



EXO ESCAPE SYSTEM

(EN) Emergency personal descent system including a rope with sewn terminations (7.5 mm diameter)

(FR) Système individuel de descente d'urgence incluant une corde aux extrémités cousues (diamètre 7,5 mm).

NFPA 1983 (2012 ED.)

⚠ WARNING

Activities involving the use of this equipment are inherently dangerous.
You are responsible for your own actions and decisions.

Before using this equipment, you must:

- Read and understand all Instructions for Use.
- Get specific training in its proper use.
- Become acquainted with its capabilities and limitations.
- Understand and accept the risks involved.



FAILURE TO HEED ANY OF THESE
WARNINGS MAY RESULT IN SEVERE
INJURY OR DEATH.

made in France

PRICE

NFPA CERTIFICATION FOR EXO ESCAPE SYSTEM D30015 B and D30030 B

THIS EXO ESCAPE SYSTEM MEETS THE FIRE ESCAPE SYSTEM REQUIREMENTS OF NFPA 1983, STANDARD ON LIFE SAFETY ROPE AND EQUIPMENT FOR EMERGENCY SERVICES, 2012 EDITION.

Descent control device type 2 MEETS NFPA 1983 (2012 ED.)

E (ESCAPE USE)

MBS 13.5 kN



After removing the Instructions for Use from the equipment, make a copy of it and keep the original as part of a permanent record that includes the usage and inspection history for the equipment. Keep the copy of the Instructions for Use with the equipment and refer to it before and after each use. Additional information regarding auxiliary equipment can be found in NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, and NFPA 1983, Standard on Life Safety Rope and Equipment for emergency services, 2006 edition.

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PETZL
ZI Cidex 105A
38920 Croles
France
www.petzl.com/contact
Tel: +33-(0)4 76 92 09 00

Legend



(EN) Maximum speed
(FR) Vitesse maximum



(EN) Hand
(FR) Main

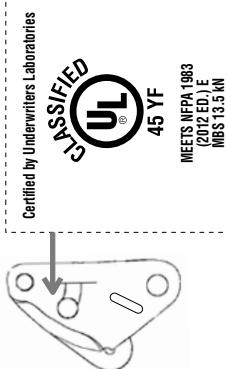


(EN) Anchor
(FR) Amarrage

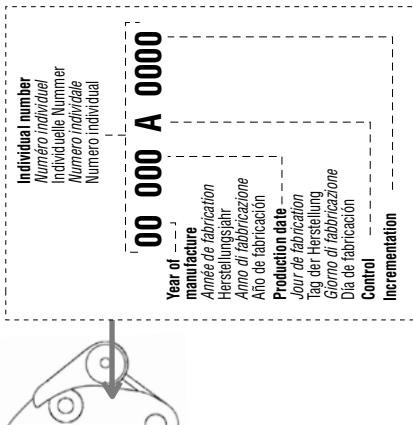
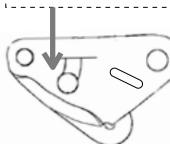


(EN) harness
(FR) Harnais

TRACEABILITY and MARKINGS



Certified by Underwriters Laboratories
CLASIFIED
45 YF
MEETS NFPA 1983
(2012 ED.) E
MBS 13.5 kN



Only the techniques shown in the diagrams that are not crossed out and/or do not display a skull and crossbones symbol are authorized. Check our Web site www.petzl.com regularly to find the latest versions of these documents. Contact PETZL if you have any doubt or difficulty understanding these documents.

1 Field of application

This system was developed for the emergency self-evacuation of a trained individual in a critical situation, when there are no other means of escape. This system is designed to support the weight of a single person.

Only firefighters who have completed specific training in the use of the EXO and obtained authorization from their fire hall are authorized to use the EXO. We recommend that you perform a practice descent at least once a year, using your EXO system. During this practice, you must be backed up by a separate belay system.

Do not reuse your EXO after it has been used in an emergency situation.

WARNING

Activities involving the use of this equipment are inherently dangerous. You are responsible for your own actions and decisions.

Before using this equipment, you must:

- Read and understand all instructions for use.
- Get specific training in its proper use.
- Become acquainted with its capabilities and limitations.

- Understand and accept the risks involved.

Failure to heed any of these warnings may result in severe injury or death.

Responsibility

WARNING, specific training in the activities defined in the field of application is essential before use. This product must only be used by competent and responsible persons, or those placed under the direct and visual control of a competent and responsible person.

You personally assume all risks and responsibilities for all damage, injury or death which may occur during or following incorrect use of our products in any manner whatsoever. If you are not able, or not in a position to assume this responsibility or to take this risk, do not use this equipment.

2

Nomenclature of parts

Metal descender

(1) Rope guide, (2) Cam, (3) Pin, (4) Handle.

Directional connector: EXO TRIACT BAR

(5) Frame, (6) Gate, (7) Hinge, (8) Locking system, (9) Keylock, (10) Fixed bar.

Rope

(11a) Sewn termination (anchor end), (11b) Sewn termination (on the braking side), (12) Stitching, (13) Heat-shrink cover for termination.

Storage bag

(14) Rope divider flap, (15) Connector pocket, (16) Velcro for positioning the EXO TRIACT BAR, (17) Flap closure, (18) Velcro for attachment to the harness, (19) Rear positioning strap.

Anchor hook
(20) Hitching slot.

Principal materials:

Descender

Aluminum alloy (frame, handle), stainless steel (cam, rivets).

EXO TRIACT BAR

Aluminum alloy.

