

# **Installation Instructions**

#### ULTRA Whole House Well Water Filter Salt Based System Combo Model MWS1, MWS4

This is the ultimate combo system for anyone who has high levels of iron, manganese, and hydrogen sulfide. We've combined our whole house well system, with our whole house carbon filtration system and saltbased water softener to give you a powerful system that not only removes contaminants but also prevents limescale/calcium build up on your pipes, faucets, fixtures, and more.



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Scan for Installation video



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note that this system is compatible with multiple types of connections



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

## System Configuration



the tank stands vertically and fits snuggly into the tank boot.



# System Specifications

Spring

WS1	
Tank Width	10"
Tank Height	54" (64" with Head)
Flow Rate	12 GPM Service
Connection Size	1″
Backwash Rate	5 GPM
Operating Pressure	25-80 PSI
Operating Temperatures	36 – 120 F
pH Range	6.5 - 10

WS4	
Tank Width	13″
Tank Height	54" (64" with Head)
Flow Rate	18 GPM Service
Connection Size	1"
Backwash Rate	7 GPM
Operating Pressure	25-80 PSI
Operating Temperatures	36 – 120 F
pH Range	6.8 - 10

SpringWel	CF1			CF4	
	Tank Width	9"		Tank Width	10"
	Tank Height	48" (52" with Head)		Tank Height	54" (58" with Head)
	Flow Rate	9 GPM Service		Flow Rate	11 GPM Service
	Connection Size	1"		Connection Size	1″
	Operating Pressure	25-80 PSI		Operating Pressure	25-80 PSI
	Operating Temperatures	36 – 120 F		Operating Temperatures	36 – 120 F
	Sediment Filter Change/Replacement	Every 6-9 Months		Sediment Filter Change/Replacement	Every 6-9 Months
	Media Change/Replacement	Every 6 years or 1 Million Gallons		Media Change/Replacement	Every 6 years or 1 Million Gallons

# Note: The Carbon Filter Tank (CF1 or CF4) requires a pre-soak 48 hours prior to installation.



# **Product Specs**

	SS4	
9"	Tank Width	10"
48" (57" with Head)	Tank Height	54" (63" with Head)
11 GPM Service	Flow Rate	13 GPM Service
le 1"	Connection Size	1″
e 2 GPM	Backwash Rate	2.4 GPM
ssure 25-80 PSI	Operating Pressure	25-80 PSI
36 – 120 F	Operating Temperatures	36 – 120 F
6.5 - 10	pH Range	6.5 - 10
32k	Grain	48k
18"(w) x 33"(h)	Brine Tank	18"(w) x 33"(h)
	48" (57" with Head)         48" (57" with Head)         11 GPM Service         1"         2 GPM         25-80 PSI         36 - 120 F         6.5 - 10         32k	9"Tank Width48" (57" with Head)Tank Height11 GPM ServiceFlow Rate1"Connection Size2 GPMBackwash Rate25-80 PSIOperating Pressure36 - 120 FOperating Temperatures6.5 - 10pH Range32kGrain



Note: The Carbon Filter Tank (CF1 or CF4) requires a pre-soak 48 hours prior to installation.

# Installing the Head on the CF (Carbon Filter) Tank





Tank Head



1) Unscrew the cap on top of the carbon filter tank.

4) Align the opening on the

bottom of the tank head

with the riser tube inside



2) Discard the cap as it is no longer required.



3) Locate the tank head. Note the label discussing the necessary 48-hour presoak.



5) Press the tank head down to allow the threads to catch.



6) Turn the tank head clockwise until it is fully tightened.



the tank.

7) Insert a blunt tool into one of the connections on the head. A screwdriver handle will work.



8) Use your feet around the boot to add grip to the tank.



9) Grip the tank and use the screwdriver as leverage to fully tighten the head.



Note: Do Not Unscrew head once it has been placed. See below.



ONCE THE HEAD ATTACHES TO THE PIPE INSIDE THE TANK IT IS PERMANENT. Do not attempt to unscrew or remove the head from the tank or it will cause the components within the tank to separate causing damage and potentially cause resin to seep from the tank into your home plumbing.



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





10) Insert the bypass valves onto the tank head connections of both of of the tanks and press in place.



11) Fully tighten the fasteners on both valve connections securing the bypass valves.



12) Attach and tighten a MNPT Fitting onto the connections on each of the bypass valves on both tanks.



