



SP004 Solar Water Pump Instructions By All Solar Central

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

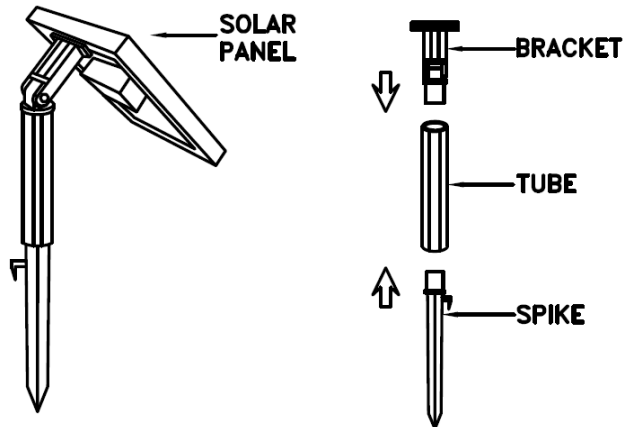
Package contents:

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

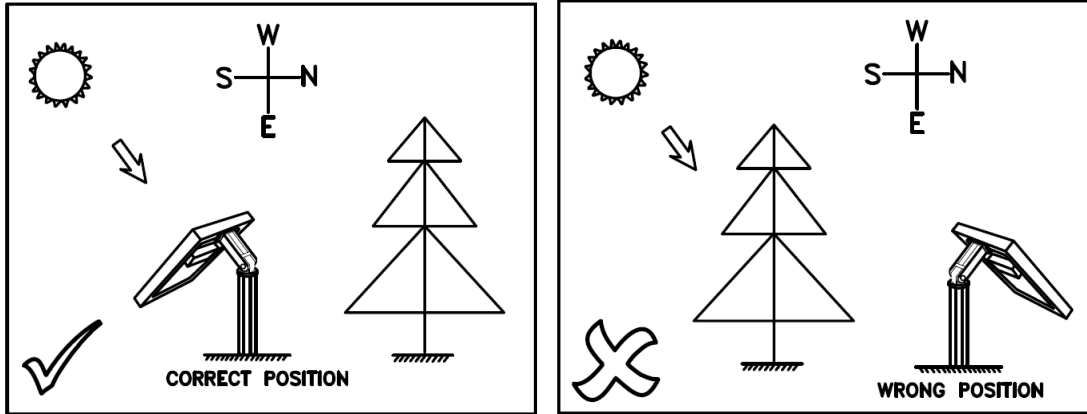
Notes: If there is any damage to the fountain or missing parts, please contact us at 1-626-582-8898 or www.allsolarcentral.com/contactus

Assembly Steps:

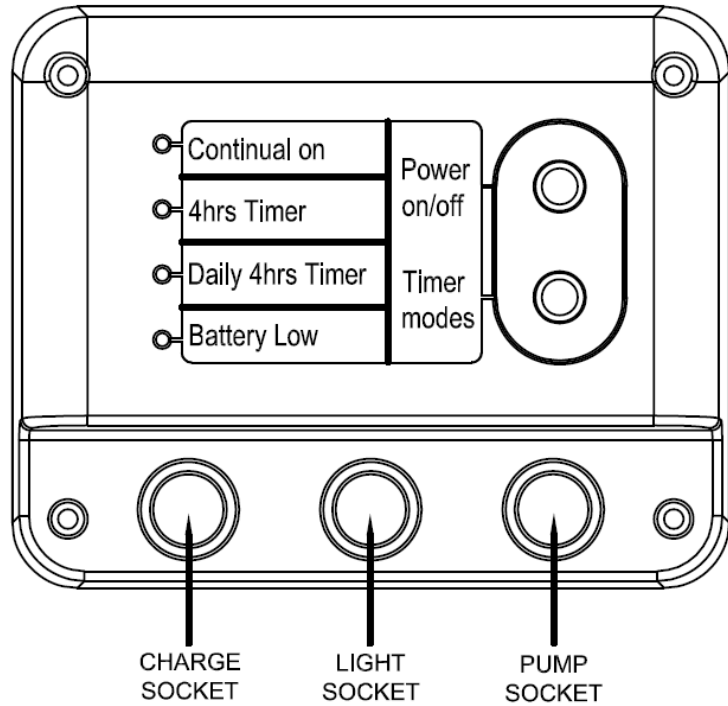
1. Connect the bracket, tubes and spike together. Then attach the solar panel to the bracket. Slide the holding bracket into the inside lip of the top half of the solar panel frame. The bracket holds the weight of the solar panel. The solar panel can be adjusted for optimal sunlight by using the wingnut.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



