

## 750, 1750, AND 2750 SERIES TELEPHONE SETS

### COMMON INSTALLATION AND MAINTENANCE INFORMATION

#### 1. GENERAL

**1.01** This section contains common installation and maintenance information for 0-, 1-, and 6-button panel type telephone sets.

**1.02** Refer to the appropriate Service section for connection information or the Reference section for ordering and piece part information in Division 502.

#### 2. INSTALLATION

##### *Apparatus Boxes*

**2.01** To flush mount or partially recess a panel type telephone set, an apparatus box must be ordered and installed. Refer to section entitled Apparatus Boxes—113-, 114-, and 118-Type in Division 463 for ordering information.

**2.02** 0- and 1-button panel type telephone sets use a 113-type apparatus box (Fig. 1) and 6-button key panel sets use a 114-type apparatus box for flush installations. To partially recess 6-button key telephone sets install a 113-type apparatus box and D-180039 or D-180040 Kit of Parts (Fig. 2).

**2.03** The apparatus box should be installed at a location and height that is agreeable to the customer (suggested height is 63 inches from floor to top of box) and free of any safety hazards. In apartment installations avoid using walls that are common to adjacent apartments; the telephone ringer may be audible to the adjacent apartment.

**2.04** The 113B (MD), 113E, or 114A apparatus box may be installed in existing walls by using a D-179941 Kit of Parts (Fig. 3) for securing the apparatus box. Install apparatus box and kit of parts as follows:

- (1) A hole 8-5/8 inches wide by 11-5/8 inches high must be cut into the existing wall.

**Caution:** *The hole to be cut into the existing wall must be cut accurately since the plastic frame supplied with the telephone set will not conceal any miscuts. Responsibility for making wall opening and mounting apparatus box is determined by local instructions.*

- (2) Mount the stops on top and bottom of the 113B (MD) and 113E apparatus box with screws provided (Fig. 4).

**Note:** 113B (MD) apparatus boxes do not have holes in top and bottom of box to permit attaching stops. Holes must be drilled locally. 114A apparatus box is equipped with tabs and does not require using the stops from the kit of parts.

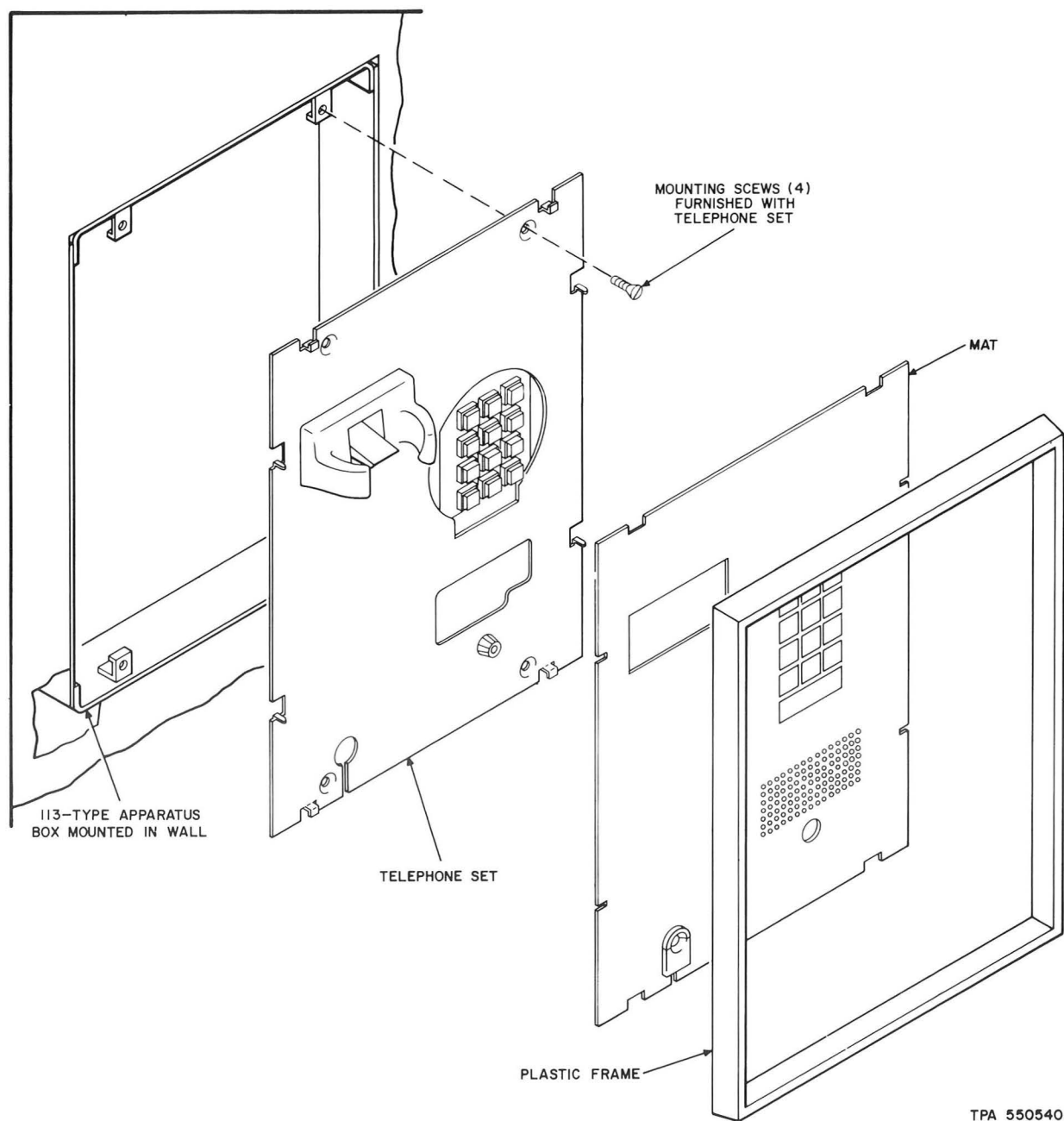
- (3) Insert the clips between the side of the box and the edge of the hole in the wall (Fig. 5). The end of the clip with tab farthest from the end is installed first, and in the top of the opening.

