DO NOT RETURN TO RESELLER!

Contact Us FIRST: help.afwfilters.com

For any questions, concerns, missing items, or problems contact us so we can help. Resellers do not offer support or replacement parts.

AFWFilters

Air Injection System Installation

Includes Fleck 5600 and 2510 series valves

Thank You

Thank you for purchasing a new AFWFilters® Air Injection System. We appreciate the opportunity you have given us to provide you with better water. We are committed to providing the best customer experience possible and have provided these installation instructions to make things as simple as possible. If you have read through these entire instructions and FAQ section and still have questions feel free to contact us for further help.

How To Use These Instructions

Since every installation is different we are unable to address every possible situation that may arise. That being said, these instructions are designed as a general guideline for installation of your new system. Installation will require a basic knowledge of plumbing and plumbing connections. Pictures are included to help identify common parts, components, and connections, so what you have may vary slightly from what is pictured. Please apply these instructions with discretion and common sense.

This offers vital information that can have major impact on your system/install/experience

Tips, tricks, and recommendations will be shown here

Answers to common questions - A complete FAQ is at the end of this manual

For Questions or Troubleshooting

Most questions that arise are answered in this manual or the FAQ section at the end. If you have read through this manual and the FAQ section and still have a question that has not been answered feel free to use the AFWFilters website to contact us.

Before You Begin

We recommend thoroughly reading these instructions BEFORE you schedule a plumber or begin installation. This can reveal missing parts or other items that can save significant headache if caught before you begin.

Basic plumbing skills are required for installation. If you are unsure of your abilities to install the system using these instructions please hire a qualified plumber.

Read through your parts list and verify all components are accounted for and in good condition BEFORE scheduling a plumber.

Please read through the entire instruction manual carefully. If hiring a plumber ensure they have a copy before they start.

Most common questions are answered in the instructions or FAQ section. If you have read both of those and still have questions you may contact us for further help.

Plumbing related questions need to be directed to a locally qualified plumber. We are not aware of local code requirements and are therefore not qualified to answer your plumbing questions.

System Requirements

Your chosen installation location and water supply must meet ALL of the following requirements:

- 20-90 PSI (1.38-6.20BAR)
- 34-110˚F (1.1-43.3˚C)
- System must be protected from freezing
- Firm level surface capable of supporting the entire system
- 3-prong, 120V outlet within 5 ft. (1.5 m) of the control head with constant power. GFCI outlet is recommended. Use of an extension cord is NOT recommended.
- A 1.5 inch standpipe, sump pit, or outside drain.

MUST be installed AFTER the pressure tank

The drain line is pressurized and can be ran vertically if necessary

This system requires a drain line connection from the control head to a drain (see plumbing guidelines section). DO NOT operate the system without this connection.

Section 1: Verify System Inventory

Claims for damage or missing parts must be made within 30 days of delivery to be eligible for replacement

Use the following Inventory to help verify the parts that are included with your system and verify that they are all accounted for. Inspect all parts for damage and report any damage immediately.

Systems may ship loaded, partially loaded, or unloaded. Loaded systems will have all the media in the tank. Partially loaded systems will have some media in the tank and some in one or more separate bags. Unloaded systems will have all the resin in separate bags and the tank will be very light (less than 30 pounds).

All Systems

Polyglass Tank - A tall slender tank 44–65 inches in height with an opening on the top. Larger tanks may have a gray threaded adapter to reduce tank opening to match control head.

Please Note: If you have the Vortech tank upgrade, the Vortech tank replaces the standard tank, so a system with the Vortech tank upgrade will still have only one polyglass tank.

Note for loaded or partially loaded systems: Tanks that are shipped loaded may arrive on their side or even upside down. The tanks are closed and the media will return to the bottom once placed in the correct position. Any mixing of tank contents will correct itself after being placed in service.

On loaded or partially loaded tanks - DO NOT pull the riser tube out of the tank.

Riser/Distributor Tube - On systems with the Vortech tank there is no basket, the riser is connected directly to the bottom tank plate and is not removable. (Tank cutaway shown) A tall pipe that runs from the bottom of the tank to the control valve. One end has a basket (basket design varies) and it usually ships inside the tank.

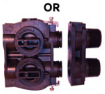
OR

Fleck 5600

Fleck 2510

Control Head - Screws on top of the tank and controls the water flow and backwashing cycles. Digital SXT has LCD panel.

