

BAFANG TFL48V20AH 960WH

BAFANG Polly Electric Bicycle Battery User Manual

Models: 48V13AH, 48V20AH, 52V20AH

1. INTRODUCTION

Thank you for choosing the BAFANG Polly Electric Bicycle Battery. This manual provides essential information for the safe and efficient use, installation, operation, and maintenance of your battery. Please read this manual thoroughly before using the product to ensure optimal performance and longevity.

2. SAFETY INFORMATION

Your safety is paramount. Please observe the following precautions:

- **BMS Protection:** Each battery is equipped with a Battery Management System (BMS) protection board. This system ensures balanced charging and will cut off power in cases of overheating, low voltage, overcharge, overdischarge, overload, or short circuit.
- **Temperature:** Avoid exposing the battery to extreme high or low temperatures during use or storage.
- **Physical Impact:** Prevent drops and collisions, as these can damage the internal components of the battery.
- **Storage:** If storing the battery for an extended period, keep it in a cool, dry place and ensure it is not left in a state of complete discharge.
- **Charging:** Use only the provided charger or a BAFANG-approved charger. Do not attempt to open or modify the battery pack.

3. PACKAGE CONTENTS

Please check the package for the following items:

- 1x BAFANG Polly Electric Bicycle Battery
- 1x Battery Mount (Polly base with four holes)
- 1x Charger (54.6V 2A or 58.8V 3A, depending on model)
- 1x Power Cable
- 2x Keys for the safety lock

- 1x Adapter cable with XT60 interface (for compatibility with various motor specifications)



Figure 1: Included components and features. This image displays the two charger options, the battery base connection, the charging port, the power switch, the key switch safe lock, and the power indicator lights.



Figure 2: Detailed view of the D-POWER battery charger and its power cable.

4. PRODUCT OVERVIEW

The BAFANG Polly Electric Bicycle Battery is a high-performance lithium-ion battery designed for electric bicycles. It features a robust design and advanced safety features.

- **Battery Type:** Polly Lithium-ion Battery.
- **Protection:** Smart BMS protection, rugged case, waterproof design.
- **Security:** Integrated safety lock with keys.
- **Indicators:** Power switch and built-in power indicator lights to show charge status.
- **Compatibility:** Suitable for 250W, 300W, 350W, 500W, 750W, 1000W, 1200W, and 1600W motors. Equipped with a 30A BMS for maximum constant discharge current.
- **Interface:** Anderson battery interface, with an included XT60 adapter cable for broader motor compatibility.

BATTERY WITH PROTECTION FUNCTION

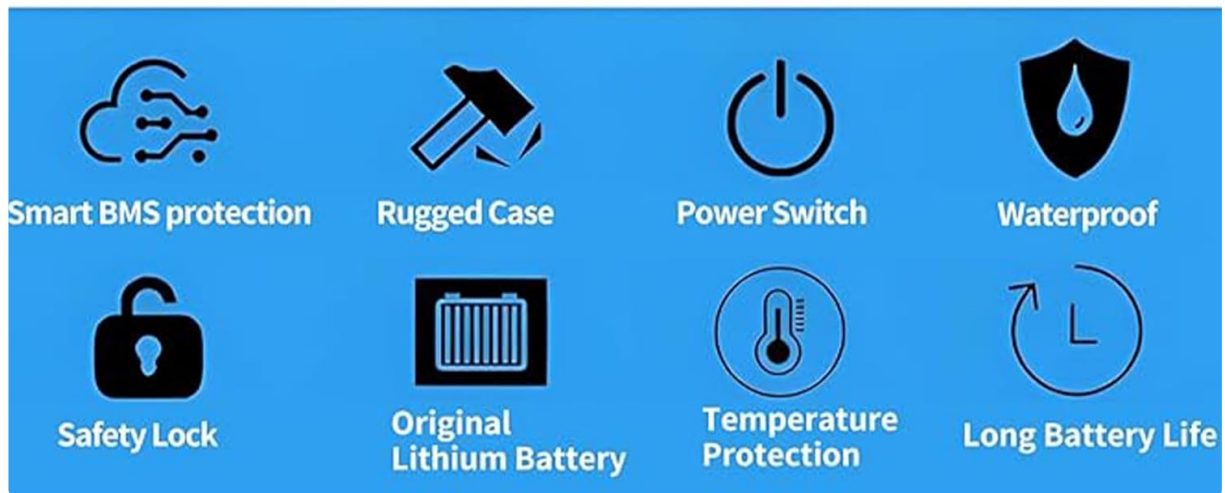


Figure 3: Key features of the BAFANG Polly battery, highlighting its protective functions and design elements.

5. SETUP AND INSTALLATION

The battery pack is designed for easy installation and removal. Ensure your bicycle mount is compatible with the battery's dimensions and base type (Polly base has four mounting holes).

1. **Prepare the Mount:** Secure the battery bottom bracket to your bicycle frame. Ensure it is firmly attached to prevent wobbling during rides.
2. **Slide in Battery:** Align the battery with the mounted bracket and slide it into place until it clicks securely.
3. **Secure with Key:** Use the provided key to lock the battery onto the mount. This prevents theft and ensures the battery remains in place.
4. **Connect Power:** Connect the battery's power cable to your motor's power input. Use the XT60 adapter cable if your motor requires it.

