kind
WATER SYSTEMS



Smart Metered Chem-Free Iron, Manganese, and Sulfur Filter

Installation / Operation Manual

Model #: WS-AIO

kindwater.com

Have questions? Call us: 888-614-5559

KIND WATER EDUCATION

Items Included



Tank & Jacket



Bypass Valve



Drain Line



Hose Clamp



90-degree 1" NPT Fittings



Low Voltage Power Cord



Low Voltage Power Cord Extention

General Specifications	WS-AIO
Filter Media Type	KATALOX LIGHT®
Filter Media Capacity (cu. ft.)	1.0
Mineral Tank	10” x 44”
Service Flow Rate (gpm)	12.0
Backwash Flow Rate (gpm)	5.0
Space Required (D x W x H)	10” x 10” x 53”
Approximate Shipping Weight (lbs)	105

WARNING

Lubricants

Do NOT use Vaseline, oils, hydrocarbon lubricants or spray silicone anywhere! Petroleum base lubricants will cause swelling of o-rings and seals. The use of other lubricants may attack plastic Noryl®.

PLEASE NOTE THESE SPECIFICATIONS BEFORE PROCEEDING

⚠ **Operating Pressure Range:** 20 - 125 PSI
Operating Temperature Range: 33° F - 120° F
Inlet / Outlet Pipe Size: 1”: MNPT

⚠ Please comply with all applicable plumbing codes

⚠ Protect from **FREEZING TEMPERATURES**

Please read the entire Installation/Operations before installation.
This Installation/Operations Manual must stay with the unit.

What Is a Chem-Free Iron, Manganese, and Sulfur Filter, and What Does It Do?

Kind Water's Smart Metered Chem-Free Iron, Manganese, and Sulfur Filter is a specialized water filtration system designed to eliminate these particular contaminants from water without resorting to chemical additives like chlorine or potassium permanganate. As part of a comprehensive water treatment solution, this technology is ideal for most well water applications, provided each impurity's concentrations (Parts Per Million) are within the system's target capabilities. Our water test and survey will allow us to determine whether or not this solution will be effective on your well. The filtration process typically involves two key steps:

Oxidation: Iron, manganese, and sulfur are often present in water as dissolved substances. To remove them, they need to be oxidized into a solid state, which is achieved by exposing the water to oxygen in the air through aeration.

Filtration: After oxidation, these contaminants form solid particles, which are captured by a filtration medium. Kind Water uses high-quality catalytic carbon to trap these particles effectively, ensuring the water is clean, fresh, and impurities-free.

Installation Requirements

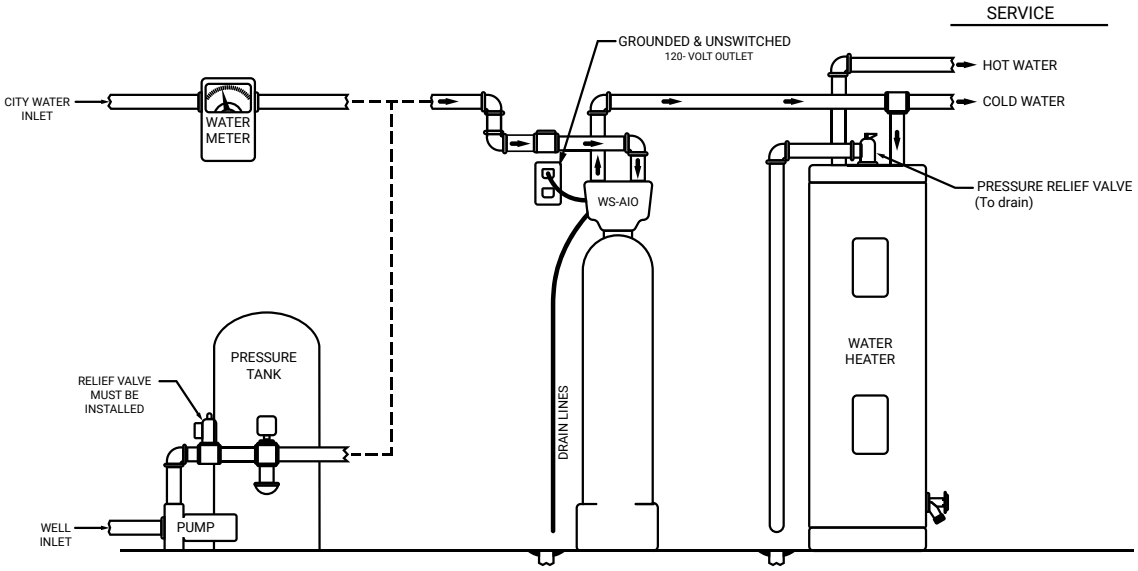
- A level floor position ahead of piping into water heater
- **DO NOT** install the unit in an area of direct sunlight or where freezing temperatures may occur!
- Locate the unit near an unswitched, 120 volt / 60 Hz grounded electrical outlet.
- Check for distance and proper drain installation (e.g. floor drain, washing machine standpipe).
- Determine type and size of piping required for filter connection (e.g. copper, galvanized, PVC plastic).

