FALL SAFE®

USER INSTRUCTIONS
for
4XXXXXX SERIES SKYLOC II®/ ROTO-LOC™/ENVIRO-SHIELD™ SELF-RETRACTING LIFELINES

Complies with either the current ANSI Z359.14 or applicable OSHA regulations and requirements.



SureWerx®

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User Instructions
Fall Safe Self-Retracting Lifelines

This manual is intended to meet the Manufacturer's Instructions as required by the current ANSI Z359.14, and should used as part of an employee training program as required by OSHA.

WARNING

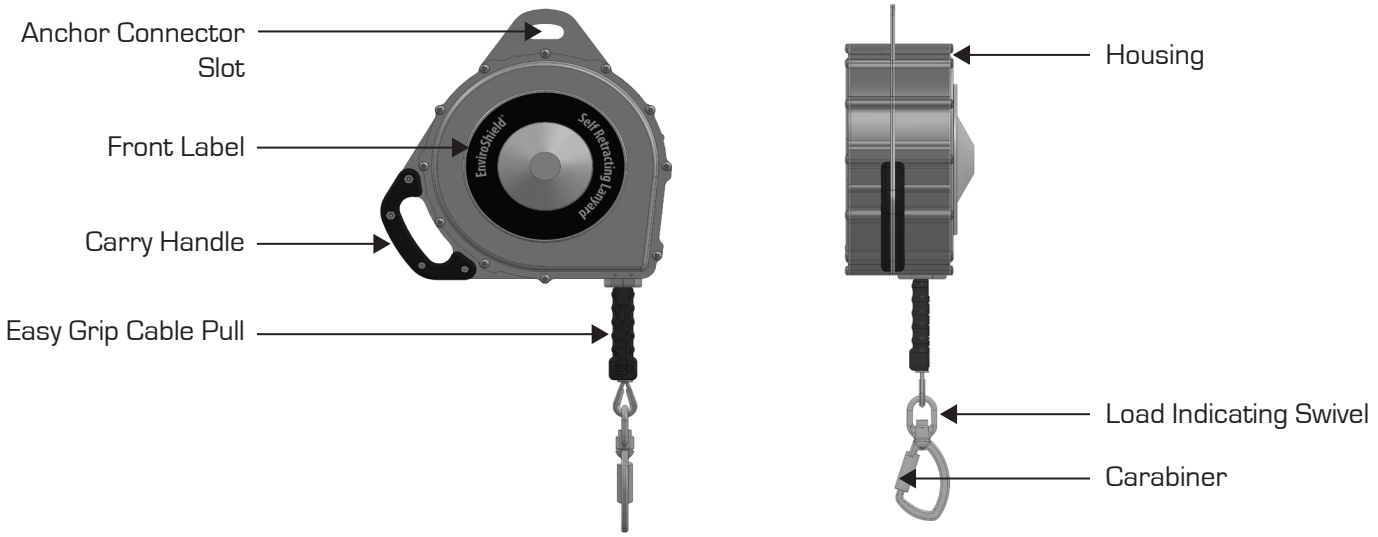
This product is one part of a personal fall arrest, restraint, work positioning, personnel riding, climbing, or rescue system. Without the other necessary components in such sub-systems the self-retracting lifeline itself serves no useful purpose. The user must follow the manufacturer's instructions for each component of the system. These instructions must be provided to the user before using this product and retained for ready reference by the user. The user must read, understand (or have explained), and heed all instructions, labels, markings and warnings supplied with this product and with those products intended for use in association with it before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. National standards and state, provincial and federal laws require the user to be trained before using this product. This manual can be used as part of such a user safety-training program that is appropriate for the user's occupation.

IMPORTANT: Alterations or misuse of this product or failure to follow instructions may result in serious injury or death. If you have questions on the use, care, or suitability of this equipment for your application, contact Fall Safe Fall Protection for information

DESCRIPTION

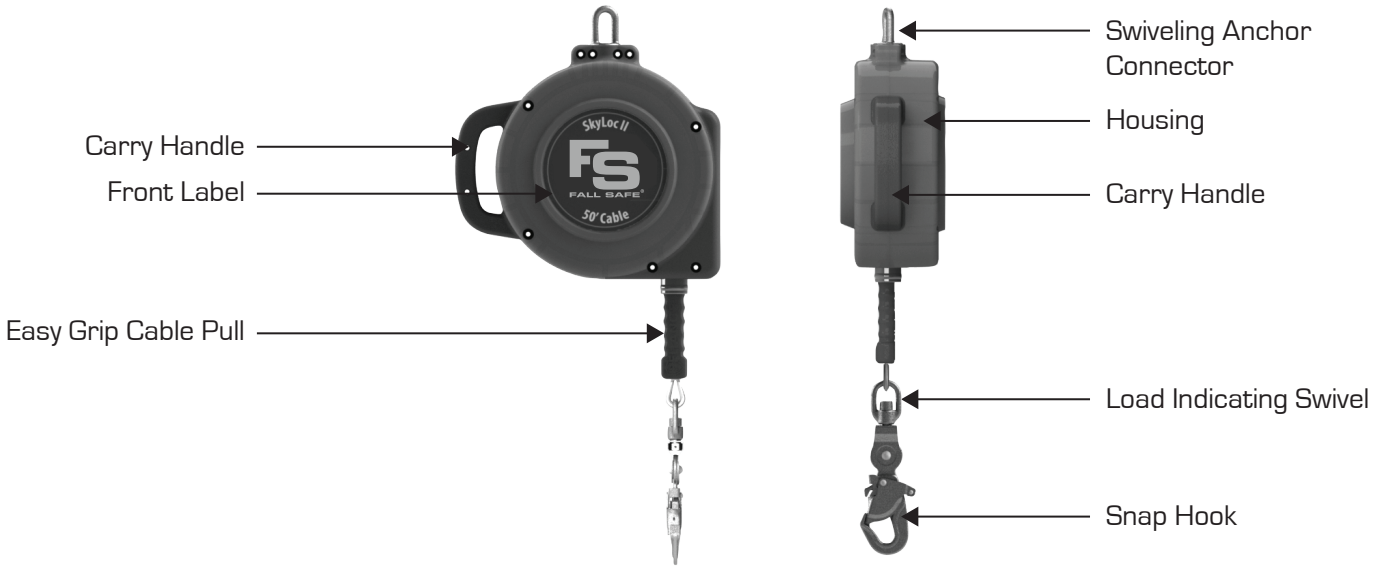
The Skyloc II®/Roto-Loc™/Enviro-Shield™ Self-Retracting Lifeline (SRL) is designed to be a component in a personal fall arrest systems (PFAS). It may be used in most situations where a combination of worker mobility and fall protection is required (i.e. inspection work, general construction, maintenance work, oil production, confined space work, etc.). The Skyloc II®/Roto-Loc™/Enviro- Shield™ SRL is designed for use by a single person weighing up to 400 lbs [181kg] (body weight plus tools) *PLEASE NOTE - capacity is specific to lifeline model. See Page 7 for complete details. Skyloc II®/Roto-Loc™/Enviro-Shield™ Self-Retracting Lifeline features a cam-action pawl system ensuring positive lock-up even in the most demanding environments. Available standard cable / web lengths allow the Skyloc II®/Roto-Loc™/Enviro-Shield™ to be mounted overhead in areas where there are no other convenient anchor points for personal fall arrest means. The Pelican™ snap-hook's unique hook body design prevents the accidental "false engagement" to the harness dorsal D-ring, while the case swivel or anchor connector (depending on model) provides an easy to see load indicator showing whether the Skyloc II®/Roto-Loc™/Enviro-Shield™ has been exposed to a fall arrest load and needs to be serviced.

