



SUPER ANCHOR SAFETY®

TossR™ Self Retracting Web Lanyard Instruction/Specification Manual 2018 Models: 2990-A6 / 2990-A11

ENGLISH
VERSION

!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.

Design Specifications

A-6 Webbing: UHMWPE 3/4"

A-11 Webbing: UHMWPE 1.0"

Min. strength: 4,500lb (20kN)

Avg. Arrest force: 1350lb (6kN)

Arrest Speed: 4.5ft/sec

Max. Absorber Length: 48" (1.2m)

Connector: 3600lb (16kN) gate strength
May be used with Horizontal Lifelines.

Temperature Range: -22°F (-30°C) to
122°F (50°C)

ANSI Specifications for Use

ANSI Z359.14-2012 Type A

Max. User Wt: 310lb (140kg)
including tools and equipment.

Model 2990-A6: Service Length=7ft (2.1m)

Max. Free Fall=24" (0.6m)

Full Deployment Length=11ft (3.3m)

Model 2990-A11: Service Length 11ft

Max. Free Fall=24" (0.6m)

Full Deployment Length=14ft (4.2m)

*Note: Full deployment = service length
+ max. absorber deployment.*

Specifications for Heavy wt.

OSHA 1910.140(d)(1)(v) App. D

Max. User wt: 420lb (190kg)
including tools and equipment.

Max. Free Fall: 24" (0.6m)

WARNING! User weight over
310lb (140kg) requires a fall
protection plan designed by a
competent or qualified person
specific to the workers wt. +
tools and equipment.

⊗ ⊗ Inspection Points pg. 2

Function

This device has a centrifugal braking design that will lock up when the webbing lanyard is deployed more than 4.5ft/second. Any rapid movement will cause the lock to engage. Release tension on the webbing to unlock.

Personal Protective Equipment

ANSI/OSHA or CSA compliant full body harness (FBH) equipped with a dorsal D-ring for fall arrest or side-D-rings for work positioning is required to be used with this device.

Component Connection Specifications

Do not attach the SRL to an anchorage point that is more than 24" (0.6m) below the D-ring of a FBH. The SRL "A" end may be attached to the FBH or the anchorage point with steel carabiner no.5001Z. For standard connection, the "B" end captive carabiner is attached to the FBH dorsal D-ring. See Fig.1.

SRL Anchorage Point

Anchorage points that are not pre-engineered must be engineered by a competent or qualified person and designed to support the intended fall protection load. **Fall Arrest:** Attach the "A" or "B" end to an anchorage point capable of supporting 5,000lb (22.5kN) or 2x the engineered fall protection load. See Fig.2.

Fall Restraint: No free fall hazard exposure. The anchorage point must be capable of supporting 3000lb (13.6kN) or 2x the engineered fall protection load.

Powered Platforms/Man-Lifts

Tie-off points on powered platforms/man-lifts must comply with OSHA 1910.66 requirements.

Energy Absorber Component

The maximum free fall permitted by the system is 24" (0.6m). In the event that a worker exceeds that free fall length, the maximum absorber deployment can be as much as 48" (1.2m). In the event of a free fall, the white color tear webbing deployment length as shown at Fig.8 will vary based on the user's weight and the free fall distance. The fall indicator warning label shown at Fig.6 will be visible.

Service Life

TossR SRL's are not serviceable or repairable. Once the device is subjected to a free fall, fails to pass inspections/function tests or if there are signs of any damage, remove from service immediately. See inspection guidelines page 2. The average service life will vary depending on type of use and environmental conditions.

Disposal of SRL

Units removed from service must be disposed of in a way that prevents further use. Pull out a few inches of webbing and cut off at casing exit point as shown at Fig.9 allowing the webbing to retract into the casing, then TossR.

