



Fleck 3900

Service Manual

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JOB SPECIFICATION SHEET

1. Type of Timer:

2. Downflow: Upflow Upflow Variable
3. Meter Size:

4. System Type:

units on and offline based on flow.

5. Timer Program Settings:

Brine Tank Refill:

6. Drain Line Flow Control: _____ gpm
7. Brine Line Flow Controller: _____ gpm
8. Injector Size#: _____
9. Piston Type:

INSTALLATION

Water Pressure

Electrical Facilities

Existing Plumbing

iron filter unit should be installed ahead of the water softener.

Location Of Softener And Drain

breaks and back flow.

BY-PASS VALVES

CAUTION Water pressure is not to exceed 125 psi (8.6 bar), water temperature is not to exceed 110°F (43°C), and the unit cannot be subjected to freezing conditions.

Installation Instructions

making sure the unit is level and on a firm base.

should be a minimum of 1/2" (13 mm). Backwash flow rates

lines should be the same size as the drain line flow control.

3200 TIMER SETTING PROCEDURE

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

3200, 3210, 3220, 3230 REGENERATION CYCLE SETTING PROCEDURE

How To Set The Regeneration Cycle Program

3200 Series Timers (Figure 4)

How To Change The Length Of Brine Tank Reÿll Time

will reÿll the brine tank (2 min. per hole).

To change the length of reÿll time, move the two pins at the

Timer Setting Procedure

How To Change The Length Of The Backwash Time

How To Change The Length Of Brine And Rinse Time

How To Change The Length Of Rapid Rinse

32

33

34

2

17

18

1

31

30

1

8

31

3

4

3

5

3

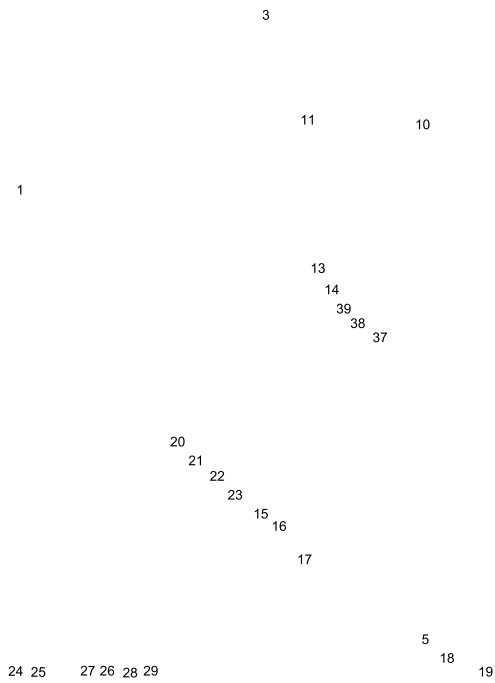
6

8

15

16

3210 METER DELAYED TIMER
ASSEMBLY

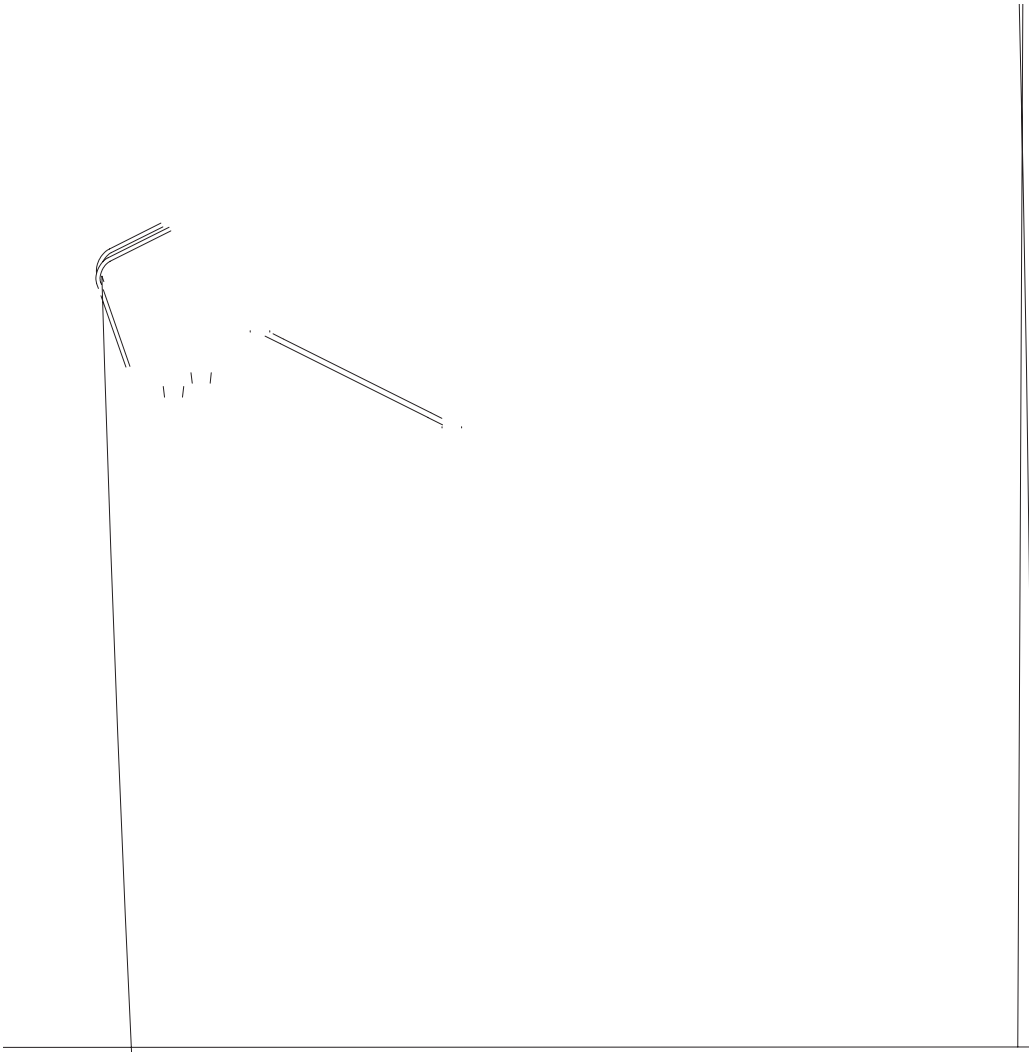


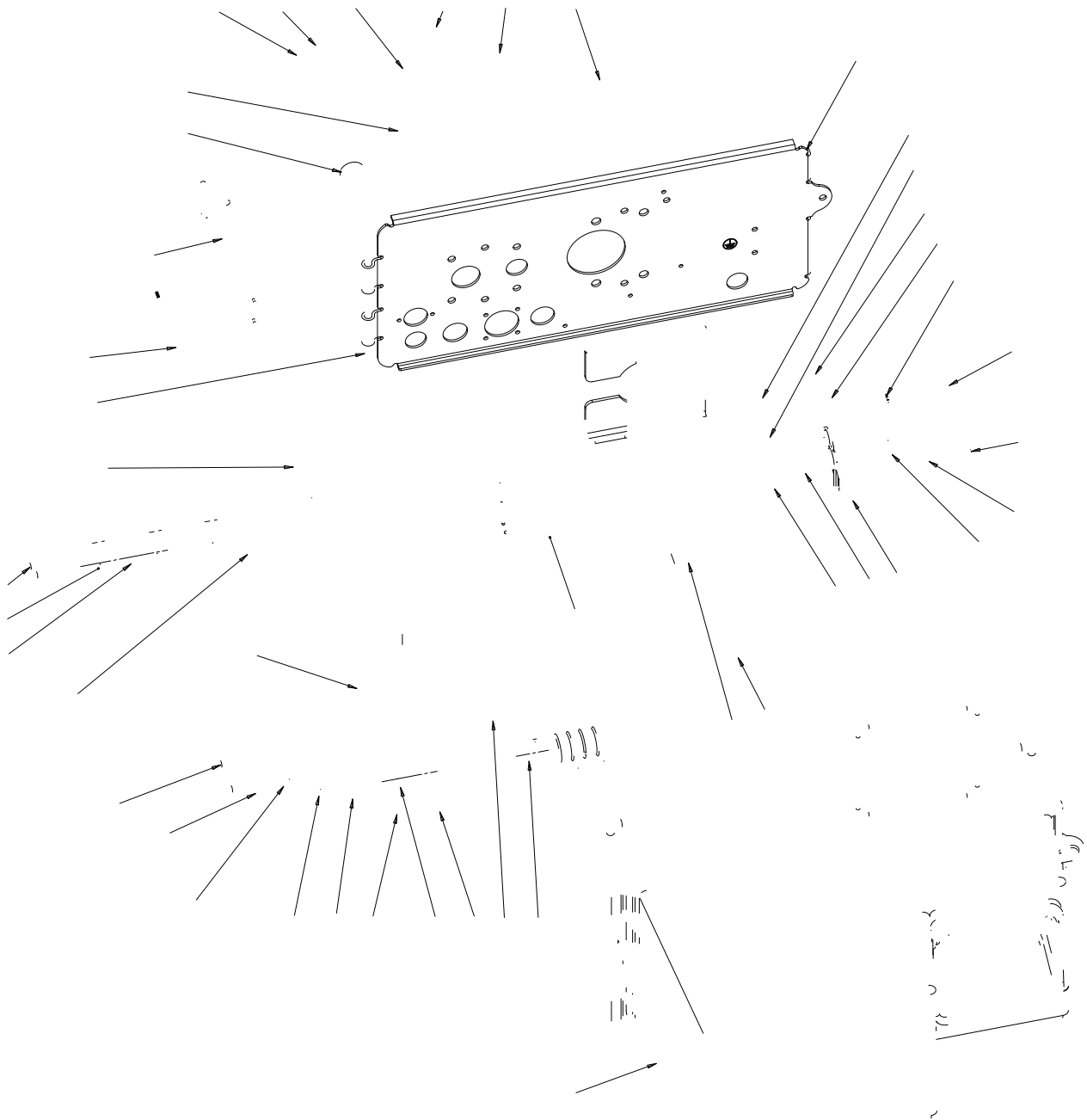
3220 METER IMMEDIATE TIMER
ASSEMBLY

Item No.	QTY	Part No.	Description
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Item No.	QTY	Part No.	Description
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**3230 REMOTE START TIMER
ASSEMBLY**





