# SOFTPRO NATURALSOFT

# SALT-FREE SOFTENER/ CONDITIONER

# INSTALLATION GUIDE

CITY WATER

Brought to you by

**READ THIS GUIDE FIRST**

Read this manual thoroughly to become familiar with the device and its capabilities before installing or operating your Water Softener. Failure to follow instructions in this manual could result in personal injury or property damage. This manual will also help you to get the most out of your Softener.

- This system and its installation must comply with state and local regulations. Check with your local public works department for plumbing and sanitation codes. In the event the codes conflict with any content in this manual the local codes should be followed. For installations in Massachusetts, Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of this system.
- This water Softener is designed to operate on pressures of 30 psi to 125 psi. If the water pressure is higher than the maximum, use a pressure reducing valve in the water supply line to the Softener. However, we do not recommend pressure above 70 psi for the softener or residential plumbing, anything over 70 psi can cause damage to the seals on the softener valve and your plumbing and fixtures.
- This unit can operate at temperatures between 40°F and 110°F (4°C - 43°C). Do not use this water Softener on hot water supplies.
- Do not install this unit where it may be exposed to wet weather, direct sunlight, or temperatures outside of the range specified above unless you take precautions to protect it.
- Avoid pinched O-rings during installation by applying (provided with install kit) NSF certified lubricant to all seals.
- Do not use water that is microbiologically unsafe without adequate disinfection before or after this system.
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.
- This publication is based on information available when approved for printing. Continuing design refinement could cause changes that may not be included in this publication. Quality Water Treatment, Inc. reserves the right to change the specifications referred to in this literature at any time, without prior notice.

## Contents

# ABOUT HARD WATER

## WHY WATER GETS HARD

All the freshwater in the world originally falls as rain, snow, or sleet. Surface water is drawn upward by the sun, forming clouds. Then, nearly pure and soft as it starts to fall, it begins to collect impurities as it passes through smog and dust-laden atmosphere. And as it seeps through soil and rocks it gathers hardness, rust, acid, unpleasant tastes, and odour.

Water hardness is caused primarily by limestone dissolved from the earth by rainwater. Because of this, in earlier times people who wanted soft water collected rainwater from roofs in rain barrels and cisterns before it picked up hardness from the earth.

Some localities have corrosive water. A softener cannot correct this problem and so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures, or appliances.

Iron is a common water problem. The chemical/ physical nature of iron found in natural water supplies is exhibited in four general types: (Applies to private well or surface water applications only.)

1) Dissolved Iron—Also called ferrous or “clear water” iron. This type of iron can be removed from the water by the same ion exchange principle that removes the hardness elements, calcium, and magnesium. Dissolved iron is soluble in water and is detected by taking a sample of the water to be treated in a clear glass. The water in the glass is initially clear, but on standing exposed to the air, it may gradually turn cloudy or coloured as it oxidizes. Applies to private well or surface water applications only.
2) Particulate Iron—Also called ferric or colloidal iron. This type of iron is an undissolved particle of iron. A softener will remove larger particles, but they may not be washed out in regeneration effectively and will eventually foul the ion exchange resin. A filtering treatment will be required to remove this type of iron. Applies to private well or surface water applications only.
3) Organic Bound Iron—This type of iron is strongly attached to an organic compound in the water. The ion exchange process alone cannot break this attachment and the softener will not remove this type of iron. Applies to private well or surface water applications only.
4) Bacterial Iron—This type of iron is protected inside a bacteria cell. Like the organic bound iron, it is not removed by a water softener. Applies to private well or surface water applications only.

**ATTENTION: Salt free water systems are not designed for well water application and are to be used only with municipal supply AKA City water supply.**

### BEFORE INSTALLATION

All government codes and regulations governing the installation of these devices must be observed.

Check your water hardness.

**WARNING! ELECTRICAL SHOCK HAZARD! UNPLUG THE UNIT BEFORE REMOVING THE COVER OR ACCESSING ANY INTERNAL CONTROL PARTS.**

**CAUTION! The unit should be depressurized before installing or replacing media.**

**METAL PIPES - GROUNDING NOTE:**

If the ground from the electrical panel or breaker box to the water meter or underground copper pipe is tied to the copper water lines and these lines are cut during installation of the Noryl bypass valve and/or poly pipe, an approved grounding strap must be used between the two lines that have been cut in order to maintain continuity. The length of the grounding strap will depend upon the number of units being installed and/or the amount of copper pipe being replaced with plastic pipe.

In all cases where metal pipe was originally used and is later interrupted by poly pipe or the Noryl bypass valve or by physical separation, an approved ground clamp with no less than #6 copper conductor must be used for continuity, to maintain proper metallic pipe bonding.

> **CAUTION:** If the plumbing system is used as the ground leg of the electric supply, continuity should be maintained by installing ground straps around any non-conductive plastic piping used in installation. Check your local electrical code for the correct clamp.

