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Vorton

Ultra Violet Clarifier

INSTALLATION AND OPERATING INSTRUCTIONS.
READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION.

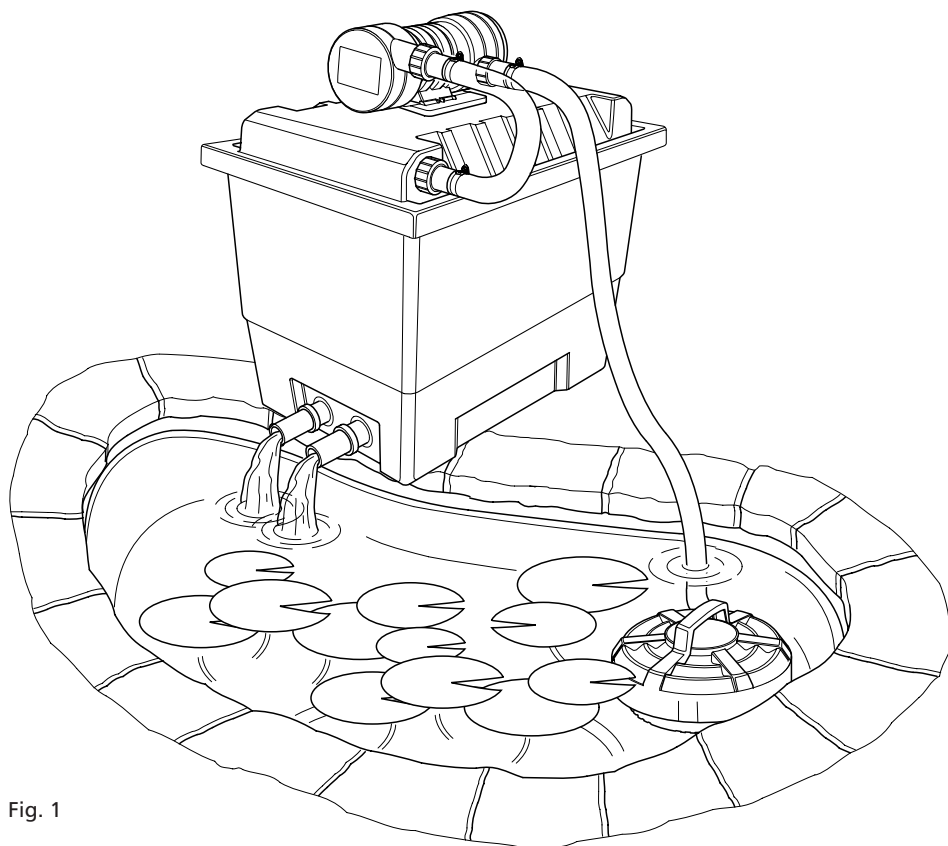


Fig. 1

This Vorton Ultra Violet Clarifier is electrically operated and designed to work with an existing pond filtration system. Typically this should consist of a mechanical and biological filter, filter pump and connecting hose. The unit is only suitable for outside use.

ATTENTION - UV CAUTION

Caution - Exposure to Ultra Violet (UV) radiation can be dangerous and cause damage to eyes and skin. Under no circumstances should any attempt be made to gain access to the lamp when the unit is switched on. When switched on, the lamp can be checked for operation by looking for a bluish glow from the translucent hoses/tails.

From 1st January 2005 installing this product in the garden is classed as 'notifiable' in the revised Building Regulations for England and Wales. The Regulations now require you to tell your local authority building control department that you intend to install this product before installation. Your local authority will let you know how you can get your installation approved.

