



# Float Switch Activated Solenoid Valve Level Controller (LLC-SVC-2FLT)



LLC-SVC-2FLT-4-10



LLC-SVC-2FLT-6-10



LLC-SVC-2FLT-8-10

## INSTALLATION MANUAL

**SpectraPure® Inc.** assumes no responsibility for water damage due to leaks. It is the user's responsibility to determine that the system is leak-free by monitoring installation for 72 hrs..

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## DESCRIPTION

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The **Solenoid Valve Level Controller** is a very powerful and reliable Level Controller. The solenoid is electrically activated when the "low" float becomes dry. Once the "high" float becomes wet, the solenoid turns off.

The unit can be set to turn a pump on or off with changing water level and to automate the operation of your RO/DI system. This is extremely useful for continuous water change systems. If you choose to use a booster pump, replace this transformer with the transformer that is supplied with the booster pump.

The **Solenoid Valve Level Controller** is available with three different solenoids for tubing sizes of 1/4", 3/8", and 1/2", to accommodate different flow rates.

## CONTENTS

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10 foot Extension Cable



"Y" Cable  
(connects floats to  
extension cable)



Power Supply  
115V 24VAC/1A



HIGH Float Switch



LOW Float Switch



SVC Control Module

## SOLENOIDS



LLC-SVC-2FLT-4-10  
1/4" Push Fittings



LLC-SVC-2FLT-6-10  
3/8" Push Fittings



LLC-SVC-2FLT-8-10  
1/2" Push Fittings

## WORKING WITH PUSH FITTINGS:

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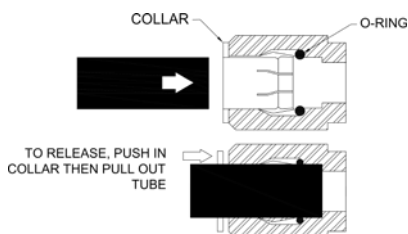
Push fittings are very reliable and convenient tubing connectors.

To remove the tubing from its push fitting:

1. Firmly depress and hold the push fitting collar down with your thumbnail.
2. While the push fitting collar is depressed, pull the tubing straight out of the push fitting. Once the tubing is removed, release the collar.

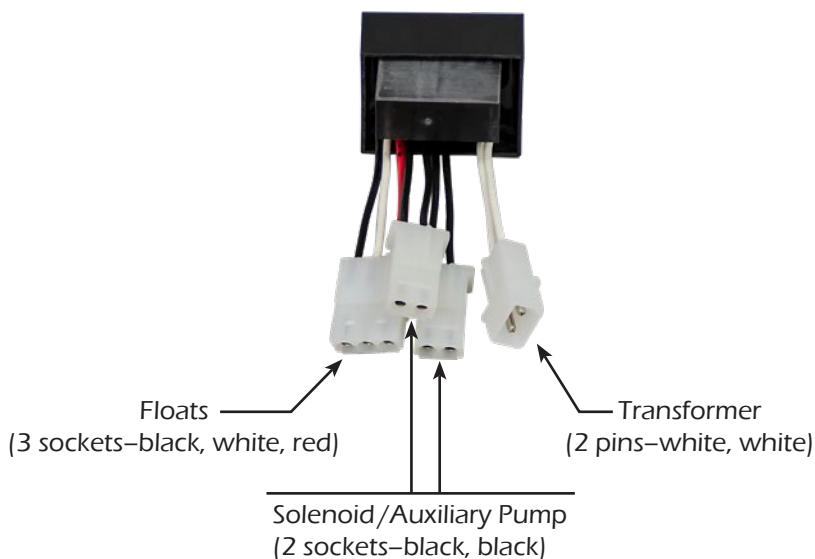
To reinsert the tubing into its push fitting:

1. Moisten the O-ring seal inside the push fitting by dripping a few drops of clean water into the fitting.
2. Grasp the tubing near the end, and insert the tubing into the push fitting.
3. Push the tubing into the fitting until resistance is felt, approximately 1/2 inch (12.7 mm). The tubing is now resting on the O-ring seal inside the fitting.
4. Firmly push the tubing approximately an additional 1/4 inch (6.35 mm) further into the fitting to completely seat the line into the fitting and past the O-ring seal.
5. Turn on the system water supply and check for leaks prior to further use or testing. If a leak is observed, you may not have pushed the tubing into the push fitting far enough to seal the tubing against the O-ring. Turn off the system water supply and reseal the tubing as described above.



