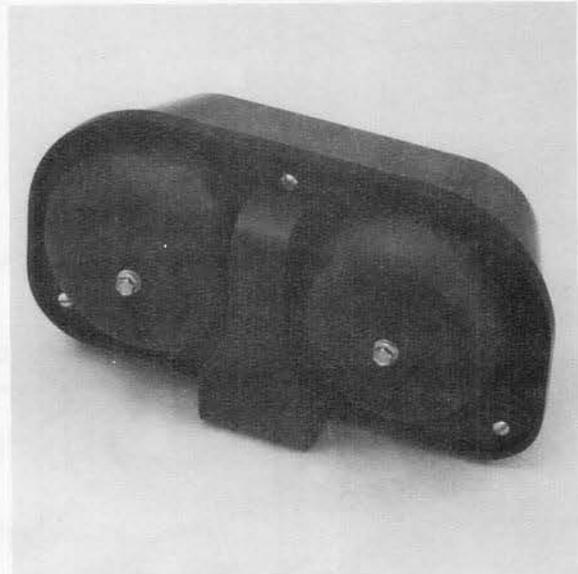


## MODEL 75 LOUD RINGING BELL

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Figure 1: Model 75 Loud Ringing Bell

### 1. INTRODUCTION

**1.01** This document covers the Model 75 loud ringing bell. (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** The Model 75 loud ringing bell is an external ringing device for indoor or outdoor use. It is designed for use in noisy locations or large areas. It is available with either a straight-line or frequency-selective ringer mechanism.

**1.04** For information concerning ringer mechanisms used in the loud ringing bell, refer to the following documents:

(a) Section 55-938-113 for straight-line ringer mechanism, part number 079938-101.

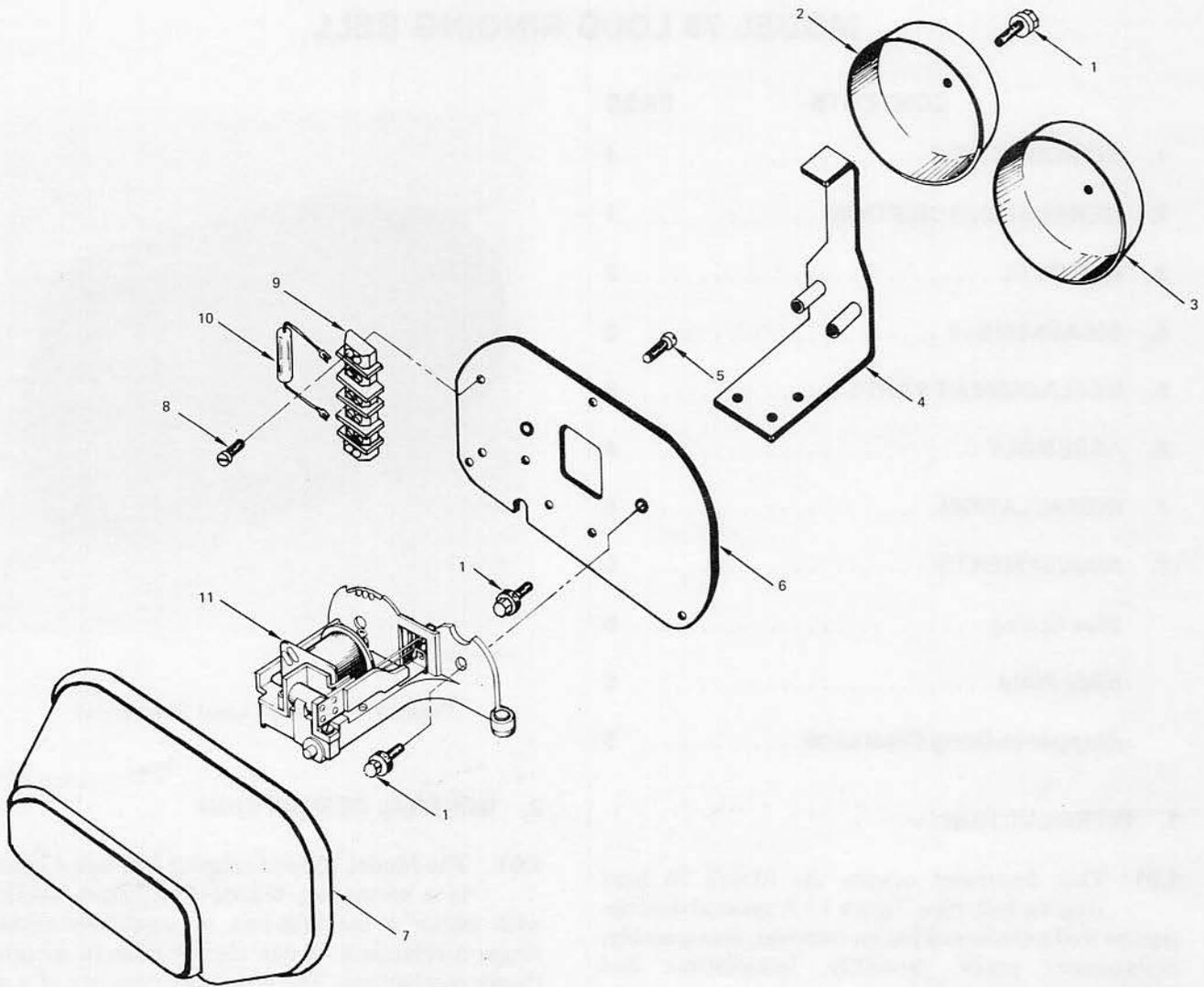
(b) Section 55-939-113 for frequency-selective ringer mechanisms, part numbers 079939-101 through 079939-115.

