

Owner's Manual

Thank you for purchasing a

Trevoli **SENTRY**

Ultraviolet Water Purification System

Applications: Drinking water, rainwater from water tanks, medical and industrial, etc.

The **Sentry UV** range is a combined filtration and UV water disinfection treatment system that is able to remove impurities and safeguard your tank water supplies against bacteria, viruses, and pathogens. The **Sentry UV** series provides safe, potable water for small, medium, and large houses. It can also be used in any other water treatment application where a combination of pre-filtration and UV water disinfection is required. Power Input: 230V @ 50Hz.



Complete Water Treatment is achieved in 3 steps

1. Twin Coarse Filtration – The first stage removes impurities and sediment larger than 20 microns, and the second stage removes impurities and sediment larger than 1 micron.
2. Carbon Block Filtration (if installed as an option) – Removes impurities, sediment, bad taste and smells.
3. UV Disinfection – Inactivates pathogens, bacteria, and viruses.

Section 1 Safety Information

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

1.1 Labels and tags*

Read all labels and tags attached to the system. Personal injury or damage to the system could occur if these are not observed.

| | | | |
|---|--|---|---|
|  | Waste electrical and electronic equipment (WEEE). This symbol indicates that you should not discard WEEE in the trash. For proper disposal, contact your local council or refuse/ recycling centre. |  | This symbol indicates not to store any combustible or flammable material close to the system. |
|  | This is the safety alert symbol. Obey all safety messages that follow this symbol to avoid potential injury. When displayed on the equipment, refer to the Owner's Manual for additional safety information. |  | This symbol indicates that the contents of the transport package are fragile and the package should be handled with care. |
|  | This symbol indicates that a risk of electrical shock and/or electrocution exists. |  | This symbol indicates safety glasses with side protection are required for protection against UV exposure. |
|  | This symbol indicates the system is under pressure. |  | This symbol indicates gloves must be worn. |
|  | This symbol indicates there is a potential UV hazard. Proper protection must be worn. |  | This symbol indicates boots must be worn. |
|  | This symbol indicates the marked item could be hot and should be handled or touched with care. |  | This symbol indicates the operator must read all available documentation to perform required procedures. |

* Note - labels and tags shown in table may not all be applicable to this system.

• 1.2 Potential Hazards



| Failure to follow these instructions may result in serious injury or death | |
|---|--|
|    | <ul style="list-style-type: none"> • To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times. • Grounding: This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current, which reduces the risk of electrical shock. This system is equipped with a cord that incorporates an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. Improper connection of the equipment grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if you doubt whether the outlet is properly grounded. Do not modify the plug provided with the system – if it does not fit the outlet, have the outlet replaced to match the system by a qualified electrician. Do not use an adapter of any type with this system. • Electric Shock: To avoid possible electric shock, special care should be taken when water is present near the electrical equipment. Unless a situation is encountered that is explicitly addressed by the provided maintenance and troubleshooting sections, do not attempt the repairs yourself. Refer to an authorised service facility. • Connect only to grounding receptacle protected by a residual current device (RCD). Contact a qualified electrician if you are unsure that the receptacle is protected by an RCD. • To reduce the risk of electric shock, replace a damaged cord immediately. • To reduce the risk of electric shock, do not use an extension cord to connect the unit to an electrical supply; provide a properly located outlet. |



| | |
|---|---|
|  | <ul style="list-style-type: none"> • DO NOT pass water through the system for a minimum of 5 minutes after applying power (including after power interruptions) to avoid passing under-treated water that may, in rare instances, pose health hazards. • Changes or modifications made to this system without the consent of the manufacturer could render the system unsafe for operation and may void the manufacturer’s warranty. |
|---|---|



