ALPINE UP

EN Belay / rappel device
IT Assicuratore / discensore
FR Assureur / Descendeur
DE Sicherungs / Abseilgerät
ES Asegurador / Descensor
PT Segurador / Descensor
CZ Jistící / slaňovací zařízení
CN 保护/下降 设备

MADE IN ITALY
EN 15151-2:2012
PATENTED

i = G + S

ENGLISH

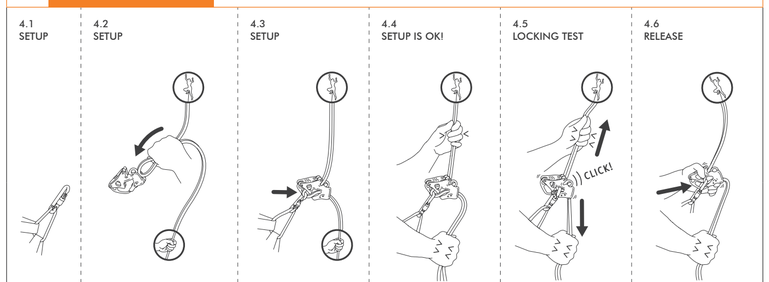
The instruction manual for this device consists of general and specific instructions, both must be carefully read and understood before use. **Attention!** This leaflet shows the specific instruction only.
SPECIFIC INSTRUCTIONS ALPINE UP (PATENTED).
1) FIELD OF APPLICATION. Alpine Up is a belay / rappel device for mountaineering and sport climbing routes with one or more pitches that can be used with single, half or twin ropes. It has two belaying modes, depending on the type of terrain: **CLICK-UP MODE** (hand-assisted braking). For use on well-equipped sport climbing routes with fixed anchors, such as bolts or glue-in anchors, and for sport climbing and indoor climbing wall. **Warning!** Not suitable for use on traditional climbing routes and adventure terrain; **DYNAMIC MODE** (manual braking). For adventure terrain and traditional climbing routes with nuts, friends, pitons etc.
2) NAMES / MARKINGS. The side A of the device has markings for belaying the leader in two modes, the side B has markings for belaying 1 or 2 second climbers.
2.1 - Names of the parts. A) Braking groove (for use in case of error). B) Rope loop insertion slots. C) Resistance lock cam. D) Braking area. E) Spring bar. F) Hole for CLICK UP MODE karabiner. G) Hole for DYNAMIC MODE karabiner. H) Ergonomic lever for abseiling / rappelling. I) Hole for belay station karabiner. G) Hole for belaying karabiner. L) Hole for release karabiner.
2.2 - Markings. 1) Name of the manufacturer or of the responsible for the introduction in the market. 2) Hand side. 3) EN 15151-2:2012 type 2: norm with which Alpine Up is compliant. 4) UIAA logo. 5) Product name. 6) Hole for CLICK UP MODE karabiner. 7) Hole for DYNAMIC MODE karabiner. 8) Climber side. 9) Hole for belay karabiner. 10) Compatible rope diameters and types. 11) Karabiner hole for belaying second climbers. 12) Patented device. 13) Country of fabrication. 14) Batch number (BBYY) composed of production batch number (BB) and year of manufacture (YY). 15) Hand side. 16) Second climber side. 17) Logo informing the user to read the attached user instruction carefully.
3) CHECK INSPECTION POINTS. Prior to each use, it is necessary to check that all the tool components are in excellent condition, without excessive wear and tear, cracks and/or burrs. Particularly check the braking area (D) and the resistance lock cam (C), and ensure that the spring bar (E) and the ergonomic lever (H) can fully depress and release smoothly, without sticking. Check that the HMS karabiner is not worn out in its rope sliding section.
4) COMPATIBILITY (Fig. 1).
Make sure the device is compatible with the other elements used.
4.1 - Ropes. Alpine Up is used with EN892 dynamic ropes: half and twin ropes Ø 7.3÷9 mm; single ropes Ø 8.6÷10.5 mm. Braking efficiency and ease of rope feed depend on the diameter and smoothness of the rope. **Attention!** The use of wet or icy ropes can affect the efficiency of the device. **Attention!** In case of use with two ropes, only use ropes having the same diameter and state of consumption. **Attention!** The self locking abseil with a single rope is not allowed.
4.2 - Belay karabiner. A CONCEPT SGL hot-forged light-alloy karabiner with hand anodized finish must be used. It has an anti-wear surface and a spring bar to prevent cross-loading. This karabiner, connected to the belay loop on the harness, must be inserted in holes F (CLICK-UP MODE) and G (DYNAMIC MODE). When belaying 1 or 2 seconds, it must be connected to the belay station and positioned in hole L.
4.3 - Karabiner for belaying seconds. When belaying 1 or 2 seconds, a wide-base HMS karabiner must be used in the hole G. **Warning!** The karabiner must be able to rotate around the base of the device (Fig. 11.2).
4.4 - Additional karabiners. For controlled release the rope of a second, insert a quickdraw karabiner (Fig. 11.7) in hole L. For the self locking abseil - facilitated mode, use preferably an HMS carabiner with a wide base, inserted in the hole I (Fig. 9.1).
4.5 - Terminology. In this note, the term "rope" refers to one or two ropes. When half or twin ropes are used, each one must pass through its own slot B in the Alpine Up. The term "Prusik" is used for indicate any self-locking knot for climbing.
5) CLICK-UP MODE - INSTALLATION AND SETUP.
5.1 - Installation. Connect the karabiner to the belay loop on the harness, open the bar and insert the belay loop (Fig. 4.1). Insert the loop of rope in the slots B in the Alpine Up, referring to symbols 2-6-8 on the device (Fig. 4.2). Insert the karabiner in the hole F with the rope inside (Fig. 4.3). The system is now ready for use (Fig. 4.4). **Warning!** With a single rope, use slot B in the Alpine Up opposite the karabiner gate.
5.2 - Function test (Fig. 4.5). Check the device works correctly each time before use. When you have connected the Alpine Up to the harness, hold the free end of the rope in one hand and pull the climber's rope upwards with the other, checking it locks the rope on the device with a typical "CLICK" sound.
5.3 - Releasing the device (Fig. 4.6). To start belaying the leader, or paying out rope to the second after a stopping a fall, hold always the free end of the rope in one hand and grip the Alpine Up in the other hand, as shown. Then push it forwards to return the karabiner to position F.
6) CLICK-UP MODE - BELAYING THE LEAD CLIMBER.
Before setting out, the lead climber must be safely anchored and check that the Alpine Up works correctly. Make sure the leader's knot is correct and the rope is uncoiled. Stand in a convenient position so as not to hinder operations. **Warning!** Remember to hold the free end of the rope in your hand at all times! **Risk of death!** When ascending a multi-pitch route, before setting up on a new pitch, the leader's rope must pass through a directional anchorage on the belay point. If not, it is not possible to arrest a fall (figs. 5.6 and 5.7).
6.1 - Feeding the rope (Fig. 13.1). With one hand, bend the free end of the rope and feed it through the Alpine Up. With the other pull and feed the climber's rope through the device. Always hold firmly the free end of the rope in one hand!
6.2 - Taking up slack (Fig. 13.2). With one hand pull and feed the free end of the rope through the Alpine Up. With the other pull the climber's rope towards the device. Always hold firmly the free end of the rope in one hand!
6.3 - Arresting a fall (Fig. 13.3). Hold firmly the free end of the rope in one hand and pull it downwards.
6.4 - Lowering the climber (Fig. 13.4). Grasp the rope firmly with both hands and move them alternately downwards to lower the climber to the ground.
7) DYNAMIC MODE - ALWAYS SAFE, EVEN IN THE EVENT OF AN ERROR.
If either of the installation errors is committed (Fig. 14), follow the instructions under point 7.
7.1 DYNAMIC MODE - BELAY ON TOP ROPE.
Warning! Remember to hold the free end of the rope in your hand at all times (Fig. 15.3).
7.1 - Installation (Fig. 15.1). Install the system as instructed under point 12.
7.2 - Belaying (Fig. 15.2). With one hand pull and feed the free end of the rope through the device, with the other accompany the climber's rope towards it, taking up slack during ascent.
7.3 - Release (Fig. 15.3). Hold the free end of the rope in one hand and pull it downwards.
8) DYNAMIC MODE - ABSEIL. Before descending, belay yourself to the belay station using a lanyard knot and grip into the harness. Prepare the descent rope and make sure it is properly unwound and there is knot at the end.
8.1 - Installation (Fig. 16.1). Install the karabiner in the sling at a minimum distance of 20 cm from the harness. Insert the loop of rope in the slots B in the Alpine Up, referring to symbols 2-7-8 on the device. Insert the karabiner at right angles to the lever in the hole G with the rope inside. Tie a Prusik knot on the rope below the device.
8.2 - Sling tensioning / release. Tension the Prusik knot (Fig. 16.2) so that you can release the sling karabiner (Fig. 16.3).
8.3 - Abseiling (Fig. 16.4). Control the Prusik knot with one hand to prevent it tightening round the rope. Control the rate of descent with the other hand, accompanying the free end of the rope towards the device.
9) BELAYING 1 OR 2 SECONDS.
9.1 - Installation. Insert the loop of the rope in slots B in the Alpine Up, referring to symbols 1-5-10 on the device (Fig. 11.1). Insert the Alpine Up in the sling karabiner with the hole G at right angles to the lever, with the rope inside (Fig. 11.1). Hook up the Concept SGL HMS karabiner in the hole I, then connect it at the top of the belay point, so that the ropes are below it, held correctly inside the device (Fig. 11.2). **Warning!** Make sure the climber's rope is above the free end of the rope and that the branches are below the karabiner in the hole I.
9.2 - Function test (Fig. 11.3). Pull the rope at the climber end to make the self-locking system works.
9.3 - Belaying 1 or 2 seconds (Fig. 11.4-11.5) Use both hands to take up slack at the climber end through the Alpine Up. **Warning!** Always hold firmly the free end of the rope firmly in both hands and feet. **Warning!** When using half or twin ropes, always hold both free ends of the ropes firmly in your hands and feet (Fig. 11.6).
9.4 - Release (Fig. 11.7). You can use the Alpine Up to gradually release the rope of a second climber even under tension. Insert a quickdraw karabiner in the hole L with the longest side at right angles to the device, so that the belay karabiner is below it. Hold both free ends of the rope firmly and taut in your hand and push your palm up on the belay karabiner so that it comes into contact with the other karabiner, creating leverage and allowing you to release the rope and/or lower the climber.
10) LEGEND. Leader (Fig. 2.1); Hand (Fig. 2.2); Second (Fig. 2.3); Anchor (Fig. 2.4); Fall (Fig. 2.5); Lowering (Fig. 2.6).

