SUPER ANCHOR SAFETY®

SideWinder2™/SideWinder3™ SRL's Instruction/Specification Manual 03-2020

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.: 130-310lb(59-140kg)
Max. Arrest Distance: 24"(610mm)
Max. Free Fall: 24"(610mm)
Performance Specifications
Avg. Arrest force: 1,350lb(6kN)
Max. Arrest force: 1,800lb(8kN)
Brake System: Centrifugal, 100% sst.

Compliance
ANSI Z359.14-2012 Type A
OSHA 1926.502

Part No.	Length	Wt.
2901A	50ft	18lb
2903A	30ft	16lb

Ⓧ Inspection Points pg. 2

SideWinder3 Models
Consult SideWinder3 2020 addendum.

Function
This device has a centrifugal braking system that will lock up when the cable is subjected to a rapid movement. Release tension on the cable to unlock.

PPE Connection/Requirement
All PPE must comply with current ANSI, CSA or OSHA fall protection standards and be inspected annually by a "competent" person.

Fall Arrest: Connect SRL cable "B" end ONLY to the dorsal D-ring of a full body harness (FBH) as shown at Fig. 1.
DO NOT connect to side D-rings.

Fall Restraint: Connect SRL cable "B" end to the FBH dorsal D-ring or side D-rings. See Fig.11b.

SRL Anchorage Point
Anchorage points that are not pre-engineered by SAS must be engineered by a "competent" or qualified person and designed to support the intended fall protection load.

Fall Arrest: Attach the "A" end to an anchorage point capable of supporting 5,000lb(22.5kN) or 2x the engineered fall protection load. See Fig.9a.

Fall Restraint: No free fall hazard exposure. The anchorage point must be capable of supporting 3,000lb(13.6kN) or 2x the engineered fall protection load. See Fig.11b.

Leading Edge/Low Slope Fall Hazards
Horizontal tie-off points as shown at Fig.11a increase the free fall hazard to more than 24" due to the dorsal D-ring height above the work surface. When exposed to a free fall of more than 24", a personal energy absorber is required to guard against severing the wire cable during a fall. ANSI Z359.14-14 requires to use SRL-LE models when the tie-off point is between horizontal and overhead and leading edge fall hazards are present.

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**.

Factory Service: SRLs subjected to a free fall, 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.

Table 1.0 Service Life and Inspections
Note that all annual (12 months) or semi-annual (6 months) inspections must be performed by a "competent" person before being returned to service.

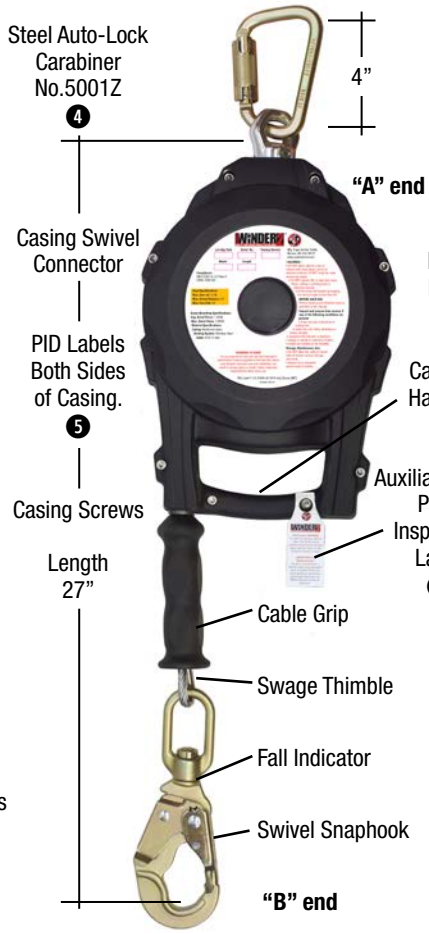
Type of Use	Approx. Service Life	Inspections
Indoor/Light	3-5 years	Before each use and every 12 months
Indoor/Heavy	2 years +	
Outdoor/Heavy	1-2 years	Before each use and every 6 months
Salt Air	1 year	

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
Model 2901A



!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.

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. Wire 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 swivel won't rotate, is damaged or missing. ☒ Fig.1, 8
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.

