

BERMUDA

SOLAR

Howard Water Feature Instruction Manual



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

BER6409-261021



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.

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

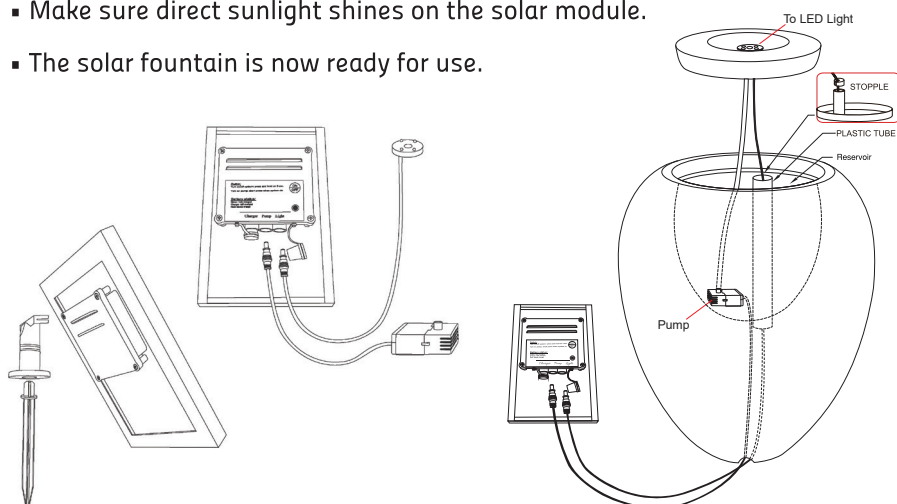
Solar Panel	2W
Operation Voltage	6V DC
Water Flow Max.	200LPH
Water Lift Max.	0.8M
LED Light	4 x LED White Lights
Lithium battery	3.7V / 2000mAH
Cable length	5M

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.
- This solar pump is equipped with battery pack and can be switched on and off by a touch switch on the control housing. In evening, four built-in white LEDs will give light automatically to illuminate the water feature.

Assembly

- Unpack all the parts from the packaging.
- Locate the water feature on a surface that will not be damaged by any splashing water.
- Fill the fountain with clean tap water.
- Place the pump underwater and make sure that it is fully immersed in water. Raise the height of the pump if needed by placing it on stones or bricks.
- Connect the pump cable to the socket on the control housing on the rear side of the solar panel.
- Connect the LED light cable to the socket on the control housing.
- Make sure direct sunlight shines on the solar module.
- The solar fountain is now ready for use.





Operating instructions

Turn on the pump: Short press to turn on the pump, the pump will run certain hours (ref to battery status) and turn to solar mode automatically. The pump will operate automatically next day in direct sunlight.

Charge the battery: Press and hold on 3 seconds to turn the pump OFF and charge the full solar energy to battery during day time, turn on the pump when you need it (on demand).

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 runs the pump and charges the battery. Pump performance is maintained when the clouds pass. Pump runs on fully half an hour longer into the evening.	Battery should fully charge in 1 day.
	Solar runs the pump and supplies extra energy to the battery. Performance is maintained when the clouds pass. Pump will only run a shorter period of time into the evening.	Battery will take 2 to 3 days to fully charge.
	Pump will only run when there is sufficient power from the battery. Little or no battery charging occurs so pump performance is not maintained.	Battery will take several days to fully charge.
	No solar power is available, pump will not run and battery will not charge.	Battery will not charge.
If the pump stopped running when cloudy or night, and you want to force the pump running for certain hours, short press to turn on the pump, the pump will run certain hours until battery flat. Note: LED lights will only function at night.		

Battery status:

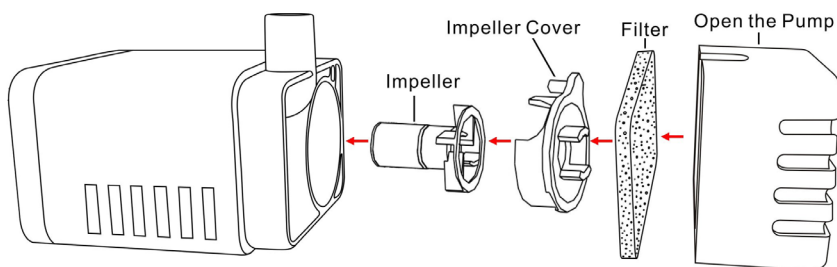
Green: battery is full charged. (Pump will run for 4-6 hours)

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 on, the indicator light is solid when pump is off.

Cleaning and maintenance

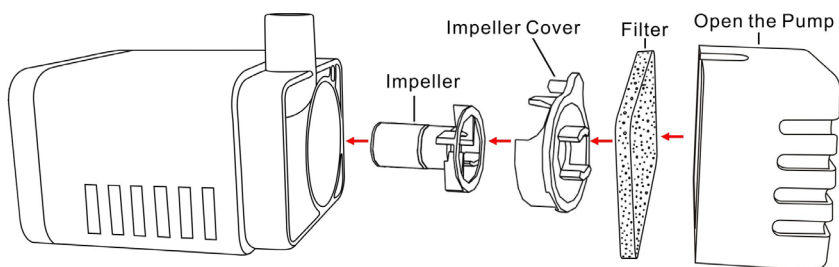
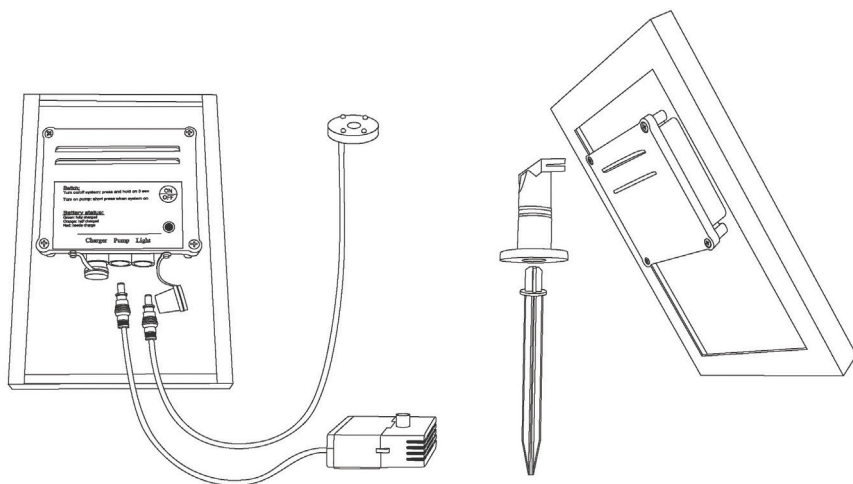


If after some time the pump starts losing power or stops working you should check for the build up of sediment or scale in the filter or in the pump housing. The filter housing can be removed by pressing down on the bottom of the filter housing. Clean with fresh water.

***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 stream 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.



www.bermudawatergardens.com

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