ITALIANO

Le istruzioni d'uso di questo dispositivo sono costituite da un'istruzione generale e da una specifica ed entrambe devono essere lette attentamente prima dell'utilizzo. **Attenzione!** Questo foglio costituisce solo l'istruzione specifica.

4 CLICK UP MODE INSTALLATION AND SETUP

This mode is ideal for use on well-equipped multi-pitch sport climbing routes with fixed anchors, such as bolts or glue-in anchors. **A safety check between the climber and the belayer is essential before start climbing!**



4.1 SETUP — Connect the karabiner to the belay loop of the harness.

4.2 SETUP — Insert the loop of the rope in the slot B, referring to symbols 2-6-8 on the device. **With single rope, use the slot opposite the karabiner gate.**

4.3 SETUP — Insert the karabiner in the hole F with the rope inside. **Close the karabiner gate!**

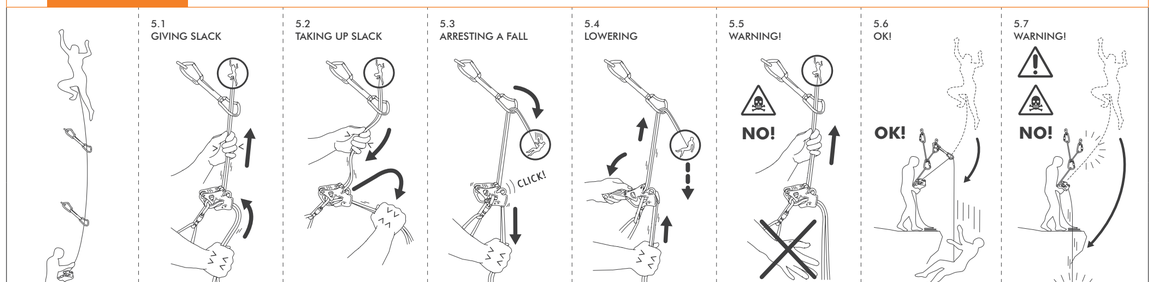
4.4 SETUP IS OK! — The system is OK. From now on **always hold the free end of the rope in your hand!**

4.5 LOCKING TEST — Check the device works correctly before use, verifying that it locks the rope with a typical "CLICK" sound.

4.6 RELEASE — To start belaying a leader, push the device forwards to return the karabiner to position F.

5 CLICK UP MODE BELAYING THE LEADER

Before start belaying it is mandatory to test the correct functioning of the device! **During belaying at all times hold the free end of the rope in your hand!**



5.1 GIVING SLACK — With one hand, bend the free end of the rope and feed it through the device; with the other pull the climber's rope.

5.2 TAKING UP SLACK — With one hand pull the free end of the rope through the device; with the other pull the climber's rope towards the device.

5.3 ARRESTING A FALL — Hold the free end of the rope firmly in one hand and pull it downwards. **Don't hold the device in your hands!**

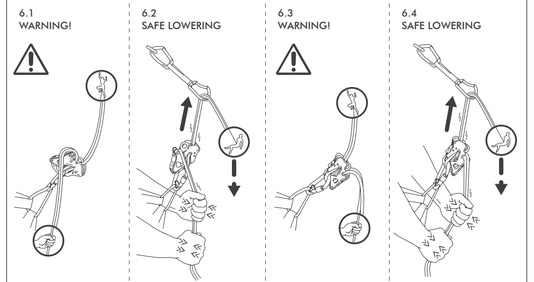
5.4 LOWERING — Open the lever H and push it downwards, with the other hand feed the free end of the rope through the device.

