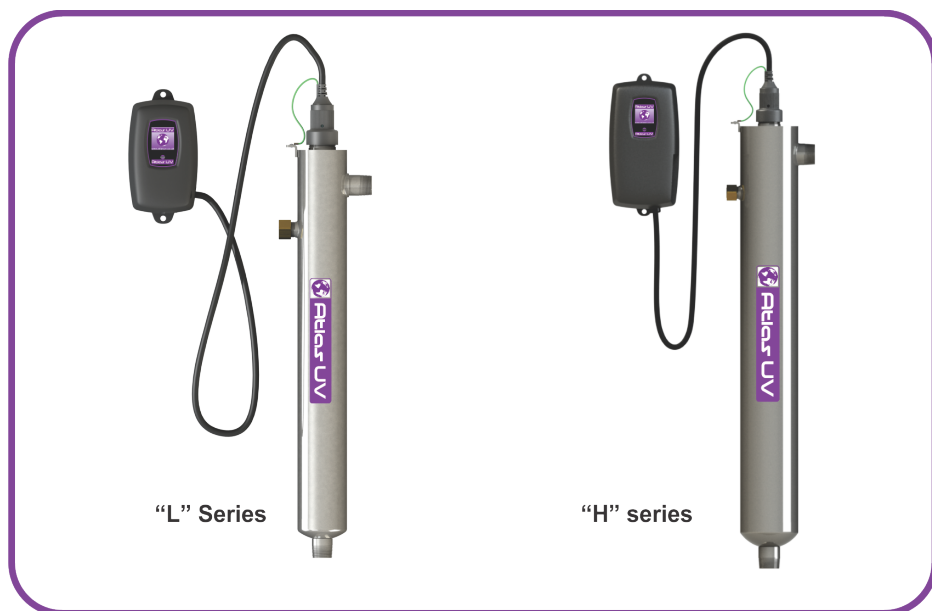




OWNERS MANUAL

Operation & Installation Instructions



L12, L22, L41, L57, L79 (Standard Output)
H38, H53, H95, H151 (High Output)

www.atlasuv.co.uk



Congratulations on purchasing this ultraviolet disinfection system. By purchasing an Atlas UV Disinfection system you are receiving not only a high quality product but also peace of mind. Protecting your water supply with a UV system gives you reassurance that your family will have access to safe drinking water throughout your entire home with no chance of microbiological contamination. This is a chemical free process which is simple in its concept and effective in its ability to inactivate microorganisms present in the water supply. Simple maintenance, continuous disinfection and ultimately safe water, Atlas makes it that easy.

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Safety Considerations

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

1. Before servicing this equipment, disconnect the power cord from the electrical outlet.
2. **Energy given off by the UV lamp can be harmful to your eyes and skin.** NEVER look directly at an illuminated UV lamp without adequate eye protection and always protect your skin from direct exposure to the UV light.
3. For complete disinfection, use **ONLY** genuine replacement parts.
4. Do not operate the unit if it has any damaged or missing components.
5. To avoid possible electrical shock, use only with a properly grounded electrical outlet.
6. Never perform any maintenance to the system unless you are comfortable in doing so. Contact the manufacturer for service instructions if required.
7. 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.
8. 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.
9. The disinfection system should be directly installed into a ground fault circuit interrupter (GFCI). If the use of an extension cord is required, the cord must be manufactured with a minimum of 16 gauge wire and care should be taken to avoid potential tripping hazards.
10. We recommend that a licensed plumber or certified technician install the system.

Before You Begin

The following will be needed for installing the UV system:

Tools

- Pipe cutter, hacksaw or other specialised tools required to cut into your existing plumbing
- Soldering tools (torch, flux, emery cloth and solder)
- Wrench (for tightening fittings)

Other Materials

- Inlet/outlet connections
- Teflon™ tape

Water Quality Parameters

UV disinfection is extremely effective against microorganisms but only if the UV light can pass through the water it needs to treat. This means that the quality of your water is very important in order to ensure complete disinfection.

Treated water should be tested for at the least the parameters listed below. If the water exceeds the listed parameters Atlas strongly recommends that appropriate pretreatment equipment be installed (equipment required will depend on parameters being treated):

Hardness: <7 gpg (120 mg/L) – if hardness level is 7 gpg or slightly below the quartz sleeve must be cleaned periodically in order to ensure efficient UV penetration; if above the water should be softened.

Iron (Fe): <0.3 ppm (0.3 mg/L)

Manganese (Mn): <0.05 ppm (0.05 mg/L)

Turbidity: < 1 NTU

Tannins (organics): <0.1 ppm (0.1 mg/L)

