

2013 VERTICALITY - LIGHTING









Marion Poitevin on the North Face of Les Droites, Mont-Blanc massif. France.



Helping people progress in the vertical world and in the dark has always been Petzl's mission. It remains very much so for this 2013 season. We therefore continue in the same direction: going beyond the product to provide expertise and advice that responds to your needs, assisting you in your commitment - to any activity and at any level.

To help improve your efficiency on the terrain, whether rock climbing, mountaineering, trail running, etc., Petzl puts product innovation and evolution at the heart of our priorities.

Some of this year's highlights:

- REACTIVE LIGHTING, our new technology for hands-free lighting, lighting that adapts automatically to the user's needs. Beyond Power... Intelligence! Discover our latest, the NAO headlamp.
- Our line of climbing-mountaineering harnesses, fully revised in concept and design for maximum comfort.
- The 165 grams of the new SIROCCO helmet... And of course, the new version of the acclaimed SPIRIT carabiner, the revised design of the BASIC, CROLL and PANTIN ascenders, and the updating of the ultra-powerful ULTRA headlamps. For in-depth information on products, techniques and all Petzl news, find us at Petzl.com, and on social media networks.

Our reward comes from contributing to your efficiency, your safety and your enjoyment of all the adventures you are committed to. We wish you a great season.

#### **Paul Petzl**

President

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PROGRESSION

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> 95 LIGHTING EQUIPMENT



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SERVING OUR COMMUNITIES



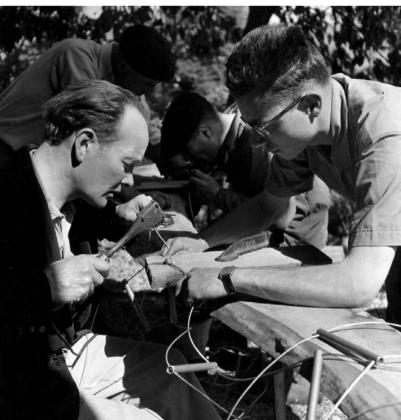


# COMMITMENT

Petzl's roots lie in the desire of its founders to serve one passion: exploration. Since its beginnings in caving, the company's mission has remained constant: to offer practical solutions that allow people to progress...

The desire to commit further, to explore a new crag. Petzl offers products and advice for achieving these objectives most appropriately, through technical information and training.









# COMMITMENT



# Petzl: Safety first

For sports enthusiasts and work and rescue professionals, reliability and quality are principal concerns. At Petzl, a manufacturer of PPE (Personal Protective Equipment), everyone shares this preoccupation. This is supported throughout the product's lifetime, from the research phase to our aftersales service.

During the R&D phase, the research department works closely with the test lab. Petzl has set its internal requirements above existing safety standards. Whether in terms of strength, reliability or durability, Petzl products meet demands above those required.

During production, all PPE products and headlamps are individually inspected. Further, the individual marking on all PPE guarantees the traceability of each unit produced.

With the Easy Inspect software, available free of charge on our website, the user can regularly inspect his/her PPE, program an inspection schedule and see the inspection plan. This way, all PPE inspections are listed electronically, helping the user to regularly check the condition of the equipment.

# Always improving!

Whenever there is a risk to user safety, Petzl puts everything in place to correct the problem. This policy led us to conduct a product recall campaign in 2011. These actions were accompanied by corrective measures and decisions to make our production processes even more reliable. Since then, we have been implementing a complete reorganization of our manufacturing and inspection processes; for example, setting up automated inspections to complement the current manual inspections, making the critical assembly phases more rigorous, etc.. These steps are combined with more in-depth analyses during the product design phase in order to identify and eliminate any critical safety flaws.







# PETZL ROCTRIP



2002 - 2012: Ten years of sharing a passion

### 2002

- MILLAU, France
- BISHOP, USA

#### 2003

- MILLAU, France
- 4 GUNKS, USA

### 2004

**6** MILLAU CANTOBRE, France

#### 2005

6 SQUAMISH, Canada

## 2006

- MILLAU, France
- 8 KALYMNOS, Greece

#### 2007

9 RED RIVER GORGE, USA

#### 2008

- MILLAU, France
- 1 ZILLERTAL, Austria

#### 2009

2 MILLAU (JONTE), France

### 2010

3 JILOTEPEC, Mexico

#### 2011

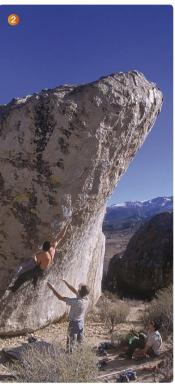
4 GÉTU, China

### 2012

<sup>(5)</sup> PIETRA PARADA, Argentina









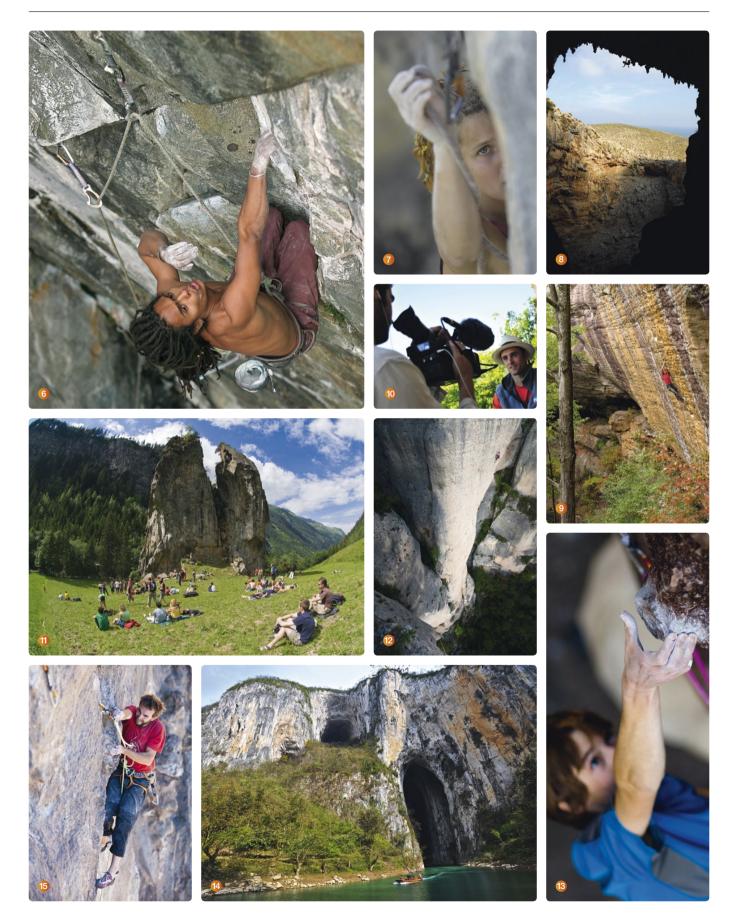




# PFT/I ROCTRIP



2002 - 2012: Ten years of sharing a passion



# SERVING OUR COMMUNITIES



"In music, dissonance is considered to be interference – tension – that consonance eliminates by providing release or relaxation. All classic harmony is rooted in this principle of "tension-relaxation", a concept in constant flux.

I like this idea very much. I see our Foundation as being like that too: a trigger that can be highly dissonant initially and upset preconceived notions, but ultimately bringing genuine cohesion within our community. This has often proved to be the case particularly with projects that were far from being consensual initially, like saving the highly symbolic example of mountain heritage, the Refuge de l'Aigle, or protecting climbers in the Goûter or "death" couloir along the standard mont Blanc route.

Ideas sometimes clash, and sometimes crystallize, but they always open and nourish the debate. This is also our role: to be a catalyst, to stimulate discussion and to bring people together. The dissonant element then becomes a creator of intelligence and consonance invents new rules, creates harmony and opens new horizons.

Since its creation at the end of 2005, our foundation has handed out more than 2 million euros, 1,335,000 of which has gone directly to the supported projects. These grants represent more than 10 % of our profits. Our foundation is deeply committed to the advancement of its projects, and this commitment goes beyond merely signing a check. The route is often long and difficult, sometimes even risky, but it offers huge satisfaction.

Giving meaning to our actions, finding man's place in his environment and helping our community to develop together are fundamental values that I hold with pride and determination."

#### Paul Petzl President



# Projects 2011 - 2012

#### ALGERIA

• Date farming and safety Partnership: Association Biodiversité, Échanges et Diffusion d'Expériences

#### SOUTH AMERICA

• Preserving access to climbing sites Partnership: Accesso PanAm

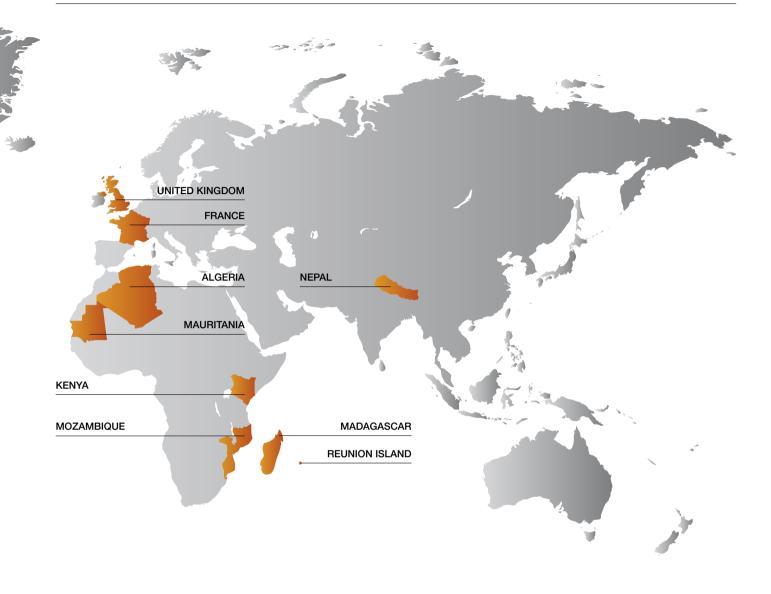
#### CHILE

• Preserving the Cochamo Valley Partnership: Conservacion Cochamo

#### FRANCE

- Monitoring the Couloir du Goûter, Mont-Blanc massif.
- Renovating the Refuge de l'Aigle, l'Oisans massif.
- Mountaineering meeting, 2011
- Ice crystal, Waterfall ice study. Partnership: Laboratoire de Glaciologie et Géophysique de l'Environnement de Grenoble
- · Saving the bearded vulture Partnership: Association Aster

# SERVING OUR COMMUNITIES



- GPS tracking of the Bonelli's eagle Partnership: Conservatoire des Espaces Naturels du Languedoc Roussillon
- Bat awareness and protection. Partnership: CORA

#### **REUNION ISLAND (FRANCE)**

• Organization of sites for the coexistence of white-tailed tropicbirds and climbers Partnership: Société d'Études Ornithologiques de la Réunion

#### **KENYA**

• Helping to train workers at height in telecommunications Partnership: Inveneo

#### MADAGASCAR

• Management of the Tsingy Partnership: Association Antsika

#### MAURITANIA

• Technical assistance for saving monk seals Partnership: CDB Foundation

#### MOZAMBIQUE

• Emphasizing biodiversity at Mount Manuli Partnership: Filmmakers Alliance

#### NEPAL

- Training future trekking leaders Partnership: Nepal Mountaineering Association, UIAA
- Supporting women as mountain guides Partnership: Ama Dablam Women Expedition

#### **PERU**

• Training archaeologists and scientists in rope techniques Partnership: Association Ukhupacha

#### UNITED KINGDOM

• Participation with European Outdoor Conservation Association





# PROGRESSION



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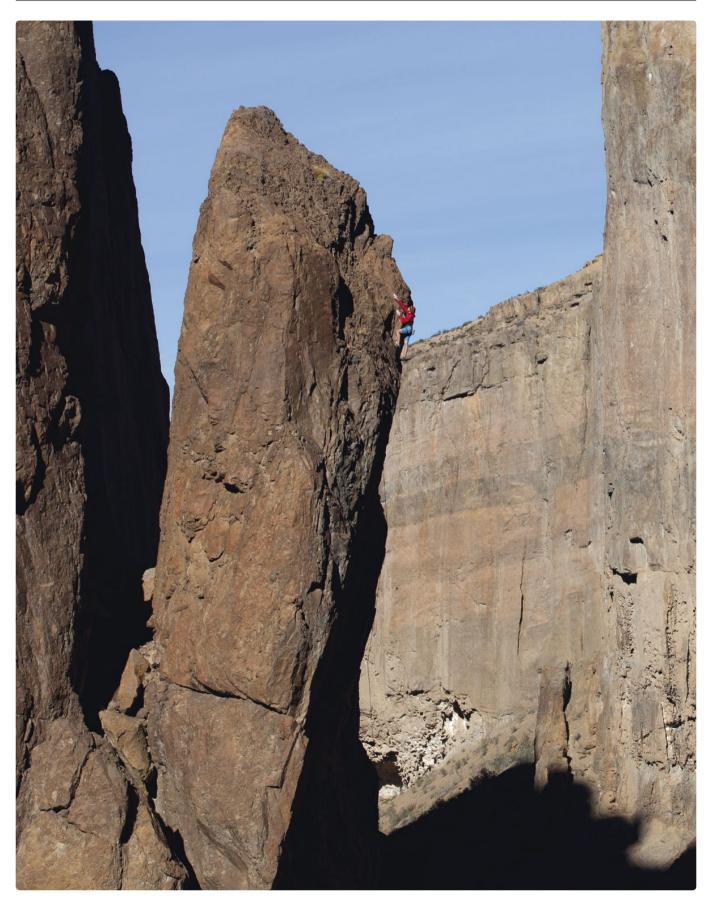
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# ROCK CLIMBING



# ROCK CLIMBING





### Argentina Bolting Trip

La Piedra Parada, La Buitrera Canyon Chubut Province, Patagonia, Argentina

In March 2012, in preparation for the Petzl RocTrip at La Piedra Parada, around 30 Argentinian and international climbers came together in search of potential new routes. For these climbers, it began with a search for new lines; at times it was love at first sight, while at others it was a difficult choice based on long study of many walls and hidden corners of the canyon. They had to set a rope to try the holds and imagine the sequences. Then they placed the bolts and cleaned the route. Finally, the moment when the route was freeclimbed, named and graded.

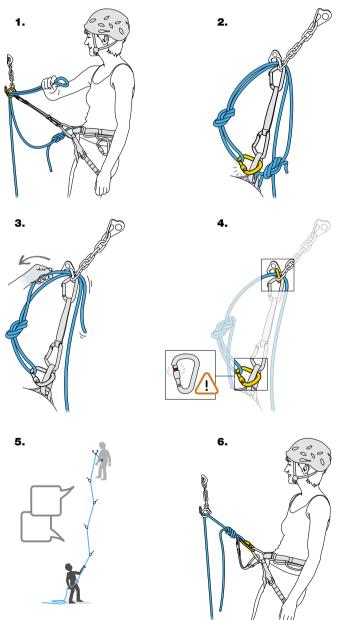
© Lafouche, Guillaume Vallot

# How to install a top-rope



nstalling a top-rope is one of the basic techniques first learned in rock climbing. Even if it eventually becomes routine, it is important to keep in mind that 30 to 40 m above the ground an error can quickly have serious consequences. So remain focused when climbing and belaying!

Technique 1: Lowering on a carabiner



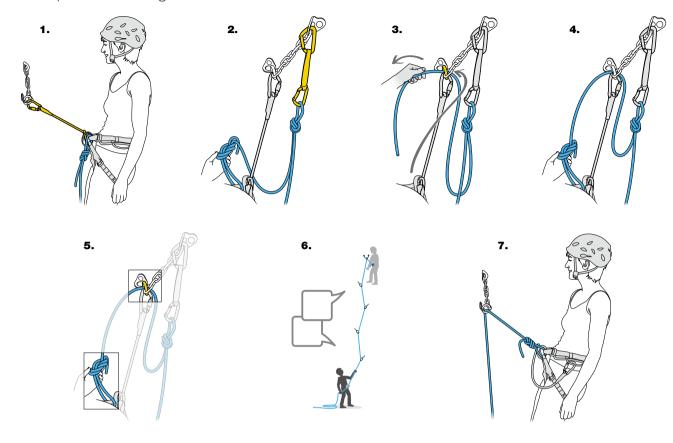
- Climber remains tied in during all maneuvers.
- Climber is lowered on a locking carabiner.

  Make sure that the carabiner is loaded on its major axis.
- Working a sequence during descent is not recommended.

Information is non-exhaustive. Refer to the other pages as well as to the Instructions For Use and technical manuals. Technical training is essential

### How to install a top-rope

#### Technique 2: Lowering on a tie-in knot



- 4 A single strand is passed through the maillon (useful with narrow maillons).
- Allows climber to repeat a sequence during descent.
- Climber unties during maneuver.
- Climber unties during Climber ties in again.

With either technique, it is essential that the belayer continues to belay the climber throughout the maneuver, never letting go of the braking side of the rope.



### SAMA

SAMA, the ideal sport climbing harness With its EndoFrame construction, it provides excellent weight distribution around the waist and legs to ensure greater comfort. The elastic leg loops remain adjusted and offer complete freedom of movement. The DoubleBack Light buckle on the waistbelt ensures quick and easy adjustment. The tie-in points are made of Dyneema in order to improve resistance to rope friction.



Dyneema tie-in points for greater durability.



See video with additional information at www.petzl.com/SAMA

### Multi-pitch climbing with alternating leaders



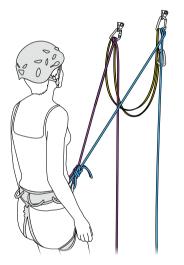
he ground is farther, the stations are often small and sometimes uncomfortable, communication can be difficult... It is therefore important to be organized and efficient to avoid fatigue and unnecessary stress. On multi-pitch routes, efficiency means not only safety, but also enjoyment.

#### At the base of the climb

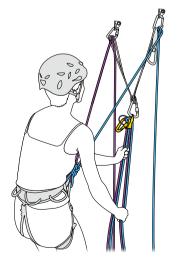
- Establish communication at the station: verbal or hand signals. Communication must be clear and concise. When there are multiple climbing parties in the area, use first names to avoid any confusion
- Prepare the rope and tie in correctly to avoid twists in the rope after a few pitches
- Do a partner check

# Leader arriving at station

Check anchor points.
Tie in with a clove hitch on each anchor. Use a quickdraw as a directional anchor for the next pitch



- The leader quickly takes up the slack. Be sure to keep the rope organized, for example looped over your feet from the biggest to the smallest loop. Avoid making loops that are too large or letting the rope hang from the station, as it can get caught in a crack, vegetation, etc.
- Triangulate your anchor (see 2012 catalog). Design it with consideration for the quality of the anchors and the configuration of the route. Install your REVERSO. Belaying the second



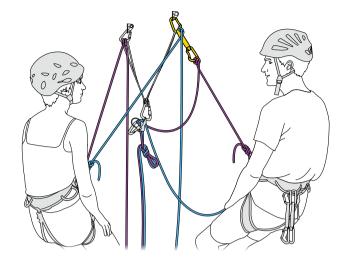
# ROCK CLIMBING

# PETZL

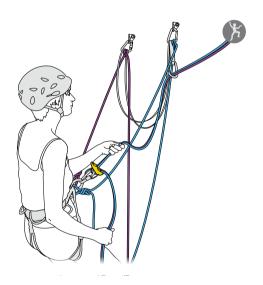
## Multi-pitch climbing with alternating leaders

### Second arriving at station

• The second ties in and takes draws if necessary. Transfer the REVERSO 4 to the belay point on the harness without removing the knot under the REVERSO 4



• Clip the directional point (which should be of excellent quality). Remove the knot behind the REVERSO 4. The second becomes the leader.





