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› ChongXiao Electric Bike/Scooter Brushless Motor Controller with LCD Display (Model: 20-25A WXGN200) Instruction Manual

ChongXiao 20-25A WXGN200

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Model: 20-25A WXGN200

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ChongXiao Electric Bike/Scooter Brushless Motor Controller with LCD Display. This intelligent controller supports multiple voltage settings (36V, 48V, 52V, 60V, 72V) and is compatible with motor configurations from 450W to 600W. The included LCD display offers real-time monitoring of speed, mileage, and power assist levels. Please read this manual thoroughly before use to ensure proper function and safety.

2. SAFETY INFORMATION

- Always disconnect power before performing any installation, maintenance, or repair work.
- Ensure all connections are secure and correctly wired to prevent damage to the controller or other components.
- Avoid exposing the controller to water or extreme temperatures.
- Do not attempt to modify the controller's internal components. Unauthorized modifications can lead to malfunction and void the warranty.
- If you are unsure about any part of the installation or operation, consult a qualified technician.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Controller Unit
- LCD Display
- Mounting Bracket
- Wiring Harness
- XT60 Battery Connector

4. PRODUCT OVERVIEW

The ChongXiao Electric Bike/Scooter Controller kit includes a robust controller unit and an intuitive LCD display for managing your electric vehicle's performance.



Image: Overview of the ChongXiao Electric Bike Controller kit, showing the red aluminum controller unit, the LCD display, and the comprehensive wiring harness.

4.1. Controller Unit

The controller features a red aluminum housing designed for effective heat dissipation. It manages power delivery to the motor and integrates various functions for safe and efficient operation.



Image: Close-up view of the controller unit's label, detailing specifications such as nominal voltage (36V/48V/52V/60V/72V), maximum current (20A-25A), brake type (High/Low Electrical Level), and motor phase angle (Automatic Identification).

