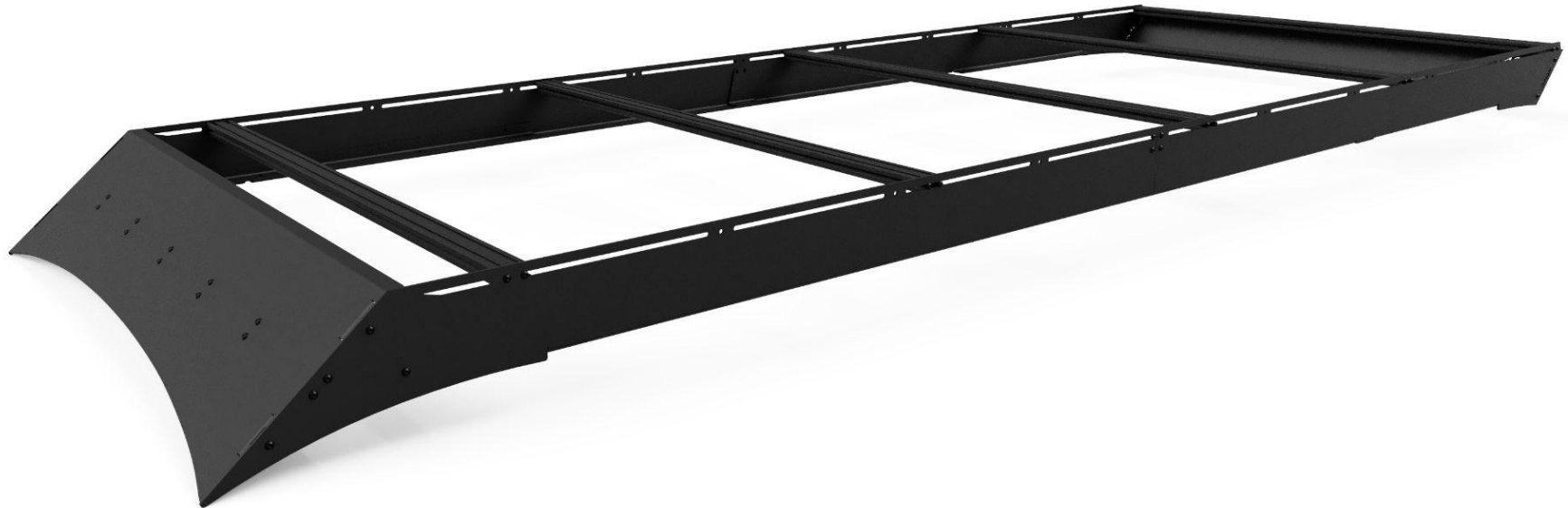


ORION VAN GEAR

Stealth+ Modular Roof Rack System

Mercedes Sprinter 144" Wheelbase

Installation Time: 1.5 - 2.5 hours



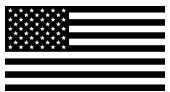
THANK YOU!

Thank you for supporting our small business. We hope you love your new roof rack and we can't wait to see your vans on the road!

The Written Installation Guides are model specific, up-to-date, and have accurate part counts so make sure you are looking at the correct model.

If you have any questions please let us know! Please [write a review](#) after you have completed the install.

Thanks,
Steve, Matt, & the entire Orion family



ORION VAN GEAR PRODUCTS
ARE PROUDLY MADE IN THE USA.



PLEASE READ BEFORE INSTALLATION

ORION VAN GEAR LLC STRONGLY RECOMMENDS PROFESSIONAL INSTALLATION OF AFTERMARKET ACCESSORIES TO YOUR VEHICLE. IMPROPER INSTALLATION COULD RESULT IN AN AUTOMOBILE ACCIDENT AND COULD CAUSE SERIOUS INJURIES OR DEATH. YOU ARE RESPONSIBLE FOR ASSEMBLING AND SECURING ORION VAN GEAR PRODUCTS TO YOUR VEHICLE, CHECKING THE MOUNTING POINTS AND ATTACHMENTS PRIOR TO USE, AND REGULARLY INSPECTING THE PRODUCTS FOR WEAR AND OR DAMAGE. YOU MUST ENSURE THE PERSON(S) INSTALLING THE PRODUCT READ, UNDERSTAND, AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE BEGINNING THE INSTALLATION. THE RESPONSIBILITY TO CORRECTLY INSTALL ORION VAN GEAR PRODUCTS IS YOURS AND MUST BE TAKEN SERIOUSLY. ORION VAN GEAR LLC WILL NOT BE HELD LIABLE OR RESPONSIBLE FOR DAMAGES OR PERSONAL INJURIES RESULTING FROM THE USE OF OUR PRODUCTS.

