EDECOA 19211G35LUS

EDECOA 3500W Pure Sine Wave Power Inverter

USER MANUAL

1. Introduction

Thank you for choosing the EDECOA 24V Pure Sine Wave Power Inverter. This manual provides essential information for the safe and efficient operation of your inverter. Please read it thoroughly before installation and use.

This 24V 3500W pure sine wave inverter is designed to convert DC 24V battery power to AC 110V/120V household electricity, making it ideal for various applications including journeys, camping, tents, boat trips, and remote work where grid electricity is unavailable.

Package Contents:

- 1x EDECOA 3500W Pure Sine Wave Power Inverter
- 1x ED-RC Remote control (with 4-meter cable)
- 1x Pair of battery cables with terminal rings
- 1x Accessory bag
- 1x User manual

Figure 1.1: Package Contents

2. Safety Information

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

- **WARNING: DO NOT REVERSE INPUT.** Ensure correct polarity when connecting battery cables to the inverter.
- Ensure the inverter is placed in a well-ventilated area, away from direct sunlight, heat sources, and flammable materials.
- Do not expose the inverter to water, rain, or excessive moisture.
- Do not open the inverter casing. There are no user-serviceable parts inside.
- Keep children away from the inverter during operation.
- Disconnect the inverter from the battery before performing any maintenance or cleaning.

Built-in Protection Features:

The EDECOA inverter is equipped with multiple protection mechanisms for safe operation:

- Input Low Voltage Protection
- Input Over Voltage Protection
- Overload Protection
- Over Temperature Protection
- Reverse Polarity Protection
- Automatic Voltage Regulation (AVR)
- Intelligent Power Management (IPM)
- Intelligent Fan Control (IFC)

3. Product Features and Components

The EDECOA 3500W Pure Sine Wave Power Inverter features a robust design with essential components for reliable power conversion.

Figure 3.1: EDECOA 3500W Power Inverter Overview

Front Panel:

- **LCD Display:** Shows real-time information including battery pattern, battery voltage, battery power, inverter output

voltage, and indicates protection modes.

- **AC Outlets:** Four US-standard AC outlets for connecting appliances.
- **Hardwire Terminal:** A dedicated terminal for connecting high-power appliances (up to 3500W continuous).
- **ON/OFF Switch:** Main power switch for the inverter.
- **Remote Controller Port (RJ45):** For connecting the included remote control.

