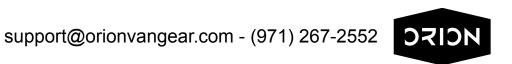
ORION VAN GEAR

Stealth+ Modular Roof Rack System Dodge Promaster 159" Wheelbase





INSTALLATION GUIDE v159.8



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!

*Video Install Tips should ONLY be used as a supplement to the Written Installation Guides. The Written Installation Guides are model specific, up-to-date, and have accurate part counts. Some parts in the videos may appear different as they have been modified/improved over time. We have done our best to show the same steps in the same order as the Written Installation Guides, but all parts should be installed in the order outlined in each model's respective Written Installation Guide.

If you have any questions please let us know! Please write a review after you have completed the install.

Thanks, Steve & Matt





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.



- ALWAYS INSPECT YOUR PRODUCTS UPON ARRIVAL FOR SHIPPING DAMAGE OR MISSING PARTS
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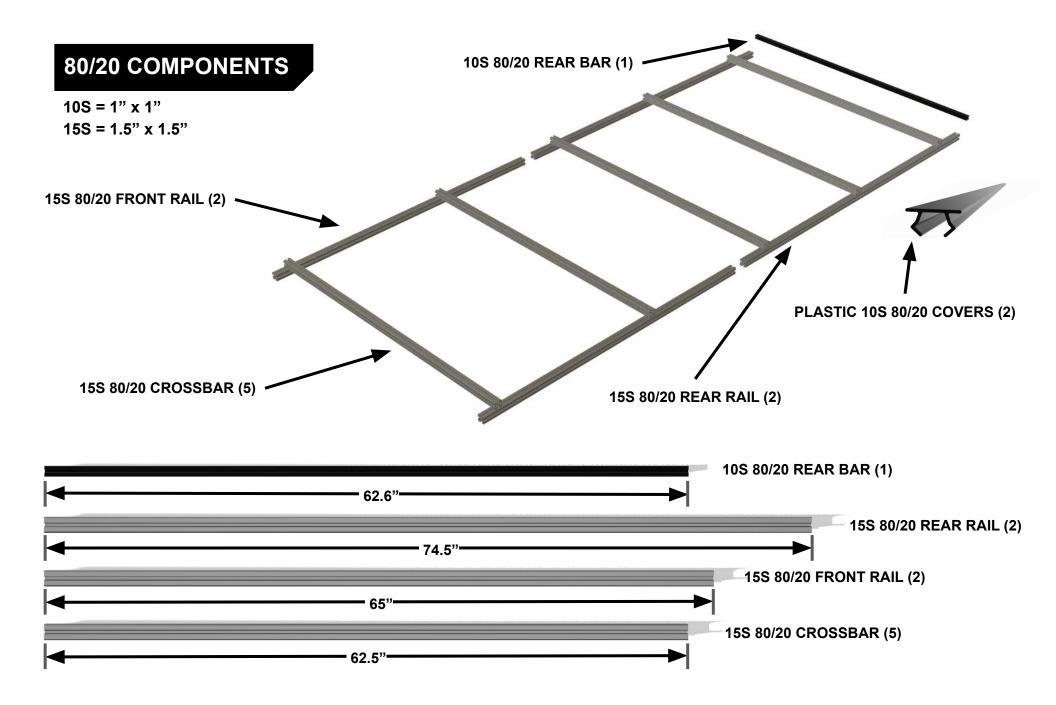




159 COMPONENTS **REAR DEFLECTOR PANEL (1) REAR RAIL (RIGHT) (1) JOINING PLATE (8)** FRONT RAIL (RIGHT) (1) **REAR BRACKET** (2A+2B) **GUSSET (5 RIGHT) GUSSET (5 LEFT) REAR RAIL (LEFT) (1) EMBLEM PLATE (2)** FRONT BRACE (1) **COLOR PLATE (2) SEAM PLATE (2) ROOF ADAPTER BRACKET (8)** FRONT DEFLECTOR PANEL (1) FRONT RAIL (LEFT) (1)











MATERIALS REQUIRED

REQUIRED

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



- 1x Extra Person
- Extra Rags (to keep things clean)
- A Piece of Painters Tape











INCLUDED MATERIALS

PROVIDED

- 1x 5/32" Ball End Allen Key
- 1x Blue Threadlock (Medium Strength)
 [RECOMMENDED ON 10S AND 15S T-NUT HARDWARE]
- 1x 1 oz Anti-seize Lubricant [RECOMMENDED ON ALL NYLON LOCKNUT JOINTS]



