

UK/EU English

Affix serial number here

EVOLUTION
AQUA

INNOVATION IN WATER

evouV

Aquarium UV Steriliser

INSTALLATION AND OPERATING MANUAL

Complete instructions for all models of evouV Aquarium Steriliser

WARNING:

- Ensure that the unit is **switched off** at the mains before you attempt to conduct any type of maintenance on the evouV.
- Ensure the unit is installed in the recommended orientation.
- Fit the quartz sleeves and O-rings and switch on pump to check that unit is water tight before fitting the bulb, bulb socket and end cap.
- Ensure that the end cap is tight before running the unit.
- After replacing bulbs or before tightening the end cap, make sure that the O-Rings are in the correct position, and the bulb sockets are dry.
- Should the electrical connections get wet, please dry thoroughly before switching power on.

WARNING: PLEASE READ THE FOLLOWING SAFETY INFORMATION FIRST.

IMPORTANT SAFETY INFORMATION - READ CAREFULLY

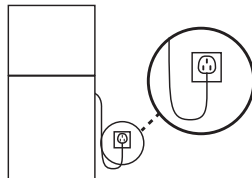
DANGER: To avoid a possible electric shock, ensure all electrical devices are switched off when carrying out maintenance.

Do not attempt repairs yourself; return the appliance to the place of purchase for service or dispose of the appliance.

NEVER LOOK DIRECTLY AT AN ILLUMINATED UV BULB



- To avoid the possibility of the appliance plug or socket getting wet, you should create a "drip loop" for each cord connecting an aquarium appliance to a socket. The "drip loop" is that part of the cord below the level of the socket, or the connector. Use an extension cord, if necessary, to prevent water travelling along the cord and coming into contact with the socket.



- Always unplug an appliance from an outlet when not in use, before putting on or taking off parts, and before cleaning.

Never pull the cord itself to remove the plug from the outlet.

- If the plug or socket does get wet, **DO NOT unplug the cord**. Disconnect the fuse or circuit breaker that supplies the power. Then unplug the device and examine for presence of water in the socket.

- Close supervision is necessary when any appliance is used by or near children.

- **NEVER RUN THE UNIT DRY** - Only turn on when filled with water.

- **NEVER SUBMERGE THE UNIT IN WATER**

- Do not use an appliance for anything other than its intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.

- This unit must be earthed when earth wire is fitted.

- Never use a fuse larger than 3 amps on the power lead.

- Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing point.

- Make sure an appliance mounted in the recommended positions and is securely installed before operating it.

- If the quartz sleeve is cracked, replace it immediately.



NOTE: A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to arrange the cord so that it cannot be tripped over or pulled accidentally.

SPECIFICATIONS:

evo15: 220-240V, 50Hz. Class 1

evo25: 220-240V, 50Hz. Class 1

All components are CE compliant.

Disposal Of Your Old Product

Your product is designed and manufactured with high quality material and components, which can be recycled and reused. When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2002/96/EC. Please contact your local authority about correct disposal for electrical and electronic equipment. Our WEE Registration Number is WEE/FE1471RR.

Please act according to your local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.



INTRODUCING EVOLUTION AQUA'S evoUV Aquarium Steriliser

Congratulations on purchasing an Evolution Aqua evoUV Aquarium Steriliser.

Evolution Aqua evoUV sterilisers are made using the latest technology and design techniques with a fully UV stabilised, tough outer casing, to ensure that the water will flow effectively within the unit, allowing the ultraviolet light to damage and destroy algae and disease pathogens as they pass through.

Please read this instruction manual carefully from start to finish before attempting to install your evoUV.

UNBOXING THE evoUV

On opening the box, you can see that the UV bulb and quartz sleeve are packed separately for safe transit. Please refer to pages 6 and 7 of this manual for instructions on how to install the bulb and quartz sleeve. Quartz Sleeve O-Rings and End Cap Sealing Rings are packed in a small bag inside the box.

