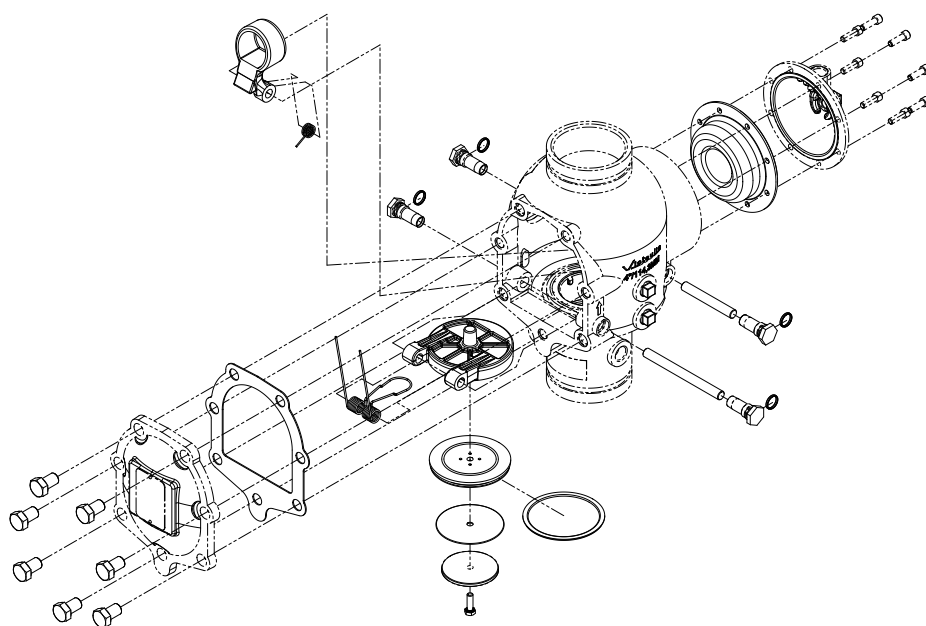


Rebuild Kit Instructions for Series 768N FireLock NXT™ Dry Valves, Series 769N FireLock NXT™ Deluge Valves, and Series 769N FireLock NXT™ Actuated Valves with Preaction Trim



⚠ WARNING



- Read and understand all instructions before attempting to install, remove, adjust, or perform maintenance on any Victaulic piping products.
- Depressurize and drain piping systems before attempting to install, remove, adjust, or perform maintenance on any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.
- Save this installation, maintenance, and testing manual for future reference.

Failure to follow instructions and warnings could cause system failure, resulting in death or serious personal injury and property damage.

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HAZARD IDENTIFICATION



Definitions for identifying the various hazard levels are provided below. When you see this symbol, be alert to the possibility of personal injury. Carefully read and fully understand the message that follows.

 **WARNING**

- The use of the word “**WARNING**” identifies the presence of hazards or unsafe practices that could result in death or serious personal injury and property damage if instructions are not followed.

 **CAUTION**

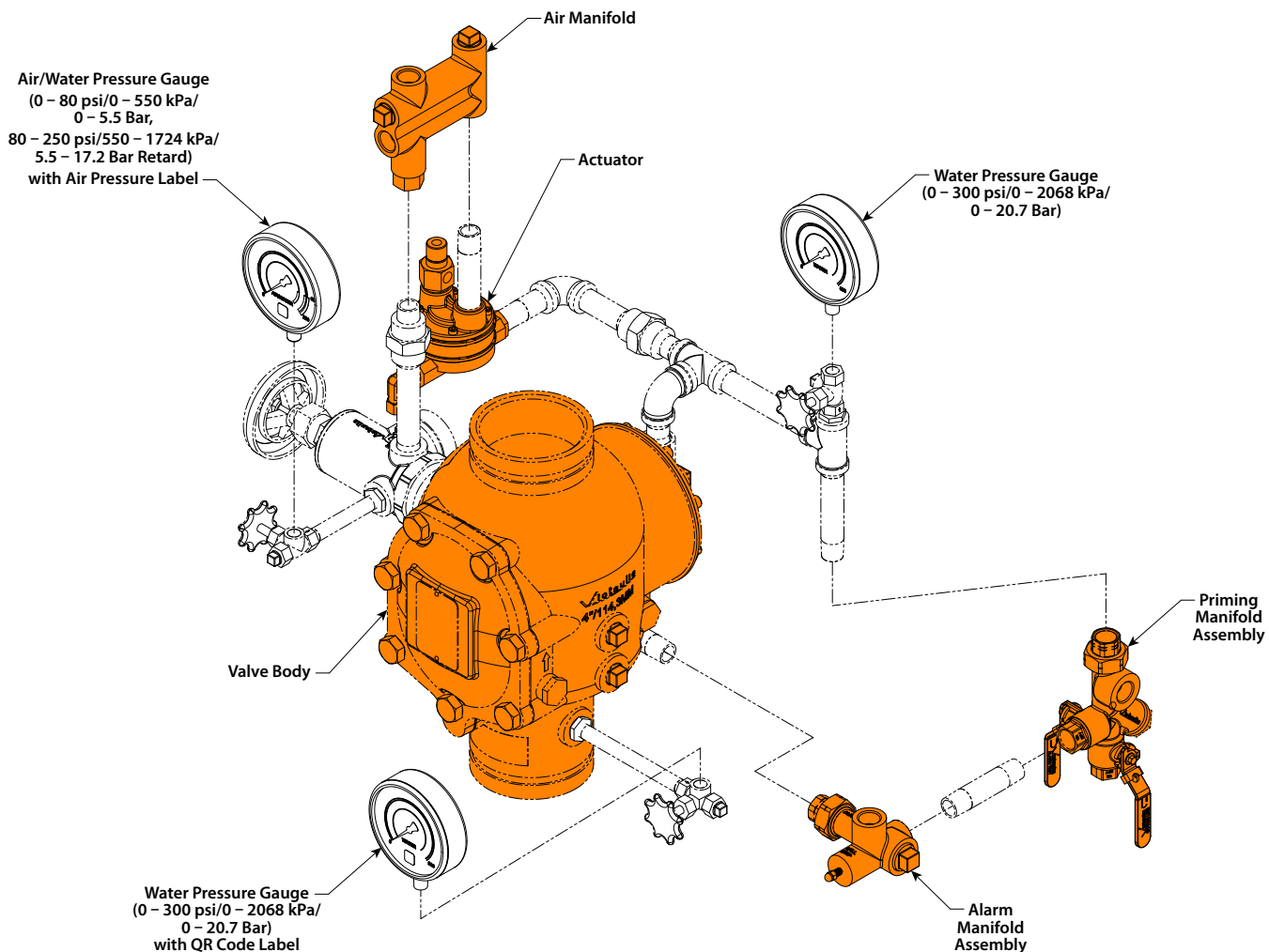
- The use of the word “**CAUTION**” identifies possible hazards or unsafe practices that could result in personal injury and product or property damage if instructions are not followed.

