

AGUA TOPONE

OWNERS MANUAL

Installation, Operation and Maintenance

Whole House
UVC LED WATER PURIFIER



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WHAT IS UV LED & BENEFITS OF UV LED

What is a UV-C LED?

The UVC region of the UV spectral range refers to wavelengths between 100 nm and 280 nm. In the case of disinfection, the optimum wavelength is in the region of 260 nm to 270 nm, with germicidal efficacy decrease exponentially with longer wavelengths. UV-C LED technology is set to provide new, improved, and expanded solutions in both air and water treatment

Benefits of UV LED water purifier

UV-C LEDs perform the same functions of conventional mercury-vapor lamps but have many benefits in comparison.

- > Environmentally friendly – conventional UV lamps use heavy metals that are difficult to handle and cost a great deal to dispose of safely
- > Small design footprint – LEDs are much more compact compared to their mercury vapor counterpart, meaning they can be integrated easily into new innovative designs.
- > Instant-on/off – UV-C LEDs work instantly, so there is no need for a warm-up time that is a common constraint of mercury-vapor lamps
- > Unlimited cycling – on/off cycles do not impact the life of the LEDs, meaning there is an unlimited scope for lamp cycling.
- > Temperature independent – LEDs can emit photons from a different surface as their heat emissions. They can be designed so that if UV-C LEDs are being used in water purification, they will not transfer heat into the water.
- > Wavelength selection – One of the greatest benefits of UV-C LEDs is that users can configure them to choose a specific wavelength that is best suited for maximum absorption of light for the chosen microorganism.

MAINTENANCE & INSPECTION & ADDITIONAL INFORMATION

Maintenance

AGUATOPONE UV LED water purifier includes a robust design and small footprint, which make this technology appropriate for POU applications where traditional water treatment technologies may not be optimally used.

UV LEDs can be turned on when water is treated and turned off when it is not being treated. As a result, for POU applications where water is being used and treated intermittently, UV LEDs will likely not require replacement for the entire life of the device (resulting in lamp replacement cost savings) and consume only a fraction of the energy (resulting in considerable energy cost savings).

Inspection

- > Please check all the components of the UV led water purifier when you open the box.
(The components were listed on the printed packing box).
- > We highly recommend that you mark the date at the time it was installed and the UV led water purifier needs to replace every 5 years.
- > Any damaged or broken components must be replaced immediately.
- > Please kindly check if there are any leaks after you installed the UV water purifier.

SAFETY INFORMATION AND WARNINGS

Although your UV system has been manufactured to the highest safety standards, care must be followed when operating and/or maintaining your system.

Warnings and Safety Precautions

This product must be operated under flowing water conditions. Operation without adequate water flow will result in insufficient heat dissipation, leading to product failure or permanent damage.



- > Before servicing this equipment, disconnect the power cord from the electrical outlet.
- > Energy given off by the UV LED is harmful to your eyes and skin. NEVER look directly at an illuminated UV LED without adequate eye protection and always protect your skin from direct exposure to the UV light.
- > Do not operate the unit if it has any damaged or missing components.
- > The UV LED module is service-replaceable by trained service personnel only. Do not attempt module replacement unless properly trained and authorized; contact the manufacturer for service instructions.
- > Do not use this system for any purpose other than what it was intended for. Misuse of this system could potentially cause harm to the user or others. Use of this system does not guarantee any particular amount of reduction of microorganisms.
- > Your system is intended to be installed indoors and away from leaking plumbing. DO NOT plug the unit in if the system or any of the components are wet.
- > We recommend that a licensed plumber or certified technician install the system.
- > Do not store the device in freezing conditions.

SAFETY INFORMATION AND WARNINGS

- > Do not allow water to freeze in the device.
- > Do not use the device if damaged or dropped.
- > Do not submerge the device under water.
- > This product is not ignition protected. Do not install in the engine compartment or other areas where explosive vapours may be present.

