

BUCKINGHAM MFG.

PN 5206 SERIES

CABLE AND LEADING EDGE SELF-RETRACTING DEVICES INSTRUCTION MANUAL

WARNING: Do not use this product if you cannot understand and follow the instructions and warnings that come with it and complete all necessary functions. This product is a component of a personal fall arrest or restraint system where falls may occur over edges. The user must understand the manufacturer's instructions and be trained in the proper use of each component or, part of, the complete personal fall arrest system. Manufacturer's instructions must be followed for proper installation, use, care, and maintenance of this product. These instructions must always be available for reference. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.

IMPORTANT: This manual is intended to meet the Manufacturer's Instructions in compliance with the American National Standards Institute (ANSI) Z359.14-2021 and should be used as part of an employee training program as required by the Occupational Safety and Health Administration (OSHA). All components or subsystems used with the SRD discussed in this manual must be in compliance with ANSI Z359 and OSHA.

KEY COMPONENTS: Refer to Figure 1a for identification of key components of Class 2 Self-Retracting Devices. 5206 Series SRDs are drum wound Cable Lifelines (A) that retract into a Nylon Housing (B). The Swivel Eye (D) on top of the SRD allows units to hang from anchorage by an attached Carabiner (C). The SRD is attached to the Fall Arrest connection on a Full Body Harness via a self-locking snap hook (E) on the end of the Lifeline. The Wire rope and Ferrules, which secure the snap hook, are protected from abrasion and corrosion by a Bumper (F). Class 2 devices include an integral energy absorbing pack (G).

PN 5206-30 is a 30' Steel Cable Retractable & PN 5206Q3-20 is a 20' Steel Cable Retractable with a web carry handle (H).

APPLICATIONS

- The 5206 Series, Self-Retractable Lanyards (SRL) are designed for use as part of a complete fall-arrest system that is required by OSHA and is in compliance with ANSI. As supplied, the PN 5206 Series SRL meets the ANSI Z359.14-21 Standard as a Class 2 SRL and can be used by a single user with a maximum weight of 310 lbs. (140.6 kg) when fully equipped. A Self-Retracting Lanyard acts only as a component to a complete fall arrest system and must be used in conjunction with an ANSI rated harness. This device is suitable for horizontal use only when properly configured as part of a complete Class 2 ANSI Fall Arrest System. There are numerous types of unprotected sharp edges that may cause damage to the cable of this system. This system has **not** been tested with all edge substrates and is not approved for use on all edges. Sharp edge testing was completed in accordance with ANSI Z359.14-21 using the specified edge substrate from the ANSI Z359.14 standard. Do not expose the constituent line of the Class 2 SRL to other types of edges or abrasive surfaces that may cut or damage the line. Fall Arrest PPE shall always be the last method to avoid fall hazards based on the hierarchy of controls (ANSI/ASSP Z359.2). When using this device, the user shall make every effort to utilize an overhead anchorage, minimizing risks associated with a non-overhead anchorage. For work that requires the use of a Class 2 SRL near sharp edges or abrasive surfaces, use edge protection and / or relocate anchorage point to avoid contact with an edge or abrasive surface.



Figure 1a: Key components of Class 2 Self-Retracting Devices

- ANSI Z359.14-2021 requires a Class 2 device to have an arrest distance of less than 42" (1.07m) and an average arrest force of 1350 lbs. (6kN) or less with a maximum peak arresting force of 1800 lbs. (8kN) or less. The arrest distance described above applies only to overhead anchorage connection applications. For non-overhead anchorages see the Fall Clearance section below for how to calculate Minimum Required Fall Clearance (MRFC). The maximum free fall distance for non-overhead usage is 6 ft. (1.83m).

| Class 2 SRL Performance Requirements, per ANSI Z359.14-21 | |
|---|-------------------|
| | Class 2 |
| Maximum Average Arresting Force | ≤ 1,350lbs. (6kN) |
| Maximum Arresting Force | ≤ 1,800lbs. (8kN) |
| Maximum Arrest Distance (Overhead Applications Only) | 42 in. (1.07m) |
| Maximum Free Fall Distance | 72 in. (1.83m) |

- Individuals using this unit must be properly trained and instructed on how to use the device / system properly. They must also read, understand, and follow these instructions, all related equipment's instructions, as well as any instructions or warnings attached to and packed with those products.
- Each SRL's 3/16" diameter steel cable has a permanently attached self-locking snaphook with integral impact load indicator. The self-locking snaphook must be attached to the user's Dorsal Fall Arrest Attachment of their ANSI Z359.11 rated harness.
- Under normal working conditions, the worker can draw the cable in and out of the unit's housing as desired. The unit's self-retracting feature keeps the cable taut and out of the worker's way during use and recoils the cable when disconnected from the worker. The unit's brake system will not engage if the unit is not under load. In the event of a fall, the braking system brings the worker to a decelerated stop and holds him in place.

