SpringWell

WATER FILTRATION SYSTEMS

Installation Instructions

Chemical Injection System

MODEL: CIS

The SpringWell Water Chemical Injection System. This system is designed for well water applications. Sometimes well water can have bacteria in it and may need to be injected with chlorine. This is an efficient and cost-effective way to kill bacteria and/or oxidize iron, sulfur and manganese that may be present in your water.

CUSTOMER SERVICE IS AVAILABLE MON-FRI 9AM-6PM EST

800-589-5592

WWW.SPRINGWELLWATER.COM

Chemical Injection System

Scan for Installation video

Scan for Installation video

Or click HERE

System Contents

Solution Pump

Solution Tank

Flow Switch

Chem Activator

Suction Discharge Tube

Injection Fitting

Weighted Suction Line Strainer

Connecting Nuts (x3)

Ferrules (x3)

Maintenance Parts

Replacement Pump Tube

Latches (x2)

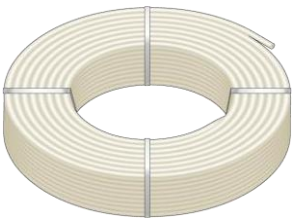
A pump maintenance video and directions is available for review. Video Link **Here.**

System Compatibility

Corrugated Water Connectors

PVC

Copper

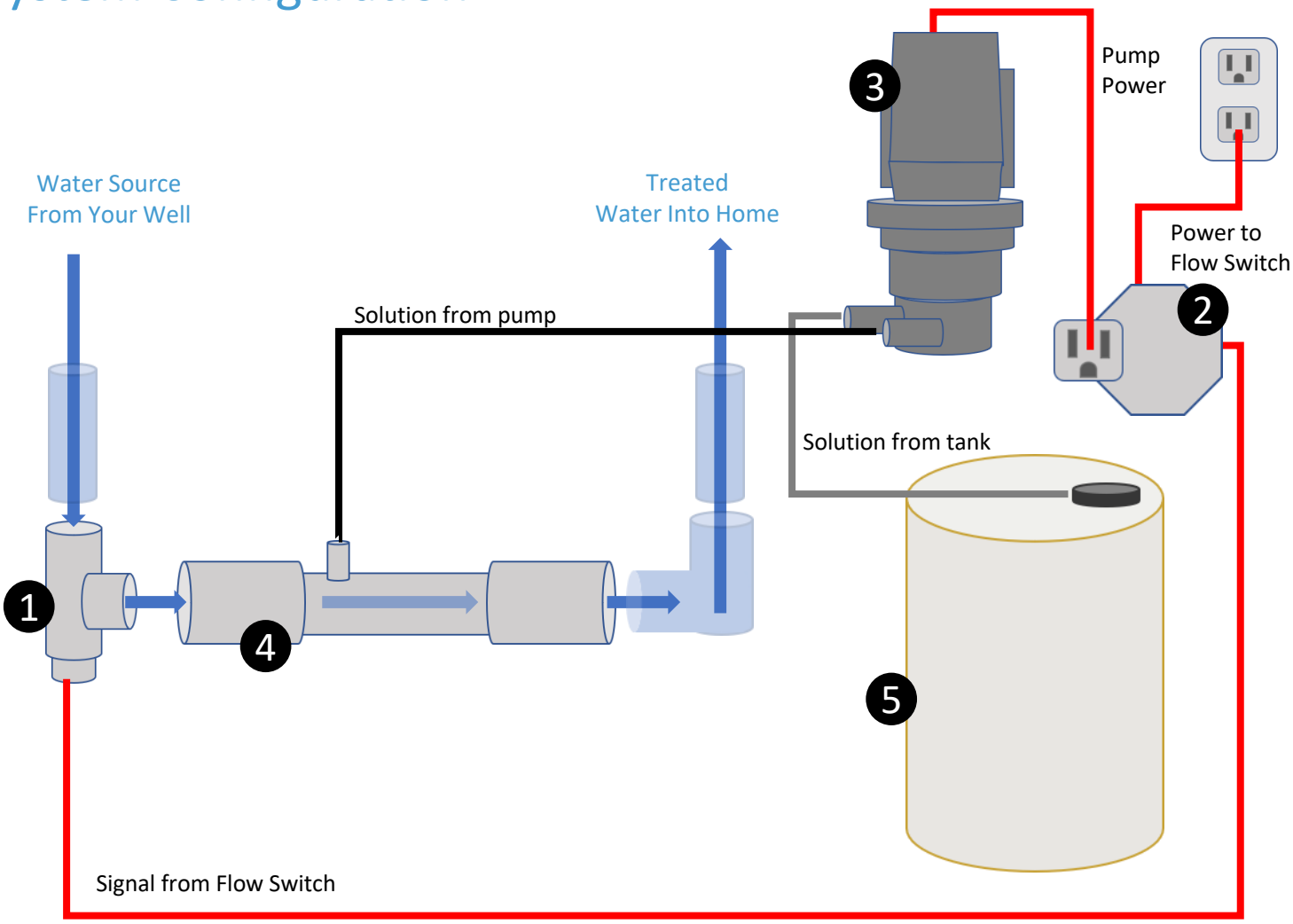


Pex

These instructions will feature a combination of PVC and threaded PVC connectors.
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



1. Water flow activates the flow switch
2. The flow switch box powers the pump
3. The solution pump pulls solution from the solution tank
4. The chem injector receives the solution and disperses into water line
5. The solution tank houses the solution and can be refilled as needed

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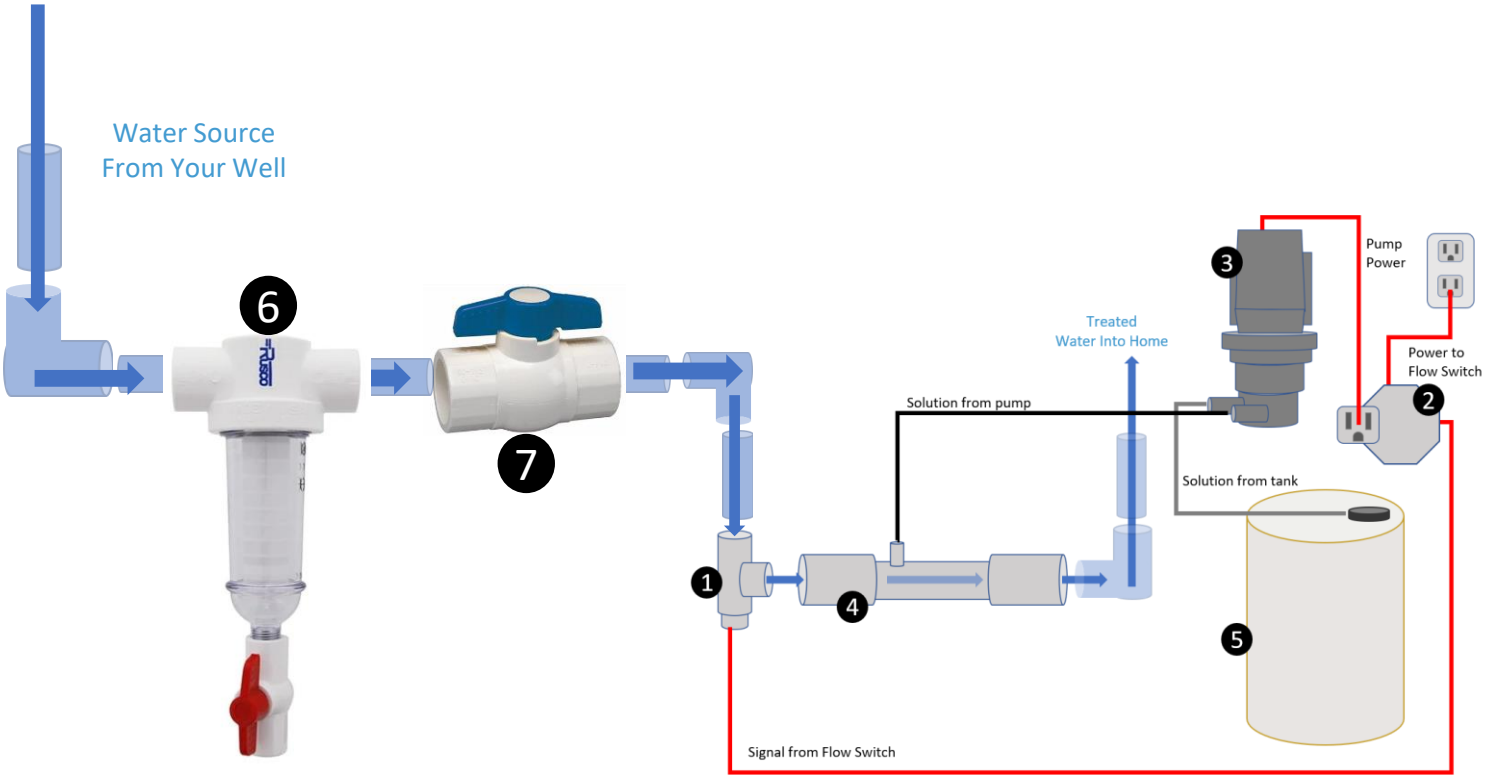
Suggested Configuration for Wells



