



# SAFEWAZE

## Vertical Lifeline Instruction Manual

5/8" 100% Polyester Rope / Steel Hardware							
No.	Z359.1-2020	Z359.13-2013	Z359.15-2014	Z359.15* ONLY IF USED IN A FULL ASSEMBLY	1926.502	1910.66	1910.140
FS700-581200							
FS700-58600							
FS700-100GA					✓	✓	✓
FS700-25GA					✓	✓	✓
FS700-50GA					✓	✓	✓
FS700-75GA					✓	✓	✓
FS700-100				✓	✓	✓	✓
FS700-100-HH				✓	✓	✓	✓
FS700-100-TT				✓	✓	✓	✓
FS700-150				✓	✓	✓	✓
FS700-150-HH				✓	✓	✓	✓
FS700-200				✓	✓	✓	✓
FS700-200-HH				✓	✓	✓	✓
FS700-25				✓	✓	✓	✓
FS700-250				✓	✓	✓	✓
FS700-25-HH				✓	✓	✓	✓
FS700-25-TT				✓	✓	✓	✓
FS700-30				✓	✓	✓	✓
FS700-300				✓	✓	✓	✓
FS700-30-HH				✓	✓	✓	✓
FS700-30-TT				✓	✓	✓	✓
FS700-350-HH				✓	✓	✓	✓
FS700-400				✓	✓	✓	✓
FS700-50				✓	✓	✓	✓
FS700-50-HH				✓	✓	✓	✓
FS700-50-NB				✓	✓	✓	✓
FS700-60-TT				✓	✓	✓	✓
FS700-75				✓	✓	✓	✓
FS700-75-HH				✓	✓	✓	✓
FS700-100GA-3E	✓	✓			✓	✓	✓
FS700-150GA-3E	✓	✓			✓	✓	✓
FS700-25GA-3E	✓	✓			✓	✓	✓
FS700-50GA-3E	✓	✓			✓	✓	✓
FS700-75GA-3E	✓	✓			✓	✓	✓

Elongation: 8% at 1,800 lbs.

This manual is intended to meet the manufacturer's instructions as required by ANSI Z359.15-2014 and should be used as part of an employee training program as required by OSHA.

**Do not throw away these instructions!**  
**Read and understand these instructions before using equipment!**

5/8" Copolymer Rope / Steel Hardware							
No.	Z359.1-2020	Z359.13-2013	Z359.15-2014	Z359.15* ONLY IF USED IN A FULL ASSEMBLY	1926.502	1910.66	1910.140
018-7003					✓	✓	✓
018-7004					✓	✓	✓
FS-RTZ700-100				✓	✓	✓	✓
FS-RTZ700-150				✓	✓	✓	✓
FS-RTZ700-200				✓	✓	✓	✓
FS-RTZ700-25				✓	✓	✓	✓
FS-RTZ700-300				✓	✓	✓	✓
FS-RTZ700-50				✓	✓	✓	✓
FS-RTZ700-75				✓	✓	✓	✓
018-7005	✓	✓			✓	✓	✓

Elongation: 5% at 1,800 lbs.

5/8" Kernmantle Rope / Steel Hardware							
No.	Z359.1-2020	Z359.13-2013	Z359.15-2014	Z359.15* ONLY IF USED IN A FULL ASSEMBLY	1926.502	1910.66	1910.140
019-7007		✓	✓		✓	✓	✓
019-7008		✓	✓		✓	✓	✓
021-7015		✓	✓		✓	✓	✓

Elongation: 7% at 1,800 lbs.

7/16" Kernmantle Rope / Steel Hardware							
No.	Z359.1-2020	Z359.13-2013	Z359.15-2014	Z359.15* ONLY IF USED IN A FULL ASSEMBLY	1926.502	1910.66	1910.140
SW716-716600							
019-7010				✓	✓	✓	✓
021-7012				✓	✓	✓	✓
021-7013				✓	✓	✓	✓
022-7023				✓	✓	✓	✓
FS715-100				✓	✓	✓	✓
FS715-30				✓	✓	✓	✓
FS715-50				✓	✓	✓	✓
SW716-100				✓	✓	✓	✓
SW716-200				✓	✓	✓	✓
SW716-300				✓	✓	✓	✓

Elongation: 12.5% at 1,800 lbs.

Associated VLL Components							
No.	Z359.1-2020	Z359.13-2013	Z359.15-2015	Z359.15* ONLY IF USED IN A FULL ASSEMBLY	1926.502	1910.66	1910.140
021-7014							
FS1117					✓	✓	✓
FS1118-DC					✓	✓	✓
FS1118					✓	✓	✓
FS1120					✓	✓	✓
SW-EX8000K				✓	✓	✓	✓
FS00SP/FS1117-3	✓	✓			✓	✓	✓
FS00SP/FS1118-DC	✓	✓			✓	✓	✓
FS00SP/FS1118-DC-3	✓	✓			✓	✓	✓
FS00SP/FS1118-3		✓		✓	✓	✓	✓
FS875	✓				✓	✓	✓

# TABLE OF CONTENTS

1.0 INTRODUCTION .....	4
2.0 APPLICATION .....	4
3.0 APPLICABLE SAFETY STANDARDS .....	4
4.0 WORKER CLASSIFICATIONS .....	4
5.0 PURPOSE .....	4
6.0 SPECIFICATIONS .....	4-5
7.0 PRODUCT SPECIFIC APPLICATIONS .....	5
8.0 LIMITATIONS .....	5
9.0 COMPATIBILITY OF CONNECTORS .....	6
10.0 MAKING CONNECTIONS .....	6
11.0 COMPONENTS .....	7
12.0 ROPE GRABS .....	7-10
13.0 ROPE TERMINATION PLATE .....	11
14.0 EDGE PROTECTOR INSTALLATION .....	11
15.0 INSPECTION .....	11-12
16.0 MAINTENANCE, CLEANING, & STORAGE .....	12
17.0 SAFETY INFORMATION .....	12-13
18.0 LABELING .....	13

## User Information

Date of First Use: \_\_\_\_\_

Serial#: \_\_\_\_\_

Trainer: \_\_\_\_\_

User: \_\_\_\_\_

**Do not throw away these instructions!**

**Read and understand these instructions before using equipment!**

## 1.0 INTRODUCTION

Thank you for purchasing a Safewaze Vertical Rope Lifeline (VLL). 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 manual and any other instructional material must be available to the user of the equipment. The user must understand how to use the VLL safely and effectively, as well as any related Personal Fall Arrest System (PFAS) components.

## 2.0 APPLICATION

Safewaze VLLs are designed for use as part of a complete personal fall protection and/or restraint system. This product is designed for a **single user** whose weight (including clothing, tools, and equipment) is:

**ANSI** 130-310 lbs. (59-141 kg)

**OSHA** Up to 420 lbs. (191 kg)

## 3.0 APPLICABLE SAFETY STANDARDS

When used according to instructions, this product meets OSHA 1926.502, OSHA 1910.66, OSHA 1910.140, ANSI Z359.15-2014, and ANSI Z359.13-2013.

