



UV Coil Sterilisation

Installation, operation &
maintenance instructions
ALP Series

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Aim and contents of this manual

This manual provides basic information on the installation, operation and maintenance of the SIL UV System. This manual describes the characteristics of the equipment at the current time; therefore it may not capture later technological improvements introduced by SPC as part of its constant endeavour to enhance the performance, ergonomics, safety and functionality of its products.

How to keep this manual

The manual must be kept with the unit it refers to. It must be stored in a safe place, away from dust and moisture. It must be accessible to all users who should consult it any time they are in doubt on how to operate the equipment.

1. Safety instructions

SPC believes in a policy of Safety first. We recommend all of our customers who are in direct or indirect use of our product to read the safety instructions first before installation, use of product and performing planned or unplanned maintenance or service.

Graphic symbols



Indicates operations that can be dangerous for people and / or disrupts the correct operation of the equipment.



Indicates prohibited operations.



Indicates important information that the operator must follow in order to guarantee the correct operation of the equipment in complete safety.

Warnings



Like all fluorescent lamps, UV lamps contain small quantity of mercury. If the / a lamp breaks, clean and dispose of with care.



Never expose eyes or skin to ultraviolet light from any source. The purifier must be disconnected from its power source before performing maintenance or service. Personal injury may result if this is not done.



Do not touch the lamp glass without gloves or reduced performance of the lamp may result. Clean lamps with a dry cloth after handling.



UV rays may destroy certain type of filters (polymer or plastic), please protect filters from direct exposure to UV rays.



Use only specified replacement lamps with UV sterilizer units. Use of incorrect lamps can result in damage to the UV system and / or lamps.

2. Technical data

SIL Models	Length (inches)	Wattage (W)	Voltage (V)	UV Output @10" (μ W/sq.cm.)
SIL 64	64	108	165	1618
SIL 48	48	83	165	1520
SIL 36	36	63	80	1446
SIL24	24	48	65	1258
SIL18	18	36	55	900
SIL12	12	26	33	500

3. Unit content

The SIL UV sterilisation unit is comprised of three main components:

1. UV Lamp plus mounting clips and reflector.
2. Connecting cable, plug and protective boot.
3. Control Ballast.

Note: Depending on the installation; the ballast may be supplied:

- a. Loose; for fitting inside the control panel

OR

- b. Installed either singly or in multiples within a sealed aluminium enclosure.

OR

- c. Within a separate control panel. The control panel may provide optional extra features such as ON/OFF control, BMS connectivity, run-time counter and lamp failure indication depending on the unit specification.

- d. Optional installation fixtures are also available to order for fitting the UV lamp assembly inside the AHU.

N.B. Installation: In every case the unit should be installed by suitably qualified and trained personnel.

The Germicidal UV Lamp and reflector should be installed so that the lamp is facing the coil.

Lamps may be installed either Upstream or Downstream of the coil depending on the available space and orientation of the equipment. Lamps should be positioned as indicated on the drawing provided by SPC.

Ideally the coil should be mounted 10-12 inches from the face of the coil. Do not mount the lamp closer than 4" (100 mm) from the coil face.

After Installing the lamp fitting, insert the lamp into the clips provided. Connect the 4-pin socket to the pins at one end of the lamp and push the boot around the end of the lamp.

N.B: Do not touch the UV lamp without gloves. Always clean the lamp surface with a dry cloth after installation.

Connect the lamp cable to the control ballast using the connector provided.

Turn off all power to the unit before connecting the ballast box to a fused and switched 220-240v power supply. This supply must be broken by a micro-switch (by others) on the AHU access door.

Warning Labels: to be fixed outside of the AHU

4. Installation guidelines

The ALP Series installation kit contains the following:

- A) UV lamps
- B) Aluminium reflectors.
- C) Clip for lamp holding
- D) Ballast for each lamp.
- E) 5 metre wire length (standard)
- F) Gaynor boot and plug one each per lamp.
- G) Warning Labels.
- H) Aluminium fixtures (optional at extra cost)

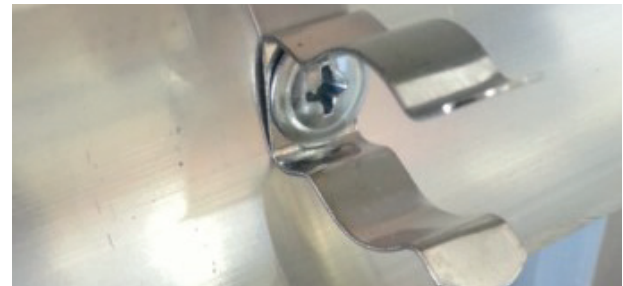
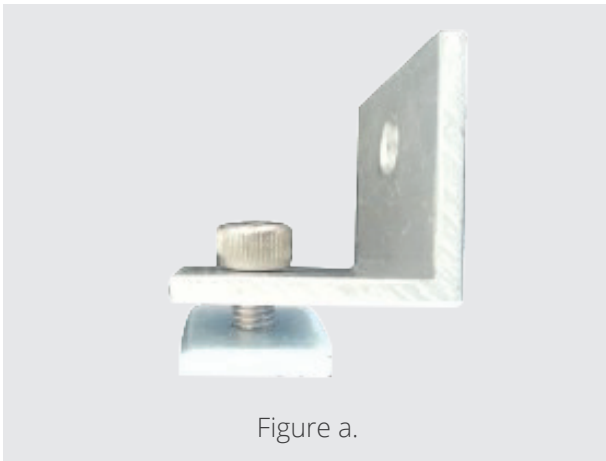
The kit will have the correct fixtures as per the selection of UV lamps and size.

