# REPLACEMENT INSTRUCTIONS DIGITAL CONTROL MODULE (DCM) FUSE KIT <br> P/N 12-8061-53 

## PURPOSE

To provide a step-by-step method for replacing the model 22-309/-409 8A DCM fuses.


| CAUTION |
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| To prevent Electro-Static Discharge <br> damage to the electronics, wear a <br> grounding strap during this procedure. |

## REQUIRED TOOLS

1/2" hex socket wrench
7/16" hex socket wrench (22-409)
3/16" flat-tipped screwdriver
Torque wrench appropriate for $50 \mathrm{lb}-\mathrm{in}(6 \mathrm{~N} \cdot \mathrm{~m})(22-409)$
Torque wrench appropriate for $10 \mathrm{lb}-\mathrm{ft}(14 \mathrm{~N} \cdot \mathrm{~m})$

## 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

There are two fuses located on the 22-309 DCM assembly (three on older assemblies) and three fuses located on the 22-409 DCM assembly (see Figure 1). The DCM assembly is located in the Electronics Compartment. To remove the Electronics Compartment cover, loosen the (4) captive $5 / 16-18 \times 1.75$ " mounting screws.
Remove the DCM assembly (22-409 only):
The 22-409 DCM assembly must be removed in order to gain access to the fuses. If replacing the fuses in the 22-309 DCM assembly, skip to the "Replace the DCM fuses" procedure.

1. Place the Handswitch in STOP.
2. Ensure power to the actuator has been disconnected.
3. Disconnect the (5) wiring connectors shown in Figure 1.
4. Loosen the (6) captive mounting screws with a $7 / 16$ " hex socket wrench.
5. Using the handles, remove the DCM from the Electronics Compartment.
Replace the DCM fuses:
6. Place the Handswitch in STOP (22-309 only-the DCM assembly should already be removed for model 22-409; if not, see steps above).
7. Ensure power to the actuator has been disconnected (22-309).
8. Using a $3 / 16$ " flat-tipped screwdriver, depress the top of the fuse holder and turn CCW approx. 1/4 turn.
9. Remove the top of the fuse holder and fuse (the fuse should stay in the top of the fuse holder).
10. Remove the fuse from the top of the fuse holder and replace with the same type (8A, 250V, 3AB Time-Delay).
11. Reinstall the fuse and top of the fuse holder into the fuse holder.
12. Use the $3 / 16$ " flat-tipped screwdriver to depress the top of the fuse holder and turn CW approx. 1/4 turn (the top of the fuse holder should stay locked in place).
13. Repeat steps 1-7 for the remaining fuses.

Reinstall the DCM assembly (22-409 only):

1. Position the DCM in the Electronics Compartment.
2. Align the locating pin holes in the DCM with the pins in the rear wall of the Electronics Compartment as the DCM is seated.
3. While pushing the DCM back on it's mounting surface, tighten the captive mounting screws. Torque to 50 lb -in ( $6 \mathrm{~N} \cdot \mathrm{~m}$ ).
4. Reconnect the (5) wiring connectors.

## Confirm proper actuator operation:

1. Reconnect power to the actuator.
2. Check the LEDs on the DCM. If either the FWD or REV LED is lit, the actuator will reposition when the Handswitch is returned to AUTO. If desired, change the Demand signal or reposition the actuator using the Handwheel until both the FWD and REV LEDs are out. When both LEDs are out, the Handswitch can be returned to AUTO.
3. Confirm proper actuator operation (if the actuator does not function properly, consult the factory).

## Before replacing the Electronics Compartment cover:

1. Examine the gasket for damage (cuts, tears, missing sections, etc.). If the gasket is damaged, follow steps $2-3$ below to replace the gasket; if the gasket does not need replacing, skip to step 4.
2. Clean the mating surface of the actuator body to remove old gasket material and adhesive. Ensure that the mating surface is free of defects or gouges.
3. Peel the backing off the replacement gasket and carefully apply to the actuator body.
4. Replace the Electronics Compartment cover and torque the (4) captive $5 / 16-18 \times 1.75$ " mounting screws to $10 \mathrm{lb}-\mathrm{ft}(14 \mathrm{~N} \cdot \mathrm{~m})$.


Figure 1

