

JOB SPECIFICATION SHEET	1
EQUIPMENT CONFIGURATION	1
INSTALLATION & START-UP.....	2
9000/9100/9500 (3200 SERIES) ELECTRO MECHANICAL TIMER ASSEMBLY	5
POWER HEAD ASSEMBLY	6
9000 CONTROL VALVE ASSEMBLY	7
9100 CONTROL VALVE ASSEMBLY	10
9500 CONTROL VALVE ASSEMBLY	13
1600 BRINE VALVE SYSTEM (FOR 9500).....	15
1700 BRINE VALVE SYSTEM (FOR 9500).....	16
1710 BRINE VALVE SYSTEM (FOR 9500).....	17
3/4" METER ASSEMBLY	18
1" METER ASSEMBLY	19
1-1/2" METER ASSEMBLY	20
9000 SECOND TANK ASSEMBLY	21
9100 SECOND TANK ASSEMBLY	22
9500 SECOND TANK ASSEMBLY	23
2300 SAFETY BRINE VALVE.....	24
2310 SAFETY BRINE VALVE.....	25
2350 SAFETY BRINE VALVE.....	26
BYPASS VALVE ASSEMBLY (METAL)	27
BYPASS VALVE ASSEMBLY (PLASTIC)	28
GENERAL SERVICE HINTS FOR METER CONTROL	29
TROUBLESHOOTING	30
9000/9100/9500 METER FLOW DATA.....	31
9000/9100/9500 INJECTOR FLOW DATA (1600 SERIES INJECTORS).....	32
9500 INJECTOR FLOW DATA (1600 & 1700 SERIES INJECTORS)	33
9000 CONTROL DIMENSIONS	34
9100 CONTROL DIMENSIONS	35
9500 CONTROL DIMENSIONS	36
WATER CONDITIONER FLOW DIAGRAMS	37
9000/9500 WIRING DIGRAM.....	39
SERVICE ASSEMBLIES	40

Job Number: _____

Model Number: _____

Water Test: _____

Capacity Per Unit: _____

Mineral Tank Size: _____ Diameter: _____ Height: _____

Brine Tank Size & Salt Setting per Regeneration: _____

9000/9100/9500 Control Valve Specifications:

- A. 82 minute available regeneration time, 1/15 RPM
- B. 164 minute available regeneration time, 1/30 RPM

- A. 3/4" Std Range (125 - 2,100 gallon setting)
- B. 3/4" Ext Range (625 - 10,625 gallon setting)
- C. 1" Std Range (310 - 5,270 gallon setting)
- D. 1" Ext Range (1,150 - 26,350 gallon setting)
- E. 1-1/2" Std Range (625 - 10,625 gallon setting)
- F. 1-1/2" Ext Range (3,125 - 53,125 gallon setting)

- A. Backwash: _____ Minutes
- B. Brine and Slow Rinse: _____ Minutes
- C. Rapid Rinse: _____ Minutes
- D. Brine Tank Refill: _____ Minutes

Brine Refill Rate:

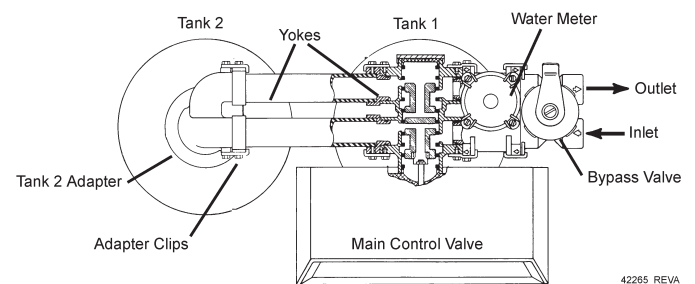


Figure 1 9000/9100 Equipment Configuration

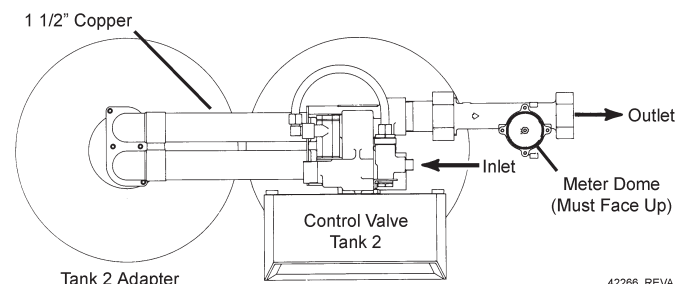


Figure 2 9500 Equipment Configuration

A minimum of 25 pounds of water pressure is required for regeneration valve to operate effectively.

A continuous 115 volt, 60 Hertz current supply is required. Make certain the current supply is always hot and cannot be turned off with another switch.

Condition of existing plumbing should be free from lime and iron buildup. Piping that is built up heavily with lime and/or iron should be replaced. If piping is clogged with iron, a separate iron filter unit should be installed ahead of the water softener.

The softener should be located close to a drain.

Always provide for the installation of a by-pass valve.

CAUTION

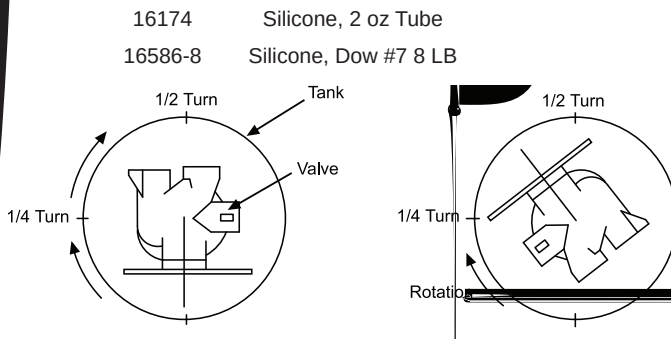
1. Place the softener tank where you want to install the unit.
NOTE: Be sure the tank is level and on a firm base.
2. During cold weather it is recommended that the installer warm the valve to room temperature before operating.
3. Perform all plumbing according to local plumbing codes.
 - Use a 1/2" minimum pipe size for the drain.
 - Use a 3/4" drain line for backwash flow rates that exceed 7 gpm or length that exceeds 20' (6 m).
4. Both tanks must be the same height and diameter and filled with equal amounts of media.
5. The distributor tube must be flush with the top of each tank. Cut if necessary. Use only non-aerosol silicone lubricant.
6. Lubricate the distributor O-ring seal and tank O-ring seal. Place the main control valve on one tank and the tank adapter on the second tank.

minimum of 1" distance between tanks on final

7. Solder joints near the drain must be done before connecting the Drain Line Flow Control fitting (DLFC). Leave at least 6" (152 mm) between the DLFC and solder joints when soldering pipes that are connected on the DLFC. Failure to do this could cause interior damage to DLFC.
8. Use only Teflon tape on the drain fitting.
9. Be sure the floor under the salt storage tank is clean and level.
10. Place approximately 1" (25 mm) of water above the grid plate. If a grid is not utilized, fill to the top of the air check in the salt tank. Do not add salt to the brine tank at this time.
11. On units with a bypass, place in Bypass position.
12. Turn on the main water supply.
13. Open a cold soft water tap nearby and let water run a few minutes or until the system is free of foreign material

18. Cycle timer into backwash position. Turn manual knob so that the micro switch rides on the first set of pins. In this position the tanks switch (lower piston) and the control valve moves to the backwash position (upper piston). Wait until the positioning of upper and lower pistons stops before advancing the timer further. If advanced too fast the control will not home into the In Service position (it will not advance to any other position). To correct this, rotate the manual knob back to In Service and start again into backwash.
19. With all the air backwashed, slowly cycle the timer to the brine position; rapid rinse; and brine tank refill. Wait for the control drive motor to position itself in each cycle and stop, before advancing on to the next position.
20. Once back in the In Service position, cycle the control valve again into the backwash position. The tanks switch again, and air head backwashes out of the other tank. Cycle the control back to the In Service position. Leave the timer in the open position. DO NOT insert meter cable yet.

1. Spin the valve onto the tank, ensuring the threads are not cross-threaded.
2. Rotate the valve freely without using force until it comes to a stop (this position is considered zero).
3. Rotate the valve clockwise from zero, between $\frac{1}{4}$ turn and $\frac{1}{2}$ turn (see Figure 6).



1. The control valve is set at the factory for backwash; brine and slow rinse; rapid rinse and brine tank fill times. Change any of these times by repositioning the pins and holes or adding more pins.

2. The control valve has a separate brine tank fill cycle. Calculate the desired salt setting using the brine line flow control rate of refill (in gpm) multiplied by the timer setting. Then, using one gallon of fresh water dissolving approximately 3 lbs salt, calculate the refill time.

A desired 30 lbs salt setting:
The unit has a 1.0 gpm refill rate so a 10 gallon fill is required.
 $10 \text{ gallons} \times 3 \text{ lbs/gals} = 30 \text{ lbs salt}$
Set the timer refill section at 10 minutes.
 $10 \text{ minutes} \times 1.0 \text{ gpm} = 10 \text{ gallon fill}$

NOTE: There must always be two pins at the end of a refill time to stop the fill cycle. With the Regeneration

3. Setting the gallon wheel. Knowing the amount of resin in each tank and the salt setting per Regeneration, calculate the gallons available, using the following capacities as a guide:
$$\frac{(\text{capacity per ft}^3 \times \text{ft}^3 \text{ of resin per tank})}{\text{compensated hardness of H}_2\text{O}}$$

Tank Diameter	=	16"
Compensated Hardness	=	35 grains per gallon (tested sample)
ft ³ Resin (based on flow rate)	=	4
lbs of Salt	=	8
Capacity per ft ³	=	24,000
$\frac{(24,000 \times 4 \text{ ft}^3 \text{ of resin per tank})}{35 \text{ grains}}$	=	2,740 gallons available before regeneration

Complete step 4 before setting gallons on the meter wheel.

4. Because the control valve regenerates with soft water from the other tank, subtract the water used for regeneration. Take each regeneration cycle and calculate the water used.

Unit is set for a 16" diameter tank with 4 ft³ of resin and salted at 8 lbs. per ft³, 7 gpm backwash, #3 injector, 1.0 gpm brine refill, and 60 psi and timer set for 10 min. backwash, 60 min. brine and rinse, 10 min. rapid rinse, 10 min. brine tank fill.

Backwash	10 min x 7.0 gpm	=	70.0 gal
Brine and Rinse	60 min x 1.0 gpm	=	60.0 gal
Rapid Rinse	10 min x 7.0 gpm	=	70.0 gal
Brine Tank Fill	10 min x 1.0 gpm	=	10.0 gal
Total Regeneration Water = 210.0 gal			

With the 2740 gallons available calculated in Step 3, subtract the Regeneration water used from the total water available.

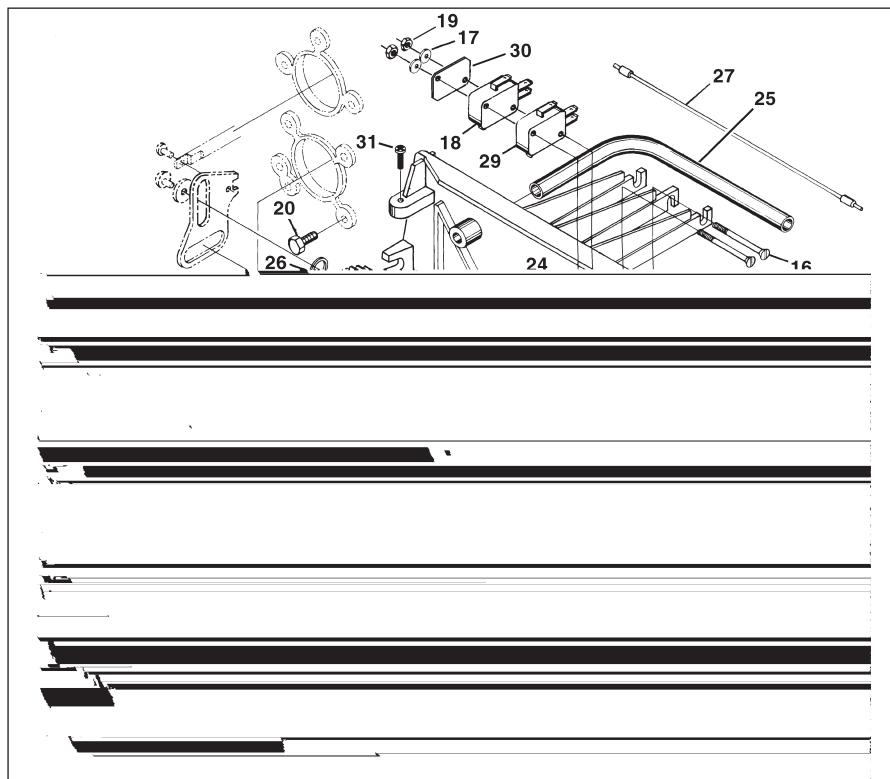
$2740 \text{ gallons available} - 210 \text{ gallons used} = 2530 \text{ gallons (in Regeneration, Step 4)}$

5. Set meter wheel at approximately 2530 gallons. Lift the inner dial of the meter program wheel so that you can rotate it freely. Position the white dot opposite the 2530 gallon setting.

subtracting continuous flows for 9 minutes or

6. Insert meter cable into meter.
7. Check bypass.
8. Plug in unit.

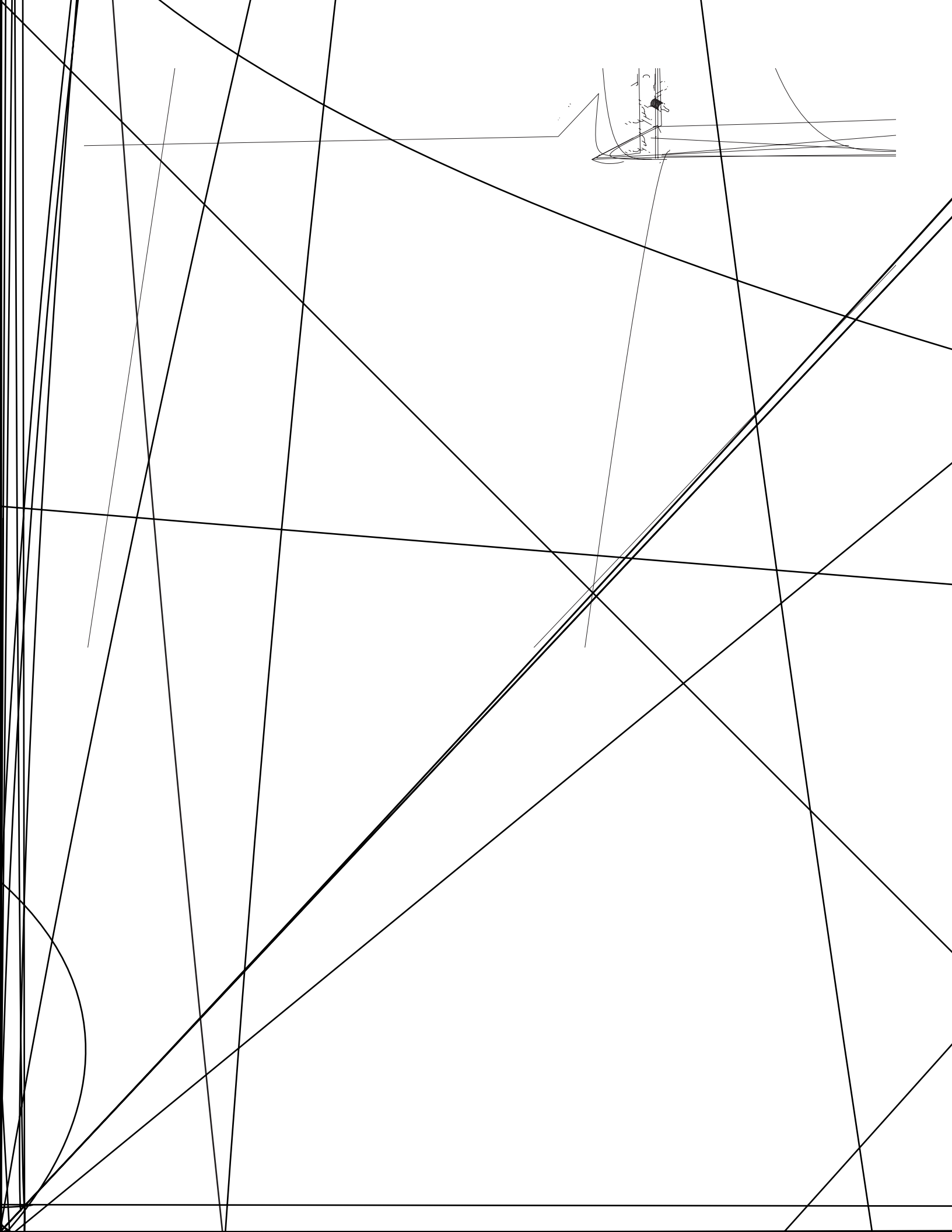
1.....	1.....	13870-03.....	Housing, Timer, 9000
2.....	1.....	17870.....	Label, Indicator, 9000 Timer
3.....	1.....	15465.....	Label, Caution
4.....	1.....	16930.....	Label, Instruction
5.....	1.....	15227.....	Plate, Clutch, Actuator
6.....	1.....	10300.....	Screw, Slot Hex Washer, 18-8 x 3/8
7.....	1.....	17513.....	Clip, Spring
8.....	1.....	15407.....	Washer, Plain, #4
9.....	1.....	15228.....	Spring, Return
10.....	1.....	16270-10.....	Program Wheel Assy, 9000/9100, 3/4" STD, 0-2, 100
		 16270-30.....	Program Wheel Assy, 9000/9100, 1" STD, 0-5, 100
		 16270-40.....	Program Wheel Assy, 9000/9100, 1" EXT, 0-25, 500
		 16270-50.....	Program Wheel Assy, 9000/9100/9500, 3/4" EXT, 1.5" STD, 0-10, 500
		 16270-60.....	Program Wheel Assy, 9500, 1.5" EXT, 0-50, 000
10A.....		24673.....	Volume Label, Metric, 9000/9100, 3/4" STD, 0-8m3
		 24672.....	Volume Label, Metric, 9000/9100, 1" STD, 0-20m3
		 24676.....	Volume Label, Metric, 9000/9100, 1" EXT, 0-100m3
		 24675.....	Volume Label, Metric, 9000/9100/9500, 3/4" EXT, 1.5" STD 0-40m3
		 25027.....	Volume Label, Metric, 9500, 1.5" EXT, 1.5" EXT 0-200m3
		 25027.....	Volume Label, Metric, 9500, 1.5" EXT, 1.5" EXT 0-200m3



