



EPA Est 68177-CA-001

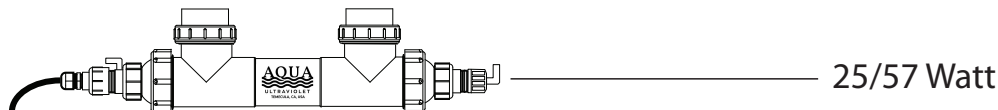
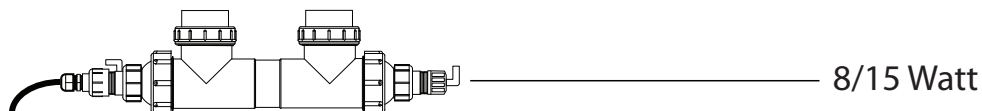
MAILING ADDRESS

PO Box 2189
Temecula, CA 92593

MAIN OFFICE

42371 Avenida Alvarado
Temecula, CA 92590
Toll Free: (800) 454-2725
Tel: (951) 296-3480
www.aquauv.com

UV Sterilizer Instruction Manual Ozone Series



SEE INSIDE COVER FOR LARGER UNITS

Register your UV by using the attached warranty card
or
go online to aquauv.com



Find us on Facebook
www.facebook.com/AquaUltraviolet



Follow us on Instagram
www.instagram.com/aquauv

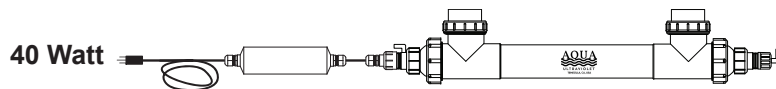
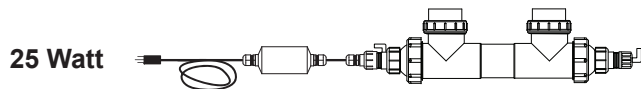
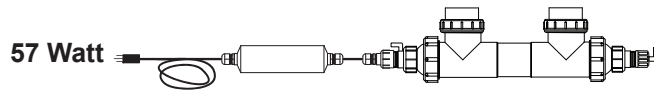
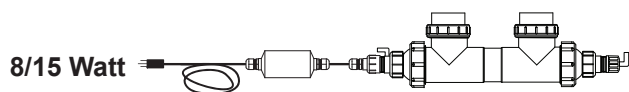


See us on YouTube
www.youtube.com/AquaUltraviolet

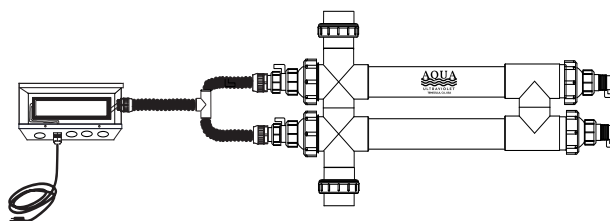
BLOG

Read about us at
www.aquaultraviolet.com/blog

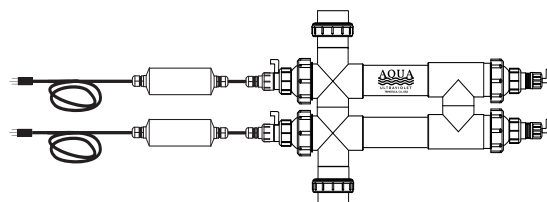
OZONE SERIES



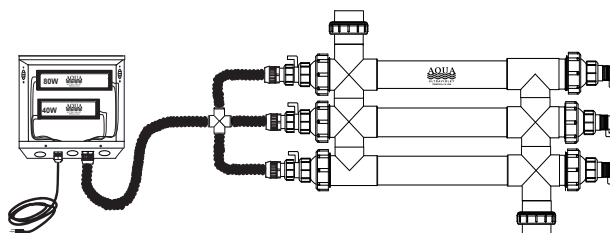
80 Watt Unit
1-80W RAW Trans



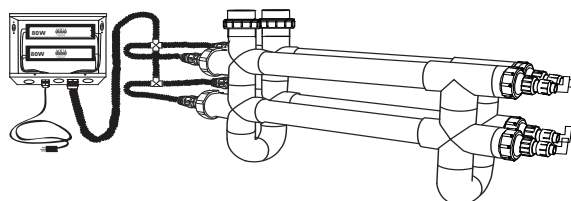
114 Watt Unit
2-57W Inline Trans



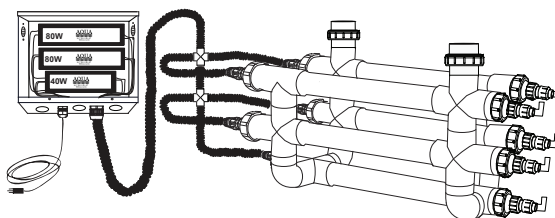
120 Watt Unit
1-80W RAW Trans
1-40W RAW Trans



160 Watt Unit
2-80W RAW Trans



200 Watt Unit
2-80W RAW Trans
1-40W RAW Trans



240 Watt Unit
3-80W RAW Trans

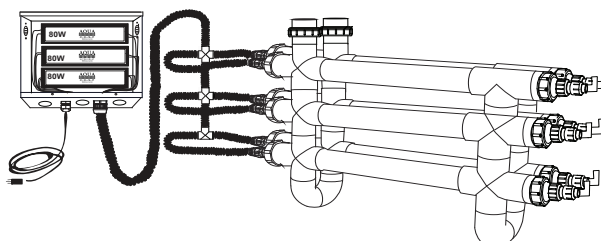


TABLE OF CONTENTS

Important Information	1
Recommended Layouts	2
Warranty Information	3
Fresh Water Sizing Chart	5
Salt Water Sizing Chart	6
Introduction	7
How Ozone / Ultraviolet Works	7
Frequently Asked Questions	8
Installation Instructions	10
Venturi Installation	13
Trouble Shooting Leaks	13
Installing the Lamp for Single Lamp Units	14
Electrical Installation for Multiple Lamp Units	15
Winterizing	17
Maintenance Changing the Lamp	18
Cleaning Quartz Sleeve	19
Replacing the Quartz Sleeve	19
Parts List	22
Incorrect Installations	24

THANK YOU FOR PURCHASING THE BEST ULTRAVIOLET SYSTEM

IMPORTANT INFORMATION



WE CAN HELP YOU

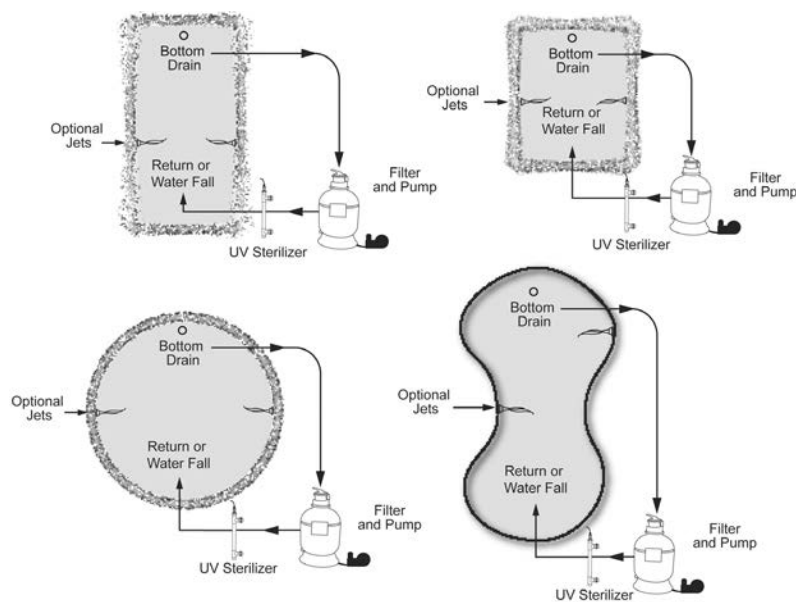
Returning this product is expensive and time consuming for you, your retailer and for us, the manufacturer. Should you encounter any problems with your product, please call our toll free "HELP" line for assistance (800) 454-2725.

PLEASE DO NOT return your product to the store! Your dealer or distributor cannot offer any warranty work.

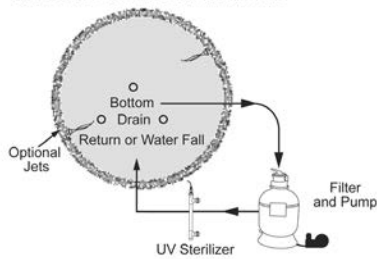


In the US please call
TOLL FREE (800) 454-2725
(951) 296-3480 Outside the U.S.
THANK YOU!

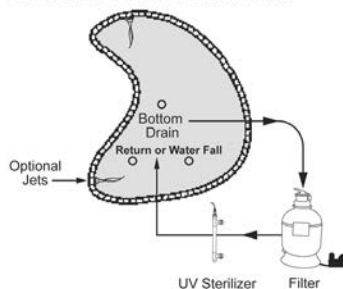
RECOMMENDED POND LAYOUTS



Incorrect Installation



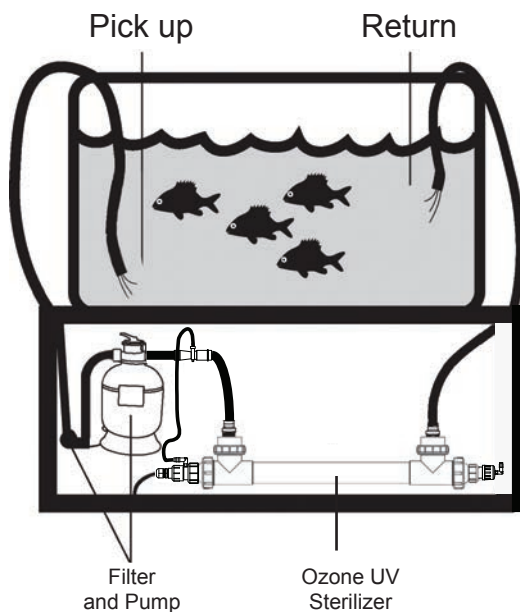
Incorrect Installation



Pick up is too close to return.

