



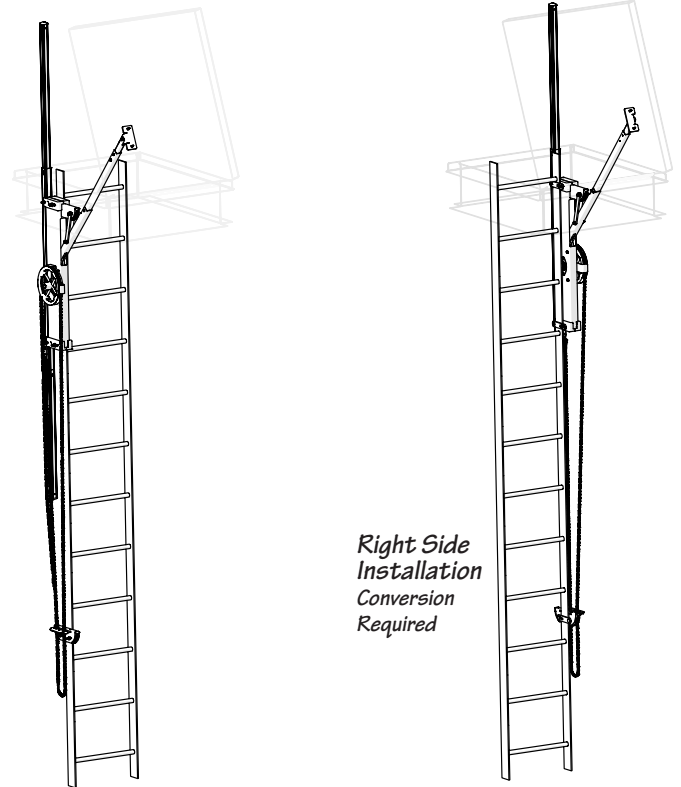
MANUFACTURING INGENUITY

# Hatch Mate Installation & Safety Manual

Part ID: 73057

The Innovative design of the Hatch Mate uses a simple chain mounted to an actuation pulley. The Chain can readily be shortened or lengthened based on interior ceiling height. The standard length chain that comes with each Hatch Mate allows for installation and ease of access to roof heights up to 28 ft.

Once the operator releases the pull chain from the lower chain lock mounting bracket, several pulls on the chain closest to the operator unlocks the upper roof hatch, opens the roof hatch and extends the 36 inch Safety Hand Pole. Once finished, the operator simply pulls down on the opposite side of the chain until the safety pole and roof hatch are fully retracted and closed. One final tug on the inside chain is required to confirm full closure and the chain is then placed back into the chain lock mounting bracket. The chain lock mounting bracket can be permanently locked with a standard lock and key.



## ATTENTION

This Hatch Mate is designed for a standard "LEFT" side installation. In the event a "RIGHT" side installation is required, a simple hardware conversion is available. "RIGHT" side Hatch Mate conversion is detailed on pages 16-19.



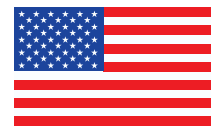
## WARNING



Serious injury or death may occur if this equipment is used for purposes other than intended. Tie Down provides the following instructions for the use and care of this equipment. It is the responsibility of the user to understand and convey proper instructions to any and all individuals who use this product.



Online  
Manual



MADE IN THE USA  
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**WARNING:** This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer. For more information go to: [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Instruction #08437 (E1966 - Rev. 9/23)



MANUFACTURING INGENUITY

404-344-0000 • [www.tiedown.com](http://www.tiedown.com)  
605 Stonehill Drive SW, Atlanta, GA 30336  
[sales@tiedown.com](mailto:sales@tiedown.com)

# Pre Installation Notes and Warnings

Please read the entire Installation Manual carefully before beginning the installation process.

Remove from box, lay out all parts and, referring to the parts detail on next page, ensure that all parts are included prior to installation. If parts are missing, contact Tie Down at 404-344-0000, 8:00am - 5:00 pm EST, Monday – Friday.

The Tie Down Hatch Mate can be installed by one person (with a proper harness), it is highly recommend to be installed by two people. Expect installation to take about 1.5 to 2 hours.

The Tie Down Hatch Mate is installed at multi-able points on the roof access ladder, a hard hat and safety harness or fall protection gear are required for the installer. All safety equipment is also required for any additional installers assisting with the installation.

The Tie Down Hatch Mate is designed for hatch ladders that meet Occupational Safety and Health Administration (OSHA) standards, which recommend that the ladder be 18" wide and that rungs be 12" apart. The system can be installed on nonstandard ladders, but the installation process will be somewhat different and installation might take longer than anticipated for standard ladders.

## Tools Required:

Electric drill  
1/4" & 3/8" Socket  
Screw driver  
\_\_\_" Hex head key  
Tape measure

## Safety Equipment:

Hard hat/climbing helmet  
Ladder safety harness or fall protection harness  
Ladder(s) - either extension ladder or a A-frame ladder, both can be used if you or second installer wish to work on the side of the hatch ladder.



## Hatch Mate Installation Options

The Tie Down Hatch Mate can be installed by one person with a Ladder Safety Harness.

**It is highly recommend to be installed by two people with two options for installation:**

Extension ladder placed along side of the roof access ladder as shown in Fig. 2-3  
or

Lifting the Hatch Mate main assembly from the roof/hatch using the supplied rope and clip as shown in Fig. 2-4.

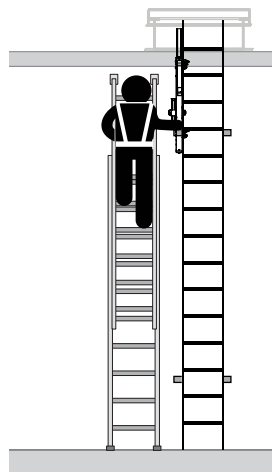


Fig. 2-3

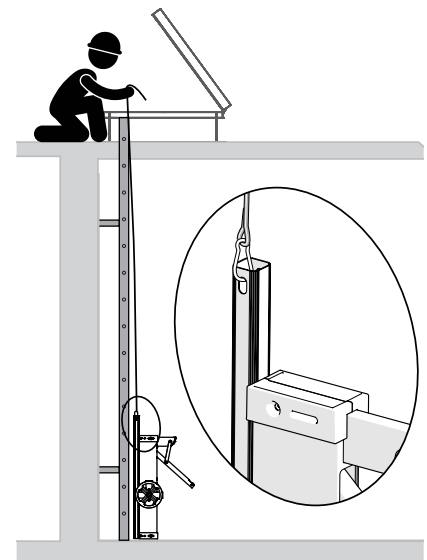
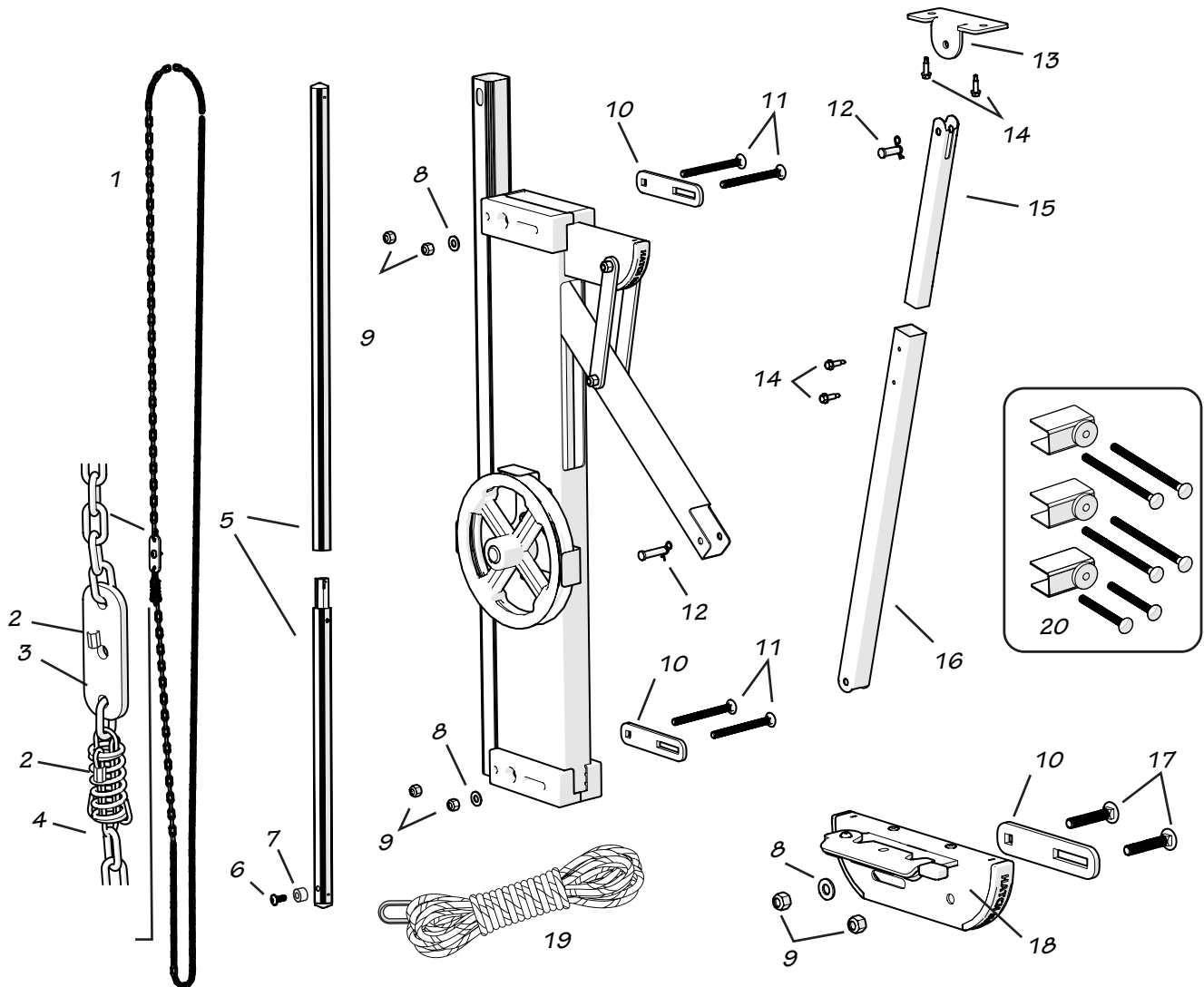