Input Water Quality

UV water purifier is extremely effective against microorganisms but only if the UV light can pass This means that the quality of your water is very important in order to ensure healthy water exceeds the listed parameters AGUA TOPONE highly recommends that appropriate pretreatment equipment be installed (equipment required will depend on parameters being treated):

Water Quality Requirements

UV transmittance	>90%	Temperature	0-45°C (32-113°F)
Hardness	< 120 (mg/L)	Turbidity	< 1 (NTU)
Iron	<0.3 (mg/L)		

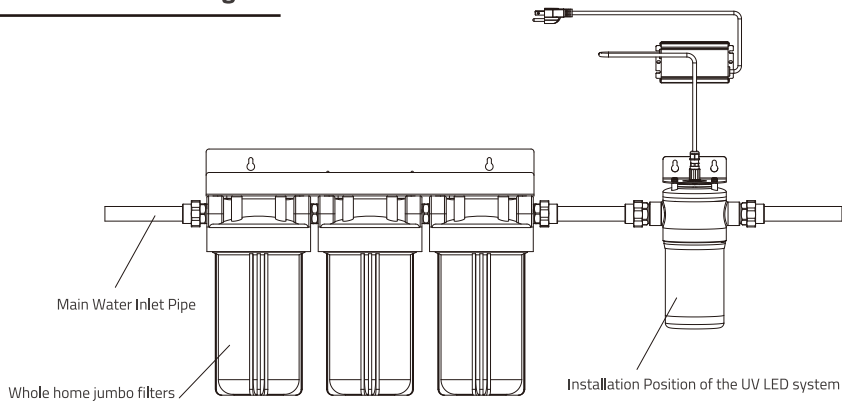
SPECIFICATIONS

Model	AGLED-40012
Flow rate @ (40 mJ/cm ² at 95% UVT)	12GPM(45LPM)
UVT(%)	Recommend above 90%
Max Pressure	8bar(116PSI)
Max ambient temperature	50℃(122°F)
Operating water temperature	0-45℃(32-113°F)
Water connections	1 Inch
Input Voltage	100V-240VAC
Input Power	50W
UV Intensity monitoring	NA
LED status monitoring	YES
LED life monitoring	NA
LED life	L70 5000hrs

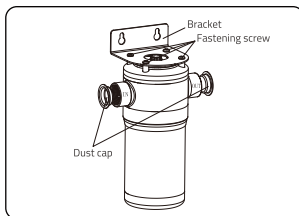
INSTALLATION

For the inline UV water purifier that comes with the reverse osmosis systems, The unit can be installed horizontally, please make sure there's enough space to facilitate the plumbing fittings as well as any required pre-treatment filters. Make sure you have the required plumbing connections and parts before installation as well as a secure location to firmly secure the unit.

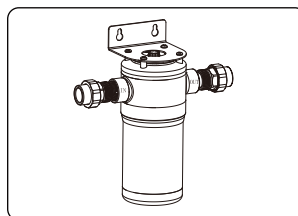
Installation Location Diagram



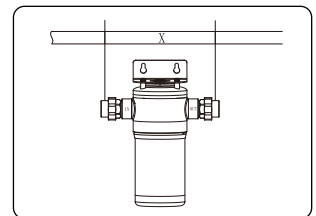
Installation Process Guidelines



1. Take out the UV LED and detach dust caps from inlet/outlet ports.
Take out the mounting bracket and four M6×12 fastening screws; Mounting bracket as shown in diagram.

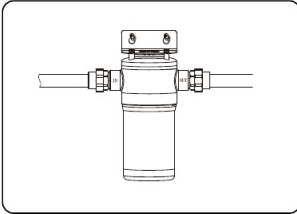


2. Screw fittings into inlet and outlet ports
*Note: Port threads: G1 internal thread

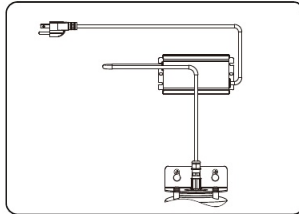


3. Cut tubing to length specified in diagram.

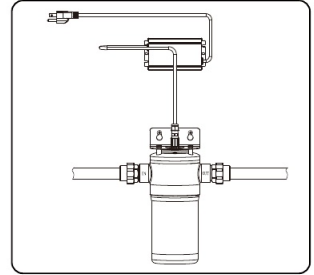
INSTALLATION



4. Connect UV LED in series with tubing. Mounting the UV LED to wall using expansion anchors.

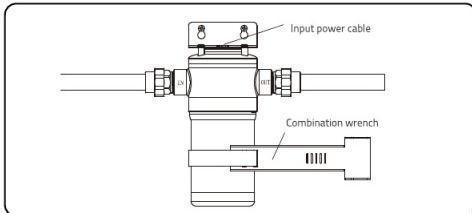


5. Secure the UV LED driver to the wall next to the UV LED unit. Connect the output and input cables, noting that the input cable's male and female connectors have alignment indicators. Insert them according to the indicators.