Rope

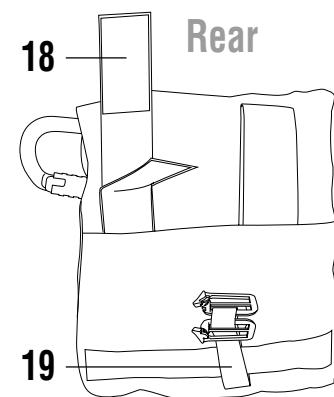
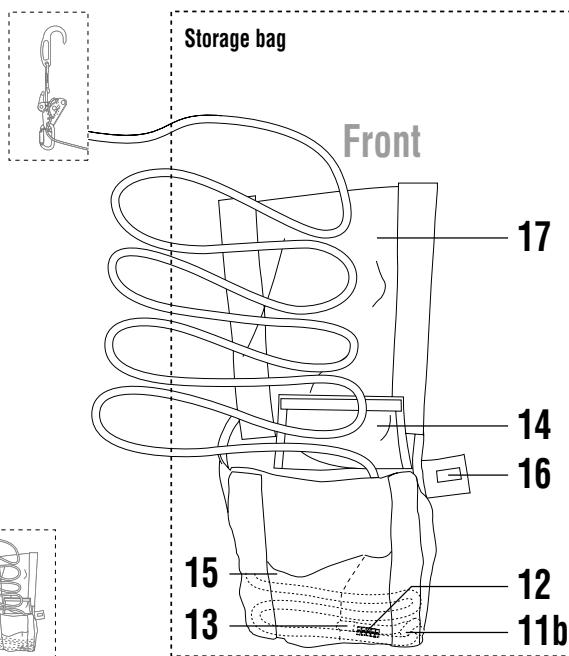
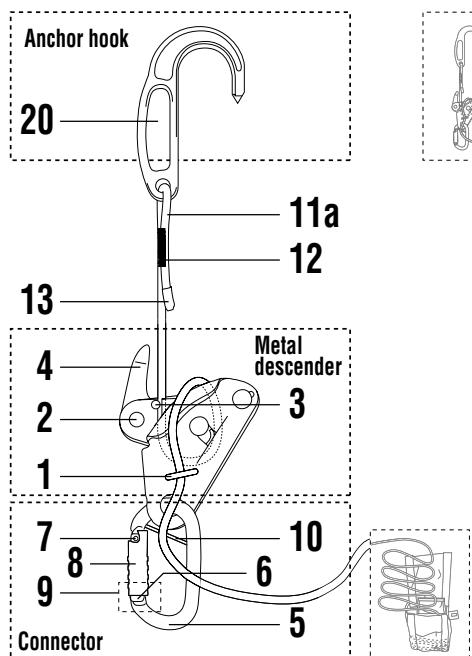
Aramid (core and sheath).

Storage bag

Aramid.

Anchor hook

Steel.



3

Inspection, points to verify

You must only use a system that has been packed and checked to be in conformance with the described procedures.

Before and after each mission

Visually inspect your bag.

If it has been exposed to high temperatures, or if it shows signs of burns, tears, discoloration of the fabric due to soaking with water or chemical products, perform a complete system check as described below.

In the same way, if the Velcro for positioning the EXO TRIACT BAR is not in place, check that the descender, connector and hook are correctly positioned.

3A. Metal descender

Verify that the product has no cracks, deformation, marks, corrosion, etc.

Check the state of wear.

Verify that the cam and handle move freely and that the springs and the locking elements are working properly.

Verify there are no foreign objects (sand, etc.) in the mechanism and no lubricant in the rope path.

3B. Connector: EXO TRIACT BAR

Verify that the frame, gate and locking system are free of any cracks, deformation, corrosion, etc. Open the gate and verify that it closes and locks itself automatically when released. The Keylock slot must not be blocked by any foreign matter (dirt, pebble, etc.). The bar of the EXO TRIACT BAR must not be damaged or deformed.

3C. Rope

Visually inspect the entire length of the rope. Check it in 30 cm intervals, turning the rope to get a complete inspection.

Verify there are no cuts, tears, cut or frayed threads, or burns.

Check if the core is damaged or cut inside the sheath (soft spots, breaks, loose strands).

Check the safety stitching on the sewn terminations. Be particularly careful to check for cut threads.

If you have any doubt about the proper functioning of a system component, retire it.

3D. Anchor hook

Verify there are no cracks, deformation, corrosion, etc. Check if the hook shows signs of discoloration associated with excessive heat exposure.

Before the descent

This product must not be exposed to temperatures greater than +250 °C or to direct contact with flames.

Make sure that all pieces of equipment in the system are correctly positioned with respect to each other.

It is important to regularly monitor the condition of the product and its connections to the other equipment in the system.

Do not allow anything to block the device (cam) or any of its components. Connectors must always be used with the gate closed and locked.

Verify that the rope is free of knots and that there are no loops around the descender. A rope that is poorly packed, or that has knots in it, can cause serious consequences during descent.

4

Preparing the EXO and packing it in the bag

4A. Folding and packing the rope in the bag

Inspect the rope before packing the system. The hook must be located against the descender.

ATTENTION: the rope must be properly packed so that it can be deployed without forming a knot.

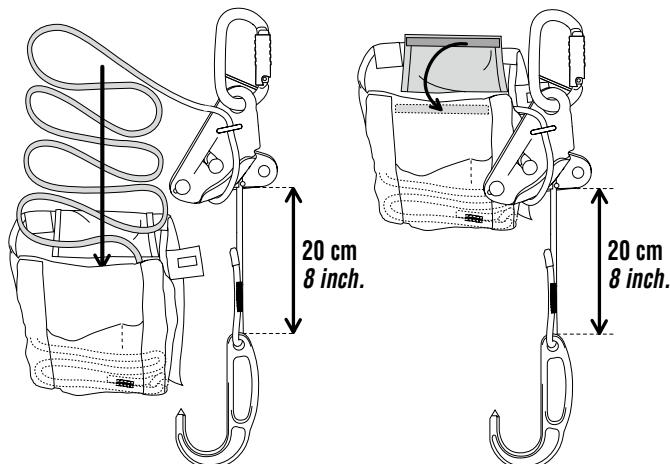
Open the bag and place it on its back. Put the sewn termination (on the braking side) on the right side of the bag. Make five flat bights of the same width as the bag (see drawing). Slide these bights into the bag. Repeat the operation until the rope is packed. Leave 20 cm of rope between the hook and the descender, then close the rope divider flap.

This operation must be done by a trained and competent persons, designated by your fire hall.

This operation is to be done after an inspection of the system, a practice session, or any time that the rope is removed from the bag.

Perform a function test (see chapter 7) before any packing.

Spread out the system in a clean, flat work area.



