

# Solar Power System

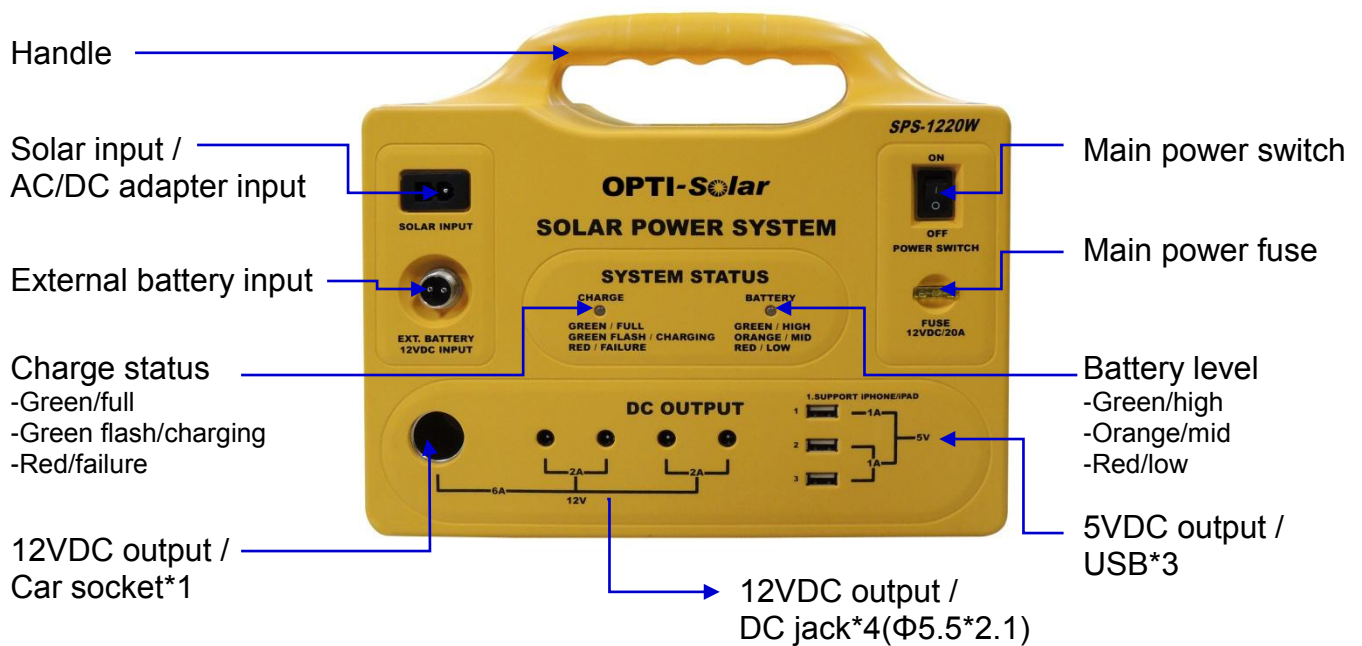
## User Manual



## System introduction

The point of the Solar Power System is to replace home power. It is also useful in situations such as: emergencies (rescue and disaster support), facilities with no power, camping and travel, etc.

## Appearance



## System components

### Standard

- Solar panels 17.4 VDC (Including a power cord)
- DC input LED bulb kits (Including LED bulbs, power cords, E27 lamp holders)
- Main power fuse
- USB booster and power cord and mobile phone charging adapter kits (Mini-USB, Micro-USB, iPhone; other types optional).

### Option

- AC/DC adapter, output 19.0 Vdc
- Portable rechargeable lamps (Includes charging power cord)
- DC/AC inverter
- External battery with power cord

## System setup

- Solar power system default setting:
  - Main power switch: off
  - Main power fuse: open (Accessory parts)
- Insert the main power fuse
- Turn the main power switch on
- Connect the solar panel

## System status

- Battery level LED indicator
  - Green - The battery power is at full
  - Orange - The battery power is half-charged
  - Red - The battery power is low
  - Red flash - Indicates that the battery will enter into low power protection mode  
(The red light flashes for 15 seconds and then the system automatically shuts down)
  - LED is not lighting up - The system will fail or won't start at all.

