



# Shock Absorbing Lanyard



**Certified to:**

**CSA Z259.11-2005**

**ANSI Z359.13-2013**



**READ CAREFULLY  
BEFORE USE**

A / Une / Una

**SureWerx**<sup>TM/INC.</sup>  
Brand / Marque / Marca

**Canada:**

SureWerx, 49 Schooner St.,  
Coquitlam, BC V3K 0B3  
[surewerx.com](http://surewerx.com)

**USA:**

Sellstrom Manufacturing Co.,  
Schaumburg, IL 60173  
[sellstrom.com](http://sellstrom.com)

Made in China  
Fabriqué en Chine  
Hecho en China

## INTRODUCTION

This manual contains the Manufacturer's Instructions as required by CSA Z259.2 and ANSI Z 359.1. It should be used as part of the fall protection training program required by law. All PeakWorks' products are designed and engineered to meet or exceed applicable CSA and ANSI standards along with labour ministry requirements. ***WARNING: All persons using this equipment must read and understand all the instructions and warnings contained in this manual. Failure to do so may result in serious injury or death. Do not use this or any other fall protection equipment unless you have been properly trained.***

## FALL PROTECTION

It is the employer's responsibility to provide fall protection and training for any worker deemed to be working at height. In Canada, any worker that is more than 3 meters from the ground or first obstruction must have fall protection.

## SYSTEM COMPATIBILITY

PeakWorks equipment has been designed and approved for use only with PeakWorks connectors. Any substitution of components may result in compatibility issues. Users should always ensure that the connectors are properly selected and connected so as not to allow a load to be applied to the gate of the connector.

***WARNING: Not following either of these instructions could result in the fall protection system becoming disengaged during a fall which could result in serious injury or death.***

## TRAINING

All workers and their employer must be trained in the correct use, care and maintenance of this and any other fall protection equipment used. It is the employer's responsibility to provide proper fall protection training for all workers using fall protection equipment. Both the worker and the employer must be aware of the correct and incorrect applications and use of this equipment.

***WARNING: Failure to be properly trained on this equipment and any other fall protection equipment used in conjunction with this equipment could result in serious injury or death.***

## RESCUE PLAN

A rescue plan is an integral and critical part of any fall protection plan and system. It is the responsibility of the employer to have a rescue plan prepared by a competent person. All workers using any fall arrest system must have a rescue plan prior to using the system.

## INSPECTION

***WARNING: If any portion of the inspection reveals problems, deficiencies or unsafe conditions, the equipment must be removed from service immediately.***

This equipment and any other fall protection equipment used in conjunction with it should be inspected by the worker every time it is used. This equipment must be inspected annually by a competent person. A competent person is defined by OSHA: "By way of training and/or experience, a competent person is knowledgeable of applicable standards, is capable of identifying workplace hazards relating to the specific operation and has the authority to correct them". Details of how to inspect this equipment is discussed later in the manual.

## FALL CLEARANCE

Fall Clearance is the distance required to safely arrest the users fall. It is the distance from the anchorage to the ground. A Fall Clearance Calculation must be done anytime this or any other fall protection equipment is use.

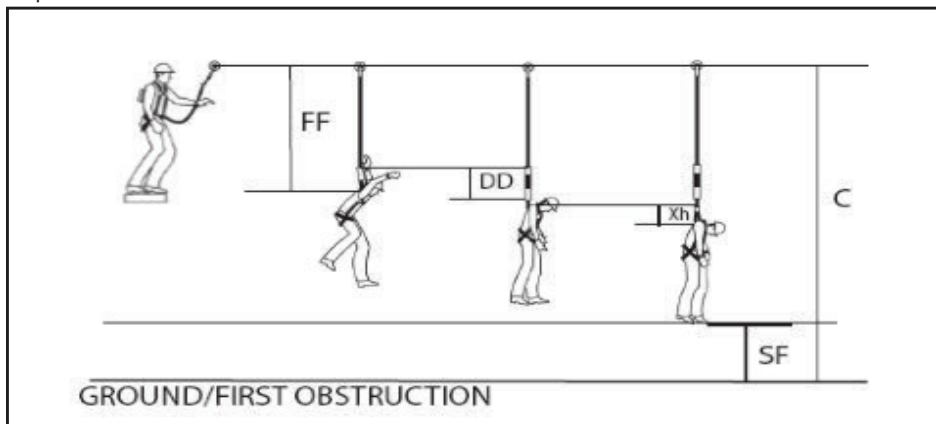
Step 1: Calculate Free Fall (FF)

