

Bafang BBS01B36V250W

Bafang BBS01B 36V 250W Mid Drive Motor Kit User Manual

Model: BBS01B36V250W

1. INTRODUCTION

Thank you for choosing the Bafang BBS01B 36V 250W Mid Drive Motor Kit. This kit is designed to convert your standard bicycle into an electric bicycle, providing pedal assistance for an enhanced riding experience. This manual provides essential information for the safe and proper installation, operation, and maintenance of your new e-bike conversion kit. Please read it thoroughly before beginning installation or use.

2. SAFETY INFORMATION

Always prioritize safety when working with electrical components and operating an electric bicycle.

- Ensure the bicycle is stable and secured before beginning any installation or maintenance.
- Disconnect all power sources before performing any electrical work.
- Wear appropriate personal protective equipment, including gloves and eye protection.
- Do not modify the motor or any electrical components. Unauthorized modifications can lead to malfunction, injury, or void the warranty.
- Regularly inspect all connections, cables, and components for wear or damage.
- Always wear a helmet and follow local traffic laws when operating the electric bicycle.
- This kit is not recommended for installation on carbon fiber bicycle frames to prevent potential damage to the frame.

3. PRODUCT OVERVIEW

The Bafang BBS01B mid-drive motor kit provides powerful and efficient assistance for your cycling needs.

3.1 Kit Components



Figure 3.1: Overview of the Bafang BBS01B Mid Drive Motor Kit components, including the motor, display, chainring, cranks, and various installation accessories.

The kit typically includes the mid-drive motor, chainring, crank arms, display unit, thumb throttle, brake levers (or sensors), speed sensor with magnet, connection cables, installation screws, BBS wrench, and sometimes white gloves for handling.

3.2 Motor Features

BAFANG MID DRIVE MOTOR

BBS01B MM G340 M215

Pated power



36V250W

MAX Speed



25K-M/H

Max Torque



80N.m

Weight



3.8KG



Waterproof IPX5



Electric Bike
Mode



Pedal Assisted
Mode



Walk Assisted
Mode



Manual
Mode

Figure 3.2: Key specifications of the Bafang BBS01B mid-drive motor, highlighting its 36V 250W power, 25 km/h max speed, 80 Nm max torque, and IPX5 waterproof rating.

- Power Output:** 36V 250W (G340 M215 Series)
- Max Torque:** 80Nm, providing strong assistance.
- Integrated Speed Sensor:** For accurate speed readings and motor control.
- Operating Modes:** Electric mode, Pedal Assist mode, and normal bicycle mode.
- Waterproof Rating:** IPX5, offering protection against water splashes.

3.3 Display Unit



Figure 3.3: The C18 display unit, showing speed, battery level, and trip information. It features 9 assist levels and a USB port.

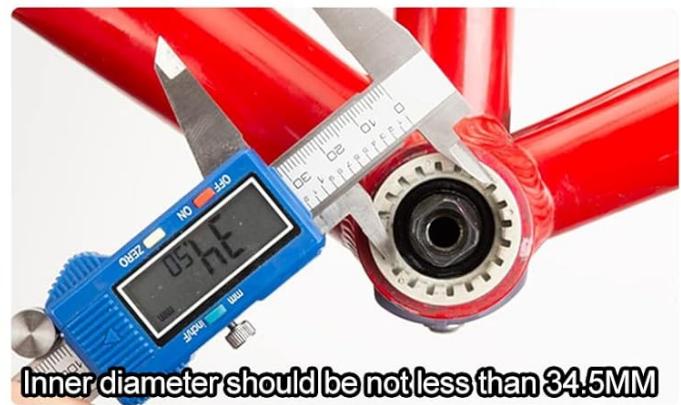
The display unit (e.g., C18) is essential for the motor's operation. It shows critical information such as speed, battery level, assist level, and trip distance. It typically offers 0-9 levels of pedal assistance and may include a USB port for charging small devices.

4. COMPATIBILITY & REQUIREMENTS

Before installation, ensure your bicycle meets the following requirements for proper fit and function.

4.1 Bottom Bracket Compatibility

HOW DO I KNOW IF THIS MID DRIVE MOTOR FITS FOR MY BIKE?