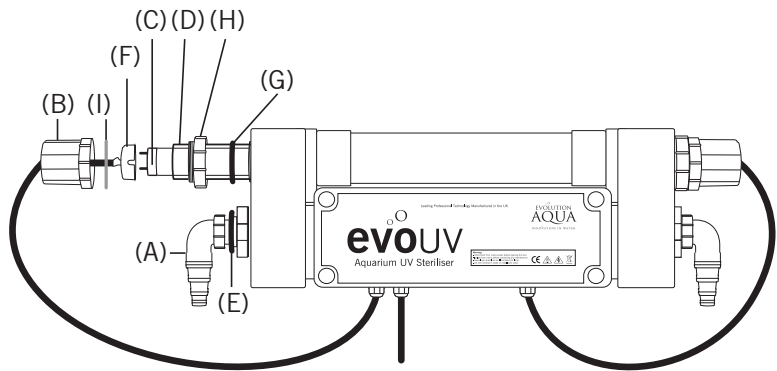
Please take time to familiarise yourself with your evoUV and its components.

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evoUV DIAGRAMS AND COMPONENTS LIST

Please familiarise yourself with the components shown in the diagram below:



Description	Diagram Code	EA Order Code
Hosetail & fittings <i>(As provided)</i>	A	
End Cap	B	EVOCONNUT
UV Bulb	C	Available from your EA Dealer*
Quartz Sleeve	D	Available from your EA Dealer*
Hosetail white flat washer	E	
Bulb Socket	F	LAMPHOLDER-T8
Quartz Sleeve O-Ring	G	EVOUVORINGZ
Locking Nut	H	EVO-M/F
End Cap Sealing Ring	I	EVOUVOFLATWASHER


**For optimum performance, the electronic ballast has been configured for UV bulbs supplied by Evolution Aqua. When sourcing replacement UV Bulbs or quartz sleeves always buy components supplied by Evolution Aqua from your nearest Evolution Aqua stockist.*

IDENTIFYING THE O-RingS

These O-Rings are packed in a small bag inside the box.


QTY X 2: Quartz Sleeve O-Rings **(G)**

QTY x 2: End Cap Sealing Rings **(I)**



Round O-Ring

Quartz Sleeve O-Ring **(G)**





Flat Washer

End Cap Sealing Ring **(I)**

FLOW RATES

Please note: For optimum performance we recommend that you pass the entire volume of your pond through the evoUV unit once every 2 to 3 hours.

We do not recommend the use of pumps with operating pressures in excess of 3 bar.

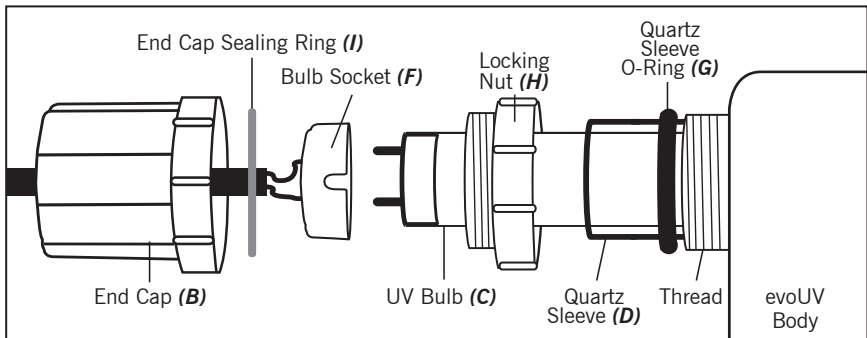
Model	Max. aquarium size	Max. flow rate	Bulb power	Inlet / Outlet	Fittings supplied
 evo15	400 Litres 90 UK Gallons 110 US Gallons	1,500 Litres/hr 330 UK Gallons/hr 396 US Gallons/hr	15W (1 x 15W T8)	1½"	19mm Threaded Hosetails
 evo25	600 Litres 130 UK Gallons 160 US Gallons	2,000 Litres/hr 330 UK Gallons/hr 528 US Gallons/hr	25W (1 x 25W T8)	1½"	19mm Threaded Hosetails

The evoUV Aquarium UV steriliser can be used either as a clarifier, to damage water born green algae cells (green water,) or as a steriliser, to help to control disease pathogens. When compared to the evoUV for ponds, the evoUV Aquarium Steriliser comes with a narrower inner-pipe to ensure that the aquarium water is held much closer to the UV bulb as it passes through the unit.

