



SAVKOLOCK LOCKDOWN ASSEMBLY

SAVKOLOCK
Safety Lockdown

The safest gangway lockdown system for your employees and customers

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INTRODUCTION

Congratulations on your purchase of the gangway cage SavkoLock Lockdown assembly, designed to prevent and deter lifting of cage and gangway from vehicle while in use.

The objective of this manual is to provide the equipment operator the essential knowledge & skills to successfully use the gangway in a safe & productive manner. Throughout this manual, operators will learn about the equipment components, necessary safety precautions, and safe operating procedures.

The operational system has been designed to be simple & intuitive so that implementation is quick & able to be used by those with basic equipment operational skills. The system allows for the streamlining of loading & unloading of flatbed trailers to increase throughput at distribution centers.

SafeRack uses only the highest quality materials in the construction of its products to ensure the quality, strength, and dependability lasts for years. It is very important to follow installation instructions for your system. Design limitations can exist with respect to existing interferences.

Contact Information

The SafeRack team is available if you have any questions, or needs, regarding the Gangway Lockdown Assembly. You may contact us at the following:

Phone: 1-843-264-8096

E-mail: info@saferack.com

Address: 219 Safety Ave, Andrews, SC 29510

Disclaimer

The training material in this manual is provided without any warranty whatsoever, including any damages to personnel, equipment, or the system. SafeRack, LLC reserves the right to change the content and images within this manual without notification.

1.0 SAFETY

This section covers the following safety information:

- 1.1 Safety Signal Words and Symbols
- 1.2 Safety Warnings

1.1 Safety Signal Words and Symbols

Safety words and symbols are used in this manual to bring attention to potential physical and material hazards. All personnel engaged with operation, maintenance, and work around this system must read, and understand all the safety warnings.

Safety signal words are used to indicate the severity of a hazard or unsafe practice. The following safety signal words explain the severity of hazards or unsafe practices.

 DANGER	Indicates a hazard or unsafe practice that will result in severe injury or death.
 WARNING	Indicates a hazard or unsafe practice that could result in severe injury or death.
 CAUTION	Indicates a hazard or unsafe practice that could result in minor injury.
NOTICE	Indicates a hazard or unsafe practice that could result in property damage or general safety related information.



1.2 Safety Warnings

WARNING



Failure to read and understand all the safety warnings, instructions in this manual, and OSHA requirements could result in serious injury or death. All personnel engaged with the operation, maintenance, and work around this system must read and understand all the safety warning instructions in this manual and OSHA requirements. The owner of the SavkoLock Lockdown Assembly is responsible for authorizing, and properly training personnel involved with the system's operation, maintenance, and work around the system. Only authorized and properly trained personnel may operate the system.



Failure to inspect the system for damage, worn parts, and working condition during operation, handling, or shipping could result in serious injury or death. Always inspect the system after receiving shipment and before each shift for damage, worn parts, and ensure the system is in proper working condition. Never operate the system if there is any damage, worn parts, or the system is not in proper working condition. Do not alter or modify the system from its original design without consultation, and approval from SafeRack LLC.



Movement of the system may crush, or impact, personnel in the work area and cause serious injury or death. Ensure all personnel are removed from the work area before engaging the Lockdown Assembly. Always use caution if personnel enter the work area during operation of the system.



Movement of the system and system components may cut or pinch body parts and entangle items such as clothing or jewelry, which could cause serious injury or death. Always turn off the power to the system if a person becomes pinched or entangled with the system.

Ensure that all personnel are appropriately trained on and aware of the potential points on the system that may cause cuts or pinching. Ensure there are no personnel in the work area before operating the Lockdown Assembly. Ensure all personnel wear proper PPE and remove any loose items that may become entangled while working with the system.



Failure to wear appropriate personal protective equipment (PPE) could result in serious injury or death. All personnel must wear appropriate head, hand, eye, ear, and foot protection when operating the SavkoLock Lockdown Assembly.

NOTICE

Operating the SavkoLock Lockdown Assembly outside its environmental limits may damage the system. The Lockdown Assembly is intended for indoor use only, shielded from windy conditions, and should only be operated in a temperature range between -40° F to 104° F with less than 85% humidity.

Incorrect spotting of the vehicle with the Lockdown Assembly could result in damage to the system, load or vehicle. Always check the position of the vehicle in relation to the position of the Lockdown Assembly and gangway before lowering the gangway into the work area.

Attempting to operate the system using a power source that does not meet the required specifications could cause damage to the system and will void the warranty.



2.0 COMPONENTS & ASSEMBLY

The following section covers the SavkoLock components and assembly:

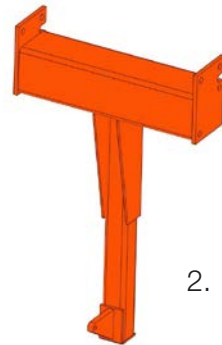
- 2.1** Components Overview
- 2.2** SavkoLock Assembly
- 2.3** Assembly Criteria
- 2.4** Tools Required
- 2.5** Installation Services
- 2.6** Environmental Considerations

2.1 Components Overview

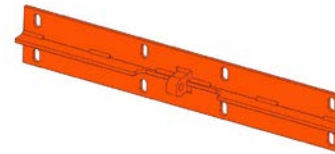
- | | |
|----------|---------------------------|
| 1 | Lockdown Mechanism |
| 2 | T-Frame |
| 3 | Underslung |
| 4 | Angle |
| 5 | UHMW Spacer |
| 6 | ISO Pad |
| 7 | Cable |
| 8 | Assembly Bolt Kit |



1. Lockdown Mechanism



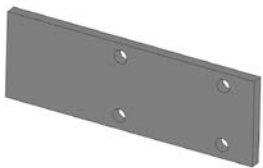
2. T-Frame



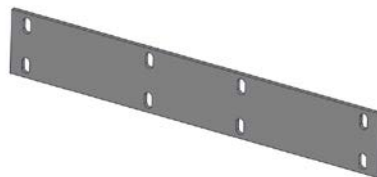
3. Underslung



4. Angle



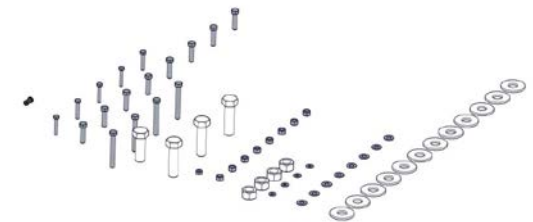
5. UHMW Spacer



6. ISO Pad



7. Cable
(Pre-Assembled to
Lockdown Mechanism)



8. Assembly Bolt Kit

2.2 SavkoLock Assembly

Torque Data

For 1/4" stainless steel bolted connections = 63 in-lbs. (5 ft-lbs.) lubricated or 75 in-lbs. (6 ft-lbs.) dry +/-10%.

For 3/8" stainless steel bolted connections = 200 in-lbs. (16.5 ft-lbs.) lubricated or 235 in-lbs. (19.5 ft-lbs.) dry +/-10%.

For 3/4" galvanized bolted connections = 2400 in-lbs. (200 ft-lbs.) lubricated or 3000 in-lbs. (250 ft-lbs.) dry +/-10%.

