

# Instruction Sheet

## VIQUA Lamp and Quartz Sleeve Replacement

**Models:** D4, E4, F4, D4 Premium, Plus Models

**Discontinued Models:** A, B, C, D, E, F, B4, C4

Read and observe all labels attached to product. See further directions for use, precautionary statements, claims, storage and disposal information in system product manual.

The E4-50+, F4-50+ UV systems inactivate Cryptosporidium, Giardia, Escherichia coli (E. coli) and Fecal Coliform.

The B4, C4, D4, E4, F4, D4 Premium and Plus Models, IHS10-D4, IHS12-D4, IHS22-D4, IHS22-E4, IHS-10, UV-10, IHS12E-D4 UV systems have been validated through microbial testing. Through this testing, performance data has been generated for UV dose delivery to inactivate Cryptosporidium, Giardia, Escherichia coli (E. coli) and Fecal Coliform.

The D4-V, E4-V, F4-V and plus models, PUV-8, PUV-16, 660040-R/2AW, 660041-R/2AW, 660042-R/2AW UV systems inactivate heterotrophs, Escherichia coli (E. coli) and Fecal Coliform.

### Overview

**UV Lamp replacement:** The amount of UV light created by the UV lamp decreases over time, requiring that the UV lamp be replaced. The system will automatically notify you when it is time to replace the UV lamp.









**Lamp Sleeve replacement/maintenance:** Minerals in the water slowly form a coating on the quartz sleeve. This coating must be removed because it reduces the amount of UV light reaching the water, thereby reducing performance. If the lamp sleeve can not be cleaned, it must be replaced.

## Section 1 Safety Information

Please read this entire instruction sheet before installation. Pay attention to all danger, warning, and caution statements. Failure to do so could result in serious personal injury or damage to the equipment.

Make sure that the protection provided by this equipment is not impaired. Do not use or install this equipment in any manner other than that specified in the instruction sheet.

### 1.1 Safety Precautions

 <b>DANGER</b>	
	<p>Failure to follow these instructions will result in serious injury or death.</p>
	<p><b>Shock Hazard - Stored Energy</b></p> <ul style="list-style-type: none"> <li>• Disconnect power to system before performing any maintenance or repair.</li> <li>• There may be more than one source of power. Only connect to a GFCI.</li> <li>• Protective ground</li> <li>• DO NOT touch with wet hands.</li> </ul>
	
	
	<p><b>Pressurized Device - Impalement Hazard</b></p> <ul style="list-style-type: none"> <li>• NEVER perform any physical inspection, repair or maintenance on UV chamber unless UV chamber has been isolated and depressurized.</li> <li>• NEVER service UV lamps, lamp sleeves or associated hardware until depressurization of UV chamber has been confirmed.</li> <li>• DO NOT store any combustible or flammable material close to the system.</li> </ul>
	
	

## Maintenance

### ⚠ WARNING

Failure to follow these instructions could result in serious injury or death.

#### UV Light Hazard



- ALWAYS use UV protective gear, including gloves and UV safety glasses.
- NEVER look directly at illuminated UV lamp, even when using protective gear.
- NEVER illuminate UV lamp outside of the UV chamber.
- If accidental exposure occurs, immediately cool affected area and consult physician.



#### Contamination Hazard

- If UV lamp breaks, avoid inhalation, ingestion, or exposure to eyes and skin. Wear appropriate clothing and personal protective equipment.
- NEVER use a vacuum cleaner to clean up broken UV lamps as this will scatter the mercury. Obey local regulations and guidelines for the removal and disposal of mercury waste.



**WARNING:** This product can expose you to chemicals including Phthalates, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### ⚠ CAUTION

Failure to follow these instructions could result in minor or moderate injury.

#### Thermal Hazard



- Allow UV lamps, UV chamber to cool for a minimum of 10 (ten) minutes before handling.
- When there is no water flow, the water in the chamber will become hot. To prevent scalding, allow the system to cool for 10 minutes before draining the system.

