

# Instructions for Use



## Ozonizer S 500 / S 1000



## Introduction

Congratulations! With your Sander Ozonizer S 500 / S 1000 Unit you will be satisfied, because you can now benefit from many years of technical aquarium experience that the Sander Company has in producing guaranteed quality devices for successful fish-tank engineering.

Before using the device, please make sure you have read the general safety instructions. Please read the instructions for use attentively and keep the instructions nearby in case you have any questions. Should the Quality Device be given to a third, be sure to give on also the instructions for use with the item. Please use the device only in the described manner for the specified ranges.

## Appropriate use in an aquarium or fish-pool

The Ozonizer S 500 / S 1000 is an Ozone generating device which has an Ozone performance of 500 / 1000 milligrams per hour (measuring in dry air). While used in damp surrounding air (40 – 80 % air moisture), the ozone performance may be diminished by 50 %.

The Ozonizer Unit produces Ozone out of fresh air and was developed especially for aquarium and fish-pool needs. The Ozone electrode is deposited under water, at least in 20 cm depth or deeper. We recommend the use of our Sander Maxi-Skim in Seawater, or as an equivalent in Sweetwater, our Product Fresh-Skim. The device was synchronized specifically for use with the mentioned products and may only be operated as represented in the following instructions according to the corresponding combination.

Please notice that other uses or modifications of the device are regarded as not appropriate and can involve the danger of injury and/or harm of the device. For any damage resulting from adverse device use, the manufacturer has no liability. This quality device is not determined for industrial usage.

## Identification of advices



**Hinweis**

IMPORTANT INFORMATION



ATTENTION, DANGER OF ELECTRICAL ENGERY



**Gefahr**

ATTENTION, DANGER

## Unit description



- 1 Ozone production lamp
- 2 Control knob
- 3 High voltage disturbance lamp
- 4 Temperature disturbance lamp
- 5 On/off switch (only S 1000)
- 6 Four Screws
- 7 Ozone element
- 8 Air connector
- 9 Ozone connector
- 10 12 V Socket

## Technical Information

Ozone performance:	500 or 1000 mg/h
Power supply:	100 to 240 VAC 50/60 Hz
Running power:	12 VDC
Power consumption:	0,85 A or 1,6 A

## Contents of delivery

Before starting the unit, check whether the following delivery contents are complete and undamaged:

1 x Ozonizer S 500 or S 1000 Unit, 1 x Power supply unit and an Instruction booklet.

## Information about possible dangers:



The Ozonizer unit is used on the owner's risk.

Ozone which is released and breathed in, can be hazardous to your health. The Owner should therefore take care that only the needed amount of Ozone is produced. The actual allowed amount of Ozone at working places (MAK) is a maximum of 0.1 ppm (Pieces per million/ 200 microgram). Ozone can already be detected in 1/5 to 1/10 (0.02 ppm) of that amount. Should a surplus of Ozone be evident (Smell of Ozone), the Skimmers air valve must be placed outside or lead into an Ozone-deminisher Unit.

The Ozonizer must have sufficient fresh air to supply the device (at least 50 litres/hr.)

The device is not a toy. Children should not have access to the Ozonizer unit.

Please do not dismantle the unit under any circumstances. By inappropriate repairs, considerable dangers can result for the owner. If needed, contact the manufacturer or an authorized technician for repairs.



Should the Ozonizer be damaged in any which way, please do not operate it without having it checked. Damaged devices may be an unnecessary and considerable danger to the owner.

## Warranty and liability information

All of the Ozonizer units we produce have a 24-month guarantee. Within the guarantee, all parts effected by material defects or improper assembly will be replaced with no further cost.

### **Please note: the following are not covered by warranty:**



**Hinweis**

Any damage done to the unit by misuse (differing from the Ozonizer using guide instructions) or failure following the instructions supplied.

Any damage done to the unit by unauthorized repair, disassembly, improper cleaning or opening the device.

Any damage done to the unit by an accident, improper transportation, dropping or hitting the device after the date it was bought.

The guarantee and liability of Erwin Sander Elektroapparatebau GmbH Company covers only the delivered Ozonizer S 500 / S 1000 Unit.

## Setting up and attaching the Ozonizer

### A. Proposing the wall mounting

On the backside of the Ozonizer there are two shallow holes for hanging the device on a vertical wall. The holes can be used to attach the Ozonizer to screws held in a wall. The Ozonizer should be set up above the water level of the Aquarium, so that water can not flow back into the device in case of a power supply fall out.

