

# SOLAR PUMP KIT USER'S MANUAL

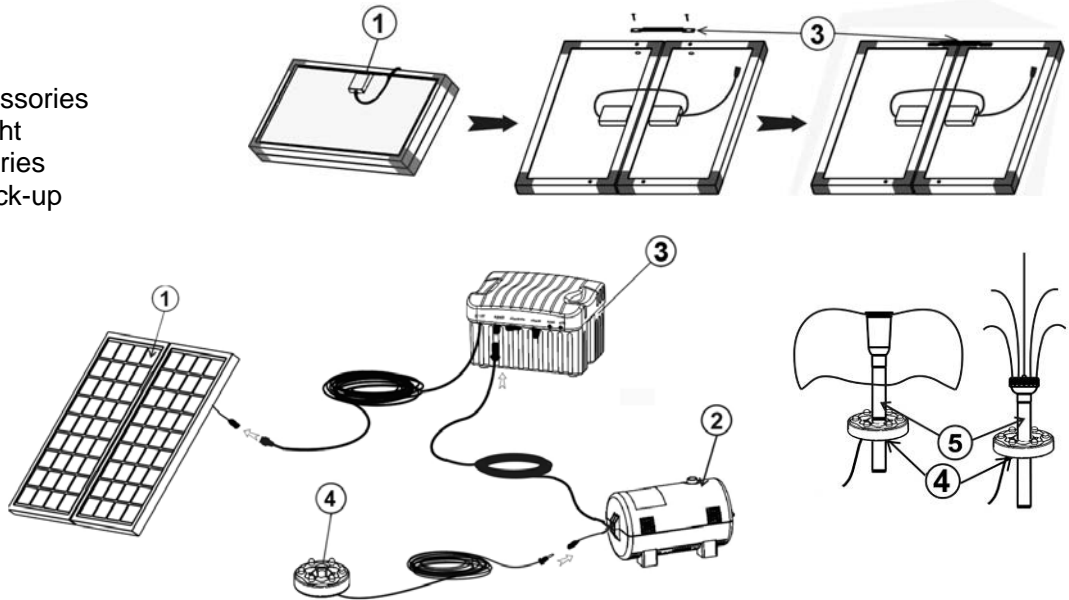
Design for fountain  
Model No. SolarFree 1600C Supreme

## 1. OVERVIEW

- 1) The solar pump is designed for outdoor or indoor fountain use, and is powered by a solar module. In order to make the pump work by solar energy, the solar module needs to be placed in the sunlight facing the sun.
- 2) The pump is supplied by the battery station which is charged by a solar module. It can work for day and night.
- 3) The special LED ring light can lighten the fountain in the night.
- 4) The performance of the pump depends on the sunlight intensity and the orientation of the solar module.

## 2. COMPONENTS

- 1) solar panel
- 2) solar pump
- 3) installation accessories
- 4) fountain LED light
- 5) nozzle accessories
- 6) solar battery back-up



## 3. ASSEMBLING

- 1) Unpack all components carefully.
- 2) The 24W/18V solar panel is divided into two 12W/18V panels, and hinged together in parallel connection. Open it carefully; install the junction plate with screws to fasten the solar panels.
- 3) Connect the pump to the solar panel.
- 4) Connect the solar battery station to the solar panel.
- 5) Connect the nozzle with the pump tube, the nozzle can produce 2 different jet shapes like the above picture.
- 6) Connect the LED light to the socket like below photos, it can easily slip onto the nozzle tube or put it on the ground under water only.
- 7) Make sure to place the pump fully underwater when the pump operates.
- 8) To produce the excellent fountain effect, please leave the fountain head above the water surface.
- 9) Put on the ON/OFF switch, the green indicating light on shows the system in NORMAL condition, the solar pump is now ready to operate.
- 10) Adjust the regulator switch to get different pump performance. The pump can operate at the voltage range of 12V-24V.



## 4. CAUTIONS

- 1) Do not alter or change the components of the product.
- 2) Do not connect the pump to any AC voltage power directly; it's ONLY for DC Voltage power.
- 3) Operate the pump in freshwater or saltwater only (never above 40°C), especially keep it away from flammable liquids.
- 4) Do not strike the solar panel.
- 5) Do not let the pump run dry.

## 5. CLEANING AND MAINTENANCE



If after some time the pump starts losing power or stops working, please clean up sediment in the pump shell or filter cribs. Note the pump can be opened by pressing down at the bottom of the filter housing (See the above photo for demonstration).

To clear the impeller, open the pump housing at the front by sliding up the front plastic cover.

