

BAFANG BBS02B M315 MM G340.750.C

BAFANG 750W Mid Drive Ebike Conversion Kit User Manual

Model: BBS02B M315 MM G340.750.C

Brand: BAFANG

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of your BAFANG 750W Mid Drive Ebike Conversion Kit. Please read this manual carefully before installation and use to ensure optimal performance and safety.

The BAFANG 750W mid-drive motor kit is designed to transform your standard bicycle into a powerful electric bike, offering enhanced performance for various terrains and riding styles. It features a robust motor, an intuitive LCD display, and all necessary components for conversion.

CONVERT YOUR BIKE NOW

Don't hesitate to buy one



BAFANG

Please refer to the second picture for the test procedure before placing an order

Figure 1.1: Examples of bicycles successfully converted using the BAFANG mid-drive kit, demonstrating its versatility across different bike types.

2. COMPATIBILITY

Ensuring your bike is compatible with the BAFANG mid-drive kit is crucial for proper installation and safe operation. The kit is compatible with bicycles featuring a JIS standard bottom bracket with a length of 68-73mm and an internal diameter of 33.5-36mm.

HOW DO I KNOW IF THIS MOTOR KIT FIT MY BIKE OR NOT?



Belt Drive Chainring



Coaster Bike

1

Inner Diameter:
Between 33.5-36MM



2

Bottom Bracket Length:
68-73MM



3

Make sure the sprocket will not
hit chain stay of your bike

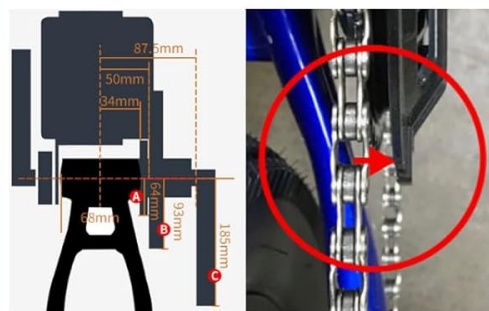


Figure 2.1: Visual guide for checking bike compatibility, including bottom bracket dimensions and chainstay clearance. It is important to measure your bike's bottom bracket inner diameter (between 33.5-36mm) and length (68-73mm). Ensure the sprocket will not interfere with your bike's chainstay.

Important Compatibility Notes:

- The kit is not recommended for bikes equipped with coaster brakes.
- The kit is not compatible with bikes using a belt drive chainring.
- Verify sufficient clearance for the motor and chainring.



Figure 2.2: Illustrations of bike types and conditions that are not suitable for BAFANG BBS motor installation, including insufficient bottom bracket clearance, narrow bottom bracket, belt drive, and coaster brakes.

For battery compatibility, especially for downtube or rear rack batteries, please refer to the specific battery dimensions and ensure your bike frame has adequate space and mounting points.

