

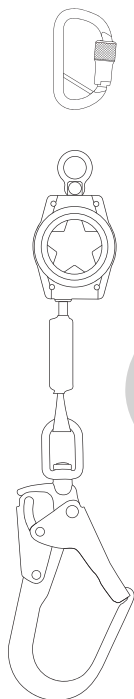
ATOMIC SAFETY

SELF - RETRACTING LIFELINES (SRLs)

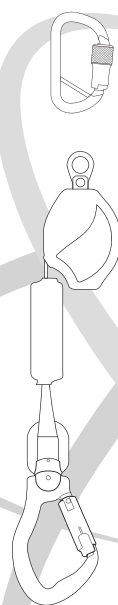
USER INSTRUCTIONS

Applies to:

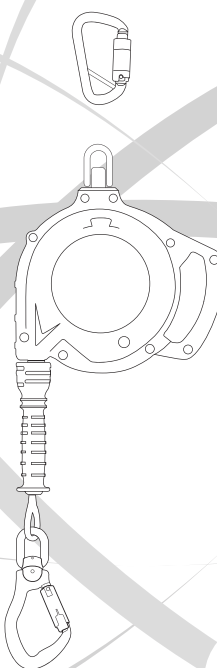
Carbon-SRL



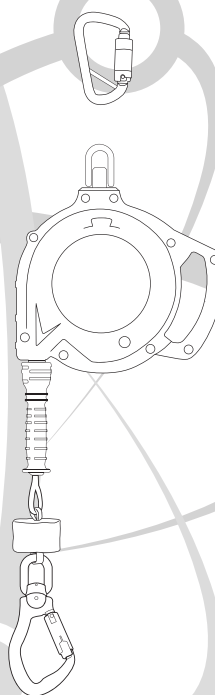
Neutron-SRL



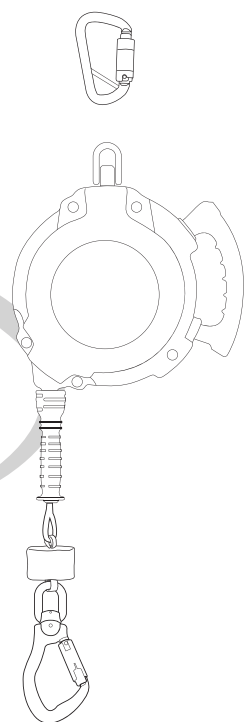
Proton-SRL



Proton-SRL
SS Edge



Titanium-SRL
Edge



Manufacturer:

Atomic Safety PTY LTD
Unit 8/47 Cook Ct
North Lakes QLD 4509
Australia

Phone: (07) 2133 2402

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Standards & Compliance:

EN360:2023; EN360:2002; AS1891.3:2020

Operational use aligned with AS/NZS 1891.4:2025

IMPORTANT

**This manual must be read and understood before using this equipment.
Always keep these instructions with the product**

Atomic Safety Self Retracting Lifelines User Manual

User Instructions

Applies to: Carbon-SRL, Neutron-SRL, Proton-SRL, Proton-SRL SS Edge, Titanium-SRL
Standards: EN360:2023; EN360:2002; AS1891.3:2020 ;operational use aligned with AS/NZS 1891.4:2025

IMPORTANT SAFETY INFORMATION

Working at height is inherently dangerous and may result in serious injury or death.

This product is part of a personal fall-arrest system. Users must read, understand, and follow these instructions and receive appropriate training before use. Failure to follow these instructions may result in serious injury or death.

Do not alter or modify this product. Repairs may only be carried out by an Atomic Safety authorised service agent.

1. Product Range & Applicable Standard

Product	Lifeline Material	Applicable Standard
Carbon-SRL	Webbing	EN360:2002
Neutron-SRL	Webbing	EN360:2023
Proton-SRL	Cable	EN360:2023
Titanium-SRL	Cable	EN360:2023

Each SRL is identified by its model number, serial number, and date of manufacture marked on the product label or housing. Ensure all markings are legible before use.

2. Intended Use

Atomic Safety SRLs are personal protective equipment designed to arrest a fall when working at height. They are intended for fall-arrest use only and must be used as part of a complete personal fall-arrest system.

These devices are designed for:

- Single-user use only
- Vertical use with overhead anchorage
- Leading-edge use only where specifically identified as Proton-SRL SS Edge or Titanium-SRL models
- Horizontal use only where specifically identified as Carbon-SRL, Proton-SRL SS Edge or Titanium-SRL models

3. Limitations of use

The following limitations apply to all SRLs covered by this manual:

- User mass range: 40–140 kg, including tools and clothing
- Maximum number of users: one (1)
- Operating temperature range: –40 °C to +50 °C

Do not use this device:

- For restraint or work positioning
- If any component shows signs of damage, malfunction, or excessive wear
- Outside the operating temperature range
- On sharp edges unless the device is certified for leading-edge use

4. Anchorage Requirements

A suitable anchorage is critical to system performance and user safety.

Anchorage requirements:

- Minimum anchorage strength: 12/18 kN
- Anchorage should be positioned above the user wherever possible
- Anchorage must comply with EN 795 or AS/NZS 1891 / AS5532

Swing-fall hazards must be minimised by working as close as practicable to the anchorage point.