- (4) Bend the clip tabs over the side of the apparatus box locking the box firmly to the wall (Fig. 6).

**2.05** The 113C or 113D apparatus box is mounted using two KS-19202L2 hangers. The box must be installed before the wall board or paneling is placed. The spacing from the stud face to the face of the sliding bracket is 1-3/8 inches (Fig. 7). The hangers are secured to the building studs using the stud anchors provided on the end of the hangers (Fig. 8). Fasten the box to the sliding brackets of the hangers with screws provided.

**2.06** Knockouts are provided on all apparatus boxes for installation of thin wall conduit, inside wiring cable, or station wire. The 113C and 113D apparatus boxes are equipped with a threaded channel for conduit installation.

- 2.07** The raw-ended wire or cable is terminated in the 113- and 114-type apparatus boxes



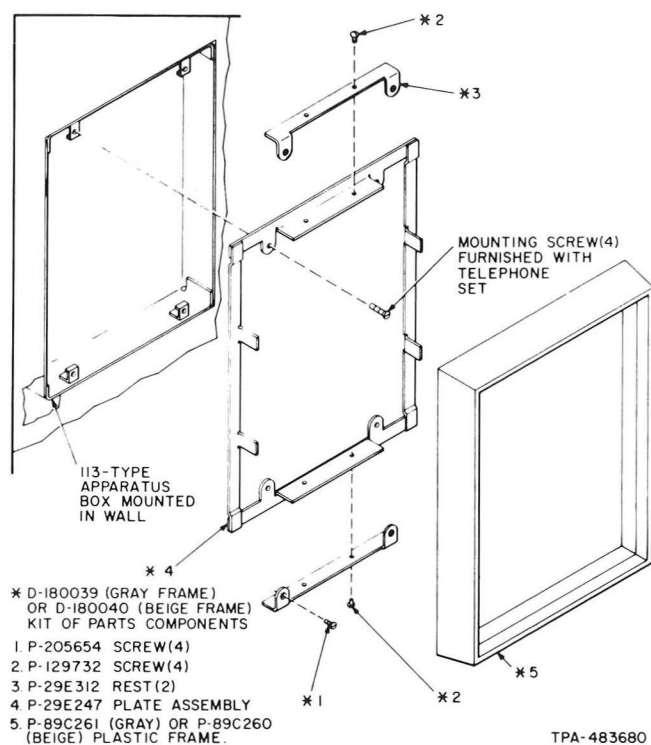
**Fig. 1—Typical Installation of Panel Type Telephone Set (Recess Mounting)**

on 71- or 75-type connecting blocks. Inside wire and cable should be brought into and terminated in the box at the time of installation. The connecting block should be installed on the brackets located in the upper right corner of the apparatus box (Fig. 9). The ends or loops of the inside wire or cable conductors are dressed from the underside

of the connecting block up through the slots and connected to the inner terminal screws.

#### *D-180071 or D-180072 Kit of Parts*

**2.08** The 750-, 751-, and 753-type sets and their equivalent TOUCH-TONE<sup>®</sup> dial versions can



**Fig. 2—Installation of D-180039 or D-180040 Kit of Parts**

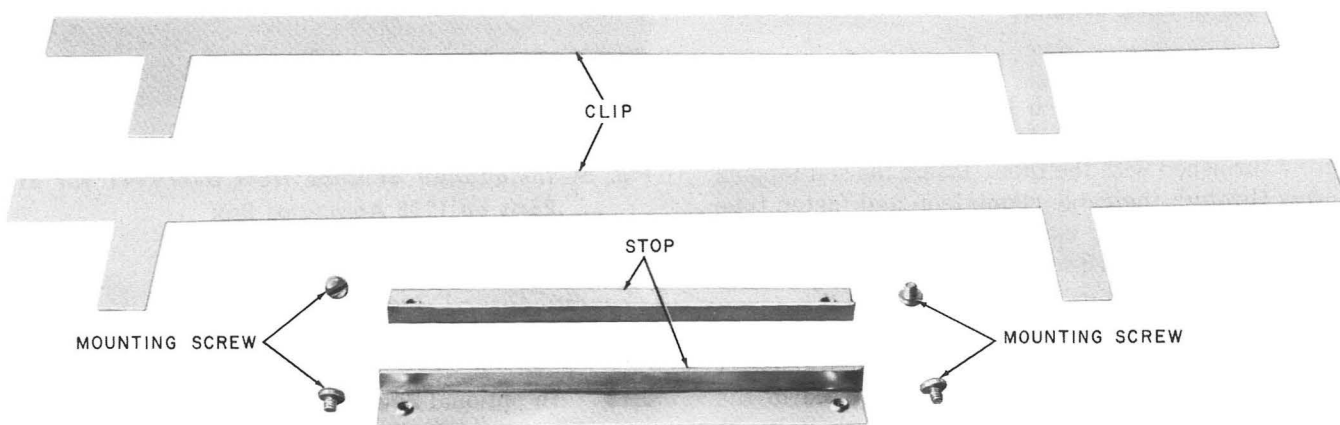
be surface mounted (Fig. 10) using a D-180071 (light gray) or D-180072 (light beige) Kit of Parts as follows:

- (1) Mount the base pan assembly to the wall. Provision is made for mounting the assembly to a 63A or KS-19407L1 bracket of a standard electric outlet box. Additional holes are provided for securing to walls using nails or screws.
- (2) Fasten the separately ordered 71B connecting block to the bracket provided and terminate inside wire or cable. Refer to appropriate Service section for connections.