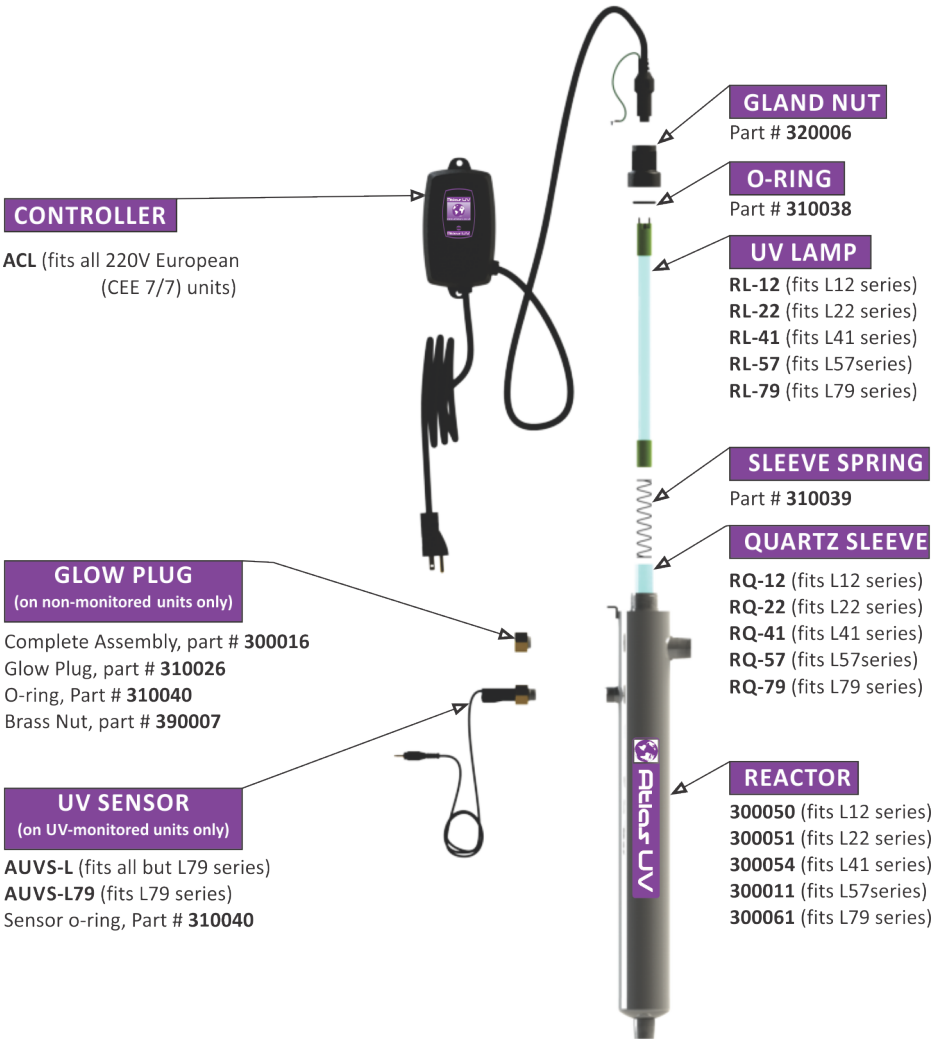
UVT (transmittance): >85% (Please contact Atlas if water has a UVT that is less than 80% for pre-treatment recommendations)

You can have your water tested at a private analytical laboratory or by your local dealer. It is always recommended to install pre-filtration of at least 20 microns prior to an Atlas UV disinfection system.

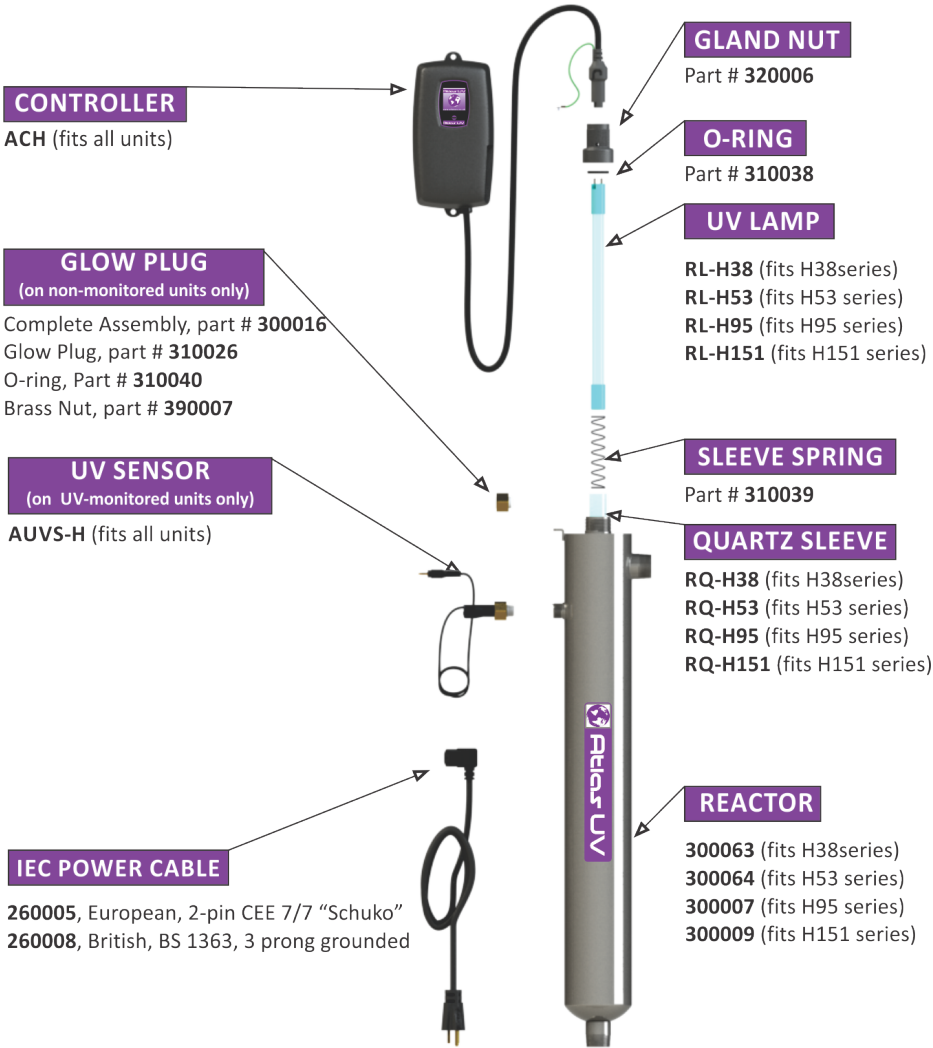
Assembly

Unpack the system and ensure all the components are included with the system. Your system is shipped with the following components:

“L” Series (Standard output lamp systems)



“H” Series (High output lamp systems)



System Sizing

All Atlas UV systems are rated for a specific flow rate in water that meets the quality parameters on page 5. **PLEASE NOTE** that increasing the flow above this rating or disinfecting water that does not meet the quality parameters will decrease the dose and therefore compromise the microorganism inactivation.

