

TELEPHONE SETS  
502, 510, AND 511 TYPES  
CONNECTIONS

TABLE A  
502A AND B LINE AND RINGER CONNECTIONS

FEATURES					CONNECTIONS TO TERMINALS INSIDE SET												EXTERNAL CONNECTIONS FOR MOUNTING CORD									
NUMBER OF LINES PICKED UP	RINGER IN SET USED AS		EX-CLUSION KEY USED TO CUT OFF		MOUNTING CORD LEADS						EXCLUSION KEY LEADS				RINGER LEADS (NOTES 3 AND 4 FIG. 1)				LINE		EX-CLUSION CIRCUIT		COM OR PVT LINE RINGER CIRCUIT		KEY EQUIP. OR STA BUSY LAMP CIRCUIT	
	LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	(R)	(G)	(Y)	(BK)	(BL)	(W)	(R-Y) (Y)	(G-Y) (BK)	(BL)	(W)	(R)	(BK)	(S)	(S-R)	RING	TIP	RING	TIP	R	B	A OR BL	A1 OR GRD
1	•		•		1	2	E1	E2	5	6	L2	L1	E1	E2	1	2	K	A	R	G	Y	BK			BL	W
1		•		•	1	2	E1	E2	5	6	4	3	E2	3	E1	4	A	A	R	G			Y	BK	BL	W

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TABLE B

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510A AND B LINE AND RINGER CONNECTIONS (EQUIPPED WITH 4-CONDUCTOR MOUNTING CORD)

FEATURES (RINGER IN SET USED AS LINE RINGER)					CONNECTIONS FOR TERMINALS INSIDE SET								EXTERNAL CONNECTIONS FOR MOUNTING CORD									
NUMBER OF LINES PICKED UP	SIGNALING	TURN KEY USED TO CUT OFF			MOUNTING CORD LEADS				TURN KEY LEADS		RINGER LEADS (NOTES 2, 4, FIG. 3)				LINE 1		LINE 2		SIGNAL CIRCUIT		CUTOFF CIRCUIT	
		EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	R	G	Y	BK	S-R	S-G	R	BK	S	S-R	RING	TIP	RING	TIP	S	GRD	RING	TIP
1	•				L2	L1	5	6	L2	L1	L2	L1	K	A	R	G			Y	BK		
1	•		•		L2	L1	5	6	L2	L1	1	2	K	A	R	G			Y	BK		
1		•			L2	L1	3	4	L2	L1	L2	L1	K	A	R	G					Y	BK
1		•	•		L2	L1	3	4	L2	L1	1	2	K	A	R	G					Y	BK
1				•	L2	L1	3	4	G	R	L2	L1	K	A	R	G					Y	BK
2					1	2	3	4	L2	L1	1	2	K	A	R	G	Y	BK				

TABLE C

510E AND F LINE AND RINGER CONNECTIONS (EQUIPPED WITH 6-CONDUCTOR MOUNTING CORD)

FEATURES							CONNECTIONS TO TERMINALS INSIDE SET										EXTERNAL CONNECTIONS FOR MOUNTING CORD											
NUMBER OF LINES PICKED UP	SIGNALING	RINGER IN SET USED AS		TURN KEY USED TO CUT OFF			MOUNTING CORD LEADS						TURN KEY LEADS		RINGER LEADS (NOTES 2, 3, 4, FIG. 3)				LINE 1		LINE 2		SIGNAL CIRCUIT		CUTOFF CIRCUIT		COM OR PVT LINE RINGER CIRCUIT	
		LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	R	G	Y	BK	BL	W	S-R	S-G	R	BK	S	S-R	RING	TIP	RING	TIP	S	GRD	RING	TIP	R	B
1	•	•		•			L2	L1	3	4	5	6	L2	L1	L2	L1	K	A	R	G			BL	W	Y	BK		
1	•	•		•	•		L2	L1	3	4	5	6	L2	L1	1	2	K	A	R	G			BL	W	Y	BK		
1	•	•				•	L2	L1	3	4	5	6	G	R	L2	L1	K	A	R	G			BL	W	Y	BK		
2	•	•					1	2	3	4	5	6	L2	L1	1	2	K	A	R	G	Y	BK	BL	W				
2		•					1	2	3	4	E1	E2	L2	L1	E1	E2	A	A	R	G	Y	BK					BL	W

