

User Instruction Manual

Rigid Lifelines® Gravity Guard™ Roofer's Kit



Part Number: RL-RK1

ISO 9001: 2008 Registered
Manual 103-0064



General Safety Information

Under Penalty of Law

- This *User Instruction Manual* is not to be removed except by the user of this equipment.
- Current *User Instruction Manuals* must always be available to the user.
- Read and understand these instructions before using equipment.
- ***Do not throw away these instructions.***



WARNING

Misuse or failure to follow warnings and instructions may result in serious personal injury or death.

Users must read and understand the *User Instruction Manual* provided with the product and be properly trained by their employer prior to use per OSHA 29 CFR 1910.66 and 1926.503 or applicable local standards.

Compliant fall protection and emergency rescue systems help prevent serious injury during fall arrest.

For instructions about proper use, refer to supervisor, *User Instruction Manual*, or call Rigid Lifelines at: 844-467-4443.

Purpose

The Rigid Lifelines® Gravity Guard™ Roofer's Kit (RL-RK1) is a cost-effective, compliant, and complete personal fall arrest system for roof applications contained in a storage bucket for easy transporting and storage.



Figure 1: Rigid Lifelines® Gravity Guard™ Roofer's Kit (RL-RK1)

Model RL-RK1 includes:

- Evolve™ Lightweight Full Body Harness with mating buckle leg straps.
- 50 ft. (15.24 m) of 5/8 in. (1.6 cm) diameter polyester rope with attached 3 ft. (0.9 m) shock absorbing manual rope grab. Minimum tensile strength 6,000 lb. with snap hook on one end and taped on the other end.
- Reusable roof anchor [RL-01(A)] with attachment D-ring.
- Installation Nails.
- Storage bucket with lid.

Table of Contents

General Safety Information	2
Purpose	3
General Instructions For Use	5
General Limitations For Use	6
Fall Arrest System Components	6
Anchorage Requirements	7
Connection Compatibility Limitations	8
System Compatibility	9
Roof Anchors and Roof Fall Protection System Kits	9
Temporary and Permanent Roof Anchors	11
Temporary Reusable Roof Anchor [RL-01(A)]	12
Rope Grabs (RL-3002)	13
Warnings For Vertical Lifelines	14
Connector System Compatibility	14
Full Body Harness	15
Materials	20
Installation of Gravity Guard™ Roofer's Kit Components	20
Clearance Requirements	21
Swing Falls	23
Training	24
Inspection And Maintenance	24
Frequency	24
Cleaning And Storage	30
Servicing	30
Labeling	30
Service Policy	35
Warranty	Back Cover

General Instructions For Use

- For use by ONE person only. Maximum capacity is 310 lbs. (140.6 kg), including tools — DO NOT EXCEED THIS WEIGHT.
- Anchor points must be capable of supporting 5,000 lbs. (22.2 kN) in the direction permitted by the system while in use (or provide a 2:1 safety factor).
- All instructions, warnings and requirements pertaining to the individual system components must be read, understood and followed.
- Rope grab must be oriented on the lifeline with the engraved arrow pointing toward the roof anchor for proper operation of the system.
- Maximum system arrest force is 900 lbs. (4 kN).
- Failure to follow all instructions and limitations on the use of this equipment may result in serious personal injury or death.
- Before using a personal fall arrest system, employees shall be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components.
- Prior to each use, inspect all personal fall arrest system equipment for wear, damage, and other deterioration. Defective components must be removed from service **immediately** in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.
- Thoroughly evaluate and plan all elements of your fall protection system(s) before using your equipment. Make sure that your system is appropriate for your needs and facility. Also be sure to calculate fall clearance and swing fall clearance.
- Users must have a rescue plan and the means to implement it. This plan must provide prompt employee rescue or assure that employees have the ability to rescue themselves in the event of a fall.
- Store this equipment in a cool, dry, and clean environment that is out of direct sunlight when not in use.
- After a fall occurs, this equipment must be removed from service and destroyed immediately.
- Never use fall protection equipment for purposes other than those for which it was designed. Fall protection equipment should never be used for towing or hoisting.
- Use in a highly corrosive or caustic environment dictates a more frequent inspection and servicing program to ensure that the integrity of the system is maintained.
- Always check for obstructions below the work area to make sure potential fall path is clear.
- Allow adequate fall clearance below the work surface.

General Limitations For Use

- This equipment is designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C).
- Do not expose this equipment to chemicals or harsh solutions that may have a harmful effect. Contact Rigid Lifelines with any questions.
- Use caution when working with this product near moving machinery, electrical hazards, sharp edges, or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.
- Minors, pregnant women, and anyone with a history of back and/or neck problems should not use this equipment.
- Do not use or install equipment without proper training from a “Competent Person,” as defined by OSHA 29 CFR 1926.32(f).
- Only Rigid Lifelines, or entities authorized in writing by Rigid Lifelines, shall make repairs or alterations to the equipment.
- All synthetic material must be protected from slag, hot sparks, open flames, or other heat sources. The use of heat resistant materials is recommended in these applications.

Fall Arrest System Components

System Components Overview

A complete fall arrest system consists of the following components: Anchorage, Body Support, and Connecting Devices.

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

Anchorage

OSHA 29 CFR 1926.502 states that an anchorage, “Shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 lb. (22.2 kN) 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.”