4

Preparing the EXO and packing it in the bag

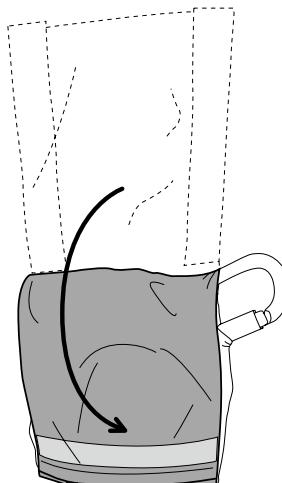
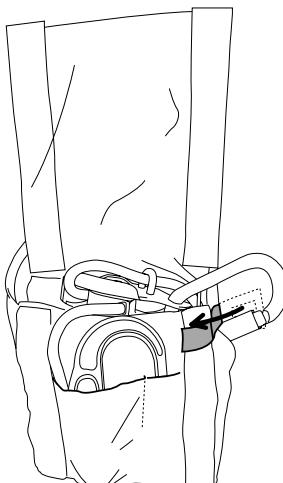
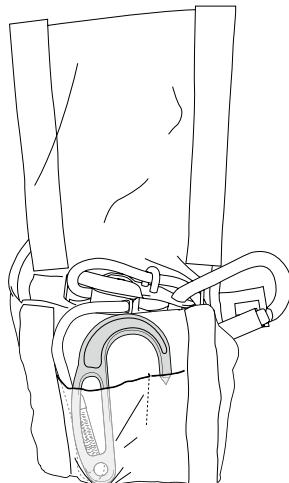
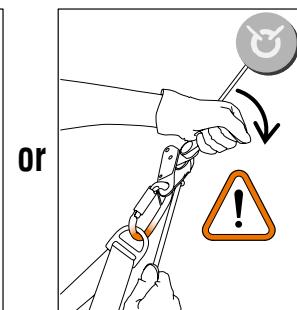
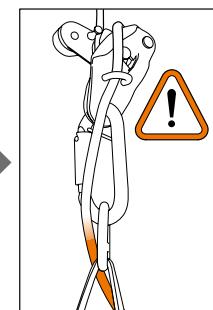
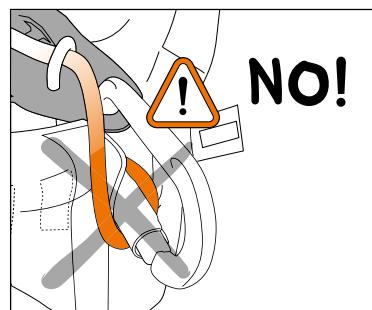
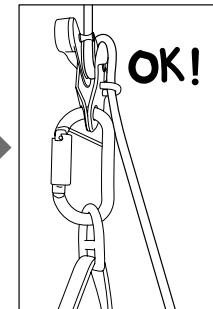
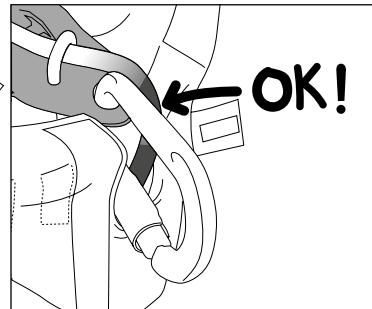
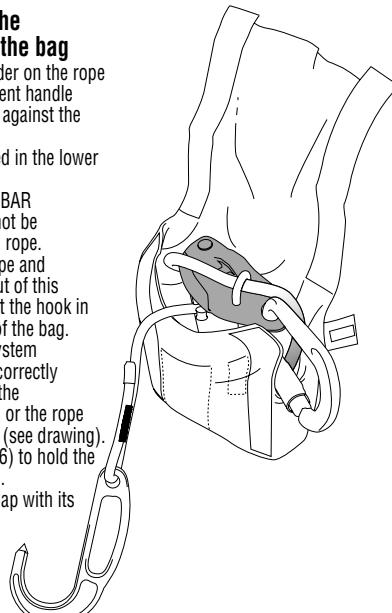
4B. Packing the descender in the bag

Place the descender on the rope divider flap (descent handle facing downward against the rope).

The rope is packed in the lower compartment.

The EXO TRIACT BAR connector must not be obstructed by the rope. The end of the rope and the hook come out of this compartment. Put the hook in the front pocket of the bag. WARNING, the system will not function correctly if the descender, the EXO TRIACT BAR or the rope are poorly placed (see drawing). Use the Velcro (16) to hold the EXO TRIACT BAR.

Close the upper flap with its Velcro.



5

Compatibility

The system must only be used complete with all components, and properly packed. Any modification is prohibited.

This system must only be used with a seat harness or full-body harness. The use of a simple belt is prohibited.

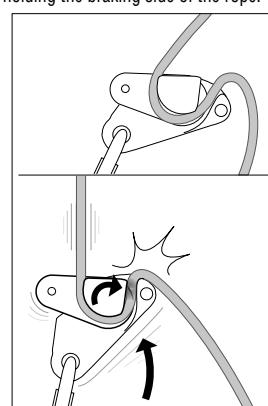
The use of the EXO with bag requires an extended attachment point (see chapter 8). Use the evacuation system with gloves.



6

Working principle of the descender

When you tension the system with your body weight, the rope coming taut makes the frame of the descender rotate on the connector and the cam pinches and brakes the rope. By holding the braking side of the rope, the brake hand helps engage the cam. To free the rope, pull the handle while holding the braking side of the rope.



7

Function test

Holding the EXO TRIACT BAR with your hand, pull sharply downward on the device. The rope must jam in the descender.

WARNING
DANGER OF DEATH if the rope does not jam in the descender.

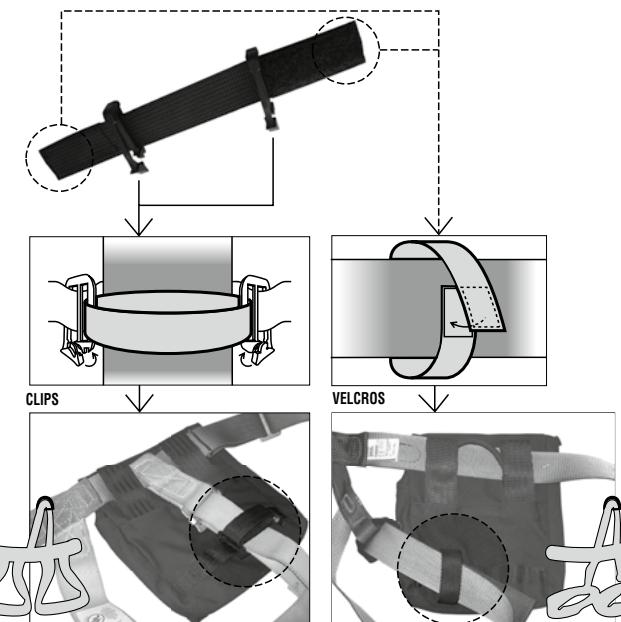
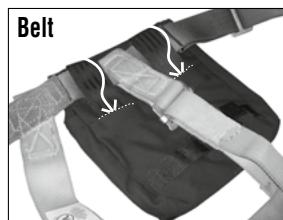
The descender must be able to function freely at all times: freedom of movement for the body and for the cam (see chapter 10).



