Treeligo EAC001.33.12

Treeligo 12V 8000 BTU Split D/C Air Conditioner Instruction Manual

Model: EAC001.33.12

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Treeligo 12V 8000 BTU Split D/C Air Conditioner. Please read this manual thoroughly before using the product to ensure proper function and safety. This unit is designed for use in various vehicles such as RVs, trucks, campers, buses, vans, and semi-trucks.

Product Overview

Key Features:

- **Voltage:** DC 12V
- **Power:** 960W
- **Current:** 80A
- **Cooling Capacity:** 8000 BTU
- **Low Noise Operation:** Designed for quiet performance, enhancing comfort during driving and parking.
- **Versatile Application:** Suitable for trucks, RVs, campers, vans, buses, semi-trucks, caravans, excavators, passenger cars, agricultural vehicles, engineering vehicles, and ships.

Components Included:

- Indoor Unit
- Outdoor Unit
- Mounting Accessories
- Refrigerant Hoses
- Drainage Tube
- Remote Control

Figure 1: Included components of the Treeligo 12V Air Conditioner system, showing the indoor unit, outdoor unit, hoses, remote control, and various mounting hardware.

Figure 2: The Treeligo 12V Air Conditioner split system, featuring the indoor unit with air vents and the outdoor condenser unit with a fan, demonstrating airflow.

Specifications

Feature	Value
Input Voltage	DC Max 15V (Nominal 12V)
Power	960W
Current	80A
Cooling Capacity	8000 BTU
Indoor Unit Dimensions	18.5 x 13.46 x 5.9 inches (470 x 342 x 150mm)
Outdoor Unit Dimensions	23.62 x 21.26 x 7.87 inches (600 x 540 x 200mm)
Item Weight	59.5 pounds
Noise Level	50 Decibels
Refrigerant	R-134A
Display	LED
Speed Adjust Method	4.5V-9V Analog voltage speed adjust
Speed Control Logic	10 level speed control
Adapt Internal Fan	Brush electronic fan
Remote Control	Infrared
Low Voltage Protection Default	10.5V
Low Voltage Protection Range	9V-12V (0.1V interval)
Low Voltage Recovery Default	12V

Setup and Installation

Proper installation is crucial for the optimal performance and longevity of your air conditioner. It is recommended that installation be performed by a qualified technician.

Placement Considerations:

- The outdoor unit can be installed vertically behind the front of the vehicle or horizontally on the roof. Ensure adequate airflow around the unit.
- The indoor unit should be placed in a location that allows for effective air distribution throughout the cabin.
- Ensure all components are securely mounted to prevent movement during vehicle operation.

Connection Steps (General Guidance):

1. Mount the indoor and outdoor units in their chosen locations using the provided mounting accessories.
2. Connect the refrigerant hoses between the indoor and outdoor units. Ensure connections are tight and leak-free.

3. Install the drainage tube from the indoor unit to allow condensate to exit the vehicle.
4. Connect the electrical wiring according to the wiring diagram (not provided in this manual, refer to specific wiring instructions included with the product). Ensure correct polarity and secure connections to the 12V DC power source.
5. After installation, a vacuum and refrigerant charge by a professional is required for proper operation.

Figure 3: Example of the outdoor unit installed on the rear of a truck cab, demonstrating a typical mounting position.

Operating Instructions

The unit can be operated via the control panel on the indoor unit or the infrared remote control.

Control Panel Operation Logic:

- **A. Power Key:** Short press to turn on, short press again to turn off.
- **B. Speed Up Key:** Increases air supply fan speed.
- **C. Speed Lower Key:** Decreases air supply fan speed.
- **D. Mode Key:**
    - Short press (cycle): Switches between modes: Air Blow, Power Saving, Economy, Strong Wind.

- Long press for 3 seconds: Enters low voltage adjustment state. After adjusting, long press for 3 seconds to save and exit.

- **E. Temperature Higher Key:** Increases the set temperature. When in low-voltage adjustment state, increases the low-voltage protection value by 0.1V.
- **F. Temperature Lower Key:** Lowers the set temperature. When in low-voltage adjustment state, lowers the low-voltage protection value by 0.1V.
- **G. Low Voltage Protection Value Adjustment:** Long press the Mode key for 10 seconds to enter the adjustment interface (display shows "---"). Use Temperature Plus/Minus keys to set the low voltage protection value.

Operating Modes:

- **Air Blow Mode (FAN):** Temperature cannot be adjusted. The display shows the ambient temperature.
- **Power Saving Mode (MAN):** Compressor runs at 30%-50% of full speed. Voltage range for this mode is 12V~10V.
- **Economy Mode (ECO):** Compressor runs at 30%-80% of full speed. Default temperature setting is 10°C, with 3 levels of wind speed. Output voltage varies between 4.5V and 7.5V. The control board defaults to Economy Mode upon power-on.
- **Powerful Mode (POWER):** Compressor runs at 100% full speed. Speed-regulating voltage outputs 9V.

The wind speed is adjustable in 1-5 levels in each mode (except Air Blow mode where temperature is not adjustable). The temperature control probe is located on the air outlet of the evaporator. The shutdown protection temperature is set at 3°C to prevent frost.

Figure 4: Close-up view of the indoor unit's control panel, showing the LED display and control buttons for power, speed, mode, and temperature adjustment.

Maintenance

Regular maintenance ensures efficient operation and extends the lifespan of your air conditioner.

- **Clean Filters:** Periodically clean or replace the air filters in the indoor unit to maintain optimal airflow and cooling efficiency.
- **Check Drainage:** Ensure the condensate drainage tube is clear and free of obstructions to prevent water buildup.
- **Inspect Connections:** Regularly check all electrical and refrigerant connections for tightness and signs of wear.
- **Clean Coils:** Keep the outdoor unit's condenser coils clean from dirt, dust, and debris to ensure proper heat dissipation.
- **Professional Service:** For refrigerant checks and system diagnostics, consult a qualified HVAC technician annually.

Troubleshooting

This section provides guidance on common issues and their potential solutions. For complex problems, contact customer support.

Low Voltage Protection:

- If the power supply voltage drops below the set value (default: 10.5V), the battery low indicator (red light) will illuminate.
- In this state, the fan stops, the frequency modulation line stops output, and the external unit enters standby mode.
- The system will automatically restart and resume operation when the voltage recovers to the low voltage recovery value (default: 12V).

Fault Indication Codes:

When the control board detects a fault, it stops working, the fault icon flashes, and a fault code is displayed on the digital display:

- **E-C:** Temperature probe failure (sensor disconnected or damaged). The control board will operate in sensorless mode.
- **E-1:** Low voltage protection.
- **E-2:** Controller over current protection.
- **E-3:** Controller locked-rotor protection.
- **E-4:** Controller low voltage protection.
- **E-5:** Poor system cooling.
- **E-7:** Phase failure.

If a fault code appears, first check the corresponding component or condition. If the issue persists, contact customer support.

Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or contact Treeligo customer service directly. Keep your purchase receipt as proof of purchase.
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For additional assistance, visit the official Treeligo Store on Amazon.