FALL SAFE™

USER INSTRUCTIONS
for
714XXX SERIES LANYARD EXTENDER

Complies with the current ANSI Z359.1-2007 and
all applicable OSHA regulations and requirements.



SureWerx®

FALL SAFE™
Ph. 1-800-323-7402

Canada labels
SureWerx, 49 Schooner St.
Coquitlam, BC V3K 0B3

USA labels
SureWerx USA Inc.
Elgin, IL USA 60123

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User Instructions
Fall Safe Lanyard Extenders

USER INSTRUCTION LANYARD EXTENDERS

This manual is intended to meet the Manufacturer's Instructions as required by the current ANSI Z359.1 (2007), and should used as part of an employee training program as required by OSHA.

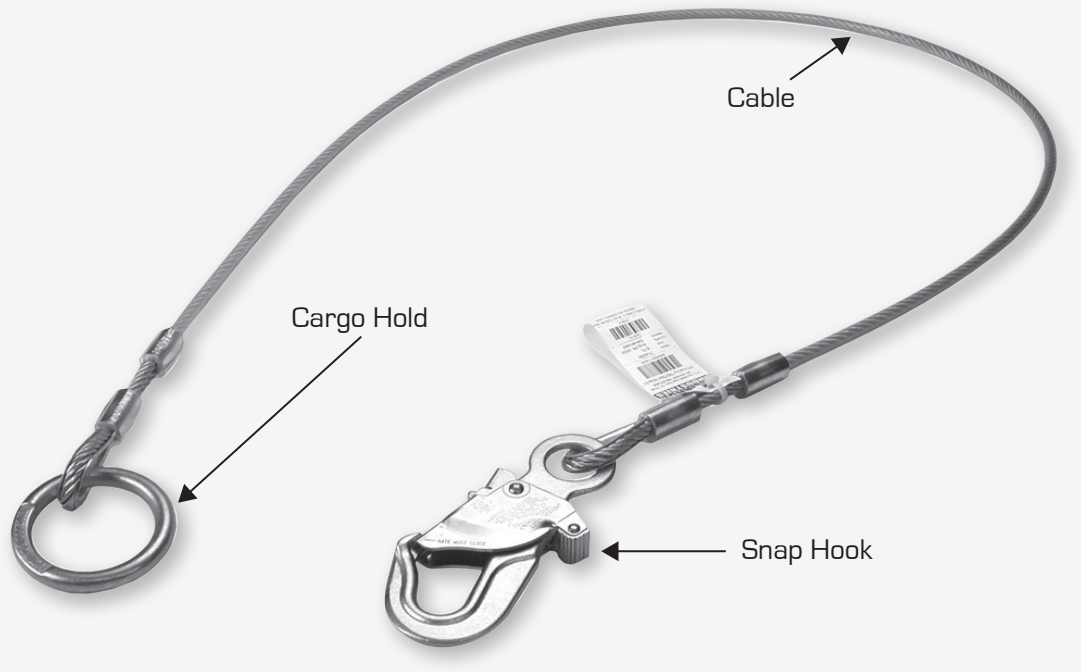
WARNING: This product is one part of a personal fall arrest, restraint, work positioning, personnel riding, climbing, or rescue system. Without the other necessary components in such sub-systems the lanyard extender itself serves no useful purpose. The user must follow the manufacturer's instructions for each component of the system. These instructions must be provided to the user before using this product and retained for ready reference by the user. The user must read, understand (or have explained), and heed all instructions, labels, markings and warnings supplied with this product and with those products intended for use in association with it before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. National standards and state, provincial and federal laws require the user to be trained before using this product. This manual can be used as part of a such a user safety- training program that is appropriate for the user's occupation.

