

Solar LED Tube Lamp Kit

User Manual
&
Product Specifications

ACDC
—  — DYNAMICS
www.acdc.co.za

Model
BSS-01004LH

Solar Powapack 10.0

Index

General safety.....	Page1
System Components.....	Page1
How Solar Home System Works.....	Page1
Specifications.....	Page2
Installation.....	Page2
Electrical Connection.....	Page4
Maintenance.....	Page6
Trouble-shooting Guide.....	Page6
FAQ.....	Page7
Warranty.....	Page7
General Disclaimer.....	Page7

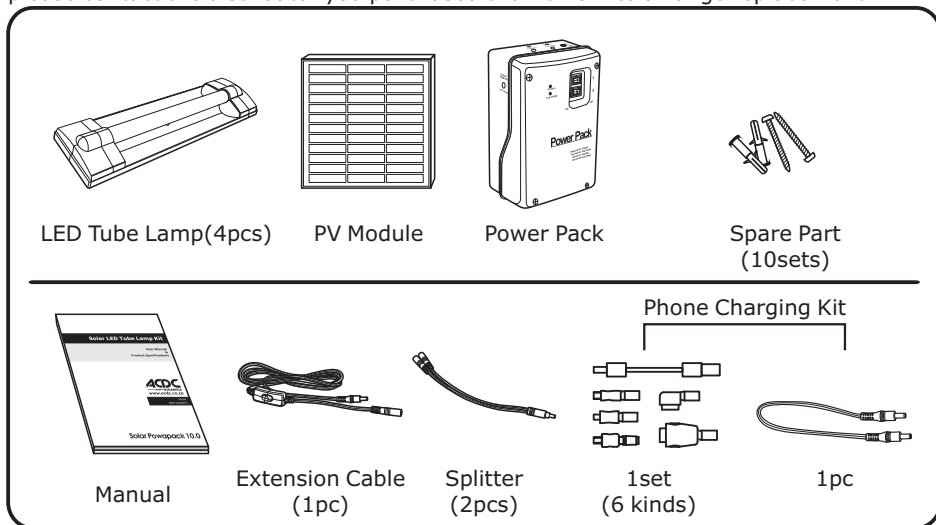


General safety

- 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.



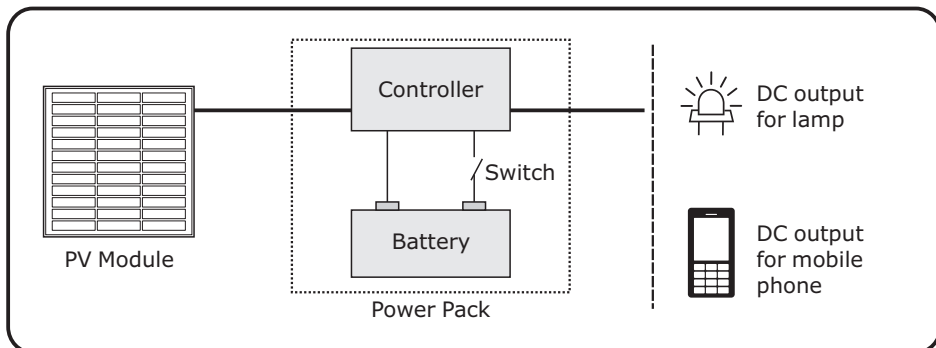
How Solar Home System Works

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
- 4 Protection against reverse current to the supply source



Specifications

Value Parameters		
Normal Voltage		11.1V
Max. Charging Current/Load Current		≤1A
Current Natural Loss		≤2mA
Solar Module	STC Power	10W
	Operating Voltage (Vmp)	17V
	Operating Current (Imp)	0.58A
	Open-Circuit Voltage (Voc)	21.6V
	Short-Circuit Current (Isc)	0.68A
Battery	Battery Type	Lithium battery
	Capacity	11.1V/2.7AH
DC Lamp	Light Source	24 Super Bright LED
	Rate Power	1.5W
	Rate Voltage	8~18V
	Rate Current	0.125A
	Luminosity	140lm
Charging Time	Approximately 4.5 hours in full sunlight when the battery is fully discharged.	
Continuous Use	2 Lamp	8 hours
	4 Lamps	4 hours
Operating Temperature Range		-10~50°C(14~122°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.

