Our traditional salt-based whole house water softeners are the most reliable ion exchange softeners on the market today. Use 40% less detergent, extend the life of your appliances see less spotting on hard surfaces. All with an industry-leading warranty!

**Softener Tannin System**
Models: STR-1  STR-4

The SpringWell STR Softener and Tannin Removal System. Remove stubborn Tannins that can discolor your water; at the same time remove the hardness to soften the water. STR utilizes technology that removes Tannins more effectively and efficiently than our competition. All this in a single tank configuration saving space thus having less impact on the environment.
Softener Tannin System
Setup And Installation

System Contents

- Tannin Removal Tank
- Brine Tank
- Electronic Head
- Power Supply
- Bypass Valve
- Pre-Filter
- Sediment Filter
- Hose Clamp
- Gasket and Lube
- Mounting Bracket
- 50’ Drain Line
- MNPT Fittings (x2)
- Spanner Wrench

System Compatibility

- Corrugated Water Connectors
- PVC
- Copper
- Pex

These instructions will feature a combination of PVC and threaded water connectors. But, note that this system is compatible with multiple types of connections.

System Configuration

1. Water from your source will begin by entering the pre-filter.
2. Tannin is removed, and water is then filtered and softened by the combo tank.
3. Salt from the brine tank will regularly regenerate the media in the Tannin removal tank.

Filtered and softened Water into the home

Questions? Call (800)-589-5592
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.

Product Specs

<table>
<thead>
<tr>
<th></th>
<th>STR-1</th>
<th></th>
<th>STR-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank Width</td>
<td>10”</td>
<td>Tank Width</td>
<td>13”</td>
</tr>
<tr>
<td>Tank Height</td>
<td>54” (63” with head)</td>
<td>Tank Height</td>
<td>54” (63” with head)</td>
</tr>
<tr>
<td>Flow Rate</td>
<td>12 GPM</td>
<td>Flow Rate</td>
<td>15 GPM</td>
</tr>
<tr>
<td>Connection Size</td>
<td>1”</td>
<td>Connection Size</td>
<td>1”</td>
</tr>
<tr>
<td>Backwash Rate</td>
<td>2.4 GPM</td>
<td>Backwash Rate</td>
<td>3 GPM</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>25-80 PSI</td>
<td>Operating Pressure</td>
<td>25-60 PSI</td>
</tr>
<tr>
<td>Operating Temperatures</td>
<td>36°C-120°F</td>
<td>Operating Temperatures</td>
<td>36°C-120°F</td>
</tr>
<tr>
<td>pH Range</td>
<td>6.5-10</td>
<td>pH Range</td>
<td>6-10</td>
</tr>
<tr>
<td>Grain Capacity</td>
<td>30k</td>
<td>Grain</td>
<td>45k</td>
</tr>
<tr>
<td>Brine Tank</td>
<td>18”(w) x 33”(w)</td>
<td>Brine Tank</td>
<td>18”(w) x 33”(w)</td>
</tr>
</tbody>
</table>

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.
**Softener Tannin System**

### Prepping the Sediment Filter

This step will require the materials listed below

- Sediment Filter Housing
- Sediment Filter
- O-Ring w/Lube

1) Unscrew the lid from the sediment filter Housing.

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

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

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

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

6) Replace the lid and fully tighten it

Questions? Call (800)-589-5592
### Installing the Sediment Filter

This step will feature the materials listed below:

- **Wrench and Pliers**
- **Drill with 3/16” drill bit**
- **1-Inch PVC Shut Off Valve**
- **1-inch (3-inch long) PVC Nipples (x3)**
- **Prepped Pre-Filter Spanner Mounting 1-inch Corrugated Water Plumber’s Tape**
- **Housing Wrench Bracket Connectors (x1)**

#### 7) Note: plumbers’ tape will need to be applied to all PVC threads during the installation.

#### 8) 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.

#### 9) Apply plumbers’ tape to the threads on the PVC nipples.

#### 10) Identify the optimal area to mount the sediment filter. Ensure that it aligns to allow a connection between the pre-plumb and the inlet on the sediment filter. Mark the holes for pre-drilling.

#### 11) Use a 3/16” drill bit to pre-drill the holes for the sediment filter mounting bracket.

#### 12) Use 4 of the provided bolts to secure the bracket to the top of the sediment filter wall using a 1/2” socket.

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**Prepped sediment filter housing**

**Spanner Wrench**

**Mounting Bracket**

**1-inch Corrugated Water Plumber’s Tape**

Questions? Call (800)-589-5592
13) Use the remaining 4 bolts and washers to secure the sediment filter to the wall.

