SHHJCO ND72340

SHHJCO Far-Driver V2 Controller ND72340 Electric Bike Controller Instruction Manual

Model: ND72340 | Brand: SHHJCO

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your SHHJCO Far-Driver V2 Controller ND72340. Please read this manual thoroughly before attempting to install or operate the controller to ensure safe and efficient use. Retain this manual for future reference.

2. Product Overview and Features

The SHHJCO Far-Driver V2 Controller ND72340 is a high-performance sine wave controller designed for electric bikes and motorcycles, supporting motor power ranging from 2000W to 3000W. It features a robust design and advanced functionalities for optimal control.

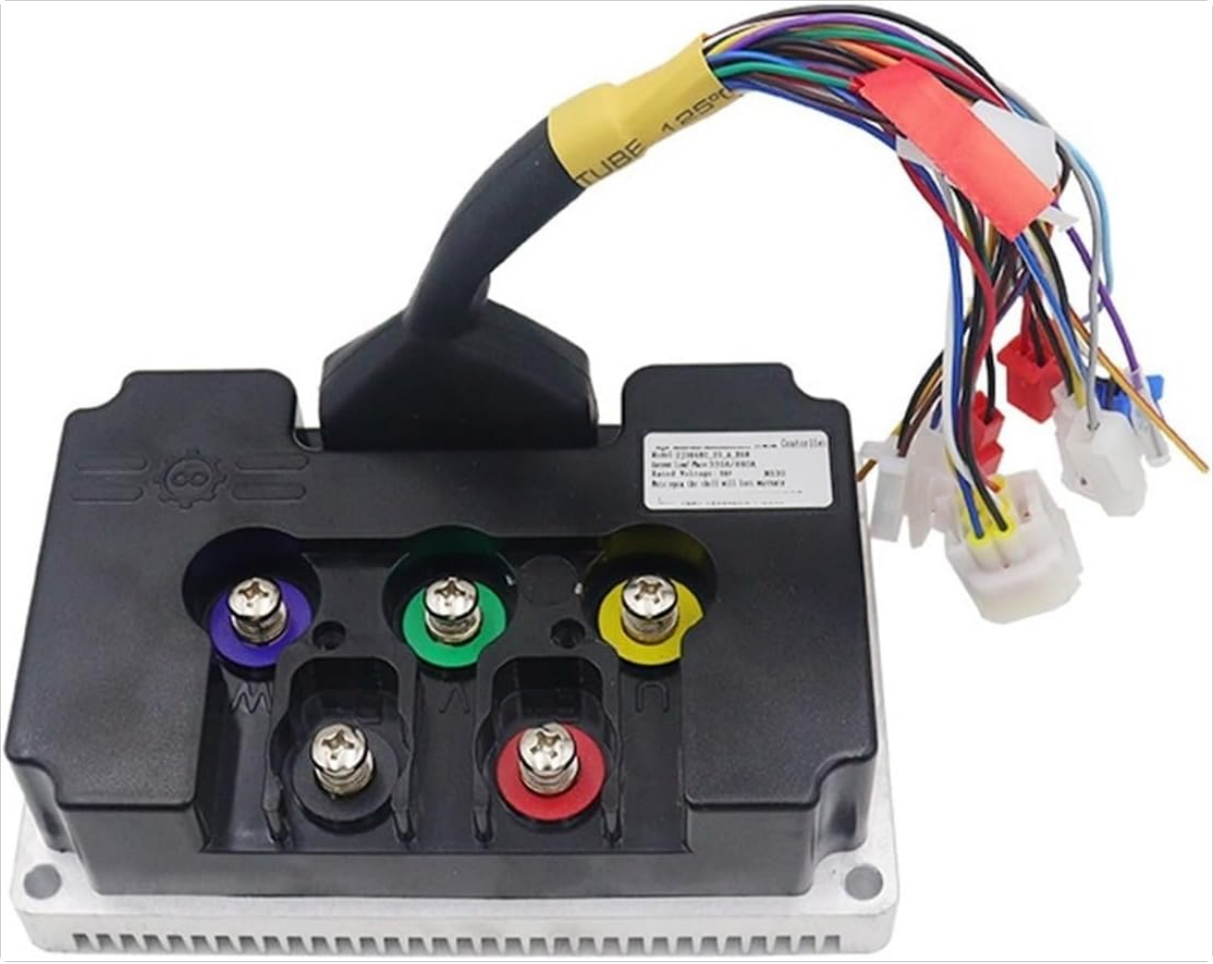

Figure 1: SHHJCO Far-Driver V2 Controller ND72340 with its multi-colored wiring harness for various connections.

Key Features:

- **Controller Type:** Sine Wave Controller, providing smooth and quiet motor operation.
- **High Current Capacity:** Max. Phase Current of 340A and Max. Bus Current of 120A.
- **Wide Voltage Compatibility:** Operates with 48V, 60V, or 72V systems, with a maximum working voltage of 88V.
- **Motor Power Support:** Compatible with motors ranging from 2000W to 3000W.
- **Efficient Heat Dissipation:** Features a trough design conducive to heat dissipation, preventing thermal overload.
- **Stable Control:** Delivers stable speed, silent operation, responsive braking, and precise directional change control.
- **Durable Construction:** Wires and interfaces are designed for durability, ensuring low malfunction rates over long-term use.
- **Protective Casing:** The controller housing is constructed from aluminum alloy to protect internal circuits.
- **Bluetooth Connectivity:** Allows for programmable settings via Bluetooth.

Figure 2: Angled view of the SHHJCO Far-Driver V2 Controller ND72340, showcasing its compact design.

3. Specifications

Specification	Value
Model Number	ND72340
Controller Type	Sine Wave Controller
Max. Phase Current	340A
Max. Bus Current	120A
Working Voltage	48V/60V/72V (Max. 88V)
Compatible Motor Power	2000W-3000W
Dimensions (L x W x H)	179.9mm x 117.9mm x 59.9mm (approx. 7.08 x 4.64 x 2.36 inches)
Item Weight	2.5 kg (approx. 5.5 lbs)
Housing Material	Aluminum Alloy

Note: Dimensions are approximate and based on provided diagrams.