### REVERSO® 4

The REVERSO 4 belay-rappel device is ultra-light. A single 58 g device for many uses: belaying a lead climber, or one or two second climbers (Reverso mode), and descending on rappel. For dynamic double and twin (diameter ≥ 7.5 mm) and single (diameter ≥ 8.9 mm) ropes. V-shaped friction channels with asymmetrical lateral grooves adapt the friction on the rope for better control. Very intuitive use for quick changeovers from Reverso mode to belaying a leader.



The friction channels of the REVERSO 4 adapt the friction on the rope to any diameter.

## Belaying and descending on multi-pitch climbs on a single rope

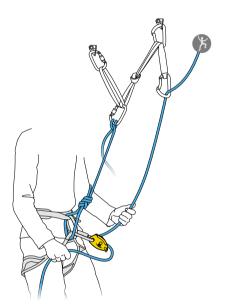


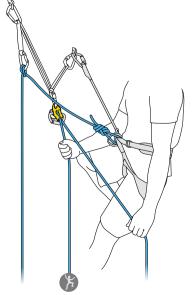
hen climbing a more difficult pitch, a single rope is more comfortable and straightforward. For the belayer, using a GRIGRI is also more comfortable if the leader needs to work certain sections. Descending a few pitches can be done on blocked rappels with a single rope and a retrieval cord. For longer rappels, double or twin ropes are more efficient.

#### While climbing

# 1. Belaying the leader dynamically

With the GRIGRI, the belayer moves in order to make it dynamic. On a multi-pitch route, this movement is limited by the risk of hitting the station. Anchoring at a distance from the belay gives the belayer room to move.





# 2. Belaying the second

The leader can climb light with a REVERSO, which belays the second comfortably.

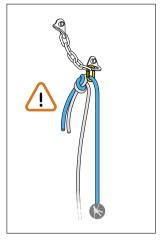
### Belaying and descending on multi-pitch climbs on a single rope

### Descending on a blocked rappel

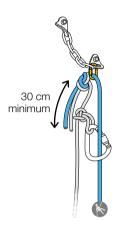
The single rope must be installed with a blocking technique and a retrieval cord that allows recovery. Descending can be done with the GRIGRI or the REVERSO (with back-up device or knot).

The retrieval cord must not be used for the descent, but only to recover the rope.

#### Examples of rope blocking



Risk of the knot passing through the maillon, even though it may appear blocked.



- Blocking on a small maillon with back-up. If the rope goes through the maillon, the fall will be stopped, but rope recovery will be complicated.
- Installing the second rappel only after complete rope recovery.



Blocking with a large knot. Installing the second rappel only after complete rope recovery.



- Blocking with no joining knot, with automatic locking carabiner.
- Installing a second rappel without pulling the entire rope through the maillon.
- With a large maillon, risk of poor position of the carabiner and/or rope blocking.

#### Warning

Blocking solutions can be cumbersome. Watch for the rope jamming: if the single rope jams when out of reach, the retrieval cord can not be used to belay for recovery.

The difference in diameter between the ropes may dictate using a double fisherman knot instead of a classic joining knot.

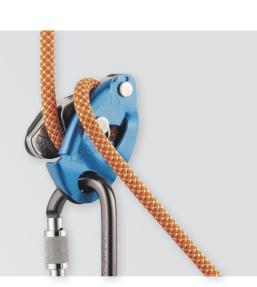
🖨 The blocking carabiner may fall during recovery. This carabiner must be inspected before any further use.

### GRIGRI® 2

With assisted braking, the GRIGRI 2 is the belay device of choice for rock climbing: top-rope, working the moves on a harder route... It may be used on all single dynamic 8.9 to 11 mm ropes (optimized for 9.4 mm to 10.3 mm ropes). Because it is compact and lightweight, it can of course be used on multi-pitch routes with a single rope. Find usage guidelines for the GRIGRI 2 in its instructions for use and at www.petzl.com.



See video with additional information at www.petzl.com/GRIGRI2











#### **Bull River** Canyon ice climbing trip

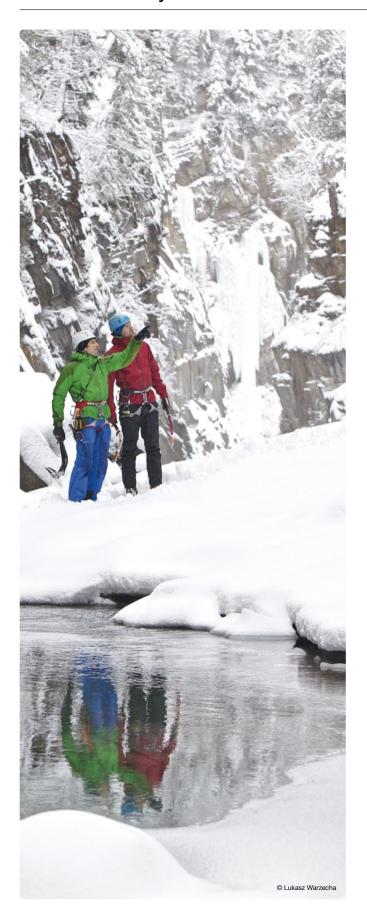
Cranbrook, British Columbia, Canada

In the heart of the winter of 2012, Canadian climber Gordon McArthur had the great idea to invite his Scottish friend Andy Turner to discover his secret garden: the Bull River Canyon, a few minutes from his home in Cranbrook. Gordon has been putting up new routes there for several years. The two ice climbers took advantage of the wave of extreme cold that partly froze the river, allowing them to get into the basins of the Matador sector. During this trip, Gordon red-pointed his long-standing project, "Gordon Bull". As for Andy, he focused on flashing a maximum of routes in this unique area.

© Lukasz Warzecha

# PETZL

#### Waterfall ice study



ow does ice react to different weather conditions? Intuitively we might think that very low temperatures are favorable for creating good waterfall ice conditions. Is it this simple? How do we make the connection between climbers' observations and a scientific experiment? A study led by the Laboratoire de Glaciologie et Géophysique de l'Environnement de Grenoble, supported by the Petzl Foundation, is providing part of the answer.

Ice falls that form gradually can suddenly collapse, especially when vertical.

Variations in temperature cause significant mechanical stresses in the ice that may in certain cases be big enough to cause a sudden break in the ice.

In fact, the ice expands when heated and contracts when cooled. If cooling is slow, the ice can adapt to the stresses and deform "plastically"; this is referred to as ductile behavior. Conversely, if cooling is quick, the stresses can create cracks or expand those created by an ice axe. The ice therefore has a fragile character.

Measurements by pressure sensors installed in the waterfall ice were used to find the link between drastic variations in temperature and a strong increase in mechanical stresses. By considering this last phenomenon, the ice climber holds the key to interpreting ice quality depending on temperature readings during the days preceding a waterfall ice ascent.

These pieces of information are only partial clues and will never replace the experience acquired through practice.

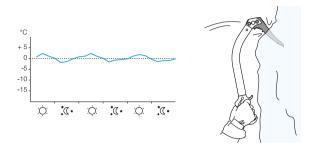
Content developed in collaboration with François Damilano, a member of the "Ice Crystal" research project.

For more information, consult the Foundation at www.petzl-foundation.org for the article: "Ice crystals, a scientific journey into the heart of icefalls".

#### Waterfall ice study

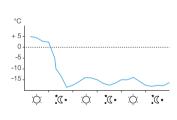
Period with stable temperatures around 0 °C (little warming during the day, no drastic cooling at night).

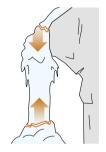
Ice has ductile behavior. This seems to be a favorable situation. We call this ice "sorbet".



# Drastic cooling followed by a period of intense cold.

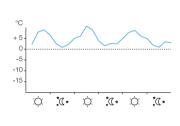
This leads to strong thermic contractions in the ice; the ice becomes fragile. The ice axe strikes contribute to the spread of cracks, with the possibility of a collapse created by the climber himself. Further, during contraction, a free-standing column will shorten, creating strong vertical mechanical stresses in the structure. There is therefore a high risk of sudden collapse of the structure.

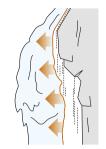




# Prolonged period of mild temperatures above 0 °C, including at night.

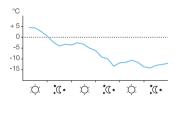
Running water at the ice/rock interface provokes separation of the ice from the rock. This situation therefore seems to be unfavorable.





# Progressive cooling over several days followed by a period of intense cold.

Conditions are less critical, but the ice remains fragile and breaks under the strikes of the climber's axe.





#### NOMIC

From sorbet ice to hard ice to dry tooling, the NOMIC ice axe is synonymous with performance, versatility and ergonomics. Thanks to its adjustable ergonomic handle, it offers multiple grip modes and limits the risk of snagging when switching hands. The ICE pick allows easy penetration in any type of ice, and pulls out easily. The modular head has two removable pick weights to balance the axe and propel it into the ice with an exceptional swing. The NOMIC ice axe can also be equipped with a hammer when placing pitons.

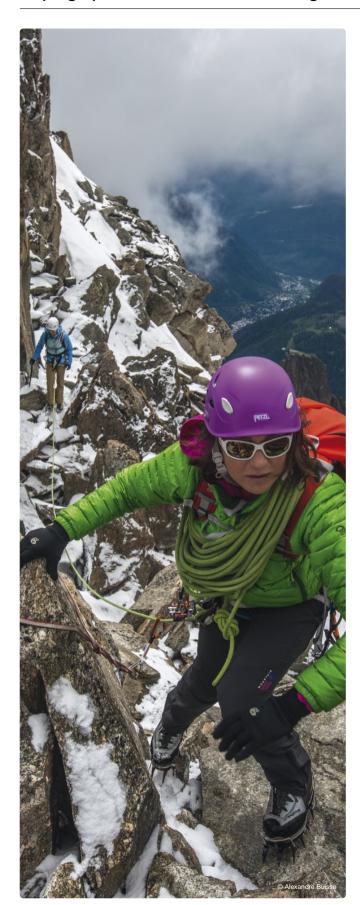


The NOMIC's ergonomic handle offers multiple grip modes.



See video with additional information at www.petzl.com/ice

## Roping up for classic mountaineering



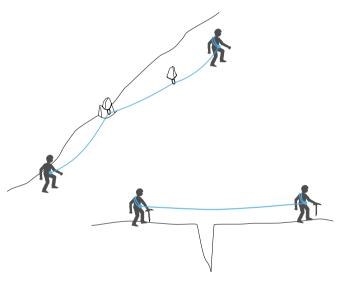
n easier terrain, parties often choose to belay while moving. The choice of how to rope up is key, as it determines the capacity to adapt to the terrain and to react in case of a fall.

### Spacing between members of the party

The characteristics of the terrain, the conditions for progression and the experience of the members of the party will determine how they rope up.

#### Wide spacing

- Allows use of intermediate belay points.
- Allows climbers to cross dangers separately (crevasses, cornices...).
- Average reactivity in case of a fall.
- Communication and mutual attention of the team members is delicate.



#### Close spacing

Without intermediate belay points, there must be no falls. This technique is reserved for expert leaders, capable of anticipating and controlling any loss of balance.

It is often used for moving quickly over easy terrain. Though the technique may be commonly used, it is important to remember the real risk of a group fall in case of error by one of the team members.



### Roping up for classic mountaineering

#### Tying in

#### 1. With blocked chest coil

For even terrain requiring little variation in spacing of the team members.

- Coils are stabilized, comfortable.
- Tie-in at end of rope.
- Rope adjustments difficult.



#### Tie-in on carabiner with figure-eight knot

- Reliable over time if knot is properly tied.
- Long to untie if knot is tightened by a fall.
- Use a directional carabiner or two reversed locking carabiners.

#### 2. With unblocked chest coil

For terrain requiring frequent adaptation in spacing of the team members.

- Quick rope adjustments.
- Tie-in at end of rope.
- The coils can become undone.



#### Tie-in on carabiner with a clove hitch

- Quick adjustments.Knot is easy to untie even when tightened
- Use a directional carabiner or two reversed locking carabiners.

#### 3. Reserve rope in bag, no chest coil

Set configuration for long walks.

- Comfortable to carry.
- Tie-in at end of rope is redone in case of emergency.



#### Tie-in to harness with a bowline knot

- Stays in place.
- 1 Unties well, even when well-tightened.
- The loop must be secured with a carabiner.





#### LUNA

With the LUNA harness, mountaineers and climbers have an adjustable harness. Comfort is key. The EndoFrame construction gives excellent load distribution around the waist and legs. The DoubleBack Light buckles on the waistbelt and leg loops ensure quick and easy adjustment. For organizing equipment, the equipment loops and retainers for the CARITOOL are designed for efficiency. The tie-in points are made of Dyneema in order to improve resistance to rope friction.

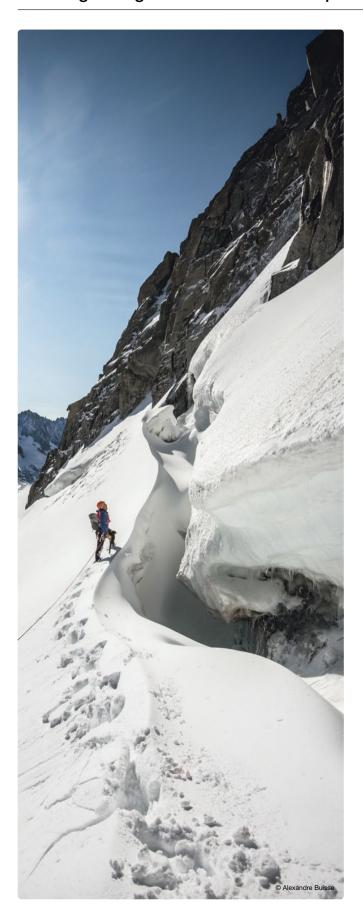


See video with additional information at www.petzl.com/LUNA



Rigid, inclined front equipment loops allow easy access to gear. Flexible rear equipment loops don't create pressure points when wearing a pack.

### Crossing a bergschrund on a snow slope



hile traveling an easy section, an occasional technically difficult part, like crossing a bergschrund, is often complicated to protect.

The specifics of the area may offer several options:

- Crossing and taking the risk of no protection
- Crossing with partial protection when possible
- Turning back or finding another way

The leader takes the most risk, as generally there is no chance of placing intermediate protection.

### Belaying the leader

If the greatest risk is falling into the bergschrund, the counter-weight of the second, farther back, may be enough.

If the risk is falling down the slope, a belay point must protect the party. The second stays back, away from the line of a fall.

The leader's rope does not go through the belay point, as it would be torn out in case of a fall.

It is the second who carries out a dynamic belay while anchored into the dead-man.



Warning: the leader will fall below his belayer without a directional anchor. VERSO and REVERSO can not be used in this case. The second can belay from his harness with a Munter hitch or using a body belay.

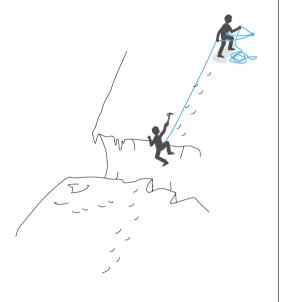


## Crossing a bergschrund on a snow slope

### Belaying the second

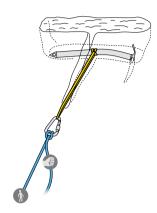
The leader can reach an existing anchor point or create a temporary one in the slope. The second is belayed with a Munter hitch or a REVERSO on the anchor. Caution: belaying from the harness with a direction.

Caution: belaying from the harness with a directional point on the anchor doubles the load on the deadman because of the pulley effect.

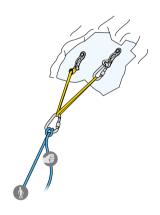


### Examples of temporary anchors

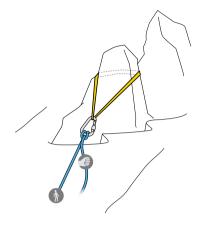
• Ice axe in a dead-man



• Two triangulated ice screws



• Sling around a rock horn





Caution: when planted vertically, the ice axe may help support one person, but is not a belay point and carries a high risk of coming out.



## SUMMIT

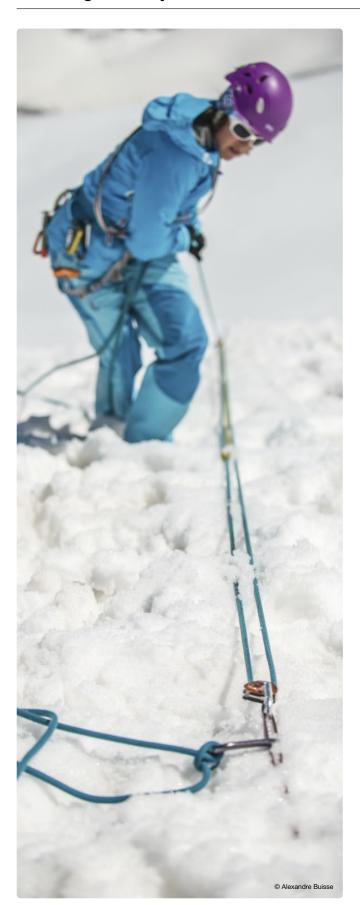
The SUMMIT ice axe is designed for snow climbs and classic mountaineering. The curved shaft provides the necessary clearance on steep or icy terrain. The light, forged steel head and the handle grip are other features that make the SUMMIT a modern, high-performance ice axe. Available in three lengths.



The pick is thin (3.5 mm) at the tip to ensure solid purchase in ice, and wide in the middle (8 mm) for soft snow.

# PETZL

## Choosing a haul system for crevasse rescue

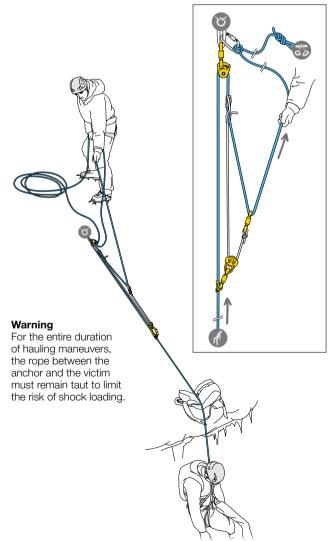


hen a fall into a crevasse occurs, the team member remaining above must raise his partner with a haul system.

Depending on the situation and the victim's condition, choosing the right haul system will make it more efficient. The options proposed here are not exhaustive; there are other techniques. What is essential is to know the chosen technique well in order to carry it out without error.

#### **Double Mariner**

**Theoretical efficiency:** 7 to 1 (victim weight divided by 7). **Advantages:** efficient hauling with reduced equipment. **Disadvantages:** complex installation, training and memorization required. Requires a 5 m cordelette. A lot of rope to take up. **Suitable situation:** victim unable to help, edge friction, heavy victim and lightweight rescuer...



### Choosing a haul system for crevasse rescue

#### Loop haul

**Theoretical efficiency:** 2 to 1 (victim weight divided by 2). **Advantages:** the victim participates fully in the haul effort. **Disadvantages:** risk of jamming due to rope getting crossed while sending the pulley to the victim. Requires a lot of rope.

**Suitable situation:** rope team of two, tied-in mid-rope with the ends free and reserve rope stored in the packs.

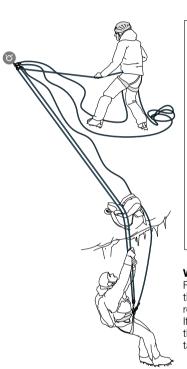
Victim capable of helping in the haul, but without support against the wall (overhanging crevasse, loss of ice axe, etc.).