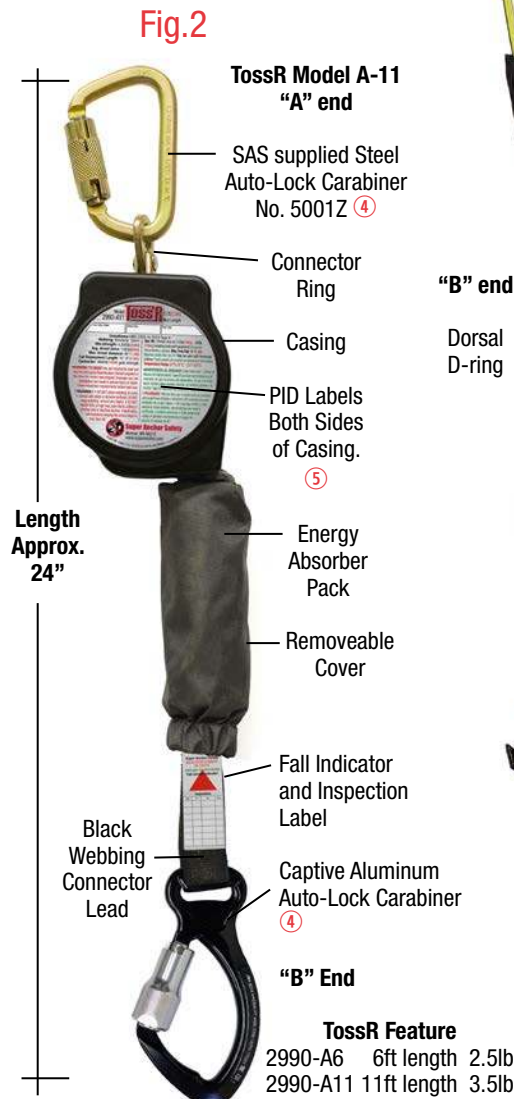


Table 1.0 Service Life

Environment	Type of Use	Approx. Service Life	Inspections
Dry low UV	Indoor/Light	3-5 years	Before each use. At least once a year by a competent person or mfg. service dept.
Dry high UV	Outdoor	1-2 years	
Wet	Outdoor	1-2 years	

Note: Exposure to salt air, gypsum and dust will reduce the service life.

Inspect Before Each Use!

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

Safety personnel are responsible to draft their own fall protection equipment inspection and maintenance program and may include the information contained in this manual.

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

Primary Inspection Points

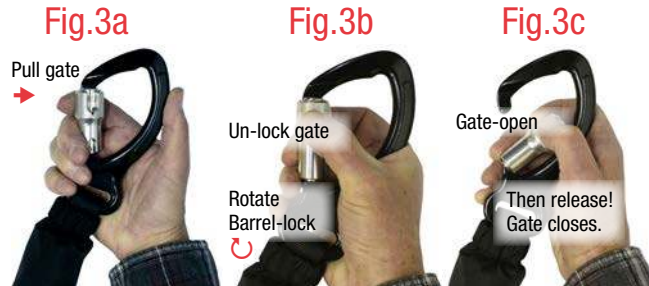
- 1 Subjected to a free fall or other force.
- 2 Obvious damage to any component.
- 3 Has not been inspected annually.
- 4 Fails to pass inspection/function tests.
- 5 PID labels unreadable or missing.
- 6 Service life is more than 5 years.

☒=Remove From Service

- 7 Remove cover for inspection. Fig.5
PVC shrink tube is missing. ☒
Tear webbing is visible. ☒
Stitches are cut or loose. ☒
Retractable webbing is cut, abraded or knotted. ☒ Fig.1
- 8 Fall indicator warning is visible or missing. ☒ Figs.6,8
- 9 Casing is cracked, broken or seams are separated. ☒ Fig.7
- 10 Connector ring is damaged or won't rotate freely. ☒ Fig.7
- 11 Rivet is loose or damaged. ☒ Fig.7

4 Carabiner Function Tests

Fig.	Test Type	Function	Pass ☒	Fail ☐
3a	Gate-lock	Pull against gate only	Won't open	Opens
3b	Unlock gate	Rotate barrel lock	Gate opens	Won't open
3c	Gate closes	Release gate/barrel	Snaps shut	Won't close



4 Table 3: SRL Inspection/Lock Function Tests

Failure to pass any of these tests require the unit to be removed from service.

