Belaying

Climb: The Octopus Garden, Smoke Bluffs, Squamish, Canada. **Photographer:** Alex Ratson.

Assisted-Braking Belay Devices

Belaying at the crag is more difficult than belaying indoors. Uneven ground, falling rocks, strong sunlight, wind, insects, stray children and dogs are just some of the factors which complicate the task.

Any type of belay device can be used for sport climbing, though using an assisted-braking belay device (such as the Petzl GriGri) is the most common.

The GriGri functions like a car seat belt. You can pull rope through slowly without it catching, but if the rope moves through quickly (e.g: if a climber falls), a cam inside the GriGri rotates and pinches the rope. This makes it easier to hold the fall. It also requires much less effort to hold a climber while they rest for a few minutes.

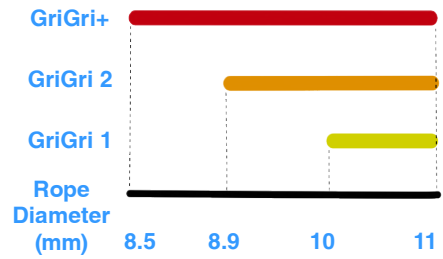
GriGri's are not auto-locking — you still have to hold the brake rope at all times, just like you would with a normal belay device.

This is especially true with thinner ropes, very light climbers or if there is rope-drag on the route.

GriGri's are safe belay devices, but accidents have happened due to improper use.

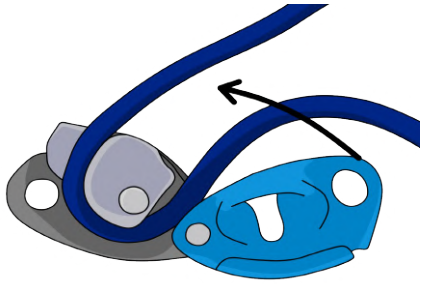
GriGri's are designed to work with the following rope diameters. Make sure you're using the correct rope for your device.

Other assisted-braking belay devices have different specifications. Check the manufacturer's instructions before you use them.

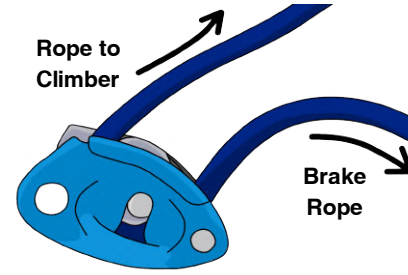


Attaching a GriGri to Your Harness

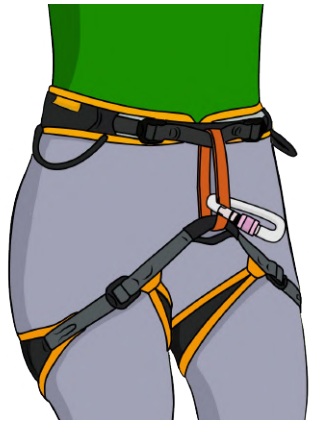
Step 1
Open the device and feed the rope in as shown. (diagrams for rope installation are engraved on the interior and exterior of a GriGri).



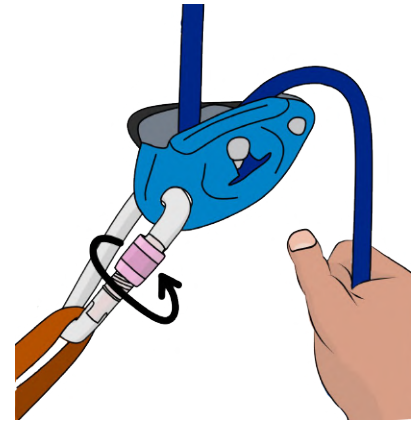
Step 2
Close the GriGri.



Step 3
Clip a screwgate carabiner to your belay loop.



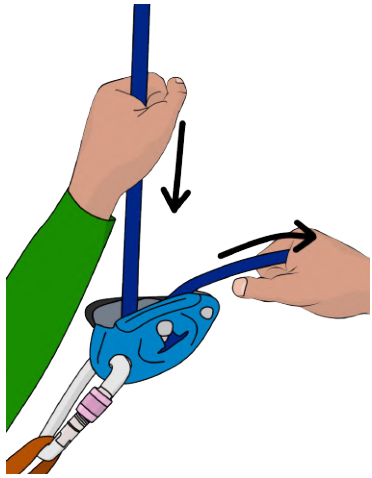
Step 4
Clip the GriGri to the carabiner and fasten the gate.



GriGri Belay Techniques

Taking In

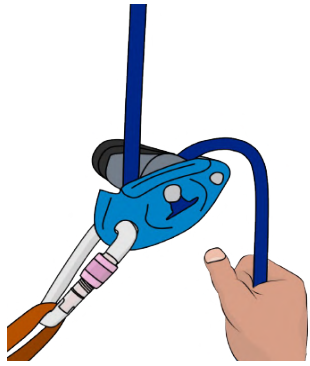
Simply pull rope through the GriGri as you would with a normal atc-style device, making sure to keep hold of the brake rope.