Step 2: Determine how much the connecting device deploys (DD)

Step 3: Determine the stretch of the harness (Xh)

Step 4: Add a safety factor (typically is 3 ft)

Step 5: Fall Clearance  $C = FF + DD + Xh + SF$



## REPAIR

Do not attempt to repair or alter this fall protection equipment. Repairs can only be performed by the manufacturer or its authorized agents.

## TABLE OF FALL PROTECTION STANDARD

Fall protection equipment is governed in Canada by the Canadian Standards Association (CSA) and in the United States, the American National Standards Institute (ANSI)

### Canadian Standards Association Fall Protection Standards:

|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
| CSAZ259.1-05    | Safety Belts and Saddles for work positioning and travel restraint |
| CSA Z259.10-06  | Full Body Harness                                                  |
| CSA A259.11-05  | Energy Absorbers and Lanyards                                      |
| CSA Z259.12-01  | Connecting Components for Personal Fall Arrest Systems             |
| CSA Z259.13-04  | Flexible Horizontal Lifelines                                      |
| CSA Z259.16-03  | Design of Active Fall Protection Systems                           |
| CSA Z259.2.1-98 | Fall Arresters, Vertical Lifelines, and Rails                      |
| CSA Z259.2.2-98 | Self-Retracting Devices for Personal Fall-Arrest Systems           |
| CSA Z259.2.3-99 | Descent Control Devices                                            |

### ANSI Standards

#### Construction and Demolition Operations:

|             |                                                                                 |
|-------------|---------------------------------------------------------------------------------|
| A14.3-1992  | Ladders - Fixed - Safety Requirements                                           |
| Z117.1-1989 | Safety Requirements for Confined Spaces                                         |
| Z359.1-2007 | Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components |

## SHOCK ABSORBING LANYARD OVERVIEW

All PeakWorks' Shock Absorbing Lanyards have been designed and engineered to meet or exceed all applicable standards and Ministry of Labour requirements.

## SHOCK ABSORBING LANYARD CLASSIFICATION & RATINGS

There are two classifications of shock absorbing lanyards, E4 and E6

| Type | Capacity                | Maximum Arrest Force (MAF) |
|------|-------------------------|----------------------------|
| E4   | 99-253 lbs (25-115 kg)  | 900 lbf (4kN)              |
| E6   | 200-386 lbs (90-175 kg) | 1300 lbf (6kN)             |

## LABELS

All PeakWorks shock absorbing lanyard have product labels.

## FALL INDICATOR

Certain PeakWorks shock absorbing lanyards are equipped with a fall indicator flag. These lanyards have tubular webbing covering the shock absorbing material and are referred to as POY (partially oriented yarn) lanyards – PeakWorks Part Numbers SA-100x-x and SA-200xx-x. The fall indicator flag is located near to one of the snap hooks/connectors. A copy of the flag is shown in the labels section of this manual.

***WARNING: If the fall indicator is deployed, a warning label will be visible and the harness must be removed from service immediately.***

## CONNECTING TO A FULL BODY HARNESS

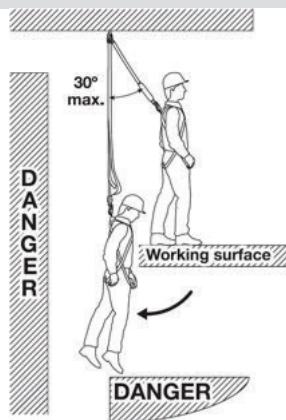
Always connect the regular snap hook ( $\frac{3}{4}$ " gate opening) on a shock absorbing lanyard to the fall arrest D-ring of the full body harness located on the back of the harness.

