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# FS806 60'/80'/100' Portable Cable Horizontal Lifeline



Compliant with OSHA 1910, OSHA 1926 Subpart M  
ANSI Z359.1-07 and ANSI A10.32-2012

# GENERAL SAFETY INFORMATION

These User Instructions are not to be removed except by the user of this equipment. User Instructions must always be available to the user.

Compliant fall protection and emergency rescue systems help prevent serious injury during fall arrest. Users must read and understand the User Instructions provided with the product and be properly trained by their employer prior to use per OSHA 29 CFR 1910.66 and 1926.503 or applicable local standards. Misuse or failure to follow warnings and instructions may result in serious personal injury or death. For proper use, see supervisor, User Instructions, or call Technical Service at 704-262-7893

## FALL PROTECTION SYSTEM COMPONENTS

### System Components

A complete fall protection system consists of the following components: Anchorage, Body Support, and Connecting Devices. Note: For continuous protection, more than one system may be needed.

### Anchorage

An anchorage, as defined by OSHA 29 CFR 1926.502(d)(15) “shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as follows: as part of a complete personal fall arrest system which maintains a safety factor of at least two; and under the supervision of a “qualified person.”

### Body Support

Body support is a component of a personal fall protection system that is worn on or around the body. Per OSHA 29 CFR 1926.502(d) effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. Note: The use of a body belt in a positioning device system is acceptable. Full body harnesses must be used for all fall arrest systems.

### Connecting Devices

A connecting device is the link between the body support and anchorage. Connecting devices will vary depending on the application.

# USE INSTRUCTIONS AND LIMITATIONS

## Important

Before use, the user must read and understand these User Instructions. Keep these User Instructions for reference.

## Purpose

The SAFEWAZE™ FS806 is a pre-engineered flexible cable horizontal lifeline system, designed as part of a complete personal fall arrest system, to help limit the fall arrest forces in the event of a fall.

## Use Instructions

1. Failure to follow all instructions and limitations on the use of the SAFEWAZE™ FS806 Horizontal Lifeline may result in serious personal injury or death.
2. Before using a personal fall arrest system, employees must be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components.
3. Personal fall arrest systems, including the SAFEWAZE™ FS806 Horizontal Lifeline, must be inspected prior to each use for wear, damage, and other deterioration and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66, and 1926.502.
4. The complete fall protection system must be planned (including all components, calculating fall clearance, swing fall, and rescue) before using.
5. Users must have a rescue plan, and the means at hand to implement it, that provides for the prompt rescue of employees in the event of a fall, or assures that employees are able to rescue themselves.
6. Store the SAFEWAZE™ FS806 Horizontal Lifeline in a cool, dry, clean environment, out of direct sunlight, when not in use.
7. After a fall occurs on the system, remove from service for authorized repairs or disposal.

## Use Limitations

1. The SAFEWAZE™ FS806 Horizontal Lifeline is designed for up to two users at one time, per system, with a capacity up to 310 lb per worker (141 kg) including clothing, tools, etc.
2. Only approved SAFEWAZE™ components may be used with the SAFEWAZE™ FS806 Horizontal Lifeline.
3. Do not induce free falls greater than 4' with the SAFEWAZE™ FS806 Horizontal Lifeline.
4. The SAFEWAZE™ FS806 Horizontal Lifeline is designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C).
5. SAFEWAZE™ Full Body Harnesses are recommended for use with the SAFEWAZE™ FS806 Horizontal Lifeline. If a product other than a SAFEWAZE™ Full Body Harness is used, and the harness stretch information is unavailable per ANSI Z359.6-2009, an additional 1.5 ft (0.76 m) must be added to the clearance chart on page 8.
6. Only SAFEWAZE™ Self Retracting Lanyards may be used with the SAFEWAZE™ FS806 Horizontal Lifeline.
7. Only energy absorbing lanyards that limit the fall arrest forces to less than 900 lbf may be used with the SAFEWAZE™ FS806 Horizontal Lifeline.
8. Do not expose the SAFEWAZE™ FS806 Horizontal Lifeline to chemicals or harsh solutions which may have a harmful effect. Contact SAFEWAZE™ Technical Service with any questions.
9. In accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502, the SAFEWAZE™ FS806 Horizontal Lifeline must be installed and used under the supervision of a "qualified person."
10. Caution must be taken when using the SAFEWAZE™ FS806 Horizontal Lifeline near moving machinery, electrical hazards, sharp edges, or abrasive surfaces. Contact with these elements may cause equipment failure, personal injury, or death.