13) Use the hose bib to attach a lawn hose to the inlet on the carbon filter tank. Ensure the bypass is off to allow water flow through the tank.



14) Turn on the water to the hose halfway until water exits the tank. Turn off the water and disconnect the hose and adapter.



15) Switch the tank to bypass and store for 48 hours.





**IMPORTANT**! 48 hours after Carbon Filter tank soak. The carbon media in the Carbon Filter tank must be flushed prior to installation





16) After the 48-hour soak connect the hose bib assembly to the inlet of the carbon filter (CF) Tank.



17) Turn off the tank bypass. Some water will escape the tank.



18) Run the water to flush the tank until the water runs clear. Approx. 5 min.



19) Relocate the hose bib adapter and hose to the outlet side of the tank.



20) Flush with water in the opposite direction until the water runs clear. Approx. 5 min.



21) The hose and hose bib assembly can be removed from the carbon filter tank. Zip the provided neoprene jacket onto the tank.



# **Prepping the Sediment Filter**

This step will require the materials listed below





Sediment Filter Housing

Sediment Filter



O-Ring w/Lube



22) Unscrew the lid from the sediment filter Housing.



23) The O-ring will now be laid into the groove around the top of the sediment filter Housing tank.



24) Squeeze lubricant onto the O-ring then spread it using your finger.



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



26) Insert the Sediment Filter into the pre-filter Housing.



27) Replace the lid and fully tighten it



# Installing the Sediment Filter This step will feature the materials listed below Image: Spaner Wrench Spanner Wrench Spanner Bracket Piers Drill with 3/16" drill bit Prepped sediment Filter Housing Pliers



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



28) Install a PVC nipple onto each the inlet and outlet of the Sediment filter housing. Fully tighten using pliers avoiding damage to the threads on the PVC nipples.



29) Identify the optimal area to mount the sediment filter. Ensure that it aligns to allow room for the well water filter and carbon filter tank ahead of the sediment filter. Mark your holes for pre-drilling.



30) Use a 3/16" drill bit to pre-drill the holes for the sediment filter mounting bracket. Use 4 of the provided bolts and washers to secure the bracket to the wall using a 1/2" socket.



31) Before mounting the sediment filter, identify the inlet and outlet by using the markings on top. Be sure to orient it so the incoming water can be connected to the inlet.



32) Use the remaining 4 bolts to secure the sediment filter to the mounting bracket.



Note: If you purchased a jacket, it can be zipped around the tank prior to or after the installation of the electronic head is completed.

# Installing the Well Water Filter Electronic Head

This step will require the materials listed below





33) Unscrew the cap on top of the well water filter tank.



34) There is a blue cap inside that also needs to be removed.Both caps can be discarded.



35) Locate the opening at the bottom of the well water filter electronic head.



36) Align the opening on the bottom of the tank head with the pipe inside the tank.



37) Press the tank head down to allow the threads to catch.



38) Turn the tank head clockwise until it is fully tightened.



# Installing the Well Water Filter Electronic Head



39) Install a bypass valve onto the connections on the electronic head.



40) Insert the rubberized connections into the electronic head openings and press it in place.



41) Fully tighten the fasteners on both valve connections securing the bypass valve.



42) Attach and tighten a MNPT Fitting onto each of the connections on the bypass valve.



43) Apply plumbers' tape to both MNPT Fittings.







44) Unscrew the cap on top of the softener tank.



45) There is a blue cap inside that also needs to be removed. Both caps can be discarded.



46) Locate the opening at the bottom of the electronic head.



47) Align the opening on the bottom of the tank head with the pipe inside the tank.



48) Press the tank head down to allow the threads to catch.



49) Turn the tank head clockwise until it is fully tightened. Hand tight is OK.



# Installing the Softener Electronic Head



50) Install the blue bypass valves onto the connections on the electronic head.



51) Insert the rubberized connections into the electronic head openings and press it them place.



52) Fully tighten the fasteners on both valve connections securing the bypass valves.



53) Attach and tighten a MNPT Fitting onto the connections on each of the bypass valves.



54) Apply plumbers' tape to both MNPT Fittings.



55) The neoprene tank jacket can now be zipped around the tank.







57) 1" threaded adapters are featured in this guide and are installed on the incoming water supply with the threads towards the location of the carbon tank.



58) Point the threaded adapter for the opposite end of the preplumb towards sediment filter outlet connection.