INSPECTION PROCEDURES

- The SRL shall be inspected by an authorized person approved by the employer before each use. Additionally, inspections shall be completed by a competent person other than the user. The competent person shall use Appendix A (shown below) to determine appropriate inspection intervals. Inspection by a competent person at regular intervals at a minimum of annually is required.

| ANSI Z359.14 APPENDIX A - INSPECTION REQUIREMENTS | | | |
|---|--|--|---|
| Type of Use | Application Examples | Conditions of Use | Inspection Frequency (by a Competent Person) |
| Infrequent to Light | Confined Space, Factory Maintenance | Good storage conditions, indoor / infrequent outdoor use, room temperature, clean environment | Annually |
| Moderate to Heavy | Transportation, Residential Construction, Utilities, Warehouse | Fair storage conditions, indoor / extended outdoor use, all temperatures, clean or dusty environment | Semi-annually to Annually |
| Severe to Continuous | Commercial Construction, Oil and Gas, Mining | Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environment | Quarterly to Semi-annually |

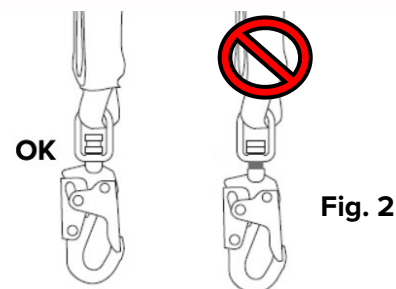
NOTE: Gloves should be worn when inspecting or handling the cable.

- Prior to each use inspect the entire length of cable by pulling it out in 2 to 4 foot intervals and then giving the cable a quick, hard, downward tug. The cable should stop and lock. Upon completion of this inspection, allow the cable to retract back into the housing slowly ensuring it remains taut under slight tension. While the cable is retracting, slowly inspect to ensure no abrasive wear, mechanical damage, rotational damage, heat damage, bending fatigue, cuts, kinks, broken strands, bird-caging, foreign substances, or other damage exist (See Fig. 1).

3. Inspect the external connector swivel eye, the anchorage connection carabiner, and the self-locking snaphooks for damage or deformation and that the gates open, snap closed and lock easily and smoothly. Inspect the self-locking snaphooks to be sure that the impact load indicator has not been deployed (snap swivel section shows a red warning band Fig. 2). Be certain both the carabiner and self-locking snaphook gates are free of burrs, functioning properly, clean and not bent. Also, inspect the retractable unit housing to ensure no breaks, distortion, cracks, loose or missing screws or other damage exist. Ensure that all connecting hardware is properly fastened and is secure.
4. Make sure bumper / stopper is clean and free of cuts and cracks and all labels are intact and legible.
5. Inspect all associated equipment used with the fall arrest system as stated with the supplied manufacturer's instructions.
6. If any evidence of wear or deterioration as outlined is observed, immediately cease use. Should any unusual conditions not outlined above be observed or you have reasonable doubt about a particular condition, remove the equipment from service and notify your Supervisor, Safety Director, or contact Buckingham Mfg. Co. for clarification.
7. Documentation of equipment inspections shall be maintained by the employer. This documentation shall include, at a minimum, the identity of the equipment, inspection date, name of the competent person conducting the inspection and the results of the inspection.



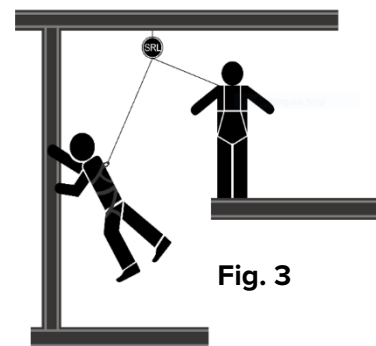
Examples of Cable Damage



INSTALLATION PROCEDURES

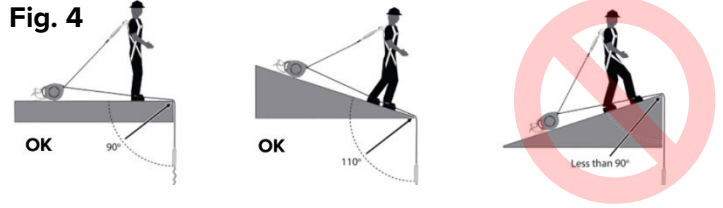
⚠WARNING - NEVER use this Self Retracting Lanyard without a thorough inspection before each use.

1. Use the SRL only with approved components and subsystems as mentioned previously. Using the SRL with non-approved components and subsystems will reduce the safety and reliability of the system.
2. Before use, ensure that you plan your fall protection system by considering all limitations and factors outlined in these and all associated instructions. Your fall protection system plan should encompass all factors that may affect your safety before, during, and after a fall.
3. This device is designed for use with one person only. Never use this device to support multiple workers. Also, do not use this SRL if the total workload is outside of the rated capacities of 130 - 310 lbs. (58.9 – 140.6 kg).
4. Be aware of workers sharing the workspace to avoid becoming tangled with another worker. Steer clear of objects that could fall and impact the lifeline.
5. Inspect the work area and clear all debris and other material that could cause injuries or interfere with the operation of the device. Make sure the cable, extension strap and shock absorber are always clear of any electrical lines or other energized sources.
6. Ensure the anchorage provides the Minimum Required Fall Clearance (MRFC) in the fall path below the working / walking surface to prevent contact with a lower level or obstructions if a fall occurs. Rig to prevent or minimize swing fall hazards that occur when the anchorage is not positioned directly above the point at which the fall occurs (see Fig. 3). To minimize swing falls, anchorage points should be directly overhead or work as close to the anchorage point as possible.



