

# Usage instructions



## Solar air pump „Solar Air-S“

**Note:** When plugging the plug into the solar module, no force may be used. The front side of the solar module can easily be broken.

**Attention:** Danger of injury! A broken module cannot be repaired and must be disposed of in an environmentally sound manner.

### 5. Maintenance and care

The pump and the solar module do not need any special maintenance. If the spring stone should be clogged, it must be replaced through a new spring stone. These spring stones are available from the manufacturer or in specialty shops.

From time to time wipe the solar module clean with a soft and slightly moist cloth.

### 6. Technical data

#### Solar module

- Capacity: 1.5 Wp
- Nominal voltage: 7.68 V
- Nominal current: 195 mA
- Safety class: IP 64
- Protection class: III
- Temperature range: -30°C to +70°C

#### Air pump:

- Operating voltage: 6 bis 9 V DC
- Flow rate: max. 120 l/h
- Max. air capacity: >450 mmHg
- Safety class: IP 44
- Cable length: 3 m
- Protection class: III
- Temperature range: +4°C to +40°C

#### Note: Use in winter!

The air pump can also be used in the winter. It should however be noted that the air pump is placed in a dry place free of snow and that the air hose is not stopped up with ice.

### 7. Safety instructions:

**DANGER for children!** Keep children away from the small components (rising pipe and sprinkler) that can be swallowed and from the packaging material. Danger of suffocation exists!

**WARNING against the danger of tripping!** Lay the connecting cable in such a way that it does not cause people to trip!

**CAUTION material damages!** If you setup the solar module without the holder, please ensure that it is stable. The solar module can be damaged if it topples over or a foreign body collides with it.

#### Manufacturer / Importer

esotec GmbH - Gewerbegebiet Weberschlag 9 - D-92729 Weiherhammer  
Tel.-Nr: +49 9605-92206-0 - Fax.-Nr: +49 9605-92206-10 - Internet: www.esotec.de

#### Disposal:

Dear customer, please cooperate in avoiding waste. When you intend to dispose of the product in future, please consider that it contains valuable raw materials suited for recycling. Therefore, do not dispose of it with domestic waste but bring it to a collection point for the recycling of waste electrical and electronic equipment.




Thank you very much for your cooperation!

**Customer support:**  
If you have problems or questions regarding this product, simply contact us!  
**Monday to Friday 9 am to 12 noon and 1 pm to 4 pm.**  
By phone: +49 9605-92206-0  
By e-mail for ordering spare parts: [ersatzteil@esotec.de](mailto:ersatzteil@esotec.de)  
By e-mail for questions about the product: [technik@esotec.de](mailto:technik@esotec.de)  
**Product: Manufacturer Item No.: 101870**

These instructions relate **ONLY** to this product and contain important information for using the product for the first time. Please keep these instructions for later reference and should always accompany the product in the event of transference to a new user.

### 1. Introduction

Dear Customer, thank you for purchasing the solar pump kit. With this solar pump kit you purchased a product manufactured according to the current state of technology.

 **This product fulfils all requirements of the valid European and national regulations. The conformity was proved. The relevant declarations and documentation are deposited with the manufacturer.**

To maintain this state and guarantee a safe operation, you as the user will have to follow this operating manual!

### 2. Safety Instructions



- In case of damages caused by not following this operating manual, the warranty rights will expire! We exclude liability for any consequential damages!
- We exclude liability for property or personal damages caused by inappropriate handling or not following the safety instructions.
- In these cases any guarantee rights will expire.

Due to safety and admission reasons (CE) it is not allowed to arbitrarily reconstruct and/or change the solar pump kit.

Therefore, please keep to the operating manual.

The accident prevention rules of the association of the industrial trade cooperative association for electric plants and working material are to be considered in industrial environments.

### 3. Intended application

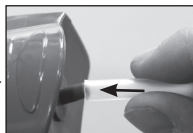
- The system is conceived for outdoor use in the garden pond. Depending on the amount of sunshine on the solar module, the pump pumps air.
- Direct sunshine is necessary for the pump to function.
- The system is especially characterised through the fact that it is simple to install. No tools are necessary for the installation. To start up, the system needs sunshine on the solar module.
- The device has no on or off switch. As soon as the pump and the solar module are connected to each other, the pump can pump air (provided there is enough sunshine).
- In order to safely interrupt the pumping, you must cut off the cable connection between the solar module and the pump.

### 4. Assembly and start up

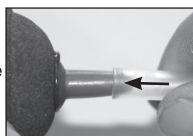
The pump system consists of the following parts:

1 piece solar module with ground stake, 1 piece air pump with plastic housing with 3 m connection cable, 2 m air hose and spring stone.

1. Fully roll out the connection cable on the pump and the air hose.



2. Attach the hose on the air output connection of the pump.



3. Attach the other end of the hose to the connection of the spring stone.

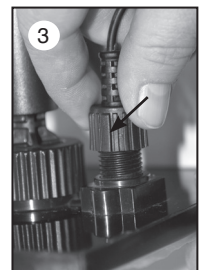
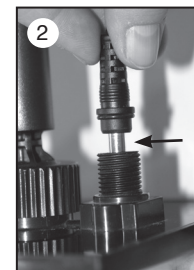
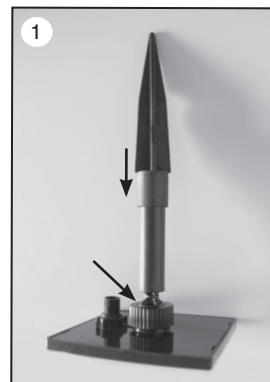
4. Now place the pump on the edge of the pond. In order to prevent a reflux of the water when the pump is inactive, the pump must always be placed above the water level. If this is not possible, a backflow valve (accessories) must be built into the hose.

**Note:** The pump is not waterproof, never place it in the water.

**Note:** The pump suction in the air on the bottom side. Please make sure that the two slots on the bottom side are always free and do not lie in water.

5. Now assemble the ground stake on the back side of the solar module with the connecting nut and then put them together (Ill. 1).

6. Connect the plug of the pump with the socket of the solar module (Ill. 2) and screw the cap tight (Ill. 3). Place the solar module in a sunny place free of shade in a southern position.



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