32

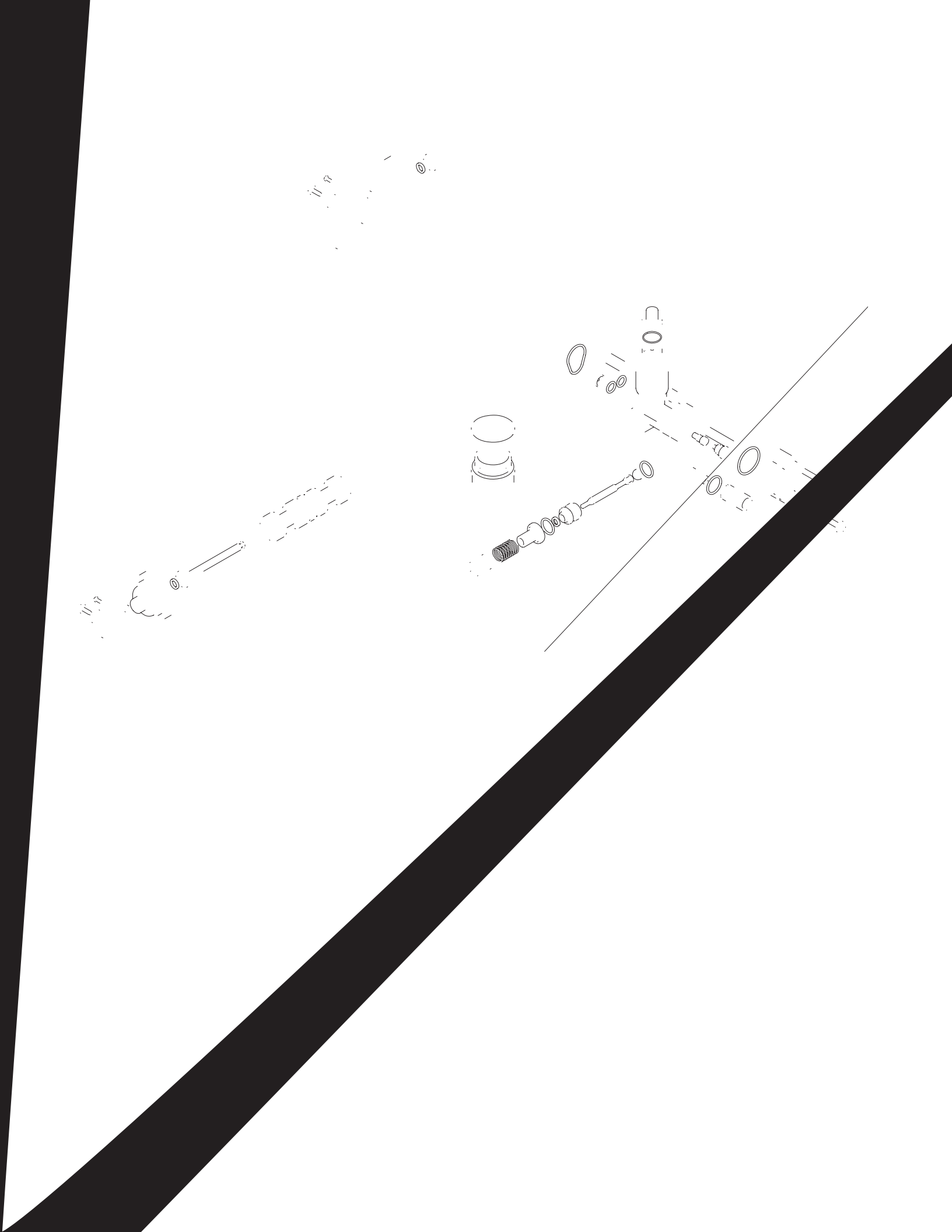
1	.....	2	.....	18728	.....	Nut, Tinnerman, U Type, 8-32	16	.....	2	.....	15172	.....	Screw, Flt Hd Mach, 4-40 x 1 3/8 Steel Zinc Plate		
2	.....	1	.....	11838	.....	Power Cord, 6' Fleck	17	.....	2	.....	10340	.....	Washer, Lock #4, Zinc		
				11839	.....	Power Cord, 12' Fleck	18	.....	2	.....	16433	.....	Switch, Miniature		
				40084-12	.....	Power Cord, 12' U.S., Round, 120V Sys 5, 6, 7 & 2900/3150/3900 #4	19	.....	1	.....	10339	.....	Nut, Hex, 4-40 Zinc Plated		
				19885-01	.....	Power Cord Assy, Japanese	20	.....	1	.....	15331	.....	Screw, Hex Washer Mach, 10-24 x 3/4 410 S.S.		
				11545-01	.....	Power Cord Assy, 4' Black, Euro w/Terminals	21	.....	1	.....	15133	.....	Gear Assy, Drive, 3/4" Stroke		
				14678	.....	Power Cord, U.S., 220/60	22	.....	1	.....	13547	.....	Strain Relief, Flat Cord Heyco #30-1		
				19303-01	.....	Power Cord Assy, Australian w/Terminals			1	.....	13547-01	.....	Strain Relief, Round Cord		
				40085-12	.....	Power Cord, 12' US, Round, 240V	23	.....	1	.....	15810	.....	Ring, Retaining		
				19674	.....	Transformer, 24V, 9.6VA Residential Valves	24	.....	1	.....	17331	.....	Cam, 9000, 9100, 9500		
				41475	.....	Transformer, 24V, 9.6VA, European					17765	.....	Cam Assy, Aux Switch, 9000, 9100, 9500		
3	.....	1	.....	15202	.....	Harness, 9000/9500, Drive	25	.....	1	.....	15368	.....	Tube, Cable Guide, 2-Tank, 9000/9100		
				14822	.....	Harness, 2900					17337	.....	Tube, Cable Guide, 9500		
4	.....	1	.....	15134	.....	Gear Assy, Drive, 1/2" Stroke 9000/9500	26	.....	2	.....	15372	.....	Washer, Thrust, 3/8		
5	.....	1	.....	15135	.....	Gear, Drive, 9000	27	.....	1	.....	15425	.....	Meter Cable Assy, 13.25" 9000/9100 3/4" STD & EXT		
6	.....	1	.....	14896	.....	Wheel, Geneva					15216	.....	Meter Cable Assy, 15.25" 9000/9100 1" STD & EXT		
7	.....	2	.....	40422	.....	Nut, Wire, Tan					17744	.....	Meter Cable Assy, 20.75" 9500 1.5" STD & EXT		
8	.....	2	.....	19367	.....	Screw, Designer Cover, Thumb 8-32 Blank UV Stable Material	28		2	.....	15692	.....	Washer, Plain, 3/8"		
9	.....	1	.....	15175	.....	Label, Shaft Position	30	.....	1	.....	10302	.....	Insulator, Limit Switch		
10	.....	2	.....	14917	.....	Ring, Retaining	31	.....	2	.....	15173	.....	Screw, Slot Rd Hd Mach, 5-20 x 3/8		
11	.....	1	.....	42296	.....	Plate, Ground, 9000/9500	32	.....	*	.....		.....	Complete 9000/9100/9500 Powerhead Assy		
12	.....	1	.....	14430	.....	Screw, Hex Washer St, 6 x 1/4 Type "B"					1	.....	60232-110	.....	Cover, Designer, 1 Pc Black
13	.....	2	.....	19160	.....	Screw, Phil Pan, Thread 6-32 x 3/8 Type 23 Zinc					1	.....	60232-112	.....	Cover, Designer, 1 Pc Black w/Left Window, Electric
14	.....	1	.....	18737	.....	Motor, 24V, 50/60 Hz, 1 RPM					1	.....	60320-10	.....	Switch Assy, Drive Cam, 9000, 9100, 9500
				18738	.....	Motor, 120V, 50/60 Hz 1 RPM									
				18739	.....	Motor, 220V, 50/60 Hz 1 RPM									
15	.....	1	.....	15131	.....	Backplate, 9000, Mechanical, SXT									
				17784-05	.....	Panel, Control, 9000/9500 XT									
				17784-02	.....	Panel, Control, 9000, 9500 w/ Terminal Block									
									</						

*Call your distributor for Part Number



1.....1.....14861.....Valve Body, 9000	19149.....Washer, Flow, 1.7 GPM
2.....15.....13242.....Seal, 5600,9000, 9100	12087.....Washer, Flow, 2.0 GPM
3.....12.....14241.....Spacer, 5600,9000, 9100	12088.....Washer, Flow, 2.4 GPM
4.....1.....16595.....Spacer, 9000, 9100	12089.....Washer, Flow, 3.0 GPM
5.....1.....42278.....End Cap, Plastic, 9000/9100	12090.....Washer, Flow, 3.5 GPM
6.....2.....13363.....Washer, Hague Drive	12091.....Washer, Flow, 4.0 GPM
7.....2.....17020.....Screw, STL. Hex Washer, 6-20 x 3/8	19147.....Washer, Flow, 4.5 GPM
8.....2.....11335.....Screw, #4-40	12092.....Washer, Flow, 5.0 GPM
9.....1.....14921.....Link, Piston Rod	17814.....Washer, Flow, 6.0 GPM
10.....1.....14919.....Piston, Rod, Upper	12408.....Washer, Flow, 7.0 GPM
11.....2.....14309.....Retainer, Piston Rod	34.....1.....14925.....Brine Valve Stem, 9000, 9100
12.....1.....14914.....Piston, 9000, 9100 Upper	35.....1.....12626.....Seat, Brine Valve
13.....2.....13243.....Plug, End, 5600, 9000, 9100	36.....1.....13167.....Spacer, Brine Valve
14.....2.....10209.....Quad Ring, -010	37.....1.....13165.....Cap, Brine Valve
15.....2.....13008.....Retainer, End Plug Seal	38.....1.....11973.....Spring, Brine Valve
16.....1.....15019.....Link, Piston Rod, 9000/9500, 9100	39.....1.....11981-01.....Ring, Retaining, SS
17.....1.....14920.....Rod, Piston, Lower, 9000, 9100	40.....1.....16098.....Washer, Nylon Brine
18.....1.....14905.....Piston, 9000, 9100 Lower	41.....1.....12977.....O-ring, -015
19.....1.....40952.....O-ring, -030	42.....1.....13245.....Retainer, BLFC
20.....4.....15331.....Screw, Hex Washer Head	43.....1.....17307.....Washer, Flow, 0.125 GPM
21.....2.....13361.....Spacer, 4600, 9000, 9100	12094.....Washer, Flow, 0.25 GPM
22.....1.....15215.....Body, Injector, 9000, 9100	12095.....Washer, Flow, 0.50 GPM
23.....2.....13301.....O-ring, -011	12097.....Washer, Flow, 1.0 GPM
24.....3.....13302.....O-ring, -014	44.....1.....12550.....Quad Ring, -009
25.....1.....10227.....Screen, Injector	45.....1.....13244-01.....Adapter, BLFC
26.....1.....10913-000.....Nozzle, Injector, #000, Brown	46.....1.....13497.....Air Disperser, Injector
.....10913-00.....Nozzle, Injector, #00, Violet	47.....1.....11710.....O-ring, -215
.....10913-0.....Nozzle, Injector, #0, Red	48.....1.....12281.....O-ring, -338
.....10913-1.....Nozzle, Injector, #1, White	50.....60400.....Piston Assy, 9000, 9100 Upper
.....10913-2.....Nozzle, Injector, #2, Blue	60400-01.....Piston Assy, 9000 Upper, HW
.....10913-3.....Nozzle, Injector, #3, Yellow	60400-001.....Piston Assy, 9000, 9100 Upper, 560CD
.....10913-4.....Nozzle, Injector, #4, Green	51.....60401.....Piston Assy, 9000, 9100 Lower
27.....1.....10914-000.....Throat, Injector, #000, Brown	60401-01.....Piston Assy, 9000 Lower, HW
.....10914-00.....Throat, Injector, #00, Violet	60401-001.....Piston Assy, 9000, 9100 Lower, 560CD
.....10914-0.....Throat, Injector, #0, Red	52.....60125.....Seal & Spacer Kit, 5600/9000/9100 Upper
.....10914-1.....Throat, Injector, #1, White	60125-15.....Seal & Spacer Kit, 5600/9000/9100 Upper Blue
.....10914-2.....Throat, Injector, #2, Blue	60125HW.....Seal & Spacer Kit, 9000 Upper
.....10914-3.....Throat, Injector, #3, Yellow	53.....60421.....Seal & Spacer Kit, 9000/9100 Lower
.....10914-4.....Throat, Injector, #4, Green	60421HW.....Seal & Spacer Kit, 9000 Lower
28.....1.....13166.....Cap, Injector, 5600, 9000, 9100	60421-50.....Seal & Spacer Kit, 9000/9100 Lower, 559PE
29.....1.....13303.....O-ring, -021	54.....60350.....Brine Valve Assy, 9000, 9100
30.....2.....13387.....Screw, Hex Washer Head	60350-01.....Brine Valve Assy, 9000, 560CD, Hot Water
31.....1.....15348.....O-ring, -563	55.....60385-0011.....Injector Drain, 9000, 9100, 0.25 BLFC #0 INJ, 1.2 DLFC
32.....1.....13173-01.....Retainer, DLFC Button	60385-0111.....Injector Drain, 9000, 9100, 0.25 BLFC #1 INJ, 1.2 DLFC
33.....1.....19153.....Washer, Flow, 0.6 GPM	
.....19152.....Washer, Flow, 0.8 GPM	
.....12097.....Washer, Flow, 1.0 GPM	
.....12085.....Washer, Flow, 1.2 GPM	
.....19150.....Washer, Flow, 1.3 GPM	
.....12086.....Washer, Flow, 1.5 GPM	

..... 60385-0121.....	Injector Drain, 9000, 9100, 0.25 BLFC #1 INJ, 1.5 DLFC	 60385-0383.....	Injector Drain, 9000, 9100, 1.0 BLFC #3 INJ, 5.0 DLFC
..... 60385-0131.....	Injector Drain, 9000, 9100, 0.25 BLFC #1 INJ, 2.0 DLFC	 60385-0393.....	Injector Drain, 9000, 9100, 1.0 BLFC #3 INJ, 7.0 DLFC
..... 60385-0141.....	Injector Drain, 9000, 9100, 0.25 BLFC #1 INJ, 2.4 DLFC	 60385-0120.....	Injector Drain, 9000, 9100, Blank BLFC #1 INJ, 1.5 DLFC
..... 60385-0012.....	Injector Drain, 9000, 9100, 0.50 BLFC #0 INJ, 1.2 DLFC	56..... 60022-12.....	BLFC, 0.125 GPM, 5000/5600/9000/9100
..... 60385-0112.....	Injector Drain, 9000, 9100, 0.50 BLFC #1 INJ, 1.2 DLFC	 60022-25.....	BLFC, 0.25 GPM, 5000/5600/9000/9100
..... 60385-0122.....	Injector Drain, 9000, 9100, 0.50 BLFC #1 INJ, 1.5 DLFC	 60022-50.....	BLFC, 0.50 GPM, 5000/5600/9000/9100
..... 60385-0132.....	Injector Drain, 9000, 9100, 0.50 BLFC #1 INJ, 2.0 DLFC	 60022-100.....	BLFC, 1.0 GPM, 5000/5600/9000/9100
..... 60385-0142.....	Injector Drain, 9000, 9100, 0.50 BLFC #1 INJ, 2.4 DLFC	1 12128.....	Label, 0.25 GPM BLFC
..... 60385-0182.....	Injector Drain, 9000, 9100, 0.50 BLFC #1 INJ, 5.0 DLFC	1 13333.....	Label, Injector
..... 60385-0222.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, 1.5 DLFC	1 10760.....	Label, 1 GPM, 3 lbs salt/min
..... 60385-0242.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, 2.4 DLFC	 10759.....	Label, 0.5 GPM, 1.5 lbs salt
..... 60385-0252.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, 3.0 DLFC	 19654.....	Label, 0.125 GPM Brine Refill Flow
..... 60385-0262.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, 3.5 DLFC		
..... 60385-0272.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, 4.0 DLFC		
..... 60385-0282.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, 5.0 DLFC		
..... 60385-02A2.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, 6.0 DLFC		
..... 60385-0202.....	Injector Drain, 9000, 9100, 0.50 BLFC #2 INJ, Blank DLFC		
..... 60385-0372.....	Injector Drain, 9000, 9100, 0.50 BLFC #3 INJ, 4.0 DLFC		
..... 60385-0382.....	Injector Drain, 9000, 9100, 0.50 BLFC #3 INJ, 5.0 DLFC		
..... 60385-0482.....	Injector Drain, 9000, 9100, 0.50 BLFC #4 INJ, 5.0 DLFC		
..... 60385-0133.....	Injector Drain, 9000, 9100, 1.0 BLFC #1 INJ, 2.0 DLFC		
..... 60385-0143.....	Injector Drain, 9000, 9100, 1.0 BLFC #1 INJ, 2.4 DLFC		
..... 60385-0163.....	Injector Drain, 9000, 9100, 1.0 BLFC #1 INJ, 3.5 DLFC		
..... 60385-0233.....	Injector Drain, 9000, 9100, 1.0 BLFC #2 INJ, 2.0 DLFC		
..... 60385-0243.....	Injector Drain, 9000, 9100, 1.0 BLFC #2 INJ, 2.4 DLFC		
..... 60385-0253.....	Injector Drain, 9000, 9100, 1.0 BLFC #2 INJ, 3.0 DLFC		
..... 60385-0263.....	Injector Drain, 9000, 9100, 1.0 BLFC #2 INJ, 3.5 DLFC		
..... 60385-0273.....	Injector Drain, 9000, 9100, 1.0 BLFC #2 INJ, 4.0 DLFC		
..... 60385-0353.....	Injector Drain, 9000, 9100, 1.0 BLFC #3 INJ, 3.0 DLFC		
..... 60385-0373.....	Injector Drain, 9000, 9100, 1.0 BLFC #3 INJ, 4.0 DLFC		



