

# Instruction Sheet

## VIQUA UVMAX Lamp and Quartz Sleeve Replacement

### Models: H, K, H+, K+, PRO10, PRO20, PRO30, PRO50, PRO24-186 and PRO24-100

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 H, H+, K, and K+ UV systems inactivates Cryptosporidium, Giardia, Escherichia coli (E. coli) and Fecal Coliform.

The PRO10, PRO20, and PRO30 UV systems inactivate Escherichia coli (E. coli), Fecal Coliform, Cryptosporidium, Giardia, and Rotavirus.

The PRO24-100 and PRO24-186 UV systems are validated through microbial testing. Through this testing, performance data has been generated for UV dose delivery to inactivate Cryptosporidium, Giardia, and Adenovirus.

The PRO50 UV system is validated through microbial testing. Through this testing, performance data has been generated for UV dose delivery to inactivate Cryptosporidium & Giardia.

### 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.

**Quartz 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 quartz sleeve can not be cleaned, it must be replaced.

## Section 1 Safety Information








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Please read this entire instruction sheet before operating this equipment. Pay attention to all danger, warning, and caution statements in this instruction sheet. 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.

## Safety Information


### 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, quartz 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>

<b>⚠ WARNING</b>	
  	<p>Failure to follow these instructions could result in serious injury or death.</p> <p><b>UV Light Hazard</b></p> <ul style="list-style-type: none"><li>• ALWAYS use UV protective gear, including gloves and UV safety glasses.</li><li>• NEVER look directly at illuminated UV lamp, even when using protective gear.</li><li>• NEVER illuminate UV lamp outside of the UV chamber.</li><li>• If accidental exposure occurs, immediately cool affected area and consult physician.</li></ul> <p><b>Contamination Hazard</b></p> <ul style="list-style-type: none"><li>• If UV lamp breaks, avoid inhalation, ingestion, or exposure to eyes and skin. Wear appropriate clothing and personal protective equipment.</li><li>• 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.</li></ul>
	<p><b>WARNING:</b> 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.</p>


<b>⚠ CAUTION</b>	
    	<p>Failure to follow these instructions could result in minor or moderate injury.</p> <p><b>Thermal Hazard</b></p> <ul style="list-style-type: none"><li>• Allow UV lamps, UV chamber to cool for a minimum of 10 (ten) minutes before handling.</li><li>• 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.</li></ul> <p><b>Personal Injury Hazard</b></p> <ul style="list-style-type: none"><li>• UV lamps and quartz sleeves are fragile. Do not strike, bend or apply pressure, or they will break.</li><li>• DO NOT handle UV lamps or quartz sleeves with bare hands. Wear rubber or latex gloves to handle previously installed UV lamps and soiled quartz sleeves to protect against contaminants. Wear cotton gloves to handle new UV lamps and clean quartz sleeves.</li></ul> <p><b>Hg Exposure</b></p> <ul style="list-style-type: none"><li>• 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.</li></ul>

**NOTICE**

	<p><b>Avoid Injury</b></p> <ul style="list-style-type: none"> <li>Read and understand this Instruction Sheet before operating and performing any maintenance on this equipment.</li> </ul>
	<p><b>System Protection</b></p> <ul style="list-style-type: none"> <li>To protect the Controller, a UL 1449 certified (or equivalent) transient voltage surge suppressor is strongly recommended.</li> </ul>

## Section 2 Maintenance

**⚠ WARNING**

	<ul style="list-style-type: none"> <li>Always disconnect power before performing any work on the UV system.</li> <li>Always shut-off water flow and release water pressure before servicing.</li> <li>Replace the UV lamp biennially to ensure maximum performance.</li> <li>Always drain the chamber when closing a seasonal home or leaving the unit in an area subject to freezing temperatures.</li> </ul>
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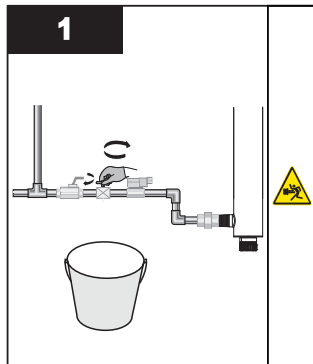
### 2.1 Replacing UV Lamp

**NOTICE**

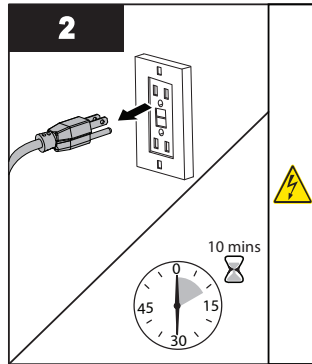
Do not use water during replacement of UV lamp.

