



Clean Water Made Easy

www.cleanwaterstore.com

7500-REV4

Carbon Filter

Installation Guide



Thank you for purchasing a Clean Water System!

With proper installation and a little routine maintenance your system will be providing chlorine-free water for many years.

Please review this manual entirely before beginning to install your system, and follow the steps outlined for best results.

**Minimum 30 PSI required. Maximum pressure 80 PSI.
For indoor installation. Protect from sunlight, rain, and freezing.**

**CARBON MEDIA CONTAINS DUST.
USE PAPER MASK AND VENTILATE TO AVOID BREATHING DUST.
OK to wet down media with spray bottle**

**FOR USE ON MUNICIPALLY TREATED, OR DISINFECTED WATER ONLY.
IF USING ON UN-CHLORINATED OR NON-DISINFECTED WATER INSTALL A UV STERILIZER
AFTER UNIT.**

Questions?

 **Call us toll-free:** 1-888-600-5426 or 1-831-462-8500

 **Email us:** support@cleanwaterstore.com

 **See more information on our website:** www.cleanwaterstore.com/resources

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Packing Lists

All systems include:

7500-REV4 control valve, small tube of silicone grease, bypass valve, power supply, funnel for adding media, top screen, start-up guide, and items included in one of the following options:

Find Your Size System to See What is Included

Carbon Filter 0.75 cubic foot size

8" x 44" filter tank with distributor tube
8 lbs. filter gravel
0.75 cubic foot of activated carbon.

Carbon Filter 2.0 cubic foot size

12" x 52" filter tank with distributor tube
20 lbs. filter gravel
2.0 cubic foot of activated carbon

Carbon Filter 1.0 cubic foot size

9" x 48" filter tank with distributor tube
12 lbs. filter gravel
1 cubic foot of activated carbon

Carbon Filter 2.5 cubic foot size

13" x 54" filter tank with distributor tube
35 lbs. filter gravel
2.5 cubic foot of activated carbon

Carbon Filter 1.5 cubic foot size

10" x 54" filter tank with distributor tube
16 lbs. Filter gravel
1.5 cubic foot of activated carbon

Carbon Filter 3.0 cubic foot size

14" x 65" filter tank with distributor tube
40 lbs. filter gravel
3.0 cubic foot of activated carbon

Sediment Filter 1.5 cubic foot size

10" x 54" filter tank with distributor tube
16 lbs. Filter gravel
1.5 cubic foot of Turbidex Media

What to Do if Your Tank is Not Level Out of the Box

Your black filter tank base is not glued to the bottom of your tank. Occasionally tank bases will become crooked during shipment.

If you find that your tank does not sit level on the floor, you can easily adjust it by holding the empty tank and rapping it on a concrete or solid foundation once or twice to level it.

How Your Sediment Backwash Filter Works

Water enters the top of the tank and flows down through the media and up the distributor tube.

The downflow type Turbidex Sediment Media Filter removes sediment and can be backwashed, which cleans and re-classifies the Turbidex Media, preventing channeling.

During backwash the flow of water is reversed and water flows down the distributor tube and up through the media, lifting and expanding the Turbidex Media.

During the backwash the Turbidex Media is cleaned by the action of the water flowing through it.

