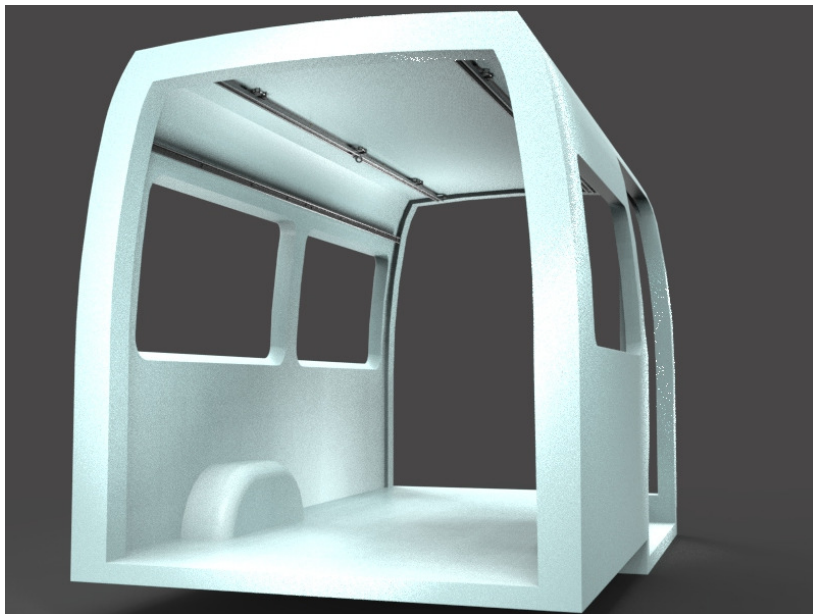




Installation Instructions

Upper 170" Mounting System



Thank you for choosing Roost Vans for your project!











sales@roostvans.com

First Things First

Please Check Your Order

We at Roost Vans strive toward perfection, but occasionally human beings make mistakes. Before beginning your installation, please double check to make sure that you received all of the following. If anything is missing or damaged, please contact us right away at sales@roostvans.com.

✓	Img	Qty	Part
		2	Front Ceiling Rail (RV05-01)
		1	Front Top Wall Rail (RV05-02)
		2	Rear Ceiling Rail (RV06-01)
		2	Rear Top Wall Rail (RV06-02)
		2	Center Ceiling Rail (RV06-03)
		2	Center Top Wall Rail (RV06-04)
		10	Ceiling Support Bracket - 85 Degree (RV05-05)
		2	Ceiling Support Bracket - 70 Degree (RV05-06)
		1	Upper Mounting Kit - Installation Fixture - Sprinter (RV05-07)
		1	Assembly Instructions
		1	Hardware Prepacks

✓	Img	Qty	Part
		34	Rivnut - 5/16-18
		54	Rail Bolt - 5/16-18 X 11/16
		8	Screw - #10 X 3/4 - Self Drilling
		16	BOLT - HEX 1/4-20 X 3"
		16	NUT - 1/4-20 NYLOC
		32	Washer - 1/4"
		1	Allen Key - 3/16
		1	Loctite Ampule
		4	Rail Nut - 5/16-18
		1	Rivnut - 5/16-18 - Heavy Duty
		3	Tie Down Bracket

Required Tools.

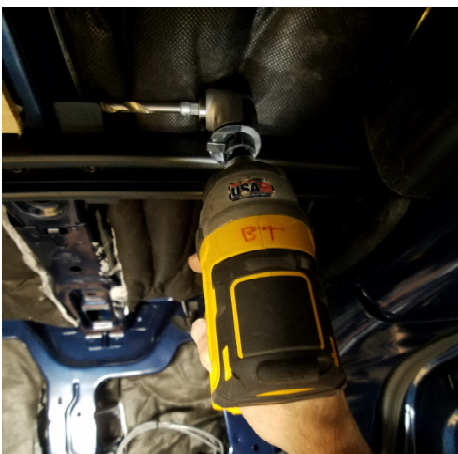
To install the mounting system, a few tools that are not included with the hardware kits are required. Below are some images and descriptions of what you will need as well as a few tools that will make the process easier.