**>< Before using the solar power system, please make sure the battery is fully charged.**

**>< After switching on this solar power system, please keep the battery charging**

**>< The solar power system is running and the battery level LED indicator shows a steadily red light:**

**# Charge the battery**

**# If necessary, reduce the load or turn off some of the connected loads**

**>< The solar power system is running and the battery level LED indicator is flashing red:**

**# After 15 seconds of flashing, the system will automatically shut down**

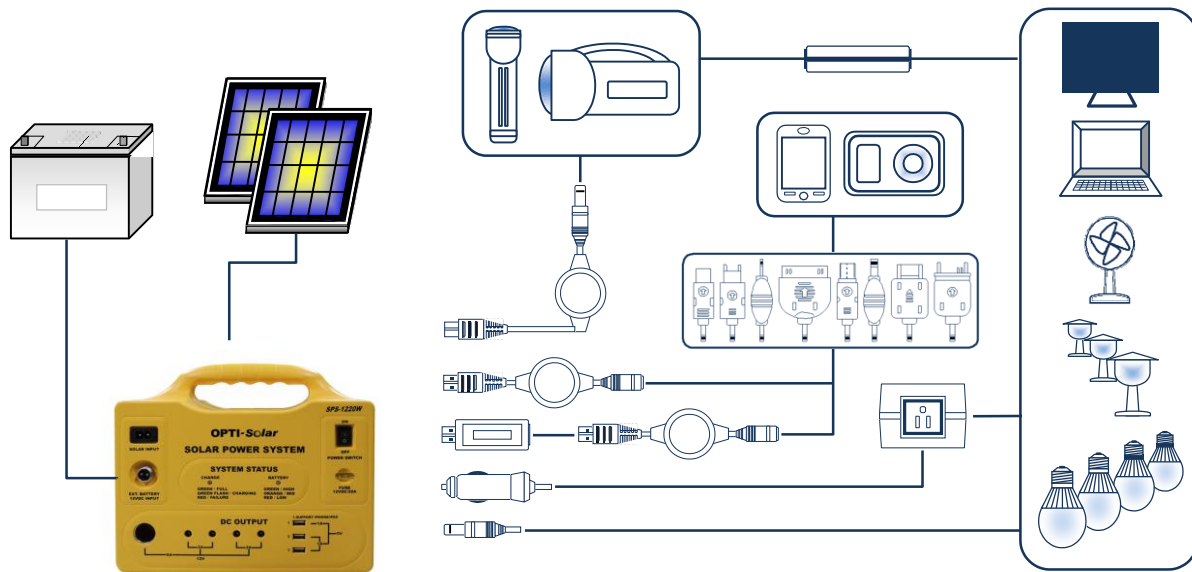
**# Disconnect all the loads and charge the system**

**# When the LED indicator light is orange (mid of battery level), you can restart the system and connect the loads.**

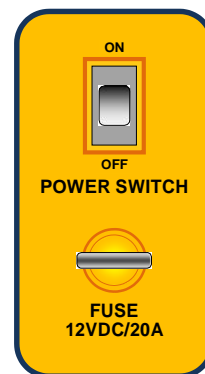
**>< If the solar power system is stored over a long period, please supply power to the system for at least 15 days. If unused for longer periods, please fully charge the system and keep it fully charged for 15 days**

- Charge status LED indicator
  - Green - Indicates that the battery is fully charged
  - Green flash - Indicates that the battery is charging
  - Red - Indicates that the solar power input voltage is too high (The system automatically cuts off the load)
  - LED is not lighting up - Indicates that the solar panel is not connected or the solar power input voltage is too low

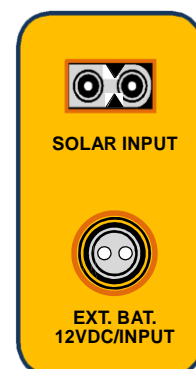
## System application



- Main power switch
  - Main power and system working control
  - Main power surge buffer
- Main power fuse
  - Auto fuse 12 VDC/20A
  - If unused for long periods, please remove the fuse



