



Clean Water Made Easy

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Pro-Ox 5900e 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 5900e Iron Filter **must be activated with a 1/2 cup of unscented liquid chlorine bleach when first installing it.** See Page 9 and read instructions for more information. It is easy to do, but a critical step that must be done.
- The iron filter must be backwashed and rinsed 3 -4 times to clear out dust and fines when starting up the first time.
- The Pro-OX media contains dust. Use paper mask and ventilate area to avoid breathing dust when first pouring the media into the tank.
- When installing the Pro-OX 5900e control valve (on top of the tank) do not use any pipe sealant or oil or lubricant on the threads of the valve.
- **Videos:** There are many useful videos available to help with your install:

<https://www.youtube.com/channel/UC415QpvIRz-YAntxIMiel2w/videos>

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Packing List

Pro-Ox 5900e 844

Pro-Ox 5900e control valve w/ bypass assembly and pipe connector kit (1" or 3/4")
Power Supply (Dual Voltage Input: 100-240v 47-63 Hz 0.5 A/ Output: 12V, 500mA)
Drain Line Flow Control (DLFC) Button 5 GPM
½" MPT X 5/8 OD Hose Barb Fitting
8" x 44" standard filter tank with distributor tube
Plastic media funnel for adding Pro-OX media
55 lbs. of Pro-OX media
10 lbs. of Chemsorb media
12 lbs. filter gravel

Pro-Ox 5900e 948

Pro-Ox 5900e control valve w/ bypass assembly and pipe connector kit (1" or 3/4")
Power Supply (Dual Voltage Input: 100-240v 47-63 Hz 0.5 A/ Output: 12V, 500mA)
Drain Line Flow Control (DLFC) Button 7 GPM
½" MPT X 5/8 OD Hose Barb Fitting
9" x 48" standard filter tank with distributor tube
Plastic media funnel for adding Pro-OX media
69 lbs. of Pro-OX media
10 lbs. of Chemsorb media
16 lbs. filter gravel

Pro-Ox 5900e 1054

Pro-Ox 5900e-AIR control valve w/ bypass assembly and pipe connector kit (1" or 3/4")
Power Supply (Dual Voltage Input: 100-240v 47-63 Hz 0.5 A/ Output: 12V, 500mA)
Drain Line Flow Control External 10 GPM
½" MPT X 5/8 OD Hose Barb Fitting
10" x 54" standard filter tank with distributor tube
Plastic media funnel for adding Pro-OX media
110 lbs. of Pro-OX media, 20 lbs. of Chemsorb media, 16 lbs. filter gravel

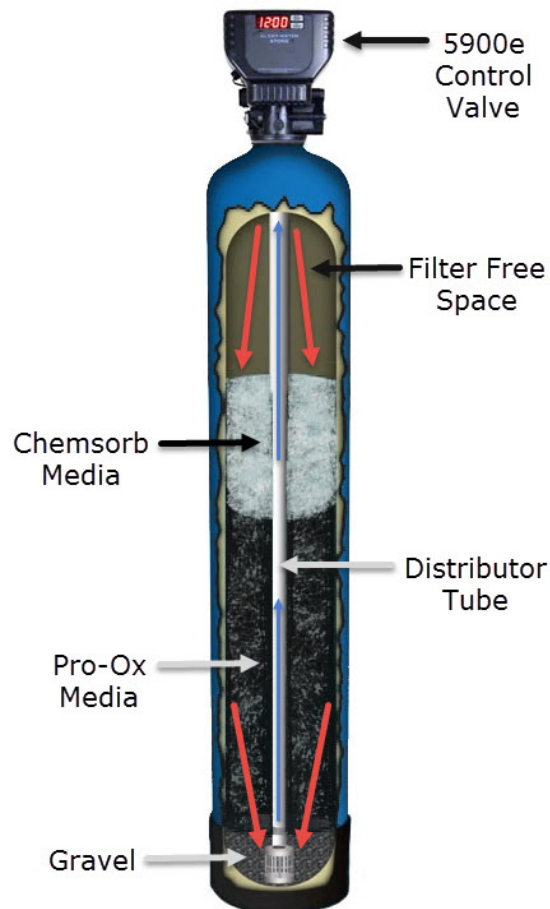
Pro-Ox 5900e 1252

Pro-Ox 5900e control valve w/ bypass assembly and pipe connector kit (1" or 3/4")
Power Supply (Dual Voltage Input: 100-240v 47-63 Hz 0.5 A/ Output: 12V, 500mA)
Drain Line Flow Control External 12 GPM
½" MPT X 5/8 OD Hose Barb Fitting
12" x 54" standard filter tank with distributor tube
Plastic media funnel for adding Pro-OX media
165 lbs. of Pro-OX media
20 lbs. of Chemsorb media
20 lbs. filter gravel

