

PETZL E0087600C How Lamp Works Head Torch Light



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PETZL E0087600C How Lamp Works Head Torch Light



Specifications

- Model: NAO RL
- Rechargeable Battery: Petzl Li-Ion, 3200 mAh capacity
- Charging Time: 3 hours and 30 minutes
- Charger Output Voltage: Not to exceed 5V
- LEDs: White LEDs for main lighting, Red lighting also available
- Usage Restrictions: Not recommended for children under 3 years old, supervision needed for children under 12

Product Usage Instructions:

Lamp Operation

To turn on the lamp, use the Lamp switch (1) and to turn off, use the same switch. The Battery switch (1 bis) controls the battery power.

Charging the Rechargeable Battery

Ensure the Petzl R1 rechargeable battery is fully charged before first use. Use only a USB Type-C cable with a maximum output voltage of 5V. Charge for 3 hours and 30 minutes using the provided USB charger or a computer. Do not leave the battery unattended while charging.

Replacing the Rechargeable Battery

To replace the rechargeable battery, ensure it is compatible with the Petzl NAO RL model. Follow the manufacturer's instructions for proper replacement.

Using Lamp in Light Fixture Mode:

The headlamp can be used as a light fixture connected to a power grid. Ensure all accessories are certified according to electromagnetic compatibility standards IEC 61000-4-4, IEC 61000-4-5, and IEC 61000-4-6.

FAQ

• Q: Can children use this headlamp unsupervised?

A: No, the lamp is not recommended for children under 3 years old and children under 12 should use it under adult supervision.

• Q: How long does it take to charge the battery?

A: Charging time is 3 hours and 30 minutes with the provided USB charger or a computer. Note that charging time can vary if multiple devices are connected to the computer.

• **Q: Can I use a different rechargeable battery with the lamp?**

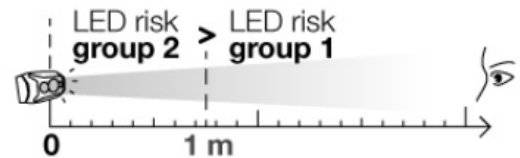
A: It is recommended to use only the Petzl R1 rechargeable battery with this lamp to ensure proper functionality and safety.