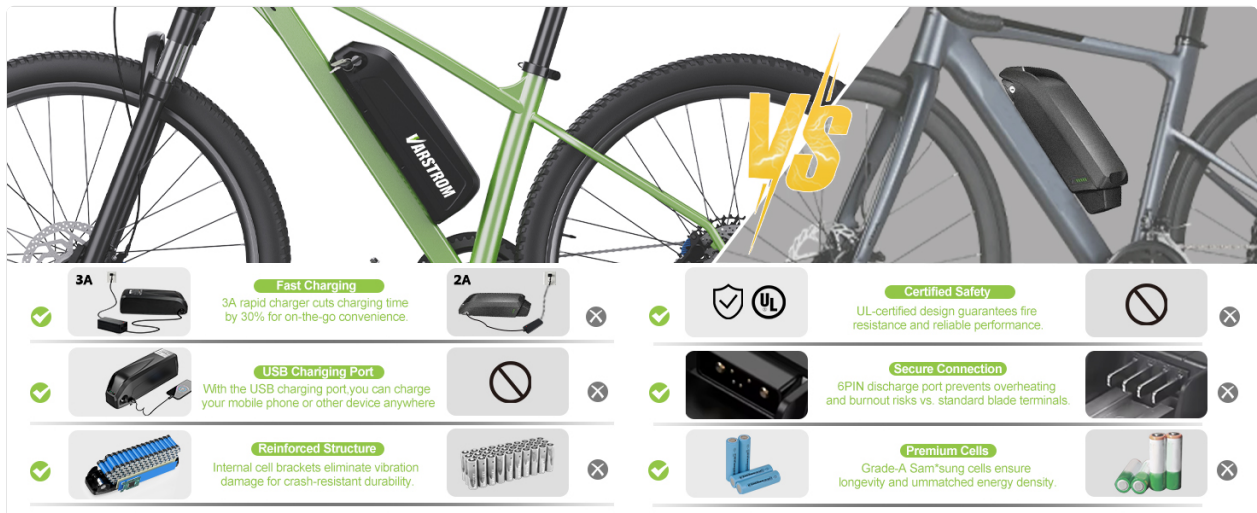


Figure 2.3: Guide for checking if a downtube shark battery can fit your bike, suggesting the use of testing cutouts to verify clearance.



Figure 2.4: Instructions for checking if a rear rack battery fits your bike, focusing on installation screw holes and rear fork size.

3. KEY FEATURES AND BENEFITS

The BAFANG 750W Mid Drive Kit offers numerous advantages for an enhanced cycling experience:

- **Powerful Performance:** The 750W motor provides a maximum torque of 120 N.m, enabling easy climbing of steep hills and sustained speeds.
- **Smooth and Controlled Operation:** Features smooth, controlled starts and throttle-responsive acceleration. Upgraded to CAN protocol for enhanced stability.
- **Versatile Riding Modes:** Supports Ebike mode (Throttle), Pedal Assist mode, Walk Assist mode, and Normal Bike mode to adapt to various cycling scenarios.
- **Optimal Power Transfer:** Mid-drive design ensures efficient power transfer, preserving the original aesthetics and balance of your bicycle.
- **Durability:** IP65 waterproof wiring ensures safety and extends the service life of the ebike kit.



Figure 3.1: Comparison highlighting the improvements of the new upgraded BAFANG BBS02B motor, including gentle start, slow start function, speed changes based on throttle pressure, and adjustable speed limits for both throttle and pedal assist modes.



Figure 3.2: Illustrates six key benefits of the BAFANG mid-drive motor: Enhanced Stamina, Efficient Commute, Traffic Avoidance, Fuel Savings, Family Bonding, and Cargo Capability.



750W(Peak 1152W) Powerful Motor

Equipped with 750W High-Torque Motor, with a top speed of 45KM/H making climbing easier,effortlessly conquer off-road challenges.Provide you with an awesome riding experience.

 40-45KM/H Max Speed:	 100N.m Max Torque:	 4.3KG Weight:
 40° Climbing angle:	 IPX5 Waterproof:	

Figure 3.3: Comparison between BAFANG mid-drive motors and hub motors, highlighting advantages of mid-drive such as balanced weight, higher torque, easy maintenance, and natural aesthetics.

4. COMPONENTS AND PACKING LIST

Your BAFANG 750W Mid Drive Kit includes the following components:

- BAFANG BBS02B 48V750W68MM Motor
- DPC010 Display (or other selected display)
- 36T Chainring (or other selected sprocket size)
- Brake Levers (or Brake Sensors, optional)
- Thumb Throttle
- 1T4 Cable
- Speed Sensor
- Nuts and mounting hardware
- Crank Arms
- Tool kit
- Headlight
- Ties
- Optional: Battery (Downtube Shark, Rear Rack, Max Shark, etc.)

- Optional: Taillight
- Optional: Gear Shift Sensor



Figure 4.1: Overview of the BAFANG 750W Mid Drive Kit components, including the motor, display, chainring, brake levers, throttle, and various accessories.

COMPLETE ACCESSORIES

Just follow the video on Youtube to install



Figure 4.2: Detailed view of the complete accessories provided with the kit, such as brake type options, thumb throttle, speed sensor, display, crank arms, and optional chainrings.