7. The SRL may be attached to an overhead anchor (above the harness dorsal D-Ring) or a non-overhead anchor (below the harness D-Ring). A non-overhead anchor may be as low as foot level and may only be utilized when the SRL is properly configured using a complete ANSI rated fall arrest system that is approved for such use. Never use anchorages located below the user's feet. In sharp edge applications, do not attach the SRL in a manner that situates the edge higher than the unit. The angle of the working surface must be 90° or more with respect to vertical, never less (Fig. 4). Non-overhead anchorage points are at an increased risk of abrasion hazards due to the increased contact between the cable and the edge. Use of a foot level anchorage should be a last resort when no overhead anchorage option exists. Keep the cable between the user and anchorage connection point as close to perpendicular to the unprotected edge as possible.
8. Attach the SRL using the supplied approved carabiner (attached to the swivel eye of the SRL) to a suitable anchor as defined in the current OSHA regulations. The anchorage must be capable of supporting 5,000 lbf. (22.2kN) per attached worker and be independent of worker support. For sharp edge applications ensure the SRL is aligned in a proper horizontal position.
9. Avoid using the SRL on unprotected edges, sharp metals cut with abrasive disks, or flame cut metals, abrasive surfaces / edges, such as those present on concrete and stone, which may grind the cable or shock absorber during a fall. In sharp edge applications, only use Class 2 Sharp Edge SRL's designed and approved for those applications.

Fig. 4



OPERATION PROCEDURES

1. Complete all actions listed in the “Inspection Procedures” section.
2. Attach the self-locking snaphook (connected to the cable) to the dorsal fall arrest attachment located at the back of the full body harness. Always visually check that the self-locking snaphook freely engages into the connection eye and the keeper is completely closed with each use. Never rely solely on the feel or sound of a self-locking snaphook gate engaging. Never connect a snaphook directly to webbing unless the manufacturer's instructions specifically allow such a connection. For additional details concerning harness connection points, consult the harness manufacturer's instructions.
3. Once connected, you can move about the work area, with the cable extending and retracting along the working length as applicable. Avoid sudden movements, which may unintentionally activate the braking mechanism. Do not allow the cable to become slack – if it does, immediately remove the SRL from service for inspection. When properly used, this Self Retractable Lanyard (SRL) affords the user the fall-arrest protection required by OSHA. This device is only to be used to provide fall arrest protection.
4. If a fall occurs, the braking mechanism will engage, and the cable will stop paying out. The red indicator band on the snaphook will also become visible. Additionally, the energy absorber may deploy to limit fall arrest forces on the user. Remove any equipment from service that was subject to fall arrest forces, and store it separate from other units.
5. When used horizontally, special precautions must be taken as follows:
 - The allowable angle of redirection of the cable portion of the SRL at the edge over which a fall might occur shall be at least 90° (measured between the two sides formed by the redirected cable). (See Fig. 4).
 - The anchor point may be situated at the same height as the edge at which a fall may occur or above the edge. Anchor points below the edge are dangerous because they cause the cable to redirect at an angle sharper than 90° (see Fig. 4).
 - Never work on the far side of an opening opposite of the anchorage point (see Fig. 5).
 - Do not allow the cable, extension strap or shock absorber to drape over an edge during normal work as this may abrade, damage, or otherwise compromise the cable, extension strap or shock absorber (see Fig. 6).

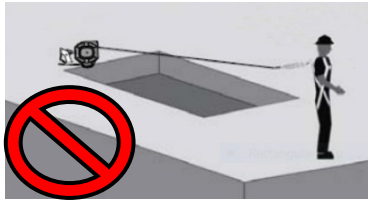


Fig. 5

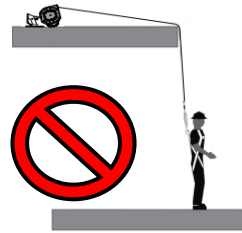


Fig. 6

- Refer to Installation procedures for limitations regarding to the allowable work area relative to the anchorage point, including factors such as swing fall and abrasion on the line at the edge.
- In the event of a fall over a sharp edge, special rescue measures may be required.

FALL CLEARANCE CALCULATIONS:

*For applications that dictate horizontal use, see Section 1.2

1.1 Overhead Anchorage

- The SRL may be anchored anywhere in the allowable attachment area, which ranges from a height above the user to level with the Dorsal D-Ring of the user's full body harness (Fig. 7).
- The Minimum Required Fall Clearance (MRFC) for this application is calculated using four factors, measured from the walking-working surface:
 - Maximum Deceleration Distance (3.5 feet, based on product testing / ANSI Z359.14)
 - D-Ring Shift and Harness Stretch (1.5 feet, see Buckingham harness instructions)
 - Swing Fall (4 foot maximum swing fall)
 - Safety Factor (2 feet per: <https://www.osha.gov/otm/section-5-construction-operations>)
- Table 1 below was calculated using SRL test data and includes all four factors listed above to determine the MRFC. Use the attached figures and table below as a guideline to determine the users MRFC. To calculate MRFC:
 - Select the users Lateral Offset Distance from the top row of Table 1.
 - Select the users Anchorage Height from the first column of Table 1.
 - The MRFC required when falling with these distances will be the cell value at the intersection of the top row and first column.