## WATER CONDITIONS FOR OPERATION

- The water should be free of hydrogen sulphide, a dissolved gas with a characteristic smell of rotten eggs. If present, it can coat the catalytic surface of the media and interfere with the process. The gas should be removed through adequate pre-treatment.
- The water should be free of hydrocarbons, oils, and lubricants. If present, they can coat the catalytic surface of the media and interfere with the process. Remove through adequate pre-treatment.
- The water should contain less than 1 mg/l of phosphates. Phosphates sequester dissolved hardness molecules preventing them from forming crystals and may coat the catalytic media surface and interfere with the process.
- The copper level in the water supply should be below the MCL of 1.3mg/L. If copper is present above this level, it can attach to the surface of the catalytic media and interfere with the process.

**LOCATE WATER CONDITIONING EQUIPMENT CORRECTLY**

Select the location of your Softener tank with care. Various conditions which contribute to proper location are as follows:

1) Locate as close as possible to the water supply source.
2) Locate as close as possible to a floor or laundry tub drain.
3) Locate in the correct relationship to other water conditioning equipment.
4) Softener should be located in the supply line before the water heater. Temperatures above 120°F damage softeners.
5) Do not install a softener in a location where freezing temperatures occur. Freezing may cause permanent damage to this type of equipment and will void the factory warranty.
6) Allow sufficient space around the unit for easy servicing.
7) If your water source is a community water supply, a public water supply or you wish to bypass water used for a geothermal heat pump, lawn sprinkling, out-buildings, or other high demand applications.
8) Keep the softener out of direct sunlight. The sun's heat may soften and distort plastic parts.
9) Determine the best location for your water Softener, bearing in mind the location of your water supply lines, drain line and 120-volt AC electrical outlet. Subjecting the Softener to freezing or temperatures above 43°C (110°F) will void the warranty.

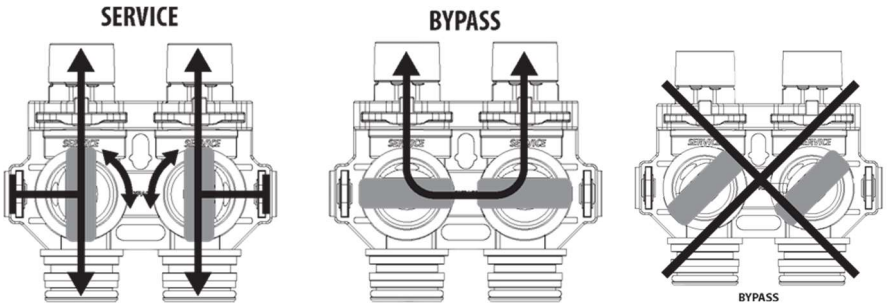
**Warning:** If this or any other system is installed in a metal (conductive) plumbing system, i.e. copper or galvanized metal, the plastic components of the system will interrupt the continuity of the plumbing system. As a result, any errant electricity from improperly grounded appliances downstream or potential galvanic activity in the plumbing system can no longer ground through 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 re-establishing the contiguous conductive nature of the plumbing system must be installed prior
to your systems use.

**Caution:** When adding a filtration/softening system to homes/buildings supplied by well water, we do not recommend the Sat-Free water softener systems and if installed you void all warranties, guarantees and will not be allowed to return the system.

**MANUAL WATER BYPASS**

In case of an emergency such as softener maintenance, you can isolate your water softener from the water supply using the bypass valve located at the back of the control. In normal operation the bypass is open with the ON/OFF knobs in line with the INLET and OUTLET pipes. To isolate the softener, simply rotate the knobs clockwise (as indicated by the word BYPASS and arrow) until they lock.

You can use your water related fixtures and appliances as the water supply is bypassing the softener. However, the water you use will be hard. To resume treated service, open the bypass valve by rotating the knobs counter-clockwise. **Please make sure bypass knobs are completely open otherwise the unsoftened water could bypass through the valve.**




## GENERAL INSTRUCTIONS

Below are the installation instructions to get you up and running in no time. We highly recommend that you follow along in our simple installation videos.

**Typical Install Times:**

- 3 hours for a Handyman/ Plumber
- 4 hours for DIY

**Tools Required:**

- Flathead Screwdriver
- Phillips Head Screwdriver
- Tongue-and-Groove Pliers (i.e. Channellock)
- Adjustable Wrench
- Pipe Cutter or hacksaw (as applicable per pipe material)

**Additional Parts Required:**

- Teflon Tape
- For optional (but recommended) hose bib for treated soft water access: hose bib, “T” fitting and applicable plumbing fittings.
- For optional whole house carbon filters: hose bib, “T” fitting and applicable plumbing fittings.

