MODEL 79938 RINGER MECHANISM

CONTENTS PAGE

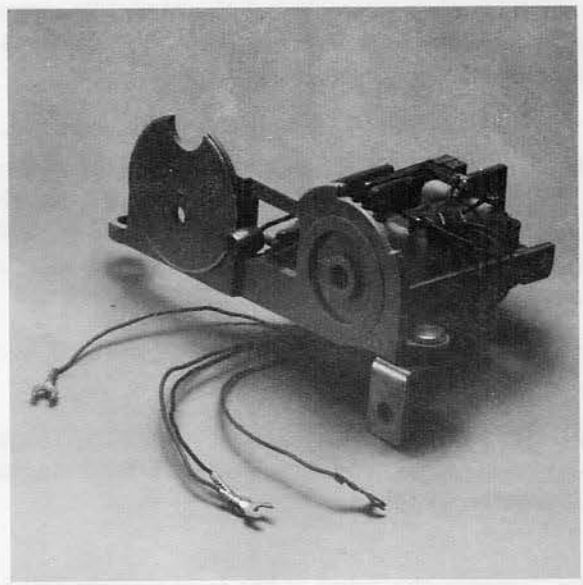

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Figure 1: Model 79938 Ringer Mechanism

1. INTRODUCTION

1.01 This document covers the Model 79938 Ringer Mechanism. (See Figure 1.) A general description as well as information on removal, disassembly, replacement parts, assembly, installation, and adjustments is included.

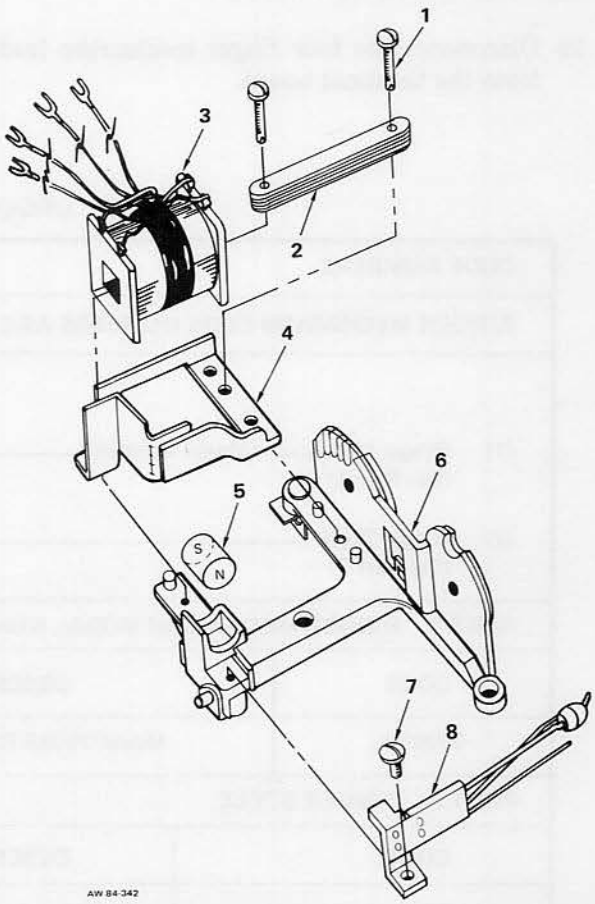
1.02 Whenever this section is reissued, reason for reissue will be listed in this paragraph.

1.03 This ringer mechanism is used in the Model 75 loud ringing bell. Refer to Section 55-075-113 for information concerning the loud ringing bell.

2. GENERAL DESCRIPTION

2.01 The Model 79938 ringer mechanism (see Figure 2) is a straight-line, biased-type ringer mechanism that is used in the Model 75 loud ringing bell. The mechanism consists of a coil and core assembly, armature and clapper assembly, frame, pole piece assembly, and magnet.

2.02 A laminated soft-iron core holds a double-wound coil on the pole piece assembly. The armature and clapper assembly is spring-mounted



AW 84-342

Figure 2: Model 79938 Ringer Mechanism, Exploded View

to the ringer frame. The fluctuating magnetic field produced by the coil causes the armature to vibrate and the clapper to strike the gongs that are mounted on the base plate assembly of the Model 75 ringer. Increased sensitivity is provided by biasing the armature with a small permanent magnet.

2.03 The Model 79938 ringer mechanism is identified by a code number stamped on the ringer frame. Refer to ordering information in Table A for an explanation of each code number and a list of available ringers.

3. REMOVAL

3.01 To remove the Model 79938 ringer mechanism from the Model 75 loud ringing bell, proceed as follows:

(a) Remove the cover of the loud ringing bell by removing the three screws on the base plate assembly and lifting the cover.

(b) Disconnect the four ringer mechanism leads from the terminal board.

(c) Loosen and remove the two hex-head screws that hold the ringer mechanism to the base plate. Lift the ringer mechanism from the base plate.

4. DISASSEMBLY

4.01 To disassemble the Model 79938 ringer mechanism, perform the following procedure:

(a) Loosen and remove the screw that holds the armature and clapper assembly to the frame. Lift the assembly from the frame.

(b) Using a permanent marker, place a reference mark on the magnet to ensure that proper polarity is maintained during reassembly. The end of the magnet nearest the armature and clapper assembly must attract the north-seeking pole of a compass.

(c) Remove the magnet.

