BERMUDA

SOLAR

Nova Excel Pump

Instruction Manual

IMPORTANT: Please read this instruction manual carefully before using this product. Keep the manual safe for future reference.

BER0362-P003B-161219

Thank you for purchasing a Bermuda Solar Pump. This solar pump has been designed for fountain, pond or outdoor use. The pump drives its power from a solar module equipped with a battery pack and can be switched on and off by a touch switch on the control housing. In evening, four built-in white LED lights will give light automatically to enhance the beauty scene of the water jet. In order for the solar pump to operate, the solar panel needs to be in direct sunlight.

Attention

- Keep out of reach of children
- For safety reasons and in order to maintain good quality you are prohibited from altering or changing any component in the solar pump.
- Do not connect the pump to any AC voltage power; it is for DC voltage power only.
- Do not pump flammable liquids.
- Do not use pump with water above 35°C
- Do not strike the solar panel
- Do not let the pump run dry for long time
- Do not lift the pump by the power cord
- Operate in freshwater only

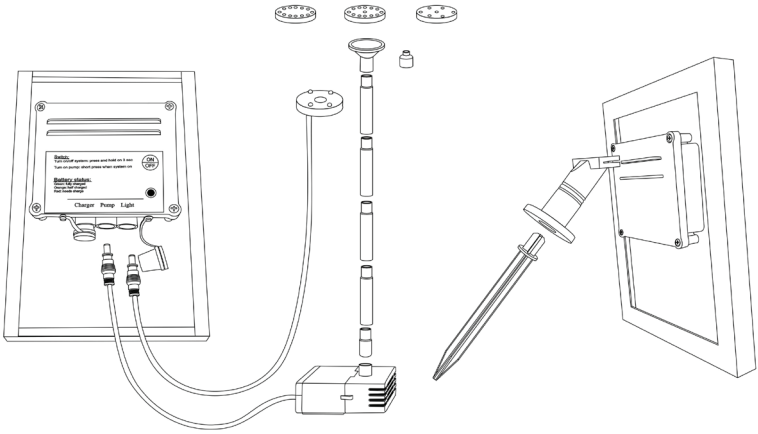
Specifications

Solar Panel:	2W
Operation Voltage:	6V DC
Water Flow Max.	200LPH
Water lift Max.	80CM
Water Projection Height	Max.40CM
LED Light	4 LED white light
Lithium Battery	3.7V-2000mAH
Cable Length	5M

Warning

- Do not open control housing without permission.
- Always keep rubber plug in the "Charge" and "Light" socket. Especially after using charger or light, remember to plug rubber back into the socket, to avoid water leaking

Assembly



- Unpack all components carefully.
- Place the pump underwater and make sure that, it is fully immersed in water. In case the pump tube is too far from the surface of water, you can raise the pump by using stones or brick underlay.
- Connect fountain heads and LED light as required;
- Adjust the water jet as needed
- Connect the pump cable to the socket of the control housing on the rear side of the solar panel;
- Connect the LED lights (optional) cable to the socket of the control housing;
- The solar pump is now ready to use.

Operating instructions

Usage of this solar pump:

Use this pump way 1 (solar power):

Turn the switch ON, the pump will run every day by solar power.

Use this pump way 2 (solar power ➔battery power ➔solar power):

Turn the switch ON, the pump will run by solar power. When solar power is unavailable (in cloudy day or at night), the pump will stop operate. Customer can turn on the pump by short press “ON” button, the pump can operate again. The operation time depends on the battery status. (Max 6-8H) The pump will be activated automatic again when solar power is available.

Pump performance in different weather condition:

Weather	1. System on 2. Charge extra solar energy to battery	1. System off 2. Charge full solar energy to battery
	1. Pump operates by solar power; 2. Charge battery.	Battery should fully charge in 1 day.
	1. Pump operates by solar power, pump performance maintaining when clouds pass. 2. Charge battery.	Battery will take 2 to 3 days to fully charge.
	1. If no sufficient solar power to activate pump, pump can be activate by short pressing "ON" button to operate by battery power. 2. Little or no battery charging occurs.	Battery will take several days to fully charge.
	1. Pump can be only activating by short pressing "ON" button to operate by battery power. (Solar power unavailable at night). 2. No charging battery.	Battery will not charge.

Battery status:

Green blinking: battery is full charged. (Run for 6-8 hours)

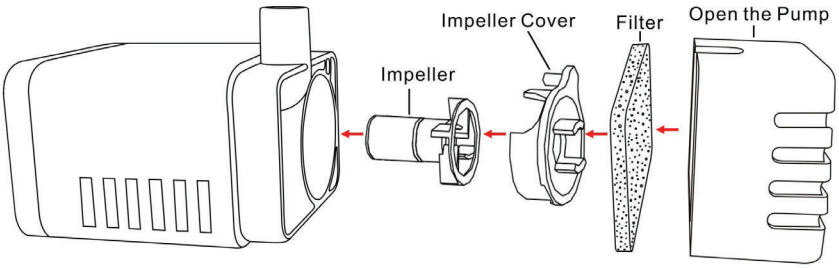
Orange blinking: battery is half charged. . (Run for 2-6 hours)

Red blinking: battery needs charges. . (Run less than 1 hour) NOTE: Considering product life span, we don't suggest to use battery power frequently under this status.

Charge the battery:
The indicator light upgrades from Red to Orange to Green blinking, when system on. The indicator light upgrades from Red to Orange to Green illuminated, when system off.

Operate the pump: The indicator light downgrade from Green to Orange to Red blinking.

Cleaning and maintenance



If after some time the pump starts losing power or stops working you should check for the build up of sediment or scale in the filter or in the pump housing. The filter housing can be removed by pressing down on the bottom of the filter housing.

To clear the impeller, open the pump housing at the front by sliding up the front plastic cover. ***The solar module should only be cleaned with soft tissue and propriety glass cleaning solution.**

Troubleshooting

- Pump does not operate even thought the solar module is in full sunlight.
  - No connection to the solar module – check connection to the solar module.
  - Impeller is blocked – To clean the pump, remove the front plate and the impeller. Use a small brush or steam of water to remove any debris.

- Pump does operate but there is no water running through the fountainhead check for the build up of sediment or scale in the tubes or the filter- clean the tubes and the filter.

Guarantee

This product is guaranteed against defects in material and workmanship for 12 months from the date of purchase, under normal usage.

The guarantee DOES NOT APPLY in case of improper use, negligence, lack of maintenance or accidental damage to the pump. If the pump fails due to a manufacturing fault within this period it will be either repaired or replaced free of charge. Moving parts or wearable parts including the impeller and any washers or O rings are not covered by the guarantee.

Should your Bermuda product stop working refer first to trouble shooting and if this does not help, return the product to the place of purchase.

Liability is limited to replacement of the faulty product only. No other costs will be reimbursed. This guarantee is not transferable and does not affect your statutory rights.

Do not attempt to tamper with the pump or solar panel. Do not access components inside the pump body, unless otherwise instructed in the instruction manual. Any damage occurred by doing so may invalidate the warranty.

The manufacturer or supplier shall not be responsible, or held liable for any damages caused by defective components or materials of this product, or for loss incurred by interruption of service, or any consequential/incidental damages and expenses arising from the production, sale use or misuse of this product or any other consequential loss.

Any warranty claim must be accompanied by a valid, dated proof of purchase. Evolution Aqua, Bermuda, its distributors and dealers shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this product.

The installation and use of your product outside of our recommendations as printed in this manual may also void the warranty.

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