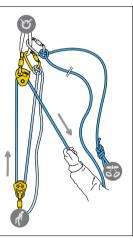
#### Simple haul system

**Theoretical efficiency:** 3 to 1 (victim weight divided by 3). **Advantages:** minimal equipment necessary. Rapid, simple installation. Easy transition to a higher-efficiency haul system.

Disadvantages: average efficiency.

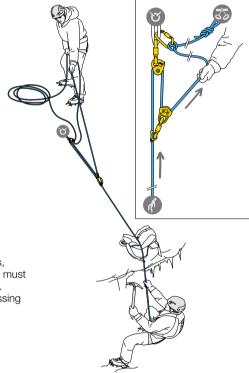
**Suitable situation:** victim who is capable of helping with his own ascent by using the wall. Lightweight victim who the rescuer can easily haul.





#### Warning

For the entire duration of hauling maneuvers, the rope between the anchor and the victim must remain taut to limit the risk of shock loading. If the victim is active, for example when crossing the lip, the slack rope must be continuously taken up.



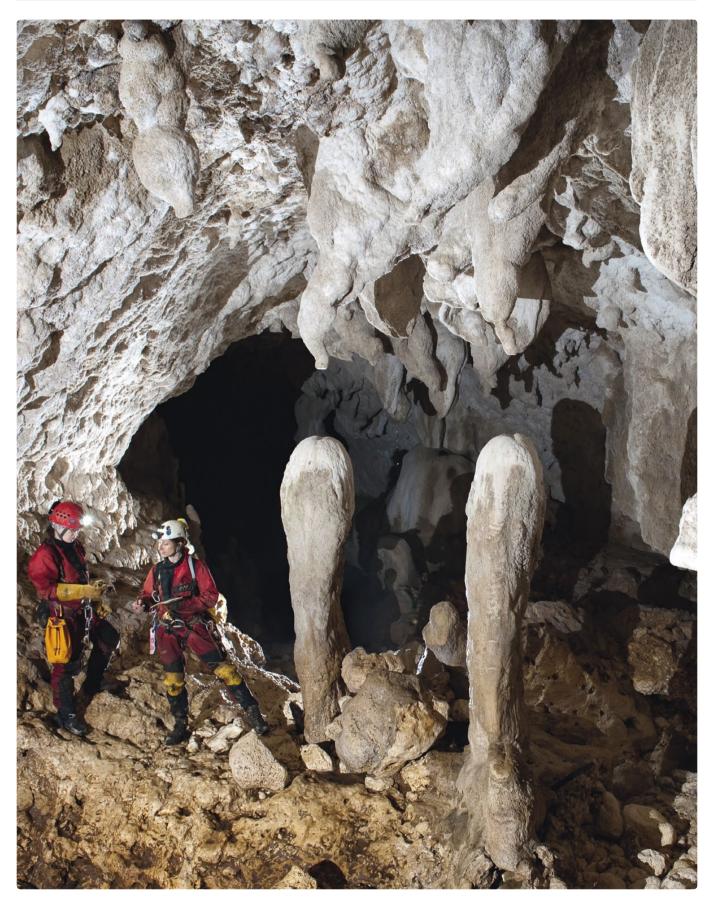


### MICRO TRAXION

Moving over crevassed terrain, whether on foot or skis, requires preparation. It is essential to be prepared for any conditions and to know how to use all the equipment. For hauling in case of a crevasse fall, the MICRO TRAXION pulley/rope clamp (only 85 g) is a real plus. Excellent efficiency, thanks to sealed ball bearings. Note: The cam can be disengaged so the device can be used as a simple pulley. The MICRO TRAXION pulley, with FIN'ANNEAU slings, a few carabiners and a TIBLOC make a lightweight kit that is perfect when heading for the mountains.



The toothed cam provides excellent jamming.



# CAVING







#### Wowo 2012

National expedition of the Fédération Française de Spéléologie. Massif des Nakanai, New Britain, Papua New Guinea.

This extremely isolated region is full of cavities that are "other-worldly". In the heart of a tropical forest inhabited by the Papou people, can be found huge, aquatic underground networks that are very rich in formations. Two expeditions in 2010 and 2012 again undertook explorations begun in 1980. The junction between several networks was reached, and from there explorations pushed in all directions, for a total of 20 km. Wowo thus became the longest network known today in New Britain. With 660 m of depth, it is also the second deepest in Papua.

© Phil Bence

# CAVING

# Passing rebelays when ascending ropes

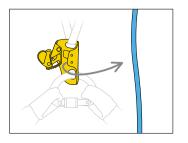




scending a rope is quite physical and sometimes long. It is therefore necessary to be efficient and organized when passing rebelays in order to limit fatigue.

- **1.** Push the BASIC up just under the knot. Do not jam it against the knot, to leave room for opening the cam. While pushing on the footloop:
- Connect to the anchor with the short lanyard
- Remove the CROLL





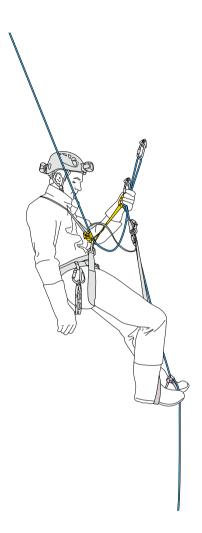


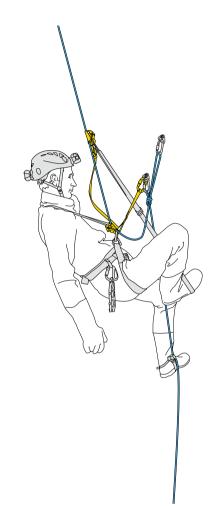
Information is non-exhaustive. Refer to the other pages as well as to the Instructions For Use and technical manuals. Technical training is essential

# Passing rebelays when ascending ropes

**2.** Hang from the lanyard and reposition the CROLL.

**3.** Move the BASIC above the CROLL. Transfer your weight to the ascenders by taking up the slack rope under the CROLL. Make sure that they are jamming. Remove the lanyard and continue your rope ascent. The rope is free for the others.







**Tip**Starting on an angled rope: put a leg over the rope to make its angle parallel to the CROLL's rope channel.







### BASIC

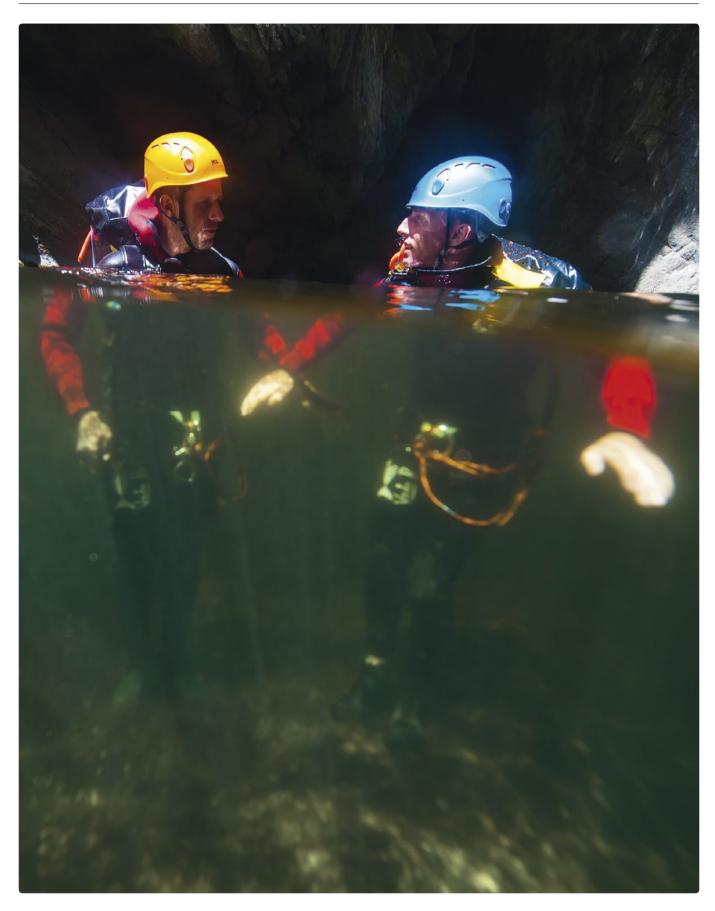
The BASIC is an ergonomic, compact rope clamp. For ascending a fixed rope, its size, shape and new grip make it an indispensable tool for caving. The stainless steel toothed cam with self-cleaning slot optimizes performance under any conditions (e.g. rope that is icy, muddy, etc.). Lower attachment hole is large enough for two carabiners (lanyard and foot loop).



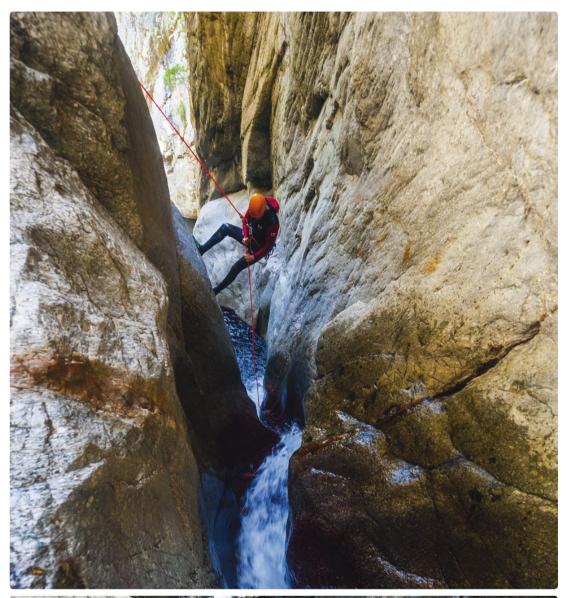
The toothed cam optimizes performance under any conditions.



# CANYONING



# CANYONING





#### Gourg des **Anelles**

Pyrénées-Orientales, Languedoc-Roussillon, France.

The source of the Vailière River is in the ridges of the Pyrénées, next to the Spanish border. Above Céret, its sides narrow to form a canyon. On one hot day, Pascal and Stéphane make the descent. The game is to follow the flow of water. The waterfalls are done on rappel and the rest of the course is traveled by tobogganing, bridging, swimming and jumping. Each obstacle requires an appropriate technique and equipment.

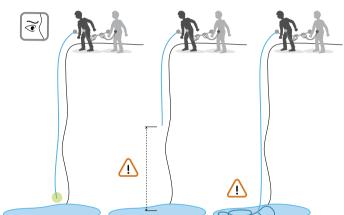
© Sam Bié

## Securing the first rappeller



hen descending on rappel in a waterfall, it is important to correctly adjust the length of rope to:

- Avoid having to remove the descender to enable a quick exit from turbulent pools
- Avoid getting tangled in the end of the rope The rope end should be about 1 m above the pool.

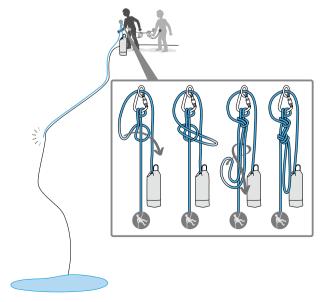


When installing the rappel, there are two possible scenarios:

- The base of the waterfall can be seen from above the rappel, and so it is easy to install the rope from the top
- The base of the waterfall is not visible, and the rope length adjustment is done when the leader descends, using a releasable system from the top

**1.** The rappel is set up with a deployed rope length 1/4 to 1/3 less than what is required to reach the bottom.

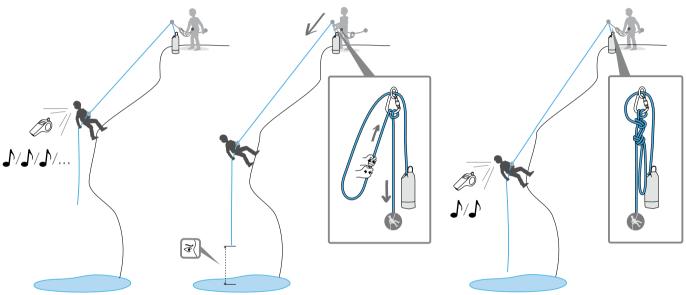
A releasable system is put in place, for example a tied off Munter mule knot.





## Securing the first rappeller

- **2.** The leader descends. When he sees the base of the waterfall, he stops and instructs his partner to lower him using whistle signals. The whistle code is established according to noise and/or distance.
- **3.** Once the rope is adjusted, the leader advises his partner with one or two short whistles. The partner re-does the mule knot and ties it off.
- **4.** The leader continues the descent. The rope is ready for the rest of the team.



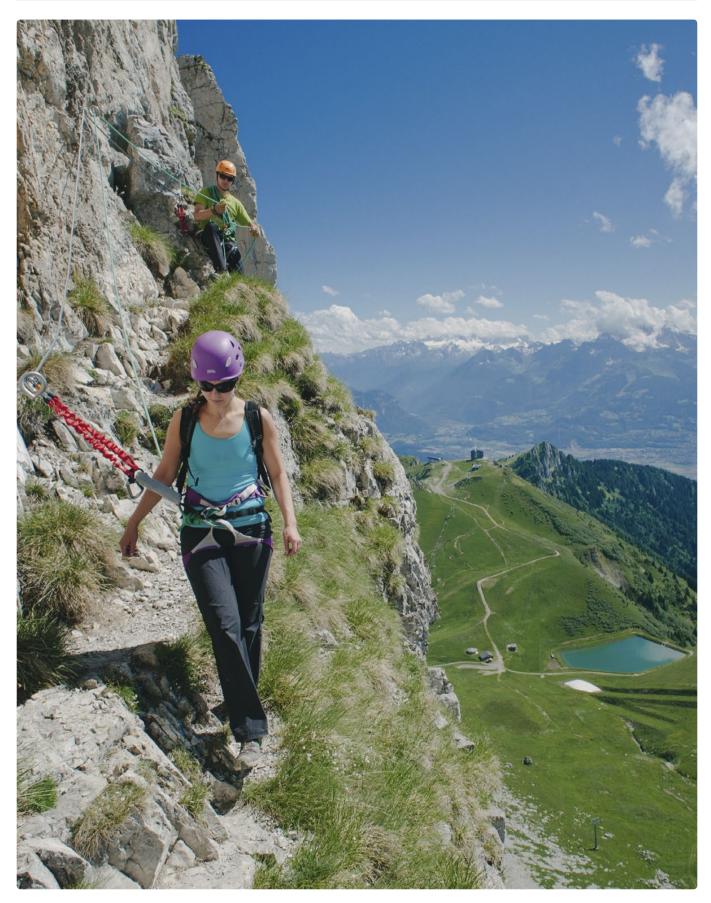
Information is non-exhaustive. Refer to the other pages as well as to the Instructions For Use and technical manuals. Technical training is essential



#### **PIRANA**

The PIRANA descender was designed specially for canyoning. It offers multiple braking options and can be installed on the rope without removing it from the harness. Used with an ATTACHE locking carabiner (available separately), it makes a rigid assembly that is practically impossible to lose once installed on the harness. The risk of leverage on the carabiner gate due to poor positioning is reduced. The PIRANA helps prevent the formation of a lark's head hitch around the body and reduces rope twisting, without decreasing braking friction.











#### Via Ferrata of the Tour d'AÏ

Leysin, Alpes vaudoises, Switzerland

To introduce Claire to mountain sports, Antoine accompanies her on the via ferrata in Leysin. To put her at ease for this first outing, Marc opts to tie in and belay her. As the team ascends the ladders of the Tour d'AÏ cliff, a spectacular landscape unfolds. At the summit, the eye sweeps the snow-capped summits of Valais as far as Lac Léman.

© Marc Daviet

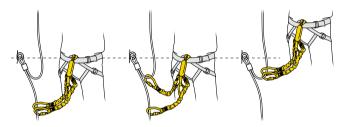
# Progression on a via ferrata - the basics



n a via ferrata, falls must be avoided as much as possible, even if there are many belay options. Energy absorbing lanyards, like ropes, are not sufficient to eliminate the risk of an injury if a bar or other obstacle is hit. In case of an injury, evacuating a victim in a vertical environment is a complex and dangerous operation. To avoid falling, the user must remain focused on his/her progression and follow some basic rules for correct use of the equipment.

# Using energy-absorbing lanyards

**1.** When passing anchors, the user must always be connected to the cable with at least one arm of the lanyard.



2. In case of fatigue, the middle arm of the lanyard allows the user to rest on the rungs while remaining connected to the safety cable.



# PETZL

## Progression on a via ferrata - the basics

## Belaying a beginner with a rope and lanyard

#### Alternating progression when ascending

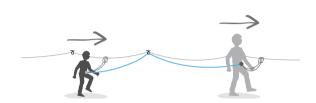
The beginner is belayed from an anchor by the leader. The rope is the main belay system, but a lanyard is essential for the leader and recommended for the second.



#### Simultaneous progression when traversing

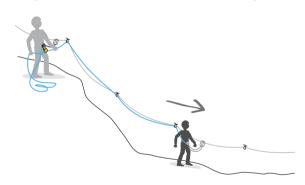
The rope is passed through the pigtails while progressing. The two team members must always have at least one pigtail active between them.

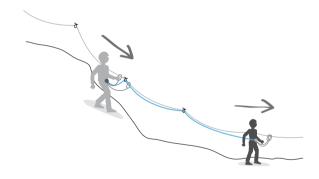
Lanyards are essential for limiting the risk of pendulums in case of a fall.



#### Alternating progression when descending

The beginner must always be below the leader and so goes first when descending.





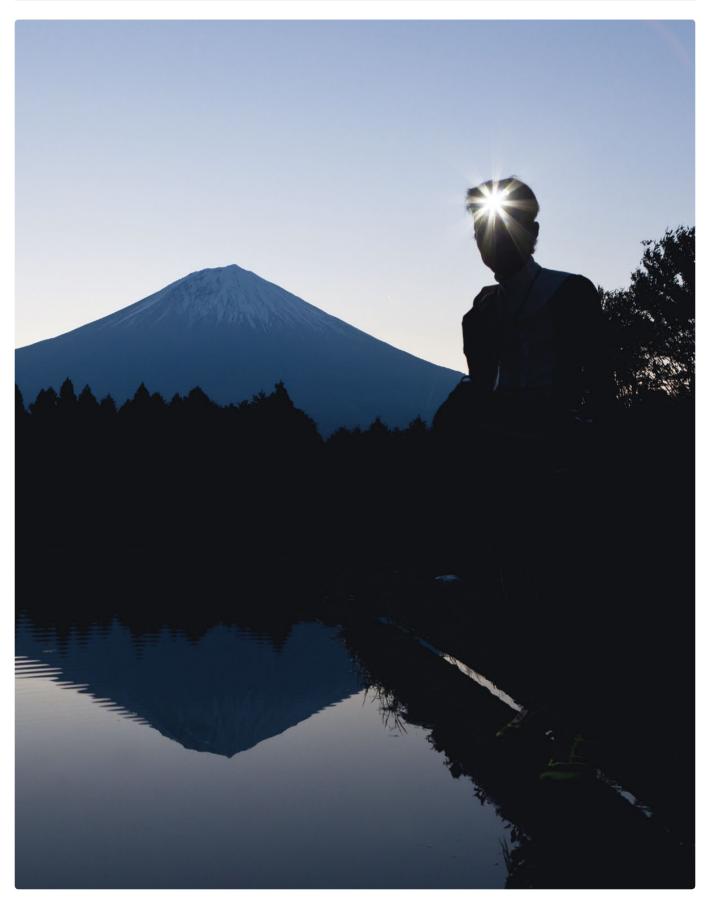
## **SCORPIO**

It is essential to have an appropriate lanyard for via ferrata capable of absorbing energy. The SCORPIO lanyard is easy to use. Its two retractable arms make it easier to keep equipment clearly organized and minimize tangling while keeping carabiners accessible. The third arm is practical for tying into bars and resting. The SCORPIO lanyard absorbs the energy of a fall by tearing its specially designed webbing. This webbing is protected by a zippered pouch. Have a SPIRIT-type carabiner ready for the third arm.