5.5 WARNING! — During the belaying (5.1÷ 5.4) **always hold the free end of the rope in your hand!**

5.6 OK! — When ascending a multi-pitch route, the rope must pass through a directional anchorage on the belay point.

5.7 WARNING! — Always pass the leader rope through a directional anchorage, on the belay station. **If not, danger of death!**

6 CLICK UP MODE SAFE, EVEN IN CASE OF ERROR



6.1 WARNING! — Alpine Up is positioned correctly but the rope is inserted in a wrong way: **stop immediately the ascent!**

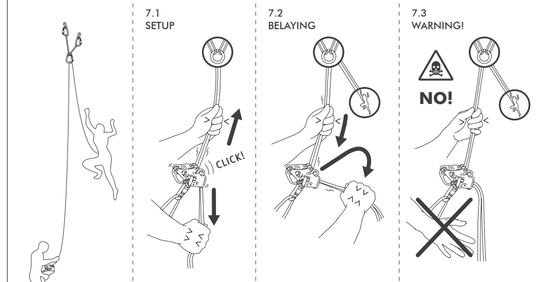
6.2 SAFE LOWERING — Place the rope in the braking groove A, accompany it towards the device with both hands and lower the climber.

6.3 WARNING! — Alpine Up is positioned incorrectly and the rope is inserted in a wrong way: **stop immediately the ascent!**

6.4 SAFE LOWERING — Place the rope in the braking groove A, accompany it towards the device with both hands and lower the climber.

7 CLICK UP MODE BELAYING IN TOP ROPE

Even if the device is in the locked position, **always hold the free end of the rope in your hand!**



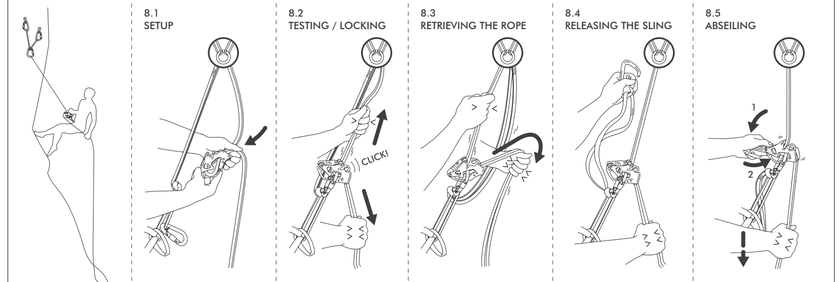
7.1 SETUP — Before starting climbing, take up slack (Fig. 5.2) and activate the device in lock mode.

7.2 BELAYING — With one hand pull and feed the free end of the rope through the device, with the other pull the climber's rope towards it.

7.3 WARNING! — During the belaying (7.1 - 7.2) **always hold the free end of the rope in your hand!**

8 CLICK UP MODE ABSEILING IN A SELF-LOCKING WAY

To familiarize yourself with the device during your first descents, it is recommended to use a Prusik knot under the Alpine Up (see 6). **During the abseiling at all times hold the free end of the rope in your hand!**



8.1 SETUP — Belay yourself to the belay station using a sling, connect the karabiner to the belay loop and insert the rope in the device.

8.2 TESTING / LOCKING — Install the Alpine Up in the sling and activate it in lock mode as instructed under the point 6.2.

8.3 RETRIEVING THE ROPE — Take up the slack as instructed under the point 7.2. Insert your own weight to tension the ropes and the device.

8.4 RELEASING THE SLING — Hold the free end of the rope in one hand, with the other release the sling karabiner and hook it to the gear loop in the harness.

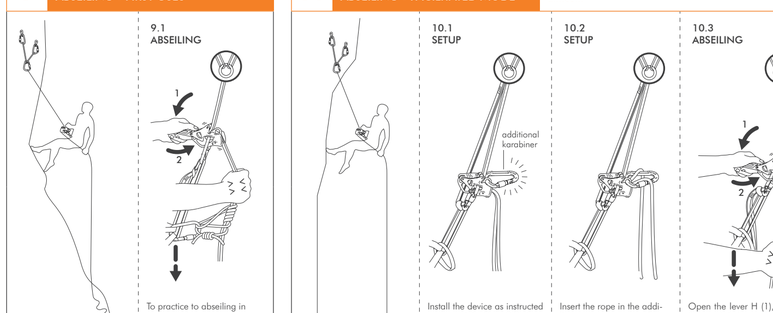
8.5 ABSEILING — Open the lever H (1), press on it and rotate the device upwards (2). Pull the free end of the rope towards the device, so to abseil.

