

## BAFANG 48V-20AH Downtube Battery

# BAFANG Electric Bike Battery User Manual

Model: 48V-20AH Downtube Battery

## INTRODUCTION

This user manual provides essential information for the safe and effective use of your BAFANG Electric Bike Battery. It covers installation, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your battery. The BAFANG electric bike battery is designed for 500W-1500W adult electric bike conversion kits, snow fat tire bikes, and motors. It features a robust design with a Battery Management System (BMS) for enhanced safety and performance.

## PACKAGE CONTENTS

Upon opening the package, verify that all components are present and undamaged:

- 1x Bike Battery
- 1x Battery holder
- 1x Charger
- 1x Power cord
- 2x Keys
- 1x Adapter cable (XT60 connector)



# BATTERY WITH PROTECTION FUNCTION



Image: Visual representation of the battery's integrated protection features, such as Smart BMS, rugged casing, power switch, waterproofing, safety lock, use of original lithium cells, temperature protection, and long battery life.

## SETUP AND INSTALLATION

The BAFANG downtube battery is designed for easy installation on your electric bike frame. Ensure your bike's frame has suitable mounting points for the battery holder.

### 1. Check Compatibility and Dimensions

Before installation, verify that the battery's dimensions are compatible with your bicycle's frame. The battery holder features a four-hole bottom bracket for secure mounting, which is different from some two-hole Hailong battery designs.

