

Dilwe Dilwen8fkv76sx11680

Dilwe 24V/36V 350W Brushless Motor Controller Instruction Manual

Model: Dilwen8fkv76sx11680

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Dilwe 24V/36V 350W Aluminum Alloy Brushless Motor Controller. This controller is designed for use with electric bikes and scooters, offering stable speed control and sensitive response for braking and direction changes. Please read this manual thoroughly before installation and use to ensure proper function and safety.

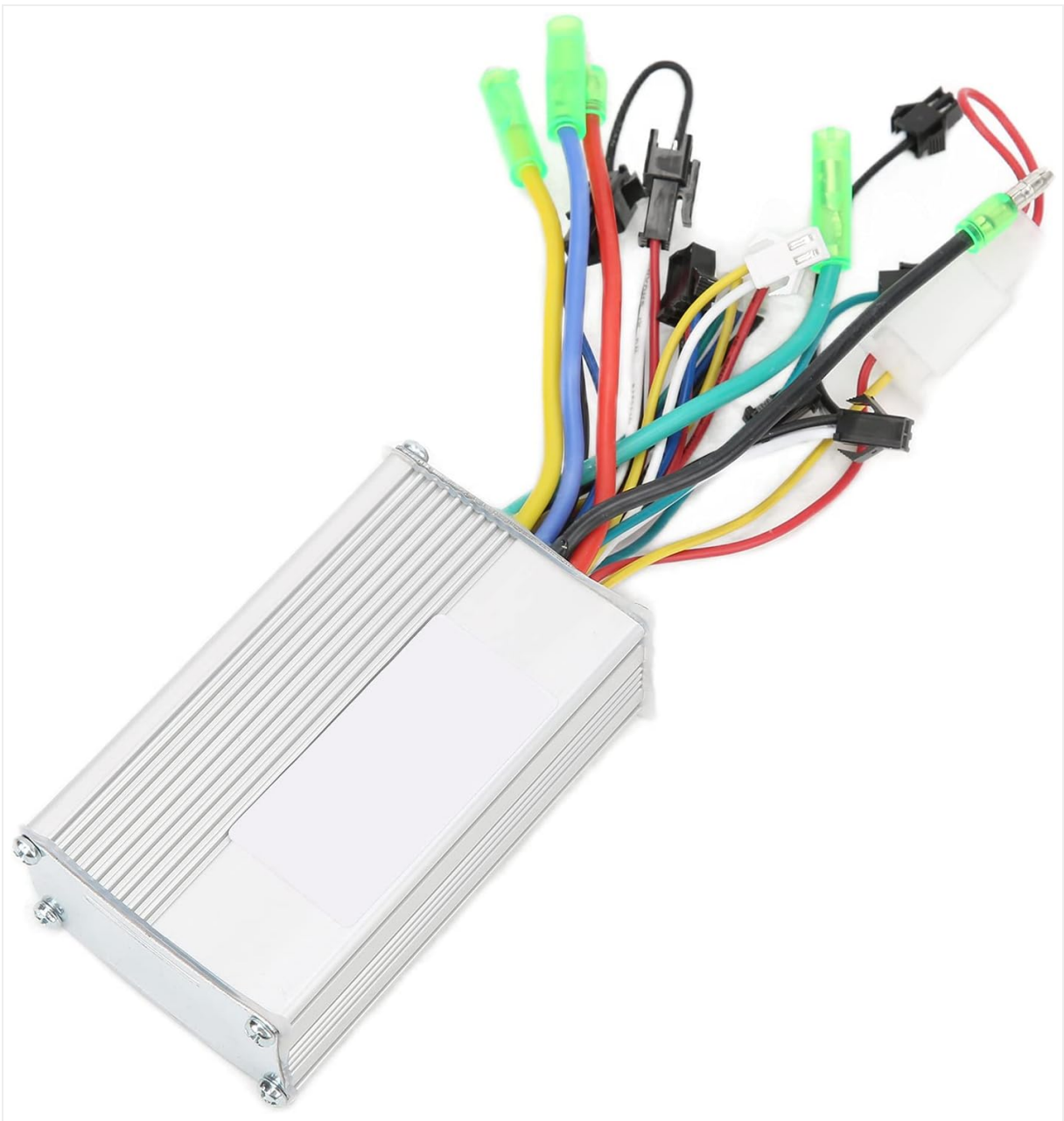


Image 1: The Dilwe 24V/36V 350W Brushless Motor Controller, showcasing its aluminum alloy casing and various wiring connectors.

