

# evouV

## INSTALLATION AND OPERATING MANUAL

Complete instructions for all models of evouV

### WARNING:

- Ensure that the unit is **switched off** at the mains before you attempt to conduct any type of maintenance on the UVC.
- 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.
- If the electrical connections get wet, dry thoroughly before switching power on.
- **This unit should only be installed by a qualified electrician.**

# IMPORTANT SAFETY INSTRUCTIONS



## - READ AND FOLLOW ALL INSTRUCTIONS

- **WARNING** - Risk of Electric Shock. Connect only to a branch circuit protected by a ground-fault circuit interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI.
- **WARNING** - If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- **WARNING** - To reduce the risk of electric shock, do not use extension cord to connect unit to electric supply; provide a properly located outlet.
- **WARNING** - Do not operate the UV-C emitter when it is removed from the appliance enclosure.
- Unintended use of the appliance or damage to the housing may result in the escape of dangerous UV-C radiation. UV-C radiation may, even in little doses, cause harm to the eyes and skin. Never look directly at an illuminated UV bulb.
- Appliances that are obviously damaged must not be operated.
- Do not run this unit dry. Please ensure that the unit is full of water before switching it on.
- Always isolate the unit from mains electricity and turn off any water supply before carrying out any maintenance.
- Always disconnect all pond appliances from the mains supply before putting your hands into the water.
- Use in the area only if the installation complies with the relevant wiring regulations.
- Power must be supplied through a Residual Current Device (RCD) with a residual operating current not exceeding 30mA.
- This unit must be earthed when earth wire is fitted.
- Never use a fuse larger than 3 amps on the power lead.
- The unit must not be submerged in water.
- If the quartz sleeve is cracked, replace it immediately.
- The unit must be fully frost protected or taken inside during winter months.
- Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- **WARNING** - Disconnect the appliance from the supply before carrying out maintenance.
- Use between water temperatures of 0 - 40°C.



EPA Est. No. 100154-GBR-1

## SAVE THESE INSTRUCTIONS

# INTRODUCING THE EVOLUTION AQUA EVO UV

Congratulations on purchasing an Evolution Aqua evoUV. Our range of evoUV pond clarifiers have been manufactured using the latest technology and design techniques. evoUVs have been designed to clear green water which is caused by single celled green algae, and prevent it from returning. evoUVs will work alongside many different filtration systems but when used alongside Evolution Aqua's pond filtration systems, the evoUV will deliver crystal clear and healthy pond water.

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

## UNBOXING THE UV

On unpacking, you will see that the UV bulb and quartz sleeve are packed separately for safe transit. Please refer to pages 8 and 16 of this manual for instructions on how to install the bulb and quartz sleeve. Quartz Sleeve O-Rings and End Cap O-Rings are packed in separate small bags inside the box.

Stainless steel mounting brackets and screws are also supplied in bags and need to be fitted. On the 110 UV, the mounting brackets can be found in the cardboard end fittings.

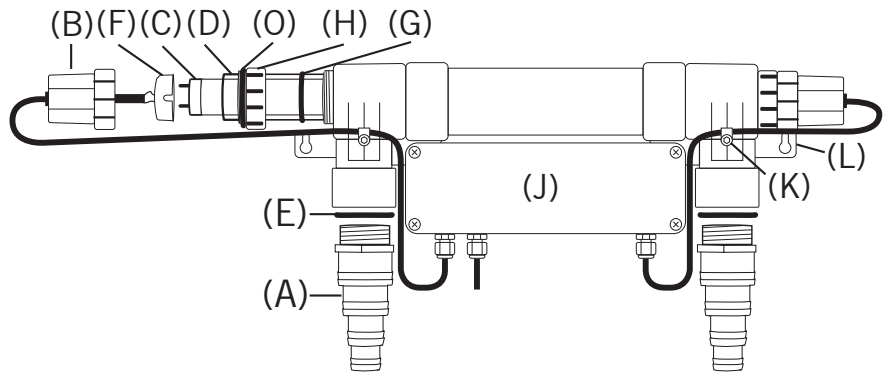
110 UV includes a 2" to 63mm connector that is for EUROPEAN customers only - NOT UK.

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15W AND 25W UV DIAGRAMS AND COMPONENTS LIST

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



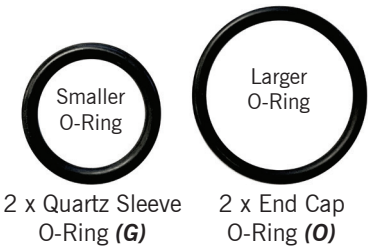
Description	Label	Qty	Order Code
Inlet / Outlet - 1½ Hosetail	<b>A</b>	<b>2</b>	HOSETAIL15TH
End Cap	<b>B</b>	<b>2</b>	EVOCONNUT
UV Bulb	<b>C</b>	<b>1</b>	Available from your EA dealer
Quartz Sleeve	<b>D</b>	<b>1</b>	Available from your EA dealer
Hosetail O-Ring	<b>E</b>	<b>2</b>	EVOUVORINGHOSET
Bulb Socket	<b>F</b>	<b>2</b>	LAMPHOLDER-T8
Quartz Sleeve O-Ring	<b>G</b>	<b>2</b>	EVOUVORING2
Locking Nut	<b>H</b>	<b>2</b>	EVO-M/F
Electrical Box	<b>J</b>	<b>1</b>	Available from your EA dealer
Cable Clip	<b>K</b>	<b>2</b>	-
Mounting Bracket	<b>L</b>	<b>2</b>	-
End Cap O-Ring	<b>O</b>	<b>2</b>	UVECORING

IDENTIFYING THE O-RINGS

These are packed in small bags inside the packaging.

