



# POND & AQUARIUM UV STERILISER

CUV-207 / 209 / 211 218 / 224 / 236 / 272



To ensure your UV Steriliser is set up and running correctly, and to prevent any accidental damage or injury, please read and follow the below instructions carefully before using your product.

## SAFETY

IMPORTANT! Disconnect the mains electricity supply before attempting any installation / maintenance of any kind. Do not attempt to modify this unit in any way and only use the recommended parts for replacement.

- The CUV steriliser should never be submerged as this will cause permanent damage to the unit.
- All connections must be earthed.
- The power cord of this appliance cannot be replaced; if the cord is damaged, the appliance should be discarded. Never cut the cord.
- Do not connect to any voltage other than that stated.
- Do not use with liquids other than water.
- Do not use with water above 90F or 30C.
- Do not carry or pull the unit by its electrical cable.
- Do not use this unit if it has a damaged cord, if it is malfunctioning or it is dropped or damaged in any manner.
- Do not attempt to modify this unit in any way and only use attachments and the recommended parts for replacement recommended by the manufacturer.
- Before installing, maintaining or handling your equipment, or before placing your hands in your pond, ensure that the unit is disconnected from the electricity supply.
- Always disconnect any electrical devices when not in use.
- Carefully examine your pond system after installation. Do not connect the unit to the mains if there is water on any parts not intended to be wet.
- Do not look directly at the UV light when it is operational.
- Before operating your CUV system observe that water is flowing through it
   the UV requires constant flow to avoid overheating.

- To avoid injury, do not touch hot or moving parts such as, but not limited to UV bulbs or impellers.
- During maintenance ensure all O-rings are present and intact.
- If the appliance shows any signs of water leakage or the RCD unit switches
  off, disconnect the unit from the power supply and consult the retailer
  where you purchased the unit.
- Do not install or store this unit where it will be exposed to temperatures near to 0°C / 32°F. In freezing conditions, remove and store the unit in a sheltered area ensuring all water has been drained from it.
- Do not bury the cord for this unit. Ensure it does not cause a trip hazard or it at risk from damage from lawn mowers, strimmers or other garden equipment.
- To avoid overheating do not operate when dry.

PLEASE NOTE: this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, provided they are given supervision and instruction concerning use of the appliance and understand the hazards involved. Children must not play with the appliance. Any maintenance must not be made by children without supervision.

#### **ELECTRIC**

This unit comes complete with a generous supply of 3 core cable, however should any additional cable be required, the use of an approved waterproof cable connector with a proper rating is essential. A cord rated for less amperes or watts than the appliance rating may overheat.

#### Please Ensure:

- The power supply must be earthed and fused at 3amps.
- You regularly inspect the cable for damage and deterioration.
- Do not connect to any voltage other than that stated.
- You consult a qualified electrician if in doubt about any aspects of wiring.
- A residential current device (RCD) is used for additional safety
- You have complied with Local Electricity Authority regulations if permanently installing to the mains supply.

**Please Ensure:** The power supply must be earthed and fused at 3amps. Regularly inspect the cable for damage and deterioration. Consult a qualified electrician if in doubt about any aspects of wiring.

# **INSTALLATION & USE**

Please read the below instructions carefully before beginning to set up your UV steriliser system. **DO NOT CONNECT THE UNIT TO THE MAINS UNTIL SET UP IS COMPLETE**.

- **1.** Prior to installing the unit, examine the quartz sleeve and UV bulb to make sure these have not been damaged in transportation (see maintenance section). Handle with care. Do not hold UV bulb with bare hands as this can affect performance.
- 2. Assemble your CUV unit as per the diagrams in the "Parts Diagram" section.

**PLEASE NOTE:** unlike other sterilisers, CUV units (excluding CUV-207 and CUV-272) come with one inlet and two outlets - very useful if you want to run the output to a two-fall waterfall, or indeed a waterfall and a filter. The steriliser is also supplied with a separate glass viewport which can be used to replace one of the hosetails for use as a one-in / one-out unit.

