

TELEPHONE SETS — 401, 402, 410, 411, 412, AND 5410 TYPES  
COMMON BATTERY — CONNECTIONS

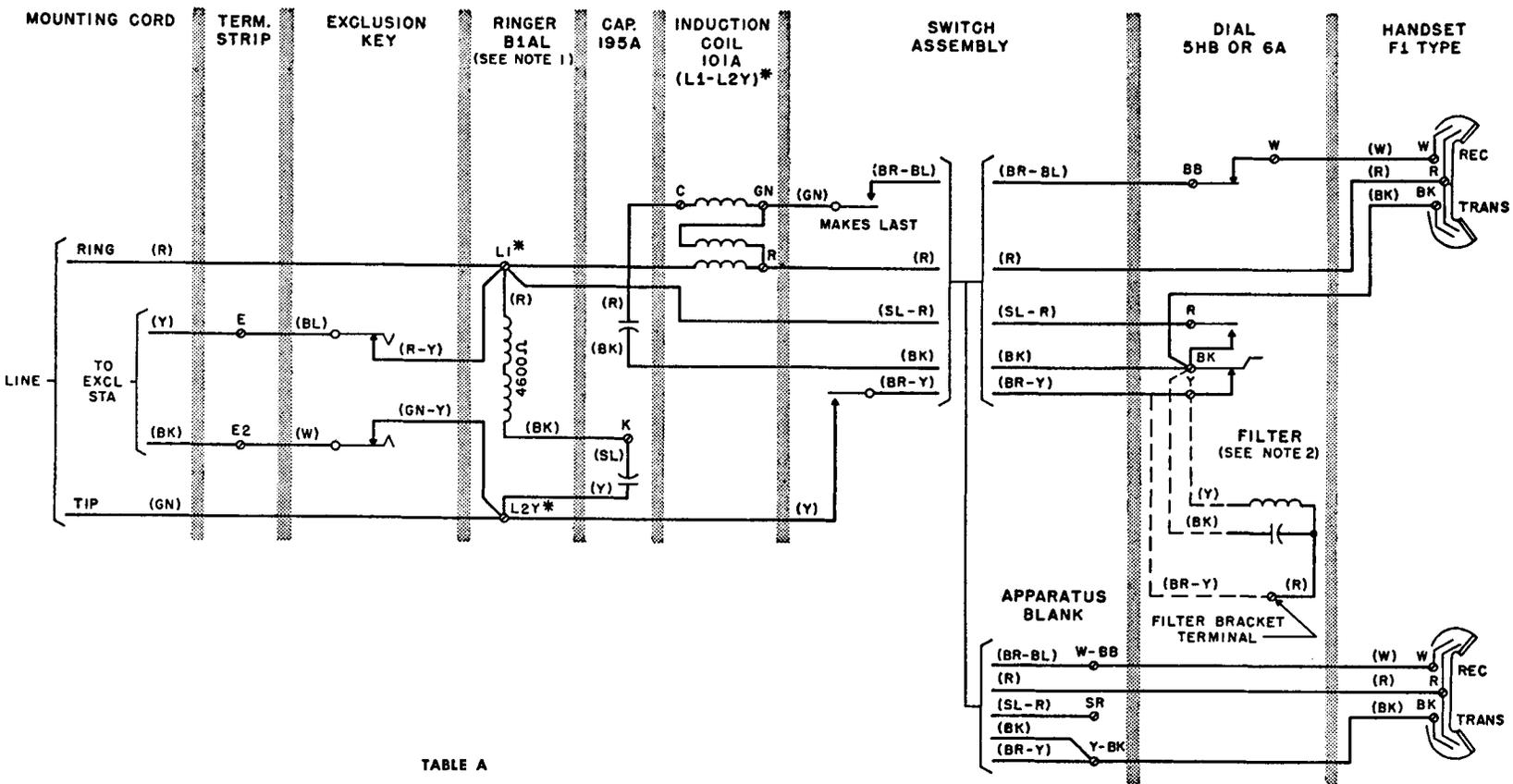


TABLE A  
COLOR CODE CONVERSION TABLE FOR MOUNTING CORDS

Cord Type	Conductor Color									
	R	GN	Y	BK	BL	W	R-R	GN-GN	Y-Y	BK-BK
Textile and Rubber Jacketed	R	GN	Y	BK	BL	W	R-R	GN-GN	Y-Y	BK-BK
Vinyl Jacketed	R	GN	Y	BK	BL	W	BR-R	BR-GN	BR-Y	BR-BK

Note 1: To silence ringer permanently, terminate both red and black leads on K terminal.

