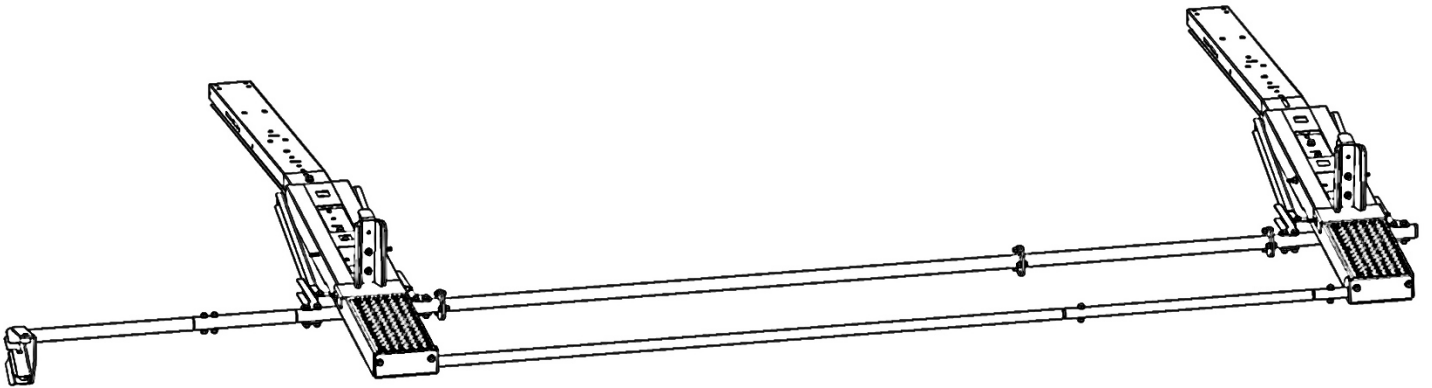


Holman

Instruction Guide 4099H



Holman
Rancho Cordova, CA 95742
800-343-7486
InstallationSupport@Holman.com

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.



DO NOT EXCEED MANUFACTURERS WEIGHT CAPACITY FOR ROOF.

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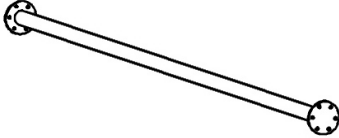
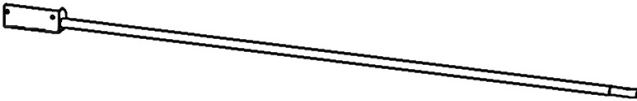
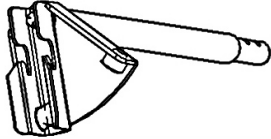
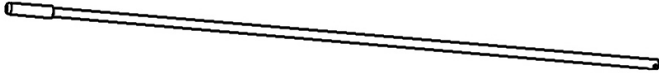
Tools Needed

5/16" Socket and Wrench	7/16" Socket and Wrench
1/2" Socket and Socket Wrench	9/16" Socket and Wrench
#2 Phillips Screwdriver	Tape Measure


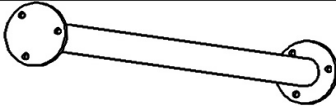
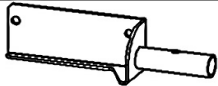
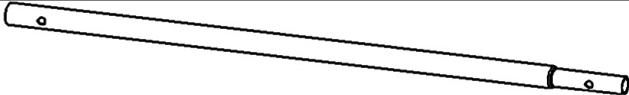

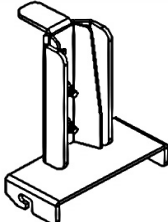
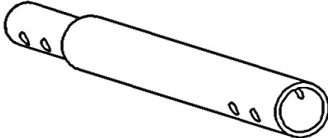
Before You Begin

- Read all instructions prior to assembling or installing any Holman product.
- **Be sure to have you mount kit installed on the van prior to installation. The standard distance between the front and rear bow is 71.5" or 96" with the extension. Be sure the mount feet are installed in the appropriate locations on the roof of the van.**
- **ENSURE SAFETY WHILE INSTALLING OR DRILLING INTO VEHICLE.**
- **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.**



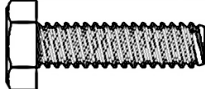

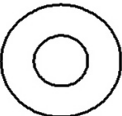
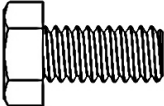
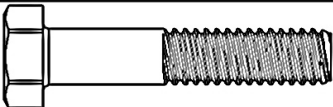
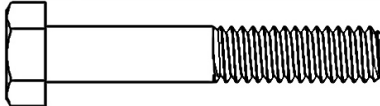

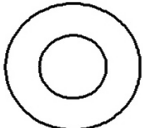
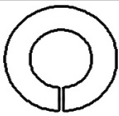
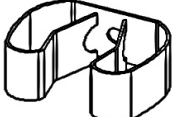
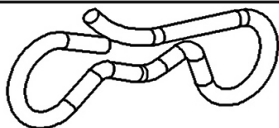

Parts List (4099H-1)

NO.	ITEM	PART NUMBER	DESCRIPTION	QTY.
1		40993-03	REAR LADDER PAN ASSEMBLY	1
2		40993-24	TORQUE TUBE	1
3		40993-832	STEEL LADDER PAN STIFFENER, LONG END	1
4		40993-43	ACTUATOR	1
5		40993-44	HANDLE ASSEMBLY	1

Parts List (4099H-2)