OR



Bypass Valve - Depending on your order your system will have either a single piece stainless steel bypass or a two part plastic bypass with yoke connection. This is what connects to your control head and provides standard fitting connections to hook up to your plumbing.

Coupler/Check Valve - The couplers connect the control head and bypass valve together. One coupler will have a check valve built in to it. Includes O-rings (already attached) to seal the connection and screws and clips to secure the connection. Typically connected to the control head when received.

Drain Fitting - The drain connection on your system is 1/2" FNTP thread, on the 5600 it will be part of your control head while the 2510 heads will have a quick connect fitting. Some larger systems will use an external flow restrictor. If your system included a barbed fitting (not all do) then it would be used with 1/2" ID tubing.

UNLOADED/PARTIALLY LOADED Systems ONLY

Most systems will ship loaded. Some larger systems may ship partially loaded (with some media in the tank and some separate) or completely unloaded for easier placement. If you system shipped loaded and did not come with extra media you can skip this section.

Gravel - Small rocks or pebbles to promote water distribution. Most standard softeners will NOT have gravel, but Iron Pro softeners or very large softeners will. Amount and type of gravel will vary depending on system type and size.

Unloaded Systems Only
Gravel will be loaded FIRST

Partially loaded systems requiring gravel will already have it in the tank

Do not overfill the tank, typical systems will only be around half full of resin.

Media - The material placed in the polyglass tank that does the actual treatment of the water. The system should ship with the required amount so you should use all media included, however, excess media can occasionally be sent. For this reason it is important that you pay attention to the resin level as you fill it, typically a fully loaded system will be no more than 1/2 full. Overfilling the tank may lead to improper system operation.

Funnel (OPTIONAL) - The funnel is a complementary item that MAY be included with some unloaded systems to help fill the polyglass tank with the resin. If your system does not include one, a blender pitcher with the blade assembly removed will screw onto the tank and work well.

Before You Start Plumbing

Section 2: Preinstallation Preparation

Step 2a: Verify riser tube position

Money-saving tip: If hiring a plumber to do the installation you can save some money by preparing the tank ahead of time. This cuts down on the time the plumber has to spend and doing so is simple enough that most people can accomplish it in less than an hour.

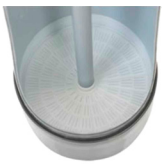
Loaded/Partially Loaded Systems

Your system will ship with a cap designed to keep the resin in the tank during shipping. Once your system is near the installation location, remove the cap at the top of the tank by unscrewing it counterclockwise. The riser tube sits in the center of the tank and should be no more than 1/3 inch (8 mm) above the top lip of the tank.

Do not attempt to remove your riser tube. Doing so will require emptying & reloading the system.

If your riser tube is not exactly centered that is not an issue. If it extends more than 1/3 inch above the top of the tank refer to the FAQ section for ways to correct this.

Do not cut the riser tube, as this can cause improper operation.



Vortech Tank

Loaded Systems
Skip to the final step in this section
Partially Loaded Systems
Continue to the next step

If you have the Vortech tank it replaces the standard tank, and the riser is not removable

Unloaded Systems
Ensure the riser tube is positioned in the middle of the tank. There is a slight depression that the lower basket will slip into when properly positioned. Once correctly positioned the riser tube should be no more than 1/3 inch (8 mm) above the top lip of the tank. Continue to the next step.

Step 2b: Fill tank partially with water -Optional-

This optional step will help buffer the media as it is poured in and will also help minimize air bubbles upon initial startup. Simply pour water into the tank until it is 1/4 - 1/3 filled with water.

Step 2c: Load gravel and resin

Unloaded/Partially Loaded Systems ONLY
Cover the riser tube before beginning. A piece of tape or small bag will work, you just need to prevent media from falling down the riser when you are loading it.

Most systems with Vortech tanks do NOT use gravel, though heavier medias used for iron will. If gravel was include make sure to use it, and verify you have received all packages before assuming you do not have gravel.

If you have it, gravel will go in first, then the rest of the media. When filling the tank, do so slowly and ensure the riser tube stays correctly positioned and centered in the tank. If you have more than one bag of media the order does not matter and all of it should be used. Once all the media is loaded the tank will not be full, this is normal.

