# **WHOLE HOUSE**

# **iSpring Whole House Ultraviolet Light Water Filter**

# Installation Instructions & User Manual

Ver. 10/2021



Model: UVF55FS





Please read the User's Manual Carefully and keep it available. Copyright ©2005-2021 ISPRING WATER SYSTEMS, LLC. All rights reserved.

### **Overview**

UV has proven to be a quick, reliable, and cost-effective water treatment method for both point-of-use (POU) and point-ofentry (POE) systems. Being a chemical-free, environmentally friendly, and affordable UV water filter system, iSpring's upgraded UVF55FS UV water filter can protect the whole house against water concerns commonly found in private wells. For homes that get water from municipal water suppliers, this UV light water filter provides an effective solution against chlorineresistant substances so that you know you and your loved ones get clean and worry-free water for drinking, washing, showers, and more.

Build your trust in water for your entire household by removing risks unable to be addressed by your municipal treatment plant or those born with well water or other natural water sources. This whole house UV light water filter is a perfect last step to add to your whole house water filtration system and give you the peace of mind of knowing you can trust your water.

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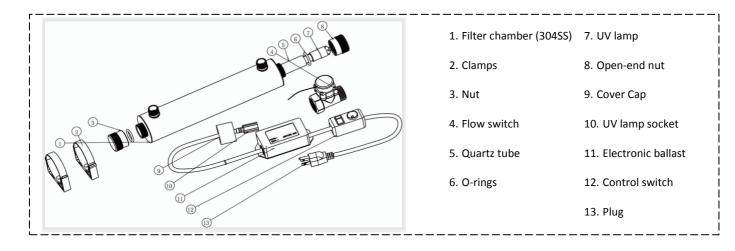
### **Components in the Package**

Model: UVF55FS

POE/POU: POE (Point of Entry)

Input: 110-120V 50/60Hz

UV Bulb: Model#UVB55FS



### **Precautions**

- Please do not install this product outside or at a place where it is exposed to direct sunlight or freezing temperature.

- Please install this product at a place where it is easy to access and maintain.

- Avoid jarring/bumping, freezing, overheating, and corrosive chemicals.

# Specs and Conditions

| Operating Parameters            |                        |
|---------------------------------|------------------------|
| Maximum Operating Pressure      | 85 psi                 |
| Minimum Operating Pressure      | 4 psi                  |
| Maximum Ambient Air Temperature | 100°F                  |
| Minimum Ambient Air Temperature | 32°F                   |
| Maximum Humidity                | 100%                   |
| Maximum Hardness                | 120 ppm                |
| Maximum Iron                    | 0.3 ppm                |
| Minimum UVT                     | 70%                    |
| Installation                    | Vertical or Horizontal |
| Rated Flow                      | 12GPM                  |
| Rated Service life of the lamp  | 1 Year                 |
| Dimensions                      | 2.5" x 37.5"           |

### **Installation**

#### **Before Installation**

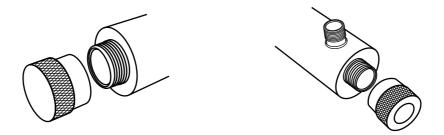
- The unit comes with two ports. Both are 1-inch MNPT and can be used as an inlet or outlet. Please choose the correct fittings to fit your plumbing. It is recommended that you install an inlet valve and an outlet valve before and after the unit for easy maintenance. Please make sure that it can be easily disassembled from the water line for future maintenance.
- The unit should be installed after a sediment filter, as sediments in the water can block UV light and become a shelter for contaminants. Thus, water coming into the UV filter must be clear (free of particles larger than 20 microns). It is recommended that you install the UV filter after the filters as the last stage.
- If water flow speed exceeds rated flow, please install a flow-limiting or pressure-limiting device. If the water pressure is over 85 psi, please install a pressure regulator in the inlet/outlet to protect the quartz sleeve.
- Please install the filter at a position by the retaining clip, retaining nuts, or other mounting devices to prevent it from dropping due to the vibration caused by water and causing damages to the fragile internal parts.
- The ultraviolet water filter is not designed to eliminate bad tastes or smells, biological materials, chemicals, silt, heavy metal, and other kinds of impurities. It does not reduce sediments that affect the efficiency of the UV lamp. Therefore, it is necessary to install a pre-filter to ensure that the filter can achieve optimal performance.

