

X055-AXC001B

E-Bike Controller X055-AXC001B User Manual

Model: X055-AXC001B

Brand: Generic

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Generic X055-AXC001B E-Bike Controller. This 48V 23A brushless DC motor speed controller is designed for use with 5S display meters and is compatible with various electric bicycles, including electric mountain bikes and fat tire bikes.

The controller features multiple interfaces for comprehensive e-bike system integration, including motor, Hall sensor, speed signal, throttle, brake, brake light/rear light, power assist, meter, horn switch, and headlight/horn connections.

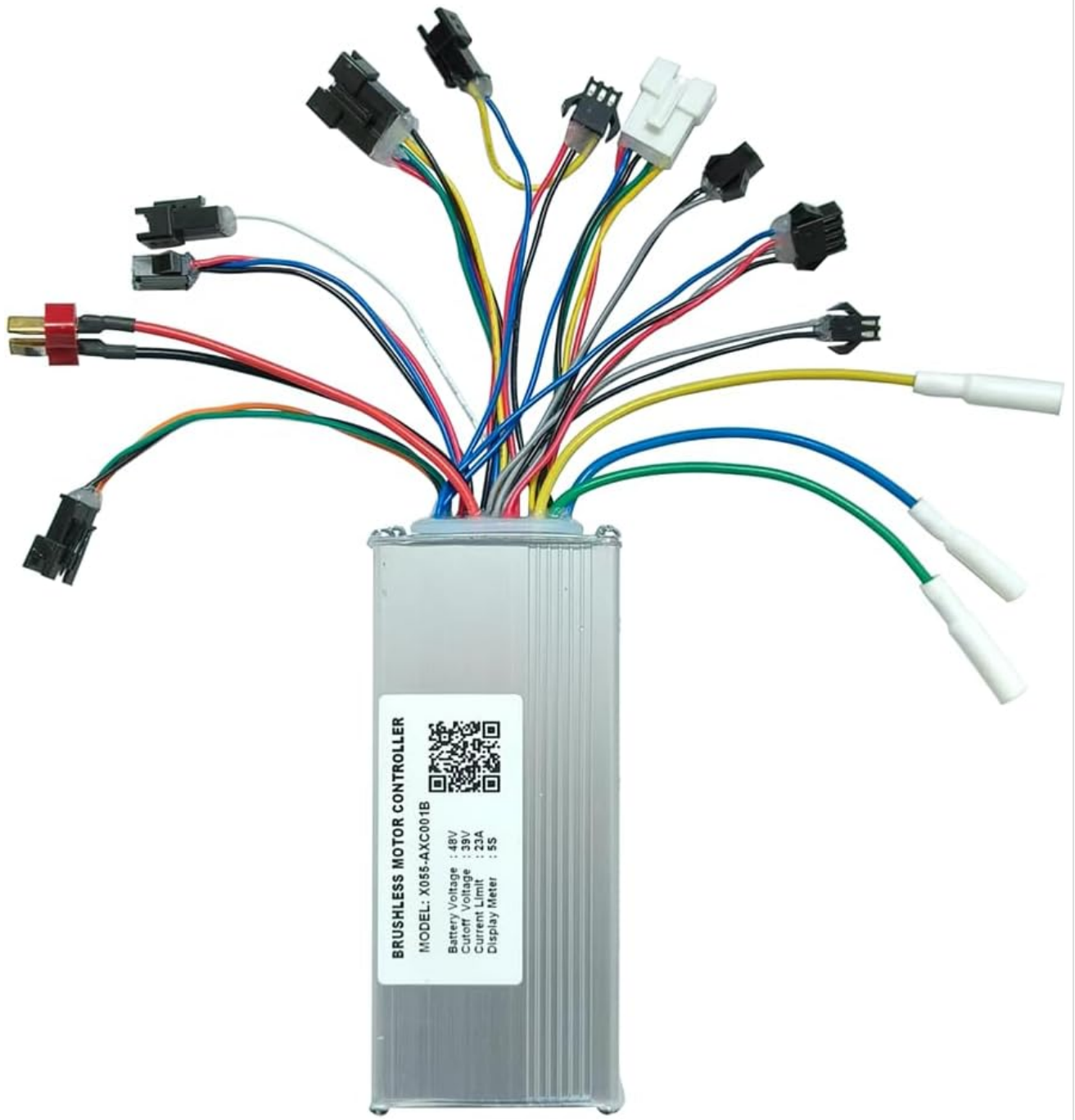


Figure 1: Overview of the X055-AXC001B E-Bike Controller with its integrated wiring harness.