5. Compatibility

This SRL must be used with:

- Full body harness compliant with AS/NZS 1891.1
- Connectors compliant with EN 362 with 6kN gate strength or ANSI Z359.12

All components must be compatible and used according to the manufacturer's instructions.

6. Installation & Connection

1. Attach the SRL to a suitable anchorage using the supplied connector.
2. Ensure the SRL is correctly oriented and hanging freely.
3. Connect the lifeline connector to the dorsal D-ring or approved connection point of the full body harness.
4. Ensure all connectors are fully closed and locked.

Do not attach below foot level.

7. Pre-Use Inspection

Before each use:

- Check housing for cracks, deformation, or damage
- Pull the lifeline out and ensure smooth extension and retraction
- Perform a sharp pull test to confirm locking function
- Check connectors for correct operation and deformation
- Ensure labels are present and legible

If any defect is found, remove the SRL from service immediately.

8. During Operation Requirements

- Always maintain tension on the lifeline
- Avoid sudden movements that may cause nuisance locking
- Do not allow the lifeline to pass under arms or between legs
- Do not work above the anchorage

9. Fall Event and Rescue Plan

A rescue plan must be in place before using this equipment. In the event of a fall:

- The SRL will lock and arrest the fall
- Remove the SRL from service immediately after a fall
- Seek medical attention for the user

10. Leading-Edge use (Proton-SRL SS Edge & Titanium-SRL Edge Only)

Leading-edge SRLs are certified for Type A edge use under EN 360:2023.

When using leading-edge SRLs:

- The anchorage must be at or above the edge
- The redirection angle at the edge must be $\geq 90^\circ$
- Observe minimum setback distances and clearance requirements
- Avoid sharp or jagged edges wherever possible

Special rescue planning may be required following a fall over an edge.

11. Fall Clearance and Swing Falls

Adequate clearance below the user must always be available to prevent contact with lower levels.

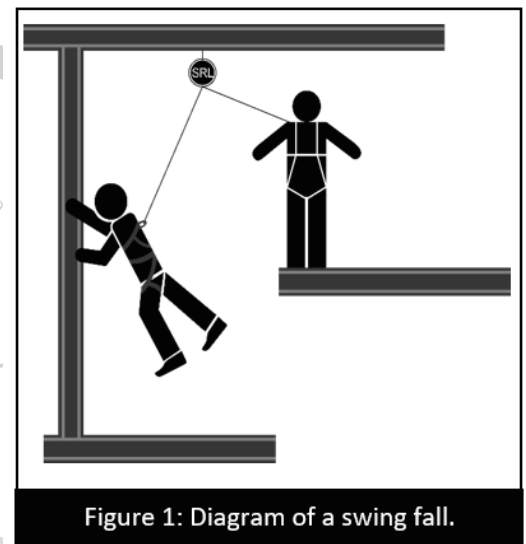
Fall clearance must account for:

- Lifeline extension during arrest
- Deceleration distance
- Harness stretch and body movement
- A suitable safety margin

Swing falls significantly increase fall distance and risk of injury. Lateral movement should be minimised by working as close as possible to the anchorage point.

Refer to the following figures for guidance:

- Figure 1 – Diagram of a swing fall
- Figure 1C – Fall clearance from a standing position with overhead anchorage
- Figure 2C – Fall clearance in swing-fall situations



12. Maintenance, Cleaning & Storage

- Clean exterior housing using mild detergent and water only
- Do not use solvents or lubricants
- Allow lifeline to dry naturally if wet
- Store in a clean, dry environment away from UV and chemicals

Do not disassemble the SRL.

13. Periodic Inspection & Servicing

SRL's must be inspected by the user pre-use & by a competent person at intervals determined by use and environment, and at intervals not exceeding 6 months, or more frequent in harsh environments, in accordance with AS/NZS 1891.4:2025. Table 2 for guidelines

Inspection & Service frequency guidance is provided in Table 1 below. More frequent inspection may be required in harsh or corrosive environments.

Table 1 – Inspection & Service Requirements (AS/NZS 1891.4:2025)

Type of Use	Application Examples	Conditions of Use	Worker Inspection Frequency	Inspection Frequency (Competent Person)	Product Service Frequency (where applicable)
Infrequent to Light	Rescue & confined space, factory maintenance	Good storage conditions, indoor or infrequent outdoor use, room temperature, clean environment	Before each use	6 Monthly	At least every 5 years, but not more than intervals required by the manufacturer
Moderate to Heavy	Transportation, residential construction, utilities, warehouse	Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environment	Before each use	6 Monthly	At least every 2–3 years, but not more than intervals required by the manufacturer and based on periodic inspections
Severe to Continuous	Commercial construction, oil and gas, mining, foundry	Harsh storage conditions, prolonged or continuous outdoor use, all temperatures	Before each use	3 Monthly	At least annually, but not more than intervals required by the manufacturer