Fig. 2-4

# Hatch Mate Part Details

Before assembly/installation: Verify all components are included.

In the event any pieces or parts are missing contact Tie Down Customer Service at 404-344-0000 or sales@tiedown.com.



#	Qty.	✓ Description	Part ID:
1	1	Chain Assembly - 20' length	TBD
2	2	Quick Link	TBD
3	1	Spring Chain Connect	TBD
4	1	Compression Spring	TBD
5	1	Safety Grab Rail Assembly	73057-14
6	1	Button Head Screw	12203
7	1	Spacer	TBD
8	3	Washer 3/8"	10841*
9	6	Nyloc Nut 3/8"	10627*
10	3	Ladder Mounting Bracket	73057-5
11	4	Carriage Bolt, 3/8"-16 x 4.5"	12273*
12	2	Clevis Pin/Clip	1004-1045

#	Qty.	✓ Description	Part ID:
13	1	Hatch Mounting Bracket	73051-1
14	4	Self Tapping Screw, 1/4"-14 x 1"	10846*
15	1	Hatch Pushing Inner Tube	73057-3
16	1	Hatch Pushing Outer Tube	73057-2
17	2	Carriage Bolt, 3/8"-16 x 2.25"	10571*
18	1	Chain/Lock Assembly	73057-12
19	1	Rope with Carabiner Clip	TBD
20	1	Angle Iron Ladder Kit	TBD
	3	Ladder Spacer Bracket	TBD
	4	Carriage Bolt, 3/8"-16 x 6.5"	TBD
	2	Carriage Bolt, 3/8"-16 x 4.5"	12273*

\* The parts list and descriptions are for assembly and general information only. Under normal working conditions parts will wear out or come loose. Common hardware listed is available at your local hardware store.

# Main Assembly Installation

## ATTENTION

This Hatch Mate is designed for a standard “LEFT” side installation. In the event a “RIGHT” side installation is required, a simple hardware conversion is available. “RIGHT” side Hatch Mate conversion is detailed on pages 16-19.

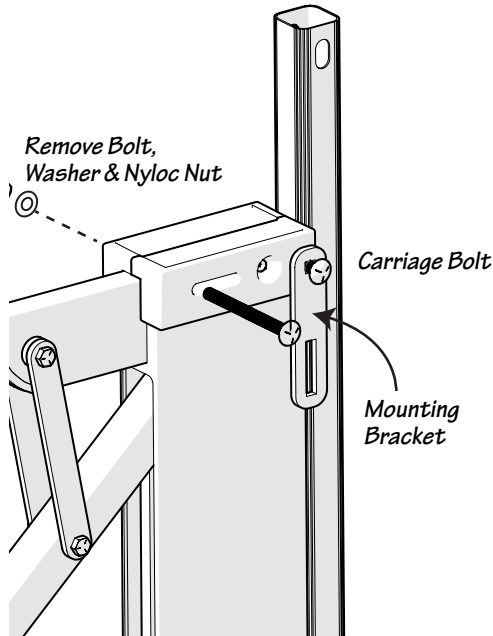


Fig. 4-1

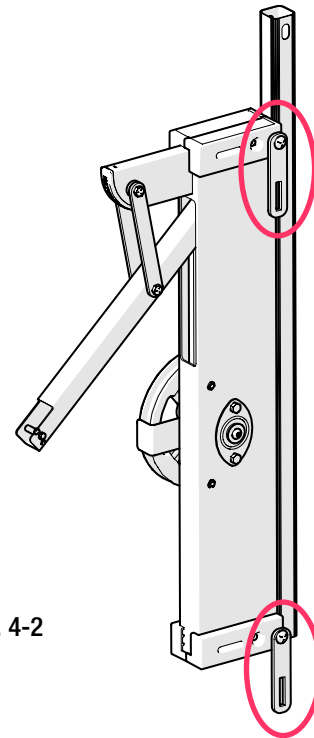


Fig. 4-2

### Step 1

Working on ground level, collect the main Hatch Mate assembly, 2- ladder mounting brackets, 2 - 3/8”x4.5” carriage bolts and nylock nuts. NOTE: For right side installation, these two mounting brackets install on the opposite side of the chain wheel.

### Step 2

Pass the carriage bolt through the mounting bracket “Square” hole. Insert the carriage bolt through the main Hatch Mate assembly as shown in Fig 4-1. Attach a 3/8” nylock nut over the opposite side carriage bolt as shown in Fig 4-1 NOTE: This assembly step does not include a washer. Do not tighten the nylock nut. Allow the mounting bracket to hang loose.

### Step 3

Repeat Step 1 for the lower ladder mounting bracket as shown in Fig. 4-2.

## Hatch Mate Installation Options

The Tie Down Hatch Mate can be installed by one person with a Ladder Safety Harness.

**It is highly recommend to be installed by two people with two options for installation:**

Extension ladder placed along side of the roof access ladder as shown in Fig. 4-3

or

Lifting the Hatch Mate main assembly from the roof/hatch using the supplied rope and clip as shown in Fig. 4-4.

