

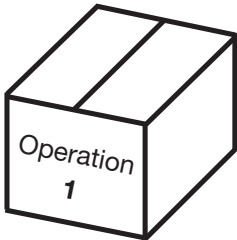

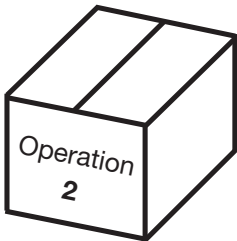

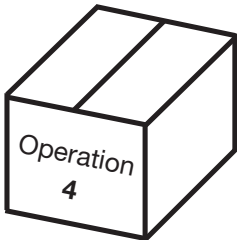

INSTALLATION GUIDE



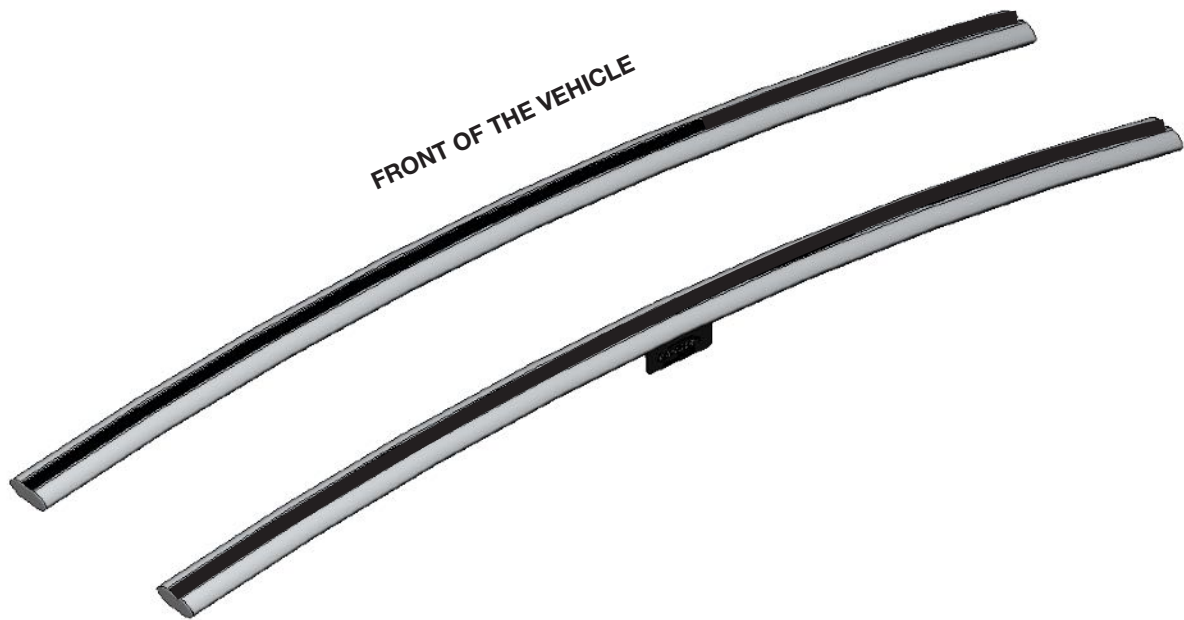
1820-FTR MAX RACK SINGLE SIDE

Ford Transit Regular Wheelbase (Standard & Medium Roof)



ORDER OF OPERATION	BILL OF MATERIALS
	<p>Crossbows (15-1806)</p> 
	<p>Passenger Side Mechanism (15-1810)</p> 
	<p>Mounting Track (15-0042)</p> 

INSTALLATION GUIDE



15-1806 Max Rack Crossbow (Max Rack)



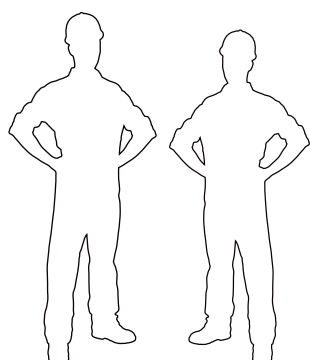
QUICK START GUIDE

Phase 1 - Assembly

<input type="checkbox"/> 1.1 Setup.....	3
<input type="checkbox"/> 1.1.1 Unpack components; compare with the bill of materials.....	3
<input type="checkbox"/> 1.1.2 Verify all parts are present.....	3
<input type="checkbox"/> 1.1.3 Fastener Kits.....	3
<input type="checkbox"/> 1.2 Max Rack preparation for single side.....	4
<input type="checkbox"/> 1.2.1 Pull out 25" of the top plug extrusion from the right end of the rear and front crossbows, then pull out 10" of the bottom extrusion on both ends of the front crossbow.....	4
<input type="checkbox"/> 1.3 Max Rack preparation for double side.....	5
<input type="checkbox"/> 1.3.1 Pull out 25" of the top plug extrusion on both ends of the rear and front crossbows, then pull out 10" of the bottom extrusion of both ends of the front crossbow.....	5

REQUIRED ITEMS FOR COMPLETE MAX RACK

NOTE: Use Sawhorses if possible, or use the box as a flat protective surface on the ground.



**2
PERSONS**

- ☐ Cordless Impact
- ☐ Ratchet
- ☐ Tape Measure
- ☐ Marker
- ☐ Ladder
- ☐ 3/16" Impact Bit
- ☐ 9/16" Wrench
- ☐ 7/16" Socket
- ☐ 1/2" Socket
- ☐ Sawhorse (Optional)
- ☐ Box

PHASE 1 – ASSEMBLY

1.1 SETUP

1.1.1 Unpack components; compare with the bill of materials.



1.1.2 Verify all parts are present.

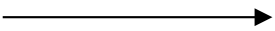
BILL OF MATERIALS

Item No.	Description	Qty.
10-544	End Plastic Plug	2
15-1800	Max Rack Rear Crossbow	1
15-1801	Max Rack Front Crossbow	1
15-1806-IFK	Install Fastener Kit for 15-1806	1

1.1.3 Fastener kits.

NOTE: These fasteners are used in the next operation.

Install Fastener kit for 15-1806



Fastener Assembly

- 16x



90-487

Carriage Bolt
5/16"-18 x 3/4"
SS304
- 16x



94-105

Hex Nut
5/16"-18
SS3316wax
- 16x



98-117


Flat Washer
5/16", 3/4" OD
SS18-8
- 16x





98-123


Lock Washer
Regular 5/16"
SS304

16x

- 

#90-487 Carriage Bolt 5/16" x 3/4"
- 

#98-117 Flat Washer
- 

#98-123 Lock Washer
- 

#94-105 Hex Nut

PHASE 1 – ASSEMBLY

1.2 MAX RACK PREPARATION FOR SINGLE SIDE

1.2.1 Pull out 25" of the top plug extrusion from the right end of the rear and front crossbows, then pull out 10" of the bottom extrusion on both ends of the front crossbow.

NOTE: Plug extrusions must be cut at the right length after adjustment.



PHASE 1 – ASSEMBLY

1.3 MAX RACK PREPARATION FOR DOUBLE SIDE

1.3.1 Pull out 25" of the top plug extrusion on both ends of the rear and front crossbows, then pull out 10" of the bottom extrusion of both ends of the front crossbow.

NOTE: Plug extrusions must be cut at the right length after adjustment.

NOTE: Do not pull this end of the plug extrusion if you have a third crossbow.



MAX RACK SINGLE SIDE



MAX RACK DOUBLE SIDE



**“You have successfully completed Operation 1
Max Rack Crossbow!**

**Open the passenger side mechanism (15-1810) box to continue assembling
the Max Rack**

Thank you for doing business with us.”

For any feedback or suggestions you might have, please contact: [**cs@rangerdesign.com**](mailto:cs@rangerdesign.com)



INSTALLATION GUIDE



15-1810 Max Rack Passenger Side (Max Rack Single Side)



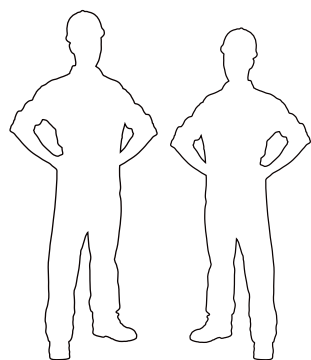
QUICK START GUIDE

Phase 1 - Assembly

❑ 1.1 Setup.....	3 to 5
❑ 1.2 Rear crossbow assembly.....	6 to 13
❑ 1.3 Front crossbow assembly.....	14 to 19
❑ 1.4 For overhead lifter assembly.....	20

REQUIRED ITEMS FOR COMPLETE MAX RACK

NOTE: Use Sawhorses if possible, or use the box as a flat protective surface on the ground.



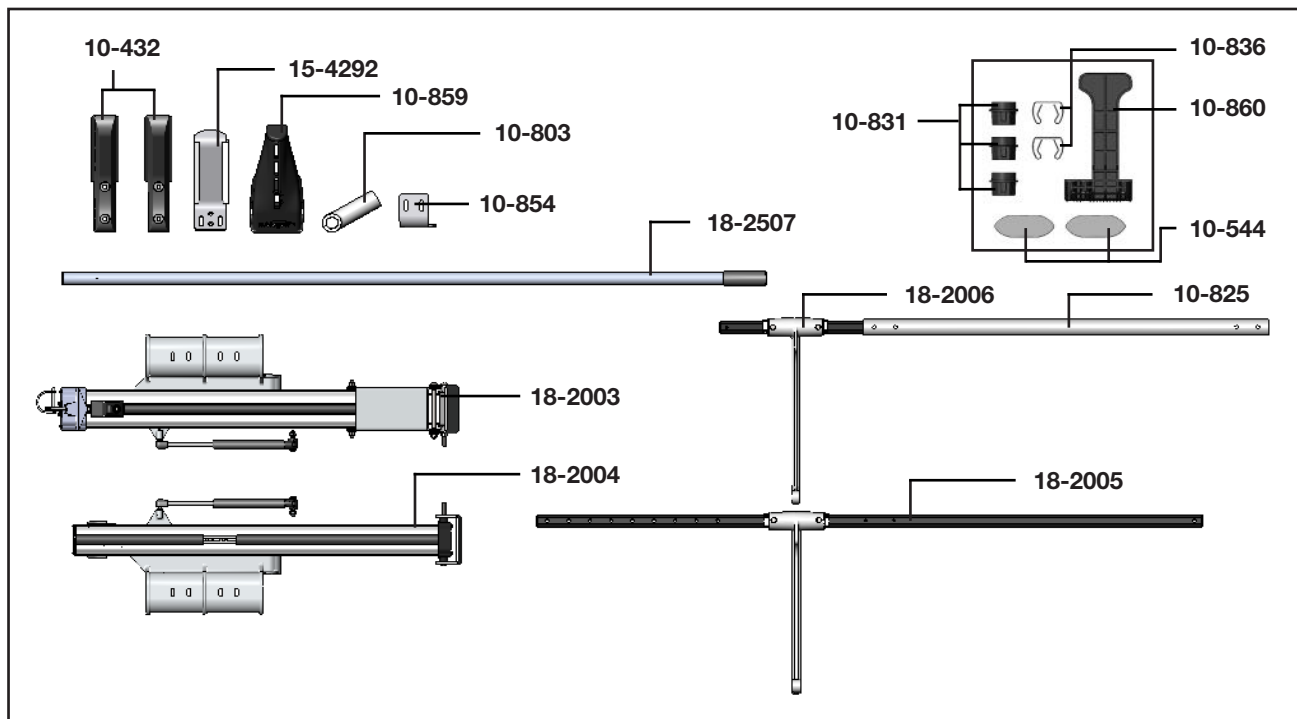
**2
PERSONS**

- ❑ Cordless Impact
- ❑ Ratchet
- ❑ Tape Measure
- ❑ Marker
- ❑ Ladder
- ❑ 3/16" Impact Bit
- ❑ 9/16" Wrench
- ❑ 7/16" Socket
- ❑ 1/2" Socket
- ❑ Sawhorse (Optional)
- ❑ Box

PHASE 1 – ASSEMBLY

1.1 SETUP

1.1.1 Unpack components; compare with the bill of materials.



1.1.2 Verify all parts are present.

Item No.	Description	Qty.
10-432	Interlocking Hook	2
10-544	End Crossbow Plastic Plug	2
10-803	Arm Socket Passenger Side	1
10-825	Pivot Center Tube	1
10-831	Shoulder Retaining Wedge	3
10-836	Pivot Bar Holder	2
10-854	Pivot Bracket, Right	1
10-859	Ladder Lock Hinge	1
10-860	Ladder Lock Hook	1
15-4292	Front Hook	1
18-2003	Lock Frame - Passenger Side	1
18-2004	Hook Frame - Passenger Side	1
18-2005	Rear Bar - Passenger Side	1
18-2006	Front Bar - Passenger Side	1
18-2507	Max Rack Handle	1
15-1810-IFK1	Install Fastener First Kit for 15-1810	1
15-1810-IFK2	Install Fastener Second Kit for 15-1810	1
15-1810-IFK3	Install Fastener Third Kit for 15-1810	1

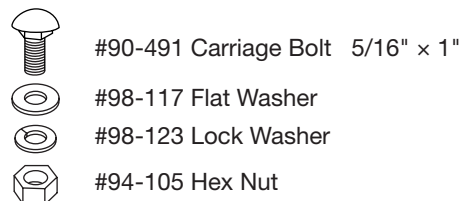
1.1.3 Fastener kits.

Install Fastener Kit for 15-1810-IFK1

14x		# 90-491	Carriage Bolt 5/16"-18 x 1" SS304
14x		# 94-105	Hex Nut 5/16"-18 SS316wax
14x		# 98-117	Flat Washer 5/16" OD, 3/4" SS18-8
14x		# 98-123	Lock Washer 5/16" SS304

Fastener Assembly

14x

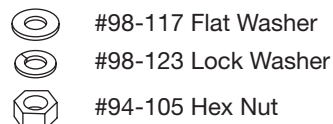


Install Fastener Kit for 15-1810-IFK2

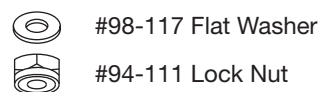
2x		# 90-495	Carriage Bolt 5/16"-18 x 1-1/4" SS304
2x		# 90-507	Carriage Bolt 5/16"-18 x 2" SS304
1x		# 90-563	Carriage Bolt 5/16"-18 x 5-1/2" SS304
4x		# 94-105	Hex Nut 5/16"-18 SS316wax
5x		# 94-111	Lock Nut 5/16" SS304wax
9x		# 98-117	Flat Washer 5/16" OD, 3/4" SS18-8
4x		# 98-123	Lock Washer 5/16" SS304

Fastener Assembly

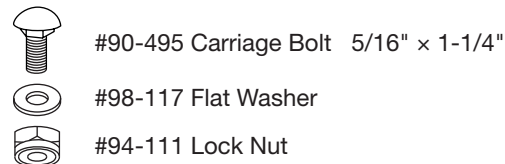
2x



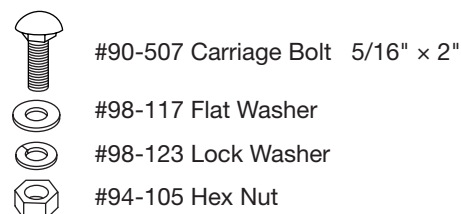
2x



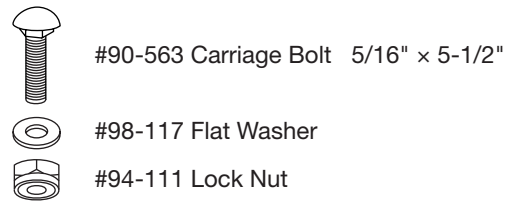
2x



2x






1x





3x		# 90-115	Hex Bolt 1/4"-20 x 1" SS304
2x		# 90-933	SHSSCREW 3/8" x 1" SS303
2x		# 94-123	Acorn Nut 5/16"-18 SS316wax
3x		# 98-113	Flat Washer 1/4" OD, 5/8" SS18-8
3x		# 98-119	Lock Washer 1/4" SS304

3x

	#90-115 Hex Bolt 1/4" x 1"
	#98-119 Lock Washer
	#98-113 Flat Washer

2x





	#90-933 SHSSCREW 3/8" x 1"
	#94-123 Acorn Nut

Install Fastener Kit for 15-1810-IFK3

Fastener Assembly

4x		# 90-229	Hex Bolt 5/16"-18 x 2-1/4" SS304
4x		# 94-105	Hex Nut 5/16"-18 SS316wax
8x		# 98-117	Flat Washer 5/16" OD, 3/4" SS18-8
4x		# 98-123	Lock Washer 5/16" SS304

4x

	#90-229 Hex Bolt 5/16" x 2-1/4"
	#98-117 Flat Washer
	#98-117 Flat Washer
	#98-123 Lock Washer
	#94-105 Hex Nut

NOTE: These Fastener kits are from Max Rack Crossbow.