Body Support

A body support is the component of a personal fall arrest system that is worn on or around the body. Per OSHA 29 CFR 1926.502 (effective January 1, 1998), body belts are not acceptable* as part of a personal fall arrest system. **Full body harnesses must be used for all fall arrest systems.**

* **Note:** The use of a body belt is acceptable in a positioning device system.

Connecting Devices

A connecting device is the link between the body support and anchorage. Connecting devices will vary depending on the application.

Anchorage Requirements

All anchorages to which the Personal Shock Absorbers and Shock Absorbing Lanyards attach must meet the requirements of OSHA 29 CFR 1910.66 and ANSI Z359.1-2007. OSHA states:

Anchorages to which personal fall arrest equipment is attached shall be capable of supporting at least 5,000 pounds (22.2 kilonewtons) 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, under the supervision of a qualified person.

ANSI Z359.1-2007 states that anchorages in a personal fall arrest system must have strength capable of sustaining static loads applied in all directions permitted by the system of at least:

- (a) Two times the maximum arrest force permitted on the system with certification, or
- (b) 5,000 lb. (22.2 kN) in the absence of certification

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

Anchorages used in controlled descent and rescue systems must be capable of supporting loads of 3,100 ft-lb. (13.8 kN) for non-certified anchorages or a 5:1 safety factor for certified anchorages per ANSI Z359.4-2007.

Anchorages used in restraint systems must be capable of supporting loads of 1,000 ft-lb. (4.5 kN) for non-certified anchorages or two times the foreseeable force for certified anchorages per ANSI Z359.2-2007.

Anchorages used in work positioning systems must be capable of supporting loads of 3,000 ft-lb. (13.3 kN) for non-certified anchorages or two times the foreseeable force for certified anchorages per ANSI Z359.2-2007.

Anchorages should be located as vertically as possible above the user's head and be positioned as not to exceed the maximum allowable free fall for the system.

Connection Compatibility Limitations

All Rigid Lifelines® equipment must be coupled to compatible connectors. OSHA 29 CFR 1926.502 prohibits snap hooks from being engaged to certain objects unless two requirements are met:

1. It must be a locking type snap hook.
2. It must be “designed for” making such a connection.
 - a. “Designed for” means that the manufacturer of the snap hook specifically created the snap hook to be used to connect to the equipment in question.

The following conditions can result in rollout* when a non-locking snap hook is used. Avoid the following connections (also see Figure 2):

- 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. (ANSI Z359.0-2007)



Figure 2

System Compatibility

All Rigid Lifelines® protection products are designed for use with Rigid Lifelines-approved components. Substitution or replacement with non-approved component combinations or subsystems or both may affect or interfere with the safe function of each other and endanger the compatibility within the system. This incompatibility may affect the reliability and safety of the total system.

Roof Anchors and Roof Fall Protection System Kits

Before Installing Any Roof Anchor or Roof Fall Protection System

- Carefully inspect to ensure that it is in usable condition.
- Check for missing or damaged parts.
- Do not use if any component does not operate properly or appears to be damaged in any way.
- Refer to the inspection section of this manual.
- Only trained and competent personnel should install and use this equipment.

Fall Clearance

Anchor and system must be installed and used in such a manner as to minimize the potential for a swing fall hazard and limit free fall distance to 6 feet (1.8 m) or less. Ensure that the anchor point selected is at a height that will not allow a lower level to be struck should a fall occur. To ensure adequate fall clearance, consider the following:

- Rope grabs have a maximum fall arrest distance of 39 in. (1 m).
- Synthetic rope lifelines may stretch up to 5%. For synthetic rope lifelines, add 1 ft. (0.3 m) of fall clearance for each 20 feet (6 m) of rope above the connection point.
- Always remember that shock absorbers will elongate when subjected to fall arrest forces. Refer to the labels on the connecting device to obtain the maximum elongation distance.
- In addition to the above, it is essential to consider other components and variables, including but not limited to the height to the worker's back D-ring, the length of the lanyard, the position of the worker in relation to the anchorage, and potential harness stretch of up to 1 ft. (0.3 m).
- Rigid Lifelines recommends that a 3 ft. (0.9 m) safety factor be added to all fall clearance calculations.
- Call Rigid Lifelines Technical Service if there is any question about calculating fall clearance.

General Roof Anchor Warnings

- Fall arrest systems must be rigged in accordance to regulatory requirements. All instructions and warnings provided with the components of the personal fall arrest system must be read, understood, and followed.
- Make sure that all connections within the fall arrest system are compatible.
- The anchorage connector must be compatible with the snap hook or carabiner of the connecting device and must not be capable of causing a load to be applied to the gate/keeper.
- Use only locking carabiners, locking snap hooks or other Rigid Lifelines-approved connectors or connecting devices to attach to this equipment.
- Never use an anchorage connector which will not allow snap hook or carabiner gate/keeper to close.
- Rigid Lifelines roof anchors and roofing system kits are designed **FOR USE BY ONE PERSON ONLY**.
- Never work above the roof anchor (i.e., higher level, dormer, higher roof structure, etc.) Use of these systems is not suitable when the user is positioned on an unstable surface, fine grain material, or particulate solids such as sand or coal.
- Lifelines must be kept clean.
- Never allow the lifeline to become slack between the rope grab and roof anchor.
- Never allow the lifeline to pass under or entwine around arms, legs, neck or any other obstacle.
- Do not tie knots in lifelines.
- Use rope grabs only with the appropriate vertical lifeline included in the system kit.
- Do not use system if rope grab does not lock onto the lifeline.
- The structure that this anchor (system) is attached to must be capable of supporting 5,000 lbs. (22.2 kN) per user attached; or be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system which maintains a safety factor of at least two.
- All roof anchors, when installed per Rigid Lifelines instructions as part of a Rigid Lifelines personal fall arrest system, meet the OSHA anchorage strength requirement of maintaining a safety factor of at least two.