Note 2: When filter is used, remove BR-Y lead from Y terminal on dial and connect to filter terminal as indicated.

FIG. 1 — 401A TELEPHONE SET  
(Exclusion)

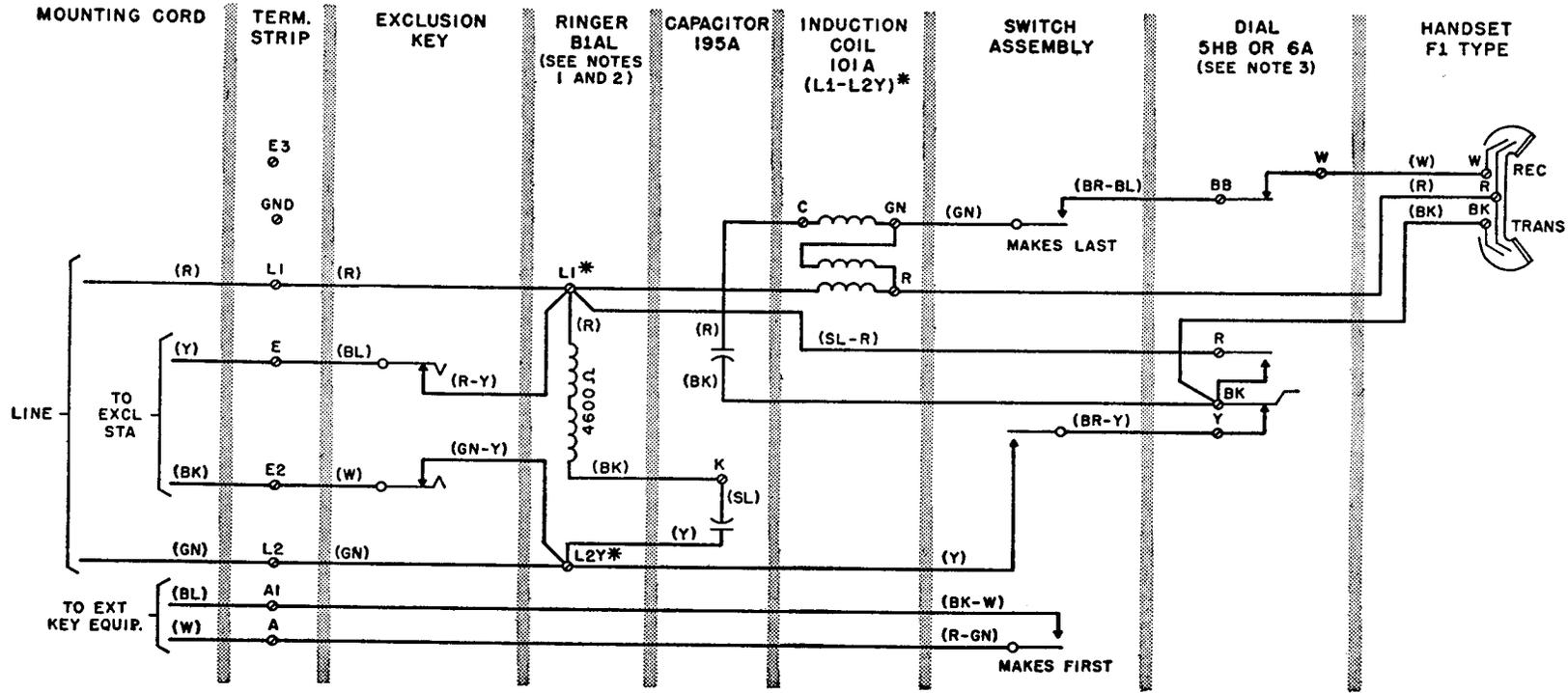


TABLE B  
402A AND C LINE AND RINGER CONNECTIONS

FEATURES	Connections to Terminals Inside Set											External Connections for Mounting Cord								
	Mounting Cord						Exclusion Key Leads				Ringer Leads		Line		To Excluded Station		To Com or Pvt Line Ringer or Buzzer Ckt		To External Key Equip.	
	R	GN	Y	BK	BL	W	BL	W	R-Y	GN-Y	R	BK	Ring	Tip	Ring	Tip	R	B	A1	A
One-line Pickup, Ringer in Set, and Exclusion	L1	L2	E	E2	A1	A	E	E2	L1*	L2Y*	L1*	K	R	GN	Y	BK			BL	W
One-line Pickup and Common or Private Line Ringer Cut Off by Exclusion Key	L1	L2	E	E2	A1	A	E	E3	GND	E3	GND	E2	R	GN			Y	BK	BL	W