Locking Off

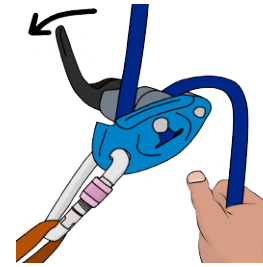
If the climber falls, lock off downwards. The GriGri's camming action will hold most or all of their weight. Pulling the brake rope down also helps the cam to engage rapidly.

You should keep in the locked-off position whenever you are not taking in or giving slack.



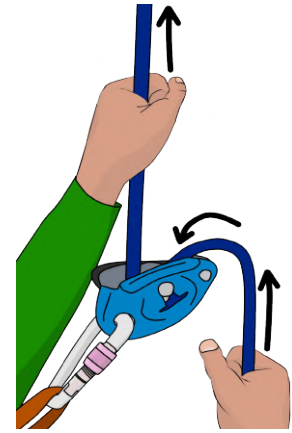
Lowering

Lock the rope with your brake hand, and slowly pull the handle back until you feel resistance. This will disengage the locking mechanism slightly. With a little practise, you should be able to find a 'sweet spot' where you are able to slowly lower the climber. Make sure to keep hold of the brake rope as you do this. To stop lowering, simply let go of the handle. It's important not to pull the handle all the way back. This will completely disengage the locking mechanism, making it very difficult to keep control of the device.



Giving Slack Slowly

To give slack slowly, pull rope up through the GriGri as you would with a normal atc-style device, making sure to keep hold of the brake rope.

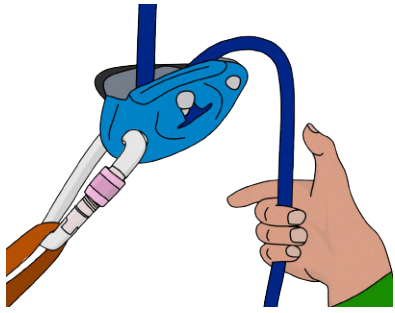


Giving Slack Quickly

If you try to feed slack through too quickly, the cam will engage and lock the device: not ideal when your partner is trying to clip a quickdraw. To avoid this happening, use the following technique instead.

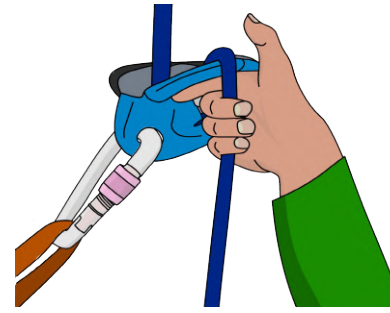
Step 1

Hold your index finger out while gripping the brake rope tightly with your other three fingers.



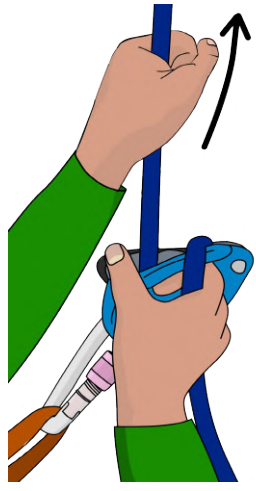
Step 2

Place your index finger under the lip on the side of the GriGri.



Step 3

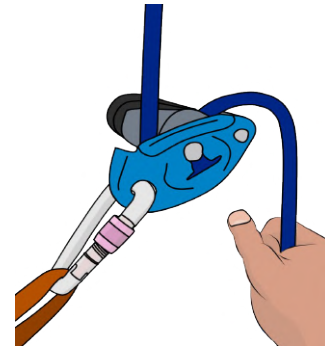
Put your thumb over the back edge of the handle and push it down. This temporarily disengages the locking mechanism. At the same time as doing this, pull out slack rope with your left hand.



Step 4

As soon as you've pulled out enough rope, go back to the primary belaying position. If the climber falls when you are disengaging the locking mechanism, immediately remove your thumb and continue to hold onto the brake rope.

It's important to perform these steps quickly.

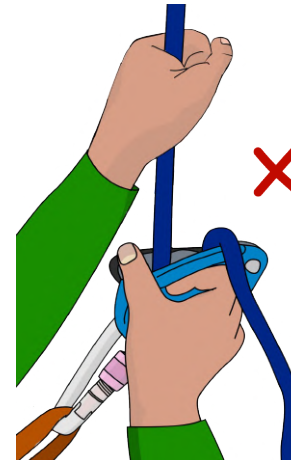


GriGri Belaying – Common Mistake

A bad habit while giving slack is to keep the handle held down without holding the brake rope.

If the climber falls when you are in this position, you will not be able to quickly lock-off the rope (or lock-off at all).

Lazy belaying can kill your partner. If you hold the handle down to give slack, even just for one second, make sure to keep hold of the brake rope and release your thumb straight away.



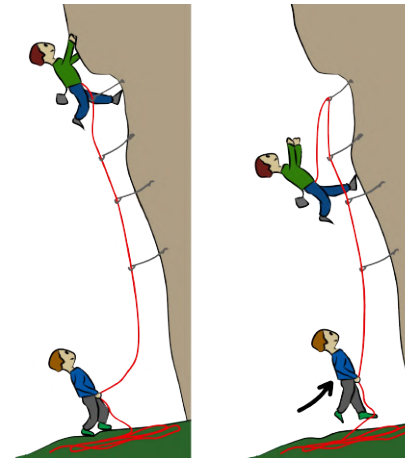
Belay Techniques

Soft Catches

On steep routes, a 'soft catch' is a common technique which makes the fall much more comfortable for the leader and stops them from slamming into the rock when the rope gets tight. The leader will fall further during a soft catch, so make sure to only use this technique on steep, overhanging routes where you are certain the leader cannot hit anything.