3. **Add fixing brackets** to your unit (CUV-211 model only). There should be one at each end of the unit. You can then use them to secure the unit on flat surface.

**PLEASE NOTE:** CUV-207 / 209 / 218 / 224 / 236 / 272 models come with preattached fixing brackets.







- **3. Clear hosetail** is interchangeable with the black hosetail. It has a spindle that indicates the flow rate so you can use it on the inlet/outlet. Sometimes you may notice the spindle stops rotating, this is okay as long as the water runs through the unit.
- **4.** Make sure the O-rings are placed smooth side up to the hosetail (see image on the right for reference). This will prevent leakage.

**5. Pond installation** - place your CUV unit at least 2 metres away from pond. This is to ensure the UV unit cannot fall into the pond. Connect pipework from feeder pump (not included) to inlet hosetail and secure using clip/clamp.

Connect pipework to hosetail outlet to feed into filtration system (not included) or return water to pond to ensure this is water tight.

**6. Aquarium installation** - place your CUV unit securely on a flat surface. Connect outlet pipework from aquarium pump or external filter to CUV inlet hosetail.

Connect pipework to hosetail outlet to return water to aquarium. Secure all pipework using hose clip/clamp to ensure this is water tight...

- **5. Connect your CUV to the mains** connect the unit to the mains using a residual current device (RCD) for additional safety.
- **6. Switch on your unit at the mains** turn on the operation by switching on the unit at the mains.

#### **UVC OPERATION**

- Always ensure that the filter has water flowing through the unit prior to operating the UV.
- Never look directly at the UV light when operational.
- Check that the UV is operational visually using the UV indicator.
- Never operate the UV lamp outside its housing.
- Never operate the UV lamp in a housing that's defective.

#### **MAINTENANCE**

To ensure optimal performance and that your unit functions correctly, regular maintenance is essential. Failure to do so may result in damage to your unit and may invalidate your warranty.

We recommend that a regular cleaning and maintenance schedule is followed to ensure responsible fishkeeping. Depending on water volume and stocking levels, regular cleaning of the quartz sleeve and inlet/outlet pipework will help ensure that the product works efficiently and your pond remains healthy.

For further maintenance guidance, please see the table and additional information below:

	2-3 MONTHS	6 MONTHS	ANNUALLY
All Pipework	Clean & Inspect		
Hosing			Clean & Inspect
O-Rings	Inspect, Clean & Lubricate		Replace
UV Bulb			Replace
Quartz Sleeve		Clean & Inspect	Replace after 2 years

## **O-rings**

It is vital that O-rings are regularly inspected and replaced as the rubber watertight seal will perish over time, which may cause your unit to leak. Before replacing your o-rings, ensure they are well lubricated to ensure the seal is kept water tight.

#### **General Maintenance**

It is recommended that every 2-3 months you perform maintenance on your CUV unit. This is necessary to prevent blockage and inspect the bulb and quartz sleeve. Make sure to inspect the unit's cable for damage or excessive wear.

**IMPORTANT!** Disconnect mains electricity supply before handling or attempting maintenance.

**Quartz sleeve & UV bulb -** to access UV bulb unfasten the clip located on the side (CUV-207 / 209 and 211 models only) or using a coin push down the clear plastic button on top of the ballast (CUV-218 / 224 / 236 / 272 models only). Gently turn the ballast counter clockwise and pull the ballast apart from the UV case.







#### CUV-207 / 209 / 211





CUV-218 / 224 / 236 / 272

**NOTE:** be very careful when removing the ballast as the UV bulb and UV quartz are very fragile.

The quartz sleeve can be coated in limescale build up in hard water areas. This should be carefully removed from the quartz sleeve and cleaned with a soft damp cloth.

Use a flathead screwdriver to separate the quartz glass from the UV case and remove the quartz by pulling it out (CUV-207 / 209 and 211 models only).

Unscrew the clamp screw and gently remove the UV quartz from the ballast (CUV-218 / 236 and 272 models only).







