

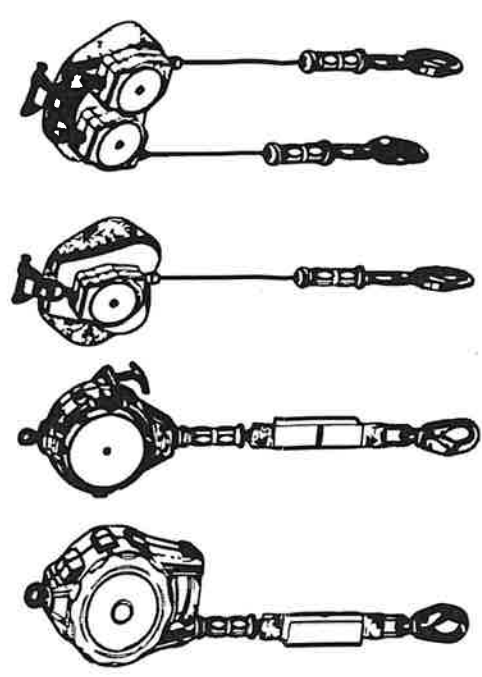
Serial LE304441 12/19



USER INSTRUCTIONS

SELF RETRACTING LIFELINES WITH LEADING EDGE CAPABILITY

Complies with the ANSI Z359.14 standard and OSHA 29 CFR 1910 and 1926 regulations.



This manual applies to SRL model numbers R410008LE(-R,-SR), R410020LE, R410030LE, R413008LE(-R,-SR) and R410065LE.



WARNING!

Compliant fall protection equipment must only be used as it was designed. Users MUST read and follow all user instructions provided with the product. Before using a fall arrest system, users must be trained in the safe use of the system, as required by OSHA 29 CFR 1910.30 and 1926.503, or local safety regulations. Misuse or failure to heed these warnings and instructions may result in injury or even death.

WORK SAFE! WORK SMART!



Werner Co. Fall Protection
93 Werner Rd. Greenville, PA 16125
724-588-2000 • 888-523-3371 toll free • 888-456-8458 fax

IF YOU HAVE ANY QUESTIONS ABOUT THE PROPER USE OF THE EQUIPMENT, SEE YOUR SUPERVISOR, USER INSTRUCTIONS, OR CONTACT WERNER CO. FOR MORE INFORMATION.

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GENERAL SAFETY INFORMATION

These User Instructions are not to be removed except by the user of this equipment. Current User Instructions must always be available to the user.

WARNING!

1. Failure to follow all instructions and limitations on the use of Self-Retracting Lifelines with Leading Edge capability (SRL-LE) may result in serious personal injury or death. Minors, pregnant women and anyone with a history of either back or neck problems should not use this equipment.
3. Do not use or install equipment without proper training from a "competent person" as defined by OSHA 29 CFR 1926.32(f).
4. SRL-LE's are designed for a single user.
5. Not all fall protection and rescue components are rated for the same user weight capacity. Only use components rated for the same weight capacity.
6. Caution must be taken when using SRL-LE near moving machinery, electrical hazards, sharp edges, or abrasive surfaces. Contact with these elements may cause equipment failure, personal injury, or death.
7. Do not expose SRL-LE to chemicals or harsh solutions which may have a harmful effect.
8. Personal fall arrest systems, including SRL-LE's, must be inspected prior to each use for wear, damage and other deterioration. Defective components must be immediately removed from service in accordance with the requirements of OSHA 29 CFR 1910.140 and 1926.502.
9. The SRL-LE is designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C).
10. Do not use if inspection reveals any defect, wear, damage, deterioration, inadequate maintenance, or unsafe condition. Do not use any equipment that has been subjected to the forces of arresting a fall or if any part of the load indicator warning is showing.
11. Never attach the unused leg of the lanyard back to the harness at any location other than the lanyard parking attachment.
12. Only lanyards designed for tie-back are approved for tie-back directly onto the webbing.
13. Do not anchor the SRL-LE below the edge at which a fall might occur.
14. The allowable angle of redirection of the lifeline portion of the SRL-LE at the edge over which a fall might occur (measured between the two sides formed by the redirected lifeline) shall be at least 90 degrees.
15. Do not work on the far side of an opening, opposite the SRL-LE anchor point.
16. Only Werner Co., or persons or entities authorized in writing by Werner Co., shall make repairs or alterations to the equipment.
17. Alterations or misuse may result in serious personal injury or death.

