

# 3000W POWER INVERTER



**User Manual** 







### **3000W POWER INVERTER**

### 1 SAFETY GUIDELINES

### Important

- Before connecting or using your 3000 watt inverter, please read and understand this User's Manual.
   Please keep this manual for future reference.
- The safety will keep each AC outlet with only max 1500W power output. Any appliance over 1500W will not be powerd by this unit, and the overloading protection will be activated.

### **Safety Precautions**

 Incorrect installation or misuse of your DC to AC inverter may result in damage or hazardous conditions to the user. Please pay special attention to the following instructions and warnings.

## **⚠** Warning!

Shock hazard! Keep away from children!

DO NOT open the case of the inverter.

**DO NOT** insert any foreign objects into the unit outlets, vents or fan openings.

**DO NOT** expose the unit to rain, water or any other liquid, it is not designed to be waterproof.

**DO NOT** operate the unit near flammable fumes or gases such as the cabin of a gasoline power boat, or near propane tanks. **DO NOT** operate the unit in an enclosed area that contains automotive type lead-acid batteries. This type of battery emits explosive hydrogen gas which can be ignited by sparks.



**DO NOT** connect the unit to any utility power distribution systems or branch circuits.

**DO NOT** use the inverter in temperatures over  $104 \,^{\circ}\text{F} (40 \,^{\circ}\text{C})$  or under 32°F (0°C).

The case to the unit may become very hot under high power operation reaching 140°F(60°C). Be sure that there is at least 2in. (5cm) of unobstructed air space around the entire housing of the inverter at all times. During use, do not place materials that could be damaged by heat near the unit.

Failure to follow these safety guidelines will result in personal injury and/or the damage to the unit. It may also be void of the warranty.



### A Caution!

DO NOT connect the unit to live AC power circuits or there would be damage to the inverter.

Connect the unit to batteries with a normal output of 12V DC only. Both 6V battery voltage and 24V battery voltage will damage the unit.

Know the voltage requirement of your appliances, the 115V 3000W power inverter can properly supply the power of those appliances that do not exceed its capacity.

The wattage (WATT) or amperes (AMP) can normally be seen stamped or printed on most appliances and equipment or in the user's manual. To calculate the continuous load: Continuous load = AMP X 115 (AC voltage);

**DO NOT** operate the inverter if it has received a sharp blow. been dropped or otherwise damaged in any way.



### 2 OPERATING INSTRUCTIONS

The unit must be operated in an area that meets the following requirements in order to operate safely and provide optimum performance:

	Description
Dry	Don't allow water or other liquid to drop or splash on the unit.
Cool	Ambient air temperature should be 0 °C ~40 °C (the cooler the better within this range).
Ventilated	Leave at least 2in. (5cm) clearance around the unit for air flow. Ensure that the ventilation openings are not obstructed.
Safe	Do not operate the unit in the same compartment as batteries or in any compartment capable of storing flammable liquids like gasoline.
Clean	Do not operate the unit in an area that is prone to dirt, dust or debris. Especially important if used in a work environment.

Your 3000W Power Inverter supplies 3000 watts of continuous power with 6000 watts of surge power. When you turn on an appliance or a tool that operates using a motor or tubes, it requires an initial surge of power to start up. This surge of power is referred to as the "starting load" or "peak load". Once started, the tool or appliance requires less power to continue to operate. This is referred to as the "continuous load" in terms of power requirements. You will need to determine how much power your tool or appliance requires to start up and its continued running power requirements.



The inverter should be connected to your 12V power source with the two sets of DC cables to four posts (included). We recommend that the equipment or appliance switch be in the "OFF" position prior to plugging into the AC receptacle of the inverter.

### Connecting the inverter:

- 1) Place the inverter on a flat surface, such as on the vehicle floor.
- 2) Please make sure that the inverter is off.
- 3) Attach the ring type connector marked with red to the positive
- (+) DC terminal on the power inverter, and attach the ring connector marked with black to the negative (-) DC terminal.
- 4) Tighten the nut on each DC terminal until it is snug. **DO NOT** over-tighten.
- 5) Connect the other end of the DC cables to 12V battery, red to positive and black to negative.



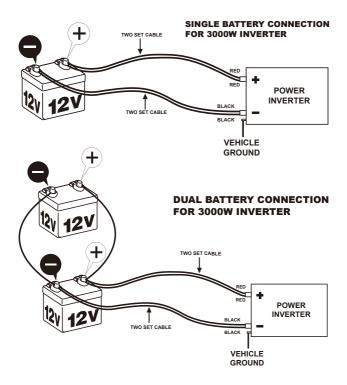
Reverse the polarity will arouse blown fuse or damage to the inverter, which may also void the warranty.

- 6) Repeat step (3)-(5) to connect another set of DC cables
- Notice: As this is a heavy duty unit, it requires two set of cable connecting to carry the electrical power.
- 7) Press the ON button to turn inverter on.
- 8) Plug the AC product(s) you wish to operate into the AC outlet(s).
- 9) Switch them on, one at a time.
- 10) When the power inverter is not in use, disconnect the DC O-ring from the battery to prevent slight discharge of battery



## ⚠ Caution!

If there are one more AC products connecting to the inverter, turn on the larger power product first.





