

Fafrees F20 Mate

Fafrees F20 Mate E-Bike Tricycle User Manual

Model: F20 Mate

Brand: Fafrees

PRODUCT OVERVIEW

The Fafrees F20 Mate is an electric cargo tricycle designed for versatile use, offering robust performance and practical features. It combines the stability of a tricycle with the convenience of electric assistance, making it suitable for various riding conditions and carrying needs.

Key features include a powerful rear hub motor, a high-capacity 48V 18.2Ah lithium-ion battery, hydraulic disc brakes for reliable stopping power, and a durable aluminum alloy frame with a folding design for easy storage and transport.



Image: The Fafrees F20 Mate E-Bike Tricycle, showcasing its overall design and included accessories like a basket and pump.

SETUP AND ASSEMBLY

Your Fafrees F20 Mate tricycle comes partially assembled. Follow these steps for final assembly and initial setup.

Unfolding the Tricycle

The F20 Mate features a folding frame for compact storage. Carefully unfold the frame and handlebar until they lock into place. Ensure all quick-release levers are securely fastened before riding.

Size & Fit

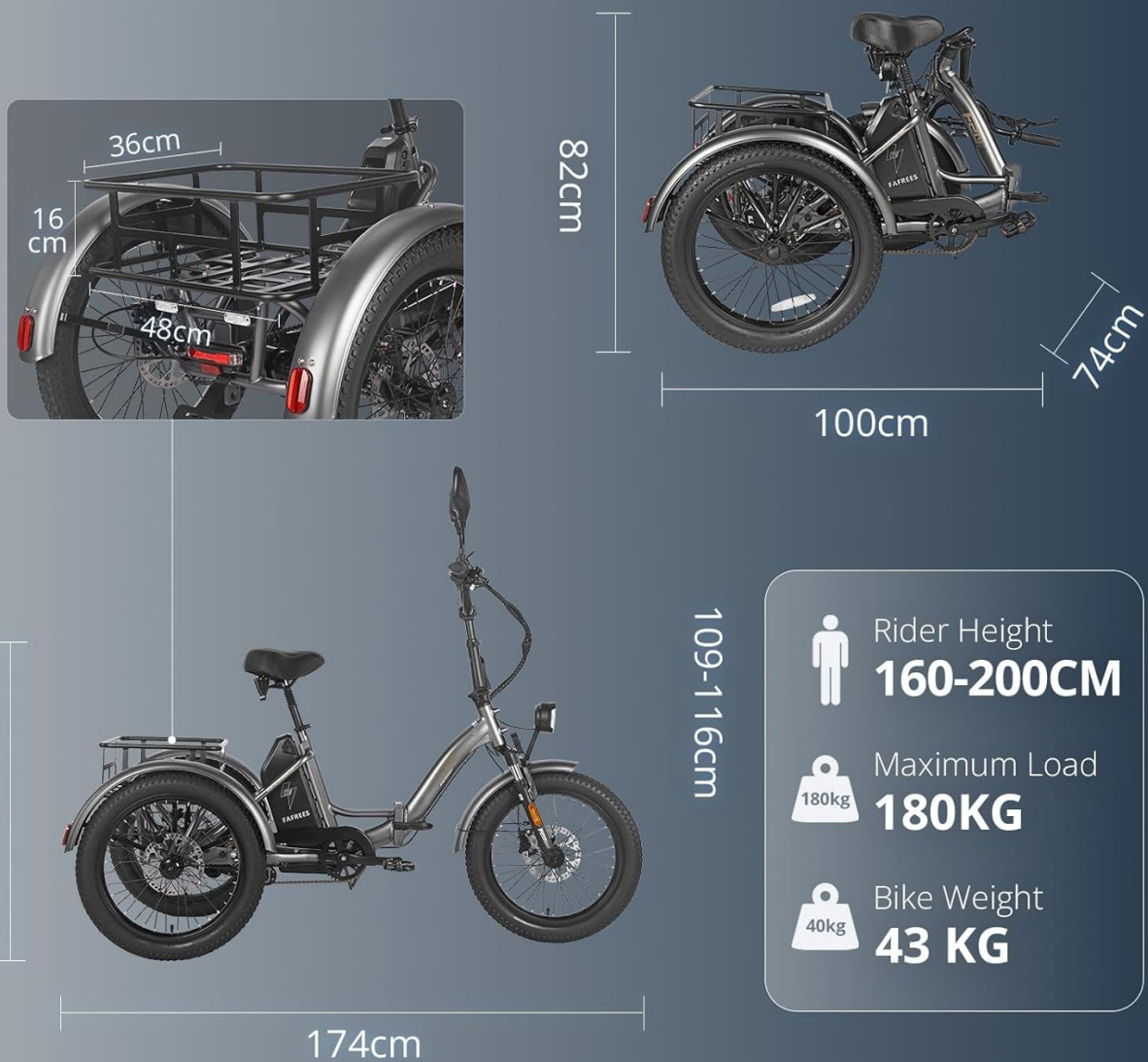


Image: Illustration of the Fafrees F20 Mate's folding mechanism, demonstrating how the frame folds for storage.

Battery Installation and Initial Charge

The 48V 18.2Ah lithium-ion battery is removable for convenient charging. Insert the battery into its compartment and ensure it is securely locked. For first use, fully charge the battery using the provided charger. A full charge typically takes 6-7 hours.

48V 21Ah Li-ion Battery

More Miles, Less Charging.



Pure Electric Range **65-85KM**



Pedal-Assist Range **90-115KM**

F20 Mate Battery

 Range: **65-85KM**



Other Batteries

 Range: **40-50KM**

Battery Range



7-8H
Fast charging



IPX5

