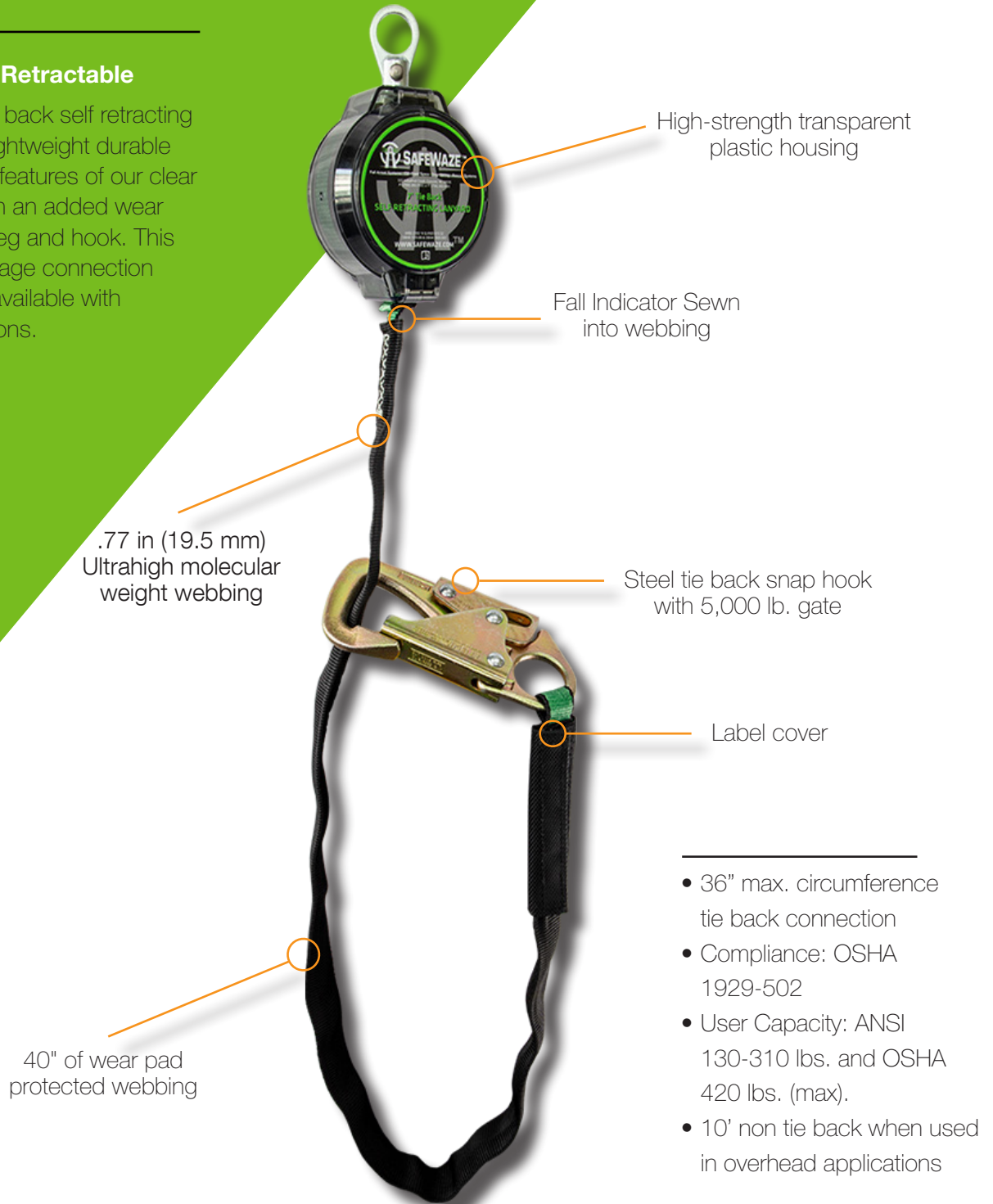


# 7' Tie Back Retractable Series

## 018-5028 7' Tie Back Retractable

Our new 7' single leg tie back self retracting lifeline offers the same lightweight durable housing, and innovative features of our clear housing 7' web SRL with an added wear pad protected tie back leg and hook. This SRL provides an anchorage connection from 9.5" to 36" and is available with multiple connection options.



The retractable also features an industry exclusive internal breaking system that increases the dependability of the unit while eliminating the need for an external shock pack.



# 7' Dual-Leg Tie-Back Retractable Series

## 018-5136 7' Tie-Back Retractable with BWB

Our new 7' dual leg tie back self retracting lifeline offers the same lightweight durable housing, and innovative features of our clear housing 7' dual leg SRLs with added wear pad protected tie back legs and hooks. This dual leg unit provides an anchorage connection from 9.5" to 36" and is available with a variety of connection options.



1014 Behind the web bracket included

\*Also available with the below brackets



9013



FS-EX313

High-strength transparent plastic housing

Fall Indicator Sewn into webbing

Steel tie back snap hooks with 5,000 lb. gate

Label cover

.77 in (19.5 mm) Ultrahigh molecular weight webbing

40" of wear pad protected webbing

- 36" max. circumference tie back connection
- Compliance: OSHA 1929-502
- User Capacity: ANSI 130-310 lbs. and OSHA 420 lbs. (max).
- 10' non tie back when used in overhead applications

The retractable also features an industry exclusive internal breaking system that increases the dependability of the unit while eliminating the need for an external shock pack.



# 7' Tie-Back Retractable Series

## 018-5037 7' Tie-Back Retractable - 20" Version

The 20" version of our new 7' dual leg tie-back is designed for working environments where longer tie-back webbing could potentially create a hazard when working around moving equipment, by coming in contact with chemicals, or other potential dangers. This dual leg unit provides an anchorage connection up to 17" and is available with two behind the web bracket options.

9013 Behind the web bracket included

\*Also available with the below bracket



FS1014

High-strength transparent plastic housing

.77 in (19.5 mm)  
Ultrahigh molecular weight webbing

Fall Indicator Sewn into webbing

Steel tie back snap hooks with 5,000 lb. gate

20" of wear pad protected webbing

Label Cover

- 17" max. circumference tie back connection
- Compliance: ANSI Z359.14
- User Capacity: ANSI 130-310 lbs. and OSHA 420 lbs. (max).
- 8.5' non tie back when used in overhead applications

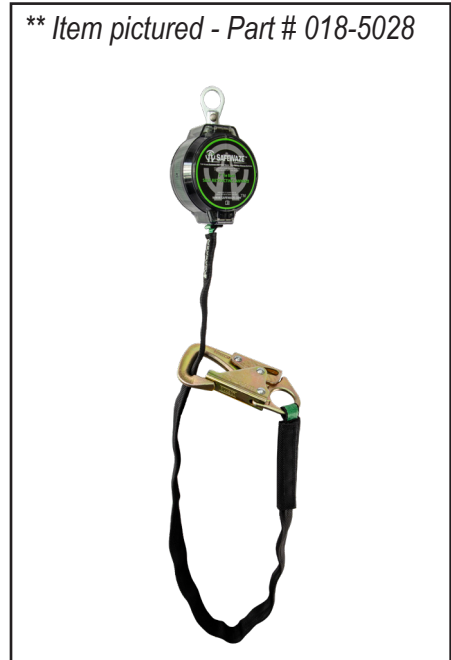
The retractable also features an industry exclusive internal breaking system that increases the dependability of the unit while eliminating the need for an external shock pack.





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 322 Industrial Court, Concord, NC 28025

## TECHNICAL DATA SHEET



### 7' Web Tie Back SRD Series

#### Features and Benefits

Safewaze™ 7' Web Tie Back SRD's are designed to be used as a single-person fall protection device. All configurations feature a unique clear plastic housing for enhanced unit inspections and a revolutionary internal braking system, which alleviates the need for an external shock pack in such a small, ergonomic SRL. Fall indicator is sewn into webbing.

