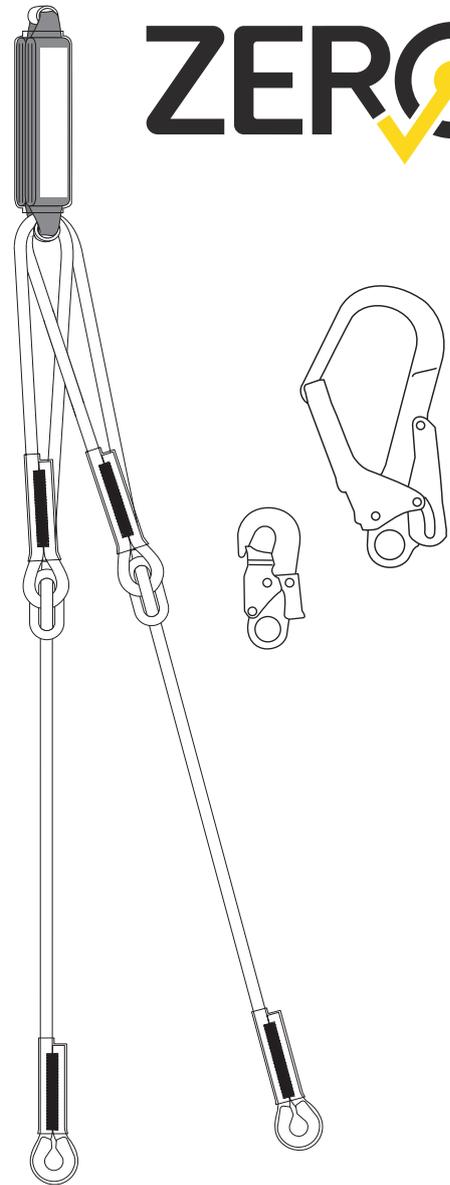




SparkPro

Double Adjustable Hot Works
Rope Lanyard
Instruction Manual



LSZ2RFX5



THE ENERGY ABSORBER WITH LANYARD is a component of personal fall arrest equipment and complies with 1891.1:2007 Harnesses & ancillary equipment, EN355 Fall arrest system consisted of; energy absorber with lanyard (complied with EN 354), attached to the full body harness (complied with EN 361) and connected to the structural anchor point (complied with EN 795 or AS/NZS 5532:2013 Single anchor test) can be used as a basic personal protective equipment against falls from a height.



Australian Standard

AS/NZS 1891.1:2007
SMK40940 SAI Global

Certified to:

AS/NZS 1891.1:2007, EN 355

Admissible time of use:

PBIHS CE 0082

Energy Absorber with adjustable lanyard can be used for 10 years.

Users should be competent in the use of equipment before beginning any tasks requiring its use.

SparkPro | Double Adjustable Hot Works Rope Lanyard

Resistant to sparks, flame and metal splash. Made from Technora Aramid rope for hot works like grinding and metal cutting. The shock absorber will tear to absorb the energy in the event of a fall. A heat-shield cover is provided to cover the shock absorber, protecting from heat and sparks.



Application	Size	Rated to	Dimensions	Standards
		kg		
	1 to 1.8m	100kg	1.2 -2m adjustable length	AS/NZS 1891.1:2007 EN 355:2002

- > Kernmantle rope with technora aramide sheath, diameter approximately 11.4mm.
- > Double adjustable lanyard for attachment to anchor points, providing safe fall arrest system.
- > Shock absorber end connects to the fall arrest point on the harness.
- > Includes shock absorber with heat protective fabric cover.
- > DO NOT remove the clear shock cover as this protects the shock absorber from environmental damage.
- > The thimbles are aramide polyamide for durability.
- > Adjustable in length from 1.2m to 2m.

