



1000W Pure Sine Wave POWER INVERTER

Model: MRZ10011AU

Thank you for purchasing BESTEK vehicle series products! Please read the instructions carefully before using and operate strictly according to the instructions.

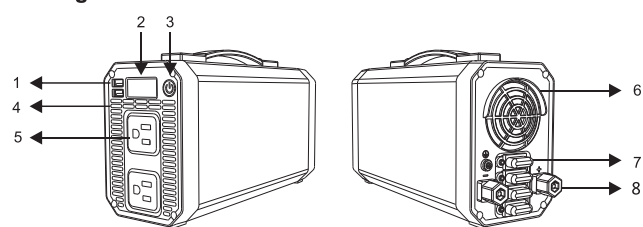
Introduction

Whether you are at home, on the road, or any remote location, you can trust BESTEK portable and backup power solutions, for the traveler on-the-go to keep your important devices powered up. Put BESTEK power in the palm of your hand to keep you safe, productive and entertained, anytime and anywhere. This power inverter is ideal for those who frequently on the road. The 1000W DC-AC Pure Sine Wave Power Inverter with DUAL USB charging ports is designed for all major brand notebook computers, digital portables like video camcorder, digital camera, iPad, iPod, cell phone, PSP, DVD player & etc.

Advantages of Pure Sine Wave Inverters

- Output voltage wave form is pure sine wave with very low harmonic distortion and clean power like utility-supplied electricity.
- Inductive loads like microwave ovens and motors run faster, quieter and cooler.
- Reduces audible and electrical noise in fans, fluorescent lights, audio amplifiers, TV, Game consoles, Fax, and answering machines.
- Prevents crashes in computers, weird print out, and glitches and noise in monitors.
- BESTEK Pure Sine Wave Inverter powers the following devices that will normally not work with modified sine.
- Laser printers, photocopiers, magneto-optical hard drives.
- Certain laptop computers (you should check with your manufacturer).
- Some fluorescent lights with electronic ballasts.
- Power tools employing "solid state" power or variable speed control.
- Some battery chargers for cordless tools.
- Some new furnaces and pellet stoves with microprocessor control.
- Digital clocks with radios.
- Sewing machines with speed/microprocessor control.
- X-10 home automation system.
- Medical equipment such as oxygen concentrators.

Parts Diagram



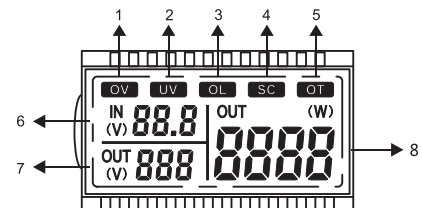
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|-----------------------------------|-----------------------|
| 1: USB Charging Port (0-2.4A)×2 | 5: AC Output Socket×2 |
| 2: LCD display screen | 6: Cooling Fan |
| 3: Power switch and LED indicator | 7: Fuse |
| 4: Air Inlet | 8: Binding Post |

Product Description

- This product input is 2 binding post, output is 2 US AC outlets and 2 USB port.
- This product boost the DC 12V voltage by transformer then convert to AC110V, 60Hz pure sine wave output.
- This product convert the DC 12V to 5V/4.8A USB output, USB built-in smart identify chips, can automatically identify your device and match the charging current range from 0-2.4A, get rapid charging speed, USB drive circuit can control and compensate the power loss of the charging circuit, always keep the rapid charging speed during the charging process.
- Fan automatically adjust rotating speed Function: this product fan can adjust rotating speed intelligently, reducing noise effectively, leave you a quiet operating environment.
- This product has over load, over circuit, over temperature, short circuit, over voltage and under voltage protection. Can fully protect your electric appliances and vehicle battery safety.
- Over load protection:
 - I: When the input is DC 12V, the AC output power is higher than 1200W will trigger over load protection.
 - II: When USB output circuit higher than 6-7A will trigger over load protection.
 After over load protection happens the product will recover 5 times, if over load continues to happen after recovering 5 times, system will judge as failure and dead lock to protect. (At the critical state do not lock, but will constantly try to start your electric appliance.)
- Short circuit protection:
 - Allow 2 times (Each short circuit time more than 1S), then would dead lock, red light is always on at this time. If want to use the power inverter, need to restart it, shut off the power and wait until the red light is off, then restart.
- Under voltage protection (refers to the voltage value displayed on the LCD screen):
 - under voltage protection has the automatically recover function, when there is no load, under voltage protection point is 10V~11V, under voltage monitor time sample is over 0.5S time. The recover voltage is 11V~12V. If start machine at the under voltage point, system judge as under voltage and enter dead lock, so would not start. At the meantime, the green indicator flicker slowly.
- Over voltage protection point (refers to the voltage value displayed on the LCD screen):
 - over voltage protection has the automatically recover function, when there is no load, over voltage protection point is 15V~16V, the recover voltage is 14~15.5V. After over voltage protection happens, the green indicator flicker slowly.