Identifying Components of Skyloc II®/Roto-Loc™/ EnviroShield™ Self-Retracting Lifelines



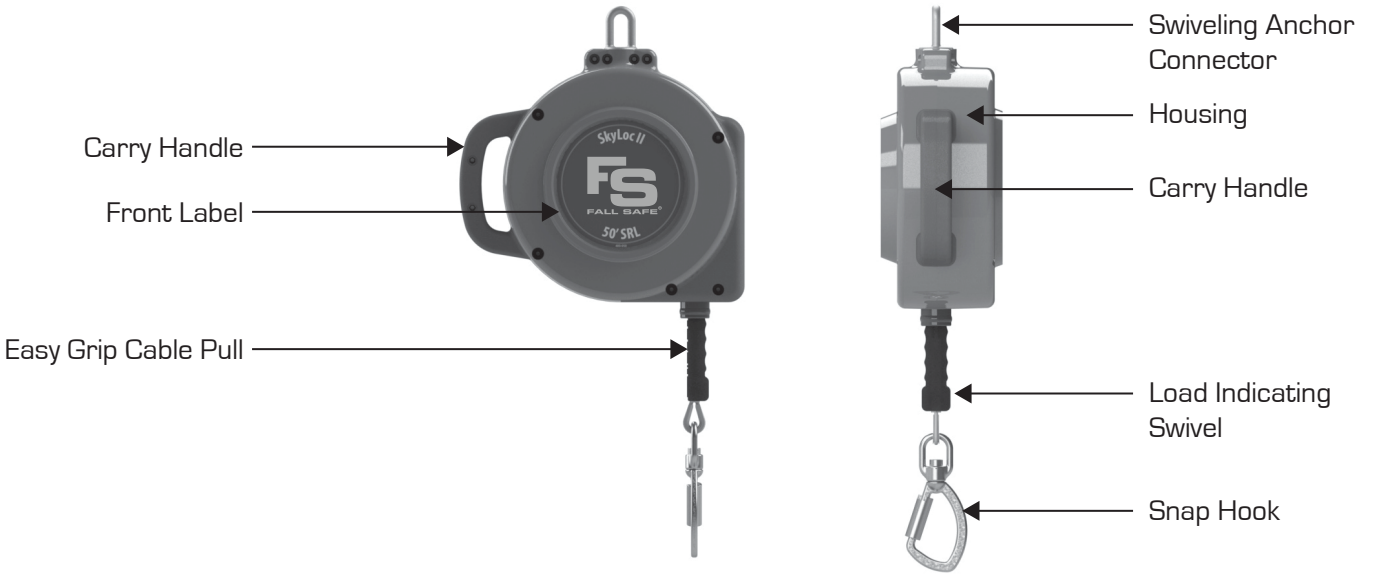
4102050-1, 4102050-4, 4102085-1, 4102085-4, 4102130-1, 4102130-3, 4102130-4, 4102175-1

Figure 1



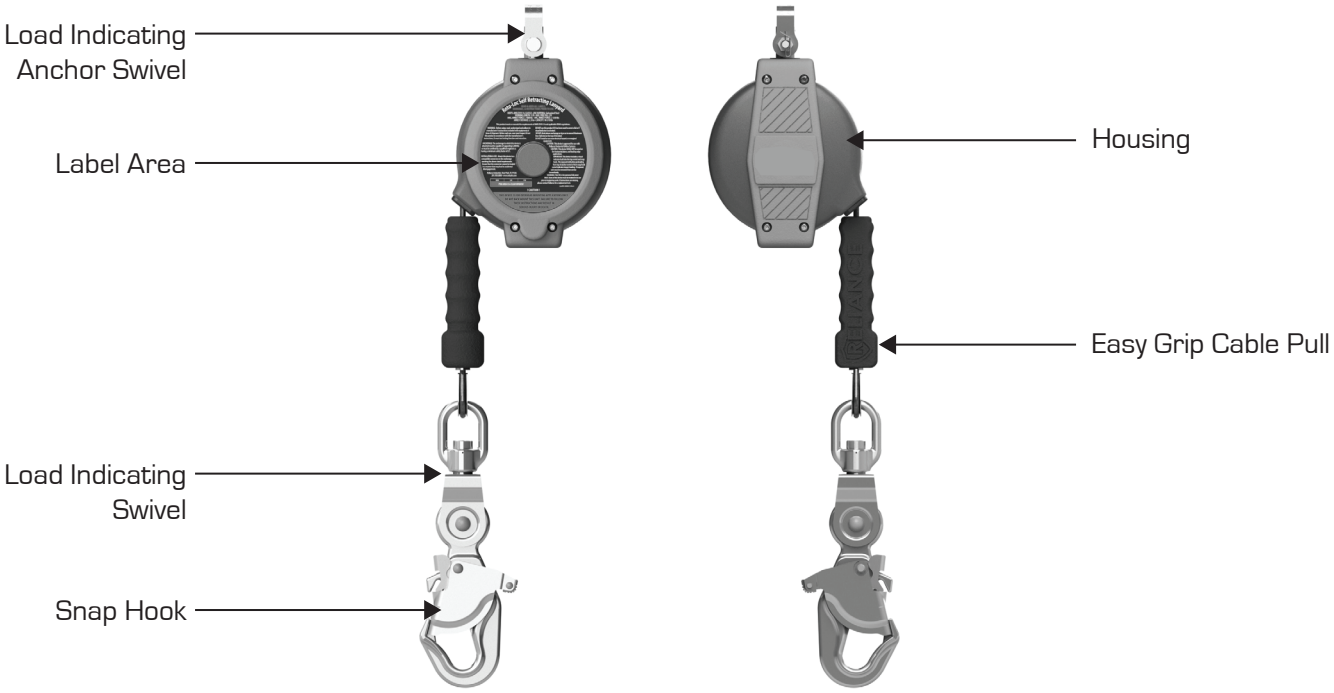
4000020-1, 4000030-1, 4000050-1, 4000080-1, 4000085-1, 4000100-1, 4008025-1, 4008040-1, 4008080-1

