TELEPHONE SETS—309A, C

CONNECTIONS

1. GENERAL

1.01 This section covers connections for the 309A and C telephone sets when used for the following services:

- 4-party full selective.
- 8-party semiselective.

1.02 This section is reissued to add information on connections with ANI.

2. CONNECTIONS

2.01 See Table A for line and ringer connections.

2.02 The circuit diagram for the 309A and C telephone sets is shown in Fig. 1.

3. COMMON BATTERY SOURCE

3.01 Where the transmitter battery for more than one 309-type telephone set is obtained from a common source, such as the central office, make changes in Fig. 1 as follows:

(1) Replace F1 hand set with an F2 hand set.

(2) Connect green conductor of F2 hand set to terminal E.

(3) Remove red-white lead from terminal R and connect to terminal E.

(4) Connect red, black, and white conductors on F2 hand set as shown for F1 hand set.

3.02 When using a common battery source, a battery feed filter is necessary. For further information, see section covering battery feed filters.

4. INDUCTIVE NOISE

4.01 When inductive noise is encountered at a station, use one of the following corrective measures, depending upon severity of induction:

(1) Connect red lead from the 266A inductor to RBK terminal and red-black lead to R terminal at tip party stations. (See Fig. 1.)

(2) See Table B.

5. BALANCING NETWORKS

5.01 Connect various networks in the induction coil (Fig. 1) to obtain satisfactory sidetone balance. It may be necessary to change the network connections when sets are used on different types of subscriber loops.

5.02 Sets are normally furnished with type A network (Fig. 1). Changes in the set necessary to obtain other networks are as follows:

(a) Network B - Connect a KS-8058, 400-ohm, or KS-13490, List 2, 390-ohm resistor from A on induction coil to R on terminal strip. Transfer slate capacitor wire from R to A on induction coil. (The KS-8058 or KS-13490 resistor is not furnished as part of the set.)

(b) Network C - Transfer yellow capacitor wire from A to C on induction coil.

(c) Network D - Transfer yellow capacitor wire from A to R on terminal strip. Transfer one end of red-white strap from C on induction coil to R on terminal strip.

TABLE A

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 Tel Set	R	L2Y	L1	L2Y	L1
	GN	L1	L2Y	L1	L2Y
	Y	Grd	Grd	Grd	Grd
	BK	BK	BK	BK	BK
	BL	BL	BL	BL	BL
Ringer Lead	R	Grd	Grd	L2Y	L2Y
	BK	K	K	K	K
426A Tube Lead	R	L1	L1	L2Y	L2Y
	BK	K	K	K	K
	Y	L2Y	L2Y	Grd	Grd
Mounting Cord at 44-Type Connecting Block	R	1	1	1	1
	GN	2	2	2	2
	Y	4	4	4	4
	BK	5	5	5	5
	BL	6	6	6	6
Local Battery Wiring at 44-Type Connecting Block		5	5	5	5
		6	6	6	6
Alternate Ringer and Tube Leads for 405A Tube					
Ringer Lead	R	S	S	S	S
	BK	K	K	K	K
5-Terminal Lead	SL-R	Grd	Grd	L2Y	L2Y
405A Tube Lead	R	See Note			
	BK	K	K	K	K
	Y	L2Y	L2Y	Grd	Grd