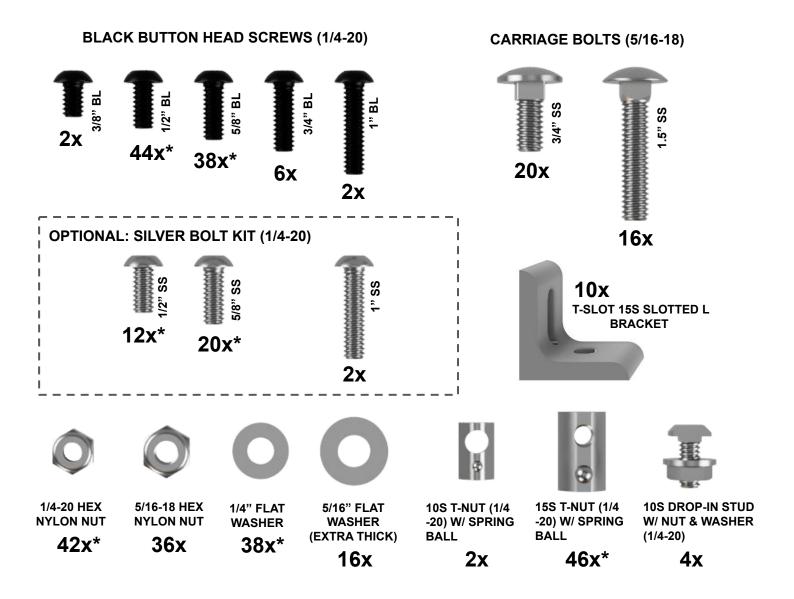






^{*}Included hardware shown on next page

SS = Stainless Steel (Silver)



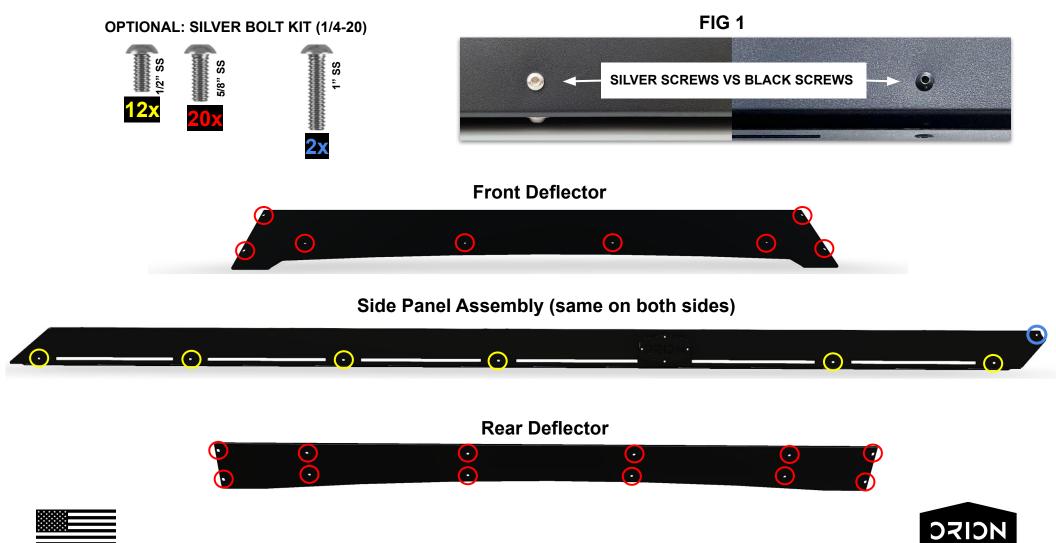
*NOTE: EXTRA HARDWARE INCLUDED FOR THESE ITEMS IN ASSEMBLY KIT.





*OPTIONAL COLOR SELECTION

Your Stealth+ comes with both black and silver accent screws for the locations circled below. Choose the look you prefer (examples of each shown in Fig 1). If you prefer black screws, then continue to the next page and set aside the optional silver bolt kit. If you prefer silver screws, please reference this slide throughout the installation process to ensure you're using the correct color bolt for each location on the front deflector, rear deflector, and side panels.



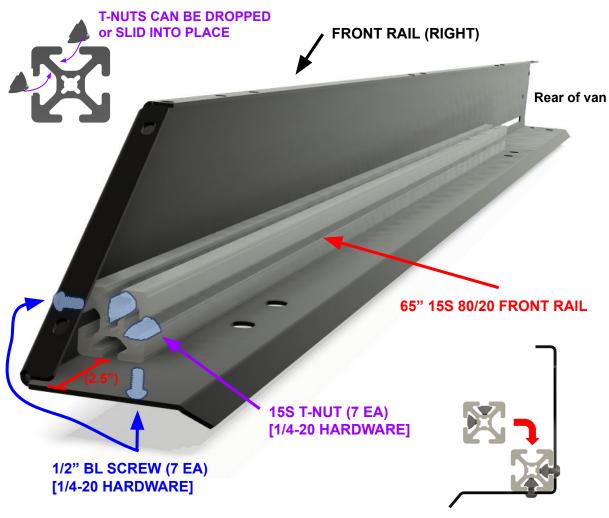
Watch video tips for step 1 Here

1A - Insert 4x T-NUTs into the bottom channel & 3x T-NUTs into the side channel of a 65" 15S 80/20 FRONT RAIL. Align with the screw holes located on the bottom and outer edge of the FRONT RAIL (RIGHT).

