

RELAYS
267 TYPE, D-99739, AND D-175787
PIECE-PART DATA AND REPLACEMENT PROCEDURES

1. GENERAL

1.01 This section covers the information necessary for ordering parts to be used in the maintenance of 267-type, D-99739, and D-175787 relays. It also covers approved procedures for replacing these parts.

1.02 This section is reissued to revise armature replacement procedure to cover armatures equipped with open-end mounting slots.

1.03 Part 2 of this section covers the piece-part numbers and the corresponding names of the parts which it is practicable to replace in the field in the maintenance of the 267-type, D-99739, and D-175787 relays. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts. This information is called Piece-part Data.

1.04 Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2. This information is called Replacement Procedures.

1.05 Before making any replacement of relay parts, remove the associated circuit from service.

2. PIECE-PART DATA

2.01 The figures included in this part show the various piece parts in their proper relation to other parts of the relay. The piece-part numbers of the various parts are given together with the names of the parts as listed by the Western Electric Company Merchandise Department. Where these names differ from those in general use in the field, the latter names, in some cases, are shown in parentheses.

2.02 When ordering parts for replacement purposes, give both the number and the name of the piece part, for example, P-459553 cover. Do not refer to the BSP number or to any information shown in parentheses following the piece-part numbers.

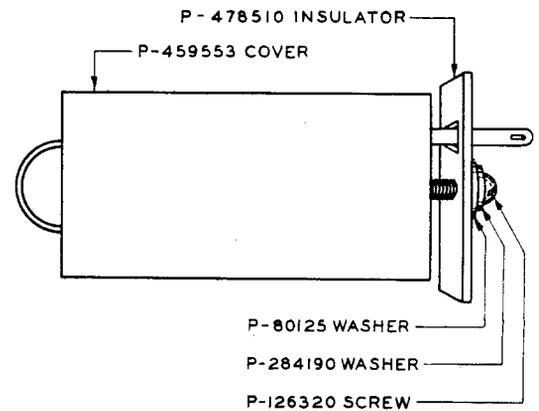
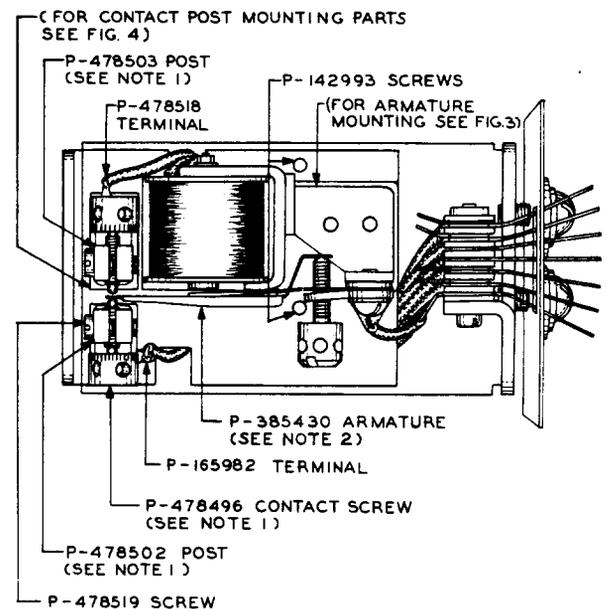


Fig. 1 - Cover and Mounting Parts — 267-type, D-99739, and D-175787 Relays



- NOTES:**
1. WHEN NECESSARY TO REPLACE EITHER A CONTACT SCREW OR ITS ASSOCIATED POST, ON THE D-99739 RELAY, REPLACE BOTH THE CONTACT SCREW & THE POST
 2. WHEN REPLACING A RIVETED ARMATURE, ALSO ORDER P-482818 SPACER (SEE FIG. 3A)

