

ATEC UV & HO Series Stainless Steel Reactor



INSTALLATION AND USER MANUAL

We thank you for choosing a Atecpool ultraviolet water treatment system.

Our equipment has been designed to offer you operational reliability in total confidence for many years.

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The Atecpool equipment is ready to be installed.
 No intervention is required inside the equipment.
 A simplified quick assembly procedure is provided.

DESCRIPTION	ATEC UV 10	ATEC UV 20	ATEC UV 30	ATEC UV 40
Maximum pressure in Use	<u>3 Bar</u>	<u>3 Bar</u>	<u>3 Bar</u>	<u>3 Bar</u>
Maximum flow rate (m³/h) (after pressure losses)	7	12	20	25
EXPOSITION TIME / secondes	2,8"	2,6"	2,3"	2,1"
PERFORMANCE In millijoules at the actual flow rates recommended above. (mandatory standard for drinking water: 25mj)	30 mJ	30 mJ	30 mJ	30 mJ
BALLAST	1	1	1	1
LAMP (number and power)	1 x 33 W	1 x 55 W	1 x 87 W	1 x 105 W
SERVICE LIFE of LAMPS	13 000 h	13 000 h	13 000 h	13 000 h
OVERALL HEIGHT in cm	42,6	69,6	94,2	119,6
DIAMETER of the UV CHAMBERS in cm	15,4	15,4	15,4	15,4
WEIGHT POIDS (without water) kg	4,3	6	8	9,4
INPUT/OUTPUT (diameter in mm) with Unions supplied	50	50	63	75

Safety Warning



NEVER LOOK AT THE ULTRAVIOLET LAMP WHEN LIT WITHOUT USING PROTECTIVE GOGGLES AS IT COULD CAUSE SEVERE INJURIES, BURNS OR EVEN BLINDNESS.







NEVER UNDO THE STAINLESS STEEL TIGHTENING NUT WITH THE FILTRATION RUNNING, AS THE QUARTZ SLEEVE COULD BE EXPELLED FROM ITS HOLDER AT SPEED AND INJURE YOU



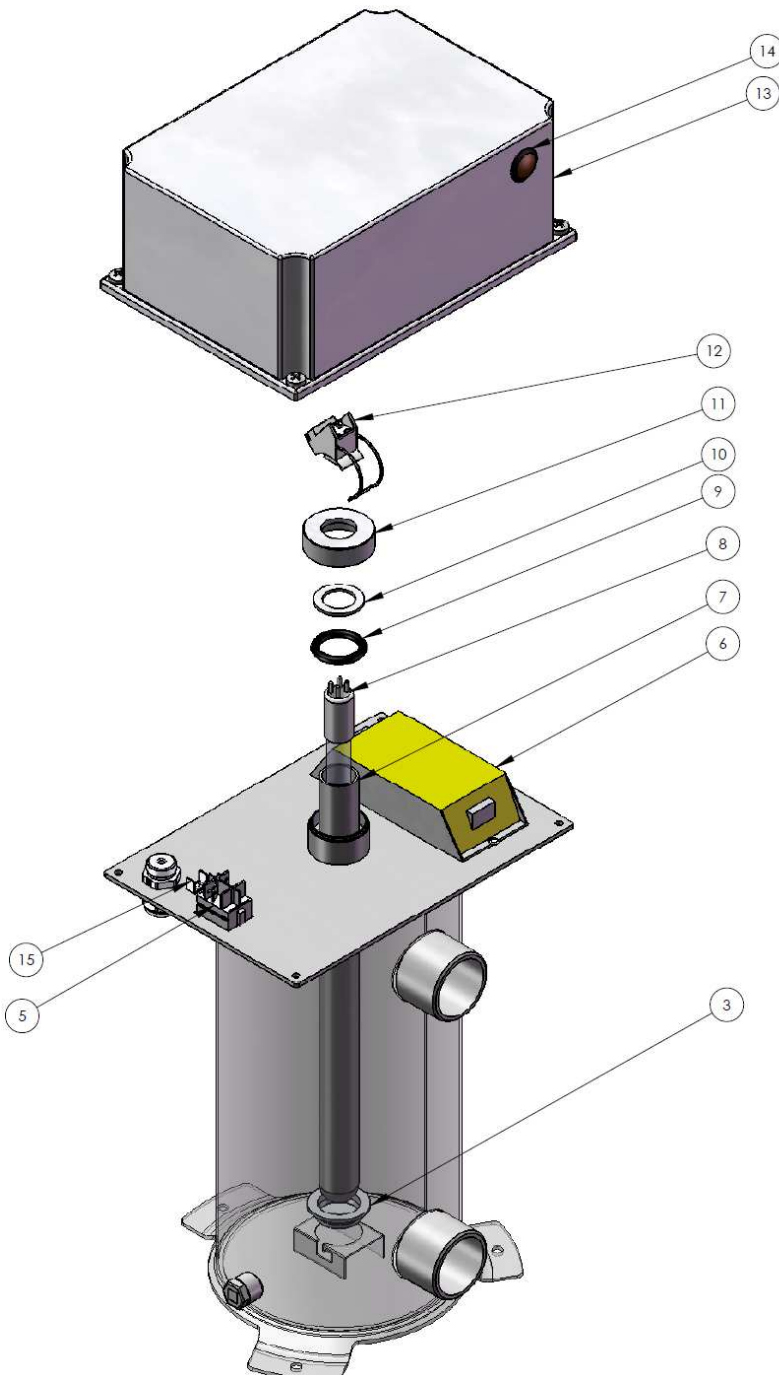
Before attempting to access the connection terminals, all power supplies should be disconnected. If the cable is damaged, it must be replaced by a cable or special assembly available from the after-sales service.

