268-TYPE RELAYS

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 the 268-type relays.

1.02 This section is reissued to revise Fig. 1 with new piece-part information, update Fig. 2, 3, and 4, and to revise List of Tools.

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 268-type relays. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts.

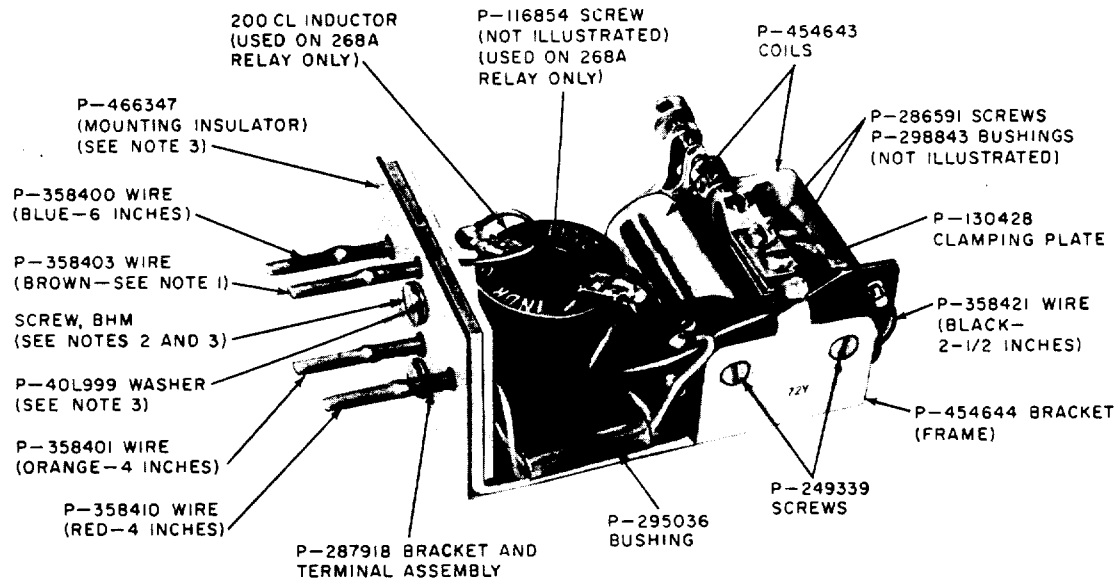
1.04 Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2.

1.05 When a 268-type relay is dismounted for any reason, make sure that in remounting it or in replacing it the same number of washers are used under the heads of the mounting screws as were used before the relay was dismounted.

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. When 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 piece-part number and the name of the piece part. For example, P-454643 Coil Assembly. Do not refer to the BSP number or to any information shown in parentheses following the piece-part number.



NOTES:

1. LENGTH OF BROWN LEADS
   - 268A RELAY— FROM RELAY TERMINAL TO OUTER END OF INDUCTOR WINDING—2 INCHES FROM INNER END OF INDUCTOR WINDING TO FRONT SCREW CONTACT SCREW BRACKET TERMINAL—1-1/2 INCHES
   - 268B RELAY— FROM RELAY TERMINAL TO FRONT CONTACT SCREW BRACKET TERMINAL—6-1/2 INCHES

2. SIZE OF SCREW DEPENDS ON MOUNTING PLATE THICKNESS AS FOLLOWS:

MTG PLT THICKNESS	R R NO.	LENGTH
0.063 THRU 0.090	P-298983	9/32 INCHES
0.109	P-181250	5/16 INCHES
0.125	P-139807	11/32 INCHES
0.218	P-181252	7/16 INCHES

