

System ZAZA 2

OPERATOR' S GUIDE

Guide to be given to the park operator in addition to the manufacturer's manual.

This document is to be kept in the park reception area and to be presented for all controls.



All the components from the continuous belay system COUDOU PRO must be installed by a competent professional who scrupulously respects the requirements of the technical sheets as well as the standards in force in the country where the assembly takes place.

European Standards



EN15567-1

EN15567-2

EN 17 109

PPE 89/686 ECC

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INFORMATION: Language of the guide: This guide is subject to French law to the exclusion of any other legislation.. It is written in French. In cases where it is translated into one or several languages, the French version will prevail in case of dispute.

In the event of difficulties of comprehension or interpretation of this guide, only the French text will prevail.

This guide may, by decision of the author, be rectified at any time and/or be improved through certain necessary updates on a technical level and for good comprehension.

IMPORTANT INFORMATION FOR PARK OPERATORS USING THE ZAZA2 SYSTEM

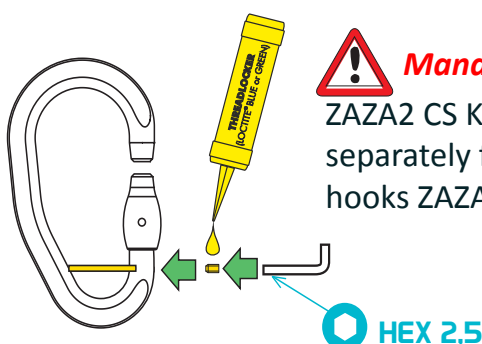
Anyone using this system undertakes to comply with the instructions for use of the ZAZA2 system.


The operator must have the conformity of its facilities checked after installation by an authorized inspection body (see section 6 of this guide).


IMPORTANT RECOMMENDATIONS


The ZAZA2 CS safety hooks must be fitted directly and correctly (by a locking elastic) to a CE compliant lanyards to personal protective equipment (PPE) provided to each participant in accordance with the EN 15 567-1 and EN 17 109 standards in force .


The selection of PPE should be adapted to the design of adventure trails.



 **Mandatory:** Conform to the note of the manufacturer **KONG**
ZAZA2 CS Kong hooks must be equipped with lanyard locking bars delivered separately from the hooks (see “Information before commissioning safety hooks ZAZA2 CS” provided at the time of sending and in this guide).

 **Any improper mounting or mounting of elements that are not part of the ZAZA2 system cancels all certifications and COUDOU PRO disclaims any liability in their use.** The ZAZA2 system is CPE (Collective Protection Equipment), composed of a set of related products and their mounting methods; this entire set is only certified if the elements are part of the ZAZA2 system.

 **ATTENTION:** The ZAZA2 continuous lifeline safety device consists of an inseparable set of anchoring elements (brackets, plates and safety hooks) as well as their modes of fastening. Any improper mounting or mounting of elements that are not part of the ZAZA2 system cancels all certifications, guarantees and all liability of the company COUDOU PRO. ZAZA2 safety hooks cannot be used as security elements on continuous lifeline devices other than the system ZAZA2.

 **IMPORTANT:** In the case of use of a double lanyard equipped with a ZAZA2 safety hook and a traditional carabiner, the ZAZA2 hook is the only safety device of the of lifeline system ZAZA2. The second carabiner remains an element of progression and not of safety in the same way as a pulley (see advantages below)

Advantages of using a double lanyard with a 2nd carabiner:

- Allows the practitioner to keep to his usual routes on adventure courses by the passage of the hook and carabiner transfer, while being permanently secured by the safety hook.
- Helps regulate the flow on the course avoiding a too rapid movement by passage of the hook and carabiner transfer.
- Facilitates the use of ZAZA2 CONNECT on landing after pendular jumps.
- Can be attached to vertical climb fall arresters not using the ZAZA2 CONNECT.

1. INSTRUCTIONS FOR USE and MAINTENANCE OF THE «ZAZA2 CS» SAFETY HOOK

1.1 IMPORTANT INFORMATION REQUIRED TO BE PROVIDED TO OPERATORS

Each park operator must be aware of recommendations of the manufacturer **KONG** for the use of the ultra-fast evacuation system fitted to the ZAZA2 security hooks (**ref :629.082**)

When making equipment available to the customer, you must ensure that the ZAZA2 safety hook has its evacuation mechanism locked (see Photo n°1: lock pin visible in locked position in the ferrule). It has a gap of 6.5mm (1/4 inch) between the two points so as not to be removed from the cable by the user (see photo n°1).

1.2 EACH PARTICIPANT WILL RECEIVE INSTRUCTIONS FOR USE

Before starting on the trails participants are required to do a test course (briefing) to verify that they have understood the instructions and mainly how to engage the ZAZA2 CS

security hook at the start of each trail (see photo n°2) in accordance with standard EN 15 567-2.

+ Check the state of the locking bar.

 **IMPORTANT: the operator must ensure that each participant has properly engaged the ZAZA2 safety hook at the start of each trail.**


1.3 EVACUATION

To evacuate a customer from the continuous lifeline, strike the evacuation mechanism locking pin using the specific key and bring down the ferrule to open the hook to disengage the cable (see photo n°3). Each operator must have a key allowing its opening.

 **VERY IMPORTANT: After each opening of the evacuation mechanism, the operator must check that it is indeed returned to the “locked” position.**

1.4 CONTROLS: comply with standard EN 15 567-2 «Control of equipment».


a. It is important to carry out routine visual controls before and after the provision of the ZAZA2 safety hook to the customer in order to detect all problems.

 **VERY IMPORTANT: before the first entry into public service, operate the evacuation mechanism of each hook to verify that it works properly and freely.**

You must clearly hear the «click» of locking on raising the ferrule which ensures that the locking pin is indeed in the «locked» position, the pin must be visible flush with the ferrule.


b. It is also important to carry out a monthly functional control in order to check if the mechanism of evacuation is not damaged (seized up or crushed).

c. **The ZAZA2 safety hook is part of the overall ZAZA2 system** composed of brackets, safety hooks, cables and their mode of attachment. The safety hook is a device which is fixed in a permanent way during its use and which can be opened only with a tool. **The ZAZA2 safety hook shall be subject to annual inspection.** The hook being attached to a batch of PPE (Personal Protective Equipment) provided to the customer, **shall be entered in the PPE inspections register** with its date of commissioning batch and serial number (see Section 4.2 of this guide).

