

**SpanSet®**

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**CLIMA VERTICAL LINE  
INSTRUCTIONS**

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**Height Safety**  
Lifting  
Load Control  
Safety Management

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**GB**

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# CLIMA Vertical Line Instructions



The CLIMA Vertical Line is an assembly of individually CE approved components each certified to the relevant European Norm. The whole kit has been designed to meet the requirements of EN 353-2:1992.

SpanSet recommends that where possible all PPE be personal issue. Where it is not practical to individually issue PPE measures should be taken to ensure that ALL users have access to the instruction for use. All users should be aware of the maintenance history and inspection regime for the equipment.

The CLIMA Vertical Line should only be used by trained and competent persons, or whilst under direct supervision of such a person. Before use some consideration should be given to how any rescue could be safely and efficiently carried out.

## FITTING INSTRUCTIONS

Ensure that all equipment / components used within the system are compatible before use, always thoroughly inspect all components before and after fitting, pay particular attention to the operation of the connectors. The CLIMA Vertical Line should only be used with a full body harness complying with EN 361. Note that this kit is designed as a Fall Arrest system only, it should not be used as a method of suspension for work.

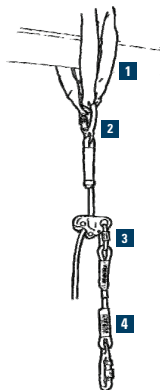
### Ensure the following when selecting an anchorage point, it should:-

- Be above the user.
- Be able to withstand a force of at least 10kN.
- Not allow the rope to come in contact with sharp or abrasive edges.

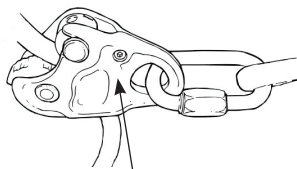
The proper way to connect to an anchorage such as an eyebolt is via the captive karabiner at the end of the rope.

For structures, girders etc the Attachment Sling supplied should be placed around the structure then linked into the captive karabiner.

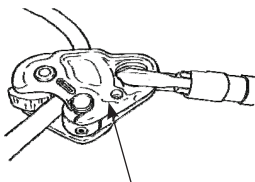
- Fig 1** - Attachment Sling
- Fig 2** - Captive Karabiner
- Fig 3** - BUDDY Device
- Fig 4** - Connecting Lanyard



The connecting lanyard can be used with either orientation. With the Mallion Rapide attached to the BUDDY = this will captivate the BUDDY on the rope, leaving the karabiner to make an easy attachment to the users harness.



Position of locking screw in use



Position of locking screw when not in use

(The buddy is also supplied with a locking screw that can be used to further captivate the device onto the rope.)

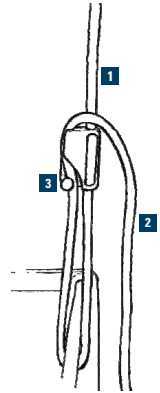
With the Maillon Rapide attached to the users harness; this will keep the lanyard with the user and leave the BUDDY free to be removed and then replaced onto the rope as required.

To ensure smooth operation of the system the rope can be tensioned using the rope cleat captivated on the end of the rope. The cleat should be moved to the appropriate position on the rope and then secured as shown in the diagram. The rope should only be hand tensioned no additional force is required.

**Fig 1** - Tensioned rope running to anchor point

**Fig 2** - Unused end of rope

**Fig 3** - Tensioning Rope Cleat



### The CLIMA Vertical Line is marked:-

**KIT NUMBER:** This is taken from the serial number of BUDDY fall arrest device and appears on the rope and the lanyard.

**SERIAL NUMBERS:** Each component has its own unique serial number  
**MFG:** The year of manufacture.

The necessary minimum clearance below the user's feet is 3m. This is the arrest distance of the system plus an additional metre to cover displacement of a full body harness and clearance below the feet of the user after arrest.

## WARNING: WHEN USING ROPE LENGTHS OVER 10M YOU MUST ACCOUNT FOR THE STRETCH IN THE ROPE WHEN CLIMBING. THIS MAY BE UP TO 10% OF THE ROPE LENGTH ABOVE THE USER.