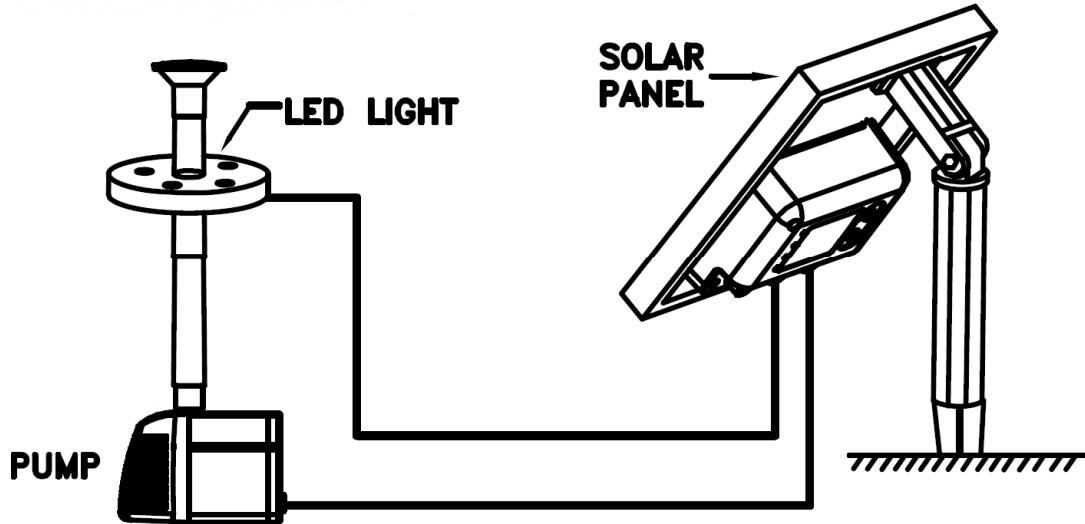
3. Connect the pump, LED Light to the Solar Panel.



IMPORTANT!!

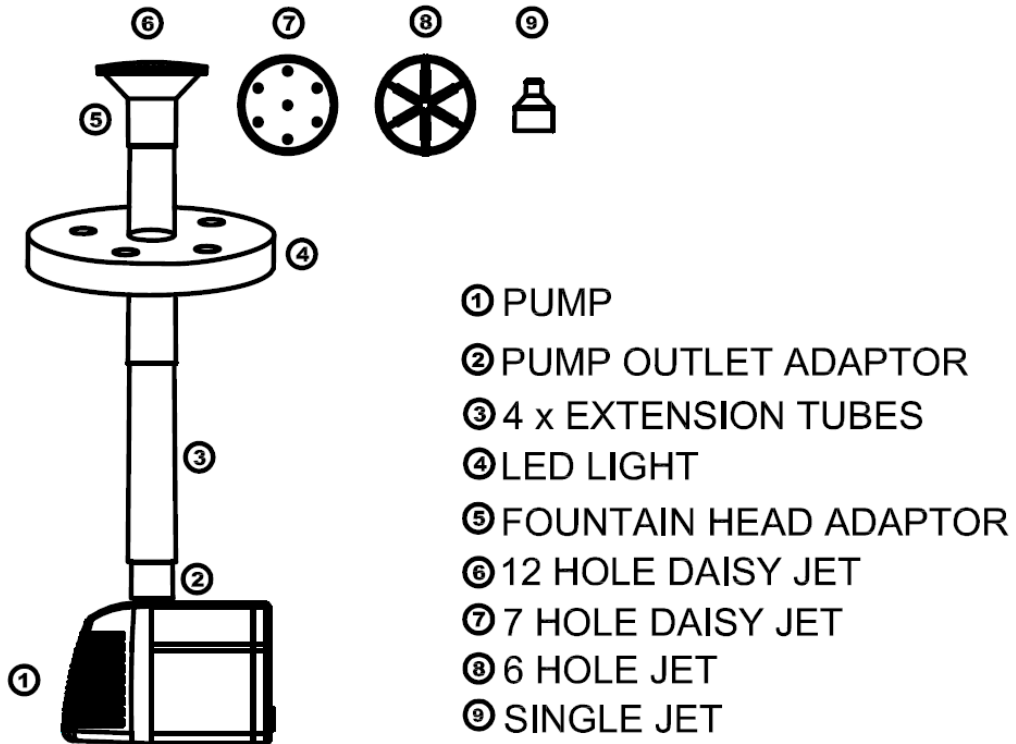
Only the original battery charger (sold separately) should be used as other alternatives may damage the battery and will void the warranty.

