



HR UV-C Series

UV Pool Sanitising System — HR UV-C & E-HR UV-C
Installation, Operating & Maintenance Manual

Series codes: 108.11.17 – 20 · 108.11.25 – 28



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Table of Contents

1. Safety Warnings
2. Description & Versions
3. Technical Data & Product Codes
4. Dimensions
5. Mounting
6. Pipe Work
7. Electrical Connection
8. Operation & Lamp Life Indicator
9. Water Quality
10. Maintenance — Lamp & Quartz Sleeve
11. Warranty & Contact

1. Safety Warnings

Read and follow these instructions for proper installation, use and maintenance. **Incorrect installation will affect your warranty.** Retain this manual for future reference.

UV-C RADIATION — HAZARD TO EYES AND SKIN

Never operate the UV-C emitter when it is removed from the appliance enclosure. Unintended use or damage to the housing may result in the escape of **dangerous UV-C radiation**, which **even in little doses may cause harm to the eyes and skin**. **Never look directly at an illuminated UV lamp.** Young children should never be allowed near the UV sanitiser.

EARTHING AND 30 mA RCD

This unit **must be earthed** and power must be supplied through a **Residual Current Device (RCD) with a rated residual operating current not exceeding 30 mA**. If the supply cord is damaged it must be replaced by the manufacturer, its service agent or a qualified person. The supply cord must be **secured inside the enclosure with a cable tie** to prevent sliding.

DO NOT RUN DRY • DO NOT SUBMERGE • DO NOT COVER

Do not run this unit dry. Do not cover it and do not submerge it in water. Examine the unit carefully after installation: **it should not be powered on if there is water on any parts not intended to be wet**. If the unit shows any sign of water leakage, **immediately disconnect the power supply**.

CRACKED QUARTZ SLEEVE — REPLACE IMMEDIATELY

If the **quartz sleeve** is cracked, **replace it immediately**. Before any maintenance, **disconnect the power from the UV steriliser AND the pump** and drain the unit — failure to do so could result in personal injury or property damage. Read the maintenance instructions **before** opening the appliance.

2. Description & Versions

The **HR UV-C** and **E-HR UV-C** are pool sanitising systems using **UV-C** ultraviolet radiation, manufactured in England. They are available in **55 W single tube** and **110 W double tube** formats, supplied complete with a **flow switch** and, depending on the code, either an **analogue lamp life indicator and reset switch** or a **digital lamp life countdown with intelligent dosing pump**.

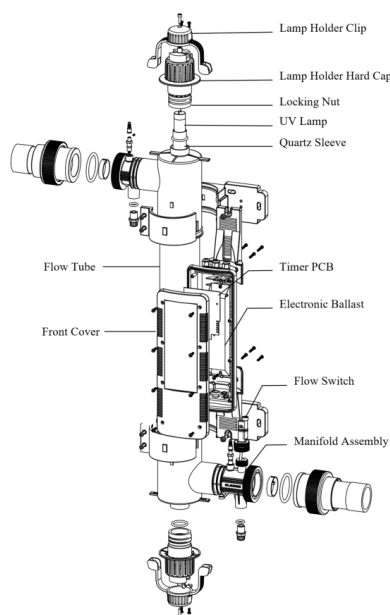
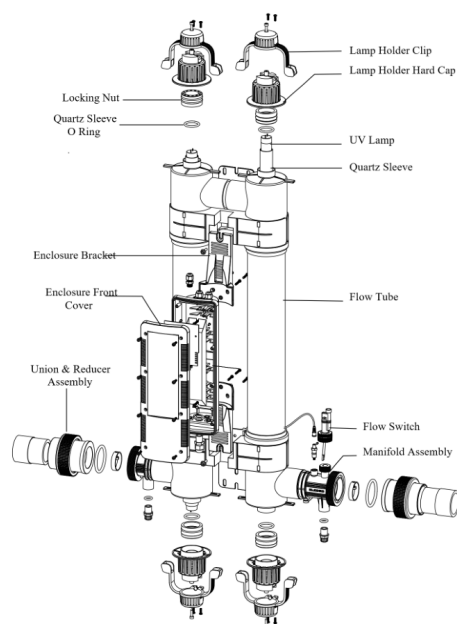


Fig. 4

Unit components — single version



Double version

Key: lamp holder clip · lamp holder hard cap · locking nut · UV lamp · quartz sleeve · quartz sleeve O-ring · flow tube · timer PCB · electronic ballast · flow switch · manifold assembly · front cover · union & reducer assembly.

