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› BAFANG 48V 500W Rear Hub Motor Electric Bike Conversion Kit User Manual

BAFANG TBA48V 500W 26RDC 500C CA

BAFANG 48V 500W Rear Hub Motor Electric Bike Conversion Kit User Manual

Model: TBA48V 500W 26RDC 500C CA

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your BAFANG 48V 500W Rear Hub Motor Electric Bike Conversion Kit. This kit is designed to convert a standard bicycle into an electric bicycle, offering enhanced power and assistance for various riding conditions, including commuting, mountain biking, and touring. Please read this manual thoroughly before installation and use to ensure proper function and safety.



Image 1.1: Overview of the BAFANG 48V 500W Rear Hub Motor Electric Bike Conversion Kit components, including the motor wheel, display, controller, brake levers, throttle, and PAS sensor.

2. SETUP AND INSTALLATION

The BAFANG 48V 500W Rear Hub Motor kit is designed for straightforward installation. Ensure you have all components listed in the packing list before beginning. If you encounter any difficulties, refer to the detailed wiring diagram and consider seeking professional assistance.

2.1 Packing List

Verify that all items are present in your kit:

- 500W rear cassette wheel hub motor with rim and spokes (26-inch wheel)
- Controller and controller box
- Optional display (e.g., 500C Display)

- Battery and charger (if ordered together)
- Brake levers
- 1T4 cable
- Thumb throttle
- PAS sensor
- Headlight
- Stickers
- User Manual

PACKINGLIST

Rear hub motor 	controller  controller box 	1T4   9 pin motor cable	 Gift    Thumb throttle
Brake Lever 	Left PAS Sensor 	Optional Shark Battery Rear Rack Battery  	Optional Display 

Image 2.1: Visual representation of the components included in the BAFANG 48V 500W Rear Hub Motor Electric Bike Conversion Kit, such as the motor wheel, controller, display, and various cables.

2.2 Compatibility Check

Ensure your bicycle meets the following requirements:

- **Wheel Size:** 26 inches.

- **Rear Dropout (OLD):** 135-142mm.
- **Brake Type:** Compatible with both disc brake and V-brake systems.
- **Cassette Compatibility:** Designed for bikes with up to 9 speeds.

SIZEOPTION



Rim Size	700C	27.5"	26"	20"
Brake Type	Both fit V brake and disc brake			
Suitable Tyre	1.5"-2.2"			



Image 2.2: Diagram illustrating various wheel size options and frame compatibility requirements, including the rear dropout measurement (OLD 135-142mm).

2.3 Wiring Diagram

Follow the wiring diagram carefully to connect all components. Incorrect wiring can damage the system.

