



# SP006 Solar Water Pump Instructions

By All Solar Central

[www.allsolarcentral.com](http://www.allsolarcentral.com)

Thank you from the entire ASC family for purchasing an ASC solar product! Please read this entire booklet before assembly.

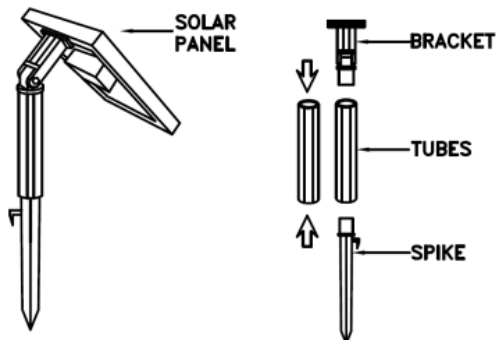
## Package contents:

- 1 x Water Pump with 16 ft. Cable
- 1 x LED Light Ring with 16 ft. Cable
- 1 x Battery Control Box
- 1 x Set of Fountain Nozzles
- 1 x Solar Panel with 6.5 ft. Cable
- 1 x Solar Panel Bracket
- 2 x Extension Tube
- 1 x Ground Spike

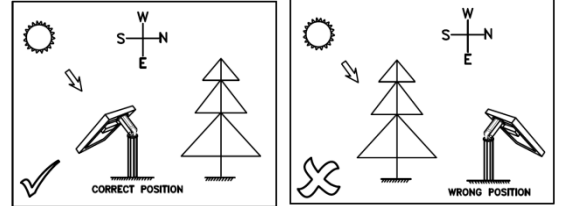
**Notes:** If there is any damage to the product or missing parts, please contact us at 1-626-582-8898 or [www.allsolarcentral.com/contactus](http://www.allsolarcentral.com/contactus)

## Assembly Steps:

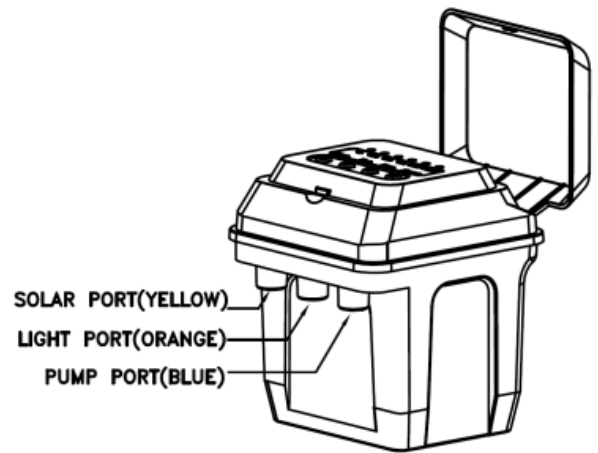
1. Connect the bracket, tubes and spike together. Then attach the solar panel to the bracket. Slide the holding bracket into the inside lip of the top half of the solar panel frame. The bracket holds the weight of the solar panel. The solar panel can be adjusted for optimal sunlight by using the wingnut. Please see the diagram.



2. Insert the spike into the ground. Position the solar panel so it's facing south (in northern hemisphere) as much as possible to maximize daylight hours. It is important to angle the solar panel to face the sun when the sun is at its highest point. Ensure the solar panel is not shaded by trees, shrubs or buildings.



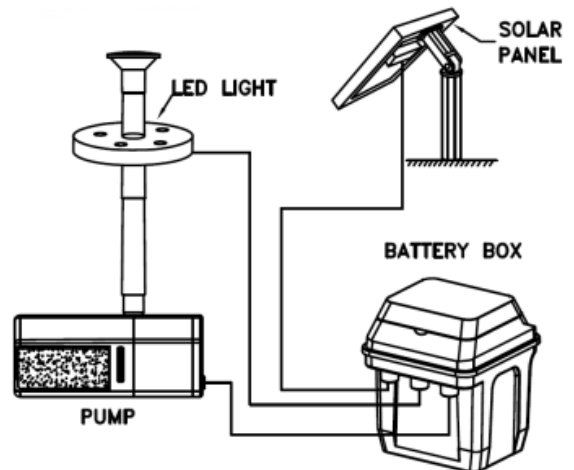
3. Connect the pump, LED Light to the Solar Panel (See diagram below:)



### **IMPORTANT!!**

Slightly twist the connectors when connecting to make sure the rubber seals are fully in the grooves.