4. The assembled Solar Water Pump Kit should look like this:

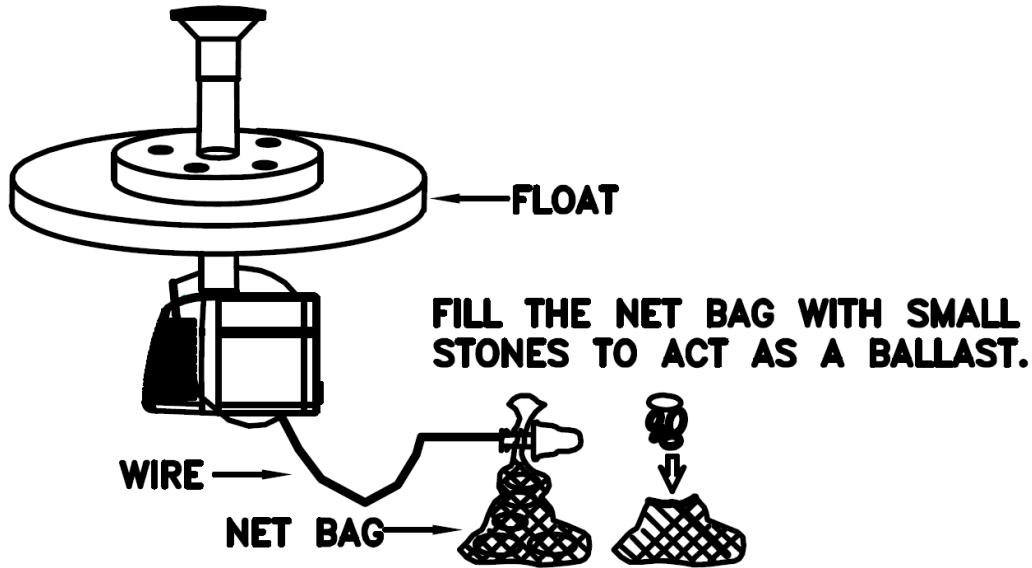


5. **PUMP ASSEMBLY:** This pump is designed to be used in different depths of water. In shallower pond/reservoirs please make sure there is enough water as the pump needs to be fully immersed in order to operate properly. In deeper ponds/reservoirs you will need to add the floating device in order for the pump to operate properly. Please reference the diagrams as guides.

IN SHALLOWER PONDS/RESERVOIRS



IN DEEPER PONDS/RESERVOIRS



6. 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. 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, 4hrs Timer, and Daily 4hrs Timer.

- a. **CONTINUOUSLY ON MODE:** *This mode works best if you want to maximize the pump's daily usage.* Press [power on/off] button, the top indicator light [continuously 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. **4hrs TIMER MODE:** *This mode works when you only want the pump to run upon your request.* Press [timer mode] button repeatedly until the second indicator light [4hrs timer] is lit – the pump will run for 4 hours and shut down. It will NOT restart until you press the [power on/off] button.
- c. **DAILY 4hrs TIMER MODE:** *This mode works best if you want the pump run at the same time every day.* Press [timer mode] button repeatedly until the third indicator light [daily 4 hrs timer] is lit – the pump will run for 4 hours and shut down (in standby) for 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. Note: the third indicator light will be blinking slowly when the pump has run for 4 hours and then will switch to standby mode. In order to save the battery power, the indicator light will turn off after darkness sets in but you can activate the indicator light and check its status with a

single push of either button. The indicator light will activate for a moment and then shut off again.

