

QCY1A1 BELL CHIME

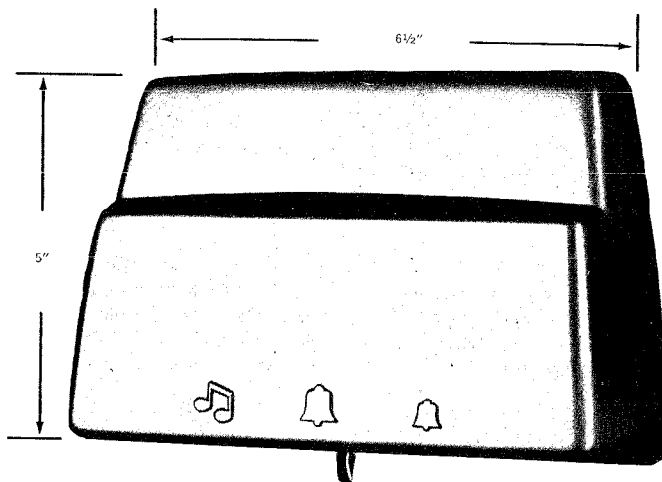


Fig. 1 — QCY1A1 Bell Chime with 125AN Cover in Place

1. INTRODUCTION

1.01 This section covers the Identification, Installation, Maintenance and Connections of the QCY1A1 Bell Chime.

1.02 This section is reissued to add information on how to secure the connecting block end of a general purpose set mounting cord when the cord is terminated in the QCY1A1 Bell Chime.

1.03 Due to extensive changes, marginal arrows have been omitted.

2. IDENTIFICATION

2.01 The QCY1A1 Bell Chime is a single coil (two windings) high impedance device equipped with:

- A 7-terminal connecting block
- A 498A network
- A lever to change the sound output from loud to soft or chime
- A cover with gold or ivory finish

2.02 A QAA1A Adapter plate is available to facilitate mounting.

3. GENERAL



Remove the QCY1A1 Bell Chime from the shipping carton with care prior to installation to avoid changing the adjustment of the interrupter switch assembly (Fig. 2). Handle the Bell Chime using the stop bar attached to the two gongs. Keep the Bell Chime in a plastic bag in the shipping carton prior to installation and when removed from service.

DO NOT LEAVE PLASTIC BAG WHERE IT IS ACCESSIBLE TO CHILDREN.

3.01 The Bell Chime is installed when covered by a service order. Typical installations would include:

- Centrally located bell chime
- Extension ringer

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- Ringer for the 701B (Princess Telephone Set)
 - Loud Ringer (substitute for 592A)
 - Common bell with key systems
- 3.02** The Bell Chime may be connected with the following classes of service:
- Individual lines
 - 2-Party lines
 - Regular PBX Stations
- 3.03** The Bell Chime is not intended to be used with any service where code ringing would not be distinguishable in chime position.
- 3.04** When tip party identification is required, it must be obtained through the ringer associated with each station. The connections are shown in the appropriate Bell System Practices section for the particular telephone set used.

3.05 If tip party identification is required and the bell chime is not associated with a telephone set (located remotely), do not use this ringer for tip party identification. Connect it as a normal tip party ringer and consult the appropriate BSP Section for the telephone set connections for tip party identification with set ringer silenced.

4. INSTALLATION

- 4.01** Standard ringing bridge limitations apply to the use of this Bell Chime.
- 4.02** Suggest a location so that the customer can hear chime or low ring in the largest area of the residence. The Bell Chime will usually provide satisfactory coverage when centrally located in the house on the inside partition about 5 feet above the floor with the control lever accessible to the customer.

