



FLECK 2510 & 2510 ECONOMINDER

SERVICE MANUAL

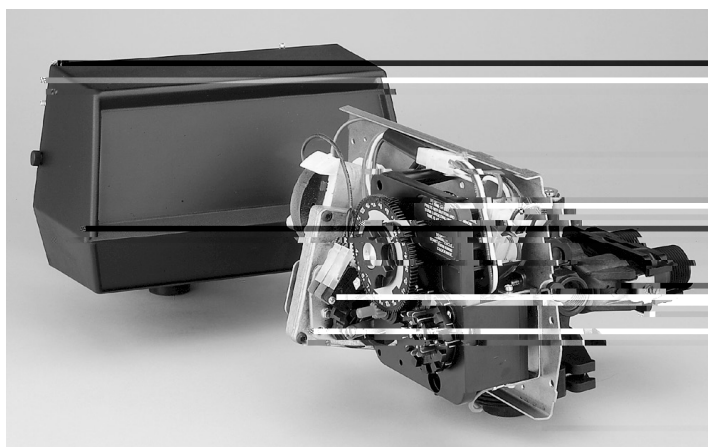


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7. P. — l. — — — — .

NOTE: Do not use granulated or rock salt.

3200 TIMER SETTING PROCEDURE

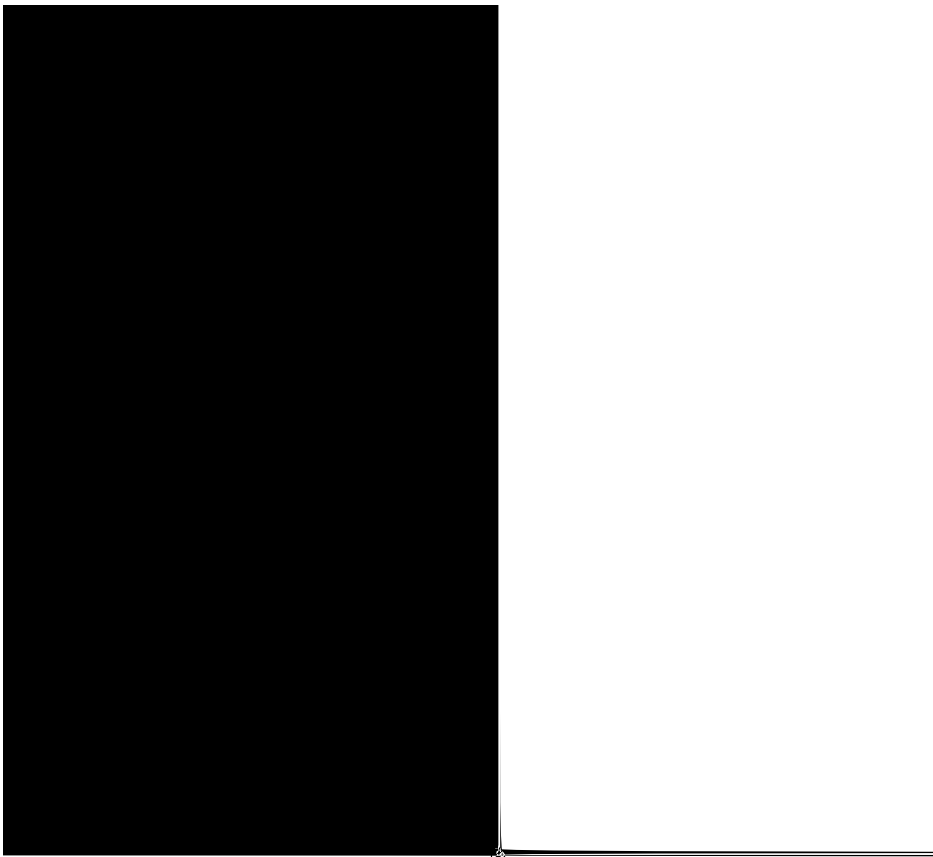
How To Set Days On Which Water Conditioner Is To Re generate (Figure 2)