For your safety as an installer and/or user:

1. Read all the instructions in this manual before switching on the ATECPOOL sterilizer

2. WHEN REPLACING THE LAMPS AND/OR DURING THE ANNUAL CLEANING OF QUARTZ SLEEVES, CHECK THAT THE ELECTRICAL PART IS IN PLACE AND CORRECTLY SECURED **BEFORE SWITCHING ON THE STERILIZER.**
3. CHECK THAT THE NUT, WASHER AND O-RING (16-15-14) ARE CORRECTLY POSITIONED, OTHERWISE THE QUARTZ SLEEVES COULD BE EXPELLED FROM THEIR HOLDER AT SPEED AND INJURE YOU.
4. In order to avoid electrical short-circuits, never submerge electrical wires or the ATECPOOL sterilizer in the pool water or any other liquid
5. Disconnect the ATECPOOL sterilizer before all maintenance and cleaning operations
6.  Allow the ultraviolet lamps to cool before handling 
7.  DO not touch the ultraviolet lamps with bare hands. It would leave dirt on the lamps which would reduce their service life. If you touch them, clean them using methylated spirits or spirit vinegar 
8. Do not operate the ATECPOOL sterilizer if the power supply lead is damaged
9. Do not re-start the system without first checking that the electrical part and the sterilizer's upper unit are correctly back in place
10. Do not use the ATECPOOL sterilizer for any other purpose than that for which it was designed

Sterilizer – Exploded view



REACTOR UV 10

REP	Ref PMI	Description
3	JTS003934	Quartz_Guide
5	PIE001949	Switch
6	BAL001422	Ballast_lw20eb65
7	QUA000016	Quartz sleeve_d25x594mm
8	LPE000003	UV Lamp
9	JTS000100	O-ring Ø25x5
10	PIE000659	Washer
11	USI000018	Nut
12	ELE000001	Socket
13	ELE000311	Carter_174x249x100
14	ELE000817	Lamp operating indicator with LED
15	ACC000967	Grounding lug

REACTOR UV 20

REP	Ref PMI	Description
3	JTS003934	Quartz_Guide
5	PIE001949	Switch
6	BAL000025	Ballast_lw20eb65
7	QUA000017	Quartz sleeve_d25x594mm
8	LPE000004	UV Lamp
9	JTS000100	O-ring Ø25x5
10	PIE000659	Washer
11	USI000018	Nut
12	ELE000001	Socket
13	ELE000311	Carter_174x249x100
14	ELE000817	Lamp operating indicator with LED
15	ACC000967	Grounding lug