1B - Locate the 65" 15S 80/20 FRONT RAIL so it's 2.5" back from the front edge of the FRONT RAIL (RIGHT).

1C - Loosely connect the 80/20 to the FRONT RAIL using 7x ½" stainless button head screws into the 15S T-NUTs so the rail is secure but can be adjusted & moved into position later on (back out the screw ½ turn after touching) and DON'T use threadlocker yet. We will apply that after step 3.

*Tip: Use the end of an allen key to center the T-NUTs through the screw holes before adding screws. You'll likely need to flip the 80/20 piece a few times to get alignment correct. With 80/20 left loose you can also slide 80/20 back and forth to located t-nuts if they are way out of alignment.



LOCATIONS FOR THE T-NUTS & SCREWS (7 EA- 4 ON BOTTOM & 3 ON SIDE)

FRONT RAIL (RIGHT) - OUTSIDE

BACK

FRONT

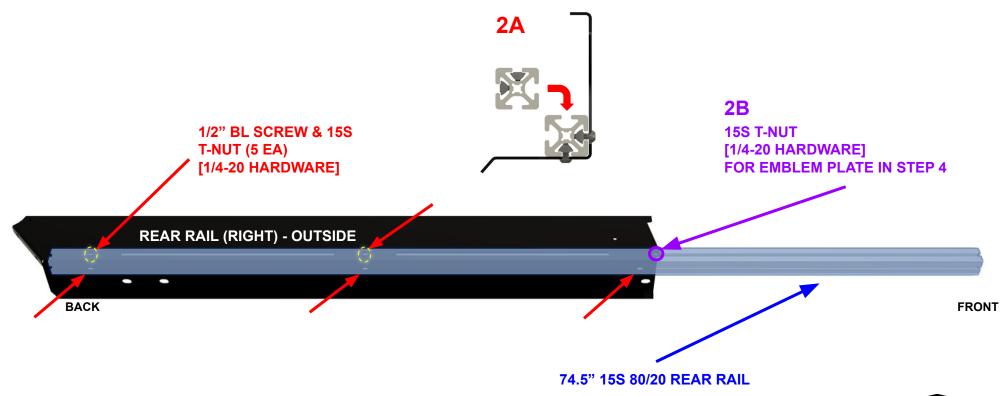


Reminder: If using the silver bolt kit, place 3x ½" silver bolts marked by the yellow circles.



2A- Loosely connect the REAR RAIL (RIGHT) to the 74.5" 15S 80/20 REAR RAIL using 5x 15S T-NUT's and $5x \frac{1}{2}$ " stainless screws the same way you did in step 1 [3 in the bottom channel & 2 in the side channel] so the rail is secure but can be adjusted later on (Fig 2A). Locate the 80/20 roughly $\frac{1}{4}$ " from the back edge of the REAR RAIL (RIGHT). DON'T use threadlocker yet, it will be applied after step 3.

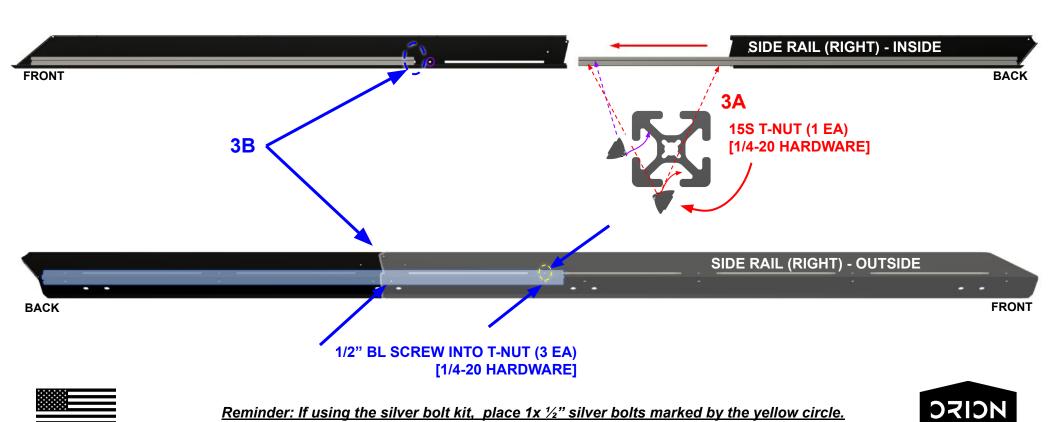
2B- Insert 1x 15S T-NUT at the front edge of the REAR RAIL (RIGHT) so it's half exposed. We will add a screw in step 4 when we attach the emblem plate, but just place the T-NUT in the approx location for now.







- 3A- Using the assembly from step 2, insert 3x 15S T-NUTs into the 80/20 that is protruding the REAR RAIL (RIGHT) [2 in the bottom channel and 1 in the side channel]. Align the T-NUTs close to the location of the 3 screw holes on the FRONT RAIL (RIGHT) before sliding the two rails together so you will be able to insert a screw into it through the outside panel.
- 3B- Make sure the joint where the two 80/20 pieces butt up against each other is tight and clean before loosely adding $3x \frac{1}{2}$ " BL SCREWs into the T-NUT's placed in step 3A. Once the two halves are properly located, threadlock should be applied to all connections made in steps 1-3 (one at a time) and each should be hand tightened.





