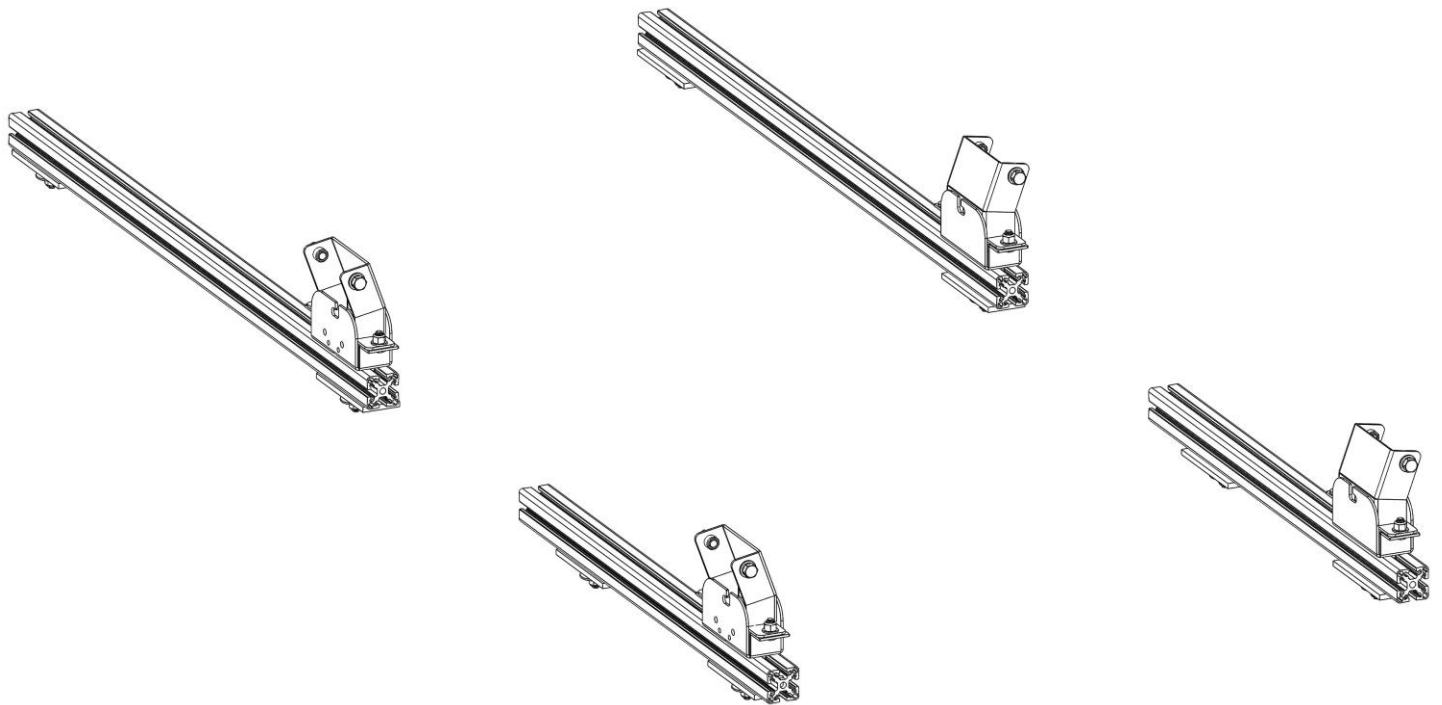

KARGO MASTER®

WE PUT EVERYTHING WITHIN REACH.

Installation Guide

4081S



PLEASE READ ALL INSTRUCTIONS AND WARNINGS PRIOR TO ASSEMBLING, INSTALLING, AND USING THIS PRODUCT

Warning



Always check for wires, fuel tanks and lines, brake lines and other important vehicle functionality items prior to drilling and installing all products.

Tools Needed

1/2" Socket and Wrench	9/16" Socket and Wrench
1/2" Box Wrench	Tape Measure

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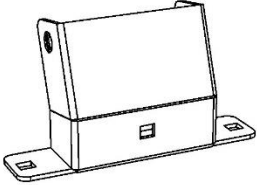
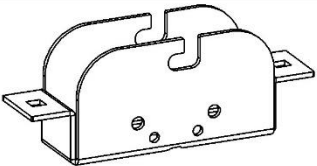
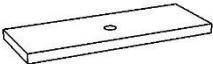
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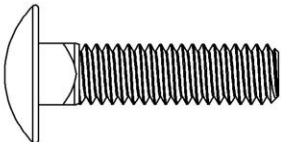
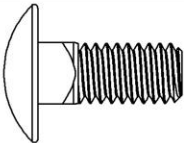
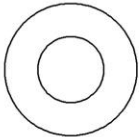
Before You Begin

- Read all instructions prior to installing any Kargo Master product.
- **Be sure to put sealant around all threads entering cargo area and between the rubber spacer and roof of vehicle to prevent water from leaking into cargo area.**
- Follow rack assembly instructions to assemble rack.

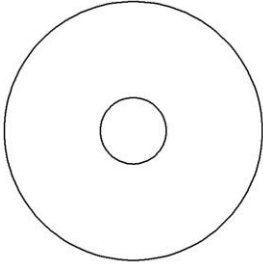
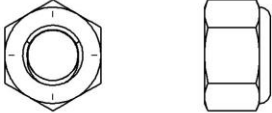
Sprinter Mount Parts

ITEM NO.	ITEM	PART NUMBER	DESCRIPTION	QTY
1		40818-S-002	SPRINTER RAIL LONG	2
2		40818-S-003	SPRINTER RAIL, SHORT	2
3		100862	SPRINTER HR FOOT	4
4		40818-20-003-R1	RAISED FOOT BRACKET	4
5		40818-10-003-R1	TRANSIT AND SPRINTER RUBBER PAD	8
6		18-40818-S	SPRINTER BOLT KIT	
7		18-40818-FT	FOOT BOLT KIT	

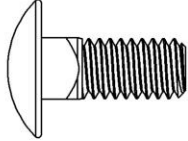
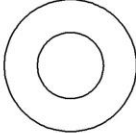
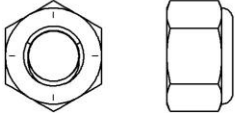
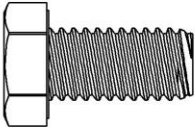
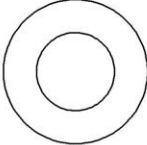
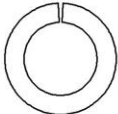
Hardware 18-40818-S

ITEM	HARDWARE TO SCALE	PART NUMBER	DESCRIPTION	QTY.
1		11137256	5/16"-18 X 1-1/4" CARRIAGE BOLT	8
4		21810	5/16"-18 X 3/4" CARRIAGE BOLT	8
3		11545144	5/16" FLAT WASHER	8

Hardware 18-40818-S (Continued)

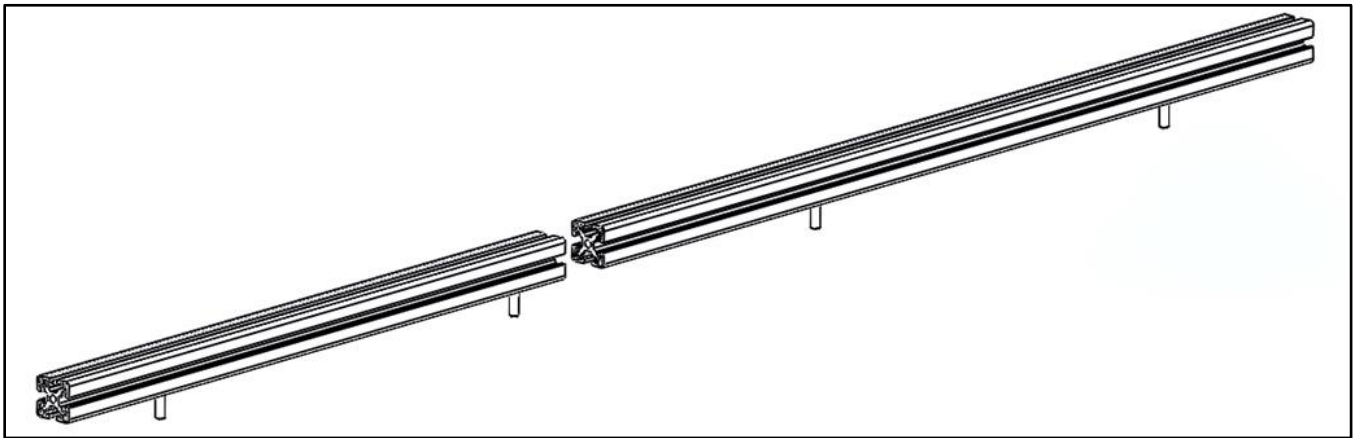
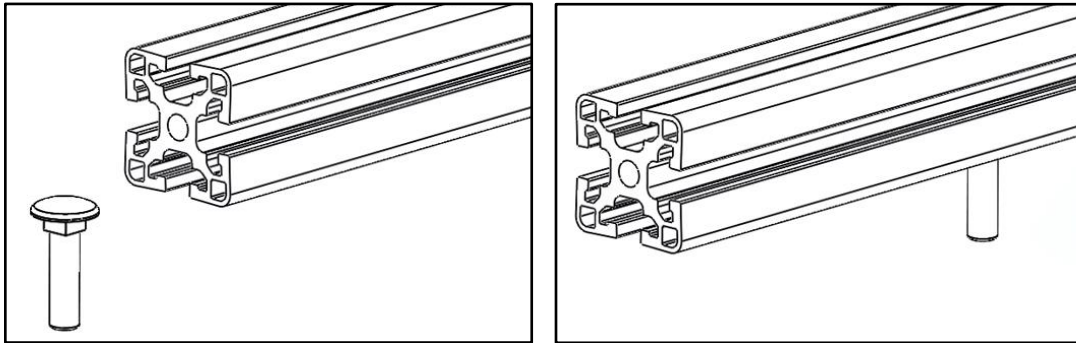
ITEM	HARDWARE TO SCALE	PART NUMBER	DESCRIPTION	QTY.
4		33216	5/16" FENDER WASHER	8
5		0169777	5/16"-18 LOCK NUT	16

Mounting Hardware 18-40818-FT

ITEM	HARDWARE TO SCALE	PART NUMBER	DESCRIPTION	QTY.
1		21810	5/16"-18 X 3/4" CARRIAGE BOLT	16
2		33080	5/16" WASHER	16
3		0169777	5/16"-18 LOCK NUT	16
4		11241196	3/8"-16 X 3/4" HEX HEAD BOLT	8
5		11541089	3/8" WASHER	8
6		0123496	3/8" SPLIT LOCK WASHER	8

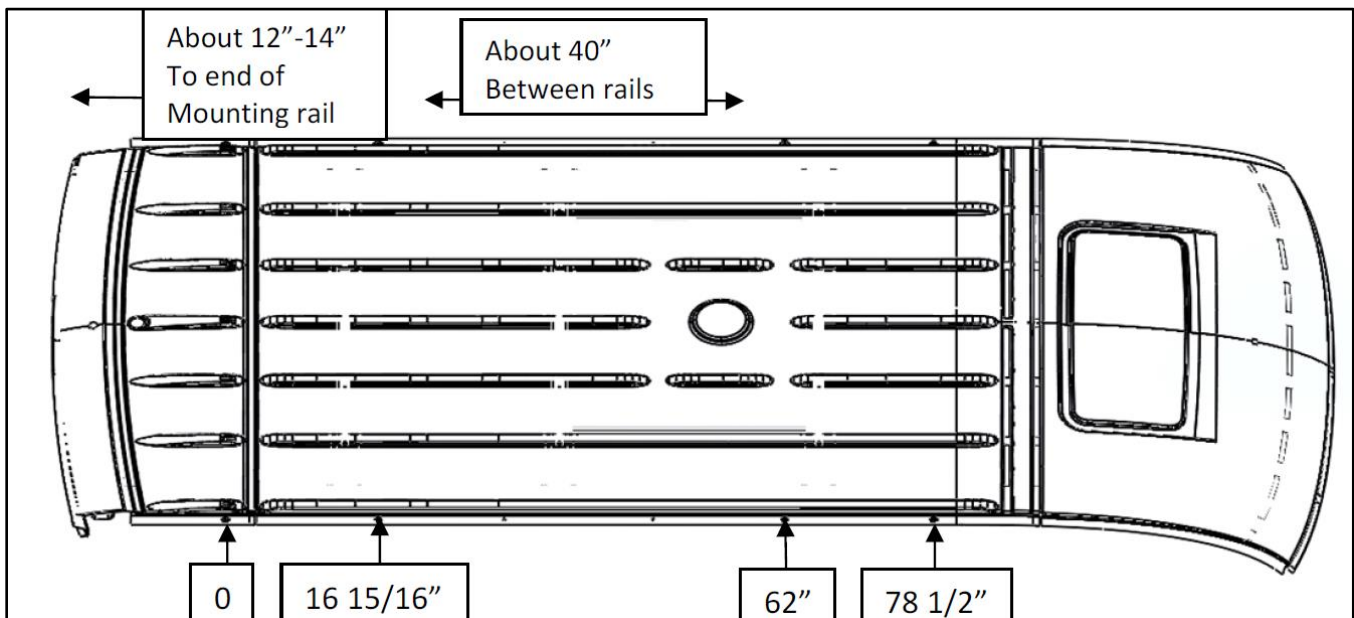
Step 1 – Prepare Extrusion

- Slide two 5/16" x 1-1/4" carriage bolts into each rail piece.



