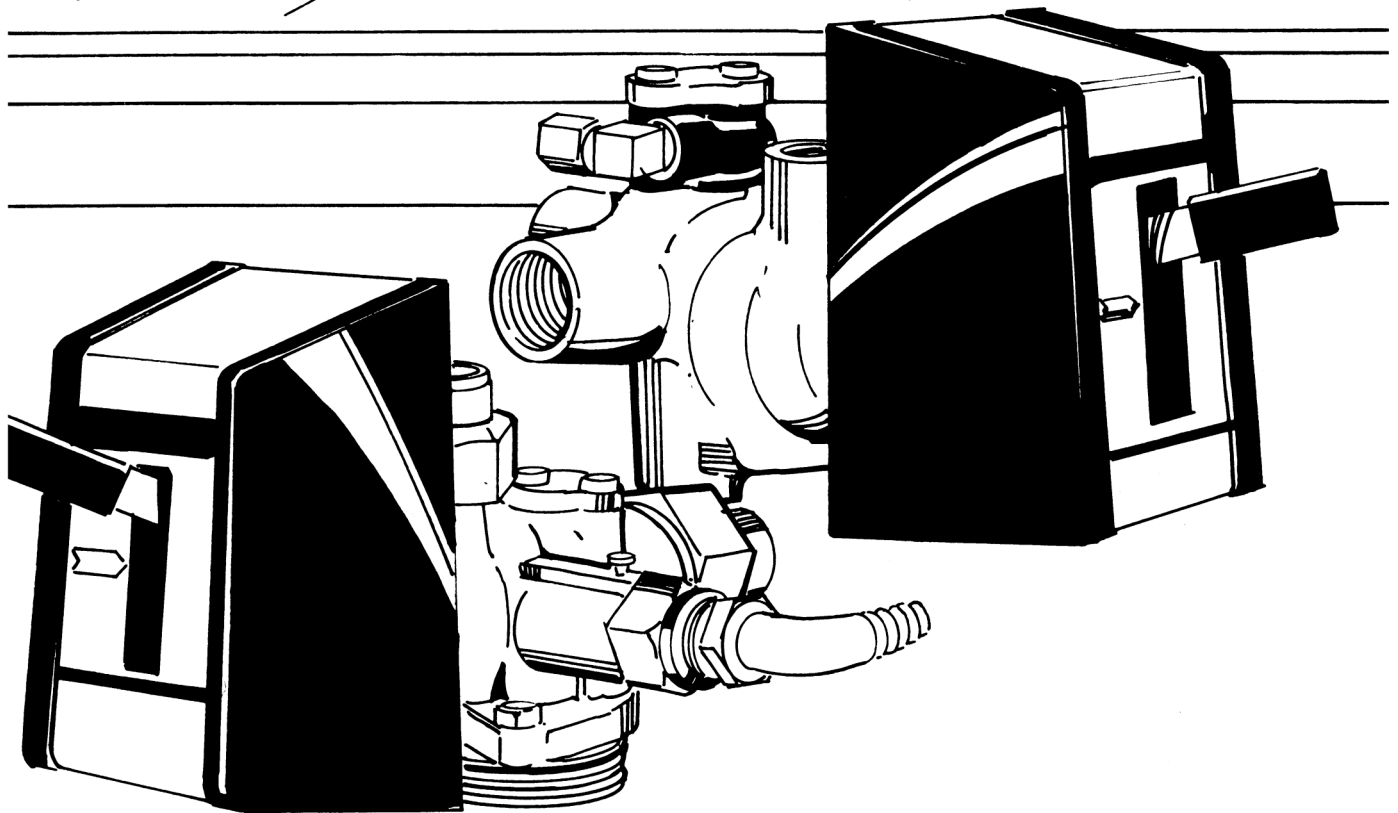


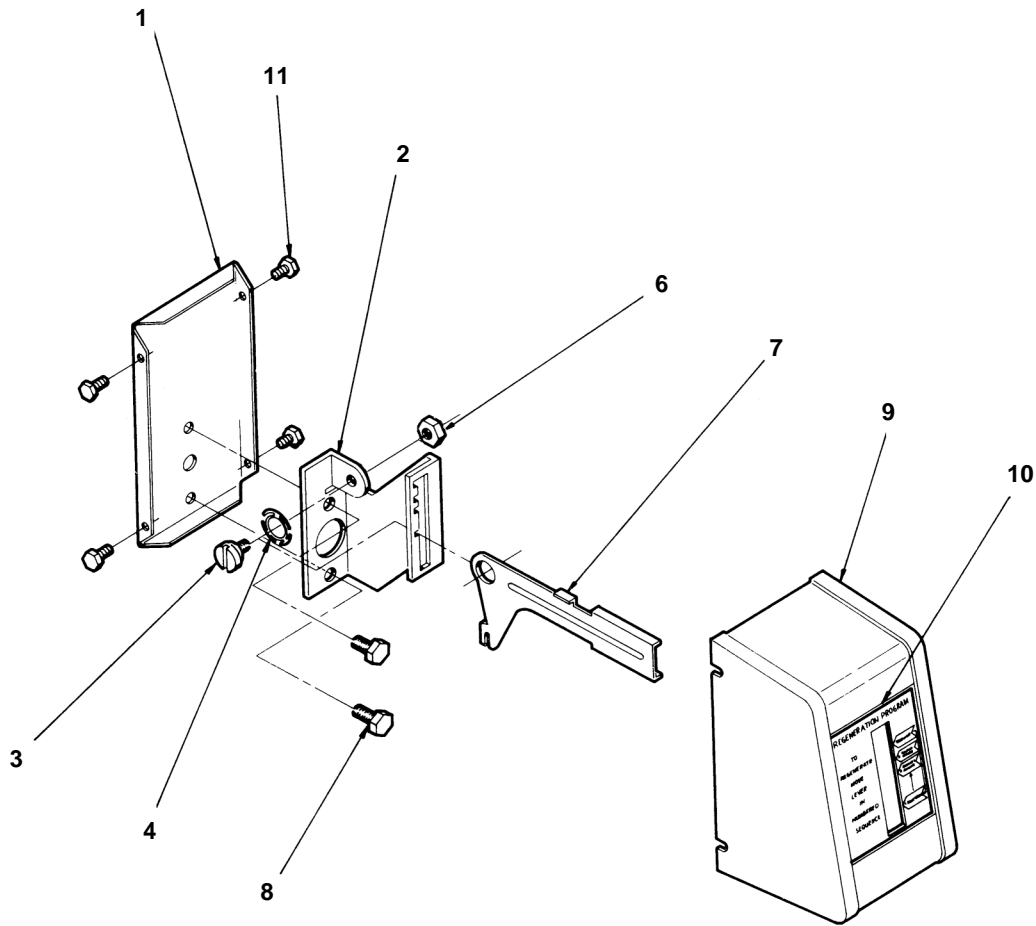
# MODEL 1500, 2500 & 2700 MANUAL CONTROLS