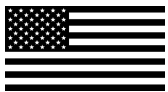
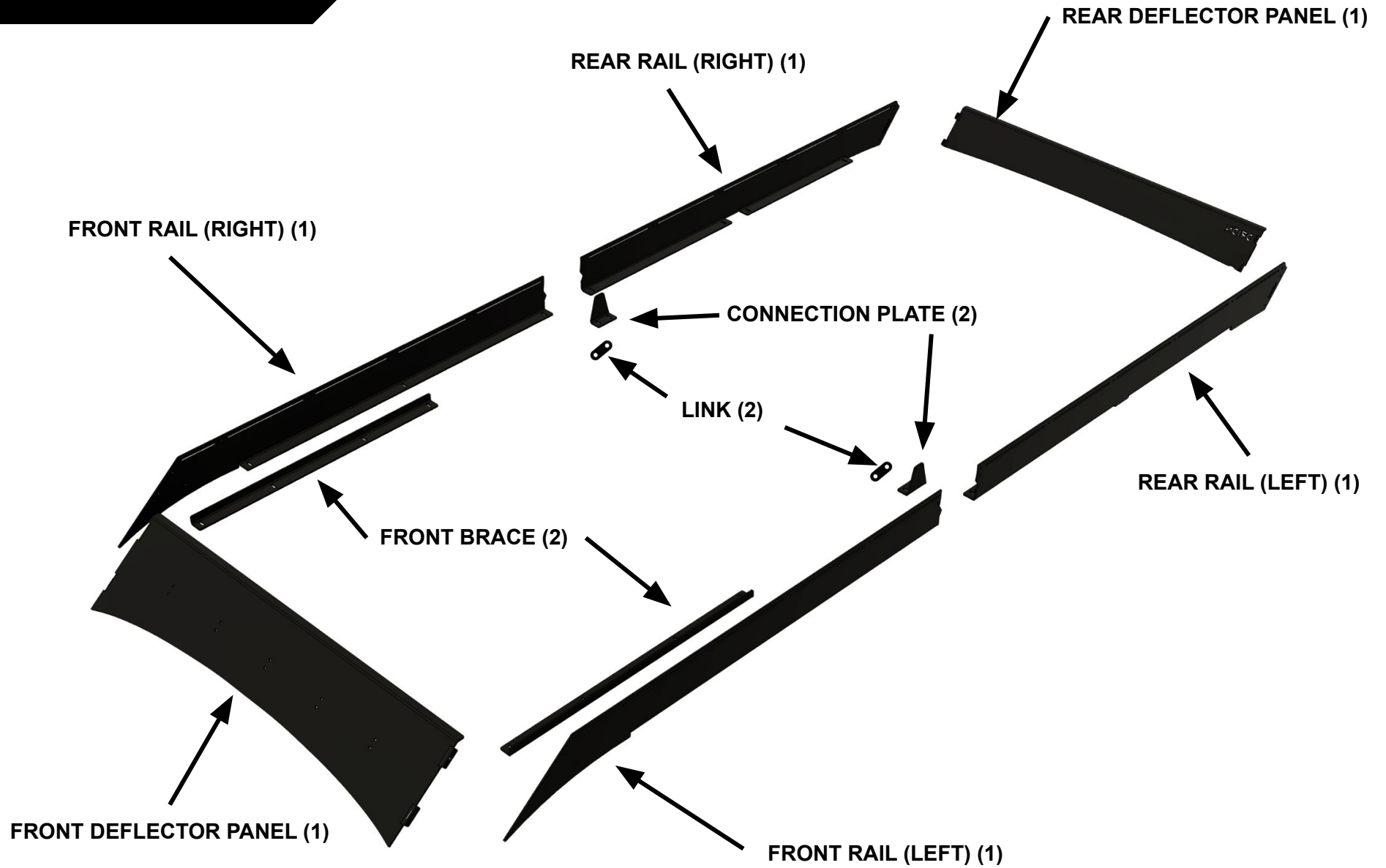


[LINK TO ORIONVANGEAR.COM](https://www.orionvangear.com)

- ALWAYS INSPECT YOUR PRODUCTS UPON ARRIVAL FOR SHIPPING DAMAGE OR MISSING PARTS
- REPORT MISSING OR DAMAGED PIECES TO OUR SUPPORT TEAM BEFORE BEGINNING THE INSTALLATION



144 COMPONENTS



8020 COMPONENTS

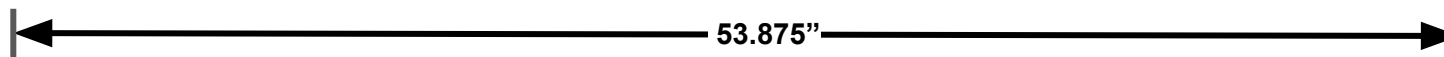


10S 8020 CROSSBAR (6)

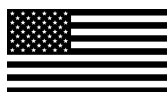
**1 crossbar is used in the front deflector assembly.
The rest can be placed wherever you desire.*



10S 8020 CROSSBAR (6)



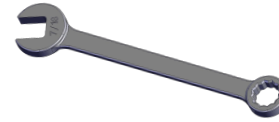
53.875"



MATERIALS REQUIRED

REQUIRED

- 1x 1/2" Socket and Ratchet Drive
- 1x 7/16" Wrench
- 1x Step Ladder
- 1x Tape Measure



RECOMMENDED

- 1x Extra Person
- 1x Extra Ladder
- Extra Rags (to keep things clean)

INCLUDED MATERIALS

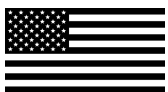
PROVIDED

- 1x 5/32" Ball End Allen Key
- 1x Blue Threadlock (Medium Strength)
[RECOMMENDED ON T-NUT HARDWARE]
- 1x 1 oz Anti-seize Lubricant
[RECOMMENDED ON ALL NYLON LOCKNUT JOINTS]