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. <u>Use anti-seize sparingly (less is more)</u>

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

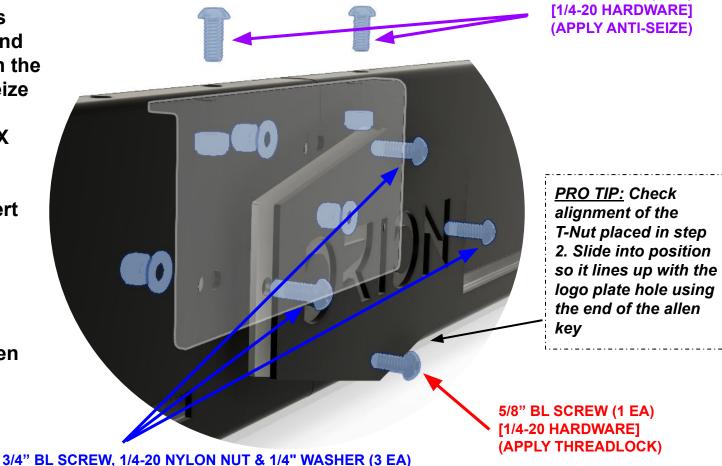
- **Immediately wipe off excessive anti-seize from rack and hands.** The only part of the fastener that needs anti-seize for this installation is in the threads of any bolt with a nut on the end of it. (Reference photographs.)
- Use a wet sponge or a soft, non-abrasive bristle brush to loosen stubborn 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)

4A- Read the tip next to the diagram before moving forward. Insert 3x 3/4" BL SCREWs into the top and side holes of the EMBLEM PLATE, through the COVER PLATE, through the side rails, and through the SEAM PLATE so it creates a 4 layer "sandwich". Take 3x 1/4" WASHERs and slide 1 on the end of each screw. Next, apply a small amount of anti-seize to the end of each screw before loosely attaching 3x 1/4-20 HEX NYLON NUTs.

4B- Drop 2x %" BL SCREWs through the top of the rail and down through the 2 holes in the **SEAM PLATE.** Apply anti-seize to the screw ends and then loosely attach 2x 1/4-20 HEX NYLON NUTS.

4C- Apply threadlock & insert 1x %" BL SCREW into the bottom hole of the LOGO **PLATE** into the T-NUT you placed in step 2.

4D- Before moving on tighten all connections & REPEAT STEPS 1 - 4 FOR THE LEFT SIDE RAIL.



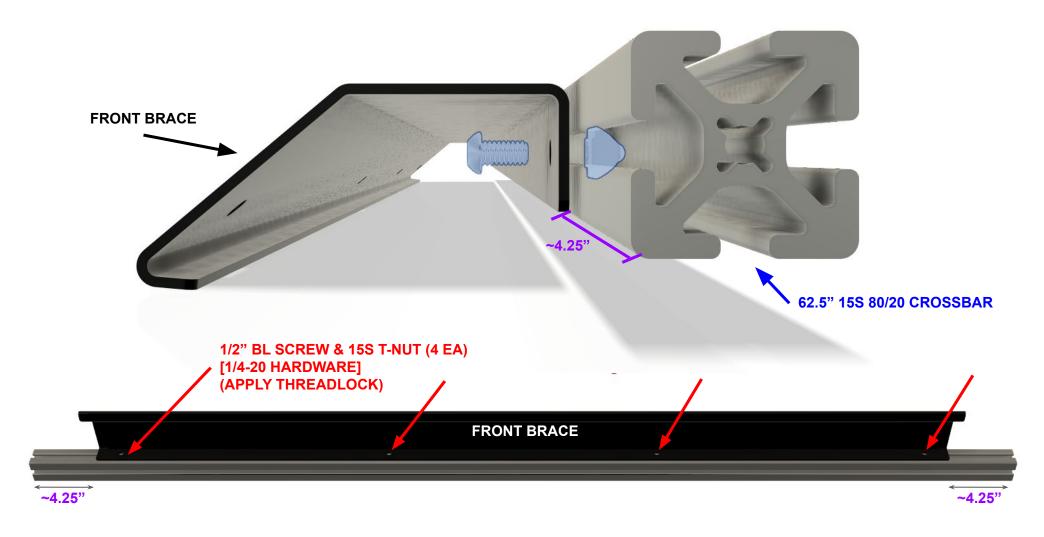
5/8" BL SCREW & 1/4 NYLON NUT (2 EA)

[1/4-20 HARDWARE] (APPLY ANTI-SEIZE)





Center (approx 4.25" on each side) and attach the FRONT BRACE to the 15S 80/20 CROSSBAR using $4x \frac{1}{2}$ " BL SCREWs and 4x 15S T-NUTs. Apply threadlock to each screw and tighten the connections.









