

Operating Instructions pond pumps

Pro series 200/340, 380/550-L, 550/730, 650/870 and 1300/1750

Customer support:

If you have problems or questions regarding this product, simply contact us!
 esotec GmbH, Industriegebiet Weberschlag 9, D-92729 Weiherhammer
Internet: www.solarversand.de
 By phone: +49 9605-92206-0
 By e-mail for ordering spare parts: ersatzteil@esotec.de
 By e-mail for questions about the product: technik@esotec.de

DANGER for children! Keep children away from the swallowable small parts (rising pipe and sprinkler) and the packaging material. There is danger of suffocation!

WARNING: Danger of tripping! Lay the connecting cable so that it does not become a trip hazard!

CAUTION Damage to property! If you install the solar module without the module holder, you must ensure sufficient stability. If the module overturns or a foreign object strikes against it, the solar module may be damaged.

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!

1. Introduction

Dear customer, we thank you for purchasing the Solar Globelight.

With this Solar Light you have purchased a product that complies with the latest and most up-to-date technology.



This product complies with the European and National Standards. The relevant certificates of conformity are deposited with the manufacturer.

To preserve this standard and in order to maintain safety you must adhere to the use instructions!

2. Security Instructions



In the event of any problems arising or damage occurring from not following these instructions, the warranty is deemed cancelled. The manufacturer will not be held responsible for any claims or damages arising from the misuse of this product.

- For safety reasons and in order to maintain standards (CE) you are prohibited from altering or changing any component in the product.
- Please follow the instructions very carefully.
- For commercial applications due care and attention must be paid to the Health and Safety Standards in your jurisdiction.

3. Function and intended Use

Those pond pumps are designed for the pumping of water in the garden pond, wells, water bowls or similar. They are able to pump water via a hose connection or they may be operated via the enclosed rising pipes with water sprinklers.

Those pumps are only suitable for the pumping of fresh water (faucet water). Those pumps are not suitable for the use in chlorine water or liquids with other acidic additives!

A solar module, a stabilized DC power supply unit (no switching power supply) or rechargeable battery with a voltage appropriate for the pump can be used as an energy source.

The pumps are only designed for DC voltage; the pumps will be destroyed if they are operated with AC voltage! When a solar module is used, the pumps will only work if sufficient solar radiation hits the solar module.

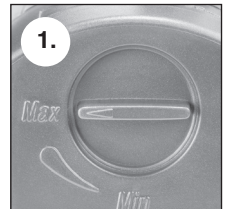
The pumping capacity of the pumps can be adjusted via a controller at the front side of the pumps. The water pumps do not have any ON-/OFF-switch. They start pumping water as soon as the pumps are connected to their power supply.

The pumps have to be immersed in water for their operation. A dry-run protection (illustration 3) at the backside of the pump (2 contacts) prevents an operation without adequate water level.

The pumps have to be taken out of the water in case of frost in order to prevent damages to the pumps during the cold season.

4. Assembly and Putting into Operation

1. Completely unroll the connecting cable at the pump.
2. Check whether the flow controller at the front side of the pump is positioned to „Max“ (illustration 1).
3. You can operate the pump with the enclosed sprinkler set or supply it with water via a water hose of other attractions in your pond. For this purpose, attach the sprinkler set; you can adjust the pump to the respective water depth by means of the individual rising pipes (illustration 2).



Note: It is recommended to not position the pump directly at the bottom of the pond. There are always major contaminations at the bottom of the pond which will be suctioned in by the pump and which will quickly clog the sprinkler nozzles. So please position the pump onto a stone at least 20 cm above the bottom of the pond

4. Put the pump completely into the water.
5. Now supply the water pump with energy. This may be done by means of a solar module included in the set. In doing so, firmly put together the plug-connection and protect it against the ingress of water or humidity by tightening the screw cap.

Note: The plug is protected against inverse polarity; force must not be applied when inserting the plug.

If the pump is purchased individually and, e.g. operated via a rechargeable battery, please use the enclosed adapter cable with open cable ends (not included in a set). In doing so, please pay attention to the marking and the adherence to the pump's operating voltage.

Note: As soon as the pump is supplied with energy it will start running with a delay. An internal protective circuit will first check whether the pump is completely immersed in water.

Note: In case of the initial putting into operation it may be possible that air is still in the pump wheel and that the pump will not immediately pump water. It may take a couple of seconds until following water has displaced the air from this area. In case this should take longer, then please remove the hose or sprinkler for a short time and wait until water is coming. Then reattach the hose or sprinkler. In doing so, please do not take the pump out of the water.

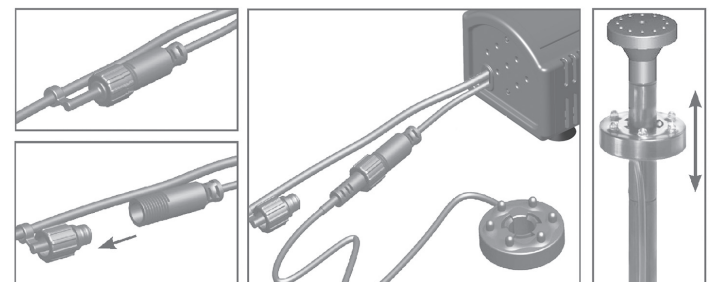
6. If the pumping capacity should be too high you can reduce it accordingly by means of the flow controller at the front side of the pump (illustration 1).



