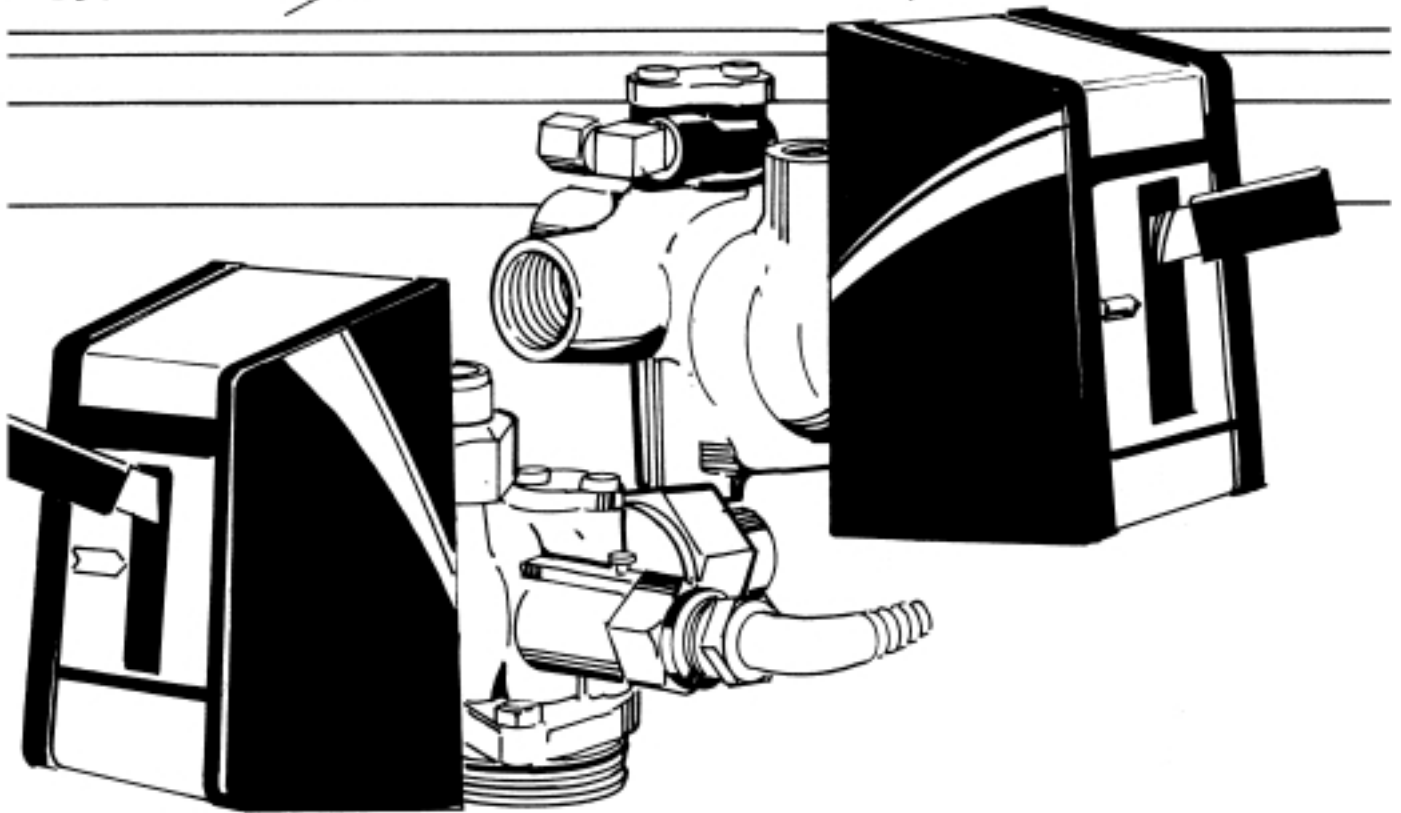


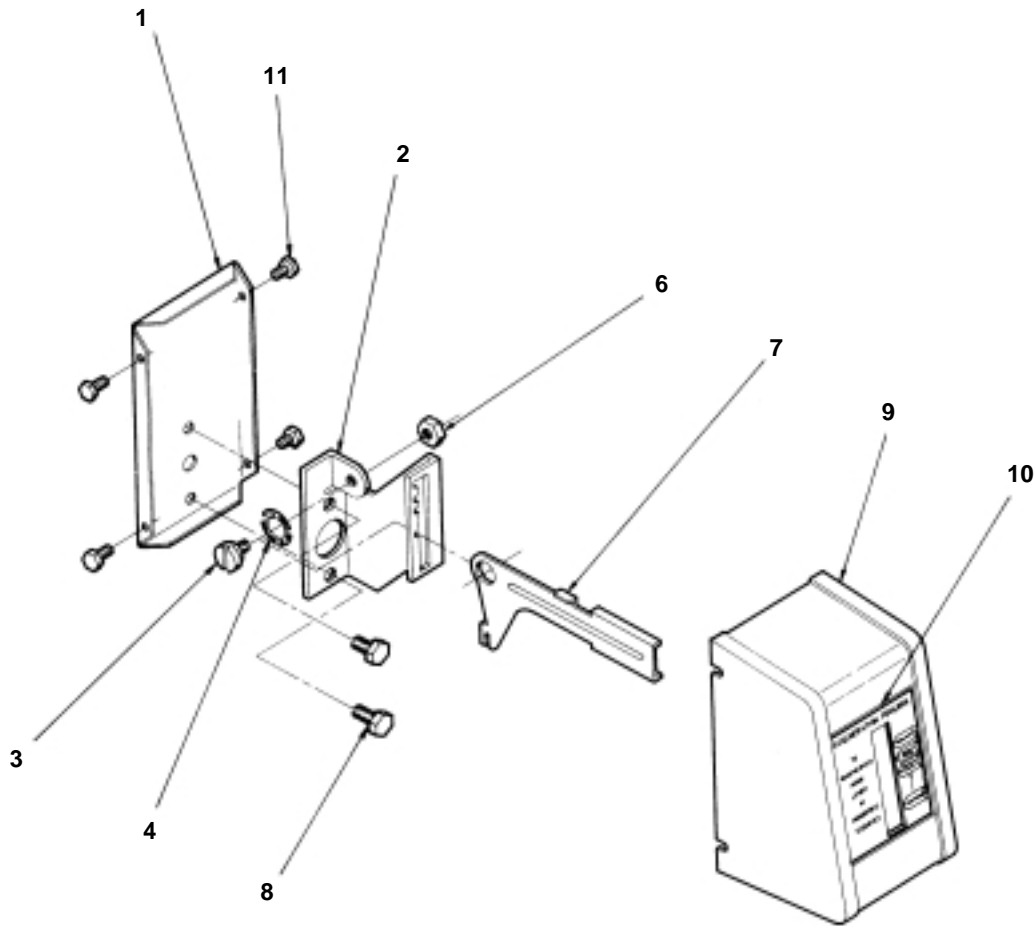
MODEL 1500, 2500 & 2700 MANUAL CONTROLS

Service Manual



MODEL 1500, 2500 & 2700 MANUAL CONTROLS

Manual Drive Assembly

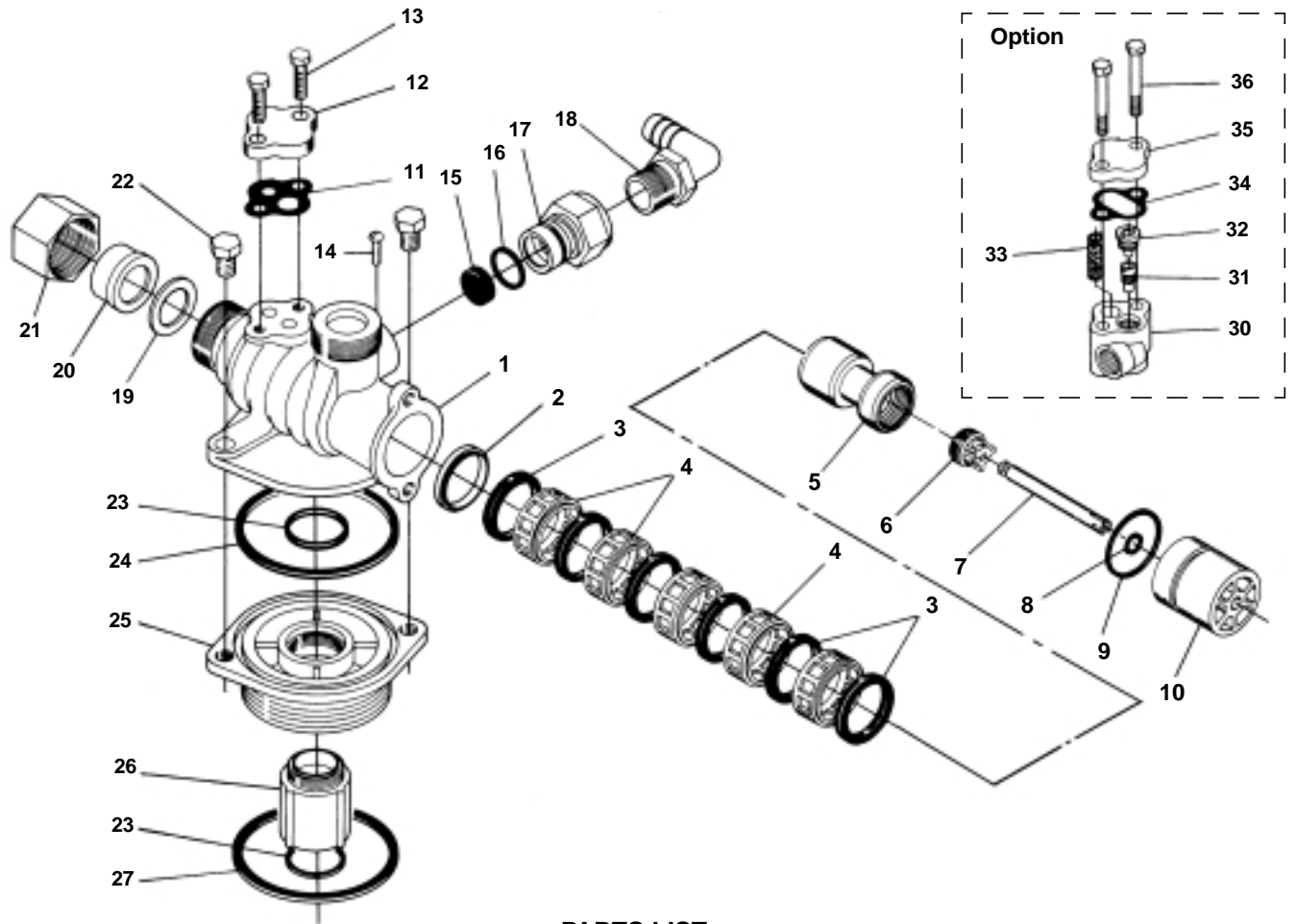


PARTS LIST

Item No.	Quantity	Part No.	Description
1	1	12593	Back Plate
2	1	12592	Lever Position Bracket
3	1	12596	Pivot Screw
4	1	12707	Spring Washer
5	1	10909	Pin, Link (Not Shown)
6	1	11235	Nut
7	1	12594	Valve Position Lever
8	2	10231	Screw - Valve Mounting
9	1	60224-12	Cover Assembly Filter
		60224-13	Cover Assembly Softener
10	1	12597	Valve Position Label - Softener
	1	14219	Valve Position Label - Filter
11	4	10300	Screw - Cover - Mounting