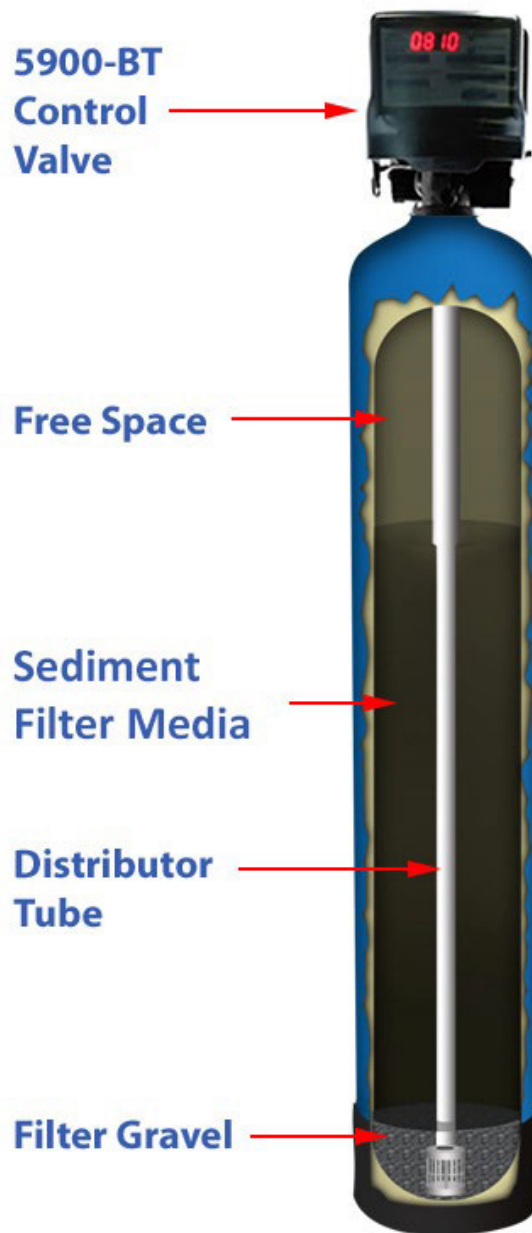


Fig 1

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Pre-Installation

1. Review your packing list and make sure you have received all the parts before installation.
2. If you are going to be turning off the water to the house and you have an electric water heater, shut off the power to the water heater before beginning installation in case water heater is accidentally drained. Make the plumbing connections from your existing system to the bypass assembly, installing extra valves, unions, pressure gauges and hose bibs as needed.
3. Pick a suitable location for your filter system on a dry level spot where it won't be exposed to freezing temperatures. A minimum of 20 PSI is required. Maximum pressure is 90 PSI.
4. Get all of your plumbing parts together before beginning installation, and make sure you have received all of your packages before beginning or scheduling an installation. Installation typically takes 3 to 5 hours. However, after installation the Carbon Filter must be allowed to run through a complete backwash and rinse cycle.
5. After the system is installed and running, your water may be discolored particularly if you have older or corroded piping. This typically clears up over a day or two.

Best Practices for Piping & Drain Installation

1. Make sure to connect the Inlet **from** your water source and outlet, following arrows on control valve. Connect the External Flow Control fitting onto the Drain line. If you are going to be turning off the water to the house and you have an electric water heater, shut off the power to the water heater before beginning installation.
2. Make sure there is a working gate or ball valve before the system and also one after as well as a bypass valve. Get all of your plumbing parts together before beginning installation.
3. A hose bib (which is a faucet to which you can attach a garden hose) is strongly recommended after the Sediment Backwash Filter and before the second ball valve. This makes it easy to rinse your new Carbon Backwash Filter on start-up and gives you a place to test the water.
4. If you will be using copper piping, do not sweat the copper pipe directly on to the 7500-REV4 control valve.
5. To connect drain line to drain, use an air-gap connection, so that if your sewer or septic tank backs up, it cannot cross connect with the drain tubing.
6. The pipe connectors are 1" male pipe thread but you can add a reducer to reduce to $\frac{3}{4}$ " pipe with common pipe fittings if needed.
7. Make sure bypass valves are closed (system is in bypass) when you first start installing and keep on bypass until you are ready to start it up with the first backwash.

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How the Bypass Valve Works

Turn knob so the valve is bypassed when installing.

When you go to start up system turn the bypass SLOWLY to let water in and put in service.



Installation of Your System into Copper or Metal Piping Systems

If your new filter system is to be installed in a metal (conductive) plumbing system, i.e. copper or galvanized steel pipe, the plastic components (bypass and connectors) will interrupt the electrical continuity of the plumbing system.