Figure 2



4302020-1, 4302030-1, 4302050-1, 4302080-1, 4302100-1

Figure 3



4400012-1

Figure 4

PRODUCT SPECIFICATIONS

Part #	Working Length	Line Type	Weight	Capacity	Hook Type	Housing Type	Housing Dimensions
4000020-1	20' (6m)	3/16" (4.5mm) stainless	15 lbs (6.8kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	11"L X 12"W X 4" H (28cm X 30 cm x 10 cm)
4000030-1	30' (9.1m)	3/16" (4.5mm) galvanized	17 lbs (7.7kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	11"L X 12"W X 4" H (28cm X 30 cm x 10 cm)
4000050-1	50' (15.2m)	3/16" (4.5mm) galvanized	22 lbs (10.0kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	12"L X 13"W X 4" H (30cm X 33 cm X 10 cm)
4000080-1	80' (25.9m)	3/16" (4.5mm) galvanized	34 lbs (15.5kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	14"L X 15"W X 4" H (35 cm X 38 cm X 10 cm)
4000085-1	85' (25.9m)	3/16" (4.5mm) galvanized	35 lbs (15.9kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	14"L X 15"W X 4" H (35 cm X 38 cm X 10 cm)
4000100-1	100' (30.5m)	3/16" (4.5mm) galvanized	37 lbs (16.8kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	14"L X 15"W X 4" H (35 cm X 38 cm X 10 cm)
4008025-1	25' (7.6m)	1/4" (6.4mm) Dyneema Rope	17 lbs (7.7kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	11"L X 12"W X 4" H (28cm X 30 cm x 10 cm)
4008040-1	40' (12.2m)	1/4" (6.4mm) Dyneema Rope	19 lbs (8.6kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	12"L X 13"W X 4" H (30cm X 33 cm X 10 cm)
4008080-1	80' (24.4m)	1/4" (6.4mm) Dyneema Rope	32 lbs (14.5kg)	310 lbs (140kg)	3007 Swivel Zn Plate	Fiberglass-Reinforced Nylon	14"L X 15"W X 4" H (35 cm X 38 cm X 10 cm)
4102050-1	50' (15.2m)	3/16" (4.5mm)stainless	41.2 lbs (18.7kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	12.5"L X 12.5"W X 6.5" H (32 cm X 32 cm X 17 cm)
4102050-4	50' (15.2m)	7/32" (5.5mm)stainless	42.2 lbs (19.1kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	12.5"L X 12.5"W X 6.5" H (32 cm X 32 cm X 17 cm)
4102085-1	85' (25.9m)	3/16" (4.5mm)stainless	43.5 lbs (19.8kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	12.5"L X 12.5"W X 6.5" H (32 cm X 32 cm X 17 cm)
4102085-4	85' (25.9m)	7/32" (5.5mm)stainless	44.3 lbs (20.5kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	12.5"L X 12.5"W X 6.5" H (32 cm X 32 cm X 17 cm)
4102130-1	130' (39.6m)	3/16" (4.5mm)stainless	65 lbs (29.5kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	14.5"L X 14"W X 7" H (37 cm X 36 cm X 18 cm)
4102130-3	130' (39.6m)	3/16" (4.5mm)stainless	70 lbs (31.8kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	14.5"L X 14"W X 7" H (37 cm X 36 cm X 18 cm)
4102130-4	130' (39.6m)	7/32" (5.5mm)stainless	67.7 lbs (30.7kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	14.5"L X 14"W X 7" H (37 cm X 36 cm X 18 cm)
4102175-1	175' (39.6m)	3/16" (4.5mm)stainless	85 lbs (38.6kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	14.5"L X 14"W X 8" H (37 cm X 36 cm X 20 cm)
4102175-3	175' (39.6m)	3/16" (4.5mm)stainless	90 lbs (40.8kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Stainless Anodized Aluminum	14.5"L X 14"W X 8" H (37 cm X 36 cm X 20 cm)
4302020-1	20' (6m)	3/16" (4.5mm) stainless	15 lbs (6.8kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Fiberglass-Reinforced Nylon	11"L X 12"W X 4" H (28cm X 30 cm x 10 cm)
4302030-1	30' (9.1m)	3/16" (4.5mm) stainless	17 lbs (7.7kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Fiberglass-Reinforced Nylon	11"L X 12"W X 4" H (28cm X 30 cm x 10 cm)
4302050-1	50' (15.2m)	3/16" (4.5mm) stainless	22 lbs (10.0kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Fiberglass-Reinforced Nylon	12"L X 13"W X 4" H (30cm X 33 cm X 10 cm)
4302080-1	80' (24.4m)	3/16" (4.5mm) stainless	35 lbs (15.9kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Fiberglass-Reinforced Nylon	14"L X 15"W X 4" H (35 cm X 38 cm X 10 cm)
4302100-1	100' (30.5m)	3/16" (4.5mm) stainless	37 lbs (16.8kg)	310 lbs (140kg)	Swivel Carabiner Stainless	Fiberglass-Reinforced Nylon	14"L X 15"W X 4" H (35 cm X 38 cm X 10 cm)
4400012-1	12' (3.6m)	3/16" (4.5mm) stainless	5.8 lbs (2.6kg)	310 lbs (140kg)	Pelican Swivel Zinc Plate	Sanoprene Over ABS	8"L X 5"W X 3.5" H (20.3 cm X 12.7 cm X 88.9 cm)

USER INSTRUCTIONS
4XXXXXX SERIES SKYLOC II®/ROTO-LOC™/ ENVIRO-SHIELD™ SELF-RETRACTING LIFELINES

The following specifications apply to following Enviro-Shield™ Self-Retracting Lifelines: 4102050-1, 4102085-1, 4102130-1, 4102130-3, 4102175-1, 4102175-3 and meet the requirements of OSHA:
- Maximum Arrest Force (MAF): ≤ 1,800 lbs (8kN)
- Average Arrest Force (AAF): ≤ 900 lbs (4kN)
- Arrest Distance (AD): ≤ 42" (1.07m)
- 310 lb Max. Capacity: 1 worker, max. combined tool & body weight ≤ 310 lbs (140.6kg).

The following specifications apply to all Skyloc™ II and Roto-Loc™ Self-Retracting Lifelines and the following Enviro-Shield™ Self-Retracting Lifelines: 4102050-4, 4102085-4, 4102130-4 meet the Class 1 requirements of ANSI Z359.14-2021:
- Maximum Arrest Force (MAF): ≤ 1,800 lbs (8kN)
- Average Arrest Force (AF): ≤ 1,350 lbs (6kN)
- Arrest Distance (AD): ≤ 42" (0.61m)
- 310 lb Max. Capacity: 1 worker, max. combined tool & body weight ≤ 310 lbs (140.6kg).

Certain Models have capacity up to 400 lbs (181kg). Contact Fall Safe if higher capacity models are needed.

SELF-RETRACTING LIFELINE APPLICATION

A. PURPOSE:
Fall Safe Self-Retracting Lifelines (SRL's) are used as one component in a personal fall arrest system (PFAS). The SRLs described in this manual meet ANSI Z359.14 and OSHA requirements (except where noted). These instructions, and markings borne by the SRL's, fulfill the instruction and marking requirements of those standards and regulations. This equipment is specifically designed to dissipate fall energy and limit the fall arrest forces that are transferred to the body.