Install Fastener kit for 15-1806-IFK

Fastener Assembly

16x		# 90-487	Carriage Bolt 5/16"-18 x 3/4" SS304
16x		# 94-105	Hex Nut 5/16"-18 SS304
16x		# 98-117	Flat Washer 5/16" OD, 3/4" SS18-8
16x		# 98-123	Lock Washer 5/16" SS304

NOTE: The carriage bolts should be installed.

16x

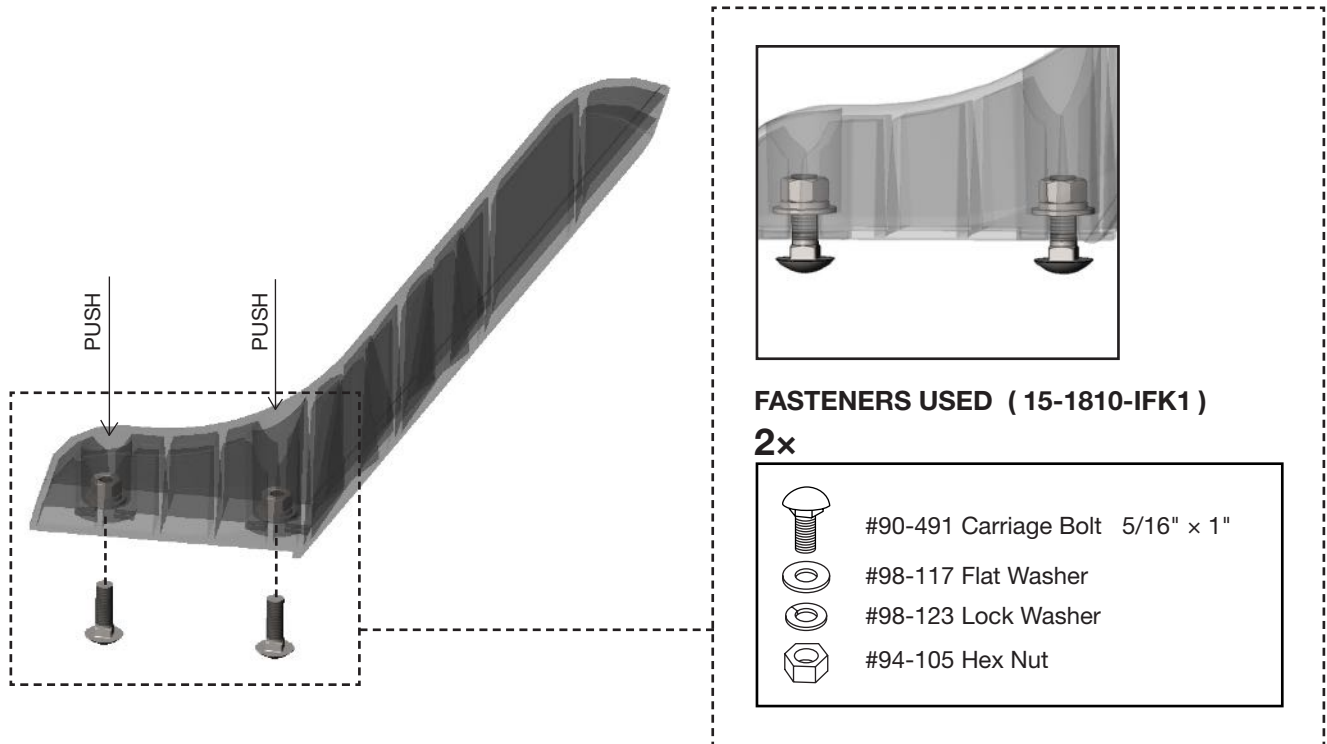
	#90-487 Carriage Bolt 5/16" x 3/4"
	#98-117 Flat Washer
	#98-123 Lock Washer
	#94-105 Hex Nut

PHASE 1 – ASSEMBLY

1.2 REAR CROSSBOW ASSEMBLY

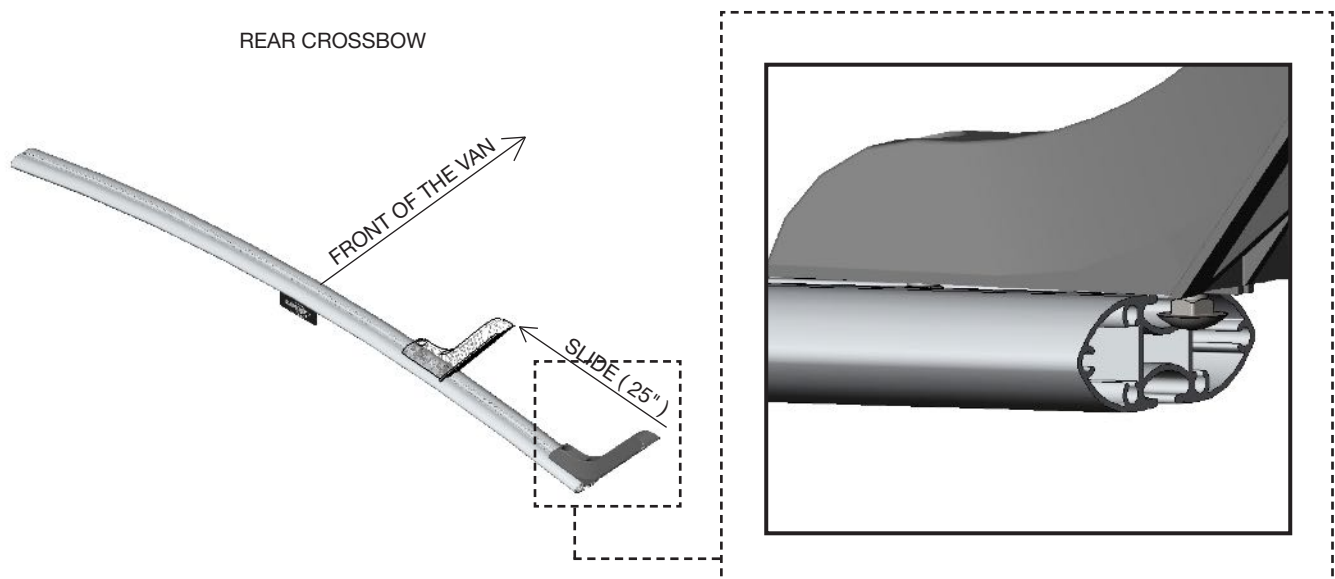
1.2.1 Put flat washers, lock washers and hex nuts in the holes of the Interlocking Hook, then push the hex nut using one finger while attaching the carriage bolt to the hex nut.

NOTE: Leave the bolts loose.



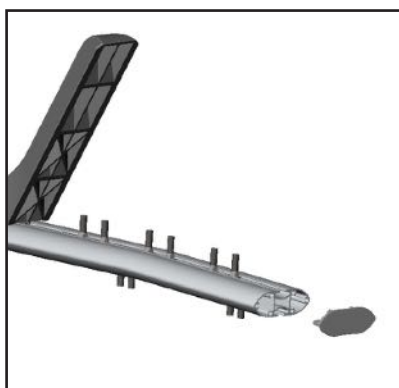
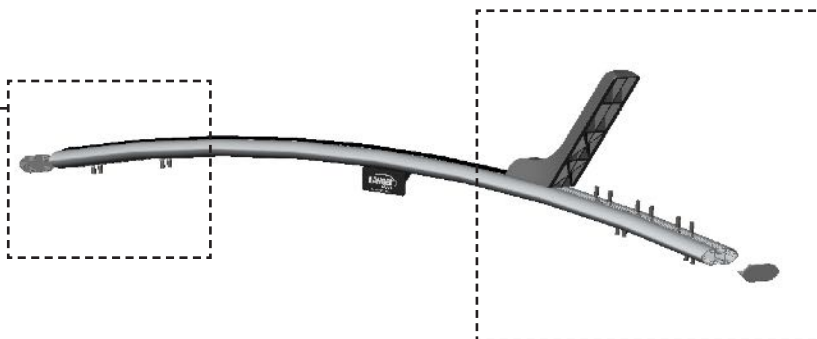
1.2.2 Slide the Interlocking Hook with the bolts to the passenger end of the rear crossbow.

NOTE: Leave the bolts loose to allow for adjustment.



NOTE: Do not put any bolts and end plug on the driver end of the rear crossbow if you have a Max Rack, double side.

- 1.2.3**
- Slide 6 bolts on top of the passenger end of the rear crossbow.
 - Slide 4 bolts under the rear crossbow on both ends.
 - Attach end crossbow plastic plugs on both ends of the rear crossbow.



FASTENERS USED (15-1810-IFK1)

6x / TOP



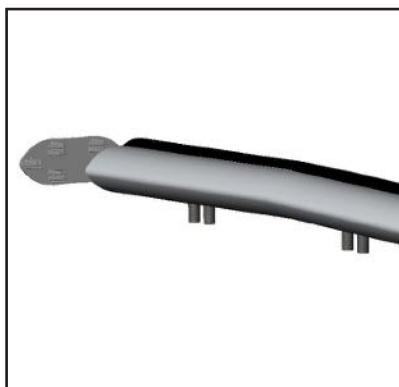
#90-491 Carriage Bolt 5/16" x 1"

FASTENERS USED (15-1806-IFK)

4x / UNDER



#90-487 Carriage Bolt 5/16" x 3/4"



NOTE: Do not do this part of the step if you are installing a Max Rack double side.

FASTENERS USED (15-1806-IFK)

4x / UNDER

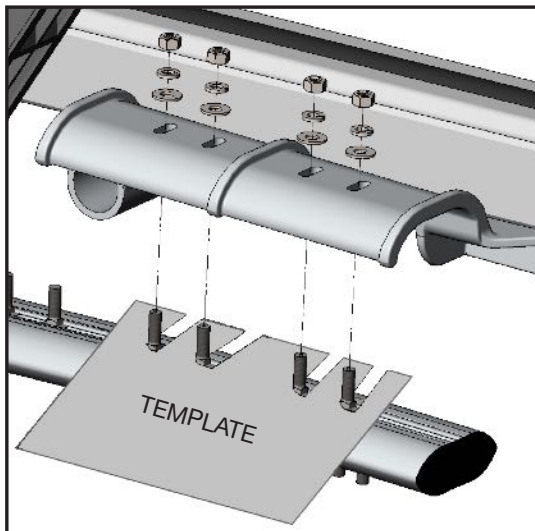
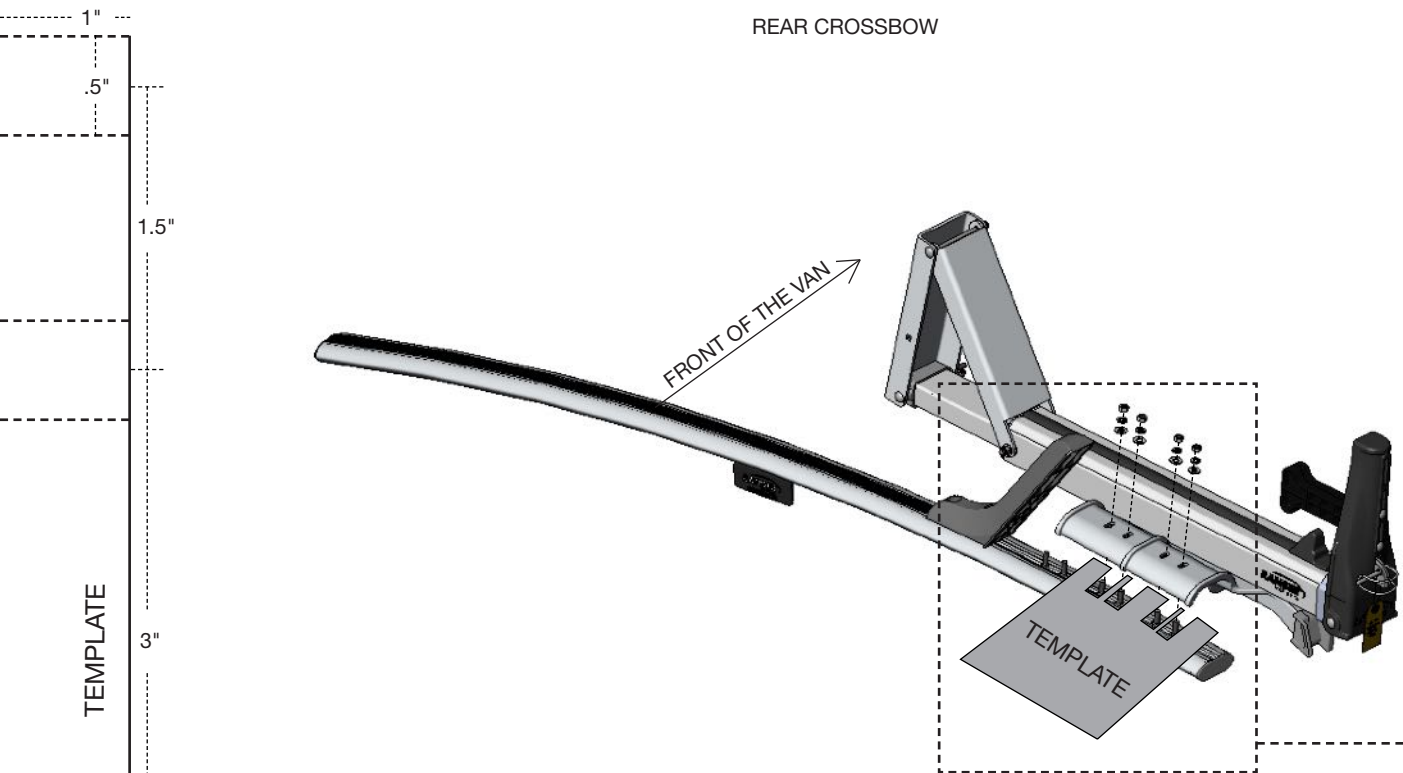


#90-487 Carriage Bolt 5/16" x 3/4"

1.2.4 Place the lock frame (passenger side) on top of the rear crossbow using the 4 last bolts and template, then complete the attachment using the flat washer, lock washer and hex nut.




NOTE:

- If there is no template on the hardware box, use the dimensions on this page to create one.
- Hand-tighten the nuts.

