



SUPER ANCHOR SAFETY®

!WARNING TO USER!
 You are required to read and use the Instruction/ Specification manual supplied at the time this device was shipped. Improper use and installation can result in serious injury or death. Follow inspection requirements before each use.

Maxima™ Lifeline w/Fall Arrester Instruction/Specification Manual 2017

ENGLISH
 VERSION

Fig.1

Maxima™ Lifeline Specification

5/8" (16mm) 3 strand copolymer
Min. Tensile: 10,582lb(48kN)
% Elongation: 16.5% @ 45kN
Compliance: ANSI Z359.1-07
 CSA Z259.2.5 No.RMRP-POL002
Swage: Aluminum oval
Min. strength: 5,000lb(22.5kN)
Max User Wt: 340lb(154kg)

Specifications of Use:

One person use for Personal Fall Arrest System (PFAS) including tools.

Fall Arrester Function/Adjustment

The **Fall Arrester (FA)** locks onto the lifeline when a force is applied to the connector ring. Adjust position by pushing or pulling up or down on the lifeline. To remove from lifeline unlock gate.

Lifeline Part Numbers:

No.	Component
4083	Lifeline only
4084	Lifeline w/FA
4085	Lifeline+FA+E-4
4089	Lifeline+FA+Web Lanyard

Fall Arrester(FA)

NO.4015Z. Zinc Plated Steel
 CSA Cert. No. **HARD MEC006**
 Automatic single direction locking function w/panic grab
Max. Deceleration: *24" (600mm)
Min. Breaking: 3,600lb(16kN)
Use For: 5/8" (16mm) d. rope
Degree of Slope/Angle:
 Min. Horizontal/Max. Vertical
Serial Numbered +DOM
Compliance: OSHA 1926:502
 ANSI Z359.1-07 CSA Z259.2.5
 *Requires use of energy absorber.

Web Lanyard

SAS Model E-4 6002/6004
Webbing: 1" wide Polyester
 9,800lb(44kN) strength
Compliance: CSA Z259.11-05
 Class B Lanyard. ANSI Z359.1-07

Energy Absorber

SAS Model E-4 I6064/6066
Tear Webbing/Cover: Polyester
Max. Arrest Force: 900lb(4kN)
Max. Deployment: 42" (1.06m)
Compliance/User Weights
Canada: E-4,100-254lb(45-115kg)
 Compliance: CSA Z259.11-05
U.S.A.: E-4,100-310lb(45-140kg)
 Compliance ANSI Z359.1-07

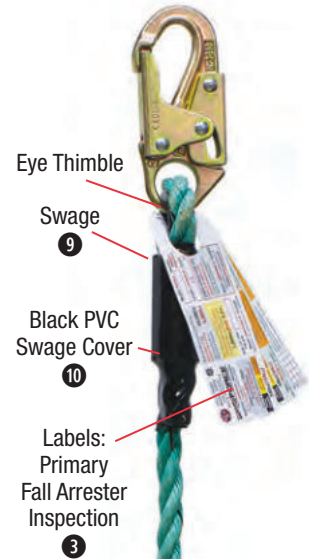
Connector Compliance

Class 1 ANSI-Z359.12-09 and
 CSA-Z259.12-11
 3,600lb(16kN) gate strength connectors

Attaching Lifeline to Anchorage

Connect "A" end of lifeline to a compatible anchorage device that meets one or more of the following standards: OSHA 1926:502, ANSI Z359.1-07, CSA Z259.15-12 or 3rd party certified engineering. Must be capable of supporting 2x the maximum arrest force of an engineered system or 5,000lb(23kN).

Maxima™ Lifeline
 "A" end attaches
 to anchorage
 17 To 20



Auxiliary Attached

A web lanyard or energy absorber of not more than 30" (750mm) is required to attach the FA to the harness dorsal D-ring. **DO NOT attach FA directly to the Dorsal or Side D-Ring of a harness.**

Factory Attached

Fig.2

E-4 Energy Absorber
 No. I6064 USA mfg



"B" end Connects To Fall Arrester.

