

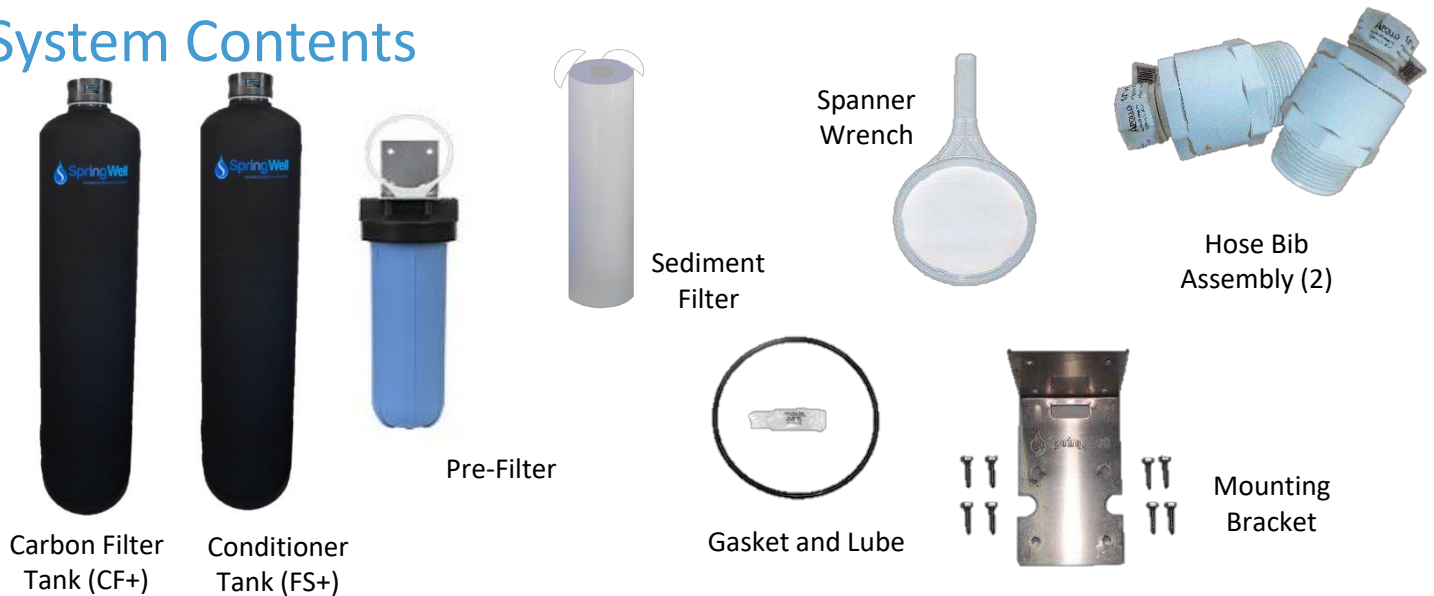
# CSF+ Whole House Filter/Salt Free Softener