Table 2 – Guidelines for Cable SRL Inspection

Inspection	Pass	Fail
The cable lifeline extracts and retracts without faltering and remains taut under tension.		
Extract the lifeline several inches and apply a firm pull to confirm the SRL locks without skidding. Repeat this at additional places along the lifeline length to confirm the SRL is operating correctly.		
Examine the load indicator on the carabiner to be certain that it has not been activated.		
Inspect the entire working length. Examine the lifeline for broken strands, burns, welding slag, bird-caging, discoloration, kinks and bent strands. Also examine for other debris. (examples as per figure 2A)		
If the secondary red indicator is exposed during above inspection, remove the SRL from service immediately.		
Check for any missing or loose screws or nuts and any deformed or damaged components.		
Examine the external housing for signs of damage such as cracks, breaks or warping.		
Check the external Connector Eye and the Anchorage Carabiner for damage and deformation. The Anchorage Carabiner Gate should open, and snap shut easily and smoothly.		
Examine the overall SRL unit for any indications of deterioration or damage.		
All labels must be intact and totally legible		

Any SRL that fails inspection must be removed from service immediately.

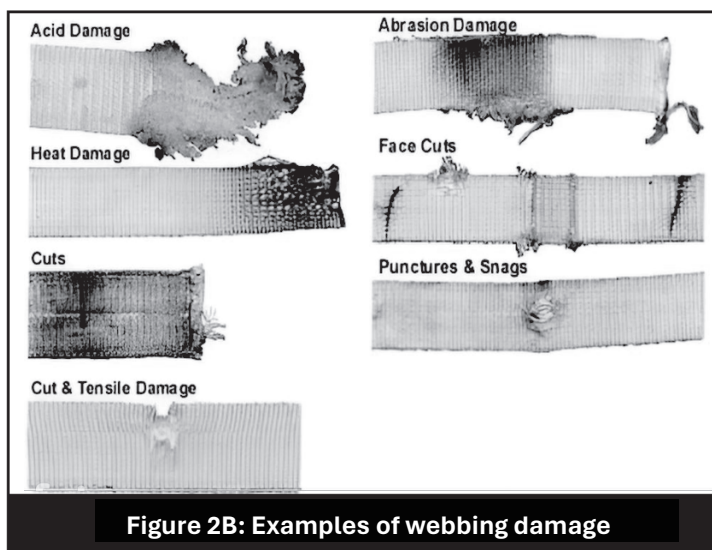
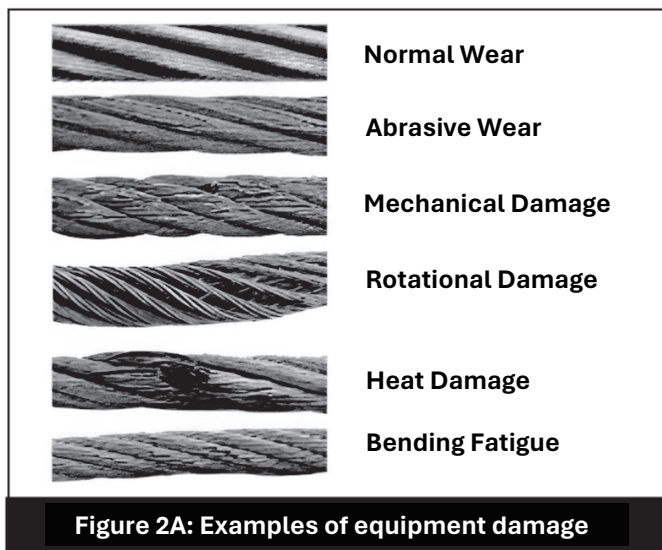


Table 2 – Guidelines for Webbing SRL Inspection		
Inspection	Pass	Fail
The lifeline extracts and retracts without faltering and remains taut under tension.		
Extract the lifeline several inches and apply a firm pull to confirm the SRL locks without skidding. Repeat this at additional places along the lifeline length to confirm the SRL is operating correctly.		
Inspect the entire working length. Examine the lifeline for signs of damage (see Figure 2B). Also examine for other debris.		
If the secondary red indicator is exposed during above inspection, remove the SRL from service immediately.		
Check for any missing or loose screws or nuts and any deformed or damaged components.		
Examine the external housing for signs of damage such as cracks, breaks or warping.		
Check the external Connector Eye and the Anchorage Carabiner for damage and deformation. The Anchorage Carabiner Gate should open and snap shut easily and smoothly.		
Examine the overall SRL unit for any indications of deterioration or damage.		
All labels must be intact and totally legible.		
The lifeline extracts and retracts without faltering and remains taut under tension.		

Any SRL that fails inspection must be removed from service immediately.

14. Lifespan & Retirement

The service life of an SRL depends on use, environment, and inspection results.

Remove from service if:

The SRL has arrested a fall and is non serviceable

Inspection criteria are not met

Dispose of retired SRLs to prevent reuse.