LED risk group 2 - IEC 62471

NAO RL

**Do not stare at operating lamp.
May be harmful to the eyes.**



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Latest version



Other languages



Technical tips



Declaration Of Conformity

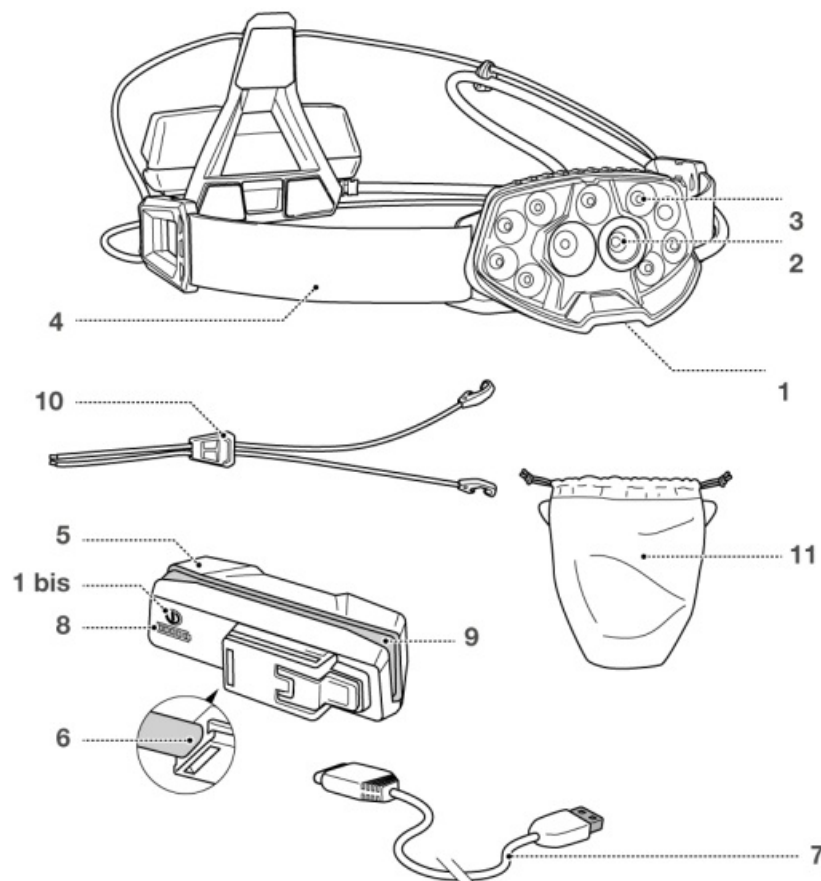


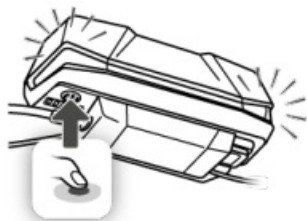
Sustaining our Community

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100%





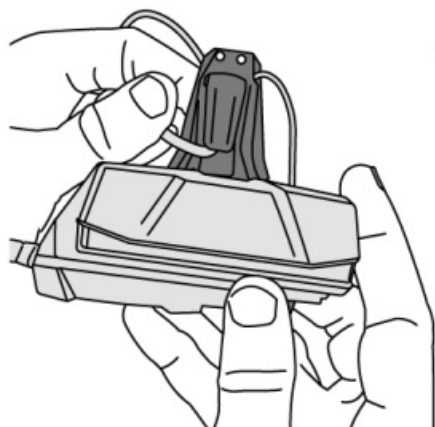
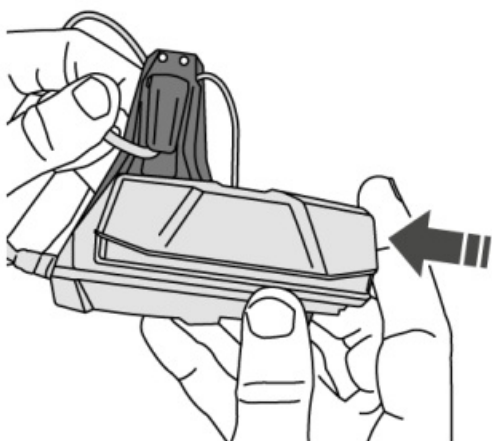
Red lighting /