**TABLE D**  
**511A AND B LINE AND RINGER CONNECTIONS (INTERNAL CONNECTIONS)**

FEATURES (SIGNALING INCLUDED WITH ALL FEATURES)										CONNECTIONS TO TERMINALS INSIDE SET																	
NUMBER OF LINES PICKED UP	RINGER IN SET USED AS		TURN KEY USED TO CUT OFF			EXCLUSION KEY USED TO CUT OFF			MOUNTING CORD LEADS						TURN KEY LEADS		EXCLUSION KEY LEADS (NOTE 3 FIG. 4)				RINGER LEADS (NOTE 4 FIG. 4)						
	LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	EXT STA OR EXT LINE RINGER	RINGER IN SET	BL-W	W-BL	BR-W	W-BR	W-O	O-W	G-W	W-G	S-W	W-S	S-R	S-G	R-Y	G-Y	BL	W	R	BK	S	S-R
1	•		•			•		L2	L1	3	4	5	6	E1	E2	R-W	W	L2	L1	L2	L1	E1	E2	R-W	W	K	A
1	•		•	•		•		L2	L1	3	4	5	6	E1	E2	R-W	W	L2	L1	L2	L1	E1	E2	1	2	K	A
1	•				•	•		L2	L1	3	4	5	6	E1	E2	R-W	W	G	R	L2	L1	E1	E2	R-W	W	K	A
2	•					•		1	2	3	4	5	6	E1	E2	R-W	W	L2	L1	1	2	E1	E2	R-W	W	K	A
2		•				•		1	2	3	4	5	6	E1	E2	R-W	W	L2	L1	1	2	E1	E2	R-W	W	A	A
2		•				•	•	1	2	3	4	5	6	E1	E2	R-W	W	L2	L1	R-W	W	E1	E2	E1	E2	A	A

**TABLE E**  
**511A AND B LINE AND RINGER CONNECTIONS (EXTERNAL CONNECTIONS)**

FEATURES (SIGNALING INCLUDED WITH ALL FEATURES)										EXTERNAL CONNECTIONS FOR MOUNTING CORD (NOTE 2 FIG. 4)												
NUMBER OF LINES PICKED UP	RINGER IN SET USED AS		TURN KEY USED TO CUT OFF			EXCLUSION KEY USED TO CUT OFF			LINE 1		LINE 2		SIGNAL CIRCUIT		EXCLUSION CIRCUIT		CUTOFF CIRCUIT		LINE 1 OR 2 FOR LINE RINGER (NOTE 5 FIG. 4)		COM OR PVT LINE RINGER CIRCUIT	
	LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	EXT STA OR EXT LINE RINGER	RINGER IN SET	RING	TIP	RING	TIP	S	GRD	RING	TIP	RING	TIP	RING	TIP	R	B	
1	•		•			•		BL-W	W-BL			W-O	O-W	G-W	W-G	BR-W	W-BR	S-W	W-S			
1	•		•	•		•		BL-W	W-BL			W-O	O-W	G-W	W-G	BR-W	W-BR					
1	•				•	•		BL-W	W-BL			W-O	O-W	G-W	W-G	BR-W	W-BR	S-W	W-S			
2	•					•		BL-W	W-BL	BR-W	W-BR	W-O	O-W	G-W	W-G			S-W	W-S			
2		•				•		BL-W	W-BL	BR-W	W-BR	W-O	O-W	G-W	W-G					S-W	W-S	
2		•				•	•	BL-W	W-BL	BR-W	W-BR	W-O	O-W							S-W	W-S	

TABLE F

511C AND D LINE AND RINGER CONNECTIONS (INTERNAL CONNECTIONS)

