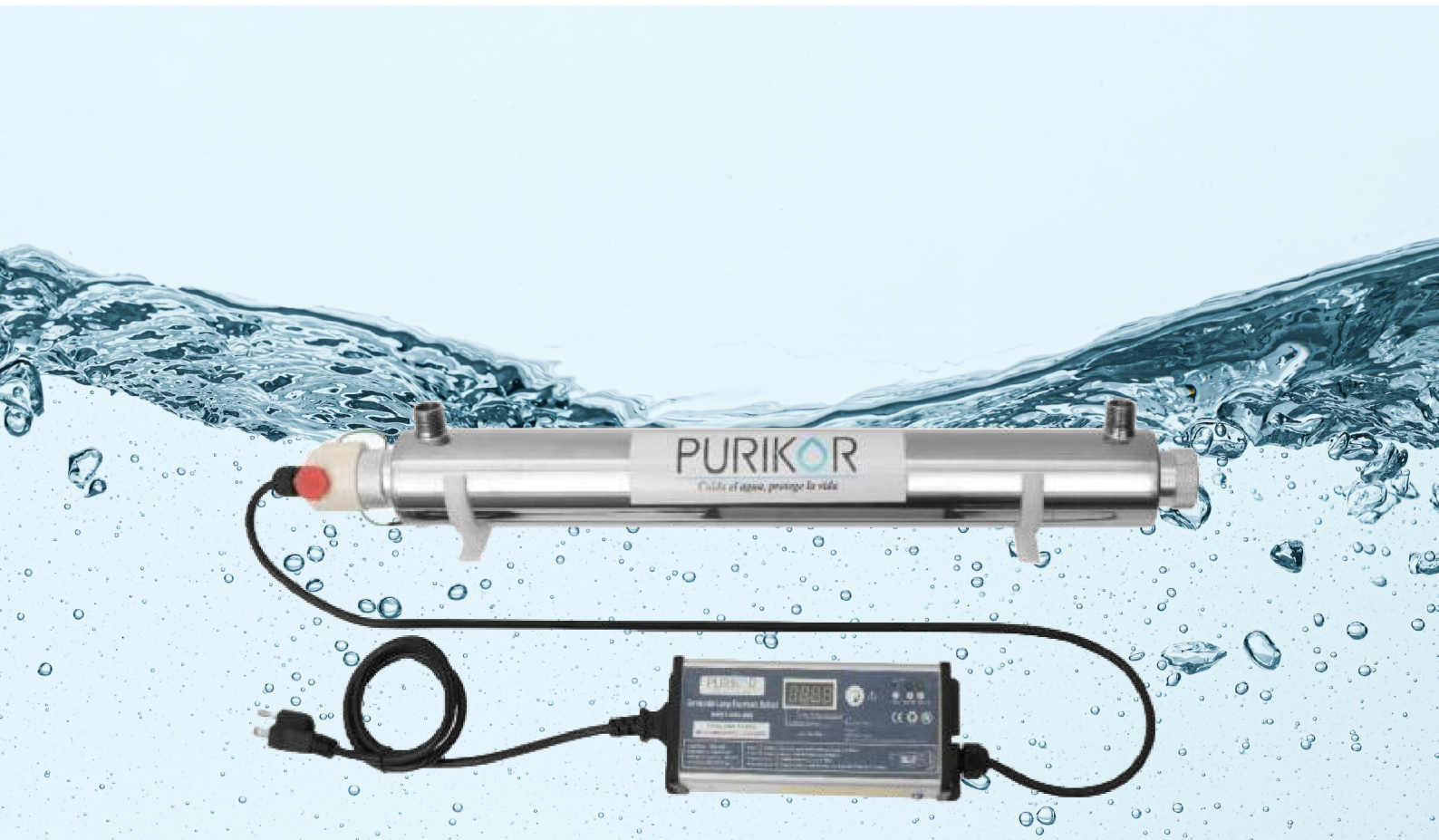


# PURIKOR



## **GOLD SERIES**

UV LIGHT DISINFECTION SYSTEM

V1.0  
23/02/2024

INSTALLATION MANUAL

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### **Abstract**

Thank you for your preference when purchasing our PURIKOR GOLD series UV light disinfection system.