Figure 3.2: Front Panel Details with LCD Display

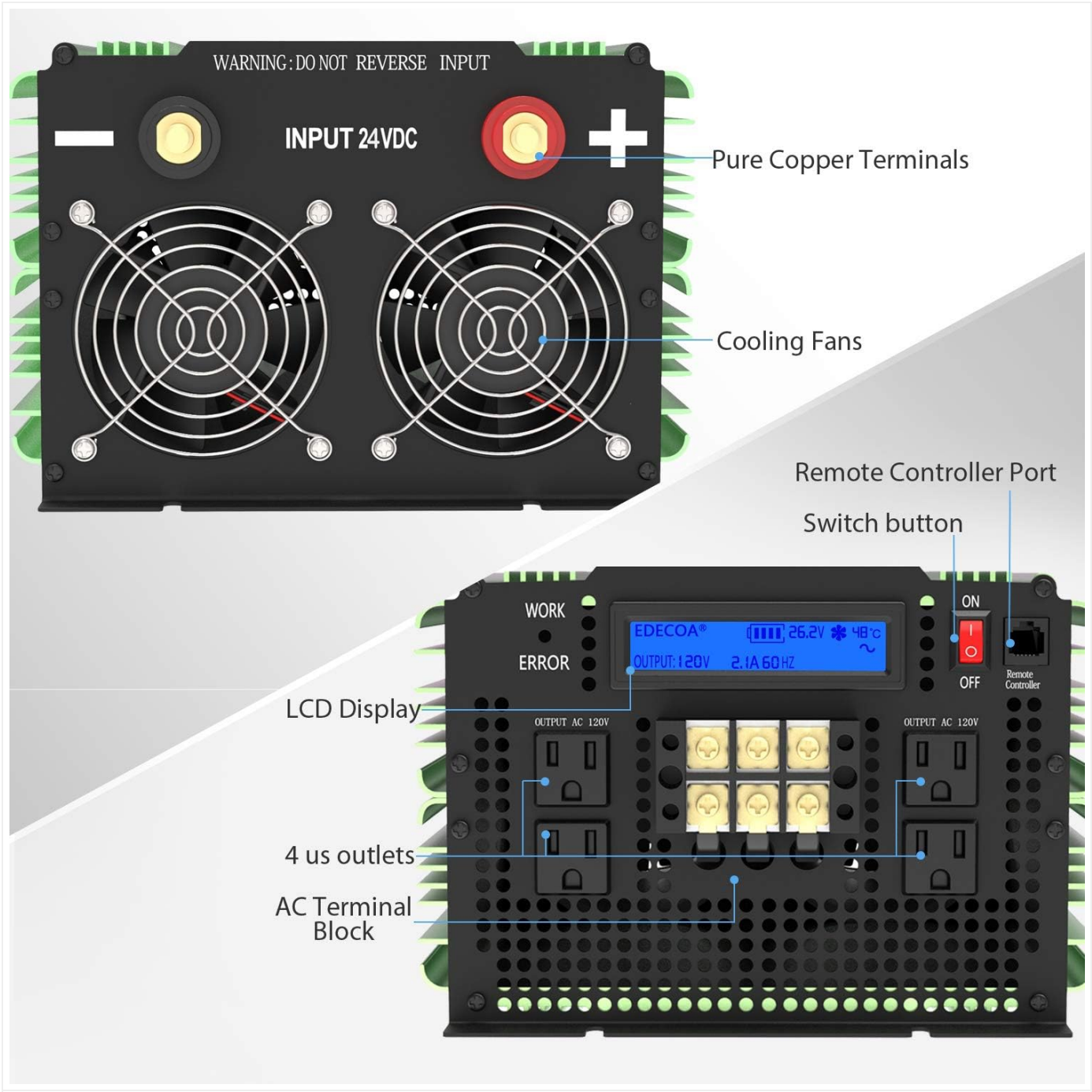

Figure 3.3: Front and Back Panel Components

Back Panel:

- **Input 24VDC Terminals:** Pure copper terminals for connecting to a 24V DC battery bank. Ensure correct positive (+) and negative (-) connections.
- **Cooling Fans:** Two intelligent cooling fans that activate based on internal temperature to prevent overheating.

Remote Controller (Model: ED-RC):

The remote controller allows for convenient ON/OFF switching and provides visual indicators for battery capacity and low input voltage warnings. It connects to the inverter via a 4-meter CAT5 cable.

Figure 3.4: Special Remote Controller

4. Setup and Installation

Follow these steps for proper installation of your EDECOA power inverter:

1. **Placement:** Choose a dry, well-ventilated location for the inverter, ensuring adequate space around it for air circulation.
2. **Battery Connection:**
    - Connect the red battery cable to the positive (+) terminal of your 24V battery bank and the positive (+) input terminal of the inverter.
    - Connect the black battery cable to the negative (-) terminal of your 24V battery bank and the negative (-) input terminal of the inverter.
    - Ensure all connections are tight and secure.**WARNING: DO NOT REVERSE INPUT.**