# NIGHT TRAIL RUNNING





# NIGHT TRAIL RUNNING





#### Mount Fuji **Ultra Trail**

Kawaguchiko, Yamanashi Prefecture, Japan

At 5: 17 on this Saturday morning, the 19th of May, the familiar shape of the Fuji volcano reflects against the Nishi Fuji rice fields. Suddenly, the silhouette of a runner enters the scene. Having begun fourteen hours earlier, the participants of this first running of the Mount Fuji Ultra Trail are emerging from a particularly challenging night run. Farther ahead, on the endless ridge leading to Lake Motusu-Ko, Julien Chorrier is the sole leader. Twenty-nine hours will have passed between Julien's finish and that of the last two runners, Seiji Okamato and Ryu Kodama. At different paces, but with the same satisfaction of having accomplished this race.

© Lafouche

# PETZL

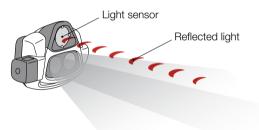
# **Discover REACTIVE LIGHTING technology**



n a night trail run, the headlamp plays an vital role in the success of the race. Visual comfort is important for running quickly and limiting fatigue. Thanks to REACTIVE LIGHTING technology, you benefit from optimal visual comfort because the beam pattern and light output adapt instantly to your needs.

## Adapted, comfortable lighting

Oriented in the same direction as the eyes, an integrated light sensor measures and analyzes the quantity of reflected light. The shape of the beam and the light output of the headlamp adapt instantly and automatically to your needs.

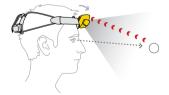


# Longer burn time

REACTIVE LIGHTING technology increases burn time, due to more efficient use of the rechargeable battery. Lighting adapts to suit the need, reducing the use of wasteful, unnecessarily powerful lighting.

#### Tip

To maximize burn time, be sure your sensor is correctly oriented.





# NIGHT TRAIL RUNNING

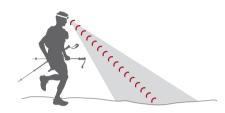


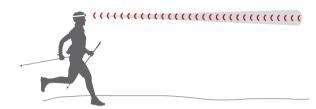
# **Discover REACTIVE LIGHTING technology**

#### A minimum of manual intervention

The headlamp automatically adapts to changes (beam pattern and light output), allowing the user to remain entirely focused on the activity without worrying about lighting.







# Personalize your headlamp with OS by Petzl

The OS by Petzl software allows you to exploit the potential of your headlamp by personalizing lighting performance (light output, burn time, distance...). Select the "trail running" lighting profile, specially configured for the activity.









The headlamp designed for night running or other night-time activities. To allow the user to concentrate on the activity and nothing else, the NAO headlamp adapts the beam pattern and light output instantly and automatically to the need. In the end, more lighting comfort, fewer operations and greater independence.



The sensor analyzes and measures light quantity.



See video with additional information at www.petzl.com/NAO

# PETZL

# EQUIPMENT FOR VERTICALITY



45 HARNESSES

51

HELMETS

55
BELAY DEVICES,
DESCENDERS

61 CARABINERS

67
ICE AXES

73 CRAMPONS

ASCENDERS

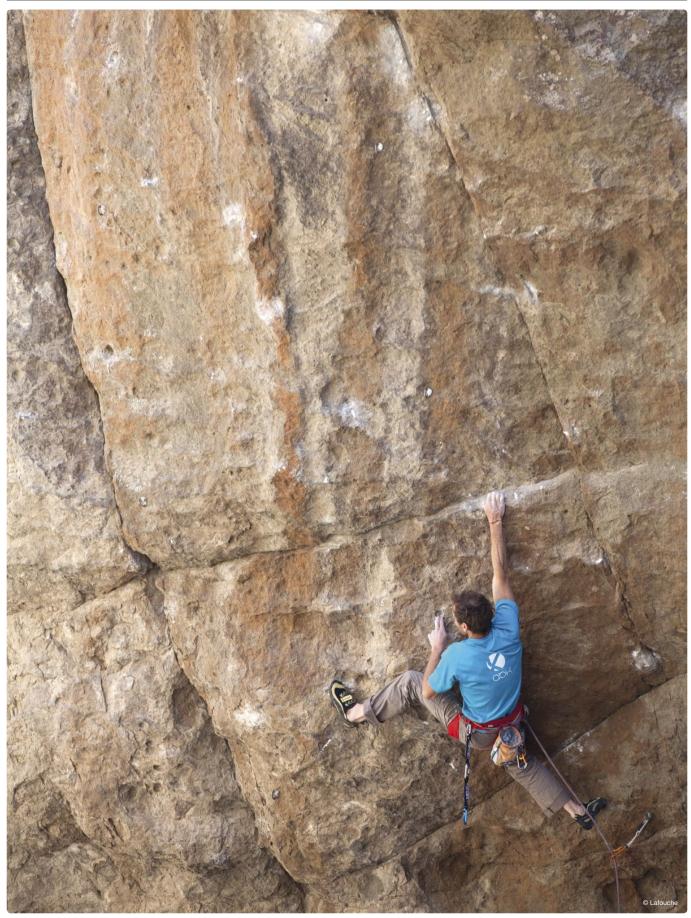
81 PULLEYS

> 85 PACKS

87
ANCHORS

91 ACCESSORIES





Mike Fuselier, El Cargo' 8b, Bolting trip in preparation for RocTrip Argentina, Piedra Parada. Argentina.

EQUIPMENT FOR VERTICALITY



#### Climbing and mountaineering harnesses

#### N SAMA C21

#### Men's climbing harness with elastic leg loops

The SAMA harness is ideal for sport climbing. With its EndoFrame construction, it provides excellent weight distribution around the waist and legs to ensure greater comfort. The elastic leg loops remain adjusted and offer complete freedom of movement. The DoubleBack Light buckle on the waistbelt ensures quick and easy adjustment. The tie-in points are made of Dyneema in order to improve resistance to rope friction.

Size S = weight: 340 g, waist size: 70 - 80 cm, leg loops: 47 - 52 cm Size M = weight: 370 g, waist size: 76 - 86 cm, leg loops: 52 - 57 cm Size L = weight: 390 g, waist size: 80 - 90 cm, leg loops: 54 - 59 cm Size XL = weight: 420 g, waist size: 85 - 95 cm, leg loops: 57 - 62 cm





The new DoubleBack Light buckle allows easier and quicker waistbelt adjustment.



See video with additional information at www.petzl.com/SAMA



# **NEW** 2013

# ADJAMA C22

# Men's climbing and mountaineering harness with adjustable leg loops

The adjustable leg loops of the ADJAMA harness make it an ideal piece of equipment for mountaineering and ice climbing. With its EndoFrame construction, it provides excellent weight distribution around the waist and legs to ensure greater comfort. The DoubleBack Light buckles on the waistbelt and leg loops ensure quick and easy adjustment. The tie-in points are made of Dyneema in order to improve resistance to rope friction.

Size S-M = weight: 390 g, waist size: 70 - 80 cm, leg loops: 47 - 52 cm Size M-L = weight: 420 g, waist size: 76 - 86 cm, leg loops: 52 - 62 cm Size L-XL = weight: 470 g, waist size: 85 - 95 cm, leg loops: 57 - 67 cm Size XL-XXL = weight: 490 g, waist size: 89 - 99 cm, leg loops: 60 - 70 cm



Each harness has a specific retainer for removable CARITOOL tool holders.



See the video with additional information at www.petzl.com/ADJAMA





#### SELENA C55

**NEW** 

#### Women's harness with elastic leg loops

The women's SELENA harness is ideal for sport climbing. With its EndoFrame construction, it provides excellent weight distribution around the waist and legs to ensure greater comfort. The elastic leg loops remain adjusted and offer complete freedom of movement. The DoubleBack Light buckle on the waistbelt ensures quick and easy adjustment. The tie-in points are made of Dyneema in order to improve resistance to rope friction.

Size XS = weight: 320 g, waist size: 58 - 69 cm, leg loops: 43 - 48 cm Size S = weight: 340 g, waist size: 60 - 71 cm, leg loops: 47 - 52 cm Size M = weight: 370 g, waist size: 67 - 81 cm, leg loops: 52 - 57 cm Size L = weight: 400 g, waist size: 74 - 89 cm, leg loops: 57 - 62 cm



The construction of the waistbelt allows excellent weight distribution while diminishing compression points (doubled straps in the back and wider on the sides).



See video with additional information at www.petzl.com/SELENA



#### LUNA C35

# Women's climbing and mountaineering harness with adjustable leg loops

The adjustable leg loops of the ADJAMA harness make it an ideal piece of equipment for mountaineering and ice climbing. With its EndoFrame construction, it provides excellent weight distribution around the waist and legs to ensure greater comfort. The DoubleBack Light buckles on the waistbelt and leg loops ensure quick and easy adjustment. The tie-in points are made of Dyneema in order to improve resistance to rope friction.

Size S-M = weight: 390 g, waist size: 60 - 71 cm, leg loops: 47 - 57 cm Size M-L = weight: 420 g, waist size: 67 - 81 cm, leg loops: 52 - 62 cm Size L-XL = weight: 450 g, waist size: 74 - 89 cm, leg loops: 57 - 67 cm





Adjustable leg loops allow the harness to be donned while wearing mountaineering or ski boots, or to easily adjust the size for different clothing.



See video with additional information at www.petzl.com/LUNA





#### HIRUNDOS 036

#### Ultralight harness for high-end climbing

Frame Construction technology is pushed to the maximum. An ultralight and super compact harness for maximum climbing performance. Four equipment loops won't limit this harness to short sport climbs.

Size XS = weight: 270 g, waist size: 59 - 71 cm, leg loops: 43 - 48 cm Size S = weight: 280 g, waist size: 66 - 78 cm, leg loops: 47 - 52 cm Size M = weight: 300 g, waist size: 71 - 83 cm, leg loops: 52 - 57 cm Size L = weight: 315 g, waist size: 80 - 94 cm, leg loops: 57 - 62 cm



#### CORAX C51

#### Comfortable and adjustable harness

CORAX is the multi-purpose harness par excellence. It comes in two sizes, so adapts to all user shapes. Its comfort and ease of use make it suitable for a wide range of users for climbing, mountaineering or via ferrata.

Size 1 = weight: 490 g, waist size: 60 - 90 cm, leg loops: 48 - 58 cm Size 2 = weight: 530 g, waist size: 75 - 105 cm, leg loops: 56 - 68 cm



## KIT CORAX K30ES

# Climbing kit containing CORAX harness, UNIVERSO belay system, BANDI chalkbag and bag of POWER CRUNCH chalk

Size 1 = weight: 490 g, waist size: 60 - 90 cm, leg loops: 48 - 58 cm Size 2 = weight: 530 g, waist size: 75 - 105 cm, leg loops: 56 - 68 cm



#### CALIDRIS 057

#### Comfortable and ventilated adjustable harness for extended periods of hanging

The wide waistbelt and leg loops of the CALIDRIS provide all the comfort, support and ventilation needed for long aid routes and other activities requiring extended periods of hanging (cleaning and equipping routes, etc.). Lightweight and comfortable, with large gear-carrying capacity, it is perfect for big wall climbing. The CALIDRIS is sized to fit larger users for all types of climbing.

Size 1 = weight: 600 g, waist size: 65 - 95 cm, leg loops: 48 - 60 cm Size 2 = weight: 685 g, waist size: 83 - 110 cm, leg loops: 56 - 70 cm



# ASPIR C24

#### Adjustable harness with padded waistbelt and leg loops

The ASPIR is a comfortable harness that offers many of the advantages of our high-end harnesses: padded waistbelt and leg loops, a reinforced tie-in point and equipment loops. Its low bulk and large range of adjustability also make it great for mountaineering and glacier travel. A great harness too for via ferrata and adventure parks.

Size 0 = weight: 420 g, waist size: 53 - 72 cm, leg loops: 40 - 58 cm Size 1 = weight: 450 g, waist size: 68 - 94 cm, leg loops: 48 - 62 cm Size 2 = weight: 485 g, waist size: 86 - 110 cm, leg loops: 57 - 70 cm







#### PANDION C29

#### Basic adjustable harness with gear loop

This harness is great for climbing, glacier travel, and adventure racing. Also great for beginning climbers.

Weight: 400 g, waist size: 60 - 101 cm, leg loops: < 67 cm



#### GYM c32

#### Basic adjustable harness for beginners and group programs

This is a simplified version of the PANDION without an equipment loop, designed for clubs. Weight: 390 g, waist size: 60 - 101 cm, leg loops: < 67 cm



#### OUISTITI C68

#### Full body harness for children less than 30 kg

Because small children do not have well-defined hips for a waistbelt to latch onto, the full body design is necessary for safety.

Weight: 350 g, leg loops: < 51 cm, chest length: 45 - 60 cm



#### SIMBA C65

#### Full body adjustable harness for children less than 40 kg

Because small children do not have well-defined hips for a waistbelt to latch onto, the full body design is necessary for safety.

Weight: 390 g, leg loops: < 51 cm, chest length: 35 - 60 cm



#### 8003 cos

#### Full body harness for adults

Size 1 = weight: 580 g, waist size: 60 - 95 cm, leg loops: 42 - 62 cm Size 2 = weight: 610 g, waist size: 75 - 105 cm, leg loops: 52 - 77 cm



#### VOLTIGE C60

Adjustable chest harness for seat harness

Weight: 280 g



#### Caving harnesses



#### FRACTIO C16

#### Caving harness with double waistbelt

The FRACTIO is a light, durable caving harness made extremely comfortable with its completely adjustable double waistbelt. Its compact size and its buckles positioned between the legs limit the risk of snagging during narrow passages.

Size 1 = weight: 485 g, waist size: 60 - 95 cm, leg loops: 42 - 62 cm Size 2 = weight: 530 g, waist size: 90 - 105 cm, leg loops: 52 - 77 cm



#### SUPERAVANTI C12

#### Basic lightweight caving harness

The SUPERAVANTI is a lightweight caving harness designed for a wide range of users. It is entirely adjustable, thanks to its buckles, and its construction is particularly simple and sturdy. The attachment points are now positioned even lower in order to make rope ascents easier and more efficient. Its compact size and its buckles being positioned between the legs limit the risk of snagging during narrow passages.

Size 1 = weight: 405 g, waist size: 60 - 95 cm, leg loops: 42 - 62 cm Size 2 = weight: 440 g, waist size: 90 - 105 cm, leg loops: 52 - 77 cm



#### TORSE C26 2

Shoulder strap for positioning a CROLL

Weight: 90 g

## Canyoning harness



#### CANYON C86

#### Canyoning harness with padded waistbelt and protective seat

Whitewater cascades, rappelling, swimming, jumping... this is the domain of the CANYON harness. Rugged, non-absorbent materials ensure lightweight longevity for all your aquatic adventures.

Weight: 700 g, waist size: 67 - 120 cm, leg loops: 52 - 77 cm

#### Harness accessories



#### CARITOOL P42

#### Harness tool holder

A great accessory for mountaineering, ice climbing and long routes, it allows quick access and organization of ice screws, pitons, nuts, etc.. Will also allow for quick storage/holstering of ice tools. Compatible with the specially-designed slots on most Petzl harnesses and also attaches to webbing waistbelts of other harnesses.

Weight: 25 g





Guido Unterwurzacher, Slovenian route, Nameless Tower. Pakistan.  $\mbox{EQUIPMENT FOR VERTICALITY}$ 







# SIROCCO® A73

# Ultra-lightweight climbing and mountaineering

With a maximum weight of 165 g, the SIROCCO helmet becomes the new standard in terms of lightness. The monobloc construction minimizes helmet weight while retaining excellent impact resistance, due to the mechanical properties of expanded polypropylene. The textile adjustment system also contributes to its lightness. This helmet comes with a new magnetic buckle which allows the chinstrap to be attached with one hand. The SIROCCO helmet also has excellent ventilation distributed around the helmet.

Size 1 = headband: 48 - 56 cm, weight: 150 g Size 2 = headband: 53 - 61 cm, weight: 165 g



The new monobloc construction minimizes helmet weight while retaining excellent impact resistance, due to the mechanical properties of expanded polypropylene.



The magnetic buckle (Petzl patent) allows the chinstrap to be attached with one hand.



See the video with additional information at www.petzl.com/SIROCCO







## METEOR 3+ A71

#### Ultra-light, versatile helmet

Weighing only 235 grams, the METEOR 3+ sets the standard in terms of lightness and comfort. It is also one of our most ventilated models. Its innovative adjustment system allows each climber to adjust his/her helmet to head shape. Originally designed for climbing and mountaineering, the METEOR 3+ also meets the European standards for cycling and whitewater sports.

Headband: 53 - 61 cm, weight: 235 g





# ELIOS® A42

#### Lightweight and durable helmet

The ELIOS helmet is durable and offers efficient protection against impact with its ABS shell and polystyrene foam liner. It is entirely adjustable and adapts to all head shapes. The sliding ventilation shutters allow the user to open or close them depending on conditions. It is very versatile, and adapts to climbing, mountaineering, caving, via ferrata, canyoning, etc..

Size 1 = headband: 48 - 56 cm, weight: 300 g Size 2 = headband: 53 - 61 cm, weight: 330 g





The adjustment system, with two rear push-buttons and headband height adjustment, allows the helmet to be easily and precisely adjusted.



The sliding ventilation shutters allow the user to open or close them depending on conditions.





#### ELIA A48

#### Women's climbing and mountaineering helmet

The ELIA helmet was designed and developed to respond specifically to the needs of women. The innovative OMEGA headband system (Petzl patent) allows the helmet to be put on and removed easily and offers maximum comfort. In addition to this exclusive feature, the helmet has a headband and webbing adjustment mechanism. It allows the helmet to be precisely adjusted for different head shapes.

Headband: 52 - 58 cm, weight: 285 g











#### Children's climbing and cycling helmet

The PICCHU helmet is designed for children who want to rock climb or cycle. It is very light and comfortable and constructed for durability. Three pages of stickers, with one reflective page, are included so that the helmet can be personalized and made more visible.

Headband: 48 - 54 cm. weight: 310 g



#### TRIOS F54

#### Caving helmet with integrated ULTRA VARIO headlamp

The TRIOS helmet is designed for cavers looking for a two-in-one solution that is complete, durable and comfortable. Lighting is ensured by the rechargeable ULTRA VARIO headlamp. With four multi-beam lighting modes, it is ideal under any conditions, for example for proximity vision with maximum battery life or to light at a great distance.

Constant lighting, Multibeam, Light quantity (movement mode): 520 lumens, distance: 210 m for 4 h (distance vision mode), burn time: 40 h (ambient mode)

Size 1 = headband: 48 - 56 cm, weight: 635 g

Size 2 = headband: 53 - 61 cm, weight: 660 g



#### SPELIOS F75

# Caving helmet with hybrid lighting: halogen / 14 LEDs with three constant lighting

The SPELIOS caving helmet consists of an helmet with attached DUO LED 14 headlamp. This helmet is suited for cavers and canyoneers looking for a complete, durable and comfortable solution. The hybrid light source delivers a powerful, focused beam (halogen bulb) or a wide flood beam (14 LEDs), depending on the situation. For greater versatility, the 14 LED light source has three constant lighting modes.

