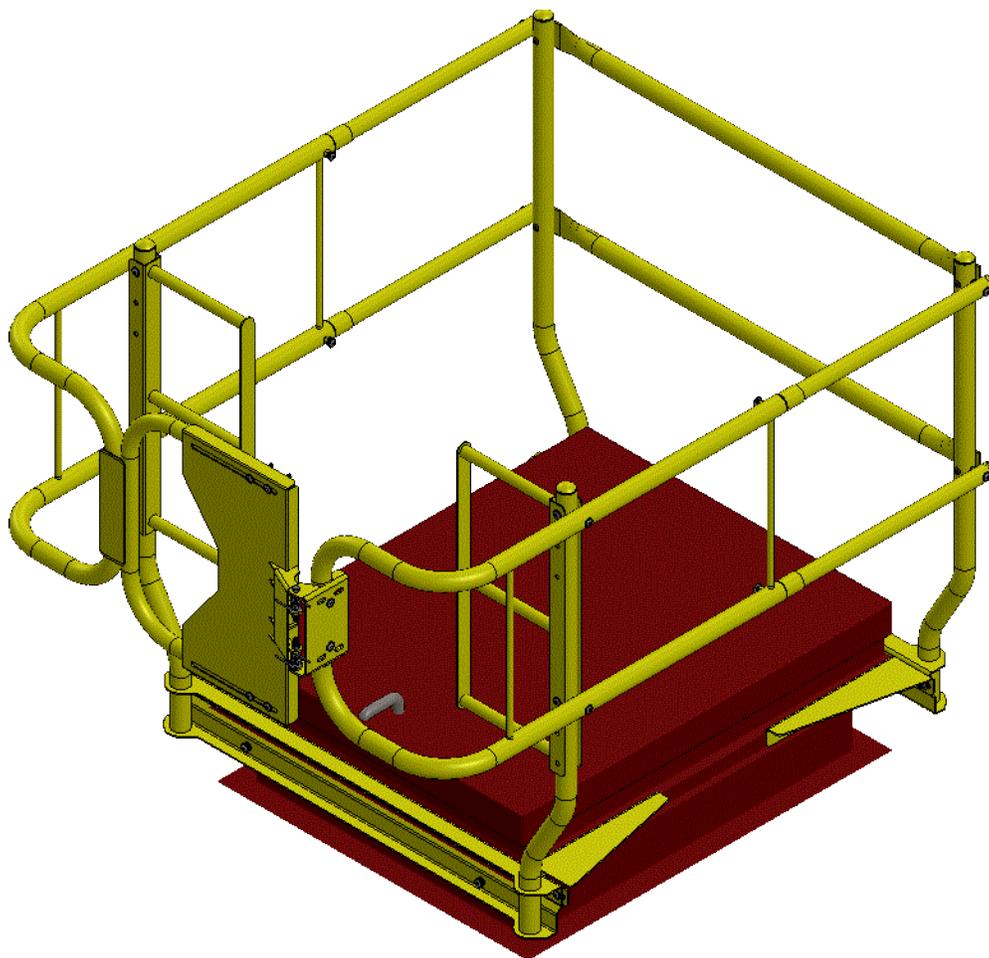


LEADING EDGE SAFETY

Complete Perimeter Fall Protection System

Roof Hatch Guardrail Instruction Manual



WARNING

Serious injury or death may result if this product is used for purposes other than designed. The manufacturer provides the following instructions for the installation, use, and care of this equipment. It is the responsibility of the purchaser to understand and convey explicit instruction to each user. This Leading Edge Safety product complies with the requirements of the Federal Occupational Safety and Health Administration (OSHA) when set up and used according to the manufacturers' instructions. Leading Edge Safety, LLC expressly disclaims any and all liability from injury, damage, or other loss resulting from improper or unauthorized installation or use of this product.



