



Clean Water Made Easy

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7500 Pro-Ox Filter Installation & Start-Up Guide

Thank you for purchasing a Clean Water System! With proper installation and a little routine maintenance your system will be providing iron free water for many years.

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

The Pro-OX 7500 Iron Filter must be activated with 1 cup of liquid chlorine when first installing it.

Read instructions for more information.

It is easy to do, but a critical step.

The iron filter must be backwashed and rinsed 3 - 5 times to clear out dust and fines when starting up the first time.

Questions?

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

Email us: support@cleanwaterstore.com

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Packing Lists for Different Models Pro-OX 7500:

Pro-Ox Filter 0.75 cubic foot size

7500 Backwash Control Valve
5 GPM External Drain line Flow Control Fitting
8" x 44" filter tank with distributor tube
Media funnel for adding the Pro-Ox media
8 lbs. Filter gravel
55 lbs (one bag) Pro-Ox media
10 lbs Chemsorb media

Pro-Ox Filter 1.0 cubic foot size

7500 Backwash Control Valve
7 GPM External Drain line Flow Control Fitting
9" x 48" filter tank with distributor tube
Media funnel for adding the Pro-Ox media
16 lbs. Filter gravel
69 lbs Pro-Ox media
10 lbs Chemsorb media

Pro-Ox Filter 1.5 cubic foot size

7500 Backwash Control Valve
10 GPM External Drain line Flow Control Fitting
10" x 54" filter tank with distributor tube
Media funnel for adding the Pro-Ox media
16 lbs. Filter gravel
110 lbs Pro-Ox media
20 lbs Chemsorb media

Pro-Ox Filter 2.0 cubic foot size

7500 Backwash Control
12 GPM External Drain line Flow Control Fitting
12" x 52" filter tank with distributor tube
Media funnel for adding the Pro-Ox media
20 lbs. Filter gravel
165 lbs Pro-Ox media
20 lbs Chemsorb media

Pro-Ox Filter 2.5 cubic foot size

7500 Backwash Control
15 GPM External Drain line Flow Control Fitting
13" x 54" filter tank with distributor tube
Media funnel for adding the Pro-Ox media
30 lbs. Filter gravel
192 lbs Pro-Ox media
20 lbs Chemsorb media

Pro-Ox Filter 3.0 cubic foot size

7500 Backwash Control
20 GPM External Drain line Flow Control Fitting
14" x 65" filter tank with distributor tube
Media funnel for adding the Pro-Ox media
50 lbs. Filter gravel
248 lbs Pro-Ox media
30 lbs Chemsorb media

Pre-Installation:

1. Review your packing list and make sure you have received all the parts before beginning 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.
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 Pro-Ox 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, or full of sediment or rust, particularly if this is older or corroded piping. This typically clears up over a day or two.

Best Practices for Piping & Drain Installation:

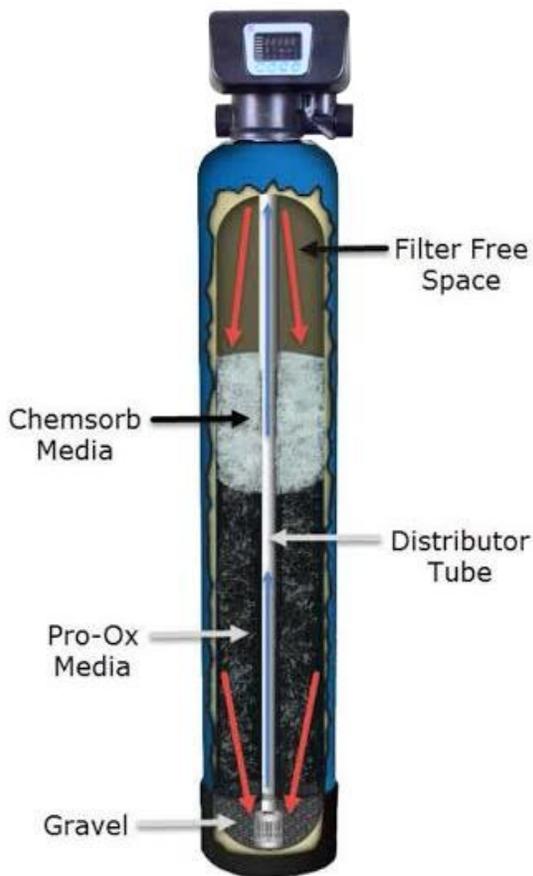
1. The Pro-Ox filter is installed after the pressure tank.
2. Make sure to connect the Inlet **from** your water source. Make sure to connect the Outlet to **where the water is being used** and be sure and install the External Flow Control fitting onto the Drain Port (Marked "DIRTY" on the back of the valve). From the male pipe thread on the External Flow fitting, you can transition to a barb fitting and run tubing to where you need to.
3. Make sure there is a working gate or ball valve before the 7500 Pro-Ox Filter and also one after. The pressure gauges are optional, but they are a great way to tell at a glance if your filter needs to be backwashed. **A hose bib (which is a faucet to which you can attach a garden hose) is strongly recommended after the Pro-Ox Filter and before the second ball valve.** This makes it easy to rinse your new Pro-Ox 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 control valve. Avoid heating up the 7500 control valve plastic with the torch.
5. You should install unions and a bypass around the valve, so that you can remove it and still have water (see Build Your Bypass).

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- The drain line tubing is connected to a drain from the External Flow Control fitting using a Female X Barbed fitting, flexible tubing and ring clamp (not supplied). Note that the drain can run up above the 7500 control head and into a drain, it does not have to drain down, as the filter backwashes under line pressure from your well pump. Most plumbing codes require an air-gap connection, so that if your sewer or septic tank backs up, it cannot cross connect with the drain tubing.

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 of the system will interrupt the electrical continuity of the plumbing system.



Stray currents from improperly grounded appliances downstream or potential galvanic activity in the plumbing system can no longer ground through the contiguous metal plumbing.

The installation of 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.

How Your Pro-Ox Filter Works:

In your Pro-Ox Filter the water enters the top of the tank (red arrows) and flows down through the media and up the distributor tube (blue arrows).

The Pro-Ox Filter removes iron and is backwashed, which cleans and re-classifies the 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 Pro-Ox media. During the backwash the media is cleaned by the action of the water flowing through it.

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Assembly and Installation Instructions:

1. Wrap the top of distributor tube with black electrical tape or blue painter's masking tape so that no gravel or Pro-Ox media will go down the distributor tube when adding the media.

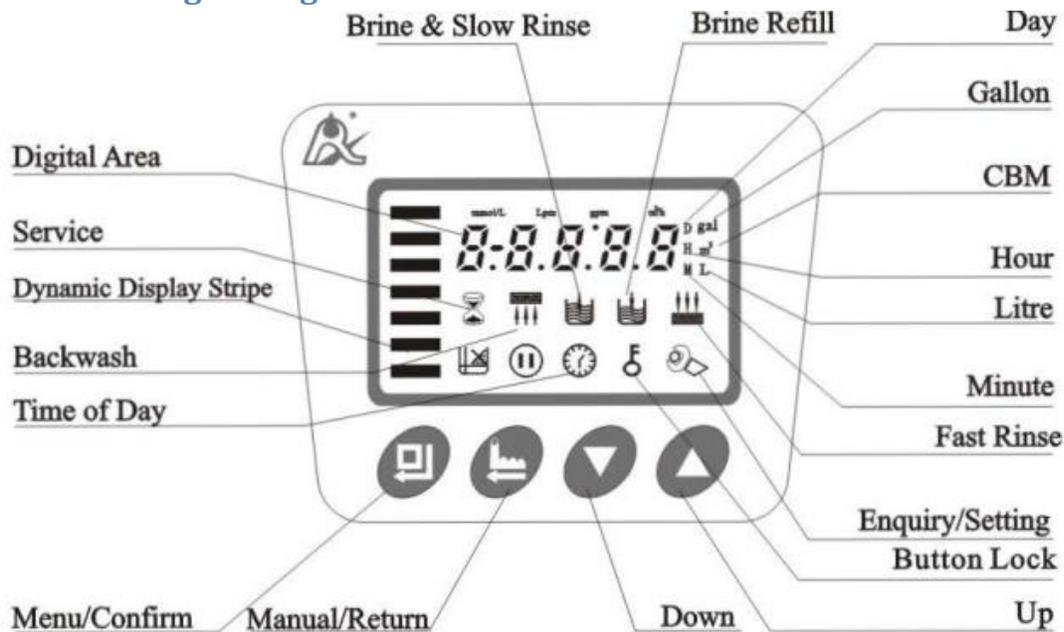
Leave a folded tab of tape that you will be able to grab onto to gently pull off the tape after filling the tank.



