NEW YORK EBIKE BATTERY OPERATING MANUAL

Contents

Introduction

Ebike rely on electric power to provide assistance. The battery is the energy storage component of the Ebike and is also one of the most valuable parts of the vehicle. The battery contains energy storage cells, a battery management system, and other structural and safety components. The battery is sensitive to temperature and humidity. Although it is equipped with a comprehensive protection system internally, it still needs to follow the physical and chemical characteristics of the battery to ensure optimal performance and the longest service life. Please carefully read the relevant contents of this manual and follow the instructions regarding battery charging, transportation, maintenance, and other related guidelines.

Note 1. This document is a general battery manual and does not cover the specifications and functions of any specific battery model. For such information, please refer to the specific user manual or instructions for the corresponding vehicle or battery.
2. At all times, the use of lithium batteries and vehicles must comply with any additional relevant requirements mentioned in local laws and regulations. If you have any questions, please contact Velotric or an authorized dealer.

WARNING Failure to follow the guidelines in this manual may result in damage to electrical components, fire, electric shock, or even serious personal injury or death.

Charging

The battery can be installed in two ways: removable and built-in. The removable battery can be charged either on the vehicle or after being removed, while the built-in battery can only be charged on the vehicle.

Charging Instructions

1. Turn off the bicycle's power.
2. Open the charging port cover on the vehicle or battery and correctly insert the charger output connector into the battery's charging port.
3. Plug the charger’s AC power plug into a socket that matches the charger’s rated input specifications.
4. When charging begins, a visual indicator can be seen on the battery, vehicle display, or charger LED (this may vary by model).
5. Once charging is complete, first disconnect the charger from the AC socket, then remove the charger output connector from the battery’s charging port.
6. Close the battery charging port cover and check if it is securely fastened to prevent moisture or foreign objects from entering the charging port.

Temperature Protection and Recovery

1. The battery is designed with comprehensive temperature protection. In winter or after prolonged use in summer, the battery may become unable to charge.
2. When the battery is in temperature protection mode, the battery or the entire vehicle should be placed in an environment with a room temperature above 59°F (15°C) until the temperature returns to normal. Once the temperature has recovered, reconnect the charger to resume normal charging.
3. When the battery is in temperature protection mode, some models may provide an indication through the battery status LED when the charger is connected.

Charging Precautions

1. Only use the specified model of battery and charger (including accessories). Any modification or mixing presents a fire risk.
2. If the battery is not fully charged within two hours after the specified charging time, immediately unplug the battery from the power socket and contact the place of purchase.
3. When connecting or disconnecting the power socket, always hold the power plug. Avoid pulling the cable in a way that may damage its base.
4. Do not touch the charger when its temperature rises, as this could cause burns.
5. The charger is designed for indoor use only. Always charge the battery in a well-ventilated room with a smoke detector, and the ideal charging temperature for the battery is between 50°F and 77°F (10°C to 25°C).
6. The lithium battery's limit charging temperature range is between 41°F and 86°F (5°C to 30°C). When the internal battery temperature exceeds this range, charging will automatically stop and enter protection mode.
7. Do not store the electric bike or battery near an exit or charge them there, as in the event of a fire or emergency, your escape route may be blocked.
8. Do not store the electric bike or battery or charge them in children's rooms or bedrooms.
9. Always supervise the battery during charging.
10. When the battery is fully charged, immediately disconnect the battery from the charger.
11. Once charging is complete or the charger is not in use, disconnect the charger from the power supply.
12. When charging, ensure that the battery, the vehicle, and the charger are placed securely, avoiding any movement that could cause a loose connection.
13. Be careful when removing or placing the battery; do not let it fall. If the battery is damaged, do not use or charge it.

14. Keep the battery and charger out of reach of children to prevent them from touching or using them. Close supervision is required when using the product around children to reduce the risk of injury. Children should not play with the battery system, as it is not a toy.
15. If you find any damage, wear, insulation damage, or any other abnormalities in the cables of the battery or charger, stop using them immediately, inspect them, and replace the parts if necessary.
16. Do not let the battery system come into contact with any solvent materials (such as thinners, alcohol, oils, or preservatives) or chemicals that could damage the battery's surface (such as cleaners).
17. Always keep the battery and battery system dry and clean. When connecting the charger to the battery, make sure the connector is also dry and clean.
18. If there is moisture inside the battery or charger, it could cause a short circuit and fire. Do not use high-pressure water to clean the battery or charger. Do not submerge them in water or leave them in rain or snow.
19. Do not open, disassemble, or modify the battery or charger. Do not touch any live components.
20. This battery system is not suitable for use by persons with physical, sensory, or mental limitations, or those lacking experience or knowledge (including children). It must be supervised or guided by a responsible person to ensure safe usage.
21. During charging, the charger may become hot. Place the charger on a flat, stable surface away from heat sources, and ensure proper ventilation. Do not place the charger on a blanket, carpet, or cover it, as this could cause a fire.
22. If you encounter any problems during charging, such as the charger or battery becoming excessively hot (e.g., too hot), or if the LED lights or display indicate an issue, immediately disconnect the battery from the charger.
23. If the charger or battery continues to heat up for a long time after charging is complete, it may be damaged and should be replaced.