Size 1 = headband: 48 - 56 cm, weight: 505 g Size 2 = headband: 53 - 61 cm, weight: 535 g

#### Helmet accessories



VIZION A44

Eye shield for METEOR 3+, ELIOS and ELIOS helmets

Weight: 60 g

# BELAY DEVICES, DESCENDERS







#### Belay devices, descenders



#### GRIGRI® 2 D142

#### Belay device with assisted braking for 8.9 to 11 mm rope

The GRIGRI 2 belay device with assisted braking capability is designed to facilitate belay maneuvers. The GRIGRI 2 works equally well for lead climbing and top roping. It may be used on all single dynamic 8.9 to 11 mm ropes (optimized for 9.4 mm to 10.3 mm ropes). Both compact and ultra-light, the GRIGRI 2 will accompany you on climbs around the world for many years.

For use with single ropes between 8.9 and 11 mm. Weight: 170 g



Stainless steel friction plate and cam for long life.



Excellent control of the descent.



See the video with additional information at www.petzl.com/GRIGRI2



#### REVERSO® 4 D17

# Ultra-light multipurpose belay/rappel device with braking adapted to different rope diameters and suppleness; Reverso mode

This belay/rappel device is lightweight and easy to use. V-shaped friction channels, with asymmetrical lateral grooves, adapt the rope friction for better control (braking adapted to half, twin and single dynamic ropes). Reverso mode for belaying one or two seconds.

Rope compatibility: single rope:  $\geq$  8.9 mm, half rope and twin ropes  $\geq$  7.5 mm Weight: 59 g



The friction channels adapt the friction on the rope to any diameter.







#### VERSO D19

#### Petzl's lightest belay/rappel device with adaptive rope control technology

The VERSO belay/rappel device offers a lighter and more compact option for climbers looking to reduce the size and weight of their gear. V-shaped friction channels with asymmetrical lateral grooves adapt the friction on the rope for better control.

Rope compatibility: single rope: ≥ 8.9 mm, half rope and twin ropes ≥ 7.5 mm



#### UNIVERSO D18

# Belay system combining a VERSO and an ATTACHE 3D held in optimal position by a sliding connection piece

The UNIVERSO is a complete and lightweight belay system that is particularly comfortable and efficient to use on all rope diameters. This system consists of a VERSO belay device, an ATTACHE 3D carabiner and an exclusive sliding connection piece.

Rope compatibility: single rope:  $\geq$  8.9 mm, half rope and twin ropes  $\geq$  7.5 mm

#### Descenders



HUIT DO2

#### Figure 8 descender

Rope compatibility: single rope: 9-13 mm, half rope: 8-11 mm. Weight: 100 g



## HUIT ANTIBRULURE DOI

Figure 8 descender with anti-burn grip

Rope compatibility: single rope: 9-13 mm, half rope: 8-11 mm. Weight: 110 g





#### PIRANA DOS

#### Descender for canyoning

The PIRANA descender offers multiple braking options and can be installed on the rope without removing it from the harness. Designed for use with canyoning descent techniques.

Rope compatibility: single rope: 8-13 mm. Weight: 90 g



#### STOP DO9

#### Self-braking descender for single rope

One of the most popular devices for cave descents worldwide. It offers exceptional control and versatility; the self-braking function facilitates on-rope maneuvers.

Rope compatibility: single rope: 9-12 mm. Weight: 326 g



# SIMPLE DO4

#### Single rope descender

The SIMPLE descender is lightweight, compact, and does not twist the rope during descent.

Rope compatibility: single rope: 9-12 mm. Weight: 240 g



#### RACK D11

## Variable friction descender with braking bars

Rope compatibility: single rope: 9-13 mm, half rope: 8-11 mm. Weight: 470 g



#### Via ferrata equipment



#### SCORPIO VERTIGO L60 WLA

# Retractable via ferrata lanyard with tearing energy absorber and VERTIGO WL carabiners

This via ferrata lanyard has all the features needed for spending an excellent day out on the cliffs. The retractable lanyard arms keep out of the way. Stored in a zippered pouch, the tearing energy absorber is protected and is easy to inspect. The third arm is great when traversing or when you need to rest by clipping directly to a rung.

Weight: 504 g



# SCORPIO EASHOOK L60 H

Retractable via ferrata lanyard with tearing energy absorber and EASHOOK carabiners

Weight: 540 g



#### SCORPIO L60 2

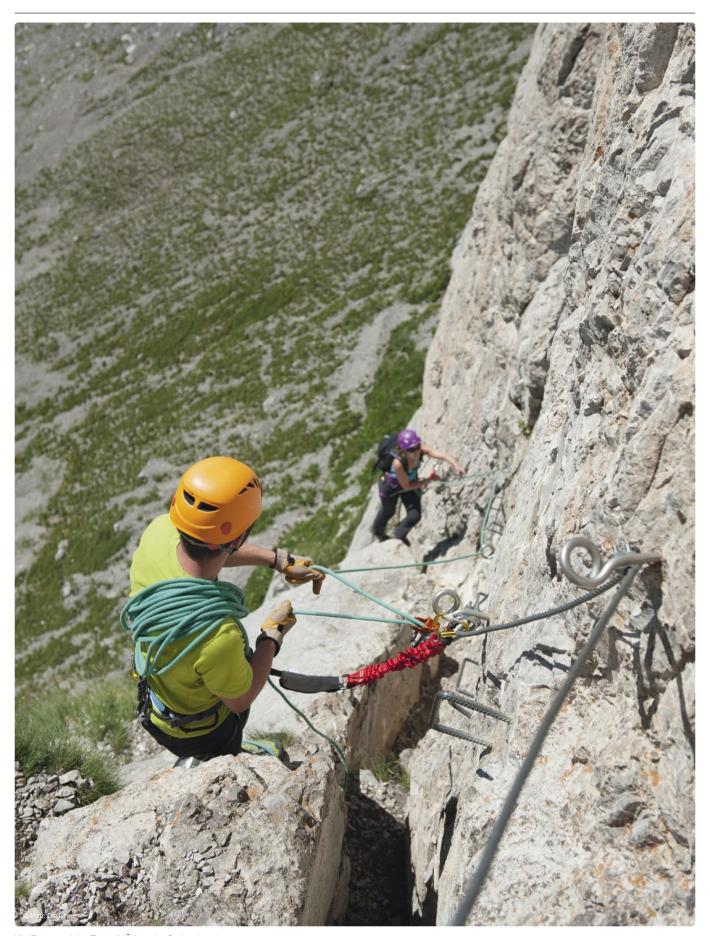
Retractable via ferrata lanyard with tearing energy absorber  $_{\text{Weight: 310 g}}$ 



#### KIT VIA FERRATA K29VF

Via ferrata kit containing ELIOS helmet, PANDION harness and SCORPIO VERTIGO lanyard





Via Ferrata of the Tour d'AÏ, Leysin. Switzerland.





Chris Sharma, Face de rats 8a+, Céüze. France.

EQUIPMENT FOR VERTICALITY



#### Non-locking carabiners

#### SPIRIT EXPRESS M53D

#### Quickdraw for sport climbing

The SPIRIT EXPRESS quickdraw offers better clipping for sport climbing. Weighing less than 100 g, it is versatile and moves easily from the crag to long sport routes. It has a straight-gate SPIRIT carabiner on top and a bent-gate version on bottom. The top carabiner, equipped with the Keylock system and a special nose shape, facilitates clipping and unclipping the anchor. The second carabiner is equipped with STRING webbing protection to hold the carabiner in position and to facilitate clipping the rope. The ergonomic shape of the EXPRESS webbing offers excellent grip when working a route.

M53D 12: length: 12 cm, weight: 93 g M53D 17: length: 17 cm, weight: 100 g



# **NEW** 2013

### SPIRIT M53 S, M53 B

# Versatile carabiner for sport climbing, available in straight and bent gate versions

The SPIRIT quickdraw carabiner is the standard for sport climbing. The H-shape reduces the weight of the SPIRIT carabiner (39 g) in order to maximize weight reduction on long sport routes. The straight gate version, equipped with the Keylock system and a special nose shape, facilitates clipping and unclipping the anchor. The bent gate version of the SPIRIT carabiner has been reworked to facilitate clipping the rope.

Strength = major axis: 23 kN, open gate: 9 kN, minor axis: 8 kN Weight: 39 g



The straight gate version, equipped with the Keylock system and a special nose shape, facilitates clipping and unclipping the anchor.



The bent gate version of the SPIRIT carabiner has been reworked to facilitate clipping the rope. The profile of the SPIRIT is thicker on the bottom to facilitate rope glide and reduce wear on the carabiner.





# EXPRESS C40 S

#### Sewn sling with STRING for use as quickdraw

C40 S12: length: 12 cm, weight: 15 g C40 S17: length: 17 cm, weight: 22 g C40 S25: length: 25 cm, weight: 25 g





Petzl's MonoFil Keylock ensures smoother opening and closing of the carabiner and a much longer lifetime compared to traditional wire gate carabiners.

## ANGE FINESSE M57D, M58D, M59D

#### Quickdraw with ultra-light ANGE carabiners

ANGE FINESSE quickdraws are equipped with the new ANGE S and ANGE L carabiners. Petzl's MonoFil Keylock technology and the H-profile make these carabiners ultra-light and optimize their strength-to-weight ratio. They are also extremely durable, as are the new FINESSE Dyneema slings. ANGE FINESSE quickdraws are equipped with the STRING S to correctly position the rope end carabiner for clipping, and to protect the webbing from abrasion.

M57D 10: length: 10 cm, weight: 63 g M57D 17: length: 17 cm, weight: 66 g M58D 17: length: 17 cm, weight: 72 g M59D 17: length: 17 cm, weight: 78 g



See the video with additional information at www.petzl.com/ANGE





#### ANGE S M57

#### Ultra-light, compact carabiner with MonoFil Keylock system

The new generation ANGES carabiner represents the middle ground between the traditional gate carabiner and the classic wire gate carabiner. It combines the fluidity of the spring gate with the lightness of the wire gate system. Petzl's MonoFil Keylock technology and the H-profile make the ANGES carabiner weigh an ultra-light 28 grams and provide an optimal weight/strength ratio. So it is particularly suitable for users looking to reduce their weight to a minimum. The shape of the nose is designed to optimize clipping and unclipping.

Strength = major axis: 20 kN, open gate: 9 kN, minor axis: 7 kN Weight: 28 g



#### ANGE L M59

#### Light carabiner with MonoFil Keylock system

The new generation ANGE L carabiner represents the middle ground between the traditional gate carabiner and the classic wire gate carabiner. It combines the fluidity of the spring gate with the lightness of the wire gate system. Petzl's MonoFil Keylock technology and the H-profile make the ANGE L carabiner weigh a light 34 grams and provide an optimal weight-to-strength ratio. So it is particularly suited to users looking to reduce weight while keeping the functionality of a standard size carabiner. The shape of the nose is designed to optimize clipping and unclipping.

Strength = major axis: 22 kN, open gate: 10 kN, minor axis: 7 kN



#### PACK 5 ANGE FINESSE M57P 10, M58P 17

#### Pack of five quickdraws with ultra-light ANGE carabiners

The ANGE FINESSE pack contains five ANGE FINESSE Dyneema quickdraws equipped with MonoFil Keylock ANGE S or ANGE L carabiners.



#### FINESSE C39

#### Dyneema sewn sling with STRING S for quickdraw

C39 10: weight: 7 g C39 17: weight: 10 g



#### OWALL M41

#### Oval-shaped carabiner for aid climbing

The oval OWALL carabiner is ideal for aid and adventure climbing. It is perfect for racking wired nuts and other protection: gear does not snag with the Keylock system.

Strength = major axis: 24 kN, open gate: 7 kN, minor axis: 10 kN Weight: 68 g



#### Locking carabiners



#### ATTACHE 3D M38 SI

#### Ultralight compact pear-shaped carabiner

The original mini-HMS carabiner has been redesigned to be ultralight. Through a series of scientific calculations, the ATTACHE 3D carabiner has been reduced to a mere 55 q by removing all unnecessary material while maximizing strength. The 3D shape keeps the original ATTACHE carabiner's versatility while reducing weight. The rope-bearing surfaces have been optimized to balance fluidity with a minimum of excess weight. The ATTACHE 3D combines the versatility of a mini-HMS carabiner in a compact,

Strength = major axis: 22 kN, open gate: 6 kN, minor axis: 7 kN Weight: 55 g



The H profile reduces weight and optimizes strength.



#### ATTACHE M35 SI

#### Compact pear-shaped carabiner

The size and shape of this carabiner make it popular for many uses: connecting a belay device to a harness, belaving with a Munter hitch and using it as a multi-purpose carabiner at belay stations.

Strength = major axis: 23 kN, open gate: 6 kN, minor axis: 7 kN Weight: 80 g



#### LOCKER M55 SI

#### Compact and light asymmetrical locking carabiner

This manual locking carabiner is compact and light. It is designed for climbing, caving, canyoning, etc.. The asymmetrical shape of the carabiner allows for a wide gate opening with excellent capacity and handling.

Strength = major axis: 24 kN, open gate: 8 kN, minor axis: 9 kN Weight: 63 g



#### Am'D M34

#### D-shaped carabiner for connecting devices on harnesses

The shape and size of this carabiner makes it great for most uses, from connecting a belay device to your harness to using it as a connector at the end of a lanyard. The D-shape makes it one of the strongest and lightest locking carabiners Petzl makes.

Strength = major axis: 28 kN, open gate: 8 kN, minor axis: 7 kN Available with locking system:

- SCREW-LOCK, weight: 74 g
- BALL-LOCK, weight: 74 g TRIACT-LOCK, weight: 78 g





#### WILLIAM M36

#### Pear-shaped carabiner for belay stations and belaying with Munter hitch

A large carabiner can come in handy in many places. This one's shape and size make it useful for belaying and rappelling with the Munter hitch with single or double ropes, anchoring multiple ropes and slings and keeping the belay station organized.

Strength = major axis: 25 kN, open gate: 7 kN, minor axis: 7 kN

- Available with locking system:
- SCREW-LOCK, weight: 88 g
- BALL-LOCK, weight: 92 g
- TRIACT-LOCK, weight: 92 a



#### OK M33

#### Oval-shaped carabiner for use with pulleys

Many pulleys need an oval-shaped carabiner to work properly. The OK carabiner is designed for just that. It is also very useful at belays.

Strength = major axis: 24 kN, open gate: 7 kN, cross-loaded: 10 kN (M33 SL), 8 kN (M33 TL)

- Available with locking system:
- SCREW-LOCK, weight: 75 g
- TRIACT-LOCK, weight: 77 g



#### FREINO M42

#### Carabiner with friction spur for descenders

The FREINO is ideal for adding or adjusting friction during the descent.

Strength = major axis: 25 kN, open gate: 9 kN, minor axis: 10 kN Weight: 85 g



#### VERTIGO WL M40 WLA

#### Via ferrata carabiner

The VERTIGO WL is designed to be used at the end of a via ferrata lanyard. Its ergonomic design and easy-to-use locking system facilitate passing intermediate anchors. The wide opening can fit over most bars and cables.

Strength = major axis: 25 kN, open gate: 8 kN, minor axis: 10 kN Weight: 97 g



#### OMNI M37

#### Semi-circle carabiner for closing a harness

The half-moon OMNI is used to close harnesses that have two attachment points that must be joined with a connector. It has a breaking strength of at least 15 kN when loaded in any direction.

Strength = major axis: 20 kN, open gate: 7 kN, minor axis: 15 kN

- Available with locking system:
- SCREW-LOCK, weight: 86 g
- TRIACT-LOCK, weight: 92 g







#### Ice climbing axes

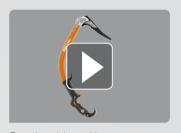


#### ERGO U22 2

#### High-end dry tooling and ice climbing axe

The ERGO is the ultimate tool for the most difficult dry tooling pitches and the most unlikely ice columns. The ultra-curved shaft offers exceptional clearance under the head and allows a wider repertoire of movement. The adjustable ergonomic handle allows multiple grip positions and limits the risk of pick shift when switching hands. The strong curve of the handle creates an ideal angle for prolonged hanging and significantly increases power when pulling.

DRY pick type T, shaft type T, weight: 645 g



See the video with additional information at www.petzl.com/ice



#### NOMIC U21 3

#### Dry-tooling and ice climbing tool

The NOMIC ice axe allows the entire rock climbing repertoire to be transferred to ice. Thanks to its adjustable ergonomic handle, it offers multiple grip modes and limits the risk of snagging when switching hands. The ICE pick allows easy penetration in any type of ice, and pulls out easily. The modular head has two removable pick weights to balance the axe and propel it into the ice with an exceptional swing. The NOMIC ice axe can also be equipped with a hammer when placing pitons.

ICE pick type T, shaft type T, weight: 605 g



Ergonomic over-molded handle offers multiple grip options. Handle length is adjustable to fit different hand and glove sizes



Interchangeable ICE pick is tapered at the tip (3 mm) for easy penetration, even in cold ice. Its shape allows stable hooking on both ice and rock



See the video with additional information at www.petzl.com/ice



# QUARK U19 M2, U19 P2

#### Ice axe for technical mountaineering and ice climbing

QUARK is a versatile ice axe, designed primarily for technical mountaineering and for ice climbing. Because of the head's modular construction, it adapts to any situation. The QUARK ice axe is easy to use: its balance and its ICE pick allow solid placements on any type of ice. Hooking is more efficient, thanks to the clearance under the head and to the shape of the pick. The GRIPREST and the TRIGREST hand rests ensure a comfortable, powerful grip adapted to leashless climbing.

ICE pick type T, shaft type T, weight: 550 g





See the video with additional information at www.petzl.com/ice





#### Mountaineering ice axes



#### SUM'TEC U15

#### Lightweight ice axe for technical mountaineering

A compromise between a classic mountaineering ice axe and an ice climbing axe, the SUM'TEC is a versatile, lightweight, technical ice axe. It is easy to use in piolet canne mode with its stainless steel spike and its slightly curved shaft. In climbing mode, the ALPIX pick (forged into banana shape) and the new TRIGREST handrest (adjustable without tools) ensure the efficiency required for technical passages, as well as bergschrunds, ice gullies, etc.. Available in adze or hammer versions.

#### Type T shaft

Hammer version: U15 M52: length: 52 cm, weight: 495 g

Adze version: U15 P52: length: 52 cm, weight: 485 g, U15 P59: length: 59 cm, weight: 505 g



The TRIGREST allows multiple hand grip possibilities, thanks to the simple, tool-free manual adjustment system.



#### SUM'TEC 43 U15 M43

#### Ultra lightweight and compact hammer / ice axe for technical mountaineering

The SUMTEC 43 is a very lightweight and compact hammer / ice axe that can be carried in a pack for use when needed, for hammering a piton back in, tightening an anchor, or as a second tool in an unexpected ice gulley. Its forged banana-shaped ALPIX pick and the new TRIGREST handrest (adjustable without a tool) ensure the efficiency required on technical sections.

Type T shaft

Length: 43 cm, weight: 430 g



#### SUMMIT U13

#### Classic modern mountaineering ice axe

The SUMMIT ice axe is designed for the modern practice of classic mountaineering. A result of the expertise acquired over many years, this product applies a new technical approach to this category of ice axes. The curved shaft provides the necessary clearance on steep or icy terrain. The light, forged steel head attached to the shaft ensures minimum weight and maximum efficiency.