SETUP AND INSTALLATION

Before proceeding with installation, please verify that the model number of your controller is X055-AXC001B to ensure compatibility with your e-bike system. This controller is designed for 48V systems with a maximum current of 23A and is intended for use with 5S display meters.

Physical Dimensions

The compact design of the controller allows for flexible installation. Its dimensions are approximately 120mm (4.7 inches) in length, 52mm (2 inches) in width, and 32mm (1.25 inches) in height.



Figure 2: Dimensions of the X055-AXC001B E-Bike Controller.

Wiring Diagram and Connections

Carefully identify each connector before making any connections. Refer to the diagram below for a visual guide to the various interfaces.

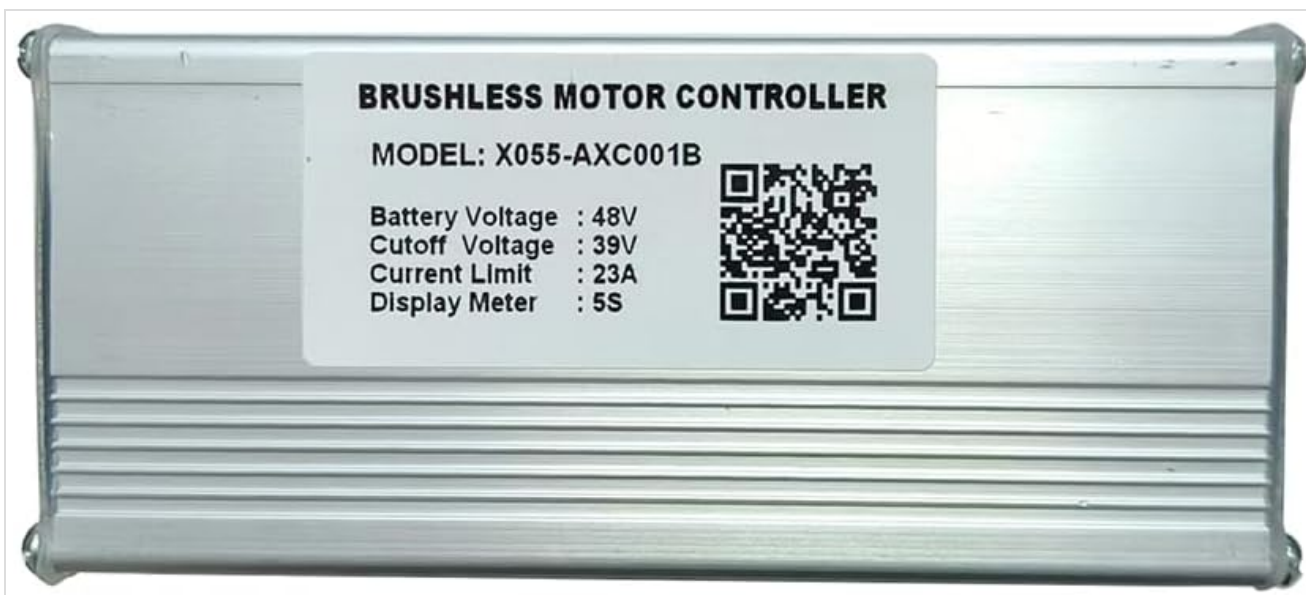


Figure 3: X055-AXC001B Controller Wiring Diagram.

