UNI 8™

USER INSTRUCTION MANUAL

Always read and follow the warnings and instructions for use

THE ULTIMATE IN FALL PROTECTION

DBI SALA®

Uni 8™ Horizontal Lifeline System

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FOR MORE INFORMATION ABOUT OUR RANGE OF EQUIPMENT VISIT OUR WEBSITE AT WWW.CAPITALSAFETY.COM

Uni 8™ Horizontal Lifeline System

Foreword

Section 1.0

The Uni 8™ Horizontal Lifeline is a safety system designed to eliminate or substantially reduce the risk of injury or death to operatives working at height or where a fall would otherwise be hazardous to the user's health. Therefore, it is vital that it is installed, maintained and used correctly.

Installation is only to be carried out by Approved Partner Installers and is to be in accordance with the manufacturer's recommendations and with all relevant standards.

All users of the System, as well as those who manage its use and maintenance, should be familiar with the pre-use checks, limitations, precautions, operations and general requirements of the system.

Users should be competent personnel who have read and understood this manual and have been trained by an approved person. It is recommended that the System is not used by lone operatives for reasons of safety and that proper consideration is given to rescue procedures in the event of a fall or accident.

The System has been designed to decelerate and stop personnel who fall whilst carrying out operations in the workplace. The energy dissipating mechanisms built in to the lanyard and the lifeline are designed to reduce the decelerating forces on the user's body to below the maximum as prescribed by law. Consideration should therefore be given to the user's age and fitness, physical disorders and any conditions that may affect the user during normal use, in the event of a fall or during rescue. On no account should pregnant women or children use the System.

Product Application

Uni 8™ Horizontal Lifeline System

The Uni 8™ Horizontal Lifeline

Section 2.0

The Uni 8™ Horizontal Lifeline System is a unique safety product. It offers both fall arrest and restraint capabilities using an 8mm (5/16") stainless steel cable.

The System allows users to attach and detach at any point on the cable and move over the intermediate brackets without interruption. It is a true hands-free system. The Uni 8™ Cable has a minimum breaking strength of 38kN (8,550lbs) and can span up to 12 metres (39.37ft) between intermediate supports. A complete range of structural end anchors and non-penetrative roof brackets are available.

The Uni 8™ System consists of a horizontally mounted lifeline that spans the work area and is fixed at either end to the structure via anchorage connectors. The lifeline may be supported at regular intervals by intermediate brackets. The intermediate brackets help to reduce the loads in the event of a fall and allow for longer single installations. Corner brackets may also be used to enable the System to be more flexible.

Owing to the nature of the product it is imperative that it is installed by a Capital Safety Systems Approved Installer in accordance with current technical guidance and national regulations.

The Uni 8™ Horizontal Lifeline is designed to provide a facility to enable safe working at heights in accordance with current regulations and safe access to a variety of otherwise dangerous situations, or to restrain personnel from putting themselves at risk. There are two types of horizontal lifeline:

WORK RESTRAINT

A Restraint System is designed to prevent a user accessing risk areas (such as roof edges), thereby preventing a fall.

FALL ARREST

A Fall Arrest System allows access to a fall hazard and is designed to safely arrest the operative in the event of a fall.

3.1 SYSTEM DESIGN

The System will be designed to suit your local conditions. The Capital Safety Installer will have verified all the necessary parameters using a specially developed computer program. The information generated from this program is the result of extensive testing and verification by an external laboratory and conforms with internationally recognised standards.

The System will be positioned to allow the user safe access to all areas required. If possible the System should be 'Restraint' rather than 'Fall Arrest'. For this reason it is necessary that persons only use the personal protective equipment supplied for use with the System.

Positioning is determined by some of the following factors:

- The requirement for access
- Availability of structural anchors
- Ground clearance
- Obstacles beneath the work area
- Number of users

For further information on the positioning of the System, please contact your Installer or Capital Safety Systems Limited.

3.2 INSTALLATION

The Uni 8™ Horizontal Lifeline is a facility to enable safe working at heights. Lives are at risk if the System is not installed correctly.
Capital Safety Approved Installers are highly trained in the design, installation, certification and maintenance of the Uni 8™ Horizontal Lifeline.