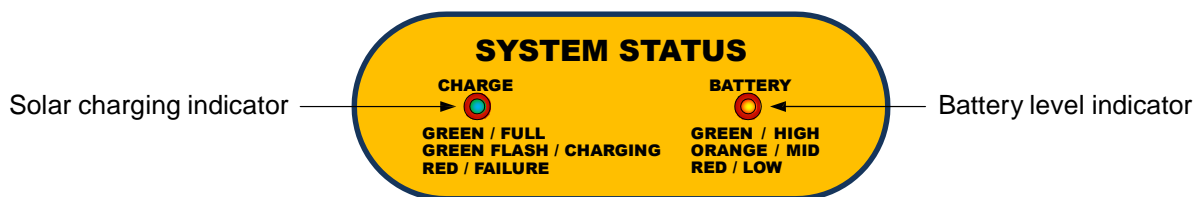
- Solar input
  - Solar panels and AC/DC adapter input port
  - Rated power input: 16~23 VDC / 90W (MAX)
  - Supports the solar panels (option) expansion
  - Includes an overvoltage and reverse polarity protection
- External battery input
  - Supports an additional parallel battery, and can simultaneously charge and discharge
  - External battery specifications: 12VDC / 20 Ah (MAX)
  - Includes overvoltage and reverse polarity protection



- >< Before connecting to the external battery, please turn off the main power switch and remove the main power fuse
- >< After connecting, please restart the solar power system.

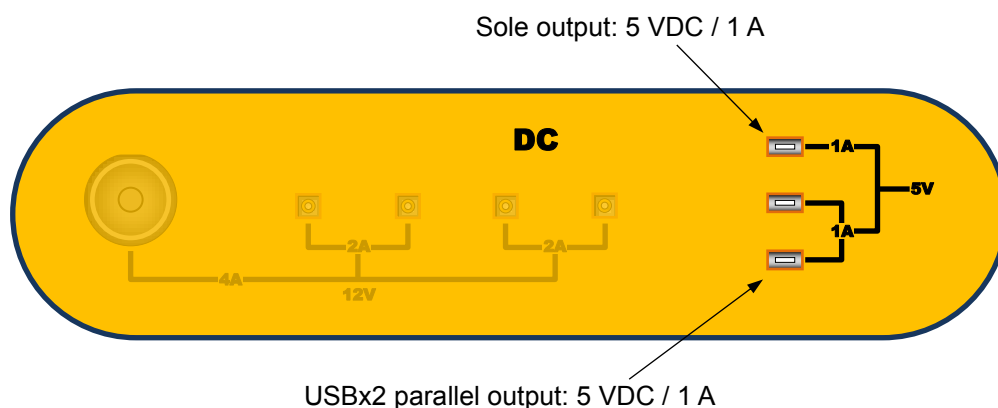
● **System status**

- Indicates the battery power level and solar charging working status
- Battery level indicator
  - Green - The battery power is fully charged
  - Orange - The battery power is half charged
  - Red - The battery power is low
  - Red flash - Indicates that the system will trigger the low battery protection mode (The light flashes red for 15 seconds and then the system automatically shuts down)
  - LED is not lighting - The system fails or won't start at all.
- Solar charging indicator
  - Green - Indicates that the battery is fully charged
  - Green flash - Indicates that the battery is charging
  - Red - Indicates that the solar power input voltage is too high
  - LED is not lighting up - Indicates that the solar panel is not connected or the solar power input voltage is too low.



