Cybervelo EK12

Cybervelo EK12 Folding Electric Bike User Manual

Model: EK12

1. Introduction

Welcome to the Cybervelo EK12 Folding Electric Bike user manual. This guide provides essential information for the safe assembly, operation, maintenance, and troubleshooting of your new electric bicycle. Please read this manual thoroughly before your first ride to ensure optimal performance and safety.
The Cybervelo EK12 is designed for versatility, featuring a powerful 1500W peak motor, a long-lasting 48V 20AH removable battery, and 20-inch fat tires suitable for various terrains. Its folding design offers convenient storage and transport.

2. Safety Information

Your safety is paramount. Always adhere to the following guidelines:

- **Wear a Helmet:** Always wear an approved bicycle helmet when riding.
- **Obey Traffic Laws:** Follow all local traffic laws, regulations, and signage.
- **Pre-Ride Checks:** Before each ride, check tire pressure, brake function, battery charge, and ensure all quick releases and fasteners are secure.
- **Weather Conditions:** Exercise caution when riding in wet conditions, as braking distance may increase. The bike has an IP54 waterproof rating, but avoid submerging it in water.
- **Weight Limit:** Do not exceed the maximum load capacity of 400 lbs (181 kg).
- **Battery Handling:** Only use the provided charger. Do not modify the battery or charger. Charge in a well-ventilated area away from flammable materials.
- **Children:** This e-bike is intended for adults. Keep children away from the bike during charging and operation.

3. Setup and Assembly

Your Cybervelo EK12 electric bike arrives approximately 90% pre-assembled. Follow these steps to complete the assembly:

3.1 Unpacking

- Carefully remove the bike from its packaging.
- Remove all protective wrapping and ties.
- Inspect the bike for any shipping damage. Contact customer support immediately if damage is found.

3.2 Handlebar Installation

Attach the handlebar stem to the fork steerer tube. Ensure the handlebars are centered and the stem bolts are tightened securely. Adjust the angle for comfortable riding.

3.3 Pedal Installation

Identify the left (L) and right (R) pedals. The left pedal tightens counter-clockwise, and the right pedal tightens clockwise. Apply a small amount of grease to the threads before installation. Tighten firmly with a wrench.

3.4 Seat Adjustment

Insert the seat post into the frame. Adjust the seat height so your feet can comfortably touch the ground when stopped, or your leg has a slight bend at the knee when the pedal is at its lowest point. Secure the quick-release lever firmly.

3.5 Tire Inflation

Check the recommended tire pressure (PSI) on the tire sidewall. Inflate tires to the specified range using a bicycle pump.

3.6 Initial Battery Charge

Before your first ride, fully charge the battery. Connect the charger to the battery charging port and then to a power outlet. The indicator light on the charger will change when fully charged (typically 6-7 hours).



Image: Key upgraded features of the Cybervelo EK12, including the 7-speed lever, throttle, dual disc brakes, front fender, and rear rack.

4. Operating Instructions

4.1 Powering On/Off

Press and hold the power button on the LCD display to turn the bike on or off.

4.2 LCD Display Functions

The real-time smart LCD display shows important riding data:

- **Speed:** Current riding speed.
- **Trip Distance:** Distance covered in the current ride.
- **Total Distance:** Odometer reading.
- **Battery Level:** Remaining battery charge.
- **Assist Level:** Current pedal assist level.

