



Careful wiring is crucial for proper function. Refer to the wiring diagram and follow the steps below.

## Component Overview

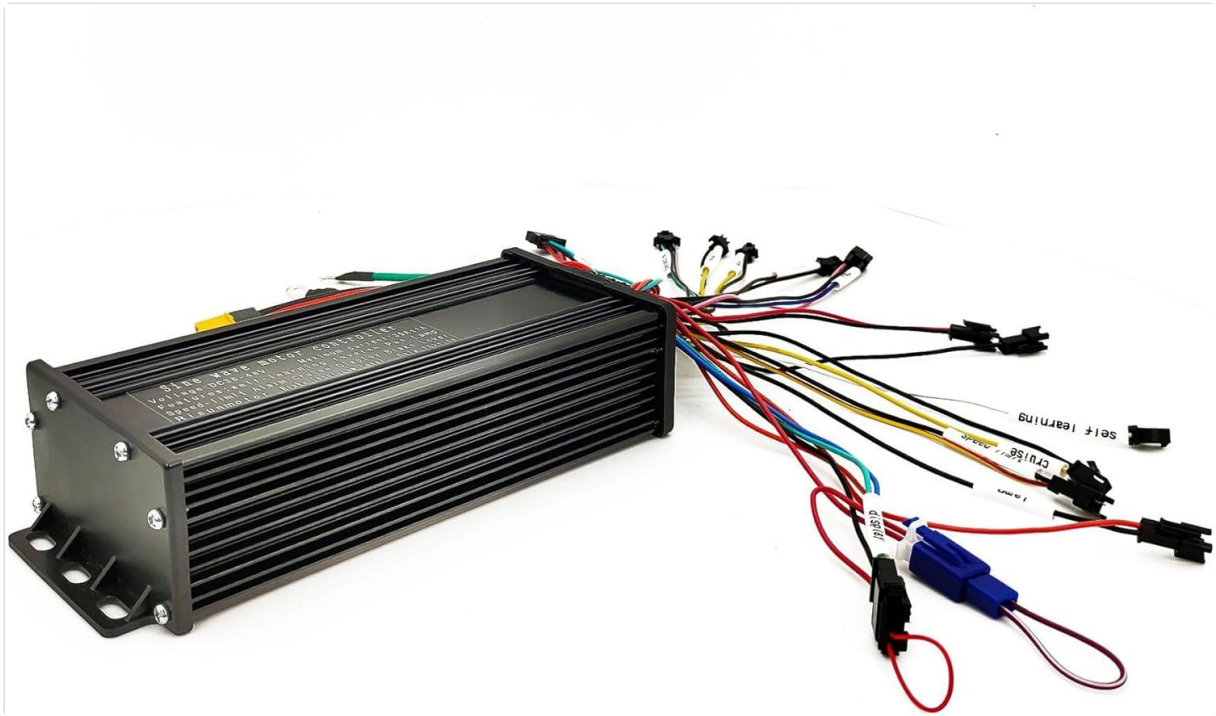


Image: The Ebike Controller showing its various wiring harnesses for connection.

## Wiring Instructions

### 1. Step 1: Initial Connections

Connect the battery, motor phase wires, motor Hall wires, and the EN06 LCD display to the controller. Ensure all connections are secure and match the corresponding plugs.