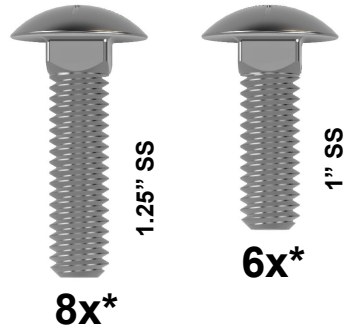
**Included hardware shown on next page*

***Only use hand tools. Power tools may overheat bolts and cause galling and/or over tighten connections.*

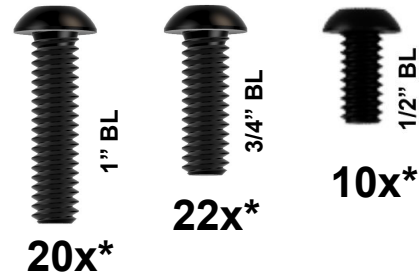


INCLUDED HARDWARE

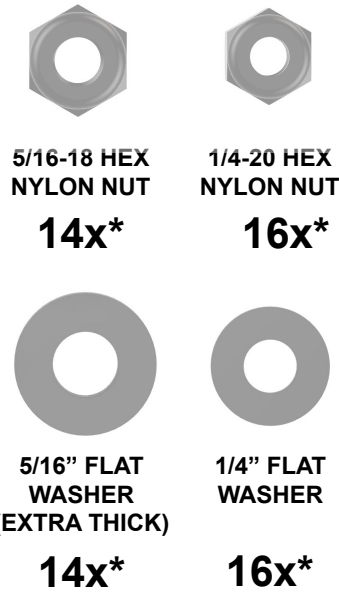
CARRIAGE BOLTS (5/16-18)



BUTTON HEAD SCREWS (1/4-20)



10S T-NUT



* NOTE: EXTRA HARDWARE INCLUDED FOR THESE ITEMS IN ASSEMBLY KIT.



BL = Black Oxide Stainless Steel (Black)

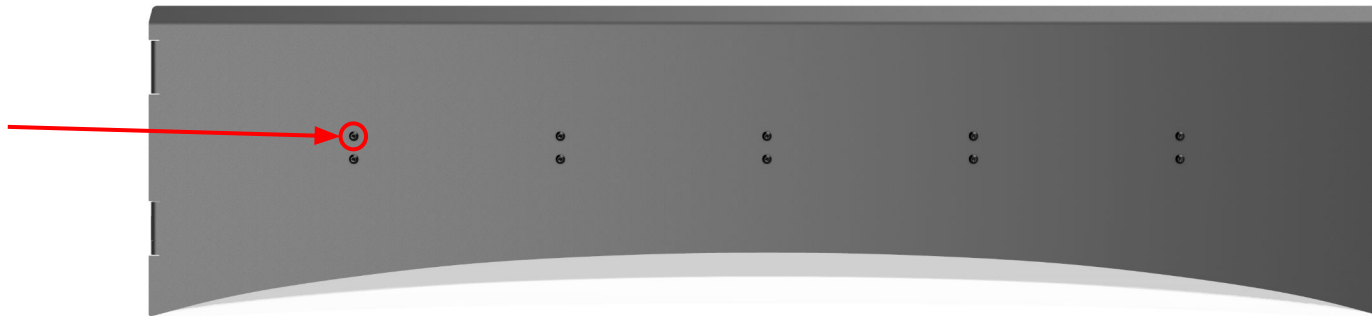


STEP 1

1A - Insert 10x T-NUTS into one of the 8020 crossbars so they will align with the holes in the front deflector, 5 in one channel and 5 in the other channel as shown in **Fig. 1A**.

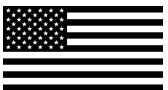
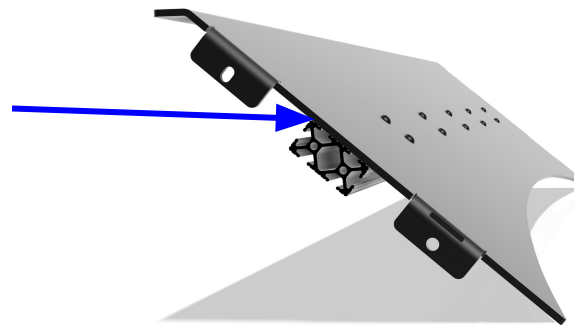


1B - Loosely connect the 8020 bar to the FRONT DEFLECTOR using 10x ½" BL SCREWS into the T-NUTS placed in step 1A. See picture from step 1C to reference the correct side of the deflector to install the crossbar. Connections should be hand tight minus a ¼ turn out to allow for adjustment. (Apply THREADLOCK to all connections)



1C - With all connections loosely fit, align the crossbar so that it is flush with both outside ends of the FRONT DEFLECTOR. Tighten all connections.

**BOTH ENDS OF CROSSBAR
FLUSH WITH FRONT
DEFLECTOR EDGES**





READ BEFORE PROCEEDING

Your Orion roof rack comes with anti-seize and you will be instructed to use it in the next steps. Anti-seize is commonly applied to stainless steel fasteners to prevent the threads from becoming galled or damaged and allows for the removal and or adjustment of the roof rack in the future. The tips below cover how to use it properly to ensure your install goes smoothly.