### ***Cold-Cathode Electron Tube***

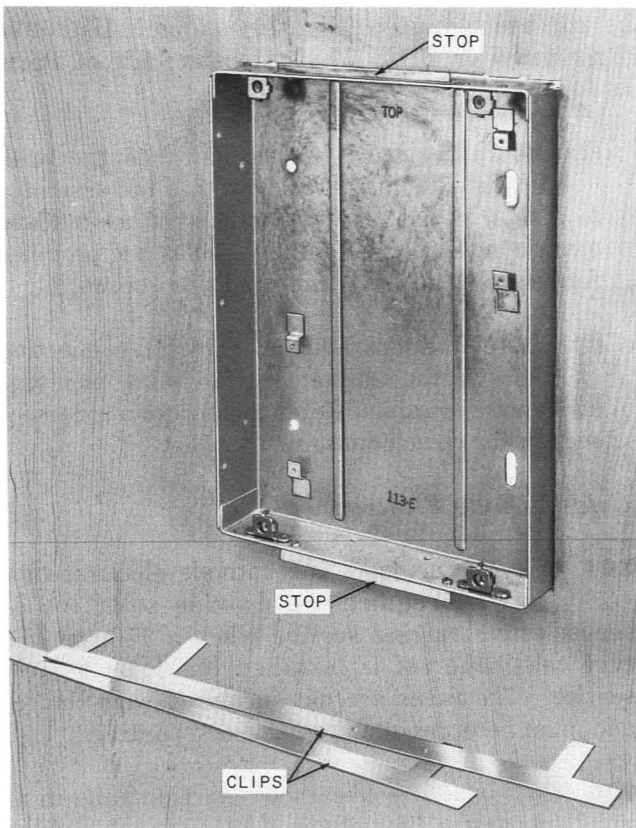
**2.09** A 425A or 426A cold-cathode electron tube may be required to provide selective or semiselective ringing service when a 750- or 751-type telephone set is installed for 4- or 8-party service. The tubes are not furnished with the set and must be ordered and installed separately.

**2.10** To install a cold-cathode electron tube in an apparatus box, obtain a 1/4-inch cable clamp



**Fig. 3—D-179941 Kit of Parts**





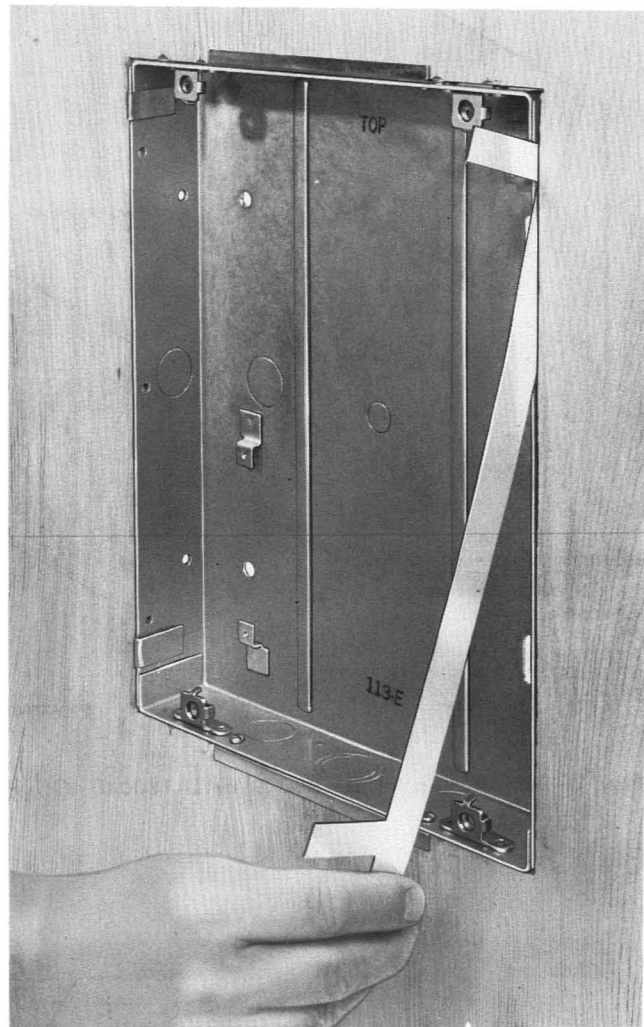
**Fig. 4—113E Apparatus Box, with Stops from D-179941 Kit of Parts Installed**

and a No. 10 by 3/4-inch long self tapping screw. Secure the clamp to the tube base using the mounting screw furnished with the tube. Insert the self-tapping screw through the cable clamp loop and fasten tube to the apparatus box using an existing hole or drill a hole at the required location (Fig. 11).

**2.11** To install the electron tube to the base pan assembly of a D-180071 or D-180072 Kit of Parts, secure the tube to an existing hole in the base pan using the screw furnished with the tube (Fig. 12).