With the help of this instruction manual you will be able to carry out a correct installation and keep your product in optimal operation, which is why we recommend that you follow the instructions included here.

Keep this manual in a safe place for future reference.

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# 1. INTRODUCTION

This PURIKOR product uses advanced ultraviolet light disinfection techniques to deliver healthy water. The central part of this system is the ultraviolet light emitting bulb that can eliminate bacteria, viruses and microorganisms.

# 2. SAFETY INSTRUCTIONS

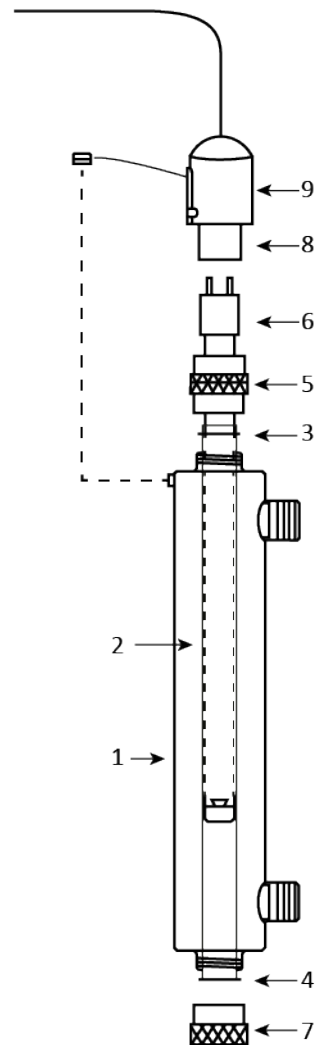


## CAUTION

- The ballast must be connected to physical ground.
- Ultraviolet light is not visible to the human eye, but it can damage the eyes and skin. Never see the emitting bulb light directly while it is turned on. Do not remove the emitter bulb from the stainless steel camera with the electrical current turned on. If it is necessary to see the emitting bulb turned on, it is necessary to wear safety glasses.
- It is always important to exercise caution to avoid risks of receiving electric shocks or causing fire. It is recommended to place a separate thermal tablet to protect the electrical supply of the ultraviolet disinfection system
- Avoid touching the stainless steel camera or the emitter bulb when it is turned on or minutes after disconnecting it as you can burn your hands. If you need to do so, wear protective gloves

### 3. PRODUCT PARTS

1. 304SS stainless steel camera
2. Quartz sleeve
3. O-ring (2, one spare)
4. Stainless steel inlet cover for quartz sleeve
5. UV emitter bulb
6. 4-pin ballast connector
7. Cover
8. Electronic ballast
9. Lamp brackets



#### NOTE

These models do not have a spring.

## 4. TECHNICAL SPECIFICATIONS

**Models:** PKUV-6-RAV-PK, PKUV-12-RAV-PK

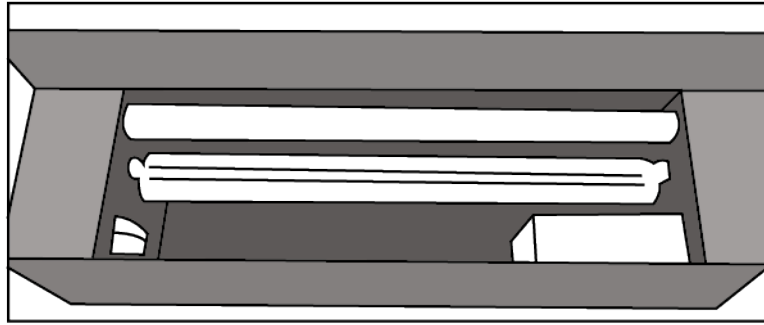
**Application:** For drinking water, food, medicinal and industrial processes.