NOTICE

- The use of the word “**NOTICE**” identifies special instructions that are important but not related to hazards.

OVERVIEW OF REPLACEMENT PARTS

The following drawing identifies components with replaceable parts for a typical Series 768N FireLock NXT™ Dry Valve. **NOTE:** The trim for Series 769N FireLock NXT™ Deluge Valves and Actuated Valves with Preaction Trim will vary from what is shown below; however, the alarm manifold and priming manifold assemblies and internal valve components are consistent throughout all valve trim configurations. Refer to the instructions on the following pages for removing the system from service to replace these components.



Orange shaded areas have internal components that are replaceable.
Pressure gauges, identified above, are replaceable items.

⚠ WARNING



- Depressurize and drain the piping system before attempting to perform any maintenance on the valve.
- The building owner or their representative is responsible for maintaining the fire protection system in proper operating condition.
- To ensure proper system operation, valves shall be inspected in accordance with current NFPA-25 requirements or in accordance with the requirements of the local authority having jurisdiction (whichever is more stringent). Always refer to the instructions in this manual for additional inspection and testing requirements.
- The frequency of inspections shall be increased in the presence of contaminated water supplies, corrosive/scaling water supplies, and corrosive atmospheres.
- Any activities that require taking the valve out of service may eliminate the fire protection provided. A fire patrol is strongly recommended for the affected areas.
- Before servicing or testing the system, notify the authority having jurisdiction.

Failure to follow these instructions could cause system failure, resulting in death or serious personal injury and property damage.

REMOVING THE SYSTEM FROM SERVICE

1. Notify the authority having jurisdiction, remote station alarm monitors, and those in the affected area that the system is being taken out of service.
2. Open the water supply main drain valve fully to flush the water supply of any contaminants.
3. Close the water supply main drain valve.
4. Close the water supply main control valve to take the system out of service.
5. Open the water supply main drain valve.
6. Confirm that water is not flowing from the water supply main drain valve.

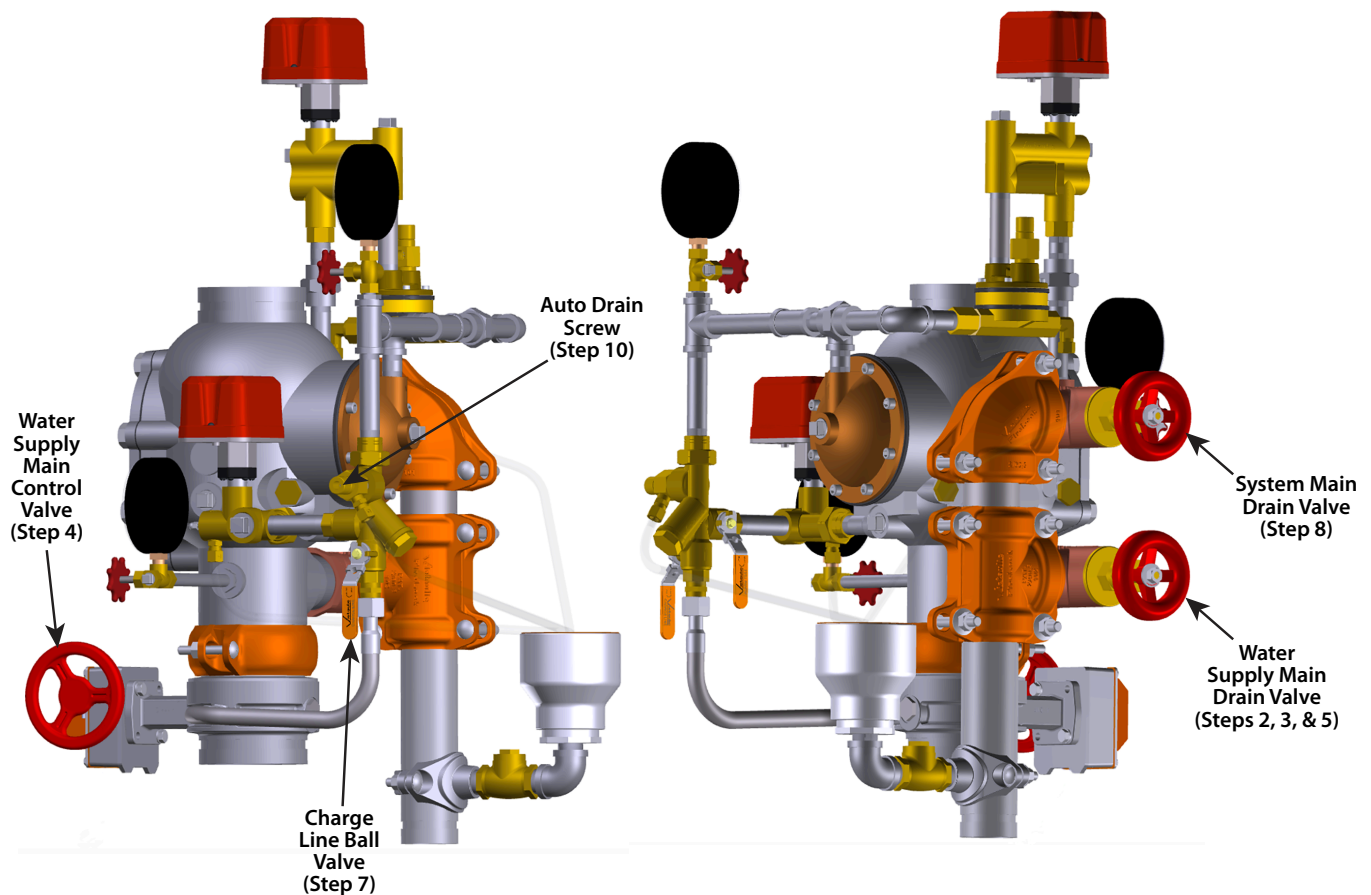
7. Close the charge line ball valve.

