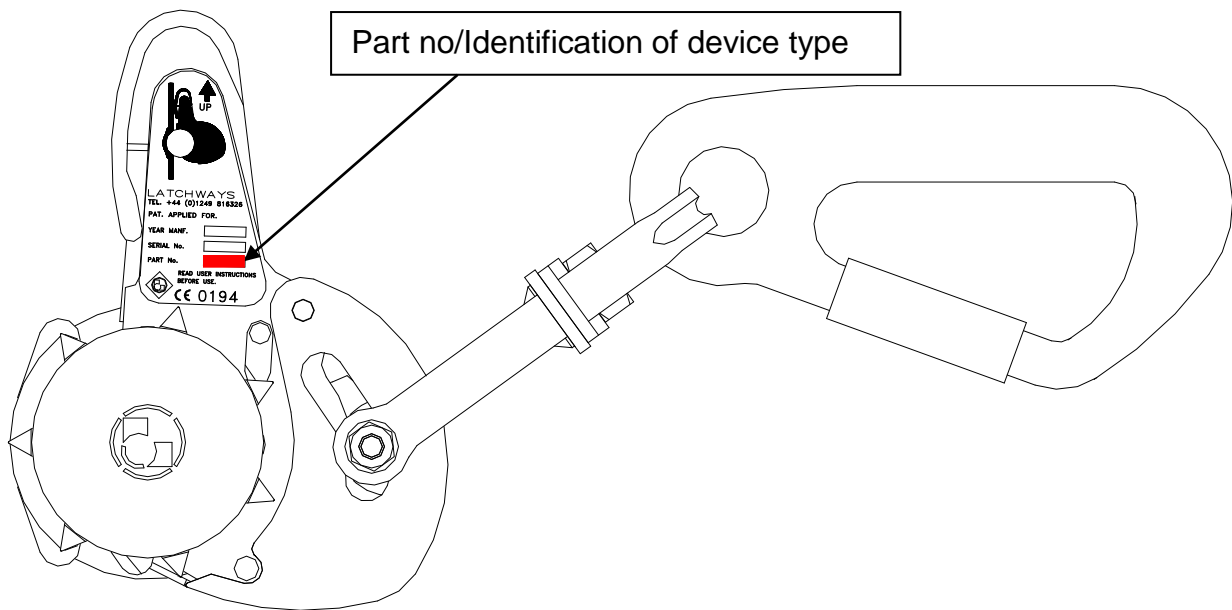


## ManSafe® Vertical LadderLatch® and TowerLatch® Devices

Vertical fall arrest device to  
EN 353-1:2014 & CNB/P/11.073



### Manufactured by

Latchways plc  
Hopton Park  
Devizes  
Wiltshire  
SN10 2JP

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## IMPORTANT

Please read all of the safety and user instructions carefully before using this product. Please pay particular attention to all sections of these user instructions that carry warning symbols and notices.



### WARNING!

**THIS IS A WARNING SYMBOL. THIS SYMBOL IS USED THROUGHOUT THE INSTRUCTIONS WHENEVER THERE IS A RISK OF PERSONAL INJURY OR DEATH TO EITHER THE INSTALLER OR END USER OF THE PRODUCT. ENSURE THAT THESE WARNINGS ARE READ AND UNDERSTOOD AT ALL TIMES.**



### CAUTION!

**THIS IS A CAUTION SYMBOL. THIS SYMBOL IS USED THROUGHOUT THE INSTRUCTIONS WHENEVER THERE IS A RISK OF DAMAGING THE LATCHWAYS PRODUCT. ENSURE THAT THESE CAUTIONS ARE READ AND UNDERSTOOD AT ALL TIMES.**

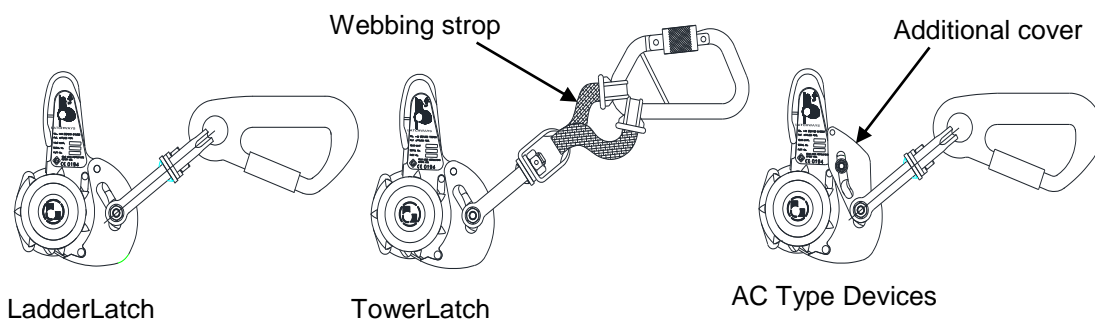


### MANDATORY

**THIS IS A MANDATORY SYMBOL. THIS SYMBOL IS USED THROUGHOUT THE INSTRUCTIONS WHENEVER THERE IS A SPECIFIC INSTRUCTION FOR LATCHWAYS PRODUCT. ENSURE THAT THESE IMPORTANT INSTRUCTIONS ARE READ AND UNDERSTOOD AT ALL TIMES.**

