

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

Drinking Water UV Instruction Manual





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

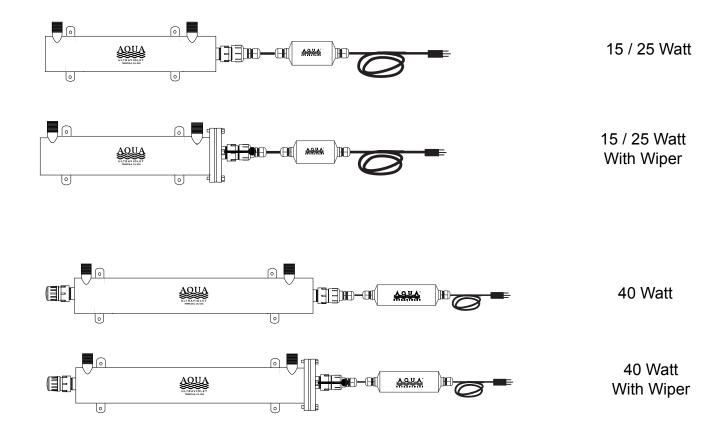




Follow us on Instagram www.instagram.com/aquauv







UV Sterilizer	Flow Rate Gallons Per Minute
15 Watt	4 - 6
25 Watt	6 - 8
40 Watt	8 - 10

TABLE OF CONTENTS

Important Information	 	 	 1
Warranty Information	 	 	 2
Introduction	 	 	 4
How Ultraviolet Works	 	 	 4
Installation Instructions	 	 	 5
Trouble Shooting Leaks	 	 	 . 7
Installing the Lamp	 	 	 . 8
Changing the Lamp	 	 	 . 9
Cleaning the Quartz Sleeve	 	 	 . 10
Cleaning the Quartz Sleeve for Wiper Units	 	 	 · 11
Wiper Maintenance	 	 	 . 13
Parts List			
Incorrect Installations			

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!

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:

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 Agua 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 CONTINUED

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.

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 municipal drinking water, aquaculture, public and commercial aquariums, educational institutions, government agencies and research organizations throughout the world.

Aqua Ultraviolet water sterilizers are made from 316 stainless steel. We utilize germicidal ultraviolet lamps that produce short wave radiation that is lethal to bacteria, viruses and other micro-organisms commonly found in the water supply.

HOW ULTRAVIOLET WORKS

The Ultraviolet Lamp emits a germicidal ray which alters or disrupts the DNA or RNA of single celled organisms. By properly implementing an Aqua Ultraviolet System in-line, these organisms can be eradicated effec-tively without any harmful residuals.

Your Aqua Ultraviolet System was made to work as a control for single celled organisms, water borne bacteria, viruses, algae, fungi and protozoa.



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. 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.

DRINKING WATER UV INSTALLATION INSTRUCTIONS



NOTE: We recommend that this product be installed by a professional plumber. If you install this product yourself, please ensure that your installation meets all local building and plumbing codes. The following instructions are meant only as a general guide and should not be considered a substitution for your local plumbing and / or building codes.



NOTE: We recommend brass unions be installed before the Ultraviolet Sterilizer Connections.



WARNING: Read the instructions carefully. Never look at a lighted ultraviolet lamp; it can be harmful to the eyes.



WARNING: Be sure water pressure coming into the UV Sterilizer is below 125 PSI

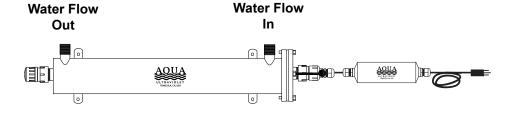
Ultraviolet Installation:

You may require additional plumbing adapters to connect to your water line. Your plumber will have all of these items, or they can be purchased at your local hardware or plumbing supply store at Minimal cost (take these instructions to the store with you so the store clerk can make sure you get everything you need).



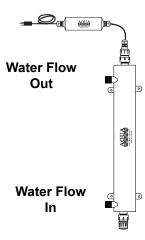
NOTE: In older homes with galvanized pipe all fittings should be threaded.