Test Type	Test Specification	Pass	Fail
Deployment	Pull out a few feet of webbing slowly and then retract slowly.	Smooth function no jerks or stops.	Webbing won't deploy. Webbing won't retract.
Brake See Fig.9	Secure "A" end from movement. Pull quickly on "B" end. Perform this test 3 times.	Webbing locks up and holds position.	Webbing does not lock up.
Webbing	Pull out entire length of webbing and inspect for wear, cuts, abrasion or other damage.	No evidence of damage.	Any sign of damage to the webbing.

Fig.4

Fall Indicator
Normal Condition



Fig.6

Fall Indicator
Visible.



Fig.8

Absorber
Deployed!

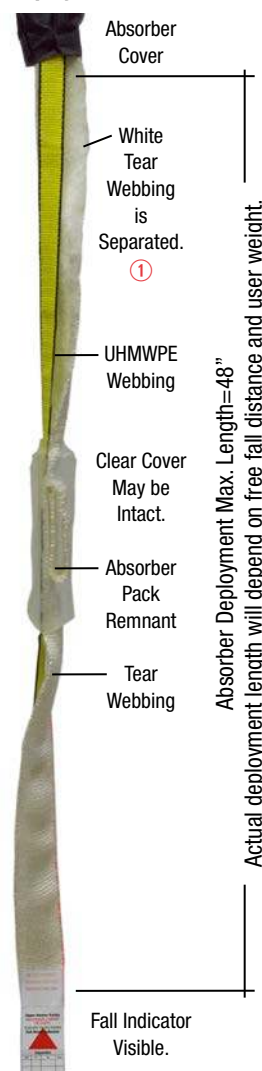


Fig.5

Absorber Pack
Cover removed for Inspection.

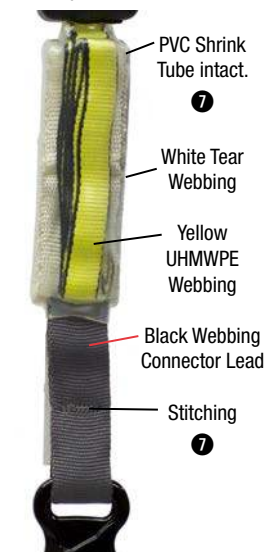


Fig.7
SRL Casing



WARNING!
Do not open the casing.
The recoil spring can seriously injure a person.

Storage/Maintenance

This unit is not repairable. If subjected to a free fall or failure to pass inspection or function tests, the unit must be removed from service. The internal moving parts of this device are subject to oxidation from moisture and salt air exposure. Wet units should be stored by hanging from the "A" end in a warm dry area.

! HAZARD WARNINGS!

- Webbing must not come in contact with sharp or abrasive surfaces, chemicals or acids.
- DO NOT wrap the webbing around any object.
- DO NOT expose to high heat, open flame, cutting or grinding tools or electrical sources.

Brake Lock Test

- Hold casing end securely.
- Grip absorber pack and rapidly pull out the webbing. Webbing should lock up.
- Do not allow the webbing to retract without tension. Damage will result.

Damage Warning!
Units dropped more than 18" onto hard surfaces must be inspected by a competent person before returning to service.



Anchorage Point

SRL's are designed for use where the tie-off point is located overhead for fall arrest but may be used for fall restraint as shown on page 4. Swing-falls present the greatest hazard and will increase in severity as a worker travels away from the tie-off point as shown at Fig.11a. A fall protection plan that is specific to each job site should be provided by a competent or qualified person. The sample plans shown here are for reference only.

Calculating the Length of Fall (LOF)

The **LOF** is a factor used to determine the ground clearance (**GC**) between the work surface and the nearest lower level or an obstacle in the path of the swing-fall as shown at Fig.11b.