## CONTROLLER CONNECTIONS

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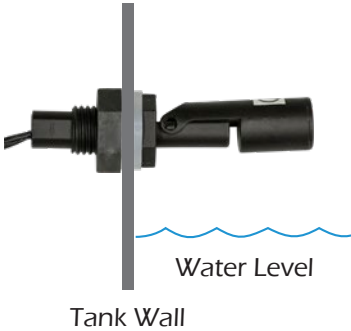


NOTE: The solenoid may be connected to either of the black/black Molex connectors. The other connector may be used for an auxiliary pump or any other 24VAC device.

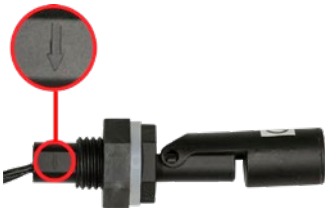
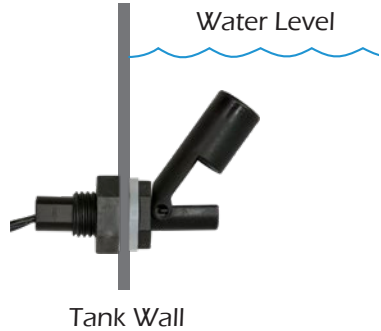
## PROPER ORIENTATION OF LIQUID LEVEL FLOATS

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Float in "Dry" Position



Float in "Wet" Position



As seen from outside of tank, the arrow should point straight down. This assures that the float is oriented correctly inside the tank.

**NOTE:** Floats are to be mounted horizontal when dry and float up when wet. In most instances we recommend locating the low float approximately half way down your reservoir. **DO NOT OVERTIGHTEN** when installing the floats.

## INSTALLATION

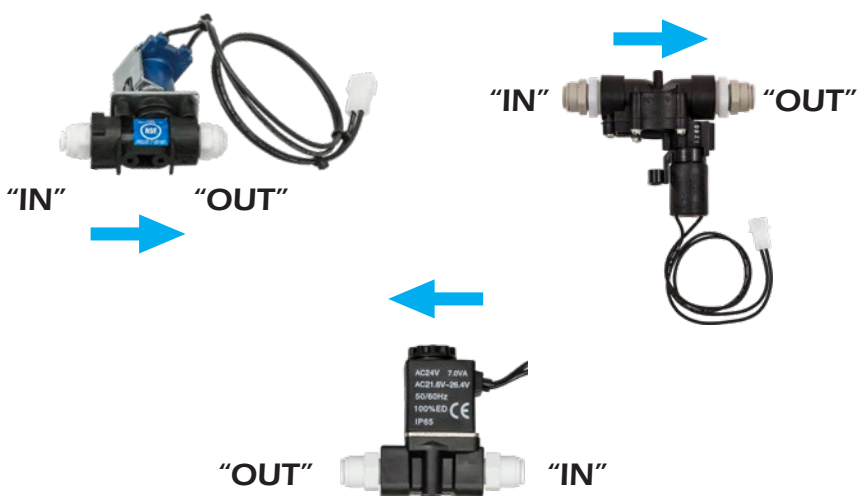
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1. Install both the High and Low Floats onto an open container like a Rubbermaid® trash can. The floats can be mounted by drilling a 5/8" hole. (The High Float shuts down the system, while the Low Float turns the system on).
2. Connect the floats to the Y-adaptor, then to the grey electrical extension cable and then to the 3-socket connector on the S.V.C. Control Module.
3. Install the solenoid between the carbon filter and the RO membrane. This prevents the solenoid from plugging up with sediment.

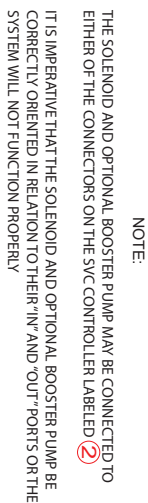
CAUTION: Water can only flow in one direction through the solenoid valve. If the solenoid is not installed properly, the LLC will not operate correctly. See images below for proper orientation of solenoid valves.

4. Connect electrical cable from the solenoid to the control module and then connect the transformer.

NOTE: LLC-SVC-2FLT-8-10 comes with a 6 foot extension cable which may be used to mount the solenoid farther from the control module.



