

## SPEDWHEEL DYU V1

# SPEDWHEEL DYU V1 Electric Bicycle Controller Assembly Instruction Manual

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of the SPEDWHEEL Original Controller Assembly for the DYU V1 Electric Bicycle. Please read this manual thoroughly before installation and use to ensure proper function and safety.

## 2. SAFETY INFORMATION

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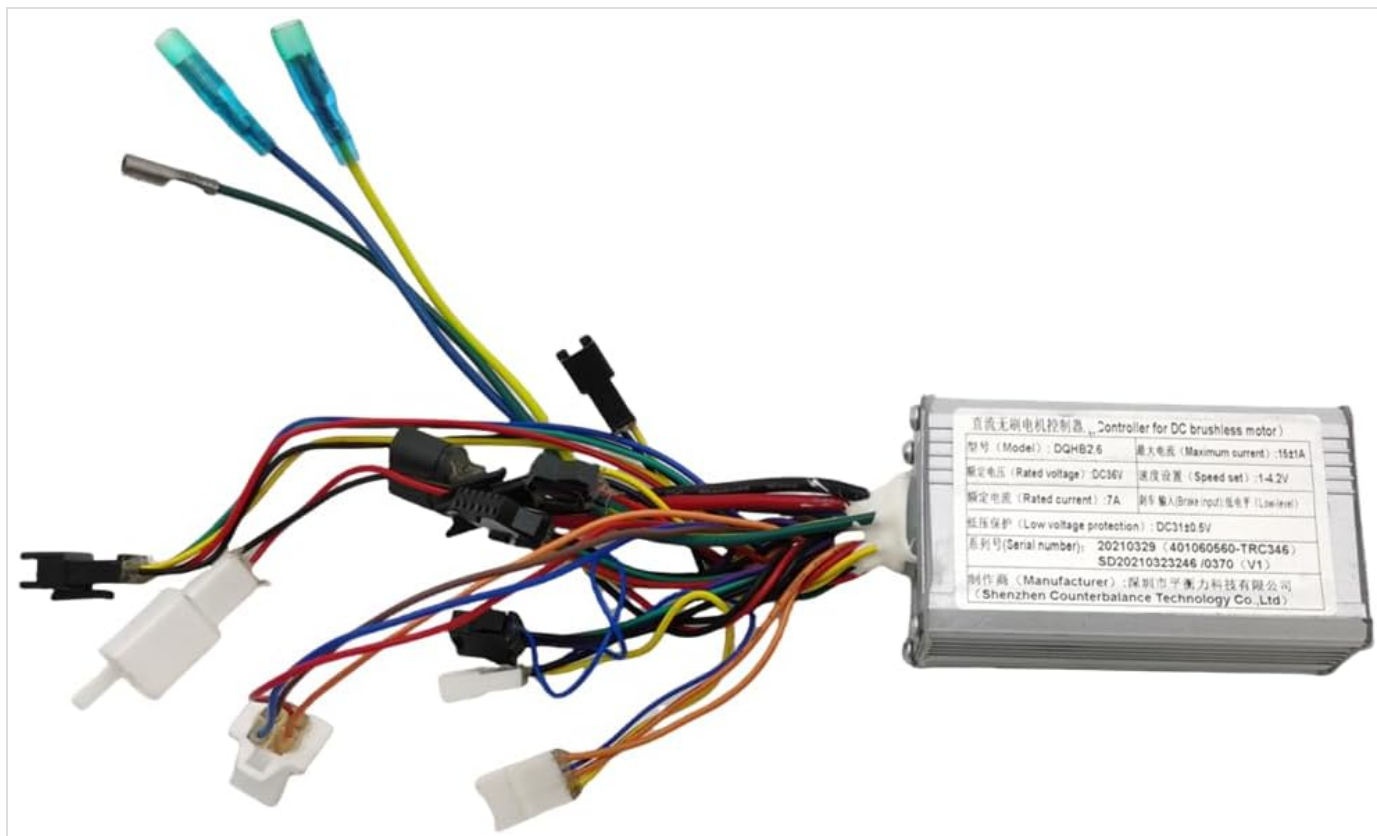
- Always disconnect the bicycle's battery before performing any installation or maintenance.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- If you are unsure about any step, consult a qualified technician.
- Do not attempt to modify the controller or its wiring, as this may void the warranty and create safety hazards.
- Keep the controller dry and away from extreme temperatures.

