



SOLAR[☀]

Cascade

Water Features

Instruction Manual



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



Thank you for purchasing a Bermuda Solar Water Feature. In order for the water feature pump to operate, the solar module needs to be placed in direct sunlight. The performance of the pump depends on the season and the position of the solar module.

NOTE: Charge the pump for at least 2 days before the pump is used for the first time. The LED light will only work when it is dark.

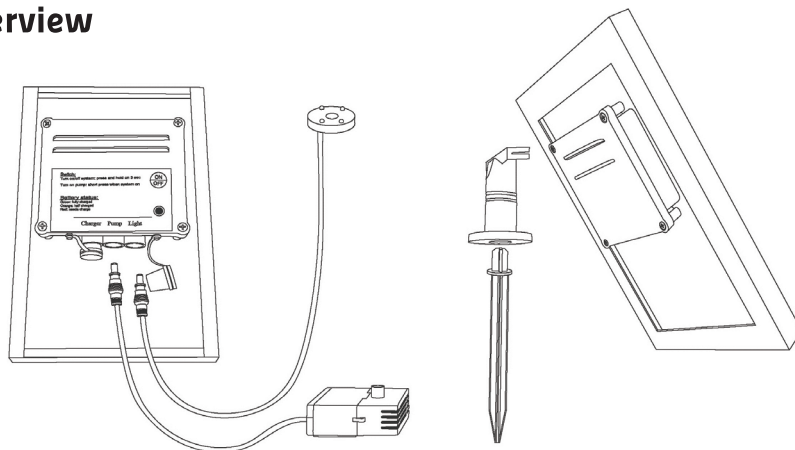
Attention

- 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 50°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.	0.8M
Lithium battery	3.7V / 2000mAH
Cable length	5M

Overview

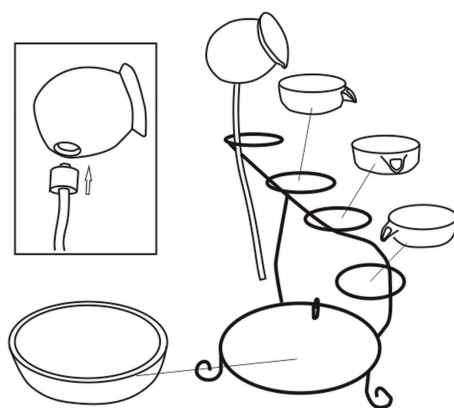


- The solar pump is designed for fountain, pond or outdoor use. In order for the solar pump to operate, the solar panel needs to be in direct sunlight. When the sunlight is strong enough, the solar pump will start to work automatically. It will stop working when the solar panel is in shadow or the sunlight is not enough. If the fountain is used in evening, four built-in white LEDs will illuminate automatically.
- This solar pump is equipped with a battery pack. Extra electricity will be stored in the battery pack and will be used when there is not enough sunlight or at night. Press the ON/OFF button, which is on the control house affixed to the rear side of the solar panel, to use the stored electricity to power the pump.

Assembly

- Unpack all the parts from the packaging.
- Water may splash over the bowl, so do not put in a position on a surface that may get damaged by water.
- Fill the lowest front bowl with clean tap water.
- Connect the rubber tube, which is from the upper bowl of the fountain, to the pump then place the pump in water and make sure it is fully immersed in water.

- Connect the pump cable to the socket of the control housing on the rear side of the solar panel.
- Connect the LED light (optional) cable to the socket of the control housing.
- Make sure direct sunlight shines on the solar module.
- The solar cascade fountain is now ready for use.
- Top-up with fresh water as required.



Operating instructions

Automatic Operation: In this mode, the pump will start to work automatically when the solar panel gets enough direct sunlight and it will stop working when there is not enough sunlight on the panel.

Turn on the pump using the stored electricity: In this mode, the pump will be run solely by the battery. Quickly press the ON/OFF button to turn on the pump. The pump will start to run using the stored electricity in the battery pack. It will stop automatically when the battery is low. When the pump stops, it will switch back to Automatic Operation mode.

Stop the pump: Press the button and hold it on for 3 seconds. The pump will stop.

Charge the battery: You can store all the electricity to the battery pack by turning off the pump and only using the pump when you need it. Press the ON/OFF button and hold it on for 3 seconds to turn off the pump. All the electricity collected will charge to the battery.

Battery status indicator light:





Green: battery is full charged. (Pump will run for 4-6 hours)

Orange: battery is half charged. (Pump will run for 2-4 hours)

Red: battery needs charging. (Pump will run less than 1 hour)

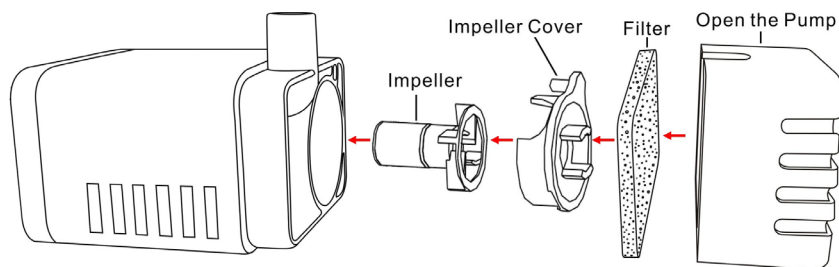
NOTE: The indicator light is blinking when pump is on.

Pump performance in different weather condition:

Weather	1. Pump on 2. Charge extra solar energy to battery	1. Pump off 2. Charge full solar energy to battery
	Solar energy runs the pump and charges the battery at the same time.	Battery will be fully charged in 1 day.
	Solar energy runs the pump and supplies very little extra energy to the battery.	Battery will be fully charged in 2 to 3 days.
	Pump could only run by using the stored energy in the battery pack.	Battery will not be charged.
	Pump could only run by using the stored energy in the battery pack.	Battery will not be charged.



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. Clean with fresh water.

***The solar module should only be cleaned with soft tissue. Regular cleaning of the panel is advised to maintain optimum conversion of the sun's energy into direct current.**

Troubleshooting

- **Pump does not operate even though 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 fountain head**
 - 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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