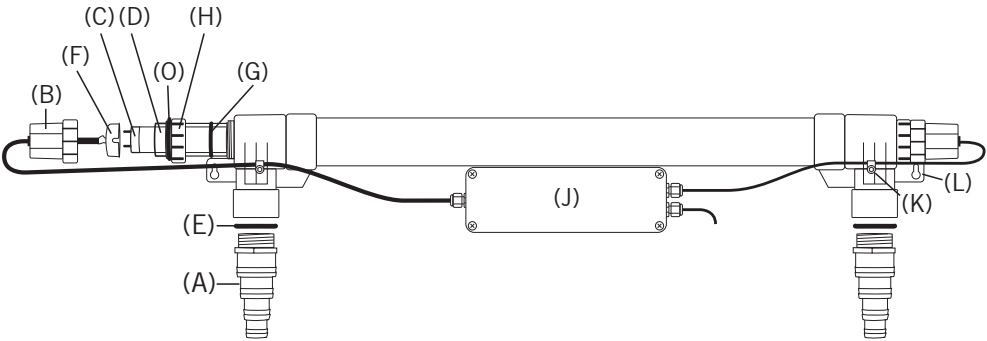
Spare Part Order code: **EVOUVSPARESML**

You will receive two Quartz Sleeve O-Rings and two End Cap O-Rings with this spare part.



# 30W / 55W / 75W UV DIAGRAMS AND COMPONENTS LIST

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



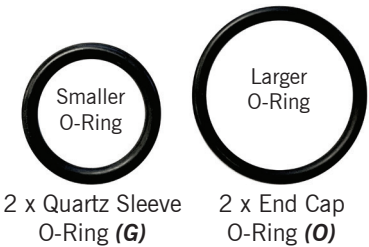
Description	Label	Qty	Order Code
Inlet / Outlet - 1½ Hosetail	<b>A</b>	<b>2</b>	HOSETAIL15TH
End Cap	<b>B</b>	<b>2</b>	EVOCONNUT
UV Bulb	<b>C</b>	<b>1</b>	Available from your EA dealer
Quartz Sleeve	<b>D</b>	<b>1</b>	Available from your EA dealer
Hosetail O-Ring	<b>E</b>	<b>2</b>	EVOUVORINGHOSET
Bulb Socket	<b>F</b>	<b>2</b>	LAMPHOLDER-T8
Quartz Sleeve O-Ring	<b>G</b>	<b>2</b>	EVOUVORING2
Locking Nut	<b>H</b>	<b>2</b>	EVO-M/F
Electrical Box	<b>J</b>	<b>1</b>	Available from your EA dealer
Cable Clip	<b>K</b>	<b>2</b>	-
Mounting Bracket	<b>L</b>	<b>2</b>	-
End Cap O-Ring	<b>O</b>	<b>2</b>	UVECORING

## IDENTIFYING THE O-RINGS

These are packed in small bags inside the packaging.

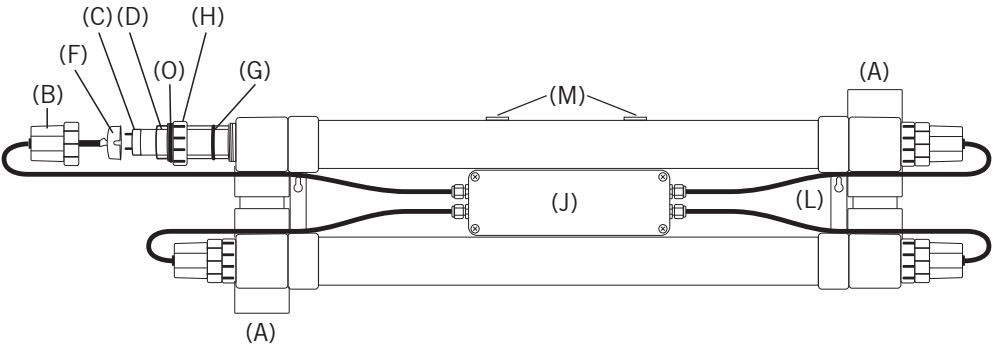
Spare Part Order code: **EVOUVSPARESML**

You will receive two Quartz Sleeve O-Rings and two End Cap O-Rings with this spare part.



# 110W UV DIAGRAMS AND COMPONENTS LIST

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



Description	Label	Qty	Order Code
Inlet / Outlet	<b>A</b>	-	-
End Cap	<b>B</b>	<b>4</b>	EVOCONNUT
UV Bulb	<b>C</b>	<b>2</b>	Available from your EA dealer
Quartz Sleeve	<b>D</b>	<b>2</b>	Available from your EA dealer
Bulb Socket	<b>F</b>	<b>4</b>	LAMPHOLDER-T8
Quartz Sleeve O-Ring	<b>G</b>	<b>4</b>	EVOUVORING2
Locking Nut	<b>H</b>	<b>4</b>	EVO-M/F
Electrical Box	<b>J</b>	<b>1</b>	Available from your EA dealer
Mounting Bracket	<b>L</b>	<b>2</b>	-
End Cap O-Ring	<b>O</b>	<b>4</b>	UVECORING


Two 2" imperial to 63mm metric reducers are supplied. These are only for use by EUROPEAN customers to connect to metric pipe. 2" connectors are available to buy from EA stockists.

### IDENTIFYING THE O-RINGS


These are packed in small bags inside the packaging.

Spare Part Order code: **EVOUVSPARELGE**

You will receive four Quartz Sleeve O-Rings and two End Cap O-Rings with this spare part.



