

HH-9776

北斗星下降器使用说明

**THE BIG DIPPER DESCENDER**

## Safety precautions

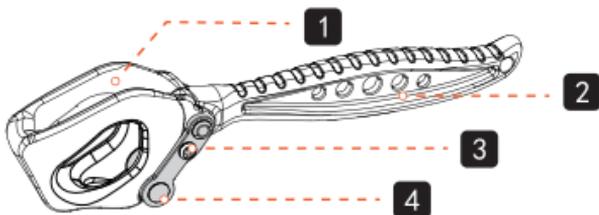
### Warning

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.

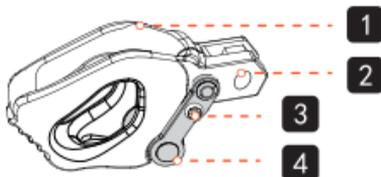
	Risk of severe injury or death
	Risk of accident or harm
<b>OK!</b>	Appropriate way of use
<b>X</b>	Incorrect way of use

## Nomenclature

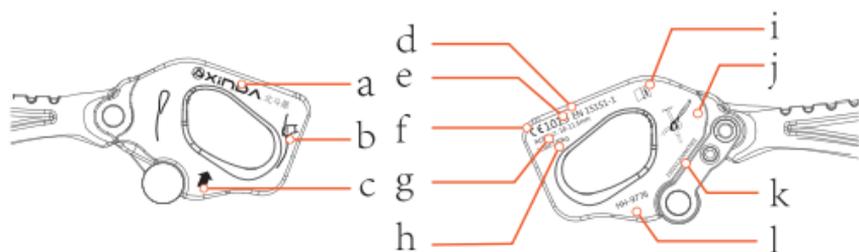
Long Big Dipper



Short Big Dipper



## Marking



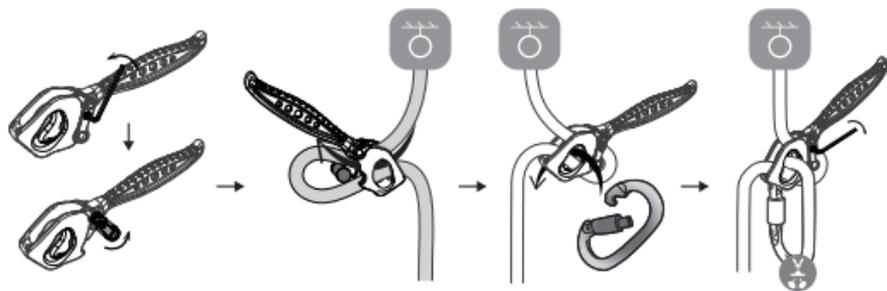
## Carabiner



oval or big D shape steel carabiners

Note: The D-shaped steel carabiners is recommended when using 16 mm diameter safety ropes.

## Installation



## How to Use

		Product NO.	Length	Width	Thickness	Rope Dia.	Standard
Long		HH9776ASB105	167	39	22	10-11.5mm	CE1019 EN15151-1
		HH9776ASB12	174	42	25	10.5-12mm	
		HH9776ASB14S	190	45	35	13-16mm	
Short		HH9776B105	68	39	22	10-11.5mm	
		HH9776B12	78	42	25	10.5-12mm	

### 1. Field of Application

This product is used as PPE (personal protective equipment).

Short-distance auto braking descender/belay device. It must not be used beyond its limits, nor be used for any purpose other than for which it is designed.

Maximum working load: 100kg.

### Warning

Activities involving the use of this equipment are inherently dangerous. You must be responsible for your actions and decisions.

- Read and understand the instructions before use.
- Have got adequate training in how to use it properly.
- Know and understand its function and limits.
- Be aware of the potential dangers and accept the possibilities.

Any neglect of above warnings might lead to severe harm or even death. Only qualified person or the person under supervision of a competent and experienced party can use this product. You are responsible for your actions and decisions. If you can not take the responsibilities, don't use it.

### 2. Nomenclature

(1) Main body (2) Handle (3) Fixation screw (4) Rotating axle

Main materials: Steel, copper.