Step 2d: Finish filling tank with water -Optional-

Once the media is loaded and your tank is positioned you may finish filling the tank with water. This can help reduce air bubbles and ease initial startup.

Section 3: Attach the Control Head

Step 3a: Lubricate the O-rings

Don not use petroleum based lubricants like Vaseline

The tank O-ring (Img Left) seals the control valve to the tank, and the pilot O-ring (Img Right) seals around the riser tube. Verify they are present and free from nicks or kinks. Use a silicone lubricant or vegetable oil to both O-rings. It is also recommended to verify that the riser tube fits snugly into the pilot hole and that the O-ring seals around it.

The pilot O-ring is up inside the control head , it is almost impossible for it to come out.

Step 3b: Inspect and install the dispersal basket

Air Injection Systems will have a top dispersal basket (Img Right) used to facilitate the oxidation process. The larger end will be towards the bottom of

the tank, with the cone pointing up. Push it down the riser tube until the top is about 1 inch (25 mm) below the bottom of the tank threads.

Step 3c: Screw on control head

Ensure the riser tube slips inside the pilot opening in the bottom of the head. Screw the head down onto the resin tank until solid contact is made between the tank and O-ring, then tighten about another 1/4–1/3 of a turn and STOP. Once properly tightened down check to ensure the tank and control head meet evenly all the way around.

DO NOT use Teflon tape or other sealants on the threads between the tank and valve. Hand tighten only.

Section 5: Digital Control Head Setup

Ensure you continue past programming for proper plumbing of the control head, including the drain line.

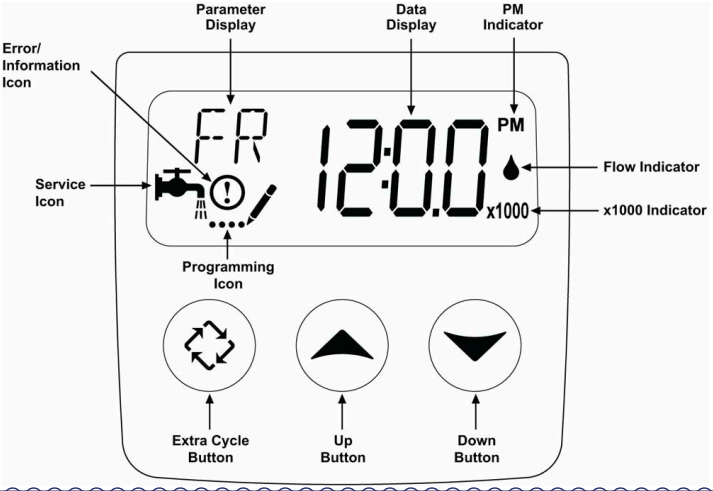
Step 5a: Plug Control head in

Plug the control head into a qualifying outlet as stated in the requirements section. Once plugged in, verify the system is receiving power and ensure the outlet is not on a switch that might get turned off. The display should light up and start flashing a time

We recommend verifying the control valve operation BEFORE plumbing to avoid issues.

The control head can be plugged in and operated without water, this will not damage the control head.

Step 5b: Understanding you SXT Display



The display will normally flash between the current time and the number of days until backwash. If the time is flashing that indicates power was lost and the time needs to be set. Service icon indicates the system is IN SERVICE, not that the system needs service.

Parameter Display - During programming, indicates which setting you are on

Data Display - During programming shows setting. During normal operation alternates be-

tween current time and number of days until backwash.

Flow Indicator - Flashes to indicate water is flowing through the system.

x1000 Indicator - Indicates current data display value is x1000.

Programming Icon - Displayed when in programming mode.

Service Icon - Indicates the system is in service (working). When flashing a backwash will run at the programmed time.

The service icon does NOT mean your system needs serviced.

Error - When displayed an error code will be shown in the parameter display. See end of programming section for error code explanations

If this icon is NOT shown, there is NO error present.

Extra Cycle Button - Used to initiate manual backwash or advance through programming.

Up Arrow - Used to change time or increase value of current setting.

Down Arrow - Used to change time or decrease value of current setting.

Step 5c: Quick Start Guide (USER Programming)

USER programming settings will be dependent on YOUR situation. Use the guide below to program the correct settings. For maximum efficiency, make sure to check the MASTER programming in the next section.

Most systems will use default settings and there is very little that needs changed. The USER programming has the most commonly changed settings, and you can go through the settings below to get up and running quickly.