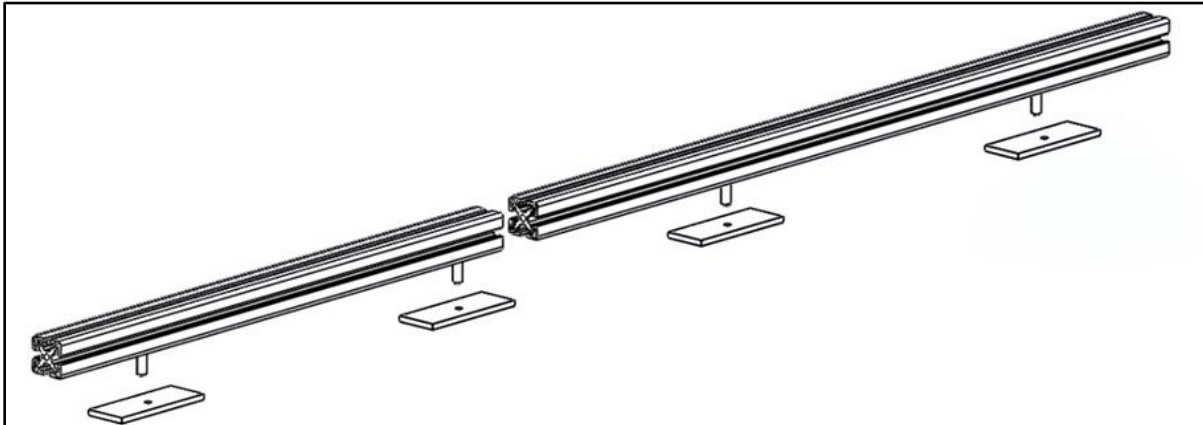
Step 2 – Locate Mount Holes

- Locate the two rear most factory bosses and drill out using a 5/16" drill bit, about 16-15/16" apart.
- Skip the next two bosses, then drill the forward two (at about 62" and 78.5" from the rear most hole).
- Some roof heights and wheelbases will vary. Your mounting rails should allow the rack to be mounted approximately between 14" to 18" from the rear of the van and have about 40" between mounting rails.

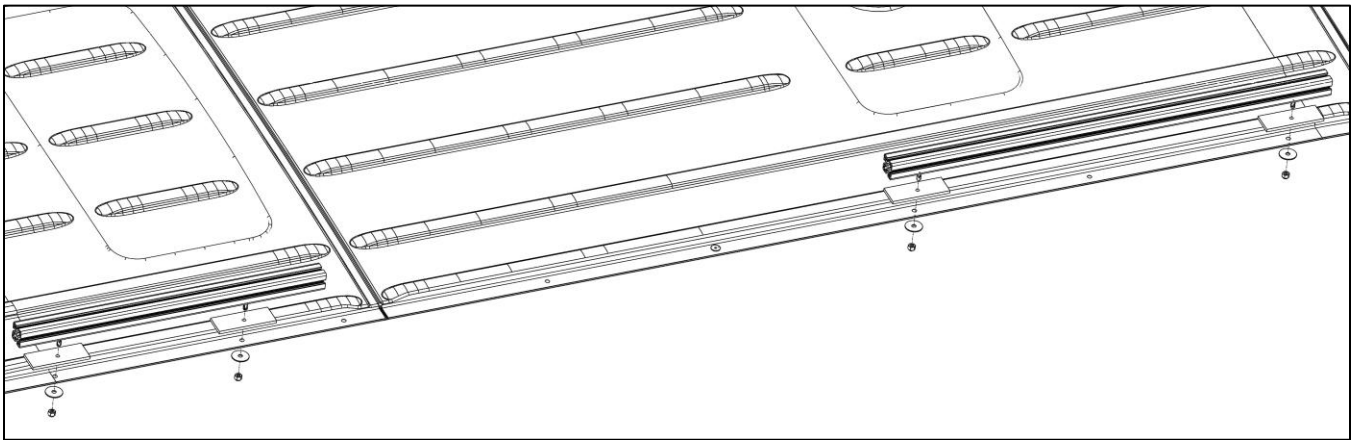


Step 3 – Attach Mount Rails

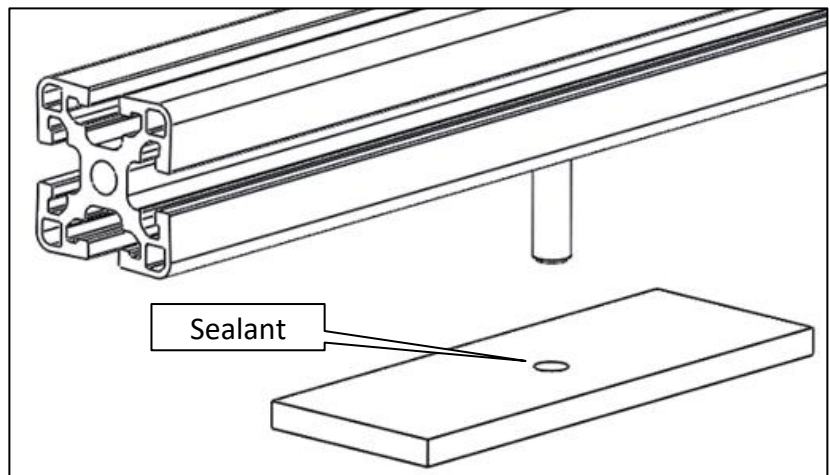
- Put rubber pad onto carriage bolts and align them with the holes drilled in previous step.



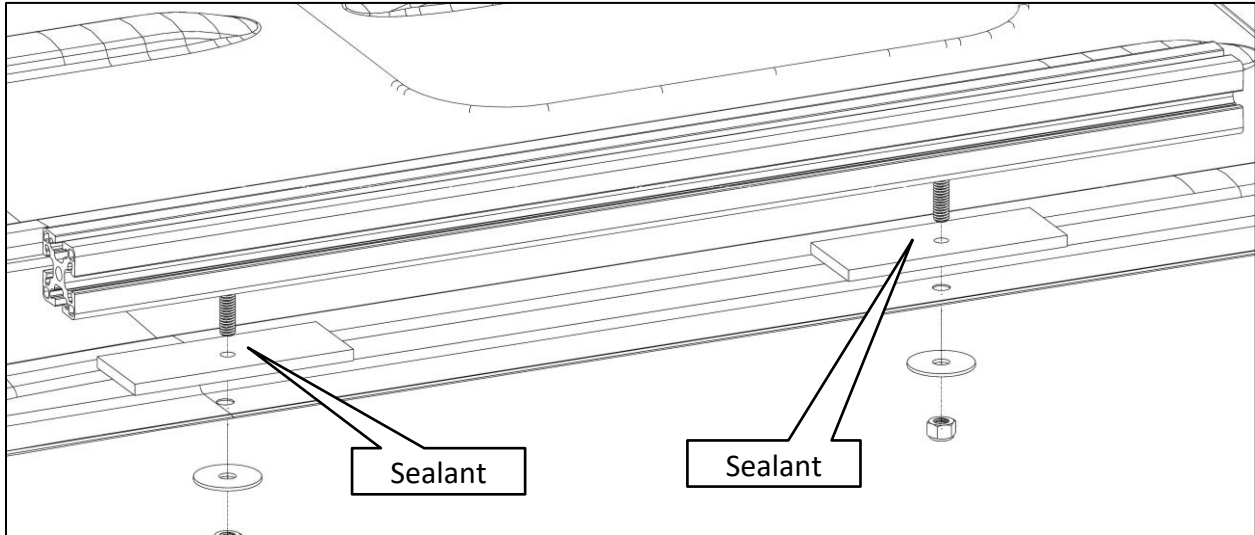
****PICTURE SHOWN ABOVE DOES NOT ACCURATELY SHOW SPACING BETWEEN RAILS****



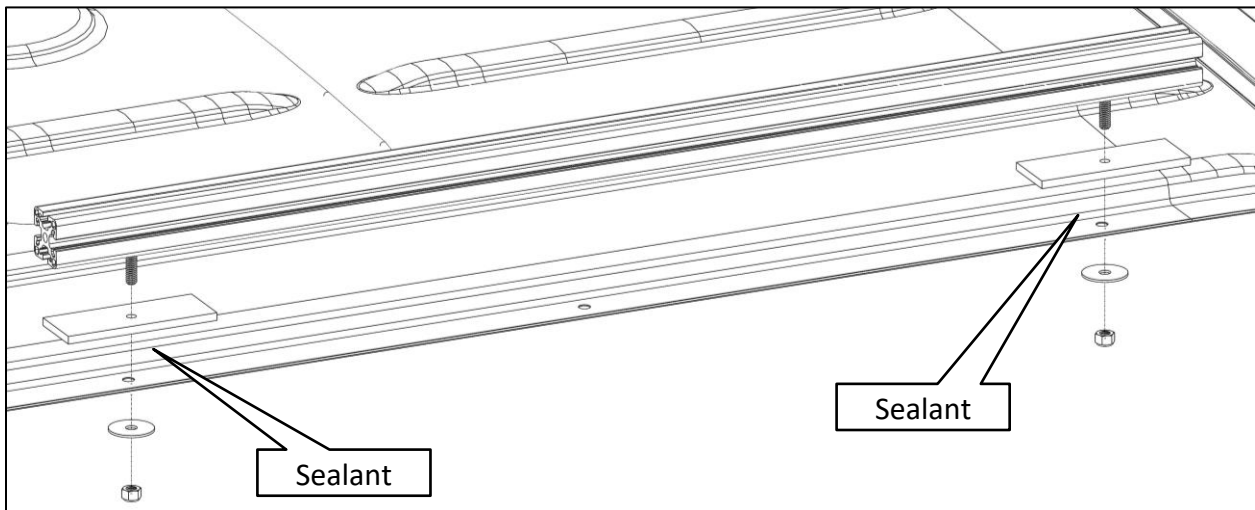
- Place sealant in between rubber pad and the roof.
- The shorter rail goes to the rear of the van with approximately 6" of the rail behind the carriage bolt.



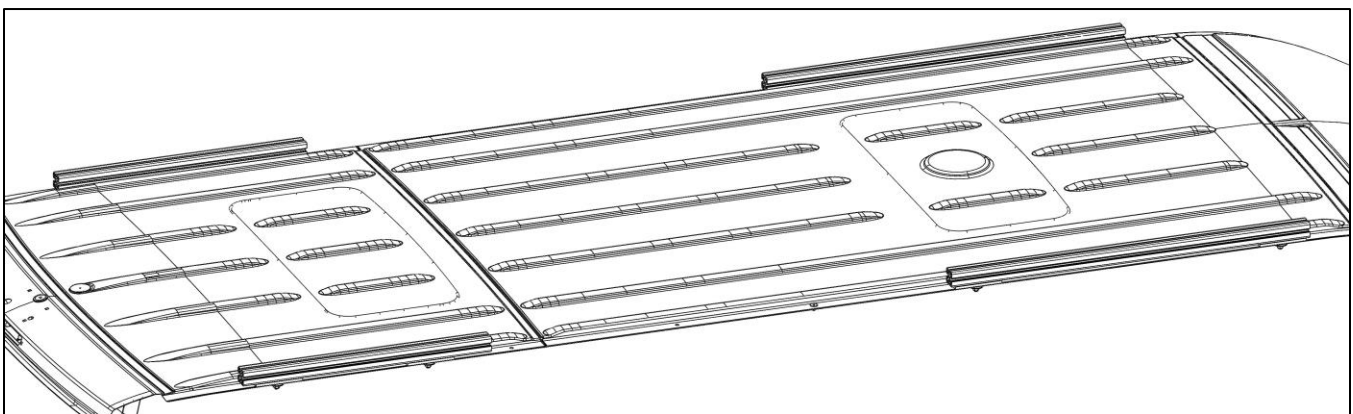
- Bolt through the roof using previously installed carriage bolts, 5/16" fender washers and 5/16" lock nuts.
- Be sure to put sealant around the hole in the roof to ensure no water leaks into van.