1.....1.....40688.....Valve Body Assy, 9100	12088.....Washer, Flow, 2.4 GPM
2.....15.....13242.....Seal, 5600,9000, 9100	12089.....Washer, Flow, 3.0 GPM
3.....12.....14241.....Spacer, 5600,9000, 9100	12090.....Washer, Flow, 3.5 GPM
4.....1.....16595.....Spacer, 9000, 9100	12091.....Washer, Flow, 4.0 GPM
5.....1.....42278.....End Cap, Plastic, 9000/9100	19147.....Washer, Flow, 4.5 GPM
6.....1.....40952.....O-ring, -030	12092.....Washer, Flow, 5.0 GPM
7.....4.....15331.....Screw, Hex Washer Head	17814.....Washer, Flow, 6.0 GPM
8.....1.....14914.....Piston, 9000, 9100 Upper	12408.....Washer, Flow, 7.0 GPM
9.....2.....14309.....Retainer, Piston Rod	33.....1.....14925.....Brine Valve Stem, 9000, 9100
10.....1.....14919.....Piston, Rod, Upper	34.....1.....12626.....Seat, Brine Valve
11.....2.....13243.....Plug, End, 5600, 9000, 9100	35.....1.....13167.....Spacer, Brine Valve
12.....2.....13008.....Retainer, End Plug Seal	36.....1.....13165.....Cap, Brine Valve
13.....2.....10209.....Quad Ring, -010	37.....1.....11973.....Spring, Brine Valve
14.....1.....14921.....Link, Piston Rod	38.....1.....11981-01.....Ring, Retaining, SS
15.....2.....11335.....Screw, #4-40	39.....1.....16098.....Washer, Nylon Brine
16.....2.....17020.....Screw, STL. Hex Washer, 6-20 x 3/8	40.....1.....12977.....O-ring, -015
17.....2.....13363.....Washer, Hague Drive	41.....1.....13245.....Retainer, BLFC
18.....1.....14905.....Piston, 9000, 9100 Lower	42.....1.....17307.....Washer, Flow, 0.125 GPM
19.....1.....14920.....Rod, Piston, Lower, 9000, 9100	12094.....Washer, Flow, 0.25 GPM
20.....1.....15019.....Link, Piston, Rod, 9000/9500	12095.....Washer, Flow, 0.50 GPM
21.....1.....41500.....O-ring, 9100 Drain	12097.....Washer, Flow, 1.0 GPM
22.....1.....15215.....Body, Injector, 9000, 9100	43.....1.....12550.....Quad Ring, -009
23.....2.....13301.....O-ring, -011	44.....2.....13302.....O-ring, -014
24.....1.....10227.....Screen, Injector	45.....1.....13244-01.....Adapter, BLFC
25.....1.....10913-000.....Nozzle, Injector, #000, Brown	46.....1.....13497.....Air Disperser, Injector
.....10913-00.....Nozzle, Injector, #00, Violet	47.....1.....13361.....Spacer, 4600, 9100
.....10913-0.....Nozzle, Injector, #0, Red	48.....1.....40538.....Retainer, 32 mm, O-ring DIST, 7000
.....10913-1.....Nozzle, Injector, #1, White	49.....1.....61419.....Kit, 1.05" Distributor Adapter
.....10913-2.....Nozzle, Injector, #2, Blue	50.....60400.....Piston Assy, 9000, 9100 Upper
.....10913-3.....Nozzle, Injector, #3, Yellow	60400-001.....Piston Assy, 9000, 9100 Upper, 560CD
.....10913-4.....Nozzle, Injector, #4, Green	51.....60401.....Piston Assy, 9000, 9100 Lower
26.....1.....10914-000.....Throat, Injector, #000, Brown	60401-01.....Piston Assy, 9000 Lower, HW
.....10914-00.....Throat, Injector, #00, Violet	60401-001.....Piston Assy, 9000, 9100 Lower, 560CD
.....10914-0.....Throat, Injector, #0, Red	52.....60125.....Seal & Spacer Kit, 5600/9000/9100 Upper
.....10914-1.....Throat, Injector, #1, White	60125-15.....Seal & Spacer Kit, 5600/9000/9100 Upper Blue Silicone
.....10914-2.....Throat, Injector, #2, Blue	53.....60421.....Seal & Spacer Kit, 9000/9100 Lower
.....10914-3.....Throat, Injector, #3, Yellow	60421-50.....Seal & Spacer Kit, 9000/9100 Lower, 559PE
.....10914-4.....Throat, Injector, #4, Green	54.....60350.....Brine Valve Assy, 9000, 9100
27.....1.....13166.....Cap, Injector, 5600, 9000, 9100	55.....60385-0011.....Injector Drain, 9000, 9100, 0.25 BLFC #0 INJ, 1.2 DLFC
28.....1.....13303.....O-ring, -021	60385-0111.....Injector Drain, 9000, 9100, 0.25 BLFC #1 INJ, 1.2 DLFC
29.....2.....13387.....Screw, Hex Washer Head	60385-0121.....Injector Drain, 9000, 9100, 0.25 BLFC #1 INJ, 1.5 DLFC
30.....1.....15348.....O-ring, -563	60385-0131.....Injector Drain, 9000, 9100, 0.25 BLFC #1 INJ, 2.0 DLFC
31.....1.....13173-01.....Retainer, DLFC Button	60385-0141.....Injector Drain, 9000, 9100, 0.25
32.....1.....19153.....Washer, Flow, 0.6 GPM	
.....19152.....Washer, Flow, 0.8 GPM	
.....12097.....Washer, Flow, 1.0 GPM	
.....12085.....Washer, Flow, 1.2 GPM	
.....19150.....Washer, Flow, 1.3 GPM	
.....12086.....Washer, Flow, 1.5 GPM	
.....19149.....Washer, Flow, 1.7 GPM	
.....12087.....Washer, Flow, 2.0 GPM	

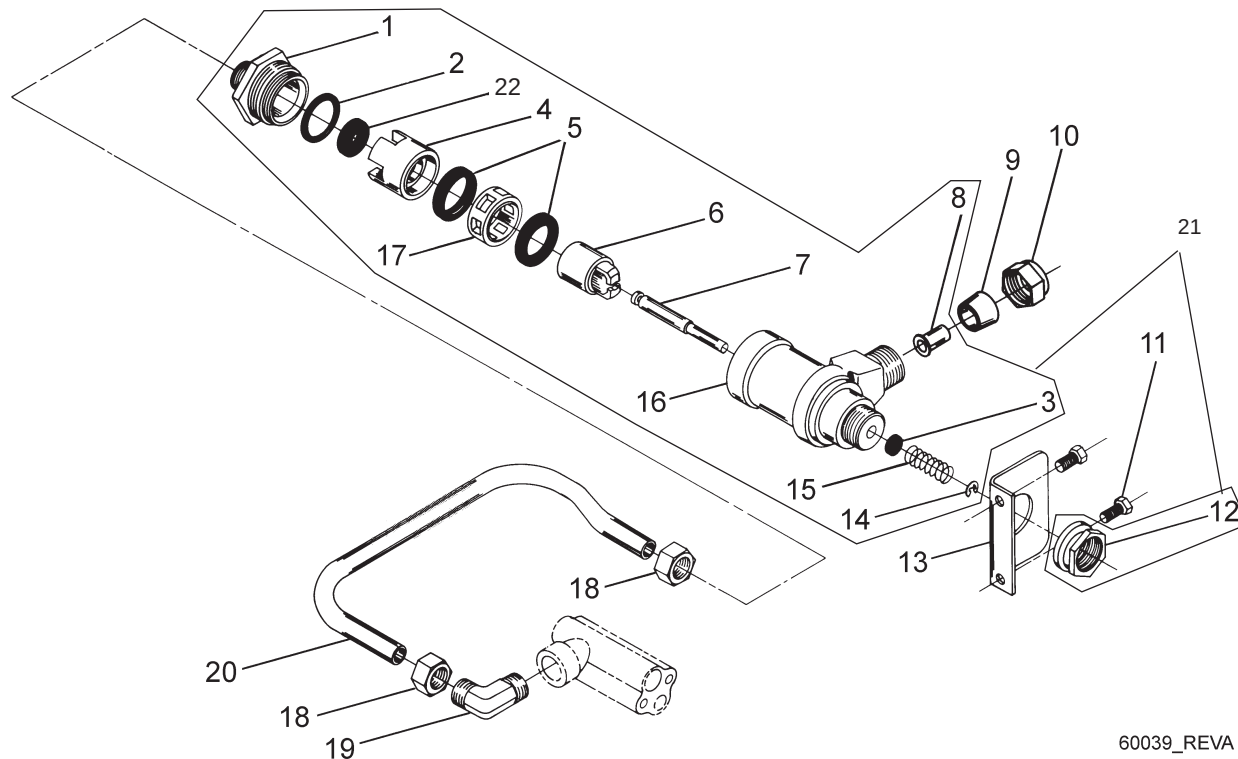
BLFC #1 INJ, 2.4 DLFC
 60385-0012.....Injector Drain, 9000, 9100, 0.50
 BLFC #0 INJ, 1.2 DLFC
 60385-0112.....Injector Drain, 9000, 9100, 0.50
 BLFC #1 INJ, 1.2 DLFC
 60385-0122.....Injector Drain, 9000, 9100, 0.50
 BLFC #1 INJ, 1.5 DLFC
 60385-0132.....Injector Drain, 9000, 9100, 0.50
 BLFC #1 INJ, 2.0 DLFC
 60385-0142.....Injector Drain, 9000, 9100, 0.50
 BLFC #1 INJ, 2.4 DLFC
 60385-0182.....Injector Drain, 9000, 9100, 0.50
 BLFC #1 INJ, 5.0 DLFC
 60385-0222.....Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, 1.5 DLFC
 60385-0242.....Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, 2.4 DLFC
 60385-0252.....Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, 3.0 DLFC
 60385-0262.....Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, 3.5 DLFC
 60385-0272.....Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, 4.0 DLFC
 60385-0282.....Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, 5.0 DLFC
 60385-02A2Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, 6.0 DLFC
 60385-0202.....Injector Drain, 9000, 9100, 0.50
 BLFC #2 INJ, Blank DLFC
 60385-0372.....Injector Drain, 9000, 9100, 0.50
 BLFC #3 INJ, 4.0 DLFC
 60385-0382.....Injector Drain, 9000, 9100, 0.50
 BLFC #3 INJ, 5.0 DLFC
 60385-0482.....Injector Drain, 9000, 9100, 0.50
 BLFC #4 INJ, 5.0 DLFC
 60385-0133.....Injector Drain, 9000, 9100, 1.0
 BLFC #1 INJ, 2.0 DLFC
 60385-0143.....Injector Drain, 9000, 9100, 1.0
 BLFC #1 INJ, 2.4 DLFC
 60385-0163.....Injector Drain, 9000, 9100, 1.0
 BLFC #1 INJ, 3.5 DLFC
 60385-0233.....Injector Drain, 9000, 9100, 1.0
 BLFC #2 INJ, 2.0 DLFC
 60385-0243.....Injector Drain, 9000, 9100, 1.0
 BLFC #2 INJ, 2.4 DLFC
 60385-0253.....Injector Drain, 9000, 9100, 1.0
 BLFC #2 INJ, 3.0 DLFC
 60385-0263.....Injector Drain, 9000, 9100, 1.0
 BLFC #2 INJ, 3.5 DLFC
 60385-0273.....Injector Drain, 9000, 9100, 1.0
 BLFC #2 INJ, 4.0 DLFC
 60385-0353.....Injector Drain, 9000, 9100, 1.0
 BLFC #3 INJ, 3.0 DLFC
 60385-0373.....Injector Drain, 9000, 9100, 1.0
 BLFC #3 INJ, 4.0 DLFC
 60385-0383.....Injector Drain, 9000, 9100, 1.0
 BLFC #3 INJ, 5.0 DLFC
 60385-0393.....Injector Drain, 9000, 9100, 1.0
 BLFC #3 INJ, 7.0 DLFC
 60385-0120.....Injector Drain, 9000, 9100, Blank

BLFC #1 INJ, 1.5 DLFC
 56..... 60022-12.....BLFC, 0.125 GPM,
 5000/5600/9000/9100
 60022-25.....BLFC, 0.25 GPM,
 5000/5600/9000/9100
 60022-50.....BLFC, 0.50 GPM,
 5000/5600/9000/9100
 60022-100.....BLFC, 1.0 GPM,
 5000/5600/9000/9100
 1 13333.....

1.....1	16919.....	Valve Body, 9500, Machining	24.....1	15413.....	Fitting, Elbow, Male, 1/2 TX 3/8 NPT
2.....15	16101.....	Seal, 2850, 4500	25.....1	17777-03.....	Body, Injector, 1700
.....	41113	Seal, 2850, 559PE	26.....1	14802-03C.....	Throat, Injector, #3C, Yellow
3.....12	16638.....	Spacer, 9500/2850, Cold & Hot Water	.....	14802-04C.....	Throat, Injector, #4C, Green
.....	16638-02.....	Spacer, 9500/2850, MS1050, Plastic	.....	14802-05C.....	Throat Injector, #5C, White
4.....1	17092.....	Spacer, Disc, 9500	.....	14802-06C.....	Throat Injector, #6C, Red
5.....1	42278-01.....	End Cap, Plastic, 9500	27.....1	14805.....	Gasket, Injector Body
6.....1	16455.....	O-ring, -347	28.....1	14801-03C.....	
7.....4	15331.....	Screw, Hex Washer Head	27 .....	.....	Throat, Injector, #4C, Green
8.....2	17558.....	Disc, Spacer, End Plug	.....		
9.....3	16394.....	O-ring, -029			
10.....1	17110	Piston, 9500, Upper			
11.....2	14309.....	Retainer, Piston Rod			
12.....1	16957.....	Rod, Piston, 9500			
13.....2	16954.....	Plug, End, 9500			
14.....2	13008.....	Retainer, End Plug Seal			
15.....2	10209.....	Quad Ring, -010			
16.....1	14921.....	Link, Piston Rod			
17.....2	11335	Screw, #4-40			
18.....2	17020.....	Screw, STL. Hex Washer, 6-20 x 3/8			
19.....2	13363.....	Washer, Plain, .145 ID S.S.			
20.....1	17111	Piston, 9500, Lower			
21.....1	16956.....	Rod, Piston, Lower, 9500			
22.....1	15019.....	Link, Piston Rod, 9000/9500, 9100			
23.....2	14804.....	Screw, Slotted Hex Head			

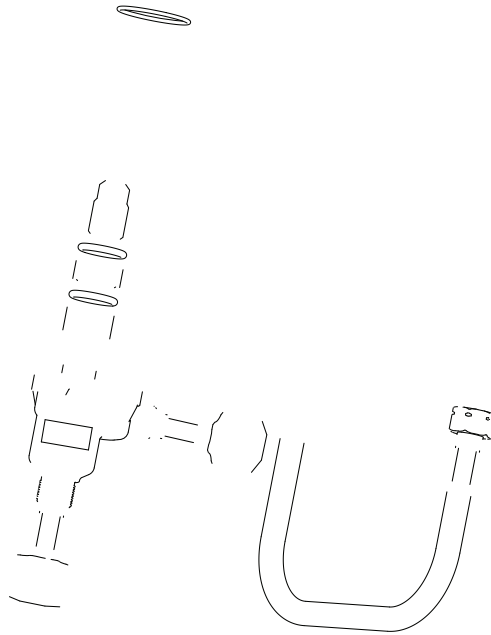
42.....	60108.....	Piston Assy, 9500, Upper	.....	60366-50.....	DLFC, 1"F x 3/4"F, NPT, 5.0 GPM
	 60108-01.....	Piston Assy, 9500, Upper, HW		 60366-60.....	DLFC, 1"F x 3/4"F, NPT, 6.0 GPM
	 60108-02.....	Piston Assy, 9500, Upper, 560CD		 60366-70.....	DLFC, 1"F x 3/4"F, NPT, 7.0 GPM
43.....	60109.....	Piston Assy, 9500, Lower		 60708-00.....	DLFC, 1"F x 3/4"F, NPT, No Button
	 60109-01.....	Piston Assy, 9500, HW, Lower		 60708-8.0.....	DLFC, 1"F x 3/4"F, NPT, 8.0 GPM
	 60109-02.....	Piston Assy, 9500, Lower, 560CD		 60708-9.0.....	DLFC, 1"F x 3/4"F, NPT, 9.0 GPM
44.....	60134.....	Seal & Spacer Kit, 9500, Upper, Hot & Cold		 60708-10.....	DLFC, 1"F x 3/4"F, NPT, 10.0 GPM
	 60134-20.....	Seal & Spacer Kit, 9500, Upper, Plastic Spacers		 60708-12.....	DLFC, 1"F x 3/4"F, NPT, 12.0 GPM
	 60134-30.....	Seal & Spacer Kit, 9500, Upper, Plastic Spacers, Chemical Resistent Seals		 60708-15.....	DLFC, 1"F x 3/4"F, NPT, 15.0 GPM
45.....	60133-01.....	Seal & Spacer Kit, 9500, Lower, Hot & Cold		 60721-00.....	DLFC, 1"F x 1"F, NPT, No Button
	 60133-20.....	Seal & Spacer Kit, 9500, Lower, Plastic Spacers		 60721-06.....	DLFC, 1"F x 1"F, NPT, 0.06 GPM
	 60133-30.....	Seal & Spacer Kit, 9500, Upper, Plastic Spacers, Chemical Resistent Seals		 60721-08.....	DLFC, 1"F x 1"F, NPT, 0.08 GPM
46.....	60381-03.....	Injector Assy, 1700, #3C		 60721-10.....	DLFC, 1"F x 1"F, NPT, 1.0 GPM
	 60381-04.....	Injector Assy, 1700, #4C		 60721-12.....	DLFC, 1"F x 1"F, NPT, 1.2 GPM
	 60381-05.....	Injector Assy, 1700, #5C		 60721-13.....	DLFC, 1"F x 1"F, NPT, 1.3 GPM
	 60381-06.....	Injector Assy, 1700, #6C		 60721-15.....	DLFC, 1"F x 1"F, NPT, 1.5 GPM
47.....	60480-00.....	Injector Assy, 1600, #0, Plastic		 60721-00.....	DLFC, 1"F x 1"F, NPTF, No Button
	 60480-01.....	Injector Assy, 1600, #1, Plastic		 60721-17.....	DLFC, 1"F x 1"F, NPTF, 1.7 GPM
	 60480-02.....	Injector Assy, 1600, #2, Plastic		 60721-20.....	DLFC, 1"F x 1"F, NPTF, 2.0 GPM
	 60480-03.....	Injector Assy, 1600, #3, Plastic		 60721-24.....	DLFC, 1"F x 1"F, NPTF, 2.4 GPM
	 60480-04.....	Injector Assy, 1600, #4, Plastic		 60721-30.....	DLFC, 1"F x 1"F, NPTF, 3.0 GPM
	 60481-21.....	Injector Assy, 1600, #1, S.S. Brass, HW		 60721-35.....	DLFC, 1"F x 1"F, NPTF, 3.5 GPM
	 60481-22.....	Injector Assy, 1600, #2, S.S. Brass, HW		 60721-40.....	DLFC, 1"F x 1"F, NPTF, 4.0 GPM
	 60481-23.....	Injector Assy, 1600, #3, S.S. Brass, HW		 60721-45.....	DLFC, 1"F x 1"F, NPTF, 4.5 GPM
	 60080-11.....	Injector Assy, 1600, #1, PVC		 60721-50.....	DLFC, 1"F x 1"F, NPTF, 5.0 GPM
	 60080-12.....	Injector Assy, 1600, #2, PVC		 60721-60.....	DLFC, 1"F x 1"F, NPTF, 6.0 GPM
	 60080-14.....	Injector Assy, 1600, #4, PVC		 60721-70.....	DLFC, 1"F x 1"F, NPTF, 7.0 GPM
	 60366-00.....	DLFC, 1"F x 3/4"F, NPT, No Button		 60702-00.....	DLFC, 1"M x 1"F, NPT, Brass, No Button
	 60366-06.....	DLFC, 1"F x 3/4"F, NPT, 0.6 GPM		 60702-8.0.....	DLFC, 1"M x 1"F, NPT, 8.0 GPM
	 60366-08.....	DLFC, 1"F x 3/4"F, NPT, 0.8 GPM		 60702-9.0.....	DLFC, 1"M x 1"F, NPT, 9.0 GPM
	 60366-10.....	DLFC, 1"F x 3/4"F, NPT, 1.0 GPM		 60702-10.....	DLFC, 1"M x 1"F, NPT, 10 GPM
	 60366-12.....	DLFC, 1"F x 3/4"F, NPT, 1.2 GPM		 60702-12.....	DLFC, 1"M x 1"F, NPT, 12 GPM
	 60366-13.....	DLFC, 1"F x 3/4"F, NPT, 1.3 GPM		 60702-15.....	DLFC, 1"M x 1"F, NPT, 15 GPM
	 60366-15.....	DLFC, 1"F x 3/4"F, NPT, 1.5 GPM			
	 60366-17.....	DLFC, 1"F x 3/4"F, NPT, 1.7 GPM			
	 60366-20.....	DLFC, 1"F x 3/4"F, NPT, 2.0 GPM			
	 60366-24.....	DLFC, 1"F x 3/4"F, NPT, 2.4 GPM			
	 60366-30.....	DLFC, 1"F x 3/4"F, NPT, 3.0 GPM			
	 60366-35.....	DLFC, 1"F x 3/4"F, NPT, 3.5 GPM			
	 60366-40.....	DLFC, 1"F x 3/4"F, NPT, 4.0 GPM			
	 60366-45.....	DLFC, 1"F x 3/4"F, NPT, 4.5 GPM			