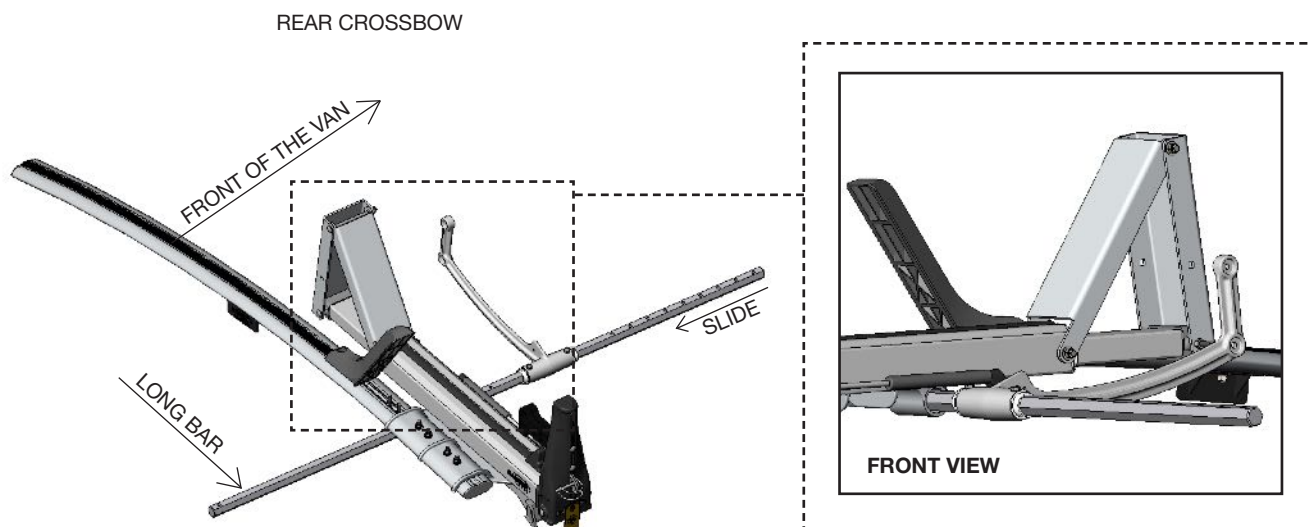


FASTENERS USED (15-1810-IFK1)

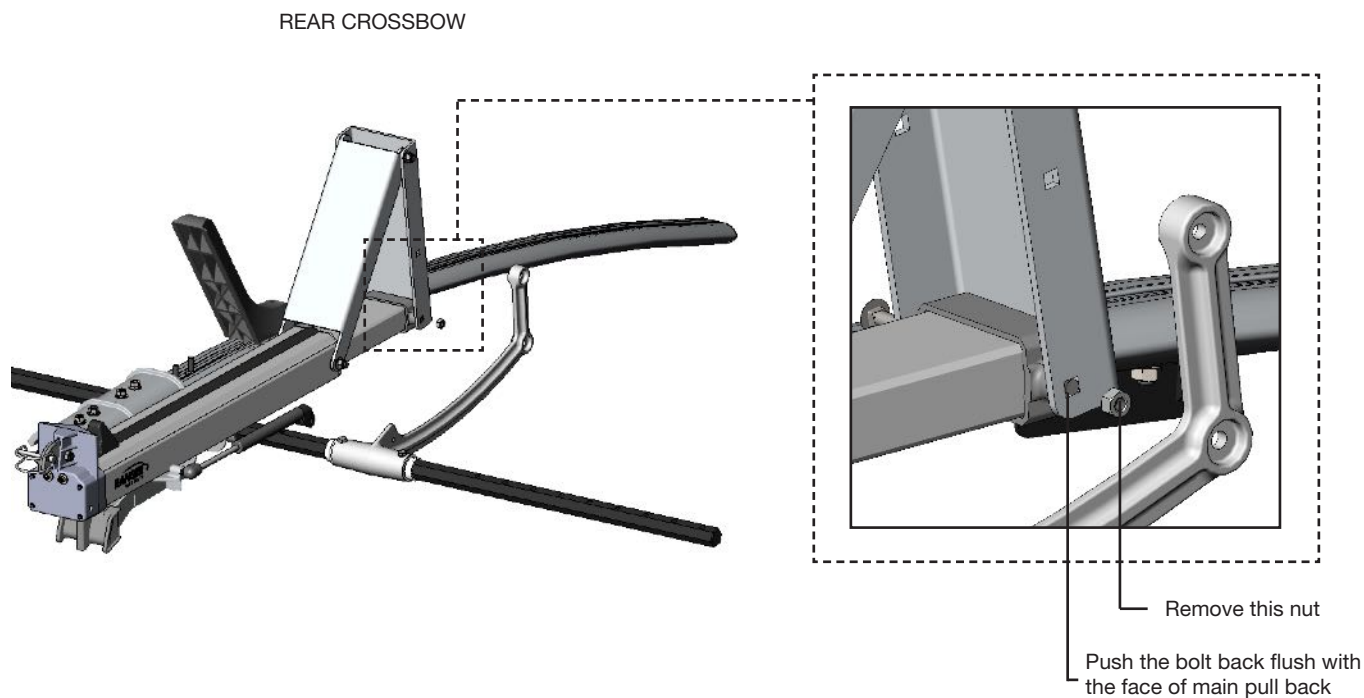
4x

- | | |
|---|---------------------|
|  | #94-105 Hex Nut |
|  | #98-123 Lock Washer |
|  | #98-117 Flat Washer |

1.2.5 Slide the rear bar (passenger side) through the tube under the lock frame (passenger side).

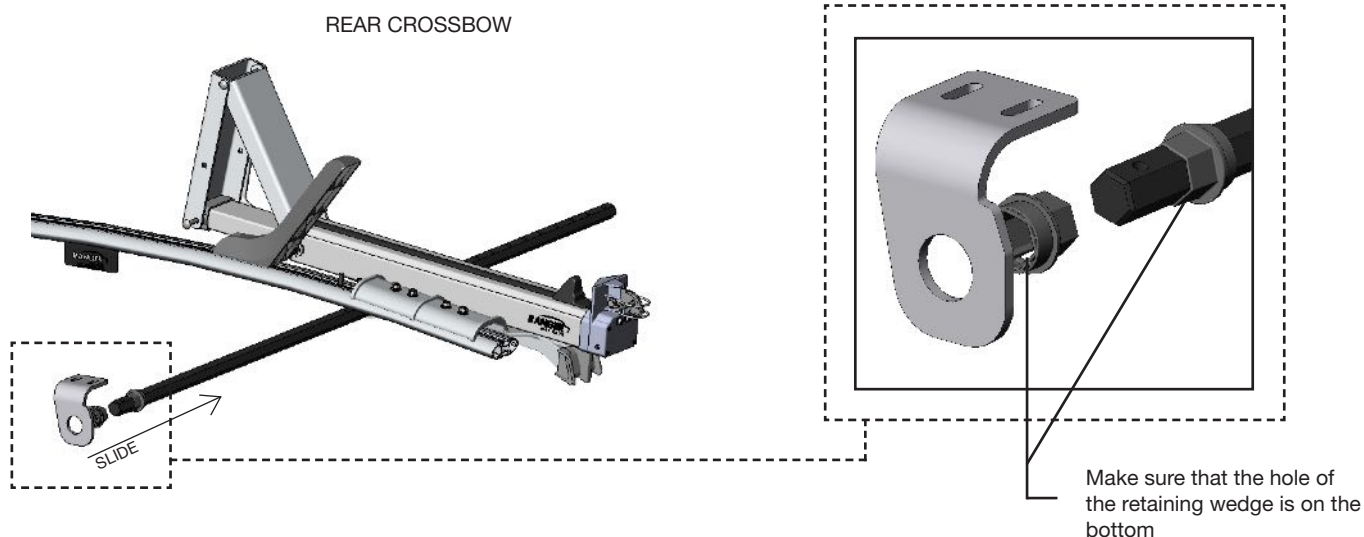


1.2.6 Remove the nut shown in the picture (shipping purposes only), then pull the bolt back flush with the face of the main pull back.



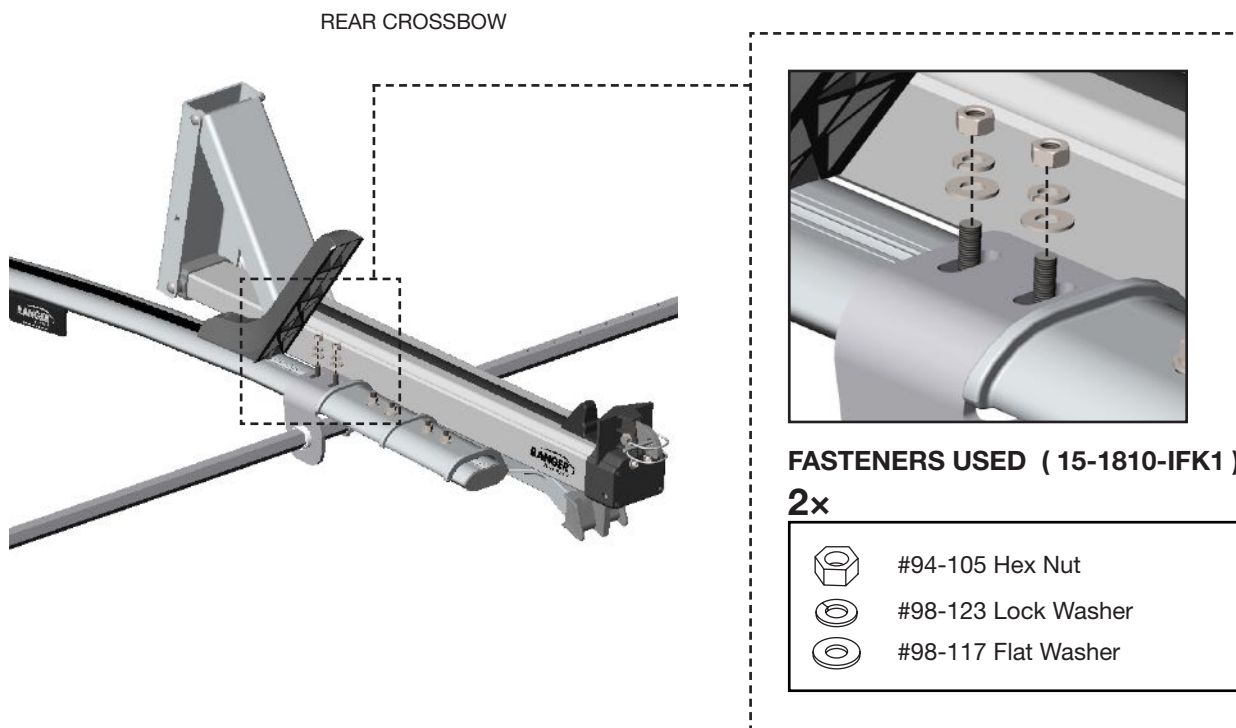
1.2.7 Slide 2 shoulder retaining wedges and the pivot bracket on the rear end of the rear bar.

NOTE: Pay attention to the position of the retaining wedges and pivot bracket.



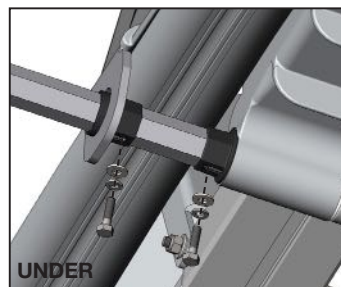
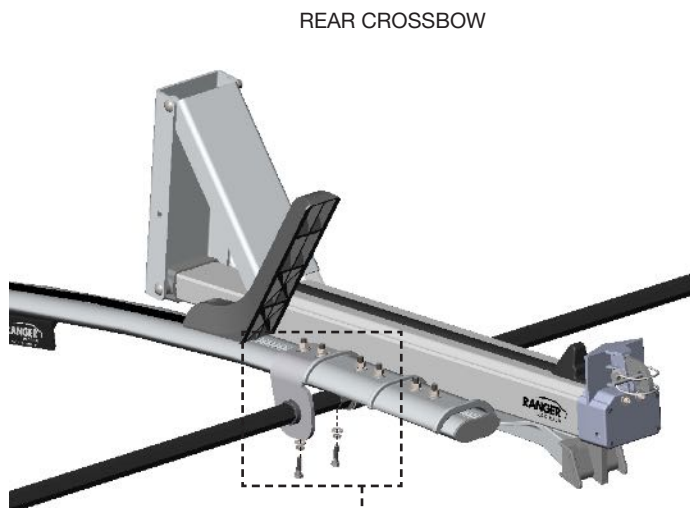
1.2.8 Attach the pivot bracket to the crossbow using the 2 bolts, then lock it with a flat washer, lock washer and hex nut.

NOTE: Hand-tighten the nuts



1.2.9 Bolt the 2 retaining wedges to the rear bar.

NOTE: Be careful not to overtighten.



TOOLS

- Ratchet
- 7/16" Socket

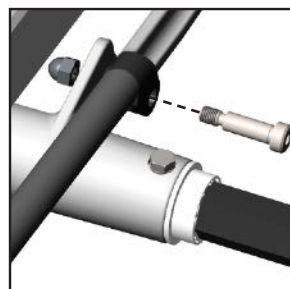
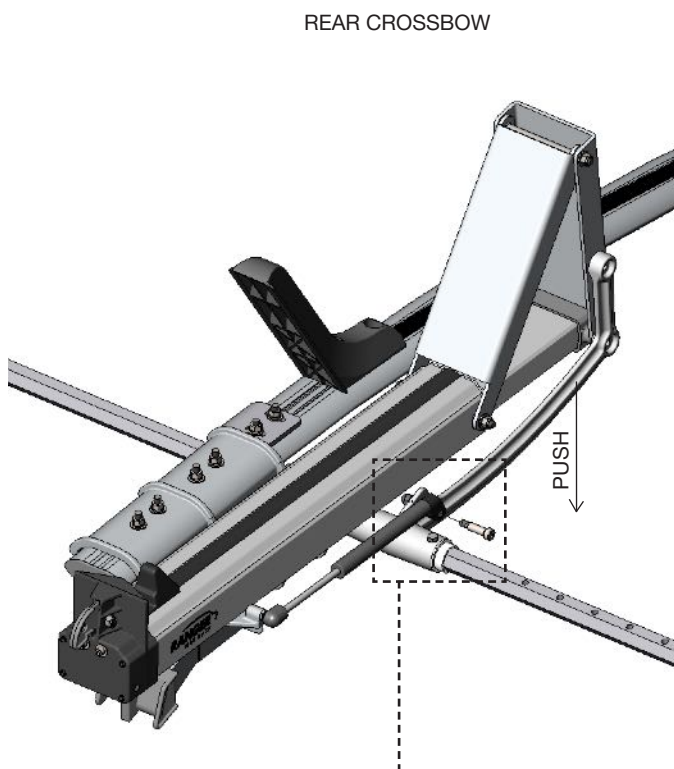
FASTENERS USED (15-1810-IFK2)

2x

-  #90-115 Hex Bolt 1/4" x 1"
-  #98-119 Lock Washer
-  #98-113 Flat Washer

1.2.10 Bolt the loose end of the gas spring to the pivot arm.

NOTE: Push the pivot arm **DOWN** to align the hole to the gas spring.





TOOLS

- Cordless Impact
- 3/16" Impact Bit
- 9/16" Wrench

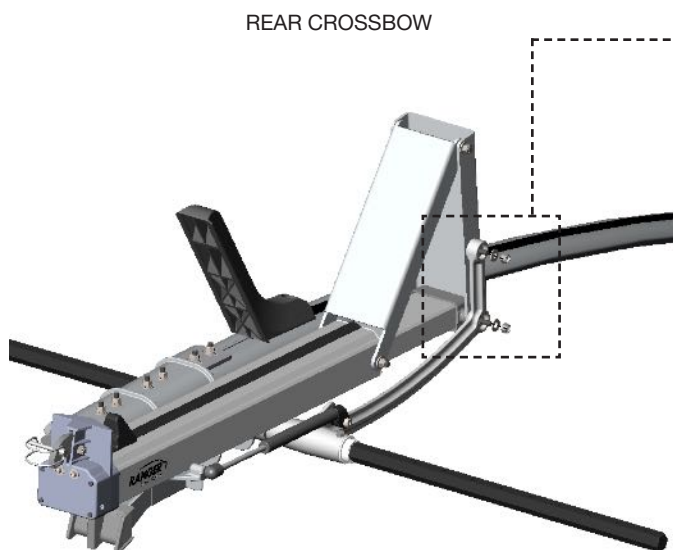
FASTENERS USED (15-1810-IFK2)

1x

-  #90-933 SHSSCREW 3/8" x 1"
-  #94-123 Acorn Nut

1.2.11 Bolt the pivot arm to the main pull back.

NOTE: Be careful not to overtighten.