As a result, any stray currents from improperly grounded appliances downstream or potential galvanic activity in the plumbing system can no longer ground through the contiguous metal plumbing.

Some homes may have been built in accordance with building codes which encouraged the grounding of electrical appliances through the plumbing system.

Consequently, the installation of a bypass consisting of the same material as the existing plumbing, or a grounded “jumper wire” bridging the equipment and reestablishing the contiguous conductive nature of the plumbing system must be installed prior to your systems use.

This is simple and easy step to take if you are installing your water treatment system into copper piping.

A simple ground jumper wire with a pipe clamp can be purchased at any Home Center, or hardware store etc. for a few dollars.

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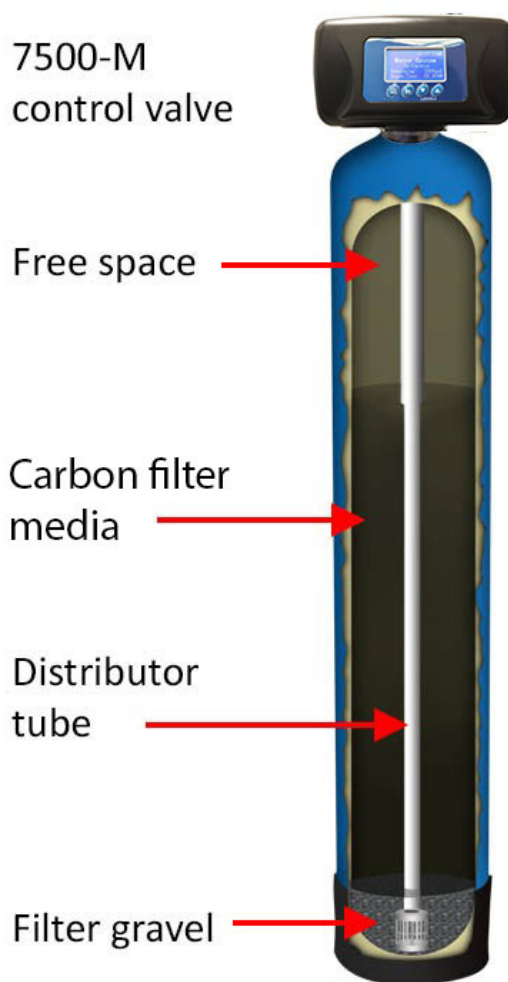
How Your Carbon Filter Works:

Water enters the top of the tank and flows down through the media and up the distributor tube. The backwashing Carbon Filter removes Carbon and is automatically backwashed which cleans and re-classifies the carbon media.

During backwash the flow of water is reversed and water flows down the distributor tube and up through the media, lifting and expanding the Carbon media.

The 7500-Rev4 Control Valve is set to Filter Meter Type which means it counts or tracks the amount of water that is used and will backwash every 1400 gallons OR 7 days, whichever comes first.

Because of the built in flow sensor feature, you can also see how much water has been used by reviewing the Usage Logs if you wish. See page 10.



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Diagram of Installation Well Water