CAUTION!

If an SRL-LE is used in conjunction with a cross-arm strap anchorage connector, other anchorage extension, horizontal lifeline, or extended D-ring, the additional length of the anchorage connector, extended D-ring, or sag from the lifeline must be taken into consideration during the clearance calculation process.

USE INSTRUCTIONS AND LIMITATIONS

IMPORTANT

Before use, the user must read and understand these User Instructions. Keep these User Instructions for reference.

PURPOSE

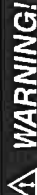
Self-Retracting Lifelines with Leading Edge capabilities are designed to be used as part of a complete personal fall arrest system.

USE INSTRUCTIONS

1. Failure to follow all instructions and limitations on the use of SRL-LE may result in serious personal injury or death.
2. Before using a personal fall arrest system, employees must be trained in accordance with the requirements of OSHA 29 CFR 1910.30 and 1926.503 in the safe use of the system and its components.
3. Personal fall arrest and rescue systems, including the SRL-LE, must be inspected prior to each use for wear, damage, and other deterioration. Defective components must be immediately removed from service in accordance with the requirements of OSHA 29 CFR 1910.140 and 1926.502.
4. The complete fall arrest system must be planned (including all components, calculating fall clearance, and swing fall) before using.
5. Users must have a rescue plan, and the means at hand to implement it, that provides for the prompt rescue of the user in the event of a fall, or assures that the user is able to rescue themselves. A fall over an edge may require special rescue measures.
6. Store the SRL-LE in a cool, dry, clean environment, out of direct sunlight, when not in use.
7. After a fall occurs on the system, immediately remove from service until a "competent person" can make the determination for reuse or disposal.

USE LIMITATIONS

1. CAPACITY: SRL-LE's used in leading edge applications are designed for users with a capacity (including clothing, tools, etc.) up to 310 lb (141 kg) total working weight. The SRL-LE used in overhead applications has a capacity (including clothing, tools, etc.) up to 400 lb (181 kg) total working weight.



WARNING!

Not all fall protection and rescue components are rated for the same user weight capacity. Only use components rated for the same weight capacity.

2. MATERIALS: The lifeline of the SRL-LE is 7x19 3/16 inch galvanized steel wire rope.
3. CORROSION: Do not leave SRL-LE's in environments where corrosion of metal parts could take place as a result of vapors from organic materials. Use near seawater or other corrosive environments may require more frequent inspections to ensure corrosion damage is not affecting the performance of the product.
4. CHEMICAL HAZARDS: Solutions containing acids, alkali, or other caustic chemicals, especially at elevated temperatures, may cause damage to the SRL-LE's. When working with such chemicals, frequent inspection of this equipment must be performed. Contact Werner Co. with any questions concerning the use of the SRL-LE around chemical hazards.
5. EXTREME TEMPERATURE: SRL-LE's are designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C). Protection should be provided for SRL-LE's when used near welding, metal cutting or similar activities. Contact Werner Co. with any questions concerning high temperature environments.
6. ELECTRICAL HAZARDS: Use extreme caution when working near high voltage power lines due to the possibility of electric current flowing through the SRL-LE or connecting components.
7. HEALTH: Minors, pregnant women and anyone with a history of either back or neck problems should not use this equipment.
8. RESCUE: In the event of a fall over the edge, special rescue measures may be required.
9. TRAINING: Do not use SRL-LE's without proper training from a "competent person" as defined by OSHA 29 CFR 1910.140(b) and 1926.32(f).
10. REPAIRS: Only Werner Co., or persons or entities authorized in writing by Werner Co., may make repairs or alterations to the equipment.

