

TELEPHONE SET MOUNTINGS H-TYPE AND ASSOCIATED PLUNGER SWITCH ASSEMBLIES — MAINTENANCE

1. GENERAL

1.01 This section covers the requirements and the adjustment procedures for the maintenance of H-type telephone set mountings and the P-339939 mounting assembly used in the 329-type telephone set. The requirements and the adjustment procedures for the maintenance of the ringer associated with H-type telephone set mountings are covered in Section C31.205.

1.02 This section is reissued primarily to include information on the P-339939 mounting assembly, and the use of the 426A vacuum tube in the H-12 and H-14 type mounting. At the same time, the section has been considerably modified and shortened to omit certain involved test and adjustment procedures and to simplify others. Due to extensive changes made, marginal arrows have been omitted.

1.03 To avoid unnecessary interruptions to service while working on the H-type mounting, disconnect the "Red" conductor of the mounting cord from its terminal at the induction coil or from the connecting block.

2. CLEANING

2.01 Clean the outer surfaces, including the cavity in the back of the mounting under the hand grip, with a cloth moistened with water. Brush out loose dirt from the interior of the mounting or mounting assembly.

3. REQUIREMENTS AND PROCEDURES

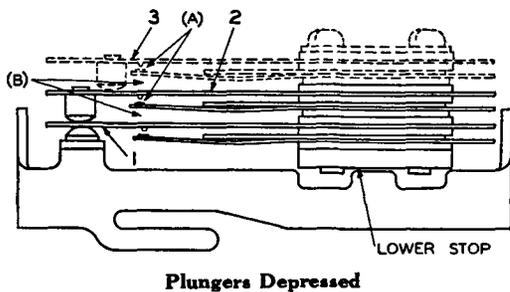
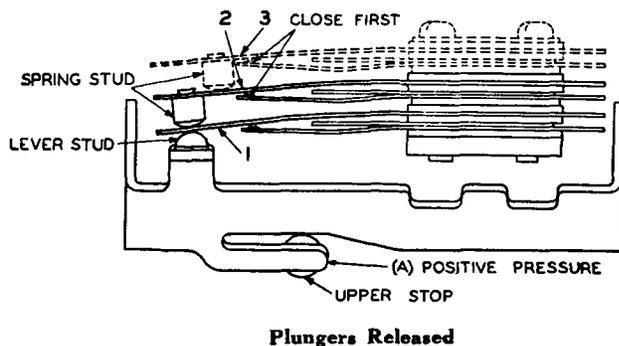


Fig. 1

3.01 Depending on the set, single and multipurpose plunger and switch assemblies in the H-type mountings will be encountered. Identify and operate the set, and determine that it is performing according to its intended functions.

(a) For the H1 to H7 and H12 mountings the plunger is a single purpose device which operates a two, three, or four operating spring arrangement. (See Figs. 1 and 2.)

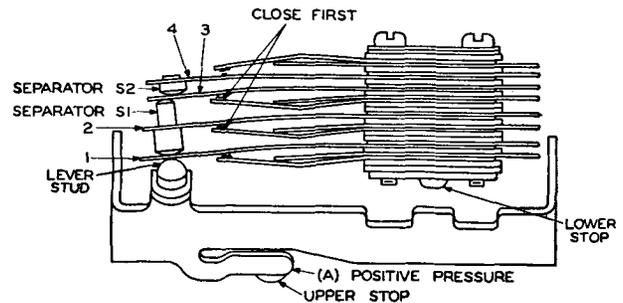


Fig. 2—Plungers Released

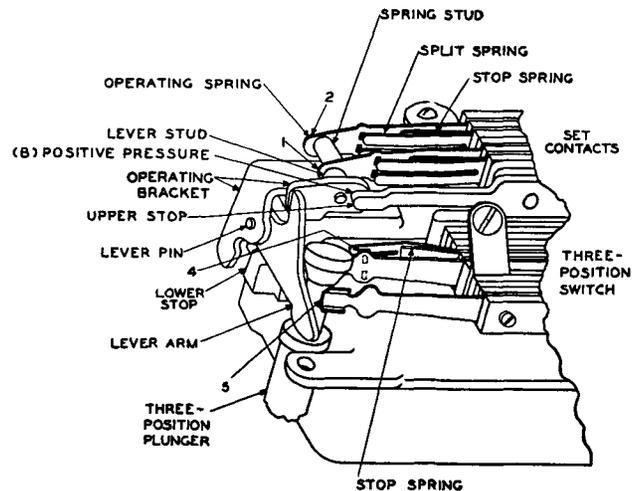


Fig. 3—3-Position Switch (H13 and H14—Type Mountings)

