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> OAE 6000W Hybrid Solar Inverter User Manual (Model 398457e7-2156-4ec7-8e74-c5ff7a03f1ba)

OAE 398457e7-2156-4ec7-8e74-c5ff7a03f1ba

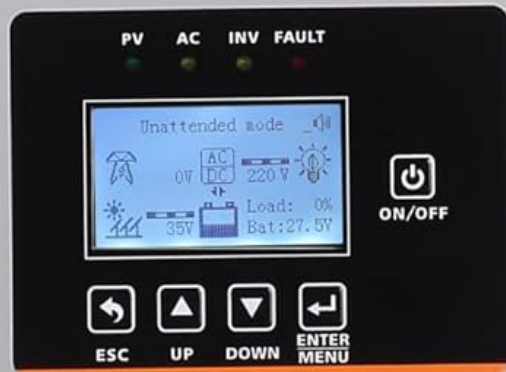
OAE 6000W Hybrid Solar Inverter User Manual

Model: 398457e7-2156-4ec7-8e74-c5ff7a03f1ba

1. PRODUCT OVERVIEW

The OAE 6000 Watts Hybrid Solar Inverter is an all-in-one power solution designed for off-grid and hybrid solar systems. It integrates a 48V DC to AC 120/240V split phase output inverter, a 100A MPPT solar charge controller, and a pure sine wave inverter charger. This unit supports various battery types including Lead Acid, Lithium, and Gel batteries, providing reliable power conversion and management.





HYBRID SOLAR INVERTER

AC Input Priority | Battery Priority | ECO Mode
Generator Mode | Unattended Mode

Figure 1: Front view of the OAE 6000W Hybrid Solar Inverter, showcasing the LCD display and control interface.



Figure 2: Angled view of the inverter, highlighting the various connection terminals on the rear and side.



Figure 3: Rear view of the inverter, providing a clear look at the AC input, AC output, solar input, and battery terminals.

2. SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of your hybrid solar inverter. This device should be installed by qualified personnel only. Ensure all local electrical codes and safety standards are followed.

2.1 Connection Diagram

Refer to the diagram below for correct wiring of the AC input, AC output, solar panels, and battery bank. Ensure all connections are secure and properly insulated.



Figure 4: Connection diagram illustrating how to integrate the inverter with solar panels, batteries, AC grid power, a generator, and AC loads.

2.2 Initial Configuration

After physical installation, configure the inverter settings via the LCD display. This includes language, system mode, battery type, and charging current. The following video demonstrates the process:

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Video 1: This video demonstrates how to navigate the LCD display to set language, system operating modes (Line Priority, Battery Priority, ECO, Generator, Unattended), battery type (AGM, Gel, Li-ion & Customize, SLA), low voltage protection, and charging current settings for the OAE Hybrid Solar Inverter.

3. OPERATING MODES AND SETTINGS

The inverter offers several operating modes and customizable settings to optimize performance based on your specific energy needs and battery type. Use the ESC, UP, DOWN, and ENTER/MENU buttons on the LCD panel to navigate and adjust settings.

3.1 LCD Display Overview

The LCD provides real-time status and allows for configuration changes. Key indicators include PV input, battery status, inverter status, and fault warnings.