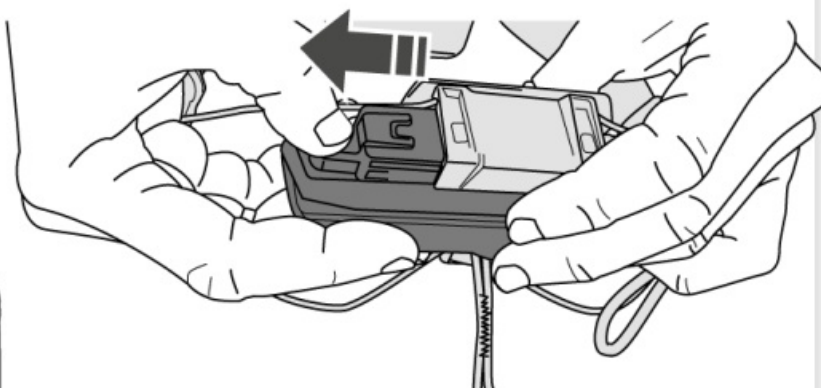
Red strobe /



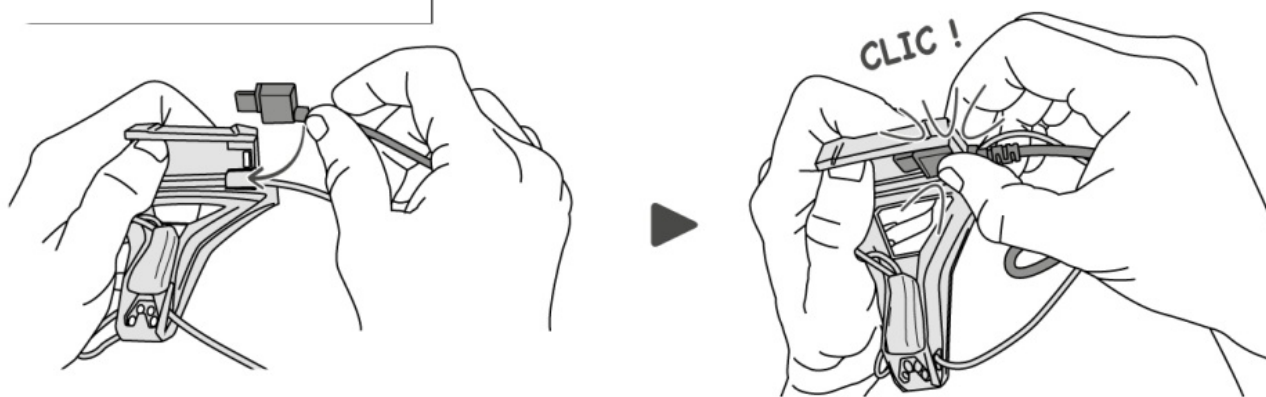
Mounting the battery



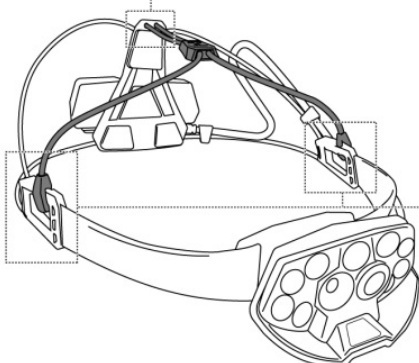
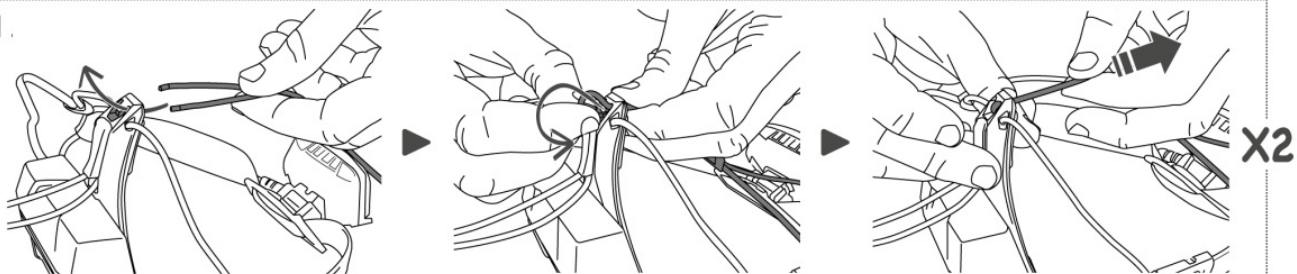
Removing the battery