CAUTION



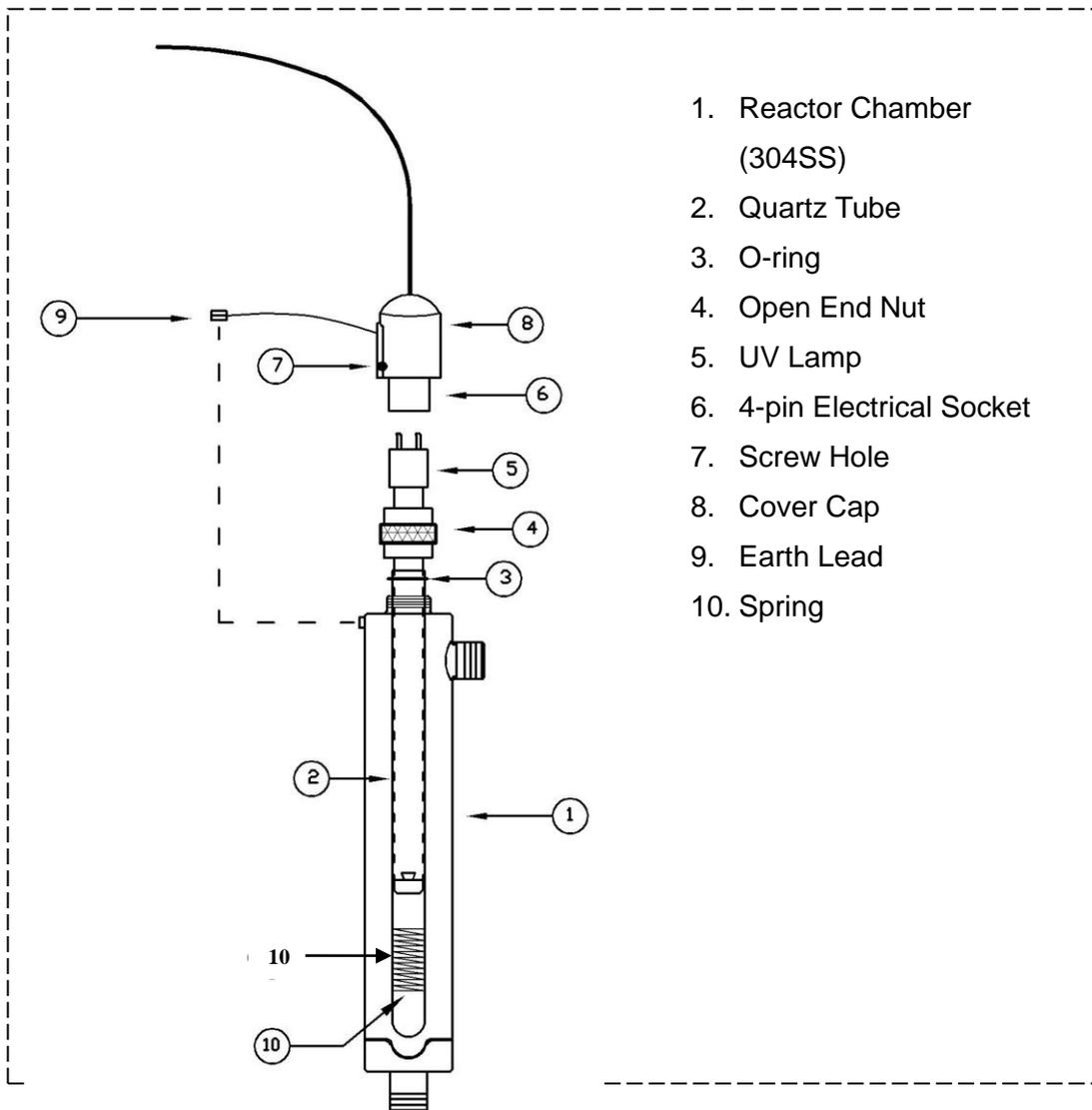
Failure to follow these instructions could result in minor or moderate injury.

- Carefully examine the system after installation. It should not be plugged in if there is water on parts and components that are not intended to be wet.

NOTICE



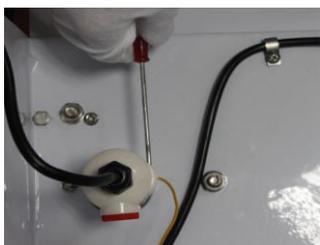
- The UV system is not to be used or played with by children. Persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, are also not to handle the UV system unless they have been given supervision or instruction.
- This system is intended to be permanently connected to the water line.
- If the supply cord is damaged, it must be replaced by the specific replacement part available from the agent or distributor.
- Read and understand the Owner's Manual before operating and performing any maintenance on this equipment.



Section 2 System Installation

Step 1: Remove the cover from the system.

Step 2: Remove the earth wire and plastic cap from the top of the chamber



Step 3: Remove the top and bottom nuts from the UV chamber



Step 4: Insert the Quartz sleeve into the Reactor Chamber.



Step 5: Fit O-ring to bottom of Quartz sleeve as shown then screw bottom nut tightly onto chamber using your hand.



Step 6: Fit O-ring to top of Quartz sleeve.



Step 7: Screw the retaining nuts tightly on to the reactor chamber. Starting with the bottom nut first and then the top nut.



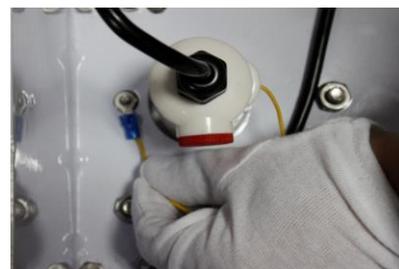
Step 8: Insert the spring into the Quartz sleeve and carefully insert the UV Lamp into the Quartz sleeve through the top nut.