9) BELAY ON TOP ROPE. Warning! Remember to hold the free end of the rope in your hand at all times (Fig. 7.3).
8.1 - Installation (Fig. 7.1). Install and activate the device in lock mode, as instructed under point 5.2. Check the climber's rope-connecting knot is correct.
8.2 - Belaying (Fig. 7.2). With one hand pull and feed the free end of the rope through the device, with the other pull the climber's rope towards it, taking up slack during ascent. If the climber falls or stops to rest, the system remains active in rope-lock mode.
9) SELF-LOCKING ABSEIL. Belay yourself, being careful to belay the belay station using a sling fixed securely onto the harness. Prepare the descent rope and make sure it is properly unwound and there is knot at the end.
9.1 - Installation (Fig. 8.1-8.2). Install the device in the sling at a minimum distance of 20 cm and activate it in lock mode, as instructed under point 5.2. **Warning!** In this case the "climber side" symbol (B) identifies the end of the rope in the anchor point direction (Fig. 8.1).
9.2 - Locking and tensioning (Fig. 8.3). Take up the slack as instructed under point 6.2 and use you own weight to tension the ropes and the system.
9.3 - Releasing the sling (Fig. 8.4). Holding the free end of the rope in one hand, release the longe karabiner with the other.
9.4 - Abseiling (Fig. 8.5). Holding the free end of the rope in one hand, open the lever H (1) with the other, pressing on it and rotating the device upwards (2), as shown. Descend, pulling the free end of the rope towards the device. **Attention!** Do not pull the lever and device downwards as this would lead the system broked.
10) SELF LOCKING ABSEILING - FIRST USES. When using Alpine Up for the first time, it is advisable to use a Prusik knot on the rope below the device to practice to abseiling (Fig. 9.1). Follow points 9.1 to 9.4. Proceed with the descent, keeping the knot unloaded. **Warning!** Install Alpine Up at a distance that will prevent it from interfering with the Prusik knot.
11) SELF LOCKING ABSEILING - FACILITATED MODE
There are some situations in which the abseiling can be quite difficult: high weight of the ropes that can entirely hanging on a wall, low weight of the climber (for ex. children, young people, women), unfavourable ratio between the weight of the climber and the weight of the ropes lying below the device. If any of the above described cases occurs, it is necessary to relieve the load of the ropes from the Alpine Up, in order to make smoother the descent. To perform this action, one of the following methods must be applied: **A** - lift progressively the free end of the ropes placed below the device, enough to allow a smooth descent; **B** - carry on the following operations: install the Alpine Up as indicated under points 9.1-9.2 and insert an additional carabiner in the hole I (Fig. 10.1). Insert the ropes inside the carabiner (Fig. 10.2), close the gate and follow the indications described under points 9.3-9.4. Proceed with the descent as explained under point 9.4 (Fig. 10.3). **Attention!** It is possible to use this mode at any time during every self-locking abseiling.
12) DYNAMIC MODE - INSTALLATION AND SET-UP
12.1 - Installation. Connect the karabiner to the belay loop on the harness, open the bar and insert the loop (Fig. 12.1). Insert the loop of rope in the slots B in the Alpine Up, referring to symbols 2-7-8 on the device (Fig. 12.2). Insert the karabiner at right angles to the lever H in the hole G with the rope inside (Fig. 12.3). The system is now ready for use (Fig. 12.4).
13) DYNAMIC MODE - BELAYING THE LEAD CLIMBER. Before setting out, the lead climber must be safely anchored and check that the Alpine Up works correctly. Make sure the leader's knot is correct and the rope is uncoiled. Stand in a convenient position so as not to hinder operations. **Warning!** Remember to hold the free end of the rope in your hand at all times! **Risk of death!** When ascending a multi-pitch route, before setting up on a new pitch, the leader's rope must pass through a directional anchorage on the belay point. If not, it is not possible to arrest a fall (figs. 5.6 and 5.7).
13.1 - Feeding the rope (Fig. 13.1). With one hand, bend the free end of the rope and feed it through the Alpine Up. With the other pull and feed the climber's rope through the device. Always hold firmly the free end of the rope in one hand!
13.2 - Taking up slack (Fig. 13.2). With one hand pull and feed the free end of the rope through the Alpine Up. With the other pull the climber's rope towards the device. Always hold firmly the free end of the rope in one hand!
13.3 - Arresting a fall (Fig. 13.3). Hold firmly the free end of the rope in one hand and pull it downwards.
13.4 - Lowering the climber (Fig. 13.4). Grasp the rope firmly with both hands and move them alternately downwards to lower the climber to the ground.
14) DYNAMIC MODE - ALWAYS SAFE, EVEN IN THE EVENT OF AN ERROR.
If either of the installation errors is committed (Fig. 14), follow the instructions under point 7.
15) DYNAMIC MODE - BELAY ON TOP ROPE.
Warning! Remember to hold the free end of the rope in your hand at all times (Fig. 15.3).
15.1 - Installation (Fig. 15.1). Install the system as instructed under point 12.
15.2 - Belaying (Fig. 15.2). With one hand pull and feed the free end of the rope through the device, with the other accompany the climber's rope towards it, taking up slack during ascent.
16) DYNAMIC MODE - ABSEIL. Before descending, belay yourself to the belay station using a lanyard knot and grip into the harness. Prepare the descent rope and make sure it is properly unwound and there is knot at the end.
16.1 - Installation (Fig. 16.1). Install the karabiner in the sling at a minimum distance of 20 cm from the harness. Insert the loop of rope in the slots B in the Alpine Up, referring to symbols 2-7-8 on the device. Insert the karabiner at right angles to the lever in the hole G with the rope inside. Tie a Prusik knot on the rope below the device.
16.2 - Sling tensioning / release. Tension the Prusik knot (Fig. 16.2) so that you can release the sling karabiner (Fig. 16.3).
16.3 - Abseiling (Fig. 16.4). Control the Prusik knot with one hand to prevent it tightening round the rope. Control the rate of descent with the other hand, accompanying the free end of the rope towards the device.
17) BELAYING 1 OR 2 SECONDS.
17.1 - Installation. Insert the loop of the rope in slots B in the Alpine Up, referring to symbols 1-5-10 on the device (Fig. 11.1). Insert the Alpine Up in the sling karabiner with the hole G at right angles to the lever, with the rope inside (Fig. 11.1). Hook up the Concept SGL HMS karabiner in the hole I, then connect it at the top of the belay point, so that the ropes are below it, held correctly inside the device (Fig. 11.2). **Warning!** Make sure the climber's rope is above the free end of the rope and that the branches are below the karabiner in the hole I.
17.2 - Function test (Fig. 11.3). Pull the rope at the climber end to make the self-locking system works.
17.3 - Belaying 1 or 2 seconds (Fig. 11.4-11.5) Use both hands to take up slack at the climber end through the Alpine Up. **Warning!** Always hold firmly the free end of the rope firmly in both hands and feet. **Warning!** When using half or twin ropes, always hold both free ends of the ropes firmly in your hands and feet (Fig. 11.6).
17.4 - Release (Fig. 11.7). You can use the Alpine Up to gradually release the rope of a second climber even under tension. Insert a quickdraw karabiner in the hole L with the longest side at right angles to the device, so that the belay karabiner is below it. Hold both free ends of the rope firmly taut in your hand and push your palm up on the belay karabiner so that it comes into contact with the other karabiner, creating leverage and allowing you to release the rope and/or lower the climber.
18) LEGEND. Leader (Fig. 2.1); Hand (Fig. 2.2); Second (Fig. 2.3); Anchor (Fig. 2.4); Fall (Fig. 2.5); Lowering (Fig. 2.6).

9 CLICK UP MODE / SELF LOCKING ABSEILING - FIRST USES

10 CLICK UP MODE / SELF LOCKING ABSEILING - FACILITATED MODE

This mode is ideal when the self-locking abseiling is quite difficult.



9.1 ABSEILING — To practice to abseiling in a self-locking way, make a Prusik knot on the rope below the device.

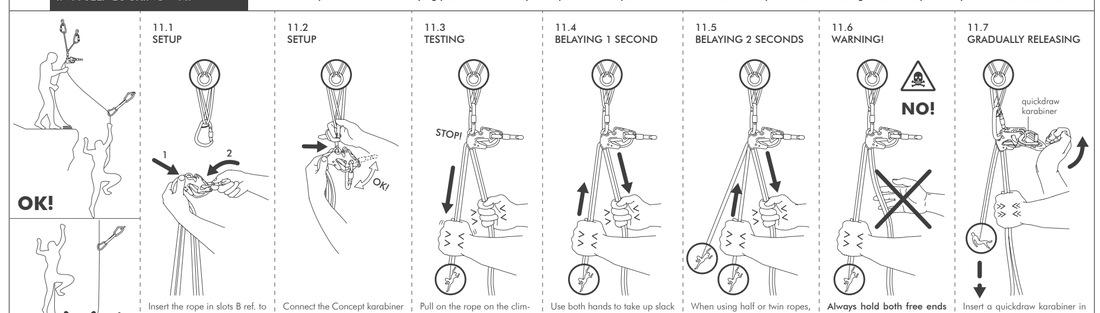
10.1 SETUP — Install the device as instructed under point 10.1-10.2, then insert an additional locking karabiner in the hole I.

10.2 SETUP — Insert the rope in the additional carabiner, close the gate, then follow the steps under point 10.3-10.4.

10.3 ABSEILING — Open the lever H (1), press on it and rotate the device upwards (2). Pull the free end of the rope towards the device, so to abseil.

11 BELAYING 1 OR 2 SECONDS IN A SELF-LOCKING WAY

This mode allows the belaying of one or two seconds simultaneously and independently.
After the setup and before the belaying you must test the system: pull on the rope on the climber's side to verify that the self-locking function stops the rope on the climber's side.



11.1 SETUP — Insert the rope in slots B ref. to symbols 15-16 (1). Insert a wide-base HMS karabiner in the hole G with the rope inside (2).

11.2 SETUP — Connect the Concept karabiner at the center of the belay station and connect it in the hole I, so that the ropes remain below it.

11.3 TESTING — Pull on the rope on the climber's side to verify that the self-locking function stops the rope on the climber's side.