8. Open the system main drain valve to drain any water that has accumulated and to release system air pressure.

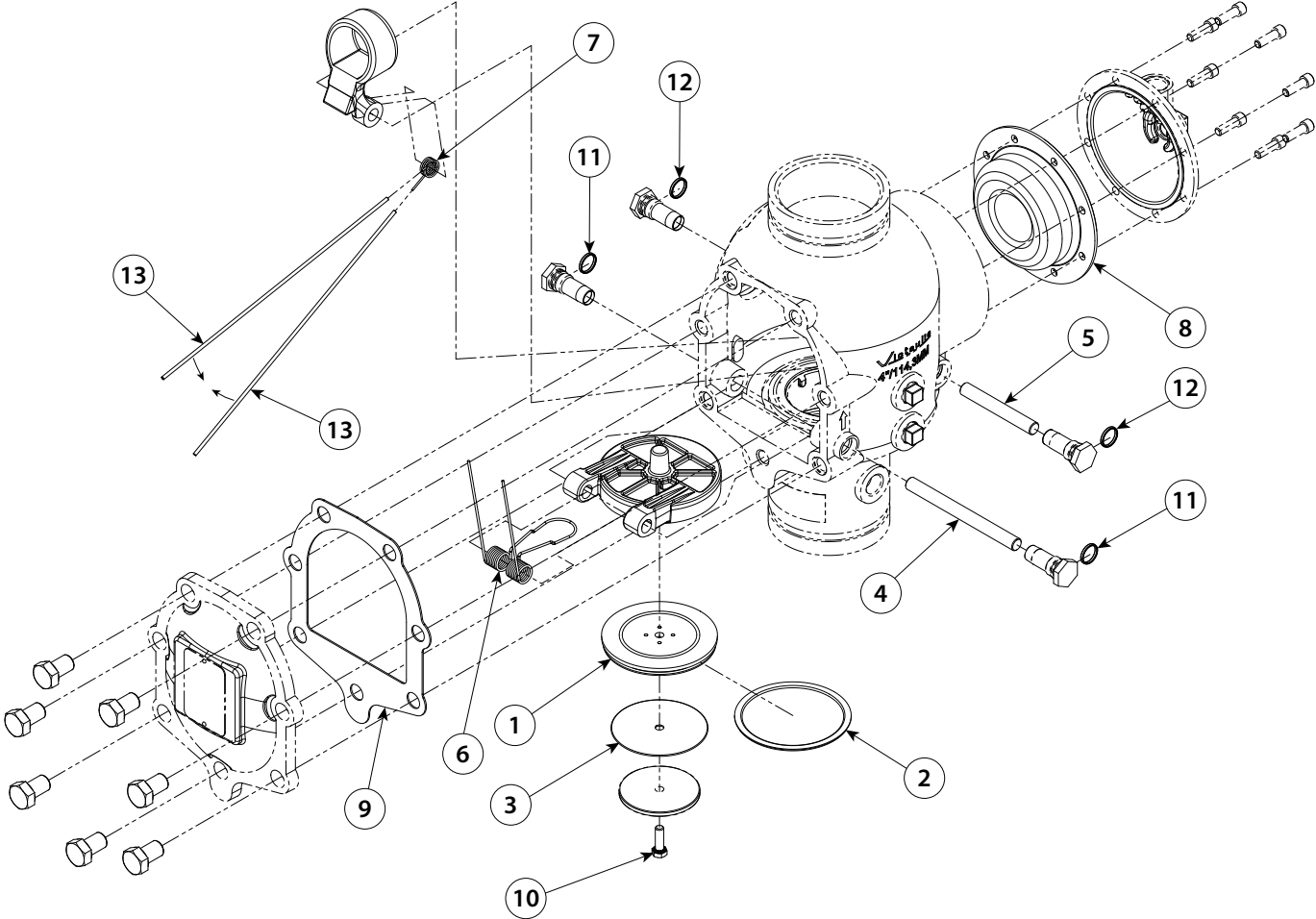
NOTE: If the system has operated, open the remote system test valve (inspector's test connection) and any auxiliary drain valves.

9. Isolate any applicable air supply.

10. **PUSH DOWN ON THE AUTO DRAIN SCREW TO REMOVE PRESSURE IN THE CHARGE LINE. VERIFY THAT THERE IS NO PRESSURE ON THE GAUGES.**



INSTRUCTIONS FOR REPLACING INTERNAL VALVE COMPONENTS



Item	Description
1	Clapper Seal
2	Seal Ring
3	Seal Washer*
4	Clapper Shaft
5	Latch Shaft
6	Clapper Spring
7	Latch Spring
8	Diaphragm

Item	Description
9	Cover Plate Gasket
10	Seal Assembly Bolt/Bolt Seal
11	Clapper Shaft Bushing O-Ring
12	Latch Shaft Bushing O-Ring
13	Spring Insertion Tool

* Item 3 (Seal Washer) is not used in 1½-inch/48.3-mm and 2-inch/60.3-mm valve sizes.

The 1½-inch/48.3-mm and 2-inch/60.3-mm valve sizes contain washers under the heads of the cover plate bolts.

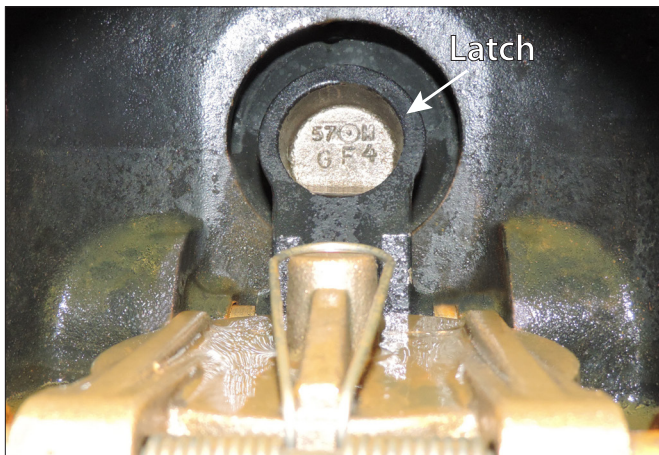
⚠ WARNING

- Verify that the valve is depressurized and drained completely before the cover plate bolts are removed.

