

Sellstrom/RTC® Work Positioning Lanyards Installation, Operating & Maintenance Instructions

SM/RTC Product: Work Positioning Lanyards

Thank you for purchasing a Sellstrom/RTC (SM/RTC) work positioning lanyard. SM/RTC takes pride in producing the finest fall protection products and services available. To serve you better, our Customer Service Department will be happy to answer any of your product or applications questions. Call (800) 323-7402.



WARNINGS



**To the Receiver,
Contractor, Store
Manager, Safety
Director, Supervisor,
Buyer, or anyone except
the ultimate equipment
users:**

Under Penalty of Law

These instructions are not to be removed except by the user of this equipment. Current instructions must always be available to any potential user. Note: Because of continuous developments in the application and use of SM/RTC equipment and our desire to serve your best interests, these instructions are invalid 10 years after the effective date on these instructions. If you purchase a product, and these instructions are out of date, call SM/RTC Customer Service and request current instructions. Dial toll free (800) 323-7402 (U.S. and Canada) or (847) 358-2000.

If you have difficulty or experience any problem with SM/RTC equipment or the instructions, call the above toll-free number or (847) 358-2000 immediately and ask the Customer Service Department for assistance.

It is the responsibility of the user's management to review these instructions periodically, and to ensure compliance with every requirement to maintain the system's designed integrity. The equipment purchased is designed to be used as a part of a complete fall protection system and is to be inspected and maintained regularly.

WARNINGS Continued . . .

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WARNINGS



To the Equipment User:
You must read and fully understand or have the following instructions explained to you before using this equipment. Failure to do so could result in serious or fatal injury.

Atencion: Si usted no puede leer el ingles o si usted no comprende estas instrucciones, favor de consultar su director de seguridad o su supervisor.

Attention: Si vous ne pouvez pas lire l'anglais ou si vous ne comprenez pas les instructions, consultez votre directeur de securite ou votre superviseur.

Achtung: Wenn Sie nicht Englisch lesen können und diese Anweisungen nicht verstehen, dann fragen Sie bitte Ihren Sicherheitsdirektor oder Ihren Aufselher.

Attenzione: Se non leggiere l'inglese o non capite queste istruzioni, per favore rivolgete Vi al Vostro Direttore, responsabile della "Sicurezza sul Lavoro" o al Vostro diretto superiore.

You assume complete liability if you fail to follow these instructions and are injured.

A "no" answer to any question on the Safety Checklist on the back page of these instructions, either before or during product use, is an unsafe use of this equipment. Use this equipment only as instructed.

Warning: All SM/RTC equipment should be as part of a complete SM/RTC fall protection or emergency rescue system. If the buyer or user chooses to disregard this warning, he is solely responsible for the safety of the entire system and all users.

Before replacing or adding components to a fall protection or emergency escape system, consult the original manufacturer. Federal OSHA further states that any unauthorized substitution or change to a system by the buyer should be fully evaluated or tested by a qualified person before the new system is put into use (see OSHA 1926.500).

All potential users of this equipment and user's management must read and understand all instructions fully; failure to do so could result in serious or fatal injury.

No fall arrest system can guarantee that you will not sustain injuries if a fall occurs. The most you can expect is that injuries will be substantially reduced. What you can be sure of is that improper use of this equipment will vastly increase your chances of serious injury or death because misuse builds false security. To achieve the maximum level of safety that this equipment is capable of providing, all instructions must be followed diligently. This means careful planning of your application and work method.

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Complete System Components

A complete fall protection system consists of the following components that are arranged to fit the specific work task and control the elevated fall hazard(s):

- **Anchorage**

An anchorage, as defined by OSHA, "shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed and used as follows: as part of a complete personal fall arrest system which maintains a safety factor of at least two; and under the supervision of a qualified person."

For horizontal lifelines it is important to remember that the anchorages must be designed and installed according to the instructions provided using a safety factor of at least two. Anchorages for horizontal lifelines may require anchorage strengths greater than 5,000 lb. Refer to the information provided by SM/RTC for each horizontal lifeline for anchorage requirements.