For non-serviceable webbing SRLs the product life span is 10 years from date of manufacture

Appendix A – Models Covered & Unit Specification

- Table 1A – Atomic Safety SRL Models Covered in this manual
- Table 2A – Unit Specifications
- Table 3A – SRL Component Material
- Figure & Table 4A – SRL Key Components

The following Atomic Safety SRL models are covered by this manual:

Table 1A – Atomic Safety SRL Models		
Part Number	Style / Length	Lifeline Material
PFLC02CTCT	Carbon-SRL T/A Carabiner Each End – 2M	UHMWPE Webbing
PFLC02CTSHD	Carbon-SRL T/A Carabiner Top, D/A Scaffold Hook Bottom – 2M	UHMWPE Webbing
PFLC02CTSHT	Carbon-SRL T/A Carabiner Top, T/A Scaffold Hook Bottom – 2M	UHMWPE Webbing
PFLC02CTACTA	Carbon-SRL Aluminium T/A Carabiner Each End – 2M	UHMWPE Webbing
SRDN03CTCSTA	Neutron-SRL T/A Carabiner Each End – 3.3M	UHMWPE Webbing
SRDN06CTCSTA	Neutron-SRL T/A Carabiner Each End – 6M	UHMWPE Webbing
SRDP06CTCST	Proton - SRL T/A Carabiner Each End - 6M	Galvanized steel wire rope
SRDP10CTCST	Proton - SRL T/A Carabiner Each End - 10M	Galvanized steel wire rope
SRDP15CTCST	Proton - SRL T/A Carabiner Each End - 15M	Galvanized steel wire rope
SRDP20CTCST	Proton - SRL T/A Carabiner Each End - 20M	Galvanized steel wire rope
SRDP06CTCST-E	Proton - SRL SS Edge T/A Carabiner Each End - 6M	Stainless steel wire rope
SRDP09CTCST-E	Proton - SRL SS Edge T/A Carabiner Each End - 9.1M	Stainless steel wire rope
SRDP15CTCST-E	Proton - SRL SS Edge T/A Carabiner Each End - 15M	Stainless steel wire rope
SRDP20CTCST-E	Proton - SRL SS Edge T/A Carabiner Each End - 20M	Stainless steel wire rope
SRDT06CTCST-E	Titanium - SRL Edge T/A Carabiner Each End - 6M	Galvanized steel wire rope
SRDT10CTCST-E	Titanium - SRL Edge T/A Carabiner Each End - 10M	Galvanized steel wire rope

Table 2A: Unit Specifications
Refer to Figures 1A and 1B for definitions of A, B, and C

	Working Length	A (mm)	B (mm)	C (mm)	Weight (kg)	Working load Rating (kg)	Max Arrest Distance (m)	Max Arrest Force (kN)	Horizontal Use
PFLC02CTCT	2M	440	75	65	0.9	140	1.4	6	Yes
PFLC02CTSHD	2M	573	75	65	1.0	140	1.4	6	Yes
PFLC02CTSHT	2M	573	75	65	1.2	140	1.4	6	Yes
PFLC02CTACTA	2M	452	75	65	0.9	140	1.4	6	Yes
SRDN03CTCSTA	3.3M	41	116	72	1.5	140	1.4	6	No
SRDN06CTCSTA	6M	480	145	72	2.4	140	1.4	6	No
SRDP06CTCST	6M	610	226	86	3.5	140	1.4	6	No
SRDP10CTCST	10M	610	226	86	4.4	140	1.4	6	No
SRDP15CTCST	15M	671	259	97	6.8	140	1.4	6	No
SRDP20CTCST	20M	701	292	99	9.1	140	1.4	6	No
SRDP06CTCST-E	6M	860	226	86	4	140	1.4	6	Yes
SRDP09CTCST-E	9.1M	860	226	86	4.7	140	1.4	6	Yes
SRDP15CTCST-E	15M	920	259	97	7.1	140	1.4	6	Yes
SRDP20CTCST-E	20M	950	292	99	9.4	140	1.4	6	Yes
SRDT06CTCST-E	6M	710	125	44	4	140	1.4	6	Yes
SRDT10CTCST-E	10M	710	125	44	5	140	1.4	6	Yes
SRDT15CTCST-E	15M	740	270	140	8.1	140	1.4	6	Yes

Table 3A: SRL Component Materials

Component	Material
Housing	Thermoplastic
Drum	Aluminium or Thermoplastic
Fasteners	Zinc plated or stainless steel
Locking Pawls	Brass
Main shaft	Stainless steel
Motor Spring	Carbon steel
Swivel	Zinc plated steel
Cable	3/16" galvanized or Stainless Steel
Webbing	Ultra-High Molecular Weight Polyethylene
Hook	Forged steel or Aluminium

