ECB-2S

Wall-Mounted Ozone Generator

User Manual (Version 2016)

Ecozone Technologies Ltd.

ECB-2S User Manual

The ECB-2S

Wall-Mounted Ozone Generator

Unpacking

Open the top flaps of the carton and remove the inner supporting walls.
Lift up the unit and gently place it on a flat surface.

General Information

The ECB-2S is a compact but yet a very powerful ozone generator which makes use of the advanced technology of Ecozone's unique Singlet PentaRod core units.

The ECB-2S is specially designed for the professional odor control market.
It is build at high standards which imply, among others, a very long operative life time and high reliability.

Main Specification

Input Voltage: 230V; 50Hz / 120V; 60Hz
Power Consumption: 430W.
Overload Current Protection: 6A.
Output Air Flow-Rate: 600m³/h
Ozone Generation-Rate: 12.5g/h

Weight: Net 30 kg. Gross 34kg
Dimensions: Height: 66cm (without output coupler hose);
Width: 36 cm, Depth: 33.5 cm.

Main Features
Metal enclosure coated with anti-rust powder coating.
Color: Black and Yellow.

Operation Conditions:
Indoors use only.
Temperature range: 0ºC to 35ºC
Humidity: maximum relative humidity 95%.

Safety Precautions & Warnings

Read this manual carefully before operating the unit.

Avoid liquids from contacting the machine; If the machine was wet then unplug it and have it serviced by qualified personnel before operating it further.

DO NOT enter the treated room during the operation of the machine.

This machine is equipped with a ventilation inlet and outlet. DO NOT BLOCK inlet or outlet nor place any foreign objects in their vicinity which may block the air flow.

AVOID ELECTRICAL SHOCK

This unit is supplied with an earthed cable.
Attempting to bypass the earth or to connect the unit to a non-earthed socket is strictly prohibited.

Prior to performing maintenance, always disconnect the unit from the main power!

Control Panel

Two Switches:
Main Power Switch with Over-Load Current protection.
Key Switch – Ozone Generator On/Off – by remote operation
(using an external timer).

Three Light Indicators:
Green light - Power is ON.
Orange light - Ozone Generator is ON.
Red light - Ozone Generator is OFF or Operation Fault.

Operation time Counter (in Hours).

CAUTION

Before operation make sure that the room is vacant of People, Pets or Plants (PPP).

Warning
Ozone is Hazardous gas!

Operation Instructions

CAUTION

Before operating the ECB-2S, make sure that the room is vacant of People, Pets or Plants (PPP). Warning: Ozone is Hazardous gas.

Mount the ECB-2S machine on the wall at a height such that its control panel is easily reached. Make sure that both the air-inlet and the air-outlet are not blocked!

The ECB-2S has two operation modes: **Normal and Remote;**
In the **Normal** operation mode, the internal 60 minutes Timer is controlling the ozone generation cycle time. In the **Remote** operation mode, an external remote controller or a 24 hours timer will be controlling the ozone generation cycle time.

Caution: Before operating the ECB-2S, make sure that the room is vacant of People, Pets or Plants (PPP). **Warning:** Ozone is hazardous gas.

1. Operation in **Normal** Mode:

1.1 Connect the electrical cable of the ECB-2S machine to the electricity mains.
Note: The Input voltage should be 100V; 60Hz.

1.2 Turn the Key Switch to **Normal**.

1.3 Turn ON (up) the main switch.
Indication: The Red (Standby) light will turn ON.
The air-blower will start running and air will be emitted from the upper back mesh.

1.4 Select the ozone generation time by the Timer Selector between 4, 10, 15, 30, 45 and 60 min.

1.5 Press the Start (Green) button.
Indication: The White light (Start) will turn ON;
The Orange (Ozone Generation) light will turn ON*;
The Red (Standby) light will turn OFF.
The machine will start generating ozone!!!

Please leave the room immediately!

Note: The machine will automatically stop generating ozone after the selected time is over. In case you have changed your mind then you should:
Press the Stop (Red) button to stop the generator.
Indication: The Red (Standby) light will turn ON.

Warning: Do not attempt to re-enter the room while it contains ozone.

After completing the operation of the ECB-2S always insure to turn the Main Switch to its OFF (down) position.

2. Operation in **Remote** Mode by a remote controller or an external 24 hours timer:

2.1 Connect the electrical cable of the ECB-2S machine to a remote control unit or to a remote 24 hours timer which supply an input voltage of 100V; 60Hz.

