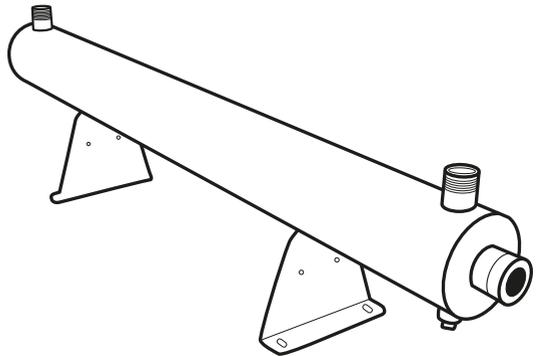




**Puretec**<sup>®</sup>  
PERFECTING WATER



# User Guide

## R Series

Puretec Radfire UV Water Sanitiser

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## Puretec Customer Service

Thank you for purchasing a Radfire UV (ultraviolet) Water Steriliser. Your UV Water Steriliser is a proven performer, manufactured from highest quality materials and will give years of trouble free service if maintained properly.

This UV Water Steriliser can be used in a wide variety of different applications. Regular maintenance of your Radfire UV Water Steriliser includes regular replacement of filter cartridges. If you have trouble defining what you need, contact your stockist. Replace cartridges when water flow is reduced, when taste or odour returns to water (carbon cartridges only) or at six monthly intervals which ever comes first.

Customer Service Helpline **1300 140 140** (Australia) **0800 130 140** (New Zealand).

**Installation Note:** A water filter system/tap, like any product, has a limited lifespan and if not replaced, will eventually fail. Failure can happen early due to unforeseen circumstances. To avoid possible property damage, this product should be regularly examined for leakage and/or deterioration and replaced when necessary. We strongly recommend that a drain pan, plumbed to an appropriate drain or outfitted with a leak detector, be used in those applications where any leakage could cause property damage. We also strongly recommend that the water supply be turned off, upstream to the water filter system/tap, if no one is home for an extended period of time.

**INSTALLATION SHOULD BE COMPLETED BY QUALIFIED TRADESPEOPLE. FAULTY OPERATION DUE TO UNQUALIFIED PERSONS WILL RESULT IN VOIDED WARRANTY COVERAGE.**

## Applications

Puretec Radfire UV Water Sterilisers are designed to suit a wide range of applications, always install with a sediment removal filter before your Radfire unit.

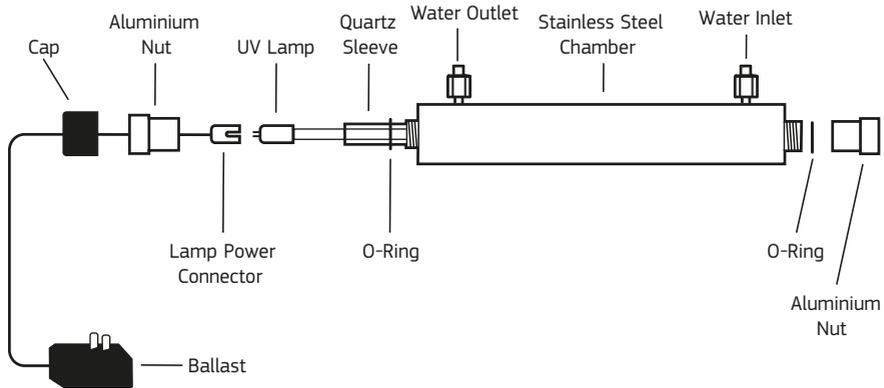
Typical Radfire applications are:

- hospitals
- aquaculture
- nursing homes
- restaurants
- homes and apartments
- laboratories
- schools
- hotels and resorts
- community water supplies
- agriculture

Note: The minimum requirement of prefiltration for an ultraviolet system is a 5 micron sediment filter. If bacteria has been present prior to the installation of this system, we recommend flushing the pipelines with Puretec TankSafe.