Fig.3

Web Lanyard
 No. 6004



Absorber Lanyard length
 26.0" (660mm)

Fig.4

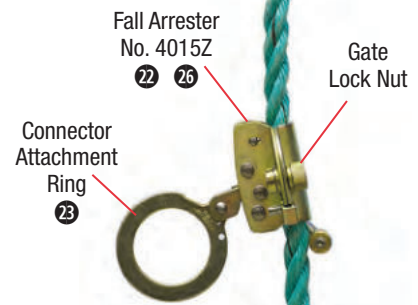
Energy Absorber
 E-4 No. I6066



"B" end Fall Arrester attaches to Lifeline.
 Lanyards shown are mfg. at
 SAS Monroe, WA factory.

Fig.5

Web Lanyard
 No. 6005



WARNING!
FA No. 4015Z will lock in one direction only. Failure to attach correctly can result in serious injury or death.

Fall Arrester arrow indicator must point to lifeline connector end "A". ↑
 See page 3.

Stopper-Termination Knot is required to prevent accidental disengagement of the Fall Arrester
DO NOT REMOVE!

X =
 Inspection points
 See Pg.2

"B" end
 Termination
 PVC Shrink Tube

12"
 (300mm)

Inspect Before Each Use!

Prior to each use, inspect lanyard and perform function tests for connectors. Annual inspections should be done at least once a year by a competent person and recorded on the matrix labels for all equipment. A record of inspections, repair, and removal of equipment from service should be maintained for all equipment. The following inspection points are a guideline of common conditions that occur as a result of abuse, poor maintenance or long service life.

Storage/Maintenance/Service Life

PPE equipment should be hung up and stored in a warm dry area. Clean lifeline and webbing with low pressure air or mild detergent. Synthetic fibers are damaged by mildew, extended UV exposure, water submergence and vermin. Service life is based on frequency of use, environmental conditions and normal wear and tear.

Service life begins at time of first use.

ADVISORY!
Equipment removed from service should be disposed of in a way that prevents further use.

Remove equipment from service if any of the following conditions are present:

⊗= Inspection points **ACTION REQUIRED:** ☒=Remove ☑=Repair

- 1 Subjected to a free fall or other force. ☒
- 2 Obvious damage to any component. ☒
- 3 Warning labels missing or not legible. ☒
- 4 Has not been inspected annually. ☒
- 5 Fails to pass inspection/function tests. ☒

Lifeline

- 8 Strands are cut or hooked. ☒
- 9 Thimble missing, broken or deformed. ☒
Swage damaged, cracked or loose.
- 10 PVC splice cover is missing. ☑
- 11 Knots tied above termination Knot. Untie. ☑
- 12 If knots cannot be removed. ☒
- 13 Termination Knot is missing. ☑
Re-tie knot. See Fig. 1.

Energy Absorber Figs. 2,4,6.

- 14 PVC cover is missing or damaged ☒ and tear webbing is visible.
- 15 Fall indicator warning, "Remove From Service" is visible or missing. ☒
- 16 Wear pads are missing or worn through to backer webbing. ☒

- 6 Paint, caulk, asphalt, rust or any type of material that impedes function or causes fiber or material deterioration. ☒
- 7 Webbing, cross and box stitches are cut, abraded, heat damaged or evidence of chemical contamination. ☒

Connectors

- 17 Connector/s are missing. ☒
- 18 Obvious damaged/missing rivets. ☒
- 19 Gate locking device is damaged. ☒
- 20 Gate won't open or close. ☒

