



Access
the
inaccessible®



ACCESSBOOK n°5

Sport climbing: climbing
and belaying





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Access the inaccessible. You have dreams and our mission is to help you realize them to the fullest extent possible.

Petzl's ACCESS BOOK booklets are designed to go with you as you prepare for and achieve your goals as a mountaineer, climber, skier... Each ACCESS BOOK covers one particular activity. It is a collection of selected technical tips from Petzl.com

Sport climbers or belayers: this booklet is for you! It covers the basics of sport climbing. What gear to bring? How to belay properly? Which errors to avoid while climbing? What is the sequence to set up the rope for lowering from the top of the route? What to do if I don't reach the top of the route? ...Find all of our tips in this ACCESS BOOK.

This booklet does not cover multi-pitch or trad climbing.

Warnings:

- These booklets present an excerpt from the body of techniques for the activity.
- Get training and practice in the techniques of the activity.
- You must read, understand and follow the Instructions for Use of the products associated with the proposed techniques.
- The environment and the activity itself are inherently dangerous. You are responsible for your own actions, decisions and safety.

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Sport climbing equipment

At the base of the cliff, consult the topo regarding the difficulty of the route and where it goes.



Basic technical equipment:

- Helmet
- Harness
- Rope bag
- Rope: correctly uncoiled to avoid twists, with a knot tied in the end of the rope. Be sure to take a rope that is long enough for the routes you plan to do
- Belay device: GRIGRI, NEOX or REVERSO type device
- Locking carabiners: used to connect a belay device to the harness, at the end of a lanyard or for belay-station tasks
- Quickdraws: fourteen quickdraws are generally enough for most areas. Be sure to have several lengths. Quickdraws are placed on each side of the harness for easy access.
- Lanyard: useful for performing tasks at the belay station
- Slings: multiple uses: building a top-rope anchor, extending quickdraws, foot loop in the event of difficulties
- Quick links: useful if retreat is necessary
- Topo



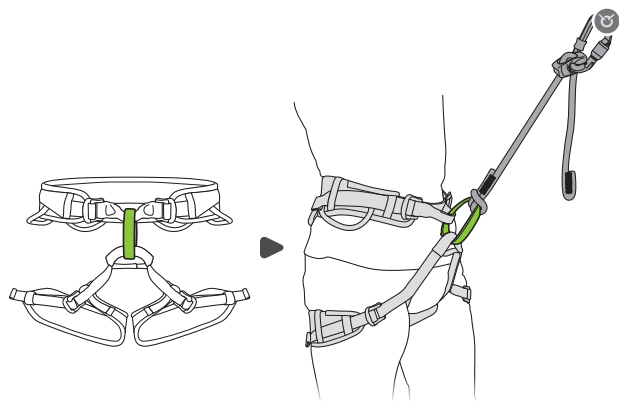
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Sport climbing equipment

Harness attachment points

1/ Lanyard connection

From a safety and strength perspective, the lanyard can be attached to the belay loop or to the two tie-in points. But as a matter of comfort, it is preferable to attach your lanyard to the belay loop.

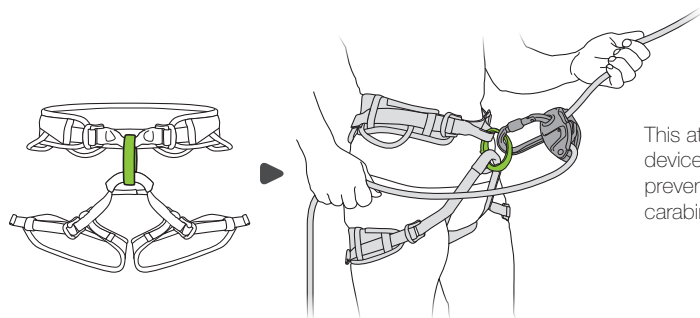


The lanyard attached to the belay loop helps maintain good harness geometry without affecting comfort. It allows the tie-in points to move freely and does not hinder the climber's mobility.

It also keeps the tie-in points clear, for attaching a single rope or two half ropes.

2/ Belay device connection

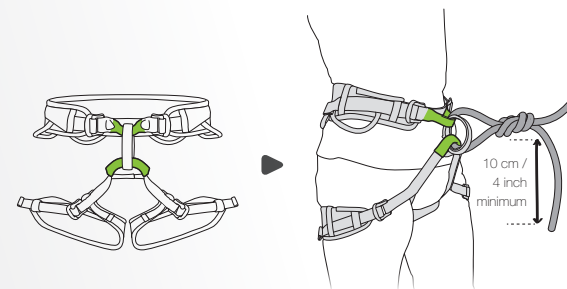
The belay device must always be attached to the belay loop.



This attachment allows the belay device to move freely and helps prevent cantilever loading of the carabiner.

3/ Tying in

Petzl recommends tying in to the two tie-in points.