USER Programming Settings

Press both the UP and DOWN buttons at the same time and hold for 5-10 seconds until the Parameter Display shows DO. Press the Extra Cycle button to advance to each setting shown below, and adjust with the UP/DOWN buttons if necessary.

Continue pressing the Extra Cycle button until you get back to the time of day to save your settings, or press nothing for 5 minutes to discard any changes.

Setting	Parameter	Value	Description
Day Override	DO	1-3	Sets backwash frequency. If you have Filox/MangOx media set no higher than 2, otherwise set no higher than 3. If you have high contaminant levels or high water use, set lower.
Regen Time	RT	2:00	Typically set to midnight or 2am to ensure water is not being used. If you have multiple systems, ensure they are set at different times. Typical regeneration process takes roughly 1.5-2 hours

Step 5d: Setting the Time

The display will show the time as currently programmed in the system. It can be adjusted by simply pressing the UP or DOWN button repeatedly, holding down a button will cause time to change quickly. You can press the Extra Cycle button to confirm the setting, or just leave it alone for a few seconds and it will save.

The time will need to be changed from the current time for MASTER programming below

Step 5e: MASTER Programming

DO NOT change any settings unless indicated here or directed to do so by an AFWFilters support technician. Other videos and instructions are not designed for AFWFilters systems and may lead to improper operation. If you change a setting in the MASTER programming that is not shown below use the system reset section to reset the system to defaults and adjust ONLY the settings shown below and in the USER programming section.

The MASTER programming section contains ALL of the available settings, including the settings shown in USER programming. These settings typically use the default values and should not need adjusted.

MASTER Programming Settings

To enter master programming, use the UP or DOWN button to set the time of day to 12:01 PM and press the Extra Cycle button to confirm the time setting. Then press BOTH the UP and DOWN buttons at the same time and hold for 5-10 seconds until the Parameter Display shows DF. Adjust each setting with the UP/DOWN buttons if necessary, then press the Extra Cycle button to advance to the next setting.

The time MUST be set to 12:01PM (PM indicator shown). If you do not get the DF parameter, it is possible the time changed or was not set correctly. Press the extra cycle button to get back to the time of day and try again.

The settings shown are the only ones that MAY need adjusted. If a setting is not listed in this chart, DO NOT CHANGE IT without consulting with an expert.

Continue pressing the Extra Cycle button until you get back to the time of day to save your settings, or press nothing for 5 minutes to discard any changes

Setting	Parameter	Value	Description
Value Type	VT	dF1b	If your system has the AIO option use it, otherwise use the dF1b.
Control Type	CT	Tc	Initiates the backwash cycle based on number of days
Brine Fill	BF	OFF/0	Systems using dF1b Value Type will need to ensure this is set correctly. AIO Valve Type typically do not display this setting.

The FAQ section contains a complete listing of each setting in the MASTER programming, along with more detailed information about each setting and common issues that may arise from incorrect settings.

Step 5f: Resetting your system

If you change a setting not listed in the programming section you can use a reset to return everything to its default value. If your controller is showing odd behavior such as erratic display, no display, or showing an error code, a reset can often correct the problem. Start with the soft reset, and if that does not solve the problem move on to the master reset. If the problem persists contact one of our technicians.

SXT Resets		
Reset	**Directions**	**Effect**
Soft Reset	Hold Extra Cycle and Down buttons for 25 seconds	This will reset all settings to default values, but leaves the days since last backwash intact.
Hard Reset	Hold Extra Cycle button while plugging the unit in	This will reset everything in the system. This should only be used if a soft reset does not work.

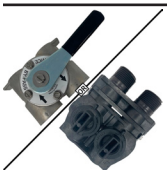
Plumbing the system in

Section 7: Plumbing Guidelines

Many homeowners install their own water systems with basic plumbing skills; if you are not comfortable with projects like this, please hire a professional plumber. Make sure to check local plumbing codes and follow any codes that apply. These instructions offer basic plumbing tips and can not cover every situation. They are intended as a supplement and should not replace local plumbing codes or actual plumbing experience.

Before turning your water off and cutting into your plumbing it is recommended to dry fit all connections to ensure that you have everything you need.