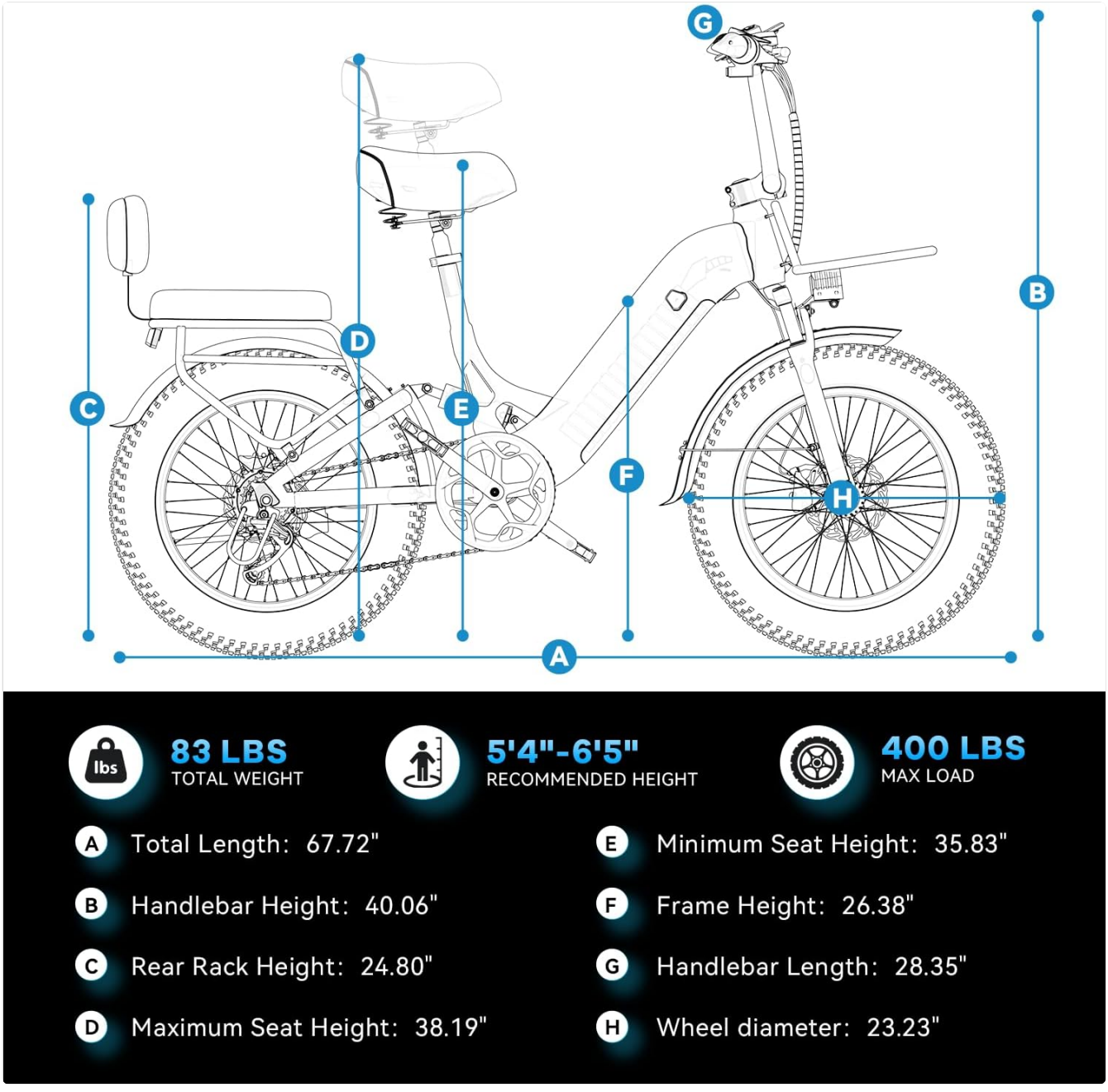


Image: The Cybervelo EK12's real-time smart LCD display, providing essential ride information and mode selection.

4.3 Riding Modes

The EK12 offers three riding modes:

- **Pure Electric Mode:** Use the throttle for propulsion without pedaling.
- **Pedal Assist Mode (PAS):** The motor provides assistance as you pedal. Adjust assist levels (1-5) using the display controls.
- **Classic Mode:** Ride as a traditional bicycle without motor assistance.

4.4 Throttle Usage

The twist throttle on the right handlebar provides instant power. Twist gently to accelerate. Release to decelerate. Always be mindful of your surroundings when using the throttle.

4.5 Gear Shifting

The Cybervelo EK12 features a Shimano 7-speed gear system. Use the shifter on the handlebars to change gears, adapting to different terrains and inclines. Shift smoothly to avoid strain on the chain and derailleur.



Image: Close-up of the Shimano 7-speed gear system and handlebar shifter for smooth riding.

4.6 Braking

The bike is equipped with reliable dual mechanical disc brakes. Apply both front and rear brakes simultaneously for effective and controlled stopping. Avoid sudden, hard braking, especially at high speeds or on loose surfaces.



Image: Detail of the front suspension fork and mechanical disc brake system on the Cybervelo EK12.