Sample Plan "A" LOF Standard Anchorage Attachment

Fig.10a is an example of standard overhead SRL attachment. To avoid swing-falls, travel along the work surface fall hazard as shown here should be no more than a few feet from the anchors vertical center point above. A well-defined SRL service zone can be used to define the area of protection provided by the tie-off point.

*Note: Length of Fall (LOF) is not the actual length a worker will travel in a fall.
LOF is used as a factor in determining the ground clearance (GC).*

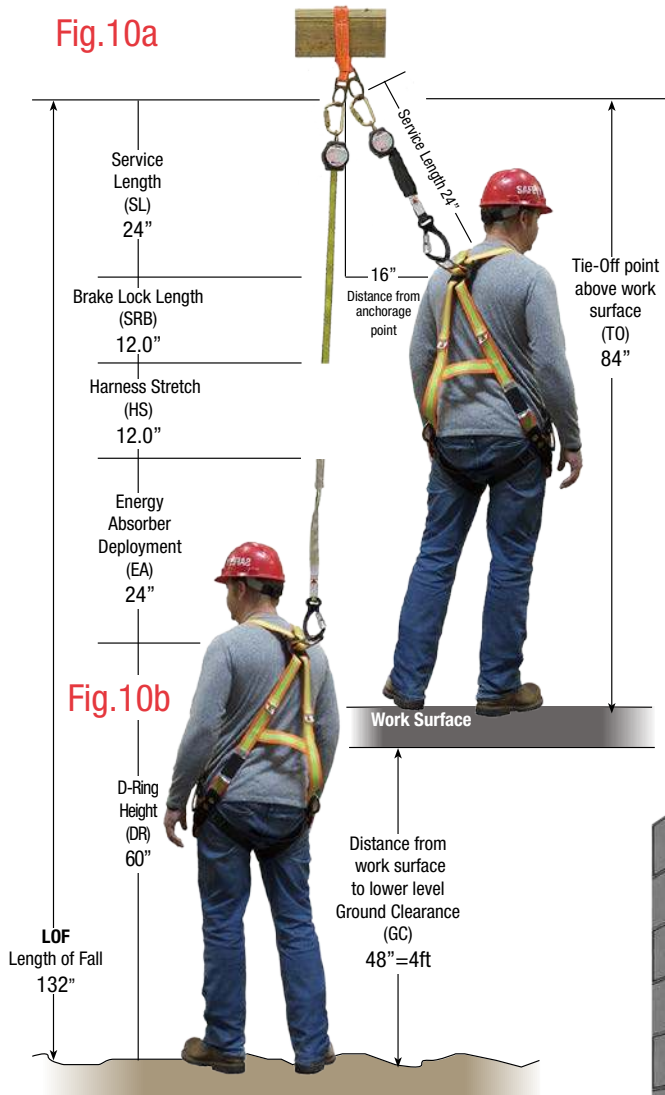


Table 3.0 Plan A LOF Calculation

• SL=24"	The Service Length is the SRL component length + the amount of the deployed SRL webbing.
• SRB=12"	SRB is the amount of webbing that is deployed before the brake lock engages.
• HS= 12"	Full Body Harness stretch.
• EA= 24"	Energy Absorber deployment length.
• DR= 60"	Max. user wt. 310lb/Max. Free Fall 2ft.
Total LOF=132"	D-ring height above the work surface.
	Length from Tie-Off point to the next lowest level below the work surface.
Deduct TO= [84"]	Tie-Off point height above the work surface.
Total = 48"	Min. Ground Clearance (GC) required.

WARNING: PROMT RESCUE!

A plan for immediate rescue is necessary to avoid serious injury, excruciating pain or death resulting from suspension trauma.

Use SAS S.T.E.P. 6060 suspension ladder and provide user training in its use for each worker.