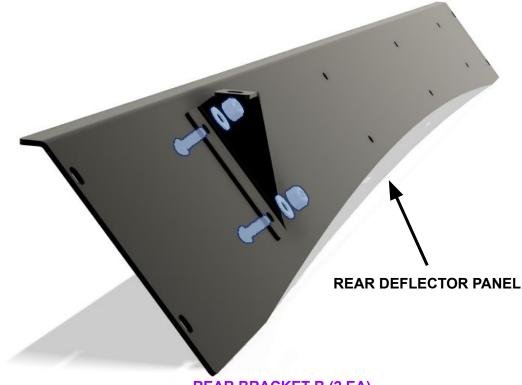






Connect the 4x REAR BRACKETs to the REAR **DEFLECTOR PANEL.** See the diagram below to determine the correct orientation and placement of the brackets. (2A & 2B).

Use 8x 5/8" BL SCREWs, 8x 1/4" FLAT WASHERS, and 8x 1/4-20 HEX NYLON NUTs to attach all four REAR BRACKETS. Make sure to apply anti-seize to each screw before tightening.



REAR BRACKET A (2 EA)



5/8" BL SCREW, 1/4" FLAT WASHER & 1/4-20 NYLON NUT (8 EA) [1/4-20 HARDWARE] (APPLY ANTI-SEIZE)

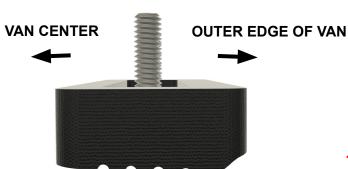


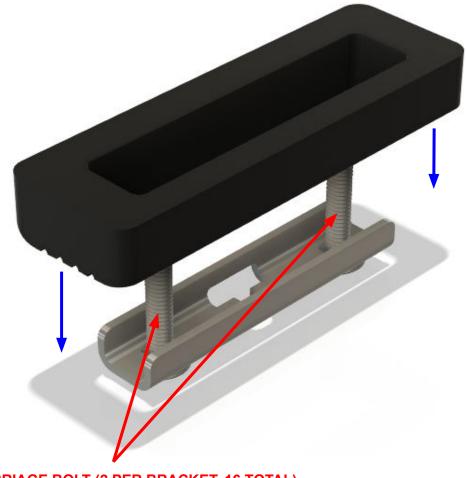


Moving to the top of the van, attach 8x ROOF ADAPTER BRACKETS to the 8 roof mounting points. (4 per side)

For each bracket:

- 1. Insert 2x 1.5" carriage bolts up through the bottom of the metal piece as pictured.
- 2. Then slide the metal bracket onto the roof connection point. (alternate the direction the brackets slide on for each bracket so... one in, one out, ect)
- 3. Slip the plastic support down over the metal bracket to hold it in place. *Make sure the flat bottom side is facing towards the van center and that the contoured edge is facing outwards so it seats niceley on the van roof. (see images)











Watch video tips for step 9 Here

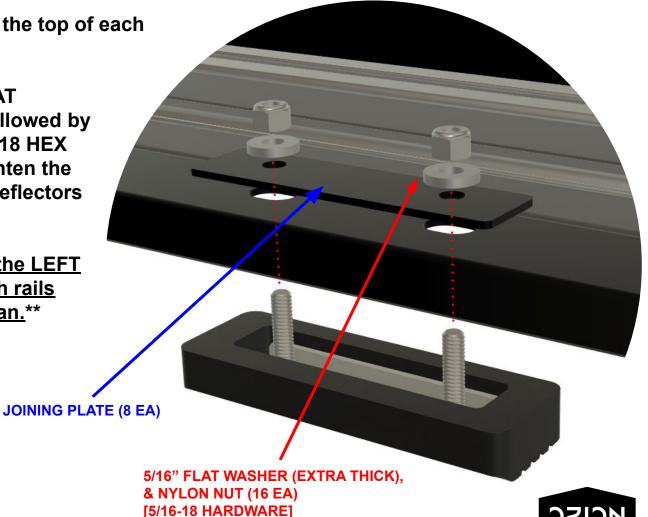
9A- Using a ladder and ideally an extra person, bring the RIGHT RAIL assembly up onto the passenger side of the van roof. Gently guide the rail over the carriage bolts of the ROOF ADAPTOR BRACKETS so the rail assembly is sitting flat on the roof.

TOP DOWN DIAGRAM Front

9B- Place 1x JOINING PLATEs over the top of each adaptor (8 Total).

9C- Add an EXTRA THICK 5/16" FLAT WASHER over each carriage bolt followed by a dab of anti-seize, and then a 5/16-18 HEX NYLON NUT. (16 of each) *Don't tighten the nuts down until the front and rear deflectors are installed.