NO.	ITEM	PART NUMBER	DESCRIPTION	QTY.
6		40993-04	Front Ladder Pan Assembly	1
7		40993-25	TOSRION TUBE EXTENSION	1
8		40993-833	RIGHT STIFFENER MOUNTING ASSEMBLY	1
9		40900-30-014	SUPPORT TUBE EXTENDER	1
10		40900-30-004	LADDER STOP	2
11		40900-31	LADDER HOOK ASSY.	2
12		40993-40-002	ACTUATOR EXTENSION	1
13		18-4099H	4099H HARDWARE	1

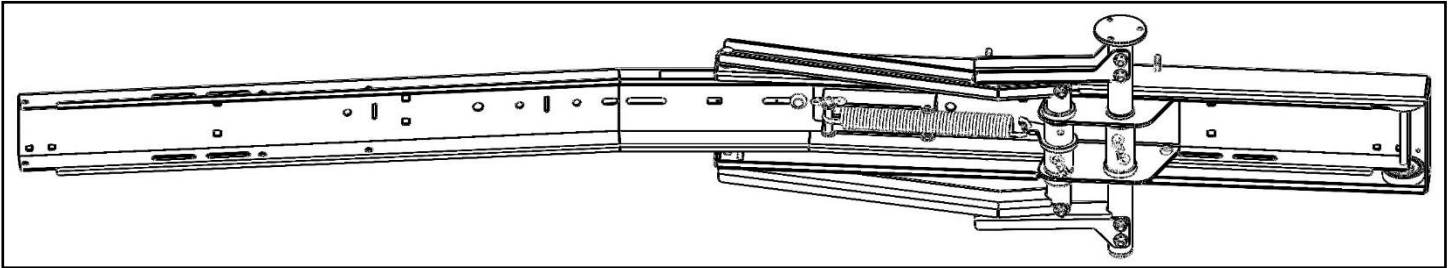
Hardware

ITEM	HARDWARE TO SCALE	PART NUMBER	DESCRIPTION	QTY.
1		74803	10-24 X 5/8" PHILLIPS HEAD SCREW	2
2		37014	10-24 NYLON INSERT LOCK NUT	2
3		13004	1/4"-20 X 7/8" HEX HEAD BOLT	9
4		37018	1/4"-20 NYLON INSERT LOCK NUT	9
5		33078	1/4" FLAT WASHER	18
6		92865A580	5/16"-18 X 5/8" HEX HEAD BOLT	4
7		11241181	5/16"-18 X 1-1/2" HEX HEAD BOLT	2
8		13010	5/16"-18 X 1-3/4" HEX HEAD BOLT	2
9		37521	5/16"-18 LOCK NUT	4
10		33006	5/16" FLAT WASHER	12
11		1133620	5/16" LOCKING WASHER	4
12		1723A64	Vinyl-Coated Holder, 3/4" -1-1/8" Tool Diameter	2
13		92418A229	5/16" Bow Tie Cotter Pins	3
14		Sealant - 60 ml	Self Leveling Adhesive Sealant	1

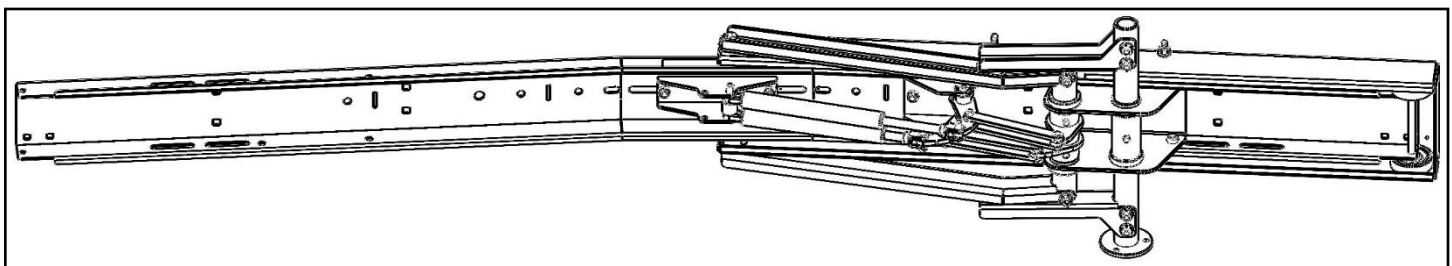
DO NOT EXCEED MANUFACTURERS WEIGHT CAPACITY FOR ROOF!

Step 1 – Identify Front and Rear Bows

- Determine front and rear bow. The rear bow will have a dampening mechanism attached. The front bow will have a spring mechanism.



