

BYGD P3000U-Red

BYGD 3000W Power Inverter User Manual

Model: P3000U-Red

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your BYGD 3000W Power Inverter. Please read these instructions thoroughly before installation and use, and retain them for future reference. This device converts 12V DC power from a battery into 110V/120V AC household power, suitable for various electronic devices and appliances.



2. PRODUCT FEATURES AND COMPONENTS

Key Features:

- **High Power Output:** Provides 3000W continuous DC to AC power and up to 6000W peak power.
- **Multiple Outlets:** Equipped with 4 standard North American AC outlets.
- **USB & Type-C Charging:** Includes 5V/3.1A USB ports and 9V/1.67A Type-C ports for charging mobile devices.
- **Advanced Safety Protection:** Features protection against over voltage, low voltage, overload, short circuit, over heat, and over charge.
- **Efficient Cooling:** Built-in smart silent cooling fans minimize noise and extend product life.
- **Compact Design:** Easy to carry and store for various applications.

Product Components:

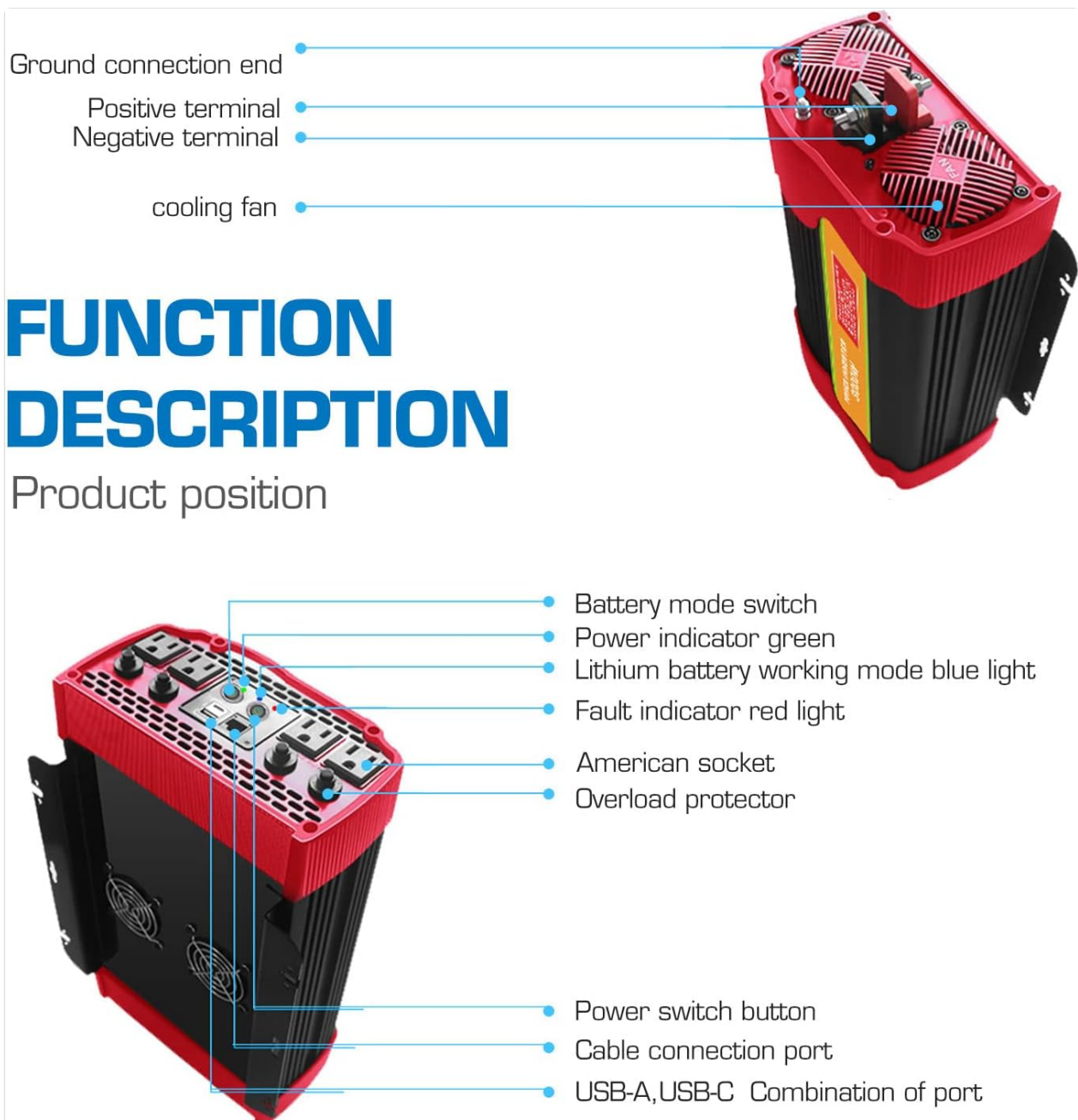


Image 2.1: Detailed diagram illustrating the various ports, indicators, and controls on the BYGD 3000W Power Inverter.