## IDENTIFICATION OF DEVICE TYPE (Part number is to be found on the device label)

Part No.	Device type
35429-00	TowerLatch SP Device (see section 1.7)
3100L-00	LadderLatch Device
3100L-00AC	LadderLatch AC Device
3102L-00	TowerLatch Device
3102L-00AC	TowerLatch AC Device
3103L-00	LadderLatch Device (Canada)
3104L-00	LadderLatch Device (USA)
3105L-00	TowerLatch Device (USA)



LadderLatch

TowerLatch

AC Type Devices

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## Contents

1. Safety Instructions.
2. Product Specification.
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4. Requirements for use.
5. Before use Checks.
6. User Instructions.
7. Materials.
8. Disposal.
9. Inspection, Maintenance and Storage Disposal.
10. Markings.
11. Product Record Card.
12. EC Declaration of conformity.

### Installer Company Details

Company Name:

Company Address:

Contact Name:

Tel No:

Email:

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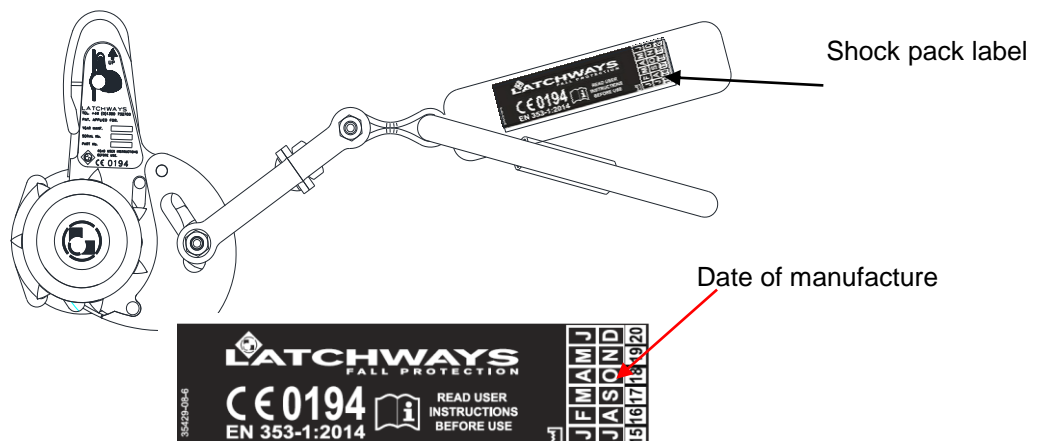
## 1. Safety Instructions



**WARNING!**  
**WHEN USING A LATCHWAYS VERTICAL DEVICE, BASIC ON SITE SAFETY PRECAUTIONS INCLUDING THE FOLLOWING SHOULD BE OBSERVED TO ENSURE PERSONAL SAFETY.**

- 1.1. Read and understand these instructions before use. Keep these instructions for future reference.
- 1.2. Never allow more than one person to attach to the device at any time.
- 1.3. Before use always visually check and inspect the system for any faults, ensuring it is secure and has a valid test certificate.
- 1.4. A full body harness with a chest attachment point which complies with EN361 or the appropriate national standards. Waist belts are not suitable for use with this device.
- 1.5. Before use ensure the karabiner attaching the device to the harness is in the closed and locked position.
- 1.6. Do not use the device for work positioning (i.e. primary means of support); to support either partial or full body weight. If work positioning is required, a separate system must be used.
- 1.7. **3100L & 3102L type devices Maximum Rated Load (for systems incorporating a single 6 kN coil energy absorber)** – The system can be used by up to a maximum of 3 users. The total maximum rated load for the system shall not exceed 400 kg (880 lbs) (total user weight including tools and equipment carried). The maximum rated load for a single device shall not exceed 150 kg (330 lbs) (single user weight including tools and equipment carried)

**35429-00 TowerLatch SP device Maximum Rated Load** – The maximum weight of any user (including tools and equipment carried) should not exceed 100kg (220 lbs) unless the following label is visible on the energy absorber indicating 150Kg (330 lbs) user weight is permissible.



**WARNING!**  
**ONLY TOWERLATCH SP DEVICES WITH A LABEL INDICATING THE MAXIMUM USER WEIGHT ARE SUITABLE FOR USERS UP TO 150kg (330 lbs) ALL OTHER DEVICES THAT DO NOT HAVE A LABEL INDICATING THE MAXIMUM USER WEIGHT ARE ONLY SUITABLE FOR USERS UP TO 100kg (220 lbs)**

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- 1.8. The minimum mass of user on any device including tools and equipment must not be less than 50 kg
- 1.9. The required minimum distance below the user's feet and the ground is 2 m (6'6"). Below 2 m (6'6") the user may not be protected against hitting the ground or obstacles below. Therefore, extra care must be taken when ascending / descending the first 2 m (6'6").
- 1.10. Temporarily disabling or manually handling the lock/release mechanism of the device during ascent or descent may hinder the safe operation and diminish the effect of the braking mechanism.
- 1.11. Before and during operation of the vertical fall arrest system consideration should be given as to how any rescue could be safely and efficiently carried out.
- 1.12. The Latchways devices have been subjected to an additional series of tests devised by TUV/NEL (Notified Body no. 0320). These tests were conducted using 71 kg (156 lbs) and 100 kg (220 lbs) anthropomorphic test dummies with different body postures (reference NEL certificate no. MTHH).