## 3. PACKAGE CONTENTS

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Verify that all items are present in your package:

- 1 x SPEDWHEEL DYU V1 Electric Bicycle Controller Assembly
- *(Note: Additional tools or accessories required for installation are not included.)*



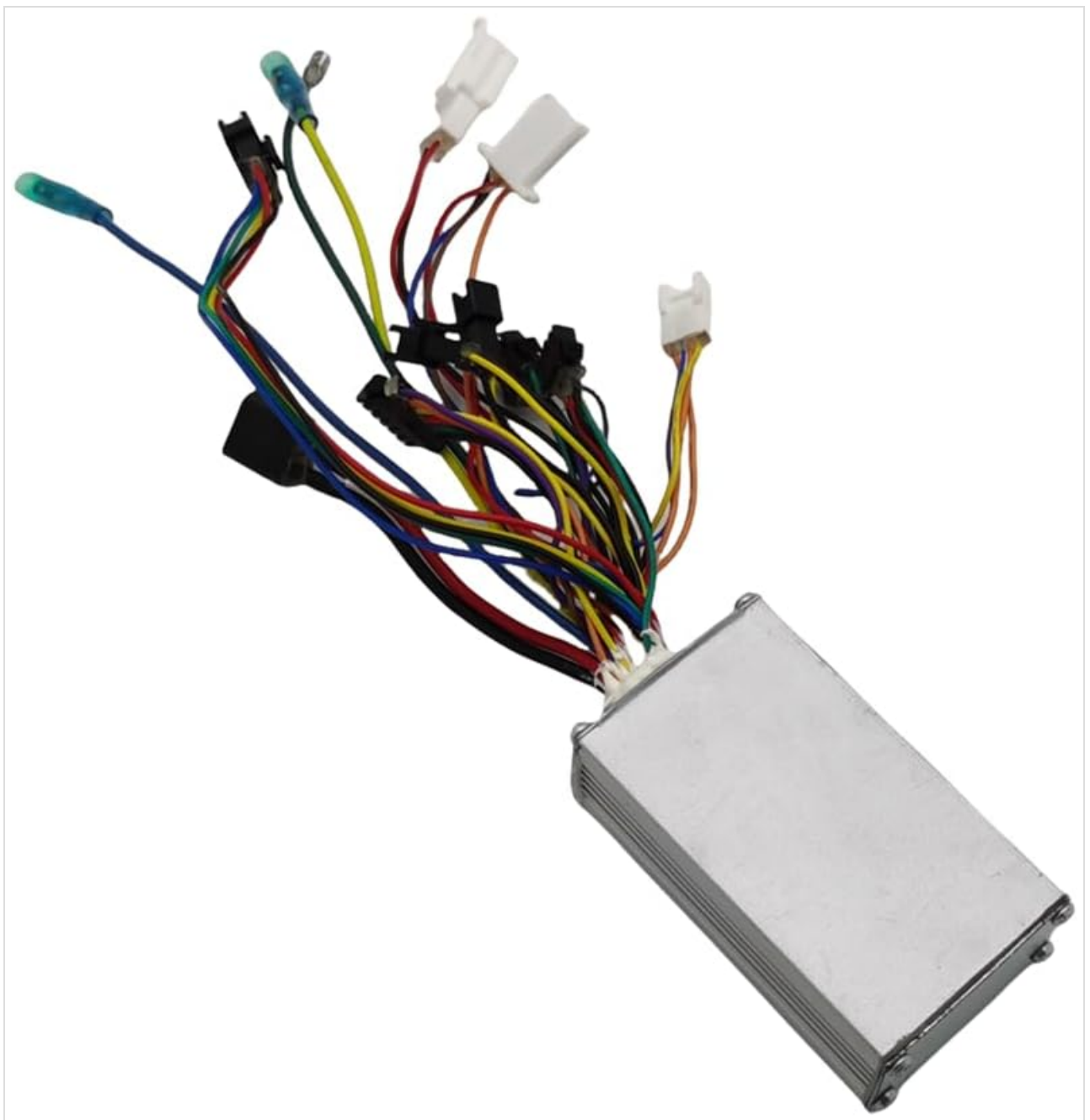
**Figure 1:** The SPEDWHEEL DYU V1 Electric Bicycle Controller Assembly, showing the main control unit and various wire harnesses for connection.

