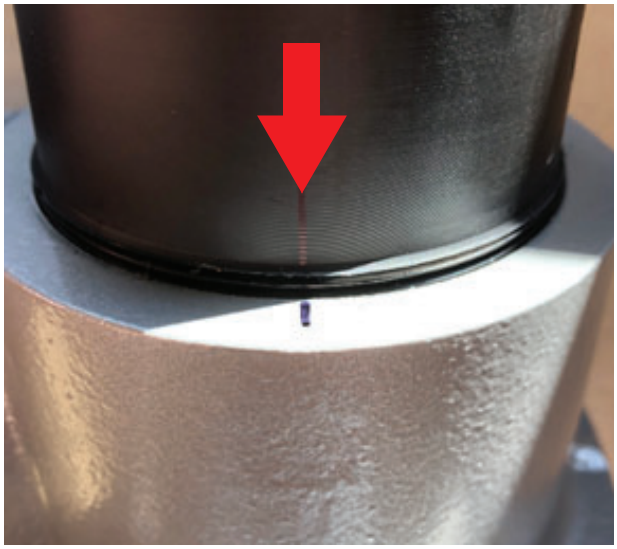
INSTRUCTIONS: PRV Rebuild Kits
PRV-KIT and PRV-G-KIT

Tools Required: 1/8", 5/32", and ¼" Hex Wrenches, 9/16" Socket Wrench, Pointed Pick, Permanent Marker, Acetone or similar, red Scotch-brite™, Loctite #242 is included in the kits.

***This procedure is specific to PRVs manufactured after June 2012 and PRVS with Insulator manufactured after January 2020**

STEP 1) Make a reference mark on the PRV housing and the stepped spring housing so that the marks line up. (see last page for various styles of TFT PRV housings)



STEP 2) Using a tape measure with 32nd graduations or a depth caliper, take a measurement near the reference mark from the top of the PRV housing to the top of the graduated step of the Spring Housing. Write that measurement here: _____. (Each PRV will have a slightly different measurement).

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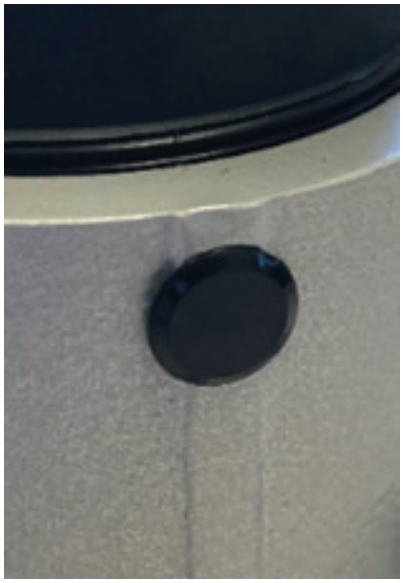
STEP 3) Back out the pressure adjusting screwing using a ¼" Hex Wrench or 9/16" Socket wrench until it is flush with lowest PSI setting.

STEP 4) If present, using a pointed pick, remove the anti-tamper plug from the set screw on the side of the PRV housing. Then, loosen by one turn the set screw using a 5/32" hex wrench.



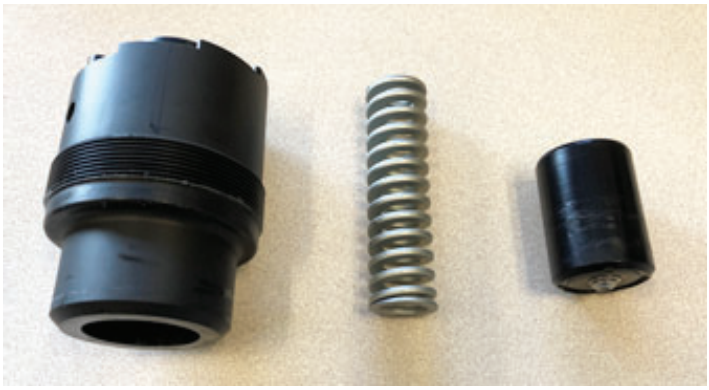
Anti-Tamper Plug

Set Screw

STEP 5) Grasp by hand the spring housing and unthread it from the PRV housing.

⚠CAUTION **Some spring tension may be felt while unthreading the spring housing.**

STEP 6) Grasp by hand the piston in the spring housing and pull it out of the spring can. (DO NOT grasp the piston using tools as the outside diameter is a sealing surface. Damage to this surface will create a leak.) Remove the spring and set aside for re-installation later.