Item No.	QTY	Part No.	Description
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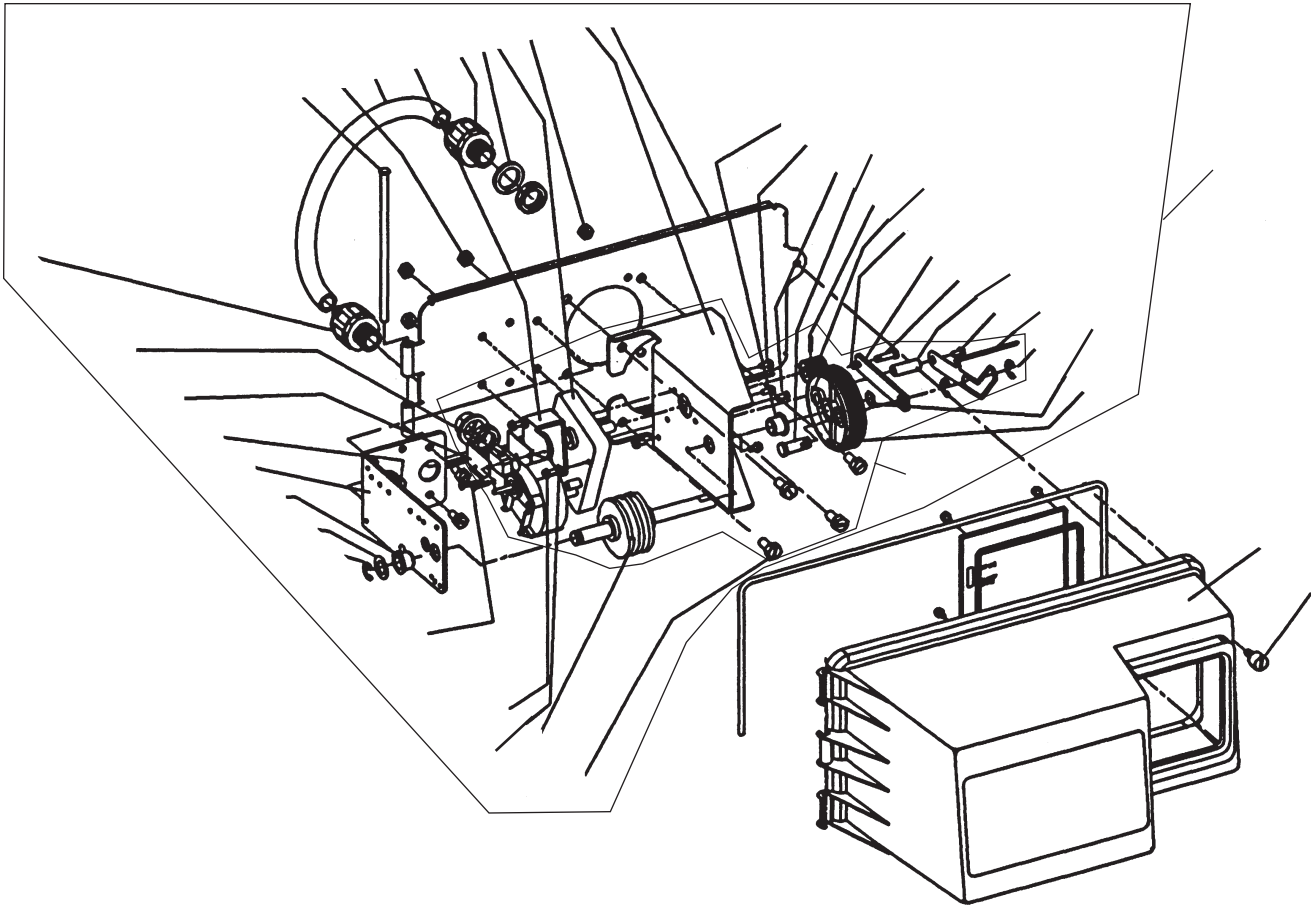
Item No.	QTY	Part No.	Description
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Drive Assy, 3150, 120V, Upfow,

Not Shown

Upflow, Signal After Rapid Rinse

ADAPTER CONTROL DRIVE LOWER
POWERHEAD

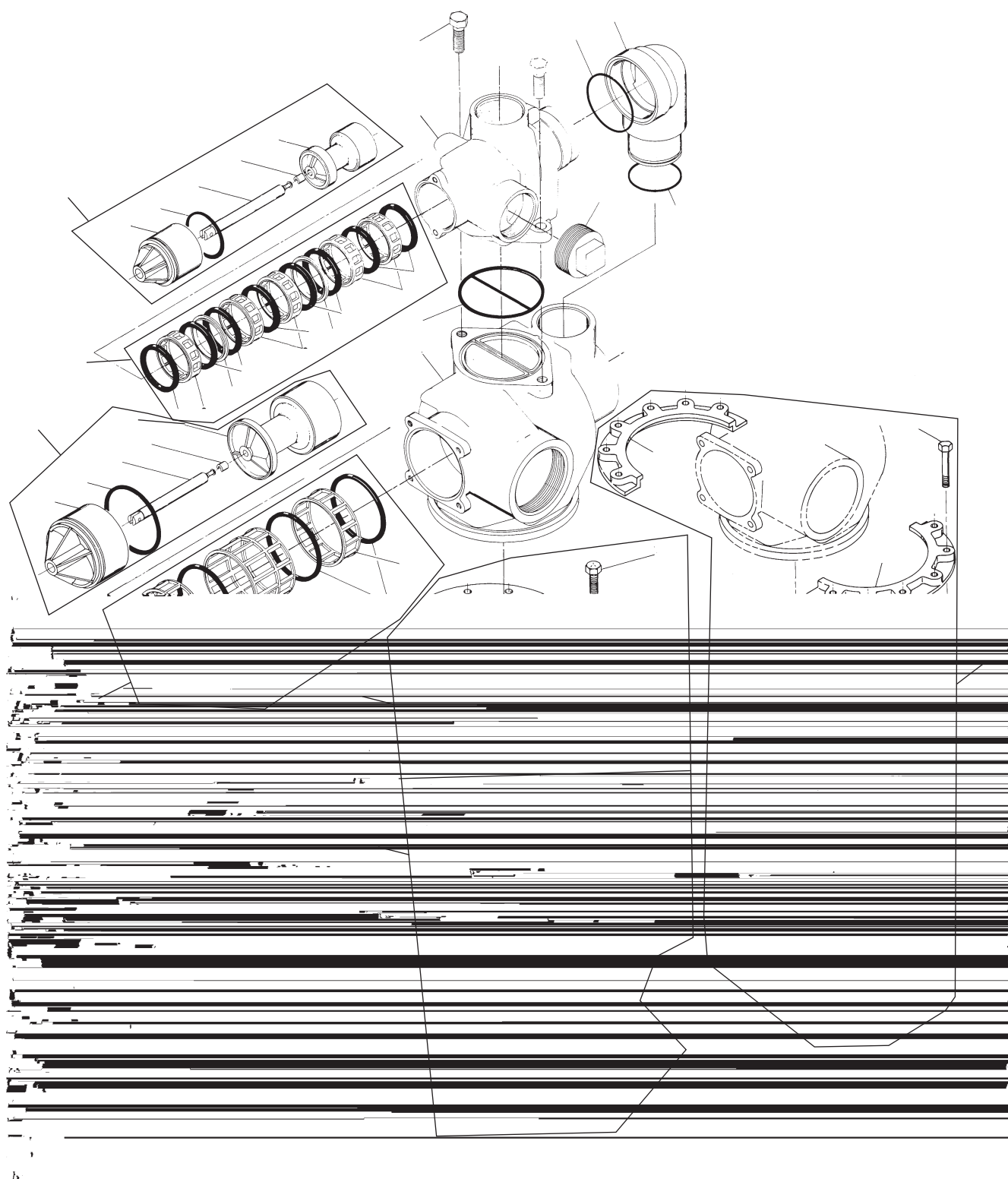


Item No.	QTY	Part No.	Description
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Item No.	QTY	Part No.	Description
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Not Shown