- **1: Power Supply** - Connects to the e-bike's battery.
- **2: Throttle** - Connects to the throttle control for speed regulation.
- **3: Assistance (PAS)** - Connects to the pedal assist sensor.
- **4: Speed Signal** - Provides speed feedback to the display.
- **5, 6: Brake** - Connects to the brake levers.
- **7: Brake Light/Rear Light** - Output for brake and rear lighting.
- **8: Motor Hall** - Connects to the motor's Hall sensors for commutation.
- **9: Horn Switch** - Connects to the horn activation switch.
- **10: Headlight and Horn** - Output for headlight and horn power.
- **11: Display** - Connects to the 5S display meter (UART communication).
- **12, 13, 14: Motor Cable** - Connects to the motor's phase wires.

Ensure all connections are secure and properly insulated to prevent short circuits and ensure safe operation. Incorrect wiring can damage the controller or other components.

OPERATING INSTRUCTIONS

The X055-AXC001B brushless motor controller provides stable speed control and sensitive braking and commutation. Once properly installed and connected, the e-bike system can be operated via the connected display meter and throttle.

- **Power On/Off:** Use the power button on your connected 5S display meter to turn the e-bike system on or off.
- **Speed Control:** Adjust speed using the throttle. The controller will regulate motor power based on throttle input.
- **Pedal Assist:** Engage the pedal assist system (PAS) by pedaling. The controller will provide motor assistance based on the PAS sensor input and selected assist level on your display.
- **Braking:** Activating the brake levers will signal the controller to cut motor power, ensuring safe stopping.
- **Display Functions:** Refer to your 5S display meter's manual for specific instructions on accessing and adjusting settings such as speed modes, battery level, and trip information.

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your e-bike controller. The controller shell is made of high-quality aluminum alloy with a groove design, which provides good heat dissipation to protect the internal circuit from thermal overload.

- **Cleaning:** Periodically clean the exterior of the controller with a dry, soft cloth. Avoid using harsh chemicals or excessive moisture.
- **Connection Check:** Regularly inspect all wire connections to ensure they are secure and free from corrosion or damage. Loose connections can lead to intermittent operation or system failure.
- **Environmental Protection:** While the controller is designed to be robust, avoid exposing it to extreme temperatures, direct water immersion, or excessive vibrations.
- **Heat Dissipation:** Ensure the controller is mounted in a location that allows for adequate airflow to facilitate heat dissipation. Do not obstruct the grooved surface.

TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your e-bike controller. For problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Motor not responding	Loose power connection; Faulty throttle; Motor or Hall sensor issue.	Check battery connection. Verify throttle operation. Inspect motor and Hall sensor wiring.
Display not powering on	No power to controller; Loose display connection.	Ensure battery is charged and connected. Check the display cable connection to the controller.
Intermittent power/operation	Loose wire connections; Overheating.	Inspect all connections for tightness. Ensure controller has adequate ventilation.
Brakes not cutting power	Brake lever sensor not connected or faulty.	Check brake lever wiring to the controller.

TECHNICAL SPECIFICATIONS

The following table details the key specifications of the X055-AXC001B E-Bike Controller.



Figure 4: Controller Label with Key Specifications.

Attribute	Value
Model Number	X055-AXC001B
Brand	Generic
Battery Voltage	48V
Cutoff Voltage	39V
Current Limit	23A
Display Meter Type	5S (UART)
Dimensions (L x W x H)	120 x 52 x 32 mm (4.7 x 2 x 1.25 inches)
Material	Aluminum Alloy
Item Weight	260 Grams (9.2 ounces)
Color	Silver White

WARRANTY INFORMATION

This product comes with a limited warranty against manufacturing defects. The specific terms and duration of the warranty may vary. Please retain your proof of purchase for any warranty claims.

For detailed warranty information or to initiate a warranty claim, please contact the seller or manufacturer directly.

CUSTOMER SUPPORT

If you have any questions, require technical assistance, or encounter issues that cannot be resolved using the troubleshooting guide, please contact the seller from whom you purchased this product.

When contacting support, please provide the product model number (X055-AXC001B) and a detailed description of the issue to facilitate a quicker resolution.