



## SELF-RETRACTING LIFELINE (SRL) USER INSTRUCTIONS



**Part Name:** KwikSafety MINI MAMBA Self-Retracting Lifeline (6 FT)

**Part Number:** KS7921 6FT, KS7931 6FT TWIN LEG

**Company:**

KwikSafety

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**IMPORTANT!**

Please do not throw away these instructions.

Please read and understand these instructions before using equipment.

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## Introduction

Thank you for purchasing a KwikSafety Mini MAMBA SRL. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency.

This and any other included instructions must be made available to the user of the equipment. The user must understand how to safely and effectively use the SRL, and all fall safety equipment used in combination with the SRL.

### USER INFORMATION

Date of First Use: \_\_\_\_\_  
Serial #: \_\_\_\_\_  
Trainer: \_\_\_\_\_  
User: \_\_\_\_\_



## Applicable Safety Standards

When used according to instruction specifications, this product meets or exceeds all applicable ANSI Z359.14-2014 standards for fall protection. Applicable standards and regulations depend on the type of work being done, and also might include state regulations if applicable. Consult regulatory agencies for more information on personal fall arrest systems and associated components.

## Worker Classifications



Understand the following definitions of those who work near or who may be exposed to fall hazards.

**Qualified Person:** A person with an accredited degree or certification, and with extensive experience or sufficient professional standing, who is considered proficient in planning and reviewing the conformity of fall protection and rescue systems.

**Competent Person:** A highly trained and experienced person who is ASSIGNED BY THE EMPLOYER to be responsible for all elements of a fall safety program, including, but not limited to, its regulation, management, and application. A person who is proficient in identifying existing and predictable fall hazards, and who has the authority to stop work in order to eliminate hazards.

**Authorized Person:** A person who is assigned by their employer to work around or be subject to potential or existing fall hazards.

**It is the responsibility of a Qualified or Competent person to supervise the job site and ensure all applicable safety regulations are complied with.**

## Safety Information



Failure to understand and comply with safety regulations may result in serious injury or death. Regulations included herein are not all-inclusive, are for reference only, and are not intended to replace a Competent Person's judgment or knowledge of federal or state standards.

Do not alter equipment.

Do not misuse equipment.

Workplace conditions, including, but not limited to, flame, corrosive chemicals, electrical shock, sharp objects, machinery, abrasive substances, weather conditions, and uneven surfaces, must be assessed by a Competent Person before fall protection equipment is selected.

The analysis of the workplace must anticipate where workers will be performing their duties, the routes they will take to reach their work, and the potential and existing fall hazards they may be exposed to.

Fall protection equipment must be chosen by a Competent Person. Selections must account for all potential hazardous workplace conditions.



All fall protection equipment should be purchased new and in an unused condition.

Fall protection systems must be selected and installed under the supervision of a Competent Person, and used in a compliant manner.

Fall protection systems must be designed in a manner compliant with all federal, state, and safety regulations.

Unless explicitly stated otherwise, the maximum allowable free fall distance for lanyards must not exceed 6'. No free fall allowed for non-LE SRLs. SRLs must arrest falls within 54".

Forces applied to anchors must be calculated by a Competent Person.

Harnesses and connectors selected must be compliant with manufacturer's instructions, and must be of compatible size and configuration.

A pre-planned rescue procedure in the case of a fall is required. The rescue plan must be project-specific. The rescue plan must allow for employees to rescue themselves, or provide an alternative means for their prompt rescue.

Store rescue equipment in an easily accessible and clearly marked area.

Training of Authorized Persons to correctly erect, disassemble, inspect, maintain, store, and use equipment must be provided by a Competent Person.

Training must include the ability to recognize fall hazards, minimize the likelihood of fall hazards, and the correct use of personal fall arrest systems.

Never use fall protection equipment of any kind to hang, lift, support, or hoist tools or equipment, unless explicitly certified for such use.

Maintenance of equipment must be done according to manufacturer's instructions. Equipment instructions must be retained for reference.

