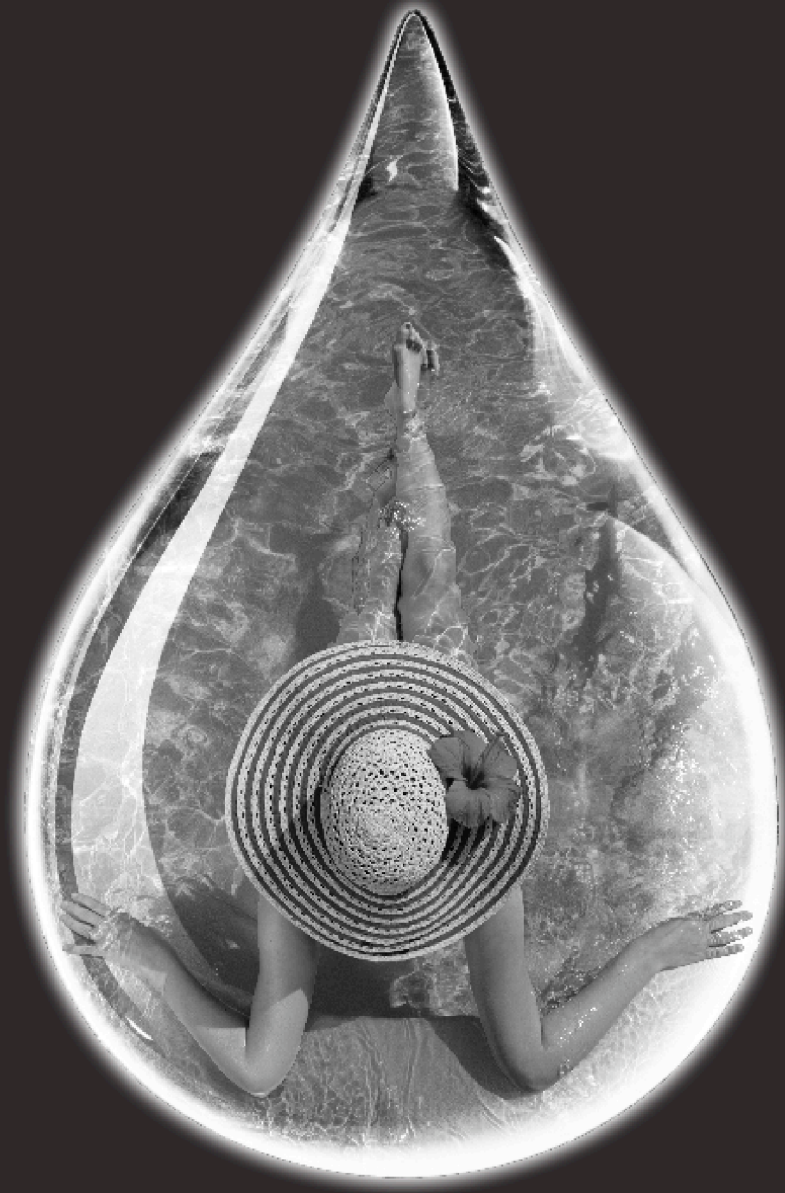


SPECTRUM UV Pool System

Installation & Operating Manual



ELECR

ENGINEERING

Important Notes!

Thank you for purchasing the Elecro SPECTRUM UV pool system manufactured in England to the highest standards.

To ensure your new product will give years of trouble free service **please carefully read the following instructions.**

Incorrect installation will affect your warranty. Do not discard this manual, please retain for future reference.

Important safety information

- 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 maintenance
- Always disconnect all pool appliances from the mains electricity supply before servicing
- 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
- 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

Specification

Model: UV-S

Rating: 220-240V, 50Hz

This unit is manufactured in conformance with:

Safety: BS EN 60335-1:2002. BS EN 60335-2-55:2003

EMC: EN 55015: 2000. EN 61000-3-2: 2000 EN 61000-3-3: 1995.

EN61547:1995

This unit is CE approved.