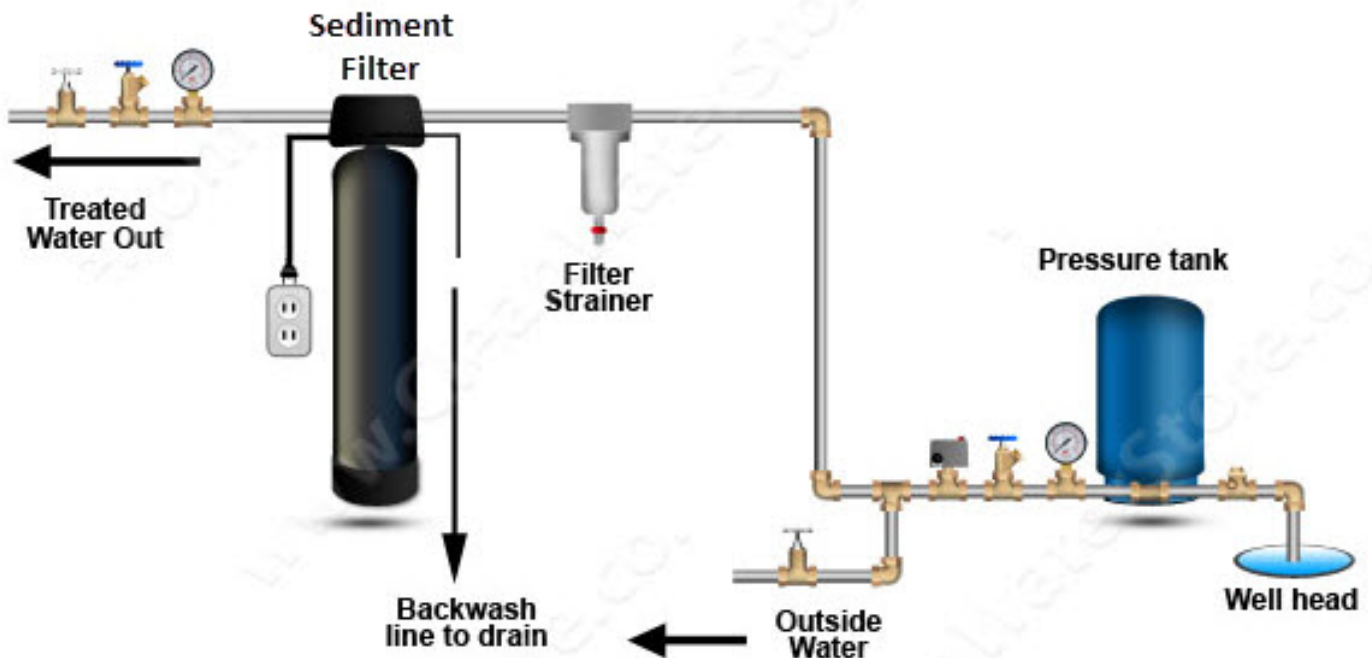
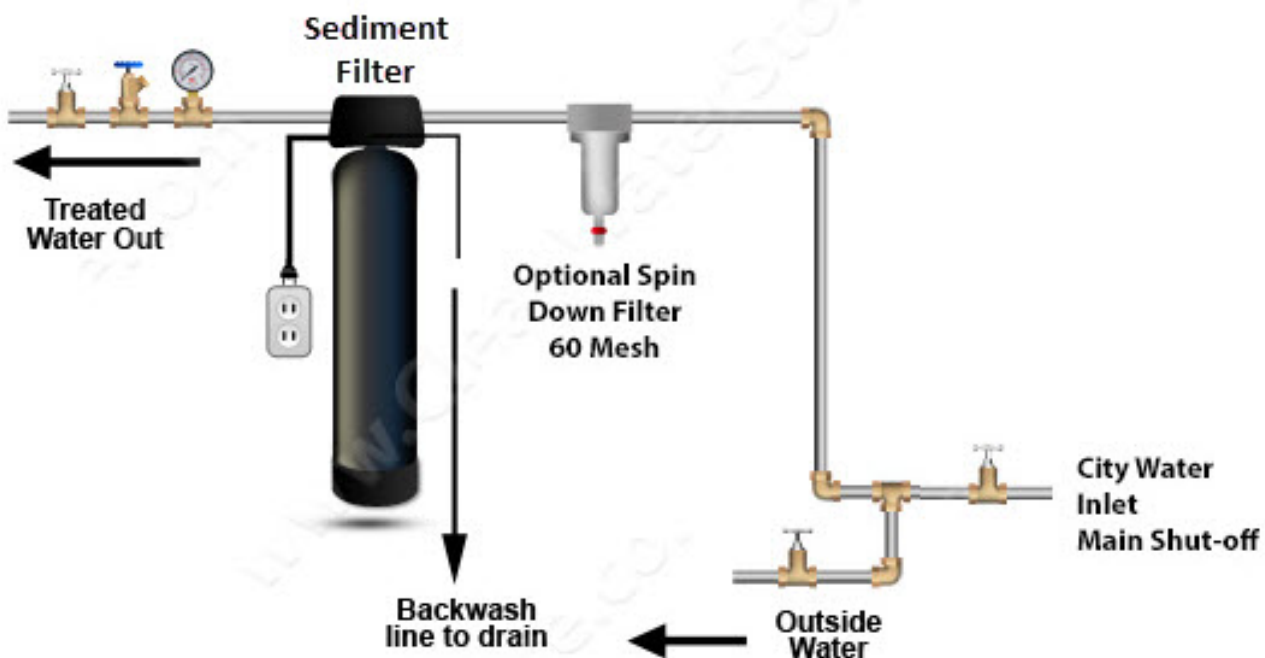
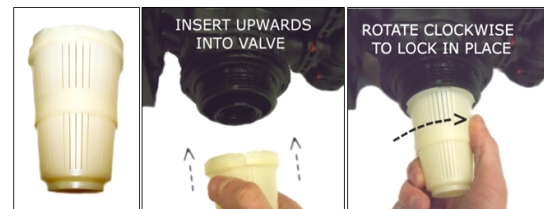