*Service Manual*



# MODEL 1500, 2500 & 2700 MANUAL CONTROLS

## Manual Drive Assembly

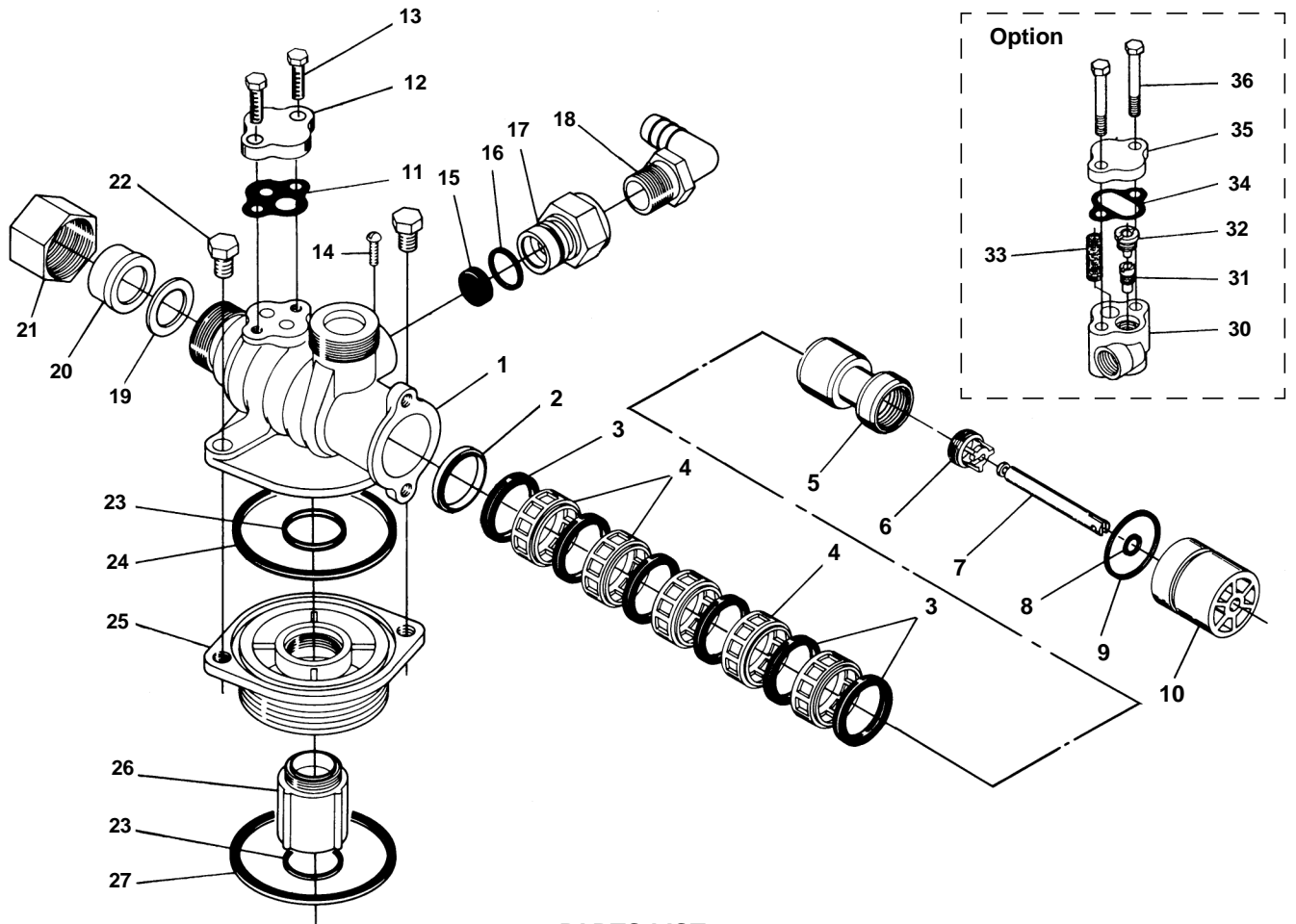


### PARTS LIST

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)