NOTE If household plumbing is galvanized and you intend to make the installation with copper (or vice versa), obtain di-electric unions to prevent dissimilar metal corrosion.

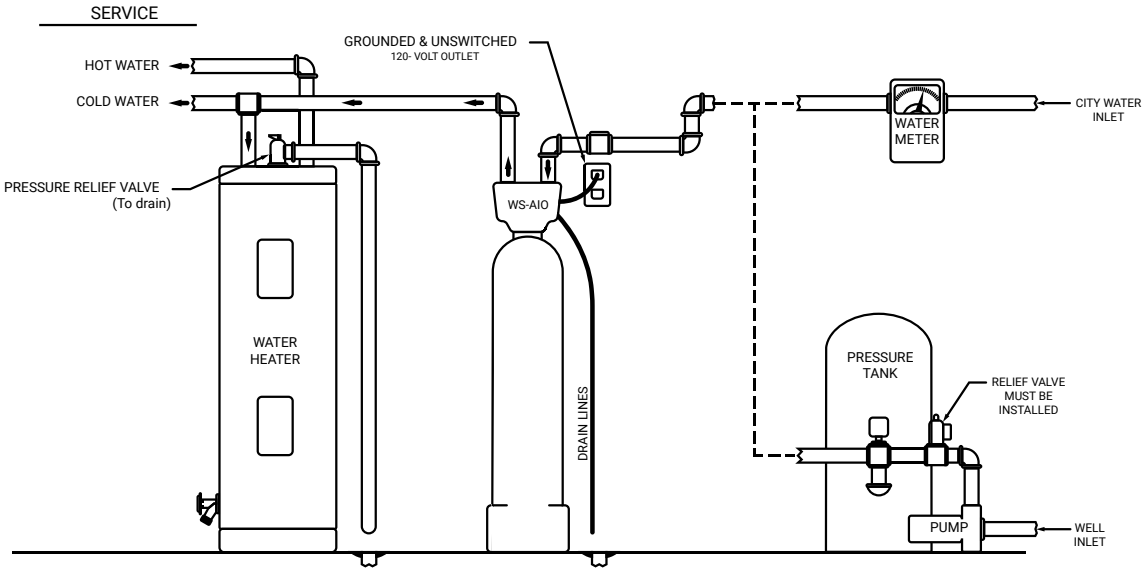
⚠ CAUTION If sweat soldering copper pipe (remember to always use lead free solder and flux), cover yoke and bypass valve with wet rags to prevent heat damage to connections and control valve. If using PVC or plastic pipe, primers and solvent cements specifically recommended for use with potable water are required.