1. Use anti-seize sparingly (less is more)

- **A thin layer is sufficient.** For a typical fastener assembly, a film approximately 0.1mm thick is suitable. Should be just enough to cover a few threads of the bolt and should not extend past the outer diameter of the bolt threads. (Reference photographs.)



- The goal is to coat the threads with the compound preventing corrosion and adhesion between the thread and the fastener. Too much anti-seize applied to the thread can attract debris that may contaminate the thread and prevent the fastener from being removed cleanly.
- There is no reason to use more anti-seize than absolutely necessary on the threads you are coating. Additional anti-seize doesn't offer any more protection and can be extremely messy and hard to remove from the rack, clothing, and your hands.

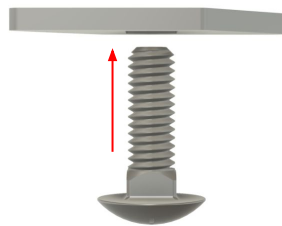
2. Clean excessive anti-seize immediately after assembly

- **Immediately wipe off excessive anti-seize from rack and hands.** The only part of the fastener that needs anti-seize for this installation is in the threads of any bolt with a nut on the end of it. (Reference photographs.)
- Use a wet sponge or a soft, non-abrasive bristle brush to loosen stubborn dirt/ anti-seize along with mild detergent soap and water. In some cases you may need to use a water based degreaser such as simple green. In extreme cases isopropyl alcohol can be used if done so carefully. Never let any cleaning agent sit on the rack for more more than a few minutes before wiping it off. Under no circumstances ever let it dry.
- Harsh chemicals and solvents such as acetone, brake cleaner, MEK, Xylene, Toluene and Lacquer Thinner, are unnecessary and can damage the finish and will not be covered under warranty. *(Other items that can work include foaming window cleaner and Mr. Clean Magic Eraser)*



STEP 2

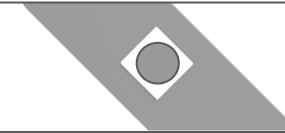
2A - Insert 3x 1¼" CARRIAGE BOLTS through 3x TRACK WASHERS and drop them into the front half of the driver's side roof rail in the approximate location of each of the 3 front rail mounting holes (see red arrows in Fig. 2B). Make sure the track washers are facing the correct direction (pictured below) so when rotated/tightened they properly grab the roof rails.



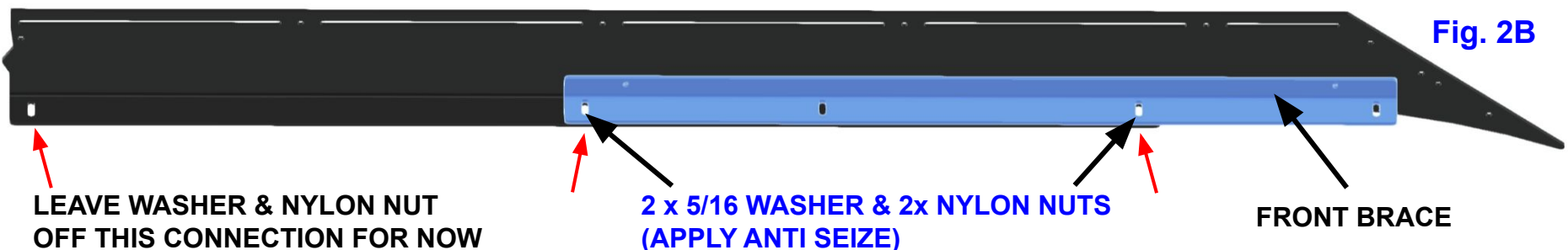
CORRECT ORIENTATION WHEN LOOKING FROM ABOVE BEFORE TURNING



CORRECT ORIENTATION WHEN LOOKING FROM ABOVE AFTER ¼ TURN

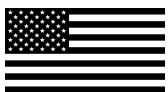


2B - Place the FRONT RAIL (LEFT) over the carriage bolts followed by the FRONT BRACE. Place 2x 5/16 WASHERS & 2x 5/16-18 NYLON NUTS in locations shown in Fig. 2B. (Apply Anti Seize to carriage bolts)



2C- Loosely tighten the nylon nuts so the front rail stays on the roof without being held but can still slide forward & backward. Before moving on, slide the front rail a few inches forward so the front tip doesn't rest on your van.

2D- Repeat steps 2A-2C for FRONT RAIL (RIGHT) so both front rails are loosely connected.