CONTROL VALVE



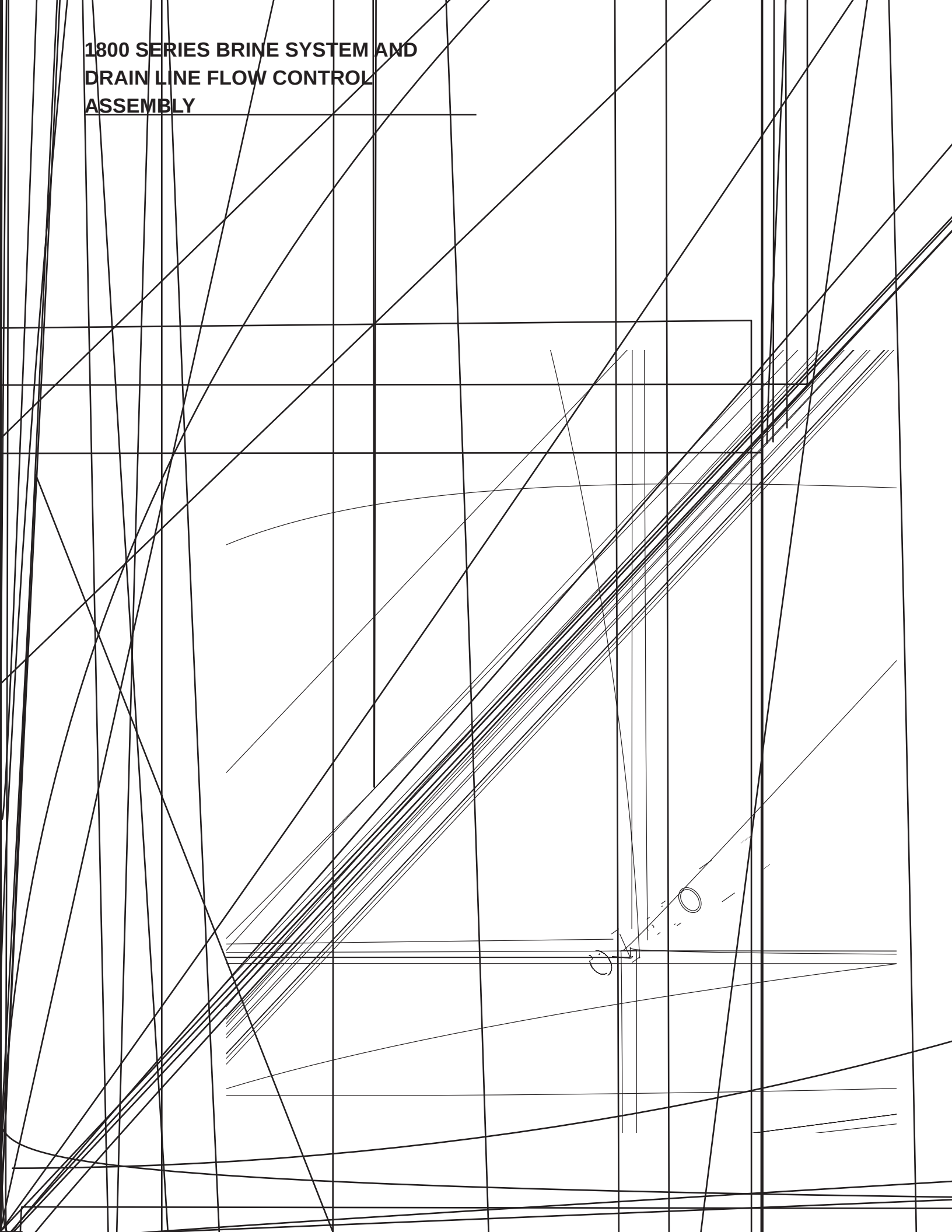
CONTROL VALVE

Item No.	QTY	Part No.	Description
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Item No.	QTY	Part No.	Description
Options			

Piston Assy, 3150, Upfow

**1800 SERIES BRINE SYSTEM AND
DRAIN LINE FLOW CONTROL
ASSEMBLY**



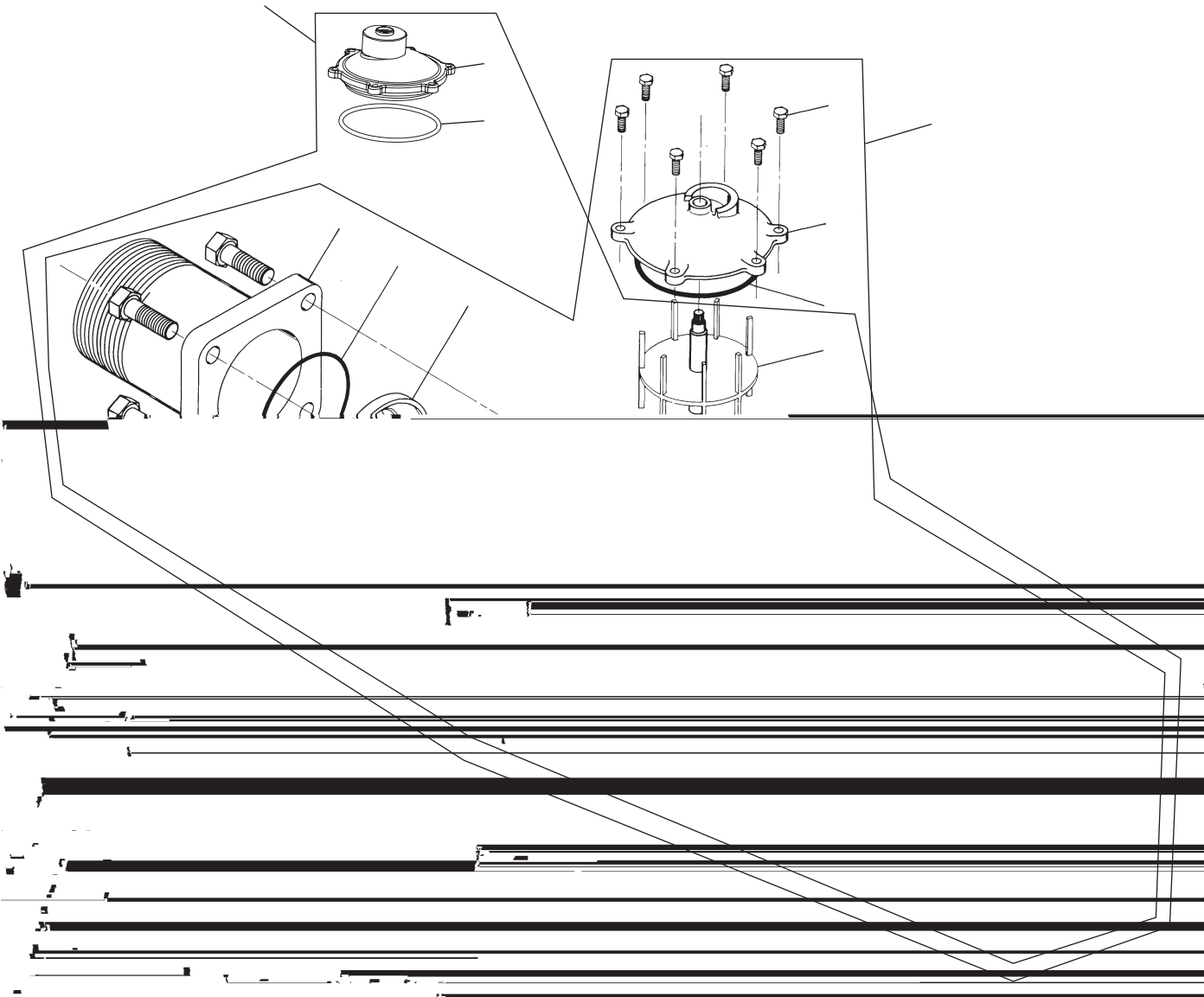
1800 SERIES BRINE SYSTEM AND DRAIN LINE FLOW CONTROL ASSEMBLY

Item No.	QTY	Part No.	Description	Item No.	QTY	Part No.	Description
			Body, Injector, 1800, Downfow,				Downfow
			Body, Injector, 1800 Upfow				Injector Assy, 1800, #4, Upfow
			Body, Injector, 1800, Upfow,				Downfow
							Injector Assy, 1800, #5, Upfow
							Downfow
							Downfow
							Injector Assy, 1800, #7, Upfow
							Downfow
							Downfow
							Downfow
							Brine Valve, 1800, Retroft Kit, Downfow 1800 Injector and
							Upfow
			Upfow				