### 2. GENERAL DESCRIPTION

**2.01** The Model 75 loud ringing bell (see Figure 2) is a two-gong, biased-type ringer available with either a straight-line or frequency-selective ringer mechanism. It can also be ordered without a ringer mechanism. The assembly consists of a wall mounting bracket that supports a horizontal base plate on which two four-inch-diameter gongs and a ringer mechanism are mounted. A water-tight plastic cover, which is mounted to the baseplate, protects the ringer mechanism. The loud ringing bell assembly is mounted using three screws inserted through the wall mounting bracket.

**2.02** The ringer mechanism is mounted on the base plate. The clapper projects through a cutout in the base plate to a position between the two gongs.

**2.03** The armature and clapper assembly is spring-mounted to the ringer mechanism frame. The fluctuating magnetic field produced by the coil causes the armature to vibrate and the clapper to strike the gongs. Increased sensitivity is provided by biasing the armature with a small permanent magnet.



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Figure 2: Model 75 Loud Ringing Bell, Exploded View

**2.04** Frequency-selective ringer mechanisms are tuned to ring at different specific frequencies through the use of various core laminations, clapper weights, and capacitors. They are divided into three classes. HA ringers are classed as harmonic. HB ringers are classed as synchrononic. HC ringers are classed as decimonic.

**2.05** Straight-line ringer mechanisms are designed to ring at 20 or 30 Hz. They are identified as BA ringers.

**2.06** Model 75 loud ringing bells that are not equipped with a ringer mechanism are identified as LR ringers. Refer to Table A for ordering information.

### 3. REMOVAL

**3.01** To remove the Model 75 loud ringing bell from its mounting location, proceed as follows:

- (a) Loosen the three cabinet lock screws located on the bottom of the base plate and lift the cover from the base plate.
- (b) Disconnect the ringer line cord leads from terminals L1 and L2 on the terminal board.
- (c) Loosen and remove the two hex-head screws that attach the base plate to the wall mounting bracket.

TABLE A  
ORDERING INFORMATION

CODE NUMBERS			
RINGER CODE NUMBERS ARE FORMED IN TWO STEPS AS FOLLOWS:			
(1) Ringer Model Number (See Part 1)	000075		OBA
(2) Ringer Style Or Selective Frequency Code (See Part 2)			
PART 1 RINGER MODEL NUMBER			
CODE	DESCRIPTION		
000075	Model 75 Loud Ringing Bell		
PART 2 RINGER STYLE OR SELECTIVE FREQUENCY CODE			
CODE	DESCRIPTION	FREQUENCY Hz	CLASS
OLR OBA	Less Ringer Straight-Line, Biased-Type	20 Or 30	
HA1 HA2 HA3 HA4 HA5	Frequency-Selective Frequency-Selective Frequency-Selective Frequency-Selective Frequency-Selective	33 1/3 50 66 2/3 16 2/3 25	Harmonic
HB1 HB2 HB3 HB4 HB5	Frequency-Selective Frequency-Selective Frequency-Selective Frequency-Selective Frequency-Selective	30 42 54 66 16	Synchronomic
HC1 HC2 HC3 HC4 HC5	Frequency-Selective Frequency-Selective Frequency-Selective Frequency-Selective Frequency-Selective	20 60 30 (Same As HB1) 40 50 (Same As HB2)	Decimonic

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- (d) Lift the loud ringing bell from the wall and slide the ringer line cord from the ringer.