**Safewaze VLLs are ANSI Z359.15-2014 compliant when used with an appropriate energy absorber and lanyard.** Applicable standards and regulations depend on the type of work being done, and also might include state-specific regulations. Refer to local, state, and federal (OSHA) requirements for additional information concerning the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

## 4.0 WORKER CLASSIFICATIONS

**Understand the definitions of those who work in proximity of or may be exposed to fall hazards or rescues.**

**Qualified Person:** "Qualified Person" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

**Competent Person:** "Competent Person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

**Authorized Person:** "Authorized Person" means a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the job site.

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

## 5.0 PURPOSE

Vertical Rope Lifelines are used as part of a PFAS. VLLs are NOT authorized for use as a lifeline constituent of any Horizontal Lifeline System (HLL). They can be used in conjunction with an HLL system where the VLL is connected to the Horizontal Lifeline and used in a vertical orientation as authorized. Roof structures must have a minimum 2/12 pitch for use of a Safewaze Vertical Rope Lifeline. Do not use on a flat roof unless use is for Fall Restraint purposes only.

## 6.0 SPECIFICATIONS

### Anchorage:

The structure to which the system is attached must be capable of withstanding force in all directions permitted by the system.

ANSI	5,000 lbs. (22.2 kN)
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To attach more than 1 system to a single anchorage, the 5,000 lbs. requirement must be multiplied by the number of systems attached to the anchorage.

### Rope Lifeline:

#### 5/8" 100% Polyester Rope

Min. Breaking Strength	5,000 lbs. (22.2 kN)
Stretch/Elongation	8% at 1,800 lbs.
Rope Melting Point	500°F (260°C)

#### 5/8" Copolymer Rope

Min. Breaking Strength	5,000 lbs. (22.2 kN)
Stretch/Elongation	5% at 1,800 lbs.
Rope Melting Point	275°F (135°C)

#### 5/8" Kernmantle Rope

Min. Breaking Strength	5,000 lbs. (22.2 kN)
Stretch/Elongation	9.1% at 1,000 lbs.
Rope Melting Point	450°F (232°C)

#### 7/16" Kernmantle Rope

Min. Breaking Strength	5,000 lbs. (22.2 kN)
Stretch/Elongation	12.5% at 1,800 lbs.
Rope Melting Point	450°F (232°C)

### Anchorage Connector:

Minimum Breaking Strength	5,000 lbs. (22.2kN)
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## Working Temperature Range:

This equipment has a working temperature range of -35°F (-37°C) to 130°F (54°C).

Working Temperature Range	-35°F (-37°C) to 130°F (54°C)
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## 7.0 PRODUCT SPECIFIC APPLICATIONS

**Personal Fall Arrest:** Safewaze Vertical Lifelines can be used as part of a complete Personal Fall Arrest System (PFAS) for a maximum of one user. Only one user may be connected to a VLL. Only one fall arrester is to be attached to the VLL at any given time. Avoid sharp and/or abrasive edges. If contact with an abrasive surface is unavoidable, proper rope protection must be used. The structure utilized for attachment must be capable of withstanding a load of 5,000 lbs. in all directions permitted by the system. The maximum allowable free fall is 6 ft, with the maximum combined length of the fall arrester, lanyard extension, and D-ring being 36 inches.

## 8.0 LIMITATIONS

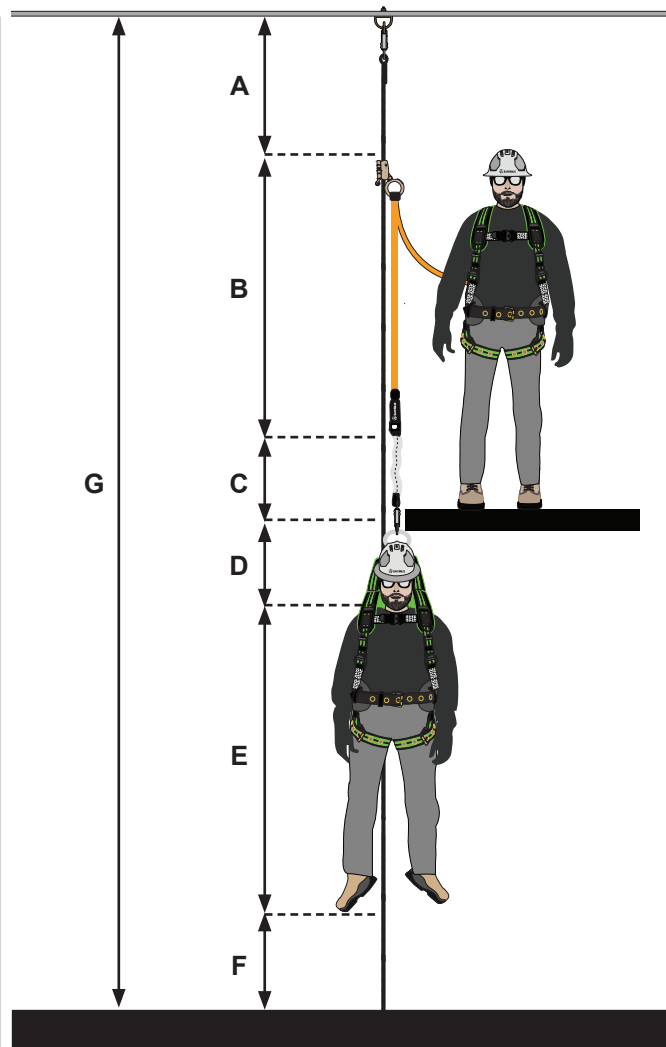
**Fall Clearance:** There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 2' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors (See Figure 1). Lanyards used with Safewaze rope grabs must be shock absorbing and no more than 36" in length.

**FIGURE 1- FALL CLEARANCE**

**For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs**

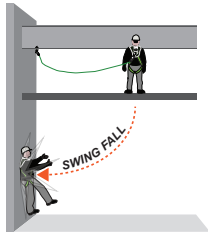
### Calculate Minimum Required Fall Clearance

<b>A</b>	<b>Amount of Stretch</b>	<b>Vertical Lifeline Stretch:</b> Measure distance from anchorage to fall arrester and multiply by 10%.
<b>B</b>	<b>3 ft.</b>	<b>Length of Shock Absorbing Lanyard:</b> Overall length of the lanyard. If shock pack shows any indication of exposure to fall arrest forces, it must be removed from service.
<b>C</b>	<b>4 ft.</b>	<b>Deceleration Distance:</b> Maximum allowable payout from shock pack in the event of a fall.
<b>D</b>	<b>1 ft</b>	<b>Harness Stretch/D-ring Shift:</b> Total amount of stretch and/or D-ring shift during a fall.
<b>E</b>	<b>5 ft</b>	<b>Dorsal D-ring Height:</b> Average Dorsal D-ring Height of a typical user, as measured from the walking/working surface.
<b>F</b>	<b>2 ft.</b>	<b>Safety Factor</b> Calculated to allow for any variables that may effect the fall clearance distance
<b>G</b>	<b>TOTAL A thru F</b>	<b>Minimum Required Fall Clearance</b>



**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 in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall. (See Figure 2)

**FIGURE 2 - SWING FALL**

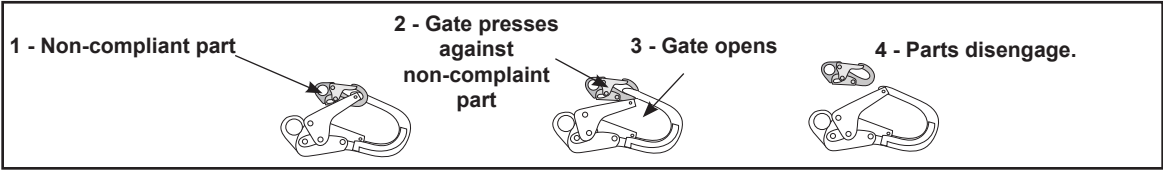


**WARNING: AVOID SWING FALL HAZARDS ENCOUNTERED WHEN ANCHORAGE IS NOT DIRECTLY OVERHEAD.**

**9.0 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). Connectors must be compatible with the anchorage or other system components (see Figure 4). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (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.