In order to minimise any fall distances when stopped or working, position the BUDDY device as high on the rope as possible.

Additional or replacement rope and other components must be acquired from SpanSet. The device may only be used on a SpanSet approved and supplied rope.

## STORAGE AND TRANSPORTATION

The Kit is supplied in a protective bag; this should be used for storage to prevent damage.

All equipment should be stored and transported in the following manner:

- To prevent contact with sharp objects.
- Away from harmful substances.
- In a cool dry place free from direct sunlight.

## INSPECTION AND EXAMINATION

Keep these instructions or a copy with the CLIMA Vertical Line to aid future inspection, and examination. The equipment must be given a visual and tactile inspection when delivered to site/works, and before every use. Current European Standards state at least every 12 months this kit should be inspected by a competent person, and the results recorded. However UK guidance (BS8437) states and SpanSet recommends recorded inspection by a competent person every 6 months.

### Particular attention should be paid to the following-

**METAL-WARE** Inspect for signs of damage/distortion/corrosion, and correct operation & locking of connectors.

**ROPE\*** Examine for any signs of wear/ abrasion, including interstrand wear, unravelling, extension and fusion.

Local abrasion as distinct from general wear may be caused by the passage of the rope over sharp edges or protrusions while under tension and may cause serious loss of strength. Slight damage to outer fibres and occasional yarn may be considered harmless but any reduction in diameter of the rope or serious distortion to the sheath pattern should lead to rejection. All Personal Protective Equipment should be immediately removed from service after being subjected to any shock, or if in any doubt about its condition. (See list above)

The CLIMA Vertical Line may be cleaned if required. Cleaning should be carried out as detailed in the individual product instructions which follow. Before cleaning the potential effect of chemical contamination should be considered. If in doubt contact SpanSet.

[www.spanset.co.uk](http://www.spanset.co.uk)

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## General Information:

1. This product is classified as a guided type fall arrester for use with flexibe anchor lines (kernmantel rope conforming with EN1891 (1998) ). This product conforms to EN353-2 (2002). If in doubt consult your supplier or DMM.

The Buddy follows the user up or down the rope without manual operation of the device. A rapid downwards movement, such as a fall, causes it to lock on the rope when installed on the rope and used correctly.

2. The Buddy may be used with or without a lanyard. When used with a lanyard the maximum lanyard length must be:

For 10.5mm ropes - 340mm lanyard max.

For 11mm ropes - 500mm lanyard max.

3. The Buddy may be used in conjunction with any appropriate item of Personal Protective Equipment (PPE) relevant to European Directive 89/686/EEC.

When used in an industrial application connectors should conform to EN362 (2004). When used in a mountaineering application the connectors should conform to EN12275 (1998).

4. The Buddy should be used with EN1891 (1998) type A semi-static ropes with a diameter between 10.5mm-11mm tested during CE certification to EN353-2 (2002) notably:

Beal 10.5mm and 11mm

Mammut 10.5mm and 11mm

Edelrid 10.5mm and 11mm

5. Immediately before use, visually/functionally inspect to insure that the Buddy is in a serviceable condition and operates correctly. Check the side plates, connection holes, bobbin and cam for cracks, gouges, deformation, wear, corrosion. The cam must be free to move.

We recommend a thorough inspection at least once a year by a competent person (this may be the manufacturer). This inspection should be recorded on the inspection form supplied.

6. **WARNING:** If you are in any doubt whatsoever about the safe condition of this Buddy **REMOVE IT FROM USE IMMEDIATELY DESTROY IT AND REPLACE IT.**

7. Ensure that the instructions for other components used in conjunction with this Buddy are complied with. It is the user's responsibility to ensure that he/she understands the correct use of this buddy.

8. Wet conditions, ice and temperature (-30°C to +80°C) will not affect the strength of this product but may affect its operation in conjunction with the rope.

9. **WARNING:** If the Buddy has been used to arrest a fall a thorough examination should be made by a competent person to ascertain its fitness for continued use. If in doubt it should be withdrawn from use and destroyed.

