

MODELS 42-109 42-107 42-105 42-103

# **REPLACEMENT INSTRUCTIONS**

MOTOR CAPACITORS FOR 50 Hz ACTUATORS (MOTOR P/N 20-2703-50) REPLACEMENT KIT P/N 12-8064-20

## PURPOSE

The purpose of these instructions is to provide a step-by-step method for replacing the Beck Group 42 motor capacitors for actuators using 50 Hz power.

# **REQUIRED TOOLS**

3/8" and 7/16" socket or wrench Torque wrenches appropriate for 10 lb-in and 72 lb-in Scotch™ 847 gasket adhesive or equivalent



## 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 capacitors:

Refer to Figure 1 for component identification.

- 1. Remove power from the actuator.
- Remove the (4) 1/4-20 hex head screws on the capacitor cover and remove the cover. The capacitor cover is located adjacent to the motor.
- 3. Make certain there is no voltage across the capacitors.
- 4. Record the exact wire connections to the appropriate terminals on each capacitor. *Also record the location of each capacitor.*
- 5. Remove the wires from the old capacitors.
- The capacitors are held in the actuator by a single bracket. This bracket is held in place by (2) #10-32 nuts threaded onto #10-32 threaded studs. Remove each nut and washer from its respective stud and remove the bracket.
- 7. Remove the capacitors.

Install the new capacitors:

- 8. Obtain the new capacitors.
- 9. Slide the capacitors into the cavity and reinstall the bracket. Place a washer and nut on each threaded stud, and torque each nut to 10 lb-in.
- 10. Reinstall the wire connections to the terminals on each capacitor. Refer to the locations recorded in step 4.

### Inspect the cover gasket:

- 11. Inspect the cover gasket and replace, if necessary. If the gasket is in good condition, skip to step 15.
- 12. Clean the mating face on the actuator body and the cover to remove all gasket material and adhesive. Ensure that the surfaces are free of defects, such as dents or gouges.
- 13. Apply a thin film of gasket adhesive (Scotch<sup>™</sup> 847 or equivalent) to the mating face of the actuator.
- 14. Firmly press the new gasket into place and allow time for the adhesive to set before continuing.
- 15. Reinstall the capacitor cover and torque the (4) 1/4-20 hex head screws to 72 lb-in.
- 16. If the actuator has been removed from its mounting position, reinstall it.

#### Test for proper operation:

- 17. Make certain the Handswitch is in the STOP position.
- 18. Restore power to the actuator.
- 19. Apply power and operate the Handswitch to observe the motor and actuator for proper operation.
- 20. Restore the actuator to service

Part No.	Description
14-2840-27	Capacitor, 15 µF, 370 V, Metal Can
14-2840-09	Capacitor, 6 µF, 300 V, Metal Can
20-0661-36	Gasket, Motor Capacitor Cover

Table 1: Motor Capacitor (50 Hz) Replacement Kit

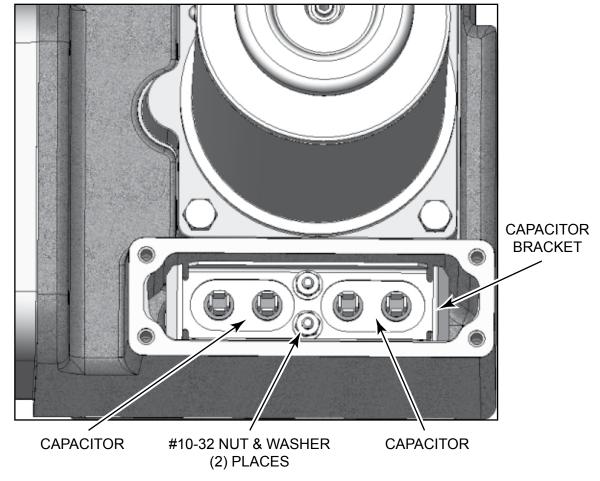


Figure 1

