



Manuals.plus /

› Mechanivis /

› Mechanivis FarDriver Controller ND72360 User Manual for Electric Bikes and Scooters

Mechanivis ND72360

Mechanivis FarDriver Controller ND72360 User Manual

Model: ND72360 | Brand: Mechanivis

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Mechanivis FarDriver Controller ND72360. This high-performance BLDC motor controller is designed for electric scooters, electric motorcycles, and electric bikes, supporting 48V, 60V, and 72V systems with a 190A rate current, suitable for 3KW-4KW motors and speeds up to 100KMH.

Key features of the ND72360 controller include:

- **Cost-effective:** Offers high performance at a reasonable price.
- **User-friendly:** Features a simple interface for convenient use, development, and debugging.
- **Strong stability:** Equipped with over-voltage, over-current, overheating, and other multiple protections to ensure long-term stable operation in complex environments.
- **Wide applicability:** Suitable for industrial automation, electric vehicles, and various other fields.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the controller. Failure to follow these instructions may result in electric shock, fire, serious injury, or property damage.

- Always disconnect power from the battery before performing any installation, wiring, or maintenance.
- Installation should be performed by qualified personnel or under the supervision of an experienced technician.
- Ensure correct voltage and polarity when connecting the battery and motor. Incorrect connections can damage the controller and other components.
- Avoid exposing the controller to water, moisture, or extreme temperatures.
- Do not attempt to open or modify the controller casing. This will void the warranty and may lead to malfunction or injury.
- Securely mount the controller to prevent vibration and physical damage.

3. PRODUCT OVERVIEW

The FarDriver Controller ND72360 is a robust unit designed for efficient motor control. It features clearly labeled terminals for power input (B+, B-) and motor phase outputs (U, V, W), along with a multi-pin connector for various signal wires.