3. Technical Data & Product Codes

HR UV-C

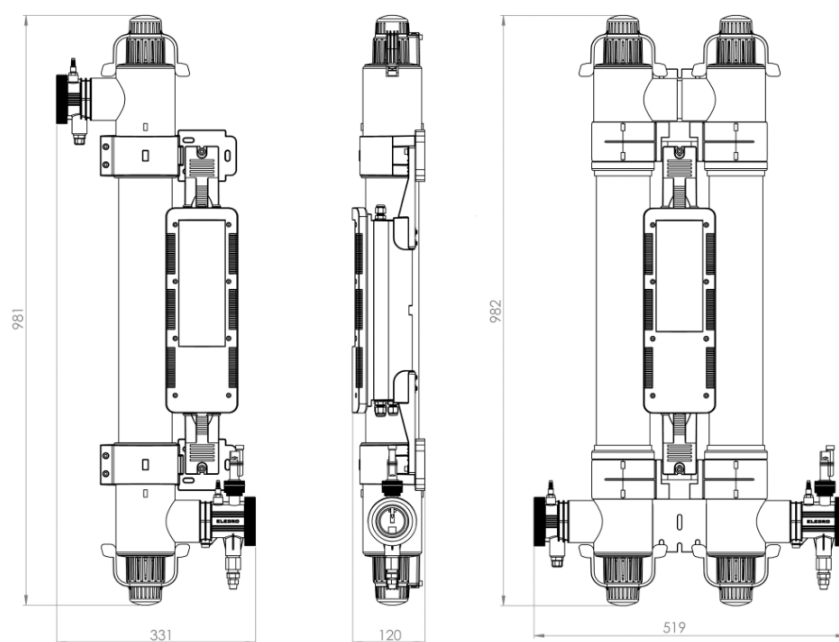
Oxygen code	Lamp	Max pool volume	Max flow	Version
108.11.25	55 W	50 m ³	16 m ³ /h	no indicator
108.11.26	110 W	100 m ³	32 m ³ /h	no indicator
108.11.27	55 W	50 m ³	16 m ³ /h	analogue lamp-life indicator + reset
108.11.28	110 W	100 m ³	32 m ³ /h	analogue lamp-life indicator + reset

E-HR UV-C

Oxygen code	Lamp	Max pool volume	Max flow	Version
108.11.17	55 W	50 m ³	16 m ³ /h	analogue lamp-life indicator + reset
108.11.18	110 W	100 m ³	32 m ³ /h	analogue lamp-life indicator + reset
108.11.19	55 W	50 m ³	16 m ³ /h	digital countdown + intelligent dosing pump
108.11.20	110 W	100 m ³	32 m ³ /h	digital countdown + intelligent dosing pump

Note: the maximum flow rate is **16 m³/h** for the 55 W single tube and **32 m³/h** for the 110 W double tube, per the manufacturer's manual. Above these a **bypass** is required to prevent damage to the unit.