Temporary and Permanent Roof Anchors

Rigid Lifelines® temporary roof anchors are anchorage connectors designed for roofing applications and are to be used with complete Rigid Lifelines Roof Systems.

The RL-01(A) roof anchor (Figure 3) is a reusable anchorage connector designed to be repositioned as work progresses, provided that the roof anchor has not seen fall arrest forces and has not been damaged in any way (refer to the inspection section of this manual). It is recommended that new fasteners/hardware be used each time the roof anchor is installed.

Figure 3: Reusable Anchorage Connector [RL-01(A)]



Rigid Lifelines RL-05 roof anchor (Figure 4) may only be used as a single use temporary anchor point and must not be used where permanent anchors are needed. Additionally, the RL-05 roof anchor is designed for single use.

Figure 4: Single Use Temporary Anchor Point (RL-05)



Where permanent anchors are needed, use Rigid Lifelines RL-02(A) permanent roof anchors (Figure 5).

Figure 5: Permanent Roof Anchor [RL-02(A)]



Temporary Reusable Roof Anchor RL-01(A)

Warnings and Limitations

- For use by ONE person only. Maximum capacity is 310 lbs. (140.6 kg), including tools — **DO NOT EXCEED THIS WEIGHT.** The RL-01(A) is for use by the original installer only.
- Anchor points must be capable of supporting 5,000 lbs. (22.2 kN) in the direction permitted by the system while in use (or provide a 2:1 safety factor).
- The RL-01(A) roof anchor is designed for rooftop installations on fully sheathed roofs comprised of wood members. Do not install on un-supported roof structures such as eaves or gable overhangs. Do not install on fascia boards.
- The RL-01(A) roof anchor must be installed at least 2 ft. (0.6 m) from any roof edge.
- Due to the fatiguing of the nails, it is recommended that new nails be used every time the anchor is installed. The roof anchor must be inspected before each use.
- The RL-01(A) roof anchor must be used in conjunction with a shock absorber that limits forces to 900 lbs. (4 kN) or less.

Installation

1. Locate and mark solid roof members/support structures (i.e., studs, joists, rafters, trusses, etc.) under roof sheathing at the location where the roof anchor will be installed.
2. Install the RA-01 Roof Anchor with 16D 3-inch nails.



WARNING

Fill all roof anchor holes with 16D 3-inch nails to attach the RL-01(A) roof anchor. All nails must pass through the sheathing and into a support structure. If this warning is not followed, the anchorage connection will be weakened and serious injury or death could occur in the event of a fall.

Attach to the D-ring only with a locking snap hook, locking carabiner, or other Rigid Lifelines-approved connector or connecting device.

Rope Grabs (RL-3002)

Warnings For Rope Grabs/Wire Rope Grabs

- For use by ONE person only. Maximum capacity is 310 pounds (140.6 kilograms), including tools — **DO NOT EXCEED THIS WEIGHT.**
- Do not use if any part of the device appears to be damaged.
- Do not attempt to service the device or alter it in any way.
- Attach the device to appropriate vertical lifelines only.
- Do not use this product on unstable surfaces, fine grain materials, or particulate solids (ex: sand or coal).
- Maximum arrest distance: 39 inches (1 meter).

Warnings For Vertical Lifelines

- Rigid Lifelines® vertical lifelines have a minimum tensile strength of 6,000 pounds (27 kilonewtons). **Note:** OSHA requires a minimum tensile strength of 5,000 pounds (22.2 kilonewtons).
- Lifelines must be attached independently of the working surface and anchored above the user to prevent a swing fall.
- Lifelines must be kept clean.
- Never allow the lifeline to become slack or to pass under or entwine around arms, legs, neck, or any other obstacle.
- Do not tie knots in lifelines.
- When evaluating your workspace for fall clearance, consider these lifeline elongation characteristics in your calculations:
 - Rope stretch = 5%
 - Wire rope stretch = 0.5%

Connector System Compatibility

- A Competent Person must ensure compatibility of all connections and all system elements.
- Do not use the system if the device does not lock onto the lifeline or if any component in the system does not operate properly.
- Install and use device and lifeline in a manner that reduces potential swing fall.
- Allow sufficient clearance in the event of a free fall. For synthetic rope lifelines, add 1 foot (.3 meters) of fall clearance for every 20 feet (6 meters) of rope above the connection point. If a shock absorber is used, you must also allow for an additional 3.5 feet (1.06 meters) maximum elongation.
- Rig system to limit free fall distance to 6 feet (1.8 meters) or less.
- Do not expose this equipment to harmful chemicals or solutions. Contact Rigid Lifelines with questions.
- Use caution when working with this product near moving machinery, electrical hazards, sharp edges, or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.
- Minors, pregnant women, and anyone with a history of back and/or neck problems should not use this equipment.
- Do not use or install equipment without proper training from a “Competent Person” as defined by OSHA 29 CFR 1926.32(f).
- Only Rigid Lifelines, or entities authorized in writing by Rigid Lifelines, shall make repairs or alterations to the equipment.