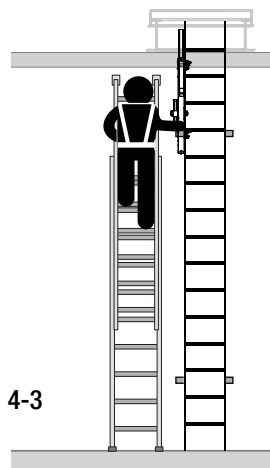


Fig. 4-3

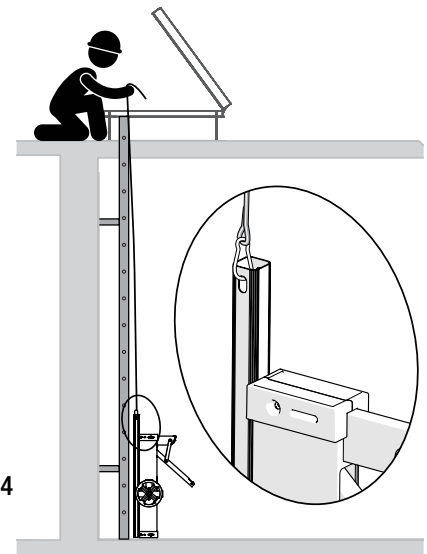


Fig. 4-4

# Main Assembly Installation

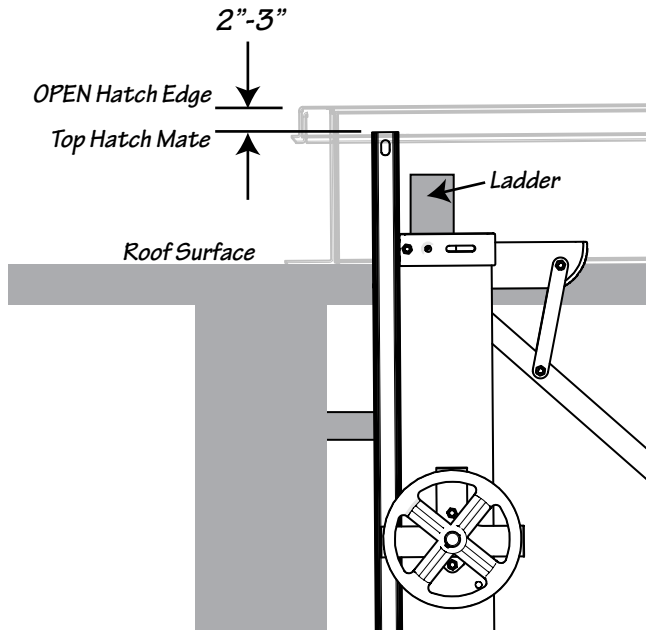


Fig. 5-1

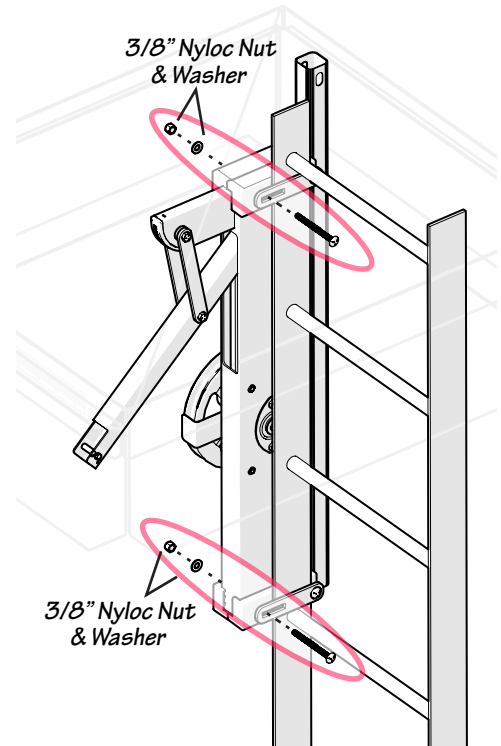


Fig. 5-2

## Step 4

Before raising the Hatch Mate assembly, collect 2 - 3/8" x 4.5" carriage bolts, 2 - 3/8" washers and 2 - 3/8" nylock nuts.

## Step 5

Carefully raise the Hatch Mate main assembly to the roof hatch following the "Hatch Mate Installation Options" on page 4.

## Step 6

Roughly position the main assembly so that the top of the extension tube on the main assembly is about 2-3" below the open hatch edge as shown in Fig. 5-1.

## Step 7

Assemble the lower ladder mounting bracket first. Working from the inside of the ladder, pass the 4.5" carriage bolt through the mounting bracket and main assembly as shown in Fig. 5-2.

## Step 8

Working from the opposite side of Hatch Mate, slide a 3/8" washer over the carriage bolt and attach a 3/8" nylock nut. Do Not Tighten the nylock nut. Allow the main Hatch Mate assembly to rest on the closest ladder rung.

## Step 9

Repeat Steps 7 & 8 for the upper ladder mounting bracket.

## Step 10

Working from the top of the ladder/roof hatch. Adjust the Hatch Mate main assembly up or down (Fig. 5-3) so the top of the top of the extension tube on the main assembly is about 2-3" below the open hatch edge as shown in Fig. 5-1.

## Step 11

Once the main assembly is in place, tighten the 2 - 3/8" nylock nuts on both the upper and lower ladder mounting brackets.

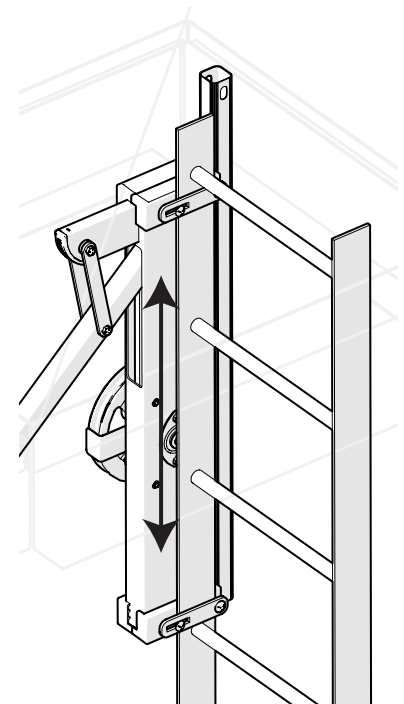


Fig. 5-3

# Hatch Pushing Tube Installation

## Step 1

Locate Hatch Pushing tube assembly.

**NOTE: The pushing tubes and bracket ship fully assembled.**

In the event the tubes become separated, reassemble as shown right. Take care to make sure the inner tube/hatch mounting bracket is perpendicular to the mounting holes on the outer pushing tube as shown in Fig. 6-1.

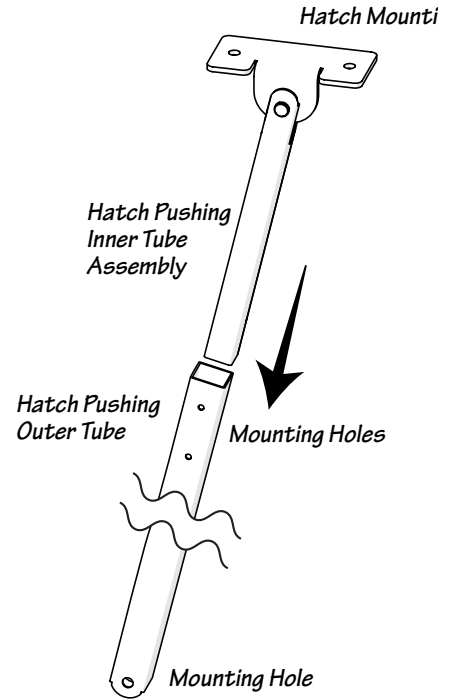


Fig. 6-1

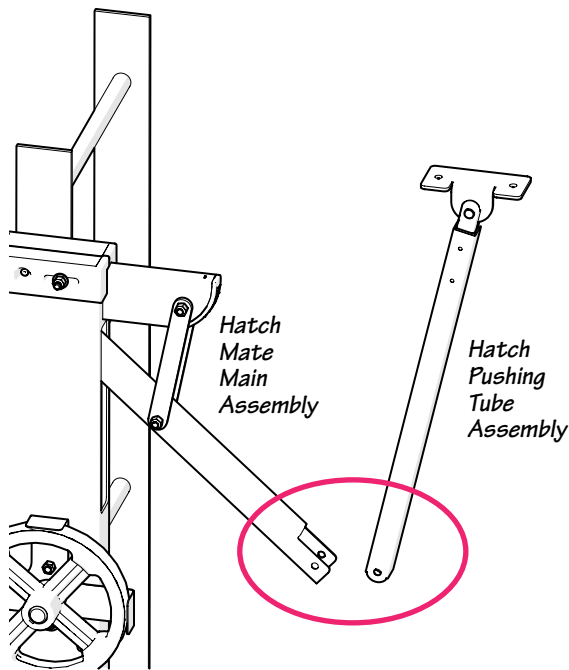


Fig. 6-2

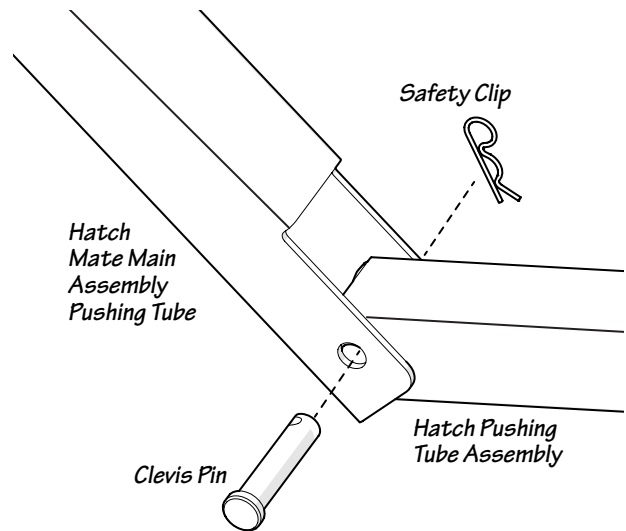


Fig. 6-3

## Step 2

Collect the one clevis pin and safety clip (#12 on page 3).

Working from the top of the ladder, align the Hatch Pushing Tube Assembly with the Hatch Mate main assembly as shown in Fig. 6-2.

Insert the pushing tube into the main assembly pushing tube as shown in Fig. 6-3.

Slide the Clevis Pin through both pushing tubes coming out the opposite side.

Secure the Clevis Pin with the safety clip as shown in Fig. 6-3.

