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› WEIYINGSI 24V 250W Motor Speed Controller User Manual

WEIYINGSI CT01

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Model: CT01

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the WEIYINGSI 24V 250W Motor Speed Controller. This controller is designed for use with electric scooters, e-bikes, bicycles, and tricycles equipped with a 24V 250W DC brushed motor. Please read these instructions carefully before installation and use to ensure proper function and safety.



The WEIYINGSI 24V 250W Motor Speed Controller, a compact control unit for electric vehicles.

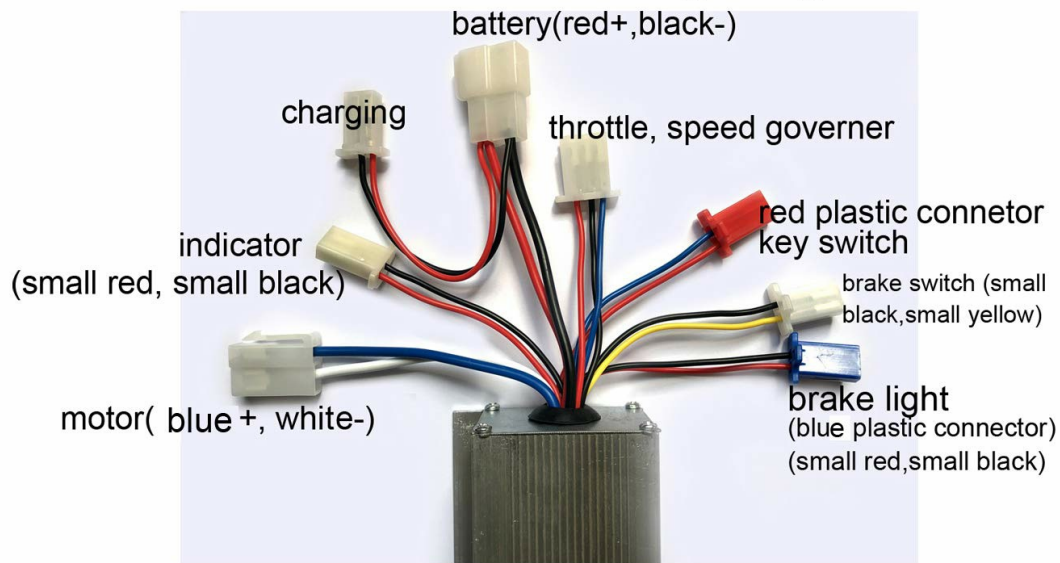
Safety Information

- Always disconnect power before performing any installation, maintenance, or troubleshooting.
- Ensure all connections are secure and correctly polarized to prevent damage to the controller or other components.
- Avoid exposing the controller to water, excessive moisture, or extreme temperatures.
- Do not attempt to open or modify the controller casing, as this may void the warranty and pose a safety risk.
- Consult a qualified technician if you are unsure about any installation steps.

Setup and Installation

Refer to the wiring diagram below for correct connection of the controller to your electric vehicle components. Ensure all connections match the specified colors and functions.

24V 250W Controller Wiring Diagram



Working Voltage: DC24V
Rating Power: 250W
Rating Current: $21 \pm 1A$
Under Voltage: $20V \pm 0.5V$

Detailed wiring diagram illustrating connections for battery, motor, throttle, key switch, brake switch, brake light, and indicator.

Wiring Connections:

1. **Battery Connection:** Connect the battery wires to the corresponding terminals on the controller. Typically, red is positive (+) and black is negative (-).
2. **Motor Connection:** Connect the motor wires (blue + and white -) to the motor output terminals.
3. **Throttle (Speed Governor):** Connect the throttle unit. This typically uses a 1-4V signal for speed control.
4. **Key Switch:** Connect the key switch wires. **Important:** The two wires of the key switch connector must be connected together (jumped) for the unit to power on and function.
5. **Brake Switch:** Connect the brake switch wires. When activated, this switch cuts power to the motor.
6. **Brake Light:** Connect the brake light wires (small red, small black) to the brake light connector.
7. **Indicator:** Connect the indicator wires (small red, small black) for status display.
8. **Charging Port:** Connect the charging port if applicable.

Ensure all connectors are fully seated and secure. The controller features rubber grommets for wire protection and a rugged aluminum housing for durability and heat dissipation.

