Solar LED Matrix Lamp Kit

User Manual
&
Product Specifications

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SOLARLAND®
Solar Technology and Solutions

Model
BSS-00504S

Solar Powapack 5.0

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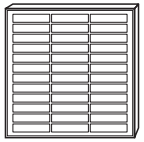
General safety

- Please read this manual carefully before using your solar power system.
- Save this manual. This manual contains guidelines for maintaining your power system.
- Please follow the installation instructions on pages 2-5 of this manual to ensure personal safety and satisfactory product operation.

System components

Your system should include all the following components. If there is anything missing please contact the distributor you purchased the kit from to arrange replacement.


LED Lamp(4pcs)


PV Module

Power Pack


Spare Part (2sets)

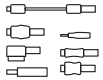

Manual


Cigarette Lighter Adopter(1pc)

Extension Cable


3pcs 4pcs 4pcs

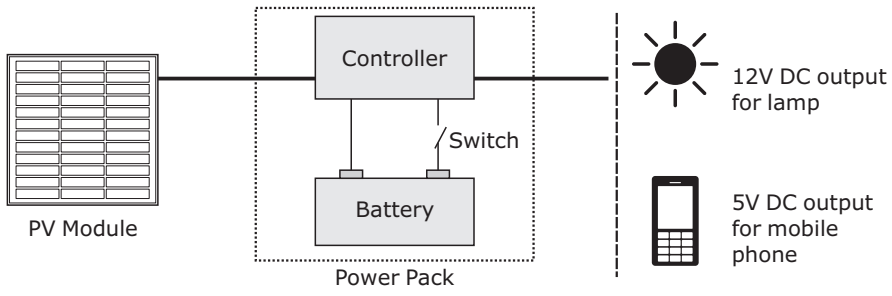
Phone Charging Kit


1set (7 kinds)


1pc

How Solar Home System Works

PV Module:
Absorbs sunlight and converts it to electricity.
Controller:
1 Protection against over-charge
2 Protection against over-discharge
3 Protection against short circuit and overload



Specifications

Value Parameters		
Normal Voltage		12V
Max. Charging Current/Load Current		≤1A
Current Natural Loss		≤2mA
Solar Module	STC Power	5W
	Operating Voltage (Vmp)	17V
	Operating Current (Imp)	0.29A
	Open-Circuit Voltage (Voc)	21.6V
	Short-Circuit Current (Isc)	0.34A
Battery	Battery Type	Maintenance Free Lead-acid battery
	Capacity	12V/5.0AH
DC Lamp	Light Source	12 Super Bright LED
	Rate Power	0.6W
	Rate Voltage	12V
	Rate Current	50mA
	Luminosity	50lm
Charging Time	Approximately 17 hours in full sunlight when the battery is fully discharged.	
Continuous Use	1 Lamp	72 hours
	2 Lamps	36 hours
	3 Lamps	24 hours
	4 Lamps	18 hours
Operating Temperature Range		-20~50°C(-4~122°F)