LEADING EDGE SAFETY INSTRUCTION MANUAL

E
N
G
L
I
S
H

Roof Hatch Guardrail Instruction Manual

Published by Leading Edge Safety, LLC, N Kansas City, MO

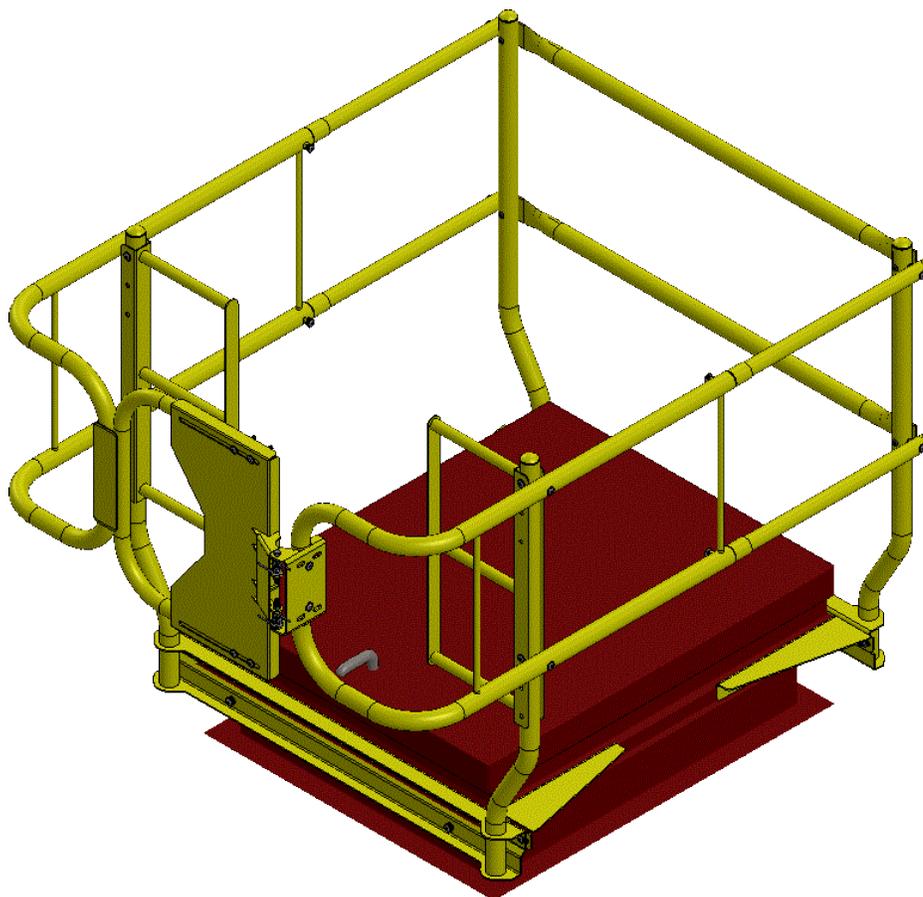
1345 Taney Street
N Kansas City, Missouri 64116
(T) 888.990.2990
www.leadingedgesafety.net

Copyright © 2018 by Leading Edge Safety, LLC

PRINTED IN THE UNITED STATES OF AMERICA

LEADING EDGE SAFETY INSTRUCTION MANUAL

PRODUCT OVERVIEW



Use and Limitations

The Roof Hatch Guardrail can be used with many different roof hatches provided a competent professional has determined that the structure is capable of withstanding the weight, structural requirements and loads applied to the roof hatch itself. OSHA requires guards to withstand a pressure of 200 pounds of force applied outward or downward at any point of the system. The Roof Hatch Guardrail system has been third party engineered to withstand forces of at least 250 lbs.

The Roof Hatch Guardrail is intended for use as a ladderway opening protection system only as defined by OSHA 1910.23 and meets and exceeds the requirements set forth by OSHA Rule 1910.23.

NO component of the Roof Hatch Guardrail system has been designed, tested or intended as an 'Anchorage' point as defined by OSHA Standards and should NEVER be used as such.

Hoisting and snap hook devices should never be attached to any component of the Roof Hatch Guardrail system.

The Roof Hatch Guardrail is designed to prevent employees from falling when properly installed. While companies can provide safety training and safety systems, such as guardrail systems, every employee is responsible for their own safety and should act in a safe and responsible manner.

In addition to fall protection such as guardrails, Leading Edge Safety recommends implementing a Fall Protection Plans and safety training in accordance with OSHA Rule 1926.503.

Improper use of Leading Edge Safety products can result in serious injury or death.

The Roof Hatch Guardrail is to be used as a guardrail system for roof hatch openings as described by OSHA Rule 1910.23(a)(2).

The Roof Hatch Guardrail should be used as a part of a complete fall protection system plan.

After a Fall or Impact

All components that have been subjected to fall or impact forces must be removed from service immediately for inspection and replacement if necessary by qualified personnel.

Before Each Use

Roof Hatch system should be inspected prior to each use for wear, damage or deterioration, and defective components shall be removed from service.

INSPECTION STEPS

STEP 1: Check for loose, bent or damaged parts.

STEP 2: Check fasteners/connectors for distortion, cracks, or other damage and proper torque.

STEP 3: All labels must be present and fully legible.

STEP 4: Check for corrosion on Parts.

MAINTENANCE AND CARE:

A. Inspect all System components before each use.

B. Annually and before each use, inspect all fasteners for proper torque.

C. Maintain paint finish to prevent corrosion.

D. Replace damaged or deteriorated parts immediately.

General Safety

Use common sense and safe work practices.

The guardrails should not be used by persons whose ability or alertness is impaired by fatigue, intoxicating beverages, illegal or prescription drugs, or any other physical cause that exposes the user or others to injury.

Always wear proper safety attire.

Workers on the roof should be trained in accordance with OSHA 1926.503.