**WARNING!**

**FOR SYSTEMS SUPPLIED IN KIT FORM, INDIVIDUAL COMPONENTS MUST NOT BE SUBSTITUTED OR OMITTED WITHOUT THE CONSENT OF LATCHWAYS.**



**WARNING!**

**THE FOLLOWING MEDICAL CONDITIONS COULD AFFECT THE SAFETY OF THE USER:**

**HEART DISEASE / CHEST PAIN / HIGH BLOOD PRESSURE.  
EPILEPSY, FITS, BLACKOUTS.  
FEAR OF HEIGHTS / VERTIGO.  
GIDDINESS / DIFFICULTY WITH BALANCE.  
IMPAIRED LIMB FUNCTION.  
ALCOHOL OR DRUG DEPENDENCE.  
PSYCHIATRIC ILLNESS.  
DIABETES.**



**WARNING!**

**DO NOT MODIFY OR ALTER THE DEVICE WITHOUT PRIOR CONSENT IN WRITING FROM LATCHWAYS PLC.**



**WARNING!**

**THE DEVICE IS NOT TO BE USED FOR ANY OTHER USE THAN PROVIDING ATTACHMENT FOR ONE USER TO A LATCHWAYS VERTICAL CABLE SYSTEM. ALL SYSTEM COMPONENTS MUST BE MANUFACTURED AND SUPPLIED BY LATCHWAYS PLC. THE CABLE MUST BE Ø8 MM (5/16") 1 X 19 CONSTRUCTION GRADE 316 STAINLESS STEEL TO BS MA 29 OR AISI 316. IT IS NOT PERMISSIBLE TO USE COMPONENTS MANUFACTURED BY OTHERS. DURING USE DO NOT ALLOW ANY CLOTHING, EQUIPMENT, APPENDAGES OR ANY OTHER ITEMS TO RESRICT THE OPERATION OF THE DEVICE.**



**WARNING!**

**DO NOT USE THE DEVICE AT TEMPERATURES BELOW -30 °C.**

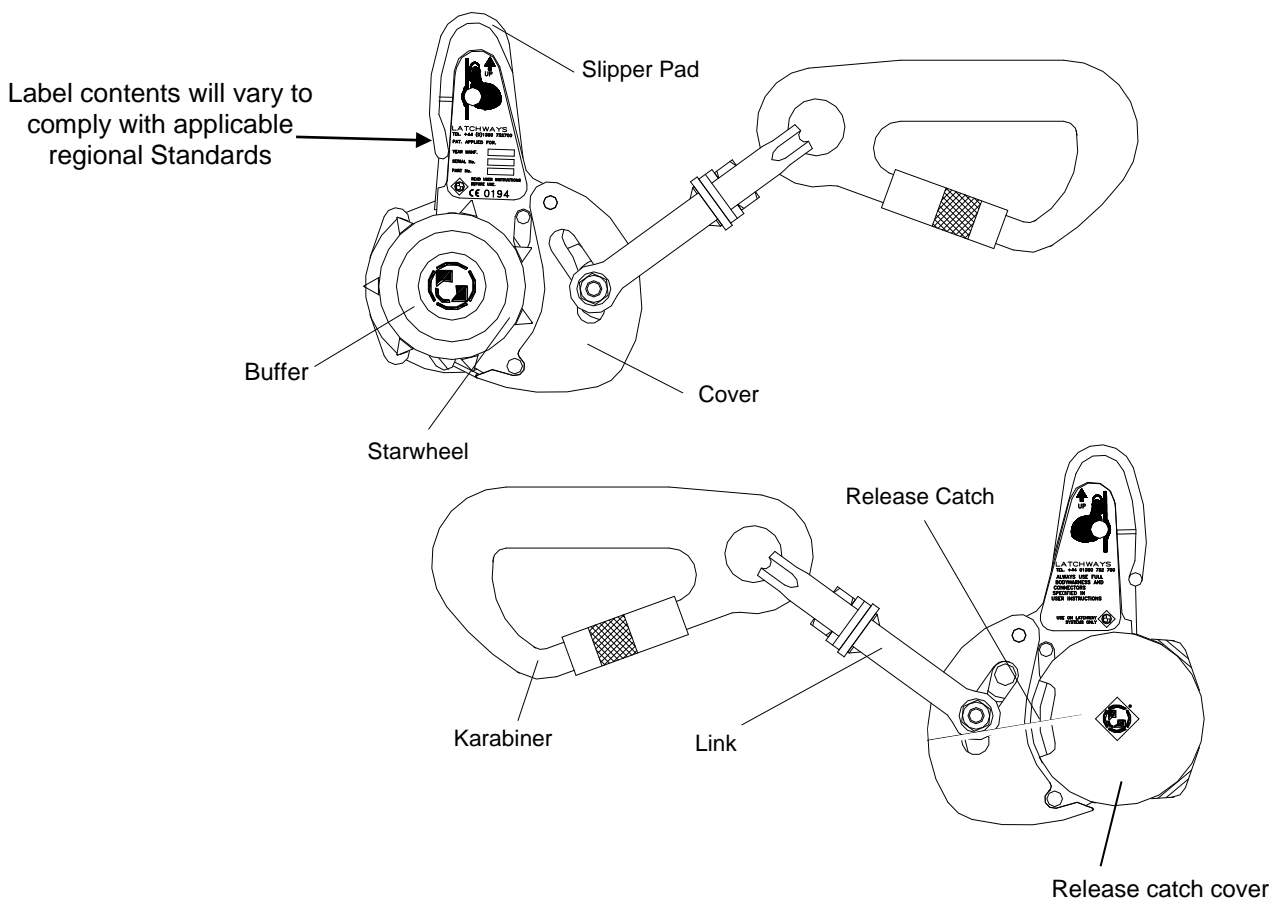
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**MANDATORY**  
**IF THE LATCHWAYS SYSTEM IS RESOLD FOR USE OUTSIDE THE ORIGINAL COUNTRY OF DESTINATION THE RESELLER MUST PROVIDE INSTRUCTIONS FOR USE, MAINTENANCE AND PERIODIC EXAMINATIONS IN THE LANGUAGE OF THE COUNTRY IT IS TO BE USED.**