### B. Proposing the installation in a technical cabinet

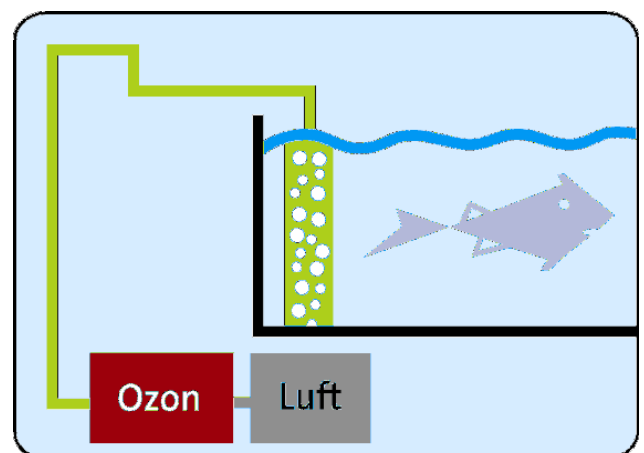
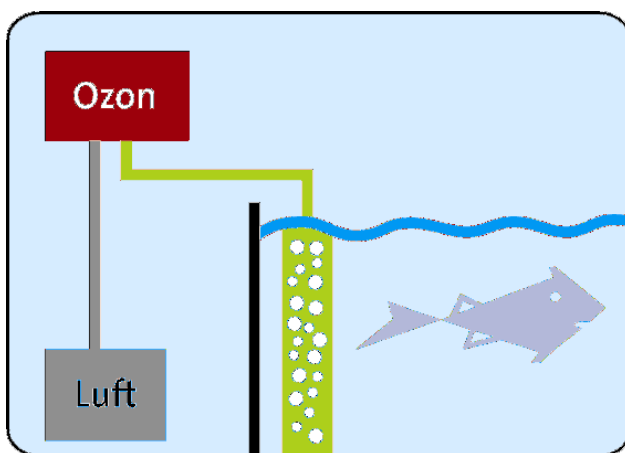
The Ozonizer can be set up in a technical cabinet under the aquarium, if there is sufficient fresh air supplied. In this case, there should be an upper tube-coil to avoid the flowing back of water. The Unit can also be set up on a flat stable surface, hung on a vertical wall or inside a technical cabinet, yet it should always have enough fresh air flowing around it to avoid overheating.

## Attaching the Ozonizer using a Skimmer

The Ozonizer has two air tube connectors on the front side. The left connector (8) is attached with an air tube that leads to an air-pump. The right connector (9) on the Ozonizer is attached to a Skimmer that has an escaping wooden air valve. When all the air-tubes are attached, the power plug can be plugged into a socket.

## Alternative: Setting up the Ozonizer when using a Skimmer with an Injector

Attach the Injector with the right connector (9). The air is automatically sucked into the Ozonizer. To avoid an air-pollution through surrounding dust, we recommend using an air filter like a Sander wooden air valve No. 4 for sucking fresh air into the air inlet (8).



## **Operating the Ozonizer**

Place the Ozonizer and the power adapter in a dry area. Plug the 12 V. power connector into the Ozonizer socket (10). The Ozone performance can be adjusted with the control button (2). For 100 Litres of Seawater we approximately need about 10 milligrams Ozone. For 100 Litres of Sweet-water about 5 milligrams Ozone are required.

Plug the power cord into a wall socket. The Ozone production lamp (1) only lights up when Ozone production begins and it shows that the Unit is actually producing Ozone. It will get brighter when the Ozone performance is constantly set to 100 %.

To determine the exact amount of needed Ozone, use a Sander Redox potential measuring and regulating unit, which can be connected to the Ozonizer. The Redox potential measuring and regulating unit can be used to turn the Ozonizer on and off automatically. The Ozonizer should be adjusted for full Ozone performance while used with a Redox Unit (Sander Redox potential measuring and regulating unit for 12VDC devices / Article Nr. 7.1C).

When used for the very first time, we recommend raising the Ozone performance slowly, so the aquarium can adjust to the improved water quality.

## **Cleaning and maintenance of the Ozone Generator**

The Ozone performance can decrease because of dusty, polluted or moist air. Therefore it may be necessary to open and clean the Ozone element (7). The Ozone element can be opened on the front side by loosening the 4 screws with a customary screw driver. The manufacturer recommends checking the unit regularly towards pollution if it is always running and cleaning it if necessary every 3 to 6 weeks.

The cleansing process in steps:

- Disconnect power supply cable (10) and pull it out of Ozonizer socket
- Unscrew the 4 screws (6) of the Ozone element (7) with a screwdriver
- Lift up the cover (7) of the Ozone element
- Carefully wipe the Ozone plates with a cloth clean (if needed, use normal tile cleaner) and let the plates dry completely.

Assembly:

- Attach the Ozone element (7) and tighten the screws crossing over each other
- Connect the power cable (10) to the Ozonizer

## Disturbances

### Disturbance of high voltage (3)

The Ozone element can be disturbed by water or dirt that has seeped into the Ozone element. Pull the power cable, blow pressed air through the Ozone element to get rid of water, clean as described above.

### Disturbance of temperature (4)

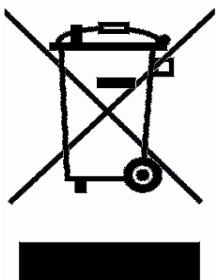
Cause of overheating: Insufficient surrounding fresh air (example: a closed technical cabinet) leads to less air flowing through the device during a maximum performance setting. The Ozonizer will start up automatically after cooling down.

Should the disturbance continue after cleaning, send the Ozonizer in for an official check-up.

## Disposal



The wrapping consists of non-polluting materials which you can dispose of at any local recycling collection places.



Possibilities for disposing the used product can be asked about at your municipal administration. In interest of general environmental protection, do not dispose of the device in domestic garbage, but provide for an appropriate way of disposal. You can be informed about garbage collecting places and opening hours at your public administration.

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