## **UV-FAN**

# High performance professional Air Purifiers with UV-C technology





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## **SECURITY WARNING**

The Company has ensured that every care is taken in the design and production of its machinery. In order to guarantee as far as possible, that it is safe when used correctly. However, the laws on accident prevention require all users of the machinery to ensure that whoever is responsible for installation, maintenance, use and sale of these products is shown the instruction provided by our company and is made aware of the precautions to be taken. According to the circumstances, the appropriate recommendations made in these instructions must be made available, together with any other relative information, to any company or person involved in the installation of LIGHT PROGRESS products.

Only use this appliance for its intended purpose as described in this booklet.

If the appliance is wrongly operated for a purpose other than that for which it is intended, no liability can be accepted for any possible damage. The manufacturer cannot be responsible for any damage to people, animals, and objects caused by use or operation of the appliance contrary to these instructions.

As with all electrical appliances the safety information and precautions contained in this booklet must be carefully observed, including following:

Before maintenance or cleaning ensure that the appliance is switched off and unplugged from the mains supply.

Should the appliance become faulty please contact our authorized Service Centre direct and in case of repairs ask for genuine parts.

Improper repairs may damage the appliance and place the user at serious risk.

### WARNING



Avoid exposure to UV-C rays emitted by germicidal lamps, even for few seconds, as it may cause severe conjunctivitis and erythema.

Plastic or painted surfaces exposed to direct UV-C rays may progressively yellow, similar to a long exposure to sunlight.

The intended use is as a germicidal lamp for sterilization, any other use is improper and dangerous

The lamp, as supplied, cannot be modified or designed for use with accessories or tools.

Disclaimer: All responsibilities and warranty will be void due to tampering or lack of maintenance

- Carefully read the following instruction before use
- Before opening of the UV section, ensure the UVC device is OFF and unplugged in order to avoid exposure to UVC light emitted by the germicidal lamp; It may cause severe conjunctivitis and erythema.
- Remove the protection film from the device before turning on the UV-C lamp.
- This device cannot be operated children and by persons with reduced physical and sensory capacities.
- Ensure all users have the required knowledge and the related instructions about the safe use of the device and the related risks.

Refer to ARPANSA Radiation Standard: Occupational Exposure to Ultraviolet Radiation for additional requirements: https://www.arpansa.gov.au/sites/default/files/legacy/pubs/rps/rps12.pdf

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## **CONVENTIONAL SYMBOLS NOTICED ON DEVICES**



SUBSTITUTED ITEMS MUST BE PERFORMED RESPECTING THE LOCAL LAWS.



RECYCLE THE STUFFS THAT COMPOSES THIS PRODUCT.



OBLIGATION TO CONSULT THESE INSTRUCTIONS BEFORE USE THIS PRODUCT



DANGER OF ELECTRICAL SHOCK; REMOVE TENSION TO THE SYSTEM BEFORE PERFORMING ANY OPERATION.



GENERIC DANGER.



DANGER OF EXPOSITION TO ULTRAVIOLET UV-C RAYS.



THIS DEVICE RESPECTS THE ROHS NORMS.



**USE PROTECTIVE GLOVES** 



WEAR PROTECTIVE GLASSES

#### **MANUAL**



#### **ATTENTION!**

This instruction manual must be preserved and be ever at disposal to consultation; it must follow the device in case of passage of property, and accompany the device until its demolition. It's possible to contact Light Progress' technical office to ask for updated instruction manuals and information.

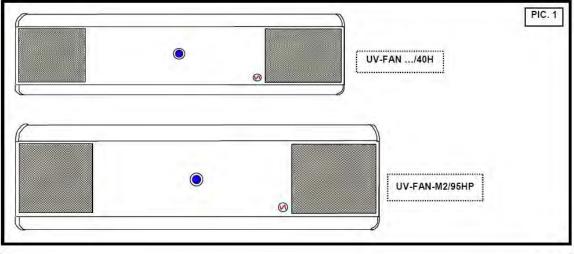
#### **DISPOSAL**

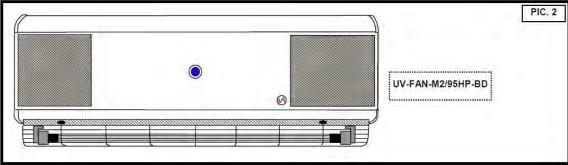


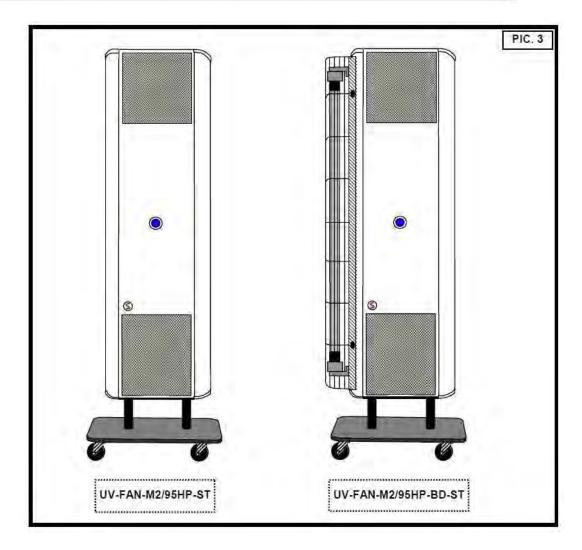
Do not dispose of these products as unsorted municipal waste, but collect them separately as a special waste and entrust them to specialized waste disposal companies. Disposal should be in accordance with Legislative Decree No. 151/2005 (WEEE - Italy), or the law of the country where disposal will occur (WEEE - EC). In case of failure to comply with laws or illegal disposal, heavy penalties are provided. The apparatus consists of plastic parts, electronic components, metal, UV lamps containing mercury (substances danger-

ous for the environment and human health). The dealer is available to the withdrawal of the apparatus used.

