START-UP PROCEDURES FOR ELECTRONIC CONTROLLER:

- After installation is complete, rotate bypass handles to bypass mode ***(see "Valves Closed" in Fig.3)***.
- Turn on water and check for leaks.
- Fully open a cold water faucet — preferably a laundry sink or bathtub with no aerator.
- Allow water to run until clear to rid pipes of debris which may have occurred during installation.

NOTE: The system regeneration sequence for the Iron Soft Plus Conditioner.

Backwash
Regenerate (Brine)
Rapid Rinse
Fill
Service

The system is now ready for filling with water. For the purpose of filling the softener, leave the unit in the bypass position until the 2nd step, then repeat steps 1-6 with the unit full. **Do not open the bypass at this time,** it will be filled in the backwash position. Once the unit is filled with water (step 2), then open the bypass.

1. With the softener in the bypass mode ***("Bypass valve," Fig. 3)*** and the control valve in normal operation where the display shows either the time of day or the gallons remaining:
   Manually add 5 GALLONS of water to the regenerant tank.

   NOTE: If too much water is put into the brine tank during softener startup, it could result in a salty water complaint after the first regeneration.
   During the first regeneration the unit will draw out the initial volume of brine/regenerant and refill it with the correct preset amount.

2. Press and hold the  button for 5 seconds.

   NOTE: You will hear a click, indicating the valve will go into regeneration. There is a momentary delay until the motor starts to advance, the unit is now in the backwash position. Once motor has stopped, open inlet handle ***("Valve B," Fig. 3)*** of the bypass valve **very slightly** allowing water to fill the tank **slowly** in order to expel air. Once air is expelled and water is running at drain, open inlet to control.

CAUTION: **If water flows too rapidly it could result in loss of media to the drain. When the water is flowing steadily to the drain without the presence of air, slowly open the inlet valve. Check that the drain can receive the flow of water. Restore power.**

3. Connect brine line to brine tank. Press  button again to put the valve into BRINE position. Display will flash No. 2 until position is reached. Check the brine line for section. Verify that water is being drawn from regenerant tank with no air leaks or bubbles in the brine line. There should be a slow flow to the drain.

4. Press  button and place unit into rinse position. Display will flash No.3 until position is reached. Check drain line to be secure and see that drain can receive the flow of water. There should be a rapid flow to the drain. Unplug transformer to keep the valve in the RINSE position. Allow to run until clear and without air. While the unit is rinsing, load the brine tank with water softener salt.

START-UP PROCEDURES FOR ELECTRONIC CONTROLLER CONT'D:

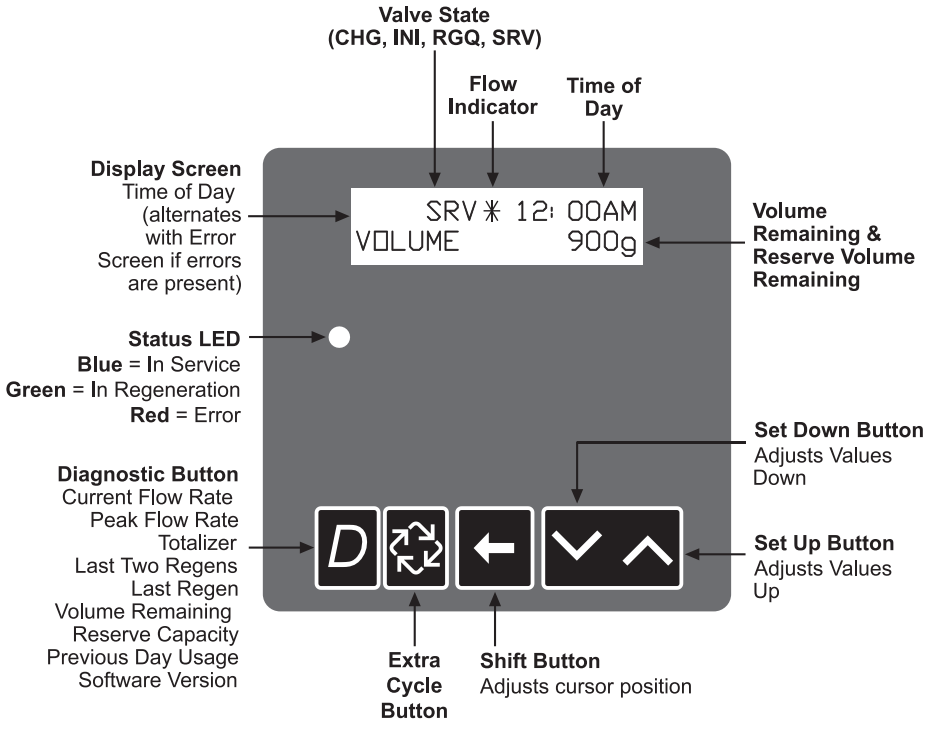
CAUTION: **Damage or destruction to the media may occur if salts containing additives are used with the Iron Soft Plus models. Most "solar" and/or "block" salts do not contain additives detrimental to this unit. If unsure, please check with manufacturer. Many "pellet" or "cube" type salts are formulated with cleaning agents or additives which can cause harm to the media. Salt manufacturers do not always list additives in their products. Please check with salt manufacturers for any cleaning agents, binders or phosphate material added to salt.**