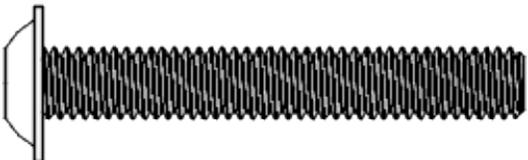
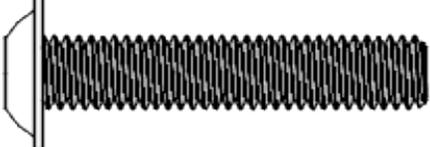
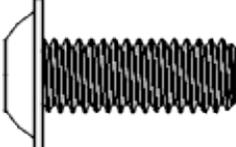
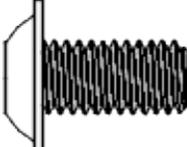
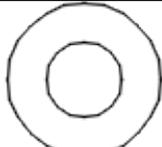
LEADING EDGE SAFETY INSTRUCTION MANUAL

E
N
G
L
I
S
H

PRIOR TO INSTALLATION

- Before installation, confirm the brand, model of roof hatch, and dimensions of the roof hatch. Measurements should be taken from the outside of the skirt flashing. (See How-To Measure Guide on page 10 of this manual)
- A competent professional should make the determination as to whether or not the roof hatch is structurally sound to receive the Roof Hatch Guardrail. OSHA Standards require the system be able to withstand a force of 200 pounds applied in any direction at any point along the railing system. For more information, refer to OSHA regulation 1910.23.
- The proper fasteners used to attach and assemble the Roof Hatch Guardrail are provided with the system.
- All testing for the Roof Hatch Guardrail has been performed using the included fasteners to meet or exceed the OSHA Standards per 1910.23 for guardrails.

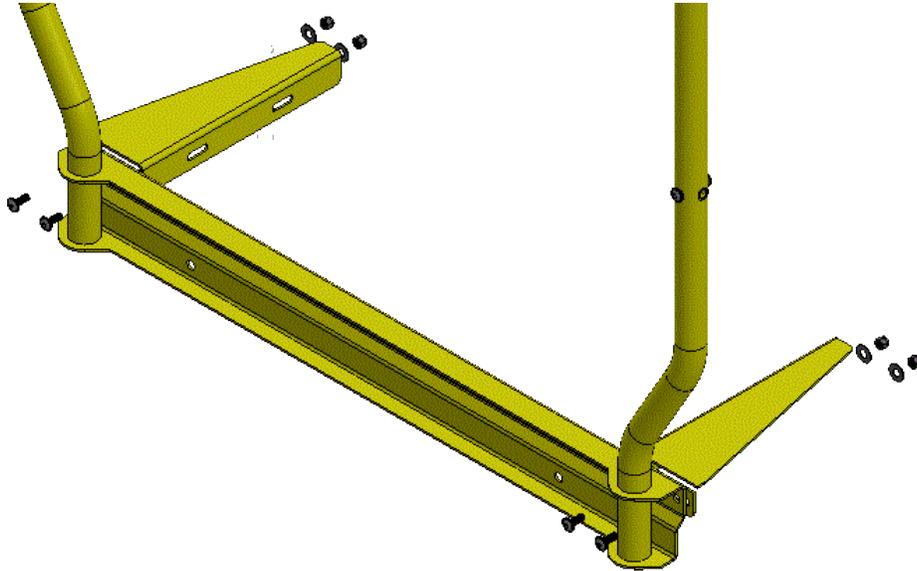
INCLUDED HARDWARE

A		3/8"-16 x 2-1/2" Flanged Button-Head Socket Cap Screw <i>(requires 7/32" Hex Key)</i>	QNTY 12
B		3/8"-16 x 2" Flanged Button-Head Socket Cap Screw <i>(requires 7/32" Hex Key)</i>	QNTY 4
C		3/8"-16 x 1" Flanged Button-Head Socket Cap Screw <i>(requires 7/32" Hex Key)</i>	QNTY 28
D		3/8"-16 x 3/4" Flanged Button-Head Socket Cap Screw <i>(requires 7/32" Hex Key)</i>	QNTY 4
E		3/8" Washer	QNTY 28
F		3/8"-16 Hex Head Nylon-Insert Locknut <i>(requires 9/16" wrench/socket)</i>	QNTY 28