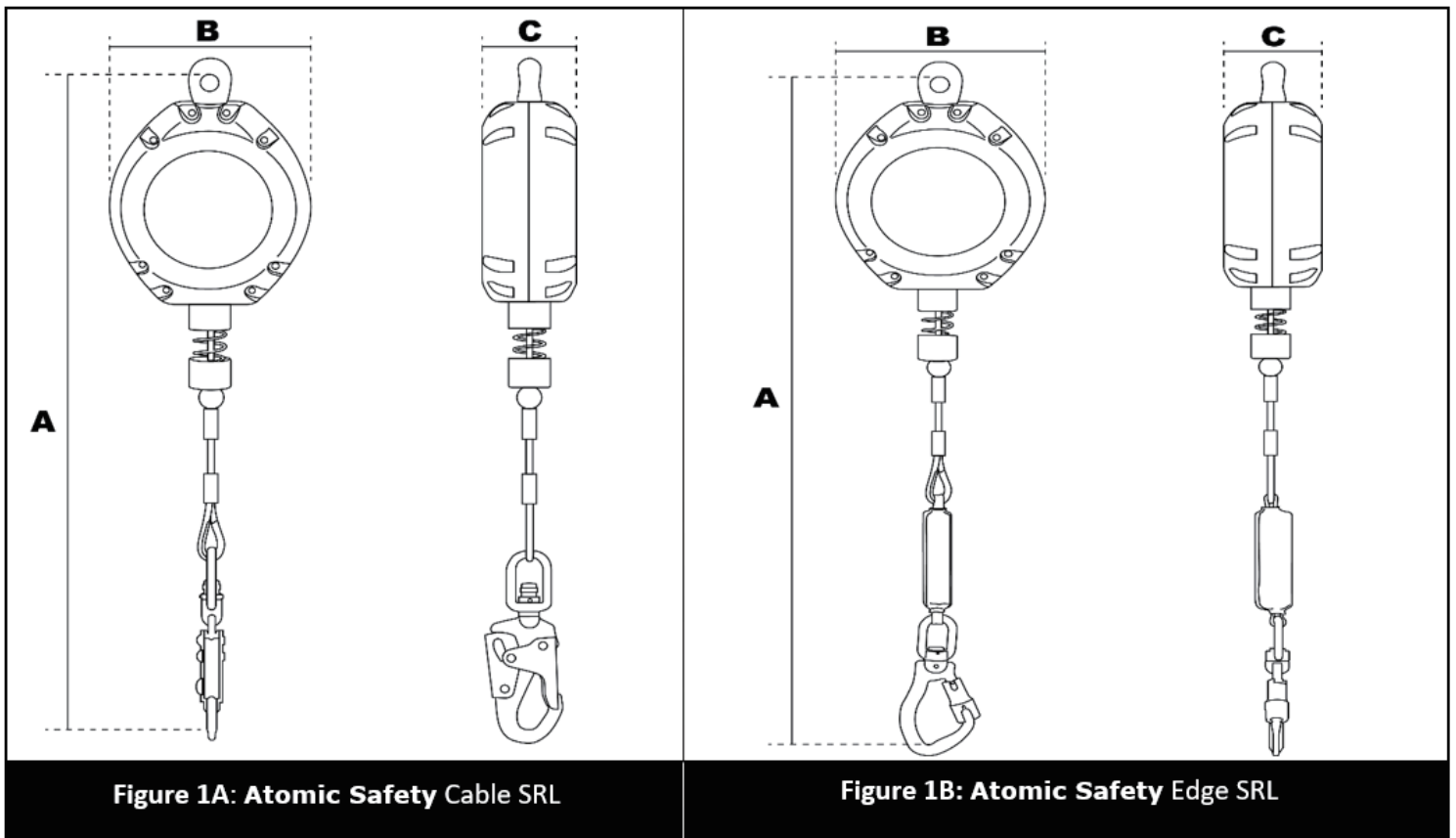


Figure 1A: Atomic Safety Cable SRL

Figure 1B: Atomic Safety Edge SRL

Table 4A SRL Key Components	
	Key Component
A	Webbing or Cable Lifeline
B	Housing
C	Top Connector
D	Swivel Eye
E	Bottom Connector
F	Bumper
G	Integrally attached shock absorber

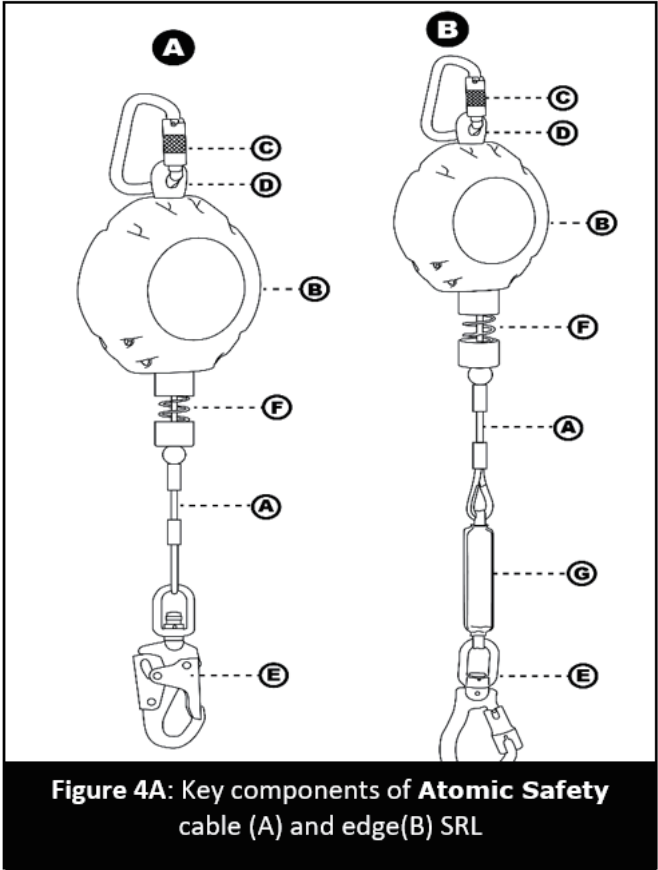


Figure 4A: Key components of Atomic Safety cable (A) and edge(B) SRL

Appendix B – Inspection Record

Record all periodic inspections as required by AS/NZS 1891.4. See below example

Inspection Record					
Model #: _____		Serial #: _____		Date of Manufacture: _____	
INSPECTION DATE	INSPECTOR	COMMENTS	PASS/FAIL	CORRECTIVE ACTION NEEDED	APPROVED BY

