



# SSO-03-02GPOOL01

## Swimming Pool O<sub>3</sub> Generator

### User Manual

Ver: 2.01



Certified by:



## Ozone

- 1 - Ozone is an extremely powerful oxidizing agent, capable of effectively oxidizing bacteria, fungi, microorganisms and viruses.
- 2 - Ozone is 1,5 times stronger than chlorine and 3 125 times faster in inactivating bacteria and viruses.
- 3 - Ozone does not change the pH or the alkalinity of the water.
- 4 - Ozone is 100% natural and after its action it is returned to nature in the form of oxygen.

## Application

- 1 - *Eliminates harmful elements from water* - Ozone is an oxidizing agent capable of effectively oxidizing more than 99% of bacteria, algae, fungi, microorganisms, protozoa and viruses.
- 2 - *Does not produce toxins avoiding the formation of organic by-products* - Ozone promotes the oxidation of organic and non-organic particles without the formation of undesirable by-products, such as chloramines (generated from the reaction of chlorine with impurities present in water such as tanning, makeup, body creams, urine, sweat and other secretions).
- 3 - *Removes obsolete odors and smells* - Ozone is a powerful oxidizing agent that allows oxidizing harmful toxic elements and organic odors in water, removing bad smells and reducing their toxicity without any secondary pollution.
- 4 - *Reduces water consumption* - Ozone improves water quality, keeping it clean and crystalline for longer, reducing water seedlings.
- 5 - *Does not cause irritation* - The use of ozone in the treatment of swimming pools reduces the risk of skin and eye irritation, allergies, respiratory problems, ear infections, and dehydration of the skin and hair that normally occurs with the use of chlorine.
- 6 - *Does not damage bathing suits* - The use of ozone does not harm bathing suits (discoloration and fragility of the elastics).

## Specifications

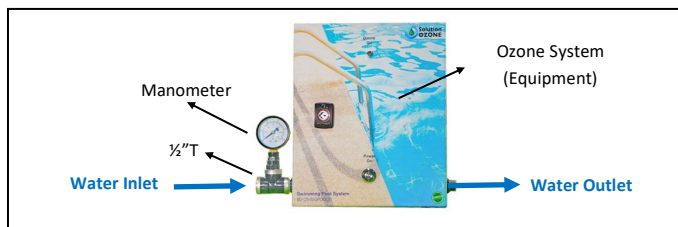
Model	SSO-03-02GPOOL01
Ozone Output	2g/h
Gas Supply	Ambient Air
Water Volume	≤ 25 m <sup>3</sup>
Thermal Protection	Yes
Rated Power	60W
Voltage	240 V AC
Size (mm)	300 x 250 x 210
Weight (kg)	7,25

**Table 1— Specifications**

## Installation and Operation Instructions

1.1 - Remove the equipment, the ½”T and the Manometer from the box.

1.2 - Connect the ½”T and the Manometer to the Water Inlet on the equipment, following the Equipment Connection Image (Image 1).



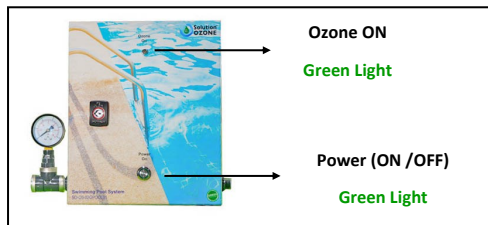
**Image 1 - Equipment Connection**

1.3 - Connect the power supply of the Ozone Generator to the Electrical Panel with proper protection (see Table 1). Being fed simultaneously with the Circulation Pump.

Note: The Equipment cannot work if the Circulation Pump is not working.

1.4 - To turn on the equipment, press the ON/OFF button, a Green Light will turn ON, which means that the equipment is ON, if the Circulation Pump is working.

1.5 - When turned ON, the Equipment will be activated by the operation of the Circulation Pump. The Green Light (Ozone ON) indicates that the Equipment is producing Ozone.



**Image 2 - Light Signaling**

1.6 - To turn OFF the equipment, press the ON/OFF button, it will turn OFF the Green Light which means that the equipment is OFF.

If you notice any ozone leakage, turn OFF the equipment's power supply and contact service immediately.