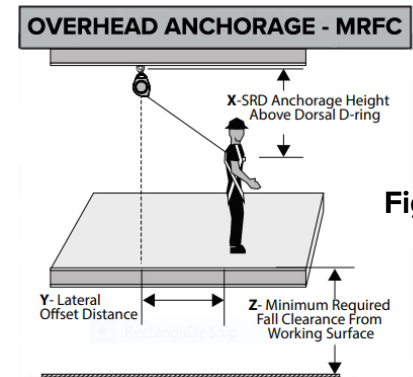


Fig. 7

Warning: The shaded areas of the table represent distances not allowable for use due to extended Swing Fall. Do not work in these shaded areas as serious injury or death may result.

TABLE 1

| SRL Anchorage Height Above D-Ring (X) | Lateral Offset Distance (Y) | | | | | | | | | | | | | |
|---------------------------------------|-----------------------------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| | ft | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 60 | | 7.0 | 7.5 | 7.5 | 7.5 | 8 | 8 | 8.5 | 9 | 9.5 | 10 | 10.5 | 11 | 12 |
| 55 | | 7.0 | 7.5 | 7.5 | 7.5 | 8 | 8 | 8.5 | 9 | 9.5 | 10 | 11 | 11.5 | 12.5 |
| 50 | | 7.0 | 7.5 | 7.5 | 7.5 | 8 | 8 | 8.5 | 9 | 9.5 | 10.5 | 11 | 12 | 12.5 |
| 45 | | 7.0 | 7.5 | 7.5 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 | 10.5 | 11.5 | 12.5 | 13 |
| 40 | | 7.0 | 7.5 | 7.5 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10.5 | 11 | 12 | 13 | 14 |
| 35 | | 7.0 | 7.5 | 7.5 | 8 | 8 | 8.5 | 9 | 10 | 10.5 | 11.5 | 12.5 | 13.5 | 14.5 |
| 30 | | 7.0 | 7.5 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10.5 | 11 | 12 | 13.5 | 14.5 | 15.5 |
| 25 | | 7.0 | 7.5 | 7.5 | 8 | 8.5 | 9 | 10 | 11 | 12 | 13 | 14.5 | 15.5 | 17 |
| 20 | | 7.0 | 7.5 | 7.5 | 8 | 9 | 9.5 | 10.5 | 11.5 | 13 | 14 | 15.5 | 17 | 18.5 |
| 15 | | 7.0 | 7.5 | 8 | 8.5 | 9 | 10.5 | 11.5 | 13 | 14 | 15.5 | 17 | 19 | 20.5 |
| 10 | | 7.0 | 7.5 | 8 | 9 | 10 | 11.5 | 13 | 14.5 | 16 | 18 | 19.5 | 21.5 | 23 |
| 5 | | 7.0 | 7.5 | 8.5 | 10 | 11.5 | 13.5 | 15 | 17 | 19 | 21 | 23 | 25 | 27 |
| 0 | | 7.0 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 31 |

| Use Table 1 To Calculate Minimum Required Fall Clearance | |
|--|--|
| 2 foot increments along the Y-axis represents the Lateral Offset Distance the user is working away from being directly under the SRL | 5 foot increments up the X-axis represent the SRL Anchorage Height above the user's Dorsal D-Ring. |
| <p>Example:</p> <p>If the user needs to work 10 feet away from directly underneath the SRL, the SRL needs to be anchored at least 15 feet above the user's Dorsal D-Ring. Minimum Required Fall Clearance (MRFC) is 10.5 feet at maximum allowable swing fall.</p> | |
| <p>Example:</p> <p>If the only Anchorage for the SRL is at Dorsal D-Ring height, 0 feet above the user's Dorsal D-Ring, the maximum allowable work zone is 4 feet away from the SRL. Minimum Required Fall Clearance (MRFC) is 11 feet at maximum allowable swing fall.</p> | |
| <p>Key to Work Zone Areas:</p> <div style="display: flex; align-items: center; gap: 20px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">□</div> = Allowable Use Area <div style="background-color: #f08080; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">■</div> = Not Allowed Use Area </div> | |

1.2 Non-Overhead Anchorage

- The SRL, when required to be used horizontally, may be anchored at or above foot level but never below (See Fig. 8).
- The Minimum Required Fall Clearance (MRFC) for this application is calculated using five factors, measured from the walking-working surface:
 - Maximum Deceleration Distance (10 Feet, based on product testing)
 - Dorsal D-Ring Height (5 feet average per: <https://www.osha.gov/otm/section-5-construction-operations>)
 - D-Ring Shift and Harness Stretch (1.5 feet, see Buckingham harness instructions)
 - Swing Fall (4 feet maximum swing fall)
 - Safety Factor (2 feet per <https://www.osha.gov/otm/section-5-construction-operations>)
- Table 2 below was calculated using SRL test data and includes all five factors listed above to determine the MRFC. Use the attached figures and table below as a guideline to determine the users MRFC. To calculate MRFC:
 - Select the users Lateral Offset Distance from the top row of Table 2.
 - Select the Setback Distance of the SRL from the edge, from the first column of Table 2.
 - The MRFC required when falling over an edge with these distances will be the cell value at the intersection of the top row and first column.

