Read all instructions before starting!
Filter Filling Guide

Some unit's ship without the media loaded due to shipping guidelines and restrictions. If shipped by UPS, you will probably be loading the filter media in the tank using instructions below. Loading your system is very easy following these instructions and will not take very long at all. The advantage to loading your own system besides saving a lot on shipping charges over shipping by truck is that it is easy to move the unit and components to the install location before loading it. If your system is already loaded, (most shipped by truck are loaded already) skip down to installation guidelines just below these filling instructions. If your system is not loaded please follow the step-by-step instructions for loading below. Loading the units should only take about 10-15 minutes.

The number of packages you receive can vary depending on the unit you order and how it is packaged for shipping. In general, the following is what to expect:

For Iron filters, ph filters, carbon filters, & turbidity filters:
You will have: one (1) tall slender tank (resin tank) 48" – 54" in height with an opening on the top, one (1) control head either shipped in place on the tank already or in a separate box, one (1) small box of gravel about 15-20 lbs., and one (1) or more boxes with the filter media (greensand, Birm, Pyrolox, Filox, calcite, Corosex, carbon, or Filter-Ag) that is used inside the tank and does the actual filtering.

Water softeners:
You will have one (1) tall slender tank (resin tank) 48" – 54" in height with an opening at the top, one (1) control head either shipped in place on the tank or in a separate box, one (1) brine tank (your salt holding tank, resembles a trash can, usually 3' – 4' tall, round or square with a plastic lid), one (1) or more bags of water softening resin (small amber colored beads, the actual filtering part of your system). Some units come with one (1) or more full bags of resin and then a partial bag of the same resin that is sometimes packaged in a different type bag. Most water softeners (i.e. standard residential softeners 64k and below) do not need and are not shipped with gravel. Combination softeners such as the Water Pro or Iron Pro systems do require gravel for efficient filtering. Even if your water softener does not require gravel, if your unit was shipped with gravel, go ahead and use it.

Dual alternating water softeners 9000 or 9100 control head:
You will have two (2) tall slender tanks (resin tanks) 48" – 54" tall with openings at the top, one (1) control head shipped in a separate box with a connection for second tank, one (1) brine tank brine tank (your salt holding tank, resembles a trash can, usually 3' – 4' tall, round or square with a plastic lid) and bags of water softening resin (small amber colored beads, the actual filtering part of your system). You will divide the softening resin between the two tanks.

Filling your Tank

Look inside your resin tank (if the control head is already on the tank, simply un-screw the head counter-clockwise) and there will be a 1" plastic tube inside. This is your "Riser Tube" that delivers treated water into your home through the valve. It may have a plastic plug on the top end of it (most do not) so nothing can fall down inside the tank while you are loading the resin. Pull out the riser tube to inspect it to make sure it is intact and without damage. These are very durable and would rarely ever be damaged. Place the riser tube back into the tank and center it at the bottom before filling. The riser tube sits in a depression at the

bottom of the tank and extends to the top; ensure that it is no more that ¼" above the top of the tank. If higher than ¼", use a sharp knife or similar tool to cut it flush with the top of the tank. DO NOT CUT THE RISER TUBE TOO SHORT! If your riser tube is too short it will not seal inside the control head properly and your system will not work properly. If the top of the tube does not have a plug in it, simply put a piece of tape over the end, or plastic and rubber band, (35mm film cases work perfectly!) to keep the resin from falling down into the tube.

Next, stand back and look at your resin tank, and make sure it is standing straight up and not tilted to one side. Sometimes during shipment, the black "Boot" on the bottom of the tank will get knocked out of alignment and you will need to straighten it out before filling the tank with resin. If your tank is a bit tilted, simply pick the tank up 2 – 3 inches off the floor and drop it gently but firmly down, favoring the side of the boot that needs to be adjusted to make the tank stands straight up again. **TIP: By adding 10" – 12" of water at the bottom of your tank before filling you can help buffer the resin as you fill your tank.** You can use a funnel with a large opening for the resin or just fill by using a cup. If you do not have a large funnel to fit, the best thing to use is your household blender pitcher. Take the bottom blade section off of your blender and the pitcher will screw directly into your mineral tank making a perfect funnel. You will load the resin in the top of the resin tank with the riser tube still inside the resin tank. Make sure the top of the tube has a plug of tape over the end of it to keep resin out! Gravel and filter media load fairly easily, softener resin sometimes clings to itself and it is easier to pour in a little at a time to work it down around the riser into the tank. Most filter systems come with gravel, while most residential water softeners do not use gravel. If your system came with gravel load it into the resin tank first. Next, scoop the resin into the funnel, slowly letting it fall down inside the resin tank around the riser tube, keeping the riser tube as centered as possible. If you have multiple media types in your system, the order is not important, as long as the gravel goes in first. Small amounts of media (under 10 lbs.) should be added last. If you have a twin alternating water softener using the Fleck 9000 or 9100 head, divide the resin equally between the two resin tanks. When you have scooped all of the media into the resin tank it will not be completely full. Some systems like the pyrolox may be a less than half full due to the density of the media. Water softeners are sized to be filled to about 2/3. Just make sure the unit is not filled past ¾ full to leave room for backwashing. Remove the funnel and take the cover off the end of the riser tube. Inspect the top edge of the resin tank. Make sure there are no deep scratches or cuts. This is where the O-ring seals against the top of the tank. If there are deep scratches, use sand paper to smooth out before connecting the control head.