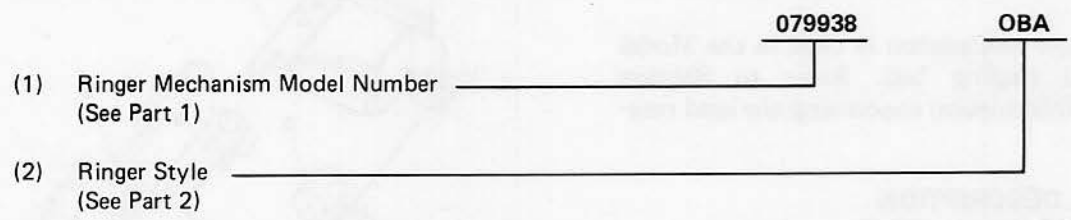
(d) Loosen and remove the two screws that hold the coil and core assembly and the support piece assembly to the frame. Lift the coil and core assembly from the pole piece assembly.

TABLE A

ORDERING INFORMATION

CODE NUMBERS

RINGER MECHANISM CODE NUMBERS ARE FORMED IN TWO STEPS AS FOLLOWS:



PART 1 RINGER MECHANISM MODEL NUMBER

CODE	DESCRIPTION	RINGER STYLE
079938	Model 79938 Ringer Mechanism	OBA

PART 2 RINGER STYLE

CODE	DESCRIPTION
OBA	Straight-Line, Biased-Type

AW 84-921

(e) Remove the core laminations from the coil.

(f) Lift the pole piece assembly from the frame.

5. REPLACEMENT PARTS

5.01 Replacement parts for the Model 79938 ringer mechanism are listed in Table B.

6. ASSEMBLY

6.01 To assemble the Model 79938 ringer mechanism, perform the following procedure:

(a) Place the pole piece assembly on the ringer frame.

(b) Insert the laminated core into the coil assembly.

(c) Mount the coil and core assembly to the frame using two screws.

(d) Place the magnet securely against the pole piece assembly. The end of the magnet nearest the armature and clapper assembly must attract the north-seeking pole of a compass.

(e) Place the armature and clapper assembly into the gap of the pole piece assembly. The bias spring must be inserted into the proper position. (See Figure 3.)

(f) Mount the armature and clapper assembly to the ringer frame using one screw.

(g) Adjust the ringer biasing as desired. (Refer to paragraph 8.01.)

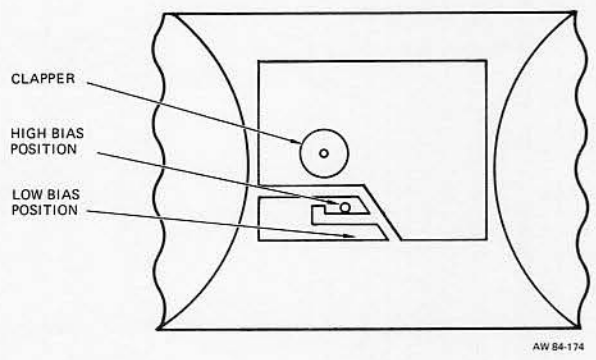


Figure 3: Positions of the Bias Spring

7. INSTALLATION

7.01 To install the Model 79938 ringer mechanism into the Model 75 loud ringing bell, perform the following procedure:

(a) Remove the cover from the loud ringing bell.

(b) Position the ringer mechanism on the base plate and mount it to the base plate assembly using two hex-head screws with spring washers.

(c) Connect the ringer mechanism leads to the terminal board as illustrated in Figure 4.

(d) Place the cover on the base plate assembly and mount it using three screws.

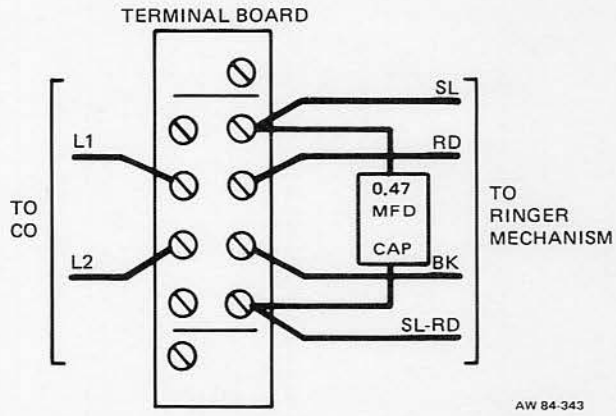


Figure 4: Terminal Board Connecting Diagram

8. ADJUSTMENTS

Bias Spring

8.01 The Model 79938 ringer mechanism is shipped with the bias spring in the high bias position to ring at 77 VAC, 20 Hz. For lower voltages and 30 Hz ringing, the bias spring can be moved to the low bias position. (See Figure 3.)

Clapper-to-Gong Clearance

8.02 If the clapper is not centered between the gongs and it causes improper ringing, the gongs can be rotated to provide proper clearance. To make the adjustments, loosen the gong mounting screws, rotate the gongs to the desired position, and tighten the gong mounting screws. The clapper arm may also be bent slightly, but carefully, to center the clapper between the gongs.

TABLE B

REPLACEMENT PARTS LIST

INDEX NO	PART NUMBER	DESCRIPTION	QUANTITY USED
		Model 79938 Ringer Mechanism	**0BA**
1	075407-110	Screw, Lamination Mounting	2
2	184972-101	Lamination, Core	15
3	185480-101	Coil Assembly	1
4	184971-101	Piece, Support Pole	1
5	184973-101	Magnet	1
6	185651-101	Mounting Frame Assembly	1
7	182845-102	Screw, Armature Mounting	1
8	075393-102	Clapper Assembly	1

AW 84-922