



Form No.	Issue Date	Rev. Date
I-1362	06/30/94	5/30/19

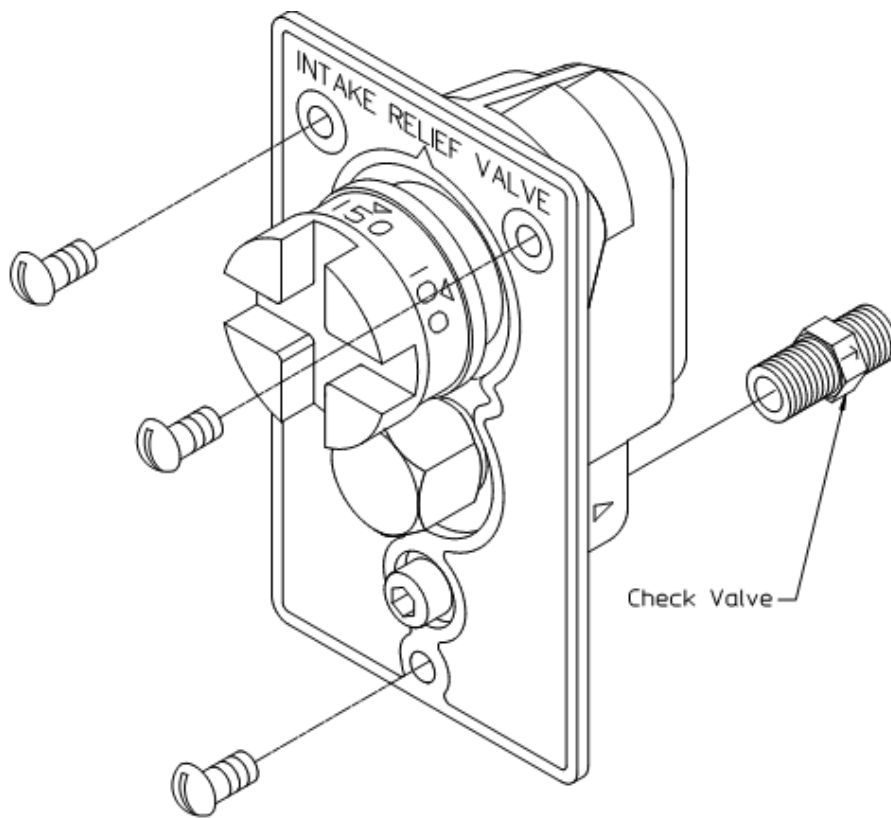
K 839

Repair Kit for Intake Relief Valve Pilot Valve

Part Number	Description	Quantity
V 2739	Rubber Throttle Screw O-ring	1
V 2751	Setting Ring Scale	1
V 2931	O-ring, .850" I.D. x .057" O.D.	1
V 2933	O-ring, .937" I.D. x .120" O.D.	1
V 2934	Control Piston	1
V 2950	Piston Seat	1
V 2952	Strainer Gasket	1
V 2956	Hex Nut	1
V 2957	Clamp Disc	2
V 2958	Diaphragm	1
V 2959	O-ring, .354" I.D. x .059" O.D.	1
V 2960	Ball	2
V 2965	Tamper Resistant Plug	1
V 3240	Disc - Piston Stop	1

