



# MANUALLY OPERATED DESCENDER

## 手控下降器



### Safety precautions

This manual explains how to use the equipment and only appropriate techniques and uses are described. Warning signs tell the potential risks but they don't cover everything. Please read every each warning carefully and use your equipment properly. Any misuse might lead to danger. If you are in doubt, please contact XINDA.



Risk of severe injury or death



Risk of accident or harm

**OK!**

Appropriate way of use



Incorrect way of use

### Components



①

③

④

⑤

⑥

⑦

① 移动侧板

② 固定侧板

③ 上凸轮

④ 挤压凸轮

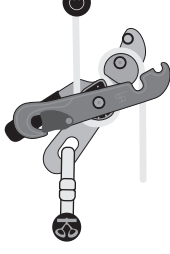
⑤ 塑胶门开关

⑥ 连接孔

⑦ 手柄

(图2)

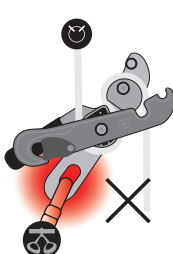
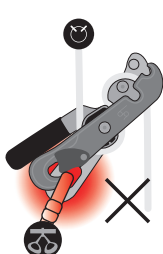
### Installation and Use



(图3)



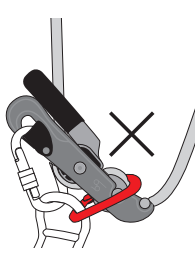
(图4)



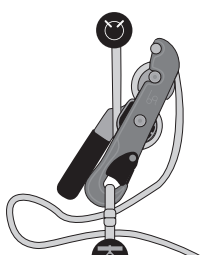
(图5)



(图6)



(图7)



(图8)

## SCOPE OF APPLICATION

Protection and descent equipment for mountaineering, rock climbing, and similar activities.

EN 15151-2 Type 2: Protection and descent equipment without an adjustable friction mechanism; it does not automatically stop the rope from slipping out of the device. The user must actively stop the rope to halt a fall.

When using this product, do not exceed its load limit, and do not use it for purposes other than those for which it was designed.

## Liability

### Warning

Any activity involving the use of this equipment carries inherent risks.

You are responsible for your own actions, decisions, and safety.

Before using this equipment, you must:

- Read and understand the entire user manual;
- Undergo specific training for the use of this equipment;
- Be familiar with your equipment and understand its performance and usage limitations;

- Understand and accept the risks involved.

Failure to heed any of the above warnings may result in serious injury or death.

This product must only be used by competent and responsible individuals, or under the direct visual supervision of such individuals.

You are responsible for your own actions, decisions, and safety, and must accept the consequences. Do not use this equipment if you cannot assume this responsibility or do not fully understand these instructions.

## USAGE AND COMPATIBILITY

Compatible rope diameter: 9–12 mm.

Note: Braking performance is reduced with ropes of smaller diameters.

Maximum working load: 150 kg.

**Rope installation:** Open the side panel, insert the rope as shown (Fig. 3, Fig. 4), check the direction of the anchor point, and close the side panel. The descender's movable side panel can be opened while the locking carabiner secures the fixed side panel to the harness, preventing the descender from detaching from the harness during rope installation.

**Note: Use a carabiner with a locking mechanism to connect to the descender. Perform a functional test after installation to ensure the device is oriented in the direction of descent.**

**Warning: Use with the side panel open or fully open may result in injury or death! (Fig. 5)**

**Descent:** Hold the braking end of the rope with your right hand and press the handle with your left hand to descend. Adjust the descent speed by coordinating both hands. We recommend wearing gloves to prevent the rope from injuring your hands. When using low-diameter ropes or descending with heavy loads, you may increase auxiliary friction (Fig. 6).

**Caution:** Ensure the auxiliary friction carabiner does not snag on the descender (Fig. 7).

Warning: High-speed descent can lead to loss of control, a fall, and result in injury or even death.

**Braking:** The descender is equipped with an auxiliary braking function that automatically engages when both hands are released; however, in certain conditions (such as low-diameter ropes, ice, snow, or wet conditions), the cam may not be able to fully stop the descent. When positioning for work, a braking knot must be tied to prevent the descender from slipping (Fig. 8); this also prevents foreign objects from accidentally squeezing the handle and causing the braking mechanism to fail.

Note: Excessive wear on the cam may impair braking performance.

