Always isolate the unit from mains electricity before carrying out any maintenance.

Dispose of this unit responsibly. Check with your local authority for disposal information. UVC bulbs must not be disposed of in household refuse but must be taken to an authorised collection point for environmentally responsible disposal.
Instructions for Installation and Use

Important Safety Information - Please Read Carefully

- Consult a qualified electrician.
- Never look directly at an illuminated UV lamp.
- Do not run this unit dry. Do not cover this unit.
- Always isolate the unit from mains electricity and turn off the 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 of the garden pond only if the installation complies with the relevant wiring regulations.
- Power must be supplied through a Residual Current Device (RCD) with a rated residual operating current not exceeding 30mA.
- This unit must be earthed. Never use a higher rated fuse than specified below.
- Rating: 220-240V, 50Hz (USA models: 120V, 60Hz).
- UV110, 128-134 watts. Class 1. IP64.
- The unit must not be submerged in water.
- If the quartz sleeve is cracked, replace it immediately.
- Young children should always be supervised near water.

The unit must be either fully frost protected or taken inside during the winter months.

Product Information

This unit is manufactured and conforms to:-
This unit is CE approved.

POSITIONING THE PRO POND UNIT

Caution: To prevent this unit falling into water, do not install it above or alongside your pond.

Pro Pond units are weatherproof but not waterproof. The unit can be positioned either on its base on a flat surface, or mounted on a vertical surface. It must not be submerged in water or placed in a position where water may collect around the unit. To prevent the unit inadvertently being dropped into the pond, we strongly recommend that it is securely positioned at least 2 metres from the edge of the pond. Any flexible cabling used between the unit and the permanent wiring should also be kept to a minimum length. We recommend a maximum length of 1.5 metres. If installing the unit prior to, or without, a filter it is important that a pre-filter is used on the water pump to prevent dirt being pumped into the unit. The unit can be fitted into the water system in any of the ways shown below.
MOUNTING ON A HORIZONTAL SURFACE

This unit may be mounted on any suitable flat surface including your filter lid.

**Caution:** To prevent this unit falling into water, do not install it above or alongside your pond. Do not make the electrical connection to your unit until it has been plumbed in and fixed securely.

MOUNTING ON A WALL OR OTHER VERTICAL SURFACE

This unit may be mounted on a wall or other suitable vertical surface. When full of water the unit is too heavy to mount onto a conventional wooden fence panel. The unit should be mounted on a wall as shown in the diagram below and using the mounting kit provided.

**Caution:** To prevent this unit falling into water, do not install it above or alongside your pond. Do not make the electrical connection to your unit until it has been plumbed in and fixed securely.

The mounting kit consists of six sets of screws, washers and rawlplugs. If mounting onto brick use the rawlplugs. Identify the mounting plate at either end of the unit. Assuming the unit is mounted as shown above, use the open slot in the left hand mounting plate and the long centre slot in the right hand mounting plate to register and fix the unit. Then mark the upper and lower slots on each mounting plate. Use all six fixings to mount the unit, and ensure the washer is fitted between the head of the screw and plastic mounting plate.

**CONNECTION TO THE WATER SUPPLY**

This unit has stepped inlet and outlet ports, allowing the use of either 2” or 63mm rigid BSP plastic pipe. If using 2” BSP plastic pipe the glued connection will be made into the second stepped stage of the inlet and outlet ports. If using 63mm rigid plastic pipe the connection will be made to the first stepped stage of the inlet and outlet ports. The unit may also be connected to flexible plumbing using the appropriate plumbing fittings (not supplied). To ensure unrestricted flow, it is recommended that the unit is not plumbed in with anything less than 1 1/2”/50mm pipework.

**FLOW RATES**

Please note that, for optimum performance, we recommend that you pass the entire volume of your pond through the UV unit approximately once every two hours. Please also note that we suggest a minimum flow rate of passing the pond volume through the unit once every three hours.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Maximum Flow Rate</th>
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<tbody>
<tr>
<td>UV110</td>
<td>8000 imp gal/36000 litres/9400 US gal per hour</td>
</tr>
</tbody>
</table>

**CONNECTION TO ELECTRICAL SUPPLY**

Consult a qualified electrician.

**Caution:** Use in the area of the garden pond only if the installation complies with the relevant wiring regulations.

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

**Caution:** Power must be supplied through a Residual Current Device (RCD) with a rated residual operating current not exceeding 30mA.

**Important:** This unit is designed to be permanently wired to the mains supply using the three core 0.75mm² rubber cable fitted to the unit. This unit must be permanently connected to the mains supply inside a dry, weatherproof enclosure and through a double pole switched fused spur with a minimum contact gap of 3mm. The fused spur must only be fitted with a 3 amp fuse.