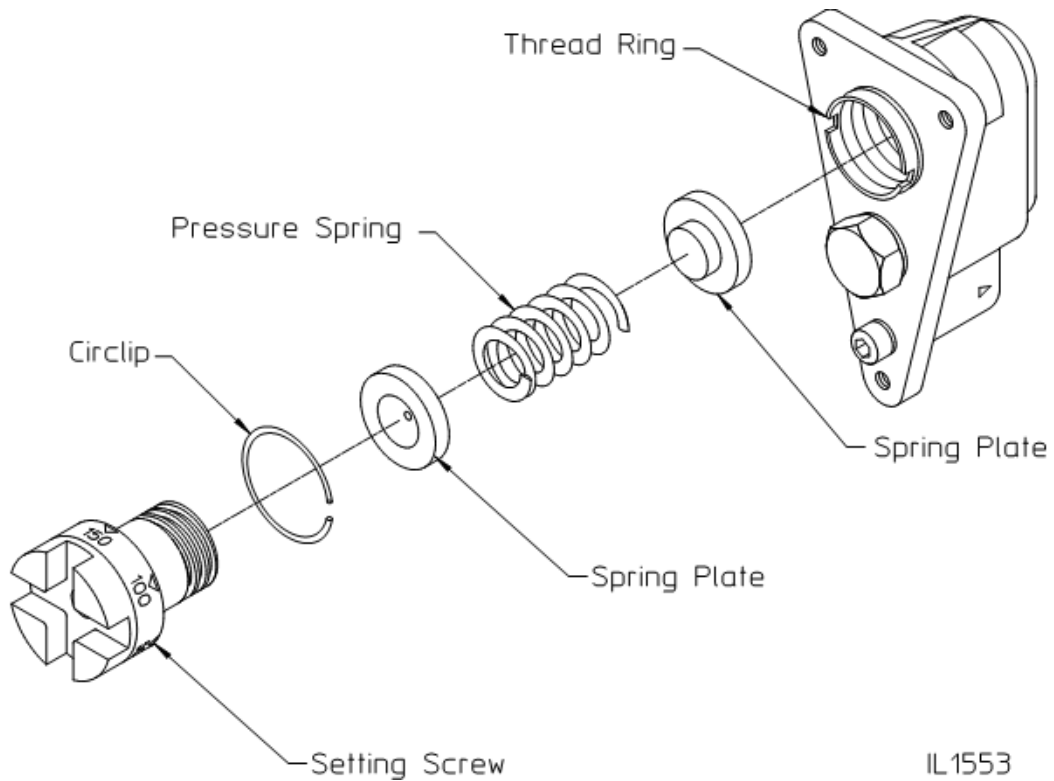
Disassembling Pilot Valve from Panel Plate

1. Disconnect the piping connected to the pilot valve. Note the location of each line to ensure proper reinstallation.
2. Remove check valve and make sure it is working properly. Insert a small screwdriver or wire into the end of the check valve in direction of arrow. Plunger inside the check valve should move freely.
3. Remove three screws that attach panel plate to valve.