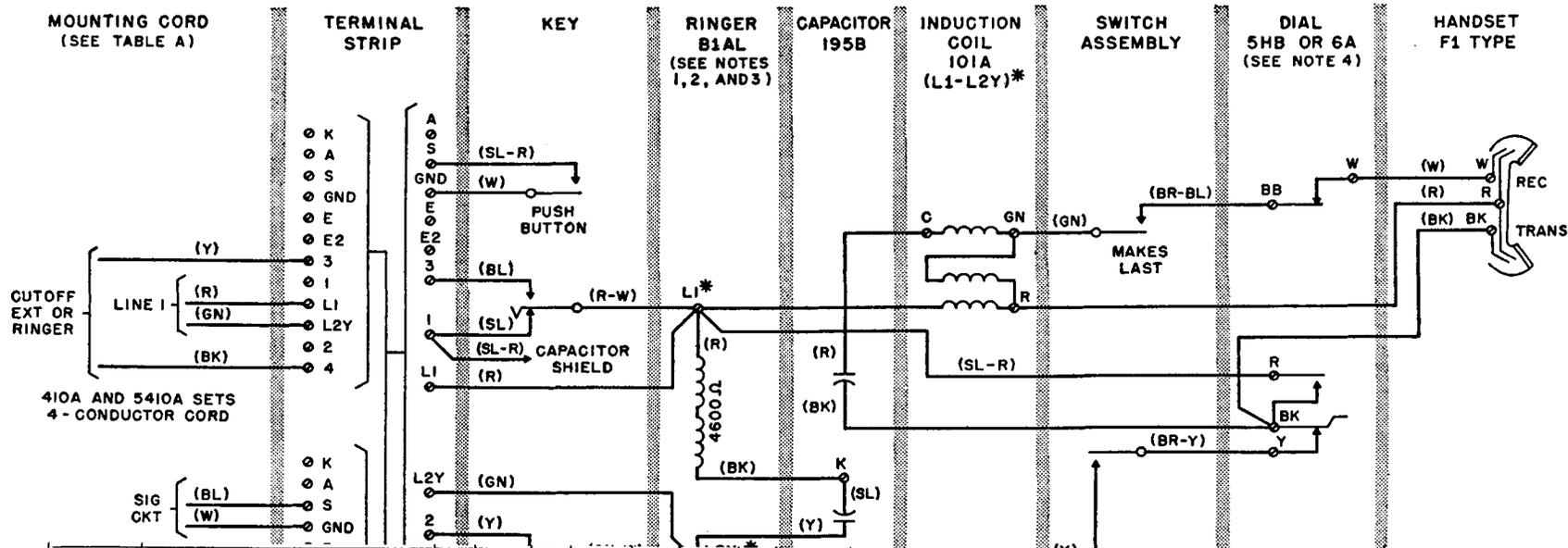
\* Indicates terminals on induction coil. Other terminals in table are on terminal strip in set.

Note 1: A 7-type buzzer on a 36A bracket may be substituted for the ringer as a common or private line audible signal operated from local power.

Note 2: To silence ringer permanently, terminate both red and black leads on K terminal.

Note 3: Refer to Fig. 1 for apparatus blank and filter connections.

FIG. 2 — 402A AND C TELEPHONE SETS  
(Exclusion and Control Leads)



CUTOFF EXT OR RINGER

LINE 1

(Y)

(R)

(GN)

(BK)

410A AND 5410A SETS  
4-CONDUCTOR CORD

SIG CKT

(BL)

(W)

(Y)

410B and 5410B	One-line Pickup, Signaling, and Extension Cutoff with Ringer Transfer	L1	L2Y	3	4	S	GND			1	K	2	K	R	GN			Y	BK	BL	W		
	One-line Pickup, Signaling, Extension Cutoff or Ringer Cutoff (External Ringer), or Headset Control	L1	L2Y	3	4	S	GND			L1*	K	L2Y*	K	R	GN			Y	BK	BL	W		
	2-line Pickup and Signaling	1	2	3	4	S	GND			1	K	2	K	R	GN	Y	BK			BL	W		
	2-line Pickup and Com Ringer	1	2	3	4	A	K			A	K	L2Y*	L2Y	R	GN	Y	BK					BL	W
410C and 5410C	2-line Pickup, Signaling, and Common Ringer	1	2	3	4	S	GND	A	K	A	K	L2Y*	L2Y	R	GN	Y	BK			BL	W	R-R	GN-GN

\* Indicates terminals on induction coil. Other terminals in table are on terminal strip in set.