- **AC Outlets:** 4 standard North American AC outlets.
- **USB-A & USB-C Ports:** For charging compatible devices.
- **Power Switch Button:** To turn the inverter on or off.
- **Battery Mode Switch:** Selects between different battery modes (if applicable).
- **Power Indicator (Green):** Illuminates when the inverter is operating correctly.
- **Lithium Battery Working Mode (Blue Light):** Indicates operation in lithium battery mode.
- **Fault Indicator (Red Light):** Illuminates to indicate an error or protection mode.
- **Overload Protector:** Resettable circuit breaker for overload protection.
- **Cable Connection Port:** Terminals for connecting to the 12V DC power source.
- **Cooling Fans:** Integrated fans for thermal management.
- **Ground Connection End:** For safety grounding.
- **Positive Terminal:** Red terminal for positive battery connection.
- **Negative Terminal:** Black terminal for negative battery connection.

3. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions may result in injury, damage to the inverter, or damage to connected devices.

- Do not open the inverter casing. There are no user-serviceable parts inside.
- Ensure proper ventilation around the inverter. Do not block cooling vents.
- Keep the inverter away from water, moisture, flammable materials, and corrosive substances.
- Connect the inverter only to a 12V DC power source. Do not connect to 24V or 48V systems.
- Always connect the inverter to the battery before connecting any AC appliances.
- Ensure the total wattage of connected AC appliances does not exceed the inverter's continuous power rating (3000W).
- Use appropriate gauge cables for battery connection to prevent overheating.
- Properly ground the inverter according to local electrical codes.
- Disconnect the inverter from the battery when not in use to prevent battery drain.

PROTECTION FUNCTION

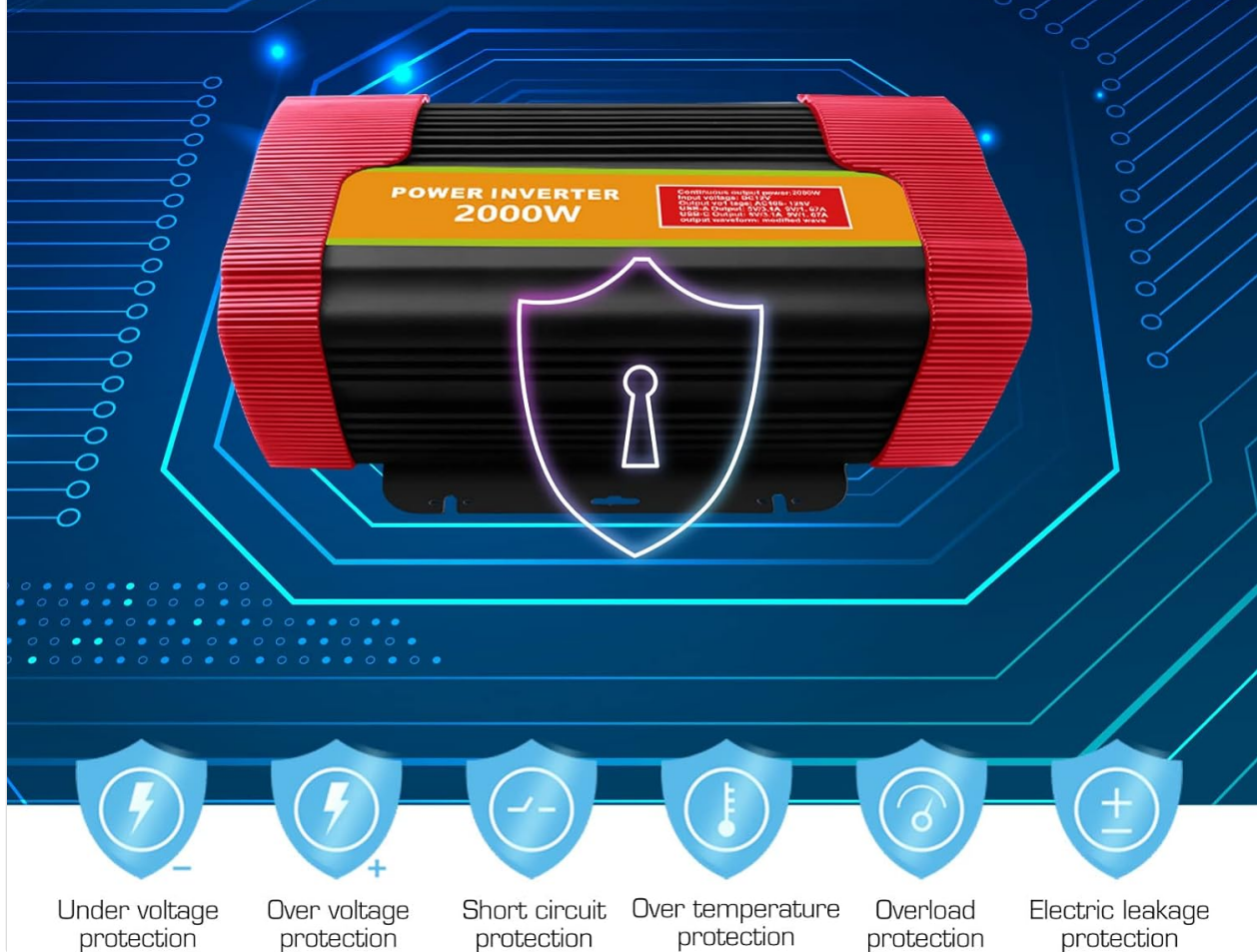


Image 3.1: Visual representation of the comprehensive protection functions integrated into the BYGD Power Inverter.