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#### **DEVICE DESCRIPTION**

The <u>UV FAN</u> is an air purification device consisting of a structure in extruded aluminum, coated by epoxy powder, and a front cover with small holes that allow air to enter and exit at both ends.

A quiet internal fan conveys air from the external room to the inside of the germicidal box to be purified from microbes and chemical contaminants. The germicidal box contains UV-C lamps and is made of mirror polished aluminium walls, to improve the germicidal power of the lamps by reflection. Air is sanitized by lamps and clean air is introduced again into the environment, without contaminants.

Inside the box there are two **TIOX** filter; Tiox stands for nanostructured titanium dioxide and it is powerful photo-catalyst of the reactions degrading organic and inorganic pollutants and the membranes of pathogenic micro-organisms.

The UV-C rays can cause irritation to skin and eyes, and you should avoid being directly irradiated by the lamps. With UV-FAN, air purification can be carried out 24/24h without contraindications, since the UV-C light is completely confined within the device, thus ensuring the complete safety of people.

UV-FAN also comes with a special porthole to control visually the lamps correct working

#### **APPLICATIONS AND RESULTS**

The air cleaners of the UV-FAN series exploit the properties of germicidal ultraviolet lamps UV-C with emission peak at 235.7 nanometers to remove bacteria and viruses from the air we breathe. This technology has a strong germicidal power against all the microorganisms that may be present in the air and airborne, including **Avian Flu Virus** as H5N1, **SARS**, **influenza**, **Herpes**, bacteria such as **Legionella Pneumophila**, **TBC** but also **Yeasts**, **Molds** and **Fungi**. The percentages of microbial reduction ranges from 99.99% for the bacteria and 99% for the virus, for every passage of the air inside the germicidal box.

UV-FAN can be used, always, even in the presence of people, thanks to the optical labyrinths which retain UV-C in its interior, to the silent fan and to its low energy consumption.

The possibility of continuously working, 24h/24, also allows the so called "air washing", dropping gradually the microbial residue in the air, after few minutes from the start, until it reduces to negligible proportions.

The model **UV-FAN** ... **BD**, with UV-C external lamp integrated, in addition to the function of purifying in the presence of persons as described heretofore (working or diurnal phase), provides the possibility of turning on an external UV-C integrated lamp, to deeply disinfect the air and the surrounding surfaces by direct irradiation (not-working or night-time phase, just before the staff access to rooms).

The two switches can be managed separately, by a common timer.

The external lamp can be supplied with a UVLON-PIPE protection to retain the glass fragments in case of breakage of the lamp.

Thanks to its small size and design, make of FAN a UV versatile air purifier, that is used in places such as hospitals, waiting rooms, patient rooms, maternity wards, medical and dental clinics, laboratories, surgical units, etc.

UV-FAN can also be used in the food production and packaging sectors, where mold and bacteria are removed from the air, allowing a longer and healthier preservation of products, but also in the catering sector (public areas in general), and in all those environments where you need to maintain a cleaner and healthier air.

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#### TIOX® FILTER



The reduction of the environmental atmospheric pollution can be achieved by a natural reaction, called **photocatalysis**.

This is realized by a photocatalyst (TiOx ®) which oxidizes, and then degrades, the pollutants. The TiOx ® is activated by solar ultraviolet radiation (UV) or by an artificial source, such as the high emission UV-C lamps placed inside a UV-FAN device. Titanium dioxide (TiO<sub>2</sub>) nano-structured is the active ingredient that makes up the TiOx ®. As nano-structured, that is decomposed into a gel of particles of linear dimension comparable to one billionth of meter, TiOx ® has a large exchange surface and thus it is an excellent photocatalyst capable of degrading organic and inorganic pollutants such as VOCs, VOC (volatile organic compounds) and NOx (nitrogen oxide) produced by human activity. Photocatalysis transforms the pollutants into salts (sodium and calcium nitrate) and carbon dioxide (CO<sub>2</sub>). Moreover, TiOx ®, thanks to its receptive characteristics due to the fragmentation in nano particles, has the property to oxidize, or to decompose, the cells of bacteria in the presence of UV-C light, contrasting microbial growth. Finally inhibits the formation of bad odors, decomposing toxic gases and odorous compounds that are the source of these unpleasant phenomena and can cause discomfort to people living in indoor environments. Malodorous substances such as ammonia, sulfur and sulfur compounds, are indicators of anaerobic fermentation.

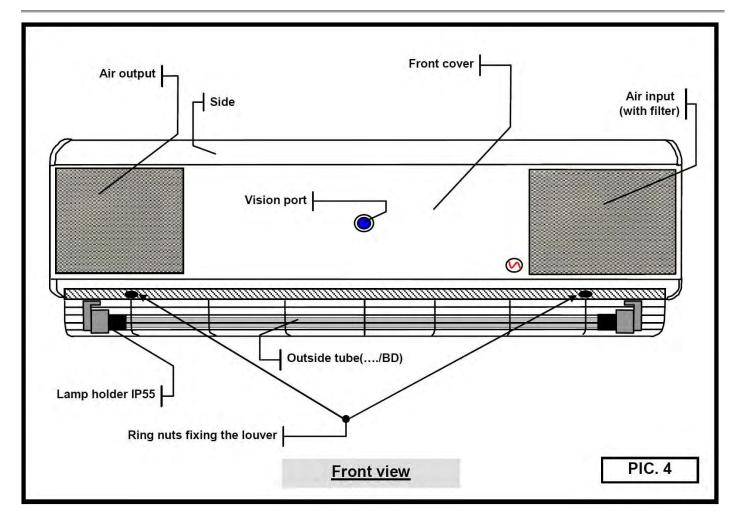


#### **OPERATION**

The device operates in a closed cycle, i.e. it takes air from environment, treats it, and then expells it, sterilized. Treatment entails the following stages (pics. 4, 5, 6 e 7):

