



## Operating Instructions

Dear customer, thank you for purchasing our product. Please read the following instructions carefully and follow them to ensure that the product serves you safely and to your full satisfaction. This will prevent misuse or damage. Avoid unprofessional handling of this appliance and always observe the electrical appliance usage guidelines. Keep the instruction manual carefully. For indoor use. This product should only be used by an adult. Never expose to environments with high humidity (e.g. bathroom), avoid contact of the product with liquids.

## Contents of the set

- 1x germicidal UV lamp
- 1x remote control
- 1x instruction manual

## Functions

Direct radiation lamps are used where it is possible to ensure that people are not present during disinfection. Disinfection with these lamps is most effective because they sterilise micro-organisms on the surface of objects as well as in the air and liquids. This product is used for direct and indirect disinfection of premises.

Direct disinfection refers to gases, liquids and objects that are exposed to direct effective ultraviolet C radiation. These gases, liquids or objects must be directly exposed to UVC radiation. Effective radiation means the intensity of UVC radiation sufficient to inactivate viruses, moulds, bacteria or fungi.

Indirect disinfection is carried out with O<sub>3</sub> gas (ozone), which is produced by UVC radiation. This gas reaches all parts of the room (even behind obstacles) and disinfects.

## Service

Plug the device into a power outlet. The device has a 15/30/60min timer option. Select the length of the interval according to the level of disinfection required. Use the button on the lamp to select the desired time interval. Red light 15 min, green light 30 min, white light 60 min. Once the desired interval length has been selected, the countdown starts and is signalled by a beeping sound. This countdown lasts approx. 15 - 20 sec. During this time, the electrodes of the tube are heated and then the lamp is switched on. The lamp will be switched off after the specified time interval or can be switched off at any time by pressing the button on the lamp.

Remote control - press the red power button on the remote control. Then press the button of the appropriate time interval length (15min, 30min, 60min). This will cause the tube to glow, approx. 15 - 20 sec, after which the lamp will be switched on. The lamp will be switched off after the specified time interval or can be switched off at any time by pressing the red power button on the remote control.

Recommended time for disinfection: room about 20m<sup>2</sup> - 15min; room about 30m<sup>2</sup> - 30min; room about 40m<sup>2</sup> - 60min.

## Safety instructions

Once the lamp is switched on, neither people nor animals should be in the disinfected environment. UVC radiation is harmful even in small doses and may have some negative effect on humans, animals or plants. The intensity and duration of exposure are decisive. Do not look directly into a lit UVC lamp. Even a small dose of UVC radiation can cause conjunctivitis or so-called welding disease (ophthalmia photoelectrica) if the eye is exposed for a long time. At higher doses, UVC radiation can severely damage eyesight. Children's skin and eyes are particularly sensitive to the effects of UVC radiation. Children must not be exposed to direct radiation at all. Only reflected radiation from distant walls or ceilings is permissible for the shortest possible time. The room should be cleaned of dirt before disinfection begins. The room should be dry and the temperature between 20° and 40°C. UVC radiation can damage various paintings, pictures and decorations.

Ozone has a specific intense smell. In the context of safety, it is important to remember that ozone is a hazardous gas, with respiratory irritation already occurring at lower concentrations. The human nose is very sensitive to the presence of ozone in the air and is able to detect even very low concentrations. For this reason, disinfection should only be carried out without the presence of people and animals. At a temperature of 20 °C and a pressure of 1013.25 hPa, the half-life of ozone is 45 minutes. At 30 °C and the same pressure, the half-life is only 20 minutes. Taking these facts into account, then choose the time after which the disinfected premises will return to normal activity. The ideal recommended time to return after intensive disinfection is about 2 hours.

### **Location**

In the case of direct UVC disinfection, place the lamp as close to the object to be disinfected as possible (preferably within 1 m) or ideally in the centre of the area to be disinfected, so that disinfection is even. In the case of indirect ozone disinfection, place the lamp in the room so that the ozone O<sub>3</sub> gas generated can spread freely to all parts of the room.

### **Usable properties of ozone**

Ozone is more than 3000 times faster than chlorine, 25 times more effective than perchloric acid (NOCL), 2500 times more effective than hypochlorite (OCL) and 5000 times more effective than chloramine (NH<sub>2</sub>CL) in sterilization and disinfection and is safer. There is no virus or bacteria resistant to ozone. It is a more effective method than using chlorine. Ozone removes microorganisms that are normally resistant to chlorine or need hours of contact time before they are removed by chlorine.

Ozone oxidizes and decomposes organic and inorganic substances faster than other reagents. Ozone breaks down organic and inorganic toxic substances in water into less harmful components that can be easily removed or transformed by sedimentation or filtration, etc. Ozone reacts with substances with which chlorine does not react or reacts inappropriately.

By oxidation, ozone destroys high molecular weight compounds, chlorinated biphenyls, organic compounds, toxic aromatic substances, cyanides, phenols, sulphur, iron, manganese. It has the ability to deactivate carcinogens. The strong deodorizing effect causes upsetting of odorous substances and thus reduction of odour and taste.

### **Usable properties of UVC radiation**

UV radiation of 185 nm has bactericidal effects. It damages DNA and acts on all types of bacteria, only the time required to kill the bacteria varies. The DNA damage prevents further reproduction. This prevents the damaged micro-organisms from replicating and multiplying.

### **Important notice**

- Do not use the product if it is damaged or has loose screws or connections.
- Do not use the product if it has been damaged by rain or wet environment.
- Do not expose the product to direct sunlight and protect it from heat.
- To ensure that the device functions properly, you should not switch the device on and off too quickly in succession.

### **Technical data**

- Radiant power: 38W
- Protection rating: IP20 - for indoor use
- Standby power consumption: less than 1W
- Lamp power supply: AC 230V/50Hz, remote control power supply: 1x CR2025
- Wavelength of UVC emitter: 185nm
- Maximum area for disinfection: 40m<sup>2</sup>
- Cable length: 1.6m

The product has been issued with a CE declaration of conformity in accordance with the applicable regulations. On request from the manufacturer: [info@solight.cz](mailto:info@solight.cz), or downloadable from [www.solight.cz/en](http://www.solight.cz/en).  
Producer: Solight Holding, s.r.o., Na Brně 1972, Hradec Králové 500 06, Czech Republic