Absorber Deployment User Weight Over 310lb

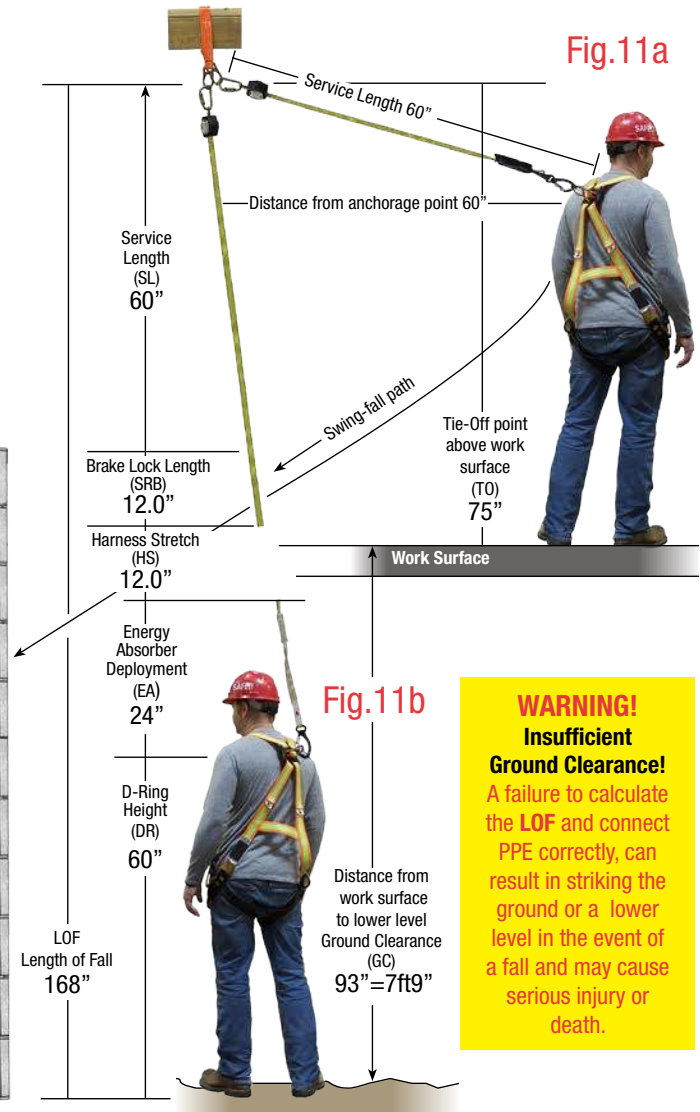
For a user weight of 311-420lb, use 48" for the absorber deployment length in the LOF, increasing the ground clearance by 24".

Sample Plan "B" Swing Fall Hazard Warning!

Fig.11a is an example of an extreme swing fall hazard that results from moving more than a few feet from the anchorage point above when exposed to a fall hazard at the work surface edge. Swing falls must be avoided to prevent serious injury.

Table 3.1 Plan B LOF Calculation

• SL=60"	The Service Length is the SRL component length + the amount of the deployed SRL webbing.
• SRB=12"	SRB is the amount of webbing that is deployed before the brake lock engages.
• HS= 12"	Full Body Harness stretch.
• EA= 24"	Energy Absorber deployment length.
• DR= 60"	Max. user wt. 310lb/Max. Free Fall 2ft.
Total LOF=168"	D-ring height above the work surface.
	Length from Tie-Off point to the next lowest level below the work surface.
Deduct TO= [75"]	Tie-Off point height above the work surface.
Total = 93"	Min. Ground Clearance (GC) required.



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

Free Fall Hazard Warning

SRL's TossR model has a maximum free fall specification of 2ft(24") as measured from the work surface to the dorsal D-ring connection on the FBH. Shown at Fig.12a, the D-ring connection is 5ft(60") above the work surface, over double the maximum free fall. A fall over the work surface edge from this height can result in severing of the SRL webbing and falling to the next lower level (Fig.12c). To avoid these types of fall hazards, travel away from the tie-off point must be limited or the worker must be prevented from falling.