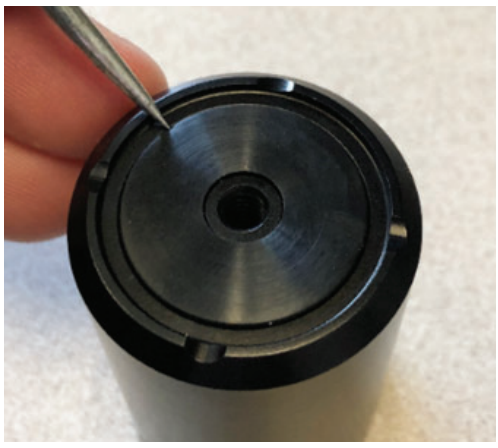


STEP 7) Using a pointed pick, remove the cup seal or quad-ring from the inlet side of the spring housing.

STEP 8) Prepare the appropriate seal for installation. Insure that the seal groove in the spring housing is clean. Lightly grease the seal groove with the silicone grease supplied in the kit. Install the seal in to the groove. Make sure that the cup seal is installed in the correct orientation. The open portion of the cup should be facing towards the opening in the spring can. Verify that the seal is not twisted and is fully seated in the groove. Apply a light layer of grease over the seal.

STEP 9) Grasp the piston by hand only. (DO NOT grasp the piston using tools as the outside diameter is a sealing surface. Damage to this surface will create a leak.) Using an 1/8" hex wrench, remove the button head screw and washer that retains the piston seat.

STEP 10) Using a pointed pick, carefully remove the piston seat from the piston. Use care as to not score the aluminum surface below the seat.

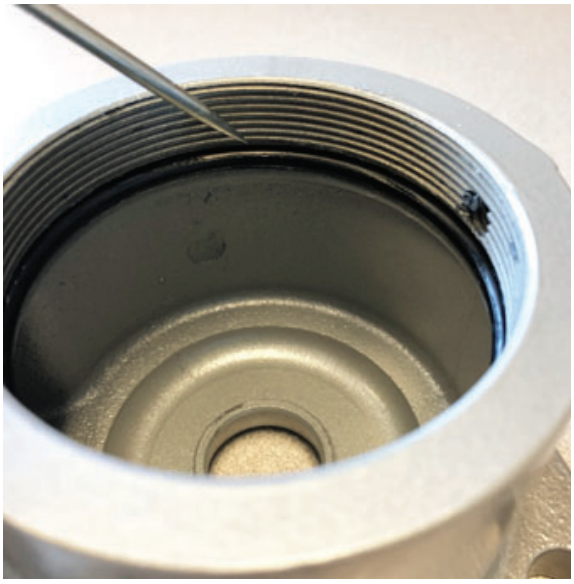


STEP 11) Install the new piston seat into the piston in the orientation shown. Insure that the lip of the seat is fully seated in the groove of the piston and that the hole in in the seat is fully seated around the raised island in the center of the piston.
The largest diameter of the seat should tuck into the piston first and the smaller diameter facing out.

STEP 12) Clean the threads on the screw and the female threads in the piston with acetone or similar. Apply a small amount of blue LOCTITE® to the screw. Using the 1/8" hex wrench, install the screw and washer into the piston until tight.

STEP 13) Place the spring back into the spring housing, direction does not matter, insuring that is seats fully into the pressure adjusting screw. Install the piston over the spring. The screw will be facing out. Use care when inserting the piston as to not roll the cup seal in the spring housing.

STEP 14) Remove the existing O-ring from the PRV housing. Install a new O-ring into the groove and lightly grease over the O-ring.
*In some configurations, the O-ring is installed onto the spring housing not in the PRV housing.



STEP 15) Make sure the sealing lip inside the PRV housing is free from debris or build up. If necessary, clean the lip lightly with red Scotch-brite.
STEP 15a) If the PRV has an integrated galvanic insulator and the seating edge is damaged. See Galvanic Insulator Replacement section. Galvanic Insulator part number A1118

STEP 16) Thread the spring housing assembly into the PRV housing. Thread it in until the reference marks align and the reference measurement recorded in Step 2 matches.
In order to insure accuracy of the PRV this measurement needs to match. One revolution of the spring housing will change the measurement by as much as 1/16".