READ AND HEED all labels and these user instructions. Safe use depends on correct use, and failure to follow these instructions could result in injury of even death. Applicable OSHA safety regulations require user inspection before each use. Look for any abrasion, dents or cracks, and remove from service if any damage is found. A formal inspection by a competent person who is not the user should occur at regular intervals not exceeding six months, more often when in heavy use. Any equipment which has been subjected to an impact load must be immediately removed from service and cannot be re-used. Any alteration of this equipment could compromise its effectiveness and is not permitted by the manufacturer.

IMPORTANT: Alterations or misuse of this product or failure to follow instructions may result in serious injury or death. "If you have questions on the use, care, or suitability of this equipment for your application, contact Fall Safe for information.

DESCRIPTION

Unless otherwise noted all Fall Safe lanyard extenders are manufactured using 1/4" (6mm) galvanized wire rope with a vinyl coating.



A. USE LIMITATIONS:

Consider the following application limitations before using this equipment:

1) CAPACITY:

These lanyard extenders are designed for use by persons with a combined weight (clothing, tools, etc.) of no more than 310 lbs. Persons with muscular, skeletal, or other physical disorders should consult a physician before using. Pregnant women and minors must never use this product. Increasing age and diminished physical fitness may reduce a person's ability to withstand shock loads during fall arrest or prolonged suspension. Consult a physician if there is any question about a users physical ability to safely use this product to as part of a Personal Fall Arrest System.

2) FREE FALL:

Personal fall arrest systems used with this equipment must be rigged to limit the free fall to a minimum of six feet (ANSI Z359.1) Restraint systems must be rigged so that no vertical free fall is possible. Work positioning systems must be rigged so that free fall is limited to two feet or less. Personnel riding systems must be rigged so that no vertical free fall is possible. Climbing systems must be rigged so that free fall is limited to 18 inches or less. Rescue systems must be rigged so that no vertical free fall is possible. In some instances (when no overhead structure exists) a worker may find the need to attach to a Lanyard Extender that is looped around a beam or structure located at his feet. In this type of an arrangement a worker will

experience at least 12 ft. of free-fall before his shock-absorbing lanyard will begin to pull on the anchorage cable. **Standard 6 ft. 900 lb. MAF shock absorbers are not designed for this type of fall and can cause high arrest forces or lanyard breakage that can result in serious injury or death.**

Whenever the possibility of experiencing a free-fall greater than 6 ft. exists, use only an OSHA approved 1800 lb. MAF shock- absorbing lanyard and limit the weight of workers approved to work in these conditions to 310 lbs. or less including harness and tools.

See subsystem manufacturer's instructions for more information.

3) FALL CLEARANCE:

There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or other obstruction. The clearance required is dependent on the following factors:

- Elevation of anchorage
- Connecting subsystem length*
- Deceleration distance
- Free fall distance
- Worker height
- Movement of harness attachment element

See subsystem manufacturer's instructions for more information.
* User must include excess lanyard length when calculating fall clearance distance requirements.

4) SWING PENDULUM FALLS:

Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a self-retracting lifeline or other variable length connecting subsystem is used.

5) CHEMICAL HAZARDS:

Acidic, alkaline, or other environments with harsh substances may damage the hardware elements of this product. When working in the presence of chemicals, more frequent inspection of all elements of the PFAS is required.

IMPORTANT: When working with tools, materials, or in high temperature environments, ensure that associated fall protection equipment can withstand high temperatures, or provide protection for those items.

6) CORROSION:
Do not expose product to corrosive environments for prolonged periods. Organic substances and salt water are particularly corrosive to metal parts. When working in a corrosive environment more frequent inspection, cleaning, and drying of the product is required. See Care of the Anchor Sling and Inspection sections for cleaning and inspection details.

7) ELECTRICAL HAZARDS:
Use extreme caution when working near energized electrical sources. Metal hardware will conduct electric current. Maintain a safe working distance [preferably at least 10 feet (3 m)] from electrical hazards.

