

## RINGERS—L1A-TYPE

### IDENTIFICATION, INSTALLATION, CONNECTIONS, AND MAINTENANCE

#### 1. GENERAL

1.01 This section contains information on the L1A (MD), L1AM (MD), and L1AMP ringers. These are indoor/outdoor loud auxiliary ringers.

1.02 This section is reissued to:

- Add L1AMP (modular) ringer information
- Show L1AM (modular) ringer MD

1.03 ♦The L1AMP ringer is the same as the L1AM ringer, except it has keyhole-type slots in the plastic base for mounting on a 1049A mounting plate. A 2-foot modular weatherproof mounting cord (D4CC) is provided with L1AMP ringer.♦

#### 2. IDENTIFICATION

2.01 The L1A, L1AM, and L1AMP ringer is a single-coil, high impedance, loud ringing signal for indoor or outdoor use. The ringer has a 2-position bias spring and two concentric gongs. The volume can be adjusted by rotating the gongs (Fig. 1).

2.02 The ringer has mounting facilities provided for the installation of a 425A or 426A electron tube. 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.

#### Ordering Guide

2.03 Order as follows:

- Ringer, L1AMP-49 (includes 2-foot D4CD mounting cord)
- Plate, Mounting, 1049A (indoor locations)



Fig. 1—♦L1A-Type Ringer♦

- Backboard, 181A-49 (outdoor locations).

#### 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.

##### A. Indoor Locations

3.03 Indoor locations in most cases will require the use of a 1049A mounting plate. The mounting plate has four mounting holes and can be directly fastened to a wall surface as follows.

**Note:** Arrow indicates top of mounting plate.

- (a) For fastening to wood, use panhead self-tapping screws.

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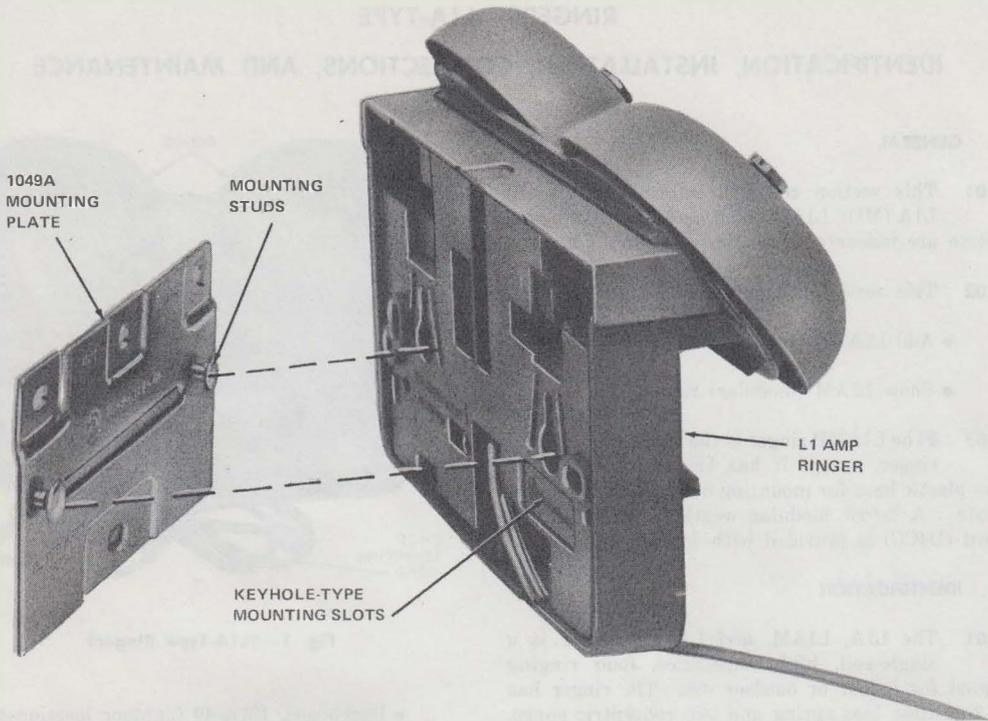


Fig. 2—L1AMP Ringer and Mounting Plate

- (b) For hollow wall construction, use toggle bolts or B wall screw anchors.
- (c) For concrete and masonry surfaces, use D plastic anchors.

**3.04** To mount ringer to mounting plate. Align mounting plate studs with keyhole-type slots in ringer, press ringer down on mounting plate until mounting studs completely engage ringer (Fig. 2).

**3.05** Remove ringer cover and connect as required per Table A, using D Station wire or D4CD mounting cord.

#### B. Outdoor Locations

**3.06** Outdoor locations require the use of a 181A-49 backboard (weatherproof housing).

Remove the cover and fasten backboard as shown in paragraph 3.03 (a), (b), or (c). Mount ringer on backboard with mounting screws provided. Connect ringer as required per Table A using either D Station wire or a D4CD mounting cord (weatherproof).