FIG. 3 - 410A, B, AND C, AND 5410A, B, AND C TELEPHONE SETS  
(2-line Pickup, Common Ringer, and Signaling)

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TABLE E

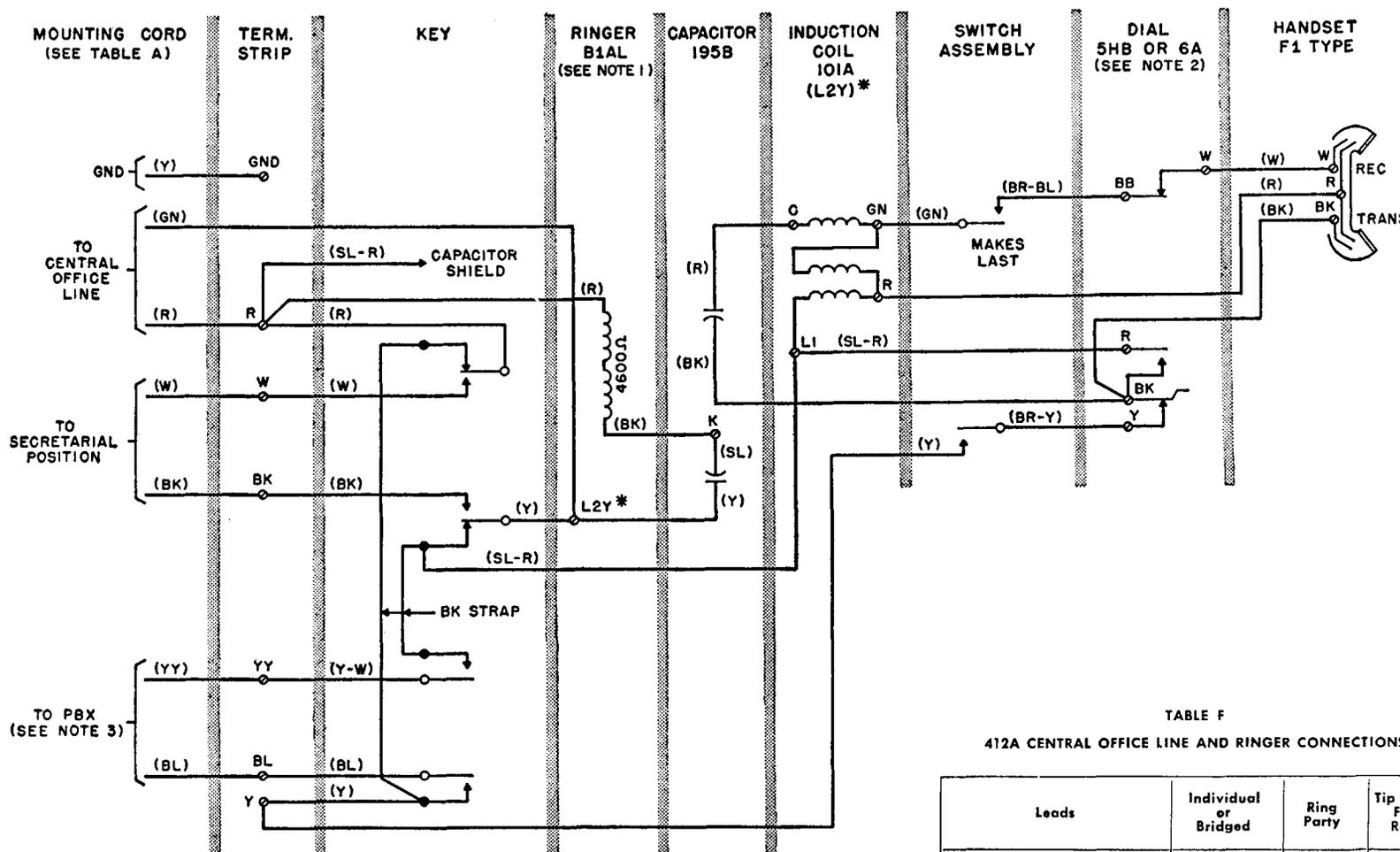
411A, B, AND C LINE AND RINGER CONNECTIONS