RECOMMENDED AQUARIUM LAYOUT

Pick up on the bottom of one side of the tank
and return to the top of the opposite side of the tank



WARRANTY INFORMATION

Aqua Ultraviolet systems are warranted against failure due to defects in materials and/or workmanship during the warranty period. This warranty covers defects occurring under normal use and applies to the original retail purchaser and may not be transferred. The warranty and remedies set forth herein are conditional upon proper storage, installation, use, maintenance and conformance with the applicable use. It will be based upon Aqua Ultraviolet's discretion as to whether the defects are of manufacturing origin.

This warranty does not apply to appearance or accessory items. This warranty does not include damage due to shipping and handling, transportation, unpacking, set up, installation, improper maintenance, incorrect line voltage, modification, abuse, misuse, neglect, accident, fire, flood, acts of God or repair or replacement of parts supplied by any other than Aqua Ultraviolet.

Any oral statements about this product made by the seller, the manufacturer, their representatives or any other party does not constitute warranties and shall not be relied upon by the user and are not part of this contract.

Neither the seller nor the manufacturer shall be liable for any injury, loss or damages, direct, incidental or consequential including but not limited to lost profits, lost sales, injury, inability to use the product and the user agrees that no other remedy is available.

Before installing, the user shall determine the suitability of the product for their intended use and the user shall assume all risk liability whatsoever in connection therewith.

To validate this warranty, mail the enclosed warranty card within 10 days of purchase along with proof of purchase (copy of sales receipt).

Warranty Period:

Housing: Limited lifetime warranty on housing against Ultraviolet degradation.

Complete Unit: One year from the date of purchase or 18 months from manufacturing date.

Limitations:

Warranty does not cover any malfunction from improper installation (we recommend that a licensed electrician install your system to the specifications outlined in this owners guide).

Warranty only applies to the original end user and is not transferable.

Warranty does not cover repairs done by anyone other than Aqua Ultraviolet.

Warranty is void if system is not plugged into a G.F.C.I. (Ground Fault Current Interrupter).

Warranty may not be modified by verbal statements by Aqua Ultraviolet, distributors, retailers, their agents or any other party.

Warranty covers the repair or prorated replacement of the Aqua Ultraviolet products. Aqua Ultraviolet denies all liability for any other loss including but not limited to loss of equipment, income, livestock or personal injury.

There is no warranty on the Quartz Sleeve.

There are no warranties on broken Lamps. Lamps are prorated by usage.

Warranty is voided by the following:

Product labels defaced or removed.

Housing has been painted.

Product is improperly installed or maintained by user or agent.

Product abused, misused or damaged by user or their agent.

Product damage caused by electrical surges, electrical spikes, electrical brown outs or improper voltage.

Electrical cord has been cut.

Unit was run without water.

Use of Anything other than Genuine Aqua Ultraviolet Parts.

Any implied warranty granted under state law including warranties of merchantability or fitness for a particular purpose are limited to one year from the date of purchase or 18 months from the date of manufacture or as otherwise stated in the above warranty. Aqua Ultraviolet is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or does not allow the exclusions or limitations of incidental damages so the above limitation and exclusion may not apply to you. This warranty gives you special legal rights and you may also have other rights that vary from state to state.

Warranty Returns or Repair Returns:

Please call Aqua Ultraviolet at (800) 454-2725 for a "Return Merchandise Authorization" (RMA) number. You must have a valid RMA from an Aqua Ultraviolet customer service representative before sending any product in for warranty or repair. Please have your serial number, date of purchase and product type available when calling for an RMA number.

All warranty returns or repair returns must come freight prepaid with an RMA number clearly marked on the outside of the box. All other returns will be refused. Aqua Ultraviolet will not be liable for any shipping cost to return warranty or repair items. Include a note in the box with your RMA number, name, address, daytime phone number and brief description of the reason for return or repair.

Be sure to return product in the same packing or similar packing and insure the package (we recommend sending it UPS). If you do not have or can't locate proper packaging, please call our customer service department and we will send you packaging for a minimal charge.

Aqua Ultraviolet shall not be responsible for damage or loss done by the shipper. Nor shall Aqua Ultraviolet be responsible for merchandise that arrives damaged due to improper packaging. All claims for loss and damage must be filed by the customer with the shipper.

If the unit is found to be out of warranty we will contact you with the cost of repair. Your authorization is required prior to making any repairs.

FRESH WATER OZONE UV SIZING CHART

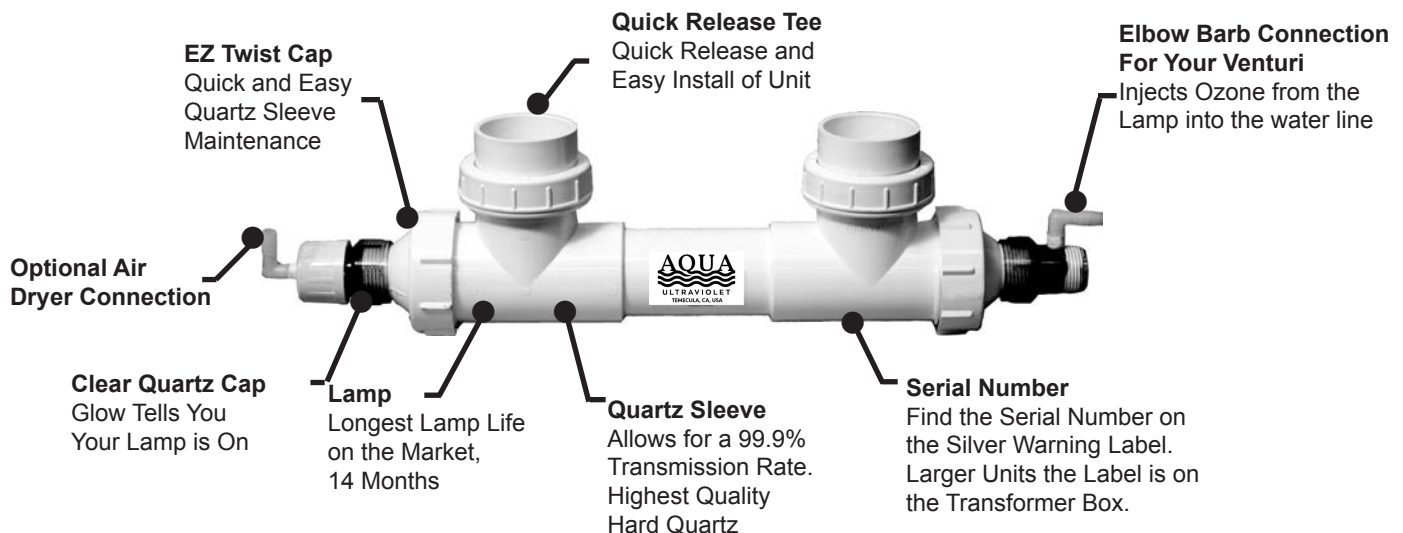
Fresh Water Ozone UV Sizing Chart

Ozone UV Units	Size Fresh Water Sterilizer* in Gallons	Grams PD	30,000 $\mu\text{W}/\text{cm}^2$ (EOL) GPH	Fresh Water Pond Clarifier***	
				Gallons	Max Flow GPH
Ozone UV 8 Watt Unit	5 - 200	2	642	1,500	1,000
Ozone UV 15 Watt Unit	200 - 500	2.4	700	2,000	1,800
Ozone UV 25 Watt Unit	500 - 1,200	6	1,200	4,000	2,000
Ozone UV 40 Watt Unit	1,200 - 2,000	24	2,900	6,000	3,000
Ozone UV 57 Watt Unit	1,500 - 3,000	20	3,200	6,500	3,250
Ozone UV 80 Watt Unit	2,200 - 4,400	48	3,678	9,000	4,500
Ozone UV 114 Watt Unit	2,200 - 4,400	40	3,900	9,500	4,500
Ozone UV 120 Watt Unit	4,400 - 6,000	72	4,080	12,000	6,500
Ozone UV 160 Watt Unit	6,000 - 8,500	96	5,400	16,000	9,000
Ozone UV 200 Watt Unit	8,500 - 13,000	120	6,600	20,000	10,000
Ozone UV 240 Watt Unit	13,000 - 17,000	144	7,200	25,000	12,000

SPA Ozone UV Sizing Chart

Ozone UV Units	SPA or POOL Volume in Gallons	Grams PD	MAX FLOW GPM
Ozone UV 25 Watt Unit	6,000	6	1,200
Ozone UV 40 Watt Unit	15,000	24	2,900

* Use the sterilizer column for crystal clear water and bacterial control, in spa, pond and aquarium environments. *** Use the clarifier column when the pond is partially in the shade and has 50% plant coverage. This will improve water clarity resulting in a natural looking pond. GPH numbers are based on turning over the volume of water one time every hour to every hour and a half. UV dosage is calculated at the end of lamp life (14 months). Flow rates and results may vary.