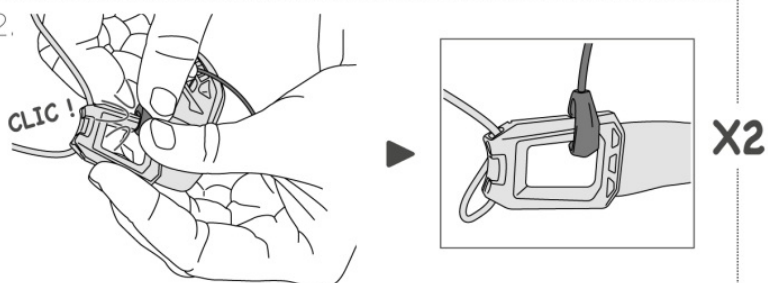
Before the first use

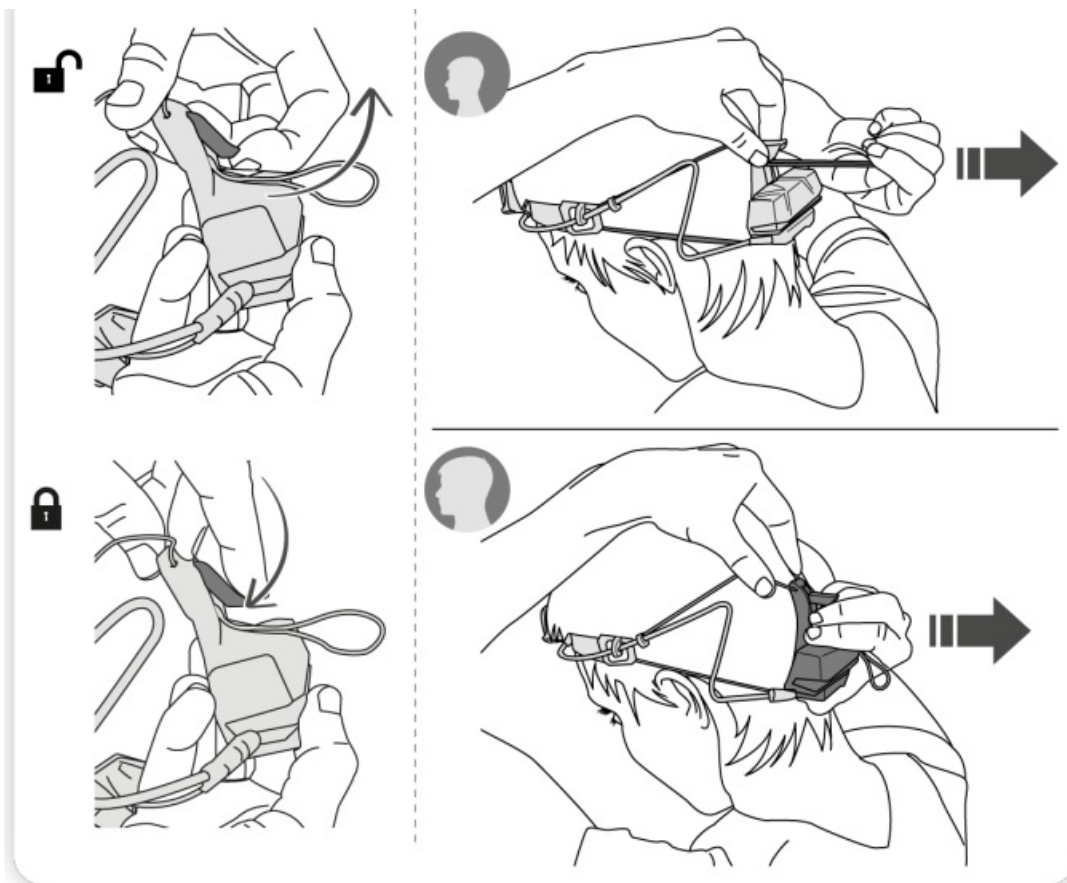


1.



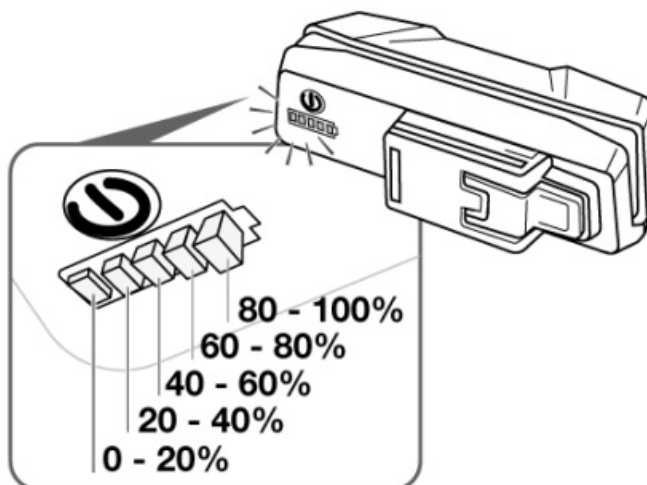
2.