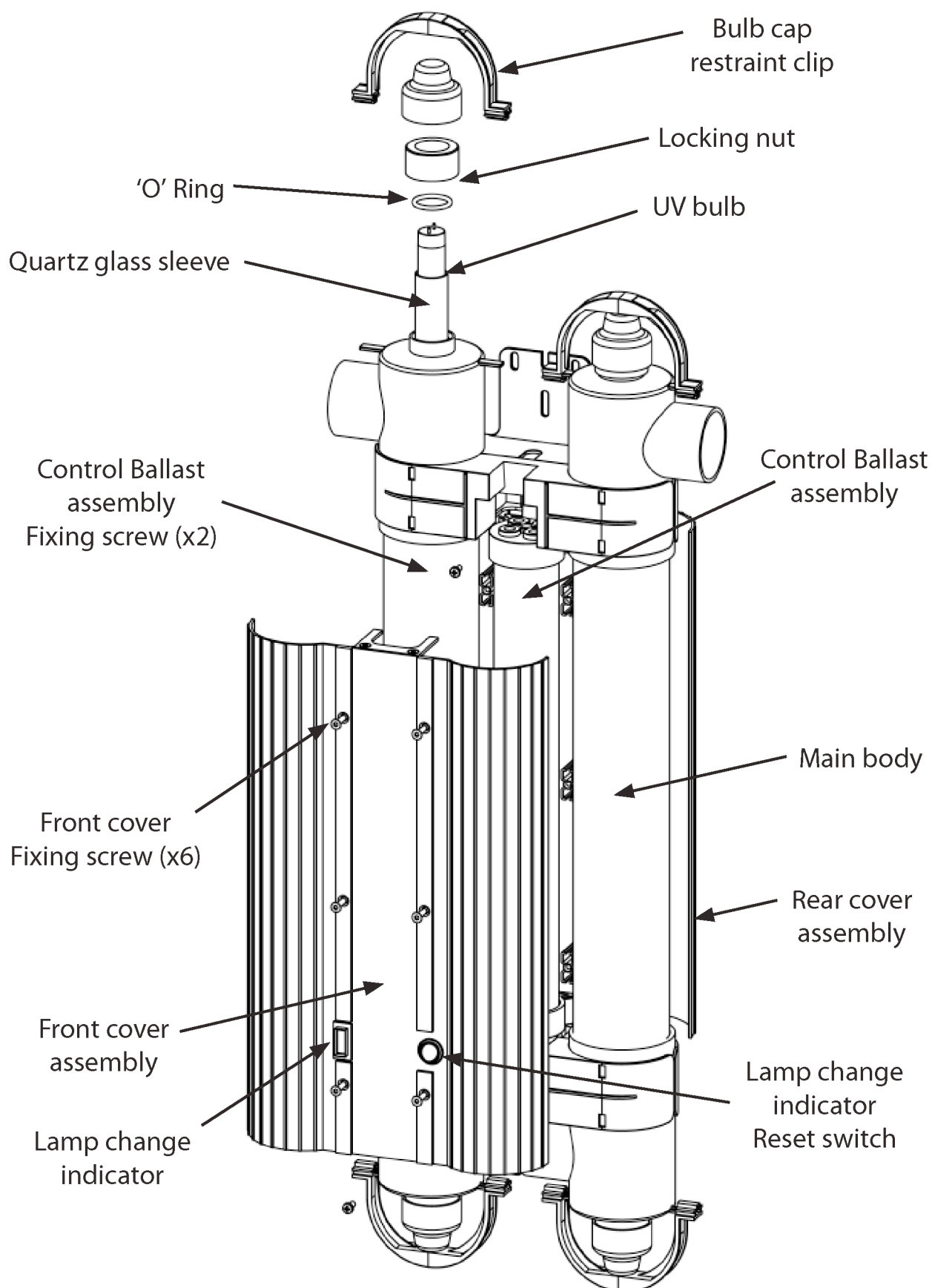


Fig 1.

Positioning the UV Unit

CAUTION: To prevent this unit falling into water, do not install above or alongside your pool.

The Spectrum UV unit is weatherproof but not waterproof. The unit can be positioned either on its base on a flat surface, or mounted on a flat vertical surface horizontally or vertically. 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 pool, we strongly recommend that it is securely positioned at least 2 metres from the edge of the pool. 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.