Included in this manual is a checklist for the minimum amount of information that should be supplied by the Installer following the installation of your System.

3.3 FIXINGS

The Capital Safety Simulation Programme calculates figures for the loads that would be generated in the event of a worst-case fall scenario. It is imperative that the supporting structure and fixings used in the construction of the System are capable of withstanding at least twice these loads. If in doubt, please consult a structural engineer.

3.4 PERSONAL PROTECTIVE EQUIPMENT

All PPE used in conjunction with the horizontal lifeline system should carry the CE mark or appropriate national certification, date of manufacture and the standard that it has been manufactured to. Any harness to be used should be a full body harness and any lanyard should have an energy/shock absorber. It is important that any PPE used must adhere to the specific design and specification for that particular lifeline system. In particular the use of fall arrest blocks is limited to the specific models tested and approved for use by Capital Safety Systems Limited and can only be used where the lifeline is directly above the user and at an angle of ≤20°.
For these reasons it is necessary that persons only use the PPE supplied for use with the system.

3.5 PACKAGING

All equipment leaving Capital Safety Systems is sufficiently packaged to prevent damage and/or deterioration during transportation.
Any concerns or claims regarding the condition of the equipment should first be addressed to the installer.

4.1 REGULATIONS

Horizontal lifelines should comply with national standards. The Capital Safety System conforms to European Standard EN 795:1996 Class C concerning anchorage devices and satisfies all current legislation and guidelines. The product is certified by an approval and external laboratory; Dekra Exam GmbH, (CE 0158) Bochum, Court of Registration, Bochum, HRB-Nr 5357

The Uni 8™ System also meets the requirements of:

AS / NZS 1891.2

OSHA Standards - 1926.502 M

4.2 QUALITY

Capital Safety operates a quality system to ISO9001:2000 and offers full product traceability. All Capital Safety products are tested in accordance with current regulations and verified by an authorized testing laboratory. All Capital Safety Installers are comprehensively trained, regularly audited and provide method statements and risk assessments.

4.3 PRECAUTIONS AND EXCLUSIONS

- The integrity of the Uni 8™ System is only ensured if the user wears the recommended personal protective equipment. This should be certified and marked in accordance with the relevant national standard. Using the wrong PPE or lanyards of incorrect length can result in injury or death. Each system installed will be supplied with specifications of body harness, lanyards and shock absorbers or inertia reel
- The Uni 8™ System must be installed by an Approved Capital Safety Installer certified by Capital Safety
- The Uni 8™ System must be inspected at least once a year, after a fall (whichever is the shorter period) or where the period extends beyond one year, before use by an Approved Capital Safety Installer
- The Uni 8™ System must not be used as a lifting system
- Only use the UniGrab to attach to the Uni 8™ System
- Never exceed the recommended number of users on the system
- Never attempt to repair, tamper with or change the Capital Safety system
- Do not use the system if it is, or appears to be, damaged
- If the cable is damaged to an extent where it hinders the passage of the UniGrab, or if the cable is kinked, do not use the system.
- The equipment should not be used outside of its limitations, nor shall it be used for any other purpose than that intended.
- DO NOT use any external system in the event of an electrical storm
- Only personnel that have been trained to work at height and in the correct use and operation of the system should use it.

5.1 INSPECTION AND GENERAL MAINTENANCE OF THE UNI 8™ HORIZONTAL LIFELINE

The Uni 8™ Horizontal Lifeline has been designed to be used under a variety of conditions. It uses high-grade components that are corrosion resistant. However, the System's working life depends on factors such as correct care and maintenance and the environment in which the System is installed.

- Never attempt to repair, modify or dismantle the Uni 8™ Horizontal Lifeline
- Do not attempt to adjust the tension

These activities should only be carried out by an Capital Safety Approved Installer.

The Capital Safety System is virtually maintenance free. Occasionally the components and cable may need cleaning dependent on environment. This should be done with a soft brush, warm water and mild detergent, ensure to thoroughly rinse with plenty of clean water.