### **WARNING:**

The Ozone Generator works at high voltage and should only be opened by Solution Ozone® Technicians. Before carrying out any work on the Pool Circulation System, make sure that the electrical supply to the Ozone Generator is turned off.

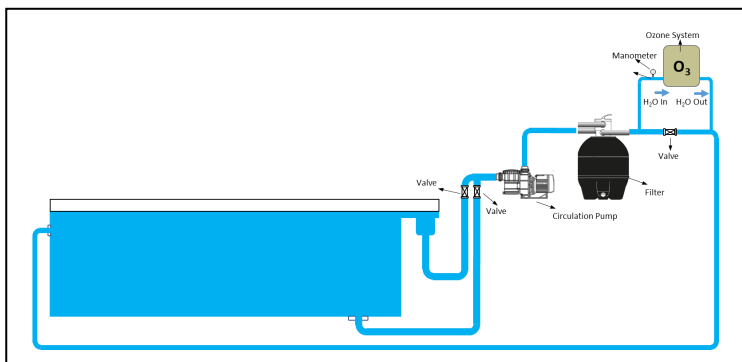


Image 3 - Generator Installation Diagram

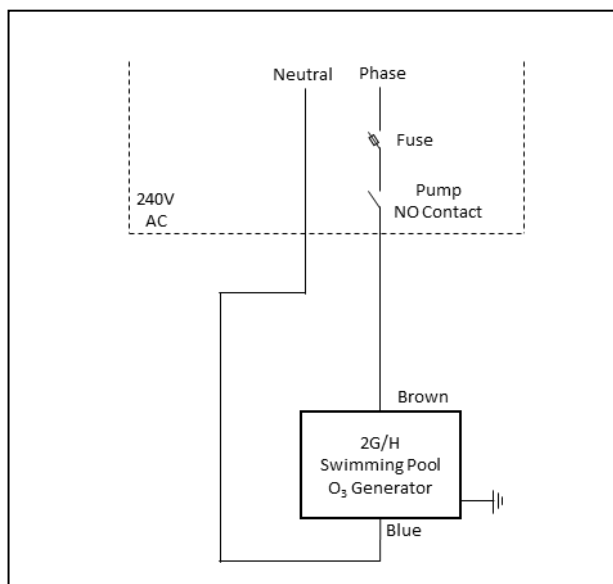


Image 4 - Electrical Diagram

**Note:**

Do not breathe ozone directly. If there is any leakage of ozone in the system, turn it off immediately and leave the space and only return after 30 minutes (so that all the ozone in the air is completely dissipated).

According to OSHA standards, you should not be exposed for more than 0.1 ppm for periods of 8 hours / day.

## During the Installation

✓The treatment of the pool with ozone is performed by the introduction of ozone in the Circulation System of the pool's water, using a Venturi (supplied with the System).

## Before Turning On the Ozone Generator

- ✓Check all electrical connections.
- ✓Make sure that the Circulation Pump works with a voltage of 240V.
- ✓Make sure that the Ozone Generator is correctly connected to the Circulation Pump Control Board. Check the hydraulic system for leaks.
- ✓Check that there is no leakage of ozone (Breathing ozone directly can be toxic, OSHA regulations must be observed. Avoid sniffing or breathing directly over the equipment's air outlet).

## Pool Preparation

To guarantee better results, the Ozone Pool Treatment System should be installed when the pool is clean, free of algae and chemically controlled, this way you will obtain better results in controlling the water in your pool.

For this, we recommend that before installing the Ozone System, following procedures are carried out:

- ✓Clean the filter (BackWash) the day before the ozone treatment begins.
- ✓Make a shock treatment of the pool, using chlorine-based products, following your recommendations for use.
- ✓Make sure that the pH of the water is between 7.0 and 7.8 and the alkalinity is between 80 and 120 ppm.

## Pool Treatment

### ✓ *Pool Aspiration*

Make sure that the Ozone Generator System is only connected with the Filter in the “FILTER” position.

### ✓ *BackWash, Drainage, Pre-Filtration and Circulation*

To perform any of these operations (any operation in which the filter is not in the “FILTER” position), turn off the Ozone Generator System.