 **IMPORTANT: Check the gap of the safety hook**

1.5 MAINTENANCE AND STORAGE OF ZAZA2 SAFETY HOOK

It will be appropriate, at the end of the season, to lubricate the safety hook evacuation mechanism.

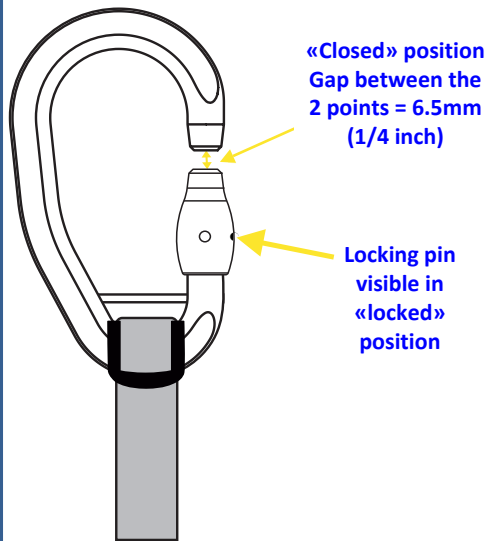
Place the ferrule head-down to inject lubricant type «Vaseline oil», make several back-and-forth motions of the ferrule to fully saturate the mechanism (see Photo n°4).  Adapt the frequency of lubrication to the frequency of use (3 times minimum per season)

After the lubrication operation, for storage, hang the harness so that the hook head points down (see Photo n°5) so that the oil dries in the ferrule and does not run onto the ground. The safety hooks should be stored in a clean room, protected from moisture. Before putting them into service the following season, it will be necessary to ensure that the evacuation mechanism is working properly.

1.6 REPLACING THE LANYARD or DISASSEMBLING THE BAR OF THE ZAZA2 CS SAFETY HOOK

When disassembling the bar, **it is essential to reinstall the clamping screw with threadlocker (photo n°7)** to prevent any risk of loosening due to vibrations.

Photo 1



You must check that the participants engage the safety hook at the start of each trail.

Photo 2

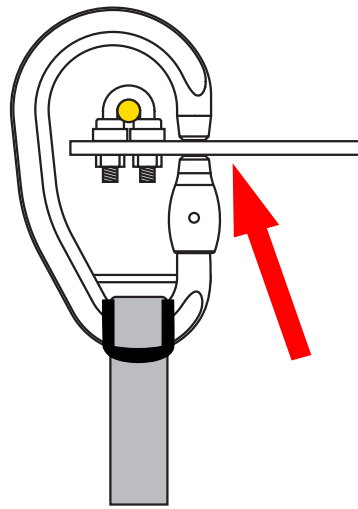
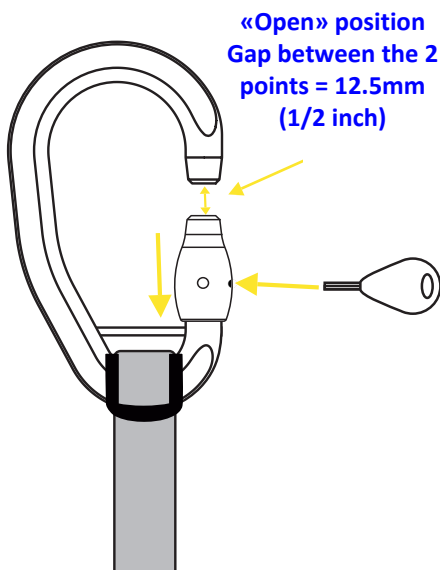


Photo 3



Place the ferrule head down to inject lubricant .

Photo 4

Move the ferrule back and forth several times to saturate the mechanism.

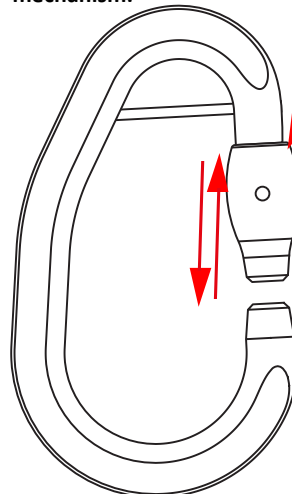
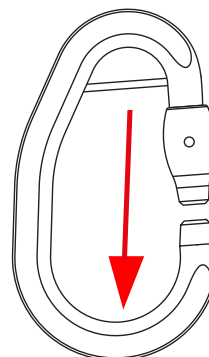


Photo 5

After lubrication, allow the hook to dry head down.



To allow opening of the hook: Strike the locking pin using a key and bring the ferrule down.

IMPORTANT AFTER EACH OPENING

verify that it is in the «locked» position

You must hear the «click» of locking which ensures that the pin is in the «locked» position

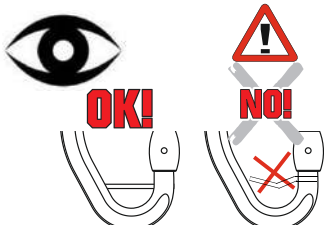
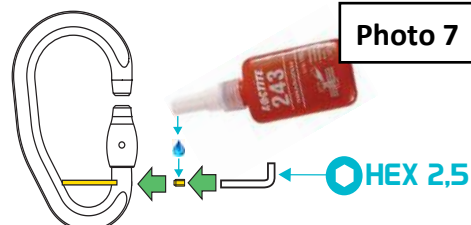


Photo 6

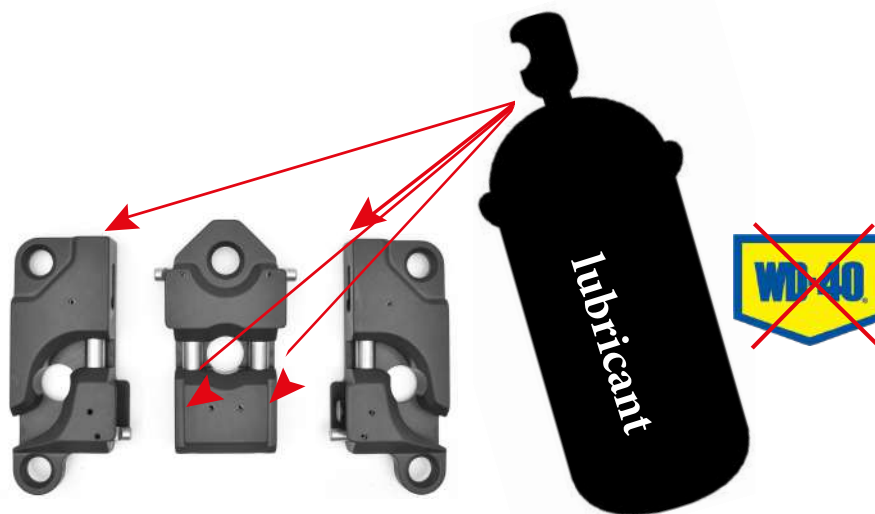
Photo 7



2. INSTRUCTIONS FOR USE OF ZAZA2 CONNECT



For flexible operation, lubricate the inner mechanisms of the three parts with a lubricant .
Adapt the frequency of lubrication to the frequency of use (three times minimum by season).