TOOLS

- ☐ Ratchet
- ☐ 1/2" Socket

FASTENERS USED (15-1810-IFK2)

1x / TOP



#90-495 Carriage Bolt 5/16" x 1-1/4"



#98-117 Flat Washer



#94-111 Lock Nut

1x / BOTTOM



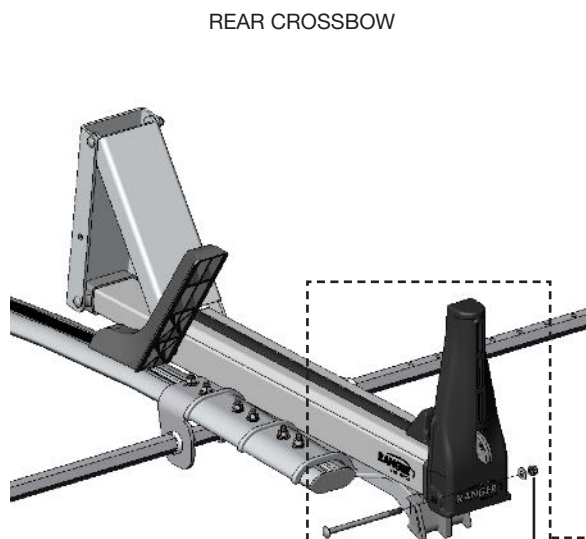
#98-117 Flat Washer



#94-111 Lock Nut

1.2.12 Remove the pin and attach the lock hinge to the lock frame.

NOTE: Tighten the nut to allow the rotation.
Do not overtighten.



Tighten the nut to
allow the rotation

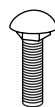


TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED (15-1810-IFK2)

1x



#90-563 Carriage Bolt 5/16" x 5-1/2"



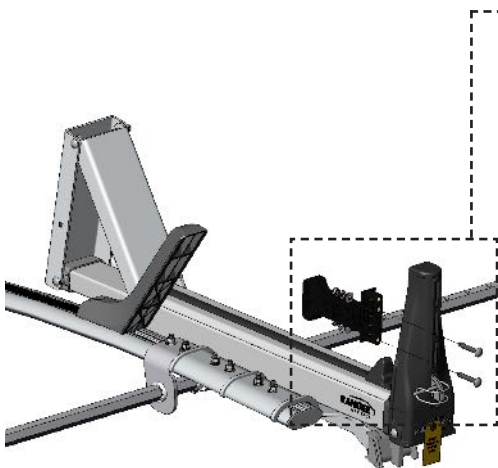
#98-117 Flat Washer



#94-111 Lock Nut

1.2.13 Bolt the lock hook to the lock hinge.

NOTE: Lock hook can be assembled upside down to accommodate different ladder rail size.



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED (15-1810-IFK2)

2x



#90-507 Carriage Bolt 5/16" x 2"



#98-117 Flat Washer



#98-123 Lock Washer

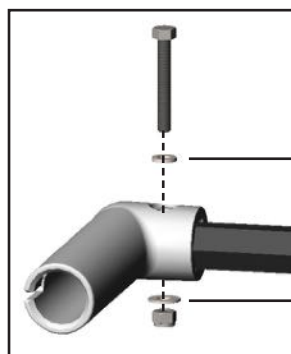
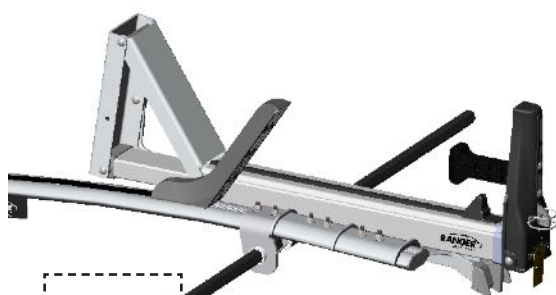


#94-105 Hex Nut

1.2.14 Attach the arm socket to the rear end of the rear bar.

WARNING: For a secure and proper installation, it is important for the lock washer and lock nut to be placed in the assigned slot as shown.

REAR CROSSBOW



TOOLS

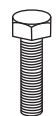
- ☐ Cordless Impact
- ☐ 1/2" Socket

Lock Washer

Flat Washer

HARDWARE USED

1x



#90-229 Hex Bolt 5/16" x 2-1/4"



#98-123 Lock Washer



#98-117 Flat Washer



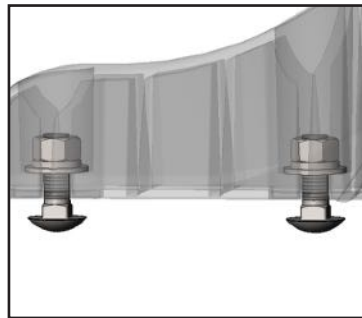
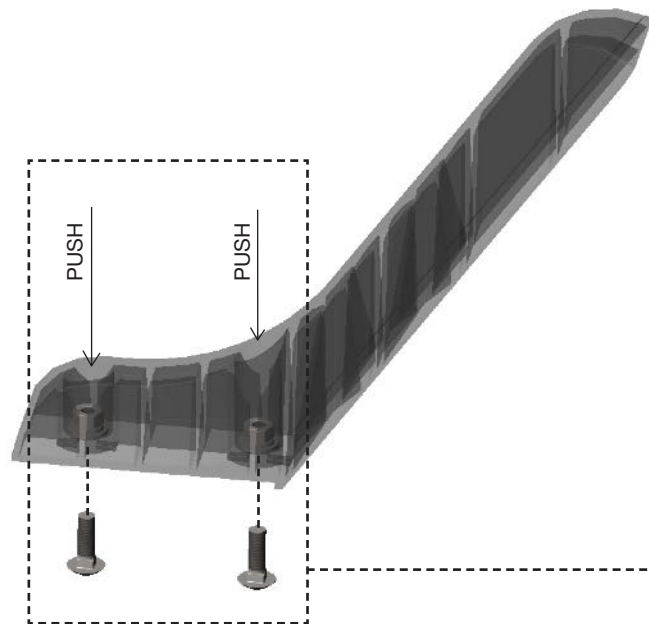
#94-105 Lock Nut

PHASE 1 – ASSEMBLY

1.3 FRONT CROSSBOW ASSEMBLY

1.3.1 Put flat washers, lock washers and hex nuts in the holes of the Interlocking Hook, then push the hex nut using one finger while attaching the carriage bolt to the hex nut.

NOTE: Leave the bolts loose.



FASTENERS USED (15-1810-IFK1)

2x



#90-491 Carriage Bolt 5/16" x 1"



#98-117 Flat Washer



#98-123 Lock Washer

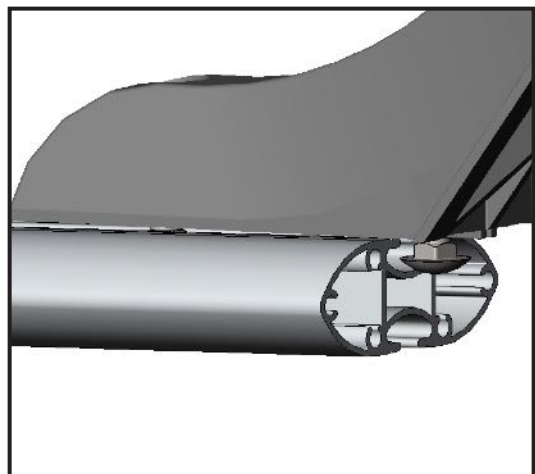


#94-105 Hex Nut

1.3.2 Slide the interlocking hook with the bolts to the front crossbow.

NOTE: Leave the bolts loose to allow for adjustment.

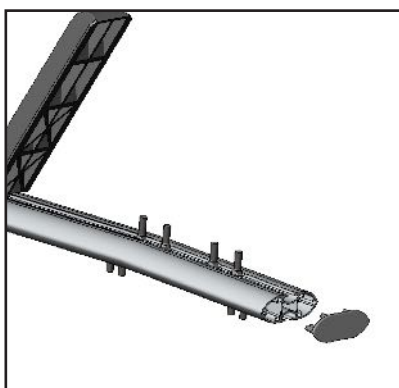
FRONT CROSSBOW



NOTE: Do not put any bolts and end plug on the driver end of the front crossbow if you have a Max Rack double side.

- 1.3.3**
- Slide 4 bolts on top of the passenger end of the front crossbow.
 - Slide 4 bolts under the front crossbow on both ends.
 - Attach end crossbow plastic plugs on both ends of the front crossbow.

FRONT CROSSBOW



FASTENERS USED (15-1810-IFK1)

4x / TOP



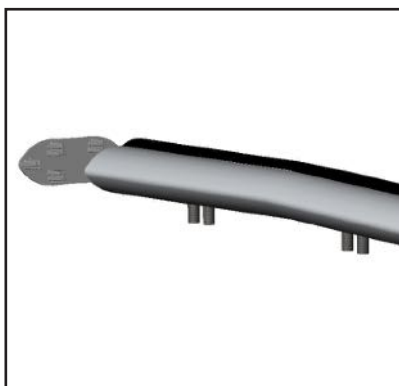
#90-491 Carriage Bolt 5/16" x 1"

FASTENERS USED (15-1806-IFK)

4x / UNDER



#90-487 Carriage Bolt 5/16" x 3/4"



NOTE: Do not do this part of the step if you are installing a Max Rack double side, except if you have third bar crossbow.

FASTENERS USED (15-1806-IFK)

4x / UNDER

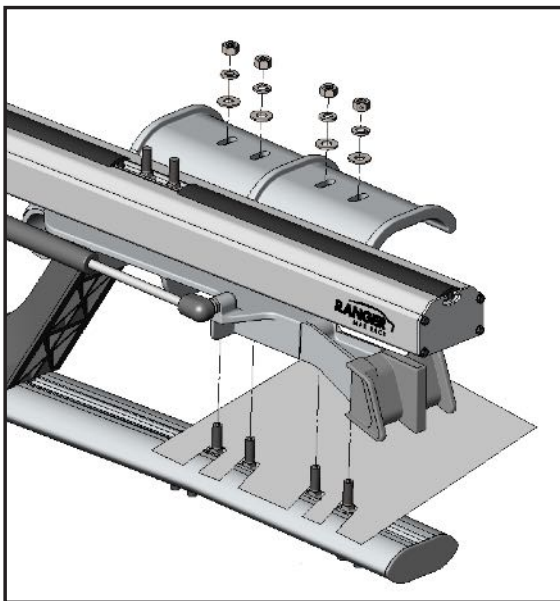
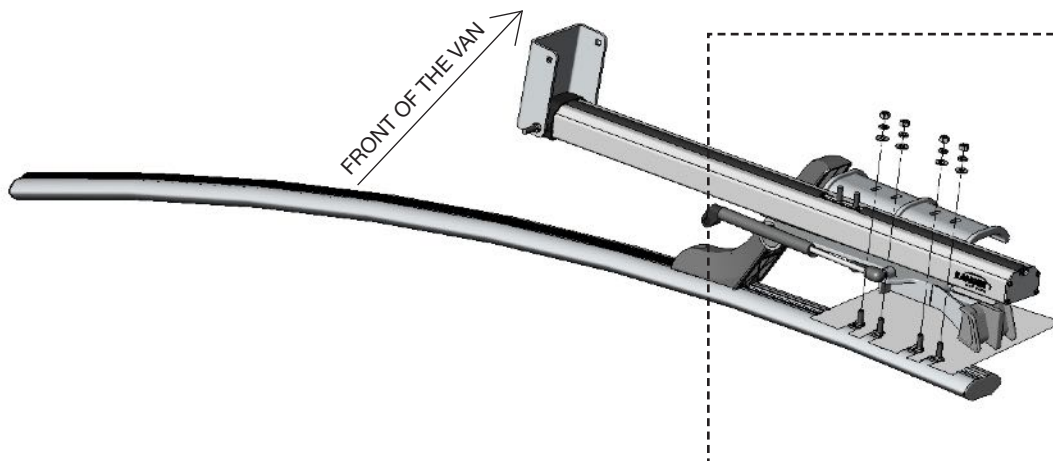


#90-487 Carriage Bolt 5/16" x 3/4"

1.3.4 Place the hook frame (passenger side) on top of the front crossbow using the 4 bolts and template, then complete the attachment using the flat washer, lock washer and hex nut.

NOTE: Hand-tighten the nuts

FRONT CROSSBOW



FASTENERS USED (15-1810-IFK1)