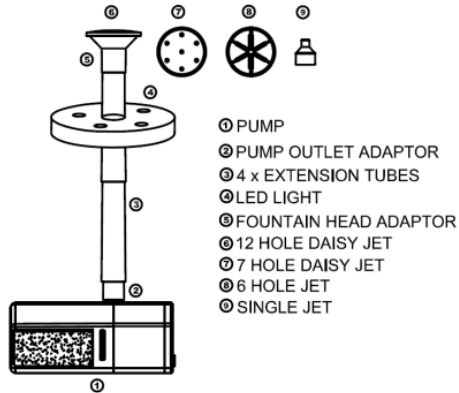
4. The assembled Solar Pump should look like this:



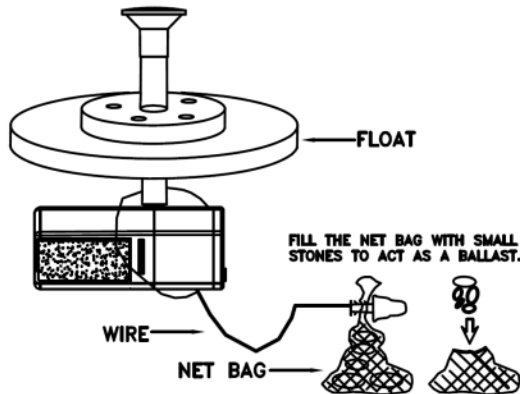
5. **PUMP ASSEMBLY:** This pump is designed to be used in different depths of water. In shallower pond/reservoirs please make sure there is

enough water as the pump needs to be fully immersed in order to operate properly. In deeper ponds/reservoirs you will need to add the floating device in order for the pump to operate properly. Please reference the diagrams as guides.

**IN SHALLOWER PONDS/RESERVOIRS**



**IN DEEPER PONDS/RESERVOIRS**



**6. BATTERY CONTROL BOX OPERATION**

Note: The LED light is designed to work at night

only

The solar pump is designed mainly for use during summer hours, but it will also work in spring and fall as long as the sunlight conditions are good enough in your region. And the new Winter Mode will extend battery life time during the winter. The pump’s performance depends on the orientation of the solar panel towards the sun (see section 2) and the strength on sunlight.

This ASC solar pump kit comes with three operation modes: Continuously On, 2-4hrs Timer, and Winter mode.

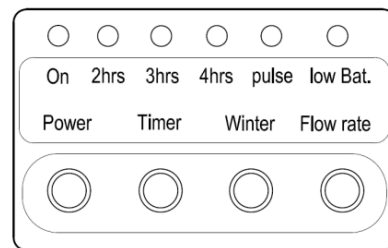
a. **CONTINUOUSLY ON MODE:** *This mode works best if you want to maximize the pump’s daily usage.* Press [Power] button, the top indicator light [On] will be on. The pump will run continuously until the battery runs out of power. The pump will automatically restart when the battery is recharged under proper sunlight.

b. **DAILY TIMER MODE:** *This mode works best if you want the pump run at the same time every day.* Press [Timer] button repeatedly until the indicator light [2hrs], [3hrs] or [4hrs] is lit – the pump will run for 2, 3, or 4 hours and shut down (in standby) for 22, 21, or 20 hours. This setting will repeat daily at the same time. You can reset the pump’s daily start up time by switching it to a new desired time using this mode.

c. **WINTER MODE:** *This mode works best in winter or poor weather.* Choose either Continuously On Mode or Daily Timer Mode, then press [Winter] button, and the top indicator light [Pulse] will be on. The pump will run for 20 seconds in every 60 seconds. It is recommended to use this mode to extend battery life time in winter or poor weather.

**PUMP FLOW CONTROL button:** *Use this button to adjust the water flow rate.* Press [Flow Rate] repeatedly to adjust the water flow rate (total 3 levels). Notes: Higher water flow rate will consume more power and reduce the battery life time.

**LOW BATTERY light:** The [Low Bat.] indicator light will be blinking when the battery is low, and pump/LED light will shut down shortly to protect the battery. The [Low Bat.] indicator light will turn off until the battery is recharged.



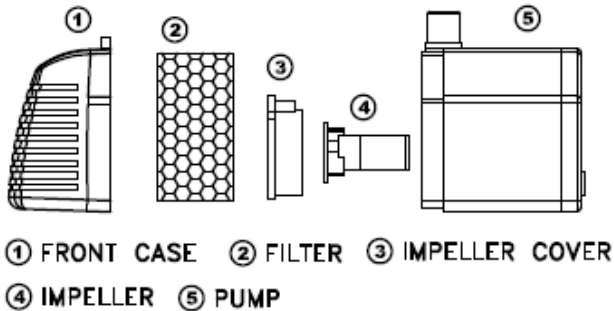
**7. PERFORMANCE OF THE PUMP**

The performance of the pump depends on the orientation of the solar panel towards the sun and the sunlight strength. In order to achieve max performance, please make sure the panel is

facing in the direction of the sun. A solar panel positioned in the shade or in poor weather will not maximize the charge. This models pump performance will depend on the battery power level. The pump will not work if battery power is too low.