- E F M

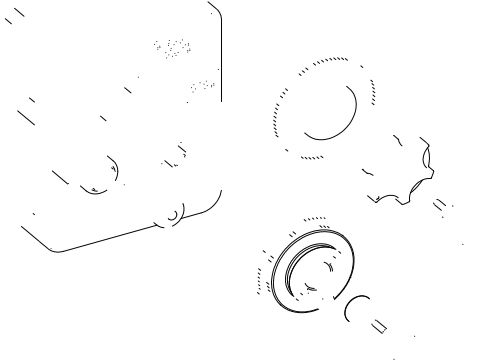
How To Set The Time Of Day

Item No.	QTY	Part No.	Description
1	1	13 70	H , , , 3200
2	1	14265	CL , ,
3	3	140 7	I , 1
4	1	10 96	, , M
5	1	15320	, , M , ,
6	2	11413	, P H M ,
			4-40 1-1/
7	1	13 6	K , 3200
	5	13296	, H , 6-20 1/2
9	1	11999	

3210 METER DELAYED TIMER ASSEMBLY



3220 METER IMMEDIATE TIMER
ASSEMBLY

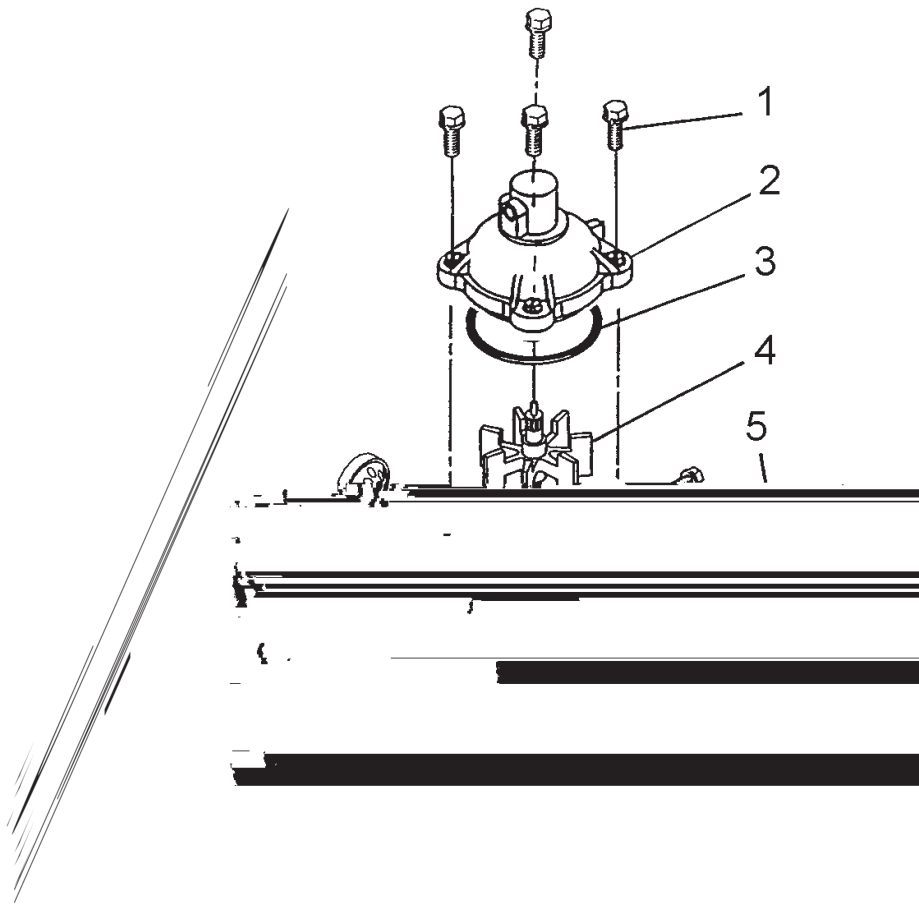


Item No.	QTY	Part No.	Description
1	1	13_70	H
2	1	15431	G, C, L A
			#5
3	1	13_6	K, 3200
4	4	13296	, H, 6-20 1/2
5	2	11999	L, B
6	1	13_07	

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CONTROL VALVE ASSEMBLY *CONTINUED*

Item No.	QTY	Part No.	Description
25	1	1233	F, El, 90 D, 1/2- NP 1/2- B
26	1	11 93	C, I, B
27	1	15137	C, I, B, H, M, 10-24 3/8
28	1	10757	E
29	1	12973-0	N, I, #0, P C
		12973-1	N, I, #1, P C
		12973-2	N, I, #2, P C
		12973-3	N, I, #3, P C
		12973-4	N, I, #4, P C
		10913-000	N, I, #000 B
		10913-00	N, I, #00 U
		10913-0	N, I, #0
		10913-1	N, I, #1
		10913-2	N, I, #2 BL
		10913-3	N, I, #3 U
		10913-4	N, I, #4 G
30	1	12974-0	I, #0, P C
		12974-1	I, #1, P C
		12974-2	I, #2, P C
		12974-3	I, #3, P C
		12974-4	I, #4, P C
		10914-000	I, #000 B
		10914-00	I, #00 U
		10914-0	I, #0
		10914-1	I, #1
		10914-2	I, #2 BL
		10914-3	I, #3 U