NON-OVERHEAD ANCHORAGE - MRFC

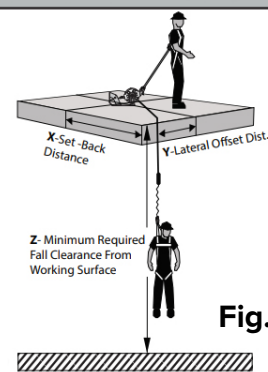


Fig. 8

Warning: The shaded areas of the table represent distances not allowable for use due to extended Swing Fall. Do not work in these shaded areas as serious injury or death may result.

TABLE 2

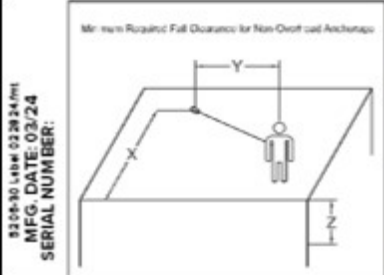
| SRL Setback Distance from Edge(X) | Lateral Offset Distance (Y) | | | | | | | | | | | | | |
|-----------------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | ft | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| | 0 | 18.5 | 20.5 | 22.5 | 24.5 | 26.5 | 28.5 | 30.5 | 32.5 | 34.5 | 36.5 | 38.5 | 40.5 | 42.5 |
| | 5 | 18.5 | 19 | 20 | 21.5 | 23 | 25 | 26.5 | 28.5 | 30.5 | 32.5 | 34.5 | 36.5 | 38.5 |
| | 10 | 18.5 | 19 | 19.5 | 20.5 | 21.5 | 23 | 24.5 | 26 | 27.5 | 29.5 | 31 | 33 | 34.5 |
| | 15 | 18.5 | 19 | 19.5 | 20 | 20.5 | 22 | 23 | 24.5 | 25.5 | 27 | 28.5 | 30.5 | 32 |
| | 20 | 18.5 | 19 | 19 | 19.5 | 20.5 | 21 | 22 | 23 | 24.5 | 25.5 | 27 | 28.5 | 30 |
| | 25 | 18.5 | 19 | 19 | 19.5 | 20 | 20.5 | 21.5 | 22.5 | 23.5 | 24.5 | 26 | 27 | 28.5 |
| | 30 | 18.5 | 19 | 19 | 19.5 | 20 | 20.5 | 21 | 22 | 22.5 | 23.5 | 25 | 26 | 27 |
| | 35 | 18.5 | 19 | 19 | 19.5 | 19.5 | 20 | 20.5 | 21.5 | 22 | 23 | 24 | 25 | 26 |
| | 40 | 18.5 | 19 | 19 | 19 | 19.5 | 20 | 20.5 | 21 | 22 | 22.5 | 23.5 | 24.5 | 25.5 |
| | 45 | 18.5 | 19 | 19 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 23 | 24 | 24.5 |
| | 50 | 18.5 | 19 | 19 | 19 | 19.5 | 19.5 | 20 | 20.5 | 21 | 22 | 22.5 | 23.5 | 24 |
| | 55 | 18.5 | 19 | 19 | 19 | 19.5 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22.5 | 23 | 24 |
| | 60 | 18.5 | 19 | 19 | 19 | 19.5 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 | 23.5 |

| Use Table 2 To Calculate Minimum Required Fall Clearance | |
|--|---|
| 2 foot increments along the Y-axis represents the Lateral Offset Distance the user is working away from being directly under the SRL | 5 foot increments down the X-axis represent the SRL Setback Distance from the nearest edge. |
| <p>Example:</p> <p>If the user needs to work 10 feet away from the SRL along the edge (Lateral Offset Distance), the SRL needs to be anchored back at least 15 feet from the edge. Minimum Required Fall Clearance (MRFC) is 22 feet at maximum allowable swing fall.</p> <p>Example:</p> <p>If the only available Anchorage for the SRL is at the edge (0 feet Setback Distance), the maximum allowable work zone is 4 feet laterally along the edge from the SRL. Minimum Required Fall Clearance (MRFC) is 22.5 feet at maximum allowable swing fall.</p> | |
| <p>Key to Work Zone Areas:</p> <div style="display: flex; align-items: center; gap: 20px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> = Allowable Use Area <div style="background-color: #ffcccc; width: 30px; height: 30px; display: inline-block;"></div> = Not Allowed Use Area </div> | |

6. Once work is completed detach the self-locking snaphook and allow the cable to slowly retract back into housing. If unit is mounted out of reach, always attach a tag line. Never let the lifeline freewheel back into the housing.