Step 7a: Connecting the bypass



The exact fittings on your system may vary depending on the exact configuration of your system, but in general you will have a bypass valve and yoke, or a single piece bypass valve with built-in fittings (Img Left). You will supply the required fittings to connect from the system to your plumbing, this will typically consist of threaded adapters that will connect directly to the bypass/yoke, fittings to tie into your main line, and the copper/PVC/PEX line to connect between them. Use Teflon tape, pipe dope, or joint compound as necessary to ensure a proper seal. If soldering, first solder a short (min 3-inch [7.6-cm]) piece of copper pipe onto the adapters, away from the valve, before

If soldering do not solder directly to the included connection or close to the control control head.

It is recommended to attach the adapters to the bypass or yoke BEFORE connecting to the control head to avoid damage.

connecting the adapter to the system fittings.

After the adapters are in place the bypass assembly can be connected to the control head. The system uses O-rings to provide a water tight seal, and after checking each O-ring for any obvious damage a small amount of silicone lubricant or vegetable oil can be used to help ensure a good seal. The valve handle(s) should be facing up when connecting it to the system.

Do not use petroleum based lubricants like Vaseline on any of the O-rings.

Do not overtighten the screws to avoid damage. Damage from overtightening is not covered under warranty.

After pushing the bypass and control valve together, tighten the screws to secure the clips and hold everything in place.

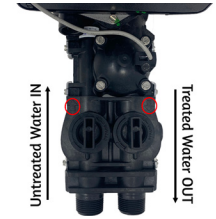
The bypass valve will have some up and down movement, this is normal.

Step 7b: Understanding the bypass valve

The bypass valve on your system allows for water to the system to be shut off for service or maintenance without shutting off the entire water supply. In the SERVICE position (Img Left) water will flow through the systems and come out treated. In the BYPASS position (Img Right) water skips the system and remains untreated. When in the BYPASS position, the system can be disconnected from the bypass valve for service or maintenance without cutting into your plumbing and without shutting the water off in the home.

When installing the system leave the bypass valve in the SERVICE position until all connections are made.

Step 7c: Verify water flow direction



Make sure you know the direction of flow through your pipes. If not 100% positive, you can slightly open the water supply after cutting into the pipe to determine where the water is coming from so the system can be connected correctly. Improper flow direction will prevent proper operation and can damage your system and your plumbing. When looking directly at the connections, the inlet (untreated) water will be on the left and the outlet (treated) water will be on the right (Img Left). There are arrows molded or printed on both the control valve and the bypass valve that can be used to verify flow direction.

Correct water flow through the system is vital to proper operation.

Step 7d: Connect the system to your plumbing

Make the necessary connections from the system to your plumbing. If you have any plumbing related questions, please direct them to a local plumber. It is a good idea to dry fit all your connections before cutting into your plumbing and finalizing them to ensure everything lines up like it should and that you have everything you need. It will also minimize having to leave your water off and your plumbing cut open because you forgot a fitting.

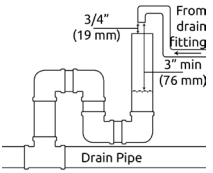
Make sure to follow all applicable local plumbing codes.

Step 7e: Drain line connection

DO install drain line - it is REQUIRED and the system SHOULD NOT be used without one
DO NOT make a direct connection into a waste water drain
DO NOT tie multiple systems into a single drain line.
DO NOT use additional fittings (check valves, ball valves, etc.) on the drain line
DO NOT overtighten the drain fitting (cracked drain ports are not covered under warranty)
DO NOT use sealants on fittings (will invalidate warranty), PTFE (Teflon) tape and joint compound are fine
DO NOT connect the drain line to the brine tank

A physical air gap of at least 3 inches (76 mm) between the end of the drain line and the wastewater level in the drain pipe should be used to avoid contamination of the line. An additional gap of 3/4 inch (19 mm) between the drain pipe and drain line is recommended to prevent any problems in the case of a pipe overflow. Using a simple P-trap as shown (Img Right) is ideal as well, but a stand pipe with a diameter of at least 1.5 inches (38 mm) is adequate.

Drain water comes out under line pressure, so it can be run vertically to connect to an overhead drain pipe.



If hooking up multiple systems, each system needs a separate, independent drain line to ensure proper operation and prevent damage. Systems can all be run to the same standpipe/sump/outside drain, but the drain line from each system needs to be separate. To ensure proper operation, ensure that the drain line will not collapse or kink, and avoid installing any additional fittings (check valves, ball/gate valves, etc.) as this can prevent proper flow down the drain, which can lead to poor performance and premature system failure.