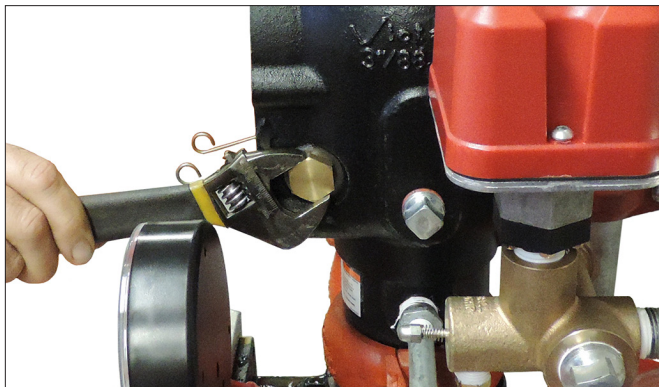
Failure to follow this instruction could result in death or serious personal injury and property damage.



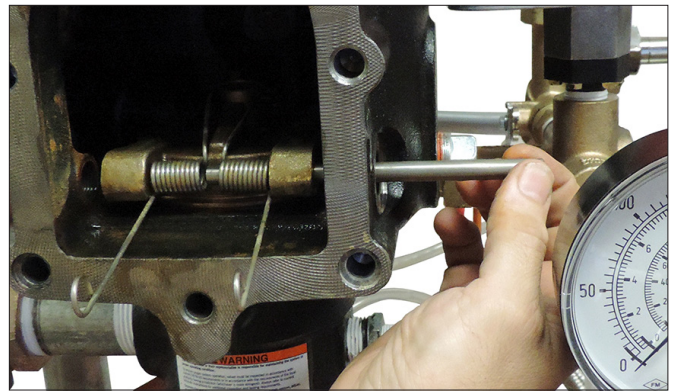
1. After all pressure is released from the system, loosen the cover plate bolts slowly. **NOTE:** DO NOT remove any cover plate bolts until all cover plate bolts are loosened.
- 1a. Remove all cover plate bolts, along with the cover plate and cover plate gasket. Discard the cover plate gasket. **NOTE:** The 1 1/2-inch/48.3-mm and 2-inch/60.3-mm valve sizes contain washers under the heads of the cover plate bolts. Keep these washers for re-installation.



2. Push the latch back (toward the diaphragm).



3. Remove the clapper shaft bushings from the valve body. Remove and discard the clapper shaft bushing o-rings. Keep the clapper shaft bushings for re-installation.



4. Remove the clapper shaft. **NOTE:** As the clapper shaft is being removed, the clapper spring will drop out of position. Discard the clapper shaft and clapper spring.
5. Remove the clapper assembly from the valve body seat ring. Clean the valve body seat ring.



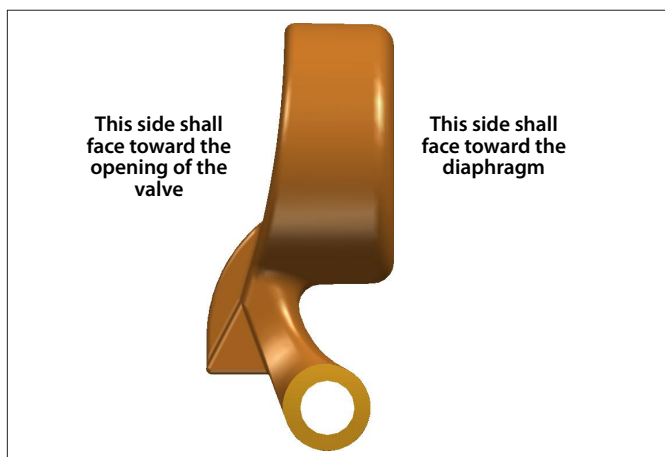
6. Remove the latch shaft bushings from the valve body. Remove and discard the latch shaft bushing o-rings. Keep the latch shaft bushings for re-installation.

⚠ WARNING

- DO NOT allow the latch to drop onto the valve body seat ring. Failure to follow this instruction will damage the valve body seat ring and cause improper valve operation, resulting in death or serious personal injury and property damage.



7. Remove the latch shaft. **NOTE:** As the latch shaft is being removed, the latch and latch spring will drop out of position. **BE PREPARED TO SUPPORT THE LATCH AND LATCH SPRING DURING REMOVAL OF THE LATCH SHAFT. DO NOT ALLOW THE LATCH TO DROP ONTO THE VALVE BODY SEAT RING.** Discard the latch shaft and latch spring. Keep the latch for re-installation.



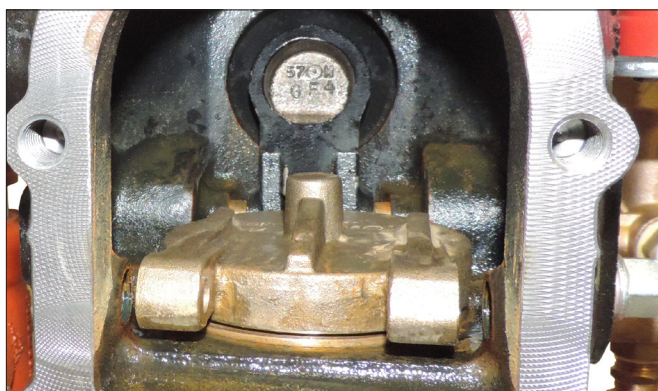
8. Insert the new latch shaft (supplied with the kit) through the valve body and into the first arm of the latch. **VERIFY THAT THE SIDE OF THE LATCH WITH THE RECESS IS FACING TOWARD THE OPENING OF THE VALVE. THE FLAT SIDE OF THE LATCH SHALL FACE TOWARD THE DIAPHRAGM, AS SHOWN ABOVE.**



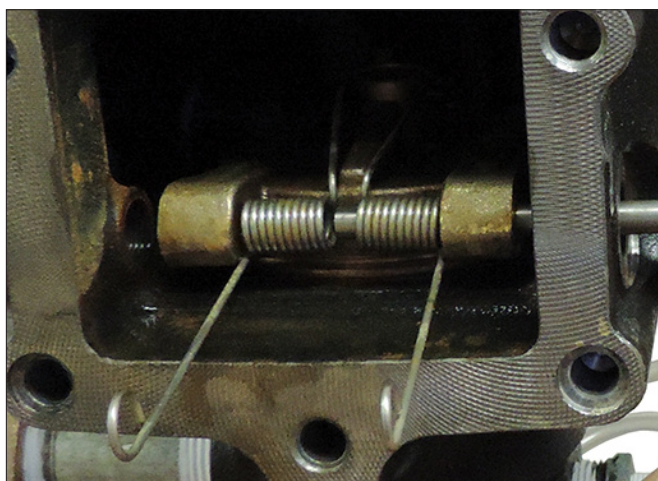
9. Place a spring insertion tool (supplied with the kit) onto each arm of the new latch spring (supplied with the kit). Use the spring insertion tool to close the latch spring arms together slightly, then install the latch spring onto the latch shaft, as shown above.
- 9a. Continue to pass the latch shaft through the other arm of the latch and into the valve body.
- 9b. **REMOVE THE SPRING INSERTION TOOL FROM EACH ARM OF THE LATCH SPRING.**