The unit should always be fitted into the water system after the filter as shown in fig 2. to prevent dirt and debris being pumped into the unit.

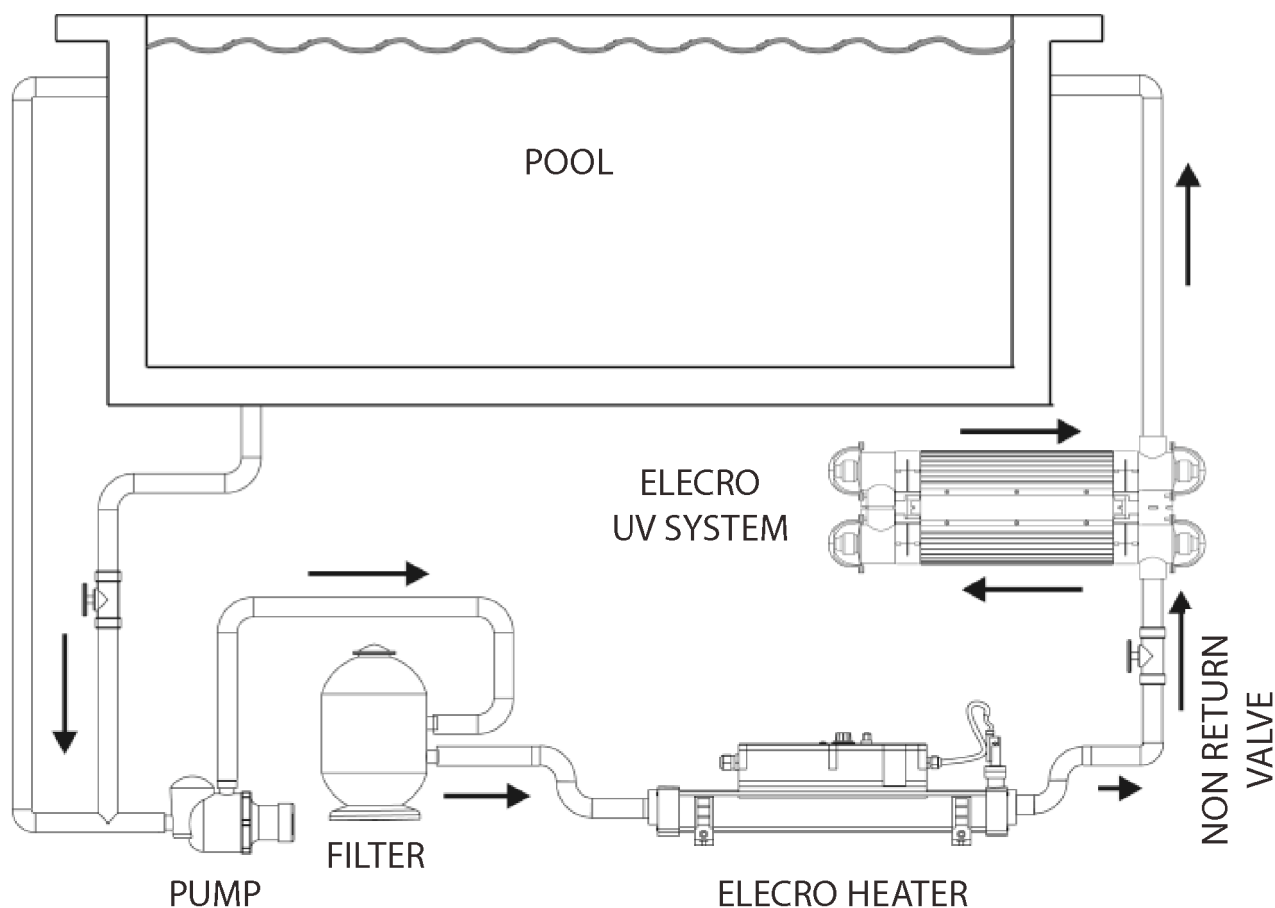


Fig 2.