2. SPECIFICATIONS

The following table details the technical specifications of the Dilwe Brushless Motor Controller:

Feature	Value
Rated Working Voltage	24V/36V
Rated Power	350W
Current	13A
Material	Aluminum Alloy
Controller Box Size	Approx. 9 x 5.2 x 3 cm (3.5 x 2.0 x 1.2 inches)
Adapted Motor Phase Angle	60°/120° (Automatic Identification and Adaptation)

Feature	Value
Application	Electric Bikes, Electric Scooters

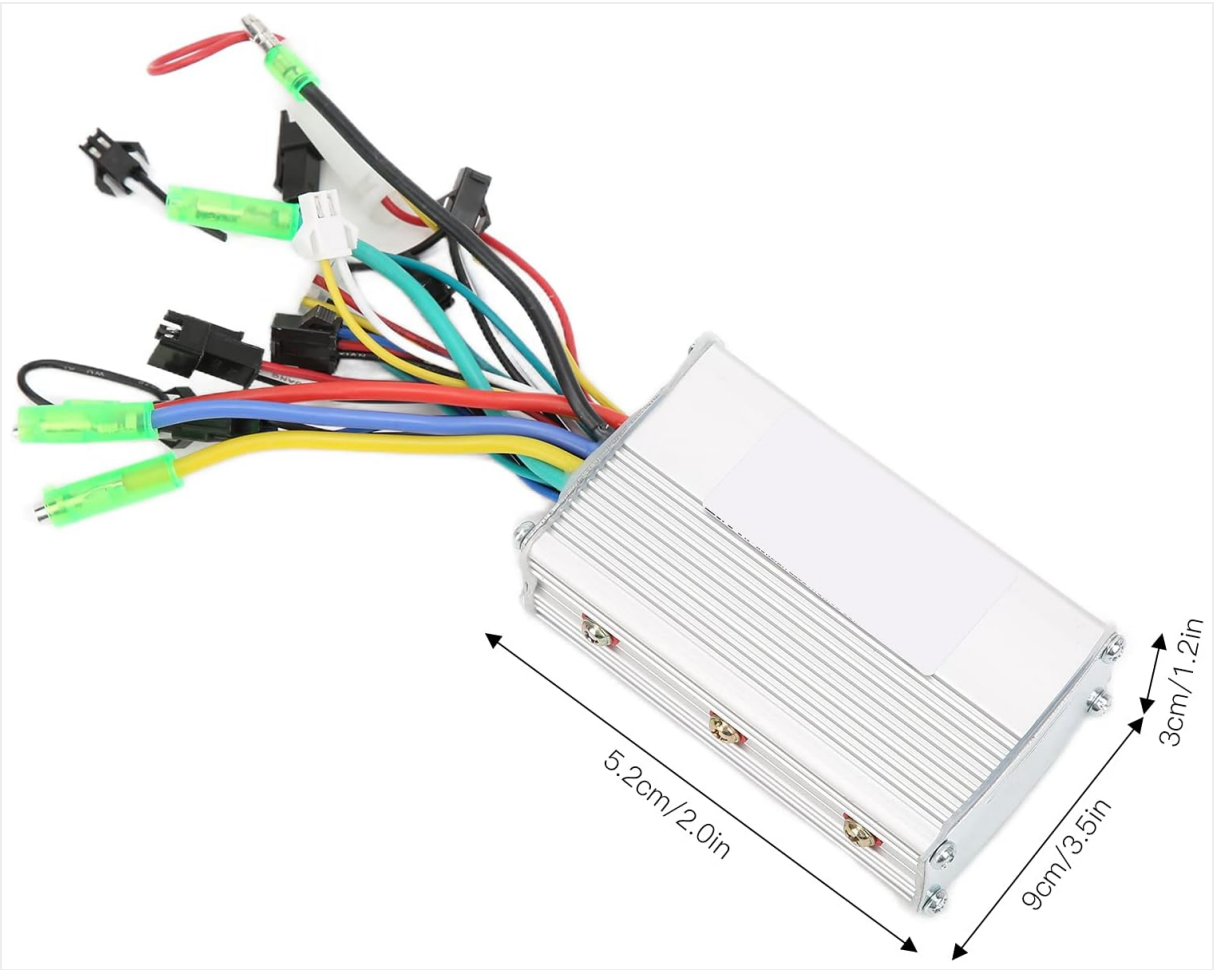


Image 2: Dimensions of the controller unit, showing its compact size for integration into electric vehicles.