Installation Instruction

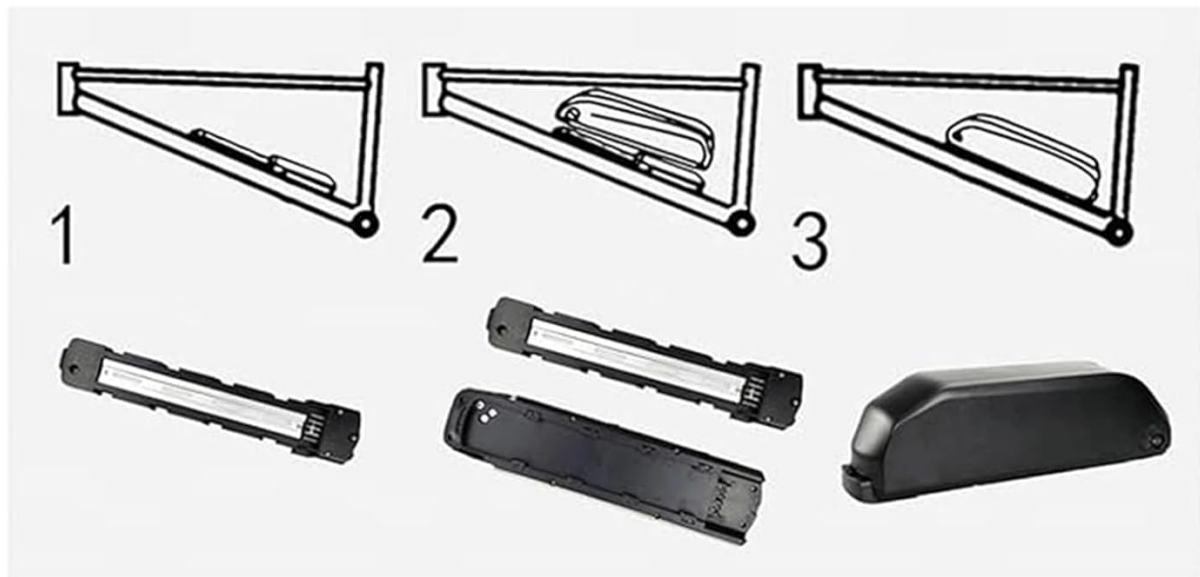


Figure 4: Step-by-step installation guide for the battery. This diagram illustrates how to attach the battery mount and then slide the battery onto it.

6. OPERATION

To operate your electric bicycle with the BAFANG battery:

- **Unlock and Power On:** Insert the key into the safety lock and turn it to the 'ON' position. Then, press the power switch on the battery.
- **Check Indicator:** Observe the built-in power indicator lights to check the current charge level.
- **Power Off:** After use, turn off the power switch and remove the key from the safety lock.

7. CHARGING

Proper charging ensures the longevity of your battery.

- **Connect Charger:** Plug the charger into a standard wall outlet, then connect the charging cable to the battery's charging port.

- **Charging Indicator:** The battery's built-in indicator lights will show the charging status. When one red light and three green lights are illuminated simultaneously, charging is complete.
- **Disconnect:** Once fully charged, disconnect the charger from the battery and then from the wall outlet.

8. MAINTENANCE

Follow these guidelines to maintain your battery's performance and lifespan:

- **Regular Charging:** Do not leave the battery in a state of power loss for prolonged periods. Charge it regularly, even if not in frequent use.
- **Storage Conditions:** Store the battery in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Cleaning:** Use a soft, dry cloth to clean the battery. Do not use water or other liquids directly on the battery.
- **Avoid Impact:** Protect the battery from physical shocks, drops, and vibrations.
- **Inspection:** Periodically inspect the battery and its connections for any signs of damage or wear.

9. TROUBLESHOOTING

If you encounter issues with your battery, refer to the following common problems and solutions:

- **Battery Not Powering On:**
 - Ensure the key is in the 'ON' position and the power switch is pressed.
 - Check if the battery has sufficient charge.
 - Verify all connections between the battery and the motor are secure.
- **Battery Not Charging:**
 - Confirm the charger is properly plugged into both the wall outlet and the battery.
 - Check if the wall outlet is functional.
 - Ensure the charger is the correct one provided with the battery.
- **Reduced Range/Performance:**
 - Battery capacity naturally degrades over time and with usage cycles.
 - Extreme temperatures can affect performance.
 - Ensure the battery is fully charged before each ride.
- **BMS Protection Activated:** If the battery suddenly cuts off power, the BMS may have activated due to overheating, overcharge, overdischarge, or a short circuit. Allow the battery to cool down or check for any visible damage or short circuits.

If problems persist, please contact BAFANG customer support.