**FIGURE 3 - 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.

**10.0 MAKING CONNECTIONS**

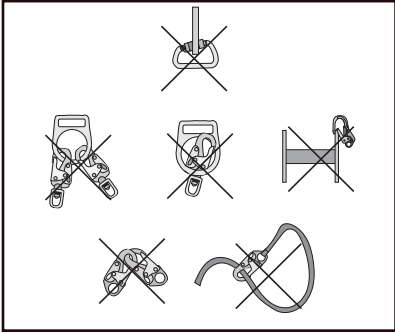
Snap hooks and carabiners used with this equipment must be double locking and/or twist lock. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked. Safewaze connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 4 for examples of inappropriate connections as well as the correct connection of a user to the VLL. **NOTE: ALWAYS** connect shock pack of lanyard to the user's dorsal D-ring! **DO NOT** connect shock pack to the rope grab!

**Do not connect snap hooks and carabiners:**

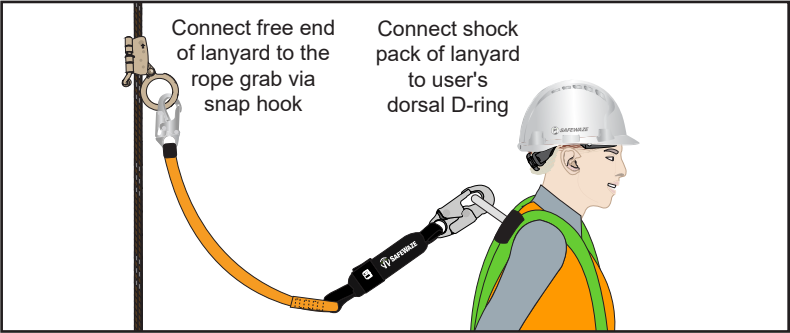
- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie back hooks).
- **NOTE:** Large snap hooks must not be connected to objects which will result in a load on the gate if the hook twists or rotates. Hooks supplied with Safewaze VLLs comply with ANSI Z359.12 and are equipped with a 3,600 lbs. (16 kN) gate. Check the marking on your snap hook to verify its compatibility.
- In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.
- To each other.
- By wrapping the web lifeline around an anchor and securing to lifeline except as allowed for Tie Back models.
- To any object which is shaped or sized in a way that the snap hook or carabiner will not close and lock, or that roll-out could occur.
- In a manner that does not allow the connector to align properly while under load.

**FIGURE 4**

**INAPPROPRIATE CONNECTIONS**

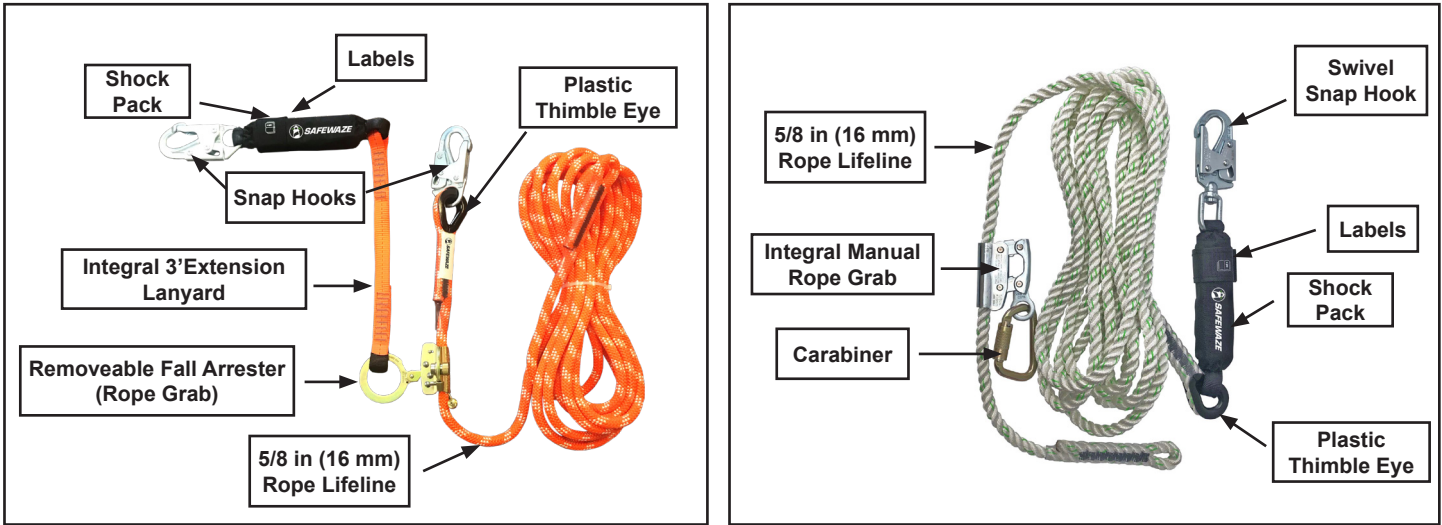


**CORRECT USER CONNECTION TO VLL**



# 11.0 COMPONENTS

**FIGURE 5 - COMPONENTS**



# 12.0 ROPE GRABS

Safewaze rope grabs are designed to work with specific rope sizes and types. All grabs are equipped with an "UP" Arrow, which indicates the proper orientation of the grab to the Vertical Rope Lifeline (See Figure 6). Some models are also equipped with an anti-inversion feature which prevents the grab from being installed upside down. Table 1 indicates the available rope grabs, suitable rope, and appropriate shock absorbing lanyard.

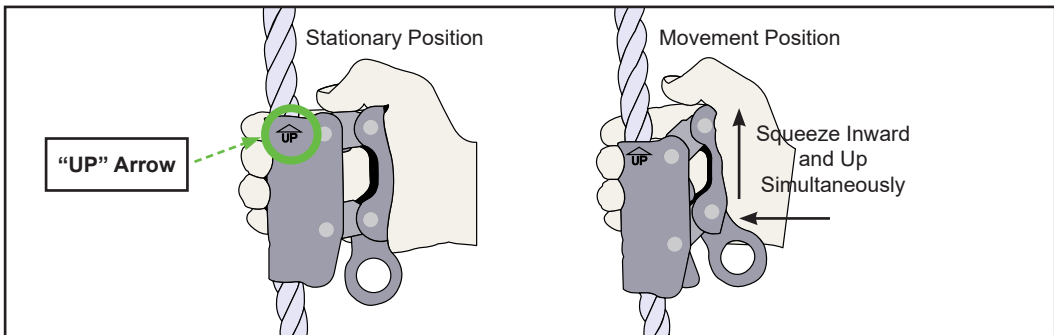
**TABLE 1- ROPE GRAB**

Rope Grab	Rope Sizing and Type	Shock Absorber / Lanyard
FS1117 (Manual Rope Grab)	5/8" Polyester or Copolymer Rope	ANSI compliant 3' shock absorbing lanyard
FS1118 (Trailing SS Rope Grab)	5/8" Polyester, Copolymer or Low Stretch Kernmantle Rope	ANSI compliant 3' shock absorbing lanyard
FS1118-DC (Self-Tracking Rope Grab)	5/8" Copolymer or Low Stretch Kernmantle	ANSI compliant 3' shock absorbing lanyard
FS1120 (Trailing Rope Grab)	5/8" Polyester, Copolymer or Kernmantle Rope	ANSI compliant 3' shock absorbing lanyard
SW-EX8000 (Trailing Rope Grab)	7/16" Low Stretch Kernmantle Rope	ANSI compliant 3' shock absorbing lanyard