Diagram of Installation City Water



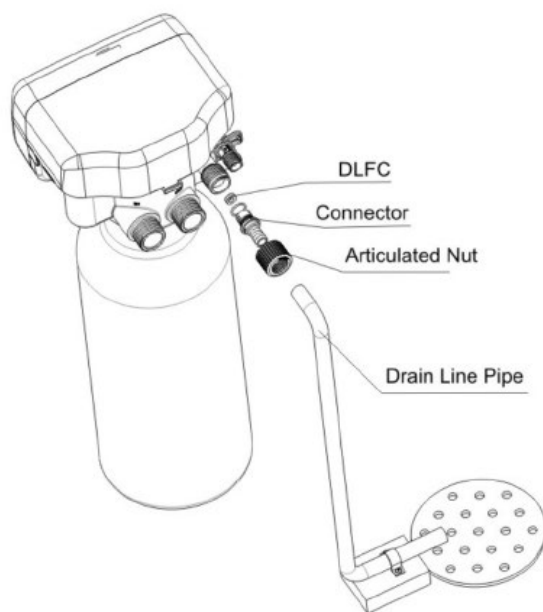
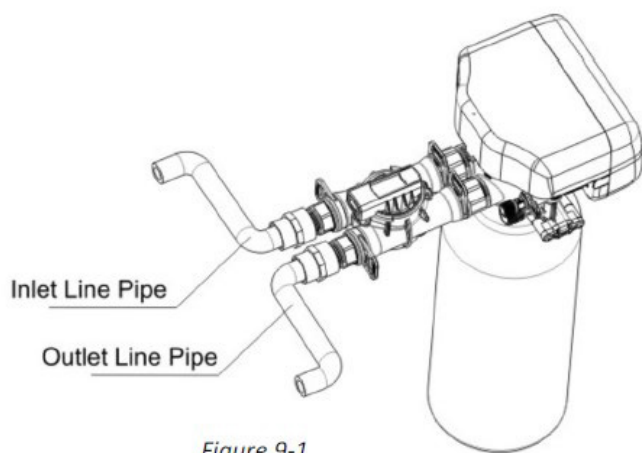
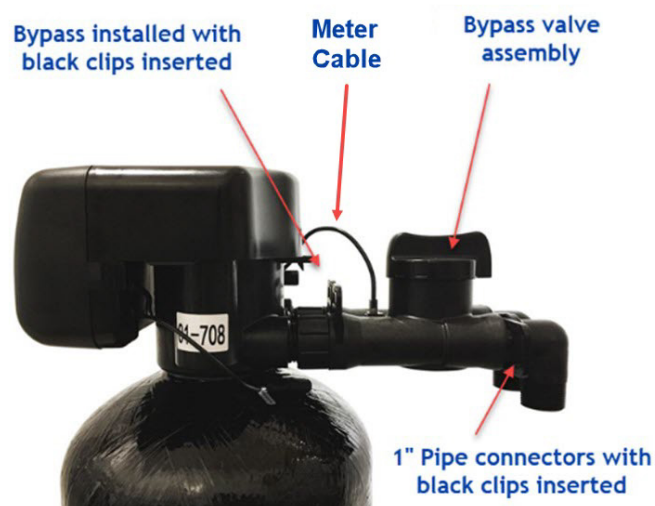
Tank Assembly and Installation Instructions