## Setup And Installation

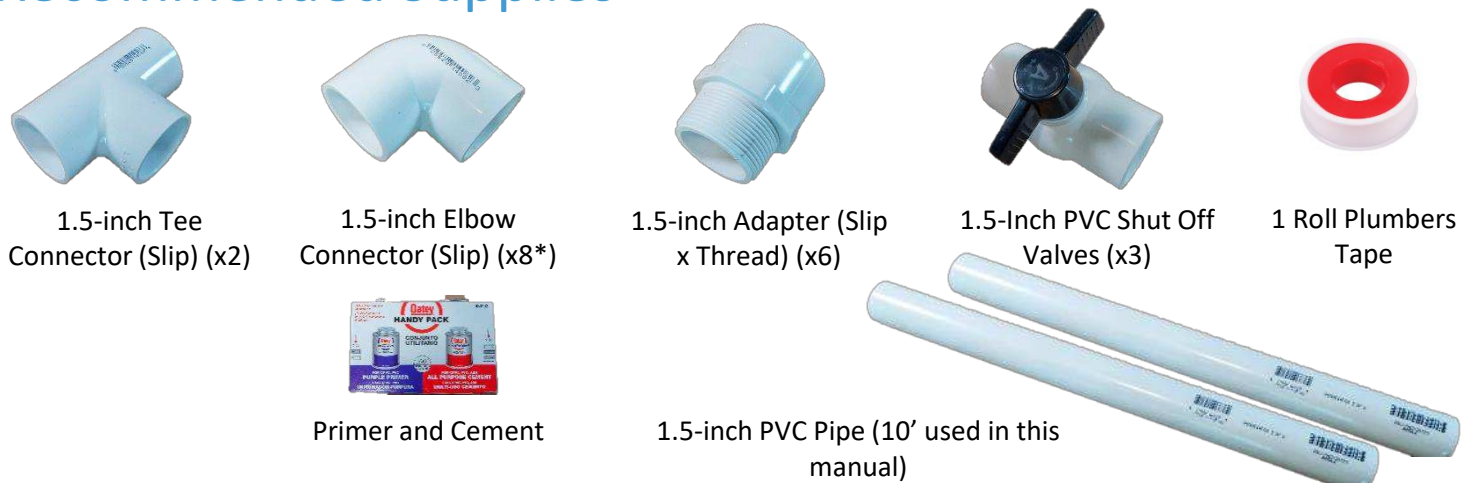


# CSF+ Whole House Filter/Salt Free Softener Setup And Installation

## System Contents



## Recommended Supplies



\* The quantities are suggestions. Your system configuration may vary depending on installation area.

## System Configuration

Water Source  
From Outside Home

(1) Water from your source will begin by entering the Pre-Filter



# CSF+ Whole House Filter/Salt Free Softener



**PLEASE READ INSTRUCTIONS FULLY PRIOR TO ATTEMPTING INSTALLATION.** Be sure to follow all applicable plumbing codes. The system must be installed on a main water supply line



**Caution:** Do not install on well water unless you have spoken to a customer service representative first.

## Product Specs

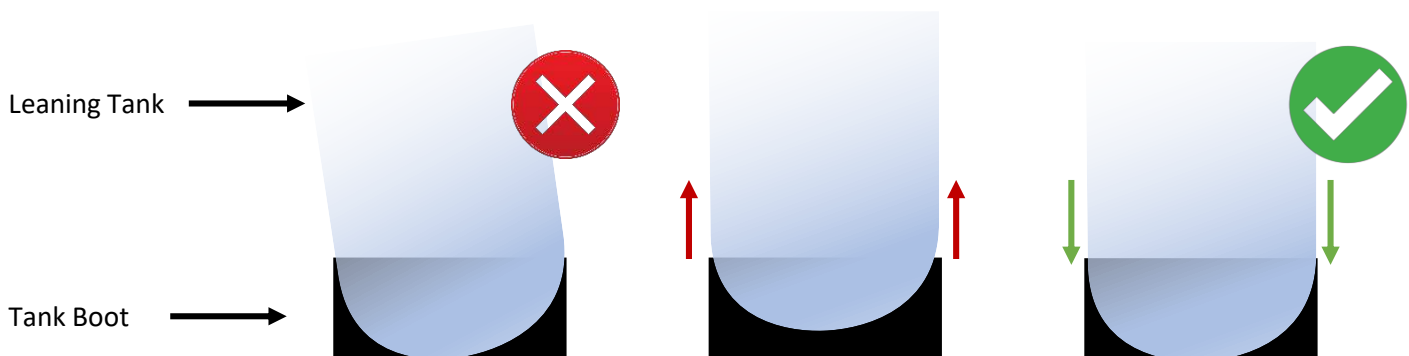


CF+	
Tank Width	13"
Tank Height	54" (58" with Head)
Flow Rate	20 GPM Service
Connection Size	1.5"
Operating Pressure	25-80 PSI
Operating Temperatures	36 – 120 F
Pre-Filter Change/Replacement	Every 6-9 Months
Media Change/Replacement	Every 10 years or 1 Million Gallons



FS+	
Tank Width	13"
Tank Height	54" (58" with Head)
Flow Rate	20 GPM Service
Connection Size	1.5"
Operating Pressure	20-80 PSI
Operating Temperatures	34 – 120 F
Flow Direction	Up flow
Hardness GPG Max	81
Ph Range	7.0 – 9.5

## Level Tanks



If the tank is not perfectly straight, carefully lift the tank straight up a few inches and tap it on the ground until the tank stands vertically and fits snugly into the tank boot.