# 12.1 MANUAL ROPE GRAB OPERATION FS1117

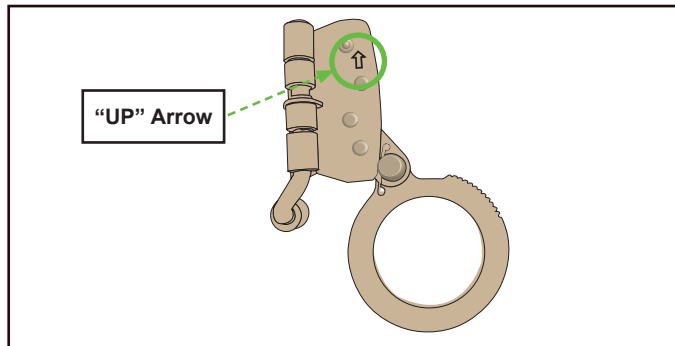
1. The FS1117 rope grab is a non-removable manual rope grab for VLL operations. The FS1117 is typically pre-installed onto the VLL system prior to shipping.
2. User must be aware of, and seek to minimize, any swing fall hazards that may exist.
3. If a Vertical Lifeline is purchased with integrated extension lanyard, and shock pack with snap hook, the shock pack will attach directly to the user's appropriate D-ring on their Full Body Harness.
4. If the user desires to move along the lifeline he/she must ensure that they move the fall arrester along the rope lifeline in conjunction with their movements (See Figure 6). User should not move the lifeline while leaving the fall arrester stationary on the rope as this could result in unsafe slack forming along the lifeline component. This slack can result in creating an unnecessary trip hazard, as well as possibly creating conditions where free fall levels permitted by the systems are exceeded.
5. NEVER grab the Fall Arrester during a fall! Doing so may allow the unit to disengage and the Fall Arrester to slip along the Vertical Lifeline!

**FIGURE 6- MANUAL ROPE GRAB MOVEMENT**



1. User must inspect the FS1118 and FS1120 for any obvious signs of damage or defects prior to each use.
2. User must be aware of, and seek to minimize, any swing fall hazards that may exist.
3. Ensure adequate fall clearance exists for the equipment being used and associated work operations
4. The FS1118 and FS1120 are equipped with an anti-inversion cam in the hinge. This prevents the grab from opening or closing if in the wrong orientation relative to the rope. When installing, ensure that the etched arrow is pointing up (See Figure 7). NEVER grab the Fall Arrester during a fall! However, the FS1118 and FS1120 are equipped with an Anti-Panic feature. This allows the grab to function normally if inadvertently grabbed during a fall.
5. Figure 8 details how to properly connect and operate the FS1118 and FS1120 grabs on the Vertical Rope Lifeline.

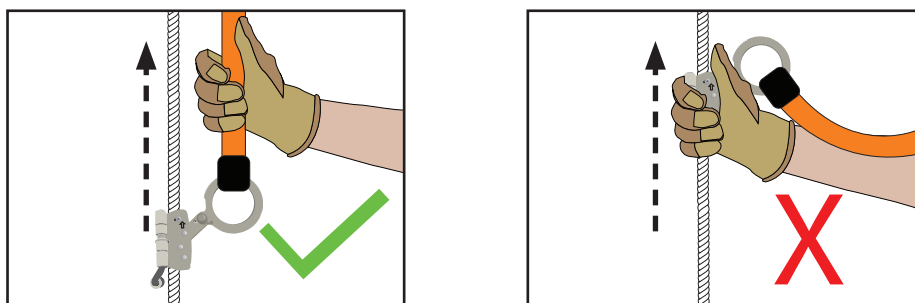
**FIGURE 7 - ROPE GRAB ORIENTATION FOR INSTALL**



**FIGURE 8- TRAILING ROPE GRAB INSTALLATION AND OPERATION**

<p><b>Step 1:</b> Rotate safety lever all the way up.</p>	<p><b>Step 2:</b> Loosen the knurled locking knob.</p>	<p><b>Step 3:</b> Open the hinged gate of the grab.</p>
<p><b>Step 4:</b> Lift the ring up to retract the cam assembly, and place the rope into the rope channel.</p>	<p><b>Step 5:</b> Close the gate, and retighten the knurled locking knob.</p>	<p><b>Step 6:</b> Rotate the safety lever all the way down.</p>

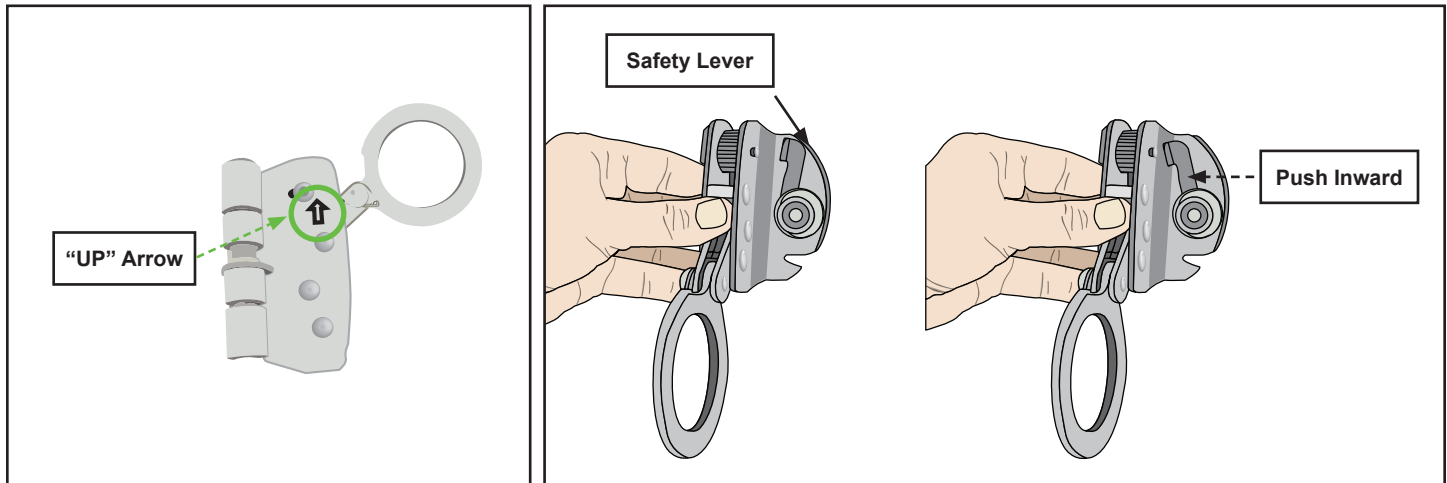
**OPERATION**





1. The FS1118-DC is a removable self-tracking rope grab for VLL operations. The FS1118-DC installs in virtually the same manner as the FS1118 and FS1120. The only difference being the first step in the process.
2. Rather than rotating the safety lever all the way up as done with the FS1118 and FS1120, simply push in on the safety lever to begin loosening the knurled locking knob (See Figure 9).
3. The FS1118-DC is also equipped with an anti-inversion cam in the hinge. This prevents the grab from opening or closing if in the wrong orientation relative to the rope. When installing, ensure that the arrow is pointing up (See Figure 9).
4. NEVER grab the Fall Arrester during a fall! Doing so may allow the unit to disengage and the Fall Arrester to slip along the Vertical Lifeline!