## 4. SETUP AND INSTALLATION

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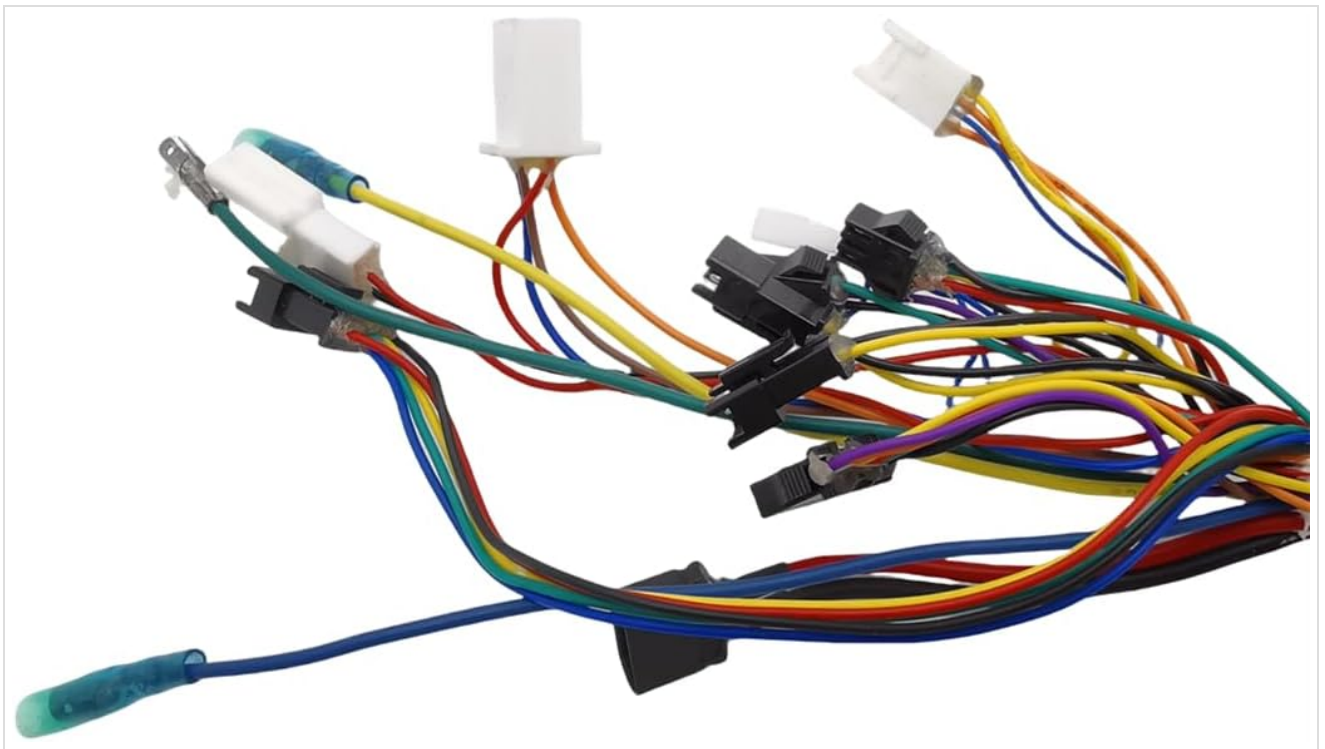
Follow these steps carefully to install the controller assembly:

1. **Preparation:** Ensure the electric bicycle is powered off and the battery is disconnected. Locate the existing controller or the designated mounting area for the new controller.
2. **Remove Old Controller (if applicable):** Carefully disconnect all wires from the old controller. Note the position and color coding of each wire for reference.
3. **Mount the New Controller:** Secure the new SPEDWHEEL DYU V1 controller assembly in the designated location on your electric bicycle. Ensure it is firmly attached and protected from excessive vibration or moisture.



