

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

- › [HALLOMOTOR](#) /
- › [HALLOMOTOR M620 G510 48V/52V 1000W Mid Drive Motor Conversion Kit with DPC18 Display User Manual](#)

HALLOMOTOR M620 G510 48V 52V 1000W

HALLOMOTOR M620 G510 48V/52V 1000W Mid Drive Motor Conversion Kit with DPC18 Display User Manual

Model: M620 G510 48V/52V 1000W

[Introduction](#) [Safety Information](#) [Package Contents](#) [Setup](#) [Operating](#)
[Instructions](#) [Maintenance](#) [Troubleshooting](#) [Specifications](#) [Warranty & Support](#)

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your HALLOMOTOR M620 G510 Mid Drive Motor Conversion Kit. This kit is designed to convert a standard bicycle into an electric bicycle, offering enhanced power and performance. Please read this manual thoroughly before installation and use to ensure safe and optimal operation of your e-bike system.



Image 1: Example of a bicycle converted with the HALLOMOTOR M620 G510 Mid Drive Motor Kit.

2. SAFETY INFORMATION

Always prioritize safety when working with or operating your e-bike conversion kit. Failure to follow safety instructions can result in serious injury or damage to the product.

- **Read All Instructions:** Familiarize yourself with all components and procedures before beginning installation or operation.
- **Professional Installation Recommended:** If you are unsure about any step, seek assistance from a qualified bicycle mechanic.
- **Wear Protective Gear:** Always wear a helmet and appropriate safety gear when riding your e-bike.
- **Check Connections:** Ensure all electrical connections are secure and waterproof before riding, especially after rain or washing.
- **Battery Safety:** Use only compatible batteries. Do not short-circuit, puncture, or expose the battery to extreme temperatures.
- **Regular Inspections:** Periodically check all bolts, cables, and components for tightness and wear.

- **Water Exposure:** While the motor has an IP65 waterproof rating, avoid submerging the motor or exposing electrical connections to high-pressure water jets.
- **Local Regulations:** Be aware of and comply with all local laws and regulations regarding e-bike use.

3. PACKAGE CONTENTS

Carefully unpack the box and verify that all items listed below are present and undamaged. If any items are missing or damaged, contact your vendor immediately.