**Note:** The weatherproof jack (652WP) and the (625WP) connecting block (housing) which is used in conjunction with the D4CD mounting cord will not be available until the second quarter of 1979.

#### 4. MAINTENANCE

**4.01** If ringer fails to operate properly, check the following.

- (a) Using hand test set or meter check for incoming signal across appropriate terminals shown in Table A.

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

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



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

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

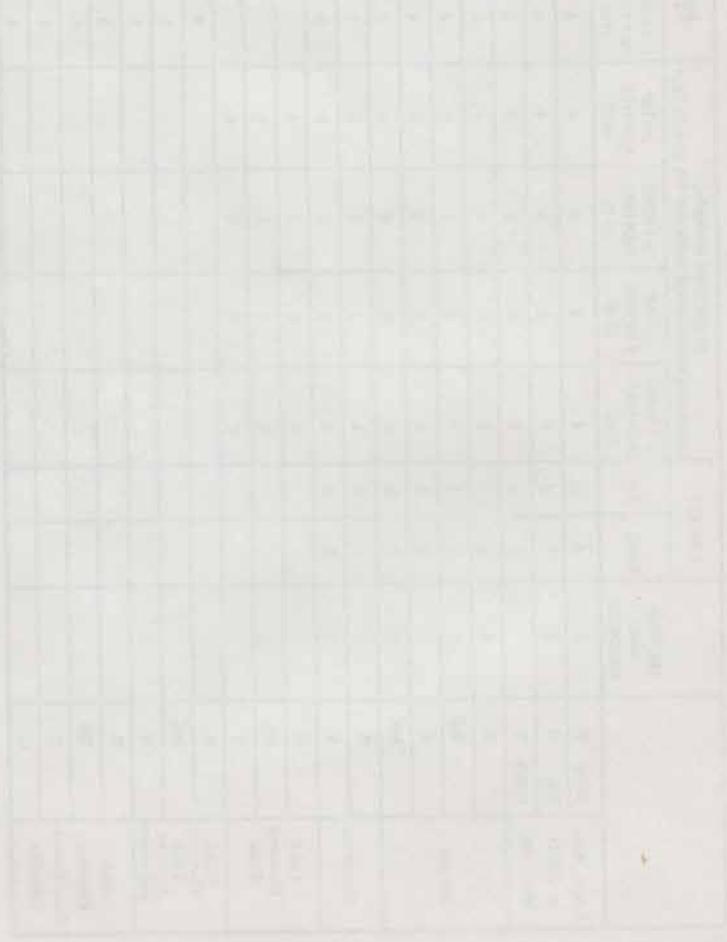


TABLE A  
LINE, RINGER, AND ELECTRON TUBE CONNECTIONS

		INDIVID- UAL 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 or D4CD Mtg Cord	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 Electron Tube	R				6	6	4	4				
	BK				1	1	1	1				
	Y				4	4	6	6				
426A Electron Tube Severe† Induction	R								3	3		
	BK								1	1		
	Y								4	4		
425A Electron Tube Severe Induction	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.

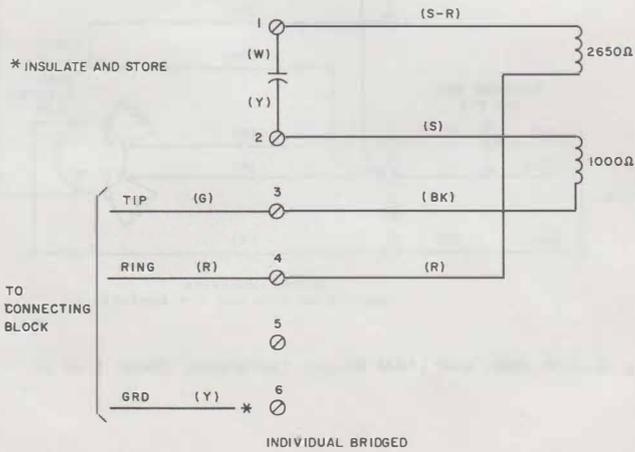
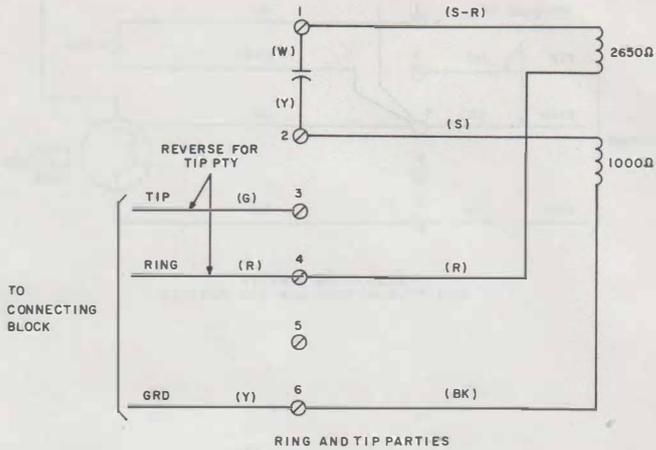