Since it is under pressure, make sure to secure the drain line to keep it from moving and making a mess.

Initial Startup

Section 8: Place System in Service

DO NOT allow the system to be used without running it through a complete regeneration cycle to ensure there are no leaks during any cycle and to ensure the drain is properly connected. Failure to do so can lead to flooding and water damage.

Once all plumbing is done and plumbing connections have been checked for leaks you can place the system in service.

Step 8a: Open bypass valve

Bypass any other systems before beginning.

Open a COLD water faucet that is near the system, a laundry sink or outside faucet (if it will be treated by the system) is ideal, this will allow the air to bleed out of the system. Slowly open up the bypass valve just to the point of allowing water to enter the system at a trickle,

and leave it like that until the tank is full of water. If you prefilled the system it should only take a minute or two. Once the tank is full, slowly open the bypass valve the rest of the way. Allow water to run out of the faucet until no more air comes out, then close the faucet.

Step 8b:Check for leaks

Check the system for any leaks, paying attention to the seal between the tank and control head as well as the connections between the bypass valve and control head. Open a nearby COLD faucet and check to ensure there are no leaks that show up when water is running.

Step 8c: Flush the system

Open a nearby COLD faucet. The water may be discolored at first, this is normal. Let water run out of the faucet at least 20 minutes (this cleans out the sysetm and ensures everything is flowing correctly), or until any discoloration clears up. Depending on the system there may not be any discoloration, it may clear up almost immediately, or it may take a couple of hours. Once the water is cleared up a manual regeneration should be run.

Step 8d: Initiate manual regeneration

It is a good idea to allow the system to run through a manual cycle. On mechanical valves, turn the main knob until it clicks into the first position. On digital systems, hold the extra cycle button for 5-10 second until the backwash starts.

Step 8e: Verify proper operation

Watch the system as it steps through each cycle, make sure it moves to each position, that water is not leaking from any other fittings, and that water is flowing down the drain line. The brine line will have water flowing through it during the appropriate cycles as well.

Be sure to return any other systems to the service position.

Frequently Asked Questions

General Questions

What is the proper order to arrange multiple systems?

If you are installing more than one tank system the typical order for installation is: sediment filter > pH filter > iron filter > carbon filter > water softener > arsenic filter
If using a softener for iron removal, then the carbon filter will typically follow after the softener. Whole house cartridge systems are typically installed after any tank systems, the Scale Sentry system after the cartridge system(s), and any UV systems will be last.

Do I need a prefilter?

In most cases a prefilter is not necessary. Since the system cleans itself most particulate in the water will be trapped and rinsed off by the regeneration cycle, eliminating the need for a sediment prefilter. If you have a lot of sand in the water a spin down filter (part #SDF-100) is recommended to protect the control head - http://store.afwfilters.com/parts-components/spin-down-sand-separator-filter-1-inch/. For water supplies with high levels of chlorine a carbon prefilter is recommended to extend resin life. http://store.afwfilters.com/carbon-systems/

Verify System Inventory

My tank box indicates "This Side UP" but it was received laying down or upside down. Is my system damaged?

The top indication on the shipping boxes are so the top can be opened for easier orientation during installation. The tank itself has a cap designed to keep the media in the tank, so once it is place in the correct position the contents will return to the bottom. Any mixing of tank contents will correct itself after being placed in service.

I ordered a SXT control head, but my head says it is SE, did I get the wrong head?

Some SXT systems may have labels referring to the older SE model number. This is an internal designation only and does NOT mean you received the SE. The SE controller has been discontinued for long enough it would be impossible to send one out anymore.

I am missing my drain line, where is it?

Drain line is not included, since every installation is different and will require different lengths, styles, and sizes of drain line.

I am missing my gravel, where is it?

If your system requires gravel, since most systems are shipped loaded or partially loaded the gravel will already be in the tank. If your system is unloaded, gravel will typically be in a small bag either in it's own box or packaged with other components. Gravel will appear like small rocks, the exact kind and amount will depend on your system.

I have multiple bags of media that look different, what do I do?