WARNING

Rigid Lifelines® Rope Grab (RL-3002) assembly and vertical lifelines are designed for use with Rigid Lifelines approved components. Substitution or replacement with non-approved component combinations, subsystems, or both may reduce the equipment function and endanger the system compatibility. This incompatibility may affect the reliability and safety of the total system.

Always use Rigid Lifelines Rope Grab assembly with specified Rigid Lifelines vertical lifelines. Vertical Lifelines must have a minimum tensile strength of 6,000 pounds (27 kilonewtons).

Full Body Harness

A full body harness must be inspected prior to each use for wear, damage, and other deterioration. All webbing must be inspected for tears, cuts, fraying, abrasion, discoloration, or other signs of wear and damage. Sewn terminations should be secure, complete, and not visibly damaged. No load indicators shall be deployed. Damaged and other deteriorated and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.

Donning a Vest Style Full Body Harness



WARNING

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

There must be a functional rescue plan if users of fall protection systems cannot rescue themselves.

Note: Sewn terminations should be secure, complete, and not visibly damaged. No load indicators shall be deployed. Damaged and other deteriorated and defective components must be immediately removed from service in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.

Fitting an Evolve™ Full Body Harness

1. Hold the dorsal (back) D-ring of the harness and shake to allow all straps to fall into place; see Figure 6. Straps must not be buckled or twisted.



Figure 6

2. Slip shoulder strap over one shoulder, then pull the other shoulder strap around the back and over the second shoulder — much like putting on a jacket; see Figures 7 and 8. The dorsal D-ring will be located on your back while the chest strap is located in the front. Straps must not be tangled as the harness hangs freely from shoulders.



Figure 7



Figure 8

3. Pull one leg strap between your legs and connect it to the opposite end on the same side; see Figures 9 through 16. Repeat with second leg strap. Ensure that the leg straps are not twisted or crossed. Leg straps must be comfortably snug to achieve proper adjustment.

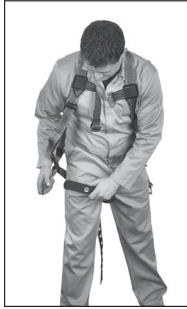


Figure 9



Figure 10

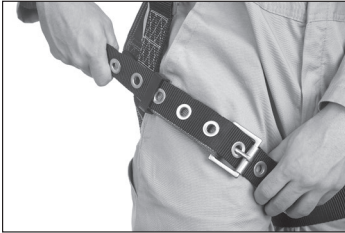


Figure 11



Figure 12



Figure 13



Figure 14



Figure 15



Figure 16



WARNING

Failure to have the leg straps of the Evolve™ Full Body Harness properly adjusted during fall arrest may result in serious personal injury or death.

4. Fasten the chest strap just above the nipple line; see Figures 17 and 18. Chest strap should be snug with excess strap-length secured through the web keepers; see Figures 19 and 20.



Figure 17



Figure 18



Figure 19



Figure 20

5. Adjust shoulder straps* with the two adjusters located at the lower end of the shoulder strap. Adjust the left and right sides to the same length; see Figure 21.



Figure 21

The chest strap (and front D-ring, if applicable) must be centered on your lower chest.

*Adjustment of the shoulder straps may cause the dorsal D-ring to move and may need to be repositioned up or down as needed to achieve correct position; see Figure 22.

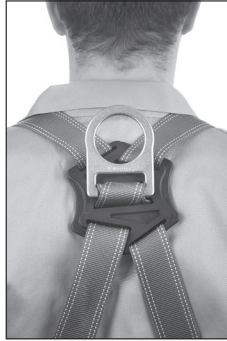


Figure 22

6. After all straps have been tightened and harness fits snugly, secure all excess straps through the web keepers; see Figures 23 and 24.



Figure 23



Figure 24

Materials

Webbing

All Rigid Lifelines® full body harnesses are constructed with 1¾ in (44 mm) polyester webbing.

Hardware

All hardware on the full body harness meet the ANSI Z359.1-2007 standard and OSHA 29 CFR 1910.66 and 1926.502 requirements.


Installation of Gravity Guard™ Roofer's Kit Components

1. Install Roof Anchor

Refer to pages 12-13 of this manual for installation of the RL-01(A) roof anchor.

2. Connect Lifeline Snap Hook to Roof Anchor D-ring

The lifeline snap hook must be connected to the roof anchor D-ring to ensure that the rope grab is pointed in the correct direction for proper operation. Ensure that the snap hook completely closes and locks; see Figure 25.

**WARNING**

Engraved arrow marking on rope grab must point toward lifeline snap hook for system to operate correctly and ensure user safety. (See Figure 26.)

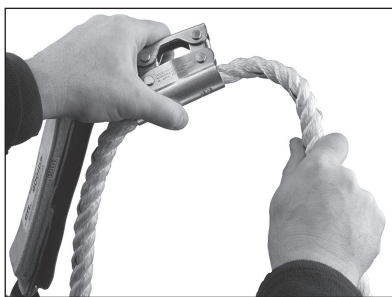


Figure 25



Figure 26

Attach lifeline snap hook to roof anchor D-ring

3. Connect Lanyard Shock Absorber Pack Snap Hook To Full Body Harness Dorsal (Back) D-Ring

Ensure that snap hook completely closes and locks.