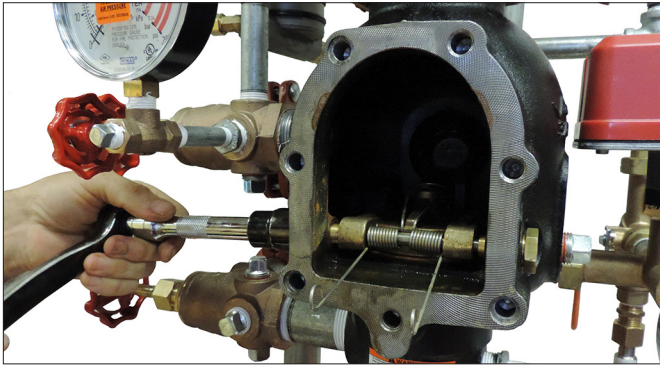
10. Place a new latch shaft bushing o-ring (supplied with the kit) onto each latch shaft bushing.
- 10a. Apply thread sealant to each latch shaft bushing. Install the latch shaft bushings into the valve body until hand-tight.
- 10b. Tighten the latch shaft bushings until metal-to-metal contact occurs with the valve body. **DO NOT** exceed 10 ft-lbs/14 N•m of torque on the latch shaft bushings.



11. Place the clapper assembly onto the valve body seat ring. Ensure that the holes in the clapper arms align with the holes in the valve body.



12. Insert the new clapper shaft (supplied with the kit) halfway into the valve body.
- 12a. Install the new clapper spring (supplied with the kit) onto the clapper shaft. Ensure that the loop of the clapper spring is facing the clapper, as shown above.
- 12b. Finish inserting the clapper shaft through the clapper arm and valve body.



13. Place a new clapper shaft bushing o-ring (supplied with the kit) onto each clapper shaft bushing.

13a. Apply thread sealant to each clapper shaft bushing. Install the clapper shaft bushings into the valve body until hand-tight.

13b. Tighten the clapper shaft bushings until metal-to-metal contact occurs with the valve body. DO NOT exceed 10 ft-lbs/14 N•m of torque on the clapper shaft bushings.

13c. Check the clapper for freedom of movement.



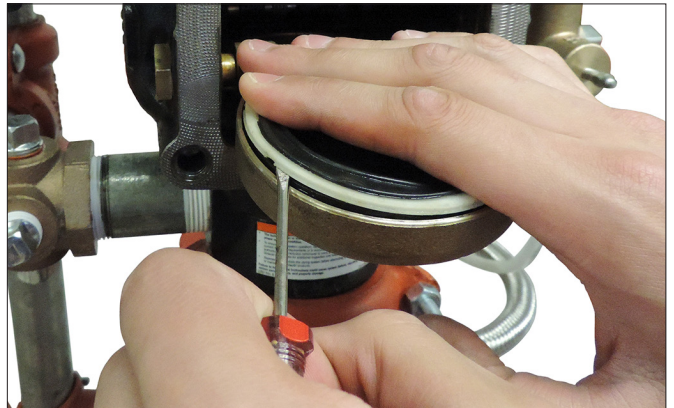
14. Rotate the clapper out of the valve body. Remove the seal assembly bolt/bolt seal from the clapper seal, as shown above. Discard the seal assembly bolt/bolt seal.



15. Remove the seal-retaining ring. Save the seal-retaining ring for re-installation.

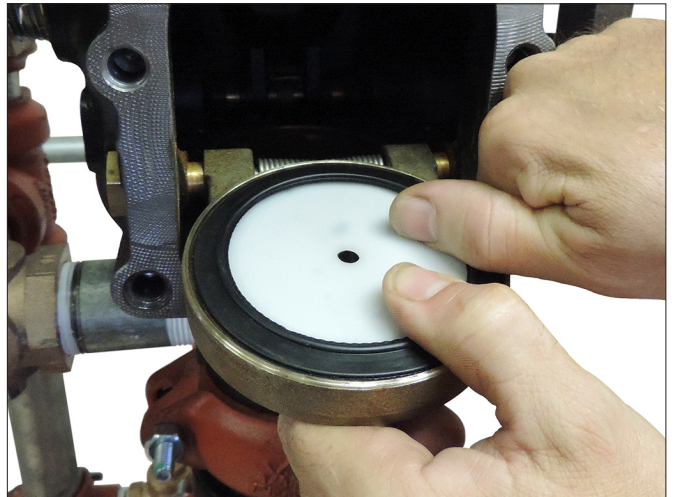


16. Pry the edge of the seal washer out from the inside of the clapper seal, as shown above. Remove and discard the seal washer.

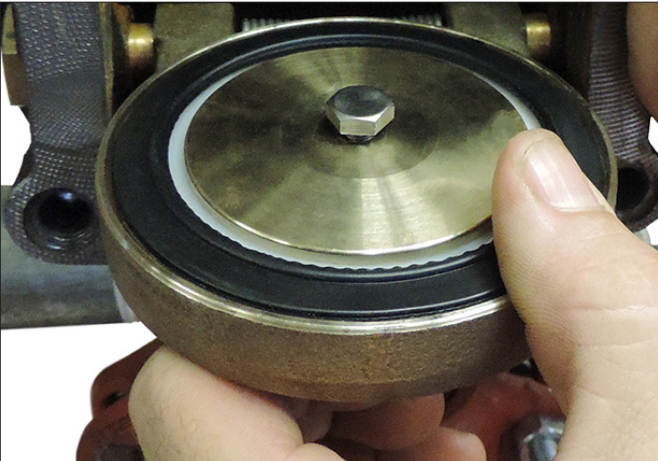


17. Carefully pry the old clapper seal, along with the seal ring, out of the clapper. Discard the clapper seal and seal ring.