Smaller O-Ring



Larger O-Ring

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

4 x End Cap O-Ring **(O)**

## 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. pond size	Optimum. flow rate	Max. flow rate	Bulb power	Inlet / Outlet	Fittings supplied
evo15	15,000 Litres 3,300 UK Gallons 4,000 US Gallons	5,000 Litres/hr 1,100 UK Gallons/hr 1,320 US Gallons/hr	7,500 Litres/hr 1,650 UK Gallons/hr 1,800 US Gallons/hr	15W (1 x 15W T8)	1½"	2 x 1½" Threaded Hosetails
evo25	20,000 Litres 4,400 UK Gallons 5,300 US Gallons	7,500 Litres/hr 1,650 UK Gallons/hr 1,800 US Gallons/hr	10,000 Litres/hr 2,200 UK Gallons/hr 2,500 US Gallons/hr	25W (1 x 25W T8)	1½"	2 x 1½" Threaded Hosetails
evo30	30,000 Litres 6,600 UK Gallons 7,900 US Gallons	12,500 Litres/hr 2,750 UK Gallons/hr 3,300 US Gallons/hr	15,000 Litres/hr 3,300 UK Gallons/hr 3,500 US Gallons/hr	30W (1 x 30W T8)	1½"	2 x 1½" Threaded Hosetails
evo55	55,000 Litres 12,100 UK Gallons 14,500 US Gallons	15,000 Litres/hr 3,300 UK Gallons/hr 3,500 US Gallons/hr	20,000 Litres/hr 4,400 UK Gallons/hr 5,000 US Gallons/hr	55W (1 X 55W T8)	1½"	2 x 1½" Threaded Hosetails
evo75	75,000 Litres 16,500 UK Gallons 19,500 US Gallons	17,500 Litres/hr 3,800 UK Gallons/hr 4,600 US Gallons/hr	25,000 Litres/hr 5,500 UK Gallons/hr 6,000 US Gallons/hr	75W (1 X 75W T8)	1½"	2 x 1½" Threaded Hosetails
evo110	75,000 Litres 16,500 UK Gallons 19,500 US Gallons	20,000 Litres/hr 4,400 UK Gallons/hr 5,000 US Gallons/hr	25,000 Litres/hr 5,500 UK Gallons/hr 6,000 US Gallons/hr	110W (2 X 55W T8)	2"	No Fittings Supplied

Your evoUV will keep your pond clear of green water up to its maximum capacity. However, it is important to note that there are factors that affect how you select the right size of evoUV for your pond.

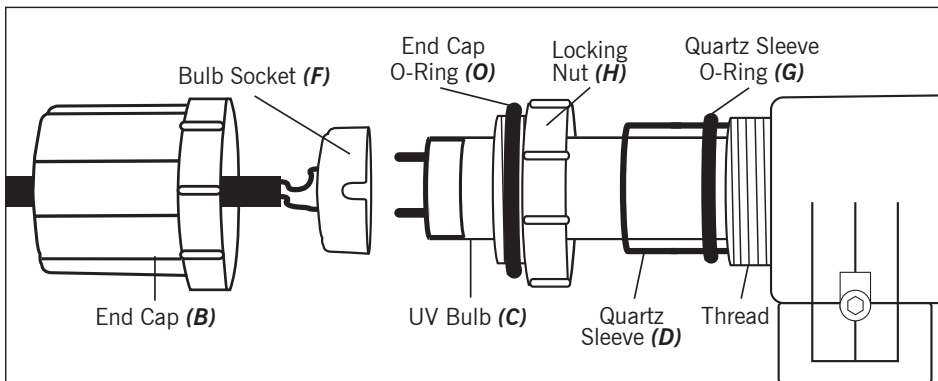
You will need to take into consideration such things as stocking levels, sunlight / shade, daily sunshine amounts etc. This is not always possible to calculate, and if this is the case, use the tables below as a guide. It must be stressed however, that these are only guidelines, and you should take advice from your local Evolution Aqua dealer

USA - Southern States / Mediterranean	3 Watts UV per 1,000 litres
Northern Europe including UK	2 Watts UV per 1,000 litres
USA - Northern States / Canada	1 Watts UV per 1,000 litres

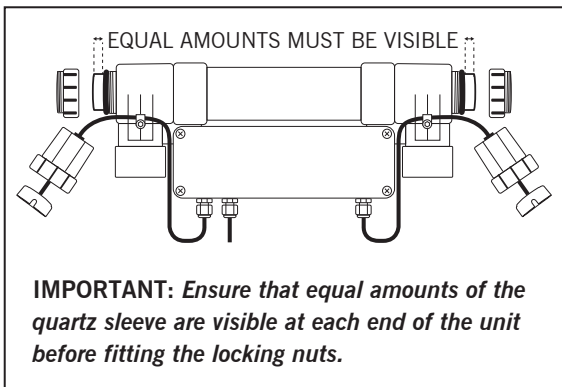
POND SIZE		POND IS IN FULL SHADE		POND IS IN PART SHADE		POND IS IN FULL SUN	
		LOW STOCK	HIGH STOCK	LOW STOCK	HIGH STOCK	LOW STOCK	HIGH STOCK
<7,500 Litres	<1,650 UK Gallons <2,000 US Gallons	evo15	evo15	evo15	evo15	evo15	evo25
<15,000 Litres	<3,300 UK Gallons <4,000 US Gallons	evo15	evo25	evo15	evo25	evo25	evo30
<20,000 Litres	<4,400 UK Gallons <5,300 US Gallons	evo25	evo30	evo30	evo30	evo30	evo55
<30,000 Litres	<6,600 UK Gallons <7,900 US Gallons	evo30	evo55	evo55	evo55	evo55	evo55
<55,000 Litres	<12,100 UK Gallons <14,500 US Gallons	evo55	evo75 / evo110*	evo75 / evo110*	evo75 / evo110*	evo75 / evo110*	evo75 / evo110*
<75,000 Litres	<16,500 UK Gallons <19,500 US Gallons	evo75 / evo110*	evo75 / evo110*	evo75 / evo110*	evo75 / evo110*	evo110	evo110

\*evo110 offers even more UV per volume than the evo75 for more demanding situations

## 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. See page 14 for details. Re-install if any leaks are detected - if no leaks proceed to lamp installation.