FEATURES (SIGNALING INCLUDED WITH ALL FEATURES)								CONNECTIONS TO TERMINALS INSIDE SET									
NUMBER OF LINES PICKED UP	RINGER IN SET USED AS		TURN KEY USED TO CUT OFF			EXCLUSION KEY USED TO CUT OFF		MOUNTING CORD LEADS		TURN KEY LEADS		EXCLUSION KEY LEADS (NOTE 5, FIG. 5)		RINGER LEADS (NOTE 7, FIG. 5)			
	LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	EXT STA OR EXT LINE RINGER	RINGER IN SET	[R]	[G]	S-R	S-G	[R-Y]	[G-Y]	R	BK	S	S-R
								(BL-W)	(W-BL)			(Y)	(BK)				
1	•		•			•		L2	L1	L2	L1	L2	L1	5	6	K	A
1	•		•	•		•		L2	L1	L2	L1	L2	L1	1	2	K	A
1	•			•		•		L2	L1	L2	L1	L2	L1	3	4	K	A
1	•				•	•		L2	L1	G	R	L2	L1	5	6	K	A
2	•					•		1	2	L2	L1	1	2	5	6	K	A
2		•				•		1	2	L2	L1	1	2	5	6	A	A
2		•					•	1	2	L2	L1	5	6	E1	E2	A	A

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TABLE G

511C AND D LINE AND RINGER CONNECTIONS (EXTERNAL CONNECTIONS)

FEATURES (SIGNALING INCLUDED WITH ALL FEATURES)								EXTERNAL CONNECTIONS FOR MOUNTING CORD (NOTES 1, 8, FIG. 5)																	
NUMBER OF LINES PICKED UP	RINGER IN SET USED AS		TURN KEY USED TO CUT OFF			EXCLUSION KEY USED TO CUT OFF		LINE 1		LINE 2		SIGNAL CIRCUIT		EXCLUSION CIRCUIT		CUTOFF CIRCUIT		LINE 1 OR 2 FOR LINE RINGER		COM OR PVT LINE RINGER CIRCUIT		KEY EQUIP. OR STA BUSY LAMP CIRCUIT (NOTES 4, 5, FIG. 5)			
	LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	EXT STA OR EXT LINE RINGER	RINGER IN SET	RING	TIP	RING	TIP	S	GRD	RING	TIP	RING	TIP	RING	TIP	R	B	A	OR	A1	OR
																						OR	BL	OR	GRD
1	•		•			•	R	G			BL	W	BR-Y	BR-BK	Y	BK	BR-R	BR-G			O		W		
1	•		•	•		•	R	G			BL	W	BR-Y	BR-BK	Y	BK					O		W		
1	•			•		•	R	G			BL	W	BR-Y	BR-BK							O		W		
1	•				•	•	R	G			BL	W	BR-Y	BR-BK	Y	BK	BR-R	BR-G			O		W		
2	•					•	R	G	Y	BK	BL	W	BR-Y	BR-BK			BR-R	BR-G			O		W		
2		•				•	R	G	Y	BK	BL	W	BR-Y	BR-BK					BR-R	BR-G	O		W		
2		•				•	R	G	Y	BK	BL	W							BR-R	BR-G	O		W		

TABLE F

511C AND D LINE AND RINGER CONNECTIONS (INTERNAL CONNECTIONS)

FEATURES (SIGNALING INCLUDED WITH ALL FEATURES)								CONNECTIONS TO TERMINALS INSIDE SET									
NUMBER OF LINES PICKED UP	RINGER IN SET USED AS		TURN KEY USED TO CUT OFF			EXCLUSION KEY USED TO CUT OFF		MOUNTING CORD LEADS		TURN KEY LEADS		EXCLUSION KEY LEADS (NOTE 5, FIG. 5)		RINGER LEADS (NOTE 7, FIG. 5)			
	LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	EXT STA OR EXT LINE RINGER	RINGER IN SET	[R] (BL-W)	[G] (W-BL)	S-R	S-G	[R-Y] (Y)	[G-Y] (BK)	R	BK	S	S-R
1	•		•			•		L2	L1	L2	L1	L2	L1	5	6	K	A
1	•		•	•		•		L2	L1	L2	L1	L2	L1	1	2	K	A
1	•			•		•		L2	L1	L2	L1	L2	L1	3	4	K	A
1	•				•	•		L2	L1	G	R	L2	L1	5	6	K	A
2	•					•		1	2	L2	L1	1	2	5	6	K	A
2		•				•		1	2	L2	L1	1	2	5	6	A	A
2		•					•	1	2	L2	L1	5	6	E1	E2	A	A

