

## Instructions

E87010-A0090-T003-A1-75PX

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Cross Arm Replacement for Innova Starters & Contactors  
Model G & T, Size 4  
Class 14, 22, 30, 40, & 43  
Cat No 75P2002

### 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 4 Innova & ESP 100 series controllers, including controllers used in reversing and multi-speed units.

### Contents of Package

Each package, catalog number 75P2002, contains:

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

	<h3>WARNING</h3> <p><b>Hazardous voltage.</b> Can cause death, serious personal injury, or property damage.</p> <p>Disconnect power before working on this equipment.</p>
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### 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.
  - b. Loosen the three screws at the contactor load terminals. Two screws secure the overload relay baseplate to the contactor base plate. Remove the screws and pull the overload relay from the contactor.

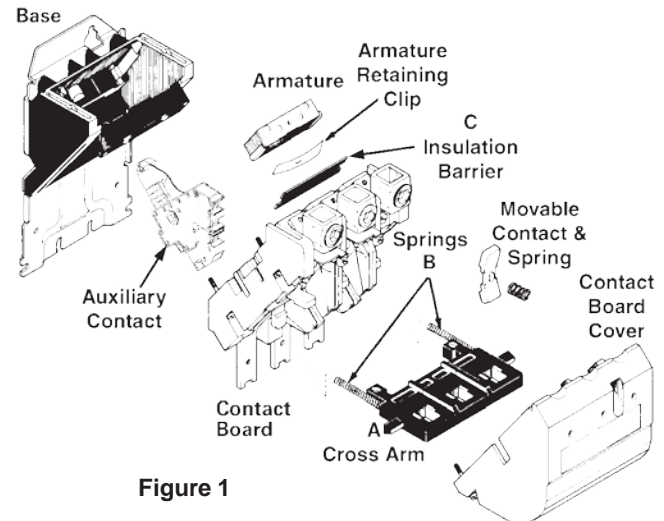


Figure 1

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 four contact board captive screws and remove the contact board from the base.
6. Remove springs and movable contacts from the cross arm.
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, insert a screwdriver between the armature and a molded projection of the contact board as shown in Figure 2 to start sliding the armature and clip from position 1 toward position 2. After sliding the armature and clip approximately 1/4 inch, grasp the armature for complete removal.

### NOTICE

**Applying excessive force with the screw driver may damage the contact board.**

A light pressure should be sufficient to release the armature retaining clip and armature from the cross arm.

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 released from the contact board. Discard old cross arm, springs and barrier.

(For Engineering Reference Only - Rev. C)

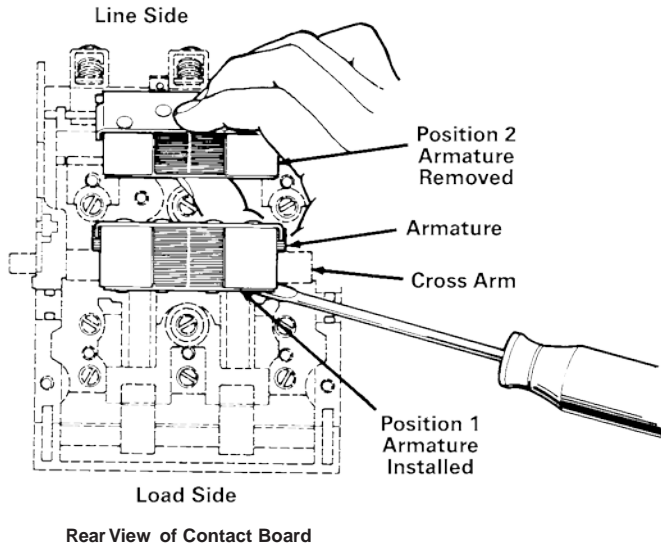


Figure 2

**Reassembly**

Factory recommended assembly torques are listed in the table.

1. Position springs **B** and cross arm **A** in contact board.
2. Hold the cross arm over the contact board in position 2 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 retaining clip on the insulation barrier, engaging the hole in the clip with the projection on the cross arm. While pressing the cross arm to bottom it on the contact board, slide the armature 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. Install movable contacts and springs in the cross arm. If new contacts are required, install contacts per contact kit instructions.
5. Assemble contact board on the base. Carefully tighten the captive screws in the contact board to avoid stripping threads in the contact base.  
**Note:** For units with a mechanical interlock, check for proper interlock action.
6. If applicable, assemble the inte front mounting auxiliary contacts to the controller. Position contacts as noted prior to disassembly.
7. If applicable, assemble the overload relay to the controller. Observe the assembly torques listed in the table.
8. Connect control circuit wires, power wires and load wires to the proper terminals.
9. Secure the contact board cover to the controller.

Assembly Item	Minimum Torque Innova Plus Contactors (gray or black)
Contact board captive screws	8 lb-in
Overload relay baseplate to contactor base plate - 2 screws	29 lb-in
Thermal Overload Relay terminals to contactor load terminals - 3 screws	40 lb-in
Overload relay baseplate to enclosure or mounting panel - 2 screws	40 lb-in
Contact board cover screws	8 lb-in