#### Personal Injury Hazard



- UV lamps and lamp sleeves are fragile. Do not strike, bend or apply pressure, or they will break.
- DO NOT handle UV lamps or lamp sleeves with bare hands. Wear rubber or latex gloves to handle previously installed UV lamps and soiled lamp sleeves to protect against contaminants. Wear cotton gloves to handle new UV lamps and clean lamp sleeves.

#### Hg Exposure



- The UV lamp contains mercury. If the lamp breaks, then avoid inhalation or ingestion of the debris and avoid exposure to eyes and skin. Never use a vacuum cleaner to clean up a broken lamp as this may scatter the spilled mercury. Obey local regulations and guidelines for the removal and disposal of mercury waste.

### NOTICE

#### System Protection



- To protect the Controller, a UL 1449 certified (or equivalent) transient voltage surge suppressor is strongly recommended.

#### Avoid Injury

- Read and understand this Instruction Sheet before operating and performing any maintenance on this equipment.

## Section 2 Maintenance

### ⚠ WARNING



- Always disconnect power before performing any work on the UV system.
- Always shut-off water flow and release water pressure before servicing.
- Regularly inspect your UV system to ensure that the power indicators are on and no alarms are present.
- Replace the UV lamp annually (or biennially if seasonal home use) to ensure maximum performance.
- Always drain the chamber when closing a seasonal home or leaving the unit in an area subject to freezing temperatures.
- During extended periods of no water flow, the water in your chamber can become very hot (Approx. 60 °C) and potentially lead to scalding. It is recommended to run your water until this hot water has been purged from your chamber. Do not allow water to contact your skin during this time. To eliminate this condition, a temperature management valve can be installed at the outlet of your UV system.

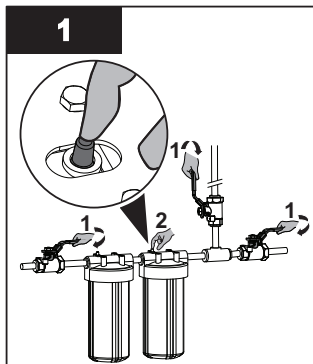
## 2.1 Replacing UV Lamp and Lamp Sleeve

### NOTICE

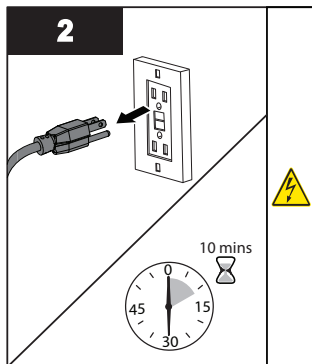
Do not use water during replacement of UV lamp.

Lamp replacement is a quick and simple procedure requiring no special tools. The UV lamp must be replaced after 9000 hours of continuous operation (approximately one year) in order to ensure adequate performance.

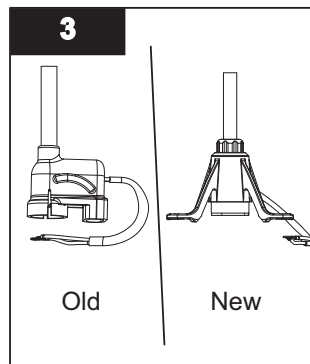
#### Procedure:



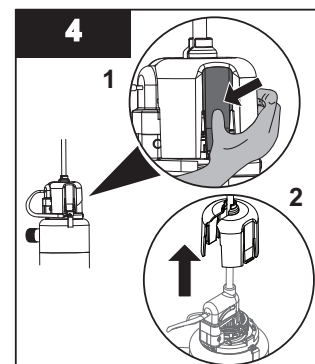
- Close all faucets and water supply.
- Press the pressure button to release the pressure from the cartridges.



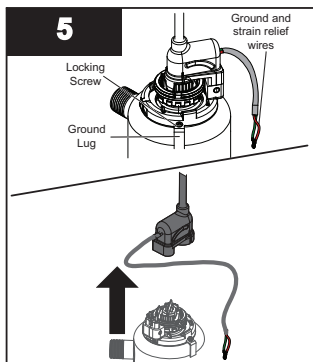
- Disconnect main power source and allow the unit to cool for 10 minutes.