**FIGURE 9 - NON-TRAILING ROPE GRAB INSTALL**



## 12.4 SW-EX8000 INSTALLATION AND OPERATION

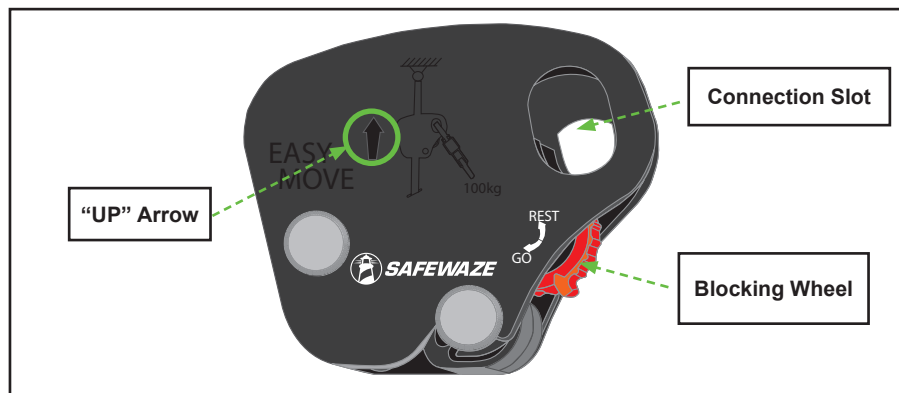
- Step 1:** Ensure the SW-EX8000 is in correct orientation to the VLL with the indicator arrow pointing up (See Figure 10). Rotate the sliding plate open and verify that the position of the blocking wheel is in the GO position.
- Step 2:** Insert the rope ensuring the device remains the correct vertical orientation.
- Step 3:** Rotate the sliding plate closed.
- Step 4:** Install an ANSI Z359.12 compliant connector through the connection slot.



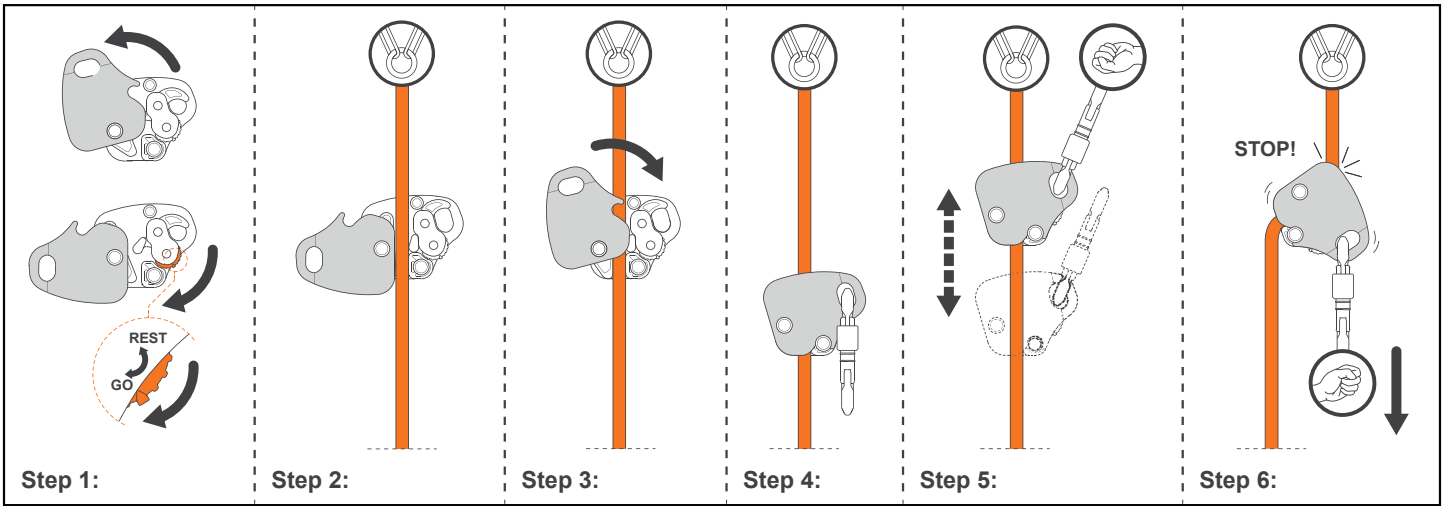
**WARNING:** USER MUST ENSURE THAT THE SW-EX8000 IS INSTALLED IN THE CORRECT ORIENTATION TO THE VERTICAL LIFELINE. INCORRECT INSTALLATION CAN RESULT IN SERIOUS INJURY OR DEATH!

- Step 5:** Pull upward on the connector to verify that the rope grab moves freely along the lifeline.
- Step 6:** Proper function of the SW-EX8000 can be tested by again pulling up on the connector, and then rapidly pulling downward to ensure the grab locks onto the rope and stops. Figure 11 illustrates proper installation of the SW-EX8000.

**FIGURE 10 - SW-EX8000 ORIENTATION FOR INSTALL**



**FIGURE 11 - SW-EX8000 INSTALLATION**



The SW-EX8000 allows for safe and hands free climbing on vertical structures. In the event of an accident, any fall will be immediately arrested. It is necessary to use this device in combination with a shock absorber to be ANSI Z359.15-2014 compliant. The user must always ensure they are at a lower level than the SW-EX8000. Maximum working angle between user and device must not exceed 30°. NEVER work above the device! (See Figure 12).

User must ensure the VLL does not come into contact with any sharp or abrasive surfaces. The SW-EX8000 will automatically trail the user as they move up and down the VLL. To stop the trailing function of the SW-EX8000 rotate the blocking wheel to REST position. As the user needs to move up or down the VLL, they must rotate the blocking wheel back to the GO position.

To remove the SW-EX8000 from the VLL, disconnect the carabiner from the connection slot of the grab and rotate the sliding plate open. DO NOT ATTEMPT TO DISCONNECT WHILE IN USE!!

