# User manual stream pump "Garda"



#### **Customer support:**

If you have problems or questions regarding this product, simply contact us! Monday to Friday 8 am to 12 noon and 1 pm to 4 pm.

By phone: 09605-92206-27

- By e-mail for ordering spare parts: ersatzteil@esotec.de By e-mail for questions about the product: technik@esotec.de
- Product: Manufacturer Item No.: 101760

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 Costumer.

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

This submersible pump is designed for the delivery/feeding of water in a garden stream, fountain or similar. Via a hose connection, this pump is able to deliver water and is particularly suited for the feeding of streams. This pump is only suited for the delivery of water!

A solar module with a minimum power of 25 W, a rechargeable battery with an operating voltage of 12 V or a power supply unit with a voltage of 12 Volt may be used as energy sources. In case the pump is used with a solar module, the pump will only work if the solar module is exposed to sufficient solar radiation.

The water pump does not have an on/off switch. The pump starts delivering water as soon as it is connected to the power supply.

### 4. Assembly and activation

- Completely unroll the connecting cable on the stream pump. 1
- The hose connection is suitable for various hose diameters (inside diameter 25, 32 or 38 mm). Cut the connection according to the diameter of your hose by means of a saw. Attach the hose onto the outlet and secure it by means of a matching hose clamp (not included in the delivery).
- 3. Mount the hose connection to the pump outlet by means of the enclosed gland nut. Via the ball joint, the hose outlet may, according to the circumstances, be adjusted under water.
- 4. Completely immerse the stream pump into the water (in doing so, please pay attention to point 5.).
- 5 Now supply the stream pump with energy. For this purpose, please use the enclosed connector and cable (brown = positive pole, blue = negative pole). In case you bought the pump as a complete solar system, then the solar module is already equipped with the matching connector.

Note: The connector is reverse polarity protected; please do not apply force when plugging it in.

## 5. Protection against dry running

By standard, the pump is equipped with a protection against dry running. For this purpose, there are two sensor points attached to the side of the pump body (not visible from the outside). The pump will work if those points are underwater. The pump does not work of one of the points protrudes from the water!

## 6. Maintenance and care

In order to maintain the performance of the pump it is from time to time, depending on the water contamination, required to wash out the pump with warm water. For this purpose, open the body as follows:

Note: Please do not apply force when assembling and disassembling the pump. The parts are were delicate and may break easily.

- 1. Unplug the connector of the pump.
- Take the pump out of the water and twist off the hose connection. 2.
- Loosen the 4 screws on the bottom side of the pump. 3.
- Carefully open the body and take the pump out of the body. 4. 4.
- Take off the plastic pre-filter and clean it with warm water. Rotate the water outlet anticlockwise by approx. 90° and take it off carefully.
- 5. Remove the discs and the spacer ring from the ceramic shaft and pull out the 6. impeller wheel. The ceramic shaft may be pulled out if required.
- 7. Now, carefully clean all parts with warm water.
- Clean the contacts at the side of the pump with a soft brush. 8.

After the cleaning, assemble the pump in reverse order. 9

The pump is ready to use again.













- 2. Water outlet 3. Discs and spacer ring
- 4. Ceramic shaft
- 5. Impeller wheel
- 6. Seal
- 7. Sensors for the protection



### 7. Malfunctions

The pump does not deliver any water Is the pump completely immersed in the water? protection against dry running. (point 5)

- Was the supply voltage connected with reverse polarity? Cable color brown = + (positive) pole, blue = - (negative pole).
- Pump dirty? For the cleaning of the pump see point 6.
- Capacity of the connected solar module or power supply unit sufficient?

### 8. Technical data

Operating voltage: 12 - 18 V DC Protection class: IP 68 Power input: approx. 8 W at 12 VDC - approx. 17 W at 18 VDC max. 1,05 m at 12 VDC - max. 2,1 m at 18 VDC max. 1800 l/h at 12 VDC - max. 2450 l/h at 18 VDC Delivery height: Delivery rate: Operating temperature range: +4 to +40°C

Note: The pump is only suited for the delivery of water.

Note: The pump is only suited for the delivery of water. Note: Protect the pump against frost! During the cold winter months, you may take the pump out of the water and store it in a warm place, the solar module may be left outside during the winter

#### 9. Safety notes:

DANGER for children! Keep your children away from the swallowable small parts (standpipe and sprinkler) and the packaging material. Danger of suffocation!

WARNING: tripping hazard! Lay the connecting cable so that it won't constitute any tripping hazard!

CAREFUL: material damage! If you set up the solar module without a module holder, you must make sure that it is sturdy enough to retain its position. If the module falls down or a foreign object hits against it, the solar module can be damaged.

### 10. Spare parts



- 1. Plastic pre-filter
- 2. Water outlet
- 3. Discs and spacer ring 4. Ceramic shaft

ArtNo.: 911100
ArtNo.: 911101
ArtNo.: 911102
ArtNo.: 911103
ArtNo.: 911104
ArtNo.: 911105
ArtNo.: 911106

- 5. Impeller wheel 6. Seal 7. Hose connection
- 8. Gland nut

#### Manufacturer/Importer

esotec GmbH - Gewerbegebiet Weberschlag 9 - D-92729 Weiherhammer Tel.-Nr: 09605-92206-0 - Fax.-Nr: 09605-92206-10 - 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 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!

Copyright, esotec GmbH

# **11. Accessories**

11.1 extender cable (5 m) for water pump Item-no: 101736