1800 SERIES BRINE SYSTEM AND
DRAIN LINE FLOW CONTROL
ASSEMBLY

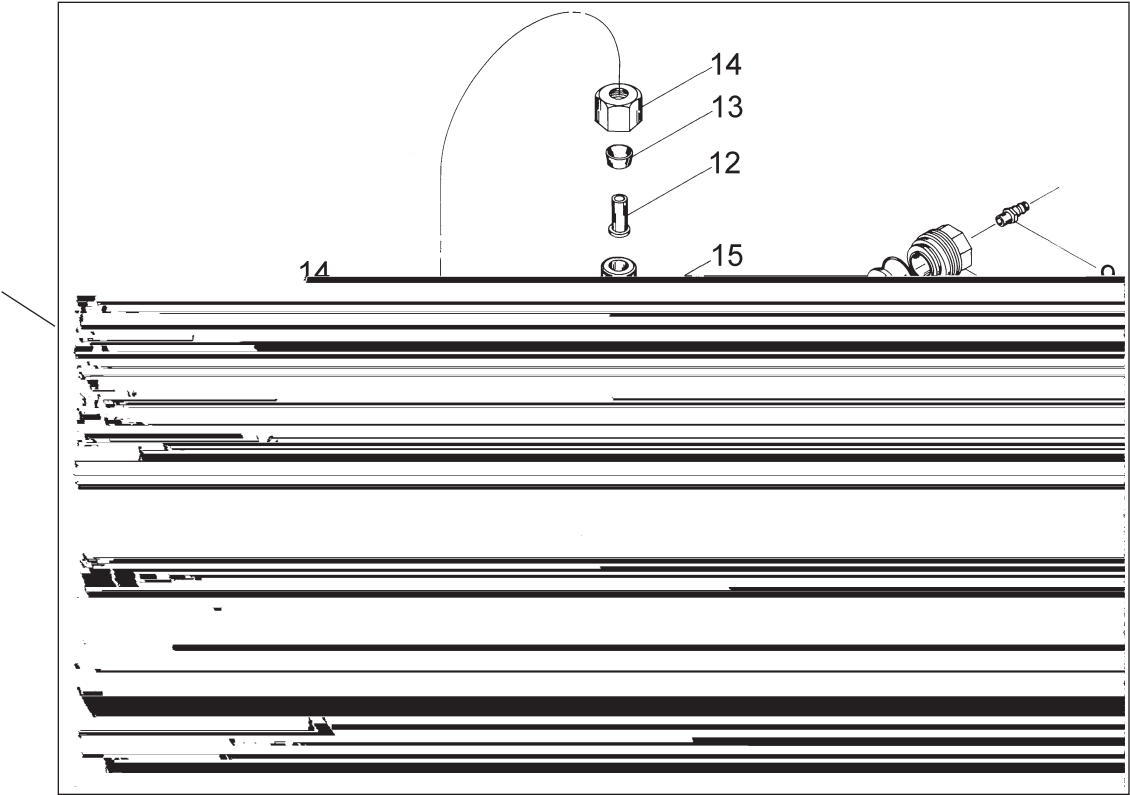
Item No.	QTY	Part No.	Description	Item No.	QTY	Part No.	Description
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3" METER ASSEMBLY



Item No.	QTY	Part No.	Description	Item No.	QTY	Part No.	Description
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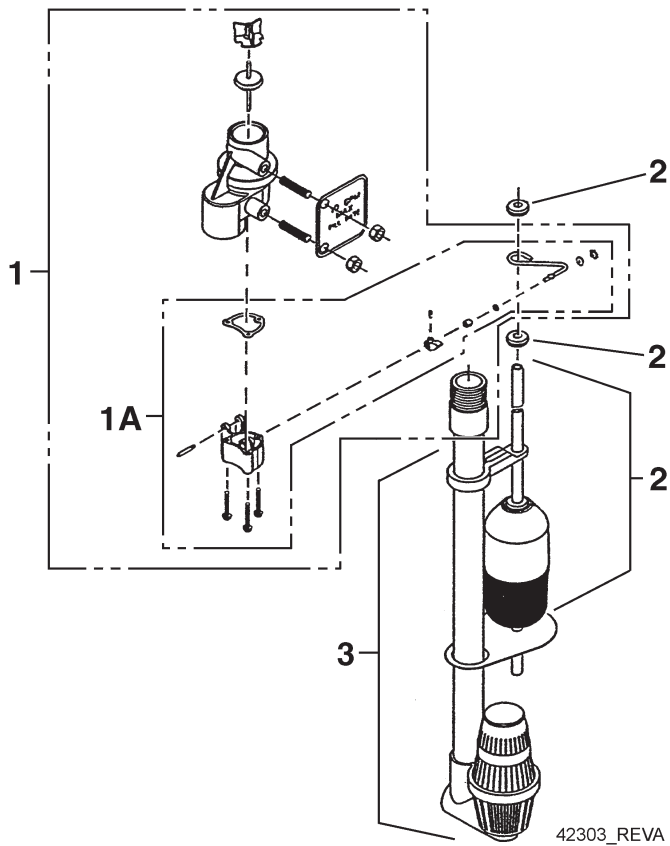
SERVICE VALVE OPERATOR
ASSEMBLY



Item No.	QTY	Part No.	Description
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Not Shown

2350 SAFETY BRINE VALVE



Item No.	QTY	Part No.	Description
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Not Shown

TROUBLESHOOTING

Problem	Cause	Correction
	Insufficient water flowing into brine tank.	Check brine tank fill time and clean brine line flow
		Repeated flushings of the hot water tank is
	Improperly sized drain line flow control.	
		Check backwash, brine draw, and brine tank fill.
	Plugged drain line flow control.	Clean flow control.
	Foreign material in brine line flow control.	Clean brine line flow control.
	Drain line flow control is plugged.	Clean drain line flow control.
Drain flows continuously.		

GENERAL SERVICE HINTS FOR METER CONTROL

Problem: Softener delivers hard water

Reason:

Correction:

Reason:

Correction:

Reason: Meter is not measuring flow.

Correction:

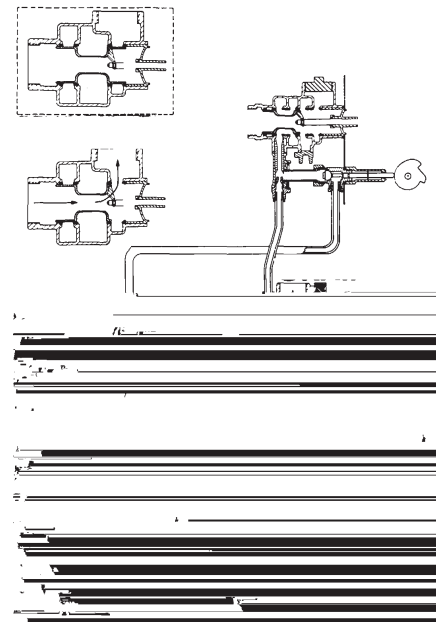
WATER CONDITIONER FLOW DIAGRAMS

1 Service Position



Hard water enters at valve inlet and flows down thru mineral to the bottom distributor. Conditioned water flows up thru the

2 Backwash Position

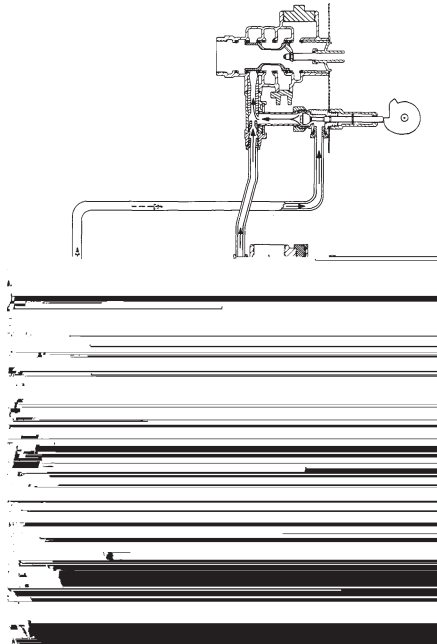


Hard water enters at valve inlet – flows thru service adapter

hard water by-pass piston is used, water flow to service outlet of the rapid rinse cycle or brine tank refill cycle, depending on

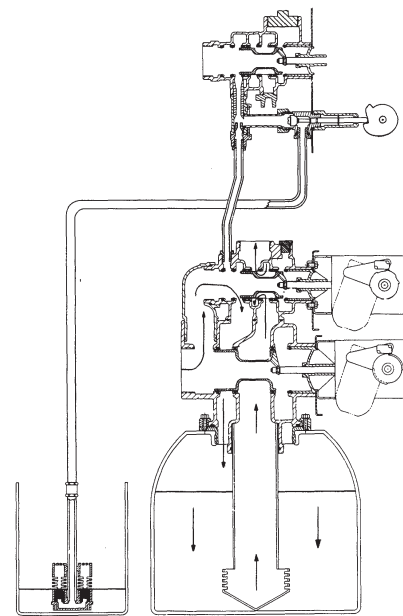
WATER CONDITIONER FLOW DIAGRAMS

3 Brine Position



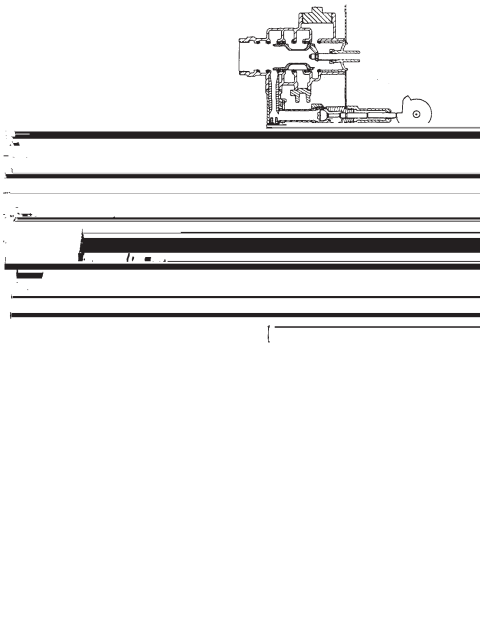
Hard water enters at valve inlet – flows thru injector nozzle and throat to draw brine from the brine tank. Brine flows down thru