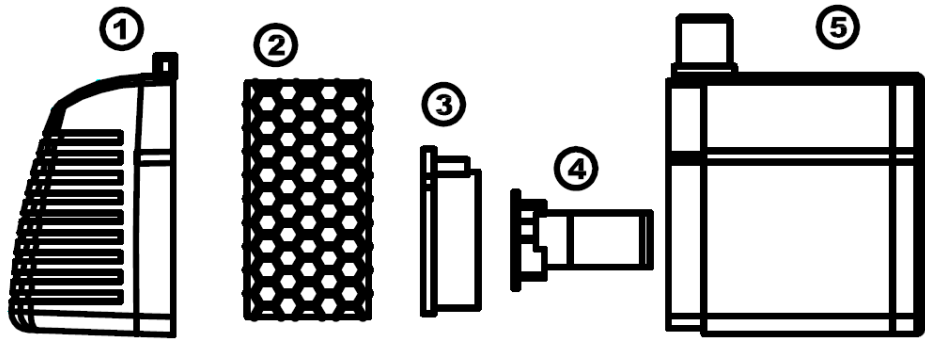
[Battery Low]: when the battery power is low, the red light will blink and the pump will shut down shortly to protect the battery. The red light will turn off until the battery is recharged.

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.



① FRONT CASE ② FILTER ③ IMPELLER COVER
④ IMPELLER ⑤ PUMP

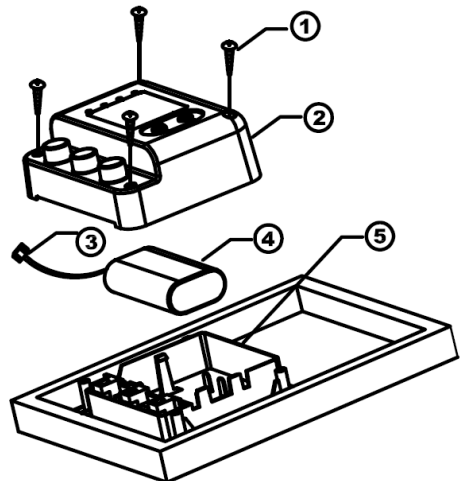
9. BATTERY REPLACEMENT

If properly maintained this solar pump has been designed to run for many years. The li-ion battery pack is very common with all rechargeable batteries and it does have a limited life span and might need to be replaced after 18-24 months of use.

To replace Battery Pack, please follow these steps:

- a. Remove the 4pcs screws (Part 1) from the Control Panel Cover (Part 2)
- b. Disconnect the Battery Pack connector (Part 3), then remove the Battery Pack (Part 4) from Control Panel Base (Part 5)

NOTES: Only original battery pack 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.



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.
- Check if [low battery] red light is blinking. If so, this indicates that the battery power is low. Switch off the pump and leave the solar panel charging under direct sunlight for at least 6 hours
- Check to see if the pump impeller is blocked by debris
- 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: 180LPH
- Max. Water Lift: 50CM
- Max. Fountain Height: 50CM
- Working Voltage: DC8.4V to DC6.5V
- Pump Working Power: 1.2W to 0.6W
- Protection Grade of Pump: IP68
- Solar Panel: 1.6W; 9V; 0.177A
- Solar Panel Size: 190x150x18mm
- Protection Grade of Panel: IP44
- Li-ion Battery Pack: 7.4V/1.5AH
- Protection Grade of Battery Box: IP44
- LED Light Working Voltage: DC7.4V
- LED Light Working Power: 0.15W
- 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.

IMPORTANT!!

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

Please visit www.allsolarcentral.com for more products and offers.