VARIOUS HIGH-TECH EBIKE DISPLAY

	EKD01	DPC010.CB	DPC080.C	VDO3	VD618	P860ML
Model	2.4" TFT	4" TFT	1.9" IPS	1.5" IPS	3.5" OLED	3.5" LCD
Screen Size Holder(mm)	22.2/25.4	22.2	22.2	22.2	22.2	22.2
Password	2020	1919	1919	/	1919	1919
PAS Level	3/5/9	0~3/0~5	5	3/5/9	3/5/9	3/5/9

Total Mileage

Single Mileage

Power display

Real Time Speed

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Figure 4.3: Comprehensive packing list illustrating all included components, including the motor, display, optional brake types, throttle, speed sensor, chainring, and tools. Optional battery components are also shown.

Optional Sprockets: Various chainring sizes are available (36T, 42T, 44T, 46T, 52T) to suit different riding preferences and bike setups. Ensure the selected sprocket is compatible with your bike's chain speed.

DOES THE REAR BATTERY FIT MY BIKE?



Figure 4.4: Details on optional sprocket (chainwheel) sizes and their respective offsets, crucial for proper chainline and compatibility with different bike speeds.

5. SETUP AND INSTALLATION

The BAFANG mid-drive kit is designed for relatively easy installation, even for those with minimal mechanical experience. Many helpful video tutorials are available online (e.g., on YouTube) that can guide you through the process step-by-step.

General Installation Steps:

1. **Prepare Your Bike:** Remove the existing bottom bracket and crankset.
2. **Install the Motor:** Mount the BAFANG mid-drive motor into the bottom bracket shell. Secure it with the provided nuts and lockring.
3. **Attach Chainring and Crank Arms:** Install your chosen chainring onto the motor, followed by the crank arms.
4. **Wiring Connections:** Connect the display, throttle, brake levers/sensors, and speed sensor to the main 1T4 cable, and then to the motor. Ensure all connections are secure and waterproof.
5. **Mount Accessories:** Install the display on the handlebars, the speed sensor on the chainstay, and the headlight.
6. **Battery Connection:** Connect your ebike battery to the motor system. Note: Only batteries with BAFANG communication protocol support communication with the display. Standard batteries can still power the motor but may not display battery information on the screen.