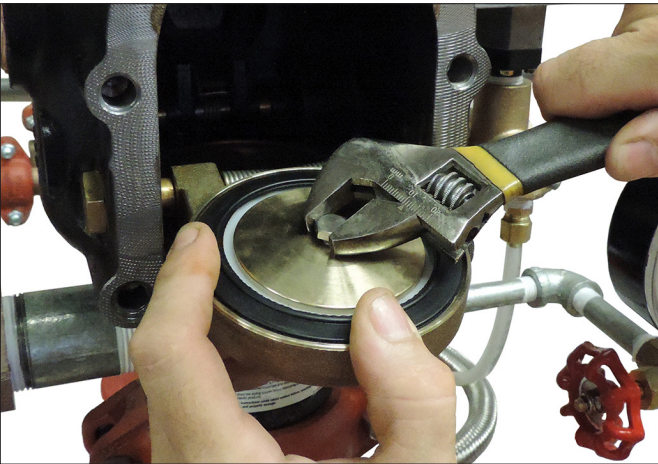
18. Remove any debris from the clapper. Inspect the clapper for damage that may affect the sealing capabilities of the new clapper seal. Contact Victaulic if the clapper requires replacement.



19. Install the new clapper seal (supplied with the kit) into the clapper carefully. Ensure that the seal ring snaps into the clapper completely.



20. Place the seal-retaining ring onto the seal washer of the clapper seal. Install the new seal assembly bolt/bolt seal (supplied with the kit) through the seal-retaining ring and clapper.



21. Tighten the seal assembly bolt/bolt seal to the torque value listed in the table below to ensure a proper seal.

REQUIRED SEAL ASSEMBLY BOLT/BOLT SEAL TORQUES

Nominal Size inches or mm	Required Torque inch-lbs/N•m
1 ½	40 5
2	40 5
2 ½	90 10
76.1 mm	90 10
3	90 10
4	110 12
165.1 mm	160 18
6	160 18
8	160 18



22. Align the holes of the new cover plate gasket (supplied with the kit) with the holes in the cover plate.

22a. Insert one cover plate bolt through the cover plate and cover plate gasket to ease alignment. **NOTE:** For 1 ½-inch/48.3-mm and 2-inch/60.3-mm valve sizes, a washer shall be re-installed under the head of each cover plate bolt.

CAUTION

- **DO NOT over-tighten the cover plate bolts.**
Failure to follow this instruction could cause damage to the cover plate gasket, resulting in valve leakage.



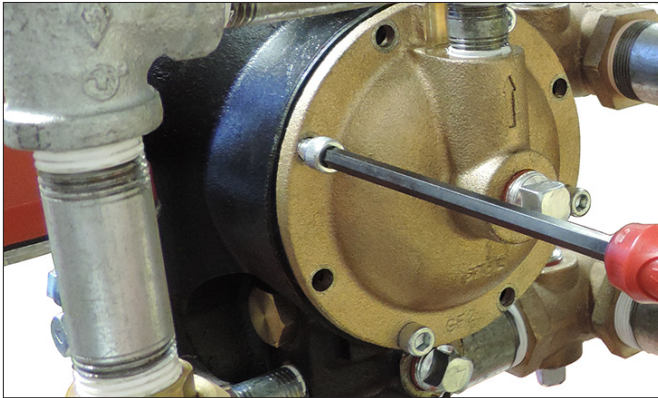
23. Align the cover plate/cover plate gasket to the valve. Ensure that the clapper spring's arms are rotated to their installed position. Tighten all cover plate bolts into the cover plate/valve body.

23a. Torque all cover plate bolts in an even, crossing pattern. Refer to the "Required Cover Plate Bolt Torques" table below for the required torque values. **DO NOT over-tighten the cover plate bolts.**

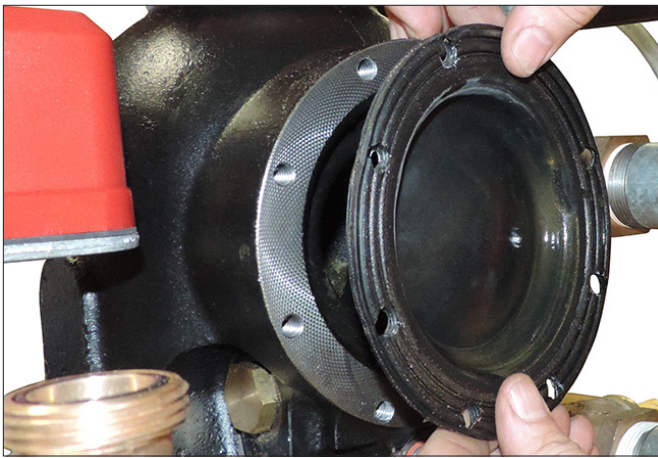
REQUIRED COVER PLATE BOLT TORQUES

Nominal Size inches or mm	Required Torque ft-lbs/N•m
1 ½	30 41
2	30 41
2 ½	60 81
76.1 mm	60 81
3	60 81
4	100 136
165.1 mm	115 156
6	115 156
8	100 136

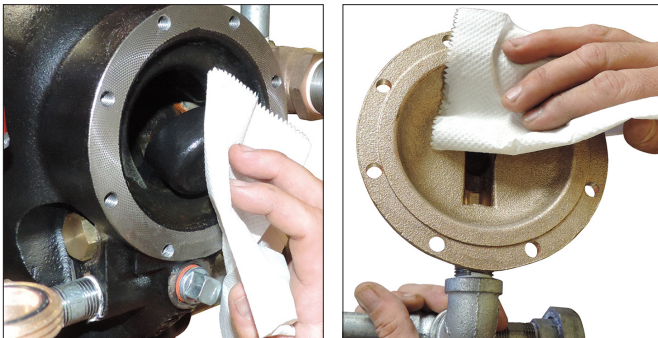
24. Break the unions that connect the trim to the diaphragm cover. Refer to the applicable trim drawing for details.



25. Remove the cap screws from the diaphragm cover, and pull the diaphragm cover/trim off the valve.



26. Remove the diaphragm from the valve body. Discard the diaphragm.



27. Clean the back of the valve body to remove any debris that may interfere with proper diaphragm seating.
- 27a. Clean the inside of the diaphragm cover.

