

# Tips for protecting your equipment

## Headlamps



Read the specific recommendations for each lamp in the Instructions For Use and follow the battery compatibility recommendations.



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- Carry your headlamp in a specific pouch to protect the lens.
- After use, lock your lamp to avoid accidental switching on. The locking method is specific to each lamp.

#### Optimize the life of rechargeable batteries

- Completely charge a battery before first use.
- Do not submerge a rechargeable battery in water.
- After use in a wet environment, remove the rechargeable batteries and let them air-dry away from UV (ultraviolet rays). Avoid proximity to heat sources such as direct sunlight, wood fires, or a radiator.
- Remove the batteries for long term storage of the lamp. Store the batteries in a dry, well-ventilated area, out of direct sunlight.

#### Lithium ion batteries

Use

- Petzl Lithium Ion batteries are guaranteed for one year or 300 charging cycles. They can be recharged 300 times (after 300 charge cycles, they will still have about 70 % of their initial capacity).
- Lithium Ion batteries lose 10 % of their capacity per year, whether they are used or not, independent of the number of cycles.
- The recharging temperature of a Lithium Ion battery must be between 0 °C and +40 °C to avoid any deterioration.
- Avoid, for example, recharging a battery with a car charger, under a windshield exposed to direct sunlight.
- Do not charge a battery inside an enclosure (e.g. a case or box) as this can cause overheating that can damage the battery.
- The use and storage temperature of a Lithium Ion battery must be between -30 °C and +50 °C to avoid any deterioration.
- For the ATEX lamps, the use and storage temperature must be between -30 °C and +40 °C.
- The ideal ambient temperature for recharging, use, and storage of a Lithium Ion battery is about 20 °C.

- A negative temperature below 0 °C reduces the lamp's battery life because the faster discharge dims the light output. However, these are temporary drawbacks. Once the Lithium Ion molecules are re-warmed, the battery regains its previous capacity.
- Elevated temperatures above 50 °C can permanently damage batteries. However, this doesn't happen instantly; repeated use at elevated temperatures must occur to cause damage. Never leave your headlamp under a windshield, a window, or in a trunk if the outside temperature is elevated.









#### Nickel cadmium (Ni-Cd) and nickel metal hydride (Ni-MH) batteries

- Petzl Ni-MH batteries can be recharged 500 times.
- WARNING, completely discharging a Ni-MH rechargeable battery may affect its performance, possibly resulting in the emission of gases and toxic materials. Do not hesitate to recharge a battery that is partially discharged or that has been in storage for more than two weeks.
- Self-discharge in prolonged storage: nickel batteries lose at least 10 % of their capacity after the first day of non-use, then about 20 % per month.
- Nickel batteries must always be charged at a temperature between 10 °C and 40 °C.
- Always use your batteries at a temperature between -20 °C and +60 °C.
- Store your batteries at temperatures between -20 °C and +35 °C.



#### **Maintenance**

- After use in a muddy or salty (seaside) environment, rinse with fresh water.
- Remove the batteries.
- Dry the lamp with the battery case open.
- Do not close the battery case of a waterproof lamp with moisture inside.
- Wash the outside of the lamp (lamp head and lens) with lukewarm soapy water (ph neutral, 30 °C maximum).
- Wipe the lens with a soft cloth. Do not wipe the lens with an abrasive product.
- Avoid any prolonged contact of grease with the lens. In case of contact with grease, wipe with a dry cloth and rinse with water.
- Remove and wash the elastic straps in the washing machine, treating as a delicate fabric, without spin cycle.
- The comfort foams are available as replacement parts.

#### Maintenance, repair

Never dismantle a lamp except to replace the correct spare parts, referenced in Petzl catalogs. These components must be identical to the original parts and be sold with their Instructions For Use.

### Retiring products at the end of their lifetime

For your safety, make sure to retire your gear when necessary.

A product must be retired when:

- It is over 10 years old and made of plastic or textiles
- It has been subjected to a major fall or load
- It fails to pass inspection
- Its reliability is in question
- Its entire history is not known (e.g. found or second-hand product)
- When it becomes obsolete due to changes in legislation, standards, technique or incompatibility with other equipment, etc.

Warning: destroy retired equipment to prevent further use.



Petzl travaille sur des solutions alternatives pour le traitement des produits en fin de vie, en vue d'un meilleur recyclage des matières.