**2.12** Use M1W cords or equivalent and D-161488 connectors to extend tube leads sufficiently to make connections on the terminal block. Make connections as shown in the appropriate Reference section.

**Note:** Select a location for the tube which will not interfere with telephone set components when the panel set is installed.



**Fig. 5—Installation of Clips from D-179941 Kit of Parts on 113E Apparatus Box**

### *Polarity Guard Assembly*

**2.13** An optional polarity guard (order separately) is available for use with TOUCH-TONE equipped telephone sets. It is intended for use when specified by local instructions for end-to-end signaling installations. Refer to Fig. 13 for proper location for installing P-90D060 guard assembly on 1750-, 1751-, 1753-, 2750-, 2751-, and 2753-type telephone sets. Refer to Fig. 14 for 1752-, 2752-, and 2754-type sets.

**Note:** Make connections to terminals of polarity guard before mounting assembly.



**Fig. 6—113E Apparatus Box with D-179941 Kit of Parts Installed**

### *Buzzers*

**2.14** Earlier models of 6-button key panel sets were equipped with a buzzer mounting bracket in the upper left corner which would accommodate either KS-8100 type or KS-20419L1 buzzer. In current sets the bracket is eliminated and a KS-20419L1 buzzer can be mounted as shown in Fig. 15, using a No. 8 by 1/4-inch self tapping screw.

**2.15** Use M1W cords or equivalent and D-161488 connectors to extend leads from the set plug to the buzzer. Test buzzer for proper voltage adjustment and volume before completing the installation of the telephone set.

### *Home Interphone Components*

**2.16** The 751, 752, 754 and their equivalent TOUCH-TONE telephone sets may be equipped for use with home interphone. The 752, 1752, and 2752 sets may be equipped for use with home interphone and/or 3-type speakerphone. Refer to the appropriate section in Division 512 for information on installing the optional components.

### *Telephone Set*

**2.17** To install the telephone set in the apparatus box:

- (1) Install 71- or 75-type connecting block on mounting bracket of apparatus box.

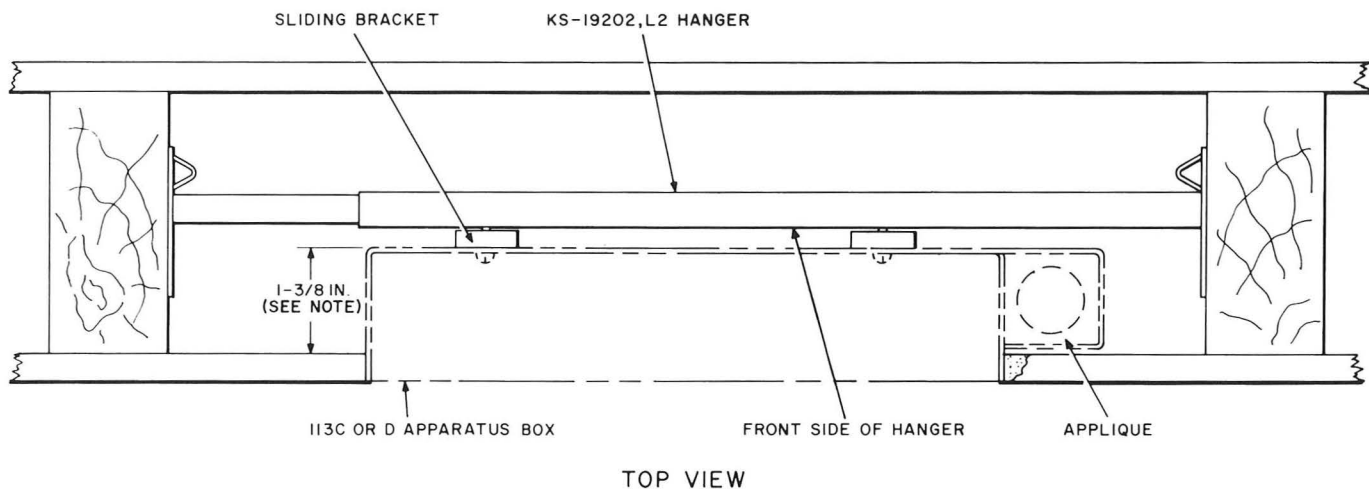
**Note:** Dress inside wiring cable conductors through appropriate slots in the 75-type connecting block before securing the connecting block. If A25B connector cable is used to connect directly to the plug of a key telephone set the 75-type connecting block is not required.

- (2) Secure mounting cord stayhook and terminate inside wire or cable and mounting cord in accordance with appropriate Service section. (Mounting cord is not required for key telephone sets using a A25B connector cable.)
- (3) Remove plastic mat retainer frame and mat from telephone set.
- (4) Position panel on lower edge of apparatus box with top tilted outward. Connect mounting cord or connector cable to the jack or plug on the telephone set panel. Dress mounting cord or connector cable to avoid interference with set components. Align panel of set with mounting brackets on box and secure with four mounting screws furnished with set (Fig. 1 and 10).



