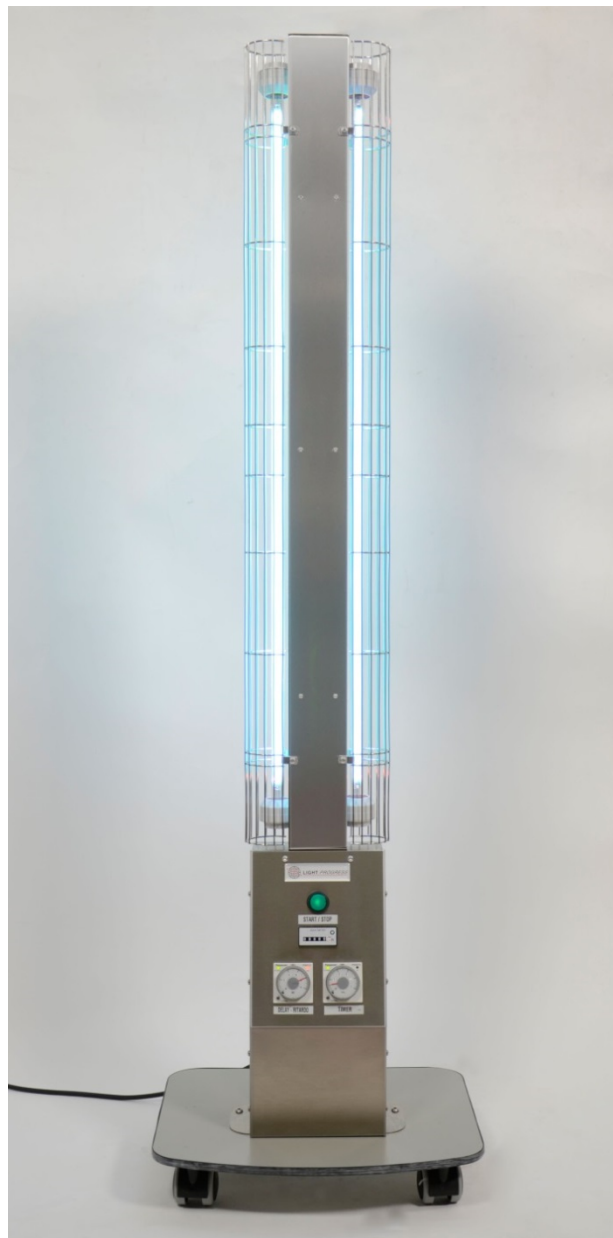


# UV-STICK E2/75H-ST-NX-NT

***Germicidal UV-C Device for Disinfection by Direct Irradiation***  
***Portable on wheels***

**MODELS:**

**UV-STICK E2/75H-ST-NX-NT**



## SECURITY WARNING

◆ Our 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 main 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 exposition to UV-C rays emitted by germicidal lamps, even for few seconds, it may cause severe conjunctivitis and erythema**
- ◆ **Plastic or painted surfaces exposed to direct UV-C rays may progressively yellow, as after 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, can not be modified or designed for use with accessories or tools**
- ◆ **We disclaim all responsibilities and void the warranty in case of tampering or lack of maintenance**

- **Read carefully the following instruction before use**
- **In case of opening of the UV section, must be provided a shut-off of the UVC devices 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 light-on the UV-C lamp.**
- **This device can be used by children with no less than 8 years and by persons with reduced physical, sensory or mental capacities or with no experience or knowledge, as long as under supervision or often they have received the related instructions about the safe use of the device and the related risks. Kids do not have to play with this device.**

## 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

### STORAGE OF THIS MANUAL



**ATTENTION!**

**This instruction manual must be preserved and must always be kept available for consultation; it must follow the device in case of transfer of ownership, and accompany the device until its demolition.**

To request the updated instruction manual and to ask for all other information needed, it's possible to contact Light Progress' technical office.

### DEMOLITION AND 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 dangerous for the environment and human health). The dealer is available to the withdrawal of the apparatus used.

## DEVICE DESCRIPTION

**UV STICK E2/75H-ST-NX-NT** is a two lamps germicidal device, placed on a stand, with four wheels for easy mobility. It works on direct radiation at 360 degrees and sterilizes irradiated air and surfaces. The UV-C lamps, with emission peak at 235.7 nm. (nanometers), have a strong germicidal power against all micro-organisms (molds, bacteria and viruses).