IMPORTANT:

- Each set of 3 parts is associated to work perfectly together.
DO NOT SEPARATE THEM.
- For proper operation, you should not leave them lying in dust, mud, or sand.
- At the end of the season, remove them so as not to leave them exposed to winter weather (frost, snow, rain). Being mechanical parts, **they should be stored in a clean room, protected from moisture, dust, bad weather (rain, frost, snow, etc.).**
- When dismantling, identify them so that the sets remain associated.
- Before storage, lubricate the interior of the bodies with a Teflon type oil and actuate to them 3 to 4 times to distribute oil in the body.
- Before returning them to service the following season, it must be ensured that the opening and closing mechanisms are working properly.

2.2 INSTRUCTIONS OF «ZAZA2 CONNECT» :

Refer to the appendix on page 11.



IMPORTANT: You must double the security in the use of jump rings and verticals

In the case of double use along with a second hook: you have to put the hook in the ring stop falling or safety wire.

With the use of a single tether: connect a quickdraw appropriate length with a snap hook to the ring stop falling or safety wire. The carabiner of the quickdraw will be placed in the jumper harness.



IMPORTANT:IMPORTANT : It is imperative to use ZAZA2 Connect as "back up" The weight of the user must be supported by a carabiner directly connected to the bridle of the harness. Make sure that the Connect cannot come and hit the user in the event of a fall. For the use of Quickjump or Quickfly, refer to the Headrush notice.

During BREIFING : User must be clear to be careful not to get the gloves(or an Outfit) in the CONNECT pistons and (if that is the case) do not force. in any doubt, call an operator.

3. WARRANTY CONDITIONS FOR ZAZA2 SYSTEM COMPONENTS

3.1 The warranty takes effect from the date of invoice.

3.2 All plates and bypasses are guaranteed for 5 years against manufacturing defects (excluding improper installation, misuse or deterioration due to poor maintenance).

3.3 The KONG ZAZA2(629082) fast evacuation safety hooks have a 2 year guarantee:

- excluding misuse (e.g.: putting on the ground in soil, dust or mud, fitting a lanyard that is too short or bad cable sag = high friction),
- excluding deterioration (poor maintenance, improper storage, etc. ..),
- excluding damage due to impacts or accidents,
- excluding modifications,
- excluding normal wear of parts.

3.4 The KONG ZAZA2 CONNECT for jumps and vertical climbs have a two year warranty:

- excluding misuse,
- excluding deterioration (e.g.: putting on the ground in soil, dust or mud, poor maintenance, improper storage, etc. ..),
- excluding damage due to impacts or accidents,
- excluding modifications,
- excluding normal wear of parts.

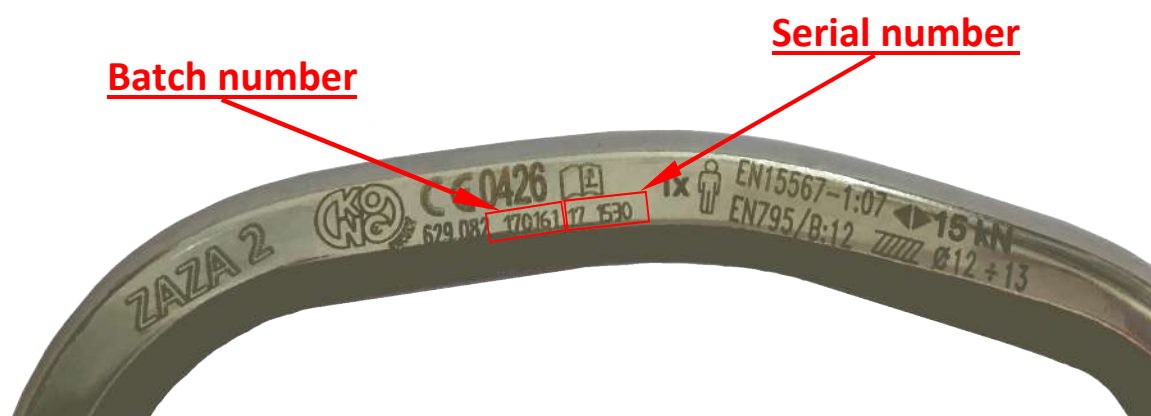
4. SERVICE LIFE OF COMPONENTS *(excluding continuous lifeline cable)*

4.1 The lifetime of the components of the ZAZA2 system starts from the date of commissioning. The date of commissioning shall be recorded in the information or park maintenance folder.

4.2 The lifespan of the KONG ZAZA2 safety hooks depends on their frequency of use and their state of wear. Being attached to a batch of PPE, the date of commissioning must be recorded in the PPE control register with their printed serial number (eg 13 or 131 615 0282), the manufacturer's name: KONG / COUDOU PRO and model: ZAZA2 CS.

On each occasion before being made available the ZAZA2 safety hooks must be validated, according to standard EN 15 567-2, Appendix B, «Monitoring and Inspection of Personal Protective Equipment.»


4.3 The lifespan of the whole assembly of plates, bypasses and CONNECT for jumps and vertical climbs of the ZAZA2 system depends on their frequency of use and their state of wear. The lifespan of ZAZA2 CONNECT is limited to 20 000 cycles of use max. During the mandatory periodic control, the inspection body will assess their condition and validate their use, in accordance with standard EN 15 567-2 Article 10: «Controls and maintenance»



5. SERVICE LIFE OF CONTINUOUS LIFELINE CABLE

The lifespan of the cable depends on its condition and its oxidation level in the same way as a traditional lifeline cable. The continuous lifeline cable will be subject to quarterly inspections (see Section 6.5 of this guide).