ANCHORAGE REQUIREMENTS

ANCHORAGES

All anchorages to which the SRL-LE attaches must meet the requirements of ANSI Z359.2 and OSHA 29 CFR 1910 and 1926.

OSHA states:

Anchorage used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used 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.

ANSI Z359.2 states that anchorages selected for fall arrest systems must have a strength capable of sustaining static loads, applied in all permitted directions by the system:

- A) no less than 5,000 pounds (22.2 kN) for non-certified anchorages; or
- B) at least two times the maximum arresting force for certified anchorages;
- C) according to ANSI Z359.6, *Specifications and Design Requirements for Active Fall Protection Systems*.

When more than one personal fall arrest system is attached to the anchorage, the strength in (A) or (B) must be multiplied by the number of personal fall arrest systems attached to the anchorage.

CONNECTION REQUIREMENTS

COMPATIBILITY LIMITATIONS

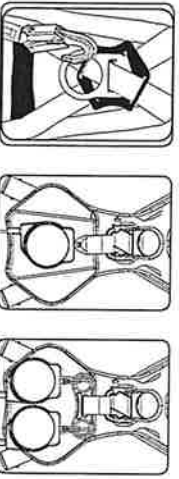
All connecting subsystems must only be coupled to compatible connectors. OSHA 29 CFR 1910.140 and 1926.502 prohibit snap hooks from being engaged to certain objects unless two requirements are met: snap hook must be a locking type and must be "designed for" making such a connection. Under OSHA "designed for" means that the manufacturer of the snap hook specifically designed the snap hook to be used to connect to the equipment in question.

The following connections must be avoided because they can result in "rollout" when a non-locking snap hook is used:

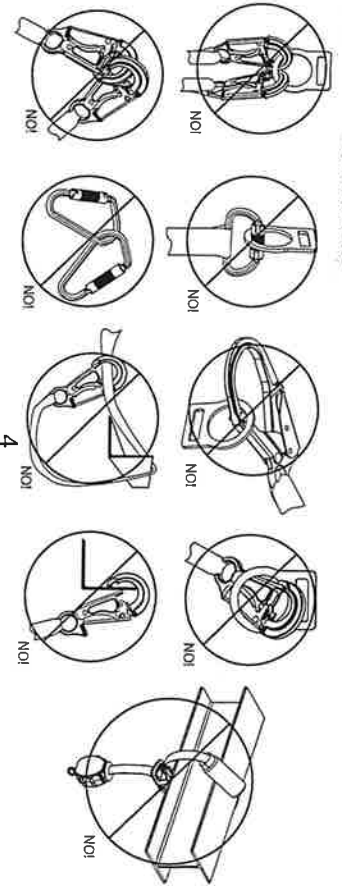
- Direct connection of a snap hook to horizontal lifeline.
- Two (or more) snap hooks connected to one D-ring.
- Two snap hooks connected to each other.
- A snap hook connected back on its integral lanyard.
- A snap hook connected to a webbing loop or webbing lanyard.
- Improper dimensions of the D-ring, rebar, or other connection point in relation to the snap hook dimensions that would allow the snap hook keeper to be depressed by a turning motion of the snap hook.

***Rollout:** A process by which a snap hook or carabiner unintentionally disengages from another connector or object to which it is coupled.

COMPATIBLE CONNECTIONS



INCOMPATIBLE CONNECTIONS



SRL-LE's should be stored in a cool, dry place out of direct sunlight when not in use. Do not store where damage from environmental factors such as heat, light, excessive moisture, oil, chemicals and their vapors, or other degrading elements may be present.

Equipment that has been stored for an extended period must be inspected as defined in these User Instructions prior to use.