8

Installation on the harness

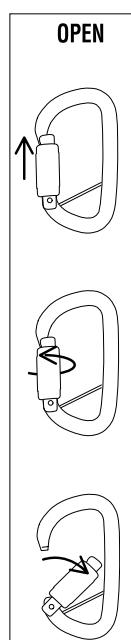
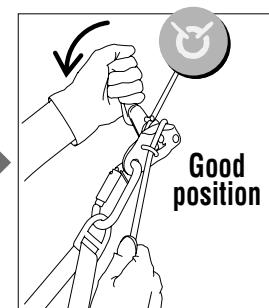
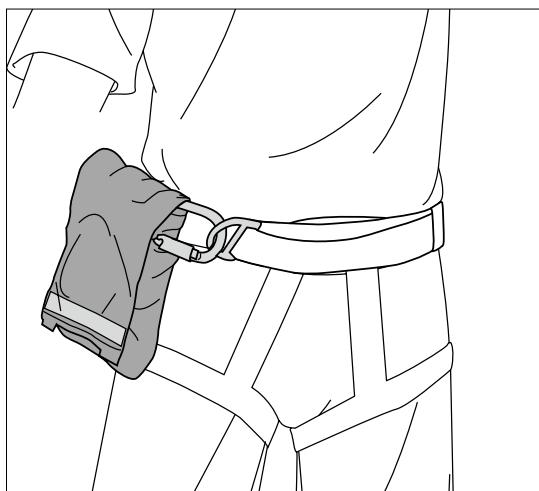
Attach the bag to the harness belt, on your right, with the two Velcro strips and the rear positioning strap vertically or horizontally oriented, depending on the harness.



8

Installation on the harness

The EXO must always be connected to the harness attachment point. An extended attachment point allows the EXO TRIACT BAR to be permanently connected to the harness with the bag attached at the side. Pay attention to the orientation of the EXO TRIACT BAR in the attachment point because this determines the correct position of the descender during evacuation (see drawing). Make sure the gate is correctly closed and locked.



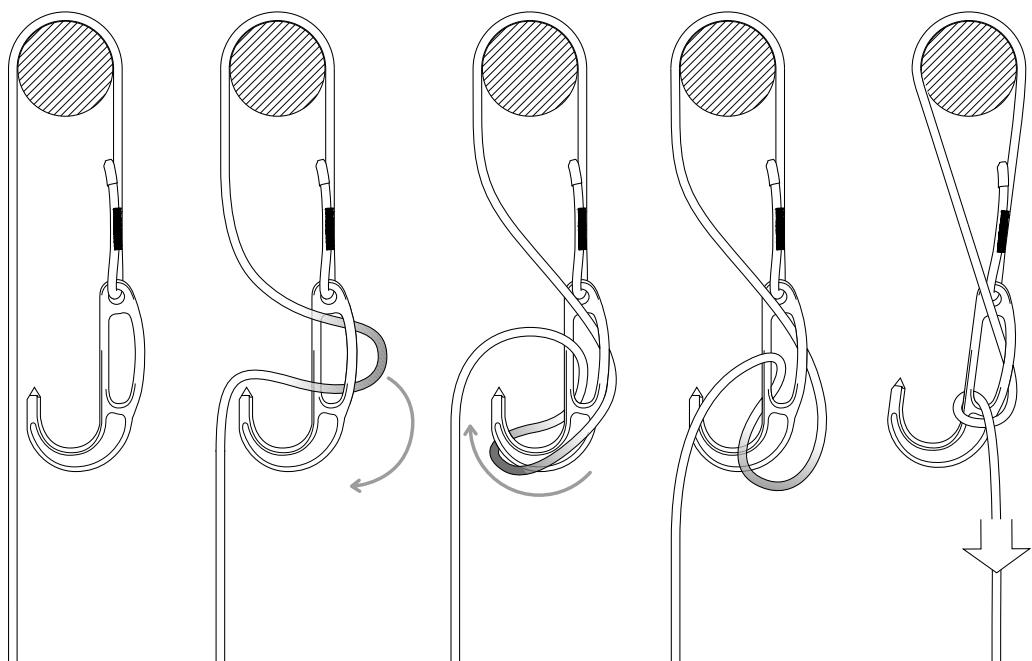
9

Installation on the anchor

Defining and making an anchor is a topic that is too complex to be fully described in this notice. Only a few examples are shown. You must have completed a specific training and be practiced in setting up an anchor to use an EXO.

9A. Around a structure

Pass the hook end of the rope around a solid, stationary anchor. Secure the connection by threading a loop of rope through the hitching slot and wrapping the anchor hook.



9B. Using the hook

- on a window sill: set the hook on the window sill (head on the inside) with the left hand. Place it on the left side of the window, so as to create the best placement for performing the roll-out.

- around a post, on the edge of a wall, etc.: place the hook as low as possible in a stable position and always keep the rope between the hook and the descender under tension.

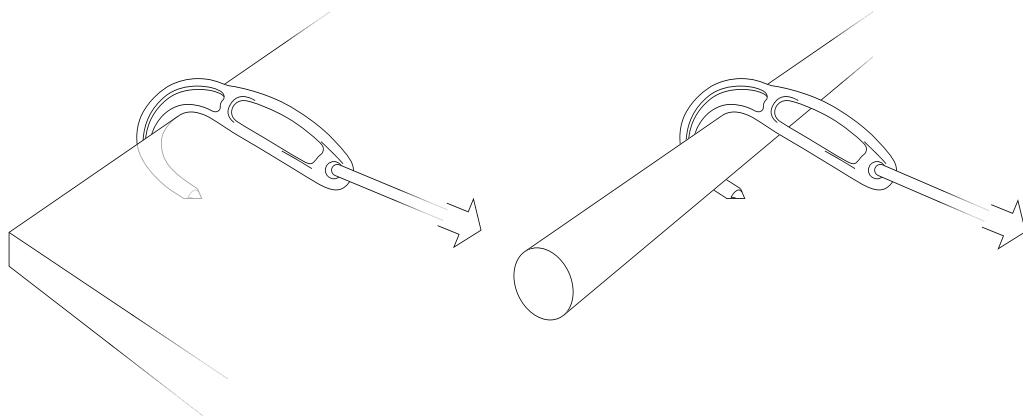
WARNING DANGER OF DEATH: you must always keep your rope under tension. Do not allow any slack in the rope between the descender and the hook as this creates a risk of the hook detaching from its anchor.