WIRING DIAGRAM

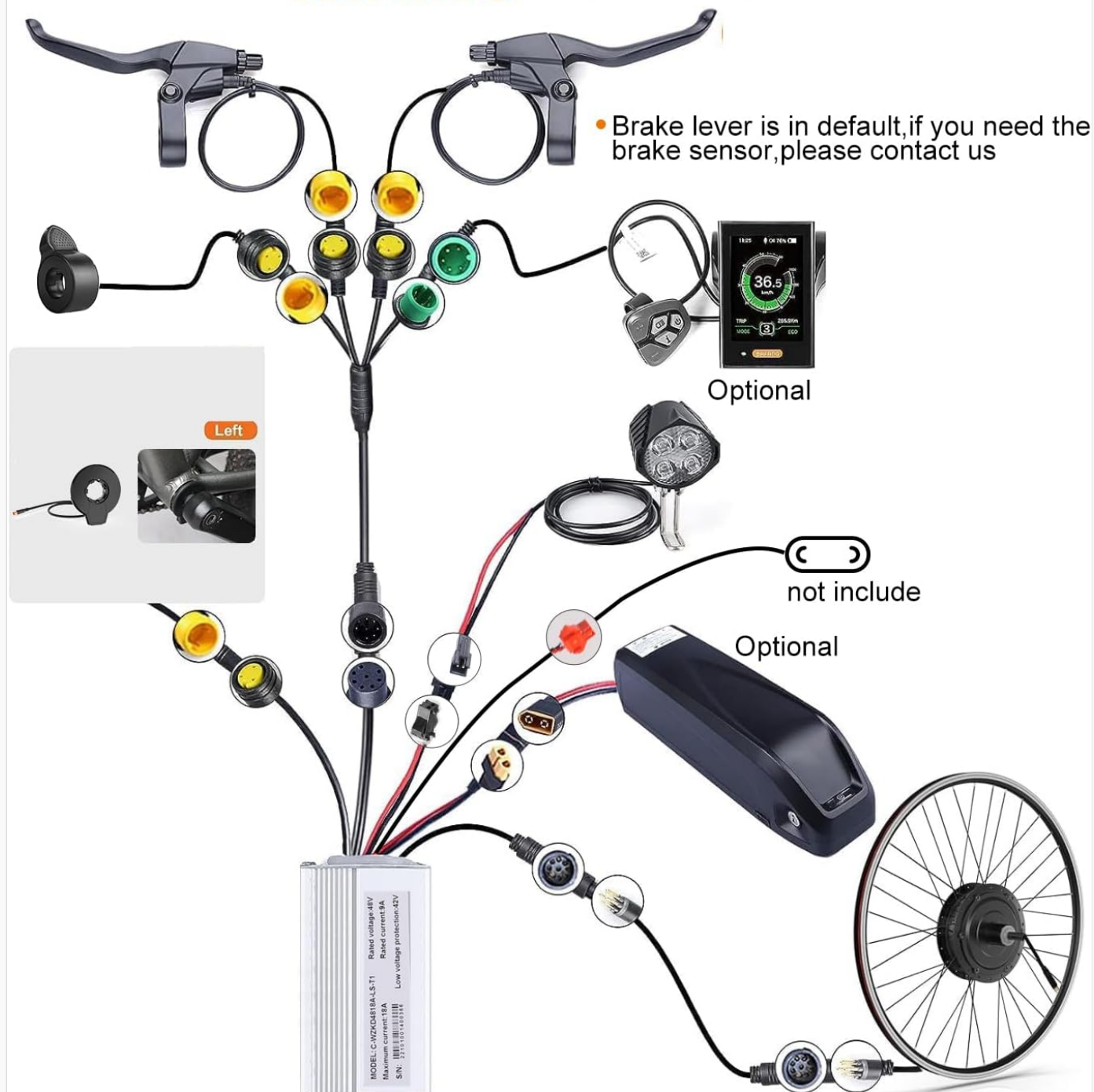


Image 2.3: Detailed wiring diagram showing connections for the motor, controller, display, battery, brake levers, throttle, PAS sensor, and headlight.

2.4 Installation Video Guide

For a visual guide on the installation process, please refer to the following video:

Your browser does not support the video tag.

Video 2.1: An instructional video demonstrating the assembly and installation of a BAFANG hub motor kit onto a bicycle frame.

3. OPERATING INSTRUCTIONS

Once installed, your BAFANG electric bike conversion kit provides powerful and efficient assistance. The system typically operates via a display, a thumb throttle, and a Pedal Assist System (PAS).

3.1 Display Functions (e.g., 500C Display)

The display provides essential information and control over your e-bike system. Functions may include:

- **Power On/Off:** Typically a long press of a button.
- **Assist Level Selection:** Adjust pedal assist levels (e.g., 1-5) to control motor output. Higher levels provide more assistance.
- **Speed Display:** Current speed, average speed, maximum speed.
- **Battery Indicator:** Shows remaining battery charge.
- **Trip Information:** Distance traveled (trip and total odometer).
- **Headlight Control:** Turn the integrated headlight on or off.

Note: Specific display features and button layouts may vary depending on the display model (e.g., 500C, DM03, EK01, DPC18).

	• 500C 	• DM03 	• EKD01 	• DPC18(0-5/0-9) 
Screen	2.2 inch	1.3 inch	2.4 inch	3.5 inch
Battery Indicator	Voltage/Percentage	Voltage/Percentage	Voltage/Percentage	Voltage/Percentage
Holder (mm)	22.2mm	22.2mm	22.2mm/25.4mm	31.8mm/25.4mm /22.2mm
Speed Limit	✓	✓	✓	✓
compatible Voltage	24V/32V/48V/52V	24V/36V/48V/52V	12V/32V/48V /52V/60V	36V/43V/48V
Light Sensation	✗	✗	✓	✓
PAS	3 / 5 / 9	3 / 5 / 9	3 / 5 / 9	5 / 9
Charging Port	✗	✗	Type-C	USB Port
	• DZ40 	• P860ML 	• TOUCH T1 	• 800S 
Screen	1.9 inch	3.5 inch	3.5 inch	2.7 inch
Battery Indicator	Percentage	Voltage/Percentage	Voltage/Percentage	✗
Holder (mm)	22.2mm	31.8mm/25.4mm /22.2mm	31.8mm/25.4mm /22.2mm	31.8mm/25.4mm /22.2mm
Speed Limit	✗	✓	✓	✓
compatible Voltage	36V/43V/48V/52V	24V/36V/48V/52V	24V/36V/48V/52V	24V/36V/48V/52V
Light Sensation	✗	✓	✓	✓
PAS	5	3, 4, 5, 9, UBE	3 / 5 / 9	0-3,1-3,0-5,1-5, 0-9,1-9, UBE
Charging Port	✗	USB Port	Type-C	✗

Image 3.1: Comparison of various BAFANG display models, highlighting their screen size, battery indicator type, holder size, speed limit settings, compatible voltage, light sensation, PAS levels, and USB port availability.

3.2 Pedal Assist System (PAS)

The PAS sensor detects your pedaling motion and provides motor assistance based on the selected assist level. This system allows for a natural riding experience while reducing effort.

3.3 Thumb Throttle

The thumb throttle provides on-demand motor power, allowing you to accelerate without pedaling. The amount of power delivered is proportional to how much the throttle is pressed. Some displays allow setting a maximum speed for each power level when using the throttle.

4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your BAFANG electric bike conversion kit.