Type B shaft

Ú13 52: length: 52 cm, weight: 495 g

U13 59: length: 59 cm, weight: 535 g

U13 66: length: 66 cm, weight: 570 g





### SNOWALKER U01

### Glacier touring ice axe

SNOWALKER is the lightweight ice axe designed for glacier travel and easy snow slopes. The steel pick performs even in hard snow and ice. The wide adze chops steps efficiently and provides a comfortable weight-bearing surface. The anodized shaft is made of high quality, durable 7075 aluminum. RANDO leash included. Pick equipped with hole for clipping a carabiner or attaching a sling.

Type B shaft

U01 60: length: 60 cm, weight: 415 g U01 68: length: 68 cm, weight: 438 g U01 75: length: 75 cm, weight: 458 g



### SNOWRACER UD2

### Lightweight axe for ski mountaineering and light climbing

The 50 cm ultra-lightweight (340 g) SNOWRACER ice axe is the perfect choice for ski mountaineering, snowboarding steep chutes and fast and light climbing. Features the same pick and adze as the SNOWALKER ice axe for high performance use in snow and ice. The aluminum shaft with beveled tip is plugged to prevent snow build-up in the shaft.

Type B pick

Length: 50 cm, weight: 340 g





### Ice axe accessories



### DRY U19 DRY

### Dry tooling pick for QUARK, NOMIC and ERGO

The DRY pick (4 mm thick) is specifically designed for dry tooling and extreme ice climbing. Tapered at the tip (3 mm), it penetrates the coldest ice easily. It has teeth on the lower part for hooking and on the upper part for reverse positions.

Compatible with QUARK ice axes (U19 M2, U19 P2), NOMIC (U21, U21 2, U21 3), ERGO (U22, U22 2) Weight: 129 g



### ICE U19 ICE

### Ice and mixed climbing pick for QUARK, NOMIC and ERGO

The ICE is an ultra-versatile pick designed for ice climbing. Tapered at the tip (3 mm), it penetrates the coldest ice easily. Its shape ensures stable hooking and easy unhooking on ice and rock.

Compatible with QUARK ice axes (U19 M2, U19 P2), NOMIC (U21, U21 2, U21 3), ERGO (U22, U22 2) Weight: 129 g



### ALPIX U15AAI

### Spare pick for SUM'TEC

Weight: 115 g



### ADZE U19 PAN

### Adze for QUARK, NOMIC and ERGO

Compatible with QUARK ice axes (U19 M2, U19 P2), NOMIC (U21, U21 2, U21 3), ERGO (U22, U22 2) Weight:  $69~\mathrm{g}$ 



### HAMMER U19 MAR

### Hammer for QUARK, NOMIC and ERGO

Compatible with QUARK ice axes (U19 M2, U19 P2), NOMIC (U21, U21 2, U21 3), ERGO (U22, U22 2) Weight:  $58~\mathrm{g}$ 



### MINI MARTEAU 119 MTI

### Lightweight hammer for QUARK, NOMIC and ERGO ice axes

Compatible with QUARK ice axes (U19 M2, U19 P2), NOMIC (U21, U21 2, U21 3), ERGO (U22, U22 2) Weight:  $20~\mathrm{g}$ 



### CLIPPER U80000

### Quick attach leash for QUARK and NOMIC

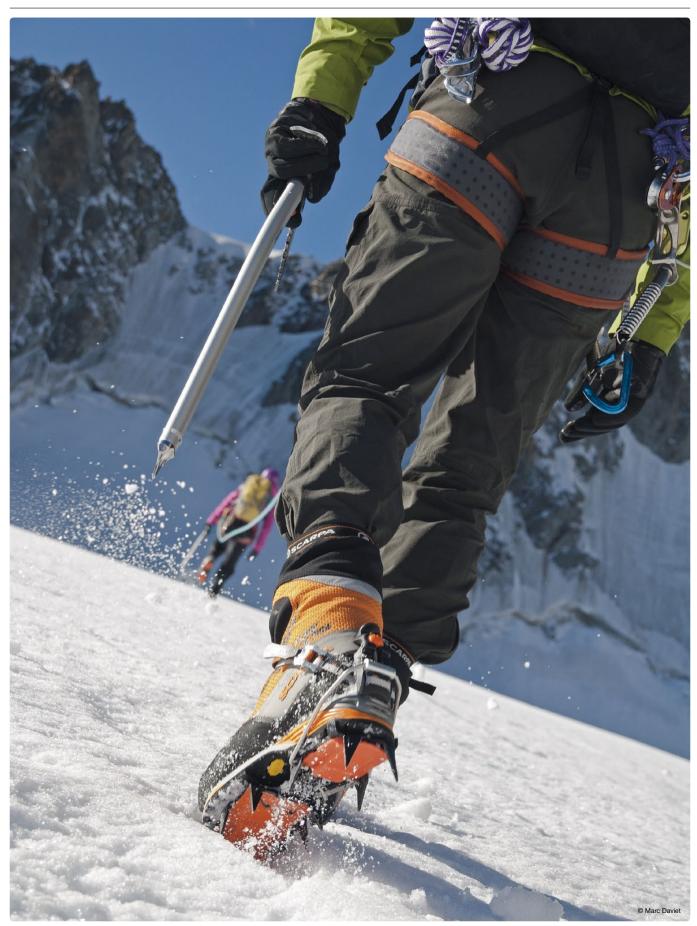
Weight: 62 g

### FREELOCK U81000

Fixed leash for ice climbing

Weight: 40 g







### Ice climbing crampons



### LYNX T24 LLU

# Modular crampon for ice and mixed climbing; LEVERLOCK universal bindings

From snow couloirs to dry tooling, the LYNX is a versatile crampon. Front points can be modified: dual point in short, long or asymmetrical position, or offset mono-point in short or long position. They come with two types of interchangeable front bindings to adapt to boots with or without toe welts.

14 points LEVERLOCK binding with interchangeable toe bails Weight (with ANTISNOW): 2 x 540 g = 1080 g FAKIR carrying pouch included



Configuration and length of front points can be modified: dual point in short, long or asymmetrical position, or offset mono-point in short or long position.



See the video with additional information at www.petzl.com/LYNX



### DART T22LLF 02

### Mono-point crampon for ice and mixed climbing

The DART is the crampon for extreme mixed and ice climbing. The mono-point is designed to displace less ice and make for precise placements on micro-edges. The third row of points is angled towards the rear for hooking in steep terrain or around ice columns. Ultra-lightweight.

LEVERLOCK FIL binding, weight (without ANTISNOW):  $2 \times 412 \text{ g} = 824 \text{ g}$ 





### DARTWIN TOTLLE 02

### Dual-point crampon for ice and mixed climbing

A version of the DART for those who prefer the added stability and holding power of two front points.

12 points

LEVERLOCK FIL binding, weight (without ANTISNOW): 2 x 432 g = 864 g

### Mountaineering crampons



### SARKEN T10

### Technical mountaineering crampons

Re-designed to improve durability, SARKEN crampons are now better than ever. This is the crampon for anybody headed out into variable, mixed terrain. The 4x4 of crampons. The "T"-shaped front points are designed for excellent penetration in hard ice and stable front pointing on mixed terrain while providing solid purchase in snow and neve.

T10SPL 22: SPIRLOCK binding, weight (with ANTISNOW): 2 x 480 g = 960 g
T10LL 22: LEVERLOCK binding, weight (with ANTISNOW): 2 x 505 g = 1010 g
T10LLF 22: LEVERLOCK FIL binding, weight (with ANTISNOW): 2 x 484 g = 968 g



### VASAK TOS

### Classic 12-point mountaineering crampon

VASAK crampons are designed for mountaineering. Twelve points ensure maximum traction in all conditions, from steep slopes to ice couloirs. Available in all four lightweight binding systems for solid boot interface.

12 points
T05SPL 02: SPIRLOCK binding, weight (with ANTISNOW): 2 x 465 g = 930 g
T05FL 02: FLEXLOCK binding, weight (with ANTISNOW): 2 x 470 g = 940 g
T05LL 02: LEVERLOCK binding, weight (with ANTISNOW): 2 x 490 g = 980 g
T05LLF 02: LEVERLOCK FIL binding, weight (with ANTISNOW): 2 x 460 g = 920 g





Liv Sansoz on the southeast arete of the Tour Ronde, Mont-Blanc massif. France.



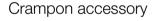
### IRVIS TO3

### 10-point crampon for ski touring and glacier travel

At 820 g per pair (FLEXLOCK), the 10-point IRVIS crampons are designed for glacier travel, ski mountaineering and snowy or icy approaches. They are lightweight and easy to use, making them a favorite in any conditions. Available with two different binding systems, these crampons can fit most boots, even those without welts. Durable and easy to adjust.



T03LL 02: LEVERLOCK binding, weight (with ANTISNOW):  $2 \times 438 \text{ g} = 876 \text{ g}$  T03FL 02: FLEXLOCK binding, weight (with ANTISNOW):  $2 \times 410 \text{ g} = 820 \text{ g}$ 





### FAKIR VO1

### Carrying bag for crampons

Designed for carrying crampons, this PVC-free zippered nylon compartment is also great for screws, extra picks, etc.. Reinforced, semi-rigid bottom protects your pack from sharp tips. Featuring a mesh top panel which allows water to escape and your equipment to dry.

Weight: 135 g

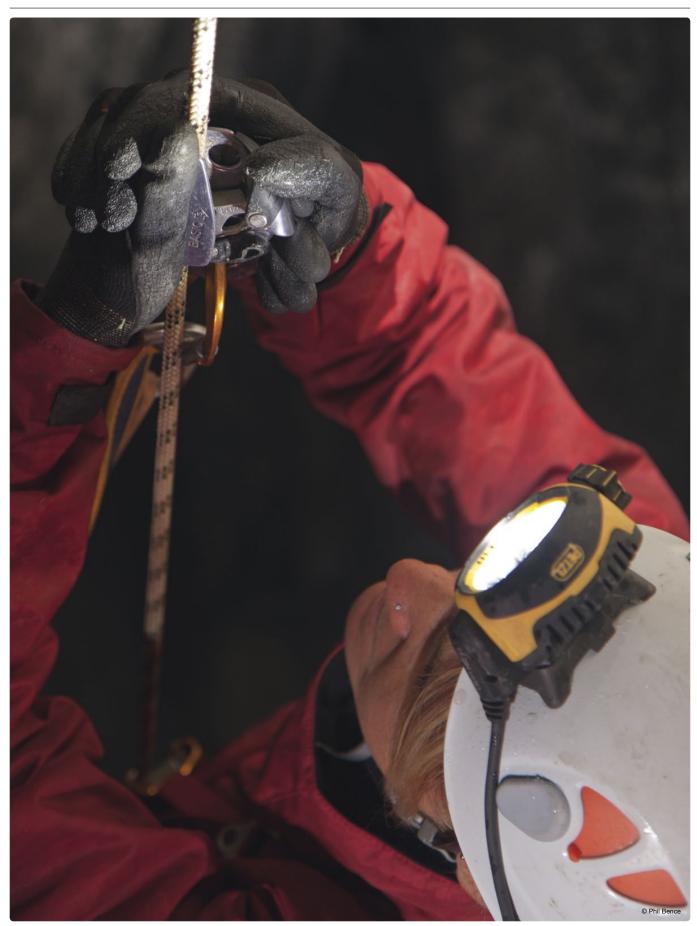
### Special purpose crampons



### SPIKY PLUS 79510, 79520, 79530

Put these over any pair of shoes or boots for added traction on icy, slippery surfaces.





Subterranean river of Vicdessos, Ariège. France. EQUIPMENT FOR VERTICALITY





### ASCENSION B17SLN, B17SRG

### Ergonomic handled ascender

Our handled ascenders have been refined to provide greater comfort, efficiency, ease of use. The ergonomically shaped handle is over molded with dual density grip for greater friction and better grip. The cam has been redesigned to minimize friction when sliding the ascender up the rope while the angled teeth provide secure grip in the worst conditions (wet, icy, or muddy ropes). The geometry of the single piece aluminum frame ensures optimal handle orientation when the device is loaded and will maintain solid, comfortable performance for ascents of any length.

For use with ropes between 8 and 13 mm in diameter: 195 g



### BASIC B18BAA

### Multi-purpose compact ascender

The BASIC is a compact ascender that fits well in the hand for rope ascents. The lower attachment hole is large enough to hold the carabiners for the lanyard and the footloop.

For use with ropes between 8 and 11 mm in diameter: 90 g



The compact size of the BASIC ascender fits well in the hand.



The CROLL chest ascender is unmatched for efficiency on fixed lines. Compact and lightweight, it does not interfere with progression. The stainless steel wear plate improves durability by reinforcing the rope friction zone.

For use with ropes between 8 and 11 mm in diameter: 90 g





The stainless steel wear plate improves durability by reinforcing the rope friction zone.



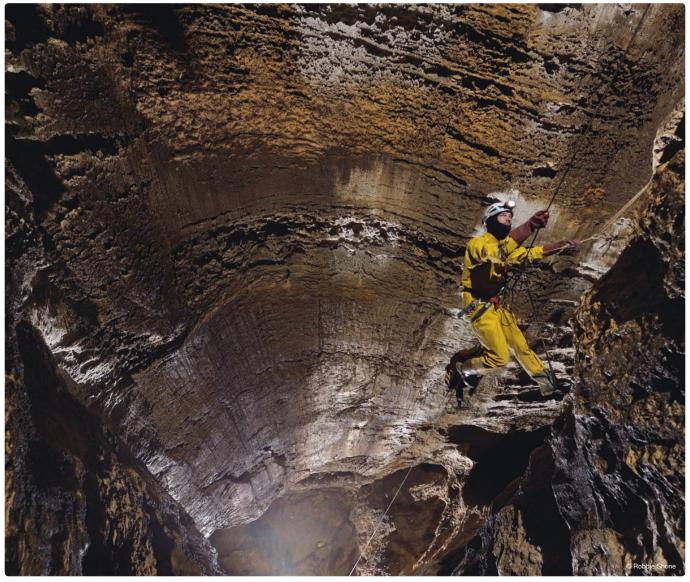


## PANTIN® BO2BRA, BO2BLA

### Foot ascender - right and left

Used with a CROLL, ASCENSION or BASIC ascender, the PANTIN foot ascender keeps the body vertical and makes rope ascent more efficient and less tiring. The compact shape and durability of its attachment strap allows it to remain constantly attached to the foot. The PANTIN is available in both LEFT and RIGHT footed versions.

For use with ropes between 8 and 13 mm in diameter: 80 g







SHUNT BO3

Back-up ascender

For use on single 10-11 mm ropes or double 8-11 mm ropes, weight: 188 g



TIBLOC BO1

### Compact emergency ascender

In a bind, this ultra-lightweight ascender can be used to build hauling systems or as a Prusik-replacement in self-rescue situations. Use with the ULTRALEGERE pulley for an ideal lightweight, compact emergency hauling kit.

For use with ropes between 8 and 11 mm in diameter: 39 g

### Ascender accessories



### FOOTAPE C47A

### Adjustable webbing foot loop

The adjustable FOOTAPE foot loop is used with the ASCENSION handled ascender for rope ascents.

Weight: 120 g



### FOOTCORD C48A

### Adjustable cordage foot loop

The adjustable FOOTCORD foot loop is used with the ASCENSION handled ascender for rope ascents. Its 100 % Dyneema construction increases durability.

Weight: 60 g





### SPELEGYCA C44

### Asymmetric double lanyard

Designed to help pass rebelays when caving or canyoning.







### Progress capture pulleys



### MICRO TRAXION P53

### Very efficient ultra-light progress capture pulley

The MICRO TRAXION is an ultra-light, ultra-compact progress-capture pulley that is exceptionally efficient thanks to its sealed ball bearings. The cam can be locked in open position so the device can be used as a simple pulley.

Rope compatibility on single ropes: 8 - 11 mm, efficiency: 91 %, weight: 85 g



Cam can be locked in open position so device can be used as a simple pulley. Upper button releases the cam to enable progress capture.



Find more information on the MICRO TRAXION progress capture pulley at www.petzl.com/ MICROTRAXION



### MINI TRAXION PO7

### Compact, lightweight progress capture pulley

The compact MINI TRAXION progress capture pulley has three distinct modes of operation (pulley, progress capture pulley, ascender), making it the ideal companion for extended vertical adventures. Use it for hauling light loads, ascending a rope and self-rescue.

Rope compatibility on single ropes: 8 - 13 mm, efficiency: 71 %, weight: 165 g



### PRO TRAXION P51

### Very efficient progress capture pulley

The PRO TRAXION progress capture pulley is designed for hauling heavy loads and is ideal for aid climbing and rescue.

Rope compatibility on single ropes: 8 - 13 mm, efficiency: 95 %, weight: 265 g



### Single pulleys



### ULTRALEGERE POOA

### Pulley for occasional use

The ULTRALEGERE emergency pulley is a simple nylon sheave that can be installed on a carabiner.

Rope compatibility on single ropes: 7 - 13 mm, weight: 10 g



### OSCILLANTE PO2A

### Swing-sided pulley for emergency use

The OSCILLANTE pulley weighs practically nothing and can be used in crevasse rescue systems or improvised hauling systems.

Rope compatibility on single ropes: 7 - 11 mm, efficiency: 71 %, weight: 42 g



### PARTNER P52A

### Compact pulley with swinging side plates

The PARTNER pulley is compact and light, yet ensures excellent efficiency thanks to its aluminum sheave mounted on sealed ball bearings.

Rope compatibility on single ropes: 7 - 11 mm, efficiency: 91 %, weight: 56 g



### FIXE POSSO

### Pulley with fixed side plates

The FIXE pulley is lightweight, compact, and quick to install on the rope. It offers a good balance between weight and strength.

Rope compatibility on single ropes: 7 - 13 mm, efficiency: 71 %, weight: 90 g



### RESCUE P50A

### Ultra-strong pulley with swinging side plates

The RESCUE pulley is very strong and efficient: ideal for rescue, hauling heavy loads and intensive use.

Rope compatibility on single ropes: 7 - 13 mm, efficiency: 95 %, weight: 185 g

### Prusik pulleys



### MINI P59A

### Lightweight Prusik pulley

The lightweight MINI can handle big loads, but is small enough to go almost anywhere or be carried on the harness.

Rope compatibility on single ropes: 7 - 11 mm, efficiency: 91 %, weight: 80 g



### GEMINI P66A

### Double Prusik pulley

The GEMINI double pulley is equipped with an auxiliary attachment point for use in technical hauling systems.