Product labels shown below for reference:

Label located in energy absorbing pack near Snaphook:



Minimum Required Fall Clearance for Non-Overhead Anchorage

1305-30 Low 02/24/01
MFG. DATE: 03/24
SERIAL NUMBER:

Sharp Edge Clearance Chart - Read Instructions for Full Details

Distance off Axis of Anchorage (Y)

| Set-Back Distance (X) | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 18.5 | 20.5 | 22.5 | 24.5 | 26.5 | 28.5 | 30.5 | 32.5 | 34.5 | 36.5 | 38.5 | 40.5 | 42.5 |
| 19 | 19.5 | 20 | 21.5 | 23 | 25 | 26.5 | 28.5 | 30.5 | 32.5 | 34.5 | 36.5 | 38.5 |
| 19.5 | 19 | 19.5 | 20 | 21.5 | 23 | 24.5 | 26 | 27.5 | 29.5 | 31 | 33 | 34.5 |
| 20 | 19 | 19 | 19.5 | 20.5 | 21.5 | 23 | 24.5 | 25.5 | 27 | 28.5 | 30.5 | 32 |
| 20.5 | 19 | 19 | 19 | 19.5 | 20 | 21 | 22 | 23 | 24.5 | 25.5 | 27 | 28.5 |
| 21 | 19 | 19 | 19 | 19 | 19.5 | 20 | 21 | 22 | 23 | 24.5 | 25.5 | 27 |
| 21.5 | 19 | 19 | 19 | 19 | 19 | 19.5 | 20 | 21 | 22 | 23 | 24.5 | 25.5 |
| 22 | 19 | 19 | 19 | 19 | 19 | 19 | 19.5 | 20 | 21 | 22 | 23 | 24.5 |
| 22.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19.5 | 20 | 21 | 22 | 23 |
| 23 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19.5 | 20 | 21 | 22 |
| 23.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19.5 | 20 | 21 |
| 24 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19.5 | 20 |
| 24.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19.5 |
| 25 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 25.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 26 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 26.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 27 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 27.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 28 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 28.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 29 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 29.5 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 30 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |

Clearance Required (Z) - Includes 2 Foot Safety Margin

WARNING: WORKING IN THIS ZONE MAY RESULT IN SERIOUS INJURY OR DEATH.

Warning: User Capacity Range 130-310 lbs.

6ft. 900lbs.

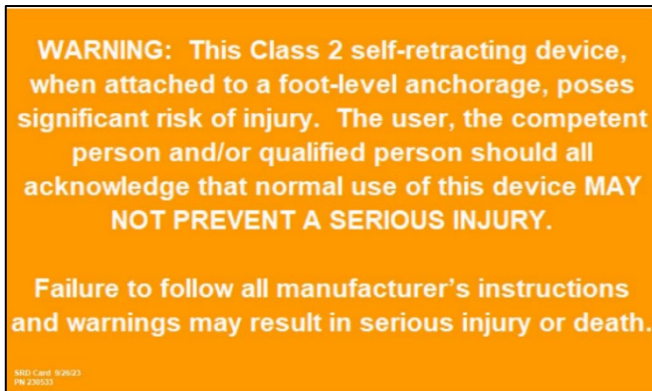
Maximum Free Fall Average Arresting Force

Maximum Deployment Distance 48"

Forces may increase when cold and/or wet

Read Instructions Before Use

**Warning Card Packed
with SRL:**



**Labels located on
Housing of Retractable:**



WARNINGS

- The manufacturer's instructions shall be supplied to users with this product. Retain these instructions for future reference.
- Read, understand, and follow all instructions and warnings attached to and/or packed with this unit as well as that of all associated equipment before each use.
- Improper use of this equipment could result in serious injury or death.
- Inspect and test before each use to ensure unit operates properly (all occupational protection equipment associated with this system must be inspected and thoroughly tested before each use). The entire system should be removed from service if any part/component shows damage, excessive wear, evidence of impact loading or does not function properly.
- Before each use, inspect that the impact load indicator located within the snaphook has not been activated. If visible, remove product from service.
- Each component / subsystem of the fall arrest system must be rated at or above the weight of the user (when fully equipped).
- The web carry handle used on select units is not to be used as an attachment, for suspension, mounting, or any load bearing applications.
- Remove this product from service if it has been subjected to the forces of arresting a fall or affecting a rescue.
- Units that have been subjected to the forces of arresting a fall or affecting a rescue shall be removed from service, tagged "UNUSABLE" and either disposed of or serviced in accordance with the manufacturer's recommendation.
- This product is intended for use by properly trained personnel only.
- Please consult with your physician prior to using this product. Do not use this product under the influence of drugs and alcohol.
- Employer - instruct employee as to proper use and warnings before use of equipment.
- Fall protection equipment, (i.e.) fall arrest, work positioning belts, retrieval, suspension etc.) should not be resold or provided to others for re-use after use by the original user.
- Never use any occupational protective equipment for anything other than its intended use.
- DO NOT use this device near live electrical lines and/or other energized sources.
- Ensure that a written rescue plan, and the means to implement it are available when using this equipment.
- This device must be attached to a compatible fall-arrest anchorage capable of supporting 5,000 lbf (22.2kN) per attached worker and be independent of worker support. If unsure of anchorage requirements consult a Competent Person. Always use locking type connectors for attachment to anchorage.
- Before installation, always identify and eliminate (when possible) hazards from the work area, including those which may interfere with or damage your fall protection equipment. Examples of hazards include overhead hazards (cranes, power lines, etc.), surface hazards (cables, hoses, etc.), and obstruction hazards (vertical columns, other workers, etc.).
- A clear fall path is necessary in order for the SRL to positively lock. Do not use the SRL in applications that have an obstructed fall path.
- Never use these units for fall protection when working on surfaces that may collapse such as but not limited to grain, cement, and powders in tanks or silos. These units may not sense that you are sinking / falling and you may sink in and suffocate. A working surface that is stable must be provided for such applications.