11. Minors, pregnant women and anyone with a history of either back or neck problems should not use this equipment.
12. Avoid working where the connecting subsystem or other system components will be in contact with, or abrade against, unprotected sharp edges. If working around sharp edges is unavoidable, a protective cover must be used to prevent cutting of the personal fall arrest system components
13. Do not use or install the SAFEWAZE™ FS806 Horizontal Lifeline without proper training from a “competent person” as defined by OSHA 29 CFR 1926.32(f).
14. Only SAFEWAZE™, or persons or entities authorized in writing by SAFEWAZE™, shall make repairs or alterations to the equipment.
15. For custom applications of the SAFEWAZE™ FS806 Horizontal Lifeline not addressed in these User Instructions please contact SAFEWAZE™ Technical Service at 704-262-7893.

## ANCHORAGE REQUIREMENTS

### Anchorage

All anchorages in which the SAFEWAZE™ FS806 Horizontal Lifeline attaches must meet the requirements of OSHA 29 CFR 1910.66 and ANSI Z359.1-2007. OSHA states:

*Anchorage to which personal fall arrest equipment is attached shall be capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two, under the supervision of a qualified person.*

ANSI Z359.1-2007 states that anchorages in a personal fall arrest system must have a strength capable of sustaining static loads, applied in all permitted directions by the system, of at least:

- (a) two times the maximum arrest force permitted on the system when certification exists from a professional engineer, or
- (b) 5,000 pounds per user(22.2 kN) in the absence of certification.

The strength in (a) and (b) must be multiplied by the number of personal fall arrest systems attached to the anchorage, when more than one personal fall arrest system is attached to the anchorage.

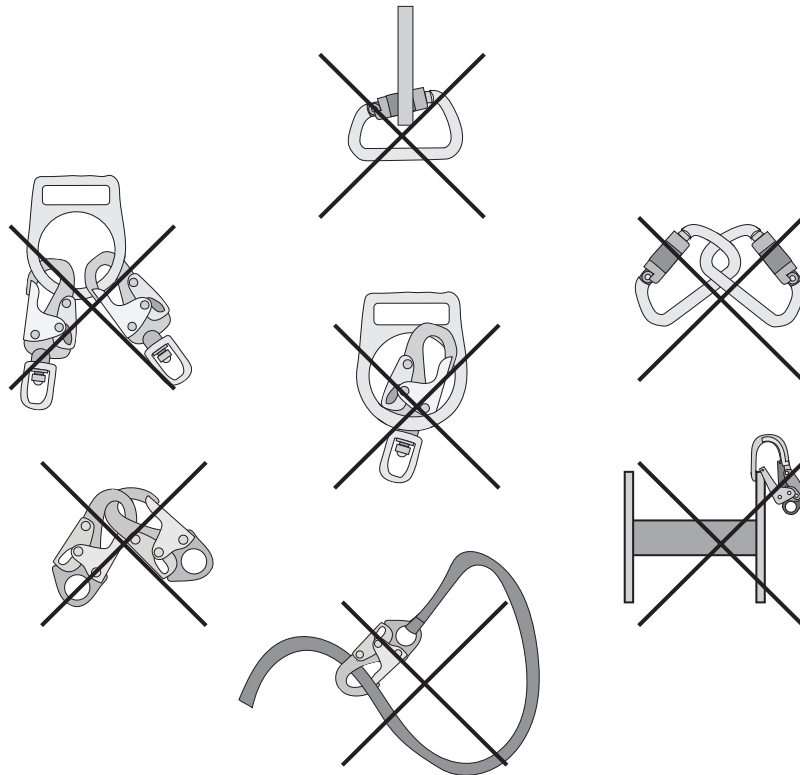
## CONNECTION REQUIREMENTS

### Compatibility Limitations

All connecting subsystems must only be coupled to compatible connectors. OSHA 29 CFR 1926.502 prohibits snaphooks from being engaged to certain objects unless two requirements are met: it must be a locking type snaphook, and it must be “designed for” making such a connection. “Designed for” means that the manufacturer of the snaphook specifically designed the snaphook to be used to connect to the equipment in question. The following connections must be avoided, because they can result in rollout\*