- 1 Input of air from the environment through an extremely quiet fan (with mechanical filter).
- 2 Then the air passes through the germicidal chamber where the high intensity pure quartz lamp destroys all the micro-organisms (e.g. viruses, bacteria, moulds). The surface of this chamber is mirrored to increase UV radiation and contains staggered slats (optic labyrinths) at the air intake, and outlet points which block ultraviolet rays.
- 3 Treated air is expelled. The micro-organisms in the air are progressively eliminated due to the continuous flow of the air from outside to inside the device, and vice versa.

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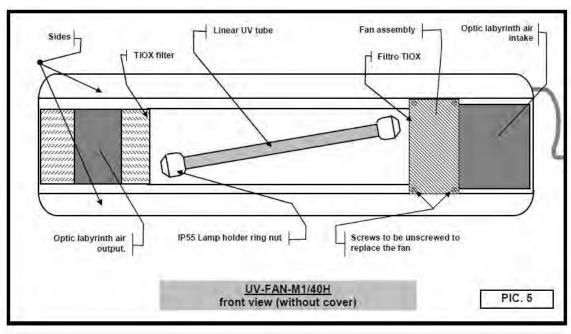
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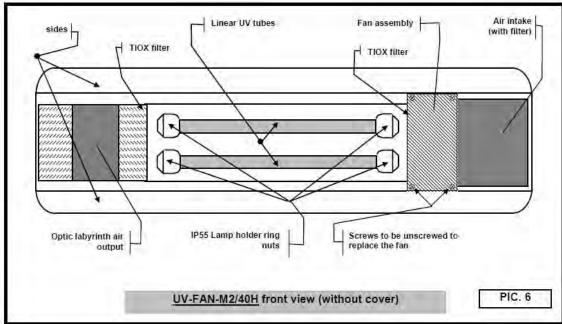
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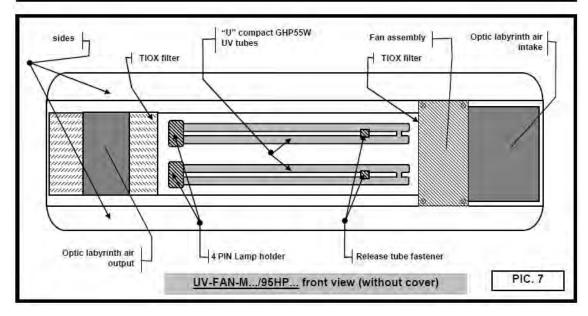
in addition to the already explained UV internal lamps, also feature an UV external lamp, independent for direct radiation, which can work separately (pictures 2, 3 and 4). When UV outside lamp works, there is a sharp reduction of germs in the air environment and on the surfaces reached by UV rays radiation (wall, floor and equipment present in the room).

For example, after 30 minutes of irradiation, the bacterial load which is present in the air volume within 3 meters from the external lamp, is reduced by 99% (Bacillus, Coli, Clostridium, Legionella, Vibrio, Salmonella, Pseudomonas, Staphylococcus, Streptococcus, etc.

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#### **BENEFITS AND ADVANTAGES**

#### a) PHYSICAL ACTION AND ENVIRONMENTAL PROTECTION.

Treatment by UV-C rays is purely physical, and achieves <u>always</u> the same effect; also, there are no problems of overdose. Rather, many methods of chemical treatment involve the use of dangerous products for the environment, and difficult to biodegrade, as well as the risk of contamination of foodstuffs. Also, by the use of chemicals it is likely to develop resistant microbial forms with consequent danger to human health.

#### b) TOTAL SAFETY

Ultraviolet rays are confined to the inside of the device and cannot escape due to the presence of a light-absorbent optical labyrinth at the entrance and exit. Therefore, the air can be treated when operators are present, as much as they are the ones who are introducing the majority of the germs through respiration, transpiration, clothing, etc.

#### c) BEST QUALITY AIR

This system can remain switched ON at all times without any contraindications for people. The level of environmental microbial load is thus maintained constantly low and the "indoor air" quality (IAQ) is improved, as prescribed and recommended by W.H.O. (World Health Organization).

#### d) PRACTICABILITY AND SAVINGS.

The treatment is immediate and ready for use. The maintenance is minimal with low costs of both energy consumption and repairs.