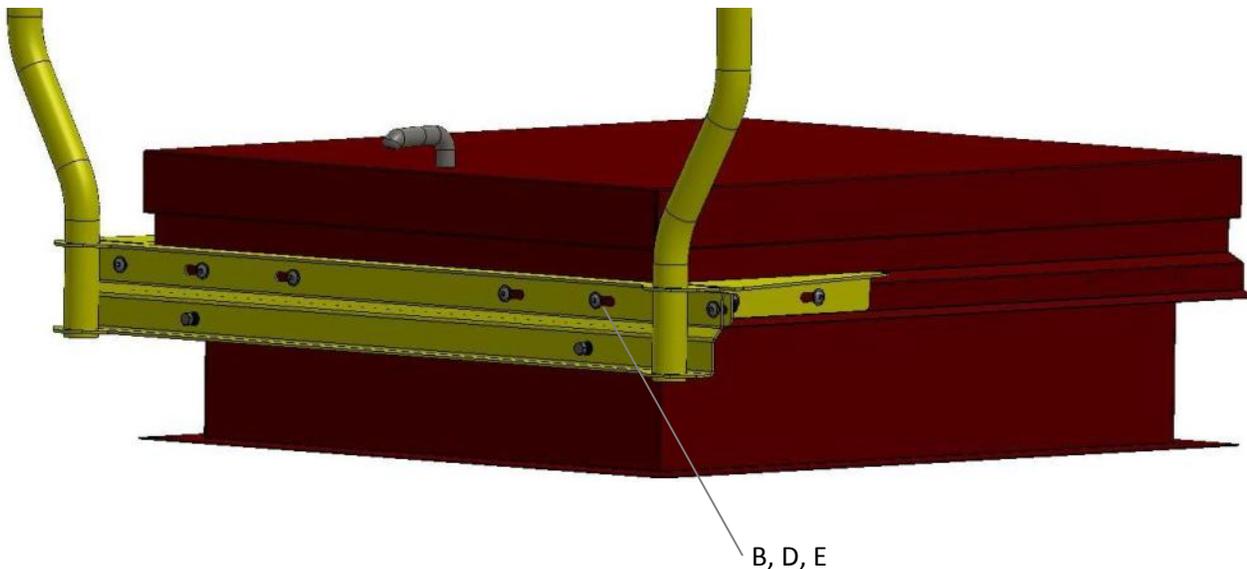
LEADING EDGE SAFETY INSTRUCTION MANUAL

STEP 1 — Attach the gussets to the upright assembly using the supplied (C) 3/8"-16 X 1" Button-Head Cap Screws, (E) 3/8" Washer & (F) 3/8-16 Locknut.

TIP—THE GUSSETS ARE ADJUSTABLE TO ALLOW FOR VARYING WIDTHS BETWEEN MANUFACTURERS.



STEP 2 — Attach the first end section with uprights to the front corner and side of the roof hatch using the supplied (C) 3/8"-16 X 1" Button-Head Cap Screws, (3) 3/8" Washer & (F) 3/8-16 Locknut.



TIP—IF THE ROOF HATCH DOES NOT HAVE PRE-DRILLED MOUNTING HOLES:

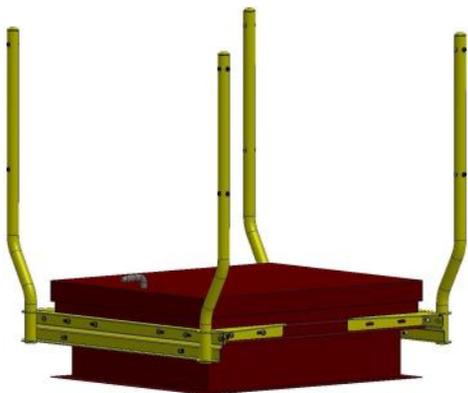
***Note—Some roof hatches may not have pre-drilled holes in the skirt flashing and may require drilling. Use the side bracket and gussets as a template for the holes to be drilled by ensuring the uprights are true and level, mark and drill 7/16" holes for attachment.

Position the side bracket holes over the skirt flashing holes and place Button-Head Cap Screws through holes. Place 3/8" Washer & 3/8"-16 Locknut behind skirt flashing and securely tighten fasteners to a recommended torque of 70 (seventy) inch pounds through side bracket, skirt flashing.

LEADING EDGE SAFETY INSTRUCTION MANUAL

E
N
G
L
I
S
H

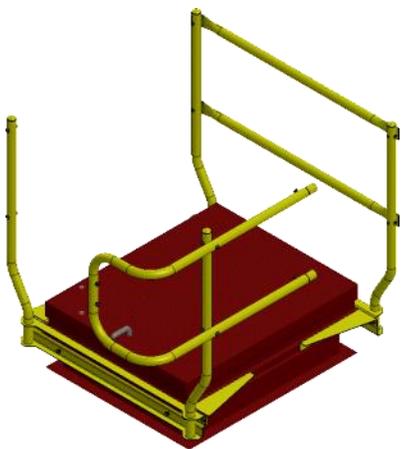
STEP 3 — Repeat steps outlined in **STEP 2** for opposing side bracket with uprights.



STEP 4 — Attach rear mid and top horizontal rails using (C) 1" x 3/8"-16 Flange Socket Head Cap Screws.



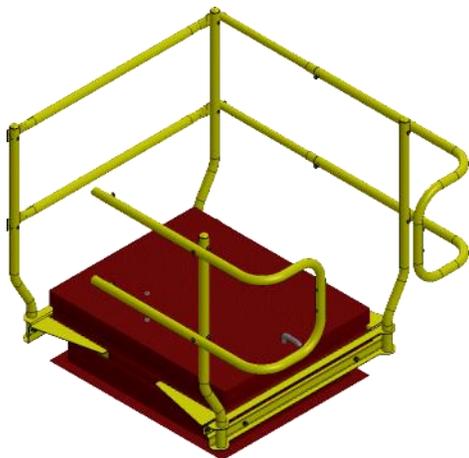
STEP 5 — Attach front side mid and top rail assembly to upright using (A) 2-1/2" x 3/8"-16 Button-Head Cap Screws.