4x



#94-105 Hex Nut

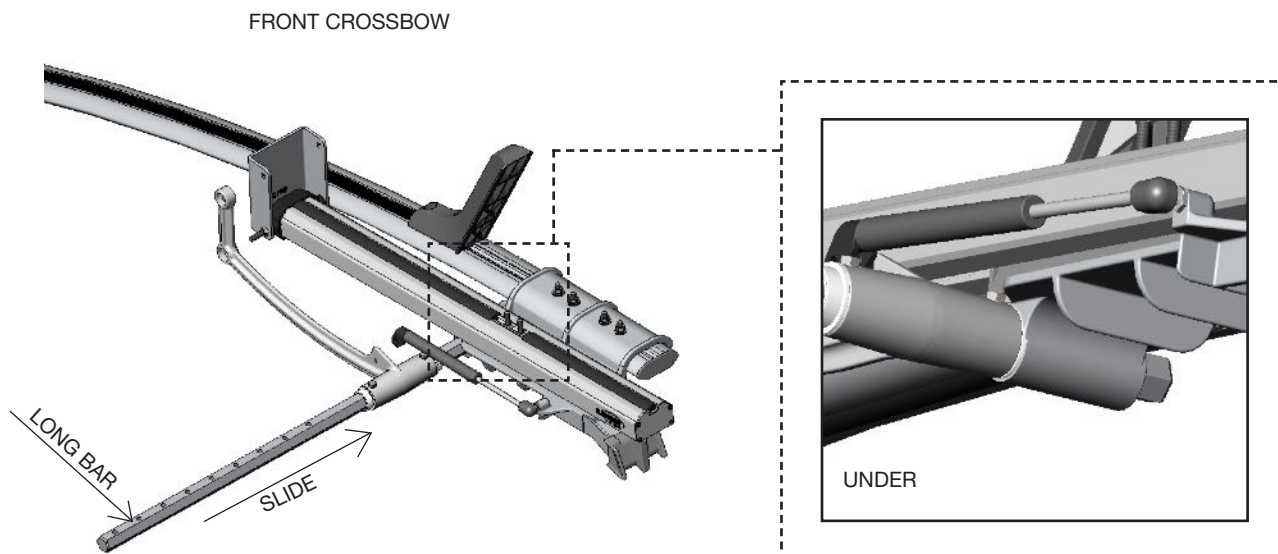


#98-123 Lock Washer

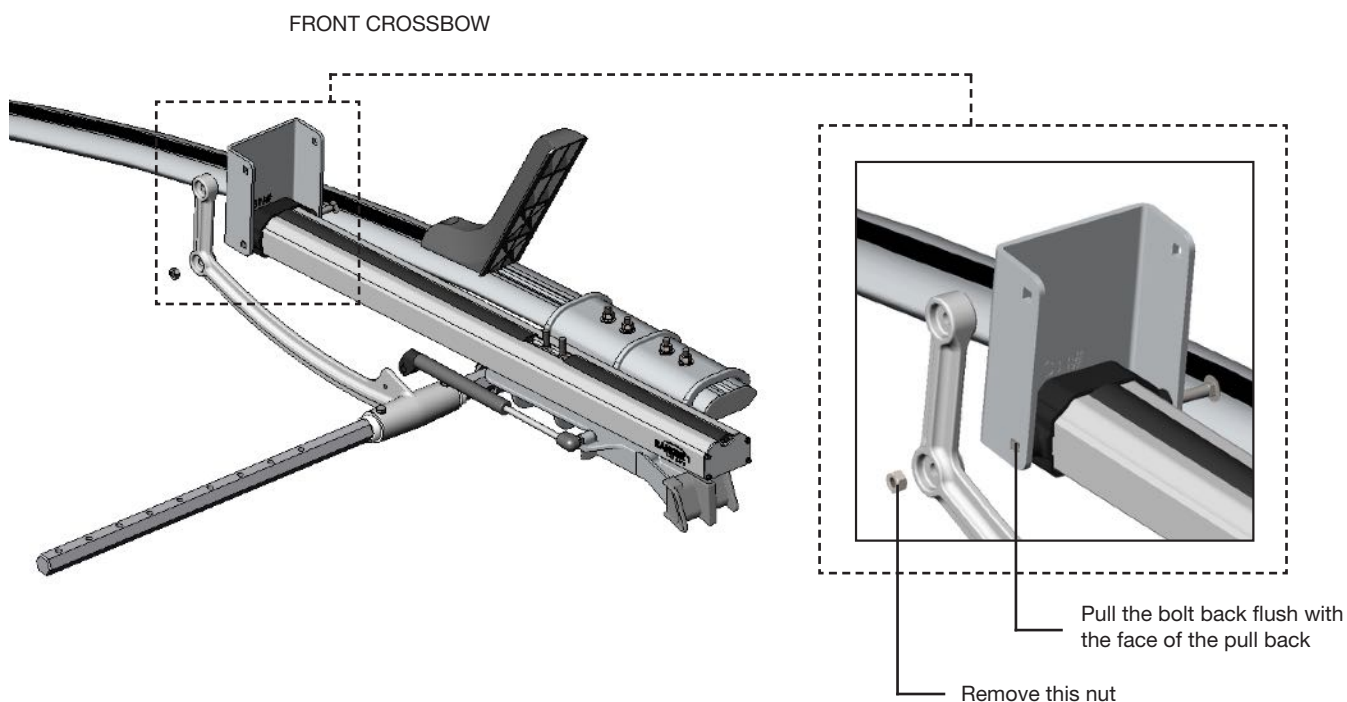


#98-117 Flat Washer

- 1.3.5** Slide the front bar (passenger side) through the tube under the hook frame (passenger side).

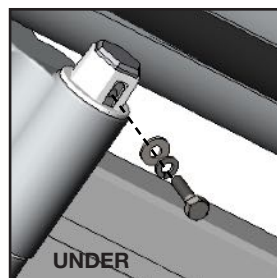
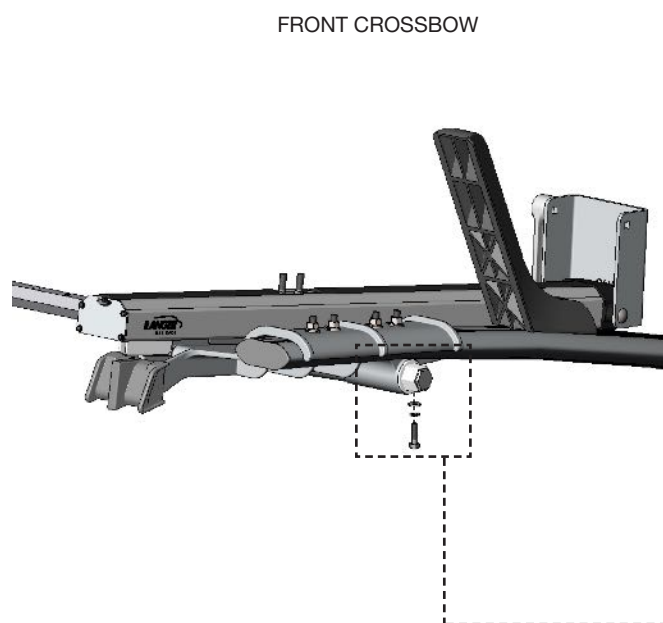


- 1.3.6** Remove the nut shown in the picture (shipping purposes only), then pull the bolt back flush with the face of the pull back



1.3.7 Attach 1 retaining wedge on the front end of the front bar.
(Be careful not to overtighten)

NOTE: Pay attention to the position of the retaining wedge.





TOOLS

- Ratchet
- 7/16" Socket

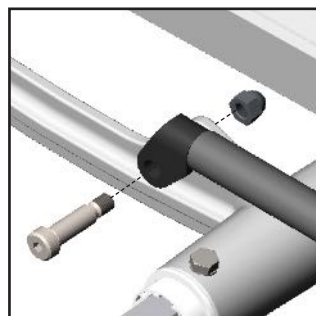
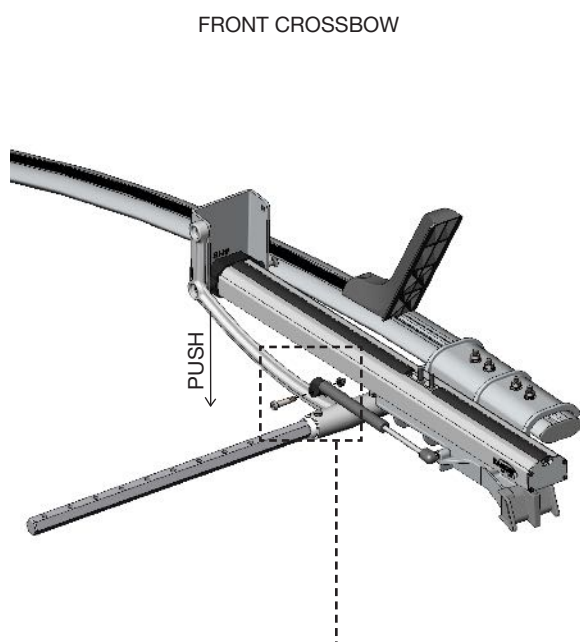
FASTENERS USED (15-1810-IFK2)

1x

-  #90-115 Hex Bolt 1/4" x 1"
-  #98-119 Lock Washer
-  #98-113 Flat Washer

1.3.8 Bolt the loose end of the gas spring to the pivot arm.

NOTE: Push the pivot arm **DOWN** to align the hole to the gas spring.





TOOLS

- Cordless Impact
- 3/16" Impact Bit
- 9/16" Wrench

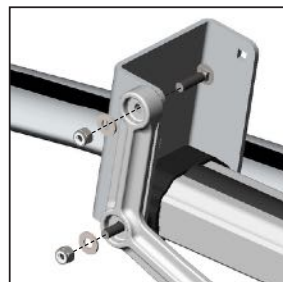
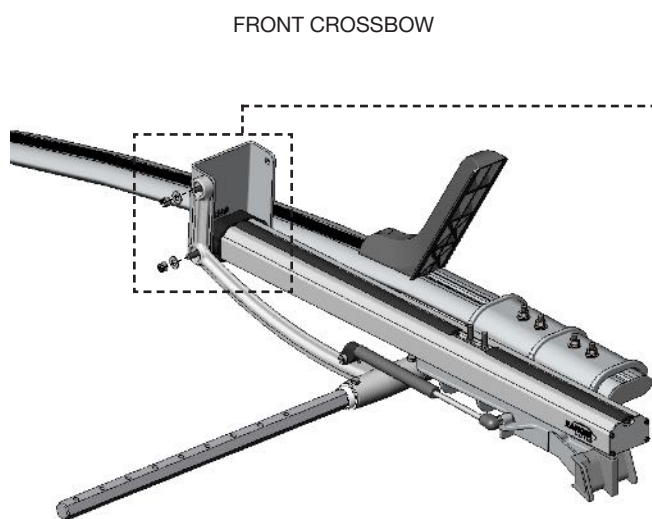
FASTENERS USED (15-1810-IFK2)

1x

-  #90-933 SHSSCREW 3/8" x 1"
-  #94-123 Acorn Nut

1.3.9 Bolt the pivot arm to the hook frame.

NOTE: Be careful not to overtighten.



TOOLS

- Ratchet
- 1/2" Socket

FASTENERS USED (15-1810-IFK2)

1x / TOP



#90-495 Carriage Bolt 5/16" x 1-1/4"



#98-117 Flat Washer



#94-111 Lock Nut

1x / BOTTOM

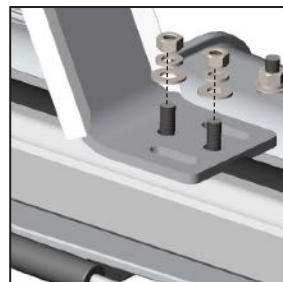
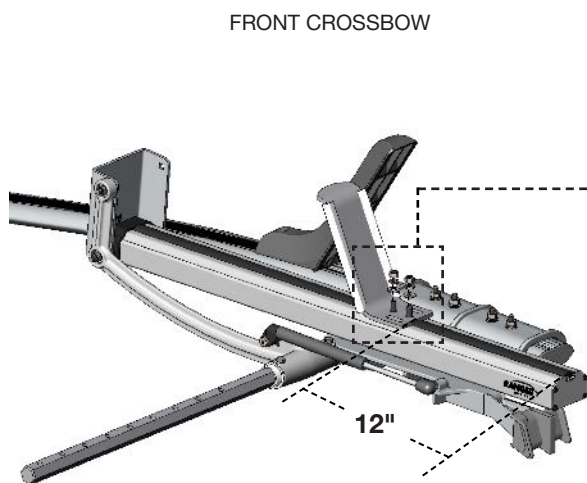


#98-117 Flat Washer



#94-111 Lock Nut

1.3.10 Attach the front hook to the 2 carriage bolts on top of the hook frame.



TOOLS

- Cordless Impact
- 1/2" Impact Bit

FASTENERS USED (15-1810-IFK2)

2x



#94-105 Hex Nut



#98-123 Lock Washer



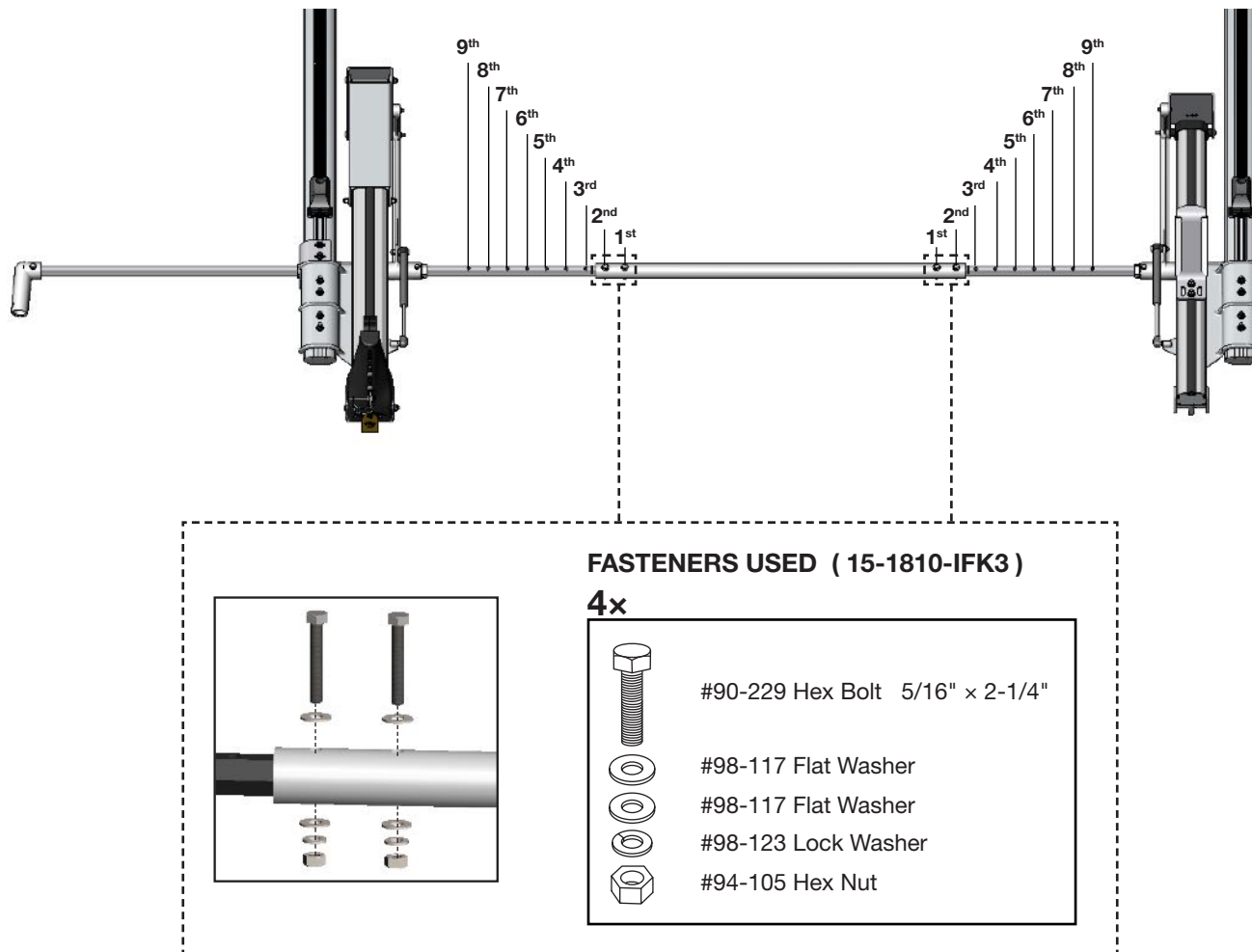
#98-117 Flat Washer

PHASE 1 – ASSEMBLY

1.4 FOR OVERHEAD LIFTER ASSEMBLY

1.4.1 Attach the ends of the front and rear bars to the center tube.

NOTE: Do not do this step if you don't have a lifter and/or if you have a Max Rack double side.



VEHICLE	MAX LADDER SIZE	CROSSBOW CENTER TO CENTER DISTANCE
ALL VEHICLE EXCEPT NISSAN NV , RAM PROMASTER 118" WHEELBASE & FORD TRANSIT REGULAR WHEELBASE	20' TO 32' EXTENSION LADDER	94 - 1/2" (1 st & 2 nd HOLES)
	LESS THAN 20' EXTESION LADDER (INCL. STEP LADDER)	66 - 1/2" (8 th & 9 th HOLES)
NISSAN NV	20' & 24' EXTENSION LADDER	70 - 1/2" (7 th & 8 th HOLES)
	LESS THAN 20' EXTENSION LADDER (INCL. STEP LADDER)	66 - 1/2" (8 th & 9 th HOLES)
RAM PROMASTER 118" WHEELBASE	20' TO 28' EXTENSION LADDER	82 - 1/2" (4 th & 5 th HOLES)
	LESS THAN 20' EXTENSION LADDER (INCL. STEP LADDER)	66 - 1/2" (8 th & 9 th HOLES)
FORD TRANSIT REGULAR WHEELBASE	20' & 24' EXTENSION LADDER	70 - 1/2" (7 th & 8 th HOLES)
	LESS THAN 20' EXTENSION LADDER (INCL. STEP LADDER)	66 - 1/2" (8 th & 9 th HOLES)



**“You have successfully completed Operation 2
Max Rack Passenger Side Mechanism!
Open the driver side mechanism (15-1815) box or the mounting track box
to install the Max Rack on your vehicle.**

Thank you for doing business with us.”