6. A spin down filter is recommended for well systems to eliminate sediment ahead of the system. Spin down filters are available on the SpringWell site

7. A shut off valve is suggested ahead of the system to allow for easy maintenance

Note: Sediment can interfere with the function of the flow switch mechanism

Installing a Shut Off Valve and Spin Down Filter

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

1-Inch Shut Off Valve*

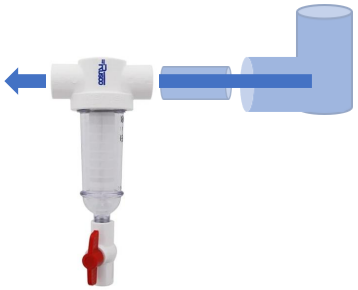
Spin Down Filter

***A shut off valve ahead of the system is recommended for easy maintenance.**

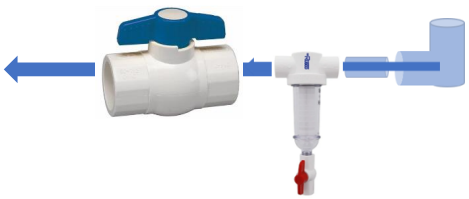
1) Expose the pre-plumb and prep to connect the system. Threaded PVC adapters are used in this example.

2) Identify the end of the plumb with the incoming water flow. This will receive the components.

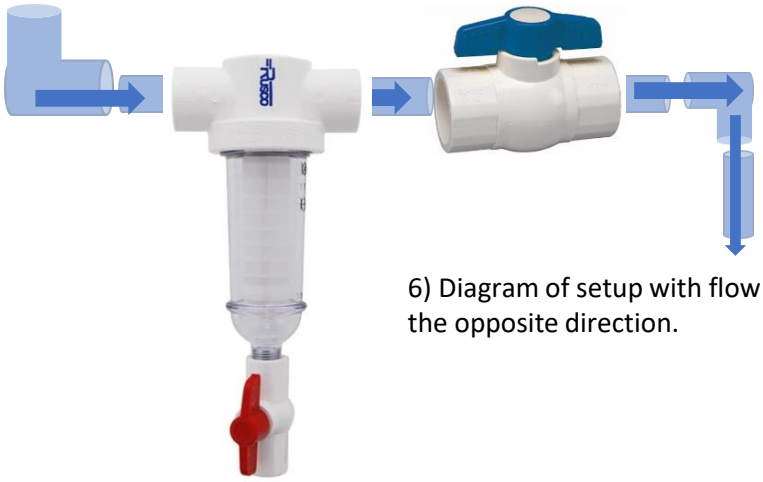
3) Prep the connection based off the type of plumbing being used. In this scenario PVC is being shown.