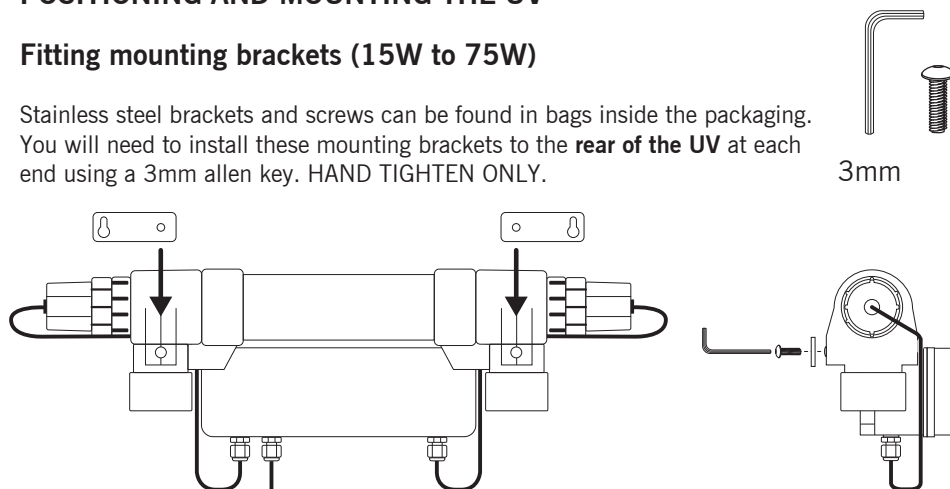
**HAND TIGHTEN FITTINGS ONLY - DO NOT USE TOOLS**



## POSITIONING AND MOUNTING THE UV

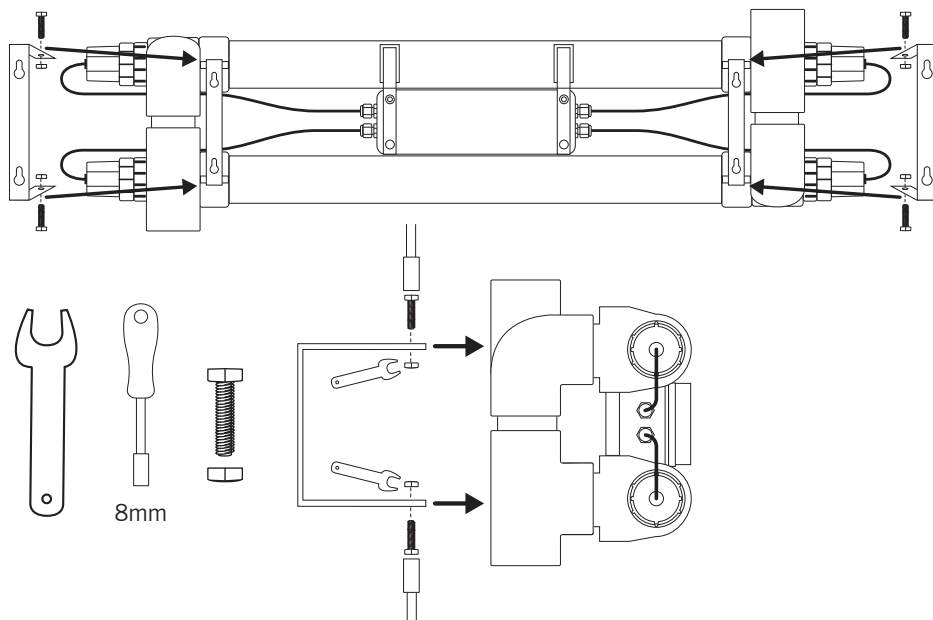
### Fitting mounting brackets (15W to 75W)

Stainless steel brackets and screws can be found in bags inside the packaging. You will need to install these mounting brackets to the **rear of the UV** at each end using a 3mm allen key. **HAND TIGHTEN ONLY.**



### Fitting mounting brackets (110W)

Stainless steel mounting brackets, nuts and bolts can be found inside the packaging. On the 110 UV, you can find the two mounting brackets inside the cardboard fitting inside the box. Nuts and bolts are packed in a small bag. You will need to install these mounting brackets to the **rear of the UV** at each end. Use a 8mm nut runner and spanner. **HAND TIGHTEN ONLY.**



## POSITIONING AND MOUNTING THE UV

If you are going to position your evoUV outside or in an area where it is likely to get splashed regularly with water, then you must mount the unit the correct way up. If your evoUV will be positioned in a permanently dry environment then it can be installed in any position.

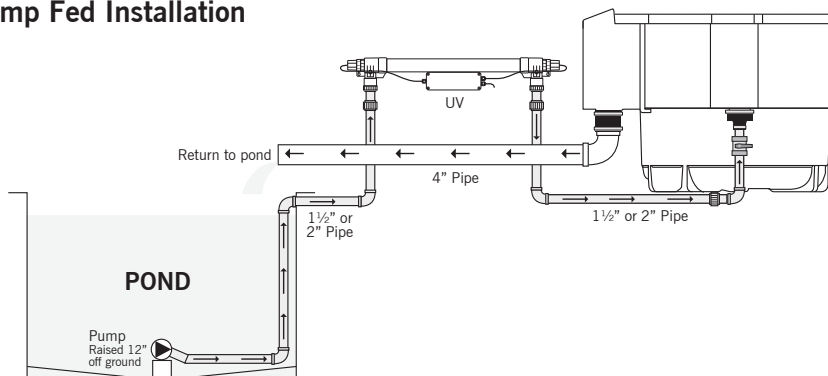
Your evoUV must not be submerged in water or placed in a position where water may collect around the unit. The electrics within the evoUV units are sealed in a showerproof unit. evoUV has an IP rating of IP65.