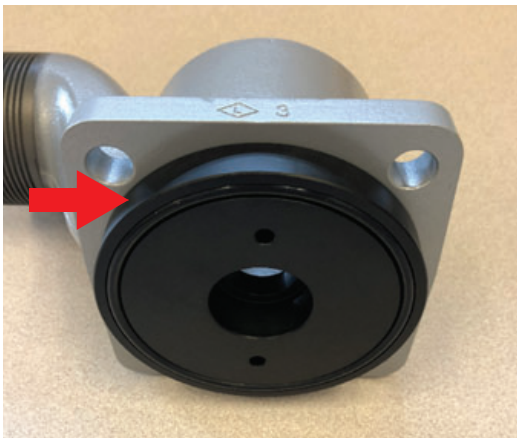
STEP 17) Using the 5/32" Hex Wrench snug the set screw in the PRV housing into the spring housing. Do not make tight as this can create a leak. Re-Install the anti-tamper plug.

STEP 18) Using the ¼" hex wrench or 9/16" socket wrench, adjust the pressure adjustment screw until it is flush with the desired pressure setting.

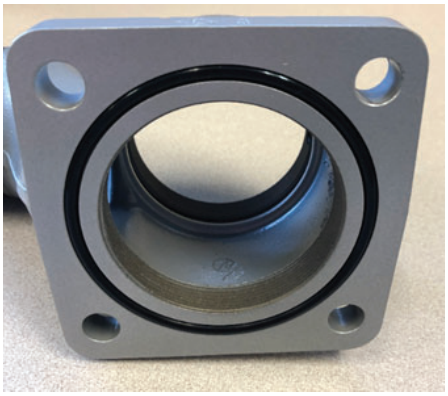
Galvanic Insulator Replacement

STEP 1) Replacement of the galvanic insulator requires removal of the PRV housing from its appliance. Using the appropriate tooling, remove the four fasteners that retain the PRV to the appliance.

STEP 2) Grasp the galvanic insulator by hand or wrench on its outside diameter or use a pin spanner to engage the holes in the insulator's face. Unthread the insulator from the housing.



STEP 3) Remove the O-Ring from the PRV housing. Lightly grease the O-Ring groove, install a new O-ring then, lightly grease over the O-ring.



STEP 4) Using one of the methods described in Step 2, install the new galvanic insulator into the PRV housing until seated/tight against the O-ring. Do not apply any thread locking or sealing compounds to the galvanic insulator or PRV housing threads.

STEP 5) Lightly grease the O-Ring groove in the galvanic insulator, install a new O-ring in the O-ring groove then, lightly grease over the O-Ring.

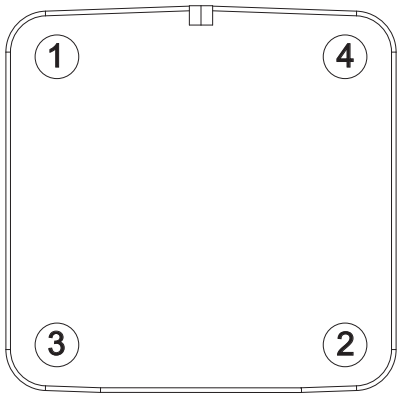
STEP 6) Reinstall the PRV onto its appliance following the torque recommendations below.

a) Place the PRV in the desired orientation. Be sure that the PRV is aligned with the opening. Tightening the bolts with the PRV tilted to one side may damage the galvanic isolator.

b) Apply a drop of thread locking compound on the threads of the bolts to prevent them from coming loose.

c) Loosely install the bolts through the flange of the PRV.

d) Tighten bolts in an alternating pattern as shown at tight. Complete the pattern for each bolt first to 40 in/lb, then to 80 in/lb, and finally to 140 in/lb..



STEP 7) Testing

It is important that your Pressure Relief Valve (PRV) is functioning properly at all times while in service. A properly functioning PRV prevents dangerous situations and reduces possible injury. In order to ensure the PRV is functioning properly, it should be tested regularly. NFPA standards set forth the minimum requirements and procedures for inspecting and testing these valves. It is strongly recommended that you read and follow the procedures.

For PRVs mounted to piping of in-service emergency vehicles:
NFPA 1911: Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles

For PRVs mounted to a fire hose appliance:
NFPA 1962: Standard for the Care, Use, Inspection, Service Testing, and Replacement of Fire Hose, Couplings, Nozzles, and Fire Hose Appliances

Any valves taken out of service due to failure should be returned to the factory for repair or replacement. If you have any questions regarding the testing or maintenance of your Pressure Relief Valve, please call Task Force Tips at 800-348-2686.

⚠WARNING **Any PRV failing any part of the inspection checklist is unsafe and must have the problem corrected before use. Operating a PRV that fails any of the above inspections is a misuse of this equipment.**

Housing Configurations

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