[illegible]

**CLEARANCE REQUIREMENT WITH OFFSET AND SETBACK DISTANCE
FOR LEADING EDGE APPLICATIONS FOR R41008LE(-R,-SR), R410020LE, R410030LE
AND R413008LE(-R,-SR)**

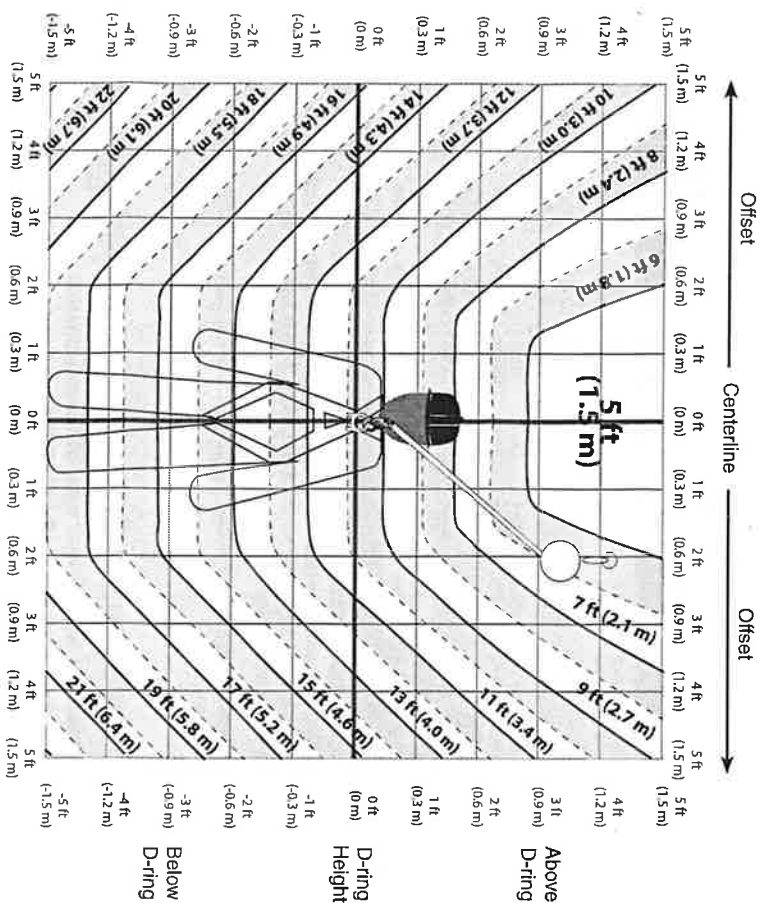
EXAMPLE: With the SRL-LE anchor set back 10 feet from the edge, the user can work up to 8 feet (2.4m) offset along the leading edge. The required clearance is 19.8 feet (6.0 m) from the working level to the nearest obstruction below.

CLEARANCE REQUIREMENT WITH OFFSET AND SETBACK DISTANCE FOR LEADING EDGE APPLICATIONS FOR R410065LE

EXAMPLE: With the SRL-LE anchor set back 10 feet from the edge, the user can work up to 8 feet (2.4 m) offset along the leading edge. The required clearance is 20.3 feet (6.2 m) from the working level to the nearest obstruction below.

The required clearance includes; Free Fall and Swing Fall Distance, Harness Stretch, Deceleration Distance and Safety Factor.

OFFSET CLEARANCE REQUIREMENTS FOR R410008LE(-R,-SR), R410020LE, R410030LE AND R413008LE(-R,-SR) FOR NON LEADING EDGE APPLICATIONS

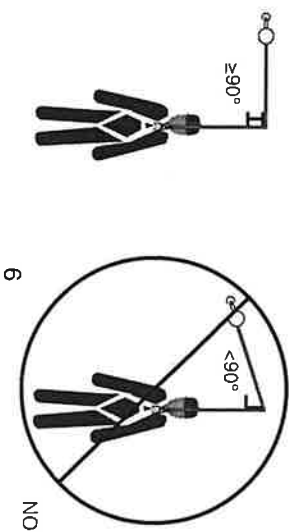


EXAMPLE: With the SRL-LE anchored 4 feet above the users D-ring and the user works 2 feet away (offset) from directly overhead (centerline), the required clearance is 6 feet (1.8 m) from the working level to the nearest obstruction below.

The required clearance includes; Free Fall and Swing Fall Distance, Harness Stretch, Deceleration Distance and Safety Factor.

⚠ WARNING!