Fig. 2 - Top View — 267-type, D-99739, and D-175787 Relays

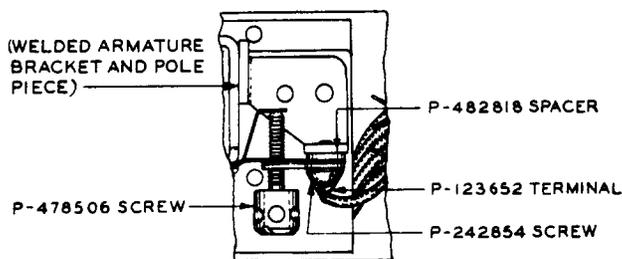


FIG. 3A - 267-TYPE AND D-175787 RELAYS EQUIPPED WITH WELDED ARMATURE BRACKET AND POLE PIECE.

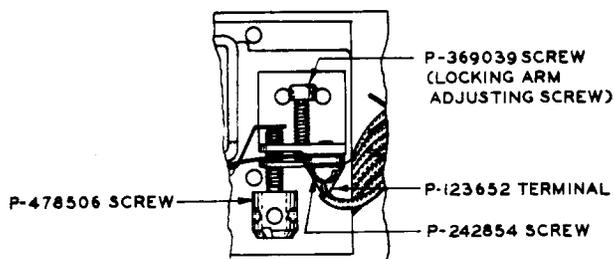


FIG. 3B NO. 267A AND 267B RELAYS EQUIPPED WITH A LOCKING ARM ADJUSTING SCREW.

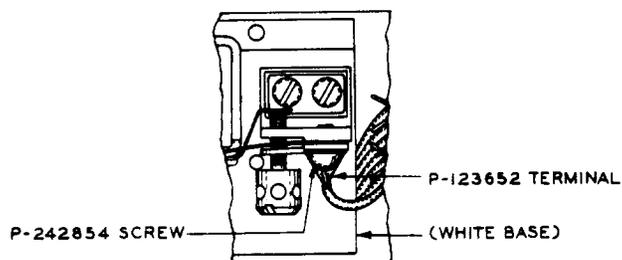


FIG. 3C - NO. 267A AND D-99739 RELAYS EQUIPPED WITH A WHITE BASE.

Fig. 3 - Armature Mounting Parts - 267-type, D-99739, and D-175787 Relays

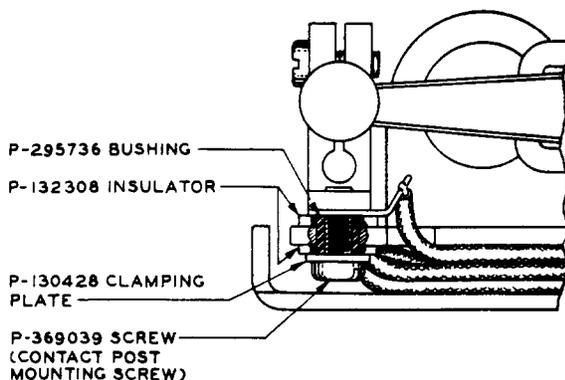


Fig. 4 - Contact Post Mounting Parts - 267-type, D-99739, and D-175787 Relays

3. REPLACEMENT PROCEDURES

3.01 List of Tools

CODE OR SPEC NO.	DESCRIPTION
340	Adjusting Key
—	3-inch Cabinet Screwdriver
—	4-inch Regular Screwdriver
—	6-1/2-inch P-Long-nose Pliers
—	B Splicers Scissors

3.02 At the time of making a replacement of parts, clean the relay in accordance with Section 069-306-801. After making any replacement of parts of a relay, the part or parts replaced shall meet the readjust requirements involved, as specified in Section 040-257-701. Other parts, whose adjustments may have been disturbed by the replacing operations, shall be checked to the readjust requirements and an over-all operation check shall be made of the relay before restoring the circuit to service.

3.03 In replacing some parts of these relays, it will be necessary to remove the relay from the mounting plate in order to gain access to the part.