8) MOVING MACHINERY:
When working near moving machinery parts (e.g. conveyors, rotating shafts, presses, etc.), maintain a safe working distance from machinery that could entangle clothing, the lanyard extender, or other components connected to it.

9) SHARP EDGES AND ABRASIVE SURFACES:
If possible, do not expose extender to sharp edges or abrasive surfaces that could cut, tear or abrade and weaken the cable. If working around sharp edges and abrasive surfaces is unavoidable use padding or other protective barriers to prevent direct contact.

10) WEAR AND DETERIORATION:
Any extender which shows signs of excessive wear, deterioration or aging, must be removed from use and marked “UNUSABLE” until destroyed. **See detailed inspection procedures.**

11) IMPACT FORCES:
Any extender that has been subjected to the forces of arresting a fall must be immediately removed from service and marked as “UNUSABLE” until destroyed.

SYSTEMS REQUIREMENTS

A. COMPATIBILITY OF SYSTEM PARTS

1) COMPATIBILITY OF COMPONENTS AND SUBSYSTEMS:
Fall Safe products are designed to be used with Fall Safe approved components and connecting subsystems. Use of this product with products made by others that are not approved in writing by Fall Safe may adversely affect the functional compatibility between system parts and the safety and reliability of the complete system. Connecting subsystems must be suitable for use in the application (e.g. fall arrest or restraint). Fall Safe produces a line of connecting subsystems for most applications. Contact Fall Safe for further information. Refer to the manufacturer’s instructions supplied with the component or connecting subsystem to determine suitability. For fall arrest applications using the anchor sling, the maximum fall arrest force must

not exceed 1,800 lbs. (8 kN). Contact Fall Safe with any questions regarding compatibility of equipment used with the extender.

2) COMPATIBILITY OF CONNECTORS

Connectors, such as D-rings, snap hooks, and carabiners, must be rated at 5,000 lb. (22 kN) minimum breaking strength. Fall Safe connectors meet this requirement. Connecting hardware must be compatible in size, shape, and strength. Non-compatible connectors may accidentally disengage ("rollout") or false engage. Always verify that the connecting snap hook or carabiner and the D-ring on the anchorage connector is compatible. Use only self-closing, self- locking snap hooks and carabiners with the anchor sling. Do not use snap hooks to connect to web loops. Use a self-locking carabiner to connect to a web loop. Ensure the carabiner cannot cross-gate load (load against the gate rather than along the backbone of the carabiner). Connecting subsystems (self retracting lifeline, lanyard, rope grab and lifeline, cable grab, etc.) must be suitable for your application.

3) ANCHORAGES AND ANCHORAGE CONNECTORS

Anchorages for personal fall arrest systems must have a strength capable of supporting a static load, applied in directions permitted by the system, of at least: (a) 3,600 lb. (16 kN) when certification exists, or (b) 5,000 lb. (22.2 kN) in the absence of certification. When more than one personal fall arrest system is attached to an anchorage, the anchorage strengths set forth in (a) and (b) must be multiplied by the number of systems attached to the anchorage. This requirement is consistent with OSHA requirements under 29 CFR 1910, Subpart F, Section 1910.66, Appendix C. Anchorages for work positioning or restraint must have strength capable of supporting a static load, applied in the directions permitted by the system of at least 3,000 lbs., or twice the potential impact load as ascertained by a qualified person, whichever is greater. See OSHA 1926.502. When more than one work positioning system is attached to a rigid anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.

USING THE LANYARD EXTENDER

A. INSPECT PRIOR TO USE:

Before the use of this product, inspect it and all components of the PFAS:

1) Inspect the lanyard extender to verify that it is in serviceable condition. Examine every inch of the cable and cargo ring for severe wear, cuts, burns, frayed edges, abrasion, or other damage. Examine hooks for any signs of wear or damage. See Inspection section for details. **Do not use if inspection reveals an unsafe condition. Always err on the side of safety.**

B. INSTALLING THE LANYARD EXTENDER

1) The most common use for a Lanyard Extender is to facilitate access for connection by extending the overhead anchorage location for a worker's fall arrest anchorage to a lower level so that it is within his reach from his walking/working surface.