It is recommended to perform a full charge-discharge cycle at least once a month (charge to 100% and then use it down to 0%) to ensure accurate SOC calculation.

The battery does not require special regular maintenance. Please refer to the relevant precautions for normal use and storage.

USE

1. Do not modify the entire vehicle or the battery.
2. Do not disassemble or repair the lithium battery.
3. Avoid subjecting the battery system to strong mechanical impacts. A sufficiently strong collision may cause damage to the battery that is not visible on the surface, potentially making the battery unsafe.
4. For removable batteries, regularly check for physical damage to the battery itself, and check if there is any loosening of the battery's upper and lower mounts or lock on the vehicle frame. If necessary, secure or replace parts to ensure the best fit.
5. For vehicles that support firmware upgrades, it is recommended to periodically check the vehicle and battery firmware to keep the software up to date.
6. Avoid using the vehicle in rainy, snowy, or muddy conditions, or on rough terrain. If the vehicle has been used in such conditions, clean and inspect it promptly according to the cleaning recommendations to restore the vehicle to a dry condition.
7. Avoid touching the metal contacts of the battery and battery base with fingers to prevent the risk of electric shock.
8. It is normal for the battery's available energy output to decrease at temperatures below 41°F (5°C) in winter. This is due to the physical properties of lithium batteries, and the battery's performance will return to normal when temperatures rise in the summer.
9. Before using the bicycle or charging, ensure all connectors (including the charging port) are dry and clean.

10. Only use the battery for its intended applications.
11. Do not bundle the battery and charger cables together during use.
12. Do not touch any live components, open, or modify any electrical parts.

Cleaning

Although the vehicle is designed to meet the IPX4 waterproof standard and higher (with components like the battery designed to meet even higher standards), any excess water may pose a risk to the electrical components.

When cleaning the battery, please pay attention to the following points:

- When cleaning, first turn off the vehicle and disconnect the charger and the AC power. For vehicles with removable batteries, the battery should be removed.
- No electrical components should come into contact with water (e.g., do not use high-pressure water jets to clean the bicycle).
- Use a dry or slightly damp cloth to clean the battery or frame. If there is dirt inside or around the charge/discharge ports, try using low-pressure air or a soft brush to remove the dirt.
- When cleaning the vehicle, ensure that the bike's charging port cover is fully closed to prevent water from contacting electrical components and related cables.
- If the battery port is damp, keep the connection disconnected and in an open state. Wait for it to dry thoroughly before reconnecting and using.
- Do not use cleaners that contain alcohol, solvents, or abrasives; only use a dry or slightly damp cloth to avoid causing corrosion damage.
- Do not use or charge a battery if you suspect that water has entered it.
- Handle the battery with extra care when removing or placing it to avoid dropping or otherwise damaging the battery.

Extending Battery Life

According to the vehicle's recommendations and under normal usage conditions, the battery's lifespan generally aligns with that of the vehicle and does not require excessive concern.

To extend the battery's lifespan, based on industry experience, the following suggestions are recommended:

- Ride and charge the battery within the recommended temperature range and environmental conditions.
- Store the vehicle and battery within the recommended temperature range, avoiding high temperatures that could cause irreversible capacity loss to the battery.
- Avoid leaving the battery in a discharged state for extended periods. After the battery is depleted, recharge it promptly.
- Only use the vehicle's original charger for charging.
- Use the battery under shallow charge and discharge conditions. Specifically, charge the battery to about 90% to 95% (not fully charged) when possible, and recharge it promptly after use. Also, avoid fully depleting the battery.

Storage and Transportation

Storage Precautions

When the vehicle or battery is not in use, the following storage precautions should be observed:

1. If the battery is inside the vehicle, the vehicle must be turned off.
2. Store the battery and vehicle in a clean, ventilated, and dry environment.
3. The optimal storage temperature is 41°F to 77°F (5°C - 25°C). If the temperature is too high or too low, the battery may enter a charge/discharge protection state, which is normal.
4. The extreme storage temperature range for the vehicle and battery is 5°F to 140°F (-15°C to 60°C). Do not store outside this range.
5. Do not keep the charger connected to the bicycle during storage.
6. Do not store the battery in your home or office. Place the battery in a safe outdoor area or in an appropriate dedicated battery container.
7. Do not store the battery in environments with large temperature fluctuations, open flames, or excessive heat, such as inside a hot car or under direct sunlight. Storing the battery at temperatures above 70°C (158°F) may cause accelerated battery degradation, and in severe cases, leakage.
8. Do not place the battery in a microwave or dryer.
9. Do not lean on, stack objects on, or hang anything from the battery.
10. Do not allow the battery system to short-circuit. Do not store the battery casually in boxes or drawers, as contact between batteries or with other metal objects may cause a short circuit.
11. Do not pierce the battery with sharp objects like screwdrivers or nails.
12. Do not let any metal objects such as keys, coins, or screws come into contact with the battery, charging port, or charging connectors.
13. After removing the removable battery, ensure the necessary protection for the connectors inside the frame and the battery's mating connectors to prevent foreign objects from

contacting or striking the connectors, which could cause deformation or damage, or interfere with proper connection.