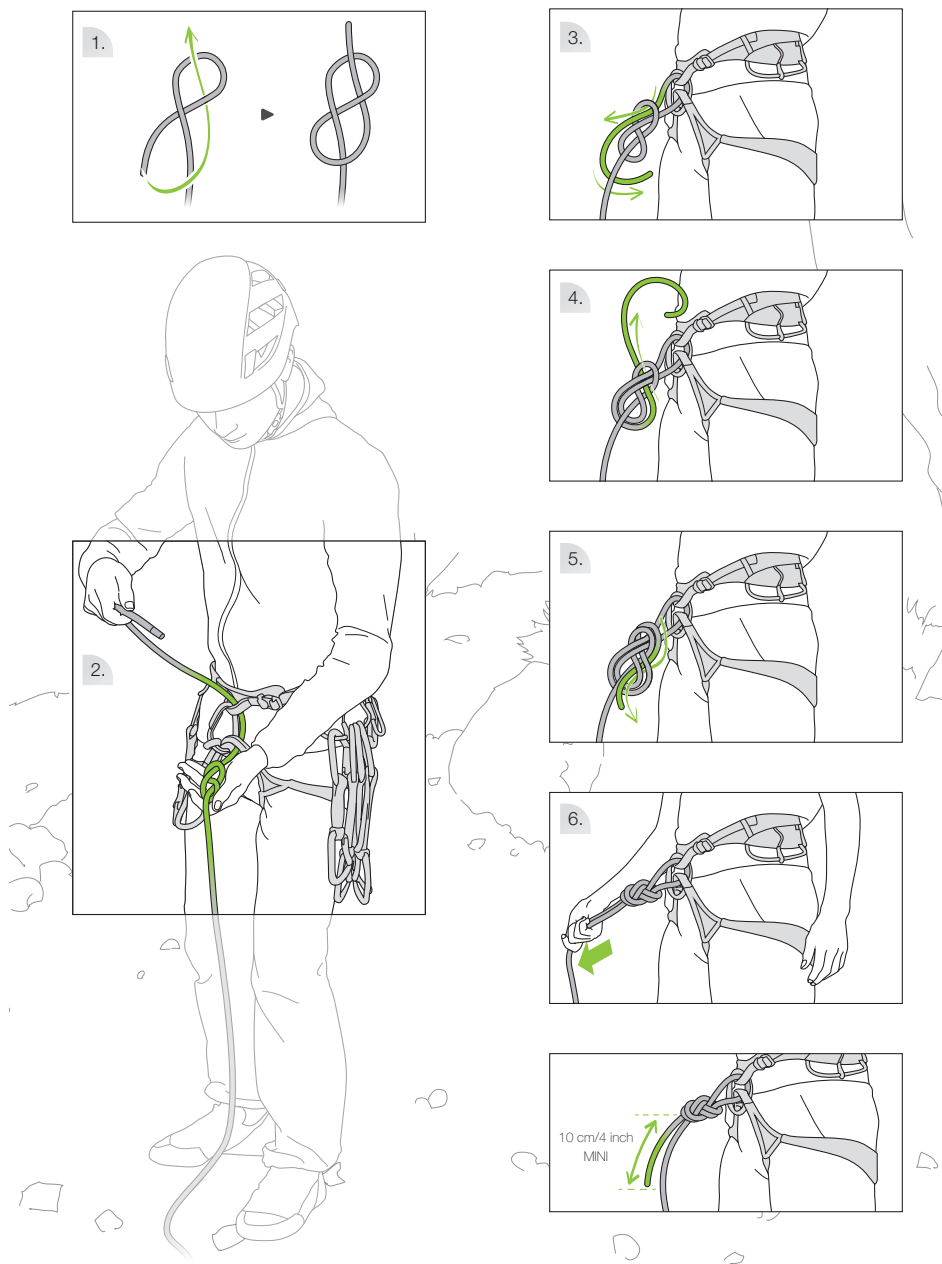
The tie-in points were designed to be loaded frequently by the rope (repeated climber falls while working a route).

They are reinforced with protective webbing and are thus more wear resistant.

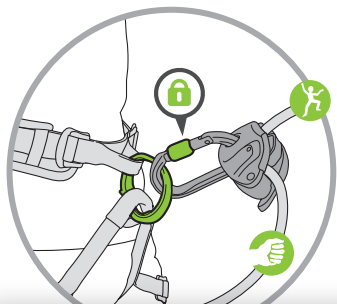


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Tying in with a figure-eight knot

