



SUPER ANCHOR SAFETY®

SideWinder® Self Retracting Lifeline (SRL) Instruction/Specification Manual 2023

ENGLISH
VERSION

!WARNING TO USER!
You are required to read and use the Instruction/ Specification manual supplied at the time this device was shipped. Improper use and installation can result in serious injury or death. Follow inspection requirements before each use.

User Specifications

Max. User wt.: 310-310lb(59-140kg)

Max. Free Fall: 24”(610mm)

Performance Specifications

Max. Arrest Distance: 54”(1.37m)

Avg. Arrest force: 900lb(4kN)

Max. Arrest force: 1,800lb(8kN)

Lifeline Cable: 3/16”(4.8mm)

min. tensile strength 3,400lb(1.5kN)

Compliance

ANSI Z359.14-2014 Class B
OSHA 1926.502

Part No. Length Wt.

2901k 50ft 18lb

2903k 30ft 16lb

2904k 20ft 14lb

2906k 10ft 12lb

⊗ Inspection Points pg. 2

*Qualified or Competent Person

See OSHA definition

Specified Use

- Max. 24” free fall over wood edges.
- Fall restraint
- Horizontal lifelines

Non-Specified Use

- Leading Edge
- Free falls over metal or concrete edges.

PPE Connection/Requirement

All PPE must comply with current ANSI, CSA or OSHA fall protection standards.

Fall Restraint: Connect SRL cable “B” end to the dorsal D-ring or side D-ring of a full body harness. See Fig.11b.

SRL Anchorage Point

Anchorage points including the framing or structure to which the SRL is attached must be capable of supporting 2x the intended fall protection load or the non-engineered anchorages specified below:

Fall Arrest: 5,000lb(22.5kN). **Fall Restraint:** 3,000lb(13.6kN).

Leading Edge Fall Hazards

SideWinder’s are not approved for leading edge (LE) fall hazards. LE series SRL’s are fitted with a larger diameter lifeline cable and external energy absorber. For informational purposes an LE example is shown at Fig.11a. When a leading edge fall hazard is present, an SRL-LE model may be mounted at any level above the workers feet including overhead. LE models are designed to withstand free falls over wood, concrete or metal edges and must comply with ANSI Z359.14

Factory Service: SRLs subjected to a free fall, that do not pass function tests or inspections, are required to be returned to SAS factory for service or repair.

WARNING! DO NOT attempt to open the casing or make repairs. SRLs have an interior recoil spring that is capable of causing serious injury.

Service Life

The service life depends on the frequency of use, exposure to salt air and moisture, and if the unit is used indoors or outdoors. In extreme cases of contamination exposure, the SRL may require factory service during the first year of use. See Table 1.0.

Table 1.0 Service Life and Inspections

Inspections must be performed by a qualified or competent person* before being returned to service.

Type of Use	Approx. Service Life	Inspection Requirements
Indoor/Light	3-5 years	Before each use.
Indoor/Heavy	2 years +	Min. 6 months by a competent person*
Outdoor/Heavy	1-2 years	
Salt Air	1 year	

Note: Exposure to salt air, water saturation, gypsum and dust will reduce the service life.

Storage

Store indoors in a dry area and hang from the “A” end to allow moisture to drain. Do not place any objects on top of the casing to prevent casing damage.



Fig.1



Fig.2

SideWinder®

!HAZARD WARNINGS!

- Cable must not come in contact with sharp or abrasive surfaces, chemicals or acids.
- DO NOT wrap the cable around any object.
- DO NOT expose to high heat, open flame, cutting or grinding tools, or electrical sources.



Steel Edge cable severing hazard.

Disposal of SRL/Hazard Warning

Units removed from service must be disposed of in a way that prevents further use and prevents the possibility of someone dismantling the SRL. Due to the acute danger posed by the recoil spring, it is recommended to return non-serviceable units to the SAS factory for safe disposal.

Daily and Semi-Annual Inspections

Perform inspection/function tests for SRLs and connectors prior to each use. SRLs should be inspected by a qualified or “competent” person every 6 months and recorded on the SRL inspection label. A record of inspections, repair and removal of equipment from service should be maintained for each SRL. The following inspection points are a guideline of common conditions that occur as a result of abuse, poor maintenance or long service life. Safety personnel are responsible for drafting their own fall protection equipment inspection and maintenance program which may include the information contained in this manual.