For 1/4" stainless steel bolted connections = 7 N-m lubricated or 8 N-m dry +/-10%.

For 3/8" stainless steel bolted connections = 23 N-m lubricated or 27 N-m dry +/-10%.

For 3/4" galvanized bolted connections = 271 N-m lubricated or 339 N-m dry +/-10%

NOTICE

Do not use impact wrenches.

WARNING



Read carefully and understand all instructions before starting installation. Failure to follow all instructions may result in death or serious personal injury.



Failure to assemble properly can result in product damage not covered under warranty. Failure to secure all fasteners may result in death or serious personal injury.



After a usage period of 60-90 days, check all fasteners to ensure connections are secure. Periodic inspection is recommended to insure all fasteners are secured. Failure to secure all fasteners may result in death or serious personal injury.



This product can expose you to chemicals including cadmium, which is known to the State of California to cause cancer, and/or birth defect or other reproductive harm. For more information, go to www.P65warnings.ca.gov

CAUTION

Equipment should not be altered or modified from its original design without consultation with the manufacturer.

Equipment which is damaged or becomes damaged during use, handling, or shipping should be set aside and not used



2.3 Assembly Criteria

Verify proper installation according to G4 Gangway/Cage Lock-down Assembly installation manual. In addition, make sure to check the following specifically.

- Ensure all bolts are installed properly at the T-Frame, Basetread, Underslung, U-body, Cable and mechanical lock.
- Ensure leading edge of underslung mount and U-body edge are flush.
- Ensure all bolts are properly tightened according to installation manual.
 - No impact wrenches are to be used – tighten all bolts by hand.

2.4 Tools Required

1-1/8"	Wrench and Socket
3/4"	Wrench
9/16"	Wrench and Socket
7/16"	Wrench and Socket
	Pliers
For Field Retrofit – Drill with 5/16" bit, 1/2" bit.	

2.5 Environmental Consideration

The following section provides information regarding the necessary environment for the SavkoLock Lockdown Assembly.

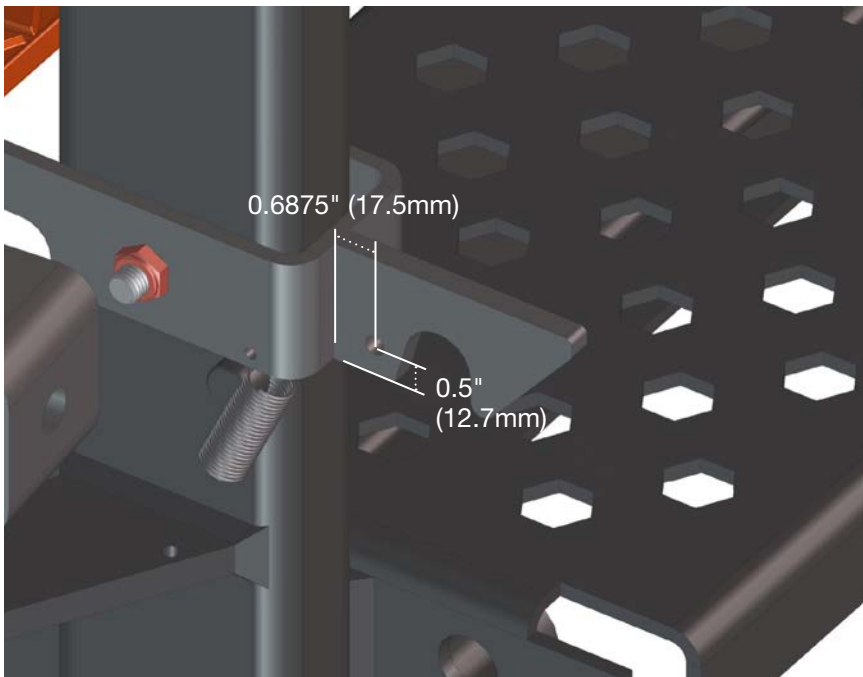
Minimum temperature range is -40 degrees F (-40 degrees C), maximum temperature is 200 degrees F (93 degrees C).

2.6 Installation Services

Installation can be provided by SafeRack Construction Services (SCS). Contact your local sales representative or call SCS at **844-727-7782** for a quotation.

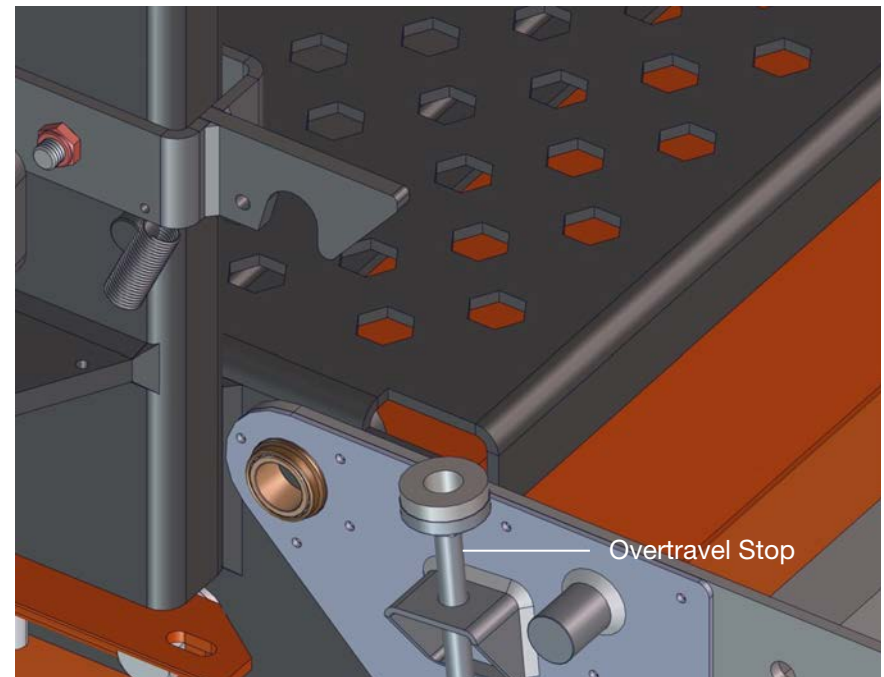
3.0 FOOTLOCK MODIFICATION

- For retrofit systems, foot lock will need to be modified.
- With gangway in operating position, drill hole $\varnothing 5/16"$ (8mm) in foot lock per dimensions shown.
- New gangway systems may already have this hole.



3.1 Remove Overtravel Stop

- Footlock side overtravel stop must be completely removed on this side of gangway before attaching cable.
- To remove the overtravel stop, the gangway must not be in stored position.