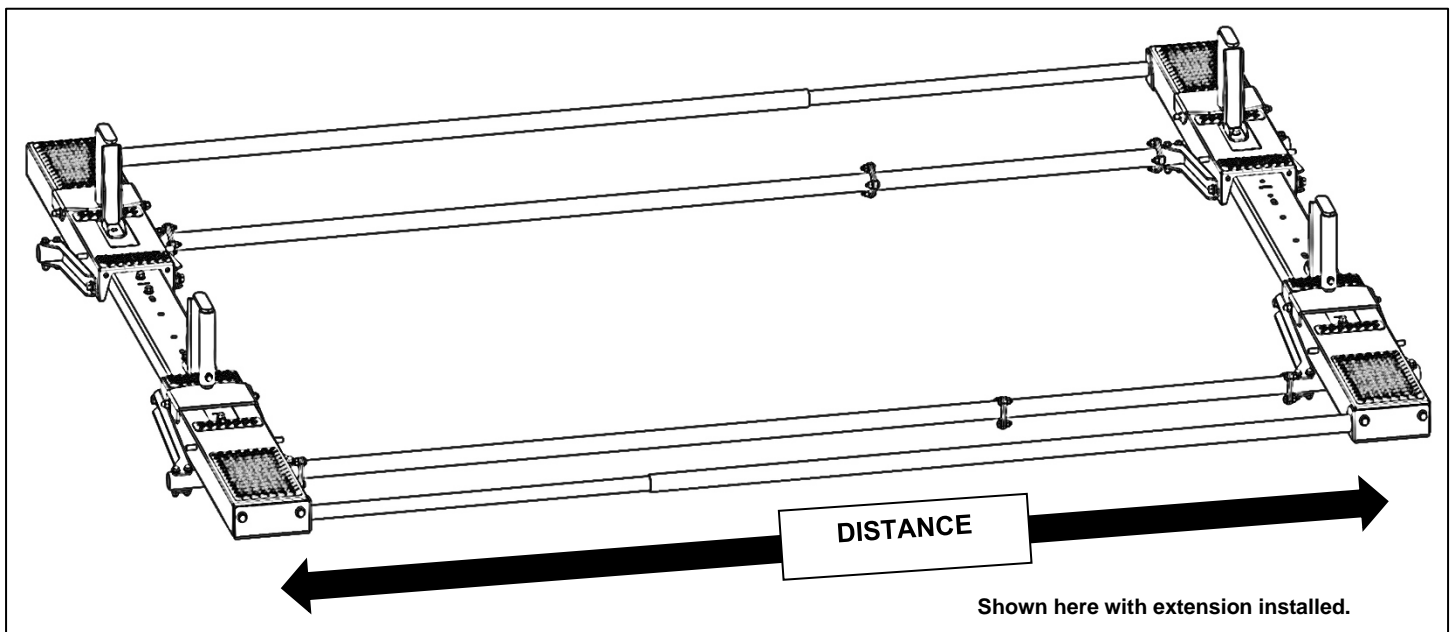
Front Bow



Rear Bow

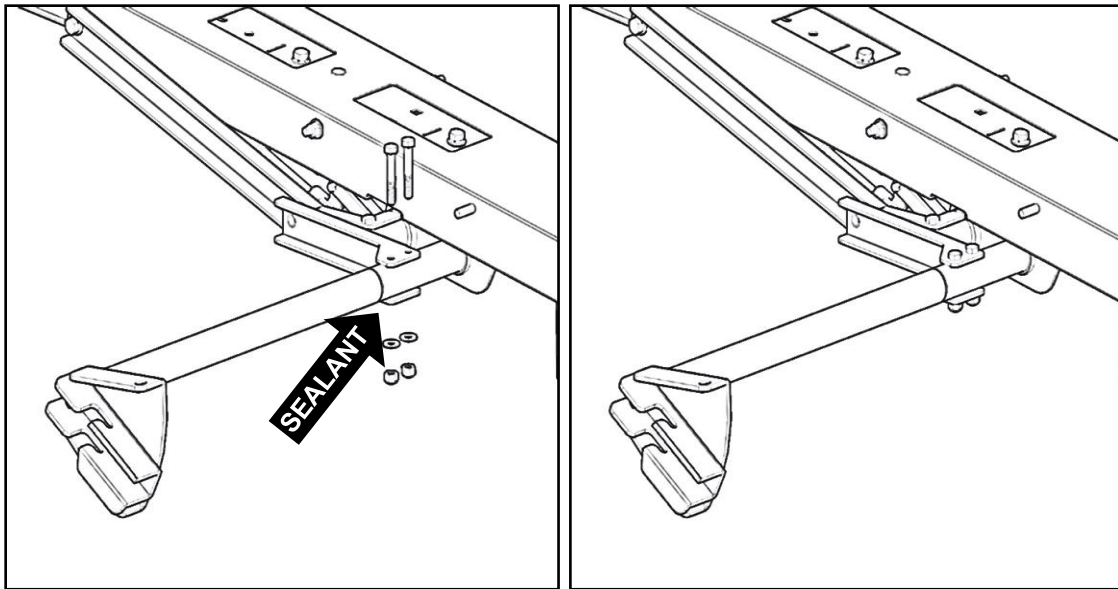
Step 2 – Determine if the Extension is Needed

- 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"**.

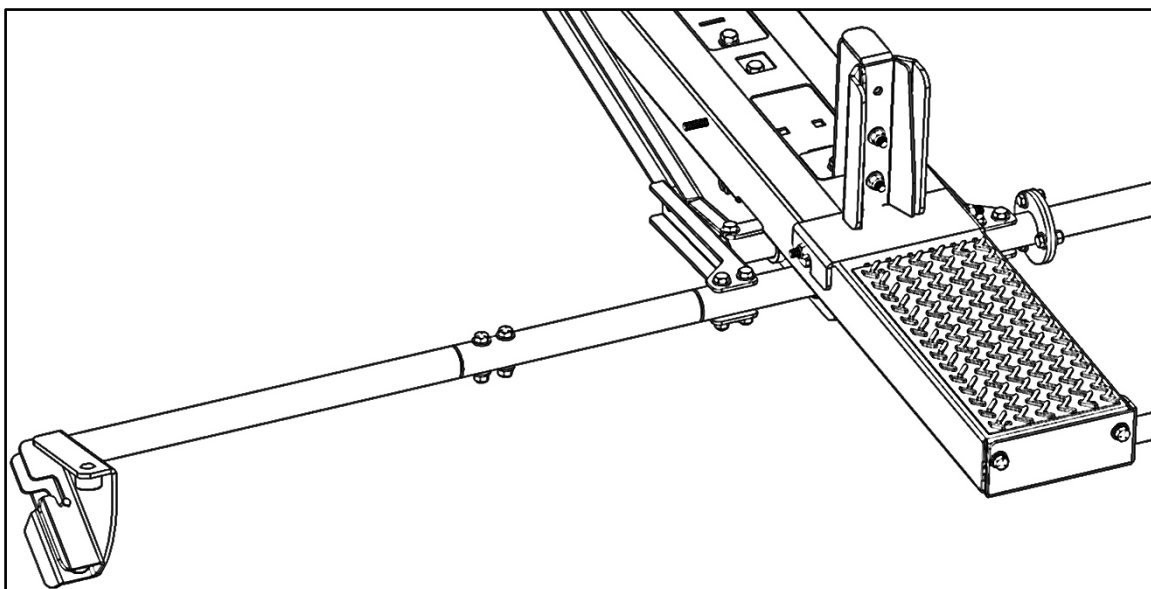
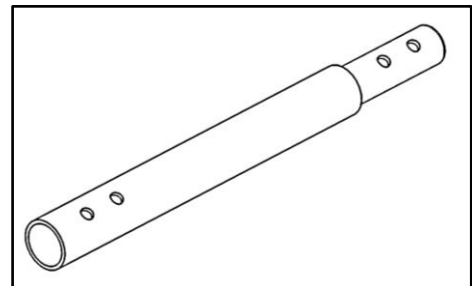