● **USB output port\*3: 5 VDC**

- Support USB charging or load to use
- Sole output: 5 VDC / 1 A  
Mobile phone charging
  - Other relatively high-power use
- USB\*2 parallel output: 5 VDC / 1 A  
-General USB output, support USB charging or load use

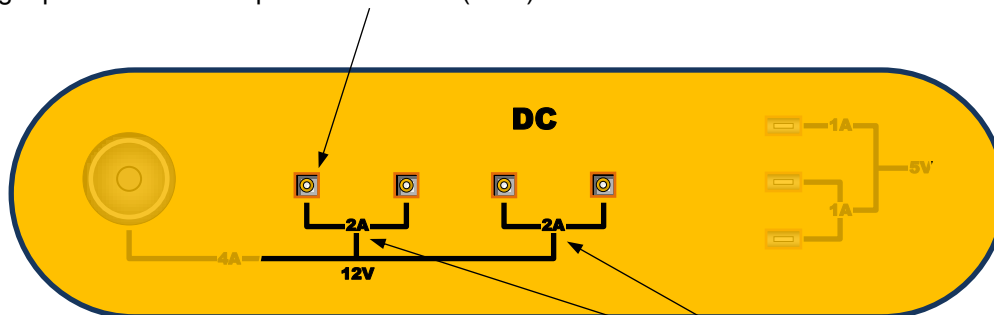


- USB booster and conversion kits are optional. Supports different types of loads
- Includes overload and reverse polarity protection

● DC jackx4 (5.5\*2.1) output: 12 VDC

- Output divided into two loops, each circuit provides 12 VDC / 2A (24W) power
- Supports device charging or loading usage
- Single-port maximum output 12 VDC / 2A (24W)
- Generally used for lighting, radio, PC notebook, fan, media player etc., or for anything that needs a small electrical charge
- Includes overload and reverse polarity protection

Single-port maximum output: 12 VDC / 2A (24W)

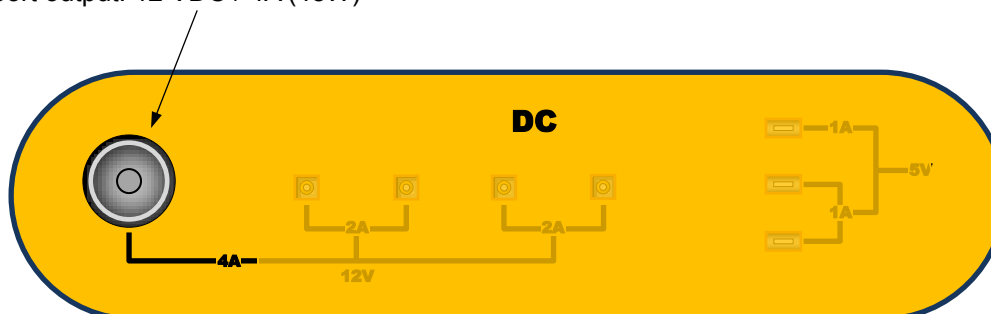


Each circuit provides 12 VDC / 2A (24W)

● Car socket output\*1: 12 VDC

- Single-port output 12 VDC / 4A (48W)
- Supports device charging or loading usage
- DC to AC inverter is optional, for AC power supply
- Includes overload and reverse polarity protection

Single-port output: 12 VDC / 4A (48W)



## **Use characteristics**

- Portable design for easy carrying
- Ideal solar / AC power adapter
- Low power and high efficiency
- System status indication
- System safety protection
- Loading devices plug and play
- Easy to set up and Maintenance
- Support solar panels (optional) and battery (optional) expansion

## **Notice**

- Before using the solar power system, please ensure that the battery is fully charged.
- After the start of this solar power system, please keep the battery fully charged.
- If unused for long periods, please fully charge and then keep charged for 15 days.
- Before connecting to the external battery, please turn off the main power switch and remove the main power fuse.
- After connection, please restart the solar power system.
- The solar power system must not be placed on its side or upside down.
- The solar power system must not be placed in wet, dirty, high-temperature or full-sunlight places .
- The solar power system is not waterproof.
- **If the solar power system is to be stored for a long period, turn the main switch off.**

## **Abnormal situation and maintenance**

- If the solar power system is operating abnormally, turn off the power switch and then restart.
- If after 3 times it still doesn't start, please contact the vendor or service center.