



PEAKWORKS®

Self-Retracting Lifelines



Certified to:

CSA Z259.2.2-17

Product Specific Name

SRL-73302-10LE / V845633010LE

SRL-80302-18LE / V845722018LE

SRL-73302-20LE / V845633020LE

SRL-73302-40LE / V845633040LE

SRL-73302-60LE / V845633060LE

SRL-76105-6AR / V845682006AR



**READ CAREFULLY
BEFORE USE**

A



Brand

surewerx.com

Canada:

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

Made in Germany

INTRODUCTION

This manual contains the Manufacturer's Instructions as required by CSA Z259.2.2. 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.

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.

TABLE OF FALL PROTECTION STANDARDS

Fall protection equipment is governed in Canada by the Canadian Standards Association (CSA).

Canadian Standards Association Fall Protection Standards:

CSAZ259.1	Safety Belts and Saddles for Work Positioning and Travel Restraint
CSA Z259.2.2	Self-Retracting Devices for Personal Fall-Arrest Systems
CSA Z259.2.3	Descent Control Devices
CSA Z259.2.4	Fall Arrestor and Fixed Rigid Rails
CSA Z259.2.5	Fall Arrestor and Vertical Lifelines
CSA Z259.10	Full Body Harness
CSA Z259.11	Energy Absorbers and Lanyards
CSA Z259.12	Connecting Components for Personal Fall Arrest Systems
CSA Z259.13	Flexible Horizontal Lifelines
CSA Z259.14	Fall Restrict Equipment for Wood Pole Climbing
CSA Z259.15	Anchorage Connectors
CSA Z259.16	Design of Active Fall Protection Systems

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.

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.

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.

REPAIR

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

ELECTRICAL HAZARD

Due to the highly conductive nature of the materials used in the construction of this SRL, use extreme caution when working near unprotected high voltage sources. If in doubt, ask!

SHARP EDGES, ABRASION & CUTTING

The wire rope or the webbing of the SRL should never be allowed to come in contact with sharp edges or abrasive surfaces. Such contact could prevent the SRL from arresting a fall.

SRL OVERVIEW

All PeakWorks' SRLs have been designed and engineered to meet or exceed all applicable standards and Ministry of Labour requirements. This PeakWorks Self-Retracting Lifeline is intended for use as a Fall Arrest Block or Fall Recovery Block. It is not intended for use with work positioning, man-riding, goods lifting or moving/lifting materials.

SRL SPECIFICATIONS

Description

Self-retracting devices (SRD) shall be classified as follows:

(a) Self-retracting lifeline (Class SRL):

A Class SRL device shall be suitable for applications where

- i) it is anchored at an elevation which limits the free fall to the activation distance of the device; and
- ii) the extracted lifeline cannot bear against an edge or surface during fall arrest.

(c) Self-retracting lifeline with leading-edge capability (Class SRL-LE):

In addition to applications for Class SRL devices, a Class SRL-LE device shall be suitable for applications where one or more of the following conditions are met:

- i) it is anchored lower than the elevation of the dorsal D-ring on the worker's full-body harness; and
- ii) the extracted lifeline can bear against an edge or surface during fall arrest.

SRL-LE Performance Data

Average Arresting Force:	4.12 kN (926 lbf)
Maximum Arresting Force:	1,350 lbs (8 kN)
Capacity:	310 lbs (140 kg) including tools
Lifeline:	Dyneema® Webbing 1 in wide x 0.07 in thick Dyneema® Webbing 25 mm wide x 1.75 mm thick Aramid 0.8 in wide x 0.05 in thick Aramid 20 mm wide x 1.30 mm thick Galvanized Steel cable 5.5 mm / 0.22" diameter
Complies to:	CSA Z259.2.2-17

SRL CAPACITY

PeakWorks SRLs are designed for use by a single person with a combined weight (clothing, tools, etc.) of no more than 310 lbs. Make sure all of the components in your system are rated to a capacity appropriate to your application.