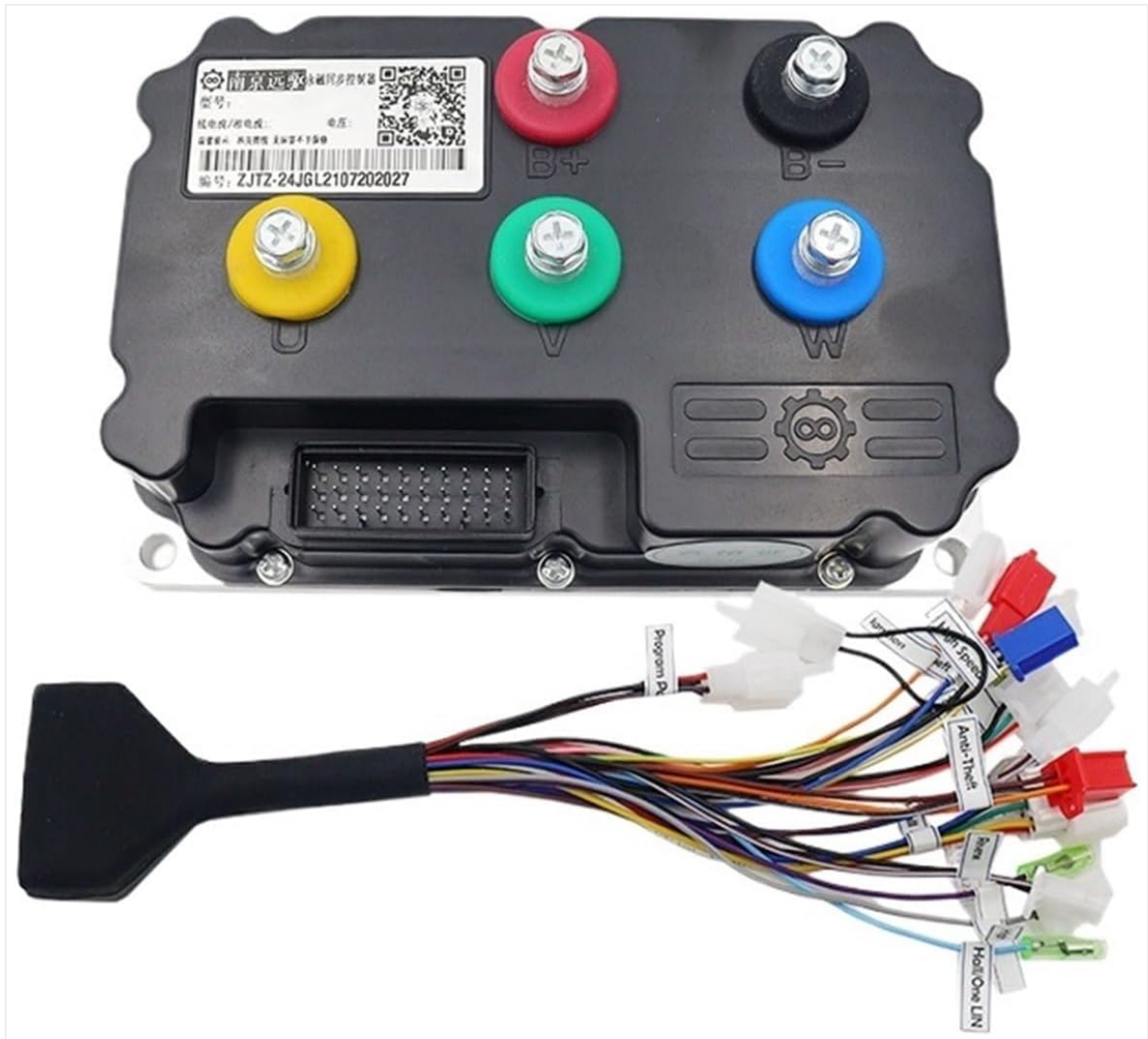


Image 3.1: The FarDriver Controller ND72360 shown with its accompanying wiring harness, illustrating the main unit and connection cables.

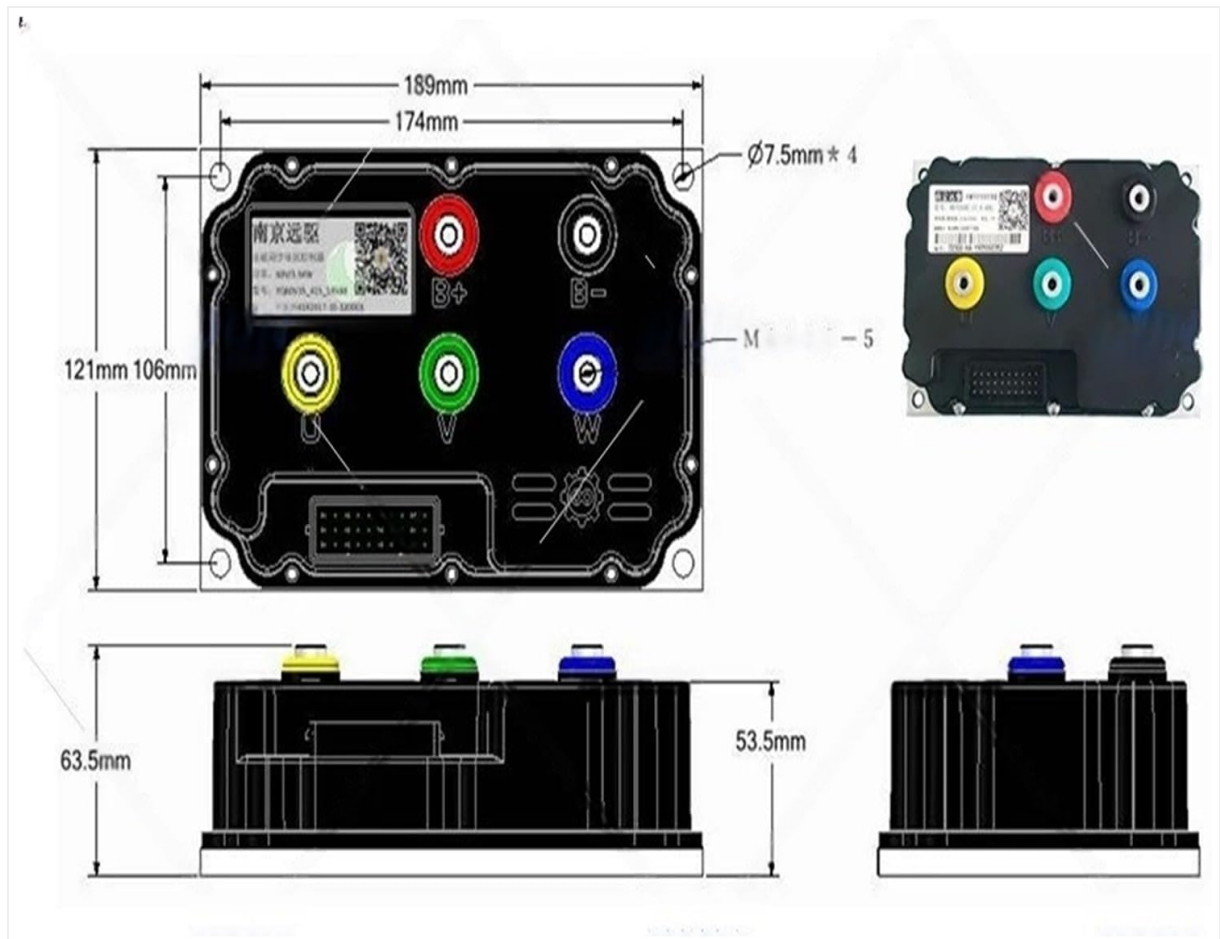


Image 3.2: A top-down perspective of the FarDriver Controller ND72360, highlighting the main terminals and QR code label.