# Hatch Pushing Tube Installation

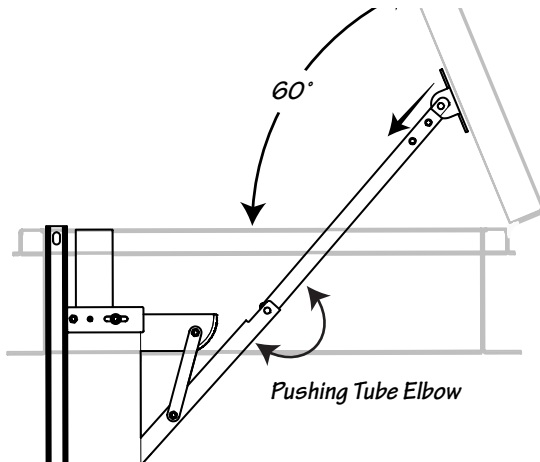


Fig. 7-1

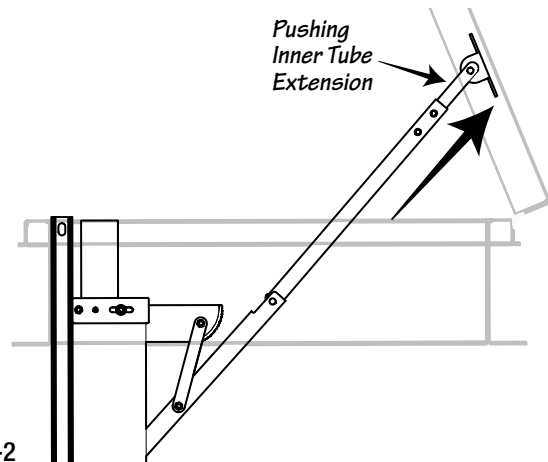


Fig. 7-2

## Step 3

Fully open the roof hatch. Rotate the Hatch Mate chain wheel counter-clockwise raising the pushing tube to its maximum height as shown above in Fig. 7-1. Make sure the inner tube extension is fully retracted within the outer pushing tube as shown in Fig. 7-1. The following assembly steps can take place from the top of the ladder/hatch or from the roof top.

## Step 4

Fully extend the pushing tube "elbow" so that both pushing tubes are aligned straight to each other and shown in Fig. 7-1.

## Step 5

Slide the Pushing Inner Tube outward until it comes in contact with the open hatch as shown in Fig. 7-2.

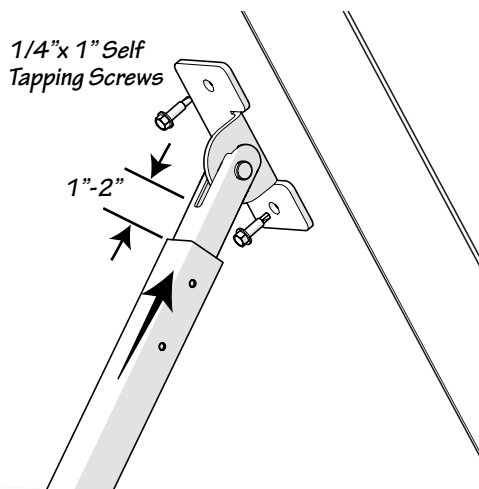


Fig. 7-3

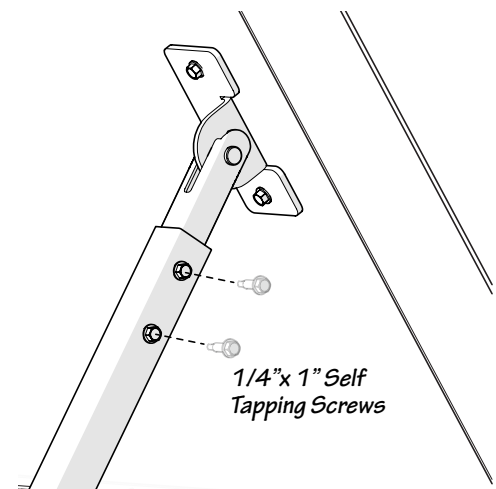


Fig. 7-4

## Step 6

Collect 4 - 1/4" x 1" Self Tapping Screws (#14 on page 3). Secure the hatch mounting bracket to the hatch door with two self tapping screws as shown in Fig. 7-3.

## Step 7

Make sure the hatch door is FULLY opened, fasten the outer and inner pushing tube together using two self tapping screws as shown in Fig. 7-4.

# Grab Rail and Chain Assembly

## Step 1

Locate upper and lower grab rails.

Slide the upper grab rail over the lower grab rail as shown in Fig. 8-1. Using a hex head key turn the hex head nut clockwise. As the hex head nut turns the inner tube hardware will expand securing the upper and lower grab rails firmly together.

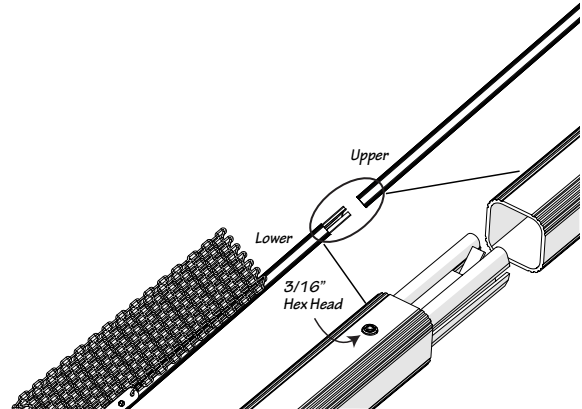


Fig. 8-1

## Step 2

Locate chain assembly, spacer and button head screw.

Lay the grab rail on a flat surface with the rib nut mount on top as shown in Fig. 8-2.

Lay the spacer over the rib nut mount. Lay the chain assembly along side of the grab rail. Position the spring chain connector just over the spacer/grab rail as shown right. Slide the button head screw through the spring chain connector and the spacer connecting with the rib nut mount located at the bottom of the full grab rail.

Tighten the button head screw just enough to allow the spring chain connector to rotate.

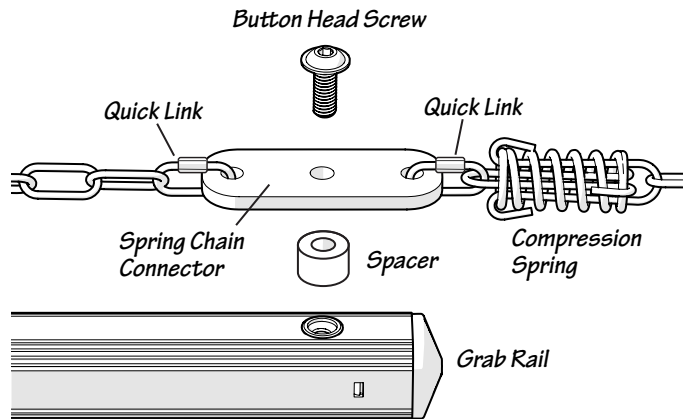


Fig. 8-2

**⚠ WARNING ⚠**

**LADDER SAFETY HARNESS IS REQUIRED DURING INSTALLATION**

Always maintain three points of contact. That means two hands and one foot or two feet and one hand on the ladder at all times.

During this installation process it is recommended for two worker installation and the use of an extension ladder placed along side of the roof access ladder as shown in Fig. 2-3.

## Step 3

Insert the top end of the grab rail in the rail tube. Make sure the chain assembly/spring is on the outside of the main Hatch Mate housing as shown in Fig. 8-3.

Continue sliding the grab rail upward until it stops against the spring chain/button screw/spacer as described in Fig. 8-2.

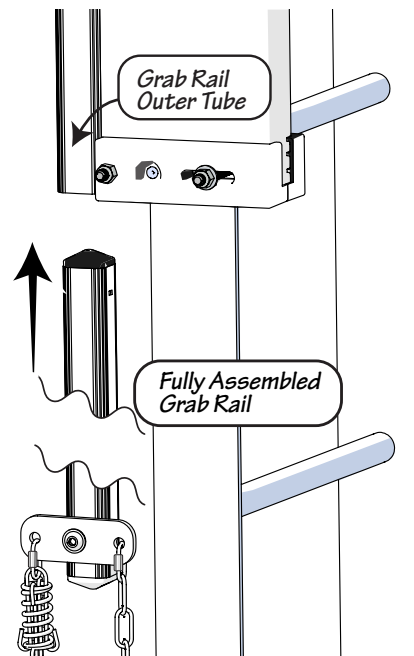


Fig. 8-3



# Grab Rail and Chain Assembly

## STEP 4

Rotate the chain spool clockwise until it and the pushing tube/hatch door is fully extended.

## Step 5

The 1st worker, working from the roof access ladder, hold the grab rail in its upper most position "1" as shown in Fig. 9-2.

The 2nd worker, working from the extension ladder, position the chain up and over the chain guard, resting over the outside of each chain guard "2, 3 & 4" in Fig. 9-2.