9D- **Repeat the same process for the LEFT RAIL. Before moving to step 10 both rails should be loosely attached to the van.**



LEFT RAIL

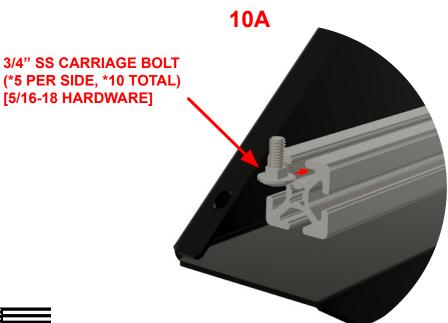
[APPLY ANTI-SEIZE]

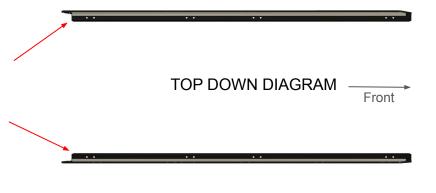


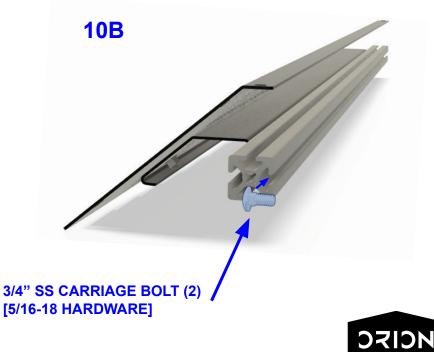
10A- Slide *5x 3/4" SS CARRIAGE BOLTs into each 80/20 SIDE RAIL (10 total). These will be used later to connect the crossbars. (Note: The carriage bolts can be inserted from the front or rear of the 80/20 side rails.)

*NOTE: IF YOU ORDERED EXTRA CROSSBARS MAKE SURE TO INSERT 1 EXTRA CARRIAGE BOLT ON EACH SIDE FOR EACH ADDITIONAL CROSSBAR PURCHASED.

10B- Slide 2x ¾" SS CARRIAGE BOLTs into the 80/20 CROSSBAR that is attached to the FRONT DEFLECTOR assembly you finished in step #6. Use the channel that faces the rear of the van.









Watch video tips for step 11 Here

With the side rails still loosely attached, slip in the FRONT DEFLECTOR assembly making sure the 80/20 portion nests inside of the side rails and on top of the length run 80/20. (easier w/ an extra person and an extra ladder)

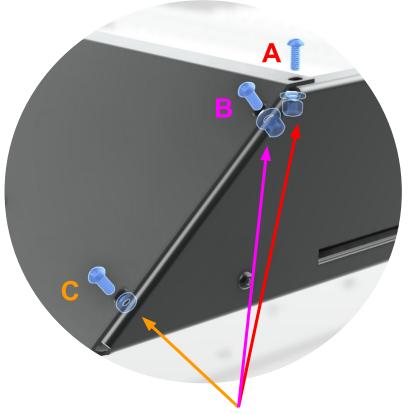
11AB- Align holes on the deflector with holes on each side rail. Starting on the driver side, insert 2x 5%" BL SCREWS, 2x 1/4" WASHERS, and 2x 1/4-20 HEX NYLON NUTs into locations labeled A and B. Apply anti-seize to each screw.

11C- Apply threadlock to 1x 5/8" BL SCREW and insert into location C.

11D- Tighten all screws.

11E- *Repeat Steps 11AB & 11C on the passenger side.





A&B: 5/8" BL SCREW, 1/4" WASHER & NYLON NUT (2 PER SIDE, 4 TOTAL) (APPLY ANTI-SEIZE)
C: 5/8" BL SCREW (*APPLY THREADLOCK) (1 PER SIDE, 2 TOTAL)

[1/4-20 HARDWARE]

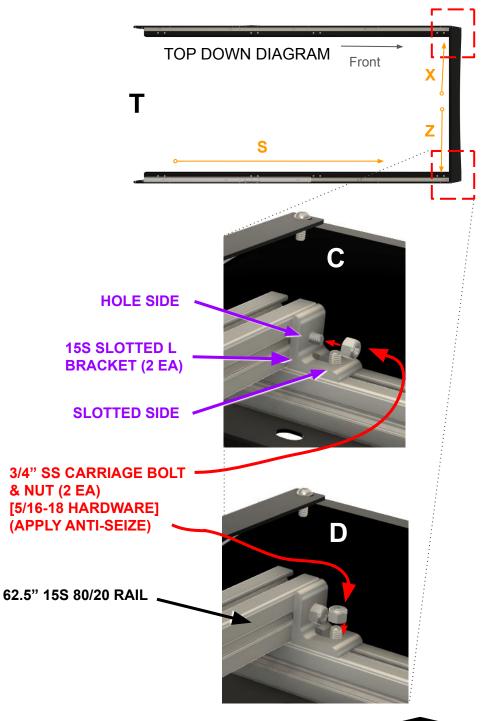


12A- Slide the two rear-facing carriage bolts (X&Z) that are already in the 80/20 channel on the front deflector assembly so they are at opposite ends and ~1/2" from the edge. Also, slide one carriage bolt (S) up along the 80/20 side rail (Fig T&C)

12B- Place 1x 15S SLOTTED L BRACKET so the hole side is up against the front deflector assembly 80/20 and the slotted side is on top of the side rail. Fit it over the two carriage bolts from step 12A. (Fig C/D)

12C- Apply anti-seize to both bolts then add 2x 5/16-18 HEX NYLON NUTs and tighten.