To soften a fall, belay with your knees bent. Straighten them during the catch, allowing the weight of the falling climber to pull you upwards slightly. You could even take a small hop just as the rope begins to pull tight.

There are many situations when a dynamic belay is unsafe. A lightweight belayer might be pulled upwards into a roof or into the first quickdraw which could disengage their belay device, or the extra rope could cause the leader to hit a ledge or the ground. Watch your partner carefully and learn to recognize how much of a dynamic belay (if any) is appropriate.

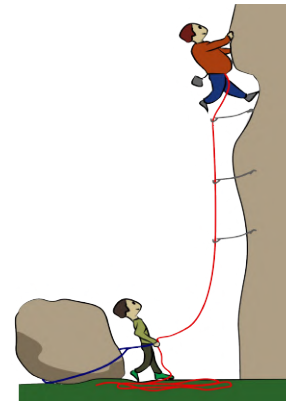


Weight Differences

If the climber weighs more than the belayer, a fall usually lifts the belayer into the air, naturally softening the fall for the climber.

However, if the climber weighs significantly more, a fall could cause the belayer to slam into the rock or be 'sucked in' to the first quickdraw. There is a real danger of losing control of the belay if this happens.

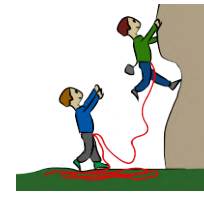
To combat this, the lightweight belayer can anchor to the ground. This technique, however, reduces the belayer's ability to move around the base of the route and give a soft catch. A good compromise is to attach



to a ground anchor with enough slack to move around and give a soft catch if needed, but not so much slack that you would be pulled into the first quickdraw.

Before the First Bolt

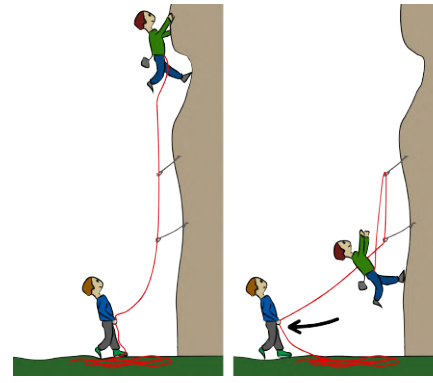
Before the leader reaches the first bolt, you'll need to spot them, just the same as if they were bouldering. Make sure to have just enough slack in the rope so they can reach the bolt.



Runout Routes

On sparsely bolted 'runout' routes where a fall onto a ledge or the ground is possible, the belayer can run backwards away from the route if the leader falls. This takes rope out of the system far quicker than pulling slack through a belay device, which means the leader will fall less distance.

Remember to keep both hands on the rope in the locked-off position as you run back, and look out for trip hazards. It results in an uncomfortable, abrupt fall but is far better than hitting the



ground. Routes like these, however, are best avoided.

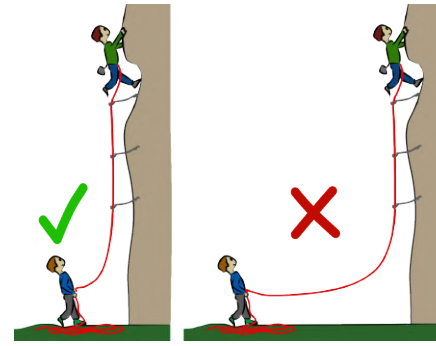
How to be a Better Belayer

Just as people pick up bad habits after they pass their driving test, climbers often get lazy with belaying once they have learned the basics. Here are some tips to keep your climbing partners alive.

Stay in Position

You should stand in a position fairly close to the wall where you can take a few steps forward or backward to give slack or take in while still locked off. Don't sit down, lie down, or face in the wrong direction.

If the climber is to the left of the first quickdraw, you should stand to the right to avoid being hit by rocks, dropped gear or their feet.



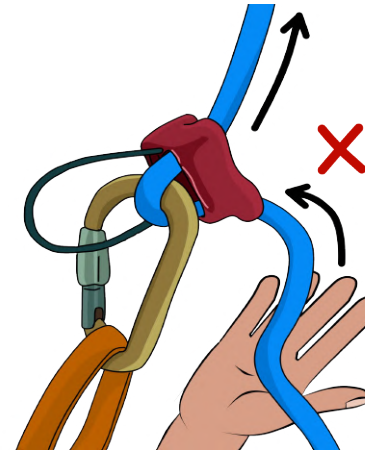
Don't Let Go of the Rope

Sounds obvious, but it's amazing how many experienced climbers let go of the brake rope for a brief moment while belaying.

Letting go of the brake rope is like letting go of the steering wheel while driving on a fast country road. Avoid the temptation to loosen or release your grip, even just for a second.

Use your other hand to wave to friends, get something out of your pocket or scratch your butt. Or better yet, just wait until you've finished belaying.

