

## Usage instructions „Solar air pump 5/130 Pro plus“



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 light. With this solar light 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 light.

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 Use

- The pump system is designed for the outdoor use in garden ponds. The integrated accumulator is charged depending on the solar radiation to the solar module and the pump will produce air.
- A direct and shadow-free solar radiation is required for the function of the pump.
- When starting the pump, the integrated accumulator may be partially discharged and the pump will not produce/lift any water. Please charge the accumulator in the accumulator station for one day with solar radiation and leave the pump switched-off while charging (switch in position "OFF"). For more details, please see the manual of the accumulator box.
- 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.
- In order to safely interrupt the pumping, you must cut off the cable connection between the solar module and the pump.

### 4. Assembly and commissioning

The pump system consists of the following components:

- 5 Wp solar module with ground spike.
- Air pump in a plastic housing with a 5 m connection cable.
- Accumulator box with a 6,4 V / 1,5 Ah Li-Fe accumulator.
- 2m air hose and air stone

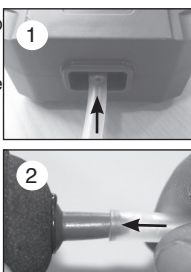
**Note:** Before assembly, please carefully read the manual of the accumulator box. It contains important information and notes!

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 (Picture 1).

3. Attach the other end of the hose to the connection of the spring stone (Picture 2).

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 suctions 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. Please make sure that the accumulator box is switched-off and now connect the plug of the pump with the socket at the accumulator box.

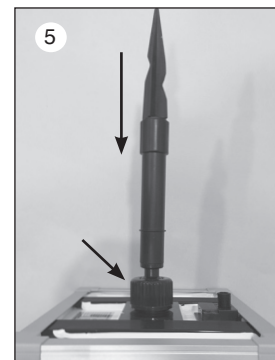
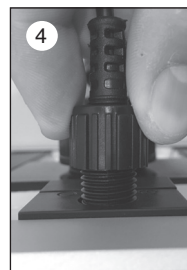
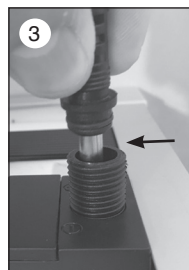
6. Completely unroll the cable at the accumulator box and insert the plug into the back side of the solar module (Picture 3 + 4).

7. Now, screw the ground spike tight at the back side of the solar module by means of the cap nut and insert the solar module at a sunny and shadow-free place (Picture 5).

**Note:** Before switching on the system, please carefully read the manual of the accumulator box and pump. It contains important information and notes!

**Note:** Do not apply force when inserting the solar module. The front side of the solar module is fragile.

**Attention:** Risk of injury! A broken may not be repaired anymore and has to be disposed of it in an environmentally sound manner.



### 5. Spareparts

5 m extension cable for pump: item no. 101740  
5 m extension cable for solarpanel: item no. 101740  
2 m air hose: item no. 911200  
Air stone: item no. 911202  
Battery pack Li-Fe 6,4 V / 1,5 Ah: item no. 901019

available at: [www.solarversand.de](http://www.solarversand.de)

### 6. Maintenance and care

Please refer to the instructions for the corresponding product for information on the care and maintenance of the battery box and pump.

**Note:** Before carrying out any work on the pump, switch off the system or disconnect the plug connection between the pump and the solar module.

### 7. Storage during the winter

In case of sub-zero temperatures, i.e. during the winter, the pump and the accumulator box have to be stored at a warm place. Switch-off the accumulator box (position "OFF"), for further notes, see manual of the accumulator box.

### 8. Technical Data

#### Solar air pump 5/130 Professional plus

- System voltage: 6 VDC

#### Solar module

- Cell type: polycrystalline
- Number of cells: 16 pcs.
- Nominal power: 5 Wp
- Nominal voltage: 7,68 V
- Nominal current: 651 mA
- Protection class: IP 65
- Temperature range: -30°C bis +75°C

#### Air pump:

- Operating voltage: 6-9 V DC
- Power consumption (6V): approx. 1 W
- Max. flow rate: approx. 130 l/h
- Max. air capacity: >450 mmHg
- Protection class: IP 44
- Temperature range: +4 bis +40°C
- Cable length: 3 m

#### Accumulator box:

- Max. runtime (fully charged battery): approx. 8 h
- Accumulator: LiFe 6,4 V / 1,5 Ah
- Output voltage: 6 V DC
- Max. load (output): 2 W
- Max. connectable module capacity (input): 5 Wp
- Protection class: IP 44



## 9. Safety Notes:

**DANGER for children!** Keep your children away from small parts which may present a choking hazard (standpipe and sprinkler) and the packing material fern. There is danger of suffocation!

**WARNING of trip hazards!** Please lay the connection cable so that it won't constitute a tripping hazard!

**CAUTION material damages!** If you set up the solar module without any module mounting you will have to pay attention to an adequate stability. The solar module may be damaged due to toggling or impact by foreign bodies.

## 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 it of 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!

## Manufacturer, customer support:

### **esotec GmbH**

Gewerbegebiet Weberschlag 9  
D-92729 Weiherhammer

Tel.-Nr: 09605-92206-0, Fax.-Nr: 09605-92206-10

E-Mail: [info@esotec.de](mailto:info@esotec.de)

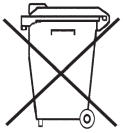
Internet: [www.esotec.de](http://www.esotec.de)

**Manufacturer item no.: 101843**

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## Battery take-back

- Batteries must not be discarded into domestic waste.
- The consumer is legally required to return batteries after use, e.g. to public collecting centers or to battery distributors.
- Contaminant-containing batteries are labeled with the sign "crossed-out trashcan" and one of the chemical symbols. Used batteries should be disposed environmentally friendly and should not be discarded into domestic waste. Your dealer is legally required to take back old batteries.



**Li-Fe**