

P1-TYPE RINGER IDENTIFICATION AND MAINTENANCE

1. GENERAL

1.01 This section is reissued to:

- Rearrange text and illustrations
- Expand information on the bias spring adjustment

2. IDENTIFICATION

2.01 The P1-type ringer (Fig. 1) is a single-coil, high impedance ringer mounted directly in a telephone set or by means of a 165- or 166-type adapter (Fig. 2). The 165-type adapter is equipped with a P-28E424 resonator (Fig. 3).

2.02 The P1-type ringer has a variable mechanical volume control permitting adjustment from loud to low volume (Fig. 4).

Note: When volume control is set in LOW position only ringer motor noise may be heard because clapper might not strike gong. If bell sound is desired, move control to slightly higher volume position.

2.03 The volume control can be moved to the cutoff position by rotating the dust cover until the openings line up with the access holes in the top of the gong and removing the factory placed P-27E070 stop screw (Fig. 3).



To avoid breaking volume control arm when replacing stop screw, be sure volume control is in high volume position.

2.04 The coil of the current production model of the P1A ringer has four spade-tipped leads and the early production models have five spade-tipped

leads to provide tip party identification. The P1B ringer is not tapped and has only two leads (Fig. 5). It can be used in any application not requiring tip-party identification.

3. MAINTENANCE

3.01 The bias spring tension is a two position control on the P1-type ringer. The bias spring is factory-set in the high tension position (Fig. 6). If the ringer does not operate properly, due to long subscriber loop, place the bias spring in the low tension position as follows:

- (1) Bend a hook on the end of a paper clip or equivalent.
- (2) Rotate dust cover so openings line up.
- (3) Place hook under bias spring as shown, lift spring up, and release it on opposite side of spring stop.
- (4) Rotate dust cover to its original position.

3.02 If the ringer fails to operate, check that:

- (a) Volume control is not in off position.
- (b) All lead connections are tight and properly connected.
- (c) Bias spring is correctly positioned.
- (d) Gong is free of obstructions or foreign material.

3.03 If replacement is necessary, a P1A ringer must be used if tip-party identification is required. In all other applications either the P1A or P1B can be used.

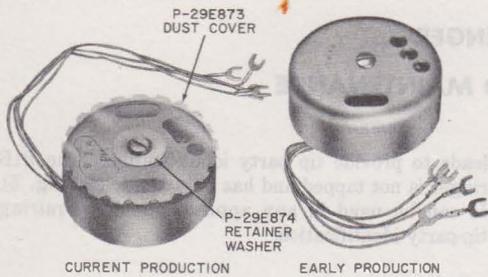


Fig. 1—PIA Ringer

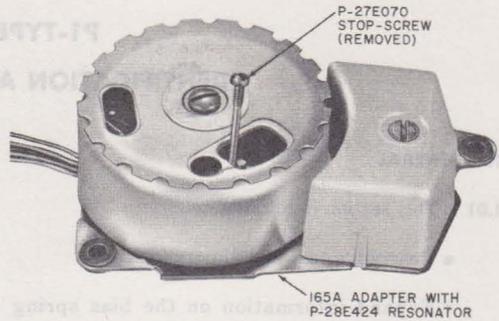


Fig. 3—P1-Type Ringer Mounted on 165A Adapter

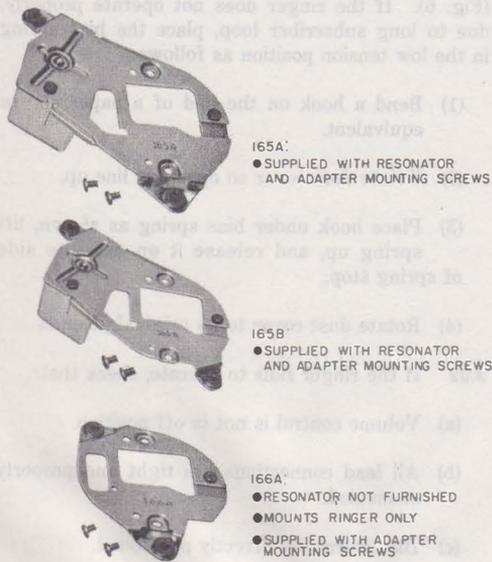


Fig. 2—P1-Type Ringer Adapter Plates

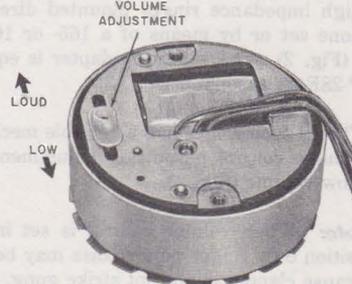


Fig. 4—PIA Ringer (Bottom View)

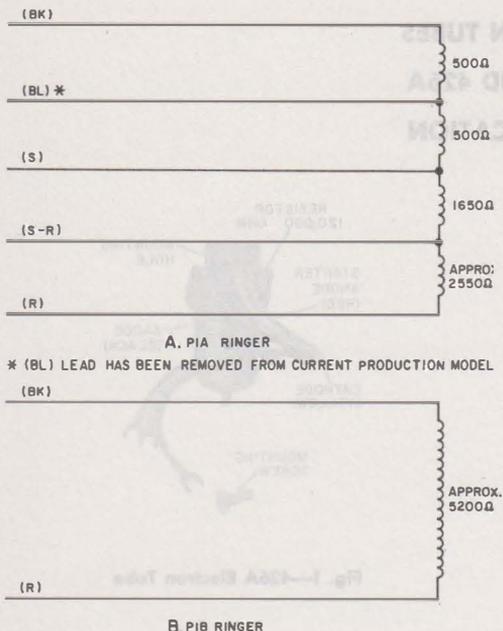


Fig. 5—P1-Type Ringer—Schematic

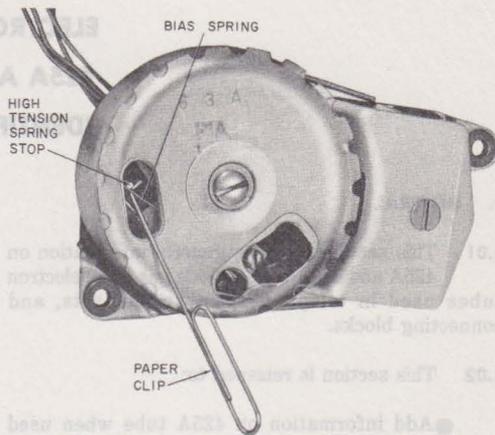


Fig. 6—Biasing Spring Adjustment

1.03 These tubes are intended for use on grounded ringing lines where suspension or balancing ringing current is provided as an 4-pair selective and 8-pair selective lines.

1.04 Where electron tubes of types 6X4, 6X5, 6X6, 6X7, 6X8, or 6X9 are to be replaced by tubes of types 425A or 425A, the original mounting base, electron tube socket, or bracket are no longer required and should be removed, where practicable.

2. IDENTIFICATION

2.01 The 425A (Fig. 1) and 425A (Fig. 2) tubes are permanently mounted on plastic angle brackets with a No. 6 self-tapping screw provided for mounting the bracket. Pre-drilled countersinks for mounting the bracket are provided for approximately 6 inches long are provided for connection to other equipment.

2.02 The glass envelope of these tubes is coated with a lacquer compound of red dye and black pigment. The coating is relatively transparent to allow the cathode glow to be visible.

3.01 Tubes (Continued)

3.01 The 425A electron tube (Fig. 1) is a 3-electrode hot gas diode cathode tube with three spigot tip cathodes, red, yellow, and black. A