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

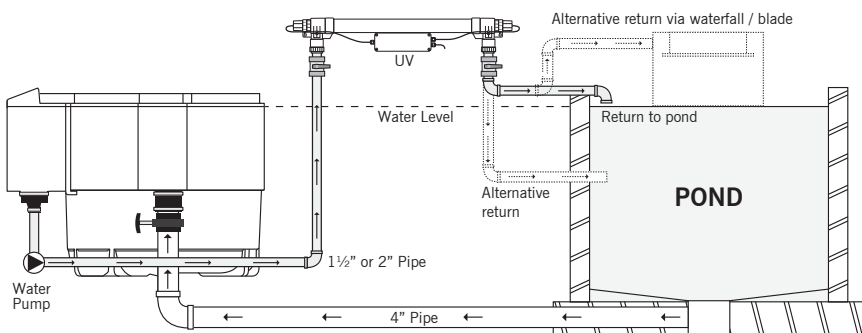
**PLEASE NOTE:** Wall mounting screws and wall plugs are not provided.

If installing the unit prior to or without a pond filter, we would recommend the use of a pre-filter on the water pump to prevent excess solids from being pumped into the unit. The evoUV may be connected to the water flow on any pumped line, this could be, for instance, a skimmer line or any other additional pumped line. The two most common forms of set up are pump fed and gravity fed, shown below:

### Pump Fed Installation



### Gravity Fed Installation



We recommended installing a ball valve either side of the evoUV for maintenance.

## CONNECTION TO YOUR PIPEWORK - FLEXIBLE HOSE

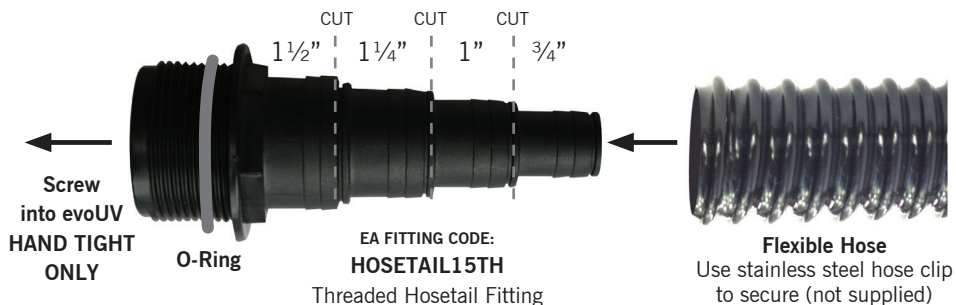
### IMPORTANT: DO NOT OVERTIGHTEN FITTINGS.

The two universal hosetails supplied with the evoUV, should be screwed into the inlet / outlet at either end of the unit. Hosetails should be tightened using hand pressure only. Ensure that the O-Rings are in position before assembling. Please note that there is no correct direction of flow through the unit, either end may be used as the inlet or outlet.

### CONNECTION WITH FLEXIBLE HOSE (EVO15, 25, 30, 55, 75 ONLY)

The evoUV is supplied with two universal hosetails to take  $\frac{3}{4}$ ", 1",  $1\frac{1}{4}$ ", and  $1\frac{1}{2}$ " diameter flexible hose. If you are using one of the two larger sizes, the smaller sections of the hosetails must be cut off to ensure sufficient water flow and to prevent possible damage to the pump. We recommend that you use the largest diameter hose available. The hosetails should be trimmed away from the unit as shown in the diagram below. Once the hosetails have been trimmed, attach them to the unit as shown below. Secure the flexi-hose to the hosetail with a stainless steel hose clip (not provided).

Cut the hosetail to the size required and discard the off-cut. **DO NOT OVERTIGHTEN.**



### CONNECTING EVO110 UV TO FLEXIBLE HOSE

The evo110 is not supplied with any fittings to connect to imperial sized pipework. To install the evo110 to flexible hose, you can purchase a **EVO UV 110W UV FLEXI PIPE KIT** from Evolution Aqua or any EA stockist (**EA Code: EVOUV110FLEX**).

This kit includes solvent weld hosetails, reducing sleeves and reducing bushes. Once you glue these parts together and fit them to the evo110 you can then connect  $1\frac{1}{2}$ " diameter flexible hose.