1.....1 16960.....Tube, Brine Valve
1 16960.....Tube, Brine Valve, HW
2.....1 10329.....Fitting, Tube, 3/8 Nut, Brass
..... 18698.....Nut, 3/8" TUBE, W/Sleeve, HW
3.....1 10330.....Fitting, Sleeve, 3/8 Celcon
4.....1 10332.....

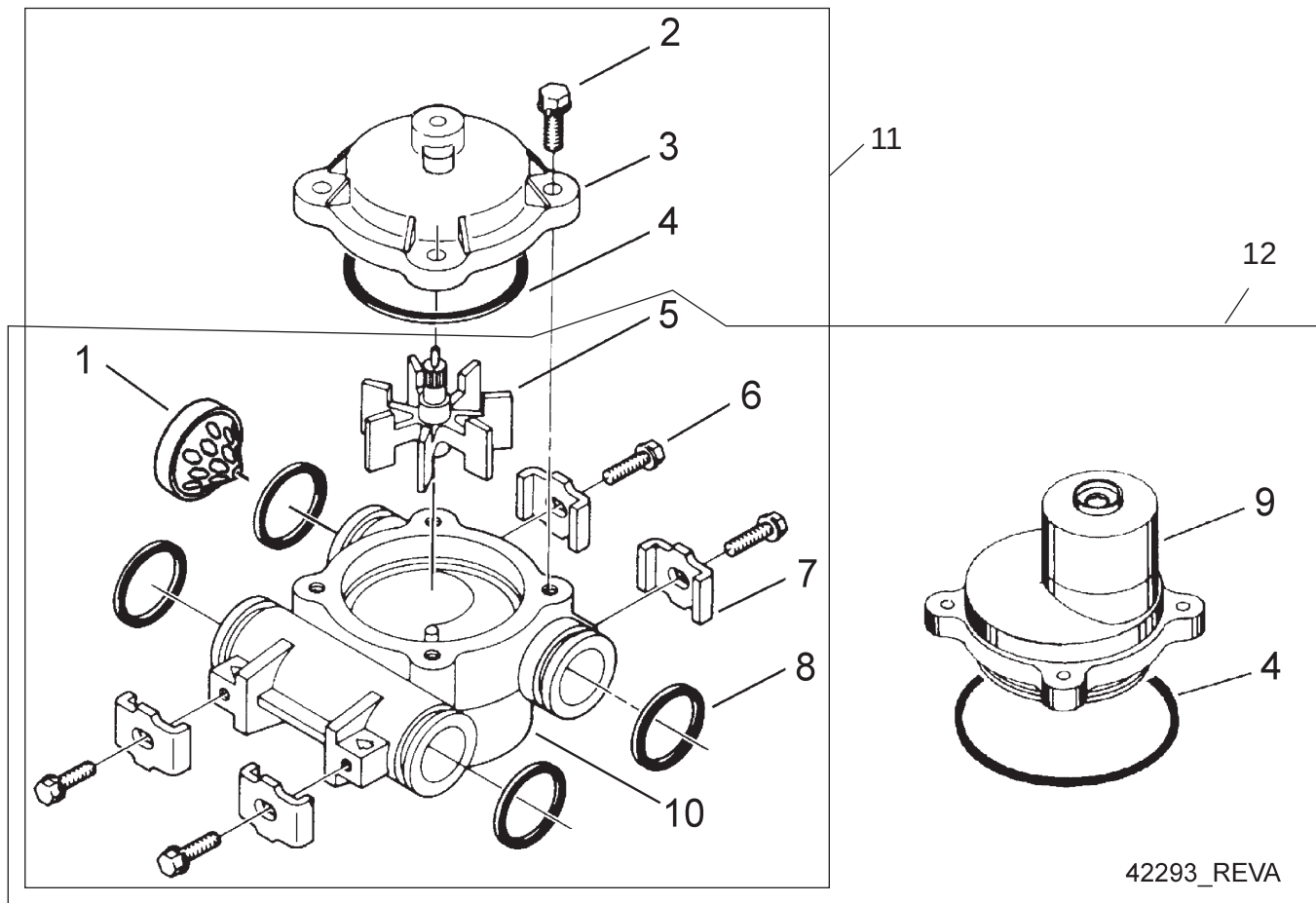


60039_REVA

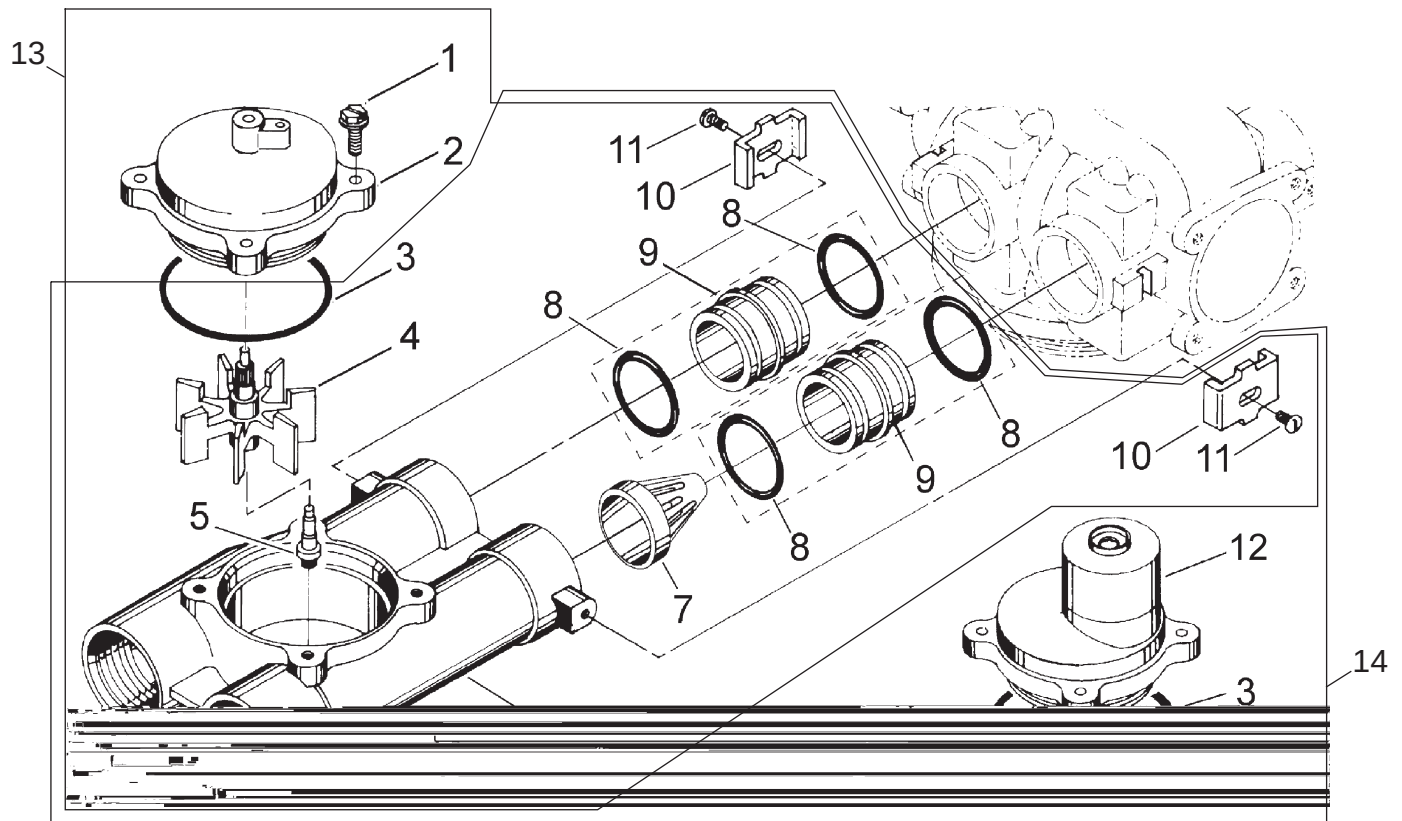
1.....1	14792.....	Plug, End, Brine Valve	21.....	60039-10.....	Brine Valve Assy. 9500/1700 1.0 GPM
2.....1	13201.....	Quad Ring, -020		60039-12.....	Brine Valve Assy. 9500/1700 1.2 GPM
	13201-01.....	Quad Ring, -20, 560CD		60039-15.....	Brine Valve Assy. 9500/1700 1.5 GPM
3.....1	12550.....	Quad Ring, -009		60039-20.....	Brine Valve Assy. 9500/1700 2.0 GPM
	12550-01.....	Quad Ring, -009, 560CD		60039-24.....	Brine Valve Assy. 9500/1700 2.4 GPM
4.....1	14785-01.....	Retainer, Flow Control		60039-30.....	Brine Valve Assy. 9500/1700 3.0 GPM
5.....2	14811	O-ring, -210, 560CD, Brine		60039-50.....	Brine Valve Assy. 9500/1700 5.0 GPM
6.....1	14795.....	Piston, Brine Valve		60039-00.....	Brine Valve Assy. 9500/1700 Blank
7.....1	16929.....	Brine Valve Stem, Coated			
8.....1	15415.....	Fitting, Insert, 1/2" Tube	22.....	12097	Washer, Flow, 1.0 GPM
9.....1	16124.....	Fitting, Sleeve, Delrin		12085.....	Washer, Flow, 1.2 GPM
10.....1	16123.....	Nut, Brass		19150.....	Washer, Flow, 1.3 GPM
11.....1	15137	Screw, Hex Washer Mach, 10-24 x 3/8		12086.....	Washer, Flow, 1.5 GPM
12.....1	10269.....	Nut, Jam, 3/4 - 16		19149.....	Washer, Flow, 1.7 GPM
13.....1	16922.....	Bracket, Brine Valve Mounting		12087.....	Washer, Flow, 2.0 GPM
14.....2	10250.....	Ring, Retaining		12088.....	Washer, Flow, 2.4 GPM
15.....1	15310.....	Spring, Brine Valve		12089.....	Washer, Flow, 3.0 GPM
16.....2	14790.....	Brine Valve Body		12090.....	Washer, Flow, 3.5 GPM
17.....1	14798.....	Spacer, 1700, Brine		12091.....	Washer, Flow, 4.0 GPM
18.....1	15414.....	Nut, 2900, w/Sleeve		19147.....	Washer, Flow, 4.5 GPM
19.....1	15413.....	Fitting, Elbow, Male, 1/2T x 3/8 NPT		12092.....	Washer, Flow, 5.0 GPM
20.....1	16959.....	Tube, Brine 9500/1710, 10.6"		17814.....	Washer, Flow, 6.0 GPM
	16959-01.....	Tube, Brine Valve 9500/1710, CPVC, Hot Water		12408.....	Washer, Flow, 7.0 GPM



- 1.....1 41202.....Brine Valve, 1700, Plastic, Top
- 2.....1 14785-01.....Retainer, Flow Control
- 3.....2 14811.....O-ring, -210, 560CD, Brine
- 4.....1 14798.....Spacer, 1700, Brine
- 5.....1 14795.....Piston, Brine Valve
- 6.....1 41429.....Stem, Brine, 1710, Plastic, 9500
- 7.....1 41201.....Brine Valve, 1700, Plastic, Bottm
- 8.....1 12550.....Ring, Quad, -009
- 9.....1 17908.....Sleeve, Brine Valve Stem
- 10.....1 41547.....O-ring, 2mm x 35mm
- 11.....1 15310.....Spring, Brine Valve
- 12.....1 10250.....Ring, Retaining
- 13.....1 17906-01.....Guide, Brine Valve Stem
- 14.....4 14202-01.....Screw, Hex Washer, Mach, 8-32
x 5/16"
- 15.....2 41056.....Nut Assy, 1/2" Plastic
- 16.....1 41493-XX.....Label, BLFC, 1710 (Specify
GPM)
- 17.....1 Washer, Flow (Specify GPM)
- 18.....3 15415.....Fitting, Insert, 1/2", Tube
- 19.....1 15414.....Nut, 2900, w/Sleeve
- 20.....1 16959.....Tube, Brine 9500/1700, 10.6"

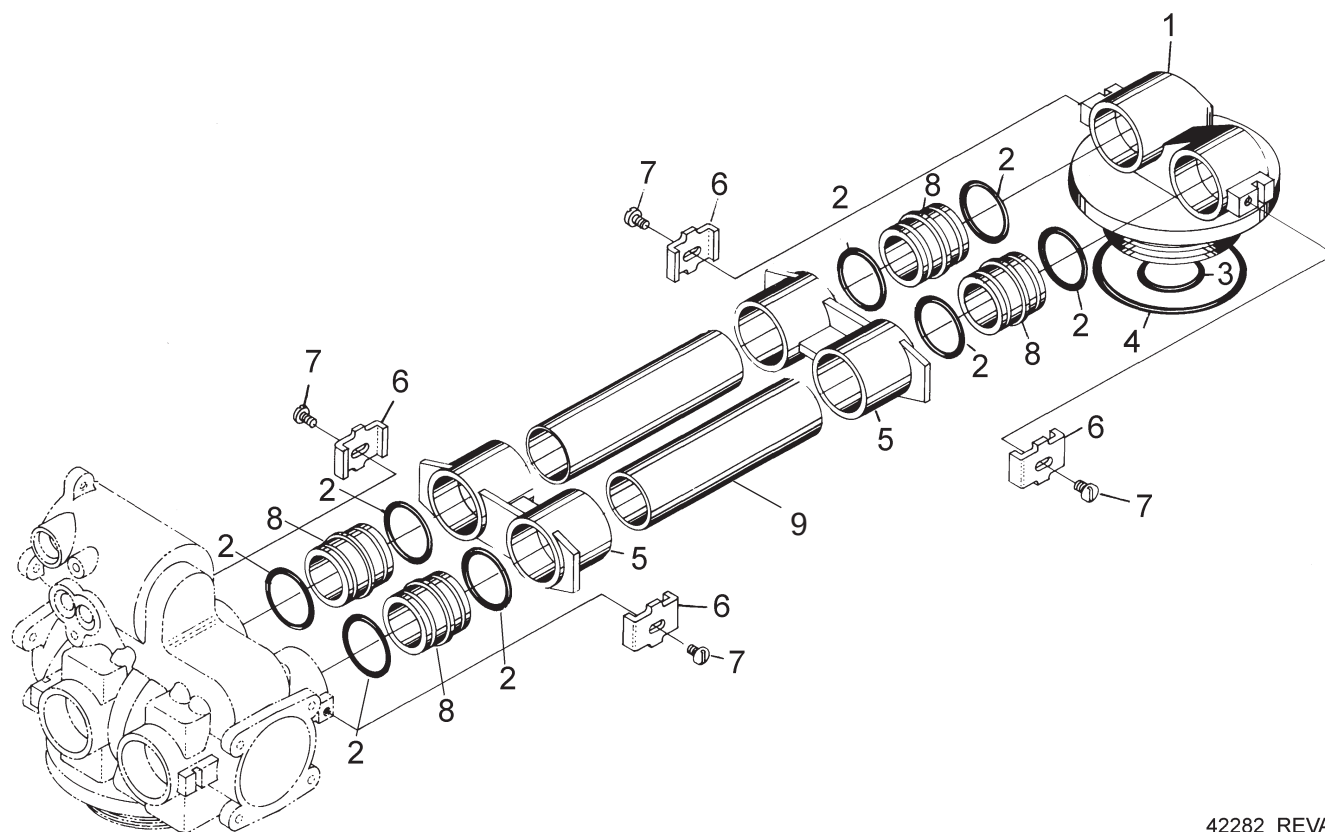


- 1.....1 14613.....Flow Straightener
- 2.....4 12473.....Screw, Hex Washer, 10-24 x 5/8
- 3.....1 14038.....Meter Cap Assy, STD, Plastic
- 4.....1 13847.....O-ring, -137, Std/560CD, Meter
- 5.....1 13509.....Impeller, Meter
- 6.....4 13314.....Screw, Slot Ind Hex, 8-18 x .60
- 7.....4 13255.....Clip, Mounting
- 8.....4 13305.....O-ring, -119
- 9.....1 15150.....Meter Cap Assy, EXT, Plastic
Paddle
- 10.....1 13821.....Body, Meter, 5600
- 11.....1 60086.....Meter Assy, 3/4" Dual Port, Slip,
STD, Plastic, Paddlewheel, w/
Clips
- 12.....1 60087.....Meter Assy, 3/4" Dual Port, Slip,
EXT, Plastic, Paddlewheel, w/
Clips