The amount of UV light created by the lamp decreases over time, requiring that the lamp be replaced. The system will automatically notify you when it is time to replace the lamp (the lamp should last approximately 18000 hours).

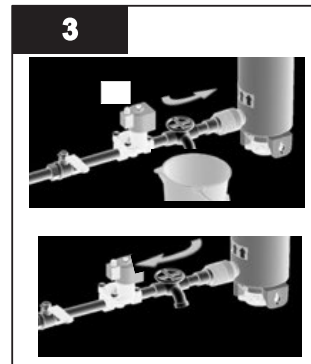
**Procedure:**



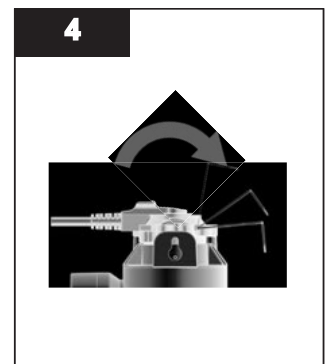
- Shut off the water line to chamber and release system pressure before servicing.



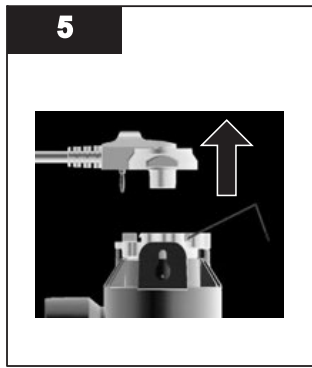
- Disconnect main power source and allow the unit to cool for 10 minutes.



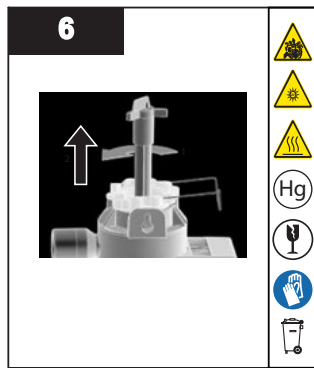
- Drain the water from the UV system.
- Close the water inlet after the water is drained.



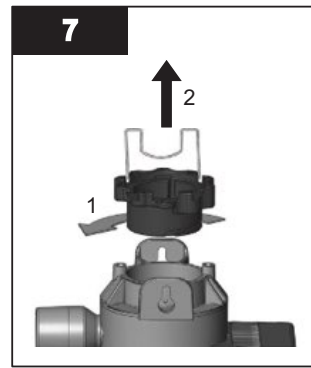
- Pinch wire form to release the safety cap.



- Remove the harness.



- Turn lamp counter-clockwise and pull straight up out of chamber.
- Discard the old UV lamp.



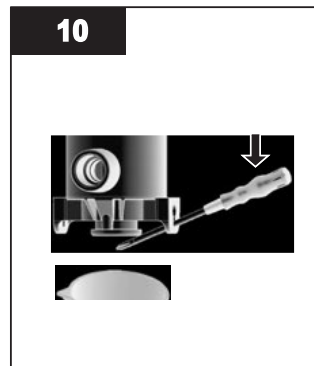
- Remove the sleeve bolt from top of the sleeve assembly.



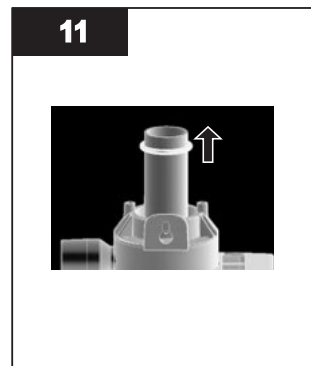
- Remove the locking screw.
- Remove the sleeve bolt at the bottom end of the sleeve assembly.