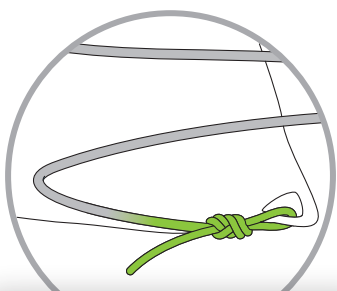


Partner check



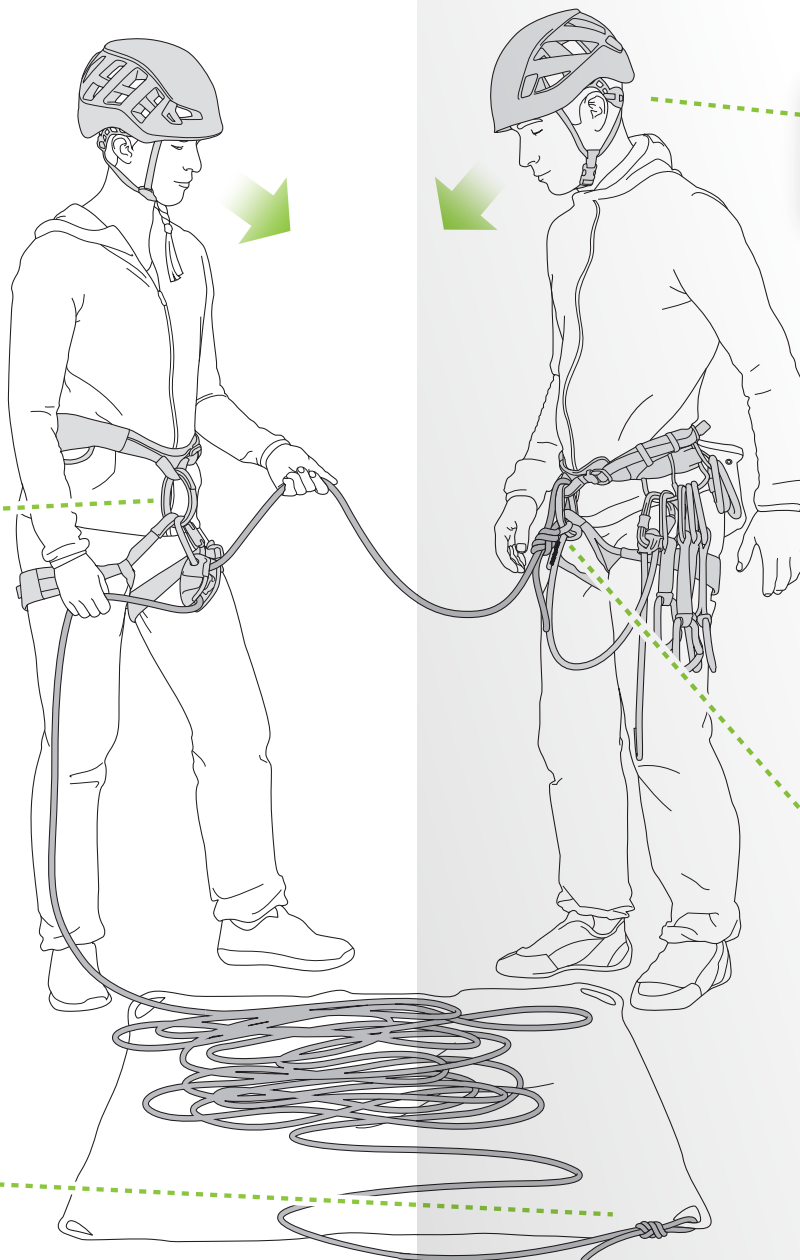
Belay system setup

- Rope installed in the proper direction (belay device function check)
- Carabiner connected to the harness attachment point
- Carabiner is locked



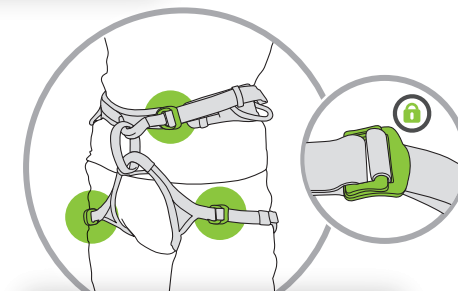
Rope

- Knot tied at the end of rope



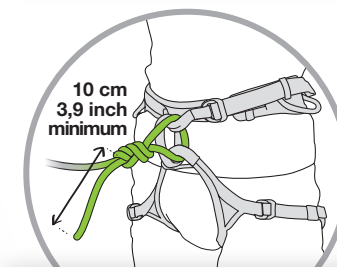
Helmet

- Helmet properly adjusted on the head
- Chinstrap buckle fastened



Harness

- Harness waistbelt positioned directly above the hips
- Harness adjusted to fit snugly
- Proper tightening and fastening of the adjustment buckles



Tie-in knot

- Tie in to the harness tie-in points
- The correct knot
- Well-tightened knot with at least 10 cm of tail

Belaying a climber

Spotting the climber at the start of the route:



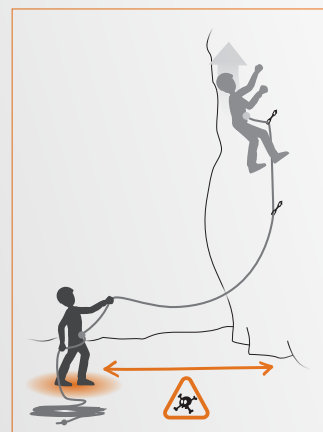
Spot until the first point is clipped:

Be alert and mobile for the first points:

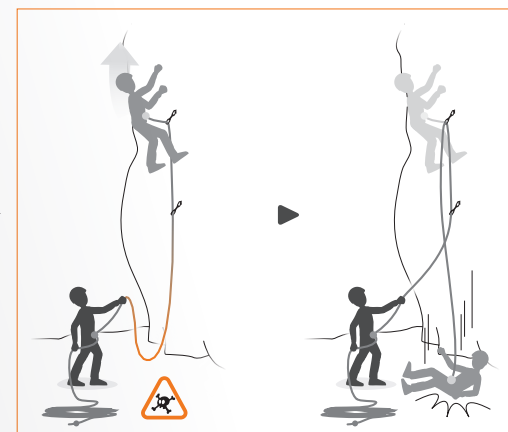


Belaying a climber

Primary belaying position

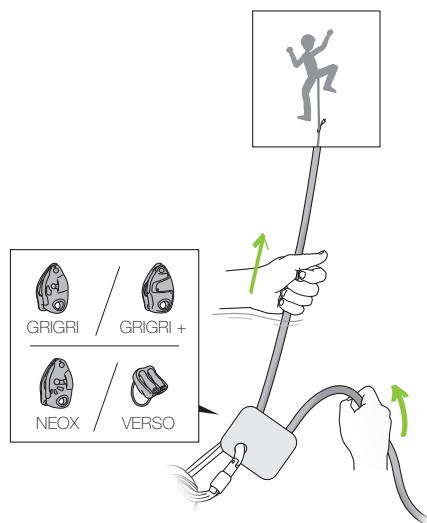


or

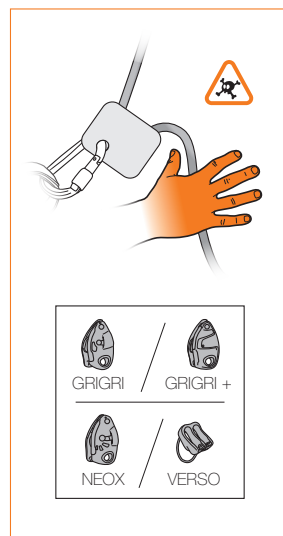
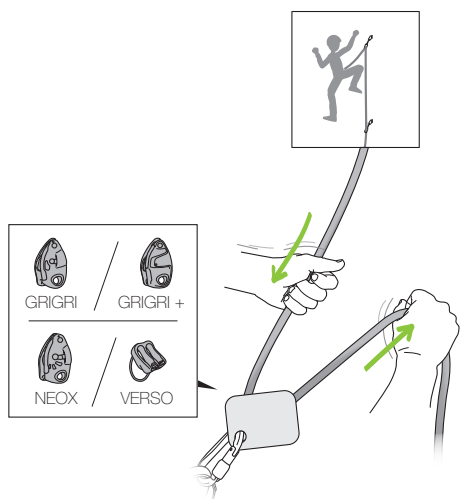