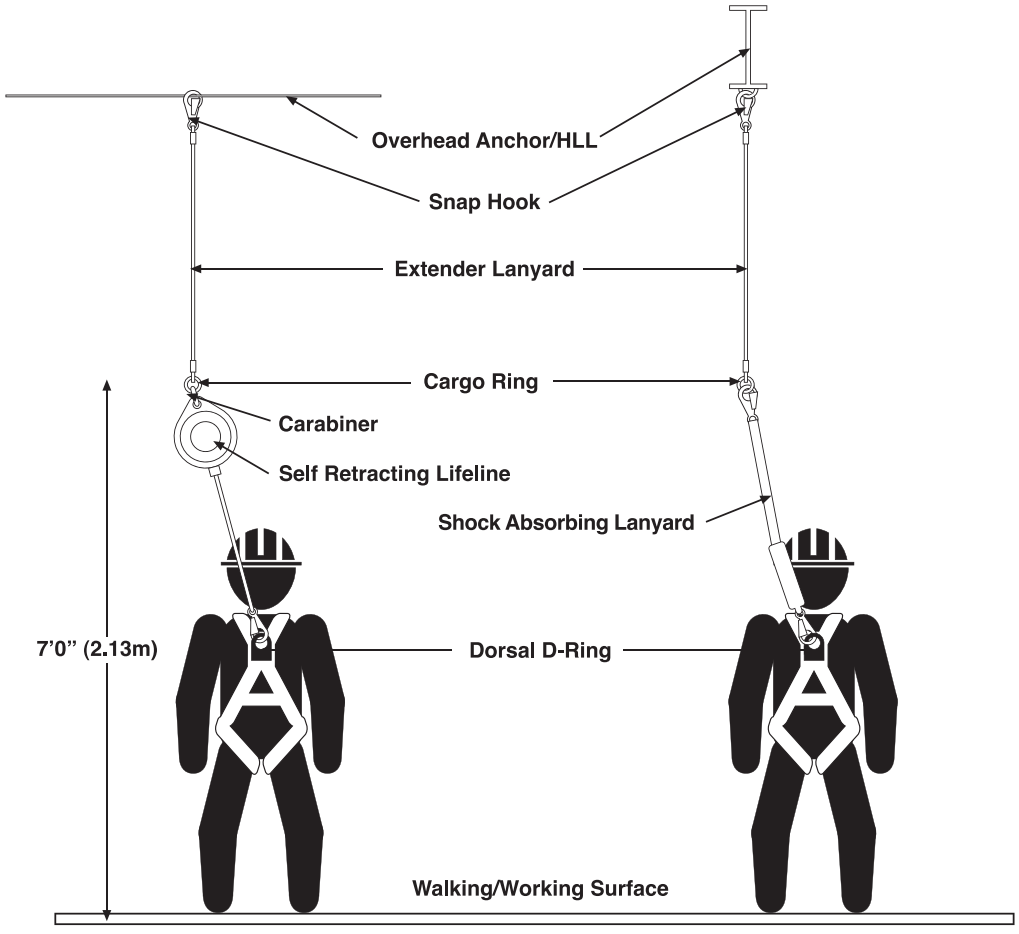


Figure 1

2) **WARNING: (Danger of tie-back installation)** Care must be taken to never use the Extender Cable as a choker in a tie-back installation. It is possible when installing an Extender Cable to loop the Extender Cable around a beam and then attach it back to itself by snapping the hook of the snap over the cable (see Figure 2). It is also possible to loop the Extender Cable around an I-beam and insert the snap back through the cargo ring creating a choker effect (see Figure 3). **Both of these arrangements are strictly forbidden.**