Item No.	QTY	Part No.	Description
1	4	12473	- M C
2	1	1522	A L (N)
		15452	

1600 BRINE SYSTEM ASSEMBLY

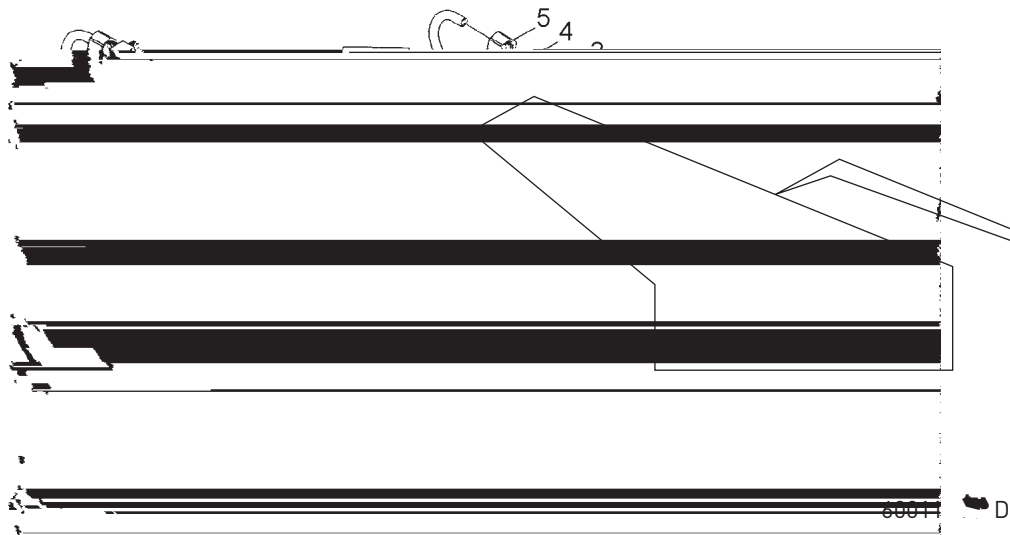


60029 C

Item No.	QTY	Part No.	Description
1	2	10332	F, L, 3/8
2	1	12767	, B
3	1	1032	F, EL, 90 D, 1/4- NP 3/8
4	3	10329	F, 3/8, N, B
5	3	10330	F, 3/8, C, L
6	1	1650-01	, B, 2.50/2900
		12774	, B, 1500
		40027	, B, 2510, H BP
		1442	, B, 1600/1650, NH BP
		15221-01	, B, 2750/2900
	4	421	, B, 2.50
	3	416	, B, F, 2900, 1600/1650
7	1	10250	
	1	11749	G, B
8	1	10249	, B
10	1	12550	, -009
11	1	1274	B, B, A, 1600

Item No.	QTY	Part No.	Description
12	1	12552-02	B, 1600,
13	1	12626	, B
14	1	119, 2	-O-, -016
15	1	60020-25	BLFC, .25 GPM, 1600
		60020-50	BLFC, .50 GPM, 1600
		60020-100	BLFC, 1.0 GPM, 1600
16	1	60029-010	B, 1600, 0.25
		60029-020	B, 1600, 0.50
		60029-030	B, 1600, 1.00

16 0 BRINE SYSTEM



Item No.	QTY	Part No.	Description
1	1	1032	El , 90 1/4 NP 3/8
3	3	10332	l , 3/8
4	1	10330	l , 3/8 N B
5	1	10329	F , 3/8 N B
6	1	1650-01	B , l , 2,50/2900
		12774	B , l , 1500
		40027	B , l , 2510, H BP
		1442	B , l , 1600/1650, NH BP
		15221-01	B , l , 2750/2900
		421 4	B , l , 2,50
		416 3	B , l , F, 2900, 1600/1650
7	2	19625	A , GFN N
	1	16924	O- , -01
9	1	12626	B , l
10	1	12552	B , l , 1600
12	1	17906	G , B
13	1	10250	
14	1	10249	B , l
15	1	17 4	B , l B A , Pl
17	1	12794	El , 3/8 P l ,
1	1	60002	#500 A C