Image: Visual representation of the Fafrees F20 Mate's 48V 18.2Ah battery, showing its capacity and charging process.

Adjusting Handlebar and Seat Height

Adjust the handlebar height (98-116 cm) and seat height (82-106 cm) to ensure a comfortable and safe riding position. The recommended rider height is 160-200 cm.

Grande capacità di carico

Fino a 180 kg



180kg

180 kg totali



Carico max: 20 kg



45kg

Carico max: 45 kg

* Il cestino anteriore è venduto separatamente.

Image: Diagram illustrating the dimensions of the Fafrees F20 Mate, including unfolded and folded sizes, and recommended rider height.

OPERATING INSTRUCTIONS

Powering On and LCD Display

Press the power button to turn on the tricycle. The LCD color display will illuminate, showing various data such as speed, battery level, mileage, and current PAS (Pedal Assist System) level. The display also indicates error codes, parking mode, and turn signals.

Full-Screen LCD Display

More Data, More Control



Image: Close-up view of the Fafrees F20 Mate's full-screen LCD display, detailing its various indicators and functions.

Riding Modes

The F20 Mate offers three riding modes:

- **Human Mode:** Ride the tricycle like a traditional bicycle, using pedal power only.
- **Pedal-Assisted Mode (PAS):** The motor provides assistance as you pedal. There are 0-5 PAS levels, allowing you to control the amount of assistance. Maximum range in this mode is 85-110 km.
- **Pure Electric Mode:** Use the throttle for motor power without pedaling. Maximum range in this mode is 55-75 km.

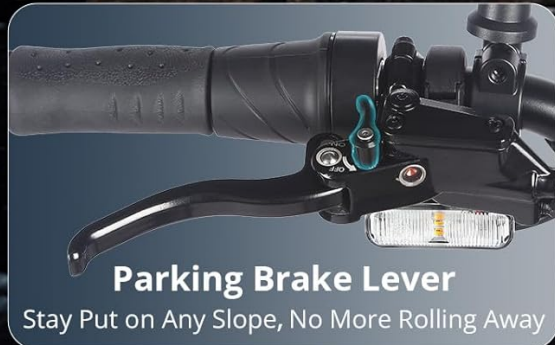
The tricycle also features a 6 km/h walking aid mode and a speed control function.

Braking System

The F20 Mate is equipped with front and rear hydraulic disc brakes (180mm, 2.3mm thick pads) for precise and responsive stopping. Two parking brake levers ensure the tricycle remains stationary when parked.