Energy gauge

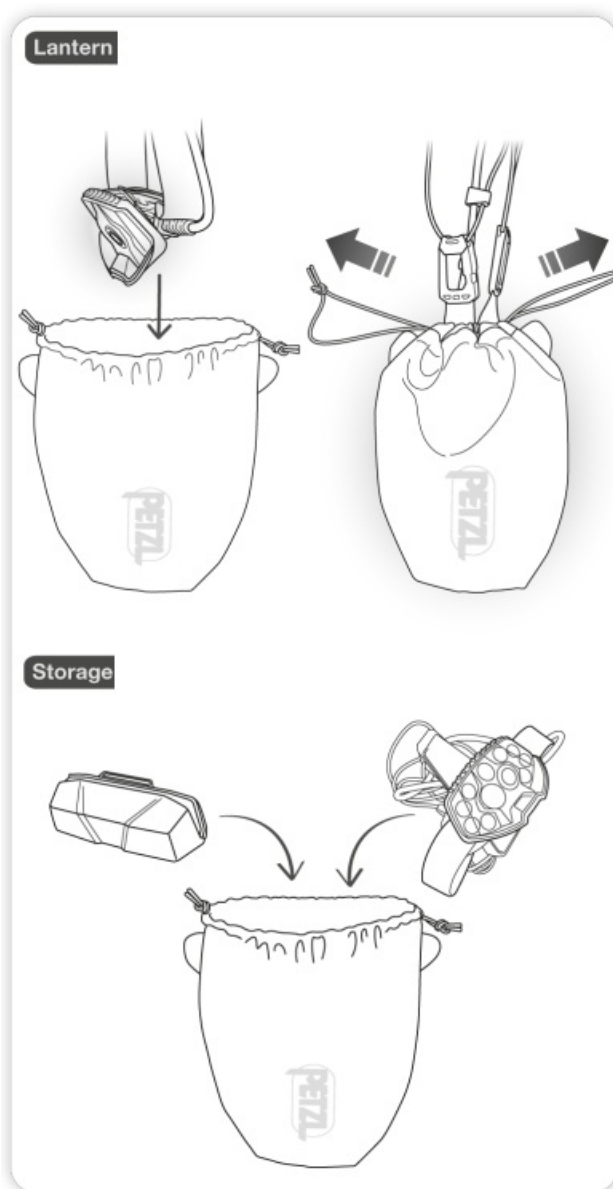
Switching on / off



Reserve mode



Reserve mode
Mode réserve



WARNING

Before using this headlamp, you must:

- Read and understand all Instructions for Use.
- Become acquainted with its capabilities and usage restrictions.
- Understand and accept the risks involved.

FAILURE TO HEED ANY OF THESE WARNINGS MAY RESULT IN SEVERE INJURY OR DEATH.

Before using this headlamp, you must:

- Read and understand all Instructions for Use.
- Understand and accept the risks involved.
- Become acquainted with its capabilities and usage restrictions. Lamp not recommended for children under 3 years old. Children under 12 years old using this headlamp must do so under responsible adult supervision.

Failure to heed any of these warnings may result in severe injury or death.

Nomenclature

(1) Lamp switch, (1 bis) Battery switch, (2) Light sensor, (3) White LEDs, (4) Reflective headband, (5) R1 rechargeable battery, (6) USB port for charging the rechargeable battery, (7) Type A/C USB cable, (8) Energy gauge, (9) Red lighting, (10) Top strap, (11) Storage pouch.

REACTIVE LIGHTING® Technology

Using REACTIVE LIGHTING® technology, a sensor analyzes the ambient light and automatically adjusts brightness to user needs.