Although highly resistant to chemicals and environmental conditions, take all precautions to avoid contaminating the system with acids, bitumen, cement, chloride, paint or aggressive cleaning fluids. If the System is likely to be contaminated, please contact your Approved Installer or Capital Safety Systems for advice.

If the system is installed outdoors in an aggressive environment and protected from natural washing with rain water, the parts should be washed periodically to avoid contamination.

5.2 SERVICING

In accordance with manufacturers recommendations and current national standards the Uni 8™ Horizontal Lifeline System should be inspected at least once a year, in high use applications the servicing interval should be more frequent, as determined by the installer or Capital Safety Systems Limited.

As the Uni 8™ Horizontal Lifeline is unlike other horizontal lifelines and has many unique features, only Approved Capital Safety Installers who have been trained and certified should inspect Capital Safety products.

5.3 WARRANTY

The Uni 8™ System supplied by Capital Safety Systems and installed by an Approved Systems Integrator carries with it a 10 year warranty, subject to normal use and correct installation. The warranty is invalidated if the minimum service intervals, carried out by an Approved Systems Integrator are not maintained.

This warranty does not include the products appearance after a number of years, nor replacement parts due to wear and tear or where damage has been caused through misuse. (Your Systems Integrator should provide a warranty for the installation work.)

IF YOU HAVE ANY CONCERNS ABOUT THE CONDITION OF YOUR SYSTEM YOU SHOULD WITHDRAW IT FROM SERVICE AND REPORT YOUR CONCERNS IMMEDIATELY

6.1 PERSONAL PROTECTIVE EQUIPMENT

Examine harness, lanyard or inertia reel and carabiners in accordance with their manufacturer's instructions to ascertain that they are serviceable. If in doubt don't use them. If these items have been subjected to a fall they must be serviced or discarded.

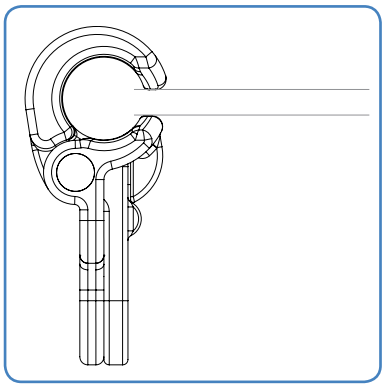
6.2 UNIGRAB

Check the UniGrab before use for any damage. Any damage should be reported to the installer and the device removed from service until it has been inspected. If a fall has occurred on the UniGrab, the device should be removed from service until it has been inspected. The UniGrab can only be put back in to service after it has been approved in writing by an approved installer or Capital Safety Systems Limited.

Capital Safety Systems recommend that only the supplied Capital Safety carabiner be used with the UniGrab.

Before attaching to the UniGrab:

1. Check that the slot does not exceed 6.1mm
2. Check that the UniGrab cannot be opened when the carabiner is attached to the UniGrab.



UniGrab

IF IN DOUBT.

ASK.

6.3 SYSTEM LABEL

Prior to accessing the system the user should always inspect the system label and certificate in order to confirm:

- The correct user equipment is being used (including lanyard length)
- The maximum number of users is not exceeded
- The system certification is valid. The system should be certified yearly. If this has not been done the user should not use the system.
- Check that the ground clearance is still the same as detailed on the system label and that there is no risk of collision in the event of a fall – including swing fall (pendulum fall) hazards.

6.4 SYSTEM

If possible before attaching to the system, carry out a visual inspection. Check that there are no obvious signs of damage to the system, such as breaks, kinks or excessive sag in the cable or damaged brackets. Check the legibility of all marking on any part of the system and the users PPE.

7.1 USER EQUIPMENT

Always wear a full body harness. The user should attach their shock absorbing lanyard to the rear 'D' ring of the harness. This prevents the lanyard getting in the way during use. Always ensure that the locking mechanism of the carabiner is properly closed before proceeding and get a second person to check this and all other attachments. In the event of a fall all equipment should be removed from service and inspected by a Capital Safety certified Installer before it can be possibly returned to service.

7.2 ACCESSING THE SYSTEM

Access to the System should be gained from a position of safety. If necessary the user should use other safety equipment, such as a twin-tailed lanyard, to facilitate safe access to the attachment area.

