

# USER MANUAL

## Portable Solar Kraftwerk (350W)

Thank you for purchasing Portable Solar Kraftwerk by so-fi® (solar fidelity). Please read the information carefully and follow all instructions thoroughly before using this product.

### Feature

The system is a small AC & DC Power Supply System which is designed for the Villages, Districts, Health Centers, farmers, herdsman, outdoor camping, tourism, military, etc. Easy to operate, convenient to carry. It can power most appliances found in the home, office, shed or workplace; such as TV's, stereos, games, lights, fans, laptops, phones, and power tools. Solar panel, solar controller, inverter and battery all are put in one box.

### Specifications

Item	Parameter
Solar panel (Monocrystalline)	50W 18V
Inverter (Pure Sine Wave)	150W/350W AC100V~240V
Battery (Lithium Polymer)	12V 16Ah/32Ah/48Ah
Controller	12V 8A
LED	3W Lighting with SOS feature
Interface (Output)	AC220V/100V:1pcs DC12V:2pcs Car socket:1pcs 5V USB:2pcs
Interface (Input)	DC12-24V input(solar) AC input.
Product size	442*345*145 mm

Packaging size	472*375*165 mm
Net weight	8.5~10.5 kg
Gross weight	9.5~11.5kg

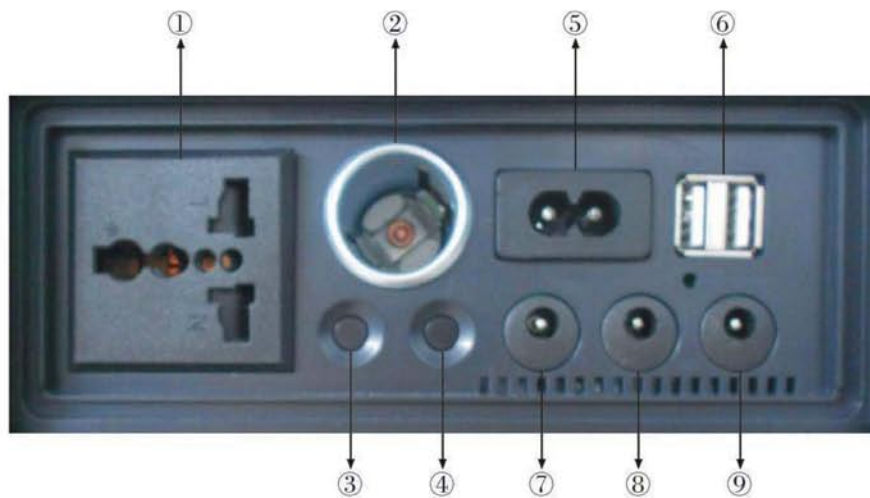
## Product Structure

### 1. General Structure Description






- ① Solar panel
- ② 3W LED bulb
- ③ 3W LED bulb button
- ④ LCD screen
- ⑤ Handle
- ⑥ Solar panel connector
- ⑦ Master switch
- ⑧ Charging & Discharging interface
- ⑨ Waterproof safety door






## 2.Charging & Discharging Interface



- ① 100~240V AC OUTPUT
- ② 12V CAR SOCKET OUTPUT
- ③ AC ON/OFF
- ④ DC ON/OFF
- ⑤ 100~240V AC INPUT
- ⑥ 5V USB
- ⑦ 12V~23V DC INPUT
- ⑧ 12V DC OUTPUT(5.5\*2.5mm)
- ⑨ 12V DC OUTPUT(5.5\*2.5mm)

## 3.LCD Screen Indicator Description

Item No.	LCD Display	Working state
1		POWER OFF
2		POWER ON
3		AC OUTPUT ON

4		DC OUTPUT ON
5		AC&DC OUTPUT ON
6		AC ERROR
7		DC ERROR
8		AC&DC ERROR

## Charging Solar Box

### How to Charge the Box from Sunlight

There are 2 ways to charge Box by sunlight

1)Open the box and put the solar panel under directly sunlight, connect the solar panel connector with the connector of power box(item ⑥ in general structure), then it is charging(the battery capacity display is going up). Make sure the solar panel can get as much sunlight as possible;

2)Use an extra solar panel(Max.100W 18V) to connect with the 12V~23V DC INPUT connector and put the solar panel under directly sunlight, then it is charging the power system.