How Your Pro Ox 5900e Works:

Water enters your iron filter through the top of the tank and flows down through the media (red arrows) and up the distributor tube (blue arrows). The Pro-OX filter oxidizes iron and manganese and automatically backwashes which cleans the media inside. During backwash the flow of water is reversed: water flows down the distributor tube and up through the media, lifting, expanding, and cleaning it.

Fig 1. Pro Ox 5900e



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 30 PSI is required. Maximum pressure is 90 PSI.
4. Get all of your plumbing parts together before beginning installation. Installation typically takes 3 to 5 hours. However, after installation the Pro Ox 5900 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. See typical installation on page 6 (Fig 2). The Pro Ox 5900e is installed after the pressure tank.
2. Make sure to connect the IN pipe to the Pro Ox 5900e inlet and the OUT pipe to the outlet (see Fig 3). As you face the Pro Ox 5900e control from the front, the water enters on the right and exits on the left. From the back (see Fig 3) the water enters on the left. The inlet and outlet are attached to the bypass valve, which is marked with arrows as well.
3. Make sure there is a working gate or ball valve before the Pro Ox 5900e and also one after as shown in Fig 2. The pressure gauges are optional and perhaps not necessary but a hose bib (which is a faucet that you can attach a garden hose to) is strongly recommended after the Pro Ox 5900e and before the second ball valve. This makes it easy to rinse your new Pro Ox 5900e on start-up and gives you a place to test the water before it enters your household plumbing.
4. If you will be using copper piping, do not sweat the copper pipe directly on to the Pro Ox 5900e control valve. Avoid heating up the Pro Ox 5900e control valve plastic with the torch.
5. The drain line tubing (not supplied) is connected to a drain from the drain outlet using flexible 5/8" ID tubing. Note that the drain can run up above the Pro Ox 5900e control 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 System into Copper or Metal Pipe 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.

Thus, 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.

Your System Install Flow Chart:

- 1) Verify that you have received all parts for your system and there are no damaged or missing parts.
- 2) Build the filter vessel, and fill with water and a ½ cup of Liquid Pool Chlorine. The longer it soaks while you are doing everything else, the better, but at least one hour. Build the filter near to where it goes, it will be very heavy when you are done.
- 3) Make the plumbing connections from your existing system to the bypass assembly, installing extra valves, unions, pressure gauges or hose bibs as needed.
- 4) Attach the control head to the tank, and to the bypass assembly.
- 5) Install the Drain Line tubing and the DLFC
- 6) Plug in the power supply and program the valve.
- 7) Do the Initial Backwash and rinse of the media with the water turned off to the house, after the iron filter.

Fig 2 - Typical Pro Ox 5900e piping installation with ball valve and hose bib after the filter.

Recommended: install gate or ball valves before and after iron filter. Install hose bib after iron filter.