All equipment is composed of (picture 1):

A) **Metal stand:** painted steel base plate, with 4 swiveling wheels.

B) **Control Unit:** stainless steel (AISI 304), equipped with bipolar magneto-thermal switch, two rotary knobs for ignition delay and treatment duration setting, start/stop button, hour meter for UV lamps replacement.

C) **UV unit:** with 2 UV-lamps, protected by stainless steel grid (AISI 304). The body is made of stainless steel with mirror polished aluminium reflector, which increases performance reflecting a higher percentage of UV-C rays.

## APPLICATIONS AND RESULTS

Each UV-STICK series can be installed in any type of environment to achieve a deep disinfection of air and surfaces, even those difficult to be reached by traditional systems.

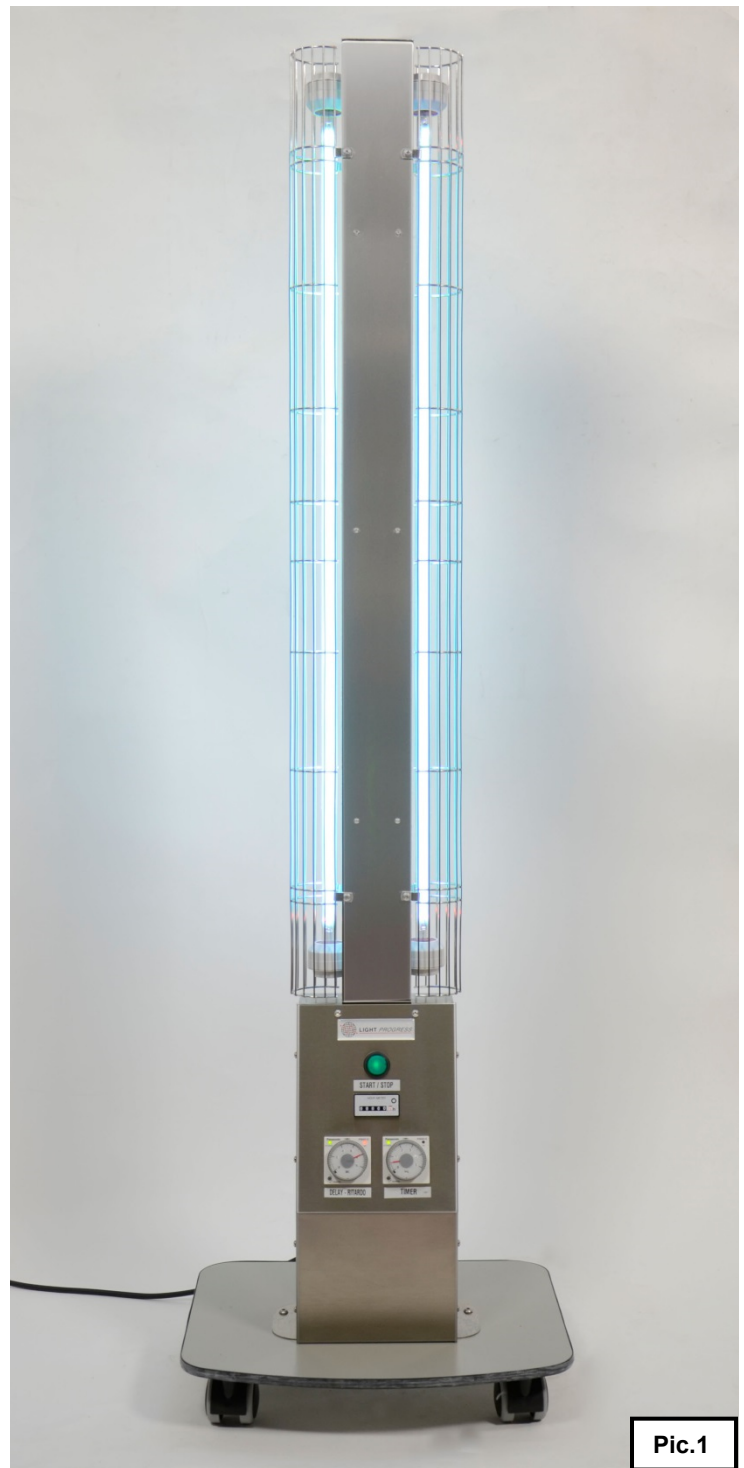
When turned on, it gets a strong reduction of microbes in the air and on surfaces. For example, in 8 minutes at a distance of 3 meters, it achieves a 99% reduction of bacteria such as: Bacillus coli, Clostridium, Legionella, Vibrio, Salmonella, Pseudomonas, Staphylococcus, Streptococcus, etc..

