Shift Valve/Manifold Installation

Shift Valve to Manifold Installation Notes

When using **a H2O Jet shift valve** on a **Flow manifold**, a port plug will need to be removed from the main body of the shift valve to allow for the valve to internally drain.

When using a **H2O Jet shift valve** on a **H2O Jet manifold**, a port plug will need to be removed from the manifold to allow for proper drainage.

OPTION 1: Flow Manifold with H2O Jet Valve

Disassembly:

1. Using a 4mm hex key, remove the four screws from the top of the shift valve.
2. Remove the pilot valve from the shift valve and place it with the bottom facing up.
3. Locate the port on the main body shown in **Figure 1**; you will be able to see the plug located inside the port.
4. Using a 3mm hex key remove the plug from the port.

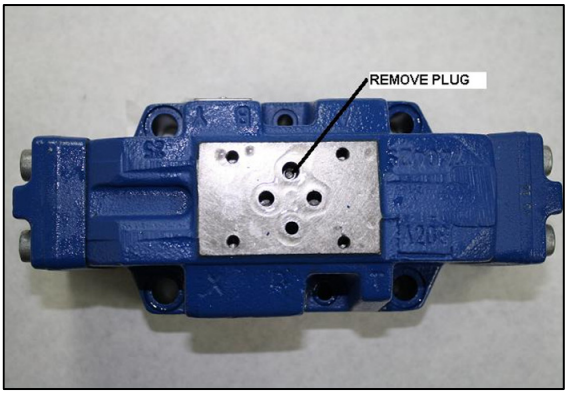


FIGURE 1

Reassembly:

1. Make sure both mating surfaces are clean and free of debris and all 4 O-rings are properly placed on pilot valve.
2. Align the pilot valve on top of the shift valve
3. Before inserting the screws, be sure that the “P” (reference **Figure 2**) stamped on the top and bottom portion of the valve are aligned to ensure the correct operation.
4. Reinstall the four screws that were removed in step two and tighten.
5. Continue to the Assembly section below.

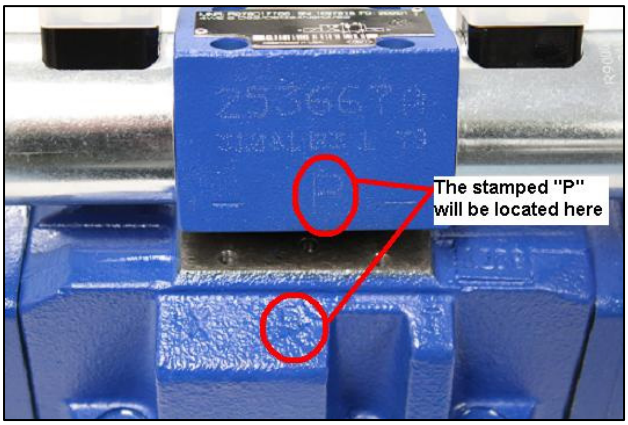


FIGURE 2

OPTION 2: H2O Jet Manifold with H2O Jet Valve

Instructions:

1. Using a 5/32” hex key, remove the plug circled in **Figure 3**.
2. Continue to the Assembly section below.

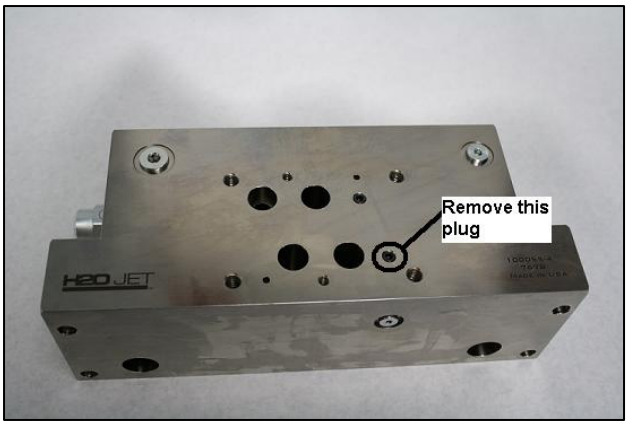


FIGURE 3

Shift Valve/Manifold Installation

ASSEMBLEY:

Manifold to Intensifier Installation

1. Make sure the 2 O-rings are properly placed on the intensifier End Bells before installation.
2. Align the manifold ports with the intensifier ports and thread in the fasteners.
2. Torque all cap screws to 25 ft-lbs [34 Nm] in one-eighth to one-quarter turn increments using a figure-eight pattern.

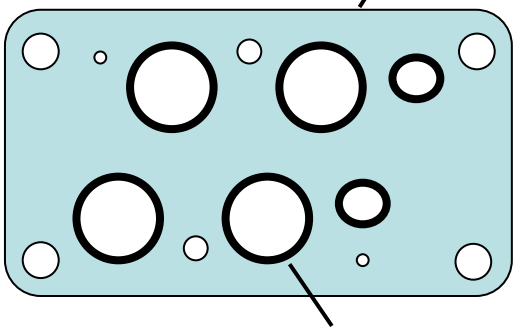
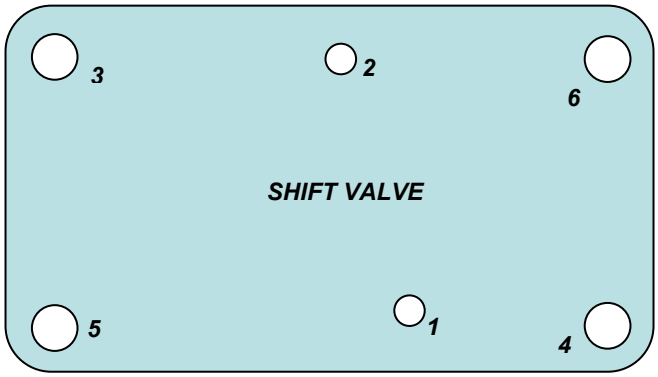


FIGURE 5

Shift Valve to Manifold Installation

1. Make sure all 6 O-rings are properly placed on the shift valve before installation.
   See **Figure 5.**
2. Place the shift valve onto the manifold and thread in the fasteners. Torque the fasteners in one-eighth turn increments in a two-step process.
   See **Figure 6**.
   a. Torque screws 1 and 2 to 11.5 ft-lbs [15.5Nm].
   b. Torque the outer screws [3-6] incrementally to 55 ft-lbs [75Nm] in a criss-cross pattern
   c. Check screws 1 and 2 are at 11.5 ft-lbs [15.5 Nm].



TORQUING SEQUENCE

FIGURE 6

CAUTION

Failing to properly follow the torquing sequence when installing the shift valve may warp the body sufficiently to prevent spool movement. Such warpage is usually not reversible.