

Operation manual



Ozone

Ozone generators

Models:

- Ozone 25
- Ozone 50
- Ozone 100
- Ozone 200
- Ozone 300

With the purchase of ozone generator you have selected a top quality product. It has been specifically designed for aquaristic purposes.

1. Basics

Ozone- generators are units to produce ozone from air. Ozone is a very powerful oxidising agent. If ozone is introduced into water organic waste is oxidised. Even toxic nitrite can be oxidised to nitrate. Ozone itself is toxic, so it cannot be directly introduced into the aquarium, but only via an ozone recator. For saltwater aquariums, we recommend an Aqua Medic protein skimmer, e.g. Turboflotor multi SL.

The capacity of your unit is indicated on the label. This capacity is based on dry air. If operated with ambient air (approx 40 – 50% humidity), the ozone output decreases to about 50%. When pure oxygen is used, the output is doubled.

2. contents: 1 **Ozone-** generator, 1 power supply, operation manual.

3. Installation and Set up

The **Ozone-** unit is connected with an air hose of 6 mm (¼“) diameter with the air inlet of a protein skimmer. The hose has to be ozone proof (silicone tube). Depending on the type of the protein skimmer, there are 2 possibilities:

- Protein skimmer with air stones (e.g. Aqua Medic **Miniflotor**) The air is pressed from the air pump through the **Ozone** unit to the protein skimmer.
- Protein skimmer with injector (e.g Aqua Medic **Turboflotor multi SL**). The injector can be connected directly with the ozone outlet. The air is then sucked through the **Ozone** unit. If the injector has a very high capacity, the **Ozone** unit has to be connected in a bypass..

The **Ozone** – unit has to be set up dry. It has to be prevented, that water enters the unit in case of power failure or breakage of the membrane pump. There are 2 possibilities of set up:

- above the water level.
- below the water level. In this case, a good non return valve should be placed into the air line and a hose loop should be installed, reaching 20 cm above the water level to prevent a backflow of water.

The unit has to be set up in a way, that there is always access to the mains plug.