This is a common problem with assisted-braking belay devices, where it is easy to get comfortable using them and forget they do not always auto-lock.



The Bottom Line

Your partner's life is literally in your hands. If they fall while your hand is loose or off the rope, you probably won't catch the fall.

Watch and Listen

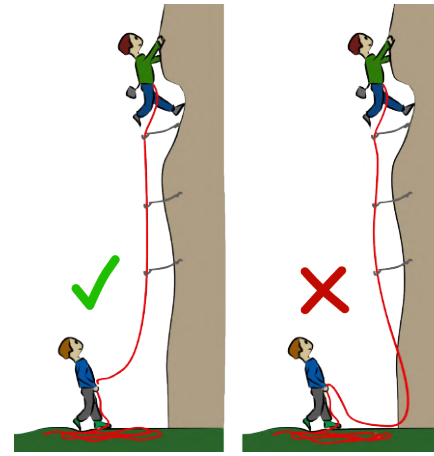
Keep an eye on the climber so you can give slack at the exact same time as they clip a high quickdraw or brace yourself if they fall. If you can't see the climber, listen for commands from them and watch for movements in the rope.

Pay special attention when the leader is clipping the rope into a quickdraw. The extra bit of slack you have out makes the leader vulnerable to a longer fall if they slip just before making the clip.

You cannot give complete attention to the climber if you are talking to someone else. Likewise, avoid starting a conversation with someone who is belaying, and walk well around them so you don't compromise their belay.

Keep an Appropriate Amount of Slack

When lead belaying, the rope should always travel outwards and upwards from your belay device to the first quickdraw. Lazy belayers often give too much slack so they can wait longer before having to deal with the rope again. This can be incredibly dangerous for the leader. Take and give slack as your climber moves to maintain the correct arc in your rope.



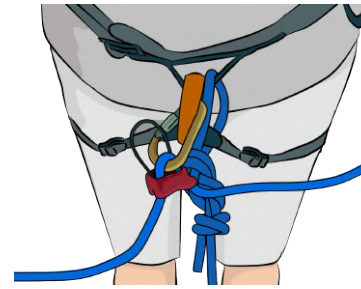
When top-rope belaying, keep the rope fairly tight for the first few moves so the climber doesn't hit the ground if they fall.

Be Ready and Inform

You should stand in a 'ready' position, so that if your climber falls or needs help, you can react quickly to the situation. Let the climber know about any dangers or mistakes they are making. Look out for back-clips, if their leg is around the rope or if they should extend a quickdraw.

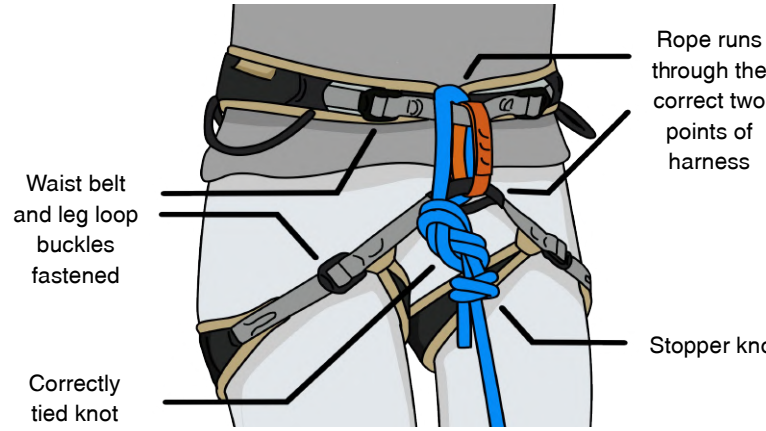
Close the System

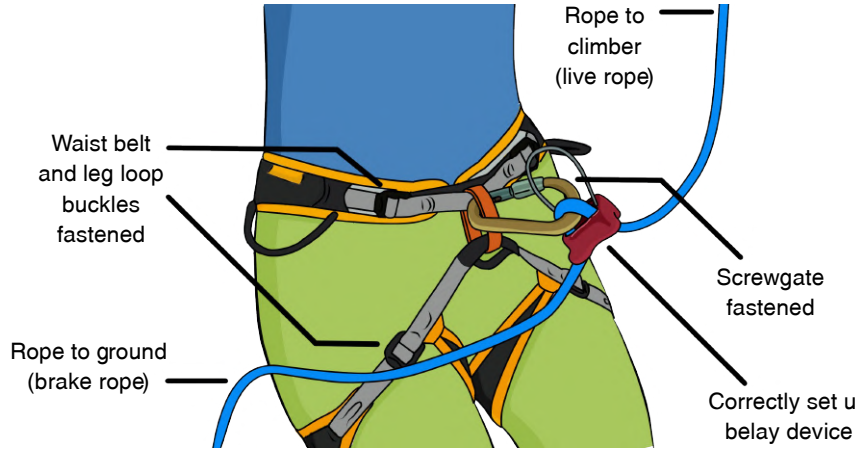
If you are not certain how long a pitch is, or how long your rope is, the belayer should tie into the bottom end of the rope. This closes the system. When the climber is tied to one end, and the belayer is tied to the other, it is impossible to lower the climber off the end of the rope. Alternately, tie a knot in the free end of the rope.