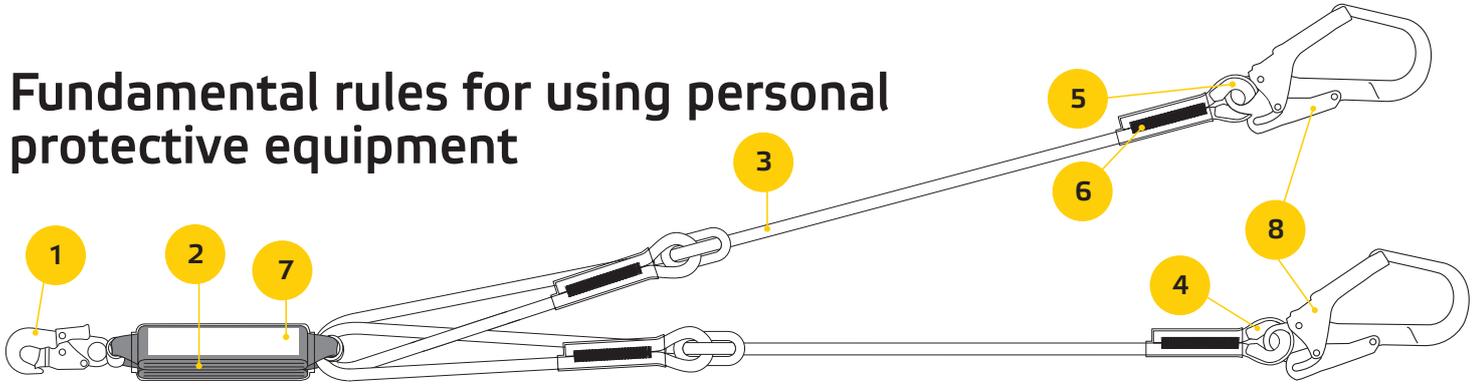
Personal protective equipment should be used only by people trained in operating it. Personal protective equipment is considered personal equipment and should be used by a single person only.

WARNING - before using this safety equipment please read the manual carefully.

Personal protective equipment should be used only by people trained in operating it. Personal protective equipment is considered personal equipment and should be used by a single person only.

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Fundamental rules for using personal protective equipment



1	Snaphook AZ002 steel
2	Energy absorber, webbing polyamide
3	Lanyard technora aramide rope approximately diameter 11.4mm
4	lanyard's attachment loop
5	Thimble - aramide polyamide
6	Lanyard seam - polyester
7	Identity label
8	Scaffhook AZ022 steel

Energy absorber is made of 32 mm wide polyamide webbing. Energy absorber has attachment loops on both endings. The body of the absorber is protected by a special shield made of shrinkable, polyethylene tubing. The lanyard is connected to the energy absorber on one side and on the other it has an attachment loop (or a loop in dual lanyards). The lanyard is made of: - \varnothing 11.4 mm technora aramide rope finished with sewn loops (ABM-RLH, ABM/LB 202). - \varnothing 11.4 mm technora aramide rope finished on one ending with a loop adjustable by steel adjustment buckle and on the other ending with sewn attachment loop (ABM/LB200 FLR).

- > Personal protective equipment must be withdrawn from use and undergo a complete periodical inspection at least once a year (after 6 months of use).
- > Periodical inspection must be carried out by a qualified person responsible for periodical inspections of safety equipment in a given place of work, by the equipment manufacturer or an authorised representative of the manufacturer. Such an inspection should check all equipment elements with particular attention paid to:
 - > any defects
 - > excessive wear
 - > corrosion
 - > points of tearing
 - > cuts and improper operation

If protective equipment has a complex structure, for example retractable type fall arresters, periodical inspections should be carried out only by the equipment

manufacturer or its authorised representative. The date of the subsequent inspection will be specified after the periodical inspection has been completed.