1. Wrap the top of distributor tube with electrical or duct tape so that no gravel or Carbon media will go down the distributor tube when adding the media.
2. Add the filter gravel that came with your order. You want the gravel to cover the bottom distributor screen before adding the Carbon media.
3. Next add Carbon media. The tank should be about 2/3rds full of media, do not fill more than 2/3rds, even if there is some media left over.
4. Remove cap or tape from top of distributor tube. Be careful not to pull up distributor tube when removing cap or tape.
5. Fill tank completely with water. This will allow the Carbon Backwash Filter media to settle and reduce the need of purging the air out of the tank later. Allow Carbon to soak for at least 1 hour but 24 hours or more is OK. Carbon contains trapped air, and this will help remove trapped air.
6. Add a small amount of silicone grease to the inner O-ring, where the distribution tube goes.
7. Next, install the top screen by inserting upwards and rotating to lock in place. (This is a funnelshaped plastic screen that locks into the bottom side of control valve).
8. Lubricate the main tank O-ring only with silicone grease and screw on the 7500-Rev4 control valve carefully. Do not use pipe-joint compound, vegetable oil, Teflon tape, or Vaseline or other greases to lubricate tank threads.



Tank Assembly and Installation Instructions

9. Connect bypass assembly with 1" pipe connectors; install black clips and make sure valve is in the bypass position.
10. Insert meter cable into meter cable port on bypass.oil, Teflon tape, or Vaseline or other greases to lubricate tank threads.
11. Install inlet and outlet piping and hook up drain line.
12. If you are in earthquake zone, strap your backwash filter tank to wall with metal strapping.
13. Proceed to programming your 7500-Rev4 control valve
14. **IMPORTANT:** you must program the time and then start a backwash and rinse. The filter system must be backwashed and rinsed several times before using. See following pages for instructions.



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Programming Your Valve and Setting Time and Days for Backwash



How to Start a Manual Backwash: Press the Back / Regen button

Pressing "Back Regen" at any time results in an immediate manual regeneration.

Pressing and holding for 3 seconds, when system is locked, results in a delayed regeneration at the preselected time.

Extended Power Outage Indicator

If power outage exceeds 3 days, the time-of-day indicator "_" will flash 12:12. The current time of day needs to be re-set. All other set parameters remain stored in memory. The valve will resume to operate from the point of the power outage.

Lockout Function

Keypad will lock after 5 minutes without use. To access the parameter changes, press and hold "Up" and "Down" buttons simultaneously for 3 seconds to unlock.

NOTE: To start all you need to do is set current time and date. All other parameters have been preset for you.