During the mandatory annual inspection, the inspection body shall determine its condition and validate its use with the other elements of the ZAZA2 system, it is part of the CPE (Collective Protection Equipment).

 **IMPORTANT:** the zip-line cables being continuous with the continuous lifeline cable, must especially be monitored for wear due to the rolling of the pulleys.

6. CONTROLS, CHECKS AND MAINTENANCE

to comply with the standard EN 15 567-2 .

 **IMPORTANT:** If you notice worn, distortion, oxidation or rupture, of any elements of the life line, the support or anchorage, it should be replaced immediately or this will lead to the closure of the trail.

6.1 Checks before opening the park must be performed by an authorized inspection body.

6.2 Periodic checks of the park must be carried out at least once a year by an authorised inspection body.


6.3 It is important to perform **routine visual monitoring before opening the trails** in order to identify any problems.

6.4 It is also important to carry out **a monthly functional control** on the following points:

- a. Check the condition of the plates, ZAZA2 SWITCH, SWIVEL and CONNECT.
- b. Check for loose cable clamps and quick links that hold the plates, ZAZA2 SWITCH, SWIVEL and CONNECT for jumps and vertical climbs.

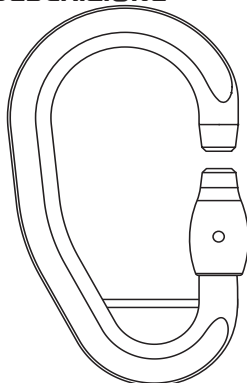
6.5 Quarterly controls to be carried out at the following points:

- a. Perform a complete check of the condition of the continuous life line cable and especially of the zip-line cables with which it is continuous. Check the tightening torque of the cable clamps.
- b. Checking of the tension of the continuous life line cable. The cable must remain at the height defined by the manufacturer to avoid fall risk factors
- c. Perform a complete check of the carrying cables or any other supports where the plates are fixed. .

 **IMPORTANT:** If a cable has a series of cut wires, deterioration or significant oxidation, it must be replaced immediately or will lead to the closure of the trail.

DESCRIPTION • DESCRIZIONE

1



EN 795:12/B
EN 15567-1:07

EN - The Personal Protective Equipment Class III **629.084** called **ZAZA2 CS CONNECTOR EVO** (fig. 1), is an anchor device certified according to EN 795:2012 Class B and EN 15567-1:2007, suitable on wire steel rope with diameter between 12mm and 13mm.

IT - Il Dispositivo di Protezione Individuale di classe III **629.084** denominato **ZAZA2 CS CONNECTOR EVO** (fig. 1) è un dispositivo di ancoraggio conforme alle norme EN 795:2012 classe B e EN 15567-1:2007 per l'utilizzo su cavi metallici con diametri compresi tra 12mm e 13mm.

FR - Les Équipements de Protection Individuelle de classe III **629.084** dénommé **ZAZA2 CS CONNECTOR EVO** (fig. 1) c'est un dispositif d'ancrage conforme aux normes EN 795:2012 classe B et EN 15567-1:2007 pour l'emploi sur des câbles en métal ayant les diamètres entre 12mm et 13mm.

DE - Die persönlichen Schutzausrüstungen der Klasse III **629.084** genannt **ZAZA2 CS CONNECTOR EVO** (fig. 1) ist ein Anschlageneinrichtungen nach EN 795:2012 Klasse B und EN 15567-1:2007 für die Verwendung auf Metallseilen von 12mm bis 13mm.

DESCRIPTION • BESCHREIBUNG



**ZAZA2 CS CONNECTOR
EVO**

**629.08
4**

www.kong.it



Stáhněte si překlad ve vašem jazyce - Laden Sie die Übersetzung in Ihrer Sprache herunter - Download the translation in your language - Bájate la traducción en tu idioma - Télécharger la traduction dans votre langue - Scarica la traduzione nella tua lingua - Download de vertaling in je eigen taal - Pobierz tłumaczenie w twoim języku - Faça o download da tradução no seu idioma - Скачайте перевод на ваш язык - 下载您语言版本的手册

KONG s.p.a.

Via XXV Aprile, 4 - (zona industriale)

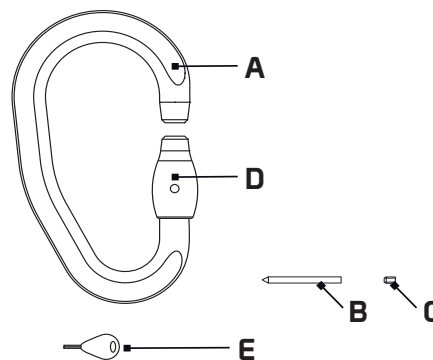
I - 23804 MONTE MARENZO (LC) - ITALY

Tel +39 0341630506 - Fax +39 0341641550 -

info@kong.it

NOMENCLATURE • NOMENCLATURA

2



EN: (A) Stainless steel body, (B) Stainless steel bar for lanyard locking, (C) Galvanized steel grub screw, (D) Stainless steel gate, (E) Key for removal in case of emergency evacuation (not supplied).

IT: (A) Corpo in acciaio inossidabile, (B) Barretta di bloccaggio della lanyard in acciaio inossidabile, (C) Grano filettato in acciaio zincato, (D) Ghiera in acciaio inossidabile, (E) Chiave per la rimozione in caso di evacuazione d'emergenza (non in dotazione).

FR: (A) Corps en acier inoxydable, (B) Barrette de blocage de la longe en acier inoxydable, (C) Vis fileté en acier galvanisé, (D) Virole d'ouverture, (E) Clé pour le retrait en cas d'évacuation d'urgence (non fournie).