- Place longer rail on roof, towards front of van, with carriage bolts aligned with holes drilled. Keep approximately 40" in between the front and rear rails.
- Place sealant in between rubber pad and the roof.
- Bolt through the roof using previously installed carriage bolts, 5/16" fender washers and 5/16" lock nuts.
- Be sure to put sealant around the hole in the roof to ensure no water leaks into van.

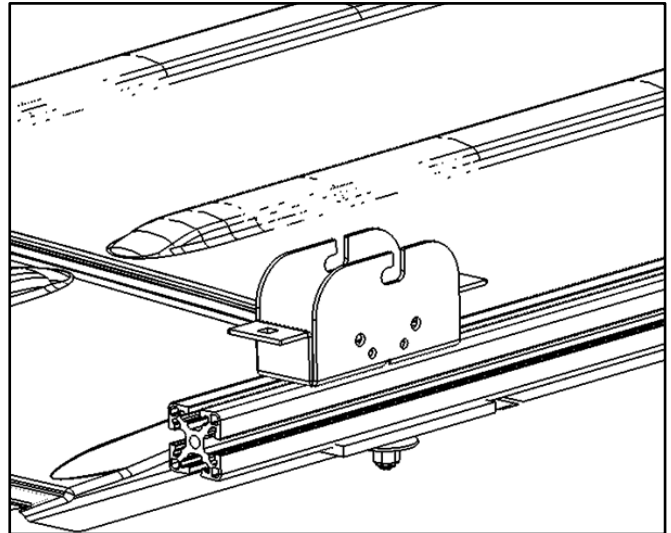
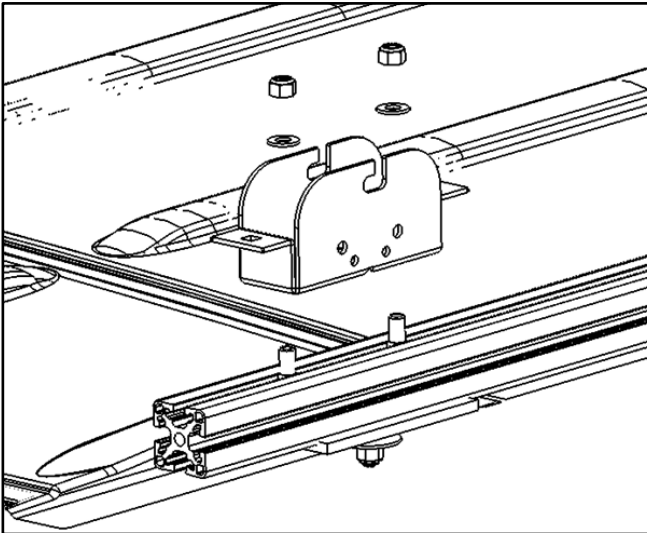


- Snug tighten, but allow movement.
- Repeat this entire step on driver side.

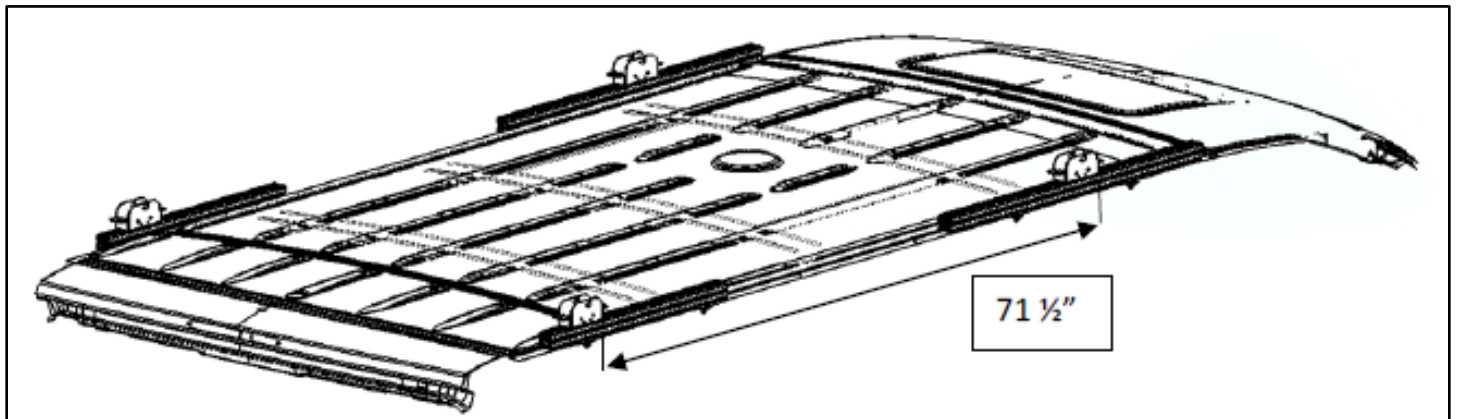


Step 4 – Attach Mount Block

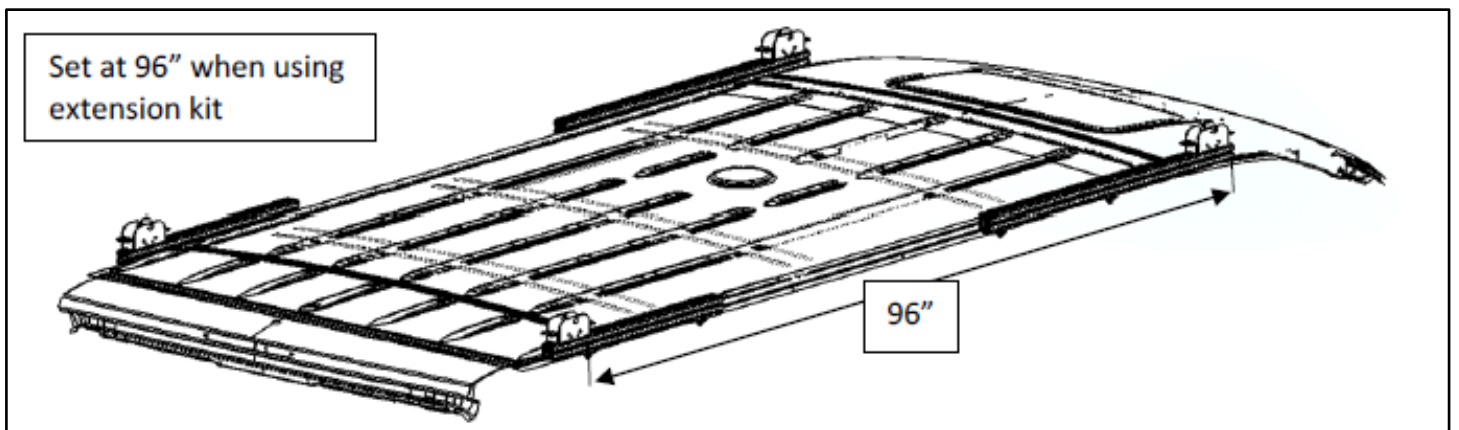
- Slide two 5/16" x 3/4" carriage bolts into the top slot on each rail piece.
- Place mount block on top of each carriage bolt.
- Bolt together using the carriage bolts, two 5/16" flat washers and two 5/16" lock nuts.



Space mount blocks 71.5" apart for a standard installation.



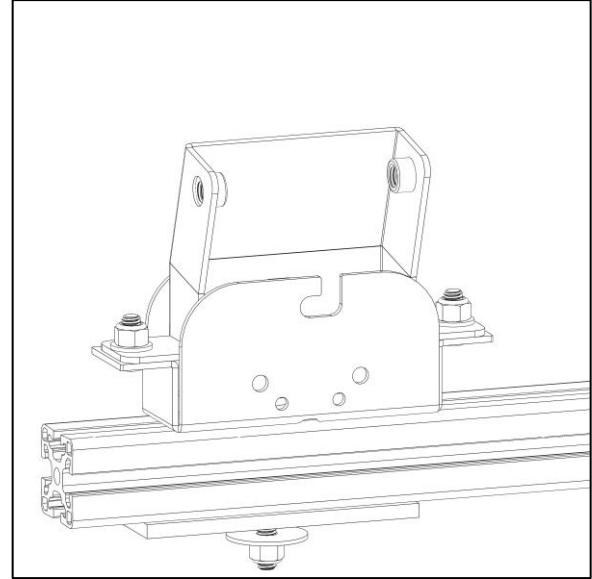
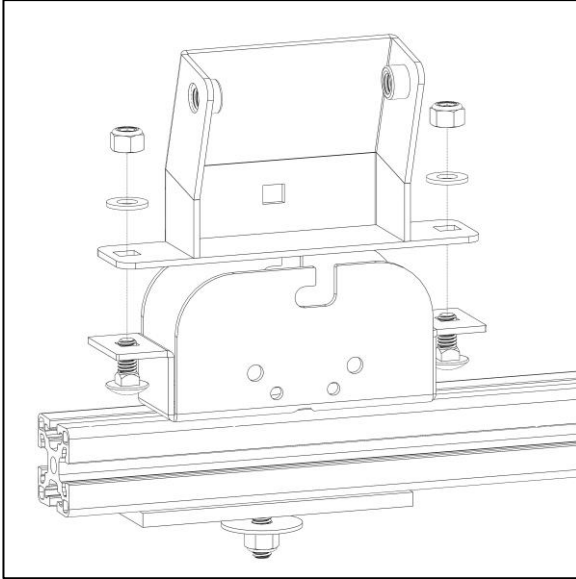
Space mount blocks 96" apart for an extended installation.



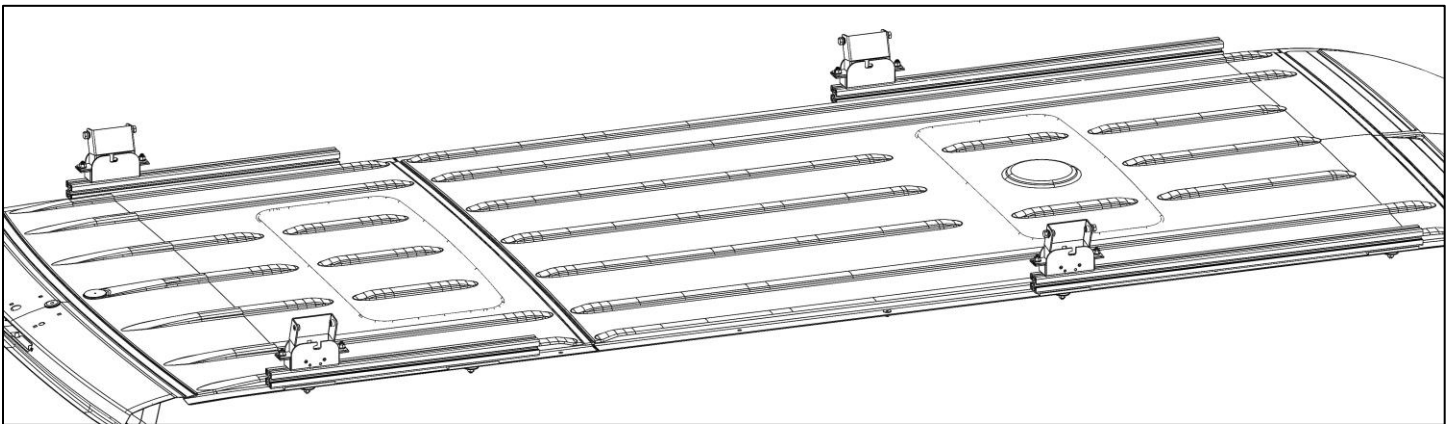
- Snug Tighten, but allow brackets to move.