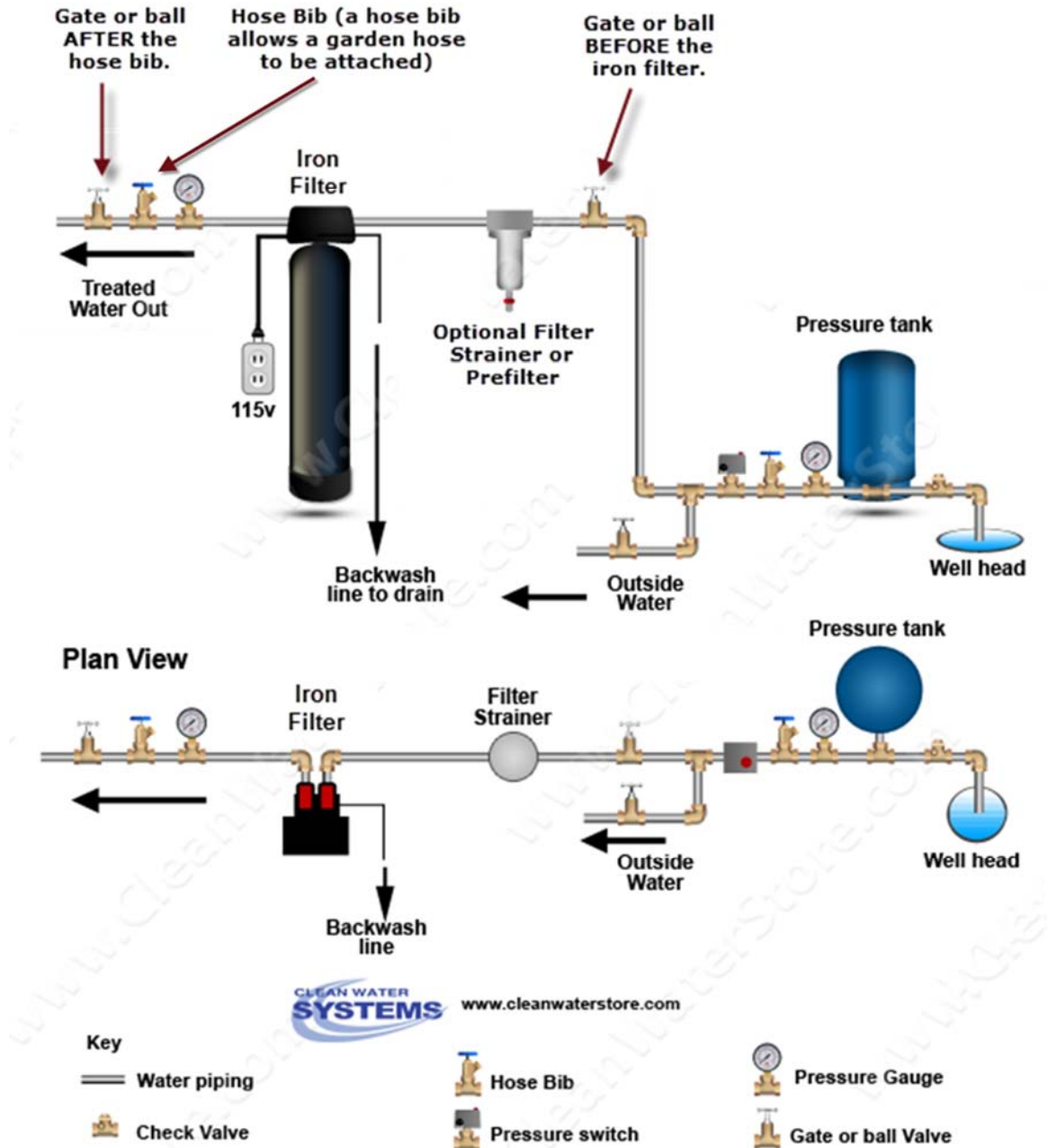


Fig 3: 5900 from the rear showing the inlet (left) and outlet (right) end-connector fittings 3/4" or 1" NPT in Noryl plastic. Brass end-connectors are also available for connecting to copper tubing.