- **Body Support**

A body support is the component of a personal fall protection system that is worn on or around the body. Full body harnesses must be used for all fall arrest systems.

- **Connecting Means**

A connecting means is the link between the body support and anchorage. It can be a shock-absorbing lanyard, rope grab, self-retracting lanyard or retrieval system. Connecting means will vary depending on the application.

The user must also have a rescue plan and the means at hand to implement it in the event of a fall.

Note: For continuous protection, more than one system may be needed.

Warning



No other applications or methods of use are allowed without prior written approval.

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1.0 Approved Application

1.1 All SM/RTC work-positioning lanyards are designed to be used with SM/RTC Full Body Harnesses for workers and tools with a combined weight up to 310 lb. Work positioning lanyards may be used either for work positioning or for fall restraint.

1.2 Work positioning systems hold a worker in place leaving both hands free to work. Any potential free fall must be limited to 2 ft. or less. A fall arrest system must be used in conjunction with a work positioning system when the user is exposed to a fall hazard. Both harness side, work positioning D-rings are usually used for work positioning applications.

1.3 Fall restraint systems prevent the worker from reaching an area where a free fall could occur.

Warning



Work positioning lanyards must never be used for fall arrest. They do not contain shock absorbers or deceleration devices and will apply dangerously high forces to the user if used for fall arrest.

2.0 Anchorage

2.1 Anchorage Strength: The anchorage must be capable of supporting at least twice the potential impact load of an employee's fall or 3,000 lb., whichever is greater. Attachment to the anchorage must be secure. All possible anchorages must be foreseen and planned for by the project engineer and clearly marked for a trained user.

2.2 Anchorage Design: Whenever rope or webbing lanyards contact the anchorage surface, the surface must be smooth to avoid damage to the lanyard by abrasion or cutting.

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3.0 Performance Data

3.1 Designed Working Loads: SM/RTC Web Lanyards are designed to support a worker and his tools, maximum total weight of 310 lb., when used as a part of the complete SM/RTC work positioning system.

3.2 Vertical Free Fall: SM/RTC Rope and Web lanyards are for work positioning purposes only unless used with an approved shock absorber and SM/RTC system.

4.0 Operating Instructions

4.1 Attachment of Lanyard to Harness

4.1.1 The locking snaphooks may be attached to either the side, work positioning D-rings for work positioning applications, or the back D-ring for fall restraint applications. The gate of the snaphook must be completely closed and the gate keeper/lock in place. Never rely on the sound of the hook closing on the D-ring; check it visually each time to make sure it is secure or have someone check it for you.

4.1.2 For Rebar snaphook (large hook): Always connect the large rebar snaphook to the anchorage. Never attach a large rebar snaphook to a D-ring.

4.1.3 For Lanyards with Loop attachment: Always connect the loop to the harness D-ring or D-Ring loop. See Figure 1.

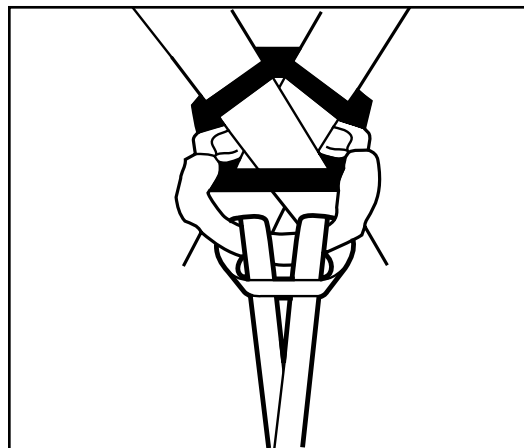


Figure 1: Loop D-Ring with Loop Lanyard

Warning



Lanyards with a loop attachment must be carefully inspected before each use for tears, cuts, and fraying and other signs of damage. See section 7.0 for inspection instructions.

Do not attach any other connectors such as snaphooks or carabiners to the harness D-ring while a loop lanyard is attached due to the possibility of accidental disengagement (rollout).

Do not attach more than one fall protection device to one D-ring due to the possibility of accidental disengagement (rollout). Other connections may be used provided that a qualified person has determined that it cannot detach accidentally, thereby greatly reducing the possibility of disengagement during a fall.