Item No.	QTY	Part No.	Description
1	2	13305	O- , -119
2	2	13255	Cl , M
3	2	13314	, U I H ,
			-1 .60
4A	1	1 706	, 1- , NP , Pl
	1	706-02	, 3/4- , NP ,
			Pl
4B	1	1370 -40	, 1- , -
		1370 -45	, 3/4- , -
		19275	, A U 90 D ,
			3/4- , NP
		19275-45	, A U 90 D ,
			3/4- , -
		19620-01	A , 3/4- ,
			7A U , 90 D /O- ,
			Cl & .
		40636	, 1-1/4 , NP
		40636-49	, 1-1/4 , -
		41027-01	, 3/4- , NP , C ,
			M
		41026-01	, 1- , NP , C ,

Item No.	QTY	Part No.	Description
1	1	60027-00	Bellows, 2300, L El
2	1	1013	Bellows, 3/4", B
3	1	1156	Bellows, 1/2", F
4	1	1032	Fitting, Elbow, 90 D, 1/4 NP, 3/4"
5	1	10332	Fitting, Elbow, 3/4"
6	1	10330	Fitting, Elbow, 3/4" C
7			

2310 SAFETY BRINE VALVE



2310 SAFETY BRINE VALVE *CONTINUED*

Item No.	QTY	Part No.	Description	Item No.	QTY	Part No.	Description
1	1	19645	B , , B , L , 2310		60002-34	A. C , , #500, 34	L ,
2	1	19 03	B , L A		60002-36	A. C , , #500, 36	L ,
3	1	19 04	H , , 10-24 .75		60002-4	A. C , , #500, 4	L ,
4	1	19 05	N , H , 10-24, N L BL		60002-26.25	A. C , , #500, 26.25	L ,
5	1	19652-01	P A , B /O-		60002-33.25	A. C , , #500, 33.25	L ,
6	1	19649	FL D				
7	1	111 3	O- , -017				
8	1	19647	EL , B , L				
9	2	19625	N A , 3/- PL				
10	1	1 312	D				
11	1	60014	B , L A , 2310				
12	2	10150	G , 30 D				
13	1	6006 - .06	FL A , 2310, / .06-				
		6006 -10.5	FL A , 2310, /10.5-				
		6006 -11.5	FL A , 2310, /11.5-				
		6006 -20	FL A , 2310, /20-				
		6006 -30	FL A , 2310, /30-				
14	1	60002-10	A. C , , #500, A				
		60002-11.3	A. C , , #500, 11.3				
		60002-24	A. C , , #500, 24				
		60002-27	A. C , , #500, 27				
		60002-32	A. C , , #500, 32				

SEAL & SPACER TOOLS & REPLACEMENT

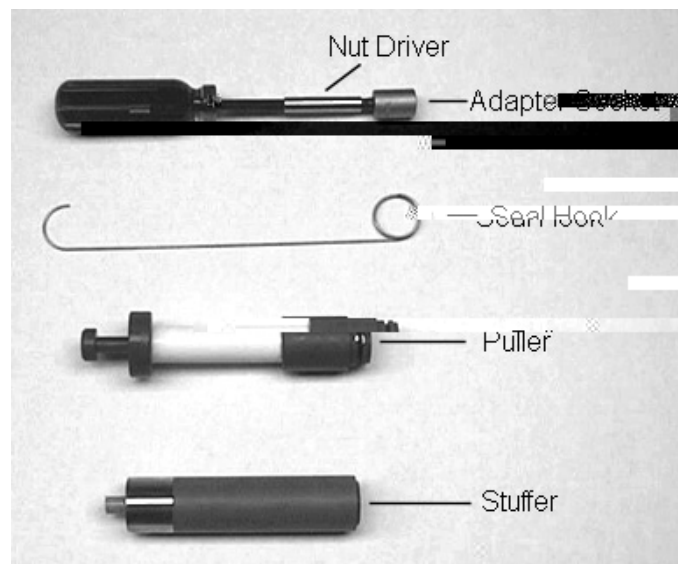


FIGURE 5

NOTE: Photos shown are for reference only for replacing the seal and spacer. Actual valve may be different.