- Direct connection of a snaphook to horizontal lifeline.\*
- Two (or more) snaphooks connected to one D-ring.\*
- Two snaphooks connected to each other.\*
- A snaphook connected back on its attached lanyard.\*
- A snaphook connected to a webbing loop or webbing lanyard.\*
- Improper dimensions of the D-ring, rebar, or other connection point in relation to the snaphook dimensions that would allow the snaphook keeper to be depressed by a turning motion of the snaphook.\*

\*Rollout: A process by which a snaphook or carabiner unintentionally disengages from another connector or object to which it is coupled. (ANSI Z359.1-2007). See figure below for examples.



## Snaphooks and Carabiners

Snaphooks and carabiners used in the SAFEWAZE™ FS806 Horizontal Lifeline, marked with the ANSI Z359.1-07 or ANSI Z359.12-09 standard, are self-locking with a minimal tensile break strength of 5,000 lbs, and a 3,600 lbs gate rating.

## SYSTEM COMPONENTS

### Compatibility Limitations

All components and subsystems used with the SAFEWAZE™ FS806 Horizontal Lifeline have been tested as part of a pre-engineered flexible horizontal lifeline system. Only SAFEWAZE™ approved components and subsystems are to be used with the SAFEWAZE™ FS806 Horizontal Lifeline.

## Energy Absorber

The in-line Energy Absorber is 42" in length with 1 $\frac{3}{8}$ " polyester web. The web and cable are connected with a sewn loop at one end and a carabiner on opposite end. It is designed to limit the maximum arrest load to less than 2,500 lbf on the end anchorages.

## Turnbuckle

The Jaw and Jaw  $\frac{1}{2}$ " Turnbuckle is constructed of forged galvanized steel and adjusts from 18" to 28".

## Cable

The Cable in the SAFEWAZE™ FS806 Horizontal Lifeline is 7x19 5/16" galvanized steel Aircraft cable. The Cable comes with one end finished (thimble and two swages), and the other end unfinished for adjustment in length utilizing two fist grips and a thimble.

## Hardware

Carabiners used with the SAFEWAZE™ FS806 Horizontal Lifeline are marked with the ANSI Z359.1-07 and/or ANSI Z359.12-09 standard and are self-locking with a minimal tensile break strength of 5,000 lbs and a 3,600 lbs gate rating.

O-rings used with the SAFEWAZE™ FS806 Horizontal Lifeline are marked to the ANSI Z359.1-07 and/or ANSI Z359.12-09 standard and have a minimum tensile break strength of 5,000 lbs.

## INSTALLATION

### Before Each Use

Users of personal fall arrest systems must have a rescue plan in place, if the user cannot rescue themselves, as well as the means to carry out the rescue.

The user must read and understand these User Instructions, as well as the User Instructions for every component/subsystem of the personal fall arrest system.

The entire SAFEWAZE™ FS806 Horizontal Lifeline system, and its subsystems, must be inspected prior to each use for wear, damage, and other deterioration. All snaphooks and carabiners must be able to self-close and lock. Check the operation of self retracting lanyards by pulling smoothly on the lifeline, then pull sharply on the lifeline to engage the locking mechanism. All webbing must be inspected for tears, cuts, fraying, abrasion, unsplicing, discoloration, or other signs of wear and damage. Sewn terminations should be secure, complete, and not visibly damaged. Cable must be inspected for kinks, broken strands, corrosion, abrasion, or other signs of wear and damage. Swaged terminations should be secure with the thimble tight and not visibly damaged. System must be properly tensioned. No load indicators shall be deployed. Damaged and other deteriorated and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.

### Swing Falls

To minimize the possibility of a swing fall, work as directly under the lifeline as possible. Striking objects horizontally, due to the pendulum effect, may cause serious injury. Swing falls also increase the vertical fall distance of a worker, compared to a fall directly below the anchorage connector. Swing falls may be controlled by using anchorage connectors that move with a worker to a point overhead.