4) The spin down filter will be the first component installed on the incoming line.
The 1” spin down filter from SpringWell uses 1” slip connections.
Note the water flow direction.



5) The shot off valve will be installed after the spin down filter. Note the water flow direction.



6) Diagram of setup with flow in the opposite direction.

Installing the Flow Switch

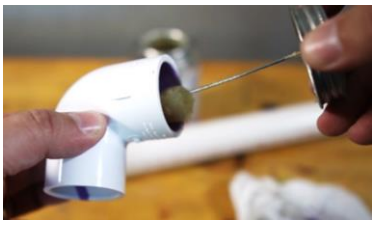
This step will require the materials listed below

Flow Switch and switch Box

7) Remove the red caps from the flow switch connections and discard.

8) Locate the inlet and outlet labels to identify the water flow direction.

9) The flow switch uses 1" slip connections.
Here is an example with 1" PVC.



10) If using PVC be sure to also use primer and adhesive.

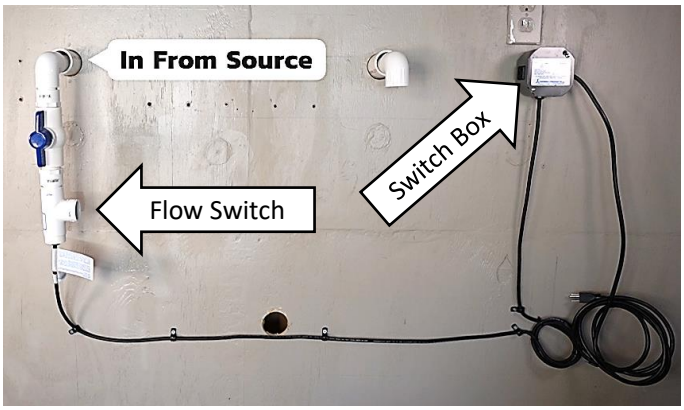
11) Press the inlet side of the flow switch over the incoming water line.

12) Here is an example of the flow switch installed. Note this system doesn't have a spin down filter.

13) The flow switch is wired to the flow switch box. It has a power cord from it leading out from it.

14) In this example the switch box is being placed near the power outlet. The amount of power cable from the switch box allows much flexibility.

15) Don't plug the switch box into an outlet until after completion. Your flow switch install should look like this.



Installing the Chem Activator

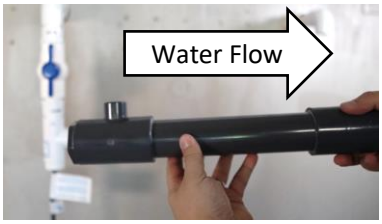
This step will require the materials listed below

Chem Activator

Pipe Dope

16) The smaller connector is the injection fitting opening.

17) Water will flow away from the injection fitting opening connection.



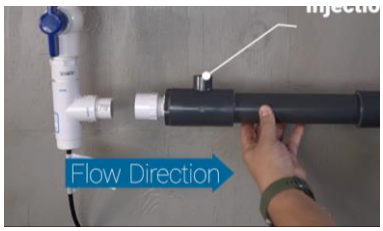
18) The flow in this scenario is opposite, so the chem activator will need to be flipped.

19) The chem activator uses 1" threaded connections. Teflon tape is not compatible with them.

20) 1" Threaded connectors will need to be prepped with pipe dope. PVC is used in this example.

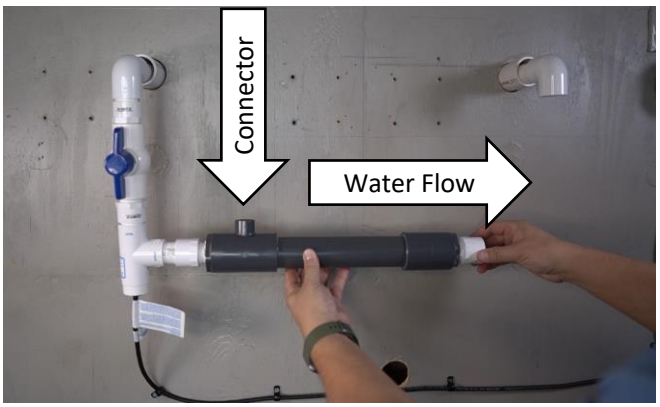
21) Thread the 1" connectors into both sides of the chem activator.

