



RCP
Level

Belay
Considerations





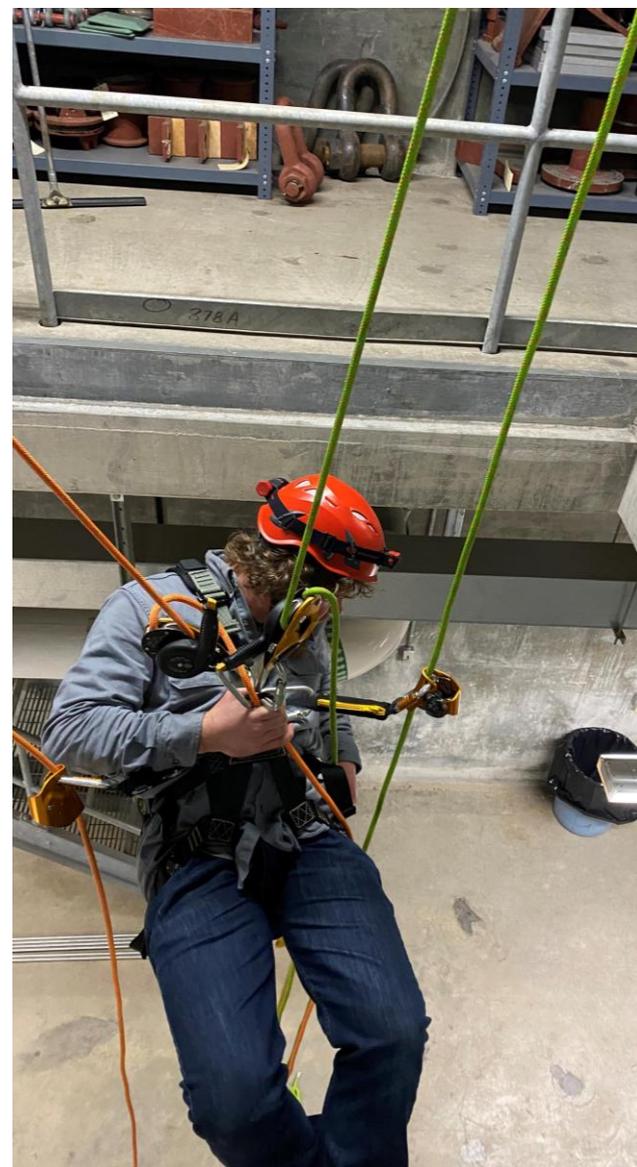
RCP Level Belay Considerations

The belay system is the redundant back up system to the mainline. We will discuss this relationship between the mainline and belay line in greater detail in the next module on mainline considerations.

If there is a singular mandate, we could assign to the function of belaying a rescue load it would be eliminating all slack in the belay line between the anchor and the load.

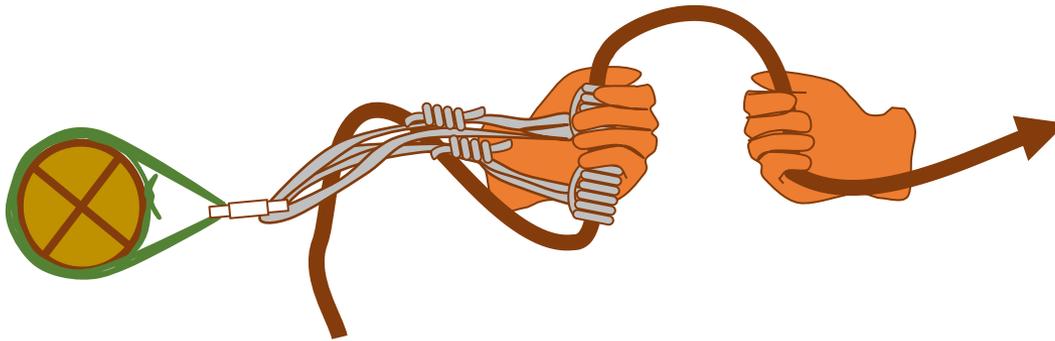
Static vs. Mobile vs. Dynamic

The terms Static and Mobile we used to describe descent device location may also be applied to belay devices. When using the term *Static* belay device or *Static* mainline device, we're really referring to the location of the device. In the case of *static*, the device is always rigged at the anchor and is typically controlled by someone independent of the load. When a device is in the *mobile* position it is typically attached to and controlled by a person on rappel, and it is indeed moving up and/or down with that person. A dynamic anchor system is usually referring to the mainline and it is engineered to have adjustability.