Optional 36T without Chain Guard/44T/46T/48T/52T Chain Wheel with Chain Guard

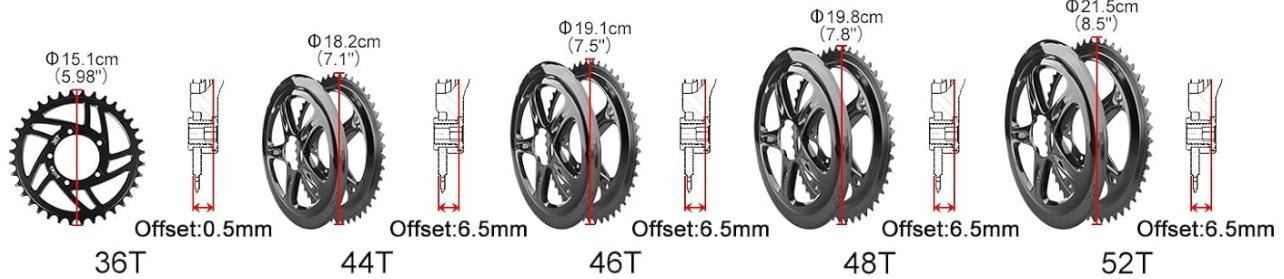


Figure 4.1: Guide for measuring your bicycle's bottom bracket. The kit is compatible with 68-73mm bottom brackets, and the inner diameter should be at least 34.5mm.

- The kit is compatible with bicycle bottom brackets measuring **68-73mm** in width.
- The inner diameter of the bottom bracket should be between **34mm and 36mm**.
- Not suitable for carbon fiber frames.

4.2 Brake System

- Compatible with both **V-brakes and Disc brakes**.
- Not suitable for coaster brakes (back-pedal brakes).
- Mechanical brake levers are included by default. If hydraulic brake sensors are required for disc brakes, please specify when ordering.

4.3 Drive System

- Only compatible with **chain drive systems**. Not suitable for belt drive systems.
- The original sprocket is highly recommended for optimal performance.

4.4 Additional Components (Not Included)

Please note that the following essential components are not included in the kit and must be purchased separately:

- **Battery:** A compatible 36V e-bike battery is required.
- **Battery Charger:** A charger suitable for your chosen battery.
- **Gear Shift Sensor (Optional):** While not strictly necessary for motor operation, a gear shift sensor can improve shifting smoothness and protect your drivetrain.



Downtube Battery Dimensions:

- 36V 13Ah: 36.8cm/14.48" (width), 9.1cm/3.58" (depth), 11.1cm/4.37" (height)
- 36V 17.4Ah: 36.8cm/14.48" (width), 9.1cm/3.58" (depth), 11.1cm/4.37" (height)
- 36V 21Ah: 36.8cm/14.48" (width), 9.1cm/3.58" (depth), 11.1cm/4.37" (height)
- 36V 20Ah: 36.6cm/14.4" (width), 9.1cm/3.58" (depth), 12.7cm/5" (height)
- 36V 25Ah: 36.6cm/14.4" (width), 9.1cm/3.58" (depth), 12.7cm/5" (height)

Type	Downtube Battery	Max Downtube Battery
Battery Cell	13Ah: 2600m-A-h 17.4Ah: 2900m-A-h 21Ah: L-G 3500mAh	20Ah: 4000m-a-h 25Ah: Sam-sung 5000mah
Charger Included	2A / 4A / 4A (UK 2A / 2A / 2A)	4A / 4A (UK 2A / 2A)
USB port	✓	✓
BMS	30A	30A
Battery Weight	About 3.5KG / 3.9KG	4.8KG/4.8KG



Type	Luggage Rack Battery	Rear Rack Battery
Battery Cell	2500m-A-h	2500m-A-h
Charger Included	2A	4A (UK 2A)
USB port	✗	✓
BMS	30A	30A
Battery Weight	5.4Kg	5.8KG

Figure 4.2: Examples of compatible battery types, including downtube and rear rack batteries, which are sold separately.

5. INSTALLATION GUIDE

This section provides a general overview of the installation process. A detailed user manual is included with your kit, and instructional videos are widely available online.

5.1 Tools Required

- Standard bicycle tools (allen keys, wrenches, screwdrivers)
- Crank puller (if not already removed)
- Bottom bracket removal tool (if not already removed)
- BBS wrench (included in kit)
- Axle removal tool (**not included**)

5.2 Installation Steps (General)

1. **Prepare the Bicycle:** Remove the existing crankset, bottom bracket, and chain. Clean the bottom bracket shell.
2. **Install the Motor:** Insert the Bafang mid-drive motor into the bottom bracket shell. Secure it using the provided locking nuts and plates.
3. **Attach Chainring and Cranks:** Install the chosen chainring onto the motor, followed by the crank arms.
4. **Install Display and Controls:** Mount the display unit, thumb throttle, and brake levers/sensors onto the handlebars.
5. **Connect Wiring:** Connect all cables from the motor to the display, throttle, brake levers/sensors, and speed sensor. Ensure all connections are secure and waterproof.
6. **Install Speed Sensor:** Attach the speed sensor to the chainstay and the magnet to a spoke on the rear wheel, ensuring proper alignment.
7. **Cable Management:** Route and secure all cables neatly using cable ties (included) to prevent snagging or damage.
8. **Install Battery:** Mount your separately purchased battery securely to the bicycle frame (e.g., downtube or rear rack). Connect the battery to the motor's power cable.
9. **Final Checks:** Before riding, double-check all bolts, connections, and ensure the chain runs smoothly. Test the motor and display functions.