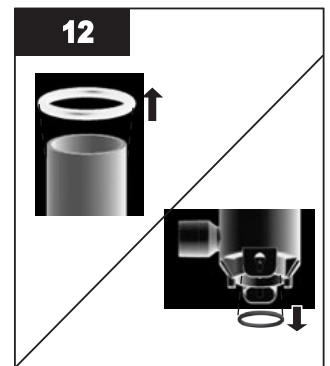
- Insert the sleeve removal tool at the bottom of the sleeve.



- Pry sleeve upwards using sleeve removal tool until it comes loose.
- Note:** Place a pail to collect spills.



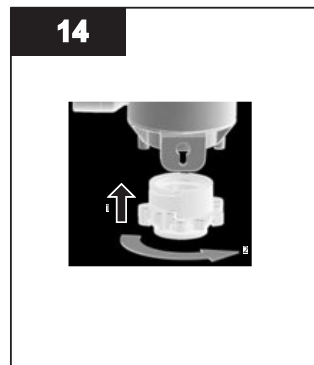
- Remove the sleeve.



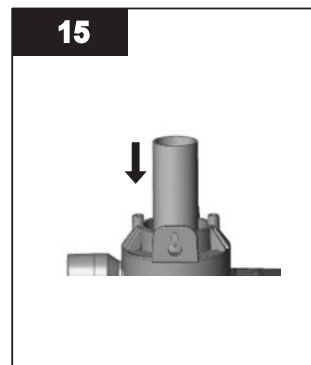
- Remove O-ring from top of the sleeve.
- Remove O-ring from bottom of the chamber.



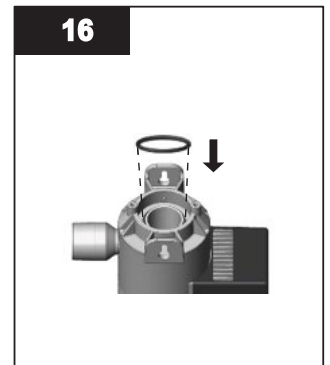
- Clean the sleeve with a cloth soaked in CLR, vinegar or some other mild acid and then rinse with water.



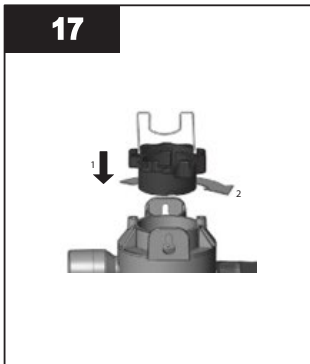
- Connect the sleeve bolt at the bottom of the sleeve assembly.



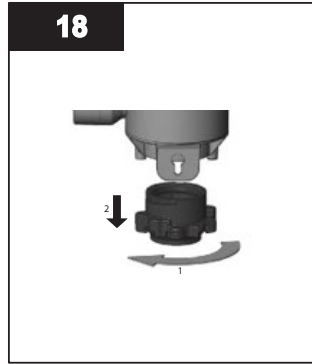
- Reinstall the sleeve.



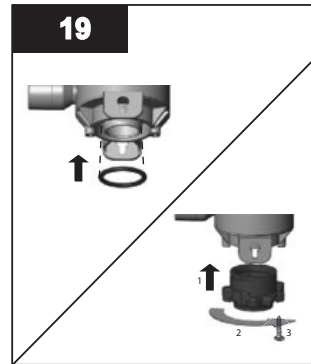
- Reinstall the new lubricated o-rings over the top end of the sleeve.



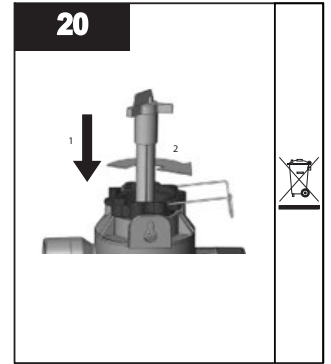
- Connect the sleeve bolt to the top of the sleeve assembly.