Step 5 – Attach Mount Feet

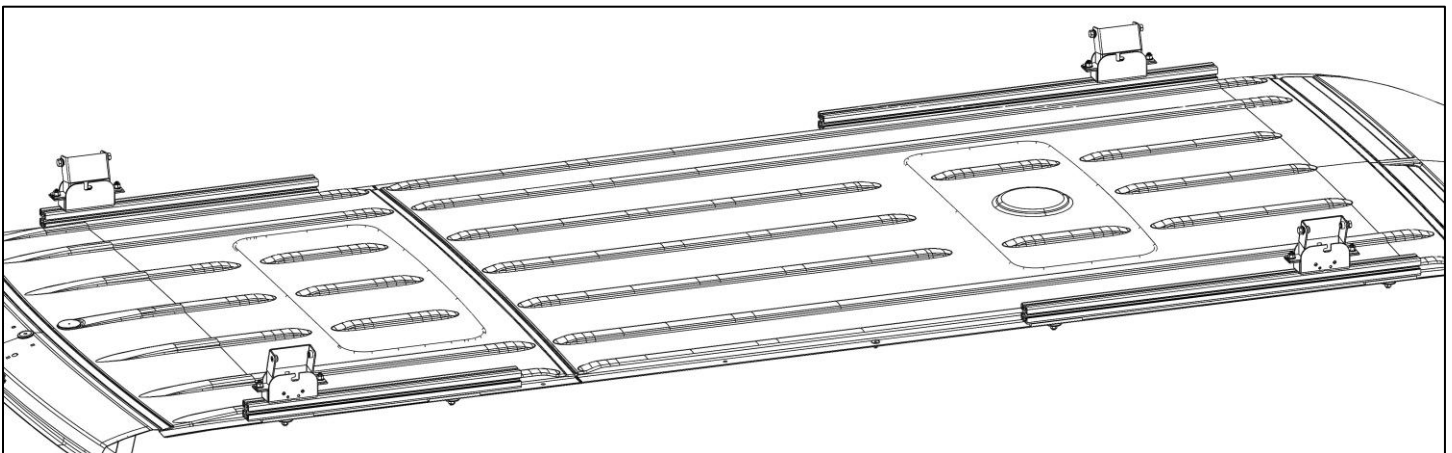
- Mount feet to previously installed mount blocks using two 5/16" x 3/4" carriage bolts, two 5/16" flat washers and two 5/16" lock nuts.
- The carriage bolt can face upward or downward based on preference.
- Repeat for remaining three mount blocks.



Approximately 71.5" apart.

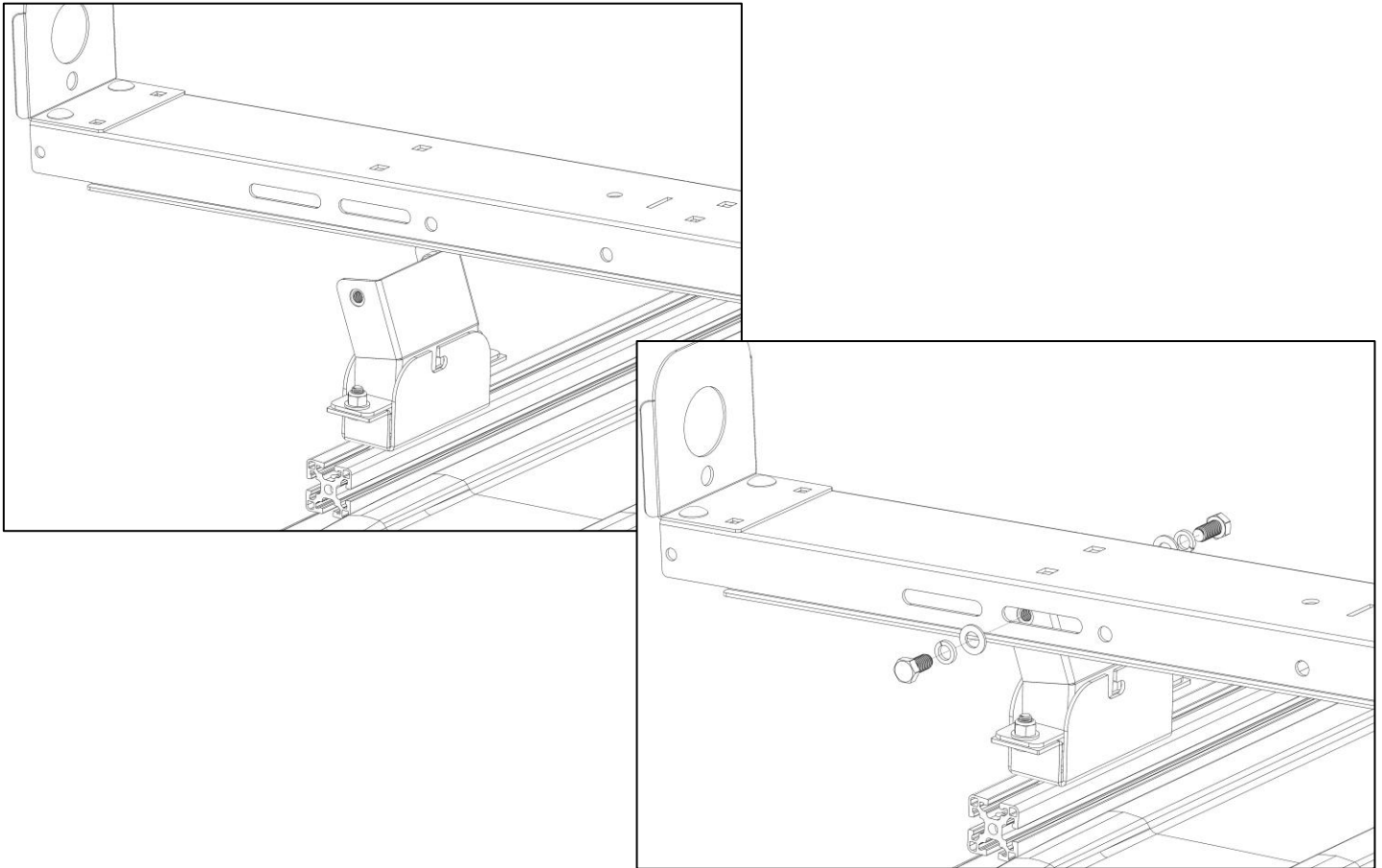


Approximately 96" apart.



Step 6 – Mount Rack to Feet

- If the rack is being assembled on the vehicle, set rack on top of installed feet, and center rack to vehicle, side to side.
- If the rack will be assembled off the vehicle, measure the distance between the center of the left and right rails. Mount the feet to the rack with the bottom of the mounting feet, at the distance measured and centered to the rack.
- For each foot, bolt the bows to feet using two 3/8" x 3/4" hex head bolts, two 3/8" lock washers, and two 3/8" flat washers.
- Tighten.



GO BACK AND ENSURE ALL HARDWARE IS TIGHT.

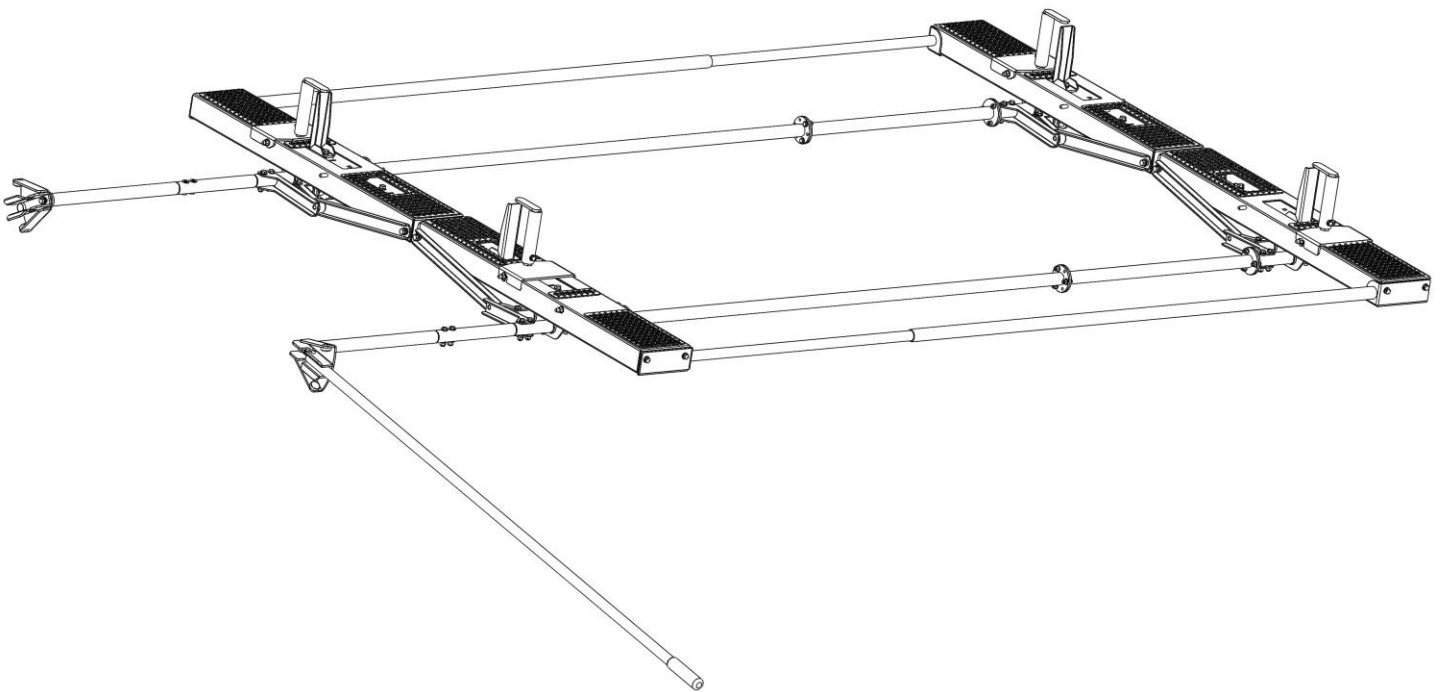
YOUR INSTALLATION IS NOW COMPLETE.

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Assembly Guide

4A95H



PLEASE READ ALL INSTRUCTIONS AND WARNINGS PRIOR TO ASSEMBLING, INSTALLING, AND USING THIS PRODUCT

Warning



Always check for wires, fuel tanks and lines, brake lines and other important vehicle functionality items prior to drilling and installing all products.

Tools Needed

5/16" Wrench and Socket	7/16" Wrench and Socket
1/2" Wrench and Socket	3/8" Wrench and Socket
1/4" Drill	Phillips Driver

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Step 8 – Install Actuators 10

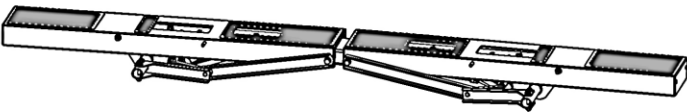
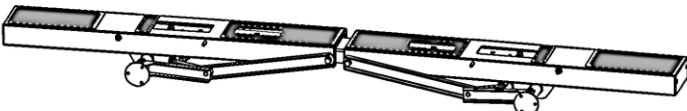
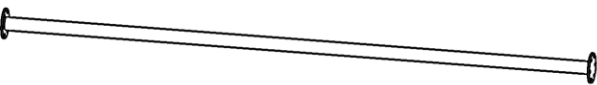
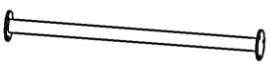
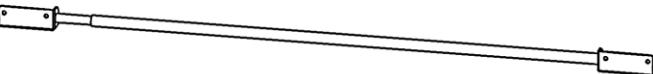
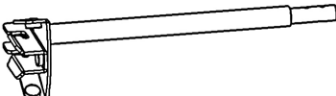
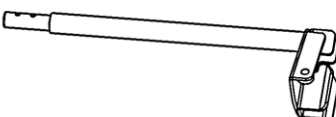
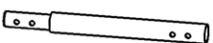
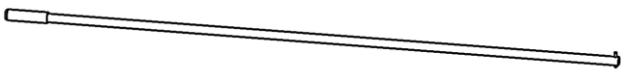
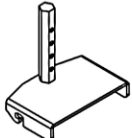
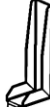

Step 9 – Assemble Ladder Hooks 11

Step 10 – Install Clips for Handle 12

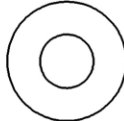

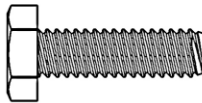



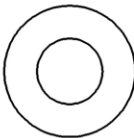


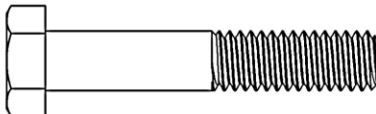
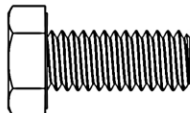
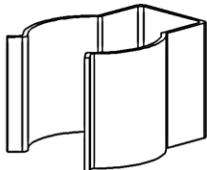
Before You Begin

- Read all instructions before assembling or installing any Kargo Master product.
- Place sealant around all swage connections.
- Keep the adjustment guide in vehicle at all times.
- **DO NOT EXCEED MANUFACTURERS WEIGHT CAPACITY FOR ROOF.**
- **BE SURE TO ADJUST LADDER CLAMPS ACCORDINGLY TO FIRMLY SECURE LADDER TO RACK.**
- The mounting kit is in NOT included and must be purchased separately.