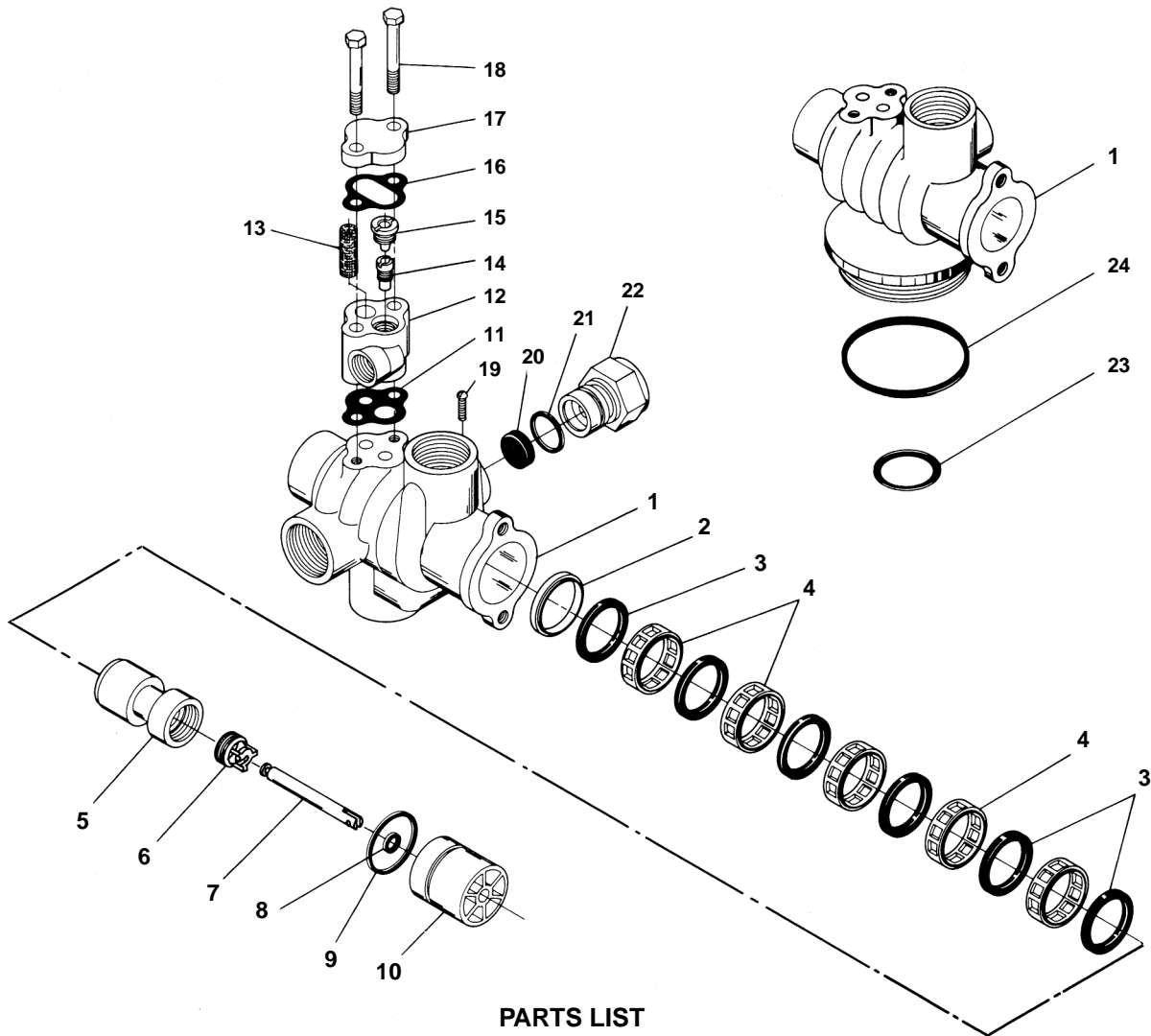
#### Optional Injector Assembly

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

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