Ritz FALL PROTECTION

SELF RETRACTABLE LANYARD

INSTRUCTION MANUAL

EQUIPMENT RECORD		
Product:		
Model and type/identification	Trade name	Identification number
Manufacturer	Address	Tel, fax, email
Year of manufacture	Purchase date	Date first put into use
Other relevant information (e.g. Document number)		

PERIODIC EXAMINATION AND REPAIR HISTORY

Date	Reason for entry (periodic examination or repair)	Defects noted, repair carried out and other relevant information	Name and signature of competent user	Periodic examination next due date

This Instructions apply to the following models:-
RTZNC18R, RTZNC18S, RTZNC28R, RTZNC28RAL, RTZNW18S

Ritz FALL PROTECTION
800-451-3077 | www.ritzsafety.com

This manufacturer's instruction manual has been created to comply with the requirements of ANSI Z359.14 and OSHA 1926 standards. This manual should be incorporated into an employee training program.

⚠ WARNING

- Avoid exposure to moving machinery, as well as thermal, electrical, and chemical hazards, as they may result in serious injury or death.
- Prevent swing falls.
- Always adhere to the weight limitations and guidelines provided in this manual.
- Immediately remove any equipment that has been subjected to fall arrest forces from service.
- Immediately remove from service any equipment that fails inspection.
- Never alter or misuse this equipment intentionally.
- When using this equipment with components or systems not mentioned in this manual, consult Ritz Safety.
- Refrain from attaching rebar hooks, large carabiners, or oversized snap hooks to the FBH dorsal D-rings, as this could lead to a roll-out situation or accidental disengagement.
- Take extreme caution and use safety gears when performing arc welding, as arc flashes from welding operations or unintended arcs from electrical equipment can damage the gear and be fatal.
- Thoroughly inspect the work area. Be mindful of your surroundings and any workplace hazards that could compromise the safety, security, and functionality of fall arrest systems and their components.
- Potential hazards include, but are not limited to, tripping risks from cables or debris, equipment malfunctions, human errors, and moving machinery such as carts, barrows, forklifts, cranes, or dollies. Ensure that materials, tools, or equipment in transit do not interfere with any part of the fall arrest system.
- Never work under suspended loads.

⚠ IMPORTANT

At the time of use, user must read and understand the Instructions and Keep these User instructions for reference.

This product is a key element in various safety systems, including personal fall arrest, restraint, work positioning, suspension, or rescue systems.

The worker must receive these instructions and thoroughly understand the manufacturer's guidelines for each component of the system. Follow the manufacturer's instructions for proper use, care, and maintenance. Keep these instructions available for reference at all times. Failure to follow the instructions or misuse of the product may result in serious injury or death.

A proper Plan must be documented and accessible for review by all workers. It is the responsibility of both the worker and the equipment purchaser to ensure that users are properly trained in the use, maintenance, and storage of this equipment. Training should be conducted at regular intervals and must be done in a manner that avoids exposing the trainee to fall hazards.

if you have any doubts about your ability to safely handle the shock of a fall, consult a doctor. Age and physical fitness can affect a person's ability to withstand a fall. This equipment should not be used by pregnant women or minors. and For further information, and to know in detail please refer to the ANSI Z359 standards.

NOTE

LABELS:
Periodic Examination and Repair History-

PURPOSE

The purpose of the Ritz Safety Class-2 Leading Edge Self-Retracting Lanyard (SRL) is to provide fall protection for workers in environments where they may be exposed to fall hazards, particularly near leading edges. This device is designed to arrest a fall quickly while minimizing the forces exerted on the worker's body during a fall. The SRL is specifically designed for use in situations where the worker is working at heights near or over an unprotected edge, such as rooftops, scaffolding, or other elevated surfaces.

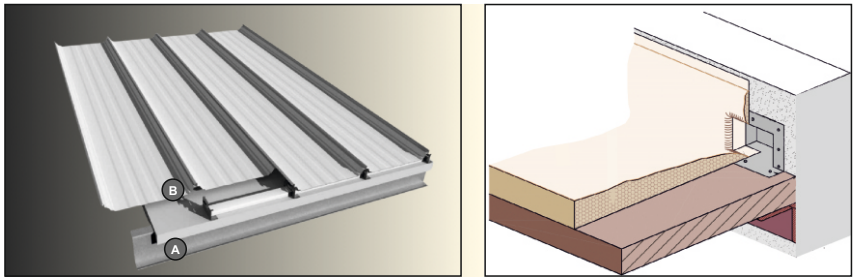
KEY PURPOSES INCLUDE:

- Fall Arrest: The SRL ensures a worker's safety by automatically locking and stopping a fall within a short distance, reducing the risk of injury.
- Leading Edge Protection: It is engineered to safely function even when the lanyard may contact or pass over a leading edge, which can be a high-risk area for falls.
- Ease of Movement: The retractable mechanism allows the worker to move freely while maintaining continuous fall protection.
- Durability and Safety: The Class-2 SRL is built to meet rigorous safety standards, providing reliable fall protection under challenging working conditions.
- By incorporating features that are particularly suitable for leading-edge work, the SRL helps reduce fall risks while ensuring the worker's protection in high-risk environments.

Description

- The Ritz Safety Leading Edge SRL is a self-retracting lifeline designed for workers at height who may be exposed to fall hazards, including those associated with leading edges.
- This manual includes an appendix with figures and tables specific to the SRL model discussed here.
- The SRL can be attached to an overhead anchorage (directly above the user's head) or to an anchorage up to 5 feet below the user's Full Body Harness (FBH) dorsal D-ring.
- A leading edge refers to the unprotected side or edge of a floor, roof, formwork, or other walking/working surface (such as a deck) that shifts as additional sections are added or constructed. See Figure 1 for reference.

Figure 1 Leading Edge



(A) Structural Steel (Beam & Purlins).
(B) Steel Deck & Metal Roofing.

Precast Concrete & Concrete Block

In below Figure 2, the SRL Class 2 is housed in a strong nylon casing that contains a synthetic lifeline wound around a spring-tensioned drum. The lifeline is equipped with a stop and a leg-end connector. Once attached, the lifeline extends and retracts with the user's movements, keeping it taut at all times. If a fall occurs, a centrifugal pawl system activates to stop the lifeline from extending further. During the fall, the SRL-FBH Connector will detach from the Shear Connector, and the built-in Energy Absorber (EA) will deploy, gradually slowing and arresting the fall.

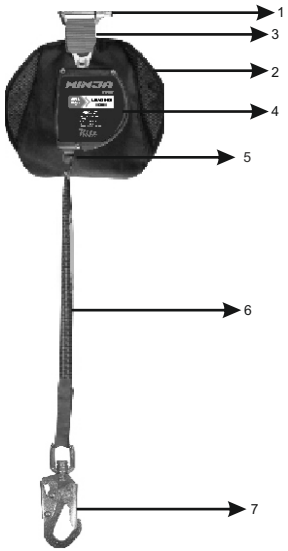


Figure 2- About the Ritz Safety Class 2 Leading Edge SRL	
1	SRL-FBH Connector
2	Energy Absorber
3	Connector Assembly
4	Housing
5	Lifeline Stop
6	Synthetic Lifeline
7	Snap Hook

A Personal Fall Arrest System (PFAS) typically includes the following components:

1. Anchorage: A secure, stable point of attachment to which the fall protection system is connected. This anchorage must be capable of supporting the forces generated during a fall to ensure safety.
2. Full Body Harness: A harness that is worn by the user to distribute the forces of a fall across the body. It is designed for comfort and security, with straps and buckles ensuring the harness stays in place during a fall.
3. Connecting Device: This is the mechanism that links the Full Body Harness to the anchorage point. It may include:
   - Shock Absorbing Lanyard (SAL): A lanyard designed to reduce the impact forces on the body during a fall. The shock absorber typically deploys to slow the fall and reduce the force felt by the user.
   - Self-Retracting Lanyard (SRL): A retractable device that automatically extends and retracts as the user moves, providing continuous fall protection. The SRL locks and arrests the fall once the user has moved beyond a certain distance.
4. Dorsal D-Ring: Located on the back of the Full Body Harness, the dorsal D-ring is the primary attachment point for the connecting device. The connection of the lanyard or SRL to this D-ring ensures the system operates correctly by aligning the forces during a fall, keeping the user upright and reducing the potential for injury.