CAUTION

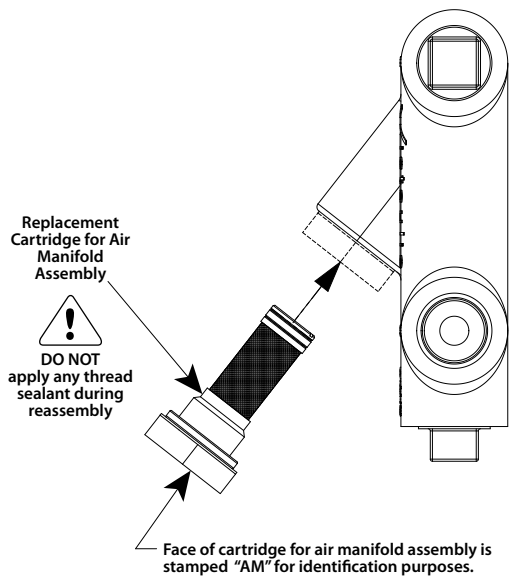
- Use caution when installing a new diaphragm into the valve body.

Failure to follow this instruction could cause damage to the diaphragm, resulting in improper valve operation and valve leakage.

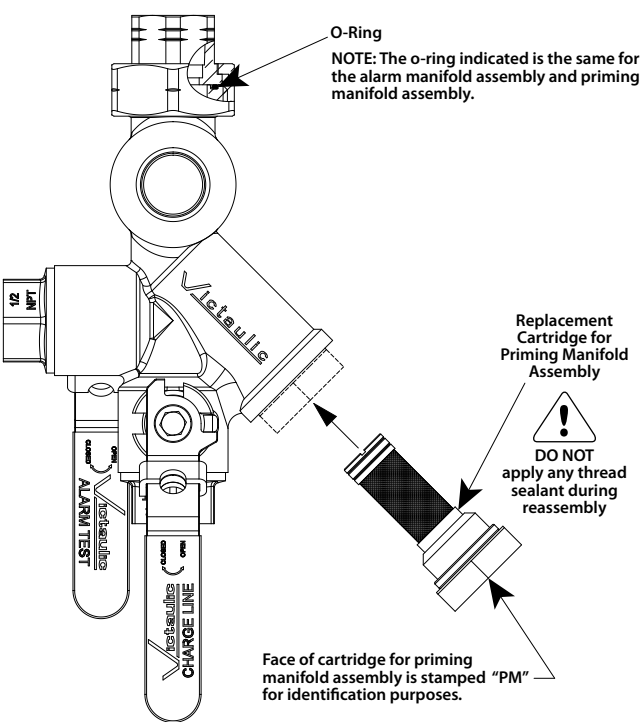
28. Align the holes in the new diaphragm (supplied with the kit) with the holes in the valve body. Use caution to prevent damage to the diaphragm during installation.
29. Align the holes of the diaphragm cover with the holes in the diaphragm/valve body. Tighten all cap screws into the diaphragm cover/valve body in an even, crossing pattern to a torque of 10 ft-lbs/14 N•m. Repeat this tightening sequence to verify that all cap screws have been torqued to 10 ft-lbs/14 N•m.
30. Re-attach the trim at the unions that were loosened in step 24. Refer to the applicable trim drawing for details. **VERIFY THAT ALL UNIONS THAT WERE LOOSENEED TO PERMIT ACCESS TO THE DIAPHRAGM COVER HAVE BEEN RE-TIGHTENED BEFORE ATTEMPTING TO PLACE THE SYSTEM BACK IN SERVICE.**

