



## **iSpring Ultraviolet Disinfection Sterilizer Water Filter**

# **Installation and Maintenance Manual**

Model UVF11A/UVF11B/UVF11B-E/UVF55



**Please read the User's Manual Carefully and keep it available**

# Overview

Ultraviolet or “UV” is a type of energy found in the electromagnetic spectrum, lying between x-rays and visible light. Ultraviolet systems use special lamps or bulbs that emit UV light of a particular wavelength. The Ultraviolet energy attacks the genetic core of the microorganism and rearranges the DNA /RNA, eliminating the microorganism's ability to function and reproduce.

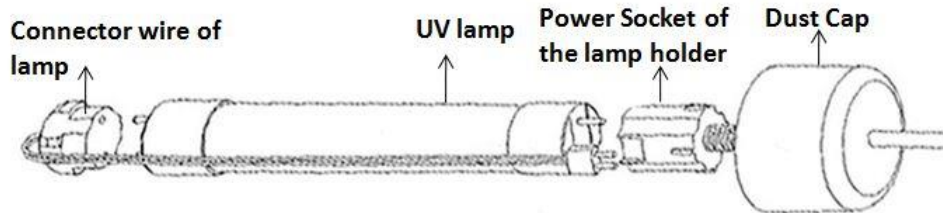
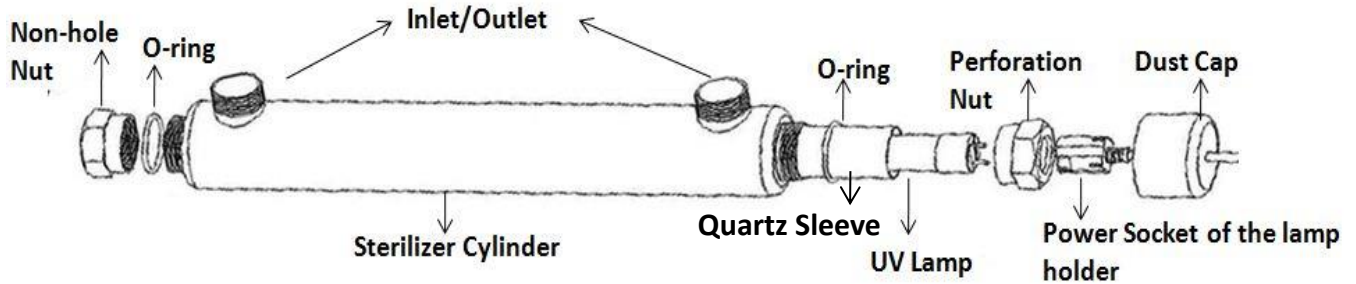
Used in conjunction with your primary filtration system, UV sterilizers offer unique benefits, from water clarification to effective management of various water-born microorganisms including algae, fungi, bacteria, rickettsia and viruses, resulting in cleaner and clearer water. UV water sterilizers can be mounted before or after the residential or industrial water purification equipment. It can be applied to various types of water sterilization. UV filters are recommended for customers who use well water, rain water, or have concerns about bacteria in their water.

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# Product Overview

Structure Diagram of Ultraviolet Water sterilizer



### **UVF11A/UVF11B/UVF11B-E**

- Sterilizer Cylinder body
- Philips UV lamp, Model#UVB11
- Lamp wire connector
- Ballast with Plug and flow sensor
- Clamp Clip - 2 pcs

### **UVF55**

- Sterilizer Cylinder body
- Philips UV lamp, Model#UVB55
- Lamp wire connector
- Ballast with Plug
- Clamp Bracket - 2 pcs

## **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

<b>Operating Parameters</b>	
Maximum Operating Pressure	85psi
Minimum Operating Pressure	4psi
Maximum Ambient Air Temperature	100°F
Minimum Ambient Air Temperature	32°F
Maximum Humidity	100%
Maximum Hardness	120ppm
Maximum Iron	0.3ppm
Minimum UVT	70%
Installation	Vertical or horizontal
Rated Flow	UVF11 – 1GPM / UVF55 – 12GPM
Rated Service life of the lamp	1 Year

# Installation

**Model# UVF11A/UVF11B/UVF11B-E**



Sediments and particles in the water block UV light and serve as shelters for germs. Thus, water coming into the UV sanitizer must be clear (free of particles larger than 20 microns). It is recommended that you install the UV sanitizer after the filters as the last stage.



1) Plug one end of the lamp into the small power socket with green wires.



