



Engineered Water Treatment Solutions
Since 1932

DCS1 Water Softener Start-Up Guide

***All plumbing connections to the water softener MUST be complete before beginning start-up procedure.**

***Diamond H2O recommends an Inlet & Outlet Isolation Valve and a By-Pass System.**

***If your Water Softener is equipped with an electronic timer, all programming should be completed before proceeding with start-up.**

Before beginning Start-Up, Re-Confirm the following have been completed:

(A). Inlet & Outlet Connections to the Control Valve are correct.

(B). The Drain Line has been run from the Control Valve to an open drain.

(C). The proper Drain Line Flow Control has been installed in the drain

*** Note: A Drain Line Flow Control will be supplied with all new Water Softener Systems.**

(D). The Brine Line has been connected.

***Note: If Brine Line is not attached, connect the poly tubing (provided) from the control valve to the air check or safety float in the brine tank.**

DCS1 START-UP STEPS

1.(A). Add approximately 5" of water to the brine tank (if Brine Tank is supplied with a grid plate fill until water is about 1" above grid).

***NOTE: Start-Up only one unit at a time.**

2.(A). Close the Inlet and Outlet Isolation Valves to each unit and open the By-Pass Valve. Verify flow through By-Pass before proceeding.

3.(A). Connect the Water Softener to the power supply. Program time of day, day of week and hardness. For twin or triple water softeners interconnecting wiring should be connected before powering up. Wires will be labeled as to which unit they are to be plugged. The interconnecting wires are designed to all plug in and are keyed to only fit to the port in which they go. Also be sure to plug and secure meter cables. (For a twin a single wire comes out of the main control valve and splits to 1 and 2. 1 is wired to the short meter cable that plugs into the main control and 2 gets wired to the long meter cable that connects to unit number two. All meter cables connect to outlet of valve.)

CONSULT THE PROVIDED SERVICE MANUAL TO PERFORM THE FOLLOWING STEPS:

4. Advance the Control Valve to the Backwash Position. To do this push and hold regeneration button for 5 seconds

5.(A). SLOWLY open the Inlet Valve when C1 is showing on logix controller. Do **NOT** open the Inlet Valve completely. (The incoming water is now being forced to the bottom of the tank, up through the media, and out the drain.) Disconnect power until all air is purged.

*** NOTE: If the tank(s) was not filled with water before valves were installed (recommended) you will hear air coming out the drain line.**

***CAUTION: If media begins to come out of the drain, close the inlet valve even further. Media should never come out of the drain line.**

6. Let the water run from the Drain Line for about 5 minutes, or until drain water is clear.

7.After the drain water has cleared, open the inlet valve completely. (It is a good practice to check drain water at this time to be sure no media is backwashing out.)

8.Advance the control valve to the brine draw / slow rinse position by pushing and releasing up and set at the same time. (when using a electronic timer you will want to reference the control manual for cycle step position numbers). (The water will now flow into the top of the tank and brine is being drawn out of the brine tank at a slow rate.)

NOTE: The drain flow should be approximately one-fourth of what it is in backwash position. Within 2-3 minutes, the level of water in the brine tank should have gone down.