#### ONLY FOR MODELS: UV-FAN-M2/...-BD...:

#### e) DEEP AND CONTINUOUS DISINFECTION

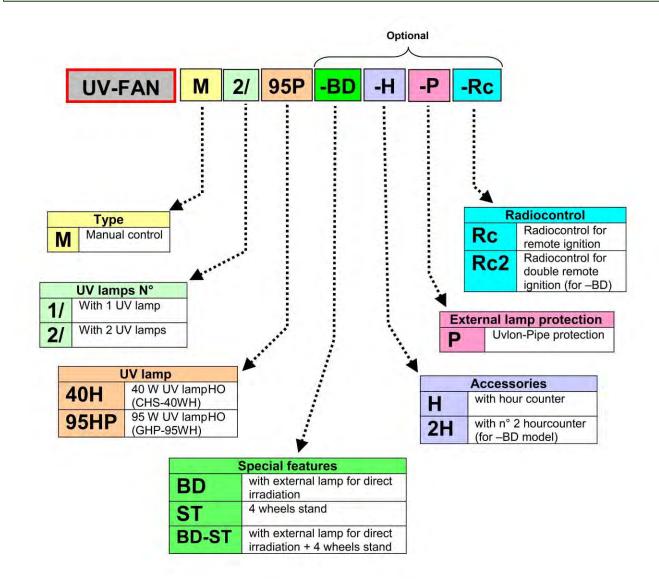
The external lamp of this device can be switched on continuously <u>without people being present</u> (i.e. during the night for 2-3 hours). The disinfection of the air, the machinery, and everything that is contained inside the room allows beginning the work day in ideal hygienic conditions. In this way, the level of microbial load in one site is maintained constantly low.

#### **CERTIFICATIONS**

The UV-FAN action and performance are guaranteed by the <u>Institute of Hygiene of Siena University</u> and by <u>SINAL Laboratories</u> (certification system recognised by the Italian Ministry of Health) which is recognised as highly qualified laboratory, (D.M. 26/02/87, comma 4, Italian regulation 46/82), in accordance with the Good Laboratory Practices (GLP), EEC 88/320, D.L. 27/01/92 n. 120. Documentation available upon request.

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#### **DEVICE CODES**



#### **RECEPTION**

Handle with care as fragile material. Verify the integrity of the packaging, and please be careful not to damage the contents when using sharp blades or cutters to open the box.

Remove the unit from the box, then inspect it immediately to ensure that no damage has occurred during transport. Before installation and using the device please READ CAREFULLY THE SECURITY WARNINGS and all others instructions that follows.



## **WARNING!!!**

It is absolutely forbidden to expose yourself to UV-C, because they cause eyes irritation and skin erythemas.

Therefore. DO NOT open the device cover when it is switched on.

Only for <u>UV-FAN-M2/...-BD e UV-FAN-M2/...-BD-ST</u> models: to avoid accidental exposition to the outer direct UV irradiation lamp in the presence of personnel, it is recommended to install automatic sensors, as position switches on the doors or presence detectors to switch off the outer lamp in case of personnel presence; otherwise, provide danger pictograms on the doors or lighted markers.

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#### **INSTALLATION**

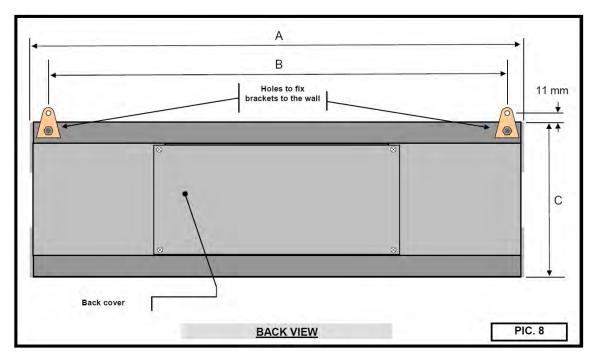
These devices (except for the models with support) should be installed on the wall, at the centre of the room, about 2 m. above ground level (avoid positioning at corners; the air captured and treated by the device must be allowed to circulate through the room unhindered).

The area or cubic area covered by UV-FAN devices is detailed in Table 1.

The final result of the disinfection is however related to a higher or lower value of the outside contribution of germs in the air during UV disinfection.

To install the device on the wall use the two triangular brackets enclosed in the packaging. Screw the brackets to the threaded holes on the back side of the device (pic 11) by use of bolts (M6x10) enclosed in the packaging. Make nr 2 holes on the wall by checking the centre distance between the brackets.

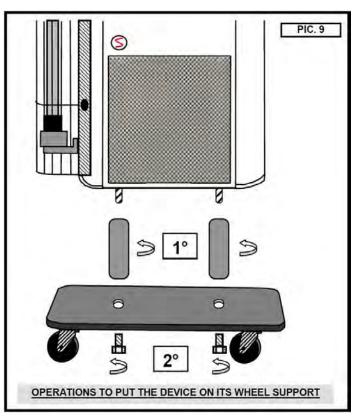
Secure the device to the wall by means of two expanding wall plugs ( $\varnothing$  8 ÷  $\varnothing$ 10 mm.) (not provided).



MODEL	Α	В	С
UV-FAN M1/40	958	755	266
UV-FAN M2/40	958	755	266
UV-FAN M2/95HP	1040	837	326
UV-FAN M2/95HP-BD	1040	837	400

For <u>models with support</u> (pic 3 and 9), secure the device on its wheel support. Connect the lamp coming out from the device to the lamp located at the centre of the support. Hold the support while turning the device until the front part (rounded) of the device matches with the rounded part of the support and, as a consequence, also the holes on the two lamps match. Then, to fix the lamps screw the 2 bolts (M6X10) provided with the device.

Firstly turn the two lamps to the screw at the base of the apparatus, secondly connect the base with the wheels to the two lamps with the supplied screw (M6x20).