SALT WATER OZONE UV SIZING CHART

Salt Water Ozone UV Sizing Chart

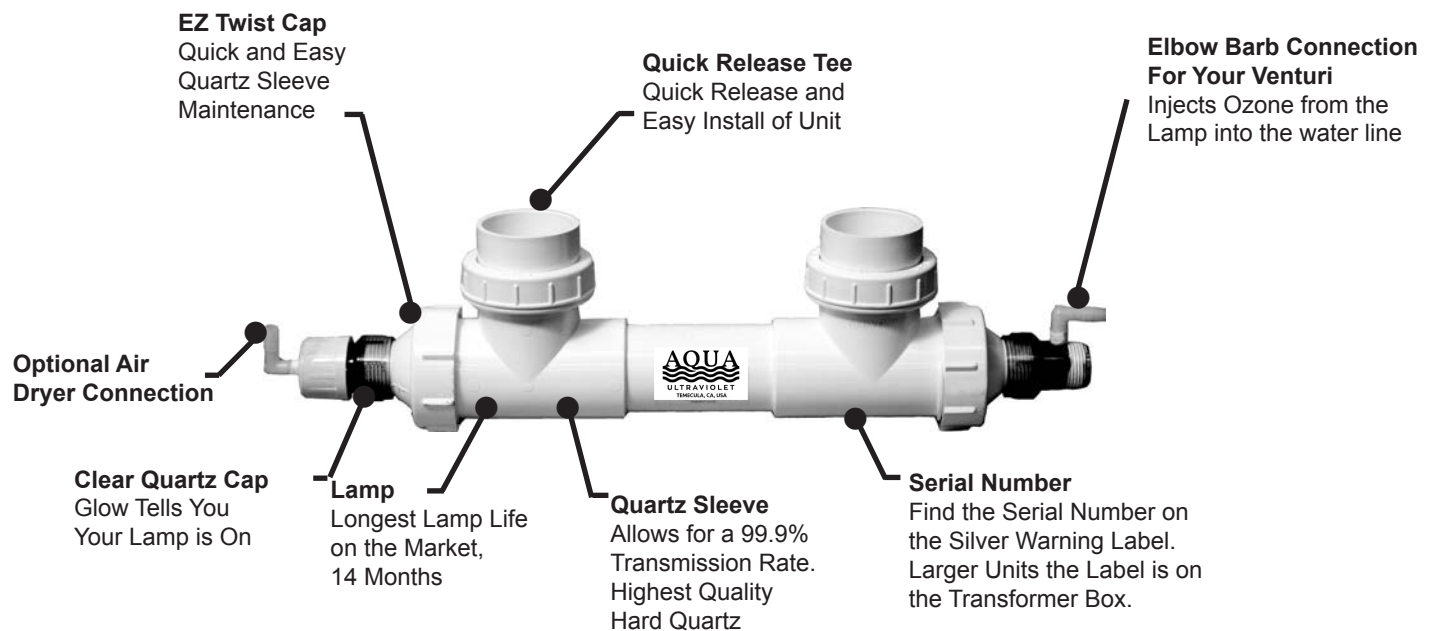
Ozone UV Units	**Salt Water Tank Gallons	Grams PD	30,000 $\mu\text{w}/\text{cm}^2$ (EOL) GPH	45,000 $\mu\text{w}/\text{cm}^2$ (EOL) GPH	60,000 $\mu\text{w}/\text{cm}^2$ (EOL) GPH	75,000 $\mu\text{w}/\text{cm}^2$ (EOL) GPH	90,000 $\mu\text{w}/\text{cm}^2$ (EOL) GPH
Ozone UV 8 Watt Unit	70	2	642	428	321	256	214
Ozone UV 15 Watt Unit	75	2.4	700	466	350	280	233
Ozone UV 25 Watt Unit	150	6	1,200	800	600	480	400
Ozone UV 40 Watt Unit	325	24	2,900	1,930	1,450	1,160	967
Ozone UV 57 Watt Unit	355	20	3,200	2,133	1,600	1,280	1,066
Ozone UV 80 Watt Unit	600	48	3,678	2,452	1,839	1,471	1,226
Ozone UV 114 Watt Unit	700	40	3,900	2,600	1,950	1,560	1,300
Ozone UV 120 Watt Unit	900	72	4,080	2,720	2,040	1,632	1,360
Ozone UV 160 Watt Unit	1200	96	5,400	3,600	2,700	2,160	1,800
Ozone UV 200 Watt Unit	1500	120	6,600	4,400	3,300	2,640	2,200
Ozone UV 240 Watt Unit	1800	144	7,200	4,800	3,600	2,880	2,400

Reef Tanks: A UV Rated in the 30,000 to 45,000 columns is ideal for the reef environment. UV's rated at higher kill rates will destroy the planktonic food supply for the reef.

Marine Fish Tanks (No reef or Live Rock): A UV rated in the 75,000 to 90,000 columns will be the most effective at controlling fish disease.

All UV dosages are calculated at the end of lamp life (14 months).

Flow rates and results may vary.



INTRODUCTION

We at Aqua Ultraviolet would like to take the time to thank you for purchasing the finest Ultraviolet System on the market.

For over thirty years, Aqua Ultraviolet has manufactured Ultraviolet Systems used in various industries, including aquaculture, public and commercial aquariums, educational institutions, government agencies and research organizations throughout the world.

Aqua Ultraviolet Sterilizers are used as a control to destroy single celled organisms, water borne bacteria, viruses, algae, fungi and protozoa. Aqua Ultraviolet sterilizers are recommended for both fresh and salt water systems as well as ponds. There are no residual effects when using an Aqua Ultraviolet Sterilizer. Ultraviolet will not affect Bio-filters or lower fish immune systems!

HOW OZONE / ULTRAVIOLET UNIT WORKS

The Ozone UV units are ideal for any water feature, spa, pond, fountain, aquariums etc.

Using the same germicidal rays as the sun, but hundreds of times stronger, UV offers a reliable, cost effective, environmentally friendly alternative to chemicals and their resulting by-products. The Ultraviolet Lamp emits a germicidal ray which alters or disrupts the DNA or RNA of single celled organisms such as algae, bacteria and protozoa. By properly implementing an Aqua Ultraviolet System in-line, these organisms can be eradicated effectively without any harmful residuals. Ozone is highly effective in removing color, organics pesticides and other by-products. These methods are both economical, natural and nonpolluting. The Ozone is injected by the consumer's venturi into the water line then the water flows through the unit body and is treated by the UV's germicidal rays. The UV rays also dissipate the Ozone.

The Aqua Ultraviolet Sterilizer works better on filtered water. Any debris in the water can inhibit UV Transmission.



CAUTION: READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING INSTALLATION OR OPERATION.

The manual should answer most of the questions that you may have about the installation, operation and use of your new Aqua Ultraviolet Sterilizer. View our installation videos at www.aquauv.com. If you need technical support, we offer this service for free by telephone (800) 454-2725 or (951) 296-3480 M-F 8:30am - 3:30pm PST except selected holidays. You may reach us through the web www.aquauv.com or at info@aquauv.com.

FREQUENTLY ASKED QUESTIONS

Where do I install my Ozone UV Unit?

Install your Ozone UV after the filter. Solids in unfiltered water block UV light penetration. The residual ozone left in your water can kill beneficial bacteria housed in your filter if the ozone UV is plumbed inline before the filter.

Do I have to turn my Ozone UV Unit off when I clean my filter?

Yes, but only if the chamber is drained or if the water will remain at a stand still for more than 30 minutes. Note: Running longer than the recommended time without water flow can cause extensive damage to the unit that is not covered under warranty.

What should I expect after my Ozone UV Unit is installed?

If your Aqua Ultraviolet system is installed after the filter and is properly sized the water should be clear in 3-5 days. If your Aqua Ultraviolet system is installed before the filter the water should be clear in 7-10 days. The green algae on the sides and bottom of the pond will not disappear, this is normal in a pond. The UV does not control this type of algae.

What's the difference between a sterilizer and a clarifier?

As a sterilizer, your Aqua UV system will keep your pond or aquarium water crystal clear, plus you will have the added benefit of bacterial control which will help keep your fish healthy and happy with less risk of disease. As a clarifier the algae in your pond will be reduced, your pond will still have a green tint to it, unless you have 50-75% plant coverage or your pond is in full shade.

Do I install my Ozone UV Unit vertically or horizontally?

You can install it either way - (see Installation Instructions Page 11 and 12)

What should my flow rate be on my pond or fresh water aquarium?

The optimum flow rate on your pond or fresh water aquarium is to turn over the volume of water one time every hour to every hour and a half.

What should my flow rate be on my salt water aquarium?

Your flow rate should be 3 to 5 times the volume of water per hour.

Should I bypass part of my water through the Ozone UV Unit and the rest back to the water supply?

No, Our Unit's are specifically designed to handle high flow rates for easier installation and the best water quality.

Is this unit submersible?

No, not this specific series.

FREQUENTLY ASKED QUESTIONS

Does the Ozone UV Unit have any residual effect to the fish?

No, UV only affects what passes through the chamber. There is no residual effect from UV light. The Ozone injected into the water line is dissipated as it passes by the Ultraviolet light in the UV chamber.

Does the Ozone UV kill good bacteria?

Ultraviolet light and Ozone do not discriminate about what they destroy. If good bacteria passes by the light it will be destroyed. Beneficial bacteria are colonized in your filter and along the sides and bottom of your pond. The only time those will be affected is if it becomes free floating and passes through the Ozone UV Unit.

How often should I change my lamp?

