

[Manuals.plus](#) /

› [Pwshymi](#) /

› Pwshymi Motor Skateboard Speed Controller User Manual

Pwshymi Pwshymiobkyhpzvw3

Pwshymi Motor Skateboard Speed Controller User Manual

Model: Pwshymiobkyhpzvw3

INTRODUCTION

This manual provides comprehensive instructions for the Pwshymi 36V Dual Motor ESC Set, designed for DIY electric skateboards. This kit includes a high-quality chip and electronic components, offering stable and excellent performance for your electric longboard.

The system features a dual-drive design, a portable ergonomic controller, and multiple speed modes, along with indicators for signal status, speed, and battery percentage. It is intended for users looking to build or upgrade their electric skateboard's power and control system.

PRODUCT COMPONENTS

The Pwshymi Motor Skateboard Speed Controller kit includes the following components:

- Main Control Board (ESC)
- Remote Control Transmitter
- LED Battery Indicator
- Power Switch
- USB Charging Cable



Figure 1: Overview of the Pwshymi Motor Skateboard Speed Controller Kit components.

SPECIFICATIONS

Feature	Specification
Double Drive Dimensions	Approx. 100 x 76 x 18mm (3.9 x 3 x 0.7in)
Voltage	36V
Current	12A
Maximum RPM	3000 rpm
Maximum Power	430W (36V)
Drive Mode	Sine FOC (with slow start)

Feature	Specification
Maximum Speed	35 KM/H
Protection Features	Over-voltage, Under-voltage, Over-temperature, Stall, CWCCW, Speed control
Sensing Method	Hall
Carrying Weight	≤120KG
Power Connector	XT60
Motor Plug	4mm banana plug
Hall Interface	5pin 2.0 connector
Overall Size (approx.)	18.5 x 10 x 4cm (7.28 x 3.94 x 1.57in)
Weight (approx.)	227g



Figure 2: Approximate dimensions of the remote control.

SETUP AND INSTALLATION

The installation of the Pwshymi Motor Skateboard Speed Controller requires careful attention to detail. While the circuit board is well-organized for ease of installation, professional skills are recommended for optimal setup and safety, especially when dealing with the dual hub motor ESC.

Connecting the Components

1. **Main Control Board (ESC) Connection:** Connect the main control board to your electric skateboard's battery using the XT60 power connector. Ensure polarity is correct.
2. **Motor Connection:** Connect your dual hub motors to the ESC using the 4mm banana plugs. Ensure each motor's Hall sensor cable is connected to the 5pin 2.0 connector on the ESC.
3. **Power Switch and LED Indicator:** Connect the provided power switch and LED battery indicator to their respective

ports on the main control board.



Figure 3: Illustrative setup showing the main control board and remote receiver module.

Remote Control Pairing

To ensure proper communication between the remote control and the main controller, follow these pairing steps:

1. **Connect Main Control:** Connect the main control board (ESC) to its power supply (e.g., skateboard battery).
2. **Activate Pairing Mode on ESC:** Turn on the power to the ESC. Wait for approximately two seconds, then press and hold the key on the ESC for about 6 seconds. Continue holding until the switch indicator on the ESC begins to flash.
3. **Activate Pairing Mode on Remote:** Turn on the remote control switch. Use a small screwdriver or a pointed object to press the small button located inside the small hole in the lower left corner of the remote control.
4. **Confirm Pairing:** Turn off the remote control for two seconds, then turn it back on. Wait for both the remote control signal light and the ESC switch signal light to flash simultaneously. This indicates that the pairing process has been successful.

OPERATING INSTRUCTIONS

The portable remote controller is designed for comfortable and intuitive operation of your electric skateboard.

Remote Control Functions



Figure 4: Labeled diagram of the remote control functions.

- **Acceleration & Brake:** Use the main trigger/lever to control acceleration and braking. Push forward for acceleration, pull back for braking.
- **Power Switch / Gear Shift:** This button typically turns the remote on/off and may also cycle through speed modes.
- **Direction Switch (Reverse):** Engages or disengages reverse mode.
- **Speed Mode Indicators:** LEDs on the remote indicate the currently selected speed mode.
- **Battery Indicators:** LEDs on the remote display the battery percentage of the remote itself. The separate LED battery indicator connected to the ESC displays the skateboard's main battery level.
- **Charging Indicator:** An LED that illuminates when the remote is charging.

- **Charging Port:** Connect the USB charging cable here to recharge the remote.

Speed Modes

The controller offers four distinct speed modes to suit various riding preferences and conditions:

1. **Low Speed Mode:** Ideal for beginners or precise control in tight spaces.
2. **Middle Speed Mode:** A balanced mode for general riding.
3. **High Speed Economy Mode:** Offers higher speed with optimized power consumption.
4. **High Speed Sport Mode:** Provides maximum acceleration and top speed for experienced riders.

Cycle through these modes using the designated button on the remote control.

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Pwshymi Speed Controller. While the main control board is built with a solid structure to lengthen its service life, regular checks are recommended.

- **Keep Clean and Dry:** Ensure the main control board and remote control are kept free from dust, dirt, and moisture. Avoid exposing them to water or extreme humidity.
- **Inspect Connections:** Periodically check all electrical connections (XT60, banana plugs, Hall sensor cables) for secure fit and signs of wear or corrosion. Loose connections can lead to performance issues or damage.
- **Remote Battery Charging:** Recharge the remote control's internal battery regularly using the provided USB cable to ensure it is always ready for use.
- **Storage:** When not in use for extended periods, store the components in a cool, dry place.

TROUBLESHOOTING

If you encounter issues with your Pwshymi Motor Skateboard Speed Controller, refer to the following common problems and solutions:

Problem	Possible Cause / Solution
Motor not spinning or only one motor spinning.	<ul style="list-style-type: none"> ◦ Check all motor connections (4mm banana plugs and Hall sensor cables) for secure fit. ◦ Verify that the main control board is receiving power from the battery. ◦ Ensure the remote control is properly paired with the ESC. ◦ Inspect motor wires for damage.
Motor whining noise.	<ul style="list-style-type: none"> ◦ This can sometimes occur with certain motor and ESC combinations. Ensure phase wire combinations are correctly matched. Experimenting with different phase wire arrangements might resolve the issue, but proceed with caution. ◦ Ensure all connections are tight and free from interference.
Remote control delay or unresponsiveness.	<ul style="list-style-type: none"> ◦ Ensure the remote control battery is sufficiently charged. ◦ Re-pair the remote control with the main control board following the "Remote Control Pairing" instructions. ◦ Check for any strong electromagnetic interference in the operating environment.

Problem	Possible Cause / Solution
Braking is too abrupt or too weak.	<ul style="list-style-type: none">◦ The braking characteristics are inherent to the ESC design. Adjust your riding style to accommodate the braking response.◦ Ensure your skateboard's wheels and bearings are in good condition, as this can affect braking efficiency.
System not powering on.	<ul style="list-style-type: none">◦ Verify the main battery is charged and properly connected to the ESC.◦ Check the power switch connection and functionality.

If you continue to experience issues after attempting these troubleshooting steps, please contact Pwshymi customer service for further assistance.

WARRANTY AND SUPPORT

Pwshymi is committed to providing high-quality products and customer satisfaction. This product comes with a problem-solving guarantee.

For any questions, concerns, or assistance with your Pwshymi Motor Skateboard Speed Controller, please feel free to contact our customer service team. We offer 24-hour friendly customer service to address your needs.

Your satisfaction is our primary goal.