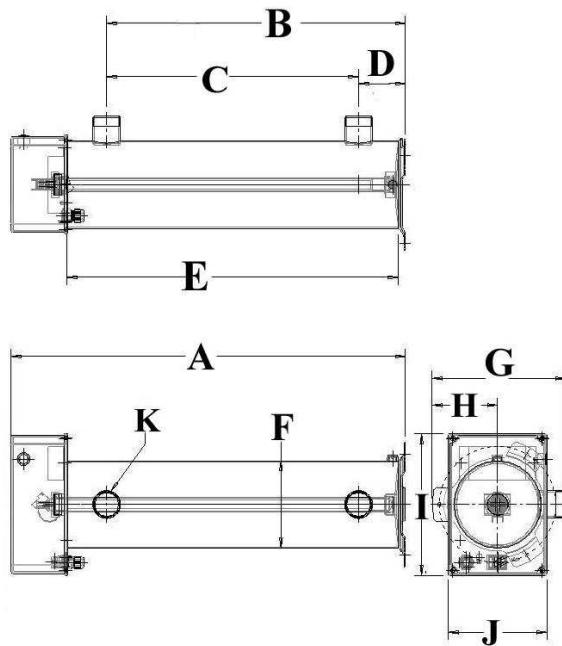
REACTOR UV 30

REP	Ref PMI	Description
3	JTS003934	Quartz_Guide
5	PIE001949	Switch
6	BAL000026	Ballast_lw20eb65
7	QUA000018	Quartz sleeve_d25x594mm
8	LPE000005	UV Lamp
9	JTS000100	O-ring Ø25x5
10	PIE000659	Washer
11	USI000018	Nut
12	ELE000001	Socket
13	ELE000311	Carter_174x249x100
14	ELE000817	Lamp operating indicator with LED
15	ACC000967	Grounding lug

REACTOR UV 40

REP	Ref PMI	Description
3	JTS003934	Quartz_Guide
5	PIE001949	Switch
6	BAL000026	Ballast_lw20eb65
7	QUA000019	Quartz sleeve_d25x594mm
8	LPE000006	UV Lamp
9	JTS000100	O-ring Ø25x5
10	PIE000659	Washer
11	USI000018	Nut
12	ELE000001	Socket
13	ELE000311	Carter_174x249x100
14	ELE000817	Lamp operating indicator with LED
15	ACC000967	Grounding lug

