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› [BAFANG 48V 500W/750W Rear Hub Motor Kit 20"/26"/27.5"/700C Rear Wheel Electric Bike Conversion kit Ebike Conversion Kit with Optional Battery&Display Instruction Manual](#)

BAFANG RM G020.500.DC

BAFANG 48V 500W/750W Rear Hub Motor Kit Instruction Manual

Model: RM G020.500.DC

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your BAFANG 48V 500W/750W Rear Hub Motor Kit. This kit is designed to convert standard bicycles into powerful electric bikes, offering enhanced performance and versatility for various riding conditions. Please read this manual thoroughly before beginning installation or operation to ensure safe and efficient use of your new e-bike conversion kit.

TRANSFORM YOUR BIKE NOW!



 CITY BIKE



 MOUNTAIN BIKE



 BEACH BIKE



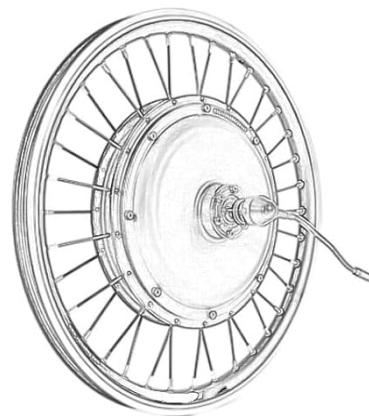
 ROAD BIKE

The BAFANG kit is compatible with a wide range of bicycle types, allowing you to transform your existing bike into an electric one for city commutes, mountain trails, beach rides, or road cycling.

2. PRODUCT FEATURES

- **Powerful Brushless Geared Motor:** The BAFANG 48V 500W/750W Rear Hub Motor Kit delivers a robust 65N.m max torque, propelling you to speeds up to 40KM/H. It features an IPX5 waterproof rating and noise levels below 55dB for a quiet, all-weather ride.
- **Universal Compatibility:** Designed to fit most bikes with rear dropout widths of 135-142mm and a 10-speed cassette or less. It seamlessly integrates with both V-brake and disc brake systems.
- **Intelligent Pedal Assistance System (PAS):** Offers throttle, pedal assist, walk assist, and pedal bike riding modes, allowing you to switch as needed to reduce fatigue and enhance comfort on long trips.
- **Easy Installation & Complete Components:** User-friendly installation is facilitated by detailed manuals and video tutorials. The kit includes most essential accessories for a complete upgrade, providing a one-stop shopping experience.

- **Personalize Your Display Choice:** Select from a range of premium displays including 500C, Bafang DPC18, P860ML, DZ40, EKD01, 800S, and DM03. Each offers distinct features to customize your e-bike experience and tailor your cycling data.



BAFANG HUB MOTOR

Higher energy efficiency

Low maintenance, longer life

Quiet operation

Supports energy recovery

Enhanced torque, variable speeds



VS



OTHER HUB MOTOR

Less efficient, more losses

More frequent brush replacements

Noisy commutation

Limited regenerative capabilities

Direct power, simpler performance

The BAFANG Hub Motor offers superior energy efficiency, lower maintenance, quieter operation, and supports energy recovery compared to other hub motors.

3. PACKING LIST

Your BAFANG 48V 500W/750W Rear Hub Motor Kit includes the following components:

PACKING LIST



Rear Hub Motor
with Wheel

1PC



Display (optional)

1PC



Controller Box

1PC



Controller

1PC



Brake Lever

1Set



Thumb Throttle

1PC



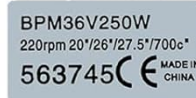
1T4 Cable

1PC



Headlight

1PC



Sticker

1PC



Plastic Straps

1PC

- BAFANG 48V 500W/750W Rear Hub Motor with Rim & Spokes (1 PC)
- Smart LCD Display (Optional) (1 PC)
- Controller (1 PC)
- Controller Box (1 PC)
- Brake Levers / Brake Sensors (1 Set) - Note: If you wish to retain your original hydraulic brakes or if your brake lever is integrated with the shifter, please contact us for brake sensors.
- Thumb Throttle (1 PC)
- Left PAS Sensor (1 PC)
- Motor Extension Cable (1 PC)
- 1T4 Cable (1 PC)
- Headlight (1 PC)
- Sticker (1 PC)
- Plastic Straps (1 PC)

4. COMPATIBILITY

Before installation, please ensure your bicycle meets the following compatibility requirements:

WHETHER IT CAN FIT WITH MY BIKE?