11.4 BELAYING 1 SECOND — Use both hands to take up slack at the climber end through the device. **Hold the free end of the rope taut in both hands.**

11.5 BELAYING 2 SECONDS — When using half or twin ropes, **always hold both free ends of the ropes firmly in your hands and taut!**

11.6 WARNING! — **Always hold both free ends of the ropes firmly in your hands and taut!**

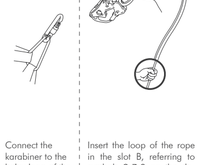
11.7 GRADUALLY RELEASING — Insert a quickdraw karabiner in the hole L, hold both free ends of the rope firmly in your hand and push your palm up.

(ISTRUZIONI SPECIFICHE ALPINE UP (BREVETTATO).
1) CAMPO DI APPLICAZIONE. Alpine Up è un assicuratore / discensore per alpinismo e vie sportive a uno o più tiri e può essere utilizzato con corde singole, mezze corde o corde gemelle. Esso presenta due modalità di assicurazione, secondo del terreno: - in caso di sì tiro: **CLICK UP MODE** (sistema di frenata manuale assistita). Per l'arrampicata su vie sportive ben attrezzate con ancoraggi fissi come spit o fittoni resinati, per l'arrampicata in falesia e indoor. **Attenzione!** Modalità non adatta all'uso su vie alpinistiche e terreno d'avventura; **DYNAMIC MODE** (sistema di frenata manuale). Per l'arrampicata su terreno d'avventura e vie alpinistiche attrezzate con friends, nuts, chiodi etc.
2) NOMENCLATURA / MARCATURA.
Il lato A del dispositivo riporta le indicazioni per l'assicurazione del primo nelle due modalità; il lato B del dispositivo riporta quelle necessarie per l'assicurazione di 1 o 2 secondi.
2.1 - Nomenclature delle parti. A) Gola di frenaggio (da usarsi in caso di errore). B) Sedi di inserimento asola di corda. C) Blocchi di contrasto. D) Zona di frenaggio. E) Levetta mobile. F) Foro per moschettone CLICK UP MODE. G) Foro per moschettone DYNAMIC MODE. H) Leva ergonomica per discesa in corda doppia / calata. I) Foro per moschettone di sosta. G) Foro per moschettone di assicurazione. L) Foro per moschettone di supporto allo bloccaggio.
2.2 - Indicazioni di marcatura. 1) Nome del produttore o del responsabile dell'immissione sul mercato. 2) Indicazione lato mano. 3) EN 15151-2:2012 tipo 2: norma a cui il dispositivo è conforme. 4) Logo UIAA. 5) Nome del prodotto. 6) Indicazione foro moschettone CLICK UP MODE. 7) Indicazione foro moschettone DYNAMIC MODE. 8) Indicazione lato arrampicatore. 9) Indicazione foro per moschettone di sosta. 10) Diametri e tipologia corde compatibili. 11) Indicazione foro moschettone per l'assicurazione dei secondi. 12) Dispositivo brevettato. 13) Paese di fabbricazione. 14) Numero di lotto (BBYY) composto da lotto di produzione (BB) e anno di fabbricazione (YY). 15) Indicazione lato mano. 16) Indicazione lato secondo di cordata. 17) Logo che avvisa l'utente di leggere attentamente la nota informativa.
3) CONTROLLO. Prima di ogni utilizzo, verificare che tutti i componenti del dispositivo siano in ottimo stato e non presentino eccessive segni di usura, crepe, bavature etc. Verificare in particolar modo la zona di frenaggio (D) e i blocchi di contrasto (C); verificare che la levetta mobile (E) e la leva ergonomica (H) si muovano fino in fondo e ritornino in posizione senza impuntamenti; controllare l'usura del connettore HMS nella zona di scorrimento.
4) COMPATIBILITÀ (Fig. 1).
Verificare la compatibilità del dispositivo con gli altri elementi presenti nel sistema.
4.1 - Corde. Alpine Up è utilizzato con corde dinamiche EN 892: mezze corde o corde gemelle Ø 7.3÷9 mm; corde singole Ø 8.6÷10.5 mm. Efficacia frenante e la facilità a dare corda dipendono dal diametro e dalla scivolosità della corda stessa. **Attenzione!** Utilizzo di corde bagnate o ghiacciate può compromettere il corretto funzionamento dell'attrezzo. **Attenzione!** In caso di impiego con due corde, utilizzare solo corde dello stesso diametro e stato di usura. **Attenzione!** La discesa autobloccante su corda singola non è consentita.
4.2 - Moschettone di assicurazione. È obbligatorio utilizzare il moschettone CONCEPT SGL in lega leggera forgiata a caldo e con ossidazione dura. Esso presenta una superficie anti-usura e una levetta mobile che previene il pericolo di carico trasversale. Questo moschettone, collegato all'anello di servizio dell'imbracatura, deve essere posizionato nei fori F (CLICK UP MODE) e G (DYNAMIC MODE). Quando l'assicurazione di 1-2 secondi, deve essere collegato alla sosta e posizionato nel foro I.
4.3 - Moschettone per l'assicurazione dei secondi. Durante l'assicurazione di 1-2 secondi, nel foro G, si deve utilizzare un moschettone HMS a base larga. **Attenzione!** Il moschettone deve poter ruotare attorno alla base dell'attrezzo (Fig. 11.2).
4.4 - Moschettoni addizionali. Per il rilascio controllato della corda del secondo inserire nel foro L un moschettone da stretto (Fig. 11.7). Per la discesa in corda doppia autobloccante-modalità facilitata, utilizzare preferibilmente un moschettone HMS a base larga, inserito nel foro I (Fig. 9.1).
4.5 - Terminologia. Nella presente nota informativa, il termine "corda" verrà utilizzato per indicare una o due corde. Quando si utilizzano mezze corde o corde gemelle ognuna deve passare nella propria sede B dell'Alpine Up. Con il termine "Prusik" si intende un qualsiasi nodo autobloccante per ajlpinismo.
5) CLICK UP MODE-INSTALLAZIONE E SETUP
5.1 - Installazione. Agganciare il moschettone all'anello di servizio dell'imbracatura, aprire la levetta mobile e inserirvi l'anello (Fig. 4.1). Inserire l'asola di corda nelle sedi B dell'Alpine Up, facendo riferimento ai simboli 2-6-8 riportati sul dispositivo (Fig. 4.2). Inserire il moschettone nel foro F con la corda al suo interno (Fig. 4.3). Il sistema è così pronto per funzionare (Fig. 4.4). **Attenzione!** In caso di utilizzo con corda singola, utilizzare la sede B dell'Alpine Up opposta allo sblocco del moschettone!
5.2 - Test di funzionamento (Fig. 4.5). Prima di ogni utilizzo deve essere sempre verificato il corretto funzionamento del dispositivo. Una volta installato e collegato l'Alpine Up all'imbracatura, trattenere il capo libero della corda con una mano e con l'altra tirare verso l'alto la corda dell'arrampicatore, verificando che questa si arresti nel dispositivo, bloccandola il caratteristico suono "CLICK".
5.3 - Sbloccaggio del dispositivo (Fig. 4.6). Per cominciare l'assicurazione del primo o per ridare corda al compagno dopo l'arresto di volo, tenere sempre il lato libero della corda con una mano, con l'altra mano impugnare l'Alpine Up e premerla in avanti, per poter scorrere liberamente in avanti, riportando così il moschettone nella posizione F.