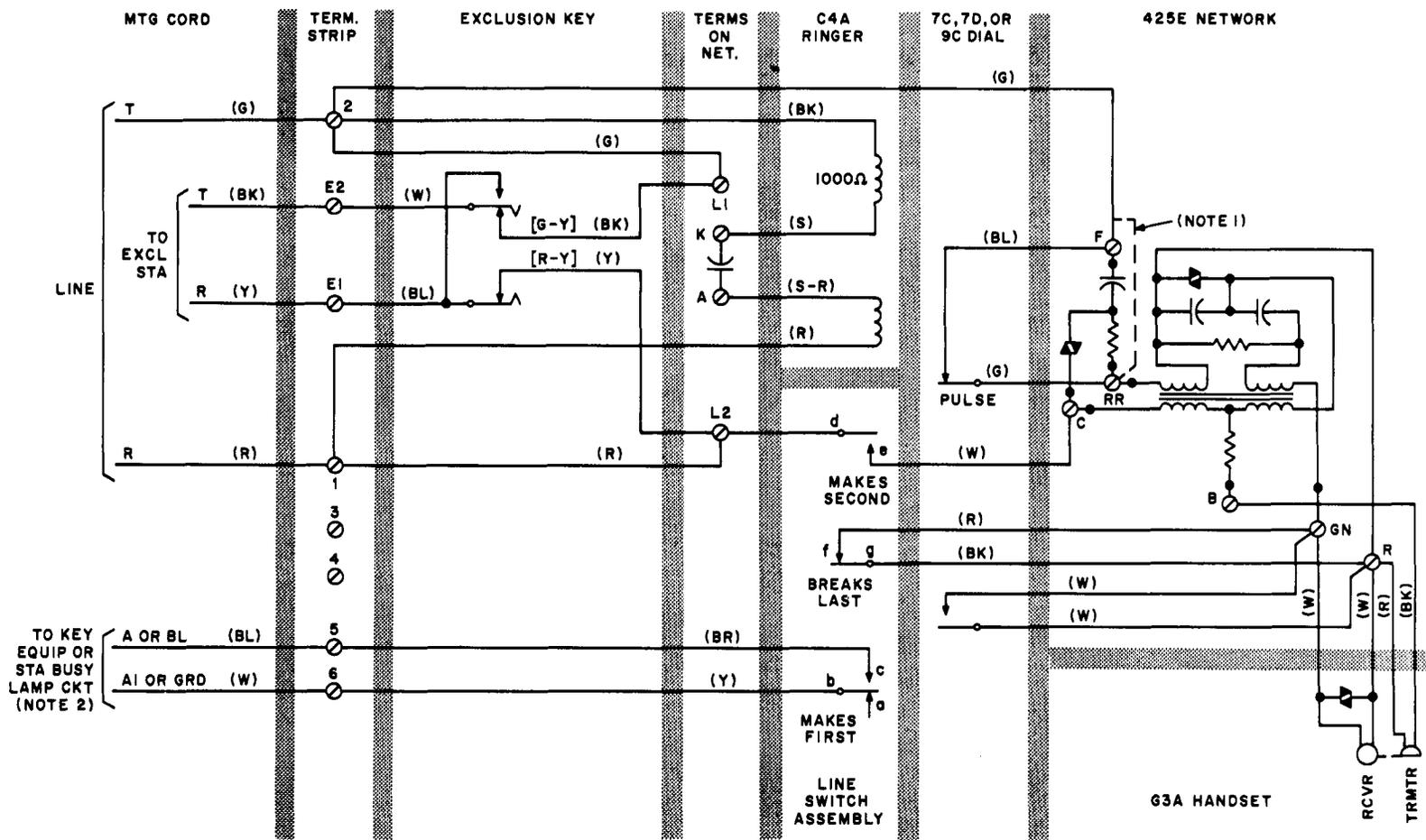
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TABLE G

511C AND D LINE AND RINGER CONNECTIONS (EXTERNAL CONNECTIONS)