- Never exceed the maximum free fall distance for your fall protection.
- DO NOT use this unit if the total working load exceeds 310 lbs. (140.6 kg).
- This device is NOT to be used for towing or lifting.
- This unit is NOT intended to be used for suspension.
- Do not use this device if the cable does not retract or the brake does not function when tested.
- The cable must be kept clean and free of foreign matter.
- Do not use if the cable has cuts, kinks, abrasions, broken strands or excessive wear.
- Do not create knots in the cable.
- Never expose workers to fall hazards during training.
- Avoid prolonged use in caustic or corrosive environments.
- Do not allow the cable to remain outside the housing when not in use.
- Ensure appropriate rigging methods are used to provide a Fall Clearance in excess of the Minimum Required Fall Clearance (MRFC) to avoid contact with objects below.
- Always minimize swing falls by working directly under the anchorage or as close to the anchorage point as possible (In overhead anchorage applications). The worker must be vertically in line with this device to avoid swing-fall injuries (pendulum effect).
- When work being performed dictates that this device must be used horizontally, avoid anchoring near an edge or working with a lateral offset from your anchorage as this will increase swing fall potential.
- Anchorage shall always be positioned such that the user will be incapable of contact with any obstructions that are below the user. This includes potential swing falls.
- Always keep the anchorage as high as possible to minimize potential fall distance.
- Always use locking snap hooks and locking carabiners.
- Always wear gloves and appropriate Personal Protective Equipment when inspecting installing, or using the device / system, and handling the cable.
- Attach the self-locking snaphook of this unit only to approved fall arrest connection points on an ANSI rated harness.
- Never rely on the feel or sound of a self-locking snaphook gate engaging. Always visually check that the snaphook freely engages the harness fall arrest attachment and that the gate is completely closed with each use.
- Never allow cable to retract uncontrollably. Always use a tag line to allow slow return of the cable to housing.
- This SRL has **not** been tested with all edge substrates and is not approved for use on all edges.
- Avoid allowing the cable, energy absorbing pack, or any extending elements of the harness to pass over unprotected edges, corners or abrasive surfaces as those materials could be cut or damaged. Sharp and abrasive surfaces may include but not be limited to (steel, sheet metal, steel, metals cut with abrasive disks, or flame cut metals, concrete, block, stone, laminated materials etc.)
- Fall Arrest PPE shall always be the last method to avoid fall hazards based on the hierarchy of controls (ANSI/ASSP Z359.2). When using this device, the user shall make every effort to utilize an overhead anchorage, minimizing risks associated with a non-overhead anchorage.
- For applications that dictate horizontal use, use only components and systems specifically designed for Sharp Edge applications.
- Avoid contact of this equipment with high temperature surfaces, welding, or other heat sources, electrical hazards or moving machinery.
- This device is not to be used in horizontal applications unless properly configured for such use.
- This device is not suitable for use as or with a horizontal lifeline. Per ANSI/ASSP Z359.0, a Horizontal Lifeline is defined as “A component of a horizontal lifeline subsystem, consisting of a flexible line with connectors or coupling means at both ends for securing it horizontally between two anchorages or anchorage connectors.”
- SRL equipped with a swivel must be mounted to the attachment points in a way to avoid any exposure of the swivel mount to transverse or bending loads. This is **EXTREMELY** important in the case of a fall.
- Be aware of workers sharing the workspace. Never cross the cable of another worker or allow it to become entangled with one another's cable during use which may prevent the cable from retracting or being taut. Steer clear of objects that could fall and impact the cable.
- Never allow the cable of this unit to pass under or get wrapped around the legs, arms, neck or torso of the user or other workers.
- Never clamp off or stand on the cable nor allow the cable to become slack when in use.
- For use with one person only. Never use this device to support multiple workers.

- The braking action of this fall-arrest device requires a minimum speed to engage. The user may not reach sufficient speeds for the SRL to positively lock in certain applications such as confined spaces, or if work is taking place on slowly shifting material. The fall-arrest function will not operate if footing is on loose or sliding material such as sand or grain.
- Avoid sudden movements, which may unintentionally activate the braking mechanism.
- Never work with the SRL anchorage below your feet, increased fall distance will result.
- Lubricate only the gates of the carabiner and self-locking snaphook, do not lubricate, adjust, repair or modify any part of this device. All repairs must be made only by the manufacturer or persons, or entities authorized in writing by the manufacturer.
- Be certain this equipment is suitable for the intended use and work environment. It should only be used as personal protection equipment. If suitability for intended use is questionable, always consult your Supervisor, Safety Director or contact Buckingham Mfg. at (607) 773-2400 or 1-800-937-2825.
- All components of this SRL & System must be inspected by a competent person.
- Do not use this device if any instruction or warning is not fully understood. Telephone Buckingham Sales Department at (800) 937-2825 for clarification.
- Product covered under these instructions / warnings should not be resold / redistributed or re-used after use by original user.