## Step 6

The 2nd worker, working from the extension ladder, remove any slack in the chain links around the chain guard by pulling the chain up and over the chain guard/spool. Wedge a chain link between the chain spool and guard as shown in "4" in Fig. 9-3.

Carefully rotate the chain spool counter clockwise allowing the chain to rotate with the chain spool. The 1st worker can release the grab rail. As the chain spool rotates the grab rail will lower in relation to the chain spool.

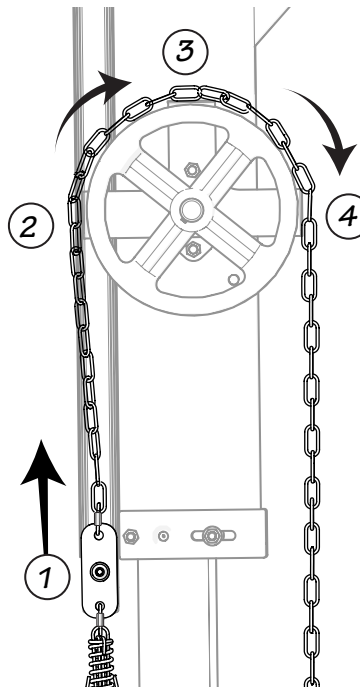


Fig. 9-2

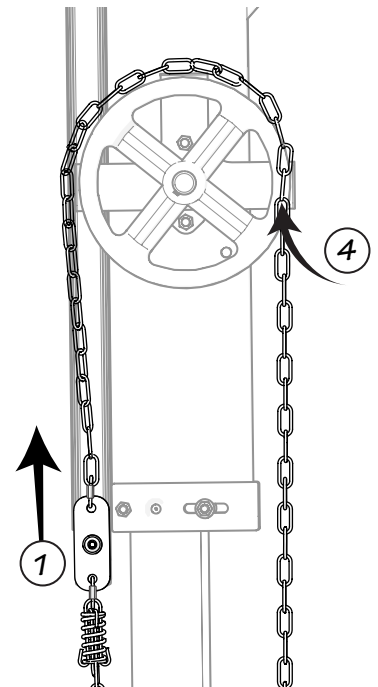


Fig. 9-3

## Step 7

The 2nd worker, continue turning the chain spool counter clockwise. The chain between the chain guard and spool will rotate to the next chain guard cover "5" in Fig. 9-4. Wedge the chain between the guard and spool. Keep rotating the spool. As the chain spool rotates the grab rail will lower in relation to the chain spool.

## Step 8

The 2nd worker, continue turning the chain spool counter clockwise. The chain between the chain guard and spool will rotate to the next chain guard cover "6" in Fig. 9-5. Wedge the chain between the guard and spool. As the chain spool rotates the grab rail will lower in relation to the chain spool.

## Step 9

The chain should be completely between the wheel spool and chain guard. The chain should move freely up and down with the chain spool. The grab rail should raise up and down in relation to the chain. The Hatch Mate pushing tube and hatch door should also raise and lower equally with the chain spool/chain.

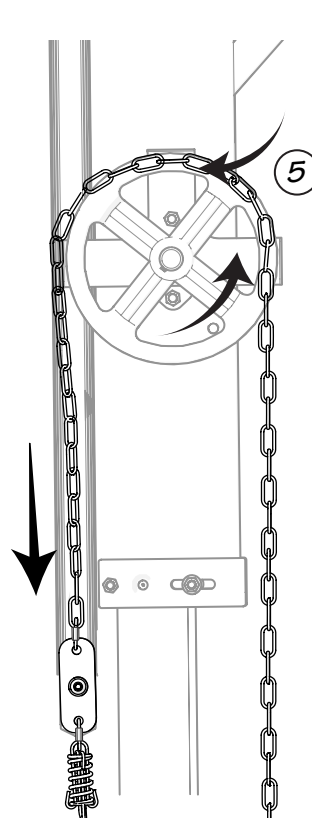


Fig. 9-4

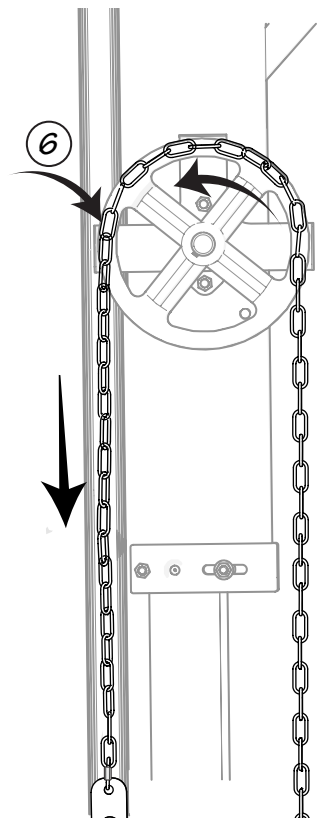


Fig. 9-5

# Chain Lock Installation

## STEP 1

Locate from the hardware kit:

2 - 3/8"x2.25" carriage bolts

1 - Ladder mounting bracket

1 - 3/8" nyloc nut & washer

Set aside 1 carriage bolt/nyloc nut and washer.

Insert the 2.25" carriage bolt through the ladder mounting bracket from the "Ladder" side of the chain/lock assembly as shown in Fig. 5-1.

Slide the carriage bolt passing through the elongated mounting hole as shown in Fig 10-1. Loosely attach the 3/8" washer & nyloc nut on the carriage bolt. Do not tighten nut.

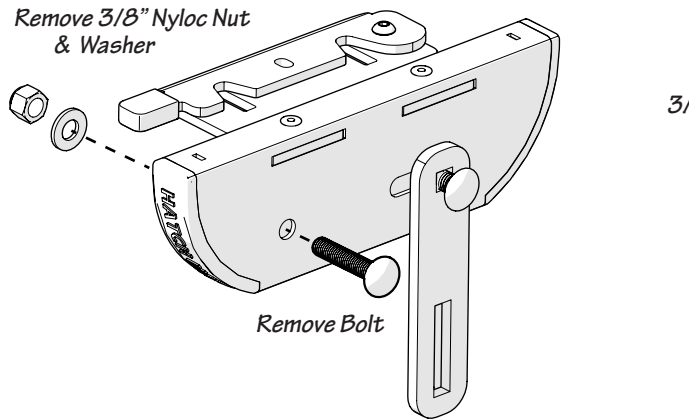


Fig. 10-1

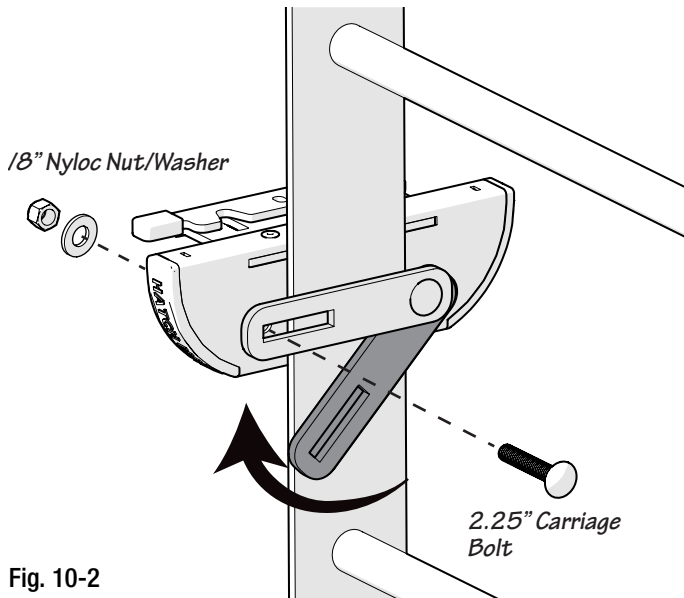


Fig. 10-2

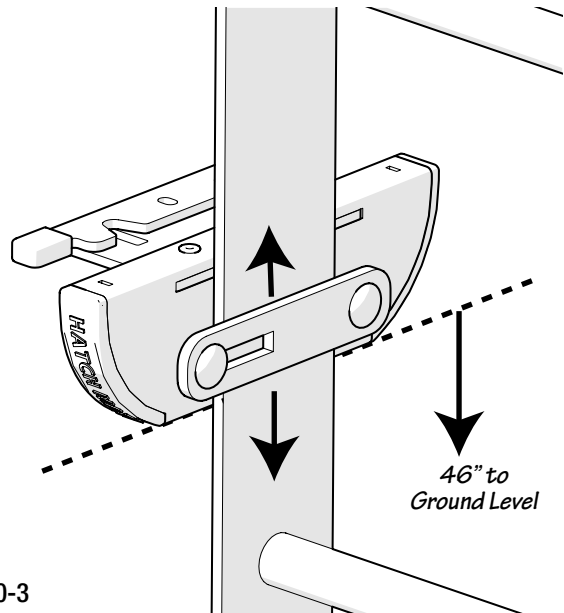


Fig. 10-3

## STEP 2

Position the chain/lock assembly on the outside of the hatch ladder roughly 46" above ground level.