10. No responsibility will be accepted by DMM for damage, injury or death resulting from misuse. Some examples of misuse are shown in the pictograms and many other types of misuse exist; it is impossible to predict them all. If in doubt contact DMM. There is no substitute for instruction by a trained and competent person.

11. No special transportation precautions are necessary; however, avoid all contact with chemical agents or other corrosive substances. See also storage (12.4)

12. Maintenance and Servicing:

**Note:** the Buddy is not user maintainable with the exception of disinfection, cleaning and lubrication as detailed below.

12.1 Disinfection: disinfect using a disinfectant containing quaternary ammonium compounds reinforced with chlorohexidine (e.g. Savlon) in sufficient quantities to be effective. Soak the product for 1 hour at dilution's recommended for general use using clean water as per (12.2) not exceeding 20°C then rinse thoroughly as per (12.2). After disinfection the Buddy should be cleaned.

12.2 Cleaning: if soiled rinse in clean warm water of domestic supply quality (maximum temperature 40°C) with mild detergent at appropriate dilution (pH range 5.5 - 8.5). Dry naturally away from direct heat. Lubricate as per (12.3).

12.3 Lubrication: Lubricate the cam with WD40 ensuring free movement of the cam. Wipe off the excess. This should be carried out after cleaning.

12.4 Storage: after any necessary cleaning store unpacked in a cool, dry, dark place in a chemically neutral environment away from excessive heat or heat sources, high humidity, sharp edges, corrosives or other possible causes of damage. Do not store wet.

13. Lifespan and Obsolescence.

13.1 Lifespan: This is the maximum life of the product, subject to detailed conditions, that the Manufacturer recommends that the product should remain in service. It is very difficult to estimate this due to local use and storage conditions and be as little as one use, or even earlier if damaged (e.g. in transit or storage) prior to first use. For the product to remain in service it must pass a visual and tactile inspection when considering the following criteria:

Fall Arrest/General Wear/Chemical Contamination/Corrosion/Gate Malfunction/Mechanical Deformation/Distortion/Heat Contamination (over normal climatic conditions)/Clear and readable marking (e.g. marking, batch reference, individual serial numbers etc).

Where such products are permanently attached to other products in a system, please refer to the Manufacturer recommendations of the complete system.

13.2 Obsolescence: A product may become obsolete before the end of its lifespan.

Reasons for this may include changes in applicable standards, regulations, legislation, development of new techniques, incompatibility with other equipment etc.

14. European Union Type Examination:

EU type examination for this product is carried out by Notified Body No. 0120:- SGS (UK) Ltd., Worle Parkway, Weston-Super-Mare, Somerset, BS22 6WA, UK.

**NOTE:** These instructions and information are designed to cover the requirements of annex 11b of European Directive 89/686/EEC relating to Personal Protective Equipment (P.P.E.). Some of the information hereon may seem irrelevant but we are required under the aforementioned Directive to provide this information to the user of this product.



## BUDDY - User Instructions

### EN353-2 (2002)

Guided type fall arresters for use with flexible anchor line.

#### Explanation of Markings:

DMM Wales UK: Name of manufacturer/country of origin.

Max/Min Rope Ø mm: Maximum and minimum rope diameter to be used with Buddy.

0120CE: CE mark (notified body number and the CE mark).

EN353-2 (2002): European Standard to which device conforms.

08128XXXX: Year/Date of manufacture and individual serial number.



Anchor, Arrow, Person Pictograms: Direction of anchor and orientation of Buddy.



Book Pictogram: reminder that the end user should read & understand these instructions & the instructions supplied with other items of PPE if to be used in conjunction with this device.



#### GENERAL USE AND WARNINGS

THIS PRODUCT CAN BE USED IN ACTIVITIES SUCH AS WORKING AT HEIGHT, ROCK CLIMBING, MOUNTAINEERING, RESCUE ACTIVITIES AND RELATED ACTIVITIES. IT MAY BE FOR PERSONAL USE OR USED IN A SYSTEM. ROCK CLIMBING, MOUNTAINEERING AND RELATED ACTIVITIES ARE INHERENTLY DANGEROUS. IT IS THE RESPONSIBILITY OF ANY PERSON USING THIS EQUIPMENT TO LEARN AND PRACTICE THE PROPER TECHNIQUES FOR THE USE OF THIS EQUIPMENT FOR ITS DESIGNATED PURPOSES SAFELY AND TO FORESEE AND TAKE APPROPRIATE ACTION IN SITUATIONS WHERE RESCUE MAY BE REQUIRED.