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

15) Expose the pre-plumb and prep to install the threaded adapters.

16) Install a 1” threaded adapter on the incoming water supply and point the threads towards the pre-filter.

17) Point the threaded adapter for the opposite end of the pre-plumb towards the area the tank will be placed.

18) Connect the PVC shut off valve onto the threaded adapter on the incoming water supply. Fully tighten.

19) Apply plumbers' tape to the third PVC nipple. Then connect the PVC nipple to the other end of the PVC shut off valve. Fully tighten.

20) Connect a corrugated water connector between the shut off valve and to the inlet on the sediment filter. Be sure to fully tighten.

IMPORTANT! Be sure to turn off the water main to your home before proceeding to the next steps!

NOTE: Plumbers’ tape will need to be applied to every thread when connecting all corrugated pipes and pipe nipples.
Installing the Softener Electronic Head

This step will require the materials listed below

21) Unscrew the cap on top of the Tannin removal tank.

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

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

24) Align the opening on the bottom of the tank head with the riser tube inside the tank.

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

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

Questions? Call (800)-589-5592
# Installing the Softener Electronic Head

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27)</td>
<td>Install the blue bypass valves onto the connections of the electronic head.</td>
</tr>
<tr>
<td>28)</td>
<td>Insert the rubberized connections of the bypass valves into the head connections and press in place.</td>
</tr>
<tr>
<td>29)</td>
<td>Fully tighten both fasteners on the bypass valves securing them to the tank head.</td>
</tr>
<tr>
<td>30)</td>
<td>Attach and tighten both MNPT Fittings onto the connections on each of the bypass valves.</td>
</tr>
<tr>
<td>31)</td>
<td>Apply plumbers' tape to the threads on both MNPT Fittings.</td>
</tr>
</tbody>
</table>

Questions? Call (800)-589-5592
Installing the Tank

This step will feature the materials listed below

- Tannin Removal Tank
- Plumbers Tape
- Wrench
- 1-inch Corrugated Water Connectors (x2)

32) Position the Tannin removal tank next to the sediment filter. Ensure the connections on the tank are on the backside against the wall.

33) Connect the corrugated pipe to the outlet on the sediment filter. Be sure to fully tighten.

34) Use the arrows on the tank head to identify the in flowing and out flowing water connections.

35) Connect the corrugated water connector from the sediment filter to the in flowing side of the tank. Be sure to fully tighten.

36) Connect a third corrugated water connector to the outflow connection of the tank head. Fully tighten.

37) Prep the threads on the pre-plumb leading back into the home with plumbers’ tape.

38) Connect the corrugated water connector from the outflow connection on the tank to the pre-plumb connection leading into the home. Fully tighten.

Questions? Call (800)-589-5592
## Connecting Tank Drain Line

This step will require the materials listed below:

- **50’ Drain Line**
- **Zip Ties**
- **Hose Clamp**

### Materials
- Tannin Removal Tank

### Steps

39) Locate the drain on the left side of the electronic tank head on the Tannin removal tank.

40) Pull out the blue tab behind the drain valve, then pull the valve out from the tank head.

41) Slide the provided hose clamp over the end of the drain line.

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

43) Align the hose clamp over the connection, then align the screw on the hose clamp so that it runs parallel to the connection on the drain valve. Tighten the clamp.

44) Insert the drain valve back into the tank head. Ensure the drain line isn’t pinched.

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

Questions? Call (800)-589-5592
46) Lead the hose to the drain and trim away the excess.

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

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

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

50a) Ensure there are no kinks or pinches to the drain line.

50b) Ensure there are no kinks or pinches to the drain line.

**IMPORTANT!** Ensure the drain line you installed is not pinched or kinked or it will impede the flow of water from the system.
Installing the Brine Tank

This step will require the materials listed below:

- 50’ Drain Line
- Zip Ties
- Brine Tank

51) Position the brine tank next to the Tannin removal tank with the brine tank drain valve pointing towards the tank.

52) Remove the cap to the white brine well inside the tank.

53) Identify the smaller hole in the side of the brine well.

54) Align the hole with the threaded drain on the side of the tank.

55) Place and hold the white plastic nut over the threads of the drain line.