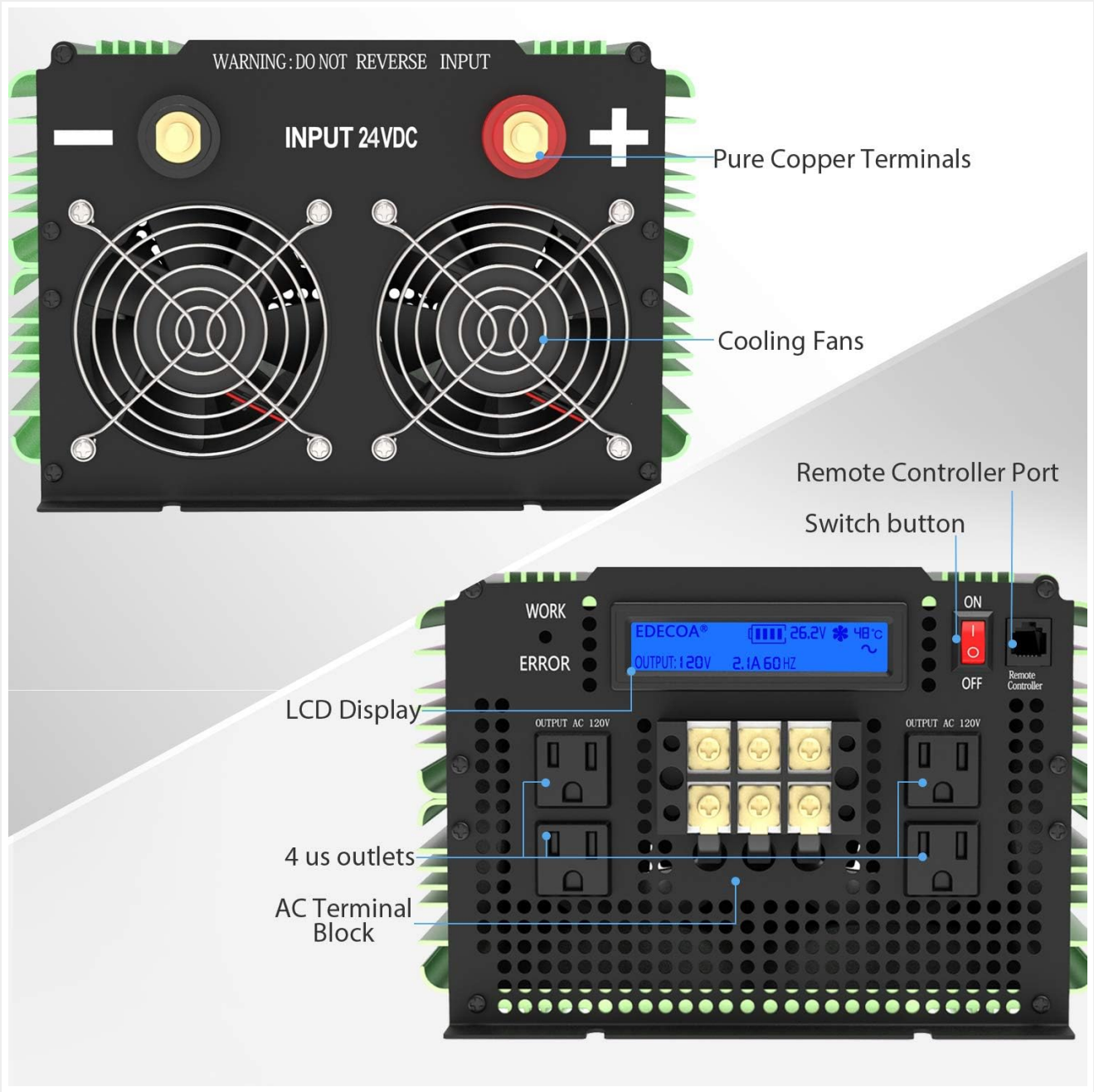

Figure 4.1: Battery Input Terminals

3. **Remote Controller Connection:**
    - Plug the 4-meter CAT5 cable into the RJ45 port on the inverter's front panel and the corresponding port on the remote controller.

[redacted]

Video 4.1: Introduction to EDECOA 3500W Pure Sine Wave Power Inverter. This video demonstrates the remote controller connection (0:10-0:15) and various protection features.

4. **Grounding:** Ensure the inverter is properly grounded according to local electrical codes.

5. Operating Instructions

1. **Power On:** Flip the ON/OFF switch on the inverter's front panel to the "ON" position, or use the ON/OFF button on the remote controller. The LCD display will illuminate.
2. **Connecting Appliances:** Plug your AC appliances into the US outlets or connect them to the hardwire terminal. Ensure the total continuous power consumption does not exceed 3500 Watts, and peak power does not exceed 7000 Watts.