2. Add the filter gravel that came with your order. You want the gravel to cover the bottom distributor screen before adding the Pro-Ox media.
3. Next add Pro-Ox media, then the Chemsorb media. The tank should be 2/3 full.
4. Remove tape from top of distributor tube. Be careful not to pull up distributor tube when removing tape.
5. Fill tank completely with water. **Add 1 cup liquid chlorine.** This will allow the Pro-Ox Filter media to activate, settle and reduce the need of purging the air out of the tank later.
6. Add a small amount of silicone grease to both O-rings on the bottom of the control valve and screw on 7500 control valve carefully. **Do not use pipe-joint compound, vegetable oil, Teflon tape, or Vaseline or other petroleum greases** to lubricate tank threads.

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Basic Setting & Usage:



Digital Display Icons and the four Service Buttons: In addition to the Dynamic Display Stripe (explained immediately below this) there are six digital icons on the display that will indicate “where the valve is”. They are as follows:

Green Key Icon: Indicates that the buttons are locked; press and hold both scroll buttons to unlock.

Blue Clock-face Icon: Indicates that the red digital display is showing the Current Clock Time.

Blue Hourglass Icon: Indicates how many days remaining until the next backwash.

Green Wrench Icon: This indicates that you are in the programming menu and can change the values.

Red Backwash Icon: three arrows pointing up, underneath a rectangle with dots. This indicates that you are programming the Backwash step, or that the filter is in backwash.

Red Rapid Rinse Icon: three arrows pointing down, on top of a rectangle with dots. This indicates that you are programming the Rapid Rinse step, or that the filter is in Rapid Rinse.

Dynamic Display Stripe: On the left side of the digital display, there are seven green bars that light up and repeat a “going up” pattern. When the valve is in Service Mode, you will see that bar display flashing. The green Key Icon indicates that the buttons are “locked”. To unlock the buttons, press and hold both scroll arrows. While locked, the menu also changes, scrolling between the current clock time (blue Clock Icon will be lit), the number of days until the next backwash (the blue Hourglass Icon will be lit) and the Backwash Start Time (only the green key is lit).

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Sample Displays Showing Service Mode and Backwash and Fast (or Rapid) Rinse Modes:

Service			
Backwash			
Fast Rinse			

Four Service Buttons: Left to right, Menu/Confirm, Manual/ Return, Scroll Down, Scroll Up.

Up and Down Arrows: When the Green Key Icon is lit, press and hold both buttons to unlock. When the Dynamic Display Stripe is blinking, pushing the up/down buttons has no effect. When the Green Wrench icon is lit, pressing either up/down arrow will scroll through the menu options. There are a total of seven Menu items (explained later).

Menu/ Confirm Button (the button on the far left, an empty square with an arrow pointing left): This is the button you press (after you have unlocked the screen) that puts you in the Service Menu, so you can program the valve. The first time you press it, the Dynamic Display Stripe goes away and the Green Wrench icon appears. Whichever of the Icons is lit at this time, pressing the Menu/ Confirm button again will now cause that Icon's value to flash, on the red digital display.

Manual/ Return Button: Second from left, button icon is a "pointing index finger" with a left-pointing arrow underneath.