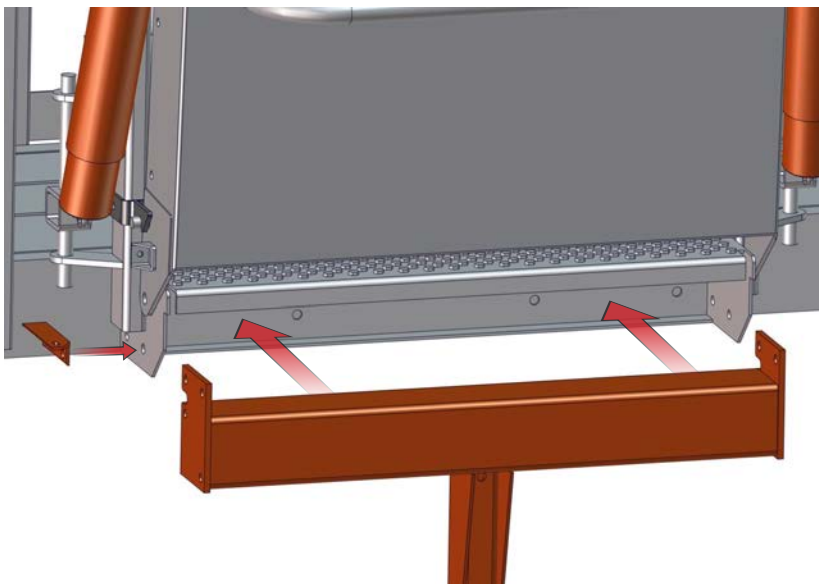
4.0 T-FRAME CONNECTION

4.1 Non-Tracking Gangway

4.2 Tracking Gangway

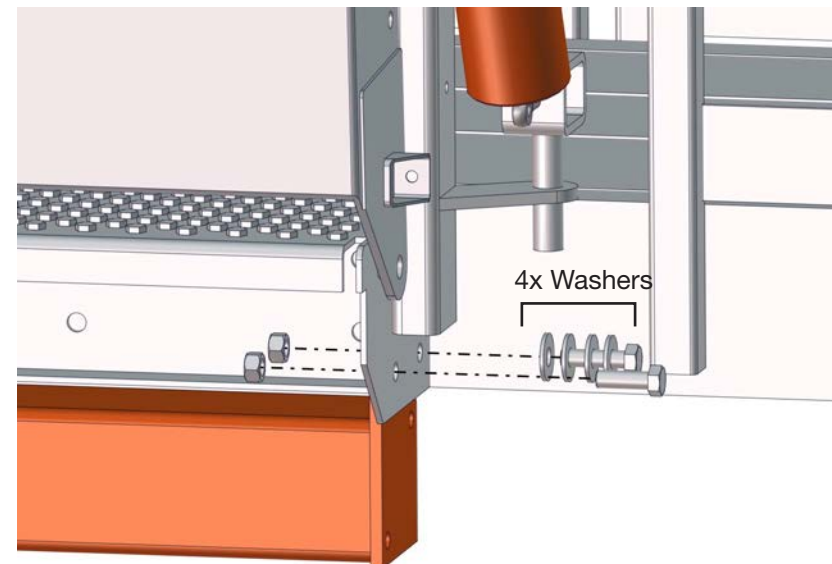
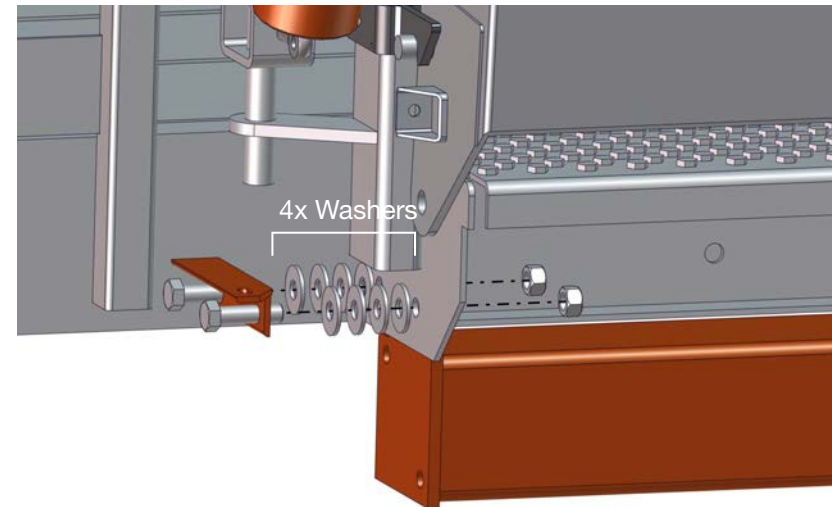
4.1 Non-Tracking Gangway

- Position T-frame and angle as shown.
- Secure with hardware as shown, bolt head oriented to the outside of the gangway.
- Hardware consists of (1) $\frac{3}{4}$ " x $2 \frac{1}{4}$ " and (3) $\frac{3}{4}$ " x $2 \frac{3}{4}$ " Galvanized bolts, $\frac{3}{4}$ " Galvanized nuts, and $\frac{3}{4}$ " flat washers.
- Securely tighten hardware.



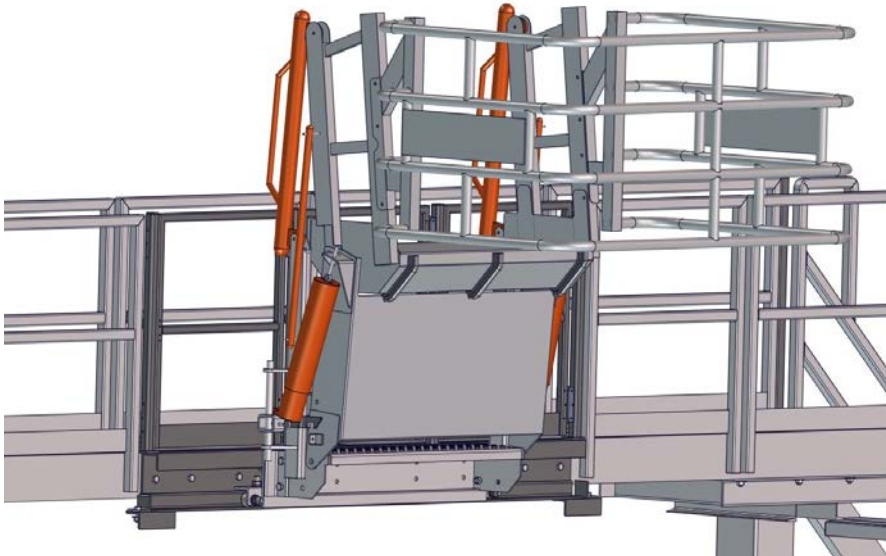
NOTICE

Washers used between basetread and angle.



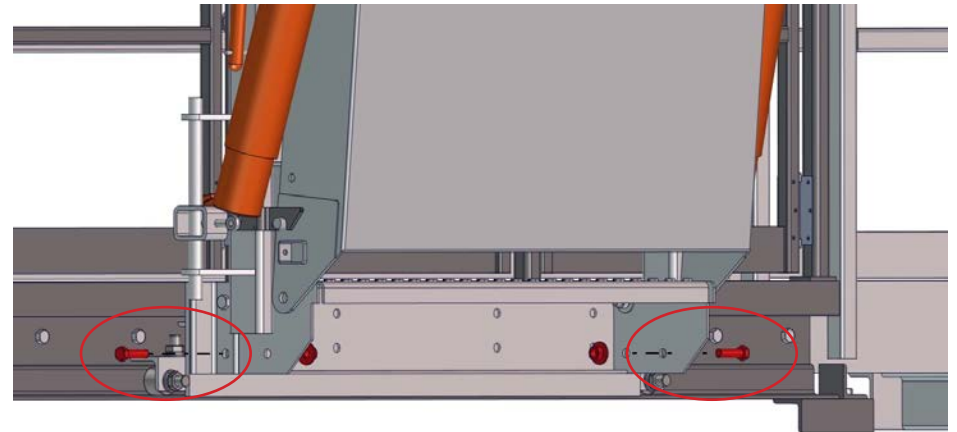
4.2 Tracking Gangway

- Once gangway is supported, remove lower bolts (shown in red) of carriage to gangway.