The lamp should be changed after 14 months of continuous use. Use Genuine Aqua UV Lamps or the Warranty is voided.

Do I need to purchase a Venturi?

Yes, in order to utilize the ozone a Venturi must be installed with you unit . Purchase a 3/8" Ozone to hook up to the Venturi. For optimum results an air dryer is recommended.

OZONE UV INSTALLATION INSTRUCTIONS

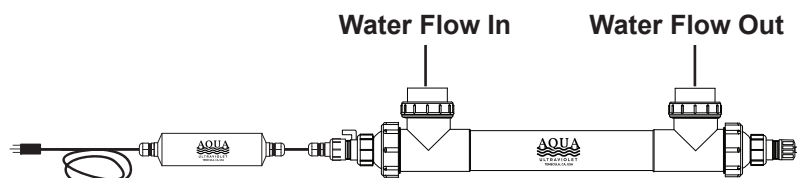
NOTE: All units are quality tested from the factory. All units are rated up to 50 PSI.

Mount your Aqua Ultraviolet Sterilizer horizontally or vertically on a wall or above ground, on a level and firm surface. Do not lay the system on the ground or where water may puddle. Your Sterilizer should be easily accessible. Do not submerge.

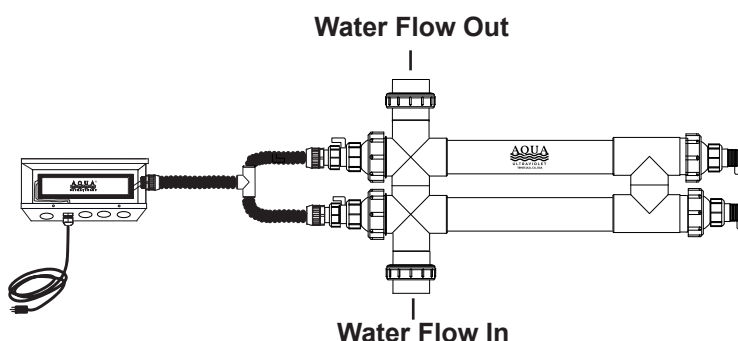
On all units allow space to change the Lamp and Quartz Sleeve.

Horizontal Installation is preferred since the chamber is more likely to remain flooded with water.

8, 15, 25, 40, 57 Watt Units:



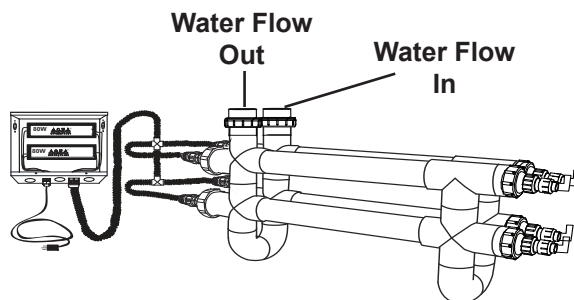
80, 114, 120 Watt Units:



Plumb the water going in from the bottom and out through the top. This will help ensure the chamber stays full of water.

160, 200, 240 Watt Units:

Inlet / Outlet ports should be facing upward.



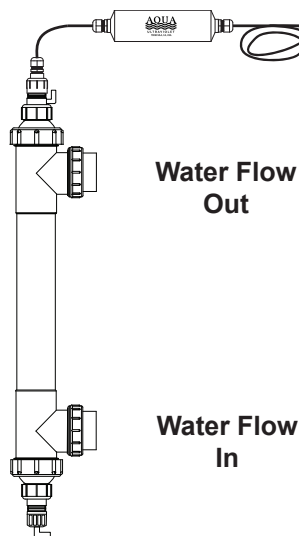
If the above suggestions, is inconvenient, either port can be used as the inlet or the outlet. In any installation the pump must be of a sufficient power to keep the chamber full of water.

OZONE UV INSTALLATION INSTRUCTIONS

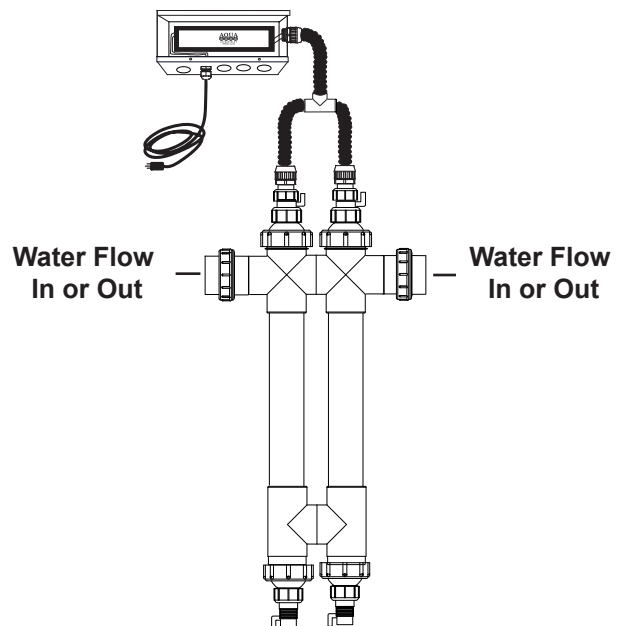
Vertical Installation (The Larger Units 160, 200 and 240 cannot be installed vertically)

Be careful not to drop the lamp down inside the unit, this can break the Quartz Sleeve. The Quartz Sleeve is not warranted against breakage nor is any damage caused as a result of a broken Quartz Sleeve.

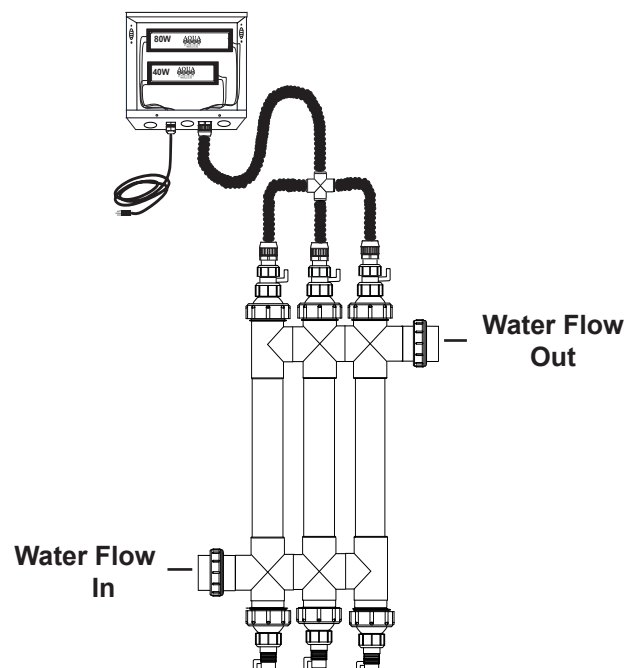
8, 15, 25, 40, 57 Watt Units:



80 and 114 Watt Units:



120 Watt Units:



These installations are suggestions, if these are inconvenient, either port can be used as the inlet or the outlet. In any installation the pump must be of sufficient power to keep the chambers full of water.

The Larger Units 160, 200 and 240 cannot be installed vertically.

OZONE UV INSTALLATION INSTRUCTIONS

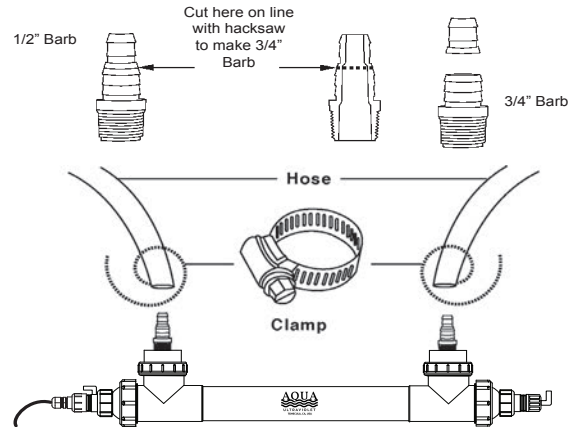
1. You can use mounting brackets (A40124 that can be purchased from us) or plumber's straps to attach your unit to a wall or firm surface

CAUTION: Your Aqua Ultraviolet unit is not submersible. If this unit falls into the water, turn main power off and then retrieve it. Do not attempt to use this sterilizer if it has been submerged. 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.

2. The Unit should be installed after the filter on the return line. This helps ensure that the water is clear of debris and impurities that could inhibit the disinfection process. The Unit can be installed before the filter, however, it will take longer to work. Note: You increase the risk of breaking the Quartz Sleeve and Lamp if debris enters the unit when installed before your filter.

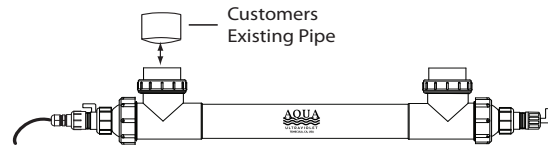
For 3/4" threaded units:

- a. Locate the barbs included with your unit. Barbs are fitted for either 3/4" or 1/2" hose (see illustration).
- b. The barbs have been Teflon taped for you to prevent leakage. Install barbs, hose and hose clamps. (Hose and hose clamps are not included.)



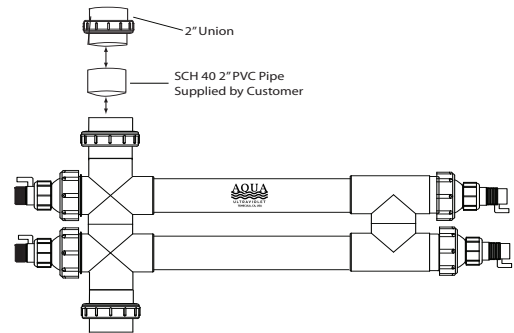
For 2" slip fitted units:

8, 15, 25, 40, 57 Watt Units glue existing pipe into the unions provided on unit.