## System Installation

### Step 1. Install Anchorage Connectors

Install approved anchorage connector to the anchorage at a recommended height of 7' above the working surface. For applications below 7', anchorages must be installed in such a way that the SAFEWAZE™ FS806 Horizontal Lifeline cable does not pass over the leading edge during a fall arrest. See anchorage connector user instructions for proper installation.

### Step 2. Connect Energy Absorber

Attach the large carabiner of the Energy Absorber to the anchorage connector.

### Step 3. Install Turnbuckle

Extend the Turnbuckle until one inch of threaded rod remains visible on each end inside the turnbuckle body. Connect one end of the Turnbuckle directly to the anchorage connector.

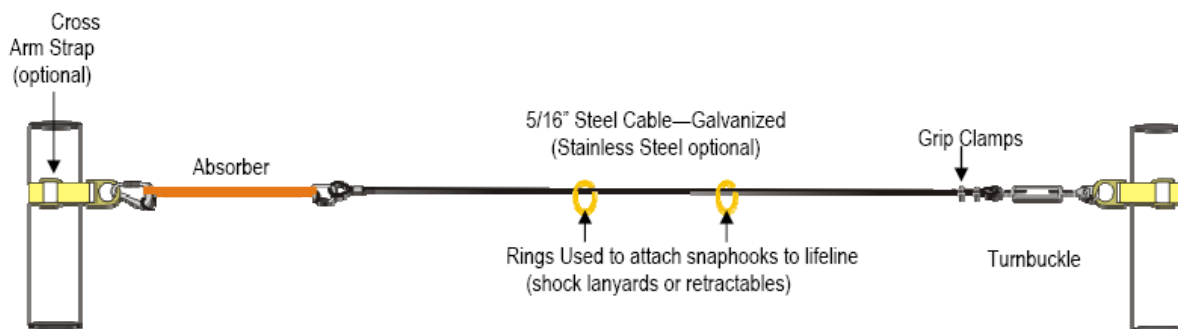
### Step 4. Attach Cable

The finished end of the cable is pre-attached to the Energy Absorber. Pass the unfinished end of the cable lifeline through both O-rings. The unfinished end of the cable is for system length adjustment. Pass the bolt in the unused jaw of the Turnbuckle through the thimble. Turn back cable over the thimble until the desired length is reached and apply first Fist Grip 5" from the thimble. Use torque wrench to tighten fist grip evenly, alternating from one nut to the other until reaching 30 ft-lb of torque. Apply the second fist grip as near the thimble as possible.

### Step 5. Tension the System

Tension the system by adjusting the length of the Turnbuckle. Use the chart on page 8 to determine the initial sag needed for the length of the lifeline. Do not over tension the system.

## Typical Installation



Any Qualified anchor point can be used as long as it meets OSHA regulations of at least 5000 lbs tensile strength.

\* The system should be installed at a recommended height of 7' above the work surface. The elevation of HLL system can be adjusted according to the length of shock absorbing lanyard. Never permit more than a 4' free fall with the SWHC system.

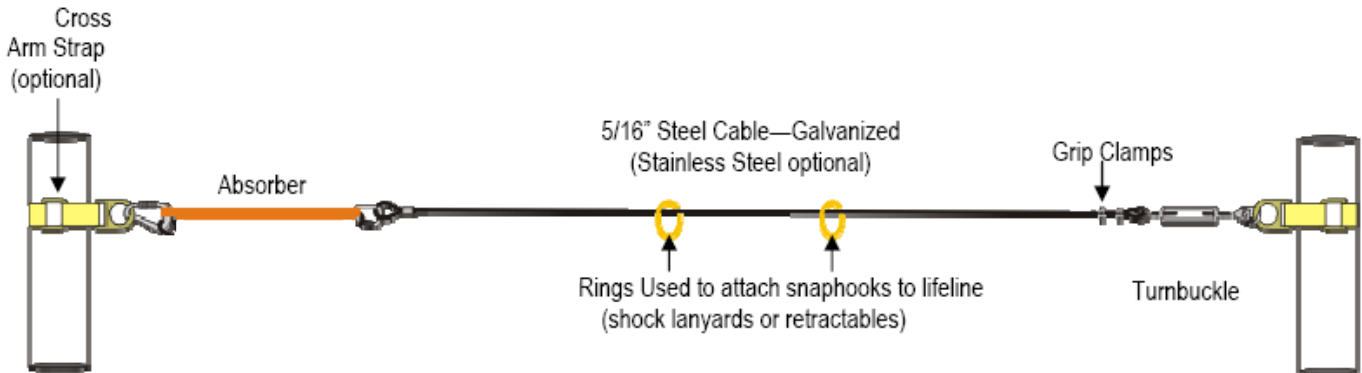
Note: A retractable life line (SRL) will limit the free fall to less than 2 feet.