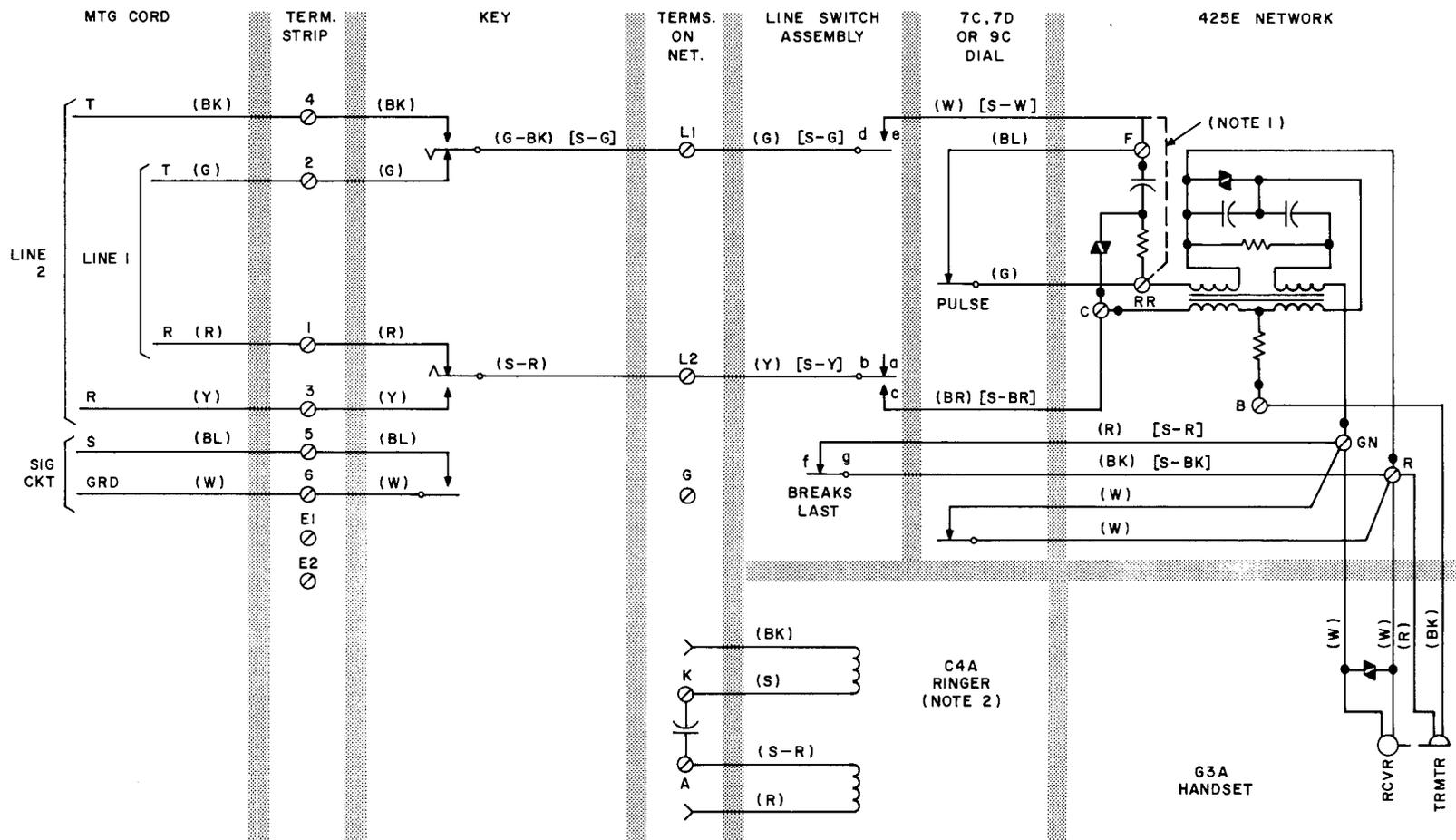
FEATURES (SIGNALING INCLUDED WITH ALL FEATURES)								EXTERNAL CONNECTIONS FOR MOUNTING CORD (NOTES 1, 8, FIG. 5)															
NUMBER OF LINES PICKED UP	RINGER IN SET USED AS		TURN KEY USED TO CUT OFF			EXCLUSION KEY USED TO CUT OFF		LINE 1		LINE 2		SIGNAL CIRCUIT		EXCLUSION CIRCUIT		CUTOFF CIRCUIT		LINE 1 OR 2 FOR LINE RINGER		COM OR PVT LINE RINGER CIRCUIT		KEY EQUIP. OR STA. BUSY LAMP CIRCUIT (NOTES 4, 5, FIG. 5)	
	LINE RINGER	COM OR PVT LINE RINGER	EXT STA OR EXT LINE RINGER	RINGER IN SET	AUXILIARY RECEIVER	EXT STA OR EXT LINE RINGER	RINGER IN SET	RING	TIP	RING	TIP	S	GRD	RING	TIP	RING	TIP	RING	TIP	R	B	A OR BL	A1 OR GRD
1	•		•			•	R	G			BL	W	BR-Y	BR-BK	Y	BK	BR-R	BR-G			O	W	
1	•		•	•		•	R	G			BL	W	BR-Y	BR-BK	Y	BK					O	W	
1	•			•		•	R	G			BL	W	BR-Y	BR-BK							O	W	
1	•				•	•	R	G			BL	W	BR-Y	BR-BK	Y	BK	BR-R	BR-G			O	W	
2	•					•	R	G	Y	BK	BL	W	BR-Y	BR-BK			BR-R	BR-G			O	W	
2		•				•	R	G	Y	BK	BL	W	BR-Y	BR-BK					BR-R	BR-G	O	W	
2		•				•	R	G	Y	BK	BL	W							BR-R	BR-G	O	W	