WARNING DANGER OF DEATH: your rope must not be in contact with an edge that is sharp or abrasive or having a high temperature.

WARNING, the hook must not be cantilevered (for example on a beam), as there is a risk of unhooking.



Do not allow any slack in the rope between the descender and the hook



The actions described below do not in any case replace proper training.

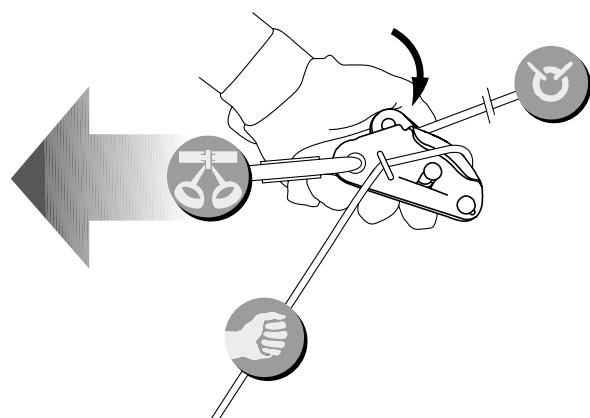
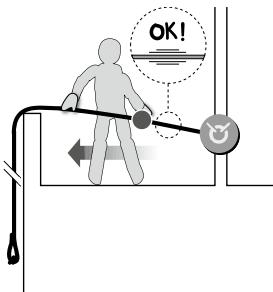
Horizontal movement

Verify that the hook is well-anchored.

Tension the system with your body weight.

Squeeze the descender's cam with the left hand to allow the rope to slide. Hold the braking side of the rope with your right hand.

Always keep your body weight on the rope. Do not allow any slack between the descender and the anchor.



Vertical descent

Verify that the hook is well-anchored.

Always keep your body weight on the rope.

WARNING DANGER, when transitioning from horizontal to vertical (clearing obstacles), the descender can be jammed on an edge (see drawing). The descent can be interrupted. You must have learned the proper movements during your training.

Gradually pull on the handle with the left hand. Always hold the braking side of the rope with your right hand. The handle can assist in braking, but the rate of descent is controlled by varying the grip of the brake hand on the braking side of the rope.

You must always control your descent speed: 2 m/s maximum.

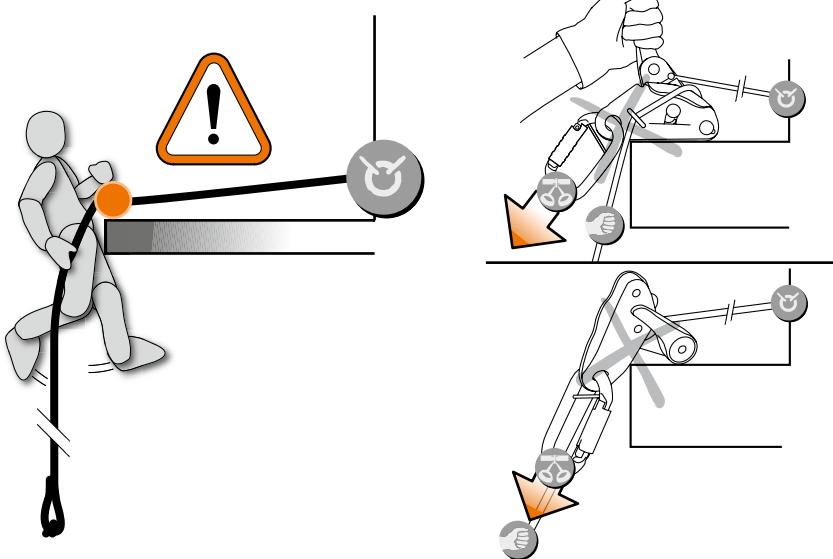
WARNING, if you release the handle, continue to keep a firm grip on the braking side of the rope.

WARNING

- Any jamming of the rope in the descender (knots, rope jammed behind the cam, tangled rope), will stop your evacuation.
- In a descent that is too fast, a sudden stop on a knot or the sewn termination can result in the system breaking, unhooking of the hook, or a serious injury.

Detaching from the system

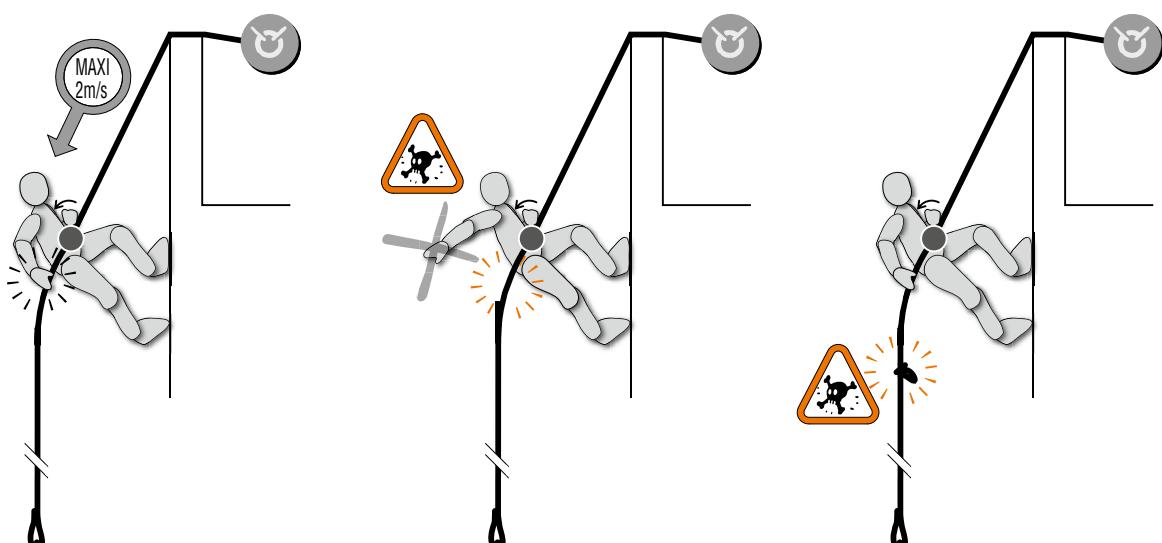
When your descent is finished, verify that you have reached safety and detach the connector from your harness.