**For safety never use a larger rated fuse.** This unit is fitted with 5 metres of power cable. To prevent the unit inadvertently being dropped into the pond, we strongly recommend that it is securely positioned at least 2 metres from the edge of the pond. Any flexible cabling used between the unit and the permanent wiring should also be kept to a minimum length. We recommend a maximum length of 1.5 metres.

Mains supply cable colour coding: Brown Live, Blue Neutral, Yellow/Green Earth.

**INTERNAL FUSE REPLACEMENT**

Always isolate unit from mains supply before undertaking any maintenance. The control gear on this unit is fitted with a 5mm x 20mm 3.15 Amp quick blow fuse.
To replace the fuse remove the complete white plastic tubular control pod by undoing the two bolts holding it in place on the main unit and removing the lamp lead assemblies from each lamp. Work with the mains cable positioned to your right hand side. With the control pod free of the main unit loosen the four black plastic lamp lead watertight grommets situated at the left hand end of the control pod. On this end only also remove the screw situated in the centre of the end section. **Do not remove the screw or loosen the mains cable at the right hand end.** With the left hand end section now free, hold the right hand end assembly and gently pull out the right hand end assembly (approximately 75mm) until you expose the fuse holder assembly. The fuse holder assembly is easily identified as it carries a spare fuse that is clearly visible.

Once the fuse has been replaced, gently slide the assembly back into the plastic tube and reassemble the left hand end section ensuring that the screw is tightened correctly and all four watertight grommets are sufficiently tightened to prevent any moisture entering the control pod.

Bolt the complete control pod back into the main unit and reconnect the lamp end assemblies ensuring that you match the correct numbered lamp holders.

**ROUTINE MAINTENANCE**

The UV lamps inside the Pro Pond unit have a useable life of 8000 hours. As green water is only a problem during Spring and Summer, the lamps only need to be replaced once a year in spring (see below).

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 Winter. During the Spring/Summer season, the quartz sleeves, which separate the UV lamps from the water passing through the unit, will need to be cleaned two or three times. This is essential, as dirt or calcification building up on the quartz sleeves will inhibit the penetration of the ultraviolet light into the water.

**LAMP REPLACEMENT & QUARTZ CLEANING**

Isolate from electrical and water supplies before carrying out any maintenance.

**Lampholder Restraint**

A plastic lampholder restraint is fitted at either end of each lamp chamber to prevent the lamp holders being accidentally removed while the unit is connected to the mains. Each restraint is held in place with a self-tapping screw. To carry out any routine maintenance these restraints must be removed but it is essential to replace them once the maintenance work has been done. In time it may be necessary to replace the fixing screw (no.8) with a slightly larger screw.

To remove the lamp, carefully remove the blue lampholder shroud, then pull the white plastic electrical end caps from the lamp end. Gently slide the lamp out ensuring that no pressure is applied to the quartz sleeve. Next, unscrew the two blue compression fittings located at either end of the white plastic body and slide off the ‘O’ rings. Then slide out the quartz sleeve. Clean the sleeve and polish with a soft cloth or paper towel. If you live in a hard water area there may be some limescale on the quartz sleeve. This can be easily removed by soaking the sleeve in a proprietary kettle descaling solution (follow the manufacturer’s instructions). Failure to remove the limescale will limit the effectiveness of the UV lamp.

**ASSEMBLY PROCESS**

Slide the clean, dry quartz sleeve into the unit. Ensure that you locate the ‘O’ rings carefully on the ends of the quartz. Failure to do so will result in leaks when the water is turned on.

If you are carrying out the annual lamp change, use new ‘O’ rings. When you re-assemble the unit, ensure that the female threads on the compression fittings and the male threads on the main body are clean. Wipe a little silicon grease or vaseline (NOT silicon sealant) onto these threads. As these threads are only serviced periodically this lubrication will help to prevent them binding together. Then replace and firmly hand tighten the compression fittings.

Replace the lamp or fit a new one. Relocate the lampholders and blue lampholder shrouds ensuring that you match the correct numbered lampholders.

**NOTE:** Pinch the blue lampholder shroud as you reassemble the unit to release any trapped air. Failure to release the trapped air may cause the lampholder to disconnect from the lamp end.

Reconnect and turn on the water supply to check for leaks before reconnecting the electric supply.

**IMPORTANT**

The plastic body and blue compression fittings have been manufactured from polymers that have been specifically stabilised to protect them from the effects of the UVC emitted from the UV lamp. Despite this UV protection they will be eroded by a combination of the UVC and water flow. As a matter of course they should be inspected whenever a lamp change is carried out, to ensure they are not showing excessive wear and tear. Replacement parts are available from Tropical Marine Centre and its agents.
PLEASE NOTE that the 24 month guarantee cover for the unit does not include serviceable parts, ie. lamp and the quartz sleeve.