- **Battery Care:** Charge the battery regularly, even when not in use, to maintain its health. Store in a cool, dry place.
- **Motor and Wiring:** Periodically inspect all electrical connections for tightness and signs of wear or damage. Keep the motor clean and free of debris.
- **General Bicycle Maintenance:** Continue to perform regular maintenance on your bicycle's mechanical components, including brakes, chain, tires, and gears.
- **Cleaning:** Use a damp cloth to clean the display and other components. Avoid high-pressure washing directly on electrical parts.

5. TROUBLESHOOTING

If you encounter issues with your BAFANG electric bike conversion kit, refer to the following common troubleshooting steps:

- **No Power:** Check battery charge, ensure all connections are secure, and verify the display is powered on.
- **Motor Not Assisting:** Confirm PAS sensor is correctly installed and aligned, check assist level on the display, and ensure brake levers are not engaged (which can cut motor power).
- **Display Not Working:** Check power connection to the display and battery.
- **Unusual Noises:** Inspect the motor for any obstructions or loose components.

For persistent issues, contact BAFANG customer support for technical assistance.

6. SPECIFICATIONS

Key specifications for the BAFANG 48V 500W Rear Hub Motor Electric Bike Conversion Kit:

Feature	Specification
Brand	BAFANG
Model Name	BAFANG G020 Rear Hub Motor
Motor Type	Rear Hub Motor (Cassette Type)
Rated Voltage	48V
Rated Power	500W

Feature	Specification
Max Torque	65 N.m
Wheel Diameter	26 Inches
Installation Widths (OLD)	135-142mm
Gear Shift Compatibility	Fit Cassette Flywheel (up to 9 speeds)
Brake Style Compatibility	Disc, V-Brake
Efficiency	80%
Frame Material	Aluminum Alloy
Special Feature	LCD-Display (optional)



REAR HUB MOTOR(DC)

Rear Hub Motor (DC&D) DIFFERENCE

Gearshift:cassette(DC)



Gearshift:freewheel(D)



THE DIFFERENCE

Fit cassette flywheel





Cassette Type

Freewheel Type

Fit rotary flywheel



Rated Voltage: 48V	Rated Power: 500W
Wheel Diameter: 26"	Gear Shift: Fit Cassette Flywheel
n0(Rpm): 325	nT(Rpm): 280
Max Torque: 80N.M	Efficiency: 80%
Installation Widths (mm/OLD): 138	Spoke Specification: 36H*12G

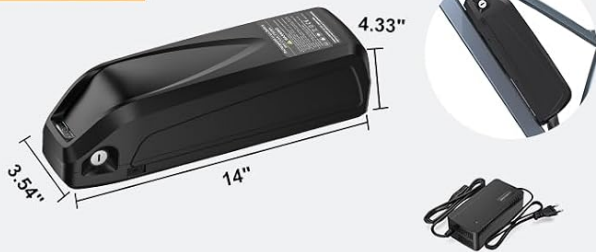
Image 6.1: Detailed view of the BAFANG G020 Rear Hub Motor, highlighting its specifications and compatibility with cassette type

6.1 Battery Specifications (Optional)

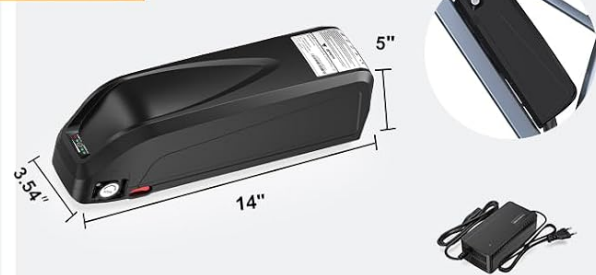
If a battery was ordered with the kit, refer to its specific specifications. Common options include:

BATTERY SPECIFICATION

Shark Battery



Shark Battery



Battery Capacity	48V 13Ah	48V 17.5Ah	48V 20Ah
Battery Energy	624Wh	840Wh	960Wh
Battery Cell	18650 2600mah	L-G 18650 3500mah	Sam-sung 21700 5000mah
BMS	30A	30A	30A
Peak Current	60A	60A	60A
Charger	54.6V	54.6V	54.6V
Weight	4.25KG	4.25KG	5.0KG
USB port	YES	YES	YES

Rear Rack Battery



Battery Capacity	48V 17.5Ah
Battery Energy	840Wh
Battery Cell	18650 2500mah
BMS	30A
Peak Current	60A
Charger	54.6V
Weight	7.23KG
USB port	YES

Image 6.2: Table detailing various battery specifications, including capacity, energy, cell type, BMS, peak current, charger voltage, weight, and USB port availability for Shark and Rear Rack battery types.

7. WARRANTY

The BAFANG 48V 500W Rear Hub Motor Electric Bike Conversion Kit comes with a limited warranty. Please retain your proof of purchase for any warranty claims. For specific warranty terms and conditions, refer to the documentation provided with your purchase or contact BAFANG customer service.

8. SUPPORT

For technical support, installation guidance, or any other inquiries, please contact BAFANG customer service. Our team of professional technicians is available to assist you. Effective communication is key to resolving any concerns efficiently. You can typically find contact information on the BAFANG official website or through your purchase platform.

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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