

Guidelines for battery use

Your Carmela24 electric bike is powered by a Lithium-ion battery. This type of battery has a high capacity, but requires special care. In general we recommend:

Keep the battery in a temperature-controlled environment, around 20°C. Do not expose it to temperatures above 40°C or below 10°C. Below this temperature, the battery's capacity will be reduced, resulting in a shorter battery life for the electric bike. If you keep the battery in a warm place in winter and put it in the electric bike when you go out, it will last longer. If you park on the street on cold days we recommend if possible that you take your battery with you to a heated indoor space.

The battery indicates its level of charge (see manual). When the battery is nearly exhausted, it changes the bike's mode of operation to "ECO" mode to slightly extend the life of the battery. When the battery is completely flat, it will disconnect and no longer supply power to the electric bike. **In this case, it must be recharged as soon as possible.**

The battery has a unique connector for charging. This is a magnetic connector that ensures a good connection between the battery and the power source. Its magnetic field, however, can attract small metal particles which, if left between the two surfaces of the connectors, can make the connection difficult. If you notice that the battery turns off about 10 seconds after starting it, once connected to the electric bike, it is very possible that there are some particles between the connectors that prevent good contact. **Clean both surfaces carefully with a brush** or fine non-abrasive brush, taking particular care not to leave any particles.

The battery is internally composed of 30 individual cells. At the end of each charging session, a charge balancing process occurs, which balances out the charge between the individual cells. To obtain maximum capacity, **it is important that the charging process continues until the battery disconnects.**

For maximum effectiveness, **the battery should also be charged at a moderate temperature**, between 10 and 25°C.

Lithium-ion batteries undergo an internal self-discharge process. **If it isn't used for more than two months,**

beginning with full charge, it must be recharged.

Recharge it immediately after each use and do not store it without charge. This type of battery has no memory effect and therefore it is not necessary to wait until it is completely discharged before recharging it.

The self-discharge varies for each of the cells, so if the battery is emptied in a process of self-discharge, the cells are discharged unevenly. It is possible that after a process of self-discharge, several successive charging (with final balancing) and discharging cycles are required to ensure that all the elements end up correctly charged and thus obtain the full capacity of the battery and the full range of the electric bike.

Both the battery and the charger heat up slightly during the charging process. **Make sure they are both ventilated, uncovered and not in a confined space.**

It is necessary to **avoid prolonged exposure of the battery to solar radiation and moisture.**

The battery has two USB ports to supply power to possible external devices, so that the bike's battery can be used as a "power bank". We recommend reasonable use of this function and **not leaving items connected to these ports permanently or for long periods of time.**

The battery is fixed to the frame of the electric bike and has a lock to secure it. Carefully hold on to the keys for the lock, as without them the battery cannot be removed for recharging or maintenance. Both the lock and the latch are located just outside where the battery is kept. This system can be easily lubricated from the outside with a light oil in small quantities.

Never attempt to disassemble the battery or charger.

These components pose an electrical hazard and in the case of the battery, direct access to its internal components can cause serious damage from high voltages, fumes, fire or other damage. We recommend avoiding any impact to the battery, and if you notice that either the battery or the outer box have been damaged, please contact us.

In the event of any other problem with the battery, please contact us or the supplier of the electric bike directly.

