kind
WATER SYSTEMS



Smart Metered Backwashing Carbon

Installation / Operation Manual

Model #: S-500

kindwater.com

Have questions? Call us: 888-614-5559

KIND WATER

EDUCATION

S-500-REV-D-FE25

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	S-500
Filter Media Type	Catalytic Carbon
Filter Media Capacity (cu ft)	1.0
Mineral Tank Size	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)	67

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®.

⚠ **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/Operating Manual and Instruction before installation.
This Installation/Operating Manual must stay with the unit.

What Is a Backwashing Carbon Filter and What Does It Do?

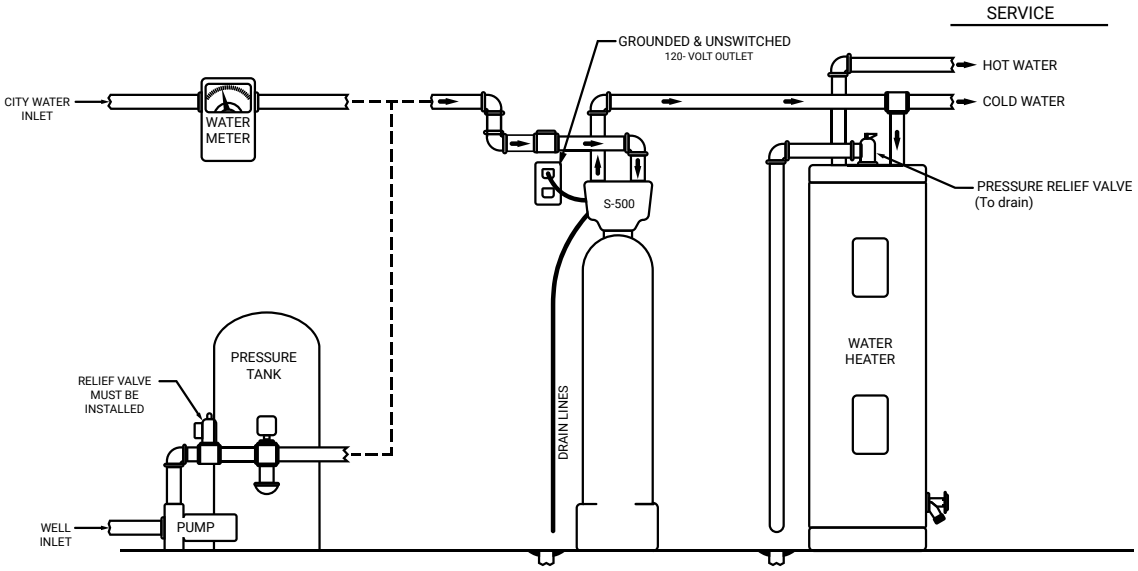
The Kind Water Smart Metered Backwashing Carbon Filter is a water treatment system designed to cleanse the water supply for an entire household. The filter passes water through a tank filled with catalytic carbon media. As water flows through the media bed, the catalytic carbon catalyzes chemical reactions that neutralize and remove impurities like chlorine, chloramines, oxidized minerals like iron, manganese, sulfur, volatile organic compounds (VOCs), and certain pesticides.

The filtration process results in cleaner, safer, and better-tasting water throughout the home, providing benefits such as improved water quality for drinking, cooking, bathing, and other household activities. The system utilizes a high-tech backwash maintenance process, where water flows backward through the filter to clean and regenerate the catalytic carbon media, ensuring optimal performance and longevity.