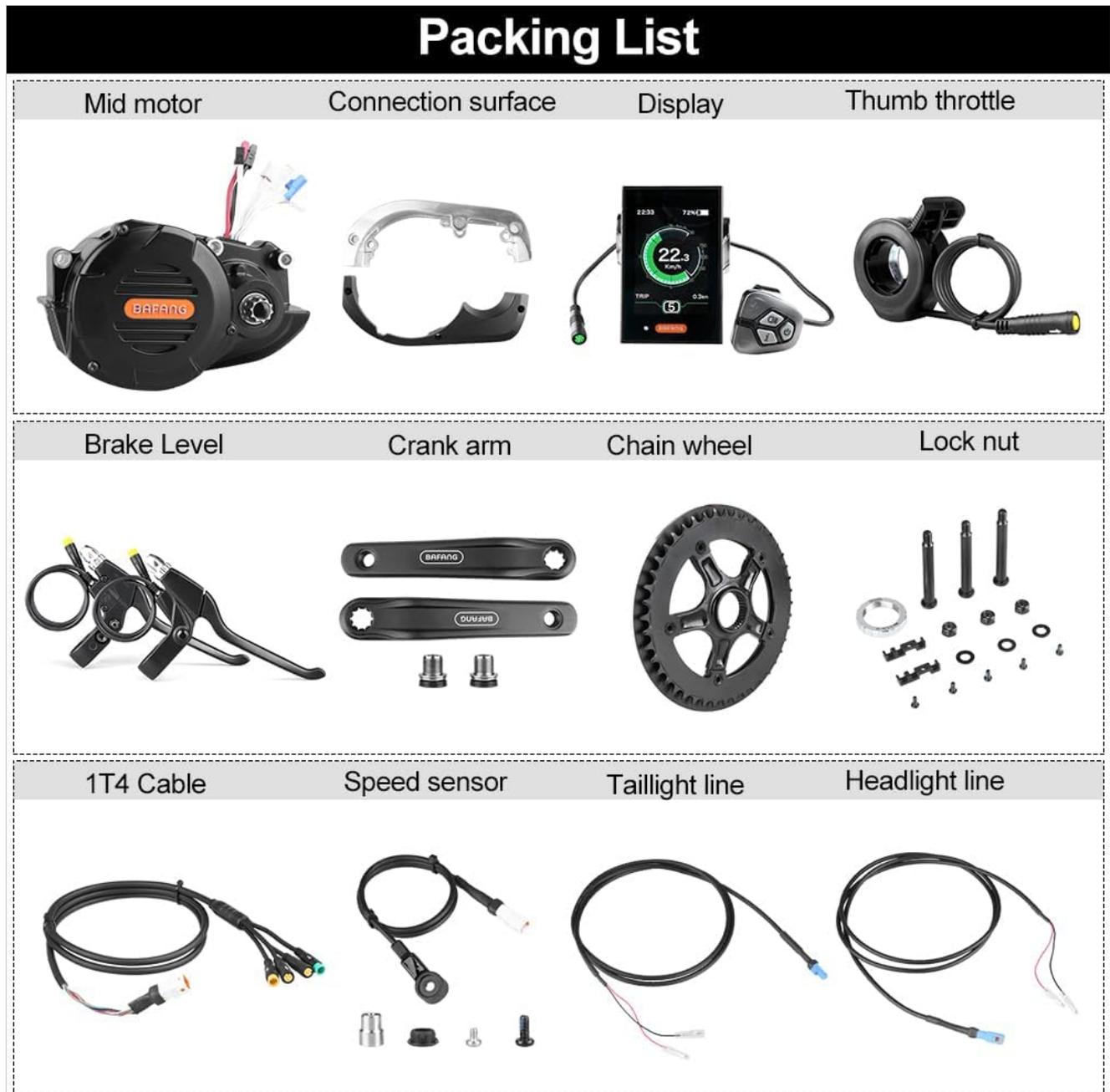


Image 2: All components included in the conversion kit.

- 1 x 48V/52V 1000W Mid Drive Motor (UART Protocol)
- 1 Pair x Brake Levers
- 1 Pair x Crank Arms
- 1 x 44T Chainwheel
- 1 Set x Thumb Throttle
- 1 Set x Speed Sensor

- 1 x DPC18 Display
- 1 x 4-in-1 Cable
- 1 Set x Accessories (mounting hardware, lock nuts, etc.)

4. SETUP AND INSTALLATION

The installation of the M620 G510 mid-drive motor requires careful attention to detail. It is crucial that the bicycle frame's bottom bracket area is compatible and prepared correctly for the motor's dimensions.

1. **Prepare the Bicycle Frame:** Ensure the frame adapter and bicycle frame are properly aligned. For optimal fit and concentricity, the frame's bottom bracket area may require heat treatment after welding to match the motor's installation dimensions and mounting hole locations.
2. **Mount the Motor:** Align the three mounting holes on the motor with the corresponding holes on the bicycle frame's bottom bracket. Carefully fit the motor into position.
3. **Secure the Motor:** Use the provided accessories and mounting hardware to firmly secure the motor to the frame. Ensure all bolts are tightened to the manufacturer's specifications.
4. **Install Crank Arms and Chainwheel:** Attach the crank arms and the 44T chainwheel to the motor's shaft.
5. **Install Brake Levers and Thumb Throttle:** Mount the brake levers and thumb throttle onto the handlebars.
6. **Install DPC18 Display:** Secure the DPC18 display to the handlebars in a position that is easily visible and accessible.
7. **Connect Wiring:** Use the 4-in-1 cable to connect the display, throttle, brake levers, and speed sensor to the motor. Ensure all connections are snug and correctly oriented (refer to wiring diagram if available).
8. **Install Speed Sensor:** Mount the speed sensor on the chainstay and align the magnet on a spoke of the rear wheel.
9. **Connect Battery:** Connect your compatible 48V or 52V battery to the motor system. Ensure the battery is securely mounted on the bicycle.
10. **Initial Check:** Before riding, perform a thorough check of all installed components, connections, and ensure the brakes and gears function correctly.



