

RAD - Rope Adjustment Device

Important
Please read and understand these instructions before use. This product should only be used by trained & competent operatives, or under the supervision of such a person.

Use
The SAR RAD is a multi-function rope adjustment device and adjustable rope lanyard. Examples of its potential uses are:

- Descender/ lowering device
- Belay device for climbing/ mountaineering, etc
- Adjustable rope lanyard for work positioning, eg. pole strop or stretcher attachment
- Progress capture in a haul system
- Temporary anchor point around a structural member
- Rope adjustment in a work restraint system

It is the user’s responsibility to ensure that any items of PPE or other equipment used with the RAD are compatible and do not interfere with the safe function of any other component. Any item of equipment used must comply to the relevant standard(s).

Note: The information in this guide meets the requirements of the EU PPE Regulation 2016/425 . It is not comprehensive and cannot be substituted for the correct training, which can be provided if required. If in any doubt, contact SAR Products using the supplied information.

Specifications
When tested with SAR 11mm Low Stretch Rope & Rescue & Access Rope (16 plait kernmantle), the average static load before slippage was 4.5kN. Weight of RAD device: 302g

Safety
The safety provided by the RAD is dependant on the scenario, the anchors used and the skill of the user. The strength and suitability will be reduced through factors such as, but not limited to, age, wear & tear, abrasion, cuts, high impact loads, tight/sharp edges, knots, some chemicals (e.g. strong acids or alkalis), UV exposure, environment (damp or icy conditions), failure to store & maintain as recommended, etc. The RAD will perform differently when used outside of normal climatic conditions.

The user should keep any fall factor and lanyard length to a minimum at all times.

An appropriate connection method must always be used between the harness and the anchor or system. The user must consult the instructions for any other components used in a fall protection or fall arrest system and must pay attention to information including fall clearance distances, etc.

This device must not be used for fall arrest. A rescue plan should always be in place prior to any work at height.

Do not alter or repair the product in any way. Any component subjected to a dynamic loading should be examined and discarded if there is any sign of defect, or any doubts about its safety.

Lifespan
The lifespan of any product will be affected by the conditions in which it is used and stored/ maintained. This product is manufactured using high grade aluminium alloy & stainless steel components. The rope lanyard is either polyamide or polyamide/ polyester mix.

Textile components should be retired no later than 10 years after the Date of Manufacture. Metal components will have an indefinite lifespan, depending on use.

The working life will be reduced through general wear and tear, abrasion, cuts, damage to component parts, inappropriate ancillary equipment, high impact load, prolonged exposure to UV light including sunlight, elevated temperature (50° C max), exposure to some chemicals (e.g. strong alkalis) or failure to store and maintain as recommended. This list is not exhaustive.

Inspection
Before each use, conduct a visual inspection and function test to ensure the product is in serviceable condition and operates correctly. A periodic examination should be carried out by a competent person at least every 12 months. These inspections should be recorded, paying particular attention to areas of potentially high wear such as attachment points, textiles, cams, bearings, etc. In the UK, the frequency of periodic inspection should be at least every 6 months; it is the user’s responsibility to ensure they comply with the guidance for inspection in their own country or region.

Maintenance
Always keep the product clean and dry. Any excess moisture should be removed with a clean cloth and then allowed to dry naturally in a warm room away from direct heat. Metal parts may be lubricated with a dry PTFE lubricant or WD40 type spray. Excess lubricant should be wiped off to avoid attracting dirt.

Chemicals
Avoid contact with any chemicals which could affect the performance of the product. If contact occurs, or is suspected, then remove the product from service immediately.

If used in a marine environment, thoroughly rinse in clean cold water and dry after each use.

Storage
After cleaning, store unpacked in a cool, dry, dark place away from excessive heat sources or other possible causes of damage. Do not store wet. Transport in a suitable protective bag. If a long shelf life is required it is advisable to store in a moisture proof package.