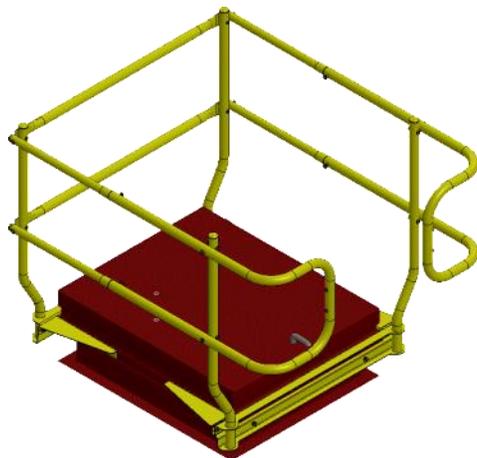
STEP 6 — Slide rail extensions in to mid and top railing assembly and attach to upright using (A) 2-1/2" x 3/8"-16 Button-Head Cap Screws.



STEP 7 — Attach opposite side mid and top rail assembly to upright using (A) 2-1/2" x 3/8"-16 Button-Head Cap Screws.

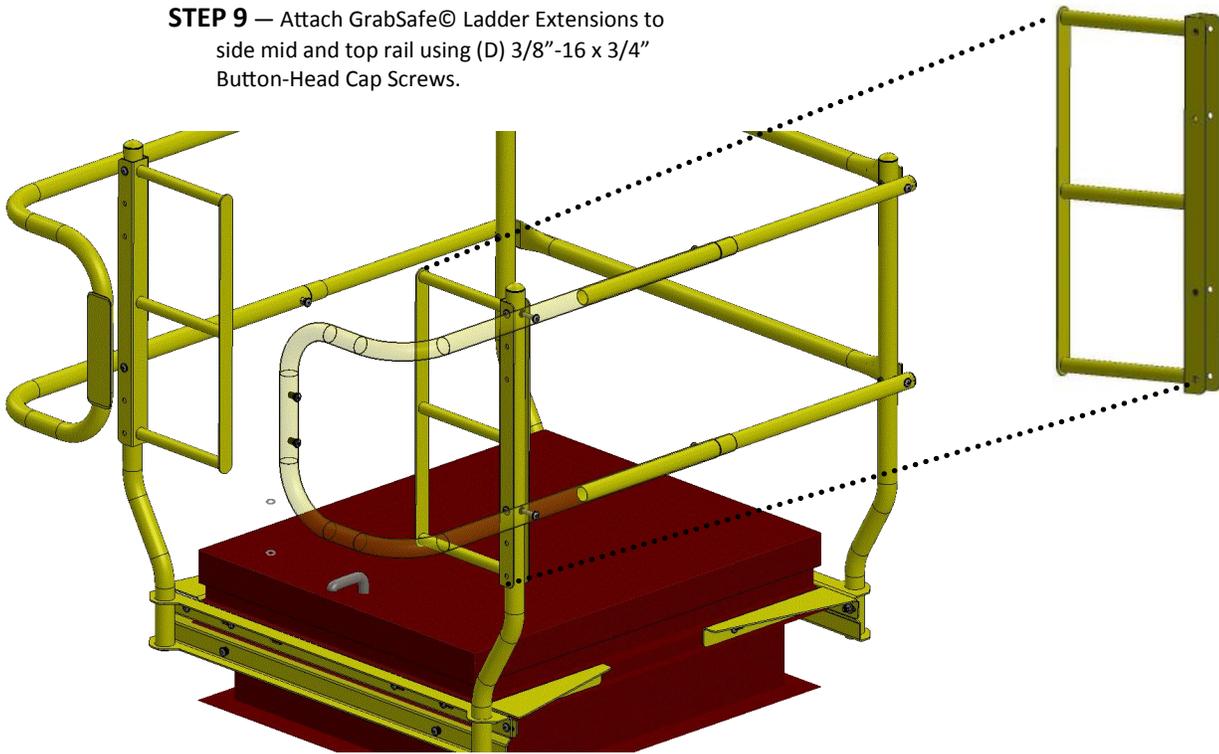


STEP 8 — Slide rail extensions into mid and top railing assembly and attach to upright using (A) 2-1/2" x 3/8"-16 Button-Head Cap Screws.

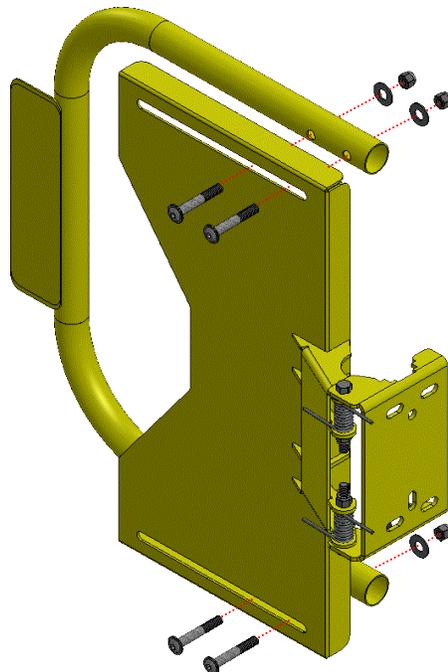


LEADING EDGE SAFETY INSTRUCTION MANUAL

STEP 9 — Attach GrabSafe® Ladder Extensions to side mid and top rail using (D) 3/8"-16 x 3/4" Button-Head Cap Screws.



