

NB POWER QS 273 8000W Ebike Kit

NB POWER QS 273 8000W Ebike Motor Kit Instruction Manual

Model: QS 273 8000W Ebike Kit (18-inch 3.5T High Speed Variant)

1. INTRODUCTION

Thank you for choosing the NB POWER QS 273 8000W Ebike Motor Kit. This kit is designed to convert a standard bicycle into a powerful electric bike, offering high performance and an exhilarating riding experience. This manual provides essential information for the safe and correct installation, operation, and maintenance of your ebike motor kit. Please read this manual thoroughly before installation and retain it for future reference.

2. SAFETY INFORMATION

- Always wear a helmet and appropriate safety gear when operating an ebike.
- Ensure all connections are secure and waterproof before riding.
- Regularly inspect brakes, tires, and all components for wear and damage.
- Do not operate the ebike in adverse weather conditions or beyond your skill level.
- Be aware of local regulations regarding ebike power and speed limits.
- Keep hands and feet clear of moving parts, especially the motorwheel.
- Disconnect the battery before performing any maintenance or installation.

3. PACKAGE CONTENTS

The NB POWER QS 273 8000W Ebike Motor Kit typically includes the following components. Please verify all items are present upon unboxing.



Image 3.1: QS 273 8000W Motorwheel with Terrain Tire. This image shows the complete motorwheel assembly, including the hub motor, spokes, rim, and a knobby terrain tire.



Image 3.2: 150A Sabvoton V2 Programmable Controller. The image displays the black, finned controller unit with various wiring harnesses extending from one end, packaged in a cardboard box.

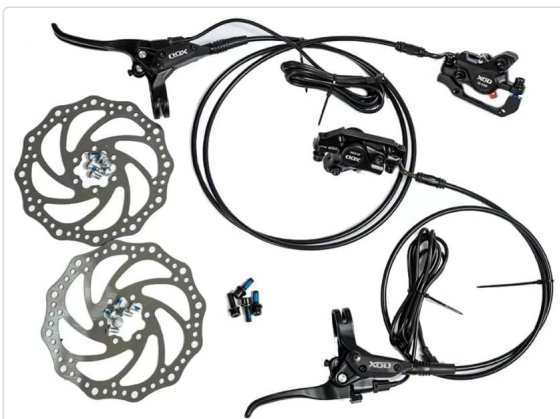


Image 3.3: Hydraulic Brake System with 203mm Disc Brakes. This image shows two hydraulic brake levers, calipers, and two 203mm disc rotors, along with mounting hardware.

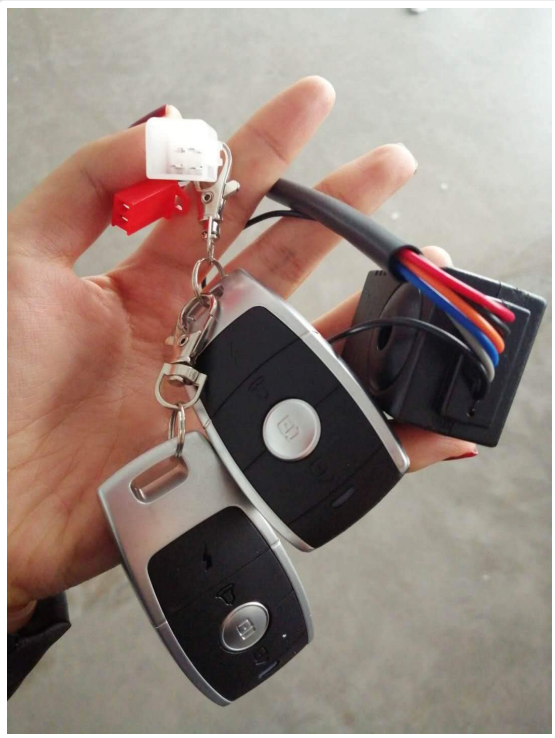


Image 3.4: Alarm Lock Keys and Remote. A hand holds two remote key fobs for the alarm lock system, connected to a wiring harness.

- QS 273 150mm Dropout Motorwheel with Terrain Tire (18-inch for this variant)
- 8000W Motor (3.5T High Speed or 5T High Torque option)
- 150A Sabvoton V2 Programmable Controller
- TFT Color UKC1 Color Display
- Full Twist Throttle
- Hydraulic Brake Levers with 203mm Disc Brakes
- Single Freewheel
- Alarm Lock System
- Necessary Wiring Harnesses and Connectors

4. SETUP AND INSTALLATION

Installation of the ebike kit requires mechanical aptitude. If you are unsure about any step, seek professional assistance.

4.1 Motorwheel Installation

1. Remove your bicycle's existing rear wheel.
2. Ensure your bicycle's rear dropout spacing is 150mm to accommodate the QS 273 motorwheel.
3. Carefully insert the QS 273 motorwheel into the rear dropouts. Ensure the motor cable exits towards the left side of the bike (non-drive side).
4. Secure the motorwheel using the provided axle nuts and washers. **Important:** Ensure the axle is fully

seated and tightened securely. Some users have reported difficulty finding a compatible axle bolt; verify fitment before final tightening.

5. Install the single freewheel onto the motorwheel hub.

4.2 Controller Mounting and Wiring

1. Mount the Sabvoton V2 controller in a secure, well-ventilated location on your bike frame, away from direct water spray.
2. Connect the motor phase wires (usually thick green, blue, yellow) from the motor to the corresponding wires on the controller.
3. Connect the Hall sensor wires (smaller wires, usually 5 or 6) from the motor to the controller.
4. Connect the main battery power cables (red and black) from your battery (not included) to the controller. Ensure correct polarity.
5. Connect the display, throttle, and brake lever wires to the designated ports on the controller.

