

## RINGERS — L1A

### IDENTIFICATION, INSTALLATION, MAINTENANCE, AND CONNECTIONS

#### 1. GENERAL

1.01 The L1A ringer uses a C4A ringer coil and is subject to the same circuit arrangements and limitations as the C4A ringer.

#### 2. IDENTIFICATION

2.01 The L1A ringer is a single-coil, high impedance, loud ringing signal for indoor or outdoor use. The ringer has a 2-position bias spring and consists of the components as shown on Fig. 1 and 2.

2.02 The ringer has mounting facilities and space provided for the installation of a 425A or 426A electron tube (Fig. 3). The tubes are used for selective multiparty line ringing or when there is evidence of inductive interference (Table A). For the maintenance and mounting instructions of these tubes, refer to the section entitled Electron Tubes.

#### 3. INSTALLATION

3.01 Select a location that will permit customer to hear ringer.

3.02 Mount ringer in a vertical position with gongs at top.

3.03 If location is indoors, ringer may be fastened directly to wall surface with two fasteners as follows:

- (a) For fastening to wood, use No. 8 RH wood screws.
- (b) For hollow wall construction, use B wall screw anchors.
- (c) For concrete and masonry surfaces, use C plastic anchors.



Fig. 1 — L1A Ringer (Assembled)

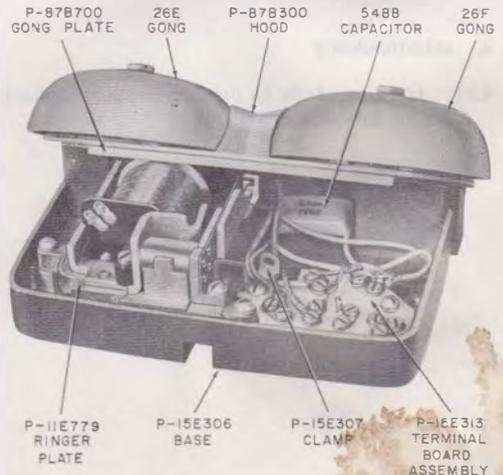


Fig. 2 — L1A Ringer, Components

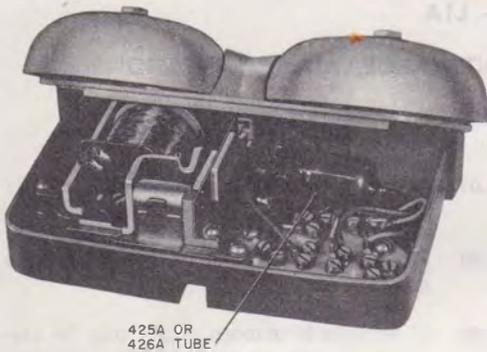


Fig. 3 — L1A Ringer with 425A or 426A Tube

3.04 When mounting ringer outdoors, use a 181A-49 backboard. This backboard comes equipped with two RH self-tapping screws for mounting L1A ringer. For mounting 181A-49 backboard, refer to section on installation of backboards.

3.05 Wire may enter ringer from top, bottom, or back.

#### 4. MAINTENANCE

4.01 If ringer fails to operate properly, check the following:

- (a) All leads should be dressed away from clapper and armature.
- (b) Armature air gap should be free of dirt and foreign material.
- (c) All terminal connections should be tight and correctly terminated.
- (d) Biasing spring should not touch or rub pole piece and should be in correct notch.



*Correct biasing spring tension has been set at factory. Do not bend biasing spring. Spring can be moved to either notch as required.*

*Note:* See section on maintenance of C-type ringers for proper bias spring position on a particular class of service.

(e) Clapper should have perceptible to 1/32 inch clearance from 26F gong when armature is nonoperated. With armature operated, clearance should be perceptible to 1/32 inch between clapper and 26E gong. Gongs are on an eccentric pivot and may be rotated to meet this requirement.

(f) If ringer still does not operate properly, replace ringer.

