

# DC to AC Power Inverter

## user's guide

### 1. Placement Guideline

For optimum operation, the inverter should be placed on a flat surface as the floor or car under these conditions as follows:

Dry: no water or get wet in the rain

Cool: the temperature between 0 °C (32 °F) and 40 °C (104 °F)

Ventilation: at least 2 inches (5 cm) clearance above and on all sides if the inverter for proper cooling.

### 2. Usage of the Inverter

a. turn the inverter switch to (OFF) position, and then plug the inverter DC plug the inverter DC Plug into the car cigarette lighter socket, make sure that they are firmly linked.

b. make sure the electrical power of the equipment you use is under the electrical power of the inverter. Plug the AC product you wish to operate into the AC 220V outlet of the inverter and switch it on.

c. Switch the inverter on, the green light indicates that it is working normally.

d. The red FAULT light indicates shutdown caused by low or high voltage, overload or excessive temperature.

e. In many cases, for the limited voltage from the car cigarette lighter, it may shutdown automatically and the Fault Red light will be lighted.

### 3. Warning and Caution

a. The power or "voltage" rating of AC products is the average power they use. TVs, monitors, electric motors, and other equipment are firstly switch on. They consume more power than their power rating, having high 'surge' requirement on starting up. Although inverter can supply momentary surge power as high as 40% more (for example, 80W inverter can supply 120W for the products you use). But, the surge power of the equipment you use may be excess of the power supplied by the inverter, causing overload shutdown. Specially happen when inverter supply power to several products at the same time. Then you should switch off the electrical products, switch on the inverter, lastly switch on one by one, the products that has the peak power firstly.

b. As the battery charge is using up, the inverter senses DC input voltage has dropped to 10.4-11V, an audio warning will appear. Then the computer or other sensitive electrical appliances should be shut down. If you ignore the sound, and the voltage drops to 9.7-10.3V, the inverter will automatic turn-off to avoid battery discharge excessively. Power Protection make it shut down, the

red indicator light is turned on.

e. Start the vehicle early for battery charging, to prevent its capacity dripping, to prevent the impact on vehicle starting and the battery life.

d. Although there is an over-voltage protection function of the inverter, it may be damaged by excessive voltage.

e. After continuous use, the shell surface temperature will rise to 60 °C, pay attention to keep ventilation, objects that is susceptible to heat should be kept away from it.

#### **4. Frequently Asked Questions and solutions**

**questions(with solution):do not work,switches light does not shine**

##### **The reasons and the proposed solution**

(1) Bad battery: check battery, according to the specific circumstances of the replacement

(2) Anti-contact of the outlet: check battery connections, converters may be damaged, or sent to replace the converter warranty.

(3) Cables are not properly connected: check wiring cables and links, tighten the terminal contact.

**questions(with solution):electrical equipment does not work,the red indicator light converter**

##### **The reasons and the proposed solution**

(1) AC product power consumption is higher than rated. Solution: Try to use power converters that is less than the nominal electrical power

(2) Electrical power converters is less than nominal power or peak power is too high, will cause overload shutdown.. Solution: try to use the same surge power as the inverter.

(3) The battery is used up (with the inverter warning) Solution: Recharging or replacement of it.

(4) High temperature caused by poor ventilation make inverter shutdown Solution: cool it for 15 minutes and remove the items around the fan and the inverter. Put the inverter in a cool place as required. Restart it.

(5) Input voltage is too high. Solution: check the status of charging system, battery output voltage 12V

**problem(with solution):the converter output voltage detected is too low**

##### **The reasons and the proposed solutions:**

(1) General measurement of the voltage meter gives small measurement range. Solution: to get the output square-wave converter applications, use the "True RMS multi-meter" in order to obtain accurate data

**problem(with solution):the warning of the inverter**

##### **The reasons and the proposed solution**

(1) Low-voltage or over-temperature protection.

Solution: Use the more coarse wire or cable to recharge the battery or reduce the length of the cable. And use the inverter under cool condition or improve the ventilation around the inverter, to make the inverter work normally.

**problem(with solution):converter only can drive low-power AC product**

##### **The reasons and the proposed solution**

The voltage attenuation by a short length of wire, solution: the use of bold wire

**problem(with solution):battery usage time is too short**

##### **The reasons and the proposed solution**

Inverter rated load greater than the use of large-capacity battery Solution: Bad battery, replacement

the damaged battery.

The battery is not recharged to be full.Solution:replacement of better smart charger

**CATION:**a.do not insert any foreign objects into the inverter or vent opening

b.do not connect the inverter to power utility AC distribution wiring.

c.small battery operated products such as the rechargeable shavers and night lights were not allowed to be plugged into the inverter to recharge.

d.keep the inverter away from the children.

**5.Specifications:**

Output voltage:100V-120V/220V-240V Frequency:50/60±2HZ waveform:Modified sine wave

Input voltage:10-15V/22V-25V

Built-in fuse:10A/20A/30A/35A/40A

Under voltage alarm:10.4-11.0V

Off low pressure:9.7-10.3V

Shutdown over-voltage:14.5-15.5V

No-load consumption:12V input

No-load current:<0.3A

The greatest effect:>90%

Continuous output power:150W/200W/300W/400W/500W/600W

**Warning**

**Electric Shock Hazard**

**Away from children!!**