3. SETUP AND INSTALLATION

Before beginning installation, ensure the power to your electric bike or scooter is completely disconnected. The brushless motor controller can only be used with 24V or 36V batteries.

3.1 Wiring Diagram Overview

Refer to the wiring diagram below for proper connection of all components. Each wire and interface is labeled for ease of installation.

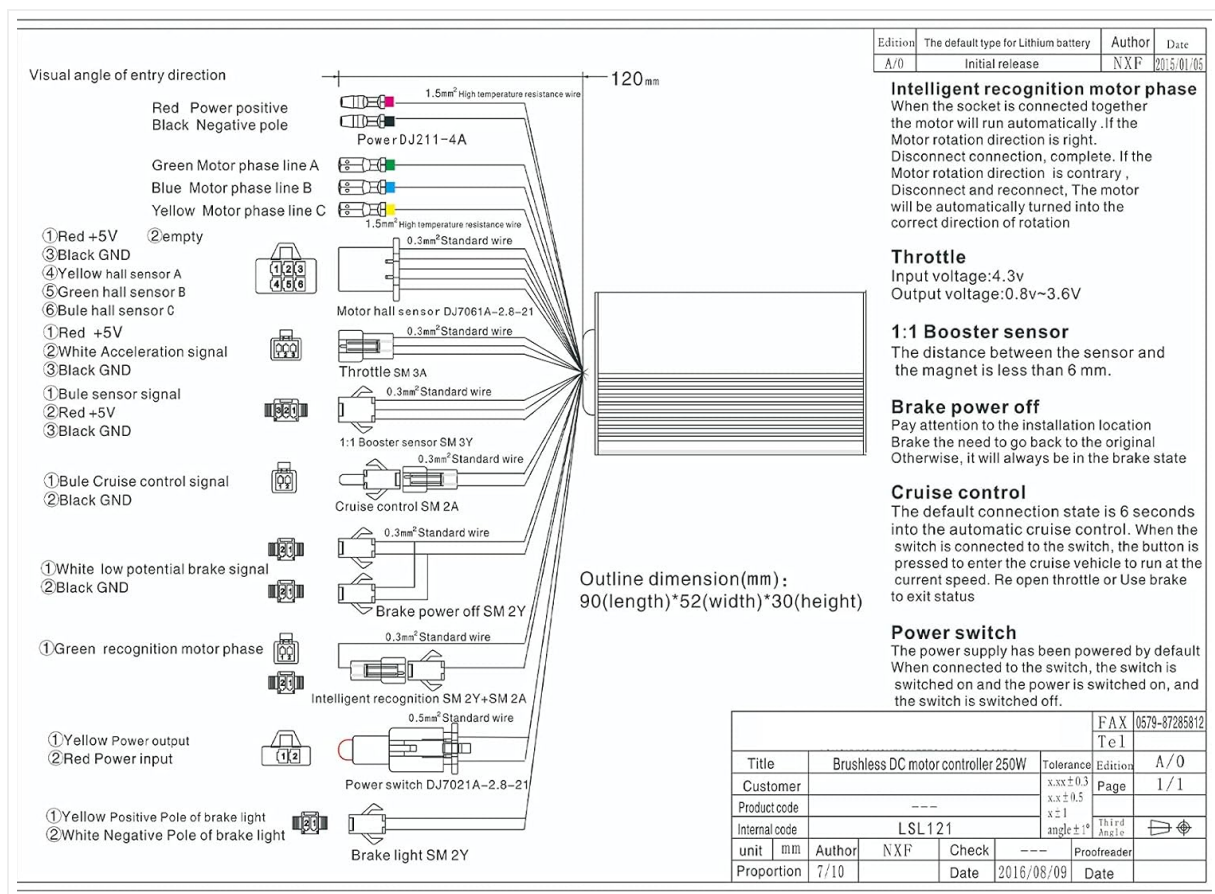


Image 3: Detailed wiring diagram illustrating connections for power, motor, throttle, brake, and other control signals.

