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› WINDHORSE 20" Foldable Electric Bike W4B Series User Manual

WINDHORSE W4B Series

WINDHORSE 20" Foldable Electric Bike User Manual

MODEL: W4B SERIES

1. Introduction

Welcome to the WINDHORSE 20" Foldable Electric Bike user manual. This document provides essential information for the safe and efficient operation, assembly, and maintenance of your new e-bike. The WINDHORSE W4B Series is designed for versatile use, offering a powerful motor, long-range battery, and a convenient folding design suitable for various terrains and commuting needs.



Image: The WINDHORSE 20" Foldable Electric Bike, showcasing its compact design and fat tires.

2. Safety Information

Before operating your electric bike, please read and understand all safety instructions. Failure to follow these instructions may result in serious injury or damage to the product.

- **Wear a Helmet:** Always wear an approved helmet while riding.
- **Local Regulations:** Adhere to all local traffic laws and regulations for electric bikes.

- **Pre-Ride Check:** Before each ride, inspect brakes, tires, battery charge, and all fasteners.
- **Weather Conditions:** Exercise caution when riding in wet or slippery conditions. The 3.0" wide fat tires provide exceptional grip, but safe riding practices are always necessary.
- **Weight Limit:** Do not exceed the maximum load capacity of 330 lbs (including rider and cargo).
- **Throttle Use:** The half-twist throttle is designed to prevent accidental activation. Ensure you are familiar with its operation before riding.

3. Setup and Assembly

Your WINDHORSE e-bike arrives approximately 90% pre-assembled. The following steps detail the final assembly process. All necessary tools are included.

3.1. Assembly Video Guide

Your browser does not support the video tag.

Video: Official Windhorse Ebike tutorial on how to install a 20 inch foldable step-through e-bike. This video demonstrates the complete assembly process from unboxing to final setup.

3.2. Step-by-Step Assembly

1. **Install the Kickstand:** Attach the kickstand to the designated mounting points on the frame using a 5mm wrench. Ensure both corresponding screws are tightened securely.
2. **Install the Handlebar:** Position the handlebar into the stem. Use a No.5 wrench to tighten the front and rear screws on the handlebar clamp, ensuring the handlebar is centered and firm.
3. **Install the Front Wheel:** Remove the headlight using a No.5 wrench. Align the fork with the axle at the center of the wheel. Insert the quick-release skewer through the wheel hub and fork. Tighten the nut onto the fork securely. Reattach the headlight.
4. **Install the Pedals:** Identify the left (L) and right (R) pedals. The left pedal screws counter-clockwise, and the right pedal screws clockwise. Ensure they are correctly installed and tightened.
5. **Adjust the Seat:** Insert the seat post into the frame. Adjust the seat height to a comfortable riding position and secure it with the quick-release clamp.

4. Components Overview

Familiarize yourself with the key components of your WINDHORSE electric bike:

- **Motor:** 983W Peak / 720W Brushless Motor, providing powerful assistance up to 20 MPH and 30° uphill capability.
- **Battery:** 48V 15.6Ah UL-Certified Removable Lithium Battery with Smart BMS protection.
- **Tires:** 20" x 3.0" Puncture-Resistant Fat Tires for all-terrain stability.
- **Brakes:** Dual Mechanical Disc Brakes for reliable stopping power.
- **Suspension:** Dual Suspension System (front fork and seat) for a comfortable ride.
- **Gears:** Shimano 7-Speed Drivetrain for smooth gear changes.
- **Display:** Backlit Smart LCD Display showing speed, battery, distance, and riding metrics.
- **Lights:** Ultra-bright LED Headlight and Rear Light for enhanced visibility.
- **Rear Rack:** Sturdy rear cargo rack with a capacity of 55 lbs (25 kg).

983W PEAK POWERFUL MOTOR



720W
High Speed Motor



20MPH
Max Speed



30°
Uphill



3 SPEED
Modes



Image: Rear wheel with the 983W peak motor.

FRONT FORK SUSPENSION

PROVIDE SAFETY AND COMFORT ON BUMPY ROADS



Image: Close-up of the front fork suspension system.



Image: The sturdy rear rack, capable of carrying up to 55 lbs.

5. Operating Instructions

5.1. Powering On/Off

To power on the bike, insert the key into the battery lock and turn it to the 'ON' position. Press and hold the power button on the LCD display for a few seconds until the screen illuminates. To power off, press and hold the power button again.