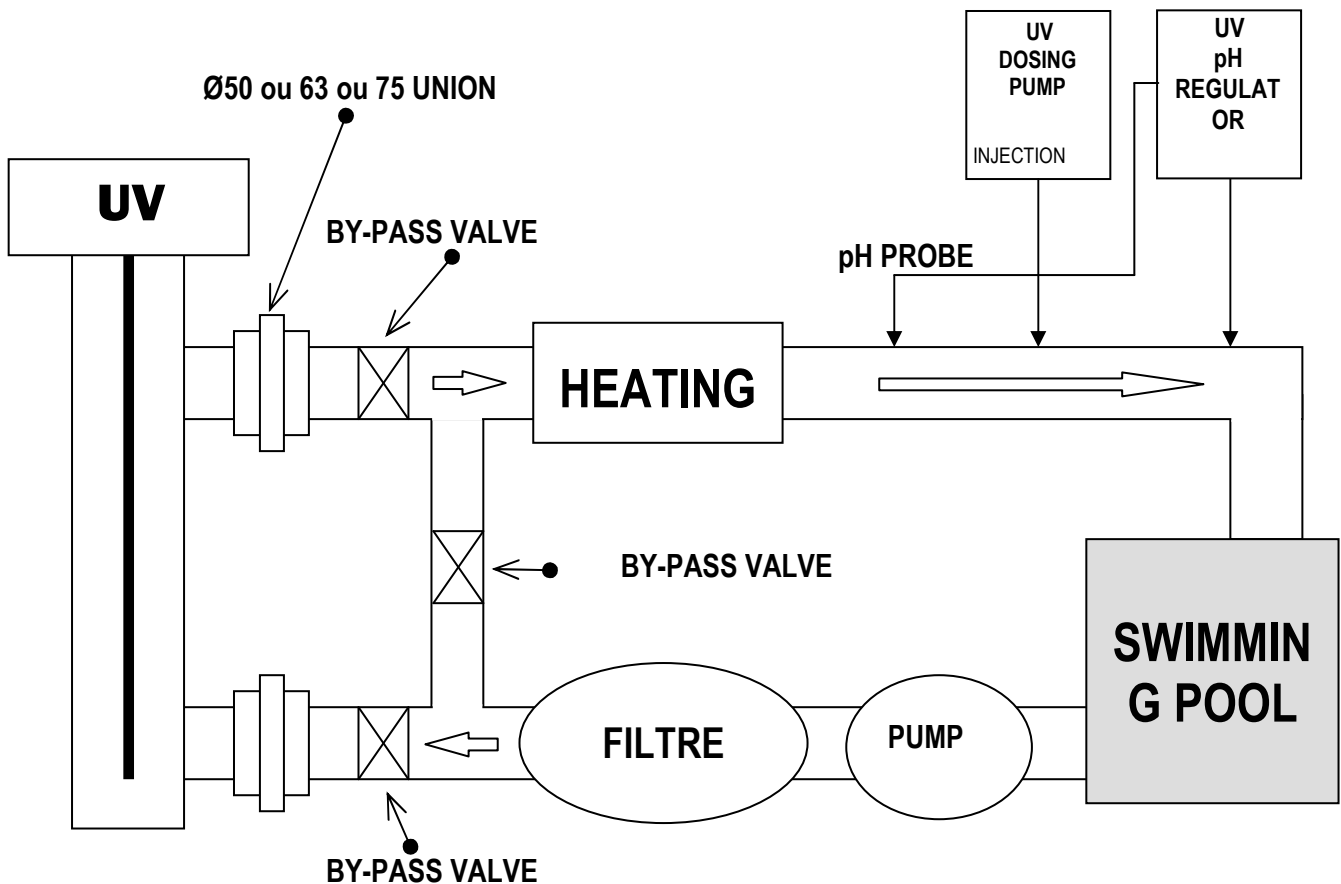
Dimensions



DIMENSIONS in mm (excepted K)

Model	A	B	C	D	E	F	G	H	I	J	K
UV 10	426	275,5	2133	62,5	313	154	223	108	249	174	1"1/2
UV 20	696	545,5	483	62,5	583	154	223	108	249	174	1"1/2
UV 30	942	771.5	689	82,5	829	154	228	113	249	174	2"
UV 40	1196	1025,5	943	82,5	1083	154	233	118	249	174	2"1/2

Standard Installation



RECOMMANDATIONS

Install the Atecpool equipment in the equipment room, respecting the 0.1 and 2 safety areas around the volume in accordance with the current installation rules (NF C15100)



Unless the equipment is dismantled in order to change the lamps and clean the quartz sleeves, leave enough room to remove the lamps – the AVAILABLE HEIGHT in the equipment room must be DOUBLE the total size of the equipment



The ATECPPOOL equipment must be installed on the discharges **after the filter** and **before the heater** (where applicable).

The equipment's water inlet should preferably be at the bottom and, thus, its outlet to the pool at the top. (If necessary it can be positioned horizontally).

The unions provided for ease of fitting and dismantling are supplied with either a 50 mm (UV10 & 20), 63 mm (UV30) or 75 mm diameter (UV40).

If a bypass is used for the heating, the ATECPPOOL equipment should be installed before the bypass

Using clamping collars (50, 63 or 75 mm diameter) secure the REMANENT and pH liquid injectors and pH analysis probe in the correct order, see diagram above.

ELECTRICAL CONNECTIONS

IMPORTANT

The connections must be made by a qualified technician.

A 30mA differential circuit breaker must be present and a fuse or a circuit breaker must be installed.

The power supply must correspond to that shown on the label on the side of the equipment.

