

BESTEK MRZ3011HU

BESTEK 300W Pure Sine Wave Power Inverter User Manual

Model: MRZ3011HU

1. INTRODUCTION

Thank you for choosing the BESTEK 300W Pure Sine Wave Power Inverter. This device converts 12V DC power from your vehicle's battery into 110V AC power, allowing you to operate various electronic devices on the go. It features pure sine wave output, which is ideal for sensitive electronics, along with dual AC outlets and dual smart USB charging ports. Please read this manual thoroughly before use to ensure safe and optimal operation.

2. IMPORTANT SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the inverter or connected devices:

- **DO NOT** open the inverter casing. There are no user-serviceable parts inside.
- **DO NOT** expose the inverter to water, rain, snow, or spray.
- **DO NOT** operate the inverter if it has been dropped or damaged.
- **DO NOT** insert foreign objects into the inverter's outlets or openings.
- Ensure proper ventilation. **DO NOT** block the ventilation openings.
- This inverter is designed for 12V DC vehicle systems only. **DO NOT** connect to 24V DC or other voltage systems.
- The cigarette lighter plug is typically fused at 10A or 15A in most vehicles. This limits the continuous output to 120W or 180W respectively. If you need the full 300W, ensure your vehicle's cigarette lighter socket can handle the required current (approx. 30A at 12V input) or connect directly to the battery with appropriate wiring and fusing (not included).
- Keep children away from the inverter.
- Disconnect the inverter from the power source when not in use.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1 x BESTEK 300W Pure Sine Wave Power Inverter
- 1 x User Manual (This document)

4. PRODUCT OVERVIEW

Familiarize yourself with the components of your BESTEK Power Inverter:



Figure 4.1: Front view of the BESTEK 300W Pure Sine Wave Power Inverter, showing the cigarette lighter plug, two AC outlets, and two USB ports.

- **Cigarette Lighter Plug:** Connects to your vehicle's 12V DC cigarette lighter socket.
- **AC Outlets (x2):** Standard 110V AC outlets for powering electronic devices.
- **USB Charging Ports (x2):** Smart USB ports (up to 2.4A per port, 4.8A max total) for charging smartphones, tablets, and other USB-powered devices.
- **Power/Fault Indicator:** LED light indicating operational status (green for power, red for fault).
- **Cooling Fan & Vents:** Integrated fan and vents for efficient heat dissipation.

Multi-direction heat dissipation

Cooling fan helps your devices dissipate heat better



Figure 4.2: Internal diagram illustrating the multi-direction heat dissipation system with the cooling fan, ensuring optimal performance and longevity.

5. SETUP

Follow these steps to set up your power inverter:

1. **Vehicle Compatibility:** Ensure your vehicle has a 12V DC power outlet (cigarette lighter socket).

2. **Placement:** Place the inverter on a flat, stable surface, ensuring adequate ventilation around the unit. Avoid placing it in direct sunlight or near heat sources.
3. **Connect to Vehicle:** Insert the inverter's cigarette lighter plug firmly into your vehicle's 12V DC accessory socket. The Power/Fault indicator should light up green, indicating it's ready for use.
4. **Power Off Devices:** Before connecting any electronic devices, ensure they are turned off.



Figure 5.1: The inverter properly installed in a vehicle's center console, demonstrating its compact size and ability to charge multiple devices simultaneously.

6. OPERATING INSTRUCTIONS

6.1 Using the AC Outlets

The inverter provides two 110V AC outlets for powering devices up to 300W continuous power (700W peak). Ensure the total wattage of connected devices does not exceed 300W.

1. Plug your AC-powered device into one of the inverter's AC outlets.
2. Turn on your device.
3. When finished, turn off your device and unplug it from the inverter.

6.2 Using the USB Charging Ports

The two smart USB ports automatically detect your device to deliver the fastest possible charge speed, up to 2.4A per port (4.8A max total).

1. Connect your USB charging cable to one of the inverter's USB ports.
2. Connect the other end of the cable to your smartphone, tablet, or other USB-powered device.
3. The device will begin charging automatically.

