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› SPEDWHEEL J&P Jipin 52V 25A Electric Scooter Brushless DC Motor Controller User Manual

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INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your SPEDWHEEL J&P Jipin 52V 25A Electric Scooter Brushless DC Motor Controller. This controller is designed to manage power delivery from a lithium battery to a brushless DC motor in electric scooters, ensuring efficient and reliable performance. Please read this manual thoroughly before installation and use to ensure proper function and safety.

SAFETY INFORMATION

Always prioritize safety when working with electrical components. Failure to follow these instructions may result in electric shock, fire, or damage to the product or scooter.

- Ensure the scooter's power is completely off and the battery is disconnected before performing any installation or maintenance.
- Wear appropriate personal protective equipment, including insulated gloves and eye protection.
- Do not attempt to open or modify the controller casing. This will void any implied warranty and may cause damage.
- Keep the controller away from water, moisture, and extreme temperatures.
- Verify all connections are secure and correctly polarized before applying power. Incorrect wiring can cause severe damage.
- If you are unsure about any step, consult a qualified technician.

PACKAGE CONTENTS

Upon opening the package, please verify that all components are present and undamaged:

- 1 x SPEDWHEEL J&P Jipin 52V 25A Electric Scooter Brushless DC Motor Controller

- Integrated wiring harness (as shown in product images)

Note: Additional components such as display, throttle, motor, and battery are sold separately and are required for a complete system.

SETUP AND INSTALLATION

The controller features a comprehensive wiring harness designed for integration with various electric scooter components. Refer to the diagrams below for typical connection points. Specific wiring colors and functions may vary slightly, but general principles apply.



Image 1: Top view of the SPEDWHEEL J&P Jipin 52V 25A Controller, showing the main body and the array of colored wires for various connections. The label on the controller indicates its specifications.

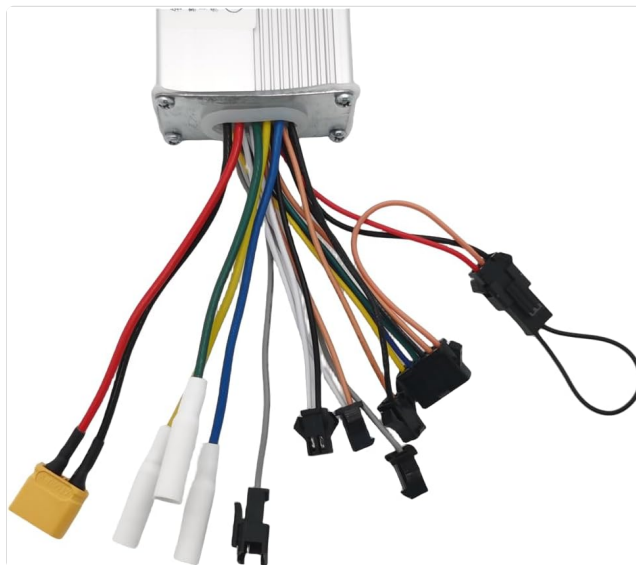


Image 2: Detailed view of the controller's wiring harness, illustrating the different types of connectors and wire colors for various functions such as motor phases, Hall sensors, battery input, and accessory connections.

Wiring Connections:

1. Battery Connection (Power Input):

Locate the main power wires (typically thicker red for positive and black for negative, often with an XT60 or similar connector). Connect these securely to your 52V lithium battery. Ensure correct polarity to prevent damage.

2. Motor Phase Wires:

Identify the three thick wires (often green, blue, yellow) that connect to the brushless DC motor. Match these wires to the corresponding phase wires from your motor. Incorrect phase wiring will prevent the motor from spinning or cause erratic behavior.

3. Hall Sensor Wires:

Connect the smaller Hall sensor wires (typically a bundle of five or six wires, including power, ground, and three signal wires) to the motor's Hall sensor connector. These provide feedback on motor position for smooth operation.