**For PVC Pipe:**

- PVC Primer and Glue

**For Copper, PEX, and CPVC pipe:**

- Quick Connect Fittings (i.e. Quick-connect Kit/ Hose or SharkBite fittings)

### UNPACKING AND INSPECTING YOUR NEW SYSTEM

Your new Salt free water conditioner system will include the following items below. Before starting, please check that you have all the items, and inspect for any possible damage that may have occurred during shipment. (This new system may have multiple shipments.)

## SHIPMENT FAQ

1. **Is it OK if some items are delivered on its side or upside-down?**

   **Yes, it is OK.**

   If your shipment, boxes, or other items are delivered to you on its side or upside-down, do not be alarmed. Our team takes additional precautions to ensure that your new system is properly protected. Simply turn the shipment or box right-side up and unpack it.

2. **What if there is damage to the exterior of the shipment or boxes?**

   **We got your back.** If you find visual damage to the exterior of the boxes, take pictures of the boxes and/or video of the damage before unpacking them. Just because boxes are damaged does not mean the system is damaged, we make sure they are protected.

3. **After unpacking, what if there is damage to the valve, tank, or other equipment?**

   **We got you.** If you find visual damage to any of the parts, please take pictures and/or video of the damage. Then please immediately send us the images/ video, and we will get parts shipped to you.

4. **After unpacking, what if there is a missing item?**

   **Easy.** If you are missing a part, please contact us to help get you set up properly.

**Contact Support:**

Web link: https://qualitywatertreatment.com/support

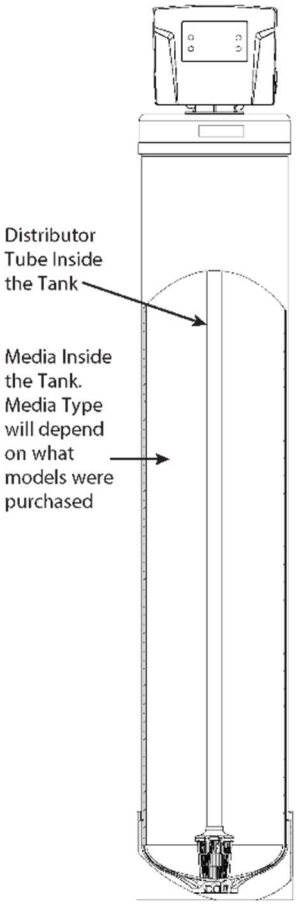
Web link QR Scan Code:

Email Address: Help@QualityWaterTreatment.com

Email Address QR Scan Code:

## PARTS LIST


**NOTE:** Mineral tanks are Pre-Loaded with media.




**Optional - Whole House Carbon Filter below:**

## REMOVAL OF OLD WATER SOFTENER SYSTEM

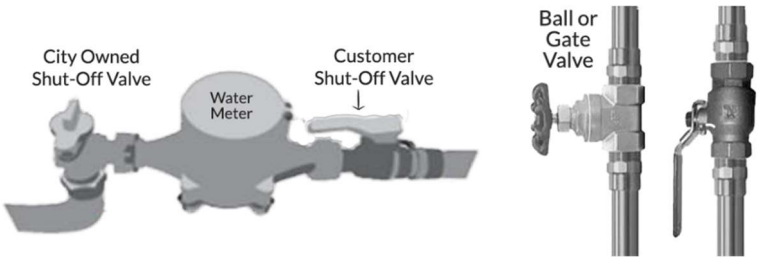
If applicable, the following guide is typical of how many common water softeners are removed. If you find that your existing setup is unconventional, please take pictures and videos to send to our support team to review.

**Follow the below steps:**

**1)** Disconnect power. Unplug the power supply to your existing water softener.

**2)** Shut-off the main water supply.

Close the water main shut-off valve to the home. It is usually located in the front of the property. Alternatively, if you have a shut-off valve as water enters home (usually a ball or gate valve in the front of the building), then you can also shut-it off there.




**3)** Open the nearest cold-water faucet to help empty the remaining water in the pipes.

We do not want a flood. **Helpful tip:** Open a cold-water faucet in the home, removing a shower head because it is up high will create a good vacuum so pipes can drain faster and better.

**4)** Set the bypass valve to the bypass position.

Bypass valve models vary by manufacturer (examples below). The bypass valve is located at the rear of the water softener control valve. It is where the pipe (copper/ PEX or PVC) connects to the water softener pipe.
If the bypass valve includes the inlet and outlet valves, then close both the inlet and outlet valves. If the bypass valve has one stem, close the plunger into the stem or pull handle as shown in the first image.


**5)** Reclaim salt or potassium chloride.

Remove any good salt or potassium chloride that you would like to keep and reuse from your old unit. Discard any clumps.
**Disposal:** Dispose unusable salt or potassium chloride properly into the garbage. Do not dispose onto lawns, gardens, plants, or trees.