Check

Make it a habit to check yourself and your partner before each climb.





Communicate

At a busy crag, the climber and belayer should call each other by name. This confirms that any shouted commands are actually meant for them. You won't always be able to see or hear your partner very well. Shout the climbing commands loudly to be clear.

You and your partner should have a pre-arranged signalling system for situations where you can't hear each other. One common method is for the leader to give three sharp tugs on the rope to signal they are off belay. The belayer then gives three sharp tugs back to let them know they are about to be taken off belay. The problem with this method is that it is possible to mistake a leader's jerky movements or tugs for slack as the off-belay signal. If there's rope drag it can be even more difficult to decipher these movements in the rope.

Keep the climber on belay until you're certain they are safe. When you feel the same signal repeated many times, you'll know what the leader is trying to say.

The Bottom Line

Never take someone off belay until you're sure they are off.

Belaying from the Top

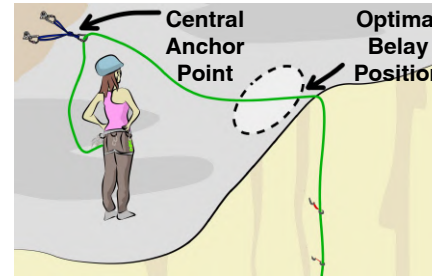
For most sport climbs, you will belay from the bottom — just like you would at the indoor gym. However, you should belay from the top of the route when the anchor is in a poor position to lower from or abseil, or if you intend to walk off the top. First, you'll need to equalize the anchor with a cordelette and screwgate carabiners as described on pages 50-52.

Belay Position

You'll need to attach yourself to the anchor in a way that you can see your partner as they follow the pitch and brace yourself if they fall.

Once you are tight to the anchor, make sure you are positioned in a straight line between the central anchor point and the climber. You shouldn't be pulled sideways if the climber falls.

You'll often need to extend your anchor to get into the optimal belay position. There are many ways to do this, each with their own advantages and limitations.

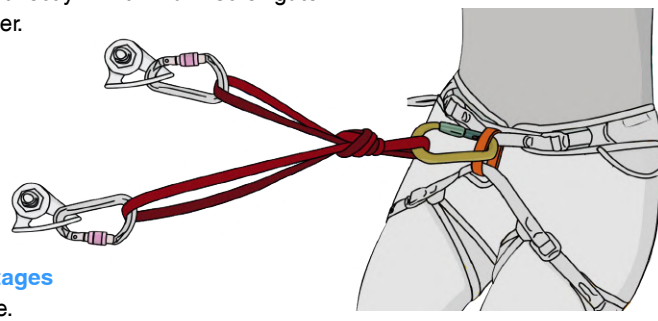


The most common attachment and belay methods are described on the following pages. With practise, you should develop the ability to adapt and combine these methods to suit every belay situation.

Belaying from the Top – Attaching to the Anchor

Method 1 – Clip Directly

Clip your belay loop into the central point directly with a screwgate carabiner.



Advantages

- Simple.

Disadvantages

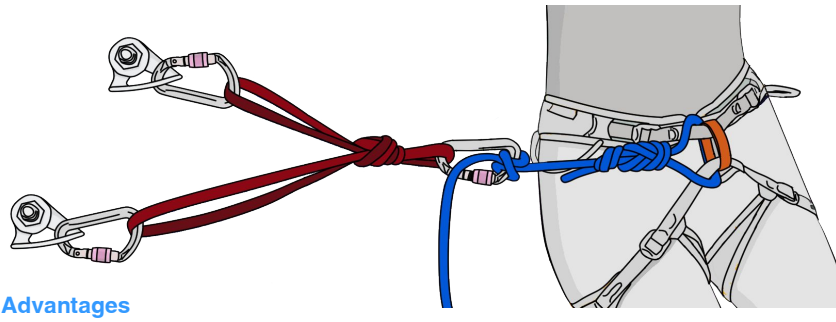
- No dynamic aspect to the anchor (using the rope is much better. See methods 2-4).
- Very difficult to adjust belay position.

Best Situation to Use this Method

- If extending the anchor with the rope would put you in a bad position to belay.

Method 2 – Tie to the Central Point

Tie your rope to the central point using a clovehitch. You can use other knots but the clovehitch has the advantage of being super easy to adjust. Fine-tune your belay position by adjusting the clovehitch — just shuffle rope through and pull it tight. The rope between you and the central point will need to be fairly tight.



Advantages

- Only uses a small amount of rope.

Disadvantages

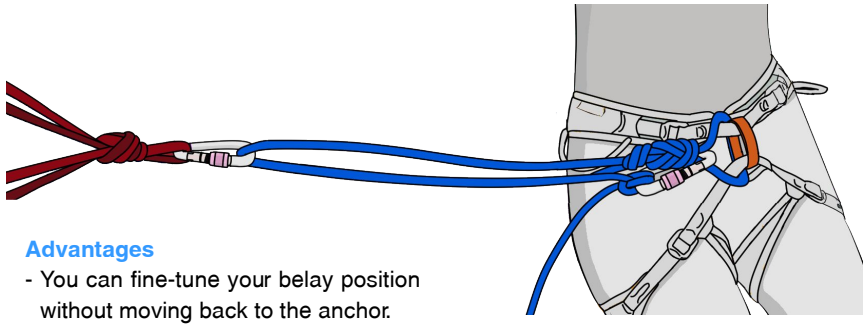
- Belay position must be close to the central point.