Appendix C – Calculating Minimum Required Fall Clearance (Overhead Use)

Refer to figures and calculation table 3C. Figure 1C and 2C illustrate fall clearance – when the SRL is directly overhead (figure 1C) and in swing fall position (figure 2C). Swing fall situations require additional fall clearance since the total vertical fall distance is greater than if the user had fallen directly below the SRL. Figure 3C and Table 3C illustrate minimum required fall clearance for falls from a standing position where the SRL is anchored overhead. Falls from kneeling position require an additional 1m of fall clearance

- Figure 1C – Fall clearance from a standing position where the SRL is anchored overhead
- Figure 2C – Fall clearance in swing-fall situations
- Figure & Table 3C – Minimum required fall clearance for falls from a standing position where the SRL is anchored overhead

Note: Falls from a kneeling or crouching position require additional clearance.

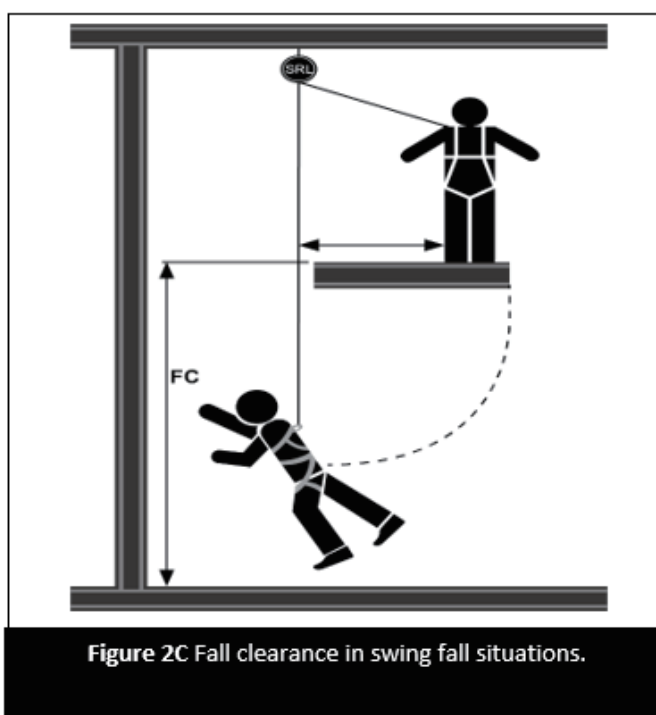
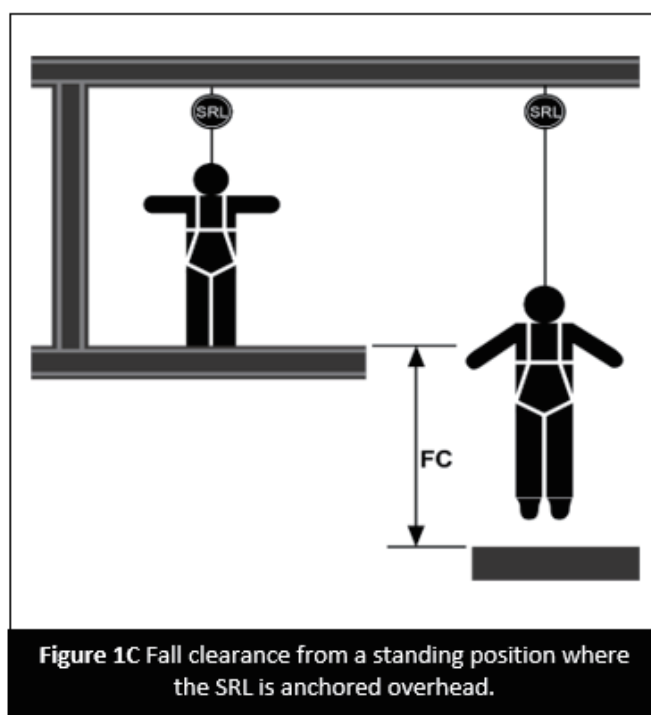




Figure 3C: Minimum required fall clearance for falls from a standing position where the SRL is anchored overhead.