**Function:** Disinfect bacteria, viruses, microorganisms, algae and mold in water.

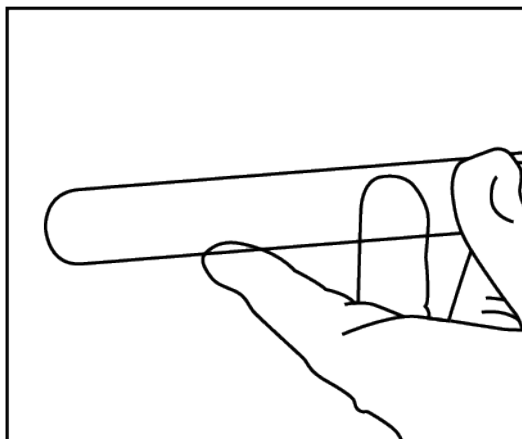
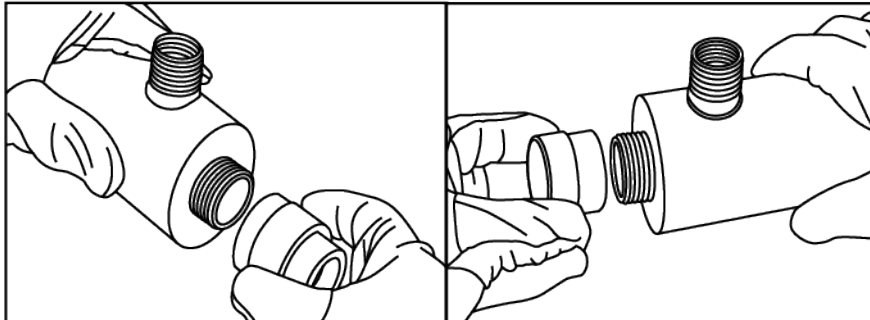
UV System Model	PKUV-6-RAV-PK	PKUV-12-RAV-PK
CAPACITY	6 GPM	12 GPM
INPUT VOLTAGE	110-240 V/50-60 Hz	
EMITTER BULB	25 watts	55 watts
ENERGY CONSUMPTION	32 watts	72 watts
INPUT/OUTPUT CONNECTION	1/2" NPT female	3/4" female NPT
STAINLESS STEEL CHAMBER	23.4" * 2.48"	37.40" * 2.48"
BALASTRA MEASURE	8.07" * 3.14" * 2.28"	
MAXIMUM OPERATING PRESSURE	145 psi/10.19 kg/cm <sup>2</sup> /10 bar	
MAXIMUM CURRENT	0.44 A	

## 5. INSTALLATION

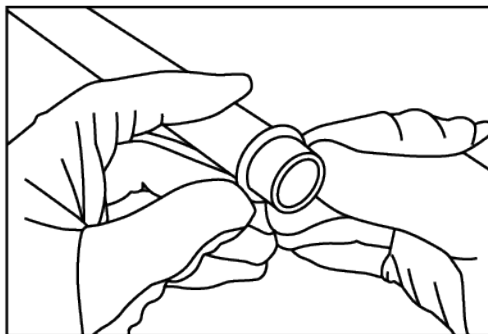
1. Please open the product and check that all the parts mentioned above are present. In addition, it is important to check that the installation location where the product is to be placed has an electrical connection and water supply as specified and that it is easily accessible to perform maintenance on the product.



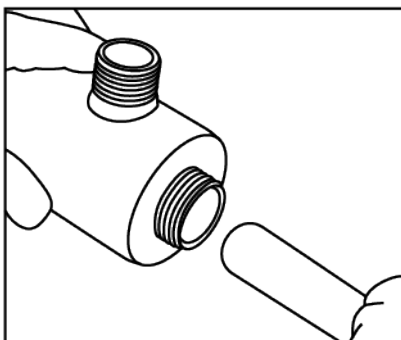
2. Make sure the quartz sleeve and the UV light bulb are clean before installation. If necessary, clean them with alcohol or a mild detergent. Use soft gloves to prevent them from being stained by fingerprints
3. Remove the stainless steel chamber caps.



