ANTHRON d.o.o. Trgovska ulica 3 SI - 6310 IZOLA SLOVENIA

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Model:

Model: Modele: Modell:

Serial No.:



Purchase date:

Datum nakupa: Date de l'achat: Kaufdatum: Data di acquisto.

Date of first use:

Datum prve uporabe:

Data del primo utilizzo: Fecha de la primera utilizacion:

Date de la premiere utilisation:

Datum der ersten Verwendung:

3 year warranty 3 leta garancije Garantie 3 ans Garantie 3 iahre Garanzia 3 anni Garantia 3 anos



Double rope descender with

MADE IN SLOVENIA (EU)

DOUBLE ROPE DESCENDER



Serijska št.: No. de serie: Seriennumer: No. di serie: No. de serie.

Year of manufacture:

Annee da fabrication: Herstellungsjahr:

Anno di fabbricazione:

Ano de fabricacion:

Leto izdelave:

Date

Datum

User:

Uporabnik: Útilisateur: Benutzer: Utilizzatore: Usuario:

Inspection every 12 months Kontrola vsakih 12 mesecev Inspection tous les 12 mois Kontrolle alle 12 Monate Controllo ogni 12 mesi Inspeccion cada 12 meses

	Date	0/1	Inspecteur habilite
	Datum		Kontrollbeauftragter
	Data		Controllore
	Fecha		Inspector
1			
2			
3			
4			
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6			
7			
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Inspector

Kontroliral

OK



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D-85748 GARCHING. Germany EN 341:2011 Rope diameter Class A Ø11 mm

TUEV Product Service GmbH

Daimlerstraße 11

WARNING:

Activities done at heights are inherently dangerous. Understand and accept the risks involved before participating. You are responsible for your own actions and decisions. Before using this product, read and understand all instructions and warnings that accompany it and familiarise yourself with its proper use, capabilities and limitations. We recommend that every climber seeks proper training in the use of the equipment. Failure to read and follow these warnings can result in severe injury or even death!

 $\mbox{\bf DRD}$ $\mbox{\bf Rescue}$ is a self-braking descender for double rope use and is certified according to the norm EN 341:2011, Class A.

<u>USE:</u> rescue in industrial, mountain or cave environment, rope access, independent descent, helicopter descent, assisted descent.

EN 341:2011

ROPE TYPE(S) (concordant with EN 1891A):

Tests according to the norm EN 341:2011 have been performed with a low stretch kernmantel rope TEUFELBERGER Patron, 11 mm.

Parameter	TEUFELBERGER Patron, 11mm
min. rated load kg	50
max. rated load kg	240
max. descent dist. m	190
nr. of consecutive descents	26
sheath slippage Ss	0,1 %
elongation E	3 %
mass per metre M	75 g/m
sheath proportion Sp	35 %
core proportion C	65 %
shrinkage R	4,2 %
material	PA)

TESTED AND APPROVED FOR DESCENTS WITH A RELEASED ENERGY OF 7,5MJ (according to EN 341 class A).

 $W = m \times g \times h \times n$

m: mass (kg)

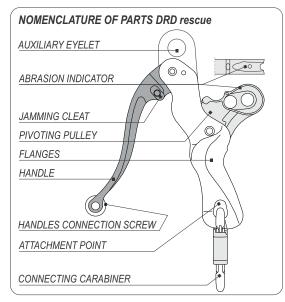
g: acceleration of gravity = 9,81 m/s²

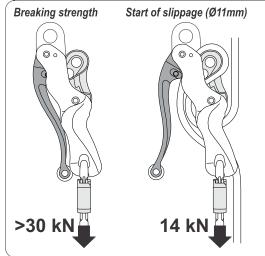
h: height (m)

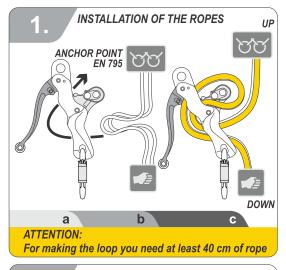
n: number of descents

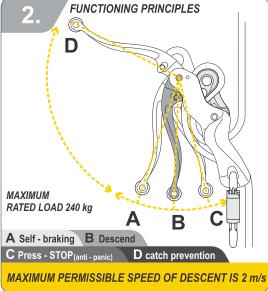
APPROVED TEMPERATURE RANGE:

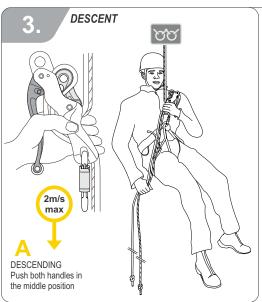
-20 °C \leq approved temperature \leq 60 °C

