

Fig. 1 - F1A Ringer with 123A Cover in Place

## 1.00 INTRODUCTION

1.01 This apparatus is referred to as a bell-chime ringer. Three types of signal operation are available. By operating a control level as shown in Fig. 1, the customer selects either a loud ring, a low ring, or a chime.

1.02 The plastic cover is not supplied with the F1A ringer. Order separately as follows:

- Cover 123A-50 (Ivory).
- Cover 123A-63 (Gold).

1.03 Due to extensive changes marginal arrows have been omitted.

## 2.00 GENERAL



Remove the F1A ringer from the shipping carton with care, and handle the ringer prior to installation with equal care to

avoid changing the adjustment of the interrupter switch assembly (see Fig. 2). Keep the F1A ringer in shipping carton prior to installation and when removed from service. Handle F1A ringer by using the stop bar attached to the two gongs.

2.01 The F1A ringer is installed when covered by a service order.

Typical installations would include:

- Centrally located bell-chime ringer.
- Extension ringer.
- Ringer for the 701B (Princess) telephone set.
- Loud ringer (substitute for indoor 592A).

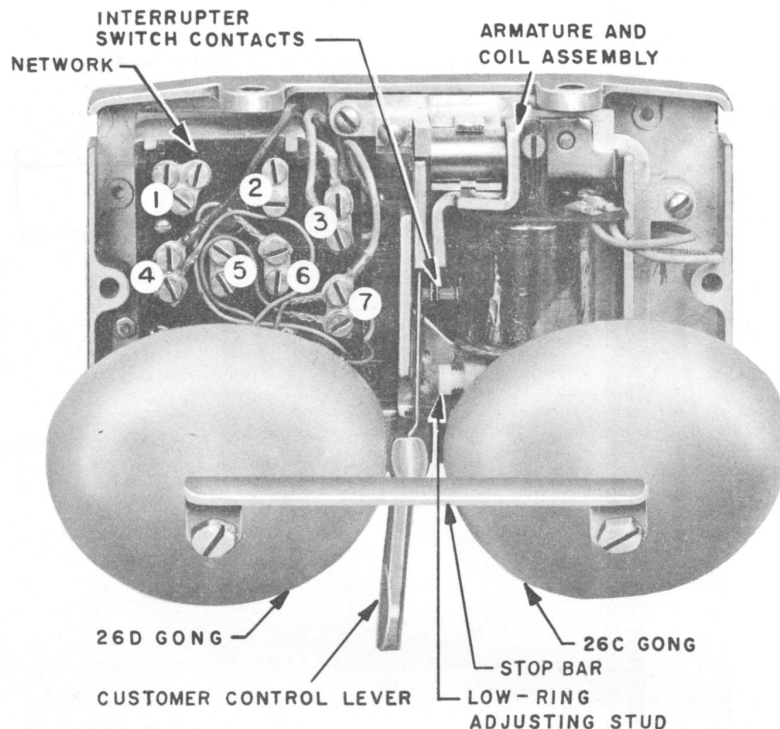


Fig. 2 - FLA Ringer

2.02 This ringer may be connected with the following classes of service:

- Individual lines.
- 2-party flat and message rate.
- Regular PBX stations.

2.03 This ringer is not intended to be used with cold cathode tube-type ringing bridges:

- 4-party selective.
- 8-party semiselective.

2.04 Since the customer may experience difficulty distinguishing rings in the chime position, do not use with these code ringing services:

- Nonselective party lines.
- Divided code ringing.

### 3.00 DESCRIPTION

The FLA is a single-coil, high-impedance ringer with 2-position bias

spring. The component parts, shown in Fig. 2, are:

- Die-cast base for mounting components; it also provides cord clamps for telephone set mounting cord.
- Armature and coil assembly similar to C-type ringers.
- Network (498A) containing necessary electrical circuit elements and providing a 7-terminal connecting block.
- Customer switch assembly for changing from bell to chime.
- Interrupter switch assembly operated by movement of clapper to control chime operation.
- Stop bar to position cover away from gong assemblies. Stop bar shown is a preliminary model. Any changes in the commercial product will be incorporated in later issue of this section.

## 4.00 INSTALLATION

4.01 Standard ringing bridge limitations apply to the use of this ringer except on 1A and 1A1 key telephone systems. Do not connect more than one FLA bell-chime ringer on the station side of a line circuit. If more than one ringer is required, it must be bridged on the line side of the line circuit.

4.02 Suggest a location so that customer can hear chime or low ring in largest area of residence. The FLA will usually provide satisfactory coverage when centrally located in house on inside partition about 5 feet above floor, with control lever accessible to customer.

4.03 Use care to allow ample space above and to the right side of the FLA ringer when picking a installation location. Allow enough space for tightening the cover screws on the top and adjusting the low-ring stud on the right side.

4.04 Fasten directly to wall surface with two fasteners. Select length of fastener to provide secure mounting with particular wall material.

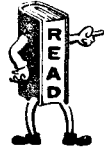
- Use No. 8 RH wood screws when fastening to wood, wood studs, or lath.
- Use wall screw anchors on wall surfaces of hollow construction.

For selection refer to C Section entitled Attachments, Fasteners, and Methods for Running Inside Wire and Cable.

4.05 The inside wire may enter the ringer from the back, bottom, or either side.

4.06 When the inside wire enters the ringer from the bottom or back, the mounting cord from the telephone set may be brought in either end of the ringer. When the inside wire enters from one end, the set cord can, where used, enter from the opposite end. Secure the telephone set cord to the ringer with clamps provided.