#### 5. CONNECTIONS

5.01 See Fig. 4 and Table A for line and ringer connections.

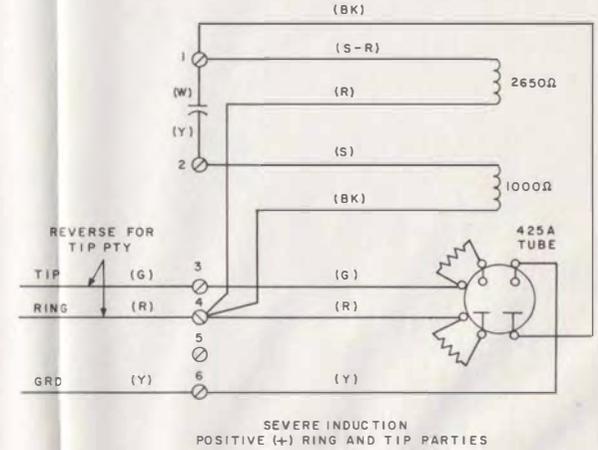
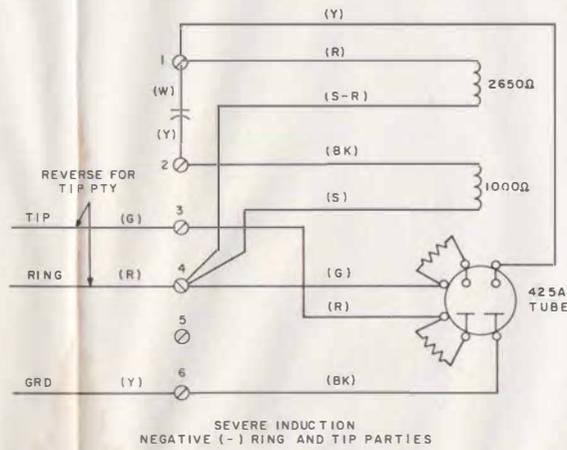
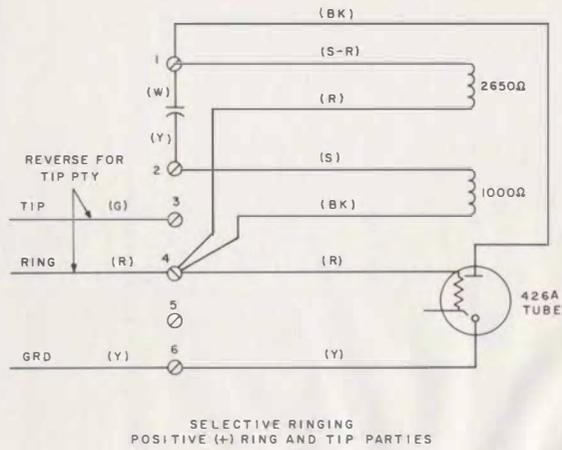
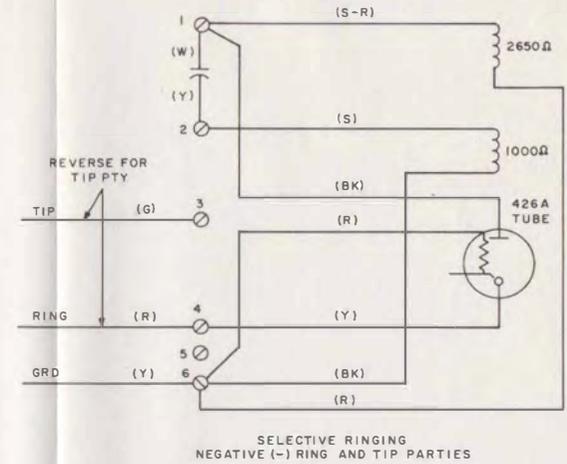
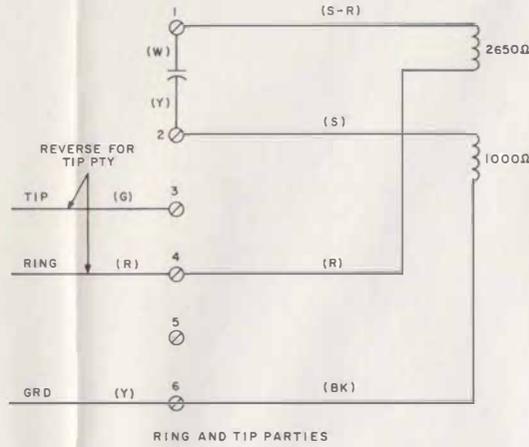
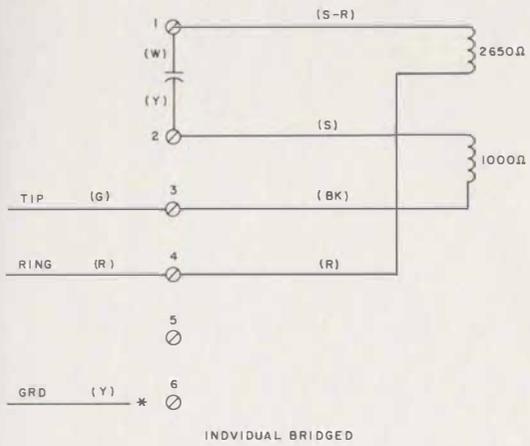
**TABLE A**  
**LINE, RINGER, AND TUBE CONNECTIONS**

		INDIVIDUAL BRIDGED	2-PARTY		SELECTIVE RINGING AND AVERAGE INDUCTION (UP TO 30 VOLTS) *				SEVERE INDUCTION (30 TO 80 VOLTS) *			
			RING	TIP	(-) RING PARTIES (1-5)	(-) TIP PARTIES (2-6)	(+) RING PARTIES (3-7)	(+) TIP PARTIES (4-8)	(-) RING PARTIES (1-5)	(-) TIP PARTIES (2-6)	(+) RING PARTIES (3-7)	(+) TIP PARTIES (4-8)
INSIDE WIRE	RING R	4	4	3	4	3	4	3	4	3	4	3
	TIP G	3	3	4	3	4	3	4	3	4	3	4
	GRD Y		6	6	6	6	6	6	6	6	6	6
RINGER	R	4	4	4	6	6	4	4	1	1	4	4
	S-R	1	1	1	1	1	1	1	4	4	1	1
	S	2	2	2	2	2	2	2	4	4	2	2
	BK	3	6	6	6	6	4	4	2	2	4	4
CAPACITOR	W	1	1	1	1	1	1	1	1	1	1	1
	Y	2	2	2	2	2	2	2	2	2	2	2
426A TUBE *	R				6	6	4	4				
	BK				1	1	1	1				
	Y				4	4	6	6				
426A TUBE SEVERE † INDUCTION	R				3	3						
	BK				1	1						
	Y				4	4						
425A TUBE *	R								3	3	4	4
	BK								6	6	1	1
	Y								1	1	6	6
	G								4	4	3	3

\* Use negative party connections when capacitor type grounded ringing must be replaced with tube type ringing due to inductive noise.

† The three element 426A tube can be used to combat severe inductive noise (30 to 80 volts) on negative parties only. It cannot be used on positive parties.





NOTE:

ANY CONNECTIONS ARE NOT SHOWN. RINGERS IN SETS OR I635A INDUCTORS SHOULD BE USED FOR IDENTIFICATION PURPOSES.  
\* INSULATE AND STORE.

Fig. 4 — L1A Ringer, Connections