## Clearance Requirements

### Clearance Charts

The clearance charts below show the required distance needed from the walking/working surface to the ground or nearest obstruction below, with the SAFEWAZE™ FS806 Horizontal Lifeline installed at the recommended height of 7'. Intermediate anchorage connectors may be added to a system to help reduce the required clearance by decreasing the length of the flexible horizontal lifeline span.

Note: Do not induce free falls greater than 4' with the SAFEWAZE™ FS806 Horizontal Lifeline



Any Qualified anchor point can be used as long as it meets OSHA regulations of at least 5000 lbs tensile strength.

\* The system should be installed at a recommended height of 7' above the work surface. The elevation of HLL system can be adjusted according to the length of shock absorbing lanyard. Never permit more than a 4' free fall with the SWHC system.

Minimum Safe Working Height below is determined by 6' SA lanyard with 4' Free Fall.

#### Self-Retractable Lanyard (SRL)

Cable Span (Feet)	Min. SWH 1 User	Min. SWH 2 User
10'	7'-0"	7'-6"
20'	7'-6"	8'-4"
30'	8'-1"	9'-2"
40'	8'-7"	10'-2"
50'	9'-3"	11'-2"
60'	9'-11"	12'-3"
70'	10'-7"	13'-6"
80'	11'-4"	14'-9"
90'	12'-1"	16'-2"
100'	12'-10"	17'-7"

#### 6' Shock Absorbing Lanyard\*

Cable Span (Feet)	Min. SWH 1 User	Min. SWH 2 User
10'	11'-1"	12'-4"
20'	12'-1"	13'-9"
30'	13'-0"	15'-1"
40'	13'-11"	16'-4"
50'	14'-8"	17'-5"
60'	15'-5"	18'-4"
70'	15'-5"	18'-5"
80'	15'-6"	18'-6"
90'	15'-7"	18'-7"
100'	15'-7"	18'-9"

Use this chart to determine the initial sag needed for the length of lifeline.

Span of HLL System	Initial Cable Sag
10'	0.8" – 1.3"
20'	1.6" – 2.1"
30'	2.4" – 2.9"
40'	3.2" – 3.7"
50'	4.0" – 4.5"
60'	4.8" – 5.3"
70'	5.6" – 6.1"
80'	6.4" – 6.9"
90'	7.2" – 7.7"
100'	8.0" – 8.5"

## CONNECTION

### Number of Users

The SAFEWAZE™ FS806 Horizontal Lifeline is designed for up to two users at one time, per system, with a capacity up to 310 lbs per worker (141 kg) including clothing, tools, etc.

### Full Body Harnesses

Only SAFEWAZE™ Full Body Harnesses may be used with the SAFEWAZE™ FS806 Horizontal Lifeline.

### Self Retracting Lanyards (SRL's)

Only SAFEWAZE™ Self Retracting Lanyards are to be used with the SAFEWAZE™ FS806 Horizontal Lifeline. Attach the housing connector of the Self Retracting Lanyard to the O-ring on the rope of the SAFEWAZE™ FS806 Horizontal Lifeline. The opposing end of the Self Retracting Lanyard is connected to the primary dorsal D-ring of the full body harness. Never attach an additional energy absorbing lanyard, or Self Retracting Lanyard, to lengthen the lifeline.

Note: Never use combinations of components or subsystems that may affect, or interfere with the safe function of each other.

### Housing of the SRL to Harness

Lighter weight Self Retracting Lanyards may be attached by the housing connector directly to the primary dorsal D-ring of the full body harness. The opposing end is connected to the O-ring on the rope of the SAFEWAZE™ FS806 Horizontal Lifeline.

### Dual Leg Retractable

Only SAFEWAZE™ Dual Leg Retractable are to be used with the SAFEWAZE™ FS806 Horizontal Lifeline. Attach the Dual Leg Retractable directly to the dorsal D-Ring of the full body harness. Attach one leg of the Dual Leg Retractable to the O-ring on the cable of the SAFEWAZE™ FS806 Horizontal Lifeline, and the unused leg to an approved lanyard storage keeper on the harness.