Clearance Requirements

These illustrations are an example of how to calculate fall clearance when using a self-retracting lanyard or a shock-absorbing lanyard.

Image 1 shows a self-retracting lanyard anchored overhead with the other end connected to the dorsal D-ring of a full body harness. When positioning a self-retracting lanyard, include the following distances in your calculations.

Using the Defy™ Self-Retracting Lanyard will require a total fall clearance of approximately 7.5 feet (2.3 meters) as measured from the working level to the nearest obstruction below. The total fall clearance combines the sum of the maximum allowable fall arrest distance of 54 inches or 4.5 feet (1.4 meters) and the safety factor of 3 feet (0.9 meters).

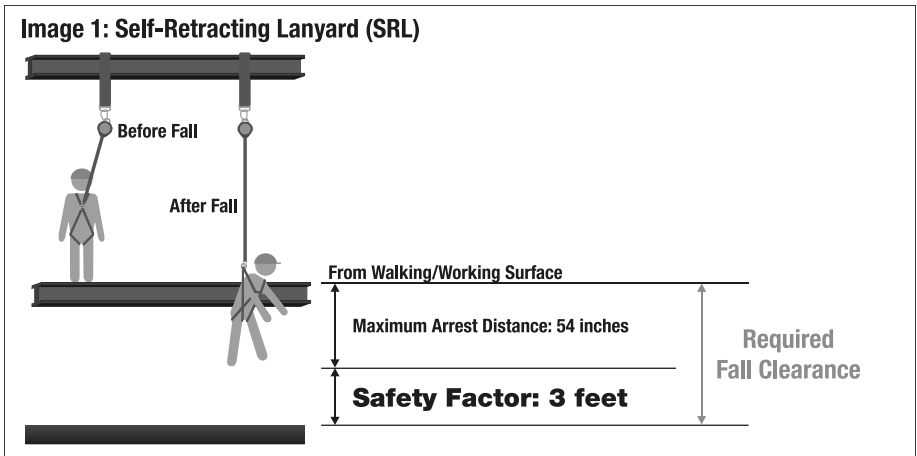
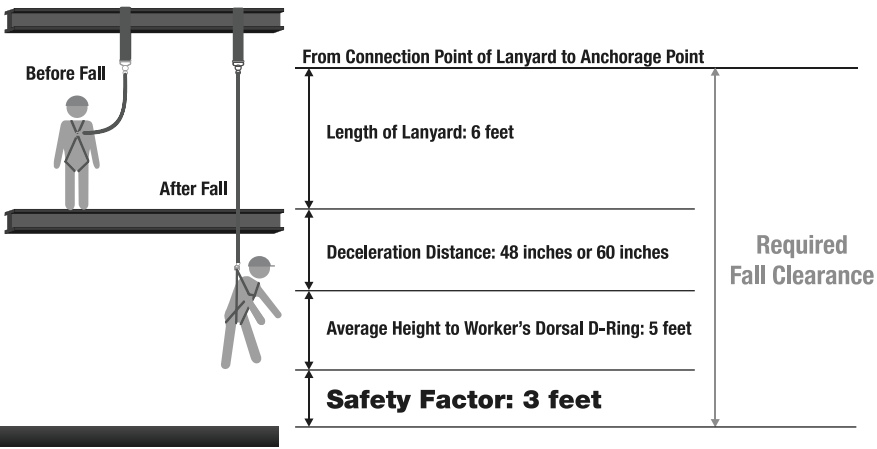


Image 2 shows a shock-absorbing lanyard anchored overhead with the other end connected to the dorsal D-ring of a full body harness. Note that the length of your shock-absorbing lanyard in relation to where it is attached is directly related to the amount of fall clearance that you will need. When using a shock-absorbing lanyard, include the following distances in your calculations.

Using the 6 Foot Connex™ Shock-Absorbing Lanyard will require a total fall clearance of approximately 18 feet (5.5 meters) as measured from the anchorage point of lanyard to the nearest obstruction below. The total fall clearance combines the sum of the length of the lanyard, the maximum elongation of the lanyard (4 feet or 1.2 meters), the average distance between the worker's dorsal D-ring (5 feet or 1.5 meters), and the safety factor (3 feet or 0.9 meters).

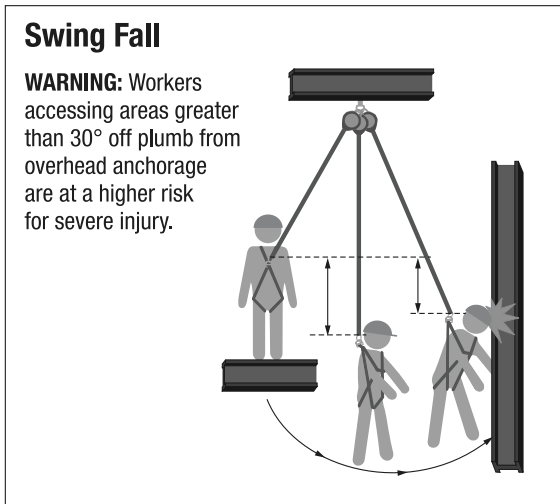
Using an extended free fall (12 foot) Connex Shock Absorbing Lanyard will require a total fall clearance of approximately 20 feet (6.1 meters) when anchored at foot level and measured from the anchorage point of lanyard to the nearest obstruction below. The total fall clearance combines the sum of the length of the lanyard, free fall distance, the maximum elongation of the lanyard (5 feet or 1.5 meters), the average distance between the worker's dorsal D-ring, (5 feet or 1.5 meters), and the safety factor (3 feet or 0.9 meters).

