

*Ultraviolet Steriliser  
Installation and Maintenance Booklet*



## SAFETY



**WARNING** - To prevent risk of electric shock, make sure this system is properly earthed and protected by a safety switch. Pull the plug before servicing or replacing lamps. Keep all connections dry and off the ground. Do not touch the plug with wet hands.



**WARNING** - Do not look directly at the UV lamp when it is operating. The light emitted by the lamp will cause serious damage to eyes and burn unprotected skin.



**WARNING** - This unit must be installed by a licensed electrician. Read manual before installing or servicing this system. Only authorized personnel possessing a strong understanding of this system should attempt to replace lamps or service the system

### **WARNING -**

**To guard against injury, basic safety precautions should be observed, including the following:**

1. Read and follow all safety instructions
2. Ensure the unit is properly earthed. Do not operate unit unless earthed.
3. The power supply must be protected by a Residual Current Device (Safety Switch)
4. Danger - To avoid possible electric shock, special care should be taken since water is employed in the use of this system. Do not attempt to repair this system yourself. No user serviceable parts. Return the system to an authorized service facility for service or discard the system.
5. Do not operate the system if it has a damaged cord or plug, or if it is malfunctioning or if it has been dropped or damaged in any manner.
6. Always unplug the system from the power supply before servicing or cleaning. Never pull the cord to disconnect plug from power supply. Always grasp plug and pull to disconnect.
7. Do not use the system for other than its intended purpose. The use of attachments or accessories not recommended or sold by the manufacturer may cause an unsafe condition or reduce performance.
8. Visually inspect this system prior to installation. If the quartz sleeve or lamp is broken, cracked or damaged in any way, do not use. Contact your supplier for replacement parts.
9. **WARNING** - To reduce the risk of electric shock, keep all connections dry and off the ground. Do not touch plug with wet hands.
10. The light emitted by the lamp will cause serious eye damage and burn unprotected skin. Never look directly at the lamp when it is operating. Do not plug unit into an electrical outlet without properly securing the lamp/sleeve into the chamber and securing the chamber.
11. Always shut off water flow and release water pressure before cleaning or maintaining the unit.
12. Intended for indoor use only. Power supply must not be exposed to weather elements.
13. Installation of this system must be in accordance with local plumbing and electrical codes as well as any and all applicable regulations and laws.
14. SAVE THIS MANUAL



## ***WATER QUALITY PARAMETERS***

*These are recommended levels, for use as a guideline for pre-treatment requirements*

*Hardness: < 120ppm*

*Turbidity: < 1.0NTU*

*Iron: < 0.3ppm*

*Manganese: < 0.05ppm*

*Tannins: < 0.1ppm*

*Chloride: < 200ppm*

*If your water quality parameters do not meet these criteria, please contact the distributor for pretreatment recommendations.*

### ***Required:***

- 1. Pre-treatment must include at least a 5 micron sediment filter installed prior to the unit in order to ensure that particles capable of shielding pathogens are removed from the water prior to entering the system.*
- 2. The vessel is rated to 700Kpa. The unit must be installed with an Australian Standards Approved Pressure Limiting Valve.*
- 3. A shut off valve must be installed prior to the unit in order to turn the water off for servicing and to ensure the flow is restricted to the parameters of the unit.*
- 4. Ensure adequate clearance at the lamp connection end of the unit in order to safely remove the lamp from the chamber for servicing and lamp replacement. Space required is at least the length of the UV chamber.*

## ***EARTHING***

*Before operating this unit, it must be earthed by a licensed electrician*

## ***UV Installation Instructions***

*Open the box and check components.*



*Connect the Jaco elbows or other fittings to the inlet and outlet on the UV. Then connect the fittings into the water line or onto a water filter system, making sure the water supply is turned off.*



*Screw the mounting brackets into place. Either onto the wall or onto the water filter system and mount the UV into the brackets. For larger units, screw the complete unit onto a stable surface.*



*Clean the UV lamp with methylated spirits and a clean cloth and insert it into the Quartz Sleeve leaving the pins exposed.*

*NB. Always wear gloves when handling the lamp.*



*Connect the female 4-pin plug from the ballast to the pins on the lamp.*



*Place the cover over the end of the UV unit*

*Connect the unit to a power source and switch on the power.*

*The light on the ballast should come on and turn Green*



*Turn the power to the UV off.*

*Open the water supply to the unit and open the faucet. Once water is pouring out of the faucet, turn the faucet off to allow pressure to build up in the system. Check for leaks.*

*If there are no leaks, turn the power to the UV on.*



*Ensure the ballast is installed above the vessel.*

*A red light on the ballast indicates a failed lamp.*

*Turn the power to the unit off and check your lamp connection.*

*If this does not help, replace the lamp*



*NEVER look directly at the UV light. Always wear UV rated eye protection if you must look at it. Always wear protective clothing*