Note: Never attach the unused leg of the Dual Leg Retractable back to the harness at any location other than an approved lanyard storage keeper.

When using the Dual Leg Retractable to transition between spans, attach the unused leg to the next span before disconnecting the first leg. Connection of both legs while transitioning between spans is acceptable.

### Energy Absorbing Lanyards

Only SAFEWAZE™ energy absorbing lanyards that limit the fall arrest forces to less than 900 lbf may be used with the SAFEWAZE™ FS806 Horizontal Lifeline. Energy absorbing lanyards must be connected with the energy absorbing end of the lanyard connected to the dorsal D-ring of the full body harness. The opposing end of the lanyard is to be connected to the O-ring on the rope of the SAFEWAZE™ FS806 Horizontal Lifeline.

### Connecting Y-Lanyards

Y-Lanyards are designed for single person use only and must be connected with the energy absorbing end of the lanyard connected to the dorsal D-ring of the full body harness. Do not connect the energy absorbing end of the lanyard to any anchorage connector. Attach one leg of the Y-Lanyard to the O-ring on the rope of the SAFEWAZE™ FS806 Horizontal Lifeline and the unused lanyard leg to an approved lanyard storage keeper on the harness.

Note: Never attach the unused leg of the lanyard back to the harness at any location other than a lanyard storage keeper.

When using Y-Lanyards to transition between fall protection systems, attach the unused leg of the lanyard to the new location before disconnecting the first lanyard leg. Connection of both lanyard legs to separate anchorage connectors while transitioning between systems is acceptable.

## INSPECTION

### Frequency

All components of the SAFEWAZE™ FS806 Horizontal Lifeline must be inspected prior to each use, and annually by a “competent person” (other than the user), as defined by OSHA.

### Criteria

If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service until a “qualified person” as defined by OSHA 1926.32(m) can determine the need for authorized repair or disposal.

All components and subsystems of the SAFEWAZE™ FS806 Horizontal Lifeline must be inspected.

Any equipment that has been subjected to the forces of arresting a fall, or that has a deployed Load Indicator must be removed from service until a “qualified person” can determine the need for authorized repair or disposal.

All markings must be legible and attached to the product.

All equipment must be free of corrosion, chemical attack, alteration, excessive heating or wear.

To inspect webbing, bend a portion of the webbing 6”-8” into an upsidedown ‘U’ shape and continue along all webbing inspecting for tears, cuts, fraying, abrasion, discoloration, burns, holes, mold, pulled or broken stitches, or other signs of wear and damage.

Sewn terminations should be secure, complete, and not visibly damaged.

All snaphooks and carabiners must be able to self-close and lock. All hardware must be free of cracks, sharp edges, deformation, corrosion, or any evidence of defect.

All components of the Full Body Harness, Self Retracting Lanyard, and/or energy absorbing lanyard must be inspected. See user instructions supplied with the product.

## CLEANING, MAINTENANCE, STORAGE

**CAUTION:** Wear proper Personal Protective Equipment when performing Inspection, Cleaning and Maintenance procedures. Safety glasses & gloves are recommended.

### Cleaning

The SAFEWAZE™ FS806 Horizontal Lifeline can be wiped down with a mild detergent and clean water solution, and rinsed with a dampened clean cloth to remove detergent. The hardware can also be wiped down to remove grease, or dirt with a clean dry cloth.

## Maintenance

Any SAFEWAZE™ FS806 Horizontal Lifeline components requiring maintenance must be tagged “unusable” and removed from service.

Cleaning maintenance may be performed by the user.

Repairs to the product may only be made by the manufacturer or entities authorized in writing by the manufacturer.

## Storage

When not installed, the SAFEWAZE™ FS806 Horizontal Lifeline should be stored in a cool, dry place out of direct sunlight. Do not store in areas where damage from environmental factors such as heat, light, excessive moisture, oil, chemicals and their vapors, or other degrading elements may be present. Do not store damaged equipment or equipment in need of maintenance in the same area as product approved for use. Equipment that has been stored for an extended period must be inspected as described in these User Instructions prior to use.



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