

# Series 719

Sizes: 1/2" - 2" (15 - 50mm)

# Service and Maintenance

## Double Check Valve Assemblies

### Servicing the First and Second Check Valves

**NOTE:** Before servicing be certain water is turned off or shut-off valves are closed

1. Close shut off valves up and downstream of the valve.
2. Using an appropriate sized wrench, loosen the check valve cover. Unscrew the check valve cover and lift off.
3. Remove spring.
4. Lift out disc holder assembly from body of valve.
5. To reverse the seat disc, unscrew disc screw and disassemble disc washer and disc rubber from the disc holder assembly. Reverse rubber so opposite face is showing. Assemble disc screw through disc washer and rubber and screw into disc holder.

6. To replace seat module, pull out of body by gripping at reinforcement ring. Replace seat module with new component by placing into body seat bore. Tightening cover will engage seat properly.
7. Insert disc holder assembly back into seat module.
8. Replace spring insuring that it seats properly on disc holder.
9. Place cover onto spring with internal guide on cover positioned inside end coil.
10. Screw cover onto valve body.
11. Tighten cover wrench tight.
10. Open shut off valves.

## Series 919

### Reduced Pressure Zone Assemblies

## Servicing First & Second Check Valves 1/4" - 2"

**NOTES:** 1. No special tools are required to service the Series 919 1/4" - 2".  
2. Before servicing, make sure the water is turned off or shut-off valves are closed.

1. Close shut-off valves up and downstream of the valve.
2. Using an appropriate sized wrench, loosen the check valve cover. Unscrew the check valve cover and lift it off.
3. Remove the spring.
4. Lift out the disc holder assembly from the body of the valve.
5. To reverse the seat disc, unscrew the disc screw and disassemble the disc washer and disc rubber from the disc holder assembly. Reverse the disc rubber so the opposite face is showing.
6. Assemble the disc screw through the disc washer and disc rubber, and screw it into the disc holder.
7. To replace the seat module, pull the seat module out of the body by gripping at the reinforcement ring. Replace the seat module with the new seat by placing it into the body seat bore.

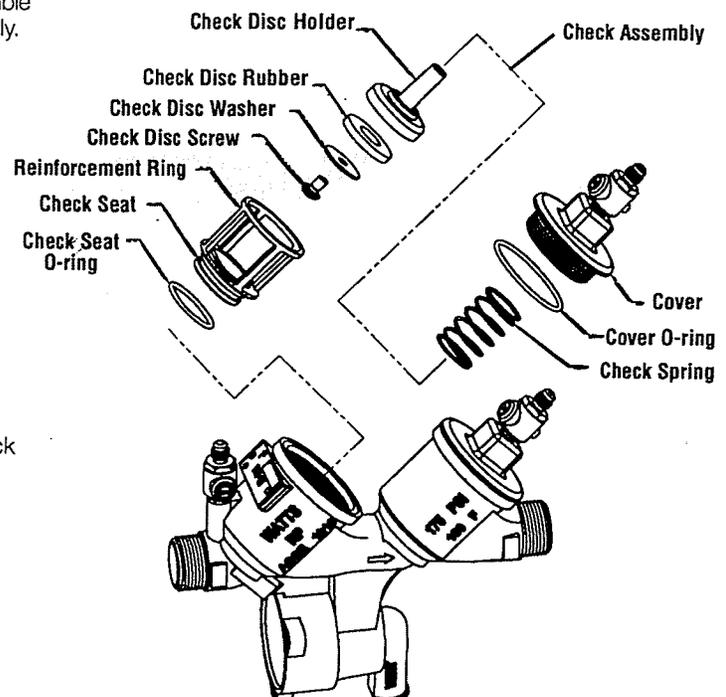
**NOTE:** When you tighten the cover in step 12, the cover will engage the seat module properly.

8. Insert the disc holder assembly back into the seat module.
9. Replace the spring ensuring that it seats properly on the disc holder.

#### **WARNING**

The first check valve has a heavy weight spring. The second check valve has a lighter weight spring. When reassembling the check valves, make sure you install the correct spring into the correct check valve.

10. Place the cover onto the spring with the internal guide on the cover positioned inside the end coil.
11. Screw the cover onto the valve body.
12. Tighten the cover using the appropriate sized wrench.
13. Service the second check valve using steps 2 through 12.
14. Slowly open shut off valves.



# Series 919

## Reduced Pressure Zone Assemblies

# Servicing the Relief Valve 1/4" - 2"

NOTES: 1. No special tools are required to service the series 919 1/4" - 2".

2. Before servicing, make sure the water is turned off or shut-off valves are closed.

The following procedures provide information for replacing the diaphragm, the relief valve disc, and the relief valve seat. It is recommended that you visually inspect these parts to determine if a replacement or a cleaning is required.

### Disassembling the Relief Valve

1. Remove the relief valve cover bolts while holding the cover down.
2. Turn the cover counterclockwise for 1/4 turn, and lift it straight off while still applying pressure to the cover with your hand.

#### **WARNING**

Make sure you apply pressure to the cover as you lift it straight off. Due to the release of pressure when removing the cover, the relief valve spring may eject quickly.

3. Remove the relief valve assembly (includes cover O-ring, stem and diaphragm assembly).
4. Remove the relief valve spring.
5. Remove the pressed in relief valve seat and seat O-ring.

### Replacing the Diaphragm

6. Using a wrench, loosen the diaphragm assembly by turning the hex bolt counterclockwise.
7. Remove the diaphragm and replace with a new diaphragm if required, or clean the existing diaphragm.
8. Using a wrench, reassemble the diaphragm assembly by turning the hex bolt clockwise to tighten.

### Replacing the Relief Valve Disc and Seat

9. Using a phillips screwdriver, remove the screw in the relief valve disc and replace the disc if required, or clean the existing disc.
10. Place the screw back into the relief valve disc and tighten.
11. Replace the relief valve seat with a new seat if required, or clean the existing seat.

### Reassembling the Relief Valve

12. Place the relief valve seat back into the chamber bore.
13. Slide the diaphragm assembly into the relief valve seat.
14. Place the spring on to the diaphragm assembly.
15. Place the cover O-ring on the diaphragm assembly.
16. Line up the grooves on the relief valve cover with the grooves in the relief valve body, and turn the cover clockwise 1/4 turn to seat the cover.
17. Using a wrench, place the bolts back into the cover and tighten.

#### **CAUTION**

If the cover does not lie flat against the relief valve body, the diaphragm assembly is not installed properly and damage can result. Remove the bolts and cover, realign the diaphragm assembly, and place the cover back on the relief valve body.

18. Open the shutoff valves.