SRL COMPATIBILITY

All PeakWorks' SRLs come with a carabiner to connect to an anchor and a snap hook to connect to a full-body harness. PeakWorks equipment has been designed and approved for use only with PeakWorks connectors. Any substitution of components may result in compatibility issues. If you have any questions about component compatibility, please contact PeakWorks.

SRL GENERAL OPERATION

The mechanism in this device is activated by centrifugal force acting on the brakes. This action is produced by the inertia of a fall rapidly spinning the internal drum, which in turn causes the brakes to lock and arrest the fall. Slow reeling of the line will not activate the brake. If the brake locks—due to a fall—the mechanism will reset if the load is removed. In a fall arrest situation, the mechanism will limit the force acting on the body to less than 8 kN. This device is designed to function vertically, at an angle of no more than 30° (see Figure 2) and horizontally for a leading-edge application with a maximum allowed radius of 0.25 mm.

SRL-LE type
SRL-75105-6LE,
SRL-70502-6LE,
SRL-70602-6LE,
SRL-74854-75LE,
SRL-80302-12LE are
equipped with an
energy-absorbing
element at the end
of the lifeline.

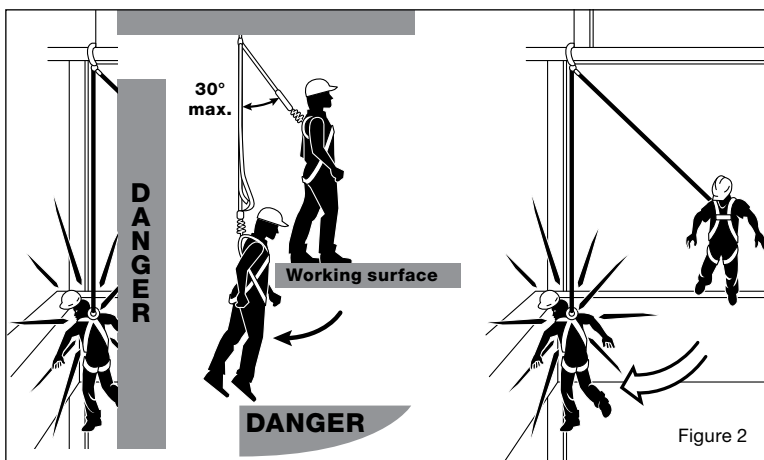


Figure 2

FALL CLEARANCE

Fall Clearance is the distance required to safely arrest the user's 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 used.

Step 1: Calculate Free Fall (FF)

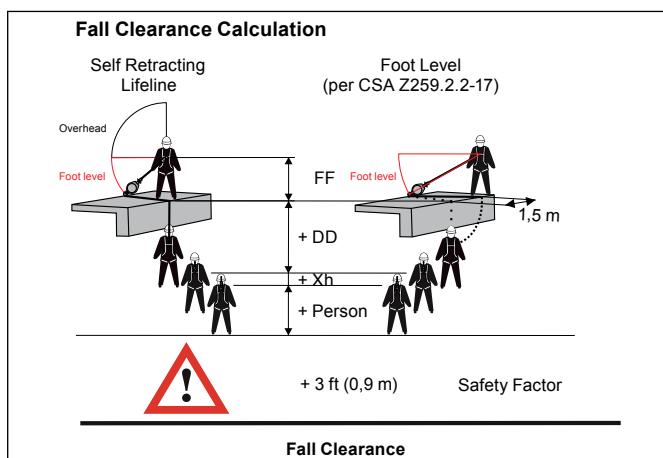
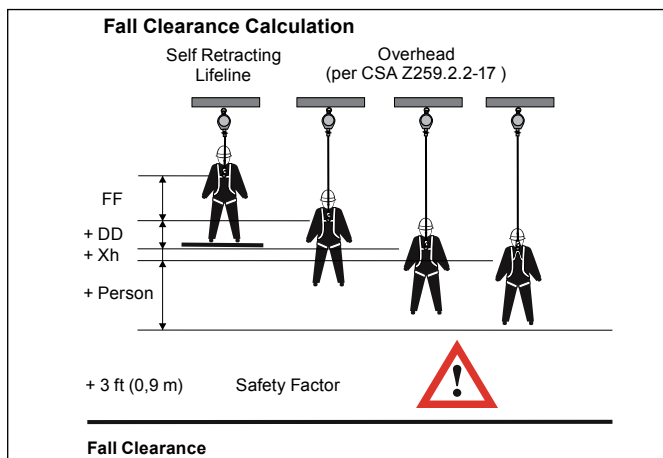
Step 2: Determine how much the connecting device deploys (DD)

