Instruction manual
Solar pond pump set
Milano, Roma and Genova.

GB

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 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. Appropriate Use

- The pumping system is designed for the outdoor use in garden ponds.
- **Direct solar radiation is required for the correct function.**
- The pumping system is characterized by its easy assembly. Tools are not required for the assembly.
- The pump must not be used for the raising of drinking water.
- The performance may be adjusted via a controller on the pump.
- In order to avoid any disturbing lapping, simply telescope the telescopic ascending pipe at little.
- In order to safely interrupt the pumping it is required to interrupt the cable connection between solar module and pump.

4. Assembly and Initiation

The pumping system consists of the following parts:
1 piece solar module, 1 piece submerged pump in the plastic housing with a 5 m connecting cable, 4 pipes and different water nozzles.

1. Completely unroll the connecting cable on the pump.
2. Attach the pipes onto the pump and then attach one of the desired sprinklers onto the ascending pipe.
3. Put the pump in the pond on some stones. Avoid a location directly on the ground of the pond because a lot of dirt is here sucked in by the pump which will then be polluted very fast.
4. Now connect the plug of the pump with the socket of the solar module and screw the cap.

   Position the solar module in a sunny, shadow-free place facing south. You will find suitable module brackets in the Internet under www.esotec.de.

Note: The plug is reverse-protected. Do not apply force when inserting the plug. The glass of the solar modules is sensitive to breakage.

Attention: Risk of injury! A broken module may not be repaired and has to be disposed of environmentally sound.

Note: For further assembly instructions, please see the instruction of the water pump.

5. Service and Maintenance

In order to preserve the performance of the pump, it is required to wash out the pump and its parts with warm water depending on the pollution of the water.

For directions for the service and maintenance of the pump storage, please see the instruction of the pump storage.

Occasionally wipe the solar module clean with a soft and slightly moistened cloth.

Note: Before carrying out operations on the pump, interrupt the plug connection between pump and solar module in order to avoid any unintentional starting during the operations.

6. Technical Data

Solar pumping system	**Milano**	**Roma**	**Genova**
- System voltage:	17 VDC	17 VDC	17 VDC
Solar module			
- Nominal power:	10 Wp	25 Wp	35 Wp
- Nominal voltage:	17,5 V	17,28 V	17,28 V
- Nominal current:	580 mA	1,45 A	2,023 A
- Open-circuit voltage:	21,6 V	20,8 V	20,8 V
- Projection system:	IP 65	IP 65	IP 65
- Temperature range:	-30°C to +75°C	-30°C to +75°C	-30°C to +75°C
- Dimensions:	400x255x25 mm	620x355x25 mm	620x455x25 mm
Water pump:			
- Operating voltage:	17 V DC	17 V DC	17 V DC
- Max. delivery height:	ap. 1,3 m	ap. 1,8 m	ap. 2,3 m
- Delivery rate:	ap. 630 l/h	ap. 1300 l/h	ap. 1700 l/h
- Protection system:	IP 68	IP 68	IP 68
- Temperature range:	+4 to +40°C	+4 to +40°C	+4 to +40°C
Manufacturer item no:	**101720**	**101722**	**101723**
Accessories for pump systems with esotec item no.:			
5 m extender cable:	**101738**	**101736**	**101736**

Note: Protect the pump from frost!
In cold winter months, it is required to take the pump out of the water and store it in a warm place. The solar module may be left outside during the winter.

7. Safety Instructions:

DANGER for children! Keep children away from swallowable small parts (ascending pipe and sprinklers) and the packaging material. Danger of suffocation!

WARNING: risk of stumbling! Lay the connecting cable so that it will not become a trip hazard!

CAUTION Material damage! When setting up the solar module without module bracket, please pay attention to an adequate stability. The solar module may be damaged in case of tipping or in case of an impact of a foreign object.

Disposal instruction for electric appliances:

Dear customer, if you want to get rid of the article, please dispose it according to the current regulations. The municipal authority will provide you with information.

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