1. PERSONAL FALL ARREST:
The self-retracting lifeline is used as a component of a personal fall arrest system. Personal fall arrest systems typically include a full body harness, a connecting subsystem (energy-absorbing device such as a shock-absorbing lanyard or self-retracting lifeline) and an anchorage connector.
A. Average arresting force must not exceed 1350 lbs (6kN) for ANSI Z359.14, Class 1
B. Maximum arresting force must not exceed 1,800 lbs (8kN) for ANSI Z359.14 and OSHA.

B. USE LIMITATIONS:
Consider the following application limitations before using this equipment:

1. CAPACITY:
These SRLs are designed for use by persons with a combined weight (clothing, tools, etc.) of no more than 310 lbs (140.6kg) *Capacities vary - please see Page 7 for full details.

WARNING

Persons with muscular, skeletal, or other physical disorders should consult a physician before using. Pregnant women and minors must never use this equipment. Increasing age and diminished physical fitness may reduce a person's ability to withstand shock loads during fall arrest or prolonged suspension. Consult a physician if there is any question about a user's physical ability to safely use this product to arrest a fall or remain suspended.

2 FREE FALL:

Personal fall arrest systems used with this equipment should be mounted overhead in such a way as to eliminate the possibility of a free fall. Avoid working above the anchorage level to avoid an increased free fall distance. Avoid working where your line may cross or tangle with that of other workers or objects.

WARNING

Do not allow the lifeline to pass under arms or between legs. Never clamp, knot, or prevent the lifeline from retracting or being taut. Avoid slack line. Do not lengthen the SRL by connecting a lanyard or other components without consulting Fall Safe.

3. FALL CLEARANCE:

There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or other obstruction. The clearance required is dependent on the following factors (see Figure 5 for reference):

- Elevation of anchorage
- Connecting subsystem length
- Deceleration distance
- Free fall distance
- Worker height
- Movement of harness attachment element

CALCULATE THE FALL CLEARANCE!

1) Determine distance beneath walking/working surface to nearest lower level or obstruction : Minimum Required Clearance - MRC
2) Add the Activation Distance - Distance required for lifeline to activate - Activation Distance - AD = 12" (.3m)
3) Add the Deceleration Distance - DD. No more than 30" (.76m)
4) Add the Safety Factor: Safety Factor - SF. 1.5' to 3' (.4 to .9m)

AD + DD + SF < or = MRC

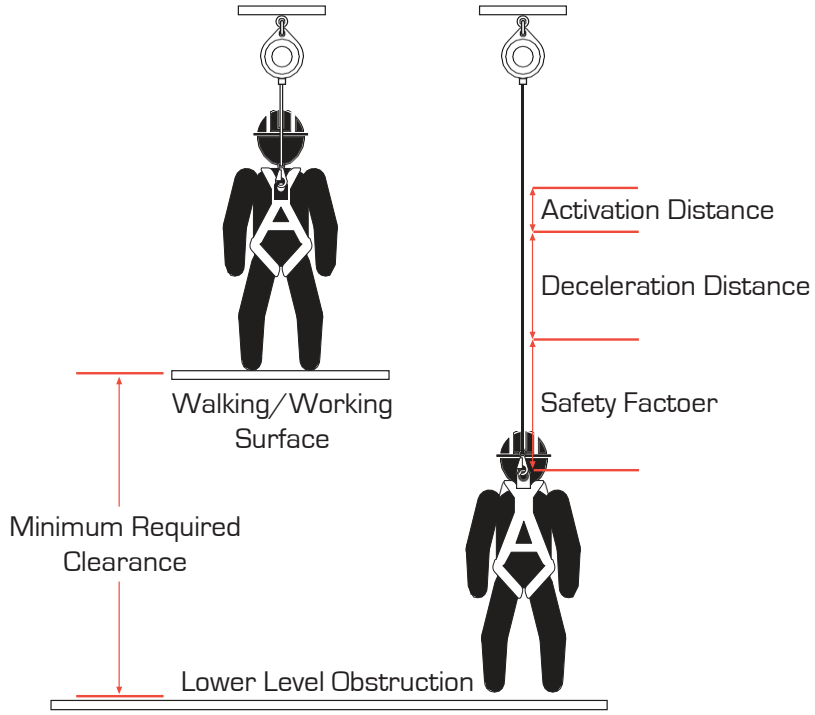


Figure 5 – Calculating Fall Clearance with a Self-Retracting Lifeline

4. SWING FALLS:

Swing falls occur when the anchorage point is not DIRECTLY above the point where a fall occurs. If the worker fall in such a situation, there is a possibility of a swing fall that may bring him into contact with objects below or to the side of him, possibly causing serious injury or death. These objects must be removed or the SRL and/ or anchorage point be repositioned directly over the worker to help reduce the risk of a swing fall. A Competent Person or Qualified Engineer should always be consulted if there exists a possibility of a swing fall occurring. The worker must be trained to understand that the width of his allowable work area can never exceed the anchorage height of the retractable over his walking/working surface.

For example, if a worker in a building with 10 ft (3m) floors walks 20 ft (6m) away from his anchorage he could fall and strike the floor below before his fall would extract any line from the SRL.

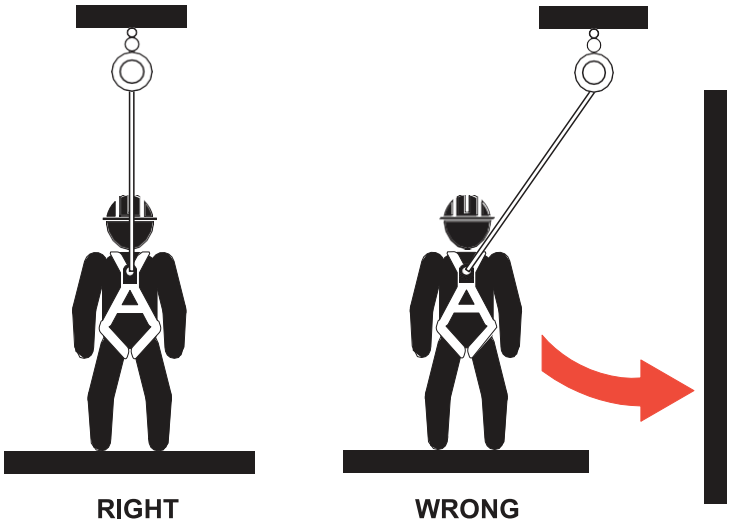


Figure 6

If an object is in his swing path (or that of the line) a hazardous situation exists. Two factors become evident in this situation:

First, due to the swing fall, horizontal speed of the worker may be high enough to cause injury if an obstacle in the swing fall path is struck by either the user or the line (web). The hazard increases as the initial (before fall) length of extended cable is increased and as the initial angle which the cable makes with the vertical is increased. In the extreme case where a user has extended 90 ft (27.4m) of line at an angle of 30 degrees with the vertical, the user can theoretically develop a horizontal speed of about 19mph (30.5km/h). By comparison, if the user has extended 50 ft (15.2m) of line at an angle of 15 degrees with the vertical, the user may develop a horizontal speed of about 7mph (11km/h). This situation is clearly more tolerable, but it may still be dangerous if hazards such as rigid or sharp objects, electrical conductors, or powered equipment are in the swing fall path.