WARNING

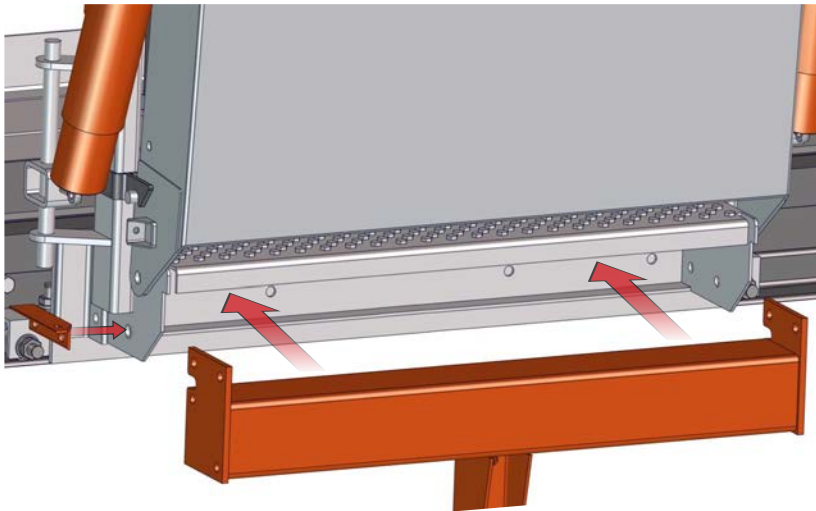
During installation, gangway should be securely supported or removed from platform. Failure to support gangway may result in death or serious personal injury.





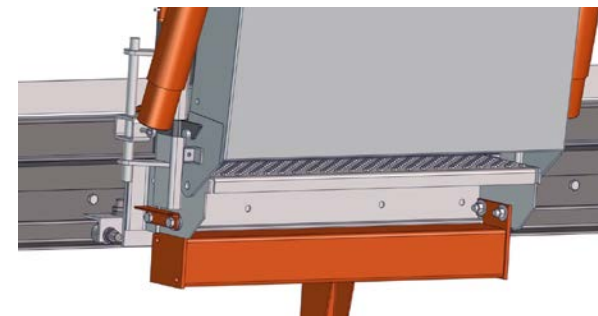
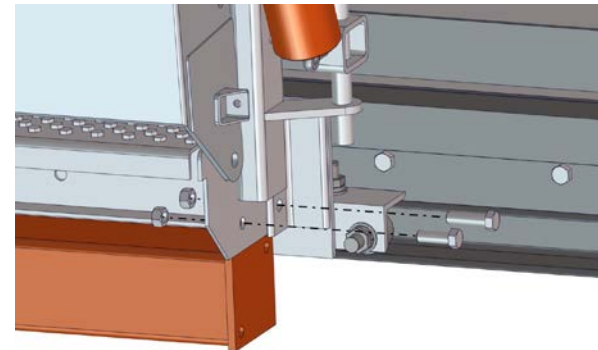
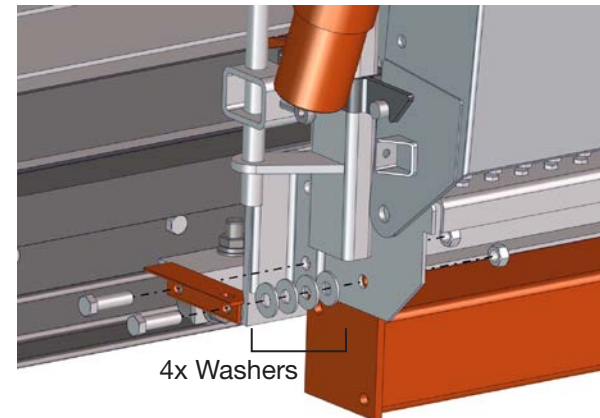
Tracking Gangway

- Position T-frame and angle as shown.
- Secure with hardware as shown, bolt head oriented to the outside of the gangway
- Hardware consists of (1) $\frac{3}{4}$ " x $2\frac{1}{4}$ " & (3) $\frac{3}{4}$ " x $2\frac{3}{4}$ " Galvanized bolts, $\frac{3}{4}$ " Galvanized nuts, and $\frac{3}{4}$ " flat washers.
- Securely tighten hardware.



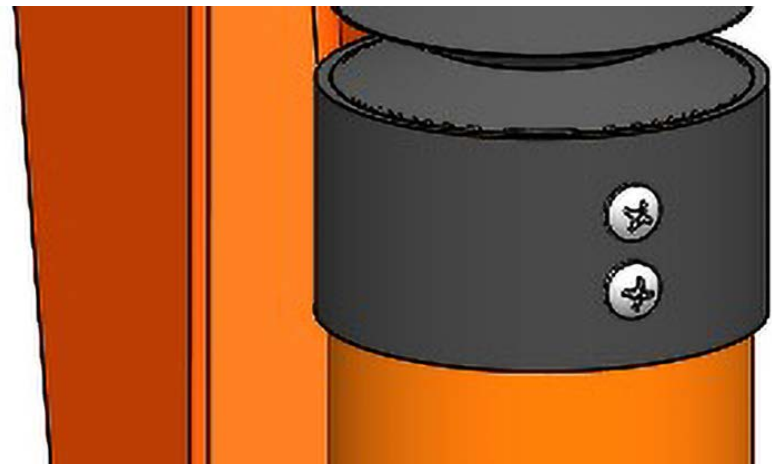
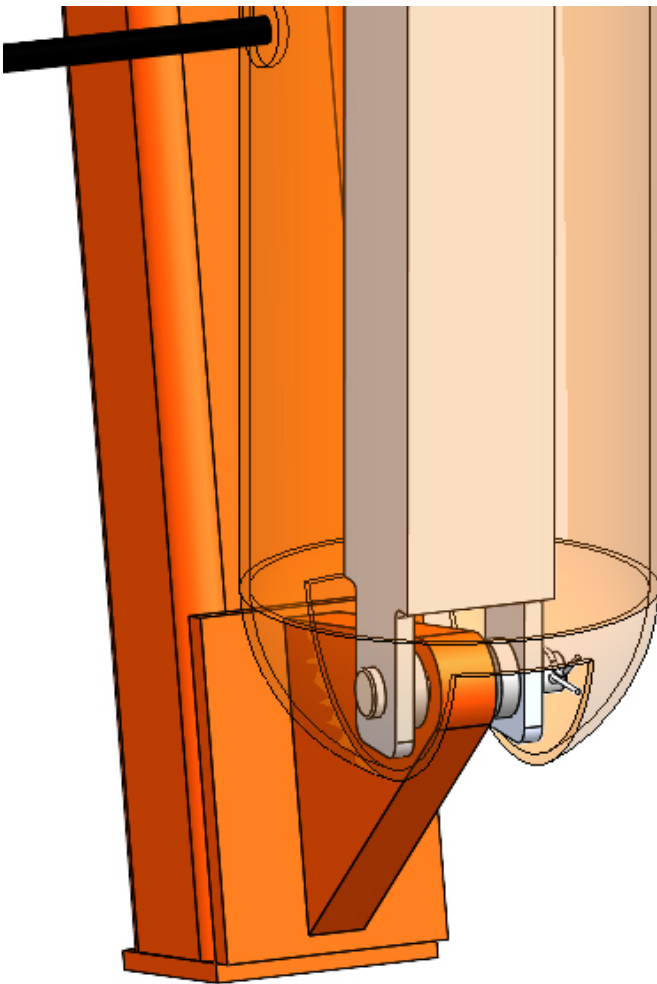
NOTICE

