



Installation Instructions for Mounting Gemini B400 Series Pneumatic Actuators to 309 Series Ball Valves

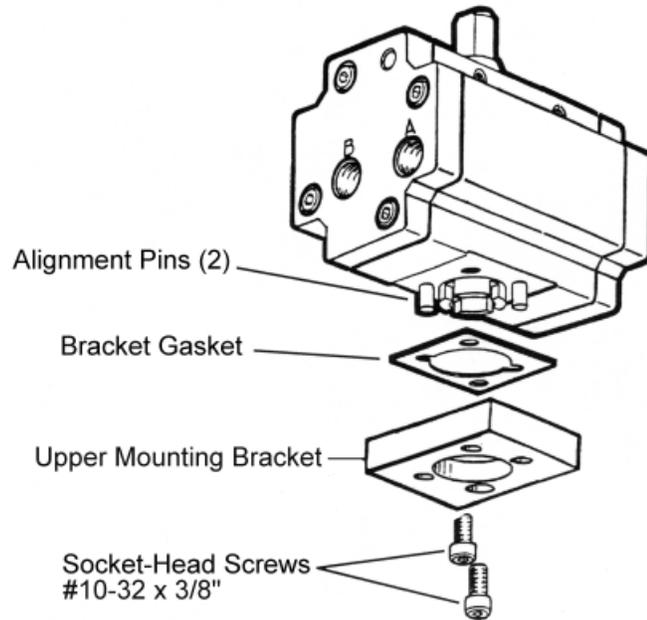
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These instructions detail the procedure for installing a Gemini B400 Series pneumatic actuator on a drive-key equipped Gemini 309 Series diverter ball valve. Valves may be purchased with the drive-key assembled or may be retrofitted with a drive-key conversion kit.

Caution: The actuated valve will fail to function if the orientation of the valve stem, with respect to the actuator pinion is not in accordance with these instructions.

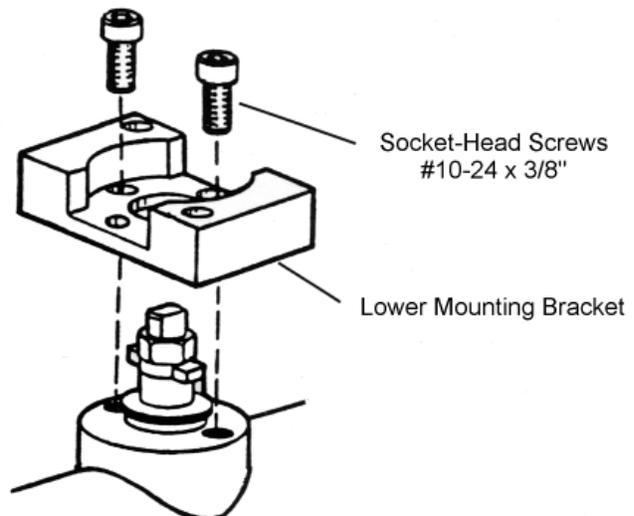
Assemble Bracket to Actuator

1. Position the bracket gasket on the actuator mounting surface so that the alignment pins engage the slots in the gasket.
2. Place the upper mounting bracket, on the mounting surface over the gasket so that holes engage the the alignment pins.
3. Fasten the upper mounting bracket and bracket gasket to the actuator with the two #10-32 x 3/8" socket-head screws, as shown. Tighten securely.
4. Turn actuator shaft clockwise to 'shut' position; shaft flats perpendicular to actuator centerline.



Assemble Bracket to Valve

1. Position lower mounting bracket on the valve with 'slots' facing fore and aft as shown. Secure with #10-24 x 3/8" socket-head screws.
2. The valve stem flats must align with the centerline of the valve as shown in the illustrations. Rotate the stem to this position with an adjustable wrench or other tool if necessary.



Assemble Valve to Actuator

1. Complete the assembly by joining the actuator, with attached upper mounting bracket, and the valve, with the attached lower mounting bracket. It may be necessary to work the actuator back and forth in the horizontal plane to engage the drive-key and stem nut in the actuator pinion, reposition the nut slightly (this should require less than 1/12 turn of the nut).

2. Fasten the upper bracket to the lower bracket with the two #10-32 x 3/8" socket-head screws. Tighten securely.

Optional

The 'OPEN / SHUT' indicator on the actuator may prove confusing in a diverter valve installation. As a convenience, a graphic indicator label has been provided to display the valve flow characteristics. The indicator label is applied directly over the 'OPEN / SHUT' indicator as described below.

1. Remove the two #4-40 fillister head screws from the position indicator housing.

2. Wipe the 'OPEN / SHUT' indicator with a cleaning solvent to remove contaminants from the surface.

3. Orient the actuator so the word 'OPEN' is directly above the actuator nameplate (in order for this procedure to yield proper indication, the identification markings on the valve body must face the same direction as the actuator nameplate). Pressing firmly, apply the 309 flow indicator label as shown.

4. Replace the position indicator housing, fasten with the #4-40 fillister head screws.

5. Verify proper installation by rotating the actuator and confirming the indicator is representative of the port location.