Rotate the ladder mounting bracket 90 degrees upward aligning with the mounting hole as shown in Fig. 5-2 above.

Insert the 2.25" carriage bolt through the mounting bracket passing through the chain/lock assembly. Loosely attach nyloc nut.

## STEP 3

Slide the chain/lock assembly up or down on the hatch ladder, position the assembly approx. 46" above ground level. Tighten bolt nylock nuts.

# Closing/Locking the Hatch Mate

## STEP 1

Pull the chain assembly (closest to the wall) downward. Making sure to pull the chain that is directly connected to the hand rail/spring tensioner as shown in Fig. 11-1.

As the chain assembly is pulled downward the chain spool will rotate lowering the hatch pushing tube and roof hatch.

## STEP 2

Continue pulling the chain assembly downward until it stops. Slide the forward chain links into the front slot on the chain lock assembly as shown in Fig 11-1 & 2.

## STEP 3

While the forward chain is in the retaining slot on the chain lock assembly pull downward on the rear chain firmly. The spring tensioner will compress. While firmly holding the tension in the chain, slide the chain links into the back slot on the chain lock assembly as shown in Fig. 11-2.

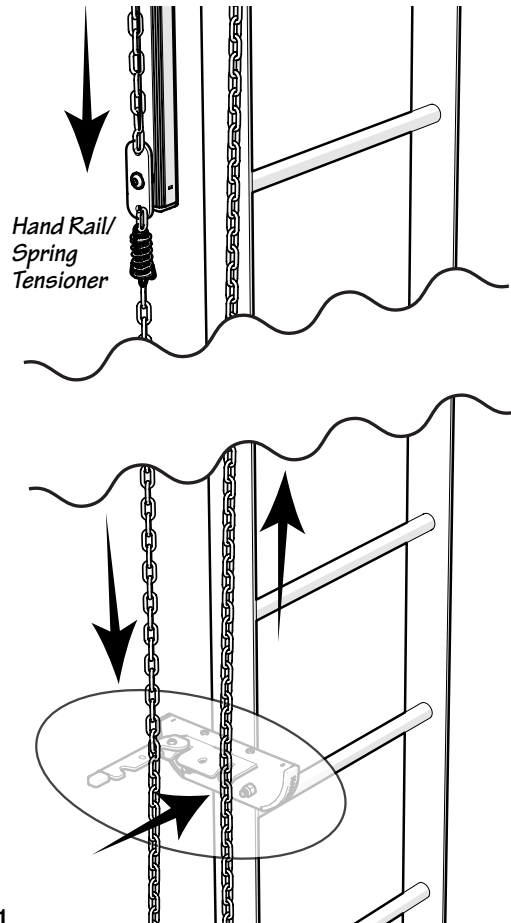


Fig. 11-1

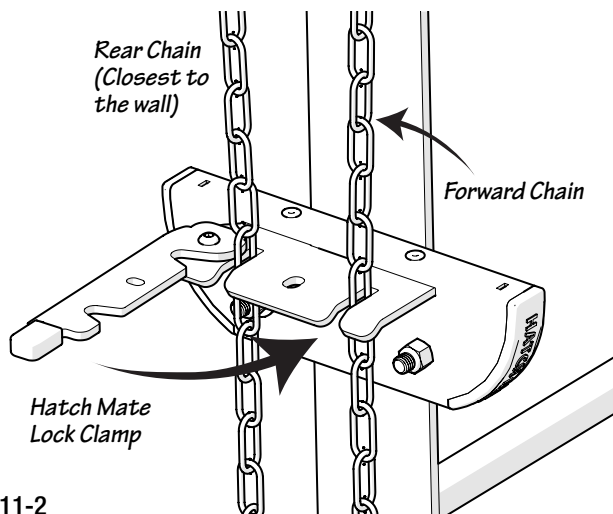


Fig. 11-2

## STEP 4

Rotate the Hatch Mate lock clamp forward securely locking the chain links within the clamp and chain lock assembly.

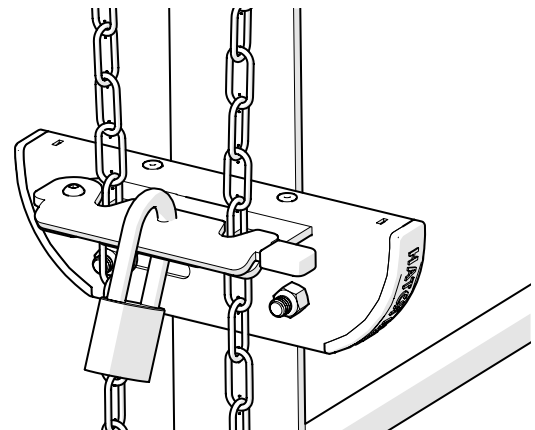


Fig. 11-3

## STEP 5

For additional roof top safety a lock may be added by attaching it through the clamp and lock assembly as shown above in Fig. 11-3

# Hatch Mate Right Side Conversion

## ATTENTION

The following pages 16-19, are detailed instructions designed to “Flip” the Hatch Mate for right side ladder assembly and use.

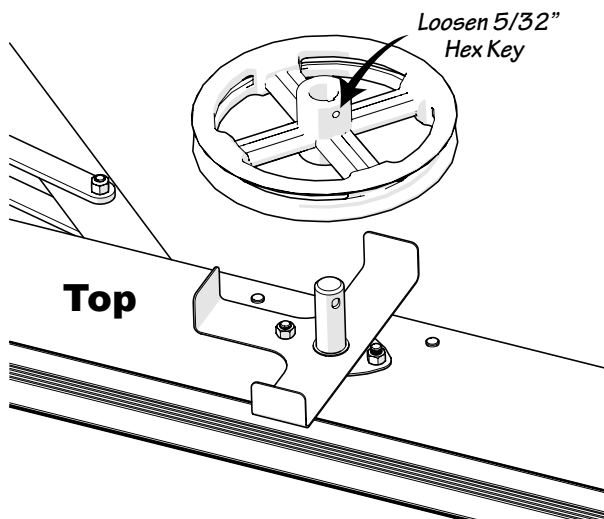


Fig. 12-1

### STEP 1

Place the Hatch Mate main assembly on a hard surface with the chain spool facing up. Loosen but do not remove the hex nut on the side of the chain spool. Left upward and remove the chain spool, set aside.

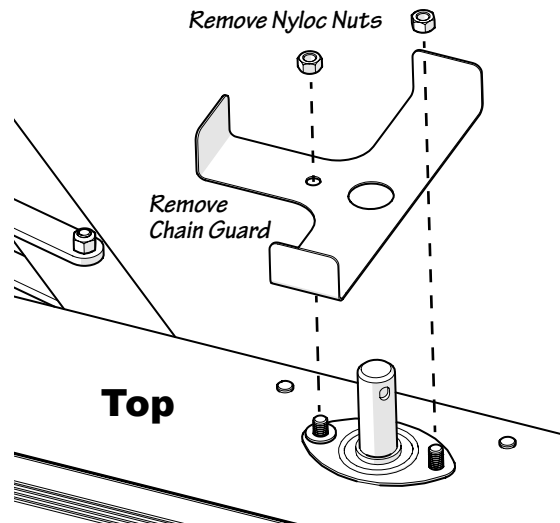


Fig. 12-2

### STEP 2

Remove the two \_\_\_" nuts from the chain retainer and shaft busing shown in Fig. 12-2. Set nuts and chain retainer of to the side.

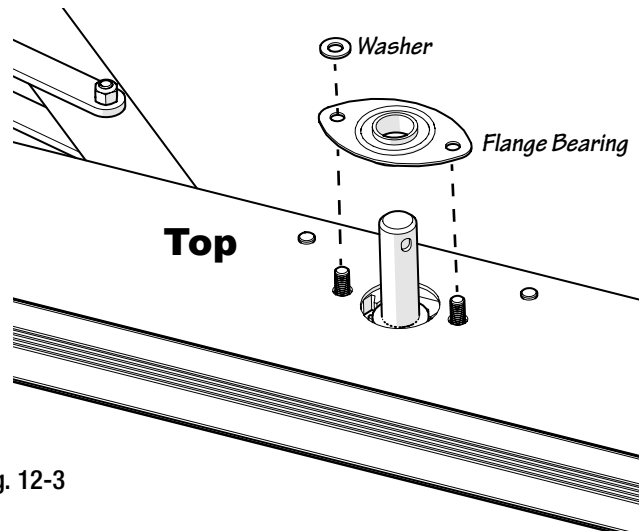


Fig. 12-3

### STEP 3

Remove the plastic washer and shaft bushing as shown in Fig. 12-3. Set both to the side.

