

## User Manual

Pure sine wave inverter 12V 1000W/2000W



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## **Safety Instructions**



Please follow the safety instructions for operation, the damage cause by not following the safety instructions shall be borne by the individual.

#### **▲** Please save these instructions

[If you need to use the PDF version of the manual, you can contact us: service@bougerv.com]

### **General Safety Information**

- 1.Read all of the instructions and cautions in the manual before installation.
- 2.There are no repairable parts for this inverter, do not disassemble or attempt to repair the inverter.
- 3. Make sure all connections with inverter are tight.

### **Inverter safety**

- 1.The load power aka the output of inverter shall not be greater than the rated power, which could lead the inverter out of work.
- 2.Please double check if the voltage of the battery matches the inverter input DC voltage, mismatch connection between the inverter and battery can cause serious damage.
- When connected to an inductive or capacitive load, the load starting power (3-5 times greater than the load power) should lower than the inverter peak power.
- 4.Red to positive pole, Black to negative pole, please connect it properly. Reversely connection would melt the fuse, it could work normally after replacing the fuse and connecting properly.
- 5. Forbidden to plug the inverter in mains power.
- 6.This inverter can not be parallel connected.
- 7.Do not extend the inverter power cable.
- $8. \mbox{When}$  the inverter is not in use, please switch off and disconnect inverter from the system.
- 9. Avoid contacting of any foreign objects or fluid. Avoid using it in damp, dusty, high temperature area.
- 10.Keep the product away from children.



#### · 2000W Pure sine wave

Advanced SPWM technology for pure sine wave, provide 2000W stable power, peak power is 4000W. 12VDC to 120VAC pure sine wave with conversion efficiency >85% can reduce wasting energy during transmission effectively.

### · Multiple protection

LED indicators and alarm sound for input under/over voltage protection, input overload/short-circuit protection, device over temperature protection, reverse connection protection. Cooling fan system in temperature control allow the device to run smoother, cooler, and quieter.

#### · Remote Control

The remote control allows you to observe and control from a distance with clear data display. The equipment comes with convenient stickers, which can be installed in RVs and homes according to user needs.

### · LCD Digital Display

With LCD digital display can display more operating data than LED display such as voltage, power, frequency and current.

## **Q**imited Warranty

BougeRV pure sine wave inverter comes with an **18-month warranty** that commences from the date of purchase.

If you have any questions during use, please feel free to contact us:

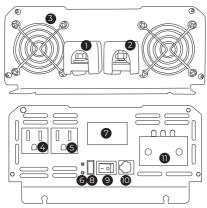


If you have some problems in the process of using the controller, please send the following information to the email: service@bougerv.com (1)The connection method of the solar panels (series/parallel, quantity, voltage, power).

(2) The voltage and battery type of the battery.

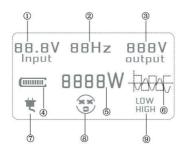
(3)The pictures or videos of the controller: battery voltage, battery charging current, the output voltage of the solar panel.

### **Odentification Of Parts**



- ①Positive electrode of battery input
- 2 Negative electrode of battery input
- ③Cooling fan
- 4AC output terminal 1
- ⑤AC output terminal 2
- ⑥Signal lamp
- ①LCD display screen
- **®USB** interface
- ®Network interface
- 11) High power link port

### CD display diagram



- ① Product Input Voltage
- ② Frequency
- ③ Product Output Voltage
- ④ Battery power
- ⑤ Product power
- ⑥ Product Waveform
- 7 Mains connection (with charging function)
- ® Working status
- 9 High voltage/low voltage protection

## Onstructions for external wired remote control equipment



- ①: Battery power
- 2: Fault indicator
- ③: Input voltage
- 4: Work indicator
- ⑤: Inverter switch key

### Remote Control Connection Diagram





The inverter can be remotely controlled to turn on and off. Digital display battery voltage value. The equipment adopts a wall switch design scheme, which can be installed in RVs and homes according to user needs. Comes with convenient stickers, which can be pasted at will.

## **Base Specification**

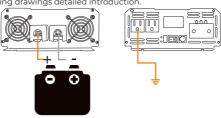
| Rated power               | 1000W                    | 2000W  |  |
|---------------------------|--------------------------|--------|--|
| Peak power                | 2000W                    | 4000W  |  |
| Input voltage             | DC 12V                   | DC 12V |  |
| Output voltage            | AC 120V±10%              |        |  |
| Loss when no load:        | <1A <1.2A                |        |  |
| Output wave:              | Pure sine wave           |        |  |
| Output frequency:         | 50Hz±0.5Hz or 60Hz±0.5Hz |        |  |
| Efficiency:               | ≥85%                     |        |  |
| Over voltage shutting     | ≥16V                     |        |  |
| Low voltage shutting:     | ≤9.5V                    |        |  |
| Over temperature shutting | >80°C                    |        |  |
| Ambient temperature       | -10°C -                  | +45°C  |  |

Note: Keep the power supply around the ventilation dry, within 1 meters must not have flammable items, strictly prevent the cause of fire.