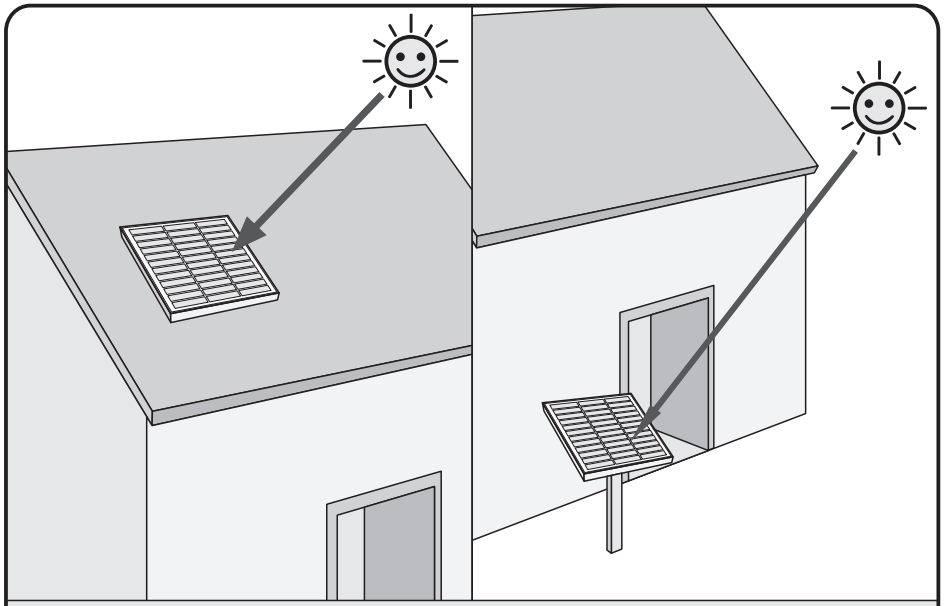
Installation

Solar Panel Installation Guidelines

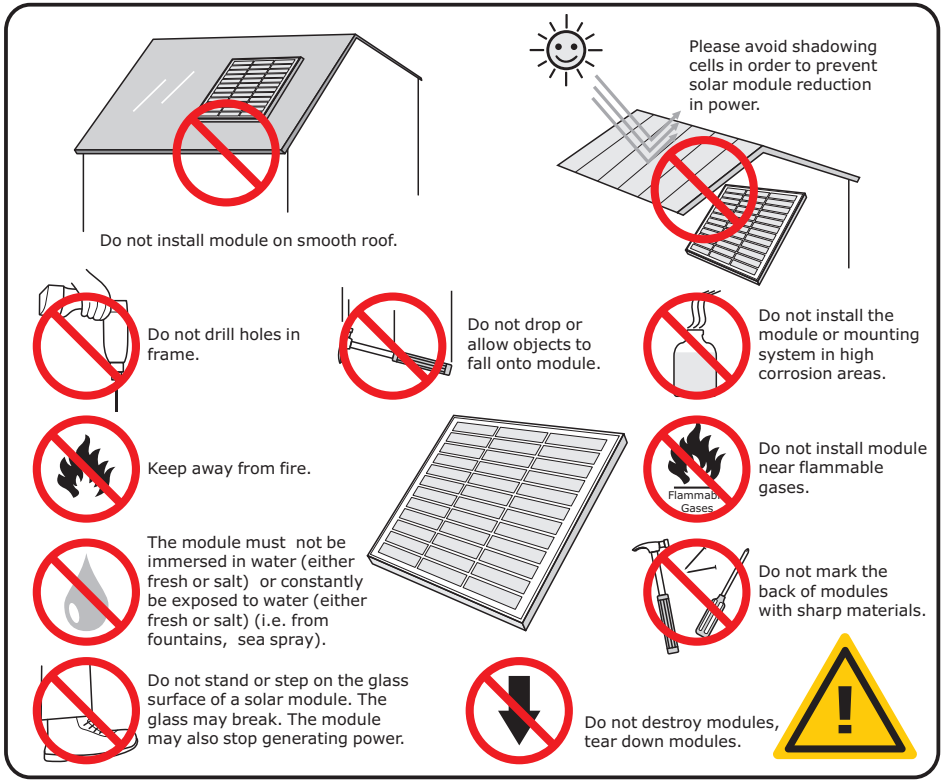
Environmental Parameters
The PV module should be installed in areas where the following environmental conditions exist:
Temperature Range: -20°C to 40°C*
Operating temperature: -20°C to 80°C
High temperature will reduce the performance of module, lowering power output.
Good ventilation can effectively reduce the effect of power loss due to excessive heat.
Panels should be installed in a well ventilated location.
The solar panels are water resistant but not waterproof. Do not submerge in water or expose the panel to a continual flow of water.

Orientation & Tilt

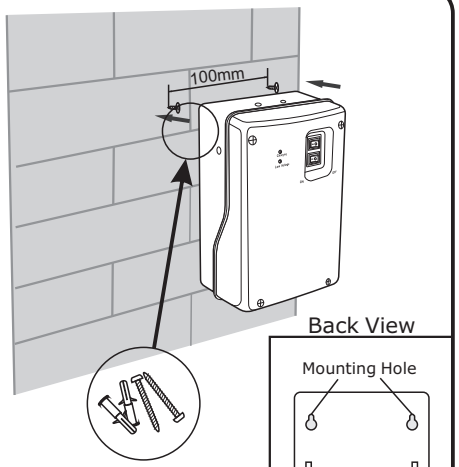
The solar panels perform best when set up at 90° to the direct sunlight.



Note: Please place the solar panel at a position directly facing the sun.



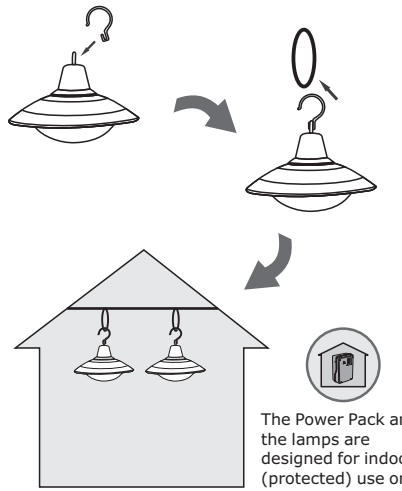
Controller Installation



Knock two nails into the wall which the PowerPack is going to be installed, with the distance of 100mm between the two nails. Hang the Power Pack on the wall.