CUV-207 / 209 / 211

CUV-218 / 224 / 236 / 272

Clean body and all attachments. Reassemble.

**IMPORTANT!** When reassembling your unit you must replace all O-rings as per the parts diagram as otherwise this can cause the unit to leak which will cause permanent damage to the UV operation.

## **Common Reassembly Questions**

**CUV-207 / 209 / 211** - when reassembling your unit you must make sure the black O-ring sits on top of the quartz sleeve as seen in the image below. Close the unit with the ballast pointing downwards. This is to ensure the O-ring doesn't fall out of place and enables you to correctly close the unit.





CUV-218 / 224 / 236 / 272 - when taking your quartz sleeve out, you might notice the orange Oring falls out into the ballast part of the unit. When reassembling your unit make to replce it as seen in the image on the right. This is to enable you to correctly close the unit.



# **Replacing the UV Bulb**

**NEVER** look directly at the UV light.

When replacing your UV bulb, use this time to clean your quartz sleeve and carefully examine for any damage or cracks. Take care when handling the quartz sleeve and UV bulb to avoid any damage to the glass.

1. To access UV bulb unfasten the clip located on the side (CUV-207 / 209 and 211 models only) or using a coin push down the clear plastic button on top of the ballast (CUV-218 / 224 / 236 / 272 models only). Gently turn the ballast

counter clockwise and pull the ballast apart from the UV case.

**IMPORTANT!** The replacement does not require removal of the gold outer shell protecting the bulb (CUV-207 / 209 and 211 models only).

The top of the gold outer shell has sharp edge, DO NOT touch this part.

- 2. Once cooled, UV bulb can be safely removed by gently moving it from side to side (CUV-207 / 209 / 211) and pulling free of unit.
- **3.** You can now replace your UV bulb and reassemble the unit. Ensure O-rings are replaced when reassembling to avoid water ingress.





CUV-218 / 224 / 236 / 272

**IMPORTANT!** Check regularly that your UV light is operational by looking at the UV light indicator.

Always change your UV bulb every twelve months regardless of it working or not, as its performance will lessen by this stage. We recommend to replace your bulb every 6 months if used for aquarium and 12 months if used for pond.

The CUV-207 uses a 7w PLS UV bulb.

The CUV-209 uses a 9w PLS UV bulb.

The CUV-211 uses an 11w PLS UV bulb.

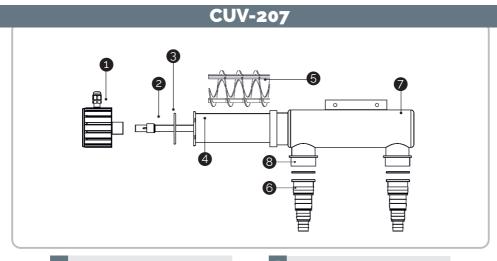
The CUV-218 uses an 18w PLL UV bulb.

The CUV-224 uses a 24w PLL UV bulb.

The CUV-236 uses a 36w PLL UV bulb.

The CUV-272 uses 2 x 36w PLL UV bulb.