Pressing this button in Service Mode (Dynamic Display Stripe is running) will **IMMEDIATELY** start a backwash cycle. Pressing this button when in Program Mode will return you to the Service Mode.

A. Time of day indicator

- When the blue Clock Icon is lit, the digital display is showing the current time. That time is displayed in 24-hour format, i.e. 13:00 is 1:00 pm.

B. Button lock indicator

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- When the green Key Icon is lit, the buttons are locked. Press and hold both the Up and Down arrows to unlock. Buttons will lock 60 seconds after the last time a button is pressed.

C. Program mode indicator (shown on drawing as Enquiry/ Setting) is the green Wrench Icon. To activate this Icon from Service Mode, press and release the Menu/Confirm button (button on far left, with a square and an arrow pointing left) and the green Wrench Icon will be lit.

- With the green Wrench icon lit, you can press either the scroll Up or scroll Down buttons to navigate to each menu item. You will do this in order to:

- Set/confirm that the valve is programmed for Non-external input mode.
- Set Current Clock Time
- Set the time when you want the filter to backwash
- Set the number of complete backwash cycles it will do at that time
- Set how many days between backwashes
- Set the number of minutes for the Backwash Cycle
- Set the number of minutes for the Rapid Rinse Cycle.

- When the green Wrench Icon is flashing, whatever parameter that is selected (set clock time, set cycle step, etc.) can now be adjusted by using the Scroll buttons.

For example, when you press it the first time, the Dynamic Service Stripe goes away, the Green Wrench Icon is lit, and the other icon that is lit is the Blue Clock Icon- that means that whatever digits are on the red display, they are stating the clock time (in 24-hour mode). When you press the menu/ Confirm button again, the Hours will flash, and now you can change the hour by pressing the scroll arrows. When you are at the correct hour, press the Menu/Confirm button, and the Minutes will flash. After adjusting the minutes with the Scroll arrow, pressing the Menu/Confirm one more time displays your currently set clock time, and the digits are **not** flashing.

Programming the 7500 Valve:

There are seven menu items that we will set and confirm, to program your Pro-Ox filter. Plug the valve in, and wait for the Service Screen to come on, the Dynamic Display Strip is blinking.

If the green Key Icon is lit, press and hold both Scroll Buttons. The valve will beep and the key Icon will disappear.

Press the Menu/Confirm button (far left) and the Green Wrench Icon will come on.

You can now use either the scroll Up or Down buttons to stop at each of the 7 menu items you will need to program. They are listed below in the order they appear **if you use the scroll down arrow** and, when you enter the programming, it will be at whichever Menu option that was last displayed when the programming mode was exited. The factory default screen is where this list starts:

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1. b - 01. This setting must be at b – 01. If it says b – 02, press the Menu/Confirm button, the 02 will start flashing. Press either scroll key and it will display b – 01, press the Menu/Confirm button again, and it will say b – 01 and not be flashing. Press the Scroll Down button to continue.
2. Blue Clock Face Icon is displayed. To change the clock time, press the menu/Confirm button; the hours will flash. Adjust the hours with the scroll arrows. Clock time is 24- Hour (or Military Time), so 1 pm is 13:00, two pm is 14:00, etc.... When you are at the correct hour, press the Menu/Confirm button and the minutes will flash, set the minutes using the scroll up/down buttons, and press the Menu/ Confirm button when done. The time you set will now be displayed, and not flashing. Press the Scroll Down button to continue.
3. This is the screen where you set what time of day the backwash will start. 02:00 (2 am) is the default time. The backwash cycle should be started while no one is using water, and while no other filters you may also have are backwashing. You will adjust the clock time for this as you did for the Current time clock above. **Note:** This is the one parameter that does **not** have an Icon that identifies it. When the Service Screen is automatically scrolling, or you are programming, the Current Clock time shows the Blue Clock face Icon. The Backwash Start Time (also called the regeneration time) does not have an icon.
4. F -00 This menu item sets the number of complete backwash cycles the valve will do, when it reaches the time to do a backwash cycle. The default is F – 00, which is doing **one cycle**. If you set it at F – 01, then it will do **two backwash cycles**. Your 7500 Pro-Ox filter only needs to backwash one time each time, so leave this at F – 00.
5. 1 – 07^d This menu item sets the number of days between regenerations. The default value is saying that the unit will backwash once ever seven days. A good starter setting for your Pro-Ox filter is four days.
6. 2 – 10_m This menu item is for the number of minutes that the backwash cycle step will run. The default is ten minutes, and should be left at or adjusted to ten minutes.
7. 3 – 10_m This menu item is for the number of minutes for the Fast (or Rapid) Rinse. The default is 10 minutes. Press the menu/confirm button, the 10 will flash; adjust it down to 06 with the Scroll Down button, and press the Menu/ Confirm button. Now the valve is programmed to Rapid Rinse for six minutes. Press the scroll down button, and you are back at the first menu item, b – 01. Press the Menu/Confirm button, and the Green Wrench Icon goes away, the Dynamic Display Stripe returns, and you are done programming your valve.

