

GTE AUTOMATIC ELECTRIC
TYPE 87A TELEPHONE SET
MODIFICATION TO ADD AUXILIARY BUZZER

1. GENERAL

1.01 This section presents information on the Communication Apparatus Company Type CAC 8A Buzzer, Edwards Company Type CS 906-3 buzzer, and Electro-Dynamics Telcom Ltd. Type EDT-135 buzzer (Figure 1) for common application to the GTE Automatic Electric Type 87A telephone sets.

1.02 This section is being reissued to include information on those buzzers used in conjunction with the Type 87A telephone set. This section supersedes Section 473-501-802, Issue 1, all changes have been indicated by marginal arrows. Remove Issue 1 from the GTE Practices binder and file Issue 2 in its place.

2. DESCRIPTION

Type CAC 8A Buzzer

2.01 The Type CAC 8A buzzer is a small ac buzzer contained in a cylindrical shell with a mounting tab and two 7 inch spade ended leads. It measures 3/4 inch in diameter at the armature assembly, 1-7/16 inches long including the mounting strap and armature assembly, and 5/8 inch high. The operating voltage range is 6-12 volts, 50-60 Hertz ac. The buzzer coil is rated at 6-12 Vac continuous operation with an impedance of 340 ohms at 60 Hertz.



Figure 1. Typical View of (CAC 8A, CS 906-3 and EDT-135) Buzzers.

Type CS 906-3 Buzzer

2.02 The Type CS 906-3 buzzer contains the same physical characteristics described in Paragraph 2.01 except that it is equipped with two spade-ended No. 26 stranded leads measuring 7-1/2 inches long. The Type CS 906-3 maintains an operating voltage range of 6-10 Vac, with a life expectancy of 30 hours based on rated duty cycle of 30 seconds on, 30 seconds, off.

Type EDT-135 Buzzer

2.03 The Type EDT-135 buzzer is constructed of a high tempered steel, heavy nickel plated and measures 3/4 inch in diameter, 1/2 inch deep with an overall length of 1-3/8 inches. It is adjustable to a wide range of sound levels with a constant sound characteristic maintained over the entire voltage spectrum. The operating voltage range for the Type EDT-135 buzzer is 15 to 24 Vac.

3. INSTALLATION

3.01 The mounting location for the CAC 8A, CS 906-3 and EDT-135 buzzers is limited by the length of their associated leads as well as the optional equipment used in the telephone set.

3.02 The recommended mounting location for the CAC 8A, CS 906-3 and EDT-135 buzzers is below the ringer gongs only when a ringer is used on the base plate. This location provides the loudest sound output. To install the CAC 8A, CS 906-3 and EDT-135 buzzer proceed as follows:

- (1) Remove the telephone housing.
- (2) Place the buzzer between the ringer gongs on the baseplate making sure it does not interfere with the ringer. Pass a 6-32 by 1/4" long pan head screw, from under the baseplate, through a sound exit hole and through the buzzer mounting bracket. Add a star lock washer and nut, and tighten securely.

- (3) Remove the dial assembly and dress the buzzer leads under the ringer being careful to avoid interference with the ringer actuation. The buzzer should also be free of interference from any wires or ringer gongs.
- (4) Connect the leads to terminals E1 and E2 on the terminal board.
- (5) Reassemble the dial and connect the telephone line cord leads for proper buzzer operation.
- (6) Buzz the buzzer and adjust the nylon screw on the buzzer for maximum sound output (see Paragraph 3.04 for procedure).
- (7) Replace the telephone housing.

3.03 An alternate location for the buzzer is the dial tripod (see Figure 2). This location is suggested when the recommended location is occupied by equipment or devices other than the regular two-gong ringer. This location has a reduced buzzer sound output. Perform the following steps to install the buzzer on the dial tripod:

- (1) Remove the telephone housing.
- (2) Remove the dial assembly.
- (3) Remove the hookswitch lever return coil spring. On the transmission unit side of the tripod, remove the 3-48 binding head screw from the guide arm (hookswitch lever pin lock), and slide the lock out of the retaining groove in the pin. From the opposite side, remove the pin from the tripod and hookswitch lever. The lever may now be removed from the set.