If you purchased only one system then you should use all of it to fill the tank, as long as you do not over fill it (systems are typically around 1/2 full). Sometimes the same media will be packaged in different bags, this is not uncommon. If you have more than one system you can use the simple guide below to help identify the most common medias. If you are unsure what you have feel free to contact us to ensure you place the media in the correct tank.

Resin - Used in softeners - Small beads, similar to wet sand, various colors

KDF Media - Additive on some softeners - Gold or dark brown flakes
Carbon/Catalytic carbon - Used in stand alone system, Air Injection Gold systems, and some combo systems - Black media, fairly lightweight, similar to finely crushed charcoal
Filox/Mang-Ox - Used in stand alone system and Air Injection Platinum system -Heavy, dark media that looks like finely crushed rock
Calcite/Corosex - Used in pH systems - Small white granules
Chemsorb/Filter-Ag/Turbidex - Used in sediment tanks and Air Injection Silver systems - Small whitish to yellowish chunks similar to small pebbles

My polyglass tank arrived and sits crooked, what do I do?

The black boot on the bottom of the tank may get knocked out of alignment during shipment. If your tank is a bit tilted, simply pick the tank up 2–3 inches (5–8 cm) off the floor and drop it gently but firmly down, favoring the side that needs to be adjusted to make the tank stand straight.

Pre-installation Preparation

The riser tube is off-center or more than 1/3-inch above the tank, how do I fix this?

On loaded and partially loaded systems, the riser tube may get pushed off-center during shipping. This is fine, and when screwing on the control head just ensure the riser feeds into the pilot hole and it will correct itself.

If your riser tube sticks out more than 1/3-inch above the top of the tank you will need to correct it. There are a few ways to do this.

Do not cut your riser tube!

--You can replace the shipping cap and tighten it down as much as possible, then lay the tank on its side and roll it back and forth a few times to get the media to shift and let the riser return to the correct position.
--Using a hose, run water into the riser tube and gently push down on it as the water pushes the media away from the riser tube.
--After filling the tank above the media level, you can blow into the riser tuber (or use an air compressor) to create air around the riser tube allowing you to gently push it back down into position.

Does my system need gravel?

If your system requires gravel it will already be in the tank on loaded and partially loaded systems. If you believe your system should have gravel and you have an unloaded system without separate gravel you can contact us to see if you need it.

Attach the Control Head

I don't see my pilot O-ring, what do I do?

It is VERY unlikely that the pilot O-ring is missing. It is seated very securely up inside the pilot hole, inside a groove, so it can be hard to see. You should be able to feel it as a slight bump up inside the pilot, if it was missing there would be a significant gap where it was supposed to be.

I have read or seen that I shouldn't install the top distributor basket, is that true?

The air injection system uses a dispersal basket to help break up the water as it enters the air pocket so it can better oxidize the contaminants in the water. The dispersal basket is NOT a

top distributor basket, and you will want to use it to get the best results from your system.

Digital Control Head Setup

Will operating the control head without water damage it?

No. The control head will operate fine with or without water flowing through it.

Why does my display flashing between the time of day and a number? Is this an error code?

This is normal, with the number displayed indicating the number of days until the next backwash. It is NOT an error code, if there is an error the error icon will be displayed and the error code will be the only thing displayed.

Does the service (faucet) icon mean my system needs serviced?

No, the service icon simply mean the system is in service (working). When flashing it indicates that a regeneration is scheduled for the next set time.

What does the flashing water drop icon mean?

That is the flow icon. Only used on metered water softeners, it indicates water is flowing through the system.

What does the circled exclamation icon mean?

That indicates an error. Match the number on your display with the number on the error chart below for troubleshooting tips.

SXT Error Codes			
Error Code	Error Type	Cause	Solution
0	Cam Sense Error	Piston took more than 6 minutes to advance	Unplug the system, disconnect the piston from the motor/gear, and verify that the piston moves freely inside the valve; if it does not replacement of the seal and spacers and possibly the piston is required. After reconnecting the piston, inspect the control head for any broken, worn, or disconnected parts, and replace or reconnect any that are found. Perform a hard reset. After verifying programming run the system through a backwash and watch the motor to ensure that it is moving the piston, if it is not the motor needs to be replaced. If error still occurs contact us for support.