# CSF+ Whole House Filter/Salt Free Softener



**IMPORTANT!** The carbon media inside the filter system **MUST** soak in water for a minimum of 48 hours prior to installation

## Carbon Soak Instructions (48 Hours Prior)

This step will require the materials listed below



Carbon Filter Tank (CF+)



Conditioner Tank



Hose Bib Assembly (x2)



Lawn Hoses (x2) and access to a faucet



1) Thread a Hose Bib into the inlet and outlet of the Carbon Filter Tank (CF+)



2) Due to weight, stage the tanks near the installation area. The two connectors will allow you to route 1 hose to the tank and 1 hose away from the tank.



3) Connect the hose from the faucet into the Inlet on the tank. Connect the open hose to the outlet and lead away from your work area.



4) Run the faucet until you see water exiting the other hose.



5) Disconnect the Hose Bib adapters from the Carbon Filter Tank (CF+) and repeat with the Softener Tank (FS+)



6) Set the tanks aside and allow them to sit for 48 hours.



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**IMPORTANT!** The carbon media must be flushed on both tanks prior to install

## Carbon Flush Instructions

This step will require the materials listed below



Carbon Filter Tank (CF+)



Conditioner Tank



Hose Bib Assembly (x2)



Lawn Hoses (x2) and access to a faucet



7) This step can only be performed after the tanks have been soaked for 48 hours.



8) Attach the Hose Bib Assembly onto the inlet and outlet ports.



9) Attach the hoses to the tank. The hose leading to the inlet will be connected to a faucet. The outlet hose will allow the water to drain.



10) Run the hose and allow the water to flush out the tank until the water runs clear.



11) Switch the hoses to now run the water through the outlet. Allow the water to flow in the opposite direction until it runs clear.



12) Repeats steps 7 through 11 on both tanks

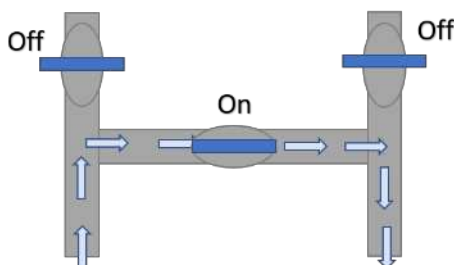
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## Assembling a Bypass Valve

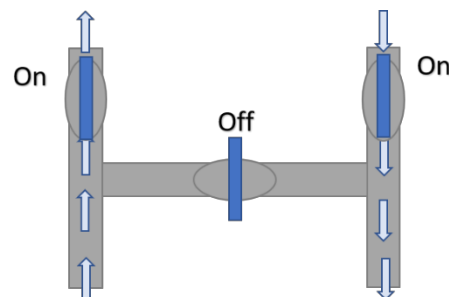


Note: The tanks do not have a built-in bypass valve. Therefore you will need to build a bypass to allow for easy system maintenance.

### Bypass Operation



Bypass on. No water flow to system

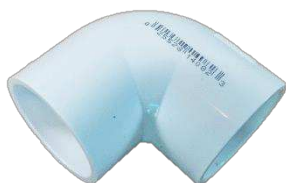


Bypass off. Water flows through system

## Recommended Supplies



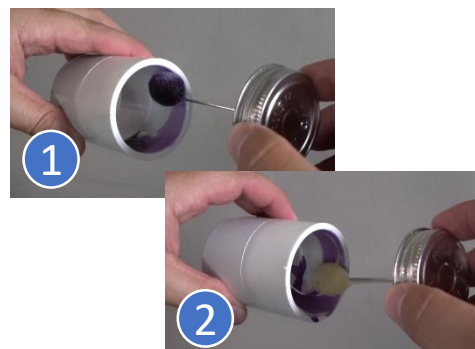
1.5-inch Tee Connector (Slip) (x2)



1.5-inch Elbow Connector (Slip) (x4\*)



1.5-Inch PVC Shut Off Valves (x3)



Primer and Cement



1.5-inch PVC Pipe (Cut to fit)

**IMPORTANT:** The system will be under pressure so all slip connections must be primed (1) then cemented (2) in place.

\* The quantities are suggestions. Your system configuration may vary depending on installation area.



13) Prior to working with the pre-plumb you must ensure the water to the main has been shut off.



14) Prep the pre-plumb and identify the water flow direction.



15) To keep the bypass accessible it is recommended to work it upwards. Start by connecting an elbow to each connection pointing them upwards.