Belaying a climber

Technique: giving slack

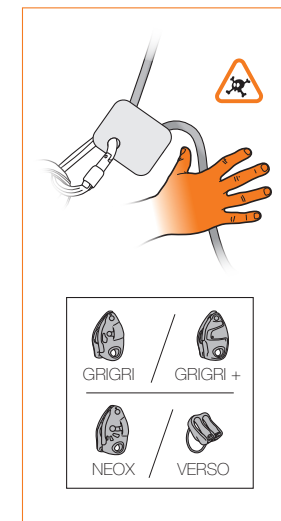
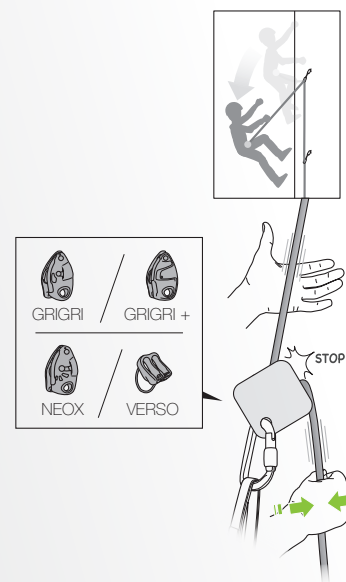


Technique: taking up slack

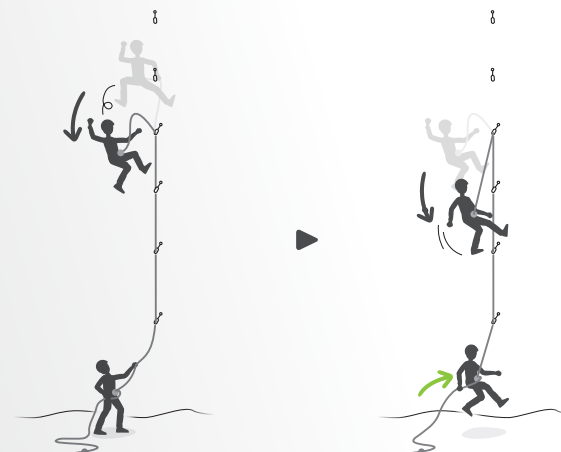


Belaying a climber

Technique: holding a fall

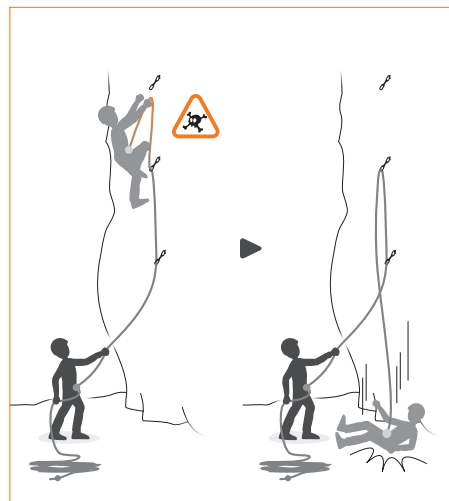


For a dynamic belay, do a small jump or take a step forward to reduce the impact force on the climber:

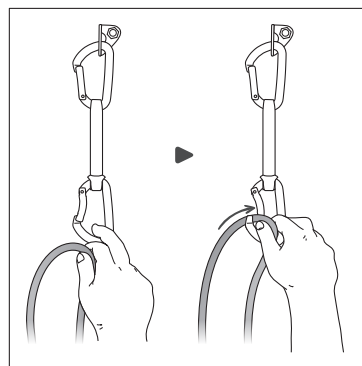
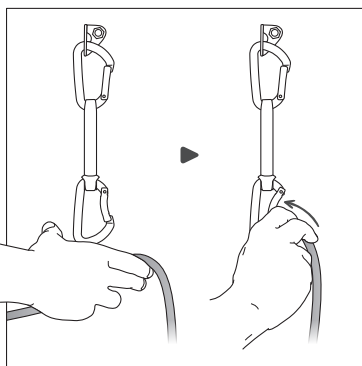


ON THE ROUTE Clipping

Clipping at waist level:

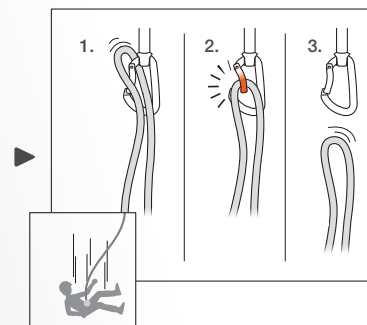
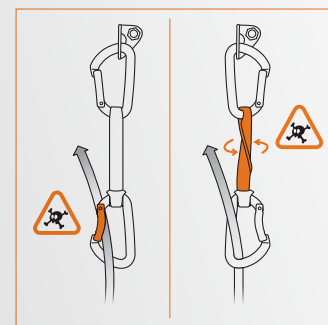
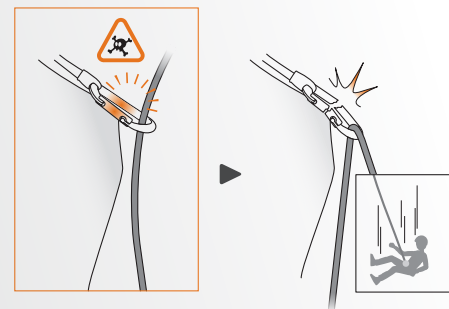
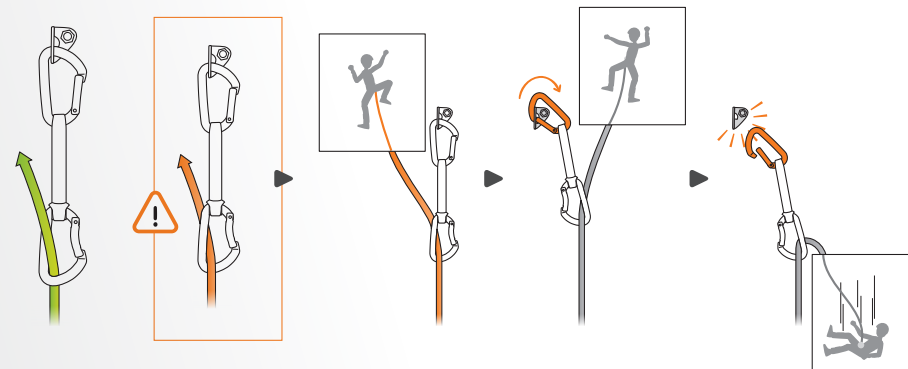