5.2. Riding Modes

Your e-bike offers five distinct riding modes:

- **Throttle Mode:** Engage the half-twist throttle for motor-only propulsion without pedaling.
- **Pedal Assist Mode:** The motor provides assistance as you pedal, with adjustable levels of support.
- **Pedal Only:** Ride the bike like a traditional bicycle without motor assistance.
- **Walk Assist:** Provides low-speed motor assistance for walking the bike up steep hills or through crowded areas.
- **Cruise Control:** Maintain a constant speed without continuous throttle engagement for relaxed long-distance rides.



Image: Visual representation of the five available riding modes.

5.3. Shimano 7-Speed Gearing

Use the Shimano 7-speed shifter on the handlebar to select appropriate gears for varying terrain and desired speed. Lower gears are suitable for climbing hills, while higher gears are for faster, flat-road riding.

5.4. Smart LCD Display

The backlit LCD display provides real-time information:

- **Speed:** Current riding speed (MPH).
- **Battery Percentage:** Remaining battery charge.
- **Distance:** Trip distance and total mileage.
- **Riding Metrics:** Displays current pedal assist level and other relevant data.

SHIMANO 7-SPEED PRECISION CONTROL

RIDE WITH POWER AND PRECISION.



Image: The Smart LCD display and Shimano 7-speed shifter on the handlebar.

5.5. Lights and Horn

Activate the ultra-bright LED headlight and rear light for visibility during low-light conditions. Use the integrated horn to alert others when necessary.

6. Battery Information

Your WINDHORSE e-bike is equipped with a high-capacity, UL-Certified removable lithium battery.

- **Capacity:** 48V 15.6Ah (748.8Wh).
- **Range:** Approximately 55-70 miles with pedal assist, or 40-45 miles on throttle only (actual range may vary based on terrain, rider weight, and riding style).
- **Charging Time:** 6-7 hours for a full charge.
- **Charging Methods:** The battery can be charged directly on the bike or removed for convenient charging indoors.

- **Security:** The battery features a lockable design for security and a smart BMS protection system.



Image: The 48V 15.6Ah UL-Certified removable battery, shown both installed and detached for charging.

7. Maintenance

Regular maintenance ensures the longevity and optimal performance of your e-bike.

- **Tire Pressure:** Check tire pressure regularly and inflate to the recommended PSI (indicated on the tire sidewall).
- **Brakes:** Inspect brake pads and rotors for wear. Adjust brake levers for proper tension.
- **Chain:** Keep the chain clean and lubricated to ensure smooth operation and prevent rust.
- **Battery Care:** Store the battery in a cool, dry place. Avoid fully discharging the battery frequently. Charge it regularly, even if not in use, to maintain its health.
- **General Cleaning:** Wipe down the bike with a damp cloth after rides. Avoid using high-pressure water jets directly on electrical components.

8. Troubleshooting

Here are some common issues and their potential solutions:

- **Bike Not Powering On:** Check if the battery is fully charged and properly seated. Ensure the key is in the 'ON' position.
- **Motor Not Assisting:** Verify the pedal assist level on the LCD display. Check for any error codes on the display. Ensure the battery has sufficient charge.
- **Brakes Squealing:** This can be normal for new brakes. If persistent, check for contamination on rotors or worn brake pads.
- **Unusual Noises:** Inspect the chain, gears, and wheels for any obstructions or loose components.

For more complex issues or if troubleshooting steps do not resolve the problem, please contact customer support.

9. Folding Instructions

The WINDHORSE e-bike features a clever folding frame for easy storage and transport.

1. **Lower the Seat:** Open the quick-release clamp on the seat post and lower the seat to its lowest position. Close the clamp.
2. **Fold the Handlebars:** Locate the folding mechanism on the handlebar stem. Release the safety latch and open the quick-release lever. Fold the handlebar stem downwards.
3. **Fold the Frame:** Locate the main frame folding latch in the middle of the bike frame. Release the safety latch and open the quick-release lever. Carefully fold the front half of the bike towards the rear.
4. **Fold the Pedals:** Push the pedals inward towards the crank arm and fold them up or down.

Once folded, the bike is compact enough to fit in apartments, car trunks, dorm rooms, RVs, and offices.

