

BYGD BYGD A500W

BYGD 500W Power Inverter User Manual

DC 12V to AC 110V Car Power Converter with USB Ports and AC Outlets

1. INTRODUCTION

Thank you for choosing the BYGD 500W Power Inverter. This device is designed to convert 12V DC power from your vehicle's battery into 110V AC household power, along with providing multiple USB charging options. It is ideal for powering various electronic devices on the go, during camping, road trips, or in emergency situations.

This manual provides essential information for the safe and efficient operation of your power inverter. Please read it thoroughly before use and retain it for future reference.

2. SAFETY INFORMATION

WARNING: DO NOT EXCEED THE RATED POWER OUTPUT OF THE INVERTER.

To ensure safe operation and prevent damage to the inverter or connected devices, please observe the following safety guidelines:

- Ensure the inverter is connected to a 12V DC power source only.
- Do not expose the inverter to water, rain, or excessive moisture.
- Avoid operating the inverter near flammable materials or in explosive atmospheres.
- Keep the inverter well-ventilated. Do not block the cooling fan or vents.
- Do not attempt to open or modify the inverter. Refer all servicing to qualified personnel.
- Disconnect the inverter from the power source when not in use.
- The inverter features multiple protection systems including:
 - **Over Voltage Protection:** Protects against excessive input voltage.
 - **Low Voltage Protection:** Shuts down to prevent battery over-discharge.
 - **Overload Protection:** Prevents damage from excessive power draw.
 - **Short Circuit Protection:** Safeguards against electrical shorts.
 - **Over Heat Protection:** Activates the cooling fan and may shut down if temperatures are too high.
 - **Over Charge Protection:** Ensures safe charging of connected devices.

3. PACKAGE CONTENTS

Your BYGD 500W Power Inverter package includes:

- 1 x BYGD 500W Power Inverter
- 1 x Cigarette Lighter Cable
- 1 x Pair of Battery Clamps (Red for positive, Black for negative)

4. PRODUCT FEATURES

The BYGD 500W Power Inverter is designed for convenience and reliability:

- **Power Output:** Provides 500W continuous power with 1000W peak power.
- **AC Outlets:** Two (2) US standard 110V AC outlets for powering standard electronics.
- **USB Charging:** Four (4) 2.4A USB quick charging ports for mobile devices.
- **Control:** Integrated ON/OFF switch for easy power management.
- **Cooling:** Built-in intelligent silent automatic control cooling fan to prevent overheating.
- **Durability:** Compact and durable design (7.5 × 4.5 × 2.5 inches, 1.6 lb) with ABS fireproof material.
- **Connectivity:** Includes both a cigarette lighter cable and battery clamps for flexible power source connection.



Figure 1: The BYGD 500W Power Inverter, showcasing its compact design, dual AC outlets, multiple USB ports, and the included cigarette lighter cable and battery clamps for versatile power connections.

WORK STABLE

4 x 3.1A USB Posrts



Figure 2: Detailed view of the BYGD 500W Power Inverter, highlighting its dimensions (7.5 x 4.5 x 2.5 inches), the four 3.1A USB ports, dual AC outlets, ON/OFF switch, and the two connection methods: positive & negative clamps and the cigarette lighter plug. Also shows mobile fuses.

5. SETUP AND CONNECTION

The BYGD 500W Power Inverter offers two primary methods for connecting to a 12V DC power source:

5.1 Using the Cigarette Lighter Cable

1. Ensure the inverter's ON/OFF switch is in the "OFF" position.
2. Insert the cigarette lighter plug firmly into your vehicle's 12V cigarette lighter socket.
3. Proceed to the "Operating Instructions" section.

Note: This connection method is suitable for lower power devices (typically up to 150W, depending on vehicle fuse) to prevent overloading your vehicle's cigarette lighter circuit.

5.2 Using the Battery Clamps

1. Ensure the inverter's ON/OFF switch is in the "OFF" position.
2. Connect the **red** battery clamp to the **positive (+)** terminal of your 12V vehicle battery.
3. Connect the **black** battery clamp to the **negative (-)** terminal of your 12V vehicle battery.
4. Ensure connections are secure and free from corrosion.
5. Proceed to the "Operating Instructions" section.

Note: This connection method allows for the full 500W continuous power output. Always connect the clamps directly to the battery terminals for optimal performance and safety.

6. OPERATING INSTRUCTIONS

Once the inverter is properly connected to a 12V DC power source:

1. **Power On:** Flip the ON/OFF switch on the inverter to the "ON" position. The power indicator light should illuminate (typically green) to indicate the inverter is operational.
2. **Connect Devices:** Plug your AC-powered devices into the 110V AC outlets or your USB-powered devices into the 2.4A USB ports.
3. **Monitor Power:** Ensure the total wattage of all connected devices does not exceed the inverter's continuous power rating (500W). Exceeding this limit may trigger overload protection and shut down the inverter.
4. **Power Off:** When finished, first disconnect all devices from the inverter, then flip the ON/OFF switch to the "OFF" position. Finally, disconnect the inverter from the 12V DC power source.