***WARNING: Never connect a large self locking hook such as a rebar (1  $\frac{3}{4}$ " gate opening) or scaffolding hook (2  $\frac{1}{4}$ " gate opening) to the fall arrest D-ring of the full body harness. Connecting a large gate opening hook could result in an accidental roll out, which may lead to serious injury or death.***

## CONNECTING TO AN ANCHORAGE: SELECTION & STRENGTH

Once the snap hook ( $\frac{3}{4}$ " gate opening) end of the shock absorbing lanyard is connected to the fall arrest D-ring of the full body harness, the other end must be connected to an anchorage. The anchorage must be capable of resisting a static load of 3,600 lbs (16 kN) if certified, or 5,000 lbs (22.2 kN) if not certified.

Every anchorage point must be selected with care. The anchorage point location, in combination with the lanyard, should never permit a free fall of more than 6 ft. (1.8 m). Always check for obstructions below the work area to make sure that the potential fall path is clear. When selecting an anchorage point, take into consideration that a deceleration device, such as a shock absorber, can elongate up to 42 inches (1.1 m). Always work directly under the anchorage point to avoid a swing fall injury.



***WARNING: Never tie a shock absorbing lanyard back onto itself. The connectors on the shock absorbing lanyards are not designed to be used this way and could result in serious injury or death.***

### **CONNECTING TO A ROPE GRAB (FALL ARRESTER) OR SELF RETRACTING LIFELINE**

PeakWorks does not recommend connecting a shock absorbing lanyard to either a rope grab or a self retracting lifeline. Please contact PeakWorks for additional information.

### **100% TIE OFF LANYARD CONSIDERATIONS**

Commonly known as 100% tie-off, "Y" type, twin leg, or double lanyards, these energy absorbing lanyards can be used to provide continuous fall protection while ascending, descending, or moving laterally. With one lanyard leg attached, the worker can move to a new location, attach the unused lanyard leg, and disconnect the other leg. This procedure is repeated until new location is reached. Other practices that must be followed in order to use a 100% tie off type lanyard safely include:

- Do not attach the unused leg of the lanyard back to the harness at any location unless a specially designed lanyard retainer is provided for this purpose.
- Connection of both lanyard legs to separate anchorage points is acceptable when leapfrogging from one anchorage point to the next (such as traversing a horizontal or vertical structure)
- Do not connect to anchorage points that are further apart than the lanyard length
- Never connect more than one person to a "Y" type lanyard at a time.
- Do not allow any lanyard to pass under arms or legs during use.

### **CARE & STORAGE**

This shock absorbing lanyard and all fall protection equipment should be stored in a clean dry environment that is free of exposure to fumes or corrosive elements. Never store this shock absorbing lanyard where it is exposed to long periods of sunlight.

Regular cleaning of your shock absorbing lanyard will help extend its life. Wipe off all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and mild soap or detergent. Work up a thick lather with a vigorous back and forth motion. Remove the soap or detergent with a clean damp cloth. Wipe the shock absorbing lanyard dry with a clean cloth. Hang the shock absorbing lanyard to dry away from excessive heat or steam.

PeakWorks offers a professional cleaning service. Our non-evasive cleaning process does not weaken reflective materials, stitching or seams. The colours of your items will not fade. Even materials like leather can go through the cleaning process. Please contact PeakWorks for more information.

***WARNING: Never use solvent based cleaners. Do not apply paint or solvent markers for unit identification. Solvents can cause deterioration of the webbing.***

## **SHOCK ABSORBING LANYARD INSPECTION**

The worker should inspect this Shock Absorbing Lanyard and any other fall protection equipment used in conjunction with it every time it is used. A competent person must inspect this equipment annually. PeakWorks offers a professional RFID based inspection system. Please contact PeakWorks for more information. The following guide should be used to inspect your Shock Absorbing Lanyard.

***WARNING: If the Shock Absorbing Lanyard has arrested a fall or been subjected to any impact forces, it must be removed from service immediately and destroyed.***

***WARNING: If any portion of the inspection reveals problems, deficiencies or unsafe conditions, the equipment must be removed from service immediately.***

### **Step 1: Length**

Shock absorbing lanyards will increase in length if they have been subjected to a force greater than 900 pounds. If the lanyard is longer than its initial length (shown on the product label on the lanyard), it must be removed from service.

### **Step 2: Webbing**

Place the webbing between both of your hands approximately 6" apart. Flex the webbing to reveal any signs of damage such as burns, frays, cuts, chemical damage or pulled stitches. Continue this procedure for the entire harness ensuring that you inspect all the webbing on both sides.