After the LCD screen shows the battery is 100% full, please pack the solar panel in the box or take the extra solar panel away from sunlight to protect the battery.

## How to Charge the Box from Utility Grid

There are 2 steps to charge Box by utility grid:

- 1) Connect the charging cable with the 100~240V AC INPUT connector;
- 2) Connect another side of the charging cable with utility grid, then it is charging.

Remove the charging cable after the battery is 100% full.

## How to Charge the Box by Car Socket

There are 2 steps to charge Box by Car:



1) Connect one side of the car charging cable(not included in the power unit) with the 12V~23V DC INPUT connector;

2) Connect another side with car socket and start the car, then it is charging.

Remove the charging cable after the battery is 100% full.

## Charging Time

Charging time Battery capacity Charging method	16Ah	32Ah	48Ah
	AC charge	3	6
50W solar charge	6	12	18

# Using Solar Box

## How to Use the Box to Supply AC Power

- 1) Turn on the master switch;
- 2) Press the AC ON/OFF button;
- 3) Connect AC 100~240V device to 100~240V AC OUTPUT socket, make sure the load power not more than 150W;
- 4) Disconnect the load from the box when finish using, press the AC ON/OFF button to turn off AC power.

## How to Use the Box to Supply DC Power

- 1) Turn on the master switch;
- 2) Press the DC ON/OFF button;
- 3) Connect DC 12V or USB 5V device to the corresponding DC sockets, make sure the 12V load power not more than 60W;
- 4) Disconnect the load from the box when finish using, press the DC ON/OFF button to turn off AC power.

You can use AC & DC power at the same time, but please make sure the load power does not exceed the limit.

## How to Use the 3W LED Bulb

- 1) Turn on the master switch;
- 2) Press the LED bulb button, then it is the lighting function;
- 3) Press the button again, the bulb is twinkling, it is the SOS function;
- 4) Turn off the LED bulb if press the button third time.

## Typical Use Case(350W 48Ah)

Appliances	Load Power	Quantity	Daily Working Hours	Daily Power Consumption	Continued Working days
Fluorescent lamp	40W	2	2	160Wh	3 Day
LED bulb	3W	4	4	48Wh	10 Days
TV(42 inch)	120W	1	2	240Wh	2 Days
Laptop	30W	1	2	60Wh	8 Days
Inkjet printer	30W	1	0.5	15Wh	32 Days
Inkjet fax	150W	1	0.5	75Wh	6.4 Days
Fan	50W	1	2	100Wh	4.8 Days
FM Radio	3W	1	6	18Wh	27 Days
Cell phone	2.5W	2	8	40Wh	12 Days
Intercom	7.5W	1	6	45Wh	10.7 Days
Satellite Phone	12W	1	2	24Wh	20 Days
GPS	4W	1	4	16Wh	30 Days

## Safety Precautions

This product has been designed and manufactured to ensure personal safety. Please read the following carefully before using the product. Incorrect operation or incompatibility with your device may result in reduced battery performance or damage to your device.

- Check the voltage of your device for correct compatibility with the product;
- Do not use any devices above 150W/350W on Solar Box for risk of damaging the inverter;
- Do not attempt to disassemble the product, warranty is void if the device is opened by unauthorized personnel;
- Store and operate between  $-10^{\circ}$  to  $40^{\circ}$ . Keep the product away from any heat sources. Temperatures over  $60^{\circ}$  may cause damage;
- Do not operate the product if it has been subjected to shock or damage;
- Recharge the product every 6 months when not in use. Use a soft cloth to clean the exterior and solar panel. Do not use harsh chemicals or strong cleaning solvents;
- The device is capable of generating high voltages, always keep the product out of the reach of babies and small children, in order to prevent any dangerous situations.

## Exclusions & limitations

This warranty does not apply:

- 1)to consumable parts, such as protective coatings designed to diminish over time unless failure has occurred due to a defect in materials or workmanship;
- 2)to cosmetic damage, including but not limited to scratches, dents, and broken plastic on ports;
- 3)to damage caused by accident, abuse, misuse, liquid contact, fire, earthquake or other external causes;
- 4)to damage caused by operating the product outside the permitted or intended uses described by so-fi<sup>®</sup> (solar fidelity);
- 5)to a product or part that has been modified to alter functionality or capability without the written permission of so-fi<sup>®</sup> (solar fidelity);
- 6)to defects caused by normal wear and tear or otherwise due to the normal aging of the product.