Warning
Work at Height and Rescue are hazardous activities. It is the user’s responsibility to ensure understanding of the correct and safe use of this equipment, to use it only for the purposes for which it is designed and to practise all proper safety procedures. The time that a casualty is suspended should be kept to a minimum. Attention should be paid to the dangers suspension trauma.

The user shall ensure that the safe function of this product is not impaired by, and does not impair, the safe function of another component or system. The side ‘D’s on a waist belt should not be used alone if there is a foreseeable risk of the user becoming suspended or being exposed to unintended tension by the waist belt. When using a work positioning system, the user normally relies on the equipment for support, therefore it is essential to consider the need of using a back-up.

When descending/ lowering, or belaying, the rope diameter, construction, age, wetness, slipperiness, etc will affect how the device performs. Users should familiarise themselves with the braking effect before each use.

Markings
Each individual component is marked, where applicable, with:

- The name, trademark or any other means of identification provided by the manufacturer or supplier.
- The batch or serial number
- The date of manufacture (DoM)
- Product description and/or reference
- The British &/ or EN standard(s) to which the item conforms
- Min/ Max rope diameter (commercially stated rope diameters have a tolerance up to ± 0,2 mm)
- Load rating
- UKCA &/or CE mark with approved &/or notified body number

RAD device serial number: the first two digits are the year, the next six digits are the batch, and the last four are the individual serial number.

Strengths quoted are when the product is tested new and are in accordance with the manufacturer’s test methods to the appropriate standard. Any weights and measurements are within the standard’s specified tolerances.

Approved Body UKCA
SGS United Kingdom Limited
Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN
Approved Body No: 0120

Notified Body
SGS FIMKO OY, Takomotie 8, FI-00380 Helsinki, Finland.
Notified Body No: 0598

It is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in the language of the country in which the product is to be used.

Nothing in this document affects the consumer’s statutory rights.

Declaration Of Conformity

The EU Declaration of conformity is available by scanning the QR code or visiting:
www.sar-products.com/eu-doc/



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Next Inspection due				
Name & Signature of Inspector				
Type of Inspection & Comments				
Date & Time				

User’s Name:

Date of Manufacture:

Date of Purchase:

Date First Used:

Product Serial No.:

Certificate Of Conformity
We certify that the RAD device conforms to the requirements set out in EN12841:2006-C and EN15151-1:2012- Type 6.
In addition, when used with a RAD rope lanyard, it conforms to EN358:2018 and EN795:2012-B. The RAD had also been independently witnessed as conforming to the test requirements of EN341:2011 Type 2, Class D.

Signature:.....
For SAR Products Ltd.

User Guide
RAD



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Instructions for use

EN12481:2006-C

Rope access systems. Rope adjustment devices.
For use with 10.5mm to 11 mm diameter EN1891 Type A rope. Max user weight 130kg.

Descending or lowering:

- The fixing plate screw does not need to be in place for use in this category.
- Open the front swivel plate.
- Insert the rope as shown in **Fig 1**, also indicated on the device.
- Close the swivel plate and insert a EN362 connector through both holes. **Fig 2**
- Attach to the Ventral attachment point for use as a descender, or to an appropriate anchor for use as a lowering device.
- Operate the handle to control descent. **Fig 3**
- ALWAYS hold the tail end of the rope when operating the handle.

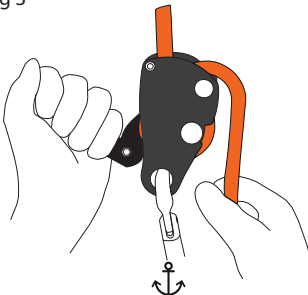
Fig 1



Fig 2



Fig 3



Attachment Point - e.g. Harness

EN15151-1:2012 Type 6

Mountaineering Equipment. Devices for belaying and abseiling without a panic locking element.
For use with 9.9mm to 11.3mm diameter dynamic EN892 rope.