TOP DOWN DIAGRAM

← Front



STEP 3

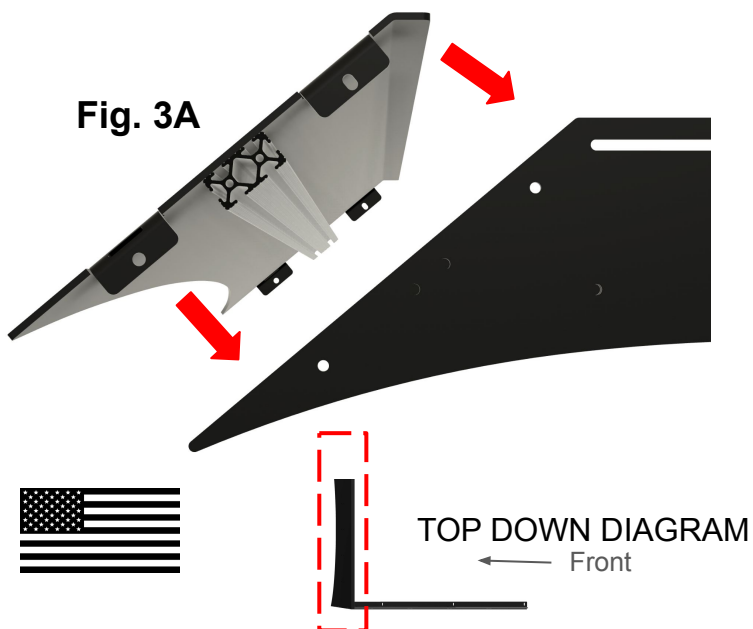
3A - Using the front deflector assembly from step 1C, carefully slip it between the front side rails. Using 2 people helps tremendously on this step. Keep a hand under the bottom lip to keep it from touching the roof.

3B - Loosely insert 1x $\frac{3}{4}$ " BL SCREWS into the top tapped 8020 hole on each side before securing remaining screws. This allows you to rotate the deflector into the correct orientation without damaging the roof. (SEE DIAGRAM) (Apply THREADLOCKER)

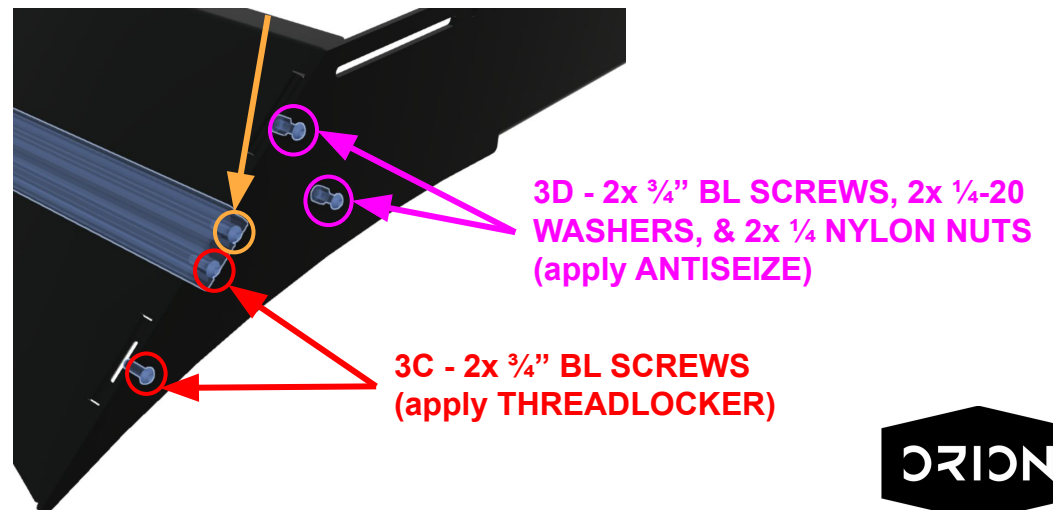
3C - Loosely insert 2x $\frac{3}{4}$ " BL SCREWS into the other tapped 8020 hole & forward most hole. (SEE DIAGRAM) (Apply THREADLOCKER)

3D - Using 2x $\frac{3}{4}$ " BL SCREWS, 2x $\frac{1}{4}$ -20 WASHERS, & 2x $\frac{1}{4}$ NYLON NUTS, loosely tighten upper front deflector connection as well as side rail to FRONT BRACE. (SEE DIAGRAM) (Apply ANTI SEIZE).

3E - Align front deflector so that it is flush with the side rail, tighten all connections & repeat steps for other side.



3B - 1x $\frac{3}{4}$ " BL SCREW
(apply THREADLOCKER)

