Instructions for Use

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 or info@asatsafe.com，if you have any doubt or difficulty in understanding this instruction.

Address: 26B, West Zone, LianDo U Valley, No.17 HuanKeZhongLu, Tongzhou District, Beijing, PR China 101102.

●Keep this instruction well, or download the latest instruction at www.asatsafe.com .

●The instruction is not exhaustive and cannot list every incorrect usage method.

EU type examination(2016/425/EU, module B) of this product was performed by:
Apave SA
Accordance with the Regulation (EU) 2016/425 of the European Parliament and Council relating to Personal Protective Equipment Regulation (PPE) production control (module D) is carried out by:
Apave SA
Apave SA (n°0082) - 6 Rue du Général Audran - 92412 COURBEVOIE cedex - France 4
Country : France
Website : www.apave.com
Notified Body number : 0082

ASAT RA2 fall arrester

1. Application field

Personal protective equipment (PPE) for fall protection from height. Mobile fall arrester for using on the rope.

This product meets the requirements of EU personal protective equipment Regulation 2016/425. Complies with the standards EN 12841: 2024 Type A- rope adjustment device for the safety rope (back-up rope). Back-up device for a rope access system, to be used in conjunction with a type B or C progression device.

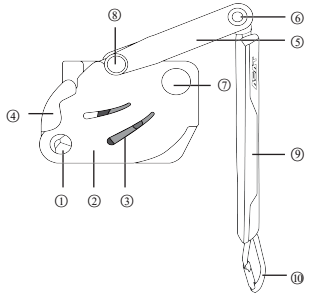
The CE Declaration of Conformity can be downloaded from the product page of www.asatsafe.com .

XF-494-2023/FZL-Z-T China Fire – Rope grab device- General.

Warning:

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

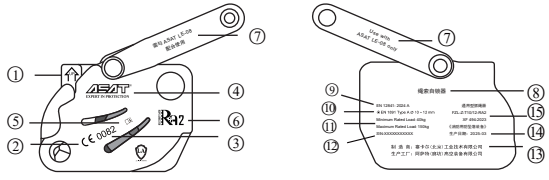
2. Nomenclature



1: Button for moving side plate
2: Moving side plate
3: Locking wheel
4: Frame
5: Connection links
6: Connection pin for energy absorber lanyard
7: Axle for moving side plate
8: Axle for connection links
9: Energy absorber lanyard
10: Carabiner

Main material:
RA2, carabiner: aluminum alloy，steel.
Absorber lanyard: HMPE，polyester.

3. Markings



1) The direction of the anchor
2) CE mark under EU 2016/425
3) The notified body responsible for the production control of this PPE
4) Brand name
5) Logo to remind the user to read the instruction
6) Product reference
7) Warning: must be only used with LE-08
8) Product name
9) Complies with EN 12841: 2024 Type A
10) Rope compatibility
11) Minimum and maximum rated load
12) Serial number
13) Manufacturer
14) Product date(YYYY-MM)
15) China Fire certification information

Notified body performing the EU type examination and notified body responsible for the production control of this PPE:
Apave Exploitation France SAS /0082
Address: 6 Rue du Général Audran, 92412 COURBEVOIE cedex, France

Manufacturer:
SKYER(Beijing) Industry Technology Co., Ltd
Address: 26B, West Zone, LianDo U Valley, No.17 HuanKeZhongLu, Tongzhou District, Beijing, PR China 101102

4. Inspection

4.1 Before each use

Check for signs of excessive wear, play, deformation, corrosion, cracks, etc. on the frame, connection links, locking wheel, side plate, axles.

Check the condition of the button for moving side plate to ensure it can fully return and lock the side plate.

Check that the surface of the locking wheel is clean and free of debris, and verify that no teeth are missing or broken.

Check the energy absorber lanyard has not been activated and its protective sleeve is intact.

Check the condition and function of the carabiner.

Install the RA2 on the rope to verify its function (ensuring it can lock, the locking wheel can rotate in both directions, and the connection links and side plate can move freely), and inspect the condition of the rope.