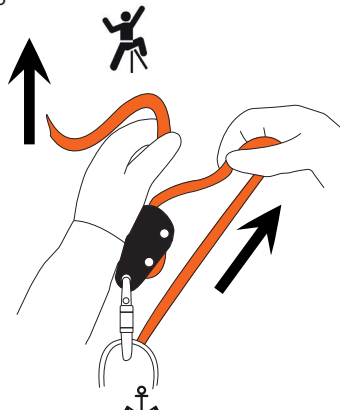
Belaying:

- The fixing plate screw does not need to be in place for use in this category.
- Open the front swivel plate.
- Insert the rope as shown in **Fig 4**, also indicated on the device.
- Close the swivel plate and insert a EN362 connector through both holes.
- Attach device to the ventral attachment point of the belayer.
- Ensure the climber is tied in using an appropriate knot.
- To pay out, feed the free rope into the device, while at the same time gently pulling the rope through the device with the other hand. Keep all movements as smooth as possible. **Fig 5**
- To take in, pull slack through the device using the controlling hand on the tail end. **Fig 6**
- The device will lock off automatically when loaded sharply. To lock off manually, pull down on the tail end. **Fig 7**
- To lower off, operate the handle to control descent. **Fig 8**
- ALWAYS hold the tail end of the rope when belaying or lowering.

Fig 4

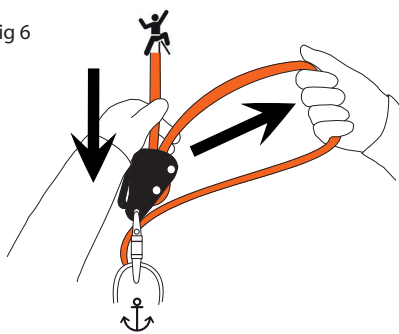


Fig 5



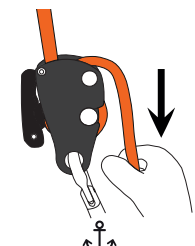
Attachment Point - e.g. Harness

Fig 6



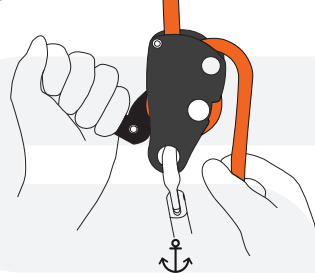
Attachment Point - e.g. Harness

Fig 7



Attachment Point - e.g. Harness

Fig 8



Attachment Point - e.g. Harness

EN358:2018

Belts and lanyards for work positioning and restraint. Adjustable lanyards.
For use ONLY with SAR RAD Rope Lanyard 11mm. Max user weight 150kg.

Work positioning or restraint:

- Must be used with a belt or harness conforming to EN358 or EN813 or EN361.
- The fixing screw must remain in place for use in this category, preventing the rope from being removed.
- Can be used in double mode as a pole stop, with connectors clipped to 2 side 'D's on the waist belt, or both connectors clipped to a ventral attachment point. **Fig 9**
- Can be used in single mode, with the rope connector to an anchor, and the device connector to an appropriate attachment point. **Fig 10**
- One handed adjustment is possible in double mode if the operative takes care. The tail end MUST be held when adjusting the length in single mode.

Fig 9



Attachment Point - e.g. Harness

Fig 10



Attachment Point - e.g. Harness

Fitting Instructions For Replacement Lanyard:

Fig A



Fig B

Open swivel cheek plate to allow loading of rope and load rope around main cam.



Fig C

Close swivel plate and re-insert lock screw.



EN795:2012-B

Anchor devices. Temporary anchors.
For use ONLY with SAR RAD Rope Lanyard 11 mm. One person load.