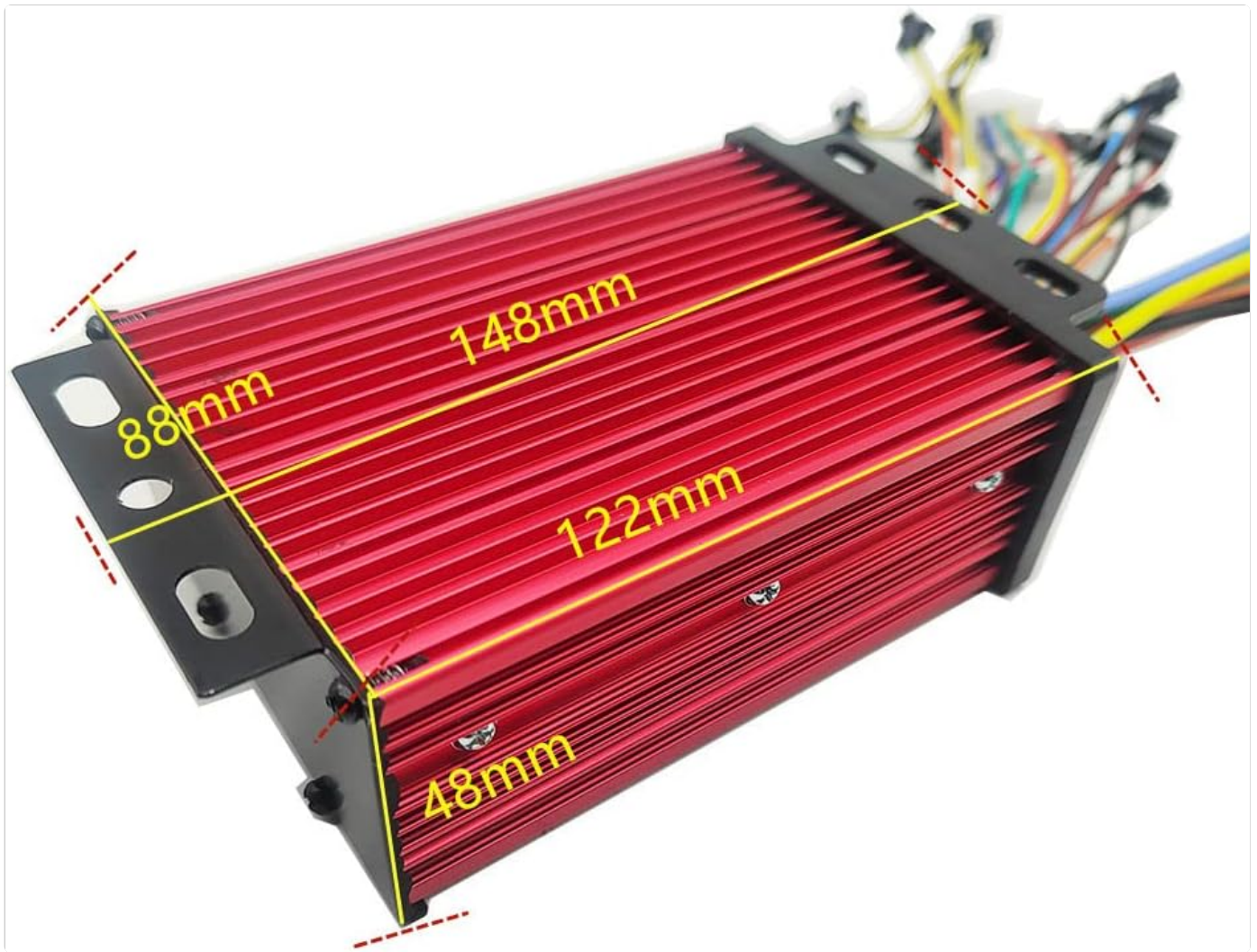


Image: Diagram showing the dimensions of the controller unit: 148mm length, 88mm width, and 48mm height.

4.2. LCD Display

The LCD display provides essential riding information and allows for parameter adjustments.



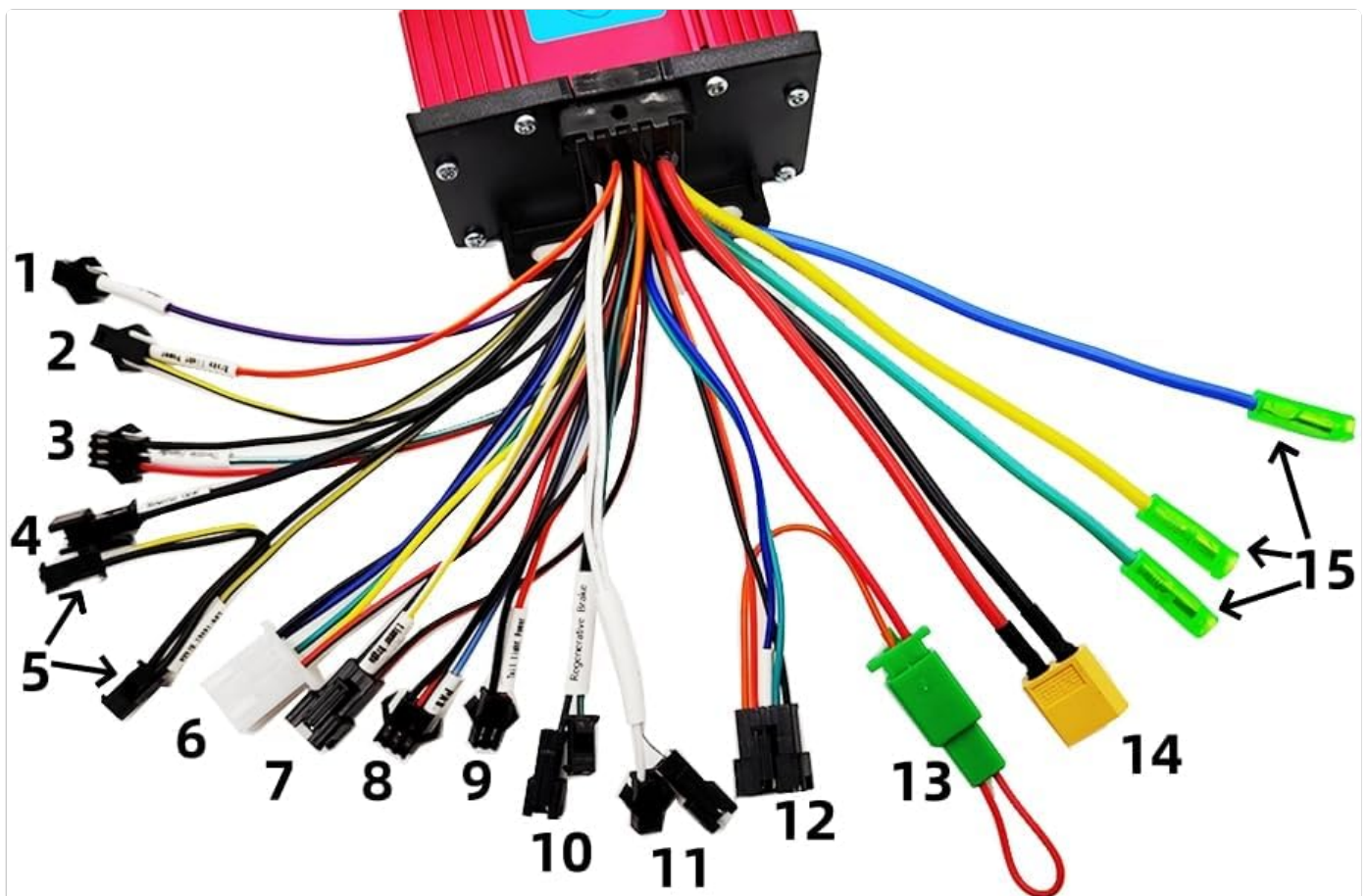
Image: The LCD display unit (Model WXGN200) with control buttons (+, Power, -) and its attached cable.