### 2. Marking

a. Brand and product name; b. Orientation of the rope; c. Where to install the carabiner; d. European standard; e. The number of the notified body carries out product quality management according to Module C2; f. In compliance with European legislation regulation (EU) 2016/425; g. Compatible rope diameter; h. Maximum load; i. Diagram to remind the user to read the instructions; j. How to install; k. Tracking code; l. Product number;

### 3. Inspection and points to verify

Besides check before each use, a thorough inspection must be carried out by a senior qualified inspector every 12 months.

Before each use:

Make sure the adjuster is free of deformation, scratches, wear and corrosion etc.

ISO9001 Standards Complied



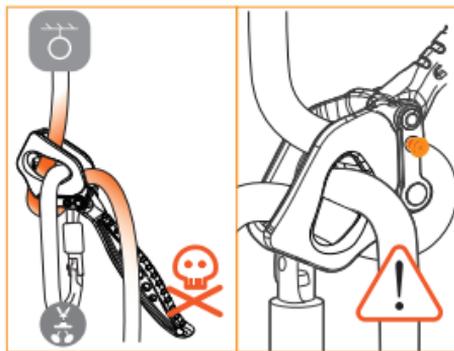
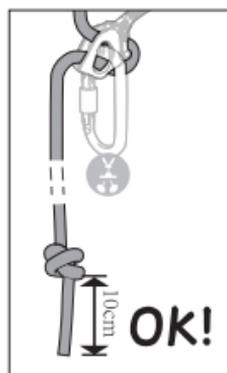
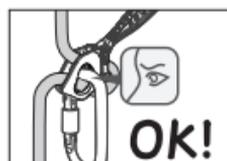
 **XINDA**®

The logo features a stylized green and black triangle inside a circle, followed by the word "XINDA" in a bold, black, sans-serif font with a registered trademark symbol (®) to its upper right.

**PICC** 

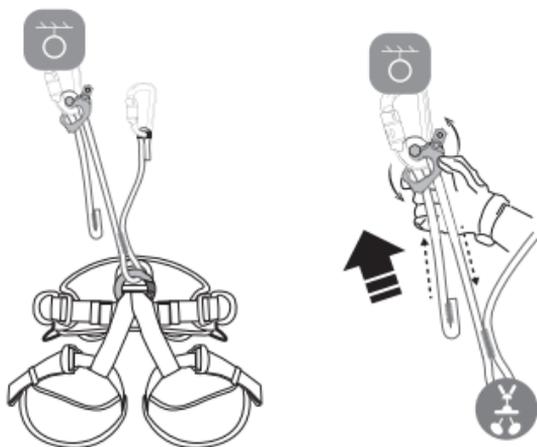
The text "PICC" is followed by the CE mark, all contained within a rectangular border.

## Warning



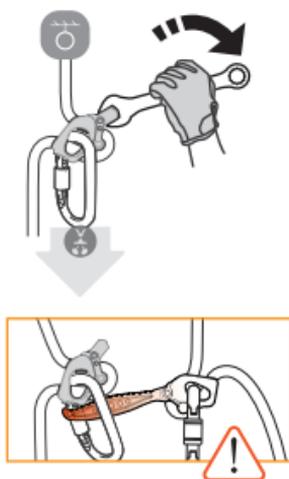
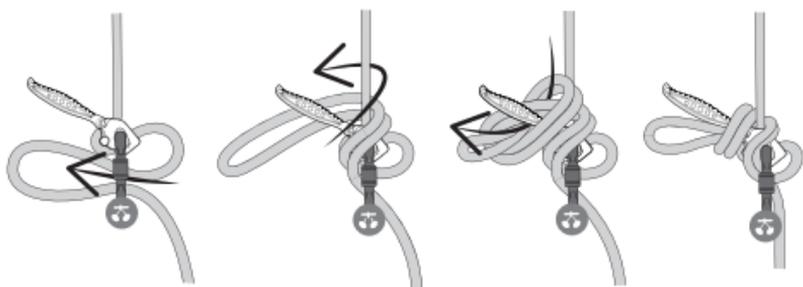
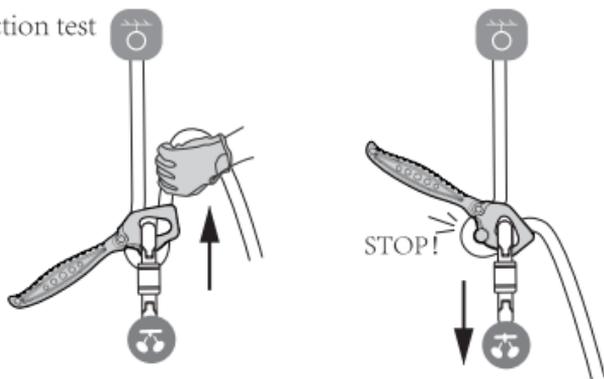
## In Use

