

## Portable Ozone Generator **OZONIZER OZ-5** *User manual*



Lightning flash with arrowhead symbol within an equilateral triangle warns user to the presence of uninsulated "dangerous voltage" within the product's enclosure of such value that it can result in electrical shock.

**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. INSIDE IT'S ENCLOSURE ARE ITEMS BEING DANGEROUS HIGH VOLTAGE. DO NOT OPEN THE COVER. SERVICING TO THE QUALIFIED PERSONNEL ONLY.**

### IMPORTANT SAFETY INSTRUCTIONS

1. This device is designed to operate only in closed spaces. **This device should not be used near water source on in wet areas.** Due to a danger of fire or electrocution the device should not be left in wet or rainy areas.
2. **The ventilation openings must not be blocked** by covering them or placing the device closer than 15 cm to a wall or other objects which can block air access.
3. The device should not be place near heaters, stoves or other sources of heat.
4. **Do not allow any object or liquids to penetrate inside of the device.** Such objects may come in contact with high voltage and cause fire or electrocution.
5. **This device can only be connected to the electrical outlets with proper grounding.** Using outlet without proper grounding does not provide sufficient protection from electrocution and may cause equipment malfunctions. **This device must not be used if power cord is damaged.**
6. Damaged or altered device must not be used. **User should not attempt to repair this device.** Do not remove cover due to high voltage and other danger. **Running device without cover must not be touched.**
7. When this device is not in use power cord should be unplugged from power source.
8. This device should be cleaned only using dry cloth.
9. **This device should be kept out of reach of children.**

### PRECAUTIONS

1. Maximum allowed concentration of ozone in closed areas safe for humans is 0.1 ppm (200mg/m<sup>3</sup>). Smell of ozone, however, is felt in much lower concentrations, as 1/5 or 1/10 off allowed safe ozone concentration (0.02ppm).
2. Ozone should never be produced in excess of what is necessary for application.
3. Ozone is dangerous for health. **People or animals should not be present in room being ozonised. In case of necessity the presence in ozonised room should be limited to minimum. Proper protective equipment should be used such as protective clothes and face mask with carbon inserts.**
4. Ozone increases combustion process and increases 2 to 3 times flammability of materials. Thus ozonator must not be used near sources of fire or in flammable or explosive areas. This device should not be cleaned using flammable liquids or chemicals due to danger of fire or electrocution.
5. **Smoking, working with open fire or using tool producing fire or sparks is prohibited in room being ozonised.** Using oils, lubricants or leaving objects contaminated with lubricants in ozonised room is prohibited.
6. Inhalation of high concentrated ozone may cause physiological disorders. **Ozone produced by the device must not be inhaled.**
7. Sign **DO NOT ENTER – DESINFECTION** should be placed at entrance to the room being ozonised.
8. Room should be ventilated for 15 to 30 min and should not be entered before 2 hours after ozone treatment.
9. Ozone treatment should not be done with people with smell disorder.
10. **Person operating device is responsible for its proper usage** and should observe all safety precautions.

**O3Tech PHU is not responsible for any damages or injury caused by a product that may arise as a result of its use by the user. User is responsible for proper installation, use and storage of the product.**

### 1. Introduction

This manual should be read and understood before using the device. It is recommended to keep this manual for future usage. This manual contains information necessary to operate and maintain the device.

Ozone Generator OZONIZER OZ-5 is designed to produce ozone using air. Ozone is very effective in removing odor, bacteria, viruses, fungus, mites etc.

## 2. Using Conditions

1. **Ozone generator is designed to work in closed areas** so is not resistant to water flooding or rapidly changing humidity and temperature
2. **Ozone generator is not designed to work in dusty areas.** In case of using this device in dusty areas it is necessary to use dust filter included. Dust filter will restrict air flow. **Contamination of ozone electrodes reduces the efficiency of ozonator and accelerates wear on.**
3. Efficiency of this device depends on air temperature and humidity. **Ozonator should not be used in areas with high humidity.** High humidity can cause corrosion of electrodes and will lower efficiency of device.
4. Ozone treatment should be done at the lowest possible temperature and humidity (room well ventilated)
5. Ozonator can operate for a long time, however, the recommended working time is half an hour. After this, it should be stopped for at least 20 minutes. Continues operation of the device over recommended time may cause efficiency to drop due to temperature raise.
6. **Usually when ozonator is used for test, it will be better if time interval between two attempts shall not be less than half an hour.** It is because the output voltage and start-up electric current is very very high, if it is started up and closed down frequently within several minutes, power supply is possible to be burned due to instant or instantaneous high current.