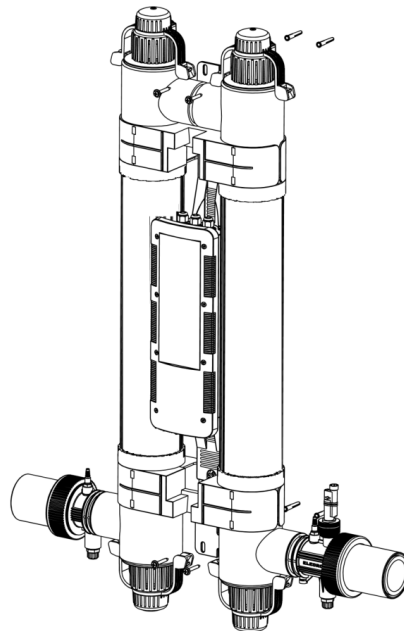
4. Dimensions



Dimensions — single (Fig. 1) and double (Fig. 2) version

5. Mounting

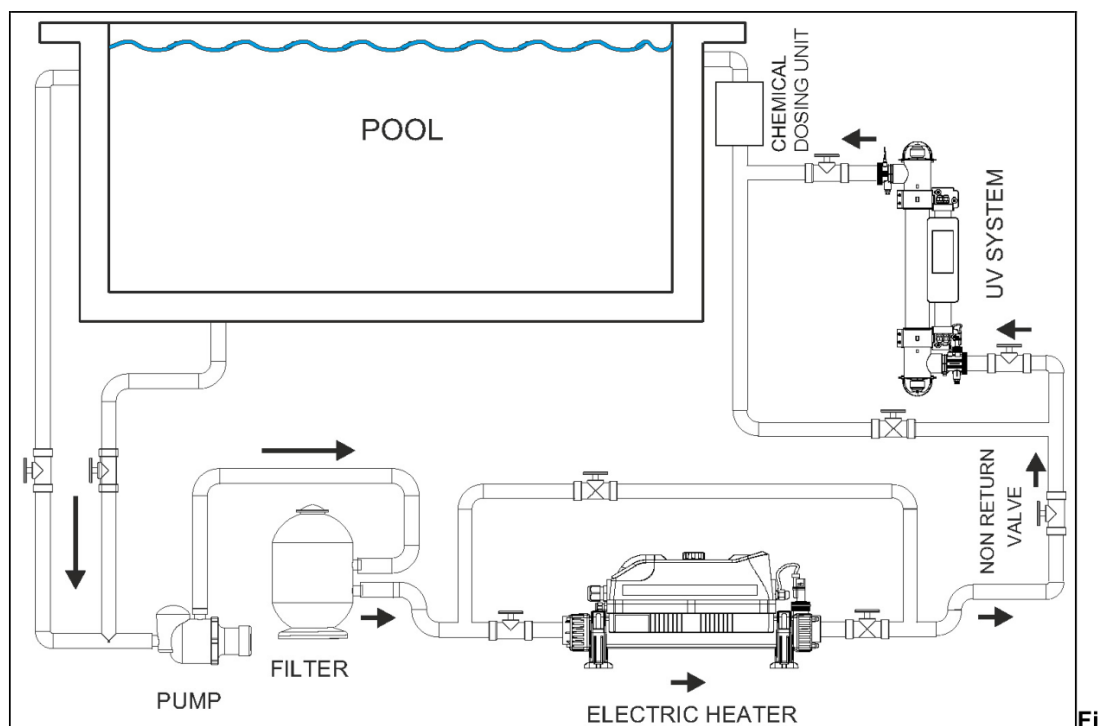
- Install **horizontally or vertically**, allowing enough space for the pipe connections, wiring and maintenance of lamps/quartz sleeve.
- Secure it **firmly to a solid wall** using the fixing kit provided.
- **Leave a clearance of at least 1 metre** on one side so the lamp and quartz sleeve can be replaced. If installing **vertically**, the clearance must be **above or below** the unit; if **horizontally**, **to the left or right**.
- The location must be **dry and permanently weather-proof** — moisture inside the enclosure **voids the warranty**.
- If the unit is unused during the winter months it must be **drained**: water freezing inside will cause severe damage.



Wall mounting

6. Pipe Work

- The unit is placed **downstream of** any pumps, filters and heating devices, and **upstream of** any chemical dosing or similar water treatment.
- It is factory set to accept water flow **entering on the left and exiting on the right**. For **horizontal** mounting the water must **enter low and exit high**.
- If the flow is reversed, the **flow switch must be rotated 180°** (half a turn).
- The flow switch paddle **can be damaged** if lifted more than **5 mm** from its housing and turned with force. After rotating, make sure it locks **perpendicular** to the water flow.
- The unit is supplied with **unions for 2" or 63 mm rigid pipe** and **reducers for 50 mm or 1½"**.



Position in the circuit — after the filter and heater, before dosing

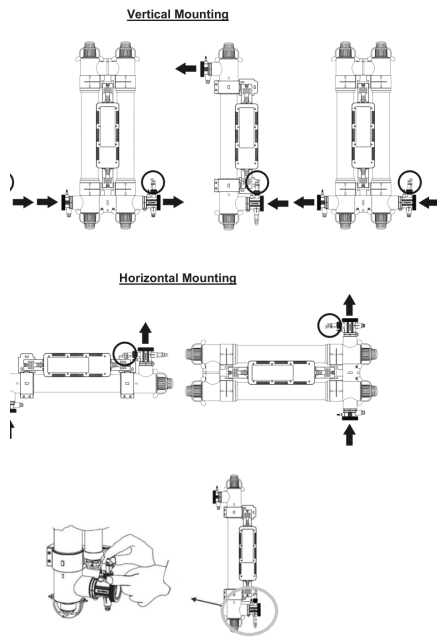
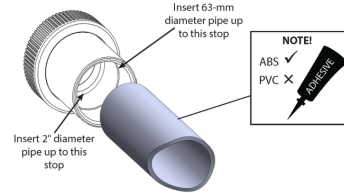