- 1. Check UV and components: The Ultraviolet lamp is wrapped and packaged separately to avoid breakage. Handle only with clean gloves.
- 2. Shut off the main water supply and drain the pipes. Opening the highest and lowest fixtures in the house will help drain the pipes. Based on your personal plumbing configuration, additional plumbing supplies may be needed.
- 3. On Units with a Wiper Option remember to allow enough space around the unit to pull the Wiper Rod all the way out. On all Units allow space to change the lamps.
- 4. Location of UV unit: The UV Unit should normally be installed horizontally which is preferred, using the brackets provided on the unit. Clearance on the head end should be a few inches more than the overall length of the chamber to allow for replacing of the lamp and quartz sleeve. It should be protected from dust, heat, and freezing. Do not remove the ground prong on the electrical plug. In wet areas, run a separate ground wire from the chamber or power supply to the ground.



DRINKING WATER UV INSTALLATION INSTRUCTIONS

5. In a Vertical Installation, the lowest chamber is always the untreated water inlet, and the highest is always the disinfected water outlet.



- 6. An Inlet manual shutoff valve should be installed. Teflon tape should be used on all threaded connections to ensure a good seal.
- 7. After tightening the Quartz Caps and all other plumbing connections have been made, flow water slowly into the sterilizer and verify that there are no leaks around the Quartz Cap seals. If there are any leaks, turn off water to home, drain some water out of the UV Chamber, provide a small amount of additional tightening and turn the water back on. Make sure unit is mounted securely before operating.
- 8. 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.
- 9. If there are no leaks, turn pump off and continue installing the lamp (on page 8). If units leaks turn pump off and continue to troubleshooting leaks on page 7.



Leaks from Quartz Cap / O-Ring

Retighten Quartz Cap. If it still leaks, make sure the O-Ring is not kinked and is sitting inside the Quartz Cap prior to installation. See Page 10.



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 Page 10).



Leaks from Gasket

Retighten the Bolts and Nuts aroung the Flange, if the Gasket still leaks check for kinks in the Gasket.



Leaks from outside the Wiper Nut

If you notice a leak between the base of the unit and the nut, the Wiper Nut may need more Teflon tape for a tighter seal. If the leak persists, please contact our customer service department at (800) 454-2725 for assistance.



Leaks from the Wiper Rod

If you notice a leak between the Wiper Nut and the Wiper Rod, the seal may be cracked or damaged. If this occurs, please contact our customer service department at (800) 454-2725 for assistance.



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 and damage.



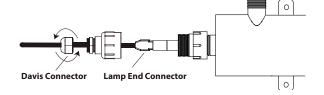
WARNING: Do not install the Lamp at an angle (even a slight angle); this may cause a U shaped crack at the end of the Quartz Sleeve, or possible breakage of the Lamp. If this should happen, do not proceed with the installation. Purchase a new Quartz Sleeve or Lamp from your dealer and refer to the proper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



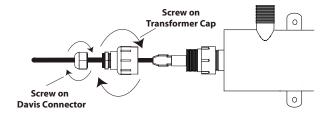
NOTE: Do not force the Lamp into the Quartz Sleeve.

INSTALLING THE LAMP

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



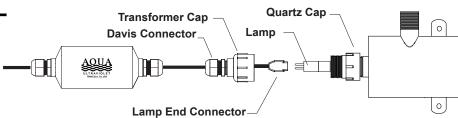
- 5. Tighten the Davis connector located behind the Transformer Cap.
- 6. FINAL LEAK CHECK: Do not plug the Sterilizer into power yet, turn on the water supply, let water run for 5 minutes and check for leaks. If there are any leaks, go to page 7 for trouble shooting leaks.
- 7. Once a leak test is completed, and there are no leaks, plug the Transformer into a GFCI outlet.

MAINTENANCE



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

Changing the Lamp



- 1. Unplug the UV from the power source and turn off the water supply.
- 2. Unscrew the Davis Connector located behind the Transformer Cap, this allows your Transformer Cap to spin freely.
- Davis Connector Lamp End Connector

- 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 break the Lamp.
- 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.
- 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 or break the lamp.
- 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 Connector located behind the Transformer Cap.
- FINAL LEAK CHECK: Do not plug the Sterilizer into power yet, turn on the water supply, 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.

