

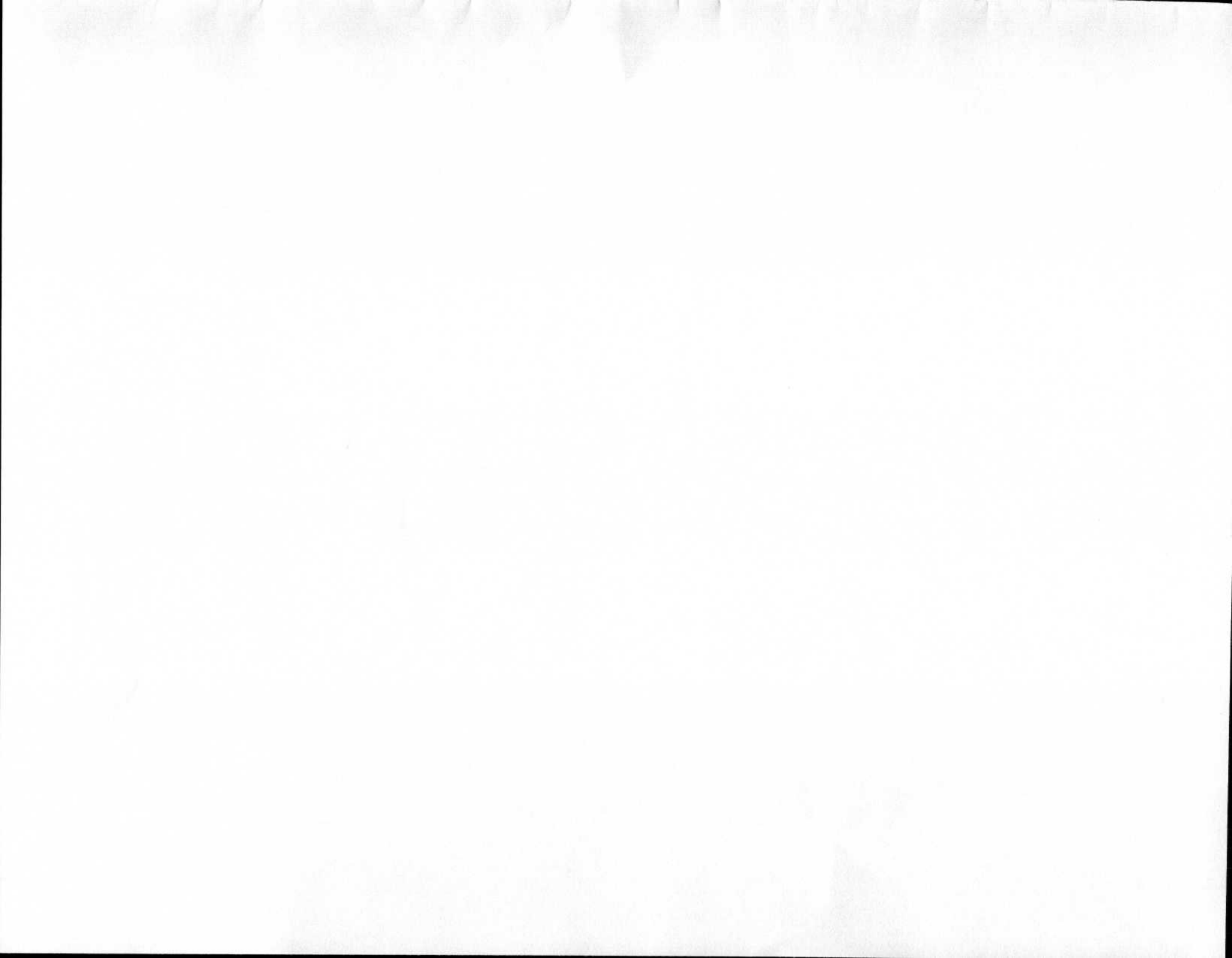


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**Chemical Free Iron & Sulfur Filter**



## Iron Filter Operating Manual

The Iron Filter System is an excellent way to remove iron and sulfur from your water.