MODEL 2500 & 2700

Control Valve Assembly



PARTS LIST

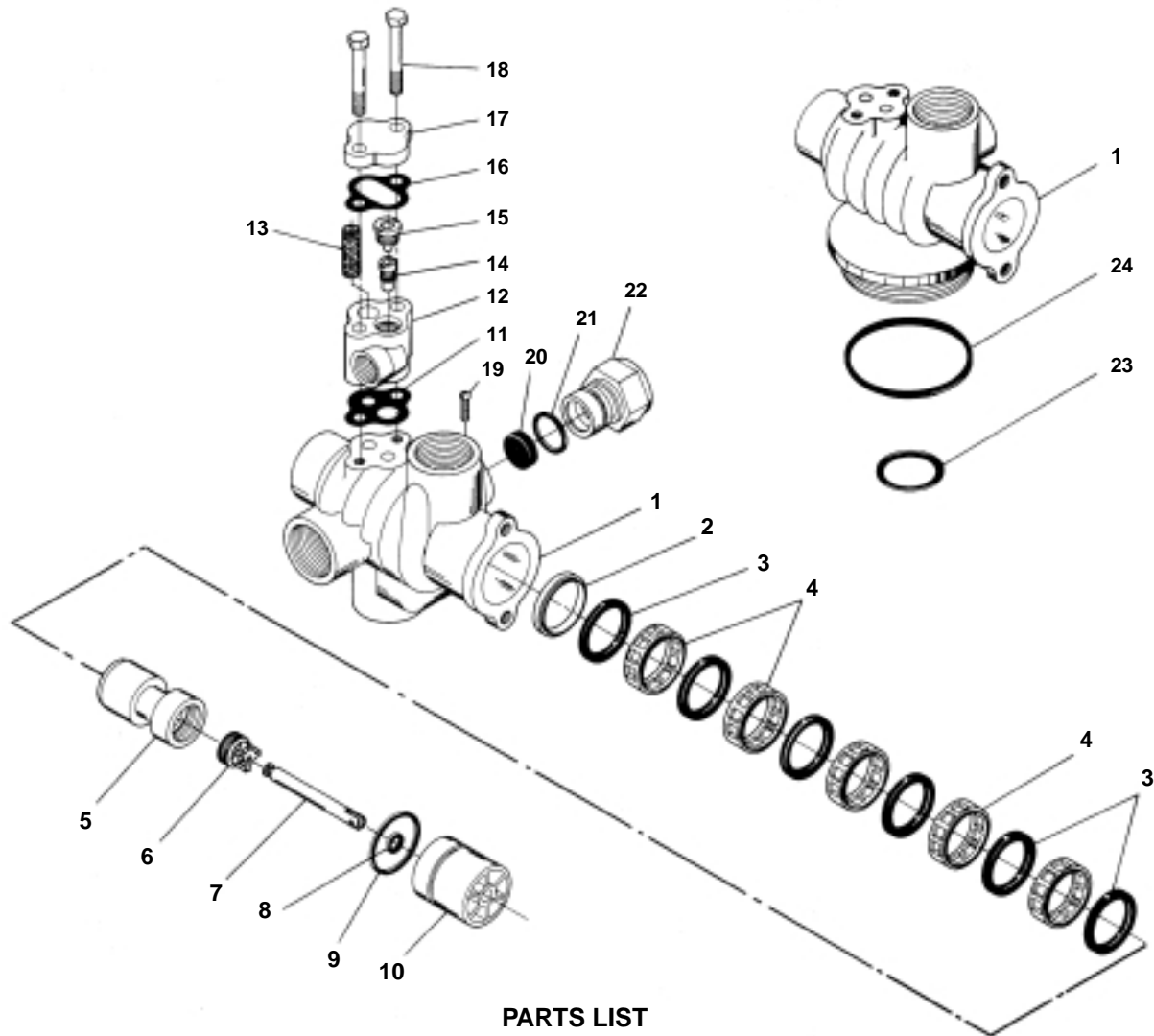
Item No.	No. Req'd.	Part No.	Description
1	1	11212-01	Valve Body - 2500
	1	11554-01	Valve Body - 2700
2	1	10757	End Spacer
3	6	10545	Seal Ring
4	5	11451	Spacer
5	1	15168	Piston
6	1	14309	Piston Rod Retainer
7	1	14452	Piston Rod
8	1	10209	Seal Quad Ring
9	1	10234-01	Seal O-Ring (For End Plug)
10	1	10598	End Plug (Celcon)
11	1	11475	Injector Body Gasket
12	1	11893-01	Flat Cap
13	2	12112	Screw - Flat Cap
14	1	11180	Flow Control Retainer Screw
15	1		Flow Control Washer (Specify Flow Rate in G.P.M.)
16	1	11183	Seal O-Ring
17	1	11385	Flow Control Retainer (Specify Flow Rate in G.P.M.)
18	1	12338	1/2 Pipe x 1/2 Hose x 90° Drain Fitting

Item No.	No. Req'd.	Part No.	Description
19	2	11206	Fitting Gasket*
20	2	11205	Tube Fitting - Special *
21	2	11207	Special Nut*
22	2	11224	Hex Head Cap Screw
23	2	10244	Inside Tube O-Ring
24	1	11208	Seal O-Ring
25	1	11143-01	Valve Body Adapter (For 2-1/4 - 16 Thd)
	1	12341-01	Valve Body Adapter (For 2-1/4 - 8 Thd)
	1	12461-01	Valve Body Adapter (2-1/2 - 8 x 1")
26	1	11966	Distributor Tube Pilot Assembly*
27	1	10207	Tank O-Ring (For 2-1/4 - 16 Thd)
	1	10381	Tank O-Ring (For 2-1/2 - 8 Thd)
Optional Injector Assembly			
30	1	17776	Injector Body
31	1	10914	Injector Throat - Size
32	1	10913	Injector Nozzle - Size
33	1	10227	Injector Screen
34	1	10229	Injector Cover Gasket
35	1	10228	Injector Cover
36	2	10692	Injector Body Screw

NOTE: Items marked with * used with Model 2700.