The allowable angle of redirection of the lifeline portion of the SRL-LE at the edge over which a fall might occur (measured between the two sides formed by the redirected lifeline) must be at least 90 degrees. The anchor point may only be situated at the same height as the edge at which a fall might occur or above the edge.



CRITERIA

⚠ WARNING!

If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service until a "competent person", as defined by OSHA 29 CFR 1910.140(b) and 1926.32(f), can determine the need for authorized repair or disposal.

⚠ WARNING!

Any equipment that has been subjected to the forces of arresting a fall, or that has a deployed load indicator, must be removed from service until a "competent person" can determine the need for authorized repair or disposal.

All components of the SRL-LE must be inspected.

All markings must be legible and attached to the product.

Housing must be free from cracks, distortion or any other damage.

White web visible outside the shock pack is the fall indicator that the SRL-LE has been subjected to the forces of arresting a fall.

Reserve cable is wrapped in colored tape. Remove from service if colored tape has exited the unit.

Check the operation of the unit by pulling smoothly on the lifeline, then pulling sharply on the lifeline to engage the locking mechanism. Unit must not slip when locked.

Cable must be inspected for kinks, broken strands, corrosion, abrasion, or other signs of wear and/or damage. Swaged terminations must be secure with the thimble tight and no visible damage.

All equipment must be free of corrosion, chemical attack, alteration, excessive heating or wear.

All snap hooks and carabiners on product must be able to self-close and lock. All hardware must be free of cracks, sharp edges, deformation, corrosion, or any evidence of defect.

All components of the fall arrest system must be inspected. See User Instructions supplied with each product.

CLEANING, MAINTENANCE AND STORAGE

CLEANING

Cleaning and maintenance may be performed by the user. The SRL-LE may be wiped down with a mild detergent and clean water solution, and rinsed with a dampened clean cloth to remove detergent. The hardware can also be wiped down to remove grease or dirt with a clean dry cloth.

⚠ WARNING!

Only Werner Co., or persons or entities authorized in writing by Werner Co., shall make repairs or alterations to the equipment.

MAINTENANCE

SRL-LE's requiring maintenance must be tagged "unusable" and removed from service. Do not use any SRL-LE that requires maintenance. Cleaning and maintenance may be performed by the user.

Snap hooks may require periodic lubrication. Do not apply oil, grease, or other contaminants on the webbing or cable. Use a dry lubricant that has proper resistance to temperature extremes, moisture, and corrosion. Do not over-lubricate.

Users must have a rescue plan, and the means to implement it, that provides for the prompt rescue of employees in the event of a fall or assures that employees are able to rescue themselves.

Check the operation by pulling smoothly on the lifeline, then pulling sharply on the lifeline to engage the locking mechanism.

SRL-LE's must be inspected prior to each use. See INSPECTION.

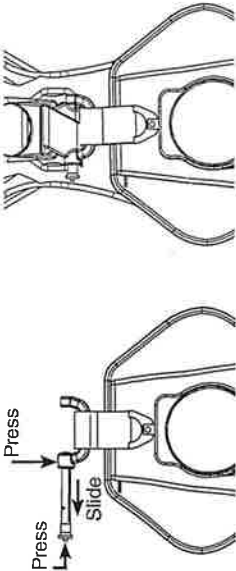
CONNECTION



WARNING!
Never attach an additional energy absorbing lanyard, self retracting lifeline, or similar component to lengthen the lifeline.

Attach the housing connector of the SRL-LE to the anchorage or anchorage connector. The opposing end is connected to the dorsal D-ring of the full body harness.


To attach R410008LE or R413008LE, pull out both web straps directly below the dorsal D-ring on the full body harness until there is enough space to slide the connector between the web straps and the back plate. Press button on top of the connector. Keeping the end of the pin and the slide all the way out. Capture both web straps below the dorsal D-ring of the full body harness by sliding the pin behind both web straps back to its original position. Secure by pulling both web straps through the back plate. Ensure pin is locked into place by pulling out on the end.



