

Instructions for Emperor Aquatics, Inc.'s 16, 25, & 57 Watt Retro-Fit UV Sterilizer (for Savio's Skimmers)

Congratulations! Thank you for purchasing our 16, 25, or 57 Watt Retro-Fit UV Sterilizer. Please read all instructions carefully before attempting to install this UV Sterilizer. If at any time you have questions regarding parts or installation, please feel free to contact our Customer Service Department at 610-970-0440.

16, 25, & 57 Retro-Fit UV Sterilizer - What is included?

1. UV Lamp
2. Quartz Sleeve
3. Jamb Plate
4. Clear Power Assembly
5. Power Cord w/ Sealed Power Supply
6. Lamp Connector

***** Before Installing, Inspect for damage *****



with 57-watt UV Sterilizer

with 16 & 25-watt UV Sterilizers

1.0 Introduction to Ultraviolet Sterilization

Ultraviolet radiation in the 200-300 nanometer (nm) range is extremely effective in killing microorganisms such as bacteria, viruses, algae and molds. A low pressure, mercury arc germicidal lamp, produces ultraviolet light or radiation. This type of lamp emits about 90% of its radiation energy at 253.7nm. By coincidence, this is very close to the peak of the germicidal effectiveness curve of (264nm), the most lethal wavelength to microorganisms. When microorganisms are exposed to the UV light the UV radiation causes a change in the chemical bonds of its DNA molecules, which results in their death. Your Emperor Aquatics, Inc. UV Sterilizer will function without altering the PH or chemical make-up of your aquarium or garden pond water. Also, the UV filter unit will not adversely affect the fish or beneficial nitrifying bacteria and algae attached to the filter bed and tank walls in your aquarium or pond.

2.0 16, 25, & 57 Watt Retro-Fit UV Sterilizer Features:

1. Hard Quartz Glass UV Lamp offering 9,000 hours of continual operation; until reaching 60% efficiency
2. Protective Quartz Sleeve that ensures optimal UV lamp operating temperature (110° F)
3. Easy to use "Quarter-twist Attachment" (Jamb Plate)
4. "On the Cord" Sealed Power Supply

3.0 Important Safety Instructions for Retro-Fit UV Sterilizers

WARNING: To guard against injury, basic safety precautions should be observed, including the following. Water and electricity can be a dangerous combination. Help us ensure your safety **PLEASE READ AND FOLLOW INSTRUCTIONS.**

3.1 **DANGER:** Special care should be taken to avoid the possibility of receiving an electric shock, due to water being employed in the use of this aquarium and pond equipment. For each of the following situations, **do not attempt repairs yourself.** Call EMPEROR AQUATICS, INC. for services or discard the appliance.

3.2 If the unit falls into the water, **DO NOT REACH FOR IT!** First unplug it and then retrieve it. If internal electrical components of the unit get wet, unplug it immediately.

3.3 If the unit shows signs of water leakage inside the quartz sleeve, immediately unplug it from the power source.

3.4 Carefully examine the unplugged unit after installation. The assembled quartz sleeve and UV lamp should be inside the filter's UV chamber. The unit's "Jamb Plate" should be positioned tightly, using a quarter-turn on the top of the UV chamber.

3.5 Do not operate this unit if it has a damaged cord or plug, if it is malfunctioning, or if it has been dropped or damaged in any manner.

3.6 Close supervision is necessary when any appliance is used by or near children.

3.7 Always unplug the unit from an outlet when not in use, before servicing, and cleaning or removing parts. Never yank the cord to pull the plug from the outlet. Grasp the plug and pull to disconnect.

3.8 Do not use the Emperor Aquatics, Inc. Retro-Fit UV Sterilizer on any applications other than its intended use. The use of attachments not recommended or sold by Emperor Aquatics, Inc. may cause unsafe conditions.