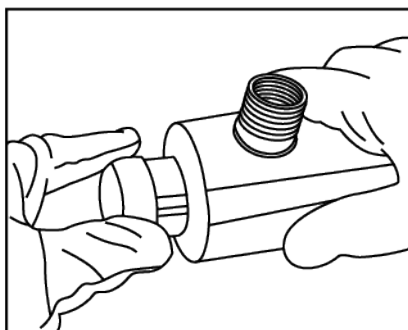
4. Install the O-ring on the open side of the quartz sleeve (0.47 inches from the edge).



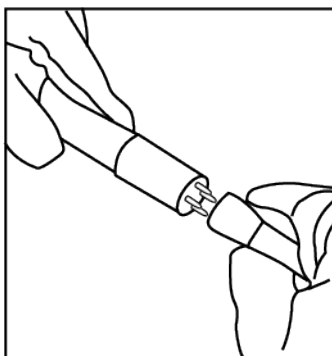
5. Place the quartz sleeve inside the stainless steel chamber.



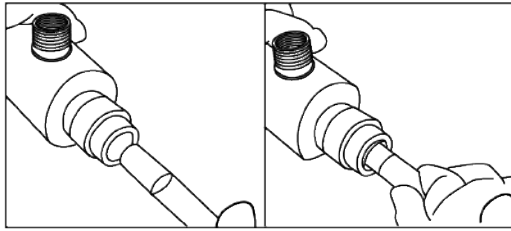
6. Screw on the stainless steel chamber cap. Avoid overtightening the cap to avoid damaging the O-ring or quartz sleeve.



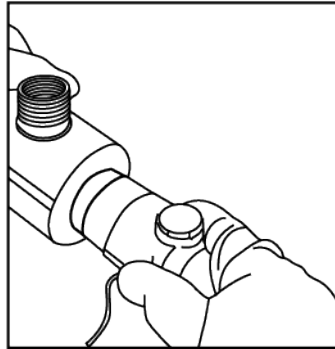
7. Connect the 4-pin UV emitter bulb to the electronic ballast.



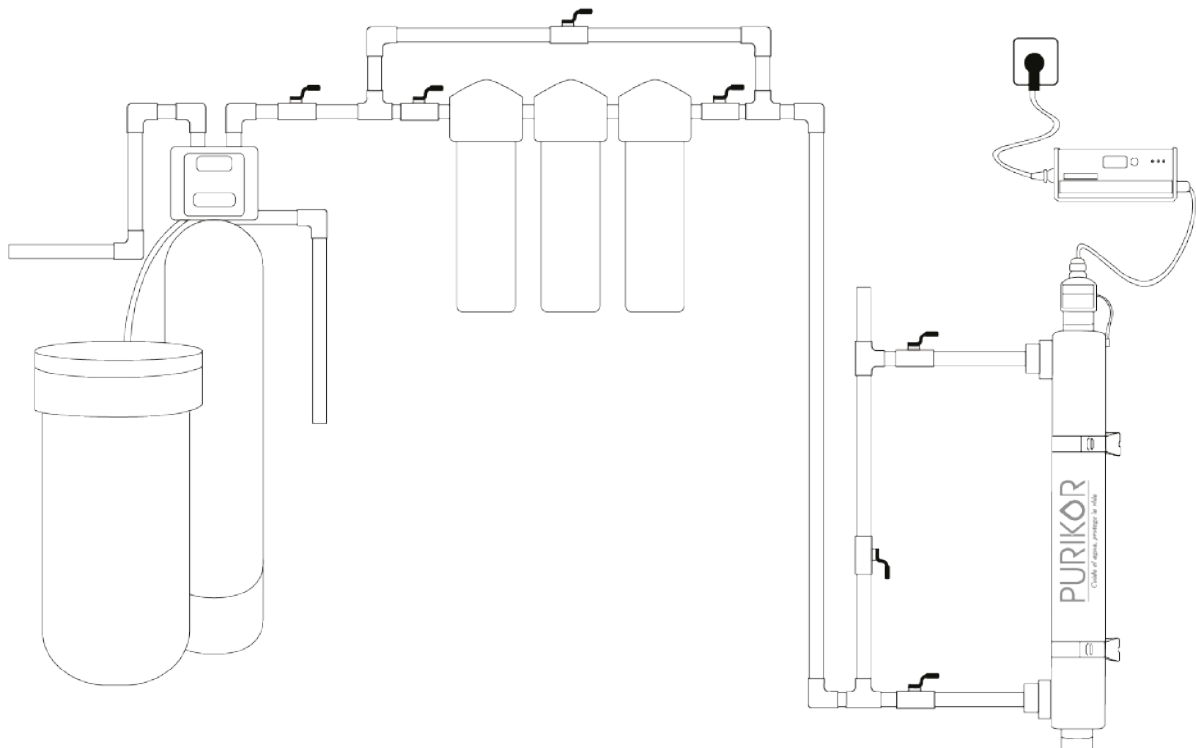
8. Carefully insert the UV emitting bulb into the quartz sleeve through the open cover.