1. Prior to performing any work on the steriliser, always disconnect the power supply first and give the system time to cool.
2. Do not look directly into ultraviolet rays emitted from the UV lamp as they can damage unprotected eyes.
3. This treated water will seem warm at first flow for a short period when it is not used, as the lamp creates heat; you can flush before use.
4. Power supply is water resistant, however if installing outdoors, it must be covered.

Fig. 1



## Installation

1. Before attempting installation, check all components are intact and have not been damaged in transit.
2. The UV water steriliser should be installed after any filtration or reverse osmosis systems. In a pressurised system, the chamber can be installed horizontally or vertically.
3. Determine an installation location remembering to allow the following clearances to the side of the unit for lamp changes (lamp exit and entry point can be determined by the installer). A power outlet is required.

**R500** is 350 mm, **R1400** is 550 mm and **R2700** is a 950 mm clearance.

*Avoid touching the quartz (glass) sleeve and lamp surface as marks and fingerprints may interfere with UV transmission. If lamp is soiled, please clean lamp with an alcohol-based cleaner.*

4. Unscrew the metal nuts on each end of the chamber.
5. Take the quartz sleeve out of its packaging and slide one of the two O-rings over one end of the quartz sleeve.

6. Carefully slide the quartz sleeve into the chamber via the end with no O-ring and attach the second O-ring onto the end once it is in place.
7. Screw the metal nuts back onto each end of the chamber.
8. Connect the lamp connector to the pins on the lamp. Slowly insert the UV lamp provided into the chamber through the hole of the aluminium nut end.
9. Secure the the safety cap on the aluminium nut end.
10. Turn the water on once your set up is complete and let the water flow through - opening the downstream tap to flush the unit for 1-2 minutes.
11. Visually inspect for any leaks.
12. Turn on point of use to let water flow through the unit an wait for 2-3 minutes to release air and impurities from the system.
13. Plug in the power connector with ballast and make sure that the LED is illuminated steadily to start operation. Installation should be completed by a qualified tradepersons only.

## **Clean the Quartz Sleeve Regularly**

To ensure high sterilising rate with best water quality, check sleeve regularly (about every 3 months depending on quality of water source) to see it is clean and does not have dirt accumulated. Clean with alcohol based cleaner if necessary.

## **Quartz Sleeve Maintenance Procedure**

1. Unplug the power supply and allow the system to cool. Remove UV lamp before taking out the quartz sleeve and pour out water. Turn the aluminium nuts both sides of the chamber counter-clockwise, remove the O-rings and carefully remove the quartz sleeve.
2. Soak a piece of cloth in vinegar or citric to clean the quartz sleeve.
3. Put the quartz sleeve back into the stainless steel chamber with equal distance at both ends of the chamber. Replace the O-Rings on either end of the quartz sleeve.
4. Dampen the seal O-ring at each end of the quartz sleeve then replace the aluminium nuts.
5. Check all connections for leakage.

6. Plug in the power connector with ballast and make sure that the LED is illuminated steadily to start operation. Turn on point of use to let water flow through the unit and wait for 2-3 minutes to release air and impurities from the system.
7. Insert UV lamp into stainless steel chamber and push on the rubber cap.

## UV Lamp Replacement Procedure

To ensure high sterilizing rate with best water quality, the UV lamp should be replaced every year. Avoid turning the lamp on and off unnecessarily as this will shorten the service life of the UV lamp.

1. Turn off and unplug the system, allowing it to cool. Place a container below the unit, in case of drips.
2. Pull the black lamp ballast off slowly, being careful not to detach the lamp inside. Do not use a twisting motion as this will unscrew the metal nut underneath, simply pull outward. Re-tighten the metal nut once the lamp connector is removed, if required.
3. Remove the old lamp from the connector and dispose of accordingly.
4. Remove the new lamp from its packaging and insert the metal prongs into the black lamp connector.
5. Carefully re-insert the lamp back into the chamber and securely fit the black lamp connector back onto the metal nut.
6. Turn the water on once your set up is complete and let the water flow through - opening the downstream tap to flush the unit for 1-2 minutes. Then check the system thoroughly for leaks.
7. Visually inspect for any leaks.
8. Turn on point of use to let water flow through the unit and wait for 2-3 minutes to release air and impurities from the system.
9. Plug in the power connector with ballast and make sure that the LED is illuminated steadily to start operation.