- > Any repair shall only be carried out by equipment manufacturer or his certified representative.
- > All information concerning protective equipment (name, serial number, date of purchase and date of first operation, user name, information concerning repairs and inspections and withdrawal from use) must be included in the Operation Sheet for a particular device. The factory where equipment is stored is responsible for making entries in the Operation Sheet. The Sheet should be completed by the person responsible for safety equipment in a given place of work. Equipment without a properly completed Operation Sheet cannot be used. It is forbidden to make any alterations or additions to the equipment without the manufacturer's prior written consent.
- > Personal protective equipment must not be used by people whose health condition may influence their safety during everyday use or emergency procedures.
- > Personal protective equipment shall not be used outside its limitations, or for any purpose other than that for which it is intended.
- > Before use ensure about the compatibility of items of equipment assembled into a fall arrest system. Periodically check connecting and adjusting of the equipment
- > components to avoid accidental loosening or disconnecting of the components.
- > Before use ensure about the compatibility of items of equipment assembled into a fall arrest system. The lanyard must be protected from a contact with oils, acids, solvents, basics, open fire, hot metal drops and sharp edges.

When working on the lattice constructions avoid interleaving the working webbing between the individual construction elements and avoid using the device in the dust laden and greasy environment.

IMPORTANT; for all matters relating to selection, use and maintenance of fall arrest equipment, please consult AS/NZS1891 Part 4: Fall Arrest Systems & Devices Selection, Use and Maintenance.



WARNING: If any part of an assembly is to be exposed to chemicals, e.g. hazardous atmospheres or cleaning materials the user must check with the manufacturer to determine whether the part is suitable for continued use. When working on the lattice constructions avoid interleaving the working webbing between the individual construction elements and avoid using the device in the dust laden and greasy environment.

Lanyard markings

a	Device type	g	Serial number of the harness
b	Model symbol	h	Lanyard length
c	CE mark and number of the notified body controlling manufacturing of the equipment, number	i	Caution: read the manual
d	Number European standards	j	Identification of the harness manufacturer or distributor.
e	Month and year of manufacture	k	Max Length for lanyard
f	Month and year of expiry date	l	Australian Standard and SAI Global accreditation

a LSZ2RFX5 SparkPro Energy Absorber with Double Lanyard

b Model symbol

c EN 355:2002 AS/NZS 1891.1:2007 PBIHS 0082

d CE mark and number of the notified body controlling manufacturing of the equipment, number

e DOM: MM.YYYY Expiry: MM.YYYY Serial No: 00000000

f Month and year of expiry date

g Serial number of the harness

h Lanyard length

i Caution: read the manual

j Identification of the harness manufacturer or distributor.

k Max Length for lanyard

l Australian Standard and SAI Global accreditation

MAX 2 m

l Certified Product Australian Standard AS/NZS 1891.1:2007 SMK40940 SAI Global

i Only competent users should use this equipment. Manufacturer's instructions must be followed. The maximum allowable free fall is 2m.
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MADE IN EU

j ZERO www.zeroheightsafety.com

l Certified Product Australian Standard AS/NZS 1891.1:2007 SMK40940 SAI Global

EXAMPLE ONLY: labels may vary depending on model

NB: make sure that all labels on protective equipment (elements of this equipment) are legible while performing a periodical inspection.

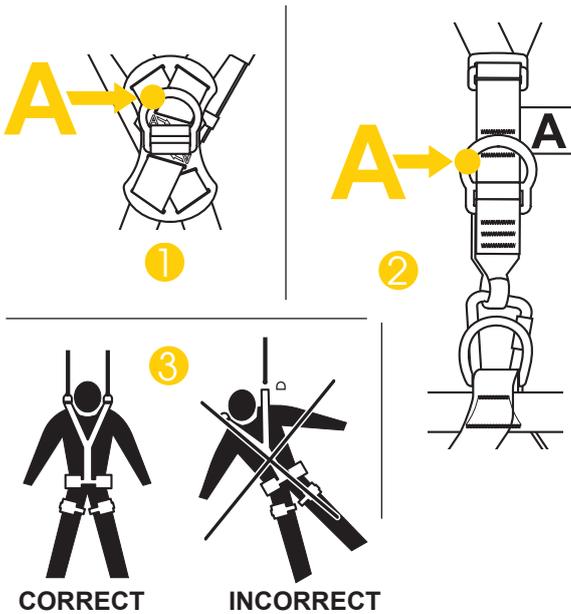
PRE USE CHECK - Before each use of personal protective equipment it is obligatory to carry out a pre-use check of the equipment, to ensure that it is in a serviceable condition and operates correctly. It is forbidden to use protective equipment if one of its elements is hampered by another during operation.