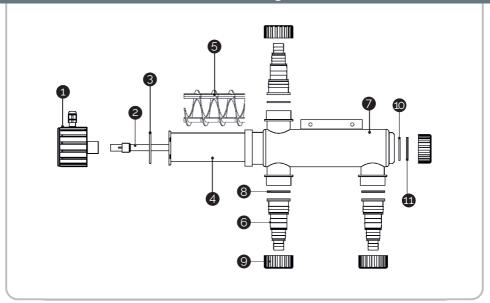
#### **PARTS DIAGRAM**



- 1 UV BALLAST
- 2 UV BULB
- 3 QUARTZ SLEEVE O-RING
- 4 QUARTZ SLEEVE

- 5 HELIX
- 6 HOSETAIL
- 7 UVBODY
- 8 HOSETAIL O-RING

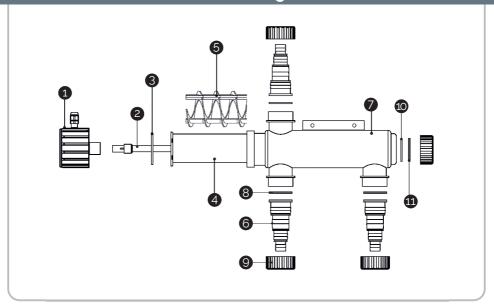
## **CUV-209**



- 1 UV BALLAST
- 2 UVBULB
- 3 QUARTZ SLEEVE O-RING
- 4 QUARTZ SLEEVE
- 5 HELIX

- 6 HOSETAIL
- 7 UVBODY
- 8 HOSETAIL O-RING
- 9 NUT
- 10 VIEWING GLASS O-RING
  - 11 UVVIEWING GLASS

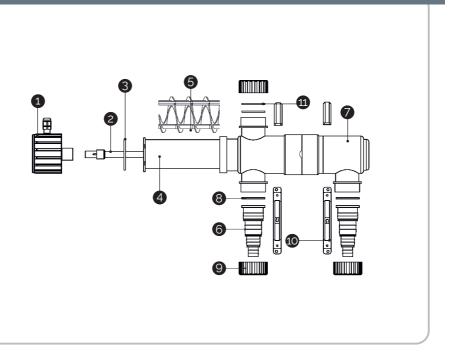
## **CUV-209**



- 1 UV BALLAST
- 2 UVBULB
- 3 QUARTZ SLEEVE O-RING
- 4 QUARTZ SLEEVE
- 5 HELIX

- 6 HOSETAIL
- 7 UVBODY
- 8 HOSETAIL O-RING
- 9 NUT
- 10 VIEWING GLASS O-RING
  - 11 UVVIEWING GLASS

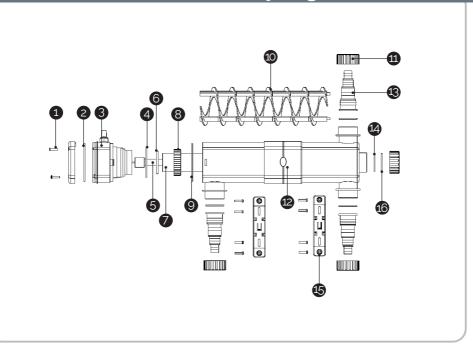
## **CUV-211**



- 1 UV BALLAST
- 2 UVBULB
- 3 QUARTZ SLEEVE O-RING
- 4 QUARTZ SLEEVE
- 5 HELIX

- 6 HOSETAIL
- 7 UVBODY
- 8 HOSETAIL O-RING
- 9 NUT
- 10 FIXING BRACKETS
  - 11 UVVIEWING GLASS

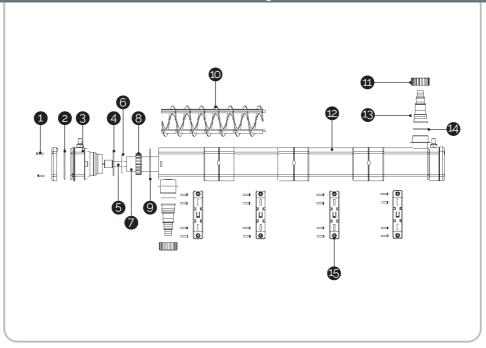
# CUV-218 / 224 / 236



1	SCREWS
2	O RING 1
3	UVBALLAST
4	O RING 2
5	UVBULB
6	ORING 3
7	QUARTZ SLEEVE
8	CLAMPSCREW

9	O RING 4
10	HELIX
11	NUT
12	CUVBODY
13	HOSETAIL OUTLET
14	HOSETAIL O-RING
15	FIXING BRACKETS
16	UV VIEWING GLASS

# **CUV-272**



2	O RING 1
3	UV BALLAST
4	O RING 2
5	UVBULB

О	ORING 3	

SCREWS

7 QUARTZ SLEEVE

8	CLAMPSCREW
9	O RING 4

10	HELIX
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11	NUT

15 FIXING BRACKETS

#### **TROUBLESHOOTING**

# The Light on My CUV Unit Isn't Working

If the UV indicator located on the top of the filter casing (CUV-211 / 218 / 224 / 236 & 272) or side of the unit (CUV-209) is not lighting up follow these troubleshooting steps:

1. Clean the UV indicator.



**CUV-207** 







**CUV-209** 

**CUV-211** 

CUV-218 / 224 / 236 / 272

- 2. Please check for signs of damage or water ingress to quartz sleeve and bulb area. You might need to replace your quartz sleeve, ballast and/or O-Rings if that's the case. Ensure that all O-rings are in place and well lubricated.
- **3.** If you find that the UV light is still not operational, check that you have power from the mains supply.

**4.** If you do have power from the mains supply, check if you can see the UV is operational through the viewing hole. If you aren't able to see it, try performing a safety override. Locate the safety override switch on the ballast end next to the UV bulb fitting (as shown in the images on the right).

IMPORTANT! NEVER look directly at the UV light. Press and hold the small thin silver switch when the power is on and the bulb should ignite. Please test in a dark/ shadowed place and do not look directly at the bulb –



CUV-207 / 209 / 211



CUV-218 / 224 / 236 / 272

we recommend covering the bulb with kitchen roll or similar. You should still be able to see the glow of the bulb through this.

- **5.** If the above does not solve the issue replace the UV bulb.
- **6.** If you find that the UV light is still not operational after the bulb replacement, the UV ballast may have developed a fault and you will need to contact the supplier of your unit to obtain replacement parts.

Please remember that UV bulbs for use in ponds should be replaced every 12 months.

#### **UVC Leaks**

If your unit is leaking follow these troubleshooting steps:

- **1.** Check that the UVC inlet/outlet caps and O-ring have been correctly assembled and that they are hand tight. Ensure the O-rings are intact, well lubricated and not twisted or damaged.
- 2. Always secure the UVC inlet hose and outlet hose with a jubilee clip.
- **3.** If you find that the unit is still leaking after the above checks or there is an obvious casing crack, you will need to replace the body casing on the unit.

## Green Water or Cloudy/Brown Water?

In order to correctly identify if you have green water or cloudy/brown water, a settlement test should be carried out.

Take a jar of pond water and allow to settle for 24 hours.

**Green Tinge** - If your jar is showing mostly green tinged water or has green particles floating in it, you most likely have a bit of an algae problem (follow the green water trouble shooting guide).

**Brown Tinge / Water with Sediments** - this indicates that you have organic debris decomposing in your pond. This can be particles from dead leaves, twigs and other plant debris that are breaking down (follow the brown water trouble shooting guide).

## The UV Bulb is on But My Pond is Green

There are a lot of different factors which contribute to this type of issue and it may not be the UV system at fault. The steriliser will work to maintain rather than transform water quality so you may need to add treatments to clear poor quality water or consider a heavy water change. If the UV light is working then the product is functioning correctly.

Algae growth in water can be due to high phosphate and nitrate and green water is heightened in the summer period due to the extra sunlight so it is also advised that a water test is carried out.

**1. Pond Position** - The position of the pond should also be considered, as this affects how much sunlight is directly falling on the pond. Algae growth is very likely to require a treatment to resolve the growth. Consider purchasing the All Pond Solutions Green Water treatment or Blanketweed treatment.

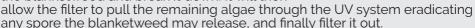
The orientation of the garden can also be an issue; south facing gardens inevitably get more sunlight and can cause ponds to be greener in the summer if exposed all day. Try and shade your pond water surface, floating pond plants such as Lilies are a great way to do this.

- **2. Pump's Flow Rate** the flow rate of the pump exceeds the maximum flow rate that the UVC is able to handle. Check your unit's specifications and reduce the pump flow rate if needed.
- **3. Filter** the pond filter works with the UV steriliser to keep the water clear by removing the dead algae. Check if your filter size is adequate to your pond size.
- **4. Quartz Sleeve** check if your quartz sleeve is dirty or coated in limescale. Gently remove the quartz sleeve and clean it.

