



## VERTICAL LIFELINE INSTRUCTION MANUAL



### Part Numbers 019-7007 & 019-7009



#### **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 initial usage of product on Page 2, and Page 10. Competent Person inspections are required to be documented in the Inspection Log Table on Page 10.

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### User Information

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

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

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

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

**Do not throw away these instructions!**

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

## INTRODUCTION

Thank you for purchasing SAFEWAZE™ Vertical Rope Lifeline. 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 safely and effectively use the Vertical Rope Lifeline, and all fall protection equipment used in conjunction with the Vertical Rope Lifeline.

## APPLICABLE SAFETY STANDARDS

When used according to instructions, this product meets or exceeds all applicable OSHA 1926 Subpart M, OSHA 1910, ANSI Z359.15, and ANSI A10.32-2012 standards for fall protection. 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).

## Worker Classifications



Understand the definitions of those who work in proximity of or 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 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 safety regulations are complied with.**

## 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. 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.

## Limitations

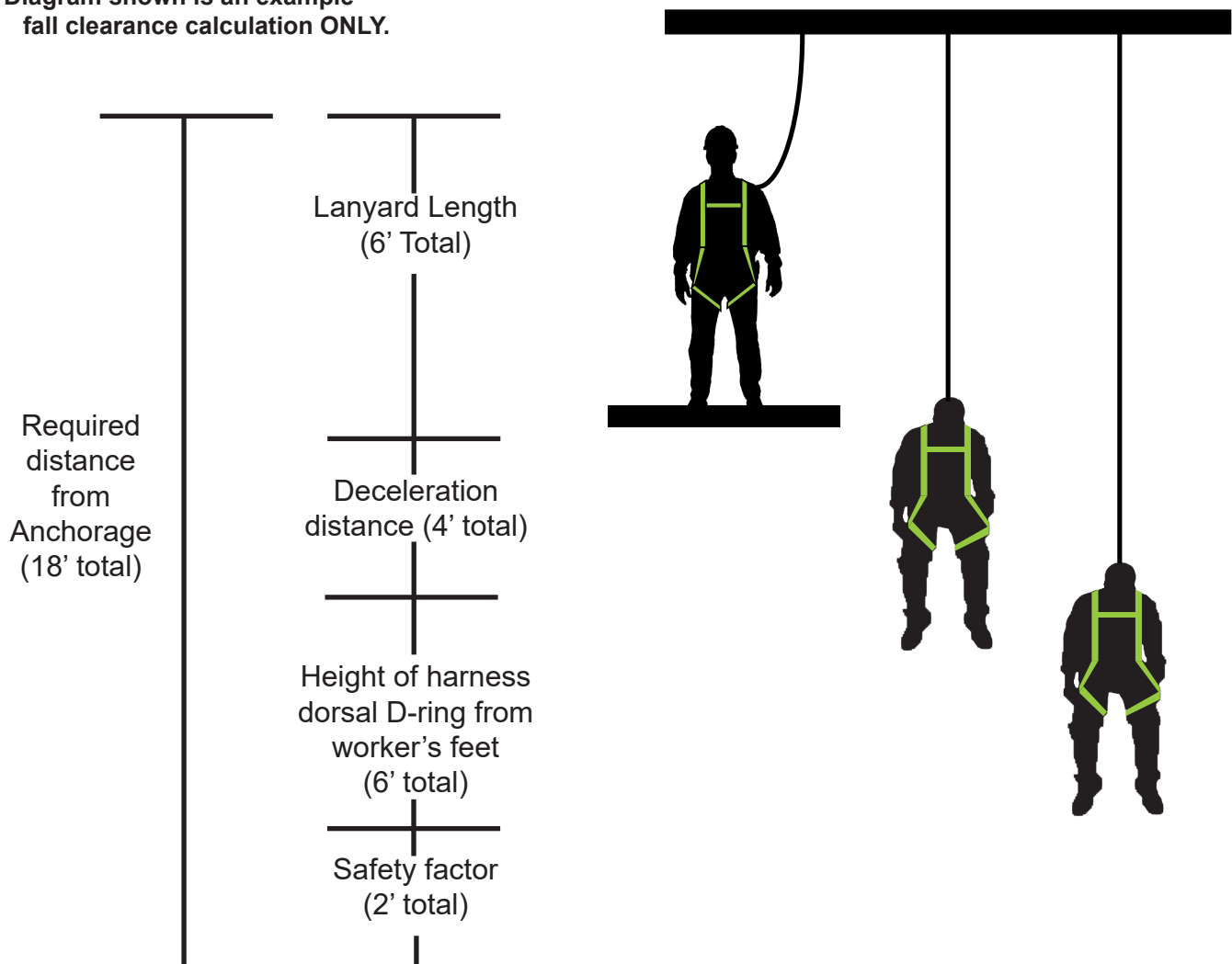
**Fall Clearance:** There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 2' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors. (See Figure 1)