Lamp operation

Turning on & off, selecting

- The lamp has two modes (REACTIVE LIGHTING® and CONSTANT LIGHTING) and three brightness levels per mode (MAX BURN TIME, STANDARD and MAX POWER).
- When you turn on the lamp, it always lights up with REACTIVE LIGHTING® technology.
- When switching from one mode to another, it stays at the same brightness level.
- With REACTIVE LIGHTING® technology, when the sensor detects an area with sufficient light, the lamp will blink dimly for two minutes, then automatically turn off to conserve rechargeable battery life.
- The lamp's burn time in REACTIVE LIGHTING® mode varies depending on usage.
- For high-speed activities (cycling, skiing...), we recommend using the lamp in CONSTANT LIGHTING mode (there is a risk of it turning off in REACTIVE LIGHTING® mode).
- REACTIVE LIGHTING® mode: the lamp's brightness can vary greatly, depending on the environment and the activity. Be sure to adapt your lighting (mode and brightness) to your activity.
- The energy gauge lights when the lamp is turned on or off. One short press of the battery switch lights the energy gauge.
- Reserve lighting: the lamp blinks when it switches to reserve lighting, and 5 minutes beforehand. When the lamp switches to reserve lighting, it provides enough light to walk by, but not enough for a dynamic activity (such as running, mountain biking, skiing...).






Lighting performance

The burn time values for REACTIVE LIGHTING® and CONSTANT LIGHTING are measured with the rear red strobe turned on.

Lighting performance - burn time

ANSI/PLATO FL 1



Rechargeable battery Batterie rechargeable			MAX BURN TIME	250 lm	70 m	10 h	}		
	REACTIVE LIGHTING	Withe Blanc	STANDARD	550 lm	100 m	5 h		2 h*	
			MAX POWER	1500 lm	200 m	2 h		}	
		STANDARD LIGHTING		MAX BURN TIME	10 lm	10 m	80 h	}	
				STANDARD	250 lm	70m	5 h		2 h*
				MAX POWER	900 lm	140 m	2 h		}
			FIXE	2 lm	2,5 m	78 h			
			CLIGNOTANT	Visible à 150 m pendant 400 h					

*Reserve 10 lm mini

Charging the R1 rechargeable battery

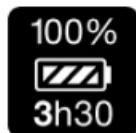
The lamp comes with a Petzl Li-Ion rechargeable battery. Capacity: 3200 mAh.

Charge it completely before first use.

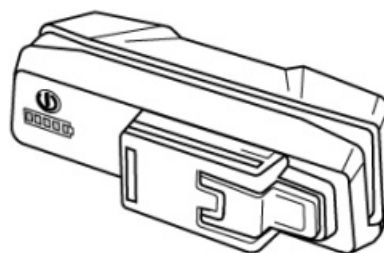
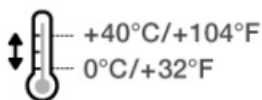
Use only a Petzl R1 rechargeable battery.

In general, Li-Ion rechargeable batteries lose 10 % of their capacity each year. After 300 charge/discharge cycles, they still have about 70 % of their initial capacity.

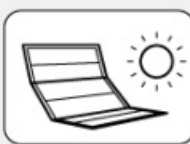
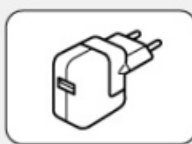
Charge the battery completely



Recharge time
Temps de charge



USB 5V CE/UL



WARNING

Charge only with a USB Type-C cable.

The charger's output voltage must not exceed 5 V. Use only a Class II electrical, CE/UL approved charger (double insulation against hazardous voltages). Do not leave the battery unattended while charging. Your rechargeable battery's connectors must be dry when charging.

Charging time

Charging time is 3 hours and 30 minutes with the USB charger or a computer. **Note:** if several USB devices are connected to a computer, the charging time can increase.

During charging, the 5 LEDs on the energy gauge will blink. The blink speed varies depending on the charging speed.

When charging is complete, the LEDs are lit a steady green.

Replacing the rechargeable battery

Use a Petzl R1 rechargeable battery. Using another external power source is possible on rare occasions, mainly in an emergency situation.

In this case, full functionality of the lamp is not guaranteed (reduced performance, no REACTIVE LIGHTING®...).

Use only equipment that meets USB standards.

Using the R1 rechargeable battery as a back-up battery

If necessary, you can use the R1 rechargeable battery to recharge your phone, watch...

To start charging, do one short press on the battery switch. Note: charging time may vary depending on the connected device.

In accordance with current electromagnetic compatibility regulations, the battery may be subjected to power surges when it is connected to the power grid for recharging. So it is necessary to use a charger with surge protection (IEC 61000-4-5 standard or CE marking).