If you need to determine your maximum flow rate, you can simply fill a 1 gallon bucket with water and time how long it takes to fill up. It is always better to oversize your system than to undersize. For example, if your pump delivers 8 gpm it is recommended to install any of the Atlas 10 gpm systems.

Location

For Point of Entry (POE) systems, choose a location where the main cold water line is accessible. The system must be installed after other water treatment equipment (softener or filters), but before any branches (See Figure 1). For Point of Use (POU) systems, install the unit just before the tap. Atlas recommends that a 20 micron filter be installed **before** the UV system for a final polishing step before the water is disinfected.

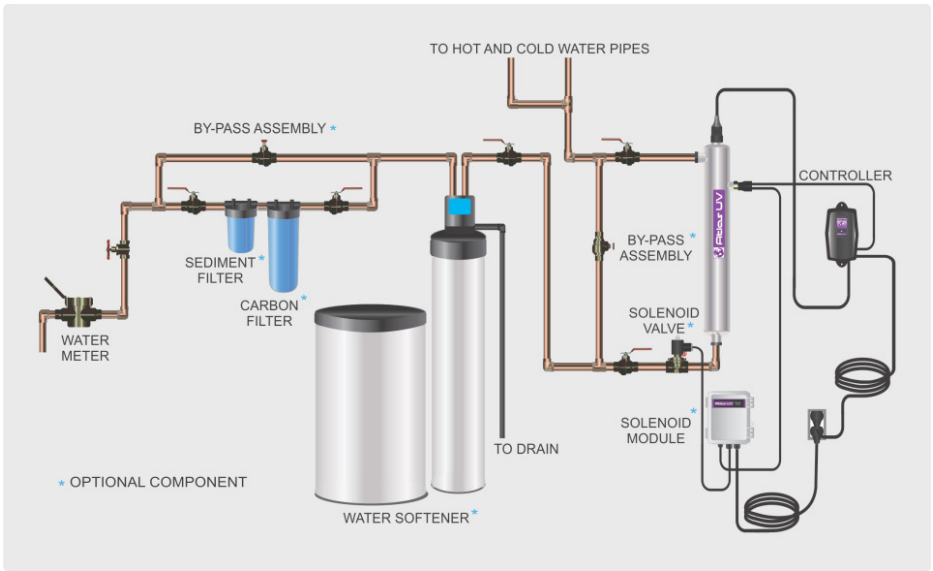


Figure 1. Recommended POE Installation Location

To facilitate lamp removal, ensure there is enough space at the lamp connector end of the UV chamber to safely remove the UV lamp and/or quartz sleeve (See Figure 2).

The controller will require a ground fault circuit interrupter (GFCI or GFI) outlet and should be mounted beside or above the reactor.

PLEASE NOTE: All Atlas UV disinfection systems are intended for indoor use only as they should not be exposed to the elements.

Installation

Step 1: The reactor can be installed either horizontally or vertically using the clamps provided. Vertical installation is the preferred method with the inlet at the bottom (lamp connection at the top) as it allows any air that may be in the pipework to be easily purged from the system.

Step 2: The use of a by-pass assembly is recommended as it will allow you to isolate the UV reactor. This will allow for easier access in case maintenance is required (See Figure 3).

Step 3: Use the supplied fasteners to mount the UV reactor to wood or drywall. If mounting to an alternate material you will need to purchase the proper corresponding fasteners.

Step 4: For water supplies where the maximum flow rate is unknown, a flow restrictor is recommended so that the rated flow of your particular Atlas system is not exceeded. The flow restrictor should be installed on the outlet port of the reactor.

Step 5: It is recommended to have a licensed plumber connect the UV reactor to the water supply and may be a requirement depending on where you are located.



Figure 3. By-pass assembly

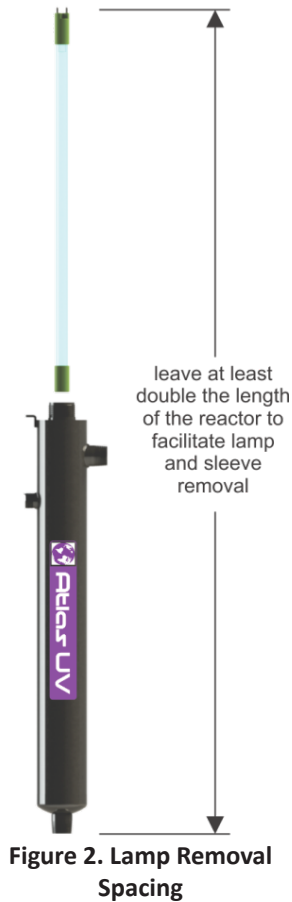


Figure 2. Lamp Removal Spacing

Note: Installation of your Atlas disinfection systems should comply with applicable local regulations.

Step 6: Once the system has been plumbed in, gently remove the quartz sleeve from its packaging being careful not to touch the length with your hands. The use of cotton gloves is recommended for this procedure as oils from the hands can leave residue on the sleeve and lamp which can ultimately block the UV light from getting to the water.

Carefully slide the sleeve into the reactor until you can feel it hit the opposite end of the reactor. Align the sleeve so it centered along the length of the reactor, then gently push it in to lock it into the internal centering springs in the far side of the reactor. **CAUTION:** Pushing too hard when the sleeve is not aligned can damage the centering springs. Slide the o-ring onto the sleeve until it is butted up against the reactor.