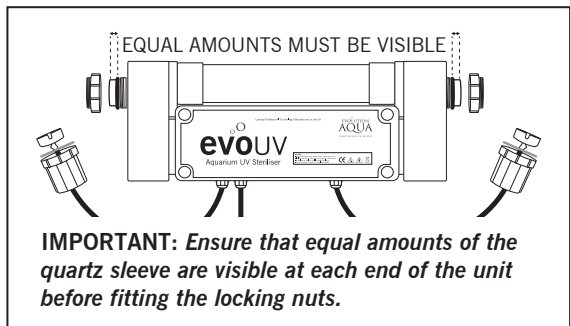
To be an effective steriliser contact time, as well as close proximity to the bulb, is key, so we recommend that maximum pump flows of 1,500 lph for the 15 watt and 2,000 lph for the 25 watt are not exceeded. Larger flow-through can be achieved although may not achieve the same result in terms of sterilisation.

For larger system volumes or increased sterilisation capacity multiple units can be connected together with either flexible or rigid pipework (not supplied). For best possible sterilisation results use an over-rated unit with an under-rated flow rate, and replace the UV bulb with new every six months. Always combine with effective mechanical filtration to remove debris from the water and to capture dead and damaged algae cells. If using multiple evoUV Aquarium UV Sterilisers, connection in parallel, rather than series is advised for best sterilisation results.

INSTALLING THE QUARTZ SLEEVE



1. Starting at one end of the unit, unscrew the black end cap (B). You will notice that this black end cap houses the bulb socket (F).
2. Unscrew the white locking nut (H) from the same end.
3. Repeat steps 1 and 2 at the other end of the unit.
4. Take the quartz sleeve (D) from the packaging box and slide it through the UV until it finds the hole at the far end of the unit.
5. Take the quartz sleeve O-Ring (G) and fit it around one end of the quartz sleeve.
6. Slide this quartz sleeve O-Ring (G) towards the thread on the UV body, ensuring that equal amounts of quartz sleeve are visible at each end of the unit.
7. Fit the quartz sleeve O-Ring (G) at the other end of the quartz sleeve, again ensuring that equal amounts of quartz sleeve are visible at each end of the unit.
8. Now screw the white locking nut (H) back into position.
9. Ensure the locking nut is **HAND TIGHTENED** to prevent causing damage to the O-Ring. No tools are needed.
10. Repeat steps 8 and 9 at the other end of the unit.
11. The quartz sleeve is now in position ready to take the UV bulb.
12. Run for 24 hours to check the installation is correct with no leaks. Re-install if any leaks are detected - if no leaks proceed to lamp installation.



HAND TIGHTEN FITTINGS ONLY - DO NOT USE TOOLS

POSITIONING AND MOUNTING THE evoUV

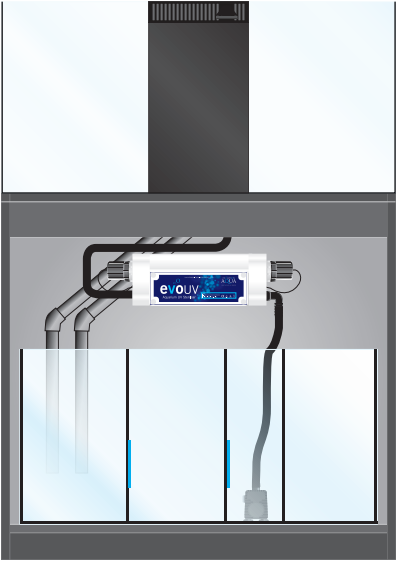
You can position your evoUV either horizontally or vertically.

Your evoUV must not be submerged in water or placed in a position where water may collect around the unit. The electrics within the evoUV units are sealed in a water tight unit. The evoUV has an IP rating of 64.

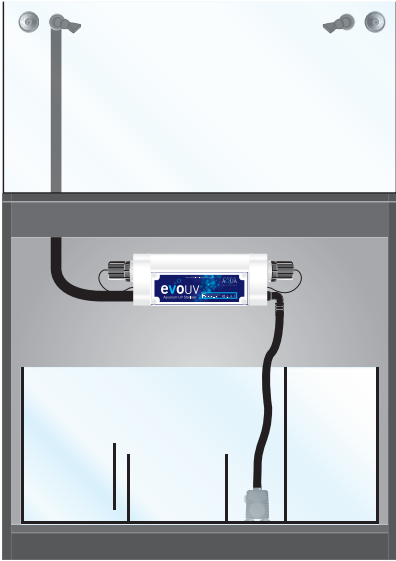
Fix your evoUV into position using the stainless steel brackets attached to the evoUV. Screws and washers are not provided.