Lamp Installation

Hang the lamp based on requirements.

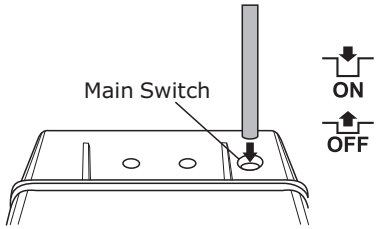


The Power Pack and the lamps are designed for indoor (protected) use only.

Electrical Connection

STEP1

Press the button on the top of the PowerPack to the "ON" position before use.

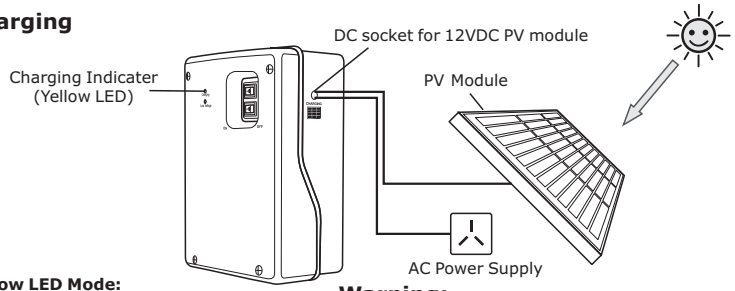


Use a blunt object to depress the switch.
Turn switch off for long term storage.

STEP2

Before use, fully charge the battery.

Charging



Yellow LED Mode:

· ON----Battery is charging.

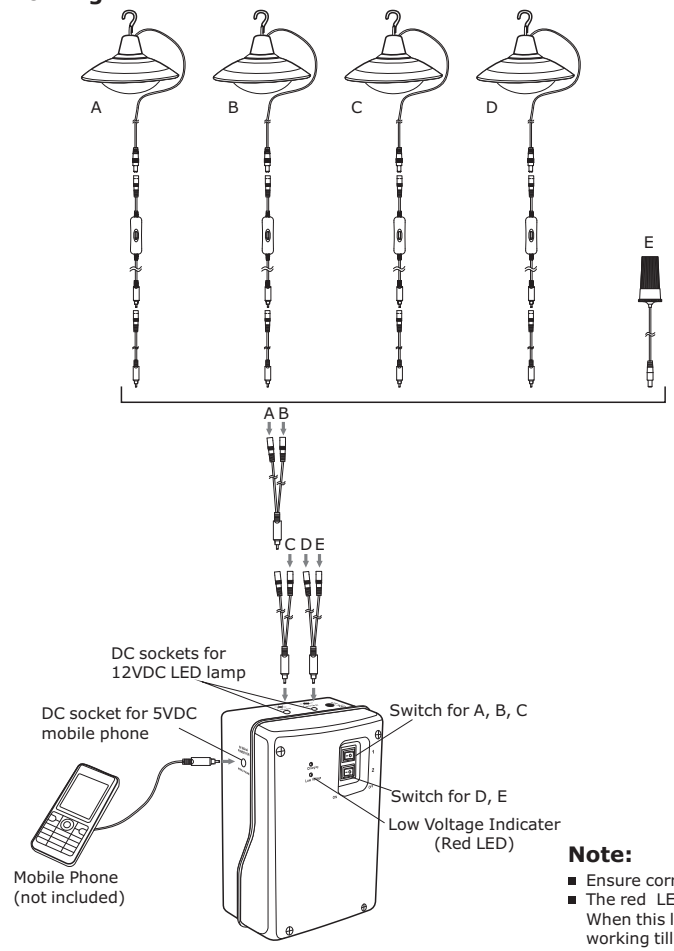
· Flash----Battery is fully charged.

Warning:

The Power Pack can be supplied with the AC charger with special configuration. Please do not use other AC adaptor not supplied by use. This may influence the electrical properties of the products.

STEP3

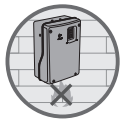
Working



Note:

- Ensure correct connection as indicated.
- The red LED is a low voltage indicator. When this lights up the kit will stop working till recharged.

The battery/controller should be installed in a shaded location, avoiding direct sunlight and must be free from moisture.



The surface temperature of the controller will heat up during use, please avoid contact and exposure with combustibles.

If the battery/controller is to be used outside, please place the unit in a protective housing keeping it free from dust and water.

Safety Warning!