Step 3 – Install Actuator

- This can be done on or off the van.
- Remove the two 5/16" x 2.1" bolts, two 5/16" washers, and two 5/16" lock nuts from the rear bow assembly.
- Using the removed hardware, install the actuator with the "triangle" opening towards the outside of the vehicle.
- **Be sure to put sealant into the tube swedge and around the bolt holes.**



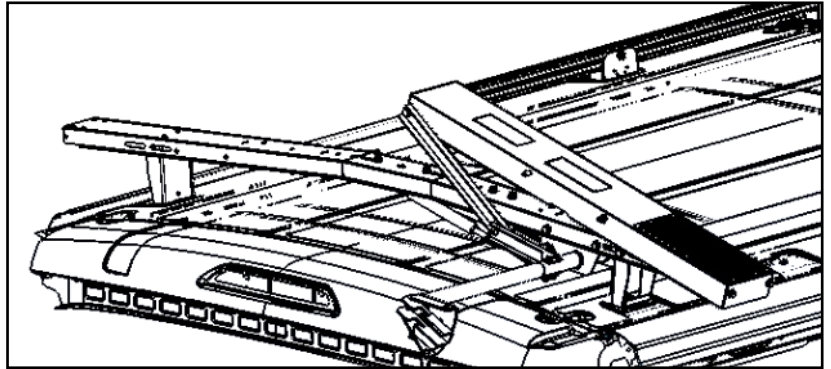
Note: If installing on a High Roof Extended Transit, the handle extension will be used. This extension goes between the rear bow and the actuator.



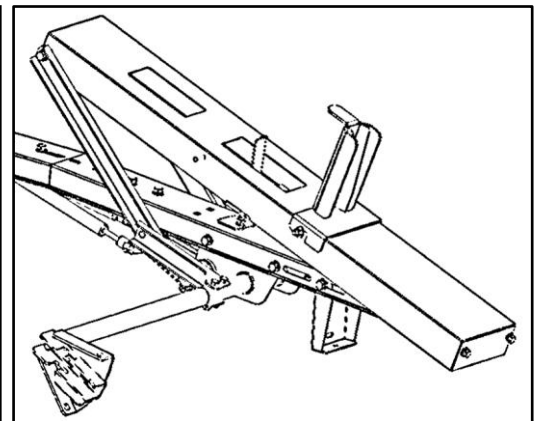
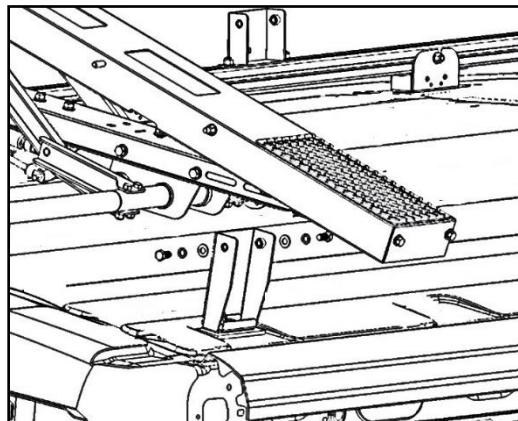
Step 4 – Install Front and Rear Bow

Rear Bow

- Set rear bow assembly on rear mounting feet as shown. **Be sure the bow is centered on the van.**