Fig. 6

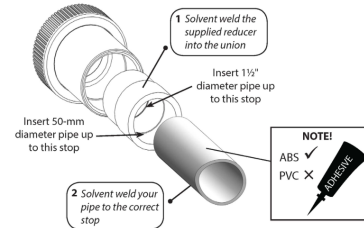
Flow direction — vertical (top) and horizontal (bottom) mounting

The unit is supplied with unions to allow connection to 2" or 63-mm rigid pipe. Reducers are available to allow connection to 50-mm or 1½" rigid pipe - see Fig. 7.

For pipework 63-mm or 2" in diameter.



For pipework 50-mm or 1½" in diameter.



Fi

Unions and reducers — for Ø 63 mm / 2" and Ø 50 mm / 1½" pipe

7. Electrical Connection

- Installation by a **qualified electrician**, in accordance with national regulations, with an **Electrical Installation Certificate** issued on completion.
- The power supply must be fitted with a **30 mA RCD**.
- The unit **must be earthed**.
- Any alteration or use of non-standard components **affects the warranty**.
- **Never look directly at an illuminated UV lamp**.

8. Operation & Lamp Life Indicator

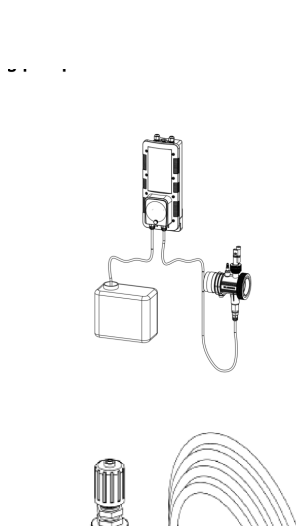
- The unit is **plug and play**: as long as the minimum flow rate is achieved it works as soon as the power is switched on.
- **Minimum flow rate: 4 m³/h** on every version.
- On completion of the installation, run the pump to **purge all air** from the system.

Lamp life indicator (analogue version)

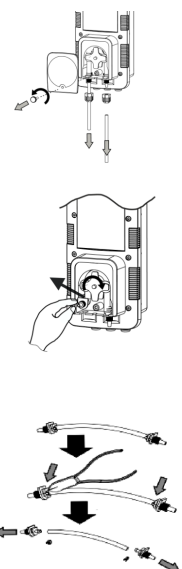
- Under normal conditions the UV lamp has a usable life of **9,000 hours**.
- At initial power-on the LED lights **red for one second** — indicating the 9,000-hour setting — and immediately turns **green**: the timer has started.
- When fewer than **500 hours** remain the LED turns **amber** — order a replacement lamp.
- At **zero** the LED turns **red**: the lamp must be changed.
- **Reset**: after changing the lamp, press and hold the reset button until the LED goes off and comes back on. On release it lights red for one second, then green — the timer has restarted.
- The reset can be carried out **only while the LED is on**.

Digital controller & intelligent dosing pump (digital version)

- The digital controller has **four programmable functions**: **UV Lamp Life** · **Shock Dose** · **Dose Chemical** · **Set Time**.
- The timer counts down from **9,000 hours** and the remaining lamp life is displayed. Green down to 500 hours, **amber at 499**, **red at zero**.
- After changing the lamp the timer **must be reset** to 9,000 hours: "Reset UV Lamp" → hold O.K. until the display shows **SAVED**. The display then reads "UV Life 9,000 Hrs".
- **A power failure does not affect** the countdown.
- The dosing pump is pre-programmed for **two chemical types**: **hydrogen peroxide (H₂O₂)** / **active oxygen** or **liquid chlorine**.
- **Dosing pump capacity 2.4 l/h** · **maximum working pressure 0.75 bar**.
- The **UV lamp switches off** while the dosing pump is running **and for 30 minutes after** dosing is complete, and also when there is **no or low water flow**.
- The time must be entered in **24-hour format**.