22) Prep the outlet connection of the flow switch. A piece of PVC is being used in this example.

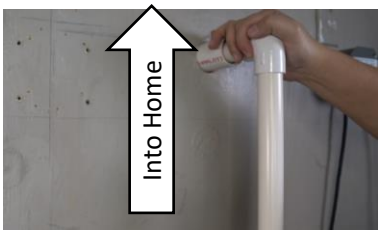


23) Ensure the chem activator is aligned with the flow connection and install after the flow switch.

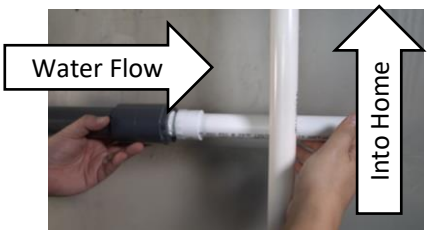
24) The chem activator should look like this after completing this step. Note the water flow versus the injection connection.



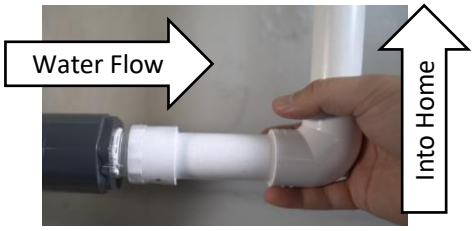
Installing the Chem Activator



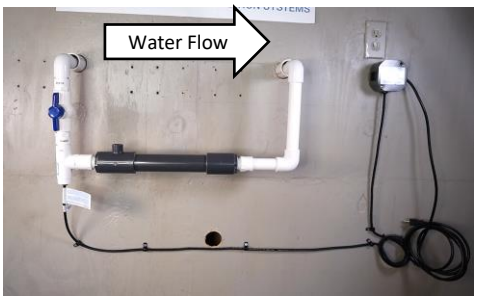
25) Begin to build a connection to the other side of the chem activator. 1" PVC is used in this example.



26) Another length of PVC is being fitted to the outflow side of the chem activator. In this scenario PVC will be cut to length.



27) A 1" PVC elbow is being used to close the line.
Note: The system is also compatible with other types of piping.



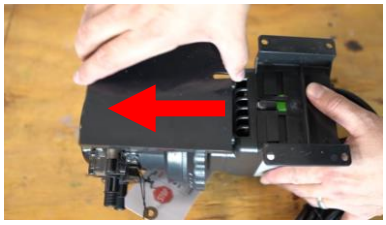
28) Your system should look similar to this.

Installing Solution Pump

This step will require the materials listed below

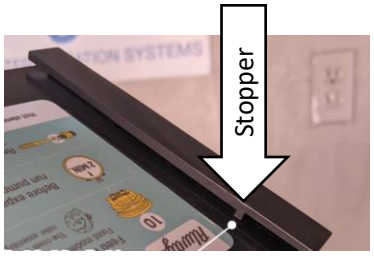
¼" Lag Bolts w/Washers (Not Provided)

Solution Pump



29) Turn the solution pump over and slide off the mounting bracket.

30) Mounting bracket



31) Look closely at the bracket track. There is a stop on each track that indicates the bottom.

32) A level is beneficial to mount the bracket straight. You must also mount the pump to a stud due to weight.

33) Mark the mounting area and identify the mounting points for the screws.

34) Use a drill to create ¼" pilot holes for the lag bolts.

Installing the Solution Pump

35) Use the bolts and washers to secure the mounting plate. The stoppers on the tracks should be on the bottom.

36) The back of the solution pump has two slides that will slide onto the track of the bracket.