5. INSTALLATION

Follow these steps carefully to install the controller and LCD display. Ensure the power source is disconnected before beginning installation.

5.1. Wiring Connections

The controller comes with a comprehensive wiring harness. Refer to the diagram below for proper connections.



- | | |
|-----------------------------|-------------------------------|
| 1.high -level brake | 9.head light/tail light power |
| 2.brake light power | 10.regenerative brake |
| 3.throttle handle | 11.intelligent recognition |
| 4.reverse gear | 12.LCD |
| 5.low brake | 13.ignite |
| 6.hall (5wires) | 14.XT60 battery |
| 7.linear brake(Thumb brake) | 15.phase line |
| 8.PAS | |

Image: Detailed wiring diagram showing 15 connection points for the controller, including high-level brake, brake light power, throttle handle, reverse gear, low brake, hall (5 wires), linear brake (thumb brake), PAS, headlight/taillight power, regenerative brake, intelligent recognition, LCD, ignite, XT60 battery, and phase line.

1. **Phase Line Connection:** Connect the motor's phase lines to the controller's phase lines, matching colors.
2. **Hall Line Connection:** Connect the motor's Hall lines to the controller's Hall lines, matching colors. Ensure it's a 5-wire connection if applicable.
3. **Battery Connection:** Connect the battery line (red wire to battery +, black wire to battery -). Use the provided XT60 connector.
4. **LCD Line Connection:** Connect the controller's LCD line. Connect the ignition switch. If your throttle does not have an ignition switch, the controller's two ignition wires need to be shorted together.
5. **Intelligent Recognition (Initial Setup):**
 - a. Turn off power. Connect the two intelligent recognition lines together.
 - b. Turn on power. The wheel will either move forward or reverse.
 - c. If the wheel moves forward, separate the intelligent recognition lines.
 - d. If the wheel moves in reverse, separate the intelligent recognition lines. Then, connect the two intelligent recognition

lines together again. If the wheel now moves forward, separate the intelligent recognition lines. This function allows the controller to intelligently identify the battery voltage and adjust the motor's rotation direction.

e. **Note:** When using the throttle, the intelligent recognition lines must be separated.

6. **Other Functions:** Connect other functions (e.g., brake lights, throttle handle, reverse gear, regenerative braking, PAS) as needed, referring to the wiring diagram.

Your browser does not support the video tag.

Video: Electric bike thumb throttle 130XSM plug installation. This video demonstrates how to connect wires to a 130XSM thumb throttle plug, which is relevant for connecting the throttle to the controller.

6. OPERATING INSTRUCTIONS

6.1. LCD Display Communication Protocol

The LCD display uses the UART communication protocol.

6.2. LCD Display Parameters

The LCD display provides various parameters for monitoring and customization:

- **Working Voltage:** 36V, 48V, 52V, 60V, 72V (default is 36V, adjustable by user).
- **Instrument 5-wire interface:**
 - Red: Meter power cord
 - Blue: Power control wire of the controller
 - Black: Instrument ground wire
 - Green: Data receiving line of the meter
 - Yellow: Data transmission line of the meter

6.3. Button Introduction

The LCD display features an 'M' button (power button) and up/down buttons for navigation and settings.