## 2. Product Specification

- 2.1. The device is designed to arrest the fall of one climber in conjunction with a Latchways vertical fall arrest system.
- 2.2. If a climber were to fall whilst connected to the Latchways system the energy absorber will deploy and reduce the load applied to the body to 6 kN (1,350 lbf) or less.
- 2.3. The device has an anti-inversion mechanism which prevents it being used on the cable system if there is an attempt to use it upside down.
- 2.4. When the device is attached to the cable the horizontal distance from the cable to the harness front attachment point is 0.3 m, (12") which allows the user to ascend / descend unhindered, this must not be extended, shortened or have any components added or removed
- 2.5. The full arrest distance of the device when tested to CSA Z259.2.5 is less than 150 mm (6").



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## 3. Required Equipment.

- 3.1. The full body harness must be properly fitted ensuring a snug fit and that all buckles are correctly adjusted and connected together where appropriate, harnesses that include elastic webbing at the front connection point are not suitable for use with this device.
- 3.2. The harness should not be used if loose, if the harness becomes loose during use, it should be correctly adjusted from a safe and secure position.
- 3.3. A helmet with chin strap which complies with the appropriate national standards.

## 4. Requirements for Use.



### WARNING!

**ALL USERS OF THE LADDERLATCH DEVICE SHOULD BE TRAINED AND COMPETENT IN ITS SAFE USE. ENSURE ALL USERS HAVE READ AND FULLY UNDERSTOOD THESE INSTRUCTIONS. PERSONNEL USING THIS DEVICE SHOULD BE TRAINED AND COMPETENT IN SAFE METHODS FOR WORKING AT HEIGHT. IF ANY OF THESE INSTRUCTIONS ARE NOT UNDERSTOOD PLEASE CONTACT LATCHWAYS.**

- 4.1. Before undertaking work at height and at regular intervals during the period of work, a risk assessment should be carried out.
- 4.2. The Device must be attached to the front chest position of the full body harness via the karabiner supplied.
- 4.3. The device must only be used by persons deemed to be competent and their names recorded on the record card. All users should confirm in writing that they have read and fully understood the user instructions and any other pertinent safety information.
- 4.4. All users must ensure that a minimum distance of 3 m (9'10") is maintained between the head of each user and the feet of the user immediately above that user.
- 4.5. The device must only be engaged or disengaged from the system whilst the user is in a safe position or by using a separate personal fall protection system, a safe position is where there is no risk of a fall occurring.
- 4.6. All users of the system should comply with the information and guidance contained in these instructions and those highlighted on the warning label attached to the device.



### WARNING!

**DO NOT USE THE DEVICE ON ANY CABLE FALL ARREST SYSTEM OTHER THAN A LATCHWAYS VERTICAL SYSTEM CERTIFIED TO BS EN 353-1, CNB/P/11.073, Z359.1-2007, Z259.2.5-12 or AS/NZS 1981.3-1997. ALL SYSTEM COMPONENTS MUST BE MANUFACTURED AND SUPPLIED BY LATCHWAYS PLC. THE CABLE MUST BE Ø8 MM (5/16") 1 X 19 CONSTRUCTION GRADE 316 STAINLESS STEEL TO BS MA 29 OR AISI 316. IT IS NOT PERMISSIBLE TO USE COMPONENTS MANUFACTURED BY OTHERS.**