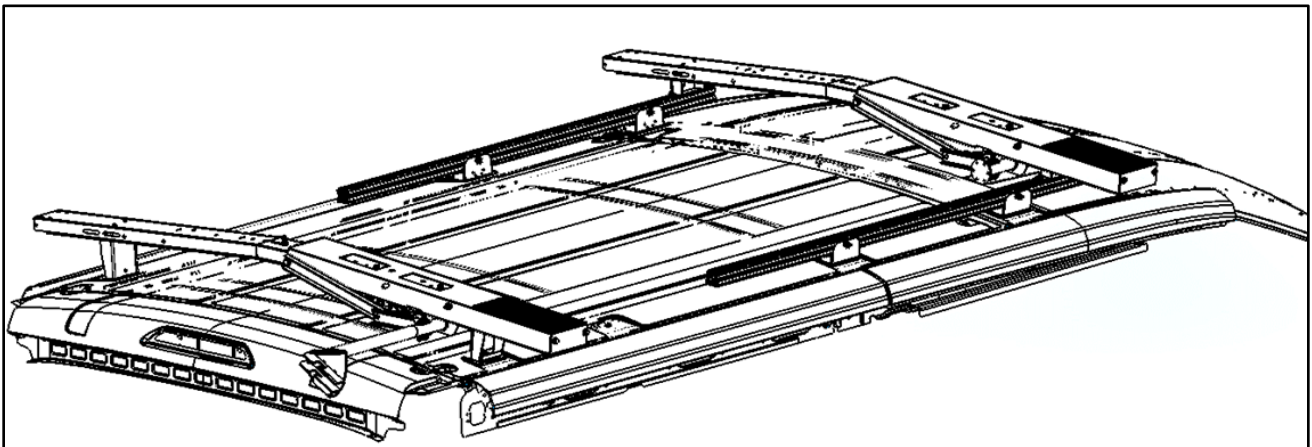


- Place a foam block from the packaging to hold the bow in the up position in order to access the mounting slots.
- Using two 3/8" x 3/4" hex head bolts, two 3/8" flat washers and two 3/8" lock washers, bolt the crossbar to the mounting feet as shown.
- Leave loose until the rack is assembled.
- Repeat on other side of bow.



Front Bow

- Repeat the process outlined above to install the front bow.



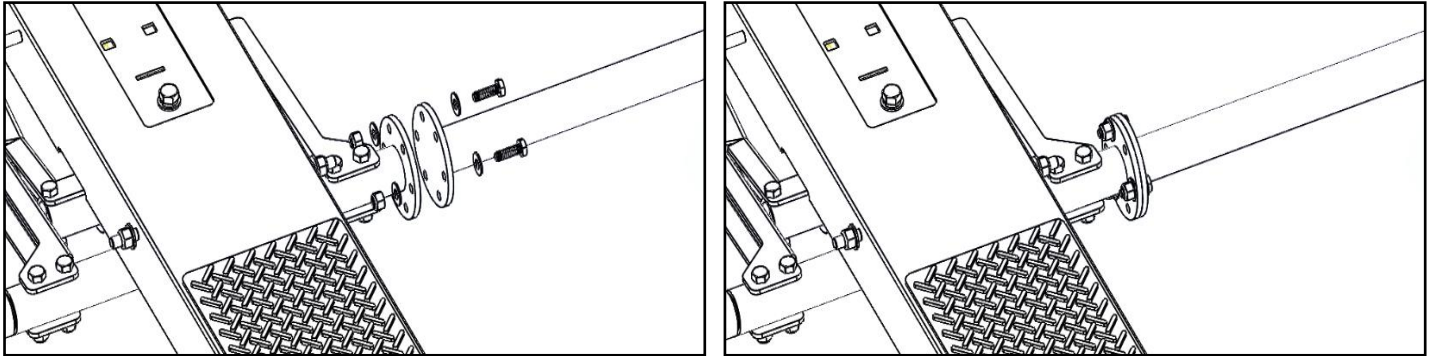
- **Be sure the bows are centered on the van and square. Also ensure the bows are 71.5" apart or 96" apart if you are using the extension.**

Step 5 – Torque Tube Installation



BE SURE BOTH THE FRONT AND REAR LADDER PANS ARE ALL THE WAY DOWN ON THE BOWS WHILE TIGHTENING.

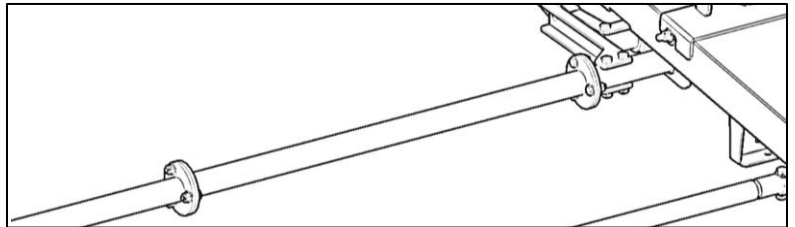
- Using three 1/4" x 7/8" hex head bolts, six 1/4" flat washers, and three 1/4" lock nuts, bolt the torque tube to rear bow assembly.



NOTE: You may want to put a foam packing block under the front of torque tube to make it level while tightening.

- Repeat process to bolt to the front bow assembly.

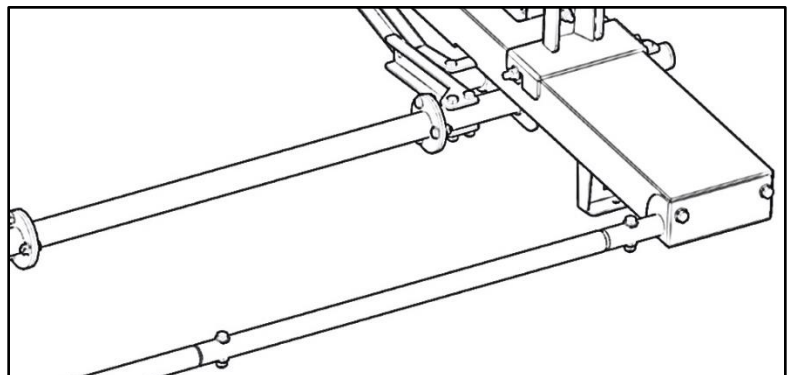
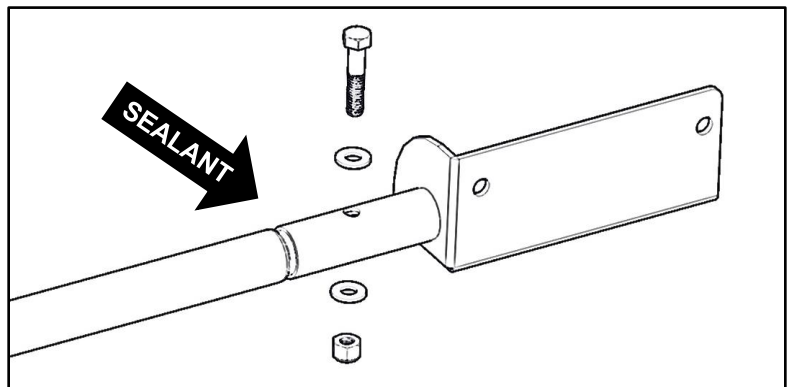
Note: If you are installing the extension, install the torque tube extension by repeating the process above for the additional attachment point. The extension goes in between the torque tube and the front bow.