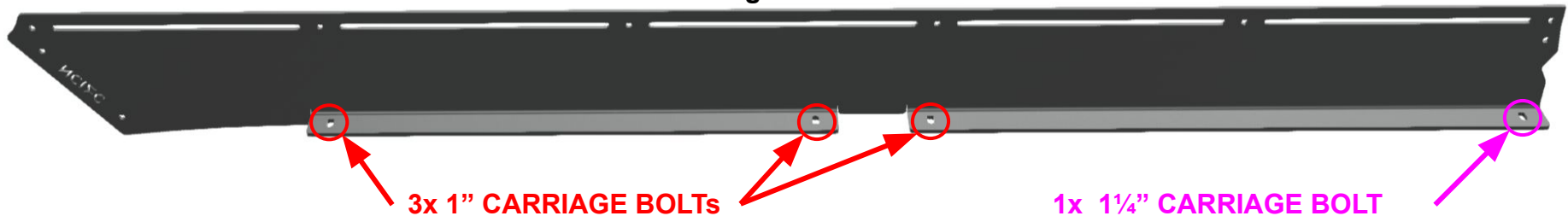


STEP 4

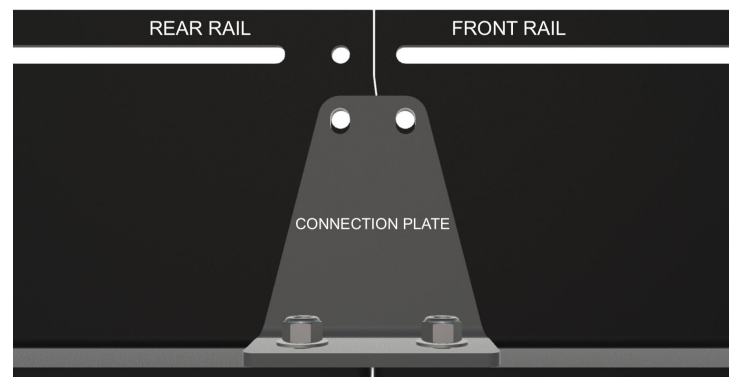
4A - Insert **1x 1 1/4" CARRIAGE BOLT** & **3x 1" CARRIAGE BOLTS** through 4x TRACK WASHERS and drop them into the rear half of the drivers side roof rail in the approximate location of each rear rail mounting hole. Make sure the track nuts are facing the correct direction as shown in step 2 and that the **longer 1 1/4" carriage bolt is the farthest forward placement of all 4 bolts**. (See Fig. 4AB)

4B - Slip the **REAR RAIL (LEFT)** over the carriage bolts. Place **3x 5/16 WASHERS** & **3x 5/16-18 NYLON NUTS** on the back 3 carriage bolts. Loosely tighten the nuts so the rear rail stays on the roof but can be slide forward & backward. (See Fig. 4AB) (Apply **ANTISEIZE** to carriage bolts)

Fig. 4AB



4C - Slide the **REAR RAIL (LEFT)** tight to the **FRONT RAIL (LEFT)** and slip **1x CONNECTION PLATE** over the **1 1/4"** carriage bolts between the front and rear rails. Place **2x 5/16 WASHERS** & **2x 5/16-18 NYLON NUTS** on this connection and loosely tighten.



TOP DOWN DIAGRAM
← Front

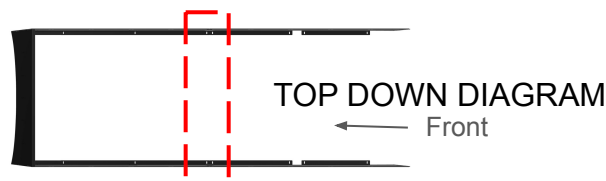
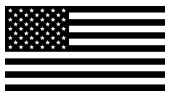
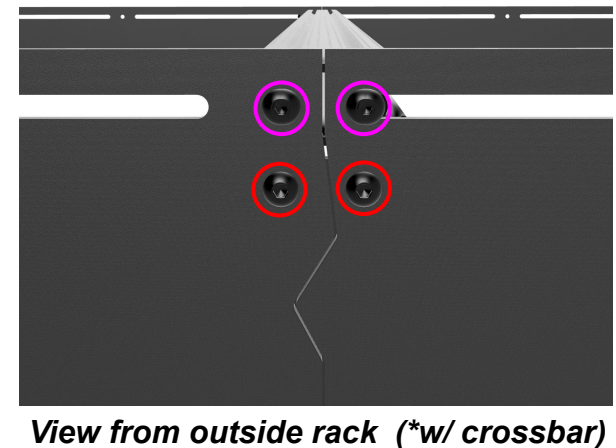
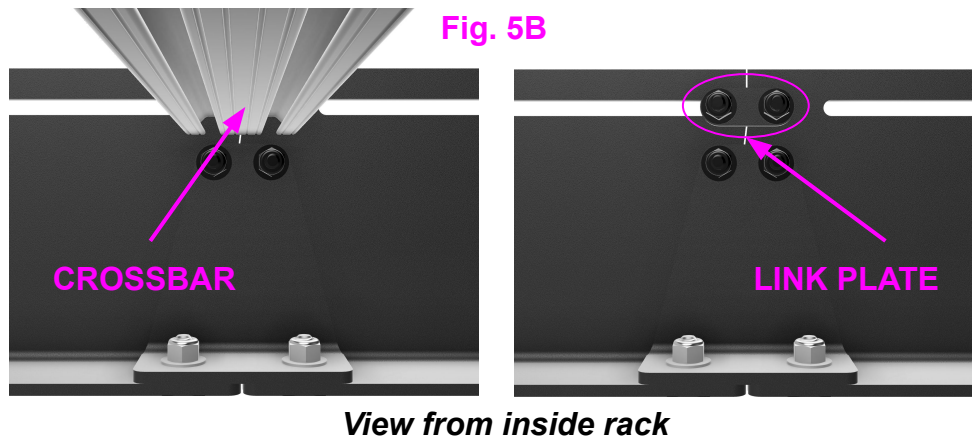
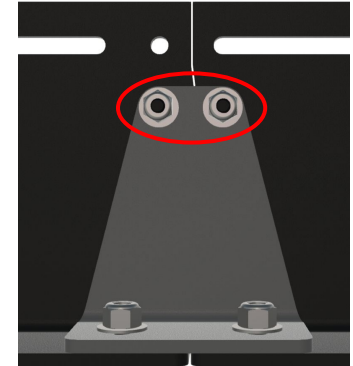
ORION

STEP 5

5A- Insert 2x $\frac{3}{4}$ " BL SCREWS through side rails & connection plate as pictured in **Fig. 5A**. Secure with 2x $\frac{1}{4}$ WASHERS, & 2x $\frac{1}{4}$ NYLON NUTS. Apply ANTI SEIZE and tighten these two connections. Leave bottom rail connections loose.