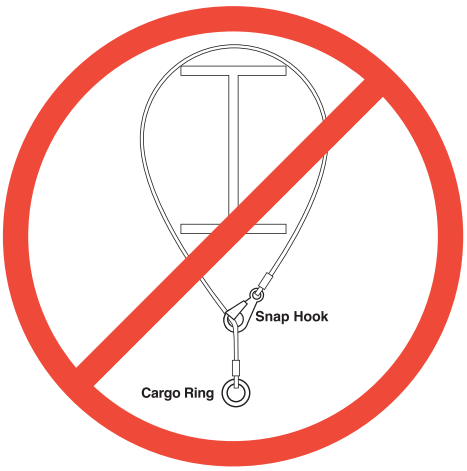


Figure 2

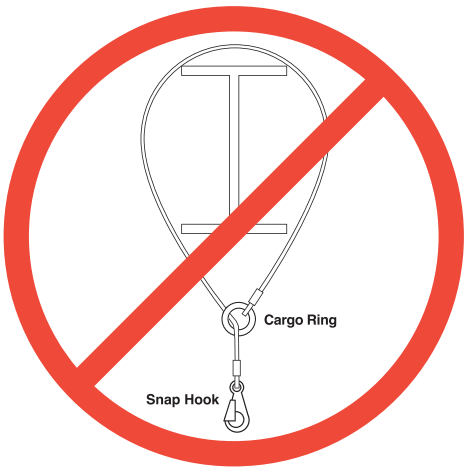


Figure 3

3) It is especially dangerous to use a Wire Rope Anchorage Extender in a tie-back installation when the snap might be positioned over the beam during a fall. This type of arrangement can cause the snap to become restricted against the beam and cause gate or snap failure due to compound loading. A fall in this position can cause the snap gate to be side loaded creating double the fall arrest force seen by the shock absorber. Standard locking snaphooks are not designed to withstand these forces in side load or gate load (see Fig. 4 and 5). **Both of these arrangements are strictly forbidden.**



Figure 4



Figure 5

4) When a worker is looping an extender cable around an I-beam or structure to create an anchorage, the only approved location to attach the Extender Cable snap is to the Extender Cable cargo ring (Fig. 6). When anchoring the personal protective equipment to the Extender Cable, the only approved location to attach to the snap of the shock-absorbing lanyard is to the cargo ring of the Extender Cable (Fig. 7).

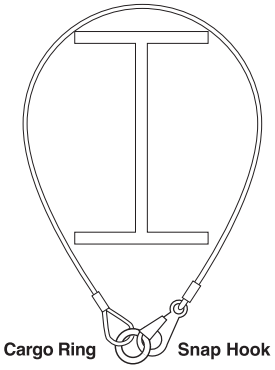


Figure 6

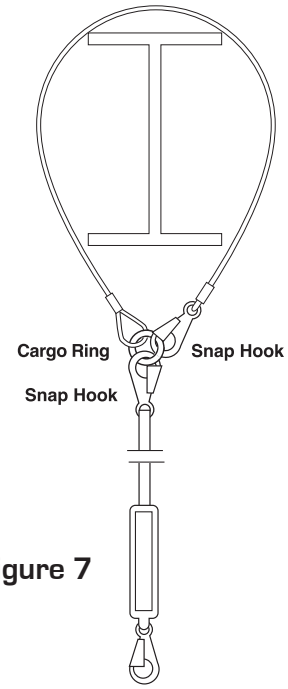


Figure 7

C. SELECTION OF PERSONAL PROTECTIVE EQUIPMENT TO BE USED WITH THE LANYARD EXTENDER

When the Wire Rope Anchorage Extender is installed properly the location of the cargo ring will be at or above the level of the worker's dorsal d-ring but within his reach. This is usually 5 ft. or higher above the walking/working surface. In this arrangement the worker should be wearing a full body harness and be attached using a 900 lb. MAF (Maximum Arrest Force) shock absorbing lanyard or self retracting lifeline incorporating connectors that are double-action, self-closing and self-locking and be attached to the harness at his dorsal d-ring. In this arrangement a worker will be limited to a free-fall of 6 ft. or less.