For 2" Slip Fitted Units:

80, 114, 120, 160, 200, 240 cut 2 pieces of sch 40 2" PVC pipe to the length of 2-3/8" (supplied by customer). This pipe is used to attach the UV sterilizer to the unions that were provided. Use only PVC glue and primer.



3. Based on your personal plumbing configuration, additional plumbing supplies may be needed.
4. Make sure the unit is mounted securely before operating.

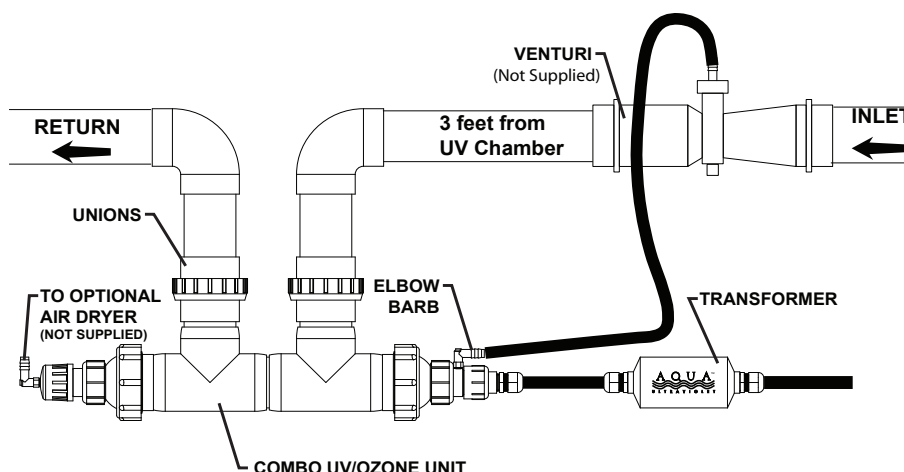
LEAK TEST: Do not install the Lamp or electrical components yet. After all connections have been made, turn on the pump and run for five minutes to check for leaks

- a. If there are no leaks, turn pump off and continue installing the lamp (on page 15).
For units 8,15, 25, 57 and 114 watt. For 80 watt and 120- 240 watt continue to electrical installation on page 16.
- b. If unit leaks turn pump off and continue to troubleshooting leaks on page 14.

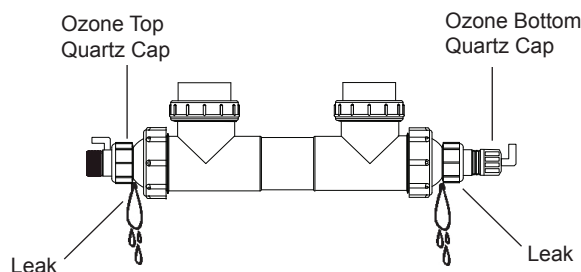
OZONE UV INSTALLATION INSTRUCTIONS

Venturi Installation

Purchase a venturi and a 3/8" hose that is suitable to your application. The venturi should optimally be installed to inject ozone into the plumbing 3 feet before the UV chamber. If space does not allow for a distance of 3 feet, inject the ozone as far from the the UV Chamber as possible.

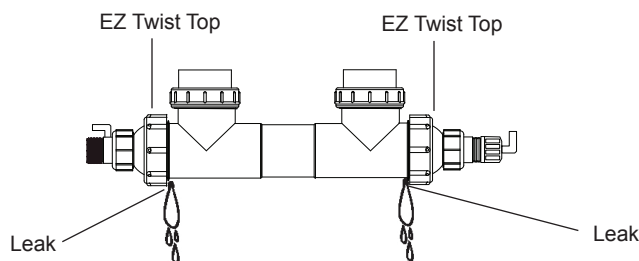


TROUBLE SHOOTING LEAKS



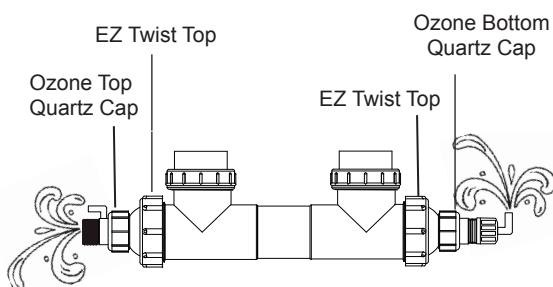
Leaks from Quartz Cap / Rubber Seal

Undo Quartz Cap and push Rubber Seal into the Sterilizer body evenly. Half of the Rubber Seal will still be in view. Screw on the Quartz Cap and finger tighten. Do not use a pipe wrench, pliers or any other tool. Hand-tighten only. Do not use any lubricant.



Leaks from the EZ – Twist Top

Check that the O-ring is in the EZ-Twist Top. Hand tighten EZ-Twist Top until leak stops. Do not use any lubricant.



Leaks from Center of Quartz Sleeve

The Quartz Sleeve is broken and needs to be replaced. Neither the broken Quartz Sleeve nor any damage caused as a result of a broken Quartz Sleeve is covered under warranty. Contact your dealer for a replacement. (See Replacing the Quartz Sleeve on page 21 and 22).



NOTE: If you touch the Lamp use denatured alcohol and a soft cloth to clean the Lamp. If you do not clean the Lamp the fingerprints will become etched into the glass which will diminish UV output and may cause premature lamp failure.



NOTE: Lamps and Quartz Sleeves should be handled with care. Lamps and Quartz Sleeves are not warranted against breakage or damage.

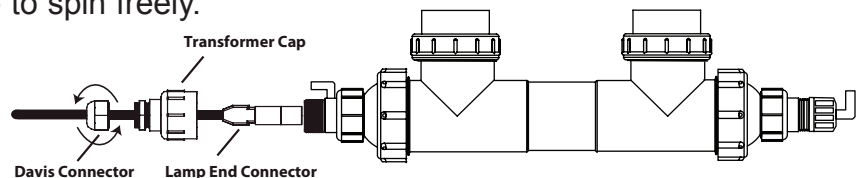


WARNING: Do not install the Lamp at an angle (even a slight angle); this may cause a U shaped crack at the end of the Quartz Sleeve, or possible breakage of the Lamp. If this should happen, do not proceed with the installation. Purchase a new Quartz Sleeve or Lamp from your dealer and refer to the proper installation instructions.



NOTE: Do not force the Lamp into the Quartz Sleeve.

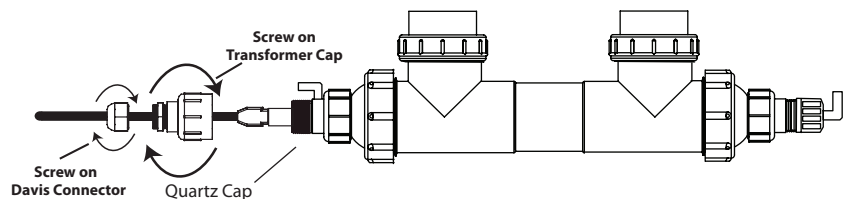
1. Unscrew the Davis Connector located behind the Transformer Cap, this allows your Transformer Cap to spin freely.



2. Plug the Lamp flush into the Lamp End Connector before inserting the Lamp into the unit. If the Lamp is not plugged in all the way it may cause damage to the unit and is not covered under warranty.

3. Insert the Lamp straight into the Quartz Sleeve. Be careful, inserting the Lamp at an angle, even a slight angle, can cause a "U" shaped crack in the Quartz Sleeve.

4. Twist the Transformer Cap onto the Quartz Cap. Do not over tighten. This is a connection only and is not in contact with water.



5. Tighten the Davis Connector back on to the Transformer Cap.
6. **FINAL LEAK CHECK:** Do not plug the Sterilizer into power yet, turn on the pump, let water run for 5 minutes and check for leaks. (See page 14 for trouble shooting leaks).
7. Once a leak test is completed, and there are no leaks, plug the Transformer into a GFCI outlet.

ELECTRICAL INSTALLATION

For 80, 120, 160, 200, 240 Watt Units

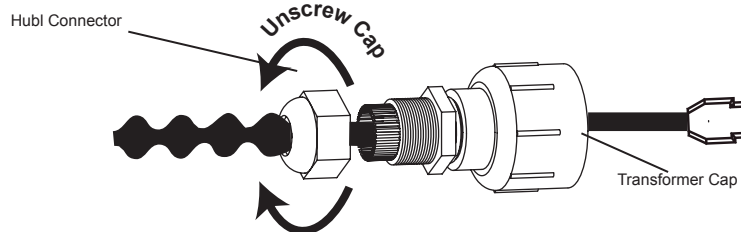
1. **Cover Removal:** Remove the cover from the Transformer Box to allow access to screw holes located on the back panel of the box. The cover slides down.
2. **Mounting:** Mount the Transformer vertically on to a wall or other sturdy surface a minimum of 4 feet away from any dwelling. Make sure the Transformer is close enough to attach to the UV unit.



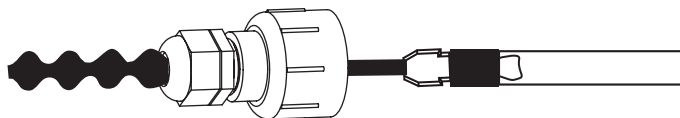
3. **220V Transformer:** Must be hard wired into a dedicated line of the appropriate voltage and hertz.
4. **110V Transformer:** Plug into 3 prong G.F.C.I. Outlet.

