EDECOA 19311G2000LUS

EDECOA 2000W Power Inverter

MODEL: 19311G2000LUS

User Manual

Introduction

This manual provides essential information for the safe and efficient operation of your EDECOA 2000W Power Inverter. This device converts 12V DC battery power into 110V/120V AC household power, suitable for various applications in vehicles, RVs, and off-grid setups. Please read this manual thoroughly before installation and use.

Safety Instructions

- **Ventilation:** Ensure adequate ventilation around the inverter. Do not block cooling vents.
- **Environment:** Operate the inverter in a dry, cool, and well-ventilated area, away from direct sunlight, heat sources, and flammable materials.
- **Connection:** Always connect the inverter to a 12V DC power source. Ensure correct polarity (+ to + and - to -). Reverse polarity can damage the unit.
- **Grounding:** Properly ground the inverter to prevent electrical shock.
- **Load Capacity:** Do not exceed the inverter's rated power output (2000W continuous, 4000W peak). Overloading can cause damage or fire.
- **Water/Moisture:** Keep the inverter away from water, rain, and excessive humidity.
- **Children:** Keep out of reach of children.
- **Maintenance:** Do not attempt to open or service the inverter yourself. Refer all servicing to qualified personnel.
- **Appliance Compatibility:** This modified sine wave inverter is suitable for most resistive loads. It is not recommended for sensitive electronics or appliances with motors (e.g., coffee makers, microwaves) that require pure sine wave power.

Package Contents

Verify that all items are present in your package:

- EDECOA 2000W Power Inverter
- Battery Cables (Red and Black)
- Remote Controller Set (Remote and Cable)
- Ground Wire Set

- User Manual (this document)

Product Overview

The EDECOA 2000W Power Inverter is designed for robust performance and ease of use. It features multiple AC outlets, USB charging ports, and an intuitive LCD display for monitoring. The included remote control allows for convenient operation from a distance.

Figure 1: EDECOA 2000W Power Inverter with its remote control unit and connecting cable.

Front Panel Features:

- **LCD Display:** Shows battery level, input/output voltage, fan status, and internal temperature.
- **Power Switch (ON/OFF):** Controls the main power to the inverter.
- **AC Outlets (x3):** Standard 110V/120V AC outlets for connecting appliances.
- **USB Ports (x2):** 5V / 2.1A for charging electronic devices.
- **Remote Controller Port (RJ45):** Connects the wired remote control.

Figure 2: Detailed view of the inverter's front and rear panels, highlighting the input/output terminals, cooling fans, AC outlets, USB ports, and remote port.

Rear Panel Features:

- **DC Input Terminals (+/-):** Connect to the 12V DC battery using the provided cables. Features pure copper terminals for efficient power transfer.
- **Intelligent Cooling Fans:** Two silent fans activate when the inverter reaches 45°C to dissipate heat.
- **Ground Wire Port:** For connecting the inverter to a proper ground.

Figure 3: Close-up of the LCD screen displaying real-time operational data such as battery voltage, output voltage, frequency, and temperature.

Remote Control Features:

- **ON/OFF Switch:** Remotely power the inverter on or off.
- **Battery Capacity Indicator:** Displays the approximate battery charge level.
- **Low Input Voltage Warning:** Alerts when the input voltage is low.
- **4-meter Cable:** Standard network cable for connecting the remote to the inverter.

Figure 4: The remote controller for the EDECOA inverter, showing its power switch and battery level indicators.

Setup and Installation

Proper installation is crucial for the safe and efficient operation of your inverter. Follow these steps carefully:

1. **Choose a Location:** Select a dry, cool, and well-ventilated area for the inverter. Ensure there is sufficient space around the unit for airflow, especially around the cooling fans.
2. **Prepare Battery:** Ensure your 12V DC battery is fully charged and in good condition. For optimal performance, use a battery with sufficient capacity (e.g., 100AH or 200AH for 2000W inverter).
3. **Grounding:** Connect the ground wire from the inverter's ground terminal to a reliable earth ground point (e.g., vehicle chassis, ground rod).
4. **Connect Battery Cables:**
    - Connect the **RED** battery cable to the **positive (+)** terminal of the inverter.
    - Connect the other end of the **RED** cable to the **positive (+)** terminal of the 12V battery.

- Connect the **BLACK** battery cable to the **negative (-)** terminal of the inverter.
- Connect the other end of the **BLACK** cable to the **negative (-)** terminal of the 12V battery.

WARNING: Ensure correct polarity. Reverse polarity will damage the inverter and void the warranty.

5. **Connect Remote Control (Optional):** If using the remote control, plug its RJ45 cable into the "Remote Controller" port on the inverter's front panel.
6. **Initial Power On:** Once all connections are secure, switch the inverter's main power button to the "ON" position. The LCD display should illuminate, indicating the inverter is operational.

Figure 5: Connection diagrams for the inverter, illustrating setup with a solar system (Option 1) and directly with a car battery (Option 2).

Operating Instructions

Once the inverter is properly installed and powered on, you can begin connecting your AC appliances.

- **Connecting Appliances:** Plug your 110V/120V AC appliances into the AC outlets on the front panel of the inverter. For USB charging, connect your devices to the USB ports.
- **Monitoring:** The LCD display provides real-time information:
  - **Battery Voltage:** Current DC input voltage from the battery.
  - **Output Voltage:** The AC output voltage (110V/120V).
  - **Output Amperage:** Current drawn by connected devices.
  - **Frequency:** AC output frequency (60Hz).
  - **Temperature:** Internal temperature of the inverter.
  - **Fan Working Situation:** Indicates if cooling fans are active.
  - **Alarms:** Displays warnings for low/high voltage, overload, or short circuit.
- **Soft Start Technology:** The inverter features soft start technology, which gradually increases the output voltage to prevent sudden surges when starting up certain loads.
- **Power Consumption:** The inverter has a high efficiency of 87% and a low standby power consumption of less than 0.7A.
- **Remote Operation:** Use the remote control to conveniently switch the inverter on or off from a distance, and monitor battery status.