Washers used between basetread and angle.



5.0 MOUNTING CYLINDER TO T-FRAME

- Orient cylinder mechanism as shown.
- Position clevis of cylinder onto lug of T-frame.
- Insert mounting pin and cotter pin.



NOTICE

Bellow and Cover Screws may need to be loosened prior to inserting clevis pin.

6.0 FOOTLOCK

6.1 Cylinder Cable To Footlock

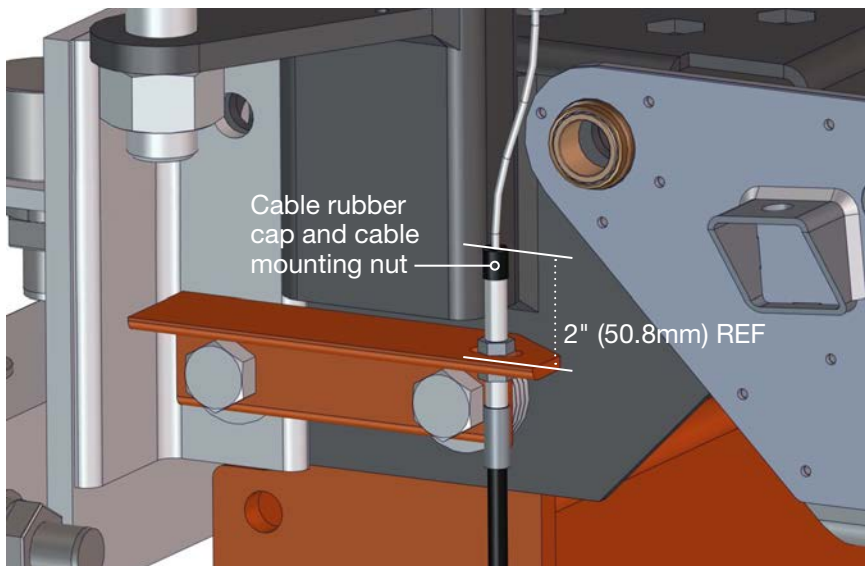
6.2 Lockdown Cable To Footlock

6.1 Cylinder Cable To Footlock

- In order to attach external threaded end of cable to bracket, remove cable's rubber cap and upper mounting nut.
- Slide through slot of bracket and reattach nut and rubber cap.
- Loosely tighten cable nuts to bracket.

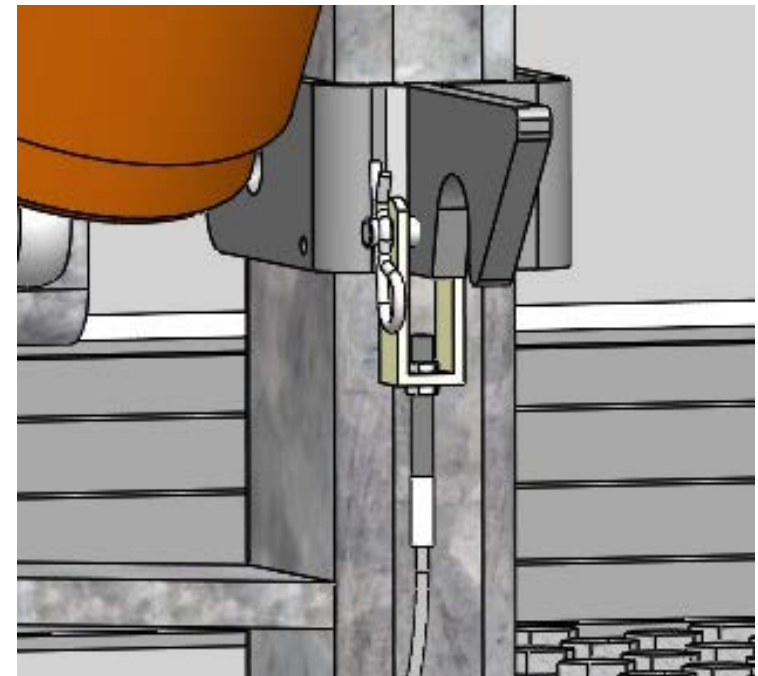
NOTICE

Cable nuts to be securely tightened after attaching cable end to footlock.



6.2 Lockdown Cable To Footlock

- Attach cable clevis to external threaded end of cable with minimum of 2 thin height nuts (supplied). This may be pre-assembled.
- Cable thread end may need to be adjusted so as to allow footlock to clear gangway lock pin and unlock Lockdown for gangway lowering.
- Insert clevis pin through clevis and footlock. Cotter pin to be located at spring side of gangway.
- Securely tighten hardware.