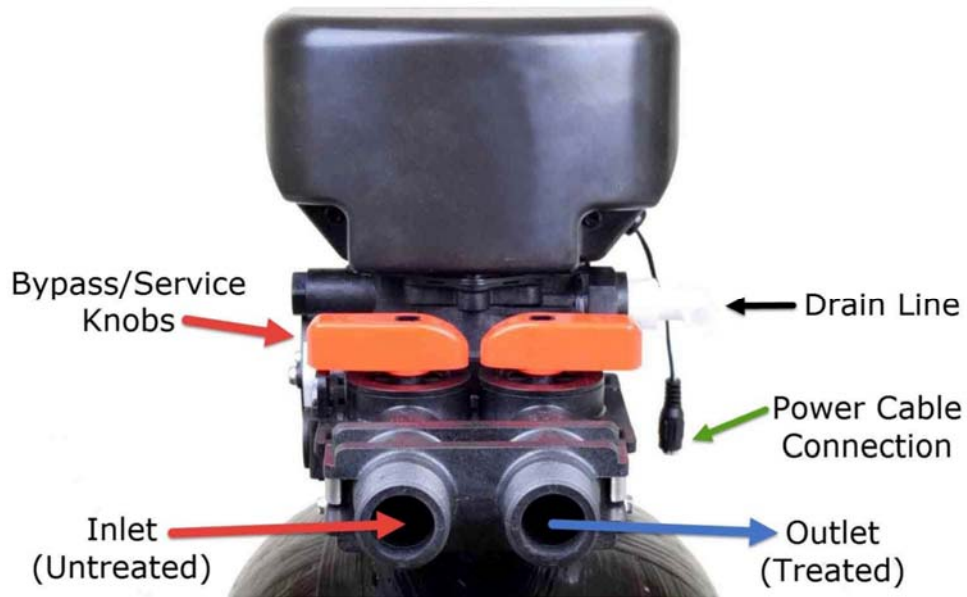


Fig 4 5900 Bypass/Service Mode Knob Positions



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. Also, leaving a folded tab of tape that you will be able to grab onto to gently pull off the tape after filling the tank. When you are ready to screw the valve head on, apply silicone lubricant to the outside of the distribution tube, and the O-ring on the control valve where the tube goes in.



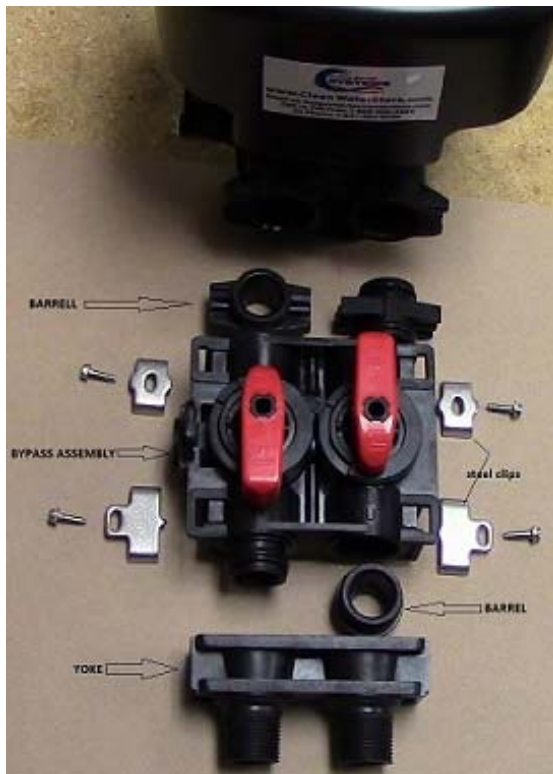
2. Add the filter gravel that came with your order. You want the gravel to cover the bottom distributor screen before adding the Pro Ox media.
3. Next, add the Pro-OX media first, and the Chemsorb media last, so that the Chemsorb sits on top of the Pro-OX media. The tank should be about 2/3 full of media, do not fill more than 2/3 full, even if there is media left over.
4. Remove tape from top of distributor tube. Be careful not to pull up distributor tube up.
5. **Add ½ cup liquid chlorine bleach** to the media, and then fill the tank completely with water. This will allow the Pro Ox media to be activated, and this will also settle and reduce the need of purging the air out of the tank later. **Let chlorine soak at least one hour.**
6. Screw on (install) the 5900 control valve to the filter tank. Do not use pipe-joint compound, vegetable oil, Teflon tape, or Vaseline or other petroleum greases to lubricate tank threads. No

need to lubricate the tank threads, as the control valve is sealed with the O-ring, not the threads.

Fig 5: 5900e Bypass with Barrels



Fig 6: Bypass with steel mounting clips



Assemble the bypass valve:

7. When you remove the bypass valve from the box, the valves are in the open position. Holding the bypass so that you are reading the In and Out (so that the words are not upside down to you when holding the bypass), note the following:
8. The red handles are slightly arrow-shaped; the pointed end is pointing in the direction of flow when open. The Inlet valve (on the left) turns clockwise, from full open at “12:00 o’clock”, to fully closed at “3:00 o’clock”. The Outlet valve turns clockwise from “6:00 o’clock” full open to “9:00 o’clock” full closed. The valves are stiff when new, so open and close them a few times. Leave them closed for now.

a) Choose which yoke (3/4” or 1”) you wish to attach to the back end of the bypass. Remove the barrels (Figure 5) and apply a small amount of silicone lubricant to each of the O-rings (two on each barrel, four total) Push the barrels back into the bypass, and push the yoke onto the barrels. Attach the steel mounting clips on each side and screw in the two screws (Figure 6).

b) On the end of the 5900e, take the barrels out and apply silicone grease to all four o-rings and push in the barrels and attach the bypass.