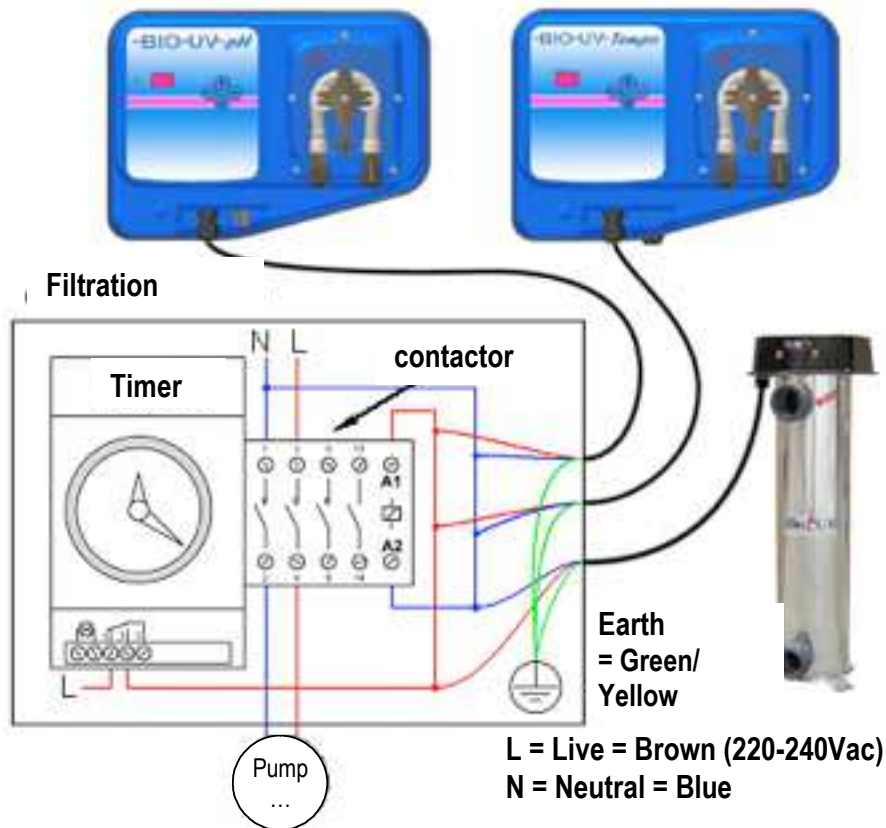
The power supplied to the pH regulator must be **servo-controlled by the filtration**.

(See wiring diagram below).

Before making the connections, switch off the power supplies.

1°/ General case : you have a contactor with a coil supplied with 220-240Vac :

Connect the UV reactor to the filtration unit as shown below:



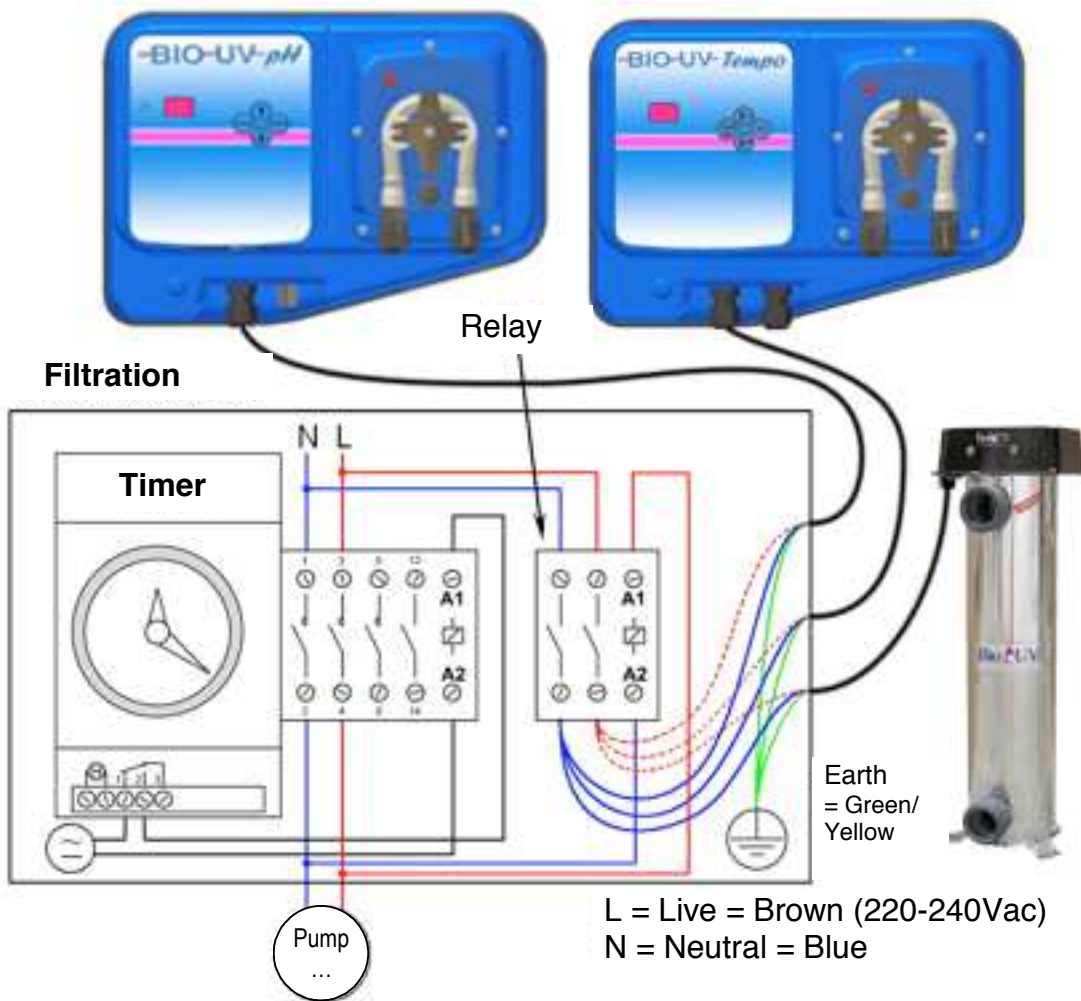
- Connect the UV reactor to the contactor **coil**.
- Check that the fuse or circuit breaker is appropriate for the power of all the connected equipment.