Table 3C: Fall Clearance Chart																		
Fall clearance (m) (C)		Horizontal distance of worker to anchor (m) (B)																
		0.0	0.61	1.2	1.8	2.4	3.0	4.6	6.1	7.6	9.1	10.7	12.2	13.7	15.2	16.8	18.3	19.8
Height of anchor to foot level (m) (A)	2.4	2.1	2.29	2.71	3.23	x	x	x	x	x	x	x	x	x	x	x	x	x
	3.0	2.1	2.23	2.54	2.95	x	x	x	x	x	x	x	x	x	x	x	x	x
	4.6	2.1	2.16	2.35	2.62	2.95	x	x	x	x	x	x	x	x	x	x	x	x
	6.1	2.1	2.16	2.29	2.47	2.71	3.05	x	x	x	x	x	x	x	x	x	x	x
	7.6	2.1	2.13	2.23	2.38	2.62	2.83	x	x	x	x	x	x	x	x	x	x	x
	9.1	2.1	2.13	2.23	2.35	2.56	2.71	x	x	x	x	x	x	x	x	x	x	x
	10.7	2.1	2.13	2.19	2.29	2.44	2.62	3.2	x	x	x	x	x	x	x	x	x	x
	12.2	2.1	2.13	2.19	2.26	2.38	2.56	3.05	x	x	x	x	x	x	x	x	x	x
	13.7	2.1	2.13	2.16	2.26	2.35	2.44	2.96	x	x	x	x	x	x	x	x	x	x
	15.2	2.1	2.13	2.16	2.23	2.32	2.44	2.87	x	x	x	x	x	x	x	x	x	x
	16.8	2.1	2.13	2.16	2.23	2.29	2.41	2.71	3.29	x	x	x	x	x	x	x	x	x
	18.3	2.1	2.13	2.16	2.23	2.29	2.38	2.71	3.2	x	x	x	x	x	x	x	x	x
	19.8	2.1	2.13	2.16	2.19	2.29	2.38	2.68	3.11	x	x	x	x	x	x	x	x	x

Appendix D – Calculating Minimum Required Fall Clearance (Leading Edge)

This appendix applies only to Proton SS Edge and Titanium Edge models certified for Type A edge use.

The minimum fall clearance required when falling over an edge can be calculated based on setback distance and distance along the edge of your leading-edge application (refer to Figure 2D and table 2D):

1. Select the value closest to your setback distance (A) in the left-side row headings.
2. Select the value closest to your working distance along the edge (B) from the top column headings. “X” indicates the distance along the edge is outside the safe work radius for your selected setback distance
3. The clearance required when falling over the edge (C) will be the value listed at the intersection of the row selected in Step 1 and the column in Step 2
4. Repeat the previous steps for every edge over which the worker could potentially fall to determine safe placement of the anchorage and allowable work radius

- Figure 1D – Allowable angles of redirection for leading-edge use
- Figure & Table 2D – Minimum required fall clearance for falls from a standing position in leading-edge applications

Plan the job so the anchorage is at or above the edge and the redirection angle at the edge is at least 90°.

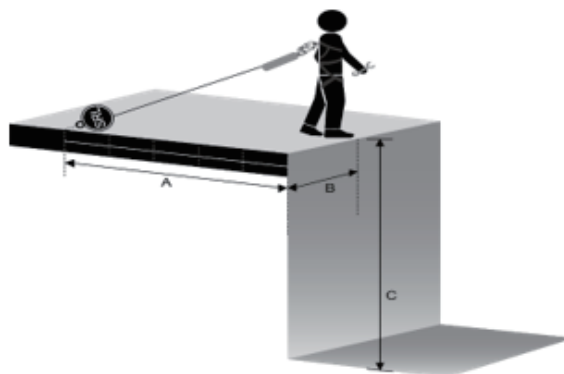
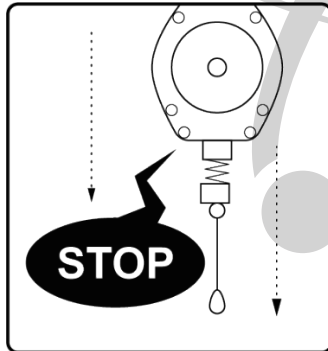


Figure 1D: Minimum required fall clearance for falls from a standing position in leading edge applications.

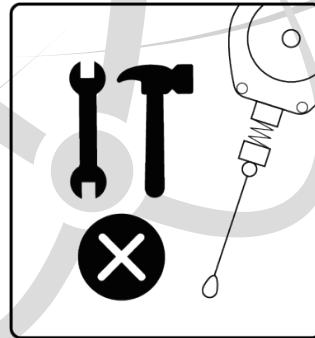
Table 1D: Fall Clearance Chart for Leading Edge Use

Fall Clearance (m) (C)		Lateral off set distance (m) (B)												
		0	2	4	6	8	10	12	14	16	18	20	50	55
Set back distance(m) (A)	0	5.21	5.46	x	x	x	x	x	x	x	x	x	x	x
	0.6	5.21	5.49	5.97	x	x	x	x	x	x	x	x	x	x
	1.2	5.21	5.36	5.73	6.19	x	x	x	x	x	x	x	x	x
	1.8	5.21	5.3	5.58	5.97	x	x	x	x	x	x	x	x	x
	2.4	5.21	5.3	5.52	5.82	6.22	x	x	x	x	x	x	x	x
	3	5.21	5.27	5.46	5.75	6.06	x	x	x	x	x	x	x	x
	4.6	5.21	5.27	5.36	5.58	5.82	6.16	x	x	x	x	x	x	x
	6.1	5.21	5.24	5.33	5.49	5.70	5.94	6.22	x	x	x	x	x	x
	7.6	5.21	5.24	5.30	5.43	5.61	5.82	6.07	x	x	x	x	x	x
	9.1	5.21	5.24	5.30	5.36	5.52	5.70	6.01	6.16	x	x	x	x	x
	10.7	5.21	5.24	5.30	5.36	5.49	5.64	5.88	6.03	x	x	x	x	x
	12.2	5.21	5.24	5.27	5.36	5.43	5.61	5.76	5.94	6.16	x	x	x	x
	13.7	5.21	5.24	5.27	5.33	5.43	5.55	5.69	5.88	6.06	x	x	x	x
	15.2	5.21	5.24	5.27	5.33	5.43	5.52	5.63	5.79	5.97	6.18	x	x	x
	16.8	5.21	5.24	5.27	5.33	5.40	5.49	5.60	5.76	5.91	6.09	x	x	x
	18.3	5.21	5.24	5.27	5.30	5.40	5.49	5.57	5.69	5.85	6.03	6.21	x	x
	19.8	5.21	5.24	5.27	5.30	5.36	5.46	5.54	5.66	5.82	5.97	6.12	x	x