Thanks to natural air circulation, even microbes located in hidden areas are continually drawn towards the irradiated area, so that their overall level progressively decreases.

The use is permitted only in absence of staff or if radiation is adequately shielded.

The device can operate during personnel break from work. Timer can be used to manage the switching off immediately before the start of work, so that workers can have perfectly disinfected room.

Switching on and off is triggered by dedicated control unit, equipped with two timers to manage ignition delay and treatment duration.



**BENEFITS AND ADVANTAGES**

a) DEEP AND CONTINUOUS DISINFECTION

This device can be switched on continuously without people being present (i.e. during the night for 2-3 hours). The disinfection of air, 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.

b) PHYSICAL ACTION AND ECOLOGICAL PROTECTION

Treatment with UV-C rays is purely physical, always allowing treatment with the same efficiency; there is no danger of overdosing. In contrast, many chemical treatment methods involve the use of products that are risky and difficult to biodegrade, with consequent hazards to human health; besides, the use of chemical products, in contrast to UV-C rays, could develop resistant microbial forms.

c) PRACTICALITY AND ECONOMY

Treatment is immediate and ready to use. Maintenance is minimal with low costs of both energy consumption and maintenance.

d) IMMEDIATE EFFECT

Effective treatment (99.9% bacteria reduction) takes just a few minutes.

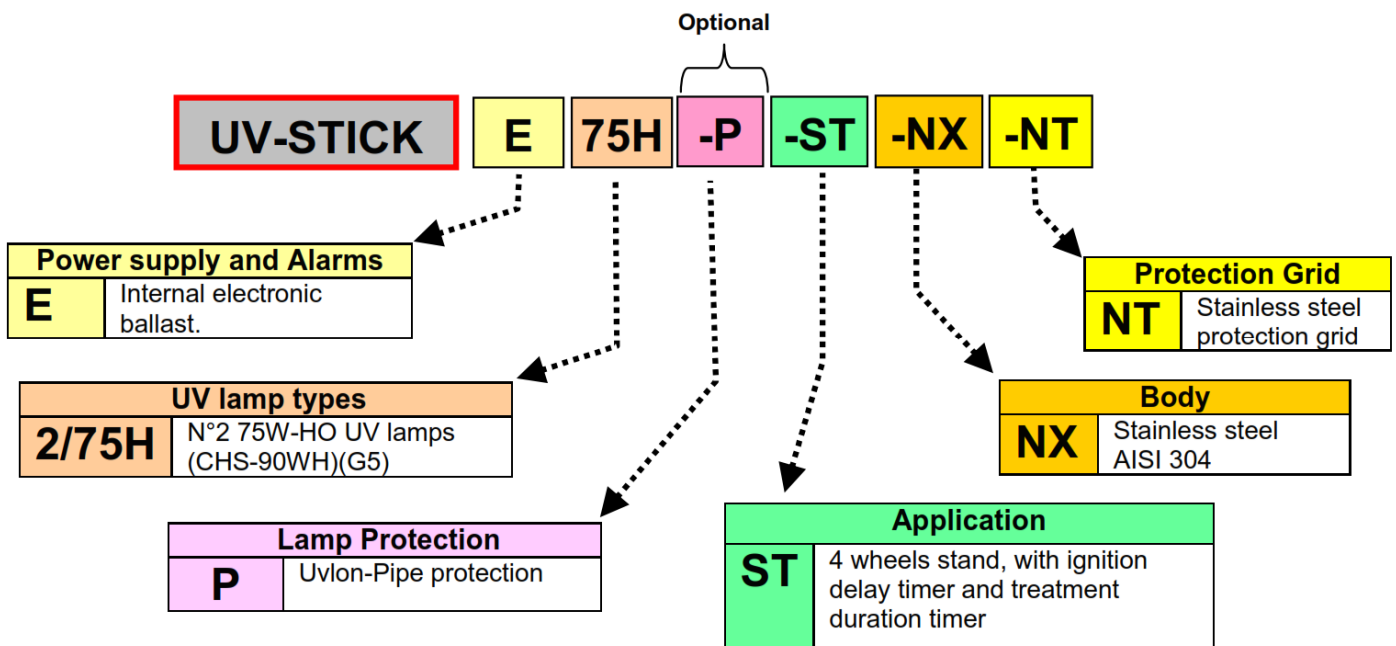
e) NO CHEMICAL/PHYSICAL CHANGES

Treatment is cold and dry; it causes no organoleptic or qualitative changes in the food.

f) NO DANGER OF GLASS DISPERSION

With special UVLON® protection, there is no danger of glass fragments dispersion resulting from any breakage of UV-C lamps.