Tools required will be:

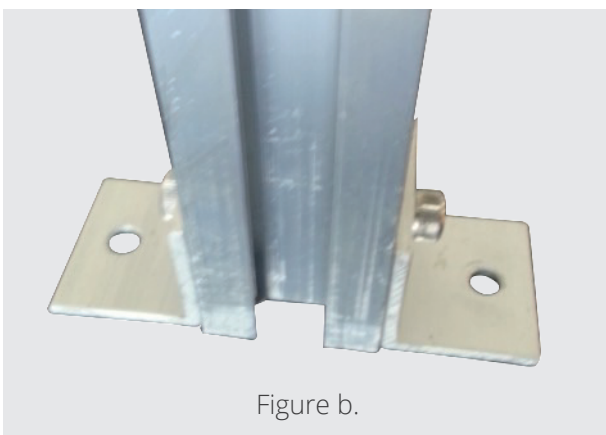
- 1) Allen key set
- 2) Screw driver
- 3) Electric tester

Steps to follow for installation of optional fixtures:

1. Fit the angles on the Aluminium channels with the help of screws provided. Refer figure a & b
4. Screw the clips on the Aluminium reflector to hold the UV lamps. Refer figure c




5. Fit the Aluminium reflectors as per height location shown in selection sheet.
6. Fit the UV lamp on reflector. Refer figure d.



2. Mark the position of Aluminium channels to be fixed on AHU floor as per location shown in selection sheet.
3. Fit the Aluminium channels with angle on the floor and top panel.



7. Wipe the UV lamp with dry cloth.
8. Fit the wire to the lamps.
9. Install the ballast box in a suitable position ideally outside the AHU or inside where the chance of direct exposure to moisture is minimised.

 **Do not drill or screw directly into the ballast box as this may damage the internal components**

10. Power to the Ballast / Control unit must be supplied via a fused supply that is cut when the AHU access door is opened. The unit must be disconnected from its power source before performing any maintenance or service. Never expose eyes or skin to Ultra-Violet light from any source.



5. Operation

The UV Coil cleaning lamp is designed to operate for its rated hours of continuous use.

The lamp should be wired to operate even when the fan is not running to ensure the coil is kept clean from moulds and bacteria.

Never look directly at the lamp while it is operating, as this can cause short term damage to the eyes.

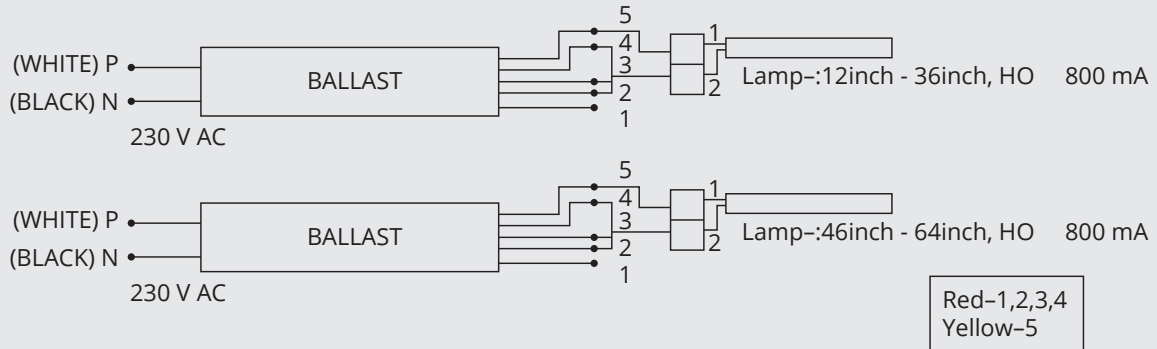
If filters are directly exposed to UV Light they should be of either fiberglass or metal mesh construction. Polyester or cotton material filters are not recommended as they will be degraded by the action of UV light.

6. Maintenance

Disconnect all power before attempting any maintenance or service. Lamps may be cleaned by wiping with a dry cloth.

Take care when removing lamps as they contain small amount of mercury. Used lamps must be disposed off in line with local environment regulation.

7. Wiring Diagram





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