Using the lamp in light fixture mode

The headlamp can be used as a light fixture directly connected to the power grid. For this, it is essential that the wall charger, as well as all USB connection accessories are certified according to the electromagnetic compatibility standards IEC 61000-4-4, IEC 61000-4-5 and IEC 61000-4-6. The Petzl charger is suitable for this type of application.

General information on Petzl lamps

General info on Petzl lamps and batteries

A. Rechargeable battery precautions

 + 40°C / + 104°F
- 20°C / - 4°F



B. Headlamp precautions



C. Cleaning - Drying



D. Storage - Transport



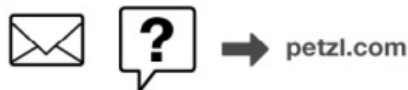
E. Protecting the environment



F. Modifications - Repairs



G. FAQ - Contact Questions - Contact



The EU declaration of conformity is available at [Petzl.com](https://www.petzl.com).

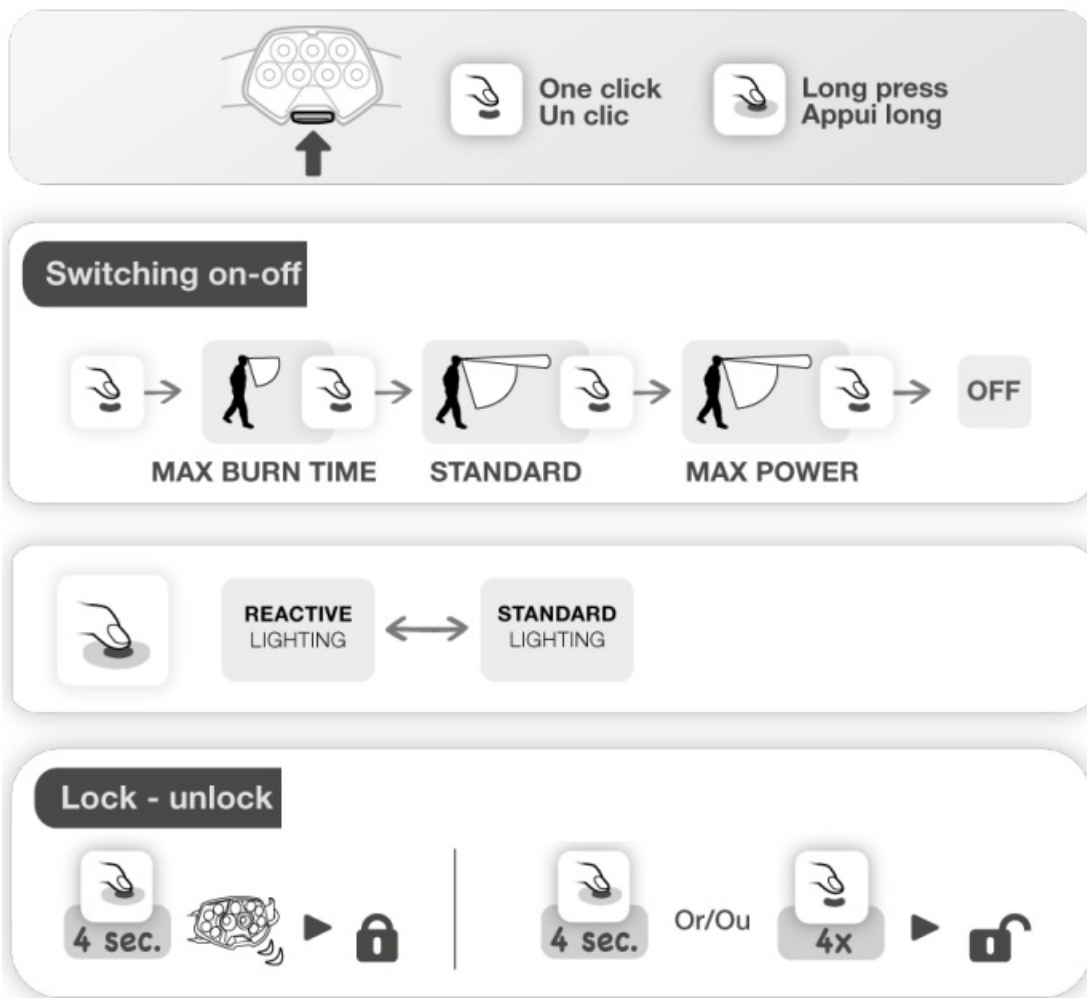
A. Rechargeable battery precautions

WARNING – DANGER: risk of explosion and burns.