### ✓ *Alkalinity / pH*

Ozone does not interfere with the pH of the water, reducing the need for regular adjustments. However, to achieve better efficiency of your Ozone System, keep the pH of the water between 7.0 and 7.8 and the alkalinity between 80 and 120 ppm.

### ✓ *Clarifiers / flocculants and water clouding*

Ozone acts as a flocculant, gradually clarifying the water. For regular use of the pool, no chemical clarifiers are required. These may only be necessary if there is an excessive use of the pool.

After installing the Ozone Generator System, in the first days you may notice some water clouding. This arises from the fact that ozone flocculates the impurities present in the water, forming small particles that make it cloudy. To make the water crystal clear, ensure that the Ozone Generator System continues to function, these impurities will be eliminated through the filter. Water clouding may also occur when the chemical characteristics of the water (pH, alkalinity and calcium hardness) are not correct. If needed, make the necessary corrections.

To speed up the clearing of the water, vacuum the pool and clean the filter, increase the operating time of the Ozone Generator (minimum 8 hours / day), use filter aid products (place the tablets in the Skimmer or in the pre- filter to increase the efficiency of the filter). Ensure this procedure for a few days until all particles are retained by the filter.

### ✓ *Residual Chlorine*

Ozone will oxidize impurities and destroy microorganisms in the water, then return to its original form - Oxygen. Due to its fast action, it has no residual effect on the pool. It is recommended to maintain a residual free chlorine between 0.5 and 1 ppm, values that allow secondary treatment (ozone will be the main treatment) and these values are undetectable by the body. If the circulation of the pool water is not complete (“dead” corners) it is recommended to apply residual chlorine.

Ozone will also eliminate chloramines, that is, the by-products caused by chlorine and responsible for the strong smell, irritations and other annoyances .

### ✓ **Algae**

As already mentioned, ozone does not have a residual effect on the pool, hence algae may appear on the walls and edges of the pool. To prevent this from happening, the weekly use of algaecide maintenance is recommended (following the using instructions for the chosen product). It is also recommended to use an algaecide during the rainy season, as these are rich in nutrients favourable to the appearance of algae.

The water circulation cycles and the consequent functioning of the Ozone Generator must be carried out during the day, as this is the best period for the photosynthesis and consequent algae growth.

If your pool is subject to the appearance of a large amount of algae in the water or on the walls of your pool, we recommend a shock treatment with chlorine, after which you must continue with the ozone treatment.

### ✓ **Interruption of pool treatment**

If, for any reason, you interrupt the ozone treatment of the pool, to resume the ozone treatment, it is recommended to carry out the steps described on page 5 of this manual under "Pool Preparation".

### ✓ **Importance of choosing the right equipment**

Solution Ozone® offers a standard range of 5 ozone generating systems for the treatment of swimming pools, according to the volume of water. Always choose a model that is in accordance with the dimensions of your pool, as this is the only way to guarantee the effectiveness of the treatment. For swimming pools with upper volumes, we have developed the custom-made equipment.

## **Maintenance**

✓ It is recommended to perform an annual maintenance of the Ozone Generator by technicians certified by Solution Ozone®.

Maintenance Plan	Biweekly	Monthly	Semiannual	Annual
Check the Fan Dust Filter	X			
Check the Pressure in the Circulation and		X		
Perform the O <sub>3</sub> Generator Checkout by				X

**Table 2** - Maintenance Plan

## Cautions

- 1 - Follow the instructions in this Manual carefully.
- 2 - Ensure that the equipment is placed in a location where it is at a level above the maximum pool water level of at least 50 cm. Use the fixing brackets and fix the equipment so that the water inlet and outlet are downwards.
- 3 - You should not put the system into operation if the ozone generator is not well supported. Ensure the installation of the equipment in a safe place, which protects it from the weather, splashing water or excessive heat. When not in use, store the equipment in a dry place at room temperature. Keep the equipment away from sources of water and / or moisture.
- 4 - Do not breathe ozone directly. Breathing ozone directly can be toxic, OSHA regulations must be respected. Avoid sniffing or breathing directly over the equipment's air outlet.
- 5 - Do not remove the screws or security seals from the equipment, in addition to violating and voiding the warranty of the same, there is a risk of electric shock. Remember that this equipment operates at high voltage even when disconnected from the power supply.
- 6 - Keep the equipment out of the reach of children.
- 7 - Do not cover the equipment during its operation.
- 8 - Do not insert any objects through the ozone outlet grilles, as this may cause equipment malfunctions or short-circuits.
- 9 - Clean the equipment with a clean, dry cloth. Do not use abrasive products.
- 10 - Do not open the equipment - High Voltage inside.