3.2 Connection Steps

- Power Supply:** Connect the Red wire (positive) and Black wire (negative) from the controller to your 24V/36V battery. Ensure correct polarity.
- Motor Connection:** Connect the Green, Blue, and Yellow phase wires from the controller to the corresponding phase wires of your brushless motor.
- Throttle:** Connect the throttle unit to the designated throttle interface. Input voltage is 4V, output voltage is 0.8V-3.6V.
- Brake Power Off:** Connect the brake power-off signal wires. This feature ensures that power to the motor is cut when the brake is applied.
- 1:1 Booster Sensor:** If applicable, connect the 1:1 booster sensor. This sensor detects pedal movement and assists with motor power. The distance between the sensor and magnet should be less than 6 mm.
- Cruise Control:** Connect the cruise control signal wires. The default connection state is 6 seconds into the automatic cruise control. When the switch is connected to the switch, the button is pressed to enter the cruise vehicle to run at the current speed. Release the throttle or use the brake to exit cruise mode.
- Intelligent Recognition Motor Phase:** This controller features automatic identification and adaptation for 60°/120° motor phase angles.
 - When the socket is connected together, the motor will run automatically.
 - If the motor rotation direction is incorrect, disconnect the connection, complete the motor rotation direction, then disconnect and reconnect. The motor will automatically turn into the correct direction of rotation.
- Power Switch:** Connect the power switch. The power supply is enabled by default. When connected to the switch, the switch is switched on and the power is switched on, and the switch is switched off.

9. **Brake Light:** Connect the brake light wires (Yellow positive, White negative).