WARNING; personal energy absorbers are designed to absorb energy by permanent deformation or destructive action, and should be discarded if that process has commenced, check for any evidence of deployment of energy absorber.

During pre-use check it is necessary to inspect all elements of the equipment in respect of any damages, excessive wear, corrosion, abrasion, cutting or incorrect acting, especially take into consideration:

EQUIPMENT ELEMENTS	INSPECT	
Full body harnesses and belts	Buckles, adjusting elements, attaching points, webbing's, seams, loops;	
Energy absorbers	Attaching loops, webbing, seams, casing, connectors;	
Textile lanyards or lifelines or guidelines	Rope, loops, thimbles, connectors, adjusting element, splices;	
Steel lanyards or lifelines or guidelines	Cable, wires, clips, ferrules, loops, thimbles, connectors, adjusting elements;	
Retractable fall arresters	Cable or webbing, retractor and brake proper acting, casing, energy absorber, connector;	
Guided type fall arresters	Body of the fall arrester, sliding function, locking gear acting, rivets and screws, connector, energy absorber;	
Connectors	Main body, rivets, gate, locking gear acting.	

Attaching fall arrest system



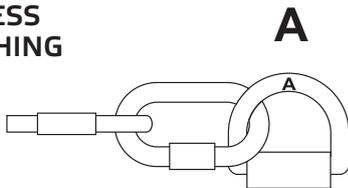
Fall arrest system must be connected only to the attaching elements of the harness marked by capital letter A. The fall arrest system must be connected only to: - dorsal attachment D-ring - drawing (1) or - to frontal attachment D-ring. The dorsal attachment D-ring is marked by a capital letter A - embossed on the crossing plate. Front attachment D-ring is marked by a capital letter A placed on the label sewn near the D-ring. See drawings 1 and 2.

Work positioning system can be attached only to the lateral buckles of the work positioning belt or to the frontal waist buckle - work positioning lanyard must be anchored to the point of construction that is situated at waist level or above. Work positioning lanyard must be kept taut to restrict free movement to a maximum 0,6 m.

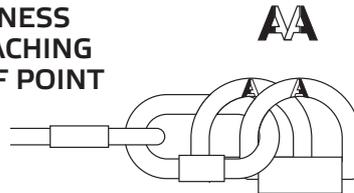
Rescue harness D-rings placed on the shoulder straps can be used linked together only for rescue purposes. **Do not** use single D-ring. **Do not** use the rescue harness D-rings with fall arrest systems. See drawing 3.

NB: In a full body harness use only attaching points marked with a big letter "A" to attach a fall system. If the A is half black, half white, it must be attached to two attachment points with this marking.