#### Length of Web

7 ft (2.13 m)

#### Weight of Unit

*(See Page 2 for configuration options and weights)*

#### Materials

High-strength clear plastic housing  
 .77 in (19.5 mm) Ultrahigh Molecular Weight Webbing  
 Steel Tie Back snap hook

#### Hook Ratings

5,000 lbs (2267.96 kg) Tensile Strength  
 3,600 lbs (1632 kg) Gate Rated

#### Maximum Arresting Force

<1,800 lbs (816.47 kg)

#### Maximum Arrest Distance

24 in (60.96 cm) if used above Dorsal D-ring  
 54 in (137.16 cm) if used up to a maximum of 2 ft below Dorsal D-ring

#### Maximum Working Load

ANSI 130-310 lbs (58.97-140.61 kg)  
 OSHA up to 420 lbs (190.51 kg)

#### Webbing Tensile Strength

4,200 lbs (1905.09 kg)

#### Applicable Standards

Meets OSHA 1926.502 - ANSI A10.32



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## 7' Web Tie Back Series Single Leg Configuration Options

SINGLE	Web Connection		Housing Connection			Weight in lbs. including carabiner					
	Additional Tie back Length in Feet	3/4" Steel Tie Back Length in Inches	Housing	No Carabiner	Triple Lock Steel Carabiner	Aluminum Carabiner					
018-5028	7	40	WEB	X	PLASTIC	X					2.5
018-5029	7	40	WEB	X	PLASTIC		X				3.1
018-5030	7	40	WEB	X	PLASTIC			X			2.9
018-5031	7	40	WEB	X	PLASTIC				X		2.8



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## TECHNICAL DATA SHEET

### 7' Web Dual Leg Tie Back SRD Series



**Features and Benefits** Safewaze™ 7' Web Dual Leg Tie Back SRD's are designed to be used as a single-person fall protection device. All configurations feature unique clear plastic housings for enhanced unit inspections and a revolutionary internal braking system, which alleviates the need for an external shock pack in such a small, ergonomic SRL. Fall indicators are sewn into webbing.

**Length of Web** 7 ft (2.13 m) / 40 in length of Tie Back Webbing

**Weight of Unit** *(See Page 2 for configuration options and weights)*

**Materials** High-strength clear plastic housings  
 .77 in (19.5 mm) Ultrahigh Molecular Weight Webbing  
 Steel Tie Back snap hooks

**Hook Ratings** 5,000 lbs (2267.96 kg) Tensile Strength  
 3,600 lbs (1632 kg) Gate Rated

**Maximum Arresting Force** <1,800 lbs (816.47 kg)

**Maximum Arrest Distance** 24 in (60.96 cm) if used above Dorsal D-ring  
 54 in (137.16 cm) if used up to a maximum of 2 ft below Dorsal D-ring

**Maximum Working Load** ANSI 130-310 lbs (58.97-140.61 kg)  
 OSHA up to 420 lbs (190.51 kg)

**Webbing Tensile Strength** 4,200 lbs (1905.09 kg)

**Applicable Standards** Meets OSHA 1926.502 - ANSI A10.32



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## 7' Web Tie Back Series Dual Leg Configuration Options

DUAL	Web Connection		Housing Connection							Weight in lbs. including carabiner			
	Additional Tie back Length in Feet	3/4" Steel Tie Back Length in Inches	Material	Housing	FS-EX3-13 Dual Bracket	No Carabiner	Triple Lock Steel Carabiner	Aluminum Carabiner	9013 Behind the Web Bracket		1014 Behind the Web Bracket		
018-5032	7	40	WEB	X	PLASTIC	X	X						5.4
018-5033	7	40	WEB	X	PLASTIC	X		X					5.95
018-5034	7	40	WEB	X	PLASTIC	X			X				5.9
018-5035	7	40	WEB	X	PLASTIC	X				X			5.73
018-5036	7	40	WEB	X	PLASTIC						X		5.7
018-5037	7	20	WEB	X	PLASTIC						X		5.65
019-5136	7	40	WEB	X	PLASTIC							X	5.95
019-5137	7	20	WEB	X	PLASTIC							X	5.9



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## TECHNICAL DATA SHEET

### 7' Web Dual Leg Tie Back SRD Series (20" Tie Back Webbing)

\*\* Item pictured - Part # 018-5037



**Features and Benefits** Safewaze™ 7' Web Dual Leg Tie Back SRD's are designed to be used as a single-person fall protection device. All configurations feature unique clear plastic housings for enhanced unit inspections and a revolutionary internal braking system, which alleviates the need for an external shock pack in such a small, ergonomic SRL. Fall indicators are sewn into webbing.

**Length of Web** 7 ft (2.13 m) / 20 in length of Tie Back Webbing

**Weight of Unit** *(See Page 2 for configuration options and weights)*

**Materials** High-strength clear plastic housings  
 .77 in (19.5 mm) Ultrahigh Molecular Weight Webbing  
 Steel Tie Back snap hooks

**Hook Ratings** 5,000 lbs (2267.96 kg) Tensile Strength  
 3,600 lbs (1632 kg) Gate Rated

**Maximum Arresting Force** <1,800 lbs (816.47 kg)

**Maximum Arrest Distance** Class A up to 24 in (60.96 cm) if used above Dorsal D-ring  
 Class B up to 54 in (137.16 cm) if used up to a maximum of 2 ft below Dorsal D-ring

**Maximum Working Load** ANSI 130-310 lbs (58.97-140.61 kg)  
 OSHA up to 420 lbs (190.51 kg)

**Webbing Tensile Strength** 4,200 lbs (1905.09 kg)

**Applicable Standards** Meets OSHA 1926.502 - ANSI Z359.14 - ANSI A10.32





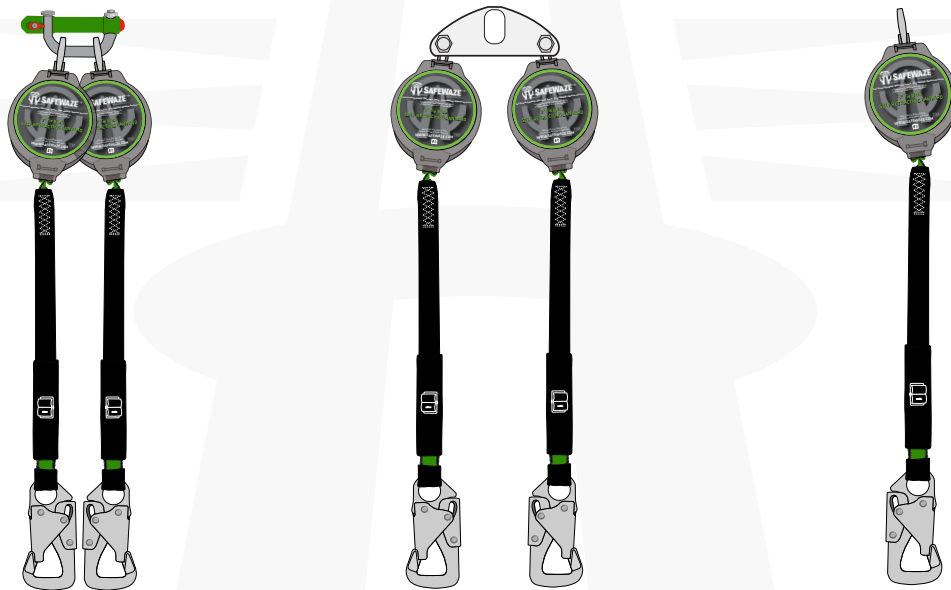
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 322 Industrial Court, Concord, NC 28025

## 7' Web Tie Back Series Dual Leg Configuration Options

		Web Connection		Housing Connection										Weight in lbs. including carabiner
DUAL	Additional Tie back Length in Feet	3/4" Steel Tie Back Length in Inches	Material	Housing	FS-EX313 Dual Bracket	No Carabiner	Triple Lock Steel Carabiner	Aluminum Carabiner	9013 Behind the Web Bracket	1014 Behind the Web Bracket	Weight in lbs. including carabiner			
	018-5032	7	40	WEB	X	PLASTIC	X	X						5.4
	018-5033	7	40	WEB	X	PLASTIC	X		X					5.95
	018-5034	7	40	WEB	X	PLASTIC	X			X				5.9
	018-5035	7	40	WEB	X	PLASTIC	X				X			5.73
	018-5036	7	40	WEB	X	PLASTIC						X		5.7
	018-5037	7	20	WEB	X	PLASTIC						X		5.65
	019-5136	7	40	WEB	X	PLASTIC							X	5.95
	019-5137	7	20	WEB	X	PLASTIC							X	5.9



# 7' Tie Back Self Retracting Lanyard Instruction Manual



## WARNING



This product is part of a personal fall arrest, work positioning, or rescue system. The manufacturer's instructions must be provided to users of this equipment. The user must follow the manufacturer's instructions for each component of the system. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations to this product, misuse of this product, or failure to follow instructions may result in serious injury or death.