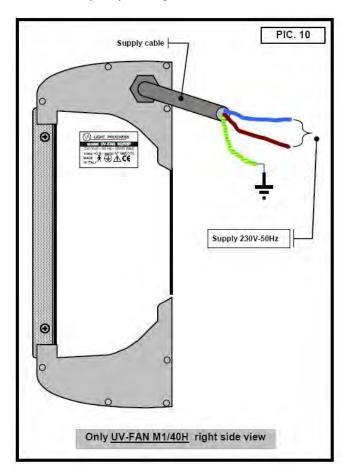


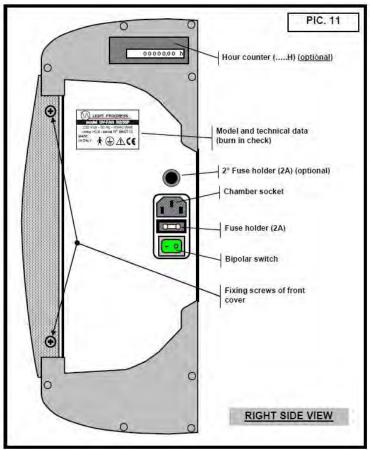
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#### **ELECTRICAL CONNECTIONS**

⇒ It is recommend that the device must be installed by a qualified electrician who should strictly follow these instructions and general regulation for electrical installations.

- ⇒ Before connecting the device verify that specifications on the tag correspond to those of the power supply (variation of +/- 5 % are allowed).
- ⇒ Ensure that the electric supply is suitable for providing the electricity required by the device (see tag details)
- ⇒ for models without switch (ex. UV FAN...-BD), the electrical connection requires a stoppage by means of a multipolar switch.
- ⇒ for UV-FAN M2/95HP-BD models, electricity is supplied by a 4 x 1 mm² wire which comes out of the external box (to power the inner lamps and the fan link to BLUE and BLACK wire; for outer lamp link to BLUE and BROWN wire). The unit must always be earthed (pic. 12).
- ⇒ for models without switch (UV-FAN M1/40H) connect BLUE and BROWN wires, in the 3 x 1 mm² wire which comes out of the external box, to the power supply, and the YELLOW/GREEN wire to the ground system.
- ⇒ for <u>all remaining models</u> simply put the cable, supplied with the device, into the proper plug placed on the power supply box (pics. 11 and 13), and the other end, with SCHUKO plug, into the socket. To operate the device, press the switch placed on the power supply box, by putting it on position **I.**
- ⇒ Ensure that the device is suited to the room into which it is to be installed.
- ⇒ Only for <u>UV FAN ....BD</u> models: to avoid accidental exposition to the outer direct UV irradiation lamp in the presence of personnel, it is recommended to install automatic sensors, as position switches on the doors or presence detectors to switch off the outer lamp in case of personnel presence; otherwise, provide danger pictograms on the doors or lighted markers.
- ⇒ if the device does not have the hour-counter (optional), it is advisable to install a hours counter on the control board to track the exact substitution times of U.V. lamps (once they reached 6,000 hours of operation).
- ⇒ Avoid placing the power supply cable near a source of heat and protect it from sharp corners, waters and oils, since they may damage the device.





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#### **SCHEDULING**

#### ALL MODELS (except for UV-FAN.....BD):

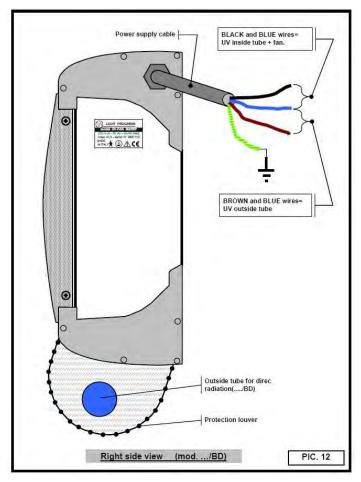
Press the bipolar switch; UV lamps will light up and the fan will begin to work (pics. 11 and 13).

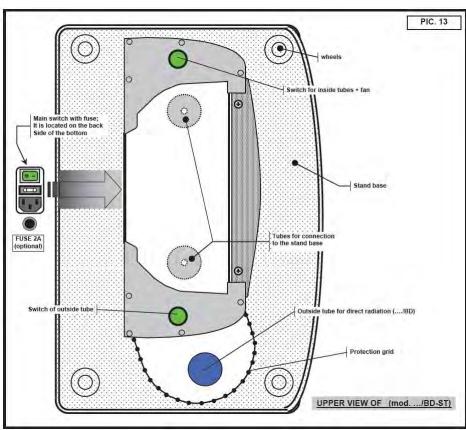
The ignition of the UV lamps can be checked through the porthole placed on the front side of the device (pic. 4).

The device can work 24 hours a day without contraindication.

#### **UV FAN....-BD MODELS:**

For the internal UV lamps (with fan) see above. For the external UV lamp: remember **NOT** to use it in the presence of personnel.





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#### **OPTIONS**

#### **HOUR COUNTER**

- ► UV-FAN-M.../...<u>-H</u>
- ► UV-FAN-M2/...BD...<u>-2H</u>

The hour-counter is available upon request; it is installed on one side of the device (pic. 7), left or right side depending on the models. It allows to check the number of hours of use of the UV lamps (the UV lamps must be replaced after 6.000 hours of use). The hour-counter cannot be reset to "0", to avoid accidental erasures. Each device of UV FAN .../ ...-BD series has nr. 2 hour-counters (on left side): the first one (located on the lower part) refers to the outside lamp and the other one (located on the upper part) refers to the inside lamps.



#### REMOTE CONTROL

#### ► UV-FAN-M../... -Rc

The remote control is useful to turn on the device without touching the on-board device switch. It consists of a receiver inside the device, next to the electronic ballast (pics. 14 and 15) and a transmitter. The operation of the transmitter is the following:



- Pressing the left button on the remote control will turn on the air purifier. If, while turning on, you press the button again, the unit turns off.
- The right side button on the remote control is off

#### REMOTE CONTROL

#### ► UV-FAN M.../...-BD<u>-Rc2</u>

The remote control is useful to turn on the device without touching the on-board device switch.