## Onstallation connection steps

- 1. Before connection, please make sure the inverter is switched off.
- 2. When connecting the inverter to the battery, make sure that the battery voltage consistent with the inverter reference voltage!
- 3. Connect the Red cable of the inverter to the Positive pole of battery, Connect the Black cable of the inverter to the Negative poly of battery. Do not connect the cable reversely, otherwise the inverter fuse will be burnt.
- 4. Make sure the DC cable size is big enough, or else the inverter may fail to run the equipment.
- 5. Do not use DC cable too long length, or else the inverter may fail to run the equipment.
- 6. Turn on the inverter power switch, at which point the green (blue) indicator light is on, indicating that the inverter is working properly.
- 7. Please connect the loads to the AC output of the inverter, please do not overload. In the case of overloading, the inverter will send alarm and stop working. To restart the inverter, please firstly switch off the inverter for 5 second, reduce the load, and switch on again.

The following drawings detailed introduction.



## Overload protection description

When overloading 125%, the inverter will send alarm, and stop working after 20 seconds.

1. Loads are reduced to accepted level, the inverter will resume working.

2. Short circuit protection: inverter is with short circuit protection.

3. Over-temperature protection: when the inside temperature of the inverter reach  $80^{\circ}$ C, the RED indication light will be on. The inverter will stop working, once the temperature drops to accepted level, the inverter will automatically resume working.

4.Low voltage protection: when the battery voltage is below the setting level, the inverter will send alarm by beeping. When the battery voltage keeps dropping to its shutting level, the inverter will beep, and the RED LED will lit, the inverter will stop working, when the battery voltage is increased to its restart level, inverter will automatically resume working.

5.Over voltage protection: when the input voltage is higher than the setting level, the inverter will stop working, when the input voltage is normal, it will automatically resume working.

6.Reverse connection protection: once there is reverse connection, the inverterfuse will be burnt. In this case, please switch off the inverter, disconnect the power source, change the fuse. REVERSE CONNECT IS STRICTLY PROHIBITED.

## Onverter basic fault and troubleshooting method

| S/N | Phenomenon  | Cause                                | Solutions   |
|-----|---|--------------------------------------|---|
| 1   | Start by making an alarm sound (judge the alarm sound as one, BI-BI-BI), the LED red light flashes, The voltage continues to decrease and the machine shuts down.                               | The<br>battery is<br>low             | Charge the battery to low<br>voltage, and the inverter<br>can recover output<br>automatically after the<br>battery recovers voltage   |
| 2   | Alarm sound first (judge alarm sound is two, BIBI - BIBI - BIBI) THE LED red light flashes, The voltage continues to rise and the machine shuts down.   | The<br>battery<br>voltage is<br>high | Measure the voltage at the positive and negative terminals of the device with a voltage meter, and judge whether it is higher than the overvoltage protection voltage. After adjusting the input voltage, it can recover automatically. |
| 3   | First issue an alarm sound (judge the alarm sound as a continuous BIBIBIBIBIBIBI.), the LED flashes red and the machine shuts down. If the number of loads decreases, the machine will restart. | Too much<br>load                     | Reduce the quantity of loads  |

| 4 | Alarm sound first (judge alarm sound is three, BIBIBI - BIBIBI - BIBIBI), the LED flashes red, the temperature continues to rise, and the machine shuts down. | The<br>temperature<br>is too high | Subtract the load and<br>wait for the inverter to<br>cool down |
|---|---|-----------------------------------|--|
| 5 | First issue an alarm sound<br>(judge the alarm sound as<br>a continuous alarm,<br>BIBIBIBIBIBI). Then the<br>machine was shut down<br>without restarting.     | The output is shorted             | Just disconnect the short circuit                              |
| 6 | The built-in fuse is blown and the machine is powered on and unresponsive.  | The battery is turned back        | Replace the new fuse   |



## Q1: When I have some problems in the process of using the inverter, what information can I provide to BougeRV to provide me with technical support faster and better?

A1: Send the following information to the email: service@bougerv.com,

- ①The connection method of the inverter and battery.
- ②The voltage and battery type of the battery.
- 3The display data of the inverter.
- 4 Connection from battery to inverter and inverter to the loads.

If the above information can be provided with pictures or videos, BougeRV can provide you with technical support faster.

### Q2: Why is there no green light flashing in the standby state of the inverter after the inverter is connected to the battery?

A2: There is a problem with the line contact, reconnect the battery and the inverter.

### Q3: Can I use the inverter with a 24 V system?

A3: No. This model can only work with a 12V battery system.

#### Q4: Can I use this inverter to charge my batteries?

A4: No. The BougeRV 12VDC to 120VAC inverter can only convert DC power to AC power. Please check the BougeRV Pure Sine Wave Inverter Charger.

## ${\bf Q5}\colon$ Why does the LCD display screen not show the output power when using the USB interface for output?

A5: The USB interface is mainly used for charging low-power appliances. It is normal for the display screen to show that the output power is zero when the port is used. You can rest assured to use.



# BougeRV

Limitless Energy, Limitless Life<mark>.</mark>

