

Varstrom 36V / 48V / 52V Ebike Battery

Varstrom Premium Lithium Ebike Battery User Manual

Model: 36V / 48V / 52V Ebike Battery

INTRODUCTION

This manual provides essential information for the safe and effective use of your Varstrom Premium Lithium Ebike Battery. It covers various models including 36V, 48V, and 52V options with capacities ranging from 13Ah to 20Ah. These batteries are designed for compatibility with BAFANG, Pexmor, AW, and Ebikeling mid-drive and hub motors, supporting power outputs from 250W to 1200W. Please read this manual thoroughly before installation and operation to ensure optimal performance and longevity of your battery.

SAFETY INFORMATION

Your Varstrom ebike battery is equipped with a sophisticated Battery Management System (BMS) for comprehensive protection. Adhering to the following safety guidelines is crucial:

- Do not disassemble, modify, or attempt to repair the battery. This can lead to serious injury or damage and will void the warranty.
- Use only the charger provided by Varstrom or a compatible charger specifically designed for lithium ebike batteries.
- Avoid exposing the battery to extreme temperatures (hot or cold), direct sunlight for prolonged periods, or moisture.
- Do not short-circuit the battery terminals.
- Keep the battery away from children and pets.
- In case of fire, use a lithium-ion specific fire extinguisher. Do not use water.
- Dispose of the battery responsibly according to local regulations for lithium-ion batteries.
- The integrated BMS protects against overcharging, over-discharging, excessive current draw, and short circuits.

SHARK BATTERY

36V 17.4AH
48V 13AH
48V 17.5AH



Overcurrent
Protection



Overvoltage
Protection



Overload
Protection



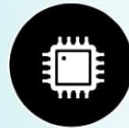
Overcharge
Protection



Overdischarge
Protection



Temperature
Protection



Short
Circuit Protection



Cell Voltage
Balancing

Image: Varstrom battery protection features, including overcurrent, overvoltage, overload, overcharge, overdischarge, temperature, short circuit, and cell voltage balancing.

PRODUCT OVERVIEW

The Varstrom Premium Lithium Ebike Battery is designed for durability and performance, featuring a robust construction and advanced internal components.



Image: The Varstrom ebike battery unit alongside its mounting plate, ready for installation.

Key Features:

- **Universal Compatibility:** Designed to work with mid-motor kits, hub motor kits, and electric bikes ranging from 250W to 1200W. Equipped with an industry-standard XT60 connector.
- **Advanced Design & Security:** Features a lock and key mechanism for secure attachment and anti-theft protection. An integrated indicator light provides real-time battery charge level.
- **Sophisticated BMS Protection:** Integrated Battery Management System prevents overcharging, over-discharging, excessive current draw, and short circuits, extending battery lifespan.
- **Exceptional Quality & Safety Standards:** UN38.3 certified, built for endurance with over 1000 charge cycles.

Shockproof Shell Structure:

The battery features a multi-layered shockproof shell structure, ensuring safety, reliability, and a long cycle life. This design protects the internal cells and the Battery Management System (BMS) from external impacts.

SHOCKPROOF SHELL STRUCTURE

Safe, reliable, and boasting a long cycle life.



Image: Exploded view of a frame-mounted battery, highlighting the shell, BMS, cell holder, and premium battery cells.

