

UV-CS STERILISER RANGE USER GUIDE**IMPORTANT**

WARNING: Avoid exposure to direct or strongly reflected germicidal rays. Germicidal ultraviolet rays are harmful to the eyes and skin.

WARNING: Always disconnect power to the equipment and unplug, before performing any service or maintenance. DO NOT look at the lighted lamps.

WARNING: For effective bacteria elimination, and to avoid damage to the unit, the water passing through the UV must be completely clear. Please contact us for advice on pre-filtration requirements.

WARNING: Water pressure must not exceed 100psi.

INSTALLATION

1. For a 'whole house' application the unit(s) should be fitted where the water enters the property to ensure water throughout the property is treated. The unit should be in a position where it is protected from surface moisture and freezing.

2. The unit can only be fitted horizontally and should be floor mounted and securely fixed to avoid movement. Mounting holes are provided.

NB: An access panel is situated on the rear side of the UV (opposite side to the warning indicators and hour counter). Adequate space should be allowed for removal and access to this in the event of maintenance to internal electrical components e.g. fan, printed circuit boards. Do not fit flush to wall.

3. When fitting care must be taken to allow adequate space for removal and replacement of the ultra violet tubes and quartz tubes.

4. Please check the flow rate of your unit. Sometimes it is advisable to fit an adjustable flow regulator prior to the unit to ensure the maximum flow rate is not exceeded, otherwise not all bacteria may be killed.

Model	Unit wattage	Recommended maximum flow rate (lpm)
UV-CS110	110w	72
UV-CS165	165w	108
UV-CS220	220w	144
UV-CS330	330w	216
UV-CS440	440w	288
UV-CS550	550w	360

NB: For swimming pools and aquatic applications e.g. with recirculation loops, flow rates differ – please contact us for advice.

5. Water can flow in either direction through the UV unit.


6. The units require power at all times, as the ultraviolet light should remain on continuously so all water is treated. The unit should be protected from power surges as power fluctuations may damage the electrical components and bulbs.

7. If a water storage tank is present this should be cleaned and treated with chlorine tablets on installation to ensure no bacteria remain.

MAINTENANCE

- All lamps should be changed **every 8000 hours** to maintain full strength. Always disconnect power to the equipment and unplug before changing lamps. If a pre-filter is used this should also be replaced.
- Quartz tubes may require cleaning on the external surfaces or replacement. This is dependent on the quality of water going into the unit. We recommend tubes are checked every 2 years or earlier if the water quality is questionable.
NB: It is advisable to replace the 'O' rings when changing quartz sleeves as once removed they may not make a good seal if re-fitted.

LAMP REPLACEMENT

1. Turn off power supply
2. Pull off plastic lamp end cover from required lamp
3. Disconnect cap-end lead connector from lamp
4. Carefully slide out the lamp and disconnect the long lead connector from the other end of the lamp
5. Re-connect long lead connector firmly to the replacement lamp, then slide lamp most of the way back into chamber
6. Re-connect cap-end lead connector to lamp (the connector may need to be re-fitted to cap if separated) and slide lamp fully into chamber
7. Refit the plastic lamp end cover
8. Once lamps have been replaced, switch UV unit back on and reset the timer by holding the  button for 5 seconds. The timer display will start counting from zero.

QUARTZ SLEEVE REMOVAL & REPLACEMENT

1. Turn off power supply and isolate water supply
2. Drain water from unit using the drain valve located underside of chamber
3. Remove lamp from affected chamber (see LAMP REPLACEMENT)
4. Loosen OPEN end nut – DO NOT REMOVE
5. Carefully slide an appropriate length of plastic pipe up into quartz tube (this is to support the tube when removing to prevent it falling)
6. Remove open end nut and sealing 'O' ring
7. Remove solid end nut and sealing 'O' ring
8. Remove quartz tube supported by pipe – IMPORTANT! GREAT CARE MUST BE TAKEN TO PREVENT ANY DAMAGE TO OTHER TUBE(S)
9. Push pipe straight through UV – this will be used as a guide or internal sleeve, to replace the quartz tube
10. From the solid nut end, slide the quartz tube over the guide pipe and insert.
11. Fit 'O' ring to solid end - fit solid end nut and tighten
12. Make sure the quartz tube is firm before removing guide pipe
13. Fit 'O' ring to open end – fit open end nut and tighten
14. Refit lamp (see LAMP REPLACEMENT)
15. Turn on water supply and check for leaks, then turn on power.
NB: Do not reset hour counter unless new lamps are re-fitted

CONSUMABLE PARTS

Replacement 55w lamps – Silverline UK Ltd code: UV/L/55

Replacement quartz sleeves (domed end) – Silverline UK Ltd code: UV/QT/CS

Replacement 'O' rings (pair) – Silverline UK Ltd code: UV/ORING/CS

TROUBLESHOOTING

WARNING: If one or more lamps are not lit, the unit will not be able to treat the water flow rate passing through it effectively (may not kill all bacteria). Therefore all faults should be identified and rectified as soon as possible, and flow reduced until rectified (if not isolated for maintenance).

Problem	Possible cause/remedy
1. Lamp warning indicator lit / alarm sounding on one or more lamps.	This will indicate a blown lamp or problem on a circuit. Shut down power and water supply to the UV. Check that the connections on both ends of the lamp(s) are firmly pushed on and correct. Change lamp(s) if necessary then turn power back on to see if fault solved (<i>swapping the 'faulty' lamp with another can prove if the fault moves with the lamp or remains on the same electrical circuit</i>). If fault no longer indicated, turn water back on. In the event that the unit is still indicating a fault, please contact your supplier for advice.
2. UV lamp(s) do not light up	Check power indicator is lit, if not check power supply and fuse (replace if necessary). If the UV lamp is still not lit and the warning light is lit/alarm sounding, change the UV lamp. In the event that the lamp(s) still do not light, please contact your supplier for advice.
3. Water leakage on either side of nuts	May indicate damage to quartz sleeve(s) or 'O' Ring seals require replacement. Physical examination of seals and/or quartz sleeves required. See no.4.
4. Water leakage into the quartz tube	Shut down power and water supply to the UV. Carefully remove lamps, then remove quartz tube and examine for fractures (see page 2). Replace quartz tube if necessary. Also check debris is not entering the unit that could cause damage, and water pressure.
5. Water leakage from inlet/outlet	Shut down power and water supply to the UV. Unfasten and check connections. Apply water proof tape if necessary and re-connect.
6. Bacteria still present	Ultraviolet sterilizers are extremely reliable and effective. Should you be advised that bacteria is still present after passing through the UV, check that: <ul style="list-style-type: none"> • Lamps have been changed as advised (they may still be lit but past their useful life) • Maximum flow for the model is not being exceeded • Quartz tube is clean • Water supply entering the UV is completely clear and free from debris