

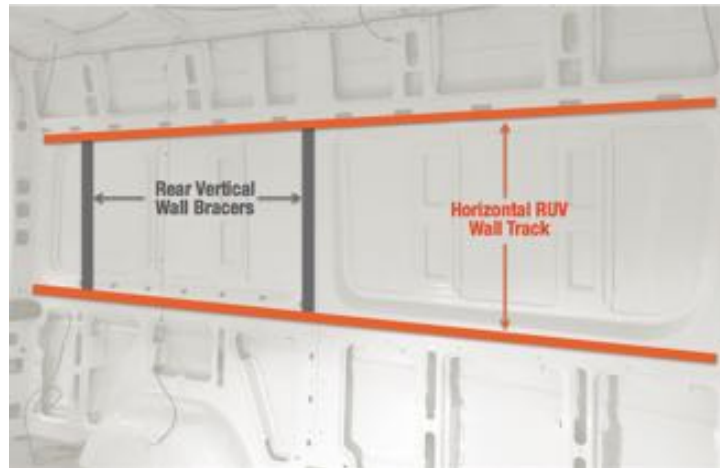
#5 RUV/MOAB Bed Vertical Wall Bracer Installation Guide

Overview

This online guide provides instructions for how to install Adventure Wagon's MOAB bed in a 2007+ Sprinter 144/170 Crew Cargo vans*. The guide outlines how to measure and install AdWag's vertical wall support brackets along with the adjustable horizontal MOAB support beam for each side of the van. The MOAB wall

bracers are the first step in building our full interior RUV wall kit. The MOAB bracers are the anchor measurements for the rest of the rear wall RUV track (L track) and panels. Getting the measurements right here is a crucial step if you plan on building out the rest of your van with the RUV kit.

** The Bed wall bracers will also fit in passenger vehicles, however some of the trim around the rear window area will need to be removed for installation.*

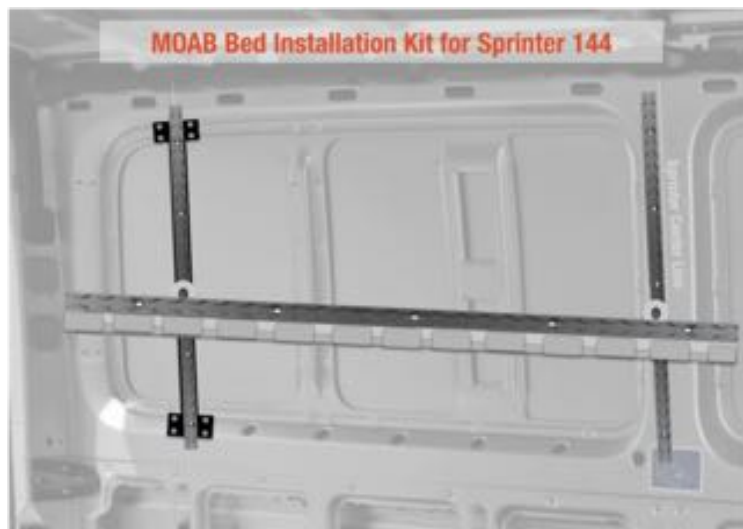


in
or

Installation Time and

Skillset

Our custom steel wall support brackets make this pretty easy to install. This installation takes our shop experts less than 1 hour to do. It should take the moderately skilled first-timer about 2 hours to install. You'll



need a buddy to help measure and hold the brackets in place while installing. We rate the installation skill set “moderate” due to the fact that you will need to know how to drill, rivet and screw holes into the framing of your van along with the need for precise measurements. We recommend our growing list of [Adventure Wagon Installers](#) to help you get up and running.