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Set Time of Day

1. If LOCK icon is lit, press, and hold both UP and DOWN buttons for 3 seconds to unlock keypad.
2. Then press the MENU/CONFIRM button to enter the main menu.
3. Press DOWN button to select "Set Time of Day"
4. Press the MENU/CONFIRM button again to change time of day (Hour will flash)
5. Adjust hour by using DOWN or UP buttons.
6. Press the MENU/CONFIRM button again to change minutes (Minutes will flash)
7. Adjust minutes by using DOWN or UP buttons.
8. Press Back/Regen



Set Date

1. If LOCK icon is lit, press, and hold both UP and DOWN buttons for 3 seconds to unlock keypad.
2. Then press the MENU/CONFIRM button to enter the main menu.
3. Press DOWN button to select "Set Date"
4. Month: Press the MENU/CONFIRM button again to change time of day (Month will flash) and adjust to current Month date by using DOWN or UP buttons.
5. Day: Press the MENU/CONFIRM button again to change Day date (Day date will flash) and adjust to current day date by using DOWN or UP buttons.
6. Year: Press the MENU/CONFIRM button again to change Year date (Year date will flash) and adjust to current Year by using DOWN or UP buttons.
7. Press BACK/REGEN button to save current date and go back to menu.
8. Continue to review and/or change the remaining settings (as follows)

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Set Capacity

This refers to the number of gallons your 7500-Rev4 is set to backwash. Default is 1400 Gallons. This means that your filter will backwash every 1400 gallons of water used, OR every 7 days, whichever comes first, since your maximum days for regeneration is set to every 7 days as well.

Set Rinse Frequency

Not used. Keep or change to F:00

Set Regen Time

This is the time your system will backwash. Default is 2:00 AM

Set Backwash Time Length

Set for 10 minutes. This is the first cycle.

Set B. S. R. Time

Not used. Keep or change to 0 minutes.

Set Fast Rinse Time

Set for 8 minutes.

Set B. R. Time

Not used. Keep or change to 0 minutes.

Maximum Days for Regen

This refers to the days between each backwash. Set to every 7 days. This means that your filter will automatically backwash and rinse every 7 days or every 1400 gallons whichever comes first.

Usage Logs

The following are diagnostic menus you can review later if you wish:

Daily Usage Log

Weekly Peak Usage

Monthly Peak Usage

Daily Peak Usage

Monthly Usage Log

Review Regen. Times

Weekly Usage Log

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Start the First Backwash

1. After programming, the system must be run through 2 or 3 backwash/rinse regeneration cycles to clean the new filter media.
2. Start with both bypass valves in the Bypass Position.
3. Press the BACK/REGEN button once to enter the backwashing cycle.
4. When the backwash icon is displayed, slowly open the bypass to a quarter position to make the water flow into the tank and out the backwash drain line to drain.
5. After several minutes open bypass valve completely. If possible, verify that the backwash flow corresponds with the size of your system below. You can easily run the drain hose to a bucket and verify the flow rate in gallons per minute. An adequate backwash is critical to properly clean the Carbon media. For example, if the backwash water fills a 5-gallon bucket in 1 minute, you have 5 gallons per minute (GPM).
6. After the backwash, the system will automatically go into the fast rinse stage. The control valve will return to service status (indicated by the up flowing meter on the left).
7. Repeat the Regeneration (backwash and rapid rinse cycle) step 2 to 3 more times until you see clear water through the drain line.

0.5 CF	3 GPM
0.75 CF	5 GPM
1.0 CF	5 GPM
1.5 CF	5 GPM
2.0 CF	7 GPM
2.5 CF	10 GPM
3.0 CF	12 GPM

Congratulations, you are done setting up your valve!

Advanced Programming Mode

The Advanced Programming Mode allows you to set the Regen Cycle and Regen Mode. Skip this for most applications as your filter system has already been set to correct modes.