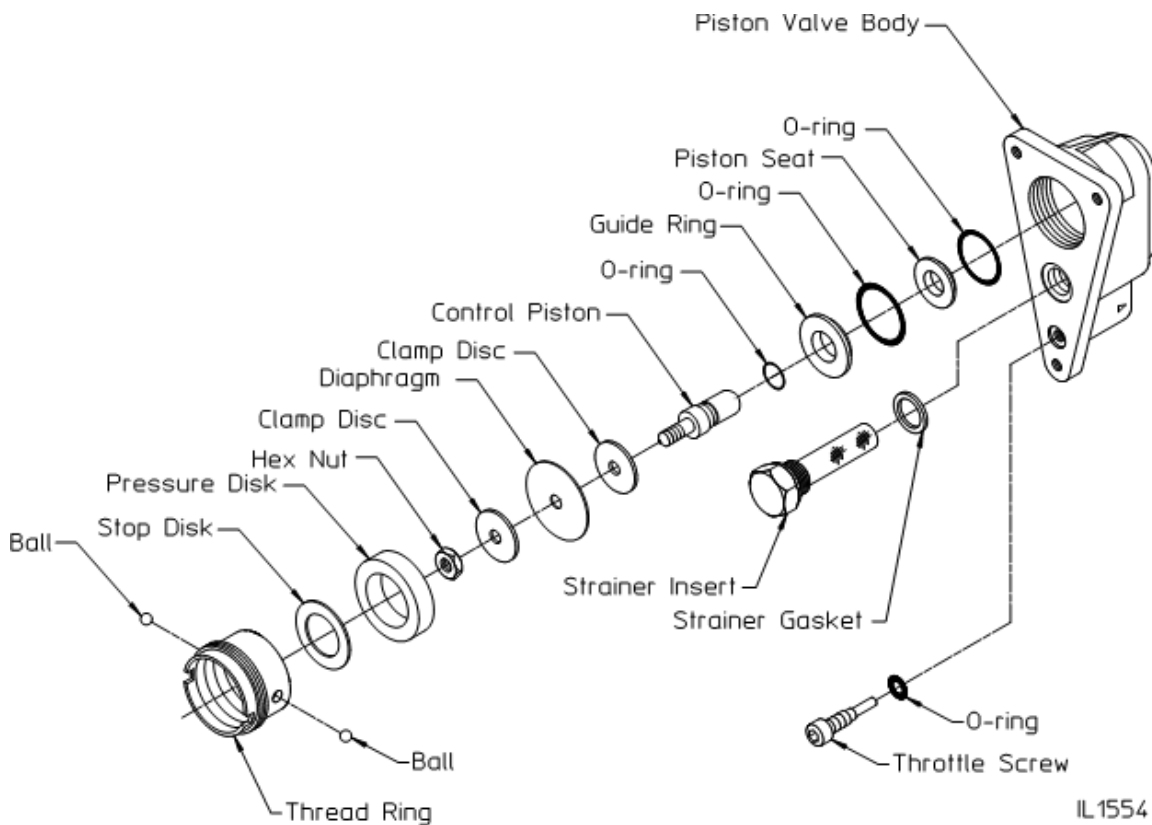
Disassembling Setting Screw Assembly

1. Turn setting screw to 50 psig.
2. Remove circlip.
3. Unscrew setting screw from thread ring. Pressure spring and two spring plates will come out with setting screw assembly.



Disassembling Control Piston Assembly

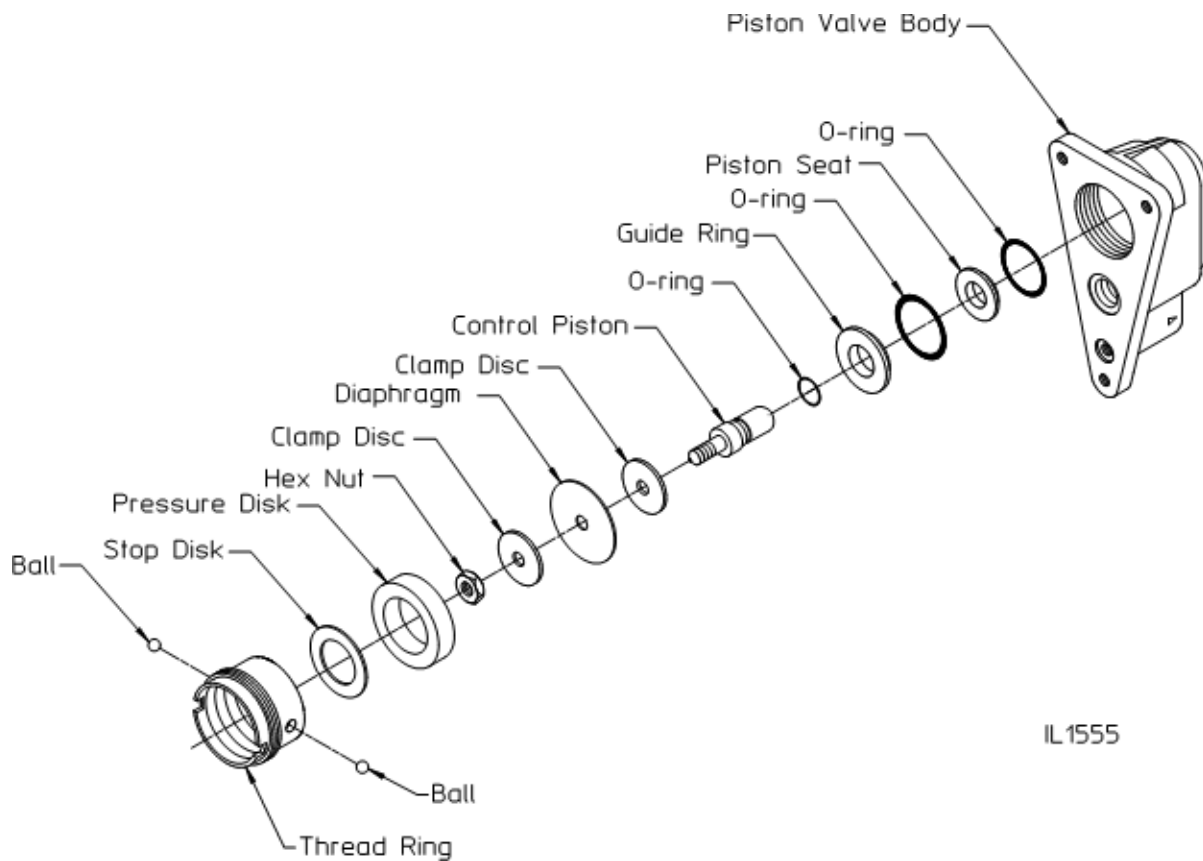
1. Insert punch or steel rod in notches of the thread ring and unscrew it from the piston valve body.
2. Insert a wooden dowel or brass rod through the top 1/4" NPT port at the rear of the piston valve body. Gently tap the control piston and drive it out of the valve body along with the pressure disc, guide ring and piston seat.
3. Discard the control piston, piston seat, clamp discs, stop disc, diaphragm and O-rings.
4. Remove the strainer insert, clean it and replace the strainer gasket with the new one provided in the kit. Reinstall in piston valve body.
5. Remove the throttle screw and replace the O-ring with the new one provided in the kit. Reinstall in piston valve body.