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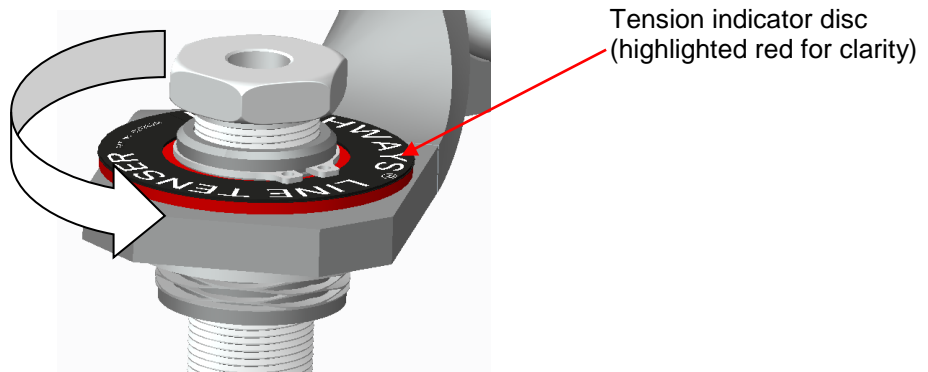
## 5. Before use checks.



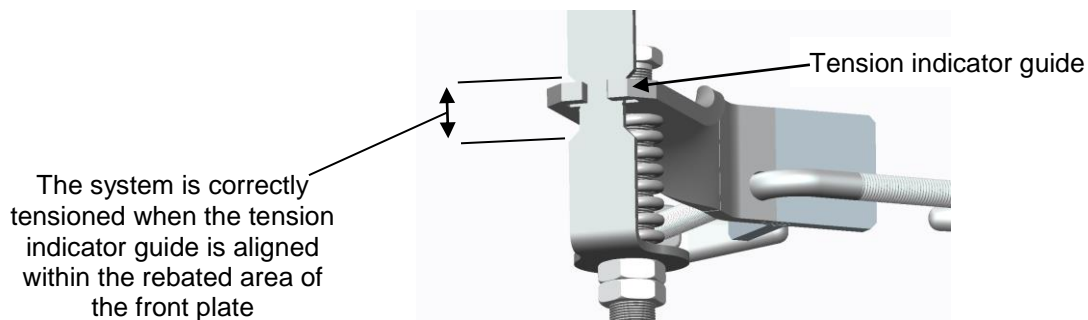
**WARNING!**  
**ALWAYS FULLY INSPECT THE FOLLOWING:**

5.1. System tension- Depending on the type of system tension indicator fitted this can be checked using 1 of 2 methods.

- Tenser Disk – This is generally located at the bottom of the system on the bottom anchor, when the system is correctly tensioned, the disc will spin freely with up to 2 mm of vertical movement. (On some installations the tenser disc may be located at the top of the system)



- Visual tension indicator – This component allows the user to check the system tension in situations where it is impractical to reach a tension indicator disc from a position of safety.



If the system is incorrectly tensioned, inform the site supervisor or whoever is in charge of the site.

5.2. Devices must be fully inspected to ensure that all moving parts are working correctly. The starwheel must spin true and freely on its axle. Pressing the release catch must allow the starwheel to be pulled out from the body, when the starwheel is released it must return to its original position, the release catch will return and prevent the starwheel from being pulled out.

5.3. Signs of corrosion, wear, deformation or other defects to the device.

5.4. Check that the service date has not expired (see section 9, 10 & 11.).

5.5.

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## 6. User Instructions



### WARNING!

IF THE DEVICE HAS BEEN USED TO ARREST A FALL, IS DAMAGED OR THERE IS ANY DOUBT ABOUT THE SAFE CONDITION OF THE DEVICE OR THE SERVICE DATE HAS EXPIRED IT SHALL BE WITHDRAWN FROM SERVICE. THIS SHALL BE RECORDED ON THE RECORD CARD.



### WARNING!

ENSURE THERE IS A RESCUE PLAN IN PLACE TO DEAL WITH ANY EMERGENCIES WHICH MAY ARISE AND YOU ARE FULLY AWARE OF THE PROCEDURE BEFORE ATTEMPTING ANY WORK AT HEIGHT.

- 6.1. Connect the device via the karabiner to the chest attachment point of the harness by releasing the locking safety gate on the karabiner. With the karabiner in the open position insert the open end of the karabiner into the chest attachment point on the harness. Release the safety gate ensuring it is fully closed and locked.
- 6.2. Hold the device in the right hand by the release catch cover below the level of the attachment point so that the linkage is in the vertical plane. This will force the cam into the unlocked position. Fig 6.2.

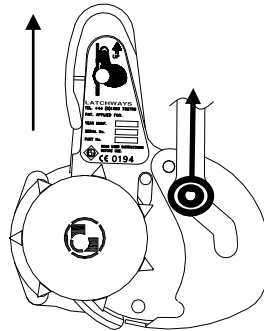


Fig 6.2. Cam in unlocked position.

- 6.3. Press the release catch with your right thumb. The release catch will not operate if the device is incorrectly oriented. Using your left hand pull the Starwheel away from the body of the device and offer the device up to the cable. Fig 6.3.