**When a key set is partially recessed using a D-180039 or D-180040 Kit of Parts, exercise care when installing panel assembly with long mounting screws to prevent damaging the 75A connecting block or D50AA-3 mounting cord. If the screws are too long they may be interchanged with the P-205654 screws supplied with the kit of parts.**



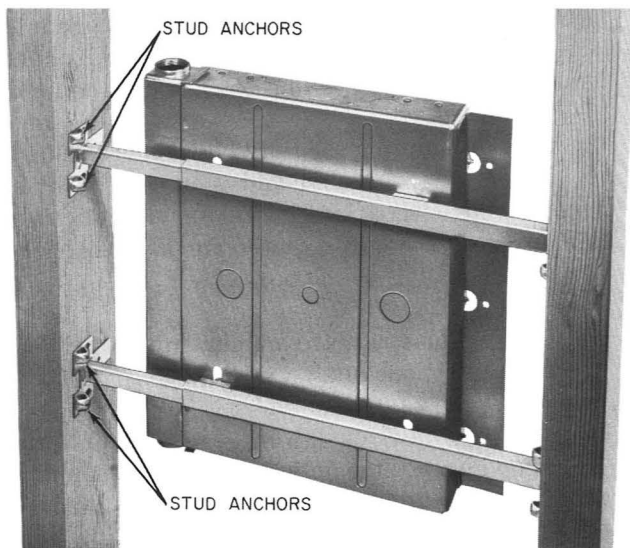


## NOTE:

RECESS HANGER SO THAT THE FRONT SIDE OF THE SLIDING BRACKET IS 1-3/8 INCH FROM THE FACE OF THE WALL STUD.

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**Fig. 7—Installation of KS-19202L2 Hanger and 113C or D Apparatus Box**



**Fig. 8—Typical Installation of 113D Apparatus Box, Rear View**

**2.18** To install the 0- and 1-button telephone set on a D-180071 or D-180072 Kit of Parts:

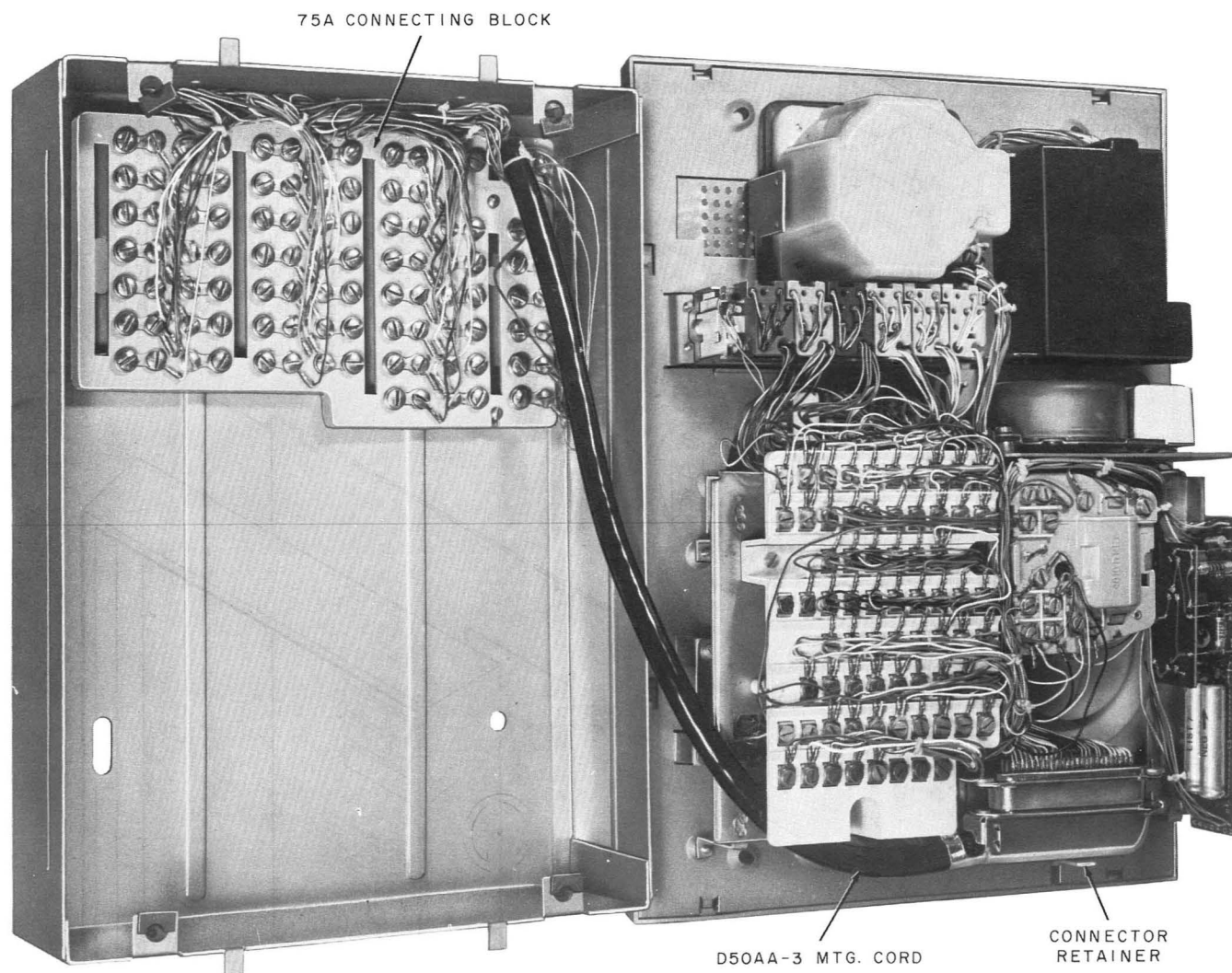
- (1) Install the 71B connecting block to the bracket provided on the base pan (Fig. 10). Terminate inside wire or cable and telephone set mounting cord as shown in appropriate Service section.
- (2) Connect mounting cord plug to connector on set panel. Dress mounting cord to avoid interference with telephone set components.
- (3) Align panel of set with mounting screws furnished with the set.
- (4) Position mat on panel and secure using plastic frame (P-89C260 or P-89C261) from kit of parts.