Parts List

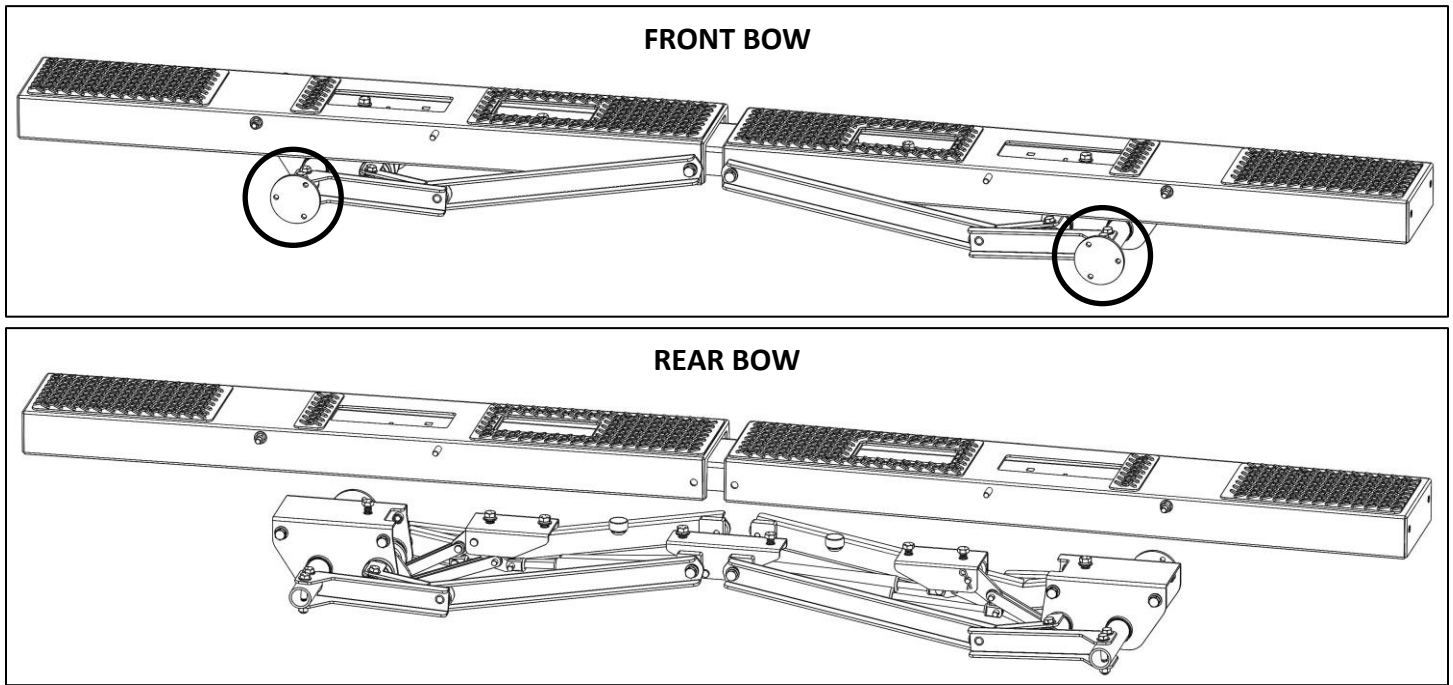
ITEM NO.	ITEM	PART NUMBER	DESCRIPTION	QTY.
1		4A95H-REAR	REAR BOW ASM	1
2		4A95H-FRONT	FRONT BOW ASM	1
3		40993-24	TORQUE TUBE	2
4		40993-25	TORSION TUBE EXTENSION	2
5		4A93L-7	SUPPORT TUBE ASSY	2
6		40993-43	ACTUATOR, RIGHT PS	1
7		40993-45	ACTUATOR, LEFT DS	1
8		40993-40-002	ACTUATOR EXTENSION	2
9		40993-44	HANDLE ASSEMBLY	1
10		4A900-36	BASE LADDER HOOK WELDMENT	4
11		4A900-30-004	LADDER STOP	4
12		4A900-35	LADDER HOOK	4
13		18-4A95H	HARDWARE	1

Hardware

ITEM	HARDWARE TO SCALE	PART NUMBER	DESCRIPTION	QTY.
1		11541082	1/4 FLAT WASHER	40
2		33618	1/4" LOCK WASHER	4
3		13004	1/4"-20 X 7/8" HEX HEAD BOLT	22
4		0169789	1/4-20 NYLOC NUT	18
5			10-24 X 5/8 PHILIPS SCREW	2
6			10-24 NYLOC NUT	2
7		33080	5/16" FLAT WASHER	16
8		1133620	5/16" LOCKING WASHER	8
9		0169777	5/16"-18 NYLOC	4
10		13010	5/16"-18 X 1-3/4" HEX HEAD BOLT	4
11			5/16-18 X 3/4" HEX HEAD BOLT	8
12			HANDLE HOLDER	2
13			SEALANT	1

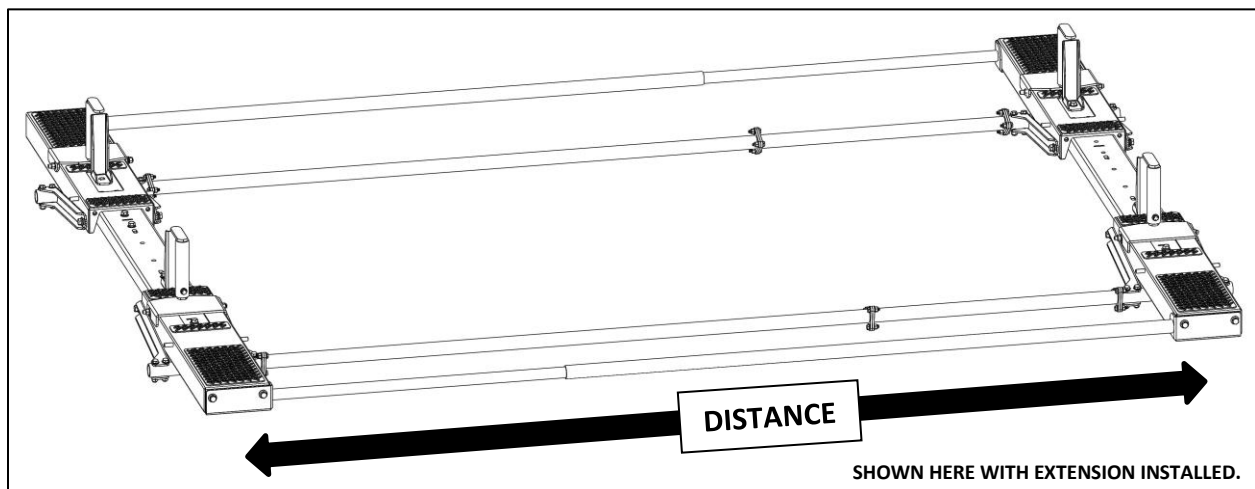
Step 1 – Identify Front and Rear Bows

- Determine front and rear bow. The rear bow will have a dampening mechanism attached. Notice the location of the round coupler piece.



Step 2 – Determine if the Extension is Needed

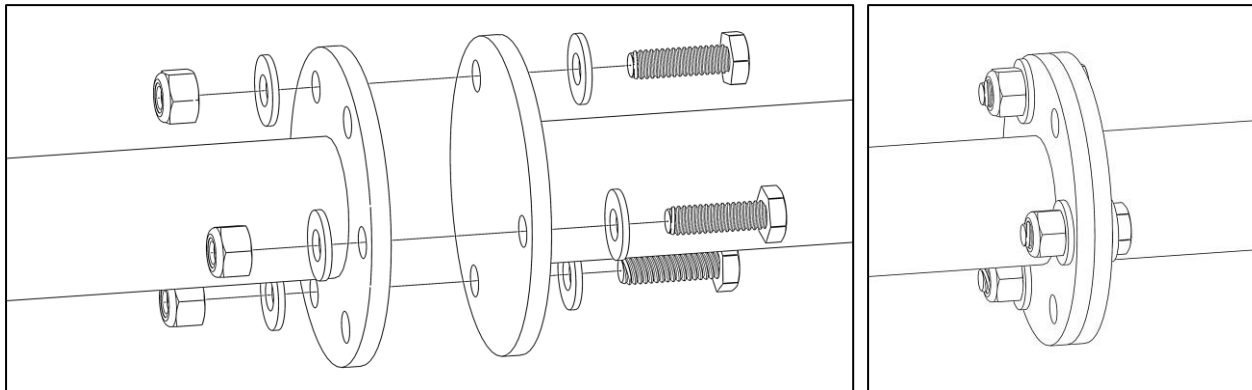
- Based upon the vehicle and ladder needs, the rack length can be extended 24-1/2" by adding the included torque tube extension.
- The distance center of bow to center of bow **without** the extension is approximately **71.5"**.
- The distance center of bow to center of bow **with** the extension is approximately **96"**.



Step 3 – Install Torque Tube Extension

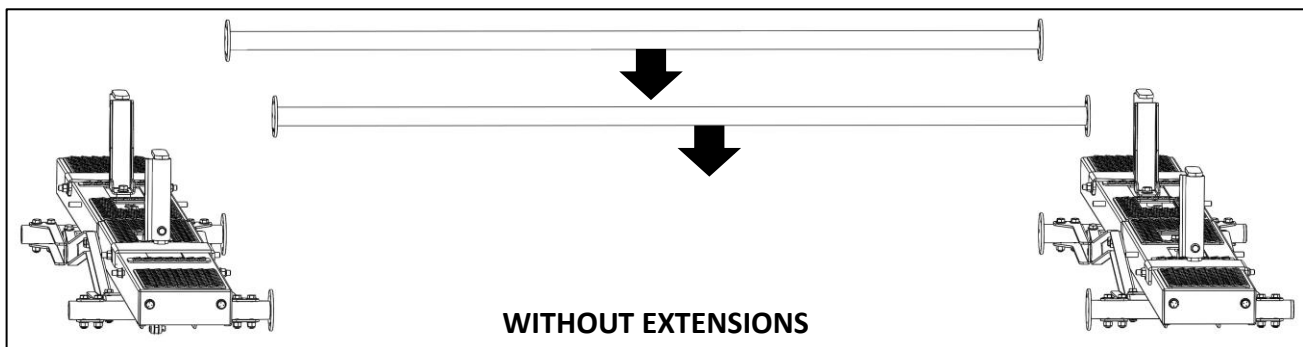
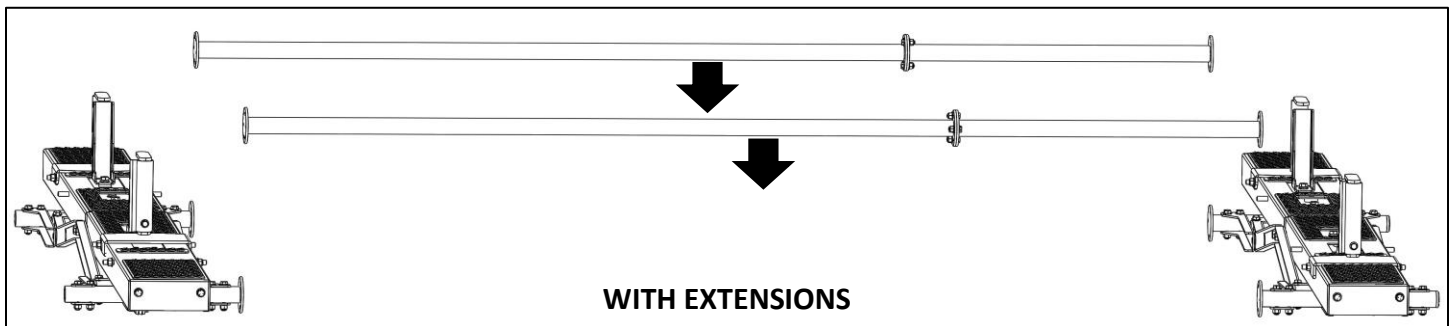
If installation requires the torque tube extension, complete the following instruction. If NOT installing the torque tube extension, skip to the next step.