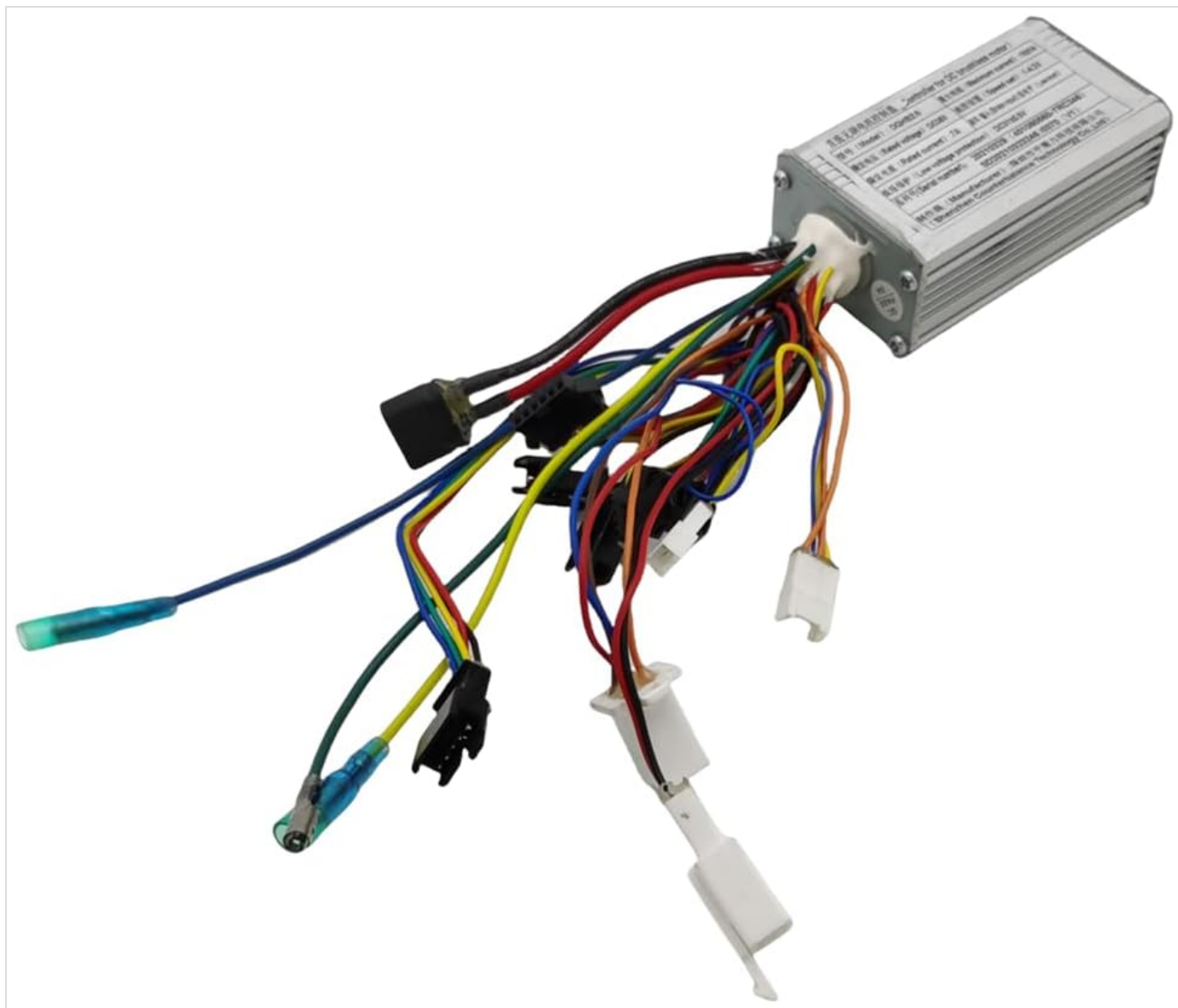
**Figure 2:** Rear view of the SPEDWHEEL DYU V1 controller, illustrating the wire exit points and overall unit size for mounting reference.

4. **Connect Motor Wires:** Connect the three thick phase wires (usually green, blue, yellow) from the controller to the corresponding motor phase wires. Ensure the connections are tight.
5. **Connect Hall Sensor Wires:** Connect the smaller Hall sensor wires (usually five wires: red, black, blue, green, yellow) from the controller to the motor's Hall sensor connector.
6. **Connect Power Wires:** Connect the thick red wire from the controller to the positive (+) terminal of the battery and the thick black wire to the negative (-) terminal. Double-check polarity before connecting.
7. **Connect Signal Wires:** Connect the remaining signal wires according to your bicycle's wiring diagram. These typically include:
  - **Throttle:** Usually a 3-wire connector (red, black, white/green).
  - **Brake Levers:** Often 2-wire connectors (for brake cut-off).
  - **Display/Panel:** Multi-pin connector for the bicycle's display unit.
  - **Pedal Assist Sensor (PAS):** If applicable, a multi-pin connector.
  - **Headlight/Taillight:** If controlled by the system.



