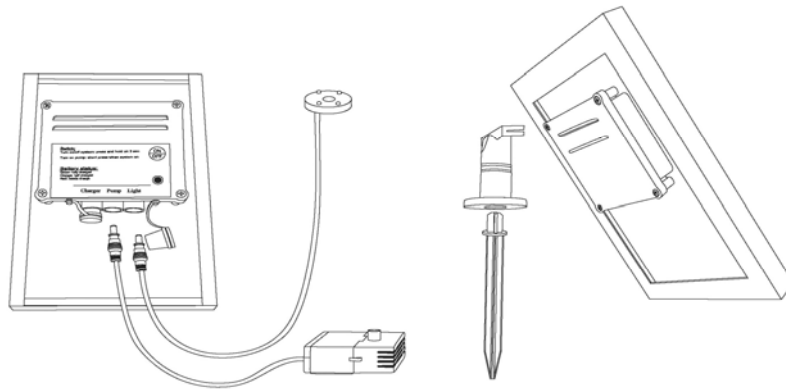


## USER'S MANUAL

This instruction contains important information for using the product for the first time. Please keep this instruction for later reference. They should always accompany the product in the Event of transfer a new user.

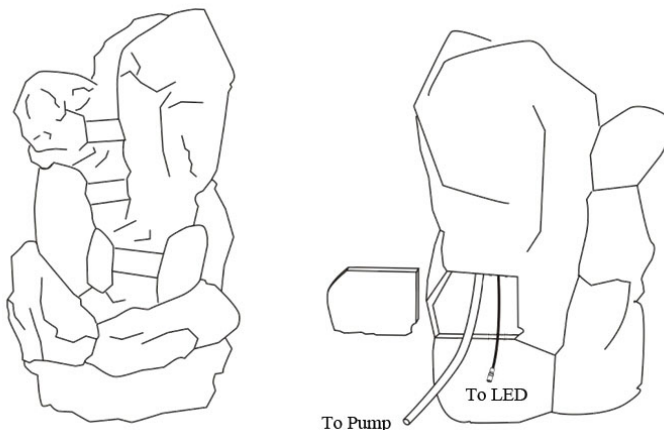
### 1 OVERVIEW

- 1.1 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.
- 1.2 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, three built-in white LEDs will give light automatically to enhance the beauty scene of the water jet.



### 2 ASSEMBLING AND USING YOUR PRODUCT

- 2.1 Take out all parts of the packaging. Please keep in mind that some water may splash over the rim of a bowl, do not set up the cascade fountain on a surface which may be damaged by water.
- 2.2 Open the door behind the fountain.
- 2.3 Connect the hose from the top of the water feature to the connector on the top of the pump and place the pump on the floor of the water chamber.
- 2.4 Connect the pump cable to the socket of the control housing on the rear side of the solar panel;
- 2.5 Connect the LED light cable to the socket of the control housing;
- 2.6 Fill the water feature with water ensuring the pump is fully submerged.
- 2.7 Close the door behind the fountain. Make sure direct sunlight shines on the solar module.
- 2.8 Connect the ground stake to the solar panel and place the solar panel in an area of direct sunlight.
- 2.9 The solar cascade fountain is now ready for use.



### 3 CAUTION

- 3.1 Do not strike the solar panel
- 3.2 Do not lift the pump by the power cord
- 3.3 Operate in freshwater only

### 4 OPERATING INSTRUCTIONS

This solar pump is designed primarily to operate in sunlight hours and always charge extra energy to battery to allow use later “on demand” in cloudy day or night time. The pump will turn to solar mode automatically on next day in sunlight hours. The pump will never run on battery mode until your press the button.

**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. The pump will operate automatically next day in sunlight hours.

**Quick charge full energy to the battery:** press and hold on 3 seconds to Turn OFF the pump in sunlight hours and charge the full solar energy to battery to allow use later of “on demand”.

**Battery status:**





Green: battery is full charged. Pump will run around 6-8 hours.

Orange: battery is half charged. Pump will run around 2-6 hours.

Red: battery needs charges. Pump will run less than 1 hour. (Note: In order to protect battery, don't manually turn on the pump frequently)

**Note:** The indicator light is solid when charging battery.

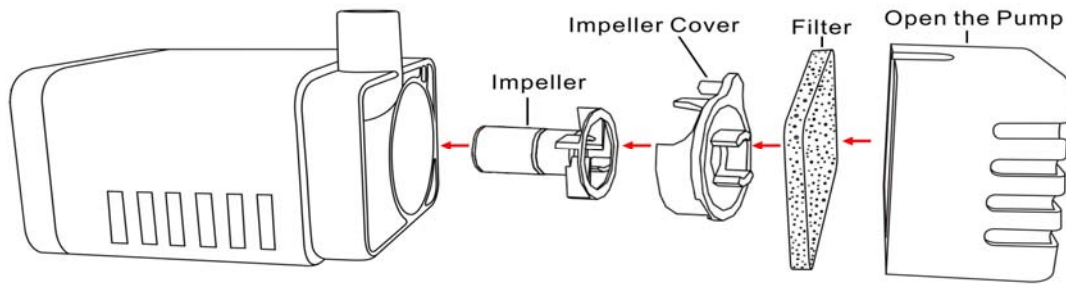
**Pump performance in different weather condition:**

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 be fully charged in 1day.
	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 stop 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.

## 5 CLEANING AND MAINTENANCE

**Pump:** If, after a period of time, the pump starts to lose power or stops working check for the build up of sediment, scale or dirt in the filter. Remove the pump cover and the impeller cover. Clean them and the filter by fresh water.



**Solar panel:** The panel should be cleaned periodically with a soft tissue. Regular cleaning of the panel is advised to maintain optimum conversion of the sun's energy into direct current.

## 6 FUNCTIONALITY PROBLEMS

6.1 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.

6.2 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.

## 7 TECHNICAL DATA

Solar Panel:	2 W
Operation Voltage:	6V DC
Water Flow Max.	200LPH
Water lift Max.:	0.8M
Water Projection Height	Max.0.4M
LED Light (optional)	4 LED white light
Cable Length	5M
Lithium Battery	3.7V-2000mAH