Temporary anchor point:

- Any structural member must be assessed as being unquestionably reliable. Sharp or abrasive edges should be checked for and either removed or protected against.
- The fixing screw must remain in place for use in this category, preventing the rope from being removed.
- Pass the end of the lanyard around the anchor, then clip both connectors through the knot of the working rope, the delta maillon, or the rigging plate. DO NOT use a karabiner for this attachment point. **Fig 11**
- Ensure that the handle is facing away from the structure and cannot be inadvertently depressed.
- Tie the device off with a slip knot backed up with an overhand knot around the standing end. **Fig 12a - 12f**

Fig 11

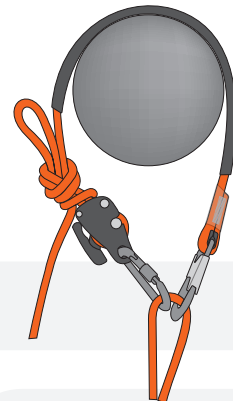


Fig 12a

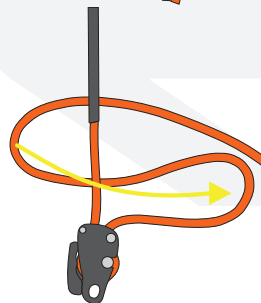


Fig 12b

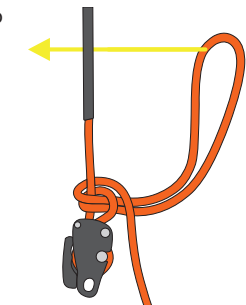


Fig 12c

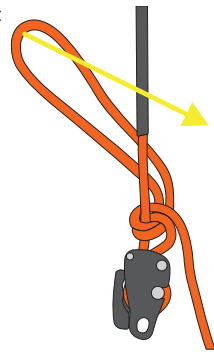


Fig 12d

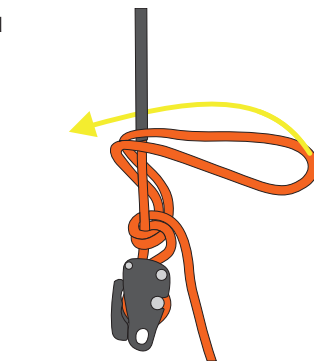


Fig 12e

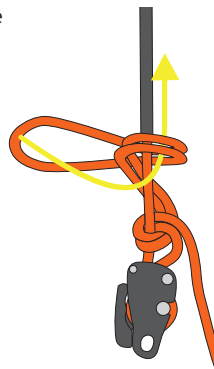
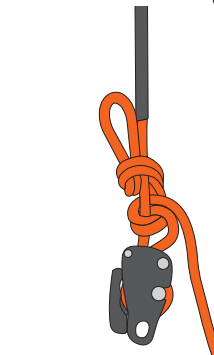


Fig 12f



EN341:2011/2D

Descender devices for rescue.
For use with pre-threaded EN1891 Type A 10.5mm to 11mm rope. Min user weight 40kg. Max user weight 104kg. Max 1 descent of 200m.

Rescue only:

- Should only be used by a person competent in its use or following clear emergency protocols.
- The fixing screw must remain in place for use in this category. The descender must be used with the pre-threaded rope.
- Although this is classed as a single use device, it may be re-used after a minimum wait of 30 minutes between uses, following an inspection for suitability.

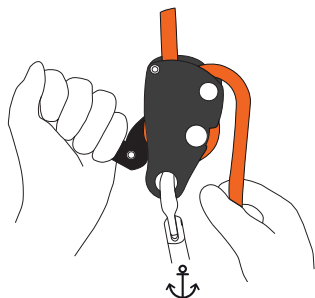
Descent:

- Attach the rope connector to a suitable anchor.
- Attach the device to a suitable attachment point on the harness or rescue loop.
- Operate the handle to descend. **Fig 13**
- ALWAYS hold the tail end of the rope when operating the handle.

Lowering the casualty:

- Attach the device to a suitable anchor.
- Attach the rope connector to a suitable attachment point on the harness or rescue loop.
- Operate the handle to lower. **Fig 13**
- ALWAYS hold the tail end of the rope when operating the handle.

Fig 13



Attachment Point - e.g. Harness