- 1. Unplug the UV from the power source and turn off the water supply.
- Unscrew the Davis Connector located behind the Transformer Cap, this allows your Transformer Cap to spin freely.
- Davis Connector Lamp End Connector

- 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 break the Lamp.



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

5. For 15/ 25 Watt Units: Remove the Quartz Cap at the end of the sterilizer chamber. Slide the quartz sleeve out.

For 40 Watt Units: Remove the Quartz Cap at both ends of the sterilizer chamber. Slide the Quartz Sleeve out.

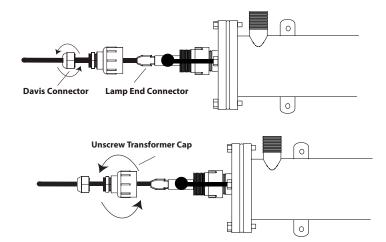
- 6. The Quartz Sleeve can be cleaned with Lime Away, CLR or similar products.
- 7. To reinstall the Quartz Sleeve, carefully insert the Quartz Sleeve through the stainless steel nipples, allowing an equal amount to extend beyond each nipple (single ended sleeves must be carefully centered and bottomed into the spring on the "blind" end). Replace the Quartz Cap O-ring into the Quartz Cap not around the Quartz Sleeve. Firmly hand-tighten each Quartz Cap around the quartz sleeve. Avoid over tightening the Quartz Caps, this may cause a fracture on the end of the quartz sleeve. Under normal operating conditions, hand tightening will provide a 125 PSI seal.



- 8. After tightening the Quartz Caps and all other plumbing connections have been made, flow water slowly into the sterilizer and verify that there are no leaks around the Quartz Caps. If there are any leaks, release the water pressure, provide a small amount of additional tightening and re-pressurize the sterilizer. See Trouble shooting leaks on page 7.
- 9. Proceed to Installing the lamp on Page 8.

CLEANING THE QUARTZ SLEEVE FOR WIPER UNITS

- 1. Unplug the UV from the power source and turn off the pump.
- Unscrew the Davis 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. Set the lamp on a secure level surface to avoid breaking.
- 5. Pull the Wiper Rod completely out (fully extended).



6. Remove both Quartz Caps and Slide out Quartz Sleeve.



NOTE: Do not use any type of abrasive substance on the Quartz Sleeve as it may scratch the quartz.

7. The Quartz Sleeve can be cleaned with Lime Away, CLR or similar products.



NOTE: Use water only do not use any lubricant.

- 8. Once the sleeve has been cleaned, wet the Wiper Blades and the outside of the Quartz Sleeve.
- 9. For 15/25 Watt Units: Push the Wiper Rod all the way in. Insert Quartz Sleeve through the Wiper Blades and into the Spring Seat in the bottom of the Unit.

For 40 Watt Units: Push the Wiper Rod all the way in. Insert Quartz Sleeve through the 3 Wiper Blades and in through the opposite end opening leaving equal amounts showing.

CLEANING THE QUARTZ SLEEVE FOR WIPER UNITS

10. Replace the Quartz Cap O-ring inside of the Quartz Cap not around the Quartz Sleeve. Firmly hand-tighten each Quartz Cap around the quartz sleeve. Avoid over tightening the Quartz Caps, this may cause a fracture on the end of the quartz sleeve. Under normal operating conditions, hand tightening will provide a 125 PSI seal.



- 11. After tightening the Quartz Caps and all other plumbing connections have been made, flow water slowly into the sterilizer and verify that there are no leaks around the Quartz Caps. If there are any leaks, release the water pressure, provide a small amount of additional tightening and re-pressurize the sterilizer. See Trouble shooting leaks on page 7.
- 12. Proceed to Installing the lamp on Page 8.

WIPER MAINTENANCE



NOTE: The Wiper Rod should be pulled at least once a week for optimum performance. Do not pull the Wiper Rod on a dry unit. Always wet the Quartz Sleeve first.

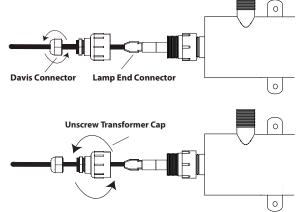


NOTE: It is recommended that the Wiper Pads be replaced every time you change your lamp.