**DEVICE CODES**



**RECEPTION AND ASSEMBLY**

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 use of the device please **READ CAREFULLY THE SECURITY WARNINGS** and all others instructions that follows.

For packaging and transport reasons, the entire unit comes in two parts: metal stand with wheels, and UV unit . It is necessary to assemble the UV unit to the base with the supplied screw kit (picture 2) .

We recommend to follow the following assembly procedure:

- Place the base plate vertically, like shown on picture 3, with semicircular side upwards. Align the top hole with the corresponding hole on the unit, insert the hex head screw then tighten by hand or with the aid of a key. Repeat with the bottom hole (picture 4).



**Pic. 2**

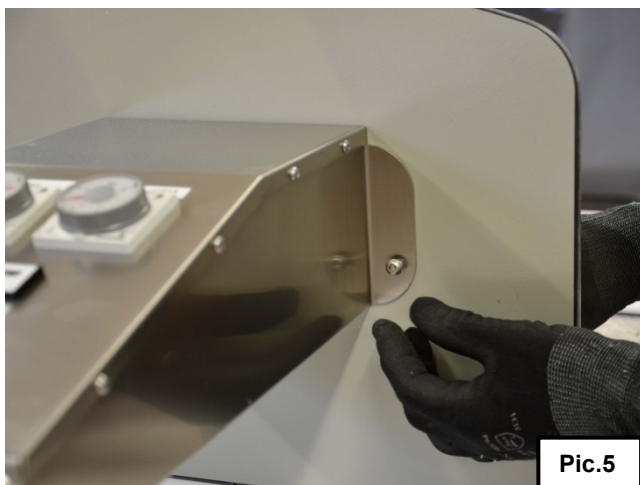


**Pic.3**



**Pic.4**

- On the other side of the plate, insert the two hexagonal socket head cap screws into the holes at the bottom of the control unit (picture 5), then tighten it with the self-locking nuts (picture. 6).



**Pic.5**



**Pic.6**

- Firmly tighten the four screws. It is now possible to place the device on its wheels in vertical position, and to connect the power cable to the dedicated socket on the back of the control unit.

## INSTALLATION

Take the device to the room to be disinfected, and place it almost at central position. In case of more than one device, you should place them so that UV irradiation is uniformly distributed, avoid creating shaded areas.

The area/space covered by the UV-STICK devices is shown in Table 1. Final disinfection results are in any case dependent on the amount of germs coming in from the external environment.



## WARNING !!!

**Remember to switch on the device ONLY IF there is a concrete shield and no accidental exposition to the rays by the personnel.**

To avoid exposition to UV-C rays please provide a total shielding of the modules, or automatic turning OFF devices at the entry doors in the environment treated. There must be no direct irradiation of the personnel.

To shield the devices, materials with opaque surfaces such as stainless steel or aluminium can be used, but also transparent materials such as glass or Lexan®; to have further information please contact us.

To improve safety we suggest you to add light signs or signboards to report the potential danger.

## SCHEDULING

### UV-STICK -E2/75H-ST-NX-NT

#### With timer for ignition delay and treatment duration setting.

Insert the plug into the wall socket and turn the device on using the switch on the back of the control unit. The green control light of the switch will confirm the activation of main power source.

It is possible to set treatment duration and ignition delay, for taking time to comfortably step back from the device and avoid accidental expositions to UV-C rays.

The ranges of both adjustments can vary from a minimum of a second to a maximum of 50 hours.

Two settings must be made:

- ◆ IGNITION DELAY DURATION (before sterilization starts)
- ◆ TREATMENT DURATION

#### OMRON model

Proceed with the following steps: (see figure 7A).