1. WARNING: SAFETY AND ELECTRICAL CONNECTIONS

- 1.1 Always disconnect the electricity supply before starting to handle, maintain, repair or install any equipment in the pond.
- 1.2 The clear tube inside the unit is made from quartz glass and care should be taken during installation and maintenance. We recommend the use of eye protection and suitable gloves.
- 1.3 The Vorton UVC is weatherproof but not submersible. Position the unit horizontally near the pond but not where it can fall into the water or become waterlogged.
- 1.4 Important: This product is designed to be permanently wired to the mains supply. For connection to the mains supply use only 3-core cable (ref H05 RN-F). This has a minimum copper cross-section of 0.75mm² with Polychloroprene-Rubber insulation. The termination to the mains supply should be:
 - a) Permanent.
 - b) Inside a dry weatherproof enclosure.
 - c) Through a double pole switched fused spur with a minimum contact gap of 3mm-(disconnect) to BS 3676.
 - d) Fitted with a 3 or 5 amp fuse.
- 1.5 Exposed cable runs should be sensibly positioned and protected by armoured conduit, especially if there is a risk of contact with gardening equipment such as forks and lawnmowers, or children and domestic animals.
- 1.6 A 10mA or 30mA Residual Current Device (RCD) MUST be fitted to the mains supply.
- 1.7 Permanent installations to the mains supply (hard wiring), must conform to the National and Local wiring regulations. If in any doubt about wiring to the mains supply, consult a qualified electrician or local electricity authority.
- 1.8 Protect from frost. In cold winter weather (when fish are inactive and algae growth ceases) the unit may be switched off. It

should then be removed, drained of water and stored in a dry, frost-protected area.

2. GENERAL GUIDANCE

- 2.1 Performance - We recommend that for maximum performance this product should be used with a Hozelock Cyprio filter pump and filter. The unit should be run 24 hours a day throughout the season. Failure to do this may result in green water and will invalidate the Clearwater Guarantee.
- 2.2 Flow Rate - For best results the entire contents of the pond should pass through the Vorton UVC every 11/2 - 21/2 hours. We recommend that your pump is sized to supply the required flow rate against the full hydraulic head (the vertical distance between the pond water surface and filter inlet, plus an allowance of 0.6-0.9m, (2-3ft), for hose friction losses).
- 2.3 Pressure Rating - All Vorton UVC models have a maximum pressure rating of 8 psi (20ft; 6m; 0.6 bar). The unit is therefore unsuitable for filtration systems that produce high levels of back pressure such as sand filters.
- 2.4 Pond Treatments - Some medications/ treatments can degrade very quickly by UVC radiation. Switch off the unit during disease treatment.
- 2.5 Extra care should be taken when any hose connections as leaks will result in loss of water from the pond.
- 2.6 Spare Parts - Use only genuine Hozelock Cyprio replacement parts. (See section 8).

3. INSTALLATION

- 3.1 The Hozelock Cyprio Vorton UVC can be added to most filter systems before or after filtration, the effect is the same. The water must be pumped through the unit - not gravity fed. A typical installation is shown in fig 1.
- 3.2 Location - the unit MUST be installed horizontally and on a solid surface. The lid of a filter may be suitable if sturdy enough.
- 3.3 To mount the unit, first slide the base from the main body. Using 4 suitable fixings, screw the base to the mounting surface. (See fig 2). Slide the main body back on to the base.
For twin models (Vorton 18000 and 27000), a joining tube is supplied to connect the units together (see fig 3). In this case rotate the ends as shown and connect together. Seat the unit into position and, using the two base mouldings as a template, mark the hole positions.
- 3.4 Cut the two universal hose tails (supplied) to suit the correct size of hose. Fit the hose tails to the inlet and outlet threaded connections using the 'O' seals and threaded nuts supplied (see Fig 4).
For Vorton 2200; 4500 use 25mm (1inch)Hose.
For Vorton 9000; 14000; 18000, 27000 use 40mm (1 1/4 inch) Hose.
Push the inlet and outlet hose onto the hose tails and secure with a suitable hose clip. We recommend the use of Hozelock Cyprio Hose and Hose Clips (available separately). Avoid kinks and sharp bends. Keep hose lengths as short as possible to minimise losses in flow.
Both ends of the unit can be rotated to

allow for easy hose connections.

Important - the outlet (A) should be at the top of the unit, to ensure no air is trapped inside. (See fig 2 & 3).

- 3.5 To fit the lamp refer to Section 5.1

- 3.6 **Warning. This appliance must be earthed, and it is essential that connections are made using the following code.**

The BROWN lead must be connected to the LIVE terminal marked 'L'.

The BLUE lead must be connected to the NEUTRAL terminal marked N

The GREEN/ YELLOW lead must be connected to the earth terminal marked \perp .



- 3.7 Refer to Section 1, Safety and Electrical Connections, for termination to the mains supply.

We recommend that the pump and UVC are connected to the same supply so that they can be switched off together.

- 3.8 Switch the pump and Vorton on and check for leaks. Check the lamp is operating by looking for a bluish glow from the translucent hose tails. DO NOT STARE DIRECTLY AT THE UVC LAMP.