Fast & Smart Charging

Automatically identifies device charging scenarios



Intelligent
Identification



Quick charge



2 USB ports



2 AC outlets



Figure 6.1: The inverter's charging interface, highlighting the two smart USB ports and two AC outlets for versatile power delivery.

6.3 Universal Compatibility

The BESTEK 300W Pure Sine Wave Power Inverter is compatible with a wide range of devices, including laptops, tablets, cameras, and car dash cams. It is not suitable for high-power appliances such as microwave ovens, hair dryers, or electric irons.

Isolation Voltage Protection

Perfect protection for your devices

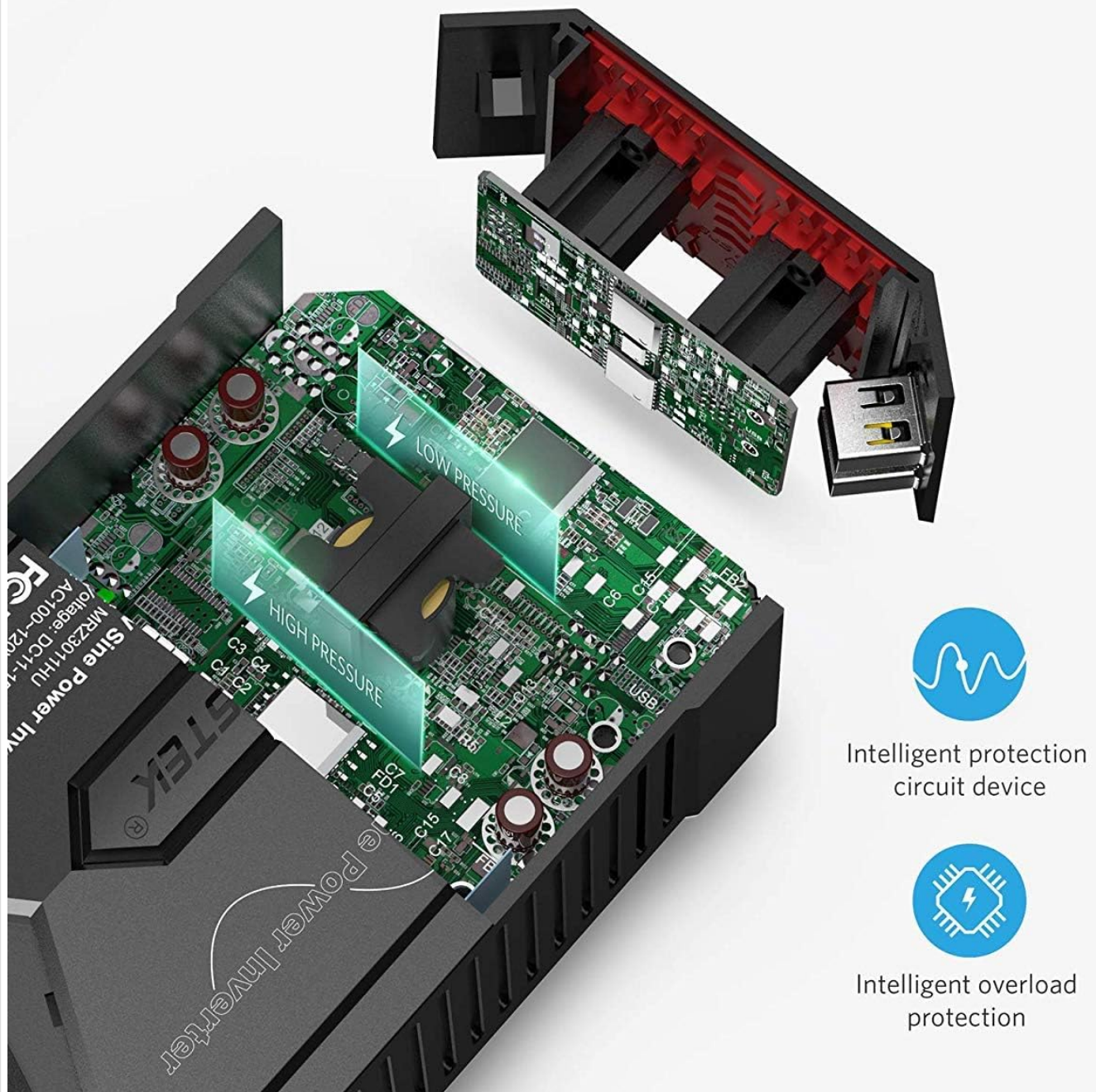


Figure 6.2: Visual representation of compatible and incompatible devices for the inverter.

6.4 Pure Sine Wave Output

This inverter produces a pure sine wave output, which is identical to the AC power supplied by your home utility. This ensures that sensitive electronics, such as laptops and medical devices, operate smoothly without damage or interference, extending their service life and reducing power consumption.

Pure Sine Wave

Causing less damage and loss to your devices



100%

Equipment service life

40%

Reduce power consumption



Figure 6.3: Explanation of Pure Sine Wave technology and its benefits for connected devices.

7. MAINTENANCE

To ensure the longevity and optimal performance of your inverter, follow these maintenance guidelines:

- **Cleaning:** Wipe the exterior of the inverter with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation openings are clear of dust and debris. A clogged fan can lead to

overheating.