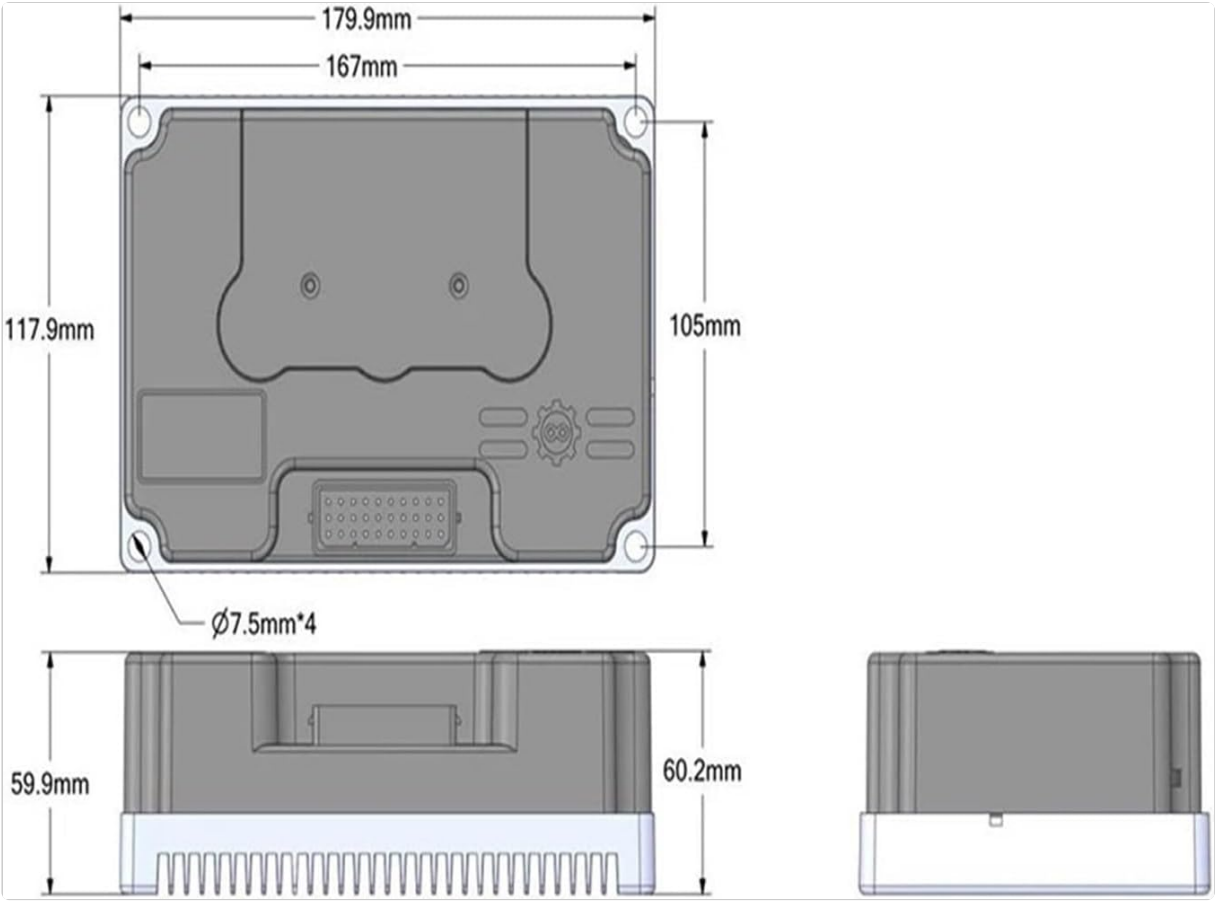

Figure 3: Detailed dimensional drawing of the SHHJCO Far-Driver V2 Controller ND72340.

4. Setup and Installation

Proper installation is crucial for the safe and optimal performance of your controller. If you are unsure about any step, consult a qualified technician.

Safety Precautions:

- Always disconnect the battery power before performing any installation or wiring.
- Wear appropriate safety gear, including insulated gloves and eye protection.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Mount the controller in a location that allows for adequate airflow and heat dissipation.

Installation Steps:

1. **Mounting the Controller:** Securely attach the controller to the frame of your electric bike or motorcycle using appropriate fasteners. Ensure the heat sink fins are exposed to airflow.
2. **Identify Wiring:** Carefully identify all wires from your motor, battery, throttle, brakes, and other accessories. Refer to the wiring diagram (if provided separately by the manufacturer) for specific connections. Common connections include:
    - **Power Wires:** Thick red (positive) and black (negative) wires connecting to the battery.
    - **Motor Phase Wires:** Three thick wires (e.g., yellow, green, blue) connecting to the motor.
    - **Hall Sensor Wires:** A bundle of thinner wires (typically 5-6 wires) for motor position sensing.
    - **Throttle Wires:** Usually three wires (power, signal, ground).
    - **Brake Wires:** For e-brake cut-off functionality.
    - **Ignition/Key Switch:** For turning the system on/off.

- **Other Accessories:** Wires for display, speed sensor, cruise control, etc.

3. **Connect Wires:** Connect each wire from your bike/motorcycle to the corresponding port on the controller. Match colors and functions carefully. Ensure all connections are tight and insulated.
4. **Bluetooth Module:** If applicable, connect the Bluetooth module to its designated port on the controller for wireless programming.
5. **Initial Power-Up:** After all connections are made and double-checked, connect the battery. Turn on the ignition (if applicable). Observe for any unusual sounds, smells, or smoke. If any issues arise, immediately disconnect power.
6. **Testing:** Perform a low-speed test of the motor, throttle, and brakes in a safe environment before full operation.