## IMPORTANT

Questions regarding the use, care, or suitability of this equipment for your application? Contact SAFEWAZE™.



## IMPORTANT

Record identification information before using this product. Identification information may be found on the equipment label (see figure 7). This information should be recorded in the "Inspection and Maintenance Log" located at the back of this manual (p 16).

**ANSI Z359.14 and ANSI/ASSE A10.32 - OSHA 1910.66 and OSHA 1926.502**  
This manual is intended to meet the manufacturer's instructions as required by ANSI Z359.14 and should be used as part of an employee training program as required by OSHA.

## Descriptions

Table 1 illustrates the connector options available for our 7' Tie Back Retractable series when ordered in a Single Leg configuration. Table 2 illustrates the connector options available for the Tie Back Retractable series when ordered in a Dual Leg configuration.

Safewaze Tie Back Self Retracting Lanyards contain 7 ft (2.13m) of Ultrahigh Molecular Weight Webbing within the housing, and an additional length of webbing extending beyond the external housing to allow for Tie Back connections. Both single and dual leg options are available in a variety of configurations based upon users preference.

Tie Back SRL units extend and retract freely with normal movement. If a fall occurs the system locks automatically, arresting the fall, and keeps the worker from falling further.

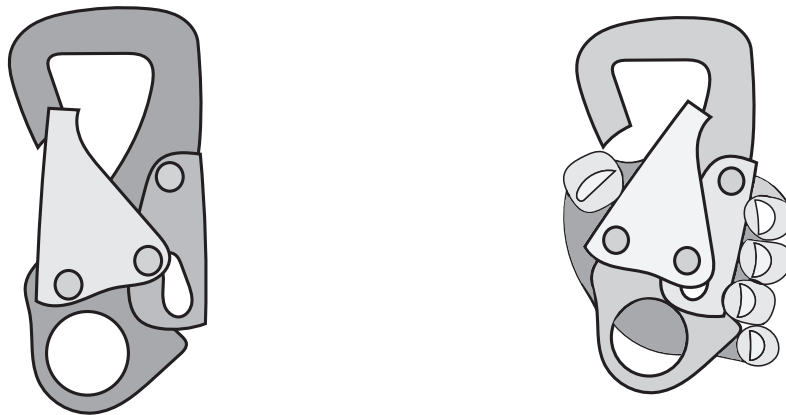
All connectors utilized in our Tie Back series SRL's meet the criteria as specified in ANSI Z359.12 and are stamped indicating compliance with the standard.

Labeling for the Tie Back series is divided between one housing label, with the remaining mandatory labeling contained within a velcro fastening enclosure incorporated into the webbing below the sewn in fall indicator.

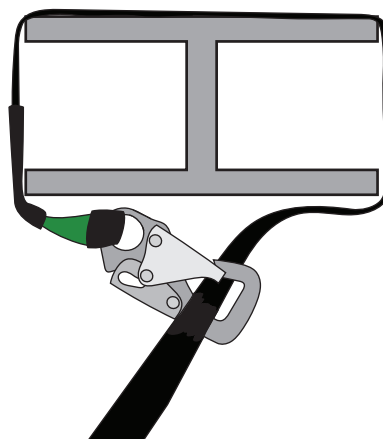
Safewaze Tie Back series SRL's are tested to ANSI Z359.14 requirements. However, due to the extended Tie Back webbing, which is external of the housing, only the 018-5037 is ANSI Z359.14 compliant. All other models in this Tie Back Series are OSHA 1926.502 only.

Safewaze Tie Back SRL's have 7' of extendable/retractable webbing within the housing. This does not however define the products "working length", or limit the use of this product to 7". Since this is a Tie Back device, the size and location of the anchorage connection point defines the maximum working length. Please refer to Figure 6a, 6b, and 6c for suitable anchor connections and locations for a final description of the working length of this product (Maximum Length of 10').

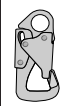



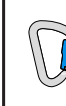
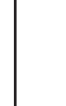
### Tie Back Hook Operation



### Tie Back Connection Example



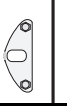


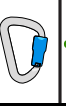
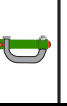



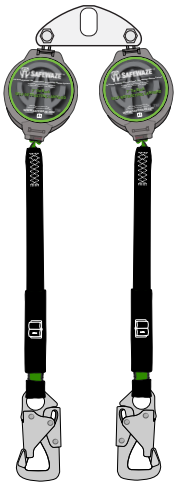
**Table 1 - Single Leg Configuration Options**

		Web Connection		Housing Connection							
											
SINGLE	Additional Tie back Length in Feet	3/4" Steel Tie Back Length in Inches	Material	Housing	No Carabiner	Triple Lock Steel Carabiner	Aluminum Carabiner				
	018-5028	7	40	WEB	X	PLASTIC	X				
	018-5029	7	40	WEB	X	PLASTIC		X			
	018-5030	7	40	WEB	X	PLASTIC			X		
	018-5031	7	40	WEB	X	PLASTIC					X



**Table 2 - Dual Leg Configuration Options**

		Web Connection		Housing Connection										
														
DUAL	Additional Tie back Length in Feet	3/4" Steel Tie Back Length in Inches	Material	Housing	FS-EX313 Dual Bracket	No Carabiner	Triple Lock Steel Carabiner	Aluminum Carabiner	9013 Behind the Web Bracket	1014 Behind the Web Bracket				
	018-5032	7	40	WEB	X	PLASTIC	X	X						
	018-5033	7	40	WEB	X	PLASTIC	X		X					
	018-5034	7	40	WEB	X	PLASTIC	X			X				
	018-5035	7	40	WEB	X	PLASTIC	X				X			
	018-5036	7	40	WEB	X	PLASTIC						X		
	018-5037	7	20	WEB	X	PLASTIC						X		
	019-5136	7	40	WEB	X	PLASTIC								X
	019-5137	7	20	WEB	X	PLASTIC								X



## 1.0 Applications

### 1.1 Purpose

SAFEWAZE™ Tie Back series SRL's are designed for use in environments where a fall could occur. The purpose is to prevent the fall or limit the potential free fall as much as possible. Applications include, but are not limited to: roofing, concrete, steel, MEP, industrial maintenance, and material handling. Tables 1 and 2, show the models covered in this manual.

### 1.2 Standards

SAFEWAZE™ Tie Back series SRL's conform to the national standard(s) identified on their ID label. Refer to local, state, and federal (OSHA) requirements for additional information concerning the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

**TABLE 3 - ANSI STANDARDS**

ANSI	Z359.0	Definitions and Nomenclature Used for Fall Protection and Fall Arrest
ANSI	Z359.2	Minimum Requirements for a Comprehensive Managed Fall Protection Program
ANSI	Z359.12	Connecting Components for Personal Fall Arrest Systems
ANSI	Z359.14	Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems
ANSI	A10.32	Personal Fall Protection use in Construction and Demolition

**TABLE 3 - OSHA REGULATIONS**

OSHA	1926.502	Fall Protection Systems Criteria and Practices
OSHA	1910.66	Fall Protection General Industry

### 1.3 Training

This equipment is intended to be used by persons trained in its correct application and use. It is the responsibility of the user to assure they are familiar with these instructions and are trained in the correct care and use of this equipment. Users must be aware of the operating characteristics, applications, limits, and the consequences of improper use.

## 2.0 Limitations & Requirements

When installing or using this equipment always refer to the following requirements and limitations:

### 2.1 Capacity

SAFEWAZE™ Tie Back series Self Retracting Lanyards (SRL's) are all designed in compliance with ANSI Z359.14 to meet the weight capacity range of (130-310 lbs), OSHA up to 420 lbs (190.51 kg).

### 2.2 Anchorage

Anchorage selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 5,000 lbs. (22.2 kN) for non-certified anchorages, or
2. Two times the maximum arresting force for certified anchorages.

When more than one fall arrest system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.

### From OSHA 1926.500 And 1910.66

Anchorage used for attachment of personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms, and capable of supporting at least 5,000 lbs (22.2 kN) per user attached, or be designed, installed, and used as part of a complete personal fall arrest systems which maintains a safety factor of at least two, and is under the supervision of a qualified person.



**WARNING:** The anchor point must be located at the same height or above the Walking / Working surface where a fall might occur. Never anchor SAFEWAZE™ SRL's below user's feet. SAFEWAZE™ Tie Back series SRL's are Class A if used above Dorsal D-ring. SAFEWAZE™ Tie Back series SRL's are Class B if used up to a maximum of 2 ft below Dorsal D-ring. Failure to comply with this warning may result in equipment malfunction, serious injury, or death.