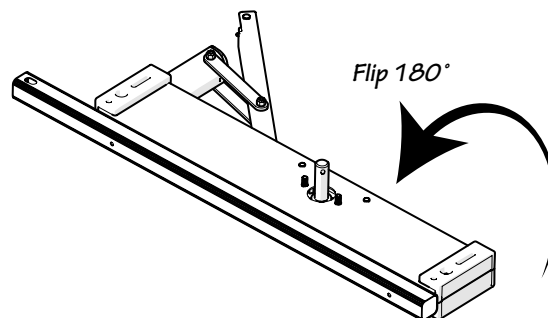


Fig. 12-4

### STEP 4

Flip the Hatch Mate main assembly 180 degrees on its side.

# Hatch Mate Right Side Conversion

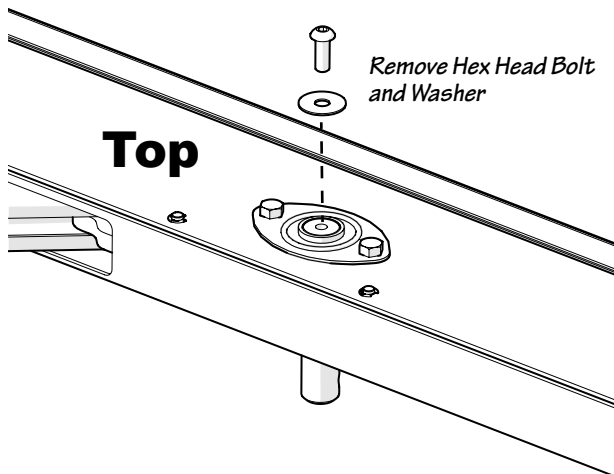


Fig. 13-1

## STEP 5

Remove the hex head bolt and washer from the gear shaft as shown above in Fig. 13-1. Temporarily set aside.

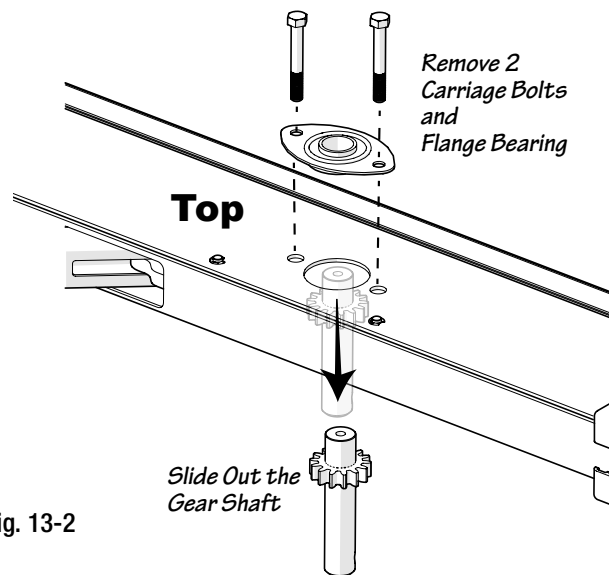


Fig. 13-2

## STEP 6

Lift the Hatch Mate main assembly slightly to allow the gear shaft to slide out under the main assembly. Lift/remove the two carriage bolts and flange bearing as shown above in Fig. 13-2. Temporarily set both aside.

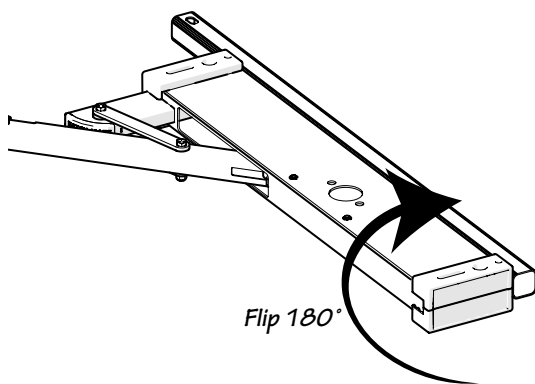


Fig. 13-3

## STEP 7

Flip the Hatch Mate main assembly 180 degrees on its side.

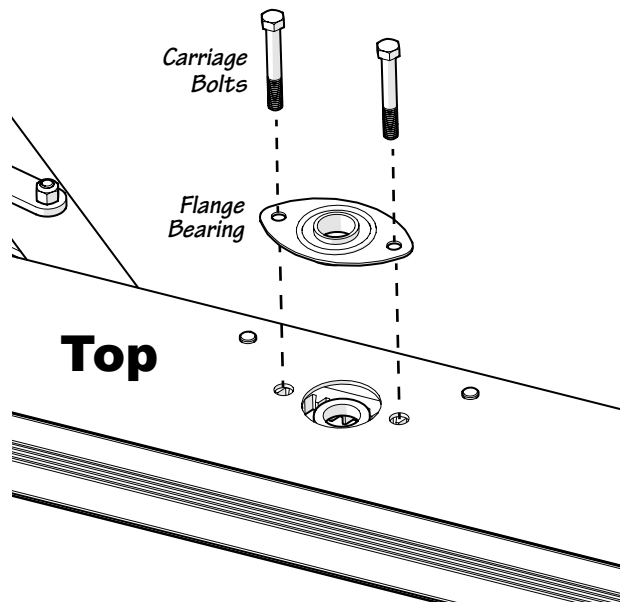


Fig. 13-4

## STEP 8

Reposition the shaft bushing to its original position aligning the mounting holes with those located on the main assembly. Insert the two carriage bolts through the flange bearing and main housing as shown above in Fig. 13-4.

# Hatch Mate Right Side Conversion

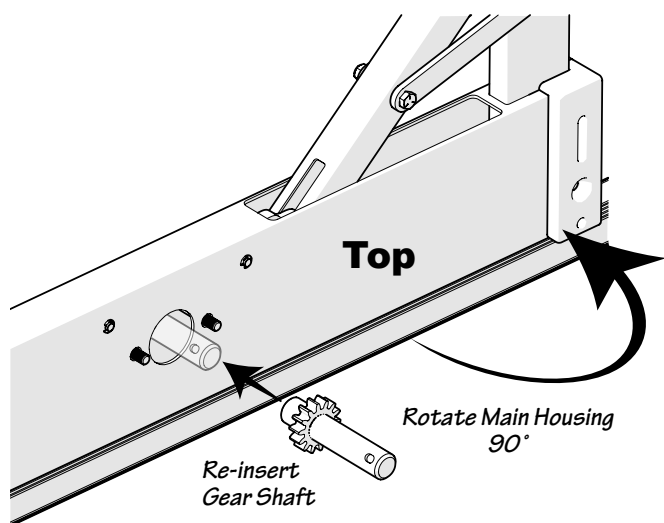


Fig. 14-1

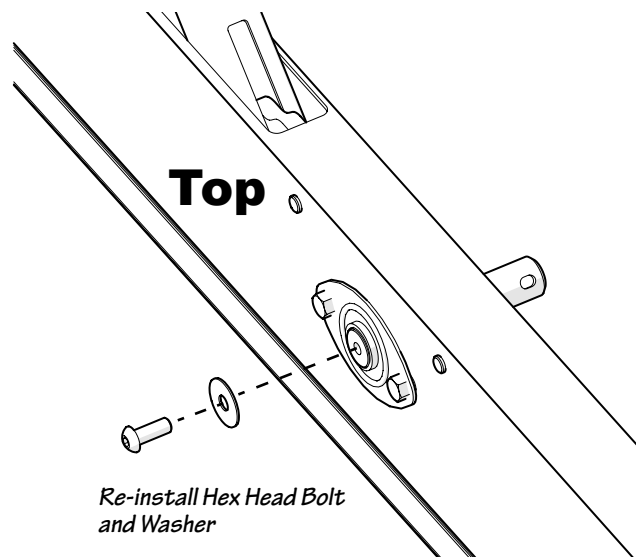


Fig. 14-2

## STEP 9

Flip the Hatch Mate main assembly 90 degrees standing on its side. Reinsert the gear shaft, gear end first as shown above in Fig. 14-1. Make sure the gear engages the gear within the housing.

## STEP 10

Working from the opposite side, re-install the washer and hex head bolt as shown in Fig. 14-2. Tighten the bolt firmly.