Web Lanyard

- 21 Wear pads are missing or worn through to backer webbing. ☒

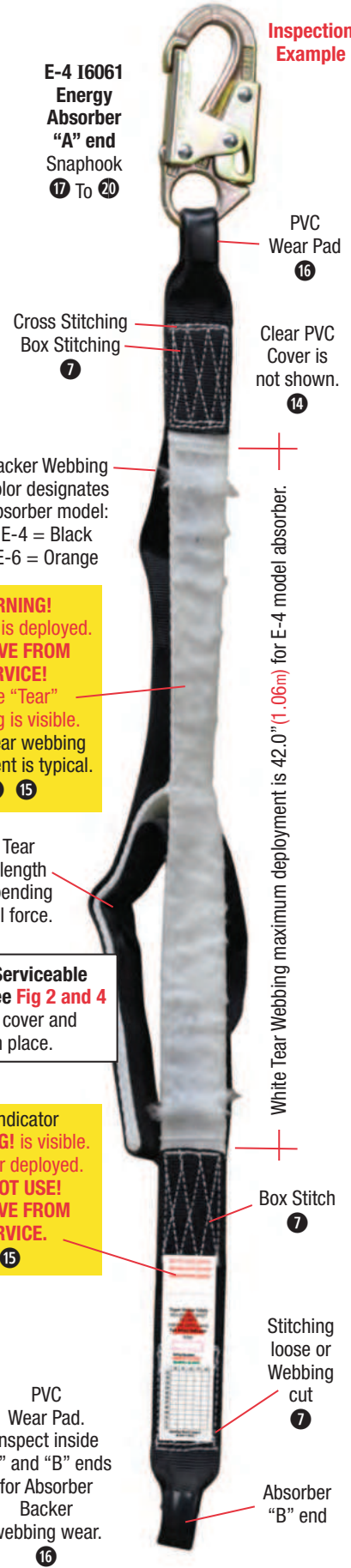
Fall Arrester

- 22 Does not pass lock function test. ☒
- 23 Signs of damage. Connector ring is bent or cut. ☒
- 24 Body rivets are missing. ☒
- 25 Does not slide freely up or down on the lifeline. ☒
- 26 Arrow indicator ↑ must point up. ☑
If wrong direction, remove and install correctly. See page 3.

Fig.6

E-4 16061 Energy Absorber "A" end Snaphook 17 To 20

Inspection Example



PVC Wear Pad 16

Clear PVC Cover is not shown. 14

Cross Stitching Box Stitching 7

Backer Webbing color designates absorber model:
E-4 = Black
E-6 = Orange

WARNING!
Absorber is deployed. REMOVE FROM SERVICE!
White "Tear" webbing is visible. Partial tear webbing deployment is typical.
1 15

Surplus Tear Webbing length varies depending on free fall force.

Absorber Serviceable Condition: See Fig 2 and 4
Clear PVC cover and label in place.

Fall Indicator **WARNING!** is visible. Absorber deployed. DO NOT USE! REMOVE FROM SERVICE.
15

PVC Wear Pad. Inspect inside "A" and "B" ends for Absorber Backer webbing wear. 16

White Tear Webbing maximum deployment is 42.0" (1.06m) for E-4 model absorber.

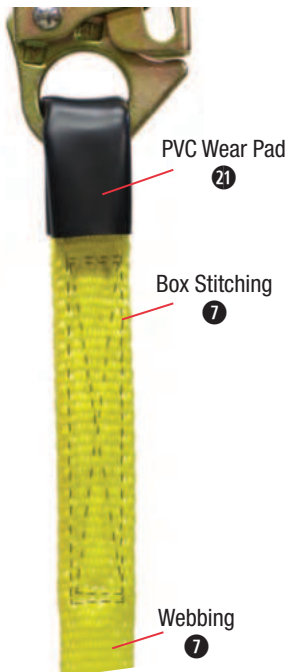
Box Stitch 7

Stitching loose or Webbing cut 7

Absorber "B" end

Fig.7

Web Lanyard Inspection



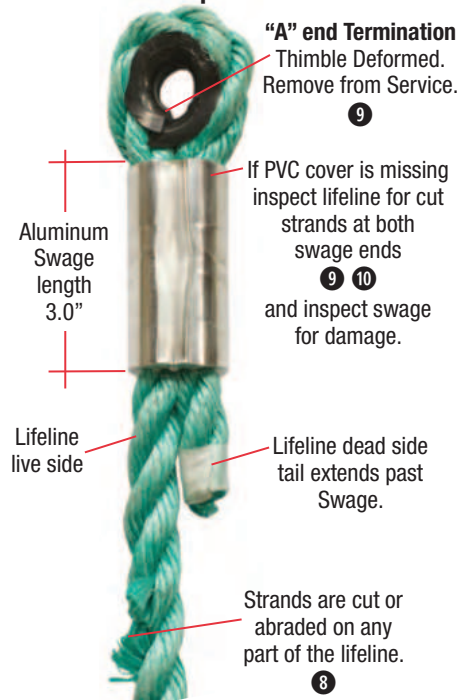
PVC Wear Pad 21

Box Stitching 7

Webbing 7

Fig.8

Lifeline Inspection



"A" end Termination Thimble Deformed. Remove from Service. 9

If PVC cover is missing inspect lifeline for cut strands at both swage ends 9 10 and inspect swage for damage.

