

plplaaoo plplaaoovcf4rgqkue

plplaaoo Electric Bicycle 36V/48V 15A Sine Wave Controller User Manual

Model: plplaaoovcf4rgqkue

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1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your plplaaoo Electric Bicycle 36V/48V 15A Sine Wave Controller. This high-performance brushless motor controller is designed to provide stable speed control, sensitive braking, and precise direction changes for 250W electric bicycle motors. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the product:

- Ensure the power supply is disconnected before performing any installation, maintenance, or wiring.
- This controller is designed for 36V/48V systems and 250W brushless motors. Do not use it with incompatible voltage or motor types.
- Avoid exposing the controller to water, excessive moisture, or extreme temperatures.
- Do not attempt to open or modify the controller casing, as this may void the warranty and pose electrical hazards.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- If you are unsure about any installation steps, consult a qualified technician.

3. PRODUCT OVERVIEW

The plplaaoo 15A Sine Wave Controller is engineered for durability and performance. Its robust construction ensures long-term reliability and a low failure rate. The aluminum alloy outer shell features a groove design for efficient heat dissipation,

protecting internal circuits from thermal overload.



Figure 3.1: Overview of the plplaaoo 15A Sine Wave Controller with its connected wiring harness.

This controller is specifically compatible with KT series products, ensuring seamless integration and optimal performance for your electric bicycle system.



Figure 3.2: Side view of the controller, highlighting the durable aluminum alloy casing designed for heat dissipation.

4. SPECIFICATIONS

Refer to the following technical specifications for the p1plaaoo 15A Sine Wave Controller:

Feature	Value
Model	KT36/48SVPR-fFF11L (as indicated on label)
Controller Type	Sine Wave Controller
Maximum Current	15 ± 1A
Rated Voltage	DC 36V/48V
Rated Current	7A

Feature	Value
Speed Setting	1-4.2V
Brake Input	Low Level
Low Voltage Protection	DC 30/40 \pm 0.5V
Weight	Approx. 251g (8.9oz)
Controller Box Size	Approx. 82x52x31mm (3.2x2.0x1.2in)
Material	Aluminum Alloy



Figure 4.1: Controller label displaying key specifications.

5. SETUP & INSTALLATION

The controller is designed for easy installation with clear wiring identification. It is specifically for 250W brushless motors and compatible with KT series communication protocols.

5.1 Wiring Identification

Carefully identify each wire according to its color and function before connecting. Refer to the diagram below for visual guidance.



Figure 5.1: Detailed wiring diagram for the controller connections.

- **Black Long Wire:** Connects to the Motor Wire.
- **Red and Black Single Big Wire:** Connects to the Power Cord (Battery).
- **Red, Blue, Black, Green and Yellow Five Wire:** These typically connect to the display/meter, throttle, and other accessories. Refer to your specific e-bike system's wiring for exact connections.
- **Other Connectors:**
 - **Motor:** Connects to the motor.

- **Throttle:** Connects to the throttle handle.
- **Brake Handle:** Connects to the brake levers.
- **Power Off Brake Handle:** Connects to the power-off brake signal.
- **Assist Sensor (magnetolectricity):** Connects to the pedal assist sensor.
- **Light Line:** Connects to the bicycle lights.
- **Power Supply:** Main power input from the battery.
- **Meter:** Connects to the display unit.

5.2 Installation Steps

1. **Disconnect Power:** Ensure the electric bicycle's battery is disconnected before starting any wiring.
2. **Mount Controller:** Securely mount the controller in a protected location on your bicycle, ensuring good airflow for heat dissipation.
3. **Connect Motor:** Connect the Black Long Wire from the controller to the corresponding motor wire.
4. **Connect Power:** Connect the Red and Black Single Big Wire to your e-bike battery's power output. Ensure correct polarity (Red to positive, Black to negative).
5. **Connect Accessories:** Connect the remaining wires (throttle, brake, display, assist sensor, light line) according to the wiring diagram and your e-bike's specific components. Match connectors carefully.
6. **Secure Connections:** Double-check all connections for tightness and proper insulation.
7. **Test System:** Reconnect the battery and perform a low-speed test in a safe environment to ensure all functions (throttle, braking, display) are working correctly.

6. OPERATING INSTRUCTIONS

Once properly installed, the plplaaoo Sine Wave Controller provides stable and responsive control for your electric bicycle.

- **Power On:** Turn on your electric bicycle's main power switch. The display (if connected) should illuminate.
- **Speed Control:** Use the throttle to control the motor speed. The controller provides sensitive speed regulation based on your input (1-4.2V).
- **Braking:** Activating the brake levers will send a low-level signal to the controller, initiating sensitive braking and cutting motor power for safety.
- **Pedal Assist:** If an assist sensor is connected, the controller will provide motor assistance based on your pedaling input.
- **Low Voltage Protection:** The controller features built-in low voltage protection (DC 30/40 ± 0.5V) to prevent over-discharge of your battery. When the battery voltage drops below this threshold, the controller will reduce or cut power to protect the battery.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your controller:

- **Keep Clean and Dry:** Periodically clean the exterior of the controller with a dry cloth. Avoid using water or cleaning solutions directly on the unit. Ensure it remains dry and free from moisture.
- **Inspect Connections:** Regularly check all wire connections to ensure they are secure and free from corrosion or damage. Loose connections can lead to intermittent operation or component failure.
- **Avoid Physical Damage:** Protect the controller from impacts or physical damage. While durable, excessive force can compromise its internal components.

- **Heat Dissipation:** Ensure the controller's mounting location allows for adequate airflow to facilitate heat dissipation. Do not cover the controller with insulating materials.

8. TROUBLESHOOTING

If you encounter issues with your controller, consider the following common troubleshooting steps:

- **No Power/Motor Not Responding:**
 - Check if the battery is charged and properly connected.
 - Verify all power connections to the controller are secure.
 - Ensure the main power switch of the e-bike is ON.
 - Check for any blown fuses in the battery system (if applicable).
- **Intermittent Operation:**
 - Inspect all wiring connections for looseness or corrosion.
 - Check for any signs of damage to the wires or connectors.
- **Motor Runs Erratically:**
 - Ensure the motor phase wires are correctly connected.
 - Check the throttle connection and functionality.
- **Brakes Not Cutting Power:**
 - Verify the brake lever sensor wires are correctly connected and functioning.
- **Controller Overheating:**
 - Ensure the controller is mounted in a location with adequate ventilation.
 - Check if the motor is drawing excessive current (e.g., due to a fault or being overloaded).

If these steps do not resolve the issue, contact customer support for further assistance.

9. WARRANTY & SUPPORT

For specific warranty information regarding your plplaaoo Electric Bicycle 36V/48V 15A Sine Wave Controller, please refer to the documentation provided at the time of purchase or contact the seller directly. Warranty terms typically cover manufacturing defects under normal use.

For technical support, troubleshooting assistance beyond this manual, or inquiries about replacement parts, please contact the seller or manufacturer through your purchase platform. Provide your product model number (plplaaooovcf4rgqkue) and a detailed description of the issue for efficient service.