FREESKY RANGER PRO

FREESKY RANGER PRO Electric Bike User Manual

Model: RANGER PRO

1. Introduction

This manual provides essential information for the safe and efficient operation, assembly, and maintenance of your FREESKY RANGER PRO Electric Bike. Please read this manual thoroughly before your first ride and retain it for future reference.
The FREESKY RANGER PRO is a dual-motor electric bicycle designed for various terrains, featuring a 48V 25Ah battery, 26x4 inch fat tires, and hydraulic disc brakes.



Figure 1.1: The FREESKY RANGER PRO Electric Bike. This image shows the overall design of the blue electric bike, highlighting its robust frame, fat tires, and the integrated dual motor system.

2. Safety Information

Your safety is paramount. Always wear a helmet and appropriate safety gear when riding. Adhere to all local traffic laws and regulations.

- **Pre-Ride Check:** Before each ride, inspect tires for proper inflation, check brake functionality, and ensure all quick releases and fasteners are secure.
- **Visibility:** The bike is equipped with an 800 lumens headlight, reflectors, and a horn for enhanced visibility and safety. High-brightness turn signal taillights are also included to warn oncoming traffic from behind.
- **Braking System:** The 4-piston hydraulic disc brakes provide sensitive and effective stopping power, especially in high-speed conditions, snow, mountain roads, steep slopes, long downhills, and rain. Familiarize yourself with their operation.
- **Rider Height:** Recommended rider height is 5'4" - 6'8" for optimal control and comfort.
- **NFC Cards:** Handle your NFC cards with care. Contact customer service before changing settings to avoid error codes.



Figure 2.1: Key Safety Details. This image illustrates the shock absorber seat post, ergonomic frame design, dual hydraulic disc brakes, and the front and rear lighting system, all contributing to rider safety and comfort.

3. Components Overview

The FREESKY RANGER PRO is constructed with a sturdy 6061 aluminum frame and features several advanced components for performance and durability.

- **Frame:** 6061 Aluminum alloy, step-through design.
- **Motors:** Dual hub motors, peak 3500W combined output.
- **Battery:** 48V 25Ah removable Lithium-Ion battery.
- **Tires:** 26" x 4" fat tires.
- **Brakes:** 4-Piston Hydraulic Disc Brakes (front and rear).
- **Suspension:** Shockproof front fork and shock absorber seat post.
- **Gearing:** 7-speed gear system (Shimano).

- **Display:** HD Colorful Display.
- **Lighting:** 800 lumens headlight, reflectors, high-brightness turn signal taillight.
- **Security:** NFC System for locking and startup.



Figure 3.1: Shockproof Front Fork. This image highlights the robust front suspension system, designed to provide a smooth ride across various terrains including city roads, beaches, soil paths, and snowy conditions.

4. Setup and Assembly

Your FREESKY RANGER PRO Electric Bike arrives 85% pre-assembled. Basic assembly steps are required to prepare the bike for use.

1. **Unpacking:** Carefully remove the bike and all components from the packaging.
2. **Handlebar Installation:** Attach and secure the handlebar to the stem.
3. **Front Wheel Installation:** Install the front wheel, ensuring the disc brake rotor is correctly aligned with the caliper.
4. **Pedal Installation:** Attach the pedals, noting that the left and right pedals are distinct (usually marked L and R).

5. **Seat Post Adjustment:** Insert the seat post and adjust the saddle height for comfortable riding.
6. **Battery Insertion:** Insert the fully charged battery into its compartment and secure it.
7. **Final Checks:** Perform a thorough check of all bolts, nuts, and quick releases to ensure they are tightened to the manufacturer's specifications. Verify brake and gear functionality.

An installation video is available on the product page for visual guidance during assembly.

5. Operating Instructions

5.1. Riding Modes

The FREESKY RANGER PRO offers five distinct riding modes to suit various conditions and preferences:

- **Cruise Control:** Maintains a constant speed, ideal for daily commuting on flat terrain.
- **Full Throttle (All Wheel Drive):** Utilizes both front and rear motors for maximum power, suitable for tackling hilly terrains and steep inclines.
- **Pedal Assist:** Provides motor assistance while pedaling, extending riding range and reducing rider effort for long-distance travel.
- **Regular Biking:** Functions as a standard bicycle without motor assistance. The 7-speed gear system allows for easier riding.
- **Walking Assist:** Provides low-speed motor assistance to help push the bike when walking alongside it.



Figure 5.1: Five Riding Modes. This image visually represents the different operational modes available on the electric bike, including All Wheel Drive, Pedal Assist, Cruise, Walking, and Pure Electric (Full Throttle).