INSPECTION

FREQUENCY

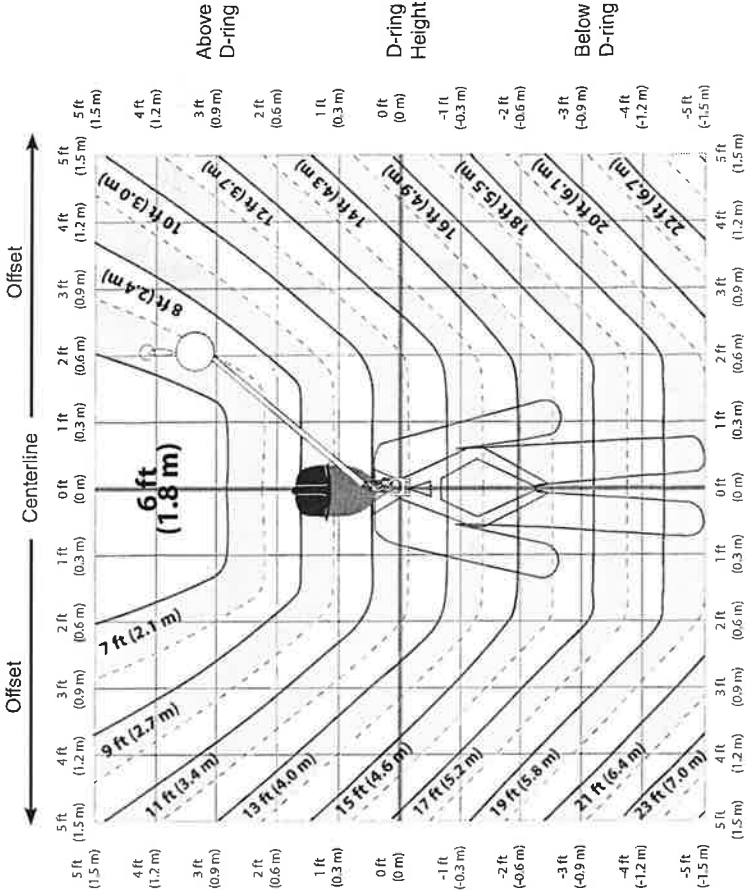
Type Of Use	Application Examples	Conditions Of Use	Inspection Frequency Competent Person
Infrequent to Light	Rescue and confined space, factory maintenance	Good storage conditions, indoor or infrequent outdoor use, room temperature, clean environments	Annually
Moderate to Heavy	Transportation, residential construction, utilities, warehouse	Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environments	Semi-annually to annually
Severe to Continuous	Commercial construction, oil and gas, mining	Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environments	Quarterly to semi-annually



WARNING!
Do not use if inspection reveals any defect, wear, damage, deterioration, inadequate maintenance, or unsafe condition. Do not use any equipment that has been subjected to the forces of arresting a fall, or if any part of the load indicator warning is showing.

All components of SRL-LE's must be inspected prior to each use, and annually by an OSHA defined "competent person" other than the user. Local, state, governmental and jurisdictional agencies governing occupational safety may require the user to conduct more frequent or mandatory inspections.

OFFSET CLEARANCE REQUIREMENTS FOR R410065LE FOR NON LEADING EDGE APPLICATIONS



EXAMPLE: With the R410065LE anchored 4 feet above the users D-ring and the user works 2 feet away (offset) from directly overhead (centerline), the required clearance is 7 feet (2.1 m) from the working level to the nearest obstruction below.

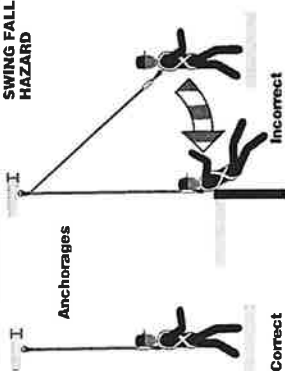
The required clearance includes; Free Fall and Swing Fall Distance, Harness Stretch, Deceleration Distance and Safety Factor.