Lifeline live side Lifeline dead side tail extends past Swage.

Strands are cut or abraded on any part of the lifeline. 8

Aluminum Swage length 3.0"

Connector/Snaphook

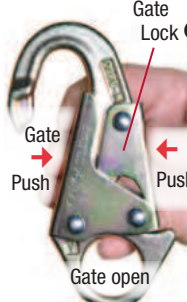
Snaphook gates are designed to remain closed during use and are fitted with gate locks to prevent accidental disengagement.

Fig.9a Snaphook



Gate Locked

9b



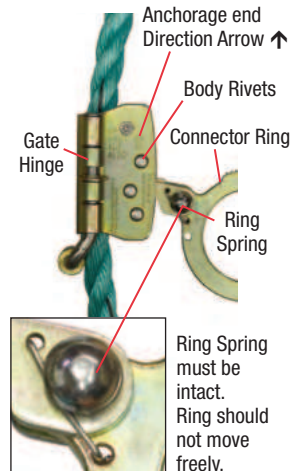
Unlock gate

9c



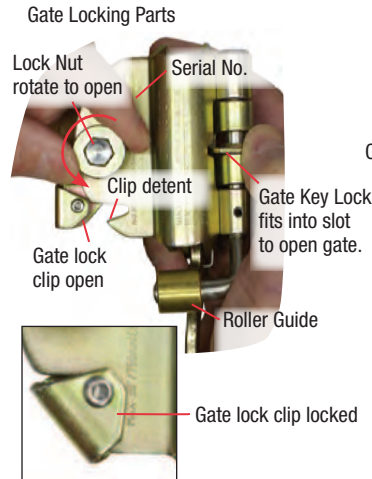
Fig.10a

FA orientation on lifeline
Direction arrow points toward anchorage end.



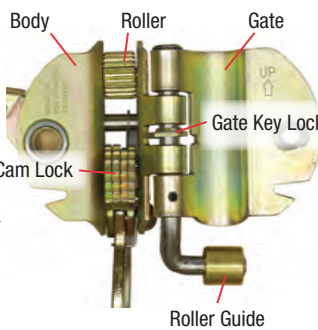
10b

Removing FA from Lifeline
Gate must remain in locked position during use.



10c

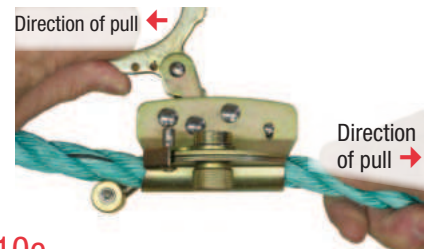
FA Interior must be free and clean of any debris or contamination.



10d

Cam Lock Function Test

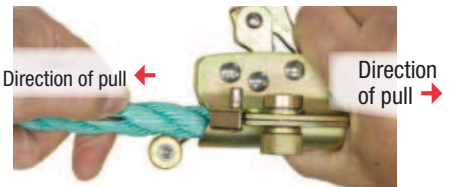
Hold connector ring and pull lifeline from opposite end. Lifeline should not move.



10e

Mobility Test

Hold connector ring down. Pull lifeline in opposite direction. Lifeline should move freely.