Fig. 3—L1A (MD) and L1AM Ringer, Connections (Sheet 1 of 3)

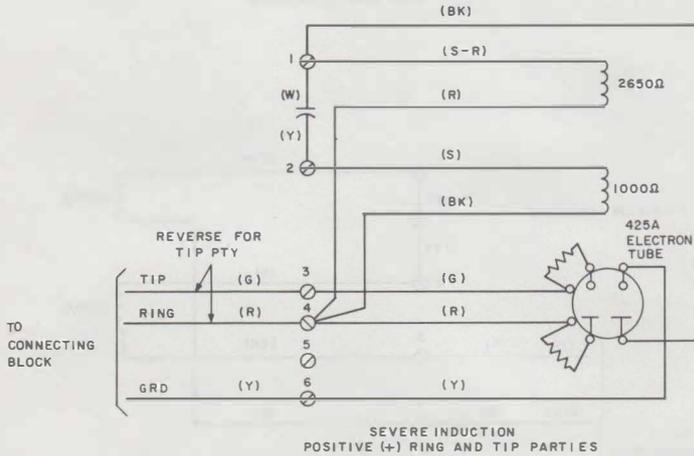
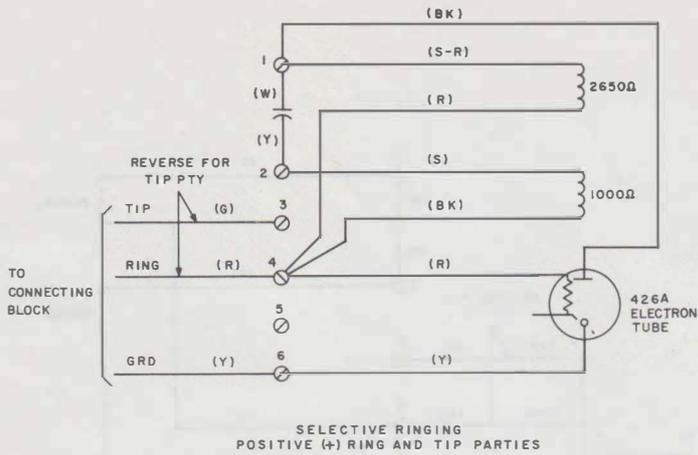
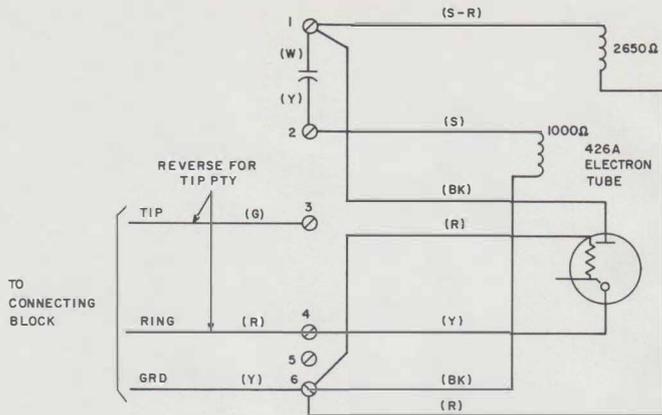
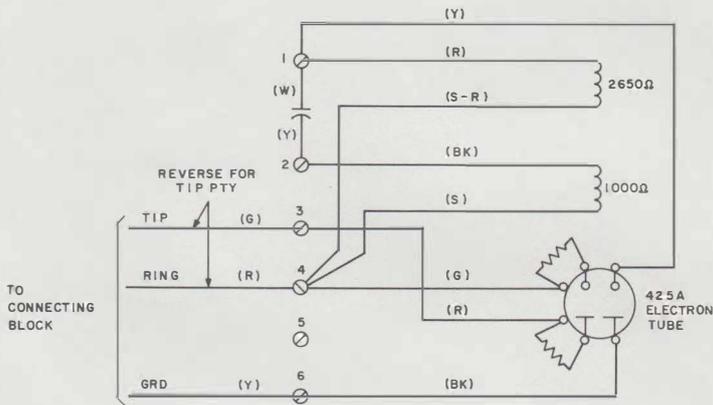


Fig. 3—L1A (MD) and L1AM Ringer, Connections (Sheet 2 of 3)



SELECTIVE RINGING  
NEGATIVE (-) RING AND TIP PARTIES



SEVERE INDUCTION  
NEGATIVE (-) RING AND TIP PARTIES

Fig. 3—L1A (MD) and L1AM Ringer, Connections (Sheet 3 of 3)