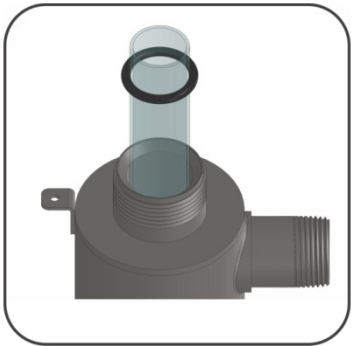


Figure 4. Quartz Sleeve Installation

Step 7: Hand tighten the provided gland nut over the quartz sleeve onto the threaded end of the reactor. It has a positive stop to prevent over-tightening. A firm force may be required to fully tighten the gland nut, but **DO NOT USE TOOLS** for this step. Insert the provided stainless steel compression spring into the quartz sleeve. The spring works with the lamp and lamp connector to create the proper lamp alignment. **PLEASE NOTE:** DO NOT install a UV lamp inside the quartz sleeve without the sleeve spring in place.

Step 8: Install the UV sensor (**only with UV monitor upgrade**). Align the flat portion so it faces the gland nut end and matches up with the half metal lip on the sensor port (see Figure 5). Insert the sensor so it is fully seated and hand tighten the sensor nut.

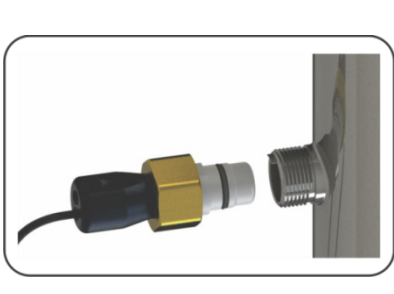


Figure 5. UV Sensor Installation



Figure 6. IEP Connection

Step 9: The reactor is now ready for water flow. When all plumbing connections have been completed, slowly turn on the water supply and check for leaks. Make sure the by-pass valves are functioning properly and that the water is flowing through the reactor. The most common leak is from the o-ring not making a proper seal on the reactor. For new installations, review steps 7 and 8. For older systems drain the reactor, remove the o-ring, dry it and reapply silicon grease. Reinstall the o-ring ensuring that it is properly sealed against the reactor and check again for leaks.

Step 10: Mount the controller to the wall so it is above or beside the reactor to ensure that no moisture can deposit on any of the connections (see Figure 1). Always mount the controller vertically. For monitored systems, insert the sensor connector into the IEP port located on the right side of the controller (Figure 6). For the sensor to be recognised by the controller, the controller power must be plugged in last. **Do not plug the controller power cord in before the last step.**

Step 11: Always hold UV lamps by their ceramic ends, not by the lamp quartz. Remove the lamp from its packaging. Again, the use of cotton gloves is recommended. Insert the UV lamp into the reactor, being careful not to drop it.

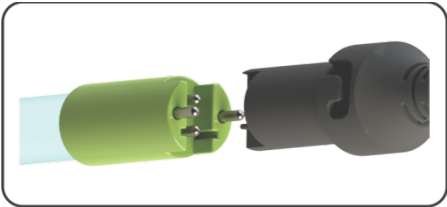


Figure 7a. Standard Output UV Lamp Connection

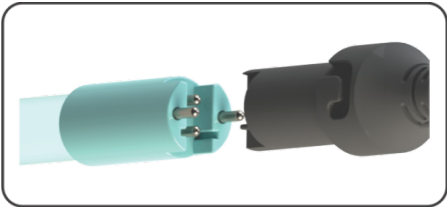


Figure 7b. High Output UV Lamp Connection

Step 12: Plug the lamp connector into the lamp. Note the keying for proper alignment (see Figure 7a, 7b). Insert the lamp connector into the gland nut and turn the connector approximately ¼ turn to lock the connector to the gland nut as in Figure 8.



Figure 8. Lamp Connector

Step 13: Tighten the captive ground screw to the ground lug on the UV reactor to ensure proper grounding.

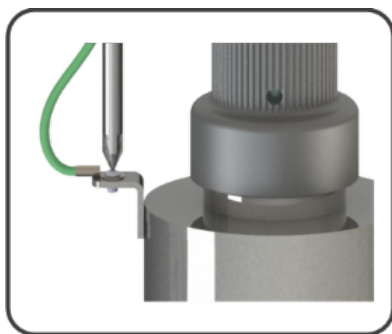


Figure 9. Ground Screw Connection

Step 14: Your system is now ready to be plugged into the appropriate GFCI protected outlet. Refer to the following section before any water is allowed to flow through the system.

System Disinfection

With a new installation, or any time the UV system is shut down for service, without power, or is inoperative for any other reason, the pipework in the home or facility could be contaminated. Use the following steps to fully disinfect the pipework throughout the entire home or facility.

Step 1: Check for and remove any “dead ends” in the pipework throughout the home as these can harbor bacteria. Plug in the UV system and wait until it is ready for operation.

Step 2: Remove the filter cartridge from the last filter housing and fill it with 1-2 cups of household bleach (most are 5.25% chlorine). Replace the filter housing and slowly turn on the water supply.

Step 3: At a water outlet, run the water until bleach can be smelled. Repeat this for all taps, toilets, shower heads, refrigerators, outdoor taps, the washing machine, dishwasher, etc. at the home or facility. Once finished, wait a minimum of 30 minutes before continuing.

Step 4: Reinstall the filter cartridge into the filter housing and flush the chlorine solution by opening all taps until chlorine can no longer be detected. Your home has now been completely disinfected with your Atlas UV system ready to inactivate any microorganisms that enter the home.

Cleaning the Quartz Sleeve

Depending on the water quality, the quartz sleeve may require periodic cleaning. At a minimum, the quartz sleeve should be cleaned on an annual basis. The following steps outline a basic cleaning procedure.