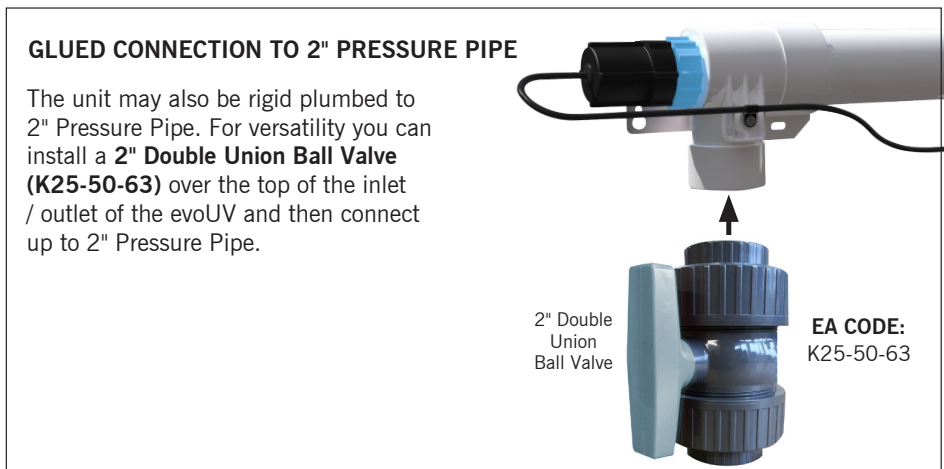
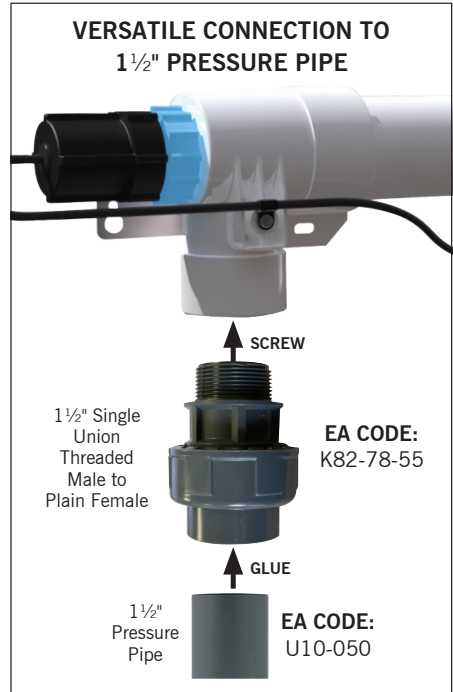
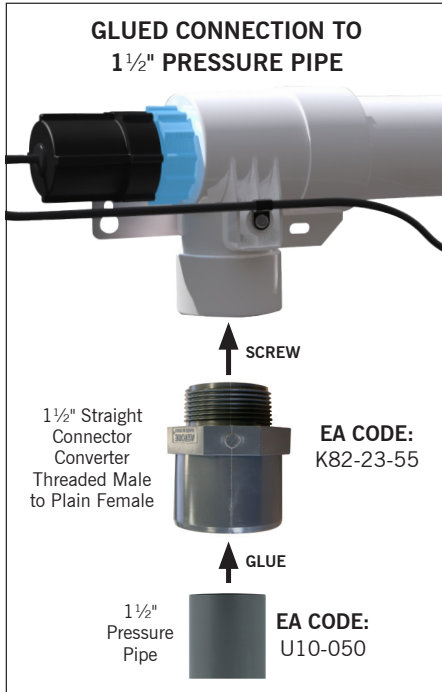
**PLEASE NOTE:** Any adaptors supplied with the evo110 are for European customers only to help them convert from 2" to 63mm pipe. These are not for use in the UK.



## CONNECTION TO YOUR PIPEWORK - PRESSURE PIPE

### CONNECTION TO IMPERIAL PRESSURE PIPE - DO NOT OVERTIGHTEN FITTINGS.

The unit may also be rigid plumbed by the use of adaptors and solvent weld adhesive, available from Evolution Aqua stockists.



## CONNECTION TO YOUR PIPEWORK - EVO110 - PRESSURE PIPE

### CONNECTION TO IMPERIAL PRESSURE PIPE - DO NOT OVERTIGHTEN FITTINGS.

The evo110 may also be rigid plumbed to 2" Pressure Pipe by the use of adaptors and solvent weld adhesive, available from Evolution Aqua stockists.

**PLEASE NOTE:** Any adaptors supplied with the evo110 are for European customers only to help them convert from 2" to 63mm pipe. These are not for use in the UK.

#### GLUED CONNECTION TO 2" PRESSURE PIPE

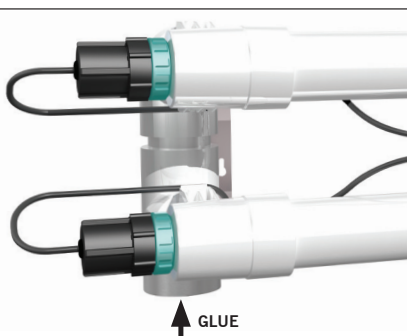
The unit may also be rigid plumbed to 2" Pressure Pipe.

We advise you to fit a length of 2" pipe into the inlet and outlet and then glue:

**2" Double Union Ball Valve  
(K25-50-63)**

or

**2" Plain Female to Plain Female Single Union  
(K82-74-66).**



2" Pressure Pipe

#### CONNECTION TO FLEXIBLE HOSE

To connect the evo110 to flexible hose please purchase a **EVO UV 110W UV FLEXI PIPE KIT** from Evolution Aqua or any EA stockist.

**EA CODE: EVOUV110FLEX**



2" Single Union  
Plain Female to  
Plain Female

**EA CODE:  
K82-74-66**



2" Double  
Union  
Ball Valve

**EA CODE:  
K25-50-63**

## CONNECTION TO METRIC PIPEWORK - EUROPE ONLY (NOT UK)

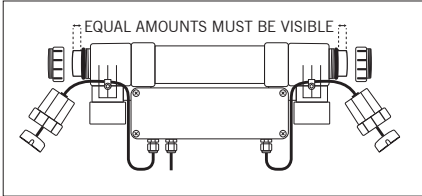
In countries where metric pipework is used, you can connect all evoUVs to 63mm pipe.

On **evo15 to evo75 models**, we recommend using a **2" to 63mm Plain Female Straight Connector Converter (K81-25-66)** (*not supplied*). This can be glued directly onto the inlet / outlet of the evo15 - evo75 models and then to 63mm pipe.