EASY TO INSTALL

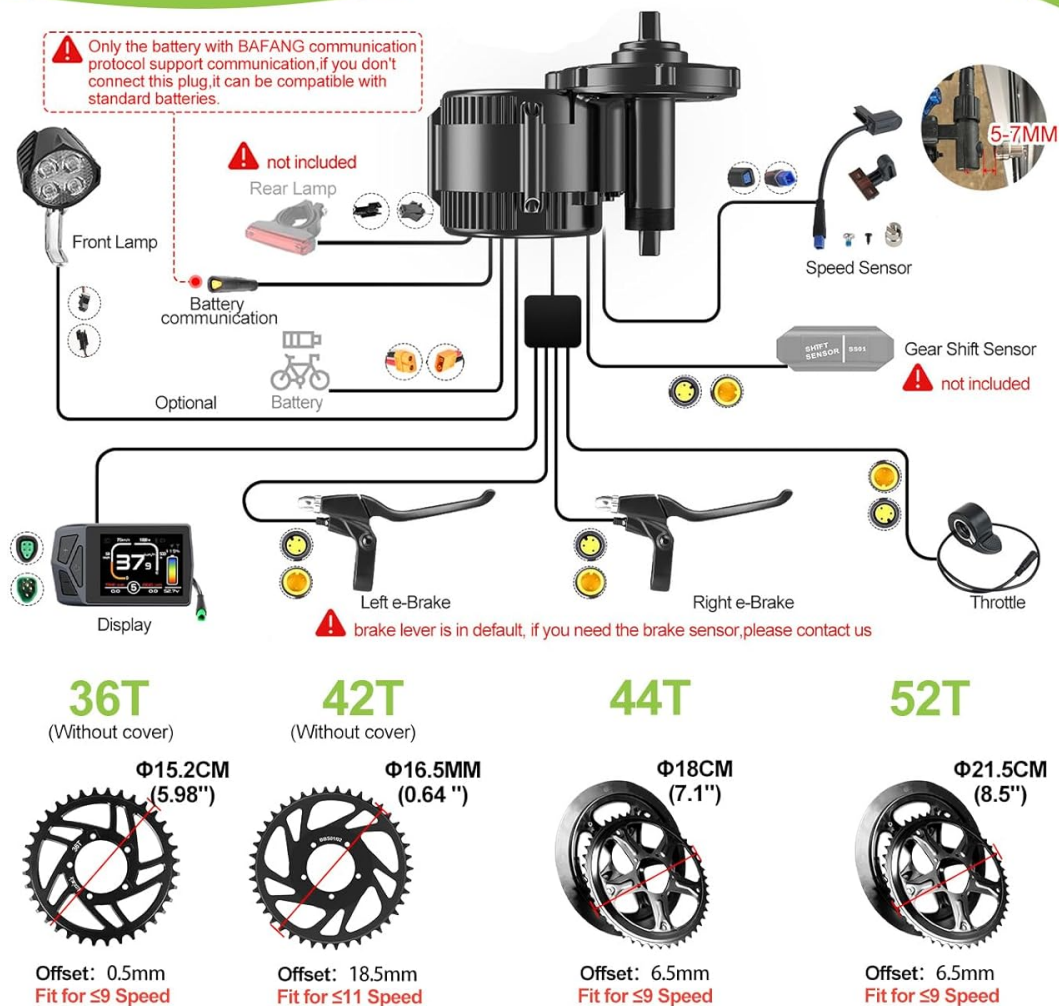


Figure 5.1: Simplified wiring diagram illustrating how to connect the various components of the BAFANG mid-drive kit, including the motor, display, brake levers, throttle, and speed sensor. It also shows optional components like front lamp, rear lamp, and gear shift sensor.

Brake Lever or Brake Sensor: The kit typically comes with default brake levers. If your bike uses hydraulic brakes or integrated shift/brake handles, you may need to request brake sensors from the seller for compatibility.

THE FOLLOWING CONDITIONS ARE NOT SUITABLE FOR BAFANG BBS MOTOR

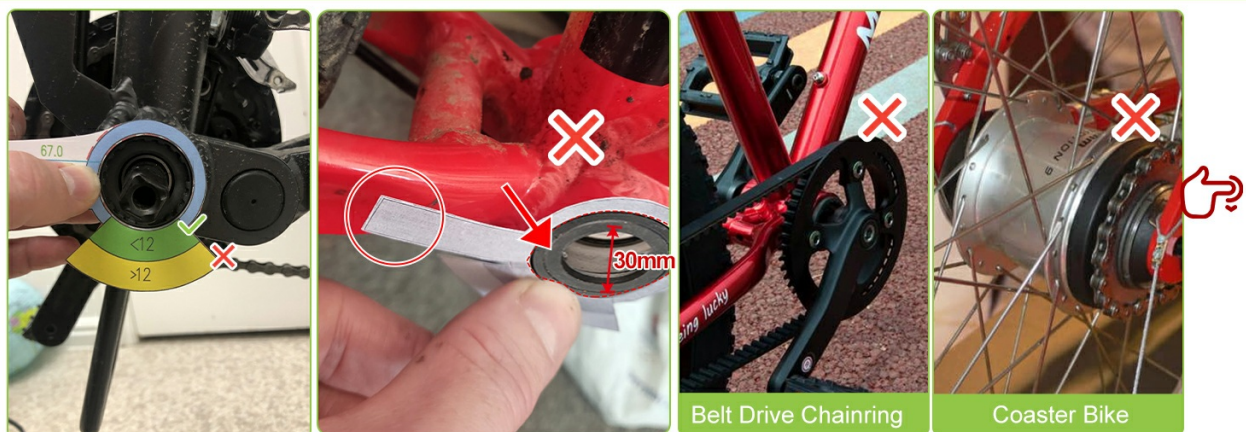


Figure 5.2: Guide to choosing between brake levers and brake sensors based on your bike's brake system (mechanical disc brakes, rim V brake, shift integrated brake handle, hydraulic disc brake).