In some instances (when no overhead structure exists) a worker may find the need to attach to an Anchorage Extender that is looped around a beam or structure located at his feet. In this type of an arrangement a worker will experience at least 12 ft. of free-fall before his shock absorbing lanyard will begin to pull on the anchorage cable. **Standard 6 ft. 900 lb. MAF shock absorbers are not designed for this type of fall and can cause high arrest forces or lanyard breakage that can result in serious injury or death.**

Whenever the possibility of experiencing a free-fall greater than 6 ft. exists, use only an OSHA approved 1800 lb. MAF shock-absorbing lanyard and limit the weight of workers approved to work in these conditions to 310 lb. or less including harness and tools.

Train workers to be aware of resulting free-fall distances when they anchor at their feet. When using a 6 ft. shock absorbing lanyard, a typical fall will require 16 ft. plus the length that the cargo ring hangs below the top of the walking working surface. Therefore the Wire Rope Extender Cable should not be longer than needed just to circle the anchorage structure (Fig 6).

Fall Clearance When Tied Off at Foot Level

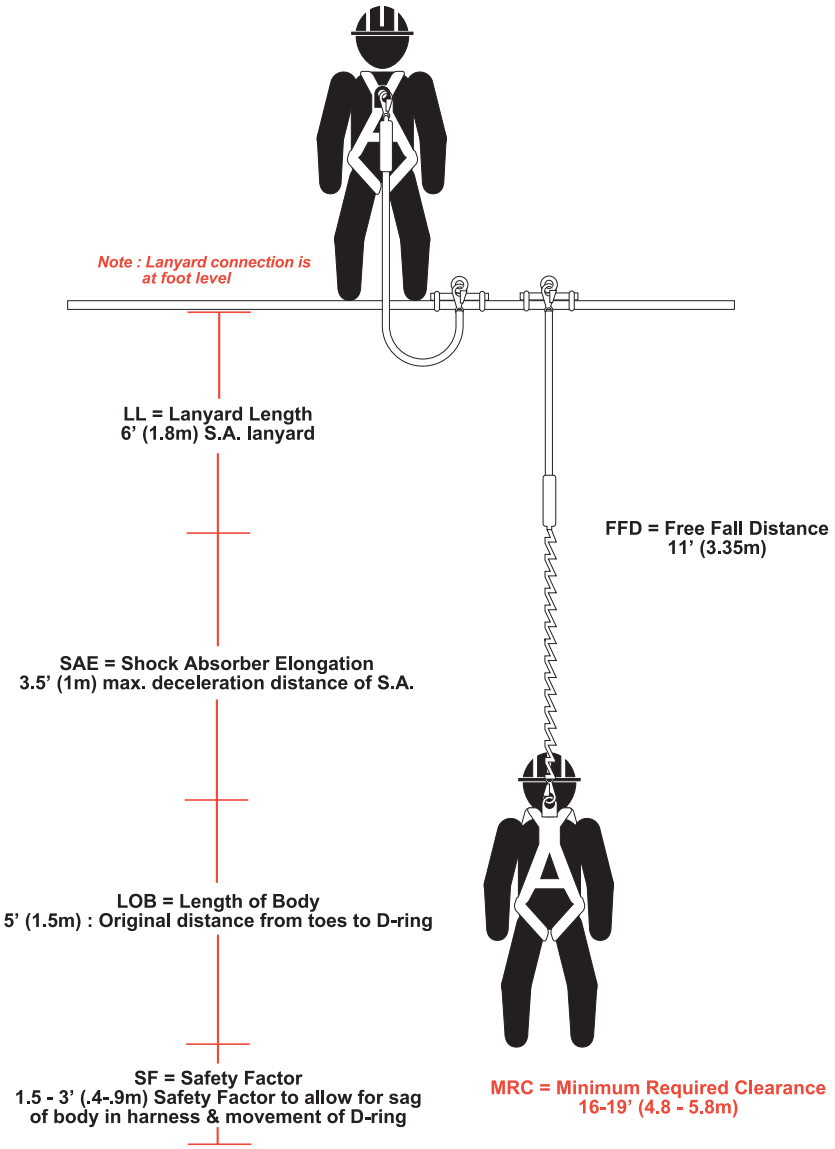


Figure 9

D. PLAN SCOPE OF WORK TO BE PERFORMED (JOB SAFETY TASK ANALYSIS):

Plan procedures to safely perform tasks when using any components of a PFAS. Some considerations are listed below (see APPLICATIONS, item B. USE LIMITATIONS section for additional details);

1) Anchorage Selection- In addition to strength considerations, the anchorage should be rigged to prevent a fall onto the structure when considering 2) and 4) below.
2) Swing pendulum fall,
3) Rough surfaces or unprotected sharp edges that could cut or abrade the equipment if unprotected.
4) Work-place geometry
    (a) Fall distance- Limited to 6 ft. by OSHA and ANSI Z359.1
    (b) Deceleration distance- Must not exceed 3.5 ft.
    (c) Total fall distance. The sum of the free fall distance and deceleration distance plus a 2 ft. safety margin.
5) Rescue and Evacuation
    (a) The user and employer must have a rescue plan in place, training in its use, and the means to implement it at hand. The employer must have the ability to perform a rescue quickly and safely. Do not plan to rely on others for rescue, prolonged suspension can cause bodily injury or death.

CARE OF THE LANYARD EXTENDER