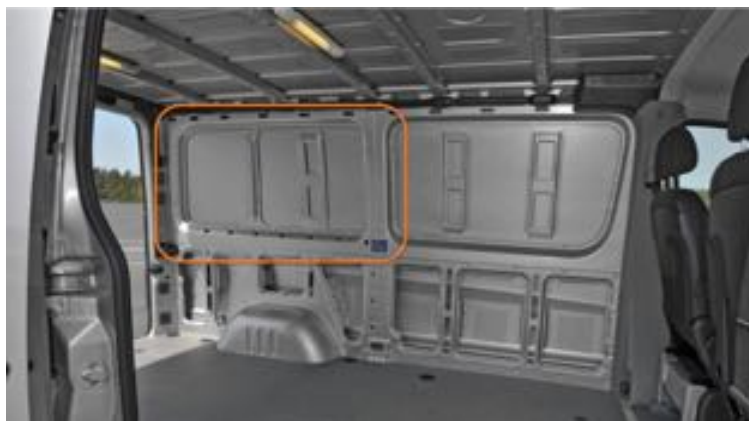
Tools You Will Need

- A Rivet Gun ([Mechanical](#) or [Pneumatic](#))
- A Rivnut gun (Mechanical or Pneumatic)
- 3/16 Stainless Steel Pop Rivets (qty 16-included)
- M6 Rivnuts and Stainless steel bolts (included)
- Self tapping metal set screws (included)
- Philips driver bit
- Cordless drill
- 3/16 drill bit for setting Rivets for Rear vertical Bracer
- 25/64 drill bit for setting Rivnuts for front vertical bracer
- A steel boring drill bit or [steel step bit](#). (optional for prepping holes for Rivnuts)
- Tape measure
- Sharpie

Installation of the Rear Wall Bracer

I. Removing factory wall panels:

If you have any existing upper rear wall panels in your van you will need to remove them. You will need installation access from the center or mid pillar of the van all the way back to the rear pillar in the highlighted area:

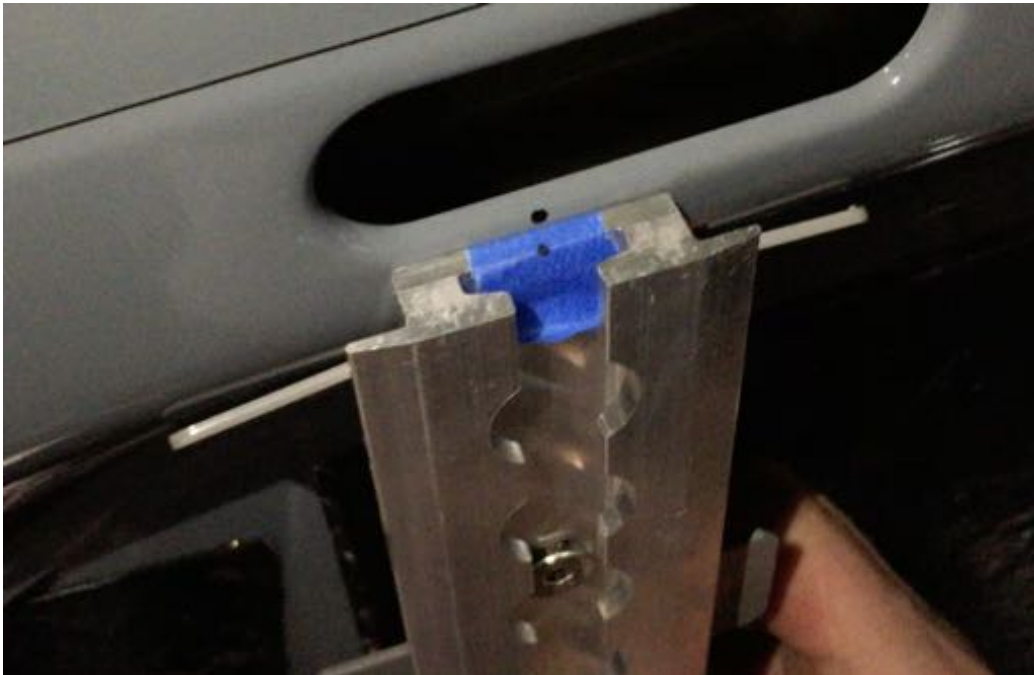


II. Test fit the Rear wall bracer

Choose either side of the van to start with. Inspect the rear wall bracer and press fit it in place in the rear window panel area of the side you chose. It should naturally “pocket” itself inside the window panel framing.



Typically the top of the bracer “ears” prevent it from seating into the slightly curved frame of the van. Use a rubber mallet and tap/bang the end of the bracer ears on both side to allow for a tighter fit.



The L Track that is mounted to the bracer should sit flush with the side of the van. It is ok to have 1-2mm spacing, but flush is preferred as this will mate up with the rest of the Adventure Wagon RUV interior kit.