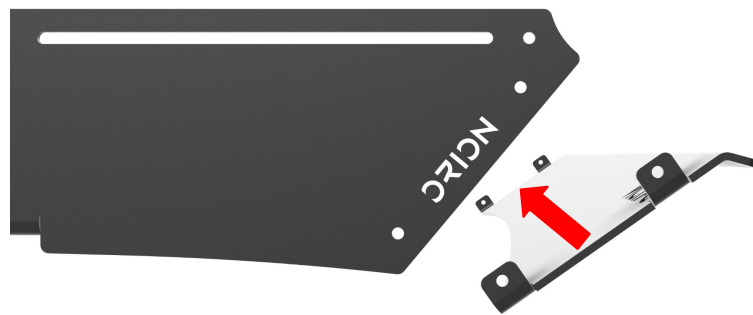
5B- Now install 1x 10S 8020 CROSSBAR above the connection plate to properly square up and connect the front of the rack using 2x 1" BL SCREWS. Tighten & Apply THREADLOCKER. **Alternatively, install a LINK plate if you are not placing a crossbar here using 2x $\frac{3}{4}$ " BL SCREWS, 2x $\frac{1}{4}$ WASHERS, & 2x $\frac{1}{4}$ NYLON NUTS. (Fig. 5B)*

Fig. 5A

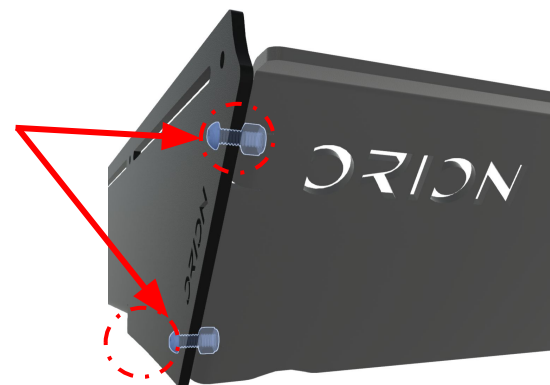


STEP 6

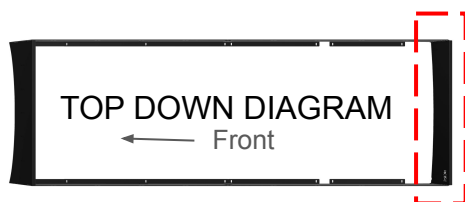
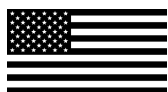
6A - Carefully slip the REAR DEFLECTOR between the rear side rails. Install using 4x 3/4" BL SCREWS, 4x 1/4" WASHERS, & 4x 1/4" NYLON NUTS. (Apply ANTI SEIZE & Tighten)



4x 3/4" BL SCREWS, 4x 1/4" WASHERS, & 4x 1/4" NYLON NUTS (2 EACH PER SIDE) (Apply ANTI SEIZE)