Digital controller



Dosing pump

9. Water Quality

Water quality **must** be within the following limits. **Failure to meet them voids the warranty.**

Parameter	Limit
pH	6.8 – 8.0
Total alkalinity (TA)	80 – 140 ppm
Chloride content	max 150 mg/l
Free chlorine	2.0 mg/l
Total bromine	max 4.5 mg/l
Calcium hardness	200 – 1,000 ppm

10. Maintenance — Lamp & Quartz Sleeve

Annual maintenance is essential to avoid water leaks and maintain optimum performance. Failure to do so could result in damage to the product and a **significant drop in efficiency**.

- **Change the lamp(s)** if necessary.
- **Inspect and clean the quartz sleeve.** Replace it if any cracks are discovered.
- **Replace all O-rings.**
- **Replace the lamp connectors** (white plastic insert inside the blue lamp shroud) if corroded, wet, damaged or overheated.

SP-UV-LAMP-EL



Fig. 1

SP-UV-QS



Fig. 2

SP-UV-ORS

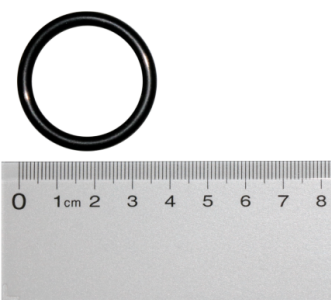


Fig. 3

SP-UV-LLL-LF



Fig. 4

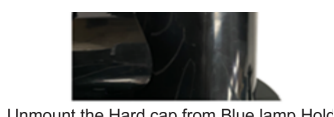
Annual maintenance spare parts

Elecro code	Spare part
SP-UV-LAMP-EL	UV-C lamp
SP-UV-QS	Quartz sleeve
SP-UV-ORS	O-ring set
SP-UV-LLL-LF	Lamp connector (white insert)

- Unscrew the fasteners and unclamp the clip from the body.
- Remove the lamp holder clip from the hard cap and unmount the hard cap from the blue lamp holder.
- Carefully remove the blue lamp holder shroud and the white plastic electrical end caps from the lamp end.
- Gently slide the lamp out, **ensuring no pressure is applied to the quartz sleeve**.
- Unscrew the **blue quartz sleeve locking nuts** anticlockwise — **both ends** — and slide the O-ring off. The sleeve can now be removed.
- **Cleaning:** polish with a soft cloth or paper towel. In hard-water areas, limescale is easily removed by soaking the sleeve in a proprietary kettle descaling solution. **Failure to remove the limescale will limit the effectiveness of the UV lamp.**
- **Reassembly:** slide the clean dry sleeve in · locate the O-rings on the ends · wipe a little **silicone grease** on the threads · **hand tighten** the blue locking nuts — overtightening **can damage the quartz sleeve**.
- Refit or replace the lamp and the shrouds, **matching the correctly numbered lamp connector**.
- To avoid bending the lamp pins during reassembly, **pull the plastic fitting out of the shroud**, connect it to the lamp and push the shroud back into place.



Remove Lamp holder Clip from Hard cap



Unmount the Hard cap from Blue lamp Holder



Carefully remove the blue lamp holder shroud and white plastic electrical end



Gently slide the lamp out ensuring that no pressure is applied to the quartz sleeve

Removing the lamp

Push the shroud back in to place.



Removing the quartz sleeve

11. Warranty & Contact

- Guaranteed for **two years within Europe** and one year outside, from the date of purchase, against faulty workmanship and materials.
- The manufacturer will, at its discretion, **replace or repair** faulty units or components returned for inspection. Proof of purchase may be required.
- Not covered: **incorrect installation**, inappropriate use or neglect, **failure to connect the Safety Circuit**, moisture in the enclosure, water outside the quality limits, frost damage.
- Shipping damage must be reported **within 48 hours** of receipt; later claims are not covered.
- **Consumables** (glass parts, seals, water connections) are excluded.

The warranty does not cover: incorrect installation, moisture in the enclosure, water outside the quality limits, frost damage, dry running, or failure to carry out the annual maintenance. Lamps, quartz sleeves, O-rings and connectors are **consumables**.

Contact Information

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ISO Certifications

ISO 9001:2015 Quality Management <i>EUROCERT</i>	ISO 14001:2015 Environmental Management <i>BQV</i>	ISO 45001:2018 Occupational Health & Safety <i>BQV</i>
ISO 22301:2019 Business Continuity <i>EUROCERT</i>	ISO 46001:2019 Water Efficiency <i>BQV</i>	

Recycling of materials must be carried out in accordance with applicable regulations.