IL1554

Reassembling Control Piston Assembly

1. Assemble the piston seat and O-ring into the piston valve body, making sure it rests all the way into the body.
2. Coat second O-ring with grease and place in the groove inside the piston valve body. Drive the guide ring into place with a 5/8" deep-well socket or similar driver.
3. Install O-ring, clamp discs and diaphragm on control piston (ribbed side of discs against the diaphragm.) Coat piston threads with a thread lock compound and install nut. Tighten to 25 in.-lbs.
4. Insert assembled control piston into the body.
5. Install stop disc and pressure disc, groove side down, against diaphragm.
6. Screw the thread ring with new balls into the body until it is firmly seated. Torque 50 to 60 ft- lbs.



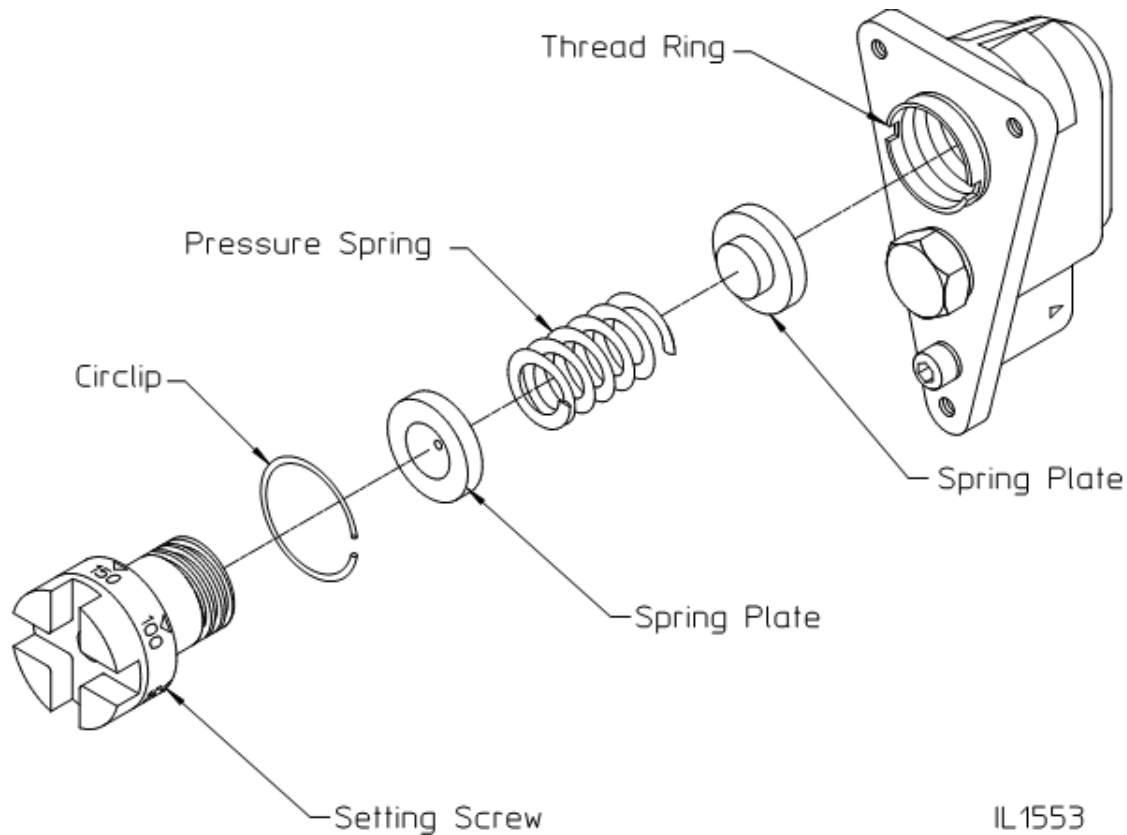
IL1555

Reassembling Setting Screw Assembly

Install the pressure spring, spring plates and setting screw. (It may be necessary to hold the piston valve body so the spring and setting screw assembly can be installed vertically. This will ensure that the spring and spring plates remain properly aligned.)

NOTE: The thread on the setting screw is a double start thread. To install the screw, perform the following.

1. Install the setting screw. Turn the setting screw assembly fully clockwise. The 250 setting should be showing at the top of the assembly. If not, the setting screw must be unscrewed and screwed back in. Rotate one half turn before screwing the setting screw back into the thread ring.
2. Install circlip.