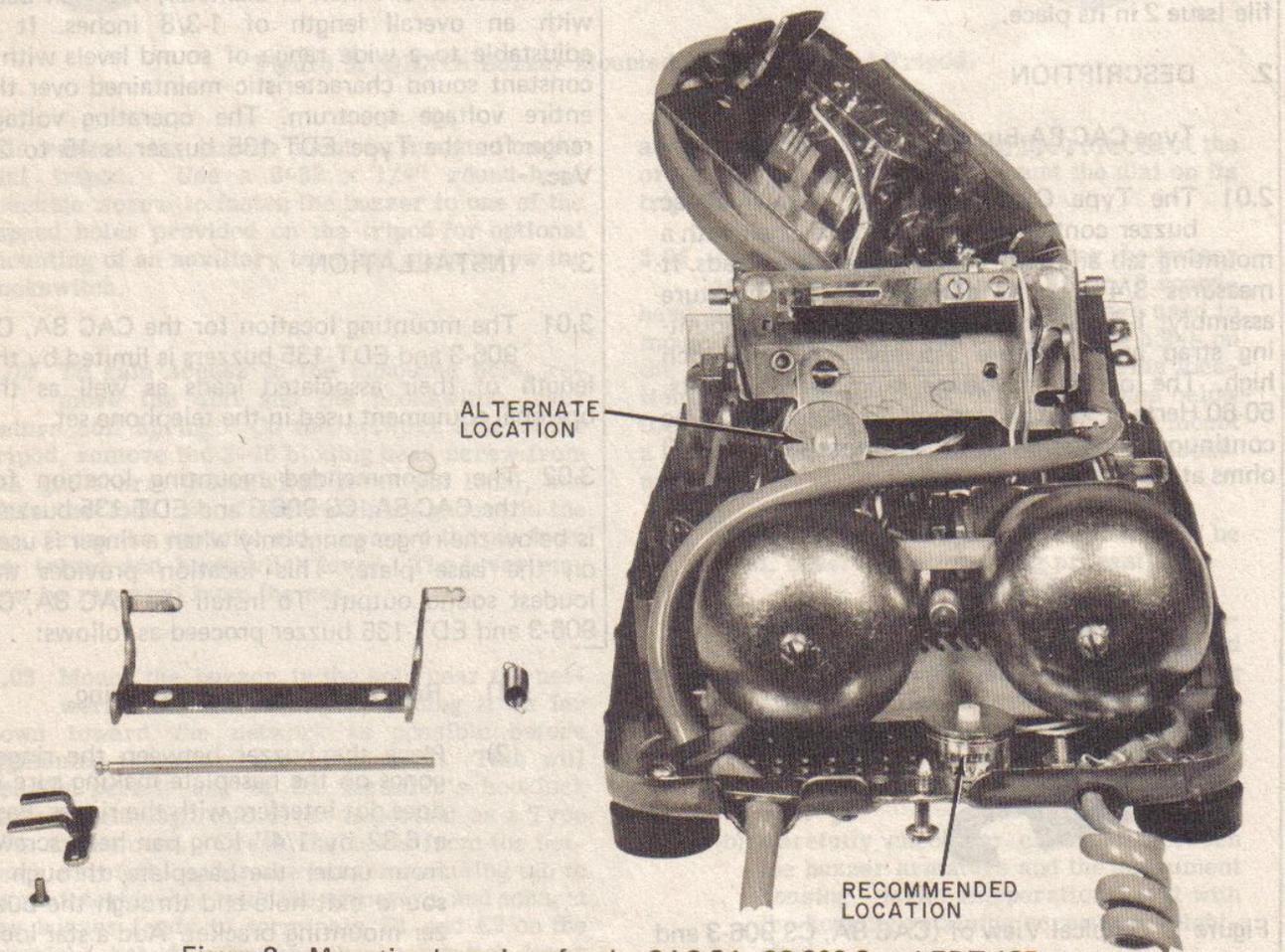


Figure 2. Mounting Locations for the CAC 8A, CS 906-3 and EDT-135 Buzzers.

- (4) Mount the buzzer in the tapped hole near the transmission unit side of the tripod with a 6 -32 by 3/8" long screw and star lockwasher. Push the buzzer down towards the transmission unit as far as possible before tightening the screw.
- (5) Connect the leads to terminals E1 and E2 on the terminal board. Rearrange the leads from the transmission unit and buzzer to avoid interference with the buzzer or ringer actuation.
- (6) Connect the telephone line cord leads for proper buzzer operation.
- (7) Buzz the buzzer and adjust the nylon screw on the buzzer for maximum

sound output (see Paragraph 3.04 for procedure).

- (8) Replace the hookswitch parts, dial assembly, and telephone housing.

Buzzer Adjustment

3.04 To adjust the buzzer, tighten the nylon adjustment screw and back off 5/8 of a turn. Adjust slightly to obtain loudest buzz.

NOTE: If the actuator screw is accidentally unscrewed fully and the phosphor-bronze residual flap and washer fall out, install the flap bowed side up. The middle of the flap shall be the highest side up pressing against the actuator washer.