### a. Adjustable lanyard



## b.Descent

Function test



During each use:

It's essential to be aware of its condition and connection with other equipment frequently. Make sure every each part in the system is properly connected.

Warning: braking effect may vary due to the conditions of the rope used with(for instance, the rope is worn, dirty, oil,wet, icy or frozen). Warning: Contact or friction with foreign objects or system might affect the running of the device(for instance, its handle etc). Make sure you are familiar with the braking effectiveness of each rope before use.

#### 4.Compatibility

Make sure the product is in good compatibility with other parts(compatibility means fine functional interaction). The device used together with the lanyard must meet respective national standards(for example, a carabiner certified to EN12275). Note: XINDA oval or D shape steel carabiners are recommended for use; make sure to perform a compatibility test beforehand (to check the proper installation, functionality and possibility of incorrect loading).

#### 5.Installation

Unscrew the device with a hex wrench and let the rope through according to the indication, then have the rope around the rotating axle. Finally, screw it tightly with the wrench.

Warning: The carabiner must be clipped on the rope. Make sure it is positioned correctly.

Warning: The rope end must be knotted in case it is disengaged because of being too short.

#### 6.Application

##### a.Adjustable Anchor Point

Working principle. How to shorten the adjustable arm: By pulling the preserved end of the rope. How to extend the anchor point: Using a spare carabiner, putting a wrench onto the other end of the device and then pressing downward as to raising the the rope adjuster for the rope to slide upward. Work positioning: By changing the length of the adjustable arm to keep it always loaded.

Be sure to keep the lanyard tensioned and below the anchor point. The rope adjuster must be able to rotate freely within the carabiner's range so it can function well.

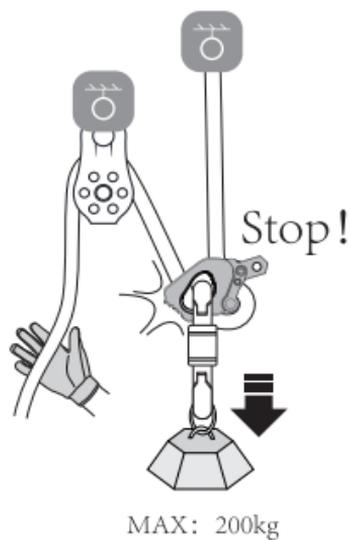
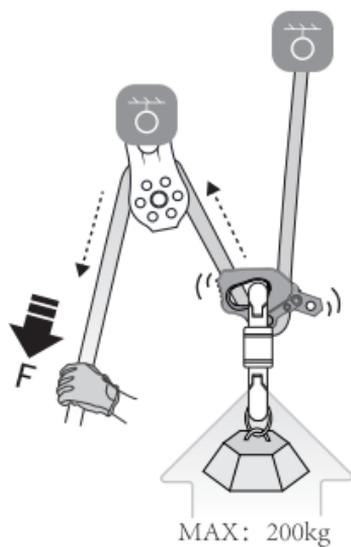
Verify that the rope adjuster and carabiner are installed properly when attaching to the anchor point. Note that the preserved end might be hauled, snagged, which will make the user out of balance. A load exerted on both ends of the lanyard might damage the sewing on the connecting points and endanger the user. Incorrect positioning will affect the locking function. Warning: The rope adjuster might rotate and then get stuck. In this case, it won't be able to be connected to the anchor point.

