

TELEPHONE SETS — 501A,B (TUBE SETS)

COMMON BATTERY — CONNECTIONS

1.00 INTRODUCTION

This section covers the combination of apparatus, circuit diagrams, and connections for the 501A and B telephone sets.



FIG. 1—501 TYPE

TABLE A
COMBINATION OF APPARATUS

Tel. Set Code	Use	Components						
		Dial	Apparatus Blank	Handset	Ringer	Network	Electron Tube	Equalizer
501A	Manual	—	95B	G1A	C4A	425B	426A	311A
501B	Dial	7D	—					

2.00 CONNECTIONS

TABLE B
LINE AND RINGER CONNECTIONS

Wire or Lead	Negative (−) Parties		Positive (+) Parties	
	Ring Positions 1 and 5	Tip Positions 2 and 6	Ring Positions 3 and 7	Tip Positions 4 and 8
Mounting Cord in Set	R	L2	L2	L2
	GN	L1	L1	L1
	Y	G	G	G
Ringer Lead	R	E	A	A
	BK	E	K	K
	SL	K	E	E
	SL-R	A	E	E
	R	G	A	A
Tube Lead	BK	G	E	E
	Y	E	G	G
	R	R	R	R
Mounting Cord at Connecting Block	GN	G	G	R
	Y	Y	Y	Y
	R	R	R	R
Line Wire at Connecting Block	GN	G	G	G
	Y	Y	Y	Y
	R	R	R	R
Set Equipped with C3A Ringer				
Ringer Lead	R	G	L2	L2
	BK	E	E	E
	R	G	L2	L2
Tube Lead	BK	E	E	E
	Y	L2	G	G
	R	R	R	R

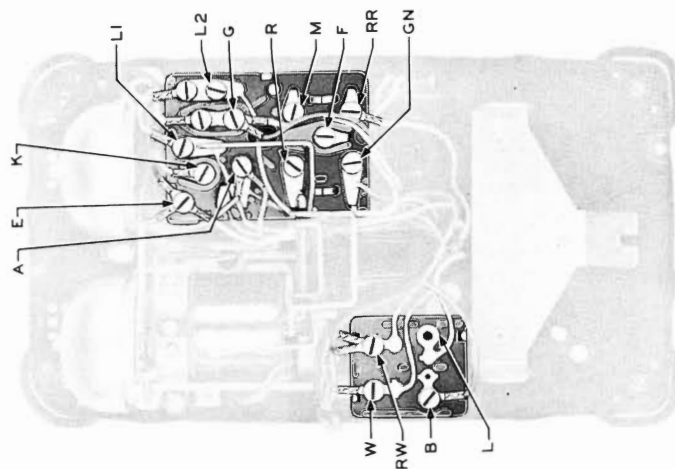
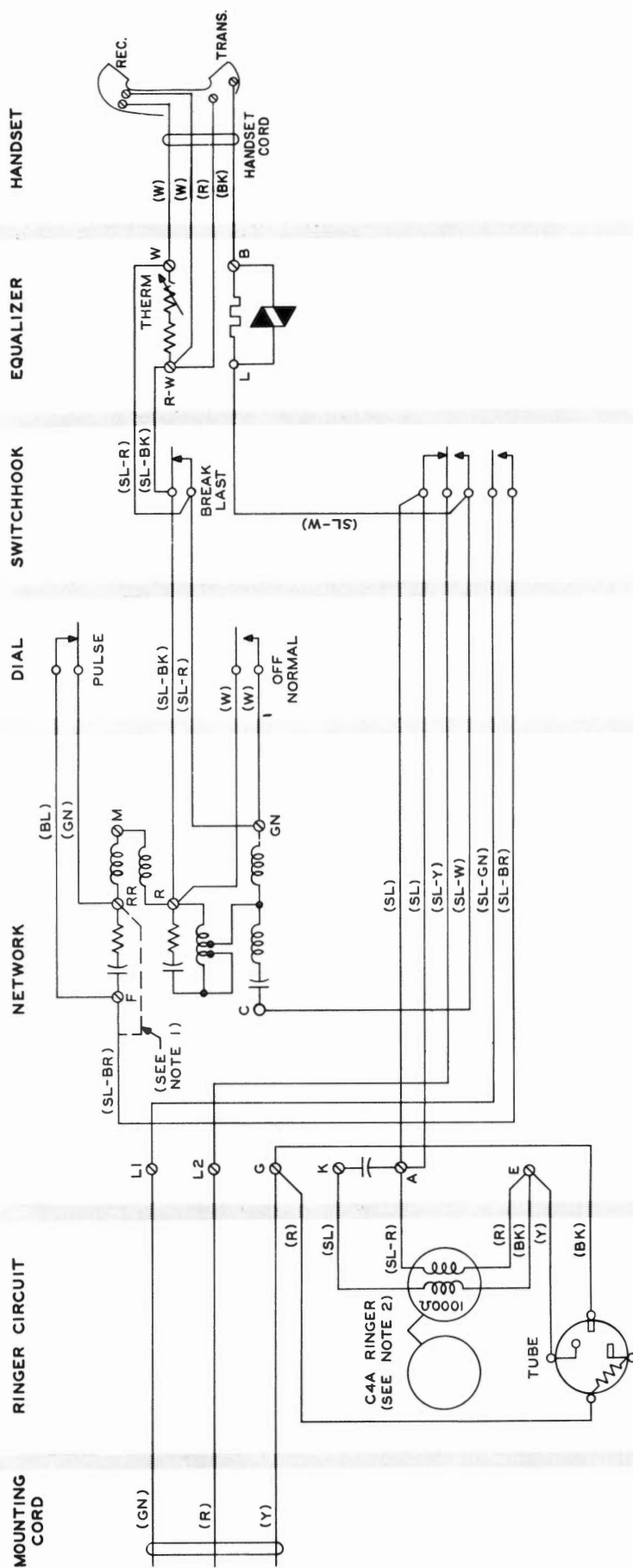