## 3. Selection of working time of the ozonator

1. Choosing the correct concentration of ozone (and therefore also of an ozonator with appropriate parameters) is a task for a specialist, which itself determines efficiency of the ozonator and treatment time (and thus the concentration of ozone in the room) based on the knowledge, practices, and their own observations. Working time of the ozonator, among others, depends on the type and amount of contaminants removed (various odors, microorganisms and other pathogens have different resistance to ozone), ozonised room capacity and also temperature and air humidity. Is often desirable to oxygenation or decrease humidity of the room air before ozone treatment.
2. Overall, a very large approximate, should be guided by the principle that minimum, approximate threshold ozone concentration at which begins disinfection is the value of 1 g of ozone per 10 m<sup>3</sup> room volume. OZONIZER OZ-5 with O<sub>3</sub> capacity of 5 g/h, in conditions of low humidity, saturate with the threshold concentration 100 m<sup>3</sup> room (40 m<sup>2</sup> with a height of 2.5 m) after a minimum of 2 hours of operation.
3. Approximately, the time of room disinfection using ozone should be twice as long as time to reach the threshold concentration.
4. OZONIZER OZ-5 is not suitable for ozone treatment facilities larger than 100 m<sup>3</sup>. Due to the short half-life of ozone, a significant lengthening of device working time in case of larger premises does not work. For larger rooms, you should choose a model with a larger capacity or run more than one ozonator. You can also try to divide room into smaller spaces, for example using foil wall.
5. **These guidelines are indicative and are not mandatory instruction of performing ozone treatments.**

## 4. Handling

1. Ensure that the room being ozonised has enough oxygen and low levels of humidity (eg by a good airing it, use of air dryer, etc.).
2. Move people and pets to the outside and plants cover tightly with foil. Remove or secure objects that could be damaged in contact with ozone (eg items of soft rubber).
3. Ozone is heavier than air, so it is best to put the ozonator above halfway up the room. It is also recommended to cause additional air movement with an external fan.
4. Plug the ozonator to power outlet and turn it on. Leave the room. We recommend the use of an external timer, which automatically turns off power supply after a preset time.
5. After a set time (working time of ozonator selected individually depending on the contaminants removed and the parameters of the room) turn off the device (unless used an external automatic timer).
6. Ventilate immediately after turning off the ozonator or after a certain period of time (depending on the method of operation). Do not stay in a room where it is increased concentration of ozone.
7. If odors do not disappeared or partially disappeared, it means that for the pollutants was not reached appropriate concentration of ozone. Ozone treatment must be repeated selecting different parameters (time of ozone treatment, temperature, humidity and oxygenation of the room, air flow, etc.).

## 5. Warranty

**The device has a 12-month warranty on materials and workmanship. The basis of the complaint is the proof of purchase.** Warranty does not cover wearing parts. The guarantee will not be covered by the claims resulting from misuse, improper cleaning, exposure to moisture and other atmospheric factors or improper repairs. We use only the highest quality materials. However, in the case of justified claims, we provide a repair or replacement parts. To make a warranty claim, send the defective unit or part attaching proof of purchase and a signed warranty card. O3Tech PHU does not accept any liability for direct or indirect losses resulting from the device failure.

**Complaints arising from losses in transportation will be considered only if the damage has been reported and confirmed by the carrier at the time of delivery.**

## 6. Specifications

O3 efficiency - 5 g/h (5000 mg/h)  
fan efficiency (without filter) - 190 m<sup>3</sup>/h (112 CFM)  
O3 technology - corona discharge  
lifetime of electrodes - up to 6 000 hours (depending on the contamination and humidity of air)  
power supply 230V AC, 50 Hz  
power 110 W  
accessories - power cable  
additional features - dust filter 30 ppi  
powder coated steel housing  
dimensions (L x W x H) - 300x170x170 mm  
weight 3.5 kg

## 7. Declaration of Manufacturer

The manufacturer declares that the product: Ozone Generator OZONIZER OZ-5 meets the requirements of EU directives:

Low Voltage Directive (LVD) 2006/95/WE  
Electromagnetic Compatibility (EMC) 2004/108/WE

therefore it contains the CE-marking.

### Manufacturer

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