Best Situation to Use this Method

- If the central point is within reasonable reach of your belay position (up to two meters or so).

Method 3 – Loop Through the Central Point

Clip the rope through the screwgate on the central point, then walk to your belay position. Attach a screwgate to your rope loop and then clovehitch the rope to it.



Advantages

- You can fine-tune your belay position without moving back to the anchor.

Disadvantages

- Uses more rope and one extra screwgate than method 2.

Best Situation to Use this Method

- If the central point is out of reach from your belay position.

Method 4 – Attach Directly to Bolts

Step 1

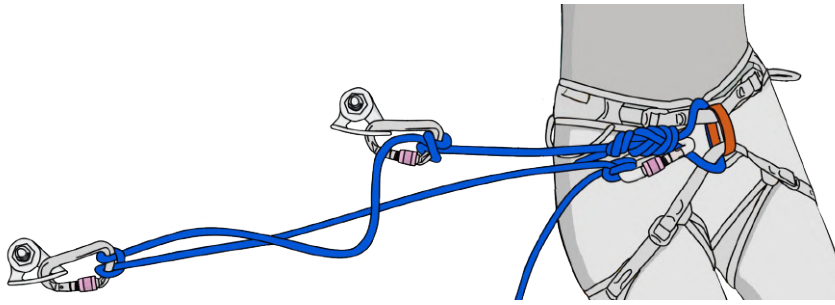
Attach the rope to one of the bolts with a clovehitch.

Step 2

Clovehitch the rope to the other bolt, leaving a little slack between the two.

Step 3

Clovehitch the rope to your rope loop with another screwgate.



Best Situation to Use this Method

- If you forget to bring a sling/ cordelette.

Advantages

- Equalizes two points.
- Doesn't require using a cordelette.

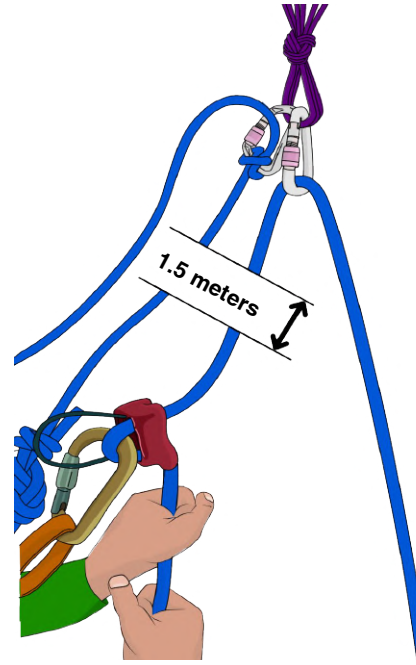
Disadvantages

- Must be close to the anchor in order to fine-tune your belay position.
- The central point is created at your belay loop. This means that you must belay directly from your harness (you can't use guide mode).

Belaying from the Top – Belay Methods

Method 1 – Redirected Belay

Clip a spare screwgate carabiner to the central point and run your partner's rope through this, then down to your belay device. You'll be able to belay as you normally would on a top-rope. Your belay device will need to be at least 1.5 meters away from the central point. This reduces the chance of you being pulled into it if your partner falls. Also, make sure that the rope isn't rubbing against your attachment knot at the central point.



Advantages

- Most of the weight of a falling climber is transferred to the anchor, not your harness.

Disadvantages

- It's possible to get pulled into the central point if your partner falls, particularly if they are heavier than you. In this case, there is a real danger of losing control of the brake rope.

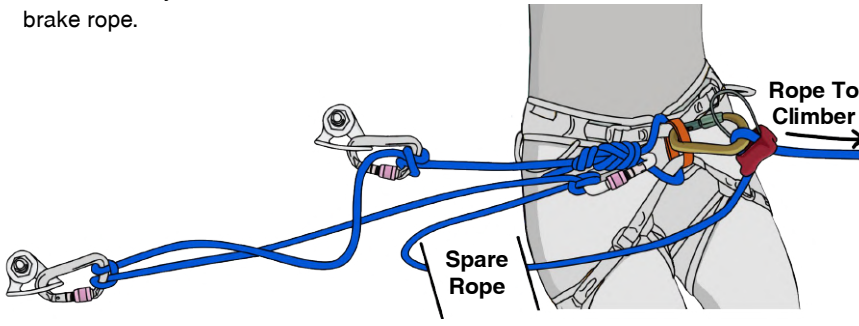
Best Situation to Use this Method

- When you have a nice ledge to stand on and the central point is just above your head.

Method 2 – Directly from Harness

Attach your belay device to your belay loop. This can be set up so the brake rope comes out of either the top or bottom of the belay device — choose whichever way is easier to lock off the brake rope.

In most situations, the weight of a falling climber will pull down from you, not up. Because of this, you will need to lock off *upwards* not downwards.



Advantages

- You can use this method for almost every belay situation.

Disadvantages

- If your partner falls, it's possible that their weight will pull uncomfortably on your harness or over your legs.

