

DATOUBOSS DN-03-2000W12V

DATOUBOSS Pure Sine Wave Power Inverter 12V 2000W User Manual

Model: DN-03-2000W12V

1. INTRODUCTION

Thank you for choosing the DATOUBOSS Pure Sine Wave Power Inverter. This manual provides essential information for the safe and efficient operation of your inverter. Please read it thoroughly before use and keep it for future reference.

This inverter converts 12V DC power from batteries into 230V AC power, suitable for powering a wide range of electronic devices and appliances. Its pure sine wave output ensures compatibility with sensitive electronics.

2. SAFETY INSTRUCTIONS

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

- Do not open the inverter casing. There are no user-serviceable parts inside.
- Ensure proper ventilation around the inverter to prevent overheating.
- Keep the inverter away from water, moisture, flammable materials, and direct sunlight.
- Connect the inverter only to a 12V DC power source. Connecting to other voltages may cause damage.
- Ensure the total power consumption of connected devices does not exceed the inverter's rated power.
- Always connect the inverter to the battery before plugging in AC devices.
- Disconnect the inverter from the battery when not in use.
- In case of a fault, the inverter will emit an alarm and display an error code. Refer to the troubleshooting section.

3. PRODUCT OVERVIEW

The DATOUBOSS Pure Sine Wave Power Inverter is designed for reliable and efficient power conversion. It

features multiple output ports and comprehensive protection mechanisms.



Figure 3.1: Front view of the DATOUBOSS 2000W Pure Sine Wave Inverter with included remote control and battery cables.



Figure 3.2: Detailed view of the inverter's output panel, showing AC outlets, USB ports, Type-C port, QC3.0 port, and heat dissipation fans.

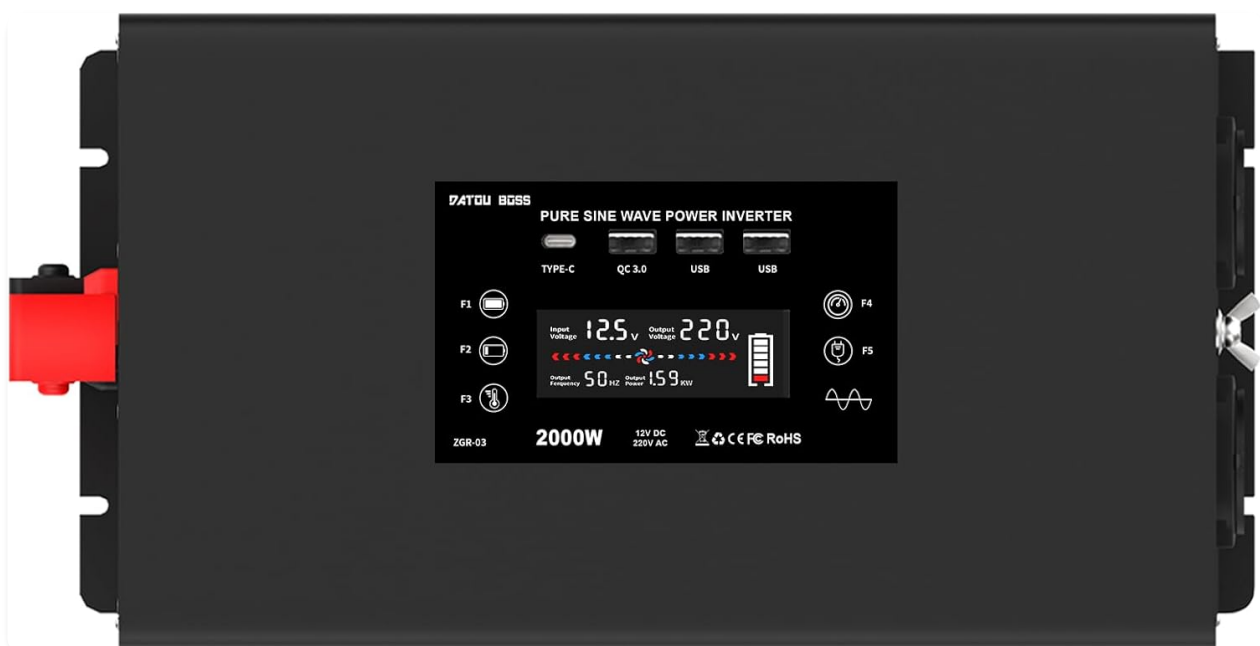


Figure 3.3: Close-up of the multi-function LCD display, providing real-time information on input voltage, output voltage,

frequency, and power output.