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## Assembling a Bypass Valve



16) Cut two 3" pieces of PVC for the next step.



17) Insert one piece of the cut PVC into each of the elbows facing upward.



18) Attach one of the 3-way splitters with the openings facing up and towards the other connector



19) Cut and attach a piece of PVC approx. 1/3<sup>rd</sup> of the length to the neighboring connector.



20) This is what your bypass should look like after step 19.



21) Attach the other 3-way splitter to the opposite connector. Ensure the openings are facing up and inward.



22) Connect one of the shut off valves to the PVC leading between the connections.



23) Complete the connection by cutting a piece of PVC to fit between the connections.



24) This is what the bypass will look like after step 23.



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## Assembling a Bypass Valve



25) Cut two more 3" pieces of PVC for the next step.



26) Insert one piece of the cut PVC into each of the 3-way splitters facing upward.



27) To limit the height of the other valves, elbows are suggested. Connect one to both sides of the bypass assembly facing outwards.



28) Cut two more 3" pieces of PVC for the next step.



29) Insert the PVC pieces into each of the elbows.



30) The bypass should look like this after steps 25 thru 29.



31) Connect a shut off valve to both sides of the bypass assembly.



32) Assembly of the bypass valve is now complete.



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## Prepping the Pre-Filter

This step will require the materials listed below



Pre-Filter Housing



Sediment Filter



O-Ring w/Lube



33) Unscrew the lid from the Pre-Filter Housing.



34) Insert the Sediment Filter into the Pre-Filter Housing. Ensure it sits beneath the edges of the housing.



35) The O-Ring will now be laid into the groove around the top of the Pre-Filter Housing tank.



36) Squeeze the lubricant onto the O-Ring then spread it using your finger.



37) Flip the O-Ring over and lubricate the opposite side as well.



38) Replace the lid and fully tighten it

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## Installing the Pre-Filter

This step will require the materials listed below



Prepped Pre-Filter Housing



Mounting Bracket



1/2" Socket and Ratchet



Drill with 3/16" drill bit



1.5-inch Adapter (Slip x Thread)(x2)



Plumbers Tape



1.5-inch Elbow Connector (Slip) (x2\*)



1.5-inch PVC Pipe (Cut to fit)

\* The quantities are suggestions. Your system configuration may vary depending on installation area.



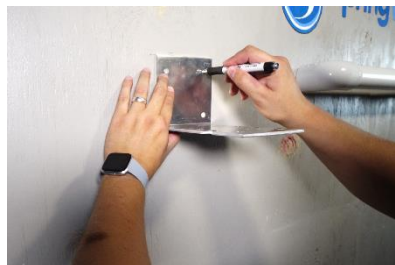
39) Note: Plumbers tape will need to be applied to all PVC threads during the installation.



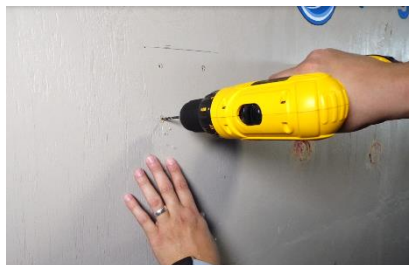
40) Install a PVC adapter onto one side of the Pre-Filter Housing. Fully tighten.



41) Repeat on the other side. Fully tighten.



42) Identify the optimal area to secure the mounting bracket and mark for pre-drilling. The bracket should mount to a stud due to weight.



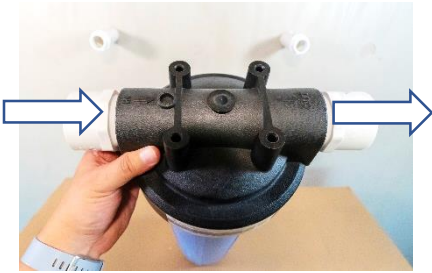
43) Pre-drill the holes for the mount using the 3/16" drill bit.



44) Use 4 of the provided bolts and washers to secure the mounting bracket in place using a half inch socket.

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## Installing the Pre-Filter (cont.)



45) Take note of the in versus out flow markings on the top of the pre-filter housing. Mount the pre-filter housing to allow for optimal routing for your plumbing.



46) The other 4 bolts will be used to secure the pre-filter housing to the bracket.



47) Fully tighten the bolts.