Triple Braking System

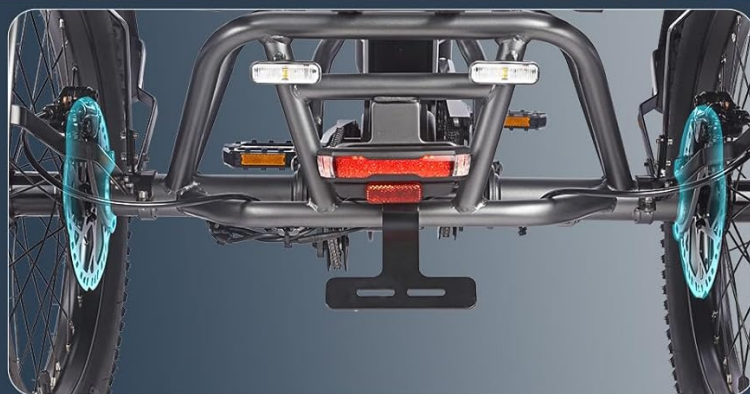
Unmatched Stopping Power



Parking Brake Lever

Stay Put on Any Slope, No More Rolling Away

Hydraulic Disc Brakes
30% Shorter Braking Distance



**180mm/2.3T
Rotors**

Image: Detailed view of the Fafrees F20 Mate's triple braking system, highlighting the hydraulic disc brakes and parking brake lever.

Safety Features

Built-in front and rear brake lights improve visibility, especially at night. Reflectors are attached to both rear mudguards for additional safety.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Fafrees F20 Mate tricycle.

Battery Care

- Charge the battery fully after each ride, especially if it will be stored for an extended period.
- Avoid completely draining the battery.
- Store the battery in a cool, dry place, away from direct sunlight and extreme temperatures.
- If storing for long periods, charge the battery to 50-70% every 1-2 months.

Tire Maintenance

The 20 x 3.0 fat tires are designed for various terrains. Regularly check tire pressure and inflate to the recommended PSI (pounds per square inch) as indicated on the tire sidewall. Inspect tires for wear, punctures, or damage.

Brake System Check

Periodically inspect the hydraulic disc brakes for proper function. Check brake pads for wear and ensure brake levers operate smoothly. If you notice reduced braking performance, consult a qualified technician.

General Cleaning and Inspection

Clean the tricycle regularly with a damp cloth. Avoid using high-pressure washers directly on electrical components. Inspect all bolts, nuts, and quick-release mechanisms for tightness before each ride. Lubricate the chain and moving parts as needed.

The aluminum alloy differential is designed for durability (over 50,000 KM lifespan) and helps prevent tilting and sliding. While it requires minimal maintenance, ensure it remains free of debris.