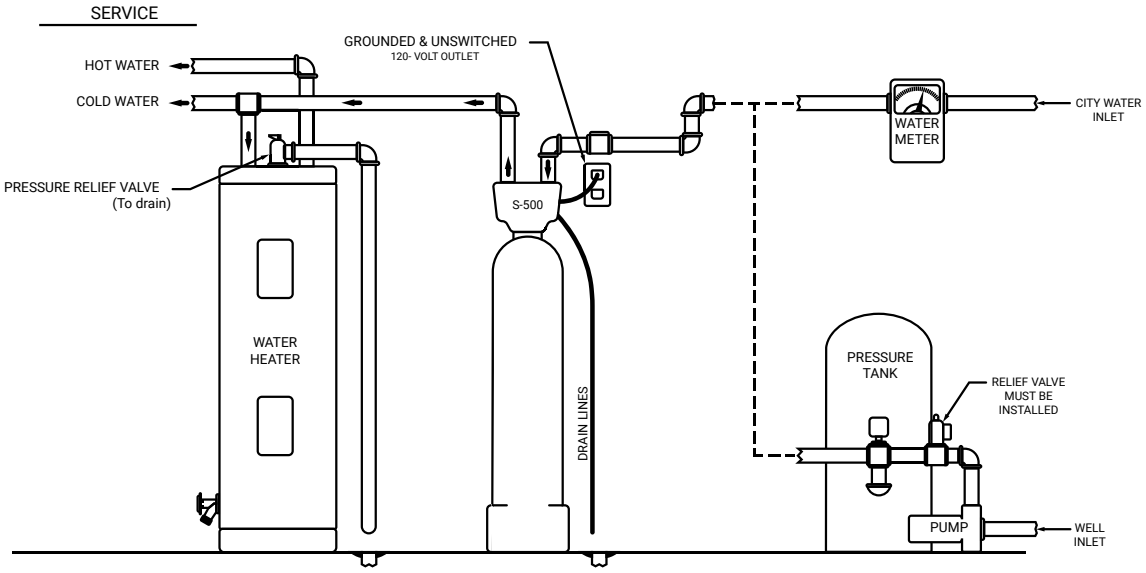
Installation Requirements

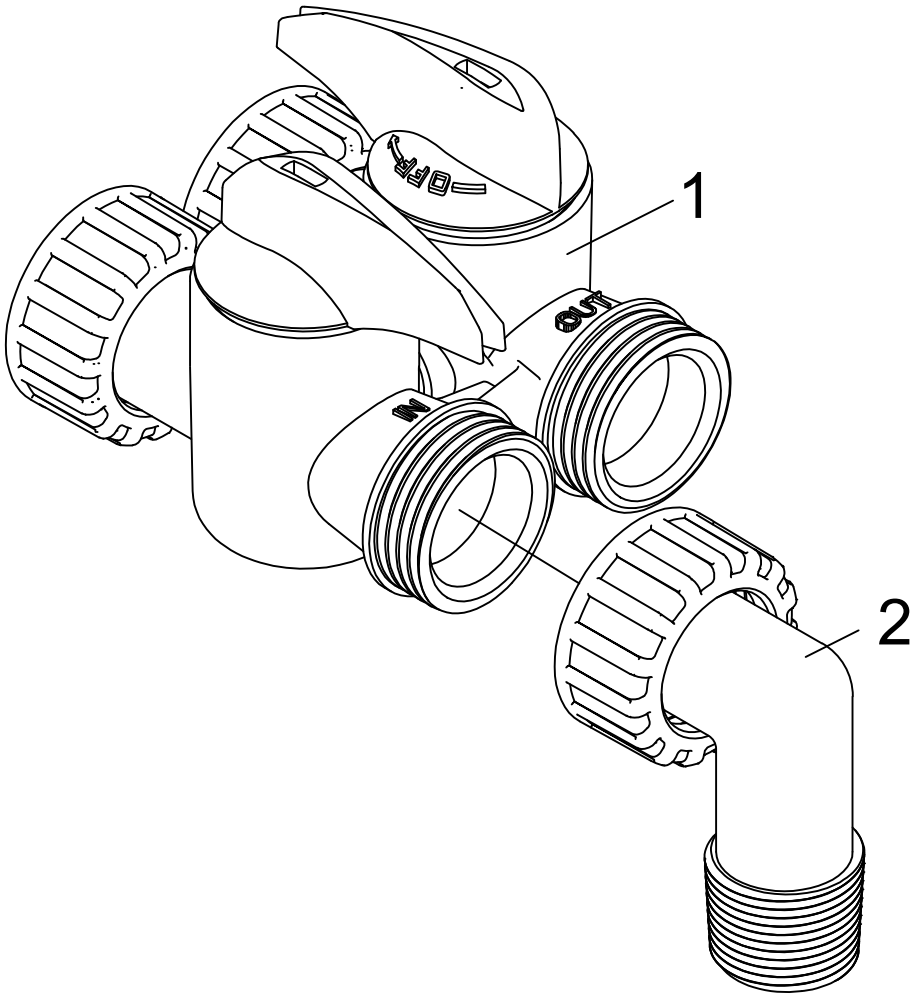
- A level floor position ahead of piping into water heater.
- DO NOT install the unit in an area of direct sunlight or where freezing temperatures may occur!
- (See Installation Diagrams for proper placement and plumbing connections.)