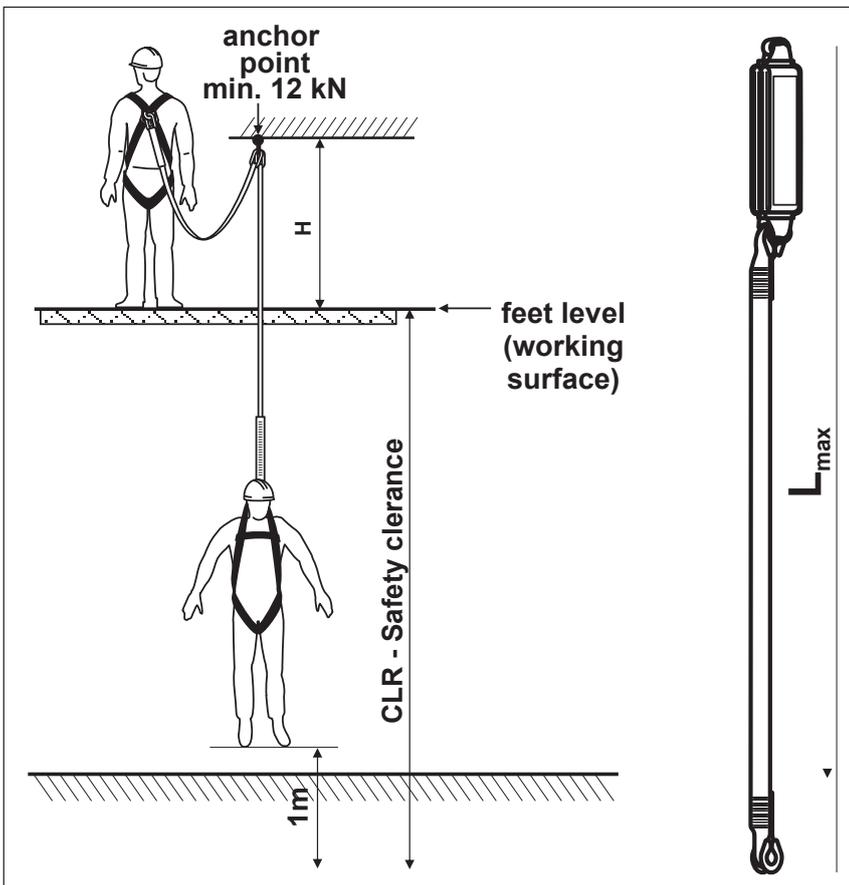
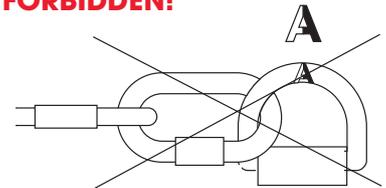
HARNESS ATTACHING POINT



HARNESS ATTACHING HALF POINT



FORBIDDEN!



SAFETY CLEARANCE

Required free distance below workplace (CRL) for worker protected with the LSZ energy absorber with lanyard.

Required free distance (safety clearance CRL) workplace depends on the location of anchor point and **must be calculated** according to this diagram.

$$CLR = 2L - H + 2,2m$$

H (m)	distance between lanyard's anchor point and a level of user's feet.
L max (m)	total length of the energy absorber with lanyard including all connectors.
CLR (m)	safety clearance - required free distance.

Correct use of Spark Pro fall arrest lanyard

WARNING; NO back-hooking the free tail to any point on the wearer, the wearers equipment or the lanyard below the bifurcation other than a point specifically provide by the manufacturer for that purpose. The free tail should be stowed on side positioning harness tool loops. Harness fitted with lanyard stowage points is the only place on the harness that the unanchored lanyard tail(s) shall be used to store - when not in use. Do NOT under any circumstance attach the lanyard tails to any other part of the harness other than the identified lanyard stowage points.

EN361 - for the safety harness – EN362 - for the connectors – EN795 - for anchorages
AS/NZS 1891.1:2007 Harnesses & ancillary equipment – AS/NZS 5532:2013 Single anchor test

When using the lanyard in connection with fall arrest system, it must be compatible with manual instructions of the fall arrest systems and obligatory standards, in addition.

Personal protective equipment must be used in conformity with its operational purpose. Make sure that all elements of the equipment that constitute the fall prevention system are properly connected prior to use. Perform periodical inspections of connections and mating of equipment in order to avoid unintentional loosening or disconnecting. It must be withdrawn from use immediately when any doubt arise about its condition for safe use and not used again until confirmed in writing by equipment manufacturer or his representative have carried out the detailed inspection.

WARNING; personal energy absorbers are designed to absorb energy by permanent deformation or destructive action, and should be discarded if that process has commenced.