37) Align the solution pump slides with the track of the mounting bracket.

38) Slide the pump all the way down onto the bracket until it seats.

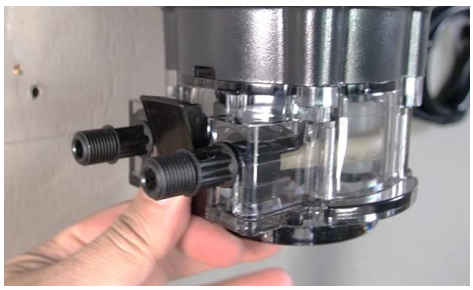
39) Fully seated solution pump.

40) Extend the power cord from the solution pump.

41) Plug it into the flow switch box.
DO NOT PLUG THE PUMP DIRECTLY INTO AN OUTLET.

42) Completion of solution pump install.
Note cord control (optional)

43) Loosen the latch on the pump to remove the warning label.



44) Resecure the latch.

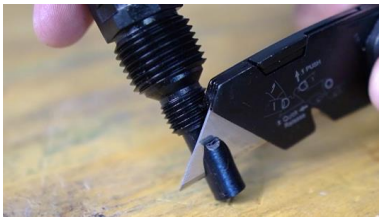
Installing the Injection Fitting

This step will require the materials listed below

Injection Fitting

Plumbers Tape

Utility Knife



45) Use the utility knife to cut a 45° angle into the tip of the injection fitting.

46) The Injection Fitting's 45° angle should look like this.

47) The threads in the middle of the injection fitting will need to be prepped with plumber's tape.

48) Thread the prepped portion of the injection fitting into the injection fitting opening on the chem activator.

49) Ensure the injection fitting is fully tightened.

Installing the Solution Tank

This step will require the materials listed below

Solution Tank

Suction Discharge Tube

Weighted Suction Line Strainer

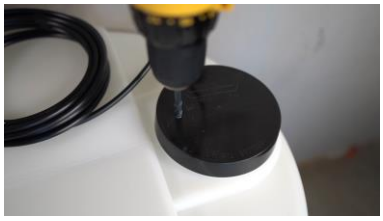
Connecting Nut (x1)

Ferrule (x1)

50) Position the solution tank near the pump.

51) The suction tubing will be fed through the tank's lid.

52) A ¼" drill bit is ideal for this step as it's similar in diameter to the tube.



53) Drill a hole through the tank lid off center.

54) Feed a length of the tubing through the tank lid.

55) The weighted suction line strainer will now be required.

56) It has an opening on the end that will receive the tubing.

57) Press the tubing that is under the tank lid into the opening on the suction line strainer. Push it all the way in until it stops.

58) The strainer must rest 3" from the bottom of the solution tank. The tank depth to the lid is 33".

Installing the Solution Tank

59) Align a tape measure with the end of the strainer.

60) Then measure 30” up the line.

61) Adjust the tubing so the 30” is hanging down inside the lid. This will ensure the strainer is 3” from the bottom.

62) A small zip tie on the tube above the cap will ensure it doesn’t slide past that point.

63) Insert and lower the tubing and strainer into the solution tank.

64) The lid can be replaced temporarily.

65) Lead the roll of tubing above the lid towards the solution pump.

66) Allow some slack and trim away the rest.

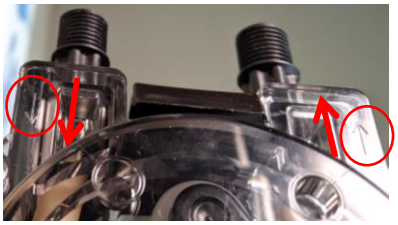
67) A connecting nut and a ferrule will be required to secure the line to the pump connection.

68) Slide the connecting nut over the end of the line with the threads facing out.

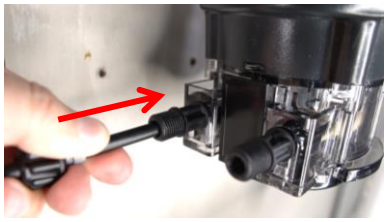
69) Now slide a ferrule over the line with the barb facing out.