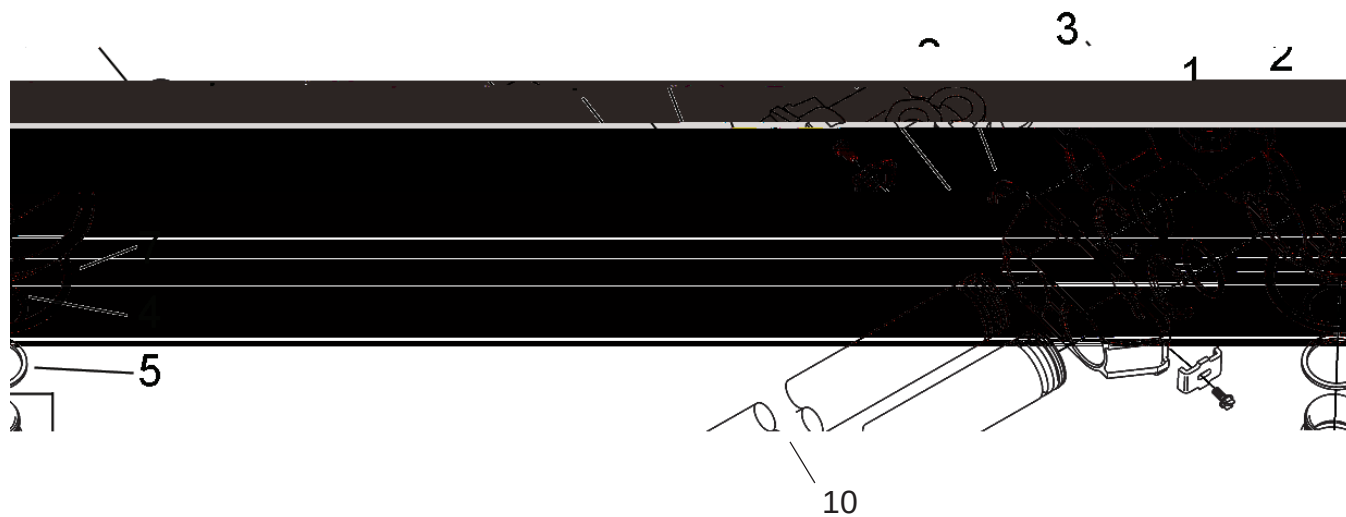
1.....	4.....	12112.....	Screw, Hex Hd Mach 10-24 x 1/2	.....	60389-001.....	Meter Assy, 1" Dual Port, NPT, STD, BRS BDY, 560CD, PDL, W/CLPS
2.....	1.....	15218.....	Meter Cap Assy, Brass, Standard	.....	60389-001NP.....	Meter Assy, 1" Dual Port, NPT, STD, BRS BDY, 560CD, PDL, W/CLPS
		14038.....	Meter Cap Assy, Standard	.....	60389NP.....	Meter Assy, 1" Dual Port, NPT, STD, BRS BDY, NP, PDL, W/CLPS
3.....	1.....	13847.....	O-ring, -137, STD/560CD, Meter	.....	60612.....	Meter Assy, 1" Dual Port, NPT, STD, BRS, HW, PDL
4.....	1.....	13509.....	Impeller, Meter	.....	60612NP.....	Meter Assy, 1" Dual Port, NPT, STD, BRS, HW, NP, PDL
		13509-01.....	Impeller, Celcon	.....	61575.....	Meter Assy, 1" Dual Port, NPT, STD, BRS BDY, PDL, W/O CLP & SCW
5.....	1.....	13882.....	Post, Meter Impeller	.....	60389-20.....	Meter Assy, 1" Dual Port, BSP/Metric, STD, BRS BDY, PDL, W/CLPS
6.....	1.....	15043.....	Body, Meter, 9000 1"	.....	60390-20.....	Meter Assy, 1" Dual Port, BSP/Metric, EXT, BRS BDY, PDL, W/CLPS
7.....	1.....	14960.....	Flow Straightener, 1"	.....	60632-20.....	Meter Assy, 1" Dual Port, BSP/Metric, EXT, BRS, HW, PDL
8.....	4.....	13305.....	O-ring, -119	.....	60612-20.....	Meter Assy, 1" Dual Port, BSP/Metric, STD, BRS, HW, PDL
9.....	2.....	15078.....	Adapter, 1" Coupling			
10.....	2.....	13255.....	Clip, Mounting			
11.....	2.....	14202-01.....	Screw, Hex Washer Mach, 8-32 x 5/16			
12.....	1.....	15150.....	Meter Cap Assy, Ext, Plastic Paddle			
		15237.....	Meter Cap Assy, Ext, Brass Paddle			
13.....		60390.....	Meter Assy, 1" Dual Port, NPT, EXT, BRS BDY, PDL, W/CLPS			
		60390-001.....	Meter Assy, 1" Dual Port, NPT, EXT, BRS BDY, 560CD, PDL, W/CLPS			
		60390NP.....	Meter Assy, 1" Dual Port, NPT, EXT, BRS BDY, NP, PDL, W/CLPS			
		60632.....	Meter Assy, 1" Dual Port, NPT, EXT, BRS, HW, PDL			
		60632NP.....	Meter Assy, 1" Dual Port, NPT, EXT, BRS, HW, NP, PDL			
		60389.....	Meter Assy, 1" Dual Port, NPT, STD, BRS BDY, PDL, W/CLPS			

1.....1	17569.....	Body, Meter, 2850/9500
2.....1	13882.....	Post, Meter Impeller
3.....1	13509.....	Impeller, Meter
1	13509-01.....	Impeller, Celcon, Hot Water
4.....1	13847.....	O-Ring, -137, Std/560CD, Meter
5A.....1	14038.....	Meter Cap Assy, STD Range, Plastic
5B.....1	15150.....	Meter Cap Assy, Ext Range, Plastic
6.....4	12112.....	Screw, Hex Hd Mach, 10-24 x 1/2 18-8 Stainless Steel
7.....1	17542.....	Flow Straightener, 1-1/2"
8.....1	12733.....	O-Ring, -132
9.....1	17544.....	Fitting, 1-1/2" Quick Connector
10.....1	17543.....	Nut, 1-1/2", Q/C
11.....	60610-01.....	Meter Assy, 1-1/2", NPT, STD, Brass, Paddlewheel
.....	60610-21.....	Meter Assy, 1-1/2", BSP, STD, Brass, Paddlewheel
12.....	60610-02.....	Meter Assy, 1-1/2", NPT, STD, Brass Paddlewheel
.....	60610-22.....	Meter Assy, 1-1/2", BSP, EXT, Brass, Paddlewheel
1	17790.....	Sleeve, Meter, 1 1/2" x 1"
1	15218.....	Meter Cap Assy, STD Range, Brass, Hot Water
1	15237.....	Meter Cap Assy, EXT Range, Brass, Hot Water
.....		Sleeve, Meter, 1.5" x 1"

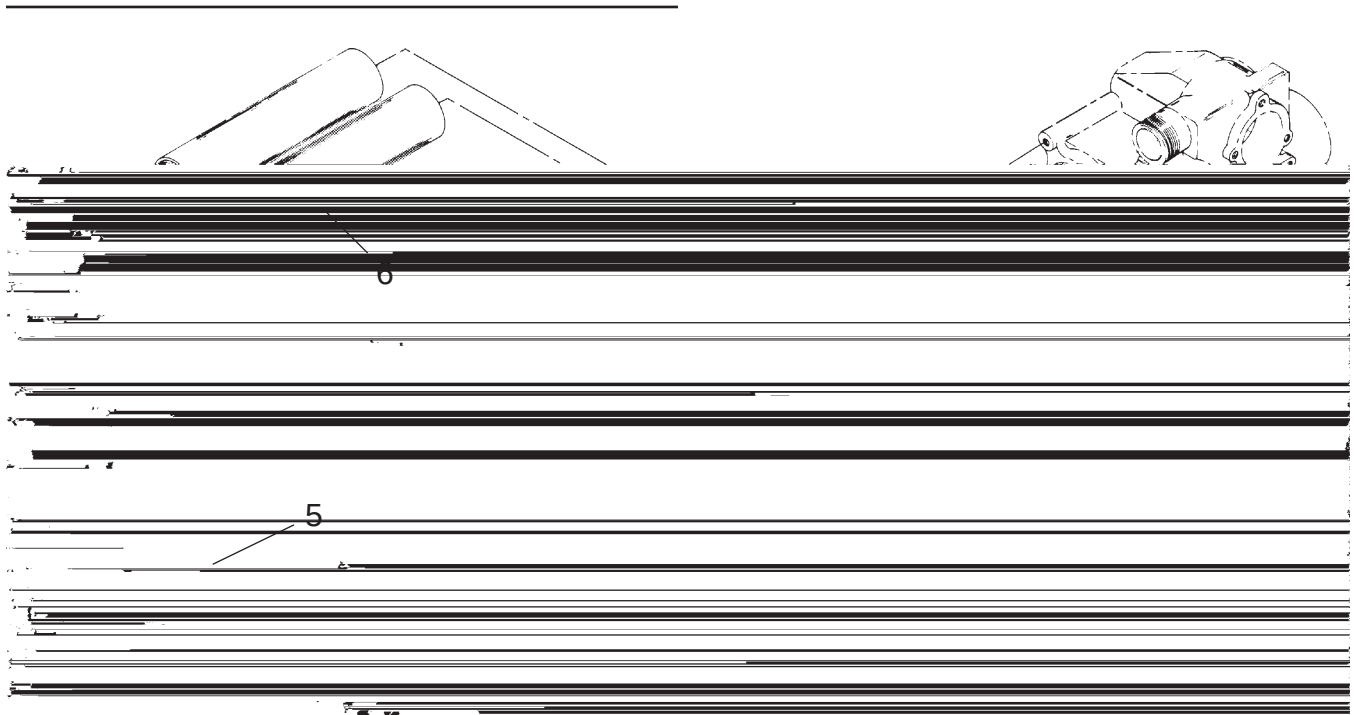


42282_REVA

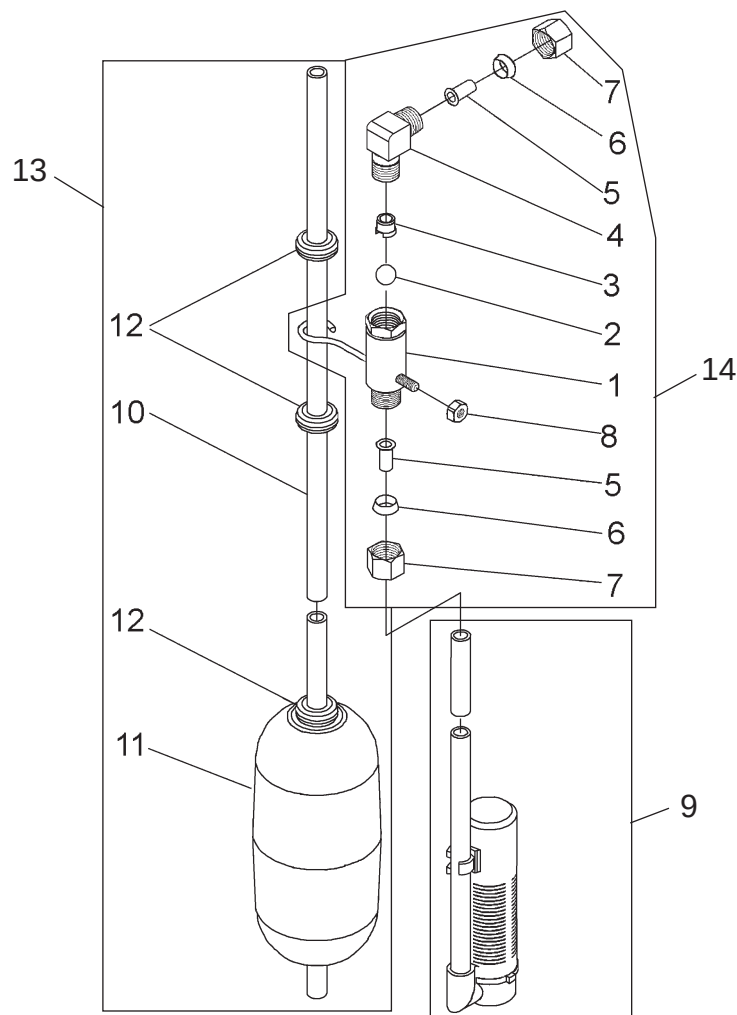
1.....1	14864-01.....	Adapter, 9000, 2nd Tank, Machd w/O-rings
2.....8	13305.....	O-ring, -119
3.....1	11710.....	O-ring, -215
4.....1	12281.....	O-ring, -338
5.....2	13708-40.....	Yoke, 1" Sweat
.....1	15823-XX.....	Yoke Assy. Specify Tank Size
6.....4	13255.....	Clip, Mounting
7.....4	14202-01.....	Screw, Hex Washer Mach, 8-32 x 5/16
8.....4	15078.....	Adapter, 1" Coupling
9.....	15823-06.....	9000 Tube Assy, 6" Dia. Tank Only (Overall Length 7.25)
.....	15823-06NP.....	9000 Tube Assy, 6" Dia. Tank Only (Overall Length 7.25)
.....	15823-12.....	9000 Tube Assy, 6" to 12" Dia. Tank (Overall Length 9.75)
.....	15823-12NP.....	9000 Tube Assy, 6" to 12" Dia. Tank (Overall Length 9.75)
.....	15823-14.....	9000 Tube Assy, 14" Dia. Tank (Overall Length 11.75)
.....	15823-14NP.....	9000 Tube Assy, 14" Dia. Tank (Overall Length 11.75)
.....	15823-16.....	9000 Tube Assy, 16" Dia. Tank (Overall Length 13.75)
.....	15823-16NP.....	9000 Tube Assy, 16" Dia. Tank (Overall Length 13.75)



1.....4	40678.....	Ring, 9100, Yoke Retainer
2.....4	13287.....	O-ring, -123
3.....1	14865.....	Adapter Assy, 2nd Tank, 9100
4.....1	19054.....	O-ring, -124
5.....1	40538.....	Retainer, 32mm, O-ring Dist, 7000
6.....1	61419.....	Kit, 1.05" Distributor, Adapter
7.....1	18303.....	O-ring, -336
8.....4	13255.....	Clip, Mounting
9.....4	14202-01.....	Screw, Hex Washer Mach, 8-32 x 5/16
10.....	60425-9.....	Tube Assy, 9100 8-9" Tank
	 60425-12.....	Tube Assy, 9100 6-12" Tank
	 60425-16.....	Tube Assy, 9100 13-16" Tank

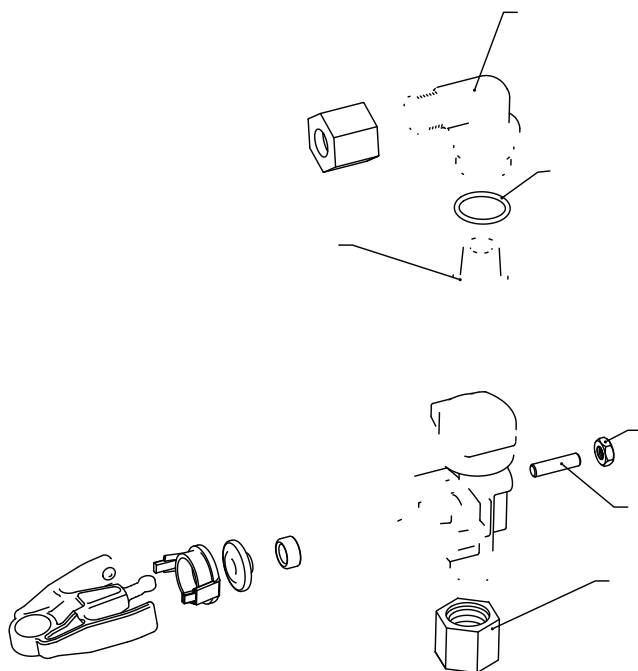


- 1.....1 13577O-ring, -226
- 2.....1 16455O-ring, -347
- 3.....8 10231Screw, Slot Hex, 1/4 - 20 x 1/2
- 4.....4 17224O-ring, -224
- 5.....1 16916-01.....Adapter, 9500, 2nd Tank, NPT
 16916-21.....Adapter, 9500, 2nd Tank, Metric
 16916-01NP.....Adapter, 9500, 2nd Tank, NPT,
 Nickel Plated
- 6.....17465-16.....Tube Assy, 2nd Tank, 16" 9500
 17465-16NP.....Tube Assy, 2nd Tank, 16" 9500
 Nickel Plated
 17465-20.....Tube Assy, 2nd Tank, 20" 9500
 17465-24.....Tube Assy, 2nd Tank, 24" 9500
 17465-24NP.....Tube Assy, 2nd Tank, 24" 9500
 Nickel Plated