First of all you have to set the desired full scale by acting on the two cross-shaped screws at the bottom of the chronometer

1) To set up the switch-on delay, please use the two full scale screws [1] (Delay/Ritardo). First you should turn the screw on the right to set the time-unit, we suggest you use minute ("min"); this will measure the time of switch-ON delay, during this time the operator should be able to get out of the room where the treatment has to be done. To set this delay value act on the left screw and choose the value, we recommend a time interval of 1-3 (min).

To choose the disinfection time, use the two full scale screws [2] (Timer). We suggest you set up "min" as time-unit and choose a time interval "0-30" to get a good treatment.

2) now set the desired times by acting on the external "ring" in each chronometer as follows:

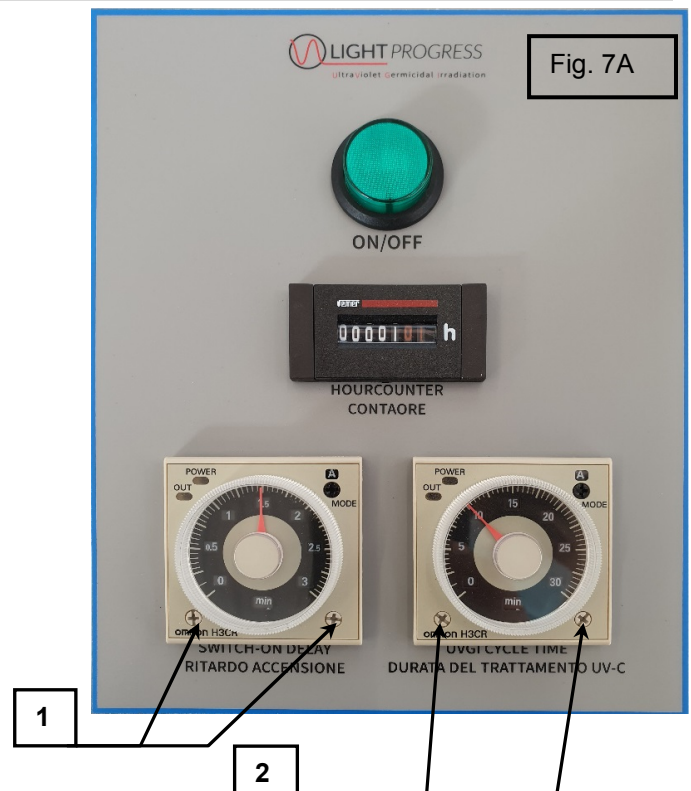
To set the delay when the chronometer is switched on, turn the "Delay- ritardo" ring on the left (moving the red arrow).

To set the disinfection time you must use the "Timer" on the right, turning the external ring, too. We recommend setting the red arrow from 5 min. to 25 min.

3) When you have finished setting the times, press the START/STOP button to start the program.

The button will turn on and start programming.

4) At the end of the cycle, press START/STOP again (the light will turn off) to finish the operation.



**WARNING:** the screw above the "MODE" marking must not be turned, it must remain in position "A".

**FINDER model**

Proceed with the following steps: (see figure 7A).

First of all you have to set the desired full scale by acting on the two cross-shaped screws at the bottom of the chronometer

1) For the "SWITCH-ON DELAY" the two full scale screws [1] must be used. It is advisable to turn the screw on the right by setting the unit of measurement relative to the time of leaving the room, we recommend using the minutes ("min"). The left screw acts on the numerical value of the power-on delay, we recommend the time interval of 0-5 (min).

For "UVGI CYCLE TIME" the two full scale screws [2] (as above) must be used. We recommend the time interval "0-10" and "min".

2) At this point, set the desired times by acting on the ring of each chronometer as follows:

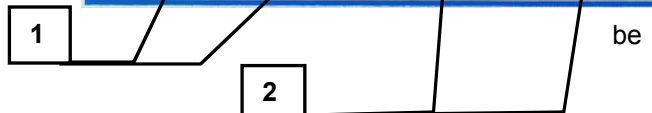
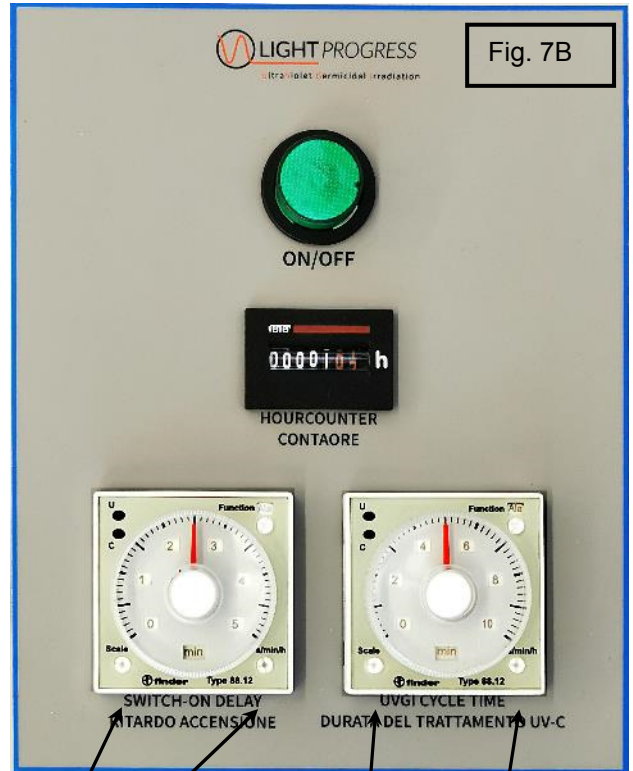
To set the switch-on delay, you must act on the ring with the red hand of the chronometer on the left ("SWITCH-ON DELAY").

To set the duration of the disinfection, turn the ring with the red hand of the chronometer on the right ("UVGI CYCLE TIME"). It is recommended to set the red hand from 5 min. to 10min.

3) When the time setting is finished, press the ON/OFF button to start the program. The button will turn on and start counting the power-on delay time that will allow you to leave the room and then continue with the UV-C treatment.

4) At the end of the cycle, press START/STOP again to finish the operation (the light will turn off).

WARNING: the screw under "Function" marking must not be turned, it must remain in position "ala".





**ELECTRICAL CONNECTIONS**

- ⇒ We suggest you to let a qualified electrician install this device, following these instructions and the electrical scheme, as well as CEI norms.
- ⇒ Before connecting the device to the electrical line, make sure that the labelled data on the device are the same as the ones of the electrical line; we remind you that the electrical supply power of this device is 220-240V, 50/60Hz.
- ⇒ Make sure that the electrical system is capable of providing the supply current required by the device (please read the label).
- ⇒ The connection to the electrical line needs a multipolar switch.
- ⇒ The connection to the electrical line must be made by the supplied cable.
- ⇒ The use of junction devices in which connection is made via screws, nuts, or other means, is necessary to connect the device to the electrical line.
- ⇒ Protect the power supply cable from high temperature, sharp corners, water, oils.

**MAINTENANCE**

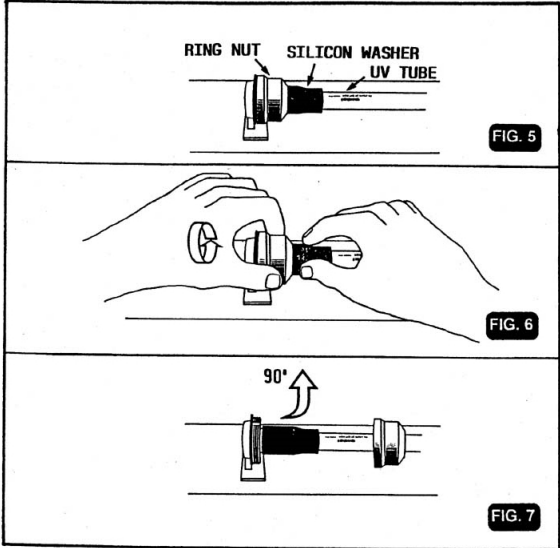
**UV LAMP**



Lamp maintenance is very important because UV-C light emitted by the source is not visible to the eye, so, although you see the lamp ON, its germicidal effect may not be sufficient to performs disinfection treatment.

Before reaching the lamp, **ALWAYS** switch off power supply. If UV-C lamp gets dirty (or gets dusty) clean it with a clean cloth and alcohol, and avoid touching the glass part with hands. To check UVC lamp life number of hours, correct product code of the spare UV lamp please refer to [table 1](#). The lamp, once reached the timing for replacement, **must be replaced**, this operation is carried out as follows:

- Loosen the nuts on the lamp housing and let them slide along the lamp; grab the lamp at the 2 ends and pull it in a direction parallel to the lamp.
- Repeat the steps in reverse to insert the new lamp.



**TROUBLESHOOTING**

**UV LAMP**

See MAINTENANCE.