- **Storage:** When not in use for extended periods, store the inverter in a cool, dry place away from direct sunlight and moisture.

8. TROUBLESHOOTING

If you encounter issues with your inverter, refer to the table below for common problems and solutions:

Problem	Possible Cause	Solution
No power output / Power/Fault LED is off	Inverter not properly connected; Vehicle's cigarette lighter fuse blown; Vehicle battery low.	Ensure the plug is fully inserted. Check and replace vehicle's fuse if necessary. Start vehicle engine to charge battery.
Power/Fault LED is red	Overload; Overheating; Input voltage too high/low; Short circuit.	Reduce connected load. Allow inverter to cool down. Check vehicle battery voltage. Disconnect all devices and reconnect one by one to identify faulty device.
Fan is noisy	Normal operation under load; Fan obstruction.	The fan will run to dissipate heat, especially under higher loads. Ensure vents are clear.
Device not charging via USB	Faulty USB cable; Device not compatible; Inverter not powered.	Try a different USB cable. Ensure inverter is powered on.

8.1 Protection Features

The BESTEK 300W Pure Sine Wave Power Inverter includes multiple protection features to safeguard both the inverter and your devices:

- **Overheating Protection:** Shuts down if internal temperature exceeds safe limits.
- **Under/Over Voltage Protection:** Protects against input voltage outside the operating range.
- **Short Circuit Protection:** Prevents damage from short circuits in connected devices.
- **Overload Protection:** Shuts down if the connected load exceeds the inverter's capacity.
- **Overcharging Protection:** Safeguards connected devices from excessive current.