**6)** Disconnect inlet and outlet lines.

Remove the holding clips at the water softener inlet and outlet. Disconnect the water softener from the water pipes.
If there are no clips, then cut the water line pipe as it enters the water softener. Use the appropriate cutting tool for the different types of pipes (copper, PVC, PEX, CPVC, etc.)

**7)** Disconnect brine line.

Disconnect the brine line from the side of the softener valve.

**8)** Remove the old brine tank and mineral tank. Dispose properly.

**9)** Clear and clean the area for your new Fleck Water Softener System.

**You are now ready to install your new Fleck Water Softener System.**

# INSTALLING YOUR NEW SALT-FREE SOFTENER

Installing your new Salt free Water Softener alternative is straightforward. The following step-by-step guide accompanied by our install videos (QualityWaterTreatment.com/Install), will get your new system up and running for you to enjoy fantastic soft water.

**NOTE: Tanks are Pre-Loaded**

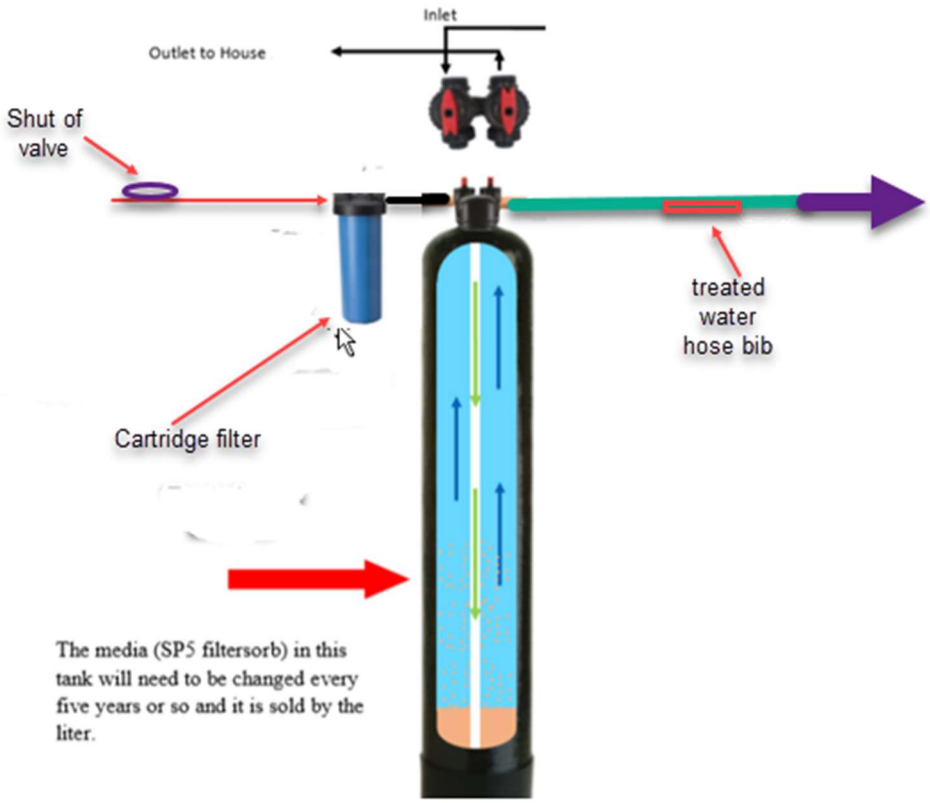
## STEP-BY-STEP INSTALL VIDEO

We highly recommend that everyone refer to our install videos. Makes it easy and fast!
You can access step-by-step install video at the link QualityWaterTreatment.com/Install

**OR**

You can scan the below QR code to get direct access to our install videos by simply using your smartphone camera:

## GENERAL SALT FREE WATER SOFTENER SETUP OVERVIEW

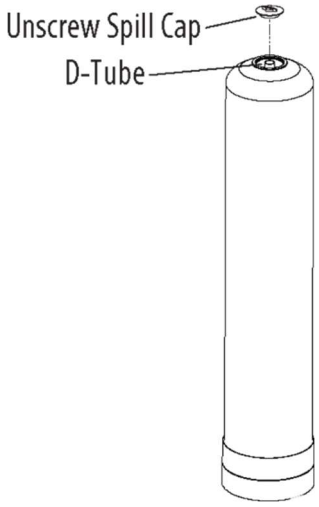



## OPTIONAL WHOLE HOUSE FILTER

**1)** Setup the optional Whole House Filter. **(*If not purchased, skip to the next step.)**

**ATTENTION:** The Whole House Carbon Filter is pre-loaded with carbon media.

**a)** Remove the protective cap from the top of the carbon filter tank




**b)** Install the upper basket to the up-flow head.

**c)** Lower up flow head with upper basket attached over the distributor tube located in the carbon filter tank. Only hand tighten the head onto the tank.
**ATTENTION:** Do not use lubricants or Teflon tape.

