

LIQUID HANDLING ASSEMBLIES

LE 7BCS

For Series B & D
with 1.8 Liquifram

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.

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 should be installed upwards.

B. CONNECTING DISCHARGE TUBING

1. Discharge tubing is relatively stiff translucent tubing.
2. 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.
3. Slide small end of coupling nut onto tubing.
4. Push tubing over tapered nozzle of discharge valve housing so that tubing flares out and reaches the shoulder. (If tubing is stiff from cold, dip end in hot water).
5. Slide down the coupling nut until threads are engaged. Tighten by hand until tubing is held securely in place.

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

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

C. CONNECTING SUCTION TUBING

1. Suction tubing is soft transparent tubing.
2. 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).
3. Follow same procedure (see B) in connecting suction tubing to suction valve and foot valve.

LE 9BCS

For Series A & B
with 0.9 Liquifram

MATERIAL

Fittings	PVC
Seal Rings	Teflon
Balls	Ceramic
Head	Acrylic
Liquifram	Teflon Face
Suction	.5" OD Vinyl
Discharge	.5" OD Polyethylene

D. CONNECTING FLUSH VALVE TUBING

Note: Flush valve tubing is the smaller diameter relatively stiff translucent tubing.

1. Install one end of tubing (No. 10342) to the elbow fitting on the foot valve by pushing it into the elbow fitting. Slide white coupling nut onto tubing and tighten it by hand onto elbow fitting.
2. Route tubing beside suction tubing and tie together using the yellow plastic wire tie (No. 10156) around the midpoint of the suction tubing run.
3. If pump is equipped with automatic flushing solenoid valve, cut flush tubing to suit length so end of tubing is at solenoid valve outlet. Connect tubing to solenoid valve outlet using the plastic male connector on the solenoid valve.
4. Install a 1/4" NPT shut off valve on a fresh water line whose pressure is at least 5 psi (0.35 Kg/cm²) greater than pressure at point of chemical injection.
5. At the outlet of this shut off valve screw in Part No. 10482 connector and connect balance of flush valve tubing between this connector and inlet of solenoid valve. If pump does not have automatic flushing solenoid valve, flush valve tubing should be connected directly between the 1/4" NPT valve and elbow connector of the foot valve.

E. PRIMING

1. Open shut off valve on fresh water line to allow water to enter and fill pump head. If pump is equipped with automatic flush it would be necessary to push toggle switch on pump control panel towards "FLUSH" position to open solenoid valve. When pump head is filled with water, push toggle switch to "AUTO". Set "FLUSH SEC" to desired flush duration every five minutes.
2. Metering pumps without Automatic Flush feature should now be started and allowed to operate normally. Close shut off valve on fresh water line as soon as pump is primed.

To prevent syphoning, injection check valve must be located where there is positive pressure or elevation higher than solution level.



LIQUID METRONICS INCORPORATED

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LE 7BCS

Key No.	Part No.	Description	Quantity
1	10294	Injector Fitting	1
2	10482	Male Connector	1
3	10338*	Ball, Ceramic	4
4	10407*	Seal Ring, Teflon	4
5	10492	Valve Seat, gray-PVC	2
6	10211	Coupling Nut, gray PVC	4
7	10142-10	Tubing, Polyethylene, .5" OD	1
8	10493	Valve Housing,	1
9	10104	Head, 1.8 SI	1
10	10305*	Liquifram, 1.8 SI	1
11	10340	Screw, 10-24 x 3/4" S.S.	4
12	10322	Weight, Ceramic	1
13	10978	Foot Valve Seat, black Polypropylene	1
15	25687	Injection Check Valve Assembly	1
16	25201	Discharge Valve Assembly	1
17	25202	Suction Valve Assembly	2
18	25492	Foot Valve Assembly	1
19	10521	Head Assembly,	1
20	10141-06	Tubing, Vinyl .5" OD	1
22	10342-16	Tubing Polyethylene .375" OD	1
23	10156	Wire Tie, yellow Polyethylene	1
24	10834	Elbow Connector	1
25	25199	Flushing Valve Body	1
26	25449	Flapper Nut	1
27	10226	Flapper, Hypalon	1
28	10339	Spring	1

LE 9BCS

Ref No.	Part No.	Description	Quantity
1	10294	Injector Fitting	1
2	10482	Male Connector	1
3	10338*	Ball, Ceramic	4
4	10407*	Seal Ring, Teflon	4
5	10492	Valve Seat, gray PVC	2
6	10211	Coupling Nut, gray PVC	4
7	10142-10	Tubing, Polyethylene, .5" OD	1
8	10493	Valve Housing,	1
9	10113	Head, 0.9 SI	1
10	10302*	Liquifram, 0.9 SI	1
11	10340	Screw, 10-24 x 3/4" S.S.	4
12	10322	Weight, Ceramic	1
13	10978	Foot Valve Seat, black Polypropylene	1
15	25687	Injection Check Valve Assembly	1
16	25201	Discharge Valve Assembly	1
17	25202	Suction Valve Assembly	1
18	25492	Foot Valve Assembly	1
19	10515	Head Assembly,	1
20	10141-06	Tubing, Vinyl, .5" OD	1
22	10342-16	Tubing, Polyethylene, .375" OD	1
23	10156	Wire Tie, yellow Polyethylene	1
24	10834	Elbow Connector	1
25	25199	Flushing Valve Body	1
26	25449	Flapper Nut	1
27	10226	Flapper, Hypalon	1
28	10339	Spring	1

PRIMED-FLUSH CONNECTION