9. Now install your water pipes to the 5900e bypass end connectors. Make sure inlet is installed to the 'In' pipe connector on the bypass valve and outlet is on the "Out" connector.
10. Assemble the Drain Line Flow Control (DLFC) Fitting (See pictures on next page): A ½" MPT X 5/8" ID Barb is included. Using Teflon tape and Teflon paste on the ½" thread, screw the barbed into the Drain Line Fitting. This is located on the side of the valve; it is removed by pulling out the black clip. The DLFC is a black rubber washer with a hole in it- refer to the table to determine which DLFC to install. If your unit backwashes at 10 or 12 GPM's, you will get an External DLFC fitting, which must be assembled with Teflon tape (it is shipped "dry fit") as well.
11. Connect some flexible tubing from the drain connection on the 5900e control valve to a suitable drain such as a septic tank or drain to a sewer. It is OK to run the drain line up and over the 5900e up to 4 feet above the top of the tank. If the drain line will be more than 20 feet, use larger diameter tubing such as ¾" or 1".
12. You must be able to be able to run the drain line into a bucket in order to test the backwash flow rate in the future. This is why hard piping the drain line is discouraged. If you do use hard PVC piping for the drain line, you must be able to remove the hard PVC drain piping and attach flexible tubing for testing purposes. Make sure the drain tubing is firmly clamped to the barbed fitting with a hose clamp to prevent leaks.

Next, you will need to program the system to work as a Pro Ox 5900e Filter. There are a few settings that must be changed before the system can be put into service. Plug in the control to begin the programming instructions.

Programming Your Valve



*While scrolling through numbers, it only increases the value. To decrease the value, you will have to “go all the way around” to get back to a lower value.

1. To enter main menu press the Menu/Enter button
(Time of day will flash)

2. To set time of day press the Set/Change button
(First digit will begin to flash) Example [12:00]
 - **To change digit value press the Set/Change button**
 - **To accept the digit press the Menu/Enter button**
 - (Next digit will flash)
 - (Once hour is accepted all digits will flash)

3. With all digits flashing press the Menu Button to set A.M. or P.M.
- (Once A.M./P.M. is accepted the next menu item will flash) Example [A]

4. To Set Regeneration Frequency Press the Set/Change Button
 - **The recommended setting for a Pro-Ox filter is every 3-4 days**
 - Once the last digit is accepted all digits will flash Example [A - 03]
 - If value is set to 0, automatic regeneration will never occur
5. To exit menu press the Menu/Enter button
Note: If no buttons are pressed for 60 seconds or longer the menu will automatically be exited.

Pressing and holding the Menu/Enter button will also access some options: **Flo**- this is the flow rate, if water is running, it will display the volume, in gallons per minute. **Gt r**- This the total # of gallons that has gone through the filter. **g tot**- this is the same as the previous. **rC r**- number of regeneration done. **rC**- the same. **gPdL**- shows how many gallons used each day. **Gbrl**- is the gallons used between regenerations. **PfDL**- This shows the peak, or highest flow rate that has passed through the filter in the last 24 hours. Note that these options only work with a flow sensor.

Next, you will need to set the Master Programming, continue on to the next page to finish the programming instructions.

Master Programming Mode

Entering Master Programming Mode

-To enter Master Programming Mode press and hold both buttons for 5 seconds.

1. Regeneration Time (r)

Press the Menu/Enter Button. The next display viewed is the option setting for Regeneration Time. It is identified by the letter 'r' in the left digit. Set the desired time of day that a regeneration may occur, if required. **We recommend setting the system to backwash at 2 AM**, or at any time that it is unlikely that any water will be used. The first digit(s) indicates the Hour and the other digit indicates A.M. or P.M..

Example: 2 A.M. regeneration time - [r 2A] (factory setting)

2. Regeneration Cycle Step Programming (1)(2)(3)

The next 3 displays viewed are part of a series of option settings used to program the Regeneration Cycle. Up to 4 steps can be programmed, however, some steps may not be necessary for your application and will be set to 0. Each display is used to set the duration time in minutes for that specific step in a regeneration cycle. A step # will turn on for the regeneration cycle step being programmed. Regeneration steps are *skipped* by setting the display to 0 as shown below:

Examples: Regeneration Cycle Step #1 - 10 minutes - [1 - 10] (Factory Setting)

Regeneration Cycle Step #2 - skipped - [2 - - 0]

Set each step according to the values below, appropriate for a carbon filter:

- 1 10 minutes. This is the Backwash cycle. [1 - 10]
- 2 0 minutes. This is the Brine Draw cycle, not used on your valve. [2 - 0]
- 3 6 minutes. This is the Rapid Rinse cycle. [3 - 6]

3. Blue Tooth (This feature is not used in your application; it is for rental units)

After Cycle Step Three above, when you press the menu/enter button, the display will show bE 1 ; press the menu/enter button again, the display shows: bTPP and then changes to 1234. Press the menu/enter button, and now you are back to the home service screen (displaying the clock time and the number of days until backwash).