**NOTE:** Plumbers tape will need to be applied to every thread when connecting all corrugated pipes.



59) It is suggested to connect a PVC shut off valve onto the threaded adapter from the incoming water supply. Ensure it is fully tightened.



60) Connect a PVC nipple to the other end of the PVC shut off valve. Ensure it is fully tightened.



61) Connect a corrugated pipe to the PVC nipple. Ensure it is fully tightened.



# Installing the Tanks Part 1

Well Water

Filter Tank

(Tank 1)

This step will require the materials listed below





62) Position the well water tank next to incoming pre-plumb with its connections facing back



63) Connected the corrugated pipe to the incoming side on the back of the well water filter. Ensure it is fully tightened.

# Installing the Drain Line (Well Water Filter)

#### This step will feature the materials listed below



50' Drain Line



Hose Clamp



Zip Ties



64) Locate the drain valve on the left side of the well water filter head. It is a compression connection.



65) Remove the blue lock tab securing the drain valve in place.



66) Pull the drain valve straight out.



67) Slide a hose clamp over an end of one of the provided drain lines.





68) Press the barbed connector on the valve onto the end of that drain line until it is fully seated.



69) Slide the hose clamp over the connection and begin to tighten it.



70) Prior to fully tightening, position the hose clamp to align as shown here. Now, fully tighten.



71) Insert the drain valve back into the tank head. Ensure the drain line isn't pinched.



72) Insert the blue tab to lock the drain valve back in position.



73) Thread the drain line towards your drain and cut away the excess leaving some slack.



74) To ensure the drain line doesn't come out from the drain a pair of zip ties are recommended. They can be inserted through two pairs of holes drilled high up in the drainpipe.



75) Pushing the zip ties inwards will create a loop.



76) Insert the drain line into the zip tie loops and secure in pace. The excess can then be trimmed off the zip ties.







77) Connect a corrugated water connector to the outlet side of the well water filter. Ensure it is fully tightened.



78) Connect the other end of the connector to the inlet side of the carbon filter tank. Ensure it is fully tightened. Note: The inlet and outlet on this tank are opposite the well water filter.



79) Connect a water connector to the outlet side of carbon filter tank. Ensure it is fully tightened.



80) Connect the other end to the inlet on the sediment filter. Ensure it is fully tightened.



81) Connect another connecter to the outlet side of the sediment filter. Ensure it is fully tightened.



82) Connect the other end of that connector to the inlet side of the softening tank. Ensure it is fully tightened. Note: The inlet and outlet on this tank are opposite the carbon filter tank.





83) Connect another water connector to the outlet side of the softening tank. Ensure it is fully tightened.



84) Prep the pre-plumb connection leading back into the home.



85) Connect the other end of the connector to the pre-plumb leading back into the home. Ensure it is fully tightened.

## Installing the Drain Line (Softener Tank Head)

This step will feature the materials listed below



50' Drain Line



Hose Clamp



Zip Ties



86) Locate the drain valve on the left side of the softener head. It is a compression connection.



87) Remove the blue lock tab securing the drain valve in place.



88) Pull the drain valve straight out.



89) Slide a hose clamp over an end of one of the provided drain lines.





90) Press the drain line over the barbed end of the drain valve you pulled out of the tank head.



91) Position the hose clamp over the connection and align as shown here. Tighten with a flat head screwdriver.



92) Insert the drain valve back into the tank head. Ensure the drain line isn't pinched.



93) Insert the blue tab to lock the drain valve back in position.



94) Lead the line towards the drain near your pre-plumb and trim away the excess.



95) Zip ties will once again be used to secure the drain line. Insert two zip ties into 4 holes drilled high up on the drain.



**IMPORTANT!** Ensure the drain lines you installed are not pinched or kinked or it will impede the flow of water from the system.



96) Push the zip ties inward to create a loop.



97) Insert the drain line into the loops and secure the ties anchoring it in place. Trim away the excess from the zip ties.



#### Installing the Brine Tank





98) Position the brine tank next to the softener tank with the drain valve pointing towards the softener.



99) Remove the lid from the brine tank.



100) Release the regen line from the softener head by removing the zip ties. Use care not to damage the line.



101) Insert the regen line into the brine tank through the opening above the drain line you installed earlier.



102) The regen line will be inserted to the connection just inside the brine well. Push the line all the way in. Once inserted it will be secure.



103) Replace the lid to the brine well.