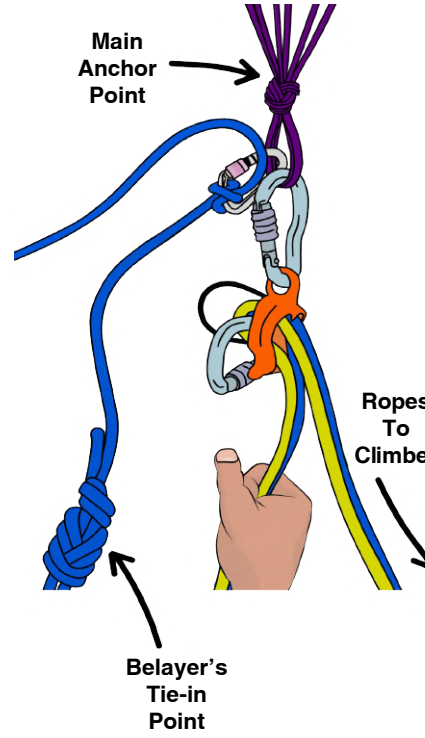
Best Situation to Use this Method

- If you have used your rope to equalize the anchor.

Method 3 – Directly from Anchor (Guide Mode)

Some ATC-style belay devices have a 'guide mode' function — they can be set up in a way which locks automatically if a climber falls. They can be used as a normal belay device too. You can set up guide mode as shown, with one rope or two.

Simply pull the brake strands through as the climber moves up. If they fall, the device will lock by itself almost instantly. Even though guide mode belay devices are auto-locking, you should always keep hold of the brake rope.



Advantages

- The weight of a falling climber isn't on your harness, which is much more comfortable!
- You can bring up two climbers at the same time (on two different ropes) — great if climbing as a team of three.
- Because you are not directly attached to your belay device, it is easier to detach yourself from the system in an emergency.

Disadvantages

- Time-consuming to lower a climber, even a short distance.

Best Situation to Use this Method

- When it is unlikely that you will need to lower the climber (e.g: climbing an easy slab route).
- When climbing as a team of three.

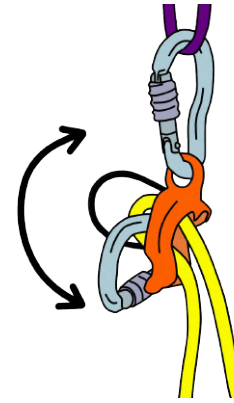
Lowering a Climber in Guide Mode

Before you use guide mode, you must understand how to lower a climber.

Note: The belayer's anchor attachment has been omitted from the following diagrams for clarity.

Lowering a Short Distance

If the climber only needs a few inches of slack, you can wiggle the belay carabiner as they weight the rope. Carabiners with a perfectly round cross-section are not so effective at this.

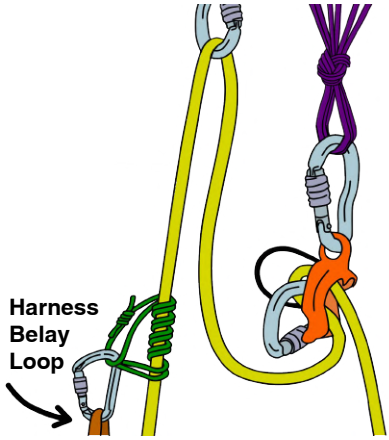


Lowering a Long Distance

There are a few different ways to do this, some are faster and some are safer. The following description is a safe way to do it.

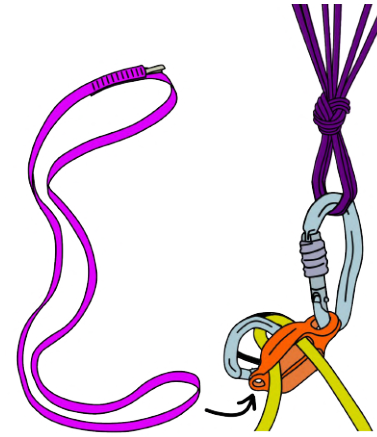
Step 1

Redirect the brake strand(s) through a high point of the anchor with a screwgate carabiner. Then tie a prusik knot around the rope and clip it to your belay loop.



Step 2

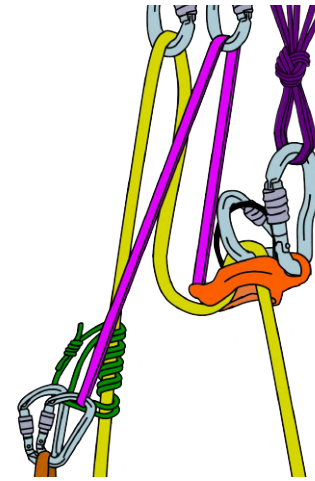
Girth hitch a sling through the small hole on your belay device. Newer devices have a big enough hole to clip a carabiner. If yours does, you can clip a sling to it with a carabiner.



Step 3

Redirect the sling through a high point of the anchor with a carabiner, then fasten the sling to your belay loop with another carabiner. This will allow you to use your weight to release the belay device. You could also stand in the sling to release the belay device, though it's often easier to control when clipped to your harness.