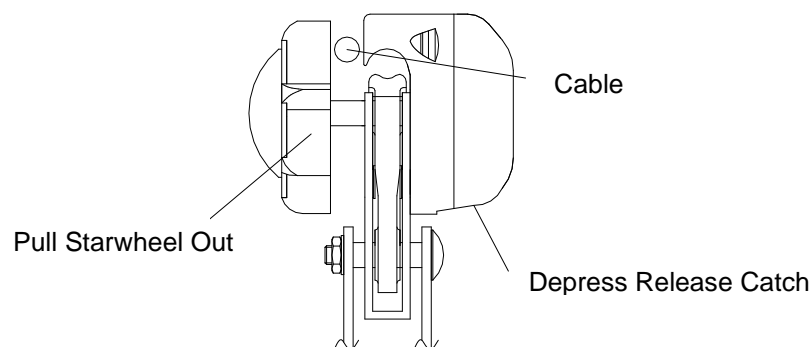


Fig 6.3.

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- 6.4. Move the device around the cable until the cable is held within the cavity in the body of the device. Remove your thumb and allow the release catch to return. Finally allow the starwheel to move back into its original position, check that the release catch has disengaged and the starwheel cannot be pulled out. Fig 6.4.

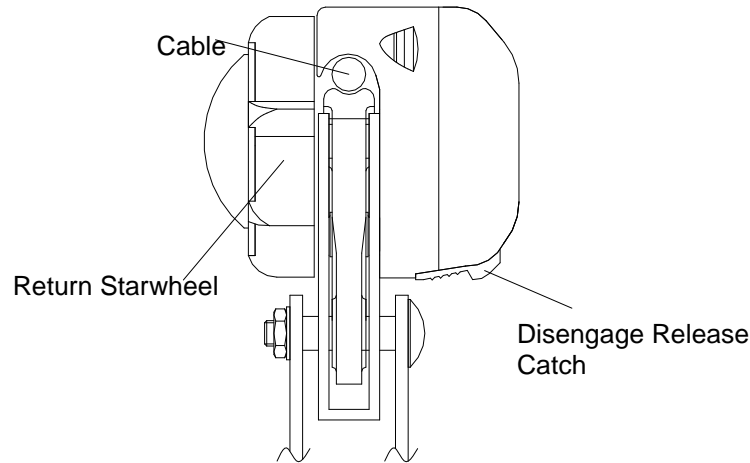


Fig 6.4.

- 6.5. It is now safe to climb the structure. When ascending and descending, the device should always be below the harness chest attachment point. The red slipper shall always be pointing upwards in contact with the cable.
- 6.6. To disconnect from the system, when you are in a safe position to do so, depress the release catch, pull the starwheel out, hold the device below the harness attachment point so that the cam is open and then move the device until it is free from the cable.

## 7. Materials

- 7.1. The device is manufactured from the following materials:  
316 grade stainless steel, 17/4 PH stainless steel, steel, nylon 6 and ABS.

All metallic parts should be unaffected by sharp edges, chemical reagents, cutting, abrasion, UV degradation or normal climatic conditions ranging from -30°C to 50°C. All metallic parts need to be kept a safe distance from electrical current. 316 and 17/4 PH stainless steels shall not be exposed to environments containing chlorine.

Nylon 6 (buffer) and ABS (release catch cover) should be kept clear of the following, sharp edges, chemical reagents, cutting, abrasion, UV degradation. Avoid contact with electrical current. Regular inspection before use and annually is required.

## 8. Disposal

- 8.1. All stainless steel and plastic components are recyclable.

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## 9. Inspection, Maintenance and Storage



### WARNING!

**THE DEVICE MUST BE INSPECTED BEFORE EVERY USE. THE SAFETY OF THE USER DEPENDS UPON THE CONTINUED EFFICIENCY AND DURABILITY OF THE DEVICE. THE FOLLOWING CHECKS MUST BE MADE:**

- 9.1. Check that the starwheel spins freely and true on its axle.
- 9.2. Check the cam moves freely.
- 9.3. Check the release catch to ensure it releases the starwheel when pressed, and locks the starwheel when you let go of the catch.
- 9.4. Invert the device and press the release catch check to see if the starwheel is still locked and cannot be pulled away from the body.
- 9.5. Check the condition of the karabiner to ensure the gate locking mechanism works correctly.
- 9.6. Check that all plastic components are present (Release catch cover, Starwheel buffer and Slipper pad) and are not damaged in any way.
- 9.7. Check the product label, all regulatory information (serial no, date of manufacture etc) should be clearly legible



### WARNING!

**IF THE DEVICE FAILS ANY OF THE ABOVE CRITERIA IT SHOULD BE WITHDRAWN FROM SERVICE AND RETURNED TO LATCHWAYS PLC OR AN APPROVED TECHNICIAN.**

- 9.8. Latchways vertical GTFAs shall be examined at least every 12 months. Local requirements, frequency of use or environmental conditions may dictate more frequent examinations. Examinations shall only be conducted by a Latchways trained Technician in accordance with *Vertical Devices - Instructions for periodic examination, repair and recertification*.