**Figure 3:** Close-up view of various wire connectors on the controller, illustrating the different types of plugs for motor, throttle, brake, and other accessories.

8. **Secure Connections:** Ensure all connectors are fully seated and, if necessary, use zip ties or electrical tape to secure loose wires and prevent accidental disconnections or damage.
9. **Initial Test:** Reconnect the battery. Power on the bicycle and perform a low-speed test to ensure all functions (throttle, brakes, display) are working correctly.



**Figure 4:** An angled perspective of the SPEDWHEEL DYU V1 controller, showcasing the main unit and the organized bundle of connecting wires extending from it.

## 5. OPERATING INSTRUCTIONS

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Once installed, the controller manages the electric bicycle's motor functions based on user input (throttle, pedal assist) and system parameters.

- **Power On/Off:** Use the bicycle's main power switch or display unit to turn the system on or off. The controller will activate upon power-up.
- **Throttle Control:** The controller interprets throttle input to regulate motor speed and power output. Apply throttle smoothly for consistent acceleration.
- **Brake Cut-off:** When the brake levers are engaged, the controller is designed to cut power to the motor, ensuring safe stopping.
- **Display Integration:** If connected to a display, the controller communicates essential information such as speed, battery level, and assist mode.

## 6. MAINTENANCE

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Proper maintenance ensures the longevity and reliable performance of your controller:

- **Keep Clean:** Periodically clean the exterior of the controller with a dry cloth. Avoid using water or harsh chemicals.
- **Check Connections:** Regularly inspect all wire connections for looseness, corrosion, or damage. Secure any loose connections.
- **Environmental Protection:** Protect the controller from direct exposure to heavy rain, extreme heat, or prolonged direct sunlight.
- **Avoid Impact:** Prevent physical impact to the controller, as internal components can be sensitive.

## 7. TROUBLESHOOTING

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

| Problem                  | Possible Cause                                                                    | Solution                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Motor not responding     | Loose power or motor phase/Hall sensor connections; low battery; faulty throttle. | Check all connections. Ensure battery is charged. Test throttle functionality.                                       |
| Brakes not cutting power | Brake lever sensor disconnected or faulty.                                        | Inspect brake lever wiring and connections.                                                                          |
| Erratic motor behavior   | Loose Hall sensor wires; water ingress; internal controller fault.                | Check Hall sensor connections. Ensure controller is dry. If problem persists, professional inspection may be needed. |
| No power to display      | Display cable disconnected; main power switch off; battery issue.                 | Verify display cable connection. Ensure main power is on and battery is charged.                                     |

If troubleshooting steps do not resolve the issue, contact SPEDWHEEL customer support or a qualified electric bicycle technician.

## 8. SPECIFICATIONS

Technical details for the SPEDWHEEL DYU V1 Electric Bicycle Controller Assembly:



Figure 5: A detailed view of the controller's label, displaying key technical specifications such as model number, voltage, current, and manufacturer information.

| Feature                | Detail                                                 |
|------------------------|--------------------------------------------------------|
| Model                  | DQHB2.6 (DYU V1 Compatible)                            |
| Rated Voltage          | DC36V                                                  |
| Rated Current          | 7A                                                     |
| Maximum Current        | 15±1A                                                  |
| Low Voltage Protection | DC31±0.5V                                              |
| Speed Set              | 1-4.2V                                                 |
| Brake Input            | Low-level                                              |
| Material               | Aluminum (Exterior Finish)                             |
| Color                  | Black                                                  |
| Product Dimensions     | Approximately 4"L x 3"W                                |
| Item Weight            | Approximately 5.3 ounces                               |
| Manufacturer           | SPEDWHEL (Shenzhen Counterbalance Technology Co., Ltd) |
| UPC                    | 744612928412                                           |

## 9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact SPEDWHEL customer service through your original point of purchase. Keep your purchase receipt as proof of purchase.

### ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for

conversion attribution. [Privacy details](#).

**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question