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

Step 4: Determine person height from feet to harness connecting device

Step 5: Add a safety factor (typically is 3 ft)

Step 6: Fall Clearance C = FF + DD + Xh + Person + SF



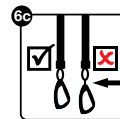
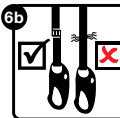
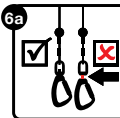
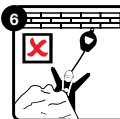
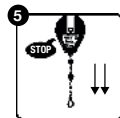
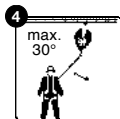
CSA Z259.2.2-17 Deployment Calculation:

Deployment is equal to [deployment factor, D_m] times [free-fall distance, h] for a maximum worker mass, kg, or deployment based on the results of the dynamic performance testing specified in Clause 7.2, whichever is greater.

	Deployment Factor	Maximum deployment	
		Overhead	Foot Level
SRL-73302-10LE	$D_{140} = 0.7$	0.43 m / 17 in	1.68 m / 66 in
SRL-80302-12LE	$D_{140} = 0.6$	0.37 m / 15 in	1.44 m / 57 in
SRL-80302-18LE	$D_{140} = 0.8$	0.49 m / 19 in	1.92 m / 76 in
SRL-73302-20LE	$D_{140} = 1.1$	0.67 m / 26 in	2.64 m / 104 in
SRL-73302-40LE	$D_{140} = 0.6$	0.37 m / 15 in	1.44 m / 57 in
SRL-73302-60LE	$D_{140} = 0.9$	0.55 m / 22 in	2.16 m / 85 in
SRL-76105-6AR		0.50 m / 19 in	

INSTRUCTIONS FOR USE—HAZARD AREA

1. Fall arresters according to CSA Z259.2.2-17 constitute personal protective equipment (PPE) for the purposes of protection against falls. In combination with a full-body harness according to CSA Z259.10-06, this system serves to protect persons working at heights where a falling hazard exists (e.g., roofs, scaffoldings, ladders and shafts). Only use the device as intended.
2. Failure to observe these instructions for use and the safety information can lead to fatal injuries (2). In case of a fall, has to be ensured that the person is not left hanging for longer than 15 minutes (danger of shock).
3. For use with the fall arrester's-only full-body harnesses according to CSA Z259.12-01 are approved (other harnesses are not permitted) (1).
4. One piece of equipment can only be used to protect one person at a time, but can be used by several persons one after the other. A rescue plan must be available that considers all potential incidents which may occur during work.
5. Suitable anchorage points with sufficient load-bearing capacity must be selected for the attachment of the working lifelines via the swivel connector (see Figure A, point 3), (e.g., anchorage point corresponding to EN 795 in Europe; in North America, the anchorage point or structure should be capable of withstanding a force of 22.2 kN (5,000 lbs) or twice a maximum of expected arrest force as certified by a qualified person (3).
6. If possible, the device should be positioned vertically above the head of the person to be secured in order to prevent any swinging movement during the fall. The suspension of the device must ensure adaptation to any potential cable/webbing deviations. After attaching the device to the anchor point, the end of the expandable lanyard (snap hook) must be fastened to the D-ring of the full-body harnesses. Connectors which are not self-locking (snap hooks) must be screwed together using the retention nut (4).
7. After attaching the fall arrester to a suitable anchor point and connecting the connector to the D-ring of the full-body harness worn by the worker, the personal protection of the worker is ensured.
8. A visual inspection of the device and a check of the readability of the product labelling is required before each use.
9. In addition, a functional test is required prior to each instance of use. This is done by pulling out the cable/webbing or by applying a weight of at least 15 kg. In both cases the drum brake must engage (5).
10. Fall arresters shall not be used to secure persons above bulk material or substances which would allow a person to sink in (6).
11. If a device has been damaged and/or has sustained wear due to a fall (tripped fall indicator (6a + 6b + 6c)) or if any doubt exists about the safe condition of the device, it must be withdrawn from use immediately. It may only return to use following inspection and written approval by a competent person or the manufacturer.
12. Depending on the use, but every 12 months as a minimum, fall arresters must be inspected by the manufacturer or by persons trained and authorised by the manufacturer. This inspection must be documented in the supplied log book. Effectiveness and durability of the fall arrester depend on regular inspections.

