

# LE- PM5 LIQUID HANDLING ASSEMBLY

## CAUTION

When pumping chemicals 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 chemical metering pump.

## MATERIALS

Fittings	Polypropylene
Seal Rings	EDPM
Balls	Ceramic
Head	Polypropylene
Liquifram	PFA Teflon Face
Suction	.250" OD Vinyl
Discharge	.250" OD Polyethylene

## A. INSTALLING INJECTION CHECK VALVE

1. The injection check valve should always be installed as close as possible to the point of chemical 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. In order 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 chemical 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. Slide the long, straight end of the ferrule onto tubing such that tubing exits at the cone shaped end of the ferrule.
4. Insert tubing into discharge valve housing so that tubing butts up against valve housing and will not go any further.
5. Slide ferrule down so that cone shaped end fits snugly into discharge valve housing.
6. 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.**

7. 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 chemical 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 chemical 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-Siphon/Pressure Release Valve Assembly and discharge valve ball and pour water or chemical slowly into discharge port until head is filled. Replace valve ball and valve assembly and follow steps D1 thru D5 thereafter.



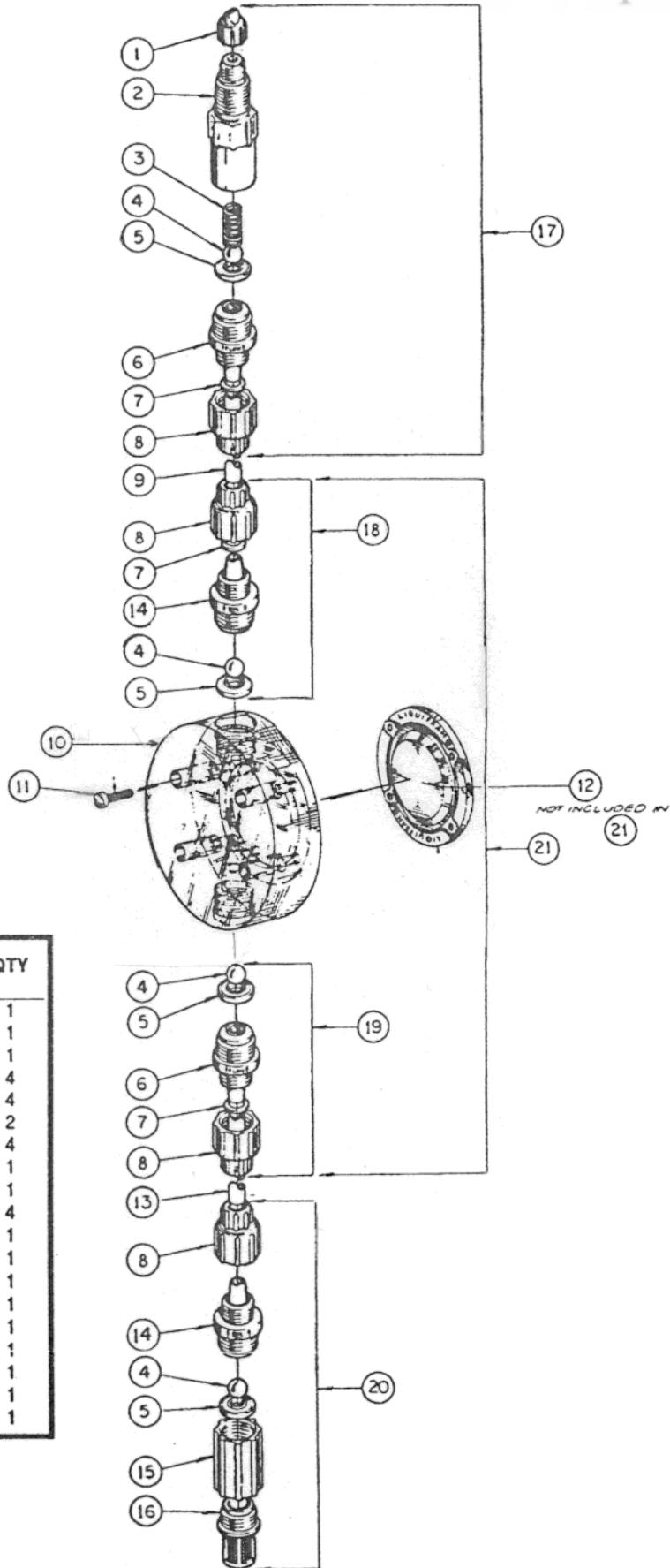
## LIQUID METRONICS INCORPORATED

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Threaded connections into pump head are 3/4"-16 straight threads. **Do not use Teflon tape.** These joints are sealed by seal ring valve seats (item 5 on exploded view).

Maximum pump pressure rating is reduced by 25 psi (1.7 bar) with back pressure spring installed. **Do not remove back pressure spring if pressure at injection point is less than 20 psi (1.4 bar).**



KEY NO.	PART NO.	DESCRIPTION	QTY
1	27352	Flapper Valve	1
2	10394	Injector Fitting, Polypropylene	1
3	10339*	Spring	1
4	10338*	Ball, Ceramic	4
5	26507*	Seal Ring, Polyprel	4
6	26935C	Valve Seat, GFR Polypropylene	2
8	25631	Coupling Nut	4
9	25636-10	Tubing, .250" OD Polyethylene	1
10	27877	Head, Polypropylene	1
11	10340	Screw, 10-24 x 3/4" SS	4
12	26042*	Liquifram, 0.5 SI PFA Teflon	1
13	27231-04	Tubing, .250" OD Vinyl	1
14	26936C	Valve Housing, GFR Polypropylene	1
15	10978	Foot Valve Seat	1
16	10123	Strainer, Polypropylene	1
17	28671	Inj. Check/Back Pressure Valve Asm	1
20	28672	Foot Valve Asm	1
21	28673	Head Asm, LE-PM5	1
	10332	Weight, Ceramic (NOT SHOWN)	1

\* Parts included in Spare Parts Kit SP-PM5