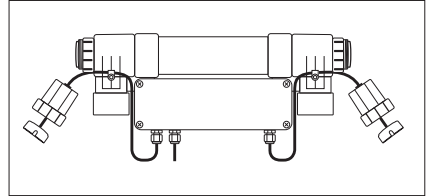
For EUROPEAN versions of the **evo110**, **adapters are supplied** in the box to allow connection to 63mm pipe. (NOT UK MODELS)

## WATER TESTING THE QUARTZ, O-RINGS AND LOCKING NUTS

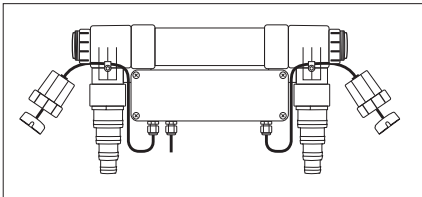
Now that the unit is in position and connected to pipework, the quartz sleeve and O-ring at each end can be leak tested to ensure that they have been fitted properly. Failure to test for leaks and improper installation at this stage may cause water to seep into and damage the bulb socket.



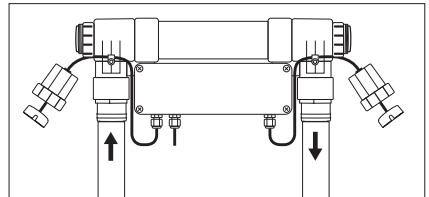
**STEP 1:** Fit quartz sleeve, o-rings and locking nuts.



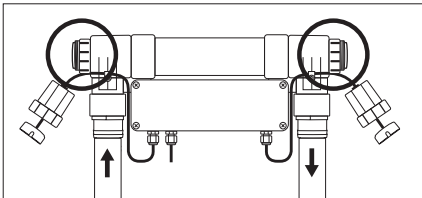
**STEP 2:** Check the locking nuts are hand tight only.



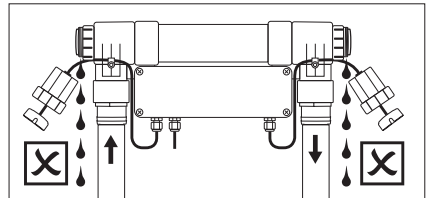
**STEP 3:** Position and mount UV and connect inlet and outlet connections.



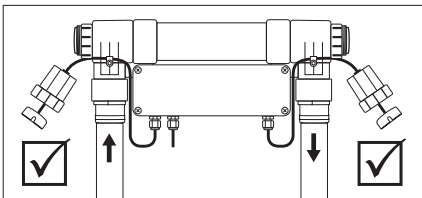
**STEP 4:** Connect up to pipework and turn on pump to start water flow.



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



**STEP 6:** If water seeps from locking nuts, check quartz sleeve installation. See Troubleshooting on page 18.



**STEP 7:** If no water leaks, quartz sleeve has been properly installed. Proceed to connecting the UV to the power 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.**

The power supply must meet the specifications on the product.  
The cores in the supply cable are coloured in accordance with the following code:

### UK / EU:

Brown = Live  
Blue = Neutral  
Green / Yellow = Earth

### USA WIRING

Black = Live  
White = Neutral  
Green = Earth



Do not use the supply cable to lift the UV 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:** Use in the area of a pond only if the installation complies with the relevant wiring regulations. Please consult a qualified electrician.

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.

It is recommended that the UV unit is wired in conjunction with the pump so that when the pump is turned off, so is the UV unit.

## USA SPECIFIC

EPA Est. No. 100154-GBR-1

**GROUNDING INSTRUCTIONS** - This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an appliance-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.

**WARNING** - Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance; if it will not fit the outlet, have a proper outlet installed by a qualified technician.

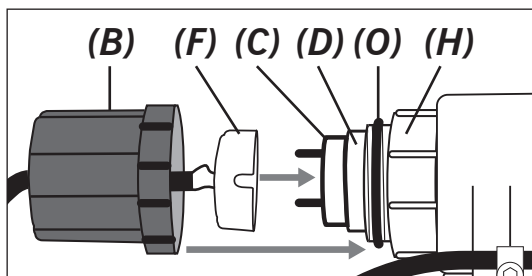
## INSTALLING THE UV BULB

SCAN  
FOR  
VIDEO



1. Remove all packaging from the UV bulb **(C)**.
2. Slide the UV bulb **(C)** carefully through the quartz sleeve **(D)** that you have just fitted and tested, as per the instructions on pages 8 and 14.
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. Fit the End Cap O-Ring **(O)** over the thread on the white locking nut.  
**IMPORTANT: Ensure the End Cap O-Ring is butted up against the locking nut collar.**

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 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.** This will then compress the End Cap O-Ring to form a watertight seal.
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 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 SUPPLY BEFORE CARRYING OUT MAINTENANCE ON THE UNIT.**

### **TO REMOVE A UV BULB:**

It is not necessary to stop the water circulating through the UV 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 and ensure the End Cap O-Ring remains in place.
3. Carefully slide the black end cap over the wire to reveal the bulb socket.
4. Disconnect the bulb socket.
5. Repeat steps 2 to 4 at the other end of the UV.
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 16** to fit a new UV bulb.

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

As already mentioned, it is essential that the unit is protected from frost during the winter months, or disconnected from water and electricity supplies and stored indoors. During the spring and summer season, the quartz sleeve, which separates the UV bulb from the water passing through the unit, will need to be cleaned two or three times. This is essential, as 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 SUPPLY 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. Flow can be directed to the bypass using the installed bypass. If no bypass is installed then the pump should be turned off and other valves used to isolate the UV.

1. Remove the UV bulb as described on page 17.
2. With the electricity supply disconnected, UV isolated and UV Bulb removed, unscrew the locking nut at one end of the UV, ensuring the End Cap O-Ring remains in place.
3. Carefully remove the quartz sleeve O-Ring and keep safe.
4. Unscrew the locking nut from the other end, ensuring the End Cap O-Ring remains in place, 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 8 and 16** 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 pages 4 to 6 are available from your EA stockist.***

## ELECTRICAL BALLAST BOX REPLACEMENT

The electrical box with ballast can be easily replaced in the event of any electrical issues. This easy to install box comes with a ballast enclosed, lamp connectors, end caps and mains cable so it can be easily swapped over in the event of any electrical issues.

