

# Ozone generator

Use and installation instructions



GO-2000-AC



Please read this manual carefully before installing and/or connecting the generator



Precaution: Do not manipulate or open the generator while it is connected to the electrical



Do not use in environments where the temperature may exceed 50°C



Protect it from the outdoors and preserve it from damp and/or corrosive environments

## Security instructions

Read this manual completely before installing the equipment.

The electrical connections must be carried out by qualified personnel and in accordance with current regulations. Make sure that the electrical installation of the equipment and accessories (redox probe, air dryer, ...) have a ground connection and differential switch according to current regulations.

Do not manipulate the equipment while it is connected to the electrical network. Not respecting this indication can cause serious damage.

Do not use the equipment if any defect is observed in the electrical conductors (power cable) and go to the technical service as soon as possible.

The installation of the equipment must be carried out in a clean and dry place.

Do not inhale the ozone gas produced by this equipment.

For your safety, do not store or use flammable products in the place where the equipment is installed. Only use teflon, pvdf or ozone resistant materials for the ozone outlet connection.

Install the equipment above the water level or use a water anti-return system (anti-return valve, water trap,..) to prevent liquid from entering the equipment and damaging it.

Maintenance and cleaning of the equipment must be carried out by authorized personnel.

**VERY IMPORTANT:** The installation of the generator and any manipulation that is carried out on it must ALWAYS be done with the equipment disconnected from the electrical network.

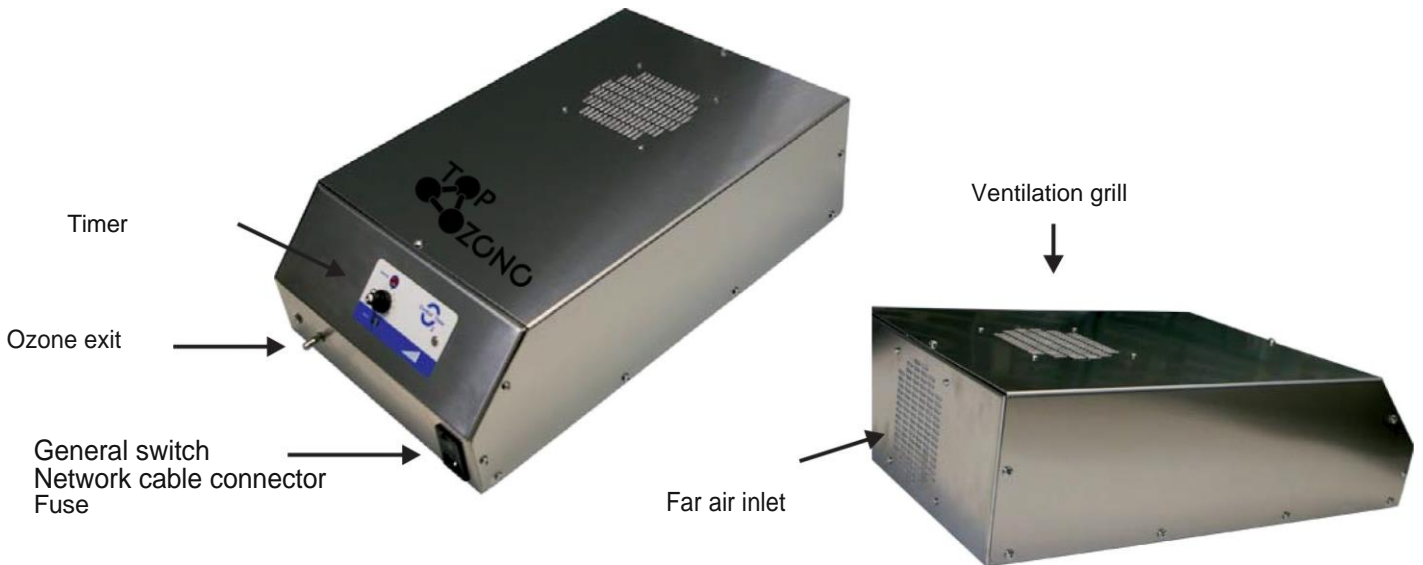
## TECHNICAL CHARACTERISTICS

Power supply	230 V 50Hz
Consumption	60 W
Dimensions	(LxWxH) 490 x 303 x 145 mm
Weight	5 kg
Production	2.000 mg/h max.
Regulation	Digital Timer
Electrical Pro.	Fusible 2 A
Box	Inox Steel
Exit	Integrate Compressor

