

# User Instruction Guide for RoofStep Kits:

#### Crossover-Series: Ladder-Series:

PRoofStep 3-2

RoofStep 3-3

PRoofStep 4-3

PRoofStep 4-4

PRoofStep 5-4

RoofStep 5-5

RoofStep 3-1

PRoofStep 4-1

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PRoofStep 5-3

Liftsafe Fall Protection Inc. RoofStep User Manual

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## Warnings and Conditions

This system is part of a personal fall protection system. The user must read and follow all guidelines in this manual. These instructions must be provided to the user of this system. The user must read and understand these instructions or have them explained to them prior to using the system.

Alterations or misuses of this system or failure to follow instructions may result in serious injury or death. If you have any questions on the use or care of this system peoples contact Liftsafe Fall Protection Inc. at

1-800-977-2005.





### 1.0 APPLICATION

- 1.1 The RoofStep Systems are designed to be installed on a flat roof (up to 5% grade) to provide workers a safe means of access up and over a dividing wall or other obstructions. Depending on the roof surface, a rubber pad, or ultra-light paving stone may be used under the baseplates to facilitate safe/stable contact with the roof surface. As freestanding systems rely on friction between the baseplates and the roofing materials; baseplates MUST NOT be set on ice or snow or other substances which may permit excessive sliding; users MUST clear the area prior to placing the RoofGuard baseplates.
- 1.2 RoofStep Crossover Series systems are used when going to/from the same level, or if the parapet wall between the roof levels is above 42" in height, and thus no risk of falls from one level to another when near the ladder. If going over an obstruction that does not provide a suitable stepping surface, a platform kit is included in the RoofStep System to provide an 18" wide x 36" long walkway from one side to the other.
- 1.3 RoofStep Ladder Series Systems are used to move from one level to another with a change in height of 2-feet or more. The 'upper' side of the ladder has guide railing to provide protection to workers near the upper edge.



# 2.0 System Requirements

2.1 The RoofStep Systems can be used on most rooftop surfaces to go up and over dividing walls, or obstructions up to 57" high, and 24" wide. The RoofStep Systems are freestanding and require clear space on either side of the wall or obstruction for the ladder and the diagonal braces. See Layout Diagram For Details.



## 3.0 Components

- 3.1 The RoofStep Systems consist of Baseplates, Vertical Posts, horizontal pipes, diagonal posts, ladder rungs and optional platform kit.
- 3.2 Base plates are cast steel and hot-dipped galvanized for long-term outdoor use. Cone-point Stainless Steel set screws secure the vertical rails into the baseplates. The set screws come installed in each available hole of the baseplates. Baseplates are used for the stabilizing of the diagonal braces and guardrail sections (ladder series only).

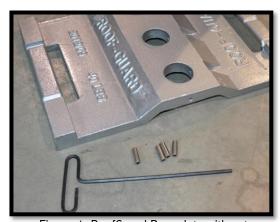


Figure 1: RoofGuard Baseplate with set screws and tool.

Users may select which hole of the baseplate to use. For the outside hole, two set screw options are provided. While both may be tightened, the hole in the vertical post must line up with one screw.



3.3 Vertical posts are supplied with fittings and caps for a variety of configurations:

RGP-018: These 18" posts are used in the baseplates to secure the diagonal braces.

RoofStep Post: This post is up to 8.5-feet high, with holes to secure up to 6 ladder rungs on 12-inch centers. The RoofStep Post can be ordered for 3, 4, or 5 ladder rungs, or they can be cut-to-fit on-site to provide a precise fit. The top of the posts provides for 42" of height above the top rung. Any cutting to fit should be done from the bottom of the post.

- 3.4 Horizontal posts for the RoofStep System consist of 2 6-foot pipes that are cut in half to provide a top-rail, and mid-rail at 36" in length.
- 3.5 Horizontal Rail sections are also used at the top of Ladder-Series Systems. Two 6-foot rails are placed from the RoofStep posts at 45-degrees
- 3.6 For the diagonal braces, 42" posts are provided as bracing at 45-degrees from the horizontal. For diagonal brace locations see Layout Diagram.
- 3.7 Ladder Rungs are included to be secured into the RoofStep Posts. Two special "TOP" rungs are included for each RoofStep system. The "TOP" rungs include a logo for identification and three holes to secure the platform kit. In some kits all rungs may be the same, in which case any two rungs can be the "Top" rung.
- 3.8 The platform is an 18" wide x 36" long grating that secures to the top rungs with bolts into the holes on the 'inside' of the "TOP" rungs.