104) The brine tank will need to be filled with 4 to 5 bags of salt pellets.



105) The lid to the brine tank cab be replaced.



# **Powering the Tank Heads** This step will require the materials listed below Power **9v** Batteries

Well Water Filter Tank (Already Installed)



**Supplies** (x2)

(x2)



106) On both tanks, the power cord will be connected to the connection on the far left beneath the electronic tank head.



107) The power adapters will then be plugged into a power supply that isn't controlled by a switch.



108) Lift off the cover on each of the the electronic heads.



109) Locate the battery connection beneath the display. Connect a 9v battery then store it in the tray. Repeat on both heads.



110) Replace the tank head cover for each head.



You are ready to test the system



# **Testing the System**

111) Before restoring water to the home, you must first double check your system to ensure it is configured as shown in the image below.





112) While the water to the home is still turned off open the cold-water valve to a shower or faucet all the way.



113) If you installed a system shut off valve, please turn it to the off position.



114) Set the valves on both electronic tank heads into the bypass position.



#### **Testing the System**



115) Set the valves on the carbon filter tank into bypass as well.



116) Use the provided spanner wrench to fully tighten the sediment filter housing.



117) The water to the home can now be restored.



118) With the shut off valve in the off position, inspect it for any leaks.



119) If no leaks are detected, open the shut off valve to allow water flow through the tank bypasses. Check all connections for leaks.



120) If no leaks are detected from the tank connections, turn off the bypass for both electronic heads allowing them to fill with water.



121) After 3 to 5 minutes, slowly turn off the bypass to the carbon filter tank.



Note: If you see water seeping out from beneath the tank head on the Carbon Filter (CF), please proceed page 31 for the solution.



122) Allow water to run through the system for 10 minutes. It is normal to see a small amount of sediment during this time.





# Setting Well Water Filter Values



131) Select the menu icon in the upper left-hand corner.



132) Select "Advanced Settings."



133) Tap "Air Charge Frequency."

Air Rechar	ge Frequency
Enter Air Recharge	Frequency Value.
1	
Cancel	ОК
	<u>م</u>

134) Change the value to 1 day.



135) Tap "Backwash."



136) Change the value to 10 min.



137) Tap "Rest."



138) Set the value to 0 min.



139) Select "Air Draw."



140) Set the value to 20 min.



141) Select "Rapid Rinse."



142) Set the value to 5 min.



# **Setting Softener Values**



143) Tap the Menu

Icon.

LEGACY

144) Select "Regenerate Now."



Note: The well water filter will run approx. 45 minutes. You will not be able to use water to the home during this time.



145) If you are ready, select OK on the regenerate confirmation

## **Setting Water Softener Head Values**



Softener Tank (Already Installed)



Mobile Device

Note: The electronic tank head must be powered and installed prior to setting the tank values.

The Softener will require a manual regen for 90 min prior to system use.

**The Well Water Filter regen** must be completed prior to manually regening the softening system.



146) Navigate back to the Device list and select Metered Softener.



147) Tap "Time of Day on Unit" to change the time.



148) Select "OK" to set the time on to the same time as your device.



149) To modify the regen time tap on that tile. You will need to change the default time of 2:00am.





150) You don't want to softening system to regenerate at the same time as the well water filter. Therefore 3:00am is recommended for this step.



151) Tap "Water Hardness" to correct the value to your conditions.



152) Enter the value from your hard water test.



153) Select the menu icon in the upper left-hand corner.



154) Select "Advanced Settings."



155) Tap "Regeneration Day Override."



156) Change the value to 14 days.



157) Tap "Reserve Capacity."









# **Setting Softener Values**



170)The next step will force you to regen your system.

The Well Water Filter regeneration must be finished prior to launching the softener regeneration.

During this time, you will not be able to use your water for 90 minutes.



171) Select "Regenerate Now."



172) Select "OK" from the pop up and the system will regen for 90 minutes.



173) Once the regen is done, your system is ready to use.

# Water Leak from Carbon Filter Tank Head



Water leaking from the tank head collar indicates the head is either not tight enough, or that the O-ring became bunched.



Turn the shut off valve to the off position.



Disconnect the carbon filter tank from the system



Slowly unthread the head from the tank approx. half a rotation.



You only need to expose a small gap between the tank collar and the tank head.



Fully re-tighten the head onto the tank. The O-ring will now be able to reseat.



Reconnect the tank to the system and proceed back to page 23 to test the system again.

