

SERVICE PROCEDURE 825Y (3/4"-2")

805Y - 805YR - 845 - 865 - 825Y - 825YR

1. Check Valve Inspection/Repair Model 825Y (3/4"-2")

a. Close inlet and outlet shut-off valves. Bleed residual pressure by opening first the #4 testcock, then the #3 and #2 testcocks.

b. Unscrew Cap using appropriate size wrench. **CAUTION: Cap is spring loaded. First check spring force on 3/4" to 1 1/2" is 10 lb. First check spring force on 1 1/2" to 2" is 28 lb. Retain cap with appropriate amount of hand force to avoid injury. Second check spring force is approximately 1/4 of the first check spring.**

c. Remove the spring and disc holder assembly.

d. Inspect guiding bore of the cap and poppet stem for any build-up of calcium or other mineral deposits. If this condition exists, it may be removed with the careful use of an appropriate size reamer or a thin blade knife. 3/4"-1 1/4" cap --5/8" (.6250) reamer 1 1/2"- 2" cap --7/8" (.8750) reamer.

e. Check disc holder and stem movement in the guide to insure they move freely. Debris can inhibit proper movement.

2. Check Valve Seat Replacement Model 825Y (3/4"-2")

a. Hold disc holder assembly in one hand and remove screw and disc washer.

CAUTION: The use of pliers or other tools may damage the guiding surfaces and require unnecessary replacement. Do not scratch or mark sealing or guiding surfaces.

b. Inspect seat disc for wear or cuts. Remove old seat disc and install new, or turn used disc over if new seat disc is not available.

c. If the seat disc has been severely cut along the seat ring diameter, the assembly is being subjected to extremely high back pressure from thermal water expansion, water hammer or other causes of excessive water pressure. Seat discs damaged in such a manner should be replaced and not turned over to be re-used.

3. Check Valve Reassembly Model 825Y (3/4"-2")

a. Position the disc in the cleaned holder and retain with disc washer and screw. **CAUTION: DO NOT OVERTIGHTEN SCREW, SECURE WITH APPROXIMATELY 12 INCH-LBS.**

b. Position the spring around the centering ring of the disc holder and reinsert the disc holder assembly into the check body.

NOTE: Insure the heavy check spring is installed in the No. 1 check valve or the valve will not operate properly and a continuous discharge may occur.

c. Apply a thin coating of FDA approved lubricant on the o-ring in the cap and thread cap onto the check valve body using the appropriate sized wrench.

d. Close the #4, #3, and #2 testcocks and slowly open first the inlet and then outlet shut-off valves and return the assembly to service.

e. Test the assembly to insure it is operating properly.

4. Relief Valve Inspection/Repair Model 825Y (3/4"-2")

a. Slowly close the inlet and outlet shut-off valves and bleed off the residual pressure by opening first testcocks #4, then #3 and #2.

b. Remove capscrews, diaphragm cover, diaphragm and port bushing of relief valve.

c. Remove the integral relief valve assembly by pulling straight out of the body to remove the internal

d. Remove the disc washer and seat disc by unthreading the screw.

e. To remove spring and/or mainstem from the guide, keep unit compressed and remove the screw (item 18) located in the center of the button. Push the mainstem through the guide and remove the o-ring from the mainstem. Inspect and clean or replace o-ring and seat disc as required. Clean all parts thoroughly with clean water before re-assembly.

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5. Relief Valve Seat Removal Model 825Y (3/4"-2")

Standard only on units manufactured after October of 1988 with serial numbers higher than listed below.

Serial Numbers of New Model 825Y with Replaceable Relief Valve Seat Ring

Size	Serial Number
3/4"	Serial No. S6528 and above
1"	Serial No. S6163 and above
1 1/2"	Serial No. S5710 and above
2"	Serial No. S5089 and above

a. While relief valve is disassembled, remove the two allen head socket capscrews using the appropriate sized allen head wrench. (3/16" allen head wrench for 3/4" and 1" assemblies, and 1/4" allen head wrench for 1 1/2" and 2" assemblies.)

b. Pull the relief valve body from the main valve body. Pull the discharge shield from the seat ring.

c. Remove seat ring with the appropriate sized socket. Use care to avoid damage to the seat edge. Replaceable relief valve seat is standard only on units manufactured after October of 1988.

d. Inspect seat ring, o-rings, bushings, and gasket seals for damage. Rinse all parts with clean water before reassembly.

6. Relief Valve Re-assembly Model 825Y (3/4"-2")

a. Lubricate the seat ring o-ring with FDA approved lubricant and thread seat ring into the valve body until seated. Do not over tighten. (Replaceable relief valve seat ring standard on units manufactured after October of 1988.)

b. Position the discharge shield over the seat ring diameter and, taking care not to damage the two flow passages, reinstall o-rings and guide bushings.

c. Carefully place the relief valve body over the bushing and tighten the two capscrews to retain the relief valve body to the main valve body. New capscrew sealing washers should be installed to avoid leakage.

d. Lubricate the o-rings and mainstem using FDA approved lubricant. Place the mainstem and spring into the guide and replace the flat-head screw located at the center button.

e. Place the disc washer and seat disc in position and retain with machine screw. Depress the diaphragm button to insure it is free moving.

f. Place the relief valve module into the relief valve body and mount the diaphragm. Be careful to position the diaphragm over the port bushing. Replace the relief valve cover and tighten the capscrews.

g. After completing reassembly, slowly open the inlet shut-off valve. Then bleed air from each chamber and from the relief valve cover by opening testcocks #4, #3, and #2. Slowly open outlet shut-off valve and return the valve to service.

h. Test the assembly to insure it is operating properly.