9. Place the plastic cover over the open lid of the stainless steel chamber.



10. Sterilization product should be placed as close as possible to the point of use and can be used vertically or horizontally. Make sure the water outlet is always at the top.
11. Make the hydraulic connection of the product. When you are ready, you can open the water valve slowly and check for leaks.
12. Let the water to run for several minutes so that it is clear and air is released from the stainless steel chamber.
13. Connect the ballast to the electrical current and check that the green bulb is turned on and that the number 365 appears on the screen indicating the lifespan in available days of the lamp. If the bulb is red and/or there is an audible alarm, you should check that it is properly connected to the ballast.



## 6. OPERATION AND MAINTENANCE

1. Water Quality Guides
  - The ultraviolet disinfection system is used in clear water and should not be colored, cloudy or cloudy.
  - Ambient water temperature 35.6- 113°F
  - Iron < 0.3 ppm (0.3 mg/l)
  - Hardness < 7 grains per gallon (120mg/l)
  - Turbidity < 1NTU
  - Manganese 0.05ppm (0.05mg/l)
  - Transmittance: > 75%
2. Check the installation before connecting the ballast to electrical power.
3. Do not attempt to install the product if the UV emitting bulb or quartz ballast is broken. Replace them with a new one before continuing.
4. The UV disinfection system is designed for continuous operation. Avoid turning it off and on as this reduces ultraviolet radiation and the lifespan of the emitting bulb
5. If the unit falls into water, immediately turn off the power and then recover it. Do not attempt to use the product if it has been submerged in water.
6. Do not operate the product if the power cord or any of its connections are damaged, if it has been dropped or damaged in any way.
7. The ultraviolet light disinfection system should be installed after the filtration product in the water supply line.
8. If the product is at temperatures below the freezing point of water, it is important to disconnect it from the water supply and drain it completely to avoid damage to it.

### Maintenance

1. It is important to frequently check that the product is in operation.
2. The UV emitter bulb must be replaced every 365 days of operation. The ballast has an indicator of elapsed days starting at 365 days. When the life meter reaches 0, the visual alarm will turn red and the auditory alarm will sound, indicating that the bulb must be replaced with a new one. It is important to replace the emitter bulb even though it is still on since the intensity of ultraviolet light is no longer sufficient to ensure adequate water disinfection
3. It is important to clean the quartz sleeve every 3 to 6 months with alcohol or some detergent so that the quartz does not prevent the passage of UV light. If you have tartar, it is important to remove it with vinegar or with a light acid such as citric acid
4. If the product is not used for a long time, we recommend turning it off and closing the hydraulic water supply.

## 7. BALASTRO

R-PKBAL.GOLD6



### CAUTION

- Before turning on this ballast, protect your eyes from direct UVC radiation.
- You must turn off the power of the UV lamp before making any changes.
- To ensure your safety, this ballast has comprehensive control and protection functions.

For proper operation, the replacement of the ballast should be considered if any of the following circumstances exist:

1. The UV lamp looks worn out or the lamp burned out
2. Broken UV lamp filament
3. Work beyond the voltage tolerance or load power limitation



### NOTE

Do not confuse the input/output cable to prevent the ballast from burning.