Mounting the UV Unit

The unit may be mounted on a wall or other suitable vertical surface that is structurally strong enough, (for example: When full of water the unit is too heavy to mount onto a conventional wooden fence panel) The unit is supplied with a fixing kit. The unit can be mounted vertically as shown below in fig 3 or horizontally as shown in fig 4.

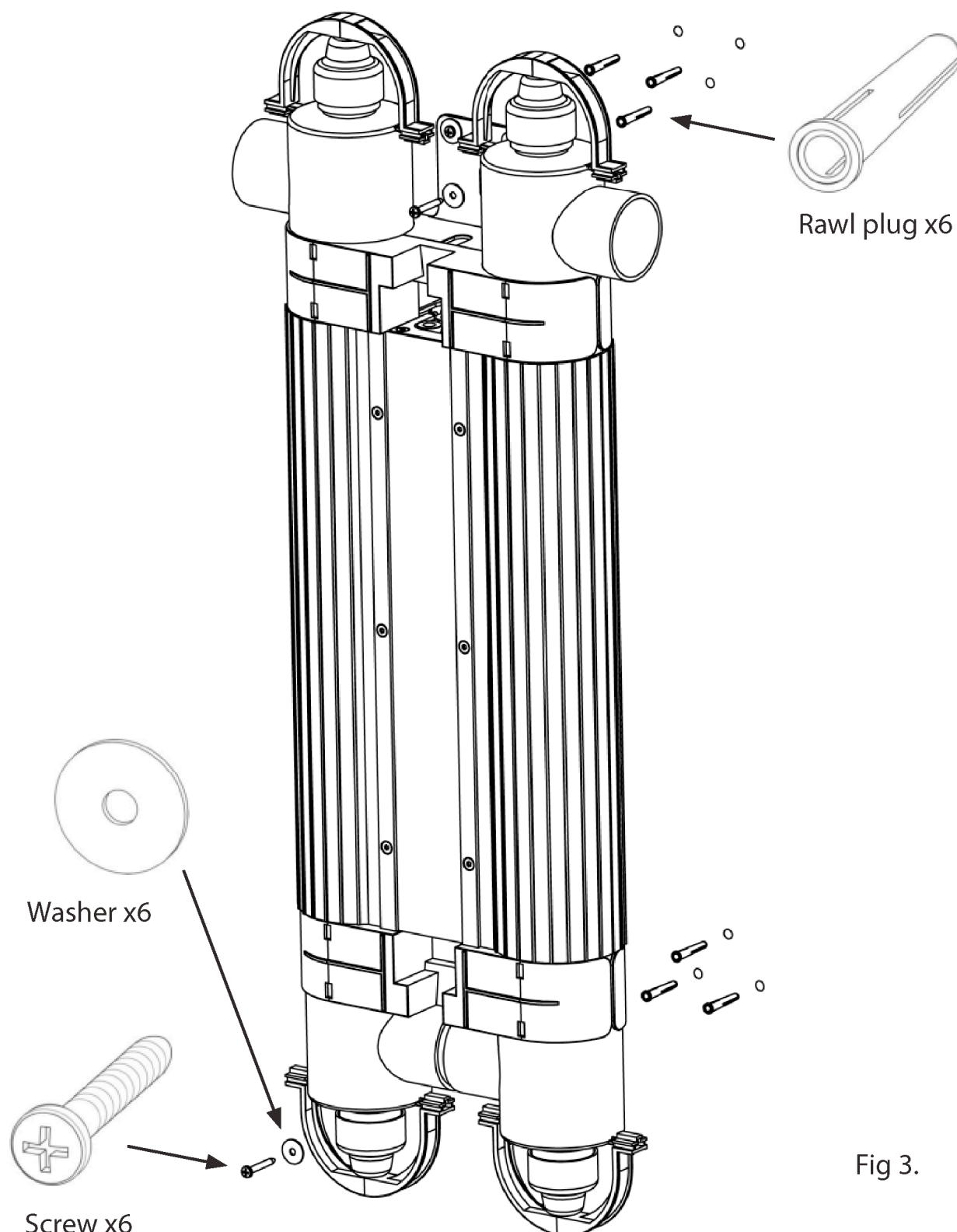
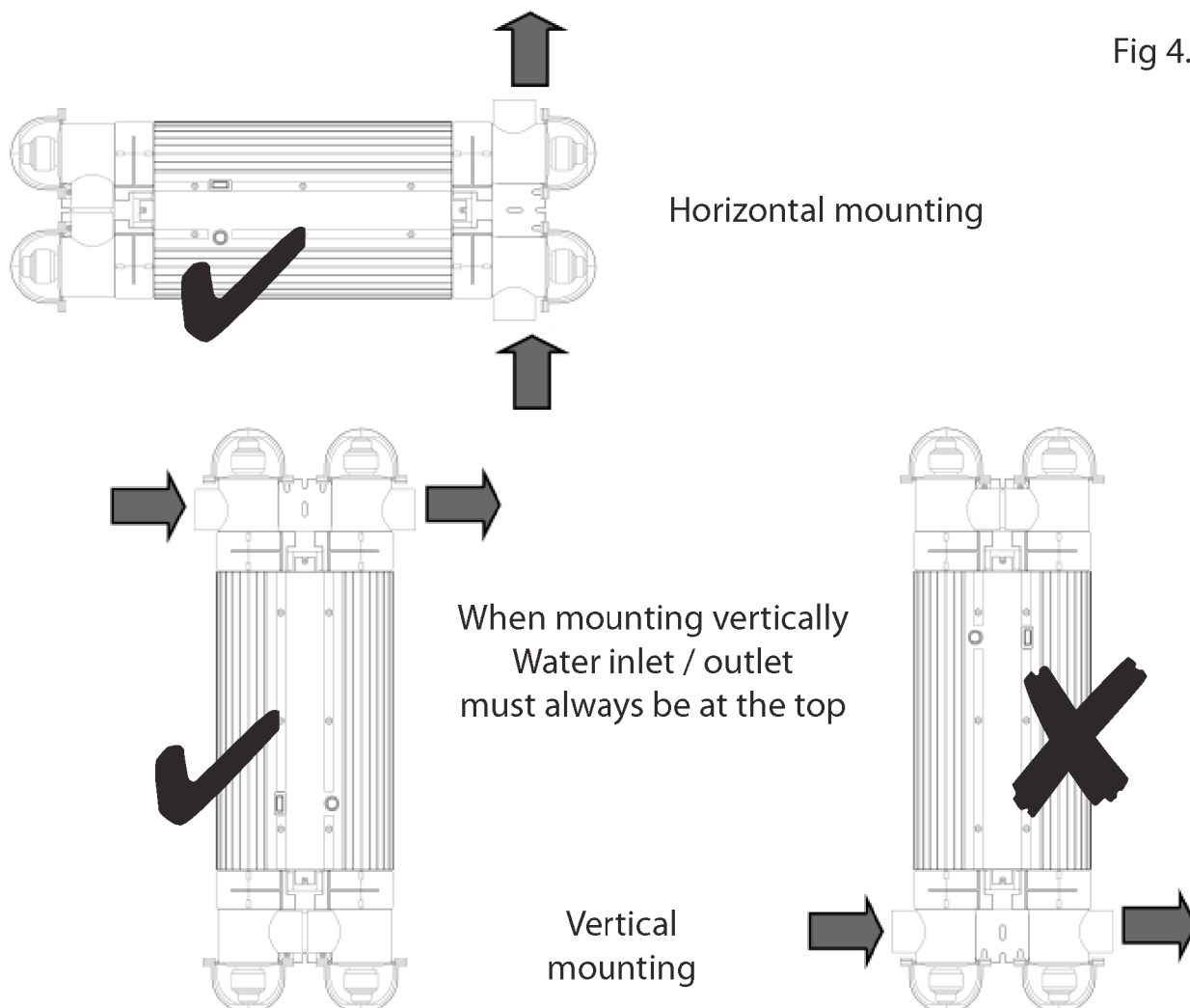


Fig 3.

Mounting the UV Unit (*Continued*)

Fig 4.



Connection To The Water Supply

The 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 inner, second stepped stage of the inlet and outlet ports.