Connectors:

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. ☒

Fig.4
Cable Deployment Brake Lock Test

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

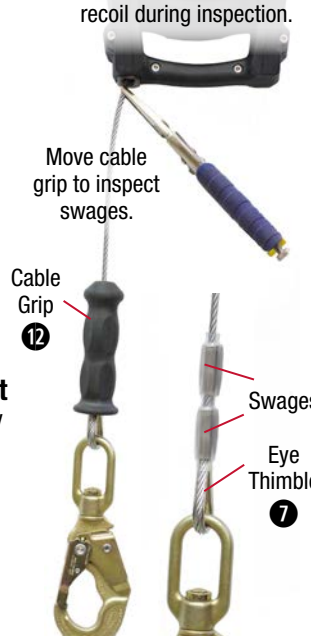


Fig.6
Casing Inspection
Examine all casing seams for defects.

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**

Fig.2b

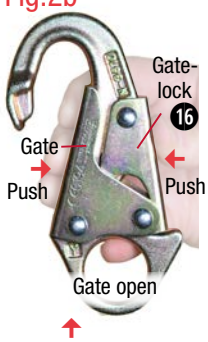


Fig.2c

Gate Locked

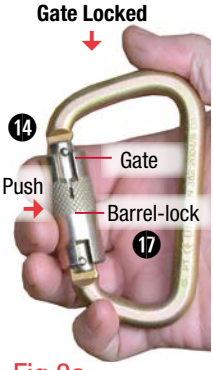


Fig.3a

Un-lock gate

Fig.3b
Auto-Lock Carabiner

Gate open

Fig.3c

Extend the SRL Service Life

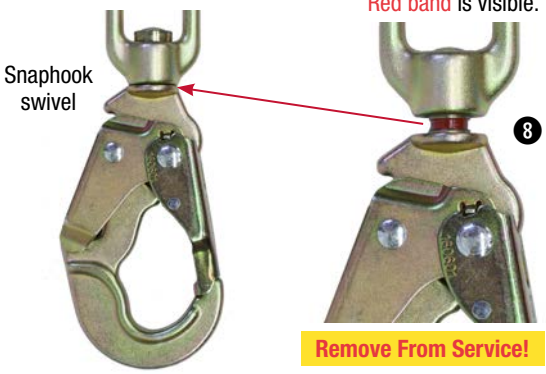
- DO NOT allow the cable to retract freely.
  Uncontrolled cable recoil can damage the braking system and recoil spring, causing irreparable damage.
- Salt Air or Chemical Exposure
  Chemicals, salt air, gypsum, asphalt and earth dust produce oxidation and can cause interior contamination of the braking 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.



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.10b.

Sample Plan "A" LOF Standard Anchorage Attachment
Fig.9a is an example of standard overhead SRL attachment. To avoid swing-falls, travel along the work surface fall hazard as shown here should be no more than a few feet from the anchors vertical center point above. A pre-planned SRL service zone can be used to define the area of protection provided by the tie-off point.
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). Real life free falls may be greater or lesser due to unforeseen variables in the factors.