The second factor that comes into effect in a swing fall is that the total vertical fall distance of the user may be much greater than if the user had fallen entirely vertically without a swing fall path. This hazard also increases as the initial (before fall) length of extended line is increased and as the initial angle which the line makes with the vertical is increased. For example, if the initial extended line length is 10 ft (3m), the drop at the bottom of the pendulum swing would be 1.3 ft (0.4m) This is in addition to the line extension due to the devices internal shock absorption which may be as much as 3.3. ft (1m). The total vertical fall distance would then be as much as 4.6 ft (1.4m) If, however, 50 ft (15.2m) of cable is initially extended at a 30 degree angle with the vertical, then a drop at the pendulum bottom of 6.7 ft (2m) would result. In this example, adding the 3.3 ft (1m) of cable extension due to internal shock absorption of the device, the total vertical fall distance could be as much as 10 ft (3m).

Minimize swing falls by working as close to the anchorage point as possible (see Figure 6). Do not permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a self-retracting lifeline or other variable length connecting subsystem is used.

5. CHEMICAL HAZARDS:

Acidic, alkaline, or other environments with harsh substances may damage the synthetic rope (if equipped) and hardware elements of this SRL. If working in a chemically aggressive environment, an SRL that uses a cable lifeline is generally recommended. When working in the presence of chemicals, more frequent inspection of the SRL is required.

6. HEAT:

Do not use SRLs that utilize a synthetic lifeline in environments with temperatures greater than 185°F (85°C). Protect the lanyard when used near welding, metal cutting, or other heat producing activities. Sparks may damage the line material and reduce its strength.

CAUTION:

IMPORTANT: When working with tools, materials, or in high temperature environments, ensure that associated fall protection equipment can withstand high temperatures, or provide protection for those items.

7. CORROSION:

Do not expose the device to corrosive environments for prolonged periods. Organic substances and salt water are particularly corrosive to metal parts. When working in a corrosive environment more frequent inspection, cleaning, and drying of the SRL is required. For the most severe environments the Enviro-Shield™ sealed SRL is recommended. See Care and Inspection sections for cleaning and inspection details.

8. ELECTRICAL HAZARDS::

Use extreme caution when working near energized electrical sources. Metal hardware on the SRL, the lifeline itself (on cable units), and on other components connected to it will conduct electric current. Maintain a safe working distance [preferably at least 10' (3m)] from electrical hazards.

9. MOVING MACHINERY:

When working near moving machinery parts (e.g. conveyors, rotating shafts, presses, etc.), make sure that loose equipment is secured. Maintain a safe working distance from machinery that could entangle clothing, the lifeline, the harness, or other components connected to it.

10. SHARP EDGES AND ABRASIVE SURFACES:

Do not expose web lifelines to sharp edges or abrasive surfaces that could cut, tear, or abrade and weaken the fibers. If working around sharp edges and abrasive surfaces is unavoidable use heavy padding or other protective barriers to prevent direct contact. An energy-absorbing component can sometimes be added in-

line to further protect the worker. Compatibility and total fall distance must be considered if this is done. Contact Fall Safe before using an in-line energy-absorbing component or lanyard with an SRL. **NOTE** on Leading Edge SRL: Although this model provides additional protection from falls occurring over edges, protection against cutting must be provided when working near extremely sharp edges such as sheared, cold rolled, or flame cut steel, or rough cast edge concrete. Edge protection is not required over edges such as hot rolled steel, steel decking, chamfered concrete, or wood.

11. WEAR AND DETERIORATION:
Any SRL which shows signs of excessive wear, deterioration, or aging, must be removed from use and marked **"UNUSABLE"** until destroyed. See detailed inspection procedures.

12. IMPACT FORCES:
Any SRL that has been subjected to the forces of arresting a fall must be immediately removed from service and marked as **"UNUSABLE"** until recertified or replaced. Fall Safe SRLs have impact load indicators built into either the hooks or the anchorage component on top of the SRL that facilitate inspection for fall loading.

SYSTEMS REQUIREMENTS

A. COMPATIBILITY OF SYSTEM PARTS

1. COMPATIBILITY OF COMPONENTS AND SUBSYSTEMS:
Fall Safe SRLs are designed to be used with Fall Safe approved components and connecting subsystems. Use of the SRL with products made by others should be evaluated by a competent person to ensure compatibility of components and hardware. Connecting subsystems must be suitable for use in the application (e.g. fall arrest or restraint). Fall Safe manufactures a line of connecting subsystems for most applications. Contact Fall Safe for further information. Refer to the manufacturer's instructions supplied with the component or connecting subsystem to determine suitability. Contact Fall Safe with any questions regarding compatibility of equipment used with the SRL.

2) COMPATIBILITY OF CONNECTORS
Connectors, such as D-rings, snap hooks, and carabiners, must be rated at 5,000 lb. (22 kN) minimum breaking strength and comply with ANSI Z359.12-2012. Fall Safe connectors meet these requirements. Connecting hardware must be compatible in size, shape, and strength. Non-compatible connectors may accidentally disengage ("rollout") or false engagement. Always verify that the connecting snap hook or carabiner and the D-ring on the harness or anchorage connector is compatible. Some harness models have web loop connection points. Do not use snap hooks to connect to web loops unless the snap hook complies with ANSI Z359.12-2012. A self-locking carabiner may also be used to connect to a web loop. Ensure the carabiner cannot cross-gate load (load against the gate rather than along the backbone of the carabiner). Connecting subsystems (self-retracting lifeline, lanyard, rope grab and lifeline, cable grab, etc.) must be suitable for your application.

EXAMPLES OF INAPPROPRIATE CONNECTIONS:

A. To a D-ring to which another connector is attached
B. In a manner that would result in a load on the gate.
C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor and seem to be fully engaged to the anchor point. (Fall Safe has designed the width of the head and gates of Fall Safe snap hooks to prevent this issue in most D-rings.)
D. To each other.
E. Directly to webbing or rope lanyard or tie-back.
F. To any object shaped such that the snap hook or carabiner will not close and lock, or that could cause roll-out should a fall occur.

3. ANCHORAGES AND ANCHORAGE CONNECTORS

Anchorages for personal fall arrest systems must have a strength capable of supporting a static load, applied in directions permitted by the system, of at least: (a) 3,600 lb. (16 kN) when certification exists, or (b) 5,000 lb. (22.2 kN) in the absence of certification. When more than one personal fall arrest system is attached to an anchorage, the anchorage strengths set forth in (a) and (b) must be multiplied by the number of systems attached to the anchorage. This requirement is consistent with OSHA requirements under 29 CFR 1910 & 1926.

Anchorage connectors must be selected carefully. Eyebolts should not be used if they will be loaded at an angle to their axis unless the loads fall within design parameters for such use. Weld-on lugs should not be less than 1/2 in (12.7mm) in width and should not be made of steel with less than 50,000-PSI yield strength. The proper stress areas and weld areas must be calculated to assure proper safety. If in question, consult Fall Safe Industries Engineering for proper design requirements.