## INSTALLATION OF LLC-SVC WITH OPTIONAL BOOSTER PUMP





## TROUBLESHOOTING GUIDE

### Problems, Causes and Corrective Actions

1. LLC System not working (overflow, system not shutting off, etc.)
  - a. Defective solenoid valve
    - i. Replace it.
  - b. Dirt or corrosion on solenoid valve.
    - ii. Clean or replace valve.
  - c. Floats not oriented correctly
    - ii. See Page 6 for correct orientation
2. Solenoid will not turn on.
  - a. Water pressure above 80 psi.
    - i. Reduce pressure with pressure regulator.
  - b. No power.
    - ii. Check power outlet and transformer.
  - c. Floats not oriented correctly
    - iii. See Page 6 for correct orientation
3. Solenoid will not turn off (continuous water flow)
  - a. Solenoid installed backwards
    - i. See Page 7 for correct orientation of IN and OUT ports
  - b. Floats not oriented correctly
    - ii. See Page 6 for correct orientation

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## ONE YEAR LIMITED WARRANTY:

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SpectraPure, Inc.® warrants the product to the original owner only to be free of defects in material and workmanship for a period of one year from the date of receipt. SpectraPure's liability under this warranty shall be limited to repairing or replacing at SpectraPure's option, without charge, F.O.B. SpectraPure's factory, any product of SpectraPure's manufacture. SpectraPure will not be liable for any cost of removal, installation, transportation or any other charges which may arise in connection with a warranty claim. Products which are sold but not manufactured by SpectraPure are subject to the warranty provided by the manufacturer of said products and not by SpectraPure's warranty. SpectraPure will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair or, if the product was not installed in accordance with SpectraPure's or other manufacturer's printed installation and operating conditions, or damage caused by hot water, freezing, flood, fire or acts of God.

SpectraPure will not be responsible for any consequential damages arising from installation or use of the product, including any water or mold damage due to flooding which may occur due to malfunction or faulty installation, including, but not limited to failure by installer to over- or under-tighten fittings, housings, and/or push-style fittings, or improper installation of push-style fittings. Consumable items such as prefilters and membranes are not covered under the one year warranty.

To obtain service under this warranty, the defective system or components must be returned to SpectraPure with proof of purchase, installation date, failure date and supporting installation data. Any defective product to be returned to the factory must be sent freight prepaid. Documentation supporting the warranty claim and a Return Merchandise Authorization (RMA) number must be included. SpectraPure will not be liable for shipping damages due to the improper packaging of the returned equipment and all returned goods must also have adequate insurance coverage and a tracking number.

SpectraPure will not pay for loss or damage caused directly or indirectly by the presence, growth, proliferation, spread or any activity of "fungus", wet or dry rot or bacteria. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss. We will not pay for loss or damage caused by or resulting from continuous or repeated seepage or leakage of water, or the presence or condensation of humidity, moisture or vapor, that occurs over a period of 14 days or more. "Fungus" and "fungi" mean any type or form of fungus or Mycota or any byproduct or type of infestation produced by such fungus or Mycota, including but not limited to, mold, mildew, mycotoxins, spores, scents or any biogenic aerosols.

SpectraPure will not be liable for any incidental or consequential damages, losses or expenses arising from installation, use, or any other causes. There are no expressed or implied warranties, including merchantability or fitness for a particular purpose, which extend beyond those warranties described or referred to above.

**\* The one year limited warranty does not apply to consumable items, including but not limited to, filters and cartridges unless specifically stated above.**

## TERMS AND CONDITIONS:

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1. Shipping charges on units or parts submitted to our facility for repair or replacement must be borne by the registered purchaser. After repair or replacement, the factory will return the unit or part freight prepaid to the customer.
2. We assume no warranty liability in connection with our equipment other than as herein specified.
3. This warranty is in lieu of all other warranties expressed or implied, including warranties of fitness for a particular purpose.
4. We do not authorize any person or representative to assume for us any other obligation on the sale of our equipment. This is the exclusive remedy and liability for consequential damages under any and all warranties which are excluded to the extent exclusion is permitted by law.
5. Proof of original purchase date must accompany all warranty claims.
6. SpectraPure, Inc. Reserves the right to change prices without notice when necessary. All prices in the catalog are quoted in US dollars.
7. Claims for error in quantity or condition must be made within 10 days of receipt of material. SpectraPure, Inc. will not be responsible for any claimed shortages not reported within 10 days. Returns other than warranty claims may be subject to 20% restocking fee.
8. SpectraPure, Inc. cannot be held liable for damage or loss to a shipment by a freight carrier. Check shipment for damage before acceptance or note on freight bill subject to inspection for concealed damage. Consignee must file claim. SpectraPure, Inc. will offer as much assistance as possible.
9. A complete credit check is required prior to shipping on a Net 30 basis. In the interim period during which credit references are being evaluated, all orders must be prepaid until approved.
10. All returned checks (due to insufficient funds or closed accounts) will be subjected to a **\$35 penalty charge**.
11. Invoices on Net 30 accounts not paid within 30 days of shipment will be considered delinquent and will accrue Finance charges at the rate of 1.5% per month (18% per annum).

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**SpectraPure® Inc.** 480.894.5437 Call us toll-free 1.800.685.2783

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