Fig.12a

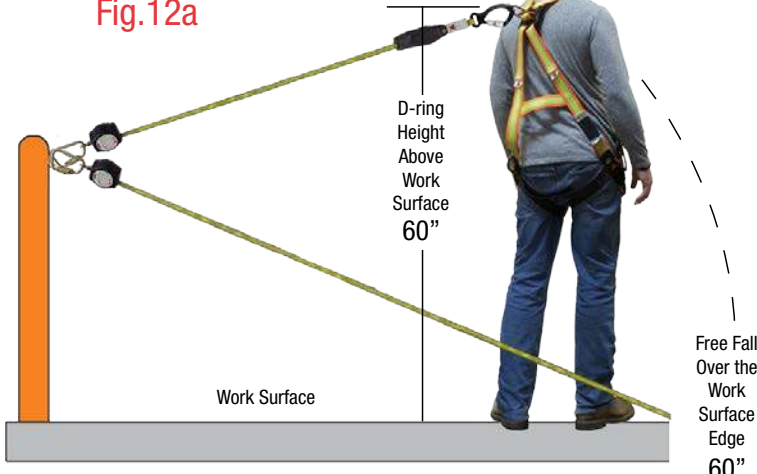


Fig.12b



⊕ A-6 model = 6ft maximum ⊕
 ⊕ A-11 model = 11ft Maximum ⊕
 Measured from D-ring to Tie-off point.

Fig.12c

WARNING! Free falls over a leading edge or other fall hazard may result in severing of the SRL webbing resulting in serious injury or death. Most deaths occur from falls less than 8ft. from the work surface.
 Note: No construction workers were injured in this dramatization.



WARNING!
 TossR energy absorbers are specified for a maximum free fall of 2ft. deploying up to 24" of tear webbing as shown at Fig.8. If a free fall exceeds 2ft, or the user wt. is more than 310lb, the absorber deployment length will increase up to 48", increasing the LOF and the ground clearance height.

PID (Product I.D. Labels)

PID labels display the model specifications, DOM (date of mfg.), serial number and a data entry cell to record the date of first use. Remove from service if labels are not readable or missing.

Instruction Label

BEFORE EACH USE:

- Perform locking and retraction tests as specified in the manual. Inspect and remove from service if any of the following conditions are present:
 - Does not pass inspections or locking test.
 - Webbing has knots, cuts or other damage.
 - Subjected to a fall, evidence of damage to the casing, or connector.
 - Energy absorber is deployed, cover is missing or fall indicator is visible.
 - Labels are missing or not readable.

Storage, Maintenance, Use:

- Do not allow webbing to retract without tension serious damage will result.
- Clean webbing with soap/water only.
- Store wet or frozen units vertically in a warm area.
- Inspect by a competent person every 6 months.

WARNING! Do not open the casing or attempt repair. This device has an internal spring that can seriously injure a person. **This Unit is not repairable.**

ANTES DE CADA USO:

- Realice las pruebas de bloqueo y retracción como se especifica en el manual. Inspeccione y retire del servicio si se presenta alguna de las siguientes situaciones:
 - No pasa las inspecciones o la prueba de bloqueo.
 - La correa tiene nudos, cortes o algún otro daño.
 - Se sometió a una caída, hay evidencia de daños en la carcasa o el conector.
 - Se desplegó el amortiguador de energía, falta la cubierta o puede verse el indicador de caída.
 - Faltan las etiquetas o no pueden leerse.

Almacenamiento, mantenimiento, uso:

- No permita que la correa se retrague sin tensión, ya que se provocará daño grave.
- Limpie la correa con jabón y agua solamente.
- Almacene las unidades húmedas o congeladas verticalmente en un área cálida.
- Esta unidad no puede repararse.
- Debe realizarse una inspección cada 6 meses por parte de una persona competente.

ADVERTENCIA! No abra la carcasa ni trate de realizar una reparación. Este dispositivo cuenta con un resorte interno que puede lesionar gravemente a una persona. **Esta unidad no es reparable.**

Super Anchor Safety
 17731 147th Street SE, Monroe, WA 98272
 425-488-8868
 SRL Label F-1.1 ©ISSN 03-2018 mfg. TossR Inspect 24.36.18

Fall Indicator Inspection Label

Inspection			
MM	YY	By	Pass

A-6 PID Label

Model 2990-A6 6ft(1.8m) Web Length

Lot mfg. Date Serial No. First Use

Compliance: ANSI Z359.14-12 Type A Max. User wt: 310lb(140kg) Arrest Length: 24"(0.6m) Max. Deployment Length: 8'-6"(2.6m)

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.