For any feedback or suggestions you might have, please contact: [**cs@rangerdesign.com**](mailto:cs@rangerdesign.com)



INSTALLATION GUIDE



15-0042 MOUNTING TRACKS

Ford Transit (Regular Wheelbase, Standard & Medium Roof)



QUICK START GUIDE

Phase 1 - Assembly

❑ 1.1 Setup.....	3 TO 4
❑ 1.2 Crossbow assembly.....	5

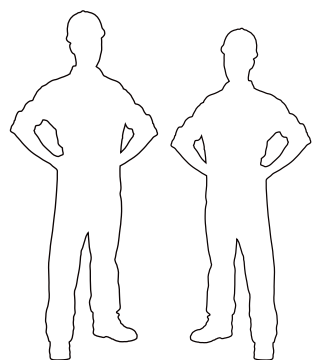
Phase 2 - Installation

❑ 2.1 Mounting Tracks installation.....	6
❑ 2.2 Max Rack installation.....	7 TO 11

Phase 3 - Adjustment

❑ 3.1 Adjustment for Max Rack.....	12 TO 14
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REQUIRED ITEMS FOR COMPLETE MAX RACK & LADDER RACK



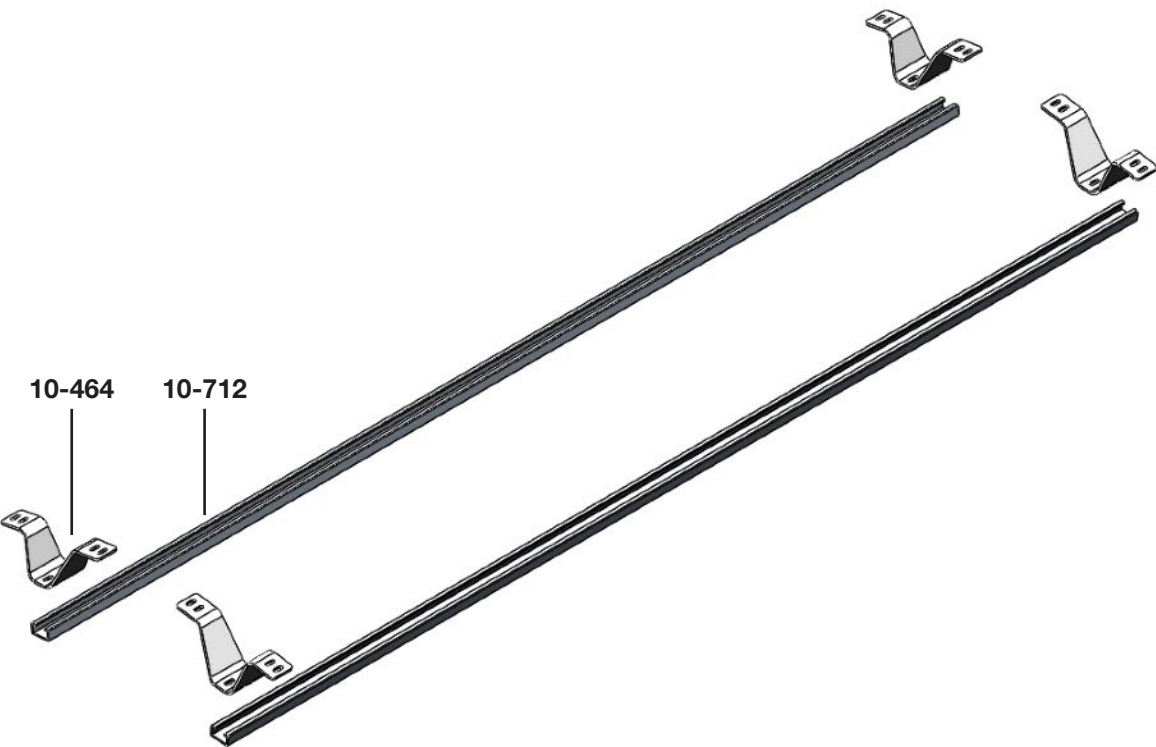
2
PERSONS

- ❑ Cordless Impact
- ❑ Ratchet
- ❑ Tape Measure
- ❑ Marker
- ❑ Ladder
- ❑ 9/16" Wrench
- ❑ 1/2" Wrench
- ❑ 7/16" Socket
- ❑ 1/2" Socket
- ❑ Sawhorse (Optional)
- ❑ Box
- ❑ Cutter

PHASE 1 – ASSEMBLY

1.1 SETUP

1.1.1 Unpack components; compare with the bill of materials.



1.1.2 Verify all parts are present.

Item No.	Description	Qty.
10-464	V Bracket	4
10-712	Mounting Track 84" Long	2
96-1003	Installation Fastener Bag	1

1.1.3 Identify the **Assembly** and **Installation** fastener bags.





Fastener Bag From Crossbows

16x		# 90-487	Carriage Bolt 5/16"-18 x 3/4" SS304
16x		# 94-105	Hex Nut 5/16"-18 SS316wax
16x		# 98-117	Flat Washer 5/16" OD, 3/4" SS18-8
16x		# 98-123	Lock Washer 5/16" SS304

Fastener Assembly

NOTE: The carriage bolts should already be installed.

16x





	#90-487 Hex Bolt 5/16" x 3/4"
	#98-117 Flat Washer
	#98-123 Lock Washer
	#94-105 Hex Nut

Installation Fastener Bag







8x		# 90-209	Hex Bolt 5/16"-18 x 1" SS304
6x		# 90-970	Hex Bolt M8-1.25 x 35 CL 12.9 DIN 933 SS304
8x		# 94-150	Channel Nut 5/16"
14x		# 98-117	Flat Washer 5/16" OD, 3/4" SS18-8
14x		# 98-123	Lock Washer 5/16" SS304
6x		# 98-136	Spacer 0.505" ID x 1" OD x 0.250" L NYLON
12x		# 98-149	Spacer 0.290" ID x 1.375" OD x 0.125" L NEOPRENE

Fastener Assembly

8x

	#90-209 Hex Bolt 5/16" x 1"
	#98-123 Lock Washer
	#98-117 Flat Washer
	#94-150 Channel Nut

6x

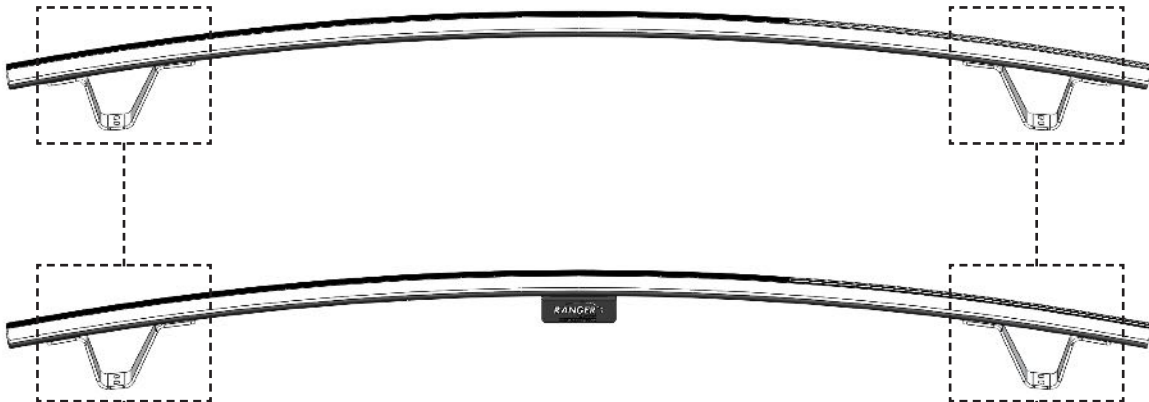
	#90-970 Hex Bolt M8 x 35
	#98-123 Lock Washer
	#98-117 Flat Washer
	#98-149 Neoprene Spacer
	#98-136 Spacer
	#98-149 Neoprene Spacer

PHASE 1 – ASSEMBLY

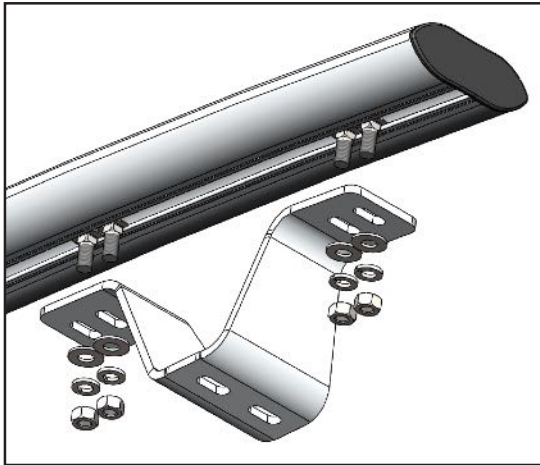
1.2 CROSSBOW ASSEMBLY

1.2.1 Attach the V bracket.

NOTE: Leave the bolts loose to allow for adjustment.







NOTE: The more slanted side of the V brackets should be closer to the center of the crossbows.



NOTE: The carriage bolts should already be installed in the crossbows.

FASTENERS USED

16x

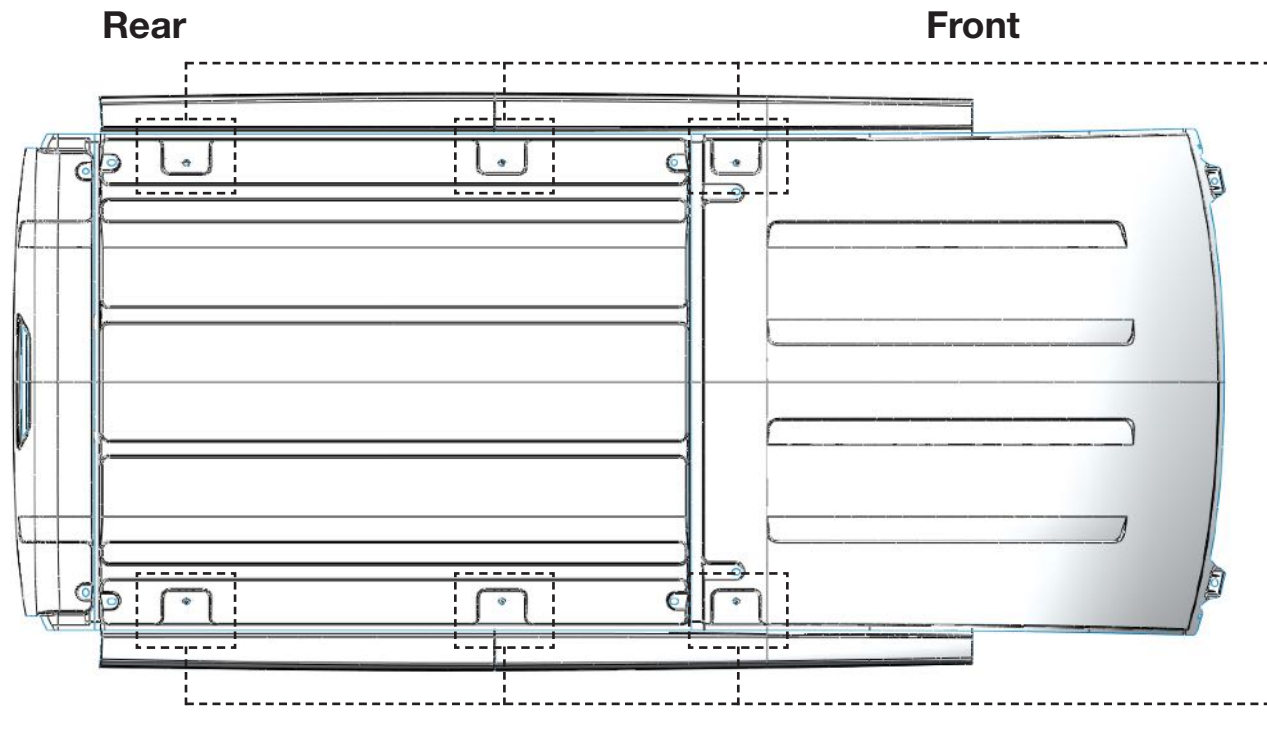
- | | |
|---|-------------------------------|
|  | #90-487 Hex Bolt 5/16" x 3/4" |
|  | #98-117 Flat Washer |
|  | #98-123 Lock Washer |
|  | #94-105 Hex Nut |

PHASE 2 – INSTALLATION

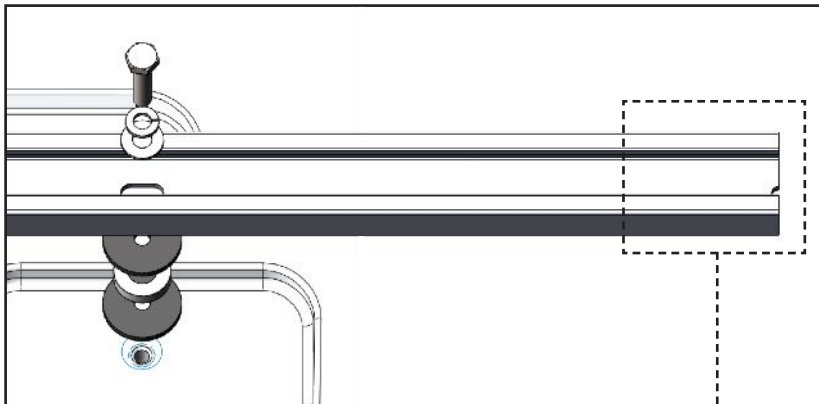
2.1 MOUNTING TRACKS INSTALLATION

2.1.1 Install the mounting tracks onto the roof of the van.

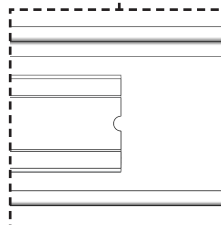
NOTE: Use a bolt to remove the excess dirt/paint in the holes of the van by repeatedly inserting and removing the bolt in the holes with a ratchet.



Front



NOTE: The ends of the mounting tracks with the half-circles go to the front of the vehicle.



TOOLS

- Cordless Impact
- 1/2" Socket

FASTENERS USED

6x



#90-970 Hex Bolt M8 × 35



#98-123 Lock Washer



#98-117 Flat Washer



#98-149 Neoprene Spacer



#98-136 Spacer



#98-149 Neoprene Spacer

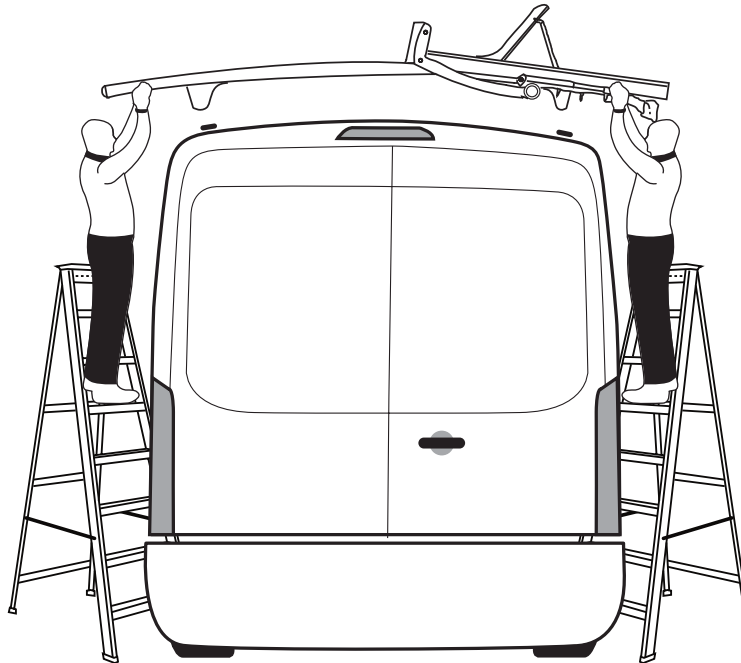
PHASE 2 – INSTALLATION

2.2 MAX RACK INSTALLATION

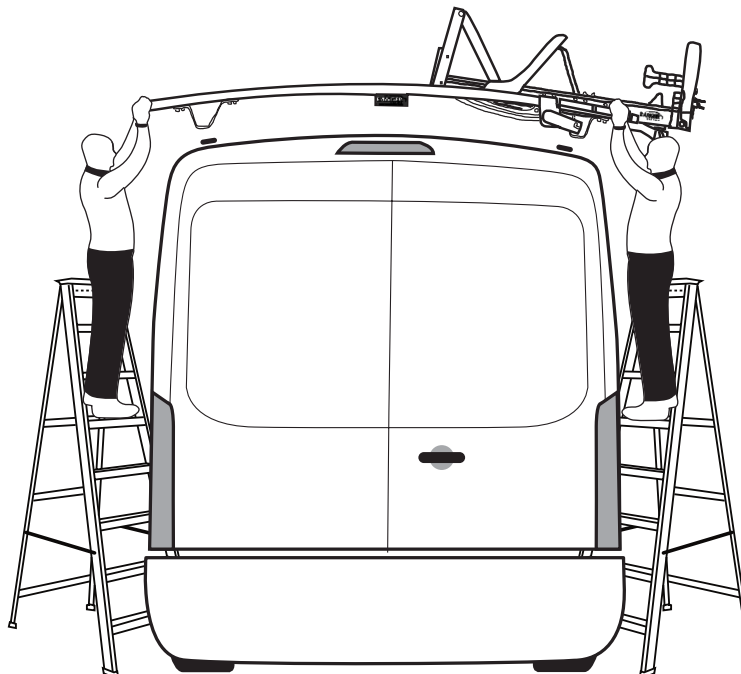
2.2.1 Position the Max Rack (**minimum two persons**) on the vehicle so that the feet are on the tracks.