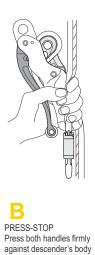


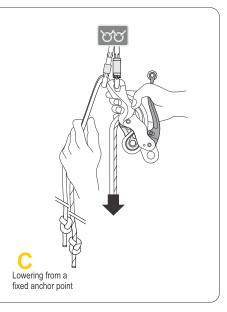


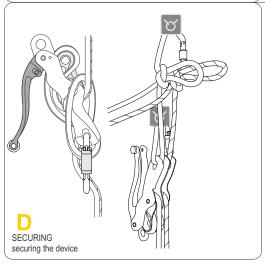


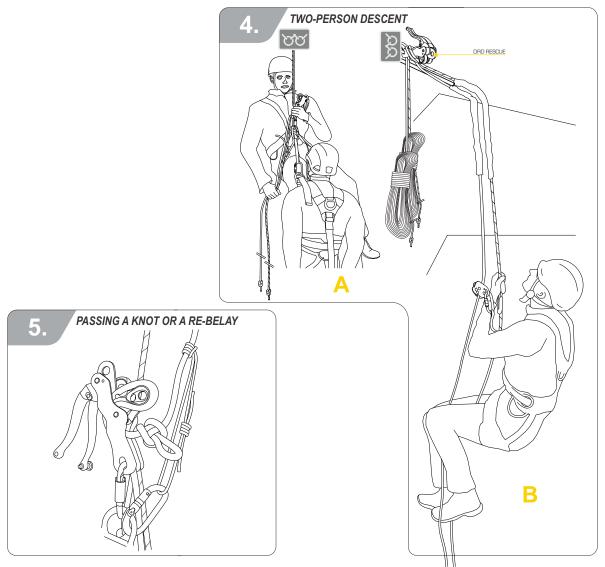




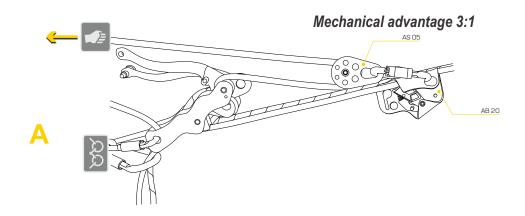


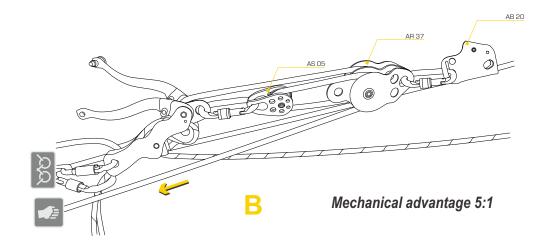


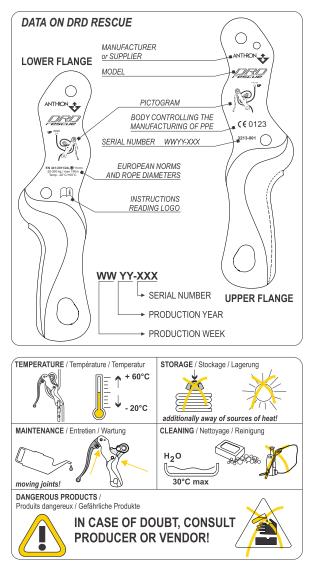


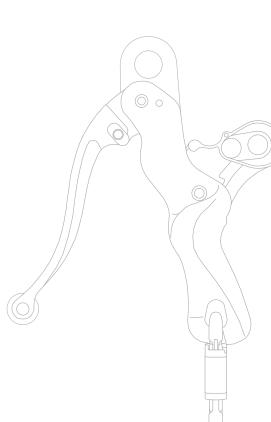


6.









♦ ENGLISH

READ THIS NOTICE CAREFULLY





This device was designed to offer you the degree of safety expected from personal protective equipment in accordance with the Directive 89/686/FFC

SAFETY MEASURES AND WARNINGS

- a) There are innumerable and even unimaginable possible modes of use of this device. Only techniques shown in the figures that are not crossed out or displaying a skull are recommended and covered by the warranty.
- b) This product must be used exclusively by adequately skilled persons, otherwise the user must be constantly supervised by trained personnel, who must guarantee for the safety. This includes liability against damages, injuries and death incurred by improper use or misuse of the equipment.
- c) This product may be used combined with personal protective equipment conforming to Directive 89/686/EEC and compatibly with the relevant information.
- d) The lifetime of this product will be extended if it is used with care. In particular, avoid rubbing against abrasive surfaces and/or sharp edges.
- e) The braking action of the device and thus your safety may be considerably reduced if the device or the ropes are dirty, oily, muddy or icy.
- f) Prolonged use in salty environments (e.g. sea cliffs) may affect the performance of the product.
- g) Do not expose the device to significant heat or cold (see work and stock temperature). station because of the weathering deterioration of the rope.
- h) Avoid any contact with chemical reagents as they may affect the performance of this product. Contact the producer if in doubt.
- The descender device should never be left in place (specifically outdoors), e.g. at a workstation, because of the weathering deterioration of the rope.
- j) It is essential to assess the reliability and security of the entire safety system you are relying on: adequate resistance of the anchors (EN 795) and their correct (higher) positioning, correct positioning of the ropes – e.g. protecting sharp edges or points of rubbing, preventing ill running of the descender, etc. – and to tie stopper knots at both free

- ends of the rope. Any overload or dynamic loading of the descender may damage the rope.
- k) The descender is fit to be used with harnesses concordant with either EN 361. EN 813 or EN 12277 Type A or C.