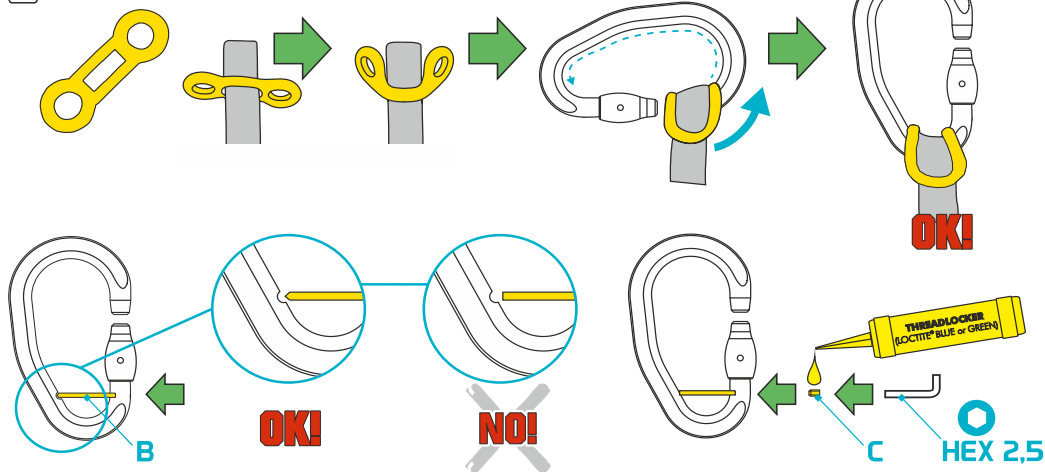
DE: (A) Körper aus Edelstahl, (B) Positionierungsstift der Longe aus Edelstahl, (C) Gewindestift aus galvanisiertem Stahl, (D) Schraubverschluss aus Edelstahl, (E) Schlüssel zum Entfernen bei Notfalleвакуierung (nicht mitgeliefert).

ZZV05565 rev. 0

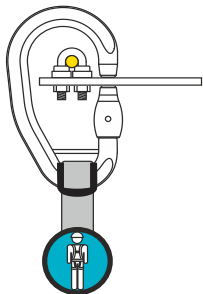
NOMENCLATURE • TERMINOLOGIE

9

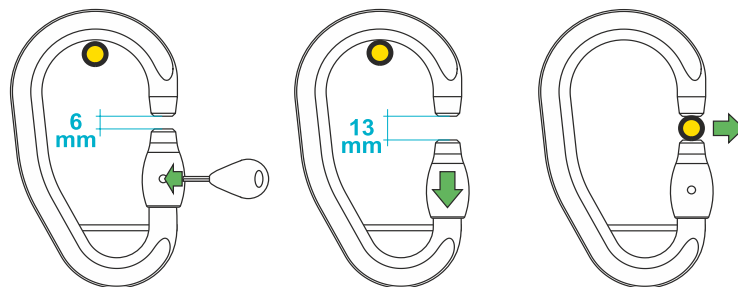
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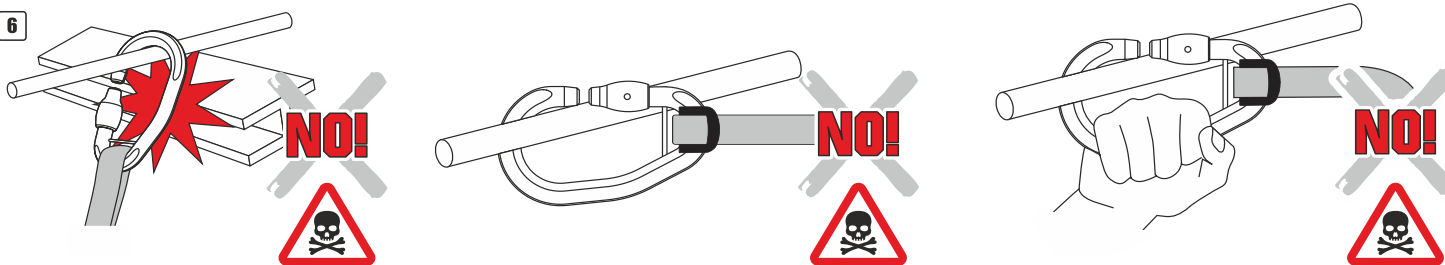
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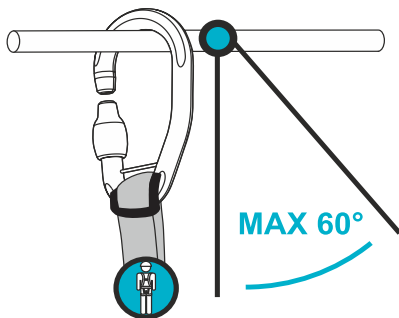
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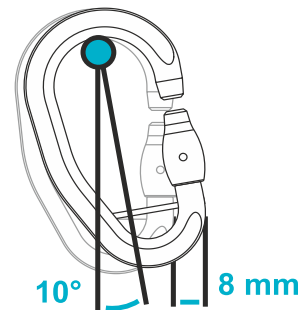
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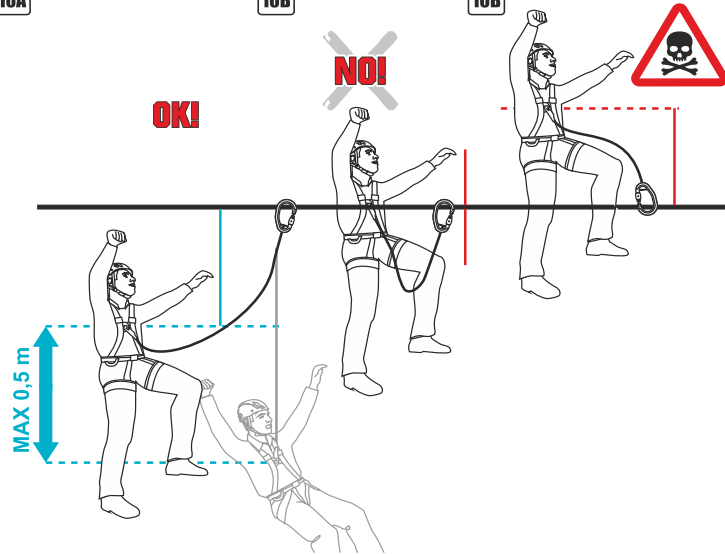
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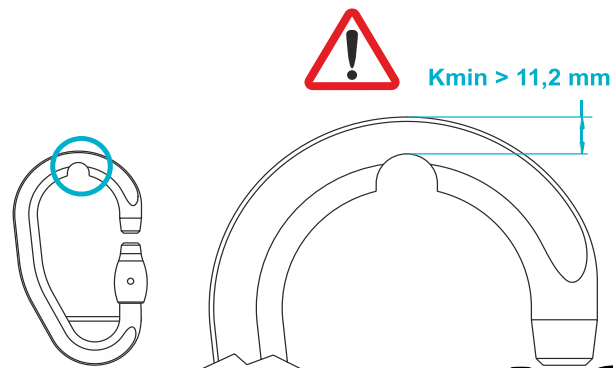
10A

10B

10B



11



8 – SPECIFIC INFORMATION

Fig. 3 - Proper installation of the lanyard (delivered separately) and the locking bar (B). **Warning: is mandatory to install the lanyard locking bar (B).**

Fig. 4 - Proper installation of the device.