5 Rapid Rinse Position



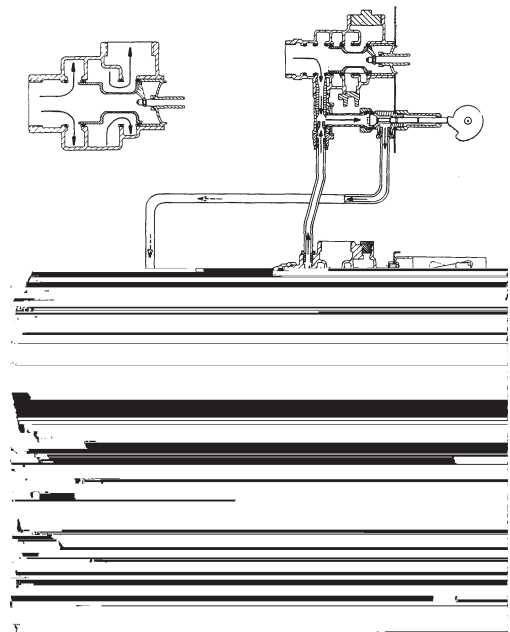
Hard water enters at valve inlet – flows thru the regeneration

4 Slow Rinse Position



Hard water enters at valve inlet – flows thru injector nozzle and

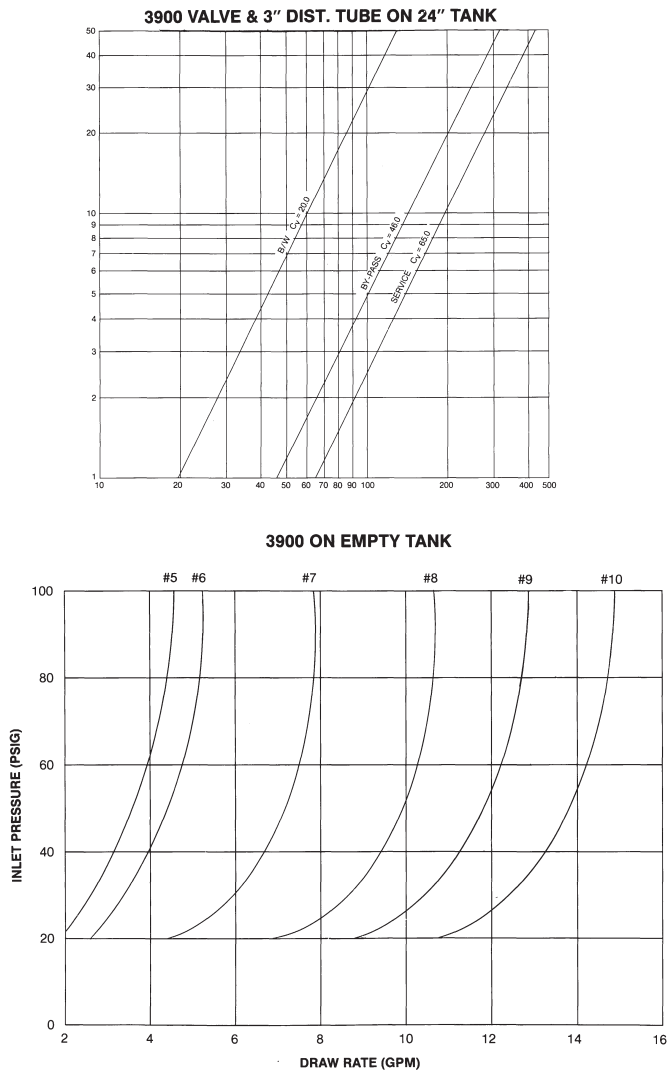
6 Brine Tank Refill Position



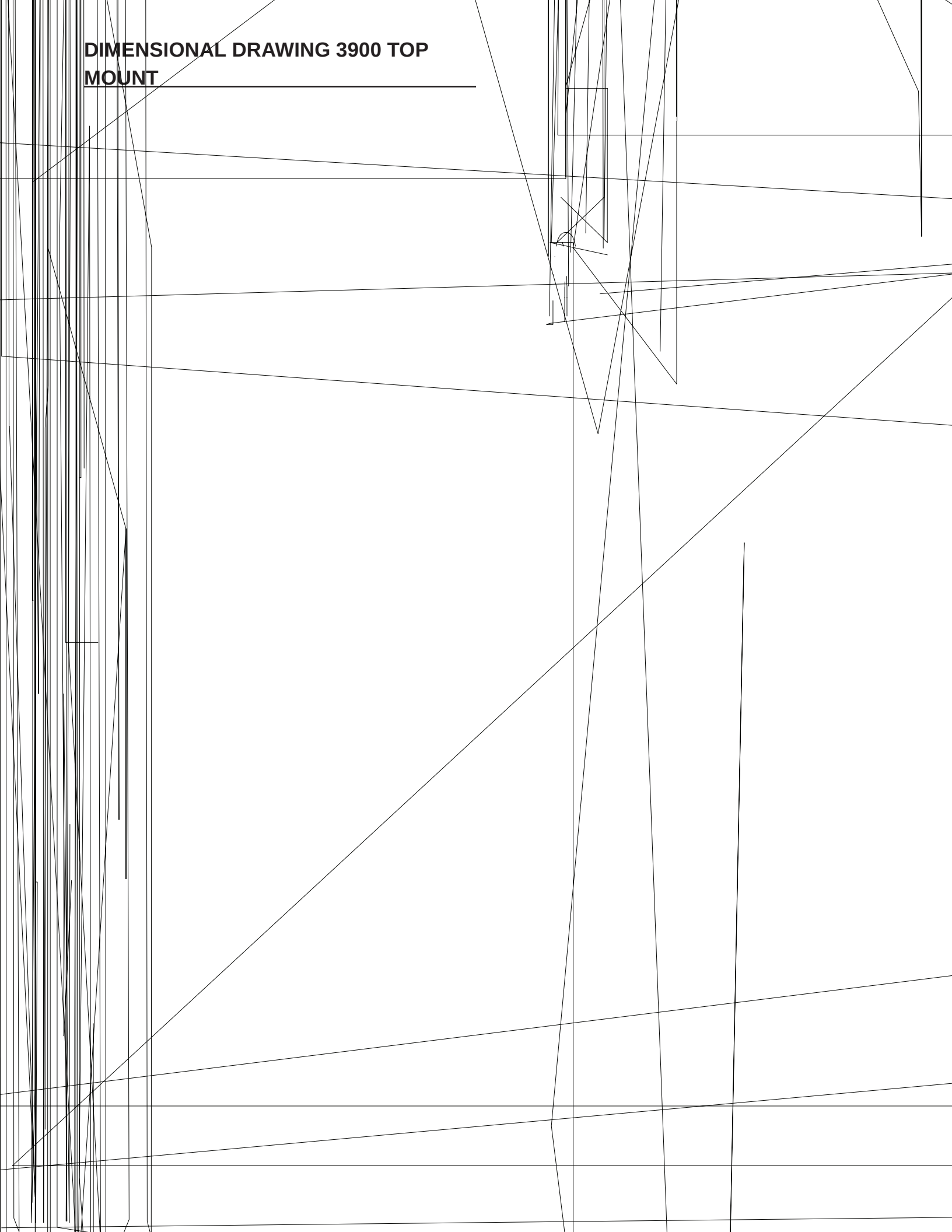
Hard water enters at valve inlet – flows thru nozzle and thru throat to brine valve to refill the brine tank. Inlet flow

Conditioned water flows up thru the distributor tube, around the service valve in by-pass position until the end of brine tank refill