2) Plug the other end of the green wires into the big power socket of the lamp holder



3) Plug the other end of the lamp into the same big power socket of the lamp holder



4) Insert the lamp into the pre-installed quartz sleeve



5) Attach the black rubber cap to the end



6) Insert the stainless-steel UV housing into the clips provided, then mount the UV sanitizer on one of the stages on the filter

7) UVF11A has 2 ports. Either one can be IN or OUT as long as **water flow matches the arrow sign on the Smart Flow Sensor**. **The flow sensor needs to be installed before the inlet**. See the water flow direction shown by arrows in the following picture.





Please cut the tubing in an appropriate length to avoid kinking. Please make sure the tubing is fully inserted into the quick-fitting connection about one half-inch deep in order to be sealed by the O-ring at the bottom.



8) Connect the UV transformer to an electrical outlet.

9) Turn on water supply and faucet. Observe the system for any leaks and check if water flow activates the UV light.

-----End of installation of Model UVF11A/UVF11B/UVF11B-E-----



# Installation

## Model# UVF55

### 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. For easy maintenance, it is recommended that you install an inlet valve and an outlet valve before and after the unit. 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 germs. Thus, water coming into the UV sanitizer must be clear (free of particles larger than 20 microns). It is recommended that you install the UV sanitizer 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 43 psi, please install a pressure regulator in the inlet/outlet in order to protect the quartz sleeve.
- Please install the sterilizer at a position by the retaining clip, retaining nuts or other mounting device in order to prevent it from dropping due to the vibration caused by water and causing damages to the internal fragile parts.
- The ultraviolet water sterilizer is not a water filter. It is unable to eliminate bad tastes or smells, biological materials, chemicals, silt, heavy metal and other kinds of impurities, and it does not reduce sediments which affects the efficiency of the UV lamp. Therefore, it is necessary to install a pre-filter to ensure that the sterilizer can achieve optimal performance.

### Installation Steps

**Step 1** - Before mounting the two black plastic clips onto the wall, make sure there is enough room for both the stainless-steel housing and access for future servicing. It can be installed horizontally or vertically. (If you choose vertical mounting, make sure that 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.

**Step 2** - Plug both ends of the lamp into the power sockets with the green wires.



1) Plug one end of the lamp into the small power socket with the green wires.



2) Plug the other end of the green wires into the big power socket of the lamp holder



3) Plug the other end of the lamp into the same big power socket of the lamp holder

**Step 3** - Insert the lamp into the pre-installed quartz sleeve and install the black rubber cap.



1) Insert the lamp into the pre-installed quartz sleeve.



2) Attach the black rubber cap to the end.



3) Snap the housing onto the clips

**Step 4** - Connect the inlet/outlet to the designated water pipes and fill with water to test for leaks. Visually check every connection and inspect for leaks.



**Step 5** - If there are no leaks, insert the plug and turn the power on; the green light will turn on to indicate it is working properly.



The ballast will automatically detect if the UV lamp is well-connected. If it is damaged, or if the power socket of the lamp holder or connector wires are not well-connected, the ballast will beep and the red light will turn on.

## 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 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 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 water line. Next, drain the water and remove the black rubber cap which has the power cord attached, then 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 water line. Next, drain the water and remove the black rubber cap which has the power cord attached, 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 UVF55 is designed to operate continuously and should not be switched on and off frequently.

The UVF11 series come with a flow sensor that turns the UV unit on and off automatically with water flow.
- The amount of UV light created by the lamp decreases over time, therefore the lamp should be replaced every 12 months.

## Troubleshooting

<b>Symptom</b>	<b>Solution</b>
Leaking from the UV sterilizer steel pipe nuts	The O-ring inside the quartz sleeve might be damaged. Please contact us for assistance
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
Ballast alarm goes off; green indicator light is out, and the lamp doesn't power on	Lamp has exhausted its service life, replace the lamp
Lamp doesn't turn on after replacing	Check the lamp connector wires
Lamp turns on but indicator lights and alarm are abnormal	Indicator lights are broken, replace the ballast

## Warranty

This Limited Warranty extends to the original purchaser of the system only. This warranty only covers all Manufacturer-supplied items that prove to be 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 date of purchase. The following items are excluded from this warranty: UV lamp, and the quartz sleeve that require regular replacement as a result of 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 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 120ppm.
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 0.3ppm.

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 vary seasonably, or over a period of time. Your water usage may vary as well. The Manufacturer assumes no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume 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 control of the Manufacturer 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 choose 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 in accordance with 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 [123filter.com](http://123filter.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](http://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!

If you are happy with our products and service, please show your support by writing a product review on Amazon--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

Phone: (678) 261-7611

Email: [support@ispringfilter.com](mailto:support@ispringfilter.com)

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