NOTE: If you do not have a lifter, lift the front crossbow onto the roof first then the rear crossbow.

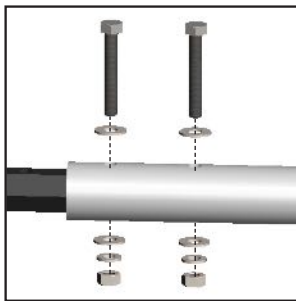
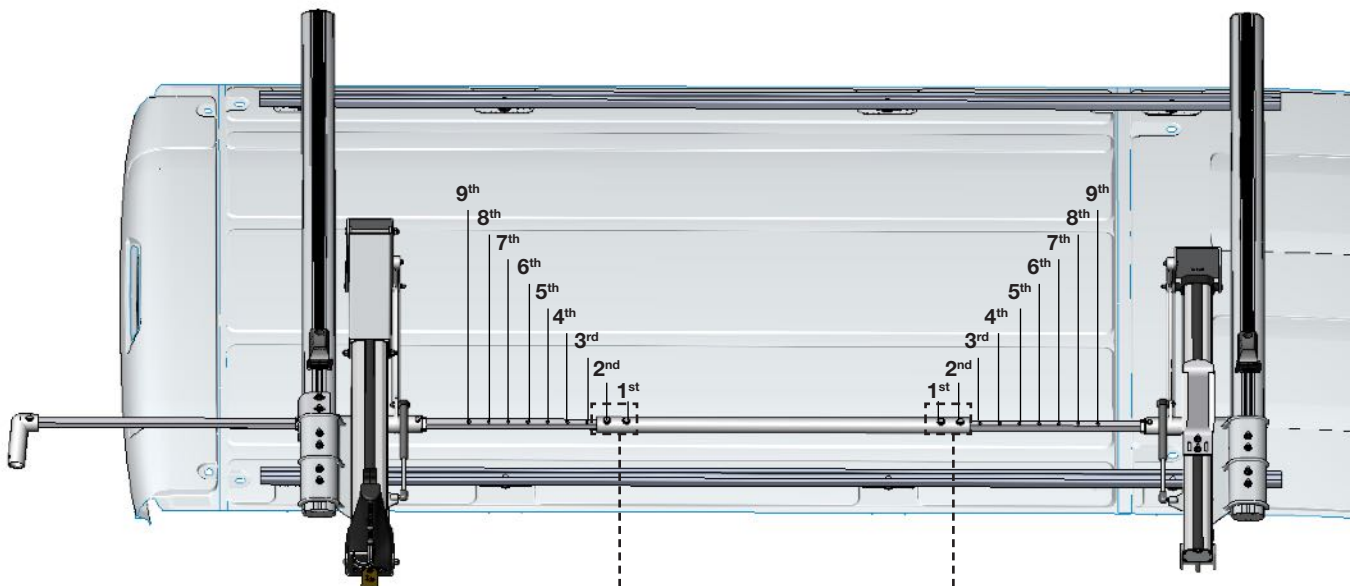
FRONT CROSSBOW



REAR CROSSBOW



2.2.2 Attach the ends of the front and rear bars to the center tube.



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

FASTENERS USED (IFK 3rd for 15-1810)

4x



#90-229 Hex Bolt 5/16" x 2-1/4"

#98-117 Flat Washer

#98-117 Flat Washer

#98-123 Lock Washer

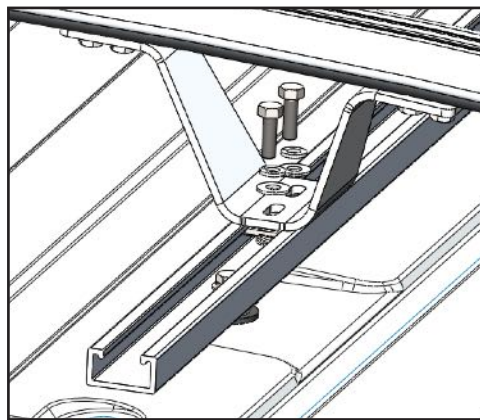
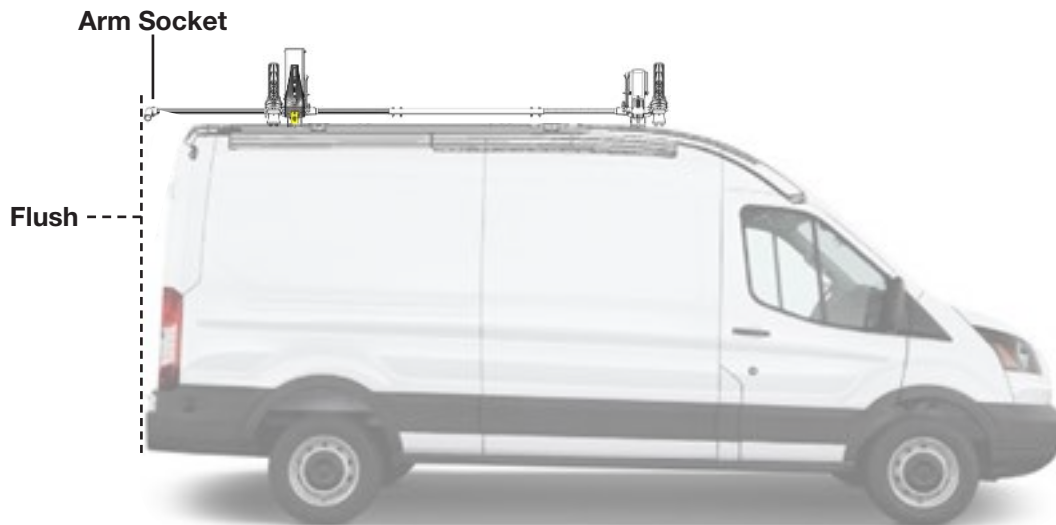
#94-105 Hex Nut

VEHICLE	MAX LADDER SIZE	CROSSBOW CENTER TO CENTER DISTANCE
ALL VEHICLES EXCEPT NISSAN NV , RAM PROMASTER 118" WHEELBASE & FORD TRANSIT REGULAR WHEELBASE	20' TO 32' EXTENSION LADDER	94 - 1/2" (1 st & 2 nd HOLES)
	LESS THAN 20' EXTENSION LADDER (INCL. STEP LADDER)	66 - 1/2" (8 th & 9 th HOLES)
NISSAN NV	20' & 24' EXTENSION LADDER	70 - 1/2" (7 th & 8 th HOLES)
	LESS THAN 20' EXTENSION LADDER (INCL. STEP LADDER)	66 - 1/2" (8 th & 9 th HOLES)
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	LESS THAN 20' EXTENSION LADDER (INCL. STEP LADDER)	66 - 1/2" (8 th & 9 th HOLES)

- 2.2.3** • Align the arm socket to the rear bumper of the vehicle.
• Attach all the V brackets to the mounting tracks.

NOTE: These conditions must be respected:

- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the Front Hook when the ladder is loaded.







TOOLS

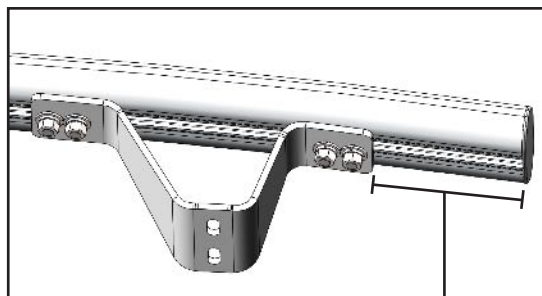
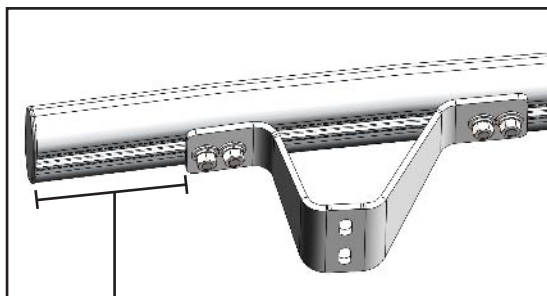
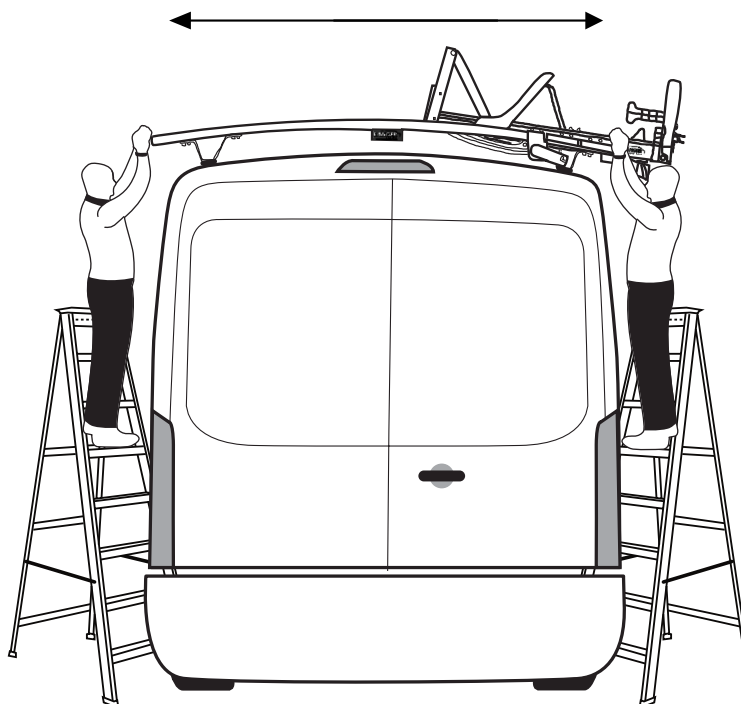
- Ratchet
- 1/2" Socket

FASTENERS USED

8x

-  #90-209 Hex Bolt 5/16" x 1"
-  #98-123 Lock Washer
-  #98-117 Flat Washer
-  #94-150 Channel Nut

- 2.2.4** • Center the crossbows on the vehicle.
• Tighten all the V brackets to the crossbows.