## ***TO SERVICE THE UNIT***

*Minerals in the water will build up on the quartz sleeve and on the vessel. This coating must be cleaned off periodically because it reduces the amount of UV light reaching the water, therefore reducing disinfection performance.*

*Depending on the water quality, it is advised to clean the unit at least every time the lamp is changed.*

*Turn off the water supply and release the pressure by opening the faucet.*

*Disconnect the ballast from the power and allow the unit to cool down.*

*Make certain to always wear gloves when handling the unit*

*Once the unit is cool, remove the end cover from the UV chamber, disconnect the wire from the lamp and remove the lamp.*

*Remove the UV unit from the brackets and disconnect the outlet Elbow. Tip the unit and drain as much water as possible into a bucket.*

*Disconnect the inlet Elbow.*

*Take the unit and unscrew the end cap that the lamp was removed from.*

*Remove the quartz sleeve.*

*Hardness can generally be removed with Citric Acid or commercially available Scale Remover . This can be purchased at most Hardware stores. Make sure to follow all instructions.*

*The UV chamber can be cleaned with a Bottle Brush. Make sure the unit is completely clean, including the in/outlet as any residue can decrease the effectiveness of the UV light.*

*The Quartz sleeve can be cleaned with a sponge or cloth. Again, make sure the sleeve is completely clean.*

*Once the Chamber and Quartz Sleeve are clean, wipe them, including inside the Quartz Sleeve, with Methylated Spirits or Alcohol wipes to remove any smears.*

*Reassemble the Unit and reconnect it following the Installation Instructions.*



## ***DISINFECTING THE UNIT***

*If the unit has been turned off, it is recommended to disinfect the unit and the water lines.*

*The manufacturer recommends Micropur.*

*Ensure the power is disconnected and the unit is cool.*

*Following the maintenance instructions, turn off the water supply and drain the unit.*

*Using a syringe or funnel pour Micropur solution into the vessel.*

*Reconnect the vessel and open the water supply.*

*Do not turn on the power supply.*

*Open the faucet and close immediately when water comes out.*

*Allow the unit to sit for approx 1 hour.*

*Turn on the power supply to the unit and open the faucet and allow the unit to flush for 10 minutes.*

## ***TECHNICAL DATA***

*AquaPro UV systems are not designed to be turned on and off. Doing this will shorten your lamp life.*

*Lamps should be changed every year. The lamp may still be working, but after 1 year, the power will not be guaranteed to kill bacteria.*

*The unit should be cleaned regularly. Hardness and other particles can build up on the quartz sleeve and on the inside of the UV chamber.*

- *9000 hours (1 year) lamp life*
- *Working Pressure 100PSI*



## ***SERVICE RECORD***

*Installation Date:*                    \_\_\_/\_\_\_/\_\_\_

*Next Service Due:*                    \_\_\_/\_\_\_/\_\_\_

*1<sup>st</sup> Service:*                    \_\_\_/\_\_\_/\_\_\_                    *Lamp Changed?:* \_\_\_\_\_

*Serviced By:*                    \_\_\_\_\_

*Next Service Due:*                    \_\_\_/\_\_\_/\_\_\_

*2<sup>nd</sup> Service:*                    \_\_\_/\_\_\_/\_\_\_                    *Lamp Changed?:* \_\_\_\_\_

*Serviced By:*                    \_\_\_\_\_

*Next Service Due:*                    \_\_\_/\_\_\_/\_\_\_

*3<sup>rd</sup> Service:*                    \_\_\_/\_\_\_/\_\_\_                    *Lamp Changed?:* \_\_\_\_\_

*Serviced By:*                    \_\_\_\_\_

*Next Service Due:*                    \_\_\_/\_\_\_/\_\_\_

*4<sup>th</sup> Service:*                    \_\_\_/\_\_\_/\_\_\_                    *Lamp Changed?:* \_\_\_\_\_

*Serviced By:*                    \_\_\_\_\_

*Next Service Due:*                    \_\_\_/\_\_\_/\_\_\_

*5<sup>th</sup> Service:*                    \_\_\_/\_\_\_/\_\_\_                    *Lamp Changed?:* \_\_\_\_\_

*Serviced By:*                    \_\_\_\_\_

*Next Service Due:*                    \_\_\_/\_\_\_/\_\_\_

*6<sup>th</sup> Service:*                    \_\_\_/\_\_\_/\_\_\_                    *Lamp Changed?:* \_\_\_\_\_

*Serviced By:*                    \_\_\_\_\_

*Next Service Due:*                    \_\_\_/\_\_\_/\_\_\_