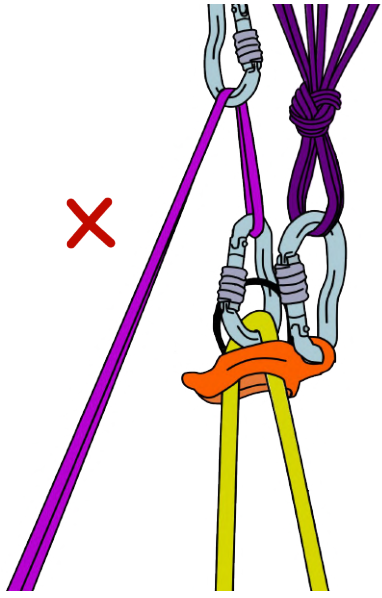
You are now able to lower the climber in a controlled manner. Remember to slide the prusik knot as you continue lowering.



Warning!

Never weight the belay carabiner as shown.

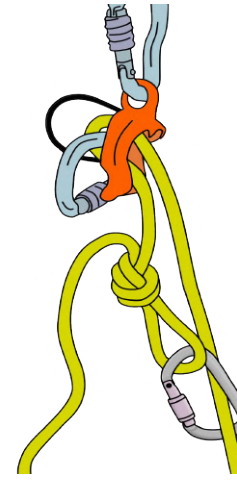
This will disengage the device and cause the climber to fall.



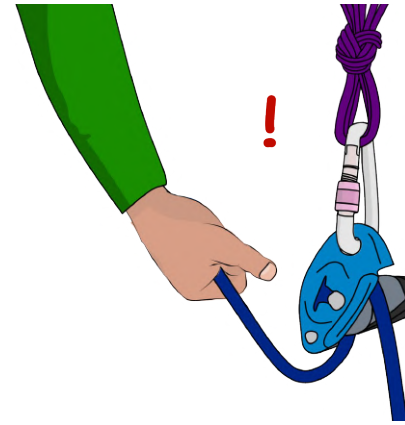
Tying-Off

If you need to go completely hands-free while belaying in guide mode, you can tie-off the device. Simply tie an overhand loop in the brake strand and clip it to the rope as shown below.

Be aware that if the knot jams up into the belay device, it will be difficult to lower the climber without belaying them up a few inches first. Consider this before you tie them off.



Method 4 – Directly from Anchor (GriGri)

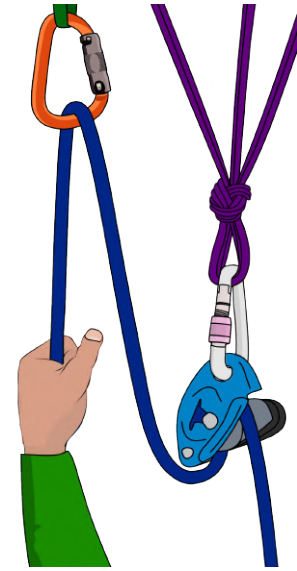


You can belay directly from the anchor with an assisted-braking belay device in a similar way to the guide mode technique. This method can be very dangerous if used incorrectly (see below).

Set the device up as shown. Make sure the device is orientated so the handle is away from the rock. If the handle is pointing into the rock, it could get jammed if the climber falls. This means it will not catch the fall.

This technique is useful only when there is absolutely no chance of the handle catching on something or getting pressed into the rock, such as on an overhanging belay.

Lowering a Climber with a GriGri



To lower a climber, use a re-direct on a high point of the anchor. Failure to do this will make it extremely difficult to lower a climber in a controlled manner.

The manufacturers of assisted-braking belay devices recommend against belaying directly from the anchor due to the chance of the handle pressing on the rock in a fall.

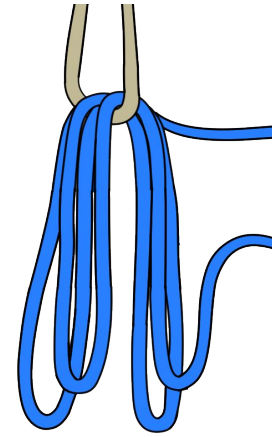
If you are not completely certain that your anchor is suitable for this type of belaying, you should use another method instead.

Where to Put the Spare Rope

There are basically two options. Either stack it into a neat pile somewhere or stack it through a sling.

For the sling method, start by pushing a long loop of rope through the sling. Continue doing this, making smaller loops each time (bigger loops are more likely to get tangled into each other when you are belaying the leader on the next pitch).

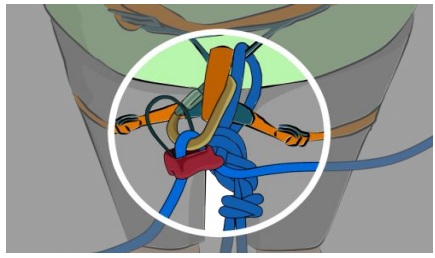
However you choose to stack the rope, make sure it is within reach and that you can do it one-handed — you'll need to belay at the same time!



Rope Loop or Belay Loop?

You can belay either from your belay loop or from your rope loop. In some situations, using the rope loop can be more comfortable — it can allow you to transfer the weight of a fallen climber onto the anchor, rather than having their weight pulling on your harness. If you are unsure, just use your belay loop.

Using the Belay Loop



Using the Rope Loop