4. SPECIFICATIONS

Feature	Specification
Controller Type	DC Motor Controller (BLDC)
Rated Voltage	48V / 60V / 72V
Rated Current	190A
Motor Power Range	3KW - 4KW
Max Speed Capability	Up to 100 KMH
Item Length	189mm
Item Width	121mm
Item Height	65mm
Item Weight	6.61 pounds (approx. 3 KG)
Placement on Vehicle	Frame
Manufacturer Part Number	ND72360
Assembly Required	No
Number of Pieces	1

For detailed dimensions, refer to the diagram below:



5. SETUP AND INSTALLATION

Proper installation is crucial for the controller's performance and longevity. Follow these general steps:

1. **Mounting:** Securely mount the controller to the vehicle frame in a location that is protected from direct impact, excessive heat, and moisture. Ensure adequate airflow for cooling.
2. **Power Connections:** Connect the main battery positive (B+) and negative (B-) terminals to the corresponding terminals on the controller. Double-check polarity to prevent damage. Use appropriate gauge wiring for the current rating.
3. **Motor Connections:** Connect the motor phase wires (U, V, W) to the corresponding terminals on the controller.
4. **Signal Wiring:** Connect the various signal wires from the wiring harness (e.g., throttle, brake, ignition, hall sensors, anti-theft, programming port) to their respective components on the vehicle. Refer to the wiring diagram provided with your vehicle or specific controller documentation for detailed connections.
5. **Initial Check:** Before applying full power, perform a continuity check and visually inspect all connections to ensure they are secure and correctly wired.

Note: Specific wiring diagrams and programming instructions may vary based on your motor and vehicle configuration. Consult additional documentation or a professional if unsure.

6. OPERATING INSTRUCTIONS

Once installed, the controller manages the power delivery to your BLDC motor. Basic operation involves:

- **Power On:** Turn on the vehicle's ignition or main power switch. The controller will typically perform a self-check.
- **Throttle Control:** Apply throttle input to control motor speed. The controller translates this input into appropriate power output.
- **Braking:** Engage the brake levers. The controller will cut motor power and may activate regenerative braking if configured.
- **Programming/Tuning:** For advanced settings such as current limits, speed profiles, or specific motor parameters, the controller may require connection to a computer or dedicated programming tool via its programming port. Refer to the software manual for detailed instructions on parameter adjustment.

7. MAINTENANCE

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

- **Cleaning:** Keep the controller clean and free from dust, dirt, and debris. Use a soft, dry cloth for cleaning. Do not use harsh chemicals or solvents.
- **Connection Check:** Periodically inspect all electrical connections for tightness and signs of corrosion. Loose connections can lead to overheating and poor performance.
- **Environmental Protection:** Ensure the controller remains protected from direct water exposure and extreme temperatures.
- **Ventilation:** Verify that the mounting location allows for adequate heat dissipation.

8. TROUBLESHOOTING

If you encounter issues with your FarDriver Controller ND72360, consider the following common troubleshooting

steps:

- **No Power:** Check battery connections, main fuse, and ignition switch. Ensure the battery is charged.
- **Motor Not Responding:** Verify throttle connection and functionality. Check motor phase wire connections and hall sensor connections. Ensure the motor is not seized.
- **Intermittent Operation:** Inspect all wiring for loose connections or damaged insulation. Check for signs of overheating on the controller.
- **Error Codes:** If the controller has diagnostic indicators or connects to a display that shows error codes, consult the specific error code documentation for your system.
- **Overheating:** Ensure the controller is properly mounted with adequate ventilation. Reduce load if operating under extreme conditions.

If problems persist after performing these checks, it is recommended to consult a qualified technician or contact customer support.

9. WARRANTY AND SUPPORT

The Mechanivis FarDriver Controller ND72360 is covered by a manufacturer's warranty against defects in materials and workmanship. The specific terms and duration of the warranty may vary. Please retain your proof of purchase for warranty claims.

For technical support, warranty inquiries, or further assistance, please contact your retailer or the manufacturer directly. Provide your product model number (ND72360) and purchase details when seeking support.