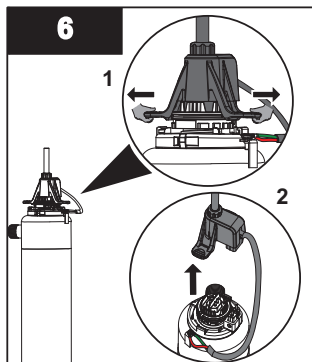
- For older style Lamp Connector follow steps 4 and 5. For new Lamp Connector follow steps 6 and 7.



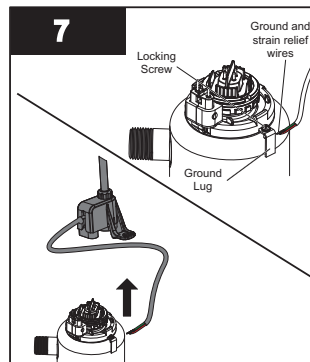
- Remove the safety cap by squeezing the tab.



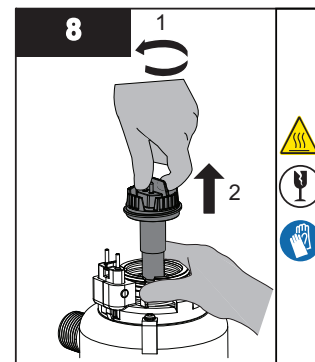
- Unscrew locking screw and remove ground and strain relief wires.
- Remove lamp plug.



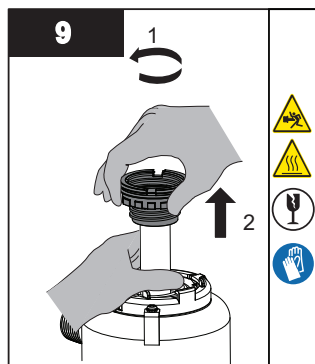
- Remove the lamp connector by pulling the tabs out and then upwards.



- Unscrew locking screw and remove ground and strain relief wires.
- Remove lamp plug.



- Hold sleeve bolt with one hand and turn lamp counter-clockwise and pull the lamp outside the chamber in upward direction.



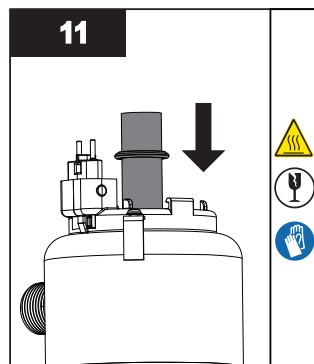
- Unscrew the sleeve bolt and carefully remove it from the top of the chamber.

**Note:** Sleeve may be attached to sleeve bolt. Hold sleeve with other hand while removing sleeve bolt.

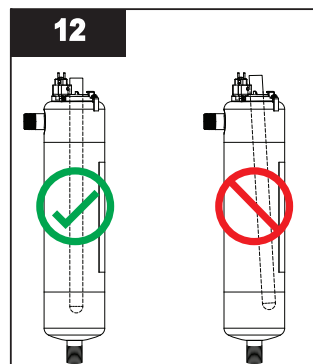


- Clean the quartz sleeve with a cloth soaked in CLR, vinegar or some other mild acid and then rinse with water.

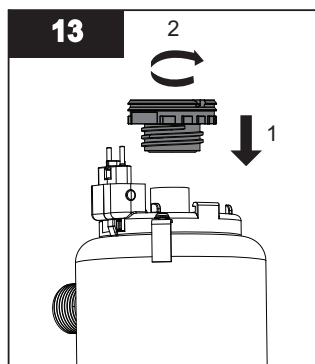
**Note:** If sleeve cannot be cleaned completely or it is scratched or cracked, then replace the sleeve.



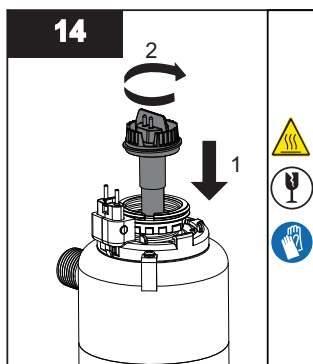
- Place O-ring on the sleeve as shown. Insert the sleeve into the chamber as shown in step 12.



