

## Warning

- Activities involving the use of equipment are inherently dangerous and can lead to severe injury or even death. You must be responsible for your actions and decisions.
- Proper training and practice are essential before use.
- You must read and understand this instruction before use. It is impossible to describe all use methods in this instruction. Contact +86-10-59770511-1063; info@asatsafe.com; if you have any doubt or difficulty in understanding this instruction.
- Keep this instruction well, or download the latest instruction on [www.asatsafe.com](http://www.asatsafe.com)

ASAT RD2

Self-braking descender with integrated high efficient pulley.

### 1.Application field

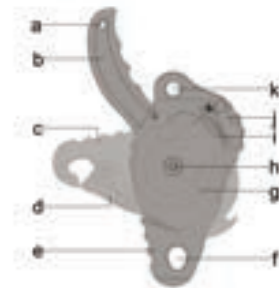
Personal protective equipment (PPE) for fall protection.

This product meets the requirements of EU personal protective equipment Regulation 2016/425 .Complied with EN12841:2006 Personal fall protection equipment-Rope access systems-Rope adjustment devices, Type C –working line descender

### Warning:

This product must not be used beyond its limits, nor be used for any purpose other than for which it is designed.

### 2. Nomenclature



a: Cord hole, b:Handle, c:Moving side plate, d: Safety gate,

e: Fixed side plate f:Primary attachment hole, g:Pulley, h: Side plate axle,

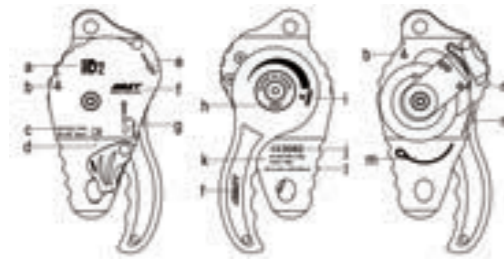
i:Moving braking plate, j:Fixed braking plate and braking groove

k: Becket hole

Primary material: aluminum alloy, stainless steel.

## 3.Marking

3.1Product Information



a: The name of product.

b:The direction of anchor or loading side.

c:Compatible with EN1891 A 10.5-11mm rope.

d: Logo to remind the user to read the instruction.

e: The braking side of rope.

f. The brand.

g/m:The loading side of rope.

h: Manufacture year.

i: Handle open degree.

j: CE marking, Notified body that carried out the EU type examination.

(The EU declaration of conformity is available at [www.asatsafe.com](http://www.asatsafe.com).)

k: Complied with EN 12841:2006 Type C , WLL (working load limits) :150kg.

WLL:200kg,descent speed ≤0.5m/s.

l:The name of the manufacturer.

n: Product individual number.

### 3.2 Wear indicator

There's a wear indicator on fixed braking plate of RD2. When the first groove on braking teeth is worn apart. The descender must be retired.



## 4.Specifications on EN 12841-C:

- 1) Complied with EN 12841:2006 type C , Minimum rated load:30kg,WLL (working load limits) :150kg; WLL:200kg,descent speed ≤0.5m/s,
- 2) Descending speed: 2m/s max
- 3) Temperature range: -40°C to 60°C
- 4) Rope: EN1891 Type A(ASAT Static rope AR-TS05)
- 5) Rope diameter:10.5-11mm
- 6) Descending height: 100m max
- 7) Weight: 790g

### 5.Usage

Install a locking carabiner on primary attachment hole to connect to the harness or anchor.

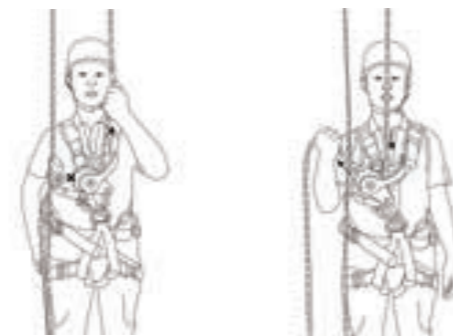
5.1 Install the rope:

Fully open the moving side plate and handle, put the rope into rope groove according the mark, and close the plate. Make sure the safety gate is properly closed.



5.2 Function test:

In a safe place, pull the loading side of rope to check RD2 locks the rope in desired direction and slide in the other direction.



rope locks in loading side of rope

rope can be pulled out on braking side of rope

## 5.3 Usage on a rope access system

Type C rope adjustment devices are intended always to be used in conjunction with a Type A rope adjustment device connected to a safety line. Take slack between RD2 and anchor.

Standard test on one person use:150kg max, 2m/s max, 100m max.

In rescue situation, the maximum working load up to 200kg , descending speed <0.5m/s.

Compatible rope : EN1891A 10.5-11mm on test.(ASAT Static rope AR-TS05)

RD2 is compatible with kernmantle rope(core+sheath) ,rope diameter 10.5-11mm (±0.3mm) . The compatibility depends on type, diameter, softness and other conditions of rope. Performing a test on compatibility of rope, if you're not using rated diameter(10.5-11mm) rope.

Cautions: Higher weight+ higher height+ higher speed+ lower rope diameter = worse control performance.

Descending: hold the braking side of rope with right hand, control the handle with left hand, rotate the handle according to the figure, gradually pull the handle to allow the rope to slide, control the descending speed by the cooperation of left and right hand.

Cautions: Always hold the braking side of rope during descent.



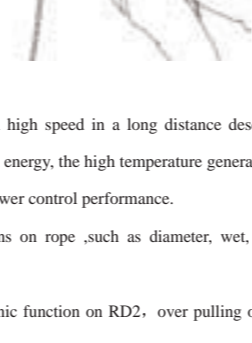
With higher loading , lower diameter rope or other situations when it's hard to control descent ,adding a additional friction to improve descent control.