# Polly Battery

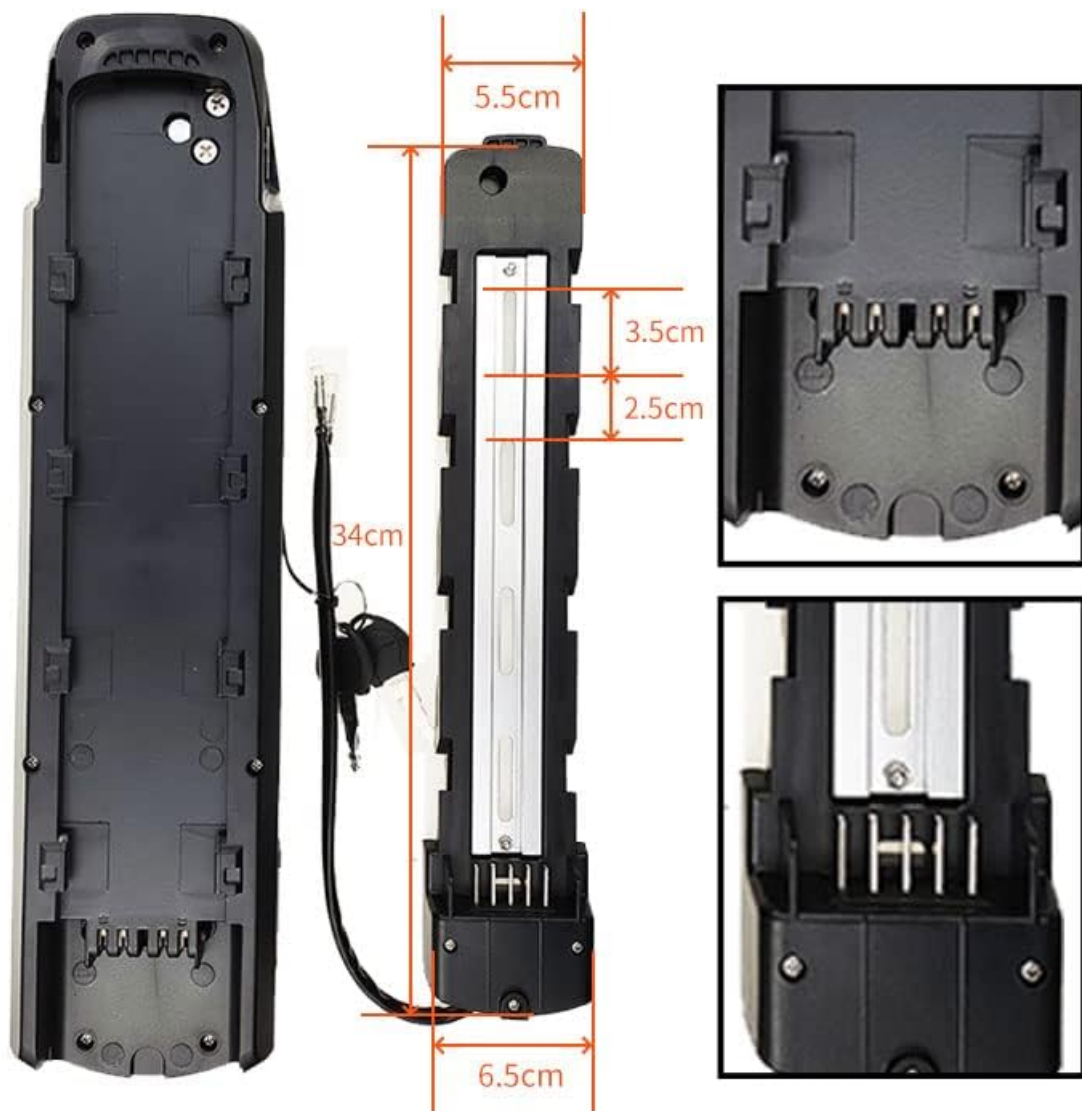


Image: Detailed diagram illustrating the dimensions of the Polly Downtube Battery, including length, width, and height, to assist with compatibility checks.

## 2. Mounting the Battery Holder

1. Attach the battery holder securely to the downtube of your electric bike frame using appropriate screws and tools (not included). Ensure it is firmly fixed and does not wobble.
2. Connect the power cables from the battery holder to your bike's motor system. The battery comes with an Anderson connector, and an XT60 adapter cable is provided for broader motor compatibility.

## 3. Installing the Battery

1. Slide the battery onto the mounted battery holder until it clicks into place.
2. Use the provided keys to lock the battery onto the holder. This secures the battery and prevents theft.

## EASY TO INSTALL



## Installation Position

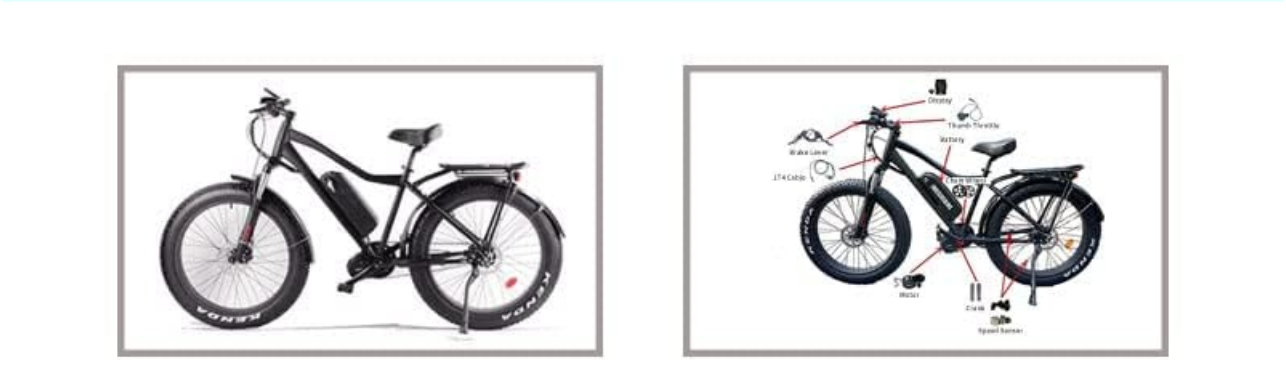


Image: Step-by-step visual guide demonstrating the ease of installing the battery onto the bike frame, from aligning to securing it in position.

## OPERATING INSTRUCTIONS

## 1. Powering On/Off

Locate the power switch on the battery. The "O" position indicates power off, and the "-" position indicates power on. Ensure the battery switch is turned on before charging or operating your electric bike.

## 2. Charging the Battery

To charge the battery, connect the provided charger to the charging port on the battery and then plug the charger into a suitable power outlet. The charging temperature range is 0-45 degrees Celsius.

### Charging Indicator Lights:

- **1 Red, 3 Green:** 100% Charged
- **1 Red, 2 Green:** 75% Charged
- **1 Red, 1 Green:** 50% Charged
- **1 Red, 0 Green:** 25% Charged



When one red light and three green lights are illuminated, charging is complete. Always turn on the battery switch to charge.

