



RE Basic Start-up and Storage Instructions

CAUTION: Do **NOT** move any switches, potentiometers or jumpers. This actuator comes pre-calibrated for the application. Call Dodge before moving any settings.

- 1. Storage:** All actuators must be stored in a clean, dry location to prevent damage before installation.
- 2. Double check the actuator to see if it is 24 or 120 volt.** There are several ways to check this:
 - A. Check the part number. The last number in the actuator part number is the voltage. For example, an RE6F1 is 120 volt, an RE6F2 is 24 volt.
 - B. The 120 volt actuator has a 120 to 24 volt transformer internal to the actuator.
 - C. The Power terminal strip is marked with the voltage.
- 3. Double check the actuator to see if it is 2 position/tri-state or Modulating.**
 - The “F” in the actuators part number designates two-position/tri-state
 - The “G” in the actuators part number designates modulating. For modulating applications, the date code label will indicate what signal the actuator was calibrated for. Typically, this will be 0-10 V or 4-20 mA.
- 4. Outdoor or Moist Environment Applications:**
 - A. Make sure that you have installed a heater and thermostat (H/ST).
 - B. Conduit connections must be properly sealed to prevent moisture from coming in through the conduit line.
 - C. All cover bolts must be evenly tightened to the following:
 - RE1.5 – RE8.5: 60 in-lbs
 - RE10 – RE30X: 80 in-lbs
- 5. Signal Wiring:** Do Not Use Solid State Outputs or Triacs.
See wiring instructions for complete information.
 - A. 2 Position: Connect the control signal to TB2 on the current limited card.
 - a. For Clockwise rotation, wire to terminal A and C
 - b. For Counter-Clockwise rotation, wire to terminal B and C
 - B. Tri-State: Connect the control signal to TB2 on the current limited card.
 - a. Wire to terminals A, B and C.
 - C. Modulating:
 - a. 0-10 volt or 4-20 mA: On the back of the modulating card, run signal wires to TB1 terminals 1 & 2.



6. **Ground:** Run a ground wire to the actuator green ground screw.
7. **Power:** Connect the appropriate power to the terminal block wired to TB1 on the Current Limited card.
8. **Test** the actuator by sending the appropriate signal to the actuator input. The actuator typically rotates 90 degrees. If you have a torque maximizer (“T” or “X”), it will rotate 270 or 320 degrees.
9. **Feedback Wiring:** For modulating applications, always test the functioning of actuator before adding the feedback wiring. With certain controllers, the feedback may affect the functioning of the actuator if the impedance is not high enough. If you have this problem call Dodge Engineering for the solution.

On the Modulating card, wire to terminals 3 & 4 for 0-10V Feedback. For 4-20 mA feedback, wire to terminals 3 & 5.

10. **Switches:** The actuator comes standard with three switches.
Caution: The bottom two switches are factory set for end of travel rotation.
DO NOT MOVE unless you have consulted with the factory.
Switch 1: The lowest switch is factory set to “make” when it is rotated to the furthest clockwise rotation.
Switch 2: The second switch from the bottom is factory set to “make” when it is rotated to the furthest counter-clockwise rotation.
Switch 3 (and Optional Switches 4-6): Single pole double throw (SPDT) dry auxiliary contacts for customer use. Can be adjusted to any angle within the actuator rotation range.

Notes:

- ♦ The standard factory settings are Direct Acting,
 - 0 Volts = Closed, full clockwise position
 - 10 Volts = Open, full counter-clockwise position
- ♦ For complete installation instructions see the attached wiring instructions. A troubleshooting guide is also available. Call Dodge Engineering or go online at www.DEICcontrols.com