Required: Rivet Nut Installation Tool



Required: 11/16" step bit (top). The bottom narrower bit is helpful getting the widening started, but is not required. The 11/16" bit (top) is the only one required for the install.



Optional: Angle drilling attachment. Not required, but makes drilling through bolt holes easier.

External References:

- Throughout the assembly process, this manual will refer to some appendices that contain general processes used for most if not all of our products. Below are the appendices that will be referenced.
 - There are no appendices for this product

Note: There can be slight deviations from these appendices for each individual cabinet. Make sure to check for any notes included below the citation to the appendix for specific instructions or information.

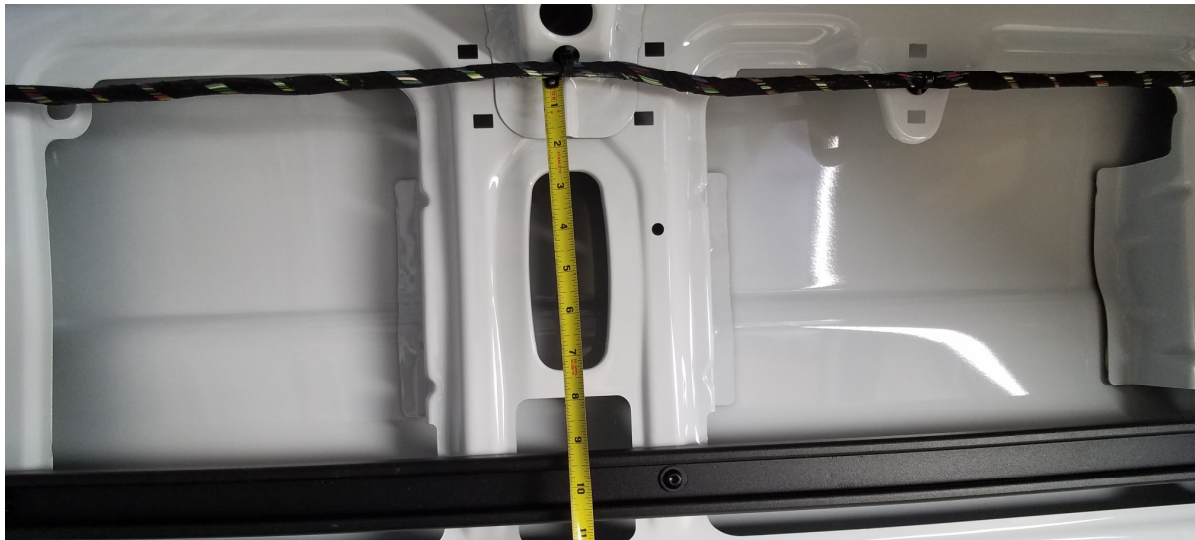


Factory and Custom Drilled Hole

Overview:

-Our mounting systems are installed directly to the body of the van using Rivnuts. To accomplish this you will need to widen several factory holes to accommodate the rivnuts. These factory holes can be widened before beginning installation, or done as you go. You will also need to manually-mark, drill, and then widen several other holes that do not already exist. To do this you will need to attach and align the rails using only the factory holes, mark the locations of any you need to drill, remove the rail, drill and install the rivnuts.

-Below are pictures showing the locations of all of these holes and whether they are factory holes or manually drilled



-Reference: The line of holes to be drilled for the wall rail is about 10 inches down from the corner of the ceiling ribs.



Forward driver wall rail holes (all manually drilled).