Fig.9a

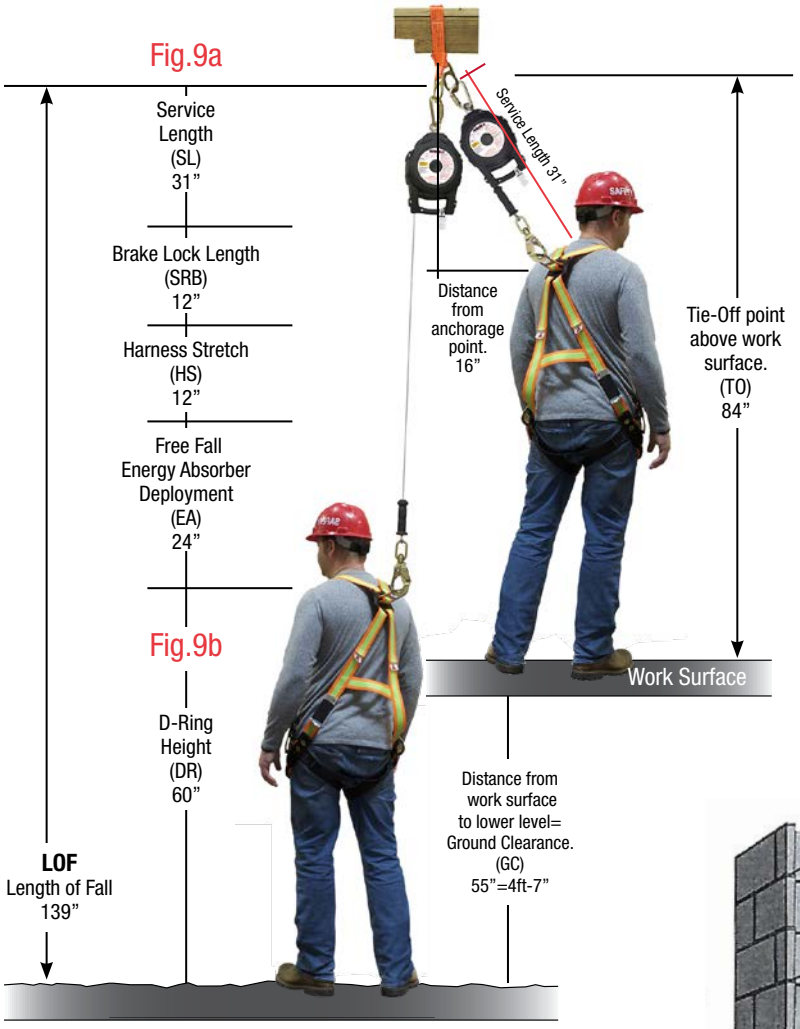


Table 3.0 Plan "A" LOF Calculation

• SL=31"	The Service Length is the SRL component length + the amount of the deployed SRL webbing.
• SRB=12"	SRB is the amount of cable that is deployed before the brake lock engages.
• HS=12"	Full Body Harness stretch.
• EA=24"	Energy Absorber deployment length. Max. user wt. 310lb/Max. Free Fall 2ft.
• DR= 60"	D-ring height above the work surface.
Total LOF=139"	Length from Tie-Off point to the next lowest level below the work surface.
Deduct TO=[84"]	Tie-Off point height above the work surface.
Total=55"	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.

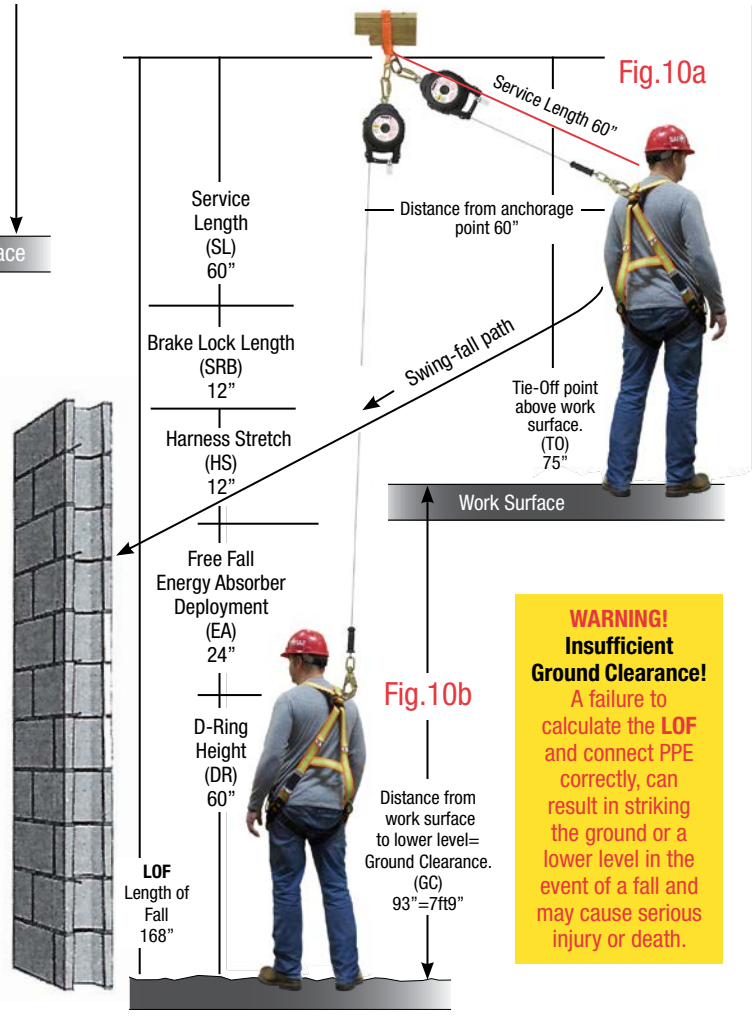
SRL Internal Energy Absorber (EA)
The SRL's cable brake lock system has an internal energy absorbing design that limits the maximum arrest force to 1,800lb or less when subjected to a free fall of no more than 24" with a max. user wt. of 310lb.