Warning: Accidental unlocking is possible to happen, which might cause the user slip and fall, and get shocked at the belay station if the user is not familiar with the use of the device. A knot might halve the rope strength and sharp edges damage the belay rope.

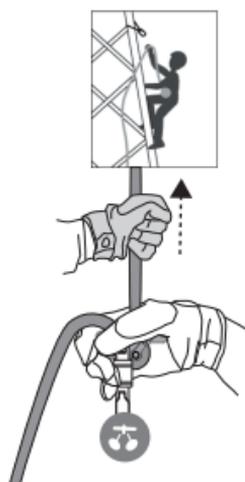
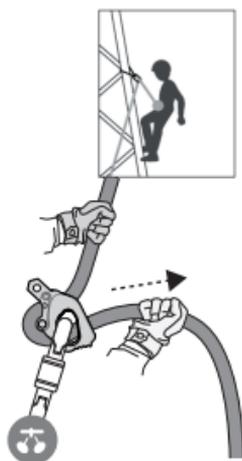
b.Descent Belay device with function to adjust the friction, used for rock climbing and other similar activities.

Use only diameter-compatible ropes. Maximum difference:  $\pm 0.2\text{mm}$ . Diameter and features of the rope may vary due to intended purpose of use. The mass used for

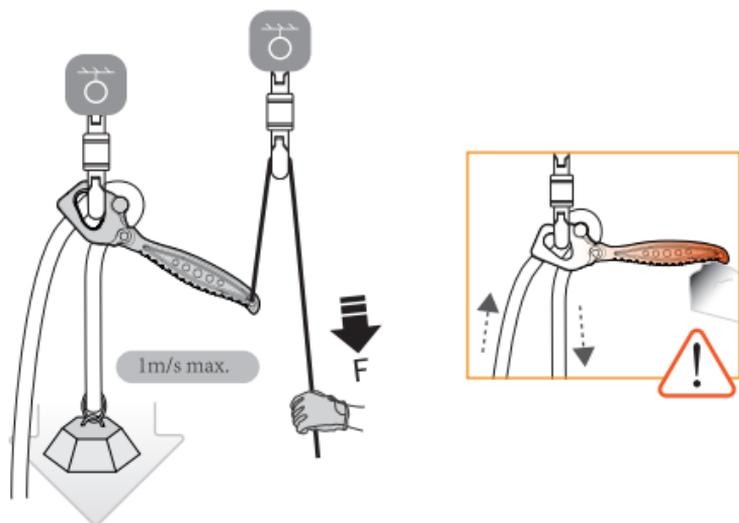
### c. Lifting System



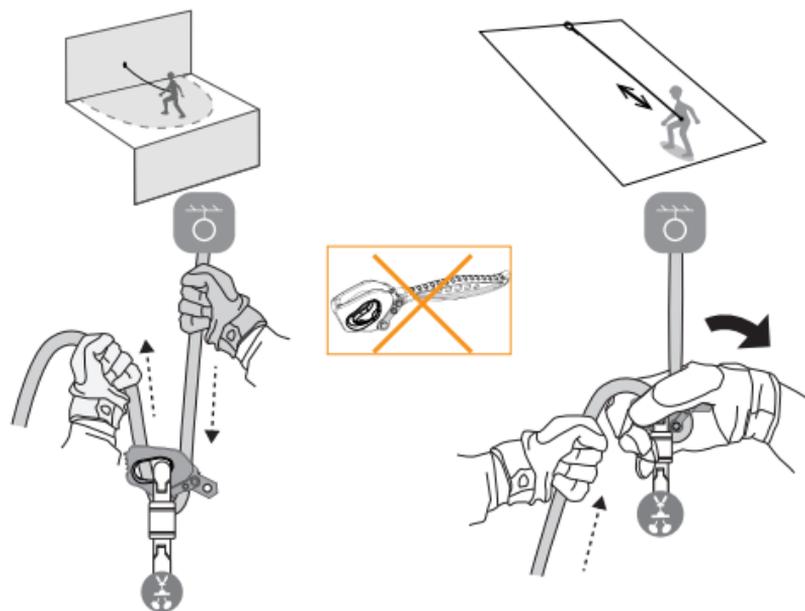
### d. Climbing belay, rope giving and taking