Tandem Prusik Belays

The Tandem Prusik Belay falls into the category of a human dependent belay system. As such, it is one of the most notorious for falling into the trap of all the negative factors of human reaction time. Tandem Prusik Belays have historically been praised as a system that meets all the criteria for the Whistle Test/Killer Bees Test/and any other hands off-let go test. Herein lies the problem, you must let it go to activate the system and people are intuitively grabbing a hold during a fall event thus potentially causing the belay rope to continue slipping through the prusiks.

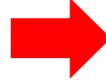


Tandem Prusik Belay, continued...

Another common practice with Tandem Prusik Belays is the employment of a pulley to tend the prusiks of the belay system during hauling events.

WARNING:

Anytime the belay rope is forced to stay inline through tandem prusiks there exist a heightened chance of the prusiks failing to engage. This is substantially compounded when, once again, the operator intuitively continues to grab the rope on the haul side of the pulley.



Tandem Prusik Belays tend to introduce additional shock load simply through the common practice of using the bubble turn. This can be lessened simply by using quick and short bubble turns, avoid the big, exaggerated bubble turn movements.

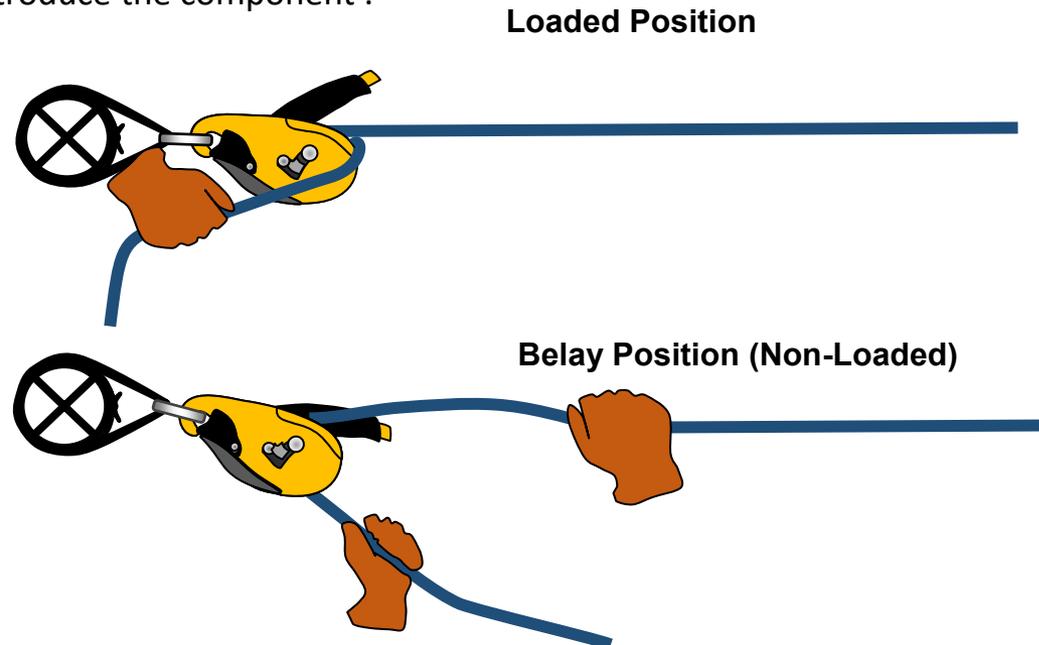
Even with all the negatives and disclaimers stated above, the Tandem Prusik Belay will probably always be a viable option during wilderness rope rescues. It is hard to argue the weight issue for selective backpacking of rigging gear.



Belaying with the Petzl I'D (Static Position)

The Petzl I'D provides an excellent option for system belays, especially for industrial applications. The I'D truly passes all fail safe testing criteria. Rig the I'D in accordance to the Petzl User Manual. Manage the slack by pulling the rope connected to the load back towards the ID (*See Non-loaded Position below*). Petzl shows in their instructions that one hand should always hold the component of rope opposite the component of rope connected to the load. Following this technique of Petzl there is a tendency for two conditions to happen; the belayer can potentially introduce too much slack into longer systems, or the Petzl I'D simply locks up and the need to release tension with the handle is required.