It is advisable to install the evoUV where it can be easily accessed or removed after water testing (see page 10) and for bulb replacement and maintenance.

POSITIONING AND MOUNTING THE *evoUV*



evoUV connected to pump in sump
Fit evoUV to pump return to main aquarium using hard pipe.



evoUV connected to pump in sump
Fit evoUV to pump return to main aquarium using flexi pipe.



evoUV connected to external filter
Fit evoUV to outlet return hose to aquarium.



evoUV on a closed loop system
Fit evoUV to a hose from pump or powerhead.

CONNECTION TO YOUR PIPEWORK

IMPORTANT: *Do not overtighten fittings.*

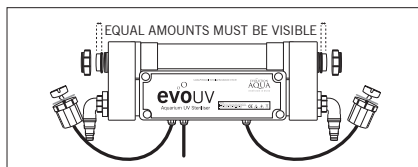
evoUV Aquarium UV Steriliser is supplied with 19mm hosetails, complete with nuts and white flat rubber washer. Place the hosetail and nut over the male thread at each end of the unit. Rotate the hosetail to the position of your choice before doing up the nut until hand tight. The nut should be tight enough to prevent leaks but not overtightened using tools as it may crack or damage the thread.

Slide flexible pvc hose (not supplied,) over the barb of the hosetail at each end. This can be eased by dipping the end of the flexible pvc hose into hot water for ten or more seconds, which will soften it, make it more stretchy and the water will help to lubricate it.

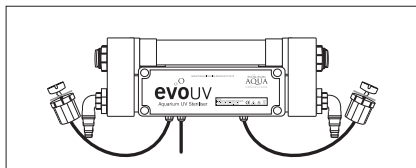
If the hose is of the correct corresponding internal diameter no extra hose clips should be necessary, although for extra safety and owner peace of mind, non-corrosive hose clips can be used (not supplied)

WATER TESTING THE QUARTZ, O-RINGS AND LOCKING NUTS

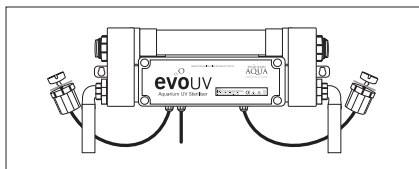
Now that the unit is in position and connected to pipework, the quartz sleeve and O-ring at each end can be leak tested to ensure that they have been fitted properly. Failure to test for leaks and improper installation at this stage may cause water to seep into and damage the bulb socket and end cap sealing ring.



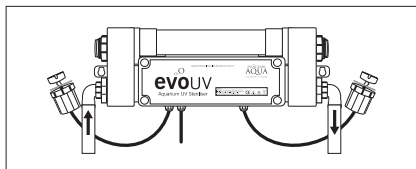
STEP 1: Fit quartz sleeve, o-rings and locking nuts.



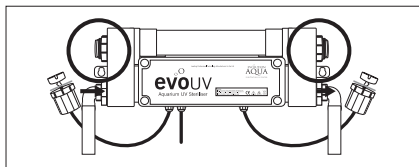
STEP 2: Check the locking nuts are hand tight only.



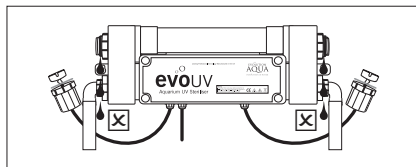
STEP 3: Position and mount UV and connect to pipework.



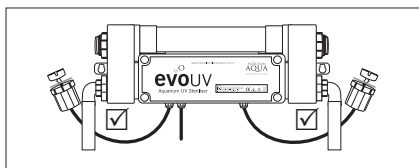
STEP 4: Turn on pump and pump water through unit.



STEP 5: Check locking nuts for signs of water leaking.



STEP 6: If water seeps from locking nuts, revisit installing the quartz sleeve on page 6.



STEP 7: If no water leaks, quartz sleeve has been properly installed. Proceed to connection to the electricity supply.



WARNING

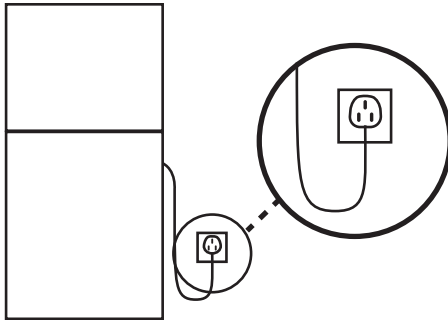
Failure to test for leaks and improper installation at this stage may cause water to seep into and damage the bulb socket and ballast. Water damage from improper installation is **NOT** covered under warranty.