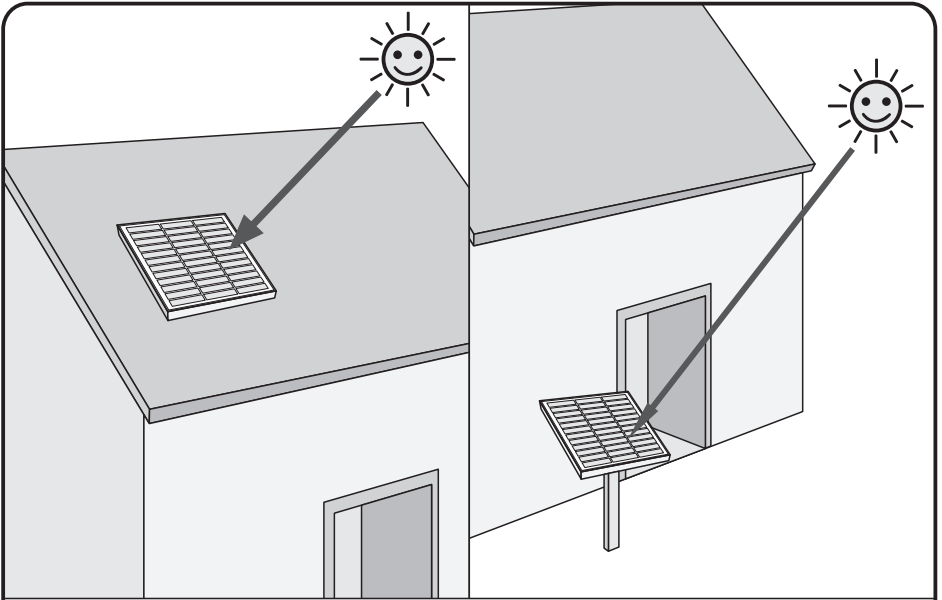
Good ventilation can effectively reduce the effect of power loss due to excessive heat.

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

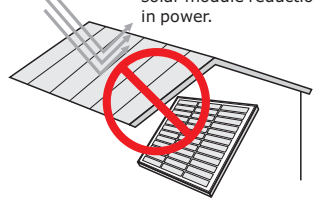
The solar panels perform best when set up at 90° to the direct sunlight.



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



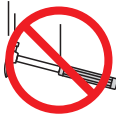
Do not install module on smooth roof.



Please avoid shadowing cells in order to prevent solar module reduction in power.



Do not drill holes in frame.



Do not drop or allow objects to fall onto module.



Do not install the module or mounting system in high corrosion areas.



Keep away from fire.



Do not install module near flammable gases.



The module must not be immersed in water (either fresh or salt) or constantly be exposed to water (either fresh or salt) (i.e. from fountains, sea spray).



Do not mark the back of modules with sharp materials.



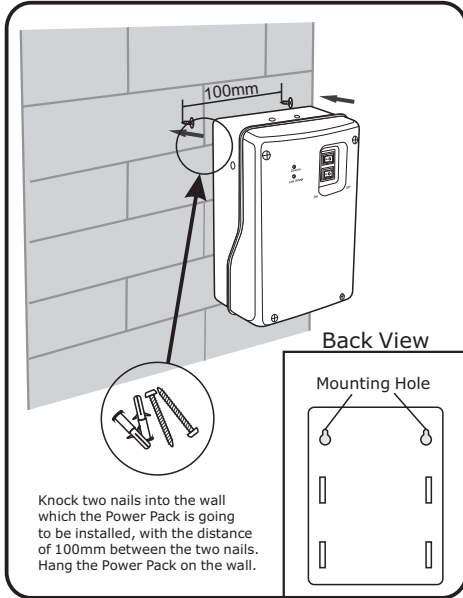
Do not stand or step on the glass surface of a solar module. The glass may break. The module may also stop generating power.



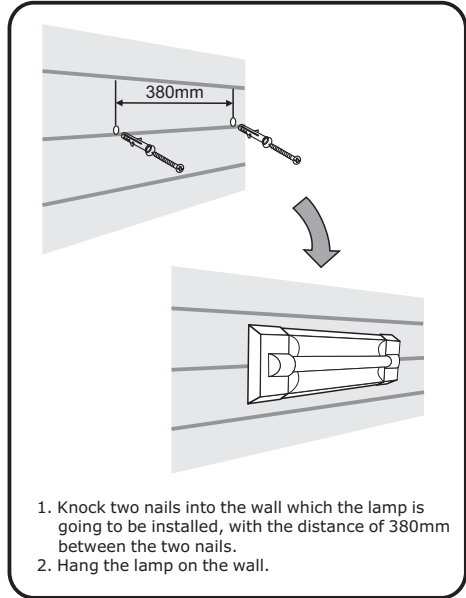
Do not destroy modules, tear down modules.



Controller Installation



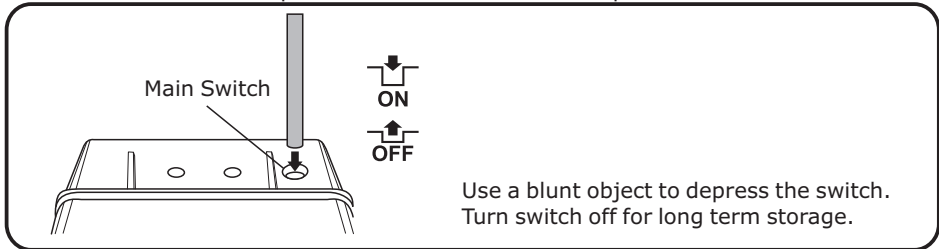
Lamp Installation



Electrical Connection

STEP1

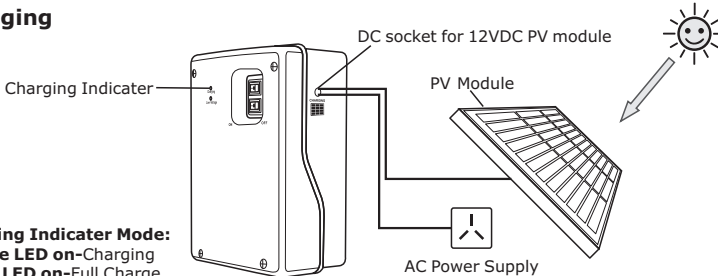
Press the button on the top of the PowerPack to the "ON" position before use.