STEP 10 — Assemble the gate, mating the tube assembly to the plate and hinge assembly using (B) 2" x 3/8"-16 Button Head Cap Screws, (E) 3/8" Washer, and (F) 3/8" Locknut.

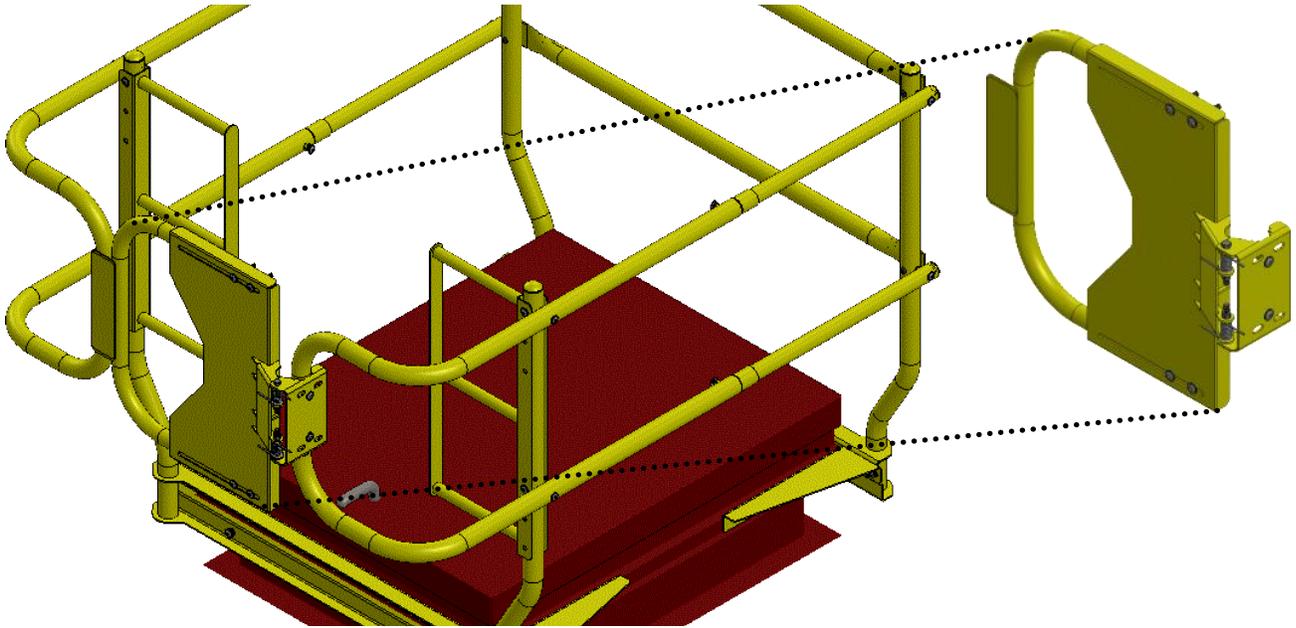


LEADING EDGE SAFETY INSTRUCTION MANUAL

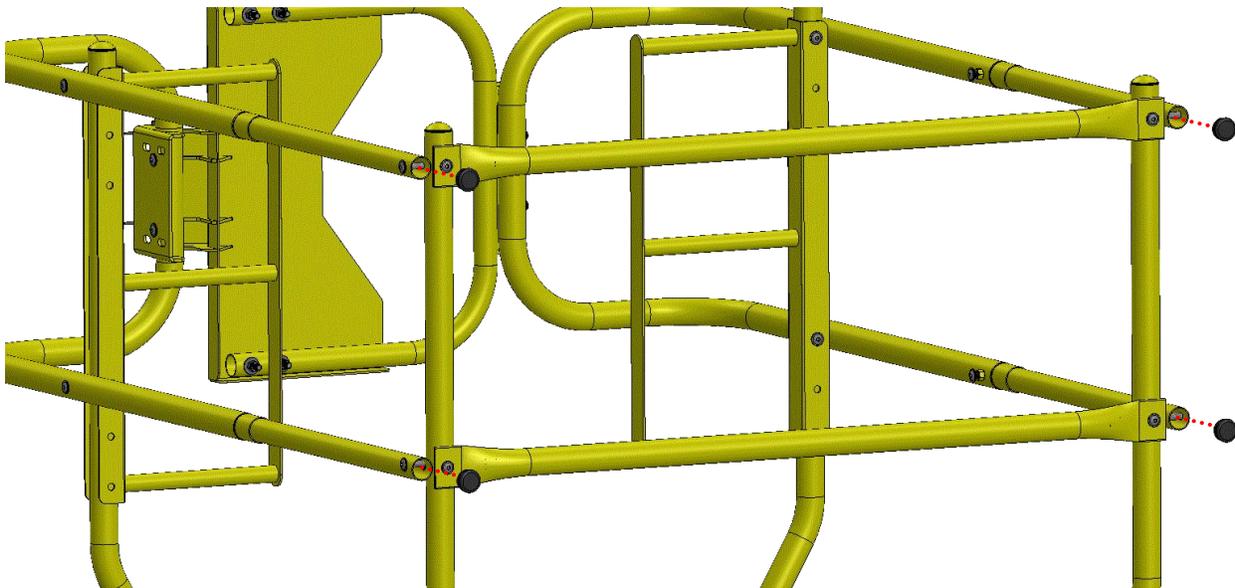
E
N
G
L
I
S
H

STEP 10 — Attach Self-Closing Gate to insert rivet nuts on front hoop using (C) 3/8"-16 x 1" Flange Head Cap Screws.

TIP—THE GATE IS UNIVERSAL AND CAN BE FLIPPED AND USED FOR EITHER RIGHT OR LEFT HINGE APPLICATIONS.

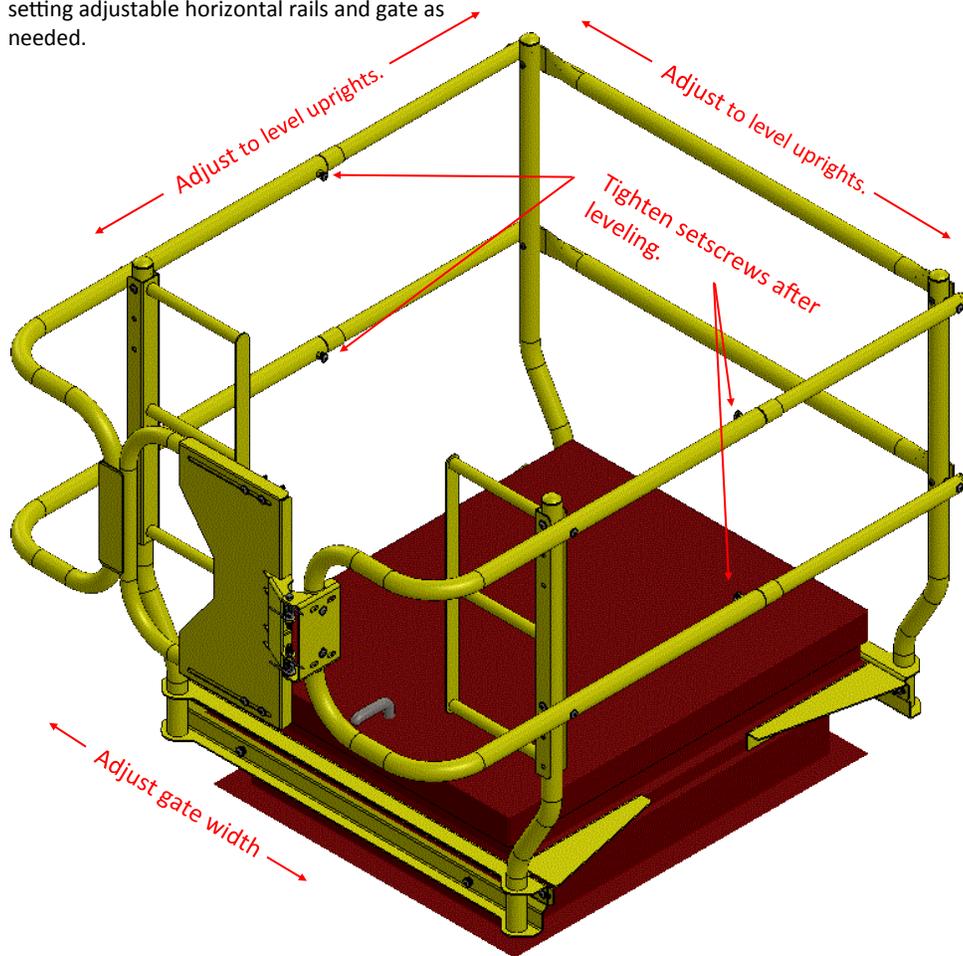


STEP 11 — Insert 1-3/8" Plastic End Plugs (x4) in to the 1-3/8" rail extensions.



LEADING EDGE SAFETY INSTRUCTION MANUAL

STEP 12 — Level uprights and square system by setting adjustable horizontal rails and gate as needed.



STEP 13 — Touch-up and scratched or damaged paint areas.

TIP—RUST-OLEUM® SPRAY ENAMEL “SUNBURST YELLOW” IS A CLOSE MATCH TO OUR STANDARD “TRAFFIC YELLOW” (RAL 1023) AND AVAILABLE AT MOST HARDWARE AND HOME IMPROVEMENT CENTERS.

EXACT COLOR MATCH SPRAY PAINTS ARE AVAILABLE FOR PURCHASE FROM LEADING EDGE SAFETY, LLC.