These components work together to ensure the safety of the user, stopping or slowing the fall and distributing the impact forces evenly to minimize injury risks. As shown in Figure-3

APPENDIX A

Table 1A: Specifications for Ritz Safety Leading Edge SRL

Product Code	Lifeline Material	Working Length	Materials and Specifications	Capacity and Standards	Images For Reference
RTZNW18S	UHMWPE/ Para-Aramid/ G.I. Wire	8 ft. (2.4 m)	Housing: Nylon Anchorage Carabiner 5,000 lbs (22.2 kN)with 3,600 lbs (16 kN) Gate Strength SRL-FBH Connector: Forged Aluminum 3,600 lbs (16 kN) Minimum	Single User Capacity for ANSI/CSA Compliance: 130 to 310 lbs. (59 to 141 kg) ANSI Z359.14-2021 Class 2 SRL	
RTZNC18R RTZNC28RAL RTZNC28R RTZNC18S		8 ft. (2.4 m)			

Table 1B: Ritz Safety Class 2 SRL ANSI Performance Attributes

Part #s and Conditions		Typical Performance for 130 to 310 lbs. (59-141 kg) User			ANSI Performance Requirements 130 to 310 lbs. (59-141 kg) User		
Part #	Anchorage Condition	Arrest Distance	Average Arrest Force	Maximum Arrest Force	Maximum Arrest Distance	Average Arrest Force *Conditioned	Maximum Arrest Force
All Part Numbers in Table 1A	Overhead Non-Leading Edge	40.4" (1.0 m)	917 lbf. (4.1 kN)	1,421 lbf. (6.3 kN)	42" (1.1 m)	1,575 lbf. (7.0 kN)	1,800 lbs. (8 kN)
	Leading Edge Condition, 5' Below D-Ring	54" (1.37 m)	866 lbf. (3.9 kN)	1,292 lbf. (5.7 kN)	N/A	N/A	

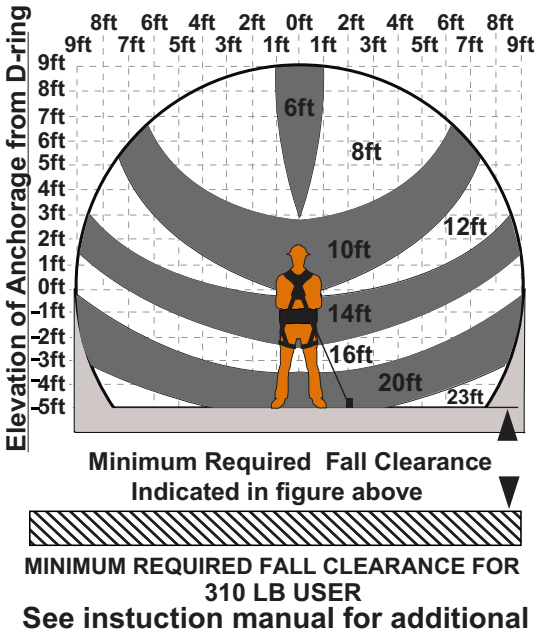
MAINTENANCE

Cleaning the equipment after use is crucial for maintaining its safety and extending its lifespan. If the SRL becomes soiled, wipe it clean with a dry, clean cloth. For deeper cleaning, use mild soap and water, rinse thoroughly, wipe off excess water, and hang the equipment to dry naturally. For any further inquiries, contact Ritz Safety.

Any additional maintenance or servicing should only be performed by an authorized service center.

Store the SRL in a cool, dry, and clean environment, away from direct sunlight. Avoid areas with chemical vapors, heat, excess moisture, oil, or other damaging substances. Soiled, wet, or contaminated SRLs should be cleaned and thoroughly dried before being stored.

Fall Clearance Chart



MINIMUM REQUIRED FALL CLEARANCE FOR 310 LB USER

See instuction manual for additional

LIFESPAN:

The estimated lifespan of this product is 10 years from the date of first use. The following factors may shorten the product's lifespan: frequent or intense use, exposure to chemical substances, harsh environments, extreme temperatures, UV radiation, abrasions, cuts, strong impacts, or improper use or maintenance.

DISCLAIMER:

Before use, the end user must carefully read and understand the manufacturer's instructions provided with the product at the time of shipment. The user should also receive training from qualified personnel on the correct use of the product. The manufacturer is not liable for any loss, damage, or injury resulting from improper use or installation of this product.