When the motor is turning -00- is displayed...

Typical Bypass assembly:

The 7500 Does not come with a pre-made bypass; you have to build one yourself. Schedule 40 or 80 PVC, or Pex pipe is okay to use. You also can get a pair of flex lines- instead of the unions shown where the Elbow Connector is, you could have slip by male fittings, then flex lines, then male nipples, and then you do not have to worry about plumbing it with too much pipe deflection- this must be avoided, as pipe deflection will put undue pressure on the control valve threads which may then crack.

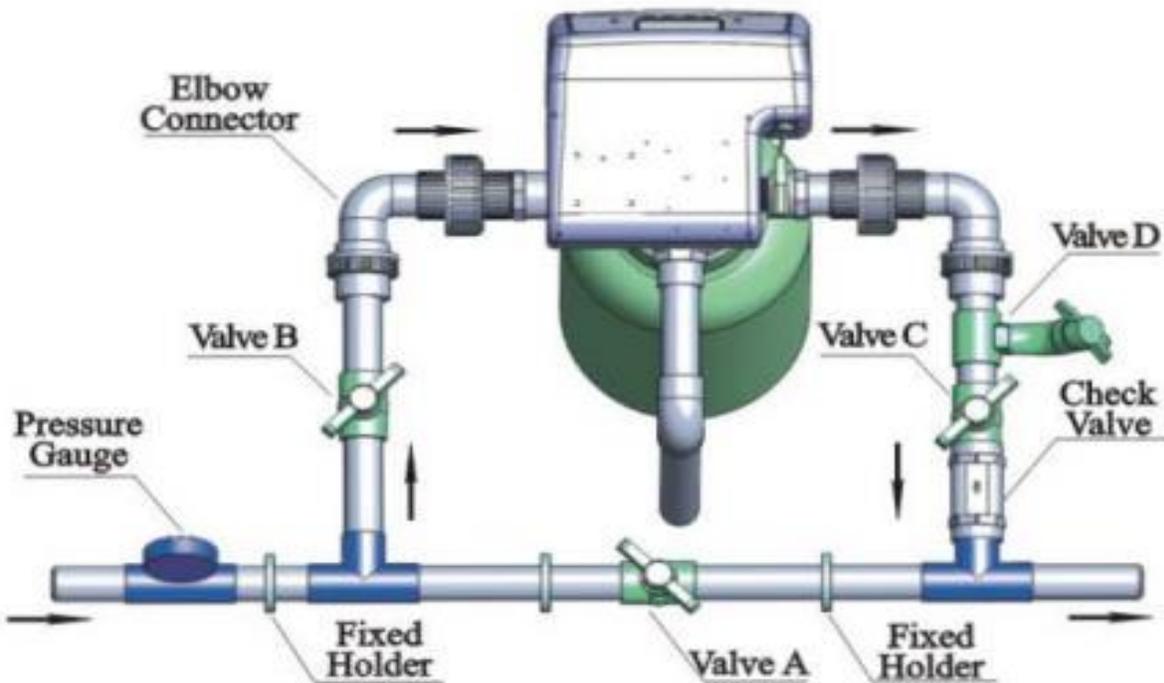


Figure1-2

Initial Backwash:

Before the unit can be put into service, a couple of backwash cycles must be done. This is for:

- Rinsing the dust off the media
- Remove media "fines" (bits of broken media so small they pass through the screen)
- Test system for plumbing leaks/ failures.