#### **Installation Steps**

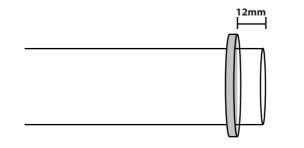
**Step1**– Before mounting the two black plastic clips onto the wall, make sure there is enough room for stainless-steel housing and access for future servicing. It can be installed horizontally or vertically. (If you choose vertical mounting, make sure that the water inlet is mounted at a lower level while the outlet is at a higher level to slow down water flow and increase exposure to the UV light.

**Step2**– Open the package to check all components inside: Filter Chamber, UV Lamp, Quartz Tube, O-rings, Electronic Ballast, Clamps, Flow switch. Ensure that the Quartz Tube and UV Lamp are clean before installation (clean it with alcohol or mild detergent). Wear soft, non-abrasive gloves to keep any finger marks away from them.

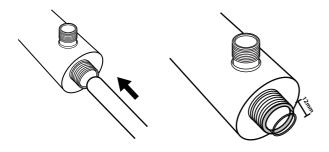
**Step3**– Remove both Open and Closed-End Nut from the filter Chamber.



Step4- Install O-ring onto the open end of Quartz Tube (12mm from the edge).

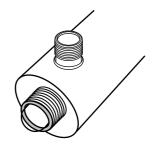


**Step5–** Insert the quartz tube into the filter chamber.

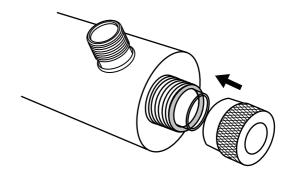


**Step7–** Hand-screw closed-end nut on the filter chamber(closed end of quartz tube). To protect the O-ring, do not overtighten.

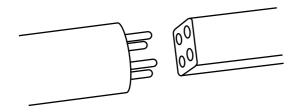
**Step6–** Install O-ring onto the closed end of the quartz tube.



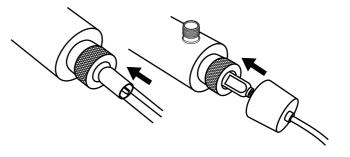
**Step8–** Hand-screw open end nut on the filter chamber (open-end of quartz tube). To protect the O-ring, do not overtighten.



**Step 9**– Connect 4-pin electrical socket with UV lamp pins tightly.

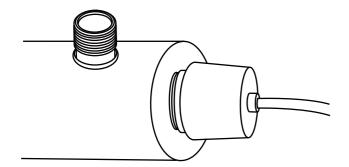


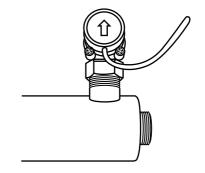
**Step10**– Carefully insert the UV lamp into the quartz tube through an open-end nut.



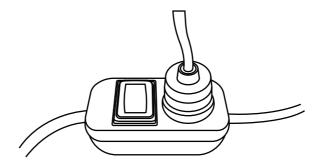
**Step 11–** Install the cover cap and hand-tighten it onto open End Nut.

**Step 12–** Insert the flow switch on the outlet; please notice the water flowing direction.

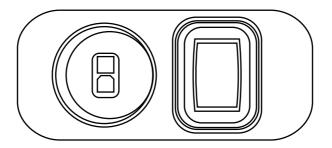




Step 13- Connect flow switch cable with control switch, close the switch cover.



**Step 14–** Push control switch to the button "AUTO," the UV lamp will start working automatically when there only water flowing. Push control switch to button "MOVE," the UV lamp keep working continuedly. Push the control switch button "STOP" to turn off the UV lamp. Mode AUTO is highly recommended to protect the UV lamp.



**Step 15–** Select a readily accessible and well-lit location to fix the system. The system should always be located close to the entry and can either be installed horizontally or vertically.