12D- Repeat steps 12B & 12C for the other end of the front deflector assembly so the front deflector is secure.







Watch video tips for step 13 Here

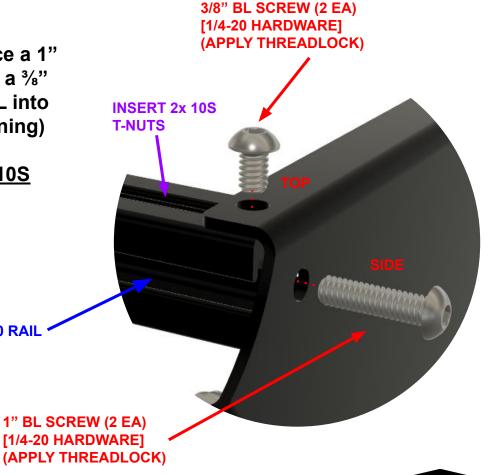
Mount the 62.6" 10S 80/20 REAR BAR to the REAR RAILS. (helps to have 2 people)

13A- Start by inserting 2x 10S T-NUTs into the top channel of the 62.6" 10S 80/20 REAR BAR. Move the crossbar onto the roof with the correct hardware & threadlock.

13B- Next, slide it into place to the holes align. Place a 1" BL SCREW through the side of the REAR RAIL and a %" BL SCREW down through the top of the REAR RAIL into one of the T-NUTs. (*apply threadlock before tightening)

13C- Repeat step 13B on the other end so that the 10S 80/20 REAR BAR is fully locked into place.









62.6" 10S 80/20 RAI

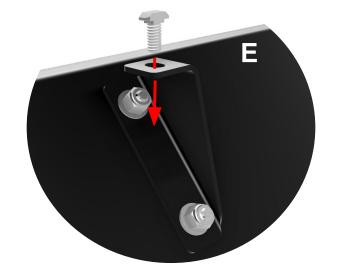
Watch video tips for step 14 Here

14A- Place 4x 10S DROP-IN STUDs into the top of the 4x REAR BRACKETs that are located on the REAR DEFLECTOR PANEL (Fig E&F).

14B- Now, raise the REAR DEFLECTOR PANEL up to the rear of the van roof. Attach to side rails first using 2x 5%" BL SCREWS, 2x 1/4" FLAT WASHERS, and 2x 1/4-20 HEX NYLON NUTs on each side (Fig G&F). Apply anti-seize and repeat on the opposite side.







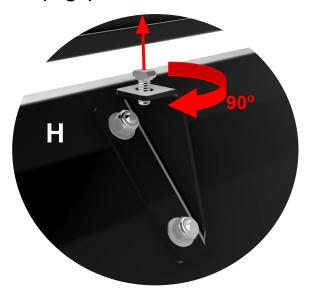


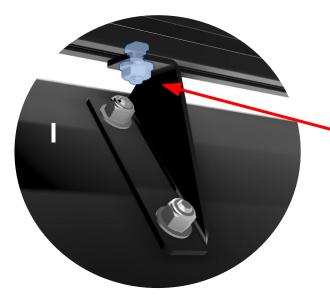


Watch video tips for step 15 Here

15A- Slip the 4x 10S DROP-IN STUDs up into the REAR BAR 80/20 channel. Give the studs a quarter turn to lock them into place (Fig H). Apply anti-seize, 1x ¼" FLAT WASHER, and 1x 1/4-20 HEX NYLON NUT to secure all 4 studs. (Fig I)







10S DROP-IN STUD, 1/4" FLAT WASHER & HEX NYLON NUT (4 EA)
[1/4-20 HARDWARE]
(APPLY ANTI-SEIZE)

15B- Ensure that both sides of the full rack are symmetrically aligned and adjust if needed. Then tighten all 16 roof adapter connections.

Remember to alternate tension so adaptors remain flat on the roof.