CONNECTION TO THE ELECTRICITY SUPPLY

Electrical installations must be done by a qualified electrician.

evoUV Aquarium UV Steriliser comes supplied with a fitted plug.

Always ensure that a drip loop is maintained when using any electrical equipment around an aquarium. See illustration:



Always ensure that a drip loop is maintained when using any electrical equipment around an aquarium.

The power supply must meet the specifications on the product.

The cores in the supply cable are coloured in accordance with the following code:

Brown = Live. Blue = Neutral. Earth = Green/Yellow (WHERE FITTED).

Do not use the supply cable to lift the evoUV as this may cause damage.

WARNING - A Residual Current Device (RCD), also known as the Residual Current Circuit Breaker (RCCB), with a tripping current not exceeding 30mA must be installed in the supply circuit. A means of disconnection from the supply having a contact separation of at least 3mm in all poles must be incorporated in the wiring.

Caution: Always disconnect all pond appliances from the mains supply before putting your hands into the water.

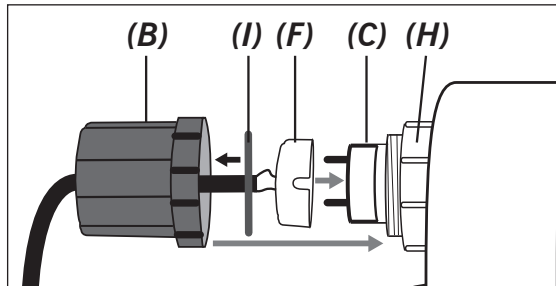
All electrical installations and wiring must be adequately protected to prevent any damage.

Enough electrical cable is supplied with the unit to connect to the mains electric. This unit must be connected to permanent wiring. A switch with 3mm contact separation must be provided in the fixed wiring to provide disconnection from the electricity supply.

INSTALLING THE UV BULB

1. Remove all packaging from the UV bulb **(C)**.
2. Slide the UV bulb **(C)** carefully through the quartz sleeve **(D)** that you have fitted, as per the instructions on page 6.
3. While holding one of the black end caps **(B)** gently push the cable through the end cap which will make it easier to fit the bulb socket **(F)** in step 5.
IMPORTANT: Do not pull the cable by holding just the bulb socket.
4. Check the pre-installed End Cap Sealing Ring **(H)** is over the bulb socket and located in the end cap so it is seated on the inside lip of the end cap.
IMPORTANT: Ensure the end cap sealing ring is not twisted and it remains in this location throughout the installation.

5. In no particular order, align the UV bulb pins with the holes in the bulb socket and carefully push the bulb socket firmly onto the UV bulb pins. You may need to hold the other end of the UV bulb to help you fit the socket.



6. Ensure the UV bulb socket is firmly connected to the UV bulb.
7. Repeat steps 3 to 6 at the other end of the unit.
8. Now at one end of the unit, slide the black end cap (checking that the sealing ring is in position) over the bulb socket while carefully holding the cable to prevent the bulb connector disconnecting from the UV bulb.
9. Screw this end cap onto the thread on the white locking nut **(H)** already connected to the UV body. **HAND TIGHTEN ONLY.**
10. Repeat steps 8 and 9 at the other end of the unit.
11. Check that all of the fittings are hand tightened. No tools are needed.
12. On multiple bulb units, do not mix up the bulb connectors as this will result in the bulb not illuminating.

Please ensure that there is enough space at one end of the Aquarium UV to enable bulb / quartz sleeve removal and maintenance.

HAND TIGHTEN FITTINGS ONLY - DO NOT USE TOOLS

UV BULB REPLACEMENT

ALWAYS ISOLATE THE UNIT FROM ANY ELECTRICITY AND WATER SUPPLIES BEFORE CARRYING OUT MAINTENANCE ON THE UNIT.

TO REMOVE A UV BULB:

It is not necessary to stop the water circulating through the evoUV to change the bulb.

1. Disconnect the electricity supply.
2. Unscrew the black end cap at one end of the unit. Take care not to unscrew the white locking nut also.
3. Carefully slide the black end cap over the wire to reveal the bulb socket.
Take care not to lose the end cap sealing ring.
4. Disconnect the bulb socket.
5. Repeat steps 2 to 4 at the other end of the evoUV.
6. With the end caps out of the way, carefully slide out the UV bulb.