4.0 Important Notices

4.1 **Do not allow the power supply module to be submerged in water. Do not place the power supply in the pond or in an area where rain water may collect.**

4.2 The electrical requirements for this Retro-Fit UV Sterilizer are 120VAC 60 Hz. **This unit must be plugged into a well grounded (GFI) electrical outlet.** To comply with the National Electrical Code (NFPA 70) and to provide additional protection from risk of electrical shock, this unit should only be connected to a receptacle that is protected by a ground fault circuit interrupter (GFI). Do not attempt to cut the ground plug off or change the cord to a two-wire plug. Altering the power assembly will void the manufacturer's warranty.

4.3 Use only three-wire extension cords that have 3-prong grounding-type plugs and 3-pole cord connectors that accept the plug from this unit.

4.4 **Warning of UV Exposure:** Do not handle or look at the UV lamp while operating. Direct exposure to UV rays can cause health risks and skin tissue damage.

5.0 Inspection and Installation

5.1 The 16, 25, & 57 Watt Retro-Fit UV Sterilizer is shipped from our factory as shown here:

- Power Supply mounted on the Cord -

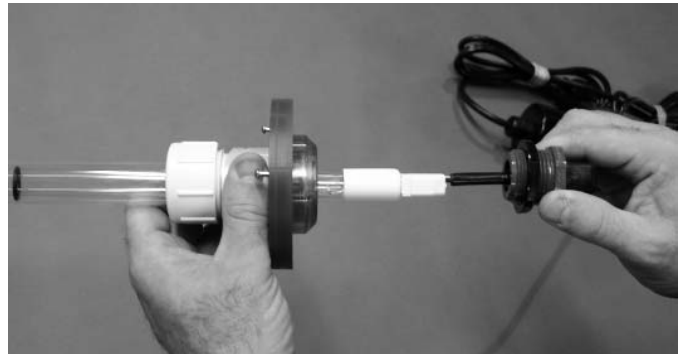
- Quartz Sleeve, UV Lamp, and Clear Power Assembly -

Please inspect these items for possible shipping damage before use. Thoroughly inspect the quartz sleeve and uv lamp for damage of any kind as they are made of glass and are easily breakable.



5.2 Remove the red plastic cap and foam stopper from the clear power assembly, being sure that the UV lamp does not accidentally slide out and break.

5.3 With the quartz sleeve, UV lamp, and Clear Power Assembly lying flat, partially slide the UV lamp out and connect the 4-pin lamp connector to the 4 pins of the lamp.



5.4 Gently slide the lamp now connected to the power cord back into the power assembly/quartz sleeve, screwing down the gray adaptor into the clear power supply assembly until snug. Next, screw down the black jamb nut till it is snug.

5.5 Your Retro-Fit UV Sterilizer is now ready to be installed inside the filter.



5.6 Slide the quartz sleeve end of the unit gently into the UV chamber of the filter, locking the jamb plate pins in place using a quarter-turn.



5.7 Drape the power cord over and out of the filter as shown. Allow a fair amount of slack to ensure the cord will not interfere with the lid. Under no circumstances should the power supply be submerged under water.



5.7a (16-watt) Drape the power cord over and out of the filter as shown. Make sure the cord is resting within one of the notches as shown on the left, to ensure the cord will not interfere with the filter lid. Under no circumstances should the power supply be submerged under water.

5.8 You are now ready to operate the Retro-Fit UV Sterilizer.

Retro-Fit UV Sterilizer Capacity

#02814 Maximum Water Flow Rate 500 Gallons Per Hour (per unit)
#02825 Maximum Water Flow Rate 780 Gallons Per Hour (per unit)
#02857 Maximum Water Flow Rate 1,600 gallons Per Hour (per unit)

Maximum Pond Size 1,500 Gallons
Maximum Pond Size 2,340 Gallons
Maximum Pond Size 4,800 Gallons

6.0 Servicing the 16, 25, & 57 Watt Retro-Fit UV Sterilizer

6.1 Quartz Sleeve Cleaning: To clean the quartz sleeve, unplug the unit and remove it from the filter. Using a soft, damp cloth, remove unwanted algae and dirt from the outside of the sleeve. Use vinegar or muratic acid to remove calcium deposits (Use extra caution when handling acids and strong cleaning solutions as they can cause bodily harm). A mild dish soap may also be used to clean the quartz sleeve. Make sure to thoroughly remove all cleaning solutions from the quartz sleeve before reinstalling the UV into the filter.



