Two Position Microelectric Valve Actuator

Forced Initialization Procedure

Valco microelectric actuators must be initialized any time the valve has been loosened or removed, or when the actuator controller has been replaced.

1. Put the valve into Position A, indicated by the illuminated “A” LED on the control module.

2. Check to see that the valve is firmly mounted to the motor/gearbox.

3. Disconnect the cable connecting the motor/gearbox to the controller. (It doesn't matter which end you disconnect.)

4. **If a manual controller is available:**
   - Press the Position B button on the manual controller. Both LED’s should go off. The controller is now in initialization mode. (If more than one command is sent, one of the LED’s will come on, but the actuator is still ready to initialize.)

   **If a manual controller is not available:**
   - Assert a low on wire 6 of the remote cable by touching it to wire 1. Or, if the unit is connected to a system, program the controller to change to Position B. Both LED’s should go off. The controller is now in initialization mode. (If more than one command is sent, one of the LED’s will come on, but the actuator is still ready to initialize.)

5. Reconnect the cable between the valve motor/gearbox and the controller.

6. Cycle the valve two to four times. (A cycle is one over-and-back movement of the valve.)

   During the first two cycles, the motor will turn slowly as it detects the valve stops. When the motor starts to make a higher-pitched sound, it is an indication that the motor speed has returned to normal. If you don’t hear this speed change after four to six cycles, look for an obvious problem, such as the clamp ring not being tightened, and repeat this procedure.

If the actuator will not reinitialize, consult Valco Electronics at (800) 367-8424 for assistance.

Optional Method for RS-232 Controlled Systems

Initialization can be forced through RS-232 by use of the “IN” command available on units with Rev D or later firmware. (Use the “VR” command to check the firmware revision.) For this procedure, the cable between the controller and the motor/gearbox stays attached.

1. Make sure that the valve is firmly mounted.

2. Send an “IN” command, erasing all previous initialization information.
3. Send “CW”. If the actuator is already in the clockwise position, the motor will “grunt”. If it isn’t, the valve will turn clockwise.

4. Send “CC”. The valve will turn counterclockwise.

5. Send “IN” again. The controller is now in the initialization mode.

6. Send “CW”. The valve will go to the CW position at slow speed, establishing the stopping point in the clockwise position.

7. Send “CC”. The valve will go to the CC position at slow speed, establishing the stopping point in the counterclockwise position.

8. Repeat steps 6 and 7 until you hear the actuator shift to high speed, indicating that initialization is complete.

Refer to Technote 413 for additional information.