Fig. 5 - How to remove for emergency evacuation and key usage (E).

Fig. 6 - Examples of incorrect and dangerous use.

Fig. 7 - Example of correct use

Important:

- The installation of anchor devices must be carried out by competent people and verified by calculation or testing,
- Check carefully the suitability of the structure and the anchor point as a function of load (up to 15 kN) transmitted from the device during use and its direction of application (Fig. 8),
- If the marking of the anchor device is not visible after installation, is necessary to copy it on a sign to be applied in the immediate proximity,
- The device should only be used as protective equipment against falls from a height and not to lift materials,
- Maximum displacement of the device in the condition of application of the whole load - Fig. 9,
- It is recommended that the anchor device is marked with the date of the last inspection carried out.

Warning, beware of death:

- **When the anchor device is used as part of a fall arrest system, the user has to be equipped with suitable devices (eg. Energy absorbers) that protects from dynamic forces exerted on the user during the arrest of a fall to a maximum of 6 kN,**
- **These systems do not absorb energy, it is forbidden to use them on the Via Ferrata (as defined by EN 958),**
- **The anchorage point must comply with regulations enforced and must always be placed above the user: the potential falling height must always be lower than 0.5 m (Fig. 10).**

Note: The installer of the anchorage devices, when set as required for the devices EN 795 and EN 15567-1 must issue to the client the installation documentation, signed by the same, containing at least the following information: address and location of the installation, the name and address of the company that performed the installation, the name of the person in charge of the installation, the identification of the anchoring device, methods and data relating to the fixing system, the schematic plan of installation to display to the users. This documentation must be kept by the purchaser for recording subsequent inspections of the anchor device.

9 - PRE AND POST USE CONTROLS

Before and after use make sure that the device is in efficient condition and working properly, particularly check:

- is suitable for the use you intend to make of it,
- does not presents signs of cracks or wear,
- has not been mechanically deformed, in particular check the dimensions shown in fig. 5,
- markings are still readable.

Check that:

- the wear of the body (A), generated by the sliding of metal cables (Fig. 11), is not higher than 20% of the initial size (Kmin: 11,2mm),
- the locking bar of the lanyard (B), the grub crew (C) and the gate (D) are locked on the body (A).

CERTIFIED BY • CERTIFICATO DA

NB n° 0123
TÜV SÜD Product
Service GmbH
Daimlerstraße 11
85748 Garching - Germany

Download the declaration of conformity at:
Scarica la dichiarazione di conformità a :
Télécharger la déclaration de conformité à:
Laden Sie die Konformitätserklärung herunter zu:

www.kong.it



CERTIFIÉ PAR • ZERTIFIZIERT VON

MARKING • MARCATURA



Conformity to Directive 89/686/EEC

0426

Notified body for production inspection:

ITALCERT Viale Sarca, 336 - 20126 Milano - Italia

EN 795/B:12
EN 15567-1:07
Conformity to European Norm

◀▶ kN

Max load in this position:



1 kN ≈ 102 kgf



The anchor device shall be for the use of one user only



Always read and follow the information supplied by the manufacturer



Wire steel rope diameter range
Gamma di diametri del cavo d'acciaio
Gamme de diamètre de câbles en acier
Drahtseildurchmesserbereich

SAFETY CONNECTOR INSTRUCTIONS

1-To start the rope course:



Engage the Connector on the starting plate

2- Passing the plates:

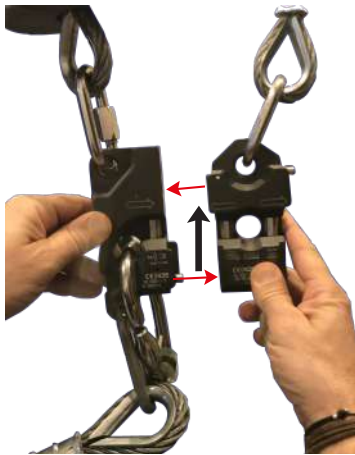
Turn the connector opening to the sky



Then follow the cable



INSTRUCTION OF USE

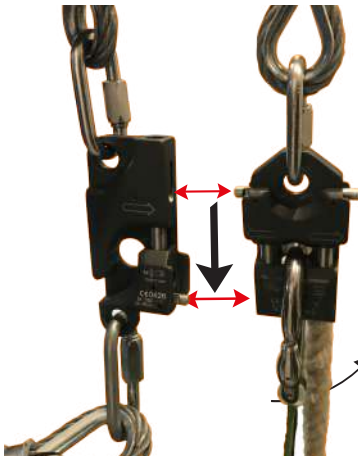


1

1 - CONNEXION DU DEPART
CONNECTION OF DEPARTURE



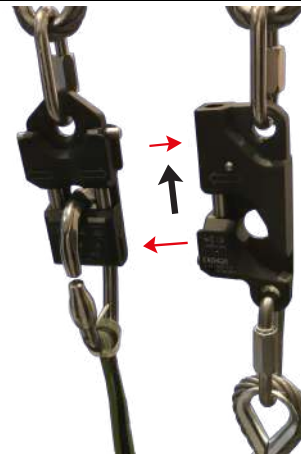
TRANFERT CROCHET PARTIE MOBILE
TRANSFER THE HOOK ON MOVING PART



2

2 - DECONNEXION PARTIE MOBILE
DISCONNECTION MOVING PART

SAUT /VERTICALITE
JUMP/VERTICAL
EVOLUTION



CONNEXION ARRIVEE
CONNECTION ON ARRIVAL



3

3-TRANSFERT CROCHET + BLOCAGE
HOOK TRANSFER + HOOK LOCKING



DECONNEXION = SORTIE DU CROCHET
DISCONNECTION= RELEASE OF THE HOOK

HEAD RUSH TECHNOLOGIES WHITE PAPER

INSTALLATION AND OPERATION OF CONTINUOUS AND SMART BELAYS WITH QUICKFLIGHT AND QUICKJUMP

June 2019

Smart and continuous belay systems can mitigate risk and reduce the number of employees required to staff an adventure course. For these reasons, along with the ease of integration with Head Rush products, we allow the use of smart and/or continuous belay systems with the TRUBLUE, QuickFlight, QUICKjump and zipSTOP*.