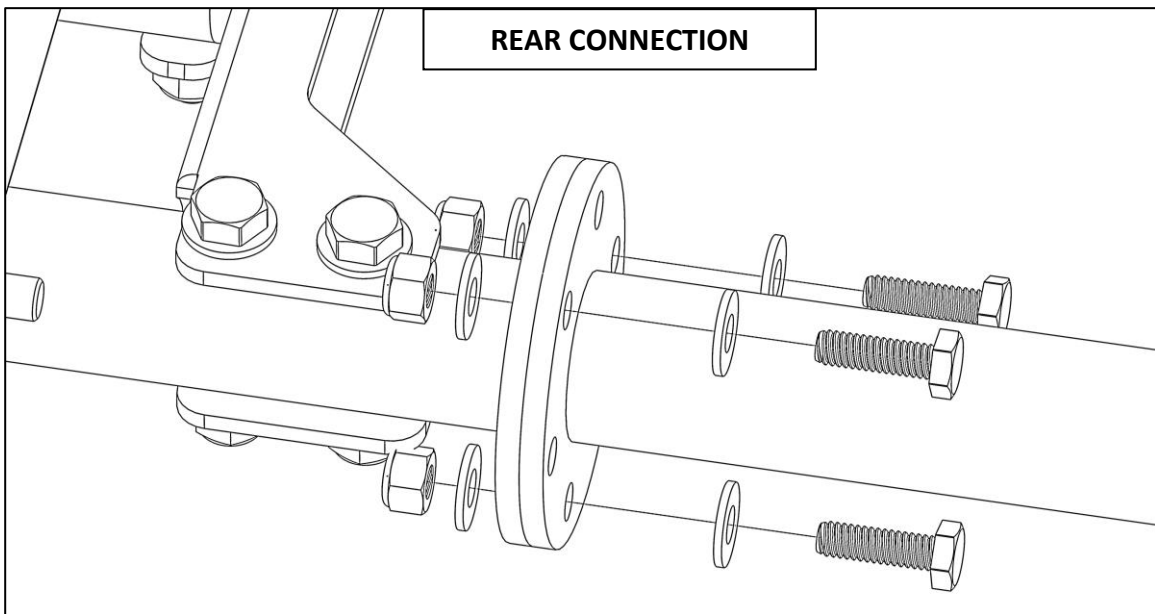
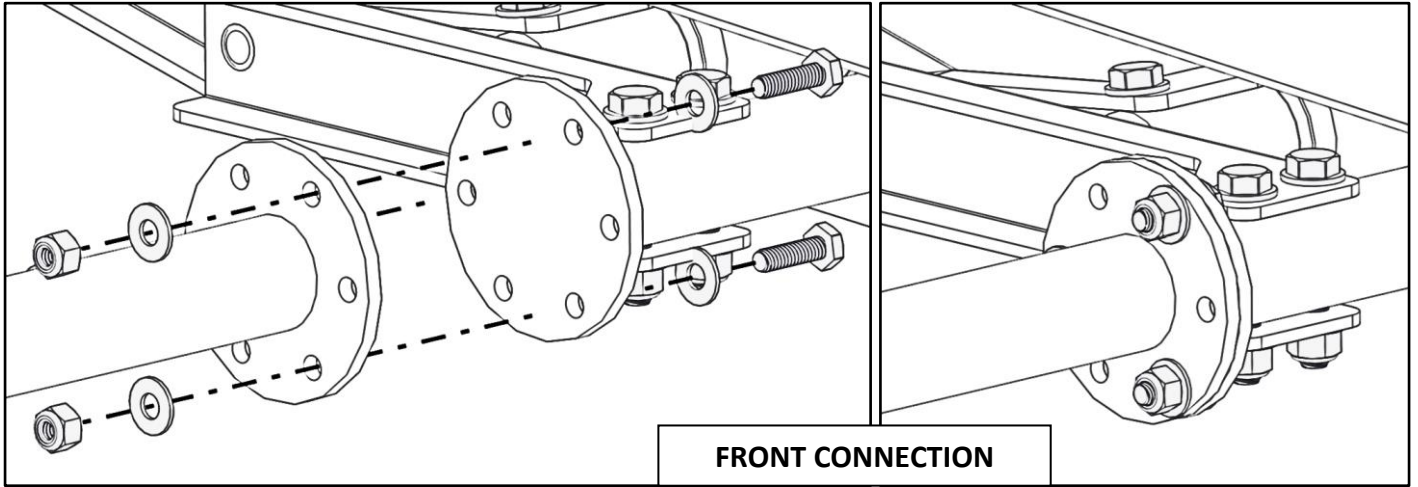
- Bolt the torque tube to the torque tube extension using a 1/4"-20 x 7/8" hex head bolt, two 1/4" flat washers, and a 1/4"-20 lock nut at each location.
- Repeat for second extension on opposite bow.
- TIGHTEN.



Step 4 – Install Torque Tube

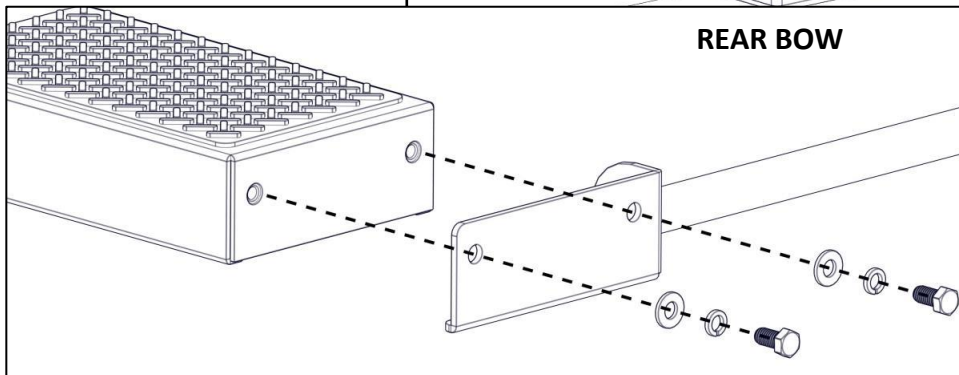
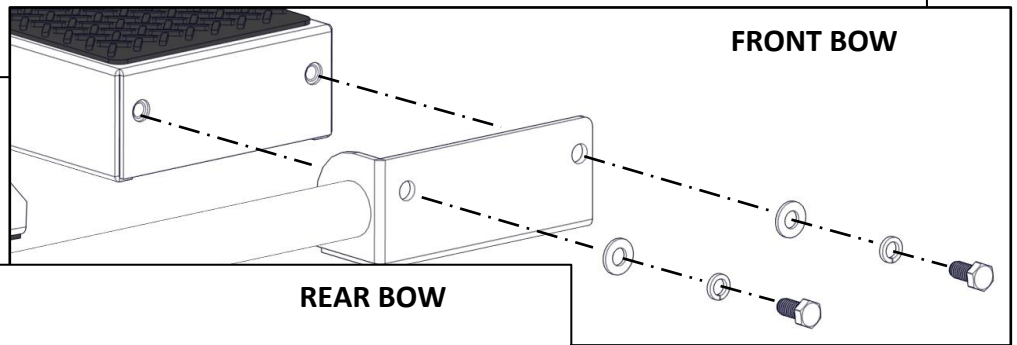
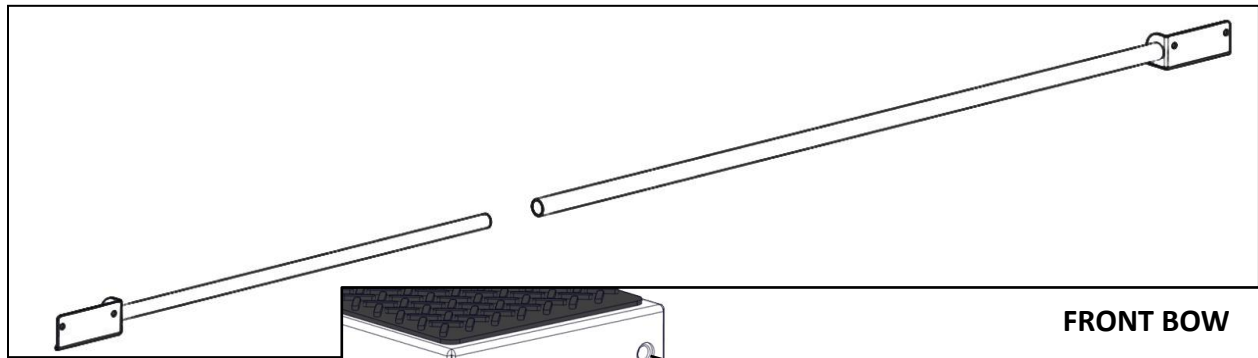
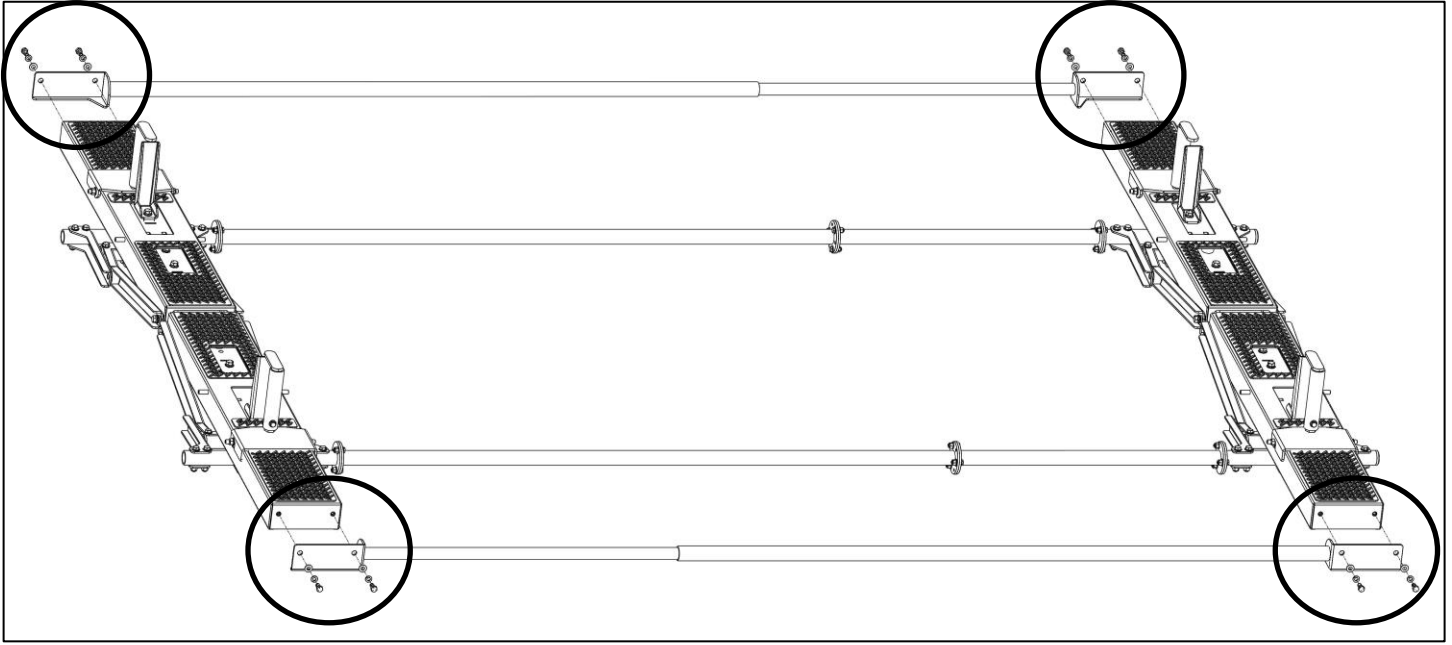
- Bolt the torque tube to front and the rear bow using a 1/4" x 7/8" hex head bolt, two 1/4" flat washers and a 1/4" lock nut at each of the 3 holes through circular ends of torque tube and actuator on bow.
- Repeat for second torque tube and extension on opposite side of rack.
- Snug tighten but allow for movement. This hardware is best tighten after installation.