**BALLAST**

All UV-DIRECT models are supplied with electronic ballasts which guarantees an emission of 15% more if compared with traditional ballasts. Furthermore, lamps are not influenced by environment temperature that can goes until -20°C. Finally, the switching on is immediate, with no starter, and for this reason lamps last longer. To preserve the original features of original IP protection and isolation class, and to maintain all the characteristics that guarantee a long lasting life of this product, the ballast replacement must be done by qualified technicians verified by Light Progress. In case of necessity, please, send the device back to our facility for any kind of repairs. **If this is not possible, you can order the entire power supply conduit for replacement (see Table 1 for code).**

**TECHNICAL FEATURES**

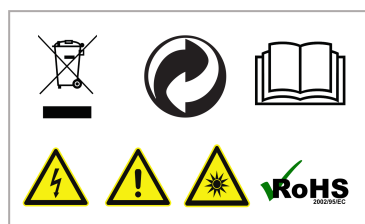
**TABELLA n°1**

<b>UV-STICK</b>	<b>E2/75H-ST-NX-NT</b>
AVERAGE LAMP LIFETIME (h)*	≤ 18.000
POWER (W)	2x75
DIMENSIONS LxSxH (mm.)	1420 x 404 x 336
WEIGHT (Kg.)	7
TREATED VOLUME (m³)	50 to 100
TREATED SURFACE (m²)	15 to 30
<b>SPARE PARTS</b>	
UV LAMP Code	n°2 <b>CHS-90WH</b>
POWER SUPPLY CONDUIT Code (complete)	n°1 <b>CE-2/75H</b>

\* continuous operation

- Selective UV-C lamp (at 253.7 nm.) with high efficiency lighting.
- Stainless steel body AISI 304 .
- All materials used are tested for resistance to intense UV-C rays.
- Waterproof and dust-proof (IP 55).
- Control Console (IP 20) grounded.
- Powered with electronic ballasts specific for UV-C rays lamps
- Reflector in extremely pure mirror bright aluminum.
- Direct protection of the lamp with a stainless steel grid
- CE mark (LVD - EMC - MD - RoHS).
- Complies with the noise standards of Directive 2006/42/EC
- Values measured according to UNI EN ISO 3746
- Non-detectable and non-transmissible vibration values
- Suitable for class 1 installations - protected areas

**LABEL AND SYMBOLS**



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

## WARRANTY

All products made by LIGHT PROGRESS are manufactured with the highest quality materials only, they 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 ensured only by use of products purchased from or recommended 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](mailto: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](mailto: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 RESPONSABILITY AND COMMITMENTS

◆**Light Progress** do not take 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 itself the right to make changes without prior notification or public notice.



## DECLARATION OF COMPLIANCE

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

### UV-STICK E2/75H-ST-NX-NT 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

<b>UNI EN ISO 12100:2010</b>	Safety of Machinery - Basic Concepts, General Principles for Design - Risk assessment and risk reduction
<b>UNI EN ISO 13857:2008</b>	Safety of Machinery - Safety Distances to prevent danger zones being reached by the upper and lower limbs (2008)
<b>ISO 14120:2015</b>	Safety of Machinery - Guards - General Requirements for the Design and construction of fixed and movable guards
<b>UNI EN ISO 13849-1:2016</b>	Safety of Machinery - Parts of the Control System related to the Safety – Part 1: General Design Principles
<b>UNI EN ISO 14119:2013</b>	Safety of Machinery - Interlocking devices associated with guards - Principles for design and selection
<b>CEI EN 60204-1/2016</b>	Safety of Machinery - Electrical Equipment of Machines. Part 1: General Rules (2010)
<b>EN 61439-1:2011</b>	Low-voltage Switchgear and Control Gear Assemblies. Part 1: General rules