**Step 16–** When all plumbing connections are finished, slowly turn on the water supply and check for leaks.

**Step 17–** Allow the water to run for a few minutes to clear any air or dust in the filter chamber.

**Step 18–** Connect the power for starting up.

### **System Operation**

#### Water Quality Guidelines

- A. The ultraviolet water filter is intended for visually clear water, not colored, cloudy or turbid.
  - ◆ Ambient Water Temperature: 2-45°C
  - Iron: <0.3 ppm (0.3 mg/l)</li>
  - Hardness: <7 gpg (120 mg/l)</li>
  - ♦ Turbidity: <1 NTU
  - Manganese: 0.05 ppm (0.05 mg/l)
  - UV Transmittance: >75%
- B. Recheck the installation before plugging the filter into power.
- C. Do not install the equipment when UV Lamp or Sleeve Tube is broken; repurchase one and continue.
- D. Ultraviolet Water Treatment System is designed for continuous operation, and frequent switching will reduce Ultraviolet radiation and service life.

- E. If this unit falls into the water, turn the main power off and then retrieve it. Do not attempt to use this filter if it has been submerged.
- F. Do not operate this unit if it has a damaged cord or plug, if it is malfunctioning or if it has been dropped or been damaged in any manner.
- G. The UV system should be installed after the POEwhole house water filtration system.

Always disconnect the water supply and completely drain the water purifier if it will be subjected to temperatures below freezing for extended periods.

### **Maintenance**

- For your safety, ALWAYS wear goggles and turn the power OFF before REPLACING the UV lamp or CLEANING the quartz sleeve! Servicing the unit with the power on will also cause damage to the ballast. Never service the UV lamp or quartz sleeve without wearing protective eyewear!

- Over time, minerals in the water slowly form a coating on the quartz sleeve. This coating must be removed periodically, as it reduces the amount of UV light reaching the water. Please carefully clean the lamp and quartz sleeve at least 2-3 times a year if the unit can be unmounted easily. Otherwise, please replace the lamp and quartz sleeve every 1-2 years.

- To clean the lamp—Wear rubber, latex, or nitrile gloves to avoid contaminating the lamp.

• Unplug the power, shut off both inlet and outlet valves, and remove the entire housing from the waterline. Next, drain the water, remove the black rubber cap, which has the power cord attached, and remove the lamp from the quartz sleeve. Wipe the lamp with a piece of lint-free cloth moistened with white vinegar.

- To clean the quartz sleeve—Use great care when handling the quartz sleeve as it is very fragile; avoid bumping or jarring it.
  - Unplug the power, shut off both inlet and outlet valves, and remove the entire housing from the waterline. Next, drain the water, remove the black rubber cap with the power cord attached, and then remove the lamp from the quartz sleeve. Pour vinegar into the water inlet and soak the quartz sleeve until it is clear. Rinse thoroughly and carefully.

- The UVF55FS comes with a flow sensor that turns the UV unit on and off automatically with water flow. Push control switch to button "AUTO," and the UV lamp will start working automatically when there only water flowing. Push control switch to button "MOVE," the UV lamp keeps working continuously. Push the control switch button "STOP" to turn off the UV lamp. Mode AUTO is highly recommended to protect the UV lamp.

- The amount of UV light created by the lamp decreases over time. Therefore the lamp should be replaced every 12 months.

| Symptom   | Solution  |
|---|---|
| Leaking from the UV filter steel pipe nuts  | The O-ring inside the quartz sleeve might be damaged. Please contact us |
| Leaking from the quartz sleeve  | Replace the quartz sleeve   |
| Leaking at the inlet/outlet   | Wrap Teflon tape on the threads and reconnect the water pipe            |
| The ballast alarm goes off; the green indicator light is out, and the lamp doesn't power on | The lamp has exhausted its service life, replace the lamp               |
| The lamp doesn't turn on after replacing  | Check the lamp connector wires  |
| The lamp turns on but indicator lights and alarm are abnormal                               | Indicator lights are broken, replace the ballast                        |

### Troubleshooting

### <u>Warranty</u>

This Limited Warranty extends to the original purchaser of the system only. This warranty only covers all manufacturersupplied items that prove defective in material, workmanship, or factory preparation. This warranty covers parts only; all labor is excluded from this warranty, including, but not limited to, services related to the removal, replacement, installation, adjustment, maintenance, and/or repair of the unit or its component items. Excludes all non-manufacturer labor required for any servicing of the unit, including, but not limited to, servicing related to installation, adjustment, maintenance, and repair of the unit. This warranty applies only for the first full calendar year from the date of purchase. The following items are excluded from this warranty: the UV lamp and the quartz sleeve that requires regular replacement due to ordinary usage.