Warning: Do not activate the remote control unit or the external timer before setting the ECB-2S machine to the Remote mode as follows:

2.2 Turn the Key Switch to **Remote**.

2.3 Turn ON (up) the main switch.

Notes: The machine is now controlled by a remote controller or by an external timer. **Please leave the room before activating the remote controller or external timer.**

2.4 **Stopping** the operation of the ECB-2S must be made only by disconnecting the electricity by the remote controller or by the external timer!

Warning: Do not attempt to re-enter the room while it contains ozone.

After completing the operation of the ECB-2S always insure to turn the Main Switch to OFF (down) position.

(*) Remark: If the Orange light is not turned ON and the Red light is still ON (Error) then there is a failure: Please check either the dust filter is blocked or dirty and thus must be cleaned, or the dust filter housing is left open and must be closed.

Warning:

Do not attempt to re-enter the room while it contains ozone.

Important: After the treatment is completed and only after the residual ozone has been decomposed down below the safety level, you may re-enter the treated room. Note that the time for ozone decomposition may take several hours depends on the room volume and on the ozone generation time.

When re-entering the room, please open all windows and doors for refreshing the air in the treated room.

CAUTION

Ozone is a powerful oxidant and hazardous gas!
Avoid any exposure of ozone to people, pets and plants!!!

Maintenance and Service

In order to keep the unit in good operation conditions, periodic maintenance should be performed. Maintenance includes the following two main issues:
(1) Cleaning or replacing the air filter and (2) Cleaning the Singlet core units.

(1) Cleaning / replacing the air filter:

Deposits of dust and dirt on the air filter may result in lowering the performances of the ozone generation. Therefore the air filter, which is located at the front side of the machine, should be cleaned and washed or replaced from time to time and depending on operation times and conditions.


Fig.1

For cleaning or replacing the air filter, use a screw driver to open the 2 screws which connect the filter housing on its top side to the front side of the machine (Fig.1). Insert the screw driver in a hole in the mesh of the filter housing to gently pull it out.

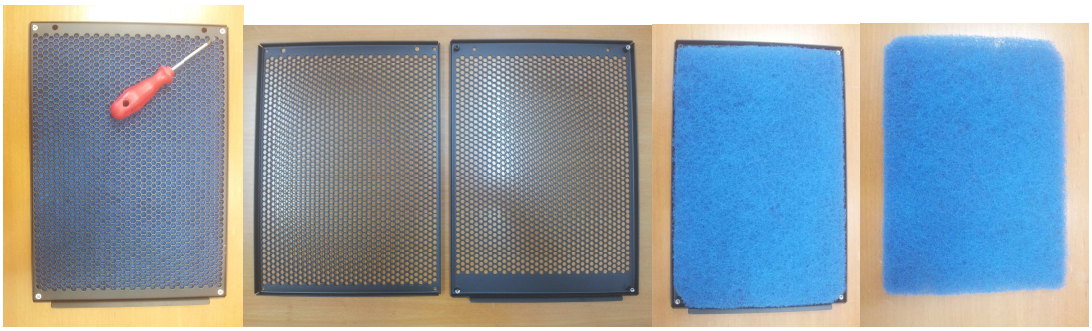


Fig.2 a, b, c, d.

Open the 4 screws of the filter housing (Fig.2a) and separate between the two mesh covers of the dust filter (Fig.2b). Remove the dust filter (Figs. 2c, 2d) and clean and wash it with tap water.

The filter's dimensions are 255mm x 350mm x 12mm (thickness).

(2) Cleaning the Singlet core units (SCUs):

After every 200-250 hours of operation the 2 Singlet core units (SCUs) should be washed and cleaned.

For cleaning the Singlet core units (SCU), please follow the instructions:

1. Remove the dust filter housing (Fig.1) by releasing two screws on its top side.
2. Disconnect the electrical plug of each one of the two SCUs.
3. Open and release the two nuts from each SCU.
4. Gently slide out each SCU from its two supporting (long) screws*.
5. Wash each SCU with tap water (Fig.3) and clean it up to remove dust and dirt.
6. Dry the SCU or gently wipe it with soft cloth.
7. Slide back the SCUs on their supporting screws and tight them with their nuts.
   Note: Make sure the SCUs are directed correctly according to the signs.
8. Reconnect the electrical plugs of the two SCUs.
9. Place the dust filter housing back to its position and tight it by its two screws.

(*) Warning:
The glass tubes of the SCUs are very fragile and must be treated gently.
Do not touch the glass tubes by hand and do not scratch them.