NOTE: Now is the best time to fill the tank with water. Filling the tank now before putting the control head on helps decrease the air in the system that will need to be worked out later. On iron filters such as the Pyrolox, putting water in now will also help with clearing up the water later. Use a hose or bucket and fill with water up to within a couple inches of the opening on the tank. Water can and will fill the riser tube at this point.

Remove any loose resin and dry any water off the top opening of the tank. Apply a silicone lubricant or very, very light coat of regular cooking vegetable oil **(DO NOT USE PETROLIUM BASED LUBRICANTS)** to the top surface of the resin tank with your finger. This will help lubricate the large O-ring on the bottom of the valve. Look at the bottom of your control valve and you will see a 1" opening with an O-ring inside. Make sure to lubricate this O-ring as well. **DO NOT apply anything to the threads on the control valve or the resin tank!** If your unit came with an upper basket (see picture) the larger end will fit inside the bottom of your control valve, with the smaller end sliding over the riser tube pointing down into the tank. **NOTE: Not all systems come with an upper basket. If you do use the upper basket please be aware that water contaminates can clog the upper basket and reduce flow. If you install your system with an upper**

basket and notice a reduction in flow over time, removing the upper basket should fix the problem. Tilt the valve over on top of the resin tank making sure the top of the riser tube slips inside the opening in the bottom of the valve. Screw the valve down onto the resin tank. Have someone hold the tank as you snugly tighten the valve onto the tank. Be sure to hold the valve close to the solid body of the valve as you tighten it onto the tank. Tighten the control valve a little past snug, and then stop! Do not try to over tighten the valve onto the tank. The large O-ring will seal itself, and you will not be able to turn it any further. Your unit is ready to install!

Softener Installation Instructions

These instructions are a step-by-step guide to installing your new Abundant Flow Water system. These are general guideline instructions for typical installations and are not designed to cover every possible application. Most systems come with a service manual that include tips on installation, be sure to refer to your service manual for additional assistance. To identify the type of control valve you have, please refer to your sales receipt. (**Please note:** Control valves are designed for a number of different systems, if your service manual refers to something not on your system, this is why.) Always check your local plumbing codes and follow any codes that apply. If you are uncertain about something during the installation of your system contact someone who is more knowledgeable for help, such as a knowledgeable friend or a plumber. We at Abundant Flow Water Follow can answer your questions about your system and water treatment, we are not, however, plumbers, so please contact your local plumber for any plumbing related questions.

Many homeowners install their own water systems with basic plumbing skills; if you are not comfortable with projects like this, please get help from a friend or a professional plumber. Abundant Flow Water systems will not be responsible for mistakes, damage or injury caused by improper installation. By making your purchase, you agree to these terms.

Read over all instructions prior to installation, and have all parts and components gathered and readily accessible. Have someone available to help you in case you need it. If you have to shut the water off to your house, be sure and turn your electric water heater off to prevent burning out the element. Once your system is installed and water is back on, open a faucet for a few minutes to help purge air out of the system before turning your water heater back on.

There are many materials that can be used for installing your new system. Copper, PVC, CPVC, and PEX are the most popular. Galvanized iron can be used but is labor intensive and requires tools that most people don't have. Flexible connectors are also used by some that don't have any interest in soldering. BE SURE TO CHECK LOCAL PLUMBING CODES FOR ANY RESTRICTIONS ON MATERIAL THAT YOU CAN USE! A simple hot water tank installation kit available at most Home Depot or Lowes stores will do just fine if you have 3/4" (7/8" OD) copper or CPVC. These kits include compression fittings that will attach to the filter's inlet & outlet, and to the main line. Whichever material you choose, it's a good idea to set the system in the desired location and try to estimate the number of fittings and pipe you will need. Some prefer not to soften the outside water spigots used for irrigation or sprinkler systems. You will have to plan the job so that you cut in the water line AFTER these spigots. Installing your filter after the pressure tank on a well water system is the preferred location. If you have a UV filter, your softener will be installed before it. If you have any other filter tank systems, the softener will go in after these. Refer to your service manual for additional help with getting your system setup. Service manuals are also available for download from our website if needed at http://www.abundantflowwater.com/html/instructions___manuals.html. If you have questions on setting up

your control head or identifying a part, email us at support@abundantflowwater.com and include the name of the person the order was placed under.