### Cable Gauge suggection:

it's highly recommend to use the included oring cables to connection the inverter to 12V battery. if you want longer cable, please refer to below chart of **copper** cable gauge suggestion:

Length	Guage (2sets)
3FT	6AWG
4FT	5AWG
5FT	4AWG
6FT	4AWG
7FT	3AWG
8FT	3AWG
9FT	2AWG
10FT	2AWG



### Caution!

Most vehicle batteries are designed to provide short period of very high current for starting the engine. They are not designed for a constant "deep discharge". Constantly operating the unit from a vehicle battery until the low voltage shut off will affect the life of the battery. If you are operating electrical products for extended periods of time, you should consider connecting the unit to a separate deep discharge battery.

## Caution □

Although the inverter incorporates protection against over-voltage, it may still be damaged if the input voltage exceeds 16 volts



#### 3 FEATURES

3000W Power Inverter, a high performance solution to use household power while on the road. Connected to the 12V volt output in your vehicle, the inverter efficiently and reliably supplies 115V/60Hz AC power for a wide variety of loads, such as all kinds of jacklights, TV sets, audio/video systems and electromotion tools with total power consumption under 3000 watts. It has been tested and found to be in line with the requirement of ETL certification. With proper care and appropriate usage, it will give you years of dependable service in your car, truck, RV and boat.

The unit is not designed to be waterproof. It applies to the ambient temperature for  $32^{\circ}F \sim 104^{\circ}F$  ( $0^{\circ}C \sim 40^{\circ}C$ ).

The inverter is designed with automatic shutdown features in abnormal conditions for safe operation. Please refer to below chart for details.

### Error codes explanation and trouble shooting

Indication	Protection type	Possible cause	Solution
Appliances are working, but error code"LUP" displayed, alarming	Low input voltage alarm	The input voltage is getting low, dropped to 11+/-0.3V	Remove all appliances, turn off the unit and
Error code "LUP" displayed, no output, alarming	Low input voltage shut off	The input voltage is low, dropped to 10.5+/-0.3V	recharge battery



Indication	Protection type	Possible cause	Solution
Error code"OUP" displayed, no output, alarming	High input voltage shut off	The input voltage is too high, over 15V	Remove all appliances , turn off the unit and check the battery voltage , make sure it is within 11-15V
Error code"OLP" displayed, no output, alarming	Over load shut off	Appliances connected are more than inverter's output capacity 3000W or short circuit	Remove all appliances , turn off the unit and reduce the loads within 3000W. Check if short circuit occurred.
Error code"OCP" displayed, no output, alarming	Over heat shut off	The inverter is over heated	Remove all appliances , turn off the unit and remove objects covering inverter if any, cool down for 15 minutes, restart.
Error code"OPP" displayed, no output, alarming	Short circuit shut off	There is short circuit.	Remove all appliances, turn off the unit .Check and solve short circuit and restart
		Battery is defective	Replace battery
No indicator, no output	1	Loose connection	check cable connection, tighten as required
		Inverter is damaged	Ask for technician's help



### Digital display explanation:



### 1. Normal working conditions:

Under normal working condition, the digital display shows the input voltage ( in V) and the output power( in W or KW) intermittently.

Green indicator on	the number displaying is the input voltage
Yellow in dicator on	the number displaying is the output power in KW
Red indicator on	the number displaying is the output power in W

### 2. Abnormal condition:

If there is error occurred, the inverter will shut down, alarm, and digital display shows an error code (refer to page 9 "Error codes explanation and trouble shooting"



One AC outlet is limited to 1500W only



### **Battery Operating Time**

Operating time will vary depending on the charge level of the battery, its capacity and the power level drawn by the particular AC load.

When using a vehicle battery as a power source, it is strongly recommended to start the vehicle every one hour or two to recharge the battery before its capacity drops too low. The inverter can operate while the engine is running, but the normal voltage dropping during starting of the engine may trigger the inverter's low voltage shutdown feature.

### Interference with Electronic Equipment

Generally, most AC products operate with the inverter just as they would with household AC power. Below is the information concerning two possible exceptions.

### Buzzing in audio systems and radios

Some stereo systems and AM-FM radios have inadequate internal power supply filtering and "buzz" slightly when powered by the inverter. Generally, the only solution is an audio product with a higher quality filter.

### Television interference

The inverter is shielded to minimize its interference with TV signals. However, with weak TV signals interference may be visible in the form of lines scrolling across the screen. The following should minimize or eliminate the problem:

- Increase the distance between the inverter and the TV, antenna and cables.
- Adjust the orientation of the inverter television, antenna and cables.
- Maximize TV signal strength by using a better antenna and use shielded antenna cable where possible.



### 4 SPECIFICATIONS

Max. Continuous Power	3000W
Surge Capacity (Peak Power)	6000W
Single Outlet Max. Continuous Output	1500W
Input Voltage Range	11-15V DC
Output Voltage Range	104-125V AC
Output Frequency	60+/- 2Hz
USB Output	5V 2.1A
Wave Form	Modify Sine Wave

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