INSTALLATION PROCEDURE

A. CONNECTING THE SRL TO AN ANCHOR POINT

NOTE: Approved fall protection must be worn during Skyloc II®/ Roto-Loc™/Enviro-Shield™ Self-Retracting Lifeline installation at all times. Do not use the SRL as a method of personal fall protection until the system has been completely installed, inspected, and approved for use by a Qualified Person.

1. Installation of the Skyloc II®/Roto-Loc™/Enviro-Shield™ Self-Retracting Lifeline begins with the identification of a suitable anchor point. The anchor point must be capable of supporting a 3,600 lb (16kN) load where certification of load carrying ability exists, or 5,000 lb (22.2kN) where certification does not exist.
NOTE: These strengths must be multiplied by the number of people that will be connecting to the anchorage point at any one time.
2. Pass a large carabiner or bow shackle (or other Fall Safe approved connecting means) through the swivel eye or handle at the top of the Skyloc II®/Roto-Loc™/Enviro-Shield™. This carabiner or bow shackle must be rated with a minimum breaking strength of at least 5,000 lb (22.2kN) and must be used for connecting to only 1 SRL at a time.

3. Secure the bow shackle or carabiner to the anchor point. If using bow shackle, verify that it is a safety shackle and that the nut of the shackle has been fully captured using a clevis pin or lock ring to prevent accidentally disengagement. When using a carabiner make sure that the gate has fully closed and rotated into a locked position.

B. PREPARATION FOR USE

1. Once the Skyloc II®/Roto-Loc™/Enviro-Shield™ has been secured into position, extract a few feet of cable slowly to verify that there is tension on the line and the retraction spring is functioning correctly.

2. Give the cable a quick, sharp tug causing the unit to lock up proving that the braking mechanism is operating correctly. Slowly allow the cable to be retracted back into the unit under the power of the retraction spring.

CAUTION!

The line must always be released slowly and in a controlled manner when rewinding the cable back into the unit; it should never be fully released in an uncontrollable manner. Allowing the line to retract in an uncontrolled fashion could cause damage to the SRL, the workplace, or other users in the area. Always use a tagline attached to the snaphook to help guide the line back into the unit when it is installed too far overhead to reach directly; this will also help in pulling the snaphook down to the user for connection to his harness.

Removal is the opposite if installation.

Installation methods are not limited to bow shackles or carabiners. Custom brackets are available for permanent or specialized installations. Contact Fall Safe to help identify specific installation methods for your situation.

C. INSPECT PRIOR TO USE:

Before the use of this SRL, inspect the SRL and all components of the PFAS:

1. Inspect the SRL to verify that it is in serviceable condition. Examine every inch of the lanyard or cable for severe wear, cuts, burns, frayed edges, abrasion, or other damage. See the Inspection section for details. **WARNING! Do not use if inspection reveals an unsafe condition. Always err on the side of safety.**

D. PLAN SCOPE OF WORK TO BE PERFORMED (JOB SAFETY TASK ANALYSIS)

Plan procedures to safely perform tasks when using any components of a PFAS. Some considerations are listed below (see APPLICATIONS, item B. USE LIMITATIONS section for additional details);

1) Anchorage Selection. In addition to strength considerations, the anchorage should be rigged to prevent a fall onto the structure when considering 2) and 4) below.

2) Swing pendulum fall

3) Rough surfaces or unprotected sharp edges that could cut or abrade the equipment if unprotected.

4) Workplace geometry

a) Free fall distance - Personal fall arrest systems used with this equipment should be mounted overhead in such a way as to eliminate the possibility of a free fall.

b) Deceleration distance - Maximum 42 in (1.07m)

c) Total fall distance - The sum of the activation distance and deceleration distance plus a safety margin.

d) A careful examination must be made of the workplace by a Competent Person before the selection or installation of Skyloc II®/Roto-Loc™/Enviro-Shield™ anchorage points. Consideration must be given both to the movement of materials (Will cranes be used to "fly" equipment or parts in?) and workers around the workplace to ensure that potentially hazardous situations are avoided.

e) Areas where overhead cranes or gantries are used must be examined to verify that neither the moving loads nor lifting wires can interfere or snag the extended wire rope or rope line of a Skyloc II®/ Roto-Loc™/Enviro-Shield™ SRL causing a worker to be dislodged.

f) Overhead lighting and electrical cables must also be identified to ensure that installation of the SRL is sufficiently far enough away so that the line can never contact the wire creating an electrocution hazard.

g) Consideration of obstacles present in the work area must include ALL locations that COULD be reached if the entire length of cable, or rope line were extracted from the SRL. Obstacles that pose no threat when a worker is on a platform, for example, may be exposed to a dangerous situation should he climb downwards or moves laterally towards another work surface.

h) The cable, or rope line used in SRL's should be protected from damage when passing over sharp edges or near objects where the cable or rope line could become lodged or pinched through the use of edge protectors that are not abrasive to the lifeline. When significant changes in angle are encountered, directional sheaves should be used or the SRL anchorage point should be relocated to a location that prevents contact with the sharp edge.

i) Avoid installations where debris, contaminants, and other objects falling from above could damage the Skyloc II®/Roto-Loc™/ Enviro-Shield™ and/or its cable or rope line.

j) Extreme caution must also be exercised when considering the use of the Skyloc II®/Roto-Loc™/ Enviro-Shield™ SRL as a means of fall protection in areas where a user is working on a sloped surface such as a pitched roof or tank bottom, or on piles of loose material (such as grain or sand) that may shift or slide. If the user falls or begins to slide on such a surface, the Skyloc II®/ Roto-Loc™/Enviro-Shield™ SRL may not be extracted fast enough for the device to lock-up (typically, the line must be extracted around 5-6ft/sec. for the unit to lock-up,) and arrest the sliding fall. The user might continue to slide over a roof edge, or into some other hazardous zone causing injury or death. The use of a travel restriction system or a work-positioning system may be more appropriate for such locations and should be considered first. Contact Fall Safe Engineering for help in selecting equipment for these applications.

5) Rescue and Evacuation - The user and employer must have a rescue plan in place, training in its use, and the means to implement it at hand. The employer must have the ability to perform a rescue quickly and safely. Do not plan to rely on others for rescue because prolonged suspension can cause bodily injury or death.

CARE OF THE Skyloc II®/Roto-Loc™/Enviro-Shield™ SRL

A. Clean exterior by wiping away excess dirt, grease, or other materials that might interfere with operation of the unit. Dry hardware with a clean, dry cloth, and hang to air dry. Do not attempt to disassemble the unit. A buildup of dirt, solvents, paint, etc. on the lifeline may prevent the SRL from working properly, and in severe cases degrade the webbing to a point where it weakens and should be removed from service. More information on cleaning is available from Fall Safe. If you have questions concerning the condition of your SRL or have any doubt about putting it into service contact Fall Safe.
B. Store SRLs in a cool, dry, clean environment. Avoid areas where heat, oil, chemicals or their vapors may exist. Thoroughly inspect after extended storage. Good safety practice requires separate storage of unusable product from usable product.