4. USER INSTRUCTIONS

- 4.1 Coupled to a Hozelock Cyprio pond filter and filter pump, a Vorton UVC should produce clear water within two weeks. However, UV light can delay filter maturation. When installing a new biological filter, allow 6 - 8 weeks before switching on the UVC. Speed up maturation by adding a maturing agent such as Hozelock Cyprio filter start. During maturation your pond may go green, but should be clear within two weeks of switching on your Vorton UVC. Ammonia and nitrite levels may initially rise due to decomposition of algae trapped in the filter. (Check these levels with Hozelock Cyprio test kits). Should this occur, stop feeding until ammonia and nitrite levels fall, whereafter feeding may be gradually increased to normal levels. Run the filter and Vorton UVC 24 hours a day during the feeding season. Should you need to switch off the pump and filter, also switch off the Vorton UVC. Continued filtration in winter is recommended. UVC treatment in winter is optional, but if there is any risk of freezing, the unit should be switched off, drained and removed. This will prevent damage to the product.

5. MAINTENANCE

Always disconnect the electricity supply before starting to handle, maintain, repair or install any equipment in the pond.

- 5.1 To fit the lamp:
 - i) Remove the screw securing the electrical head (See fig 5). Turn the head anti-clockwise, pull out and then turn clockwise. The head should then pull gently away from the main body.
 - ii) Remove the quartz glass tube in a similar way by removing the retaining screw, rotating the plastic moulding anticlockwise and pulling away from the body, (see Fig 6).
 - iii) With the lamp holder now accessible,

push the lamp into position.

iv) Re-assemble the quartz tube into position ensuring the screw boss is re-aligned and screw refitted.

v) Re-assemble the head to the body. Using the alignment marks 'A' (see fig 5), press together while rotating anticlockwise allowing to slot together, then rotating clockwise. The screw boss should realign, allowing the retention screw to be re-fitted.

5.2 Important: Refer to section 1 - Safety and Electrical Connections before attempting any maintenance.

5.3 How well your Vorton UVC performs is related to the strength of the UV radiation produced. This will slowly decline from the day your lamp(s) are fitted. The UVC lamp has an effective life of 12 months. You need to change the lamp when there is a significant reduction in water clarity. Make sure this is due to an expired lamp and not a badly maintained filter or a dirty/limescaled quartz sleeve. Both can greatly reduce UV transmission into the water.

5.4 Especially in hard water areas, the quartz tube may become covered in limescale, which will reduce efficiency. To gain access to the tube and lamp refer to section 5.1. Clean the tube with a soft cloth and a gentle de-scaler, rinse in water before refitting. DO NOT SUBMERSE THE UNIT IN WATER.

5.5 Change the lamp at the start of the new season. Even though the lamp still glows it may not be giving out any useful UV radiation.

5.6 Wash out the inside of the main body to remove dirt and debris.

5.7 Always check the system thoroughly for leaks when restarting.

6 WINTER STORAGE

6.1 When not in use, the unit should be removed, thoroughly washed, dried and stored in a dry frost protected area.

7 CHECKLIST

7.1 If your Vorton fails to produce clear water, please check the following table before contacting the Helpline.

HOZELOCK CYPRIO CLEAR WATER GUARANTEE

WE GUARANTEE YOU CLEAR WATER OR YOUR MONEY BACK for a Hozelock Cyprio Vorton UVC when used with a

SPARE PARTS	Part Numbers					
	Vorton 2200	Vorton 4500	Vorton 9000	Vorton 14000	Vorton 18000	Vorton 27000
Description						
UV Lamp 5W	1519					
UV Lamp 9W		1520			2x 1520	
UV Lamp 11W			1521	1521		2x 1521
Quartz Tube	1523	1523	1524	1524	2x 1523	2x 1524
Hosetails	1537	1537	1537	1537	1537	1537
Tandem Conversion Kit	Z12405	Z12405	Z12405	Z12405		
Mounting Bracket	Z12415	Z12415	Z12415	Z12415	Z12415	Z12415
Annual Service Kit	1522	1522	1522	1522	1522	1522

correctly sized Hozelock Cyprio filter. This guarantee runs for 12 months after purchase, provided that

* You have followed the installation and operating instructions.

* You are using equipment of the correct size, according to Hozelock Cyprio's sizing information.