5.2. HD Colorful Display

The upgraded HD colorful display provides real-time information about your ride. It allows you to monitor:

- Battery power level
- Current mileage
- Current speed
- Selected riding mode

Refer to the display's dedicated manual for detailed navigation and setting adjustments.

5.3. NFC System

The NFC (Near Field Communication) system provides a convenient and secure method to lock and start your e-bike using NFC cards.

- **Lock/Unlock:** Tap an NFC card to the designated area on the bike to lock or unlock the system.
- **Caution:** Keep both NFC cards safe. If you need to change settings related to the NFC system, contact customer service first to prevent potential error codes on the display.

5.4. Speed Unlocking

To switch to the unlocked speed mode, press and hold the "Speed" button on the control panel. This allows the bike to reach its maximum potential speed of 32-38 mph.



Figure 5.2: Speed Unlocked Feature. This image shows the electric bike in an outdoor setting, illustrating the capability to unlock its full speed potential by pressing and holding the designated "Speed" button.

6. Battery Information

The FREESKY RANGER PRO is powered by a high-capacity 48V 25Ah Lithium-Ion battery.

- **Range:** Offers an impressive range of 60-95 miles per charge, depending on riding conditions, terrain, and assist level.

- **Removable Design:** The battery is removable, allowing for convenient charging both on and off the bike.
- **Charging Time:** A full recharge typically takes approximately 5-7 hours using the provided charger.
- **Certification:** The battery is UL 2271 certified, ensuring safety standards.
- **Protection:** Equipped with a Battery Management System (BMS) for protection.
- **Waterproof Rating:** IP65 waterproof rating.



Figure 6.1: 48V 25Ah Removable Battery. This image provides a detailed look at the electric bike's battery, highlighting its removable design, capacity, and key features such as BMS protection, UL 2271 certification, and IP65 waterproofing.

7. Maintenance

Regular maintenance ensures the longevity and safe operation of your electric bike.

- **Cleaning:** Clean the bike regularly with a damp cloth. Avoid high-pressure washing directly on electrical components.
- **Tires:** Maintain correct tire pressure as indicated on the tire sidewall. Inspect for wear and damage.
- **Brakes:** Regularly check brake pads for wear and hydraulic fluid levels. If brakes feel spongy or less responsive, they may

need bleeding or adjustment by a qualified technician.

- **Chain and Drivetrain:** Keep the chain clean and lubricated. Check for wear on gears and chain.
- **Fasteners:** Periodically check all bolts, nuts, and screws for tightness.
- **Battery Care:** Store the battery in a cool, dry place. Avoid fully discharging the battery for extended periods. Charge regularly, even if not in use.

8. Troubleshooting

This section addresses common issues you might encounter. For problems not listed here, please contact customer support.

- **Bike Not Powering On:**
  - Ensure the battery is fully charged and correctly inserted.
  - Check that the battery is locked into place.
  - Verify all electrical connections are secure.
- **Motor Not Assisting:**
  - Check the selected riding mode on the display.
  - Ensure the battery has sufficient charge.
  - Inspect motor connections for any disconnections.
- **Brakes Feel Weak or Spongy:**
  - Check brake pads for wear and replace if necessary.
  - The hydraulic system may require bleeding. This should be performed by a qualified bicycle mechanic.
- **Error Codes on Display:**
  - Refer to the display's specific manual for error code definitions.
  - If related to NFC settings, contact customer service before attempting adjustments.

9. Specifications

Model Name	RANGER PRO
Bike Type	Electric Bike
Motors	Dual Hub Motors, Peak 3500W
Battery	48V 25Ah Lithium-Ion (Removable, UL 2271 Certified, IP65)
Max Speed	32-38 MPH (Speed Unlocked)
Range per Charge	60-95 Miles
Charging Time	5-7 Hours
Brakes	4-Piston Hydraulic Disc Brakes
Tires	26" x 4" Fat Tires
Frame Material	6061 Aluminum
Gearing	7-Speed (Shimano)
Suspension	Hardtail (Shockproof Front Fork, Shock Absorber Seat Post)

Recommended Rider Height	5'4" - 6'8"
Included Components	Display, Headlight, Reflectors, Turn Signal Taillight



Figure 9.1: Powerful Dual Motor System. This image emphasizes the bike's dual motor capability, detailing its peak 3500W power, maximum speed, Shimano 7-speed gearing, torque, and uphill climbing capacity.

10. Warranty and Support

FREESKY is committed to providing excellent customer service and support for your RANGER PRO Electric Bike.

- **Warranty:** An 18-month warranty is provided for the motor, battery, and controller.
- **Technical Support:** Lifetime technical support is available for your FREESKY fat tire electric bike.
- **Contact:** For any questions or assistance, please reach out to FREESKY customer service. Our professional team aims to respond within 24 hours.

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.

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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