It consists of two receivers inside the device, next to the electronic ballast (pic. 15) and a transmitter. The operation of the transmitter is the following:

- Pressing the left button on the remote control will turn on the air purifier (for use in the presence of people). If, while turning on, you press the button again, the unit turns off.
- Pressing the right button on the remote control will turn on the outer lamp (for use in the absence of people). If, while turning on, you press the button again, the unit turns off.

Remember to turn on the outer lamp only when people are absent.

#### **MAINTENANCE**

UV LAMP





The most important part of the device requiring maintenance is the UV rays source (UV rays lamp).

Before reaching the lamps, ALWAYS switch off the power supply.

Approx. every 1000 hours of use, clean the lamp with a cloth and methylated spirits.

After 18.000 hours of use the lamp must be substituted. For correct product code of the spare UV lamp make reference to the  $\underline{\text{table 2}}$ .

#### SUBSTITUTION OF UV LAMPS

Inside lamps series ....40H... (pics 5 and 6):

- 1) Remove the front cover by unscrewing the two fixing screws at the two end of the cover by means of star screwdriver.
- 2) Hold the ends of the lamp firmly between your fingers to avoid it twisting.
- 3) Unscrew the ring-nut of the lamp holders and slide them out along the lamp.
- 4) Then turn the lamp 90° to the lamp holder (maintain a firm grip at both ends of the lamp)
- 5) Then first raise one side of the lamp and then the other into a vertical position to the lamp holder.
- 6) Repeat the entire operation in reverse so as to reassemble the lamp.

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#### Inside lamps series ...95HP... (pic. 7):

1) Unscrew the two fixing screws at the two ends of the front cover by means of star screwdriver. Now the front cover can be easily removed by bringing it out (in parallel); in this way it is possible to reach germicidal chamber.

- 2) On the left side take the socket where the "U" lamp is connected.
- 3) With the other hand take the other side of the lamp and raise it slightly upward (approx 15°) so as to release it from the fixing system (lamp-clamp).
- 4) Bring the lamp out from its socket
- 5) Repeat the operations in reverse so as to reassemble the lamp.

#### Outside lamp (pic. 4)

Unscrew the two ring-nuts located on the front side of the protection louver. Turn the protection louver downwards so as to have free access to the lamp. Then see instructions from point 2 (see above series ....40H...).

#### **AIR FILTER**

According to the dustiness of the room where the UV-FAN has been placed, the air filter at the air intake (pic. 4) must be cleaned periodically.

Said filter (made from synthetic extruded material) has the function to capture impurities in the air and therefore to keep the UV filter as clean as possible. For correct product code of the spare air filter make reference to the <u>table 2</u>.

To reach the filter, ALWAYS first turn the device off:

- 1) Unscrew the two fixing screws at the two ends of the front cover (pic. 11) by means of star screwdriver. Now the front cover can be easily removed by bringing it out (in parallel)
- 2). Remove the dirty filter located behind the cover (air intake holes). If the filter is not particularly dirty, it can be washed with water and soap; otherwise, substitute it with a new one.
- 3) Repeat the operations in reverse so as to reassemble everything.

#### **TROUBLESHOOTING**

#### **UV LAMPS**

See maintenance section.

#### PROTECTION FUSE

If the device does not start, make sure that the power supply reaches the socket properly and that the <u>PROTECTION</u> FUSE is unburned.

In the model <u>UV-FAN M1/40H</u> or <u>UV-FAN ...-BD</u>, the fuse is located behind the back cover (pics. 14 and 15):

- 1) Make ALWAYS sure that the device is off.
- 2) By means of a star screwdriver, unscrew the screws located on the back cover. Now you can easily reach the internal part of the device.
- 3) Pull out the fuse holder.
- 4) If the fuse has to be replaced, use a **2A** new one.
- 5) Put the fuse-holder onto its seat.
- 6) Assembly the cover, repeating the same operations in apposite order.

In all the other models, the fuse is located on the right side near the switch (pics. 11 and 13):

- 1) Make ALWAYS sure that the device is off.
- 2) Remove the plug from the socket shaped tray.
- 3) Then remove the fuse-holder by acting with a screwdriver from inside the tray.
- 4) If the fuse has to be replaced, use a **2A** new one.
- 5) Put the fuse-holder onto its seat.

#### FAN

To replace the fan, when damaged, make ALWAYS sure that the device is off and unplugged from power supply (For correct product code of the spare make reference to the table 2):

- 1) By means of a star screwdriver unscrew the 2 screws placed on the front cover (pic. 11). Now, the front cover can be easily removed by pulling it forward (in parallel); now you can easily reach the internal part of the device.
- 2) By means of a 2.0 mm Allen key (pics. 5, 6 and 7) unscrew the 4 screws fixing the fan
- 3) Move it to the right, then move up the upper side and move down the lower side, so that it enters the lower side.
- 4) Now turn the fun 45° clockwise and pull it out.