## 2.3 INSPECTION FREQUENCY

Either the Authorized Person<sup>1</sup> (User), or the Rescuer<sup>2</sup> must inspect this equipment before each use. Factory authorized inspections must be completed by a Competent Person<sup>3</sup> other than the equipment user. The inspection table (Table 4) on should be used to determine proper inspection frequency. The inspection checklist (see page 16) describes proper inspection procedures. The Competent Person should record inspection results in the “Maintenance Log” located in the back of this manual. (p 17)

- 1 **Authorized Person:** A person assigned by the employer to perform duties at a location where such person will be exposed to a fall hazard.
- 2 **Rescuer:** Person or persons other than the rescue subject acting to perform an assisted rescue by operation of a rescue system.
- 3 **Competent Person:** An individual designated by the employer to be responsible for the immediate supervision, implementation, and monitoring of the employer’s managed fall protection program who, through training and knowledge, is capable of identifying, evaluating, and addressing existing and potential fall hazards, and who has the employer’s authority to take prompt corrective action with regard to such hazards.

**TABLE 4 - INSPECTION SCHEDULE PER ANSI Z359.14**

Type of Use	Application Examples	Conditions of Use	Inspection Frequency Competent Person
Infrequent 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 Environment	Quarterly to Semi-Annually

## 2.4 Rescue Plan

When using this equipment, employers must create a rescue plan, and provide the means to implement said rescue plan. This plan must be communicated to equipment users, authorized persons, and rescuers.



**NOTE:** Special rescue measures may be required for a fall over an edge.

## 2.5 Locking Speed

The nature of this equipment requires sufficient space in the working area to allow for the SRL to lock. Working in small or confined spaces may keep the user’s body from reaching the speed needed to lock the SRL during a fall. Working on slowly shifting materials, such as grain or sand, may not allow the speed needed to cause the SRL to lock.

## 2.6 Normal Operations

During normal operation the SRL lifeline should freely extend and retract without hesitation. When moving at normal speeds the lifeline will have no slack. A fall will activate the brake system and stop the fall. Avoid sudden or fast movements during normal operation as this may cause the SRL to lock.

## 2.7 Free Fall

In order to ensure reduced fall distances, always attempt to anchor the SRL directly overhead. Overhead anchoring will limit free fall distance to a minimum. Be aware of workers sharing the workspace to avoid becoming tangled with another worker. Steer clear of objects that could fall and impact the lifeline. The lifeline should never pass under the user’s arms or legs. The lifeline should never be knotted, clamped, or be otherwise restricted from retraction or a taut state.

## 2.8 Hazards

External hazards can require additional precautions to be taken when using this SRL. Hazards may include but are not limited to: Overhead operations, other equipment, other workers, external environment, weather and walking surface. Users should be trained to watch for other hazards not listed here.

## 2.9 Sharp Edges

Use of this equipment should be avoided in areas where the lifeline may come into contact with sharp, abrasive and/or leading edges unless otherwise noted.

## 2.10 Body Support

The SRL must be used with a Full Body Harness. Connection to the Full Body Harness must be made at the Dorsal D-ring. SAFEWAZE™ Tie Back series SRL's are not rated for use with a body belt. Use of SAFEWAZE™ Tie Back series SRL's with a body belt may result in injury.

## 2.11 Fall Clearance

It is important to make sure that adequate clearance is available. Free Fall, Maximum Arrest Distance, Height of Worker, and current clearance above the next fall hazard must all be considered in the Fall Clearance calculation.

## 2.12 Determine Fall Clearance Required

**Determining fall clearance is critical in understanding the correct connecting device to use. The lower the clearance height, the less options available to connect to the anchor point with. To Determine Fall Clearance several factors must be considered:**

**Length of Anchorage connector (LA)**

**Length of Connecting device (LC)**

**Maximum Arrest Distance of connecting device (MAD)**

**Height of Worker (HW)**

**Safety Factor (SF) - (Includes harness stretch, typically 2')**

**Distance from Anchor Point to next closest obstruction (DAP)**

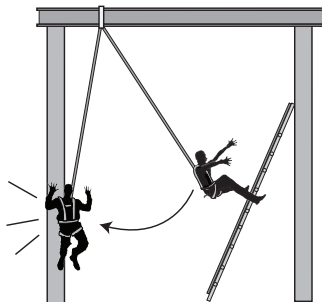
Using the above information Fall Clearance (FC) can be determined with the following formula

$$FC \text{ (from anchor point)} = LA + LC + MAD + HW + SF$$

## 2.13 Swing Falls

An anchorage point located in a position that is not directly over the user's fall location results in a swing fall (see Figure 1). Swing falls may result in the user striking an object with enough force to cause serious injury. Greater clearance is needed to ensure safety during a swing fall as vertical fall distance will be greater than a fall originating directly below the anchorage point.

**FIGURE 1 - SWING FALLS**



## 2.14 COMPATIBILITY OF COMPONENTS

Unless otherwise noted, SAFEWAZE™ equipment is designed for use with SAFEWAZE™ approved components and subsystems only. Substitutions or replacements made with non approved components or subsystems may jeopardize compatibility of equipment and may affect safety and reliability of the complete system.



**IMPORTANT:** Read and follow manufacturer's instructions for associated components and subsystems in your personal fall arrest system.

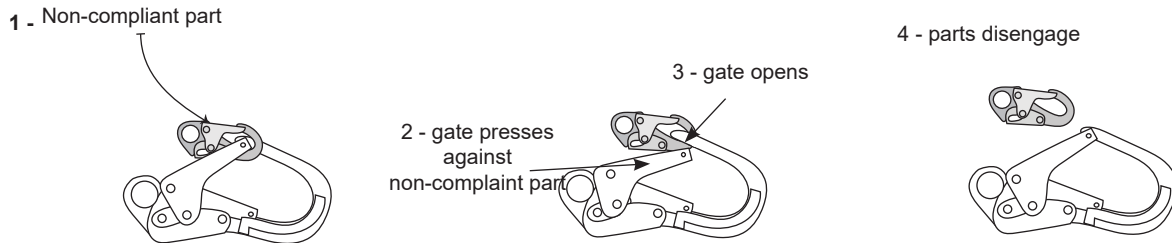
## 2.15 COMPATIBILITY OF CONNECTORS

Connectors are compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2 kN). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (see Figure 2). Connectors must be compatible with the anchorage or other system components (see Figure 3). Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by ANSI Z359 and OSHA guidelines. Contact SAFEWAZE™ if you have any questions about compatibility.



**NOTE:** SOME SPECIALTY CONNECTORS HAVE ADDITIONAL REQUIREMENTS. CONTACT SAFEWAZE™ WITH QUESTIONS.

### FIGURE 2 - UNINTENTIONAL DISENGAGEMENT



Using a connector that is undersized or irregular in shape (1) to connect a snap hook or carabiner could allow the connector to force open the gate of the snap hook or carabiner. When force is applied, the gate of the hook or carabiner presses against the non-compliant part (2) and forces open the gate (3). This allows the snap hook or carabiner to disengage (4) from the connection point.

## 2.16 MAKING CONNECTIONS

Snap hooks and carabiners used with this equipment must be double locking and/or twist lock. Carabiners supplied for use with SAFEWAZE™ Tie Back Series are available in forged steel or aluminum. Both carabiners are double locking. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

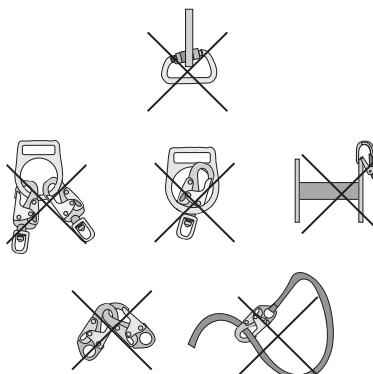
SAFEWAZE™ connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. (See Figure 3) for examples of inappropriate connections. Do not connect snap hooks and carabiners:

- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie back hooks). NOTE: Large snap hooks must not be connected to objects which will result in a load on the gate if the hook twists or rotates, unless the snap hook complies with ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify its compatibility.



**NOTE:** Large throat snap hooks must not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates, unless the snap hook complies with ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify that it is appropriate for your application.