FIGURE 1

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

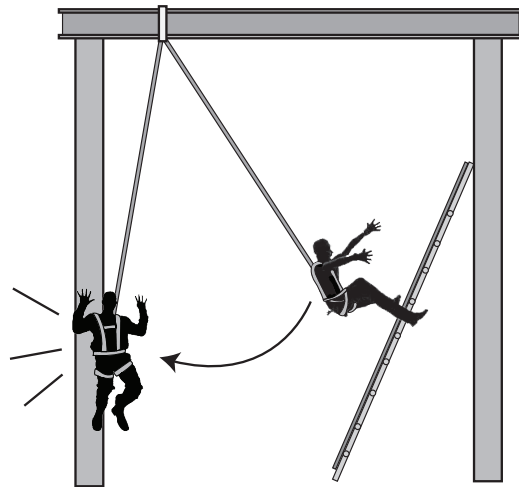
### Fall Clearance Diagram

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

**FIGURE 2**



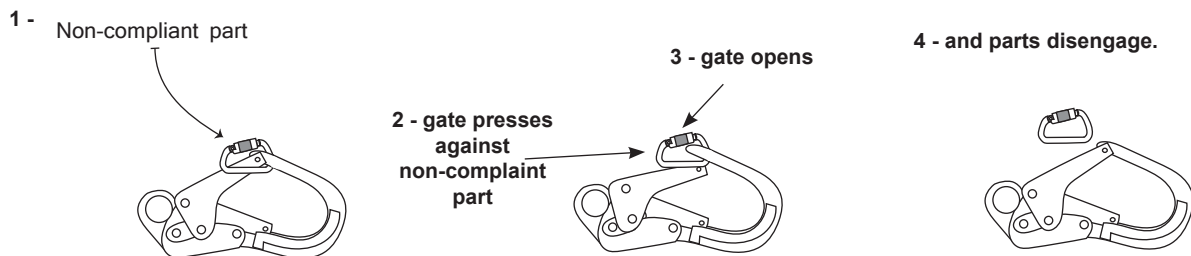
**COMPATIBILITY OF CONNECTORS**

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.



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

**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.

## 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. Do not connect snap hooks and carabiners:

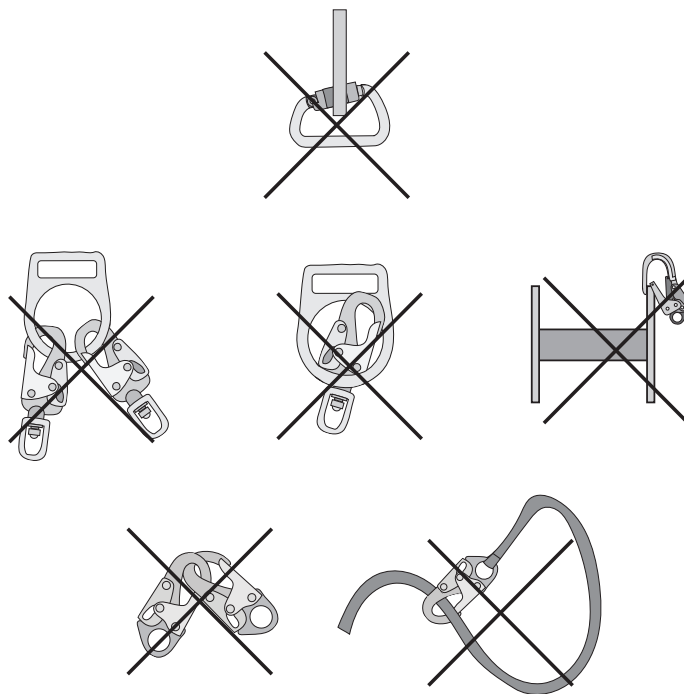
- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie back hooks).
- NOTE: Large snap hooks must not be connected to objects which will result in a load on the gate if the hook twists or rotates, unless the snap hook complies with ANSI Z359.1-2007 or 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.