Exiting the Master Programming Mode

Press the Menu/Enter Button until all steps have been viewed. The Program Mode will be exited and normal operation resumed. If no buttons are pressed for 60 seconds or longer in Master Programming Mode, it will be exited automatically.

Initial Backwash:

- **IN ORDER TO ACTIVATE THE PRO-OX MEDIA, 1/2 CUP OF CHLORINE BLEACH MUST BE ALLOWED TO SOAK IN THE MEDIA VESSEL (ALONG WITH THE MEDIA) FOR ONE HOUR PRIOR TO STARTING THE FIRST BACKWASHES.**
 - **IT IS CRITICAL TO START A BACKWASH AND RINSE, AND LET THE FILTER BACKWASH AND RINSE THE PRO-OX MEDIA BEFORE USING WATER IN THE HOUSE. MULTIPLE BACKWASHES AND RINSES MAY BE NECESSARY TO CLEAN AND RINSE THE NEW MEDIA.**
 - **MAKE SURE THE SOURCE WATER ENTERS THE INLET PIPING (IN OTHER WORDS, THAT THE SYSTEM IS PIPED IN CORRECTLY, WITH THE WATER INLET TO THE INLET ON THE BYPASS VALVE)**
 - **MAKE SURE THAT BOTH THE INLET AND OUTLET VALVES ON BYPASS ARE CLOSED INITIALLY**
 - **MAKE SURE TO CLOSE THE BALL VALVE OR GATE VALVE AFTER THE IRON FILTER SO NO WATER CAN ENTER THE HOME AFTER THE SYSTEM DURING THIS INITIAL BACKWASH. (If you did not install a hose bib and gate or ball valve after the system as recommended, be sure to NOT use any water in the home during the initial start-up.)**
- 1 If days remaining is not already at 1 press and hold the Set/Change button. Now, press and hold the Set/Change button again, until the valve begins the backwash cycle and the display reads 1 [1- 10].
 - 2 Open the Inlet bypass knob counter-clockwise about a quarter inch, until you can hear water passing through the bypass into the filter. Stop and wait until you see water coming out of the drain line. It will often be mixed with air bubbles, and we must purge the air out. When you do not see bubbles anymore, keep opening the valve, a little bit at a time, stopping for a minute or two each time. You want to see a corresponding increase in flow out of the drain line as you increase the flow of water into the filter. After several minutes, you should have the valve fully open, and with no media coming out. The water will be black, turning to gray, mostly clear water- the water does not get crystal clear in the Backwash mode (only at the end of Rapid Rinse and during Service).

It is critical to verify that the backwash flow corresponds with the size of your system below. You can easily run the drain hose to a bucket and using a watch verify the flow rate in gallons per minute. An adequate backwash is necessary to properly clean the Pro-Ox media and prevent it from becoming fouled and then allowing iron past the filter.

0.75 CF	5 GPM
1.0 CF	7 GPM
1.5 CF	10 GPM
2.0 CF	12 GPM

- 3 Once the water is mostly clear, press and hold the Set/Change button, and after 3 seconds the valve will start to advance to the “Rinse” position. Once again, allow the water to flow for about five minutes or until the water is clear. **Note:** It may take longer than the ten minutes that are programmed for this step (BW) before you have the valve opened all the way- simply unplug the power supply from the wall when there are still a couple minutes remaining; when you are ready to continue, plug the valve back in, and it will return to where it was.
- 4 Let the unit do the Rapid Rinse cycle and advance to the “Service” position. Next, open the outlet on the bypass valve and then open the hose bib faucet before the valve, after the iron filter (or if you didn’t install one as recommended, please open the nearest treated water faucet such as a laundry sink or bathtub) and allow the water to run until it is clear. We advise using a hose bib, bathtub, laundry sink, or other fixture that does not have an aerator screen as any remaining residue may get caught in the screen.

Congratulations, you are done setting up your valve!

