

IC5182-C120 AND IC5182-D120 MULTI-POLE RELAYS

The C120 and D120 forms of the IC5182 relay are identical, except that the D120 form has had an extra machine-finishing operation applied to the mating surfaces of the magnet and requires special maintenance. (See "Maintenance of IC5182-D120 Magnet Surfaces" section.)

DESCRIPTION

This relay is furnished with six normally open contacts and two normally closed contacts. The contact tips can be relocated in the contact units to provide up to four normally closed and four normally open contacts, or eight normally open contacts and no normally closed contacts. All contacts are double break and have a rating of 5 amperes at 440 volts. A different magnet coil is used for different voltages or for different frequencies.

The relay is operated by a shunt-coil magnet. The magnet plunger is connected to a lever, so that when the coil is energized, the movable tip structure is brought forward, thus closing the contacts.

MAINTENANCE

NOTE: Before working on the relay make sure that all power is removed from the controller.

Replacement of Coil

Remove the wiring to the coil. Remove the screw (1). This allows removal of the key (2). Mark the right end of both the armature (3) and the stationary magnet so that they can be replaced in the correct position. Remove the armature. Now remove the two bolts (4) holding the stationary magnet assembly and remove the stationary magnet assembly. Remove the four screws (5) holding the coil. Replace the coil and fasten with the four screws (5). Replace the stationary magnet assembly by sliding the stationary magnet assembly over the armature post (6). The stationary magnet assembly is positioned on the base by two projections on the bottom of the stationary magnet assembly plate. The projections fit into two holes in the base. Replace the bolts (4). Replace the armature (3) on the armature post (6). Slide the key (2) through the armature and the armature post as far as the projection on the key will permit. Replace the screw (1) making sure that the shoulder on the screw is bottomed on the top of the armature post and not on the armature. After tightening the screw (1), the armature should have some freedom in all directions, so that the armature can "float" and find its own seat to assure quiet operation. Check to see that the contactor works freely.

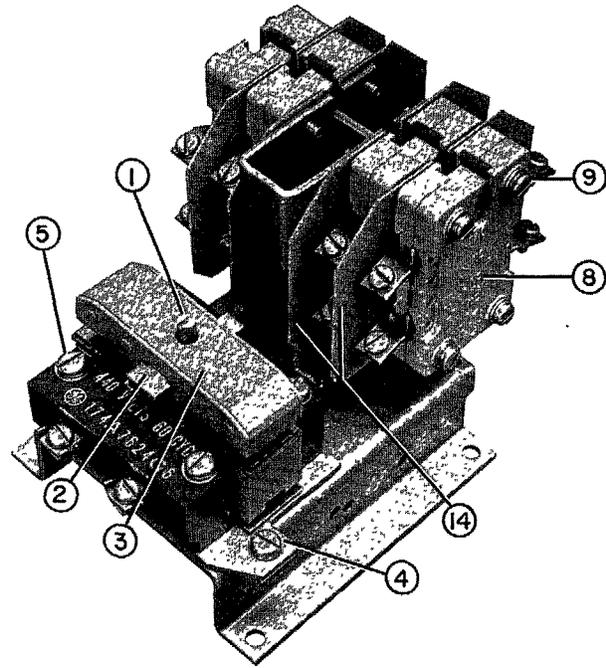


Fig. 1. IC5182-C120 multi-pole relay

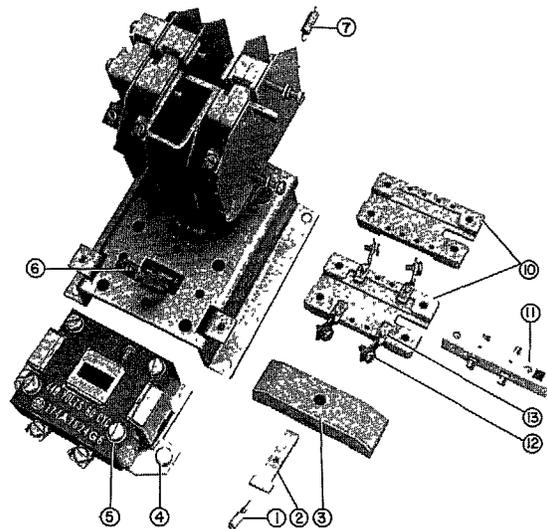


Fig. 2. IC5182-C120 multi-pole relay, with coil and contacts removed

Replacement of Return Spring

To change the return spring (7), unhook the spring ends with the aid of needle-nose pliers. Hook the new spring in same position.

Replacement or Relocation of Contacts

To remove the contact unit (8), remove the four screws (9). The two identical housing halves (10) are readily separated. The movable contact assembly (11) is replaced as a unit. To change the stationary tips (12), remove the screw (13) and replace the tip. To relocate the contacts (i.e. Change N.O. to N.C.), move a set of stationary tips to the indicated location (see markings on the outside of the auxiliary contact unit housing). Re-

assemble the movable contact (11) and the two housing halves (10) so that the rectangular opening in the movable contact (11) and the slots in the housing halves (10) are at the top of the assembly. Make sure that the insulation pieces (14) are in place (between the contact units and between the contact units and the frame).

Maintenance of IC5182-D120 Magnet Surfaces

Inspect the mating surfaces of the armature and stationary magnet at frequent intervals by removing the armature (3). Steps for removal and reassembly are given under the "Replacement of Coil" section. If necessary, clean the surfaces of the armature and stationary magnet with a cloth.

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