3.1. Protection Features

The inverter incorporates several protection functions to ensure safe operation:

- **F1: High Voltage Protection:** Protects against excessively high input voltage.
- **F2: Low Voltage Protection:** Protects against excessively low input voltage, preventing battery over-discharge.
- **F3: High Temperature Protection:** Activates cooling fans and shuts down if internal temperature exceeds safe limits ($\geq 85^{\circ}\text{C}$).
- **F4: Overload Protection:** Shuts down if the connected load exceeds the inverter's capacity ($\geq 2300\text{W}$).
- **F5: Short Circuit Protection:** Protects against short circuits at the output.
- **Reverse Connection Protection:** Protects against incorrect battery polarity connection.

SIX PROTECTION CIRCUIT FUNCTIONS

Peace of mind for your equipment and car



DC12V -AC 230V



Low Voltage Protection



High Voltage Protection



Short Circuit Protection



Overheating Protection



Overload Protection



Reverse Connection Protection

Figure 3.4: Visual representation of the inverter's six protection circuit functions, ensuring safety for equipment and vehicle.

4. SPECIFICATIONS

Parameter	Value
Rated Power	2000W
Actual Power	2300W
Peak Power	4600W
Input Voltage	DC 12V
Voltage Range	10V - 15V
Output Voltage	AC 220V ± 5%
Frequency	50Hz
Output Waveform	Pure Sine Wave
Dimensions (L×W×H)	39 × 18 × 9.5 cm
Net Weight	4.2 kg
Output Ports	2 EU sockets, 3 x 5V 2.1A USB, QC3.0, Type-C
Overload Protection Threshold	≥ 2300W
Over-temperature Protection Threshold	≥85°C
Cooling	Intelligent Cooling Fan
Fuses	4 x 30A
Material	Aluminum-magnesium alloy casing
Remote Control Range	≤ 30 meters (Bluetooth protocol)