6) CLICK UP MODE-ASSICURAZIONE DEL PRIMO DI CORDATA.
Prima di assicurare l'assicuratore deve: auto-assicurarsi; verificare che l'Alpine Up funzioni correttamente; verificare che il nodo di collegamento del primo di cordata sia corretto; verificare che la corda sia ben svolta, trovarsi in una posizione comoda che non intralci le operazioni da svolgere. **Attenzione!** Durante tutte le fasi dell'assicurazione è obbligatorio tenere sempre in mano il lato libero della corda! **Pericolo di morte!** Durante la salita di una via a più tiri, prima di partire per un nuovo tiro, è obbligatorio creare un punto di arrivo per la corda del primo direttamente in sosta. Di seguito, in caso, l'Alpine Up, in caso di caduta del primo, potrebbe non funzionare (Fig. 5.6-5.7).
6.2 - Indicazioni di manutenzione. 1) Nome del produttore o del responsabile dell'immissione sul mercato. 2) Indicazione lato mano. 3) EN 15151-2:2012 tipo 2: norma a cui il dispositivo è conforme. 4) Logo UIAA. 5) Nome del prodotto. 6) Indicazione foro moschettone CLICK UP MODE. 7) Indicazione foro moschettone DYNAMIC MODE. 8) Indicazione lato arrampicatore. 9) Indicazione foro per moschettone di sosta. 10) Diametri e tipologia corde compatibili. 11) Indicazione foro moschettone per l'assicurazione dei secondi. 12) Dispositivo brevettato. 13) Paese di fabbricazione. 14) Numero di lotto (BBYY) composto da lotto di produzione (BB) e anno di fabbricazione (YY). 15) Indicazione lato mano. 16) Indicazione lato secondo di cordata. 17) Logo che avvisa l'utente di leggere attentamente la nota informativa.
7) SEMPRE SICURI, ANCHE IN CASO DI ERRORE.
Nel caso in cui si verifichi una dei due errori di installazione mostrati (Fig. 6.1-6.3) il dispositivo non funzionerà correttamente. Se si verifica un errore di installazione immediatamente la salita e calare l'arrampicatore nel seguente modo (Fig. 6.2-6.4): posizionare la corda nella cava di frenaggio A e con entrambe le mani accompagnarla verso il dispositivo, spostandole una dopo l'altra verso il basso in modo da calare il compagno a terra.
8) ASSICURAZIONE CON CORDA DALL'ALTO. Attenzione! Durante tutte le fasi dell'assicurazione è obbligatorio tenere sempre in mano il lato libero della corda (Fig. 7.3).
8.1 - Installazione (Fig. 7.1). Installare e attivare il dispositivo in modalità di bloccaggio come al punto 5.2. Verificare inoltre che il nodo di collegamento del secondo di cordata sia corretto.
8.2 - Assicurazione (Fig. 7.2). Con una mano trare e far scorrere il lato libero della corda attraverso il dispositivo, con l'altra accompagnare la corda dell'arrampicatore verso di esso, recuperando così la corda durante la salita. In caso di caduta dell'arrampicatore, il sistema sarà sempre attivo in modalità di bloccaggio corda.
9) DISCESA IN CORDA DOPPIA AUTOBLOCCANTE. Prima della discesa è necessario: assicurarsi alla sosta con una lunga fettuccia all'imbracatura in modo sicuro; preparare la corda in sosta per la discesa e verificare che sia ben svolta ed abbia un nodo alla sua fine.
9.1 - Installazione (Fig. 8.1-8.2). Installare l'Alpine Up nella sling con una distanza minima di 20 cm e attivarlo in modalità di bloccaggio come al punto 5.2. **Attenzione!** Il simbolo "Indicazione lato arrampicatore" (B), in questo caso, identifica il lato di corda in direzione del punto di ancoraggio (Fig. 8.1).
9.2 - Bloccaggio e tensionamento (Fig. 8.3). Recuperare la corda, come indicato in 6.2, in modo da caricare con il proprio peso le corde e tensionare il sistema.
9.3 - Rilascio della longe (Fig. 8.4). Tenendo sempre con una mano il lato libero della corda, sganciare con l'altra il moschettone della longe.
9.4 - Discesa in corda doppia (Fig. 8.5). Tenendo sempre il lato libero della corda con una mano, aprire con l'altra la leva H (1), spingere sul esso e ruotare poi il dispositivo verso l'alto (2) come mostrato. Accompagnando il lato libero della corda verso il dispositivo effettuare la discesa. **Attenzione!** Non trare la leva e il dispositivo verso il basso: il sistema rimarrebbe frenato.
10) PRIMI UTILIZZI IN CORDA DOPPIA AUTOBLOCCANTE. Durante i primi utilizzi, al fine di prendere dimestichezza con la discesa in corda doppia autobloccante, si consiglia di utilizzare un nodo Prusik sulla corda al di sotto del dispositivo (Fig. 9.1). Seguire le operazioni da 9.1 a 9.4 e, mantenendo scorrici il nodo Prusik, procedere con la discesa. **Attenzione!** Installare l'Alpine Up ad una distanza tale che non interferisca con il nodo Prusik.
11) DISCESA IN CORDA DOPPIA AUTOBLOCCANTE-MODALITÀ FACILITATA.
Esistono alcune situazioni in cui la discesa in corda doppia può risultare piuttosto difficoltosa: elevato peso delle corde interamente sospese nel vuoto; scarso peso dell'arrampicatore (es. bambini, ragazzi, donne); rapporto sfavorevole fra il peso dell'arrampicatore e quello delle corde di di sotto del dispositivo. In tutti questi casi è necessario agevolare il peso delle corde dall'Alpine Up in modo da rendere più fluida la discesa. Per fare questo è sufficiente applicare uno dei seguenti metodi: **A**-sollevare progressivamente i lati liberi delle corde posti al di sotto del dispositivo, quanto basta per consentire una discesa fluida; **B**-eseguire le seguenti operazioni: installare l'Alpine Up come indicato ai punti 9.1-9.2 e inserire un moschettone addizionale nel foro I (Fig. 10.1). Inserire le corde all'interno del moschettone (Fig. 10.2), chiudere la ghiera e seguire le indicazioni espresse ai punti 9.3-9.4. Procedere con la discesa come espresso al punto 9.4 (Fig. 10.3). **Attenzione!** È possibile utilizzare questo modalità in ogni momento durante qualsiasi discesa in corda doppia autobloccante.
12) DYNAMIC MODE-INSTALLAZIONE E SETUP
12.1 - Installazione. Agganciare il moschettone all'anello di servizio dell'imbracatura, aprire la levetta mobile e inserirvi l'anello (Fig. 12.1). Inserire l'asola di corda nelle sedi B dell'Alpine Up, facendo riferimento ai simboli 2-7-8 riportati sul dispositivo (Fig. 12.2). Inserire il moschettone perpendicolarmente alla leva nel foro G con la corda al suo interno. Costruire un nodo Prusik sulla corda al di sotto del dispositivo.
13) DYNAMIC MODE-ASSICURAZIONE DEL PRIMO DI CORDATA.
Prima di assicurare l'assicuratore deve: auto-assicurarsi; verificare che l'Alpine Up funzioni correttamente; verificare che il nodo di collegamento del primo di cordata sia corretto; verificare che la corda sia ben svolta, trovarsi in una posizione comoda che non intralci le operazioni da svolgere. **Attenzione!