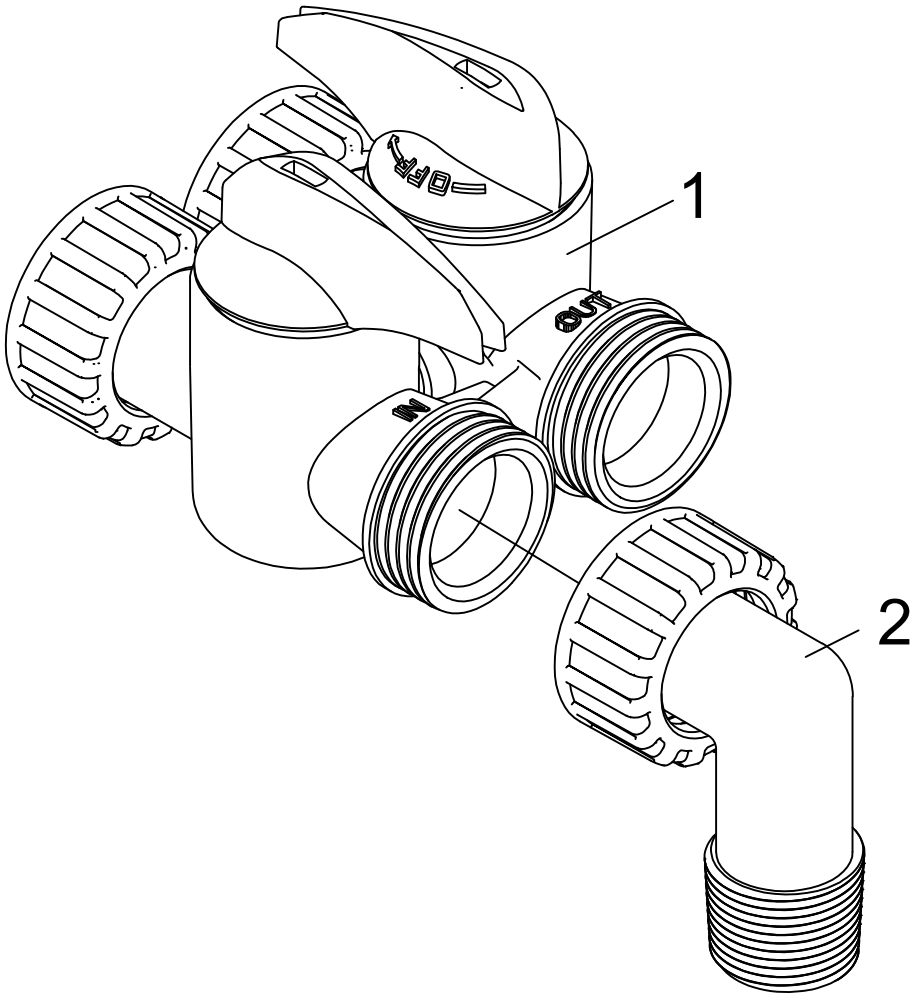
NOTE All plumbing lines not requiring "treated" water should be connected "upstream" of the softener, if installed. (See Typical Installation Diagrams.)

Incoming Water from Left-Side



Incoming Water from Right-Side





Ref	Description
1	Bypass (included with all units)
2	1” NPT Elbow Set (included with all units)

Installation Procedure

See the well water systems installation video: https://kindwater.com/educationcenter/

Water Supply Connection and Bypass Valve

To allow for filter servicing, swimming pool filling or lawn sprinkling, a manual Bypass Valve has been included. The Bypass allows raw water to be manually routed around the filter.

1. Position filter at desired location for installation. If a water softener is to be installed, the filter should be positioned first and then the softener.

2. Turn OFF main water supply and OPEN nearest faucet to relieve pressure.

3. Cut main line and install appropriate elbows and extensions.

⚠ CAUTION Raised arrows located on the sides of control valve body and bypass valve indicate proper direction of water flow. Install inlet and outlet piping in direction of arrows. It is recommended that a vacuum breaker be installed on the inlet plumbing.

Drain Line Connection

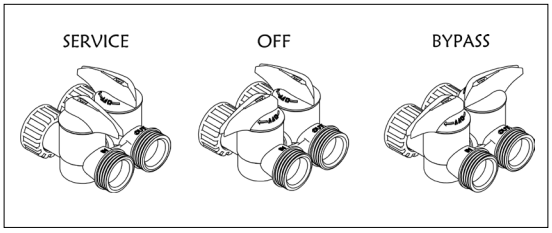
1. The drain line flow control assembly is pre-assembled for your convenience. Should you choose to hard plumb the drain line, please remove the barb fitting. The flow control housing can be removed by removing the clip and pulling straight out on housing.

NOTE When re-installing the drain line flow control housing, be sure you hear and feel the O-Ring pop into place before inserting the clip.

2. Install 1/2" I.D. drain line tubing from hose barb to an open drain. A 4" gap between end of the drain line and the open drain is required to prevent waste water backflow. Keep the drain line as short as possible. An overhead drain line can be used if necessary, but should discharge below the control valve. A syphon trap (taped loop) at the outlet of the drain line is advisable to keep the drain line full and assure correct flow during backwash. Elbows or other fittings must be kept at a bare minimum.

NOTE Where the drain line is elevated above the control valve or exceeds 20 feet in length, 3/4" I.D. drain line tubing should be used.