Step 1: If a by-pass assembly is installed, shut the inlet valve off to prevent water flow through the system. Otherwise, turn off main water inlet valve (and/or turn off the water pump).

Step 2: Disconnect power cord of UV system from electrical outlet.

Step 3: Release water pressure by opening a downstream tap and then close the outlet shut-off valve (if any). If there is no outlet shut-off valve, expect water to drain from the system as the head pressure in the system will cause the water to flow back down.

Step 4: Remove the captive ground screw from the ground lug on the UV reactor.

Step 5: Remove the lamp connector from the reactor (gland nut) by pushing the lamp connector in and turning it ¼ turn counter-clockwise. Disconnect the lamp connector from the lamp. **CAUTION:** the lamp may be hot!

Step 6: Being careful to touch only the ceramic ends, remove the lamp out of the reactor.

Step 7: Unscrew the gland nut from the reactor exposing the end of the quartz sleeve.

Step 8: Remove the quartz sleeve and o-ring by **gently twisting and pulling** the quartz sleeve.

Step 9: Using a soft, lint-free cloth or towel wipe the sleeve down using a commercial scale cleaner (i.e. CLR® or LIME-A-WAY®). This removes scaling or iron deposits that may be on the outside of the quartz sleeve. Be careful not to get any moisture or liquids inside of the sleeve.

Step 10: Dry the sleeve with a separate cloth.

Step 11: Replace the o-ring and slide the sleeve back into the reactor following steps 7 and 8 from the installation section of the manual.

Cleaning the UV Sensor

Depending on the water quality, the UV sensor may require periodic cleaning. At a minimum, the UV sensor should be cleaning on an annual basis. The following steps outline a basic cleaning procedure.

Step 1: If a by-pass assembly is installed, shut the inlet valve off to prevent water flow through the system. Otherwise, turn off main water inlet valve (and/or turn off the water pump).

Step 2: Disconnect power cord of UV system from electrical outlet.

Step 3: Release water pressure by opening a downstream tap and then close the outlet shut-off valve (if any). If there is no outlet shut-off valve, expect water to drain from the system as the head pressure in the system will cause the water to flow back down.

Step 4: Place something under the reactor to catch any water that may come out of the reactor during the removal of the UV sensor.

Step 5: Unscrew (counterclockwise) sensor nut from the reactor and pull the sensor slowly out of the sensor port.

Step 6: Holding the sensor in your hand wipe the flat portion (sensor face) of the sensor with isopropyl alcohol using a clean lint-free cloth.

Step 7: Replace sensor following step 9 from the installation section of the manual.

Operation

The Atlas system comes with a feature laden controller that incorporates both the lamp driver (ballast) and control features in one water-tight case. Two controllers are available for the Atlas systems (depending on your model).

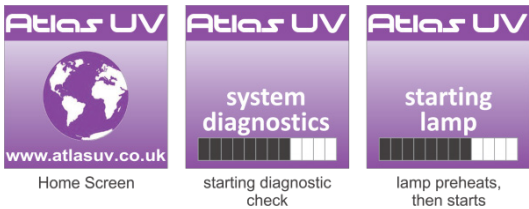
Controller



These controllers feature a power factor corrected, constant current lamp driver with a universal power input. A full colour LCD screen provides the user with a detailed description of the system’s performance in addition to providing any applicable fault messages and system diagnostics. The controllers used in both the monitored and non-monitored systems are identical. All controllers include an “infinite expandability port” located on the right side of the controller. Optional modules like the UV sensor can be plugged into the expandability port of an Atlas controller to give additional features.

Power-up Sequence

On start up, the controller will run through a diagnostic start-up and the sequence will be displayed as follows on the colour LCD:

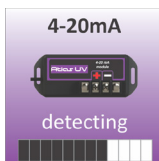


Next, the controller checks for and initialises any optional modules that may be attached to the system.

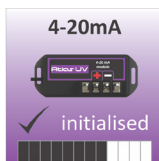
UV Sensor	<table border="0"><tr><td data-bbox="385 966 547 1128"> UV SENSOR  detecting </td><td data-bbox="579 966 742 1128"> UV SENSOR  initialised </td><td data-bbox="798 966 960 1128"> UV SENSOR  not detected </td></tr><tr><td colspan="3" data-bbox="760 1040 785 1057">OR</td></tr><tr><td data-bbox="106 1065 251 1088">Module Check</td><td data-bbox="385 1182 547 1386"><table border="0"><tr><td data-bbox="385 1182 547 1344"> SOLENOID  detecting </td><td data-bbox="579 1182 742 1344"> SOLENOID  initialised </td><td data-bbox="798 1182 960 1344"> SOLENOID  not detected </td></tr><tr><td colspan="3" data-bbox="760 1252 785 1268">OR</td></tr><tr><td data-bbox="106 1227 251 1250">Solenoid</td><td colspan="3" data-bbox="385 1349 547 1386"><table border="0"><tr><td data-bbox="385 1349 547 1386">detecting the presence of a solenoid module</td><td data-bbox="579 1349 742 1386">if solenoid module is present, returns this screen</td><td data-bbox="798 1349 960 1386">if solenoid module is not present, returns this screen</td></tr></table></td></tr></table></td></tr></table>	UV SENSOR  detecting	UV SENSOR  initialised	UV SENSOR  not detected	OR			Module Check	<table border="0"><tr><td data-bbox="385 1182 547 1344"> SOLENOID  detecting </td><td data-bbox="579 1182 742 1344"> SOLENOID  initialised </td><td data-bbox="798 1182 960 1344"> SOLENOID  not detected </td></tr><tr><td colspan="3" data-bbox="760 1252 785 1268">OR</td></tr><tr><td data-bbox="106 1227 251 1250">Solenoid</td><td colspan="3" data-bbox="385 1349 547 1386"><table border="0"><tr><td data-bbox="385 1349 547 1386">detecting the presence of a solenoid module</td><td data-bbox="579 1349 742 1386">if solenoid module is present, returns this screen</td><td data-bbox="798 1349 960 1386">if solenoid module is not present, returns this screen</td></tr></table></td></tr></table>	SOLENOID  detecting	SOLENOID  initialised	SOLENOID  not detected	OR			Solenoid	<table border="0"><tr><td data-bbox="385 1349 547 1386">detecting the presence of a solenoid module</td><td data-bbox="579 1349 742 1386">if solenoid module is present, returns this screen</td><td data-bbox="798 1349 960 1386">if solenoid module is not present, returns this screen</td></tr></table>			detecting the presence of a solenoid module	if solenoid module is present, returns this screen	if solenoid module is not present, returns this screen
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detecting the presence of a solenoid module	if solenoid module is present, returns this screen	if solenoid module is not present, returns this screen																				

