

## M1A AND N1A RINGER

### IDENTIFICATION AND MAINTENANCE

#### 1.00 INTRODUCTION

This section covers identification and maintenance of the M1A and N1A ringer.

#### 2.00 IDENTIFICATION

2.01 These ringers are high-impedance ringing bridges designed for internal use in telephone sets only.

2.02 The M1A (Fig. 1) and N1A (Fig. 2) ringers are single-coil, single-gong ringers. The coil is tapped, making party identification possible. The ringers are designed to operate in series with an 0.45-mf capacitor.

2.03 These ringers differ only in their mounting and volume-control facilities. There are three positions of volume control; high, low, and off. The off position is blocked by a factory placed

machine screw. Remove the screw for ringer-cutoff feature. (See Fig. 3 and 4)



*When replacing blocking screw, be sure volume control is in high-volume position to avoid breaking volume-control arm.*

2.04 The 61A gong is eccentric. Clearance between gong and clapper shall be 0.010 to 0.020 inch. Resonator is built-in and needs no adjusting.

2.05 Bias spring is factory set in the high notch. It can be repositioned, as required, to either high or low notch with long-nose pliers.

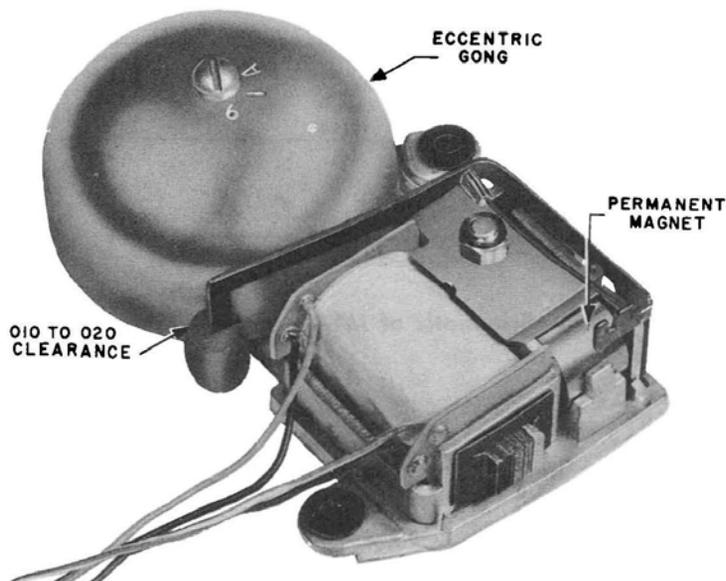


Fig. 1 - M1A Ringer

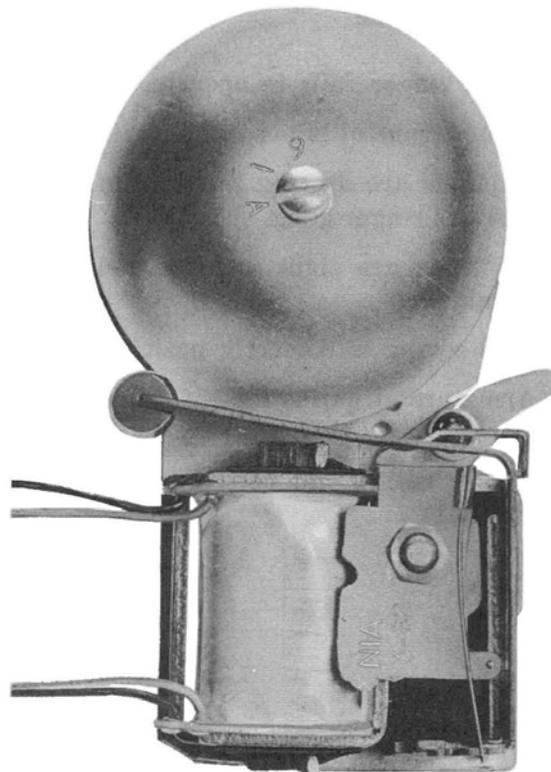


Fig. 2 - N1A Ringer



Fig. 3 – N1A Ringer, Rear View

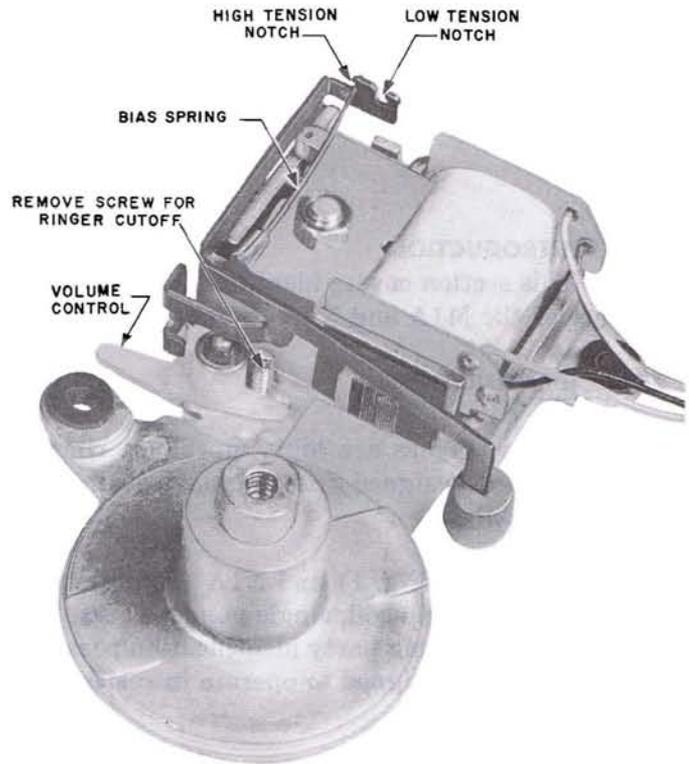


Fig. 4 – M1A Ringer, Gong and Resonator Removed

**3.00 MAINTENANCE**

3.01 When ringer fails to operate, check that:

- Volume control is not in off position.
- All leads are dressed away from movable parts or ringer gong.
- All leads are tight and on their proper terminals.
- Bias spring is correctly positioned.
- Armature airgap is free of dirt or foreign material.
- Ringer coil is not open or shorted. (See Fig. 5.)

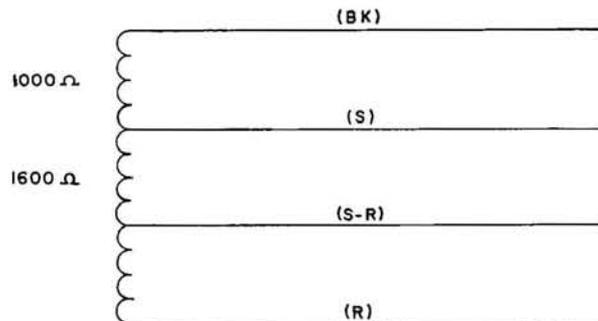


Fig. 5 – Schematic of M1A and N1A Ringer