Bypass - Shown



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Electrical Connection

1 Connect the power cord and plug power supply into a 120 volt / 60 Hz receptacle.

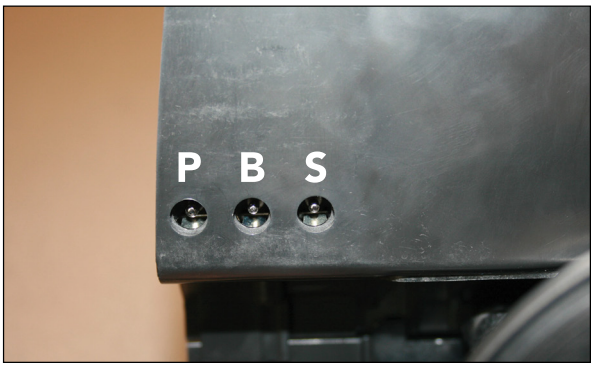
NOTE Do not plug into an outlet controlled by a wall switch or pull chain that could inadvertently be turned off

Electronic Connections

P = Power Supply

B = Used for other applications

S = Used for other applications



System Start Up Procedure

NOTE Tank should be filled with water and media must have been soaking for at least 1 hour before initial pressurization

1 After all plumbing and drain line connections have been made, turn main water supply back on and check for leaks.

2 Put unit into service using the handles behind the control valve.

3 Start a regeneration by pressing and holding the set change button for 3 seconds.

- The display may show zeros or a 1, repeat holding the set change button to initiate.

NOTE Any time media (other than very fine mineral on initial startup) is apparent in the service lines, it usually indicates one of the following problems:

- The unit is plumbed in backward allowing the media to be carried in the service line.
- The distributor tube inside the tank is not seated inside the valve or is damaged.

Final Checkout

- Be certain that the bypass valve is in Service position and main valve is completely on.
- Check electrical supply to be certain the cord is connected to an uninterrupted 120 volt outlet.

Important Notice - The plumbing system, piping, pressure tank, hot water tanks, softeners, etc. that have been exposed to iron bearing water may need to be cleaned of the precipitated iron that has been collected in them or iron bleed thru may be a problem. We suggest all tanks be drained and flushed thoroughly.

Annual Maintenance

Annual replacement of the seal kit is required in all single tank air systems due to air drying of the seals over time. Potential performance issues will result if this maintenance interval is not performed. Any system problems associated with this required system maintenance not being accomplished will not be covered by the factory warranty.

Utilizing Bluetooth Control

For simplified set up and control, please install the Kind Water app on a compatible Bluetooth 4.0+ enabled smart phone or tablet.

1 Download and install the Kind Water app from the Google Play Store, Apple App Store

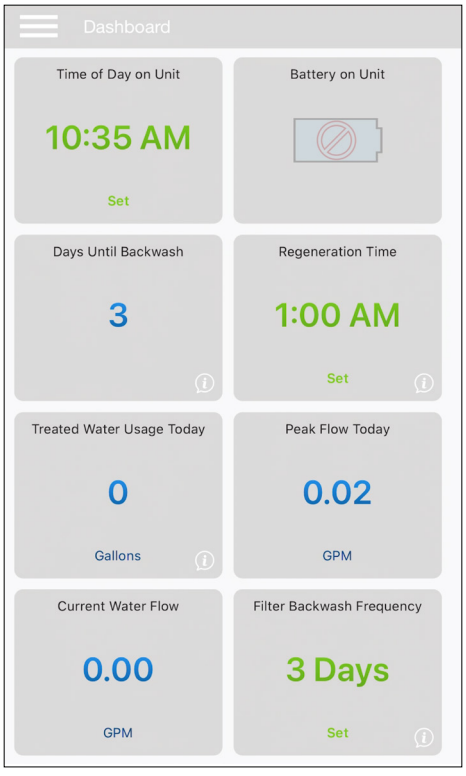
2 Open the Kind Water app

- Choose a valve device at any time from the list of available devices to connect to by clicking on it.
- If the valve you want to connect to doesn't show up, or there is a problem connecting to a device you can press the "Scan for Devices" button or the Kind Water logo at any time to refresh the list and start the process over.

Dashboard

NOTE Consult your dealer before making any changes

From the **Dashboard**, all items in **GREEN** can be changed, while blue fields are informational only.



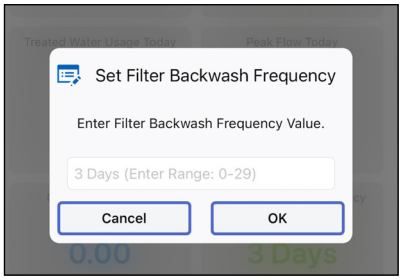
If you are unsure about the function of the field click the ⓘ for more information.