Prior to each use, all equipment in a fall protection system must be inspected for any potential or existing deficiencies that may result in its failure or reduced functionality. Immediately remove equipment from service if any deficiencies are found.

Equipment must be inspected by a Competent Person at least every six months. SRLs must be inspected by a Competent Person at least monthly. These inspections must be documented in equipment instruction manual and on equipment inspection grid label.

Equipment must be inspected for defects, including, but not limited to, the absence of required labels or markings, improper form/fit/function, evidence of cracks, sharp edges, deformation, corrosion, excessive heating, alteration, excessive wear, fraying, knotting, abrasion, and absence of parts.

Equipment that fails inspection in any way must immediately be removed from use, or repaired by an entity approved by the manufacturer.

No on-site repair of equipment unless explicitly permitted by KwikSafety.

Equipment subjected to forces of fall arrest must immediately be removed from use.





Snap hooks, carabiners, and other connectors must be selected and applied in a compatible fashion. All risk of disengagement must be eliminated. All snap hooks and carabiners must be self-locking and self-closing, and must never be connected to each other.

Age, fitness, and health conditions can seriously affect the worker should a fall occur. Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces or perform set-up of equipment.

Pregnant women and minors must not use this equipment.

Physical harm may still occur even if fall safety equipment functions correctly. Sustained post-fall suspension may result in serious injury or death. Use trauma relief straps to reduce the effects of suspension trauma.

Allowable individual worker weight limit (including all equipment), unless explicitly stated otherwise, is 130–310 lbs.

## Maintenance, Cleaning, and Storage

Repairs to SRLs can only be made by an entity authorized by KwikSafety. If an SRL fails inspection in any way, immediately remove it from service, and contact KwikSafety to inquire about its return or repair.

Cleaning after use is important for maintaining the safety and longevity of SRLs. Remove all dirt, corrosives, and contaminants from SRLs before and after each use. If an SRL cannot be cleaned with plain water, use mild soap and water, then rinse and wipe dry. never clean SRLs with corrosive substances.

When not in use, store equipment where it will not be affected by heat, light, excessive moisture, chemicals, or other degrading elements. Product must be inspection BEFORE EACH USE.

## Inspection

KEEP INSTRUCTIONS AVAILABLE FOR REFERENCE. Record Date of First Use.

Prior to EACH use, inspect all SRL components for deficiencies, including, but not limited to, corrosion, deformation, pits, burrs, rough surfaces, sharp edges, cracking, rust, paint buildup, excessive heating, alteration, and missing or illegible labels. IMMEDIATELY remove SRL from service if defects or damage are found.

Prior to EACH use, inspect all screws, nuts and bolts, and connections to ensure that they are securely fastened and in proper working order.

Prior to EACH use, check lifeline retraction by pulling out a minimum 4' and allowing it to retract under light tension; lifeline must retract completely. Pull lifeline sharply to test braking function; brakes must engage. Depending on model or configuration, check shock pack for signs of deployment, and/or fall arrest indicator for signs of activation. IMMEDIATELY remove from service if SRL does not function properly, or if any evidence of exposure to forces of fall arrest exists.

Ensure that applicable work area is free of all damage, including, but not limited to, debris, rot, rust, decay, cracking, and hazardous materials. Ensure that selected work area will support the application-specific minimum loads set forth in this instruction manual. Work area MUST be stable.

Every month, a Competent Person other than the user must inspect SRLs. Competent Person inspections MUST be recorded in inspection log in instruction manual and on equipment inspection grid label. The Competent Person must sign their initials in the box corresponding to the month and year the inspection took place.

During inspection, consider all applications and hazards SRLs have been subjected to.



## Product Specific Applications



### WARNING

Use of equipment in unintended applications may result in serious injury or death. Maximum 1 attachment per connection point.



**Personal Fall Arrest:** SRLs may be used in Personal Fall Arrest applications to support a MAXIMUM 1 Personal Fall Arrest System. Structure must withstand loads applied in the directions permitted by the system of at least 5,000 lbs. No vertical free fall is allowed. SRL must always be positioned at or above harness attachment point. Applicable D-ring: Dorsal.