MULTI LAMP UNITS ELECTRICAL INSTALLATION

1. **DISCONNECT THE HUBL CONNECTOR:** Unscrew the Hubl Connector located just above the Transformer Cap. This will allow the transformer cap to turn without kinking the harness.



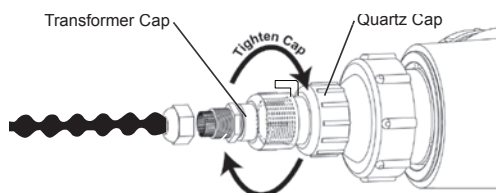
2. **CONNECT THE LAMP:** Plug a Lamp into each of the Lamp End Connectors, located at the end of the harness, one at a time. Make sure the Lamps are plugged in all the way flush with the Lamp End Connectors. If the Lamps are not plugged in all the way it may cause damage to the unit and is not cover under warranty.



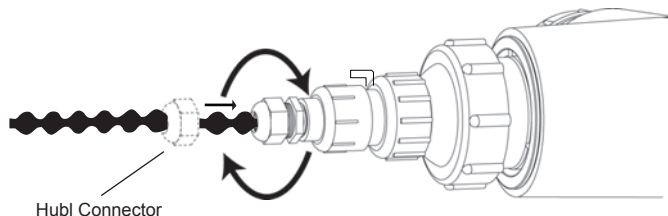
3. Insert the Lamp straight into the Quartz Sleeve. Be careful, inserting the Lamp at an angle, even a slight angle, can cause a "U" shaped crack in the Quartz Sleeve. Insert one lamp at a time.

MULTI LAMP UNITS ELECTRICAL INSTALLATION

4. **CONNECT THE TRANSFORMER CAP:** Twist the Transformer Cap onto the Quartz Cap. Do not over tighten. This is a connection only and is not in contact with water so it does not have to be tight. Do not use a pipe wrench, pliers or any other tool.



5. Tighten the Hubl Connector back onto the transformer cap.



Repeat to install each lamp.

6. **FINAL LEAK CHECK:** Do not plug the sterilizer into power yet, turn on pump and check for leaks again. For illustrations, **SEE PAGE 14.**

- If there are no leaks, continue with electrical installation turn power on to UV.
- If you have a leak, return to Trouble Shooting Leaks on page 14. Carefully examine this unit after installation. This unit should not be connected to electricity if there are any leaks.



CAUTION: Do not look at or handle UV Lamps when lit outside of the housing. Considerable Ultraviolet energy is emitted which may produce severe sunburn and/or conjunctivitis. As long as the UV light is in its housing it is 100% safe for humans and fish.



NOTE: The average life expectancy of Aqua Ultraviolet Lamps is 14 months of continuous operation. After 14 months the lamp may still light, but the UV has diminished.



NOTE: We recommend that the Unit be used in continuous operation for 24 hours a day, 7 days a week. Frequent starts and stops may shorten the life of your Lamps.



WARNING: If you are using any medication, we recommend shutting down the sterilizer as the UV Radiation may affect the treatment.



CAUTION: Do not use the Aqua Ultraviolet Sterilizer for anything other than its intended use.

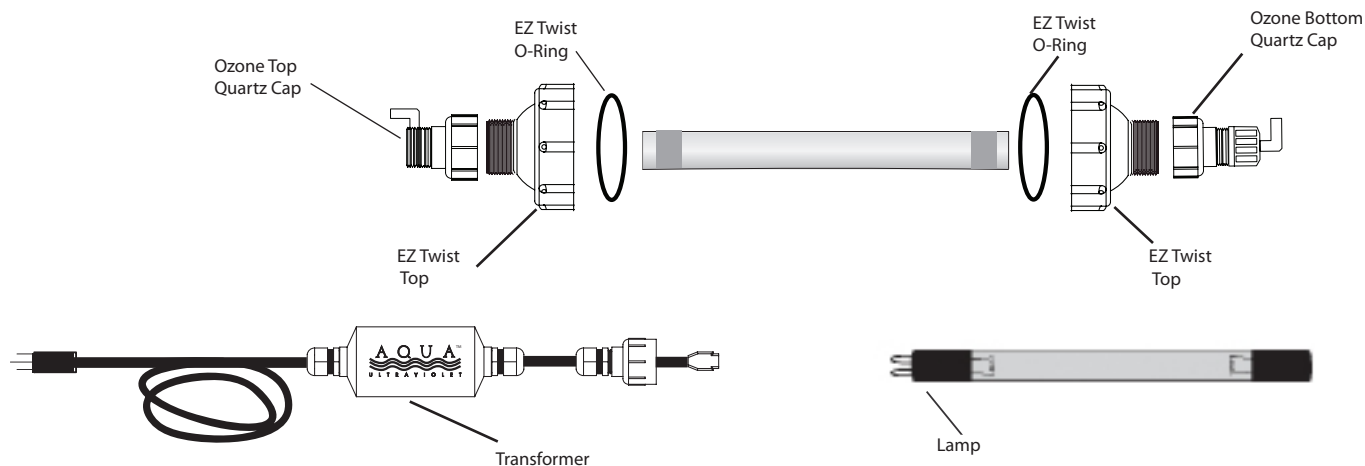
WINTERIZING



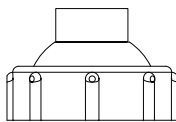
CAUTION: Always turn off the pump and disconnect electricity from the unit prior to any maintenance.

Option 1: If you are going to continually run water through your unit and it will be exposed to freezing temperatures be sure to install winterizing caps (sold separately) on the unit and take all the internal parts inside (Quartz Sleeve, EZ-Twist Top, Quartz Cap, Lamps, Rubber Seals, and Small Transformers). NEMA Transformer Boxes may be left outside.

Take these parts inside



Option 2: If you are not flowing water through your system, use two winterizing caps with EZ Twist O-Ring, drain the unit completely and take the internal parts inside. If the unit is not completely drained, the water will freeze and crack the housing. This is not covered under warranty. Check with the venturi manufacturer for winterization instructions.

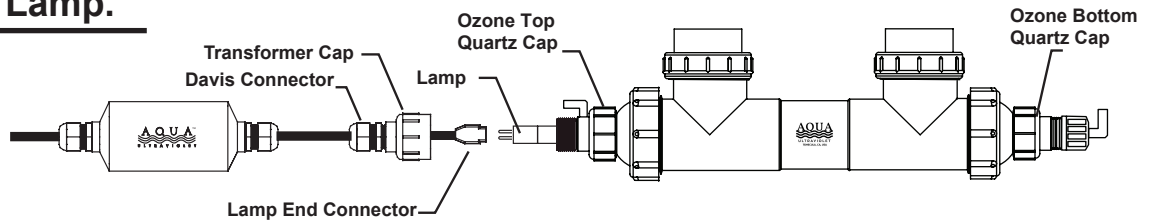


Option 3: If you don't have a winterizing cap and are not going to run water through the system, remove the Lamp, disconnect unions and take the entire unit inside. Store the Lamp separately to avoid breakage.



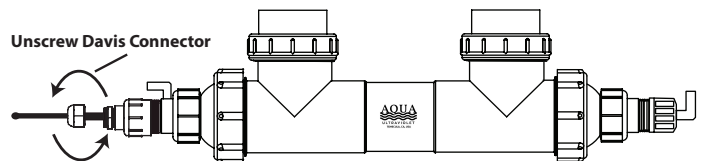
CAUTION: Always turn off the pump and disconnect electricity from the unit prior to any maintenance.

Changing the Lamp.

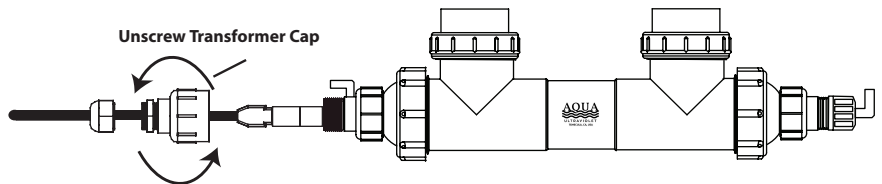


1. Unplug the Unit from the power source and turn off the pump.

2. Unscrew the Davis or Hubl Connector located behind the Transformer Cap, this allows your Transformer Cap to spin freely.



3. Twist off the Transformer Cap.



4. Slide Lamp out, be careful not to slide the Lamp out at an angle, even a slight angle, this may cause a "U" shaped crack at the end of the Quartz Sleeve, or possible breakage of the Lamp. A broken Lamp or Quartz Sleeve are not covered under warranty.

5. Disconnect the Lamp End Connector from the old Lamp.

6. Plug the new Lamp flush into the Lamp End Connector. If the Lamp is not plugged in all the way it may cause damage to the unit and is not covered under warranty. Use Genuine Aqua Ultraviolet lamps or the warranty is voided.

7. Insert the Lamp straight into the Quartz Sleeve. Be careful, inserting the Lamp at an angle, even a slight angle, can cause a "U" shaped crack in the Quartz Sleeve.

