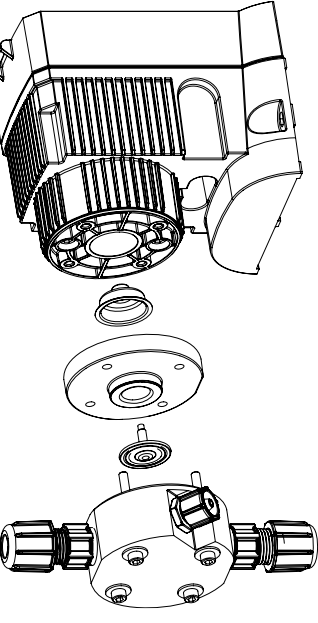


Instruction Sheet

Installation Instructions

Liquifram™ and Cartridge Valve Replacement



(figure 1)

- Turn the black knob on the 4-FV 1/8 turn to the stop. Turn and hold the yellow knob for a few seconds. The discharge line is now depressurized. Keep both valve knobs open until solution drains back down the discharge tubing into the solution tank or drum. Then release the yellow knob and turn the black knob to its normal position.
- Place the Foot Valve into a container of water or other neutralizing solution. Turn the pump on to flush the head assembly. Once the pump head has been flushed, lift the Foot Valve out of the solution and continue to pump air into the pump head until the pump head is purged of water or neutralizing solution.

Note
If the liquid cannot be pumped due to Liquifram™ rupture, wearing protective clothing, carefully disconnect the suction and discharge tubing.

- Remove the pump head by unscrewing the four (4) head screws.
- Start the pump. While running, set the stroke knob to zero and turn the pump off.
- With the unit off, unscrew the Liquifram™ by carefully grasping the outer edge and turning it counter-clockwise. Discard old Liquifram™. Remove the Liquifram™ adapter disk located behind the Liquifram™ and ensure that the diameter of the raised section is the same as the diameter of the replacement Liquifram™ (see figure 1).

7. Replace shaft seal if necessary.

CAUTION
ALWAYS wear protective clothing, face shield, safety glasses and gloves when working near or performing any maintenance or replacement on your pump. See MSDS Sheet from solution supplier for additional precautions.
READ ALL STEPS BELOW BEFORE PROCEEDING.

Liquifram™ Replacement

When replacing the Liquifram™, check valves should also be replaced. To reduce the risk of chemical splash during disassembly or maintenance, all installations should be equipped with line depressurization capability. Using LMI's 4-FV is one way to include this feature. The below procedure describes how to depressurize the discharge line when using LMI's 4-FV.

Note
1. Depressurize discharge line. Be sure the Injection Check Valve is properly installed and is operating. If a shut-off valve has been installed downstream of the Injection Valve, it should be closed to off.

Be sure your relief tubing is connected to your 4-FV and runs back to your solution drum or tank.

CAUTION

8. Replace the Adapter Disk so that the drain hole of the disk is oriented downward, and the mounting holes line up with the mounting holes of the pump.

CAUTION
Take care not to scratch the surface of the new Liquifram™.

9. Screw on the new Liquifram™ clockwise until turned all the way in. Start the pump and turn the stroke knob to 100%. Stop the pump.

10. Once the Liquifram™ is properly positioned, remount the pump head to the spacer using the four (4) head screws. Tighten in a criss-cross pattern. After one week of operation, recheck the screws and tighten if necessary.

CAUTION ALWAYS wear protective clothing, face shield, safety glasses and gloves when working near or performing any maintenance or replacement on your pump. See MSDS Sheet from solution supplier for additional precautions.
READ ALL STEPS BELOW BEFORE PROCEEDING.

Cartridge Valve Replacement

To reduce the risk of chemical splash during disassembly or maintenance, all installations should be equipped with line depressurization capability. Using LMI's 4-FV is one way to include this feature. The below procedure describes how to depressurize the discharge line when using LMI's 4-FV.



1. Depressurize discharge line. Be sure the Injection Check Valve is properly installed and is operating. If a shut-off valve has been installed downstream of the Injection Valve, it should be closed to off.



Be sure your relief tubing is connected to your 4-FV and runs back to your solution drum or tank.

2. Turn the black knob on the 4-FV 1/8 turn to the stop. Turn and hold the yellow knob for a few seconds. The discharge line is now depressurized. Keep both valve knobs open until solution drains back down the discharge tubing into the solution tank or drum. Then release the yellow knob and turn the black knob to its normal position.

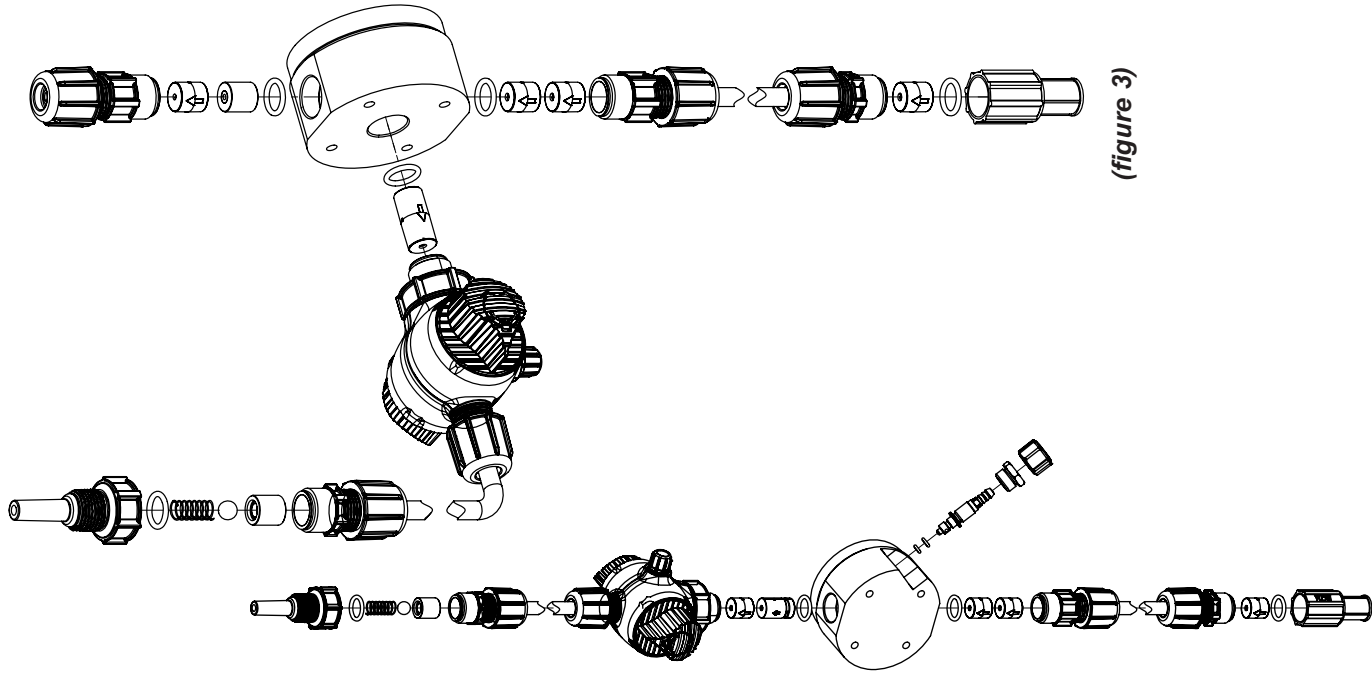
3. Place the Foot Valve into a container of water or other neutralizing solution. Turn the pump on to flush the head assembly. Once the pump head has been flushed, lift the Foot Valve out of the solution and continue to pump air into the pump head until the pump head is purged of water or neutralizing solution.



Depressurize and drain pipeline so that Injection Check Valve can safely be disassembled.

4. Carefully disconnect one tubing connection and fitting at a time, removing and replacing each cartridge valve.

When replacing the cartridge valves, note the orientation of the cartridges during disassembly and replace in the same manner. Many cartridges have arrows which should be oriented in the direction of flow. For the AutoPrime™ valve, the lower cartridge has two pressed in seats; one on the top and one on the bottom. The cartridge should be oriented so that the smaller ceramic seat is on the top of the cartridge away from the pump head. Arrange all other parts as shown in images.



(figure 3)

(figure 2)

RPM
PRO PAC™



Instruction Sheet
Repair and Preventive Maintenance Kit

LMI
MILTON ROY



201 Ivyland Road
Ivyland, PA 18974, USA
TEL: 215-293-0401
FAX: 215-293-0445
http://www.lmipumps.com