Pyhodi Electric Bike Lithium Modification Kit

Pyhodi Electric Bike Lithium Modification Kit User Manual

Model: Electric Bike Lithium Modification Kit

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Pyhodi Electric Bike Lithium Modification Kit. This kit is designed to convert or upgrade electric bicycles with 36V or 48V systems, supporting 750W to 1000W motors. It includes a 30A 3-mode motor controller, an LCD M5 display panel, and a thumb throttle.

Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. Safety Instructions

- Always disconnect the battery before performing any installation, maintenance, or repair work on the electric bike system.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not attempt to modify the controller or display unit. Unauthorized modifications can lead to system failure or injury.
- Keep all electrical components away from water and moisture.
- Wear appropriate safety gear, including gloves and eye protection, during installation.
- If you are unsure about any part of the installation process, consult a qualified technician.

3. Package Contents

Verify that all items listed below are present in your package:

- 1 x 30A 3-Mode Motor Controller
- 1 x LCD M5 Display Panel
- 1 x Thumb Throttle
- 1 x Pedal Assist Sensor (PAS)

- Wiring Harnesses and Connectors

Image: All components of the Pyhodi Electric Bike Lithium Modification Kit, including the controller, LCD M5 display, thumb throttle, and pedal assist sensor.

4. Specifications

Component	Specification
Motor Controller	30A, 3 Modes (Sine Wave), 36V/48V Universal, Supports 750W-1000W Motors
Display Panel	LCD M5 Display
Throttle	Thumb Throttle
Pedal Assist Sensor (PAS)	Included
Item Weight	Approximately 1.81 pounds (0.82 kg)
Package Dimensions	8.27 x 5.51 x 4.33 inches (21 x 14 x 11 cm)

5. Setup and Installation

Installation of this kit requires basic electrical knowledge and mechanical skills. If you are not confident in your ability to install these components, it is recommended to seek professional assistance.

5.1 General Wiring Overview

The controller acts as the central hub for the electric bike system. It connects to the battery, motor, display, throttle, and PAS sensor. Ensure each connector is matched correctly and securely fastened.

Image: The brushless DC motor controller showing its multiple color-coded wiring harnesses for various connections.

5.2 Installation Steps

1. **Mount the Controller:** Securely mount the motor controller to the bicycle frame in a location protected from water and physical damage.
2. **Connect the Motor:** Connect the motor phase wires (usually three thick wires) and Hall sensor wires (usually five thin wires) from your motor to the corresponding connectors on the controller. Match colors carefully.
3. **Connect the Battery:** Connect the battery power cables (red for positive, black for negative) to the main power input on the controller. Ensure correct polarity.
4. **Install and Connect the Display:** Mount the LCD M5 display panel on the handlebars. Connect its wiring harness to the designated display port on the controller.
5. **Install and Connect the Throttle:** Mount the thumb throttle on the handlebars. Connect its wiring harness to the throttle port on the controller.
6. **Install and Connect the PAS Sensor:** Install the pedal assist sensor on the crank arm according to its specific instructions. Connect its wiring harness to the PAS port on the controller.
7. **Connect Brake Levers (if applicable):** If your brake levers have cut-off sensors, connect them to the brake sensor ports on the controller.
8. **Secure All Connections:** Double-check all connections for tightness and proper insulation. Use zip ties or cable wraps to manage wires neatly and prevent snagging.

6. Operating Instructions

6.1 Powering On/Off

To power on the system, press and hold the power button on the LCD M5 display for a few seconds. To power off, repeat the action.

Image: The LCD M5 display panel, showing the screen and control buttons for operating the electric bike system.

6.2 LCD M5 Display Functions

- **Speed Display:** Shows current speed, average speed, and max speed.
- **Battery Level:** Indicates the remaining battery charge.
- **Assistance Level:** Displays the current pedal assist level (usually 0-5). Use the '+' and '-' buttons to adjust.
- **Odometer/Trip Distance:** Shows total distance traveled or current trip distance.
- **Error Codes:** Displays specific codes if a system fault occurs. Refer to the troubleshooting section.
- **Settings Menu:** Access various parameters like wheel size, speed limit, and battery voltage through the settings menu (refer to the display's specific manual for detailed navigation).

6.3 Using the Thumb Throttle

The thumb throttle provides on-demand power from the motor, allowing you to accelerate without pedaling. Gently press the lever with your thumb to engage the motor. Release the lever to disengage. Use the throttle responsibly and be aware of your surroundings.

Image: A close-up view of the thumb throttle, designed for easy control of motor power.

7. Maintenance

- **Regular Inspection:** Periodically check all wiring connections for looseness or damage. Ensure connectors are clean and dry.
- **Component Cleaning:** Wipe down the controller, display, and throttle with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Water Protection:** While components are generally splash-proof, avoid submerging them in water or exposing them to heavy rain for extended periods.
- **Cable Management:** Ensure all cables are neatly routed and secured to prevent them from getting caught or damaged during riding.
- **Battery Care:** Although the battery is not part of this kit, proper battery maintenance (charging, storage) is crucial for the overall system's longevity. Refer to your battery's specific manual.

8. Troubleshooting

If you encounter issues, perform the following basic checks before seeking further assistance:

Problem	Possible Cause	Solution
System does not power on	Battery not charged, loose battery connection, faulty display connection	Check battery charge, ensure battery is securely connected, verify display cable connection.
Motor not responding to throttle/PAS	Loose motor/throttle/PAS connections, brake cut-off engaged, motor/controller fault	Check all motor, throttle, and PAS connections. Ensure brake levers are not engaged. Check for error codes on the display.
Display shows error code	Specific system fault (e.g., motor Hall sensor error, controller overcurrent)	Consult the M5 display manual for specific error code meanings. Often requires checking the indicated component's connection or replacing a faulty part.
Inconsistent power delivery	Loose connections, intermittent sensor fault, low battery voltage	Inspect all connections. Ensure battery is adequately charged. Check PAS sensor for proper alignment and function.

For issues not resolved by these steps, please contact customer support.

9. Warranty and Support

Pyhodi products are manufactured with quality and reliability in mind. For warranty information, please refer to the terms and conditions provided at the time of purchase or contact your retailer.

For technical support, troubleshooting assistance beyond this manual, or inquiries regarding replacement parts, please contact Pyhodi customer service through the platform where the product was purchased. Please have your product model and purchase date available when contacting support.