MAINTENANCE OF AIR, PRIMING, AND ALARM MANIFOLD ASSEMBLIES AND ACTUATORS

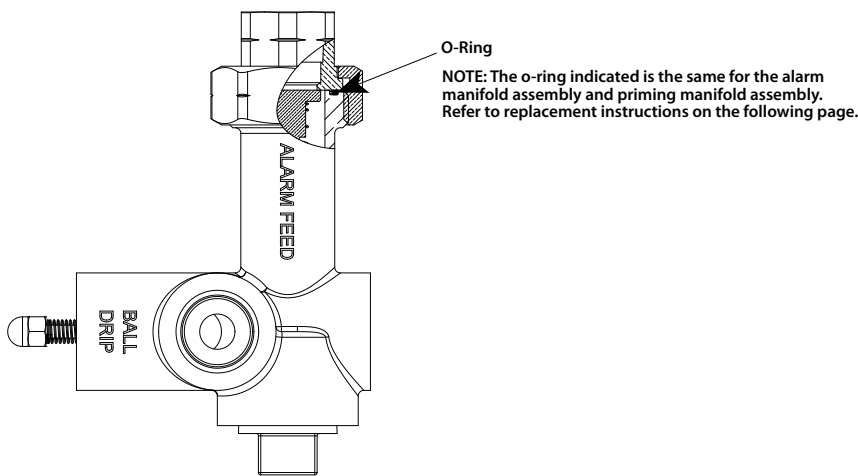
Air Manifold Assembly



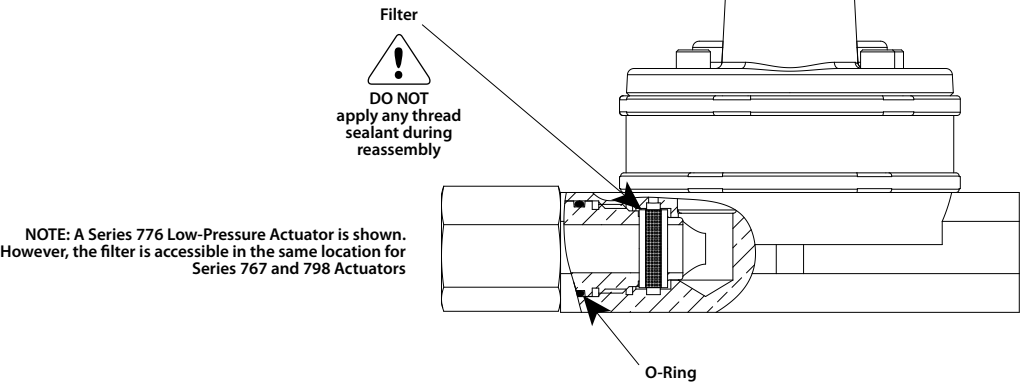
Priming Manifold Assembly



Alarm Manifold Assembly

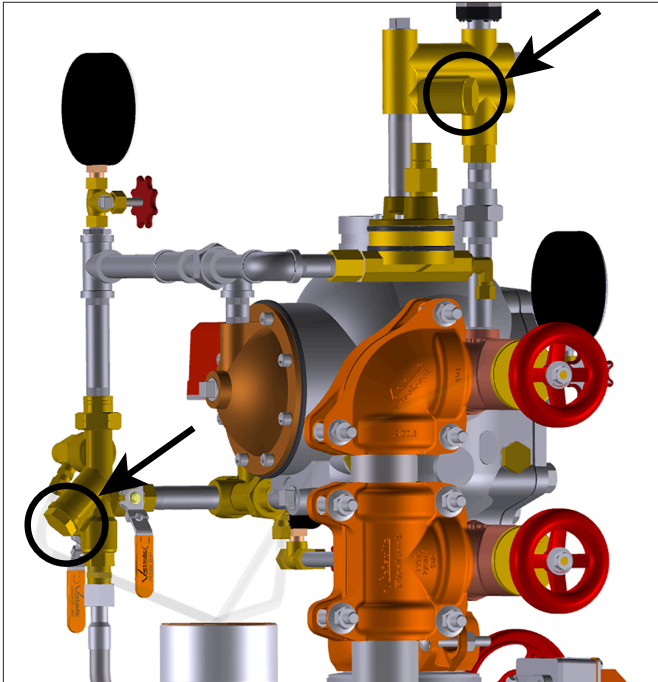


Actuator



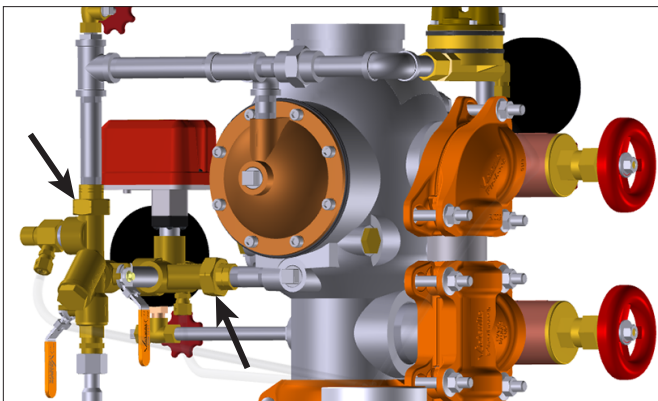
Replacing the Cartridge in the Air and Priming Manifold Assemblies

NOTE: Some Series 769N FireLock NXT™ Deluge Valve and Actuated Valve with Preaction trim configurations do not contain air manifolds; however, all trim configurations contain a priming manifold.



1. Remove the existing cartridge from the air manifold and priming manifold assemblies, shown above.
2. Install the new corresponding cartridge, supplied with the kit, into the priming manifold and air manifold assemblies. **DO NOT APPLY ANY THREAD SEALANT TO THE CARTRIDGES DURING REASSEMBLY.** **NOTE:** The face of the air manifold cartridge is stamped "AM" and the face of the priming manifold cartridge is stamped "PM." These cartridges are designed so that they cannot be interchanged.

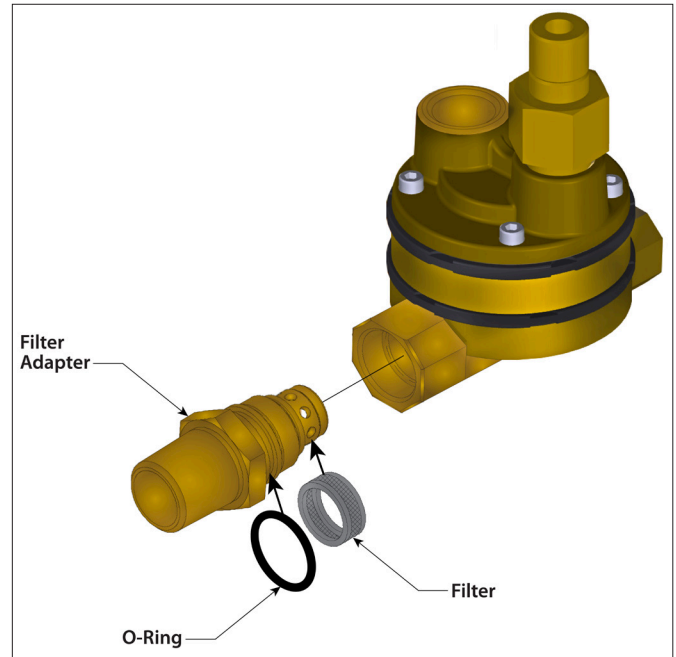
Replacing the O-Rings in the Alarm and Priming Manifold Assemblies



1. Break the union above the priming manifold assembly and the union of the alarm manifold assembly to gain access to the o-rings. Discard the o-rings.
2. Use only new, Victaulic-supplied o-rings (supplied with the kit), install the new o-rings onto the alarm and priming manifold assemblies.
3. Carefully reconnect the unions to the alarm and priming manifold assemblies. **DO NOT APPLY ANY THREAD SEALANT TO THE UNIONS DURING REASSEMBLY.** Use caution to prevent damage to the o-rings in the alarm and priming manifold assemblies.

Replacing the O-Ring and Filter in the Actuator

NOTE: The following o-ring and filter replacement section may not apply to some Series 769N FireLock NXT™ Deluge Valve and Actuated Valve with Preaction trim configurations.



NOTE: The Series 776 Low-Pressure Actuator is shown above.

1. Remove the actuator from the trim. Refer to the applicable trim drawing for details.
2. Remove the filter adapter from the actuator. Discard the o-ring and filter.

CAUTION

- **DO NOT re-use filters.** After removal, the old filter shall be replaced with a new, Victaulic-supplied filter.

Failure to follow this instruction could cause improper valve operation, resulting in property damage.

3. Use only new, Victaulic-supplied o-rings and filters. Install the new o-ring and filter onto the filter adapter, as shown above.
4. Carefully re-install the filter adapter into the actuator. Use caution to prevent damage to the o-ring. **DO NOT APPLY ANY THREAD SEALANT TO THE FILTER ADAPTER DURING REASSEMBLY.**
5. Re-install the actuator into the trim. Refer to the applicable trim drawing for details.

PLACING THE SYSTEM BACK IN SERVICE

After all maintenance procedures have been completed, place the system back in service by following the "Resetting the System" section in the applicable installation, maintenance, and testing manual.

Inspect all trim components to confirm that there are no leaks. Any leaks shall be corrected immediately by depressurizing the system and tightening any affected components.

**Rebuild Kit Instructions for Series 768N FireLock NXT™ Dry Valves,
Series 769N FireLock NXT™ Deluge Valves, and
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