*Note:* The wall mounting bracket is attached using three screws (not provided).

#### 4. DISASSEMBLY

**4.01** To disassemble the Model 75 loud ringing bell perform the following procedure:

- (a) Loosen and remove the two hex-head screws that hold the gongs to the base plate. Remove the gongs.
- (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.

- (d) If the ringer mechanism capacitor is located on the terminal board, remove the capacitor from the terminal board.

- (e) Loosen and remove the two screws that hold the terminal board to the base plate. Lift the terminal board from the base plate.

#### 5. REPLACEMENT PARTS

- 5.01** Replacement parts for the Model 75 extension ringer are listed in Table B.

6. ASSEMBLY

6.01 To assemble the Model 75 loud ringing bell, proceed as follows:

- (a) Mount the terminal board to the base plate using two screws.
- (b) Position the ringer mechanism on the base plate; mount it to the base plate using two hex-head screws with spring washers.
- (c) For the straight-line ringer mechanism (79938), connect the coil assembly leads and the 0.47 mfd capacitor leads to the terminal board as shown in Figure 3.

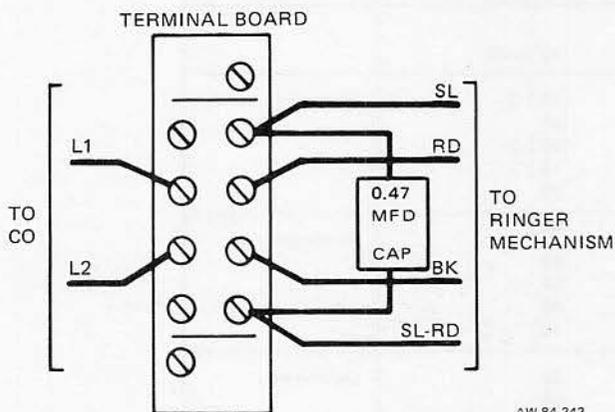


Figure 3: Terminal Board Connecting Diagram for Straight-Line Ringers and Some Frequency-Selective Ringers

(d) For frequency-selective ringer mechanisms classed as HA4, HA5, HB5, or HC1, connect the coil assembly leads and the 0.47 mfd capacitor leads as shown in Figure 3. See Table C.

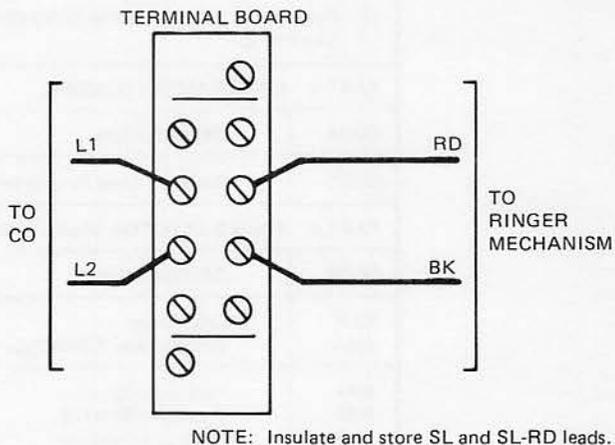
TABLE C

RINGER SERIES CAPACITORS

CAPACITANCE (MFD)	CODE SERIES
0.47	HA4, HA5, HB5, HC1
0.25	HA1, HB1, HC3
0.15	HB2, HC4
0.08	HA2, HA3, HB3, HB4, HC2, HC5

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(e) For frequency-selective ringer mechanisms classed as HA1, HA2, HA3, HB1, HB2, HB3, HB4, HC2, HC3, HC4, or HC5, connect the ringer mechanism leads to the terminal board as shown in Figure 4. These frequency-selective ringer mechanisms have the capacitor factory-wired to the coil. See Table C.



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Figure 4: Terminal Board Connecting Diagram for Frequency-Selective Ringers

- (f) Select the larger gong with the dull interior finish and insert a hex-head screw with a spring washer through the hole in the center of the gong. Mount this gong in the left-hand gong position on the base plate.
- (g) Insert a hex-head screw with a spring washer through the hole in the center of the smaller gong with the bright interior finish. Mount this gong in the right-hand gong position on the base plate.