SHOCKPROOF SHELL STRUCTURE

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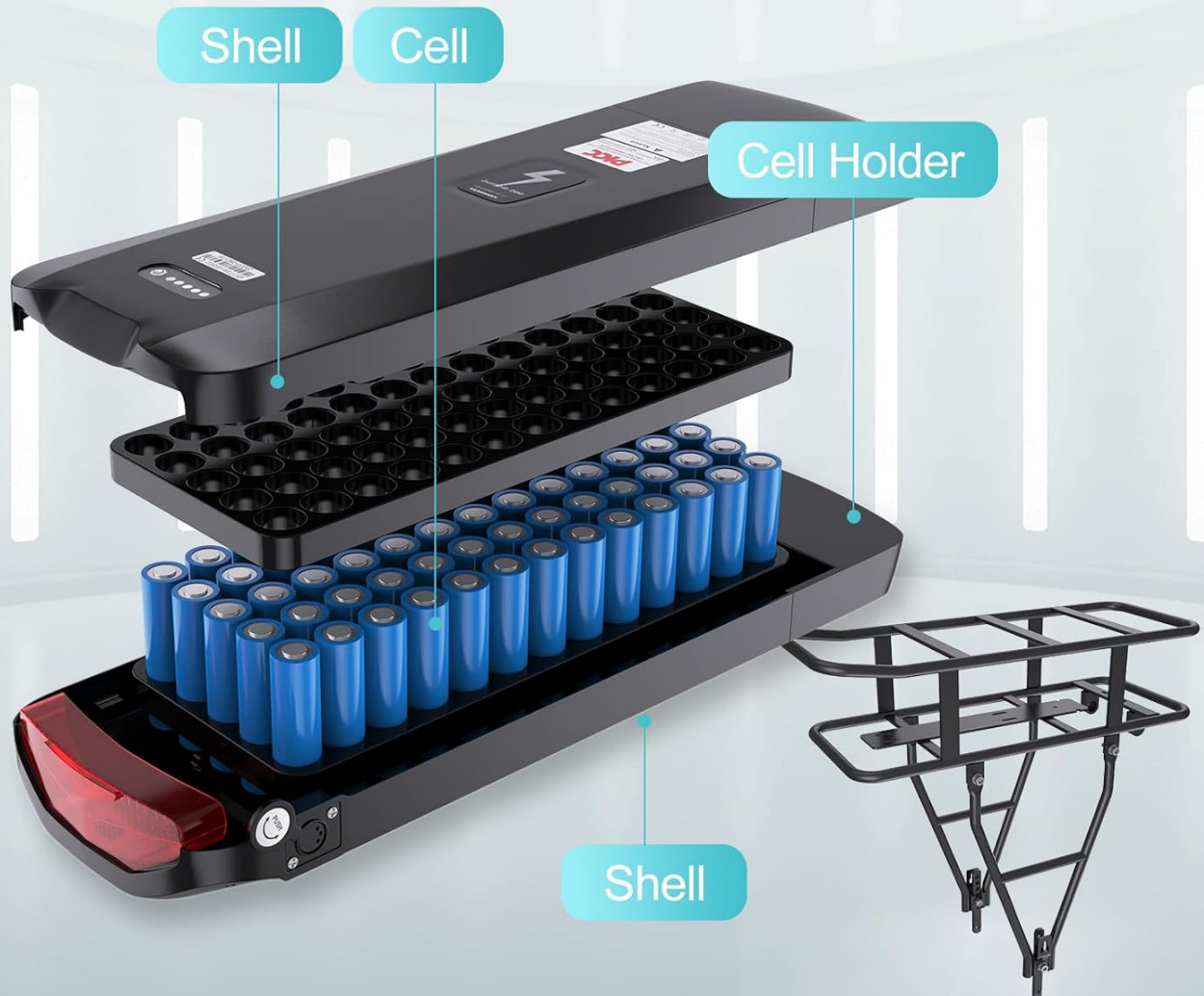


Image: Exploded view of a rear rack battery, showing its internal components and the compatible rack.

SPECIFICATIONS

The Varstrom ebike battery is available in various configurations. Please refer to the table below for detailed parameters of different models.

BATTERY PARAMETERS

• 36V 15.6Ah | Shark Battery

- 48V 13Ah
- 48V 16Ah



• 48V 20Ah | Shark Battery



Type	36V 15.6Ah	48V 13Ah	48V 16Ah	48V 20Ah
Watt Hour	561.6Wh	624Wh	768Wh	960Wh
Battery Cell	18650 2600mAh	18650 2600mAh	18650 3200mAh	Sam*/sung 21700 5000mAh
BMS	30A	30A	30A	30A
Charge voltage	42V	54.6V	54.6V	54.6V
Size (L*W*H)	368*90*111mm	368*90*111mm	368*90*111mm	367*90*127mm
Weight	3.9kg	4.25kg	4.23kg	4.7kg
USB Port	✓	✓	✓	✓
Cycle Life	1000 times			
Protection Function	Over charge, Over discharge, Over current, Short circuit, Balance			

• 52V 20Ah | YingWu Battery



• 48V 20Ah | Voltz X Battery



• 48V 17.5Ah | Rear Rack Battery



Type	52V 20Ah	48V 20Ah	48V 17.5Ah
Watt Hour	1040Wh	960Wh	840Wh
Battery Cell	Sam*/sung 21700 5000mAh	Sam*/sung 21700 5000mAh	18650 2600mAh
BMS	30A	30A	30A
Charge voltage	58.8V	54.6V	54.6V
Size (L*W*H)	368*95*125mm	365*109*140mm	476*162*89mm
Weight	5kg	5.2kg	6kg
USB Port	✗	✓ USB & Type-C Fast Charge	✓
Cycle Life	1000 times		
Protection Function	Over charge, Over discharge, Over current, Short circuit, Balance		

Image: Detailed specifications table for various Varstrom ebike battery models, including Shark, G70 Mini Shark, G80 Shark, Voltz X, Yingwu, and Rear Battery types.