56) Rotate the drain on the outside of the tank to thread the plastic nut securing the brine well.

Questions? Call (800)-589-5592

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Tannin Removal Tank

Softener Tannin System
57) Locate the black regen line leading out from the tankhead.

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

59) 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.

60) Replace the lid to the brine well.

61) Press the remaining drain line over the barbed valve leading out from the brine tank.

62) Use the previous step to secure the drain line to the drainpipe.

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

64) The lid to the brine tank can be replaced.

Questions? Call (800)-589-5592
Powering the Tank Head

This step will require the materials listed below

- Tannin Removal Tank
- Power Supply
- 9V Battery

65) The power cord will be connected to the connection on the far left beneath the electronic tank head.

66) The power adapter will then be plugged into a power supply that isn’t controlled by a switch.

67) Lift off the cover to the electronic head.

68) Locate the battery connection beneath the display. Connect a 9v battery.

69) Replace the tank head cover.
**Softener Tannin System**

**Testing the System**

70) Before turning the water back on to the home, double check to ensure the sediment filter is fully tightened.

71) While the water is still off, open a cold bathtub faucet all the way.

72) Before turning the water back onto the home ensure the shut off valve is in the off position.

73) Also ensure the softener tank is set to bypass.

74) Turn on the water to the home and inspect the shutoff valve for leaks.

75) If no leaks are detected, open the shut off valve and allow water to flow through the system connections.

76) Inspect all connections and sediment filter housing for leaks. If any leaks are detected troubleshoot for loose connections.

77) If no leaks are detected, open the tank bypass and allow water to flow through the combo tank.

78) Allow water to run through the system for 5-10 minutes. It is normal to see a small amount of sediment during this time.

Questions? Call (800)-589-5592
Softener Tannin System

Setting Softener Tannin System Values

This step will require the materials listed below

Softener Tannin System Tank w/head (powered)  Mobile Device

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

79) Look up "Legacy View" in the app store and install it.
80) Open the app and select your softener from the list.
81) Tap "Time of Day on Unit" to change the time.
82) Select "OK" to set the time on to the same time as your device.

83) To modify the regen time tap on that tile. 2:00am is the default time.
84) If your system has more than one electronic head, you will need to stagger regen times by 2 hours
85) Select a time when water is not typically being used in your home.
86) Tap "Water Hardness" to correct the value to your conditions.

Questions? Call (800)-589-5592
**Softener Tannin System**

**Hardness + Tannins = Value**

87) The value you will enter will be a combination of the tested water hardness plus one for each level of tannins.

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

89) Select advanced options.

90) Tap “Regeneration Day Override.”

91) Change the value to 14 days.

92) Select reserve capacity.

93) Change the value to 10%.

94) Select the backwash time.

95) Set the value to 10 minutes.

96) Select the brine draw time.

97) Set the value to 60 minutes.

98) Select rapid rinse time.

99) Set the value to 10 minutes.

Next Steps 100 to 103 are for STR-1 Systems.

Skip to step 104 for STR-4 systems.

100) Select resin grain capacity.

101) Set the value to 30 (which is 30,000).

Questions? Call (800)-589-5592
<table>
<thead>
<tr>
<th>Step</th>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>102)</td>
<td>Select Brine Refill time.</td>
</tr>
<tr>
<td>103)</td>
<td>Set the value to 12 minutes.</td>
</tr>
<tr>
<td>104)</td>
<td>Select the resin grain capacity.</td>
</tr>
<tr>
<td>105)</td>
<td>Set the value to 45 (for 45,000).</td>
</tr>
<tr>
<td>106)</td>
<td>Select the brine refill time.</td>
</tr>
<tr>
<td>107)</td>
<td>Set the value for 16 minutes.</td>
</tr>
<tr>
<td>108)</td>
<td>Select the menu icon in the upper left corner.</td>
</tr>
<tr>
<td>109)</td>
<td>Select Regenerate now.</td>
</tr>
<tr>
<td>110)</td>
<td>The next step will force you to regen your system. During this time, you will not be able to use your water for 90 minutes.</td>
</tr>
<tr>
<td>111)</td>
<td>Select OK and the system will regenerate for the next 90 minutes.</td>
</tr>
<tr>
<td>112)</td>
<td>When the regen is complete, your system is ready to use.</td>
</tr>
</tbody>
</table>

The remaining steps will apply to both models.