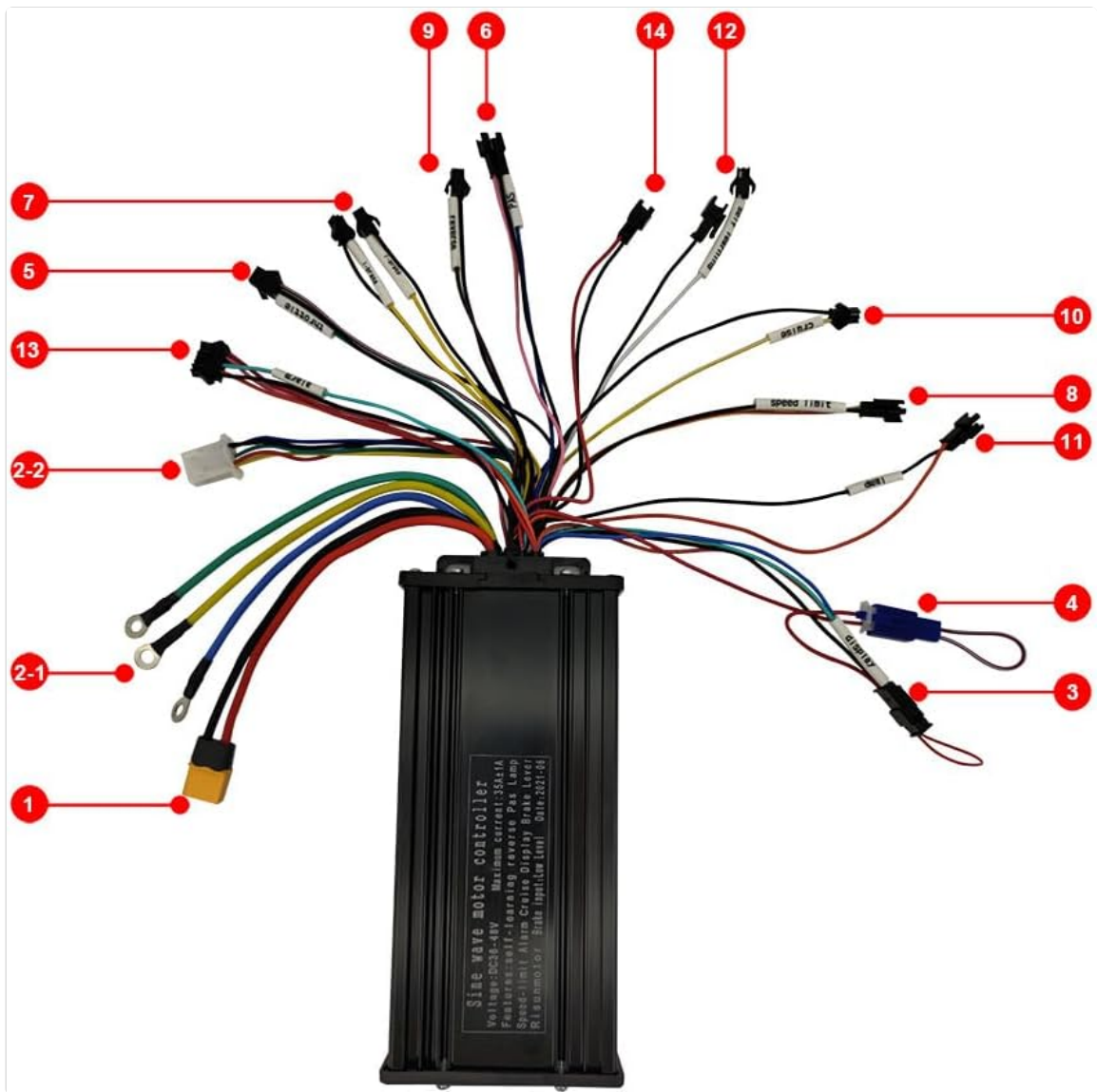


Image: Detailed wiring diagram illustrating connections for battery, motor phase, motor Hall, and display.

## 2. Step 2: Power On Display

Turn on the display using the NFC card (if applicable) or by long-pressing the power button.

## 3. Step 3: Self-Learning Function

Connect the two white self-learning wires. The motor will rotate automatically, and the controller will pair with the motor. Disconnect these wires after approximately 10 seconds. This process corrects any incorrect 3-phase combination between the motor and controller.

## 4. Step 4: Connect Throttle and Other Function Wires

Connect the throttle and any other function wires (e.g., brake levers, PAS sensor, lights) as required.





Image: The EN06 LCD Display, showing its interface and control buttons.



Image: Technical drawing showing the dimensions of the EN06 LCD Display (212x86.5x48.5mm).

## Display Functions

- **Power On/Off:** Long press the power button to turn the display on or off.
- **Assist Level:** Use the '+' and '-' buttons to adjust the 5-speed level for throttle and Pedal Assist System (PAS).
- **Information Display:** The display shows current speed, average speed, maximum speed, trip distance, odometer, riding time, and current battery voltage.
- **Cruise Assist Mode:** From the home page, long press the 'Up' key to enter or exit cruise assist mode.

## Parameter Settings

To access the settings menu, long press the 'Up' and 'Down' keys simultaneously. The menu provides 20 parameters (P01-P20) for configuration. Refer to the detailed product manual for specific parameter definitions and adjustment ranges.

- **P03:** Adjust battery voltage (e.g., 36V, 48V, 52V).
- Other parameters control aspects like wheel diameter, speed limits, and more.

## TROUBLESHOOTING

This section addresses common issues and solutions for the Ebike Controller Kit.

### Motor Operation Modes

- **Hall Sensor Mode (Sine Wave Mode):** Standard operation for motors with functional Hall sensors.
- **Non-Hall Mode (Square Wave Mode):** If your motor's Hall sensor is damaged or incompatible, the controller will automatically switch to square wave mode, allowing continued operation.
- **Self-Learning Function:** If the motor rotation direction is incorrect or there's a 3-phase combination issue, use the self-learning function (as described in Setup) to correct it.

### Protection Features

The controller includes built-in protections to prevent damage:

- **Over/Under Voltage Protection:** Safeguards against battery voltage extremes.
- **Over Current Protection:** Prevents excessive current draw.
- **Overload Protection:** Protects the motor and controller from excessive load.
- **Overheating Protection:** Monitors and manages internal temperature.
- **Anti-Runaway Protection:** Enhances safety by preventing unintended acceleration.
- **Locked-Motor Protection:** Detects and responds to motor lock-up conditions.

If an error occurs, check all connections and refer to the full product manual for specific error codes and advanced troubleshooting steps.

## SPECIFICATIONS

Feature	Specification
Brand	JOYSOG
Model Name	36V 48V 52V 1500W
Input Voltage Range	36V / 48V / 52V
Rated Power	36V 650W / 48V 860W / 52V 930W
Peak Power	36V 1200W / 48V 1600W / 52V 1800W
Brake Type	Low Voltage Brake
Rotor Position Detecting Method	Hall sensor
Material	Aluminum
Color	Silver
Controller Size	212 x 86.5 x 48.5 mm
Controller Weight	610g

Feature	Specification
Waterproof Grade	IP65
Included Components	Ebike Controller Kit

## MAINTENANCE

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To ensure the longevity and optimal performance of your Ebike Controller Kit, follow these general maintenance guidelines:

- **Regular Inspection:** Periodically check all wiring connections for tightness and signs of wear or damage.
- **Cleanliness:** Keep the controller and display clean and free from dust, dirt, and moisture. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals or abrasive materials.
- **Environmental Protection:** While the controller has an IP65 waterproof rating, avoid prolonged exposure to heavy rain or submersion in water to prevent potential damage.
- **Cable Management:** Ensure cables are neatly routed and secured to prevent snagging or abrasion during riding.

## WARRANTY AND SUPPORT

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For warranty information, please refer to the documentation provided with your purchase or contact the seller directly. Keep your proof of purchase for any warranty claims.

If you encounter any issues or require technical assistance, please contact JOYSOG customer support or the retailer from whom you purchased the product. Provide your product model and a detailed description of the issue for efficient support.