4.2 During use

Regularly check the condition of the RA2 and its connections with other equipment in the system to ensure all devices are in a correct position.

Verify that the side plate is correctly closed, and pay attention to any foreign objects that may come into contact with the button for moving side plate.

Pay attention to any foreign objects that could impede the rotation of the locking wheel. Protect your RA2 from splashes (such as paint, concrete, etc.) during work. Ensure the locking wheel is always engaged on the rope.

Attention: In case of any abnormal events, accidents, a major fall during use, the user must record this usage history and inspection the device.

4.3 Periodic inspection

Perform a comprehensive inspection for the device at least once every 12 months. The frequency of inspection depends on the frequency of use and the using environment (e.g. harsh weather, sea water …). The inspection must be carried out by a qualified person, and the results must be recorded.

Inspection items:

1) Whether the markings are illegible.
2) Whether the using history and inspection record are complete.
3) Check for signs of excessive wear, play, deformation, corrosion, cracks, etc. on the frame, connection links, locking wheel, side plate, axles.
4) Check the condition of the button for moving side plate to ensure it can fully return and lock the side plate.
5) Check that the surface of the locking wheel is clean and free of debris, and verify that no teeth are missing or broken.
6) Check the energy absorber lanyard has not been activated and its protective sleeve is intact.
7) Check the condition and function of the carabiner.
8) Install the RA2 on the rope to verify its function (ensuring it can lock, the locking wheel can rotate in both directions, and the connection links and side plate can move freely), and inspect the condition of the rope.

5. Compatibility

The use of other components in the system may affect the safety of the product. The components used with RA2 must meet China's or EN standards, and are compatible with it.

The RA2 is compatible with EN 1891 Type A kernmantle rope with the diameter of 10-12 mm. The rope must be in a condition suitable for use with the RA2 fall arrester. Using the device on icy or contaminated ropes may prevent the RA2 from functioning properly.

The energy absorber lanyard LE-08 and carabiner HA-0201 are integrated into the rope fall arrester. If replacement is necessary, only ASAT-approved energy absorber lanyard and carabiner can be installed.

Note: The EN 12841-A test was passed when the RA2 fall arrester is tested in combination with the energy absorber lanyard LE-08 and the carabiner HA-0201.

6. Use of RA2

6.1 Installation

Ensure the fall arrester is installed correctly as shown in the figure. The RA2 can be installed to any position on the rope.

Warning: The RA2 can only lock in one direction.

Press the button and rotate the moving side plate downward.

Insert the rope in the correct direction as indicated. Close the moving side plate until the button fully returns to prevent the rope accidentally detaches.

6.2 Use

Before each use, a function test of the RA2 must be conducted in a safe place.

The RA2's carabiner should be connected to the fall arrest attachment point of a full-body harness. The full-body harness must comply with EN 361 or GB 6095-2021 standard. Alternatively, it may be connected to a certified anchor point.

The RA2 moves along the safety rope with the user. No manual operation of the RA2 is required during movement. In the event of a fall or rapid movement, the device's locking wheel will engage and lock the rope.

Unlocking: When the RA2 is locked on the rope, remove the load from the fall arrester and push the frame of device upward slightly to allow the wheel to rotate . The RA2 will be unlocked.

6.3 Precautions for use

In the work station, users should raise the RA2 to a higher position to minimize potential fall distance and impact force. Be mindful of rope swing or wind that may cause the RA2 to slide to a lower position. Users can also actively lock the RA2 by quickly pulling down the energy absorber lanyard.

During ascent, users must ensure the rope slides correctly through the RA2 fall arrester and that the rope above the device remains taut, avoiding slack loops.

Maximum allowable fall distance: Twice the length of the energy absorber lanyard (including the carabiner). Warning: The length of the RA2 fall arrest system must not be extended.

When used on slopes, the speed of a slip or fall may not trigger the RA2 to lock. It is recommended to tie a stopper knot below the RA2.

The rated working load range for the RA2 is 40–150 kg. The RA2 fall arrester must not be connected to more than one user.