STEP2

Before use, fully charge the battery.

Charging



Charging Indicator Mode:
Orange LED on-Charging
Green LED on-Full Charge
Green LED on, Red LED Flash at the same time-

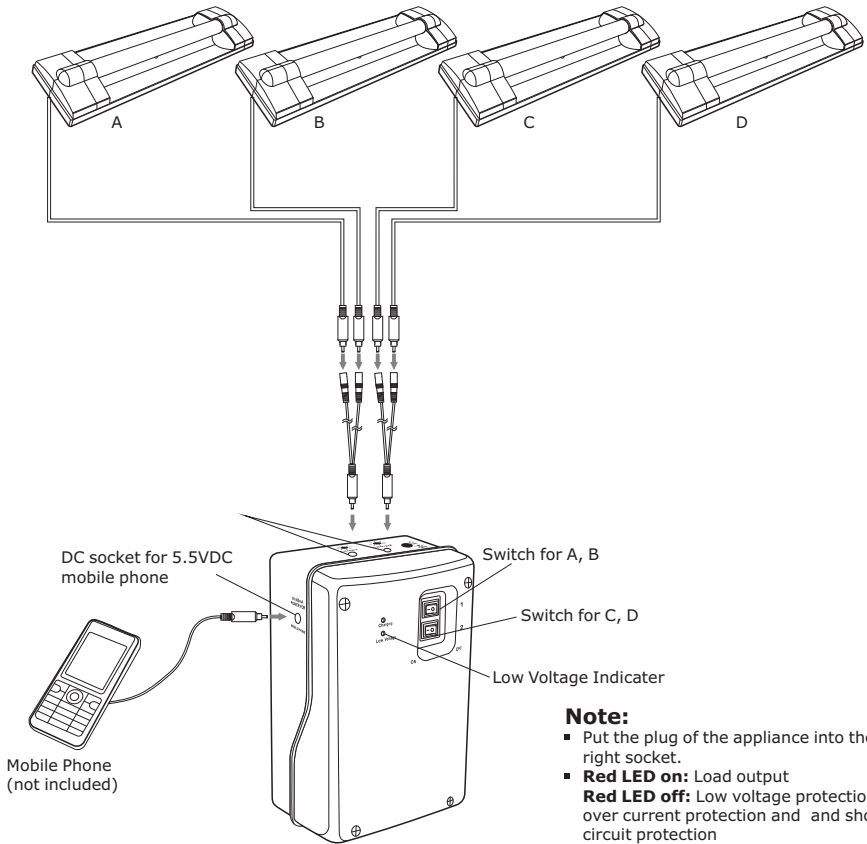
Enter the PWM charge, until finally only the green light.

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:

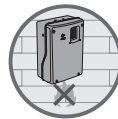
- Put the plug of the appliance into the right socket.
- **Red LED on:** Load output
- **Red LED off:** Low voltage protection, over current protection and short circuit protection

Warning:

Long-term Non-use: Turn Off The Switch.



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 ACDC 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

Solar panel & Power Pack are maintenance-free and there are no user-serviceable parts in this unit.

If you have any problems, please check the unit as follow or contact with suppliers.

Charging indicator (Orange LED) not on:

Check if solar panel DC plug and cables ok or not.

Check if main switch close or not.

Low voltage indicator on, lamp not working:

Check if load switch close or not.

Low voltage indicator not on, lamp not working:

Check if main switch close or not.

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 indicator not on, battery runs out in a short time:

Battery capacity is low, the battery should be changed.

Charging indicator (Green LED) on, battery fully charge in a short time:

Battery IR rise, capacity low, the battery should be changed.

FAQ

- ② What direction should I tilt the module?
- ① 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.
- ② Will shading affect my solar module output?
- ① Yes. Don't install the PV module where shading occurs. Shading could cause loss of output.
- ② Will my solar module work in cloudy weather?
- ① 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.
- ② Will my solar module output increase with temperature rising?
- ① No. High temperature will reduce the performance of the panel, lowering the power output. Good ventilation can effectively prevent overheating photovoltaic components.
- ② How often should I clean my solar module?
- ① There is no need to clean if the modules have pitch (at least 15°). Rainwater has the ability to clean them. Excessive debris and dust should be removed using warm water.
- ② Should I cover my solar module in the winter months?
- ① 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, ACDC 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.



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