Figure 6: Explanation of the various indicators and readings on the inverter's LCD display.

Maintenance

Regular maintenance ensures the longevity and optimal performance of your EDECOA Power Inverter.

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the cooling vents are free from dust and debris. Blocked vents can lead to overheating.
- **Connections:** Regularly check all cable connections (battery, ground, AC outlets) to ensure they are secure and free from corrosion. Loose connections can cause power loss or overheating.
- **Storage:** If storing the inverter for an extended period, disconnect it from the battery and store it in a cool, dry place.

Troubleshooting

The EDECOA Power Inverter is equipped with multiple protection features to ensure safe operation. Refer to the table below for common issues and their solutions.

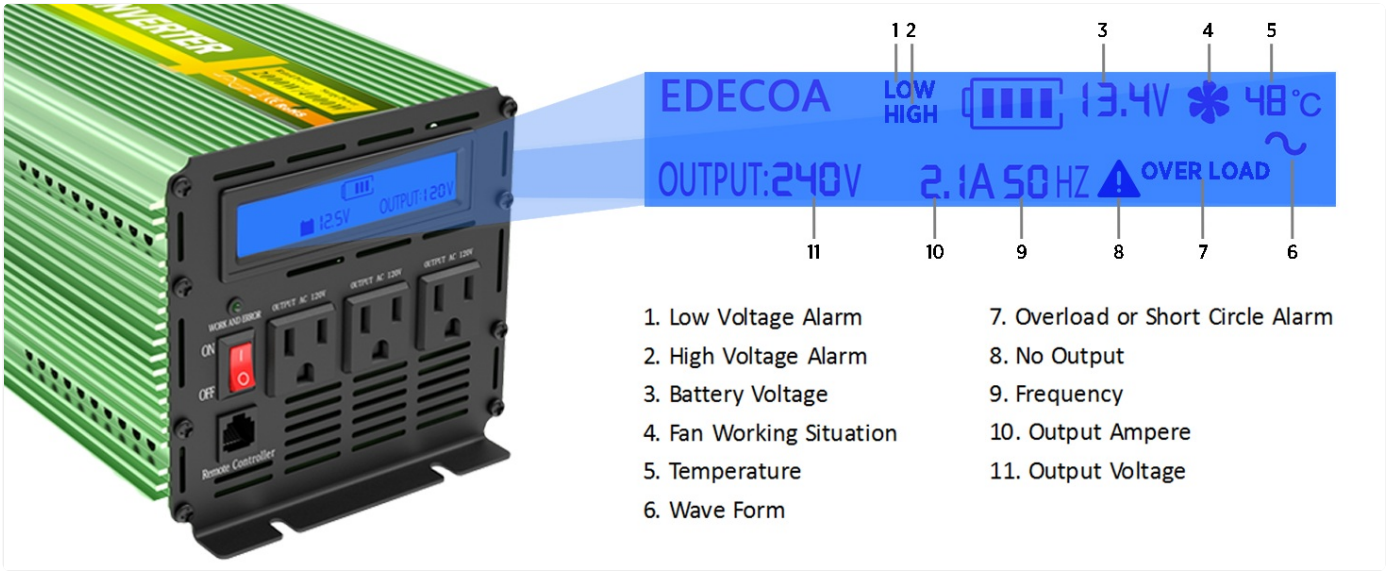

Figure 7: Overview of the inverter's multi-protection system, including low voltage, high voltage, over-temperature, output short circuit, reverse polarity, and overload protection.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Inverter does not turn on.	Loose battery connections. Low battery voltage. Blown internal fuses. Inverter switch is OFF.	Check and tighten all battery cable connections. Recharge or replace the battery. Contact customer support for fuse replacement. Ensure the ON/OFF switch is in the ON position.
No AC output / Overload alarm.	Connected appliance exceeds 2000W. Appliance has high starting surge. Short circuit in the appliance or wiring.	Reduce the total load to below 2000W. Try connecting one appliance at a time. Check the appliance and wiring for faults. Restart the inverter after removing the load.
Over-temperature alarm.	Poor ventilation. Ambient temperature too high. Blocked cooling fans.	Ensure adequate airflow around the inverter. Move the inverter to a cooler environment. Clean any dust or obstructions from the fan vents. Allow the inverter to cool down before restarting.
Low voltage alarm.	Battery voltage is too low.	Recharge the 12V battery. Check battery health.

Specifications

Feature	Detail
Model Number	19311G2000LUS
Continuous Power	2000 Watts
Peak Power	4000 Watts (for microseconds)
DC Input Voltage	12V DC
AC Output Voltage	110V - 120V AC
Output Waveform	Modified Sine Wave
Output Frequency	60Hz
USB Output	2 x 5V / 2.1A
Efficiency	Up to 87%
Standby Power Consumption	<0.7A
Cooling	Intelligent Cooling Fans (activates at 45°C)
Protection Features	Reverse Polarity, Short Circuit, Under Voltage, Over Voltage, Overheating, Overload, Surge Protection
Product Dimensions	11.22 x 5.91 x 5.12 inches
Item Weight	7.48 pounds (approx. 3.4 kg)

Feature	Detail
Material	Heat-resistant Aluminum

Warranty and Support

EDECOA products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please contact EDECOA customer service through their official website or the retailer where the product was purchased. Please have your model number (19311G2000LUS) and purchase date ready when contacting support.
For more information, you may visit the official EDECOA store:EDECOA Store on Amazon