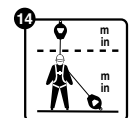
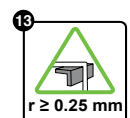
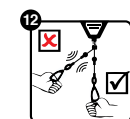
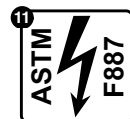
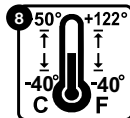
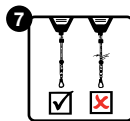


13. If the thread breaks or the cable/webbing is bent or roughened the fall arrester must be sent to the overhaul workshop. The cable/webbing must be replaced there (7).
14. Guidance and legislation in the country of use must be followed.
15. The IKAR fall arrester can be used in the temperature range from -40 °F to +122 °F (-40° C to +50° C) (8).
16. The working load limit is 140 kg (310 lbs) and 1 person (maximum) (9).
17. Fall arresters must be protected against the impact of welding flames and sparks, fire, acidic substances, alkaline substances and alike.
18. Do not apply any modifications or repairs to the fall arrester (10). Repairs may only be carried out by the manufacturer or persons trained and authorised by the manufacturer.
19. Fall arresters may only be used by persons who have been trained accordingly or have been instructed by a competent person. The person using the device shall not have any physical or health impairments (alcohol, drug or medication abuse, cardiovascular problems).
20. The service life of the fall arrester must be determined during each annual inspection; depending on wear, it is approximately 10 years.
21. The suitability for use of a fall arrester with horizontal fall protection in conformity with the current standards should be verified by suitable tests on the complete system.
22. Products listed with the $\frac{1}{2}$ lightning bolt have been tested to and meet the ASTM F887 arc flash requirements (11).
23. The cable/webbing should be rolled up only with a load applied. Never pull the cable/webbing out entirely and release it as the sudden impact of the snap hook on the device may cause the return spring to break (12).

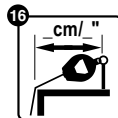
The fall arresting device has been successfully tested for horizontal application and a fall over the edge is an example of horizontal application. When using an SRL in a horizontal application, the edge radius must be great than $r = 0.25$ mm. Based on this test, the fall arresting device is suitable for use over similar edges with a radius of $r \geq 0.25$ mm (13) as are typically present on rolled steel profiles, on wooden beams, or on paneled, rounded fascia. In addition, fall arresters with wire cable/webbing are also suitable to withstand wear by edges such as that of flexible (non-reinforced) trapezoidal sheet metal, pre-cast concrete elements, or poured-in-place concrete edges.

The following recommendations must be followed at all times when the SRL will be used in a horizontal or inclined application and at risk of a falling over an edge:

1. A risk assessment must be carried out prior to starting work to determine if the edge meets the requirements above (i.e., is not "sharp" or outside the radius discussed above).
2. The working load limit is 140 kg (310 lbs) and 1 person (maximum) (9).
3. The SRL has not been exposed to a previous fall or the fall indicator has been deployed
4. The anchor point of the fall arrester shall be equal to or above the surface (e.g., platform, flat roof) the person using the device is standing on.
5. The application does not exceed maximum deployment when used in a leading-edge situation (14).