**Disclaimers**: This Limited Warranty applies only if the system is installed, used, and maintained in compliance with all instructions and requirements enclosed with the system. This warranty will be void for failure to observe the following conditions:

1. The system is to be used with a potable water supply only.

- 2. Feed water pressure to the unit is no less than 4 psi and no greater than 85 psi.
- 3. The system is to be used on water supplies with chlorine concentrations of 1.0 mg/L (ppm) or less.
- 4. Feed water temperature to the unit must be no less than 32°F and no more than 100°F.
- 5. Maximum hardness in feed water must be less than 120 ppm.
- 6. Feed water must have a pH between 4 and 8.
- 7. Turbidity must be less than 1.0 NTU.
- 8. SDI must be less than 5.
- 9. Maximum iron in feed water must be less than 0.3 ppm.

While the testing was performed under standard laboratory conditions, actual performance may vary. The Manufacturer does not know the characteristics of your water supply. The quality of water supplies may differ seasonally or over a while. Your water usage may vary as well. The Manufacturer assumes no liability determining the proper equipment necessary to meet your requirements, and we do not authorize others to take such obligation on our behalf.

This Limited Warranty does not cover any Manufacturer-supplied items that are defective as a result of the use of improper parts, equipment, or materials. This warranty does not cover alterations or modifications of the unit or failure of a unit caused by such alterations and modifications.

This Limited Warranty does not cover malfunctions of the unit due to tampering, misuse, alteration, lack of regular maintenance, misapplication, fouling due to hydrogen sulfide, manganese, or iron, scaling from excessive hardness, turbidity greater than 1.0 NTU, Silt Density Index (SDI) greater than 5.0. In addition, damage to the unit due to fire, accident, negligence, acts of God, or events beyond the Manufacturer's control are not covered by this warranty.

**Incidental and Consequential Damages Limitation**: The Manufacturer will not be responsible for any incidental or consequential damages as a result of the failure of this unit to comply with express or implied warranties or any defect in the unit, including but not limited to lost time, inconvenience, damage to personal property, loss of revenue, commercial losses, postage, travel, telephone expenditures, or other losses of this nature. In case some states do not allow the exclusion or limitation of incidental or consequential damages, you may choose to return the system. If you decide to keep it, you understand this exclusion WILL STILL apply to you.

**Owner's Warranty Responsibilities**: As a condition of this Limited Warranty, the owner must ensure that periodic maintenance of the system is performed as described in the literature enclosed with the system. Neglect, improper maintenance, abuse, modification, or alteration of the unit will invalidate this Warranty. Should your unit develop a defect or otherwise fail to perform under this warranty, you should contact the retailer from whom the product was originally purchased.

**Implied Warranties**: The implied at-law warranties of merchantability and fitness for a particular purpose shall terminate on the date one year after the date of purchase.

NOTE: IN CASE SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, YOU MAY CHOOSE TO RETURN THE SYSTEM. IF YOU CHOOSE TO KEEP IT, YOU AGREE THAT THE ABOVE LIMITATIONS STILL APPLY TO YOU.

### **Warranty Registration**

To register your product for the warranty, please visit our website at 123 filter.com and go to the "Warranty Registration" tab.

We provide a 30-day money-back guarantee, a 1-year manufacturer warranty, and lifetime tech support for all of our products. However, we do not have the order information from websites other than 123Filter.com (Amazon, Home Depot, etc.), so please be sure to fill in that information upon registration of your system. If you have any questions or concerns about your product, please do not hesitate to call or email us. You may always insert notes/comments upon your warranty registration. Your satisfaction is our business!

We'd genuinely appreciate it that you could show your support by writing a product review on Amazon or the platform from which you make your purchase--even just a single line. It takes you just a minute but means a lot to us. Thank you!

### How To Contact Us

Office Hours: Monday-Friday 9:00 a.m. - 5:00 p.m. EST

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