Rigging Lifeline Length of Fall Plan (LOFP)/Line Slack

A sample LOFP shown on pg.4 can be used to calculate "Line Slack" shown at Fig.11a to guard against free falls of more than 6ft(1.8m). **WARNING! Too much line slack will increase the free fall length resulting in serious injury or death.**

Live Length/Fall Arrester/Limiter Knot

The lifeline live length is the distance between the anchor point and the leading edge + the allowable line slack that allows horizontal movement along the leading edge. 1
The FA is used to gauge the free fall length by fixing the worker's position on the lifeline. 2

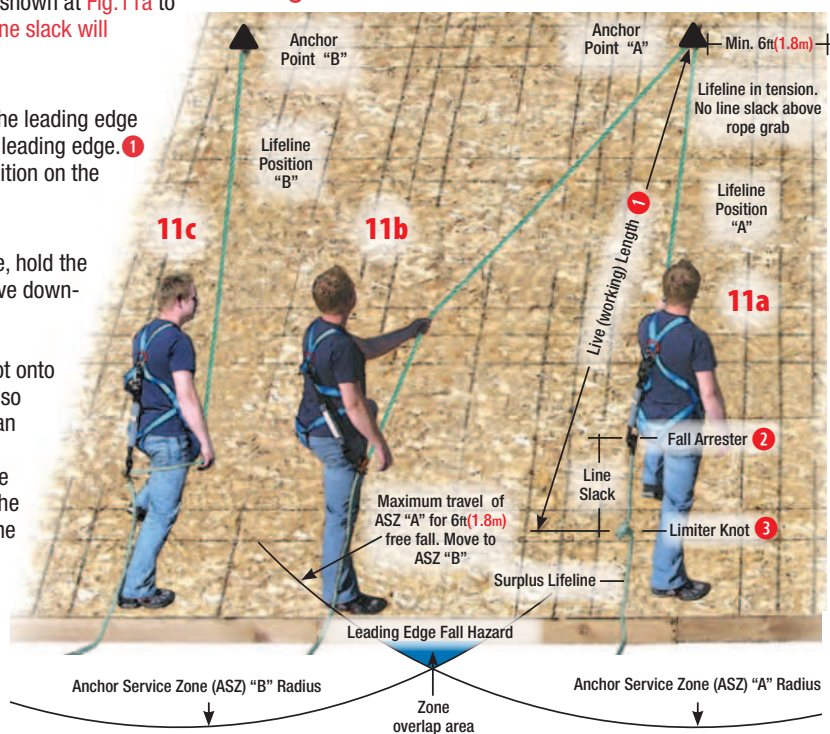
Sample Rigging Method/Anchor Service Zones (ASZ)

- 1) Attach lifeline connector to anchor "A". With tension on the lifeline, hold the FA body or the connector ring down as shown at Fig.10e and move down-slope to the leading edge as shown at Fig.11a.
- 2) Release FA or connector ring to lock FA onto the lifeline.
- 3) Calculated from your own LOFP, fix line slack by tying a limiter knot onto the lifeline below the FA static position 3. The limiter knot will also prevent unintentional movement of the FA on the lifeline which can result in a greater free fall length.
- 4) Shown at 11a is the maximum working length of the lifeline + line slack creating an ASZ radius "A". Travel to the right or left along the leading edge will force the worker's position up-slope once the line slack has been taken up.

Service Zone "B"

- 5) After maximum travel of ASZ "A" has been reached as shown at Fig.11b, ascend to anchor "A", disconnect and attach to anchor "B". The use of a second lifeline at anchor point "B" will allow 100% tie-off. Fig.11c.
- 6) For gable edge fall hazards, several FA adjustments may be required to prevent excess line slack.

Fig.11



Note: Consult ARS manuals for Anchor Service Zone instructions.

Fig.	Test Type	Function	Pass <input checked="" type="checkbox"/>	Fail. <input type="checkbox"/>
9a	Gate-lock	Push against gate only	Won't open	Opens
9b	Gate-open	Push gate-lock and gate at same time	Opens	Won't open
9c	Gate-close	Release gate and gate-lock at same time	Snaps Shut	Won't close

Fall Arrester (FA) Function Tests

Fig.	Function Test /Inspection	Pass <input checked="" type="checkbox"/>	Fail. <input type="checkbox"/>
10a	Proper orientation	Arrow points up	Arrow points down
10b	Gate Locks	Gate opens/closes	Gate won't open/close
10c	Cam lock/Debris	No interior debris	Debris present
10d	Cam Lock	FA locks onto rope	Will not lock
10e	Mobility	Rope moves easily	Rope won't move