Rope compatibility on single ropes: 7 - 11 mm, efficiency: 91 %, weight: 135 g



### Transport pulleys



### TANDEM P21

### Double pulley for use with ropes

Rope compatibility on single ropes: ≤ 13 mm, efficiency: 71 %, weight: 195 g



### TANDEM CABLE P21 CAB

### Double pulley for use with ropes and cables

Rope compatibility on single ropes: ≤ 13 mm, cables ≤ 12 mm, efficiency: 71 %, weight: 258 g



### TANDEM SPEED P21 SPE

### Efficient double pulley for use on ropes and cables

Rope compatibility on single ropes: ≤ 13 mm, cables ≤ 12 mm, efficiency: 91 %, weight: 270 g

### Crevasse rescue kit



### CREVASSE RESCUE KIT K25 SC3



MICRO TRAXION



OK SCREW-LOCK



TIBLOC



PARTNER



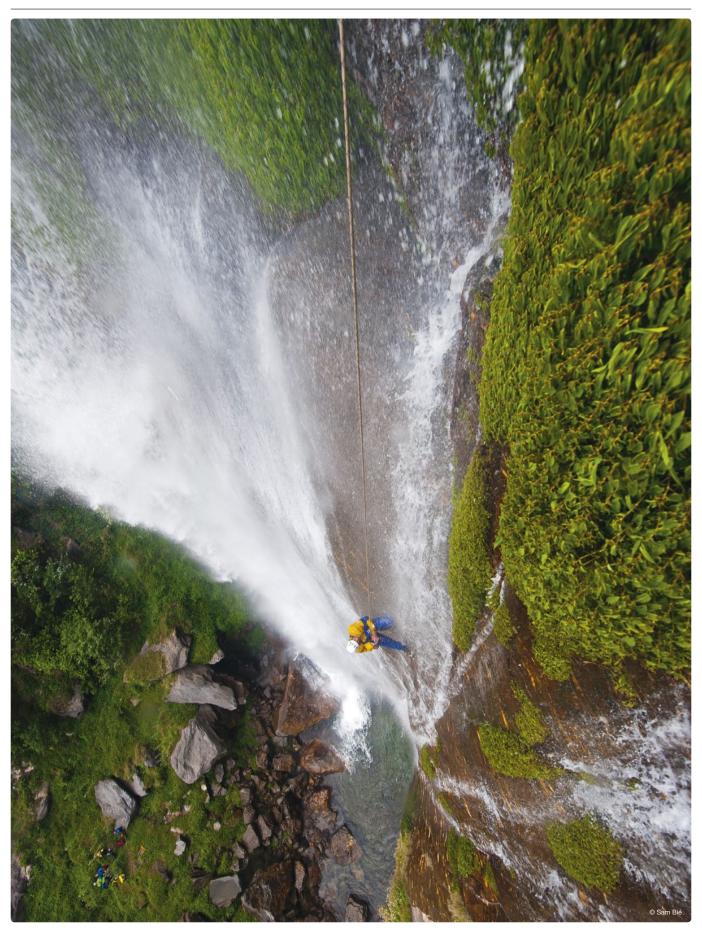
ST'ANNEAU 120

Kit containing the equipment needed for hauling/ascending in crevasse rescue situations: MICRO TRAXION pulley, 2 OK SCREW-LOCK carabiners, TIBLOC, PARTNER pulley, 120 cm ST'ANNEAU sling

The crevasse rescue kit contains everything needed for setting up a hauling system or a rope ascent in case of a fall into a crevasse. This kit is essential for glacier travel (on skis or on foot).

Rope compatibility on single ropes: 8 - 11 mm, weight: 370 g





Yann Ozoux in the C90 of Syange Khola during final preparation for the Chamje Khola Expedition 2011. Nepal. EQUIPMENT FOR VERTICALITY





BUG S71

### Backpack for single day multi-pitch climbing

The BUG was designed specifically for multi-pitch, long routes that are done in a single day. Its rounded rectangular shape maximizes volume and minimizes interference while in use. Everything has been designed for maximum comfort while climbing with the BUG on the back: shoulder straps allowing freedom of arm movement, comfortable and ventilated back panel, foldaway waistbelt, high positioning allows access to back of harness (for chalkbag, gear), lateral compression straps.

Volume: 18 liters, weight: 570 g



TRANSPORT 45L S42Y 045

Durable and comfortable large capacity pack for caving

Volume: 45 liters, weight: 1300 g



PORTAGE 30L S43Y 030

Durable medium capacity pack for caving

Volume: 30 liters, weight: 800 g



CLASSIQUE 22L 003 2

Durable medium capacity pack for caving

Volume: 22 liters, weight: 550 g



PERSONNEL 15L S44Y 015

Durable small capacity pack for caving

Volume: 15 liters, weight: 450 g







### Ice protection



LASER SONIC P70

### Ice screw with integrated handle

For rapid ice protection, there is nothing faster than the LASER SONIC. The innovative hanger/handle makes placing the screw a breeze, even in the most brittle ice. The design also allows the screw to be removed when still attached to the rope, helping to prevent accidental loss.



### UNIVERSEL P17

### Semi-hardened steel forged piton

Piton for flared cracks in limestone or granite.



U 65312, 65314

### Semi-hardened steel forged piton

Piton for wide cracks in limestone or granite.



LIVANOS 65504, 65506, 65508, 65510

Chromoly steel channel piton



LASER P7

### lce screw

Ice protection accessories

Lighter weight and simpler version of the LASER SONIC.



COEUR P34050, P38150

### Bolt hanger

Multi-directional, stainless steel.



### COFUR GOUJON P32 P33

### Complete anchor assembly

Comprised of a COEUR hanger, expansion bolt and nut.



### BAT'INOX P57

### 14 mm resin anchor

Especially suited for soft rock.



### NITRO 3 67800

MULTIHOOK 04950 Multipurpose hook

Energy absorber for use as a quickdraw



### AMPOULE BAT'INOX P41

### Resin glue for BAT'INOX

Required for placing the BAT'INOX anchor.



Rock anchors

### V CONIQUE 66007, 66011

### Chromoly steel channel piton

Hard chromoly steel piton for flared, rounded cracks in granite and hard rocks.



### COLLINOX P55

10 mm resin anchor

Designed for long-term installation.



### ROCHER MIXTE 65106, 65108, 65110

### Semi-hardened steel forged piton

Piton for thin, parallel-sided cracks in limestone or granite.



### AMPOULE COLLINOX P56

### Resin glue for COLLINOX

Required for placing the COLLINOX anchor.



### Rock and caving anchors

### Rock and caving anchor accessories



VRILLEE P13
Caving bolt hanger



BONGO P27

Piton hammer

For trad climbing, aid climbing or for equipping new routes.



COUDEE PO4

Caving bolt hanger

Holds the carabiner perpendicular to the rock; helps keep the rope away from the rock.



TAM TAM P16

Caving hammer

Designed for placing bolt anchors with a hand drill.



CHEVILLE AUTOFOREUSE P12
Self-drilling expansion bolt anchor



ROCPEC P26 SDS-bit hand drill Hand drill that accepts SDS drill bits.

ROCPEC ADP P26250



DELTA P11
Triangular maillon



Adaptor for ROCPEC drill
Increases the ROCPEC's versatility and provides greater comfort and efficiency when placing 12 mm self-drilling expansion bolts.



SPEEDY P14

Maillon with rapid gate



PERFO SPE PO8

Drill for self-drilling anchors



GO P15
Oval maillon



BOLTBAG C11 A

Bolting equipment pouch



DEMI ROND P18 Semi-circular maillon



PROTEC C45 N

Rope protector

Helps protect the rope from sharp edges.





### SWIVEL S P58 S

### Ball bearing swivel

Positioned between the rope and the load, the swivel allows the load to turn without twisting the rope.



# PAW S P63 S

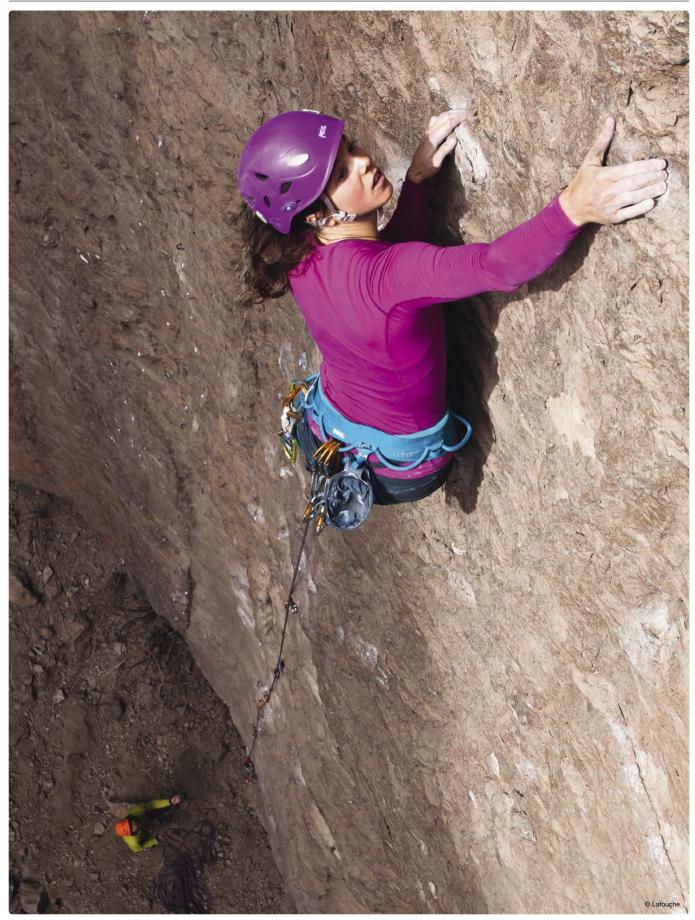
### Rigging plate

For organizing the belay and creating a system with multiple anchors. Useful in aid climbing and for setting up Tyrolean traverses.



Jerome Meyer, L2 La théorie du Chaos 7a+ à Bonneval sur Arc. France.





Nina Caprez, Jardin d'Eden 6B, Piedra Parada, Chubut. Argentina.  $\mbox{EQUIPMENT FOR VERTICALITY}$ 



### Chalk bags, chalk





### SAKA S39

### Chalkbag with ergonomic shape

The SAKA chalkbag's ergonomic shape allows easy access to the chalk. The soft fabric won't cause discomfort when wearing a pack or when your back is against a rock wall. The closure system is efficient, thanks to the cordlock.

Weight: 85 g





### SAKAPOCHE S40

### Ergonomically shaped chalk bag with pocket

The SAKAPOCHE chalk bag is a variation of the SAKA chalk bag with a zippered bellows pocket. This pocket is sized for storing your keys, money, a granola bar, a small E+LITE headlamp, topo map, etc.. The ergonomic shape makes it easy to access the chalk. The soft fabric won't cause discomfort when wearing a pack or when your back is against a rock wall. The closure system is efficient, thanks to the cordlock.

Weight: 95 g





### BANDI 838

### Classic cylinder shaped chalk bag

The BANDI chalkbag's classic round shape with reinforced large opening allows for easy access. The soft fabric won't cause discomfort when wearing a pack or when your back is against a rock wall. The closure system is efficient, thanks to the cordlock.

Weight: 75 g





### POWER CRUNCH P22B

### Chunky chalk

Petzl's POWERCRUNCH chalk is available in three sizes (25 g, 100 g, and 200 g), convenient for every climber. The small 25 g size is the perfect amount for a day at the crag or a session at the gym. The 100 g size is big enough to fill a chalkbag with some left over for a refill. The 200 g is ideal for those with chalk hungry hands who never seem to have enough chalk to get through a tough summer day of climbing.





### Gloves



### CORDEX K52

### Lightweight belay/rappel gloves

These lightweight belay/rappel gloves combine the durability of a work glove with the precise fit and dexterity of a fine driving glove. Double-layered leather protects the palm and other high-wear areas. The back is made of abrasion resistant, breathable stretch nylon, ensuring comfort and fit. The low profile neoprene cuff with Velcro closure features a reinforced carabiner hole for attaching the gloves to your harness.



### CORDEX PLUS K53

### Lightweight belay/rappel gloves

These medium weight belay/rappel gloves offer extra protection without sacrificing dexterity. Double-layer leather and padding protect the palm from heat generated during long rappels or lowers. Fingertips and other high-wear areas are reinforced for increased durability. The back is made of leather with abrasion-resistant stretch nylon at key flex areas. The low profile neoprene cuff with Velcro closure features a reinforced carabiner hole for attaching the gloves to your harness.

### Sewn slings



### ANNEAU C40

### Polyester sling

To set up a belay or an anchor, or to extend an anchor point.

Available in four sizes: 60, 80, 120 and 150 cm



### ST'ANNEAU 007

### Dyneema sling

A lighter alternative to the all-nylon slings, these are color coded for ease in length identification. Available in three sizes: 24, 60 and 120 cm



### FIN'ANNEAU coa

### Ultralight Dyneema sling

The lightest and most compact of all our slings, we use 8 mm Dyneema/nylon webbing to cut down on weight without sacrificing strength.

Available in three sizes: 60, 80 and 120 cm



### Aid climbing accessories



### FIFI V12

Suspension hook for aid climbing

Hook for positioning, progression and haul bag



### QUICKSTEP 009

Adjustable single-step etrier for aid climbing



### MAILLON RAPIDE N° 5 P49100

Quick link for installing a retrieval system on the FIFI hook

Attaches to the slot of the FIFI in order to connect to a lanyard.



### LOOPING C25

4-step etrier for aid climbing



### GOUTTE D'EAU PO6 2

Large radius progression hook



### GRADISTEP CO8

Lightweight 5-step etrier for aided sections on free climbs



### REGLETTE PO6 1

Small radius progression hook

### Other accessories



### SPATHA 592 S, S92 L

### Knife with carabiner hole

Can be attached to harness or pack with a carabiner; available in two sizes



### CARNET S90, S91

Topographic notebook for caving

### Rescue litter



### STFF S59

Inclination device for NEST litter Weight: 600 g



Rescue litter for cave rescue

Dimensions: 200 x 50 x 5 cm, weight: 12.8 kg  $\,$ 



# LIGHTING EQUIPMENT



96 ULTRA-COMPACT HEADLAMPS

> VERSATILE HEADLAMPS

102 HIGH PERFORMANCE HEADLAMPS

SPECIALIZED HEADLAMPS

# ULTRA-COMPACT HEADLAMPS





# TRA-COMPACT HEADI AMPS





The lighting performance is likely to evolve, don't hesitate to consult petzl.com







### ZIPKA® PLUS 2 E98 PG. E98 PR

Ultra-compact headlamp with retractable cord. 1 high-output LED, 1 red LED and five lighting modes (three continuous and two strobe)

The ultra-compact ZIPKA PLUS 2 headlamp is equipped with the ZIP retractable cord system. This feature allows the headlamp to be worn on the head or wrist, or attached to any other support, like a tent pole, a bicycle seat post, etc. This headlamp integrates two light sources for versatility: one white, high-output LED and one red LED. The white LED delivers 70 lumens in maximum mode and lights up to 40 meters. In economic mode, it can reach a burn-time of 185 hours. The red LED provides back-up lighting useful for preserving night vision, or strobe lighting for increased safety, for example in an urban setting.

Light quantity: 70 lumens (maximum mode), beam type: large, distance: 40 m (maximum mode), burn time: 185 h (economic mode), weight on head: 71 g, CORE rechargeable battery available as



The red LED provides back-up lighting useful for preserving night vision, or strobe lighting for increased safety, for example in an urban setting.







### ZIPKA® 2 E94 PB, E94 PG

### Ultra-compact four LED headlamp with retractable cord, three lighting modes (two continuous and one strobe)

The ultra-compact ZIPKA 2 headlamp is equipped with the ZIP retractable cord system. This feature allows the headlamp to be worn on the head or wrist, or attached to any other support, like a tent pole, a bicycle seat post, etc. This lamp offers great versatility with its three lighting modes (maximum, economic and strobe) which are accessed by a simple push-button switch. The four LEDs deliver 40 lumens of light and provide enough light to see over a distance of 29 meters. The economic mode optimizes battery life and therefore provides a long burn-time of up to 120 hours.

Light quantity: 40 lumens (maximum mode), beam type: large, distance: 29 m (maximum mode), burn time: 120 h (economic mode), weight on head: 69 g, CORE rechargeable battery available as accessory



### POCHE ZIPKA® 2 E94990

### Pouch for ZIPKA 2 and ZIPKA PLUS 2 headlamps



### E+LITE E02 P3

### Ultra-compact emergency headlamp

Ultralight and very compact due to the integrated ZIP retractable cord, the E+LITE emergency headlamp should always be with you. Always ready to use, it can be stored with its batteries for 10 years in a vest, an emergency kit, etc. Its white or red, continuous or strobe lighting allows you to be seen and to signal an emergency.

Light quantity: 26 lumens (maximum mode), beam type: large, distance: 29 m (maximum mode), burn time: 70 h (economic mode), weight on head: 27 g











### TIKKA® XP 2 E99 PO, E99 PN

Headlamp with one high-output LED, one red LED and five lighting modes (three continuous and two blinking) and Wide Angle lens

The TIKKA XP 2 headlamp integrates two light sources as well as a Wide Angle lens with a simple open-close feature, allowing the user to choose between a long distance focused beam and flood beam proximity lighting. This headlamp is equipped with a white high-output LED and a red LED. The white LED delivers 80 lumens in maximum mode and lights up to 68 meters. In economic mode, it can reach a burn-time of 190 hours. The red LED provides back-up lighting useful for preserving night vision, or strobe lighting for increased safety, for example in an urban setting.

Light quantity: 80 lumens (maximum mode), beam type: large/focused, distance: 68 m (maximum mode), burn time: 190 h (economic mode), weight on head: 88 g, CORE rechargeable battery available as accessory



The Wide Angle lens allows the user to easily alternate between a long distance focused beam and flood beam proximity liahtina.







### TIKKA® PLUS 2 E97 PG, E97 PR

### Headlamp with 1 high-output LED, 1 red LED and five lighting modes (three continuous and two blinking)

The TIKKA PLUS 2 headlamp integrates two light sources for versatility: one white, high-output LED and one red LED. The white LED delivers 70 lumens in maximum mode and lights up to 40 meters. In economic mode, it can reach a burn-time of 185 hours. The red LED provides back-up lighting useful for preserving night vision, or strobe lighting for increased safety, for example in an urban setting.

Light quantity: 70 lumens (maximum mode), beam type: large, distance: 40 m (maximum mode), burn time: 185 h (economic mode), weight on head: 83 g, CORE rechargeable battery available as accessory











### TIKKA® 2 E93 PB, E93 PG, E93 PV

### 4 LED headlamp, three lighting modes (two continuous and one strobe)

The TIKKA 2 offers great versatility with its three lighting modes (maximum, economic and strobe) which are accessed by a simple push-button switch. The four LEDs deliver 40 lumens of light and provide enough light to see over a distance of 29 meters. The economic mode optimizes battery life and therefore provides a long burn-time of up to 120 hours.

Light quantity: 40 lumens (maximum mode), beam type: large, distance: 29 m (maximum mode), burn time: 120 h (economic mode), weight on head: 81 g, CORE rechargeable battery available as accessory







### TIKKINA® 2 E91 PL. E91 PF. E91 PE

### 2 LED headlamp with two lighting levels

The TIKKINA 2 headlamp is designed to meet most everyday lighting needs. It has two lighting modes (maximum and economic) to adapt light quantity to the situation. It is also equipped with new, improved performance LEDs and a push-button switch. The compartment now has an easy-to-use system that allows the user to very easily change the batteries or to equip the headlamp with the ADAPT mounting system.

Light quantity: 23 lumens (maximum mode), beam type: large, distance: 23 m (maximum mode), burn time: 190 h (economic mode), weight on head: 80 g, CORE rechargeable battery available as accessory





### **CORE E93100**

# Lithium-Ion Polymer rechargeable battery for the TIKKA 2-ZIPKA 2 line of headlamps

Designed for headlamps in the TIKKA 2 - ZIPKA 2 range, the CORE rechargeable battery offers an alternative advantage to normal batteries and can give 'new life' to these lamps after intensive use. It is very easy to insert and can be charged via any standard USB charger: a cell phone charger, a multimedia device, cigar lighter, or even a solar panel, a portable energy source, a computer, etc.. Excellent performance at low temperatures, thanks to Lithium Ion Polymer technology. With the OS by Petzl software, the user can customize headlamp performance in a number of ways: for example, to adapt the lighting intensity or battery life to the type of activity.