## General Description

The GO-2000 AC model is an Ozone Generator for disinfection and deodorization applications in which it is required to carry the ozone conducted through a small section tube, such as injection in ventilation ducts, treatment of cold rooms, treatment of water by diffusion by bubbling or by means of a venturi injector in recirculation circuits.

This ozone generator is mounted in a stainless-steel box, including ozone producing reactor, diaphragm (membrane) compressor, compressor inlet air desiccant cartridge and forced cooling by means of a fan. The regulation system of the equipment is carried out by means of a digital timer that regulates both the ozone production and the air injection of the compressor.



## Equipment installation and operation

It is convenient to install the equipment in a dry and ventilated place, since the ozone generated by the equipment is transformed from the ambient air through an electrical discharge reaction inside the reactor (corona discharge). The humidity and dirt in the air that enters the equipment can dirty the electrical plates where ozone is generated and reduce their performance and even deteriorate them and may cause a malfunction in the equipment. The useful life of the equipment and the maintenance intervals depend on these installation conditions.

If the application of ozone is needed in a humid place or with a dirty environment (dust, grease, etc), it is required that the generator be installed in another room with the appropriate conditions and carry the ozone conducted through a Teflon (ptfe) tube, pvdf, silicone, or any other material resistant to ozone oxidation, with an inner diameter of 6 mm (to fit the generator output connector).

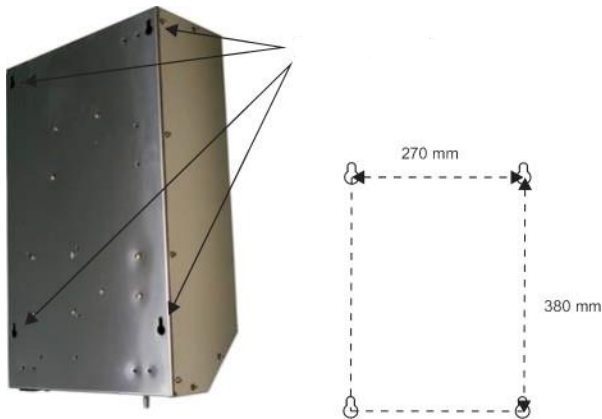
The length of this tube must not exceed 3 - 4 m, to ensure a correct flow of ozone.

In case of application of ozone in cold rooms, never install the equipment inside. It must be installed outside the chamber and bring the ozone inside through the appropriate tube (diameter 6 mm inside / 8 mm outside will suffice) made of the materials indicated above.

This ozone generator can work in wall mode (fixed to the wall) or in desktop mode, as long as both surfaces are solid, to avoid the transmission of vibration caused by the operation of the compressor.

Fixing the equipment on a surface can be done in two ways:

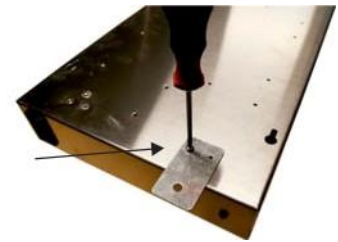
1. Through the fixing holes on the base plate (lower) of the equipment, which can be used to place it on fixed spikes on the wall or with screws/fixing plugs. For the latter, I was able to remove the fixing screws from the cover and remove it completely, in order to fix the equipment to the wall from the inside (this last operation should only be carried out by personnel authorized by the manufacturer and always following the safety regulations).



