

## TELEPHONE SETS 540, 560, AND 1565 TYPES MAINTENANCE

### 1. GENERAL

1.01 This section is reissued to include maintenance on 1565-type TOUCH-TONE dial telephone sets.

1.02 The maintenance of handsets, dials, and ringers is outlined in the sections covering these components.

1.03 To avoid damage to or binding of parts, exercise care when removing or replacing the housing.

### 2. REMOVING AND REPLACING HOUSING

#### 2.01 Sets without exclusion:

- To remove housing, loosen captive screw located at front and rear of the base. Lift housing up and toward front of set.
- To replace housing, guide lower front portion of housing over pushbuttons, align housing with base of set, and gently press housing into place. Tighten captive housing screws in base of set.

Note: Holding switchhook plungers up facilitates housing replacement.

#### 2.02 Sets with exclusion:

- To remove housing, pull up exclusion plunger to its operated position, loosen housing screws located at front and rear of base, and lift housing up and toward front of set.
- To replace housing, raise and hold exclusion and switchhook plungers, guide lower front portion of housing over pushbuttons, align housing with base of set, and gently press housing into place. The ridge incorporated in the housing assembly must align with the forks associated with the exclusion switch (Fig. 1). Depress exclusion plunger. With slight pressure it should snap into its unoperated position. Operate exclusion plunger several times to ensure proper functioning. Tighten housing screws in base of set.

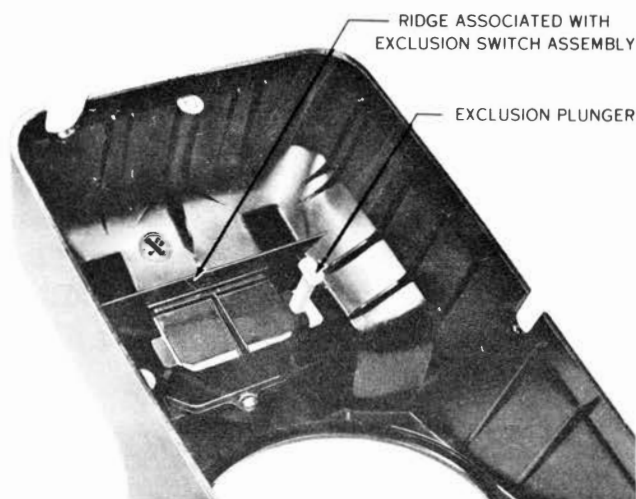


Fig. 1 - Exclusion Plunger

### 3. EXCLUSION SWITCH

3.01 No field maintenance should be performed on the exclusion switch and plunger other than cleaning contacts with a 265C tool.

3.02 Replace set if any of the following exclusion switch requirements cannot be met:

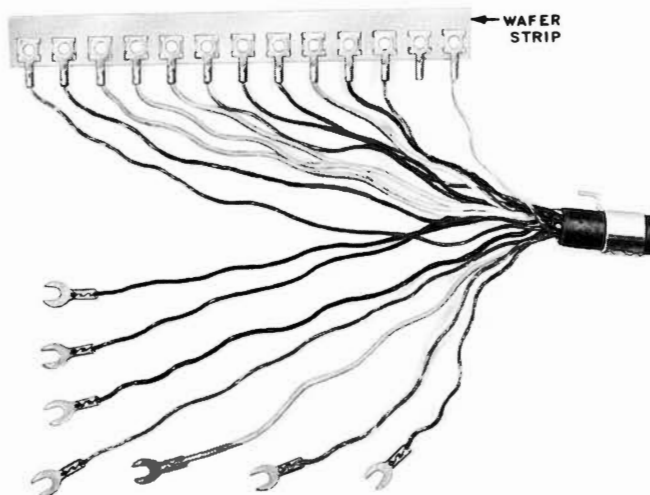
- The exclusion plunger shall remain in the operated position when pulled up to the full extent of its stroke.
- The plunger shall return to the fully depressed position when handset is placed on the cradle.
- With housing removed, normally closed contacts of the exclusion switch shall have perceptible follow when operated manually.
- With housing removed, open contacts of the exclusion switch shall have a minimum separation of 0.015 inch; gauge by eye.