WARNING: incorrect use can damage the rechargeable battery.

- Do not submerge the rechargeable battery in water.
- Do not dispose of a rechargeable battery in fire.
- Do not expose the battery to high temperatures. Follow the recommended usage and storage temperatures.
- Do not destroy the rechargeable battery; it can explode or release toxic materials.
- If the rechargeable battery is damaged, do not dismantle it or change its structure. Dispose of the rechargeable battery in accordance with current local regulations.
- If the battery leaks electrolyte, avoid any contact with this corrosive and dangerous liquid; see a doctor if any contact occurs. Change out the battery and dispose of the defective battery in accordance with current local regulations.

Lamp precautions



WARNING: a headband can pose a strangulation risk. Certain small parts pose a choking risk.

Eye safety

The lamp is classified in risk group 2 (moderate risk) according to the IEC 62471 standard.

- Do not stare directly at the lamp when lit.
- The optical radiation emitted by the lamp can be dangerous. Avoid aiming the lamp's beam into another person's eyes. Beware of the risk of blinding others in your work environment, particularly in areas subject to traffic regulations.
- There is a risk of retinal damage from the emission of blue light, particularly in children.

Electromagnetic compatibility

Meets regulations concerning electromagnetic compatibility. **WARNING:** this does not guarantee that interference will not occur. If you notice electromagnetic interference between the lamp and electrical devices, turn off the lamp or keep it away from sensitive electronic devices (e.g. avalanche beacons, flight controls, communications equipment, medical devices...).

ErP Directive

Complies with energy-related products Directive (ErP) 2009/125/EC.

- Instantaneous full brightness – Color temperature: 6000-7000 K – Focused beam nominal angle: 15° / wide: 36° – Number of switching cycles before failure: 13,000 minimum.

Cleaning, drying

If used in a damp environment, remove the battery from the lamp and allow it to air dry. In the event of contact with seawater, rinse the lamp in fresh water and dry it.

Storage, transport

For long-term storage, charge the rechargeable battery (repeat every six months) and disconnect the battery from the lamp. Avoid allowing the rechargeable battery to discharge completely. Be sure to store the battery in a dry place. The ideal storage temperature is between 20 and 25° C. After 12 months in these conditions without use, the rechargeable battery will be discharged.

For carrying the lamp when not in use, we recommend that the battery be disconnected from the lamp to prevent it accidentally turning on.

Protecting the environment

Dispose of the lamp only in accordance with current local regulations.

Modifications/repairs

Prohibited outside of Petzl facilities, except replacement parts.

The lamp's light source is not replaceable. When the light source reaches the end of its life, the lamp must be retired.

The lamp's flexible exterior cable can not be replaced: if the cable is damaged, the lamp must be retired.

Questions/contact


The Petzl guarantee

This lamp is guaranteed for 5 years against any defects in materials or manufacture (except the rechargeable battery, which is guaranteed for 2 years or 300 cycles). Exclusions from the guarantee: more than 300 charge/discharge cycles, normal wear and tear, oxidation, modifications or alterations, incorrect storage, poor maintenance, damage due to accidents, to negligence, or to improper or incorrect usage.

Responsibility

Petzl is not responsible for the consequences, direct, indirect or accidental, or any other type of damage befalling or resulting from the use of its products.

Documents / Resources

	<p>PETZL E0087600C How Lamp Works Head Torch Light [pdf] Instruction Manual E0087600C How Lamp Works Head Torch Light, E0087600C, How Lamp Works Head Torch Light, Works Head Torch Light, Head Torch Light, Torch Light, Light</p>
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References

- [PETZL Petzl.com](#)
- [User Manual](#)

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