4. SETUP

4.1 What's in the Box:

- BYGD 3000 Watt Power Inverter
- Battery connection cables (red for positive, black for negative)
- User Manual (this document)

4.2 Connecting the Inverter to a 12V Battery:

1. Ensure the inverter's power switch is in the 'OFF' position.
2. Connect the **red** battery cable to the **positive (+)** terminal of the inverter.
3. Connect the **black** battery cable to the **negative (-)** terminal of the inverter.
4. Connect the other end of the **red** cable to the **positive (+)** terminal of your 12V battery.
5. Connect the other end of the **black** cable to the **negative (-)** terminal of your 12V battery.
6. Ensure all connections are tight and secure to prevent arcing or poor performance.
7. Connect the ground wire from the inverter's ground connection end to a suitable chassis ground point

(e.g., vehicle chassis or earth ground).

PRODUCT SIZE COMPONENTS IN THE BOX

Product position



Image 4.1: Illustration of the inverter's dimensions and the components typically included in the package, such as battery clamps and the user manual.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off:

1. After securing all battery connections, press the power switch button on the inverter to turn it 'ON'.
2. The green power indicator light should illuminate, indicating the inverter is operational.
3. To turn off the inverter, press the power switch button again. The green indicator light will turn off.

5.2 Connecting AC Devices:

1. Ensure the AC appliance you wish to power is within the inverter's continuous wattage rating (3000W).
2. Plug the AC appliance into one of the 4 AC outlets on the inverter.
3. Turn on the AC appliance.
4. If the inverter's fault indicator (red light) illuminates or an audible alarm sounds, immediately disconnect

the appliance and refer to the Troubleshooting section.

5.3 Using USB and Type-C Ports:

1. Connect your USB or Type-C compatible device to the respective port on the inverter.
2. The inverter will automatically provide power for charging.

CAN MAKE ELECTRICAL APPLIANCES



Image 5.1: Examples of common household and portable electrical appliances that can be powered by the BYGD Power Inverter.

6. MAINTENANCE

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Do not use liquids or abrasive cleaners. Ensure cooling vents are free from dust and debris.
- **Connections:** Regularly check battery cable connections for tightness and corrosion. Clean any corrosion with a wire brush and baking soda solution.
- **Storage:** When not in use for extended periods, store the inverter in a cool, dry place, away from direct sunlight and extreme temperatures. Disconnect it from the battery.

- **Battery Maintenance:** Ensure your 12V battery is properly maintained and charged to prolong its lifespan and the inverter's performance.

7. TROUBLESHOOTING

If you encounter issues with your BYGD Power Inverter, refer to the table below for common problems and their solutions.

Problem	Possible Cause	Solution
Inverter does not turn on.	Loose battery connections, low battery voltage, faulty power switch.	Check battery cable connections. Ensure battery voltage is above 11V. Try pressing the power switch firmly.
Red fault indicator light is on.	Overload, over-temperature, low/high input voltage, short circuit.	Reduce load. Allow inverter to cool. Check battery voltage. Disconnect all loads and restart.
No AC output.	Inverter off, low battery, appliance fault, overload protector tripped.	Turn inverter on. Charge battery. Test appliance directly. Reset overload protector if tripped.
Cooling fan is constantly running or very loud.	High internal temperature, heavy load.	Ensure adequate ventilation. Reduce load. This is normal operation under heavy load.
USB/Type-C ports not charging.	Inverter off, device not compatible, cable fault.	Ensure inverter is on. Try a different device or cable.

8. SPECIFICATIONS

Feature	Specification
Model Number	P3000U-Red
Continuous Power	3000 Watts
Peak Power	6000 Watts
Input Voltage	12V DC
Output Voltage	110V/120V AC
AC Outlets	4 Standard North American
USB Output	5V/3.1A
Type-C Output	9V/1.67A
Product Dimensions	15.1 x 9.4 x 5.1 inches
Item Weight	8.52 pounds
Manufacturer	BYGD

9. WARRANTY AND SUPPORT

9.1 Warranty Information:

BYGD products are designed and manufactured to high-quality standards. For specific warranty details, including coverage period and terms, please refer to the warranty card included with your product or contact BYGD customer support. Keep your purchase receipt as proof of purchase for warranty claims.

9.2 Customer Support:

If you have any questions, require technical assistance, or need to report an issue with your BYGD 3000W Power Inverter, please contact BYGD customer support. Contact information can typically be found on the BYGD official website or on the product packaging.