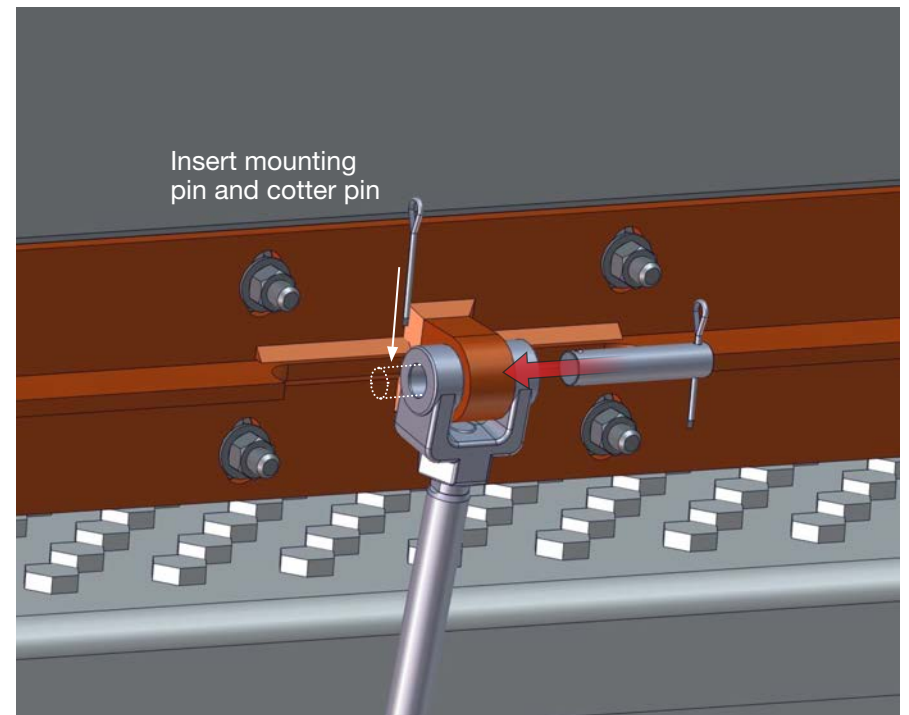
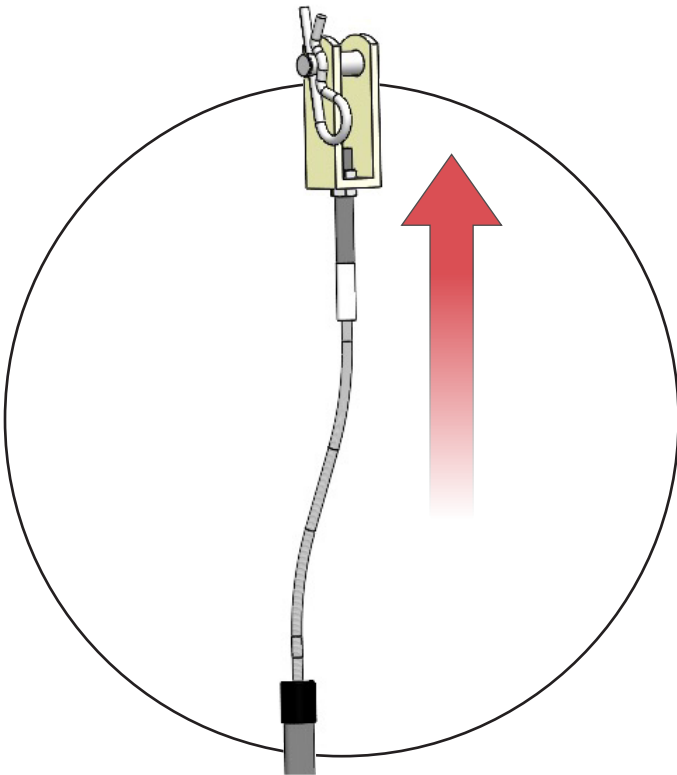


NOTICE

Lockdown cable to lockdown is pre-assembled at Manufacturer

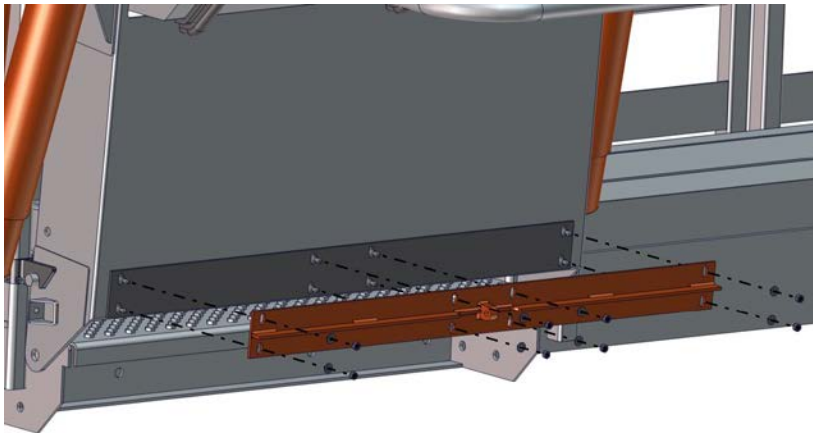
7.0 MOUNTING CYLINDER TO UNDERSLUNG

- In order to attach the rod end clevis to the underslung, pull the cable clevis allowing the rod to extend.
- Position rod end clevis onto lug of underslung mounting lug.
- Insert mounting pin and cotter pin.



8.0 UNDERSLUNG MOUNT

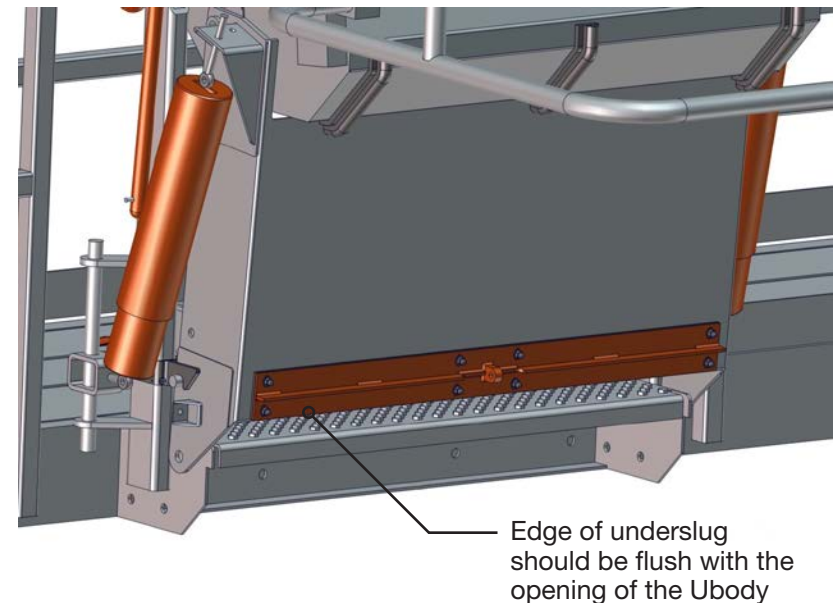
- For retrofit systems, gangway u-bodies will need to be modified.
- New systems may already have these holes.
- Dimensionally transfer the holes from underslung to the u-body (or locate and match drill).
- Underslung should be flush with the edge of the u-body closest to the basetread and centered on the width of the u-body.
- Drill holes $\varnothing 0.5"$ (12.5mm) in u-body.