**d)** Install the bypass valve to the up-flow head.

**e)** Attach the two connection fittings onto the bypass valve.

**ATTENTION:** At a latter step, after the water softener is set up, then plumb the OUTLET side of the carbon filter to the INLET side of the water softener valve. This will be instructed later.

Note: If tank is not straight, lift tank of ground a few inches and tap the bottom of tank on ground in the direction you need it to go, the bottom tank base is adjustable.

**The whole house carbon filter setup is complete.**

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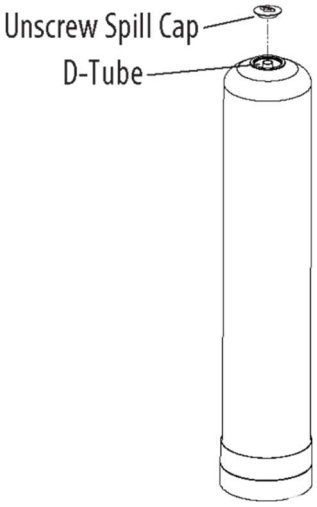
## ASSEMBLE YOUR SALT FREE WATER SYSTEM

1) Remove the protective cap from the top of the carbon filter tank




**f)** Install the upper basket to the up-flow head.

**g)** Lower up flow head with upper basket attached over the distributor tube located in the carbon filter tank. Only hand tighten the head onto the tank.
**ATTENTION:** Do not use lubricants or Teflon tape.

**h)** Install the bypass valve to the up-flow head.

**i)** Attach the two connection fittings onto the bypass valve.

**NOTE:** If the tank is not level, lift the tank straight up a few inches and tap it on the ground until the tank stands vertical. The bottom of the tank is round, and the boot allows the tank to stand upright.

Your Salt free water system is setup and ready to install

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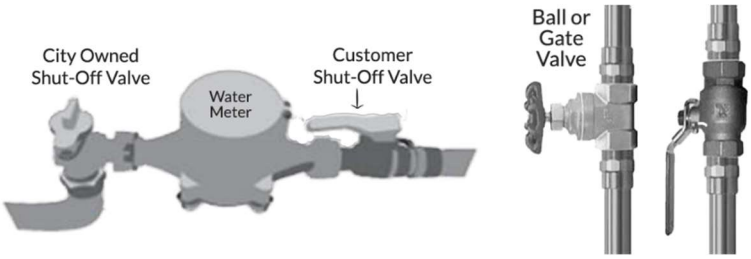
**2)** Shut-off the main water supply.

Close the water main shut-off valve to the home (if not yet closed). It is usually located in the front of the property. Alternatively, if you have a shut-off valve as water enters home (usually a ball or gate valve in the front of the building), then you can also shut-it off there.




**a)** Verify and label the water supply and feed lines for the water softener.

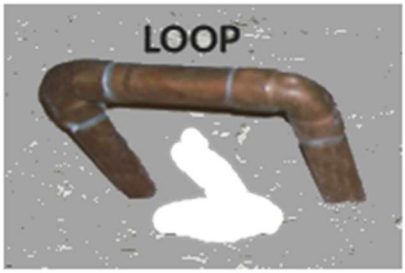
i. **For Pre-Built Soft Water Loops:** If a water softener has never been installed, cut the water line softener loop. Use an appropriate pipe cutting tool.

ii. Place a bucket to catch the water. Then very slightly turn open the water main to identify which side is the water supply line. Label the water supply line inlet.

**b)** **For Replacing an Existing Water Softener:** After removing the old water softener, place a bucket to catch the water.

i. Then very slightly turn open the water main to identify which side is the water supply line. Label the water supply side.

**c)** **If a soft water loop does not exist,** then you will need to install a loop from the main water supply line prior to entering your home or have a professional install one.