Fig.3

Trouble Shooting

Inside the machine there are two Differential Pressure Switch (DPS) units. These DPS units are designated as PS1 and PS2 and they are set at the factory as follows: PS1 = 20Pa; PS2 = 50Pa. **Do not change these settings**!

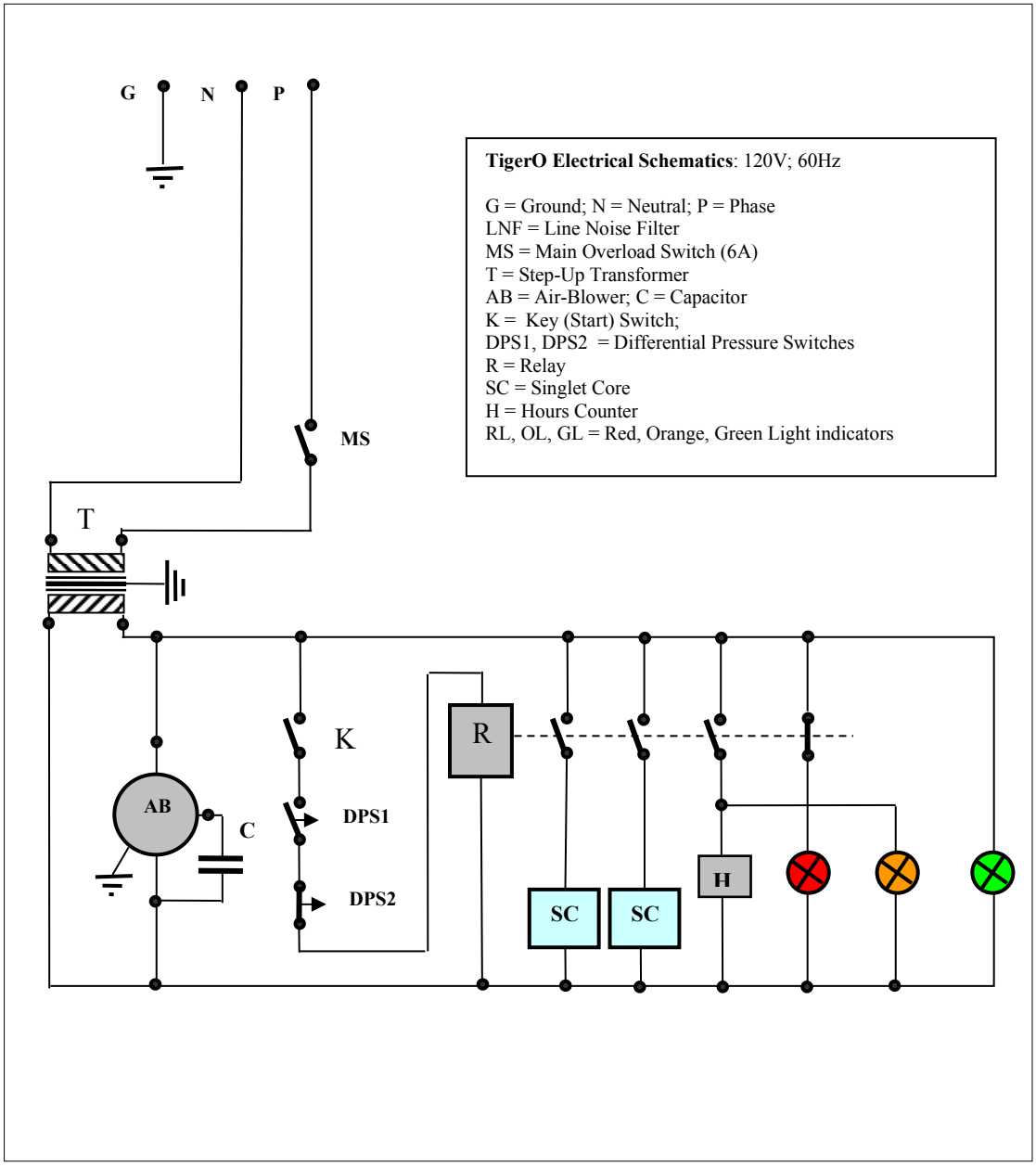
Air-flow fault:
In case that ozone is not being generated or in case the Orange light is not turned ON and the Red light is still ON (Error) this is an indication of a machine's failure.

Please check the following to possibilities:

1. The air filter housing is opened. In this case please place it in its right position and tight up to the front side of the machine by its two connecting screws.

2. The air filter is blocked. In this case please open the 4 screws of the filter housing and clean and wash the air filter. In case the filter is worn out or torn then you should replace it with a new filter.

Electrical Schematics



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