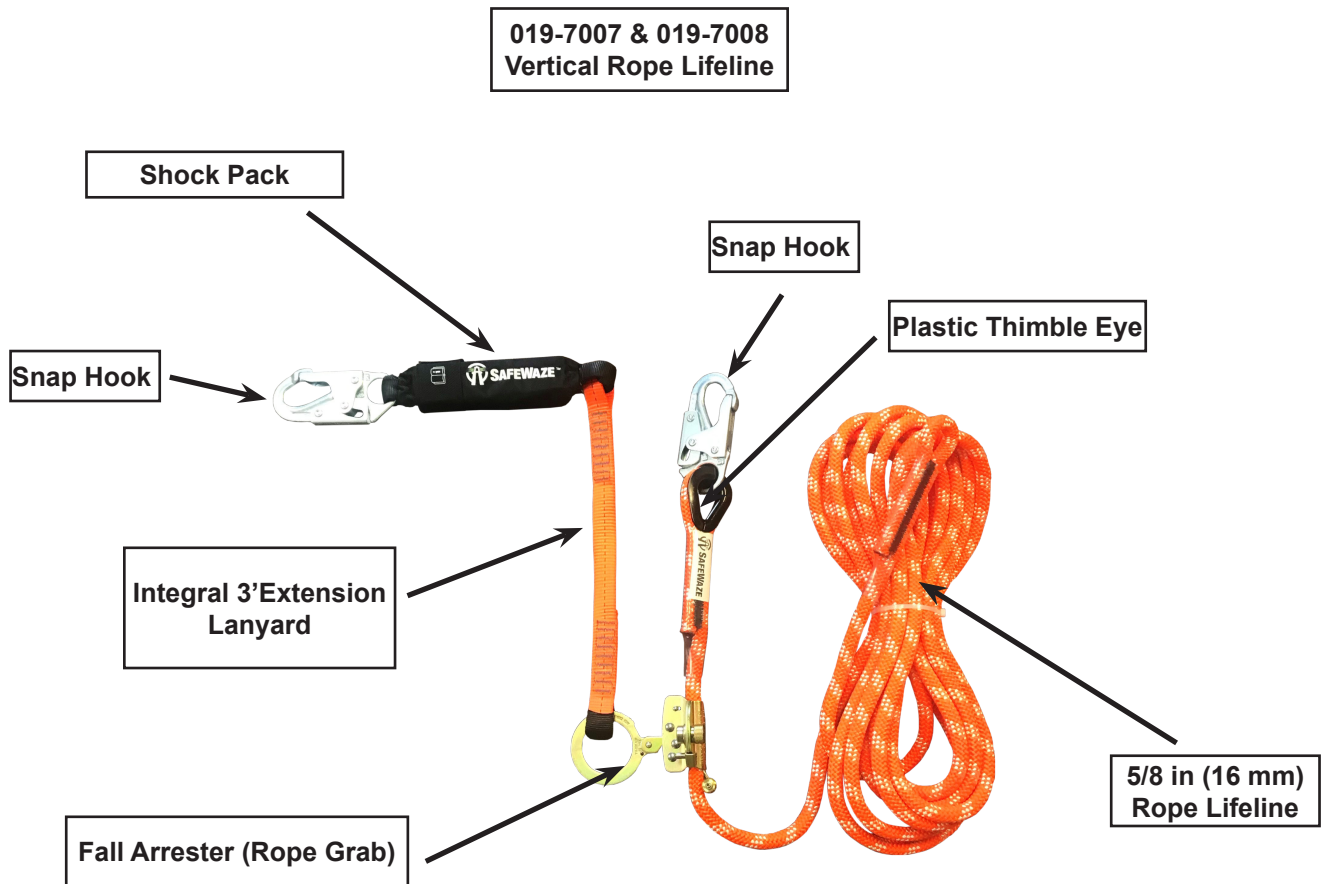
**NOTE:** Large throat snap hooks must not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates, unless the snap hook complies with ANSI Z359.1-2007 or ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify that it is appropriate for your application.

