

Instructions

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Cross Arm Replacement for Innova Starters & Contactors
Size 2
Class 14, 22, 30, 40, & 43
Cat. No. 75P1001

IMPORTANT

These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the local Siemens sales office.

The contents of this instruction manual shall not become part of or modify any prior or existing agreement, commitment or relationship. The sales contract contains the entire obligation of Siemens. The warranty contained in the contract between the parties is the sole warranty of Siemens. Any statements contained herein do not create new warranties or modify the existing warranty.

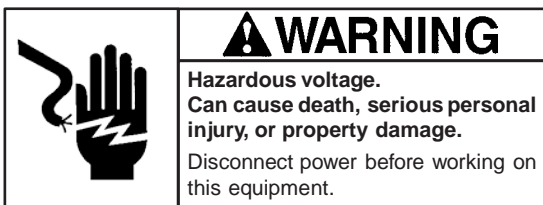
Cross Arm Data

Use with size 2 Innova series controllers, including Innova controllers used in reversing and multi-speed units. Some cross arms manufactured prior to 1982 have cross arm assembly screws installed from the contact side of the assembly. The 75P1001 cross arm replaces this early model cross arm.

Contents of Package

Each package, catalog number 75P1001, contains:

- 1 **A** cross arm
- 2 **B** springs
- 1 **C** insulation barrier (commonly referred to as fish paper)



Cross Arm Replacement

When cross arm replacement is required, contact replacement for all poles is recommended to assure proper contact mating.

For reversing or multi-speed units, disassemble only one controller at a time to retain the mechanical interlock orientation.

Disassembly

1. Tag and remove power and load wires at the controller terminals. Tag and remove any control circuit wires to the contact board and auxiliary contacts.
2. For a controller equipped with an overload relay, the overload relay must be removed when replacing cross arm.
 - a. Remove the two screws securing the overload relay baseplate to the enclosure or mounting panel.

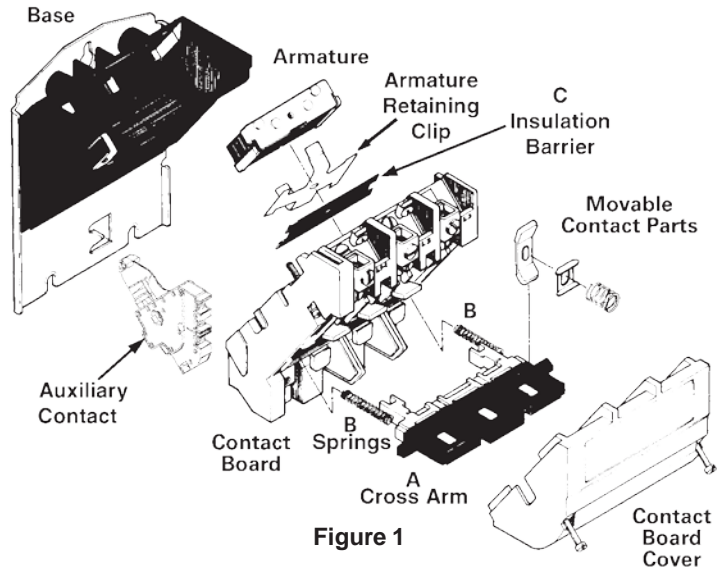


Figure 1

- b. Loosen the three screws at the contactor load terminals. Tilt overload relay slightly to disengage the slot in the overload relay baseplate from the contactor base. Pull the overload relay from the contactor.
3. Remove the contact board cover from the controller. (Figure 1)
4. If controller has front mounting auxiliary contacts, the contacts should be removed to facilitate removal of the contact board. Note the position of the normally open and normally closed contacts for correct reassembly.
5. Loosen two contact board captive screws and remove the contact board from the base.
6. Remove movable parts from the cross arm. The movable contact includes a raised area in the center for spring seating or for aligning the spring retainer.
 - a. For contact without a spring retainer, compress the spring and remove it from the cross arm. Remove the movable contact.
 - b. For contact with a spring retainer, pry the spring retainer away from the movable contact and pull the movable contact from the cross arm. Compress the spring against the spring retainer (toward the contact board) and tip the spring out of the cross arm. Remove the spring by rotating it, as if turning a screw. Remove the spring retainer from the cross arm.