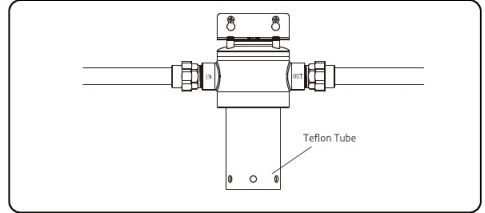


6. The indicator light is interlocked with the UV LED module. The light shall illuminate when water flows and turn off upon shutdown, indicating normal operation status. During sterilizer commissioning, inspect for potential water leakage, with a minimum observation period of 30 minutes.

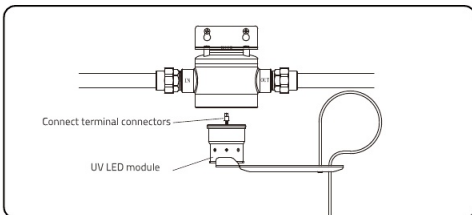
LED Module Replacement — Trained Service Personnel Only



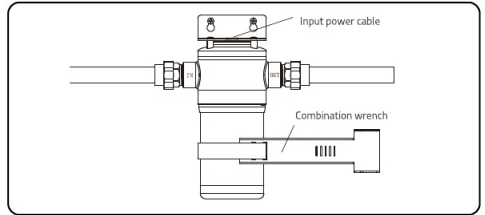
1. Disconnect power cable. Unscrew UVC LED housing counter-clockwise with combination wrench. Wipe internal surfaces clean; set aside.



2. Remove downward the Teflon Tube, Clean inner/outer surfaces and base; set aside.



3. Unscrew counter-clockwise with combination wrench, Disconnect terminal connectors, Install New UV LED module, Connect terminal connectors. Align with mounting position, Fully tighten with combination wrench.



4. Reinstall Teflon tube and UV LED housing. Tighten clockwise with combination wrench. Final Verification, Test water flow; verify indicator light function, inspect for leaks.

WARRANTY

> UV Led Water purifier manufactured by AGUA TOPONE are warranted to the original user only to be free of defects in material and workmanship for a period as specified below. This warranty only applies to the original purchaser and is not transferable.

> AGUA TOPONE UV LED water purifier is covered by a 1-year Limited Warranty.

AGUA TOPONE warrants that it will repair, replace or refund, at AGUA TOPONE's sole option, any ultraviolet system or component that is defective in materials or workmanship for the period as outlined above, subject to the "Limitations of Warranty" as outlined below.

> AGUA TOPONE's liability under this warranty shall be limited to repairing or replacing at AGUA TOPONE's option, without charge, FOB AGUA TOPONE's factory or authorized service depot, any product that AGUA TOPONE manufactures. AGUA TOPONE will not be liable for any costs of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim. Products which are sold but not manufactured by AGUA TOPONE are subject to the warranty provided by the manufacturer of said products and not by AGUA TOPONE's warranty.

> AGUA TOPONE will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with AGUA TOPONE's printed installation and operating instructions.

WARRANTY

LIMITATIONS OF WARRANTY

this warranty does not apply to any of the following:

Water Quality Parameters lying outside of the following ranges

UV transmittance	< 90%	Temperature	above 45°C (113°F)
Hardness	> 120 (mg/L)	Turbidity	> 1 (NTU)
Iron	> 0.3 (mg/L)		

- > A product that has been incorrectly installed according to the technical installation manual.
- > A product that has been modified in any manner, unless approved by the manufacturer.
- > A product where the serial number has been altered defaced or removed.
- > Damage caused by the use of parts that are not compatible, suitable and/or authorized by AGUA TOPONE for use with the product.
- > Damage caused during shipment of the product.
- > Water damage is found inside power adaptor.
- > Product is installed outdoors in direct contact with the environment (rain).
- > Product is installed in freezing temperatures.
- > Product is used in conditions that exceed AGUA TOPONE'S specifications.

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