1. Remove the cap screw (N) and the cap screw (N) from the back plate.
2. Remove the back plate.
3. Disconnect the brine line from the brine valve.
4. Remove the brine valve assembly from the tank.
5. Gently pull the brine valve assembly out of the tank. (See Figure 6.)

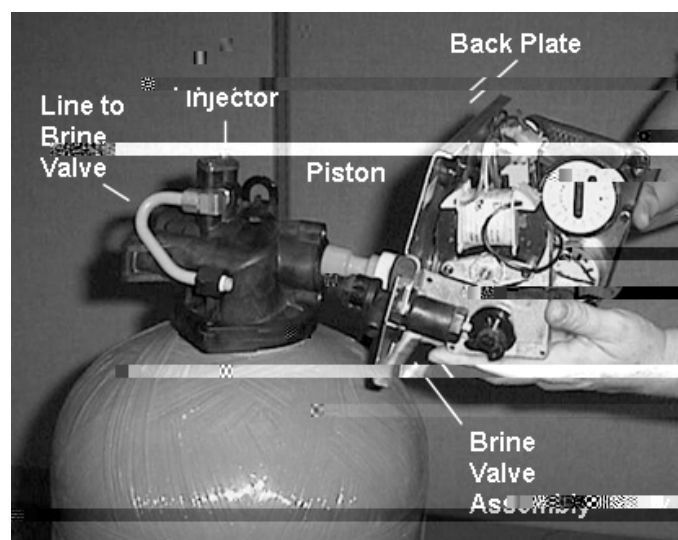


FIGURE 6

6. Remove the cap screw (N) and the cap screw (N) from the back plate. (See Figure 7.)

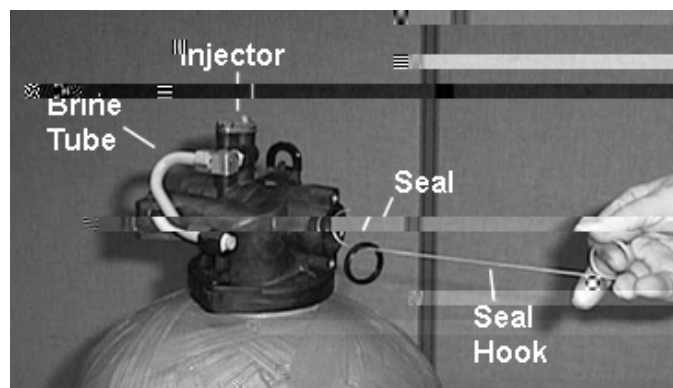


FIGURE 7

7. Remove the cap screw (N) and the cap screw (N) from the back plate. (See Figure 8.)
8. Remove the cap screw (N) and the cap screw (N) from the back plate. (See Figure 9.)

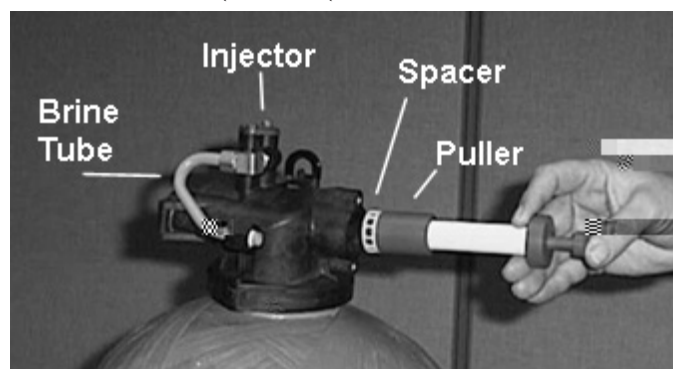


FIGURE 8

9. All components are now removed. (See Figure 9.)
10. All components are now removed. (See Figure 9.)

SEAL & SPACER TOOLS & REPLACEMENT

CONTINUED

11. Turn the injector clockwise until it is tight. (See Figure 5). Turn the injector clockwise until it is tight. Turn the injector clockwise until it is tight.