Based on a unique patent-protected (US Patent 5,919,373) process the Iron Filter System removes iron effectively and economically without the need of expensive, messy and dangerous chemicals or troublesome pumps or external air injectors.

The Iron Filter System can be used whenever iron is a problem. Years of field experience with the Iron Filter System has shown it will remove iron in excess of 10 parts per million (PPM) and remain effective in high PH water.

### How Does It Work?

The Iron Filter System adds oxygen to the filter media during the draw cycle. The water then passes through the filter media which oxidizes and removes the iron (all in the same tank).

Eventually water passing through the Iron Filter System depletes the oxygen and the unit needs regeneration.

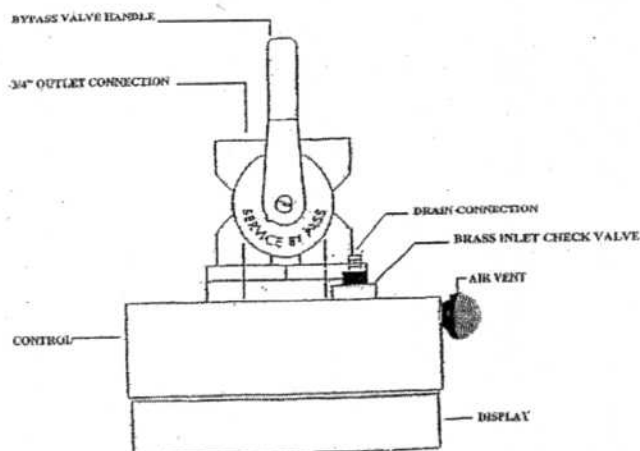
During regeneration the iron is backwashed out. The tank then empties and replenishes the filter media with oxygen from the atmosphere and shifts back into service.

### INSTALLATION

The Iron Filter System will normally be installed:

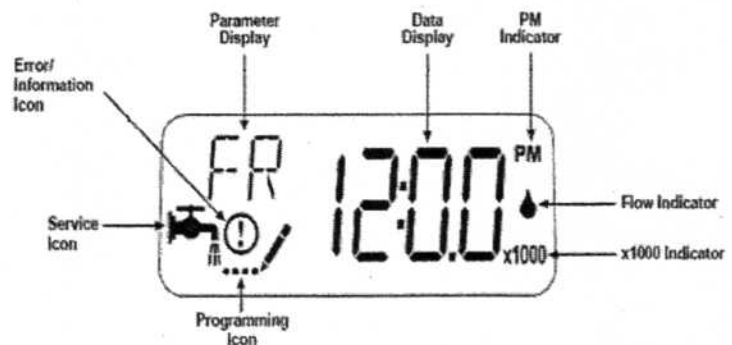
After: Supply line to outside faucets  
Any Neutralizers

Before: A Water Softener  
Any Taste or Odor Filters



## SYSTEM INSTALL AND START-UP

1. The Iron Filter System will be normally installed after supply lines to the outside (unless there is a reason to keep outside faucets iron-free) and after neutralizing filter if needed(Calcite, Corosex)
2. Run piping from drain connection to an approved drain, following all local codes. Secure the drain line! If distance is greater than 10' increase to 1" drain line.
3. Plug power cord into any standard 120V outlet. Make sure the outlet has continuous electrical power.
4. The display will light and show a time.
5. Use the Up and Down arrows on the display to set the correct time of day.
6. Turn the Bypass valve to the "Service" position.
7. Fill unit SLOWLY by turning on the water service valve.
8. Leave the unit in the service position. It is not necessary to run the unit through the cycles.



## SETTING THE CONTROL

The Iron Filter System uses the Fleck model SXT powerhead to manage the regeneration process.

When the unit is in the "Service" position the display will show the current time of day. The clock uses a standard 12 hour display.

## Setting the Control, Continued

The regeneration cycle is preset to occur at 12:30A.M. every third day. This timing and frequency of regeneration can be modified as required.