## Will my CUV unit remove blanketweed?

Blanketweed attaches itself to the walls, plant and rocks within your pond and is sometimes known to float on the water's surface, this can prevent to blanketweed from being pulled through the filter and UV resulting in the algae not being treated.

In order to treat blanketweed use All Pond Solutions Blanketweed treatment. This will bind to the blanketweed and break it down. It will then





## My Pond Water is Cloudy/Brown

- **1.** Make sure the unit is turned on 24 hours a day. Continuous running is needed to maintain a clean and healthy pond.
- 2. Remove pond waste and leaves and carry out a partial water change. If sludge is present treat your pond with All Pond Solutions Anti Sludge treatment.
- **3.** Reduce feeding. Overfeeding introduces a lot of organic waste and is one of the main causes for cloudy water problems.
- **4.** Make sure to perform regular water changes, check your unit is clean and adequate for your pond size and do not overstock it.

If none of the above resolves your issue, or you require spare parts for your filter, please contact the supplier of your unit.

#### **SPECIFICATIONS**

MODEL:	CUV-207	CUV-209	CUV-211	CUV-218
UV POWER (WATTAGE):	7W	9W	11W	18W
FOR AQUARIUMS UP TO (L):	180	250	270	340
FOR PONDS UP TO (L):	2000	4000	7000	12000
THROUGH FLOW STERILISATION AT:	1200 L/H	1500 L/H	1700 L/H	2500 L/H
CABLE LENGTH:	2.5m	5m	5m	5m
INLET & OUTLET ADAPTER	13 & 19mm	19, 25, 32 & 38mm	19, 25, 32 & 38mm	19, 25, 32 & 38mm
VOLTAGE:	220-240v	220-240v	220-240v	220-240v
POWER:	11W	12W	15W	22W

# SPECIFICATIONS

MODEL:	CUV-224	CUV-236	CUV-272
UV POWER (WATTAGE):	24W	36W	72W
FOR AQUARIUMS UP TO (L):	450	600	1300
FOR PONDS UP TO (L):	16000	20000	35000
THROUGH FLOW STERILISATION AT:	4500 L/H	6000 L/H	6000 L/H
CABLE LENGTH:	5m	5m	2 x 5m
INLET & OUTLET ADAPTER	19, 25, 32 & 38mm	19, 25, 32 & 38mm	19, 25, 32 & 38mm
VOLTAGE:	220-240v	220-240v	220-240v
POWER:	26W	40W	80W

#### **WARRANTY**

The All Pond Solutions CUV Steriliser range is guaranteed against defects in material or workmanship under normal pond usage and comes with 12 months warranty for all electrical parts. The warranty period commences from the date of purchase.

If you require support on how to use your unit, replacement parts or if your filter develops a fault during the warranty period, please contact the supplier of your unit.

Non-replaceable, non-perishable and non-serviceable parts will be repaired or replaced free of charge, once the unit is returned with all components along with a valid proof of purchase and postage paid. We reserve the right to replace or repair the unit at our discretion.

Please be aware that perishable parts that are subject to normal wear and tear, such as impellers, impeller covers, motor seals and UV bulbs, are not covered by your warranty and a charge may be required for replacements of these.

This warranty does not apply to any unit that has been subjected to misuse, accidental damage, negligence, tampering or customisation. It does not apply to units which have been assembled incorrectly, improperly maintained, or where the instructions and safety information in this manual has not been followed correctly.

No liability is assumed with respect to loss or damage to livestock or personal property irrespective of the cause thereof.

Please ensure that only genuine All Pond Solutions components are used when completing a replacement or repair. Spare parts are available at our official website or from your local supplier.

Before returning your unit under warranty terms, check that all setup and maintenance instructions have been correctly followed. If you are in doubt, please contact your local aquatic retailer for further advice before returning the product.

This does not affect your statutory rights.







#### www.allpondsolutions.co.uk

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