Step 6 – Assemble Ladder Pan Support

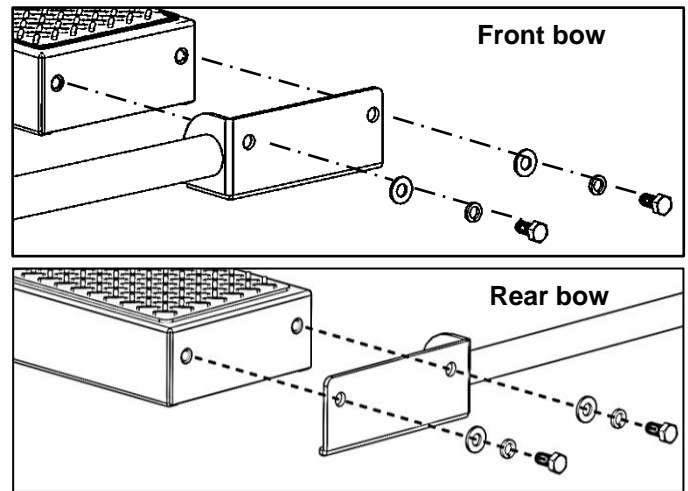
- Using one 5/16" x 1-1/2" hex head bolt, two 5/16" flat washers, and one 5/16" lock nut, bolt the support tube end to the support tube.
- **Be sure to put sealant into tube swedge and around the bolt holes to prevent water from getting into tubes.**

Note: If you are installing the extension, install the support tube extension by repeating the process above for the additional attachment point. This extension goes between the support tube and the support tube end as shown below.



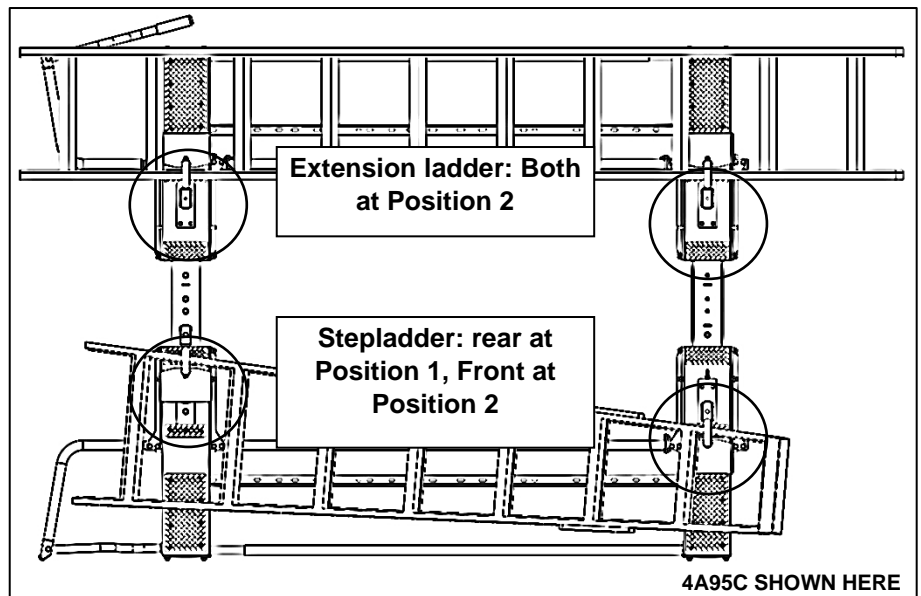
Step 7 – Install Ladder Pan Support

- Using four 5/16" x 5/8" hex head bolts, four 5/16" lock washers, and four 5/16" flat washers, attach support tube to the ladder pan as shown.
- Repeat for the other pan.

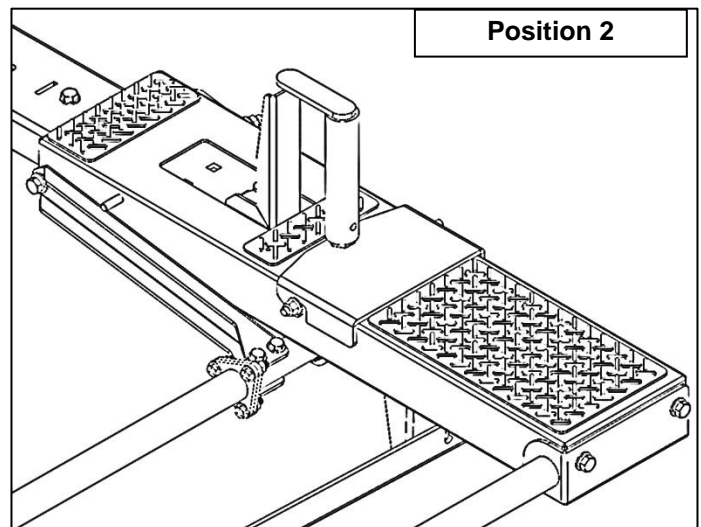
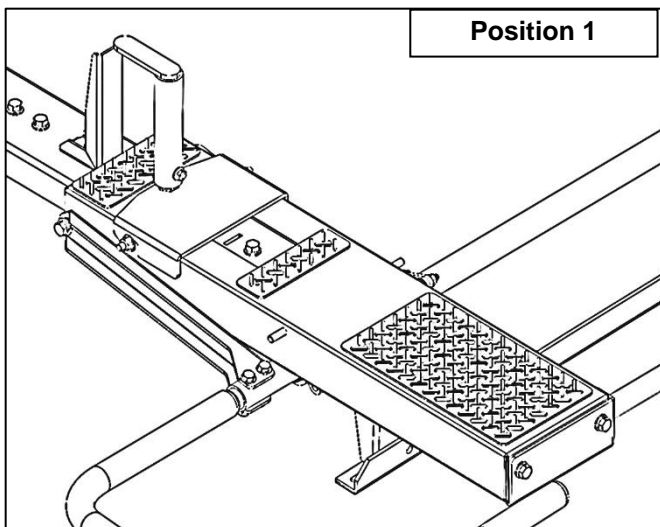