4-20 mA

Module Check



detecting the presence of a 4-20mA module



if 4-20mA module is present, returns this screen

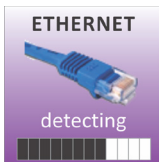
OR



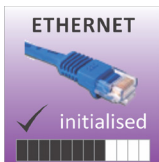
if 4-20mA module is not present, returns this screen

Ethernet

Module Check

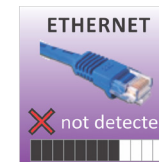


detecting the presence of a ethernet module



if ethernet module is present, returns this screen

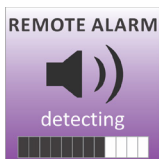
OR



if ethernet module is not present, returns this screen

Remote Alarm

Module Check



detecting the presence of a remote alarm module



if remote alarm module is present, returns this screen

OR



if remote alarm module is not present, returns this screen

A final module screen is displayed showing which specific modules were initialised.

The controller then displays the lamp optimisation screen for 60 seconds to allow the lamp to reach its optimum output, followed a final “start-up complete” screen. The system will now be ready to disinfect water flow.



Operational Screens

On systems without the UV monitor, the default screen shows the **Atlas Home Screen**. At any point during operation the user is able to scroll through the **Atlas Home Screen**, **Lamp life remaining** and **QR Code/Contact Info** screens by pressing the push button located on the front of the controller.



Home Screen



press button once



press button twice

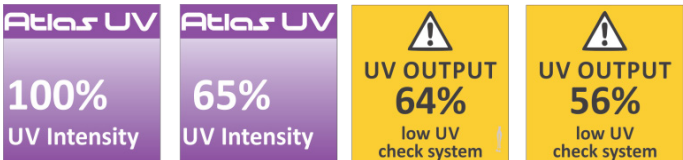
Operational Screens with UV Monitor Upgrade

On systems that have the UV sensor installed, the default screen shows the **UV Intensity**. At any point during operation the user is able to scroll through the **UV Intensity**, **Lamp life remaining** and **QR Code** screens by pressing the button located on the front of the controller.

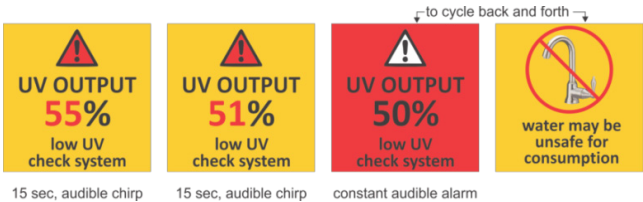


UV Intensity (with UV Monitor Upgrade)

The UV Intensity screens display the level of UV light detected by the sensor. UV intensity can be affected by poor water quality, scaling on the quartz sleeve and/or sensor, lamp failure or lamp expiring. The following screens show the UV Intensity dropping.



Below 56%, the numbers and warning sign turn red and an audible chirp is given by the ballast every 15 seconds. Below 51%, the screen is solid red and a constant audible alarm is given. This alternates with a screen indicating “water may be unsafe for consumption”. With the solenoid module, the controller de-activates the solenoid valve, shutting off all water flow.



Lamp Countdown Sequence

The system counts down the number of days until a lamp change is required.



At seven days remaining, the screen changes to a yellow caution screen with an audible chirp every 15 seconds. Past the zero day threshold, the screen changes to solid red and cycles between a red “lamp expired” screen and a “water may be unsafe for consumption” screen. The same intermittent audible chirp is heard throughout this lamp expired sequence.

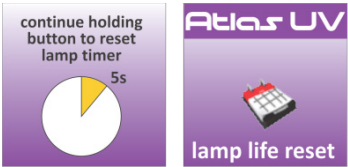


At any point during this sequence, the audible chirp can be deferred by holding the controller button down for a period of five seconds, after which the screen below will be displayed. After the seven days deferral expires, the alarm will sound once again. The deferral can be repeated as many times as you wish. **PLEASE NOTE:** At any point after lamp expiration, the water may be unsafe for consumption and should not be consumed without another form of disinfection.



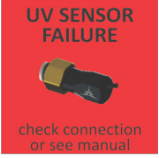
Lamp Countdown Reset Sequence

When changing the lamp, the day countdown timer must be reset to match the newly installed lamp. To reset, firmly hold down the button on the controller while plugging the power cord back into the outlet. Continue holding down the button for five seconds as indicated until you hear an audible chirp confirming the timer has been reset. The following two screens will be displayed during this process.

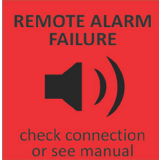


Failure Modes

Hard Alarms: The following give a constant audible alarm. If present, the solenoid valve is closed, and the 4-20, Volt free and ethernet module transmit the alarm.