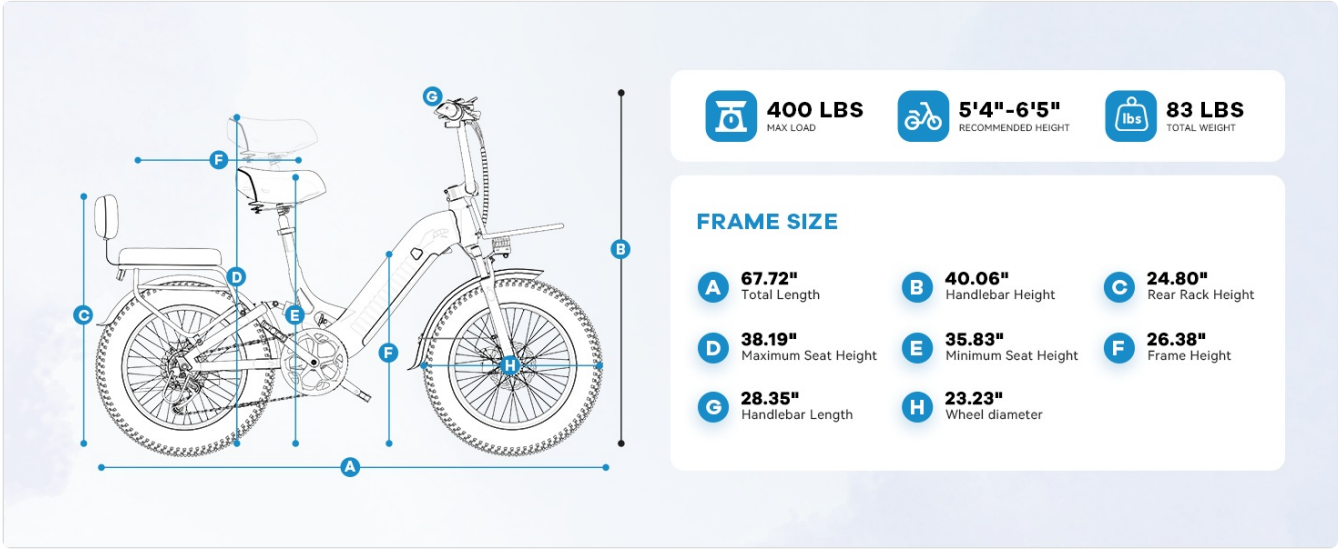


Image: Illustration highlighting the effectiveness of dual 180mm disc brakes for reduced stopping distances.

4.7 Folding and Unfolding

To fold the bike, open the frame hinge quick-release lever and fold the frame in half. The handlebars and pedals can also be folded for a more compact size. Reverse the process to unfold, ensuring all quick releases are securely fastened before riding.

4.8 Headlight and Taillight

The integrated headlight and taillight provide visibility during low-light conditions. The headlight can be controlled via the LCD display. Ensure lights are functional before riding at dawn, dusk, or night.

5. Maintenance

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

- **Cleaning:** Clean the bike regularly with a damp cloth. Avoid high-pressure washing directly on electrical components.
- **Tire Pressure:** Check tire pressure weekly and maintain it within the recommended PSI range (found on the tire sidewall).
- **Brakes:** Inspect brake pads for wear and adjust brake cables as needed to ensure responsive braking.
- **Chain:** Lubricate the chain every 100-200 miles or after riding in wet conditions. Keep it clean and free of rust.
- **Battery Care:** Charge the battery after each ride. If storing the bike for an extended period, charge the battery to 50-70% and recharge every 1-2 months. Store in a cool, dry place.
- **Fasteners:** Periodically check all bolts, nuts, and quick releases for tightness.

6. Troubleshooting

Here are some common issues and their potential solutions:

Problem	Possible Cause	Solution
Bike does not power on	Battery not charged or not properly seated; loose electrical connection.	Ensure battery is fully charged and securely inserted. Check all visible cable connections.
Motor not assisting	Low battery; PAS level set to 0; brake levers engaged; motor error.	Charge battery. Increase PAS level. Ensure brake levers are fully released. Check LCD for error codes.
Brakes feel weak or noisy	Worn brake pads; loose brake cable; contaminated rotors.	Inspect and replace brake pads if worn. Adjust brake cable tension. Clean rotors with disc brake cleaner.
Gears not shifting smoothly	Derailleur out of adjustment; dirty or dry chain; bent hanger.	Clean and lubricate chain. Adjust derailleur limits and cable tension. Consult a bike mechanic if hanger is bent.

If you encounter issues not listed here or cannot resolve a problem, please contact Cybervelo customer support.

7. Specifications

Feature	Detail
Model	EK12

Feature	Detail
Motor	1500W Peak Brushless Motor
Battery	48V 20AH Removable Lithium-ion
Max Speed	30+ MPH (48+ km/h)
Max Range	50-80 Miles (80-128 km) per charge
Tires	20" x 4.0" All-Terrain Fat Tires
Suspension	Full Suspension (Front Fork, Saddle Shock Absorption)
Brakes	Dual Mechanical Disc Brakes (180mm)
Gears	Shimano 7-Speed
Display	Real-time Smart LCD Display
Waterproof Rating	IP54
Max Load Capacity	400 lbs (181 kg)
Recommended Rider Height	5'4" - 6'5" (162 cm - 195 cm)
Total Weight	83 lbs (37.6 kg)
Frame Material	High Carbon Steel



Image: Detailed diagram showing the dimensions and weight specifications of the Cybervelo EK12 electric bike.



Image: Comprehensive frame size chart with measurements for total length, handlebar height, seat height, and wheel diameter.