**Restraint:** SRLs may be used in Restraint applications. Restraint systems prevent workers from reaching the leading edge of a fall hazard. Always account for fully deployed length of SRL. Structure must withstand loads applied in the directions permitted by the system of at least 1,000 lbs. No vertical free fall is permitted. Restraint systems may only be used on surfaces with slopes up to 4/12 (vertical/horizontal). Applicable D-rings: Dorsal, Chest, Side, Shoulder.

**For all applications: worker weight capacity range (including all clothing, tools and equipment) is 130-310 lbs., \*or up to 420 lbs. if used in combination with equipment explicitly certified for such use.**

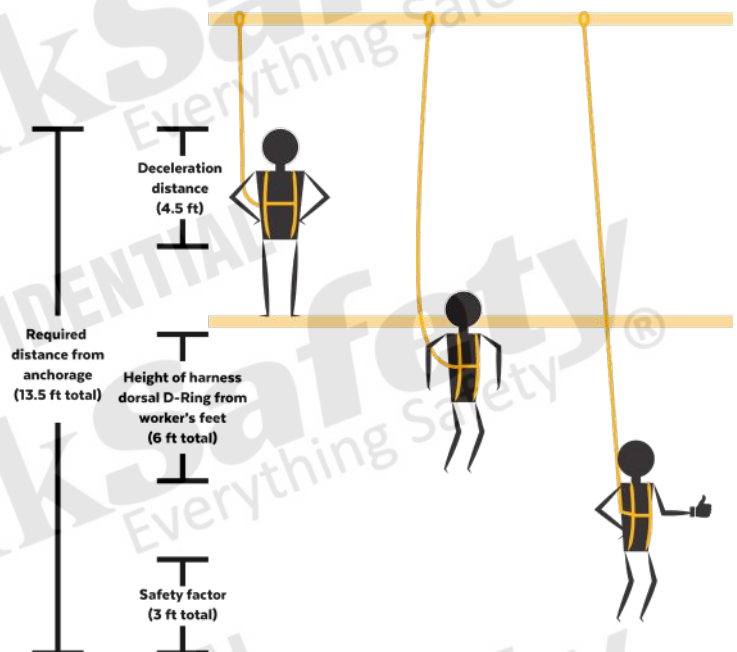
## Limitations

**Fall Clearance:** There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 3' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors.

**Diagram shown is an example fall clearance calculation ONLY.**

**Swing Falls:** Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall.

## Fall Clearance Calculation



**Compatibility:** When making connections with Mini MAMBA SRLs, eliminate all possibility of roll-out. Roll-out occurs when interference between a hook and the attachment point causes the hook gate to unintentionally open and release. All connections must be selected and deemed compatible with Mini MAMBA SRLs by a Competent Person. All connector gates must be self-closing and self-locking, and withstand minimum loads of 3,600 lbs. See the following for examples of compatible/incompatible connections:

Connector closed and locked to D-ring. **OK.**



Connector to integral lanyard. **NO.**

Two or more snap hooks or carabiners connected to each other. **NO.**



Connector directly to webbing. **NO.**

Two connectors to same D-ring. **NO.**



Application that places load on gate. **NO.**

Connector directly to horizontal lifeline. **NO.**



Incompatible or irregular application, which may increase risk of roll-out. **NO.**

## Correct Anchorage Positioning

This chart details allowable working zones required to reduce risk of swing falls and improper side loading. **ALWAYS** adhere to information specified by chart.

Anchor Distance From Leading Edge (Y)	Working Distance Along Roof Edge (Either Direction) (X)	Working Angle From Perpendicular ( $\psi$ )
6'	8'	53°
10'	9'-9"	45°
15'	11'-7"	38°
20'	13'-3"	33°
25'	14'-6"	30°
30'	16'	28°
35'	17'-2"	26°
40'	18'-3"	24°
45'	19'-4"	23°
50'	19'-10"	21°
55'	21'-4"	21°
60'	22'-3"	21°



Key:  
 X: Working Distance Along Roof Edge  
 Y: Distance From Leading Edge  
 ∅: Total Working Angle

For example, if the anchorage connector is 6' from the leading edge (Y), the working distance (X) is 8' in each direction from the perpendicular, which translates to a 53° working angle.