Image 2: Shock-Absorbing Lanyard (SAL)



Swing Falls

To minimize the possibility of a swing fall, work as directly under the anchorage connector as possible. Striking objects horizontally, due to the pendulum affect, 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.



WARNING

Worker's accessing areas greater than 30° off-plumb from overhead anchorage are at a higher risk for severe injury.

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

Training

Employers are responsible for providing training to any employee who may be exposed to fall hazards. Training will enable an employee to recognize and reduce fall hazards. Training must be conducted by a Competent or Qualified Person. Trainer and trainees must not be exposed to fall hazards during the training course.

Inspection And Maintenance

Rigid Lifelines Gravity Guard™ Roofer's Kit fall protection system must be visually inspected by the user before each use and inspected by a Competent Person on a regular basis.

If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service immediately.

Any equipment that has been subjected to the forces of arresting a fall must be removed from service immediately.

Note: Only manufacturer, or entities authorized in writing by the manufacturer, may make repairs to the product. Otherwise, equipment must not be altered in any way.

Frequency

All equipment must be inspected prior to each use according to the manufacturer's instructions. Annual inspections must also be performed by an OSHA defined Competent Person other than the user. All equipment should be inspected by a Qualified Person on a regular basis.

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

All markings must be legible and attached to the equipment.

Perform the following procedures (if applicable) to your product and/or system:

Roof Anchor Inspection

Inspect product for any of the following: bent, cracked, distorted, worn, malfunctioning or damaged parts; rough or sharp edges; loose fasteners or missing parts/components; corrosion; deterioration; signs that indicate the product has been subjected to a fall arrest; or any other indications of damage/problems that may affect the integrity and operation of the product. If in doubt, contact the manufacturer.

Full Body Harness Inspection

Full body harnesses must be inspected prior to each use and annually by an OSHA-defined “Competent Person” other than the user.



WARNING

If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service. Any harness with noticeable wear or damage must be removed from service immediately. Contact Rigid Lifelines for help with replacement.

After a fall occurs, or if any part of the load indicator warning (located on webbing below dorsal D-ring pad) is showing, the full body harness must be removed from service. Figure 27 shows an intact load indicator, while Figure 28 shows a deployed load indicator.

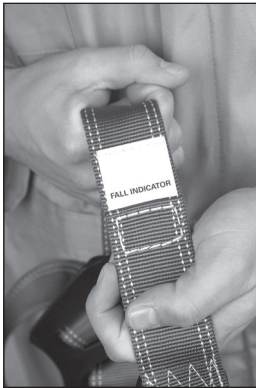


Figure 27



Figure 28

All components of the full body harness must be inspected. Inspect labels for presence and legibility.

To Inspect Webbing

Bend a portion of the webbing 6-8 in. (15-20 cm) into an upside-down 'U' shape; see Figure 29. Continue along all webbing inspecting for tears, cuts, fraying, abrasion, discoloration, burns, holes, mold, pulled or broken stitches, or other signs of wear and damage.



Figure 29

Adjust all keepers, buckles, padding, and D-ring to inspect webbing hidden by these components.

Sewn terminations must be secure, complete, and not visibly damaged.

Check all buckles for damage, distortion, cracks, breaks, and rough or sharp edges. Inspect for any unusual wear, frayed or cut fibers, or broken stitching of the buckle attachments. Make sure buckles properly engage; see Figure 30.



Figure 30

Tongue buckle/grommet tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame. Inspect for loose, distorted, or broken grommets; see Figure 31. Webbing should not have additional punched holes.



Figure 31

The outer bars and center bars on friction and slotted mating buckles must be straight.

Ensure that the Quick-Connect buckle's dual-tab release mechanism is free of debris and engages properly. Double-check the buckle locking mechanism by tugging on both halves of the buckle to make sure it is firmly connected and will not disengage.

All markings must be legible and attached to the product.

All hardware must be free of cracks, sharp edges, deformation, corrosion, or any evidence of defect.

Rope Grab Inspection

Inspect product for any of the following: bent, cracked, distorted, worn, malfunctioning or damaged parts; rough or sharp edges; loose fasteners or missing parts/components; corrosion; deterioration; signs that indicate the product has been subjected to a fall arrest; or any other indications of damage/problems that may affect the integrity and operation of the product. If in doubt, contact the manufacturer.

Be sure that rope grab operates properly, freely and only as intended by the manufacturer.

Lanyard/Vertical Lifeline Inspection

When inspecting lanyards and vertical lifelines, begin at one end and work to the opposite end. Slowly rotate the lanyard or lifeline so that the entire circumference is checked; see Figure 32.

Webbing/Stitches: While bending webbing over a pipe or mandrel, observe each side of the web lanyard. This will reveal any cuts, snags, or breaks. Swelling, discoloration, cracks, and/or charring are obvious signs of chemical or heat damage. Observe closely for any breaks in the stitching.



Figure 32

Rope: Rotation of the rope lifeline while inspecting from end-to-end will bring to light any fuzzy, worn, broken or cut fibers; see Figures 33 and 34. Weakened areas from extreme loads will appear as a noticeable change in original diameter. The rope diameter should be uniform throughout, following a short break-in period.