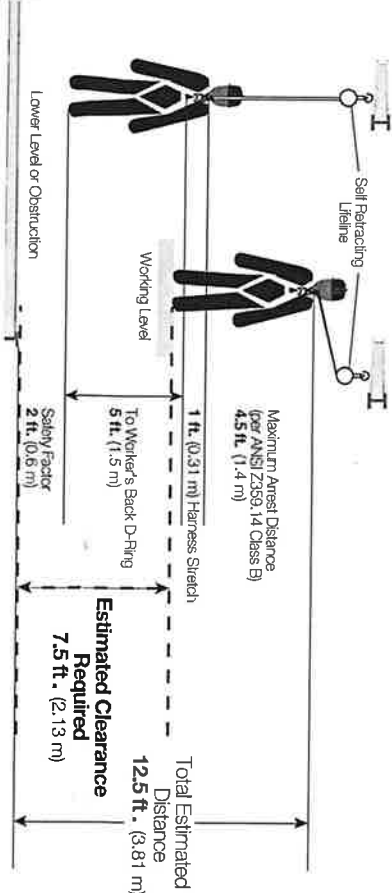
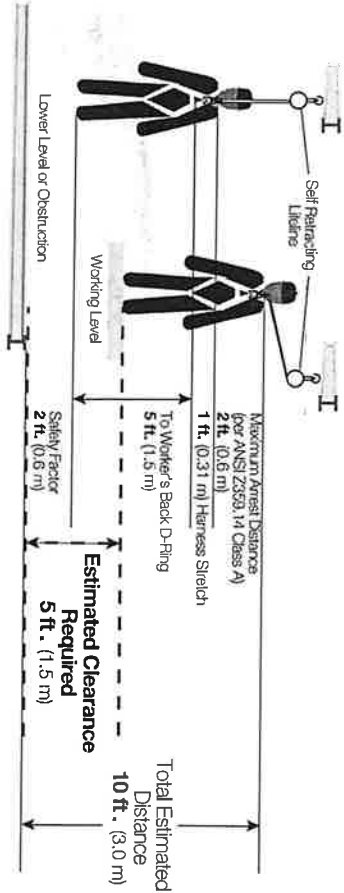
WARNING!
Striking objects horizontally due to the pendulum effect of a swing fall may cause serious injury or death.

SWING FALLS

To minimize the possibility of a swing fall, anchor as directly above the work area as possible. Striking objects horizontally, due to the pendulum effect, may cause serious injury. Swing falls also increase the vertical fall distance of a worker, compared to a fall directly below the anchorage connector. Swing falls may be reduced by using overhead anchorage connectors that move with the worker.



CLEARANCE CALCULATIONS



MATERIALS

Model No.	Length	Housing	Housing Connector	Lifeline Constituent	Lifeline Connector
R410008LE	8 Feet	Thermoplastic	Harness Web Connector	3/16 Galvanized Steel Cable	Steel Swivel Snap Hook
R410008LE-R	8 Feet	Thermoplastic	Harness Web Connector	3/16 Galvanized Steel Cable	Aluminum Rebar Hook
R410008LE-SR	8 Feet	Thermoplastic	Harness Web Connector	3/16 Galvanized Steel Cable	Steel Form Hook
R410020LE	20 Feet	Thermoplastic	Steel Carabiner	3/16 Galvanized Steel Cable	Steel Swivel Snap Hook
R410030LE	30 Feet	Thermoplastic	Steel Carabiner	3/16 Galvanized Steel Cable	Steel Swivel Snap Hook
R410065LE	65 Feet	Thermoplastic	Steel Carabiner	3/16 Galvanized Steel Cable	Steel Swivel Snap Hook
R413008LE	8 Feet	Thermoplastic	Harness Web Connector	3/16 Galvanized Steel Cable	Steel Swivel Snap Hook
R413008LE-R	8 Feet	Thermoplastic	Harness Web Connector	3/16 Galvanized Steel Cable	Aluminum Rebar Hook
R413008LE-SR	8 Feet	Thermoplastic	Harness Web Connector	3/16 Galvanized Steel Cable	Steel Form Hook

HORIZONTAL SYSTEMS

Applications where the SRL-LE is used horizontally or with a horizontal system, the SRL-LE and horizontal system components must be compatible. Both the horizontal and vertical distances are required for clearance calculations. Horizontal systems must be designed and installed under the supervision of a qualified person.