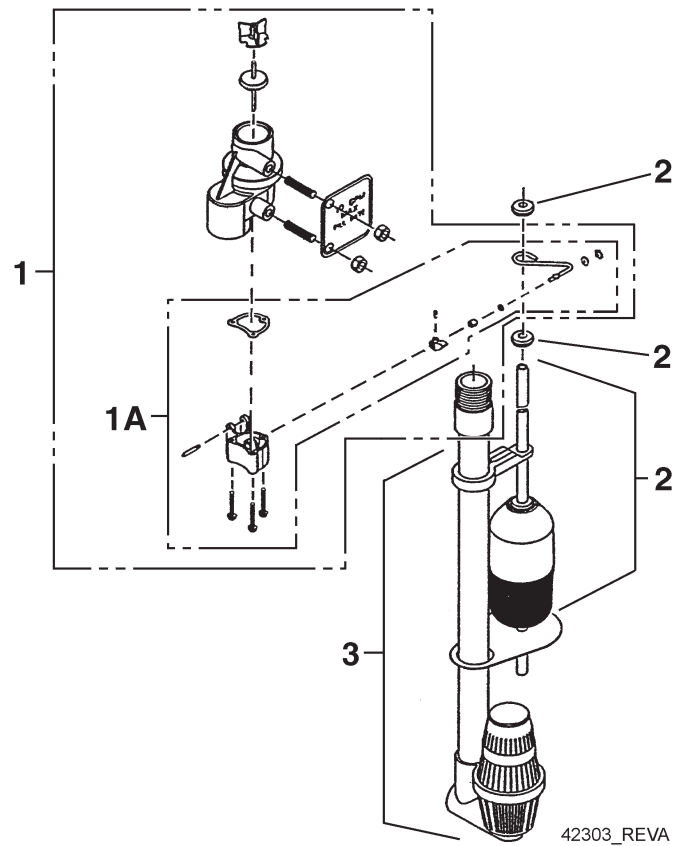


60027 Rev D

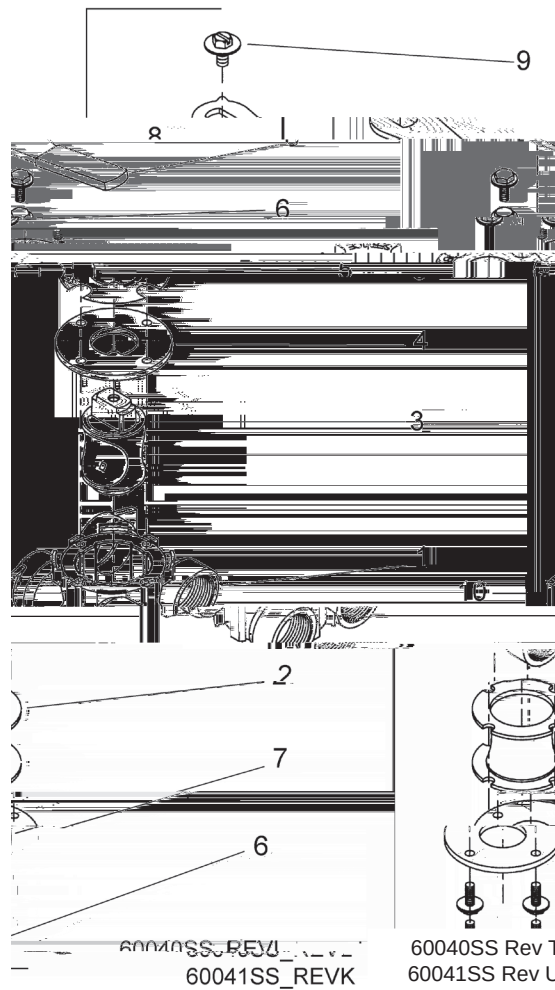
1.....1	60027-00.....	Safety Brine Valve, 2300, Less Elbow
2.....1	10138.....	Ball, 3/8", Brass
3.....1	11566	Ball Stop, Slow Fill
4.....1	10328.....	Fitting, Elbow, 90 Deg. 1/4 NPT x 3/8 Tube
5.....1	10332.....	Fitting, Insert, 3/8
6.....1	10330	Fitting, Sleeve, 3/8 Celcon
7.....1	10329	Fitting, Tube, 3/8 Nut, Brass
8.....1	10186.....	Nut, Hex, 10-32
9.....1	60002-10.....	Air Check, #500, American Hydro
	 60002-11.38.....	Air Check, #500, 11.38" Long
	 60002-24.....	Air Check, #500, 24" Long
	 60002-27.....	Air Check, #500, 27" Long
	 60002-32.....	Air Check, #500, 32" Long
	 60002-34.....	Air Check, #500, 34" Long
	 60002-36.....	Air Check, #500, 36" Long
	 60002-48.....	Air Check, #500, 48" Long
	 60002-26.25.....	Air Check, #500, 26.25" Long
	 60002-33.25.....	Air Check, #500, 33.25" Long
10.....1	10149.....	Rod, Float, 30"
11.....1	10700.....	Float Assy, White
12.....3	10150.....	Grommet, .30 Dia
13.....1	60028-30.....	Float Assy, 2300, 30" White
14.....1	60027-FFA.....	Safety Brine Valve, 2300, Fitting Facing Arm
1	60027-FFS.....	Safety Brine Valve, 2300 Fitting Facing Stud



1.....	1	19645.....	Body, Safety Brine Valve, 2310
2.....	1	19803.....	Safety Brine Valve Assy
3.....	1	19804.....	Screw, Sckt Hd, Set, 10-24 x .75
4.....	1	19805.....	Nut, Hex, 10-24, Nylon Black
5.....	1	19652-01.....	Poppet Assy, SBV w/O-ring
6.....	1	19649.....	Flow Dispenser
7.....	1	11183	O-ring, -.017
8.....	1	19647.....	Elbow, Safety Brine Valve
9.....	2	19625.....	Nut Assy, 3/8" Plastic
10.....	1	18312.....	Retainer, Drain
11.....	1	60014.....	Safety Brine Valve Assy, 2310
12.....	2	10150.....	Grommet, .30 Dia
13.....	1	60068-8.06.....	Float Assy, 2310, w/8.06" Rod
		60068-10.5.....	Float Assy, 2310, w/10.5" Rod
		60068-11.5.....	Float Assy, 2310, w/11.5" Rod
		60068-20.....	Float Assy, 2310, w/20" Rod
		60068-30.....	Float Assy, 2310, w/30" Rod

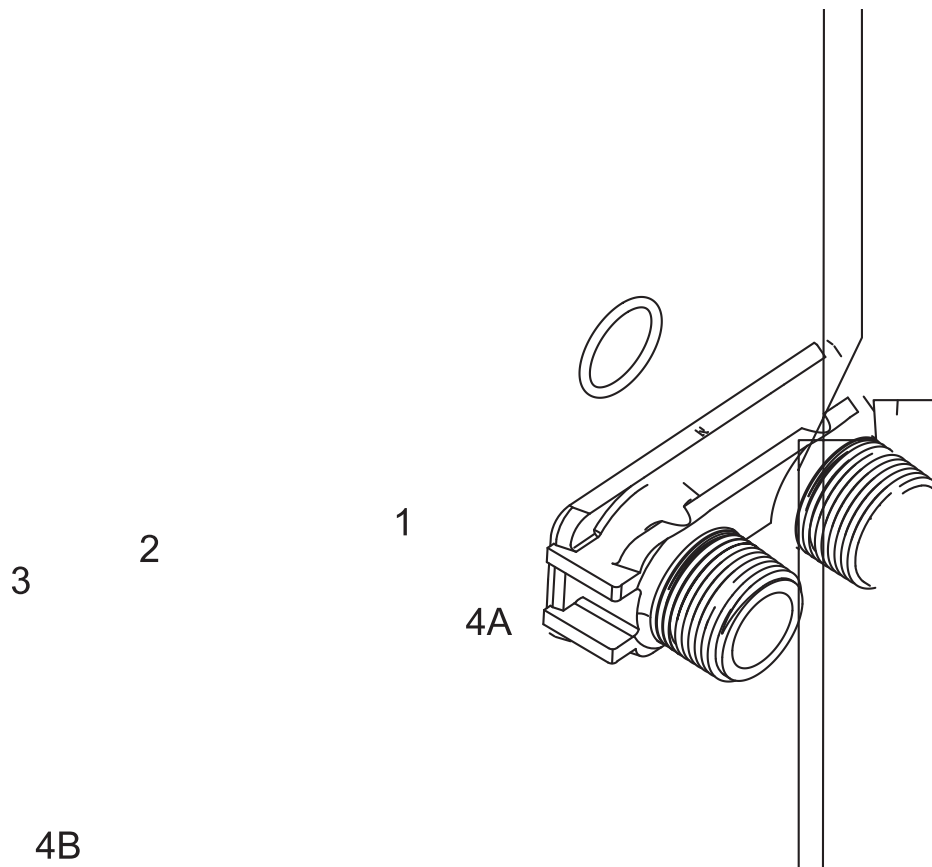


- 1.....1 60038.....Safety Brine Valve, 2350
- 1A1 61024.....Actuator Assy, 2350 Brine
- 2.....1 60028-30.....Float Assy, 2350, 30" Wht
-1 60026-30SAN ...Float Assy, 2350, 30" Hot Water
- 3.....1 60009-00.....Air Check, #900, Commercial
Less Fittings
-1 60009-01.....Air Check, #900, Commercial,
Hot Water Less Fittings
-1 18603.....Fitting Assy, 900 Air Check 2350
-1 18602.....Fitting Assy, 900 Air Check



- 1.....1 40614.....Bypass Body, 3/4"
- 40634.....Bypass Body, 1", SS
- 2.....1 14105.....Seal, Bypass, 560CD
- 3.....1 11972Plug, Bypass
- 4.....1 11978Side Cover
- 5.....1 13604-01.....Label
- 6.....8 15727Screw, 10-24 x 0.5"
- 7.....1 11986Side Cover
- 8.....1 11979Lever, Bypass
- 9.....1 11989Screw, Hex Head, 1/4-14 x 1.5"
- 10.....1 60040SSBypass Valve, 5600, 3/4" NPT
Blk Grip Lever, SS
- 60041SSBypass Valve, 5600, 1" NPT Blk
Grip Lever, SS
- *2 19228-01.....Adapter Assy, Coupling,
w/O-rings

*Not Shown



1.....	2	13305.....	O-ring, -119
2.....	2	13255.....	Clip, Mounting
3.....	2	13314.....	Screw, Slot Ind Hex, 8-18 x .60
4A	1	18706.....	Yoke, 1", NPT, Plastic
		18706-02.....	Yoke, 3/4", NPT, Plastic
4B	1	13708-40.....	Yoke, 1", Sweat
		13708-45.....	Yoke, 3/4", Sweat
		19275.....	Yoke, Angle 90 Deg, 3/4", NPT
		19275-45.....	Yoke, Angle 90 Deg, 3/4" Sweat
		19620-01.....	Yoke Assy, 3/4", R/Angle, 90 Deg w/O-rings, Clips & Screws
		40636.....	Yoke, 1 1/4", NPT
		40636-49.....	Yoke, 1 1/4", Sweat
		41027-01.....	Yoke, 3/4", NPT, Cast, Machined
		41026-01.....	Yoke, 1", NPT, Cast, Machined, SS
		41026-02.....	Yoke, 1", BSP, Cast, MACHD, SS
		18706-10.....	Yoke, 1", BSP, Plastic
		41027-02.....	Yoke, 3/4", BSP, Cast, MACHD
		18706-12.....	Yoke, 3/4", BSP, Plastic
		19620-01.....	Yoke Assy, 3/4", R/Angle, 90 Deg
5.....	1	60049.....	Bypass Plastic
*	2	19228-01.....	Adapter Assy, Coupling, w/O-rings

*Not Shown

Reserve capacity has been exceeded.

Check salt dosage requirements and reset program wheel to provide additional reserve.

Program wheel is not rotating with meter output.

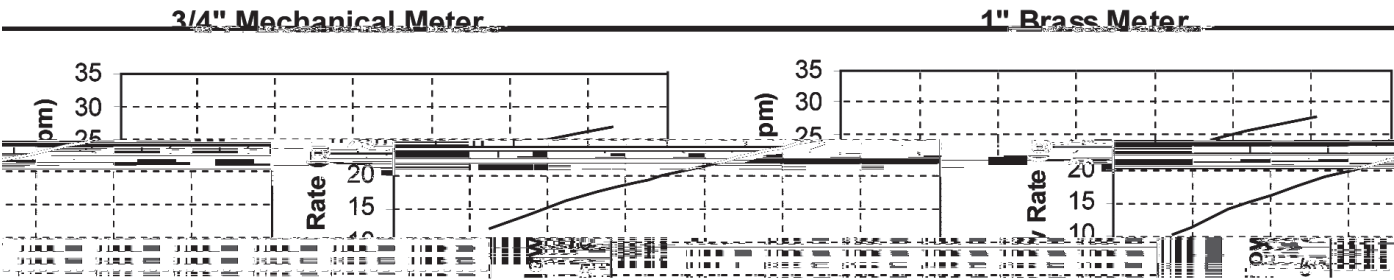
Pull cable out of meter cover and rotate manually. Program wheel must move without binding and clutch must give positive clicks when program wheel strikes regeneration stop. If it does not, replace timer.

Meter is not measuring flow.

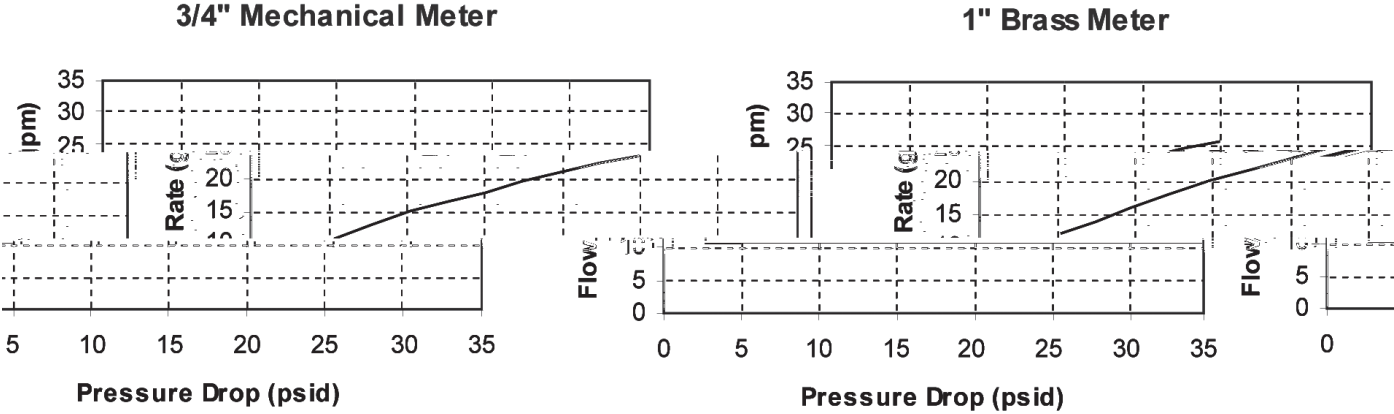
Check meter with meter checker.

Water conditioner fails to regenerate.	Electrical service to unit has been interrupted	Assure permanent electrical service (check fuse, plug, pull chain, or switch)
	Timer is defective.	Replace timer.
	Power failure.	Reset time of day.
Hard water.	By-pass valve is open.	Close by-pass valve.
	No salt is in brine tank.	Add salt to brine tank and maintain salt level above water level.
	Injector screen plugged.	Clean injector screen.
	Insufficient water flowing into brine tank.	Check brine tank fill time and clean brine line flow control if plugged.
	Hot water tank hardness.	Repeated flushings of the hot water tank is required.
	Leak at distributor tube.	Make sure distributor tube is not cracked. Check O-ring and tube pilot.
	Internal valve leak.	Replace seals and spacers and/or piston.
Unit used too much salt.	Improper salt setting.	Check salt usage and salt setting.
	Excessive water in brine tank.	See "Excessive water in brine tank".
Loss of water pressure.	Iron buildup in line to water conditioner.	Clean line to water conditioner.
	Iron buildup in water conditioner.	Clean control and add mineral cleaner to mineral bed. Increase frequency of regeneration.
	Inlet of control plugged due to foreign material broken loose from pipes by recent work done on plumbing system.	Remove piston and clean control.
Loss of mineral through drain line.	Air in water system.	Assure that well system has proper air eliminator control. Check for dry well condition.
	Improperly sized drain line flow control.	Check for proper drain rate.
Iron in conditioned water.	Fouled mineral bed.	Check backwash, brine draw, and brine tank fill. Increase frequency of regeneration. Increase backwash time.
Excessive water in brine tank.	Plugged drain line flow control.	Clean flow control.
	Plugged injector system.	Clean injector and screen.
	Timer not cycling.	Replace timer.
	Foreign material in brine valve.	Replace brine valve seat and clean valve.
	Foreign material in brine line flow control.	Clean brine line flow control.
Softener fails to draw brine.	Drain line flow control is plugged.	Clean drain line flow control.
	Injector is plugged.	Clean injector
	Injector screen plugged.	Clean screen.
	Line pressure is too low.	Increase line pressure to 20 psi
	Internal control leak	Change seals, spacers, and piston assembly.
	Service adapter did not cycle.	Check drive motor and switches.
Control cycles continuously.	Misadjusted, broken, or shorted switch.	Determine if switch or timer is faulty and replace it, or replace complete power head.
Drain flows continuously.	Valve is not programming correctly.	Check timer program and positioning of control. Replace power head assembly if not positioning properly.
	Foreign material in control.	Remove power head assembly and inspect bore. Remove foreign material and check control in various regeneration positions.
	Internal control leak.	Replace seals and piston assembly.