Remove equipment from service if any of the following conditions are present:

Primary Inspection Points

- 1 Subjected to a free fall or other force.
- 2 Obvious damage to any component.
- 3 Has not been inspected annually.
- 4 Fails to pass inspection/function tests.
- 5 PID labels unreadable or missing.
- 6 Service life is more than 5 years.

☒=Remove From Service

- 7 Lifeline Cable is cut, abraded or knotted. Swage or swage thimble is damaged or missing. ☒ Fig.5, 7
- 8 Snaphook fall indicator is visible. ☒ Fig.8b
- 9 Casing is cracked, broken or seams are separated. ☒ Fig.6
- 10 Casing handle is broken or bent. ☒ Fig.1
- 11 Casing Screws are missing. ☒ Fig.6
- 12 Cable Grip is missing. ☒ Fig.5
- 13 Snaphook and/or Carabiner ☒ won't pass inspection or function tests.
- 14 Obvious damaged/missing rivets. ☒
- 15 Gate is bent or won't close. ☒
- 16 Gate locking device is damaged. ☒
- 17 Gate in closed position, does not lock. ☒

Connectors:

Fig.4
Cable Deployment
Brake Lock Test



Lock Test
Pull quickly away from casing.

Fig.5
Cable/Swage Inspection
Clamp or anchor the casing and cable ends to prevent recoil during inspection.

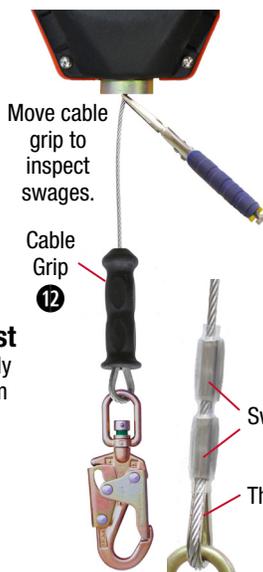


Fig.6
Casing Inspection
Examine all casing seams for defects.



Fig.7
Cable Damage



Table 2.1 SRL Inspection/Lock Function Tests

Failure to pass any of these tests require the unit to be removed from service.

Test Type	Test Specification	Pass	Fail
Deployment	Pull out a few feet of cable slowly and then retract slowly.	Smooth function, no jerks or stops.	Cable won't deploy. Cable won't retract.
Brake See Fig.4	Secure “A” end from movement. Pull quickly on “B” end. Perform this test 3 times.	Cable locks up and holds position.	Cable does not lock up.
Cable	Pull out entire length of cable. Hold in place with light pressure vice grip as shown at Fig.5.	No evidence of cuts, abrasions kinks or knots.	Cable damage present.

Table 2.0 Remove from service if any test fails.

Fig.	Test Type	Function	Pass ☑	Fail ☒
2a-3a	Gate-lock	Push against gate only	Won't open	Opens.
2b	Gate-open	Push gate-lock and gate	Opens	Won't open.
2c	Gate-close	Release gate and gate Lock at same time	Snaps shut	Won't close and lock.
3b-3c	Unlock gate	Rotate barrel lock	Gate opens	Won't open.
3a	Gate closes	Release gate/barrel	Snaps shut	Won't close.

Fig.2a Snaphook



Gate Locked

Fig.2b



Unlock gate

Fig.2c



Fig.3a



Fig.3b
Twist-Lock Carabiner

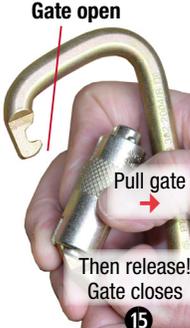


Fig.3c

Extend the SRL Service Life

- **DO NOT allow the cable to retract freely.** Uncontrolled cable recoil can damage the braking system and recoil spring, causing irreparable damage.
- **Salt Air or Chemical Exposure** Chemicals, salt air, gypsum, asphalt and earth dust produce oxidation and can cause interior contamination of the braking system.
- **Moisture Exposure** SRL casings are not air or water-tight. Units exposed to moisture or water saturation should be stored in a vertical position in a dry area. **DO NOT store outside where salt air or moisture are present.**

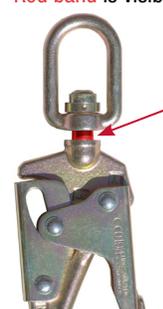
Fall Indicator Inspection

Fall indicators located below the Snaphook swivel will show a **RED** color when subjected to a force of approx. 400lb. Remove SRL immediately from service.