Inverter pure sine wave technology efficient and stable output

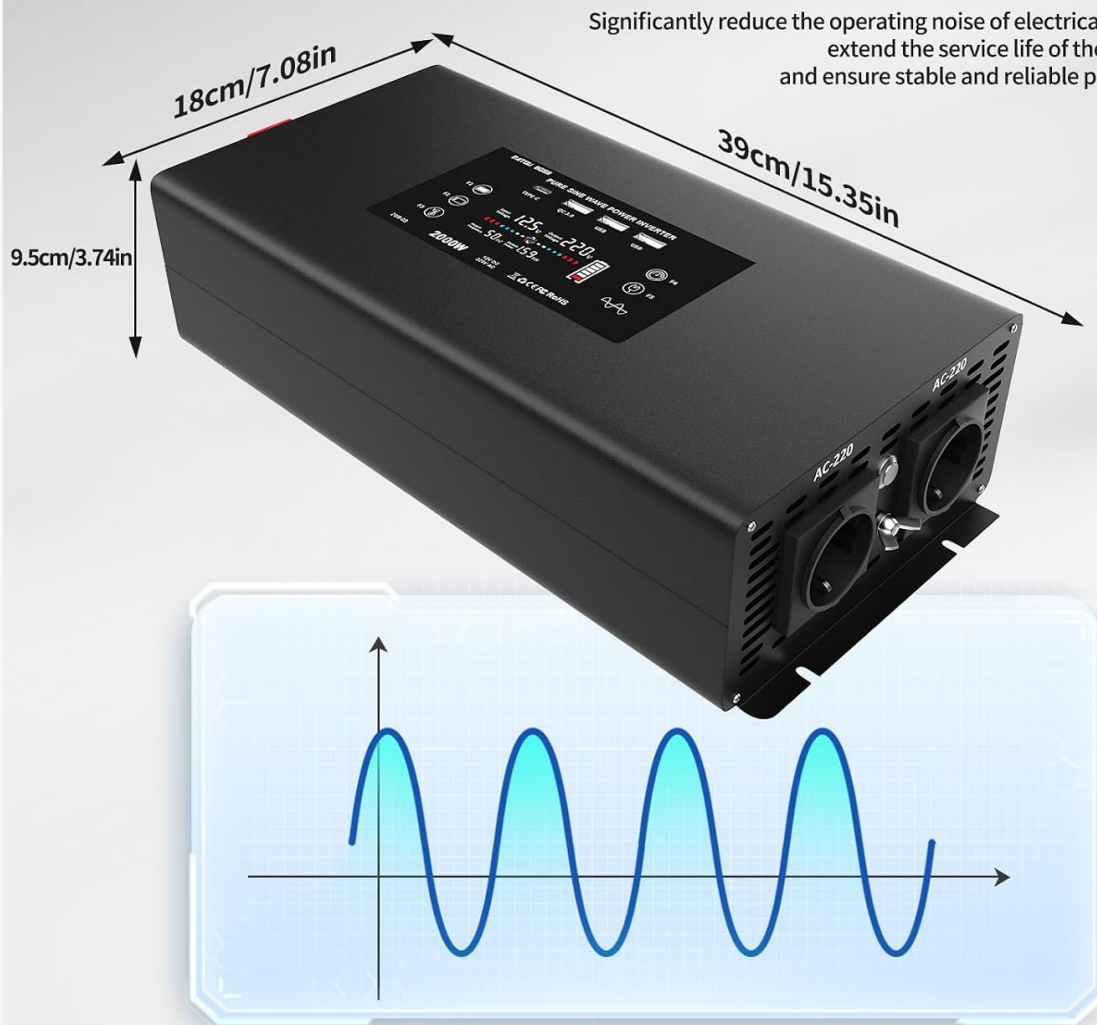


Figure 4.1: Inverter dimensions and illustration of pure sine wave technology for stable output.

5. SETUP

1. **Preparation:** Ensure your 12V battery is fully charged and capable of providing the necessary current for your intended load. Place the inverter on a stable, flat surface in a well-ventilated area, away from direct sunlight, heat sources, and moisture.
2. **Battery Connection:** Using the provided battery cables, connect the red cable to the positive (+) terminal of the inverter and the positive (+) terminal of the battery. Connect the black cable to the negative (-) terminal of the inverter and the negative (-) terminal of the battery. Ensure connections are tight and secure to prevent arcing and power loss.
3. **Grounding:** For safety, connect the inverter's grounding terminal to a proper earth ground (e.g., vehicle chassis or dedicated ground rod).
4. **Initial Power On:** After connecting the battery, turn on the inverter's main power switch. The LCD display will illuminate, showing input voltage, output voltage, and other parameters.

6. OPERATING INSTRUCTIONS

1. **Connecting AC Devices:** Once the inverter is powered on, plug your AC devices into the EU sockets on the inverter. For USB-powered devices, use the USB, QC3.0, or Type-C ports.
2. **Monitoring:** Observe the LCD display for real-time information on input voltage, output voltage, frequency, and power consumption. This helps in managing your power usage and battery life.
3. **Remote Control:** The included remote control uses Bluetooth protocol for enhanced range and stability compared to infrared remotes. Use it to conveniently turn the inverter on/off from a distance (up to 30 meters effective range).
4. **Powering Off:** Before disconnecting the inverter or battery, turn off all connected AC devices, then turn off the inverter's main power switch. Finally, disconnect the battery cables.



Wide Compatibility



Figure 6.1: The inverter offers wide compatibility, capable of powering various devices from laptops and coffee machines to car refrigerators and electric cookers.

7. MAINTENANCE

- **Cleaning:** Regularly clean the inverter's exterior with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the cooling fans and vents are free from dust and obstructions. The intelligent

cooling fan system activates based on temperature and load to maintain optimal performance.

- **Connections:** Periodically check all electrical connections (battery cables, output plugs) to ensure they are secure and free from corrosion.
- **Storage:** If storing the inverter for an extended period, disconnect it from the battery and store it in a cool, dry place.

8. TROUBLESHOOTING

The inverter is equipped with an intelligent protection system. If an issue occurs, it will typically trigger an alarm and display an error code (F1-F5) on the LCD. Refer to the table below for common issues and solutions:

Error Code / Symptom	Possible Cause	Solution
F1: High Voltage Alarm	Input voltage exceeds 15V.	Check battery voltage. Ensure it is a 12V battery and not overcharged.
F2: Low Voltage Alarm	Input voltage drops below 10V.	Recharge or replace the battery. Reduce load.
F3: High Temperature Alarm	Inverter is overheating ($\geq 85^{\circ}\text{C}$).	Reduce load. Ensure proper ventilation. Clean fan vents. Allow to cool down.
F4: Overload Alarm	Connected load exceeds 2300W.	Disconnect some devices. Ensure total power consumption is within 2000W rated power.
F5: Short Circuit Alarm	Short circuit detected at output.	Disconnect all AC devices. Check for faulty wiring or damaged appliances.
No Output / No Power	Loose connections, dead battery, inverter off.	Check battery cables and connections. Verify battery charge. Ensure inverter switch is ON.

If the problem persists after attempting these solutions, please contact customer support.

9. PACKAGE CONTENTS

The following items are included in your product package:

- 1 × DATOUBOSS 2000W Pure Sine Wave Inverter
- 2 × Battery Connection Cables
- 1 × Remote Control
- 1 × User Manual

10. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the official DATOUBOSS website or contact your retailer. Keep your purchase receipt as proof of purchase for any warranty claims.