NOTE: The manufacturer does recommend the brine tank be cleaned once a year to discard accumulated dirt from the salt.

5. Press the button and place unit into the brine tank fill position. Check to verify that the regenerant tank is filling at a rate of 1/2 gallon per minute. Check Brine line connections for leaks.
   NOTE: See page 18, Safety Float Assembly, Item No. 2, for location of 1/2 gpm Refill Flow Control.
6. Press button again, valve will cycle back to the normal operating position with the time of day and gallons remaining displayed.
7. Repeat steps 1-6 and now check the various cycles for proper operation.
8. Once the cycle operation has been verified, place bypass valve in the normal operating mode ***("Valves Open," Fig. 3)*** by opening the outlet bypass handle.
9. Go to laundry tub or bathtub faucet, preferably a faucet without an aerator, and turn on the cold water, let the water run. Note the color of water coming from faucet. If discolored let water run until clear.

NOTE: At no time should there be "large particles" of media noticed at faucet or laundry tub. If this is seen, immediately shut off water and bypass system as this could be an indication of a distributor failure. Contact manufacturer or distributor for assistance.

TIMER DISPLAY DESCRIPTION:



VALVE STATE

CHG (Change of State):
CHG will be displayed when the lower drive changes from one state to another in dual piston valves.

INI (Initializing):
INI will display for 30-45 seconds when initializing after a power failure reset or programming.

RGQ (Regeneration Queued):
RGQ indicates that the reserve has been entered in a delayed system and regeneration has been queued. When in the main screen, press the SHIFT button to toggle SRV (Service) with RGQ.

Service (SRV):
SRV will display when the unit is in service.

LED STATUS LIGHTS

Blue: Illuminates while the unit is in service and no errors exist. The will always be in service unless a regeneration trigger has occurred.

Green: Indicates is in regeneration mode.

Red: Indicates there is an error.

FLOW INDICATOR

A rotating line (appearing as a rotating star shape) will display when flow is going through the meter.

TIMER OPERATION:

Set Time of Day

1. Press and hold the UP or DOWN arrow for 2 seconds.
2. Press the SHIFT button to select the digit to modify.
3. Press the UP or DOWN arrow to adjust the value.
4. Press the EXTRA CYCLE button to return to the normal display screen, or after a 5 second timeout.

NOTE: The "D" button can be pressed to exit without saving.

Manually Initiating a Regeneration

1. When timer is In Service, press the EXTRA CYCLE button for five seconds to force a manual regeneration.

NOTE: You will hear a click, indicating the valve will go into regeneration. There is a 10-second delay until the motor starts to advance.

2. The timer advances to Regeneration Cycle Step #1 and begins programmed time countdown.
3. Press the EXTRA CYCLE button once to advance valve to Regeneration Cycle Step #2.
4. Press the EXTRA CYCLE button once to advance valve to Regeneration Cycle Step #3.
5. Press the EXTRA CYCLE button once to advance valve to Regeneration Cycle Step #4.
6. Press the EXTRA CYCLE button once more to advance the valve back to In Service.

NOTE: A manually initiated or queued regeneration can be cleared by pressing the EXTRA CYCLE button for less than 5 seconds. A system queued regeneration can only be cleared by stepping through a manual regeneration. If regeneration occurs for any reason prior to the delayed regeneration time, the manual regeneration request shall be cleared. Pressing the EXTRA CYCLE button while in regeneration will cause the upper drive to advance to the next step immediately.