(For Engineering Reference Only - Rev. C)

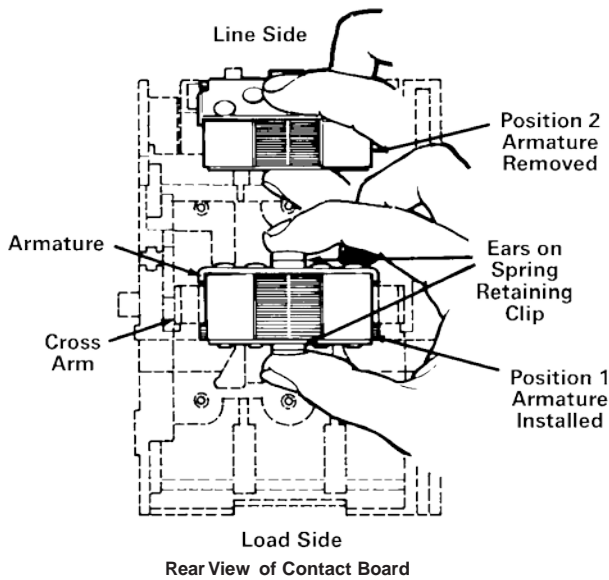


Figure 2

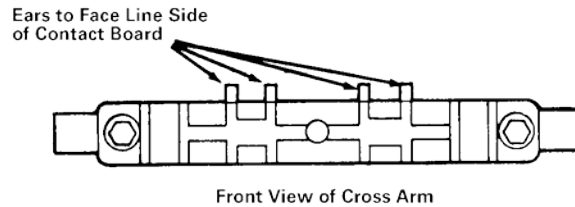


Figure 3

7. The cross arm and armature assembly arrangement is a wide throat T-slot (cross arm) and T-section (armature). Holes in the armature retaining clip and insulation barrier engage a projection on the cross arm. With the contact board positioned as shown in Figure 2, press on the cross arm to bottom it on the contact board. While bottoming cross arm, grasp ears on the armature retaining clip (position 1) and pull the armature and clip away from the contact board to release clip from cross arm and to clear contact board projections. Then immediately slide the armature and clip toward position 2.
8. Bow the insulation barrier in the center to free one end from the groove in the cross arm. Raise this end clear of the cross arm and remove the insulation barrier. When the barrier is removed, the cross arm is free to be removed from the contact board. Discard old cross arm, springs and barrier.

Reassembly

1. Assemble springs **B** and cross arm **A** in contact board. Note that the ears on the cross arm must face toward the line side of the contact board as indicated in Figure 3.
2. Place the cross arm in the contact board and position the board as shown in Figure 2. Insert one end of insulation barrier **C** in a cross arm groove. Slightly bow the insulation barrier and insert the other end in the opposite groove.
3. Place the armature in the retaining clip. While pressing the cross arm to bottom it on the contact board, slide the armature and clip from position 2 to position 1, where the armature retaining clip will snap into the cross arm. Manually operate the cross arm and check that the cross arm moves freely.

4. If new contacts are required, install contacts per instructions furnished with the contact kit. If contacts are not being replaced, install movable contact parts removed in step 6 of disassembly as follows:
 - a. For contact without a spring retainer, install the movable contact in the cross arm. Compress the spring and, while holding the movable contact toward the stationary contacts, insert the spring in the cross arm.
 - b. For contact with a spring retainer, insert spring retainer in the cross arm with the retainer edges facing away from the contact board. Compress the spring with tweezers or similar tool. While holding spring retainer toward the contact board side of the cross arm, insert spring in the cross arm. Compress the spring with the spring retainer and slide the properly oriented movable contact bar into the cross arm.
5. Assemble contact board on the base. For Innova/45 controllers (pre-1984; green), tighten contact board captive screws to 12 lb-in minimum torque; carefully tighten screws to avoid stripping threads in the plastic base. For Innova Plus controllers (gray or black), tighten screws to 18 lb-in minimum torque.

Note: For units with a mechanical interlock, check for proper interlock action.
6. If applicable, assemble front mounting auxiliary contacts to the controller. Position contacts as noted prior to disassembly.
7. If applicable, assemble the overload relay to the controller. Tighten the three screws at the contactor load terminals to 34 lb-in minimum torque. Tighten the overload relay mounting screw(s) to 18 lb-in minimum torque.
8. Connect control circuit wires, power wires and load wires to the proper terminals.
9. Secure the contact board cover to the controller.