NOTICE

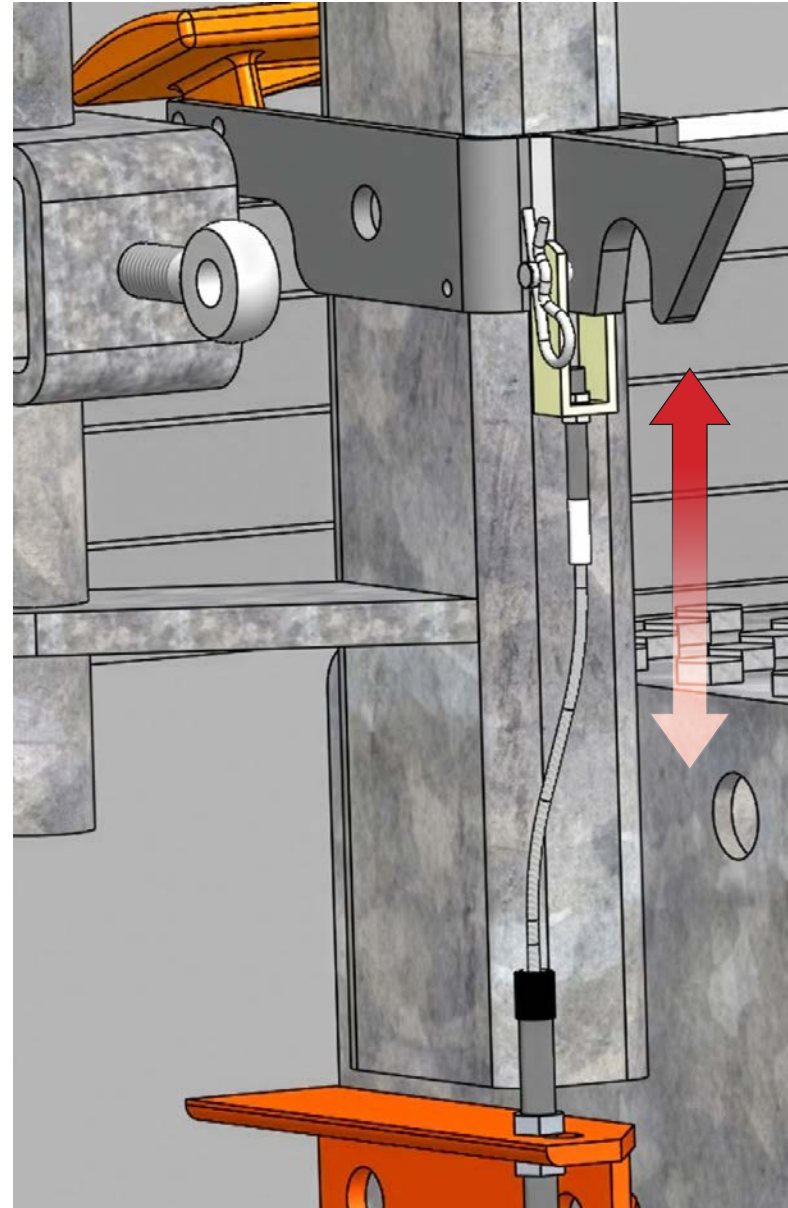
Retrofit gangways may have square tubing stiffener inside u-body. If hole pattern interferes with tubing, drill holes through square tubing and use the longer bolts provided.

- UHMW Isolation pad should be positioned between the u-body and the underslung mount.
- Bolt should be oriented with head inside of the u-body and the nuts and washers on the underslung mount. Use 3/8" stainless steel hardware provided in kit.
- Securely tighten all hardware.

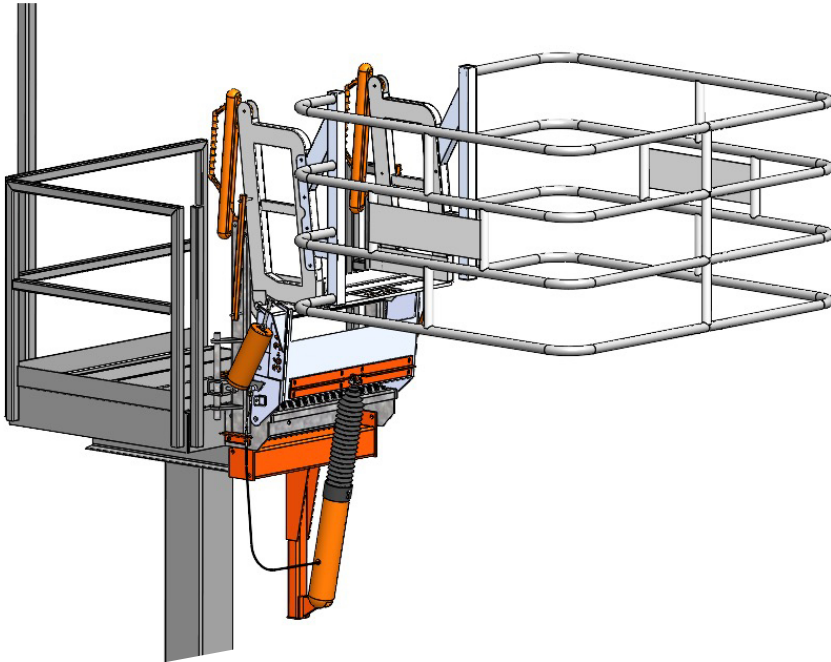


9.0 LOCKDOWN CABLE ADJUSTMENT

- Adjust cable mounting nuts to create slack in internal movable cable between the angle and footlock.
- Securely tighten cable mounting nuts.



10.0 SAVKOLOCK ASSEMBLY

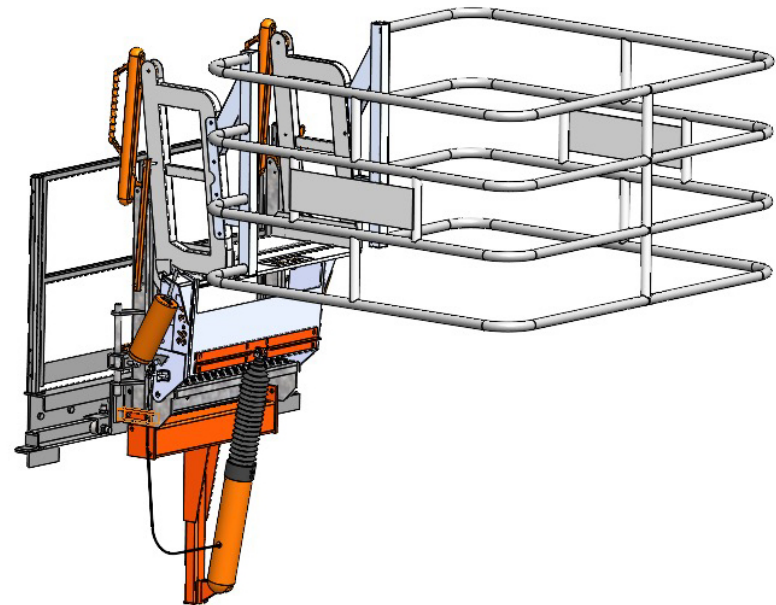


Face mounted gangways sizes

24

36

48



Tracking gangways sizes

24

36

48

11.0 OPERATION

11.1 Operation Safety Information

11.2 Raise and Lower Gangway

11.3 Operation Retrofit

11.1 Operation Safety Information

WARNING

Read carefully and understand all gangway and G4 gangway/cage lock-down assembly operation instructions before starting operating. Failure to follow all instructions may result in death or serious personal injury.

NOTICE

Refer to gangway owner's manual.

CAUTION

When releasing footlock, keep hands away from pivoting parts.

When lowering gangway, keep both hands on top handrails.

Gangway must be supported on vehicle or by chain stops. Do not use cage as a means of supporting the gangway. This can damage and/or break the cage.

Before using gangway, verify that the chain stops on both sides of the gangway are set.

When raising gangway, grab the pull-up rope securely.

NOTICE

For lock down, minimum temperature range is -40 degrees F (-40 degrees C), maximum temperature is 200 degrees F (93 degrees C).