Rigging/Length of Fall Plan

The Sample Length of Fall Plan (LOFP) shown here is based on the maximum stretch and deceleration values for each component, a user weight of 310lb(140kg) and a maximum free fall of 6ft(1.8m). To prevent contact with the ground or a lower level, the following factors must be calculated in your own Job Specific Length of Fall Plan:

- Note: Max. User Wt. for CSA is based on absorber type.
- Free fall length: "A"
 - Line slack: "C"
 - D-ring height: "B"
 - Fall Arrester deceleration: "D"
 - Absorber deployment: "E"
 - Harness stretch: "F"
 - Ground clearance: "G"

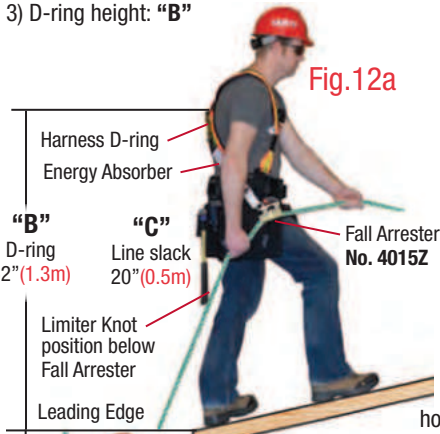


Fig.12a

Worker's Lifeline Position is gauged using the FA. A **Limiter Knot** tied below the FA will prevent unintentional movement. Use of Limiter Knot allows factor "D" to be eliminated from the LOF.

Calculate Line Slack "C"

Travel along the leading edge is limited to the amount of slack, "C" in the lifeline. The greater the slack, the wider the range of horizontal movement along the leading edge. Line slack is calculated by subtracting the D-ring height "B" from the free fall length "A". Figs. 12a, 12b. (A-B) = C. The sample plan line slack value is 20"(0.5m).

Calculate Length of Fall (A+D+E+F+G)=LOFP

- Factors: Sample Plan
- Desired Free fall length "A" 72"(1.8m)
 - FA deceleration "D" 24"(0.6m)
 - Absorber deployment "E" 42"(1.06m)
 - Harness stretch "F" 12"(0.3m)
 - Total Length of Fall (LOF) 150"(3.8m)
 - Ground clearance "G" 52"(1.3m)
 - Length of Fall Plan (LOFP) 202"(5.1m)

Note: Rope grab deceleration "D" may be eliminated from the LOF by the use of a Limiter Knot.



12b

"A"
Free fall
72"(1.8m)

"D"
Fall Arrester (FA)
deceleration
24"(0.6m)

"E"
Absorber
deployment
42"(1.06m)

"F"
Harness stretch
12"(0.3m)

"G"
Ground
clearance
D-ring
height
52"(1.3m)

Length
of
Fall
"LOF"
12ft-6"
150"
(3.8m)

12c

LOF +
Ground
Clearance
16ft-10"
202"
(5.1m)
= LOFP



Insufficient Ground Clearance
WARNING! A failure to calculate the LOF and correctly rig PPE can result in striking the ground or a lower level in the event of a fall and may lead to serious injury or death.

WARNING: PROMPT RESCUE!
A plan for immediate rescue is necessary to avoid serious injury or death resulting from suspension trauma. SAS recommends that each harness be fitted with a suspension ladder and workers trained in its use. Request S.T.E.P Trauma Strap No. 6060.

PPE HAZARD WARNING!

- DO NOT Contact Lifeline with:**
- Sharp or abrasive edges, cutting tools.
 - Electrical sources or power lines.
 - Open flame, high heat or hot asphalt.
 - Adhesives or any type of petroleum solvents, caulking, paint, or stains.

DO NOT Wrap or tie a lifeline around wood framing or steel structures, to another lifeline, lanyard, scaffolding or vehicle. **DO NOT USE** lifeline for hoisting, towing or animal tether. Failure to avoid hazards may lead to serious injury or death.

Lifetime Primary Label D.2

Specifies Model, Length and Date of mfg. (DOM)

NOTE: Service Life is specified by first use.

