



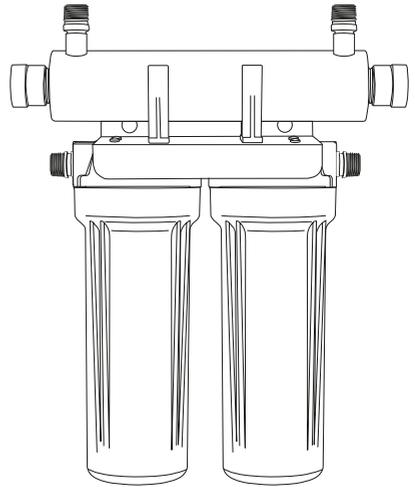
**Puretec**<sup>®</sup>  
PERFECTING WATER

**⚠ CAUTION**

**DO NOT OVERTIGHTEN.  
DO NOT USE  
LIQUID SEALANTS.**



**SURGE PROTECTION  
REQUIRED /  
NO EXTENSION CORDS.**



# User Guide

## Hybrid-M1

Filtration & Ultraviolet All-in-One Undersink Unit



**WaterMark**<sup>†</sup>

AS/NZS 3497

Certificate No. WM 74617

Australian Certification Services

<sup>†</sup>FP10M-2 Filter Housing

FEB2020

For correct operation & installation, it is essential to observe these instructions.

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## Puretec Customer Service

Thank you for purchasing a Puretec Hybrid-M1 Undersink UV Water Treatment System. Your system is a proven performer manufactured from quality materials and components and will give years of 'spring like' water, free of impurities, if maintained and installed properly (refer installation requirements pg.5).

Product Information	
Distributor	
Installer	
Phone	
Date Installed	

## Introduction

The Puretec Hybrid-M1 is specifically designed to kill harmful bacteria in untreated water supplies. It uses a natural purification process that's eco-friendly and chemical-free. It includes pre-filtration to ensure that particulate matter does not shield micro-organisms from the UV light.

This system will effectively treat water, depending on the required UV dosage and existing water quality.

The system is designed for mains and rainwater supply but can be used in other situations. For other types of water supply please contact your local Puretec stockist or call our Puretec Customer Service Helpline at **1300 140 140** (Australia) or **0800 130 140** (New Zealand).

The Puretec Hybrid-M1 system cartridges and lamp need replacing regularly to maintain optimum performance. This is a simple procedure when following instructions. For replacements contact your nearest Puretec stockist.

**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.**

Select suitable location that is close to the point of filtered water delivery (e.g. sink). Remember to allow access room for changing filters/lamp and a suitable place where water spillage will not cause damage. Location should not be in direct sunlight.

An isolation valve may be installed prior to the Hybrid-M1 system to isolate the unit for changing the cartridges, lamps and sleeve.

Install the filter housing assembly by positioning it in the desired location, marking the position of fixing holes and fixing with mounting screws. Allow room for the connecting tubes and for removing the filter bowls (50 mm).

## Preparing Your System

Puretec systems are designed to run economically for many years, dependent on the initial installation and periodical maintenance.

Please read all instructions carefully as failures caused by incorrect installation or operation are not covered by warranty.

On removing your Hybrid-M1 system from its carton you should check all the components (especially the lamp), to ensure all are present and have not been damaged in transportation. You should have:

1. Hybrid-M1 Filter System
2. UV Lamp, Quartz Sleeve, 2 x O-Rings
3. Bag containing Spanner, Braided Hoses, Ballast and User Guide

## Positioning Your System



HYBRID-M1 UNIT



SPANNER



BALLAST



USER GUIDE



UV LAMP



BRAIDED HOSES



QUARTZ SLEEVE



2 X O-RING

## Installation Requirements

- Cold water line only.
- Power supply: AC 240V | 50Hz
- Supply pressure: 300-520 kPa. Install pressure limiting valve if pressure exceeds 500 kPa.

**Note: For point of entry installations an approved dual check backflow prevention device must be installed.**

- Supply temperature 0° - 52°C (protect from freezing).
- Alternative fittings may be required if being connected to anything other than 15 mm threads.