All webbing components of Latchways vertical GTFAs (webbing strop and energy absorber on TowerLatch and TowerLatch SP devices) have a maximum lifespan of 10 years from the date of manufacture. This is subject to passing periodic examinations.

ISC branded karabiners have an unlimited lifespan, all other karabiners have a maximum lifespan of 10 years from the date of manufacture. This is subject to passing periodic examinations.

The date of first use must be administratively provable. Where the date of first use is NOT known, the next previous provable date must be used, e.g, date of purchase/date of manufacture of the device.

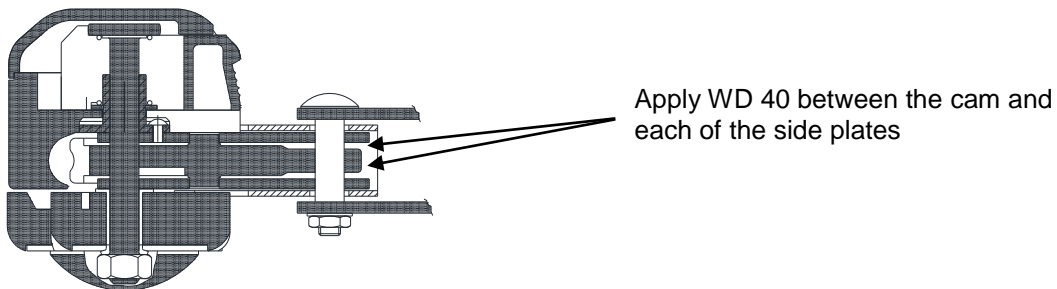
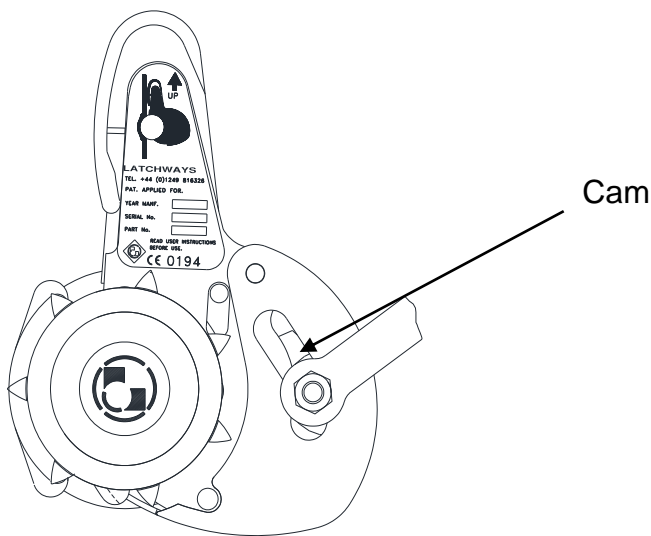
- 9.9. Maintenance – The device should be cleaned from time to time using warm water and a domestic detergent. The device should be thoroughly rinsed and dried naturally away from direct heat.
- 9.10. Disinfection, if required, this may be done by using water and a domestic detergent. The device should be thoroughly rinsed and dried naturally away from direct heat. **Never use cleaning agents containing chlorine or chlorides.**

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**CAUTION!**  
**DO NOT USE ANY SOLVENTS, THINNERS OR ANY CHEMICAL CLEANING AGENT.**

- 9.11. If it is anticipated that the device is to be used in wet, very cold conditions between -4 and -30°C apply a small amount of WD 40 water dispersant to the area between the cam and the side plates. Following application of the WD 40 allow any excess dispersant to drain away and wipe any surplus from the device using a clean lint free cloth.