Let's Get Started!

Make sure your chosen location will be fairly level, dry, and protected from possible freezing conditions. The plastic base of the resin tank is slightly adjustable to non-even floors. If shimming is needed, you can make shims from small, flattened pieces of copper pipe, or some other non corrosive material. Do not use wood or make-shift platforms as they are not very sturdy and can cause damage the tank, injury to people, or damage to property. You will need a standard 3-prong 120V outlet to plug your control valve into. We recommend using a GFI (ground fault interrupter) within 5' of your system. (Be sure to follow any local building codes) **DO NOT USE AN EXTENSION CORD!** Use of an extension cord can create a fire hazard and may void your warranty. You will need a drain or drain pipe to run your drain line to, preferable within 15 ft of your system. (Your drain line can be ran to an overhead drain pipe) You will need 1/2" I.D. (inside diameter) flexible tubing for your drain line, which can be readily found at your local hardware store. If you will be running your drain line farther than 15', use 1" tubing instead. Make sure to give yourself room to run your drain line, and do not make any sharp turns in the tubing as this will cause kinking and will prevent your system from backwashing effectively.

Installing the bypass valve:

Your unit comes with a bypass valve. Locate it and note the direction of flow as indicated by the arrows. **IT IS IMPORTANT NOT TO INSTALL THE BYPASS VALVE BACKWARDS; DOING SO WILL RESULT IN FILTER MEDIA BEING THROWN INTO YOUR HOME'S PLUMBING SYSTEM CAUSING DAMAGE TO IT AS WELL AS THE CONTROL HEAD**. Your bypass valve has stubs, (either brass or male threaded connections), you will need to get an adapter at your local plumbing supply store to fit your personal plumbing type. Remove the stubs from the bypass valve by removing the clips that hold them in. A screwdriver works well to remove the clips (see picture). (If you have brass stubs, we recommend that you first remove the O-rings from the stubs, then solder a 3" piece of copper pipe into each of the two stubs, away from the bypass valve, and let the adapters cool off completely before replacing the O-rings and connecting them to the bypass valve. *This simple step will ensure that you are not applying any excess heat to the bypass valve as you solder pipe into the adapters.*) If you have threaded stubs apply a high quality plumber's pipe joint compound (Teflon tape is NOT recommended) to the threads on the adapters and on your stubs. Screw the adapters onto the stubs good and tight**.** Once your adapters are connected to the stubs, use a small amount of silicon based lubricant or vegetable oil to lubricate the O-rings, then place them in the bypass valve and secure with the clips. If your bypass valve is not already installed on your control head, do so now. Ensure the arrows on the bypass valve line up with the arrows molded on the control valve. Use a small amount of silicone lubricant or vegetable oil on the O-rings of the bypass valve, then slip the bypass valve into the control head and secure with clips.

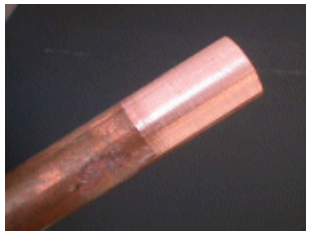
Plumbing in your filter unit

PLEASE READ ALL INSTRUCTIONS FIRST BEFORE STARTING, THIS WILL HELP WITH ANY CONCERNS OR QUESTIONS YOU COME UP WITH LATER!

If you have private well, turn the power off to the pump then shut off the main water shut off valve. If you have municipal water, simply shut off the main valve. Go to a faucet, (preferably on the lowest floor of the house)

turn on the cold water until all pressure is relieved and the flow of water stops. If your hot water tank is electric, turn off the power to it to avoid damage to the element in the tank.