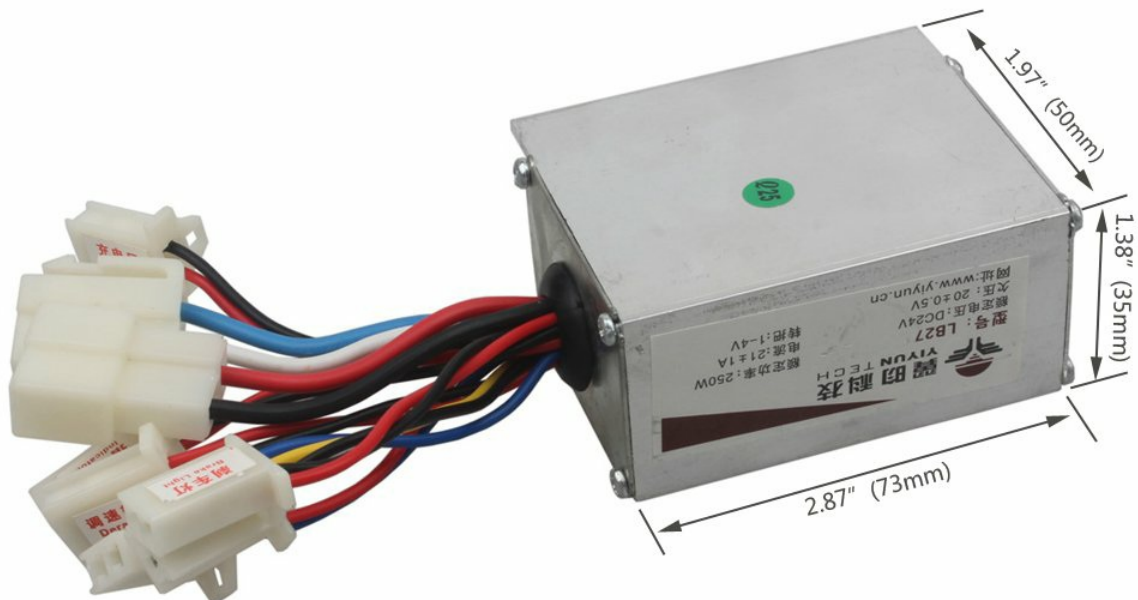


Image showing the physical dimensions of the controller: approximately 2.87 inches (73mm) length, 1.97 inches (50mm) width, and 1.38 inches (35mm) height.

OPERATING INSTRUCTIONS

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

1. Ensure the key switch is in the 'ON' position (or the wires are jumped as per installation).
2. Apply power to the system.
3. Use the throttle (speed governor) to control the motor speed. The throttle typically operates within a 1-4V range.
4. Engage the brake switch to cut power to the motor and activate the brake light.

MAINTENANCE

- Keep the controller clean and free from dust and debris.
- Periodically check all wiring connections for tightness and signs of wear or corrosion.
- Ensure the controller's aluminum housing is not obstructed to allow for proper heat dissipation.
- Avoid using harsh chemicals or abrasive materials for cleaning.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Controller does not power on.	Key switch not connected or jumped; battery low or disconnected.	Ensure key switch wires are connected or jumped. Check battery charge and connections.
Intermittent motor operation.	Loose or poor quality wiring connectors.	Inspect all connectors for secure fit. Consider soldering connections if issues persist.
Motor not responding to throttle.	Throttle wiring incorrect or faulty; motor wiring incorrect.	Verify throttle connections and functionality. Check motor wiring polarity.
Motor runs but no speed control.	Throttle faulty or incorrectly connected.	Check throttle unit and its wiring to the controller.

SPECIFICATIONS



The product label displaying key electrical specifications.

Feature	Detail
Brand	WEIYINGSI
Model Name	CT01 (LB27)
Work Voltage	24 Volts (DC24V)
Rated Motor Power	250 Watts
Matching Motor	DC brushed motor
Under Voltage Protection	20V±0.5V
Rated Current	21±1A
Speed Governor (Throttle)	1-4 Volts
Material	Plastic (housing is aluminum)
Item Weight	4.1 ounces
Package Dimensions	6.14 x 3.5 x 1.97 inches

WARRANTY

This product is covered by a standard manufacturer's warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the product packaging or contact the seller directly. Misuse, unauthorized modifications, or improper installation may void the warranty.

SUPPORT

If you encounter any issues or have questions regarding the WEIYINGSI 24V 250W Motor Speed Controller that are not addressed in this manual, please contact the seller or manufacturer for assistance. Provide your product model number (CT01) and a detailed description of the issue for faster support.