STORAGE AND MAINTENANCE PROCEDURES

1. A written log of all servicing and inspection dates for this device should be maintained by the company safety officer or other competent individual.
2. SRLs which are in need of scheduled maintenance shall be tagged "UNUSABLE" and removed from service. Maintenance refers to any act of cleaning, repair, resetting etc. of equipment.
3. SRLs which are damaged or in need of maintenance should not be stored in the same location as usable equipment.
4. DO NOT leave this unit for extended periods of time in an environment, such as a sewage or fertilizer plant, where corrosion may take place. Avoid use with acids, alkaloids or other caustic chemicals, especially at elevated temperatures. Additionally, avoid use in areas that contain high concentrations of ammonia. When used near sea water or other similar environments, more frequent inspections may be necessary to monitor potential corrosive damage.
5. When not in use, store the SRL in a clean, dry and cool environment out of direct sunlight. Position the unit so that any excess water if any, is allowed to drain out. After a prolonged period of storage, thoroughly inspect the unit before use.
6. Clean the exterior of the case as well as the retractable cable with water and mild soap/detergent, rinse with water and let thoroughly air dry. DO NOT use harsh chemicals. Clean labels as required.
7. Lubricate the carabiner and self-locking snaphook gates at least weekly or as often as required to maintain smooth operation (no binding) with light weight lubricant such as WD-40®. Never attempt to lubricate, adjust, repair or modify any other part of this device. Self-Retracting Lanyards (SRL) must be returned to Buckingham for inspection and recertification at least annually, or more frequently, depending on the device's use, operating conditions, or whenever subjected to a severe free fall.

NOTE: Ensure proper size of product before use. This product cannot be returned unless it is in new / unused condition.

Inspection Record

Model #: _____ Serial #: _____ Date of Manufacture: _____

[illegible]

STATEMENT of OBSOLESCENCE:

Precise “useful life expectancy” or “shelf life” for this product is not specified, as the degree of use, conditions of use, and the degree of care and storage determines useful life. All users maintain responsibility to select proper equipment for the job, be properly trained in its use, and ensure all personnel support equipment passes inspection before each use. Upon evidence of defects, damage or deterioration, all equipment shall be removed from service immediately and tagged or marked as unusable or destroyed. Additionally, all equipment shall be inspected on a regular basis not to exceed one year by a Competent Person, as defined by OSHA/ANSI, to verify that the equipment is safe for use. In the event of any question or concern regarding the condition of such equipment, users shall remove the equipment from service for further inspection. All users must comply with OSHA/ANSI/ASTM standards prior to and in using such equipment. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

INTERNATIONAL USERS:

Notwithstanding the above, please know that certain international jurisdictions require manufacturers of equipment to provide customers with a maximum useful lifespan (sometimes referred to as a “Statement of Obsolescence”). To the extent required, Buckingham personal protective equipment manufactured from synthetic fiber materials including but not limited to items such as webbing and/or rope are subject to a maximum useful lifespan of ten (10) years from the date of manufacture. As stated above proper usage, storage, maintenance, and care impacts the useful lifespan of equipment. Extreme circumstances may require that product must be retired after only one use. This statement is made in conformance and compliance with BS EN 365:2004. International users must ensure that product inspections are completed by Competent Persons as defined by international standards including but not limited to British Standard (“BS”). If equipment fails any inspections, it must be immediately withdrawn from service and destroyed. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

OUR GUARANTEE:

We guarantee the equipment we manufacture to be free from defects in material and workmanship. We will repair any equipment deemed to be defective which is returned to us by the original purchaser. However, this guarantee is void if any product is changed or altered in any way, or if the product is used in a manner other than for which it is intended. This express guarantee supersedes all other expressed or implied guarantees, obligations or liabilities. There are no implied warranties of merchantability or fitness for a particular purpose and as such, all implied warranties are specifically disclaimed.

LIMITATION ON LIABILITY:

In no event will Buckingham or buyer be liable to the other for lost revenues, lost profits or any other indirect, consequential, special or punitive losses or damages, however caused, whether in action for breach of contract, strict liability, tort, or otherwise, even if advised of the possibility of such losses or damages. In no event will Buckingham’s liability exceed the total amount paid by the buyer to Buckingham for the product or equipment giving rise to such claim(s).

Please see other terms and conditions relating to this product at <https://buckinghammfg.com/terms-conditions/>

REGISTRATION:

Before use of the product, ensure to register and confirm the product at www.buckinghammfg.com/register.

BUCKINGHAM MFG.
BINGHAMTON, NY
1-800-937-2825
www.buckinghammfg.com