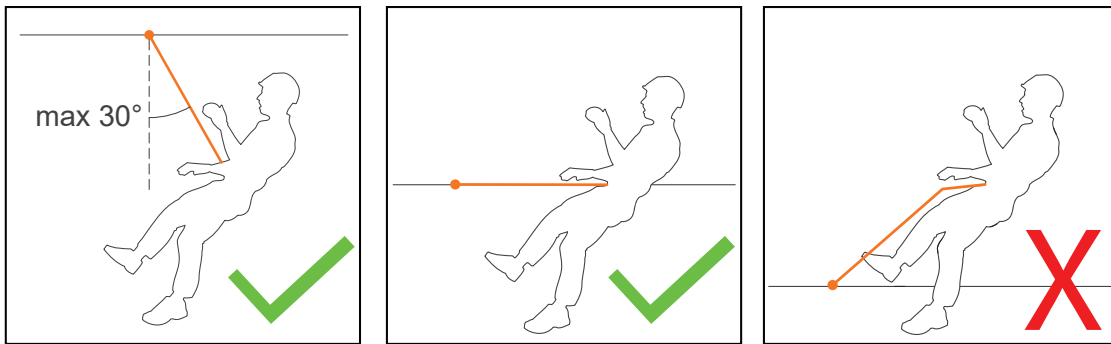


**WARNING:** ONLY ONE FALL ARRESTER MAY BE ATTACHED TO A SINGLE SINGLE ANCHOR LIFELINE.



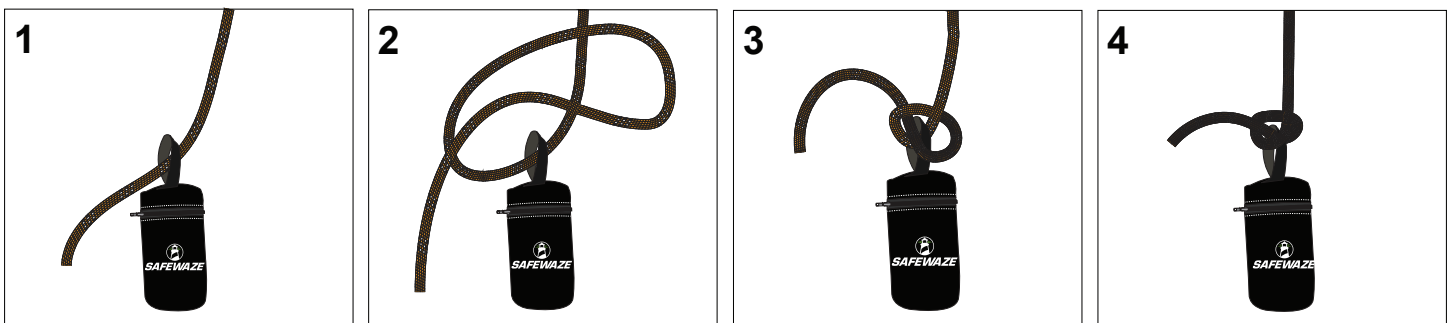
**WARNING:** ONLY ONE USER CAN BE ATTACHED TO THE SINGLE ANCHOR LIFELINE.

**FIGURE 12 - ROPE GRAB ALLOWED ANGLE OF USE**



VLL's must remain taut during work operations. Use of a Rope Counterweight such as our 021-7014 is recommended (See Figure 13). User must ensure that the bottom end of the VLL is equipped with a stitched termination, or appropriately tied knot, to prevent the grab from traveling off the VLL.

**FIGURE 13 - 021-7014 ROPE COUNTERWEIGHT INSTALLATION**

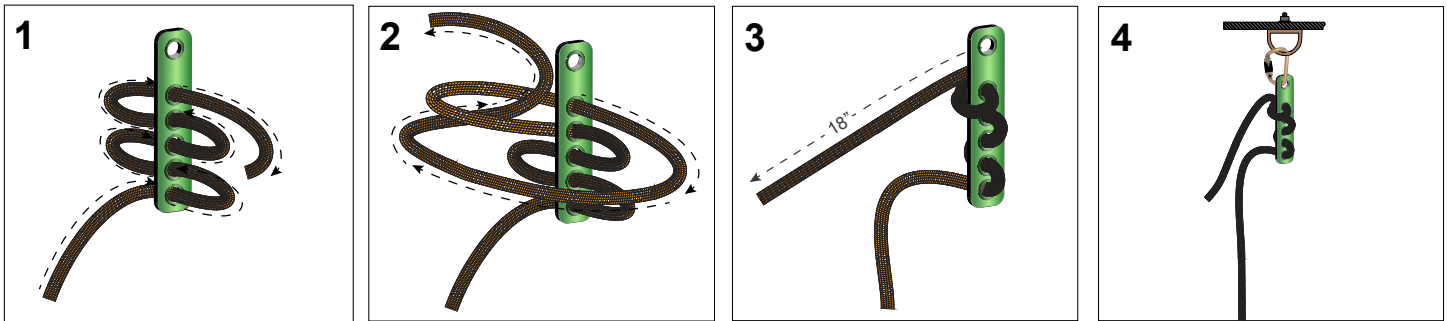


## 13.0 ROPE TERMINATION PLATE INSTALLATION

FS875

If the VLL is unequipped with connecting hardware, the FS875 can be used to provide a safe connection to the anchorage. The FS875 can be used with 5/8" or 3/4" inch rope. Figure 14 illustrates the installation steps for the FS875.

FIGURE 14 - FS875 ROPE TERMINATION PLATE INSTALLATION



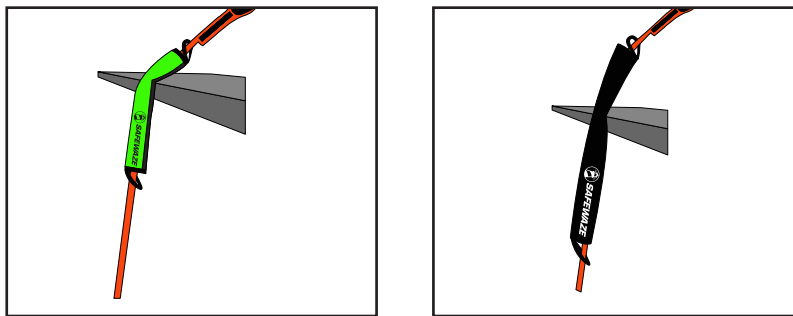
## 14.0 EDGE PROTECTOR INSTALLATION

018-9000 / 018-9001

Great care should be taken to ensure the lifeline does not come into contact with a sharp edge or abrasive surface. If contact with an abrasive surface is unavoidable, the user must ensure that the lifeline is protected from damage. Safewaze recommends use of a rope protector such as our 018-9000 or 018-9001.

1. The 018-9000 / 018-9001 edge protectors are suitable for use with any type of rope lifeline.
2. The 018-9000 rope protector is 18" (45.72 cm) long. The 018-9001 rope protector is 36" (91.44 cm) long. Both sizes have sewn in hook and loop fastener material along the entire length of the protector.
3. Place rope into the protector by pulling apart the hook and loop fastener along the length of the protector.
4. After opening up the protector, position the protector on the rope where it will be required, and enclose the rope in the protector by resealing the hook and loop fastener. Each protector has a sewn in web loop at either end for attachment to the rope lifeline. Attachment can be performed with a small bungee style cord, plastic zip tie, or with an alpine butterfly knot and carabiner.
5. Figure 15 indicates the 018-9000 / 018-9001 in typical installation configurations.

FIGURE 15 - EDGE PROTECTOR TYPICAL USE EXAMPLE



**WARNING:** AVOID USE OF THIS EQUIPMENT NEAR SHARP EDGES OR ABRASIVE SURFACES. IF UNAVOIDABLE, ENSURE PROPER EQUIPMENT IS USED TO PROTECT THE VLL.

## 15.0 INSPECTION

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

User's inspection must be equal to or greater than those indicated in these instructions.

**Rope:** Prior to each use, inspect the rope for possible deficiencies/damage including, but not limited to, fraying, cuts, corrosion, chemical exposure, melting/damage due to heat, welding, or flame exposure, unsplicing, unlaying, kinking, knotting, broken or pulled stitches, excessive elongation, excessive soiling, abrasion, alteration, excessive lubrication, excessive aging, excessive wear, and missing or illegible labels.

**Hardware:** Prior to each use, inspect hardware for possible deficiencies/damage including but not limited to, cracks, sharp edges, deformation, corrosion, chemical exposure, excessive heating, alteration, and excessive wear.

Fall Arrester (Rope Grab): Prior to each use, inspect hardware for possible deficiencies/damage including but not limited to, cracks, sharp edges, deformation, corrosion, chemical exposure, excessive heating, alteration, proper function (no movement in stationary mode, free movement in movement mode), excessive wear and missing or illegible labels.