Sample Plan "B" Swing Fall Hazard Warning!
Fig.10a is an example of an extreme swing fall hazard that results from moving more than a few feet from the anchorage point above when exposed to a fall hazard at the work surface edge. Swing falls must be avoided to prevent serious injury.

Table 3.1 Plan "B" LOF Calculation

• SL=60"	The Service Length is the SRL component length + the amount of the deployed SRL cable.
• SRB=12"	SRB is the amount of cable that is deployed before the brake lock engages.
• HS= 12"	Full Body Harness stretch.
• EA= 24"	Energy Absorber deployment length. Max. user wt. 310lb/Max. Free Fall 2ft.
• DR= 60"	D-ring height above the work surface.
Total LOF=168"	Length from Tie-Off point to the next lowest level below the work surface.
Deduct TO= [75"]	Tie-Off point height above the work surface.
Total = 93"	Min. Ground Clearance(GC) required.

Fig.10a



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

The following instructions apply only when a worker is exposed to a free fall hazard of more than 2ft.

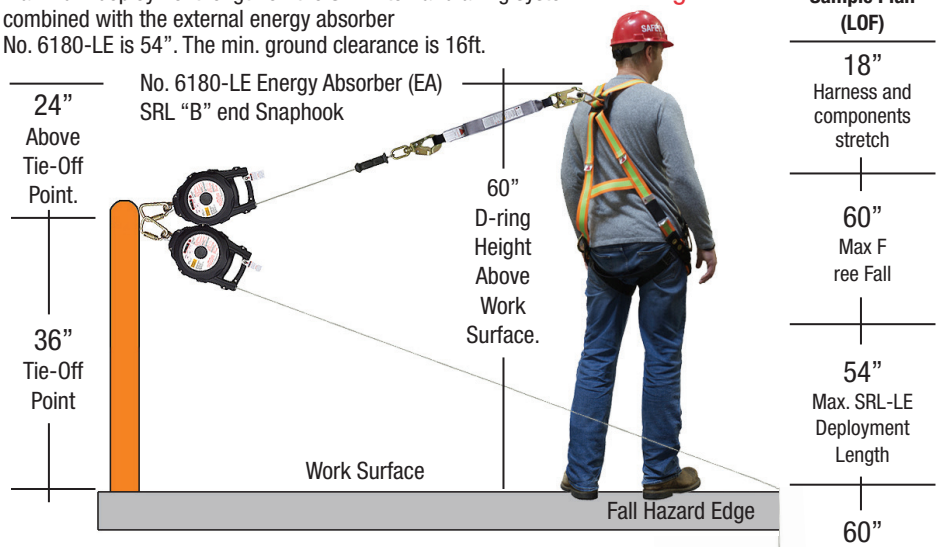
Calculating the Free Fall Length:

The height of an SRL connection to the dorsal D-ring above the work surface determines the free fall length. As shown at Fig.11b, the D-ring height above the work surface is 24", the maximum free fall allowed Class A SRL's.

Leading Edge (LE) Models Length of Fall

Shown at Fig.11a, the worker's D-ring height is 5ft/60"above the work surface the maximum free fall distance allowed for an LE model. The maximum deployment length of the SRL internal braking system combined with the external energy absorber No. 6180-LE is 54". The min. ground clearance is 16ft.

Fig.11a



Leading Edge Length of Fall Sample Plan (LOF)

18"
Harness and components stretch

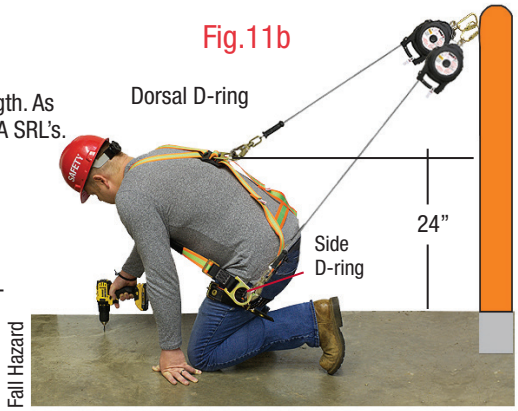
60"
Max F ree Fall

54"
Max. SRL-LE Deployment Length

60"
Foot to D-ring Length

LOF
192"
16ft
To ground or next lower level below work surface.