- **Short Press:** Used for quick actions like modifying assist/speed gear or switching multi-function display data.
- **Long Press:** Primarily for mode/switch state switching (e.g., turning the display on/off).
- **Compound Key (Long Press):** Used for parameter settings. This requires pressing multiple buttons simultaneously to prevent accidental changes.

6.4. Specific Operation Explanation

1. **Power On/Off:** Long press the power button to turn the display on or off.
2. **Switch Display Modes:** After the display is on, short press the 'M' key to cycle through different display modes.
3. **Modify Assist Ratio/Electric Gear:**
 - Short press the up button: Boost +1
 - Short press the down button: Boost -1
4. **Switch Speed Display Mode:** Long press the power and up buttons simultaneously.
5. **Turn Headlights On/Off:** Long press the up button.
6. **Set Parameters (P01-P18):**
 - a. Press and hold the up and down keys simultaneously to enter the parameter setting interface.
 - b. In the settings interface, use short presses of the up or down keys to increase or decrease the setting value. The modified parameter will flash.
 - c. To save and move to the next parameter: Short press the power button.

- d. To exit and save: Press and hold the up and down keys simultaneously. The system will also automatically exit and save modified parameters after 10 seconds of inactivity.

6.5. Parameter Settings (P01-P18)

The following parameters can be adjusted. It is recommended to only change P01-P10 unless absolutely necessary. P11-P18 are default values and generally should not be altered.

- **P01: Backlight brightness** (0001: darkest, 0003: brightest)
- **P02: Mileage unit** (0000: KM, 0001: MILE)
- **P03: Voltage level** (36V, 48V, 52V, 60V, 72V; default 36V)
- **P04: Sleep time** (0: no sleep; 1-60: sleep time in minutes)
- **P05: Power-assist gear** (3rd, 5th, or 9th gears adjustable)
- **P06: Wheel diameter** (unit: inch; precision: 0.1)
- **P07: Number of speed measuring magnets** (range: 1-255)
- **P08: Speed limit** (0-100km/h, 100 means maximum speed limit. Note: Displayed mile speed values are converted, but the menu setting remains in kilometers.)
- **P09: Start mode** (0: zero start, 1: non-zero start)
- **P10: Drive mode setting**
 - 0000: Power-assisted drive (throttle invalid)
 - 0001: Electric drive (throttle active, assist gear invalid)
 - 0002: Power-assisted and electric drive coexist (electric drive zero start invalid)
- **P11: Boost sensitivity setting** (range: 1-24)
- **P12: Power-assisted start strength setting** (range: 1-5)
- **P13: Three types of power-assisted magnetic steel discs** (5, 8, and 12 magnets)
- **P14-P18:** Default values, cannot be changed.

7. TROUBLESHOOTING (ERROR CODES)

The LCD display may show error codes to indicate specific issues:

- **E-06:** Battery undervoltage
- **E-07:** Motor failure. Check if Hall wires are 5 wires and connected color-to-color.
- **E-08:** Throttle handle failure
- **E-09:** Controller failure
- **E-10:** Communication reception failure
- **E-11:** Communication sending failure
- **E-12:** BMS communication failure
- **E-13:** Headlight failure

8. SPECIFICATIONS

Feature	Detail
Brand Name	ChongXiao
Model Name	20-25A WXGN200

Feature	Detail
Compatible Voltage	36V, 48V, 52V, 60V, 72V
Motor Wattage Support	450W-600W
Maximum Current	20A-25A
Material	Aluminum, Copper, Plastic
Color	Red
Item Package Dimensions	8.2 x 5.5 x 4.45 inches
Package Weight	0.7 Kilograms
Included Components	Controller Unit, LCD Display, Mounting Bracket, Wiring Harness, XT60 Battery Connector

9. MAINTENANCE

- Regularly check all wiring connections for tightness and signs of wear or damage.
- Keep the controller and display clean and free from dust and moisture. Use a soft, dry cloth for cleaning.
- Ensure the controller's aluminum housing remains unobstructed to allow for proper heat dissipation.
- Avoid harsh chemicals or abrasive cleaners on any part of the kit.

10. WARRANTY INFORMATION

According to the product specifications, there is no explicit warranty provided for this item. Please refer to the retailer's return policy for any issues.

11. CUSTOMER SUPPORT

For further assistance or inquiries, please contact your retailer or the manufacturer, ChongXiao, through their official support channels.

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