FUNCTIONING PRINCIPLES

Figure 1: INSTALLATION OF THE ROPES

Install first the back rope (as displayed in figure 1). The handle has to be withdrawn and the back pivoting pulley has to be drawn out of the descender to its terminal point. Now a bight of rope (1B) can be pushed in between both flanges at their lower end (1A). Care should be taken that the working (load carrying) end of the rope exits the device by the pivoting pulley and the free end of the rope by the carabiner. Then thread the bight around the pivoting pulley, between the upper parts of both flanges and finally catch it with the bight formed (1C). Eventually move the pivoting pulley back in the descender so that it engages the rope. Repeat the same process with the remaining rope and the front pivoting pulley. If the ropes have not been inserted correctly, the descender will block on the rope and will hence be of no use.

Figure 2: FUNCTIONING PRINCIPLES

Figure 3: DESCENT

Before each use, carry out an operational check of the device by testloading it with your body weight while secured by other means!

While loading the system, the user should hold with one hand both free ends of the rope and with the other hand gradually push both handles to the middle – descend mode (fig. 3/A). This unblocks the rope and allows for a controlled descent. The maximum permitted speed of descent is 2 m/s. By increasing pressure on the handles, the user will activate the descender's second braking position (anti panic) and when the pressure is high enough the descent will be stopped entirely (fig. 3/B). By releasing both handles altogether, the descent is stopped automatically (fig. 2/A). Use a second redirectional carabiner to lower from a fixed position (fig. 3/C). To prevent accidental uncontrolled descents, the descender may be locked-off entirely by forming a bight in the free end of the rope, passing it through the connecting carabiner and catching with the bight the entire descender (fig. 3/D).

Figure 4: TWO-PERSON DESCENT

This method of evacuation may only be adopted by rescuers specifically trained for the purpose. The rescuer may either fasten the descender to his harness and connect the injured person by means of an additional lanyard (fig. 4A), or operate it from a fixed position (fig. 4B).

Figure 5: PASSING A KNOT OR A RE-BELAY

Stop the descent far enough from the knot that rope stretch will not impede removal of the rope from the descender. Tie a Prusik hitch (or clip a functionally equivalent device) onto the rope above the descender. Unscrew the connection between both handles. Transfer the weight onto the rope without the knot. Tighten the Prusik. Pass the knot above the descender. Remove Prusik hitch from the rope. Gradually equalize the load on both ropes and continue descending.

A similar procedure may be adopted when passing a re-belay.

CAUTION: When descending with loads in excess of 200 kg a redirectional carabiner must be used before equalizing forces on both ropes.

Figure 6: HAULING AND PROGRESS CAPTURE

Lead the free end of the rope through the groove in the brake lever and connect it to the working end of the rope (fig. 6A). With the aid of the auxiliary eyelet and a double pulley it is possible to achieve a 5 : 1 mechanical advantage system (fig. 6B). Always follow progress with the other rope.

GENERAL INFORMATION

Regular examination:

- Do not hesitate to retire the device if it shows signs of wear (for rope abrasion see indicator on the jamming cleat) or after a major fall or a major impact. They could cause internal or invisible damage that may significantly weaken its strength. In case of uncertainty treat the device as damaged or consult ANTHRON.
- Regular periodical inspections must be carried out by an authorised person at least once a year. For this purpose an inspection record should be established (see the backside of these instructions).
 Furthermore, we would sincerely recommend one set of equipment is used by one person only as its history of use is best traced and understood in this way.
- Before each use, it is obligatory to check the descender and verify that all its components (handle, jamming cleat, flanges) are faultless and in good working condition.

Packing, storage, maintenance and cleaning

Each product is packed with its INSTRUCTIONS FOR USE. Proper maintenance and storage are imperative to ensure correct functioning of the product (as well as all your equipment) and thus your safety.

Clean the product with a brush under running cold water of domestic supply. If the stains persist, clean it in warm water (maximum 30 °C) with ordinary soap. Then rinse thoroughly, wipe it with a towel and dry naturally in a shaded ventilated place away from sources of heat.

If needed, lube sparingly the moving joints of the jamming cleat and handle with silicon based oil.

Temperatures

While it is permissible to use this product within the temperature range from -20 °C to +60 °C, it is advisable to stock it in a dry place at room temperature

Lifetime

Lifetime of our metal equipment is theoretically unlimited. It is however impossible to indicate the exact lifetime in use for it depends on the frequency and mode of application, on the environment where it is used (marine, cave, corrosive atmosphere) and on mechanical wear or damage. Provided its correct use (in accordance with these instructions), the lifetime of this product on average use is expected to be 7 years.

Guarantee and its limitations

This product is guaranteed for 3 years from purchase against any faults in materials or manufacture. The guarantee does not apply in cases of misuse, normal wear and tear, unauthorised modifications or alterations, improper use, improper maintenance, accidents, negligence, damage or if the product is used for a purpose it was not designed for. If you discover a defect, you should return the product to the reseller you purchased the product from or directly to ANTHRON.

ANTHRON is not responsible for the consequences of direct, indirect, accidental or any other type of damage resulting from the use of its products.