Continued...

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4.0 Operating Instructions

Continued

4.2 Attachment of Work Positioning Lanyard to Anchorage

4.2.1 Only attach the lanyard to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 lb., whichever is greater. The anchorage must be compatible with the snaphook. Never use single locking snaphooks. (See figure 2).

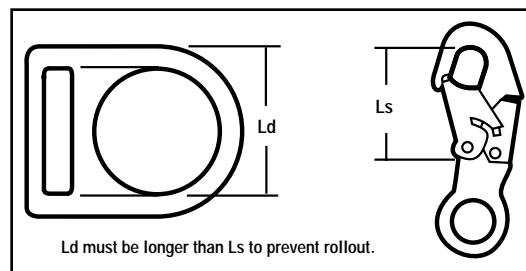


Figure 2: Never use single locking snaphooks. Use double locking snaphooks only.

4.2.2 Locking snaphooks SHOULD NEVER be attached back to the lanyard when looped around an anchorage. The lanyard must be attached directly to the anchorage connector.

Any potential free fall must be limited to 2 ft. or less. When using adjustable length lanyards, always use the shortest length possible. A fall arrest system must be used in conjunction with a work positioning system when the user is exposed to a fall hazard.

Important: If you fall, remove the equipment from service and immediately report what happened to your supervisor or the safety department. A qualified person must check the entire system, including the anchorage to make sure it will provide the proper protection for the next person who might fall.

4.3 LanLok Positioning Lanyard:

4.3.1 Connect the LanLok to either work positioning D-ring. The LanLok unit is universal and can be attached to either the left or right work positioning D-ring to accommodate left or right handed workers.

4.3.2 Wrap LanLok around anchorage structure. Protect rope from rough or sharp edges.

4.3.3 Connect snaphook to the opposite work positioning D-ring.

4.3.4 Adjust the length of the LanLok by squeezing the handle and sliding the rope through the device.

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5.0 Training

All training must be conducted under careful and qualified supervision. Live, hands-on training for all users is essential to help

understand the capabilities and limitations of their personal protective equipment.

6.0 Inspection

Warning



Failure to remove equipment that has been damaged or where its condition is questionable could lead to serious or fatal injury. Call SM/RTC Customer Service for replacement information.

6.1 The user must inspect all equipment visually before each use. A competent person other than the user must inspect the equipment at least twice annually. If damage is found or you have questions about the equipment's condition, remove the item from service immediately. Tag the item "DO NOT USE", and replace it. If exposed to harmful UV rays, the lanyard must be discarded because of degradation, even if it has not been used.

6.2 A detailed record of inspection dates and times must be maintained. An inspection grid is provided on the lanyard to indicate the next inspection date. Punch next inspection date on grid (1/8" punch) if lanyard passes inspection. If next inspection date has passed, tag the item for non-use until a competent person can inspect it.

6.3 Paint and Chemicals: All synthetic material lanyards that are subject to paint or solvent over-spray must be replaced on a regular preventive maintenance schedule. Carefully inspect for visible signs of damage; see Table 1 below.

Table 1

Type of Exposure Chart					
Type of Webbing	Heat	Chemicals	Flame or Molten Metal	Paint or Solvents	Dirt or Grit
Polyester & Nylon	Fibers become brittle, will shrivel, turn brown in color and break when flexed. Should not be used above 180°F.	Fibers will change color and texture, similar to a brownish smudge or smear; will become less elastic with transverse cracks resulting from bending.	Fiber strands will fuse together and become hard, brittle and shiny in appearance.	Particles work into the weave and can cut and fray fibers.	Particles work into the weave and can cut and fray fibers.

Continued...

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Installation, Operating & Maintenance Instructions

6.0 Inspection

Continued

6.4 Webbing: The entire length of webbing must be inspected for tears, cuts, fraying or other signs of wear and damage. Sewn terminations must be secure, complete and not visibly damaged. Lanyards are easily inspected by beginning at one end and bending a portion (6–8 in.) into a U-shape between your hands. Check the entire length of both sides. Detailed examples of visual signs of harmful exposure are summarized in Table 1.