9000 Meter Flow Data

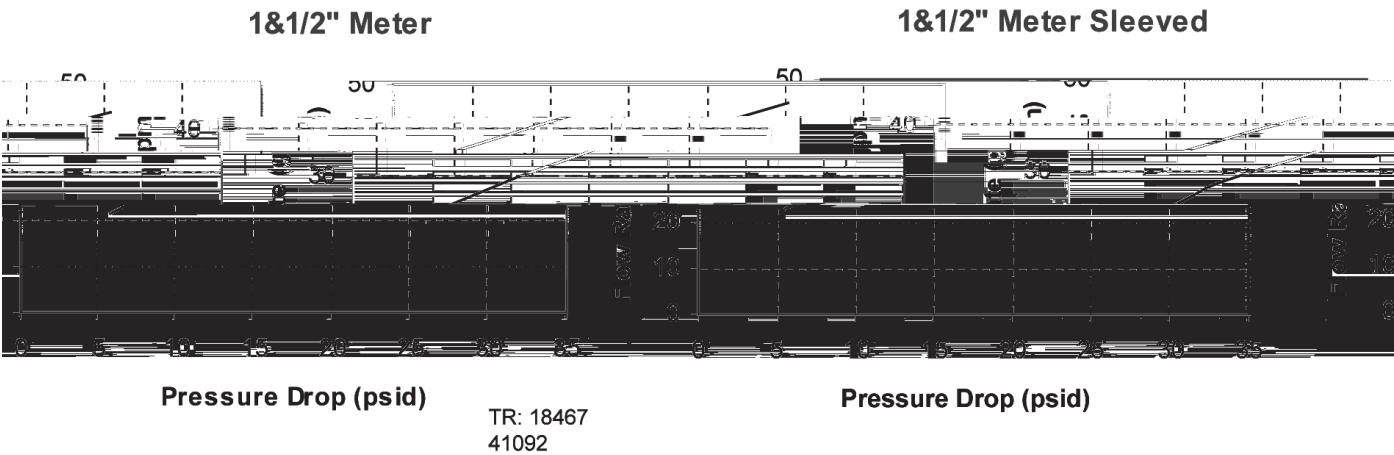


9100 Meter Flow Data

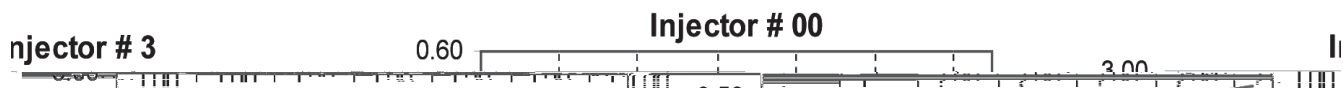
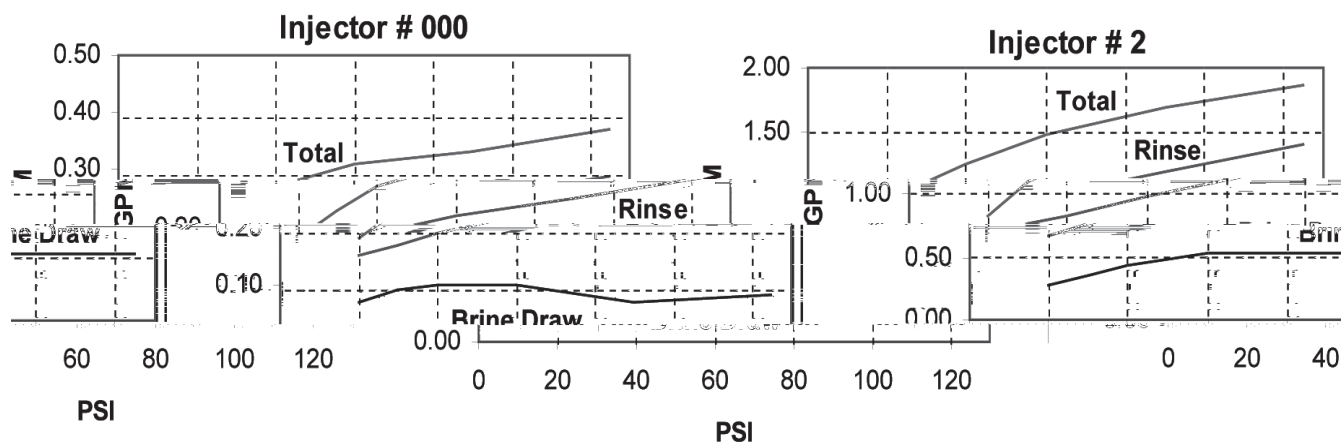


TR: 18467
41092

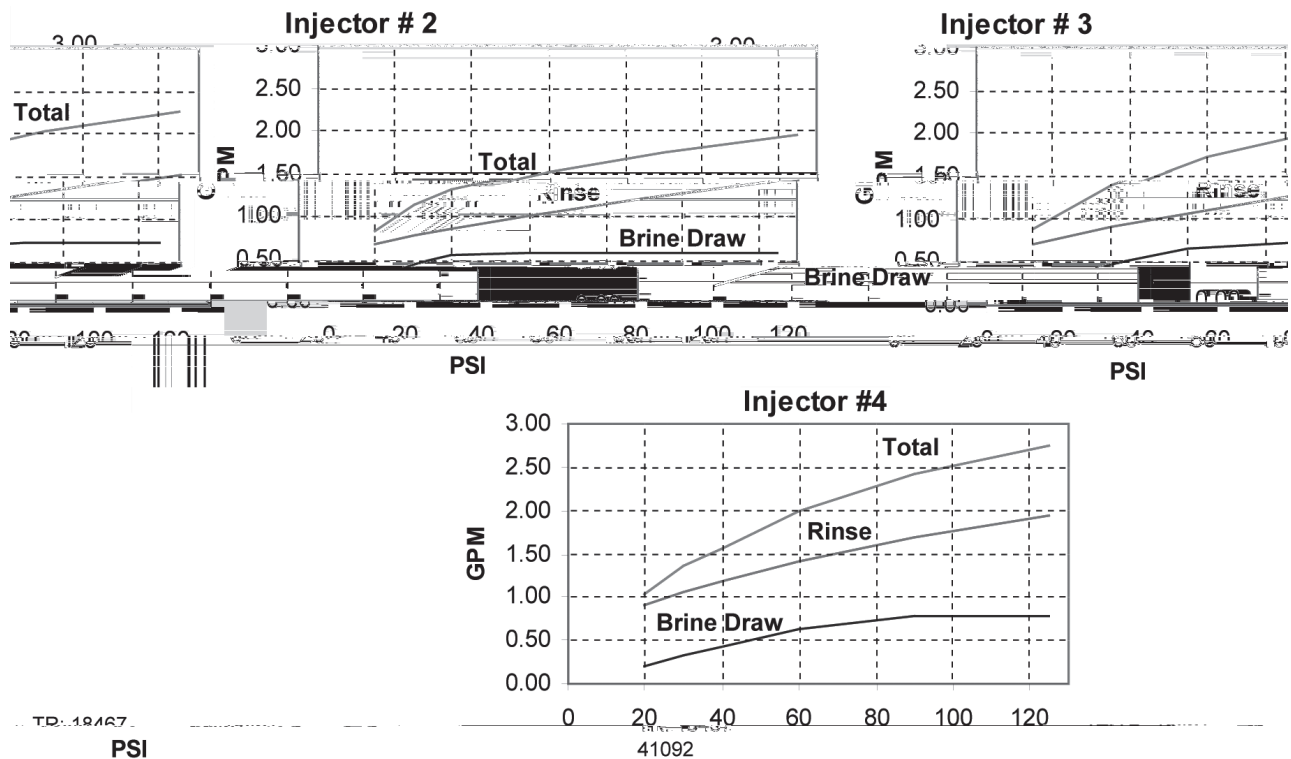
9500 Meter Flow Data



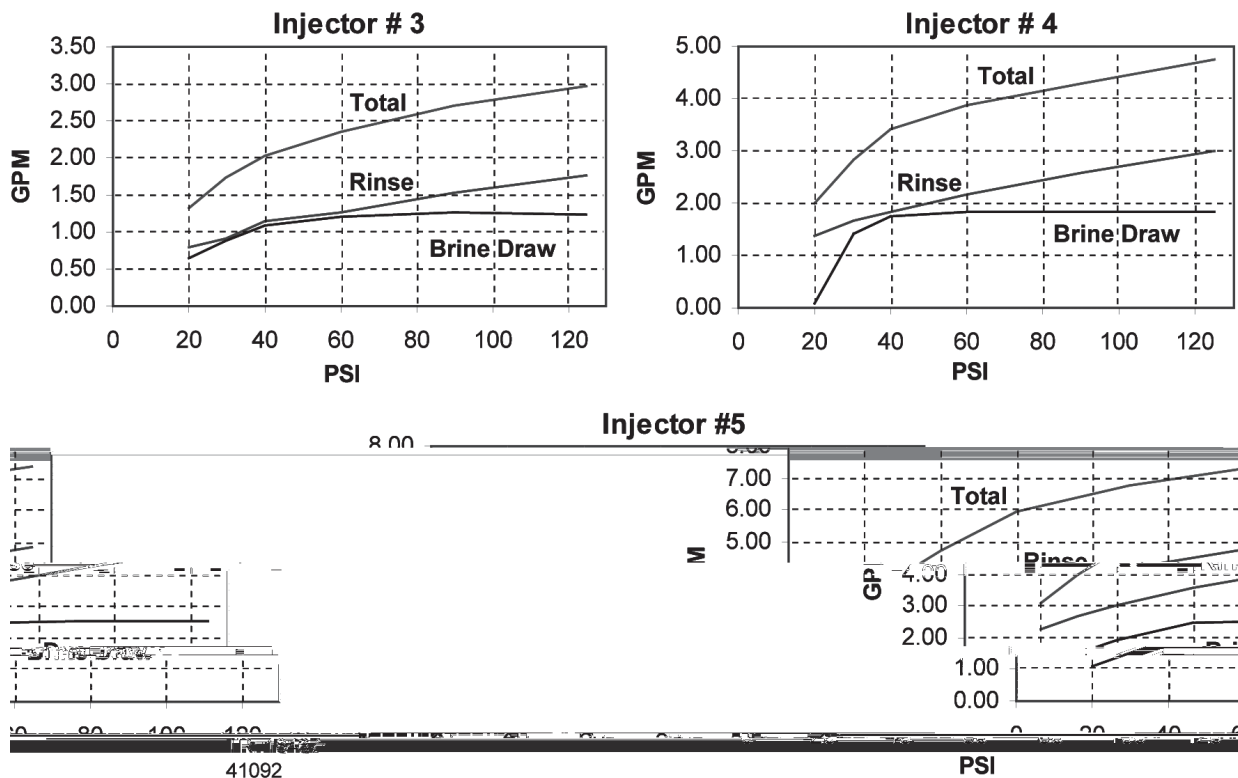
TR: 18467
41092

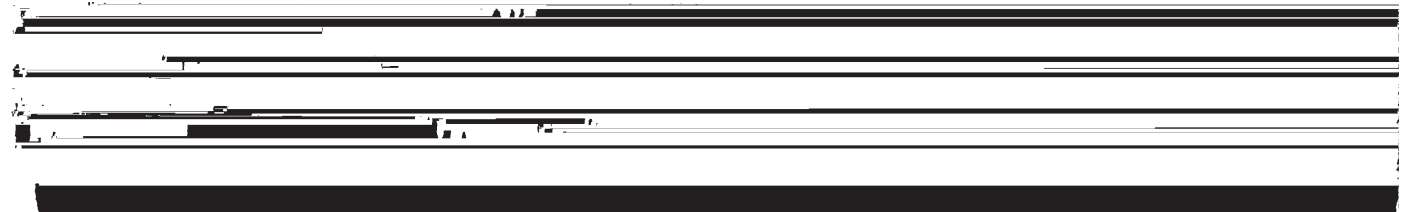
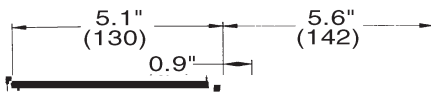
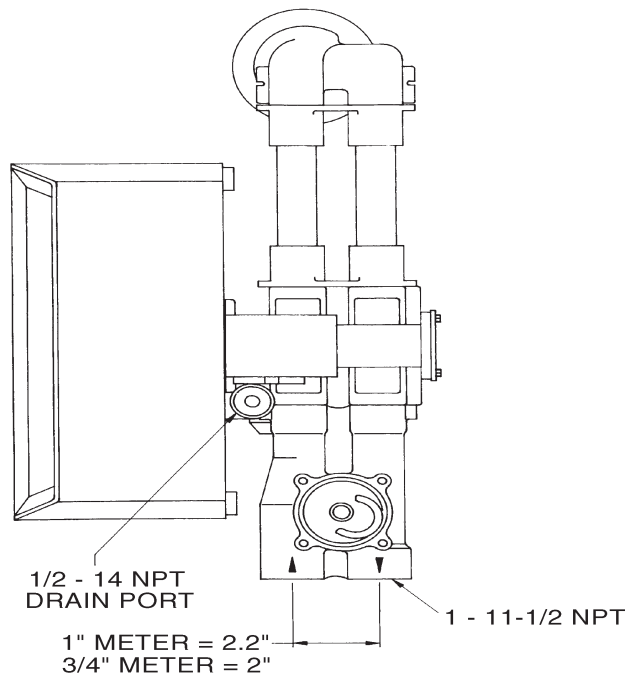


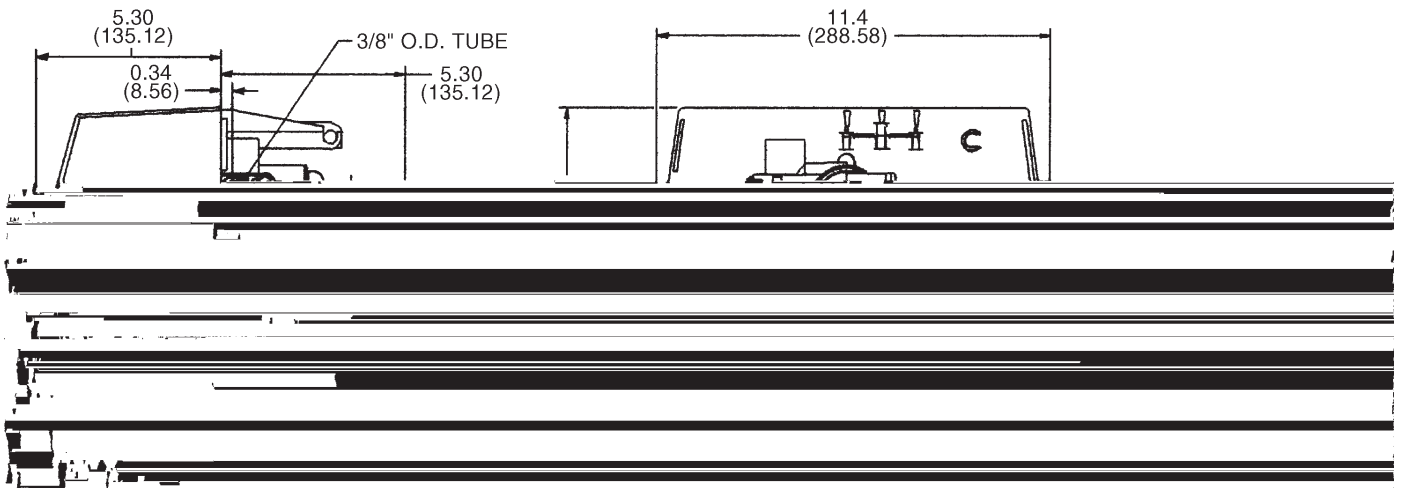
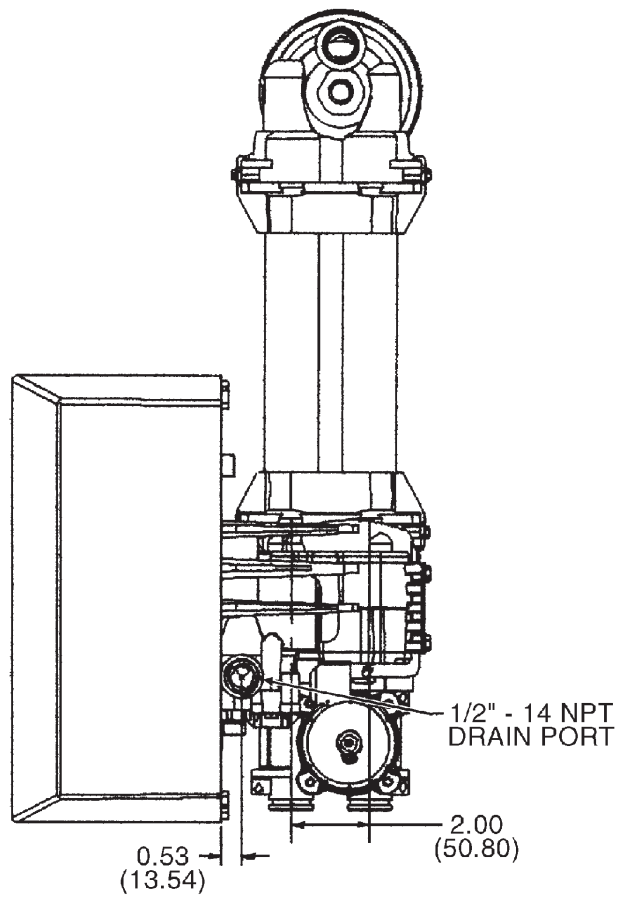
1600 Series Injectors

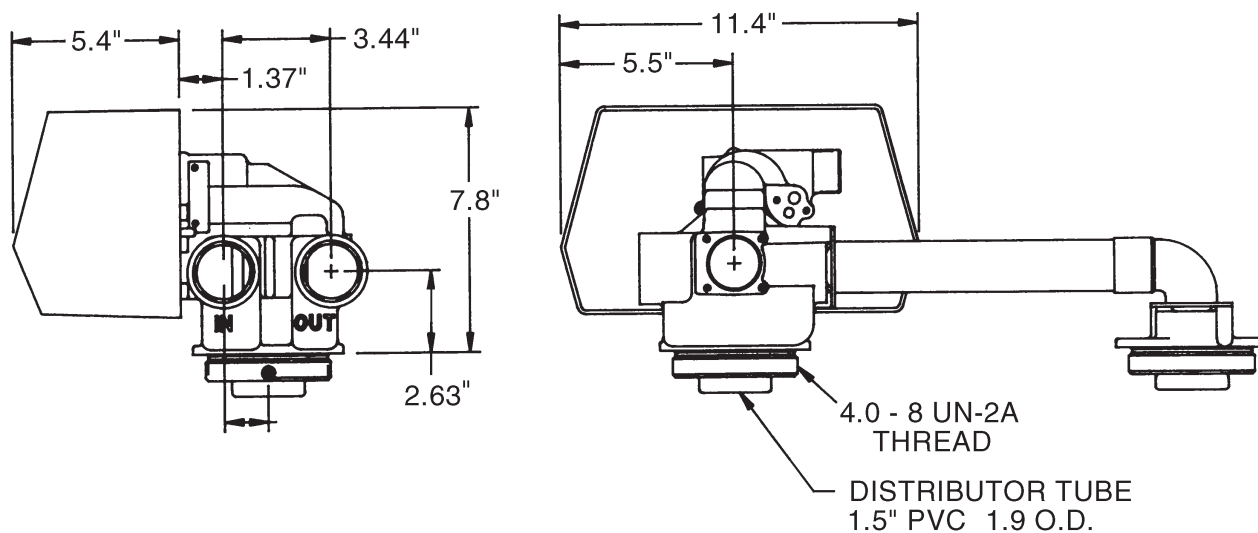
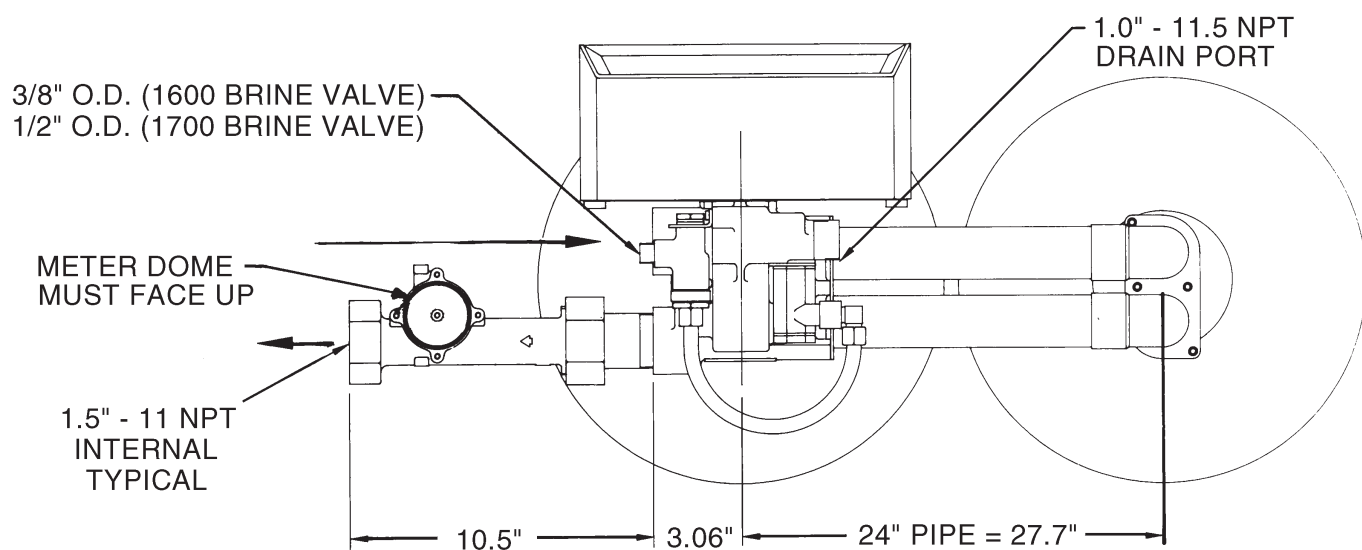