General Specifications:

- **Brand:** Varstrom
- **Battery Cell Composition:** Lithium
- **Unit Count:** 1.0 Count
- **Manufacturer:** Shenzhen Yihang Cross-border E-commerce Co., Ltd.
- **Certifications:** UN38.3

SETUP AND INSTALLATION

Before installation, ensure you have the correct battery model and mounting type for your ebike. The package includes the battery, a secure battery mounting plate, a compatible battery charger, and security keys.

For Frame-Mounted Batteries (e.g., Shark, G70 Mini Shark, G80 Shark, Voltz X, Yingwu):

1. Identify the mounting points on your ebike frame, typically where a water bottle cage would be installed.
2. Attach the battery mounting plate to the frame using the provided screws. Ensure it is securely fastened.
3. Slide the battery onto the mounting plate until it clicks into place.
4. Use the key to lock the battery to the mounting plate for added security.
5. Connect the battery's discharge port (XT60 connector) to your ebike's motor controller.

INSTALLATION STEP



PACKING LIST



1* Battery

1*Battery Fix Plate

2*Rubber Spacer

4*Screws

1*Charger

2*Keys

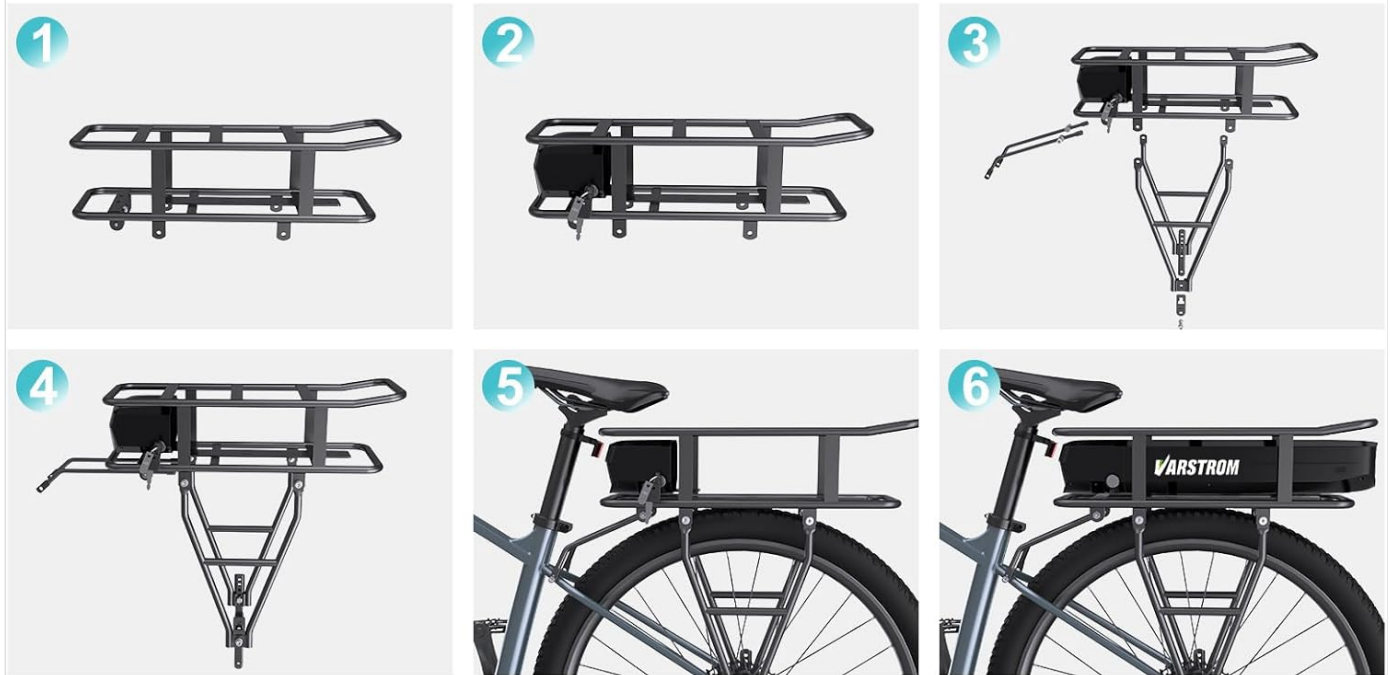
1*User Manual

Image: Installation steps for a frame-mounted ebike battery, illustrating how to secure the mounting plate and attach the battery.

For Rear Rack Batteries:

1. Assemble the rear rack onto your ebike according to the rack's instructions.
2. Attach the battery mounting plate to the rear rack.
3. Slide the battery onto the mounting plate on the rear rack until it is firmly seated.
4. Use the key to lock the battery to the mounting plate.
5. Connect the battery's discharge port to your ebike's motor controller.