Fig.8a
Fall indicator not visible.



Fig.8b
Fall indicator deployed. Red band is visible.



Remove From Service!

Anchorage Point

SRLs are designed for use where the tie-off point is located overhead for fall arrest, but may be used for fall restraint as shown on page 4. Swing-falls present the greatest hazard and will increase in severity as a worker travels away from the tie-off point as shown at Fig.10a. A fall protection plan that is specific to each job site should be provided by a competent or qualified person*. The sample plans shown here are for reference only.

Calculating the Length of Fall (LOF)

The LOF is a factor used to determine the ground clearance (GC) between the work surface and the nearest lower level or an obstacle in the path of the swing-fall as shown at Fig.10a.

Sample Plan "A" LOF Standard Anchorage Attachment

Fig.9a is an example of an overhead SRL attachment. If the worker steps over the leading edge, approx. 12"-24" of cable will deploy before the SRL internal energy absorber locks up and begins to arrest the fall. See SRB factor in length of fall sample plan. It is recommended to allow a min. of 24" or more for ground clearance** and is required to be specified by a competent or qualified person*.

Note: Length of Fall (LOF) is a formula based on the maximum deployment lengths of the PPE components and other factors and is used to estimate the ground clearance (GC). Length of falls may be greater or lesser due to unforeseen variables in the factors.

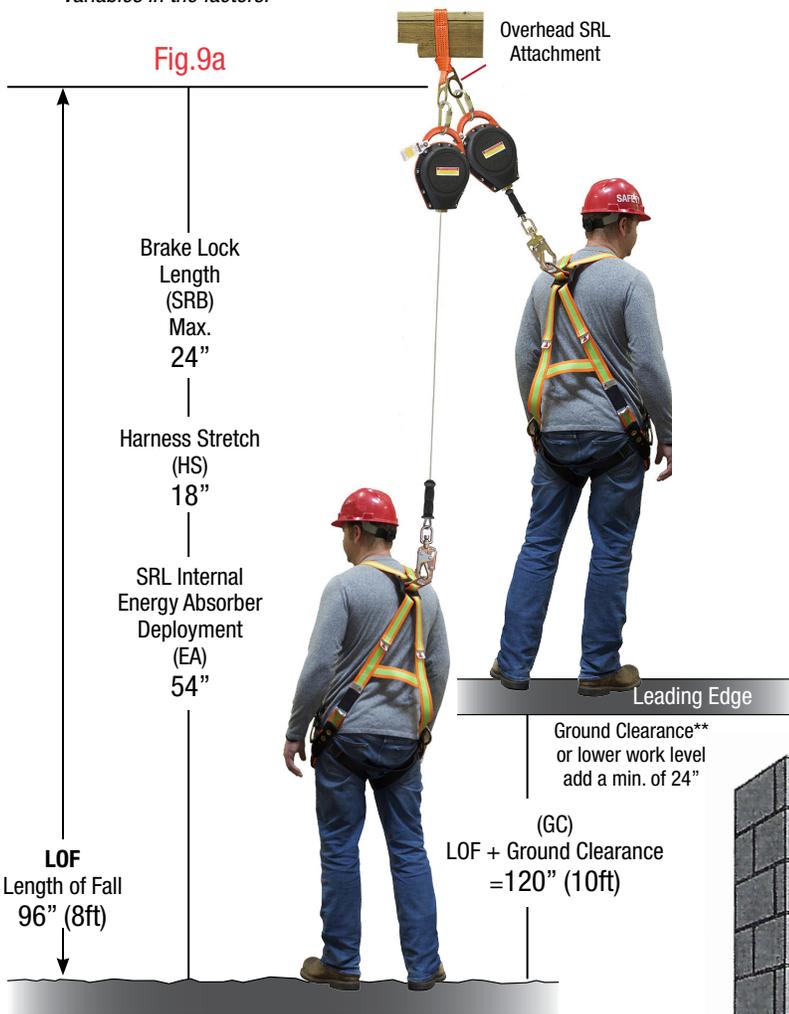


Table 3.0 Plan "A" LOF Calculation

• SRB=24"	SRB is the amount of cable that is deployed before the SRL brake lock engages.
• HS=18"	Full Body Harness stretch.
• EA=54"	Energy Absorber deployment length. Max. user wt. 310lb/Max. Free Fall 2ft.
Total LOF=96"	Length from Tie-Off point to the next lowest level below the work surface.
GC	Add a min. of 24" to the LOF
Total=120"	Min. Ground Clearance(GC) required.