(1) Unsolder the leads from the terminals, taking care to tag the wires. Remove the relay from the mounting plate by removing the mounting screws with the 4-inch regular screwdriver.

(2) At this time, replacement of the washers on the mounting screws may be made, if necessary.

(3) After replacing the part, remount the relay securely on the mounting plate. Connect and solder the leads to the proper terminals.

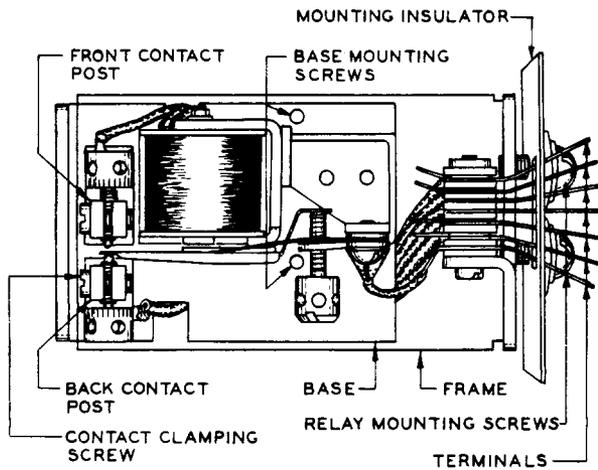


Fig. 5 - Top View — 267-type, D-99739, and D-175787 Relays

3.04 No replacement procedures are specified for screws and other parts when the replacement procedure consists of a simple operation.

3.05 Mounting Insulator: Remove the relay from the mounting plate as outlined in 3.03. Press the terminals together lightly with the fingers, so that the insulator will clear and remove the insulator. Place the new insulator in position by reversing the procedure. Insert the tip of the blade of the 3-inch cabinet screwdriver between the terminals close to the pile-up and spread the terminals so that there is a clearance between them.

3.06 Contact Screw: Loosen the contact clamping screw with the 3-inch cabinet screwdriver. Unscrew the contact screw with the fingers or the No. 340 adjusting key. Mount the new contact screw in the contact post and securely tighten the contact clamping screw.

3.07 Contact Post

(1) Remove the relay from the mounting plate as outlined in 3.03. Remove the base mounting screws with the 4-inch regular screwdriver, taking care not to lose the spacers associated with these screws. Lift the base away from the frame sufficiently to gain ac-

cess to the contact post mounting screws, taking care not to break any of the wires. Remove the contact post mounting screws with the 3-inch cabinet screwdriver and remove the contact post, taking care to retain the associated parts. If a replacement of any of the associated parts is necessary, replace them at this time.

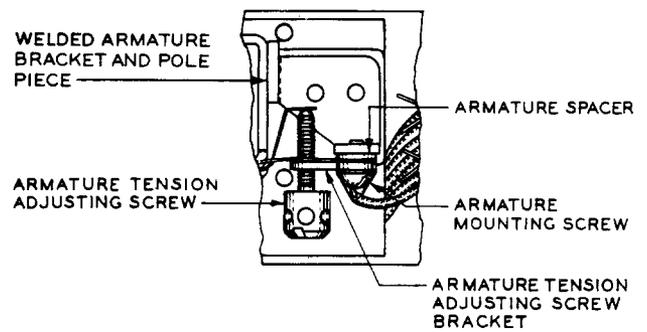


FIG. 6A - 267-TYPE AND D-175787 RELAYS EQUIPPED WITH WELDED ARMATURE BRACKET AND POLE PIECE.

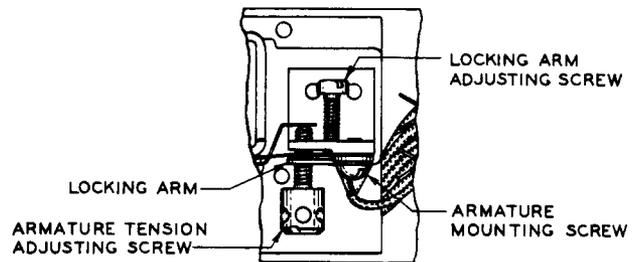


FIG. 6B - NO. 267A AND 267B RELAYS EQUIPPED WITH A LOCKING ARM ADJUSTING SCREW.