Step 5 – Install Ladder Pan Stiffeners

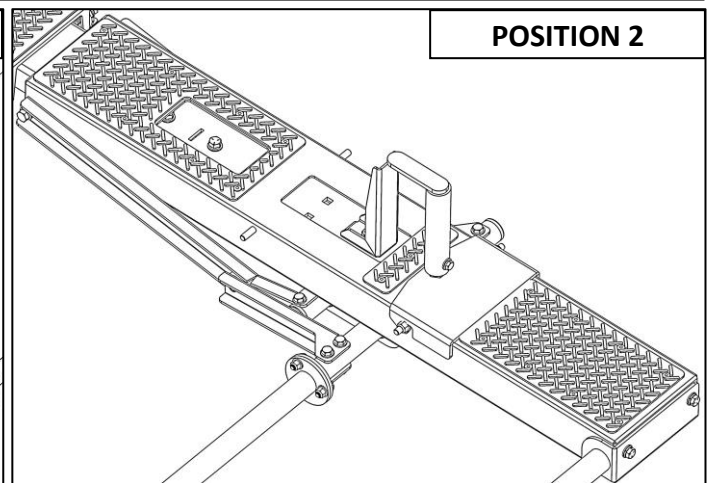
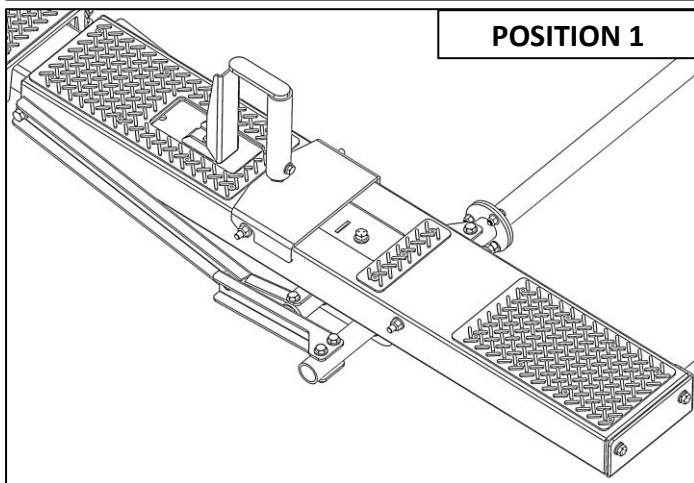
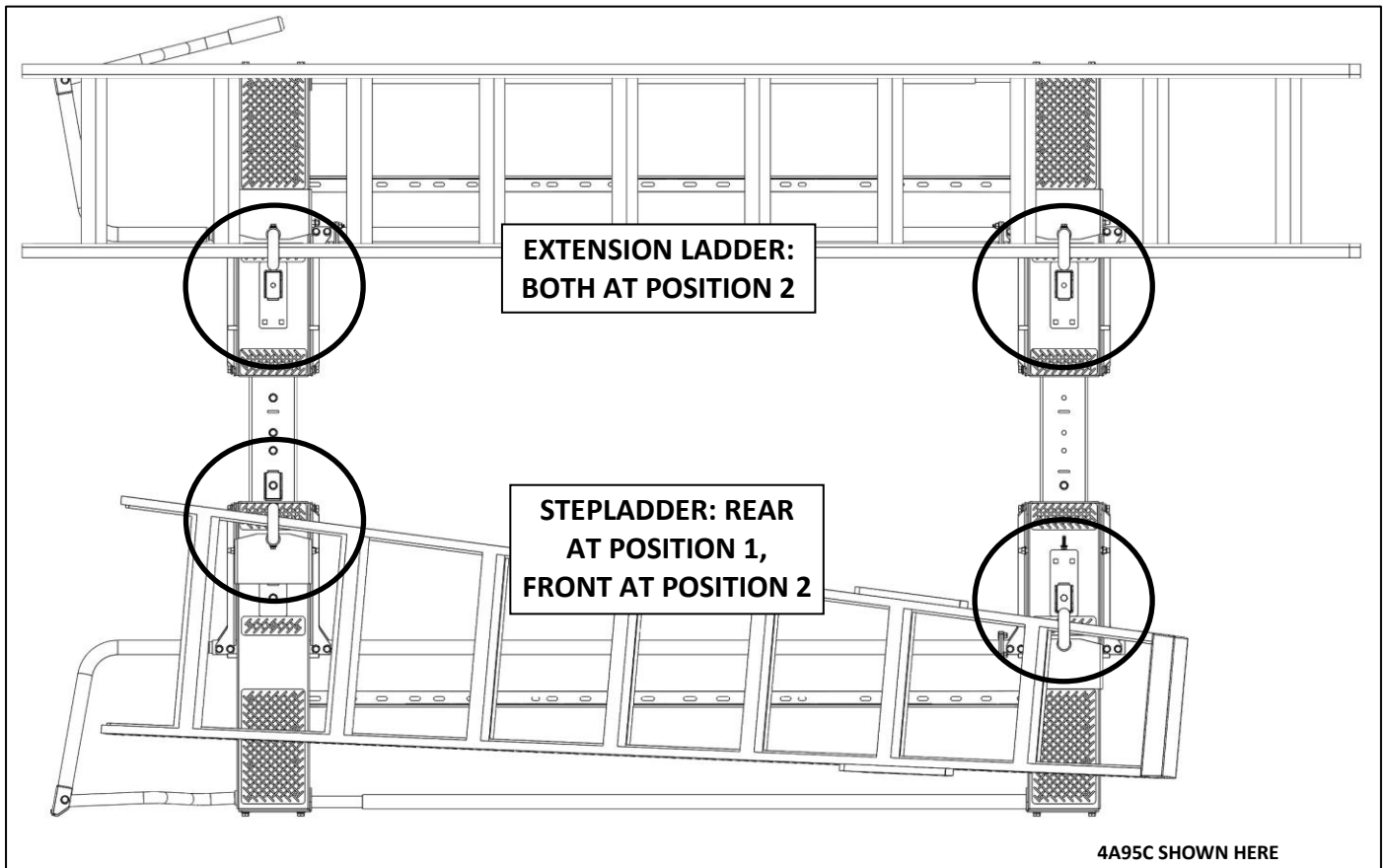
- Using 3/8" x 3/4" hex heads, 3/8" lock washers and 3/8" flat washers, install ladder pan stiffener to the ends of the bow pan assembly on each bow.
- TIGHTEN.
- Repeat on opposite side of rack.



Step 6 – Determine Ladder Stop Locations

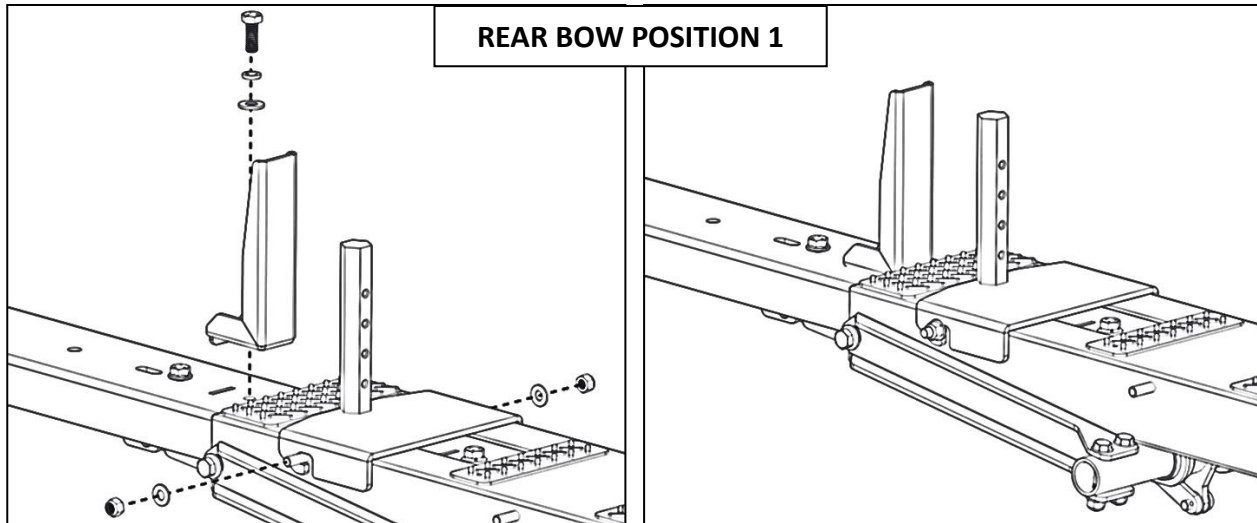
NOTE: On side of each bow, there are two positions available for mounting the ladder stops and ladder hooks based on the size and type of ladder. Ladder stops may be installed either further inboard or further outboard, depending on the ladder to be used. It is best to determine the size and type of ladder prior to installing the ladder stops and ladder hooks. The following are examples of a typical 8 foot stepladder and 10 foot extension ladder mounted on the drop down ladder rack.

The following are the two positions available on each bow.

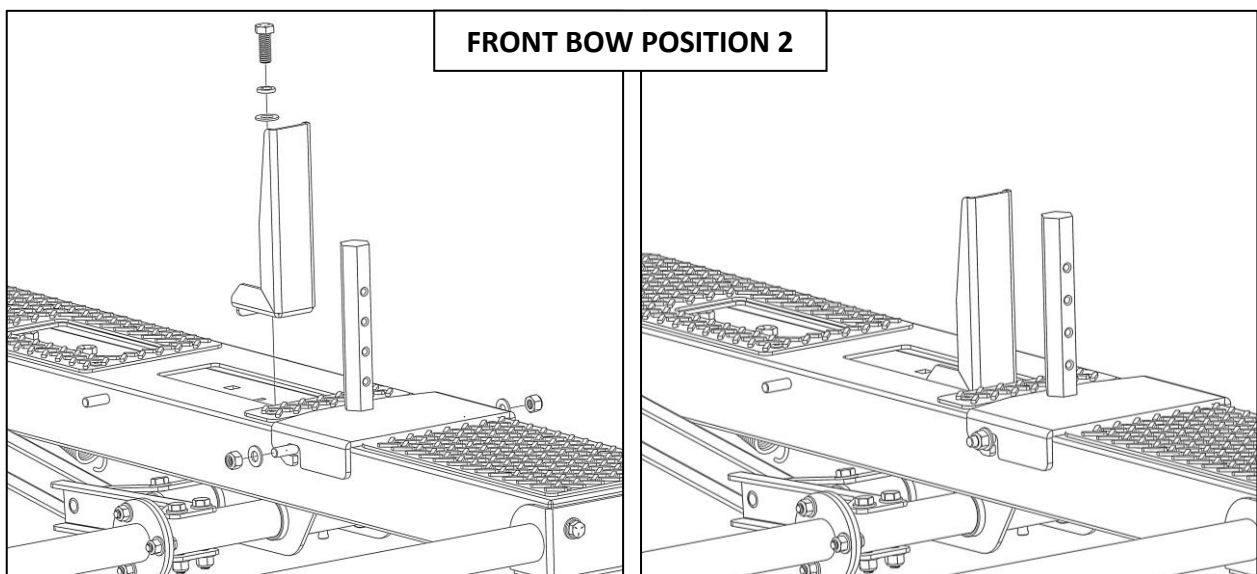


Position 1

- For each ladder hook in this position, place the ladder hook base around the threaded studs in the desired location and tighten.
- For both the front and rear bow, remove the existing 3/8" x 1" hex head bolt, a 3/8" lock washer and a 3/8" flat washer.
- Position the ladder stop near the ladder hook base, as shown, with the flange on ladder stop aligned with the slot in the bow.
- Install ladder stop and tighten.