### 4. MOUNTING CORDS (FIG. 2, 3, AND 4)

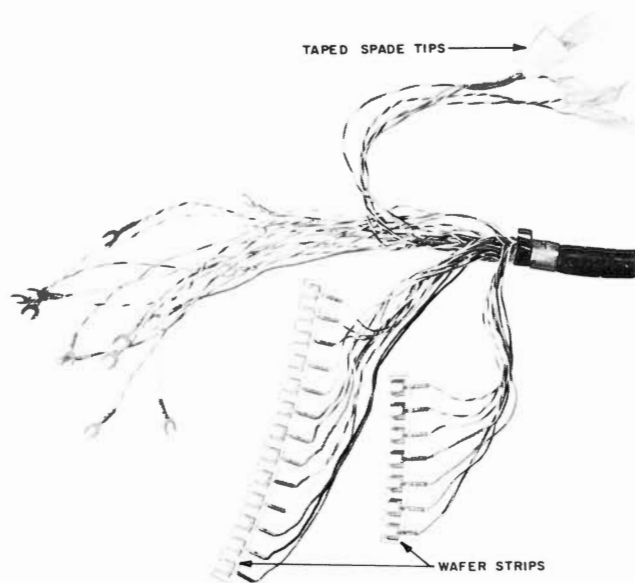
4.01 To replace mounting cords of 540- or 560-type telephone sets of early manufacture, remove the dial from its mounting bracket; then remove the screws which pass through the holes in the wafer strip. Disconnect the spade-tipped conductors, and then disengage the cord from the right leg of the dial mounting bracket.



*No field maintenance should be performed on the plug of plug-ended mounting cords.*



**Fig. 2 - Nonslotted Wafer-strip End of Mounting Cord, Early Type**



**Fig. 3 - Slotted Wafer-strip End of Mounting Cord, Late Type**

4.02 Cords of late manufacture feature a slotted wafer strip (Fig. 3) to facilitate replacement. Spare cord conductors shall be insulated and dressed under the terminal plate.

## 5. LAMPS AND PUSHBUTTONS

### 5.01 Replace cracked pushbuttons or collars.

Remove accumulated dirt or film from lamps, collars and pushbuttons with a water-dampened cloth. Do not use solvents of any kind. If cleaning does not correct binding of pushbuttons, replace the set.

### 5.02 For maximum illumination:

- Position each lamp near its associated button.
- Clean metal lamp-contacting surfaces.
- Hold lamp in the desired position with adequate spring tension.

### 5.03 To replace defective lamp:

- (1) Remove dial from mounting bracket.
- (2) Lift lamp from socket with KS-6320 orange stick.
- (3) Align lamp contact surfaces when placing new lamp in socket.
- (4) Remount dial.

5.04 The button and block assembly should be carefully aligned to avoid interference with removal or replacement of the set housing. In sets using the 589Y and 636A keys, the lamp block assembly is part of the molded key terminal.