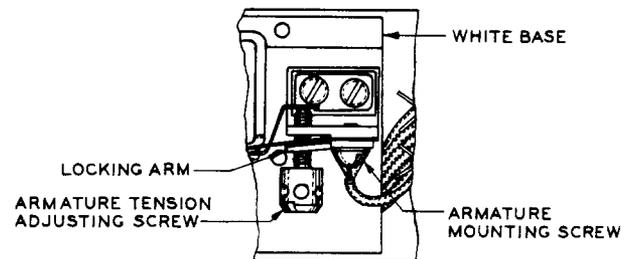


FIG. 6C - NO. 267A AND D-99739 RELAYS EQUIPPED WITH A WHITE BASE.

Fig. 6 - Armature Mounting Parts — 267-type, D-99739, and D-175787 Relays

(2) Assemble the bushings, insulators, clamping plate, and contact post mounting screws and mount the new contact post, tightening the contact post mounting screws slightly. Remove the contact screw and the contact clamping screw from the old contact post. Install the old contact screw and contact clamping screw into the new contact post. Position the contact post until the tip of the contact screw falls wholly within the armature contact. Holding the post in this position with the fingers, tighten the contact post mounting screws securely. Remount the base on the frame with the base mounting screws and the associated spacers and tighten the screws securely.

3.08 Armature

(1) Remove the relay from the mounting plate as outlined in 3.03. When the relay is equipped with a locking arm adjusting screw, remove it with the 3-inch cabinet screwdriver. Remove the armature tension adjusting screw with the No. 340 adjusting key or the 4-inch regular screwdriver.

(2) When replacing a *riveted armature* with a welded armature, an armature spacer must be added in the position shown in Fig. 6A. Remove the armature mounting screws with the 3-inch cabinet screwdriver, taking care not to lose any of the associated parts, and remove the armature from the relay. Reassemble the armature mounting screws and the associated parts, including the spacer, in their proper sequence shown in Fig. 6. Tighten the screws slightly with the 3-inch cabinet screwdriver. To mount the new armature having open-end mounting slots, hold the armature in the angular position so that the upper open-end mounting slot of the armature is adjacent to the upper armature mounting screw. Slip

it in position and using the screw as a pivot, rotate the armature downwards toward the base until the lower mounting slot slides into position on the screw. Line up the armature so that the tips of the contact screws fall wholly within the armature contacts. Hold the armature in this position and tighten the armature mounting screws securely. Replace the armature tension adjusting screw in its bracket or locking arm and replace the locking arm adjusting screw if the relay is so equipped.

(3) When replacing a *welded armature*, remove the armature adjusting screw and the armature tension adjusting screw as outlined in (1). Loosen the armature mounting screws with the 3-inch cabinet screwdriver and attempt to remove the armature by rotating it upward away from the base using the upper armature mounting screw as a pivot. If the armature cannot be removed in this manner, it is equipped with mounting holes instead of open-end mounting slots and the armature mounting screws and associated parts must be removed and the new armature replaced as outlined in (2).

(4) If difficulty is experienced in meeting the readjust requirements, it is suggested that the armature be removed and modified by cutting, with a B splicers scissors, an approximately 1/16-inch wide section from the rear end of the spring as shown in Fig. 7, and the armature reassembled.

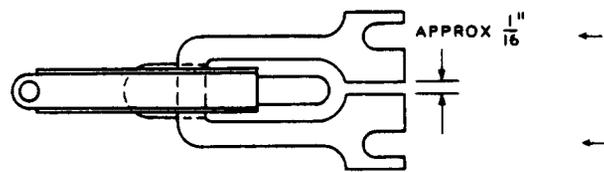


Fig. 7 - Armature