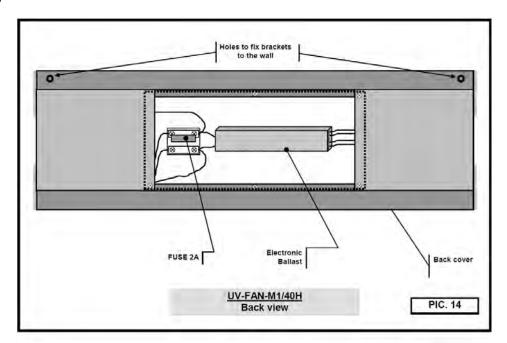
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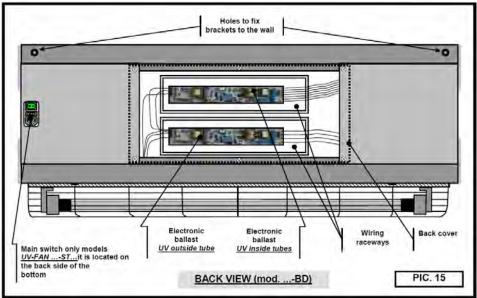
- 5) Disconnect the electrical cables by removing the cable glands from the motor.
- 6) Replace the old fan with the new one (the new fan should be of the same type as the old one) and connect again the cable glandes paying attention to the ground cable.
- 7) Repeat the operations in reverse, so as to reassemble the new fan.

#### **BALLAST**

To replace the damaged electronic ballast of UV lamps, make **ALWAYS** sure that the device is off and unplugged from the power supply (for correct product code of the spare make reference to the table 2):

- 1) By means of a star screwdriver unscrew the 2 screws located on the upper side of the back cover (pics. 14 and 15). Now the cover can be easily removed and you can easily reach the internal part of the device.
- 2) Remove the plastic cover of the wiring raceway.
- 3) Disconnect the electrical cables on the right side (nr. 4 or 7 cables) and the ones on the left side (nr. 3 cables) by pressing the blade of a screwdriver on the slot corresponding to each input wire to set it free. Pay attention to the sequence of connections, because each single cable should return to the same position, at the end of the work.
- 4) By means of a star screwdriver, unscrew the 2 screws fixing the electronic board. Then remove the electronic board.
- 5) Replace the old electronic board with the new one (the new electronic board should be of the same type as the old one) and connect again the electronic cables paying attention to the right sequence.
- 6) Repeat the operations in reverse so as to reassemble the covers.





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#### **TECHNICAL FEATURES**

TABLE n.1							
MODEL	DIMENSIONS LxSxH (cm.)	AIR FLOW (m³/h)	UV LAMPS Nr. x POWER (Watt)	CONSUMPTION (Watt)	REDUC- TION T.M.L	IRRAD. AREA (m²)(h=3 mt.)	IRRAD. VOLUME. (m³)
UV-FAN-M1/40H	96x26x13	70	1x40 W	65 W	>98%	18	45
UV-FAN-M2/40H	96x26x13	70	2x40 W	105 W	>99%	20	50
UV-FAN-M2/95PH	104x32x13	150	2x95 W	220 W	>99,9%	40	100
UV-FAN-M2/95PH-ST	123x32x13	150	2x95 W	220 W	>99,9%	40	100
UV-FAN-M2/95PH-BD	104x40x13	150	2x95+55 W	220+55 W	>99,9%	40	100
UV-FAN-M2/95PH-BD-ST	123x40x13	150	2x95+55 W	220+55 W	>99,9%	40	100

#### **FEATURES**:

	on-free, hig	nly efficient	selective	UV-C lamp	(at 253.7	nm.),	pure quartz.
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☐ Germicidal inner box in pure mirror bright aluminium.

Extruded body made of epoxy powder coated and lacquered aluminum.

☐ Specific electronic ballast for UV-C rays lamps.

□ Continuity of treatment 24h/24; use in the presence of people.

□ Powerful UV-C lamps .

□ All used materials are tested to resist to intense UV-C radiation

TiO<sub>2</sub> filter to remove organic and inorganic pollutants (optional).

Porthole to check lamps working.

□ Noise: less than 70 dB(A).

□ Vibrations: less than 0.5 m/s²

#### Only for UV-FAN-M2/...-BD...models:

Reflector in extremely pure mirror bright aluminium.

☐ Stainless steel AISI 304 protection grid (external lamp).

TABLE n.2	SPARE PARTS					
MODEL	INTERNAL UV-C LAMP	EXTERNAL UV-C LAMP	AIR FILTER	FAN	INTERNAL BALLAST	EXTERNAL LAMP BALLAST
UV-FAN-M1/40H	N°1 CHS-40WH		F25	TAS-12B	EB-55P	
UV-FAN-M2/40H	N°2 CHS-40WH		F25	TAS-12B	EB-75H	
UV-FAN-M2/95PH	N°2 GHP-95WH		F55P	TAS-18B	N°2 EB-75H	
UV-FAN-M2/95PH-ST	N°2 GHP-95WH		F55P	TAS-18B	N°2 EB-75H	
UV-FAN-M2/95PH-BD	N°2 GHP-95WH	CH-55WH	F55P	TAS-18B	N°2 EB-75H	EB-55P
UV-FAN-M2/95PH-BD-ST	N°2 GHP-95WH	CH-55WH	F55P	TAS-18B	N°2 EB-75H	EB-55P

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#### LABEL AND SYMBOLS

#### Example:





SYMBOL	$\triangle$		€€
MEANING	Warning! Check the attached documentation	GROUND TERMINAL (The unit must always be connected to the ground)	Device with <b>CE</b> certification.

#### WARRANTY

All products made by LIGHT PROGRESS are manufactured using only materials of the higher quality, and are subjected to rigorous testing, and are guaranteed to be free of factory faults according to current law and regulations.

♦ Minimum requirements for warranty validity

Warranty will be considered valid only in case of possession of the purchase document.