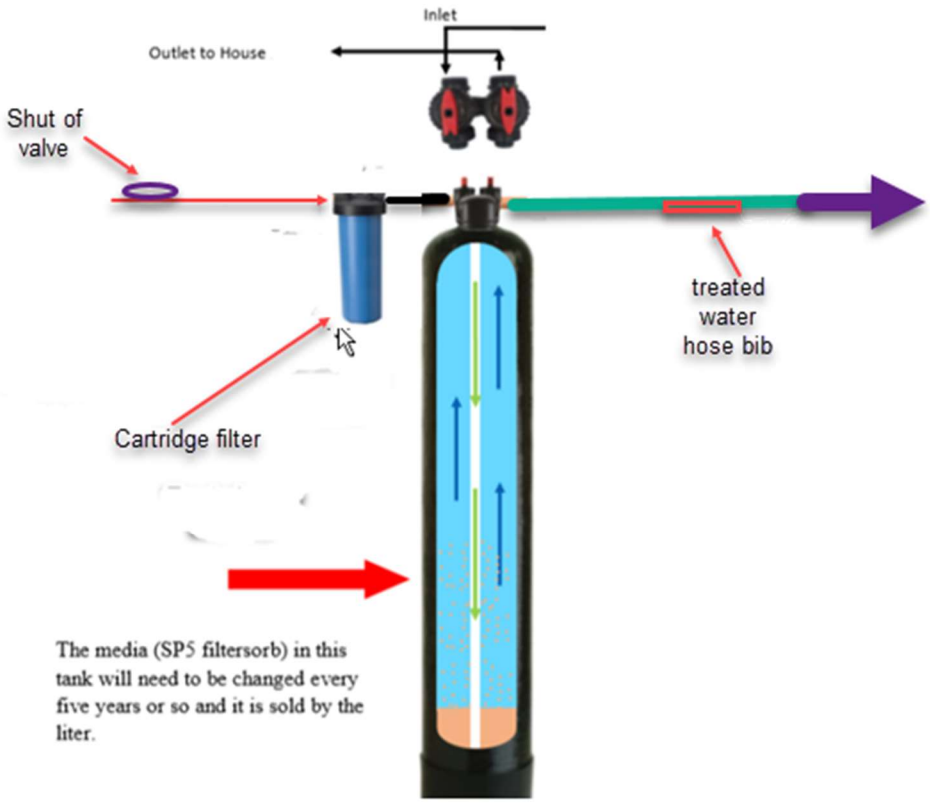

## RECOMMENDED OPTION – INSTALL HOSE BIB FOR TREATED SOFT WATER ACCESS

**Install an additional hose bib to access soft water conveniently.**

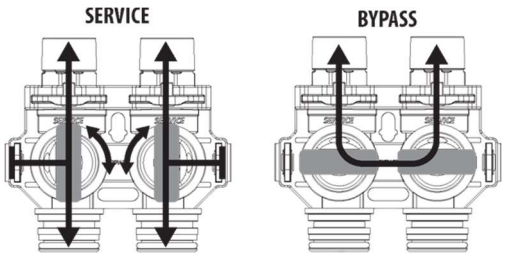
A soft water hose bib located near the water softener can aid in convenient water testing and allow access to soft water (great for washing cars and windows, etc.)

**3)** Install a soft water hose bib.

**a)** Install a “T” fitting and a hose bib to the plumbing line running into the home.




**b)** Verify that the water softener valve is in the bypass position.




**The optional treated soft water hose bib is complete.**

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**4)** Connect the plumbing to the valve.

**(Follow either (A) Quick-Connect Kit, or (B) Standard connection instructions below.**

**(A) <u>QUICK-CONNECT KIT INSTALL</u>**

If using the optional quick-connect kit/ hoses*, follow below.

**a)** Connect the quick connect hoses to your plumbing pipes.

Bend the quick connect hose lines from the plumbing to align with the bypass valve.

**b)** Attach the appropriate water lines to appropriate sides of the bypass valve.

**i.** The water supply line connects to the INLET side of the softener valve.
   a. **NOTE:** For optional whole house filter, connect to the INLET side of the filter valve (not the softener valve).

**ii.** The treated soft water line connects to the OUTLET side of the softener bypass valve.

**iii.** Attach the quick-connect hose ends into the bypass valve.

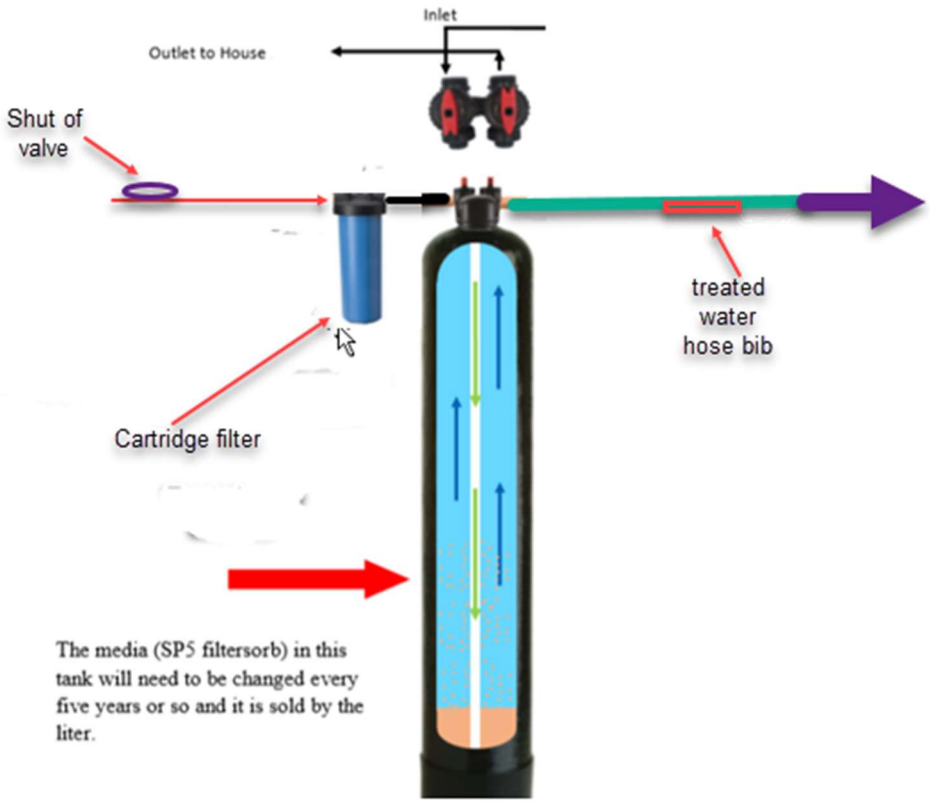
**e)** **For the optional Whole House Filter Installation, if applicable**, complete the filter connection to the water softener. (Skip to the next step if not applicable.)
   i. If using Quick-Connect hose, then connect
   ii. Plumb the filter OUTLET side to the water softener INLET side.
      1. Use optional Quick-Connect hose. (Filter hose bib is not required.)
      2. If optional Quick-Connect hose is not provided, then plumb a hose bib with "T" fitting in between the line from the filter and softener valves.
   iii. Verify that the filter bypass valve is in the bypass position**.**