NO SPORT & ECO MODE



9 Level

USB Port

Φ22.2/25.4/31.8 Holder(mm)

Figure 5.1: An example of a bicycle with the Bafang mid-drive motor kit and associated wiring installed.



If you select 44T/46T/48T/52T Chainwheel, you'll get the motor kits without battery.

Figure 5.2: A comprehensive view of all kit components, including the motor, display, and various accessories, along with the installation manual.

6. OPERATING INSTRUCTIONS

Once installed, operating your Bafang e-bike kit is straightforward.

6.1 Powering On/Off

- Ensure the battery is connected and turned on (if it has a separate switch).
- Press and hold the power button on the display unit to turn the system on.
- To turn off, press and hold the power button again.

6.2 Selecting Assist Level

Use the UP and DOWN buttons on the display control pad to cycle through the pedal assist levels (0-9).

- **Level 0:** No pedal assistance (motor off).

- **Levels 1-9:** Increasing levels of motor assistance. Higher numbers provide more power.

6.3 Using the Thumb Throttle

The thumb throttle provides on-demand power without pedaling.

- Gently press the thumb throttle to engage the motor. The amount of pressure dictates the power output.
- Release the throttle to disengage the motor.
- *Note: Local regulations may restrict the use or maximum speed of the throttle.*

6.4 Display Functions

The display provides real-time information:

- **Speed:** Current riding speed.
- **Battery Level:** Indication of remaining battery charge.
- **Trip Distance:** Distance covered during the current ride.
- **Odometer:** Total distance covered by the system.
- **Error Codes:** Displays codes if a system error occurs (refer to troubleshooting).

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Bafang e-bike kit.

- **Cleaning:** Clean the motor and components with a damp cloth. Avoid high-pressure washing directly on electrical parts.
- **Connections:** Periodically check all electrical connections for tightness and corrosion.
- **Cables:** Inspect cables for fraying, cuts, or damage. Replace damaged cables immediately.
- **Fasteners:** Ensure all bolts and nuts, especially those securing the motor, are tightened to the recommended torque specifications.
- **Battery Care:** Follow the battery manufacturer's instructions for charging, storage, and general care.
- **General Bicycle Maintenance:** Continue to perform regular maintenance on your bicycle's mechanical components (brakes, chain, tires, gears) as you would with a standard bike.

8. TROUBLESHOOTING

This section addresses common issues you might encounter. For more complex problems, contact customer support.

Problem	Possible Cause	Solution
Motor not assisting	Battery low/off, loose connection, assist level 0, brake lever engaged	Check battery charge/connection, increase assist level, ensure brake levers are fully released.
Display not turning on	Battery off/disconnected, loose display cable	Check battery power, ensure display cable is securely connected.
Error code on display	Sensor issue, motor fault, controller issue	Refer to the detailed manual for specific error codes. Often involves checking sensor connections or restarting the system.
Inconsistent power	Loose speed sensor magnet, poor battery connection	Check speed sensor alignment and magnet position. Secure battery connection.

9. SPECIFICATIONS

Feature	Detail
Motor Type	Mid-Drive Motor
Model	BBS01B36V250W
Rated Voltage	36V
Rated Power	250W
Max Torque	80 Nm
Bottom Bracket Compatibility	68-73mm
Waterproof Rating	IPX5
Display Type	C18 (or other selected model)
Assist Levels	0-9 Levels

10. WARRANTY & SUPPORT

Bafang provides comprehensive support for your product.

- **Warranty Period:**
 - Motor and Battery: 1 year
 - Display and Other Accessories: 6 months
- **Out-of-Warranty Service:** If the display or other accessories are no longer under warranty, shipping costs for replacement parts will be borne by the customer.
- **Technical Assistance:** Technical support is available in France and Poland.
- **Online Service:** 24-hour online service is available for inquiries and support.
- For support, please refer to the contact information provided with your purchase or visit the official Bafang website.