**NOTES:**

1. (G) LEAD IS CONNECTED TO F TERMINAL IN DIAL SETS AND TO RR TERMINAL IN MANUAL SETS.
2. WHEN A AND AI CONTROL LEADS ARE USED WITH STATION BUSY LAMP CIRCUIT, USE 511C OR D TELEPHONE SET.
3. A 7-TYPE BUZZER ON A 44B BRACKET MAY BE SUBSTITUTED FOR THE RINGER AS A COMMON OR PRIVATE LINE AUDIBLE SIGNAL.
4. TO SILENCE RINGER PERMANENTLY, CONNECT (BK) RINGER LEAD TO TERMINAL K ON NETWORK.  
 ( ) INDICATES CURRENT COLOR CODE.  
 [ ] INDICATES MD COLOR CODE.

**Fig. 1 — 502A and B Telephone Sets, Exclusion Control Leads**

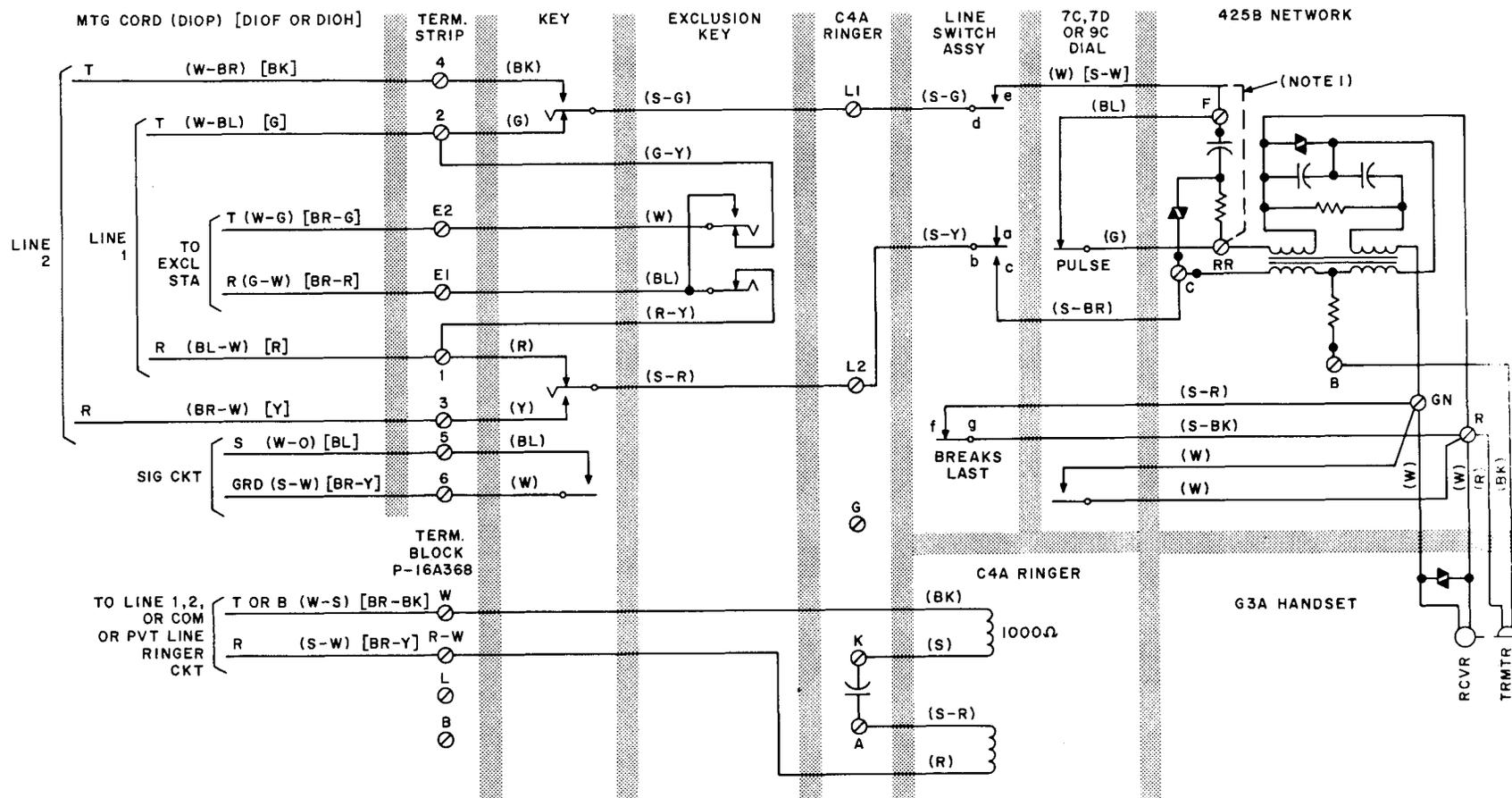


NOTES:

1. (W) [S-W] SWITCH LEAD IS CONNECTED TO F TERMINAL IN DIAL SETS AND TO RR TERMINAL IN MANUAL SETS.
2. TWO LINE PICKUP CONNECTIONS IN TABLES B AND C PROVIDE FOR RINGING ON LINE 1. FOR RINGING ON LINE 2, CONNECT (R) AND (BK) RINGER LEADS TO TERMINALS 3 AND 4 RESPECTIVELY.
3. A 7-TYPE BUZZER ON A 44B BRACKET MAY BE SUBSTITUTED FOR THE RINGER AS A COMMON OR PRIVATE LINE AUDIBLE SIGNAL.
4. TO SILENCE RINGER PERMANENTLY, CONNECT (BK) RINGER LEAD TO TERMINAL K ON NETWORK.