1700 Series Injectors

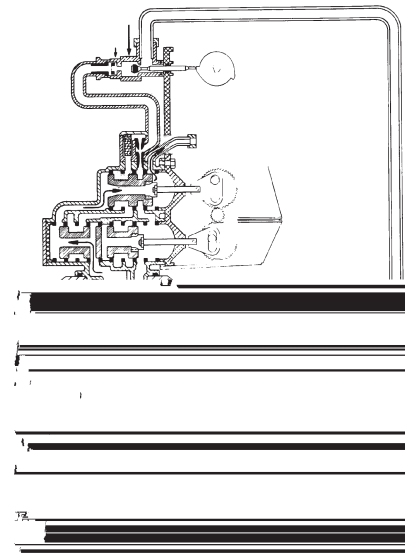
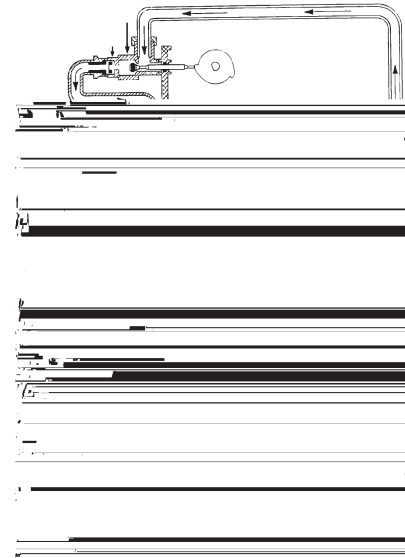
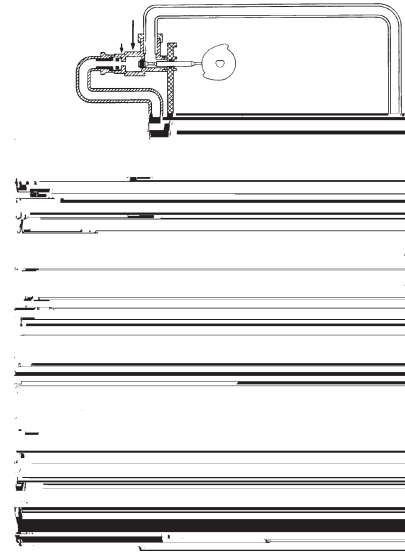
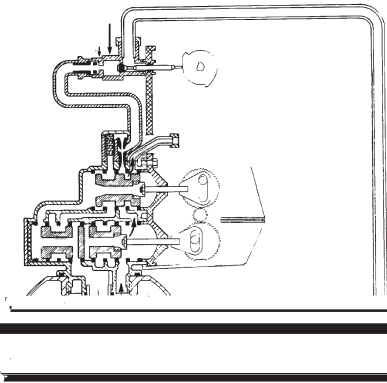
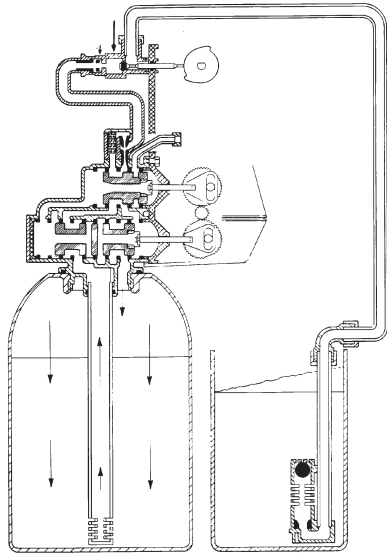


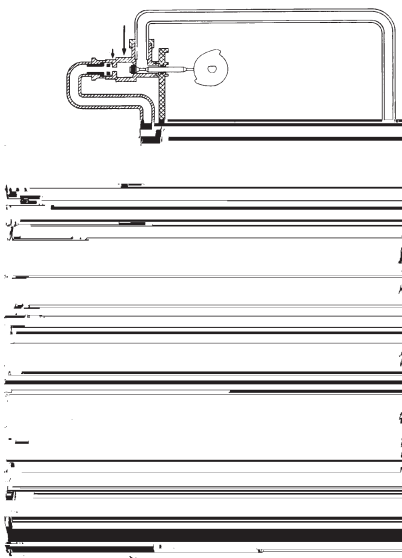
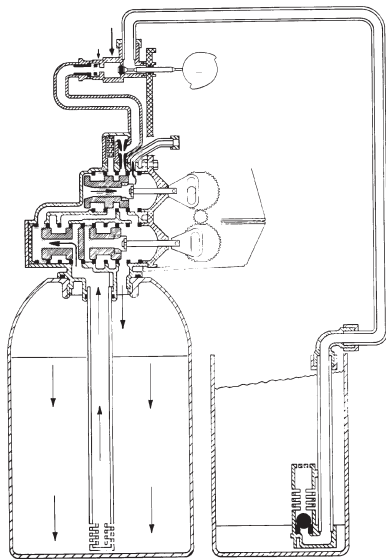
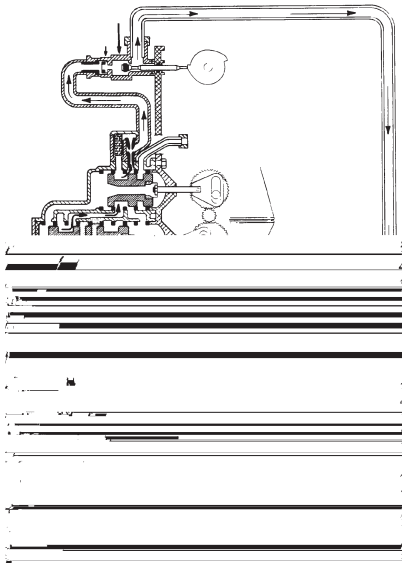


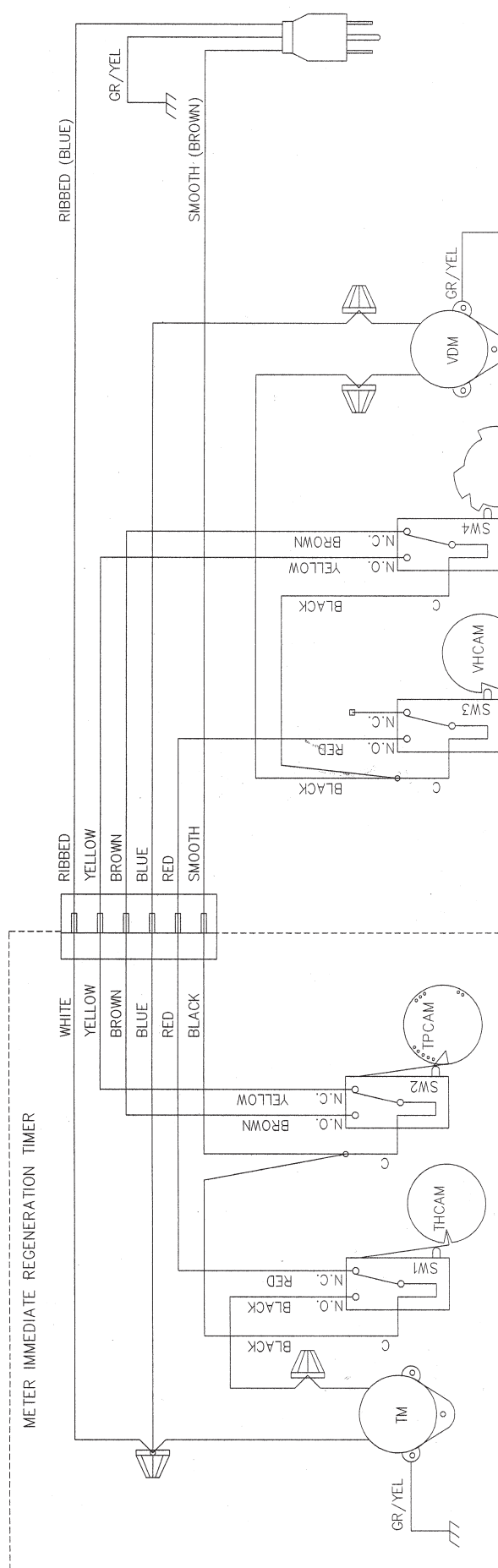




61500-9500LNE_REVA







TM - TIMER MOTOR
VDM - VALVE DRIVE MOTOR
SW1 - TIMER HOMING SWITCH

60022-12BLFC, .125 GPM, 5000/5600/9000/9100
 60022-25BLFC, .25 GPM, 5000/5600/9000/9100
 60022-50BLFC, .50 GPM, 5000/5600/9000/9100
 60022-100BLFC, 1.0 GPM, 5000/5600/9000/9100
 60350.....Brine Valve Assy, 9000/9100

60020-25BLFC, .25 GPM, 1600
 60020-50BLFC, .50 GPM, 1600
 60020-100BLFC, 1.0 GPM, 1600

60037-610Brine Valve, 9500/1600, .25 GPM,
 Cold & HW 180°
 60037-620Brine Valve, 9500/1600, .50 GPM,
 Cold & HW 180°
 60037-630Brine Valve, 9500/1600, 1.0 GPM,
 Cold & HW 180°
 60350.....Brine Valve Assy 9000/9100,
 Cold & HW 180°
 60350-01Brine Valve Assy, 9000/9100/Twinf100,
 Cold & HW 180°

60039-XX.....Brine Valve, 1700/9500, Cold &
 HW 180°

60040SS.....Bypass Valve, 5600, 3/4" NPT
 60041SS.....Bypass Valve, 5600, 1" NPT
 60049.....Bypass Plastic Assy

60385-X.....Injector Assembly (specify size of
 injector)

Red #000Blank ... 0Blank ... 0
 White #1 ...011.2 10.25 1
 Blue #2 ...021.5 20.50 2
 Yellow #3 .032.0 31.00 3
 Green #4...042.4 4
 3.0 5
 3.5 6
 4.0 7
 5.0 8
 7.0 9

60381-03Injector Assy, 1700, #3, Cold & HW 150°
 60381-04Injector Assy, 1700, #4, Cold & HW 150°
 60381-05Injector Assy, 1700, #5, Cold & HW 150°
 60381-06Injector Assy, 1700, #6, Cold & HW 150°
 60480-01Injector Assy, 1600, #1, Plastic,
 Cold Water
 60480-02Injector Assy, 1600, #2, Plastic,
 Cold Water
 60480-03Injector Assy, 1600, #3, Plastic,
 Cold Water
 60480-04Injector Assy, 1600, #4, Plastic,
 Cold Water
 60481-21Injector Assy, 1600, #1, SS, HW 180°
 60481-21Injector Assy, 1600, #2, SS, HW 180°
 60481-21Injector Assy, 1600, #3, SS, HW 180°
 60481-21Injector Assy, 1600, #4, SS, HW 180°

15078-01Adapter, 1" Coupling
 60086.....Meter Assy, 5600/9000/9100,
 3/4" Std/Range
 60087.....Meter Assy, 5600/9000/9100, 3/4", Ext
 60389.....Meter Assy, 9000/9100, 1"
 60389NP.....Meter Assy, 9000/9100, 1", N/P
 60389-20Meter Assy, 9000/9100, 1", BSP/Metric
 60390.....Meter Assy, 9000/9100, 1", Ext
 60390NP.....Meter Assy, 9000/9100, 1", Ext, N/P
 60390-20Meter Assy, 9000/9100, 1",
 Ext/BSP/Metric
 60612.....Meter Assy, 9000/9100, 1", Std Range,
 HW 150°
 60612NP.....Meter Assy, 9000/9100, 1", Std Range,
 HW 150°, NP
 14038.....Meter Cap Assy
 15150.....Meter Cap Assy, Ext
 15218.....Meter Cap Assy
 15218NP.....Meter Cap Assy, Std, NP
 15237.....Meter Cap Assy, Ext
 15237NP.....Meter Cap Assy, Ext, NP
 13509.....Impeller, Meter
 13509-01Impeller, Celcon, HW 150°

60610-01	Meter, 2850/9500, 1 1/2" Std	14202-01	Screw, Hex Washer Mach, 8-32 x 5/16 18-8 S.S.
60610-01HW	Meter, 2850/9500, 1 1/2" Std, HW 150°	13255.....	Clip, Mounting
60610-01NP	Meter, 2850/9500, 1 - 1/2" Std, N/P	15078-01	Adapter Assy, 1" Coupling
60610-02	Meter, 2850/9500, 1 - 1/2" Ext	14864-01	Adapter, 9000/9100, 2nd Tank, Machd w/O-rings
60610-02HW	Meter, 2850/9500, 1 1/2" Ext, HW 150°	14864-01NP	Adapter, 9000/9100, 2nd Tank, Machd, NP
60610-02NP	Meter, 2850/9500, 1 - 1/2" Ext, N/P	15823-06	Yoke Assy, 6" Tank & 6" Tube
60610-21	Meter, 2850/9500, 1 - 1/2" Std/BSP Metric	15823-06NP	Yoke Assy, 6" Tank, NP 6" Tubes
60610-21NP	Meter, 2850/9500, 1 - 1/2" Std/BSP Metric, Nickel Plated	15823-12	Yoke Assy, 6" - 12" Tank, 8 1/2 Tube
60610-22	Meter, 2850/9500, 1 - 1/2" Ext/BSP Metric	15823-12NP	Yoke Assy, 6" - 12" Tank, NP 8 1/2" Tubes
60610-22NP	Meter, 2850/9500, 1 - 1/2" Ext/BSP Metric/Nickel Plated	15823-14	Yoke Assy, 14" Tank, 10 1/2" Tube
60611-01HW.....	Meter, 2850/9500, 1" Sleeve, 1 1/2" Std, HW 150°	15823-14NP	Yoke Assy, 14" Tank, NP 10 1/2" Tube
60611-01.....	Meter, 2850/9500, 1" Sleeve, 1 1/2" Std Meter	15823-16	Yoke Assy, 16" Tank, 12 1/2" Tube
60611-01NP.....	Meter, 2850/9500, 1" Sleeve, NP 1 1/2" Std Meter	15823-16NP	Yoke Assy, 16" Tank, NP 12 1/2" Tube
60611-02.....	Meter, 2850/9500, 1" Sleeve, 1 1/2" Ext Meter	60425-12	Tube Assy, 9100, 6-12" Tanks
60611-02NP.....	Meter, 2850/9500, 1" Sleeve, NP 1 1/2" Ext Meter	60425-16	Tube Assy, 9100, 13-16" Tanks
17790.....	Sleeve, Meter, 1 1/2" x 1" (NOTE: when reducing a 1-1/2" meter to a 1" meter, the program wheel and timer settings must be changed to a 1" meter size)	14865.....	Adapter Assy, 2nd Tank, 9100
60460.....	Meter Checker Kit, Std	61419.....	Kit, 1.05" Distributor Adapter
60461.....	Meter Checket Kit, Ext		
60108.....	Piston Assy, 9500, Upper	16919-01	Valve Body, 9500 Machd
60108-01	Piston Assy, 9500, Upper, HW 180°	16919-01NP	Valve Body, 9500 Machd, NP
60109.....	Piston Assy, 9500, Lower	16919-21	Valve Body, 9500 BSP, Mtrc, Machd
60109-01	Piston Assy, 9500, Lower HW, 180°	16919-21NP	Valve Body, 9500 BSP, Mtrc, Machd Nickel Plated
60400.....	Piston Assy, 9000/9100, Top	60715-16	Tube Assy, 9500, 2nd Tank for 14" to 16" Tanks
60400-01	Piston Assy, 9000/9100, HW Upper, 180°	60715-16NP	Tube Assy, 9500, 2nd Tank, NP for 14" to 16" Tanks
60401.....	Piston Assy, 9000/9100, Lower	60715-20	Tube Assy, 9500, 2nd Tank for 20" Tanks
60401-01	Piston Assy, 9000/9100 Lower, HW 180°	60715-24	Tube Assy, 9500, 2nd Tank for 20" and 24" Tanks
60125.....	Seal & Spacer Kit, 5600/9000 Top	60715-24NP	Tube Assy, 9500, 2nd Tank, Nickel for 20-24" Tanks
60125-20	Seal & Spacer Kit, Top, 559 PE Cold and Chloramine	61701-01	Plug Assy, End Cap 9000/9100
60125HW.....	Seal & Spacer Kit, 9000/9100, Upper HW 180°	61701-02	Plug Assy, End Cap 9500
60133-01	Seal & Spacer Kit, 9500, Lower, Cold & HW 180°	12763.....	Stuffer Tool Assy, 5600/9000
60133-20	Seal & Spacer Kit, 9500, Lower	13061.....	Puller Assy, Port Ring
60133-30	Seal & Spacer Kit, 9500, Lower	13759.....	Tool, DLFC Retainer
60134.....	Seal & Spacer Kit, 9500, Upper, Cold & HW 180°	40688.....	Valve Body Assy, 9100
60134-20	Seal & Spacer Kit, 9500, Upper	18303.....	O-ring, -336
60134-30	Seal & Spacer Kit, 9500, Upper	18569.....	Retainer, Tank Seal
60421.....	Seal & Spacer Kit, 9000/9100, Bottom		
60421-20	Seal & Spacer Kit, 9000/9100, Bottom 559PE		
60421HW.....	Seal & Spacer Kit, 9000/9100, Bottom, HW 180°		