♦ Warranty limits

Warranty excludes

- ◆ Damages caused by not following the instructions that accompany the product at purchase.
- ♦ Periodical controls, maintenance, repairs or replacements of parts due to normal wear.
- ♦ Consumable parts.
- ♦ Use of incompatible spare parts or consumables; Compatibility is assured only by use of products purchased from or recommend by **Light Progress**.
- ◆ Damages caused by modification of device / system without **Light Progress'** previous consent.
- ♦ Improper use of the product, falling or crashes.
- ♦ Modifications or repairs made by unauthorized personnel.

For defective materials return, you must request the return merchandise authorization (RMA) sending an email to info@lightprogress.it or calling the number +39.0575.749255.

Once you receive the module, it has to be filled up in every part and sent via email to info@lightprogress.it or via fax to +39.0575 789929 to obtain the RMA number that will authorize the shipments of the goods to Light Progress warehouse. Only authorized goods will be accepted, otherwise it will be refused and sent back to the sender on ex-works conditions. The packages must be sent on DDP (Delivery Duty Paid) with packaging suitable for transport. RMA number is valid up to 10 working days from release date.

#### MANUFACTURER RESPONSIBILITY AND COMMITMENTS

- Light Progress do not assume any responsibility for any damage to persons or property, due to failure to follow these instructions. We recommend you to carefully read all the given instructions.
- The manufacturer agrees with the buyer to provide, upon request, schemes of circuits, component parts lists, instructions for calibration of lamps and other information, which are useful to repair those parts that the manufacturer considers repairable.

The company reserves the right to make changes without prior notification or public notice.

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## **DECLARATION OF COMPLIANCE**

We, LIGHT PROGRESS S.r.l., hereby declare under our own responsibility that the following units of own production:

#### **UV-FAN** series

are in accordance with EEC directive 2014/30/EU (Electromagnetic Compatibility)
are in accordance with EEC Machinery Directive dispositions 2006/42/EU
are in accordance with EEC Low Voltage Directive 2014/35/EU
are in accordance with EEC (RoHS) 2011/65/EU (D.Lgs 4 Marzo 2014, n.27)

#### **TECHNICAL STANDARDS APPLIED**

UNI EN ISO 12100:2010 Safety of Machinery - Basic Concepts, General Principles for Design - Risk

assessment and risk reduction

UNI EN ISO 13857:2008 Safety of Machinery - Safety Distances to prevent danger zones being reached

by the upper and lower limbs (2008)

ISO 14120:2015 Safety of Machinery - Guards - General Requirements for the Design and

construction of fixed and movable guards

UNI EN ISO 13849-1:2016 Safety of Machinery - Parts of the Control System related to the Safety - Part 1:

General Design Principles

UNI EN ISO 14119:2013 Safety of Machinery - Interlocking devices associated with guards - Principles for

design and selection

CEI EN 60204-1/2016 Safety of Machinery - Electrical Equipment of Machines. Part 1: General Rules

(2010)

EN 61439-1:2011 Low-voltage Switchgear and Control Gear Assemblies. Part 1: General rules

#### **FURTHER TECHNICAL STANDARDS APPLIED:**

IEC EN 60335-1 "Safety of household electrical appliances and similar" Electronic Ballasts for the control of the lamps in accordance with the standard EN 60928. Germicidal UV-C Lamps in accordance with EN 61199.

Electrical Protective Measures in accordance with IEC 70-1, EN 60229.

Anghiari, 1.16.2020

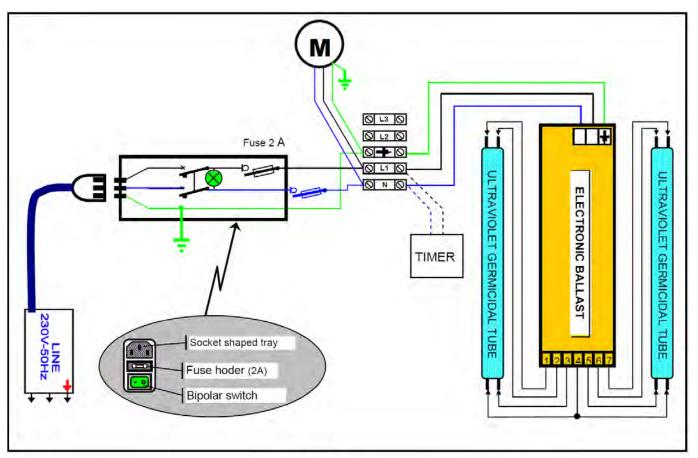


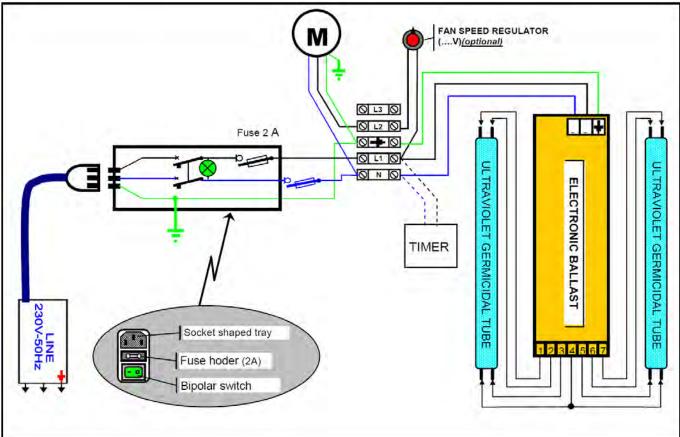
Responsible for Standards: Dr. Aldo Santi

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#### **CIRCUIT SCHEME**





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Notes:	

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