LEADING EDGE SAFETY INSTRUCTION MANUAL

E
N
G
L
I
S
H

APPENDIX B - Assembly, Inspection and Maintenance Log

*** PLEASE COPY THIS EXAMPLE LOG AND REVIEW BEFORE EACH USE
AND DURING REGULARLY SCHEDULED MAINTENANCE ***

DATE IN-SERVICE:	
ASSEMBLED BY: (PRINT NAME)	
SIGNATURE:	
COMPANY:	
INTENDED USE OR OTHER RELEVANT DETAILS:	

DATE:	
INSPECTED BY:	
NOTE CONDITION OF:	
UPRIGHTS:	
UPRIGHT RAIL CONNECTORS:	
RAILS:	
OTHER MISC PARTS:	
NOTES:	

DATE:	
INSPECTED BY:	
NOTE CONDITION OF:	
UPRIGHTS:	
UPRIGHT RAIL CONNECTORS:	
RAILS:	
OTHER MISC PARTS:	
NOTES:	

LEADING EDGE SAFETY INSTRUCTION MANUAL

HOW-TO MEASURE ROOF HATCHES FOR LES ROOF HATCH GUARDRAIL

Roof hatch manufacturers measure their product by 'clear opening' or rough opening. With the lid open, this measurement is the inside dimension of the opening you climb out of. Typical industry standard sizes are listed below:

LADDER ACCESS

30" X 36"
36" X 36"



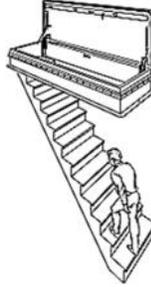
SHIP STAIR ACCESS

30" X 54"
36" X 54"



STAIR ACCESS

30" X 96"



EQUIPMENT ACCESS

48" X 48"

STEP 1: Determine whether the roof hatch has a 'Modern' or 'Old' style drip flange on the curb. This will determine if the Roof Hatch Guardrail system can be mounted directly to the drip flange or if the system will need to be thru-bolted for attachment. (*Thru-bolting penetrates the roof membrane and water-tightness cannot be ensured*)

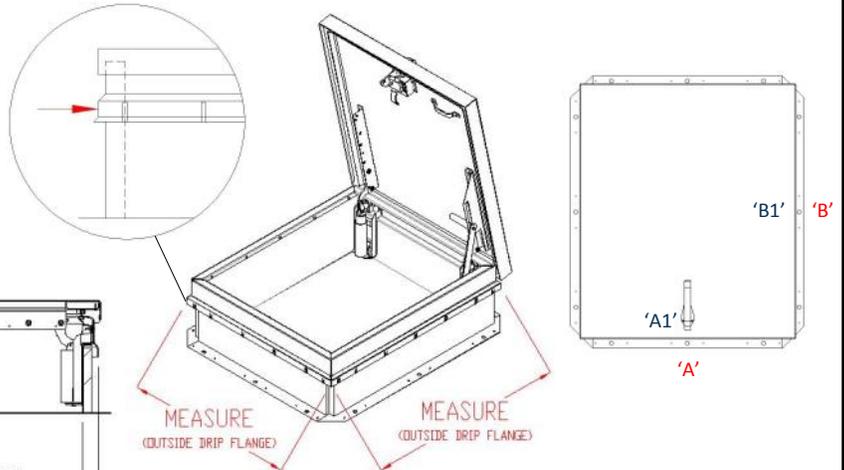
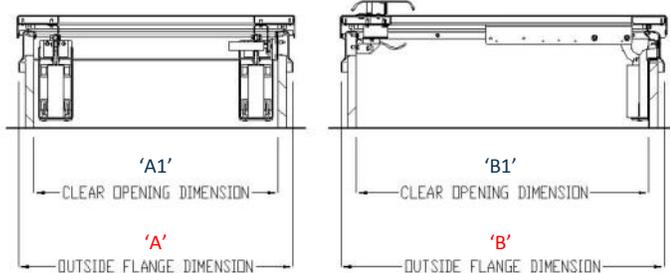


Modern Style Flange



Old Style Flange

STEP 2: Measure the roof hatch dimensions. In most cases, the clear opening dimensions are sufficient if the unit is an industry standard size. To ensure fit on both industry standard sizes and non-standard sizes, we recommend measuring the outside drip flange dimension since these can vary by manufacturer.



	'A' DIMENSION	'B' DIMENSION	'A1' DIMENSION	'B1' DIMENSION	FLANGE STYLE	PHOTOS ATTACHED	THERMALLY BROKEN
ROOF HATCH 1					MODERN / OLD	YES / NO	YES / NO
ROOF HATCH 2					MODERN / OLD	YES / NO	YES / NO
ROOF HATCH 3					MODERN / OLD	YES / NO	YES / NO
ROOF HATCH 4					MODERN / OLD	YES / NO	YES / NO



1345 Taney Street
North Kansas City, Missouri 64116
888.990.2990
www.leadingedgesafety.net



Copyright © 2018 by Leading Edge Safety, LLC

PRINTED IN THE UNITED STATES OF AMERICA

RH-2018v1