( ) INDICATES CURRENT COLOR CODES.  
 [ ] INDICATES MD COLOR CODE.

Fig. 3 — 510A, B, E, and F Telephone Sets, 2-Line Pickup and Signaling



NOTES:

1. (W) [S-W] LINE SWITCH LEAD IS CONNECTED TO F TERMINAL IN DIAL SETS AND TO RR TERMINAL IN MANUAL SETS.
2. WHEN TERMINATING POINTS FOR MOUNTING CORD LEADS ARE NOT INDICATED, CONNECT THEM TO SPARE CONNECTING BLOCK TERMINALS.
3. TWO-LINE PICKUP CONNECTIONS IN TABLE D PROVIDE FOR EXCLUSION ON LINE 1. FOR EXCLUSION ON LINE 2, CONNECT (R-Y) AND (G-Y) EXCLUSION KEY LEADS TO TERMINALS 3 AND 4, RESPECTIVELY.
4. A 7-TYPE BUZZER ON A 44B BRACKET MAY BE SUBSTITUTED FOR THE RINGER AS A COMMON OR PRIVATE LINE AUDIBLE SIGNAL.
5. FOR RINGER CONNECTIONS, TERMINATE (BR-Y) AND (BR-BK) MOUNTING CORD LEADS TO LINE 1 OR 2 AT CONNECTING BLOCK.  
 ( ) INDICATES CURRENT COLOR CODE AND CURRENT MOUNTING CORD-DIOP.  
 [ ] INDICATES MD COLOR CODE AND MD MOUNTING CORD-DIOF OR DIOH.

Fig. 4 — 511A and B Telephone Sets, 2-Line Pickup, Signaling, and Exclusion