Optional Side Tank Installation



1. Insert 3/8” diameter tubing into the chlorine side tank connection. Screw the nut with the sleeve and Ferrell attached to prevent leaking.



2. Add 2 cups of non-perfumed household bleach to the tank, followed by 2 gallons of water. Note that the tank may not be used with solid chlorine pellets or powder, just liquid bleach.
3. See the over-flow barbed fitting on the side of the chlorine tank. You do not have to connect this to a drain. If the safety float were to malfunction, there is a small chance that the chlorine solution will drip out of this fitting.

If this would cause a big mess where you have installed the Pro-OX filter, hook some tubing to this and run to a bucket, floor pan or floor drain. Normally no chlorine solution will leak out of this fitting.

Optional Side Tank Programming:

Entering Master Programming Mode

-To enter Master Programming Mode press and hold both buttons for 5 seconds.

1. Regeneration Time (r)

Press the Menu/Enter Button. The next display viewed is the option setting for Regeneration Time. It is identified by the letter 'r' in the left digit. Set the desired time of day that a regeneration may occur, if required. **We recommend setting the system to backwash at 2 AM**, or at any time that it is unlikely that any water will be used. The first digit(s) indicates the Hour and the other digit indicates A.M. or P.M..

Example: 2 A.M. regeneration time - [r 2A] (factory setting)

3. Regeneration Cycle Step Programming (1)(2)(3)(4)

The next 4 displays viewed are part of a series of option settings used to program the Regeneration Cycle. Up to 4 steps can be programmed. Each display is used to set the duration time in minutes for that specific step in a regeneration cycle. A step # will turn on for the regeneration cycle step being programmed. Regeneration steps are *skipped* by setting the display to 0 as shown below:

Set each step according to the values below, appropriate for your Pro-Ox filter:

- 1 10 minutes. This is the Backwash cycle. [1 - 10]
- 2 30 minutes. This is the Brine Draw cycle. [2 - 30]

- 3 6 minutes. This is the Rapid Rinse cycle. [3 - 6]
- 4 5 minutes. This is the brine refill cycle [4 - 5]
Cycle step two is when the water (and the chlorine that you add by hand) is sucked into the tank, and slowly rinses through for 30 minutes. There will be a small stream of water coming out the drain line during the time. Cycle step 4 returns water to the side tank for the next time. You will add chlorine as often as you need to for your system, usually based on the odors being present or not (some well water, you have to a cup every time, some, one very week, etc.)

How To Start An Extra Regeneration Cycle

1. Starting delayed extra cycle

- If days remaining is not already at 1 press and hold the Set/Change button.
- After 3 seconds the days remaining display will read: [1]
- Regeneration cycle will be initiated at the next designated regeneration time

2. Starting Immediate Extra Cycle - First, complete above delayed cycle step

- With days remaining at 1 press and hold the Set/Change button
- After 3 seconds the regeneration cycle will begin.

3. Fast Cycling Through Regeneration

- First complete above immediate cycle steps
- Press and hold the Set/Change button
- After 3 seconds the valve will start to advance to the next step

Trouble Shooting

Importance of Backwash Flow Rate

One problem that may occur is if you do not have enough backwash flow rate to properly clean the Pro Ox 5900e filter. You can verify the backwash flow rate by running the drain line into a bucket and timing it when the valve is in backwash. A 0.75 CF system should have 5 gpm, a 1.0 CF system should have 7 gpm, a 1.5 CF system should have 10 gpm for the backwash cycle, and a 2.0 CF system should have 12 gpm.

Error Codes for 5900 Control Valve

There are five (5) error codes that could indicate a possible problem with the control valve:

- Error 2** - Homing slot expected. Valve will start looking for home.
(Normal operation continues)
- Error 3** - Encoder is not sending a signal
(Valve requires service to continue)
- Error 4** - Unable to find homing slot

(Valve requires service to continue)

Error 5 - Motor overload (stalled position or shorted motor)

(Valve requires service to continue)

Error 6 – No Power to Motor (usually this means the cable has come loose)

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.

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.

- 1) Put the Inlet Bypass in the Closed position.
- 2) From the Service Mode, initiate a manual regeneration, by pressing and holding the regen button (button on far left).
- 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 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.

Unplugging the Control Valve During a Backwash

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.

At this part, you must go slow. Open the Inlet valve a little bit at a time and let it run for a few minutes. Therefore, 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.