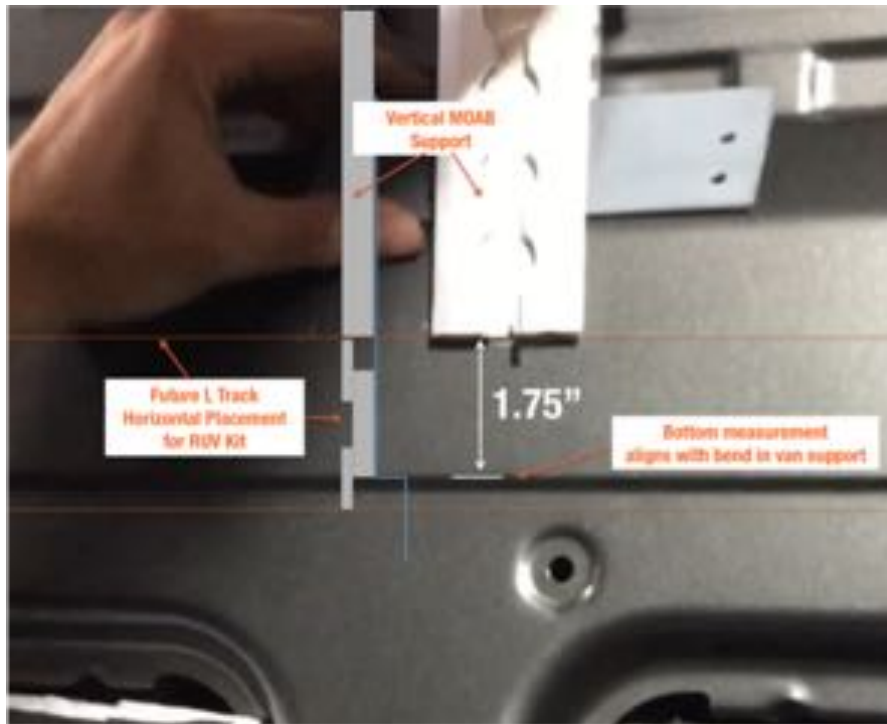
III. Mark the Centerline for the rear wall bracer.

Measure and put a vertical mark that is $52 \frac{3}{4}$ inches from the van midline marker. Measure and do this on the top side and the bottom side of the window panel framing. We will use this to mark where the wall bracer will attach to the van.



IV. Determine the Vertical placement of the Rear Bracer

We use the bottom of the bracer to set the vertical placement. The bottom of the bracer should be 1.75 inches above the bend in the framing. It helps if you can hold a piece of RUV Track (L Track) horizontally to help set the height marker for the rear bracer.



The top should look like this:



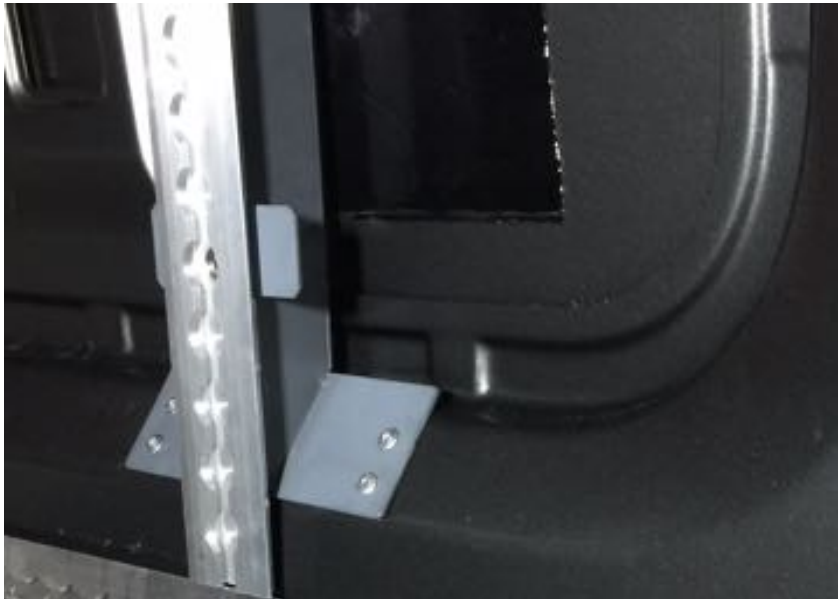
V. Install “temporary” self-tapping screws at the top and bottom of the bracer

We are going to pop rivet the steel bracer into the van for a permanent installation. However it is easier to drill a pilot screw as a first step to line up with our measurements. With the top and the bottom of the steel bracer lined up screw a #10 self-tapping screw through one of the 4 holes on the top side of the bracer. IF you have trouble getting the self-tapping screw to set, then drill a pilot hole to help. Put another self-tapping screw into one of the holes through the bottom of the

bracer... all the while making sure that the steel bracer is lined up with your pen marks on the van at both the top and the bottom. With the bracer lined up go ahead and screw in the remaining 3 screws on the top and bottom. To gain full access to the bracer holes at the top and the bottom go ahead and remove the RUV track (our term for L-Track) that is attached to the steel wall bracer.