7.3 ATTACHING TO THE SYSTEM

The Uni 8™ Horizontal Lifeline, UniGrab and Uni 8™ evolution™ Traveller are designed in such a way that it is possible to enter the System at any point. They're carried out as follows:

To open 8mm UniGrab, slide top tab to the left and lift upwards.

Place the 8mm UniGrab onto the cable and close by moving top tab downwards and to the right.

Ensure that holes are aligned.

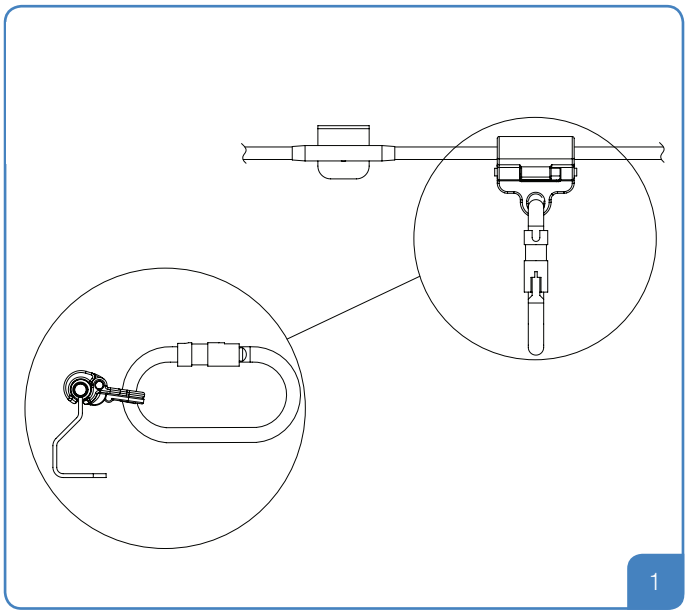
WARNING! Only use Capital Safety's 2001000 carabiner with the 8mm UniGrab to ensure system integrity.

Attach the 2001000 carabiner and lanyard. Ensure that carabiner number matches number engraved around the slot of the 8mm UniGrab.

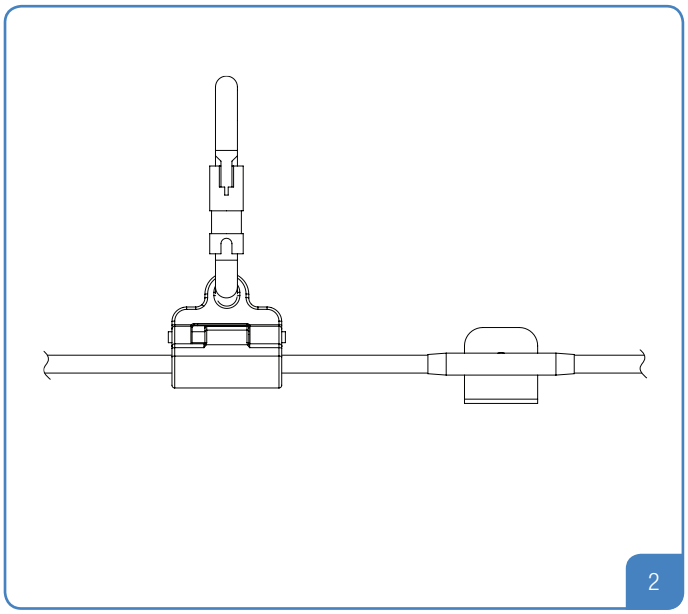
You are now safely attached to the cable system. To remove the 8mm UniGrab from the cable follow the previous steps in reverse order from 5-1.

N.B: REMEMBER TO INSPECT YOUR PPE BEFORE EACH USE!

Section 7 continued on next page



1



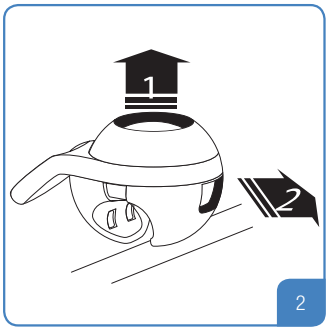
2

Prior to attaching the UniGrab, consider your required orientation on the system. The correct orientation of the UniGrab is dependent on the position of the System. Firstly, look at which side of the lifeline you wish to walk on. The opening of the UniGrab should face towards the surface to which the lifeline is attached and the attachment point of the UniGrab should be facing towards the side you want to walk on.

