

Battery safety - A shared responsibility!

Dear Aurotrap user,

Over the years, we have been working with various battery solutions.

Initially we launched one-time use only batteries. Once these one-time use batteries will be fully discharged, we urge you to dispose of them according to your local environmental regulations for the correct disposal of batteries.

At some point in 2022 we supplied a rechargeable battery with a fixed USB-A cable to it. This battery is still functionable, but **no longer in our product portfolio and no longer supported by Aurocon**.

To deliver a more sustainable solution to our customers, we decided to supply **a new and improved rechargeable battery in Q3 of 2024**.

This battery (Item number 4005/Type number 57200520) is the **safest and most sustainable battery solution for the Aurotrap** and it is the only battery solution we will use going forward. This battery comes with a **charger adapter cable** (Item number 4009/Type number 57200155).

Three battery models are in circulation and we must draw the attention to **battery safety, battery handling and battery charging**.

To make sure that, you can distinguish between a **non-rechargeable and the rechargeable batteries**, we kindly ask you to check your batteries and make sure that you know how to use them and to ensure that you **only charge the rechargeable batteries**.

On our support site we have an overview of the battery models in circulation and how they look. **Please click on the link below to see the battery overview and gain insights in battery safety**.

How to determine battery types!

At Aurocon, we prioritize operational safety across all our systems, including the proper handling and charging of Lithium-Ion batteries.

To support your operational safety, we've prepared a comprehensive battery charging guide outlining best practices, safety requirements, and environmental considerations. Please ensure these protocols are integrated into your daily operations.

Find the charging protocols to be followed carefully here:

AUROCON
IoT based pest management

8 steps to charge your lithium battery safely

1. Use the Correct Charger

Use a charger made for your lithium battery; 5V, 2A (10W) is recommended.



2. Don't Leave Unattended

Always supervise charging and ensure a smoke detector is nearby.



3. Never Charge Overnight

Emphasising point 2, never leave your batteries charging unattended.



4. Avoid Extreme Temperatures

Charge only between 5–40°C and ensure the battery is dry to avoid damage.



5. Don't Overcharge

Monitor charge level and unplug once full to prevent swelling or fire.



6. Charge in a Safe Location

Charge in a ventilated, fire-safe area with a nearby smoke detector and clear fire exits.



7. Avoid Deep Discharges

Recharge before empty to reduce wear and extend battery life.



8. Inspect for Damage

Check for damage before charging—don't charge swollen or faulty batteries.



The Aurotrap rechargeable lithium batteries, when used correctly and following proper guidelines, offer a safe and efficient way to power our devices. However, it's essential to understand and adhere to specific charging practices to ensure both optimal battery performance and user safety.

Aurotrap lithium batteries (Li-ion) are engineered with built-in protection circuits that guard against overcharging, over discharging, and short-circuits. These protection mechanisms play a crucial role in preventing potential hazards and extending the battery's lifespan. Here are eight tips to help you charge your Aurotraps lithium-ion batteries safely and make the most of their capabilities.

1. Use the Correct Charger:

Always use a charger that is specifically designed for the type and capacity of lithium battery you have. Using incompatible chargers can lead to overcharging or overheating. Recommended charging effect is 5V, 2A = 10W. Minimum 5V, 1A = 5W.

2. Don't Leave Unattended:

Always supervise the charging process and never leave the battery unattended while it's charging. Lithium batteries have built-in protection, but it's important to be cautious. When charging, the location should also have a working smoke detector fitted in close proximity.

3. Never Charge Overnight

Emphasising point 2, never leave your batteries charging unattended.

4. Avoid Extreme Temperatures:

Charging at extreme temperatures (both hot and cold) can damage the battery or even lead to thermal runaway (in extremely rare situations). Make sure the battery is charged at a suitable temperature and is completely dry, free from any moisture or humidity. Charge within the recommended temperature range provided in your batteries instructions:
Li-ion: 5°C - 40°C

5. Don't Overcharge:

Overcharging a lithium battery can lead to several issues. When a lithium-ion battery is overcharged, the voltage across its cells increases beyond safe limits. This can cause electrolyte breakdown, leading to the formation of gas inside the battery and potential leakage. In extreme cases, this gas can cause the battery to swell, rupture, or even catch fire.

- Regularly Check Charging Status: Keep an eye on the charging progress and the battery's charging status indicators. Once fully charged, remove from charging.

- Set Alarms or Timers: If your charger doesn't automatically stop charging when the battery is full, consider setting an alarm or timer to remind you to unplug the charger.

6. Charge in a Safe Location

Charge your lithium batteries in a well-ventilated and fire-resistant area. Avoid charging them on flammable surfaces or near easily ignitable materials. A working smoke detector should be in close proximity to the equipment and ensure fire exits remain clear of obstacles.

7. Avoid Deep Discharges

It's generally recommended to avoid letting lithium batteries fully discharge before recharging. Frequent deep discharges degrade the can shorten the battery's lifespan. Deep discharges can stress the battery's chemistry and internal components, leading to increased wear and tear.

8. Inspect for Damage

Before charging, inspect the battery and charger for any physical damage. If you notice any swelling, punctures, or unusual behaviour, do not attempt to charge the battery and instead dispose of it properly.

Although some of these might sound extreme, rechargeable lithium chemistry is very safe when used correctly. Following the above steps will increase Lithium charging safety and minimise accidents while maximising the life of your battery. There are other ways to maximise your battery's lifetime; if you have any questions, don't hesitate to contact us and one of our battery experts will gladly help.