48) Now connect the pre-filter to the incoming side of the bypass you built earlier. Start by adding a length of PVC to lead towards the inlet of the pre-filter.



49) Add an elbow facing towards the pre-filter inlet.



50) Add another length of PVC to reach the inlet connection of the pre-filter.



51) Connect an elbow pointing towards the pre-filter inlet.



52) Add a final piece of PVC to connect the incoming water flow to the inlet on the pre-filter.



53) The pre-filter is now installed. Your system should look similar to this.



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## Installing the Tanks

This step will require the materials listed below



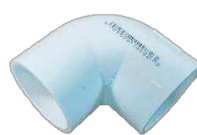
Carbon Filter Tank (CF+)



Conditioner Tank



1.5-inch Adapter (Slip x Thread)(x4)



1.5-inch Elbow Connector (Slip) (x2\*)



Plumbers Tape



1.5-inch PVC Pipe (Cut to fit)



54) Note: Plumbers tape will need to be applied to all PVC threads during the installation.

\* The quantities are suggestions. Your system configuration may vary depending on installation area.



55) Connect a 1.5-inch adapter to the inlet and outlet on each tank. Fully tighten.



56) Make note of the water flow direction on each tank.



57) The Carbon Filter Tank labeled CF+ will be installed first. Stage it inline with the pre-filter.



58) Cut a piece of PVC to bridge between the outlet of the pre-filter to the inlet on the CF+ tank and install into the pre-filter.



59) Connect the PVC to the inlet on the CF+ tank.



60) Stage the FS+ tank next to the installed CF+ tank.

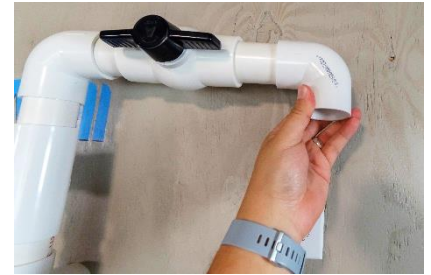
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61) Connect the outlet of the CF+ tank to the inlet of the FS+ tank with a length of PVC.



62) Start to build the connection to the FS+ tank from the other side of the bypass. Insert a piece of PVC into the shut off valve.



63) Add an elbow pointing towards the outlet connection on the FS+ tank.



64) Add a length of PVC to align with the elbow you just installed.



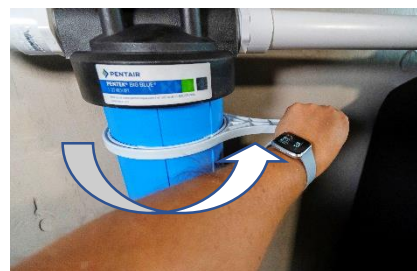
65) Add a length of PVC to the elbow to align with the PVC leading out from the FS+ tank.



66) Complete the connection by adding an elbow to the PVC lengths.



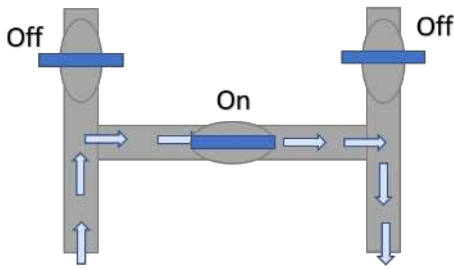
67) The system connections should look similar to this upon completion.



68) Prior to turning the water back onto the system use the spanner wrench to fully tighten the pre-filter housing to avoid any leaks.

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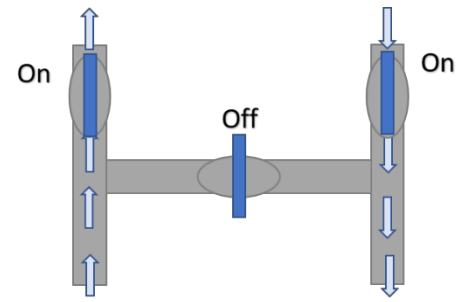
## Testing the System



69) Start with the bypass on to check it for leaks prior to flushing the combo system.



70) Fully turn on the cold water on a bathtub faucet in your home.



71) Turn the bypass off and allow water to flush through the system. Allow the system to flush for at least 5 minutes. Check for leaks.



72) There is a slot in the mounting bracket to store the spanner wrench.

**Congratulations, the installation is now complete.**