To clean the solar module, wipe off the dust, leaves etc.

**Be careful, never drop down the ceramic axis while cleaning the impeller, it breaks easily.**

## 6. FUNCTIONALITY PROBLEMS

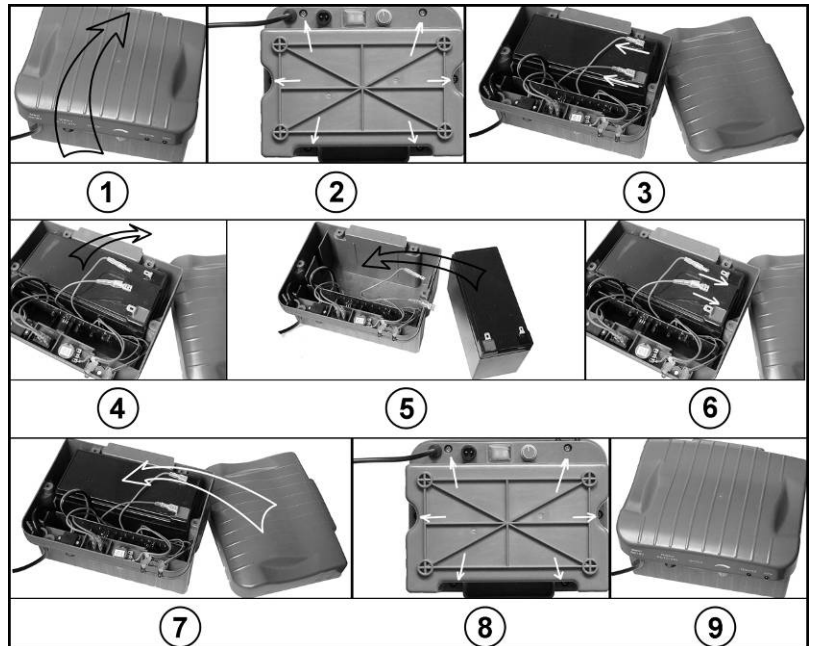
**\*Pump does not operate even though the solar panel is in full sunlight.**

1) In cloudy or rainy days, the battery cannot get sufficient power supply during the daytime. The RED indicating light will turn on shows the battery is in LOW voltage condition, it needs to be charged in a sunny day.

2) No connection—check the connections on the solar module and the battery station.

3) Impeller is blocked—to clean the pump, remove the front plate and the impeller, use a brush or water to remove any debris.

4) The storage battery inside the box will lose efficiency after a year and a half and therefore need to be changed. To change the battery, open the cover of the battery station like the picture.

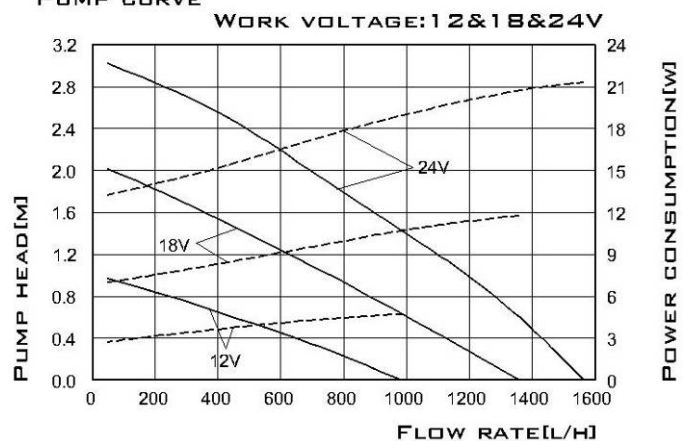


**\*Pump does operate but there is no water running through the tubes: Clear the tube and the filter to make sure the tube is through completely.**

## 7. TECHNICAL DATA AND PUMP CURVE

Peak Power of Solar	20(10x2) W
Operation Voltage	12V-24 V
Maximum Water Lift	3.2 M (10.5 FT)
Maximum Flow Rate	1560 L/H (412.1
Cable Length	5 M (16.4 FT)

PUMP CURVE



**We provide a guarantee of 24 months from date of purchase on the pump motor. This guarantee does not cover parts subjected to natural wear and tear, such as batteries and impellers, or any damages that result from misuse, tampering (including damage to or shortening of the cable), negligence, damage and technical modification. We reserve the right to repair or replace the unit. No repairs or replacement will be undertaken for pumps that have not been properly maintained. The guarantee will be honoured only if the unit is returned to your dealer (freight pre-paid) complete, with your receipt or proof of purchase.**