14. Do not allow the battery or charger to be subjected to impacts, such as drops.

Long-term storage

During long-term storage, in addition to the above general precautions, the following must also be noted:

1. Keep the battery charge level between 60% and 80%.
2. Check the charge level every 3 months. If it falls below 30%, recharge the battery to ensure it does not become depleted, which may prevent it from charging again.
3. Avoid storing the battery fully charged to help extend its cycle life.
4. Properly store any keys, adapter cables, and other accessories that come with the battery or vehicle.

Transportation

1. Lithium batteries are considered hazardous goods (UN-T 3480) and require special packaging during transportation. Domestic and international transport of goods containing lithium batteries must comply with hazardous materials transportation regulations.
2. The transport and shipment of batteries may be subject to certain restrictions, and there may be special handling, labeling, and packaging requirements. Please ensure you are familiar with all applicable laws and regulations in your country/region/state (including the destination) in advance. If shipping batteries separately, it is recommended to use an approved battery transport box.
3. For long-distance shipments or battery transportation (including air transport), the charge level must meet the regulatory requirements of the corresponding transport category.

Storage and Transportation

⚠ **WARNING** Please properly package the batteries. Do not transport or ship damaged batteries, or violate any laws related to the transportation of lithium batteries. Ignoring this warning could result in fire, causing serious injury or death to transportation workers, as well as property damage. You may be held liable for civil or criminal consequences as a result.

Battery Damage

A damaged battery may cause its own protection devices and functions to fail. Continuing to use, handle, or transport a damaged battery, or charging it, may lead to serious personal injury to yourself or others.

If the battery leaks, do not touch the leaked liquid, as it may cause irritation or burns. If accidentally in contact with battery fluid, immediately wash with water. If the fluid comes into contact with the eyes, immediately rinse with plenty of water and seek medical attention.

If the battery is damaged, do not charge it, and do not store it in your home or office. Place the battery in a safe outdoor area or in a proper designated battery container.

In case the battery presents any emergency danger, please call your local fire department.

The battery or charger should be replaced immediately in the following situations, but not limited to:

- Battery casing is cracked or damaged
- Connector is deformed or broken
- Overheating or heat distortion (such as swelling) in abnormal conditions
- Battery terminals or casing have changed color
- Signs of water ingress (e.g., rust)
- Battery emits an unusual odor, smokes, or makes abnormal noises, such as hissing
- Battery fluid leakage

If the charger or attached cables are damaged or broken, they should also be stopped from use and replaced to prevent electric shock or safety risks.

After a crash or collision, immediately check the battery and the alignment of the upper and lower battery brackets on the frame, as well as the lock mechanism. For vehicles with built-in batteries, partial disassembly of the bike may be required to perform this check. Please contact Velotric or an authorized dealer for assistance.

Battery and Fire Safety

In the event of a fire, we strongly recommend following these basic steps and promptly calling the fire department for assistance:

- Always prioritize personal safety. If anything poses a danger to you, do not risk attempting it.
- If the battery is charging, immediately disconnect the charger from the power source.
- Be extra cautious, and if possible, carefully remove any other batteries connected to the bike.
- Only attempt to move the battery and vehicle outdoors, away from people and flammable materials, if it can be done safely and quickly, and take further measures.
- It is recommended to use a dry ice fire extinguisher (carbon dioxide fire extinguisher) as a priority, cover the battery completely with sand, or submerge the high-temperature battery in water (fire suppression pool or bucket) to extinguish a lithium battery fire.
- In the case of open flames, a fire hydrant can be used to continuously release water to cool the battery.
- When indoors, quickly open doors and windows to maintain ventilation, lower smoke concentration or temperature, and avoid smoke inhalation.

When evacuating immediately, please note the following:

- Quickly evacuate everyone from the vicinity of the fire.
- Ensure that everyone is moved to a safe location away from the flames, high temperatures, and dense smoke. If you show symptoms from inhaling or ingesting combustion gases, or from direct contact with these gases on your skin or eyes, seek medical attention immediately.
- Once inhaling combustion gases, leave the area immediately, breathe fresh air, and seek medical attention.

Battery and Fire Safety

- Once contact with the skin occurs, immediately remove any solid particles. Quickly remove clothing that has come into contact with contaminants.

Recycling

Batteries, chargers, and the entire vehicle should not be disposed of with household waste. They must be disposed of in an environmentally responsible manner according to the applicable regulations in your country/region/state. You can consult authorized dealers or local certified recycling companies for relevant information, as well as any applicable battery recycling programs.

For more languages, please visit www.velotricbike.com.

VELOTRIC

Contact

Website: www.velotricbike.com
E-mail: help@velotricbike.com

V1.0