12 DYNAMIC MODE INSTALLATION AND SETUP

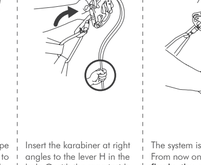
This mode is ideal for use on traditional climbing routes with temporary anchors.

12.1 SETUP



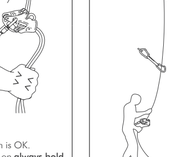
Connect the karabiner to the belay loop of the harness.

12.2 SETUP



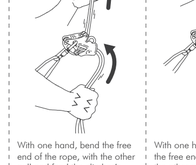
Insert the loop of the rope in the slot B, referring to symbols 2-7-8 on the device.

12.3 SETUP



Insert the karabiner at right angles to the lever H in the hole G with the rope inside. **Close the karabiner gate!**

12.4 SETUP IS OK!

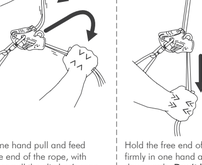


The system is OK. From now on **always hold firmly the free end of the rope in your hand!**

13 DYNAMIC MODE BELAYING THE LEADER

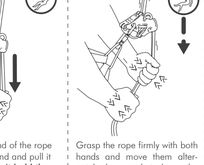
Attention! A safety check between the climber and the belayer is essential before start climbing!

13.1 GIVING SLACK



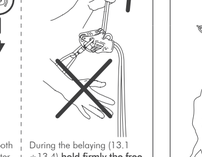
With one hand, bend the free end of the rope, with the other pull and feed the climber's rope through the device.

13.2 TAKING UP SLACK



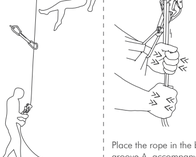
With one hand pull and feed the free end of the rope, with the other pull the climber's rope towards the device.

13.3 ARRESTING A FALL



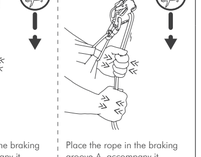
Hold the free end of the rope firmly in one hand and pull it downwards. **Don't hold the device in your hands!**

13.4 LOWERING



Grasp the rope firmly with both hands and move them alternately downwards to lower the climber to the ground.

13.5 WARNING!

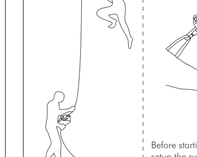


During the belaying (13.1 ÷13.4) **hold firmly the free end of the rope in your hand at all times!**

14 DYNAMIC MODE SAFE, EVEN IN CASE OF ERROR

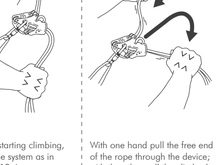
In case of error stop the ascent and lower the climber.

14.1 SAFE LOWERING



Place the rope in the braking groove A, accompany it towards the device and lower the climber.

14.2 SAFE LOWERING

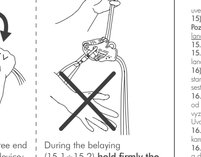


Place the rope in the braking groove A, accompany it towards the device and lower the climber.

15 DYNAMIC MODE BELAYING THE SECOND IN TOP ROPE

During belaying at all times hold the free end of the rope in your hand!

15.1 SETUP

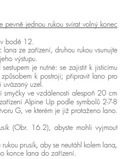


Before starting climbing, setup the system as in 13.1 ÷ 13.4.

15.2 BELAYING

With one hand pull the free end of the rope through the device; with the other pull the climber's rope towards the device.

15.3 WARNING!

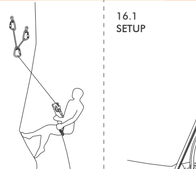


During the belaying (15.1÷15.2) **hold firmly the free end of the rope in your hand at all times!**

16 DYNAMIC MODE CLASSIC ABSEILING

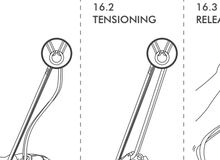
With Alpine Up you can abseil in a classic way: it works like a classic tubular belay descender and must be combined with a Prusik knot.

16.1 SETUP



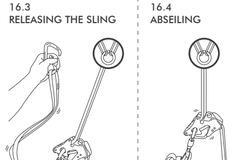
Belay yourself to the belay loop of the harness, indicated in 13.1÷13.4 and tie a Prusik knot on the rope below the device.

16.2 TENSIONING



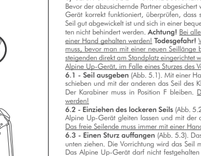
Tension the knot with the free end of the rope, in this way can be suspended on the rope.

16.3 RELEASING THE SLING



With one hand hold firmly the free end of the rope, with the other hand control the knot and release it.

16.4 ABSEILING



Control the Prusik knot with the other hand and slide down on the rope.

17 WARNINGS

uvedeným v bodě 7.

15) DYNAMIC MODE - JIŠTĚNÍ S HORNÍM LANEM.

Pozor! Během všech fází jištění je bezpodmínečně nutné stále pevně jednou rukou svírat volný konec lana (Obr. 15.3).

15.1 - **Instalace** (Obr. 15.1): Nainstalujte systém dle pokynů v bodě 12.

15.2 - **Jištění** (Obr. 15.2): Jednou rukou vytáhněte volný konec lana ze zařízení, druhou rukou vysunte lano vedoucí od lezce do zařízení, čímž jej dobíráte během jeho výstupu.

16) DYNAMIC MODE - SESTUP PO DVOJITÉM LANĚ. Před sestupem je nutné: se zajistit k jisticímu stavoviti pomocí osobního smyčky připojené bezpečným způsobem k pasnímu popruhu; se ujistit, zda je správně rozmístané a zda má na konci uvázaný uzel.

16.1 - **Instalace** (Obr. 16.1). Vložte karabinu do odsedávací smyčky ve vzdálenosti alespoň 20 cm od postroje. Vložte smyčku vyhotovenou z lana do otvoru B v zařízení Alpine Up podle symbolů 2-7-8 vyznačených na zařízení. Vložte karabinu kolmo k place do otvoru G, ve kterém je již protažené lano. Uzavřte Prusíkův uzel na lano pod zařízením.

16.2 - **Napnutí/uvolnění odsedávací smyčky**. Napněte prusík (Obr. 16.2), abyste mohli vyjmout karabinu odsedávací smyčky (Obr. 16.3).

16.3 - **Sestup po dvojitém laně** (Obr. 16.4). Ovládejte jednou rukou prusík, aby se neutáhl kolem lana, a druhou rukou kontrolujte sestup posouváním volného konce lana do zařízení.

17) JIŠTĚNÍ 1 O 2 DRUHOLEZCŮ.

17.1 - **Instalace.** Vložte smyčku vyhotovenou z lana do otvorů B v zařízení Alpine Up podle symbolů 1-5-7 vyznačených na zařízení (Obr. 17.1). Vložte jistící karabinu do smyčky a vložte ji do otvoru G. Vložte jistící karabinu do smyčky a vložte ji do otvoru H. Zavřete zámky karabin. Vložte lano druholeze do zařízení (Obr. 17.1). Pozor! Zkontrolujte, zda je lano vedoucí k lezci nalezl pod volným koncem lana a zda jsou oba konce pod karabinou zapojeny v otvoru J.