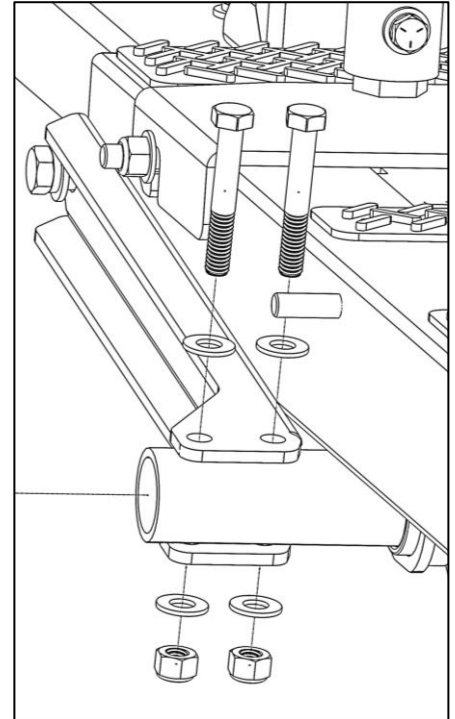
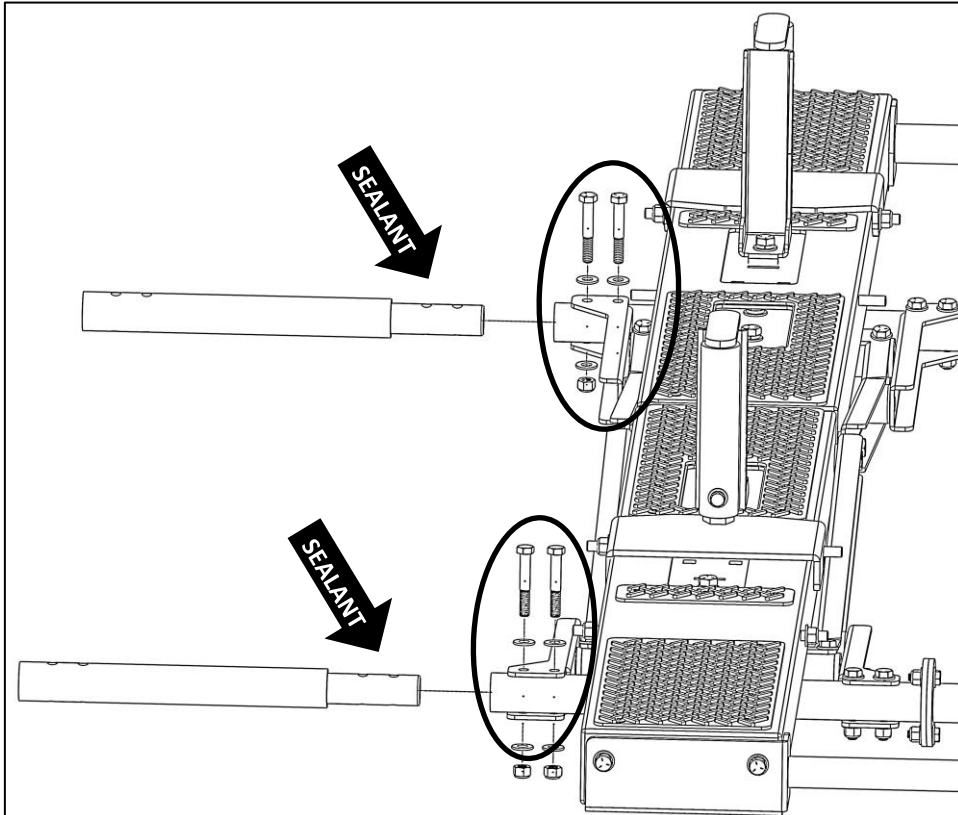
**Position 2**

- For each ladder hook in this position, place the ladder hook base around the threaded studs in the desired location and tighten.
- Position the ladder stop near the ladder hook base, as shown, with the flange on ladder stop aligned with the slot in the bow.
- Remove the existing 3/8" x 1" hex head bolt, a 3/8" lock washer and a 3/8" flat washer.
- Bolt the ladder stop in place using the removed hardware in the orientation shown.



Step 7 – Install Actuator Extensions

- Remove the 5/16" flanged head screws, 5/16" washers, and 5/16" lock nuts from rear bow as circled below.
- Apply sealant to swaged ends of actuator extensions.
- Insert actuator extensions into end of tube on bow.
- Use removed hardware to bolt handle extensions into position as shown.
- TIGHTEN.

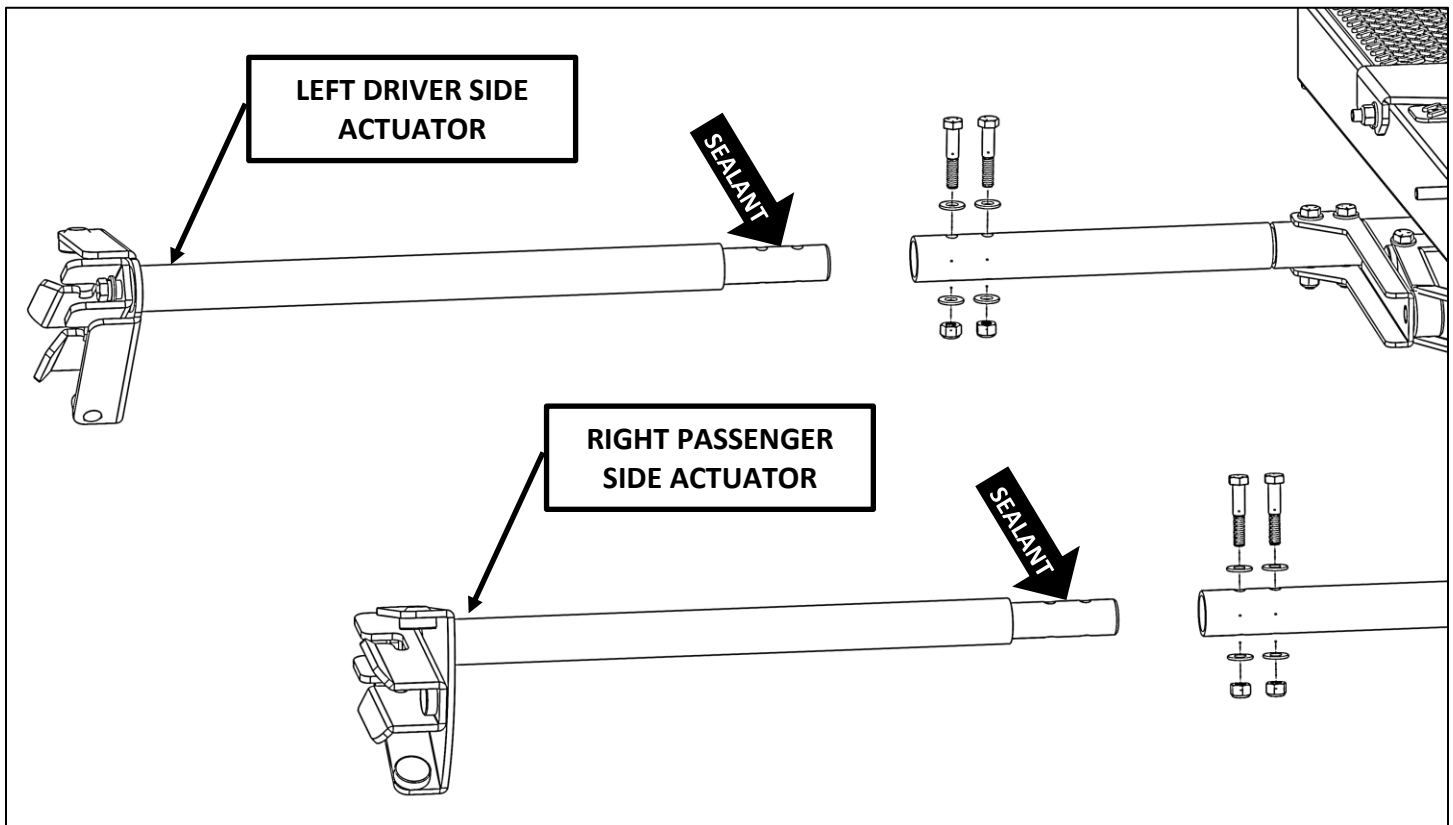


Step 8 – Install Actuators

- Apply sealant to swaged ends of actuators.
- Insert actuators into actuator extensions.
- Using 5/16" x 1-3/4" hex head bolts, 5/16" washers, and 5/16" lock nuts, fasten actuators to actuator extensions.

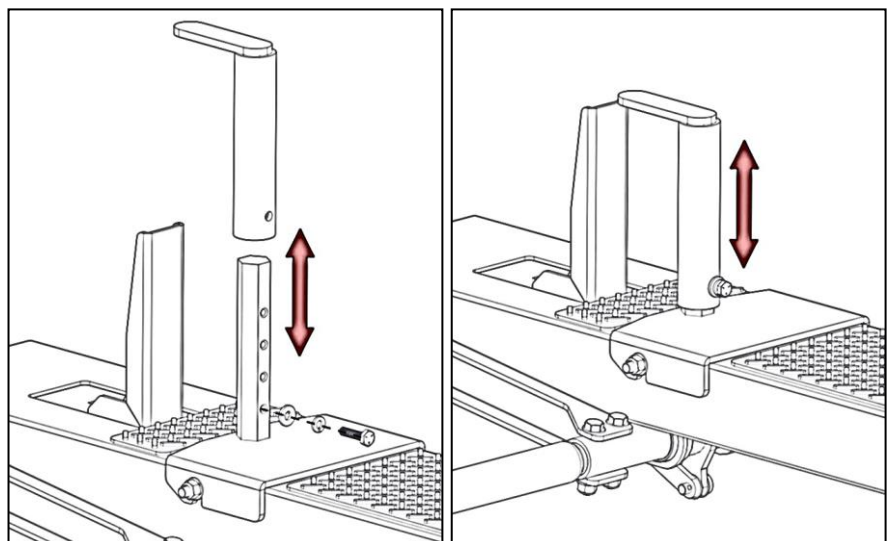
NOTE: Be sure the actuators are on the correct side of rack.

- TIGHTEN.



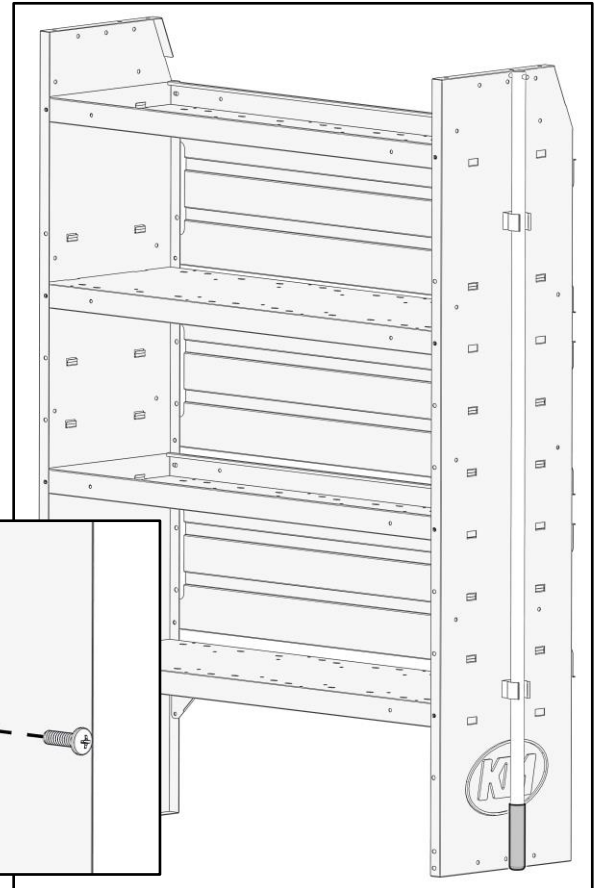
Step 9 – Assemble Ladder Hooks

- Install the ladder hooks on the previously installed ladder hook base using 1/4" x 7/8" hex head bolts, 1/4" lock washers, and 1/4" flat washers in the desired locations. The location is dependent on the size of the ladder used. Adjust so the ladder hook fits the ladder as tight as possible.
- TIGHTEN.
- Repeat for remaining 3 ladder hook locations.



Step 10 – Install Clips for Handle

- Locate a good mounting place to install the handle holder clips for the handle. It is recommended to install at the rear of the van on the rear panel of a shelf.
- Place the handle holder clips on the handle.
- Place the handle holder clips with handle against the shelf in the desired location.
- Mark the holes onto the shelf.
- Drill the locations using a 1/4" drill.
- Attach clips using a #10 x 5/8" pan head screw and #10 lock nut.
- TIGHTEN.



REFER TO MOUNTING KIT INSTRUCTIONS FOR INSTALLATION.

ASSEMBLY IS NOW COMPLETE.