Queued Regeneration

From the display screen, while the unit is in service, hold down the EXTRA CYCLE button until "RGQ" displays. The valve will regenerate when the set regeneration time has been reached.

Timer Operation During Regeneration

In the main display screen, the timer shows the current regeneration cycle and the time for that step. The green LED light will display when the unit is in regeneration. Once all regeneration steps are complete, the timer returns to In Service, displays a blue LED light and resumes normal operation.

Timer Operation During Programming

The timer enters program mode (unit must be in service). While in the program mode, the timer continues to operate normally, monitoring water usage. Timer programming is stored in memory permanently upon a normal exit from programming mode.

Timer Operation During a Power Failure

All program settings are stored in permanent memory. Current valve position, cycle step time elapsed and time of day are stored during a power failure and will be restored upon power reapplication. Time is kept during a power failure and time of day is adjusted upon power up (as long as power is restored within 12 hours.)

NOTE: The time of day on the main display screen will flash for 5 minutes when there has been a power outage. This flashing can be stopped by pressing any button on the display.

Regeneration Day Override Feature

If the Day Override option is turned on and the valve reaches the set Regeneration Day Override value, the Regeneration Cycle starts the programmed regeneration time.

TIMER OPERATION CONT'D:

Flow Meter Equipped Timer

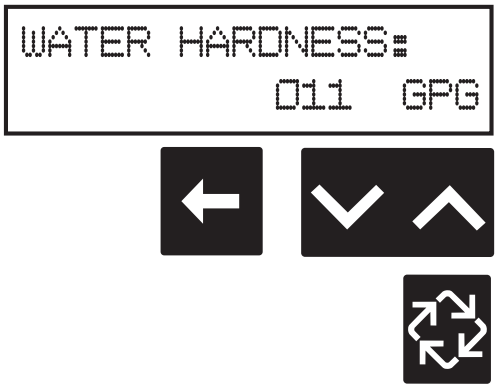
As treated water is used, the Volume Remaining display counts down from the calculated system capacity, less the reserve volume. Once capacity reaches zero or reserve, the unit will regenerate immediately. If it is a Fixed, Variable or Weekly reserve, the unit will queue a regeneration (RGQ) and count down Reserve Volume until the set regeneration time.

NOTE: Reserve Volume is only available in a RGQ system.

PROGRAMMING THE ELECTRONIC CONTROLLER:

1. Enter User Mode

Press and hold both the Up and Down buttons for 5 seconds.

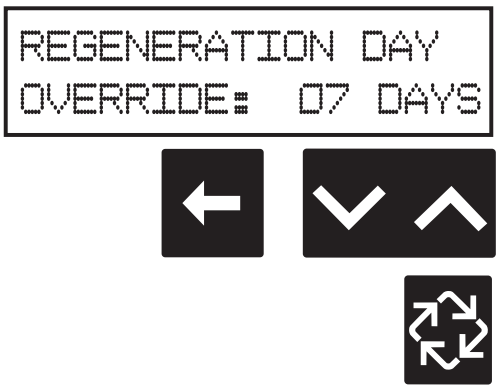


2. Set Feed Water Hardness

The feed water hardness setting displays only when a metered option is chosen under System Type.

— Press the Shift, Up or Down button to move the cursor and change the value of the numbers. The system automatically calculates treated water capacity based on the feed water hardness and the system capacity.

— Press the Extra Cycle button to proceed to the next step.

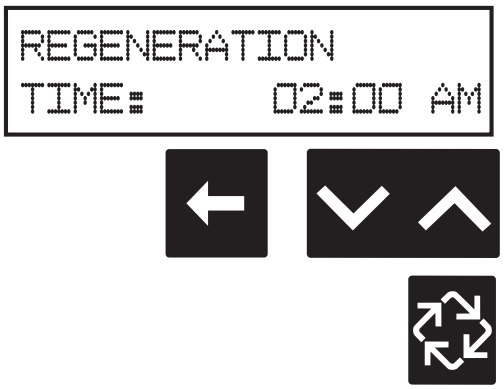


3. Set Regeneration Day Override

— To turn on and set the days, press the Down button.

— Press the Shift, Up or Down button to move the cursor and change the value of the numbers.

— Press the Extra Cycle button to proceed to the next step.



4. Regeneration Time

— Press the Shift, Up or Down button to move the cursor and change the value of the numbers.

— Press the Extra Cycle button.

Timer programming is complete and exits from the Programming Mode. Normal operation resumes.