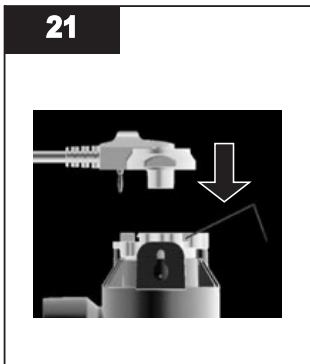
- Remove the sleeve bolt at the bottom of the sleeve assembly.



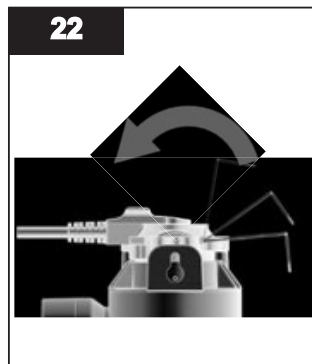
- Reinstall the O-ring at the bottom of the sleeve.
- Connect the sleeve bolt at the bottom.
- Install locking screw to bottom sleeve bolt.



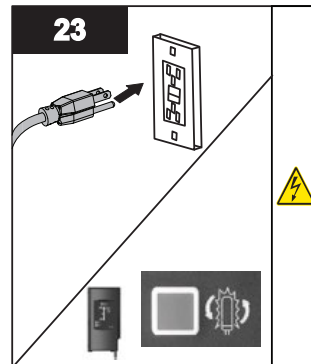
- Insert new lamp into chamber and lock into place using a quarter turn clockwise.



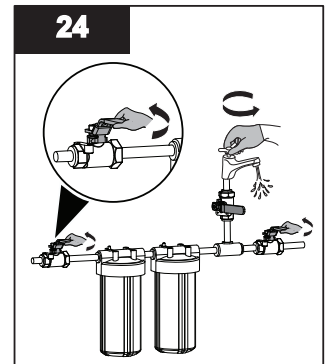
- Install harness to chamber.  
**Note:** Ensure lamp harness ground is inserted into chamber ground terminal.



- Lock the wire form into position.



- Restore Power.
- Press and hold the "New Lamp" button for 5 seconds till you hear a beep.



- Turn on the water supply.

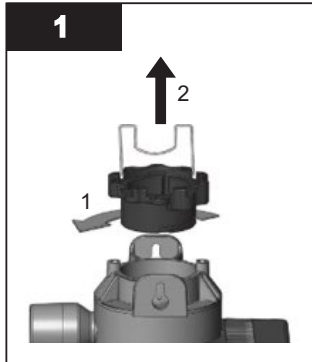
## 2.2 Cleaning and Replacing Sleeve

**Note:** 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 sleeve can not be cleaned, it must be replaced.

### Prerequisites:

- Shut off water supply and drain all lines.
- Depressurize the unit. Place a small pail under the unit to catch any spills.
- Remove the UV lamp. Refer to [Section 2.1](#).

### Procedure:



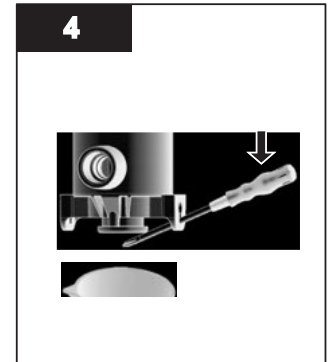
- Remove the sleeve bolt from top of the sleeve assembly.



- Remove the locking screw.
- Remove the sleeve bolt at the bottom end of the sleeve assembly.

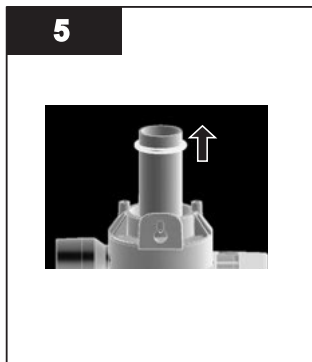


- Insert the sleeve removal tool at the bottom of the sleeve.