* You consult our Helpline (0870 8501959) early enough for any problems to be put right.

* The product has been returned undamaged.

A refund can only be authorised by Hozelock Cyprio and is made only at the place of purchase to the value of the purchase price of the filter and UVC only.

Please note that the Clearwater Guarantee does not cover loss of water clarity when blanketweed, as opposed to greenwater algae, is the cause.

proof of purchase directly to the address below.

Hozelock Cyprio
Midpoint Park
Birmingham B76 1AB
Tel: +44 (0) 870 850 1959

HOZELOCK CYPRIO 2 YEAR GUARANTEE

If this Vorton UVC (excluding Lamp) becomes unserviceable within 2 years of the date of purchase it will be repaired or replaced at our option free of charge, unless in our opinion it has been damaged.

Liability is not accepted for damage due to accident, improper installation or use. Liability is limited to replacement of the faulty unit. This guarantee is not transferable. It does not affect your statutory rights.

To obtain the benefits of this guarantee, firstly contact Hozelock Cyprio Consumer Services (0870 850 1959) who may request that the unit is sent along with

CHECK	HOW
The UVC lamp is on and glowing.	Make sure that parts of the translucent hosetails are visible, so that you can see a bluish glow. This may be easier during late evening as it gets dark.
The age of the lamp.	Keep a record of the date the lamp was installed. We recommend a new lamp be fitted at the start of the new season.
The Quartz Sleeve is clean.	Refer to section 5.3.
That the pump is delivering sufficient flow of water.	All the pond water should pass through the Vorton UVC once every 1 1/2 - 2 1/2 hours. i.e. a 10,000 ltr pond needs a flow rate of between 4000 and 6000 ltr/hr, while trying to achieve as near to the upper limit as possible.
The pump is at the opposite end of the pond to the outlet of the filter	Inspection - This is to prevent short-circuiting of the filtration system, the same water being filtered over and over again, while other areas of the pond remain static and unfiltered.

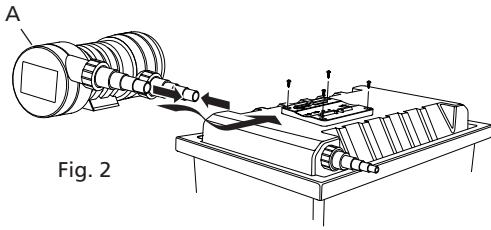


Fig. 2

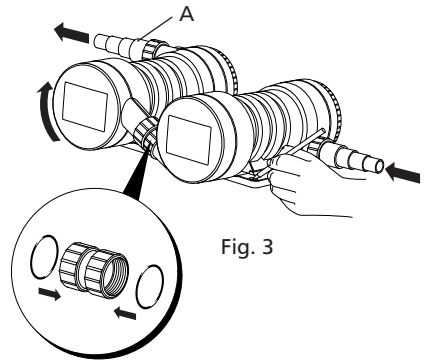


Fig. 3

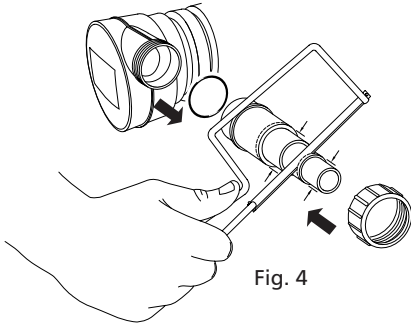


Fig. 4

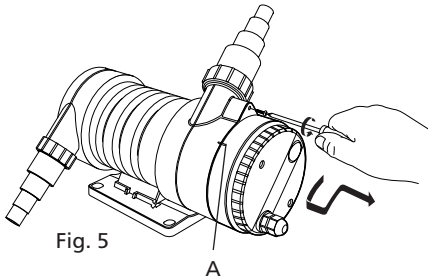


Fig. 5

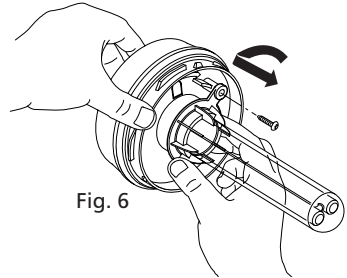


Fig. 6



Hozelock Cyprio
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 www.hozelock.com
 The Aquatics Division of Hozelock Group

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PLEASE NOTE:
 Do not dispose of in household waste