A. The Lanyards should always be handled in a manner that will protect them from damage or corrosion. Prior to use, the Wire Rope Extender Lanyard may be cleaned if necessary with a solvent based oil such as WD-40 that do not contain chlorine or chemicals corrosive to steel or zinc. Spraying with a light oil and wiping clean will ensure that the snaphook is free of debris and well lubricated. More information on cleaning is available from Fall Safe. If you have questions concerning the condition of your extender, or have any doubt about putting it into service contact Fall Safe.

B. Store lanyards in a cool, dry, clean environment out of direct sunlight. Avoid areas where heat, oil, chemicals or their vapors may exist. Thoroughly inspect the extenders after extended storage. Good safety practice requires separate storage of unusable product from usable product.

A. INSPECTION FREQUENCY

1) The anchor sling must be inspected by the user prior to each use.
2) A competent person other than the user must inspect the anchor sling thoroughly at least annually. Extreme working conditions (harsh environments that might corrode the hardware, prolonged use, etc.) may require increasing the frequency of inspections. Record the results of each formal inspection in the inspection and maintenance log as described below.

B. INSPECTION PROCEDURE

Carefully conducted inspections are necessary to ascertain the condition of the wire rope making up the Wire Rope Anchorage Extender before each days use, and a more thorough examination must be conducted by a Qualified Person on a twice yearly basis. The primary purpose of inspecting the wire rope is removal from service of those lanyards that contain defects or damage that could pose a hazard to continued normal operations. The individual making the inspection should be familiar with the anchorage, its' method of operation and use, and the components making up the anchorage extender.

The visual inspection of the anchorage begins with an examination of the ferrules. The ferrules should be examined for cracks or loose fittings. Two ferrules should be present at each end of the lanyard. There should be no broken wires present where it exits the ferrules. If ANY of the following defects are observed, the anchorage extender should be tagged "UNUSABLE" and immediately removed from service:

- Distortion of the wire rope, such as kinking, crushing, bird-caging, strand displacement, etc.
- General corrosion
- Reduction of the outer diameter of the wire rope due to wear
- Evidence of any heat damage from any cause
- More than Two broken wires in one lay or more than one broken wire at an end connection.