*Note: Only use thread seal tape. Do not use liquid sealant.*

- Ensure the water supply flow rate does not exceed the rated maximum of the Hybrid Mini system.
- Ensure the electrical power supply to the Hybrid Mini system is sufficient, allowing for other appliances that may be connected to the circuit and ensuring it is surge protected. If in doubt, please consult a qualified electrician.
- 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

- Caution: Do not use with water that is microbiologically unsafe or of unknown quality without adequate treatment before or after the system.

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

## Initial Installation Procedure

1. Before attempting installation, check all components are intact and have not been damaged in transit.
2. Locate a suitable position for the Hybrid-M1 system remembering to allow 50 mm under the unit and 350 mm clearance to the side of the unit for lamp changes (lamp exit and entry point can be determined by installer). A power outlet is required.
3. Unscrew the Aluminium Nuts on each end of the chamber.

*Never touch the quartz (glass) and lamp surface as marks or fingerprints may interfere with UV transmission. If lamp is soiled, please clean lamp with an alcohol based cleaner.*

4. Take the Quartz Sleeve out of its packaging and slide one of the two O-Rings over one end of the Quartz Sleeve.
5. 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.
6. Screw the Aluminium Nuts back onto to each end of the chamber.
7. The Hybrid-M1 unit has 2 mounting key holes at the rear of the bracket. Mark the desired position on the wall where the fixings are required to go.
8. Drill the holes and install the anchors (fixing anchors not included).
9. Position the Hybrid-M1 system on the wall. Insert and tighten the fixings to hold the system securely to the wall.
10. Turn the water off and purge the lines.
11. Connect inlet and outlet hoses to the Hybrid-M1 unit.
12. Unclip and remove the lamp from the bracket.
13. Slowly insert UV lamp into chamber through the hole of the aluminium nut end. Connect the lamp connector to the pins on the lamp. Do not let go of the lamp until the lamp is connected to the socket.
14. Put safety cap on the aluminium nut end. Plug in power connector.
15. Tighten filter bowl until firm. **HAND TIGHTEN ONLY. DO NOT OVER TIGHTEN.**
16. Turn the water on, let the water flow through – opening the downstream tap to flush the unit for 1-2 minutes. Then check the system thoroughly for leaks.

*Note: For initial use, wait 3-5 minutes to allow water to pass through the whole unit. Turn on a downstream tap to let water flow through the unit for 2-3 minutes to release air and impurities from the system.*

17. Turn the power on and ensure that the lamp is operating. Make sure that the GREEN LED is illuminated (refer UV Lamp Installation / Replacement on pg.8).

## Operation

- Allow two minutes for the UV lamp to reach full intensity before starting water flow.
- On a new installation where no other form of sterilisation has been in use, we recommend flushing the pipe work with a suitable sanitiser such as TankSafe (for dosage refer to TankSafe product instructions). This solution should be left in the pipework for at least an hour and preferably overnight.

The sanitising solution can be added into the water tank or if necessary added as a shock dose into the bowl of the filter housing of the Hybrid-M1 and slowly flushed through the piping. If added as a shock dose the system and pipework should be rinsed thoroughly by opening a downstream tap.

## Replacement Parts Guide

To maintain high quality, purified water, the cartridges will need changing periodically (dependent on water quality and usage).

You can obtain replacement cartridges from your local Puretec dealer. To maintain performance, warranty and Australian/New Zealand Standards use genuine Puretec replacements.