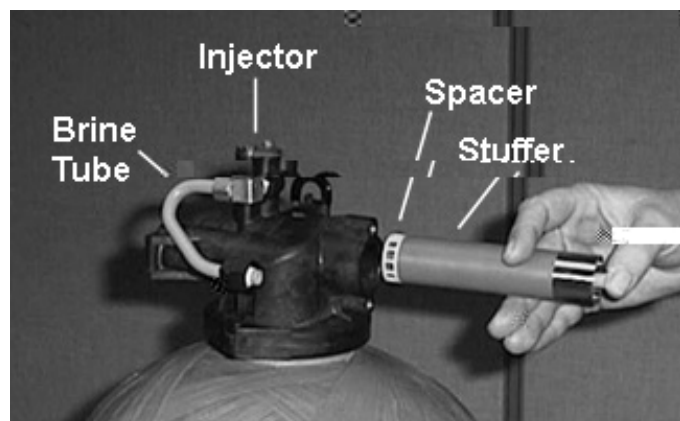


FIGURE 9

12. Turn the injector clockwise until it is tight. (See Figure 5). Turn the injector clockwise until it is tight. Turn the injector clockwise until it is tight.
13. Turn the injector clockwise until it is tight. (See Figure 5). Turn the injector clockwise until it is tight. Turn the injector clockwise until it is tight.
14. Turn the injector clockwise until it is tight. (See Figure 5). Turn the injector clockwise until it is tight. Turn the injector clockwise until it is tight.

GENERAL SERVICE HINTS FOR METER CONTROL

Problem: Softener delivers hard water

Reason: Meter control is not working properly.

Correction: Check the meter control for proper operation. If the meter control is not working properly, replace it.

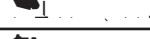
Reason: P. The meter control is not working properly.

Correction: P. The meter control is not working properly. If the meter control is not working properly, replace it. P. The meter control is not working properly. If the meter control is not working properly, replace it.

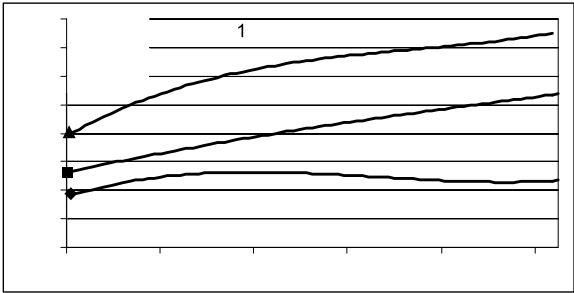
Reason: M. The meter control is not working properly.

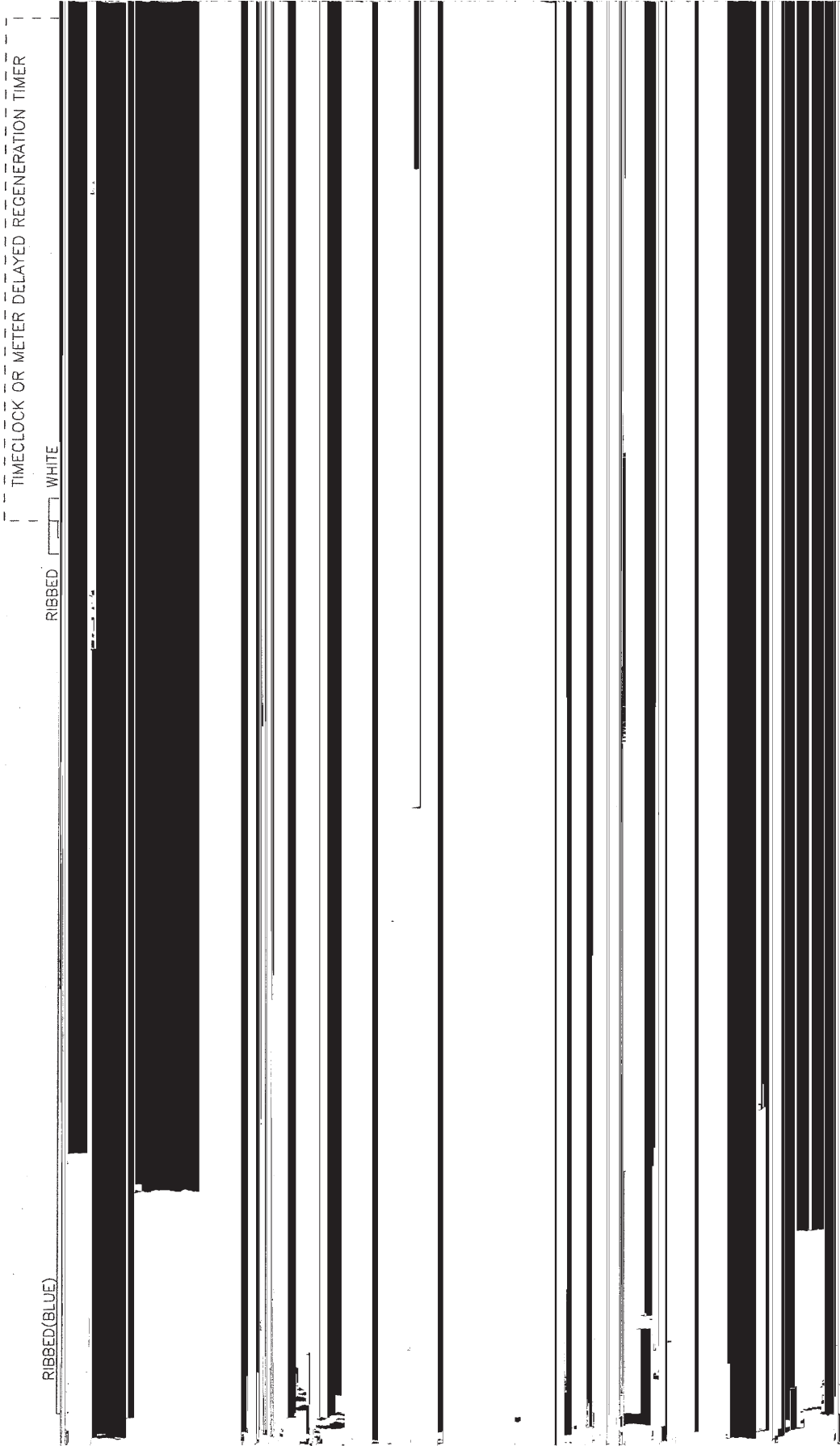
Correction: C. The meter control is not working properly.