During the belaying of raising systems, simply pull the standing end of the rope through the I'D with one hand, and with the other hand introduce the component .

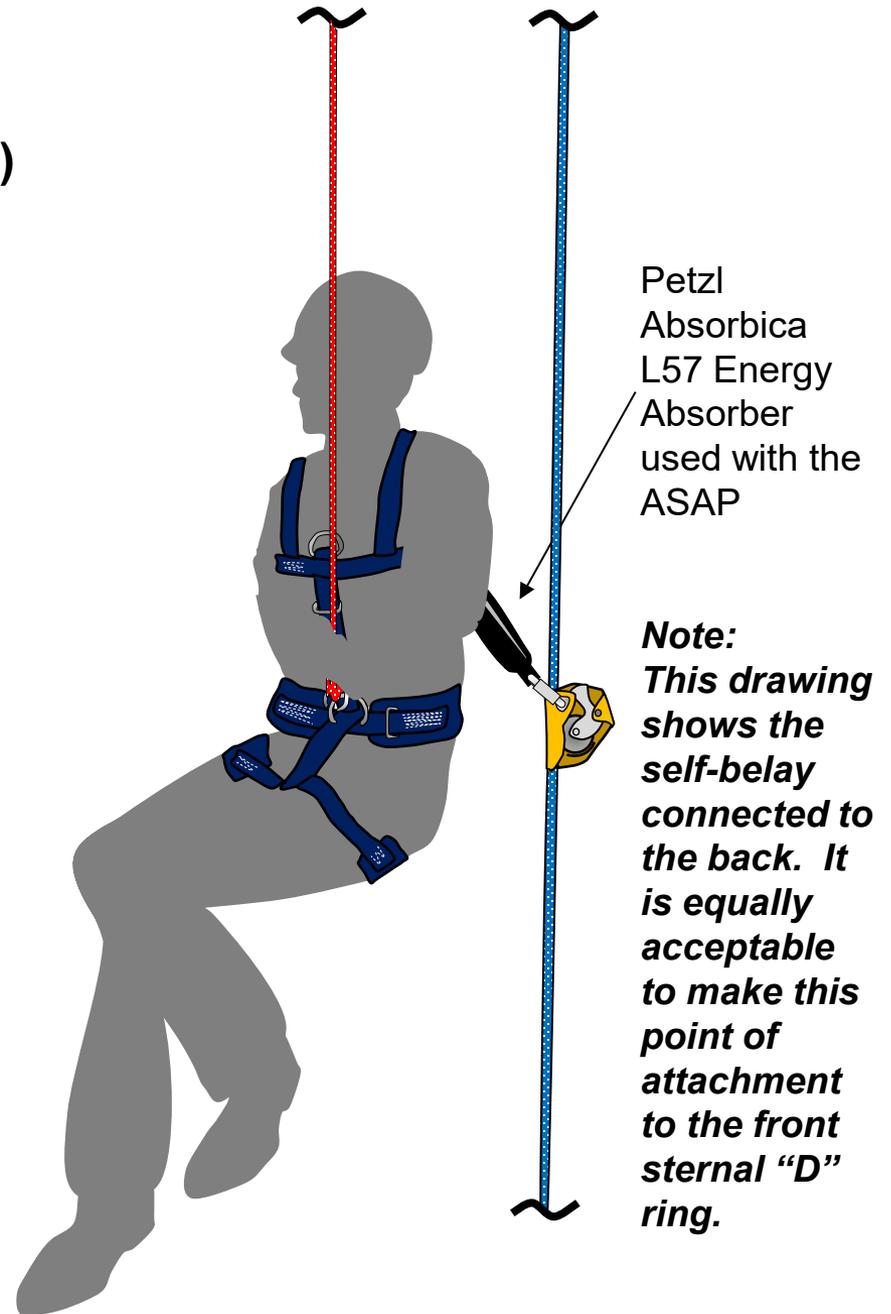


Petzl ASAP Belay (Mobile Position)

Note on the ASAP

The ASAP is easily adapted as a belay device for any vertical rescue. This is particularly useful when only one rescuer is performing a rescue from an elevated location.