40KM
Max Speed

65N.m
Max Torque

IPX5
Water Proof

75%
Efficiency

25°
Angle

390±15
N0(RPM)



Freewheel

⊗

Cassette

⊙

• Fit the cassette less than 11 speed

Mechanical disc brakes


Rim V brake


Dropout:138mm

**Axle Length:
8.19"(208mm)**


135-142MM

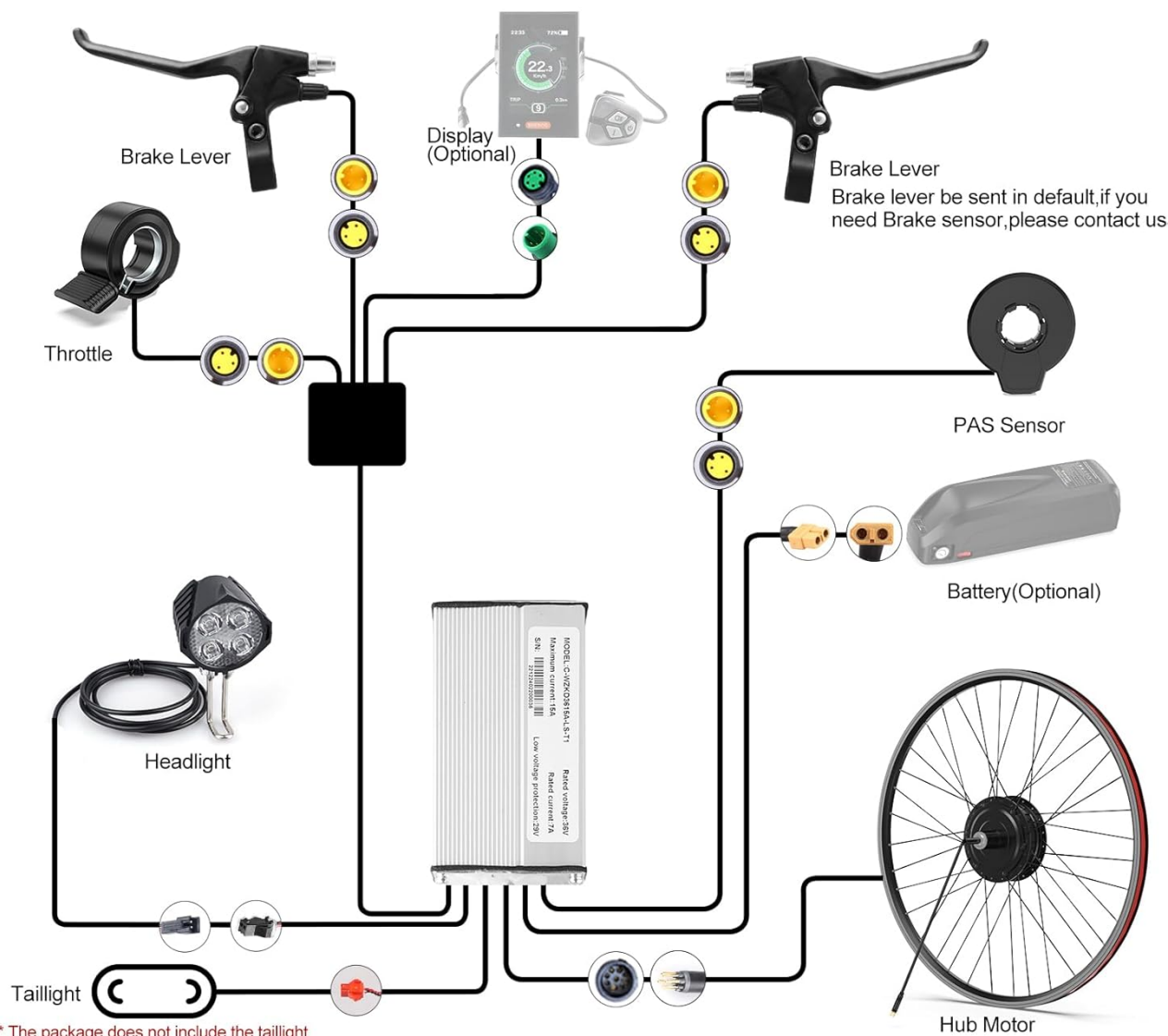
- The rear OLD (Over Locknut Dimension) of your bike should be between 135-142mm.
- Our motor fits bikes with both disc brakes and V-brakes.
- The hub motor on this page is designed for cassette wheels, not freewheel. Ensure your bike uses a cassette wheel with 10 speeds or less.