- 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**



## Components and Specifications

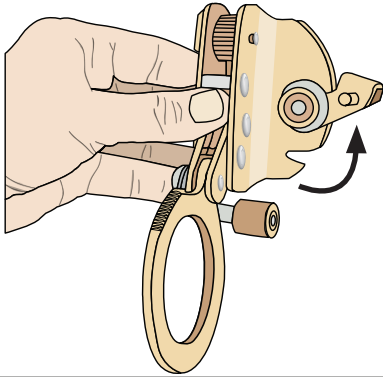


## Installation and Use

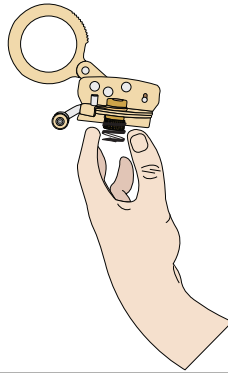
1. All risk of lower end termination must be eliminated prior to use. User must ensure that the Vertical Lifeline will prevent striking the next lower level, or that if being used in a leading edge environment, the Lifeline CANNOT reach the leading edge of any fall hazard when being used at its full length. Knots should NEVER be tied in the Vertical Lifeline, with the exception of the extreme bottom of the lifeline to prevent disengagement of the Fall Arrester (Rope Grab) from the Vertical Lifeline component.
2. User must be aware of, and seek to minimize, any swing fall hazards that may exist.
3. If Vertical Lifeline is purchased with integrated extension lanyard, and shock pack with snap hook, the shock pack will attach directly to the users appropriate D-ring on their Full Body Harness.
4. The Fall Arrester is self trailing and will move in relation to the users movement along the lifeline. The user should always ensure that the Fall Arrester is positioned at least 2' ft or more above the Dorsal D-ring at all times. Never allow the Fall Arrester to be positioned below the Dorsal D-ring on the rope lifeline during vertical work operations.
5. NEVER grab the Fall Arrester (Rope Grab) during a fall! However, the Fall Arrester included with this assembly comes equipped with an Anti-Panic feature which allows the Fall Arrester to function normally if inadvertently grabbed during a fall.

# Installation of the FS1120 Fall Arrester

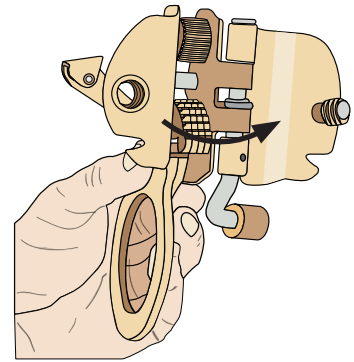
**Step 1:** Rotate Safety Lever all the way up.



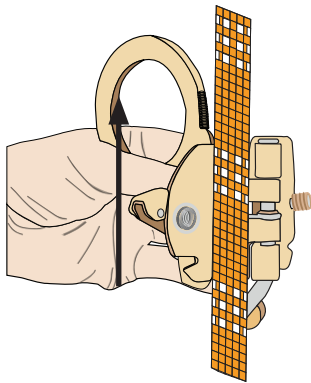
**Step 2:** Loosen the Knurled Locking Knob.



