

# Portable Solar Power System 20W



— ISS20-12F —

## User Manual

Congratulations and thank you for purchasing our product.

Carefully read, understand and comply with all instructions before use.

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## Foreword:

- ◆ Thank you very much for your purchasing portable solar power system 20W.
- ◆ To use the system properly and securely, please read the warnings carefully.
- ◆ This manual should be kept for future read.
- ◆ If the information in this manual has alteration, forgiving not another notice in the line.



## Safety precautions:

In order to ensure safety, please carefully read and obey the following safety precautions and warnings.

### Battery:



Never disassembling, heating or have a short circuit operating to the battery. It may cause battery to break and lead to personal injury.

### Solar panel:



Never press other objects on the solar panel. It may cause solar panel to break and lead to personal injury.

### Usage environment:



Please do not use the product in high humidity, rain environment. Quickly shut off the power switch and contact with the dealer or company in case of any liquid into the product.

### Disassemble:



Do not disassemble or modify the product. It may cause machine fail, fire or risk of electric shock. Any inner inspection, debugging and maintenance are not allowed. User should pay for the maintenance cost of product failure or damage caused by self-disassemble, modify, even it's still under warranty.

### Fall or strong impact:



Avoid to fall, trample or have a strong impact to the product as well as the accessories. It may cause damage, fire or risk of electric shock if continue to use the product in these case. Please quickly shut off the power switch and contact with the dealer or company.

### Machine abnormality:



Immediately stop to use the product when smoking, abnormal odor situation happens. If use, may result in machine fail, fire and risk of electric shock. Please turn off the power switch, disconnect the electrical appliances and solar panel. Then contact with the dealer or company. Do not disassemble repair.

## Additional considerations:



### WARNING



- Please do not use high power devices beyond the permissible range of the system (150 Watt)!
- The lights used are 12VDC LED light, make sure the power of each light is not exceed 5W.
- Do not keep the product on rickety table or high shelf such unstable place. Otherwise it will cause injury by fall over and drop.
- Do not put heavy objects on the machine and accessories. It may damage the product and cause injury by fall over or drop because of lose balance.
- Keep away from reach and use of children to avoid any accidents.
- It is necessary to charge and discharge battery one time in about one month when long-term unused in order to enhance their lives, run them reliably and ensure the batteries.
- If the product is not used for a long run, please full charge battery and make sure to turn off system main switch. Please charge the battery in time while you hear buzzing or only the red light of battery power is on. Otherwise the battery will be damaged and this situation is outside the scope of free warranty.

### **Never connect AC appliances which rated power exceeds 150W!!!**



No CRT TV



No Air Condition



No refrigerator



No Washing machine

## 1. Principle of Operation:

1. Electric energy is generated from photoelectric current from the solar panel. The power is then stored in the battery by the built-in charge controller of the product.
2. Direct current in the battery is inverted by the internal inverter when power is needed for appliances; DC is also able to be output for DC drives to meet different requirements.

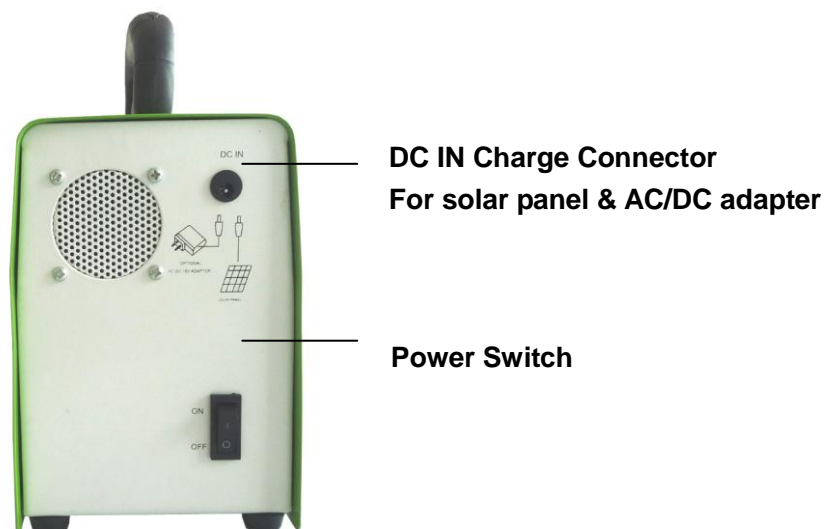
## 2. Main Features:

- ◆ Direct output of AC & DC
- ◆ Simple structure, safe & convenience
- ◆ Perfect protection function
- ◆ Battery power indicator
- ◆ Charged by solar & AC-DC adapter
- ◆ Small size & light weight
- ◆ Large arc shaped handle, easy to carry

### 3. Instructions:



1. AC ON/OFF Switch
2. AC Output Socket
3. Battery Power Indicator
4. Power Indicator
5. Solar Charging Indicator
6. DC ON/OFF Switch
7. 2 x 5V USB(500mA)
8. 4 x 12VDC(5A)



## 4. Specifications:

<b>Model</b>	<b>ISS20-12F</b>
<b>System Specification:</b>	
Rated Output Power	150W
Nominal Voltage:	12V
Solar Inverter:	240V 50Hz 150W, modified sine wave output
Solar Charge Controller	12V 5A
Solar Panel	18V 20W (2 x 10W) w/8m solar cable
Solar Charging Time	4.5 hours (efficiency sunlight)
Battery Capacity	12V 12Ah SMF lead acid type
Overload Protection	Yes
Under-voltage Protection	Yes
Overcharge Protection	Yes
Short-circuit Protection	Yes
Reverse polarity Protection	Yes
Accessories	4 x 12V 3W LED lights
	4 x 5m light cables w/light holder
	USB charge cable (10 adapters)
<b>Mechanical Data:</b>	
System Box(mm)	L240*W130*H215
System Box(kg)	6.2
Appearance Color	White + Green
Solar Panel (mm)	L355*W285*H17*2
Solar Panel (kg)	3.0
Battery (mm)	L150*W98*H98
Battery (kg)	3.3







## 5. Operating steps:

1. Connect the solar panel to the DC2.1 connector on back of the machine.
2. Turn on the power switch, the power indicator, PV indicator and battery power indicators are on. It means the battery is full or full charged when the battery power indicators are all on. When battery is charging by solar panel or AC/DC charger, the indicators are fluid twinkling. Please reduce or shut off the electric appliances while you hear the buzzing. The battery is nearly used out and should be charged immediately when only red indicator is on. It's necessary to charge battery or turn off the power switch. Otherwise the battery may be damaged after some time.
3. Turn on the AC ON/OFF switch, then connect the 240VAC appliances to the AC OUT socket, never use

high power devices beyond the permissible range of the system (150 Watt)!

4. Connect the 12VDC light (max. power 5W/PC) or 12VDC fan, TV to 12Vdc ports, turn on the switch on cable, the light is on.
5. Connect the USB cable to USB ports to charge mobile phone or any other 5V 500mA USB electric appliances, such as DC fan. Then turn on the power switch.
6. Please turn off the power switch If does not use this machine for long time. Please charge at least once within one month in order to prolong the lifetime of the battery.

## 6. Optional Accessories:

		
<b>12V 2W LED bulb</b>	<b>12V 3W/5W LED bulb</b>	<b>5m/10m Lamp cable</b>
		
<b>USB charger cable 10 adapters</b>	<b>16V AC-DC charge adapter</b>	<b>USB mini fan 5V 500mA</b>

Note: Pictures are only for information, take practicality as standard.

## 7. Warranties:

Keep the card for guarantee to keep in repair.

Guarantee

**User File**

User name		Sex		Age	
Address					
Telephone				Zip	
Purchasing address					
Retail price			Odd Numbers		
Commodity name and specification			Model No.		
Dealer Signature			User Signature		

**Guarantee Item**

- 1 year upon date of production, we will guarantee to keep the power box in repair. (not including the battery and accessories.)
- 1 year warranty on battery upon date of production.
- 5 years warranty on solar panel upon date of production
- Guarantee service is subject to normally using.
- The guarantee do not cover any normal wear and tear, misuse, or which has been damaged through abuse, alteration, improper installation or application, unauthorized service or modification, storage, transportation or resulting from any power failure surges, natural disaster, or other events outside the dealer's control.



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**RoHS CE**