Set Up Utilizing Bluetooth App



Change Time of Day

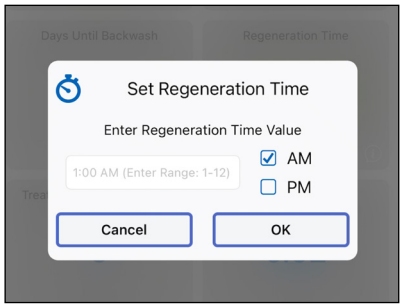
(Press "SET" to set time automatically based on device).



For Filters:

Set Backwash Frequency

This sets the amount of day between backwash cycles



Set Regeneration Time

EXAMPLE For 2a.m., just type 2, choose a.m., and press 'OK'

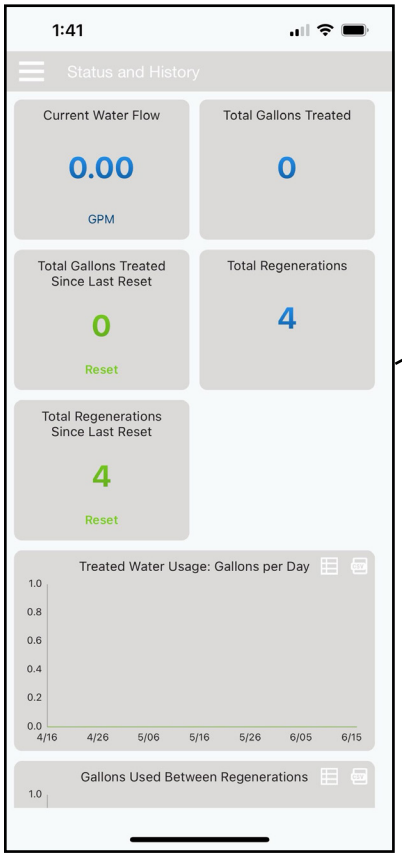
NOTE If you have a filter and a softener the valves should be set to regenerate at different times. Factory default times are 12a.m. for filters, and 2 a.m. for softeners.

Advanced Settings

NOTE Consult Kind Water's Technical Support Team at 888-614-5559 before making any changes. We do not recommend changing Advanced Settings unless you have a good understanding of the system operation.

Status and History

From the **Status and History**, all items in **GREEN** can be reset.



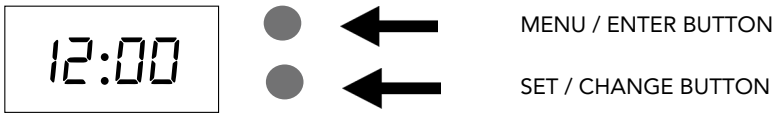
Touch any table to explode
a detailed list of the last 60 days.

Programming The Control Valve With Bluetooth App

1. Set time of day.
2. Set a.m. or p.m.
3. Set regeneration day override if other than (1) day is desired.
4. Set regeneration time, if other than 12:00 a.m. is desired.

Programming The Control Valve

Main Menu



1 To enter Main Menu, press the Menu/Enter button.
(Time of Day will flash)

2 To set the Time of Day, press the Set/Change button.
(First digit will flash)

EXAMPLE [12-00]

- To change digit value, press the **Set/Change** button.
- To accept the digit value, press the **Menu/Enter** button.
- Next digit will flash to begin setting.
- Once the last digit display is accepted, all digits will flash.

3 To set **A.M.** or **P.M.**, press the **Menu/Enter** button.

EXAMPLE [A]

- To change digit value, press the **Set/Change** button.
- To accept the digit value, press the **Menu/Enter** button.
- Once A.M. or P.M. is accepted, the next menu item will flash.

4 Days Between Backwash

- Press Menu / Enter Button. This display is used to set the maximum amount of time (in days) the unit can be in service without a backwash. This option setting is identified by the letter 'A' in the left digit.
- Backwash will begin at the set Backwash Time.
- A "0" setting will cancel this feature. The Max Value for this item is 29.

  EXAMPLE Backwash every 7 days (A - 07) (Factory Setting)
  Cancel setting (A - 00)
- To Adjust this Value Press the Set / Change Button.
- To Accept the Digit Value Press the Menu / Enter Button.