6.5 Cable: Kinks, broken wires, etc.

6.6 Rope: Inspect rope lanyards by bending the rope in a U-shape between the hands and slightly untwisting the rope to check the inside and the outside fibers for damage. Look for frayed, worn, cut, broken, burnt or damaged fibers. Check all sides of each strand along the entire length of the lanyard. Detailed examples of visual signs of harmful exposure are summarized in Table 1.

6.6.1 Rope should be of a uniform diameter along the entire length following a break-in period where the rope is not completely stiff; areas in the rope that are smaller in diameter could have been caused by impact loading, thereby weakening the lanyard. Check all splices for unraveling; each splice must be tight and have a minimum of five (5) turns.

6.6.2 Knots in a lanyard can reduce tensile strength by 50% or more; remove, destroy and replace knotted lanyards.

6.7 Snaphook: All snaphooks must operate smoothly and close and lock completely. Check for rough or sharp edges, corrosion, burrs, cracks, dents or distortion. Check rivets for broken, bent or cracked conditions. Gate and gate locks must be free from distortion, bending and must seat properly and securely against the snaphook nose and body. The gate and lock spring should cause these two parts to close firmly. Carabiners rotate freely into the closed and locked position when released. (See SM/RTC Instruction #574)

6.8 Thimbles: Thimbles in splices must not move loosely within the eye of the splice. Check for sharp edges, burrs, cracks, and distortion.

6.9 LanLok: Make sure that the unit locks on the rope. Inspect for proper spring action. Check for dents, distortion, corrosion or cracks in unit body or attachment hardware. Check to ensure that all rivet pins are in place.

Continued...

Sellstrom/RTC® Work Positioning Lanyards

Installation, Operating & Maintenance Instructions

6.0 Inspection

Continued

6.1 Labels: Labels on each lanyard must be secure and legible. Contact SM/RTC for replacement advice.

sellstrom / RTC
Work Positioning Lanyard

INSTRUCTIONS:
 Never attach snaphook to snaphook because the chance of accidental disconnection is increased. Do not use over sharp edges to avoid sudden catastrophic cutting. You also need to be aware of nearby obstructions that may cut, move, or interfere with the lanyard.

User must inspect before each use. A competent person other than the user must inspect at least every six months.

DO NOT REMOVE THIS LABEL!

Model #: _____

Manufacture Date:
 J F M A M J J A S O N D
 02 03 04 05 06 07 08 09

(C) Sellstrom/RTC 2002

8793 TLAB Rev. 0

WARNING!
PRECAUTION!
ADVERTENCIA!

NOT TO BE USED FOR FALL ARREST!!!
THIS PRODUCT HAS NO SHOCK ABSORBING PROPERTIES AND SHOULD NOT BE USED FOR FALL ARREST!!!
FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH!!!

Sellstrom/RTC
 One Sellstrom Drive
 Palatine, IL 60067 USA
 (800) 323-7402
 (847) 358-2000

MEETS ANSI A10.14 & OSHA 1910.66, 1926.500
 TYPE II LANYARD
 MAXIMUM WEIGHT OF WORKER INCLUDING TOOLS IS 310 LBS.

Made in the USA

7.0 Maintenance

7.1 Personal protective equipment must be maintained regularly to help make sure that the equipment will operate properly when needed. Failure to maintain and store equipment carefully can result in poor operation that could lead to serious or fatal injury.

7.2 All equipment must be part of a periodic maintenance program, including detailed records. A minimum of every three months is suggested or more if the equipment is heavily used. Never make any adjustments or repairs to or substitute any parts of an SM/RTC system; call SM/RTC Customer Service at 1-800-323-7402 or 1-847-358-2000 (outside continental US) for advice.

7.3 Cleaning: Synthetic rope and webbing

lanyards can be washed with a mild soap detergent using a brisk back and forth motion. Then, they must be thoroughly rinsed with clear water and hung up to dry in a cool place out of the sun and away from exposure to high heat and steam. Steel cable (wire rope) lanyards may be wiped clean with a rag.