## 5.4 Usage on an anchor

5.4.1 Lowering

Before lowering, make sure that the installation of the rope is correct, and perform a functional test.

Put a carabiner above RD2 according to the figure, clip the braking side of rope in it, and make sure the rope slide on braking groove during lowering.



### 6. Inspection

6.1 Before each use:

Check the compatibility of RD2 with other devices in the system. Check whether there're any corrosion, deformation, crack or abrasion on device; whether any fastener fall off or become loose; whether the friction ridge near the bottom of the fixed friction plate has been worn to the level of the grooves; Check the handle returns automatically to its original position when released. Check if the markings are illegible.

6.2 During each use

Check the conditions of RD2 and its connections to the other equipment in the system. Check braking and control performance of RD2.

6.3 Periodic inspection

Perform a comprehensive inspection of RD2 at least once every 12 months. The frequency of inspection depends on the frequency of use of the device. Inspections are carried out by qualified person, and the results must be recorded .

## 5.4.2 Hauling:

RD2 integrate with high efficiency pulley.

1:1 hauling according to figure.



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## 6. Inspection

- 1) Whether the inspection record is complete.
  - 2) Whether the markings are illegible.
  - 3) Any corrosion, deformation, crack or abrasion on device.
  - 4) Whether any fastener fall off or become loose.
  - 5) Whether the friction ridge near the bottom of the fixed friction plate has been worn to the level of the grooves;
  - 6) Flexibility of the opening mechanism.
  - 7) Whether RD2 can brake quickly on the rope and the handle function is normal.
- 6.4 When to retire the device
- 1) It has been subjected to a massive load ,fall or accident.
  - 2) It fails to pass PPE inspection.
  - 3) You have any doubt about the reliability of the equipment.
  - 4) You don't know its full usage history.
  - 5) The marking on the equipment is not legible.
  - 6) Changes in regulations or standards.
- Destroy the products to prevent further use.

Note:

- 1) All personal protective equipments (PPE) are consumables.
- 2) There is no storage limit for the metal device in the proper environment.
- 3) The equipment may need to be retired only after one use because of misuse, accidents or compatibility problems.
- 4) The practical lifespan depends on the type and intensity of usage, harsh environment(marine environment, extreme temperatures, sand and mud etc). The lifespan depends on PPE inspection.

### 7.Responsibility

- 1)You are responsible for your actions and decisions. If you can't, don't use it.
- 2) Your physical and mental conditions must meet the requirements of activities at height. Any physical or mental illnesses will lead to dangers. (Hypertension, heart disease, dizziness, fear of heights, etc. or other temporary physical or mental states, such as alcoholism, drug reactions, or abnormal mental states.)
- 3) Only qualified person can use this product or one under supervision of a competent and experienced person can use this product.
- 4) Before using this product, you must undergo training which includes theory and practical operation.

- 5) When it is resold to other countries or regions, the instruction must be translated to local languages. .

### 8. Information related to working at height:

- 1) Working at height must comply with relevant standards and regulations of your country or region.
- 2) The MBS of anchor is at least 12kN or conform to EN795. User's position should under anchor point, the link between user and anchor should always be taut.
- 3) In a fall arrest system, it is essential to maintain a required clearance blow the user in order to avoid hitting the ground or any obstacle in a fall arrest procedure.
- 4) A harness is the only device allowable for supporting the body.
- 5) Suspension in the harness unconsciously can result in serious injury or even death.
- 6) In a safety system, the strength of the system is based on the lowest strength part of the entire system.
- 7) There must be at least two persons who're working at height.
- 8) Risk assessment is necessary before work, and take corresponding safety measures. You must make a rescue plan and be able to implement it rapidly in case of danger.

### 9.Storage and transport:

Proper maintenance and storage can extend the lifespan of the device.

- 1) After the device is used, the liquid and other dirt remaining on the device must be cleaned and dried, and stored in a dry environment at 10 ° C to 30 ° C .
- 2) The storage environment of the equipment should be far away from the factors that may cause potential damage to the product, such as wear, UV, huge pressure, chemicals, sharp objects and heat sources.
- 3) The equipment should be stored in special bags or containers during transportation, and according to the requirements in the storage environment.
- 4) Cleaning: Use clean water(<30°C) and soft brush to rinse the external and internal of the product. Do not use high-pressure water, industrial cleaning agent. Rinse afterwards and dry it naturally. Do not use heat source to dry the

## 10.Limited warranty:

ASAT provides a 1-year warranty against any material or manufacturing defects.

Exclusions: normal wear and tear, deformation, oxidation, modifications or alterations, miscues, incorrect storage, poor maintenance , uses for which this product is not designed. ASAT is not responsible for any direct or indirect non-quality induced consequences.

### RD2 inspection record sheet

Customer:		
Description:		
Serial number	Inspection site	date
No.	Inspection item	result
1	Pull the handle,then release, it can return to the original position automatically	
2	Check the resilience of the movable baffle	
3	Corrosion, deformation, cracks or abrasion on the body	
4	Sliding smoothness on the rope	
5	Engaging sensitivity	
6	Whether the friction ridge near the bottom of the fixed frictionblock has been worn to the level of the grooves	
7	Falling off or looseness of the fasteners	
8	Flexibility of the opening mechanism	
9	Whether the signs on the body are recognizable and complete	
Inspection conclusion		
Inspected by (sign)		