Uni 8™ evolution™ Traveller

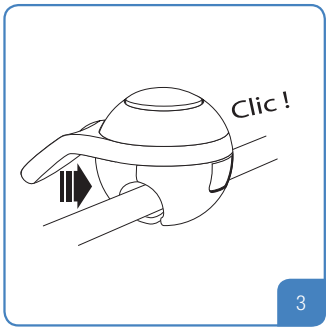
1

Hold down 1 and 2 to open the Traveller.



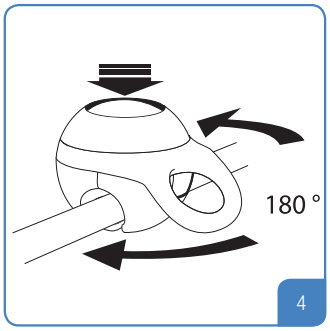
2

Place the Traveller onto the cable.



3

Squeeze the Traveller back together to secure.



4

Hold down 1 to rotate the eye allowing you to work either side of the line.

7.4 WORKING ON BOTH SIDES OF THE CAPITAL SAFETY SYSTEM

To remove the UniGrab, reverse the procedure on page 9. If you wish to walk on the opposite side of the system you may wish to turn the UniGrab around. Firstly, attach a secondary lanyard (or twin-tailed lanyard) to the system. Then detach the UniGrab, turn it to the correct direction and re-attach.

During use, operatives should allow their lanyard to trail behind them. On reaching an intermediate bracket the UniGrab should pass unhindered.

To remove the Uni 8™ evolution™ Traveller reverse the illustrated procedure shown directly above. If you wish to walk on the opposite side of the system, simply hold down button 1 on the Traveller and manually rotate the eye 180 degrees.

8.1 COMPLETED INSTALLATIONS

On completion of the installation, the installer should provide as a minimum:

- A certificate commissioning the system (See 8.2)
- A System Label (see 8.3)
- Detailed information on the system design, including end loads, intermediate loads, cable deflection, details of fabrications used in the system design, maximum number of users, specific restrictions regarding user equipment and testing requirements
- User instruction manual
- A serial number for the installation
- A rescue plan explaining how to retrieve someone if they fall on the system. (Fall arrest installations only). This is an additional service for which the installer may be intitled to charge.

8.2 CERTIFICATE

This should contain a minimum of:

- The location of the installation
- A unique identification number
- The number and length of systems
- The maximum number of users per span and per system
- The length and type of lanyards
- The installation date
- The date of the next necessary service
- The name and contact details of the installation company
- The name of the installation engineer and/or supervisor

A representative of the installation company should sign the certificate

8.3 SYSTEM LABEL

The System Label should be located at the entrance point to the System. It should contain the following information:

- The maximum number of users per span and per system
- The maximum lanyard length and type of lanyard specified
- Installation date and details of the installation company
- Next service date
- Serial number of the system
- The minimum ground clearance
- Contact details of the manufacturing company

8.4 TRAINING

The Capital Safety Approved Installer should provide the end user with training on how to use the System and user equipment. This may involve an additional cost. Only trained personnel should use the system.