The most common clipping techniques (other techniques exist):



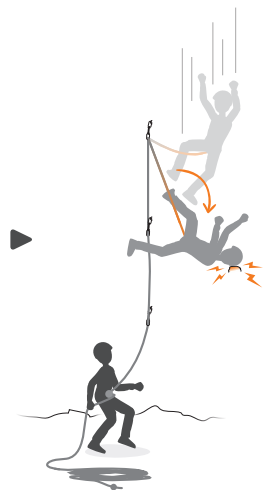
ON THE ROUTE Clipping

Clipping errors to avoid



Errors to avoid

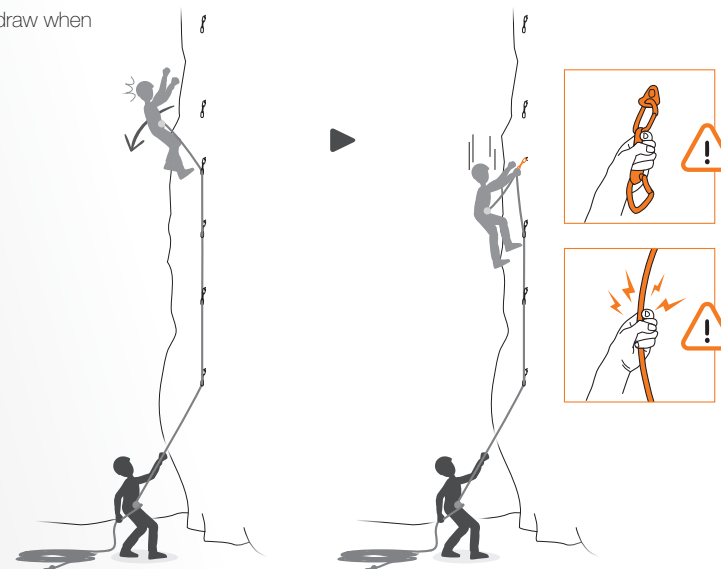
Rope behind leg



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Errors to avoid

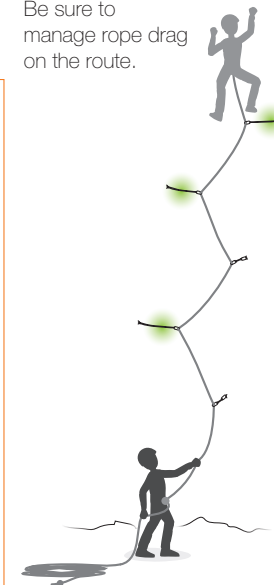
Do not grab a quickdraw when falling.



Do not skip a quickdraw.



Be sure to manage rope drag on the route.



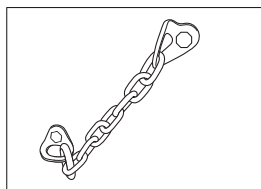
Setting up the rope for lowering

Regardless of the technique used, the belayer must continue to belay the climber throughout the entire sequence, never letting go of the brake side of the rope.

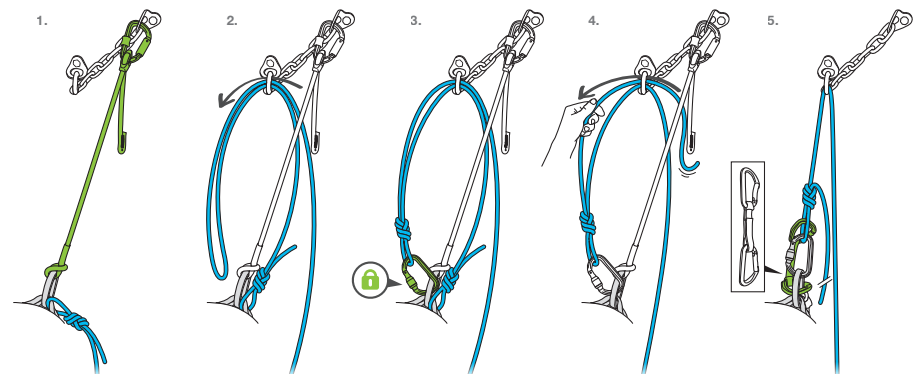
You may encounter different belay-station configurations.

Case 1: belay station with points connected by a chain

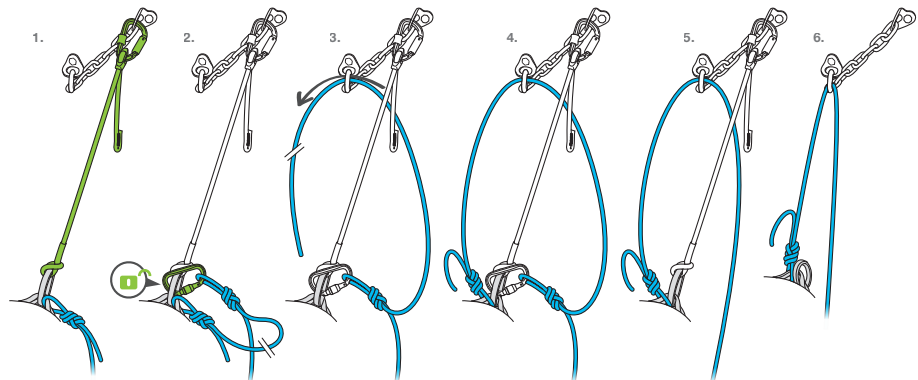
Example:



Technique 1: climber stays tied in during the entire sequence and is lowered on a carabiner