VI. Replace each screw with a Pop Rivet to complete bracer installation

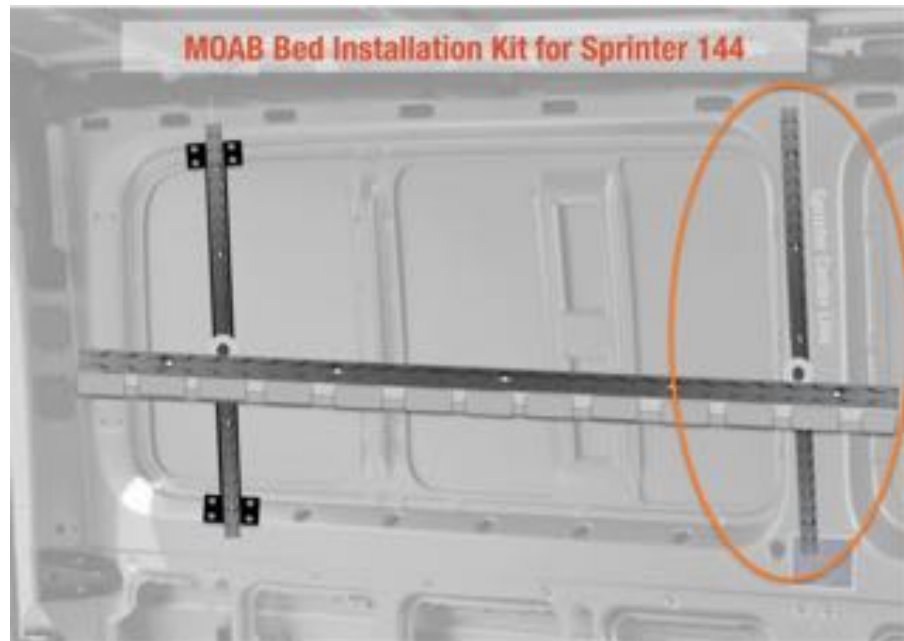
One by one replace the self-tapping screws with a 3/16 stainless pop rivet. We use a low cost pneumatic rivet gun ([like this one](#)), however you can use a traditional mechanical riveter to attach the rivets. We recommend you practice riveting on some test metal pieces, however if you do screw up on the installation you can drill out the rivet and start-over on that hole. When you are finished go ahead and screw back in the L-track that was previously attached to the wall bracer.



Installation of the forward wall bracer

The forward wall bracer consists of a single piece of RUV track (L Track) that gets installed with Rivnuts just behind the centerline of the van. We use Rivnuts so that the track can be removed and replaced at any time in the future for hanging wall

panels, enhancements or repairs.



VII. Align the vertical RUV Track along the center-line (mid line of the van):

The RUV track fits snug up against the centerline of the van (on the rearward side). Align the RUV track vertically by measuring up 1.75 inches from the bend in the van's window support frame. This is the same vertical measurement step used to mark the rear bracer.



VIII. Temporarily set the vertical RUV track with self-tapping screws:

Use 4 self tapping #10 screws to set the RUV track into the side of the van. You can drill a pilot hole if needed. Place screws in every other hole in the RUV track to establish a temporary placement.

IX. Drill holes for Rivnuts in the other empty holes of the RUV track

Drill out and bore a 25/64 hole in each of the remaining empty holes of the RUV track. Remove the entire track when finished by unscrewing the self tapping screws



X. Install Rivnuts in the RUV track

Using the Rivet gun, rivet M6 Rivnut inserts in the initial holes you have drilled. When completed reattach the RUV track to the van using the newly installed rivnut inserts and their M6 bolts as the fastening point.