Lamp Failure 	UV Sensor Failure  
--	--

Soft Alarms: The following remaining errors give a 15 second audible chirp only

Solenoid Module Failure 	4-20mA Module Failure 	Volt Free module failure 	Ethernet module Failure 
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Boil Water Advisory: If any failure occurs on an Atlas UV system, the water must not be used for human consumption until the system is returned to a safe operational mode. If the water is used for human consumption during this period, the water must be boiled (minimum 20 minutes at a full boil) prior to consumption.

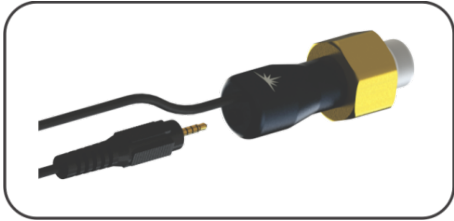
QR Codes

A **QR code** (Quick Response code) is a matrix barcode first designed for the automotive industry. Atlas uses the QR code to store a link to a specific page on our website. Users with a camera phone equipped with the correct reader application can scan the image of the QR code and over a wireless network connect to a Atlas web page in the phone’s browser. Atlas’ QR webpage has information on how to purchase replacement components as well as a helpful video directory on system servicing (i.e. How to change a UV lamp or quartz sleeve). To access the QR code on the Atlas controller, press the control button twice and the QR code screen will appear as follows:



Expansion Modules

Atlas controllers incorporate an “Infinite Expandability Port” (IEP) which allows for expansion to the UV sensor and all other modules. Each module (including the sensor) comes with both a male and female connection. Connect any device to the controller and all subsequent devices are then connected into the female end of last device added in a “daisy chain” configuration.



The following optional expansion modules are available for use on Atlas UV controllers. Contact your authorised distributor for purchasing information.



VOLT FREE CONNECTION MODULE: Allows for a connection to a remote device such as a buzzer, light, alarm system, PLC, etc., via a pair of contacts. In normal operation the OK and COM contacts will be connected, and in a fault condition (Low UV, Lamp fail, Power Fail), the Fault and COM contacts will be connected. Maximum Contact Rating is 1A-120-230V AC/DC (use 16-22 AWG).



SOLENOID CONNECTION MODULE: Connects a NORMALLY CLOSED line voltage solenoid valve to the system. On a non-monitored system, the solenoid will only close on a lamp failure error. On a monitored system, the solenoid is closed when the UV level drops below 50%. Also note that in cases where emergency use of untreated water is required, the controller can be placed into a manual override mode allowing for the flow of water in an alarm condition.

4-20 mA MODULE: Outputs a 4-20mA signal of the UV output to a remote device such as a data logger or computer.

Coming Soon

ETHERNET MODULE: Allows for all controller functions to be connected to a computer via an Ethernet cable.

Atlas UV Standard Output System Specifications

	ATLAS UV EQUIPMENT SPECIFICATIONS				
	Residential systems (standard output lamps)				
MODEL	L12	L22	L41	L57	L79
Flow Rate (@30mJ/cm²)	11.4 lpm	22.7 lpm	41 lpm	57 lpm	79 lpm
	0.7 m³/hr	1.4 m³/hr	2.5 m³/hr	3.4 m³/hr	4.8 m³/hr
Flow Rate (@40mJ/cm²)	9.1 lpm	17 lpm	31 lpm	45.4 lpm	59 lpm
	0.5 m³/hr	1.0 m³/hr	1.9 m³/hr	2.7 m³/hr	3.6 m³/hr
Port Size	½"MNPT	¾"MNPT	¾"MNPT	1"MNPT	1"MNPT
Electrical	90-265V/50-60Hz.				
Plug Type	European, CEE 7/7				
Lamp Power (Watts)	15	22	39	50	42
Power (Watts)	20	30	49	62	51
Replacement Lamp	RL-12	RL-22	RL-41	RL-57	RL-79
Replacement Sleeve	RQ-12	RQ-22	RQ-41	RQ-57	RQ-79
Reactor Dimensions	6.4 x 36.4 cm (2.5 x 14.3")	6.4 x 54.2 cm (2.5 x 21.3")	6.4 x 89.5 cm (2.5 x 35.2")	6.4 x 101.6 cm (2.5 x 40.0")	8.9 x 91.7 cm (3.5 x 36.1")
Chamber Material	304 Stainless Steel, A249 Pressure Rated Tubing				
Controller Dimensions	17.2 x 9.2 x 7.6 cm (6.8 x 3.6 x 3")				
Operating Pressure	0.7-10.3 bar (10-150 psi)				
Operating Water Temperature	2-40° C (36-104° F)				
UV Monitor Port	No	Yes (optional UV sensor module sold separately)			
Solenoid Output	Yes (optional solenoid module sold separately)				
Dry Contacts	Yes (remote alarm module sold separately)				
4-20mA Output	Yes (4-20mA module sold separately)				
Lamp Change Reminder (audible & visual)	Yes				
Lamp Out Indicator (audible & visual)	Yes				
Shipping Weight	3.3 kg (7.3 lbs)	4.2 kg (9.3 lbs)	6.8 kg (15.0 lbs)	8.0 kg (17.6 lbs)	7.5 kg (16.5 lbs)