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. Inlet and outlet connections on the control valve are 1" NPT.

⚠ 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.

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.

Electrical Connection

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

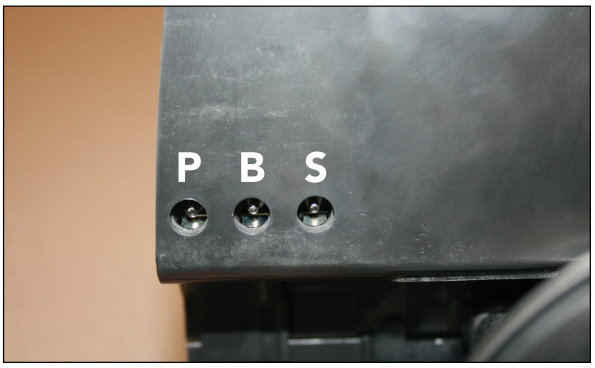
NOTE Do not plug into an outlet controlled by a wall switch or pull chain that could inadvertently be turned off

Electronic Connections

P = Power Supply

B = Used for other applications

S = Used for other applications



Pressurizing The System

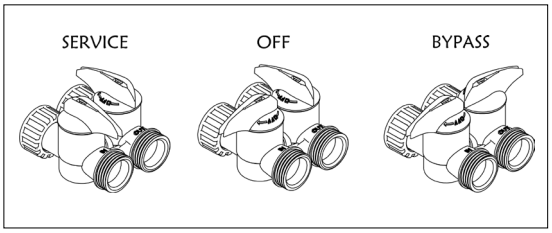
2 Slowly rotate handle of the bypass valve to the SERVICE position.

3 Open the nearest faucet to evacuate air from plumbing lines.

4 Check for leaks! If water is observed leaking from bypass, o-rings on valve body may not be seated properly. Exercise bypass valve.

5 After air is evacuated from plumbing lines, turn off faucet.

Bypass - Shown



Final Check

- Be certain the bypass valve is in the SERVICE position.
- Make sure the power supply is connected to an uninterrupted 120-volt outlet.
- Check that the time of day is set
- Double check regeneration schedule.
- Make final check for leaks!

Start Up

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

2 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.

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

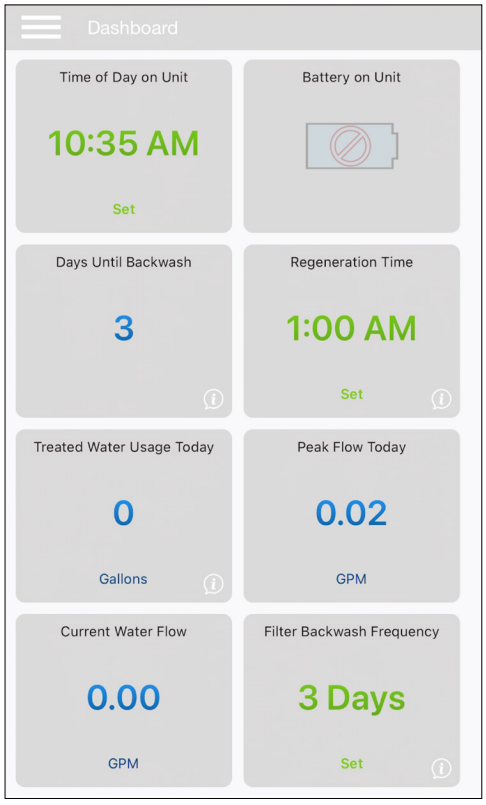
2 Open the Kind Water app

- 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.