OK!

NO!

NO!



Lifetime / When to retire your equipment

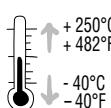
Do not reuse your EXO after it has been used in an emergency situation.

For Petzl's plastic and textile products, the maximum lifetime is 10 years from the date of manufacture. It is indefinite for metallic products.

ATTENTION: an exceptional event can lead you to retire a product after only one mission, depending on the type and intensity of usage and the environment of usage (harsh environments, sharp edges, extreme temperatures, chemical products, etc.).

A product must be retired when:

- The EXO has been used one time in an emergency situation.
- It is over 10 years old and made of plastic or textiles.
- It has been subjected to a major fall (or load).
- It fails to pass inspection. You have any doubt as to its reliability.
- You do not know its full usage history.
- When it becomes obsolete due to changes in legislation,



(EN) Temperature	(RU) Температура
(FR) Température	(CZ) Teplota
(DE) Temperatur	(PL) Temperatura
(IT) Temperatura	(SI) Temperatura
(ES) Temperatura	(HU) Hőmérséklet
(PT) Temperatura	(BG) Температура
(NL) Temperatuur	(JP) 気温
(SE) Temperatur	(CN) 温度
(FI) Lämpötila	(TH) อุณหภูมิ
(NO) Temperatur	



(EN) Storage and transport	(HU) Tárolás, szállítás
(FR) Rangement et transport	(BG) Транспорт и съхранение
(DE) Lagerung und Transport	(JP) 持ち運びと保管方法
(IT) Sistemazione e trasporto	(KR) 보관과 운송
(ES) Almacenamiento y transporte	(CN) 运输及储存
(PT) Armazenamento e transporte	(TH) การชณสงและการเก็บรักษา
(NL) Opbergen en vervoeren	
(FI) Säilytys ja kuljetus	
(NO) Lagring og transport	
(RU) Хранение и транспортировка	
(CZ) Skladování a doprava	
(PL) Pakowanie i transport	
(SI) Shranjevanje in transport	



(EN) Drying	(RU) Сушка
(FR) Séchage	(CZ) Sušenie
(DE) Trocknen	(PL) Suszenie
(IT) Asciugamento	(SI) Sušenje
(ES) Secado	(HU) Száritás
(PT) Secagem	(BG) Сушене
(NL) Het drogen	(JP) 乾燥
(SE) Torkning	(CN) 使干燥
(FI) Kuivaus	(TH) แห้ง
(NO) Tørring	



(EN) Cleaning Disinfection	(RU) Чистка и дезинфекция
(FR) Nettoyage Désinfection	(CZ) Čištění Desinfekce
(DE) Reinigung Desinfektion	(PL) Czyszczenie Dezynfekcja
(IT) Pulizia Disinfestazione	(SI) Čiščenje/razkuževanje
(ES) Limpieza Desinfección	(HU) Tisztítás
(PT) Limpeza Desinfecção	(BG) Почищаване дезинфекция
(NL) Reiniging Ontsmetting	(JP) 手入れ方法 消毒
(SE) Renöring Desinficering	(KR) (CN) 清洗 消毒
(FI) Puhdistus Desinfekti	(TH), ทําความสะอาดโดย ๑๕
(NO) Renigjring Desinfisering	สําราฆ่าเชื้อ
(RU) Чистка дезинфекция	



(EN) Dangerous products	(RU) Неbezpečné výrobky
(FR) Produits dangereux	(CZ) Produkty nebezpečné
(DE) Gefährliche Produkte	(PL) Produkty niebezpieczne
(IT) Prodotti pericolosi	(SI) Nevarne kemikalije
(ES) Productos peligrosos	(HU) Veszélyes termékek
(PT) produtos perigosos	(BG) Опасни продукти
(NL) Gevaarlijke producten	(JP) 有害物質
(SE) Farliga produkter	(KR) (CN) 危险产品
(FI) Vaaralliset tuotteet	(TH) วัสดุอันตราย
(NO) Farlige produkter	
(RU) Опасная продукция	



(EN) Modifications, repairs	(RU) Изменения, ремонт
(FR) Modifications et réparations	(CZ) Změny, opravy
(DE) Änderungen und Reparaturen	(PL) Modyfikacje i naprawy
(IT) Modifiche e riparazioni	(SI) Zmene in popravki
(ES) Modificaciones y reparaciones	(HU) Általános műveletek
(PT) Modificações e reparos	(BG) Изменение и ремонт
(NL) Veranderingen en reparaties	(JP) リペア
(SE) Ändringar och reparationer	(KR) (CN) 修理
(FI) Muutokset ja korjaus	(TH) การซ่อมแซม
(NO) Endringer og reparasjoner	
(RU) Изменения, ремонт	



(EN) 3-year guarantee	(RU) Гарантия на 3 года
(FR) Garantie de 3 ans	(CZ) Záruka na 3 roky
(DE) 3-Jahres-Garantie	(PL) Gwarancja 3-letnia
(IT) Garanzia di 3 anni	(SI) Zavetrljivo 3 let
(ES) Garantía de 3 años	(HU) 3 éves garancia
(PT) Garantia de 3 anos	(BG) Гарантия за 3 години
(NL) Garantie van 3 jaar	(JP) 3年保証
(SE) 3-års garanti	(KR) (CN) 3年保証
(FI) 3-vuotinen takuu	(TH) 3 ปี คุ้มครอง
(NO) 3-års garanti	
(RU) Гарантия на 3 года	