Aluminum Alloy Differential

Smoother & Safer Turns

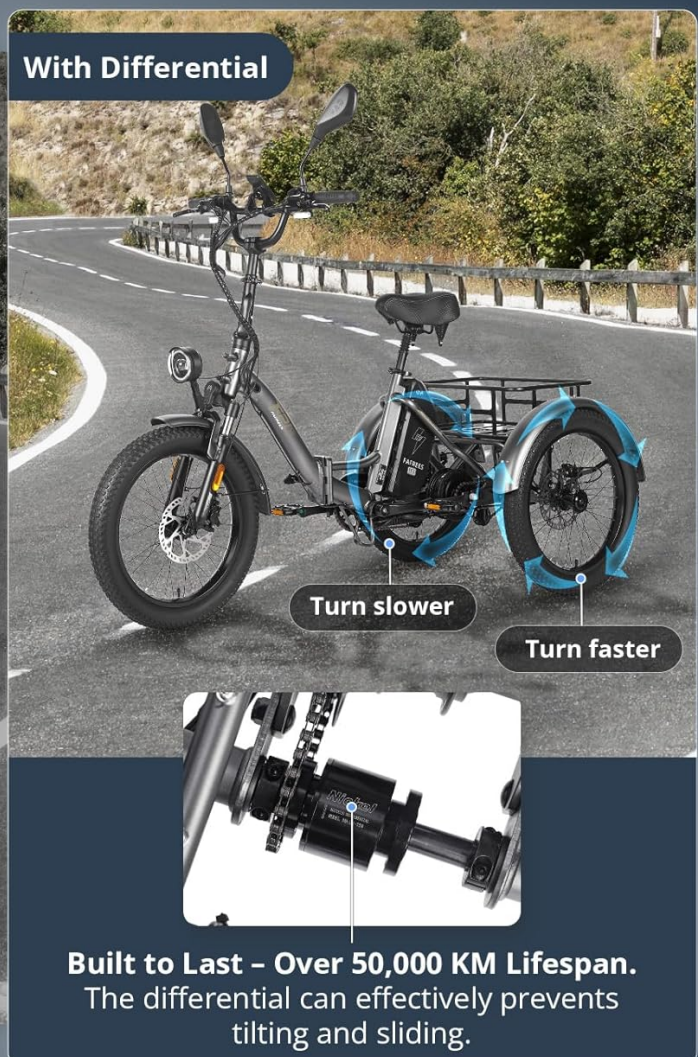


Image: Comparison illustrating the function of the Fafrees F20 Mate's aluminum alloy differential for smoother and safer turns.

This section provides solutions to common issues you might encounter with your Fafrees F20 Mate tricycle.

Tricycle Not Powering On

- Ensure the battery is fully charged and properly seated in its compartment.
- Check the battery connection for any loose wires.
- If the LCD display shows an "Error Code," refer to the specific code for diagnosis (not detailed in this manual, consult support).

Motor Not Providing Assistance

- Verify that the PAS level is set above 0 on the LCD display.
- Check battery level; the motor may not engage if the battery is too low.
- Ensure brake levers are not partially engaged, as this can cut motor power.

Reduced Range

- Battery performance can be affected by temperature, terrain, rider weight, and riding style.
- Ensure tires are properly inflated.
- Avoid frequent stop-and-go riding or continuous use of pure electric mode at high speeds.

SPECIFICATIONS

Detailed technical specifications for the Fafrees F20 Mate E-Bike Tricycle.

Category	Specification
Model	F20 Mate
Unfolded Size	174 x 74 x 116 cm (68.5 x 29.13 x 45.67 inches)
Folded Size	100 x 74 x 82 cm
Adjustable Handlebar Height	98-116 cm
Adjustable Seat Height	82-106 cm
Tyre Size	20 x 3.0 inches (Fat Tyres)
Net Weight	40 kg (88 lbs)
Load Capacity (Total)	180 kg (396 lbs)
Frame Material	Aluminum Alloy
Standard Maximum Speed	25 km/h (15.5 mph)
Max Range (Pedal-Assisted)	85-110 km
Max Range (Pure Electric)	55-75 km
Maximum Climbing Capacity	15°
Battery Type	18650 Lithium-ion Battery
Battery Voltage / Capacity	48 V / 18.2 Ah (873.6 Wh)

Charging Time	6-7 hours
Motor Location	Rear-wheel drive
Maximum Torque	65 N.m
Display Type	LCD Display
Brake Type	Hydraulic Disc Brakes
Waterproof Level	IPX5



Image: Overview of the Fafrees F20 Mate Electric Cargo Tricycle, highlighting key features like the 500W rear hub motor, aluminum differential, and hydraulic parking brakes.

WARRANTY INFORMATION

The Fafrees F20 Mate E-Bike Tricycle comes with a **1-Year Warranty**. Please retain your proof of purchase for warranty claims. The warranty covers manufacturing defects and material faults under normal use. It does not cover

damage caused by misuse, accidents, unauthorized modifications, or normal wear and tear.

CUSTOMER SUPPORT





For any questions, technical assistance, or warranty claims, please contact Fafrees customer service. We aim to provide professional support and effective solutions within 2 working days.



Contact information may be found on the official Fafrees website or through your purchase platform.

Note: A bicycle workshop is available in Stuttgart, Germany for local support.

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