10. SPECIFICATIONS

Feature	Description
Brand	BAFANG
Model Name	TFL48V20AH 960WH (for 48V20AH variant)
Standard Voltage	48V / 52V

Capacity Options	48V13AH, 48V20AH, 52V20AH (Polly type)
BMS	30A (Maximum constant discharge current)
Charger	54.6V 2A (for 48V) / 58.8V 3A (for 52V)
Motor Compatibility	250W - 1600W
Cycle Life	More than 1000 charging cycles
Expected Lifespan	Up to 5 years
Battery Interface	Anderson (includes XT60 adapter cable)
Special Features	Lightweight, Built-in Lock
Dimensions (48V13AH)	368 x 90 x 113 mm (14.5 x 3.5 x 4.5 in)
Dimensions (48V20AH, 52V20AH)	368 x 90 x 123 mm (14.5 x 3.5 x 5 in)

Polly Battery

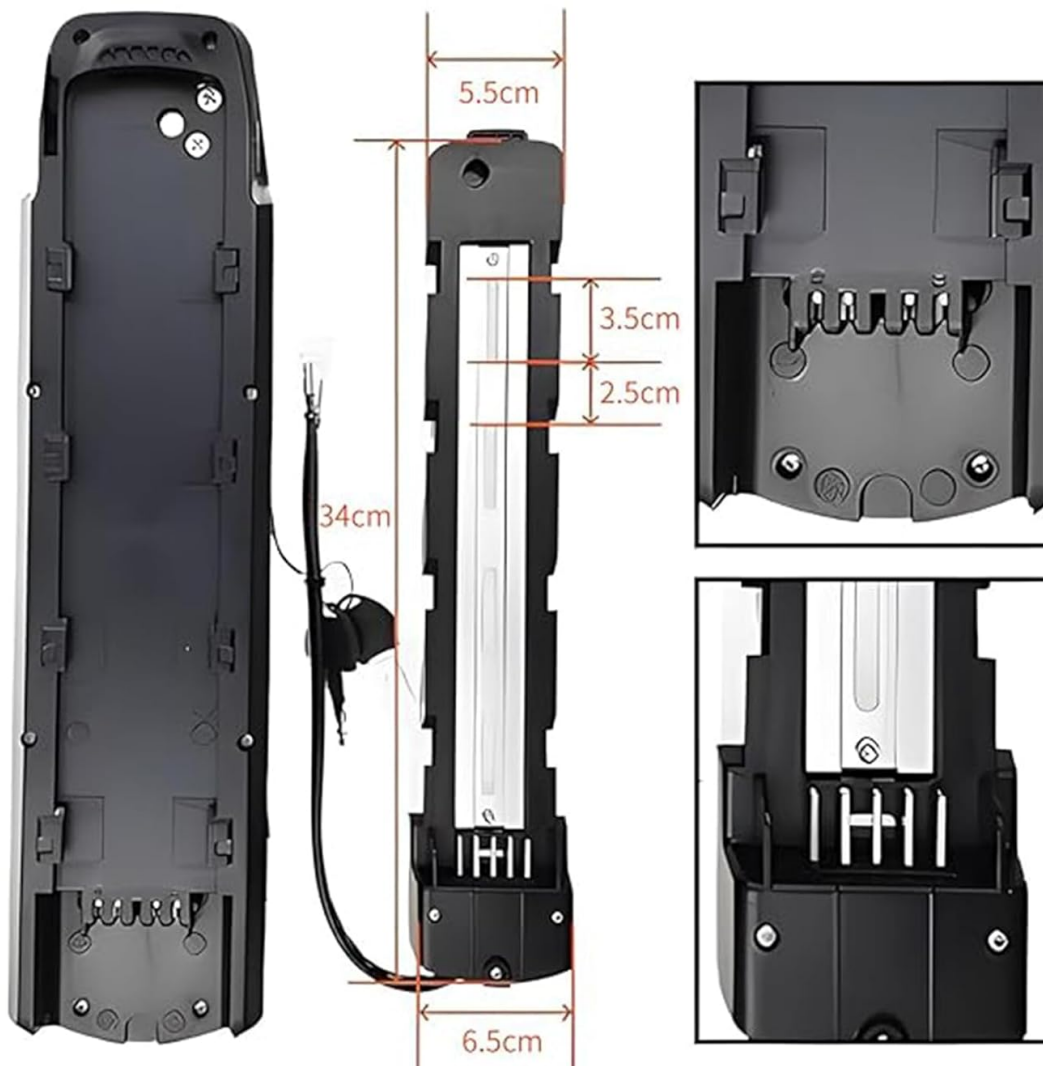


Figure 5: Detailed dimensions of the Polly battery. This image provides specific measurements for the battery casing and mounting area.

11. WARRANTY

This BAFANG Electric Bicycle Battery comes with a **1-year warranty** from the date of purchase. The warranty covers manufacturing defects under normal use. It does not cover damage resulting from misuse, accidents, unauthorized modifications, or failure to follow the instructions in this manual.

12. SUPPORT

For technical assistance, warranty claims, or any questions regarding your BAFANG Polly Electric Bicycle Battery, please contact BAFANG customer support through the retailer where you purchased the product or visit the official BAFANG website for contact information.