FIG. 2 —501A,B
(WITH DIAL REMOVED)

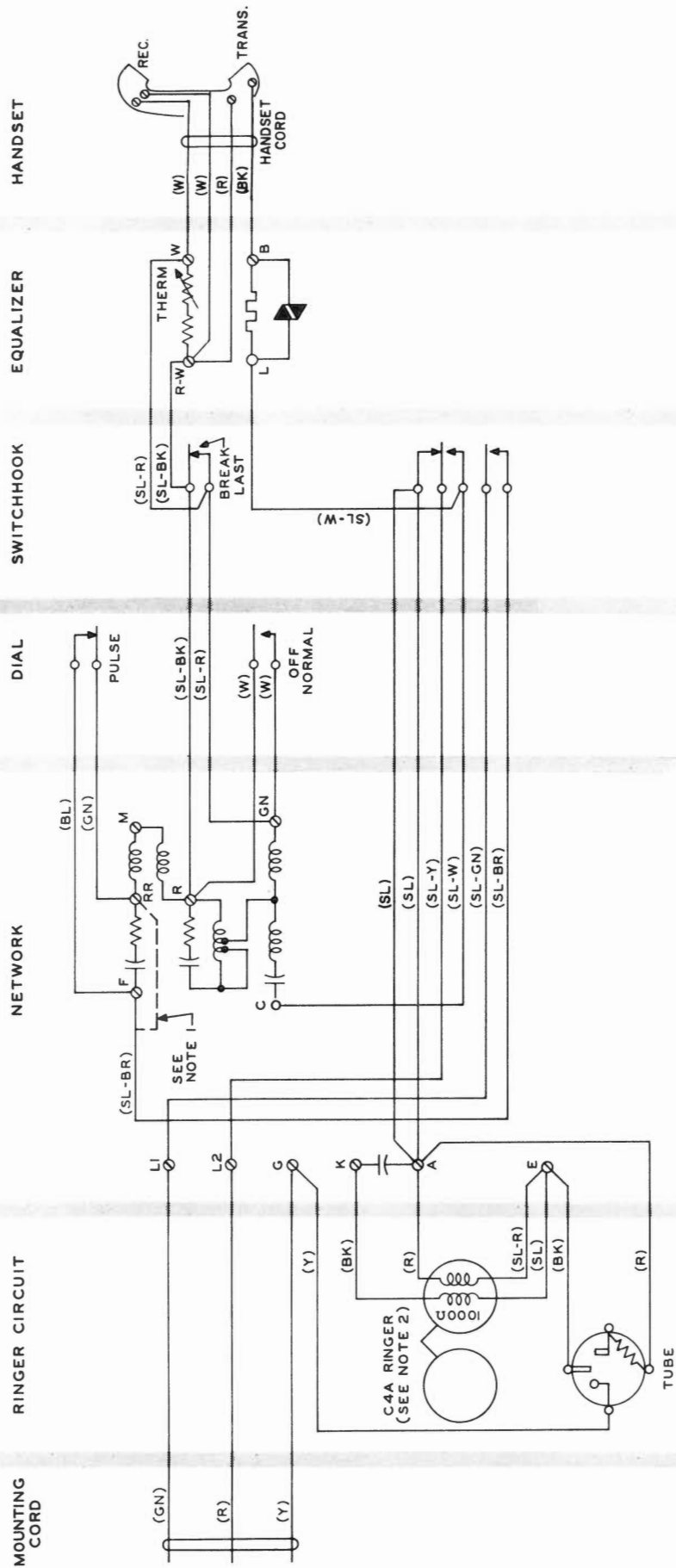


NOTES:

1. SLATE BROWN LEAD IS CONNECTED TO "F" TERMINAL IN DIAL SETS AND TO "RR" TERMINAL IN MANUAL SETS.

2. IF SET IS EQUIPPED WITH A C3A RINGER, SEE CONNECTION TABLE.

FIG. 3—501A,B CIRCUIT DIAGRAM
(NEGATIVE RING AND TIP PARTIES)



- NOTES:
1. SLATE BROWN LEAD IS CONNECTED TO "F" TERMINAL IN DIAL SETS AND TO "RR" TERMINAL IN MANUAL SETS.
 2. IF SET IS EQUIPPED WITH A C3A RINGER SEE CONNECTION TABLE.

FIG. 4—501A,B CIRCUIT DIAGRAM
(POSITIVE RING AND TIP PARTIES)

3.00 RINGERS

3.01 To permanently silence the ringer, terminate ringer leads as shown in the following table:

TABLE C—RINGER LEAD CONNECTIONS

Class of Ringing Service	Ringer Lead			
	Red	Black	Slate	SI-Red
Negative Ring and Tip Parties—C4A Ringer	K	K	K	A
Positive Ring and Tip Parties—C4A Ringer	A			K
Positive and Negative Ring and Tip Parties—C3A Ringer	E	E	—	—

3.02 The ringing bridge is the high-impedance type. For information on the number and type of ringing bridges permitted on each line, reference should be made to the C Section covering ringer limitations.

4.00 INDUCTIVE INTERFERENCE

4.01 When inductive interference is encountered at a station, substitute a 425A tube in accordance with the following tables:

TABLE D—C4A RINGER

Ringer Lead		Average Induction				Severe Induction			
		Negative (—) Parties		Positive (+) Parties		Negative (—) Parties		Positive (+) Parties	
		Ring Positions 1 and 5	Tip Positions 2 and 6	Ring Positions 3 and 7	Tip Positions 4 and 8	Ring Positions 1 and 5	Tip Positions 2 and 6	Ring Positions 3 and 7	Tip Positions 4 and 8
425A Tube	R	—	—	A	A	L1	L1	A	A
	GN	—	—	L1	L1	A	A	L1	L1
	BK	—	—	E	E	G	G	E	E
	Y	—	—	G	G	E	E	G	G
426A Tube	R	L1	L1	—	—	—	—	—	—
	BK	G	G	—	—	—	—	—	—
	Y	E	E	—	—	—	—	—	—

TABLE E—C3A RINGER

Ringer Lead		Average Induction				Severe Induction			
		Negative (—) Parties		Positive (+) Parties		Negative (—) Parties		Positive (+) Parties	
		Ring Positions 1 and 5	Tip Positions 2 and 6	Ring Positions 3 and 7	Tip Positions 4 and 8	Ring Positions 1 and 5	Tip Positions 2 and 6	Ring Positions 3 and 7	Tip Positions 4 and 8
Ringer	R	G	G	E	E	E	E	E	E
	BK	E	E	G	G	L2	L2	G	G
425A Tube	R	—	—	L2	L2	L1	L1	L2	L2
	GN	—	—	L1	L1	L2	L2	L1	L1
	BK	—	—	L2	L2	G	G	L2	L2
	Y	—	—	E	E	E	E	E	E
426A Tube	R	L1	L1	—	—	—	—	—	—
	BK	E	E	—	—	—	—	—	—
	Y	L2	L2	—	—	—	—	—	—

4.02 For additional information concerning induction, reference should be made to the C Section covering inductive noise.