6. To prevent a fall with a swinging fall the working area and the lateral movement from the centre line must be limited to a maximum 1.50 m on both sides. If this is not possible, then multiple anchor points shall be used.
7. If the SRL will be used on a horizontal lifeline (flexible anchor line), the user must also consider the deflection of the horizontal lifeline when calculating the fall clearances. Please refer to the manufacturer's instruction manual for the horizontal lifeline for this information.
8. In case of a fall over an edge, there is a danger of injury during the process of arresting the fall due to the falling person hitting parts of the building or structure.
9. Special measures for rescue must be defined and trained for cases of falls over an edge.
10. Refer to the correct setback distances for each device (16).



Falls over a sharp, unprotected edge

If the edge over which a fall may occur is unprotected and may contain a profile that is sharp and/or not free of burrs (e.g., uncovered parapet or sharp, reinforced sheet metal edge), an edge protector must be used ensure the SRL lifeline will not be cut or damaged in any way prior to starting work.

Serious injury or death could occur.

SETBACK DISTANCE REQUIRED FOR HORIZONTAL USE

Type	Setback Distance
SRL-75105-6LE	30 cm / 12 in
SRL-70502-6LE	
SRL-70602-6LE	
SRL-74854-75LE	
SRL-80302-12LE	40 cm / 16 in
SRL-73302-10LE	
SRL-80302-18LE	
SRL-73302-20LE	50 cm / 20 in
SRL-73302-40LE	70 cm / 30 in
SRL-73302-60LE	

LABELING OF THE FALL ARRESTER

SRL-73302-10LE / V845633010LE

SRL-80302-12LE / V845722012LE

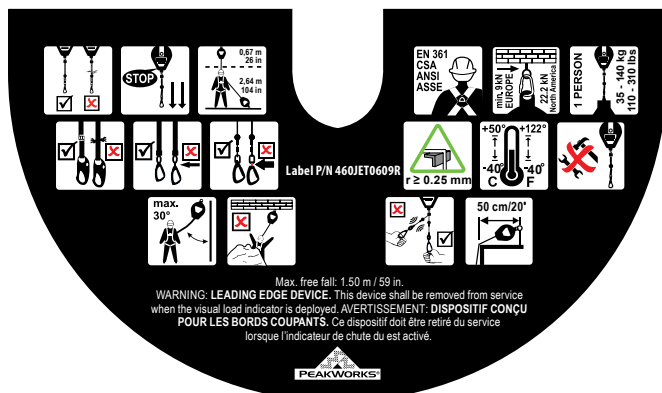
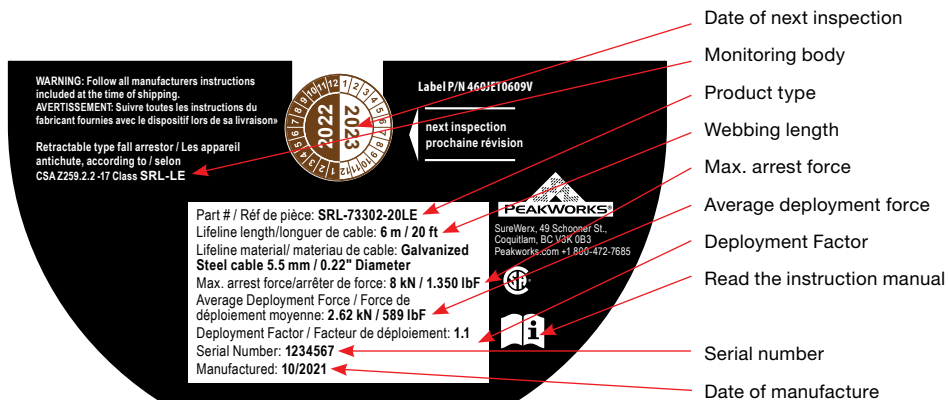
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SRL-73302-20LE / V845633020LE

SRL-73302-40LE / V845633040LE

SRL-73302-60LE / V845633060LE

SRL-76105-6AR / V845682006AR



PRE-USE INSPECTION

If the Self-Retracting Lifeline is known to have arrested a fall, it must be removed from service immediately and returned for inspection and servicing.