MODEL 1500 & 1500SM

Control Valve Assembly



PARTS LIST

Item No.	No. Req'd.	Part No.	Description
1	1	10729	Valve Body - Side Mount
	1	10680-01	Valve Body - Top Mtg. (2-1/2 - 8 Thd)
2	1	10757	End Spacer
3	6	10545	Seal Ring
4	5	11451	Spacer
5	1	15168	Piston
6	1	14309	Piston Rod Retainer
7	1	14452	Piston Rod
8	1	10209	Seal Quad Ring
9	1	10234	Seal O-Ring - End Plug
10	1	10598	End Plug Assembly
11	1	11475	Injector Body Gasket
12	1	17776	Injector Body - Plastic
	1	11483	Injector Body - Brass

ItemNo.	Part No.	No. Req'd.	Description
13	10227	1	Injector Screen
14	10914	1	Injector Throat
15	10913	1	Injector Nozzle
16	10229	1	Injector Cover Gasket
17	11893	1	Injector Cover
18	10692	1	Injector Body Screw
19	11180	1	Flow Control Retainer Screw
20		1	Flow Control Washer (Specify Flow Rate in G.P.M.)
21	11183	1	Seal O-Ring
22	11385	1	Flow Control Retainer (Specify Flow Rate in G.P.M.)
23	10244	1	Inside Tube O-Ring (Top Mtg. Only)
24	10207	1	Tank O-Ring (For 2-1/4 - 16 Thd)
	10381	1	Tank O-Ring (For 2-1/2 - 8 Thd.)

MODEL 2500 & 1500 MANUAL CONTROLS

Service Instructions

PROBLEM	CAUSE	CORRECTION
1. Hard Water.	<p>A. By-Pass Valve is Open.</p> <p>B. No Salt in Brine Tank.</p> <p>C. Injector Screen Plugged.</p> <p>D. Insufficient Water Flowing Into Brine Tank.</p> <p>E. Hot Water Tank Hardness.</p> <p>F. Leak at Distributor Tube.</p> <p>G. Internal Valve Leak.</p>	<p>A. Close By-Pass Valve.</p> <p>B. Add Salt to Brine Tank and Maintain Salt Level Above Water Level.</p> <p>C. Clean Injector Screen.</p> <p>D. Clean Brine Line Flow Control if Plugged.</p> <p>E. Repeated Flushings of the Hot Water Tank is Required.</p> <p>F. Make Sure Distributor Tube is Not Cracked. Check O- Ring and Tube Pilot.</p> <p>G. Replace Seals and Spacers and/or Piston.</p>
2. Unit Used Too Much Salt.	<p>A. Excessive Water in Brine Tank.</p>	<p>A. Check Float Setting and Check for Leaks.</p>
3. Loss of Water Pressure.	<p>A. Iron Buildup in Line to Water Conditioner.</p> <p>B. Iron Buildup in Water Conditioner.</p> <p>C. Inlet of Control Plugged Due to Foreign Material Broken Loose From Pipes by Recent Work Done on Plumbing System.</p>	<p>A. Clean Line to Water Conditioner.</p> <p>B. Clean Control and Add Mineral Cleaner to Mineral Bed. Increase Frequency of Regeneration.</p> <p>C. Remove Piston and Clean Control.</p>
4. Loss of Mineral Through Drain Line.	<p>A. Air in Water System.</p>	<p>A. Assure That Well System Has Proper Air Eliminator Control. Check for Dry Well Condition.</p>
5. Iron in Conditioned Water.	<p>A. Fouled Mineral Bed.</p>	<p>A. Check Backwash, Brine Draw and Brine Tank Fill. Increase Frequency of Regeneration. Increase Backwash Time.</p>
6. Softener Fails to Draw Brine.	<p>A. Drain Line Flow Control is Plugged.</p> <p>B. Injector is Plugged.</p> <p>C. Injector Screen Plugged.</p> <p>D. Line Pressure is Too Low.</p> <p>E. Internal Control Leak.</p>	<p>A. Clean Drain Line Flow Control.</p> <p>B. Clean Injector.</p> <p>C. Clean Screen.</p> <p>D. Increase Line Pressure to 20 PSI.</p> <p>E. Change Seals, Spacers and Piston Assembly.</p>
7. Drain Flows Continuously.	<p>A. Foreign Material in Control.</p> <p>B. Internal Control Leak.</p>	<p>A. Remove Control Head Assembly and Inspect Bore, Remove Foreign Material and Check Control in Various Regeneration Positions.</p> <p>B. Replace Seals and Piston Assembly.</p>

Notes

Notes