TROUBLESHOOTING

Problem	Cause	Correction
Euler's characteristic is not satisfied	Elementary cells are not tetrahedra or hexahedra	All cells must be tetrahedra or hexahedra (e.g., $\Delta T_1, \Delta T_2, \dots, \Delta T_n$)
	Cells are not connected	
	Partial connectivity	
Hexahedra	Boundary is not closed	Close the boundary
	Non-tetrahedra cells	All cells must be tetrahedra or hexahedra
	Interior cells are missing	Close the boundary
	Interior cells are not connected	Cells must be connected to each other and to the boundary
	Half-cells	
	Large cells	Maximum number of cells is 20. Cells must be small
	Interior cells are not connected	
Cells are not connected	Cells are not connected	Cells must be connected to each other and to the boundary
	Empty cells	Use "Empty cells" option
Large cells are not connected	Cells are not connected to each other	Cells must be connected to each other and to the boundary
	Cells are not connected to the boundary	Cells must be connected to each other and to the boundary
	Cells are not connected to the boundary	
Large cells are not connected	Cells are not connected to each other	All cells must be tetrahedra or hexahedra (e.g., $\Delta T_1, \Delta T_2, \dots, \Delta T_n$)
	Cells are not connected to the boundary	Cells must be connected to each other and to the boundary
Large cells are not connected	Cells are not connected to each other	Cells must be connected to each other and to the boundary
	Cells are not connected to the boundary	Cells must be connected to each other and to the boundary
Empty cells are not connected	Cells are not connected to each other	Cells must be connected to each other and to the boundary
	Cells are not connected to the boundary	Cells must be connected to each other and to the boundary
	Cells are not connected to the boundary	
	Cells are not connected to the boundary	
	Cells are not connected to the boundary	Cells must be connected to each other and to the boundary
Cells are not connected	Cells are not connected to each other	Cells must be connected to each other and to the boundary
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	Cells are not connected to the boundary	Cells must be connected to each other and to the boundary
	Cells are not connected to the boundary	Cells must be connected to each other and to the boundary

FLOW DATA & INJECTOR DRAW RATES





SERVICE ASSEMBLIES

24 Hour Gear Assemblies

40096-02	Dial 2AM Regen Assy, Black
40096-24	Dial 12AM Regen Assy, Black
60519-02	Gear Assy, 3200 24 Hour 2 Times/Day
60519-03	Gear Assy, 3200, 24 Hour 3 Times/Day
60519-04	Gear Assy, 3200, 24 Hour 4 Times/Day
60519-06	Gear Assy, 3200, 24 Hour (12:00) 6 Times/Day

Brine Line Flow Control (BLFC)