Figure 2: Standard Ladder Rung

## 4.0 System Layout

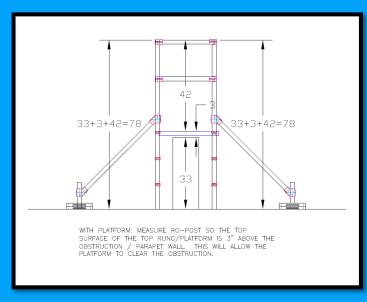
4.1 For the RoofStep Kit, the user will need to select the location to ensure the area is clear and level. For crossing over a parapet or obstruction the bottom edge of the platform should be at least 1" above the highest part of the obstruction.

The maximum height of obstruction will be the first number of the kit (in feet) minus 3". I.E. Roofstep 5-5 has a clearance of 57" (5' minus 3")

4.2 The locations of the diagonal braces or rail sections (ladder series only) should be free from obstructions. The braces have a variability of +/- 15-degrees around the RoofStep Post — see Layout Diagram for clarity.

### 5.0 Installation

- 5.1 When assembling any RoofGuard Kits, workers should be back from the roof edge (per local regulations), OR be attached to a fall protection system until the setup is complete.
- 5.2 Clear the area for the RoofGuard Baseplates of any snow, ice or loose dirt/debris. Depending on the roof surface, a rubber pad (for membranes) or paver (for gravel) may be placed on the rooftop as an interface between the steel plates and the roofing material.
- 5.3 Locate the "Top" rungs in the kit (with the logo and 3 threaded holes). These rungs should be secured through the 'upper' holes on the four RS Posts. Position the Top Rung between two RoofStep Posts with the treads 'upward'. The 42" of un-drilled pipe is the 'top' of the RS Posts. Secure the Top Rung with one supplied bolt through each RS Post and into the side of the rung, using the supplied Alan Key in the tool kit/instruction bag.
- 5.4 Add the other rungs to the RoofStep Posts as needed for your Kit, keeping the non-slip surface upwards. (RoofStep 3-3 uses the top 3 rung holes on each set of RoofStep Posts) Each rung is secured by one bolt through each side of the RoofStep Post into the side of the rung with supplied bolts and Alan Key. If the kit has diagonal bracing on a side with more than 3 rungs, place one RGF-145 fitting (with the angle pointing down/away from the Post) on each post. The RGF-145 should be located between rungs 3 and 4, counting from the ground.



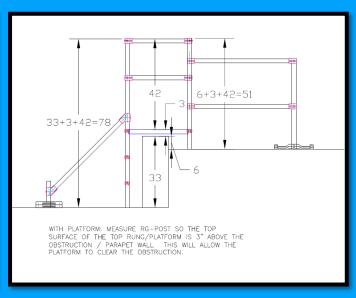


Figure 3: 3-1 S Figure 4: 3-3LD

5.5 Slide an RGF-110 4-hole Base Flange onto the bottom of each RS-Post (4 total), and tighten the set screws. If desired, these bases can be anchored into a paving stone, but this is optional. Stand the RS-Posts in their approximate locations.



Figure 5: RS Post

5.6 a) Secure the platform to the two Top-Rungs, using 3 supplied bolts per rung, with the supplied tool.

5.7 For Ladder series start on the lower side of the obstruction. For crossover series start on either side. Using the 42" Diagonal Pipe — mark the approximate locations of the Baseplates (2 locations on all Lower sections, of Ladder Series or Crossover Series). Two baseplates should be stacked at each point, using 4 Baseplates in total. Insert an 18" Post with plastic cap up into one of the holes on the Baseplates and secure the Baseplate set screws against the 18" Post.

5.8 Slide a RGF-145 angled fitting onto each of the 18" Posts (4 total), so they face up/away from the Baseplates. Place the 42" pipe into the angled section of the fitting and secure the 42" pipe into the fitting. (This set screw should be secured first as it points down and will be difficult to access later).



Figure 6: RGF-145 Installation

5.9 At each diagonal brace, both RGF-145 fittings can move up/down slightly to allow the 42" pipe to be inserted into the upper RGF-145 and secured. Once seated, secure all set screws on both fittings.

For XS (Crossover Series) Repeat 5.7 -5.9 for the other side of the platform.