**Note:** The plastic frame furnished with the telephone set is not required for this installation.

### 3. MAINTENANCE

**3.01** The exterior of these sets should be clean and not marred or chipped. The vinyl-faced mat may be cleaned with a water damped KS-2423

- (5) Position mat on panel and secure using the mat retainer frame if necessary. The projecting tabs may be adjusted to insure a snug fit.



**Fig. 9—Installation Detail Using 114A Apparatus Box, D50AA-3 Mounting Cord and 75A Connecting Block**

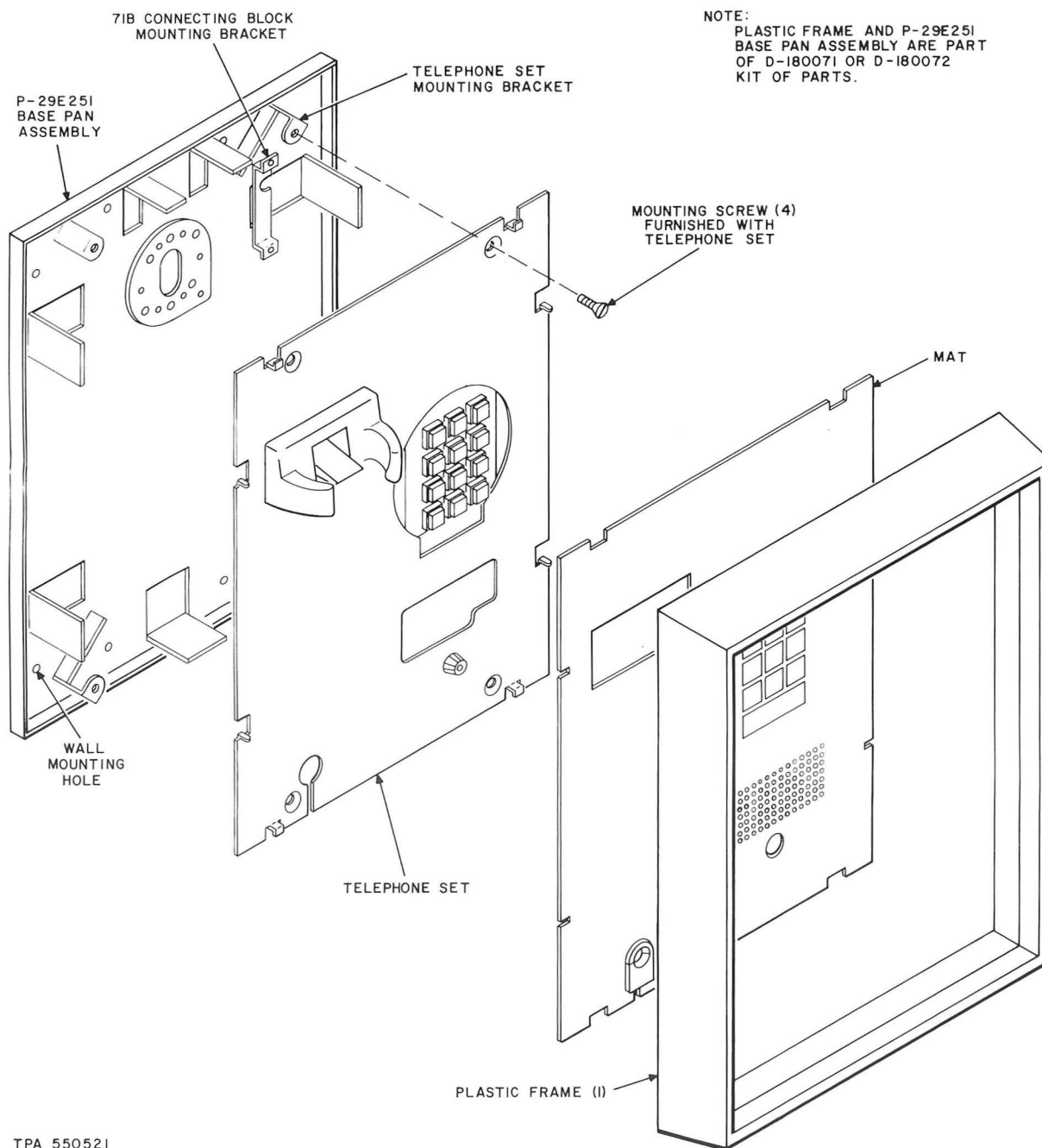
or equivalent cloth. Replace defective mat as follows:

- (1) Grasp mat retainer frame at top, lift upward and out to release frame from panel of set.
- (2) Remove handset from hook of set.
- (3) Pull out handset cord to allow working slack.
- (4) Remove mat from face of panel.
- (5) Remove one or two piece grommets from mat by twisting grommet clockwise until the grommet flange lines up with the slot in the mat (Fig. 10) and lift out. Replace three

piece grommets (Fig. 17) with current two piece grommet (Fig. 16). Order as P-44E501 grommet, upper half and P-44E502 grommet, lower half. Three piece grommets should also be replaced on maintenance visits.

- (6) Install grommet in new mat by reversing procedure used in removal.
- (7) Position mat on panel and secure using the mat retainer frame.