5 To set the **Number of Days between Air Draw Cycles** (d), press the **Set/Change** button.

EXAMPLE [d - 01]

- Repeat instructions from step (2)

NOTE
1. Maximum value is 9.
2. If value set to 0, air draw is turned off, but an air cycle will be completed when backwash cycle occurs. If the Number of Days between Air Draw Cycles is set to a higher number of days than the Number of Days between Backwash Cycles, it will have no effect. In order to turn off all cycles, both the Days between Backwash and Days between Air Draw Cycles must be set to 0.
3. Default setting is 1 day.

6 To Exit Main Menu, press the **Menu/Enter** button.

NOTE If no buttons are pressed for 60 seconds, the Main Menu will be exited automatically.

Normal Operation

Home Display

Alternates between the display of Time of Day and Number of Days until the Next Backwash.

- Days Remaining until the Next Backwash will count down from the entered value until it reaches 1 day remaining.
- A Backwash Cycle will then be initiated at the next designated regeneration time.

Battery Back-Up (Uses a standard 9-volt alkaline battery. Battery not included.)

Features of Battery Back-Up:

- During power failures, the battery will maintain the time of day as long as the battery has power. The display is turned off to conserve battery power during this time. To confirm that the battery is working, press either button and the display will turn on for five (5) seconds.
- If power failure occurs while system is regenerating, the valve will motor to a shut off position to prevent constant flow to drain. After power is restored, the valve will return and finish the cycle where it left off prior to the power interruption.
- When used without battery back-up, during a power failure, the unit stops at its current point in the regeneration position and then restarts at that point when the power is restored. The time will be offset by the increment of time the unit was without power, so it is necessary to reset the time of day on the unit. No other system settings will be affected.

Starting Extra Regeneration Cycle

1 To Start **Delayed Extra Cycle** EXAMPLE [1]

- If Days Remaining Until Next Regeneration does not read '1', press and hold the **Set/Change** button for 3 seconds until the display reads '1'.
- Regeneration cycle will initiate at the next designated regeneration time.

2 To start **Immediate Extra Cycle** → First complete above step.

- Press and hold the **Set/Change** button.
- After 3 seconds, the regeneration cycle will begin.

3 To **Fast Cycle** thru regeneration → First complete above 2 steps.

NOTE Press and hold the **Set/Change** button for 3 seconds to advance to the next cycle step. Fast Cycle is not necessary unless desired to manually step through each cycle step. (Repeat until valve returns to the home display)

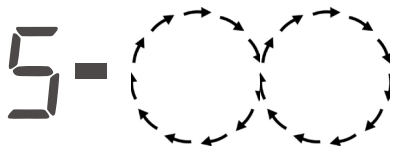
Regeneration Cycle

Filters	Default Cycle Step Time (Min)	
Step 1	Air Release (non-adjustable)	6
Step 2	Backwash	10
Step 3	Rest	5
Step 4	Air Replenish	20
Step 5	Rapid Rinse	5

NOTE Depending upon system pressure and other factors, it is possible to observe flow to drain in the rest cycle.

- When the valve is between positions, the display will flash the number of the step it is moving towards.
- The default time at which regeneration will occur is 12:00 a.m.
- The motor's run direction during a particular regeneration cycle step is indicated by the rotation direction of the last 2 digit displays.

EXAMPLE



Bypass Valve Use

When the bypass valve is in the SERVICE position (position of bypass lever is parallel to the inlet / outlet piping), water is directed through the water filter. Water may be bypassed by turning the lever to the bypass position (position of bypass lever is at right angles to inlet / outlet piping). Water to the home will bypass the filter and be untreated.

You should manually bypass the filter if:

- The outside lines do not bypass the water filter and water is to be used for lawn sprinkling or other similar uses.
- Servicing the water filter.
- A water leak from the water filter is evident.
- Shock treating water well and piping with chlorine or other disinfectant.

Extra Regeneration

- If water demands are unusually heavy, an extra regeneration can be initiated manually:
    1. Start a regeneration by pressing and holding the set change button for 3 seconds.
    2. The display may show zeros or a 1, repeat holding the set change button to initiate.

To Skip A Regeneration

- For vacations or extended periods of absence, the power supply can be disconnected from the control valve. It is recommended that the 9-volt battery be removed.
- Upon return, plug in cord and reset the time of day. Replace 9-volt battery.

General Care and Cleaning

- Do not place heavy or sharp objects on water filter.
- Use only mild soap and warm water to clean exterior of the unit. Never use harsh, abrasive cleaners.
- Protect the drain line from freezing.