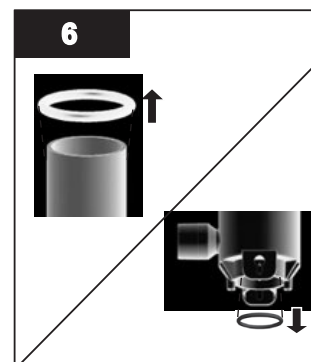


- Pry sleeve upwards using sleeve removal tool until it comes loose.

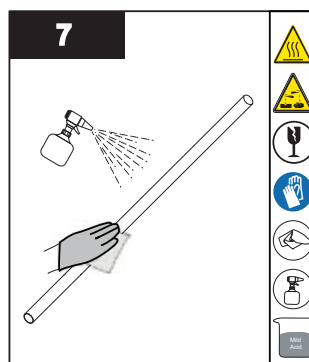
**Note:** Place a pail to collect spills.



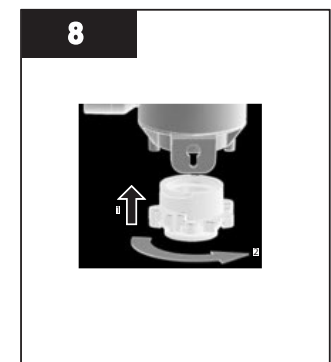
- Remove the sleeve.



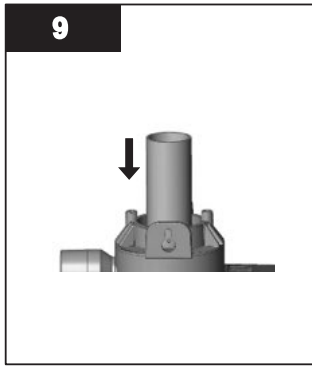
- Remove O-ring from top of the sleeve.
- Remove O-ring from bottom of the chamber.



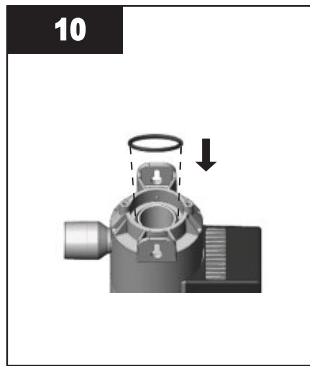
- Clean the sleeve with a cloth soaked in CLR, vinegar or some other mild acid and then rinse with water.



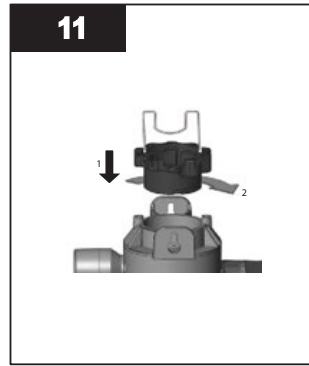
- Connect the sleeve bolt at the bottom of the sleeve assembly.



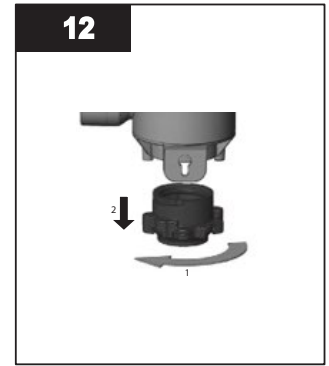
- Reinstall the sleeve.



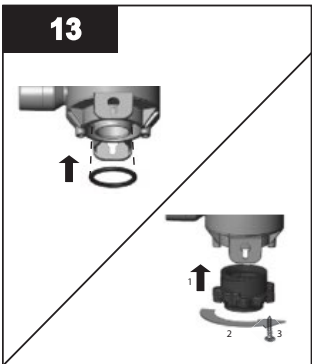
- Reinstall the new lubricated o-rings over the top end of the sleeve.



- Connect the sleeve bolt to the top of the sleeve assembly.



- Remove the sleeve bolt at the bottom of the sleeve assembly.



- Reinstall the O-ring at the bottom of the sleeve.
- Connect the sleeve bolt at the bottom.
- Install locking screw to bottom sleeve bolt.

**Note:** Perform the cleaning procedure. Refer to Owner's Manual.



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