## 3. PRE-USE INSPECTION

**Before each use:**

- Inspect the device's connection ports, side plates, and cam for cracks, deformation, corrosion, or excessive wear.

- Verify that the side plate latch closes properly and that the side plate pivot rotates freely.

**During each use:**

Ensure the side plate closes properly and that the latch is under tension in the direction of the main shaft.

Ensure the rope remains taut at all times and that no foreign objects enter the pulley.

## 4. ADDITIONAL SAFETY INFORMATION:

The user must be physically fit for work at heights.

Unintentional suspension at height can result in serious injury or death within a short period of time.

## 5. SERVICE LIFE, PERIODIC INSPECTIONS, AND EQUIPMENT DISPOSAL:

- In industrial work environments, when the ascender is used in a personal rope access system, it must be operated in conjunction with a fall arrest system. During operation, sufficient clearance must be maintained below the fall arrest system to prevent collision with obstacles or the ground during a fall arrest.

- In industrial work environments, the minimum breaking load for a single anchor point must be at least 12 kN or meet the requirements of the EN 795 standard.

- In a safety system, the system's strength is determined by the weakest link in the entire system.

- Take care to prevent ropes or other webbing equipment from being abraded by sharp edges or rough surfaces.

- Conduct a risk assessment of the work environment before work begins and implement appropriate safety measures. Never work alone. Prepare an emergency response plan before work begins to ensure rapid rescue in the event of an accident.

- Metal equipment stored under proper conditions has no storage time limit. If the metal product contains plastic components, the storage life of these plastic parts is 10 years; for rubber components, it is 3 years.

- Due to improper operation, accidents, or compatibility issues between components, the product may fail during its very first use.

- The actual service life of the product depends on the operating environment, frequency of use, and the severity of environmental conditions (e.g., marine environments, extreme temperatures, sandy environments, etc.).

- Whether the product has reached the end of its service life depends on equipment inspections. In addition to inspections before, during, and after each use, PPE equipment must undergo a comprehensive inspection at least every 12 months.

You must retire your product under the following circumstances:

When cams, connection points, or side plates show excessive wear;

- When the product's usage history is unclear;

- When you have concerns about the product's performance, strength, or safety;

When the product fails a PPE inspection;

- When the product's functionality is compromised;

- When the product fails to meet updated regulations or standards;

- After the product has been subjected to a significant load or a severe fall;

How to dispose of your equipment:

Mark the product with a permanent, non-removable label, or render it inoperable through physical destruction (e.g., drilling holes, cutting it apart); or return it to the manufacturer for disposal.

## 6. Responsibility:

You are responsible for your own actions and decisions. If you cannot accept responsibility for the consequences, do not use this product.

This product may only be used by qualified personnel, or under the direct visual supervision of qualified personnel who can assume responsibility.

Training is required before using this product. Training must include both theoretical and practical components. Users must understand the principles of working at heights, equipment operation, and safety systems, and may only use the product independently after completing practical training.

When the product is resold to other countries or regions, instructions must be provided in the language used in that country.

Unless due to quality issues, Xinda assumes no liability for any direct or indirect consequences resulting from the use of this product.

## 7. Storage and Transportation:

After use, metal equipment must be cleaned of any residual liquids and other contaminants and dried. It should be stored in a dry environment at temperatures between 10°C and 30°C.

The storage environment must be kept away from factors that could potentially damage the product, such as abrasion, excessive pressure, chemicals, sharp objects, and heat sources. During transportation, metal equipment should be placed in specialized packaging or containers and transported in accordance with the requirements of the storage environment. It is recommended that a designated person be responsible for the use and maintenance of the product at all times.

## 8. Maintenance:

Proper maintenance and storage extend the service life of the equipment and ensure user safety. - Cleaning: Clean the surface of the pulley or moving parts with clean water (20°C) and a soft-bristled brush. Do not use high-pressure water to clean the equipment, and do not use any industrial cleaning agents. After cleaning, rinse the equipment with clean water and allow it to air dry naturally; do not expose the equipment to heat sources for drying. Warning: Any unauthorized modification, replacement of parts, or repair of the product is strictly prohibited; repairs may only be performed at our factory.

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## 3-year warranty

Defects in materials or workmanship. The warranty does not cover: normal wear and tear, oxidation, unauthorized modifications or alterations, improper storage, inadequate maintenance, negligent use, or use for purposes other than those for which the product was designed.