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2. Using the fixing brackets (4 units) provided with the equipment. These brackets must be fixed to the equipment base (by means of 2 screws for each bracket) to the holes located for this purpose in the four corners of the base, which incorporate a rivet nut for easy installation. Once these brackets are fixed, the outer 8 mm hole is used for surface fixing using a screw/plug.



Once the equipment is placed, it can be installed the ozone diffusion tube in the stainless-steel connector/junction. located on the front (below the timer) by means of a teflon, pvdf, silicone tube or any other material resistant to the action of ozone, which has an internal diameter of 6 mm to fit correctly in the notches of the connector.

Once this is done, you can now connect the supplied network cable to the connector located next to the main switch on the front of the equipment.



## Functioning

Once the installation is done, you can start the operation of the equipment, connecting it to the electrical network and activating the switch located on the lower front part (above the network cable).

The regulation of this generator is carried out by means of a digital timer located in the front of the equipment, selecting the programming by means of the rotary switch with nine positions and whose operating cycles are indicated by the leds Blue (power supply) and Red (generating ozone). The blue led stays on as long as the equipment is connected, while the red led will only turn on when the active equipment period (generating ozone), remaining off during the waiting time of the timer.



Rotary selector

The timer regulates the production of the equipment through the operating time. Using the rotary knob we select a position (from 0 to 9). With an operating cycle of 10 minutes, the activation time is regulated as indicated in the following table.

#### Timetable

Program N	0	1	2	3	4	5	6	7	8	9
ON timer	30 s	1 min	2 min	3 min	4 min	5 min	6 min	7 min	8 min	9 min
OFF timer	30 s	9 min	8 min	7 min	6 min	5 min	4 min	3 min	2 min	1 min
Regulation	test	10%	20%	30%	40%	50%	60%	70%	80%	90%

The equipment will generate air with ozone and expel it through the output connector while the ON time lasts.

Once this has elapsed, the generator will remain stopped (OFF time) until the programmed time has elapsed, at which time the timer will start up again, repeating the cycle indefinitely according to the times indicated in the table above.

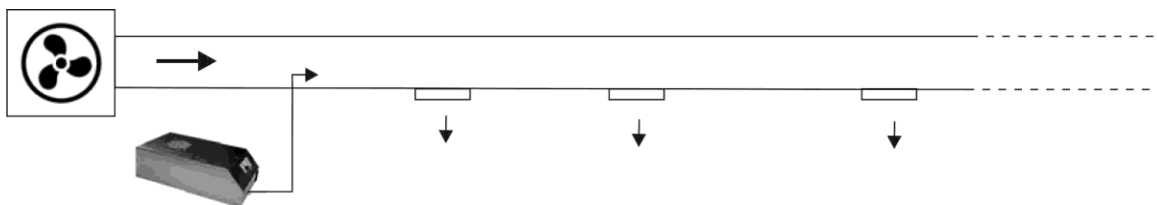
It must be considered that the operation of the compressor is independent, remaining active for 10 seconds more than the ozone production (red LED off), in order to expel any remaining ozone from the equipment and avoid a setback towards the membranes of the compressor, which would shorten its useful life.

## Application

The GO-2000 AC model ozone generator has, among others, the following applications:

#### Air conditioning / ventilation ducts

Installing the generator as close as possible to the ventilation duct, injecting the ozonated air inside through a connecting tube between the generator outlet connector and a hole to introduce a small part of the tube inside, always after the impeller turbine. The generator must only work when the ventilation circuit works (it can be powered in parallel with the fan motor, through a relay/contactor to separate the electrical supplies).



#### Cold rooms

Installing the generator as close as possible to the chamber (never inside it), inject the ozone through a hole in the chamber panel (as high as possible) to pass the 6/8 conduit into it.

For large chambers, a distribution tube can be installed inside to better distribute the ozone throughout its volume.

In these cases, it may be necessary to use a compressor with a higher power to reach the entire volume to be treated.