***Currently there are no images for the rear and center rail hole patterns for 170" sprinters (coming soon). The center driver rail will be installed directly behind the forward driver rail and the holes will all be manually drilled, so you can use the forward driver rail as well as the installation template to position the rail mark the holes to be drilled. For the passenger side, it will be easiest to start with the center top wall rail, make sure the front of it lines up with the front of the driver center top wall rail, use the template to locate the proper height, and mark holes locations. Once the center top wall rail is installed use it and the template as a guide for the rear passenger top wall rail. Please reach out to Aryk Atkinson (aryk@roostvans.com) with any questions during this process.**



-All ceiling rail holes are factory holes to be widened, and are located in a line about 8.5" from the corner of the ceiling ribs.

Step 1

Drill out existing factory ceiling rib holes using a step drill bit to a 7/16" round hole. Do not over drill hole diameter (*see below).



Step 2

Install rivnuts into newly expanded factory ceiling rib holes. Make certain that rivnuts are installed properly as shown. Ensure correct 'mushrooming' at backside.



Step 3

Bolt both ceiling rails to the appropriate ribbing holes. Leave connections loose so that the rails position can be adjusted.



Step 4

Attach a tie down bracket at the rail seams to ensure that the rails are parallel



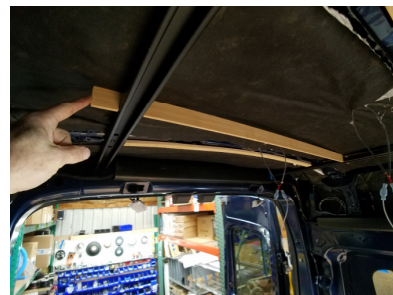
Step 5

Loosely attach the appropriate ceiling brackets to the rails. 85 degree brackets are used at the rear of the van, the rest use 70 degree brackets.



Step 6

Use the ceiling spacers provided to space the ceiling rails. Push the rails to the inside of the spacers and fully tighten all bolts using Loctite (except the ones attaching brackets to the rails, they will soon be adjusted).



Step 7

Adjust the ceiling brackets so they are flush with the ribbings and fully tighten with loctite.



Step 8

Drill through the ribbing on each side through the bracket hole shown*. Repeat for all ceiling brackets.



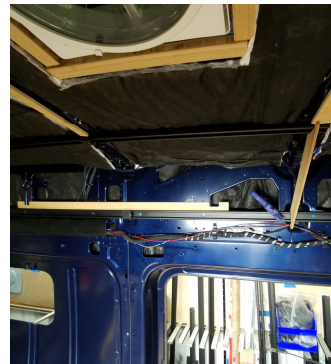
Step 9

Attach the through bolts using washers and tighten fully.*



Step 10

This will correctly position the wall rail. Use a ceiling rail spacer as a strait edge to insure the wall rails are parallel



Step 11

Slide wall rail into appropriate position front to back, and clamp in place using the provided template to ensure proper orientation. Mark all holes, then remove rail.



Step 12

Using the marks from Step 8, drill holes using a step drill bit to a 7/16" round hole. Install rivnuts. Do not overtighten.



*We recommend drilling one side of the bracket, moving to the other side of the ribbing, drilling that, and attaching with the appropriate 3" bolt, then moving on to the other side of the bracket to ensure everything lines up.

**Note: If your order did not include upper cabinetry, you should have received a pair of installation templates which will serve the same purpose during this step of the installation process, as shown in the left picture.

Step 13

Loosely install wall rails using one drop of the supplied Loctite on the bolt thread.



Step 14

Reinstall cabinet sides or use the template to ensure the rails are in the proper orientation.



Step 15

With fixtures in place, tighten Wall Rail Bolts using loctite, then remove cabinet ends or installation template fixtures.



Complete!

Most Important, Enjoy the Journey!

Taking on your own van build is an exciting and rewarding process. As with all things worth doing, it will presumably come with its own set of challenges.

We are very pleased you have chosen Roost to accompany you on this voyage, and to help you manage those challenges. Our mission is to provide versatile solutions that are affordable and easy to install.

As a result, your feedback is not only appreciated, but invaluable. I welcome any suggestions you may have about ways we can improve our products, documentation, or any other aspect of your experience with our company.

Feedback Contact: mike@roostvans.com