Before each use, check

- (a) that the brake operates correctly
 - (b) that the SRL is securely anchored level with or above the user (NEVER below)
 - (c) that all components to be used in conjunction with this device are compatible and in good condition
 - (d) avoid anchoring the device in such a position that could result in a "pendulum/swing fall" (this may occur if the device is positioned at $> 30^\circ$ from the vertical in relation to the end user).
 - (e) On Self-Retracting Lifeline with Leading Edge capability (SRL-LEs)
 - Verify that the integral Energy Absorber has not been activated
 - Ensure the energy absorber has not been deployed
 - Ensure the webbing is not frayed
 - Ensure there is no ripped stitching
 - Ensure there are no frays, burns, or cutting in the energy packs
- Note:** For the SRL-LE, always check the fall indicator before use. It is possible that the device can arrest a fall; however, the energy absorber pack may not deploy. Therefore, you should always check the fall indicator before use.

Extend the wire rope/webbing fully (wearing suitable protective gloves) and inspect along its length for damage, such as:

- (a) broken or frayed wires/webbing
- (b) soiling and/or corrosion
- (c) kinks and twists in the wire/webbing
- (d) inspect the swage/stitching for damage
- (e) check the connector(s) being used as per the User Instructions supplied with the connector
- (f) check that the Overload/Fall Indicator is not exposed.

Check the device housing for signs of mechanical deformation, cracks, or chemical contamination and/or other defects.

Retract the wire rope/webbing slowly; during retraction, give the wire rope a sharp sudden tug in order to activate the braking mechanism. This check should be carried out along the full length of the rope at approximately 20% increments.

If any of the above criteria fails, then the device must be removed from service. In the event of any doubt, consult a trained and competent person.

Warning: If this SRL or any fall protection device is known to have arrested a fall, it must be removed from service immediately.

SERVICE AND MAINTENANCE

1. The webbing lifeline should only be recoiled under tension. On no account should you fully pull out and release the lifeline, as the jolting impact of the small connector on the device can cause the return spring to break.
2. The webbing lifeline of this device may only be cleaned with soap suds and a sponge; on no account use a solvent.
3. Fall arresters must be stored in a dry location free of dust and oil, if possible in the packaging supplied.

4. Textile elements which have become wet during cleaning or use may only be left to dry naturally, i.e., not in the vicinity of fire or heat sources.
5. This device must be checked by an approved service agent every 12 months. The effectiveness and durability of the height safety device depends on regular inspection and maintenance by an approved service agent.

INSPECTION

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 are discussed later in the manual.

Inspection Requirements for Self-Retracting Devices

Type of use	Application examples	Example of conditions of use	Worker inspection frequency	Competent person inspection frequency	Product revalidation frequency
Infrequent to light	Rescue and confined space, factory maintenance	Good storage conditions, indoor or infrequent outdoor use, room temperature, clean environments	Before each use	Annually	At least every 5 years, but not more than intervals required by the manufacturer
Moderate to heavy	Transportation, residential construction, utilities, warehouse	Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environments	Before each use	Semi-annually to annually	At least every 2 years but not more than intervals required by the manufacturer
Severe to continuous	Commercial construction, oil and gas, mining, foundry	Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environments	Before each use	Quarterly to semi-annually	At least annually but not more than intervals required by the manufacturer

Notes:

1. Failure of a worker to perform a "before each use" inspection or failure of an inspection by a worker shall initiate the requirements for inspection by a competent person.
2. Failure of a competent person to perform inspections as specified in this table, or failure of an inspection by the competent person shall initiate product revalidation or disposal.
3. Determination of the type of use category shall be determined by a competent person.
4. An SRD that is considered non-repairable, or not designed for disassembly such that internal inspection is not possible without rendering it unserviceable, is not subject to revalidation inspection. These SRDs shall have service life and other inspection requirements as provided by the manufacturer's instructions.



PEAKWORKS®

INSPECTION LOG

	Inspection Date	Results	Corrective Action	Maintenance Performed	Inspection Conducted By
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



PEAKWORKS®

NOTES