HAZARDS! • DO NOT allow webbing to come in contact with sharp or abrasive surfaces. DO NOT wrap webbing around any object. • DO NOT expose SRL to high heat, open flame, cutting or grinding tools or electrical sources. • Avoid swing fall hazards by keeping the service angle to less than 40°.

Webbing: UHMWPE 3/4" Min. strength: 4,500lb(204kg) Max. Free Fall: 24"(0.6m)

Compliance: OSHA 1926 Max. User wt. 420lb(190kg) 48" Arrest Length: 48"(1.2m) Max. Deployment Length: 10'-6"(3.2m)

ADVERTENCIA AL USUARIO! Usted debe leer y utilizar el Manual de Instrucciones/Especificaciones suministrado en el momento en que se envía este dispositivo. El uso y la instalación inadecuados pueden resultar en lesiones graves o la muerte. Siga los requisitos de inspección antes de cada uso.

PELIGROS! • NO permita que la malla entre en contacto con superficies afiladas o abrasivas. NO envuelva la malla alrededor de ningún objeto. • NO exponga el SRL a calor extremo, llama abierta, herramientas de corte o rectificadas, o fuentes eléctricas. • Evite peligros de caídas en péndulo manteniendo el ángulo de servicio en menos de 40°.

Super Anchor Safety
 Monroe, WA 98272
 www.superanchor.com
 Front SRL Label F-1.0 ©ISSN 03-2018 mfg. TossR Inspect 24.36.18

A-11 PID Label

Model 2990-A11 11ft(3.3m) Web Length

Lot mfg. Date Serial No. First Use

Compliance: ANSI Z359.14-2012 Type A Max. User wt. 310lb(140kg) Arrest Length: 24"(0.6m) Max. Deployment Length: 14'(4.2m)

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.

HAZARDS! • DO NOT allow webbing to come in contact with sharp or abrasive surfaces. DO NOT wrap webbing around any object. • DO NOT expose SRL to high heat, open flame, cutting or grinding tools or electrical sources. • Avoid swing fall hazards by keeping the service angle to less than 40°.

Webbing: UHMWPE 3/4" Min. strength: 4,500lb(204kg) Max. Free Fall: 24"(0.6m)

Compliance: OSHA 1926 Max. User wt. 420lb(190kg) 48" Arrest Length: 48"(1.2m) Max. Deployment Length: 16'(4.8m) Use with Horizontal Lifelines. Puede usarse con cuerdas de salvamento horizontales. Máxima caída libre de 24"

ADVERTENCIA AL USUARIO! Usted debe leer y utilizar el Manual de Instrucciones/Especificaciones suministrado en el momento en que se envía este dispositivo. El uso y la instalación inadecuados pueden resultar en lesiones graves o la muerte. Siga los requisitos de inspección antes de cada uso.

PELIGROS! • NO permita que la malla entre en contacto con superficies afiladas o abrasivas. NO envuelva la malla alrededor de ningún objeto. • NO exponga el SRL a calor extremo, llama abierta, herramientas de corte o rectificadas, o fuentes eléctricas. • Evite peligros de caídas en péndulo manteniendo el ángulo de servicio en menos de 40°.

Super Anchor Safety
 Monroe, WA 98272
 www.superanchor.com
 Front SRL Label F-1.0 ©ISSN 03-2018 mfg. TossR Inspect 24.36.18

Enter date of first use.

Enter annual inspection data.



Overhead Attachment

A worker operating an Order-Picker is attached to a tie-off point located directly overhead reducing the LOF to a minimum. TossR Model A-6 or A-11 are recommended for this type of fall protection and for use with lift buckets and powered platforms with guardrails.