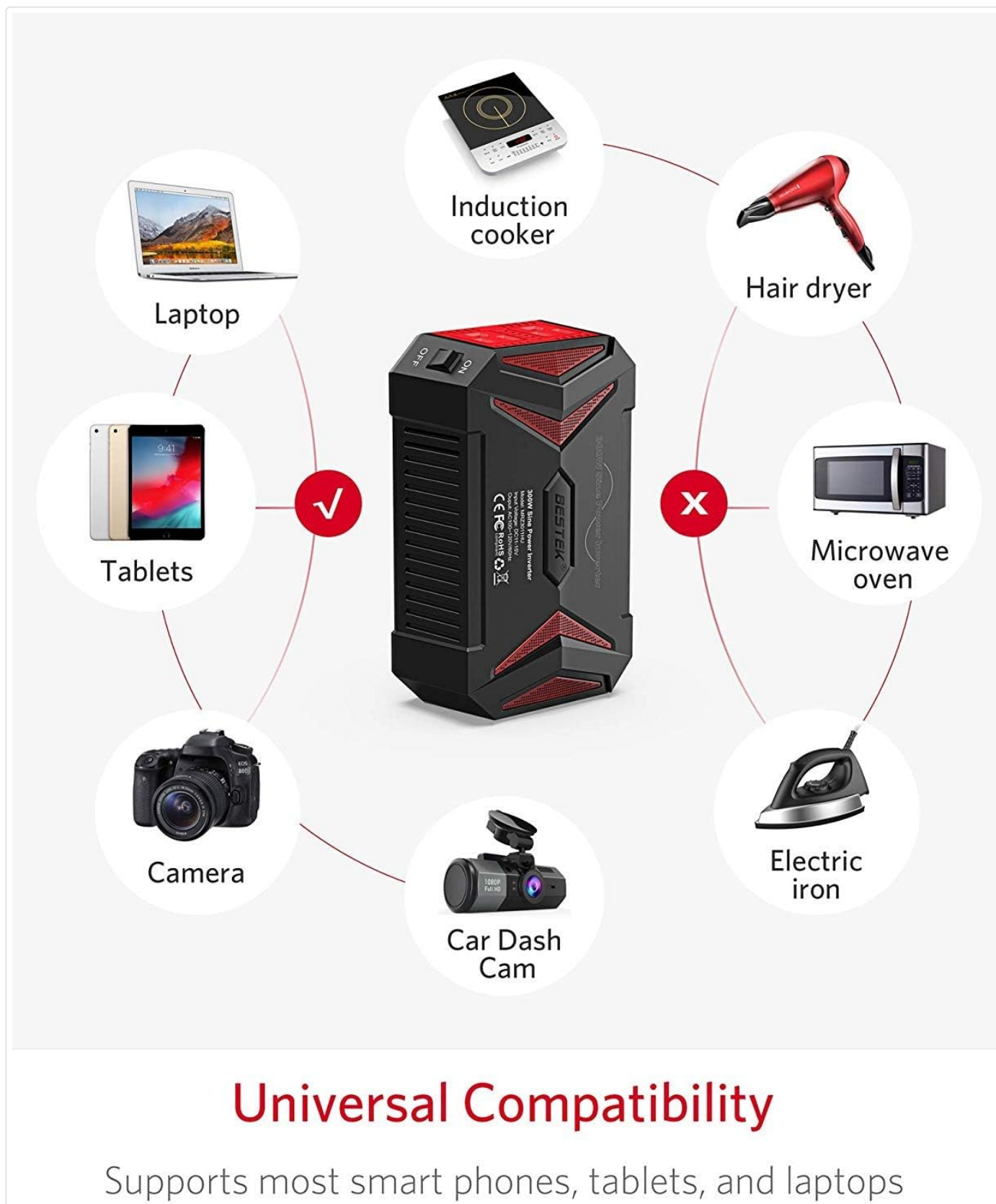


Figure 8.1: Illustration of the inverter's internal protection mechanisms, including isolation voltage protection and intelligent overload protection.

9. SPECIFICATIONS

Feature	Detail
Model Name	MRZ3011HU

Feature	Detail
Continuous Power	300 Watts
Peak Power	700 Watts
Input Voltage	DC 12V
Output Voltage	AC 110V
USB Output	2 x Smart USB Ports (up to 2.4A per port / 4.8A max)
Output Waveform	Pure Sine Wave
Product Dimensions	8.1 x 5.3 x 2.6 inches
Item Weight	1.4 pounds
Manufacturer	BESTEK

10. WARRANTY AND CUSTOMER SUPPORT

Your BESTEK 300W Pure Sine Wave Power Inverter comes with an 18-month warranty. For any questions, technical support, or warranty claims, please contact BESTEK customer service. Refer to the contact information provided on the product packaging or the official BESTEK website.

Official Product Videos

Below are official product videos from BESTEK that may provide additional guidance:

BESTEK 300W Pure Sine Wave Car Power Inverter with USB

Your browser does not support the video tag.

This video provides an overview of the BESTEK 300W Pure Sine Wave Car Power Inverter, highlighting its features and USB capabilities.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question