EVEN THE CORRECT USE OF EQUIPMENT AND TECHNIQUES MAY RESULT IN FATAL CONSEQUENCES. ANY PERSON USING THIS EQUIPMENT ASSUMES ALL RISKS AND FULL RESPONSIBILITY FOR ALL DAMAGES OR INJURY WHICH MAY RESULT FROM THE USE OF IT.

IT IS IMPOSSIBLE TO COVER ALL METHODS OF USE.

THE FOLLOWING INSTRUCTIONS AND PICTOGRAMS SHOW SOME OF THE COMMON CORRECT AND INCORRECT METHODS OF USE.

THERE IS NO SUBSTITUTE FOR INSTRUCTION BY A TRAINED AND COMPETENT PERSON.

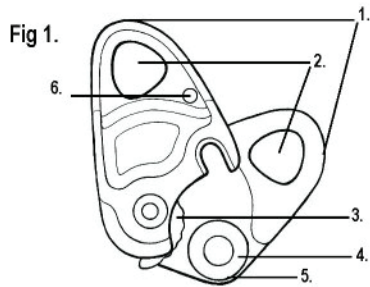
**Keep this leaflet for your own records. The owner is obliged to complete this information immediately after purchase.**

Issued To (User Name):	Date of Issue:	Date First Used:	
Date + Place of Purchase:	Model Code:	Batch Number:	
Date Inspected	Comments / Action	Pass ? (Yes / No)	Signature

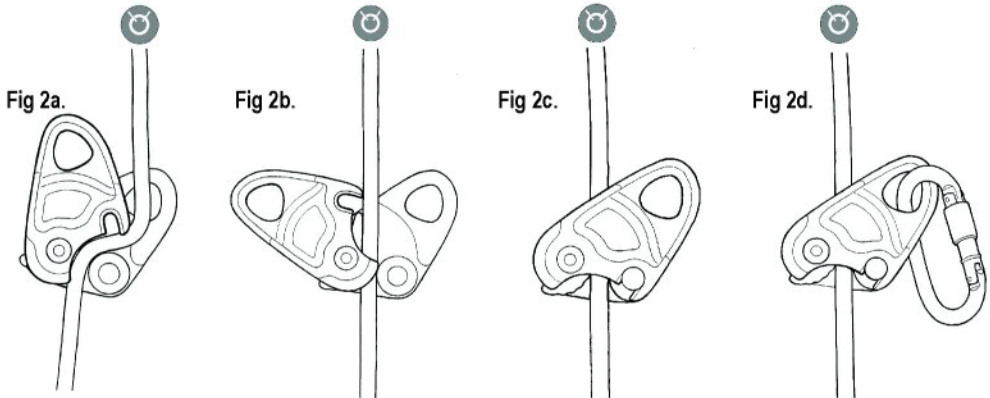
## Instructions for use

Nomenclature of parts (see Fig 1).

1. Side Plates.
2. Attachment Holes.
3. Cam.
4. Boss.
5. Screw for side plate locking system.
6. Side plate locking system.



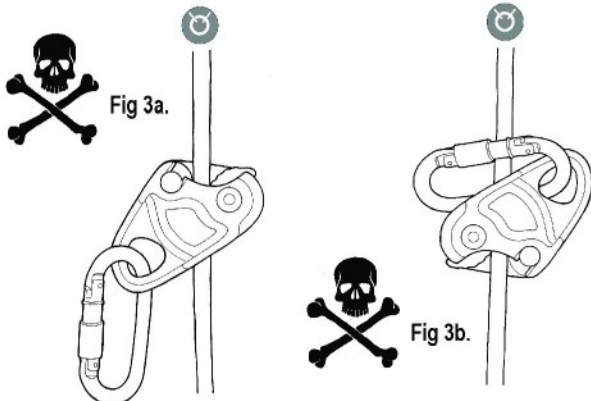
Installation on the rope (see Fig 2a-d). Take note of the operational direction marked on the device. Always use a locking connector that conforms to EN362 (2004).