The information in this paper is meant to help qualified persons when designing a smart or continuous belay system that interacts with a QuickFlight or QUICKjump on an descending element and should not be applied to other Head Rush Technologies devices. Each smart and continuous belay system has unique requirements, therefore a qualified person should always design and ensure compatibility of the system prior to use, even those shown in this paper. Confirm that the installation, operation and maintenance of all equipment follows its respective user's manual and that all parties are suitably trained in the use of the equipment to ensure proper function.

**Head Rush has not evaluated any of the products listed in this white paper. Testing by a qualified person is required to confirm compatibility. The products shown in this paper are provided as representative of the existing technology available at time of publication.*

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DESCRIPTION OF SYSTEMS

Each smart and continuous belay system has its own unique features and can mitigate risk in different ways. The systems can be used with the QuickFlight and QUICKjump so long as they meet the requirements of the authority having jurisdiction and the system is designed and installed by a qualified person.

Smart Belays

Smart belays generally consist of lanyards with communicating connectors that help to reduce the likelihood of accidental detachments from a safety system. Examples of smart belays include, [Bornack SSB](#), [ISC SmartSnap](#), [CLiC-iT Adventure System](#) and [Edelrid Smart Belay](#).

Continuous Belays

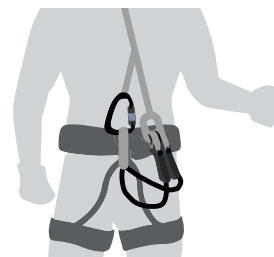
Continuous belays consist of lanyards with connectors that remain attached to the life safety system throughout the entirety of the course. Examples of continuous belays include [Kanopeo SAFEROLLER](#) and [SPEEDRUNNER](#), [Kong COUDOU PRO](#) and [Vertical Trek Innovations QuickTrekker](#).

Smart and Continuous Belays as the Primary vs Secondary Connector

When implementing a smart or continuous belay system in conjunction with the QuickFlight or QUICKjump the smart or continuous belay should act as the secondary connector when attached to the device webbing.

Secondary Connector

Using a smart or continuous belay as the secondary connector means the smart or continuous belay will be connected to the QuickFlight or QUICKjump webbing but will not be under tension during use. Instead, a suitable carabiner or connector that meets the requirements of the authority having jurisdiction, will be the primary connector and hold the weight of the participant during use. When installed as a secondary connector, the smart or continuous belay system should only be loaded in the event of a failure or improper connection to the primary connector or carabiner.



SMART AND CONTINUOUS BELAYS AS THE SECONDARY CONNECTOR

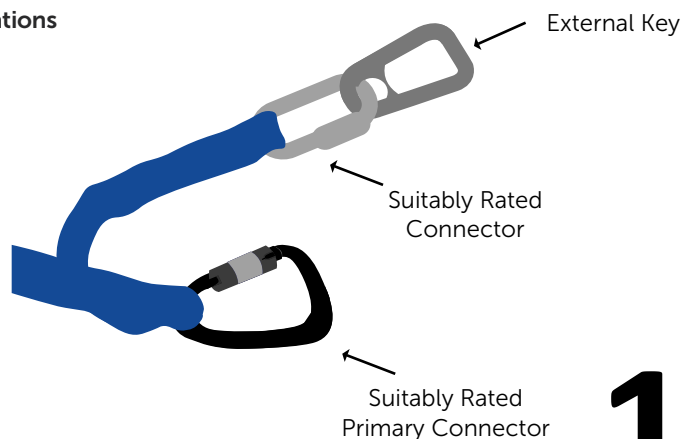
When using a smart or continuous belay as a secondary connector with a QuickFlight or QUICKjump, the secondary carabiner that comes on the QuickFlight webbing can be removed. When using a smart or continuous belay as a secondary connector with a QUICKjump, see our white paper [QUICKJUMP WEBBING SECONDARY ATTACHMENT POINT](#) on adding a secondary connection point to that webbing.



Installation of Smart Belay Systems

1. Many smart belay manufacturers have an external key for their smart belay system that the system manufacturer says should be used when connecting to the QuickFlight or QUICKjump webbing. These external keys should be evaluated by a qualified person before installation to ensure they're suitable for the application and meet the requirements of the authority having jurisdiction. External keys include but are not limited to:
 - a. [C-Connect](#) and [C-Connect V2](#) for the CLiC-iT system
 - b. [Tweezle 9](#) for the Bornack SSB system
 - c. [Key Ring](#) for the ISC SmartSnap
 - d. Edelrid Smart Belay does not manufacture a specific external key. Instead, a suitable connector, large enough to attach both Smart Belay connectors to, may be used as the attachment point to the webbing.
2. Connect the external key to the secondary connection point with a suitably rated connector that cannot be removed by a participant.

Possible Installations



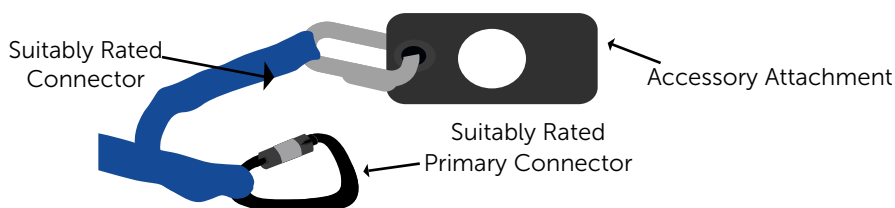
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Installation of Continuous Belay Systems

1. Most continuous belay manufacturers have an accessory attachment for their system that the manufacturer says should be used when connecting to the QuickFlight or QUICKjump webbing. These accessory attachments should be evaluated by a qualified person before installation to ensure they're suitable for the application and meet the requirements of the authority having jurisdiction. The accessory attachments include, but are not limited to:

- a. [AccroCONNECT](#) for Kanopeo SPEEDRUNNER
- b. [ZAZA2 Connect 2.0](#) for Kong COUDOU PRO
- c. [CBS Transfer Unit](#) for Vertical Trek Innovations QuickTrekker

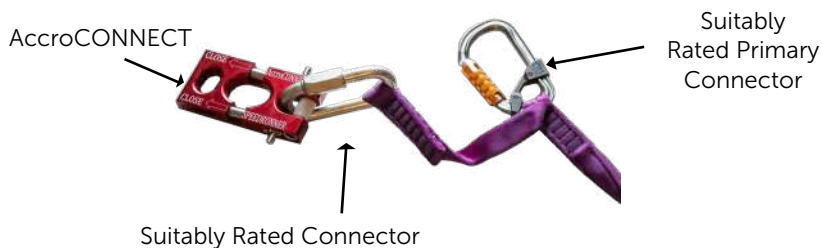
2. Connect the external key to the secondary connection point with a suitably rated connector that cannot be removed by a participant.