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You will start the first backwash with the **Inlet and Outlet valves closed**.

- 1) From the Service Mode (Dynamic Display Stripe is showing), press the Manual/Return button. This will advance the valve to the backwash position (red icon, three arrows pointing down).
- 2) Open the Inlet valve just enough so that you can hear water going through. After a few seconds, a small amount of water will start coming out of the drain line. The valve is counting down, from ten minutes.
- 3) Open the valve a little more; you will see an increase in the flow coming out of the drain line. Each time you open the valve, you are looking for bubbles and for the water to turn black for a while- the dust and fines being rinsed away. This step can often take longer than the 10 minutes the Backwash cycle is set for- simply unplug the power supply, and the valve will stay in backwash until you have the Inlet valve full open, and the water grey to partly clear. Then, plug the valve back in, let it finish the remaining minutes on Backwash and advance to Rapid Rinse.
- 4) Now, start a second backwash, but this time with the Inlet full open. Let it run another Backwash and Rapid Rinse cycle, and check for leaks in the system.
- 5) Lastly, run water through the valve in service position at the nearest faucet/spigot to the filter, to purge any fines or air or debris from the plumbing install to be flushed from the line.

How To Remove Media From Control Head:

Sometimes, when doing the Initial Backwash, the media gets lifted up into the control head. You can tell this happened because you will have little or no flow, either going out to drain while in the backwash position, or when in the service position. To remove media from a control head, do the following:

- 1) Put the Inlet Bypass in the Closed position.
- 2) From the Service Mode, initiate a manual regeneration by pressing the Manual/Return button (second from left, "the pointing finger").
- 3) The valve will advance to the BW (backwash) position, and start counting down. Press the Regen button again, and wait for the valve to advance and stop at the Rapid Rinse (RR) position.
- 4) With the valve in the RR position, open and close the Inlet Bypass valve several times. After the third or fourth time, leave it in the open position and check the drain line- do you have a good solid flow? 90% of the time, the answer is yes, but sometimes, even after opening and closing the valve many times, you still don't have good flow... But, in either case (good or no flow), continue...
- 5) With the Inlet Valve OFF, Advance the valve back to Service position again, and again press and hold the Regen button, we are putting the valve back to the Backwash position.
- 6) Open the Inlet valve just enough so you can hear the water passing thru the valve- you should notice a corresponding slow flow out of the drain line. After a minute, if there are no air bubbles present, open

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the valve about another quarter inch- again, you should see a corresponding increase in the flow... And you will continue until the valve is full open.

IMPORTANT: Any time that you are in the Backwash or Rapid Rinse position, you may need to unplug the power. This will hold the valve in its current position, so it doesn't 'time out' and go to the next position. When you plug the valve back in, after a minute it will return to where it was when you unplugged it (i.e. 2:32 remaining in BW). Understand, it is not possible to jam media into the head while in Rapid Rinse, or Service, just in the Backwash, when the flow direction is reversed.

What you are trying to accomplish, after you have pushed the media back in to the tank in the Rapid Rinse position, is to get the Inlet valve all the way open in the Backwash position, without it jamming media back in the head, and this is the part where you have to go slow, open up the Inlet valve a little bit at a time and let it run for a few minutes- this is why you may have to unplug it- and then, once you have done that, finally, do one more backwash, starting with the Inlet valve open, just as it will be when it does it automatically at night. Once it does that successfully, you are done.

What To Do If Your Filter Tank Does Not Sit Level On the Floor:

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 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 floor once or twice in order to level it.