25 & 57-watt Retro-Fit UV Sterilizer

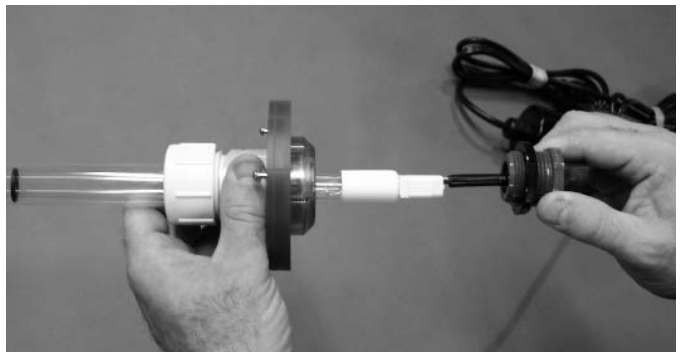


16-watt Retro-Fit UV Sterilizer

Adjusting Quartz Sleeve Seal Assembly -- once annually

1. Make sure the UV is disconnected from electrical outlet.
2. Turn off your pump and drain the unit.
3. Remove the lamp and power supply.
4. Unscrew and remove the black retaining nut that holds the clear end power supply module onto the Smart UV's main body.
5. With the black retaining nut removed, carefully pull the clear end module out of the main body. (the quartz sleeve is attached to this)
6. Now unscrew the white quartz sleeve retaining nut from the clear end power module. (hold onto the quartz sleeve or it will fall out)
7. Pull the quartz sleeve out from the clear end power module.
8. Holding the quartz sleeve in your left hand make sure seals are in proper order, white quartz sleeve retaining nut should slide down over sleeve first, then the heavier (bigger) gasket and then the oring should be at the open end of quartz sleeve.
9. Now, place the quartz sleeve back into the clear end power supply module. Slide the white retaining nut up and tighten. Make sure you only hand tighten the nut until it is snug. Do not over tighten, this could crack or break the quartz sleeve!
10. Place your index finger in the top of the clear end module. You can feel where the quartz sleeve and clear module meet. This should be flush; there should be no gaps between these two parts. If there is a gap you will need to disassemble the quartz sleeve following steps 6-10 and start over.
11. Replace the quartz sleeve assembly back in the unit making sure you seat the quartz sleeve in the coupling at the other end of unit. Replace the black retaining nut. Always perform the recommended water test before placing the lamp and power supply back in service.

6.2 Removing/Replacing the UV lamp: First, unplug the unit. Remove the unit from the filter and unscrew the gray power adaptor from the clear power assembly, sliding the lamp out gently. Disconnect the 4-pin lamp connector from the UV lamp and finish removing the lamp from the quartz sleeve. Connect the new UV lamp to the lamp connector, slide the lamp into the quartz sleeve and tighten down the gray power adaptor, then tighten the black jamb nut.



6.3 Quartz Sleeve Gasket & O-Ring Assembly: Remove the white retainer nut from the clear power assembly to expose the rubber gasket and o-ring. Be certain to replace these items in the proper order as seen in the photo to the right. After replacing the rubber gasket and o-ring carefully tighten the white retaining nut onto the male threads of the clear power assembly. The quartz sleeve should be seated evenly when properly installed into the clear power assembly module. Hand tighten only.



7.0 Winterizing

7.1 Operating in Cold Temperatures: Operating the Retro-Fit UV in extreme cold temperatures should be avoided, as there is a potential of freezing. Regardless of whether you intend to operate the filter during extreme cold weather conditions or not, remove the Retro-Fit UV from the filter. Allowing the Retro-Fit UV to remain inside the filter during freezing conditions may cause damage to the unit, and will void the manufacturer's warranty.

7.2 During extreme cold weather remove the Retro-Fit UV from the filter, clean and store in a dry warm place until needed.