4.1 Operation with LED light ring (only 101987)

The accessories include a LED light ring. This light ring can be easily slipped onto the lifting tube.

Electrical connection is established via the socket on the pump. For this, remove the drain plug, insert the light ring plug in the socket and tighten the cap nut firmly. Depending on the model, the lighting is activated/switched-on immediately or via a twilight sensor.

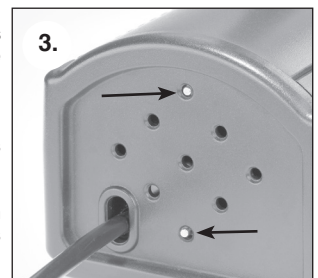


5. Dry-run protection

The pumps are equipped with a dry-run protection as a standard (illustration 3). For this purpose, 2 sensor points are available at the back of the housing. The pump works when those two points are under water.

The pump won't work if one point protrudes from the water!

Those points have to be cleaned from contamination from time to time. For this purpose, use a damp cloth or a plastic brush.



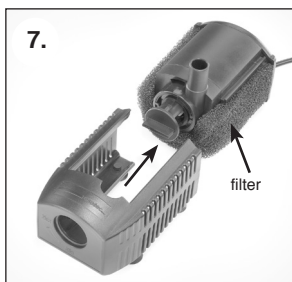
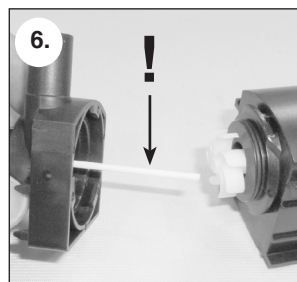
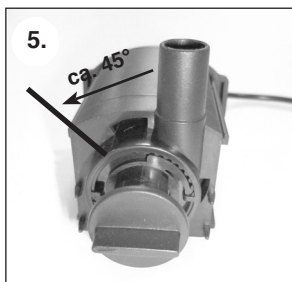
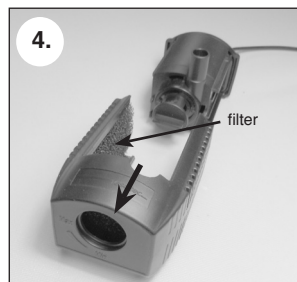
6. Care and Maintenance

In order to maintain the pump's performance, it is required to occasionally wash out the filter and the pump depending on the contamination of the water. Please proceed as follows, when cleaning the pump and filter:

Note: Please do not apply force when disassembling and assembling the pump. The parts are very delicate and can break easily. In case parts should nevertheless break, then all spare parts are available under www.esotec.de.

1. Pull the plug of the pump.
2. Carefully pull the front cover of the pump forward like a sleigh. (illustration 4).
3. Take the filter out of the sleigh and clean it with lukewarm water.
4. Turn the front cover of the pump by approx. 45° anticlockwise (illustration 5) and carefully pull the cover forward (illustration 6). In doing so, pay attention that the ceramic axis won't break!
5. Carefully pull the impeller wheel out of the pump (if required, use small pliers for this purpose).
6. Now carefully clean all parts with warm water.
7. Reassembly the pump in reverse order.
8. Put the filter sponge around the pump housing again and slide the sleigh back on to the pump until it snaps into place (illustration 7).

The pump is now ready for operation again.



7. Malfunctions

The pump does not pump any water

- Is the pump completely immersed in water? Dry-run protection (item 5)
- Is the polarity of the operating voltage reversed?
- Wait for the self-test! After the operating voltage is applied, it will take a couple of seconds until the pump starts running.
- Is the pump contaminated? Cleaning of the pump, see item 6.
- Sensor points of the dry-run protection contaminated? See item 5.
- Is the flow controller turned up?
- Check ceramic axis ok? Check it for breakage! See item 6.

8. Technical Data

Type	Fountain 200/340 pro	Fountain 380/550-L pro	Fountain 500/730 pro	Fountain 650/870 pro	Fountain 1300-1750 pro
Voltage range:	6 - 9 VDC	6 - 9 VDC	12 - 18 VDC	12 - 18 VDC	12 - 18 VDC
Flow rate:	200 - 340 l/h	380 - 550 l/h	500 - 730 l/h	650 - 870 l/h	1300 - 1750 l/h
Pump head:	0,6 - 1,2 m	0,7 - 1,3 m	1,2 - 2,2 m	1,2 - 2,5 m	1,5 - 3 m
Protection class:	III	III	III	III	III
Protection grade:	IP 68	IP 68	IP 68	IP 68	IP 68
Temperature range:	4 - 40°C	4 - 40°C	4 - 40°C	4 - 40°C	4 - 40°C
LED light ring connector	no	yes	no	no	no
Item-No.:	101990	101987	101993	101991	101992

9. Spare parts

All spare parts can be ordered conveniently on the Internet at www.esotec.de. The list of article numbers can be found in the individual exploded-view drawings of the pumps.