INSPECTIONS

A. INSPECTION FREQUENCY

1) The SRL must be fully inspected by the user prior to each use.
2) A competent person other than the user must inspect the SRL in accordance with ANSI Z359.14 as specified in the following inspection schedule.

ANSI Z359.14 Inspection Schedule			
Type of Use	Application Examples	Conditions of Use	Inspection Frequency
Frequent to Light	Rescue and Confined Space, Factory Maintenance	Good Storage Conditions, Indoor or Infrequent Outdoor Use, Room Temperature, Clean Environments	Annually
Moderate to Heavy	Transportation, Residential Construction, Utilities, Warehouse	Fair Storage Conditions, Indoor and Extended Outdoor Use, All Temperatures, Clean or Dusty Environments	Semi-Annually to Annually
Severe to Continuous	Commercial Construction, Oil and Gas, Mining	Harsh Storage Conditions, Prolonged or Continuous Outdoor Use, All Temperatures, Dirty Environments	Quarterly to Semi-Annually

Record the results of each formal inspection in the inspection and maintenance log as described below.

B. INSPECTION PROCEDURE

1) Prior to each use, the worker must inspect the /Skyloc II®/ Roto-Loc™/Enviro-Shield™ Self-Retracting Lifeline for any physical damage, wear, corrosion, or malfunctioning parts. Verify that the load indicator is not visible by looking to see if the red slide bearing under the swivel eye on the anchor point, snaphook, or carabiner is exposed (Figures 7, 8, or 9). Once the load indicator has been deployed, the SRL must be returned to a Fall Safe Industries approved repair facility for evaluation and recertification.

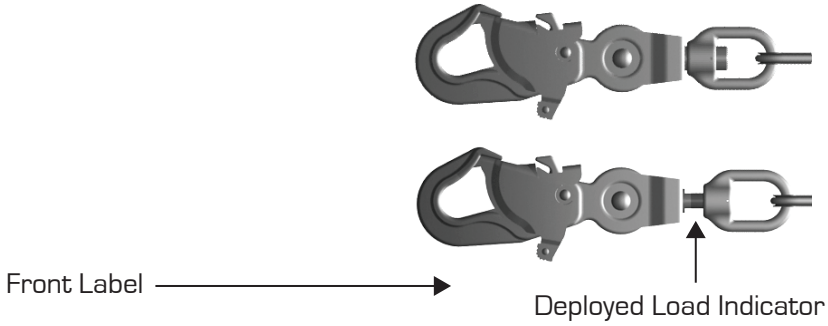


Figure 7

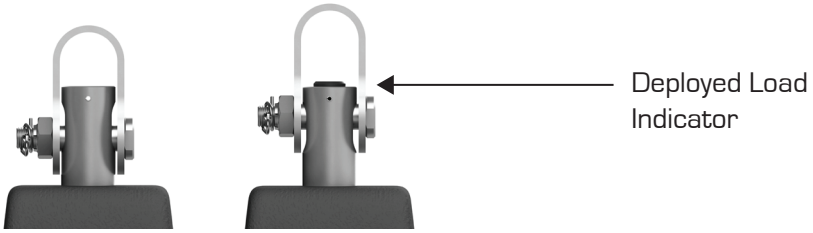


Figure 8

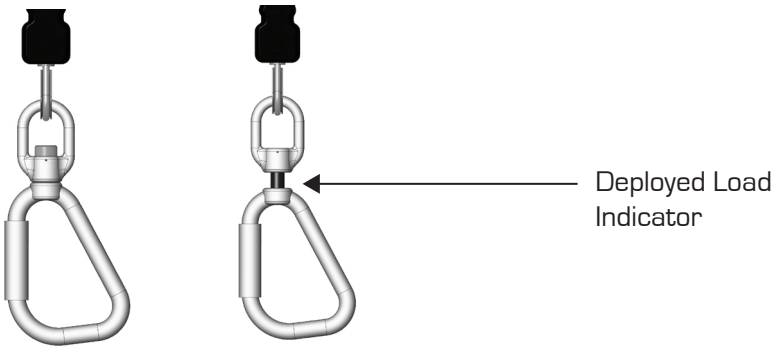


Figure 9

2) The worker should also verify that conditions around the SRL location have not changed and that may affect its' ability to arrest a fall, such as obstacles or equipment directly below the anchorage point which might create a swing fall.
3) Before every use, the worker should extract all of the cable, rope, or webbing line and examine it for defects that would affect its overall strength. These defects would include but are not limited to weld strikes or burns, kinks, bends, "bird-caging", bulge spots, outer diameter thinning, broken or snagged wire strands, or broken thread, etc. If the cable, or rope line is showing evidence of any of these defects, the unit should be removed from service immediately until the cable or rope line is replaced and re-certified. The ferrules of the cable, stitching of the rope splice by the snaphook should also be examined for cracks, deformation.
4) After the wire rope/rope has been allowed to retract into the unit, the snaphook should be pulled sharply to verify proper lockup of the unit. If the unit fails to lockup when pulled quickly, or if the cable fails to retract properly after lockup, the unit must be removed from service until repaired.
5) For Skyloc II® SRL's, carefully inspect the plastic housing for cracks or fractures. Evidence of cracks or fractures requires factory-authorized inspection. Scuffing and minor indentations that do not inhibit the retraction of the unit are cosmetic issues.

TRAINING

It is the responsibility of the employer to train all workers prior to using this system (per OSHA 1926.503 (a)(1)). The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards. The employer shall assure that, as necessary, each employee has been trained by a competent person qualified in the following areas:

1) OSHA regulations governing the use of horizontal lifelines.
2) Ability to recognize potential fall and workplace hazards.
3) Method of inspection of safety equipment.
4) Rescue procedures.Record the results of each formal inspection in the inspection and maintenance log as described.
5) Installation and removal techniques.

RESCUE PLANNING

Prior to system use, a rescue plan must be prepared, the workers must be trained in its use, and the rescue equipment must be on hand to implement it in case of a fall. Typical rescue plans include (but are not limited to) the following items:

1) List of equipment that must be readily accessible in the event of an emergency and the names of those workers certified to use or operate that equipment.
2) Emergency contact phone numbers (ambulance, hospital, fire department...) and a means to contact them (cell phone, emergency radio).

3) List of employees on the site, and the specific tasks they will perform to effect the rescue.
4) The equipment that will be used to aid in the rescue of any worker should be attached to structural anchorages independent of those used for the personal fall arrest system. During installation of anchorages, tie-off and equipment attachment hard points should be attached, and also clearly marked in such a manner as to provide a means to rescue a worker in any position along the worksite.

SERVICING

A Qualified Person trained in the inspection and servicing of system components must carry out servicing of this system. The company's safety officer should maintain a record log of all servicing and inspection dates. The system and all components must be withdrawn from service if subjected to fall arrest forces. Those components may be returned to service only after being certified by a Qualified Person. Only original Fall Safe Industries equipment and replacement parts are approved for use in this system. Contact Fall Safe Industries Engineering with questions and when in need of assistance.