8.0 Replacement Parts

22324: 16-watt Quartz Sleeve Replacement
22320: 25 & 57-watt Quartz Sleeve Replacement
22314: 16-watt UV Lamp Replacement
22325: 25-watt UV Lamp Replacement
22357: 57-watt UV Lamp Replacement
20078: 4 Pin Lamp connector with Starter Bulb (for 16 & 25-watt)
20077: 4 Pin Lamp connector without Starter Bulb (for 57-watt)
20225-SAVIO: 16 & 25-watt Power Supply
20257-SAVIO: 57-watt Power Supply
22321: Service Kit (Seal Replacement)

SERVICE AND REPAIR

Your retailer or distributor is not an authorized service or repair center. If trouble develops, do not take the unit back to your retail store. Instead, call Emperor Aquatics, Inc. at 610-970-0440, to discuss the problem. Then, if necessary, you will be given an RMA number so you may return the unit to us for proper service. Please be sure to carefully pack the unit to avoid damage from shipping. Include a description of the problem with your returning merchandise. The return address will be provided to you at the time you receive your RMA number.

Please insure your package prior to shipping. Include a return address and daytime phone number where we can reach you. Upon receipt of your unit, we will repair or replace the unit at no charge if under warranty. You will be required to provide proof of purchase, including purchase date, or completed warranty card here on file. If out of warranty, we will call or send you an estimate of the cost to repair the item, which will require your authorization in order for us to proceed.

WARRANTY

Emperor Aquatics, Inc. warrants to the original purchaser of its Retro-Fit UV Sterilizer, to be free from defects within the time constraints as listed below. The UV lamp and the Quartz Sleeve are not warranted against breakage since they are made of glass. The UV Lamp however, is warranted for 90 days for electrical operation only. Also, the UV Sterilizer Power Supply is covered for a period of 12 months from the date of original purchase.

Should any of the integral parts of the unit become defective within their time constraints from the date of purchase, they will be repaired or replaced, if proven defective in workmanship or material in the opinion of the manufacturer, also not including damage by freezing, abuse or the reuse of gasket seals that are more than 12 months old. Any costs incurred for the labor of removing the unit shall be the responsibility of the original purchaser. Also, all shipping charges to and from Emperor Aquatics, Inc.'s factory will also be the responsibility of the original purchaser. Non-warranted repairs will be billed at the rate of \$78.00 per hour with a one-hour minimum plus parts. Damage or failure of any part of the UV Sterilizer covered by this warranty, which results from causes, directly or indirectly, connected with the installation, operation, environment, use or willful abuse, including, without limitation, improper packaging and damage incurred during shipping is not covered by this warranty. Otherwise, any implied warranties that accompany the sale of these goods are limited to their respective time constraints from the date of purchase. The manufacturer will only be responsible for the repair or replacement of any of its products or parts thereof that are found to be defective and will not bear the cost of any incidental or consequential damages arising out of the occurrence of such a defect.

OWNER'S REGISTRATION OF EQUIPMENT

FOR YOUR WARRANTY TO BE VALID, YOU MUST SUBMIT A COMPLETED INFORMATION CARD WITHIN 30 DAYS FROM DATE OF PURCHASE. THIS CARD MUST BE ON FILE AT OUR FACILITY.

Purchaser's Name: _____ Phone #: _____

Street Address: _____ Fax #: _____

City: _____ State: _____ Zip Code: _____

Email Address: _____

Model #: _____ Date of Purchase: _____

Purchased From:

Dealer's Name: _____

City: _____ State: _____ Zip Code: _____

HOW DO YOU LIKE OUR PRODUCT?

We, at Emperor Aquatics, Inc., take your comments about our products very seriously. Please take a few moments to answer these questions and return with your product registration.

Was this product packaged well? YES NO

Did you receive all the parts and instructions with the unit? YES NO

Were the instructions easy to understand? YES NO

Was the product installed by someone other than yourself? YES NO

If yes, list installer's name. _____

Comments: _____

PLEASE RETURN TO: Emperor Aquatics, Inc., 2229 Sanatoga Station Road
Pottstown, PA 19464. OR FAX your sheet to 610-970-0443.