(b) For the H8 and H9 mounting (332 and 334 amplified telephone sets) the right-hand plunger is a multipurpose device. When the handset is removed, both plungers shall operate and cut the amplifier element into operation. Rotating the right-hand plunger to H, M, and L, will permit the gain to be varied. When the same plunger is lifted to its fullest extent, it shall remain in that position and cut out the amplifier, then the set will perform in the normal manner. Restoring the handset will depress both plungers to the level of the handset seating surface.

(c) For the H13 and H14, (lift to dial or talk) the plunger for the 3-position switch shall remain in the operated position when pulled up to the full extent of its stroke. Restoring the handset will depress both plungers to the level of the handset seating surface. (See Fig. 3.)

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(d) For the P-339939 mounting assembly, the four operating spring assembly is equipped with an auxiliary spring. (See Fig. 4.) No adjustment shall be made on this spring.

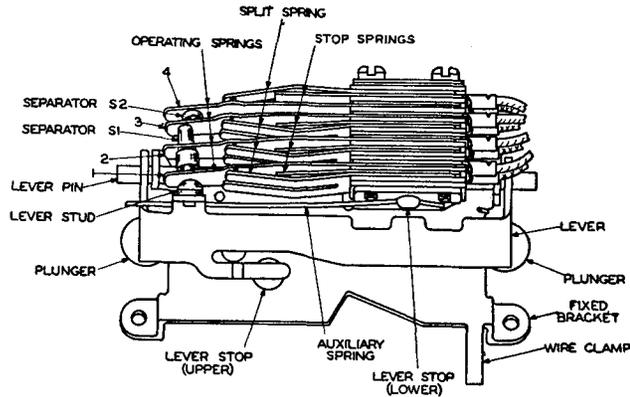


Fig. 4—Switch Assembly for the P-339939 Mounting Assembly

3.02 Binding and Squeaking: Both plungers shall move freely without a tendency to bind and shall be free from squeaks through their allowable travel. To eliminate binding or squeaking proceed as follows:

- (a) Open set and determine whether binding is due to lack of end play in the lever, sticky lever pin, or sticky plunger.
- (b) Adjust ears or lever or clean pin, plungers, and hole as required.
- (c) To lubricate, rub lead of pencil or equivalent on bearing surfaces of plunger, pin or lever so as to deposit a continuous a coating as possible. When reinstalling the switch assembly, care shall be taken to properly dress the wires under the wire clamp.

Screws-Switch Assembly

3.03 Piece part numbers of switch assembly, mounting screws, and associated washers are:

Mountings with Metal Housings

- P-125043 (No. 6—32 by 1/8 in. lg. R.H.S. Mach. Screw zinc finish) 2 required.
- P-286700 (No. 6—32 by 9/32 in. lg. R.H.S. Mach. Screw preassembled with No. 6 by 1/16 in. by 1/32 in. steel lockwasher zinc finish) 1 required.

Mountings or Mounting Assembly with Plastic Housings

- P-284024 (See Note 1) (No. 6—20 by 5/8 in. lg. Self-Tapping Oval Fillister Head Steel Screw preassembled with No. 4 by 3/64 in. by 1/32 in. steel lockwasher zinc finish) 2 required.
- P-286700 (See Note 2) Screw with lockwasher preassembled, 1 required.

Note 1: If the thread in either of the end positions is stripped use No. 8 by 5/8 in. lg. R.H.S. Self-Tapping Screw P-422006 and a No. 8 by 3/64 in. lockwasher with zinc finish.

Note 2: No. 6—20 by 5/16 in. Self-Tapping Oval Fillister Head Steel Screw (P-478075) used in earlier type plastic housings.

Note 3: No mounting screw (P-286700) is used in center position in mounting assembly P-339939.