### Power Display Light

|      |  |               |
|------|--|---------------|
| 100% |  | 1 Red 3 Green |
| 75%  |  | 1 Red 2 Green |
| 50%  |  | 1 Red 1 Green |
| 25%  |  | 1 Red 0 Green |

Charging Port

Switch

### Power Switch

Turn on and off the battery power

“○” is power off, “-” is power on

### Temperature

Charge temperature: 0-45degree,  
discharge temperature: -20-65degree

### Discharge Socket

Please install into your ebike directly. Then turn your key to fix it.

Image: Detailed view of the battery's interface, including the power display lights indicating charge level, the charging port, the power switch, recommended temperature ranges for charging and discharging, and the discharge socket for connecting to the e-bike.

### 3. Discharge Socket

The discharge socket is located on the battery holder. Once the battery is installed, it connects directly to your e-bike's motor system. Ensure the key is turned to fix the battery securely in place during operation.

## MAINTENANCE AND CARE

Proper maintenance ensures the longevity and performance of your BAFANG battery.

- **Regular Charging:** Charge the battery regularly, even if not in frequent use, to maintain cell health. Avoid completely draining the battery.
- **Storage:** If storing the battery for an extended period, charge it to approximately 50-60% and store it in a cool, dry place away from direct sunlight and extreme temperatures.
- **Cleaning:** Keep the battery and its contacts clean and dry. Use a soft, dry cloth to wipe down the battery. Do not use water or cleaning agents directly on the battery.

- **Temperature:** The recommended discharge temperature range is -20 to 65 degrees Celsius. Avoid operating or storing the battery outside these ranges.
- **BMS Protection:** The integrated BMS protects against overheating, low voltage, overcharge, overdischarge, overload, and short circuits. If the battery cuts off power, it indicates a protection trigger. Allow the battery to cool down or address the underlying issue.

## TROUBLESHOOTING

This section addresses common issues you might encounter with your BAFANG electric bike battery.

### Battery Not Charging Fully

- **Check Charger Light:** Ensure the charger light changes from red to green when fully charged. If it remains red for an extended period (e.g., over 24 hours), the battery may not be reaching full capacity.
- **Verify Power Switch:** Confirm the battery's power switch is in the "on" position (-) during charging.
- **Charger Functionality:** Test the charger with another compatible battery if possible, or check the charger's output voltage.
- **Battery Health:** If the issue persists, the battery cells may be degraded. Contact technical support.

### Battery Not Powering On

- **Check Power Switch:** Ensure the battery's power switch is in the "on" position (-).
- **Charge Level:** Verify the battery has sufficient charge using the indicator lights. If low, charge the battery.
- **Connections:** Ensure the battery is securely seated in its holder and all connections to the bike's motor are firm.
- **Safety Lock:** Confirm the battery is properly locked into the holder with the key.

### Incorrect Connector Type

- The battery is equipped with an Anderson connector. An XT60 adapter cable is included in the package for compatibility with various motors. Ensure you are using the correct connector for your motor. If your motor requires a different connector type, you may need to acquire an appropriate adapter or consult a professional for modification.

## SPECIFICATIONS

Below are the detailed specifications for the BAFANG Electric Bike Battery models:

| Attribute                      | 48V 13Ah / 52V 16Ah     | 48V 17.5Ah / 48V 20Ah  | 52V 20Ah               |
|--------------------------------|-------------------------|------------------------|------------------------|
| Type                           | Polly Downtube Battery  | Polly Downtube Battery | Polly Downtube Battery |
| Nominal Voltage                | 48V / 52V               | 48V                    | 52V                    |
| Rated Capacity                 | 13Ah / 16Ah             | 17.5Ah / 20Ah          | 20Ah                   |
| Max Constant Discharge Current | 30A (BMS)               |                        |                        |
| Charger                        | 54.6V 2A / 58.8V 3A     | 54.6V 2A               | 58.8V 3A               |
| Battery Cell                   | 2600mah / 3500mah       | 4500mah / 5000mah      | 3500mah                |
| Weight                         | Approx. 5kg (11 pounds) |                        |                        |
| Size (L*W*H)                   | 368*90*113mm            | 368*90*123mm           | 368*90*141mm           |
| Charge Temperature             | 0-45 degrees Celsius    |                        |                        |
| Discharge Temperature          | -20-65 degrees Celsius  |                        |                        |