70) The tube from the solution tank will now be connected to the pump, but you must first identify the flow direction on the pump.

Installing the Solution Tank



71) Beneath the pump near the connectors you will see arrows stamped into the plastic. The solution tank will connect to the inlet with the arrow facing in.



72) Insert the tube from the solution tank all the way into the inlet until it stops.

73) Slide the ferrule forward flush with the connector.

74) Slide the connecting nut over the ferrule and fully tighten it.

75) Your system should look similar to this.

Connecting the Chem Injector

This step will require the materials listed below

Remaining Tubing

Connecting Nuts (x2)

Ferrules (x2)

76) Slide a connecting nut and a ferrule over one end of remaining the tubing.

77) Slide the tube into the outlet connector until it stops.

78) Flush the ferrule with the connection.

79) Tighten the connecting nut over the ferrule securing the connection.

Connecting the Chem Injector

80) Guide the other end of the tubing toward the injection fitting.

81) Leave some slack and trim away the rest.

82) Slide a connecting nut and a ferrule over the end of that tubing.

83) Insert the tubing into the injection fitting until it stops.

84) Flush the ferrule with the connection.

85) Tighten the connecting nut to secure the connection.

86) The connection should look like this.

87) The flow switch can now be plugged into power.

88) The system is now fully connected.

Mixing Bleach Solution

This step will require the materials listed below

1 Gallon Bleach

35 Gallons Drinking Water

Note: To ensure the initial fill is drinkable potable water you must use drinking water for the first fill. From there water from your system is acceptable.

89) Open the lid to the solution tank.

90) Begin by pouring the 1 gallon of bleach into the solution tank.

91) Followed by the 34 gallons of drinking water.

92) Once filled, the cap can be replaced

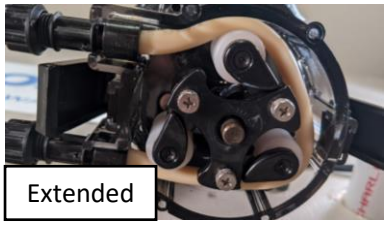
93) Refill the solution tank when it falls below 5 gallons.

Priming Solution Pump

This step will require the materials listed below

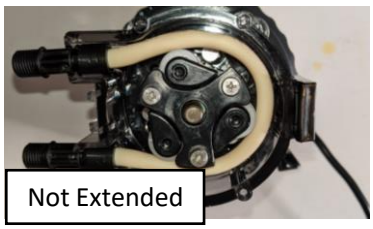
Spare Latch

Solution Pump



Extended

94) Look at the rollers under the pump to ensure they are fully extended. If extended, skip to page 17.



Not Extended

95) If the rollers are not extended you will need to correct. Proceed to next page.

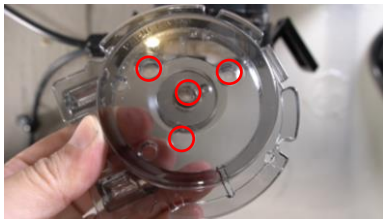
Priming the Pump

96) Locate the latch shaped opening on top of the solution pump.

97) Insert the spare latch into the opening. It will prevent the motor from turning.

98) Unfasten both latches at the bottom of the pump.

99) Pop off the cap at the bottom of the pump.



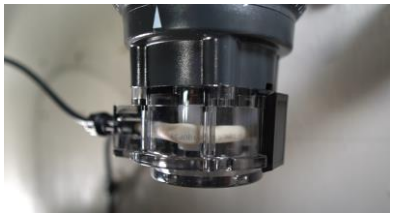
100) The hole pattern on the cap will align with the screws from the rollers.

101) Press and hold the latch down securing the motor.

102) Align the pump cap holes with the screws from the rollers.

103) Rotate the cap counterclockwise to lock the rollers in the extended position.

104) Remove the latch from the motor.