Waterproof Wiring: The entire ebike kit is designed with waterproof wiring to ensure the safety of the electrical connections and extend the service life of the system. All joints are waterproof and fit tightly to prevent water ingress.



Figure 5.3: Diagram illustrating the IP65 waterproof wiring system, showing how all connections are sealed to protect against water and extend durability.

6. OPERATING MODES

The BAFANG 750W Mid Drive Kit offers four distinct riding modes to suit various preferences and terrains:

- **Ebike Mode (Throttle):** Provides power assistance directly from the throttle, allowing you to ride without pedaling.
- **Pedal Assist Mode (PAS):** The motor provides assistance as you pedal, with adjustable levels of assistance (0-9 PAS levels depending on display).
- **Walk Assist Mode:** Provides low-speed assistance (typically 6 km/h) to help you push the bike when walking alongside it.
- **Normal Bike Mode:** The motor is disengaged, and the bike functions as a regular bicycle, relying solely on pedal power.



Figure 6.1: Visual representation of the different riding modes (Ebike Mode, Pedal Assistance Mode, Push Assistance Mode, Bike Mode) and their suitability for various terrains like mountains, urban roads, and off-road trails.

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Video 6.1: This video demonstrates the BAFANG BBS motor in action, showcasing its integration with the bike frame, the functionality of the intelligent T1 Touch display, and its versatility across different riding environments, including city commutes, off-road trails, and leisurely rides. It highlights the smooth power transfer and adaptability of the system.

7. DIGITAL DISPLAY INFORMATION

The BAFANG kit comes with a DPC010 Digital Display (or similar, depending on your selection) that provides essential riding information and allows for customization of settings.

DPC010 Digital Display



Figure 7.1: Features of the DPC010 Digital Display, including 4-inch IPS screen, PAS levels, headlight display, real-time speed, battery level, riding mileage, and app connectivity for advanced settings.

Key Display Features:

- Color screen with backlight settings for clear visibility.
- Adjustable speed limits to suit various terrains and regulations.
- Dual interface themes for customizable display.
- Nine PAS levels for versatile speed adjustments.
- USB charging port for emergency smartphone charging.
- Automatic light sensor activates headlight in dark environments.

6 Key Benefits for BAFANG Mid Motor



Figure 7.2: Comparison highlighting the advantages of the smart digital display, such as color screens, adjustable speed limits, dual interface, multiple PAS levels, USB charging, and automatic light sensor, compared to less advanced displays.

Various High-Tech Ebike Displays:

Model	Screen Size Holder(mm)	Password	PAS Level
EKD01	2.4" TFT / 22.2/25.4	2020	3/5/9
DPC010.CB	4" TFT / 22.2	1919	0-3/0-5
DPC080.C	1.9" IPS / 22.2	1919	5
VD03	1.5" IPS / 22.2	/	3/5/9
VD618	3.5" OLED / 22.2	1919	3/5/9
P860ML	3.5" LCD / 22.2	1919	3/5/9

Table 7.1: Specifications for various high-tech ebike displays compatible with BAFANG kits, detailing screen type, size, password, and PAS levels.

8. BATTERY INFORMATION

The BAFANG mid-drive kit requires a compatible ebike battery (sold separately or as an option with the kit). Various battery types are available, each with different capacities and mounting styles.

1000W(Peak 1440W) Powerful Motor

Equipped with 1000W High-Torque Motor, with a top speed of 50KM/H making climbing easier, effortlessly conquer off-road challenges. Provide you with an awesome riding experience.

- 45-50KM/H**
Max Speed:
- 160N.m**
Max Torque:
- 5.6KG**
Weight:
- 45°**
Climbing angle:
- IPX5**
Waterproof:

Figure 8.1: Comparison of ebike battery features, highlighting advantages such as fast charging, USB charging ports, reinforced structure, and premium cells for safety and longevity.