### DANGER:

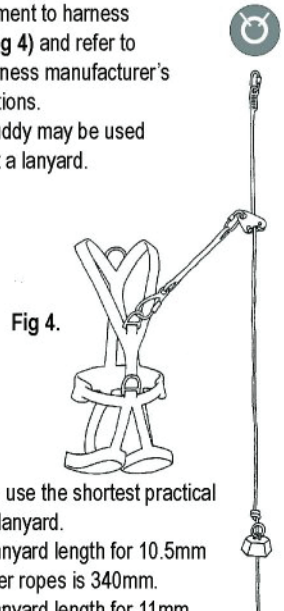
The buddy is a directional device and only locks in one direction, do not install it upside down (see Fig 3a).

Incorrect attachment of the connector may lead to failure of the device and have fatal consequences (see Fig 3b).



Attachment to harness (see Fig 4) and refer to the harness manufacturer's instructions.

The Buddy may be used without a lanyard.



Always use the shortest practical length lanyard.

Max. lanyard length for 10.5mm diameter ropes is 340mm.

Max. lanyard length for 11mm ropes diameter is 500mm.

Immediately after connection of the device to the rope and before use check that its stopping direction is correct for the direction of use.

**THIS IS CRUCIAL FOR SAFETY.**

## Operational check before use

The following operational checks must be carried out before use out by the operator who should be in a safe and secure position.

Check the Buddy moves freely up and down the rope.

Check the Buddy locks on the rope by applying a sharp tug to the Buddy in the direction of a fall.

## Position and reliability of anchor

The anchor must be solid, reliable and appropriately positioned. Minimum anchor strength 10kN and conforming to EN795 (1997).

For safety ensure the rope runs in a straight line to the anchor with the operator positioned directly below the anchor (see Fig 5a).

For ease of function the working rope may be weighted with a 1kg weight. 



Fig 5a.

## WARNING:

The following are some examples of dangerous practice that could lead to the failure of the rope and/or Buddy.

The operator must not move out of line of the rope (see Fig 5b).

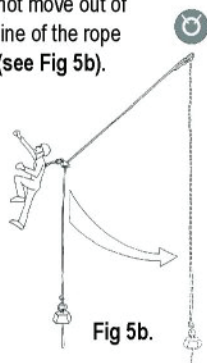


Fig 5b.

The operator must not allow any slack in the rope (see Fig 5c).



Fig 5c.

The operator must not move above anchor (see Fig 5d).



Fig 5d.

The rope must not run over a sharp edge as this may lead to damage and/or failure of the rope (see Fig 5e).



Fig 5e.

In addition the device must be free from any obstructions or objects that may affect its function. (E.g Mud, cement, paint, grit, foliage, clothing or any other object).

## Clearance

This is the necessary minimum clearance **below the feet** of the user to avoid collision with the structure or ground in a fall from height.

1. Buddy connected directly to a harness with a connector .

Clearance = 2.2m **plus** harness take up and rope elongation.

2. Buddy connected to harness with 340mm lanyard (10.5mm - 11mm diameter ropes).

Clearance = 2.64m **plus** harness take up and rope elongation.

3. Buddy connected to harness with 500mm lanyard (11mm diameter ropes only).

Clearance = 3m **plus** harness take up and rope elongation.

**Warning:** Rope elongation can be a very significant distance especially when working near the bottom of long ropes. Please consult rope manufacturer's instructions for precise elongation details.

## Recommendations

For efficiency and smooth operation of the Buddy the rope may be loaded with a 1kg weight.

For safety it is good practice to secure all tools and equipment to prevent them being dropped.

Always refer to and comply with the instructions for use and ensure all markings on the Buddy are legible.

Ensure the instructions for use are available to the user.

The user should make his/her own safety checks before using the Buddy and have a plan of action in case of difficulties.

The user must be medically fit for working at height and be aware that in the event of an accident or incident, hanging for a length of time in a harness is potentially life threatening.