8. Warranty & Support

8.1 Warranty Information

The Cybervelo EK12 electric bike comes with a comprehensive**one-year warranty** covering the motor, battery, and controller from the date of purchase. This warranty covers manufacturing defects and material faults under normal use. It does not cover damage due to misuse, accidents, unauthorized modifications, or normal wear and tear.

8.2 Customer Support

For any questions, technical assistance, or warranty claims, please contact Cybervelo customer service. Our support team is available 24/7 to assist you.

Contact Information:

Website: www.cybervelo.com (*Placeholder, please refer to product packaging or official website for actual contact details.*)

Email: support@cybervelo.com (*Placeholder*)

9. Additional Features

9.1 Powerful Motor



Image: Detailed view of the 1500W peak brushless motor, highlighting its power and integration.

The Cybervelo EK12 is equipped with a powerful 1500W peak brushless motor, providing strong acceleration and excellent climbing ability up to 30 degrees. This motor ensures a smooth and efficient ride, whether on flat roads or challenging inclines.

9.2 Removable Battery



Image: The 48V 20AH removable battery, integrated into the frame for security and easy charging.

The 48V 20AH removable battery offers a substantial range of 50-80 miles on a single charge, depending on riding conditions and assist level. Its removable design allows for convenient charging both on and off the bike, and it features a lock and key for security.

9.3 All-Terrain Fat Tires



Image: The 20x4.0 inch fat tires, designed for superior grip and stability across diverse terrains including city streets, gravel paths, and light off-road trails.

Equipped with durable 20"x4.0" fat tires, the Cybervelo EK12 provides excellent grip and stability. These puncture-resistant tires are suitable for a variety of surfaces, from urban commutes to light off-road adventures.

9.4 Full Suspension System



Image: Diagram illustrating the full suspension system, including the front fork suspension and saddle shock absorption, designed for a comfortable ride.

The full suspension system, including a front fork suspension and saddle shock absorption, ensures a smooth and comfortable ride by absorbing bumps and vibrations from uneven terrain.

9.5 Carrying Capacity

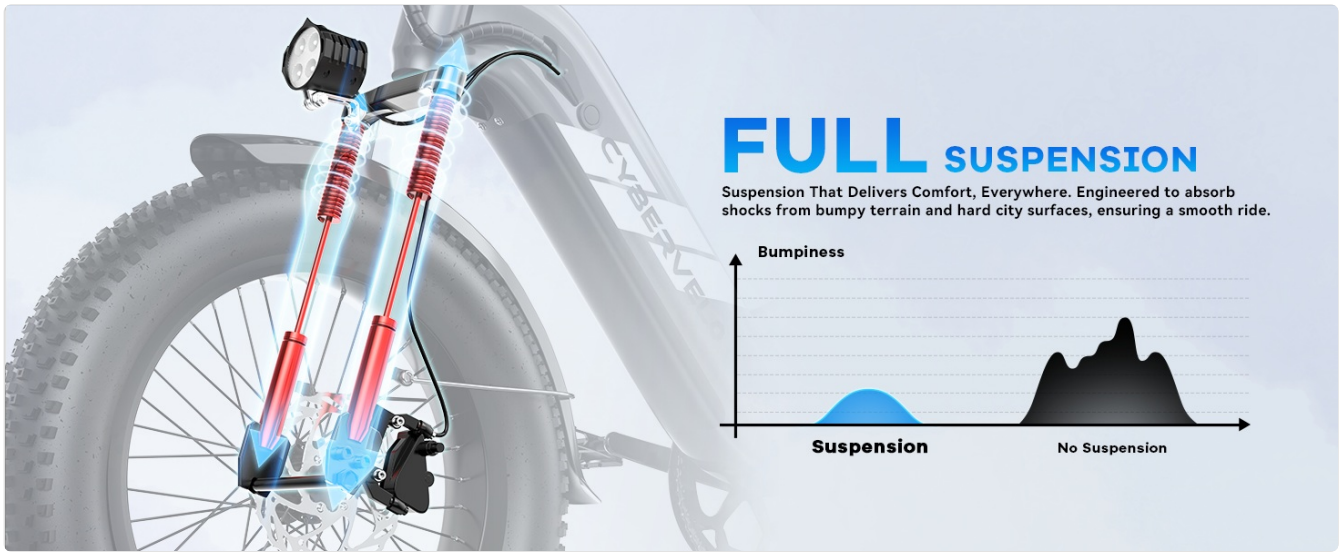


Image: The Cybervelo EK12 equipped with a front basket and a comfortable rear seat, demonstrating its versatility for carrying cargo or an additional passenger.

With a robust design, the EK12 supports a maximum load of 400 lbs. It features a rear rack and can be fitted with a front basket (if included or purchased separately) for convenient cargo transport.