The UV reactor must never be connected to the same terminal strip as the filtration pump(s) and/or to the boosters in your system.

2° Particular case : you have a contactor with a coil not supplied with 220-240Vac :

- Take a relay (not provided) which must :
 - have the same tension on its coil as on the contactor coil,
 - allow at least 5 amperes on its contacts.
- Connect the UV reactor with the advised relay as shown on the drawing below:



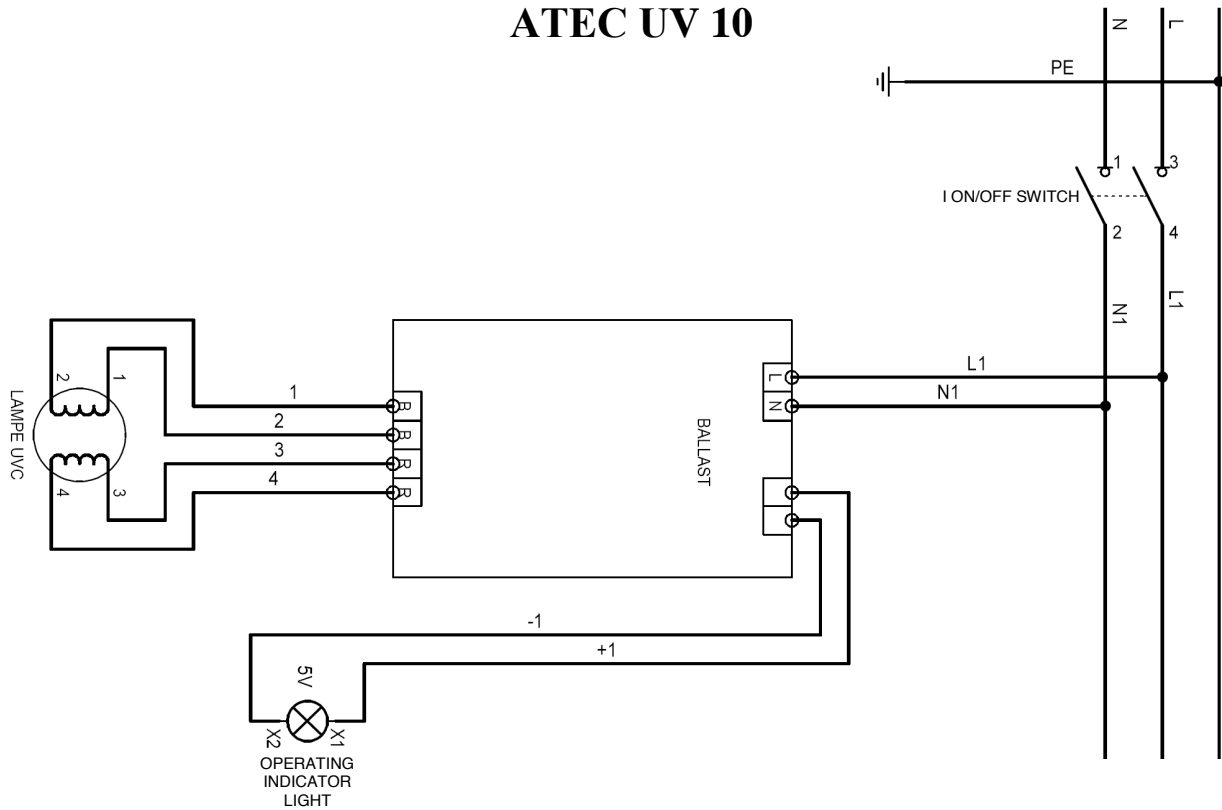
- Check that the fuse or circuit breaker is appropriate for the power of all the connected equipment.