Figure 3: Illustration of the BYGD 500W Power Inverter's wide application, demonstrating its capability to power various devices such as smartphones, tablets, laptops, TVs, shavers, and camcorders. It also indicates devices like hair dryers, electric kettles, coffee makers, microwaves, and irons are generally not suitable due to high power consumption.



Figure 4: Visual representation of the BYGD 500W Power Inverter's multi-protection system, including over voltage, overload, low voltage, overheating, and short circuit protection, ensuring device safety.



Figure 5: Close-up of the BYGD 500W Power Inverter's front panel, detailing the warning indicator, power indicator, ON/OFF switch, dual AC outlets, and the four 3.1A USB ports. The rear panel shows the baffle for preventing spark short circuits and a hook design for mounting.



Figure 6: Demonstration of the BYGD 500W Power Inverter's fast charging capability via its 3.1A USB ports, suitable for quickly charging mobile devices.

**Portable
Convenient to Travel**



Long Journey

BYGD

WORK STABLE



Camping



Entertainment In Car



Life In-car



Office Items Charging

Figure 7: The BYGD 500W Power Inverter shown in different portable and travel scenarios, including long journeys, camping, in-car entertainment, and charging office items, emphasizing its convenience and stability.

7. OFFICIAL PRODUCT VIDEOS

7.1 500W Car Power Inverter Overview and Test

Your browser does not support the video tag.

Video Description: This video provides a detailed overview of the BYGD 500W Car Power Inverter, including its unboxing, a close look at its features such as the input/output ports, cooling fan, and safety switch. It also demonstrates a practical test of the inverter's performance with a hair dryer, illustrating its power handling capabilities and safety mechanisms. This video is useful for understanding the physical aspects and operational limits of the device.

8. SPECIFICATIONS

Feature	Detail
Brand	BYGD
Model Name	500W Power Inverter
Item Model Number	BYGD A500W
Continuous Power	500 Watts
Peak Power	1000 Watts
Input Voltage	12 Volts DC
Output Voltage	110 Volts AC
AC Outlets	2 x US Standard
USB Ports	4 x 2.4A Quick Charging
Dimensions	7.5 x 4.5 x 2.5 inches
Item Weight	1.6 pounds (725g)
Material	ABS Fireproof Material
Special Features	Intelligent Silent Cooling Fan, Multi-Protection System (Over Voltage/Low Voltage/Overload/Short Circuit/Over Heat/Over Charge)
Recommended Uses	Home, Office, Vehicle

9. MAINTENANCE

To ensure the longevity and optimal performance of your BYGD 500W Power Inverter, follow these maintenance tips:

- **Cleaning:** Regularly clean the exterior of the inverter with a dry, soft cloth. Ensure the cooling fan and vents are free from dust and debris to maintain proper airflow.
- **Connections:** Periodically check all connections (cigarette lighter plug, battery clamps, and inverter terminals) for tightness and corrosion. Clean any corroded terminals with a wire brush.
- **Storage:** Store the inverter in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Fuse Replacement:** The inverter is equipped with internal fuses for protection. If the inverter stops functioning due to an overload or short circuit, the fuses may need replacement. Contact customer service for assistance.

10. TROUBLESHOOTING

If you encounter issues with your BYGD 500W Power Inverter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No Power Output	Inverter switch is OFF Loose connection to 12V source Vehicle battery low/dead Blown fuse in vehicle or inverter	Turn ON inverter switch Check and secure all connections Recharge or replace vehicle battery Check and replace fuses (consult manual or professional)
Overload Alarm/Shutdown	Connected device(s) exceed 500W continuous power	Reduce total wattage of connected devices Disconnect and reconnect inverter to reset
Overheat Alarm/Shutdown	Poor ventilation High ambient temperature Excessive load for extended periods	Ensure clear airflow around inverter Move inverter to a cooler environment Reduce load or allow inverter to cool down
Low Voltage Alarm/Shutdown	Vehicle battery voltage is too low	Recharge vehicle battery Start vehicle engine to provide charging voltage

If the problem persists after trying these solutions, please contact BYGD customer service for further assistance.

11. WARRANTY AND SUPPORT

BYGD provides an **18-month warranty** for this product, covering manufacturing defects and workmanship under normal use. This warranty does not cover damage caused by misuse, accident, unauthorized modification, or improper installation.

For warranty claims, technical support, or any questions regarding your BYGD 500W Power Inverter, please contact BYGD customer service. Our 24/7 customer service team is available to ensure your satisfaction.

Contact Information: Please refer to the contact details provided on the product packaging or the official BYGD website.

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

you@example.com

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