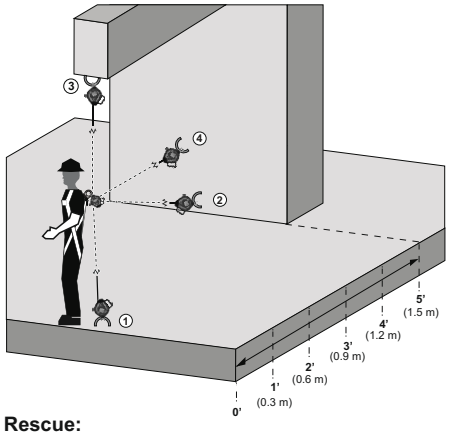


Figure 3 - Anchorage Locations	
1	Anchorage of SRD at Foot Level with 0' Setback from Leading Edge
2	Anchorage of SRD at Foot Level with 5' Setback from Leading Edge
3	Overhead Anchorage of SRD Above Dorsal D-Ring
4	Anchorage of SRD Above Dorsal D-Ring with 5' Setback from Leading Edge

Rescue:

Ensure that a written rescue plan, method, and system are established and easily accessible for quick implementation. Rescue procedures may require specialized equipment or techniques. Rescue operations are not covered in this manual. Please refer to ANSI Z359.4 for detailed guidance.

Application Limits

Take precautions to avoid contact with moving machinery, abrasive surfaces, and thermal, electrical, or chemical hazards, including welding arcs, as these can damage the SRL and lead to serious injury or death. The SRL is not intended for use in restraint, personnel riding, suspension, or work positioning. Rescue operations are not covered in this manual. The SRL should only be used as a backup Personal Fall Arrest System (PFAS) for these applications.

System Requirements

Capacity:

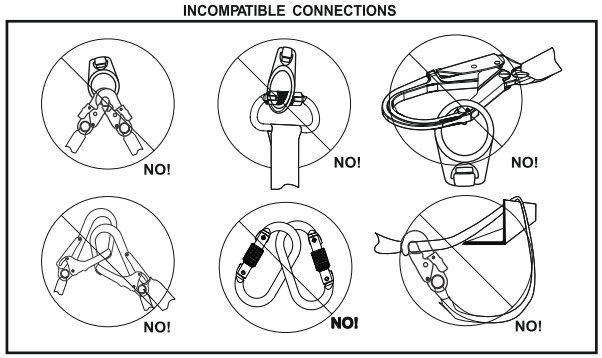
As per ANSI Z359.4 and OSHA standards, the Leading Edge SRL is for a single user with a combined weight of:

a. 130 - 310 lbs. (59 - 141 kg) to comply with both ANSI and OSHA
b. 130 - 420 lbs. (59 - 191 kg) to comply with OSHA only

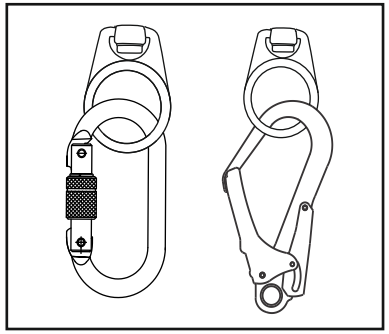
COMPATIBILITY LIMITATIONS

To prevent the risk of accidental rollout when using a non-locking snap hook, avoid the following connection practices:

- Attaching a snap hook directly to a horizontal lifeline.
- Connecting two or more snap hooks to a single D-ring.
- Linking two snap hooks together.
- Attaching a snap hook to its own integral lanyard.
- Connecting a snap hook to a webbing loop or webbing lanyard.
- Using a D-ring, rebar, or other connection point that is incompatible in size with the snap hook, which could cause the snap hook keeper to be inadvertently depressed through a turning motion.



COMPATIBLE CONNECTIONS



Environmental Hazards
Additional precautions must be taken when using this equipment in environments with potential hazards to prevent injury to the user or damage to the equipment.
Environmental hazards may include, but are not limited to:

- Chemicals
- Extreme temperatures
- Corrosive environments
- Gases
- High voltage power lines: Electric current may flow through the SRL's lifeline, especially if moisture is present. Use extreme caution when working near power lines.
- Sharp edges
- Moving machinery and vehicles

Warning
This equipment is not intended for use in high-temperature environments. When working near activities such as welding or metal cutting, it is crucial to protect the equipment from hot sparks, as they may cause damage or burns.

Anchorage Strength
The required anchorage strength depends on the type of application. According to ANSI Z359.1, the necessary anchorage strength for the following applications is as follows:

Fall Arrest: Choose an anchorage that can sustain a static load of at least 5000 lbs. (23 kN) in the directions allowed by the system. If multiple fall arrest systems are connected to the same anchorage, the required strength must be 5000 lbs. (23 kN) multiplied by the number of systems attached.

As per OSHA 1926.500 and 1910.66, anchorages used for attaching Personal Fall Arrest Systems (PFAS) must be independent from any anchorages used for supporting or suspending platforms. These anchorages must be capable of withstanding a minimum load of 5000 lbs. (23 kN) per user attached. They should be designed, installed, and used as part of a complete fall arrest system that maintains a safety factor of at least two. Anchorage ratings should always be conducted under the supervision of a qualified person.