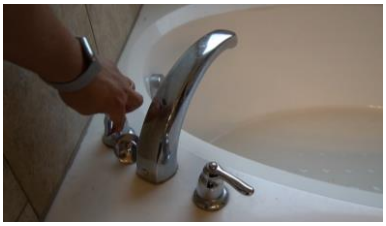
105) Replace the cap under the pump and secure the latches.

Priming the Pump (cont.)

106) Rotate the dial on the pump to 10.

107) Turn the pump switch into the “On” position.

108) If using a shut off valve, turn it to the “Off” position.



109) Open a cold-water valve to a tub or shower.

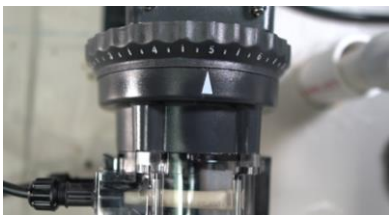
110) Restore water to the home.

111) Open the shut off valve to the system allowing water to begin flowing.

112) Water will begin to flow out from your tub or shower.

113) The flow switch will recognize the water flow.

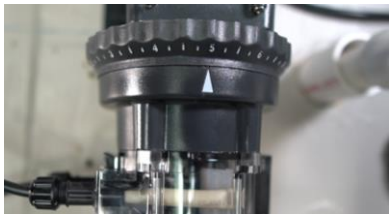
114) The flow switch will automatically start the pump. Allow the water to flow through the system and the pump for 10 minutes.



115) After 10 minutes, shut off the water to the tub or shower, and set the dial on the pump to 5.

116) Your system is now ready to use.

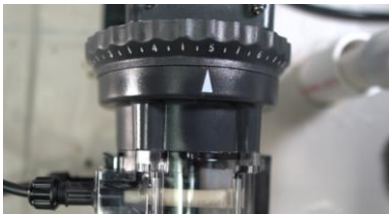
Pump Troubleshooting



Problem: Pump runs continuously regardless if water is flowing or not.

Cause: Pump is plugged directly into an outlet.

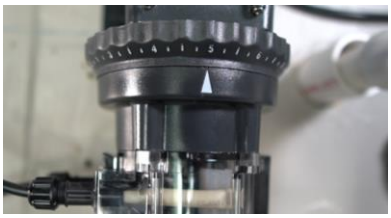
Solution: Plug pump into the flow switch box.



Problem: Pump doesn't run at all.

Cause: Pump switch is in the off position.

Solution: Turn on the pump switch.



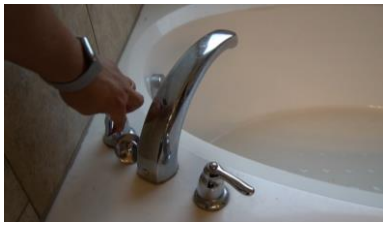
Problem: Pump runs continuously or not at all.

Cause: The flow switch has become obstructed.

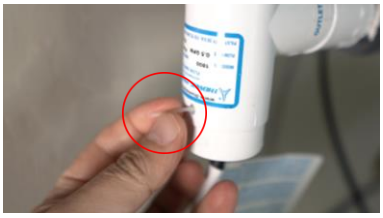
Solution: The flow switch will need to be cleared. (Next page)

Clearing the Flow Switch

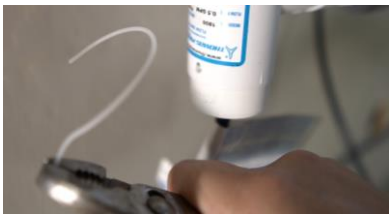
Turn off the shut off valve to the system or shut off water to the home.



Purge plumbing pressure by opening the cold water to a tub or shower and wait for the water to stop.



Locate the nylon tab leading out from the base of the flow switch.



Pull the tab out from the flow switch, and place in a safe location.

Pull the flow switch base down from the flow switch housing.

Clear any sediment or debris from the flow switch.

Re-seat the flow switch back into the flow switch housing. Ensure it clicks in place.

Insert the nylon tab back into the flow switch housing to secure it.

Restore water to the system.