



# REPLACEMENT INSTRUCTIONS

## MOTOR REPLACEMENT KIT P/Ns 12-8064-01, -11 MOTOR P/Ns 20-2703-50, -51

### PURPOSE

To provide a step-by-step method for removing and replacing the Group 42 motor assembly. Beck Group 42 motors are unitized assemblies that include the Self-Locking Mechanism (SLM).

Maintenance should be performed in a clean working environment. If possible, the actuator should be removed from its mounting point and taken to a maintenance room or workstation.

### REQUIRED TOOLS

- 1/2" socket or wrench
- 7/16" socket or wrench
- Scotch™ 847 gasket adhesive or equivalent
- Torque wrenches appropriate for 10 lb-ft and 72 lb-in



#### WARNING

**Electrical shock hazard—disconnect power before proceeding. Remove the actuator from line voltage and shut off any external power sources feeding the auxiliary switches.**

### PROCEDURE

*Remove the old motor:*

1. Remove power from the actuator.
2. Remove the actuator from its mounting position.
3. Remove the terminal enclosure cover by loosening the (6) 5/16-18 hex head captive screws (on Option 9 actuators) or the (4) 5/16-18 hex head screws from the resistor cover (Option 7, 5, or 3 actuators).
4. Remove the (4) 1/4-20 hex head screws from the capacitor cover and remove the cover.
5. Remove the (4) 5/16-18 hex head screws retaining the motor and carefully pull the motor away from the actuator.
6. The motor wire connections can be accessed through the capacitor cover. There are three wires leading from the motor to connections within the actuator; one black, one red, and one

green. Record the connections of each of the three wires for installation purposes.

7. Disconnect the motor wires.

*Inspect the actuator gaskets:*

8. Inspect the terminal enclosure cover gasket (or the resistor cover gasket) and the capacitor cover gasket and replace them, if necessary. If the gaskets are in good condition, skip to step 13.
9. Clean the gasket face on the actuator body to remove all gasket material and adhesive. Inspect the cover mating face to ensure no gasket material exists, clean as necessary.
10. If replacing the terminal enclosure cover gasket, peel the backing off the replacement gasket and carefully apply to the actuator body and skip to step 12. For all other gaskets, apply a thin film of gasket adhesive to the mating face of the actuator body.
11. Firmly press the new gasket into place and allow time for the adhesive to set before continuing.
12. Repeat steps 9–11 to replace any additional gaskets, if necessary.

*Install the new motor:*

13. Feed the motor wires into the actuator and connect the motor wires to the appropriate leads on the actuator (recorded in Step 6).
14. Reinstall the motor. Turn the Handwheel as necessary to allow the pinion to slide into and mesh with the gearing. Be careful not to pinch the motor wires between the actuator body and the motor during installation. Screw the (4) 5/16-18 hex head screws into the mounting holes and tighten them to 10 lb-ft torque in a crosswise pattern.
15. Reinstall the capacitor cover and torque the (4) 1/4-20 hex head cap screws to 72 lb-in.
16. Reinstall the terminal enclosure cover (or the resistor cover) and torque the 5/16-18 hex head screws to 10 lb-ft.

*Continued*

*Test for proper actuator response:*

17. If the actuator has been removed from its mounting location for maintenance, reinstall it.
18. Connect power to the actuator.
19. Operate the Handswitch to observe the motor and actuator for proper operation.
20. If the actuator responds correctly, return the actuator to service.

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