Figure 33

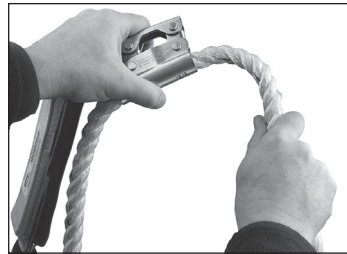


Figure 34

Snap Hooks/Thimbles: Inspect closely for hook and eye distortions, cracks, breaks, corrosion, pitted surfaces, and rough or sharp edges; see Figure 35. The gate (keeper) should seat into the nose without binding and should not be distorted or obstructed. The gate spring should exert sufficient force to firmly close the gate. When the gate is closed, the locking mechanism **MUST** prevent the gate from opening. The thimble must be firmly seated in the eye of the splice, and the splice should have no loose or cut strands. The edges of the thimble must be free of sharp edges, distortion, or cracks.



Figure 35

Pack-Type Shock Absorber: The outer portion of the pack should be examined for burn holes and tears. Stitching on areas where the pack is sewn to the lanyard or hardware should be examined for loose strands, rips, deterioration or other signs of activation; see Figures 36 and 37.



Figure 36



Figure 37

Carabiners: Inspect product for any of the following: bent, cracked, distorted, worn, malfunctioning or damaged parts; rough or sharp edges; loose fasteners or missing parts/components; corrosion; deterioration; signs that indicate the product has been subjected to a fall arrest; or any other indications of damage/problems that may affect the integrity and operation of the product. If in doubt, contact the manufacturer.

Check the carabiner to be sure that it operates freely and only as intended by the manufacturer. Ensure that gate (keeper) is seated properly without binding and is not distorted or obstructed. The gate spring should exert sufficient force to firmly close the gate. When the gate is closed, the locking mechanism **MUST** prevent the gate from opening.



WARNING

Devices that do not pass inspection or have been subjected to fall arresting forces must be removed from service.

Cleaning and Storage

Basic care of all Rigid Lifelines® Fall Protection equipment will prolong the durable life of the unit and will contribute toward the performance of its vital safety function. Proper storage and maintenance after use are as important as cleansing the equipment of dirt, corrosives, or contaminants. Storage areas should be clean, dry and free of exposure to fumes or corrosive elements.

Clean equipment periodically with a sponge dampened in a mild solution of water and commercial soap or detergent to remove any dirt, paint, or other materials that may have accumulated. Wipe dry with a clean cloth and/or hang freely to dry away from excessive heat, steam, or long periods of sunlight. Store in a clean, dry area when not in use.

Servicing

Servicing of Rigid Lifelines® equipment must only be carried out by Rigid Lifelines or persons or entities authorized in writing by Rigid Lifelines. A record log of all servicing and inspection dates for this equipment must be maintained. Only original Rigid Lifelines replacement parts are approved for use in this equipment. Non-repairable devices that do not pass inspection must be disposed of in a manner to prevent inadvertent further use. Contact Rigid Lifelines at 844.467.4443 if you have any questions.

Labeling

Reusable Roof Anchor

Instructions: This anchor when installed in accordance with the manufacturer's instructions included on the time of shipment will provide an anchor point at the peak of the roof which is suitable for use with compliant fall arrest systems. The roof peak anchor should be used in conjunction with roof bracket walk plants when installing conventional roofing systems on truss, rafter and plywood sheathing construction. Begin by placing the first anchor along the peak of the roof at a point 5 ft.

from the beginning of the roof line. Additional anchors should be placed no more than every 10 ft., with the last anchor 5 ft. from the end of the roof line. Remove ridge vents when attaching peak anchors. Each anchor should be fastened to the roof using 16D 3-inch nails. The center row of holes must be secured to the plywood sheathing. Use all holes provided in nailing the anchor to the building structure. Inspect rather from the inside structure to ensure the wood is sound and free of



DO NOT REMOVE THIS LABEL.

any deterioration. When working on a flat surface, the anchor can be installed by extending the two flat plates out, leaving the D-Ring in the middle. This roof anchor must be visually inspected before each use and also inspected by a competent person at least every six (6) months from the date of purchase. Do not use if roof anchor has any signs of cracks, corrosion, dents, deformities, or bending. **Meets ANSI Z359.1 2007, A10.32 (2012) and OSHA 1910.156**

Reusable Roof Anchor

Model #: RL-01A

Capacity: 310 lbs.

User: 1 Person Max.

Anchor Point: Must

withstand 5000 lbs. per

worker attached

DO NOT REMOVE THIS LABEL.

Rope Grab

WARNING! Follow manufacturer's instructions provided with this lanyard at time of shipment. Fully read and understand these instructions before using. Improper use of this product could result in serious injury or death. Avoid contact with sharp edges and abrasive surfaces that can cut or damage the webbing or components. Make only safe, compatible connections. For use only with other OSHA and ANSI compliant equipment as part of a personal fall arrest system. Remove this lanyard from service if a fall has occurred. **USER MUST INSPECT BEFORE EACH USE.**

Attach shock absorber end of lanyard to fall arrest D-Ring on harness.

Shock Absorbing Lanyard: Meets ANSI Z359.13, A10.32 (2012) and OSHA requirements.

Serial Number :

Date of Manufacture :

Model Number : RL-3002

Max. Free Fall Limit : 6 Ft.