Contacts and Contact Springs

3.04 Contact Cleaning: The spring contacts shall be cleaned by burnishing with a No. 265C tool.

3.05 Contact Alignment: Contacts shall line up so that the contacting surface of each contact, throughout the entire range of operation, falls within the length of the other mating contact. Judge visually. Replace set if contacts are obviously out of line. (See Fig. 5.)

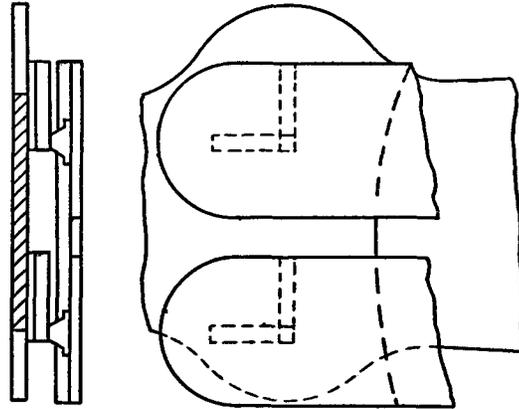


Fig. 5—Switch Assembly Contact Alignment

3.06 Switch Assembly: To check the operation of the switch and plunger assembly, open the set and check as follows:

- (a) Switch assembly mounting screws shall be present and secure. (Replace if missing.)
- (b) Switch assembly pile-up shall be tight and all the hard rubber studs and separators shall be present and shall align within the intended working area of the operating springs. Remove switch assembly realign and tighten if loose.
- (c) Depress and release the plunger and observe that all contacts which are intended to make shall have positive pressure. If contacts are worn or burned, replace the set. In order to increase the contact pressure or the separation between contacts, the stop spring (shown in Fig. 4) should be adjusted.
- (d) Where the plunger extended feature is encountered and it requires adjustment, care should be exercised in making any adjustment.
- (e) No adjustments shall be made on the multiple switch assembly of the H8 and H9 (332 or 334 telephone sets) other than the burnishing of the contacts. Replace set if unsatisfactory operation is encountered.

3.07 Contact Sequence—Set Contacts: Observe that the contact sequence for spring assemblies with two or three operating springs in the same pile-up are as indicated on Fig. 1 and for spring assemblies with four operating springs in the same pile-up as indicated on Fig. 2. The contacts on spring 1 shall have a perceptible separation after the contacts associated with springs 2 and 3 have closed. Gauge by eye. If these conditions are not met replace the set.

Terminal Screws

3.08 Terminal Screw Tightness: Check all terminal screws for tightness.

Vacuum Tubes

3.09 The 426A vacuum tube with bracket assembly P-348078 may be used to replace the 333A, 313A, 372A, and 405A vacuum tubes and their brackets.

3.10 Base Plate Feet: Feet attached to base plate by means of screws are replaceable and may be ordered as P-470771 (Leather Covered) foot assembly. The P-470771 foot assembly, with felt or rayon flock coated cotton duck covering, is furnished on some sets. Leather, felt, or rayon flock coated cotton duck covered feet may be used on the same set. If it is

necessary to replace a foot assembly, it shall be replaced with a leather covered foot assembly. Sets with felt covered feet requiring replacement of only one foot on either end of the base plate shall have both feet on that end replaced with leather covered feet. Replacement screws for attaching feet are P-297756. If slipping is experienced with sets equipped with rayon coated cotton duck or felt covered feet not equipped with triangular friction pad KS-8035, one should be applied to each foot on the same set regardless of the covering of the material. If slipping is experienced with sets equipped with friction pads, replace the friction pads with new friction pads. Where telephone sets with foot assemblies with rubber cushions are placed on light colored surfaces that are waxed or similarly treated, and the set is subjected to high humidity or direct sun-light for extended periods, staining of such surfaces is likely to

occur. Where staining is anticipated or has been experienced, replace rubber cushion-type foot assembly with felt cushion-type foot assembly. In all other cases, only leather covered feet with or without felt cushion shall be used on dial sets.

3.11 Precaution When Assembling: Before assembling the base to the housing, see that the interior wiring is so arranged that it will not interfere with the operation of the ringer, ringer gongs, dial, or switch assembly. Also see that the cords are in place and that the base fits flush with the housing before tightening the two assembly screws and then tighten the screws securely.

3.12 Station Testing: When the foregoing procedures have been completed, make a test of the station according to Standard Practices.