### FIGURE 3 - INAPPROPRIATE CONNECTIONS





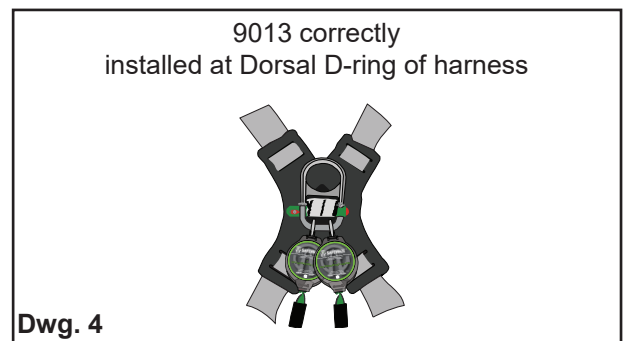
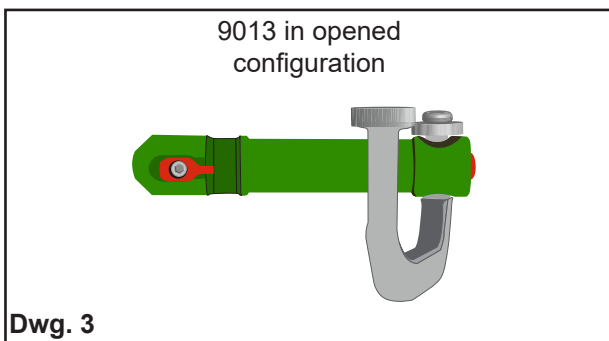
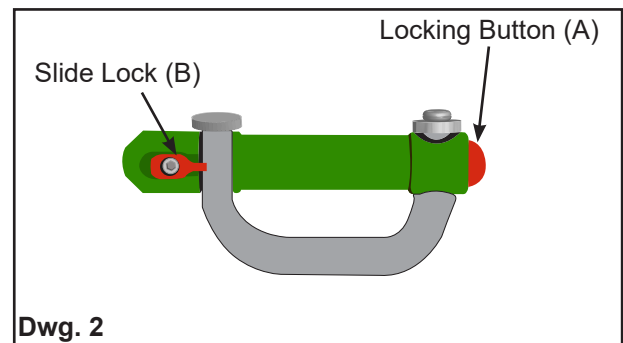
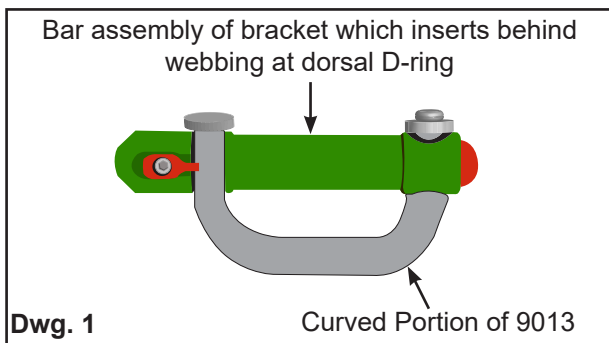
### 3.0 HARNESS MOUNTING WITH 9013 BEHIND THE WEB BRACKET

The 9013 bracket comes fully assembled and ready for installation. No tools are required for installation of the bracket onto harness. Use the following instructions and Figure 4 to install the 9013 Behind the Web Bracket.

To Fasten To Harness:

1. Ensure that the curved portion of 9013 is in a downward orientation relative to the harness (See Figure 4, Dwg. 1)).
2. Simultaneously depress both locking button (A) and and slide lock (B) (See Figure 4, Dwg. 2) to swing the bracket open (See Figure 4, Dwg. 3,).
3. With the bracket open, install dual leg retractables onto the bracket via the swivel tops of each. Swivels should be hanging on the curved portion of bracket.
4. Slide the bar behind both loops of webbing at dorsal D-ring. Swing the bracket closed until it locks into place.
5. Check the locking function of the bracket by attempting to swing the bracket open WITHOUT depressing locking button (A) or slide lock (B). Bracket bar should not move and the bracket is now locked into place.
6. Dual leg Retractable can be easily installed and removed from bracket by once again depressing both locking button (A) and slide lock (B), which allows bracket to swing open without complete removal from harness.

**FIGURE 4 - 9013 DUAL BRACKET INSTALLATION**



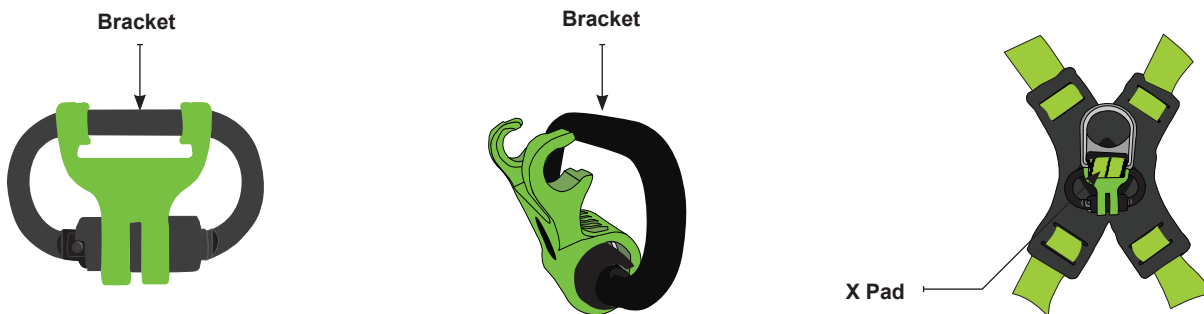
### 3.1 HARNESS MOUNTING WITH BEHIND THE WEB BRACKET

The behind the web bracket comes fully assembled and ready for installation. No tools are required for installation of the bracket onto harness. Use the following instructions and Figure 5 to install the bracket:

To Fasten To Harness:

1. Unfasten the two small brackets on the green retractable spacer off of the carabiner.
2. Slide the green spacer around to the side of carabiner to allow opening of the carabiner gate.
3. Open the carabiner gate and slide spacer off of carabiner and remove one of the retractables.
4. Holding gate open on carabiner, insert the open end of carabiner through the webbing loops at Dorsal D-ring on the X Pad of harness. Ensure that both loops of webbing on X Pad are inside of carabiner.
5. With carabiner gate still open, slide the removed retractable and green spacer back onto carabiner and allow carabiner gate to close.
6. Slide the green retractable spacer back over the gate of carabiner and snap the two small brackets back into place on carabiner, with the web loops positioned between these two small brackets.

**FIGURE 5 - BEHIND THE WEB BRACKET INSTALLATION**



#### 4.0 USE



**WARNING:** Contact SAFEWAZE™ if you have questions, regarding compatibility of this equipment, that are not covered in this manual. Do not alter or misuse this equipment. Some subsystem components could affect the performance and the operation of this equipment. Do not anchor this product to moving machinery, or hazards that include chemical, electrical or gaseous characteristics. Failure to comply with this warning could result in serious injury or death.



**WARNING:** Consult your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use SAFEWAZE™ SRL's. Failure to heed this warning may result in serious injury or death.

#### 4.1 OPERATION

Inspect the SRL, as described in section 8, before using the equipment. Refer to Figure 6a for the most common system connections used with SRL applications. Depending on the SRL model, mount the SRL either to an approved anchor point or on the back of a Full Body Harness as described in section 2.10. Connect the snap hook or carabiner to a suitable anchorage. Ensure connections are compatible in size, shape, and strength. Ensure hooks are fully closed and locked. When the worker is fully attached, the worker is then free to move about within the recommended working area. If a fall occurs, the SRL will lock and arrest the fall. Upon rescue, remove the SRL from use. When working with an SRL, always allow the lifeline to retract back into the device in a controlled manner. Do not release the unit to "free-spin" back into itself.



**WARNING:** Do not tie or knot the lifeline. Avoid lifeline contact with sharp or abrasive surfaces. Inspect the lifeline frequently for cuts, fraying, burns, or signs of chemical damage. Dirt, contaminants, and water can lower performance of the lifeline. Use caution near power lines. Failure to comply with this warning may result in serious injury or death.

#### 4.2 AFTER A FALL

Equipment exposed to the force of a fall, or that shows damage consistent with the effects of a fall, must be removed from service immediately. Equipment must then be repaired (see section 5.1) in the correct manner or disposed of (see section 8.5).

#### 4.3 BODY SUPPORT

A full body harness must be worn when using SAFEWAZE™ Tie Back series SRL's.