SET	FEATURES*	Connections to Terminals Inside Set													External Connections for Mounting Cord												
		Mounting Cord											Ringer Leads		Capacitor Leads		Line 1		Line 2		To Excluded Station		To Cutoff Ext Sta, Ringer, or Aux Rec		Signaling Ckt		To Com or Pvt Line Ringer or Buzzer Ckt
		R	GN	Y	BK	BL	W	R-R	GN-GN	Y-Y	BK-BK	R	BK	Y	SL	Ring	Tip	Ring	Tip	Ring	Tip	Ring	Tip	S	GND	R	B
411A	One-line Pickup, Signaling, and Ringer Cutoff (Ringer in Set)	L1	L2Y	S	GND	E	E2					3	K	4	K	R	GN			BL	W			Y	BK		
	One-line Pickup, Extension Cutoff with Ringer Transfer	L1	L2Y	3	4	E	E2					1	K	2	K	R	GN			BL	W	Y	BK				
	One-line Pickup, Extension Cutoff, or Ringer Cutoff (External Ringer), or Headset Control	L1	L2Y	3	4	E	E2					L1†	K	L2Y†	K	R	GN			BL	W	Y	BK				
	2-line Pickup	1	2	3	4	E	E2					1	K	2	K	R	GN	Y	BK	BL	W						
411B	One-line Pickup and Signaling, Extension Cutoff with Ringer Transfer	L1	L2Y	3	4	S	GND	E	E2			1	K	2	K	R	GN			R-R	GN-GN	Y	BK	BL	W		
	One-line Pickup, Signaling, Extension Cutoff, or Ringer Cutoff (External Ringer), or Headset Control	L1	L2Y	3	4	S	GND	E	E2			L1†	K	L2Y†	K	R	GN			R-R	GN-GN	Y	BK	BL	W		
	2-line Pickup and Signaling	1	2	3	4	S	GND	E	E2			1	K	2	K	R	GN	Y	BK	R-R	GN-GN			BL	W		
	2-line Pickup with Common Ringer	1	2	3	4	A	K	E	E2			A	K	L2Y†	L2Y	R	GN	Y	BK	R-R	GN-GN					BL	W
411C	2-line Pickup, Signaling, and Common Ringer	1	2	3	4	S	GND	E	E2	A	K	A	K	L2Y†	L2Y	R	GN	Y	BK	R-R	GN-GN			BL	W	Y-Y	BK-BK

\* All 411-type sets are equipped for exclusion.

† Indicates terminals on induction coil. Other terminals in table are on terminal strip in set.

**FIG. 4 — 411A, B, AND C TELEPHONE SETS  
(2-line Pickup, Exclusion, Common Ringer, and Signaling)**



- ⊙ Pick up central office line and cut off secretarial position.
- ⊖ Pick up PBX line and transfer central office line to secretarial position.

Note 1: To silence ringer permanently, connect both red and black leads to K terminal.

Note 2: Refer to Fig. 1 for apparatus blank and filter connections.

Note 3: Place external ringers when required.