## Application Warning

Where the water being treated contains unusually high levels of dissolved solids particularly hard water, iron, manganese or biological organisms, a deposit build up on the quartz sleeve may occur over time. Maximum recommended parameters are as follows:

Iron:	less than 0.3 mg/L
Hydrogen Sulfide:	less than 0.05 mg/L
Suspended Solids:	less than 10mg/L
Manganese:	less than 0.05 mg/L
Hardness:	less than 110mg/L

***Application warning: minimum water characteristics must be met before installation of Radfire™ to ensure proper operation and continuous protection.***

## Operating Guidelines

- Minimum operating pressure 10 kPa.
- Maximum operating pressure 520 kPa.
- Do not allow exposure to temperatures below 4 °C.
- Maximum operating temperature 90 °C.
- Filter prior to UV must be as a minimum 5 microns.
- This system must be installed according to local plumbing codes on the cold water line.
- This system requires regular replacement of the pre-filter cartridge to maintain proper operation.
- Be sure to change the UV globe every 12 months and filter cartridge at least every 8,000 litres or 6 months whichever ever occurs first; or whenever you detect a change in taste, odour, or decrease in flow. 8,000 litres is approximately equal to using 20 litres daily for one year.
- This system is weather resistant, not weather proof.
- If installed outside in the weather we recommend to protect the electrical components as a minimum from weather.
- Turn off power to the UV when not using the system for an extended period

of time. Flush the system when turning it back on.

- Connection to a start/stop pump controlled electrical power supply is not recommended and may shorten the life of the power supply and/or the lamp.

## Notes

Puretec water care products are designed, manufactured and supported by Puretec Pty Ltd the name you can trust for viable and proven water solutions. The complete range of Puretec products are developed, refined, made to meet and exceed stringent specifications for the worldwide market.

Important: Sales of products are subject to our Terms and Conditions which are available upon request. All specifications, information and photos are a guide only and are subject to change without notice. Please ring to confirm details. Warning: For correct operation of this appliance it is essential to observe manufacturer's instructions.

## WARRANTY

Any claim under this warranty must be made within 2 years of the date of purchase of the product. This product is warrantied to be free of defect of material and workmanship for 2 years from date of purchase. To make a claim under the warranty, take the product and proof of purchase to place where you purchased the product, and they will lodge a Warranty Request with Puretec. 2 year warranty is 1 year parts and labour, plus 1 year parts only. Excludes consumables.

Puretec will pay your reasonable, direct expenses of claiming under this warranty. You may submit details and proof of your expense claim to place of purchase for consideration.

The warranty only applies if the product was used and/or installed in accordance with the user guide and/or installation instructions. This warranty is given in lieu of all other express or implied warranties and manufacturer shall in no circumstance be held liable for damages consequential or otherwise or delays caused or faulty manufacturing except as excluded by law.

Applicable to all above, is that the warranties need to be approved by Puretec to ensure product was not incorrectly used, installed or claimed. False and incorrect claims will be pursued at Puretec's discretion, including chargeable inspection and labour costs incurred.

## WARRANTY/AUSTRALIA

This warranty is given by Puretec Pty Ltd, ABN 44 164 806 688, 37-43 Brodie Road, Lonsdale SA 5160, telephone no. 1300 140 140 and email at sales@puretec.com.au.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

## WARRANTY/NEW ZEALAND

This warranty is given by Puretec Ltd, Reg. No 4464398, PO Box 875 Cambridge 3450 NZ, telephone no. 0800 130 140 and email at sales@puretec.co.nz.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Consumer Guarantees Act. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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