LCD display screen

- Over voltage protection indicator
- Under voltage protection indicator
- Over load protection indicator
- Short circuit protection indicator
- Over temperature protection indicator
- Input voltage display
- Output voltage display
- Output power display



Product usage method

- Check if the battery output voltage is matching with the product input voltage.
- Connect the red clip wire to the battery positive pole, the black clip wire to the battery negative electrode.
- Screw down the red wire loop on the power inverter red binding post, and the black wire loop on the power inverter black binding post, make sure they are tightening.

- Turn on the power, check if the LED light is always on, then you can use it as normal. If the LED light indicates abnormal, please refer to "Troubleshooting" or contact customer service to solve the problem.
- Connect your electric appliance to the AC or USB port.
- When you need to replace the fuse, please take down the fuse cover (do not need to unscrew the screw), then use the pliers to pull out the fuse and replace it with a spare fuse.



Specification Parameter

DC Input Rated	DC 11-15V
AC Output Rated	AC 100-120V 60Hz
USB Output	5V=4.2A (Auto 2.4A Max Per Port)
Rated Total Output Power	1000W
Built-in Protection	Output short circuit protection, input overvoltage protection, output overload protection, over-current protection, over temperature protection, input under-voltage protection, USB output over-voltage protection, input anti-reverse-connection function.
Voltage of High Voltage Protection and Turn off (refers to the voltage value displayed on the LCD screen)	DC 15-16V
Voltage of Low Voltage Protection and Turn off (refers to the voltage value displayed on the LCD screen)	DC 10-11V
Insulation Strength	1.5KV/5mA/1min
Efficiency Rate	≥ 85%
Working Environment	Temperature: -5~40°C, Humidity: 10~90%RH
Storage Humidity	Temperature: -20~80°C, Humidity: 5~95%RH
Size	10.51×5.91×3.70 inches
Weight	74.08 ounces

Safety Precautions

- Do not use with any appliances with dangerous voltage warning.
- Do not use with over 16V DC input.
- Make sure to provide adequate ventilation to the inverter.
- Never place inverter in an enclosure or near a heat source such as heat vent of cars and in direct sunlight.
- Do not use the inverter near any flammable liquid or gases.
- Do not expose to liquid or moisture or humidity.
- Do not handle with wet hands.
- The working temperature for the charger is -10°C~ 40°C (14°F-104°F)
- Do not put metal fragment (eg. such as wire) inside.
- Do not attempt to disassemble.
- Keep out of the reach of children.

Troubleshooting and Solutions

To help customer checking the product status, please refer to below LED light and screen status comparison sheet.

Type of indicator light	Status	Reason	Fault Solution
LED indicator light	Led green light is always on	The inverter works properly	
	Led green light is always on and the OV light on the LCD screen is always on.	over voltage protection	Please check whether the vehicle battery output voltage is match with power inverter input voltage. In this case, USB works normally.
	Led green light flicker and the UV light on the LCD screen is always on	under voltage protection	Please check the car battery capacity. In this case, USB works normally.
	Led red light flicker and OL light on the LCD screen is always on	Overload protection	1. Pull your devices out. When the LED turns to show a solid green light, the inverter will work properly. 2. If the LED doesn't show a green light after you plug out devices, please press the button and restart the inverter. 3. In this case USB ports can work.
	Led red light is always on and SC light on the LCD screen is always on	Short-circuit protection	1. Turn off the inverter by pressing the button, restart after the red light has gone out. The inverter will work after it has a solid green light. 2. In this case USB ports can work normally.
Led red and green light flicker alternately	Overheat protection or fan does not run	1. Pull your devices out, wait for 3-5 minutes to restart. When the LED turns to show a solid green light, the inverter will work properly. 2. If the inverter doesn't work after being restarted, please wait for a few minutes until the temperature inside turns to be normal. 3. Plug out or turn off your devices, allow the fan to run for 3-5 minutes. When the LED turns to show a solid green light, the converter will work properly. 4. In this case USB ports can work.	
Led light is off	The inverter hasn't been started up or doesn't work, or fuse blew	1. Check whether the switch is turned on. 2. Check whether the cigarette lighter port is damaged or unable to supply power. 3. Neither the USB nor AC ports work in this case.	