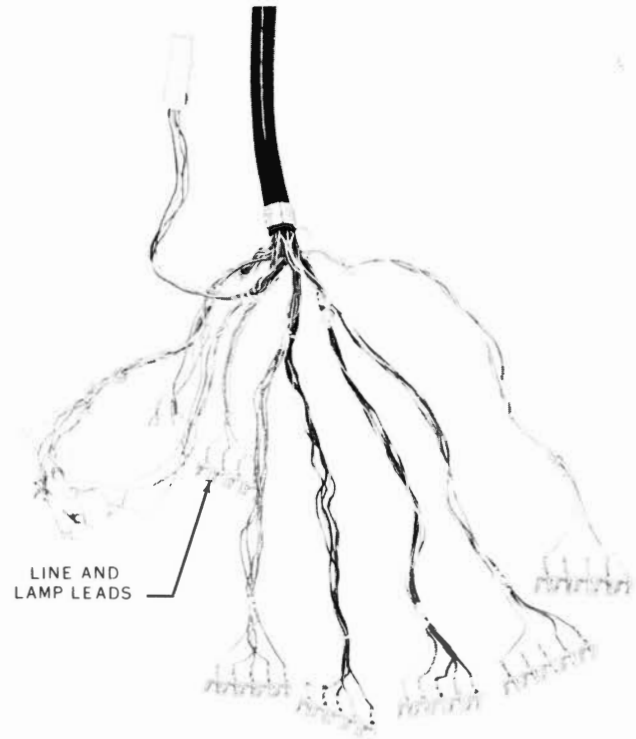


Fig. 4 - Mounting Cord Used with 589Y and 636A Keys

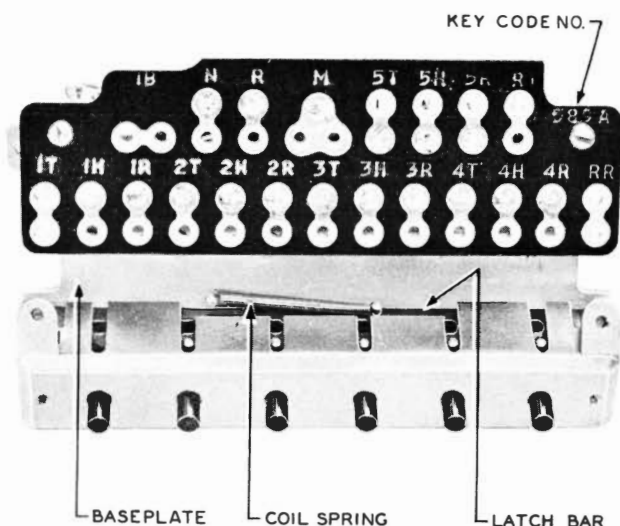


Fig. 5 - 589-Type Key, Top View

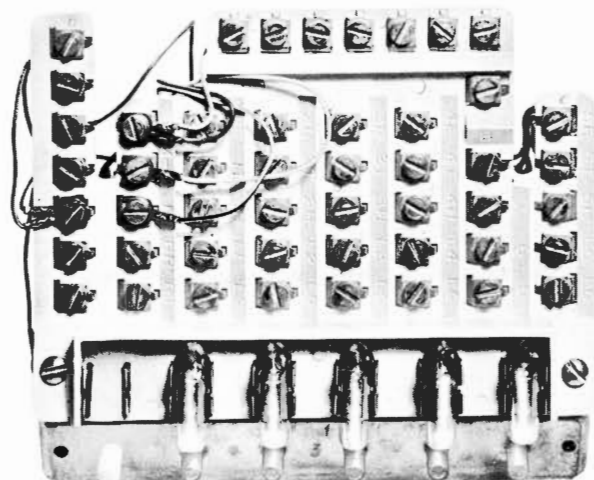


Fig. 6 - 589Y Key, Top View

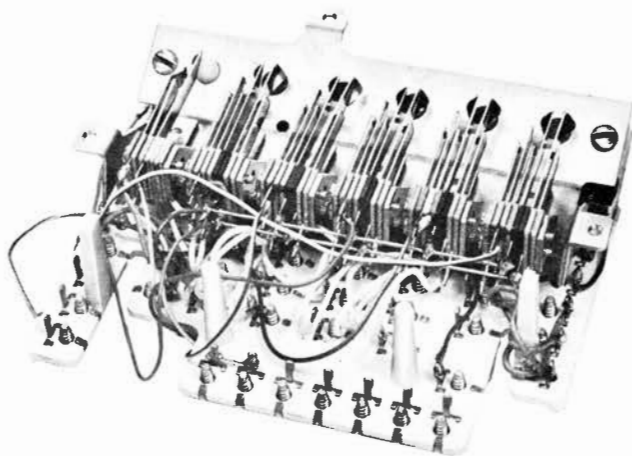


Fig. 7 - 589Y Key, Bottom View

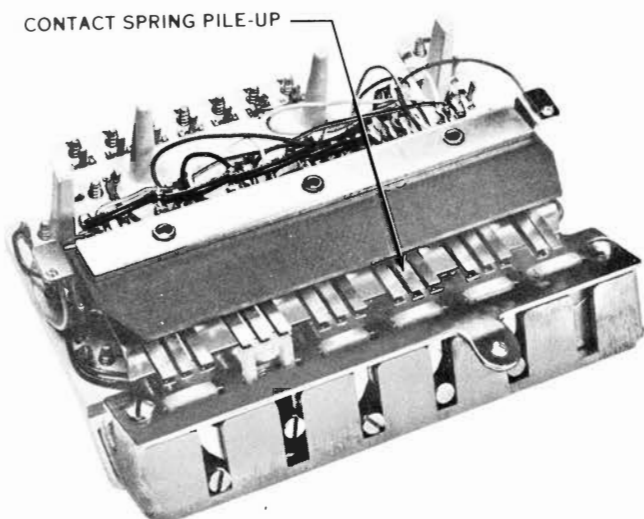


Fig. 8 - 636A Key, Bottom View

## 6. 588-, 589-, AND 636-TYPE KEYS

6.01 Field maintenance of these keys (Fig. 5 through 9) consists of:

- Cleaning contact surfaces with a 265C tool.
- Replacing loose or missing damper studs with P-18A859 vibration damper sleeves (Fig. 9).

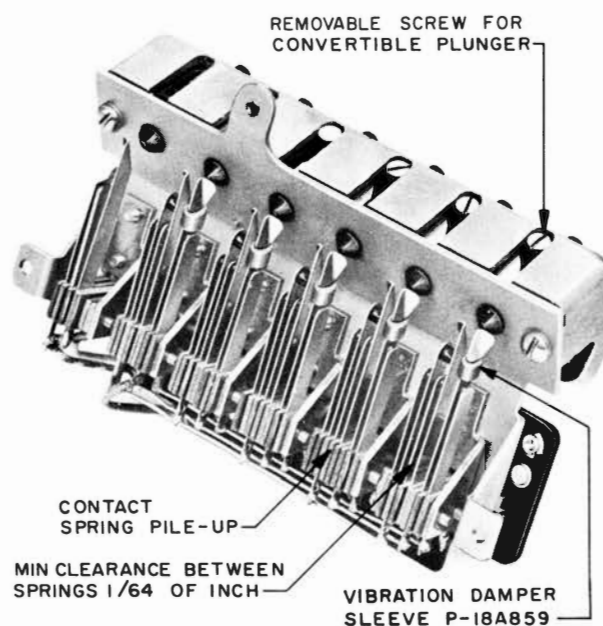


Fig. 9 - 589-Type Key, Bottom View

6.02 Contact follow and separation is obtained by using a 363 tool at a point adjacent to contact spring pile-up (Fig. 9). When adjusting springs:

- There shall be a minimum spring clearance of 1/64 inch between contact springs and those parts of the key which do not make contact with springs. (See Fig. 9.)
- Normally open contacts shall make with perceptible follow on locking-type keys before the key plunger assumes its locked position.

**6.03** Replace set if the following requirements cannot be met:

- When depressed, locking plunger shall, on its downstroke, release any previously locked plunger.
- When any pushbutton plunger is released from its operated position, it shall return with a snap to its unoperated position.
- A turnbutton-key plunger shall maintain its operated position when fully rotated 90 degrees clockwise. It shall be self-restoring through the last 30 degrees of travel when rotated to its unoperated position.
- An operated key plunger shall not release during the downstroke of the hold button.
- An operated key plunger shall be released from its operated position on the upstroke of the hold button.

## **7. TOUCH-TONE DIAL**

**7.01** No TOUCH-TONE dial repairs should be attempted in the field. Replace defective dials.

**7.02** See section on maintenance of dials to determine whether dial is defective. Make a quick check of the dial by connecting a 1011B test set across the line at the set, then dial.



*Polarity of the line to the dial must remain the same on any type service.*

**7.03** Remove faceplate by disengaging the top center faceplate latch with a KS-16750,L1 releaser. Lift the top of the faceplate up and forward.