7.4 Wash and clean the hooks regularly. Oil or grease the hook so it will not attract dusts/powders, etc. Make sure that oil/grease has correct temperature range and viscosity for location; generally use -60C to +250F degree silicone sprays. Aim lubricant at rivet pivot points. A dry, low temperature silicone lubricant can be used on the snaphooks to help ensure smooth operation and complete closure.

Continued...

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 Palatine, IL 60067
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7.0 Maintenance

Continued

7.5 LanLok: Keep unit clean and free of contaminants with a clean dry cloth. Do not use any chemicals or solvents.

7.6 Storage: Lanyards should be hung up or placed loosely (in a container) in a clean, dry

area free from exposure to harmful fumes, corrosive agents or sunlight.

7.7 Store equipment instructions where all users can quickly find them when needed.

8.0 Special Warnings

Warning



Never reduce the length of a lanyard with a knot.

Ladder climbing systems must not be used with any lanyard.

Never lengthen a lanyard by attaching two lanyards together.

One person to a lanyard: no multiple person attachment of any kind with any work positioning system unless using an approved horizontal lifeline system.

Never use a lanyard as a Rope Grab (Direct Attachment to a Vertical Lifeline); lanyards are not designed or tested to be used as a Rope Grab on a vertical lifeline by tying a bend, hitch or other knots.

Do not use rope or web lanyards across or near sharp surfaces such as glass or metal because during a fall the lanyards can be cut instantaneously, preventing a fall arrest.

Anchorage for work positioning lanyards must be high enough to limit free fall to 2 ft. or less.

Position lanyards when wearing, or not wearing, to avoid chances of snagging or being drawn into equipment, such as an auger, roller or gear, which could result in serious injury or death. Avoid any interaction with moving parts or equipment that could result in serious injury or death.

Never attach more than one snaphook to a D-ring or O-ring.

Anyone who has a history of back or neck problems that could be aggravated or complicated by using fall protection equipment should not do so. Pregnant women or minors should not use this equipment. If there is any reason why you may not be physically able to safely absorb the forces subjected in the event of a fall arrest, consult your doctor.

Always check for obstructions below your work area to make sure your potential fall path is clear. Work directly under your anchorage because swing falls can result in serious or fatal injury.

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9.0 Definitions

9.1 Anchorage: A secure point of attachment for lifelines, lanyards, or deceleration devices that is independent of supporting or suspending the employees. (OSHA 1910.66 Appendix C)

9.2 Competent Person: A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest or restraint system or any component thereof, as well as in their application and use with related equipment. (1910.66 Appendix C)

9.3 Free Fall: The act of falling before personal fall arrest system begins to apply force to arrest the fall. (OSHA 1910.66 Appendix C)

9.4 Personal Fall Arrest System: An assembly of components and subsystems used to arrest a person in a fall from a working height. (ANSI Z359.1-1992)

9.5 Rollout: A process by which a snaphook or carabiner unintentionally disengages from another connector or object to which it is coupled. (ANSI Z359.1-1992)

9.6 Qualified Person: One with a recognized degree or professional certificate and extensive knowledge and experience in the subject field who is capable of design, analysis, evaluation and specifications in the subject work, project, or product. (ANSI Z359.1-1992)

10.0 Safety Checklist

All operators and users of SM/RTC equipment **MUST** be able to answer yes to all of the following questions before installing or using any SM/RTC equipment.

- ✓ Has all equipment been assembled and installed according to SM/RTC instructions?
- ✓ Has all equipment been inspected and maintained in accordance with SM/RTC instructions?
- ✓ Does the anchorage meet SM/RTC and OSHA requirements?
- ✓ Is the equipment suited for the intended work task, and is it capable of providing continuous protection?
- ✓ Has each user received training — when hired or within the last 6 months — in the proper and safe operation and use of the equipment?

- ✓ Do all users fully understand the instructions and agree to use the equipment in a safe manner?
- ✓ Has SM/RTC been called (Toll Free) if you or any user does not know how to comply with these instructions?

Warning



Do not use SM/RTC equipment if you answer "no" to any of the questions above!