**3.02** To test the cord reel, pull the handset cord out to its maximum length. With the cord maintained perpendicular to the panel, the cord



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**Fig. 10—Surface Mounting Panel Type Telephone Set**

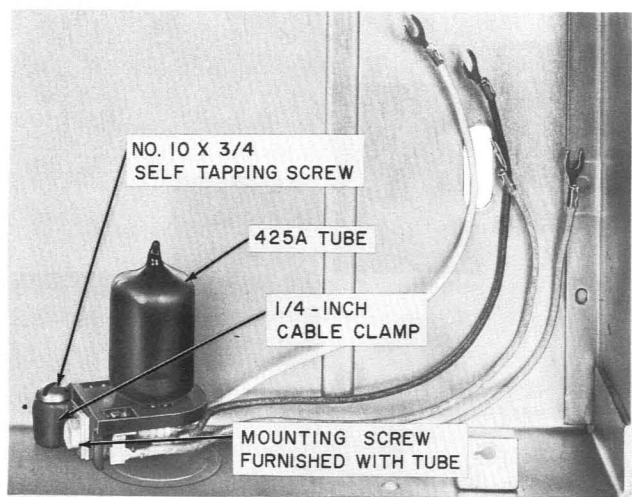
should retract fully. Any twists in the cord should be removed before making test.

**3.03** Replace the cord reel if the cord will not retract or if the cord is frayed, kinked, or

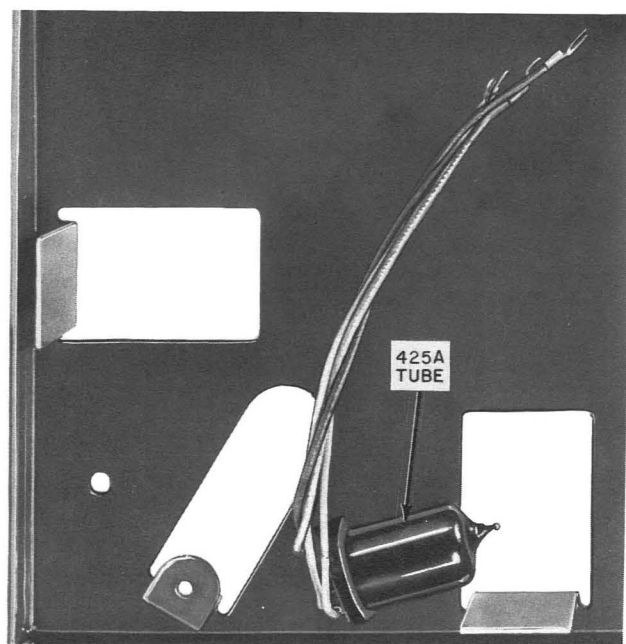
noisy. Field maintenance of the cord reel or replacement of the cord is not recommended.

**3.04** To replace the cord reel, remove the four screws located behind the mat of the telephone set. When the cord reel is replaced, the grommet

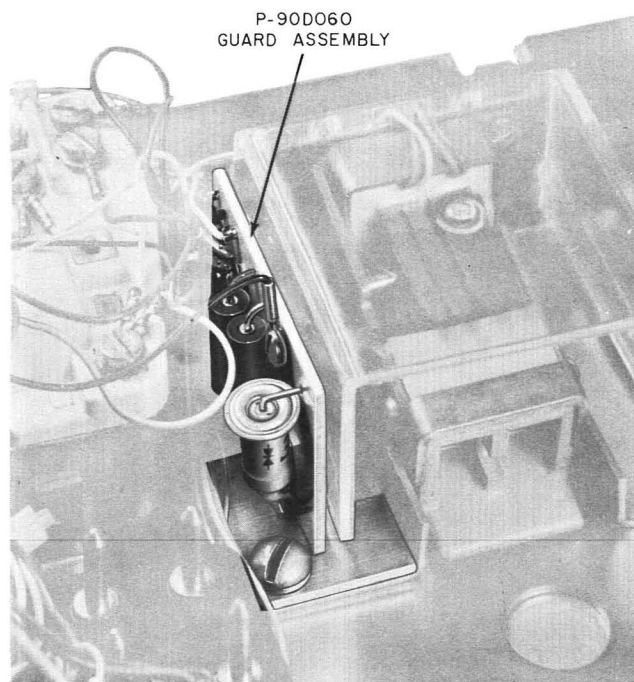




**Fig. 11—Installation of Cold-Cathode Tube in 113-type Apparatus Box**



**Fig. 12—Installation of Cold-Cathode Tube on Base Pan Assembly**



**Fig. 13—P-90D060 Polarity Guard Assembly Installed**

should also be replaced. Current production cord reels are equipped with a one-piece grommet.