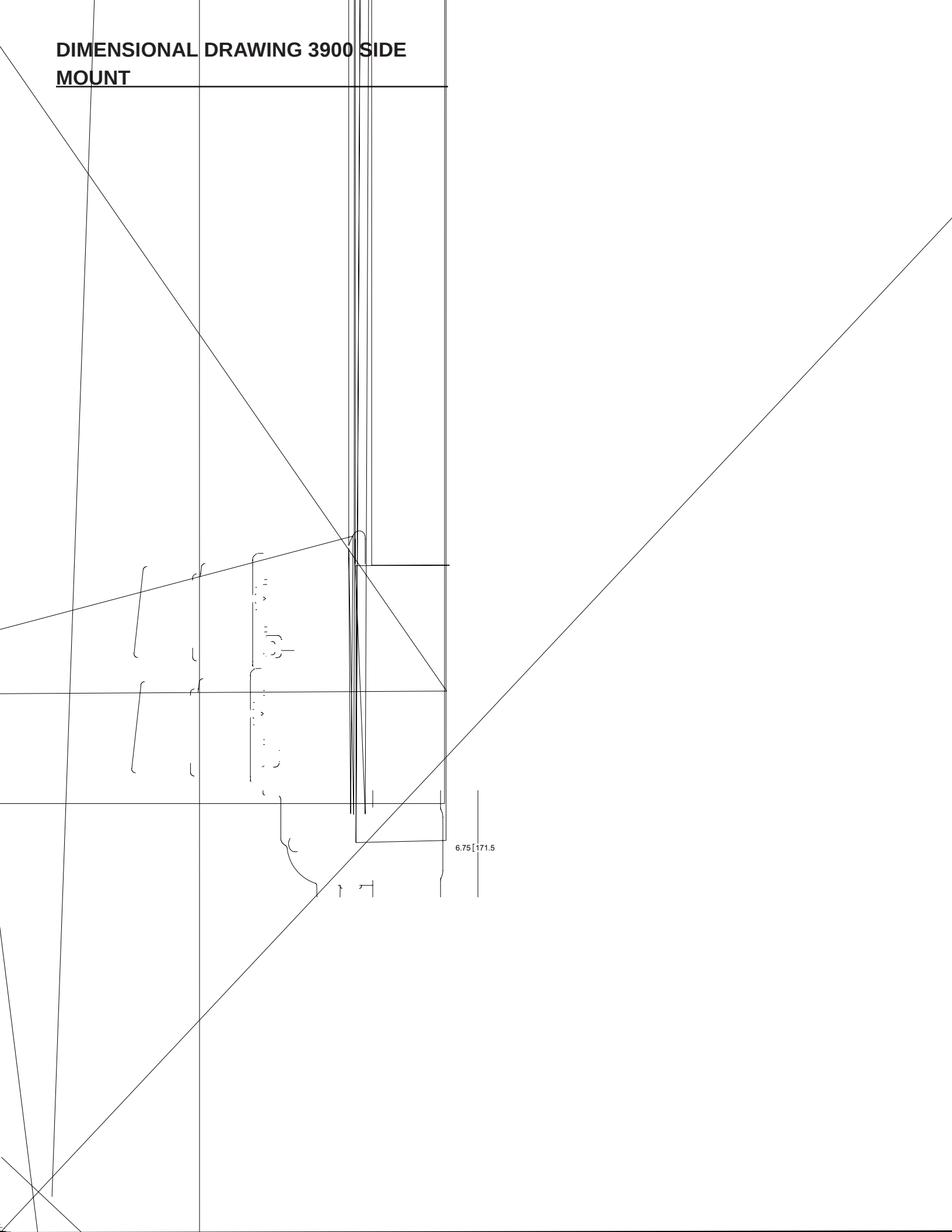
FLOW DATA & INJECTOR DRAW RATES



DIMENSIONAL DRAWING 3900 TOP
MOUNT

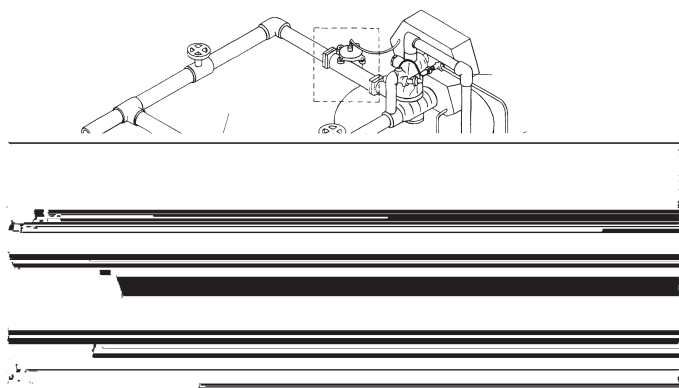


**DIMENSIONAL DRAWING 3900 SIDE
MOUNT**

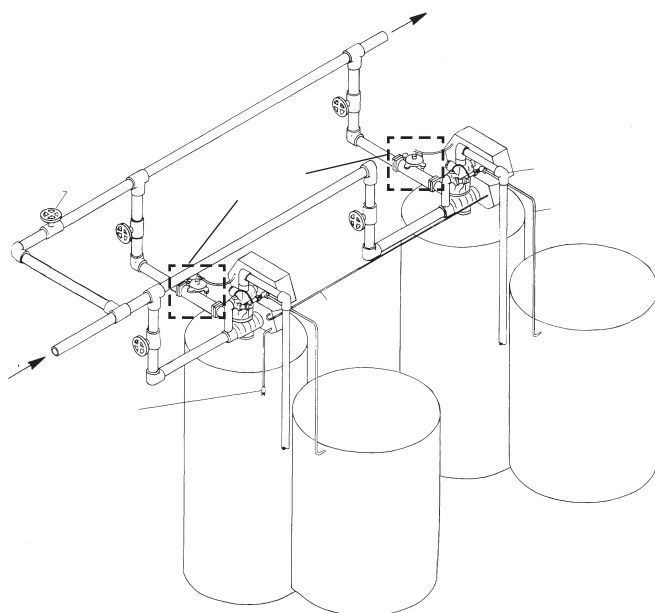


TYPICAL INSTALLATIONS

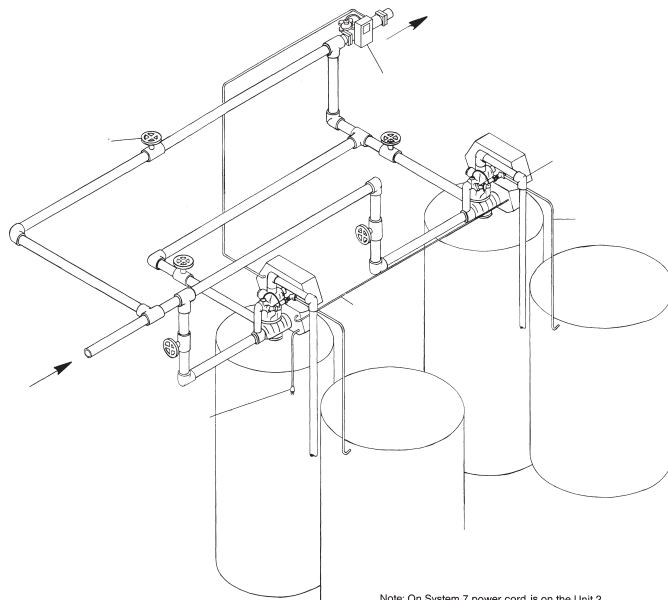
System #4 - Typical Single Tank Installation with Optional Meter



System #5 Interlock - Typical Twin Tank Installation with Optional Meter Interlock and No Hard Water Bypass

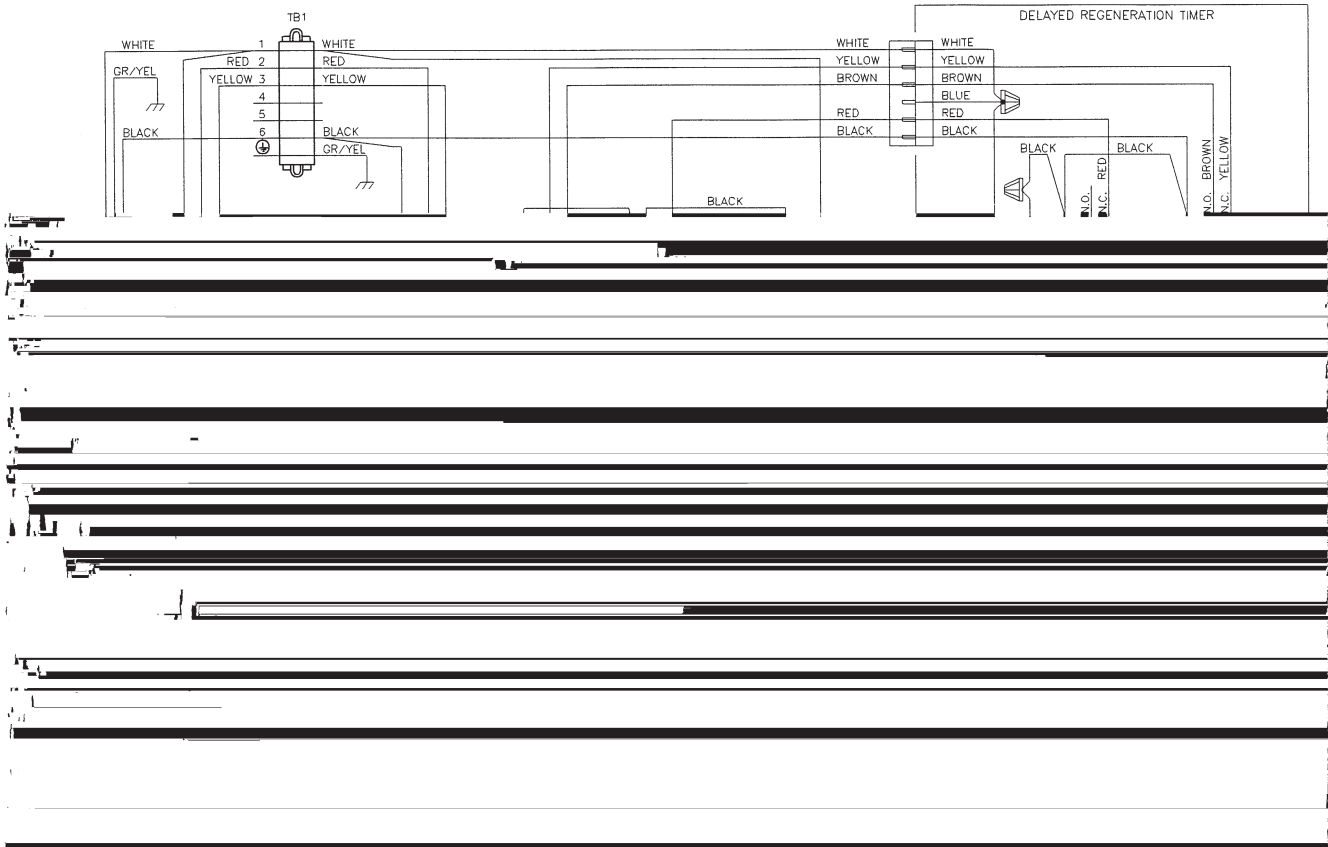


System #6 Interlock - Typical Twin Tank Installation with Optional Meter Interlock and No Hard Water Bypass