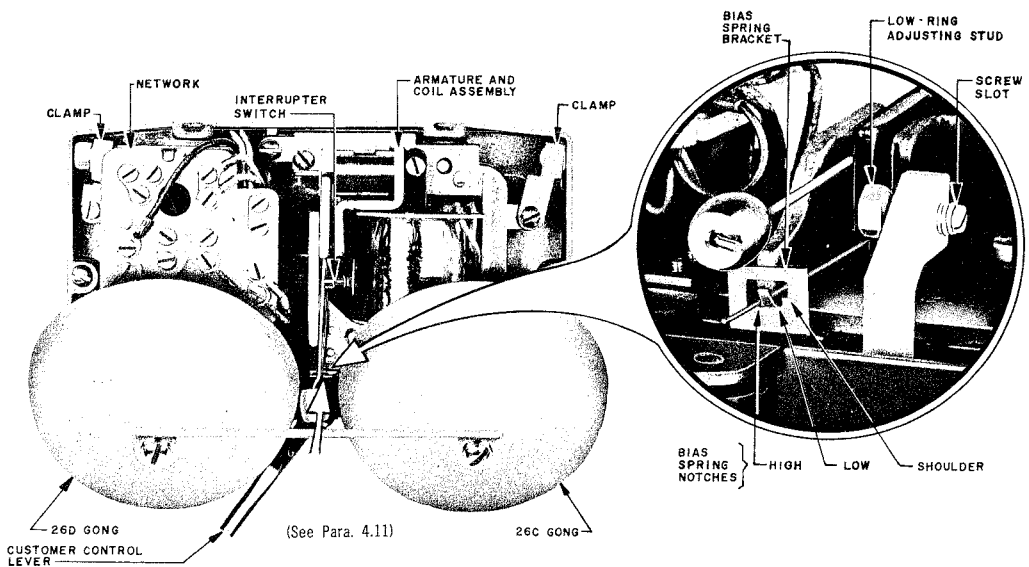


Fig. 2 — QCY1A1 Bell Chime — Components

- 4.03** Use care to allow ample space above and to the right side of the Bell Chime when selecting an 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** The Bell Chime may be fastened 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.
- 4.05** Where the Bell Chime is to be mounted using wall screw anchors, it may be convenient to use the QAA1A Bell Chime Adapter. The adapter can be mounted more readily than the Bell Chime and can be levelled more easily.
- 4.06** Installation may be made on a commercial outlet and in locations with concealed wiring. Use the QAA1A Bell Chime Adapter. Note that certain holes in the Bell Chime and Adapter are elongated to assist in levelling the bell chime, (See Fig. 8). An additional wire entrance hole is provided to facilitate the installation of the Bell Chime mounted on a commercial outlet and in locations with concealed wiring. (See Figs. 3 and 4).
- 4.07** The inside wire may enter the Bell Chime from the back, bottom, or either side.
- 4.08** When the inside wire enters the Bell Chime from the bottom or back, the mounting cord from the telephone set may be brought into either end of the Bell Chime.
- 4.09** When the Bell Chime is used with a telephone set, the inside wire enters from one end and the set cord enters from the opposite end. Secure the set cord to the Bell Chime with the clamps provided.
- 4.10** The mounting cords of most telephone sets, other than the 701-type, have short leads to the connecting block end. The cord-stay-clamp in the Bell Chime will not keep a pull-strain off the spade tip connections on cords with short leads. To prevent spade tip connection failures in the Bell Chime when using cords with short leads perform one of the following:

- (a) Install a QBB1A connecting block using inside wire between the block and the Bell Chime. Terminate the cord in the connecting block.
- (b) Put several wraps of friction tape around the cord a few inches from the stay-band. This provides a grommet which should take up the stress against the cord-stay clamp if the cord is pulled.

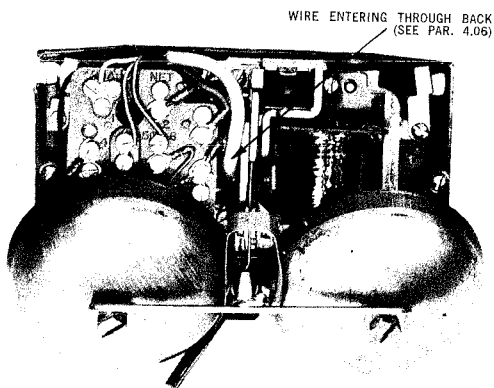


Fig. 3 — Front View of Bell Chime Showing Wire Termination (Entering From Back)

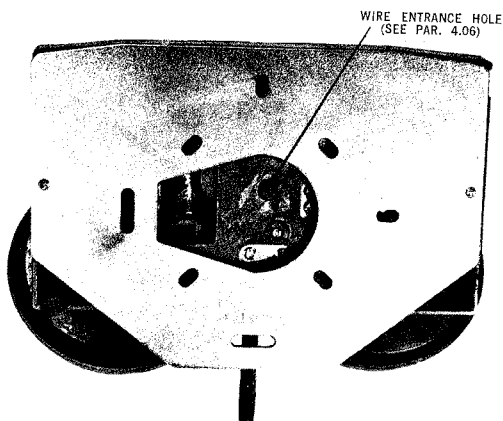
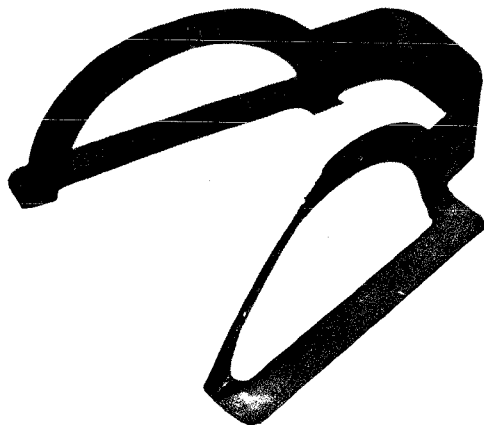