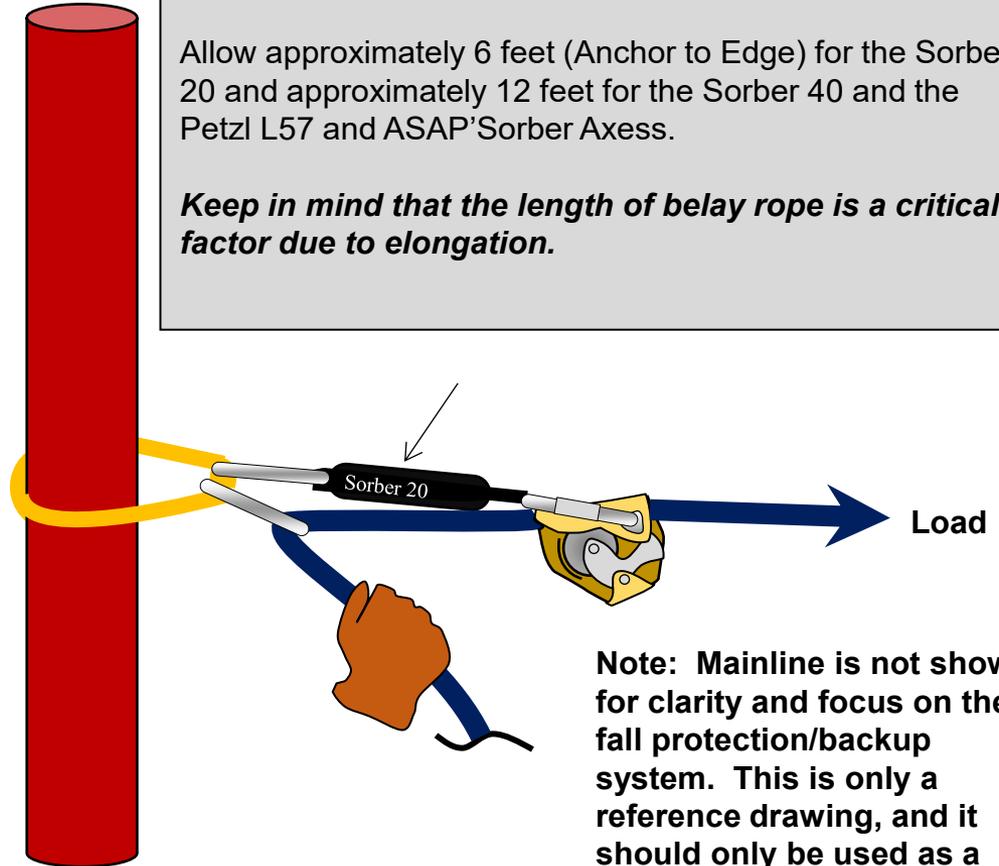
The ASAP is connected to the victim's dorsal 'D' ring and follows a fixed belay rope to the ground while the rescuer lowers the victim to the ground with the Petzl I'D controlling the mainline.



Petzl ASAP from a Static Anchor Point

The ASAP is extremely easy to use as a belay line/fall protection system that is attached to an anchor approved by the team leader. The fall arrest (Belay) rope is simply allowed to run through the ASAP as the load is lowered via the primary rope system. **Care must be taken to eliminate any buildup of slack in the belay rope between the ASAP and the load.**

This drawing illustrates a manufacturer's approved belay method for a single person load. When belaying a two-person load with the ASAP rig the Petzl Absorbica L57 or ASAP'Sorber Axess Energy absorbers between the anchor connection and the ASAP.



Petzl Sorber 20, 40, Absorbica L-57, and ASAP'Sorber Axess Energy Absorbers

Allow for enough workspace between the anchor and the edge for the shock absorber to deploy if shock loaded and still leave enough space to re-rig and correct the issue of a loaded belay line.

Allow approximately 6 feet (Anchor to Edge) for the Sorber 20 and approximately 12 feet for the Sorber 40 and the Petzl L57 and ASAP'Sorber Axess.

Keep in mind that the length of belay rope is a critical factor due to elongation.

Note: Mainline is not shown for clarity and focus on the fall protection/backup system. This is only a reference drawing, and it should only be used as a follow-up to detailed hands on training. For more detail information on the Sorber 20, 40, L-57 and the ASAP go to the Petzl website.