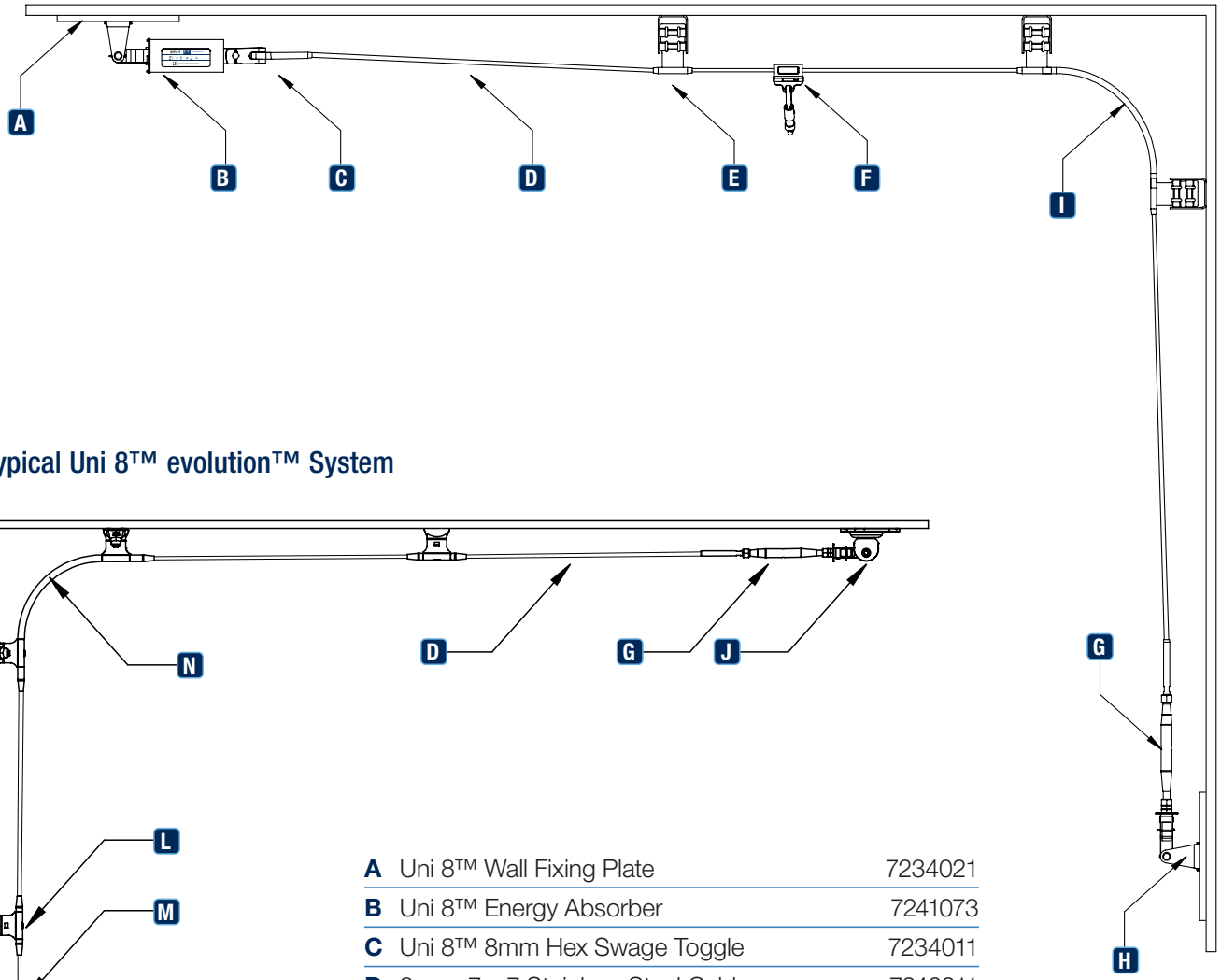
Uni 8™ Horizontal Lifeline System

System Layout

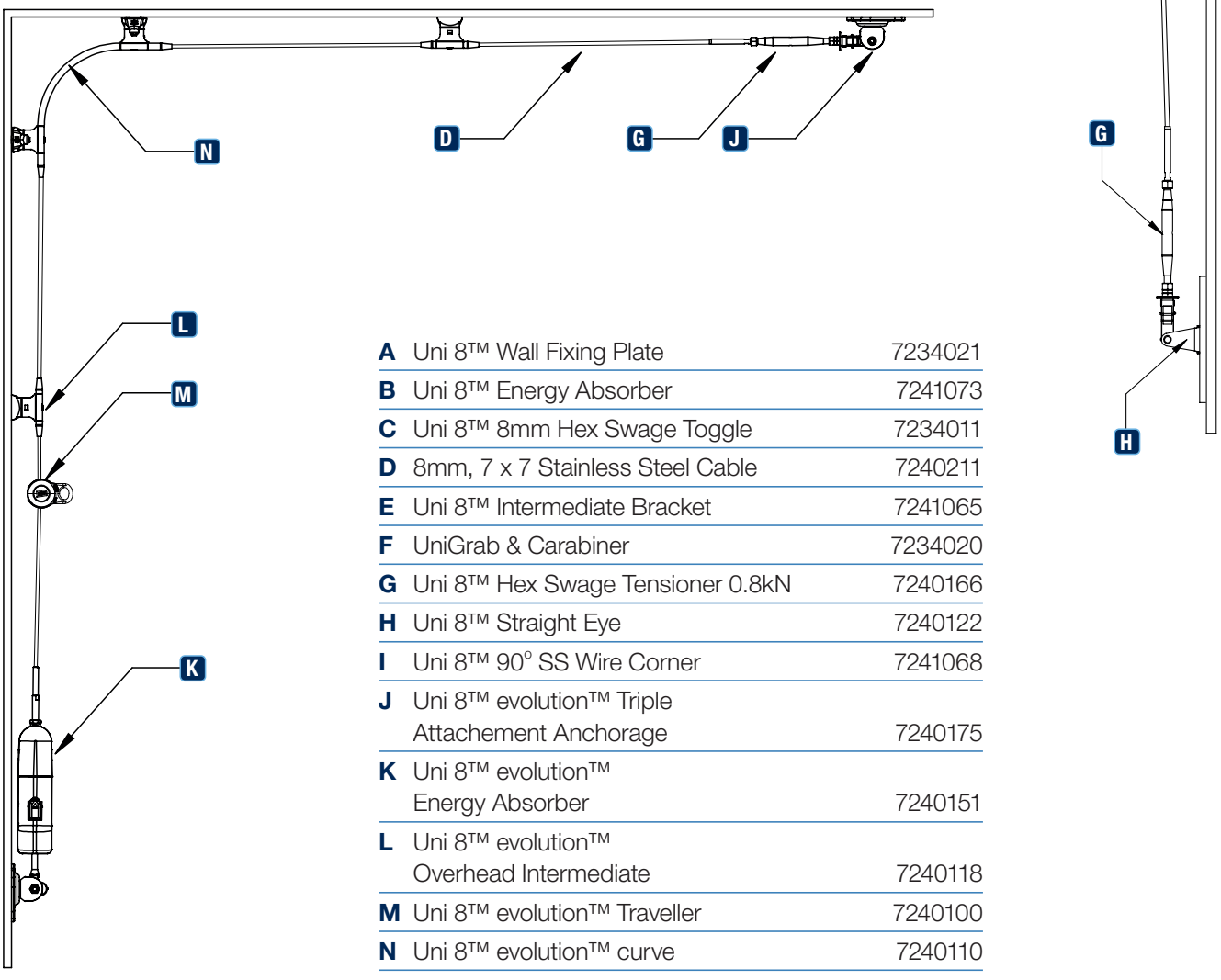
Section 9.0

TYPICAL DETAIL

Typical Uni 8™ System



Typical Uni 8™ evolution™ System



A	Uni 8™ Wall Fixing Plate	7234021
B	Uni 8™ Energy Absorber	7241073
C	Uni 8™ 8mm Hex Swage Toggle	7234011
D	8mm, 7 x 7 Stainless Steel Cable	7240211
E	Uni 8™ Intermediate Bracket	7241065
F	UniGrab & Carabiner	7234020
G	Uni 8™ Hex Swage Tensioner 0.8kN	7240166
H	Uni 8™ Straight Eye	7240122
I	Uni 8™ 90° SS Wire Corner	7241068
J	Uni 8™ evolution™ Triple Attachement Anchorage	7240175
K	Uni 8™ evolution™ Energy Absorber	7240151
L	Uni 8™ evolution™ Overhead Intermediate	7240118
M	Uni 8™ evolution™ Traveller	7240100
N	Uni 8™ evolution™ curve	7240110