| Attribute            | 48V 13Ah / 52V 16Ah   | 48V 17.5Ah / 48V 20Ah | 52V 20Ah |
|----------------------|---|-----------------------|----------|
| BMS                  | Smart BMS, Balance Charging, Overheat Cut Off, Power Voltage Cut Off, Low Voltage Cut Off |                       |          |
| Protection Functions | Over Charge, Over Discharge, Over Current, Short Circuit                                  |                       |          |

|   |   |   |                        |   |                        |  |
|---|---|---|------------------------|---|------------------------|--|
| <div>48V13Ah/52V16Ah</div> <div></div> |   | <div>48V17.5Ah/48V20Ah</div> <div></div> |                        | <div>52V20Ah</div> <div></div> |                        |  |
| Type  | Polly Downtube Battery  |   | Polly Downtube Battery |   | Polly Downtube Battery |  |
| Capacity  | 48V13Ah/52V16Ah   |   | 48V17.5Ah/48V20Ah      |   | 52V20Ah                |  |
| Weight  | 5kg   |   | 5kg                    |   | 5kg                    |  |
| Size  | 368*90*113mm  |   | 368*90*123mm           |   | 368*90*141mm           |  |
| Temperature   | Charge Temperature:0-45degree,Discharge Temperature :-20-65degree                     |   |                        |   |                        |  |
| BMS Protection  | Smart BMS,Balance Charging,Overheat Cut Off,Power Voltage Cut Off,Low Voltage Cut Off |   |                        |   |                        |  |
| Protection Function   | Over Charge, Over Discharge, Over Current, Short Circuit                              |   |                        |   |                        |  |
| Battery Packing List  | Battery, Charger, Key, Power base connection  |   |                        |   |                        |  |

Image: Comprehensive table outlining the technical specifications for different BAFANG Polly Downtube Battery variants, including capacity, physical dimensions, operating temperatures, and integrated safety features.

### Charger Plug Options:

The charger comes with various plug options to suit different regional power outlets. Ensure you use the correct power cord for your region.



optional



Image: Display of various charger plug types available (UK, AU, US, EU) to ensure compatibility with different electrical outlets worldwide.

## WARRANTY AND SUPPORT

BAFANG is committed to providing excellent customer service and technical support for its products.

### Technical Support

We maintain technical repair centers in various locations to offer comprehensive technical assistance. Should you encounter any issues with your battery or motor, please do not hesitate to contact us. Our team is dedicated to providing support to ensure your satisfaction.

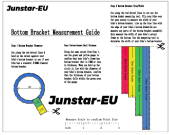



### Effective Communication

We encourage you to monitor your Amazon mailbox for important updates regarding your order, including delivery confirmations or inventory-related communications. For any product-related concerns or inquiries, you are welcome to send us an email directly.



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## Related Documents

|  |  |
|--|--|
|   | <p><a href="#">Bafang Electric Bike Conversion Kit: Jumbo Shark &amp; G80 Battery Mount Modification Guide</a></p> <p>This guide provides printable templates and instructions for modifying battery mounts for Bafang electric bike conversion kits, specifically for Jumbo Shark mounts used with G80 and other compatible Hailong batteries.</p>              |
|   | <p><a href="#">BAFANG BT F15.655.C/ BT F15.730.C Battery User Manual</a></p> <p>User manual for BAFANG BT F15.655.C and BT F15.730.C e-bike batteries, covering installation, operation, charging, safety instructions, and specifications.</p>  |
|   | <p><a href="#">BAFANG BBS01/BBS02 Mid-Drive Electric Bike Conversion Kit Installation Manual</a></p> <p>Detailed installation guide for BAFANG BBS01 and BBS02 mid-drive electric bike conversion kits. Covers system overview, technical specifications, step-by-step assembly, component connections, and warranty information for e-bike DIY enthusiasts.</p> |
|  | <p><a href="#">BAFANG M510 Mid Motor User Manual and Installation Guide</a></p> <p>Comprehensive user manual for the BAFANG M510 Mid Motor, covering specifications, installation procedures, maintenance, and troubleshooting for electric bicycles.</p>  |