Step 8 – Determine Ladder Hook and Stop Locations

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.

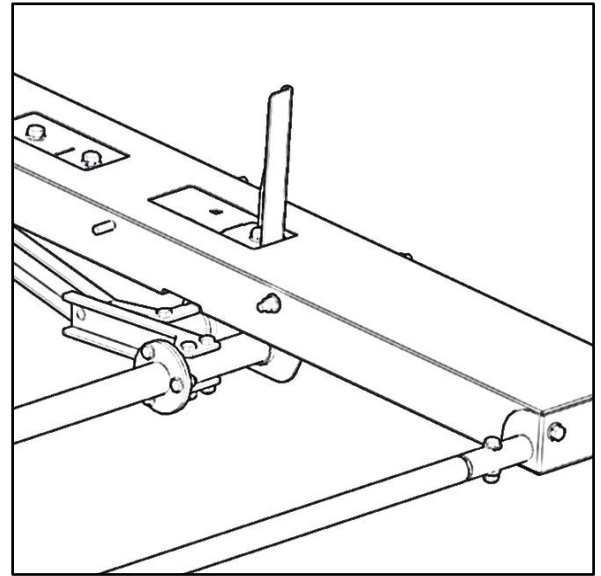
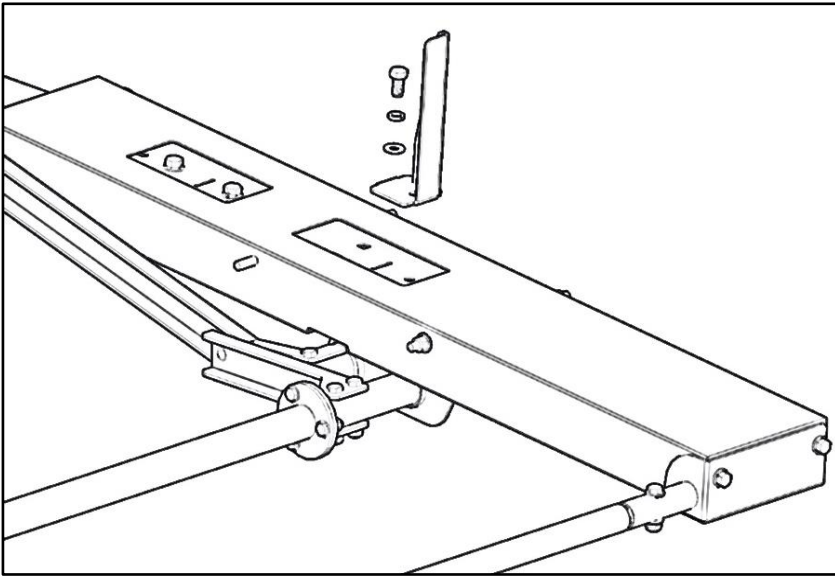


The following are the two positions available on each bow.



Step 9 – Install Ladder Stops

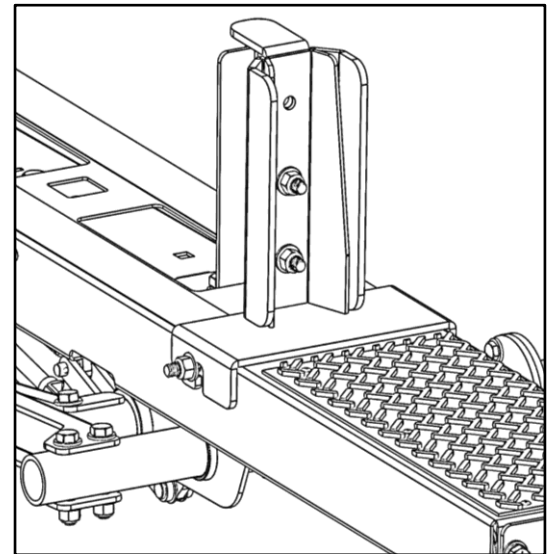
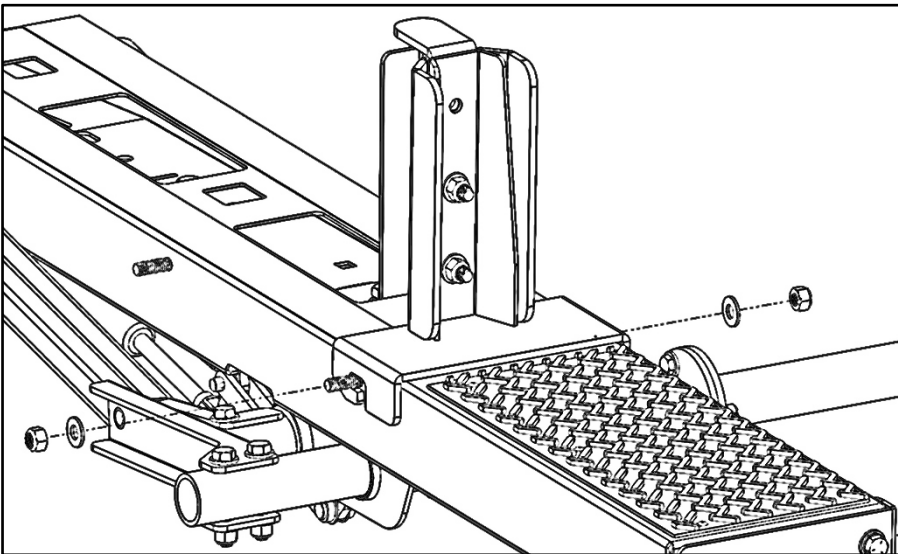
- On each bow, remove one 3/8" x 1" bolt, one 3/8" split lock washer and one 3/8" flat washer from the bow. Using the removed hardware, install the ladder stop in the location determined in step 8.