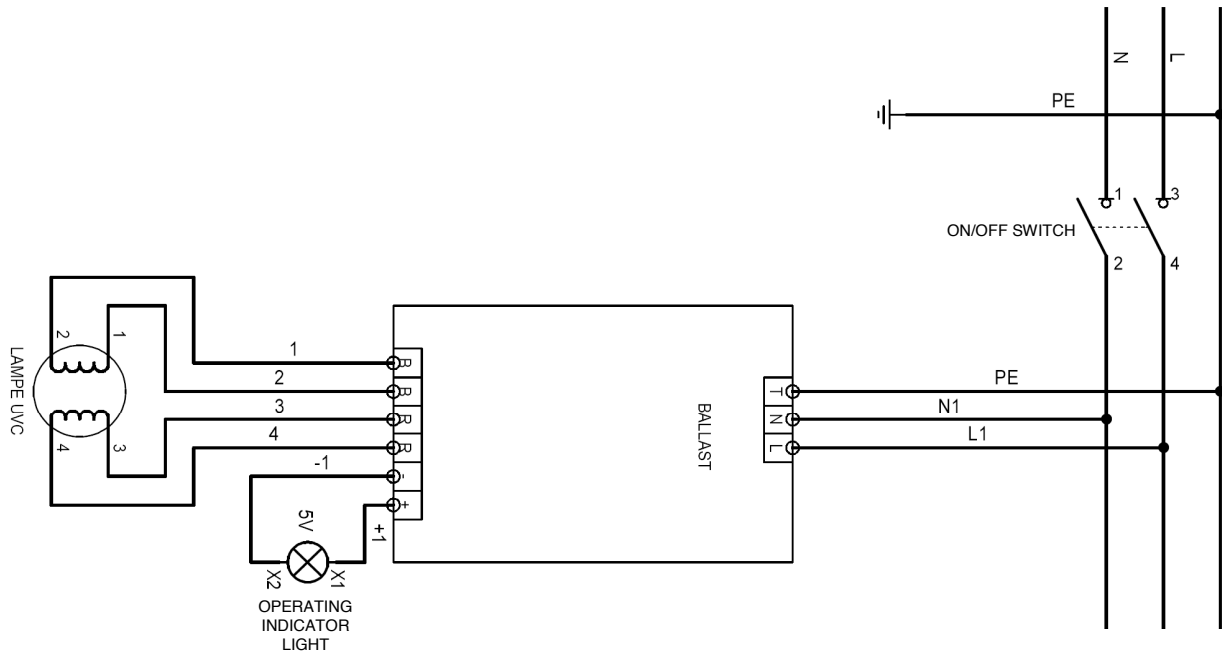
The UV reactor must never be connected to the same terminal strip as the filtration pump(s) and/or to the boosters in your system.

WIRING DIAGRAM

ATEC UV 10



ATEC UV 20 – UV 30 – UV40



N = Neutral / L = Live / PE = Earth

Maintenance

(See exploded view on p6-7)

The ultraviolet lamps are designed to last for 13,000 hours or be switched on 1,000 times, i.e. approximately 2 years for a seasonal outdoor pool, or 1 year for an indoor pool operating 24 hours a day.

In order to prevent premature wear, it is recommended that they be switched on (i.e. 1 filtration cycle) once a day which will also preserve the filtration pump.

Changing the lamp:



It is essential to work with the lamp off and the filtration stopped.