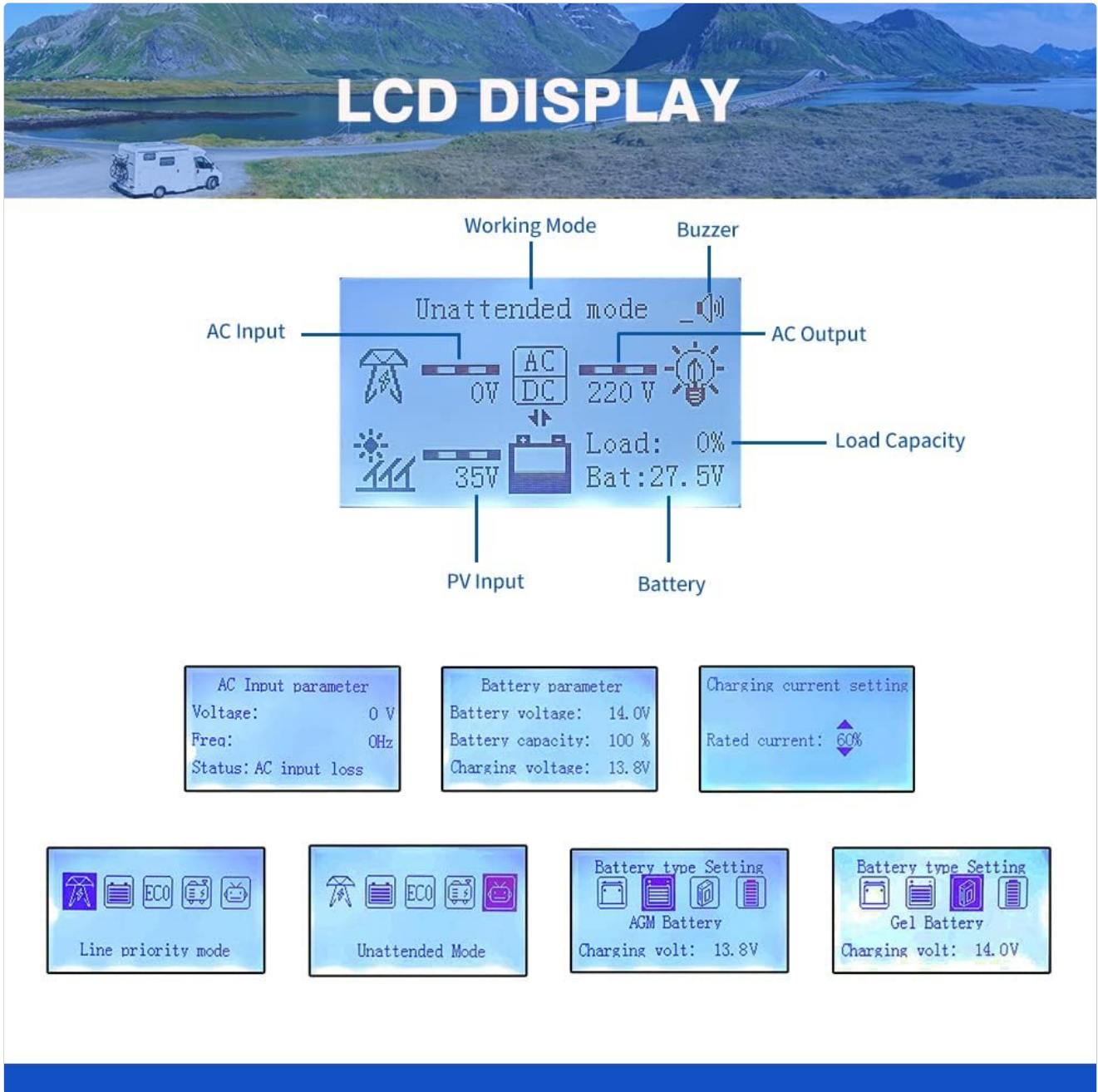


Figure 5: The LCD display showing working mode (e.g., Unattended mode), AC input/output, PV input, battery voltage, load capacity, and various setting screens for AC input parameters, battery parameters, charging current, and battery type.

3.2 Key Settings

- **System Mode Setting:** Choose between Line Priority, Battery Priority, ECO Mode, Generator Mode, or Unattended Mode to define how the inverter prioritizes power sources.
- **Battery Type Setting:** Select the appropriate battery chemistry (AGM, Gel, Li-ion, SLA, or Customize) to ensure correct charging voltages and protection thresholds.

- **Charging Current Setting:** Adjust the AC and PV charging currents to match your battery specifications and desired charging speed.
 - **Low Volt Protect Setting:** Configure the low voltage cut-off and restore settings to protect your batteries from over-discharge.
 - **Alarm Setting:** Enable or disable audible alarms for various system events.
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4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your OAE Hybrid Solar Inverter. Perform the following checks periodically:

- **Visual Inspection:** Check for any visible damage, loose connections, or corrosion on terminals and wiring.
 - **Cleaning:** Keep the inverter's ventilation openings clear of dust and debris to ensure proper airflow and prevent overheating. Use a soft, dry cloth for cleaning.
 - **Battery Health:** Monitor battery voltage and performance. Ensure battery terminals are clean and tight. Follow the manufacturer's guidelines for your specific battery type.
 - **Firmware Updates:** Check the manufacturer's website for any available firmware updates to ensure your inverter has the latest features and bug fixes.
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5. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your inverter. For problems not listed here, contact customer support.

- **Inverter Not Switching Modes Automatically:**
Possible Cause: Incorrect system mode setting or communication issue.
Solution: Verify the system mode setting on the LCD display (e.g., Line Priority, Battery Priority). Check all communication cables and ensure they are securely connected.
 - **Battery Drains Rapidly or to Zero:**
Possible Cause: Incorrect battery type setting, low voltage protection not configured, or excessive load.
Solution: Ensure the correct battery type is selected in the settings. Adjust the low voltage cut-off and restore settings to prevent over-discharge. Reduce the load on the inverter if it exceeds its capacity.
 - **No AC Output or Inverter Not Booting:**
Possible Cause: Input power issue, internal fault, or incorrect wiring.
Solution: Check AC input and solar input connections. Verify battery voltage is within the operational range. If a fault indicator is active, consult the fault codes in the full manual (if available) or contact support.
 - **Inaccurate Readings on Display:**
Possible Cause: Sensor issue or calibration needed.
Solution: Power cycle the inverter. If the issue persists, contact customer support for potential recalibration or service.
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6. SPECIFICATIONS

Below are the technical specifications for the OAE 6000W Hybrid Solar Inverter.

Feature	Value
Product Dimensions	14.2 x 6.9 x 20 inches
Item Weight	83.6 pounds
ASIN	B09PQML6DY
Date First Available	March 17, 2022
Manufacturer	Top One Power
Brand	OAE
Power Source	Battery Powered
Wattage	18000 watts (Peak)
Model Name	398457e7-2156-4ec7-8e74-c5ff7a03f1ba
Color	Black, Silver

7. WARRANTY AND SUPPORT

For warranty information, technical assistance, or any product-related inquiries, please contact OAE customer support. Details can typically be found on the product packaging or the official OAE website.

You can also visit the [OAE Store on Amazon](#) for additional resources and support.