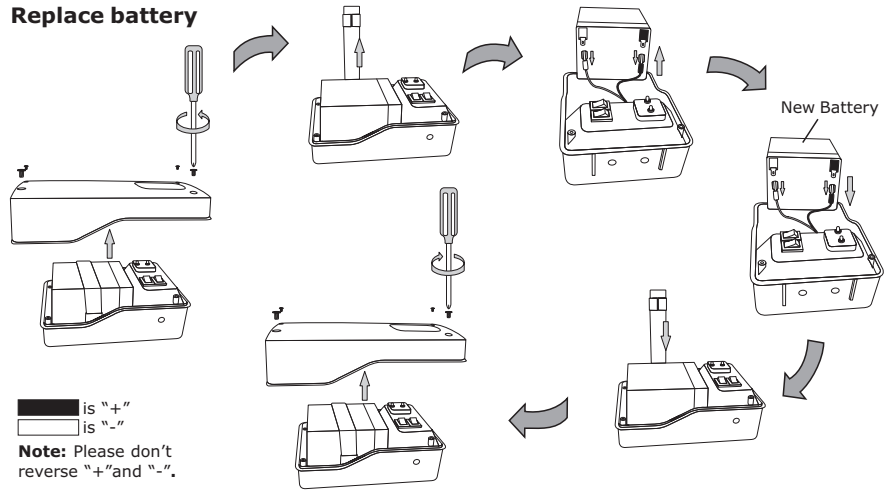
Maintenance

- Do not change any system components with non approved Solarland components. Failure to follow this instruction could cause system failure and nullify the product warranty.
- PV Module; …clean the glass surface of the module as necessary. Use water and a soft sponge or cloth for cleaning. A mild, non-abrasive cleaning agent can be used if necessary. Do not use dishwasher detergent.
- Protect the cables against mechanical stress when they are being laid (e.g. against pressure from being trodden on).
- If a mechanical defect is identified in a PV panel (e.g. if the glass in the front panel is broken by a forceful impact), this panel must be changed and replaced with a new one.
- Cleaning the battery terminals, do not use any metal files or other harsh abrasives (eg. sand paper) to remove corrosion or oxidization from terminals or posts as this may cause a poor fit when terminals are reconnected.
- Non-use:turn off the main switch during long-term storage.

Trouble-shooting Guide

The Solar Powapack kit is a maintenance free design and there are no user-serviceable parts. If you have any problems please follow the trouble-shooting guide below or call the distributor you purchased the kit from.

Replace battery



Charging indicater(Yellow LED) not on and not flash:
Check if solar panel DC plug and cable OK or not.
Check if main switch off or not.
Battery capacity is low, the battery should be changed.
Low voltage indicater(Red LED)on , lamp not working:
The battery is low voltage, the system should be charged.
When on overcurrent or short-current happens, please turn off main switch. When faults removed, please turn on the main switch again.
Low voltage indicater(Red LED) on, battery running out in a short time:
Battery capacity is low, the battery should be changed.
Charging indicater(Yellow LED) flash, battery fully charging in a short time:
Battery capacity is low, the battery should be changed.

FAQ

Warranty

FAQ

What direction should I tilt the module?

The solar panel's top surface is the area that generates electricity and thus it is this surface should be exposed to the sun to capture maximum light.
The maximum light is captured when the panel surface is at 90° angle to the sun's rays.

Will shading affect my solar module output?

Yes. Don't install the PV module where shading occurs. Shading could cause loss of output.

Will my solar module work in cloudy weather?

Yes, solar modules can work in low light conditions. On overcast or cloudy days there will be less energy reaching the solar module and therefore less output.

Will my solar module output increase with temperature rising?

No. High temperature will reduce the performance of the panel, lowering the power output. Good ventilation can effectively prevent overheating photovoltaic components.

How often should I clean my solar module?

There is no need to clean if the modules have pitch (at least 15º).Rainwater has the ability to clean them. Excessive debris and dust should be removed using warm water.

Should I cover my solar module in the winter months?

No, solar modules can withstand extreme environments including heat, cold, ice and even hail and work normal.

Warranty

Limited Warranty Materials & Workmanship
The seller warrants the solar power system to be free from defects in material and workmanship under normal application, installation, usage and service conditions.
If the solar modules fail to conform to this warranty, then for a period ending 12 months from date of sale to the original end-customer, the Seller at its option, either repair or replacement or refund, or refund the purchase price as paid by the Customer ["Purchase Price"]
Limited Warranty Power Output
The seller guarantees that the output power of PV module is more than 80% of the minimum Peak Power within 5 years. If the output power of PV module can't reach the warranty data, SOLARLAND will , at its own discretion, replace such loss in power either by replacing the defective PV modules or by refunding the Purchase Price Provided that the loss in power is due to defects in materials and /or workmanship under normal installation, application and use.

General Disclaimer

In no event shall the manufacturer liable for any damage or personal injury caused by non-compliance to the operating instructions and safety suggestions in this brochure. The manufacturer will not bare any responsibility for misuse, damage, injure, incorrect installation and system design as such.