BESTEK

500W Pure Sine Wave POWER INVERTER

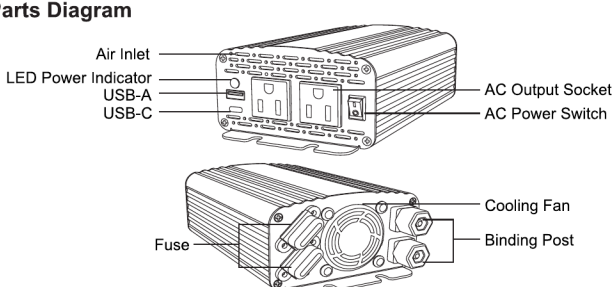
MODEL NO.: MRZ5011BU

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 500W DC-AC Power Inverter with USB-A and USB-C 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.

Parts Diagram



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 contro.
- Digital clocks with radios.
- Sewing machines with speed/microprocessor control.
- X-10 home automation system.
- Medical equipment such as oxygen concentrators.

Features

- The product's input is vehicular DC cigarette lighter joint and the output is two American Standard AC sockets.
- This product converts DC12V to AC 110-120V, 60Hz pure sine wave output after transformer boost.
- The product is equipped with a USB-A charging port and a USB-Ccharging port. supports QC3.0 and PD3.0 quick charge protocol.
- This product has overload, over-current and short-circuit protection, which fully protects your electricalappliances.

Vehicle Power Inverters Compatible with Tesla

- The input voltage for product is 11-17V, perfectly suitable for the 16V cigarette lighter socket of Tesla vehicles.

Overload protection point

- The input voltage is 12V, Overload protection occurs when the AC output exceeds 500 watts.

Short-circuit protection

- Operation is permitted (each short circuit lasting no longer than 2 seconds), the device will enter a locked state and the red indicator light will remain on. If you want to use, you must restart the host. Turn off the power and pay attention to restart host after red light is off. And the green light is always on, it is in a normal working state.

Under-voltage Protection point

- Under-voltage protection comes with restoration function, the under-voltage protection point is 9.5~10.5V under no-load condition, and monitoring sampling time is more than 0,5 second, The recovery voltage of under-voltage is 11~12V. Starting up host at under-voltage point, the system defaults the voltage of battery is too low and makes it under lock status, not allows to start up.At the same time, the green indicator light flashes slowly.

Overvoltage Protection Point

- Overvoltage protection comes with restoration function, the overvoltage protection point is 17~18V under no-load condition, the recovery voltage of overvoltage is 16~17V. Slowly flash of green indicator after overvoltage protection.

Function of automatically adjusting fan's speed

- Smart cooling fan system makes the car power inverter very silent when operating.
- If you are concern about if the inverter working when the cooling fan work quietly,connect a more powerful device to test if the fan is working.

Usage Steps

1. Open the package box and fetch the product out.
2. Make sure the voltage of your battery match the input voltage labeled in the product.
3. Link the Red clamp to the positive terminal and Black clamp to the negative terminal of battery, and check them again if fixed tightly.
4. Connect the clamps into the battery before the power switch is ON.(the Red clamp to the positive terminal and Black clamp to the negative terminal.
5. Start the inverter after connected to the battery, the load voltage should match the labeled voltage.
6. Keep the 20cm distance from the inverter workspace in order to dissipate heat. Please keep it away from dust, high pollution and other adverse conditions.

- Check if the LED lamp is green and then it can be used normally. If it is abnormal, please refer to "Troubleshooting" or contact the customer service team to help you solve it.
- Connect your devices to AC or USB ports.
  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(40A/32V).

Specification Parameter

DC Input	11-17V 54.0A
AC Output	110-120V, 60HZ, 4.6A, 500W
USB Output	USB Output: 48W Max USB-A: 5V⎓3.0A 9V⎓2.0A 12V⎓1.5A QC18W USB-C: 5V⎓3.0A 9V⎓3.0A 12V⎓2.5A PD30W
Total Rated Output	500W
Built-in Protections	Qutput: short circuit protection, overload protection, over temperature protection; Input: overvoltage protection, under-voltage protection, over temperature protection; USB output: over-voltage protection, over temperature protection; Input anti-reverse-connection function
Max Input Voltage Cutoff	DC 17~18V
Min Input Voltage Cutoff	DC 9.5-10.5V
Invert Efficiency	≥83%
Working Environment	Temperature: -5~40℃ Humidity: 10~90%
Storage Environment	Temperature: -20~80℃ Humidity: 5~95%

Safety Precautions

- Do not use with any appliance with dangerous voltage warning.
- Do not use with over 18V 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 molsture or humldlty.
- Do not handle with wet hands.
- This inverter's working temperature is -10°C - 40°C(14°F - 104°F)
- Do not put metal fragment (eg. such as wire) inside.
- Do not attempt to dlssemble.
- Keep out of the reach of children.

Troubleshooting

In order to facilitate customers to troubleshoot the use of the product, please refer to the following table of LED state.

LED Status	Reasons	Solutions
Solid green light	AC and USB outputs are in normal working condition.	
Red light	The DC input voltage is too low or overvoltage, and the AC output is short-circuited or overloaded.	Plug out devices from AC outlets, restart the converter (in this case USB ports work).
No light	Inverter has no power.	Connect to car cigarette lighter.
	The fuse is blown.	Send for inspection or repair.