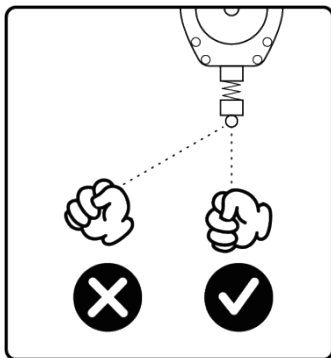
Appendix E – Label Marking & Pictogram Explanation



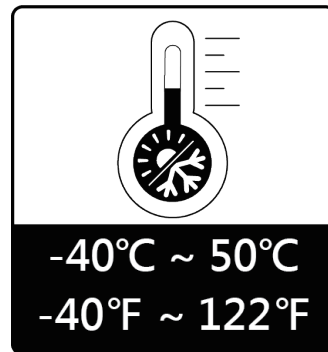
Pull line sharply to engage brakes and ensure device locks before each and every use



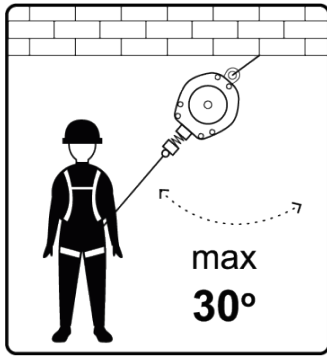
Never attempt to service this unit or tamper with its function in any way.



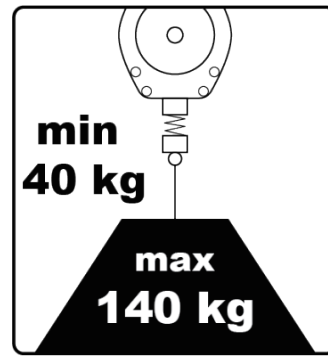
The device should be fitted above the user.



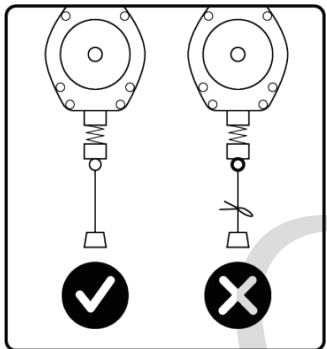
Use the device at temperature from -40 to 50 Celsius degree or -40 to 122 Fahrenheit degree.



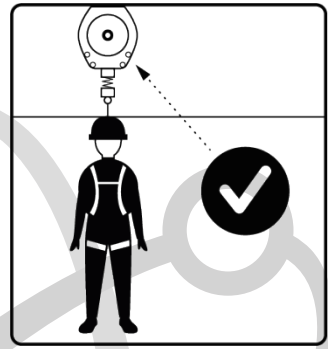
Never work outside of a 30 degree cone created from the device through vertical



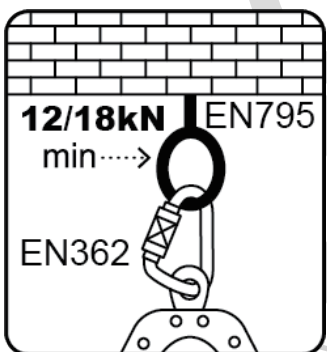
Maximum capacity 140kg including user, tools and equipment.



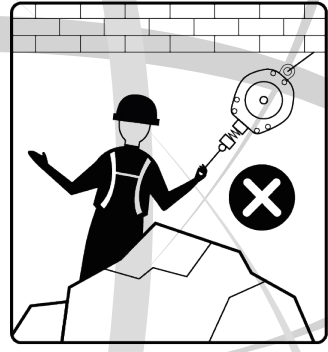
Do not hang or clip anything onto the cable area.



The device can be used above the user



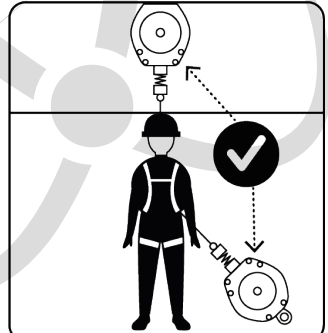
The minimum required strength of the anchor device is 12 kN and has to comply with EN795.



Ensure the working area is free from hazards and obstructions that could interfere with the working of the device or cause harm to the user



This device can be used in 360°



The device can be used above or below the user



Acceptable sharp edge radius for this device