3. **Monitoring with LCD Display:** The LCD display provides crucial operational information:
    - Battery pattern and voltage (e.g., 25.6V)
    - Battery power level
    - Inverter output voltage (e.g., 120V)
    - Output current and frequency (e.g., 2.1A 60Hz)
    - Internal temperature (e.g., 39°C)
    - Protection mode indicators (flashing patterns/icons)
4. **Protection Mode Behavior:** The inverter will automatically shut down and display an error/alarm in case of:
    - **Low Voltage Protection:** If the input voltage drops below 20.2V (for 24V system), the inverter will alarm and shut down. (Demonstrated in Video 4.1, 0:15-0:23)
    - **High Voltage Protection:** If the input voltage exceeds 30.4V (for 24V system), the inverter will alarm and shut down. (Demonstrated in Video 4.1, 0:23-0:28)
    - **Overload Protection:** If the connected load exceeds 105% of the rated power, the inverter will alarm and shut down. (Demonstrated in Video 4.1, 0:29-0:34)
    - **Over Temperature Protection:** If the internal temperature exceeds 80°C, the inverter will alarm and shut down. (Demonstrated in Video 4.1, 0:34-0:40)

    When a protection mode is triggered, remove the cause (e.g., reduce load, check battery, allow cooling) and restart the inverter.

Possible Uses:

This inverter is versatile and can power a wide range of devices:

- **Equipment:** Computers, Printers, Monitors, Fax Devices, Scanners.
- **Entertainment Electronics:** TVs, DVD-Players, Play Consoles, Hi-Fi Systems, Music Instruments, Satellite Decoders.
- **Household Appliances:** Vacuum Cleaners, Fans, Electric Shavers, Coffee Makers, Mixers, Ice Machines, Toasters.
- **Electrical Tools:** Drills, Grinding Machines, Pruning Shears, Compressors, Pumps.

Figure 5.1: Versatile Applications of the Inverter

6. Maintenance

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

- **Cleaning:** Regularly wipe the exterior of the inverter with a dry, soft cloth. Do not use liquid cleaners or solvents.

- **Ventilation:** Ensure the cooling fans and ventilation openings are free from dust and obstructions. Periodically clean them with compressed air if necessary.
- **Connections:** Periodically check all electrical connections (battery cables, AC 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.

7. Troubleshooting

This section addresses common issues you might encounter with your inverter. Refer to the LCD display for error indications.

Problem	Possible Cause	Solution
Inverter does not turn on.	No battery connection, low battery voltage, faulty switch.	Check battery connections and voltage. Ensure battery is charged. Verify ON/OFF switch position.
Low Voltage Alarm/Protection (LCD shows low voltage, audible alarm).	Battery voltage is too low.	Recharge or replace the battery. Reduce load if battery is weak.
High Voltage Protection (LCD shows high voltage, audible alarm).	Input voltage is too high.	Check battery charging system. Ensure correct battery type (24V).
Overload Protection (LCD shows 105%, audible alarm).	Connected load exceeds inverter's capacity.	Disconnect some appliances to reduce the load. Restart the inverter.
Over Temperature Protection (LCD shows high temp, audible alarm).	Inverter is overheating due to excessive load or poor ventilation.	Reduce load. Ensure adequate ventilation around the inverter. Allow it to cool down. Clean cooling fans if obstructed.
No AC output.	Inverter in protection mode, faulty appliance, loose connection.	Check LCD for error codes. Test appliance with another power source. Secure all connections.

8. Specifications

Feature	Detail
Model Number	19211G35LUS
Input Voltage	DC 24V
Output Voltage	AC 110V / 120V
Output Waveform	Pure Sine Wave
Continuous Power	3500 Watts
Peak Power	7000 Watts (<10ms)
AC Outlets	4 US Sockets

Feature	Detail
Additional Output	1 Hardwire Terminal
Display	LCD Display
Remote Control	Included (ED-RC with 4-meter cable)
Protection Features	Low/Over Voltage, Overload, Over Temperature, Reverse Polarity, AVR, IPM, IFC
Product Dimensions	14.57 x 9.45 x 6.3 inches
Item Weight	14.5 pounds
Color	Green

Figure 8.1: Product Dimensions

9. Warranty and Support

For warranty information and technical support, please refer to the documentation included with your purchase or contact

EDECOA customer service directly. Keep your purchase receipt for warranty claims.

For further assistance, you may visit the official EDECOA store on Amazon:EDECOA Store.