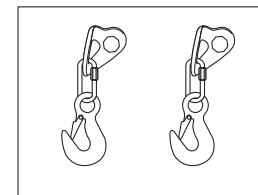
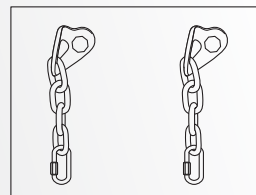


Technique 2: lowering on a tie-in knot



Case 2: belay station with unconnected points

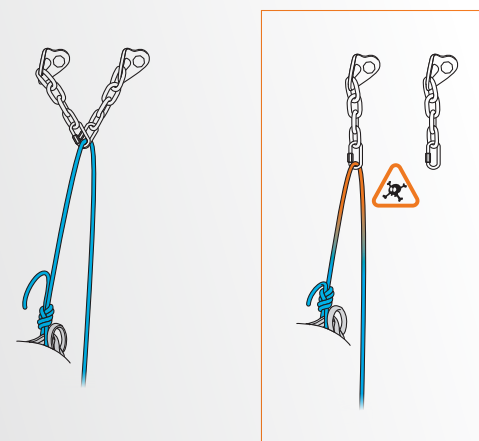
Examples:



1. Connect to both points with your lanyard:



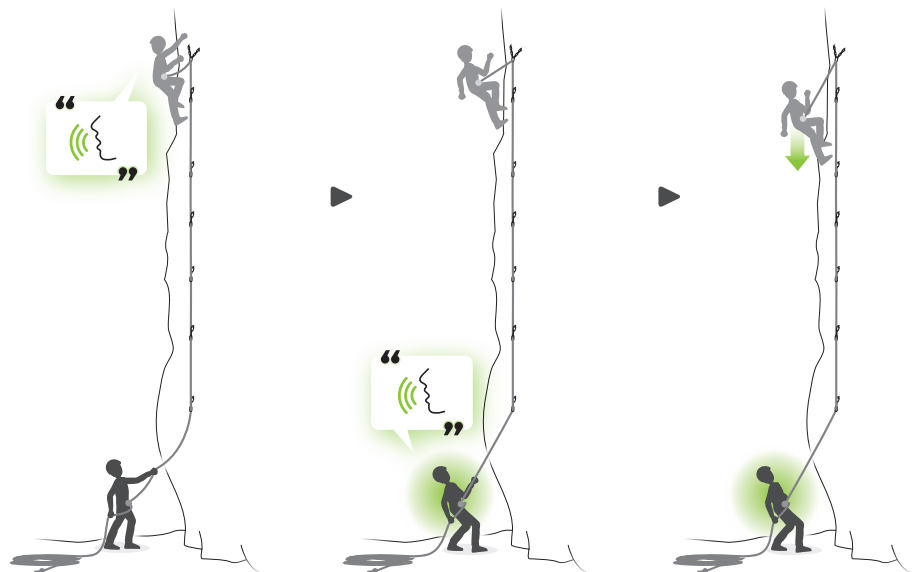
2. For the next steps, use one of the techniques previously described, running the rope through both points of the belay station:



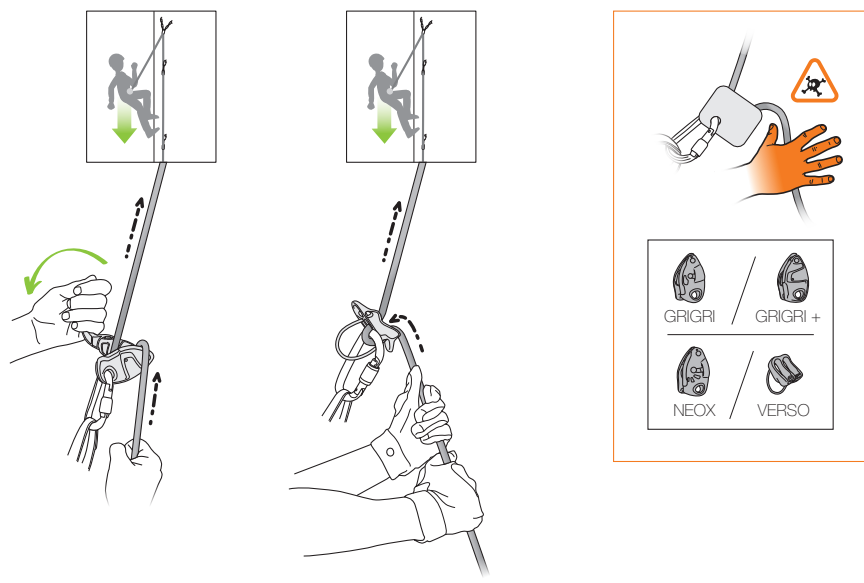
LOWERING

Technique: lowering

Communication before lowering



Technique: lowering

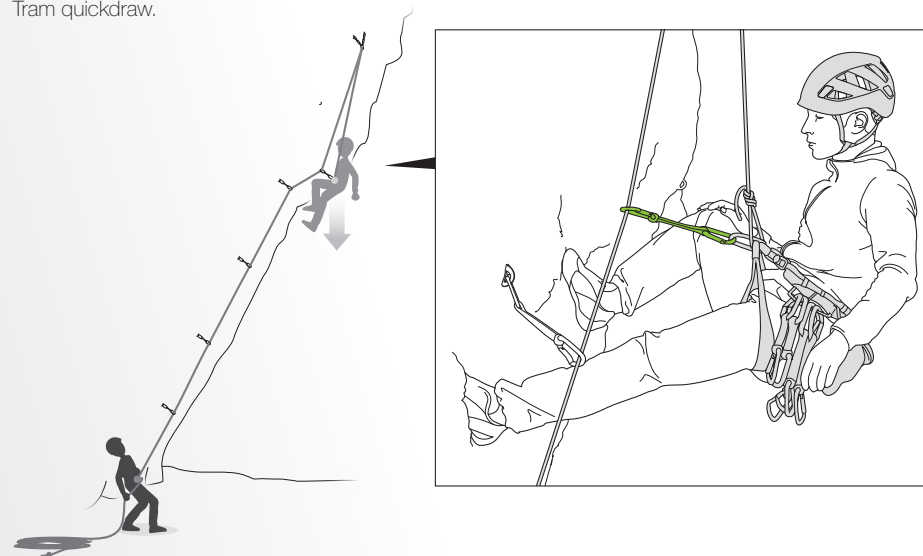


LOWERING

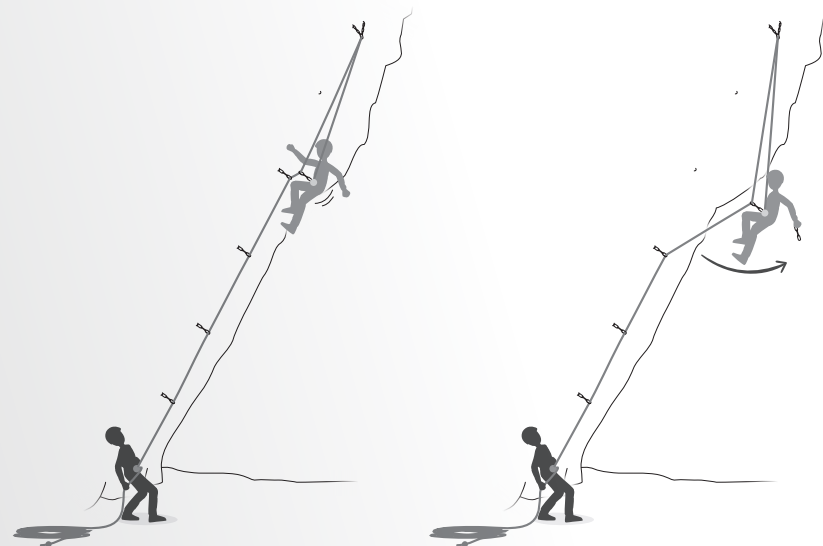
Recovering quickdraws while being lowered

Installing a quickdraw between the climber's harness and the belayer's side of the rope:

Tram quickdraw.



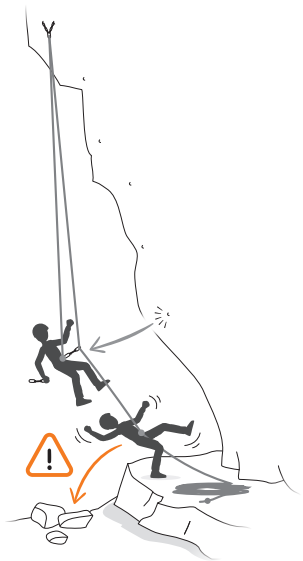
The climber holds onto the rock to disconnect the quickdraw.



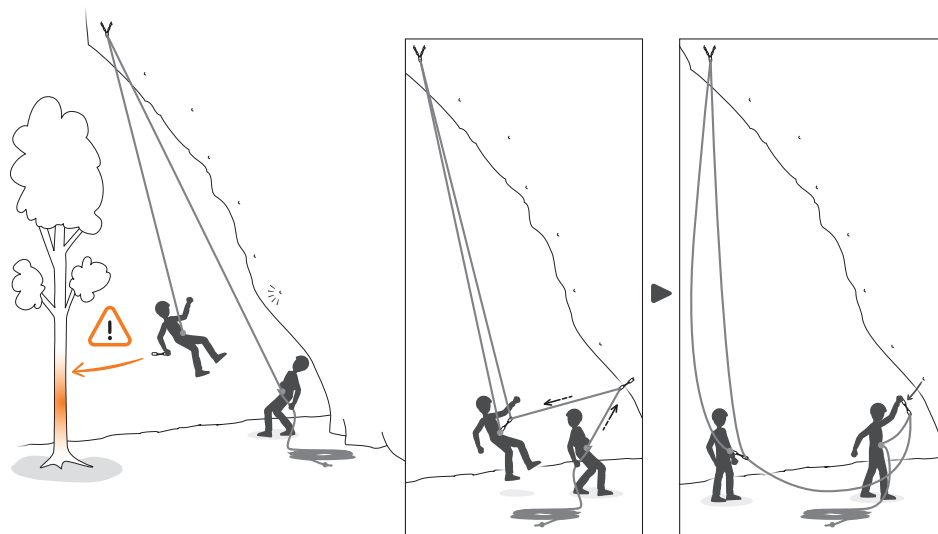
LOWERING

Recovering quickdraws while being lowered

When nearing the ground, remember to remove the tram quickdraw before disconnecting the last draw.



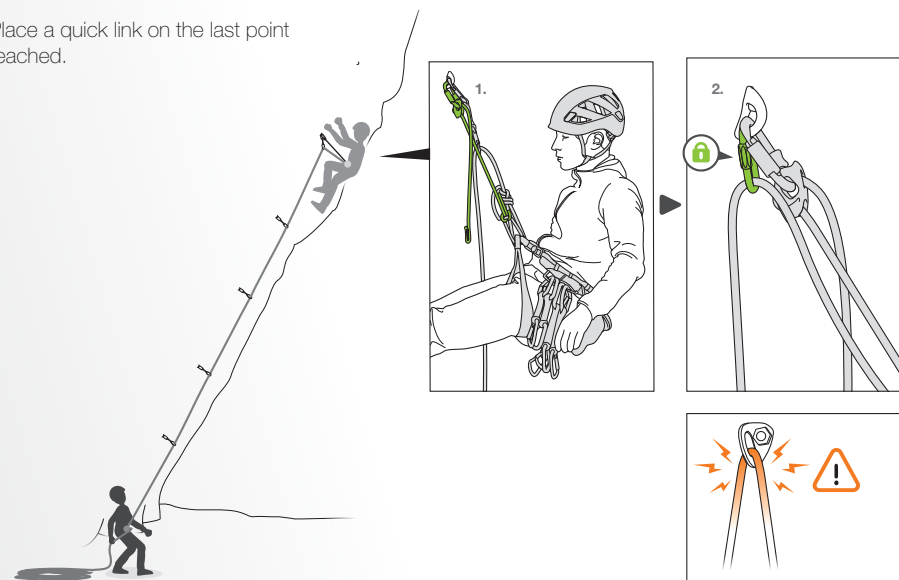
When an obstacle is unavoidable and the quickdraw is recoverable from the ground, the climber may be lowered with the last draw left in place. This technique works if the quickdraw is not too high or difficult to access.