(EN) Responsibility	(RU) Ответственность
(FR) Responsabilité	(CZ) Odgovornost
(DE) Haftung	(PL) Odpowiedzialność
(IT) Responsabilità	(SI) Odgovornost
(ES) Responsabilidad	(HU) Vállalat
(PT) Responsabilidade	(BG) Отговорност
(NL) Verantwoordelijkheid	(JP) 責任
(SE) Ansvar	(KR) (CN) 责任
(FI) vastuu	(TH) ความผูกพัน
(NO) Ansvar	
(RU) Ответственность	



只有那些图中没有交叉符号和/或骷髅头符号的技术方可授权使用。定期查阅www.petzl.com网页以找寻最新版本的使用指南。如果你有任何疑问或对于理解这些文件有困难的话，请联络PETZL。

EXO个人逃生 疏散系统

紧急个人逃生系统包括一条带有缝合终点的绳索（直径7.5厘米）。

1. 应用范围

该系统是在危急情况下没有其他逃生方法时，由经过培训的人员用作紧急的自我逃生使用。

该系统只可承受一个人的重量。

只有那些经过EXO特殊使用培训并获得消防队授权的消防员方可使用EXO个人逃生系统。

我们建议你每年至少一次使用EXO系统进行逃生练习。在练习中，你必须配备一个独立的保护系统。

在紧急情况下使用过EXO系统，则不可再次使用。

警告

凡涉及使用此装备的活动都具有危险性。

您应对个人的行动和决定负责。

在使用此装备前，您必须：

- 阅读并理解全部使用指南。
- 使用正确方法进行详细的训练。
- 熟悉产品的性能及使用限制条件。
- 理解并接受所涉及到的危险。

上述警告一旦忽视将有可能造成严重伤害或者死亡。

责任

警告，使用此装备前需在其列举的应用范围内进行详细的训练。

该产品必须由有能力且负责任的人来使用，或由其他人在有能力且负责任的人直接或目视监督下使用。

无论任何时候，您个人都应对因产品的错误操作而导致的所有损害，受伤或死亡负全责。如果您不能对该责任负责或处于无法承担这个风险的职位，那么不要使用此装备。

2. 组成部份

金属下降器

(1) 绳索导向, (2) 凸轮, (3) 铆钉, (4) 把手。

定向锁扣 : EXO TRIACT BAR

(10) 扣身, (6) 闸门, (7) 铰, (8) 上锁系统,

(9) Keylock, (15) 固定横条。

绳索

(11a) 缝合终点(确定点的一端), (11b) 缝合终点(制停的一边), (12) 缝线, (13) 终点的热缩套。

储存袋

(14) 绳索隔离顶盖, (15) 锁扣存放袋,

(16) Velcro魔术贴用于固定EXO TRIACT BAR,

(17) 外包盖, (18) 用于连接安全带的Velcro魔术贴, (19) 后侧定位带。

挂钩

(20) 钩槽。

主要材料:

下降器

铝合金(框架, 把手), 不锈钢(凸轮, 铆钉)。

EXO TRIACT BAR

铝合金。

绳索

Aramid (内芯和外皮)。

储存袋

Aramid.