GUARDING AGAINST APPLICATION FAILURE

To avoid property damage, injury or death, the User must take reasonable steps to prevent "Application Failure". An application failure may be any unacceptable use, misuse, or application error on the part of the User or System Designer. Because each end user might use this product in a manner different from Fall Safe Industries testing platform, and because the User might use this product in combination with other manufacturer's products in a manner not evaluated, contemplated, or tested by Fall Safe, the User or System Designer is ultimately responsible for verifying or validating the suitability and compatibility of this product for use in his application or system. Whenever questions regarding proper use or compatibility arise, please contact Fall Safe Engineering at (303) 424-8650.

WARNINGS AND LIMITATIONS

1) Proper care should always be taken to visually scan the work area prior to use. Remove any obstruction, debris, and other materials from, and beneath, the work area that could cause injuries or interfere with the operation of this system. Be cautious of swing fall hazards if working anywhere but directly below the anchorage point of the SRL. Be aware of the movements of others using SRLs or shock-absorbing lanyards in close proximity, knowing that if the lines become crossed or tangled and a fall occurs, the sudden motion could pull others off balance and make rescue more difficult.

2) Do not release the cable or rope line when extended and allow it to retract back into the unit uncontrollably. Releasing the cable, rope, or web line and allowing it to reel itself in uncontrollably could cause damage to the Skyloc II®/Roto-Loc™/Enviro-Shield™. The cable, rope, or web line should be allowed to retract slowly into the unit under its' own power. If the unit is too far overhead to permit this, then a tagline should be attached to the snaphook to help control the line retraction.

3) In the course of use, do not allow the cable or rope line to wrap around arms or legs, or become entangled in clothing or other items. In the event of a fall, they could cause injury, or prevent the Skyloc II®/ Roto-Loc™/Enviro-Shield™ from functioning properly. Any Skyloc II®/Roto-Loc™/Enviro-Shield™ Self-Retracting Lifeline that has the load indicator of the swivel snap showing (deployed) has seen a fall-arrest load and must be returned to Fall Safe Industries for evaluation, repair, and recertification. Units must not be reset in the field or allowed to be used until recertification has taken place.

4) Users should be familiar with pertinent regulations governing the use of this personal fall arrest system and its components. Only trained and competent personnel should install and supervise the use of this system.

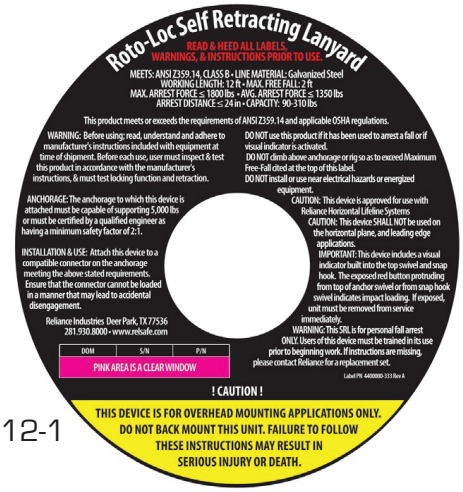
5) Use only Fall Safe supplied or qualified compatible components.

6) Do not tie knots in the cable, rope, or web line of the unit. Tying knots in cable, rope, or web line reduces the overall strength of the wire rope. Only connect to the Skyloc II®/Roto-Loc™/Enviro- Shield™ by using the Pelican™ swivel snap to connect to the dorsal (back) D-ring of a full-body harness. Do not cross lines with another worker. Should the lines become entangled, a fall by one worker could dislodge others. Plan and place SRLs to prevent workers from crossing safety lines.

LABELING

The illustrations on the following pages are representations of the actual labels that appear on Fall Safe Skyloc II®/Roto-Loc™/Enviro-Shield™ Self-Retracting Lifelines.

All the information on the SRL Specifications Label is important for the safe use of this product, so the user should ensure that the label has not been removed and that the descriptions it contains match the task and environment in which the product is intended to be used. An inspection log is available on Page 30 of this manual. The unit should be inspected by a Competent Person at periodic intervals and at least monthly. As per these instructions, the unit should be tested for locking before each use.



4400012-1

PRODUCT LABELS



4000020-1, 4000030-1, 4000050-1, 4000080-1, 4000085-1, 4000100-1, 4008025-1, 4008040-1, 4008080-1, 4302020-1, 4302030-1, 4302050-1, 4302080-1, 4302100-1



4102050-1, 4102050-4, 4102085-1, 4102085-4, 4102130-1, 4102130-3, 4102130-4, 4102175-1

EQUIPMENT RECORD	
PART NUMBER	
SERIAL NUMBER	
DATE MANUFACTURED	
PURCHASE DATE	
ASSIGNED TO	

INSPECTION RECORD		
DATE	INSPECTOR	PASS/FAIL

SPECIFICATIONS

Skyloc II®/Roto-Loc™/ Enviro-Shield™ SRLs

Certified to meet the current ANSI Z359.14 and OSHA regulations as listed in Specifications for the Self-Retracting Lifeline component of a complete personal fall arrest system. Lanyard webbing certified minimum 9000 lb. (4082kg) breaking strength, all hardware certified to 5000 lb. (22kN) breaking strength, 100 percent proof tested to 3600 lbs. (16.5kN).

Individual serial number and date of manufacture are on product label.

Assembled in USA

THESE INSTRUCTIONS APPLY TO THE FOLLOWING PART NUMBERS:

4000020-1, 4000030-1, 4000050-1, 4000080-1, 4000085-1, 4000100-1
4008025-1, 4008040-1, 4008080-1
4102050-1, 4102050-4, 4102085-1, 4102085-4, 4102130-1, 4102130-3, 4102130-4, 4102175-1,
4302020-1, 4302030-1, 4302050-1, 4302080-1, 4302100-1
4400012-1

WARRANTY

Products manufactured by Fall Safe are warranted against factory defects in workmanship and materials for a period of two years from date of purchase by the owner (end user) or for a period of one year from date first used, provided that this period shall not exceed two years from date of shipment to distributor. Upon notice of product defect or fault, Fall Safe will promptly repair or replace all defective items. Fall Safe reserves the right to elect to have any defective item returned to its manufacturing plant, authorized service center or distributor for inspection before making a repair or replacement. This warranty does not cover equipment damages or defects resulting from abuse, damage in transit, or other damage beyond the control of Fall Safe. This warranty applies only to the original purchaser and is the only one applicable to our products and services, and is in lieu of all other warranties, expressed or implied. When products offered by Fall Safe are manufactured by a third party. Original equipment manufacturer (OEM) warranty shall apply and may be outside the control of Fall Safe.



FALL SAFE®
Ph. 1-800-323-7402

Canada labels
SureWerx, 49 Schooner St.
Coquitlam, BC V3K 0B3

USA labels
SureWerx USA Inc.
Elgin, IL USA 60123