1	Cycle Step Error	Unexpected cycle input	Unplug the system and check to ensure all electrical connections and cam switches are secure. Plug the unit back in and check the master programming and ensure valve type and system type are correct for your system. Initiate a manual backwash and verify it progresses through the steps correctly. If error reoccurs, contact us for support.
2	Regen Failure	More than 99 days since last regeneration (7 on day of the week setups)	Perform a manual backwash to reset the error. Check your settings to ensure the system is setup to backwash automatically.
3	Memory Error	Circuit board memory failure	Perform a hard reset and go through the master programming to update the settings. If error occurs again contact us for support
UD	Upper Drive Sync	Piston is syncing	Common when changing programming or if system looses power. System will automatically recover from this state

What are all the settings in the MASTER programming for?

Below is a chart with a list of all options shown in the MASTER programming. Please note that depending on your system you may not see all the options shown.

SXT Master Programming Chart			
This is for reference only, do not use this chart to make any changes to your settings. Changes should only be made as directed in the programming section or by one of our support technicians.			
Code	Parameter	Options	Description
DF	Display Format	GAL	Gallons, with 12-hour AM/PM format
		Ltr	Liters, with 24-hour format
VT	Valve Type	dF1b	Downflow single backwash
		Fltr	Filter
		dF2b	Downflow double backwash
		UFbd	Upflow brine first
		UFtr	Uplow filter
		Othr	Other

CT	Control Type	FI	Metered (Flow) Immediate - will regenerate immediately after programmed capacity is reached.
		Fd	Metered (Flow) Delayed - will regeneratie at the preset time after programmed capacity is reached.
		Tc	Time Clock - will regenerate at the set regeneration time after the set number of days has passed.
		dAY	Day of the Week - will begin a regeneration cycle on the set day(s) at the set regeneration time.
NT	Number of Tanks	1	For systems with only 1 media tank.
		2	For systems with 2 media tanks (dual tank softeners only).
UT	Indicates current tank in service	U1	Tank 1 is in service
		U2	Tank 2 is in service (dual tank softeners only).
C	Capacity	1-999.9 (x1000)	System capacity, in grains
H	Hardness	1-199	Hardness of the water, in grains.
RS	Reserve Selection	SF	Percentage safety factor - a percentage of total capacity
		rc	Fixed reserve capacity - a set number of gallons
SF	Safety Factor	0-50%	Sets safety factor if RS is set to SF
RC	Reserve Capacity	1-(half of calculated capacity)	Sets the number of gallons to use as a reserve on systems with RS set to rc
DO	Day Override	OFF-99	Initiates the regeneration at the set number of days, regardless of usage.
RT	Regen Time	12:00	This sets the time that the regeneration cycle will start.
BW	Backwash	0-199	This sets the length of the backwash portion of the cycle.
BD -OR- AD	Brine Draw -OR- Aor Draw	0-199	This sets the length of the brine draw portion/air draw of the cycle.
RR	Rapid Rinse	0-199	This sets the length of the rapid rinse cycle.
BF	Brine Fill	0-199	This sets the length of the brine fill portion of the cycle.
D1-D7	Day of the Week Setting	ON/OFF	Controls which days to backwash on Day of Week setups.
CD	Current Day	1-7	Used to set the current day on Day of Week setups.

FM	Flow Meter Type	P0.7	3/4" Paddle Wheel Meter
		Gen	Generic or Other Meter
		P2.0	2" Paddle Wheel Meter
		t1.5	1.5" Turbine Meter
		P1.5	1.5" Paddle Wheel Meter
		t1.2	1.2" Turbine Meter
		t1.0	1" Turbine Meter
		P1.0	1" Paddle Wheel Meter
		t0.7	3/4" Turbine Meter
K	Meter Pulse Setting	0.1-999.9	Pulses per gallon, for Gen flow meter setting.

Plumbing Guidelines

After installing the bypass it still moves up and down, is that normal?

Yes. The bypass seals with O-ring and even when tightened down some movement will occur, without leaking. As long as the screws are snug enough to keep the bypass from coming apart further tightening will just cause damage.

Do not over-tighten the screws on your system.

Can my drain line be ran vertically?

How far can I run my drain line?

Water from the drain comes out under pressure and can be ran vertically if needed. If running the drain line more than 15 ft use at least a 3/4" line.

Can I run my drain line to a sewer/septic?

Yes. These systems can be ran to your sewer or septic line and is typically the recommended place to run the drain. Most concerns are related to the amount of water going down the drain, and a properly designed septic/sewer system will not have a problem handling it.