WARNING: If the end caps / electrical connections get wet during this procedure, please ensure that they are thoroughly dried before re-connecting.

TO INSTALL A NEW UV BULB:

Follow the instructions on **page 12** to fit a new UV bulb.

IMPORTANT: After checking all the fittings are correctly tightened you can switch your unit back on.

Dirt or limescale building up on the quartz sleeve will inhibit the penetration of the ultraviolet light into the water and affect the efficient working of the unit.

REPLACING / CLEANING QUARTZ SLEEVE

DANGER: ULTRAVIOLET RADIATION. Disconnect Power Before Replacing Lamp
ALWAYS ISOLATE THE UNIT FROM ANY ELECTRICITY AND WATER SUPPLIES
BEFORE CARRYING OUT MAINTENANCE ON THE UNIT.

TO REMOVE A QUARTZ SLEEVE:

PLEASE NOTE: Removing the quartz sleeve will cause water to flow out of the unit.

1. Remove the UV bulb as described on page 13.
2. With the electricity supply disconnected, evoUV isolated and UV Bulb removed, unscrew the locking nut at one end of the evoUV.
3. Carefully remove the quartz sleeve O-Ring and keep safe.
4. Unscrew the locking nut from the other end and remove the quartz sleeve O-Ring and keep safe.
5. Carefully remove the quartz sleeve taking care not to allow it to drop inside the UV body.
6. To drain any water that may be left in the unit, we would recommend that you unscrew the mounting bracket(s), disconnect the unit from the pipework, and tilt the unit to drain the chamber of water.
7. Clean the sleeve and polish with a soft cloth or paper towel. *If you live in a hard water area, you may get limescale on the quartz sleeve; this can be easily removed by using vinegar or a cold water descaler.*

WARNING: If the end caps / electrical connections get wet during this procedure, please ensure that they are thoroughly dried before re-connecting.

TO RE-INSTALL A QUARTZ SLEEVE:

Follow the instructions on **pages 6 and 13** to re-install the quartz sleeve and UV bulb.

IMPORTANT: After checking all the fittings are correctly tightened you can switch your unit back on.

TROUBLESHOOTING

During this procedure or if you notice water leaking from around the end caps you should check the following:

1. Check the O-Ring is undamaged.
2. Check there are no cracks and breaks in the quartz sleeve.
3. Check that the locking nut is compressing the O-Ring to form a water tight seal.
4. Check that the end caps are sufficiently tight.
5. All components are clean and free from dirt and debris.

****Please note that service items are not subject to a claim under warranty. The service items listed on page 4 are available from your EA stockist.***

IN BUILT PROTECTION

The evoUV range of aquarium sterilisers have thermal overload protection which automatically shuts down and then enables a fast re-start when the problem has been cleared. This may be as a result of water in the end caps. Please see the troubleshooting section.

Thermal Overload Protection -

This will automatically switch off the unit should the temperature exceed the maximum operating temperature limits.

Automatic start up and shut down protection -

This protects the electrical components in the event of a power surge.

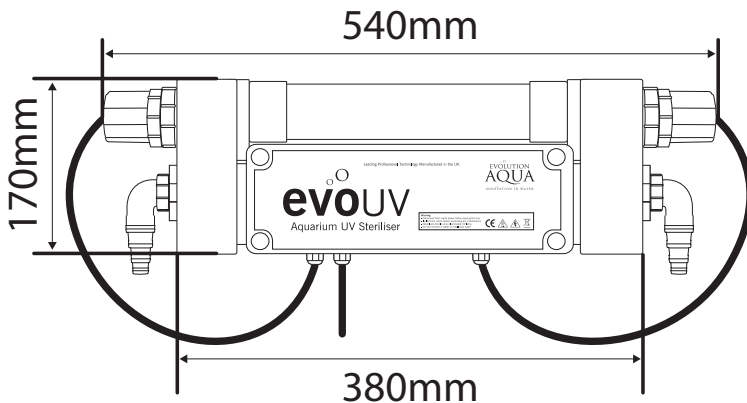
DIMENSIONS

Length: 540mm (from end cap to end cap)

Width: 120mm

Height: 170mm

Length: 380mm (body only)



TROUBLE SHOOTING

If the UV bulb is not lit, then you need to investigate the power to your unit.