Locate the resin tank with control valve installed in the desired location; left of a vertical main line is ideal. This way the inlet can be easily ran to the main line, then the outlet a few inches higher. If you're installing a unit with a bypass valve, notice that these assemblies will travel slightly up and down. This is normal because of the O-ring seals at each end. You may need to support this into a level position with a temporary brace until the pipes are soldered, or glued together, and all pipe straps are installed for a neater, straighter job. When installing take care not to exert too much force on the bypass valve. Take the bypass off when installing fittings if need be. If you plan to solder the connections, remember the pipes must be clean, shiny (see picture), and DRY. ***DO NOT*** *try to stuff bread into a pipe to stop water from dripping into your fittings. If a shut off valve leaks some water slightly or the pipes above keep dripping, try to install a new valve, or drain down the house's plumbing further by opening more taps and or removing some water from the bottom of the hot water tank with power and/or gas off.* Use a high quality soldering flux and solder used for making plumbing connections, not electric wire. Always wear safety glasses. A fire extinguisher nearby is also a good idea for novice plumbers to have handy.....just in case. Soldering will cause some smoke detectors to go off if located in close proximity.



Mark your "cut in point" on the main line with a pencil. Cut your line on this mark. Cut the line again about 2 to 4 inches above the first mark, then remove the section of line just cut. Clean the cut ends, flux (if copper) and wait for any water to drain completely out. You may also want to siphon some water out of the main line, just enough so the water level standing in the pipe is lower than where you will attaching the fitting. Measure pieces of pipe, clean, flux and complete the inlet connection to the main line. This will be the connection that carries the untreated water to your system. (**When soldering ensure that the bypass valve is in the "Service" position (see picture) to help avoid heat damage and open a nearby faucet to allow steam to release. Failure to do so can cause poor solder joints and can lead to leaks.**) Do the same for the outlet, the connection that carries treated water back to your home. Once you are finished, give the connections time to set, (time varies according to material used and method of sealing), then place the bypass valve in the "Bypass" position (see picture). Make sure a faucet is open somewhere and that any aerator is removed to avoid clogging from loosened scale in the pipes. Turn the main valve on slightly all the time watching for leaks. Leave the bypass valve in the bypassed position and slowly turn the main shutoff valve on all the way. If you have no leaks, proceed to the next steps. If leaks are discovered, turn main water supply off and correct before moving on.

Connecting your drain line:

Your drain line connection should be attached the back of your control head already (see picture). Check to ensure that it has been properly seated into the control valve and secured with a clip. This is where you will connect your drain line to. The easiest thing to do to connect your drain line is to use a ¾" threaded female to barbed adapter (sized to fit your drain line) and then use a hose clamp to connect your drain line to the barbed fitting. Use plumbers pipe joint compound on the threads to ensure a tight seal. Drain line is not usually included with the unit since it is part of your plumbing and every application is different. You will need some ½" inner diameter flexible tubing you can get from any hardware store to use. If

running your drain line more than 15', you will need to use 1" tubing instead. Run your drain line to a nearby drain or drain pipe. It can be ran up overhead or down along the floor. Please follow your local health department codes for where to run filter discharge water. **NEVER MAKE A DIRECT CONNECTION INTO A WASTE WATER DRAIN. A PHYSICAL AIR GAP OF AT LEAST 3" SHOULD BE USED TO AVOID BACTERIA AND WASTEWATER TRAVELING BACK THROUGH THE DRAIN LINE INTO THE FILTER.** Using a simple P-trap or a standpipe of at least 1-1/2" on your homes drain line to connect to is always best.

Connecting the Brine Tank

Your system comes with a length of 3/8" tubing to connect your control head to your brine tank. One end of this line connects to the brine fitting on your control head (see picture) and the other end connects to your brine tank. Remove the brine fitting from the control head by lifting out the gray retaining clip and pulling the fitting out. Locate the small package that contains your plastic nut assembly, usually inside the bag containing your service manual. Your kit should include a black nut, a white compression ring, a black compression ring, and a brass insert. Place the black nut on one end of the brine line (threads facing the end of the line), followed by the black compression ring (smaller, tapered end toward nut), then the white compression ring (larger end toward nut), and finally place the brass insert into the end of the tube (see picture). Place the end of the tubing firmly into the brine fitting, then secure by tightening the black nut until snug. Use a wrench to tighten an additional ¼ - ½" turn. DO NOT OVERTIGHTEN! The brine line is now connected to the control head (see picture).

Next, take the lid off of your brine tank and look inside for the 4" diameter "Brine Well" (see picture). Take the cap off of the brine well and you will see the float assembly inside. This assembly acts as a failsafe to prevent the brine tank from over flowing. Remove the float assembly. At the bottom of the assembly is an air check valve, this helps prevents the system from drawing in air as the brine tank empties. Measure the distance between the top of the air check valve and the bottom of the float assembly. This distance should be about 9-10", if not adjust the float up or down to the appropriate height and cut any excess off the top of the tube as needed, leaving about ¼" above the rubber washer that holds it in place (see pictures).