REPLACING THE WIPER PADS

1. Unplug the unit and turn off the pump. Take the Unit off line for ease of maintenance.

2. Unscrew the Davis 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.

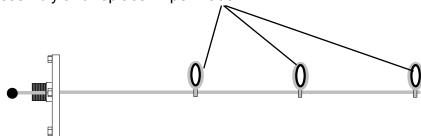


NOTE: The Lamps and Quartz Sleeves should be handled with care. Lamps and Quartz Sleeves are not warranted against breakage and damage.

5. **For 15/ 25 Watt Units:** Remove the Quartz Cap at the end of the sterilizer chamber. Slide the Quartz Sleeve out.

For 40 Watt Units: Remove the Quartz Cap at both ends of the sterilizer chamber. Slide the Quartz Sleeve out.

- 6. Using a 5/8" Wrench remove the Flange Bolts and Nuts. Do not remove the Wiper Nut. If you remove the Wiper Nut it will have to be replaced. You can not reuse a Wiper Nut once it has been removed over the Thread of a Wiper Rod.
- 7. Pull Out Wiper Assembly and replace Wiper Pads.



8. To Reinstall: Place the Gasket onto the Wiper Assembly. Insert Wiper Assembly into the chamber. Align the Wiper Blades with the hole for the Quartz Sleeve. Start each of the Flange Bolts and Nuts first, then tighten with a 5/8" wrench. Continue on to Page 11 Number 8 to install the Quartz Sleeve.

REPLACING THE WIPER NUT OR WIPER ROD

- 1. Unplug the unit and turn off the pump. Take the Unit off line for ease of maintenance.
- 2. Unscrew the Davis Connector located behind the Transformer Cap, this allows your Transformer Cap to spin freely.
- Davis Connector Lamp End Connector

- 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 break the Lamp.

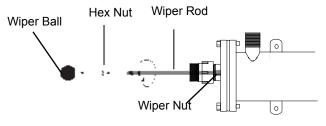


NOTE: The Lamps and Quartz Sleeves should be handled with care. Lamps and Quartz Sleeves are not warranted against breakage and damage.

5. **For 15/ 25 Watt Units:** Remove the Quartz Cap at the end of the sterilizer chamber. Slide the Quartz Sleeve out.

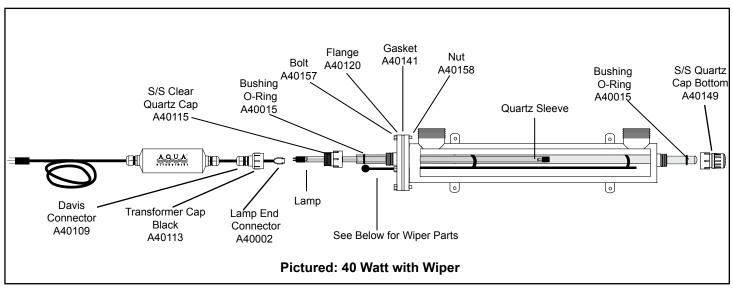
For 40 Watt Units: Remove the Quartz Caps at both ends of the sterilizer chamber. Slide the Quartz Sleeve out.

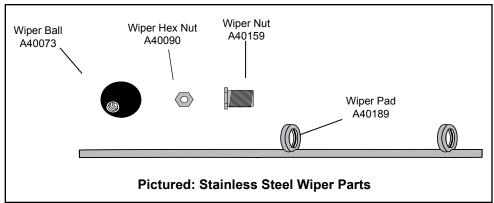
- 6. Unscrew the wiper ball and remove the hex nut and loosen the Wiper Nut.
- 7. If just Changing the Wiper Nut: Remove the old Wiper Nut. Replace With New Wiper Nut. Slide the Wiper Nut over the threaded end of the Wiper Rod. You may have to tap the Wiper Nut with a hammer to push it over the threads. Tighten the Wiper Nut with a 5/8" wrench.