Fig.11b



Fall Restraint Use

SRLs may be used for fall restraint when there is no exposure to a free fall as shown in Fig. 11b. The worker is prevented from moving close to the fall hazard by a warning line or other guarding system. The SRL connector "B" end may be attached to the dorsal D-ring or side D-ring. Note: SRLs are not rated for "work positioning" because the cable cannot be set to a fixed length.

Fall Restraint Definition OSHA 1926.751

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

WARNING! Free falls over the edge of a fall hazard can result in severing of the SRL cable. Safety standards specify the use of an SRL with an external E/A to prevent cable damage. Most deaths occur from falls less than 8ft from the work surface.

SAS Factory Service

SRLs requiring warranty or service work must be returned to the SAS factory. Contact the sales office to request a Return Authorization Form (RAF). Offsite annual and semi-annual inspections that do not require service or repair may be performed by a "Competent" person using SAS inspection forms. Replacement PID labels will be provided if the original label data is available.

WARNING: DO NOT attempt to repair an SRL.
There is an interior recoil spring
that poses a serious safety hazard.

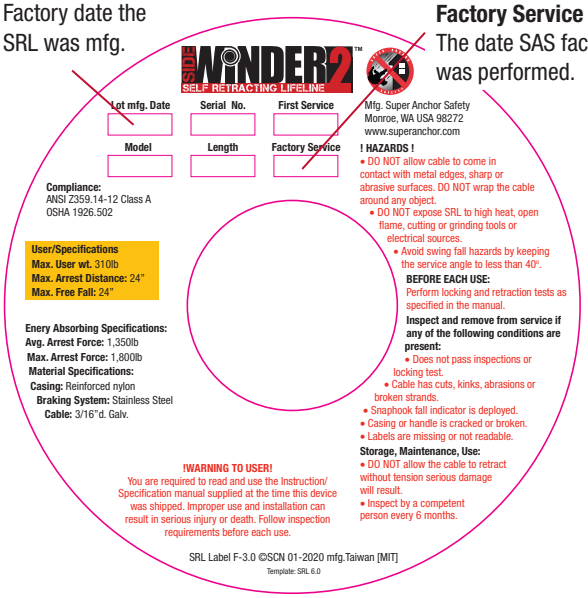
PID (Product I.D. Labels)

PID (product i.d.) labels display critical data, model specifications and the date when an SAS service was performed. Replacement labels will display the original data provided it is available. Safety personnel performing inspections may request replacement PID labels.

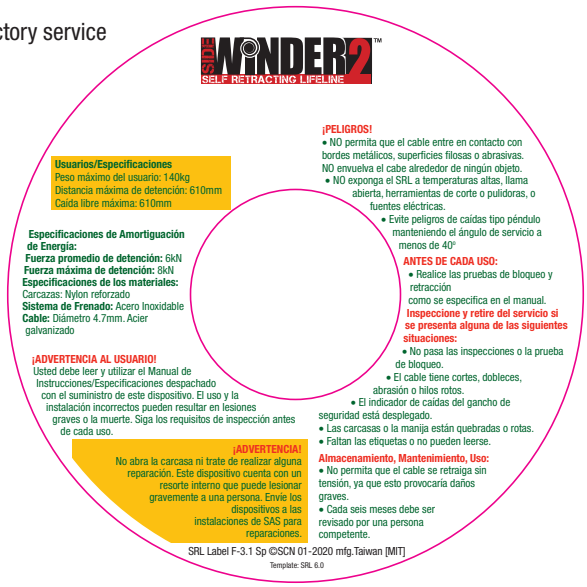
Lot Mfg. Date
Factory date the SRL was mfg.

Primary PID English Label

Factory Service
The date SAS factory service was performed.



Spanish PID Label



Inspection Record

Annual and semi-annual inspections should be recorded on this label.

First Use:

Enter the month (MM) and year (YYYY) the SRL was placed in service.

Template SRL 3.1
SRL Matrix
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Date of First Use: _____

Property of: _____

Inspection Record	Pass					
Year:						
Month:						
By:						