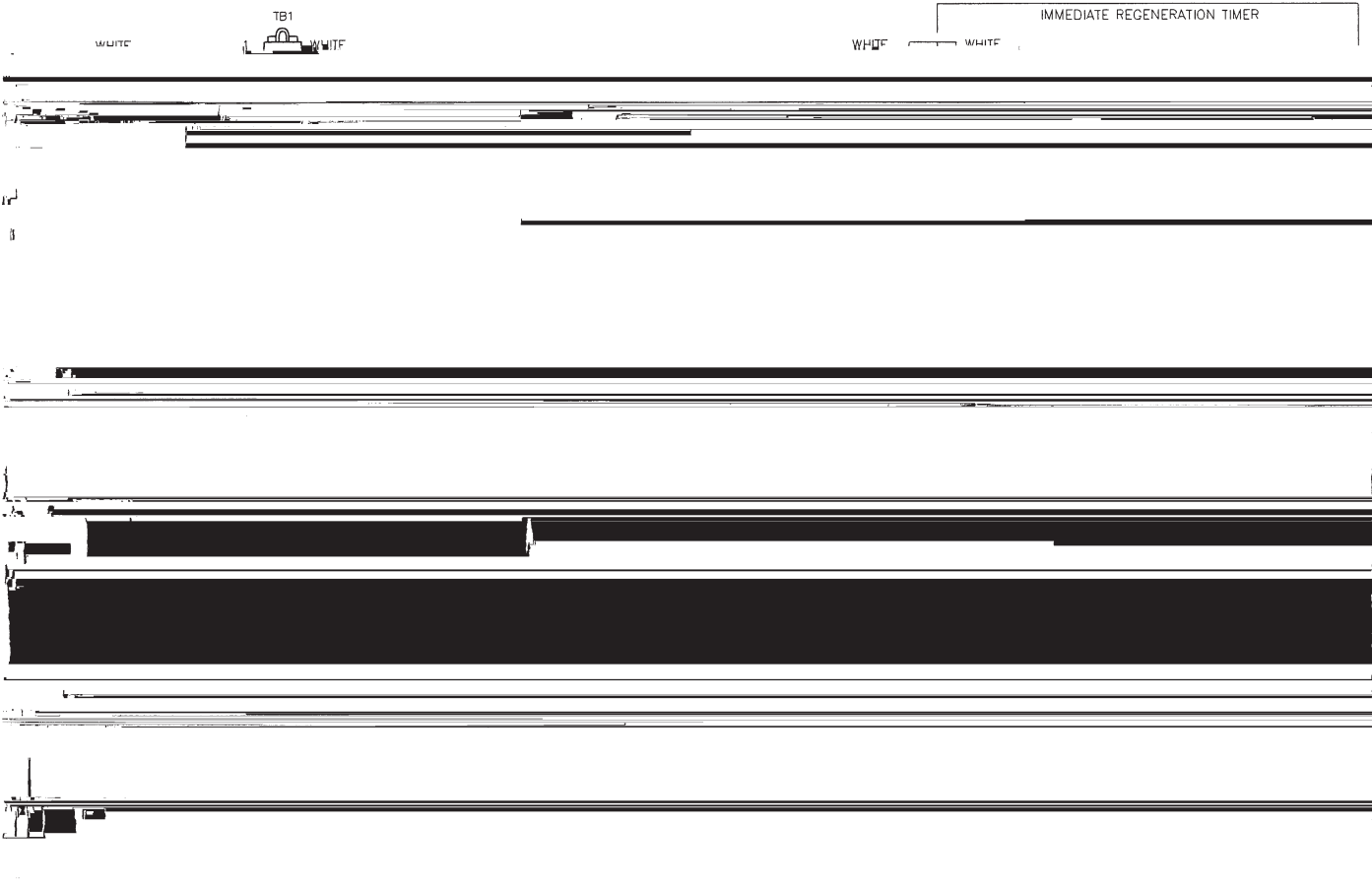


VALVE WIRING

System #4

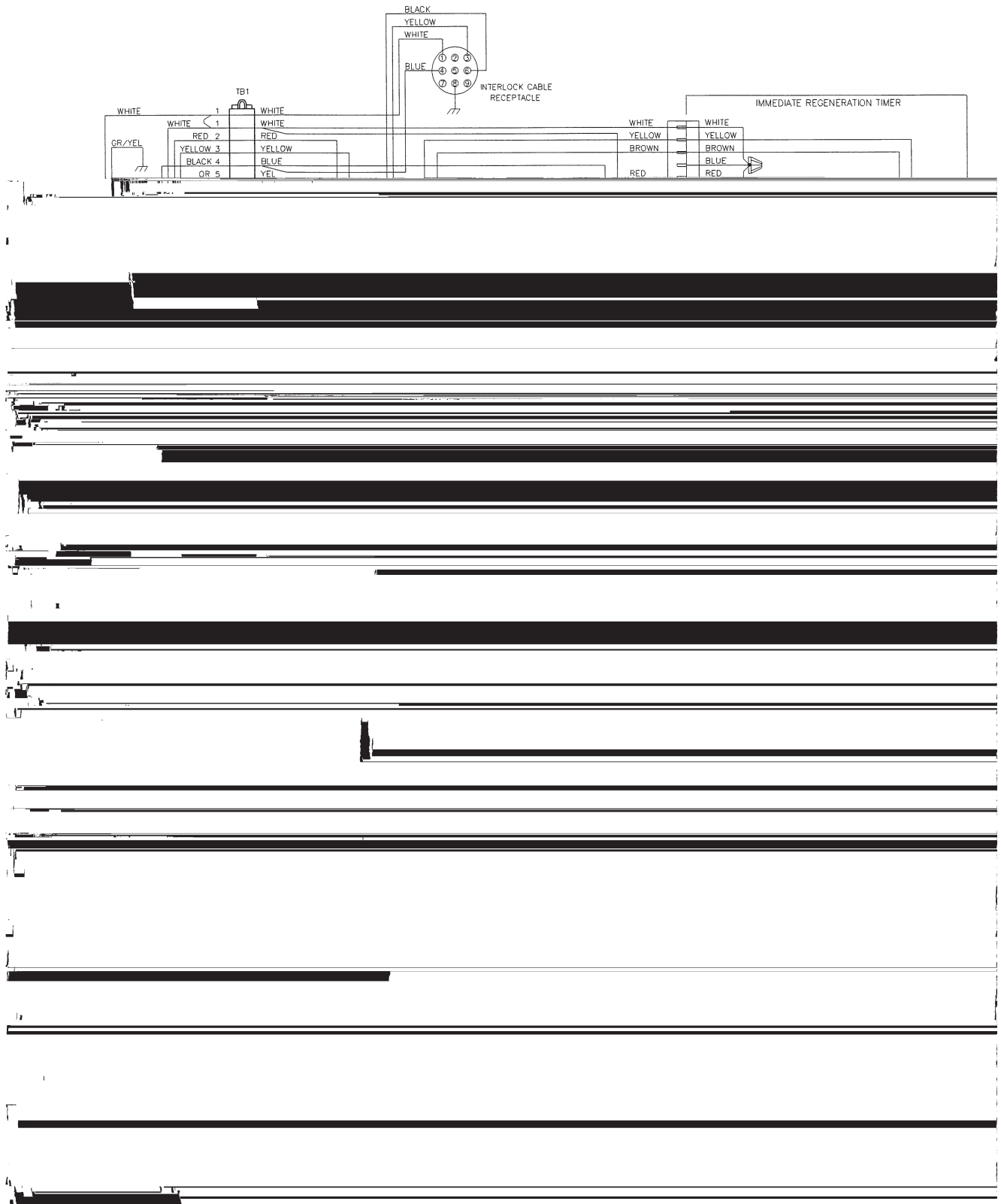


System #4 with Remote Meter



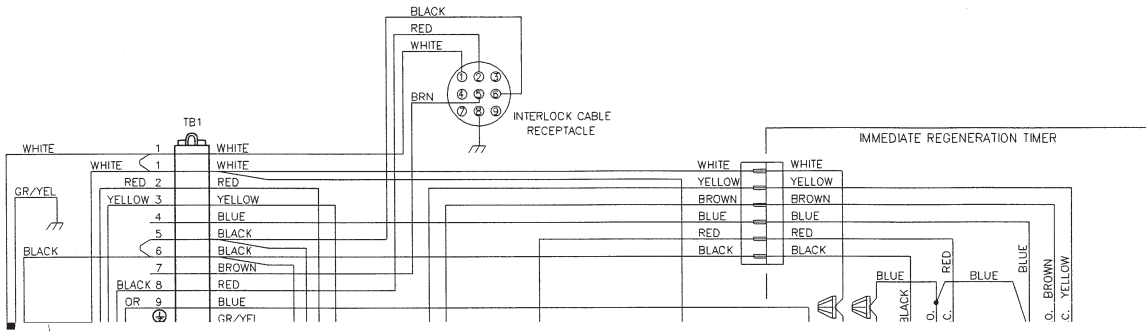
VALVE WIRING

System #5



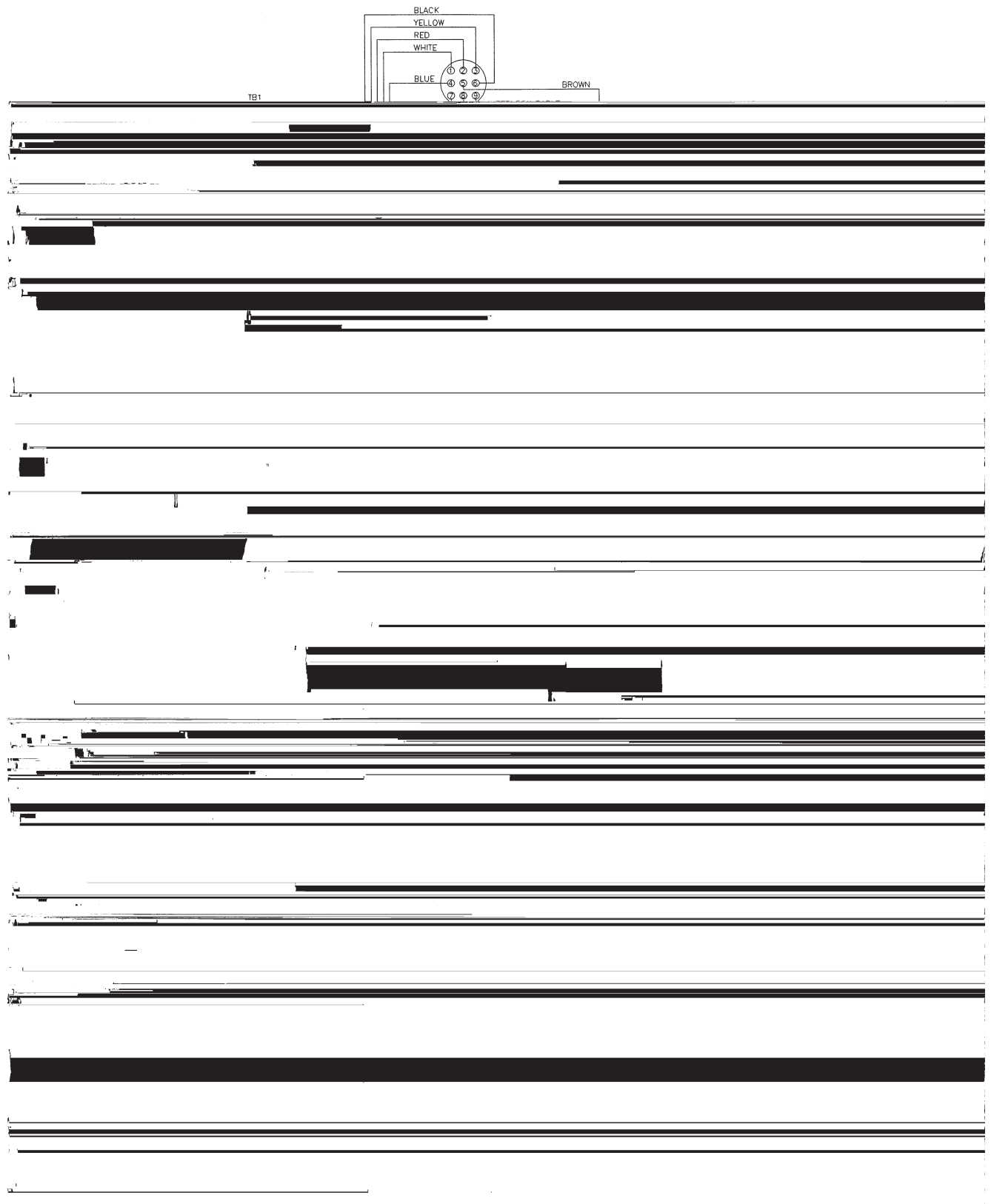
VALVE WIRING

System #6



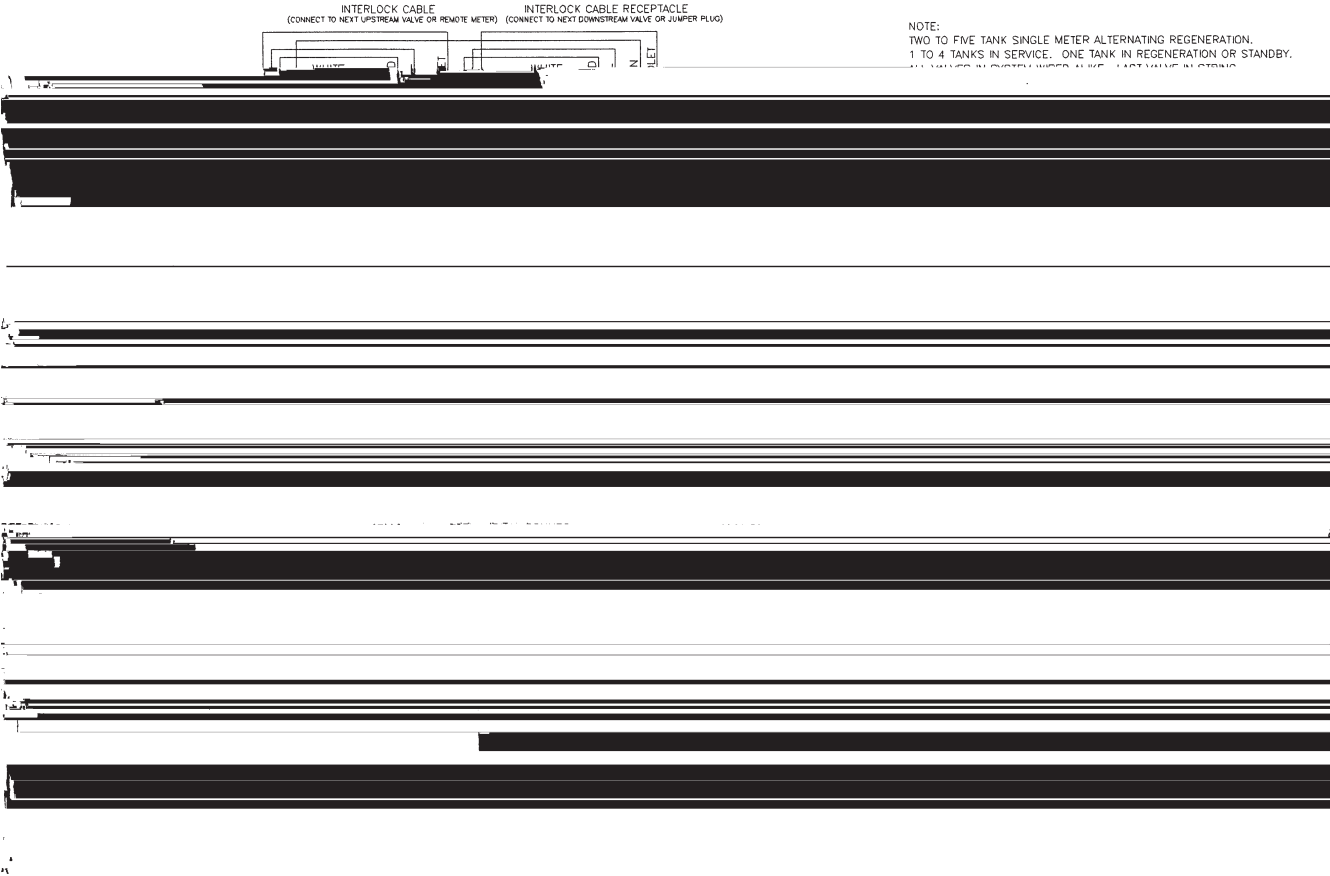
VALVE WIRING

System #7



VALVE WIRING

System #7 Multivalve



SERVICE ASSEMBLIES

60036-02	1800 Brine Valve:	60058-01	3900 Lower Drive Motor Assembly - 115 V System #4:
60277-xx	1800 Injector Assembly:		
		60131-10	3900 Upper Seal Kit:
60160-00	3900 Upper Piston Assembly:	60132-10	3900 Lower Seal Kit:
60107-00	3900 Lower Piston - Hard Water Bypass:		
60107-10	3900 Lower Piston - No Hard Water Bypass:		
60131	3900 Upper Seal Kit:		
60132	3900 Lower Seal Kit:		
60057-01	3900 Upper Drive Motor Assembly - 115 V:		

SERVICE ASSEMBLIES

Drain Line Flow Controls (DLFC):