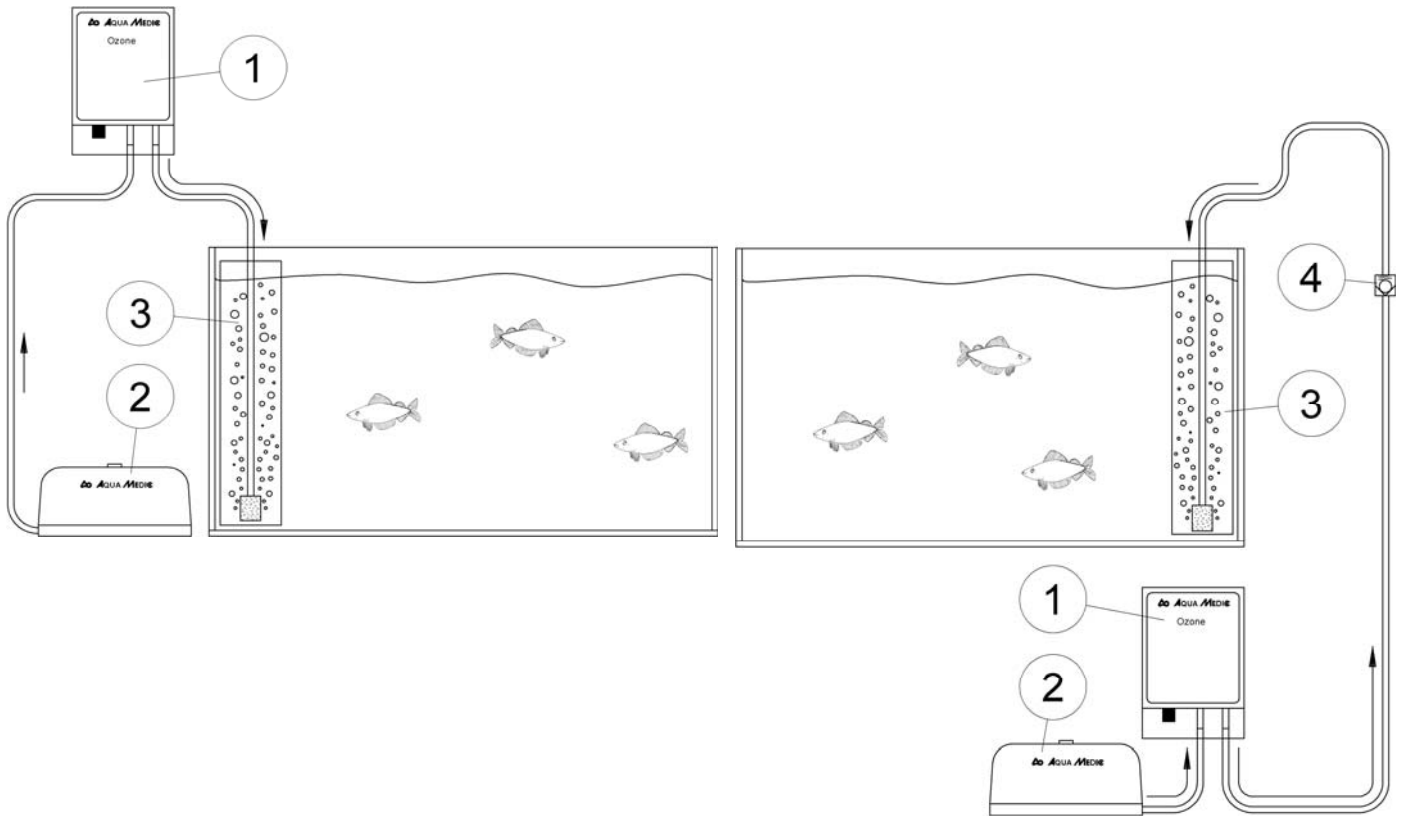


fig 1: set up above the water level

fig 2: set up below the water level

1. Ozone unit
2. membrane air pump
3. Ozone reactor (protein skimmer)
4. Non return valve

4. Adjustment

The ozone output can be adjusted by turning the rheostat (1). We recommend to use 10 mg ozone/h as standard value for a 100-l-marinetank and 5 mg ozone/h for freshwater aquariums. The operation of the unit is indicated by the LED (7). When started, it glows just weakly. If the power is increased at the rheostat, it lights more strong, at 100% the LED glows constantly strong.

To determine the exact ozone requirement of the aquarium, we recommend to use the **Ozone** unit combined with an ORP (redoxpotential) controller, e.g. the **AQUA MEDIC mV controller** or mV computer. The **mV computer** switches off the **Ozone** unit automatically, as soon as the adjusted set value of the redox potential is reached. Overdosing of ozone is toxic for all life in the aquarium.

For the start up, we recommend to increase the ozone output slowly over a period of 14 days to let the biology of the aquarium adjust to the better water quality.

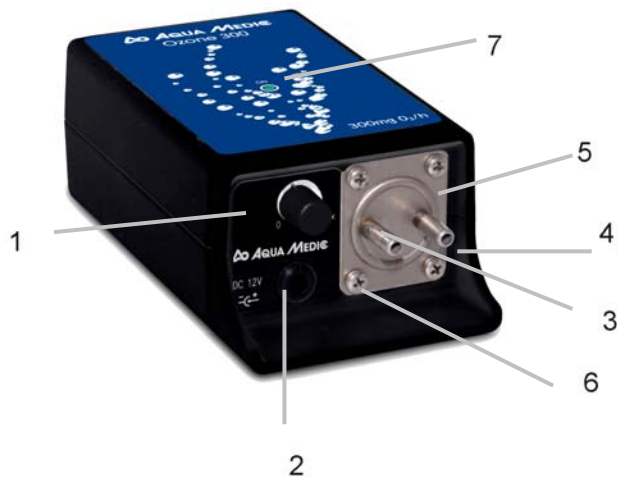


fig 3: parts of the ozone unit:

1. rheostat
2. power plug (2)
3. air inlet
4. ozone outlet
5. ozone element
6. screws
7. LED (operation indicator)

5. Maintenance/Cleaning

The ozone production decreases considerably due to the influence of high humidity and dust. The ozone element can be opened and cleaned easily. We recommend to check and clean the unit every 8 – 10 weeks if operated continuously.

How to clean the ozone element:

- Disconnect the power plug (2)
- Loosen and unscrew the screws(6) of the ozone element. (5).
- Take off the lid of the ozone element.
- Clean the ceramic ozone plate with a soft cloth, using warm tap water. Do not use detergents. Let it dry again.
- Put the lid of the ozone element back in place, and check, that the seal is placed exactly back into the groove.
- Tighten the screws evenly
- Connect the power supply.

6. Failures

The ozone production may decrease due to water or dirt entering the ozone element. Try to remove any particles by blowing air through the unit or clean it as described before. If the failure cannot be removed, please send the unit for repair.


7. Safety advice

Free ozone is hazardous for health, if inhaled. Therefore, please take care that not more than the required amount of ozone is produced for each application. In case residual ozone can be scented, the waste air outlet of the protein skimmer, should be let into the open air or directed to a residual ozone remover. The maximum MAK value (maximum concentration at work stations) is 0,1 ppm (200 µg/m³) of ozone. However ozone is already perceptible if 1/5 or 1/10 of this concentration (0.02 ppm) is reached.

The Ozone- unit is designed for use in closed rooms, only. Before you open the unit, the power plug has to be removed. Do not use the unit, if the power cable is damaged

8. Warranty

On the **Ozone** units we guarantee 24 months on material defects. Excluded are wearing parts. Proof of purchase is the original invoice.

 **AQUA MEDIC** warrants only material and workmanship defects. The warranty will not apply to complaints which are due to improper installation or misappliance, poor cleaning, frost, calcium deposition or improper repairing.

In our production we use only quality materials. Nevertheless, in case of a justified complaint, we provide a repair or a replacement of defective parts free of charge. We reserve the right to charge the assembly costs. Generally, all warranty claims have to be treated either through us or an approved service centre.

If you make use of the warranty, send the defective unit or part inclusive the proof of purchase and a complaint report prepaid in.

We are not liable for consequential damages caused by failures of the **Ozone** generator.

Complaints due to transport damages can only be handled if the damage has been monitored and confirmed by the carrier at the time of delivery.

 **AQUA MEDIC** GmbH -Gewerbepark 24 – 49143 Bissendorf/Germany 06/04

You can find Our complete program under www.aqua-medic.de

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