Common Battery Types and Specifications:

Type	Parameter	Watt	Battery Cell	BMS	Weight	Cycle Life
Shark Battery	48V 13Ah / 48V 17.5Ah	624Wh / 840Wh	18650 2600mAh / Sam*sung LTG Pana*sonic 18650 3500mAh	30A	4.25KG	1000 times
Max Shark Battery	52V 20Ah	1040Wh	Sam*sung 21700 5000mAh	30A	5.0KG	1000 times
DowntubeYingwu	52V 20Ah	1040Wh	Sam*sung 21700 5000mAh	30A	5.15KG	1000 times
Rear Rack Battery	48V / 52V 17.5Ah	840Wh / 910Wh	18650 2600mAh	30A	7.23KG / 7.5KG	1000 times
VoltzX Battery	48V 20Ah	960Wh	Sam*sung 21700 5000mAh	30A	5.2KG	1000 times

Table 8.1: Detailed specifications for various durable ebike battery types, including voltage, capacity, watt-hours, cell type, BMS, weight, and cycle life.

Charging: Most batteries require 6-7 hours for a full charge. Always use the charger provided or recommended by BAFANG to ensure safety and battery longevity.

VARIOUS DURABLE EBIKE BATTERY



Type	Shark Battery		Max Shark battery	DowntubeYingwu	Rear Rack Battery	VoltzX Battery
Parameter	48V 13Ah	48V 17.5Ah	48V 20Ah	52V 20Ah	48V / 52V 17.5Ah	48V 20Ah
Watt	624Wh	840Wh	960Wh	1040Wh	840Wh / 910Wh	960Wh
Battery Cell	18650 2600mah	Sam*/sung L**G Pana*/sonic 18650 3500mah	L**G Sam*/sung 21700 5000mah	Sam*/sung 21700 5000mah	18650 2500mah	Sam*/sung 5000mah
BMS	30A	30A	30A	30A	30A	30A
Weight	4.25KG	4.25KG	5.0KG	5.15KG	7.23KG / 7.5KG	5.2KG
Cycle Life	1000 times	1000 times	1000 times	1000 times	1000 times	1000 times

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Figure 8.2: Information on the 48V 13AH Downtube Shark Battery, including its watt-hours, cell type, BMS, weight, cycle life, and estimated riding range for both pedal assist and throttle modes.

OPTIONAL SPROCKET(CHAINWHEEL)



Figure 8.3: Information on the 48V 17.5AH Downtube Shark Battery, including its watt-hours, cell type, BMS, weight, cycle life, and estimated riding range for both pedal assist and throttle modes.

BRAKE LEVER OR BRAKE SENSOR?

i If your bike can't use the default brake lever, please contact us, so we can send the brake sensor to you

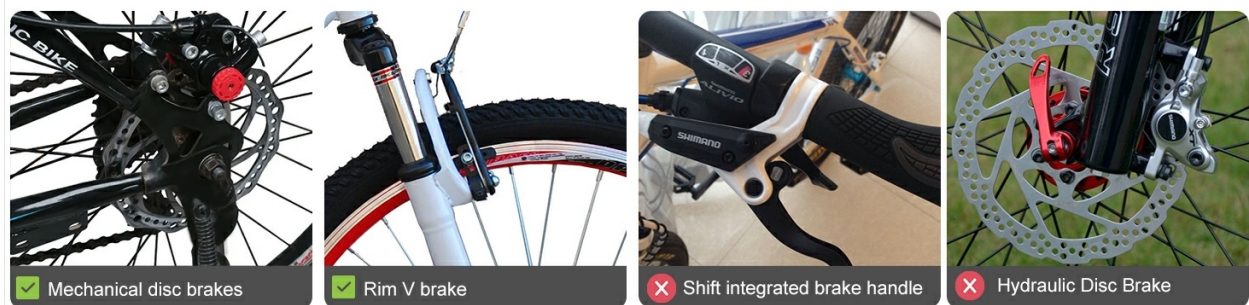


Figure 8.4: Information on the G80 Downtube Shark Battery 48V 19.2AH, including its watt-hours, cell type, BMS, weight, cycle life, and estimated riding range for both pedal assist and throttle modes.

PACKING LIST



Figure 8.5: Information on the G80 Downtube Shark Battery 48V 20AH, including its watt-hours, cell type, BMS, weight, cycle life, and estimated riding range for both pedal assist and throttle modes.