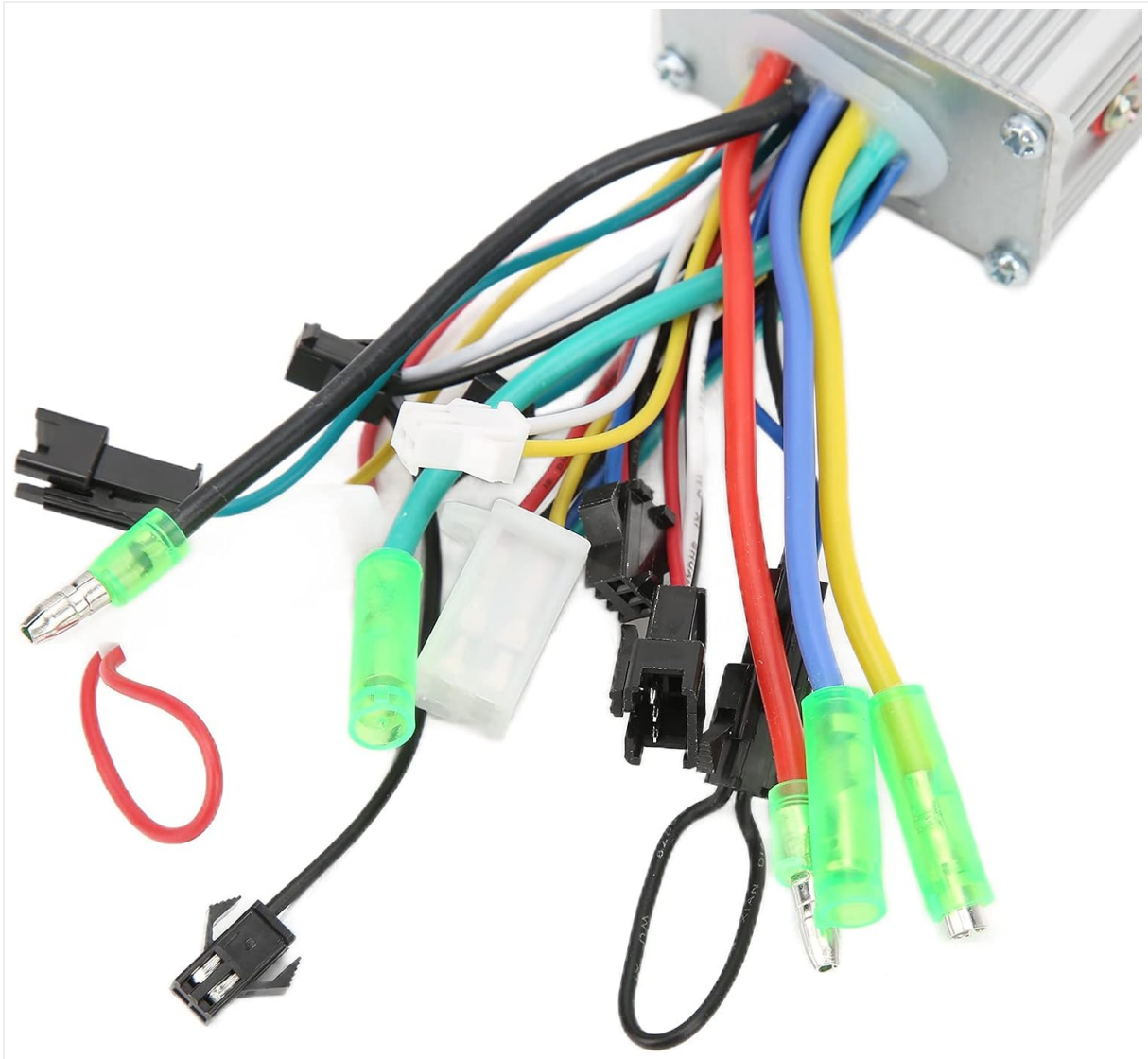


Image 4: A close-up view of the various color-coded wires and connectors extending from the controller, each designed for specific functions.

4. OPERATING INSTRUCTIONS

Once the controller is correctly installed and all connections are secure, you can begin operating your electric bike or scooter.

4.1 Power On/Off

- To power on the system, ensure the power switch is in the "on" position.
- To power off, switch the power switch to the "off" position.

4.2 Speed Control

- Use the throttle to control the motor speed. Gradually increase throttle input for acceleration.
- The controller provides stable speed control, ensuring a smooth riding experience.

4.3 Braking

- Applying the brake lever will activate the brake power-off function, cutting power to the motor for sensitive and immediate stopping.

- The system will always be in the brake state until the brake is released.

4.4 Cruise Control

- After 6 seconds of stable speed, the cruise control function can be activated.
- Press the cruise control button (if connected) to engage cruise mode, maintaining the current speed.
- To exit cruise mode, either release the throttle or apply the brake.

5. MAINTENANCE

To ensure the longevity and optimal performance of your Dilwe Brushless Motor Controller, follow these maintenance guidelines:

- **Regular Inspection:** Periodically check all wire connections to ensure they are secure and free from corrosion or damage.
- **Cleanliness:** Keep the controller unit clean and free from dust, dirt, and moisture. Use a dry, soft cloth for cleaning. Avoid using harsh chemicals or abrasive materials.
- **Environmental Protection:** Protect the controller from extreme temperatures and direct exposure to water. While the aluminum alloy casing offers some protection, it is not fully waterproof.
- **Avoid Overloading:** Do not exceed the rated power (350W) or current (13A) of the controller, as this can lead to damage.

6. TROUBLESHOOTING

If you encounter issues with your controller, refer to the following common problems and solutions:

- **Motor Not Running:**
 - Check all power connections to the battery and motor.
 - Ensure the power switch is on.
 - Verify the throttle connection and function.
 - If the motor rotation direction is incorrect, use the intelligent recognition motor phase function as described in Section 3.2.
- **Intermittent Power:**
 - Inspect all wiring for loose connections or damaged insulation.
 - Ensure the battery is adequately charged and providing the correct voltage (24V or 36V).
- **Brake Not Functioning Correctly:**
 - Check the brake power-off signal wire connections.
 - Ensure the brake lever mechanism is working properly.
- **Cruise Control Not Engaging:**
 - Confirm the cruise control button is connected and functional.
 - Ensure stable speed is maintained for at least 6 seconds before attempting to engage cruise control.

If problems persist after attempting these solutions, please contact customer support.

7. WARRANTY AND SUPPORT

For information regarding warranty coverage, returns, or technical support, please refer to the purchase documentation or contact Dilwe customer service directly. Keep your purchase receipt as proof of purchase.

Manufacturer: Dilwe

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