Capacity : 130-310 lbs. max including tools

Max. Elongation : 48"

Material : Polyester

DO NOT REMOVE THIS LABEL.



Full Body Harness

Evolve™ logo



Evolve™ Warning Label



****This entire label must be read and understood before using this harness**The entire user's manual for this harness must also be read and understood before using this harness**If you do not have the user's manual for this harness contact RIGID LIFELINES for a free copy****

WARNINGS: **THIS HARNESS MUST BE INSPECTED PRIOR TO EACH USEInspect for rips, tears, fraying, excessive wear, dry rot, deterioration, UV rays or solar exposure, paint/chemical/salt water/acid/acid fume contamination or any possible reason that would compromise the harness during a fall**Failure to do so may result in serious injury or death**Always use common sense**Harness must be removed from service immediately if there is any suspicion that the harness could be compromised during a fall, if there is a fall, or if the unit fails inspection**Maximum capacity (including man, tools, clothes, and equipment) is 310 LBS**The inspection log must be maintained by a "fall protection competent person" at least every six months**The maximum arresting force (force of the fall) shall be no greater than 900 LBS**Avoid contact of harness with sharp or abrasive edges**Do not remove this or any labels**This harness is part of a system**A qualified person must select the components, materials, and anchorage to match the system application, the work, work place hazards, and the environment**Connectors used on this harness must be compatible dimensionally to prevent accidental "roll out" or accidental disconnection**Do not expose to acid, acid fumes, chemicals, corrosives, UV rays, solar exposure, or environments or temperatures above 190 degrees F that could weaken the parts of this harness**Do not misuse harness, abuse, alter, or attempt repairs to this product**Product complies with ANSI Z359.1 and OSHA standards**A rescue plan must be in place and user must be properly trained before using this product****



RIGID LIFELINES • Morgantown, PA 15543 • 800-869-2080 or 610-286-7200 • rigidlifelines.com

Service Policy

1. Obtain as much information as possible concerning the problem through personal observation by yourself or other authorized personnel familiar with the job and equipment: include model, serial and/or part numbers, voltages, speeds, and any other special identifying features. Be prepared to discuss the situation in detail.
2. All authorized labor charges will be based on straight time. Hourly rates, estimated man hours, and not to exceed total dollar amount required for corrections are to be agreed upon before authorization is given. There will be no allowances for overtime except in dire emergencies and then only with prior approval.
3. A verbal agreement may be reached immediately on both the method of correction and the approximate cost. A warranty authorization number will be assigned for the specific incident. A confirming written authorization will be forwarded to the distributor.
4. The distributor must send an itemized invoice, showing our release number or invoice number and warranty authorization number after authorized corrections have been made. A credit memo will be issued by accounting after the invoice has been received and approved. Warranty charges ARE NOT to be deducted from outstanding open account invoices under any circumstances.
5. Any field corrections made prior to an authorization by Rigid Lifelines will not be accepted as a warranty charge or the responsibility of Rigid Lifelines. Any modification to the equipment made without prior approval of the seller will void all warranties. A verbal authorization for modification may be obtained, in which event a warranty authorization number will be assigned for the specific modification. A confirming written authorization will be forwarded to the distributor.

One-Year Equipment Warranty

Rigid Lifelines® warrants all Rigid Lifelines fall protection soft goods, devices, connectors, and accessories to be free from defects in material and workmanship for a period of one (1) year, commencing on the date of shipment to the first retail purchaser (“Purchaser”).

Rigid Lifelines is dedicated to offering superior service and quality products to all of our customers. If you would like to contact a customer service representative, please call the following number: 1 (844) 467-4443. We will be happy to assist you in any way that we can.

These warranties do not extend to equipment which has been subject to misuse, use in excess of rated capacity, negligent operation, use beyond Rigid Lifelines published service factors, improper installation or maintenance, adverse environments, and does not apply to any equipment which has been repaired or altered without Rigid Lifelines written authorization. This warranty is void for any product that is designed to deform or absorb energy during a fall event and needs to be replaced after a fall event has occurred.

Written notice of any claimed defect must be given to Rigid Lifelines within thirty (30) days after such defect is discovered. Rigid Lifelines obligation, and Purchaser’s sole remedy under this warranty is limited to, at Rigid Lifelines discretion, the replacement or repair of the equipment at Rigid Lifelines factory or at a location approved by Rigid Lifelines. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES WHATSOEVER WHETHER EXPRESS, IMPLIED, OR STATUTORY. SELLER MAKES NO WARRANTY AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE EQUIPMENT AND MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED.

Rigid Lifelines shall not be liable, under any circumstances, for any indirect, special, or consequential damages including (but not limited to): lost profits, increased operating costs, or loss of production. This warranty shall not extend to damages including (but not limited to): lost profits, increased operating costs, or loss of production. This warranty shall not extend to any components or accessories not manufactured by Rigid Lifelines (example: casters), with the exception of the components, systems, or accessories involved with XSPlatforms, and purchaser’s remedy for such components and accessories shall be determined by the terms and conditions of any warranty provided by the manufacturer of such components and accessories.



Rigid Lifelines
730 Hemlock Road, Suite 104
Morgantown, PA 19543

Toll Free: (844) 467-4443
Local: (610) 286-8030
Fax: (610) 286-6408

RigidLifelines.com
info@rigidlifelines.com