### 8. PUMP MAINTENANCE

If you find the pump starts losing power or stops working, please clean the pump filter and impeller with clean water.



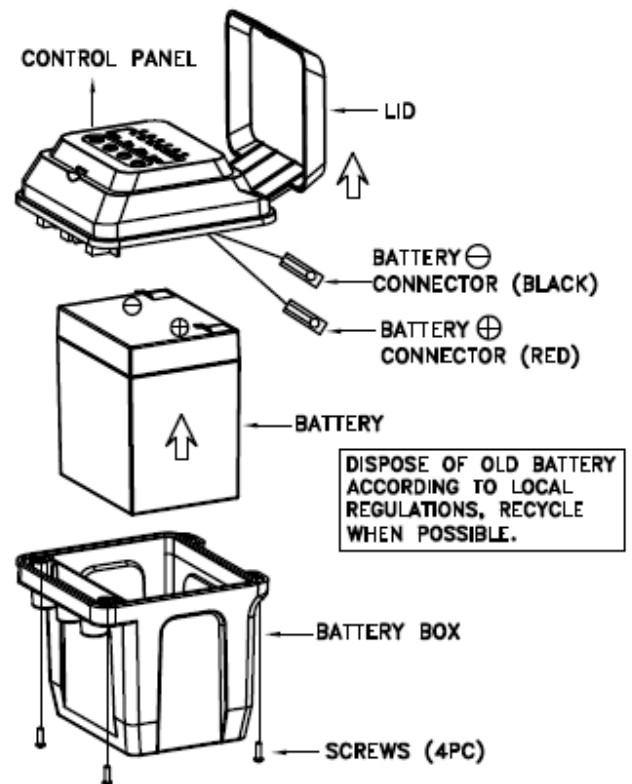
### 9. BATTERY REPLACEMENT

If properly maintained this solar pump has been designed to run for many years. The Lead-acid battery does have a limited life span and might need to be replaced after 18-24 months of use. If the battery appears less efficient, please try to boost charge it. To do this, leave the system off for 2 to 3 sunny days to allow fully charge to the battery. It is recommended to do this occasionally to maximize battery life time.

To replace battery, please follow these steps:

- a. Remove the 4pcs screws from the Battery Box
- b. Remove the lid and control panel from the battery box slightly
- c. Disconnect the battery connectors, then remove and replace the old battery.

NOTES: Please make sure to connect the new battery correctly: Red for + and Black for - . Only original battery should be used for replacement as other alternatives may be incompatible and may damage the control panel *and will void the warranty*. For parts, please go to [www.allsolarcentral.com](http://www.allsolarcentral.com).



### 10. TROUBLE SHOOTING

- Check to see if the solar panel, pump and led light are connected properly
- Check to see if the solar panel is correctly positioned facing the sun. Please ensure the solar panel is not in the shade or obstructed by trees, shrubs or a building (see step 2).
- Check if [low bat.] light is on. If so, this indicates that the battery power is low. Switch off the pump and leave the solar panel charging under direct sunlight for 1 or 2 days.
- **Charging Tips:** Press button [Power] to turn off the system and all indicator lights will be off, and all solar power is used to charge the battery.
- Check water level and make sure the pump is fully submerged in water
- Check to see if the pump filter/impeller is blocked by debris
- Check to see if the fountain tubing is blocked by kinks and obstructions
- Check the pump. It may be “air locked”. Turn the pump on/off switch several times to clear any air that may have been trapped.

## 11. TECHNICAL DATA

- Max. Water Flow: 300LPH
- Max. Water Lift: 120CM
- Max. Fountain Height: 65CM
- Working Voltage: DC7.5V – DC9V
- Pump Working Power: 1.0W – 1.5W
- Protection Grade of Pump: IP68
- Solar Panel: 3.0W; 9V; 0.333A
- Solar Panel Size: 250x175x18mm
- Protection Grade of Panel: IP44
- Battery: Lead Acid 6V/4AH
- Protection Grade of Battery Box: IP44
- LED Light Working Voltage: DC6V
- LED Light Working Power: 0.12W
- Protection Grade of LED Light: IP68

## 12. WINTER PROTECTION

Indoor storage is recommended during winter months. Normal operating temperature is between 50 and 113 °F. The battery can be recharged at temperatures between 32 and 113 °F

**IMPORTANT:** In order to keep your battery healthy during long storage times, please make sure the battery is recharged before storing.



### **PROPOSITION 65 WARNING:**

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause **cancer** and **reproductive harm**. Wash hands after handling. For more information go to <https://www.p65warnings.ca.gov/>

**BATTERY DISPOSE:** Never dispose of batteries in the garbage. Disposal of batteries in the garbage is unlawful under state and federal environmental laws and regulations. Always take used batteries to your local battery-recycling center.

Please visit [www.allsolarcentral.com](http://www.allsolarcentral.com) for more products and offers.