Replacement Parts:	<b>HYBRID M1</b>
Stage 1 Cartridge	<b>PL051</b>
Stage 2 Cartridge	<b>MC011-S</b>
Stage 3 UV Lamp	<b>RL2</b>
Quartz Sleeve	<b>RQ52</b>

*Replace cartridges every 6 - 12 months.*

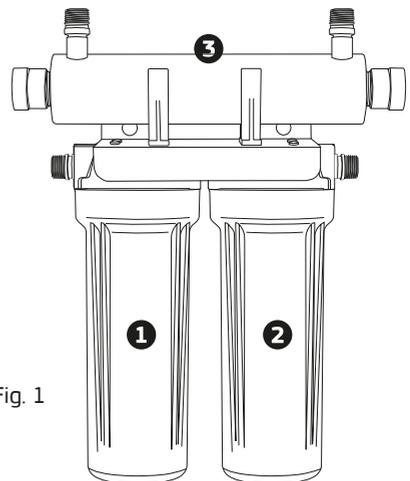


Fig. 1

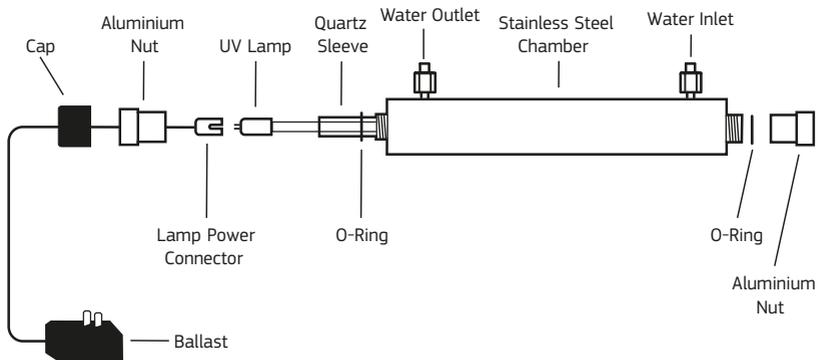
## UV Lamp Installation / Replacement

Prior to performing any work on the UV steriliser system, always disconnect the power supply and allow unit to cool. The treated water will seem warm for a short period at first flow. This is because the UV lamp emits heat to kill bacteria. When turning on a tap, let the water run for a short time to purge any warm water.

**Warning:** Do not look directly into ultraviolet rays emitted from the UV lamp as they will cause serious burns to unprotected eyes.

1. 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 Aluminium 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.

Fig. 2



## Cartridge Installation / Replacement

To change the filter cartridges adhere to the following procedure.

1. Turn mains water supply off.
2. Relieve water pressure by operating faucet lever.
3. Unscrew Filter Housing using the spanner wrench and discard cartridges. When removing housings place a container underneath to catch any spillage.
4. Cleanse the inside of the housing using hot water and detergent. Check O-Ring and lubricate with food grade silicone lubricant (or similar). Replace O-Ring if kinked or damaged.
5. Install new cartridges and replace housing screwing them up **HAND TIGHT ONLY**. Sediment filter is on the inlet side and chemical on the outlet side.
6. Restore water supply & check for leaks, rectifying them, if any, before leaving the unit.

After installing cartridges flush unit for 5 - 10 minutes.

## Cleaning Quartz Sleeve

To ensure high sterilising rate with best water quality, check sleeve regularly (about every 3 months depending on quality of water source). To see whether there is dirt or substances gathered. Follow maintenance Quartz Sleeve Maintenance Procedure below.

## Quartz Sleeve Maintenance Procedure

1. Unplug the power supply and allow the system to cool before beginning any maintenance. Place a container below the unit, in case of drips. Remove UV lamp before taking out the quartz sleeve and pour out water. Turn counterclockwise the aluminium nut both sides of the chamber and extremely gently to remove the quartz sleeve.
2. Soak a piece of cloth in an alcohol based cleaner, vinegar or citric acid and use this to clean the quartz sleeve.
3. Slide one of the two O-Rings back over one end of the Quartz Sleeve.

4. 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.
5. Dampen the O-Ring seals on either end and screw the Aluminium Nuts back onto each end of the chamber.
6. Check all connections to prevent leakage.
7. Insert UV lamp into stainless steel chamber and put on the rubber cap to complete the cleaning.

## **Warranty**

Any claim under this warranty must be made within 3 years of the date of purchase of the product. This product is warranted to be free of defect of material and workmanship for 3 years from date of purchase. 3 year warranty is 1 parts and labour, plus 2 years parts only. Excludes Cartridges. 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.

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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