Atlas UV High Output System Specifications

 Atlas UV	ATLAS UV EQUIPMENT SPECIFICATIONS			
	Residential Crossover systems (high output lamps)			
MODEL	H38	H53	H95	H151
Flow Rate (@30mJ/cm²)	38 lpm	53 lpm	95 lpm	151 lpm
	2.3 m³/hr	3.2 m³/hr	5.7m³/hr	9.1m³/hr
Flow Rate (@40mJ/cm²)	26.5 lpm	41 lpm	72 lpm	117 lpm
	1.6 m³/hr	2.5 m³/hr	4.3 m³/hr	7.0 m³/hr
Port Size	¾" MNPT	1" MNPT	1" MNPT	1 ½" MNPT
Electrical	90-265V/50-60Hz.			
Plug Type	IEC European, CEE 7/7			
Lamp Power (Watts)	34	45	67	101
Power (Watts at 230V)	36	48	72	108
Replacement Lamp	RL-H38	RL-H53	RL-H95	RL-H151
Replacement Sleeve	RQ-H38	RQ-H53	RQ-H95	RQ-H151
Reactor Dimensions	8.9 x 41.8 cm (3.5 x 16.5")	8.9 x 50.8 cm (3.5 x 20.0")	8.9 x 68.3 cm (3.5 x 26.9")	8.9 x 103.4 cm (3.5 x 40.7")
Chamber Material	316 Stainless Steel, A249 Pressure Rated Tubing			
Controller Dimensions	21.7 x 10.8 x 8.9 cm (8.6 x 4.2 x 3.5")			
Operating Pressure	0.7-10.3 bar (10-150 psi)			
Operating Water Temperature	2-40° C (36-104° F)			
UV Monitor Port	Yes (optional UV sensor module sold separately)			
Solenoid Output	Yes (optional solenoid module sold separately)			
Dry Contacts	Yes (remote alarm module sold separately)			
4-20mA Output	Yes (4-20mA module sold separately)			
Lamp Change Reminder (audible & visual)	Yes			
Lamp Out Indicator (audible & visual)	Yes			
Shipping Weight	4.5 kg (9.9 lbs)	6.0kg (13.2 lbs)	7.2 kg (15.9 lbs)	9.7 kg (21.4 lbs)

Limited Warranty Statement:

Products manufactured by Atlas 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.

UV SYSTEMS

Ten (10) year Limited Warranty on the stainless steel reactors, from the date of original purchase, or installation (proper documentation required for verification).

ELECTRONICS

Three (3) year Limited Warranty on the ballasts and controllers, from the date of original purchase, or installation (proper documentation required for verification).

UV LAMPS, UV SENSORS & QUARTZ SLEEVES

One (1) year Limited Warranty on all Atlas ultraviolet lamps, UV sensors and quartz sleeves from the date of original purchase, or installation (proper documentation required for verification).

Atlas warrants that it will repair, replace or refund, at Atlas' 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. Atlas' liability under this warranty shall be limited to repairing or replacing at Atlas' option, without charge, F.O.B. Atlas' factory or authorised service depot, any product that Atlas manufactures. Atlas 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 Atlas are subject to the warranty provided by the manufacturer of said products and not by Atlas' warranty. Atlas will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorised alteration or repair, or if the product was not installed in accordance with Atlas' printed installation and operating instructions.

LIMITATIONS OF WARRANTY

This warranty does not apply to any of the following:

- Water Quality Parameters lie outside of the following ranges
 - Hardness > 120 mg/L (7 gpg)
 - Iron > 0.3 mg/L (ppm)
 - Manganese > 0.05 mg/L (ppm)
 - Tannins > 0.1 mg/L (ppm)
 - Turbidity > 1 NTU
 - Transmittance (UVT) < 75%
- 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 authorised by Atlas for use with the product (e.g. non-original lamps or sleeves).
- Damage caused during shipment of the product.
- Water damage is found inside ballast housing or controllers.
- Product is installed outdoors in direct contact with the environment (rain).
- Product is installed in freezing temperatures.
- Product is used in conditions that exceed Atlas' specifications.

TO GET WARRANTY SERVICE

To obtain service under this warranty, you must first contact Atlas Customer Service at warranty@atlasuv.co.uk to obtain a Warranty Return Authorisation. You will then need to return the product through the Atlas Dealer or Distributor where the product was originally purchased, together with proof of purchase and installation date, failure date, and supporting installation data. Unless otherwise provided, the Dealer or Distributor will contact Atlas for instructions on returning the product. Any defective product to be returned to Atlas must be sent freight prepaid; documentation supporting the warranty claim and/or a Return Material Authorisation must be included if so instructed.

ATLAS WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, OR EXPENSES ARISING FROM INSTALLATION, USE, OR ANY OTHER CAUSES. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THOSE WARRANTIES DESCRIBED OR REFERRED TO ABOVE.

THIS LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY MADE BY ATLAS WITH RESPECT TO THE PRODUCT, AND IS GIVEN IN LIEU OF ANY OTHER WARRANTY. TO THE EXTENT ALLOWED BY APPLICABLE LAW, ANY AND ALL EXPRESS OR IMPLIED WARRANTIES NOT SET FORTH HEREIN ARE WAIVED AND DISCLAIMED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. ATLAS LIABILITY UNDER THIS LIMITED WARRANTY IS LIMITED SOLELY TO THOSE LIABILITIES SET FORTH ABOVE. IN THE EVENT THAT ANY PROVISION OF THIS LIMITED WARRANTY SHOULD BE OR BECOME INVALID OR UNENFORCEABLE UNDER APPLICABLE LAW, THE REMAINING TERMS AND CONDITIONS HEREOF SHALL REMAIN IN FULL FORCE AND EFFECT AND SUCH INVALID OR UNENFORCEABLE PROVISION SHALL BE CONSTRUED IN SUCH A MANNER AS TO BE VALID AND ENFORCEABLE.

Warranty Registration

It is imperative that you complete the warranty registration process. This not only registers your UV disinfection system for the provided manufacturer's warranty, but also allows the factory to provide you with any important product updates or technical bulletins concerning your product. To register, completely fill out the included warranty card, including a valid e-mail address. **PLEASE NOTE:** This information is for the sole purpose of technical support for your disinfection system and will not be used, or sold, to any other organisation for any other purpose.



www.atlasuv.co.uk