3. MOUNTING SCREWS, WASHERS, AND MOUNTING INSULATOR SHIPPED WITH RELAY AS LOOSE PARTS

Fig. 1—268A Relay

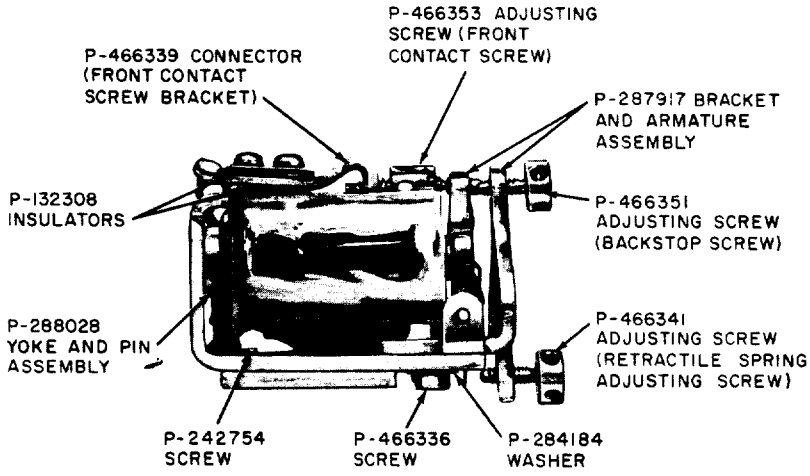


Fig. 2—268-Type Relay—Front View

3. REPLACEMENT PROCEDURES

3.01 *List of Tools*

CODE OR SPEC NO.	DESCRIPTION
340	Adjusting key
474A	3/16- by 1/4-inch closed double-end offset wrench
—	▶3-inch C screwdriver◀
—	▶4-inch E screwdriver◀

3.02 After making any replacement of parts of a 268-type relay, the part or parts replaced shall meet the readjust requirements involved as specified in Section 040-258-701. Other parts whose adjustments may have been directly disturbed by the replacing operations shall be checked to the readjust requirements and an overall operation check shall be made of the relay before restoring the circuit to service.

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

3.04 When replacing some parts of these relays, it may be necessary to remove the relay from the mounting plate. In order to do so, remove the relay mounting plate screws with the 4-inch E screwdriver. Replace the mounting insulator or washers, if necessary.

3.05 ***Inductor:*** To remove the inductor on relays so equipped, unsolder the wires on the inductor and remove the inductor mounting screw with the 3-inch C screwdriver, noting the relative position of the inductor. Substitute the new inductor, mounting it in the same relative position as the inductor that was replaced, and tighten the mounting screw securely. If any wires require replacement, make the replacement at this time. Then connect and solder all wires to the proper terminals.

Backstop Screw, Retractile Spring Adjusting Screw, and Bracket and Armature Assembly

3.06 To replace either the backstop screw or retractile spring adjusting screw, remove the screw using the 340 adjusting key and substitute the new part. To replace the bracket and armature assembly, remove both the backstop screw and retractile spring adjusting screw as described above. Remove the bracket and armature assembly mounting screws using the 474A wrench. On relays equipped with an inductor, remove the inductor mounting screw using the 3-inch C screwdriver and move the inductor away from the relay base, taking care not to damage the wires. Unsolder the wire connected to the bracket and armature assembly. Substitute the new bracket and armature assembly. If any wires require replacement, make the replacement at this time. Then connect and solder all wires to the proper terminals. Reassemble all parts.

Bushings, Clamping Plate, Insulators, Front Contact Screw, and Front Contact Screw Bracket

3.07 To replace the front contact screw bracket or associated parts, proceed as follows. Remove the front contact screw bracket mounting screws using the 3-inch C screwdriver. Take care when doing this not to lose the pile-up insulators or bushings. Remove the front contact screw using the 340 adjusting key and replace the screw if necessary. Replace the bushings, clamping plate, or insulators, as required. If the front contact screw bracket is to be replaced, unsolder the wire from the bracket terminal, substitute the new bracket, and reassemble the parts, securely tightening the mounting screws. If any wires require replacement, make the replacement at this time. Then connect and solder all wires to the proper terminals.

Yoke and Pin Assembly

3.08 Remove the coil mounting screws with the 3-inch C screwdriver and slide out the yoke and pin assembly. Substitute the new yoke and pin assembly taking care to slide the pins into the slots in the coils. In some cases, in order not to damage the parts, it may be necessary to remove the bracket and armature assembly as outlined in 3.06 to obtain sufficient clearance to remove the yoke and pin assembly. Reassemble the parts that were removed and tighten the screws securely.