<p>Mfg. by Super Anchor Safety 4251 488-8868 Monroeville, PA 15127 USA</p>	<p>3 Strand Maxima Strength Rating RESISTANCE D'UNE LIGNE DE VIE A 3 FILS 10,582lb 4,800kg</p>	<p>Model / MODELE / Modelo RMPR POL002</p>
		<p>Length / LONGUEUR / Largo FL M</p>
<p>Material: MATERIAUX / Materiales 5/8" x Co-Polymer 75NPP/25NPE</p>		<p>Specified for use with SAS Fall Arrester No. 4015Z CSA certification No. HAR0-MEC006</p>
<p>Class / CLASSE / Clase Vertical Lifeline Cuerdas De Salvavidas Vertical</p>		
<p>Person Capacity / CAP. PERS. / Persona Capacidad 340lb (154kg)</p>		<p>Specified for work at heights. Conçu pour les travaux en hauteur.</p>

Inspection/Serial No. Label E.4 specifies Serial No.

<p>Y/M - A/M 17 18 19 20 21</p>	<p>Serial Number: NUMERO DE SERIE: []</p>	<p>Maxima: RMPR-POL002 Service Life begins with first use. La durée de vie du produit commence lors de sa première utilisation.</p>
<p>Warning: Avoid sharp edges and abrasive surfaces. Consult instruction manual and inspect before each use and inspect at least once a year.</p>	<p>AVERTISSEMENT: ÉVITEZ TOUT CONTACT AVEC DES BORDS COUPANTS OU DES SURFACES ABRASIVES. CONSULTEZ LE MANUEL D'INSTRUCTION ET INSPECTEZ LA LIGNE DE VIE ANNEE L'ANNEE AU MOINS UNE FOIS PAR ANNEE.</p>	<p>WARNING! Do not attach Rope Grab devices to the D-ring of a body harness. An energy absorber or lanyard less than 30"(762mm) is required.</p>
<p>Advertencia: Evite las bordes afiladas y superficies abrasivas. Consulte el manual de instrucciones y compruebe antes de cada uso y por lo menos una vez al año.</p>	<p>Advertencia! No conectar los dispositivos de agarre de cuerda al D-ring de un arnés. Un absorbidor de energía o una línea de vida de menos de 30"(762mm) son requeridos.</p>	<p>AVERTISSEMENT! N'ATTACHEZ PAS LA LIGNE DE VIE A L'ANNEAU EN D'UN CEINTURE DE TRAVAIL. UN ABSORBEUR D'ENERGIE OU UNE LIGNE DE VIE DE MOINS DE 30"(762MM) SONT REQUIS.</p>

Fall Arrester Label F-13 is included with units supplied with FA only.

<p>Model / MODELE / Modelo 4015Z HARD MEC006</p>	<p>ANSI Type 1 / CSA - ADP Fall Arrester DISPOSITIF ANTICHUTE Detenedor de Caídas</p>	<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>	<p>Strength / CAPACITE / Fuerza 3,600lb (16kN)</p>	<p>Person Capacity / CAP. PERS. / Persona Capacidad 340lb (154kg)</p>	<p>Meets / CONFORME A / Cumple ANSI Z359.1-07 / CSA Z259.2.5-12 / OSHA 1926</p>	<p>WARNING! Single direction locking function. Must be attached in correct direction or will not arrest a fall.</p>	<p>Slope: Inclination: Min Horizontal, Max Vertical Degré horizontal min. Degré vertical max.</p>
<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>		<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>		<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>		<p>AVERTISSEMENT: FONCTION DE VERROUILLAGE UNIDIRECTIONNELLE. IL DOIT ETRE FIXE DANS LA BONNE DIRECTION AFIN QUE LE DISPOSITIF ANTICHUTE FONCTIONNE.</p>	<p>Utilize only with SAS components: Utilisez la ligne de vie uniquement avec les composants SAS suivants: Utilizar con Cuerdas Salvavidas Máxima Lifeline™</p>