Whether the equipment is installed vertically or horizontally, check that there is sufficient space to remove the lamp in the equipment room.

Disassembly (see part numbers on the diagram on page 7-8)

- Remove the unit (22).
- Take hold of the 4-pin connector (21) and gently pull the lamp upwards rotating it.
- As soon as the lamp is a few centimetres out, remove the connector, take hold of the ceramic base and disengage the lamp from the quartz sleeve **keeping it correctly in the axis.**
- Carry out the operation with care.



Do not drop the lamp in the quartz sleeve as it could break and damage the quartz.

Re-assembly

- Take hold of the new lamp, avoiding touching it with bare fingers outside the upper and lower ceramic bases (if you do touch it, clean it with a soft cloth using methylated spirits).
- Engage the lamp in the quartz sleeve, **keeping it correctly in the axis**, inside the equipment.
- Having engaged it $\frac{3}{4}$ of the way in, connect up the lamp using the connector (21) on the lamp's 4 pins, making sure you get it the right way round (locating pin). **Do not force it.**
- Engage the lamp fully inside the quartz sleeve.
- Refit the unit (22).

Cleaning the quartz sleeve:

Every year you must check that the quartz sleeve has not become opaque due to scale deposits. It should be **completely transparent** so as not to reduce the amount of UV radiation passing through it.

- Stop the filtration and work with the lamps off.
- Close all the valves on the installation.

Dismantling the quartz sleeve



WARNING: they are not guaranteed against breakage.

- Remove the lamp (see previous paragraph).
- Place it on a soft surface where it cannot get broken.
- Undo the stainless steel nut by hand (16)
- Remove the plastic washer (15),
- Insert your thumb or a finger into the sleeve, and gently slide it until the O-ring (14) disengages from its housing.
- Take hold of the quartz sleeve in order to fully extract it from the equipment **ensuring that it remains aligned with the equipment's axis.**

If the sleeve is clean and completely transparent: reassemble it in accordance with the instructions below.

If whitish calcium deposits are present, you must clean it. This is done using spirit vinegar or acid and a soft cloth. **The quartz must not be scratched as this would change the ultraviolet radiation qualities.**

Re-assembling the quartz sleeve:

- Carefully insert the sleeve in the equipment, keeping it aligned with the equipment's axis.
- Using your finger inside the sleeve, position the quartz in its holder at the bottom of the equipment. The quartz should protrude slightly (by the thickness of the O-ring), **it should not fall right to the bottom.** If the quartz is correctly positioned in the holder, when it is pressed it feels springy (pneumatic effect).
- Position the O-ring (14) around the sleeve having moistened it beforehand. Push it fully into its housing using your nail (**do not use any tools**).
- Place the plastic washer (15) inside the stainless steel thread.
- Retighten the stainless steel nut (16) by hand, tightening normally.
- Refit the lamp (see previous paragraph).
- Refit the unit (22).
- Reconnect.

Guarantees

The guarantee for the ATECPOOL equipment range applies as follows:

- **5 years** for the stainless steel reactor (materials and weld) other than in the case of use in a highly corrosive environment (brackish or very salty environment, e.g.: seawater),
- **2 years** for all other components, except for the UV lamp (13 000 hours, depending on the number of switchings on/off)
The electrical components are not guaranteed against over-voltages or lightning damage.



Warning! The quartz sleeves and lamps are not guaranteed against breakage.

- Any defective parts should be returned, giving details of the type and serial number of the equipment, to ATECPOOL who will replace it after technical survey.
- Postage costs will be shared between the retailer and ATECPOOL.
- The guarantee comes into force on the day the equipment is installed: this date shall be communicated to ATECPOOL by returning the completed guarantee validation (see next page) by mail or fax.



Warning: If the guarantee validation is not returned within 3 months of the equipment being purchased, ATECPOOL will assume that the guarantee's effective date is the month and year of its manufacture.

In the event that the equipment is not installed in accordance with the installation instructions and user manuals, ATECPOOL will not accept any responsibility and the guarantees will be null and void.

Conclusion

The ATECPOOL system produces unequalled water quality, comfort and peace of mind. Simple to use, and with reduced maintenance and after-sales service, in order to optimise its reliability.

This physical water treatment, using UV-C radiation, offers an environmentally friendly concept with no chemical residue toxic for either humans or nature.