Image 3: Mid-drive motor installed on a bicycle.

5. OPERATING INSTRUCTIONS

The DPC18 display serves as the Human Machine Interface (HMI) for your HALLOMOTOR M620 G510 system, providing essential information and control over the motor's functions.



Intelligent Drive



Speed & Torque



Gear Drive



IP65



Battery



Ebus Cable 1T4



Speed Sensor



Light



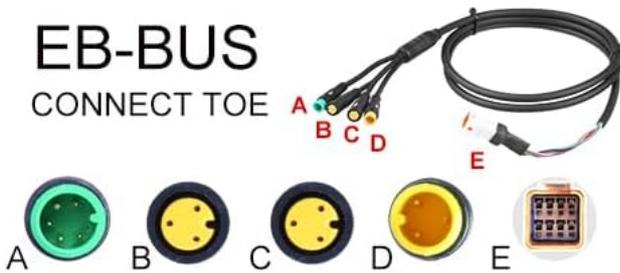
Battery communication



Gear Sensor

EB-BUS

CONNECT TO E



PIN A Male Green 5 Pins Display

PIN B Female Yellow 3 Pins Left Ebrake

PIN C Female Yellow 3 Pins Right Ebrake

PIN D Male Yellow 3 Pins Throttle

PIN E White connector(Connect to Ebus)

Image 4: DPC18 Display and motor connections.

5.1 DPC18 Display Overview

The DPC18 display features a high-contrast LCD screen designed for clear readability, even in direct sunlight. Its compact design offers protection against water and dust (IP65 rated).

- **Power On/Off:** Press and hold the power button on the display to turn the system on or off.
- **Assist Level Selection:** Use the up/down buttons to cycle through different levels of pedal assist (e.g., 0-5 or 0-9, depending on configuration).
- **Information Display:** The screen shows real-time data such as current speed, battery level, assist level, trip distance, odometer, and more.
- **Walk Assist:** Some displays offer a walk assist function, typically activated by holding the down button, which provides low-speed motor assistance for pushing the bike.
- **Settings Menu:** Access the settings menu (refer to the DPC18 specific manual for detailed navigation) to customize parameters like wheel size, speed limit, and unit preferences.

5.2 Using the Thumb Throttle

The thumb throttle provides on-demand power without pedaling. Apply gentle pressure to the throttle to engage the

motor. Always use the throttle responsibly and be aware of your surroundings.

5.3 Brake Levers with Cut-off Sensor

The included brake levers are equipped with motor cut-off sensors. Engaging either brake lever will immediately cut power to the motor, enhancing safety during braking.

6. MAINTENANCE

Regular maintenance ensures the longevity and reliable performance of your HALLOMOTOR M620 G510 conversion kit.

- **Cleanliness:** Keep the motor, display, and electrical connections clean. Use a damp cloth to wipe surfaces. Avoid high-pressure washing directly on electrical components.
- **Cable Inspection:** Periodically check all cables and connectors for signs of wear, fraying, or damage. Ensure they are securely plugged in.
- **Fastener Check:** Regularly inspect all mounting bolts and fasteners on the motor, display, and other components. Tighten any loose fasteners to prevent vibration damage.
- **Chain and Drivetrain:** Maintain your bicycle's chain and drivetrain (chainwheel, cassette, derailleur) as you would a regular bicycle. Keep the chain clean and lubricated.
- **Battery Care:** Follow the battery manufacturer's instructions for charging, storage, and maintenance. Avoid fully discharging the battery and store it in a cool, dry place.
- **Motor Noise:** If you notice unusual noises from the motor, discontinue use and inspect for any issues.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For more complex problems, contact technical support.

Problem	Possible Cause	Solution
Motor does not turn on/no power to display.	Battery not connected, low battery, loose power cable, faulty display.	Check battery connection and charge level. Ensure all power cables are securely connected. Test display if possible.
Motor provides no assist when pedaling.	Assist level set to 0, speed sensor misalignment/damage, brake lever engaged, loose motor cable.	Increase assist level on display. Check speed sensor alignment and connection. Ensure brake levers are fully released. Inspect motor cable connections.
Inaccurate speed reading on display.	Speed sensor misalignment, magnet missing, incorrect wheel size setting.	Adjust speed sensor and magnet position. Verify wheel size setting in DPC18 display menu.
Motor makes unusual noise.	Loose mounting bolts, internal motor issue, foreign object.	Check and tighten motor mounting bolts. Discontinue use and contact support if noise persists.