Absorber Labels

<p>Label A. CSA Connect To D-Ring Harness Back LIGNE DE VIE LIÉE A L'ARRÊT D'UN CEINTURE DE TRAVAIL</p>	<p>Label AA.3 USA Connect To D-Ring Harness Back Connecteur à Arrêt-D'Arrêt</p>	<p>E-4+FA F.14 Model / MODELE / Modelo 4015Z HARD MEC006</p>	<p>Fall Indicator METZS HVS SERVICE Remueva De Su Servicio Remove From Service</p>
<p>Energy Absorber Absorbador de Energía Material: Polyester Snap-Hook: CROCHET A RESORTES CSA Z259.12-11/ANSI Z359.12-09 3,600lb (16kN) gate MODELE: 16061</p>	<p>Energy Absorber Absorbador de Energía Material: Polyester Snap-Hook: CROCHET A RESORTES CSA Z259.12-11/ANSI Z359.12-09 3,600lb (16kN) gate MODELE: 16061</p>	<p>Person Capacity / CAP. PERS. / Persona Capacidad 340lb (154kg)</p>	<p>Serial Number: NUMERO DE SERIE: []</p>
<p>Max. Arrest Force: 900lb (40kN) Max. Elongation: 42" Max. Free Fall: 6ft MAXIMUM MAX. DE CHUTE LIBRE: 1.8m</p>	<p>Max. Arrest Force: 900lb Fuerza máxima de detención (Arêt): 40kN Max. Elongation: 42" Max. Free Fall: 6ft Máxima de caída libre de: 1.8m</p>	<p>Use only with SAS components: Utilisez la ligne de vie uniquement avec les composants SAS suivants: Utilizar con Cuerdas Salvavidas Máxima Lifeline™</p>	<p>Indicator Label A © Sen 01-2017</p>

Web Lanyard Labels

Primary Label Lanyard B.1 specifies Model, Length, Date of Mfg. (DOM).

<p>Super Anchor Safety MONROEVILLE, PA 15127 USA</p>	<p>Model / MODELE / Modelo Length / LONGUEUR / Largo DOM / DF / Y/M-A/M</p>	<p>WARNING! Keep away from high heat, open flame and avoid sharp edges. Remove from service if subjected to a free fall, lightning or other electrical strikes. Follow instructions for use may result in serious injury or death.</p>
<p>Class B Nylon Web Lanyard LONGUE DE VIE NYLON CLASSE B</p>	<p>Person Capacity / CAP. PERS. / Persona Capacidad 340lb (154kg)</p>	<p>AVERTISSEMENT: ÉLOIGNEZ-VOUS DES CHAUFFES, DES FLAMMES, DES CHÈQUES À LA MAIN, DES ÉCLAIRCS ET DES CHARGES ÉLECTRIQUES. ÉLOIGNEZ-VOUS DES BORDS COUPANTS, DES SURFACES ABRASIVES ET DES CHARGES ÉLECTRIQUES. NE PAS UTILISER EN CAS DE CHUTE LIBRE. NE PAS UTILISER EN CAS DE CHUTE LIBRE. NE PAS UTILISER EN CAS DE CHUTE LIBRE.</p>

Inspection/Warning Label Matrix D.2 specifies serial number.

<p>Serial Number: NUMERO DE SERIE: []</p>	<p>WARNING TO USER: You are required to read and use the Instruction/Specification manual supplied at the time this device was shipped. Improper use and installation can result in serious injury or death. Follow inspection requirements before each use.</p>	<p>Metric-Label D.2 © Sen 01-2017</p>
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Fall Arrester Specification Label F.15

<p>ANSI Type 1 / CSA - ADP Fall Arrester DISPOSITIF ANTICHUTE Detenedor de Caídas</p>	<p>Model / MODELE / Modelo 4015Z HARD MEC006</p>	<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>	<p>Strength / CAPACITE / Fuerza 3,600lb (16kN)</p>	<p>Person Capacity / CAP. PERS. / Persona Capacidad 340lb (154kg)</p>	<p>Meets / CONFORME A / Cumple ANSI Z359.1-07 / CSA Z259.2.5-12 / OSHA 1926</p>	<p>WARNING! Single direction locking function. Must be attached in correct direction or will not arrest a fall.</p>
<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>		<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>		<p>Material: MATERIAUX / Materiales Zinc Plated Steel ACIER PLATINE AU ZINC</p>		<p>Utilize only with SAS components: Utilisez la ligne de vie uniquement avec les composants SAS suivants: Utilizar con Cuerdas Salvavidas Máxima Lifeline™</p>

Actual size approx. 7.0" Length