### e. Release of mass



### f. Work Positioning or Area Restraint



# Inspection form

Name:

Address:

Date of purchase:

Serial number:

Model:

Year of manufacture:

Date of first use:

1. Usage conditions or exceptional event during use (examples: all or fall arrest, use or storage at extreme temperatures, modification outside manufacturer's facilities...):

## 2. Preliminary observations

Verify the presence and legibility of the serial number and the CE mark.

Verify that the product lifetime has not been exceeded.

Compare with a new device to verify there are no modifications or missing parts.

Good condition    To monitor    To repair    Do not use, retire    Not applicable

## 3. Checking the condition of the rope

• Remove the connectors from the individual strands. Remove the protective sleeve from the lanyard side, and the rope clamp, in order to check the hidden areas.

• Look for wear and damage on the sheath due to use (cuts, fuzziness, chemical residues...)

• Do a tactile inspection of the core for the full length of the rope (hard spots, swelling, soft or crushed areas...)

• Check the condition of the rope at the harness attachment holes and at the ends of the lanyard.

Good condition    To monitor    To repair    Do not use, retire    Not applicable

## 4. Checking the condition of the rope clamp

• Check the condition of the rope clamp (marks, wear, cracks, deformation, corrosion...).

Good condition    To monitor    To repair    Do not use, retire    Not applicable

## 5. Checking the condition of the connectors

• For connector inspection, see the inspection form for your connector model.

Good condition    To monitor    To repair    Do not use, retire    Not applicable

## 6. Reinstalling the connectors

• Reinstall the connectors. Verify that the connector is correctly positioned in the rope clamp.

Good condition    To monitor    To repair    Do not use, retire    Not applicable

## 7. Function check

Install your lanyard on an anchor at very low height.

• Check the smoothness of length adjustment for the lanyard.

• Verify the locking effectiveness (no slippage when you are suspended on the lanyard).

Good condition    To monitor    To repair    Do not use, retire    Not applicable

testing is 80kg. Warning: long-distance descent might burn the device. You must wear gloves and watch out on the descent speed and distance so you won't get burnt.

c. Lifting System

d. Climbing belay, rope giving and taking.

e. Release of mass. Attachment hole on the handled-Big Dipper can be used for releasing a mass. Do not get the handle stuck. Icy and humid environment will reduce its locking effectiveness

f. Work Positioning or Area Restraint.

This manual describes basic parameters when the device used as descender: weight, height, speed, and rope compatibility, etc. Other factors, such as the state of the rope (maybe slippery if new), or temperature (maybe lowering friction when temperature being high).

The descender works well in normal environment but its function might be reduced if parameters are reaching limits. It might be out of control or damage ropes in descent progress when used in extreme environment.

Be more careful and take special actions (increasing friction, lowering speed or splitting into multi-descents).

Additional Information

-over-loaded fall might damage ropes.

-A rescue plan must be put into place in case of difficulties coming along.

-The anchor must be placed above the user and meet EN795 (minimum breaking strength 12kN).

-Make sure the anchor is properly positioned as to reduce risk of falling and shorten the fall distance.

-The safety and function of one device might affect others' when they are used together, which may cause danger.

-Keep the device away from rough or sharp edges.

-The user's health must be fit for working at height. Unconscious suspension on the harness might lead to severe harm or even death.

-Instructions must be followed strictly when using it with other devices.

-Make sure the markings are clear and readable.

You must retire your device when:

-It has been subjected to a major fall or load;

-It fails to pass PPE inspection;

-You doubt about its performance, strength or safety;

-You don't know its usage history;

-It fails to meet updated regulations, technical standards or be compatible with other devices of the system.

XINDA provides a 3-year warranty against any material or manufacturing defects.

Exclusions: normal wear and tear, deformation, oxidation, modifications or alterations, misuses, incorrect storage, poor maintenance, uses for which this product is not designed.