

Operating Instructions

Solar Lighting and Charging System “Multi Power”

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 product. Therefore, please keep to the operating manual.

3. Intended Use, Installation and Connection

- The solar module is designed for the all-season outdoor installation and is intended for the generation of electric current by means of solar energy. It is particularly important that the solar module is installed free from shadow and facing south.
- The energy station and the LED lamp is designed for indoor use.
- Multimedia devices may be supplied with energy or charged via the integrated USB port.
- The enclosed adapter cable set is suitable for the connection of iPhone 4 to 6 and Samsung S2 to S6+.
- Up to 3 LED lamps may be supplied with energy via the 3 x 6 V outputs. One LED lamp including switch and a 5 m cable is included in the scope of delivery. Additional LED lamps are available as accessories (eotec Art.-No: 121000 under www.esotec.de)

4. Putting into Operation

1. Carefully take all parts out of the packaging.
2. Choose a sunny, shadow-free place for the solar module within reach of the cable.
3. Set up the solar module by means of the stand and plug the connector at the end of the cable into the socket „solar module“ at the front of the energy station. The green LED “Akku” (battery) will start flashing quickly in case of solar irradiation.
4. Now switch the toggle switch an at the front of the energy station into the position „EIN“ (ON). The green LED “Akku” (battery) will flash slowly if the solar module is plugged in and the sun is shining.
5. At the three „6 V=“ outputs, it is possible to plug in each one LED lamp with a 5 m cable and switch and to supply them with electricity. One LED lamp is included in the scope of delivery Two additional lamps may be connected as accessories.
6. Multimedia devices may be supplied with energy or charged on the USB outlet. Included for the connection is an adapter cable set for iPhone 4 to 6 or Samsung S2 to S6+.
7. Please note that the energy station and LED lamps are only suitable for the operation.

5. LED Display „Akku“ (battery)

Flashing green:

The battery is charged via the solar module.

Permanent green light:

The battery is charged and ready for operation. No charging by the solar module!

Red:

Battery goes weak. In a short time the outputs will be switched off. Charging by the solar module is necessary.

Flashing red:

Battery is exhaustively discharge, the outputs are switched off. Charging by the solar module is necessary.

6. Exchange of Battery

A 6 V/ 4Ah AGM battery is integrated in the energy station. This battery will have to be exchanged every 2 – 3 years depending on the maintenance and use. When exchanging the battery, proceed as follows:



1. Put the toggle switch at the front of the energy station into the position „AUS“ (OFF).
 2. Disconnect all plug from the energy station.
 3. Unscrew the 4 screws at the front of the energy station with an appropriate screwdriver (pic. 1).
 4. Carefully remove the front panel of the energy station.
 5. Now the battery may be pulled out by means of the black loop. For this purpose, please pull strongly (pic. 2).
- Note:** The battery is protected at the back by means of a Velcro fastener. The pulling out requires some physical effort.
6. Pull off the connections from the old used battery and remove the Velcro fastener.
 7. Now take an identical in construction battery and affix the Velcro fastener onto the new battery. You may possibly use a double-faced adhesive tape in order to ensure a secure fastening.
 8. Now attach the cable lugs on the new battery with correct polarity (black = negative pole, red = positive pole).
 9. Now re-insert the new battery and press it firmly towards the back wall.
 10. Now put on the front panel and re-screw the 4 screws.
 11. Now re-connect the plugs with the energy station and put the switch at the front of the energy station into the position „Ein“ (ON).

Note: Used batteries or accumulators must be disposed of in a non-polluting way and do not belong into the domestic waste. Your dealer is required by law to take back old batteries.

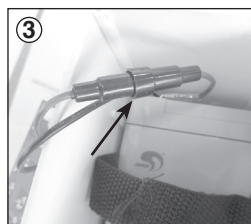
7. Malfunctions:

No function at all: fuse defective!

A micro-fuse is installed in the cable to the battery in order to protect the electronics and the battery. The fuse rating amounts to F 3.15 A/ 250 V. For the exchange, only use replacement fuses with identical fuse rating! For the exchange of the fuse, please switch off the energy station and disconnect all cables. Unscrew the 4 screws at the front panel and carefully take off the panel. The fuse is installed in the red positive lead. Unscrew this lead and replace the defective fuse with a new one with the fuse rating of F 3.15 A/ 250 V and retighten the fuse holder (pic. 3). Close the housing and put the battery station into operation.

Battery is quickly charged and quickly discharged: battery defective!

A quickly charged and discharged battery is an indicator that the integrated battery has reached the end of its service life. Please replace the battery by an identical in construction battery as described in item 6.



8. Technical Data

Solar module:

- Type: crystalline with 18 solar cells.
- Nominal capacity/power: 5 Wp
- Nominal voltage: 9 V
- No-load voltage: 10,8 V
- Nominal current: 0,56 A
- Short circuit current: 0,61 A
- Type of protection: IP 65

Energy station:

- Battery: 6 V/ 4 Ah AGM
- Fuse: 3.15 A/ 250 V
- Protective functions: overcharge and deep discharge protection
- Outputs: 3 x 6 V DC, max. each 1 A
- USB: 5 V DC/ max. 1 A
- Type of protection: IP 20 (only for indoor use)
- Protection class: III

LED lamp with 5 m cable:

- Operating voltage: 6 VDC
- Power consumption: 1 W
- Illuminant(s): 20 SMD LEDs
- Light color/ luminous flux: white (6000 K), 80 lm
- Type of protection: IP 20

Rechargeable battery notes

- Rechargeable batteries should not be played with by children. Never leave rechargeable batteries lying around; they could be swallowed by children or pets.
- Rechargeable batteries must never be short-circuited, disassembled or thrown into fire. This leads to a danger of explosion!
- Leaking or damaged rechargeable batteries can cause chemical burns when they come into contact with skin. For this reason, please make use of suitable protective gloves.
- Rechargeable batteries should only be replaced by structurally identical rechargeable batteries from the same manufacturer. Normal batteries must not be used since these are not rechargeable.
- Make sure the rechargeable batteries are inserted with the correct polarity.
- For long periods of time of non-use (for example, storage), remove the inserted rechargeable batteries to avoid damages via the leaking rechargeable batteries.

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:**

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Manufacturer item no.: 120001

Battery Recycling:

- Used batteries or accumulators must be disposed in the domestic waste.
- The consumer is legally obliged to bring back old accumulators upon usage, e.g. to public waste collecting locations or to the place (shops, etc.) where those batteries are sold.
- Batteries that contain harmful substances are marked with the "strike through dustbin" and one of the chemical symbols.

**PB**