Assembling of fall arrest system

1. If the absorber is not integrated with a lanyard, connect the lanyard (complying with EN 354 or AS/NZS 1891:1997) to one loop of the energy absorber with a connector complying with EN 362. Attach the energy absorber's connector to a frontal or dorsal attachment point of full body harness (complying with EN 361 or AS/NZS 1891.1:2007)

2. Connect the lanyard's connector to the structural anchor point of resistance min. 15 kN (conformed to EN 795 or AS/NZS 5532:2013 single anchor test) with an additional connector. The length of an additional connecting component must be consider during calculating the safety clearance below working location.

5. it is strictly forbidden to attach the one lanyard's connector to harness attachment element and the second lanyard's connector to structural anchor point.

WARNING: ensure the snap hook gate is securely closed

Cleaning and storing

Personal protection equipment should be stored in a clean dry environment free from direct sunlight, dust, excessive heat and harmful chemicals. Personal protection equipment should be cleaned periodically using specialist cleaner, or a mild detergent and water, wash with a soft non-abrasive brush or sponge and allow to air dry after removing excess water with a dry cloth.

When storing equipment keep loosely packed away from direct sunlight, chemicals, sharp edges, extreme temperatures and corrosive or aggressive substances. DO NOT use chemicals to clean heavily soiled gear. Chemicals may destroy webbing, equipment and function. DO NOT put equipment in the clothes dryer. Excessive heat may melt the webbing and alter the strength.



WARNING:

If any part of an assembly is to be exposed to chemicals, e.g. hazardous atmospheres or cleaning materials the user **must** check with the manufacturer to determine whether the part is suitable for continued use.

Fall factor & fall distance



When setting up a fall arrest system, fall factors and fall distances are critical factors to be considered. The principle behind fall factors is the basic physics of gravity and energy:

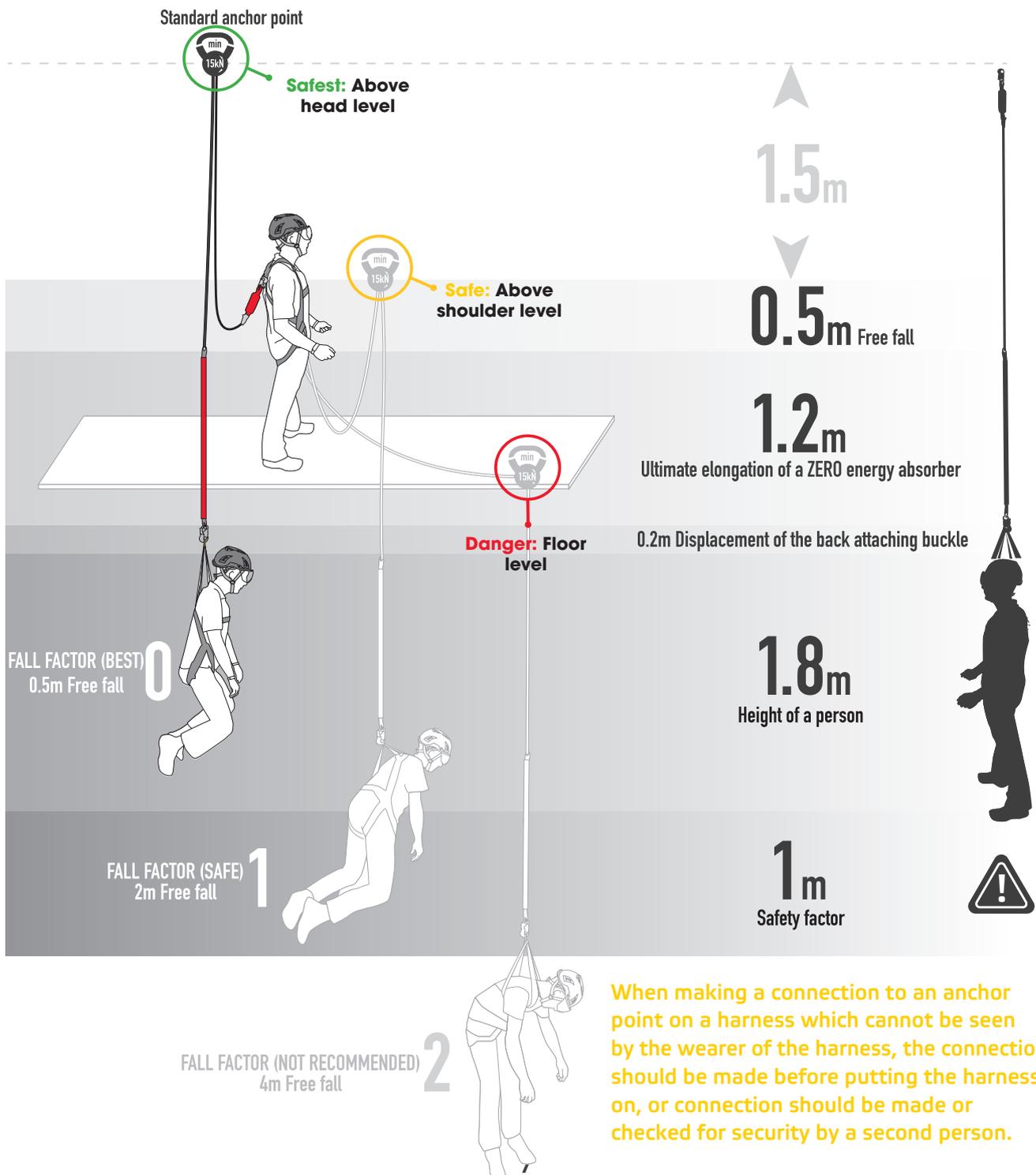
Energy is Mass multiplied by velocity.