If using 63mm rigid plastic pipe the connection will be made to the outer, first stepped stage of the inlet and outlet ports. The unit may be connected to flexible plumbing using the appropriate plumbing fittings (not supplied) To ensure unrestricted flow, the minimum recommended pipe work diameter is 1½" / 50mm pipework.

Flow Requirements

Please note that, for optimum performance, we recommend that you pass the entire volume of your pool water through the UV unit approximately once every three hours.

Unit: UV-S/UV-SE

Maximum flow rate: 8,000 Imp gal / 36,000 litres / 9,400 US gal per hour

Electrical connection

Electrical connection must be made by a qualified electrician.

The unit must be installed in accordance with the country / regional requirements & regulations. Always disconnect all pool appliances from the mains electricity supply before servicing. In any event the work must be carried out by a qualified electrician, who will provide a certificate of conformity upon completion of the work.

The power supply must be fitted with a RCD with a rated residual operating current not exceeding 30mA. 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 higher rated fuse.**

The unit should be wired in such a way that it can only be energised when the swimming pool filtration pump is energised and running, under no circumstances should the UV unit be energised without flowing water being present. **Note: This is best achieved by wiring the Spectrum UV unit into the output side of the filtration pump contactor.**

The unit is fitted with 5 metres of power cable. To prevent the unit inadvertently being dropped into the pool we strongly recommend that it is securely positioned at least 2 metres from the edge of the pool. 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 1.5metres.

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

Routine Maintenance

Under normal conditions the UV lamps inside this unit have a useable life of one year or 8000 hours. The unit is fitted with a lamp change indicator which is normally illuminated green and after 8000 hours of use will change to a flashing red to remind you to change the bulbs. After changing the indicator reset switch can be operated which then resets the indicator to start counting down the time cycle again.

It is essential that the unit is protected from frost during the winter months, or disconnected from the water and electricity supply and stored inside. During the Spring / Summer season the quartz glass sleeves which separate the UV lamps from the pool 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 glass sleeves will inhibit the penetration of the ultraviolet light into the water, and overall performance of the unit.

Lamp Replacement & Quartz Glass Cleaning

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

Lamp Holder restraint: A plastic Lamp holder 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, it is essential to replace them once the maintenance work has been completed. In time it may be necessary to replace the fixing screws (no.8 size screw) with a slightly larger screw.

To remove the lamp, carefully remove the bulb lamp holder 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 glass 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 glass 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 glass 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 silicone grease or Vaseline (not silicone sealant) onto these threads. As these threads are only serviced periodically, this lubrication will help to prevent them binding together. Then refit and firmly hand tighten the compression fittings. Refit or replace the UV lamp with a new one. Relocate the lamp holders and blue lamp holder shrouds ensuring that you match the correctly numbered lamp holder.

Note: Pinch the blue lamp holder shroud as you reassemble the unit to release any trapped air. Failure to release the trapped air may cause the lamp holder 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 lamps. 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.

RoHS Compliance Statement

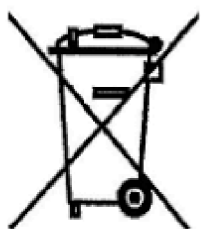
Elecro Engineering Limited certify that our UV Pool unit complies in accordance with RoHS Directive 2002/95/EC on the restriction of hazardous substances.

Waste of Electrical / Electronic Equipment

This product complies with EU directive 2002/96/EC

Do Not dispose of this product as unsorted municipal waste.

This symbol on the product or on it's packaging indicates that this product should not be treated as household waste. Instead it should be handed over to the applicable collection point for the recycling of electrical and electronic equipment.



By ensuring this product is disposed of correctly you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.

For more information please contact your local Civic office, your household waste disposal service or the retailer where you purchased the product.

Guarantee

Your UV pool unit is guaranteed for 2 years from the date of purchase against faulty workmanship and materials.

The manufacturer will replace or repair, at it's discretion, any faulty units or components returned to the company for inspection.

Proof of purchase may be required. The manufacturer will not be liable in cases of incorrect installation of the product, inappropriate use, or neglect.

This guarantee does not include serviceable parts, ie: Lamp and quartz sleeve.



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