10. Specifications

Feature	Specification
Bike Type	Electric Bike, Foldable, Step-Thru
Age Range	Adults & Teens (5'1" to 6'3")
Brand	WINDHORSE
Motor	983W Peak / 720W Brushless Motor
Max Speed	20 MPH
Battery	48V 15.6Ah (748.8Wh) Removable UL-Certified Lithium Battery
Range	55-70 miles (pedal assist), 40-45 miles (throttle only)
Charging Time	6-7 hours
Wheel Size	20 Inches with 3.0" Fat Tires
Frame Material	High Carbon Steel

Feature	Specification
Suspension Type	Dual (Front Fork & Seat)
Number of Speeds	7 (Shimano Drivetrain)
Brakes	Dual Mechanical Disc Brakes
Max Load Capacity	330 lbs
Rear Rack Capacity	55 lbs (25 kg)
Special Features	Adjustable Seat, Digital Display, Foldable, Multi-Speed, LED Lights



Image: The rear cargo rack, highlighting its 55 lbs load capacity.



Image: Illustration of the dual suspension system for enhanced comfort.

DUAL DISC BRAKES

The effective front and rear disc brake on the e-bike provide excellent stability and control



Image: Close-up view of the dual disc brakes.

LIGHT UP YOUR RIDE

The LED headlights, rear light and three reflectors provide clear illumination of the road ahead around the clock

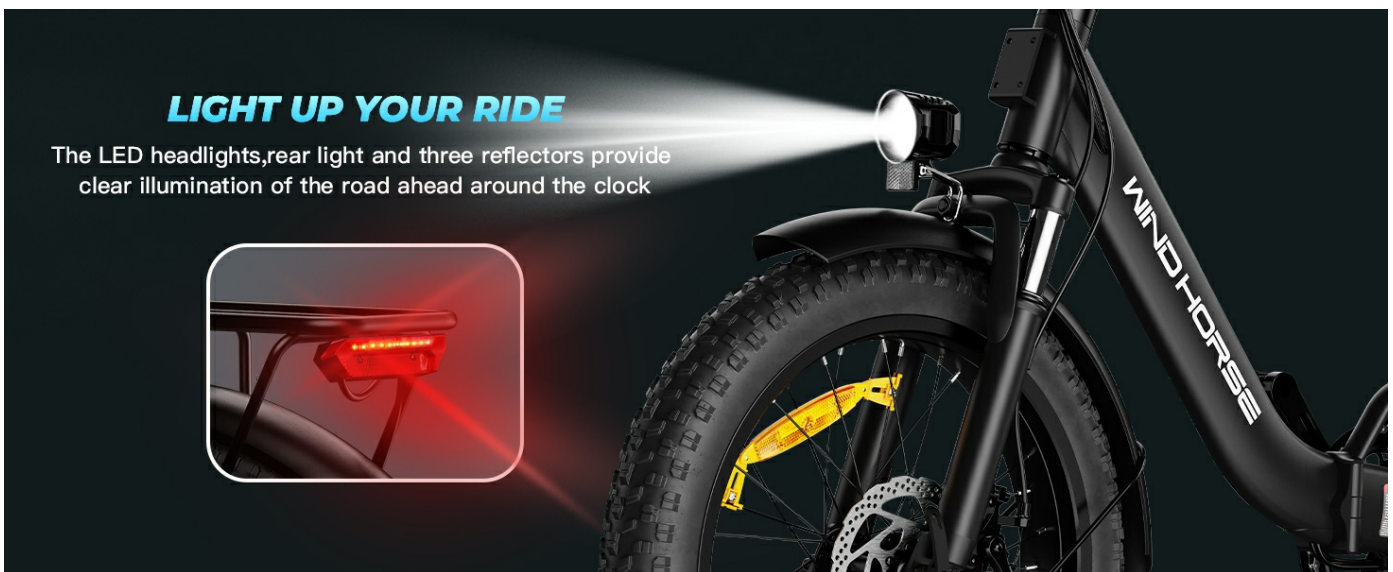


Image: The ultra-bright LED headlight for nighttime visibility.

DETAILED DIMENSIONS



A-Total length	63.78 inch
B-Handlebar height	44.22 inch
C-Ground to rear seat height	31.98 inch
D-Wheelbase	42.60 inch
E-Top tube length	15.17 inch
F-Seat height range	32.28-40.95 inch

Image: The 20-inch fat tire step-through electric bike.

11. Warranty and Support

For any questions, concerns, or warranty claims regarding your WINDHORSE electric bike, please contact our customer support team. Our 24/7 responsive customer support is ready to assist with assembly or riding questions for a worry-free e-bike experience.

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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