**IMPORTANT:** Do not use a body belt for free fall applications. See OSHA 1926.502 for guidelines.

#### 4.4 SYSTEM CONNECTIONS

Figure 6A illustrates harness and anchorage connections for SAFEWAZE™ SRL Fall Arrest Systems. When using a snap hook to make a connection, ensure roll-out cannot occur (see figure 2). Do not use snap hooks or carabiners that will not completely close over the anchor point. This includes traditional overhead anchor point tie off, housing attachment to dorsal D-ring, and 100% tie off. Follow the manufacturer's instructions supplied with each system component.

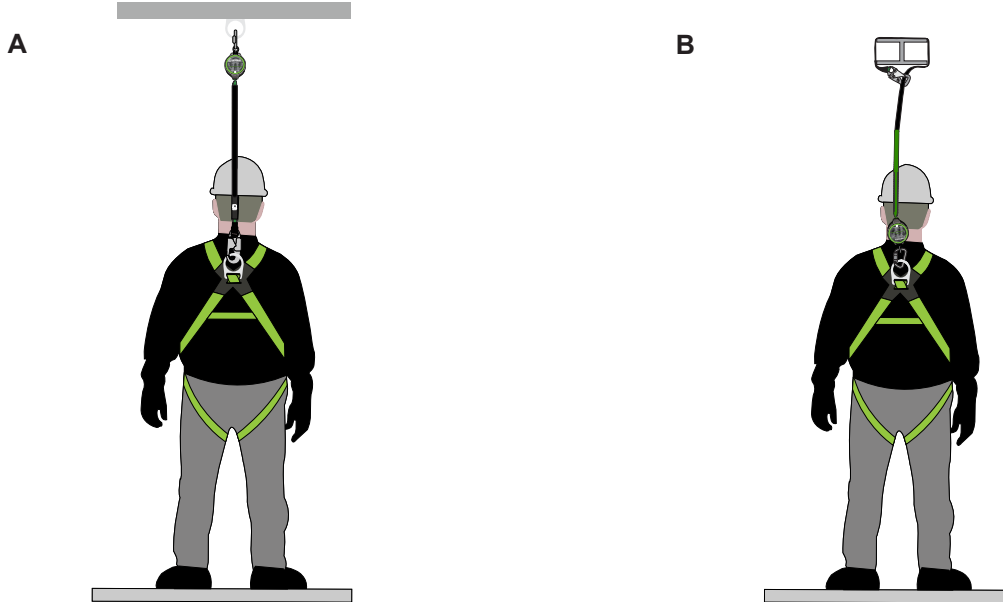


**WARNING:** Never connect the snap hook of one SRL to the lifeline of another SRL or lanyard. Failure to comply with this warning may result in equipment malfunction, serious injury or death.

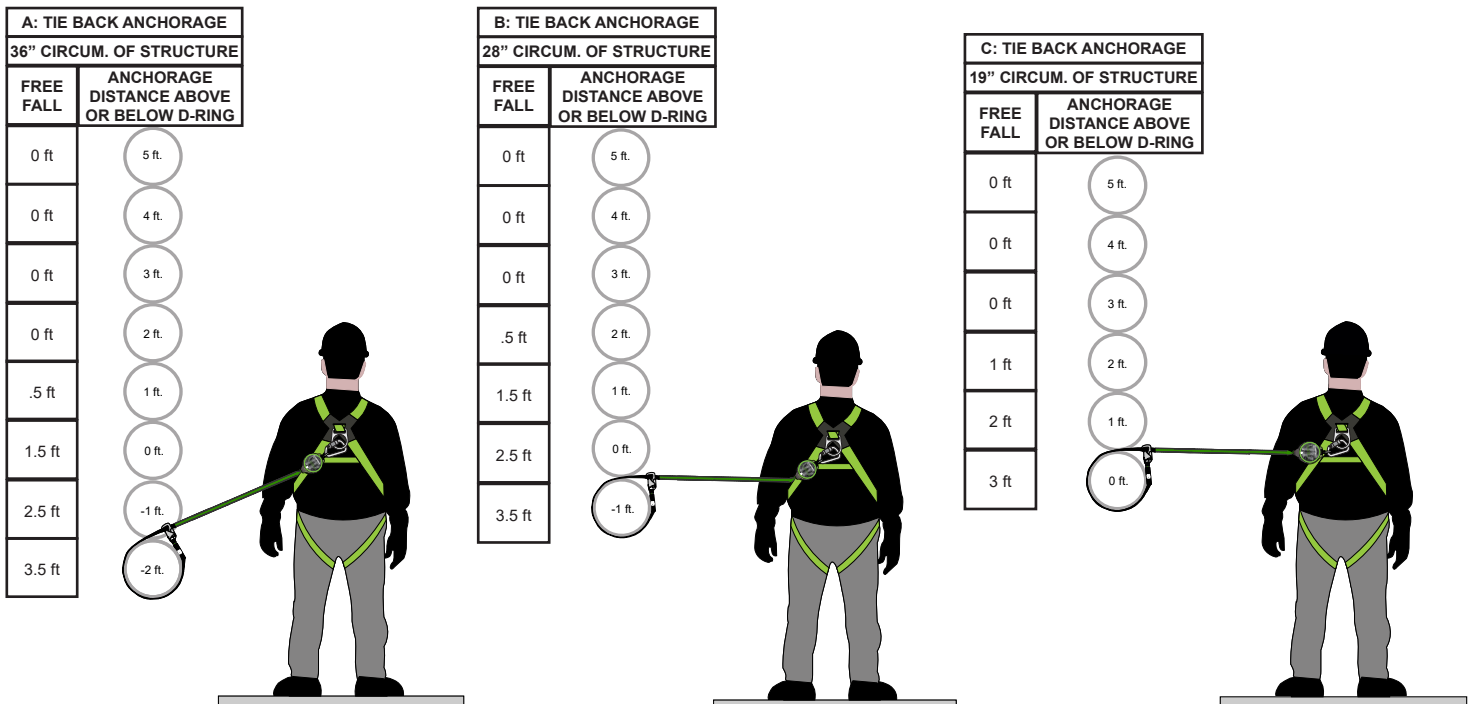
## 4.5 ANCHORAGE

Figure 6a Illustrates typical SAFEWAZE™ Tie Back series SRL anchorages and connections. Select an anchorage location with minimal free fall and swing fall hazards (see Section 2). Select a rigid anchorage point capable of sustaining static loads as defined in section 2.2. Where anchoring overhead is not feasible, SAFEWAZE™ Tie Back series SRL's may be secured to anchorage points to the level of 2 ft below the user's dorsal D-Ring, but never below the user's feet. NOTE: THIS ADJUSTMENT WILL ADJUST THE TOTAL FREE FALL AND MAXIMUM ARREST DISTANCE OF A FALL.

**FIGURE 6a - SYSTEM CONNECTIONS**

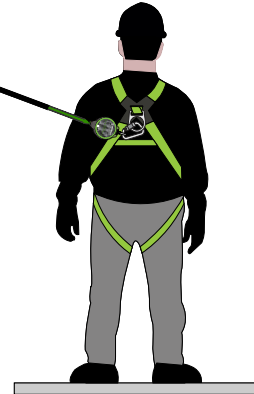
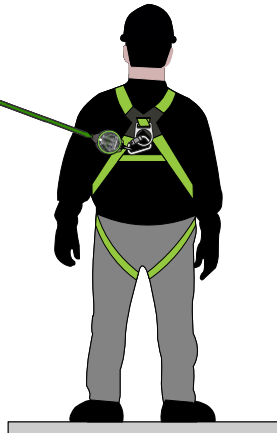


**FIGURE 6b - SYSTEM CONNECTIONS**



D: TIE BACK ANCHORAGE	
9.5" CIRCUM. OF STRUCTURE	
FREE FALL	ANCHORAGE DISTANCE ABOVE OR BELOW D-RING
0 ft	5 ft.
0 ft	4 ft.
1 ft	3 ft.
2 ft	2 ft.
3 ft	1 ft.