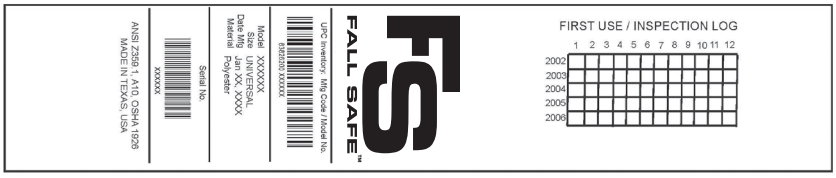
LABELING

The illustration on the this page is representative of the actual labels that appear on Fall Safe Lanyard Extenders.

The **Anchor Specifications Label** contains information that is specific to the particular sling. It will identify the Fall Safe part number, the size of the sling, the material of which it is constructed, the date the sling was manufactured, and the sling's unique serial number. All this information is necessary for the user to know in order to assure safe use of the anchor extender. As an assistance to record keeping the serial number, the UPC identifier code for Fall Safe, and the part number are all represented both in text and in UPC 128 barcode format. The barcodes are intended to facilitate the issuance, inspection and logging procedures for those users equipped to utilize bar codes.

All the information on the Anchor Specifications Label is important for the safe use of this product, so the user should ensure that the label has not been removed and that the descriptions it contains match the task and environment in which the product is intended to be used.

On the back side of the Anchor Specifications Label is the' inspection log, which can be marked with an indelible marker or punched on the occasion of inspections. This label will be verified by a Competent Person at least annually, more often in the case of heavy use.



Anchor Strap Specifications Label
(Attached to the wire rope)

EQUIPMENT RECORD	
PART NUMBER	
SERIAL NUMBER	
DATE MANUFACTURED	
PURCHASE DATE	
ASSIGNED TO	

INSPECTION RECORD		
DATE	INSPECTOR	PASS/FAIL

SPECIFICATIONS

714XXX SERIES LANYARD EXTENDERS

Certified to meet the current ANSI Z359.1(2007) and OSHA regulations for the anchorage device component of a complete personal fall arrest system. All hardware certified to 5000 lb. breaking strength, 100 percent proof tested to 3600 lbs.

Individually bar coded serial number and date of manufacture are on product label.

Proof Load: 3600 lbs.
Load Rating: 5000 lbs.
Materials:
- 1/4" vinyl coated 7x19 galvanized aircraft cable.
- 2-3/16" forged steel cargo ring
- Zinc plated double locking snaphook

Individually bar coded serial number and date of manufacture located on product label.

Last two digits indicate length:

714003 = 3 ft. working length
714004 = 4 ft. working length
714005 = 5 ft. working length
714006 = 6 ft. working length
714007 = 7 ft. working length
714010 = 10 ft. working length

Made in Texas, USA

NOTES:



WARRANTY: • Warranty policy is that of an implied manufacturer warranty and covers manufacturer's defects and workmanship. This warranty is valid for one year from date of purchase unless otherwise stated • Warranties are limited to the replacement of defective parts. Parts damaged from misuse will not be replaced under the warranty program. SureWerx USA shall be the sole judge of part condition • Warranty does not apply to: (i) cosmetic damage, such as scratches, nicks and dents; (ii) consumable parts, such as batteries, unless product damage has occurred due to a defect in materials or workmanship; (iii) damage caused by accident, abuse, misuse, water, flood, fire, or other acts of nature or external causes; (iv) anticipated wear or damage due to use of the product in the application for which it is marketed; (v) damage to a product that has been modified or altered without the written permission of SureWerx. • Warranty varies by brand and product category. Please contact customer service for specific warranty policies

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Ph. 1-800-323-7402

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SureWerx, 49 Schooner St.
Coquitlam, BC V3K 0B3

USA labels
SureWerx USA Inc.
Elgin, IL USA 60123

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