**Notes:** 1. On older models of the loud ringing bell, a washer must be inserted inside this gong to allow sufficient clearance between the gong and the base plate. The washer should be approximately 1/16-inch thick.  
 2. The gongs may be rotated to center the clapper. Refer to adjustment procedures 8.04.

(h) Place the base plate assembly on the wall mounting bracket with the gongs pointing down and mount with two hex-head screws.

## 7. INSTALLATION

**7.01** To install the Model 75 loud ringing bell, proceed as follows:

- (a) Remove the cover.
- (b) Loosen and remove the two screws that hold the base plate to the wall bracket. Remove the wall bracket.
- (c) Install an extension line cord allowing sufficient length to connect to the terminal board.
- (d) Mount the wall bracket to the wall using three screws (not provided).
- (e) Mount the base plate to the wall bracket using two hex-head mounting screws.
- (f) Connect the line cord leads to the terminal board as follows:

*Note:* The Model 75 loud ringing bell can be used for various special applications but is normally installed with the ringer bridged across the line.

- (1) Connect the Tip side of the line to terminal L1.
  - (2) Connect the Ring side of the line to terminal L2.
- (g) Place the cover over the ringer mechanism and secure it to the base plate using three screws.

## 8. ADJUSTMENTS

### Bias Spring

**8.01** For a straight-line ringer mechanism, the ringer 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 5.)

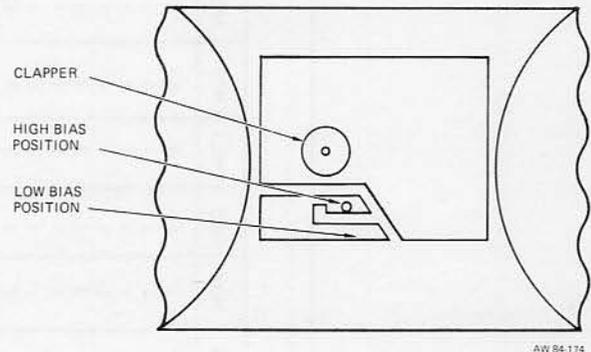


Figure 5: Position of Bias Spring

**8.02** For frequency-selective ringer mechanisms, the bias spring must rest against the clapper arm at all times. Move the clapper arm to rest against the right-hand gong and ensure that the bias spring remains in contact with the clapper arm. The bias spring can be bent slightly, but carefully, if adjustment is required.

### Slide Plate

**8.03** For frequency-selective ringer mechanisms, the slide plate can be adjusted to move the core laminations closer to or farther away from the armature and clapper assembly. Refer to Section 55-939-113.

### Clapper-to-Gong Clearance

**8.04** If the clapper is not centered between the gongs and it causes improper ringing, the bias spring can be bent slightly to provide coarse adjustment. The gongs can be rotated to provide fine adjustment.

TABLE B  
REPLACEMENT PARTS LIST

INDEX NO	PART NUMBER	DESCRIPTION	QUANTITY USED																
			Model 75 Loud Ringing Bell	OLR	OBA	HA1	HA2	HA3	HA4	HA5	HB1	HB2	HB3	HB4	HB5	HC1	HC2	HC3	HC4
1	180523-101	Screw, Hex-Head	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
2	079934-101	Gong	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	079935-101	Gong	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	079929-101	Bracket Assembly	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	075486-101	Screw, Cabinet Lock	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
6	079926-101	Base Plate Assembly	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	079923-101	Cover Assembly	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	075408-102	Screw, Lockwasher	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
9	072233-105	Board, Terminal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	183603-101	Capacitor, 0.47 MFD	1	1	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-
11	079938-101	Ringer Mechanism	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	079939-101	Ringer Mechanism	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	079939-102	Ringer Mechanism	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	079939-103	Ringer Mechanism	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
	079939-104	Ringer Mechanism	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	079939-105	Ringer Mechanism	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
	079939-106	Ringer Mechanism	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	079939-107	Ringer Mechanism	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
	079939-108	Ringer Mechanism	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	079939-109	Ringer Mechanism	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
	079939-110	Ringer Mechanism	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	079939-111	Ringer Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
	079939-112	Ringer Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	079939-113	Ringer Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
	079939-114	Ringer Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
079939-115	Ringer Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	