WARNING: PROMPT RESCUE!
 A plan for immediate rescue is necessary to avoid serious injury, excruciating pain or death resulting from suspension trauma.
 Use SAS S.T.E.P. 6060 suspension ladder and provide user training in its use for each worker.

SRL Internal Energy Absorber (EA)

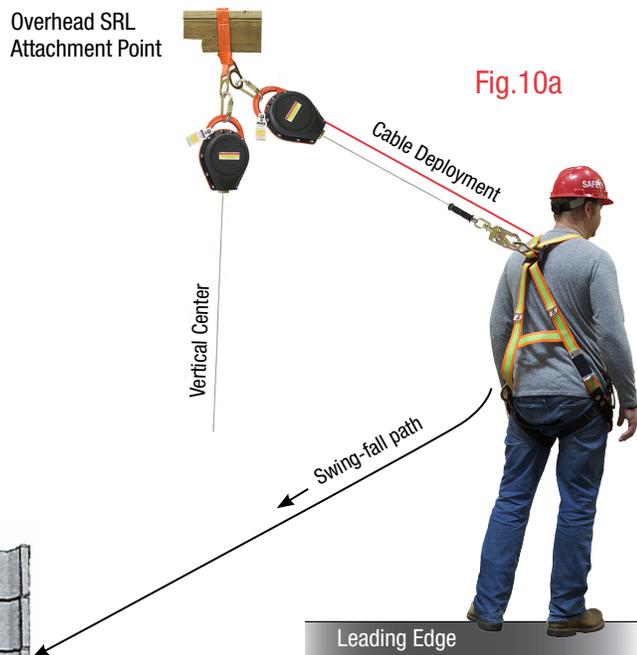
The SRL's cable brake lock system has an internal energy absorbing design that limits the maximum arrest force to 1,800lb or less when subjected to a free fall of no more than 24" with a max. user wt. of 310lb.

Sample Plan "B" Swing Fall Hazard Warning!

Fig.10a is an example of a swing fall hazard that results from moving to the left or right of the overhead vertical center. Swing falls must be avoided to prevent serious injury.

Swing Fall Example

The worker is positioned on the work surface a few feet from the SRL overhead vertical center. The deployed cable length creates a swing fall in the event the worker steps or falls over the leading edge or work surface. This can result in striking an obstacle in the swing fall path or lower level.



WARNING!
 Swing-falls will increase the LOF based on the SRL cable deployment length and should be calculated in the Job Specific Plan.

WARNING! Insufficient Ground Clearance!
 A failure to calculate the LOF and connect PPE correctly, can result in striking the ground or a lower level in the event of a fall and may cause serious injury or death.

Free Fall Hazard Warning

Non-leading edge SRL's have a max. free fall length of 24" when work is performed on structures with wood leading edges. Shown at Fig.11b, the distance between the dorsal D-ring connection to the SRL and the work surface should not exceed 24" in the event of a free fall over the leading edge.

Leading Edge (LE) Models Length of Fall Example

The LE free fall example shown at Fig.11a is for informational purposes only and does not apply to non-LE model SRL's. The maximum free fall distance allowed for an LE model is 6ft. The SRL tie-off position can be anywhere between overhead and foot level.