17.2 - **Test funkčnosti** (Obr. 11.3). Pro kontrolu, zda samoblokovací systém funguje, zatáhněte dolů jistící lano vedoucí k lezci.

17.3 - **Jištění 1 do 2 druholezců** (Obr. 11.4-11.5). Ke správnému dobírání lana druholezců je nutné: zajistit druholezce k jednomu z bodů ukotvení; vložte DYNAMIC MODE (Hj Ergonomické pouzdro) do jisticího lana! Pozor! Během používání pětiprstních či dvojitých lan se bezpodmínečně nutné stále jednou rukou pevně svírat a napínat jedno volné lezcovo lano (Obr. 11.6).

17.4 - **Sestup** (Obr. 11.7). Jednou rukou vytáhněte volný konec lana ze zařízení. Druhou rukou vysouvejte lano vedoucí od lezce do zařízení. Dobírejte prusíkem volný konec lana.

18) **LEGENDA.** Pouzdro (Obr. 2.1); Kukla (Obr. 2.2); Druholezec (Obr. 2.3); Jistící bod (Obr. 2.4); Pád (Obr. 2.5); Sestup (Obr. 2.6).

中文

此说明包含设备的通用信息和专门信息，使用前须认真阅读。注意！此说明只包含专用说明。

1). ALPINE UP （专利）专用说明。

1.1) 使用范围。ALPINE UP是用于登山和运动，多用段结绳攀岩的保护下降器，可以使用单绳、半绳和双绳，其有两种保护方式可选择。CLICK UP 模式是指，CLICK UP 是一个有固定锚点，如挂片、螺栓锚点的运动攀岩或室内攀岩。警告，不适合传统路线及有短路段的运动攀岩。

1.2) 一般成部分。A) 摩擦槽(错误操作时使用)。B) 旋闭槽。C) 摩擦区域。D) 弹片杆。F) CLICK UP 模式装载孔。G) DYNAMIC MODE 装载孔。H) 入体工程学下放/下降杆。I) 保护模式选择孔。G) 保护模式选择孔。L) 特别设计的手柄。

2.2 – 标志。1) 生产商名称或负责市场销售的品牌名称。2) 符合EN 15151-2 ; 2012 type 2标准。4) UIAA LOGO. 5) 产品名称。6) CLICK UP MODE三脚连接孔。7) DYNAMIC MODE三脚连接孔。8) 型号。10) 静摩擦系数在行程内。11) 保护模式选择孔。12) 生产日期。14) 批号（BB-YY）由产品批号（BB）和制造年份（YY）组成。15) 制动端子。16) 跟踪编码。17) 要求使用者认真阅读说明书的LOGO。

3) 在收到产品，每次使用前和使用后检查设备是否完好。无过度磨损、撕裂、裂纹或其它。特别检查制动区域（D）和摩擦区域（C）。确保弹片杆（E）和下落杆（H）能完全压缩并顺滑释放。不合乎标准，检查DMC主锁无过度磨损。

4. 推荐性（用户）。确定设备是否适合使用。

4.1-理论。ALPINE UP使用DB892动力绳，其直径和抗冲力3-9 MM; 单绳 ø 8.6-9.10.5 MM. 制动常单的使用的最易做法于绳索的直径和刚度程度。注意！使用两根绳索时，使用两根直径相同和弹性相近的绳索。注意！单绳使用行程较下降。

4.2-保护主题。必须使用相应制动表面（CLICK UP MODE）的CE认证的主题。其配有耐磨外壳和防腐闪光灯。必须选择正确孔（CLICK UP MODE）和孔（DYNAMIC MODE）。当保护模式在跟随下降。

4.3-保护跟随者的主题。当保护模式在跟随下降。

4.4-下降模式。当使用双绳时，使用两条绳索。使用两条绳索时，使用两条绳索时，警告！主题可以在设备上自由旋转（图11.2）。

4.5-断开绳。当使用双绳时，断开绳索时。

4.6-保护（图15.2）。制动端子从ALPINE UP中拉出两条，另一只手将摩擦槽的绳索从保护器中拉出。注意始终要有手抓住绳索的制动端。

4.7-下降（图15.3）。当使用单绳时，使用两条绳索时，使用两条绳索时，警告！主题可以在设备上自由旋转（图11.2）。

5. 使用前检查设备的通用信息和专门信息。使用前须认真阅读。注意！此说明只包含专用说明。

5.1-安全。将主绳与安全带的保护环相连。打开弹簧杆装入保护环（图6.1）。将绳环安装在ALPINE UP下的槽中。安装图示6-8（图6.2）。将主绳安装在孔上。上方孔用于保护模式。下方孔用于下降模式。

5.2-绳索安装。保护器的绳索有保护先锋器的绳索。注意！使用两条绳索。使用可以使用此系统（图4.2）。警告！使用单绳时，将绳索安装在ALPINE UP上与插门相反的槽中。

5.3-绳索安装。将安装图示安装在安装图示。

5.4-下降模式。当使用双绳时，使用两条绳索。使用两条绳索时，使用两条绳索时，警告！主题可以在设备上自由旋转（图11.2）。

5.5-绳索安装。将主绳与安全带的保护环相连。打开弹簧杆装入保护环（图6.1）。将绳环安装在ALPINE UP下的槽中。安装图示6-8（图6.2）。将主绳安装在孔上。上方孔用于保护模式。下方孔用于下降模式。

5.6-保护（图15.2）。制动端子从ALPINE UP中拉出两条，另一只手将摩擦槽的绳索从保护器中拉出。注意始终要有手抓住绳索的制动端。

5.7-下降（图15.3）。当使用单绳时，使用两条绳索时，使用两条绳索时，警告！主题可以在设备上自由旋转（图11.2）。

6. 操作。

6.1-制动操作。（图7.1）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.1）。

6.2-下降。（图7.2）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.2）。

6.3-下降。（图7.3）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.3）。

6.4-下降。（图7.4）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.4）。

6.5-下降。（图7.5）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.5）。

6.6-下降。（图7.6）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.6）。

6.7-下降。（图7.7）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.7）。

6.8-下降。（图7.8）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.8）。

6.9-下降。（图7.9）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.9）。

6.10-下降。（图7.10）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.10）。

6.11-下降。（图7.11）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.11）。

6.12-下降。（图7.12）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.12）。

6.13-下降。（图7.13）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.13）。

6.14-下降。（图7.14）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.14）。

6.15-下降。（图7.15）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.15）。

6.16-下降。（图7.16）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.16）。

6.17-下降。（图7.17）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.17）。

6.18-下降。（图7.18）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.18）。

6.19-下降。（图7.19）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.19）。

6.20-下降。（图7.20）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.20）。

6.21-下降。（图7.21）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.21）。

6.22-下降。（图7.22）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.22）。

6.23-下降。（图7.23）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.23）。

6.24-下降。（图7.24）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.24）。

6.25-下降。（图7.25）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.25）。

6.26-下降。（图7.26）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.26）。

6.27-下降。（图7.27）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.27）。

6.28-下降。（图7.28）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.28）。

6.29-下降。（图7.29）。通过制动操作，开始下降。在下降过程中，ALPINE UP的制动端子（图7.29）。