INSTALLATION STEP



PACKING LIST

1* Battery	Keys*2
1*Battery Fix Plate	1*50A Fuse
1*Rear Rack	1*User Manual
1*Charger	Accessories

Image: Installation steps for a rear rack ebike battery, demonstrating rack assembly and battery attachment.

Included Components:

Your package includes:

- 1 x E-Bike Battery
- 1 x Secure Battery Mounting Plate
- 1 x Compatible Battery Charger
- 2 x Security Keys
- Necessary mounting hardware (screws, rubber spacers if applicable)

OPERATION

Once the battery is securely installed and connected to your ebike's motor controller, you can begin operation.

- **Power On/Off:** Locate the power switch on the battery or your ebike's control panel. Turn it on to activate the battery.

- **Battery Indicator:** The integrated indicator light on the battery provides a visual representation of the remaining charge level. Monitor this to know when recharging is necessary.
- **Riding:** Operate your ebike as usual, utilizing the electric assist as needed. The battery will provide power to the motor.

CHARGING

Proper charging is essential for the lifespan and performance of your lithium battery.

1. Ensure the battery is turned off before charging.
2. Connect the charger to the battery's charging port.
3. Plug the charger into a standard wall outlet.
4. The charger will typically have an indicator light that changes color (e.g., red to green) to signify charging status and completion.
5. Once fully charged, disconnect the charger from the wall outlet first, then from the battery.
6. Avoid overcharging by not leaving the battery connected to the charger for extended periods after it's full.

MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your Varstrom ebike battery.

- **Cleaning:** Wipe the battery exterior with a soft, dry cloth. Do not use water or harsh chemicals.
- **Storage:** If storing the battery for an extended period, charge it to approximately 50-60% capacity. Store it in a cool, dry place, away from direct sunlight and extreme temperatures. Recharge it every 2-3 months to maintain this level.
- **Connection Points:** Periodically check the battery and motor connectors for any signs of corrosion or damage. Ensure they are clean and secure.
- **Cycle Life:** The battery is designed to withstand over 1000 charge cycles without compromising performance. Following proper charging and storage guidelines will help achieve this.

TROUBLESHOOTING

If you encounter issues with your Varstrom ebike battery, consider the following common solutions:

- **Battery Not Powering On:**
 - Ensure the battery is fully charged.
 - Check that the battery is securely locked onto its mounting plate.
 - Verify all connections (battery to motor controller) are firm and clean.
 - Confirm the power switch on the battery or ebike is in the "On" position.
- **Battery Not Charging:**
 - Ensure the charger is properly plugged into both the wall outlet and the battery.
 - Check the charger's indicator light for status.
 - Verify the wall outlet is functional.
 - Ensure the battery is turned off during charging.
- **Reduced Range/Performance:**
 - Ensure the battery is fully charged before each ride.
 - Check tire pressure on your ebike.
 - Consider external factors like terrain, rider weight, and weather conditions.

- If the battery is old, its capacity may naturally degrade over time.

If issues persist after attempting these steps, please contact Varstrom customer support for further assistance.

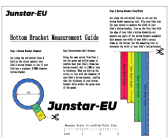


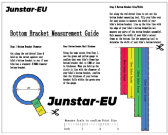
WARRANTY AND SUPPORT

Varstrom batteries undergo a meticulous quality assurance process to ensure flawless functionality and appearance. The product is UN38.3 certified, demonstrating dedication to safety and excellence. While specific warranty terms may vary by retailer or region, the battery is built for endurance and designed to withstand over 1000 charge cycles.

For technical support, troubleshooting assistance, or inquiries regarding your Varstrom ebike battery, please contact the seller or Varstrom customer service through the platform where you purchased the product. Please have your purchase details and product model information ready when contacting support.

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Related Documents - 36V / 48V / 52V Ebike Battery

	Bafang Electric Bike Conversion Kit: Jumbo Shark & G80 Battery Mount Modification Guide 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.
	BAFANG BBS01/BBS02 Mid-Drive E-bike Motor Installation Manual eMax eBikes Comprehensive installation manual for the BAFANG BBS01 and BBS02 mid-drive electric bike motor kits. Includes technical specifications, assembly steps, wiring diagrams, and warranty information from eMax eBikes.
	Pexmor Electric Bicycle User Manual: Assembly, Operation, and Maintenance Guide Comprehensive user manual for the Pexmor electric bicycle, covering assembly instructions, detailed operation modes, maintenance tips, specifications, warranty information, and frequently asked questions.
	Junstar-EU Bottom Bracket Measurement Guide and Battery Fitment A guide from Junstar-EU for measuring bicycle bottom bracket dimensions and determining compatibility with Jumbo Shark battery models.