挂钩

不锈钢。

3. 检测, 检查要点

你只可将整个产品作为一个整体来使用同时检查时应遵循所描述的步骤。

在每次任务之前和之后

用肉眼检查存储袋。

如果它曾暴露在高温之下, 或烧过, 撕裂, 纺织品因浸在水或化学品中而退色, 此时需要按照下面的步骤做一次完全的系统检查。

同样, 如果用于EXO TRIACT BAR定位的Velcro魔术贴消失, 检查下降器, 锁扣及挂钩的位置是否正确。

3A. 金属下降器

检查产品是否存在断裂, 变型, 划痕, 过度磨损, 腐蚀等迹象。检查磨损的状态。

检查凸轮和把手能自由移动而且弹簧和上锁组件能正常运作。

检查机械组件内无外物 (沙粒等) 同时绳索通过的轨道内无任何润滑剂。

3B. 安全扣 : EXO TRIACT BAR

检查框架、闸门、上锁系统是否有任何裂痕变型, 侵蚀等。打开闸门, 检查是否能自动关闭及上锁。Keylock凹槽不可被任何外物所阻塞 (污垢、小石块等)。

EXO TRIACT BAR的横杆必须没有损坏或变形。

3C. 绳索

用肉眼检查整根绳索。检查以每30厘米为界限, 反转绳索从而获得彻底的检查。

检查没有割痕, 撕裂或断开的线头或烧过的痕迹。

检查内芯是否存在破损或外皮被割开 (变软的地方,

断裂, 开线)。

在缝合终点处检查安全缝合。尤其要仔细检查是否存在线头。

如果你对系统的其中一个组件的正常功能存在怀疑, 请立即淘汰该产品。

3D. 钩挂

检查挂钩是否存在裂痕, 变形, 腐蚀等迹象。检查挂钩是否存在因暴露在高温下而显现出的褪色迹象。

3E. 在下降前

这产品不能暴露于超过250° C的高温或火焰中。

确保系统内所有装备都安装在正确的位置上。

定期检查产品及与它连接的其他装备的状态对使用者来说至关重要。

不要使任何物件阻碍工具(凸轮)或它的组件。

安全扣在使用时锁门必须始终处于关闭和锁紧状态。

检查绳索是否存在绳结同时下降器周围无任何绳圈。一根存储的无规律, 或存在绳结的绳索在下降时将导致严重的后果。

4. 准备好EXO且把它装在一个存储袋里

这个步骤必须由一个被消防队指派的受过培训和有能力的人去做。

此操作应在系统检查过后进行, 可以是一堂实践课, 或是在绳索从绳包内移除时进行。

在装绳前进行功能检测 (参见第7章)。

把系统放在一个清洁, 平坦的工作区域。

4A. 把绳索折迭并放置在绳包内

在收起系统之前先检查绳索。挂钩必须与下降器方向相反。

注意：绳索必须正确收起并使其可以随时使用而不会出现绳结。

打开绳包, 由背面放置。把缝合终点(在制停的一方)放在绳包的右边。做五个相等于绳包宽度的绳套(参考附图)。把这些绳套滑放在绳包内。重复操作直至装满绳索。

在绳索末端与下降器之间预留20厘米绳索, 然后把绳索分隔盖关上。

4B. 把下降器收放在绳包内

把下降器放置在绳索顶盖内(下降器把手向下与绳索相对)。

绳索放置在绳包的下层。

EXO TRIACT BAR安全扣不得被绳索阻碍。

将绳索末端及挂钩放置在绳包外侧。将挂钩放在绳包的前侧口袋内。

警告, 如果下降器, EXO TRIACT BAR或绳索放置得位置不得当, 系统将不能正常操作(参见附图)。

利用Velcro (16) 魔术贴把EXO TRIACT BAR固定。

关闭Velcro及其顶盖。

5. 兼容性

该系统必须整套组件一起使用, 而且必须正确放置。

不容许进行任何形式的改装。

该系统必须与一个符合使用标准的坐式或全身安全带一起使用。禁止使用一条简单的腰带。

如将EXO与绳包一起使用时需要一个延长的挂点(参考第8章)。

使用疏散系统时应佩戴手套。

6. 下降器的工作原则

当你身体的重量把系统拉紧时, 拉紧的绳索使连接在锁扣上的下降器凸轮转动从而制停绳索。在握住制动端绳索的同时, 制停的这只手帮助凸轮锁住绳索。要放开绳索时, 需要握住制动端绳索的同时拉动把手。

7. 功能测试

用手握住EXO TRIACT BAR, 迅速下拉工具。绳索必须卡住下降器。

死亡危险警告: 如果绳索没有卡住下降器, 将会导致生命危险。

下降器必须随时可以自由操作: 下降器和凸轮能自由移动(参阅第10章)。

8. 安装在安全带上

将绳包连接到安全带的腰带上并放在右边, 根据安全带的设计, 利用两条Velcro魔术贴和后挂带以垂直或水平放置。

EXO必须总是连接到安全带的挂点上。

一个延伸的挂点使EXO TRIACT BAR能永久地连接到安全带上, 并将绳包连接在一侧。

注意EXO TRIACT BAR在挂点内的方向因为这决定了在疏散时下降器的正常位置(参考附图)。确保锁门是正确关牢并上锁。

9. 安装在确定点上

准确的定义一个确定点是一个复杂的问题, 这个问题在该使用指南里无法详尽解释清楚。这里只列举几个例子。你应完成特殊培训并练习使用EXO设置确定点。

9A. 绕过一个物体

将挂钩末端的绳索绕过一个牢固, 静止的挂点。

通过将一个绳套穿过绳槽并在挂钩上缠绕来使连接更加安全。

9B. 钩挂的应用

- 在窗台上：使用左手将挂钩固定在窗台上(挂钩向内侧)。将其安装在窗台左侧, 这样能够以最快的速度翻出窗口。

- 绕过柱子, 在墙边, 等位置：将挂钩尽可能的放置在较低的平稳位置且始终令挂钩和下降器间的绳索处于拉紧的状态。

死亡警告: 你必须时刻令绳索处于拉紧的状态。不要使下降器和挂钩间的绳索有任何的松弛否则将有可能导致挂钩从挂点中脱出的危险。

死亡危险警告: 你的绳索不得与尖锐的边缘接触, 磨擦或接触高温。警告: 钩挂不得处于悬臂状态(例如挂在横杆上), 这样会导致脱钩的危险。

10. 自我救援

以下描述的内容并不能代替正确的训练。

水平移动

确定挂钩正确固定。

以身体的重量拉紧系统。

用左手挤压下降器的凸轮使绳索滑动。用右手握住制停一端的绳索。

始终把身体的重量放在绳索上。不得令下降器与确定点之间有松弛的绳索。

垂直下降

确定挂钩正确固定。

始终把身体的重量放在绳索上。

危险警告, 当由水平移动转移至垂直移动时(清理障碍物), 下降器可以被卡在边缘上(参考附图)。下降器可以被干扰。在培训时你必须掌握正确的动作。利用左手慢慢的下压把手。总是用右手握住制停一端的绳索。把手可帮助制停, 但是下降的速度由握住制停一端绳索的手逐渐放松来控制。

你必须控制下降速度: 最多2米/秒。

警告, 如果放松把手, 继续抓紧制停一端的绳索。

警告

- 在任何下降器内的阻碍(绳结, 绳索卡在凸轮后面, 缠绕的绳索), 都会阻止逃生过程。

- 如果下降得太快, 突然被缠结或缝合终点卡住可能导致系统损坏或严重受伤。

由系统卸下

当下降完毕, 检查你是否安全并且由安全带上拆除锁扣。

11. Petzl通用信息

产品寿命/何时该淘汰您的装备

在紧急情况下使用过EXO系统, 则不可再次使用。

Petzl的塑料和纺织产品, 由生产之日起最长寿命为10年。金属产品无寿命期限。

注意: 一次意外事故可能导致产品在首次使用后即被淘汰, 这取决于使用类型, 使用强度及使用环境(严酷的环境, 海边, 尖锐边缘, 极限温度, 化学产品等)。

产品在经历以下情况后必须淘汰:

- EXO已经在一次紧急逃生情况下使用过。
- 塑料或纺织产品自生产之日起已超过10年。
- 经历过严重冲撞(或负荷)。
- 无法通过产品检测。- 您对其安全性产生怀疑。
- 您不清楚产品的全部使用历史。
- 因为法律, 标准, 技术或与其它装备不兼容等问题而不得不淘汰。

销毁淘汰的装备以防将来误用。

产品检测

除了在使用前或使用时作检查外, 必须定期由资深检查员作深入检查。全面检查的频率必须视相关规定, 使用的类型及频繁程度而定。Petzl建议最低频率为每12个月检测一次。

为了使产品能够被追踪, 不要移除任何印记或标签。

检查结果应该记录在一部检查记录内。参考在www.petzl.com/ppe上的例子

储存, 运输

产品应存储在干燥的地方, 同时远离紫外线, 化学物质, 极限温度等环境。必要时对产品进行清洁和干燥处理。

保护绳索远离紫外线照射。

改装, 维修

除Petzl工厂外, 严禁对产品自行改装和维修(更换配件除外)。

3年品质保证

适用于所有材料或生产上的缺陷。例外: 正常的磨损, 撕裂, 氧化, 自行改装或改良, 不正确的存储和维护, 使用疏忽或用于非该产品设计之用途。

责任

PETZL对于使用者直接, 间接或意外所造成的事情, 或使用此装备导致的其它形式的伤害不承担责任何法律责任。