- Repeat on other bow.

Step 10 – Install Ladder Hooks

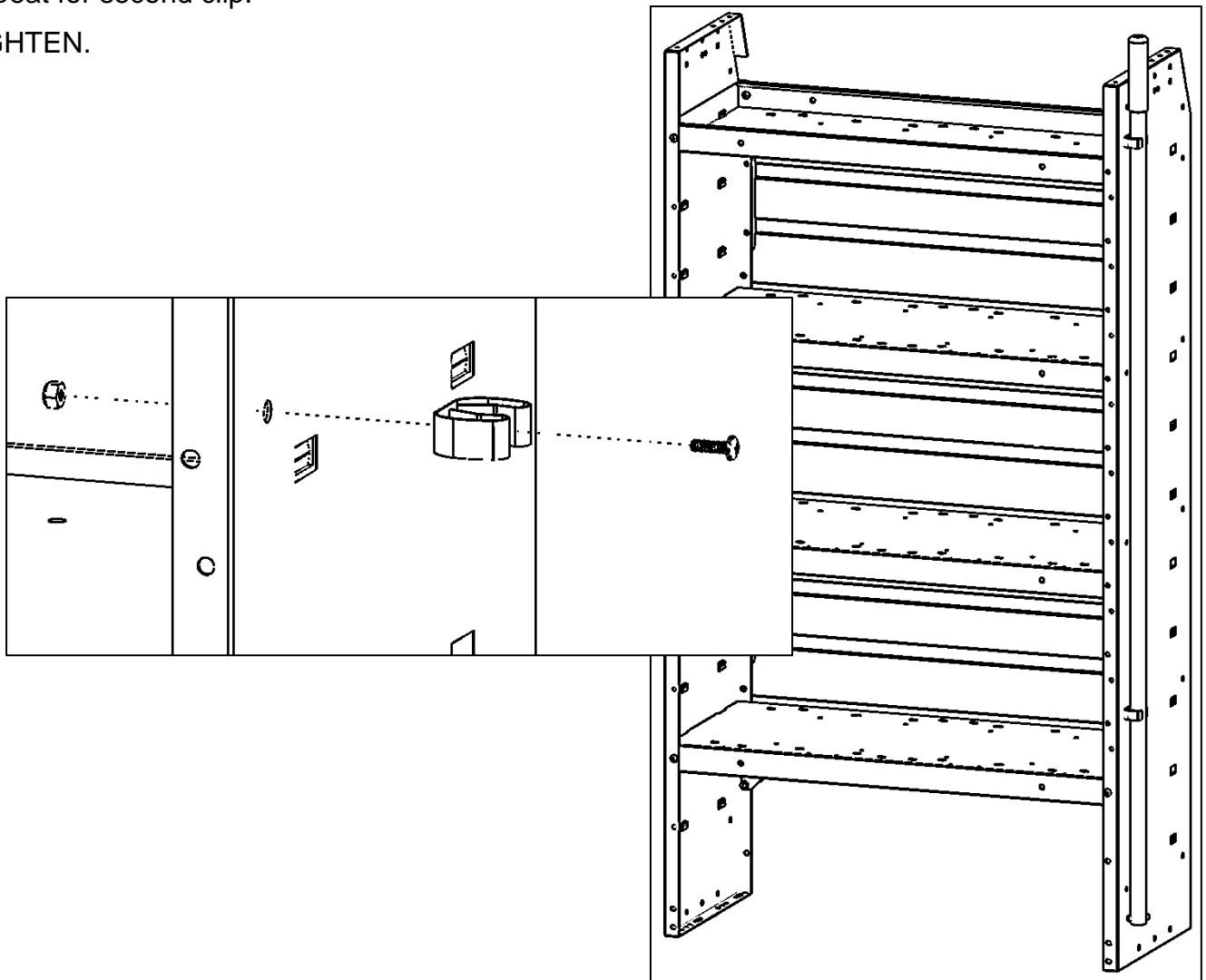
- Place the ladder hooks on each bow in the location determined in step 8.
- Using two 5/16" flat washers and two 5/16" lock nuts bolt the ladder hook in place.



- Repeat on other bow.

Step 11 – Install Clips for Handle

- Locate a good mounting place to install the upper clip for the handle. We recommend placing towards the rear of the van on the rear panel of a shelf.
- Place the upper clip on the handle.
- Place the handle against the shelf in the desired location.
- Mark the holes onto the shelf.
- Drill the locations using a 7/32" drill.
- Attach clip using a #10 x 5/8" pan head screw and #10 nut.
- Repeat for second clip.
- TIGHTEN.



GO BACK AND TIGHTEN ALL HARDWARE.

INSTALLATION AND ASSEMBLY ARE COMPLETE.