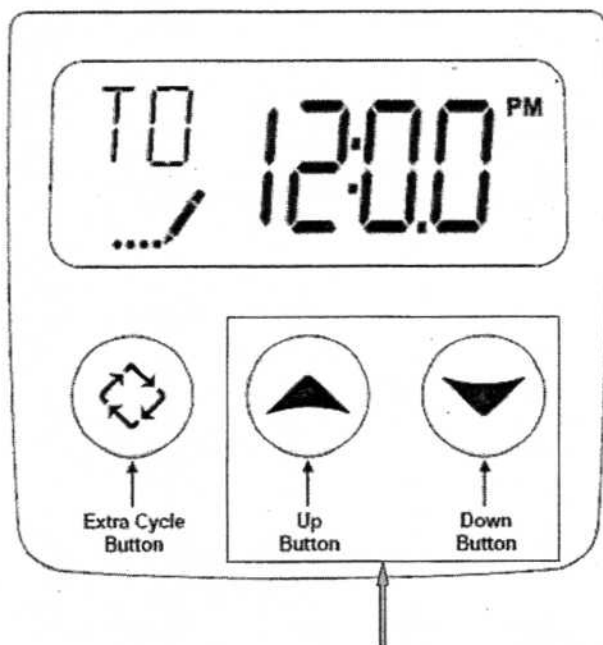
Nominal duration for the regeneration cycle is approximately 40 minutes.

1. Backwash cycle, 10 minute duration. Water flow is reversed inside the unit to lift and reclassify the filter media rinsing accumulated iron from the bed.
2. Oxygen refill, 40 minute duration. The unit empties of water and is filled with air. During this cycle water will run to drain. There is a slight delay at the start of the cycle while the pressure of the air within the tank reaches atmospheric pressure. During this time no air is drawn into the tank. Once the pressure has equalized, you will hear as air is drawn into the unit.
3. The unit returns to the In-Service position. When this happens water continues to enter the tank, compressing the air into a bubble in the top portion of the tank. Air bubble volume will vary slightly with the local conditions.

Untreated water is available during regeneration cycle.

Should you require the unit to regenerate at a time of day other than 12:30 A.M. it is important that no other unit, softener or filter, regenerates at the same time. This will interfere with the regeneration process of the Iron Breaker III.

In condition of high water usage and/or high levels of iron, the unit may need to regenerate more frequently than the standard three day cycle. The unit can be set for every other day regeneration or daily regeneration, as required. Do not set the regeneration frequency of longer than every three days as this risk fouling the filter medium and can, over time, render the unit inoperable.

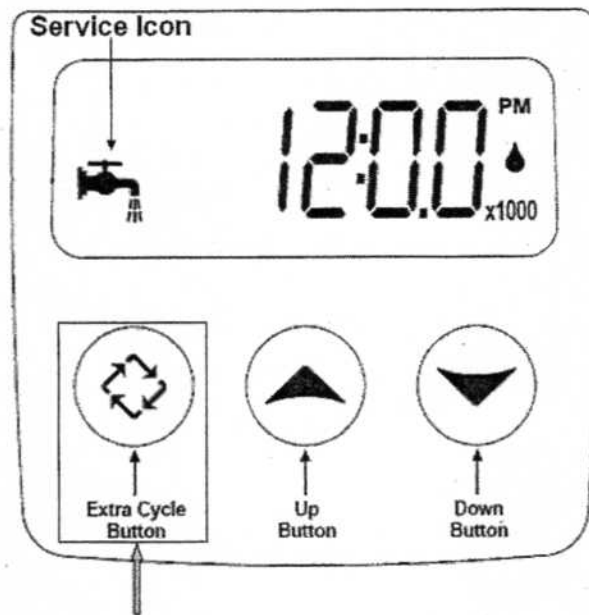


### SETTING THE TIME OF DAY

- Press and hold the Up or Down buttons until the programming icon replaces the service icon and the parameter display reads TD.
- Adjust the displayed time with the Up and Down buttons.
- When the desired time is set, press the Extra Cycle button to resume normal

operation. The unit will also return to normal operation after 5 seconds if no buttons are pressed.

### INITIATING A REGENERATION



- Press the Extra Cycle button. The service icon will flash to indicate that regeneration is queued.
- To cancel a queued regeneration, press the Extra Cycle button.
- **Regenerate Immediately**
- Press and hold the Extra Cycle button for five seconds.