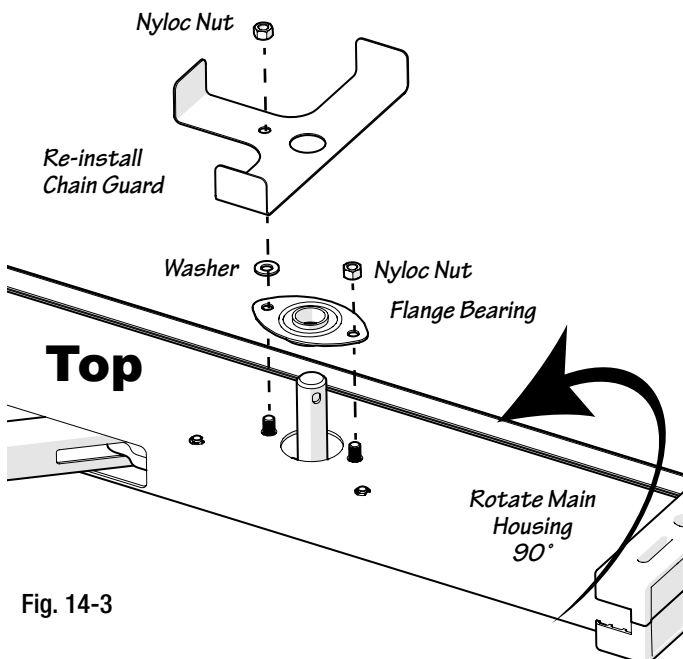


Fig. 14-3

## STEP 11

Flip the Hatch Mate main assembly 90 degrees laying on its side. Slide the flange bearing over the shaft and two carriage bolts. Place the washer over the upper carriage bolt, install the nut on the lower carriage bolt. Position the chain guard over the shaft and upper carriage bolt. Install nut over the top carriage bolt as shown in Fig. 14-3. Tighten both nuts firmly.

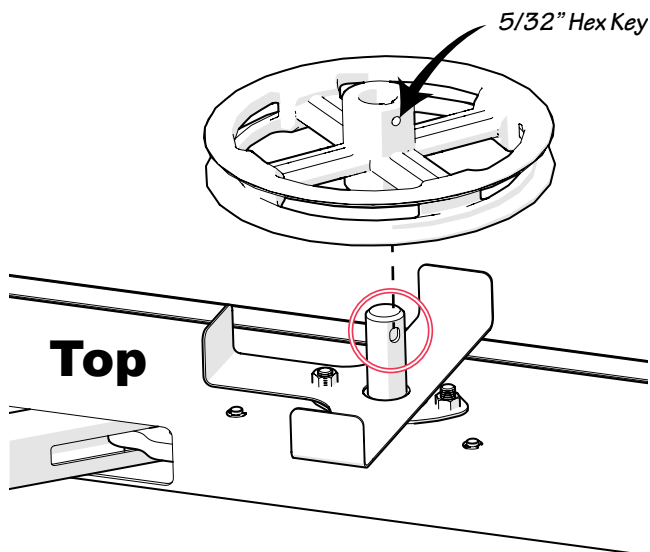


Fig. 14-4

## STEP 12

Replace the chain wheel over the shaft. Make sure to align the hex nut with the retaining hole located at the end of the shaft as show in Fig. 14-4. Lightly tighten the hex nut, rotate the wheel to make sure the hex nut is seated in the retaining hole. The wheel should not slide around the shaft. If installed correctly, tighten the hex nut

# Hatch Mate Right Side Conversion

## STEP 13

The main Hatch Mate right side conversion is complete. Proceed with the standard installation process as described beginning on page 4.

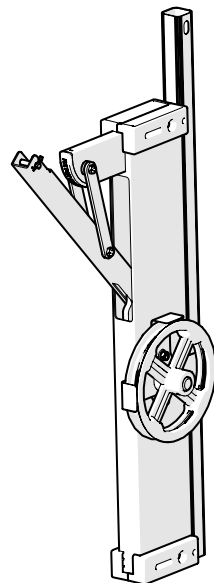


Fig. 15-1

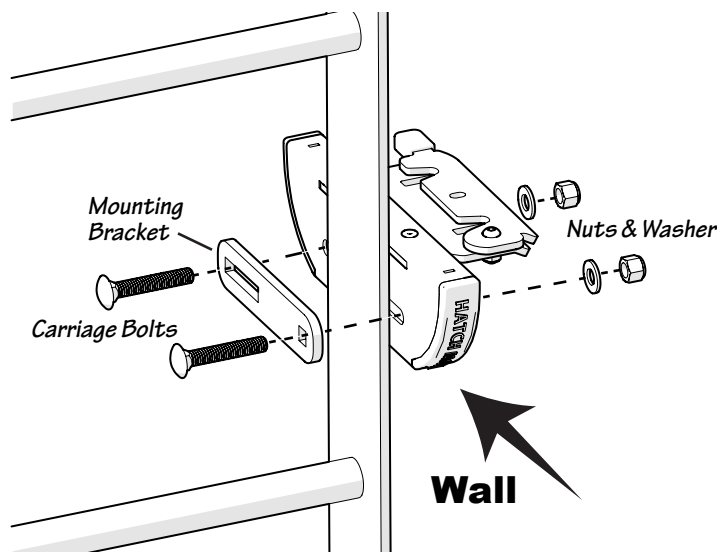


Fig. 15-2

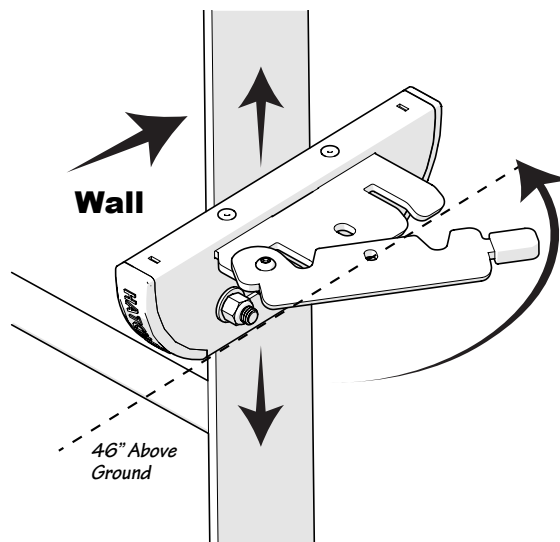


Fig. 15-3

## Chain Lock Assembly for Right Side Installation

Position the chain/lock assembly on the outside of the hatch ladder roughly 46" above ground level.

Insert the 2.25" carriage bolt through the "Front" ladder mounting bracket from the "Ladder" side of the chain/lock assembly. Attach a washer and nylock nut to the carriage bolt as shown in Fig. 15-2. Do not tighten.

Slide the carriage bolt passing through the elongated mounting hole (closest to the wall) as shown in Fig 15-2. Loosely attach a nyloc nut on the carriage bolt. Do not tighten nut.

Slide the chain/lock assembly up or down on the hatch ladder, position the assembly approx. 46" above ground level. Tighten bolt nylock nuts.

## HATCH MATE LIMITED WARRANTY

Tie Down (TIE DOWN, Inc.), here after referred to as "TIE DOWN". TIE DOWN will repair or replace, free of charge, any part, or parts of the Hatch Mate that are defective in material or workmanship or both for 1 year from date of purchase. Return the defective unit to the dealer, or contact TIE DOWN direct at 404-344-0000.

This warranty does not apply to damage or loss caused by any or all of the following circumstances or conditions:

- Damage caused during assembly or installation.
- Parts, accessories, materials, or components used with or replacing any Hatch Mate part not obtained from or approved in writing by TIE DOWN.
- Misapplication, misuse, and failure to follow the directions or observe cautions and warnings on installation, operation, application, inspection, or maintenance specified in any TIE DOWN quotation, acknowledgment, sales literature, specification sheet, or installation instruction and service manual ("applicable literature").

If requested by TIE DOWN, purchaser shall return the alleged defective product to TIE DOWN for examination at purchasers expense. TIE DOWN will not pay for expenses incurred in returning a product to TIE DOWN without TIE DOWN's prior written authority. TIE DOWN shall not be liable for any other expenses purchaser incurs to remedy any defect. Purchasers waive subrogation on all claims under any insurance.

**To Obtain Technical Assistance:** To enable TIE DOWN to respond to a request for assistance or evaluation of customer or user operating difficulty, please provide at a minimum the following information by calling 404-344-0000:

- Model number, serial number, and all other data on the specific component which appears to be involved in the difficulty.
- The date and from whom you purchased your Hatch Mate.
- State your difficulty, being sure to mention the following: Application and Environment.

**THIS WARRANTY DOES NOT COVER NOR EXTEND TO INCIDENTAL OR CONSEQUENTIAL DAMAGE.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

No representative has authority to make any representation, promise, or agreement except as stated in this Limited Warranty. TIE DOWN reserves the right to make design and other changes upon its products without any obligation to install the same on any previously sold or delivered products.

**THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE DESCRIBED ABOVE. EFFECTIVE MAY 2023, THIS WARRANTY SUPERSEDES ALL PRIOR WARRANTIES, WRITTEN OR IMPLIED.**



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