- 8. If changing the Wiper Rod and Wiper Nut: Using a 5/8" Wrench remove the Flange Bolts and Nuts. Separate the Flange from the Chamber. Remove the Wiper Nut. You Can not reuse a Wiper Nut it must be replaced when the Rod is Replaced.
- 9. Install new Wiper Rod into the Flange. Place Wiper Rod Through the Gasket. Line up the holes of the Flange and start the Flange Nuts and Bolts with a 5/8" Wrench. **Do not Tighten yet.**
- 10. Slide the Wiper Nut over the threaded end of the Wiper Rod. You may have to tap the Wiper Nut with a hammer to push it over the threads. Start the Wiper Nut with a 5/8" wrench. **Do Not Tighten Yet**.
- 11. Tighten the Flange Bolts first, then tighten the Wiper Nut. Look into the unit through the Nipple at the end of the chamber and twist the Wiper Rod until the Wiper Blades are aligned. Twist on the Wiper Hex Nut and then the Wiper Ball. Continue on to Page 11 Number 8 to install the Quartz Sleeve

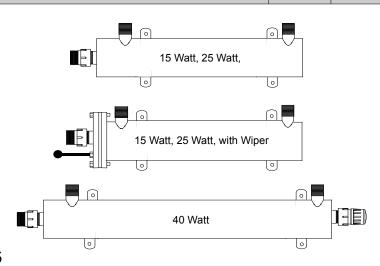
PARTS LIST





QUARTZ SLEEVES	LENGTH	PART#
15 Watt	19"	A10007
25 Watt	19"	A10010
40 Watt	36"	A10011

LAMPS	LENGTH	PART#
15 Watt	11-1/2"	A20015
25 Watt	17-3/8"	A20025
40 Watt	33-3/8"	A20040

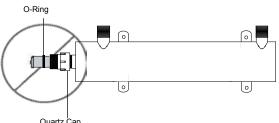


PART#	DESCRIPTION
A40115	Clear Quartz Cap S/S and DW Units
A40015	Bushing (O-ring) for Quartz Sleeve
A40149	Bottom Quartz Cap for S/S and DW Units
A40120	Wiper Flange for S/S and DW Units
A40141	Gasket for Flange for S/S and DW Units
A40157	Bolt for Flange for S/S and DW Units
A40158	Nut for Flange for S/S and DW Units
A40073	Wiper Ball Knob
A40090	Wiper Hex Nut
A40159	Wiper Nut for S/S and DW Units
A40189	Wiper Blade Pad for S/S and DW Units
A40161	Wiper Rod, with Wiper Blades Attached for 15W
A40162	Wiper Rod, with Wiper Blades Attached for 25W
A40163	Wiper Rod, with Wiper Blades Attached for 40W
A40002	Lamp End Connector
A40109	Davis Connector
A40113	Transformer Cap, Black
A30014	15 Watt Transformer, 120V/60Hz
A30024	25 Watt Transformer, 120V/60Hz
A30044	40 Watt Transformer, 120V/60Hz

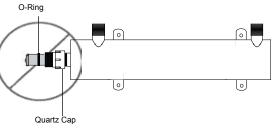
INCORRECT INSTALLATIONS

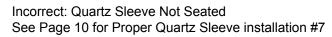
The Following will Damage the Unit's Electrical Components

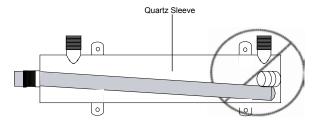
Incorrect: O-Ring is Outside of Quartz Cap See Page 10 for Proper Quartz Sleeve installation #7

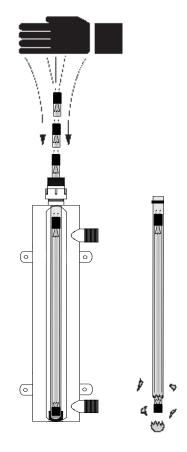


Lamp Dropped in Quartz Sleeve can Cause Breakage

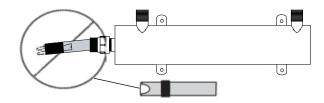




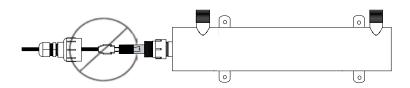




Incorrect: Lamp at an Angle will create a U Shaped Crack See Page 9 for Proper Lamp installation #7



Incorrect: Lamp Not Plugged Flush with Lamp End Connector See Page 9 for Proper Lamp installation #6





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