## Components and Specifications

Materials: UHMWPE, PC (Polycarbonate) housing

Class B SRL

Average arrest force: 900 lbs.

Maximum arrest force: 1,800 lbs.

Maximum deceleration distance: 54”.

Part No.	Length	Description
KS7921 6 FT	6'	3/4" UHMWPE SRL w/Carabiner, Swivel Top, Swivel indicator snap hook
KS7931 TWIN LEG 6 FT	6'	3/4" UHMWPE SRL w/Carabiner, Swivel Top, Swivel indicator snap hook

Model#	Lifeline Information		
	Material	Length	Webbing Width
KS7921 6 FT	UHMWPE	6'	3/4" 19 mm
KS7931 TWIN LEG 6 FT	UHMWPE	6'	3/4" 19 mm

## Installation and Use

**KwikSafety SRLs MUST NEVER be used in Leading Edge (LE) applications.**

**No free-fall is allowed.**

**ALWAYS avoid lifeline contact with sharp or abrasive edges and surfaces.**

**In Fall Arrest applications, anchorage connection point must always be at or above harness dorsal D-ring.**

1. All components of the personal fall arrest system must be selected and deemed compatible with applicable SRL by a Competent Person.
2. Ensure structure to which SRL is to be attached, and on which work is to be performed, is free of all hazards, including, but not limited to, debris, rot, rust, sharp or abrasive edges and surfaces, and hazardous materials.
3. Attach SRL carabiner to selected anchorage connector, or to applicable harness D-ring.
4. Attach SRL snap hook to selected anchorage connector, or to applicable harness D-ring.

\*If using SRL with rebar hook configuration, SRL carabiner must ALWAYS be attached to harness dorsal D-ring, and rebar hook must ALWAYS be connected to compatible structural rebar.

5. Ensure 100% tie-off will be maintained at all times, which may require the use of a back-up or supplementary fall protection system.







## Do Not Remove Plastic

Warning: User Capacity Range 130-310 lbs.

**6ft.** **900lbs.**

Maximum Free Fall

Average Arresting Force

Maximum Deployment Distance 48"

Forces may increase when cold and/or wet

**Read Instructions Before Use**



**KwikSafety**  
Everything Safety®

**WARNING:**

Manufacturer's instructions Supplied with this product at time of shipment must be read prior to use. Instructions must be followed for proper use, maintenance and inspection.

Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.

**NOT USER REPAIRABLE. DO NOT REMOVE THIS LABEL**

**USE:**

No free fall is allowed. SRL must always be positioned at or above harness D-ring. Avoid lifeline contact with sharp edges. For use by trained persons only. This device is only for use by one person as a fall arrester.

Ensure connection to anchorage is secured properly before use.

This unit is suitable for use with horizontal lifelines. Not suitable for horizontal use.

**INSPECTION:**

Before each use, inspect device per user manual including locking function (pull sharply to test), retraction function, lifeline function, function and condition of connectors, housing and fasteners, legibility of labels, and any evidence of defects, damage or missing parts, swivel snap hook load indicator no expose. Inspection by Competent Person required at least every 6 months. Immediately remove from service if torn or stretched plastic on shock pack are found.



## Inspection Log

User must inspect prior to EACH use. Competent Person other than user must complete formal inspection at least every 6 months. Competent Person to inspect and initial.

Date of First Use: \_\_\_\_\_. Product lifetime is 5 years from Date of First Use, or, if not recorded, from Date of Manufacture, as long as it passes pre-use and Competent Person inspections.

This inspection log must be specific to one SRL. Separate inspection logs must be used for each SRL. All inspection records must be made visible and available to all users at all times.

	J	F	M	A	M	J	J	A	S	O	N	D

If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE.







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