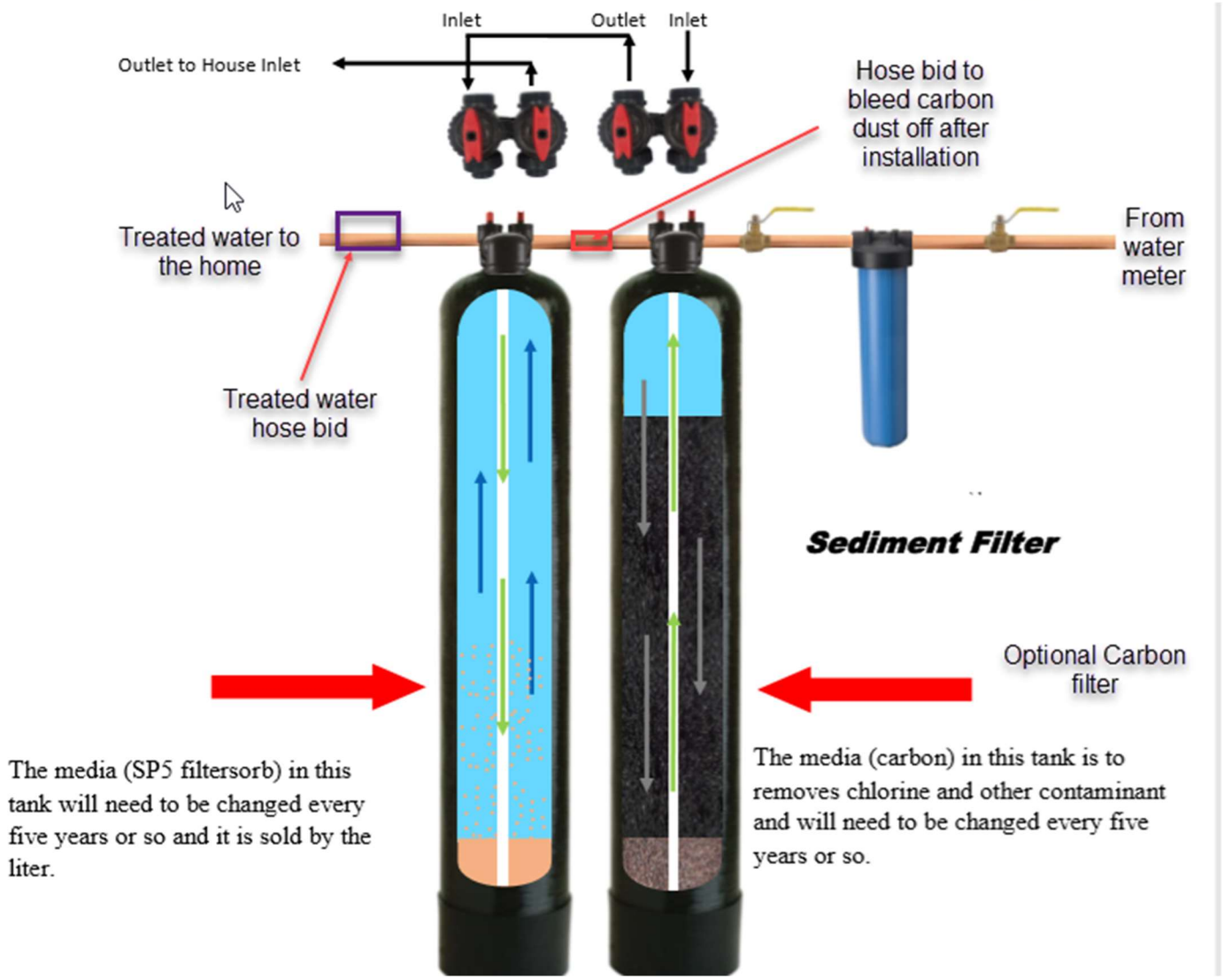
**a)** **For the optional Whole House Filter Installation, if applicable**, complete the filter connection to the water softener. (Skip to the next step if not applicable.)
   i. Plumb the filter OUTLET side to the water softener INLET side.
      1. Plumb a hose bib with "T" fitting in between the line from the filter and softener valves.
   ii. Verify that the filter bypass valve is in the bypass position.