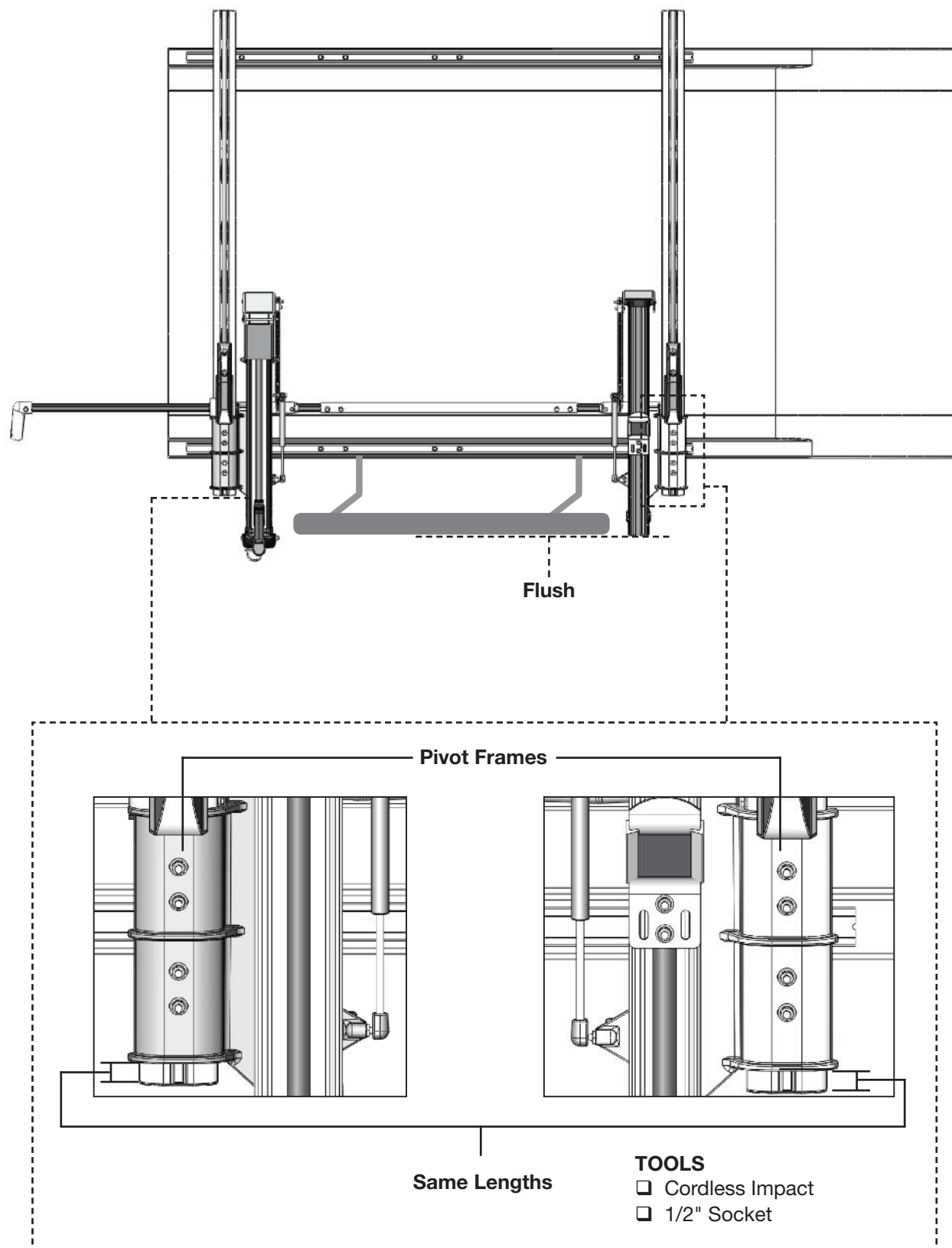


Same Lengths

TOOLS

- ☐ Ratchet
- ☐ 1/2" Socket
- ☐ Tape Measure

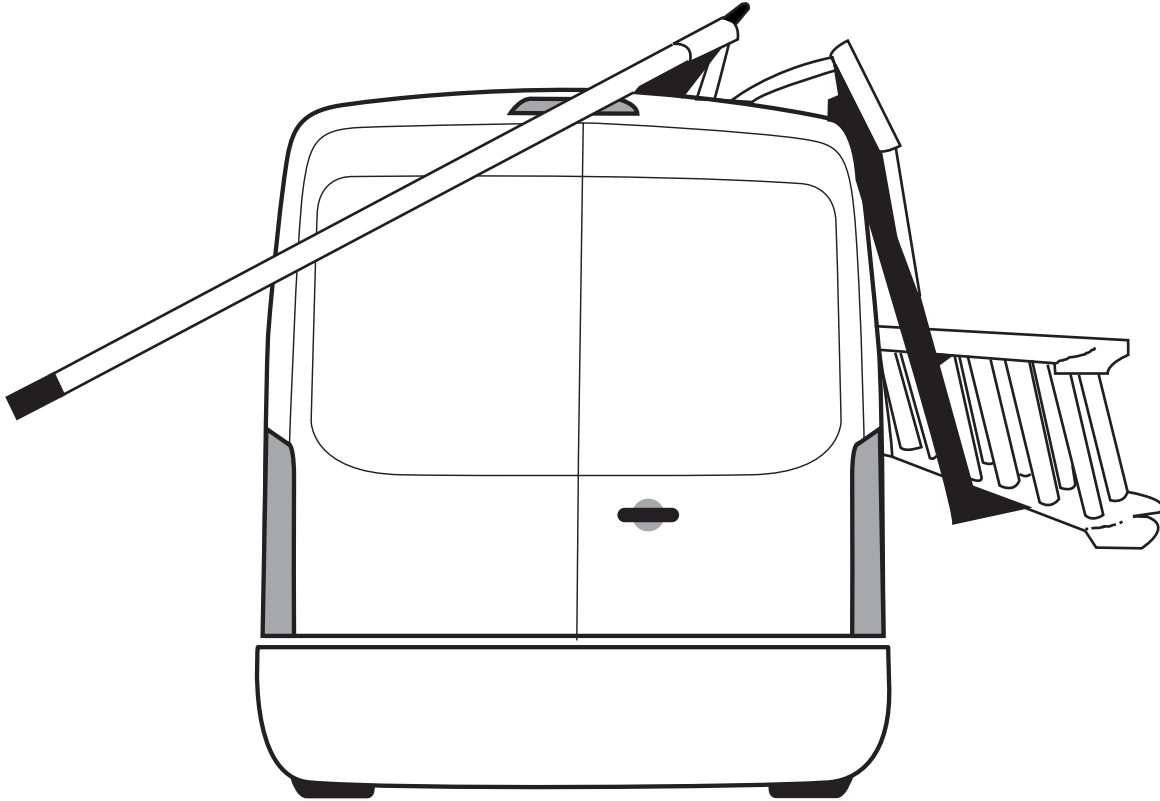
- 2.2.5** • Align the side of the Max Rack with the opened sliding door
- Tighten both Pivot Frames.



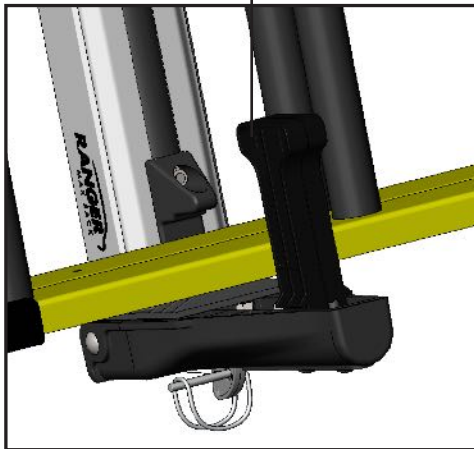
PHASE 3 – ADJUSTMENT

3.1 ADJUSTMENT FOR MAX RACK

- 3.1.1**
- Place the Max Rack in the down position.
 - Load the ladder onto the Max Rack.
 - Tighten the Lock Hook and the Front Hook.

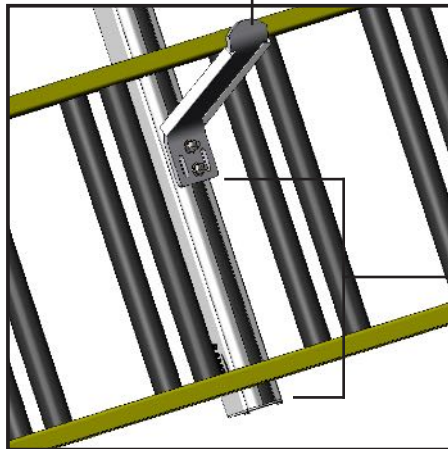


Lock Hook



The lock hook can be installed upside down to accommodate different ladders.

Front Hook

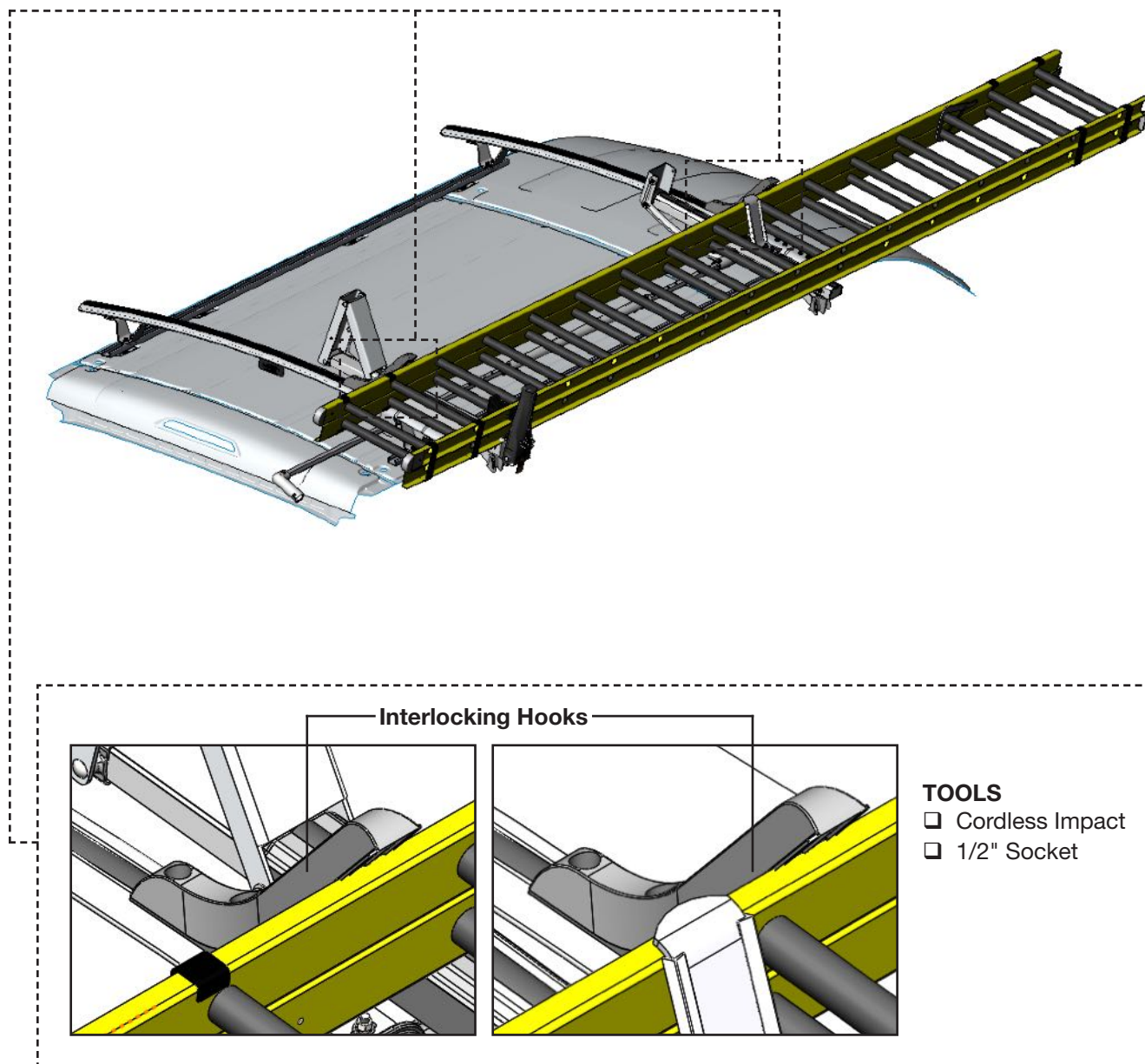


TOOLS

- Cordless Impact
- 1/2" Socket

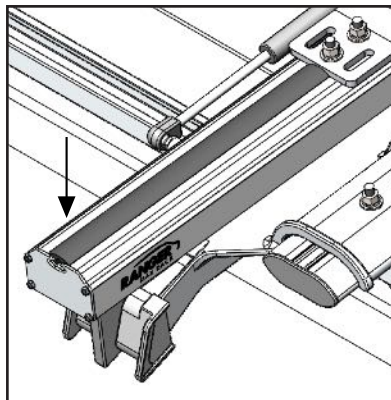
12"

- 3.1.2** • Place the Max Rack in the up position.
• Slide the 2 Interlocking Hooks until they touch the ladder, then tighten them.



3.1.3 Cut plug extrusions to fit the following 4 locations and install them.

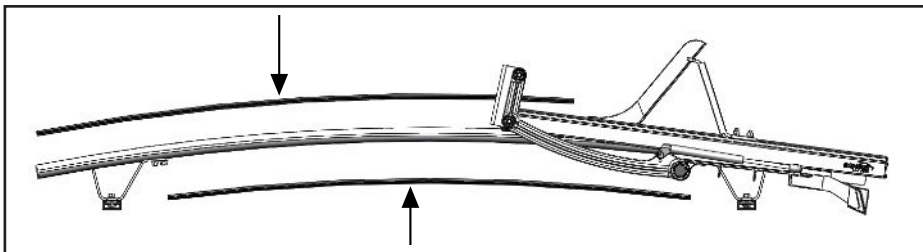
Hook Frame



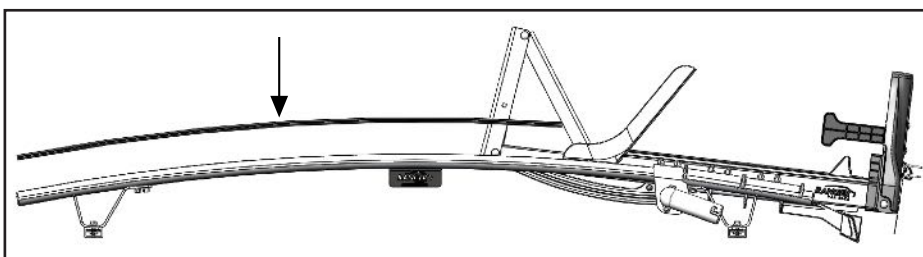
TOOLS

- Cutter

Front Crossbow Assembly

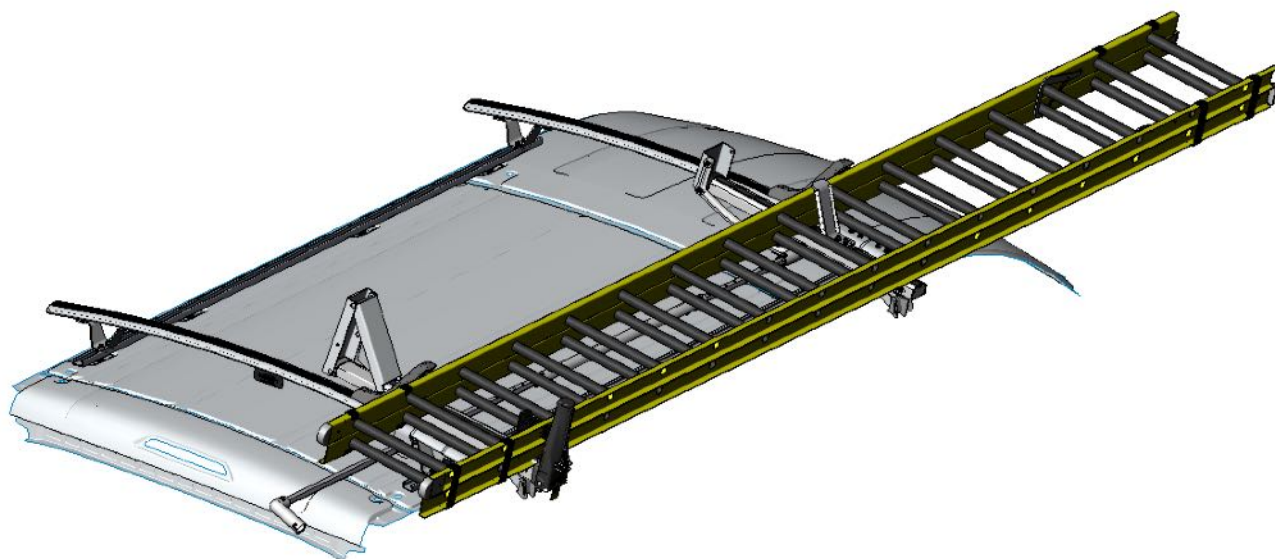


Rear Crossbow Assembly

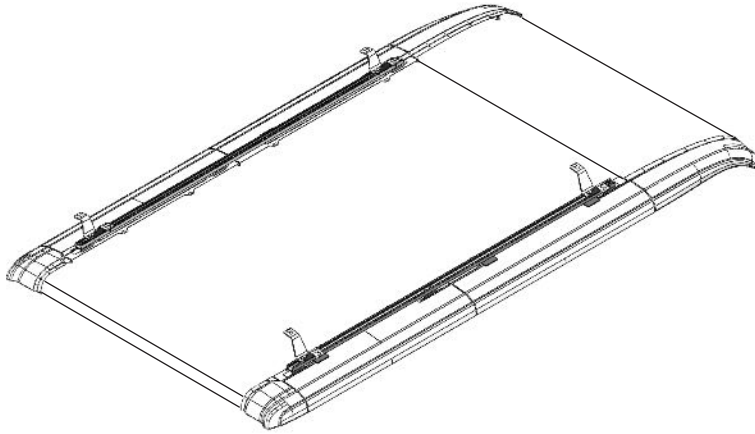


3.1.4 • Ensure that everything is safely assembled and fastened.

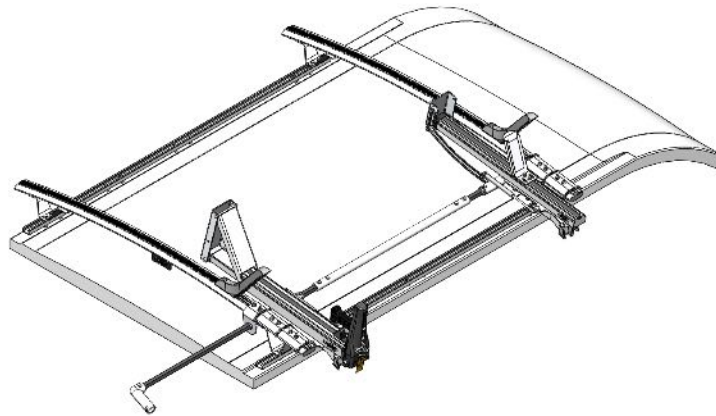
- With the ladder locked, operate your Max Rack a few times, while carefully observing the moving parts.



Mounting Tracks



Max Rack



“Congratulations, you have successfully installed your Mounting Tracks and your completed Rack on your vehicle!”

Thank you for doing business with us.”

For any feedback or suggestions you might have, please contact: [**cs@rangerdesign.com**](mailto:cs@rangerdesign.com)

