taps on station connected to long line equipment, reverse ringer leads as shown in this column to retain proper tip party identification. Grounded ringing arrangements on 96-volt long line circuits require a ringer isolator. Refer to sections on Ringing Bridge Limitations and Inductive Noise.

2: One end of straps permanently soldered to TB1, other end equipped with space tip terminal.

3: To permanently silence ringer for all classes of service except identifying ground, remove (S) ringer lead from terminal K and store on terminal G of network.

(a) For 1000 Ω identifying ground insulate, store, or place (R) ringer lead on unused terminal.

(b) For 2650 Ω identifying ground insulate, store, or place (BK) ringer lead on unused terminal.

TABLE K

750A AND 750B TELEPHONE SETS (EARLY MODELS) LINE, RINGER, AND 426A TUBE CONNECTIONS  
FOR SELECTIVE RINGING SERVICE

WIRE OR LEAD		COLOR	NEGATIVE (-) PARTIES								POSITIVE (+) PARTIES									
			RING STATION 1 AND 5				TIP STATION 2 AND 6				RING STATION 3 AND 7				TIP STATION 4 AND 8					
			TB2	TB1	283B PLUG	NET.*	TB2	TB1	283B PLUG	NET.*	TB2	TB1	283B PLUG	NET.*	TB2	TB1	283B PLUG	NET.*		
CO Line at Term. Strip	Ring	R	2					1					2				1			
	Tip	G	1					2					1				2			
	GRD	Y	3					3					3				3			
Ringer Leads		R		BK				BK					R				R			
		BK		BK				BK					BK				BK			
		S				K				K				K						K
		S-R		SR				SR					SR				SR			
TB1 Straps (Note)		R		R				R				R				R				
		BK		Y				Y				R				R				
		S-R				A				A				A						A
426A Tube (3-element)		BK				A				A				A						A
		R				GN				GN				R						R
		Y		R						R				Y						Y

\*Connections to network terminals A and K may be interchanged.

Note: One end of straps permanently soldered to TB1, other end equipped with spade tip terminal.

TABLE L  
750A AND 750B TELEPHONE SETS (EARLY MODELS) LINE, RINGER, AND 425A TUBE CONNECTIONS  
FOR SELECTIVE RINGING SERVICE AND NOISE REDUCTION

WIRE OR LEAD		COLOR	NEGATIVE (-) PARTIES								POSITIVE (+) PARTIES							
			RING STATION 1 AND 5				TIP STATION 2 AND 6				RING STATION 3 AND 7				TIP STATION 4 AND 8			
			TB2	TB1	283B PLUG	NET.*	TB2	TB1	283B PLUG	NET.*	TB2	TB1	283B PLUG	NET.*	TB2	TB1	283B PLUG	NET.*
CO Line at Term. Strip	Ring	R	2				1				2			1				
	Tip	G	1				2				1			2				
	GRD	Y	3				3				3			3				
Ringer Leads		R		BK				BK				R			R			
		BK		BK				BK				BK			BK			
		S				K			K			SR			SR			
		S-R		SR				SR				SR			SR			
TB1 Straps (Note)		R			R				R				K				K	
		BK				L1				L1			A				A	
		S-R				A						Y				Y		
425A Tube (4-element)		R			GN				GN				R			R		
		G			R				R			GN			GN			
		BK			Y					Y			R			R		
		Y				L1				L1			R			R		
M1W					R ← → A				R ← → A									

\*Connections to network terminals A and K may be interchanged.

Note: One end of straps permanently soldered to TB1, other end equipped with spade tip terminal.