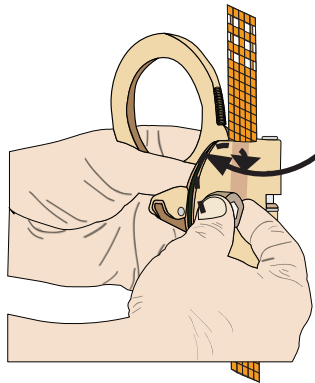
**Step 3:** Open the Hinged Gate of the Grab.



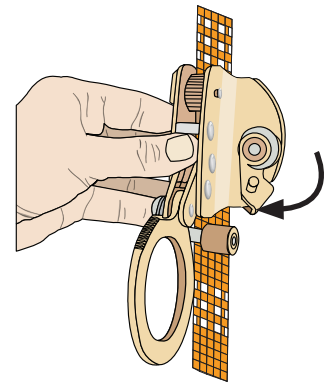
**Step 4:** Lift the Ring up to retract the Cam Assembly, and Lay rope into the rope channel.



**Step 5:** Close the Gate, and retighten the Knurled Locking Knob.



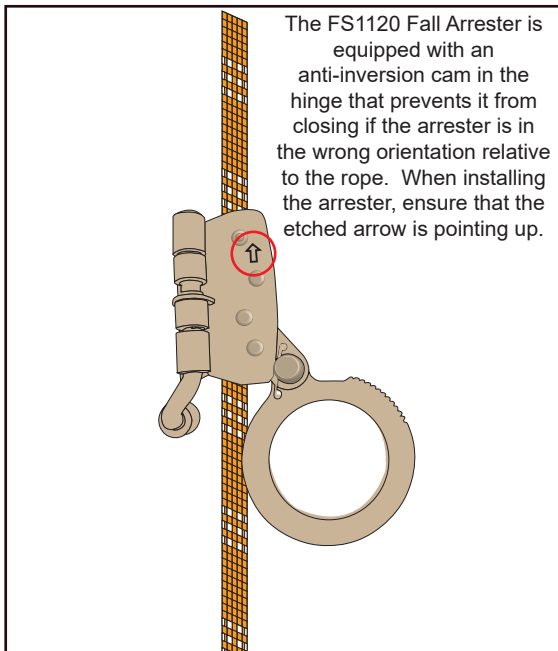
**Step 6:** Rotate the Safety Lever all the way down.



**Diagram 1**

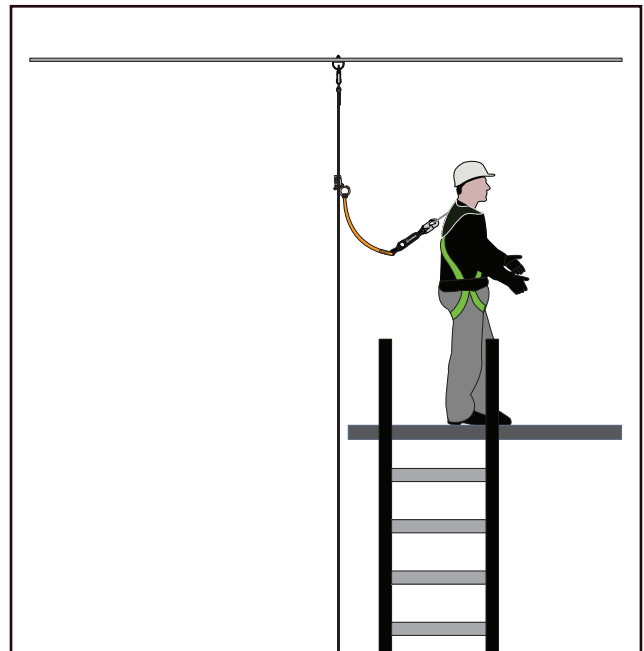
**Diagram 2**

## Fall Arrester (Rope Grab) on Lifeline



The FS1120 Fall Arrester is equipped with an anti-inversion cam in the hinge that prevents it from closing if the arrester is in the wrong orientation relative to the rope. When installing the arrester, ensure that the etched arrow is pointing up.