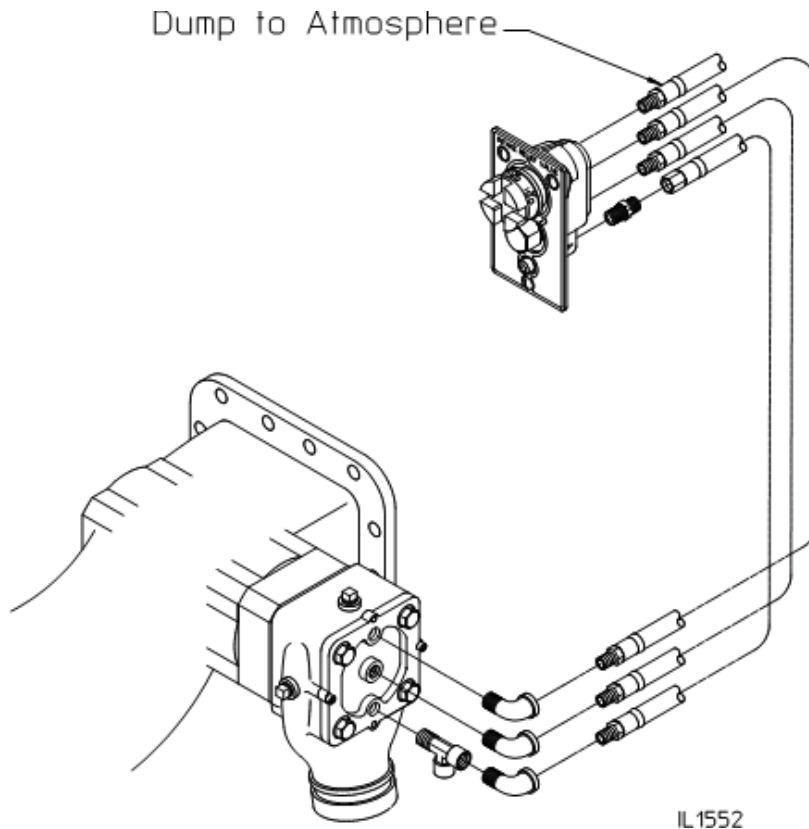


IL1553

Reassembling Pilot Valve to Panel Plate

1. Reconnect the piping to the pilot valve body. Failure to connect the piping properly will cause the relief valve system to malfunction.
2. Attach the pilot valve to the panel plate with three screws.

NOTE: Make sure check valve is installed in bottom port with arrow facing away from pilot valve per illustration below.



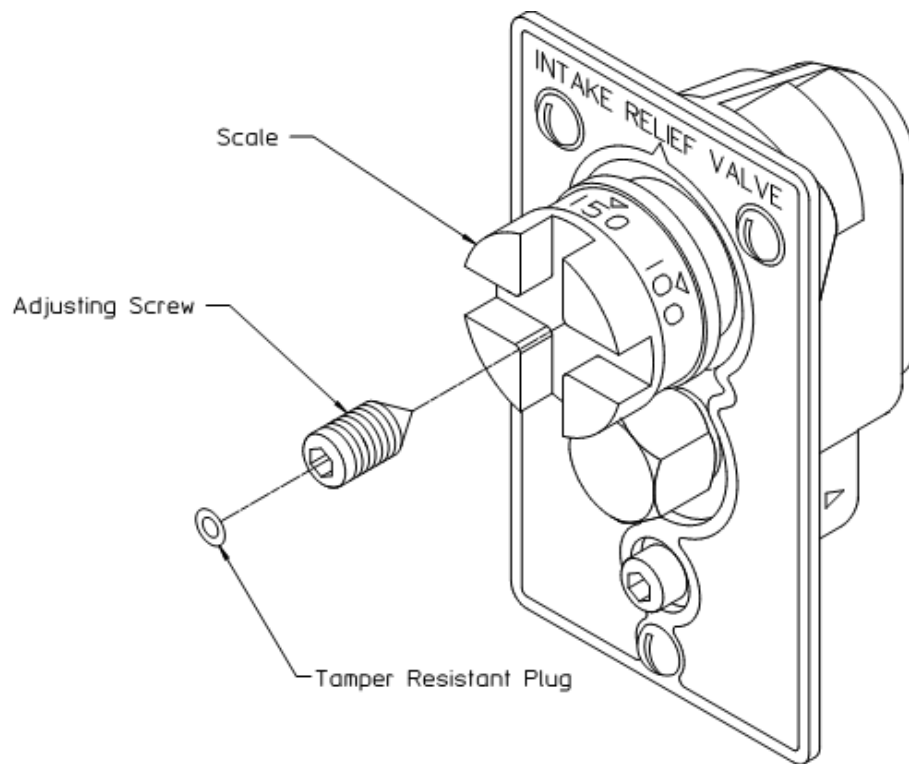
Calibration

The pilot valve must be calibrated if it has been disassembled and any parts have been replaced with new ones. The following steps should be performed while it is installed and connected to the main valve with a water source capable of supplying continuous flow at 50 to 100 psi.

1. Remove the tamper resistant plug.
2. Tighten or loosen the adjusting screw until the relief pressure and the scale reading correspond.

3. Reinstall the tamper resistant plug.

NOTE: If setting ring scale is damaged, replace with a new scale provided in the kit.



IL1556