These units are suitable for use with horizontal lifelines.

PERFORMANCE

The Werner Co. SRL-LE was successfully tested for horizontal use and falls over a steel edge without burs, concrete and b-decking and as a result, these devices may be used in applications where a fall may occur over similar edges.

LEADING EDGE USE APPLICATIONS FOR R410008LE(-R,-SR), R410020LE, R410030LE AND R413008LE(-R,-SR)

Standards and Regulations	Free Fall Limit	Maximum Arrest Force	Average Arrest Force	Minimum Setback Distance	Clearance Requirement When Falling Over Edge	Capacity
ANSI Z359.14	6 ft	1800 lbs	900 lbs	2 ft	17 ft	130 - 310 lbs
SRD-LE	(1.8 m)	(8 kN)	(4 kN)	(0.6 m)	(5.1 m)	(59 - 141 kg)
OSHA 29 CFR	6 ft	1800 lbs	N/A	2 ft	17 ft	310 lbs
1910.140/1926.502	(1.8 m)	(8 kN)		(0.6 m)	(5.1 m)	(141 kg)

LEADING EDGE USE APPLICATIONS FOR R410065LE

Standards and Regulations	Free Fall Limit	Maximum Arrest Force	Average Arrest Force	Minimum Setback Distance	Clearance Requirement When Falling Over Edge	Capacity
ANSI Z359.14	6 ft	1800 lbs	900 lbs	2 ft	17.5 ft	130 - 310 lbs
SRD-LE	(1.8 m)	(8 kN)	(4 kN)	(0.6 m)	(5.4 m)	(59 - 141 kg)
OSHA 29 CFR	6 ft	1800 lbs	N/A	2 ft	17.5 ft	310 lbs
1910.140/1926.502	(1.8 m)	(8 kN)		(0.6 m)	(5.4 m)	(141 kg)

OVERHEAD USE NON LEADING EDGE APPLICATIONS FOR R410008LE(-R,-SR), R410020LE, R410030LE AND R413008LE(-R,-SR)

Standards and Regulations	Maximum Arrest Distance	Free Fall Limit	Maximum Arrest Force	Average Arrest Force	Capacity
ANSI Z359.14	24 in	2 ft	1800 lbs	1,350 lbs	130 - 310 lbs
SRD Class A	(610 mm)	(0.6 m)	(8 kN)	(6 kN)	(59 - 141 kg)
OSHA 29 CFR	42 in	2 ft	1800 lbs	N/A	400 lbs
1910.140/1926.502	(1067 mm)	(0.6 m)	(8 kN)		(181 kg)

OVERHEAD USE NON LEADING EDGE APPLICATIONS FOR R410065LE

Standards and Regulations	Maximum Arrest Distance	Free Fall Limit	Maximum Arrest Force	Average Arrest Force	Capacity
ANSI Z359.14	32 in	2 ft	1800 lbs	900 lbs	130 - 310 lbs
SRD Class B	(812 mm)	(0.6 m)	(8 kN)	(4 kN)	(59 - 141 kg)
OSHA 29 CFR	42 in	2 ft	1800 lbs	N/A	400 lbs
1910.140/1926.502	(1067 mm)	(0.6 m)	(8 kN)		(181 kg)

OPERATION

BEFORE EACH USE

WARNING!

Before using a personal fall arrest system, employees must be trained in accordance with the requirements of OSHA 29 CFR 1910.30 and 1926.502 and/or applicable local, state, governmental and jurisdictional agencies, in the safe use of the system and its components.

Personal fall arrest systems, including SRL-LEs, must be inspected prior to each use for wear, damage, and other deterioration. Defective components must be immediately removed from service in accordance with the requirements of OSHA 29 CFR 1910.140 and 1926.502 and/or applicable local governmental and jurisdictional standards.

The user must read and understand these user instructions, as well as the user instructions for every component and subsystem of the personal fall arrest system.