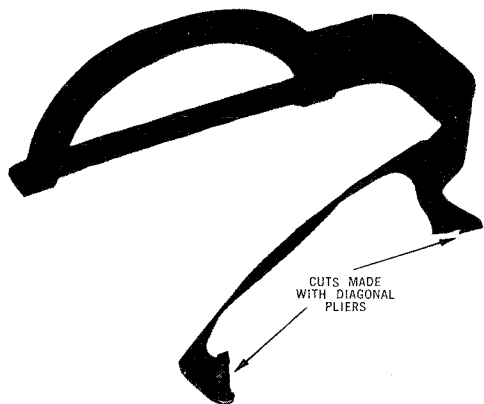
Fig. 4 — Back View of Bell Chime and Adapter Plate, Showing New Wire Entrance For Outlet or Concealed Wiring Installation

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4.11 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. The volume of the Bell Chime can be toned down in all three positions by the use of the 100B Gong Attachment modified as shown in Fig. 5.



UNMODIFIED



CUTS MADE WITH DIAGONAL PLIERS

MODIFIED

Fig. 5 — 110 B Gong Attachment

4.12 The attachment should be fitted on the gong as shown in Fig. 6, making sure that no interference exists between the attachment and the control lever mechanism.

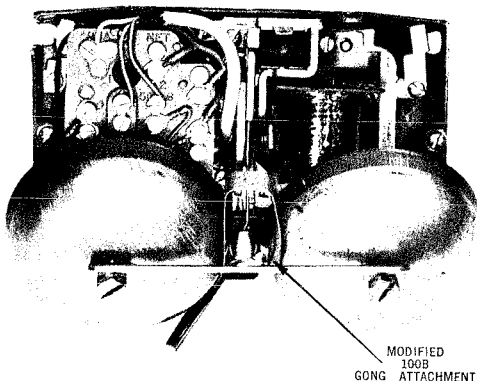


Fig. 6 — 100B Gong Attachment — Installation



Be sure to acquaint customer with the location and use of the Bell Chime Control Lever.

TABLE A
BIAS SPRING POSITION

| CLASS OF SERVICE | | BIAS SPRING NOTCH | REMARKS |
|--------------------------|--|-------------------|---|
| Bridged Ringing Service | Individual Flat, Message Rate and PBX Stations | High | The bias spring may be placed in low notch when double tap is experienced in CHIME position or when operation is not satisfactory with bias spring in high notch. If repositioning bias spring results in dial tap or poor operation, check ringer as outlined in Part 6. |
| Grounded Ringing Service | 2-party Flat | High | |

5. BIAS SPRING POSITION

5.01 The Bell Chime is shipped with the bias spring in the high (left) notch. Do not move the bias spring to low notch unless trouble is experienced. The bias spring must never be placed on the shoulder located to the right of the low notch. Table A indicates proper position of bias spring for various classes of service (see Fig. 2).



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

CAUTION: Proper poling of the bell chime is very important to avoid double-tap in the chime position and bell taps while dialing.

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

6. MAINTENANCE

6.01 On a maintenance visit where Bell Chime 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 operation of the Bell Chime.

(4) Clean interrupter switch assembly contacts when required, by carefully burnishing with a 265C tool.



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

6.02 If the Bell Chime rings properly but armature sticks in operated position when the customer control lever is in CHIME position, replace the Bell Chime.

6.03 If Bell Chime rings with customer control lever in CHIME position, proceed as follows:

(1) Shift network mounting plate until interrupter switch stud just touches clapper rod.

(2) If Step (1) results in double-tap, shift component plate back slightly toward original position.

(3) If Steps (1) or (2) do not eliminate trouble, replace Bell Chime.

7. CONNECTIONS

7.01 When tip party identification is required, it must be obtained through the ringer associated with each station. The connections are shown in the section for particular telephone set used.