Figure 8.6: Information on the 48V 17.5AH Rear Rack Battery, including its watt-hours, cell type, BMS, weight, cycle life, and estimated riding range for both pedal assist and throttle modes.



Figure 8.7: Information on the 52V 20AH Max Shark Battery, including its watt-hours, cell type, BMS, weight, cycle life, and estimated riding range for both pedal assist and throttle modes.

9. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your BAFANG mid-drive kit.

- **Keep Clean:** Regularly clean the motor, chainring, and electrical connections to prevent dirt and debris buildup.
- **Check Connections:** Periodically inspect all electrical connections for tightness and signs of wear.
- **Lubrication:** Keep your bike chain and other moving parts properly lubricated.
- **Avoid Water Immersion:** While the wiring is waterproof, avoid submerging the motor or riding in heavy rain for extended periods to prevent potential damage.
- **Professional Service:** For complex issues or internal motor maintenance, seek assistance from a qualified ebike technician.



Figure 9.1: Visual reminder to avoid riding the ebike in heavy rain to protect electrical components and ensure longevity.

10. TROUBLESHOOTING

If you encounter any issues with your BAFANG mid-drive kit, consider the following basic troubleshooting steps:

- **No Power:** Check battery charge, ensure battery is securely connected, and inspect all electrical cables for damage.
- **Motor Not Assisting:** Verify that the display is on, the correct PAS level is selected, and the speed sensor is properly aligned and functioning. Check brake levers/sensors to ensure they are not engaged.
- **Display Errors:** Refer to your display's specific manual for error code meanings. Common issues can often be resolved by checking connections or restarting the system.
- **Unusual Noises:** Inspect the motor, chainring, and bottom bracket for loose components or obstructions.

For persistent issues, please contact customer support or a professional ebike service center.

11. SPECIFICATIONS

Specification	Value
Brand Name	BAFANG
Model Name	BBS02B M315 MM G340.750.C
Motor Power	750W
Max Torque	120 N.m
Material	Aluminum
Color	Black
Bottom Bracket Compatibility	68-73mm (length), 33.5-36mm (internal diameter) JIS standard
Display Type	Bafang C010 Display (DPC010)

Specification	Value
Included Components	DPC010 display, brake lever, thumb throttle, 1T4 cable, speed sensor, nuts, BAFANG BBS02B 48V750W68MM Motor, 36T Chainring, tool, headlight, ties
IP Rating	IP65 (for wiring)

12. WARRANTY AND SUPPORT

Your BAFANG 750W Mid Drive Kit comes with a comprehensive warranty and support:

- **Warranty:** 30 Days return policy, 365 days maintain and repair service.
- **Technical Guidance:** Forever technical guidance is provided.

For any inquiries, technical assistance, or warranty claims, please contact our customer service team. You can reach us via email at ga_sale_service@163.com.

G80 DOWNTUBE SHARK BATTERY

48V 20AH




750W+48V 20Ah	Electric 51KM (32Mile)
PAS Mode	102KM (64Mile)
Charging Time	6-7 Hours

The above data is the riding mileage of the 750W mid drive motor with this battery, which is for reference only. The specific value is determined by the rider's weight, road conditions and weather.

960Wh Watt

30A Bms

Sam'sung 21700 5000mAh Battery Cell

1000 times Cycle Life

Overcharge protection

Overvoltage protection

Over discharge protection

Short circuit protection

Overcurrent protection

Temperature protection



Figure 12.1: Contact information for customer service, including the email address for support inquiries.

REAR RACK BATTERY

48V 17.5AH




750W+48V 17.5Ah	Electric 45KM (28Mile)
PAS Mode	90KM (56Mile)
Charging Time	6-7 Hours

The above data is the riding mileage of the 750W mid drive motor with this battery, which is for reference only. The specific value is determined by the rider's weight, road conditions and weather.

840Wh Watt

30A Bms

18650 2600mAh Battery Cell

1000 times Cycle Life

Overcharge protection

Overvoltage protection

Over discharge protection

Short circuit protection

Overcurrent protection

Temperature protection



Figure 12.2: Illustration representing the availability of maintenance and repair services for your BAFANG product.