Inspect work area to ensure that location is free of any damage including, but not limited to, debris, cracking, rot, decay, structural deterioration, rust, and free from any hazardous materials. Inspect to ensure no elements are missing that may affect the equipment form, fit, or function. User must confirm that work area to be utilized will support the application specific loads as referenced within this instruction manual and as per ANSI and OSHA.

At least annually, a Competent Person other than the user must inspect the Vertical Lifeline and/or Fall Arrester (Rope Grab).

Competent Person inspections must be recorded in the inspection table included in this manual as well as the inspection table labels on each product individually. The Competent Person must place his/her initials in the block which corresponds with the month and year that the inspection is performed. All individual labels on equipment will be initialed in the same manner.

While conducting inspections, the Competent Person must consider all applications and hazards the equipment may have been exposed to while in use.

User MUST IMMEDIATELY REMOVE from service ANY equipment that is found defective, damaged, or exposed to fall arrest forces. Damaged equipment must be destroyed to prevent future use.

Any equipment that is in need of maintenance or repair must be tagged and removed from service. For questions regarding maintenance or repair contact Safewaze.



**WARNING:** AVOID LIFELINE EXPOSURE TO PHYSICAL AND CHEMICAL HAZARDS WHICH THE LIFELINE IS NOT DESIGNED TO WITHSTAND.



**WARNING:** IF EQUIPMENT IS EXPOSED TO CHEMICAL HAZARDS THAT MAY CAUSE ANY DAMAGE OR DEGRADATION, EQUIPMENT MUST BE REMOVED FROM SERVICE. IF IN DOUBT, CONTACT SAFEWAZE.

## 16.0 MAINTENANCE, CLEANING, & STORAGE

### 16.1 MAINTENANCE

Remove equipment from use if subjected to fall arrest forces or inspection reveals an unsafe or defective condition. Should an unsafe or defective condition be found, the equipment MUST immediately be removed from service. Dispose of damaged equipment per jobsite requirements. For questions regarding damaged equipment, contact Safewaze.

### 16.2 CLEANING

Use a dry cloth to brush and clean the rope grab. The rope lifeline, lanyard, rope protector can be cleaned with warm water and a mild soap solution. Dry the rope grab with a clean rag. Allow other equipment to air dry. **DO NOT USE HEAT TO DRY EQUIPMENT!**

### 16.3 STORAGE

Store the Safewaze VLL System in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect the system after any period of extended storage.

## 17.0 SAFETY INFORMATION

**Do not alter equipment. Only Safewaze, or entities authorized by Safewaze in writing, shall make repairs to this 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 inspection 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 in new and 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. Forces applied to anchors must be calculated by a Competent Person.

Unless explicitly stated otherwise, the maximum allowable free fall distance for lanyards must not exceed 6'.

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

A pre-planned rescue procedure is required in the event a fall occurs. The rescue plan must be project specific with the user having the means at hand to implement the plan. 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, inspect, disassemble, 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.

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

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.



**WARNING:** DO NOT USE THIS EQUIPMENT WHEN THE USER IS ON AN UNSTABLE SURFACE, FINE GRAIN MATERIAL OR PARTICULATE SOLIDS SUCH AS SAND OR COAL.



**WARNING:** AVOID USE OF THIS EQUIPMENT IN PROXIMITY TO MOVING EQUIPMENT AND ELECTRICAL HAZARDS.



**WARNING:** DO NOT USE COMBINATIONS OF FALL ARRESTERS, LANYARDS, AND LIFELINES WHICH MAY AFFECT OR INTERFERE WITH THE SAFE FUNCTION OF EACH OTHER.



**WARNING:** 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 JUDGEMENT OR KNOWLEDGE OF FEDERAL OR STATE STANDARDS.

## 18.0 LABELING

**MODEL #:** 018-7005  
**DESCRIPTION:** V-Line 50' Vertical Lifeline Assembly: Snap Hook, Rope Grab, 3FT Lanyard  
**SERIAL #:** XXXXXXXX **MFG DATE:** XX/XXXX  
**SAFETAZE**  
 225 Wilsheire Ave SW  
 Concord, NC 28025  
 (800) 230-0319  
 www.safetaze.com

LIFELINE LENGTH: 50 ft. (15 m)  
 LIFELINE DIAMETER: 5/8 in. (16 mm)  
 COMPONENT(S): Rope Lifeline, Snap hook, Energy absorbing lanyard  
 MATERIALS: Copolymer rope, steel hardware, polyester webbing  
 CAPACITY: ANSI 130-310 lbs. (59-141 kg), OSHA up to 420 lbs. (191 kg)  
 MAXIMUM DEPLOYMENT DISTANCE: ANSI 48 in. (1219 mm), OSHA 42 in. (1067 mm)

MAXIMUM ELONGATION: 7% at 1800 lbs. (8 kN)  
 AVERAGE ARREST FORCE: 900 lbs. (4 kN)  
 MAXIMUM ARREST FORCE: 1800 lbs. (8 kN)  
 MINIMUM BREAKING STRENGTH: 5000 lbs. / 22.25 kN

Standards: ANSI Z359.15-2014 & Z359.13-2013  
 OSHA 1926.502 & 1910.66

DO NOT REMOVE LABEL

**MODEL #:** FS005P/FS1117-3  
**DESCRIPTION:** Manual Rope Grab Assembly  
**SERIAL #:** XXXXXXXX **MFG DATE:** XX/XXXX  
**SAFETAZE**  
 225 Wilsheire Ave SW  
 Concord, NC 28025  
 (800) 230-0319  
 www.safetaze.com

LANYARD LENGTH: 3 ft. (0.9 m)  
 COMPONENT(S): Snap hook, energy absorbing lanyard, fall arrester  
 MATERIALS: Steel hardware, polyester webbing  
 CAPACITY: ANSI 130-310 lbs. (59-141 kg), OSHA up to 420 lbs. (191 kg)  
 MAXIMUM DEPLOYMENT DISTANCE: ANSI 48 in. (1219 mm), OSHA 42 in. (1067 mm)

AVERAGE ARREST FORCE: 900 lbs. (4 kN)  
 MAXIMUM ARREST FORCE: 1800 lbs. (8 kN)  
 MINIMUM BREAKING STRENGTH: 5000 lbs. / 22.25 kN

Standards: ANSI Z359.15-2014 & Z359.13-2013  
 OSHA 1926.502 & 1910.66

DO NOT REMOVE LABEL

\*See manual for specifications

**MODEL #:** FS716-30  
**DESCRIPTION:** (PCS) (7/16 IN) 30 FT Kernmantle Vertical Rope Lifeline w Thimble & Swivel SNP HK  
**SERIAL #:** XXXXXX **MFG DATE:** XX/XXXX  
**MATERIALS:** Polyester cover, nylon core; steel hardware  
**SAFETAZE**  
 225 Wilsheire Ave SW  
 Concord, NC 28025  
 (800) 230-0319  
 www.safetaze.com

MUST FOLLOW ALL MFG'S INSTRUCTIONS INCLUDED WITH THE EQUIPMENT  
 STANDARDS: ANSI Z359.15-2014\*  
 OSHA 1926.502 & 1910.66 \*See manual for specifications

DO NOT REMOVE LABEL

\*CAPACITY: ANSI 130-310 lbs. (59-141 kg), OSHA up to 420 lbs. (191 kg)  
 \*LIFELINE LENGTH: 30 ft. (9.1 m)  
 \*LIFELINE DIAMETER: 7/16 in. (11 mm)  
 \*MAXIMUM ELONGATION: 12.5% at 1,800 lbs.  
**WARNING:** This equipment must be inspected prior to each use. Any unit that has been exposed to fall arrest forces must be removed from service. Avoid contact with sharp edges and abrasive surfaces. Only use compatible connections. Do not subject this equipment to physical hazards that include thermal, electrical, and chemical sources. User must read, understand and follow all manufacturer's instructions included with this unit at the time of shipment. Failure to follow these and any of the manufacturer's instructions may result in serious injury or death.