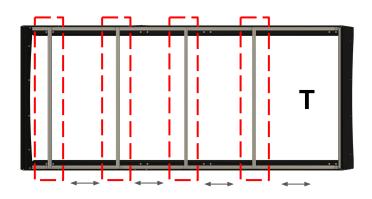






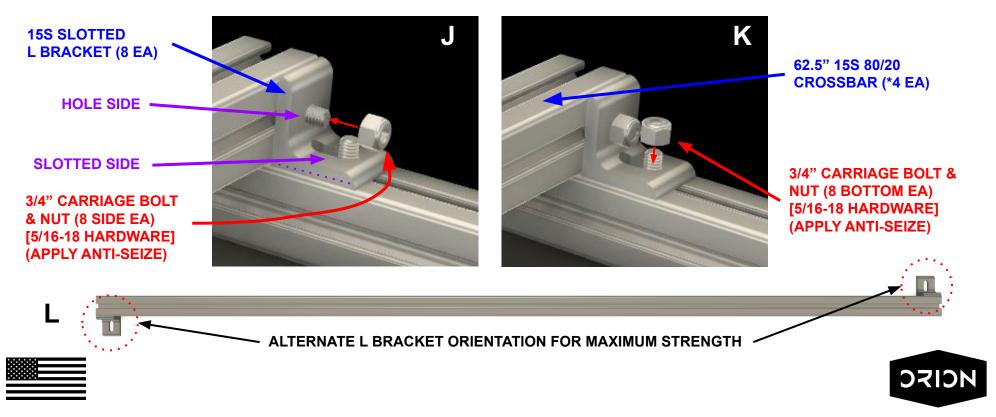
16A- Insert 2x ¾" CARRIAGE BOLTs into the same channel of each end of the remaining *4x 80/20 CROSSBARs for connection to the 15S SLOTTED L BRACKETs (Fig L). [*8 Total]

*IF YOU ORDERED EXTRA CROSSBARS INSTALL NOW W/ HARDWARE



16B- Next, slide *8x carriage bolts (4 per side) that are already inside the side rails to the approx locations you where want each crossbar to be mounted (Fig T). *This will be different for everyone.

16C- Secure the crossbars using 8x 15S SLOTTED L BRACKETs on alternating sides as illustrated in (Fig L) except for the crossbar that's already connected to the front brace as prescribed in step 12. Center the crossbars so neither end touches the powder coated side panels. Apply anti-seize, then add 2x 5/16-18 HEX NYLON NUTs and tighten (Fig J/K).



Watch video tips for step 17 Here

Connect 5x GUSSETs to each side panel assembly (10 total, Fig T). Each GUSSET has two possible mounting locations to allow crossbars to be optimally configured for any roof layout. See the mounting locations by looking on the top edge of the side rail's (Fig L). GUSSETs are directional and should be placed so the curved edge faces the center of the van and the metal tabs face rearward (Fig M&N).

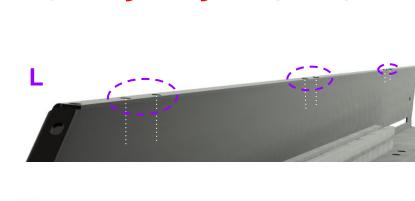
17A- At each GUSSET location, insert 1x 15S T-NUT into the top channel of the 80/20 (Fig T) so it's directly underneath the hole in the side panel (Fig L).

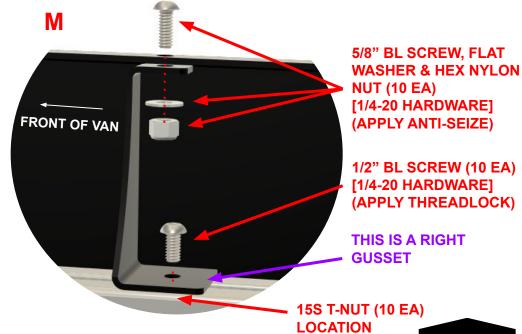
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17B- Attach each GUSSET using 1x %" BL SCREW, 1x ¼" FLAT WASHER, and 1x 1/4-20 HEX NYLON NUT on the upper connection (apply anti-seize). On the lower connection apply threadlock before inserting 1x ½" BL SCREW. Tighten. (Fig M)

17C- Repeat 17A & 17B for the remaining 9x GUSSETs.





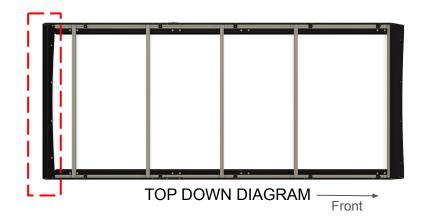


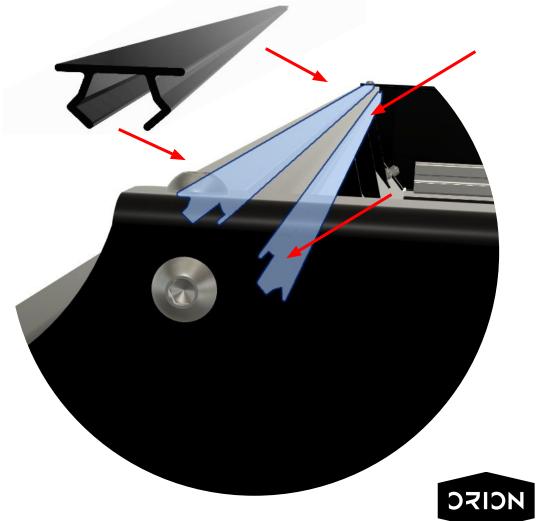


Almost done!

18A- Snap the 2x PLASTIC 10S 8020 COVERs into the rear 10S 8020 REAR BAR to enhance aerodynamics and reduce wind noise. We recommend using the covers on the channel that faces the sky and the channel that faces the front of the van. *Note:* use utility knife to trim if too long

18B- 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.







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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!





