

[Manuals.plus](#) /

> [XINMEILAN](#) /

> XINMEILAN Electric Scooter 48V 25A Rear (A) Brushless Controller Instruction Manual

XINMEILAN 48V 25A Rear (A) Controller

XINMEILAN Electric Scooter 48V 25A Rear (A) Brushless Controller Instruction Manual

Model: 48V 25A Rear (A) Controller

1. PRODUCT OVERVIEW

This manual provides essential information for the installation and use of the XINMEILAN 48V 25A Rear (A) Brushless Controller, designed for electric scooters. This controller is specifically engineered as a replacement control module for the Kaabo Mantis8 electric scooter. It is intended for replacing damaged or old components and is not recommended for retrofitting other vehicle models.

2. SAFETY INFORMATION

- **Professional Installation Recommended:** Due to the electrical nature of this component and its integration into a complex system, professional installation is strongly recommended to ensure correct functionality and safety.
- **Power Disconnection:** Always ensure the electric scooter's power supply is completely disconnected before attempting any installation, removal, or maintenance of the controller.
- **Correct Voltage:** Verify that the controller's voltage (48V) matches your scooter's electrical system requirements. Incorrect voltage can lead to damage or malfunction.
- **Wiring Accuracy:** Pay close attention to wiring diagrams and connection points. Incorrect wiring can cause short circuits, component damage, or fire hazards.
- **Environmental Conditions:** Avoid exposing the controller to water, excessive moisture, or extreme temperatures.
- **Compatibility:** This controller is specifically designed for the Kaabo Mantis8. Using it with other models may result in incompatibility or damage.

3. SPECIFICATIONS

Feature	Detail
Brand	XINMEILAN

Feature	Detail
Model	48V 25A Rear (A) Controller
Voltage	48V
Current Limit	25A
Motor Power	800W x 2 (Dual Drive)
Controller Type	Brushless
Compatibility	Kaabo Mantis8 Electric Scooter (Rear Controller)
UPC	741960596225
Manufacturer	XML-SHL

4. INSTALLATION GUIDE

This section outlines the general steps for replacing the electric scooter controller. Specific wiring diagrams for the Kaabo Mantis8 should be consulted from the scooter's official service manual if available.

1. **Prepare the Scooter:**

- Ensure the scooter is turned off and the battery is disconnected.
- Place the scooter on a stable surface to prevent accidental movement.

2. **Access the Old Controller:**

- Locate the existing controller compartment, typically found in the deck or stem of the scooter.
- Carefully remove any covers or panels to expose the controller.

3. **Disconnect the Old Controller:**

- Before disconnecting, take clear photos of all existing wiring connections for reference.
- Systematically disconnect all wires from the old controller, noting their positions and functions (e.g., motor phase wires, hall sensor wires, battery power, throttle, brake, display, etc.).
- Remove the old controller from its mounting.

4. **Install the New Controller:**

- Position the new XINMEILAN 48V 25A Rear (A) Brushless Controller in the designated compartment.
- Refer to your photos and the scooter's wiring diagram to connect all wires to the new controller. Ensure each connection is secure and correctly matched.
- The controller features various color-coded wires for different functions. Match these carefully to the scooter's harness.



Figure 1: XINMEILAN 48V 25A Brushless Controller showing the array of color-coded wires for connection to the scooter's electrical system. Each wire serves a specific function, such as motor control, power input, and sensor feedback.



Figure 2: The XINMEILAN 48V 25A Rear (A) Brushless Controller, indicating its specifications including 800W*2 power output and 48V operating voltage. This image highlights the specific model variant.

5. **Secure the Controller:**

- Once all connections are made, secure the controller in its mounting position.
- Ensure no wires are pinched or under excessive tension.

6. Test Connections:

- Before reassembling the scooter, reconnect the battery and perform a preliminary test.
- Turn on the scooter and check for basic functionality (e.g., display power, throttle response, brake function).
- If any issues arise, immediately disconnect power and re-check all connections.

7. Reassemble Scooter:

- Once satisfied with the test, reattach all covers and panels securely.

5. OPERATION

The controller itself does not have user-operable controls. Its function is to manage the electric scooter's motor, battery, and other electronic components based on user input from the throttle, brakes, and display. Once correctly installed, the scooter should operate as intended by the manufacturer.

- **Power On/Off:** The controller activates when the scooter's main power is turned on.
- **Throttle Response:** It translates throttle input into motor power output.
- **Braking:** It manages motor braking and regenerative braking (if applicable to the scooter model).
- **Display Communication:** It communicates with the scooter's display to show speed, battery level, and other parameters.

6. MAINTENANCE

The XINMEILAN brushless controller is designed for durability and typically requires minimal maintenance. However, periodic checks can help ensure its longevity and optimal performance.

- **Visual Inspection:** Periodically inspect the controller and its wiring for any signs of physical damage, corrosion, or loose connections.
- **Cleanliness:** Keep the controller compartment clean and free from dust, dirt, and moisture. Use a dry, soft cloth for cleaning.
- **Heat Management:** Ensure the controller has adequate ventilation within its compartment to prevent overheating, especially during prolonged use.
- **Avoid Water Exposure:** While some scooters offer water resistance, direct exposure to water can damage electronic components. Avoid riding in heavy rain or through deep puddles.

7. TROUBLESHOOTING

If you experience issues after installing the controller, consider the following troubleshooting steps:

- **No Power/Scooter Not Turning On:**
 - Check battery connection and charge level.
 - Verify main power switch is on.
 - Inspect main power wires to the controller for secure connection and continuity.
- **Motor Not Responding/Weak Power:**
 - Ensure motor phase wires (usually thicker, 3 wires) are correctly connected.
 - Check hall sensor wires (usually thinner, 5 wires) for correct connection and damage.

- Verify throttle connection and functionality.

- **Error Codes on Display:**

- Refer to your Kaabo Mantis8 scooter's user manual for specific error code interpretations.
- Common errors relate to motor, hall sensor, or battery issues, which the controller reports.

- **Intermittent Operation:**

- Check all wire connections for looseness or poor contact.
- Inspect wires for any signs of fraying or damage.

If troubleshooting steps do not resolve the issue, it is recommended to consult a professional electric scooter technician or contact XINMEILAN customer support.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or inquiries regarding this product, please contact the manufacturer, XINMEILAN, or your authorized dealer. Please have your purchase receipt and product model information ready when contacting support.

Manufacturer: XML-SHL

UPC: 741960596225



© 2023 XINMEILAN. All rights reserved.

This manual is for informational purposes only. XINMEILAN is not responsible for any damage or injury caused by improper installation or use of this product.