10.1

7234021

Uni 8™ Wall Fixing Plate

10.2

7240122

Uni 8™ Straight Eye

10.3

7240166

Uni 8™ 8mm Hex Swage Tensioner 0.8 kN

10.4

7241065

Uni 8™ Intermediate Bracket

10.4

7234012

Uni 8™ 8mm Hex Joiner

10.6

7234011

Uni 8™ 8mm Hex Swage Toggle

10.7

7241068

90° Stainless Steel Wire Corner

10.8

7241069

45° Stainless Steel Wire Corner

7234020

Uni 8™ UniGrab

7241066

Uni 8™ Variable Bracket

7241073

Uni 8™ Energy Absorber

7240211

8mm, 7 x 7 Stainless steel Cable

7240151

Uni 8™ evolution™ High Capacity Energy Absorber

7240110

Uni 8™ evolution™ Intermediate Bracket

7240120

Uni 8™ evolution™ Short Curve

7240130

Uni 8™ evolution™ Curve

7240176

Uni 8™ evolution™ Triple Articulated Anchorage Point

7240176

Uni 8™ evolution™ Mono Attachment Anchorage

7240100

Uni 8™ evolution™ Traveller

RESCUE

When contemplating working at height, and in particular when considering the use of a fall arrest/work restraint system, it is extremely important that employers and employees consider any emergency or rescue procedures that may be required. It is strongly recommended that a written emergency and rescue plan is developed and those responsible are trained to affect a rescue.

The importance of having a rescue plan to deal with such emergencies cannot be overemphasized. Such a plan includes consideration of rescue equipment, personnel, and training as necessary.

It is not acceptable just to rely on the emergency services. Emergency procedures need to be considered for reasonably foreseeable circumstances. The measures need to be covered in the risk assessment and planned prior to the work activity being carried out.

A sensible strategy is to employ two workers for the task at height, so if one falls, the other can assist in the rescue, or can summon help. High visibility clothing, whistles, and personal alarms are all items worthy of consideration.

Please contact Capital Safety for more details or visit our web page: www.capitalsafety.com

EMERGENCY PROCEDURES

If a fall does occur it is vitally important that a plan is in place to ensure the suspended person can be rescued safely in the shortest possible time and before the emergency service response. If employers cannot do this, then harness work is not the correct system of work.

Motionless head up suspension can lead to pre-syncope (light headedness; nausea; sensations of flushing; tingling or numbness of the arms or legs; anxiety; visual disturbance; or a feeling they are about to faint) in most normal subjects within 1 hour and in a fifth within 10 minutes.

- First responders to persons in harness suspension should be able to recognise the symptoms of pre-syncope (fainting).
- A casualty who is experiencing pre-syncope symptoms or who is unconscious whilst suspended in a harness should be rescued as soon as is safely possible.
- If the rescuer is unable to immediately release a conscious casualty from a suspended position, elevation of the legs by the casualty or rescuer where safely possible may prolong tolerance of suspension.
- Monitor the casualty's condition at all times, attempt to keep them talking.
- When rescued, the person should now be placed in the horizontal position and standard first aid guidance for the post recovery of a semi conscious or unconscious person in a horizontal position should be followed.
- The casualty, regardless of the time spent suspended should be taken to hospital for routine checks.

Once the casualty is rescued review the rescue plan and establish possible improvements.

Equipment should be serviced before it is put back into use if used in a rescue or evacuation scenario.

The above recommendation is based on the Health and Safety Executives 2009 report, Evidence-based review of the current guidance on first aid measures for suspension trauma. For more information please visit www.hse.gov.uk and search for "suspension trauma".

capital
SAFETY

GLOBAL LEADER IN FALL PROTECTION

Capital Safety is the Global leader in fall protection equipment, systems and anchors.

Capital Safety est le leader mondial en matière d'équipement, de systèmes et d'ancrages de protections antichute.

Capital Safety ist weltweit führend auf dem Gebiet von Absturzsicherungsausrüstung, -systemen und Anschlagmöglichkeiten.

Capital Safety es el líder mundial en equipos, sistemas y anclajes de protección contra caídas.

Capital Safety is wereldleider in valbeveiligingsapparatuur, -systemen en verankeringen.

Capital Safety è leader globale nell'anticaduta per dispositivi di protezione individuale, sistemi e ancoraggi.

Capital Safety är globala inom utrustning, system och förankringar för fallskydd.

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