### **Step 3: Stitching**

Peakworks utilizes programmable stitch patterns on all stitches used to manufacture all shock absorbing lanyards. Check all stitches on the shock absorbing lanyard to ensure that there are no missing stitches within each stitch pattern, and that there are no loose or pulled stitches. Also make sure that all joints are tight and have not become loose over time.

### **Step 4: Snap Hooks**

Inspect all snap hooks and connectors to ensure there are no signs of distortion, corrosion, cracks, breaks or sharp edges. Move the webbing at the attachment point to ensure there are no signs of damage under the webbing. Repeat this procedure for all snap hooks and connectors.

### **Step 5: Labels**

All labels should be present and fully legible as shown in this manual.

### **Step 6: Recording the Inspection**

The inspection must be recorded on the shock absorbing lanyard label as well as in this manual.

## INSPECTION LOG

|    | INSPECTION<br>DATE | RESULTS | CORRECTIVE<br>ACTION | MAINTENANCE<br>PERFORMED | INSPECTION<br>CONDUCTED BY |
|----|--------------------|---------|----------------------|--------------------------|----------------------------|
| 1  |                    |         |                      |                          |                            |
| 2  |                    |         |                      |                          |                            |
| 3  |                    |         |                      |                          |                            |
| 4  |                    |         |                      |                          |                            |
| 5  |                    |         |                      |                          |                            |
| 6  |                    |         |                      |                          |                            |
| 7  |                    |         |                      |                          |                            |
| 8  |                    |         |                      |                          |                            |
| 9  |                    |         |                      |                          |                            |
| 10 |                    |         |                      |                          |                            |

## PRODUCT LABELS

**LA-SA002**

DESTROYED  
SERVICE IMMEDIATELY AND  
MUST BE REMOVED FROM  
THE LANYARD IS 3' LONGER  
IF THE LANYARD IS 3' LONGER  
EXCEED 3' OF THE ORIGINAL  
LENGTH OF THE LANYARD  
MEASURE THE LANYARD TO  
INSTRUCTION MANUAL.  
INSPECTED BEFORE EACH USE  
BY THE USER AS PER THE  
INSTRUCTION MANUAL.  
BEFORE USE INSTRUCTION  
REGLING IN SERIOUS INJURY  
OR DEATH.  
IN THE EVENT OF A FALL, THIS  
NOT TO PERFORM AS DESIGNED  
COULD CAUSE THE LANYARD  
DAMAGE THE LANYARD WHICH  
ANY OF THESE HAZARDS MAY  
GRINDING AND WEAR SPARK  
SHARP EDGES, RAZOR  
COMING IN CONTACT WITH  
PROTECT THE LANYARD FROM  
FALL

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

IDENTIFICATION DE CORDON

**LA-SA1000-E-001**

  
CONNECT THIS END TO THE  
FULL BODY HARNESS

**PEAKWORKS**  
www.peakworks.ca  
1-877-887-3259

WARNING: FOLLOW THE  
MANUFACTURER'S  
INSTRUCTIONS INCLUDED WITH  
THIS PRODUCT AT THE TIME OF  
SHIPMENT. FAILURE TO DO SO  
COULD RESULT IN SERIOUS  
INJURY OR DEATH. PLEASE  
CONTACT PEAKWORKS INC. IF  
YOU REQUIRE A MANUAL.



MODEL #:  
SA-1000-6  
CLASS: E4

INITIAL LENGTH: 6 FT (1.8m)  
DEPLOYED LENGTH: 10 FT (3.05m)  
MAXIMUM ARREST FORCE  
(MAF): 9000lbf (4kN)  
MATERIAL: Polyester  
CAPACITY (worker mass range):  
45-115KG (99 - 253 lbs)  
CERTIFIED TO: CSAZ259.11-05

  
DOM: 09-2011  
SERIAL# 110,000

### FALL INDICATOR LABEL

**LA-SA003**

FALL INDICATOR  
INDICATEUR DE  
CHUTE

  
WARNING /  
AVERTISSEMENT

Remove from service  
immediately if the lanyard  
has been exposed to a  
fall.

Mettez l'appareil hors  
service immédiatement si  
le cordon ayant arrêté de  
chute.