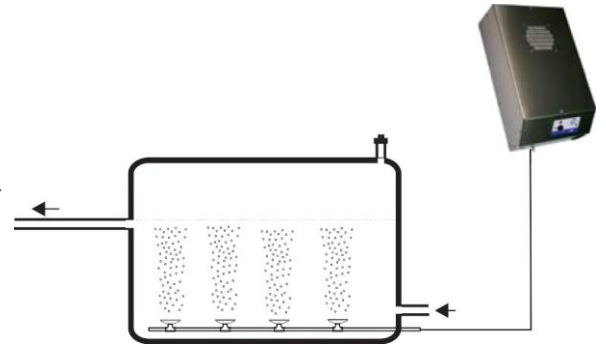
The generator must always be placed higher than the entrance to the chamber so that the condensation produced in the inlet pipe does not go back towards the generator, or use a water trap for condensation.

### Water deposits

Install porous bubblers in the base from the tank and carry the ozone through a conduit to these diffusers that will be responsible for diffusing the ozonated air in the water, creating a column of bubbles.

Another option is a recirculation system with a venturi injector for a correct ozone/water mixture.

This system requires a recirculation pump and provides greater diffusion of ozone in the water.



### Elimination of odours in air extraction systems

In air extraction ducts, ozone is injected into the duct, trying to maintain the maximum distance to the outlet, so that the ozone can conduct its effect during the entire time that the expelled air circulates through the outlet tube.

In these cases, the greater the length of the chimney, the greater the oxidation effect of the substances that generate unpleasant odours.





# Certificate of Conformity

European conformity

## Declaración de Conformidad

Conformidad Europea

The manufacturer  
El fabricante

**TOP OZONO, SL**

B66297524  
Av. Mistral 24  
08015 Barcelona

In accordance with Directive 2006/42 /EC of the European Parliament and of the Council, of May 17, 2006, relating to machines, the product indicated below, based on its conception and construction, as well as the version placed on the market by Top Ozono, complies with the mandatory basic requirements of safety and health of the **CE** directive.

De acuerdo con la Directiva 2006/42/CE del Parlamento Europeo y del Consejo, de 17 de mayo de 2006, relativa a máquinas, el producto indicado a continuación, en base a su concepción y construcción, así como a la versión puesta en el mercado por Top Ozono, cumple con los requisitos básico obligatorios de seguridad y sanidad de la directiva **CE**

Product Description  
Descripción de producto

**Ozone Generator / Generador de Ozono**

Product type  
Modelo

**GO 2000 AC**

In addition, it is in compliance with the following provisions of European Directives:

Además, está en conformidad con las siguientes disposiciones de Directivas Europeas:

**Directiva 2014/35/UE del Parlamento Europeo y el Consejo**, de 26 de febrero, sobre la armonización de las legislaciones de los Estados miembros en materia de comercialización de material eléctrico destinado a utilizarse con determinados límites de tensión.

**Directiva 2014/30/UE del Parlamento Europeo y del Consejo**, de 26 de febrero de 2014, sobre la armonización de las legislaciones de los Estados miembros en materia de compatibilidad electromagnética.

**Directiva 2014/68/UE del Parlamento Europeo y del Consejo**, del 15 de mayo de 2014, sobre la armonización de las legislaciones de los Estados miembros sobre la comercialización de equipos a presión.

**Directiva 2011/65/UE del Parlamento Europeo y del Consejo**, del 8 de junio de 2011, sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos.

**Directiva 2009/125/CE del Parlamento Europeo y del Consejo**, de 21 de octubre de 2009, por la que se insta un marco para el establecimiento de requisitos de diseño ecológico aplicables a los productos relacionados con la energía.

**Directiva 2004/40/CE del Parlamento Europeo y del Consejo**, de 29 de abril de 2004, sobre las disposiciones mínimas de seguridad y de salud relativas a la exposición de los trabajadores a los riesgos derivados de los agentes físicos (campos electromagnéticos)

1 de Enero de 2020

  
**TOP OZONO, S.L.**  
N.I.F. B66.297.524