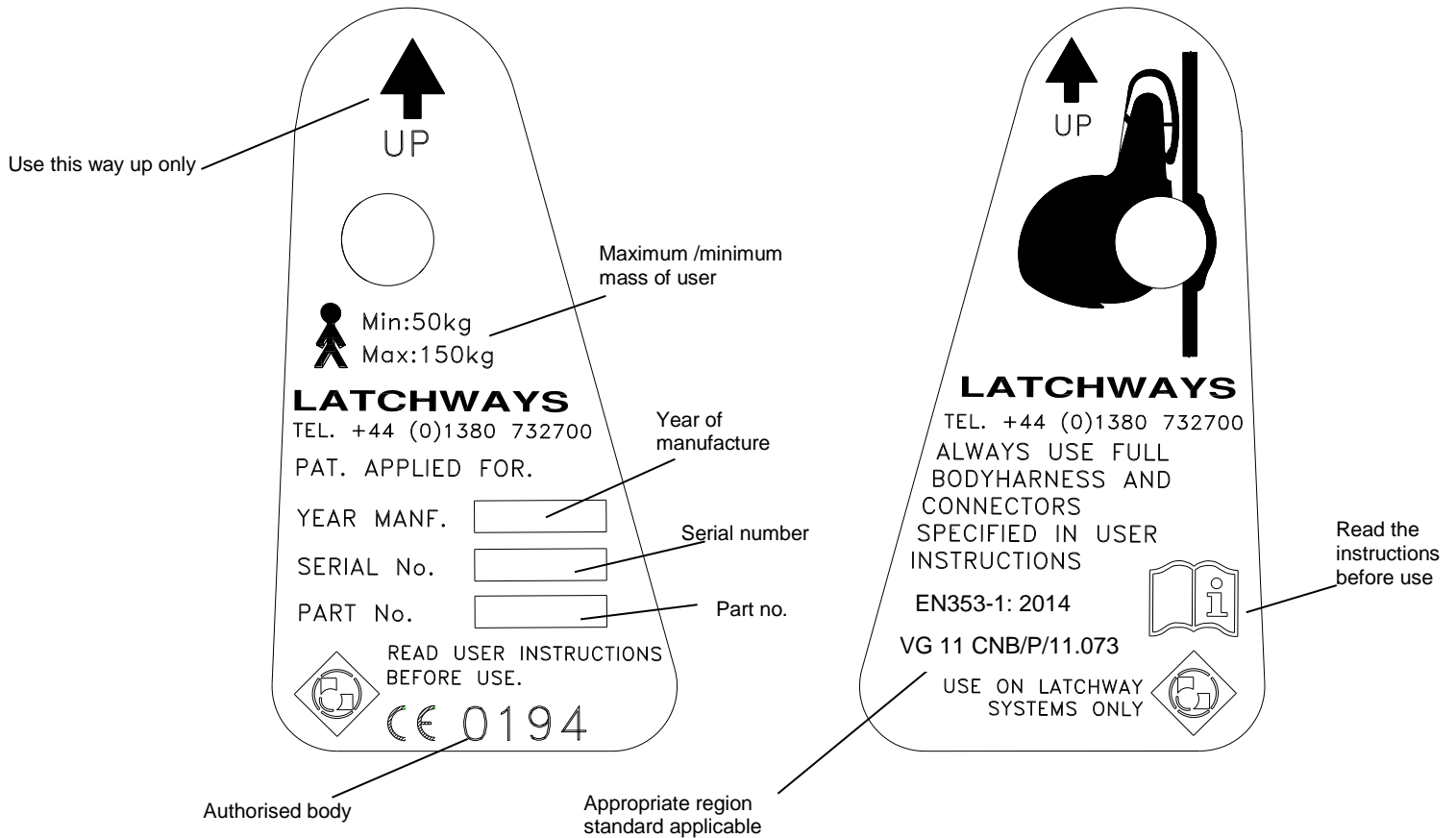
- 9.12. Storage – The device should be stored away from excessive heat, high humidity, sharp edges, corrosives or other foreseeable causes of damage. The equipment should not be subjected to unnecessary stress, pressure or rough handling. Wet equipment should be dried naturally away from direct heat.

- 9.13. Transport – during periods of transportation the device should be stored carefully in a kit bag.

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## 10. Markings

10.1. The following markings are shown on the device :



FOR ILLUSTRATIVE PURPOSES ONLY:

Example shown is model 3100L-00 for BS EN 353-1:2014 CNB/P/11.073 jurisdictional regions.

3103L-00 will be labelled appropriately for CSA.Z259.2.5-12 jurisdictional regions.

3104L-00 & 3105L-00 will be labelled appropriately for ANSI Z359.1-2007 jurisdictional regions.

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## 11. Product Record Card

11.1. This card should be filled in on receipt of the device and on receipt after every service.

<b>Equipment Record</b>				
Product : Latchways Vertical Devices conform to BS EN 353-1 2014 CNB/P/11.073 / CSA Z259.2.5 / ANSI Z359.1-2007 & AS/NZS 1981.3-1997				
Model & Type/Identification :	Trade name : ( <b>*****Latch</b> ) <b>Device</b>	Serial Number :		
Manufacturer: <b>Latchways PLC</b>	Address : <b>Hopton Park, Devizes Wiltshire SN10 2JP</b>	Tel: <b>+44 (0)1380 732700</b> Fax: <b>+44 (0)1380 732701</b>		
Year of Manufacture / Life expiry date :	Purchase Date :	Date First Put into Service :		
<b>Periodic Examination and Repair History</b>				
Date	Reason for entry (periodic examination or repair)	Defects noted, repairs carried out and other relevant information	Name & Signature of Competent Person	Periodic Examination Next Due Date

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## 12. EC Declaration of Conformity

### DECLARATION OF CONFORMITY

The manufacturer or his authorised representative  
established in the community:

Latchways plc  
Hopton Park, Devizes  
Wiltshire SN10 2JP  
England

Declares that the new fall protection equipment described hereafter

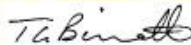
#### **ManSafe® Vertical Fall Arrest Systems**

is in conformity with the requirements of European standard EN 353-1:2014  
and is identical to the equipment described in test report PB 14-102 by:-

Dekra Exam GmbH  
Dinnendahlstrasse 9  
44809 Bochum  
Germany

Notification Body Number 0158

October 2014



T Bissett  
Technical Manager



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