Used with LE-08 lanyard, the maximum rescue load during descent is 250kg.

Dynamic overload during a fall may activate the energy absorber lanyard and cause damage to both the rope and the RA2 fall arrester.

When the RA2 is used attached to an anchor point, pay attention to the distance between the RA2 and the directional point on the rope ahead of RA2. Deployment of the energy absorber may cause the RA2 to stuck on the directional point.

If the tearing webbing of energy absorber is activated, the RA2 fall arrester must be taken out of service, and the device should be inspected the energy absorber lanyard should be replaced.

Operating temperature range for the RA2: -30°C to 50°C.

7. Clearance

Clearance refers to the minimum distance required below the user during a fall to prevent impact with the ground or obstacles. The actual arrest distance depends on factors such as user weight, relative position to the fall arrester, deployment length of the energy absorber lanyard, and the rope length above the fall arrester.

Pay attention to the horizontal distance between the rope anchor point above the RA2 fall arrester and the user to avoid pendulum falls.

The length and the maximum extended length after deployment of LE-08 need to be checked on its label.The length of the HA-0201 carabiner (10 cm) must also be included in the fall distance calculation.

Clearance accounts for the following factors:

1) Fall height
2) Braking distance of the fall arrester
3) Tearing length of the energy absorber
4) Average height of the user
5) Stretch of the rope above the fall arrester;
6) A safety margin of 1 meter.

8. Responsibility

1) You are responsible for your actions and decisions. If you can’ t, do not use this product.
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.

9. Safety Precautions for 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 below the user in order to avoid hitting the ground or any obstacle in a fall arrest phase.
4) The length of the carabiner should be taken into account when used in a fall arrest system as it will influence the length of a fall.
5) A full-body harness is the only device allowable for supporting the body in a fall arrest system.
6) Suspension in the harness unconsciously can result in serious injury or even death.
7) In a safety system, the strength of the system is based on the lowest strength part of the entire system.
8) There must be at least two persons who’re working at height.
9) 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.

10. Retirement

When to retire the device

- It has been subjected to a massive load, fall or accident.
- It fails to pass PPE inspection.
- You have any doubt about the reliability of the equipment.
- You don’t know its full usage history，or no inspection record.
- The marking on the equipment is not legible.
- Changes in regulations or standards.

Destroy the products to prevent further use.

Note:

1) All personal protective equipment (PPE) are consumables.
2) There is no lifespan limit for metal equipment.
3) The equipment may need to be retired only after one use because of misuse, accidents or compatibility problems.
4) The actual lifespan of a product is affected by factors such as the equipment's usage environment, frequency and the severity of the environment (marine environment, extreme temperatures, sand and mud etc.). The lifespan depends on PPE inspection.

11. Storage and maintenance

Proper maintenance and storage can extend the lifespan of the device. Incorrect storage can lead to premature aging or damage of equipment.

1) After the equipment is used, the liquid and other dirt remaining on the equipment must be cleaned and dried, and stored in a dry environment at room temperature.

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, the environment with high salt content ,high humidity ,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: Clean the surface and components of the RA2 using a cloth dampened with clean water and a soft brush. Do not use high-pressure water for cleaning, and avoid any industrial cleaning agents. Do not immerse the RA2 in water. Wipe it dry with a dry cloth, and ensure the device is not exposed to heat sources for drying.

Warning: Any private modifications, replacement parts and repairs are not allowed, repairs can only be carried out in ASAT.

12. Inspection record form

Check the product according to Part 4

Owner			Purchase date	
Product name			Model	
Inspector’s name			Inspection date	
Product batch/serial number			Next inspection date	
NO.	Items	Results	Comments	
1	Frame, connection links, axles			
2	Moving side plate, button			
3	Locking wheel			
4	Function			
5	Energy absorber lanyard			
6	Carabiner			
7	Others			

Results: P：passed, F：failed, C：maintenance or observation

Manufacturer:SKYER (Beijing) Industry Technology Co.,Ltd
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