### FURTHER TECHNICAL STANDARDS APPLIED:

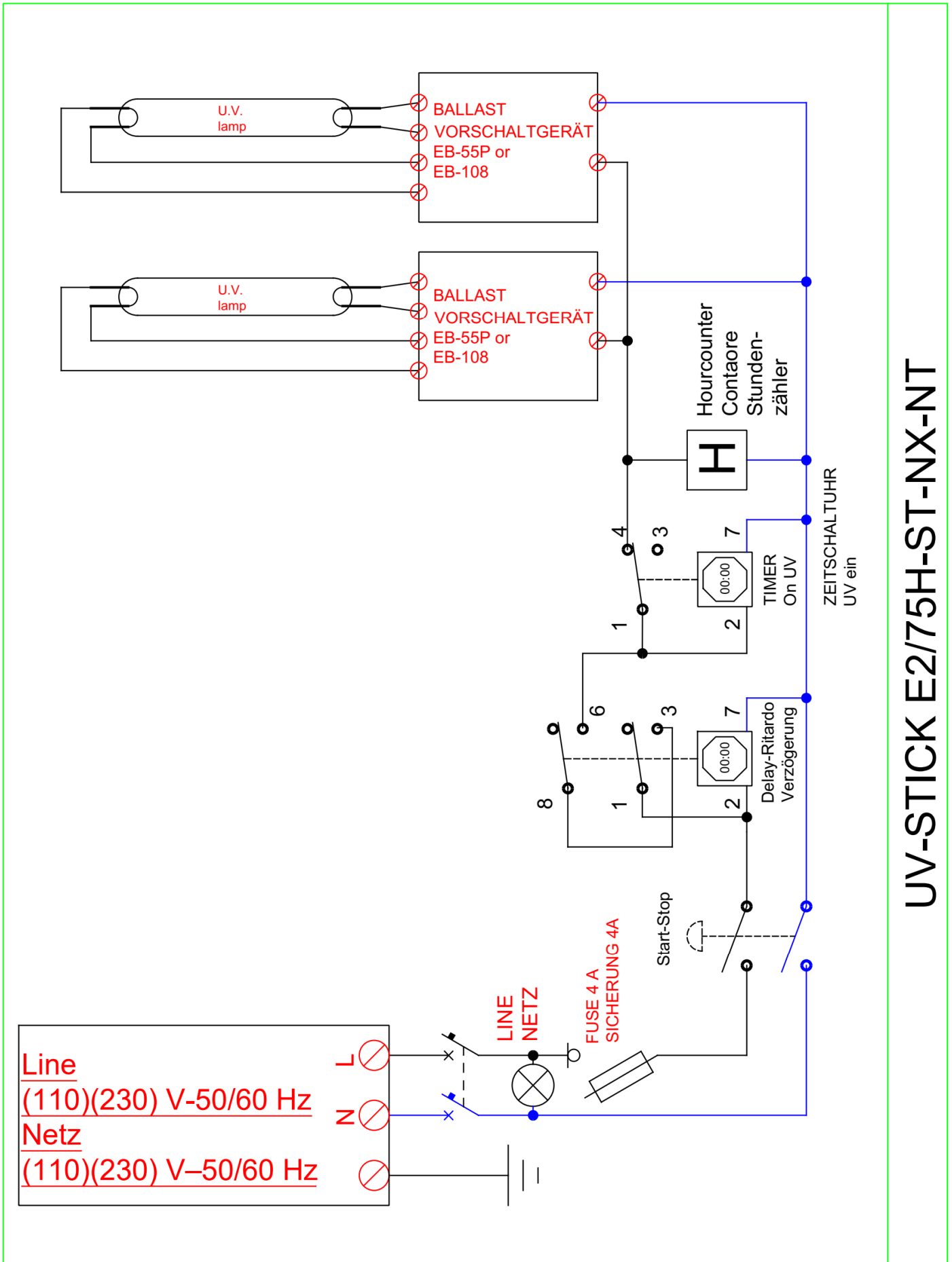
IEC EN 60335-1 "Safety of household electrical appliances and similar"  
 Electronic Ballasts for the control of the lamps in accordance with the standard EN 60928.  
 Germicidal UV-C Lamps in accordance with EN 61199.  
 Electrical Protective Measures in accordance with IEC 70-1, EN 60229.

Anghiari, 8.14.2020



Responsible for Standards: Dr. Aldo Santi

Circuit scheme: UV-STICK E2/75H-ST-NX-NT



UV-STICK E2/75H-ST-NX-NT







Loc. San Lorenzo, 40 - 52031 ANGIARI (AR) - ITALIA

TEL. 0575 / 74.92.55 - FAX 0575 / 78.99.29

PRODUZIONE:

- ANGIARI - Loc. San Lorenzo, 40
- CASTIGLION F.NO - Loc. S. Antonino, 40

**Http: [www.lightprogress.it](http://www.lightprogress.it)**

**E-mail: [info@lightprogress.it](mailto:info@lightprogress.it)**