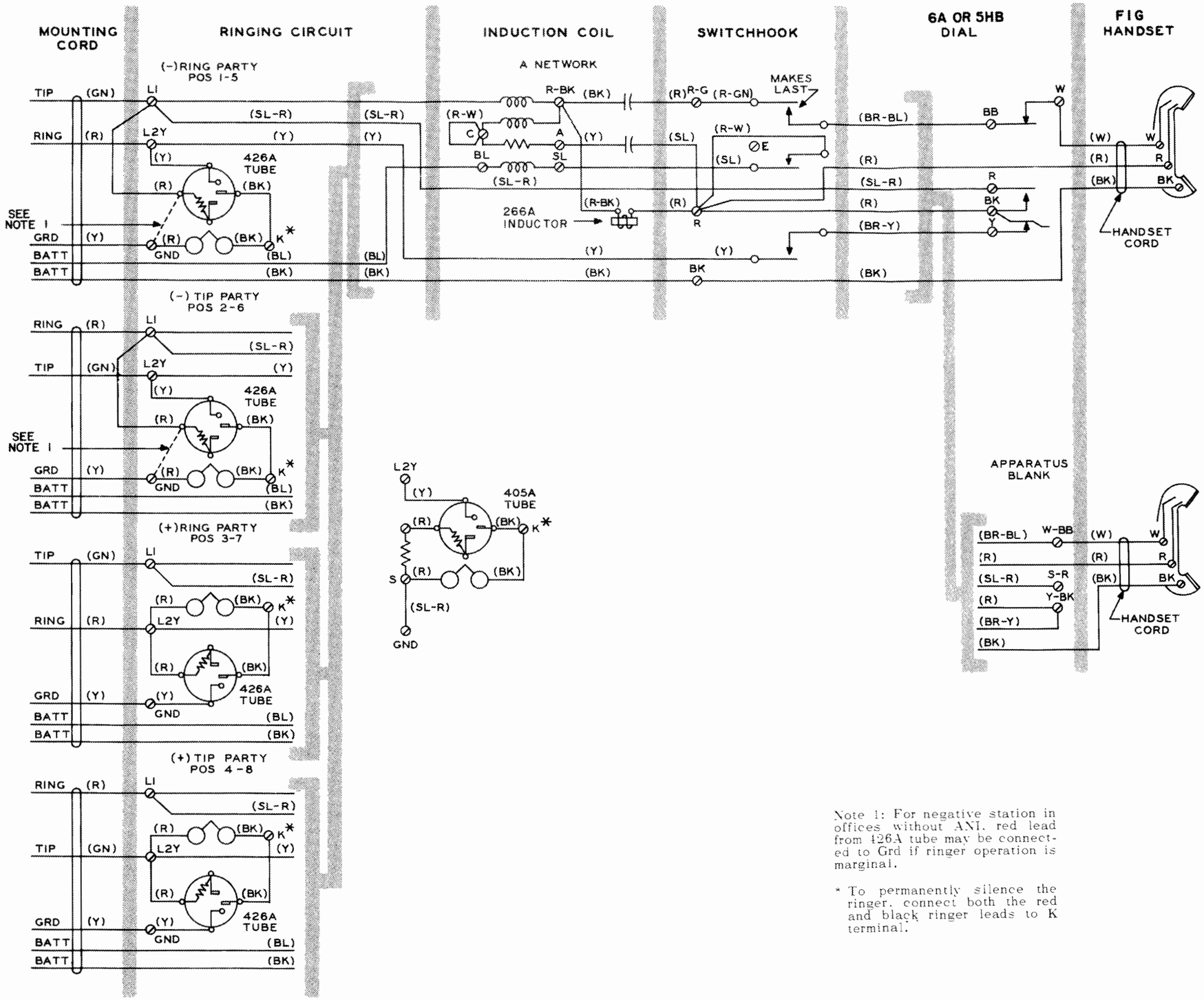
Note: Connect red tube lead to undesignated end of resistor.

TABLE B

INDUCTION

Lead		Average Induction				Severe Induction			
		Negative (—) Parties		Positive (+) Parties		Negative (—) Parties		Positive (+) Parties	
		Ring Positions 1 and 5	Tip Positions 2 and 6	Ring Postions 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 Lead	R	Grd	Grd	K	K	K	K	K	K
	BK	K	K	Grd	Grd	L2Y	L2Y	Grd	Grd
426A Tube Lead	R	L1	L1	—	—	—	—	—	—
	BK	K	K						
	Y	L2Y	L2Y						
425A Tube Lead	R	—	—	L2Y	L2Y	L1	L1	L2Y	L2Y
	GN			L1	L1	L2Y	L2Y	L1	L1
	BK			L2Y	L2Y	Grd	Grd	L2Y	L2Y
	Y			K	K	K	K	K	K

Note: For additional information concerning induction, see the section covering induction noise.



Note 1: For negative station in offices without ANI, red lead from 426A tube may be connected to Grd if ringer operation is marginal.

* To permanently silence the ringer, connect both the red and black ringer leads to K terminal.

Fig. 1 — 309A and C Telephone Sets, Circuit Diagram