4. **Display/Meter Connection:**

Connect the wires designated for the LCD or LED display. This connection typically provides power to the display and allows for communication of speed, battery level, and other parameters.

5. **Throttle Connection:**

Connect the throttle wires (usually three wires: power, ground, and signal) to your scooter's throttle assembly. This allows for speed control.

6. **Brake Lever Connections:**

Connect the brake lever wires. These typically provide a signal to cut motor power when the brakes are applied, enhancing safety.

7. **Other Accessory Connections:**

The controller may include additional connections for lights, horn, or other accessories. Refer to your scooter's specific wiring diagram or the controller's label for these connections.

After all connections are made, secure the controller in a protected area on the scooter, away from direct impact, water, and excessive vibration. Use zip ties or mounting brackets as needed.

OPERATING INSTRUCTIONS

Once the controller is correctly installed and all connections are verified:

1. **Power On:** Connect the battery and turn on the scooter's main power switch (if applicable). The display (if connected) should illuminate.
2. **Initial Test:** With the scooter on a stand or with the drive wheel off the ground, gently apply the throttle. The motor should spin smoothly. If the motor spins in the wrong direction, consult the troubleshooting section or reverse two of the motor phase wires (and potentially Hall sensor wires if applicable, though usually only phase wires are swapped).
3. **Brake Test:** Test the brake levers to ensure they cut power to the motor effectively.
4. **Normal Operation:** The controller will regulate power to the motor based on throttle input and other sensor data, providing a smooth and controlled riding experience.

MAINTENANCE

To ensure the longevity and optimal performance of your controller, follow these maintenance guidelines:

- **Keep Clean and Dry:** Regularly inspect the controller for dirt, dust, or moisture. Clean with a dry, soft cloth. Avoid using liquids or harsh chemicals.
- **Inspect Connections:** Periodically check all wiring connections for looseness, corrosion, or damage. Secure any loose connections.
- **Avoid Physical Damage:** Protect the controller from impacts and vibrations. Ensure it is securely mounted.
- **Temperature Management:** While designed for scooter use, avoid prolonged exposure to extreme heat or direct sunlight, which can affect electronic components.

TROUBLESHOOTING

If you encounter issues with your controller, perform the following basic checks:

Problem	Possible Cause	Solution
Motor does not spin.	- No power to controller. - Loose or incorrect battery connection. - Faulty throttle. - Brake lever engaged. - Motor or Hall sensor wires disconnected/incorrect.	- Check battery charge and main power switch. - Verify battery connections and polarity. - Test throttle functionality. - Ensure brake levers are not engaged; check brake sensor wiring. - Recheck motor phase and Hall sensor connections.
Motor spins erratically or makes noise.	- Incorrect motor phase wire connection. - Damaged Hall sensor wires. - Motor internal issue.	- Try swapping two of the motor phase wires. - Inspect Hall sensor wires for damage. - Consult a motor specialist if issue persists.
Display does not light up.	- Loose or incorrect display wiring. - Faulty display.	- Check display power and communication wires. - Test display with another known good controller if possible.

If these steps do not resolve the issue, it may indicate a fault with the controller, motor, or battery. Professional diagnosis is recommended.

SPECIFICATIONS

Technical specifications for the SPEDWHEL J&P Jipin 52V 25A Electric Scooter Brushless DC Motor Controller:

Feature	Detail
Brand	SPEDWHEL
Model	J&P Jipin 52V 25A Controller
Rated Voltage	52 Volts
Current Limit	25 Amperes
Material	Plastic (Casing)
Display Type Compatibility	LCD or LED
Package Dimensions	6 x 4 x 4 inches
Item Weight	7 ounces
UPC	744612504890

WARRANTY AND SUPPORT

The manufacturer states that there is no specific warranty description provided for this product. For technical support or further inquiries, please contact your retailer or the manufacturer directly through their official channels.

Always refer to the official SPEDWHEEL website or your purchase platform for the most current support information.