4.3 Display and Throttle Installation

1. Mount the UKC1 TFT color display on your handlebars in a position that is easily visible and accessible.
2. Install the full twist throttle on the right side of your handlebars.
3. Route the display and throttle cables neatly along the frame and connect them to the controller.

4.4 Hydraulic Brake Installation

1. Remove your existing brake system.
2. Mount the 203mm disc rotors onto your wheel hubs. Ensure the rotation direction is correct if indicated.
3. Install the hydraulic brake calipers onto your bike's frame/fork mounts.
4. Mount the hydraulic brake levers on your handlebars.
5. Connect the hydraulic lines to the calipers and levers. Ensure the system is properly bled to remove air bubbles for optimal braking performance.
6. Connect the brake sensor wires (if present) from the hydraulic levers to the controller. These sensors cut motor power when brakes are applied.

4.5 Alarm Lock Connection

1. Connect the alarm lock wiring harness to the designated port on the controller or main wiring harness.
2. Secure the alarm unit in a discreet location on the bike.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

To power on the system, ensure your battery is connected and turned on (if it has a switch). Then, press and hold the power button on the UKC1 display until it illuminates.

To power off, press and hold the power button on the display until it shuts down.

5.2 UKC1 Display Functions

The UKC1 display provides real-time information and allows you to adjust settings:

- **Speed Display:** Shows current, average, and max speed.

- **Battery Level:** Indicates remaining battery charge.
- **Assist Level:** Adjust pedal assist levels (if applicable, though this kit is throttle-focused).
- **Odometer/Trip Meter:** Tracks total distance and trip distance.
- **Error Codes:** Displays diagnostic codes if an issue occurs.
- **Settings Menu:** Access various parameters like wheel size, speed limit, and backlight brightness. Refer to the UKC1 display manual for detailed programming instructions.

5.3 Throttle Usage

The full twist throttle provides instant power. Gently twist the throttle to accelerate. The amount of twist corresponds to the power output. Always start with a gentle twist to avoid sudden acceleration, especially with an 8000W motor.

5.4 Hydraulic Brake Operation

The hydraulic brakes offer strong and consistent stopping power. Squeeze the brake levers to engage the brakes. The brake sensors will cut motor power, ensuring safe deceleration. Familiarize yourself with the braking feel before riding at high speeds.

5.5 Sabvoton V2 Controller Programming

The Sabvoton V2 controller is programmable, allowing for fine-tuning of motor parameters, speed limits, and other settings via a computer interface. Consult the Sabvoton V2 controller manual and software for detailed programming instructions. Incorrect settings can damage the motor or controller.

6. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your ebike kit.

- **Pre-Ride Check:** Before each ride, check tire pressure, brake function, and ensure all bolts and connections are tight.
- **Cleaning:** Keep the motor, controller, and display clean. Use a damp cloth; avoid high-pressure washing directly on electrical components.
- **Wiring Inspection:** Periodically inspect all wiring for fraying, cuts, or loose connections. Secure any loose cables.
- **Brake Maintenance:** Check brake pads for wear and replace as needed. Ensure hydraulic fluid levels are adequate and bleed the system if braking feels spongy.
- **Motor Inspection:** Listen for unusual noises from the motor. Ensure the motorwheel spins freely when unpowered.
- **Battery Care:** Follow the manufacturer's instructions for your ebike battery (not included) regarding charging, storage, and temperature.

7. TROUBLESHOOTING

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Motor not engaging/no power	Battery off or low charge; loose power connections; display off; brake sensors engaged.	Check battery, ensure connections are secure, turn on display, release brake levers.
Display not turning on	Loose display cable; battery off/dead; faulty display.	Check display cable connection, verify battery power, try another display if available.
Brakes feel spongy or weak	Air in hydraulic lines; worn brake pads; low fluid.	Bleed the hydraulic brake system, replace worn pads, check fluid level.
Motor makes unusual noise	Loose motor components; internal motor damage; controller issue.	Inspect motor for loose parts. If noise persists, contact support.
Difficulty with axle bolt fitment	Incompatible axle bolt or dropout size.	Ensure correct axle bolt size for your frame and the motor. Consult a bike mechanic if needed.

For error codes displayed on the UKC1, refer to the display's specific manual for interpretation and solutions.

8. SPECIFICATIONS

Feature	Specification
Motor Type	QS 273 Hub Motor
Motor Power	8000W
Motor Speed Options	3.5T High Speed (approx. 110-120km/h no load) or 5T High Torque (approx. 70-75km/h no load)
Dropout Spacing	150mm
Controller	150A Sabvoton V2 Programmable Controller
Display	TFT Color UKC1 Display
Brake System	Hydraulic Brake with 203mm Disc
Wheel Size (Current Variant)	18 Inches
Max Weight Recommendation	220 Pounds (100 kg)
Included Components	Motorwheel, Controller, Display, Throttle, Hydraulic Brakes, Freewheel, Alarm Lock

9. WARRANTY INFORMATION

This product comes with a Limited Warranty. Please refer to the warranty card included with your purchase or contact the seller for specific terms and conditions regarding coverage, duration, and claims process. The warranty typically covers manufacturing defects but may not cover damage due to improper installation,

misuse, or normal wear and tear.

10. SUPPORT

For technical assistance, troubleshooting beyond this manual, or warranty claims, please contact your original seller or the NB POWER customer support channel. When contacting support, please have your product model number and purchase date available.

Manufacturer: niubo power

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