4.07 Adjust the volume of the low ring by moving the adjusting stud (Fig. 2) right or left; use a small screwdriver in slotted end located beneath the right gong.



Be sure to acquaint customer with the location and use of ringer control lever.

## 5.00 BIAS SPRING POSITION

5.01 The ringer is shipped with the bias spring in the high (left) notch. Table A indicates the proper position of the bias spring for the various classes of service.



Correct bias spring tension has been set at the factory. Do not bend bias spring.

TABLE A - BIAS SPRING POSITION

Class of Service		Bias Spring Notch	Remarks
Bridged Ringing Service	Individual Line and PBX Stations	High	The bias spring may be placed in the low notch when double tap is experienced in the chime position or when operation is not satisfactory with the bias spring in the high notch. Change the ringer if repositioning of the bias spring results in dial tap or unsatisfactory operation.
Grounded Ringing Service	2-party Flat and Message Rate	High	

5.02 After completing work, obtain a ringing test in all three positions, according to local instructions. Check for bell taps while dialing.

5.03 If bell taps with bias spring in low notch and the ringer properly connected, move bias spring to high notch. Repeat ringing test. If ringer fails to operate properly, change ringer.

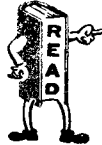
## 6.00 MAINTENANCE

6.01 On a maintenance visit where the ringer fails to operate properly, proceed as follows:

1. Check airgap at armature for dirt or foreign material and clean if necessary.
2. Make sure all connections are tight and correct.

3. See that all wires are dressed so that they do not interfere with the operation of the ringer.

4. Interrupter switch assembly contacts may be cleaned by carefully burnishing with a 265C tool.



Care must be taken to avoid changing the adjustment of the spring gap and spring tension of the switch.

6.02 If the ringer still does not operate properly, replace the complete ringer.

- Circuit drawing is provided in Fig. 3.

## 7.00 CONNECTIONS

Table B gives connections for FLA ringer used as either main or extension ringer.

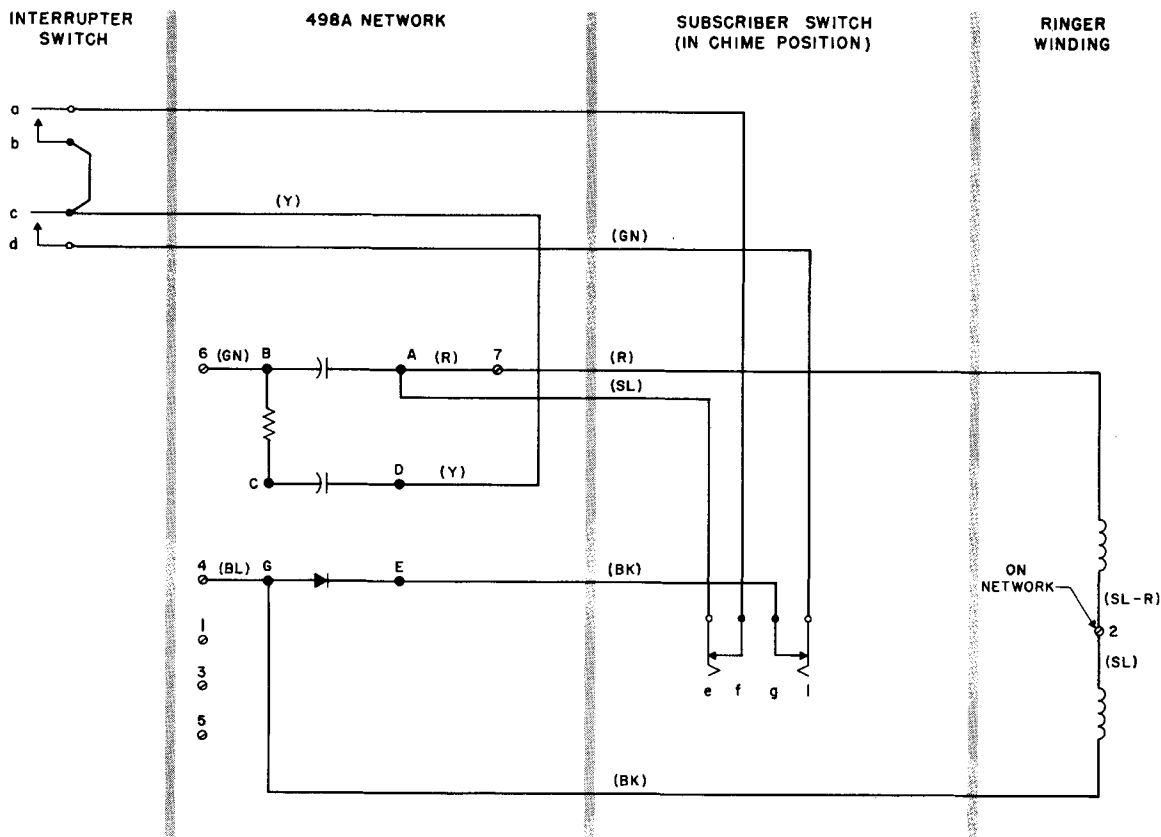


Fig. 3 - Circuit Drawing of FLA Ringer

TABLE B

## LINE AND RINGER CONNECTIONS FOR FLA RINGER

Wire or Lead			Individual or Bridged	Ring Party	Tip Party
Inside Wire	Ring	R	6	6	1
	Tip	GN	4	1	6
	GRD	Y	1	4	4
Ringer		R	7	7	7
		SL-R	2	2	2
		SL	2	2	2
		BK	4	4	4
Network Straps	G	BL	4	4	4
	A	R	7	7	7
	B	GN	6	6	6