**c)** Plumb the appropriate water lines to appropriate sides of the bypass valve.

**iv.** The water supply line connects to the INLET side of the softener valve.
   a. **NOTE:** For optional whole house filter, connect to the INLET side of the filter valve (not the softener valve).

**v.** The treated soft water line connects to the OUTLET side of the softener bypass valve.






**The softener system plumbing is now complete.**

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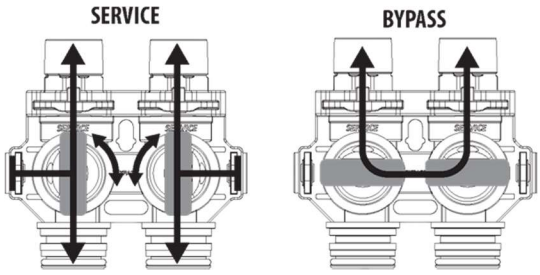
**5)** Turning the water back on.

- **a)** SLOWLY turn on your water main.
- **b)** Turn on a faucet in the home or attach a garden hose to the soft water hose bib and turn it on (recommended)
- **c)** Run the water until it shows clear.
  - **i.** Use a container to view the water clarity. (This is to remove air and any plumbing debris before entering the softener system. Let the water run until the water shows clear in the container.)
  - **ii.** Once the water runs clear into the container, turn off the faucet.

**6)** For Whole House Filter Installation, see below for initially cleaning the filter tank. (Skip to the next step if not applicable.)

- **a)** SLOWLY turn open the INLET side of the carbon filter bypass valve (opens clockwise) until the carbon filter tank fills with water. Once the tank is full, the water will stop running.
- **b)** SLOWLY turn open the OUTLET side of the filter bypass valve (opens counter-clockwise).
- **c)** Connect a hose to the bleed hose bib and run to a container or bucket.
- **d)** Slowly open the bleed valve and let the water run.
- **e)** Run the water until it shows clear.
  - **i.** Use a container to view the water clarity. (This is to remove any media dust, air, and any plumbing debris before entering the softener system. Let the water run until the water shows clear in the container.)
  - **ii.** Once the water runs clear into the container, turn off the bleed hose bib.

**ATTENTION:** Check the water inside of the container for clarity.




## NaturalSoft Salt free system media soak

1. Open a cold-water faucet inside the home or the treated water hose bib you installed close to the treated side of the NaturalSoft system.
2. Turn the water back on at the main shut-off valve allowing the system to fill with water. The air will bleed through the open hose bib or faucet.
3. Turn the Bypass Valve into the Bypass Mode position displayed above to bypass the tank. This will allow you to isolate the system and restore water supply to the home during the media soak.
4. Allow the tank to soak for at least one hour.

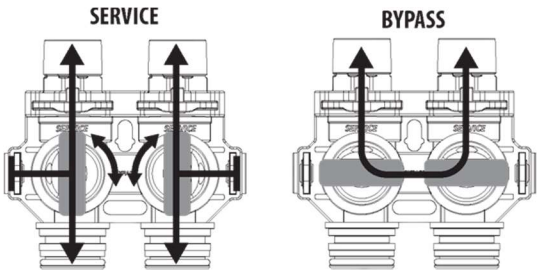
## Media Flush/Condition

1. After the tank has soaked for one hour, turn the main water supply back on or turn the arrows on the Bypass Valve back into the service position.
2. Flush the system by running water for 5 minutes at a high flow rate of 5 GPM, this can be achieved by using a bathtub or three plus faucets at the same time.
   **Note:** The flush water may have a milky look to it. This is normal as calcium carbonate fines are flushed from the system.
3. Rinse the system by reducing the flow rate to a half GPM and run water for One hour, this can be achieved by turning one faucet ¼ of the way on.

## CLEAN YOUR HOT WATER HEATER

Cleaning and restoring the plumbing system are a major benefit of the system. To minimize the time required to complete the descaling process, we strongly recommend cleaning your hot water heater after a period of 3 weeks

- Turn off the heat source, attach a hose to the drain valve at the bottom of the tank and flush the heater by opening the drain valve. After the water heater is filled with water, turn the heat source back on.




**Your new Fleck Water Softener is complete and ready for programming.**