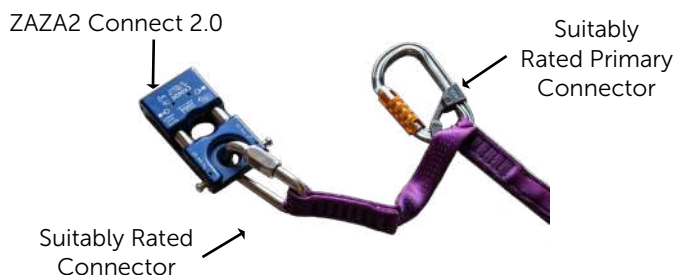
Possible Installations

Below are images of external keys connected to the webbing. The below images may or may not be suitable for a specific installation depending on the system and the authority having jurisdiction's requirements. A qualified person must design and install the system to ensure compatibility and proper function of the devices in use.

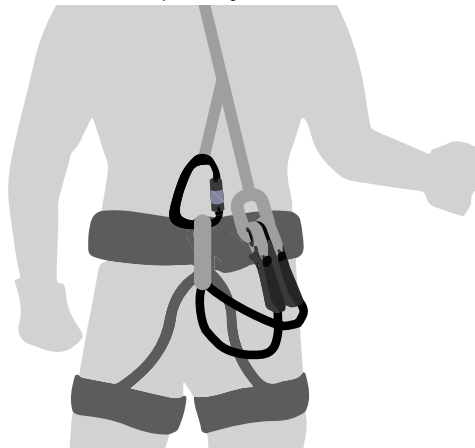
Kanopeo SPEEDRUNNER



Kong COUDOU PRO



2. Participant or guide connects the primary connector to the harness's hard point.



3. The smart or continuous belay is the secondary attachment to the QuickFlight/QUICK-jump and should not be under tension during ascent or descent.
4. The participant must not be able to descend or ascend the element unless they're suitably attached to the QuickFlight/QUICKjump.
5. Once the participant reaches the end of their ascent or descent, the smart belay connectors can be detached from the QuickFlight/QUICKjump and if necessary connected to a suitable lifeline.
6. The participant or guide can then disconnect the primary connector from the harness.

Considerations

- If the secondary attachment is engaged, due to an improper primary attachment, the added length of the smart or continuous belay lanyard may create slack in the system. The slack can result in a jolt during initial descent and may cause the connectors to collide with the participant.
- Proper testing must be completed to ensure compatibility of systems
- Smart and continuous belay manufacturers may not allow for impact loading beyond a certain point on their systems. Ensure operations are within the manufacturers requirements.
- Ensure participants cannot become entangled in the smart or continuous belay lanyards during descent.
- Never permit the webbing line to wrap around legs, arms, neck other body parts or loose clothing of the participant.
- Ensure participants hands are free and clear of connectors during descent. Loading may cause a pinch hazard.
- Always adhere to all operating conditions set forth in device manual.
- Prior to descent, ensure descent path and landing area are free of people and obstructions.
- Proper fall attenuation surfaces must be in place



Put your Connector on hold



Bring the orange mark in front of the connector



Engage the Connector



Put the Connector on hold in the hole provided for this purpose

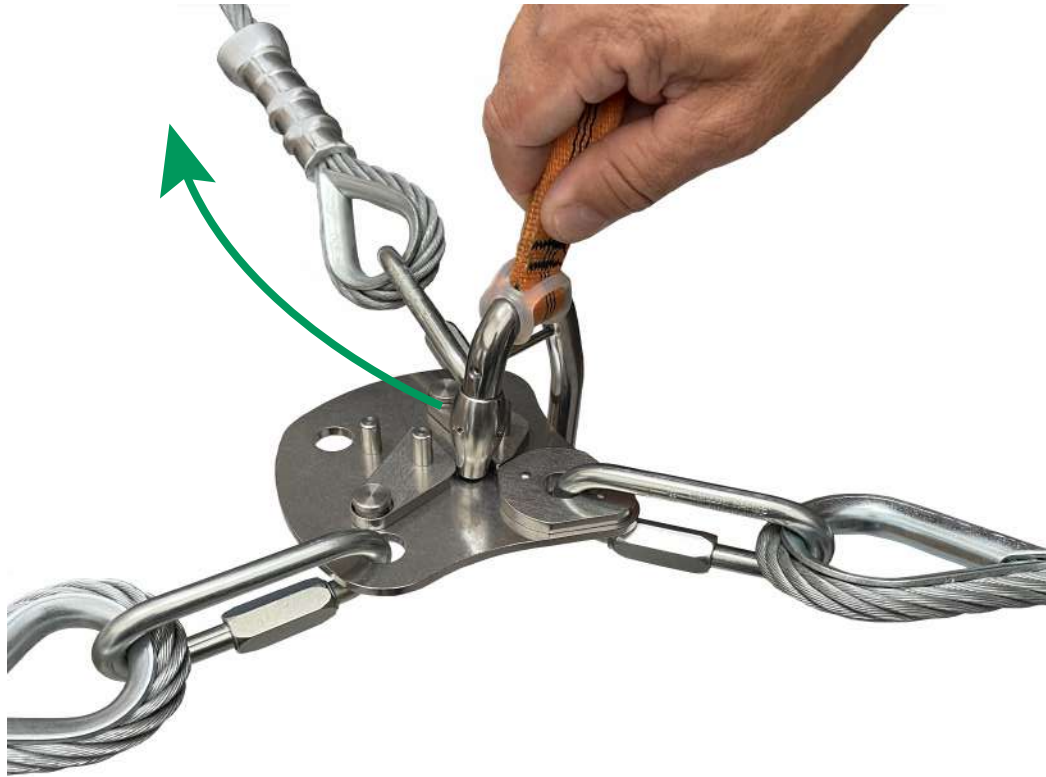


Choose your track



Pull out the connector

Instructions SWITCH



To choose your way, return the hook if necessary