5. INSTALLATION

The BAFANG Ebike conversion kit is designed for user-friendly installation. Detailed manuals are provided with the product, and video tutorials are available to guide you through the process. Our US-based tech team is also

available for phone assistance to ensure a hassle-free setup.

EASY TO INSTALL



This diagram illustrates the general wiring connections for the BAFANG Ebike conversion kit components.

Installation Video Guide

Your browser does not support the video tag.

Watch this official video for a visual guide on installing the BAFANG Hub Motor Kit and converting your e-bike.

6. OPERATION

The BAFANG Ebike conversion kit offers multiple riding modes to suit your needs:









- **Throttle Mode:** Provides power directly via a thumb throttle, allowing for effortless acceleration without pedaling.
- **Pedal Assist System (PAS) Mode:** The motor provides assistance as you pedal, making cycling easier, especially on inclines or over long distances.
- **Walk Assist Mode:** Provides low-speed assistance to help you push the bike when walking alongside it.

- **Pedal Bike Mode:** Ride your bike like a traditional bicycle with no motor assistance.

You can switch between these modes as needed to optimize your riding experience. The intelligent PAS system is designed to reduce fatigue and enhance comfort.

Display Options

Customize your e-bike experience by selecting from a range of premium displays. Each display offers distinct features for monitoring your cycling data and interacting with the system.

 <p>SW-M58 Display Screen: 3.8" LED Handlebar Diameter(mm): 22.2 Operating Voltage: 24V/36V/48V/52V USB Port: ✗ Language: English</p> <p>Speed Limit: ✓ Battery Voltage: ✓ Battery Percentage: ✓</p> <p>Bluetooth: ✗ Boot Password: ✓ Light Sensor: ✗</p>	 <p>EKD01 Bluetooth Display Screen: 3.5" IPS Handlebar Diameter(mm): 22.2/ 25.4/ 31.8 Operating Voltage: 24V/36V/48V/52V USB Port: ✓ Language: English, French, German, Spanish, Italian, Czech</p> <p>Speed Limit: ✓ Battery Voltage: ✓ Battery Percentage: ✓</p> <p>Bluetooth: ✓ Boot Password: ✓ Light Sensor: ✗</p>
 <p>DPC18 Display Screen: 3.5" TFT Handlebar Diameter(mm): 22.2/ 25.4/ 31.8 Operating Voltage: 24V/36V/48V USB Port: ✓ Language: English</p> <p>Speed Limit: ✓ Battery Voltage: ✓ Battery Percentage: ✓</p> <p>Bluetooth: ✗ Boot Password: ✓ Light Sensor: ✓</p>	 <p>P860C Display Screen: 2.4" TFT Handlebar Diameter: 22.2mm / 25.4mm Operating Voltage: 24V/36V/48V/52V USB Port: ✓ Type C Language: English, French, German, Spanish, Italian, Polish, Dutch, Czech</p> <p>Speed Limit: ✓ Battery Voltage: ✓ Battery Percentage: ✓</p> <p>Bluetooth: ✗ Boot Password: ✓ Light Sensor: ✓</p>
 <p>DZ40 Display Screen: 1.68" IPS Handlebar Diameter(mm): 22.2 Operating Voltage: 24V/36V/48V/52V USB Port: ✗ Language: English</p> <p>Speed Limit: ✓ Battery Voltage: ✗ Battery Percentage: ✓</p> <p>Bluetooth: ✗ Boot Password: ✗ Light Sensor: ✗</p>	 <p>DM03 Display Screen: 1.3" OLED Handlebar Diameter(mm): 22.2 Operating Voltage: 24V/36V/48V/52V USB Port: ✗ Language: English</p> <p>Speed Limit: ✓ Battery Voltage: ✓ Battery Percentage: ✓</p> <p>Bluetooth: ✗ Boot Password: ✓ Light Sensor: ✗</p>
 <p>500C Display Screen: 2.2" IPS Handlebar Diameter(mm): 22.2 Operating Voltage: 24V/36V/48V/52V USB Port: ✗ Language: English</p> <p>Speed Limit: ✓ Battery Voltage: ✓ Battery Percentage: ✓</p> <p>Bluetooth: ✗ Boot Password: ✓ Light Sensor: ✗</p>	 <p>800S Display Screen: 2.8" LCD Handlebar Diameter(mm): 22.2/ 25.4/ 31.8 Operating Voltage: 24V/36V/48V/52V USB Port: ✗ Language: English</p> <p>Speed Limit: ✓ Battery Voltage: ✗ Battery Percentage: ✗</p> <p>Bluetooth: ✗ Boot Password: ✗ Light Sensor: ✗</p>

Choose the display that best fits your needs, with options for screen size, features, and connectivity.