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7.02 If tip party identification is required and customer does not wish telephone set ringer associated with Bell Chime to ring:

- (a) F1A Ringer should not be used to give tip party identification.
- (b) F1A Ringer should be connected as normal tip party ringer.

(c) Telephone set should be connected for tip party identification with the ringer silenced as described in the section related to set.

7.03 Table B gives connections for the Bell Chime. A circuit drawing is shown in Fig. 7.

TABLE B
LINE AND RINGER CONNECTIONS FOR QCY1A1 BELL CHIME

| Wire or Lead | | Colour | Individual or Bridged | Ring Party | Tip* Party |
|----------------|------|--------|-----------------------|------------|------------|
| Inside Wire | Ring | R | 6 | 6 | 1 |
| | Tip | G | 4 | 1 | 6 |
| | GRD | Y | - | 4 | 4 |
| Ringer | | R | 7 | 7 | 7 |
| | | S-R | 2 | 2 | 2 |
| | | S | 2 | 2 | 2 |
| | | BK | 4 | 4 | 4 |
| Network Straps | G | BL | 4 | 4† | 4† |
| | A | R | 7 | 7 | 7 |
| | B | G | 6 | 6 | 6 |

* See Para. 3.04 and 3.05.

† Place BL strap on (1) whenever high ground induction is encountered.

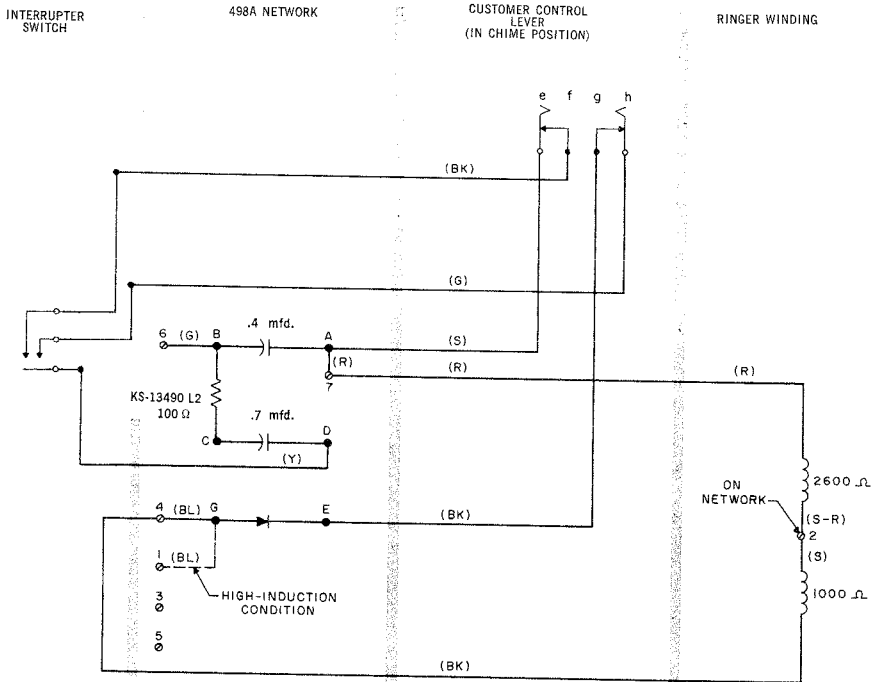


Fig. 7 — QCY1A1 Bell Chime — Schematic

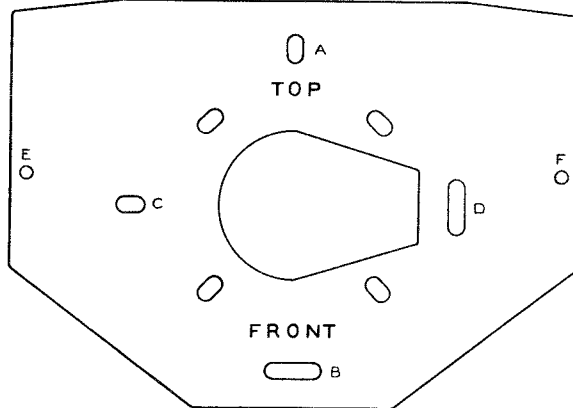


Fig. 8 — QAA1A Bell Chime Adapter

Note:

- A & B or C & D are used to mount the adapter on outlet boxes.
- E & F are used to mount the Bell chime.
- Other holes are for mounting adapter on hollow wall construction.