E: DIRECT ANCHORAGE	
FREE FALL	ANCHORAGE DISTANCE ABOVE OR BELOW D-RING
0 ft	0 ft. —
0 ft	9 ft. —
0 ft	8 ft. —
0 ft	7 ft. —
0 ft	6 ft. —
0 ft	5 ft. —
0 ft	4 ft. —
0 ft	3 ft. —
0 ft	2 ft. —
0 ft	1 ft. —

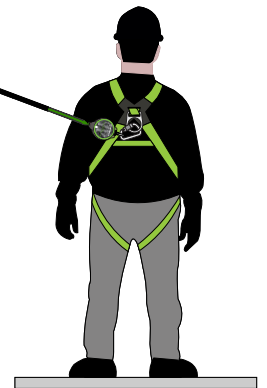
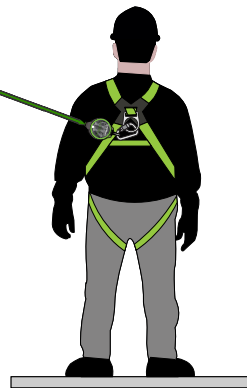
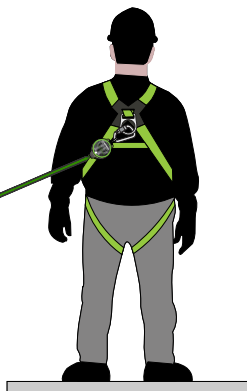


**FIGURE 6c - SYSTEM CONNECTIONS (SPECIFIC TO PART NUMBERS 018-5037 & 019-5137)**

A: TIE BACK ANCHORAGE	
17" CIRCUM. OF STRUCTURE	
FREE FALL	ANCHORAGE DISTANCE ABOVE OR BELOW D-RING
0 ft	5 ft.
0 ft	4 ft.
0 ft	3 ft.
0 ft	2 ft.
.5 ft	1 ft.
1.5 ft	0 ft.
2.5 ft	-1 ft.
3.5 ft	-2 ft.

B: TIE BACK ANCHORAGE	
9.5" CIRCUM. OF STRUCTURE	
FREE FALL	ANCHORAGE DISTANCE ABOVE OR BELOW D-RING
0 ft	5 ft.
0 ft	4 ft.
1 ft	3 ft.
2 ft	2 ft.
3 ft	1 ft.

C: DIRECT ANCHORAGE	
FREE FALL	ANCHORAGE DISTANCE ABOVE OR BELOW D-RING
0 ft	8 ft. —
0 ft	7 ft. —
0 ft	6 ft. —
0 ft	5 ft. —
0 ft	4 ft. —
0 ft	3 ft. —
0 ft	2 ft. —
0 ft	1 ft. —



## 4.6 DUAL LEG SAFEWAZE™ SRL

With the dual leg version of the SAFEWAZE™ Tie Back series SRL mounted on the back of a Full Body Harness, the user can have continuous fall protection (100 % tie-off) while ascending, descending, or moving laterally. With the lifeline leg of one SRL attached to an anchorage point, the worker can move to a new location, attach the unused lifeline leg of the other SRL to another anchorage point, and then disconnect from the original anchorage point.



**IMPORTANT:** Never connect more than one person at a time to the twin-leg system.



**IMPORTANT:** Do not allow the lifelines to pass under arms or between legs.

## 5.0 MAINTENANCE, SERVICING, AND STORAGE

### 5.1 SERVICE

Remove the SAFEWAZE™ Tie Back series SRL from use if the SRL has been subjected to fall arrest forces or inspection reveals an unsafe or defective condition. If unrepairable Dispose of the SRL as recommended in section 8.5 or send the unit back to an authorized SAFEWAZE™ Service Center for repair.

### 5.2 CLEANING

Cleaning procedures for SAFEWAZE™ Tie Back series SRL's are as follows:

Periodically clean the exterior of the SRL using water and a mild soap solution.

Clean labels to maintain legibility.

An excessive buildup of debris on the web may prevent the lifeline from fully retracting back into the housing and create a potential free fall hazard. Clean webbing using water and a mild soap solution. Allow to dry fully before using or allowing web to fully retract into housing.



**IMPORTANT:** If the lifeline comes in contact with acids or other caustic chemicals, remove the SRL from service and wash with water and a mild soap solution. Inspect the SRL (using the Inspection Checklist on p 16) before returning to service.

### 5.3 STORAGE

Store SAFEWAZE™ Tie Back SRL's in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect the SRL after any period of extended storage.

## 6.0 SPECIFICATIONS

### 6.1 PERFORMANCE

SAFEWAZE™ Tie Back Series SRL's have been tested and certified to the performance requirements of the standard(s) identified on their ID labels. See Table 5a and 5b for performance specifications.

### 6.2 MAXIMUM ARREST FORCE AND MAXIMUM ARREST DISTANCE

SRL's documented in this instruction meet the following Arrest Force and Arrest Distance maximums when tested in accordance with Section 4.2.1 of ANSI Z359.14.

**TABLE 5a - CLASS A**

Average Arresting Force	≤ 1,350 lbs (6.0kN)
Maximum Arresting Force	≤ 1,800 lbs (8.0 kN)
Maximum Arrest Distance	24 in (0.61 m)

**TABLE 5b - CLASS B**

Average Arresting Force	≤ 900 lbs (5.0kN)
Maximum Arresting Force	≤ 1,800 lbs (8.0 kN)
Maximum Arrest Distance	54 in (1.37 m)

**TABLE 5c- PRODUCT SPECIFICATIONS**

Item	Length	Class	Arrest Distance If	Arrest Distance If
			Used Above Dorsal D-ring	Used Below Dorsal D-ring
018-5028	7	OSHA Only	24"	54"
018-5029	7	OSHA Only	24"	54"
018-5030	7	OSHA Only	24"	54"
018-5013	7	OSHA Only	24"	54"
018-5032	7	OSHA Only	24"	54"
018-5033	7	OSHA Only	24"	54"
018-5034	7	OSHA Only	24"	54"
018-5035	7	OSHA Only	24"	54"
018-5036	7	OSHA Only	24"	54"
018-5037	7	A	24"	54"
019-5136	7	OSHA Only	24"	54"
019-5137	7	A	24"	54"

**NOTE:** All units indicated in Table 5c meet Maximum Arrest Distances as prescribed by ANSI Z359.14. Units indicated as OSHA Only are designated as such due to length of Tie Back Webbing exceeding ANSI specified length.

## 7.0 MATERIALS

**TABLE 6 - MATERIALS**

<b>Housing</b>	Plastic with Stainless Steel Rivets	<b>9013 Bracket</b>	Forged Steel Gate, Aluminum Barrel
<b>Drum</b>	Aluminum Alloy	<b>FS-EX313 Dual D-ring Bracket</b>	Stainless Steel
<b>Fasteners</b>	Zinc Plated Alloy Steel Screws	<b>1014 Bracket</b>	Steel Alloy / Heat Treated - Nylon Clip
<b>Main Shaft</b>	Stainless Steel	<b>Swivel / Motor Spring</b>	Carbon Steel
<b>Web</b>	Ultra High Molecular Weight Webbing	<b>Snap Hook / Rebar Hook</b>	Forged Steel or Aluminum
<b>Locking Pawls</b>	Stainless Steel	<b>Web Label Cover</b>	Polyester

## 8.0 INSPECTION

### 8.1 BEFORE EACH USE

Before each use ensure that the equipment is in good working condition. Inspect the unit to ensure it has not been damaged and that the unit pays out and retracts properly. Prior to each use, the braking system must be inspected. Grasp the body of the unit in one hand and the cable/web in the other. With a quick, jerking motion, pull down on the web. The brake should engage, stopping movement almost immediately. Inspect the webbing using the “Inspection Checklist” located on page 15 of this manual, and ensure that all connection hardware is working properly. Brake failure or unsatisfactory results during any portion of the inspection, require immediate removal of the SRL from service.

### 8.2 INSPECTION FREQUENCY

SAFEWAZE™ Tie Back series SRL’s must be inspected at the intervals defined in section 2.3. Inspection procedures are described in the “Inspection Checklist” (See page 16).

### 8.3 UNSAFE OR DEFECTIVE CONDITIONS

Figure 9 shows examples of equipment damage. Equipment inspectors must be trained to look for damage to components indicated in Figure 8, as well as other damage that may occur. If inspection reveals an unsafe or defective condition remove the SRL from service.