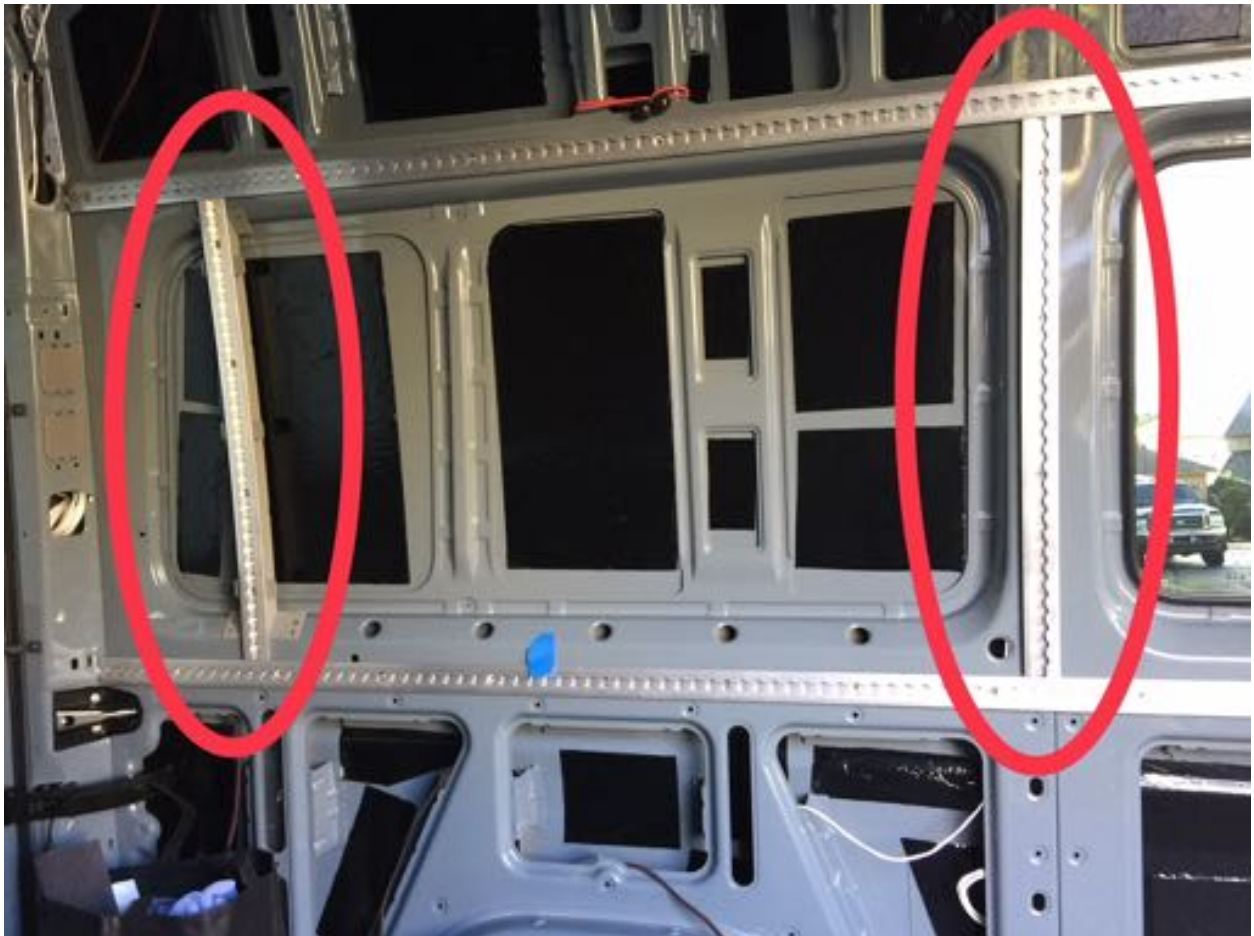


XI. Drill the remaining Rivnut holes in the RUV track

Repeat the process of installing Rivnuts in the remaining 4 empty holes that previously had the self-tapping screws. When finished install the RUV track completely using the M6 rivnut bolts provided.

Repeat the same steps on the other side to install the support brackets

Here is a pic of the final vertical rail installation as part of Adventure Wagons RUV interior track system:



Installation of the adjustable horizontal MOAB Bed support beam

The horizontal bed support beam. Can be installed using the L-track stud and nut that was provided with the bed. You can place the bed anywhere along the vertical support tracks.



Addendum for Sprinter 170 Length Vans.

The Vertical rail installation kit for 170 length vans contains 4 steel wall bracers (2 on each side) and does not rely on Rivnutting L track to the C Pillar of your van as we do in the shorter 144 length.

The bracers are marked forward and aft... with the aft (rearmost) bracer being slightly smaller than the forward bracers. The bracers wider tabs are at the bottom.

The steel bracers install the same way using pop rivets as the 144 steel bracers outlined in the guide above. All of the same measurements apply... except the center line for the bracers can be measured from the midline with the following dimensions:

