

LE-71S LE-72S LE-75S LIQUID HANDLING ASSEMBLIES

CAUTION

When pumping solutions make certain that all tubing is securely attached to the fittings. It is recommended that tubing or pipe lines be shielded to prevent possible injury in case of rupture or accidental damage. Always wear protective clothing when working on or near metering pump.

| MATERIALS OF CONSTRUCTION | | | |
|---------------------------|-----------------------|-----------------------|-----------------------|
| | LE-71S | LE-72S | LE-75S |
| Fittings | PVC | PVC/PPC/FRP/VDF | Polypropylene |
| Seal Rings | Teflon | Teflon | Teflon |
| Balls | Ceramic | Ceramic | Ceramic |
| Head | Acrylic | PVC | Polypropylene |
| Liquifram | Teflon Face | Teflon Face | Teflon Face |
| Suction | .5" O.D. Vinyl | .5" O.D. Polyethylene | .5" O.D. Polyethylene |
| Discharge | .5" O.D. Polyethylene | .5" O.D. Polyethylene | .5" O.D. Polyethylene |

A. INSTALLING INJECTION CHECK VALVE

1. The injection check valve should always be installed as close as possible to the point of solution injection, at the very end of the tubing run.
2. Purpose of injection check valve is to prevent backflow from treated line.
3. A 1/2" NPT female fitting with sufficient depth will accept the injection check valve.
4. To insure correct seating of the ball inside the check valve, the injection check valve must be installed vertically upwards.

B. CONNECTING DISCHARGE TUBING

NOTE: Cut tubing to length needed for discharge line.

1. Route tubing from injection check valve to metering pump making sure it does not touch hot surfaces, sharp surfaces, or is bent so sharply that it kinks.
2. Slide small end of coupling nut onto tubing.
3. Insert tubing into discharge valve housing so that tubing butts up against valve housing and will not go any further.
4. Slide down the coupling nut until threads are engaged. Tighten coupling nut by hand, maintaining pressure on tubing towards valve housing until tubing is held securely in place.

***Excessive force will crack or distort fittings.
DO NOT USE PIPE WRENCH.***

5. Follow the same procedure for connecting tubing to injection valve.

C. CONNECTING SUCTION TUBING

1. Cut suction tubing to a length such that the foot valve hangs just above the bottom of the solution container. Maximum recommended vertical suction lift is 5 ft. (1.5m).
2. Follow same procedure (see B) in connecting suction tubing to suction valve and foot valve.

D. PRIMING

1. Connect pressure release tubing to pressure release port.
2. Route tubing to solution reservoir and anchor with plastic tie provided.
3. Set pump at 80% speed and 100% stroke. Start pump.
4. Pull on pressure release knob (red or black knob), holding knob out until solution is visible through translucent return tubing.
5. Pump is now primed.

NOTE:

- (a) Pump is normally self-priming if suction lift is no more than 5 ft. (1.5m), valves in the pump are wet with water (pump is shipped from factory with water in pump head) and the above steps (D1 thru D5) are followed.
- (b) If the pump does not self-prime, remove Anti-Syphon/Pressure Release Valve Assembly and discharge valve ball and pour water or solution slowly into discharge port until head is filled. Replace valve ball and valve assembly and follow steps D1 thru D5 thereafter.

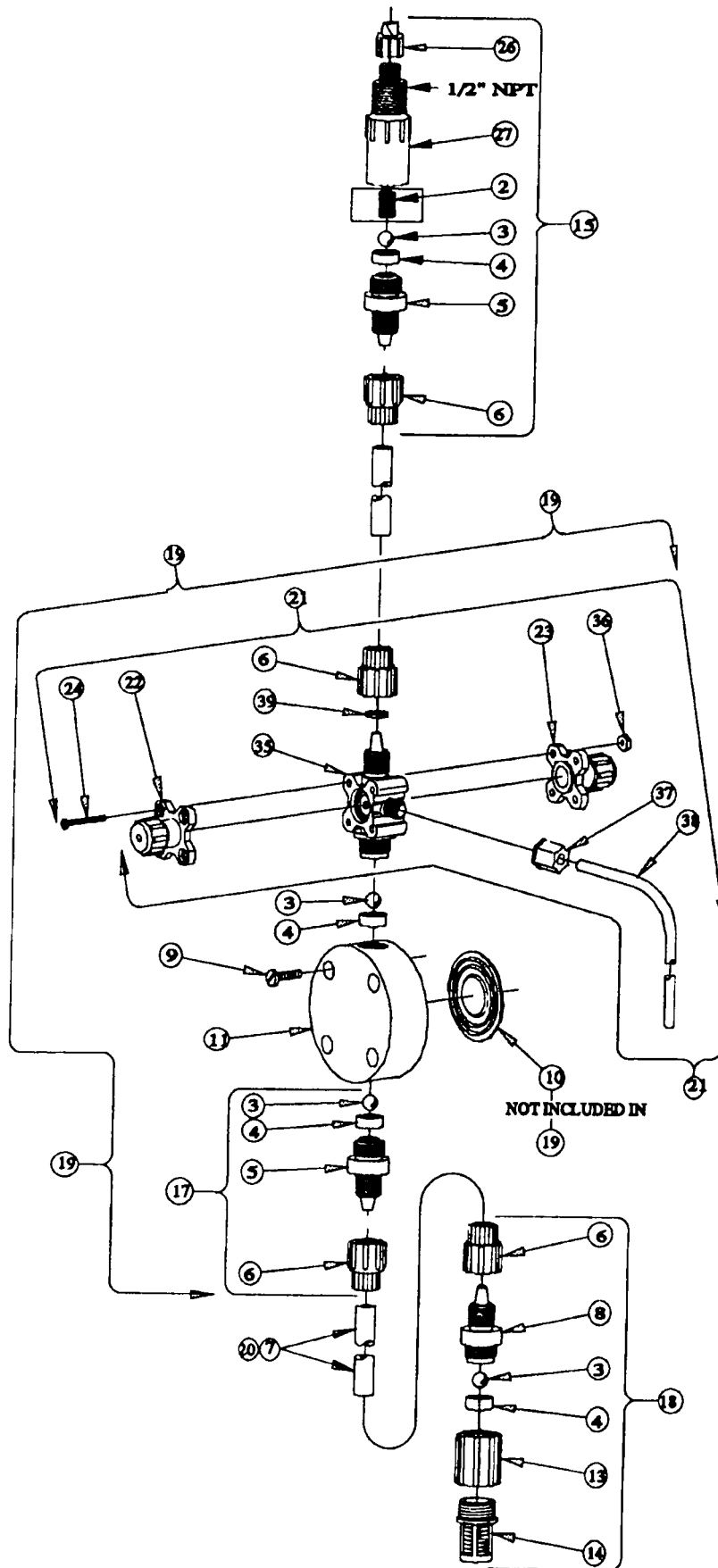
E. DEPRESSURIZING DISCHARGE LINE

1. It is possible to depressurize discharge line and pump head without removal of tubing or loosening of fittings.

Be sure injection check valve is properly installed and is operating. If a gate valve or globe has been installed, downstream of injection check valve, it should be closed. Be certain relief tubing is connected and run to solution reservoir.

2. Pull on both anti-syphon and relief knobs.
3. The discharge line is now depressurized.
4. If injection check valve is of higher elevation than pump head, disconnecting tubing at injection check valve end will allow air to enter and cause solution to drain back to tank.

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|  | <h2 style="margin: 0;">LMI</h2> <p style="margin: 0; font-size: small;">LIQUID METRONICS DIVISION</p> <h2 style="margin: 0;">MILTON ROY</h2> | <p style="margin: 0;">8 Post Office Square</p> <p style="margin: 0;">Acton, MA 01720 U.S.A.</p> <p style="margin: 0;">TEL (508) 263-9800</p> <p style="margin: 0;">FAX (508) 264-9172</p> |
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| KEY NO. | PART NO. | DESCRIPTION | QUANTITY | | |
|---------|----------|--|----------|--------|--------|
| | | | LE-71S | LE-72S | LE-75S |
| 2 | 29339* | Spring, P.E. | 1 | | |
| | 10339+ | Spring, PVDF | | 1 | 1 |
| 3 | 10338+ | Ball, Ceramic | 4 | 4 | 4 |
| 4 | 10407+ | Seal Ring, Teflon | 4 | 4 | 4 |
| 5 | 10492 | Valve Seat, PVC | 2 | 2 | |
| | 10792 | Valve Seat, Ivory Polypropylene | | | 2 |
| 6 | 10411 | Coupling Nut | 4 | 4 | 4 |
| 7 | 10142-10 | Tubing, Polyethylene, 0.5" O.D. | 1 | | |
| | 10142-16 | Tubing, Polyethylene, 0.5" O.D. | | 1 | 1 |
| 8 | 10493 | Valve Housing, PVC | 1 | 1 | |
| | 10793 | Valve Housing, Ivory Polypropylene | | | 1 |
| 9 | 10340 | Screw, 10-24 x 3/4" S.S. | 4 | 4 | 4 |
| 10 | 10305+ | Liquifram, 1.8 SI Teflon | 1 | 1 | 1 |
| 11 | 10104 | Head, 1.8 SI, Acrylic | 1 | | |
| | 10204 | Head, 1.8 SI, PVC | | 1 | |
| | 10304 | Head, 0.8 SI, Ivory Polypropylene | | | 1 |
| 13 | 10978 | Foot Valve Seat, P.P. | 1 | 1 | 1 |
| 14 | 10123 | Strainer, Polypropylene | 1 | 1 | 1 |
| 15 | 25687 | Injection Check/Back Pressure Valve Asm. | 1 | | |
| | 25203 | Injection Check/Back Pressure Valve Asm. | | 1 | |
| | 25104 | Injection Check/Back Pressure Valve Asm. | | | 1 |
| 17 | 25202 | Suction Valve Assembly | 1 | 1 | |
| | 25107 | Suction Valve Assembly | | | 1 |
| 18 | 25204 | Foot Valve Assembly | 1 | 1 | |
| | 25109 | Foot Valve Assembly | | | 1 |
| 19 | 25836 | Head Assembly, Acrylic | 1 | | |
| | 25833 | Head Assembly, PVC | | 1 | |
| | 25831 | Head Assembly, P.P. | | | 1 |
| 20 | 10141-06 | Tubing, Vinyl, 5" O.D. | 1 | | |
| 21 | 33060 | Anti-Syphon/Pressure Release Valve Asm. | 1 | | |
| | 27043 | Anti-Syphon/Pressure Release Valve Asm. | | 1 | |
| | 25900 | Anti-Syphon/Pressure Release Valve Asm. | | | 1 |
| 22 | 33024 | Pressure Release Cap Assembly | 1 | | |
| | 28447 | Pressure Release Cap Assembly | | 1 | |
| | 28446 | Pressure Release Cap Assembly | | | 1 |
| 23 | 31138 | Anti-Syphon Cap Assembly | 1 | | |
| | 27045 | Anti-Syphon Cap Assembly | | 1 | |
| | 25838 | Anti-Syphon Cap Assembly | | | 1 |
| 24 | 25627 | Screw, 6-32 x 1 1/4" S.S. | 4 | 4 | 4 |
| 26 | 27352 | Flapper Valve | 1 | 1 | |
| 27 | 10294 | injector Fitting, PVC | 1 | | |
| | 26841 | Injector Fitting, PVDF | | 1 | |
| | 10394 | Injector Fitting, P.P. | | | 1 |
| 35 | 30426 | Valve Body, P.P. | 1 | | |
| | 26856 | Valve Body, PVDF | | 1 | |
| | 25870 | Valve Body, P.P. | | | 1 |
| 36 | 25628 | Nut, 6-32 Hex S.S. | 4 | 4 | 4 |
| 37 | 25631 | Nut, Ferrule | 1 | 1 | 1 |
| 38 | 25636-10 | Tubing, Polyethylene, .250" O.D. | 1 | 1 | 1 |
| | 32700 | Suction Tubing Straightener (not shown) | 1 | 1 | 1 |

* Parts included in Spare Parts Kit SP-U1

+ Parts included in Spare Parts Kit SP-U2