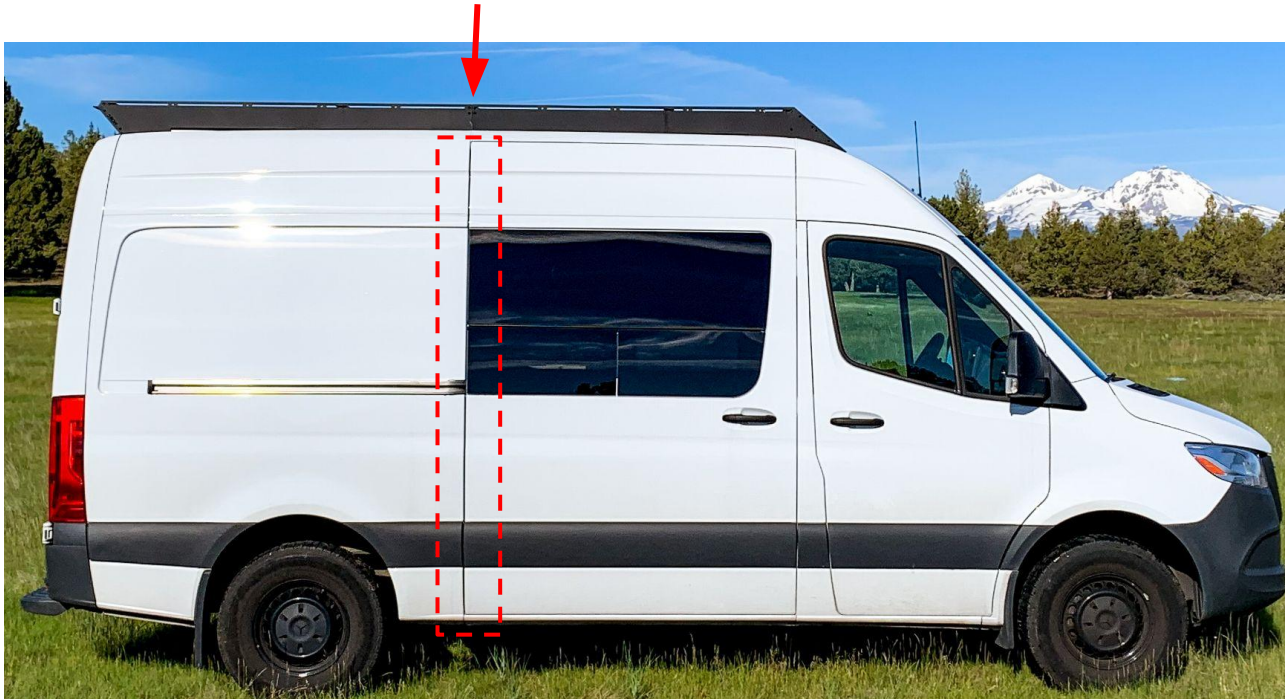


Pictures below shows finished assembly

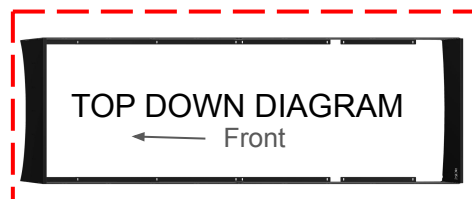


STEP 6

6A - Slide the rack forward or backwards into the desired location. We designed the rack so the seam between the rack side pieces is centered on the middle seam of the van as shown below.



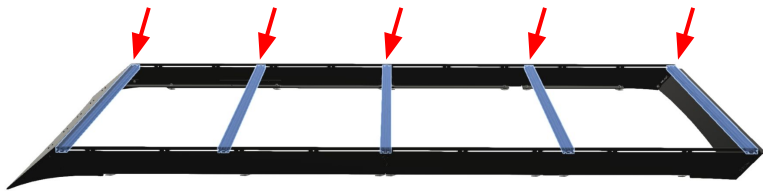
6B - Tighten all track nut assemblies and the bottom of the seam connection gusset. (Apply ANTI SEIZE if not already done)



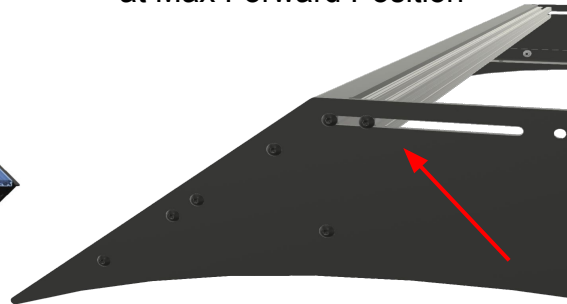
STEP 8

8A - You are almost finished! Insert the remaining 4x 10S 8020 CROSSBARS in the slotted channels/holes between the side rails and loosely secure using 2x 1" SCREWS on each side. These can be installed anywhere you would like. If you are installing [Solar Panels](#) with our [Drop Down Flush Brackets](#) or our [Roof Deck Panels](#) make sure crossbars are placed in the correct positions to allow for correct installation before tightening. The rack is designed to fit a crossbar 1" under the edge of the front deflector if desired. You can also mount the crossbars in the between the slots as shown below. (Apply THREADLOCK and Tighten connections.)

Shown with Standard Crossbar Positions



Shown with Crossbar Mounted at Max Forward Position



Shown with Crossbar Mounted at Max Rear Position



8B - Check and tighten all rack connections.

8C - Immediately remove excess anti-seize residue using soap and water. Optionally, Mr. Clean Magic Erasers, Simple Green and other water based degreasers also work well. If that is not strong enough, move to Isopropyl Alcohol (rubbing alcohol). *NEVER use solvents such as acetone, contact cleaners, thinners or Methyl Ethyl Ketone (MEK) to clean powder coated finishes. These solvents are very damaging to the powder coat and will soften and/or dissolve the surface, diminishing its shine and durability or removing the finish altogether.



STEP 9

Please write a review (takes less than 1 minute!) orionvangear.com/pages/reviews

Positive reviews from awesome customers like you help others to feel confident about choosing Orion Van Gear too. Not only do reviews improve our products but they let others know that we care just as much about providing quality customer service as we do about making exceptional van products. We will be forever grateful if you take 60 seconds to share your experience along with a few pictures of the rack on your van. Thank you in advance for helping us out.



ORION VAN GEAR PRODUCTS
ARE PROUDLY MADE IN THE USA.



**FOR ANY QUESTIONS REGARDING INSTALLATION
OR REPLACEMENT PARTS CONTACT US:**



support@orionvangear.com



(971) 267-2552

HAPPY WITH YOUR NEW ORION RACK?

Help us spread the word about our great products by tagging us in your photos and videos (@OrionVanGear) on Instagram, Facebook, and TikTok! We can't wait to see your adventures!



[instagram.com/orionvangear](https://www.instagram.com/orionvangear)



[facebook.com/orionvangear](https://www.facebook.com/orionvangear)



[tiktok.com/@orionvangear](https://www.tiktok.com/@orionvangear)



WIN PRIZES 🏆

Leave an eligible photo/video review on our website after installing the rack and automatically get entered to win unique prizes. You will receive a unique review link via email 15-20 days after your rack is delivered so keep an eye out!

FOLLOW, SNAP & TAG TO WIN!



Follow us
[@orionvangear](https://www.instagram.com/orionvangear)



Snap it



Tag it
[#OrionVanCrew](https://www.instagram.com/hashtag/orionvancrew)



Win Prizes!



ORION VAN GEAR PRODUCTS
ARE PROUDLY MADE IN THE USA.

