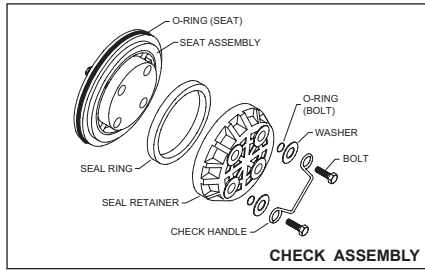


## Maintenance Instructions

### 4" – 6"



All Model 450ST Double Check Valve Backflow Preventers must be inspected and maintained by licensed personnel at least once a year or more frequently as specified by local codes. Replacement of worn or damaged parts must only be made with genuine "ZURN WILKINS" parts.

#### GENERAL MAINTENANCE

1. Clean all parts thoroughly with water after disassembly.
2. Carefully inspect rubber seal rings and o-rings for damage.
3. Test unit after reassembly for proper operation (refer to "TESTING PROCEDURES").

#### SERVICING CHECK VALVES

1. Close the outlet and then the inlet shut-off valves.
2. Open No. 2, 3 and 4 test cocks to release internal pressure. Leave them open during check removal and reinstallation.
3. Loosen and remove the two nuts, bolts, gasket and grooved coupling from around the access cover.

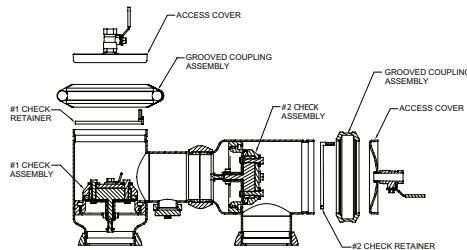


FIGURE 1

4. Grasp one of the expose ends of the plastic retainer, push down and then pull toward the #2 check. The retainer should "spiral" out of the groove around the check.
5. Repeat numbers 3 & 4 to remove the #2 check the same way.
6. **Always service the checks one at a time to avoid mixing parts.** Start by removing the hardware and o-rings from the back of the check assembly (See "Check Assembly" illustration). Separate the seal retainer from the assembly to expose the seal ring.
7. Inspect the seal ring for cuts or embedded debris. If the reverse side of the seal is unused, the seal ring can be inverted and used temporarily until a new seal is obtained. Inspect seat o-ring and replace if cut or damaged in any way.
8. Inspect valve cavity and seating areas. Flush with water to remove any debris.
9. Reassembly: Lubricate the #2 check o-ring, install in the body and close the #4 test cock. Install the #2 check retainer into the body groove by inserting the end with short tab into the notch above the check, sliding your hand around the face of the retainer pushing it into the groove as you go. Retainer should "snap" into place. Lubricate and install the #1 check, close the #2 test cock and install.
10. Lubricate the outside surface of the grooved coupling gasket. Reassemble access covers and grooved couplings, making sure the ends of the couplings touch each other. Close any remaining open test cocks and place valve back in service.

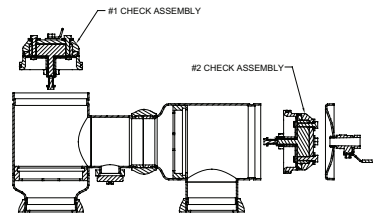
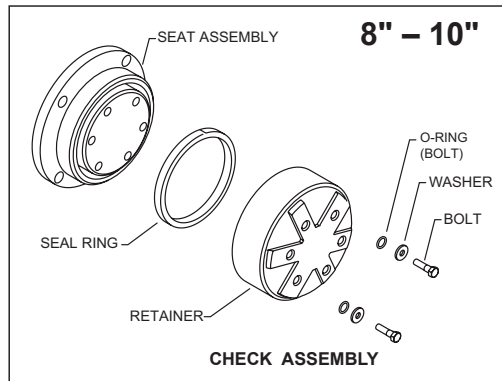


FIGURE 2

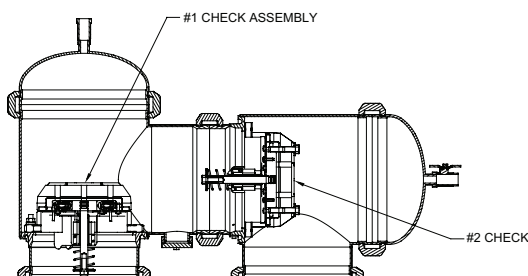


### 8" – 10"

CHECK ASSEMBLY

#### GENERAL MAINTENANCE

1. Clean all parts thoroughly with water after disassembly.
2. Carefully inspect rubber seal rings and o-rings for damage.
3. Test unit after reassembly for proper operation (refer to "TESTING PROCEDURES").



#### SERVICING CHECK VALVES 8" – 10"

1. Close inlet and outlet shut-off valves.
2. Open No. 2, No. 3 and No. 4 test cocks to release pressure from valve.
3. Loosen & remove the grooved coupling around the access covers. Remove covers.
4. To service the #1 or #2 check assembly, remove the 6 bolts, washers and o-rings from the back of the #1 check assembly. Separate the retainer and the seal ring from the check assembly and proceed to step #7.

#### ALTERNATELY

5. To service both checks. Remove the 4 nuts and washers retaining the #1 check assembly. Remove the check assembly from the body.
6. Remove all 6 bolts, washers and o-rings from the check assembly (See "Check Assembly" illustration). Separate retainer from check assembly to expose seal ring for inspection.
7. Inspect the rubber seal ring for cuts or embedded debris. If the reverse side of the seal ring is unused, it is possible to invert the seal ring. This would be considered a temporary solution to fixing a fouled check and should be replaced with a new seal ring as soon as possible.
8. Inspect valve cavity and seating areas. Remove any debris.
9. Reverse the above procedures to reinstall check assembly. Lubricate seat o-rings to hold them in place while reinstalling seat. Place washers on studs and tighten retaining nuts evenly.
10. Reinstall access cover and grooved coupling.
11. Repeat steps 5 - 10 above to service #2 check assembly.

NOTE: If any portion of the seat assembly is damaged or missing or if the seat sealing rib is damaged in any way, do not attempt to field repair it. Contact your local ZURN WILKINS representative for assistance.