#### 5.10 FOR LADDER SERIES ONLY:

- 5.10 a) For the Upper section of the Ladder Series, FOUR RGF-010 fittings will be secured to each of the two upper RoofStep Posts. Position two as the top/mid rail starting points for the 'crossing handrail' (one at the top of the RoofStep Rail and one down 21" from that.) The other two should be placed so they are at 42" and 21" from the upper level walking surface to act as the "Tie-Back" rails.
- 5.10 b) Two 6-foot horizontal rails should be inserted into each RoofStep Post going back at an angle between 30 and 45-degrees. At the ends of these horizontal rails, two baseplates will be positioned with a vertical 42" Post. These posts will have two RGF-010 Fittings to connect the 6' Horizontal Rails.
- 5.11 At this point, two stable ladders have been built on either side of the wall/obstruction and are connected by the two 36" Platform between them.
- 5.12 Using two RGF-010 fittings and a horizontal rail, loosely assemble the mid-rail; insert the horizontal rail into the fittings, then slide the loose assembly down from the top so the center of the midrail is 21" the top rung. The vertical RS-Posts will need to be straight to ensure an even fit. Once in place, secure all set-screws on the two fittings. Repeat for the second side, and two top-rails which should be located flush with the top of the RS-Post.
- 5.13 Finish the top of the RS-Post with plastic caps to ensure smooth surfaces.
- 5.14 Once the system is complete, a second check of each set screw should be performed, and once torqued, each set screw should be marked with the blue crayon provided (or other marking system) to help facilitate inspection and provide indications in the event of any tampering.

# Images of Complete a Complete RoofStep Ladder Series 3-1 System Without Platform



Figure 7



Figure 8



Warning - Do NOT lean on, or climb on guardrails.

Guardrails MUST NOT be used as an anchor for fall restraint or fall arrest, and shall not be used for hoisting or tie-off.

Attachment of banners / signs / equipment is not permitted.

Excess force applied to the top rail could cause tipping, resulting in injury or death.

OSHA Reference 29 CFR 1910.23 Guarding of floor and wall openings and holes

(a) (2) Every ladder-way floor opening or platform shall be guarded by a standard railing with standard toe-board on all exposed sides (except at entrance to opening), with passage through the railing either provided with a swing gate or offset so that a person cannot walk directly into the opening.



# 6.0 Detailed Inspection and Maintenance Log

Inspection Date	Inspection Items	Corrective Action	Maintenance	Approved By
	Noted	Taken	Performed	
	1		1	Page 1/

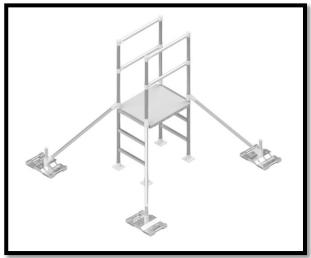


# 7.0 Liftsafe Fall Protection Warranty

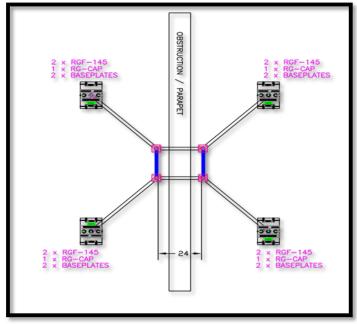
Equipment offered by Liftsafe Fall protection (LFP) is warranted against factory defects in workmanship and materials for a period of one year form date of installation or use by the owner, provided that this period shall not exceed 18 months form date of shipment. Upon notice in writing, LFP will promptly repair or replace all defective items. LFP reserves the right to elect to have any defective item returned to its plant for inspection before making a repair or replacement. This warranty does not cover equipment damages resulting from abuse, damage in transit, or other damage beyond the control of LFP. This warranty applies only to the original purchaser and is the only one applicable to our products, and is in lieu of all other warranties, expressed or implied.

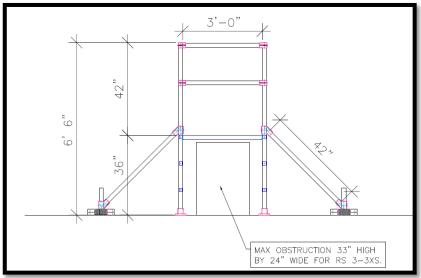
# 8.0 Technical Diagrams for Crossover 3.3

Please Note that specific diagrams will be shipped with each system.



3-3 Crossover Series Stand with Platform





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# RoofStep Kits User Guides

## 9.0 Notes



### Liftsafe Fall Protection

409 Harmony Road Ayr, Ontario NOB 1E0

TF.: 1(800) 977-2005 T.: (519) 896-2430 F.: (519) 896-2085

E.: info@liftsafeinspections.com W.: www.fallsafetysolutions.com