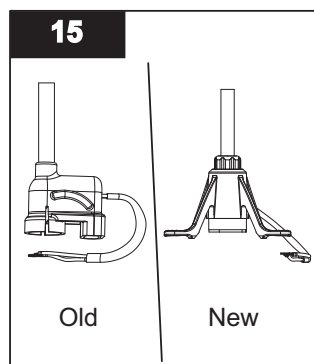
- Ensure quartz sleeve is properly centered in the chamber.



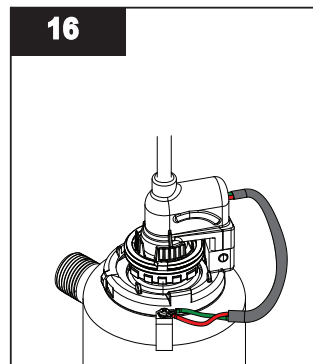
- Place new (grey) sleeve bolt onto the quartz sleeve, carefully push down and hand tighten onto chamber.



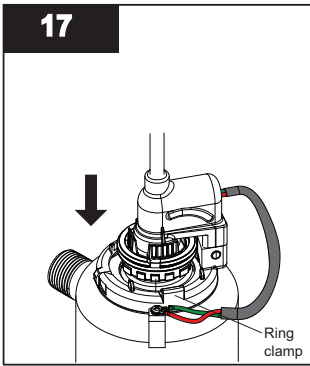
- Insert new lamp into the quartz sleeve and thread into sleeve bolt until hard stop.



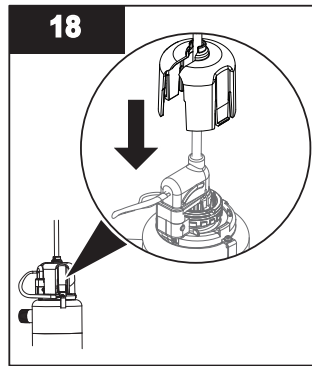
- For older style Lamp Connector follow steps 16, 17 and 18. For new Lamp Connector follow steps 19 and 20.



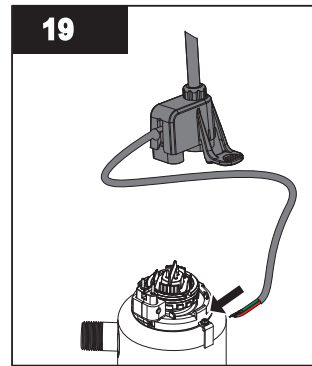
- Install the lamp plug.
- Attach ground and strain relief wires from the lamp plug to the ground lug located on the chamber.
- Secure both wires with locking screw provided.



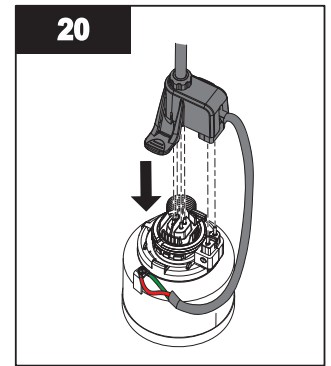
- Align connections by rotating ring clamp to push lamp plug onto end of lamp.



- Install the safety cap.

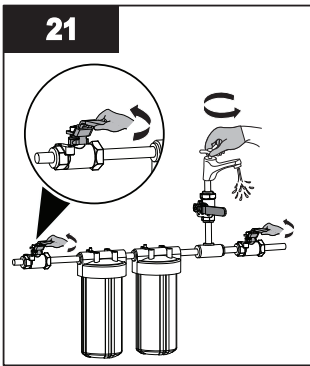


- Connect the green ground wire and red strain relief wire to the chamber using the grounding screw.



- Align connection pins with the lamp connector by rotating the ring clamp.
- Push the lamp connector down onto the lamp pins and the ring clamp pins until an audible click is heard.

**Note:** Ensure the connector is engaged on both sides.



- Open each faucets and turn on water supply.
- Inspect for any leaks.
- Perform the cleaning procedure. Refer to Owner's Manual.



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