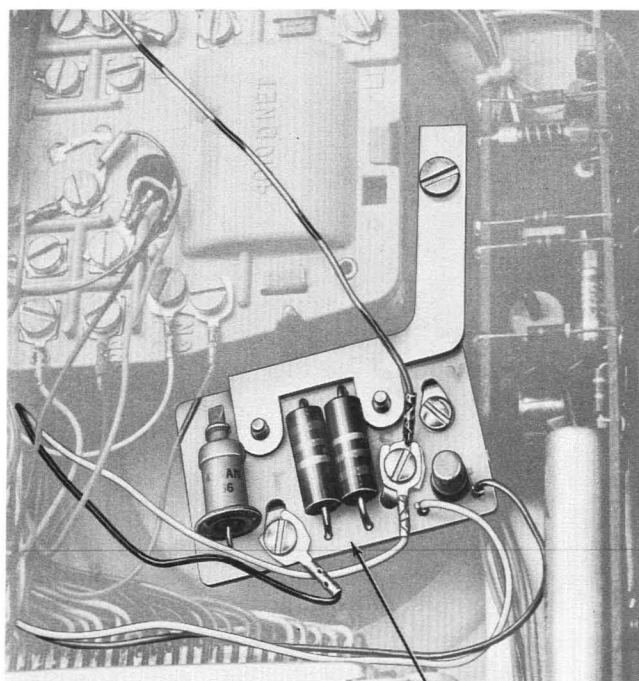


*The 3A cord reel shall be used in all locations where the telephone set is subject to temperatures below 40 degrees F. When the telephone set is not subjected to temperatures below 40 degrees F, the 3B cord reel may be used.*

**3.05** If the grommet is worn or damaged, the cord reel should also be replaced using the one-piece grommet.

**3.06** Ringers, handsets, dials, etc. used in these sets should be maintained in accordance with section covering the particular item.

**3.07** The ringer volume control should operate without restriction when the knob is turned. Replace set if the control mechanism is worn or defective.



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P-90D061  
GUARD ASSEMBLY

Fig. 14—P-90D061 Polarity Guard Assembly Installed

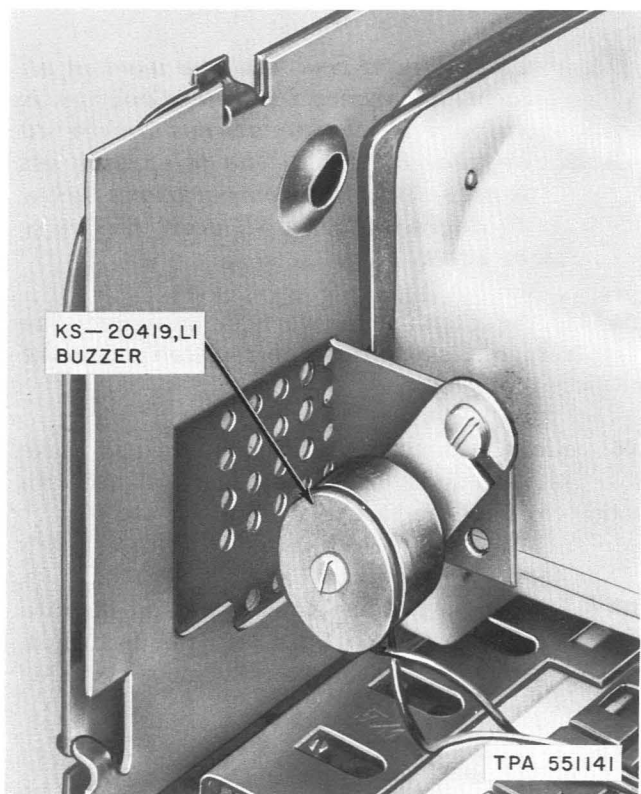


Fig. 15—Buzzer Mounting, Current Model

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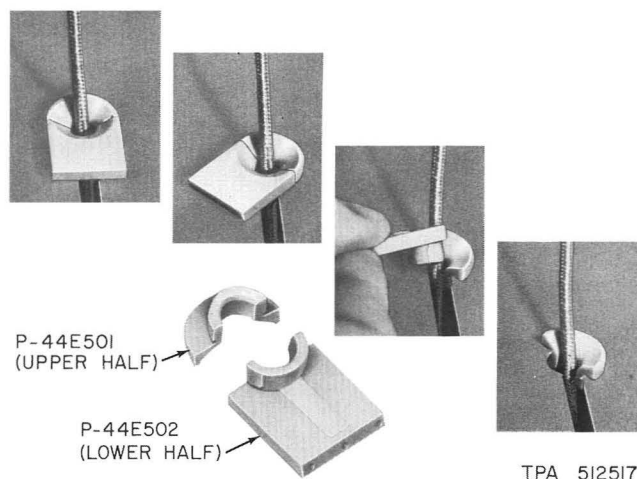


Fig. 16—Removal of Two-Piece Handset Cord Grommet

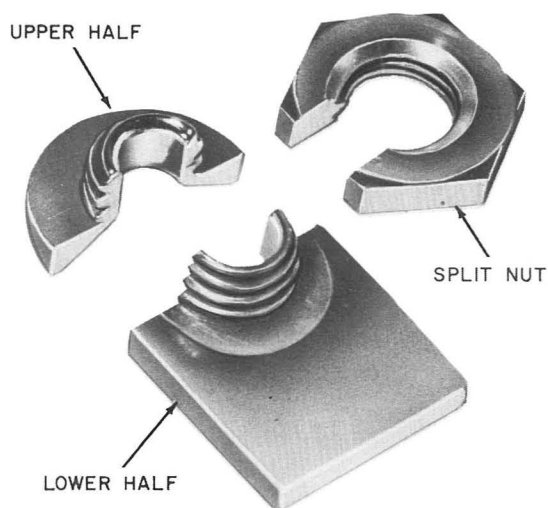


Fig. 17—P-14E894 (MD) Grommet Assembly

**Note:** When ringer volume control is set in LOW position only ringer motor noise may be heard because clapper may not strike gong. If bell sound is desired, move control to slightly higher volume position.

**3.08** Maintenance information for the 635-type key, 762A loudspeaker, 664B transmitter, and P-29E579 transmitter will be found in the appropriate section in Division 512.