Coils

Relays Equipped With Inductor

3.09 To replace the coil not adjacent to the inductor, remove the coil mounting screw with the 3-inch C screwdriver and unsolder the wires. If any wires require replacement, make the replacement at this time. Then connect and solder all wires to the proper terminals. Mount the coil, tightening the screw securely.

3.10 To replace the coil adjacent to the inductor, remove the inductor mounting screw using the 3-inch C screwdriver and move the inductor away from the relay base, taking care not to damage the wires. Then proceed as covered in 3.09. Remount the inductor and tighten the screw securely.

Relays Not Equipped With Inductor

3.11 To replace either coil, proceed as covered in 3.09.

Relay Frame

3.12 Remove the bracket and terminal assembly mounting screws and the coil mounting screws using the 3-inch C screwdriver. Remove the front contact screw bracket using the 3-inch C screwdriver to remove the front contact screw bracket mounting screws. Remove the bracket and armature assembly mounting screws using the 474A wrench. Substitute the new frame, remount the parts, and tighten the screws securely.

Bushing

3.13 To replace the bushing which holds the wires in place, unsolder the wires from the relay terminals and the terminal on the inductor, if the relay is so equipped. Take care to designate the wires properly. Remove the wires from the bushing and insert them in the new bushing. If any wires require replacement, make the replacement at this time. Then connect and solder all wires to the proper terminals.

Bracket and Terminal Assembly

3.14 Unsolder the wires from the terminals, taking care to designate the wires properly. Using the 3-inch C screwdriver, remove the bracket and terminal assembly mounting screws and the inductor mounting screw, if the relay is so equipped. Substitute the new bracket and terminal assembly and remount the parts. If any wires require replacement, make the replacement at this time. Then connect and solder all wires to the proper terminals. Tighten all screws securely.

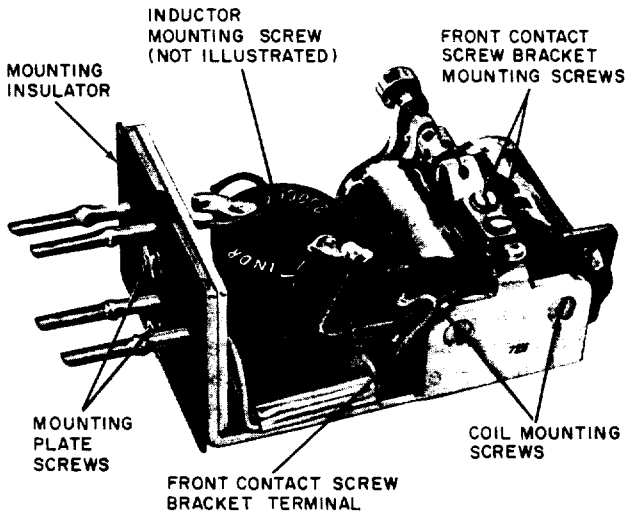


Fig. 3—268A Relay

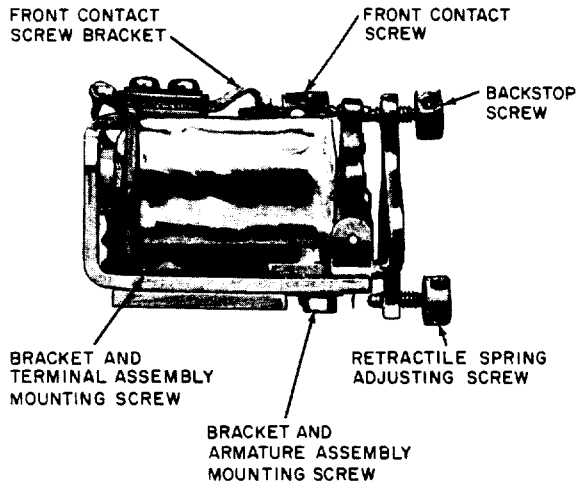


Fig. 4—268A-Type Relay—Front View