Rechargeable Lithium-Ion battery, 900 mAh



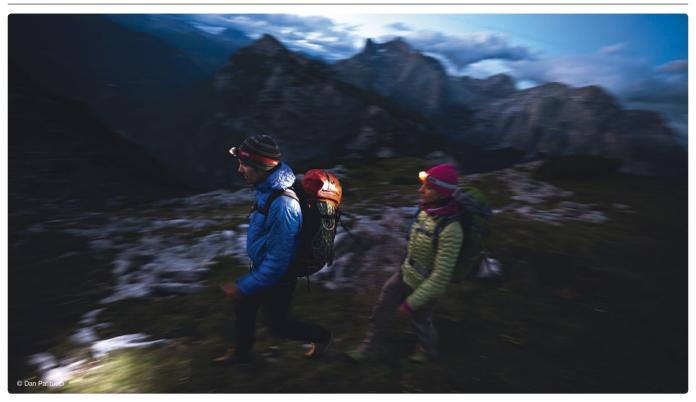
The CORE rechargeable battery is easy to install on TIKKA 2 / ZIPKA 2 headlamps for a rechargeable and programmable solution.



See the video with additional information at www.petzl.com/CORE



The lighting performance is likely to evolve, don't hesitate to consult petzl.com



Trekking, Dolomites massif. Italy.



USB charger E93110
Wall and car adapters for standard USB



KIT ADAPT TIKKA\* 2  $_{\rm E97900}$  Mounting system for TIKKA-ZIPKA and TIKKA 2-ZIPKA 2 series headlamps



POCHE TIKKA\* 2  $_{\hbox{\scriptsize E93990}}$  Pouch for TIKKINA 2, TIKKA 2, TIKKA PLUS, TIKKA XP 2 and TACTIKKA series headlamps

 $\begin{array}{c} \text{CROCHLAMP S} \ \tiny{\text{E04350}} \\ \text{Headlamp clips for thin-edged helmets} \end{array}$ 

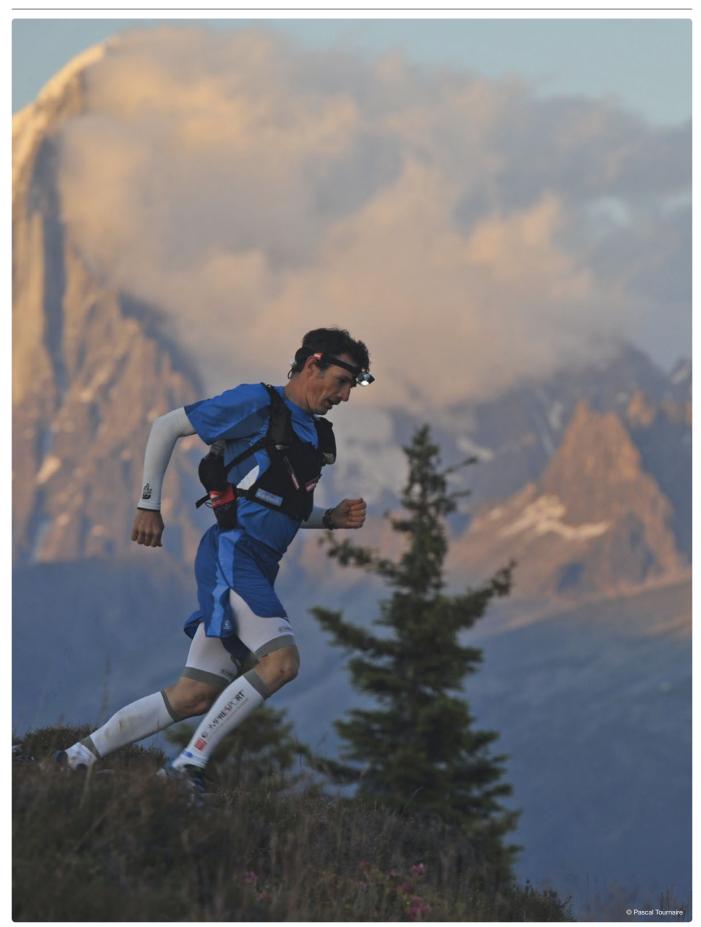


CROCHLAMP L E04405

Headlamp clips for thick-edged helmets

# HIGH PERFORMANCE HEADLAMPS





# HIGH PERFORMANCE HEADLAMPS









# **NEW** 2013

### NAO® E36 A

### Rechargeable headlamp with self-adjusting lighting - REACTIVE LIGHTING technology

The rechargeable NAO headlamp adapts its two high power LEDs instantly and automatically to the lighting needs for greater comfort, fewer manual interventions and longer battery life. NAO is the first Petzl headlamp with REACTIVE LIGHTING technology: a sensor measures and analyzes the ambient light. The OS by Petzl software, free for download at www.petzl.fr/OS, allows the NAO's potential to be maximized with the option to personalize the headlamp and its performance.

REACTIVE LIGHTING technology = light quantity: 7 to 355 lumens, distance: 9 to 108 m, estimated burn time: 4h40 Rechargeable Lithium-lon battery, 2300 mAh Weight worn on head: 187 g



Light sensor allows the headlamp to adapt its beam pattern and the power of its two LEDs instantly and automatically to lighting needs.



The rechargeable Li-lon battery is easy to charge with its integrated USB plug (compatible with all USB chargers).



See the video with additional information at www.petzl.com/NAO



NAO® belt kit E36R10

Extension cord and belt clip for NAO headlamp



ACCU NAO® E36A10

Rechargeable battery for NAO headlamp









### ULTRA RUSH® E52 H

### Ultra-powerful headlamp with ACCU 2 ULTRA rechargeable battery

Both durable and extremely powerful at 760 lumens, the ULTRA RUSH rechargeable headlamp is the lighting solution designed for intense, demanding activities. It is ideal for fastpaced activities where lighting is crucial, such as trail running, skiing, or mountain biking at night. The mixed beam with four lighting levels allows the user to choose between power and battery life according to his needs. The compact ACCU 2 ULTRA rechargeable battery offers the perfect balance between capacity and compactness, making it comfortable on the head. Ergonomics and construction make the ULTRA RUSH headlamp particularly intuitive and reliable in any situation.

Constant lighting. Light quantity (maximum mode): 760 lumens, mixed beams, distance: 170 m for 2 h (maximum mode), burn time: 38 h (minimum mode), weight on head: 370 g





Ultra-powerful, uniform and long-distance lighting adapts to intense, demanding activities.

# ULTRA RUSH® BELT E52 B

Ultra-powerful headlamp with ACCU 4 ULTRA remote rechargeable battery

Both durable and extremely powerful at 760 lumens, the ULTRA RUSH BELT rechargeable headlamp is the lighting solution designed for intense, demanding activities. It is ideal for fast-paced activities where lighting is crucial, such as trail running, skiing, or mountain biking at night. The mixed beam with four lighting levels allows the user to choose between power and battery life according to his needs. The high-capacity ACCU 4 ULTRA remote rechargeable battery allows the user to reduce the weight worn on the head while keeping the battery warm, for example under clothing, in order to optimize battery life in cold conditions. Ergonomics and construction make the ULTRA RUSH BELT headlamp particularly intuitive and reliable in any situation.

Constant lighting. Light quantity (maximum mode): 760 lumens, mixed beams, distance: 170 m for 4 h (maximum mode), burn time: 73 h (minimum mode), weight on head: 222 g



### ULTRA mount for bicycle handlebars E55930

Plates for mounting ULTRA headlamp on bicycle handlebars and carrying battery packs

Weight: 175 g



### ULTRA mount for cycling helmet E55920

Plates for mounting ULTRA headlamp on cycling and mountain biking helmets with thick or thin edges

Weight: 30 - 40 g



### ULTRA harness E55960

Harness for carrying the ULTRA headlamp's remote battery pack on the back Weight: 208 g



### UITRA extension cord E55950

Extension power cable for ULTRA headlamp

Length: 1.1 m





### ACCU 2 ULTRA E55450 2

Rechargeable battery for ULTRA headlamps

Rechargeable Lithium-Ion battery, 2600 mAh





### ACCU 4 ULTRA E55400 2

High capacity rechargeable battery for ULTRA headlamps

Rechargeable Lithium-Ion battery, 5200 mAh



### MYO® RXP E87 P2

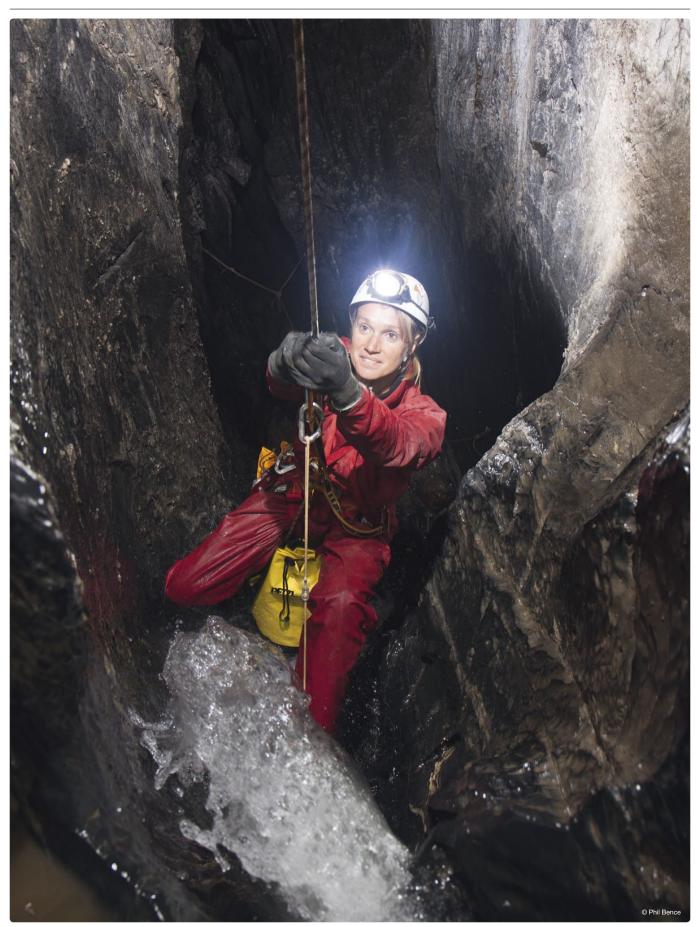
# Powerful, programmable headlamp, 4 constant lighting modes, Boost mode and Wide Angle lens

The Petzl MYO RXP programmable headlamp allows the user to choose the order of constant lighting modes, and to fine tune the light output. To do this, there are three continuous lighting modes, for each of which the user can select the power from among ten possible levels, from 13 to 141 lumens. This feature allows the lamp to be programmed for the type of activity and the length of use. Maximum power lighting would be suited for a short night run, for example; less powerful lighting would help preserve battery life and would therefore be ideal for a multi-day trek. This headlamp has Boost mode (205 lumens) and a strobe mode that can be programmed. It is compatible with lithium batteries to optimize performance, even at low temperatures. The Wide Angle lens offers the option of switching instantly from a focused beam to a wide beam when necessary.

Light quantity: 140 lumens (level n° 10), beam type: large/focused, distance: 84 m (level n° 10), burn time: 86 h (level n° 1), weight on the head: 175 g







Florenc Moll, subterranean river of Vicdessos, Ariège. France.  $\mbox{LIGHTING EQUIPMENT}$ 

# The lighting performance is likely to evolve, don't hesitate to consult petzl.com.

### Caving headlamps





### ULTRA VARIO® E54 H

# Ultra-powerful multi-beam headlamp with ACCU 2 ULTRA rechargeable battery

Multi-beam lighting up to 520 lumens makes the ULTRA VARIO rechargeable headlamp suited for the most demanding activities. It is ideal when lighting needs and precision are crucial, as in caving or mountaineering. This headlamp has four lighting modes that allow the user to adapt the lighting to different situations: ambient lighting, proximity lighting, lighting for movement, or long-distance lighting. The compact ACCU 2 ULTRA rechargeable battery offers the perfect balance between capacity and compactness, making it comfortable on the head. Ergonomics and construction make the ULTRA VARIO headlamp particularly intuitive and reliable in any situation.

Constant lighting. Multibeam. Light quantity (movement mode): 520 lumens, distance: 210 m for 4 h (distance vision mode), burn time: 40 h (ambient mode), weight on head: 370 g



Four multi-beam lighting modes to address different situations encountered on the terrain.



### ULTRA VARIO® BELT E54 B

# Ultra-powerful multi-beam headlamp with ACCU 4 ULTRA remote rechargeable battery

Multi-beam lighting up to 520 lumens makes the ULTRA VARIO BELT rechargeable headlamp suited for the most demanding activities. It is ideal when lighting needs and precision are crucial, as in caving or mountaineering. This headlamp has four lighting modes that allow the user to adapt the lighting to different situations: ambient lighting, proximity lighting, lighting for movement, or long-distance lighting. The high-capacity ACCU 4 ULTRA remote rechargeable battery allows the user to reduce the weight worn on the head while keeping the battery warm, for example under clothing, in order to optimize battery life in cold conditions. Ergonomics and construction make the ULTRA VARIO BELT headlamp particularly intuitive and reliable in any situation.

Constant lighting. Multibeam. Light quantity (movement mode): 520 lumens, distance: 210 m for 8 h (distance vision mode), burn time: 70 h (ambient mode), weight on head: 222 g





### TRIOS F54

### Caving helmet with integrated ULTRA VARIO headlamp

The TRIOS helmet is designed for cavers looking for a two-in-one solution that is complete, durable and comfortable. Lighting is ensured by the rechargeable ULTRA VARIO headlamp. With four multi-beam lighting modes, it is ideal under any conditions, for example for proximity vision with maximum battery life or to light at a great distance.

Constant lighting. Multibeam. Light quantity (movement mode): 520 lumens, distance: 210 m for 4 h (distance vision mode), burn time: 40 h (ambient mode) Size 1 = headband: 48 - 56 cm, weight: 635 g Size 2 = headband: 53 - 61 cm, weight: 660 g





ACCU 2 ULTRA E55450 2

Rechargeable battery for ULTRA headlamps





ACCU 4 ULTRA F55400 2

High capacity rechargeable battery for ULTRA headlamps





ULTRA mount for caving helmet E55940

Front and back plates for mounting ULTRA headlamp on caving helmets Weight: 40 g





### DUO® LED 14 ACCU E72 AC

Hybrid waterproof headlamp: halogen / 14 LEDs with three constant lighting modes with rechargeable battery and remote battery pack

Light quantity: 67 lumens (14 LEDs), beam type: large/focused, distance: 100 m (halogen), burn time: 96 h (14 LEDs, economic mode), weight on head: 380 g



### DUO® LED 14 E72 P

Hybrid waterproof headlamp: halogen and 14 LEDs with three constant lighting modes Light quantity: 67 lumens (14 LEDs), beam type: large/focused, distance: 100 m (halogen),

burn time: 183 h (14 LEDs, economic mode), weight on head: 300 g



### DUOBELT LED 14 E76 P

Hybrid waterproof headlamp: halogen and 14 LEDs with 3 constant lighting modes and remote battery pack

Light quantity: 67 lumens (14 LEDs), beam type: large/focused, distance: 100 m (halogen), burn time: 430 h (14 LEDs, economic mode), weight on head: 140 g



### DUO® LED 5 F69 P

Hybrid waterproof headlamp: halogen / 5 LEDs

Light quantity: 40 lumens (5 LEDs), beam type: large/focused, distance: 100 m (halogen), burn time: 65 h (5 LEDs), weight on head: 300 g



### DUOBELT LED 5 E73P

Hybrid waterproof headlamp: halogen and 5 LEDs and remote rechargeable battery pack Light quantity: 40 lumens (5 LEDs), beam type: large/focused, distance: 100 m (halogen), burn time: 350 h (5 LEDs), weight on head: 140 g



### FIXO DUO® LED 14 E63 L14

Hybrid headlamp for attachment to helmet: halogen and 14 LEDs with 3 constant lighting modes

Light quantity: 67 lumens (14 LEDs), beam type: large/focused, distance: 100 m (halogen), burn time: 183 h (14 LEDs, economic mode), weight on head: 180 g









### SPELIOS F75

# Caving helmet with hybrid lighting: halogen / 14 LEDs with three constant lighting modes

The SPELIOS caving helmet consists of an helmet with attached DUO LED 14 headlamp. This helmet is suited for cavers and canyoneers looking for a complete, durable and comfortable solution. The hybrid light source delivers a powerful, focused beam (halogen bulb) or a wide flood beam (14 LEDs), depending on the situation. For greater versatility, the 14 LED light source has three constant lighting modes.

Size 1 = headband: 48 - 56 cm, weight: 505 g Size 2 = headband: 53 - 61 cm, weight: 535 g





### TACTIKKA XP E89 PC. E89 PD

### High-output headlamp, 4 lighting modes, Boost mode and colored Wide Angle lens

The TACTIKKA XP headlamp comes in colors for specific outdoor activities like hunting or fishing. Its functionality, as well as its four Wide Angle lenses (red, green, blue and transparent), make this lamp perfect for the demanding user. The sliding Wide Angle lens allows the user to switch from a focused beam to a wide beam with one quick movement. This headlamp has three lighting modes for any situation and a strobe mode for signaling the user's presence. It also has a Boost mode to temporarily increase light intensity up to 50 meters, as well as a lamp body that can easily be aimed with one hand. The battery charge indicator light allows the user to easily keep track of battery life.

Light quantity: 40 lumens (maximum mode), beam type: large/focused, distance: 35 m (maximum mode), burn time: 120 h (economic mode), weight on head: 95 g



### TACTIKKA XP ADAPT E89 P

### High-output headlamp, 4 lighting modes, Boost mode, colored Wide Angle lens and ADAPT system

The TACTIKKA XP ADAPT headlamp is designed for someone wanting to use the headlamp on different mounts with the ADAPT system. This system allows the light body to be attached interchangeably to its elastic headband, or to a hard surface (helmet, etc.), or to be clipped onto a belt, pocket, etc.. This headlamp can adapt to any situation. It has three continuous lighting modes, a strobe mode and a Boost mode that instantly increases the lighting strength up to 50 meters (for finding your vehicle in the distance, for example). It comes with four interchangeable Wide Angle lenses (transparent, red, green and blue) and can switch from a focused beam to a wide beam with one guick movement.

Light quantity: 40 lumens (maximum mode), beam type: large/focused, distance: 35 m (maximum mode), burn time: 120 h (economic mode), weight on head: 120 g



### TACTIKKA PLUS E49 P. E49 PC

### Four LED headlamp with 4 lighting modes and red flip filter

The TACTIKKA PLUS is designed for users who practices activities such as hunting, fishing or exploring nature on a regular basis. For this purpose, it has three lighting modes and a strobe mode for signaling the user's location. The lighting mode is selected using the easy-to-use button, adjusting quickly and easily to the situation by favoring either brightness or burn time (up to 150 hours). The red filter ensures discreet lighting and can be used quickly and easily when necessary.

Light quantity: 35 lumens (maximum mode), beam type: large, distance: 32 m (maximum mode), burn time: 150 h (economic mode), weight on head: 78 g



### TACTIKKA E46 P2, E46 PC2

### Three LED headlamp with one lighting mode and red flip filter

The TACTIKKA headlamp is compact and lightweight and comes equipped with a red flip filter which provides discreet lighting for hunting or fishing, for example. With three LEDs and a single lighting mode, it is simple to use and provides powerful lighting with ample burn time.

Light quantity: 26 lumens, beam type: large, distance: 27 m, burn time: 120 h, weight on head: 78 g



### Warning

Activities at height are inherently dangerous and may result in serious injury or death. Take the time to fully read and understand the information presented in this catalog, as well as the instructions for use that come with the products. Gaining an adequate apprenticeship is your own responsibility.

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