8. Twist on the Transformer Cap. Do not over tighten. This is a connection only and is not in contact with water.

9. Tighten the Davis or Hubl Connector located behind the Transformer Cap.

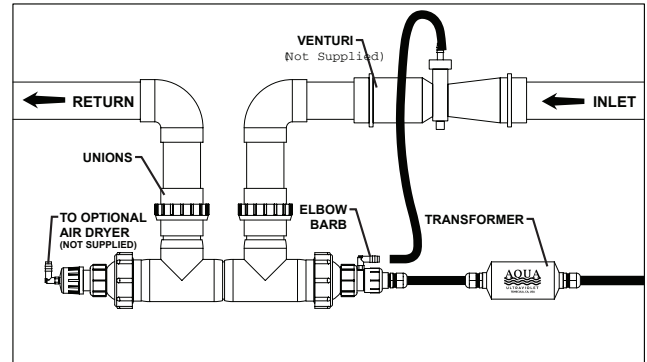
10. FINAL LEAK CHECK: Do not plug the Sterilizer into power yet, turn on the pump, let water run for 5 minutes and check for leaks.

11. Once a leak test is completed and there are no leaks, plug the Transformer into a GFCI outlet. Warranty is void if not plugged into a GFCI.

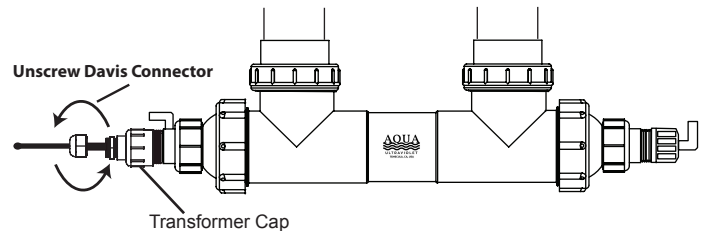
CLEANING OR REPLACING THE QUARTZ SLEEVE

1. Unplug the Unit from the power source and turn off the pump.

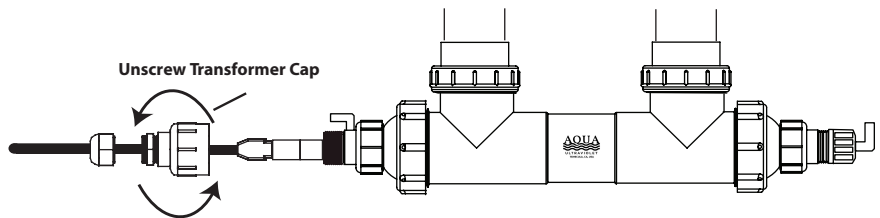
2. Disconnect Venturi Hose from the Bottom Quartz Cap Barb. Disconnect the Optional Air Dryer Hose if installed.



3. Unscrew the Davis or Hubl Connector located behind the Transformer Cap, this allows your Transformer Cap to spin freely.



4. Twist off the Transformer Cap.



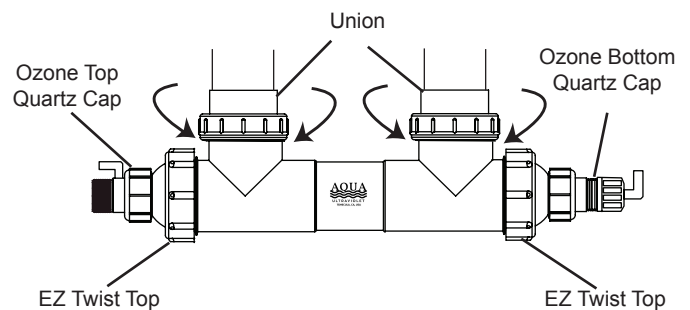
5. Slide Lamp out, be careful not to slide the Lamp out at an angle, even a slight angle, this may cause a “U” shaped crack at the end of the Quartz Sleeve, or possible breakage of the Lamp. Set the lamp on a secure level surface to avoid breakage.



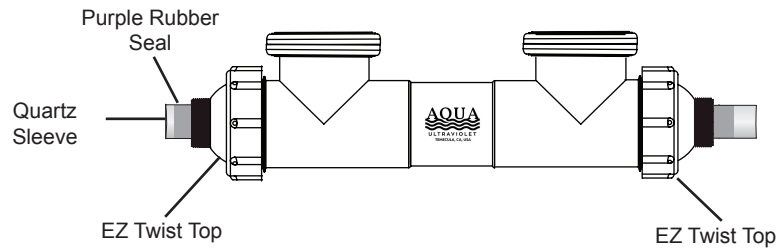
NOTE: The Lamps and Quartz Sleeves should be handled with care. Lamps and Quartz Sleeves are not warranted against breakage and damage.

6. Take the Unit offline by twisting and undoing the unions.

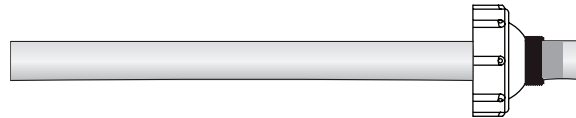
7. Remove the Top Quartz Cap and the Bottom Quartz Cap. (Remove both Blue Caps)



CLEANING OR REPLACING THE QUARTZ SLEEVE

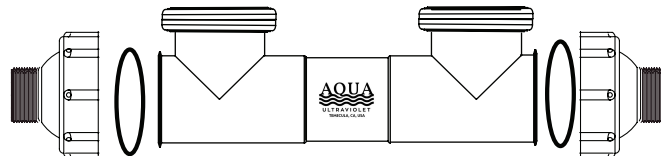


8. Start with the EZ Twist Top on the side of the unit with the shortest part of the Quartz Sleeve showing. (The Venturi Side). Twist the EZ Twist Top as far as you can off, then twist it on again. This will loosen the rubber seal on both sides of the unit. Work the EZ Twist Top Back and forth until one end of the Unit's Rubber Seal is free from EZ Twist top.
9. Remove the Rubber Seal from the Quartz Sleeve.
10. Twist off the EZ Twist Top from the opposite side of the unit that still holds the quartz Sleeve.



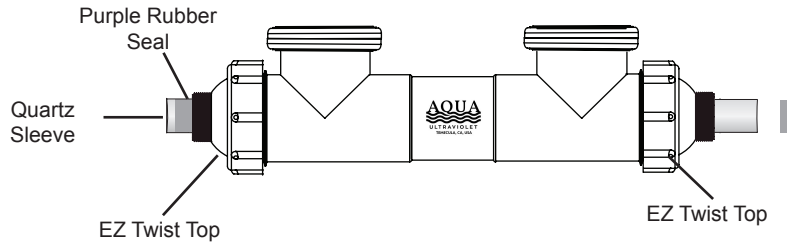
NOTE: The Lamps and Quartz Sleeves should be handled with care. Lamps and Quartz Sleeves are not warranted against breakage and damage.

11. The Quartz Sleeve can be cleaned with Lime Away, CLR or similar products. Do not use any type of abrasive substance on the Quartz Sleeve as it may scratch the Quartz.
12. To Re-install the Quartz Sleeve, separate the Quartz Sleeve from the EZ Twist Top by pushing the Quartz Sleeve up through the center of the EZ Twist Top. Remove the Rubber Seal. Be careful not to break the Quartz Sleeve. Handling broken glass can cause injury. If your Quartz Sleeve is broken, protect your hands before servicing.



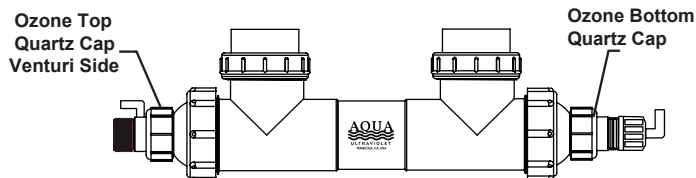
13. To reinstall the Quartz Sleeve Screw on the EZ Twist Tops. Make Sure that the EZ Twist Tops have the EZ Twist O-Ring Installed. Do not use a pipe wrench, pliers or any other tool on this unit. Tighten by hand only.

CLEANING OR REPLACING THE QUARTZ SLEEVE



CAUTION: Do not use any lubricant on the Rubber Seals or Quartz Sleeves

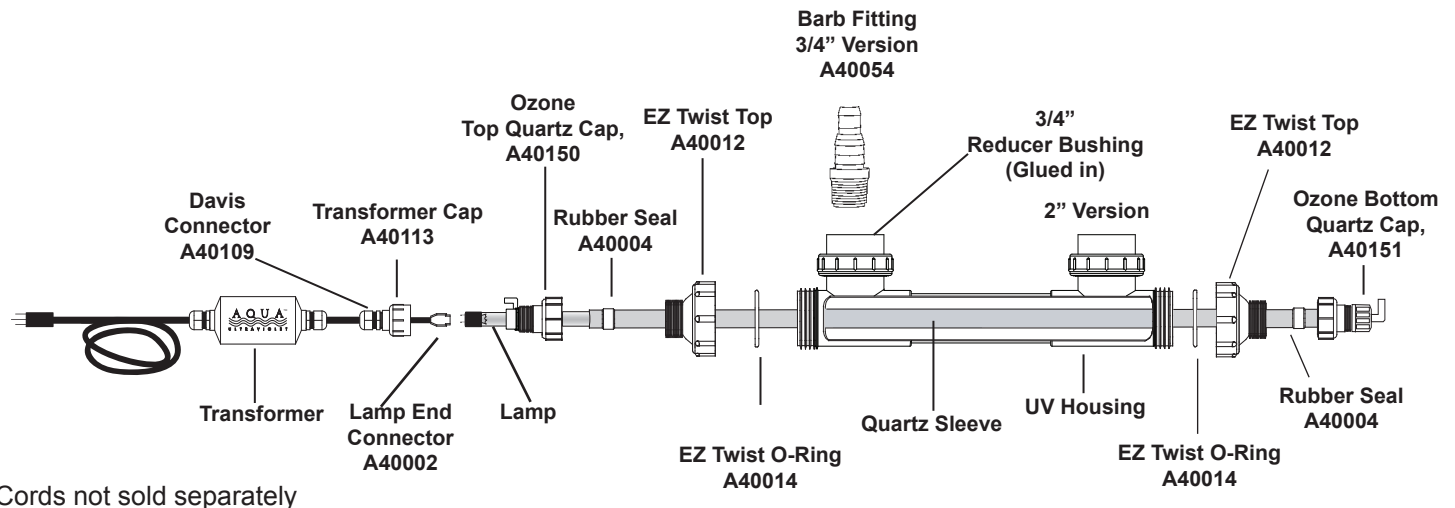
14. Push the Rubber Seal on one side of the End of the Quartz Sleeve. Leaving only 1/4" of the end of the quartz sleeve showing. Insert the Quartz Sleeve into the Unit. Gently push the Quartz Sleeve into the Unit until only half the Rubber Seal is visible. This will be the Venturi side of the unit. It is imperative not to cover the Elbow on the Ozone Top Quartz Cap with the Quartz Sleeve.
15. On the opposite side of the Unit gently push the Rubber Seal down the Quartz Sleeve into the EZ Twist Top until only half the rubber seal is visible.