-Only make compatible connections  
 -Inspect before each use  
 -Avoid contact with sharp edges and abrasive surfaces  
 -Avoid physical hazards such as thermal, electrical and chemical sources.

**WARNING:** Do not exceed the capacity of this or other system components. Capacity is the combined weight for which the component is designed to be used. Combined weight includes the user's body weight, clothing, tools, and any objects carried. Contact Safetaze for more information.

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

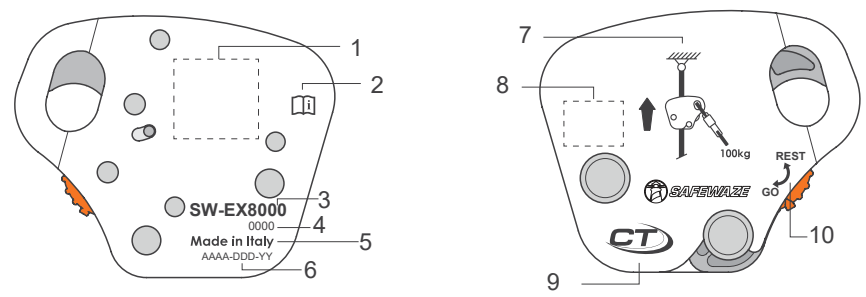
INSPECTION LOG

**Warning: Maximum User Weight 130-310 lbs.**

**6ft. 900lbs.**

Maximum Free Fall      Average Arresting Force  
 Forces may increase when cold and/or wet  
**Read Instructions Before Use**

**WARNING:** This equipment must be inspected prior to each use. Any unit that has been exposed to fall arrest forces must be removed from service. Avoid contact with sharp edges and abrasive surfaces. Only use compatible connections. Do not subject this equipment to physical hazards that include thermal, electrical, and chemical sources. User must read, understand and follow all manufacturer's instructions included with this unit at the time of shipment. Failure to follow these and any of the manufacturer's instructions may result in serious injury or death.



- 1) Number, year and applicable standards
  - 2) Logo notifying users to carefully read and understand instructions
  - 3) Part number
  - 4) Batch number
  - 5) Country of origin
  - 6) Serial number
  - 7) Correct use and maximum capacity
  - 8) Product model
  - 9) Manufacturer
  - 10) Indication for position of the blocking wheel
- REST: For use while stationary  
 GO: For use while moving along VLL / Fall Arrest mode



Manufacturer: \_\_\_\_\_

Company: \_\_\_\_\_

Model Number: \_\_\_\_\_

Name of Inspector: \_\_\_\_\_

Description: \_\_\_\_\_

Signature: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Lot Number: \_\_\_\_\_

In-Service Date: \_\_\_\_\_

Date of Manufacture: \_\_\_\_\_

Lifeline  Cable  Kernmantle Rope  Twisted Rope

Material: Length: \_\_\_\_\_ Diameter: \_\_\_\_\_

### LABELS & MARKINGS

PASS FAIL NOTE

	PASS	FAIL	NOTE
Label (Intact and Legible)			
Appropriate ANSI / OSHA Markings			
Inspections are Current / Up-to-Date			
Date of First Use			

### HARDWARE

PASS FAIL NOTE

	PASS	FAIL	NOTE
Connector (Self-Closing and Locking)			
Hook Gate / Rivets			
Corrosion			
Pitting / Nicks			

### MATERIAL (ROPE OR CABLE)

PASS FAIL NOTE

	PASS	FAIL	NOTE
Broken / Missing / Loose Stitching			
Termination (Stitch, Splice or Swage)			
Excessive Wear (Fraying or Broken Strands)			
Cuts / Burns / Holes			
Kinks			
Separation / Bird-Caging			

### SHOCK PACK (IF PRESENT)

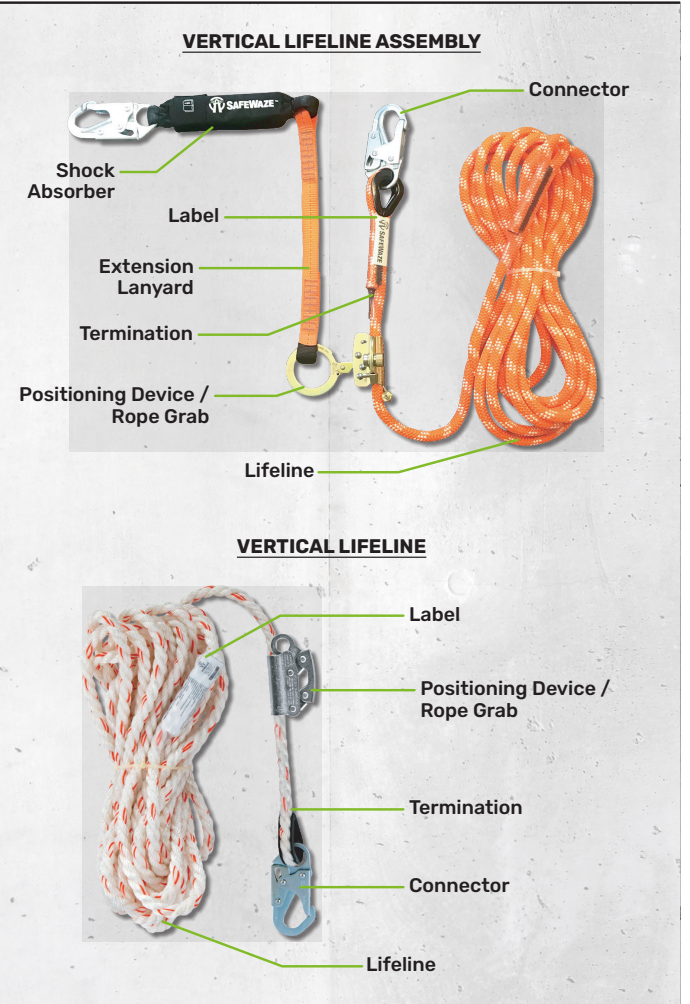
PASS FAIL NOTE

	PASS	FAIL	NOTE
Cover / Shrink Tube (Don't Cut or Remove)			
Damage / Fraying / Broken Stitching			
Impact Indicator (Signs of Deployment)			

### ROPE GRAB (IF PRESENT)

PASS FAIL NOTE

	PASS	FAIL	NOTE
Locks on Lifeline Automatically			
Moves Freely When Disengaged			
No Visible Damage, Rust or Corrosion			



### NOTES

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If equipment fails inspection  
IMMEDIATELY REMOVE FROM SERVICE



***SAFEWAZE***

Safewaze  
225 Wilshire Ave SW  
Concord, NC 28025

PHONE: 1-800-230-0319  
FAX: 1-704-262-9051  
EMAIL: [info@safewaze.com](mailto:info@safewaze.com)

Web: [safewaze.com](http://safewaze.com)