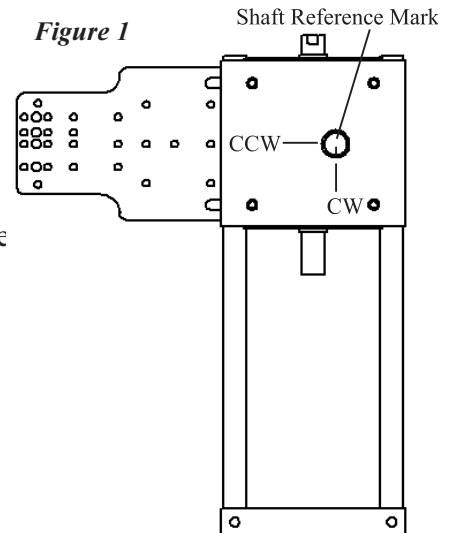




DEI GL “Zone, Low & Medium Series” Globe Valve Linkage Installation Instructions

1. Before mounting the linkage:
 - (a) Move the shaft on the valve and the linkage in both the up and down positions. This shows the full travel of the stem and linkage. Mark both the up and down positions with permanent marker.
 - (b) Rotate linkage shaft fully clockwise and, with permanent marker, mark the shaft on the back of the linkage and continue the same mark onto the back of the linkage (See Shaft Reference Mark on Figure 1). Then rotate shaft counterclockwise and continue the same mark on the shaft on the back of the linkage.



2. Remove the collar from the linkage by removing the two socket head cap screws, using a 1/4" Allen wrench.
3. Thread a jam nut onto the valve stem, then attach the linkage onto the valve by threading the stem adapter 4-8 threads onto the valve stem and then secure by tightening the stem jam nut. On Zone (GLZ) and Low (GLL) linkages when tightening the jam nut, hold the stem adapter that extends out of the top of the linkage housing with a 9/16" wrench. **The flat portions of the stem should be parallel with the linkage housing.**
4. Using a 7/16" wrench **slightly** loosen (approx. 1/4 turn), but do not remove, the flanged lock nuts on the drive shaft side of the linkage housing then **slightly** (approx. 1/4 turn) loosen the hex head bolts on the opposite side of the linkage. This will allow the tubular legs to slide up and down freely.
5. Lower the tubular legs until they reach the valve bonnet. Secure the linkage collar to the legs of the linkage and the valve bonnet. Tighten the linkage collar to the valve bonnet using a 1/4" Allen wrench.
Note: If the bonnet is threaded and the collar is not, use the jam nut supplied with the valve to secure the collar.
6. Now that the stem adapter and bonnet collar are tight, rotate the linkage drive shaft clockwise until the line on the back on linkage lines up and valve on stem is all the way down. Mark top of both legs. Then tap the linkage down approximately 1/16" - 1/8".



7. Align and **mark** the actuator bracket(s) in accordance with the linkage drive shaft(s) and the actuator(s) being used so that the anti-rotation screw(s) fit into the anti-rotation slot.
IMPORTANT: The tab on the anti-rotation bracket must fit midpoint in the actuator slot to prevent actuator binding and premature wear.
8. Tighten the hex head bolts first (to 135-150 in-lb), then the flanged lock nuts on the upper portion of the linkage housing using a 7/16" wrench.
9. Before mounting the actuator(s) manually stroke the valve stem while referencing the marks on the valve and linkage stem to assure that you are getting full stroke of the valve in both the stem up and stem down positions (see marks on back of linkage). If assembly needs readjusting repeat procedure from beginning.
10. Position the valve in the stem down position and then manually override the actuator approximately 3-5 degrees before its end of travel before securing the actuator. This should assure tight close off in both the stem up and stem down position of the valve.
Note: On two-way valves actuator should current limit vs. hitting end of travel stop on closed side to ensure tight close-off.
On three-way valves actuator should current limit vs. hitting end of travel stop on both sides to ensure tight close-off.
11. The assembly should be complete at this point but check again that the valve is getting tight close off and full stroke in the required positions by operating the actuator either manually or electronically. If the assembly needs readjustment repeat step 10.

TOOLS REQUIRED:

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|----------------------------|---------------------------------------|
| 1 – 7/16" open end wrench | - for nuts & bolts on linkage housing |
| 1 – 1/4" Allen wrench | - for valve bonnet collar |
| 1 – 3/8" open end wrench | - for anti-rotation nut |
| 1 – 10mm open end wrench | - for U-bolt on actuator |
| 1 – 9/16" open end wrench | - for linkage stem adapter |
| 1 – wrench - size may vary | - for valve stem jam nut |