- Has your RCD tripped? If yes, check your wiring and reset.
- Examine the UV bulb for signs of failure, and replace if necessary.
- Is the UV bulb fitted correctly? Unscrew the end caps and ensure correct fitting as per the instructions as described in this manual.
- Are the end caps dry? If not, allow to dry thoroughly. We recommend the use of a hair-dryer for this.
- Possible ballast failure. The ballast in your aquarium can easily be replaced, visit our website www.evolutionaqua.com and check the aquarium UV section for further information.

The unit is leaking from the bulb fittings

This could be caused by an incorrectly fitted, damaged or overtightened O-ring on the quartz sleeve. Please check the quartz sleeve O-ring, reposition it or if necessary replace it with a new one.

IMPORTANT: Do not fit the bulb socket or end cap until the issue is solved.

If water enters the bulb socket it can cause irreparable damage to bulb socket and ballast. Damage caused by improper fitting of the quartz sleeve, o-rings and locking nuts are not covered under warranty.

Since fitting the evoUV my pump flow is restricted

In order to be an effective steriliser the void space inside evoUV has been narrowed to force the water closer to the harmful UV. This is deliberate and a reduction in pump flow is expected. For greater flow capability connect multiple evoUV devices in parallel. Note high flow rates are not conducive to effective sterilisation results. For optimum sterilisation through an evoUV a small, restricted flow should always be used. This helps to ensure a long exposure to harmful UV, every time disease pathogens pass.

Water is dripping from the hosetails

This means that the hose used is not a perfect match in terms of its internal diameter and wall diameter. A marine safe hose clip (not supplied,) will prevent this by fitting one on each hosetail and tightening it.

Water is dripping from the hosetail nut

This means that the nut has not been correctly tightened, or has not properly threaded onto the male thread. Check that the rubber washer is inside the nut (important,) then refit it and do it up. PTFE tape can be added for a greater seal around the male thread (not supplied).

FREQUENTLY ASKED QUESTIONS

How often should I change the UV bulb?

For optimum sterilisation results change the bulb every six months.

Will it make my fish completely disease free?

No. The evoUV can only ever be effective on the water borne life stage of some disease pathogens. It is not effective on any disease which is already on the fish's body and does not have a mobile, water borne life stage. evoUV can be effective at lowering numbers of water borne pathogens and helping to prevent the spread of pathogens from tank to tank on centralised fish systems, if set up correctly.

It can only ever be effective on pathogens which pass inside the unit, and are directly exposed to the harmful UV rays emitted by the UV bulb. If this is the case, it can be a very effective at lowering pathogen numbers in the water and helping to spread water borne pathogens from tank to tank.

Do I need to turn it off if combining with medications?

Yes, this is because the Ultra Violet light may degrade the medication being administered to the water. Read the instructions provided with the medication and take the manufacturer's advice.

GUARANTEE

This product is guaranteed against defects in material and workmanship for 2 years from the date of purchase, under normal usage. The guarantee DOES NOT APPLY in case of improper use, negligence, lack of maintenance or accidental damage to the evoUV. If the evoUV fails due to a manufacturing fault within this period it will be either repaired or replaced free of charge. Liability is limited to replacement of the faulty product only; no other costs will be reimbursed. This guarantee is not transferable and does not affect your statutory rights. This guarantee does not confer any rights other than those expressly set out above. This guarantee does not cover the evoUV bulb or quartz sleeve.

The manufacturer or supplier shall not be responsible, or held liable for any damages caused by defective components or materials of this product; or for loss incurred by interruption of service; or any consequential/incidental damages and expenses arising from the production, sale use or misuse of this product or any other consequential loss.

IMPORTANT: Please keep your proof of purchase (sales receipt) safe for the duration of the warranty period, as this will be needed in the event of a warranty claim.

Evolution Aqua and its dealers shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this product.

The installation and use of your product outside of our recommendations as printed in this manual may also void the warranty.

Evolution Aqua are the award winning aquatics manufacturer who put innovation, research and development at the top of their agenda. With a proven track record for delivering the latest technology to the aquatics and fish farming markets - we are the first choice for everyone from the general hobbyist to the serious fishkeeper. Find out more about the evoUV and all of our other innovative products at www.evolutionaqua.com. The difference is clear.



INNOVATION IN WATER

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