The lower the anchor in relation to the human body, the greater the fall distance will be. By minimising the height of the fall, the speed will be reduced (velocity) at the point when the arrest event starts. Check there is sufficient distance between the work surface and any surface/obstacle below to enable the system, including the action of any shock absorber, to deploy fully, without the worker hitting the below surface or obstacle. The anchor device/

point should be placed above the position of the user. Minimal static strength of the anchor device/point is 15 kn. It is recommended to use certified and marked structural anchor point complied with EN795 or AS/NZS 5532.

Personal protective equipment must be withdrawn from use immediately when any doubt arise about its condition for safe use and not used again until confirmed in writing by equipment manufacturer or his representative after carried out the detailed inspection.

Harnesses and lanyards must be either destroyed or returned to the manufacturer if a fall has been sustained.



Identity Card

It is the responsibility of the user organisation to provide the identity card and to fill in the details required. The identity card should be filled in before the first use by a competent person, responsible for protective equipment.

Any information about the equipment including periodic inspections, repairs, reasons for equipment being withdrawn from use, should be noted into the identity card. The identity card

should be stored with the equipment during the entire period of equipment utilization.

Equipment should be inspected at least once every six months in accordance with the manufacturers recommendations and withdrawn from use if not deemed by a competent person to be suitable for continued use. For any questions surrounding Maintenance matters please refer to AS/NZS 1891.4 of Australian/New Zealand Standards Document.

Example of ID Card

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MODEL AND TYPE OF EQUIPMENT		REF. NUMBER	
DATE OF MANUF.		SERIAL NUMBER	
USER NAME			
DATE OF PURCHASE		DATE OF PURCHASE INTO OPERATION	

PERIODIC EXAMINATION AND REPAIR HISTORY

No.	Date	Reason for entry periodic examination or repair	Defects noted, repairs carried out and other relevant informations	Name and signature of competent person	Periodic examination next due date
1					
2					
3					
4					
5					
6					
7					

**Do not use the equipment without the identity card.
All records in the identity card can be filled in only by a competent person.**

Notified bodies, at which certification was performed and which supervises the production of the equipment:



SAI Global Certification Services Pty Limited
(ACN 108 716 669) ("SAI Global")
680 George Street,
Sydney NSW 2001.

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