## Problems / Failures

Problem / Failure	Possible Causes	To DO
The Ozone Generator does not turn on	Generator without power supply	Check that the power is working properly.
	Blown Generator Fuse	Replace the fuse.
There is no ozone in the pool	Deregulated bypass valve	Check the pressure on the Manometer and adjust it to the recommended venturi pressure for your equipment.
	Water Inlet and Outlet	Check that the Inlet and Outlet Water connection are correct and that water is circulating through the system piping.
Ozone ON Led does not light up and the Power ON Light is ON	System temperature too high	Turn OFF the equipment for 2 hours and turn it ON again to check if the light comes ON with the equipment in production.

**Table 3 - Fault Identification**



### Included

- ✓ O<sub>3</sub> System SSO-03-02GPOOL01;
- ✓ Power cable 3.0 m;
- ✓ Manometer;
- ✓ ½" T;
- ✓ User Manual.

### Technical Specifications

System Features	
H <sub>2</sub> O Volume	≤25 m <sup>3</sup>
Voltage	230V AC
Power	60W
Thermal Protection	60°C
Measures (H x W x D)	30 x 25 x 21 cm
Weight (kg)	7,25
Maintenance	Periodic (see table 2)

Supply Gas	
Input	Air (Optional Oxygen)
Input Type	Internal
Air Flow	4 Lpm

Atmospheric Temperature	
Working	From 0°C to 45°C
Storage	From -10°C to 60°C

Ozone Generator	
Oxygen Flow	4 Lpm
Ozone outlet based on oxygen supply	2 g/h
Power	20 W
Cooling	Air cooling to the inner and outer electrode

Venturi	
Venturi Size	½ "
Water pump power (KW)	0.35
Inlet pressure (bar)	2.0 – 4.0
Outlet pressure (bar)	0.0 – 1.0
Air suction capacity (Nm <sup>3</sup> /h)	4.0 – 7.0
Dissolved oxygen (kg O <sub>2</sub> /h)	0.3 – 0.5
Water flow (m <sup>3</sup> /h)	0.2 – 1.0

**Symbol Legend:**

m<sup>3</sup> – Cubic Meter / m<sup>2</sup> – Square Meter / cm – Centimeter / m – Meter / Lpm – Liters per minute / L – Liter / W – Watts / KW – Kilo Watts / V – Volts / KV – Kilo Volts / Hz – Hertz / AC – Alternating Current / °C – Centigrade Degrees / O<sub>2</sub> – Oxygen / O<sub>3</sub> – Ozone / H<sub>2</sub>O – Water / K – Kilo / g – Gram / mg – Milligram / h – Hour

## Warranty

1 - This equipment has a free 2 years warranty period, if the equipment fails in normal use, according to the manual instructions (determined by the company). To activate it, you must present the invoice and the warranty card.

2 - The warranty applies to the Ozone Generator System. Consumables such are not covered by the warranty.

3 - During the warranty period, the following conditions are not covered:

- Does not present the warranty card and invoice;
- Failures and damages caused by improper use or improper repairs;
- Failures and damages caused by transport and fall;
- Failures and damages caused by other external factors, natural disasters or other human factors;
- Failures and damage caused by water or other types of solutions on the equipment;
- Failures and damages caused by the use of energy or voltage other than those specified;
- Failures by different use from what is specified in this manual;
- Damaged or missing Warranty Seal;
- Signs of attempting to open the equipment.

## Warranty Card

Full name		Phone Number	
Address			
Invoice nr.		Purchase Date	
Maintenance Record			
Date of Maintenance			
Analysis			
Result			
Clerk Signature			



[www.solutionozone.com](http://www.solutionozone.com)  
[info@solutionozone.com](mailto:info@solutionozone.com)