7. BATTERY PARAMETERS (OPTIONAL)

If you opted for a battery with your kit, here are the general parameters for available battery types:

BATTERY PARAMETERS

• 48V 13Ah Shark Battery
• 48V 17.5Ah



• 48V 19.2Ah Shark Battery
• 48V 20Ah



Type	48V 13Ah	48V 17.5Ah	48V 19.2Ah	48V 20Ah
Watt Hour	624Wh	840Wh	921.6Wh	960Wh
Battery Cell	18650 2600mAh	L-G 18650 3500mAh	LG 21700 4800mAh	Sam-sung 21700 5000mAh
BMS	30A	30A	30A	30A
Charge voltage	54.6V	54.6V	54.6V	54.6V
Size (L*W*H)	365*90*110mm	365*90*110mm	365*90*127mm	365*90*127mm
Weight	4.25kg	4.25kg	5.0kg	5.0kg
USB Port	✓	✓	✓	✓
Cycle Life	1000 times			
Protection Function	Over charge, Over discharge, Over current, Short circuit, Balance			

• 52V 20Ah Shark Battery



• 48V 20Ah VoltzX Battery



• 48V 17.5Ah Rear Rack Battery



Type	52V 20Ah	48V 20Ah	48V 17.5Ah
Watt Hour	1040Wh	960Wh	840Wh
Battery Cell	Sam-sung 21700 5000mAh	Sam-sung 21700 5000mAh	18650 2500mAh
BMS	30A	35A	30A
Charge voltage	58.8V	54.6V	54.6V
Size (L*W*H)	368*95*125mm	365*105*140mm	476*162*89mm
Weight	5.15kg	5.2kg	7.23kg
USB Port	✗	✓ USB & Type-C Fast Charge	✓
Cycle Life	1000 times		
Protection Function	Over charge, Over discharge, Over current, Short circuit, Balance		

Detailed specifications for various optional battery configurations, including capacity, dimensions, and protection features.

8. SPECIFICATIONS

Specification	Detail
Rated Voltage	48V
Rated Power	500W/750W
Max Torque	65 N.m
Position	Rear Cassette Wheel
Wheel Diameter Options	20"/26"/27.5"/700C

Construction	Brushless Gear Motor
Efficiency	≥80%
Noise Grade	<55 dB
Operating Temperature	-20-45 °C
Brand Name	BAFANG
Model Name	RM G020.500.DC
Material	Aluminum
Manufacturer	Bafang Electric (Suzhou) Co., Ltd.

9. MAINTENANCE

Regular maintenance is crucial to ensure the longevity and optimal performance of your BAFANG e-bike conversion kit. While the BAFANG hub motor is designed for low maintenance, we recommend the following general practices:

- Keep all electrical connections clean and dry.
- Regularly check and tighten all bolts and fasteners, especially those related to the motor and wheel.
- Inspect cables for any signs of wear or damage and replace them if necessary.
- Keep the motor and battery free from excessive dirt and debris.
- Follow the maintenance schedule for your bicycle's other components (brakes, chain, tires, etc.).

10. TROUBLESHOOTING

If you encounter any issues with your BAFANG e-bike conversion kit, please refer to the following general troubleshooting tips. For more complex problems, contact our support team.

- **Motor Not Engaging:** Check all cable connections, especially the motor extension cable and PAS sensor. Ensure the battery is charged and properly connected.
- **Display Not Turning On:** Verify battery connection and check for any loose wires leading to the display.
- **Reduced Power/Range:** This could indicate a low battery charge or an issue with the battery itself. Ensure the battery is fully charged before use. Performance may decrease at lower charge levels.
- **Unusual Noises:** Inspect the motor and wheel for any obstructions or loose components.
- **Installation Difficulties:** While the kit is designed for ease of use, some bike frames may require minor adjustments or additional parts. Refer to the installation video and contact support if you face significant challenges.

11. WARRANTY & SUPPORT

BAFANG is committed to providing exceptional customer care. Your product comes with a 30-day return service and a one-year repair and maintenance service.

Our expert tech support team, based in the US, is ready to assist you at any time. For prompt and personalized support, please follow these steps:

1. Log in to your Amazon account.
2. Go to 'Account & Lists' then 'Orders'.
3. Locate your order for the BAFANG Hub Motor Kit.
4. Click 'Get help with order'.
5. Enter the necessary information regarding your issue.
6. Send your e-mail, and our team will respond to assist you.