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1. Plug the RevV4 in and immediately press in sequence MENU/CONFIRM, then press BACK/REGEN button, then press the DOWN button to enter the Advanced Programming Mode.
2. Press UP or DOWN buttons or to select the menu item to be changed (Press MENU/CONFIRM to return to the previous menu).
3. Note: If valve locks while programming, unplug power supply and repeat step above.
4. Press MENU/CONFIRM to enter the main menu
5. Press the UP or DOWN buttons to highlight each option.
6. Press MENU/CONFIRM to enter highlighted option.
7. Press the UP or DOWN buttons to adjust the value.
8. Press the MENU/CONFIRM to accept the changes.
9. Press BACK/REGEN button to advance to service status

Advanced Program Recommended Settings

Review Company Info	CWS 831-462-8500
Set Valve Model	62605
Set Language	English
Set Company Info	CWS 831-462-8500
Set Hour Mode	12 HR
Set Time of Day	Current time of day
Set Date	Current date
Set Program Type	Interlock
Set Regen Cycles	No. 1
Set Set Clear Data	Close
Set Regen Mode	A-07
Set Capacity	1400 Gal.
Set Regen Time	2:00 AM
Set Backwash Time	10 Minutes
Set B.S.R. Time	0
Set Fast Rinse Time	8
Set B.R. Time	0
Max Days for Regen.	7
Signal Output Mode	b-01
Set Service Alarm	Disabled
Review Regen Times	NA
Review Software Version	Ver. 5.0

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Maintenance

Every 4 to 6 years (in some cases it can last longer) remove control valve and empty the carbon filter media and replace with new media.

There is no routine maintenance required for the control valve or filter media, other than making sure the system is set to backwash frequently enough to keep the filter media clean.

Test the water before and after the carbon filter for a chlorine residual every 4 to 6 months. When you start to see a chlorine residual after the carbon, it is time to replace the carbon.

Troubleshooting the 7500-REV4 Carbon Backwash Filter

Backwash Flow Rate

One problem that may occur is if you do not have enough backwash flow rate to properly clean the Carbon Backwash Filter.

You can verify the backwash flow rate by running the drain line into a bucket and timing it when the 7500-REV4 is in Cycle 1 or backwash.

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7500-Rev4 Water Filters Limited Warranty

We warrant this water filter/ softener/ conditioner, when installed according to factory recommendations, to be free from defects in materials and workmanship as follows:

Limited Warranty

This water conditioner unit is comprised of the finest industry components available. Each individual component used in the assembly of our equipment is covered by the original equipment manufacturer's warranty. All components, except those specifically listed below, are warranted for a period of one (1) year from date of installation to the original purchaser to be free of defects in materials and workmanship subject to the manufacturer's conditions and/or the conditions shown below.

Mineral Tanks

The fiberglass, polyglass or composite mineral tanks used in the assembly of this unit are warranted to be free of defects in materials and workmanship for a period of ten (10) years on 6" – 13" size tanks, and five (5) years on 14" and larger size tanks used for softener/filtration applications, subject to the manufacturer's conditions and/or the conditions shown below. Warranty does not cover exposure to weather, freezing, fractures caused by external impact, or exposure to vacuum.

Control Valves

The CWS control valve is warranted to be free of defects in materials and workmanship for a period of seven (7) years, subject to the manufacturer's conditions and/or the conditions shown below. Fleck & other brand control valves have 5-year warranty.

Conditions

1. This warranty only covers water conditioners installed for residential use. Water conditioners installed for commercial or industrial applications are guaranteed for one (1) year from the date of installation.
2. Installation must be made in accordance with legal or local codes and manufacturer's recommendations.
3. Failure must not result from exposure to weather, rodents, misuse, alteration, fire, lightning, power surges or neglect.
4. 4. Water pressure must not exceed 100 PSI and water temperature must not exceed 100 degrees.
5. 5. Subject to the above terms and conditions we will replace and/or repair, at our option, any parts of the water conditioner found defective in materials and workmanship. Defective parts must be returned, freight pre-paid for repair or replacement.
6. This warranty does not cover labor, shipping charges, damages caused by delays of consequential damages or other causes beyond our control. Warranty does not cover pipes, fixtures or appliances. Warranty extends to the actual water conditioner components only.
7. This warranty is to the original purchaser and is not transferable after the third year to any subsequent owner(s).
8. No other guarantees or warranty, expressed or implied, is applicable to our product. No repair or replacement made under the terms of the warranty shall extend this warranty.