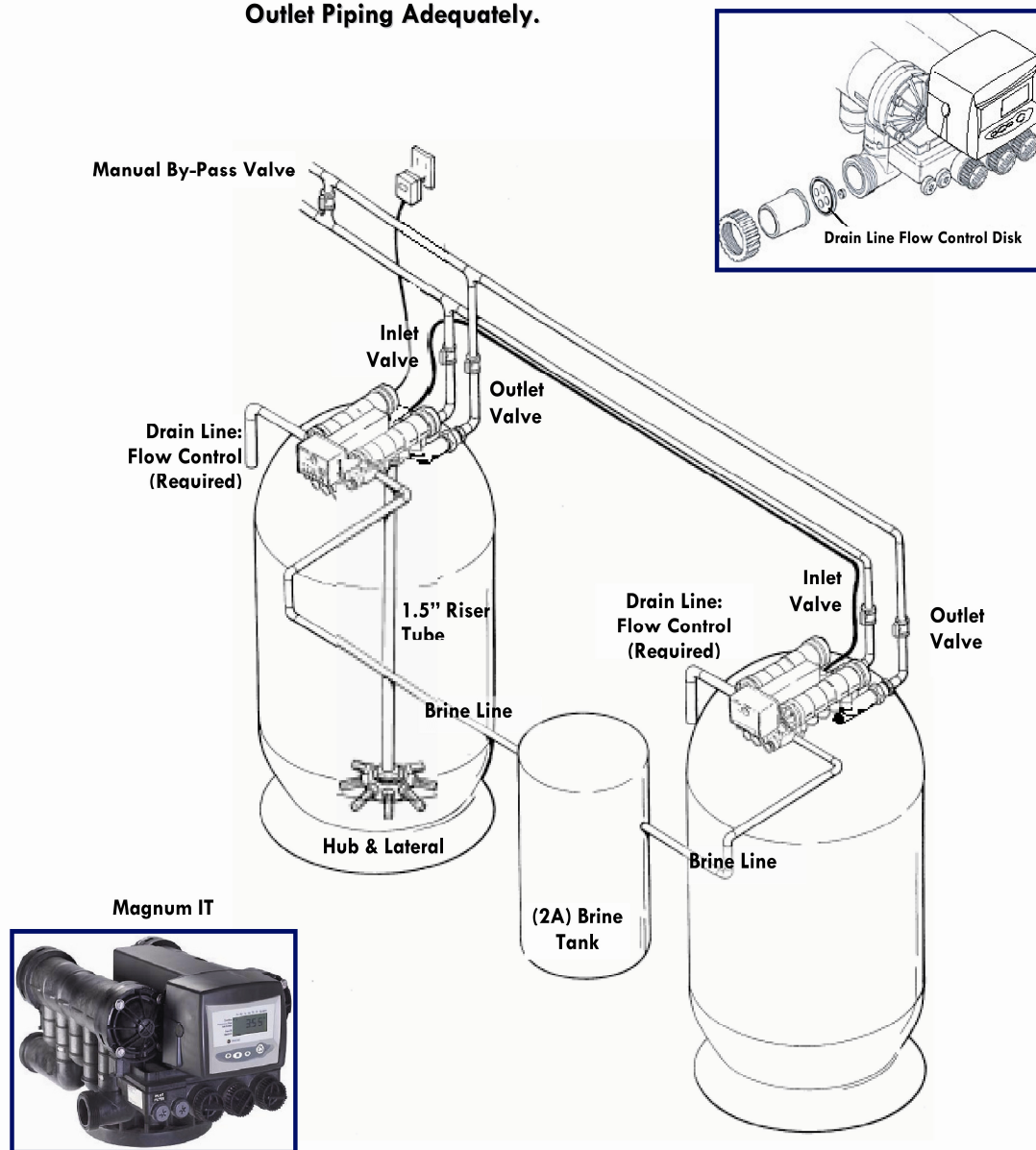
9.Advance the control valve to the fast rinse position by pushing and releasing up and set at the same time. (The water now flows into the top of the tank and refills the brine tank with fresh water.)

***NOTE: DCS1 Series water softeners are equipped with timed brine refill. The brine Refill MUST be set-up prior to start-up. After the refill time has been set properly, the water softener will add the proper amount of water to the brine tank and return the unit to the service position automatically (this step is factory programmed).**

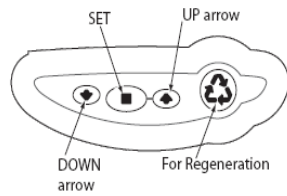
10. Repeat start-up steps for each additional tank.

11.Open the outlet valve and close the bypass valve. Verify that there is water flow at a convenient faucet. Test the water for hardness to ensure that the softener is operation properly (all water softeners manufactured by Diamond H2O come pre charged so there is no need to regenerate before verifying that the system is operating

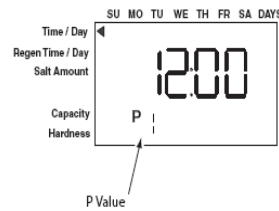
***NOT : Support Inlet & Outlet Piping Adequately.**



The Logix Series controllers are designed to operate by only setting the time of day and the day of the week. The remaining settings have been set at the factory. These default settings work for most applications.



To enter Level II programming press and hold UP and DOWN for 5 seconds. A "P" value is displayed indicating Level II.



To change a setting refer to Table 13.1.

Table 13.1

Action	Key	Duration	Display
Enter basic programming	SET	Press and Release	Shows time and day of week
Move to desired display	UP or DOWN arrows	Press and Release	Increments through the displays
Enable setting to be changed	SET	Press and Release	Display flashes
Change setting	UP or DOWN arrows	Press and Release	Value changes and continues to flash
Save setting	SET	Press and Release	Display stops flashing
Return to operation	REGEN	Press and Release	Normal operation display
View history values	SET and DOWN	Press and Hold for 5 seconds	H0 is displayed
Level II Advanced Programming	UP and DOWN	Press and Hold for 5 seconds	P1 is displayed

The 742/762 features a special programming level that allows the installing dealer to make changes to the control for more demanding applications. The home owner/end user should never have to access this level.

Level II menus include:

- P1 = Time of day
- P2 = Day of week
- P3 = Time of regeneration
- P4 = Number of days between regeneration (99 day calendar override)
- P5 = Not used (742 only)
- P6 = Amount of regenerant used per regeneration or filter backwash time (salt setting)
- P7 = System capacity
- P8 = Hardness
- P9 = Units of measure
- P10 = Clock mode
- P11 = Service interval
- P12 = Remote regeneration switch delay
- P13 = Refill sensor control (conditioner only)
- 0 = Off
- 1 = Salt detector only
- 2 = Chlorine generation
- P14 = Refill rate (conditioner only)
- P15 = Draw rate (conditioner only)
- P16 = Reserve type
- P17 = Initial average or fixed reserve
- P18 = Flow sensor select
- P19 = K-factor or pulse equivalent

See the Logix Professional dealers manual for further details on setting Level II parameters.