Average Arrest Force and Arrest Distance:
Test data on key performance parameters—Arrest Distance, Average Arrest Force, and Maximum Arrest Force—are provided in Table 1A and 1B in Appendix A, categorized by model number and class. Testing is conducted under various environmental conditions, including ambient temperature, hot, cold, and wet conditions. In the manufacturer's tests, the worst-case performance attributes of the SRL, when connected 5' below the dorsal D-ring in a Leading Edge application, are as follows:

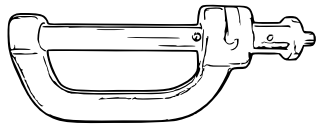
5' Below D-Ring, Leading Edge	130 to 310 lbs. (59 to 141 kg)	130 to 420 lbs. (59 to 191 kg)
Longest Arrest Distance	115" (2.9 m)	154" (3.9 m)
Largest Average Arrest Force	917 lbs (4.1 kN)	889 lbs (4.0 kN)
Largest Maximum Arrest Force	1,421 lbs (6.3 kN)	1,605 lbs (7.1 kN)

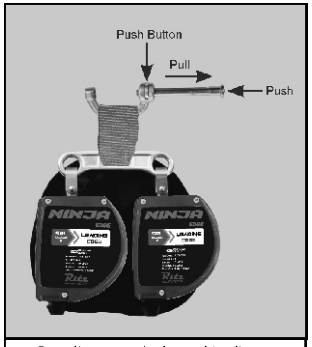
The Competent Person can use this data to plan anchorage locations and calculate fall arrest loads and distances to the nearest obstruction or lower level.

Installation of NINJA EDGE SRL CLASS 2
Example- To full body harness

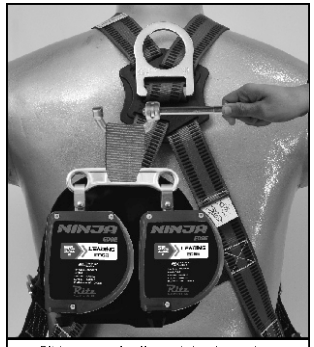
Technical Specification

Product Code	Material Description
RTZ174	Alloy





Open the connector by pushing the locking lever and push button at the end simultaneously


Slide connector through loodsened web straps placed below the Dorsal D-ring, then pull straps tight.


Push the pin inside the grooves of the connector to ensure locking

PERIODIC EXAMINATION
Always retain the instructions provided with the product. Record the product's identification information from the markings on the equipment in the identification sheet. Regular inspections are crucial to ensure the equipment's condition and the user's safety. A qualified person must examine the equipment at least once every six months, strictly following the manufacturer's instructions. Document each inspection on the attached sheet. If the equipment undergoes heavy use or is exposed to harsh environments, increase the inspection frequency as per regulations. Additionally, verify that the product markings remain legible.

INSPECTION OF PERSONAL FALL ARREST SYSTEM COMPONENTS
A thorough visual inspection of all components, including harnesses, lanyards, connectors, etc., is required before each use to ensure the equipment is in proper condition and functioning correctly. If there is any uncertainty about the equipment's safety or if it has been used to arrest a fall, immediately remove it from service and send it to the manufacturer or an authorized repair center. Check the back-shoulder straps of the harness for intact fall indicators. If deployed, remove the harness from service. Never attempt to repair or modify Personal Protective Equipment (PPE).

PRE-USE INSPECTION OF SRL's
Inspect before each use, following the guidelines outlined in Table 1.

Table 1 Guidelines For SRL Inspection		
Inspection	**Pass**	**Fail**
Pull the lifeline out several inches and apply a firm tug to ensure the SRL locks securely without slipping. Repeat this process at various points along the lifeline to verify proper SRL functionality.		
Examine the entire length of the lifeline for abrasions, broken or frayed fibers, burns, cuts, or knots. Check for damage caused by dirt, paint, grease, or oil. Look for signs of discoloration or damage from chemical exposure or excessive heat. Inspect for cracks or other damage resulting from prolonged UV exposure. If any of these issues are found, immediately remove the SRL-P from service.		
Inspect the SRL-FBH Connector for any cracks, breaks, or warping. Verify that the locking bar securely locks in place.		
Inspect the Energy Absorber for any rips, tears, or damage. Ensure all labels are intact and legible. Examine the entire SRL unit for signs of deterioration or damage.		