60010-25	BLFC, 1650, .25 GPM, Plastic
60010-50	BLFC, 1650, .50 GPM, Plastic
60010-100	BLFC, 1650, 1.0 GPM, Plastic

Brine Valves

60011-010	Brine Valve, 1650, Short Stem, .25 GPM, Less Tube
60011-030	Brine Valve, 1650, Short Stem, 1.0 GPM, Less Tube

Bypasses

60049	Bypass Plastic Assy
60040SS	Bypass Valve, 5600, 3/4-inch NPT
60041SS	Bypass Valve, 5600, 1-inch NPT

Cam

60160-15	Drive Cam Assy, STF, Blue
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Clamp

60503	Clamp Ring Assembly, 2510
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Couplin

60510	Adapter Coupling Assy, 5600
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Drain Line Flow Controls

60705-00	DLFC, Plastic, Blank
60705-06	DLFC, Plastic, .60 GPM
60705-08	DLFC, Plastic, .80 GPM
60705-10	DLFC, Plastic, 1.0 GPM
60705-12	DLFC, Plastic, 1.2 GPM
60705-13	DLFC, Plastic, 1.3 GPM
60705-15	DLFC, Plastic, 1.5 GPM
60705-17	DLFC, Plastic, 1.7 GPM
60705-20	DLFC, Plastic, 2.0 GPM
60705-24	DLFC, Plastic, 2.4 GPM
60705-30	DLFC, Plastic, 3.0 GPM
60705-35	DLFC, Plastic, 3.5 GPM
60705-40	DLFC, Plastic, 4.0 GPM
60705-45	DLFC, Plastic, 4.5 GPM
60705-50	DLFC, Plastic, 5.0 GPM
60705-60	DLFC, Plastic, 6.0 GPM
60705-70	DLFC, Plastic, 7.0 GPM
60705-8.0	DLFC, QC x 3/4-inch F, 8.0 GPM
60705-9.0	DLFC, QC x 3/4-inch F, 9.0 GPM
60705-12	DLFC, QC x 3/4-inch F, 12.0 GPM
60705-15	DLFC, QC x 3/4-inch F, 15.0 GPM

Drives

60050-21	Drive Assy, 2750, STF, 120V Softener
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Injectors

60480-xx	1600 Injector Assy (Specify size of Injector)
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Meters

60088-180	Meter Assy, 3/4-inch Dual Port, Slip Std, Rt Ang/180 Plastic Paddle w/clps
60089-180	Meter Assy, 3/4-inch Dual Port, Slip Ext, Rt Ang/180 Plastic Paddle w/clps

Pistons

60090	Piston Assy, 1500, 2510, 2750
60101-01	Piston Assy, NHWPB
60101-02	Piston Conversion, 2510 NHWPB 1600
60101-00	Piston Kit, 2510 NHWPB Filter

Pro ram Wheels

60405-10	Program Wheel, w/3/4-inch Std Label Set @ 21
60405-15	Program Wheel, w/3/4-inch Std Label w/People Label Set @ 21

Safety Brine (2300)

60028-30	Float Assy, 2350, 30-inch , White
60027-FFA	Safety Brine Valve Body, 2300 Fitting Facing Arm
60027-FFS	Safety Brine Valve Body, Fitting Facing Stud

Sales and Service Aids

40097	Literature, 2510, S/Manual
16510	Literature, 2510, Spec Sheet

Seal & Spacer Kits

60121	Seal Kit, 1500, 2510, 2750
60121-10	Seal & Spacer Kit, 2750, Silicone

Skipper Wheels

14860	Skipper Wheel Assy, 7 Day
14381	Skipper Wheel Assy, 12 Day

Yokess

13708-40	Yoke, 1-inch , Sweat
13708-45	Yoke, 3/4-inch , Sweat
18706	Yoke, 1-inch , NPT, Plastic
18706-20	Yoke, 3/4-inch , NPT, Plastic
19275	Yoke, Angle 90 Deg. 3/4-inch , NPT
19275-45	Yoke, Angle 90 Deg. 3/4-inch Sweat
19620-01	Yoke Assy, 3/4-inch , R/Angle, 90 Deg w/O-rings, Clips and Screws
40636	Yoke, 1-1/4 inch, NPT
40636-49	Yoke, 1-1/4 inch, Sweat
41026-01	Yoke, 1-inch , NPT, SS
41027-01	Yoke, 3/4-inch , NPT, Cast, Machd