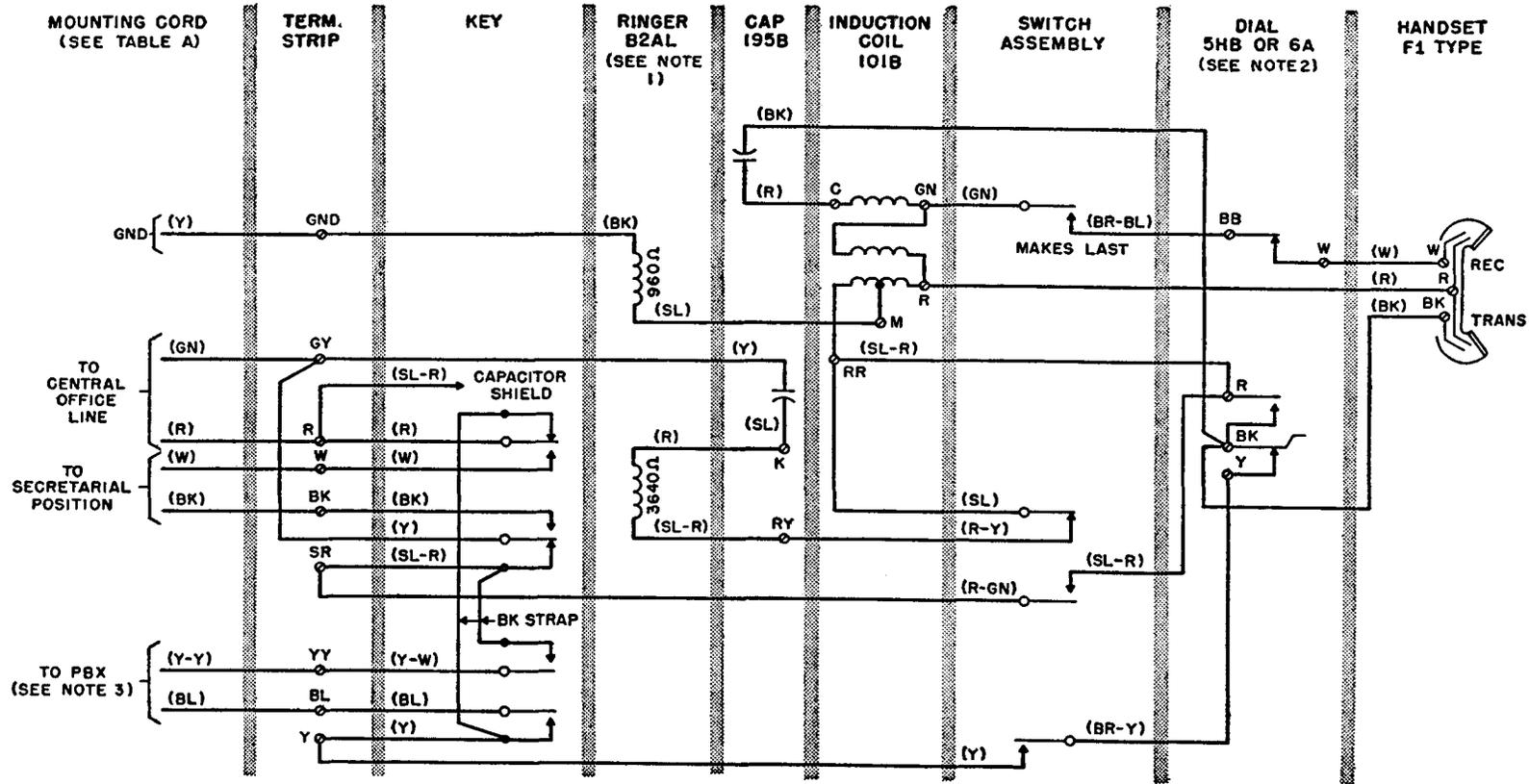
TABLE G  
MOUNTING CORD LEAD DESIGNATIONS

To Central Office Line		To Secretarial Position		To PBX		Gnd
Ring	Tip	Ring	Tip	Ring	Tip	
R	GN	W	BK	BL	Y-Y	Y

TABLE F  
412A CENTRAL OFFICE LINE AND RINGER CONNECTIONS

Leads	Individual or Bridged	Ring Party	Tip Party Flat Rate
Mounting Cord Leads in Set	R	R	L2Y
	GN	L2Y	R
	Y	GND	GND
Ringer Leads	R	R	K
	BK	K	GND

FIG. 5 - 412A TELEPHONE SET (Transfer Key)



- ⊕ Pick up central office line and cut off secretarial position.
- ⊖ Pick up PBX line and transfer central office line to secretarial position.

Note 1: To silence ringer permanently, connect both yellow and slate capacitor leads to K terminal.

Note 2: Refer to Fig. 1 for apparatus blank and filter connections.

Note 3: Place external ringers when required.

TABLE H  
412B CENTRAL OFFICE LINE AND RINGER CONNECTIONS

Leads*	Individual or Bridged	Ring Party	Tip Party Flat Rate	Tip Party	
				Message Rate Zone Registration X-BAR with AMA	SxS with AT SxS with AMA Mod X-BAR with AMA
Mounting Cord Leads in Set	R	R†	GY	R†	R†
	GN	GY	R†	GY	GY
	Y	GND	GND	GND	GND
Ringer Leads	R	R	K	K	M
	BK	K	GND	K	RY
	SL	RY	RY	RY	M
	SL-R	RY	RY	RY	RY
Switch Leads	R-Y	RR	RR	RY	RY

\* For mounting cord lead designations, see Table G.  
† R terminal on terminal strip.

FIG. 6 - 412B TELEPHONE SET (Transfer Key)