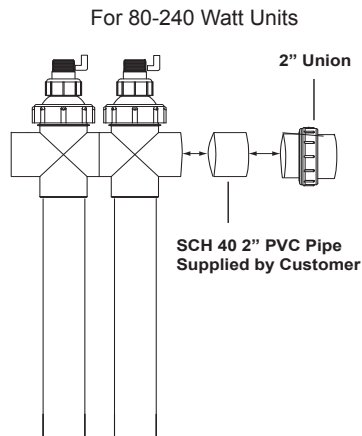
16. Start both Quartz Caps do not tighten yet. Be sure to put the Ozone Top Quartz Cap on the side of the unit with the shortest part of the Quartz sleeve showing to ensure that the Venturi connection is not blocked.
17. Tighten both Quartz Caps at the same time. Do not use a pipe wrench, pliers or any other tool on this unit. Tighten by hand only. Tightening both Quartz Caps at the same time prevents the Quartz Sleeve from shifting in the housing.
18. Re-install the Lamp as Shown on page 19, starting at #6.






PARTS LIST

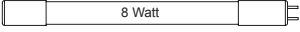

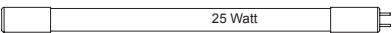


Use genuine Aqua Ultraviolet Parts or the warranty is voided.



Cords not sold separately



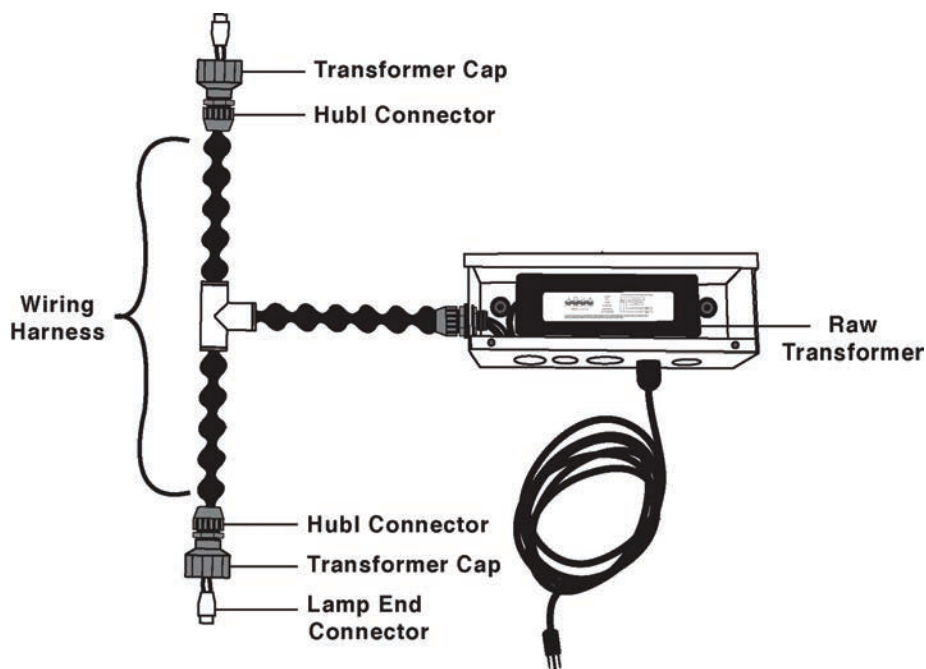
QUARTZ SLEEVES	LENGTH	PART #
	15"	A10009
	15"	A10016
	19"	A10026
	36"	A10045
	19"	A10058

LAMPS	LENGTH	PART #
	11-1/2"	A20008
	11-1/2"	A20015
	17-3/8"	A20025
	33-3/8"	A20040
	17-3/8"	A20057

PART #	Description
A30007	8 Watt Transformer
A30014	15 Watt Transformer
A30024	25 Watt Transformer
A30044	40 Watt Transformer
A30055	57 Watt Transformer
A40002	Lamp End Connector
A40109	Davis Connector
A40113	Black Transformer Cap
A40150	Ozone Top Quartz Cap
A40151	Ozone Bottom Quartz Cap
A40004	Rubber Seal, Purple
A40012	EZ Twist Top, White, w/ O-Ring
A40014	O-Ring for EZ Twist Top
A40054	Barb Fitting 3/4"
A40124	Mounting Clip Grip Hold
A40007	Winterize Cap
A40032	2" Union White

PARTS LIST TRANSFORMERS

THE CLASSIC SERIES NEMA TRANSFORMERS



PART #	Description
A30080	80W NEMA Transformer
A30120	120W NEMA Transformer
A30160	160W NEMA Transformer
A30200	200W NEMA Transformer
A30240	240W NEMA Transformer
A30042	RAW 40 Watt Transformer
A30082	RAW 80 Watt Transformer

PART #	Description
A40002	Lamp End Connector
A40109	Davis Connector
A40088	Hubl Connector
A40113	Transformer Cap, Black

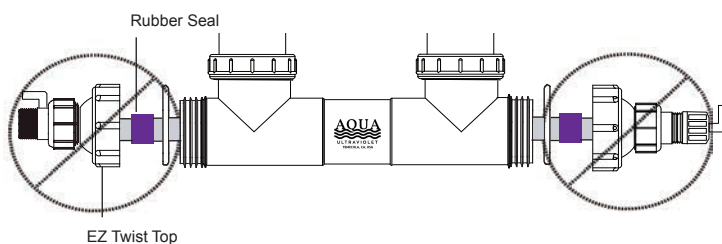
PART #	Description
A40065	Wiring Harness 80 Watt
A40066	Wiring Harness 120 Watt
A40092	Wiring Harness 160 Watt
A40093	Wiring Harness 200 Watt
A40094	Wiring Harness 240 Watt

* NEMA transformers are the entire Transformer component. Complete transformers come with a NEMA box, RAW transformer, wiring harness, hubl connector, transformer cap, lamp end connector, and power cord.

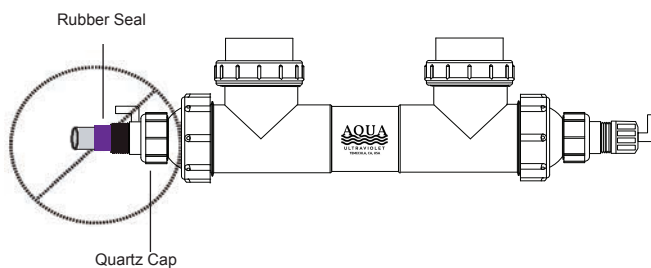
INCORRECT INSTALLATIONS

The Following will Damage the Unit's Electrical Components

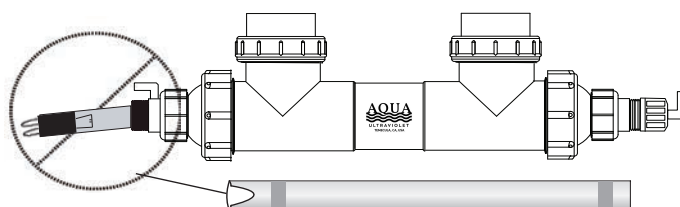
Incorrect: EZ Twist Top Over Rubber Seal
See Page 22 for Proper Quartz Sleeve installation



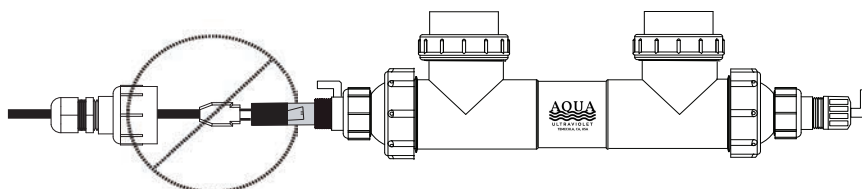
Incorrect: Rubber Seal is Outside of Quartz Cap
See Page 22 for Proper Quartz Sleeve installation



Incorrect: Lamp at an Angle will create a U Shaped Crack
See Page 15 for Proper Lamp installation



Incorrect: Lamp Not Plugged Flush with Lamp End Connector
See Page 15 for Proper Lamp installation





EPA Est 68177-CA-001

MAILING ADDRESS

PO Box 2189
Temecula, CA 92593

MAIN OFFICE

42371 Avenida Alvarado
Temecula, CA 92590
Toll Free: (800) 454-2725
Tel: (951) 296-3480
www.aquauv.com