Figure 4: Top view of the SHHJCO Far-Driver V2 Controller ND72340, displaying the main power terminals (M, U, V, W) and the protective cover.

5. Operating Instructions

Once installed and tested, the controller manages the power delivery to your electric motor based on your input.

Basic Operation:

1. **Power On:** Turn on the main power switch or key ignition of your electric vehicle. The display (if connected) should illuminate.
2. **Throttle Control:** Gently apply the throttle to initiate motor assistance. The controller will modulate power to the motor, providing smooth acceleration.
3. **Braking:** Engage the brakes. The controller is designed to cut off motor power when brakes are applied, enhancing safety.

Bluetooth Programming:

The ND72340 controller supports Bluetooth connectivity for advanced programming and parameter adjustments. Refer to the specific mobile application or software provided by the manufacturer for detailed instructions on connecting and configuring settings such as:

- Motor parameters (e.g., pole pairs, Hall angle)
- Speed limits
- Current limits (phase and bus)
- Regenerative braking settings
- Throttle response curves

Ensure your mobile device's Bluetooth is enabled and follow the app's instructions to pair with the controller.

6. Maintenance

Regular maintenance helps ensure the longevity and reliable performance of your controller.

- **Keep Clean:** Periodically clean the exterior of the controller, especially the heat sink fins, to prevent dust and debris buildup that can impede heat dissipation. Use a soft, dry cloth.
- **Inspect Connections:** Regularly check all wiring connections for tightness and signs of corrosion or damage. Loose connections can lead to intermittent operation or component failure.
- **Environmental Protection:** Avoid exposing the controller to excessive moisture, direct sunlight for prolonged periods, or extreme temperatures. While the aluminum housing offers protection, it is not fully waterproof unless specified.
- **Heat Management:** Ensure the controller's mounting location allows for good airflow. Overheating can reduce efficiency and lifespan.

Figure 5: Side view of the SHHJCO Far-Driver V2 Controller ND72340, highlighting the heat sink fins for thermal management.

7. Troubleshooting

If you encounter issues with your controller, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No power to motor/display	Battery disconnected, low battery voltage, faulty ignition switch, loose power connections.	Check battery connection and charge level. Verify ignition switch functionality. Inspect all power wires for secure connections.
Motor not responding to throttle	Loose throttle connection, faulty throttle, Hall sensor issue, motor phase wire issue.	Check throttle wiring. Inspect Hall sensor and motor phase wire connections. Test throttle functionality if possible.
Motor runs erratically or with noise	Incorrect Hall sensor wiring, damaged Hall sensors, motor phase wire mismatch, motor damage.	Verify Hall sensor and motor phase wire connections. If programmable, check motor parameters. Consult a technician if motor damage is suspected.
Controller overheating	Insufficient airflow, excessive load, short circuit in motor/wiring.	Ensure proper ventilation around the controller. Reduce load if possible. Check motor and wiring for shorts.
Bluetooth connection issues	Bluetooth module not connected, app issues, interference.	Ensure Bluetooth module is securely connected. Restart app and device. Try connecting in an area with less interference.

If the problem persists after attempting these solutions, please contact SHHJCO customer support or a qualified electric vehicle technician.

8. Warranty and Support

Specific warranty details for the SHHJCO Far-Driver V2 Controller ND72340 are not provided within this manual. Please refer to the product packaging, purchase documentation, or the official SHHJCO website for warranty information and terms.

For technical support, inquiries, or assistance with troubleshooting beyond the scope of this manual, please contact the seller or SHHJCO customer service directly. When contacting support, please have your product model number (ND72340) and purchase details readily available.