Step 9: Plug the ballast cable into the UV lamp. Install the cover cap and fit washer and earth wire using the pinwheel screw.



Step 10: Install the earth wire to the base.



Step 11: Use the plastic wrench if you want to change the filter. Apply Trevoli Super-O-lube food grade lubricant to the filter O-rings.



Step 12: When all plumbing connections are made, slowly turn on the water supply (install a flow controller if there is a risk of high water-flow rate)

Step 13: Allow the water to run through the system for 5 minutes to clear any air or dust that may be in the reactor

Step 14: Connect the power for startup.

Step 15: Do not remove the UV lamp from the chamber when applying the electrical power

Step 16: UV systems are designed for continuous operation and frequent switching will reduce ultra-violet radiation and service life. Do not electrically cycle the UV unit more than 3 on/off cycles in a 24-hour period.



Do not turn UV lamp on unless it is fully enclosed in the system. UV can damage eyes.

Section 3 System Operation

System Operation

a. Water Quality Guidelines

The ultraviolet disinfection system is intended for the use with visually clear water, not coloured, cloudy or turbid.

- ◆ Ambient Water Temperature: 2-45°C
- ◆ Iron: <0.3ppm (0.3mg/l)
- ◆ Hardness: <7gpg (120mg/l)
- ◆ Turbidity: <1NTU
- ◆ Manganese: 0.05ppm (0.05mg/l)
- ◆ UV Transmittance: >75%

b. Recheck the installation before plugging the sterilizer into power.

c. Do not proceed to switch on the equipment when UV Lamp or Sleeve Tube is broken, buy a new one and continue.

d. Ultraviolet Disinfection System is designed for continuous operation and frequent switching off will reduce Ultraviolet radiation and service life.

e. If this unit falls into water, turn main power off and then retrieve it. Do not attempt to use this sterilizer if it has been submerged.

- f. 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.
- g. The UV system should be installed **after the filters** on the return line.
- h. Always disconnect the water supply and completely drain the water purifier if it will be subjected to temperatures below freezing for extended periods of time.

Ballast Display Panel Instruction

- a) The display panel shows the lifetime of the UV bulb, counting down from 365 days [1 year] to 0 days.
- b) Once the number reaches 0, you will need to replace the bulb and press the reset button [alarm will trigger].
- c) The number will return to 365 days after you push the reset button for 8 seconds.
- d) When the countdown timer reaches zero days, an audible alarm will sound to indicate that it is time to replace the UV lamp.

Section 4 General Information

4.1 Important Safeguards

- a.  UV light is not visible to the human eye, but harmful to eyes and skin. Never look directly at the light tube while device is in operation. Do not remove the UV Lamp from the Reactor Chamber when applying electrical power. Wear SAFETY GOGGLES if you need to look.
- b.  Basic safety precautions should always be followed to reduce the risk of fire, electric shock. Make sure the leakage protection switch is installed before use.
- c.  Please do not touch the UV lamp it can become very hot. A pair of gloves is recommended when taking off it.

4.2 System Maintenance

- a. Lamp replacement is recommended every 12 months of operation. After 12 months the lamp will still work, but the UV intensity will be diminished and should be replaced.
- b. For optimum performance, remove and clean the quartz sleeve every 3-6 months with alcohol or a mild detergent.
- c. Replacing particle filters every six (6) months is recommended, but **at least** annually.

Note: To save the energy, turn off the power and water supply if the equipment is not in use for a long period.



WARRANTY TERMS & CONDITIONS

(Subject to the provisions of the Consumers Guarantee Act)

- 1) Vortex Distributors warrants that the TREVOLI UV Systems that we distribute are free from defects in workmanship and materials, for 3 YEARS from the date of purchase. Subject to the conditions of the warranty Vortex Distributors will repair any defective products free of charge at the premises of our authorized service agents throughout New Zealand. UV lamp and filters to be changed yearly.
- 2) This warranty is back to base & excludes transportation costs to and from Vortex Distributors or its appointed service agents and excludes defects due to non-compliance with installation instructions, neglect or misuse, inadequate protection against freezing, low voltage or use or operation for purposes other than those for which they were designed. For further information regarding the suitability of your intended application contact us.
- 3) The 3 YEAR warranty refers only to TREVOLI **Sentry** Systems, and is not transferable to another TREVOLI UV System and only applies to the original owner, purchaser or end user, and is subject to the Consumers Guarantee Act.
- 4) Our warranty commences from the date of purchase of the above-mentioned pumps. Proof of purchase is required before consideration under warranty is given.
(Please Note: UV Lamps are only covered under PRO RATA)

Record your date of purchase in the space below and retain this copy for your records.

Date of Purchase:

Model Purchased:

Invoice #:



Vortex Distributors

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