8. SPECIFICATIONS

Key technical specifications for the HALLOMOTOR M620 G510 Mid Drive Motor Conversion Kit.

SPECIFICATIONS

Core Data

Position Mid Motor
 Wheel Diameter (Inch) Optional
 Construction Gear drive
 Rated Voltage (DCV) 48/52
 n0 (Rpm) 150/190
 Rated Power (W) 750/1000
 nT(Rpm) 140/180
 Max Torque 160 N.m
 Efficiency (%) ≥ 80
 Pedal Sensor Speed and Torque Integrated
 Shaft Standard ISIS
 Color Black
 Weight (kg) 5.3
 Noise Grade (dB) < 55
 Operating Temperature -20-45°C



Function

E-Brake Yes
 Gearsensor Function Yes
 Light Drive Capacity (DCV / W) 6 /3(max)

Tests & Certifications

IP IP 65
 Certifications ROHS
 Salt Spray Test Standard(h) 96

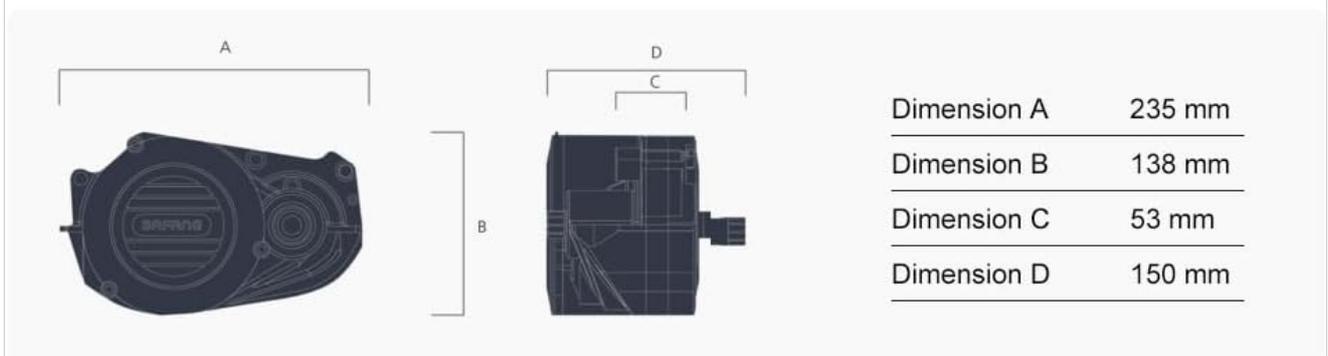


Image 5: Technical specifications and dimensions of the motor.

Feature	Detail
Motor Type	Mid Drive Motor (M620 G510)
Rated Voltage	48V / 52V DC
Rated Power	1000W
Max Torque	160 N.m
Construction	Gear drive
Efficiency	≥ 80%
Noise Grade	< 55dB
Waterproof Grade	IP65
Display	DPC18 (UART Protocol)

Feature	Detail
Shaft Standard	ISIS
Net Motor Weight	5.3 kg
Operating Temperature	-20°C to 80°C
Certificates	CE/EN14764/ROHS

9. WARRANTY & SUPPORT

HALLOMOTOR products are typically covered by a manufacturer's warranty against defects in materials and workmanship. The specific terms and duration of the warranty may vary. Please retain your proof of purchase for warranty claims.

9.1 Warranty Claims

In the event of a warranty claim, please contact your original point of purchase or HALLOMOTOR customer support with your product details and proof of purchase. Do not attempt to repair the motor or components yourself, as this may void the warranty.

9.2 Technical Support

For technical assistance, troubleshooting beyond this manual, or inquiries about parts, please contact HALLOMOTOR customer service. Provide your product model number and a detailed description of the issue to receive efficient support.

Contact information for HALLOMOTOR support can typically be found on their official website or through your retailer.