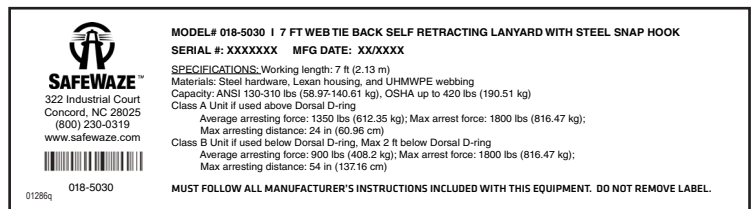
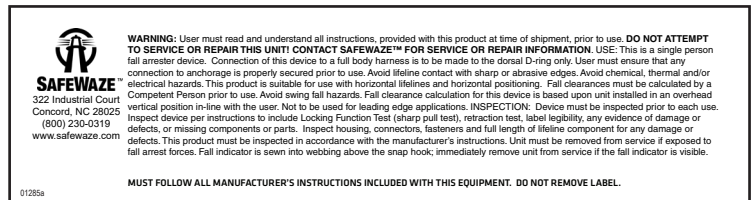
### 8.4 PRODUCT LIFE

The working life of SAFEWAZE™ SRL’s is determined by work conditions, care and inspection provided. As long as the SRL passes inspection, it may remain in service.

### 8.5 DISPOSAL

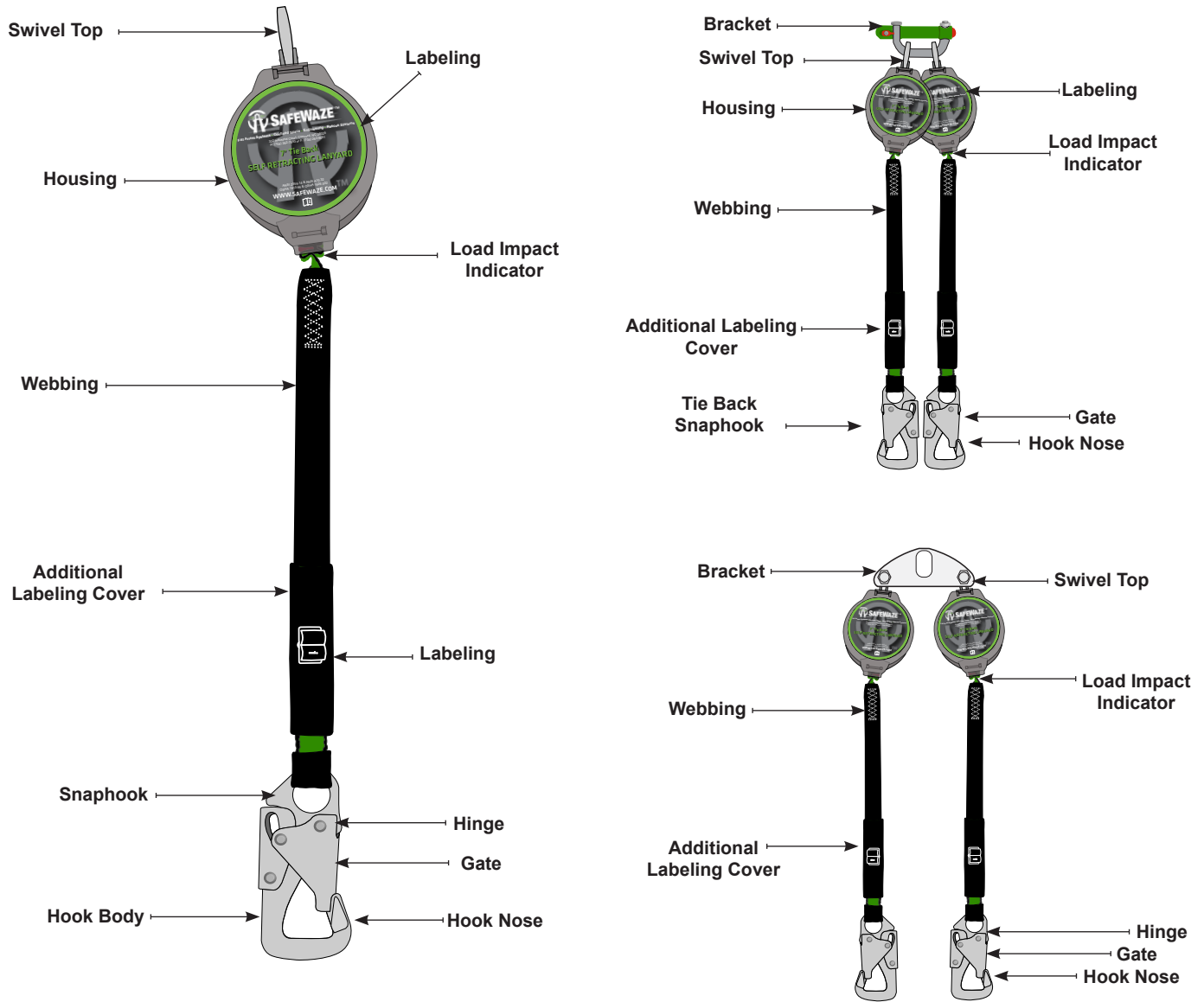
Dispose of the SAFEWAZE™ Tie Back series SRL if it has been damaged by fall arrest forces or inspection reveals an unsafe or defective condition that cannot be repaired by an authorized SAFEWAZE™ Service Center. Before disposing of the SRL, cut the web lifeline in half so that it is not mistakenly reused.

**FIGURE 7 - LABEL EXAMPLES**



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

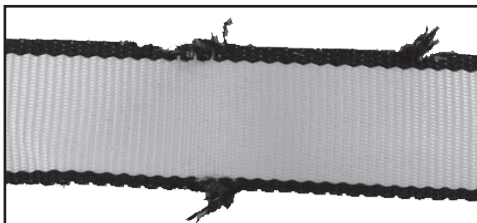
**FIGURE 8 - INSPECTION DIAGRAMS**



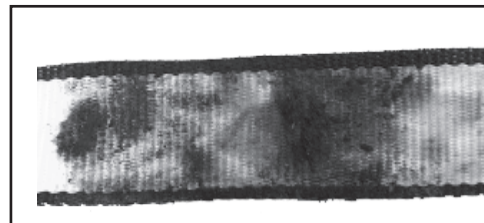
**FIGURE 9 - EXAMPLES OF EQUIPMENT DAMAGE**

**Webbing Damage Examples**

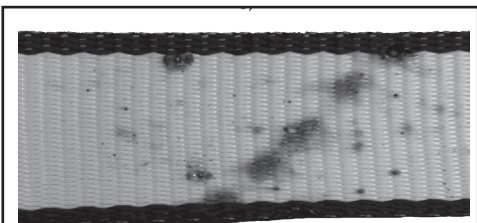
Frayed



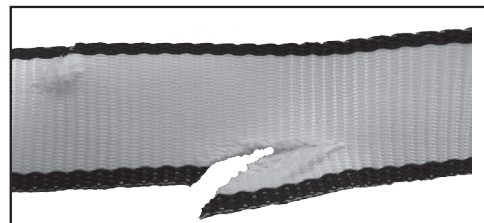
Heavily Soiled



Welding Burns



Cut



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# Inspection Checklist - Fall Protection Equipment

## Retractable Lifeline

<b>Description:</b>		<b>Model #:</b>		
<b>Serial #:</b>		<b>Date of Manufacture:</b>		
<b>Inspector:</b>		<b>Date Inspected:</b>		
	Description	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	Comments
<b>Main Unit</b>	Webbing or Cable			
	Stitching or Crimp			
	Stop Ball (cable only)			
	Spring (cable only)			
	Housing			
	Labeling or Engraving			
	Swivel Top			
<b>Hooks &amp; Carabiners</b>	Swivel on Sanphook (cable only)			
	Hook Body			
	Hook Nose			
	Load Impact Indicator			
	Gate (keeper)			
	Hinge (at gate)			
	Bracket (dual only)			
<b>Tests</b>	Carabiner			
	Retraction & Tension Braking Test			
<input checked="" type="checkbox"/> <b>PASS: Initial</b> _____		<input type="checkbox"/> <b>FAIL: Initial</b> _____		
<b>Inspector Signature:</b>				

SERIAL NUMBER:			
MODEL NUMBER:			
DATE OF PURCHASE:			
INSPECTION DATE	NOTES	CORRECTIVE ACTION	MAINTENANCE PERFORMED
APPROVED BY:			
APPROVED BY:			
APPROVED BY:			
APPROVED BY:			
APPROVED BY:			
APPROVED BY:			
APPROVED BY:			
APPROVED BY:			
APPROVED BY:			



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322 Industrial Court  
Concord, NC 28025

**PHONE: 1-800-230-0319**  
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**EMAIL: [info@safewaze.com](mailto:info@safewaze.com)**