AKRON®
BRASS COMPANY

STYLE 8600 ELECTRIC ACTUATOR
INSTALLATION INSTRUCTIONS

Akron's electric actuator is designed to operate Styles 8820-8835, 7920-7935 and 7840 Swing-Out™ Valves. The following installation instructions are provided to assist you in installing the electric actuator on your valve.

NOTE: The Akron Electric Valve Actuator may only be operated with the Akron Electric Valve Controller. Other controls will damage the unit.

CAUTION: Always disconnect all wiring and cables from the valve controller before electric arc welding at any point on apparatus. Failure to do so will result in damage to the controller.

If the electric actuator is being installed on an existing Style 8820-8835, 8920-8930valve, begin the installation with Section I instructions. If the electric actuatoris being installed on an existing Style 7840 valve, begin the installation with Section II instructions. If the electric actuator is received from Akron already installed on a valve, start the installation with Section IV instructions.

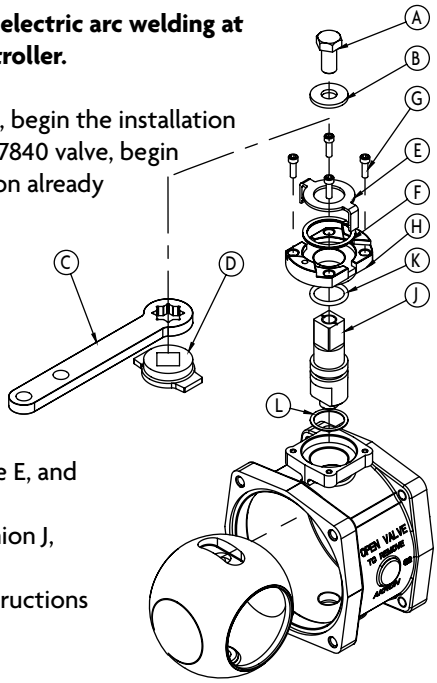


Fig 1

I. Disassembly of existing style 8820-8835 and 7920-7935 valve with handles

Prior to installing the electric actuator, the existing handle, stop plate, bonnet, ball trunnion, wave spring, trunnion bearing, and bearing brake must be removed.

A. Place the valve in the open position.

B. Remove the hex head screw A (Fig. 1.), washer B, handle C, stop plate D, bearing brake E, and wave spring F. They are not needed and can be discarded.

C. Using a 5/32" hex wrench, remove the four socket head screws G, bonnet H, ball trunnion J, trunnion bearing K and o-ring L. These items are not needed and can be discarded.

D. The assembly is now ready for the electric actuator installation. Go to Section III instructions

II. DISASSEMBLY OF EXISTING STYLE 7840 VALVE OPERATOR

Prior to installing the electric actuator, the existing gear actuator or pneumatic actuator must be removed.

A. Place the valve in the open position.

B. Remove the four hex head screws A, Fig 2, and discard them. They are not needed.

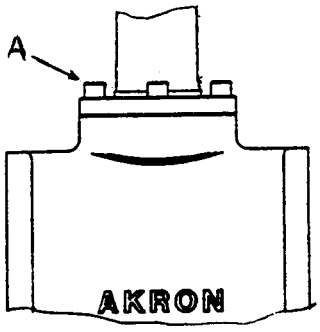


Fig 2

C. Remove the gear actuator or pneumatic actuator and drive trunnion assembly. They are not needed.
D. Replace the bleed hole O-ring A, Fig. 3, on the valve neck.
E. Install the adapter plate B on top of the valve neck, making sure that the bleed holes C line up.
F. Fasten the adapter plate with the four socket head screws D provided.
NOTE: Use Permabond LM 113 or Loctite 222 on screws.
G. Place the remaining O-ring E on the adapter bleed hole. The assembly is now ready for the installation of the electric actuator. Go to Section III instructions.