Follow the tube from the air check valve up to the black nut that connects it to the float. Tighten this nut with your fingers until hand tight, then use a wrench to tighten an additional ¼ - ½" turn. DO NOT OVER TIGHTEN! Replace the float assembly into the brine well, placing the elbow through the larger hole and the bolt through the smaller hole, securing in place with the small black nut on the bolt. Locate your brine kit, which includes a black nut, a white compression ring, a black compression ring, a brass insert and a mesh screen insert. (NOTE: The mesh screen is not required and may not be included) Place the black nut on one end of the brine line (threads facing the end of the line), followed by the black compression ring (smaller, tapered end toward nut), then the white compression ring (larger end toward nut), place the brass insert into the end of the tube, and finally insert the mesh screen into the brass insert (if included). Place the end of the tubing firmly into the elbow fitting of the float assembly, then secure by tightening the black nut until snug. Use a wrench to

tighten an additional ¼ - ½" turn. DO NOT OVERTIGHTEN! Just below the connection for the brine line you will notice a ½" elbow fitting (see picture). This is the overflow for your brine tank, should the control head and float assembly both fail to stop the water from filling too full. Use ½" flexible tubing to connect this fitting to a drain. The water from this fitting is not under pressure so the drain will need to be lower than the fitting itself to allow proper drainage. **DO NOT TIE THE OVERFLOW DRAIN INTO THE DRAIN LINE FROM THE FLECK CONTROL VALVE! The drain from the control valve is under pressure and can work its way into the brine tank if the two lines are tied together.** Put 2 or 3 bags of water softener salt (we recommend the pellet type) and 6 – 7 gallons of water to the brine tank.

Note: If you already filled your tank with water before placing the control head on the unit, skip the next paragraph! Ensure that all faucets in the house are closed, leaving just one open, preferably an outside line (if connected to the water softener) or a laundry sink or bathtub. Turn both sides of the bypass valve slightly to allow water to run into the unit. You want water to initially fill the tank slowly. This prevents resin from being pushed up into the control head by the initial surge of water going in. Once the tank is full of water you should start to see water flowing from the open faucet. It may look somewhat discolored at first. This is normal. If the resin tank is overfilled, some resin may come out the drain at first. This is ok as long as it is just a slight amount. Once the water is running clear and free from air pockets, go ahead and turn the bypass valve into the "service position". You should have a full flow from the open faucet at this point. Turn off the faucet, and go around opening the other faucets in your house one by one until the air is out of all of them.

System Start-up

Plug your control valve in to a standard 120v outlet, DO NOT USE AN EXTENSION CORD! Use the up and down arrows to set the current time of day. Push and hold the up and down arrows for about 5 seconds to enter standard programming mode. **DO NOT USE THE MASTER PROGRAMMING MODE TO SET YOUR CONTROL HEAD! These settings are for the regeneration cycle and are preset before they are shipped to you. Do not adjust these settings without consulting a professional first.** The display will change, the light in the bottom left corner will light up, and the display should show H & a number (for example: H – 15). This is your water hardness setting, use the up and down arrows to adjust the number to your water hardness. Press the extra regeneration cycle button (looks like 3 arrows going in a triangular circle) to advance to the next setting. This is your regeneration time, set this for a time when water is least likely to be used, (sometime between 12am & 4am is the usual time), and ensure to set it so it doesn't coincide with any other filter systems you might have. Press the extra regeneration cycle button again, and the display will show CALC as it calculates your settings. It will then return to the normal display, alternating between the current time of day and the gallons remaining before regeneration, and the flow light in the upper right corner will flash as water runs through the system. When the resin is new, the water will be treated as soon as raw water flows through the tank so regeneration is not required unless you just want to observe the regeneration process to check for leaks. Regenerating right away does help to clean the resin and fill the brine tank to the proper level, and it is a good idea to do so within the first day after installing a new system.

Water Softener resin will last on average about 15 – 20 years before needing changed out. This can vary depending on water usage and water chemistry. Once the resin is exhausted you will notice a return of the water hardness, at which point you will need to replace your resin. Softening resin can be ordered from our website (www.abundantflowwater.com) when needed for replacement. You just put the unit in bypass to keep water going in your home, disconnect the bypass valve from the control head by removing the clips holding it in.

(Relieve the pressure on the system first.) Unscrew control head, siphon or pump out the water, and dump out the old resin. Then put in new resin following instructions for loading above.