## MAINTENANCE AND TROUBLE SHOOTING

The Iron Filter System requires little or no maintenance. The filter media should last indefinitely under normal conditions.

<u>PROBLEM</u>	<u>POSSIBLE CAUSE</u>	<u>WHAT TO CHECK</u>
Unit does not regenerate	1) Electrical service to unit is interrupted 2) Power failure 3) Defective timer 4) Not programmed	Make sure electric is working and uninterrupted. Reset time of day Check to make sure "days" advance, if not, replace
Unit does not draw air in refill cycle	1) Line to drain is crimped 2) Water pressure is too low 2) Drain flow control is blocked 4) Injector or screen is plugged 5) Internal control leak	Replace drain line Pressure req. is 20 PSI min. Check and clean as necessary  Check and clean or replace  Check seals/spacers and replace if needed
Continuous water flow to drain line	1) Timer motor stopped or jammed 2) Debris/material jammed inside control 3) Internal leak	Replace if necessary Remove piston to check for debris  Inspect seals/Spacers, replace if necessary
Air in house line or at faucets	1) Inadequate water supply to meet backwash requirements 2) Worn seals	

## IRON FILTER SYSTEM MASTER PROGRAMMING GUIDE

Press the Up or Down Arrow Buttons to enter the Time of Day Programming Mode, Set the Time of Day Display to 12:01 P.M.

Press the Extra Cycle Button once to exit the Time of Day Programming Mode.

With the Time of Day Display set to 12:01 P.M., Push and hold the Up and Down Arrow Buttons for 7 seconds.

1. DF - GAL - US Gallon Display Format
2. VT - St1b - Standard Downflow, Single Backwash
3. CT - tc - Time Clock Control
4. NT - 1 - Single Tank System
5. DO - 3 - Day Override
6. RT - 12:30 A.M. - Time of Regeneration
7. BW - 14 - 14 Minute Backwash
8. BD - 40 - 40 Minute Air Recharge
9. RR - OFF - Rapid Rinse is Turned Off
10. Exit Master Programming and Return Valve to Service Display



# 2510 AIO Supplemental Insert

## Overview:

The AIO valve is designed for use when water containing contaminants subjected to oxidation is encountered. The water passes through the AIO valve then passes through the tank containing oxygen enriched filter media. The oxygen reduces all contaminants in the water to an oxide, or in the case of hydrogen sulfide gas, it is reduced to a molecule of acid.

## Regeneration as follows:

Backwash (BW): Cycle Step #1      The backwash cycle washes oxidized contaminants to drain and reclassifies the media bed.

Air Draw (BD): Cycle Step #2      Air Draw empties water from tank and replenishes oxygen to filter media.

Rapid Rinse (RR): Cycle Step #3      Rapid Rinse purges excess atmosphere from the media tank and distributor.

**NOTE: Due to the oxygen in the media tank, maximum 80 PSI for operation.**

## SXT Programming:

Programming Abbreviation	Programming Definition	* Option Abbreviation	Option Definition
DF	Display Format	GAL	Gallons – 12 hour time
VT	Valve Type	DF 1b	Downflow Single Backwash
CT	Control Type	tc	Time Clock – Regenerates based on days
NT	Number of Tanks	1	Single Tank
DO	Day Override	3	Days Between Regeneration – In conditions of high water usage and/or high levels of contaminants, the AIO may need to regenerate more frequently than once every three days. DO NOT set the regeneration day override for a longer period than three days, as the filter media can become fouled with contaminants, rendering the AIO ineffective.
RT	Regeneration Time	12:30 AM	Regeneration Time – If there is a need to change the factory default, then make sure the time of regeneration is not the same with any other water treatment equipment in the system.
BW	Backwash	14	See AIO Overview Above
BD	Air Draw	40	See AIO Overview Above
RR	Rapid Rinse	1	See AIO Overview Above
BF	Brine Fill	Off	Not Applicable

\* Factory Defaults

Reference SXT service manual for programming information.