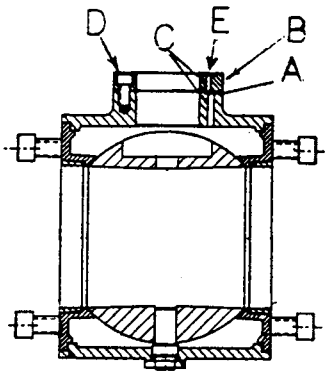


Fig.3

III. INSTALLATION OF ELECTRIC

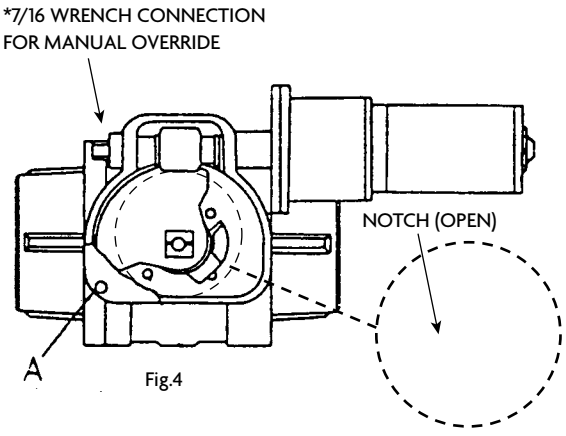


Fig.4

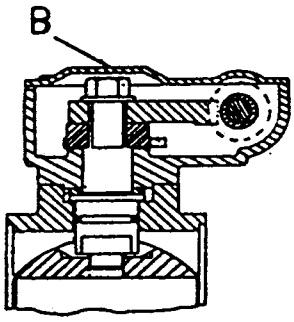


Fig.5

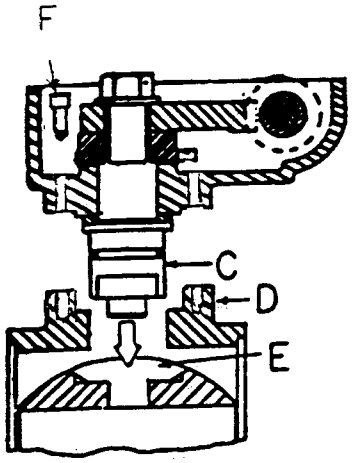


Fig.6

ACTUATOR

A. Using a $^{3}/_{32}$" Allen wrench, remove the four round head screws A, Fig. 4, and remove the cover B, Fig. 5. * Recommend Actuator be installed so $^{7}/_{16}$ wrench connection is directed to an accessible location.

B. Determine the desired actuator position (see Section IV) noting the required sector gear location. If the sector gear is in the wrong location, turn the hex end of drive shaft with a $^{7}/_{16}$" wrench. **Keep fingers away from moving gears**. Slip the electric actuator with its attached drive trunnion C, Fig. 6, down onto the top of the valve

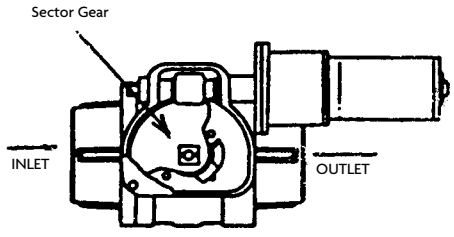
D. Ensure that the trunnion fits into the slot E on the valve ball.
NOTE: Wrench connection for manual override should be accessible from left or right truck panel.
⚠ DANGER! Electrical power to the valve motor should be disconnected when operating the valve manually using the manual override.

C. Slowly rotate the actuator on top of the valve until the countersunk mounting holes in the base of the actuatormatch the mounting holes in the top of the valve neck.

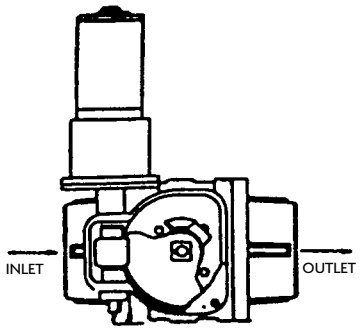
D. Insert the four $^{5}/_{8}$" long socket head screws F in the actuator housing. Using a $^{5}/_{32}$" Allen wrench, tighten these screws evenly in an X pattern. **NOTE:** The sector gear will need to be rotated 90 degrees for all four screws to be tightened. To rotate the sector gear, turn the hex end of the drive shaft with a $^{7}/_{16}$" wrench.
NOTE: Use Permabond LM 113 or Loctite 222 on screws.
KEEP FINGERS AWAY FROM MOVING GEARS!

E. Return the valve to the OPEN position after installing the screws F.

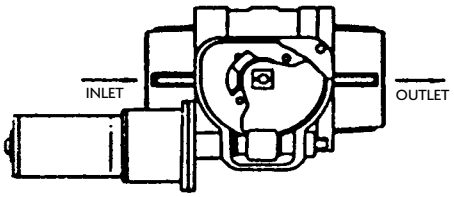
All positions shown with the ball open



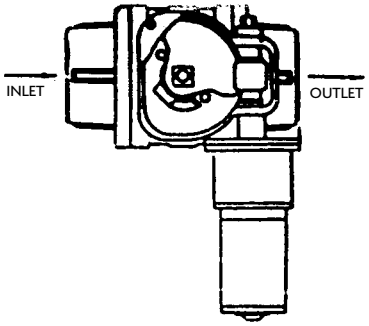
POSITION A



POSITION B



POSITION C



POSITION D

F. Replace the cover on the actuator and attach with the four round head screws A.

G. Go to Section V.

IV. ELECTRICALLY ACTUATED VALVE INSTALLATION

A. Install the electrically actuated valve into the apparatus piping. To facilitate the installation, the valve adapters may be removed from the valve body, mounted on the piping and the valve body re-bolted onto the adapterflanges. The actuator may be positioned on the top, bottom or side of piping. If necessary, the actuator mayalso be rotated on the valve to any of the four positions shown on the following page.
NOTE: The notch on the top of the trunnion must always be in line with the waterway with the sector gear positioned as shown.

The valve must not be installed more than 20 feet from master controller. See controller installation instructions. Do not splice wiring harness or connect through slip (collector) rings on aerials. Auxiliary controller must be used for this application.

V. CONTROLLER INSTALLATION

See instructions packaged with controller system.

AKRON BRASS COMPANY

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