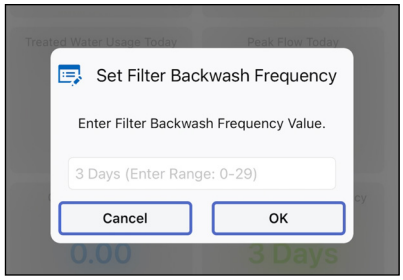
If you are unsure about the function of the field click the ⓘ for more information.

Set Up Utilizing Bluetooth App



Change Time of Day

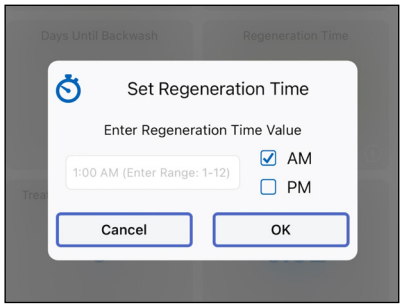
(Press "SET" to set time automatically based on device).



For Filters:

Set Backwash Frequency

This sets the amount of day between backwash cycles



Set Regeneration Time

EXAMPLE For 2 a.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.

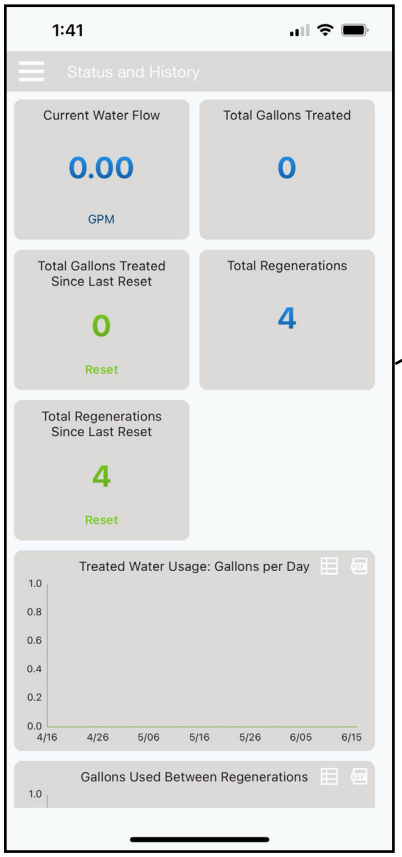
Advanced Settings

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.

From the **Advanced Settings**, all items in **GREEN** with a "set" button can be changed.

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 (3) days is desired.
4. Set regeneration time, if other than 12:00 a.m. is desired.

Programming The Control Valve Manually

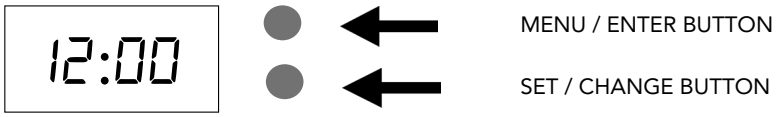
1 Set time of day.

2 Set a.m. or p.m.

3 Set number of days between backwash. (This generally will be every 4 to 6 days.)

4 Set regeneration time if other than 12:00 a.m. is desired.

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 To set the **Number of Days between Backwash Cycles** (A), press the **Set/Change** button.

EXAMPLE [A - 06]

- Repeat instructions from step (2)

NOTE
1. Maximum value is 29.
2. If value set to 0, Automatic Backwash will never occur.
3. Default setting is 6 days for filters.

5 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. Depending upon system pressure and other factors, it is possible to observe a reduced flow to drain during this step. 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 will be affected.

Starting Extra Regeneration Cycle

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

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

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

- With Days Remaining Until Next Regeneration at '1'.
- Press and hold the **Set/Change** button.
- After 3 seconds, the backwash 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)

Filters	Default (Min)	
Step 1	Backwash	10
Step 2	Rest	5
Step 3	Rapid Rinse	10
Step 4	Not Used	0

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 well water 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 water filter and drain line from freezing.
- Reset time for daylight saving time periods.
- Replace 9-volt battery once a year.