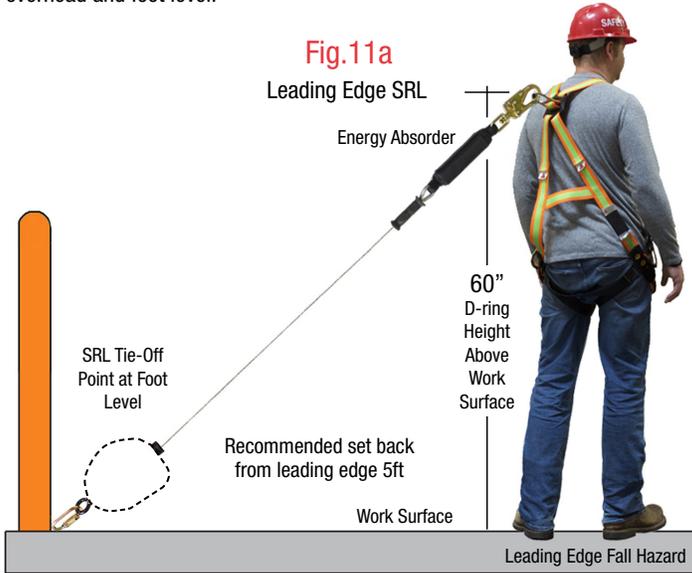


Fig.11a

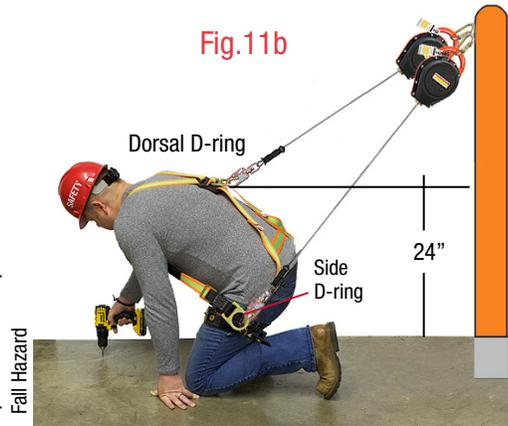
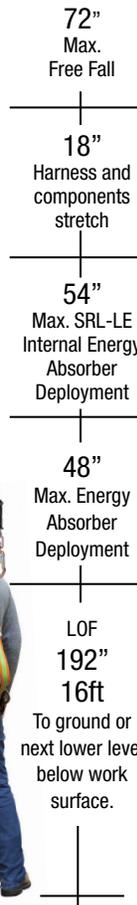


Fig.11b

Leading Edge Length of Fall Sample Plan (LOF)



Fall Restraint Use

Fall restraint use shown at Fig.11b, requires guarding against falling over the leading edge. Use a warning line or other guarding method. The SRL connector "B" end may be attached to the dorsal D-ring or side D-ring of a full body harness.

Fall Restraint Definition OSHA 1926.751

"A means of fall protection that prevents the user from falling any distance."

WARNING! Free falls over a steel or concrete leading edge can result in severing of the SRL cable. The use of a Leading Edge (LE) model is required.

Casing Marks

SRL model, cable length, serial no. and DOM (date of mfg.) are engraved at the time of shipping from SAS factory.

SAS Factory Service

SRLs requiring warranty or service work must be returned to: Super Anchor Safety 17731-147th St SE, Monroe, WA 98272

Casing Warning Label

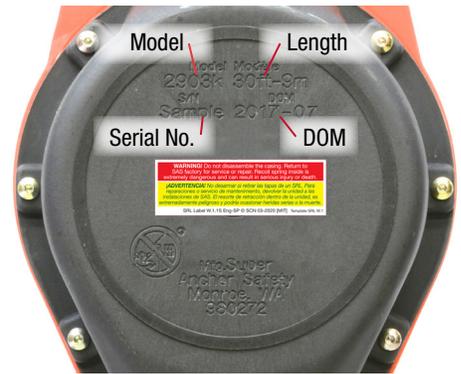
Do not attempt to repair an SRL. There is an interior recoil spring that poses a serious safety hazard.

WARNING! Do not disassemble the casing. Return to SAS factory for service or repair. Recoil spring inside is extremely dangerous and can result in serious injury or death.

¡ADVERTENCIA! No desarmar o retirar las tapas de un SRL. Para reparaciones o servicio de mantenimiento, devolver la unidad a las instalaciones de SAS. El resorte de retracción dentro de la unidad, es extremadamente peligroso y podría ocasionar heridas serias o la muerte.

SRL Label W.1.1S Eng-SP © SCN 03-2020 [MIT] Template SRL W.1

Inspection Record
Record annual and semi-annual inspections and date of first use.



PID Labels

English and Spanish PID labels are attached to the SRL casing as shown at Fig.2.

English Label Pack EE

Spanish Label Pack EE.S