WARNING

Failure to comply with these cautions could result in personal injury or damage to equipment.

11.2 Raise and Lower Operation

To Lower Gangway

Check area around gangway to ensure that objects and equipment are clear of articulating path of gangway.

Release gangway locking mechanism (foot lock) at base of upright.

Slowly lower the gangway using handles on top handrail. Lower unit until gangway end tread is approximately level with surface to be accessed.

Adjust chain stops and lock into chain stop keyholes on both uprights.

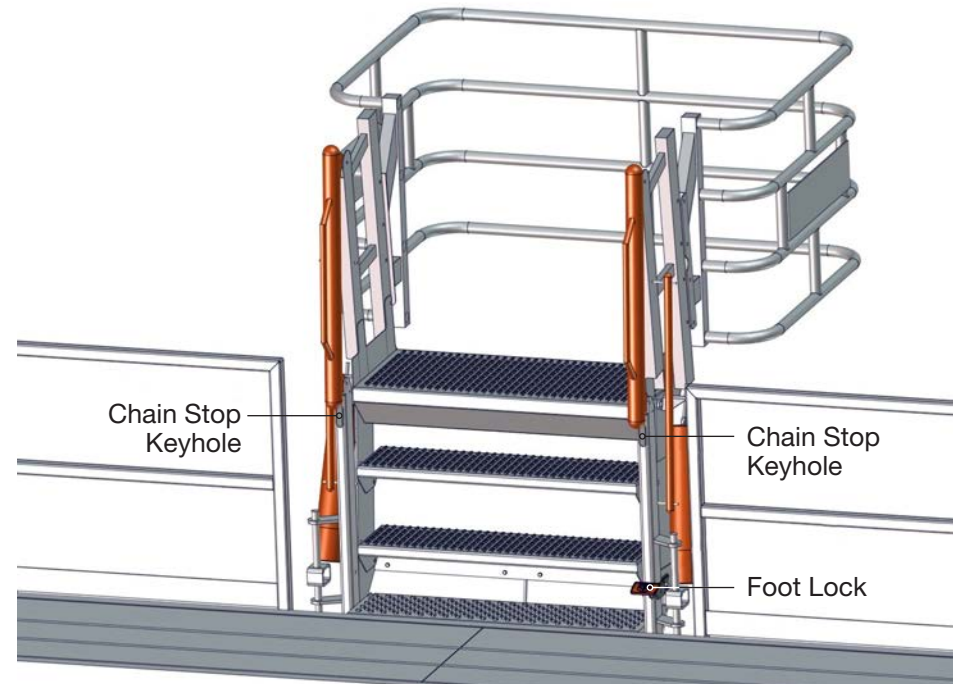
To Raise Gangway

Check area around gangway to ensure that objects and equipment are clear of articulating path of gangway.

Raise gangway by depressing and holding locking mechanism (foot lock) at base of upright and pulling up on the nylon pull-up rope attached to the right side of the gangway body.

Locking mechanism (foot lock) will engage when gangway reaches stored position.

Verify that foot lock is fully engaged when storing.



11.3 Operation Retrofit

FOR FIELD LOCK DOWN RETROFIT

(Prepare current label surface area for new label by creating a clean dry surface)

Step 1: Remove **GANGWAY OPERATION** label from the sheet provided in SavkoLock kit.

Step 2: Place directly over the existing **GANGWAY OPERATION** label located on gangway top handrail.

GANGWAY OPERATION

To LOWER Gangway:

- 1 Depress foot latch.
- 2 Push down on walk surface.
- 3 Set chain stops.

To RAISE Gangway:

- 1A For gangways equipped with SavkoLock, depress foot latch and hold.
- 1B Lift with rope.
- 2 Secure foot latch or set chain stops.



866.761.7225
www.saferack.com

For Patent(s), see: www.saferack.com/patents

3x6 Retrofit decal can be found in the SavkoLock kit that is provided.



12.0 WARRANTY

SELLER DOES NOT WARRANT THE MERCHANTABILITY OF ITS PRODUCTS AND DOES NOT WARRANT THE FITNESS OF THE PRODUCTS FOR A PARTICULAR PURPOSE. SELLER DOES NOT MAKE, AND HEREBY DISCLAIMS AND EXCLUDES, ANY WARRANTY, EXPRESS OR IMPLIED, OTHER THAN THE WARRANTY CONTAINED HEREIN. THERE ARE NO WARRANTIES EXPRESS OR IMPLIED BEYOND THAT WHICH IS DESCRIBED BELOW. WARRANTY OF GOODS MANUFACTURED BY SELLER

1. Except to the extent Seller specifies another warranty period in writing, Seller warrants products and parts manufactured by it and sold hereunder to be free from material defect in material and workmanship for a period of twenty-four (24) months from date of shipment (the "Warranty Period") provided, however, that Seller's sole responsibility under this warranty shall be to either repair or replace at Seller's option, any part which fails during the Warranty Period because of a defect in workmanship and material. Such replacement parts shall be provided at no cost to Purchaser, at the business establishment of Seller during regular working hours. Seller's obligation under this warranty shall not include any transportation charges, cost of installation, duty, taxes or any other charges whatsoever.
2. Seller shall be under no liability for breach of the warranty set forth herein: (i) unless the Equipment has been properly installed, used, maintained and serviced; (ii) unless Purchaser has promptly informed Seller in writing of the defect alleged within the Warranty Period and within 7 days of the discovery thereof; (iii) with respect to wearing and consumable parts; (iv) if Purchaser places Products in long-term storage and fails to perform proper long-term storage preparations per Seller's instructions; (v) and/or to Equipment or component parts or accessories thereof not manufactured by Seller.
3. SafeRack equipment is designed and manufactured to strict tolerances and any modification may affect the performance and void the warranty. SafeRack cannot approve a customer's modification or its potential impact on the performance of SafeRack's equipment. Any risk of potential negative impact on the performance, durability or safety of the equipment, and any liability arising therefrom, is solely born by the customer.
4. Seller makes no representation regarding compliance with any state, provincial, or local law, rules, regulations, building code or ordinance relating to the installation or operation of the Equipment.
5. If the Purchaser informs the Seller of a defect after the Warranty Period has expired, then Seller may offer advice (free of charge) and may offer repair or replacement at Purchaser's expense. Any dispute as to whether a defect is covered by the Warranty shall be immediately referred to an expert to be agreed by Seller and Purchaser whose decision shall be final and binding upon the parties.

12.1 Other Manufacturer Products Warranty

Seller makes no warranties or representations of any kind whatsoever, either expressed, implied or statutory on any component parts or accessories sold hereunder which are not manufactured by Seller.

Seller hereby extends the manufacturer's warranty or guaranties, if any, given to Seller by the manufacturer of said component parts and accessories, but only to the extent Seller is able to enforce such warranty or guaranties.

Seller does not guaranty warranties of other manufacturers' products. Claims under any manufacturer's warranty shall be made in accordance with the manufacturer's requirements regarding the return, repair or replacement of the goods.

Seller agrees to use its best efforts and will cooperate with Purchaser in enforcing any claims against manufacturer(s) for defects that may occur.



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