### Requirements:

1. Make sure the supply voltage is adequate
2. Confirm that the power of the UV lamp is the same as the ballast's output power
3. Ensure that the plug and cable are connected properly. The grounding cable must be solid and reliable

### Features:

- Working condition: green LED light on the ballast indicates in operation, red LED light indicates that it does not work, the digital display indicates the number normally.
- Overload protection: when the UV lamp breaks, there will be an abnormal output, the ballast will not work.
- Work timer function: 2 options: one is for the ballast operation timer, from zero to 9999 days; the other option is to indicate the lifespan of the ultraviolet lamp with a countdown from 365 days to zero. The working schedule of the ultraviolet lamp is the default option. If you want to change the ballast operation timer, press the "SELECT" button for 2 seconds. Repeat this action for 2 seconds, you can change it back to the default settings
- UV lamp replacement alarm: if the working hours of the UV lamp count from 1 to 0, the digital screen shows "A3", the red LED light blinks and/or the sound alarm is activated, this will indicate that you should replace the old UV lamp with a new one.
- If the digital screen shows a red LED flash with the legend "LF", it indicates that you should check the lamp, if the lamp is damaged, you should replace it with a new one.
- If the digital display shows the legend LV: Incorrect voltage to the UV lamp, this may indicate that the ballast is damaged.
- Restarting the ballast: when the UV lamp is finished it will start working, hold down the "SECLECT" button for 10 seconds until the digital screen shows the word "RSET" pressing continuously for another 5 seconds until the screen shows the number "0365" and you will hear an audible alarm. Release the button and it will successfully reset another work cycle.

## Specifications

Model	R-PKBAL.GOLD6
UV lamp power	10 - 40 W
Voltage	100 - 240 V
Frequency	60 Hz
Maximum current	0.55 A
Total current harmonics	$\leq 15\%$
Power factor	0.96
Lamp current peak factor	$\leq 1.7$
UV lamp lifespan	365 days in countdown
Ballast lifespan	0 - 9999 days
Protection from abnormal situations	Yes

## 8. SOLUTION OF POSSIBLE FAULTS

Problem	Possible cause	Possible solution
Light indicator and audible alarm off	<ul style="list-style-type: none"> <li>• Disconnected product</li> <li>• There is no electricity</li> <li>• Damaged electrical cable</li> <li>• Power source damage</li> </ul>	<ul style="list-style-type: none"> <li>• Check for electrical current</li> <li>• Check power supply connection</li> <li>• Reactivate thermals</li> <li>• Replace power supply</li> </ul>
Thermal is constantly disconnected	<ul style="list-style-type: none"> <li>• Bad connection or the connection may be wet</li> <li>• Short circuit in power supply</li> </ul>	<ul style="list-style-type: none"> <li>• Check product connection</li> <li>• Check that the lamp is clean, dry and properly connected</li> <li>• Replace power supply</li> </ul>
Leak in hydraulic connections	<ul style="list-style-type: none"> <li>• Problem in hydraulic connection of the product</li> <li>• Failure of hydraulic material</li> </ul>	<ul style="list-style-type: none"> <li>• Check hydraulic connections</li> <li>• Check O-ring</li> <li>• Connect with Teflon tape</li> </ul>
Leak in the stainless steel chamber area	<ul style="list-style-type: none"> <li>• Humidity condensation in the stainless steel chamber</li> <li>• O-ring damage or deterioration</li> <li>• Lamp and sleeve not properly assembled</li> </ul>	<ul style="list-style-type: none"> <li>• Control humidity or relocate product</li> <li>• Check packaging and replace it</li> <li>• Tighten the connections well without overdoing it to avoid damaging product.</li> </ul>
Visual and/or Auditory Alarm	<ul style="list-style-type: none"> <li>• Fused focus</li> <li>• Problem connecting to the emitter bulb</li> <li>• Alarm keeps annual</li> </ul>	<ul style="list-style-type: none"> <li>• Check electrical connection of product to eliminate alarm</li> <li>• Check electrical current</li> <li>• Check continuity in bulb</li> <li>• Replace with a new emitter bulb</li> </ul>