## 019-7007 / 019-7008 Typical Use Example





### Diagram 3

019-7007 / 019-7008 Typical Use Example



## Inspection

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

**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. User **MUST IMMEDIATELY** remove the Vertical Rope Lifeline from service if defects or damage are found, or if exposed to forces of fall arrest.

**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) and excessive wear.

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. 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 that the equipment may have been subjected to while in use.

Prior to each use, the user must inspect and verify that each individual component of the Vertical Lifeline system is safe for use.

## Inspection Log

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

Product lifetime is indefinite as long as it passes pre-use and Competent Person inspections. User must inspect prior to each use. Competent Person other than the user must complete formal inspection at least annually. Competent person to inspect and initial table below:

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

**If equipment fails inspection  
IMMEDIATELY REMOVE FROM SERVICE**

## 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 judgement 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 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'. No free fall allowed for non-LE SRLs. Class A SRLs must arrest falls within 24"; Class B SRLs must arrest falls within 54".

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. 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.


## Safety Information (cont)

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.

## Label Example

020002



**SAFEWAZE  
V-LINE**  
322 Industrial Court  
Concord, NC 28025  
P: (704) 262-7893  
www.safewaze.com  
XXXXXXX  
S/N  
MADE IN CHINA

**VERTICAL ROPE LIFELINE:**


PART NUMBER: 019-7007      COMPONENT(S):  
Kernmantle Rope Lifeline  
3' Energy Absorbing Lanyard and Rope Adj/Fall Arrestor  
Snap Hook

ROPE LENGTH:  
30 (ft)

MATERIAL: Kernmantle rope; steel hardware  
DIAMETER: 5/8 in (16 mm)  
MFG Date: MM/YYYY  
CAPACITY: 310 lbs  
MAXIMUM ELONGATION: 7% at 1800 lbf  
MINIMUM BREAKING STRENGTH:  
5000 lbf / 22.25 kN

**Meets: OSHA 1926.502 and ANSI Z359.15**

020003



**SAFEWAZE  
V-LINE**  
322 Industrial Court  
Concord, NC 28025  
P: (704) 262-7893  
www.safewaze.com  
XXXXXXX  
S/N  
MADE IN CHINA

**VERTICAL ROPE LIFELINE:**

PART NUMBER: 019-7008      COMPONENT(S):  
Kernmantle Rope Lifeline  
3' Energy Absorbing Lanyard and Rope Adj/Fall Arrestor  
Snap Hook

ROPE LENGTH:  
60 (ft)

MATERIAL: Kernmantle rope; steel hardware  
DIAMETER: 5/8 in (16 mm)  
MFG Date: MM/YYYY  
CAPACITY: 310 lbs  
MAXIMUM ELONGATION: 7% at 1800 lbf  
MINIMUM BREAKING STRENGTH:  
5000 lbf / 22.25 kN

**Meets: OSHA 1926.502 and ANSI Z359.15**

01143

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

Do Not Remove Label

019729

**WARNING:**

Compliant fall protection and emergency rescue systems help prevent serious injury during fall arrest. Avoid contact with sharp edges and abrasive surfaces. Only make compatible connections. Avoid all physical hazards, including, but not limited to, thermal, electrical and chemical sources. Must be inspected before each use. Must be inspected by a competent person every 6 mos from mfg date. Any unit that has been subjected to fall arrest forces must be removed from service. **Must follow mfg's instructions included with the equipment at time of shipment.** For proper equipment usage, see user instructions, visit [www.safewaze.com](http://www.safewaze.com), or call SafeWaze at (704) 262-7893.

DO NOT REMOVE LABEL

# WARRANTY



SAFEWAZE™  
322 Industrail Court  
Concord, NC 28025

PHONE: 1-704-262-7893  
FAX: 1-704-262-9051  
EMAIL: [info@safewaze.com](mailto:info@safewaze.com)

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