Use the installation instructions provided with the spare part to install the unit or scan the QR code on the right to download a copy.

Spare electrical boxes are available to buy from your Evolution Aqua dealer or via our spare parts store on our website. Scan the QR Code on the right to find the correct ballast box you require.



**BALLAST BOX  
INSTALL MANUAL**



**BALLAST BOX  
SPARE PARTS**



## IN BUILT PROTECTION

The evouV range of pond clarifiers 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.

## TROUBLE SHOOTING

### **My pond water is not clear, is this due to the evoUV not working correctly?**

Koi, goldfish and other pond inhabitants can cause murky water by stirring up the bottom of the pond. This murky water should not be confused with suspended algae. Always check all your pond filtration is working and is being maintained correctly prior to checking the evoUV. Mechanical filtration is necessary.

### **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.

### **The unit worked well when I first installed it but recently my pond has gradually gone green again – what is wrong?**

Quartz sleeve may have become dirty and requires cleaning. Also make sure you have the right model for your pond size. Ensure your pond filtration is removing fish waste and debris efficiently. Dirt in ponds will affect the efficiency of the evoUV. Check that your pond water volume is pumping through the evoUV every 2 to 3 hours.

Only after you have carried out these checks should you contact your Evolution Aqua dealer, who will then be able to advise you further.

### **The unit appears to be leaking from the end fittings?**

This could possibly 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. Follow the steps on page 14 to test.



SCAN  
FOR  
VIDEO

### **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.

### **The ballast appears to have failed.**

Replacement ballast boxes including ballasts, wires and lamp connectors can be purchased as a spare part from Evolution Aqua stockists. See the evoUV spares section on our website.

## FREQUENTLY ASKED QUESTIONS

### **How often should I change the UV bulb?**

The evoUV bulb has an effective lifespan of 9000 hours, but it is an accepted practice to replace a UV bulb once a year, at the start of every pond season.

### **What type of UV bulb is used?**

The evoUV range uses T8 UVC Bulbs with a G13 fitting (2 pins at each end).

### **How long after I install the unit will my pond become clear?**

There are many factors which affect how long your evoUV will take to clear your pond, such as the levels of nutrients available to the algae, the water temperature and the level of sunlight. Assuming that you have installed the correct size unit, most ponds should clear within 3-14 days. However, this may take up to six weeks in some instances.

### **Does the evoUV harm fish, plants or wildlife?**

Ultraviolet bulbs leave no residues, and only affect the water pumped through the unit. Unlike many chemical treatments, your evoUV will not harm plants and animals living in the main pond.

### **Is the evoUV suitable for salt water use?**

The evoUV is manufactured from materials that will not corrode in salt water, however the stainless steel bracket will. Use alternative mounting means when using evoUV on saltwater systems.

### **Can I use my evoUV if I am using any treatments for my fish?**

Always check the manufacturer's instructions before using any water treatment as they will tell you whether it's recommended that the evoUV can be switched off or on.

### **How long can I leave the unit running?**

evoUVs have been designed and manufactured to the highest standards, and should be run 24 hours a day, every day, from mid March to early October, depending on the weather conditions. If the unit is frost protected it may be left running throughout the winter. Otherwise, the unit should be removed, drained and stored safely for the winter.

### **Can I bury the unit underground?**

No. The evoUV, although weatherproof, is not suitable for installing in any situation that may be subject to immersion in water.

### **Can it be used with ozone?**

Yes. The evoUV is safe to use with ozone units, however, the O-Rings on the hosetails are not. When using ozone units please use rigid pipe.

### **When replacing the bulb I cannot locate it into the bulb socket at the opposite end of the evoUV?**

Please follow the procedure for cleaning / replacing the quartz sleeve. This will explain the correct procedure for removing both end caps and sockets and explain the method for easy installation.

## 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 UV. If the UV 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 UV bulb or quartz sleeve.

**This unit should only be installed by a qualified electrician.**

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.

Any warranty claim must be accompanied by a valid, dated proof of purchase.

Evolution Aqua and its dealers shall not be held liable for any consequential loss 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.

## 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.

# REGISTER YOUR WARRANTY ONLINE

The easiest way to register your warranty is to visit our website online at  
**[www.evolutionaqua.com/product-warranty](http://www.evolutionaqua.com/product-warranty)**

If you prefer to post your warranty form, complete the details below and send it to:

**Evolution Aqua, Kellet Close, Wigan, Lancashire, WN5 0LP**

or scan and email it to

**[marketing@evolutionaqua.com](mailto:marketing@evolutionaqua.com)**

## Evolution Aqua Warranty Form

NAME:

ADDRESS:

POSTCODE:

COUNTRY:

EMAIL:

MODEL OF EVOUV:

PURCHASED FROM:

DATE OF PURCHASE:

SIGNED:

DATE:

# VISIT OUR WEBSITE AND FOLLOW US ON SOCIAL MEDIA



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## INSTRUCTION MANUALS

Download instruction manuals for all Evolution Aqua products



## PARTS STORE

Find spare parts and accessories for Evolution Aqua products



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## TIKTOK

Follow us on TikTok at [tiktok.com/@evolution\\_aqua](https://tiktok.com/@evolution_aqua)



## YOUTUBE

Watch our YouTube channel at [youtube.com/evolutionaqualtd](https://youtube.com/evolutionaqualtd)

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[www.evolutionaqua.com](http://www.evolutionaqua.com)

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