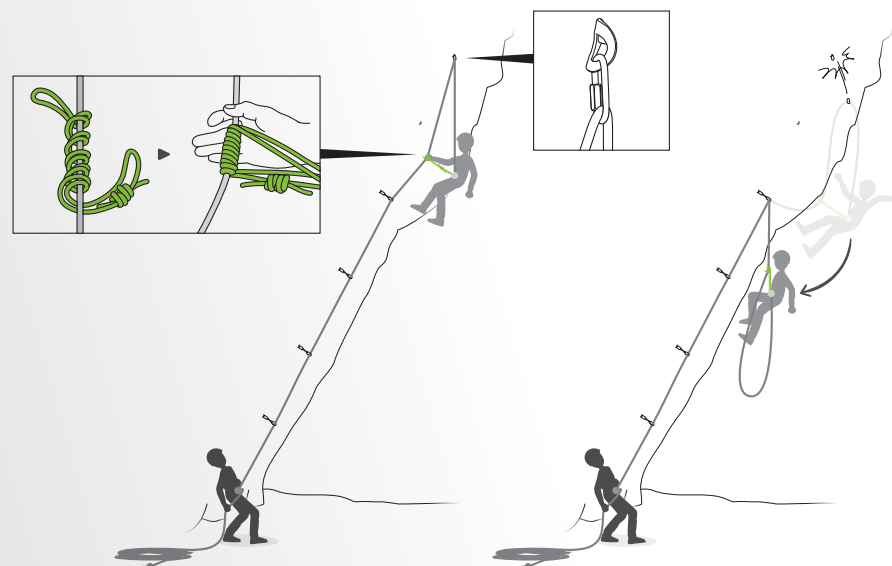
RETREAT

When you don't reach the top of the route

Place a quick link on the last point reached.

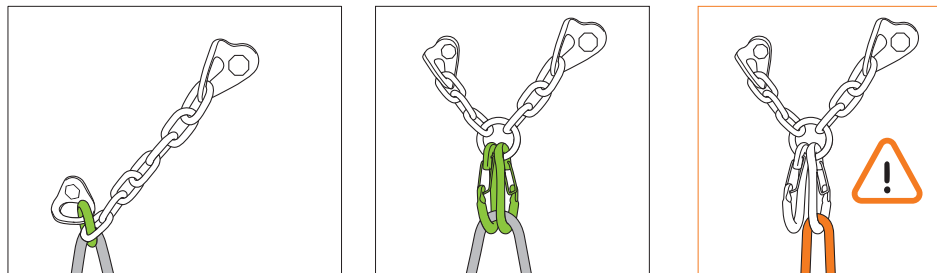


Recover the quickdraws while being lowered.

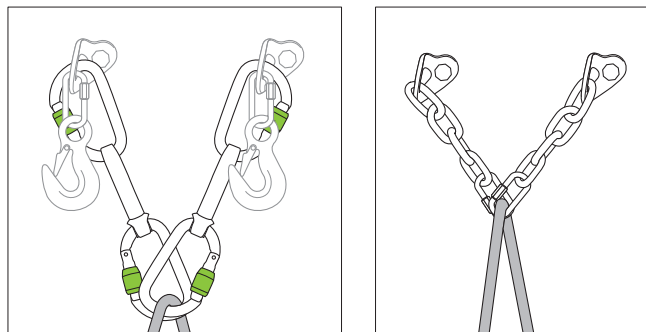


Ways to set up the rope on the belay station

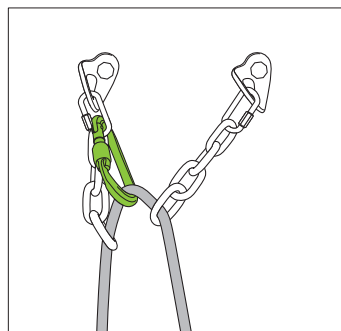
Examples of setting up the rope on a belay station with connected points:



Examples of setting up the rope on a belay station with unconnected points:



To limit wear on chain links, you may, for example, use the following method:



For overhangs: climb on the rope strand that is clipped through the draws.

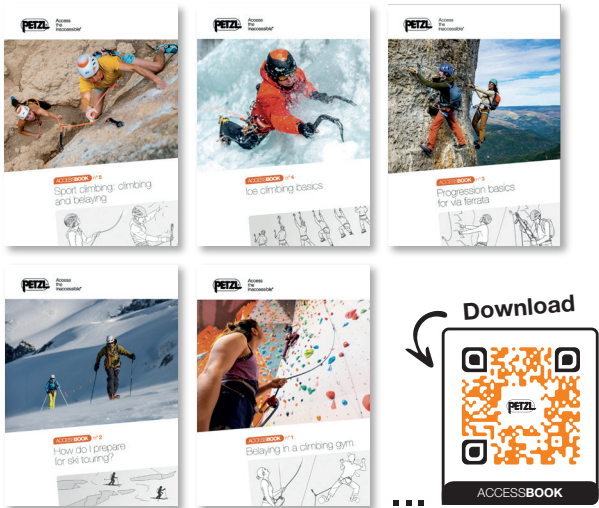


For more information

Find more technical tips and videos on sport climbing at www.petzl.com



... And discover even more about the other activities in our **ACCESS BOOK** booklets.



The information contained in this brochure is non-exhaustive.
See the Instructions for Use for the products, and related
technical tips. Training is essential.
You are responsible for your own actions, decisions and safety.

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