



# Tire/Box Rack Installation Instructions

P/N 210719: 07-18 Mercedes Sprinter Rear Door Tire/Box Rack, Driver Side

## Before you begin:



- *Stainless steel (SS) hardware may bind together when tightening — apply an anti-seize assembly lubricant to the threads of each SS bolt before assembly.*
- *Do NOT use an impact gun if this symbol is shown – doing so may strip or cross-thread bolts.*
- **Maximum load capacity is 100 lbs on rack while travelling**
- *Unless otherwise specified, refer to the general torque value at the end of the instructions for specified torque values.*

## Required Tools:

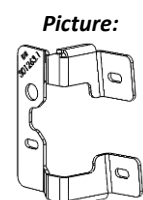
- Standard and metric wrench set
- Standard and metric socket set
- Torx bit set
- Isopropyl Alcohol
- Baby Soap or Dish Soap
- Clean Rag
- Painter's Tape (optional)
- Spray Bottle (optional)
- Heat Gun or Blow Dryer (optional)

## Included Hardware:

P/N	Description	Quantity
70024	3/8"-16 Nylock Nut	3
70028	3/8" ID Washer	5
70031	Bolt, Hex Head, SS, 3/8-16 x 2"	1
70271	3/8"ID, Internal Tooth Lock Washer	1
70344	5/16"-18 x 1" Button Head Bolt, BLACK OXIDE, SS	4
70345	5/16" ID Washer, BLACK OXIDE, SS	8
70346	5/16"-18 Nylon-Locking Nut, BLACK OXIDE, SS	4
70348	3/8" x 1-1/4", SS, Carriage Bolt	2
70480	3/8"-16 x 5" Bolt, Hex Head Cap, Fully Threaded, Zinc	1
70219	M8-1.25 x 40mm, Fully Threaded, SS, Hex Head Bolt	4
70111	5/16" Split Washer	4
400999	Impact Resistant Protective Tape	12"
70478	Bolt, 1/4"-20 x 1/2", Tamper-Resistant, SS	4
70479	Bit, 5/32" hex, tamper-resistant	1
70246	Antiseize Bolt Lubricant Packet, 2g	1

## Additional Parts:

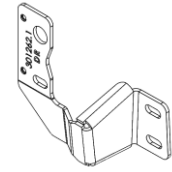
Part Number:	Description:	Quantity:
301263.1 / 350649	Upper Hinge Bracket, Driver	1 ea.





301262.1 / 350651 Lower Hinge Bracket, **Driver**

1 ea.



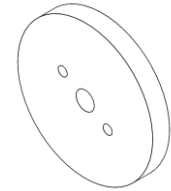
300997 Door Backing Plate

1 ea.



350697 Door Backing Plate

1 ea.



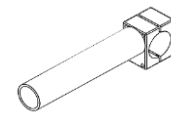
301258 M8 Machined Spacer

2 ea.



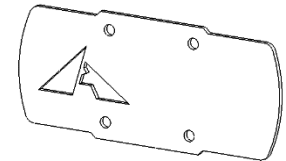
350662 Bolt-On Tire/Box Support (preassembled)

2 ea.



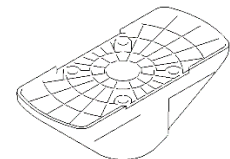
301620 Universal Tire Mount, Wheel Wedge Cover

1 ea



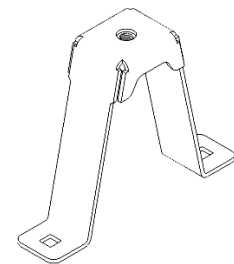
301629 Universal Tire Mount, Wheel Wedge

1 ea



351133 Universal Tire Mount, Bracket

1 ea



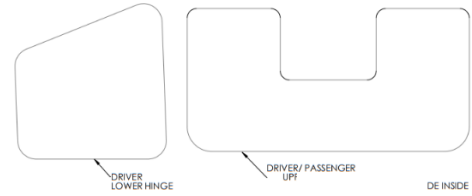


Figure 2: Template Examples (See End of Instructions for 1:1)

**Tire Rack Installation:**

**Protective Tape Application:**

1. Cut the supplied protective tape into shape using the templates at the end of the installation instructions to provide additional protection for the door. Each bracket is designed to contact only at the door edges, but enough protective tape is provided to cover the entire overlapping area. Make sure that the sticky side is oriented correctly while cutting and applying (white backing towards vehicle). Reference Figure 1 & 2.
2. Dry-fit the corresponding brackets around the door in each location to find the desired position for the protective tape on the vehicle. Use painter's tape to outline application area of protective tape if desired.

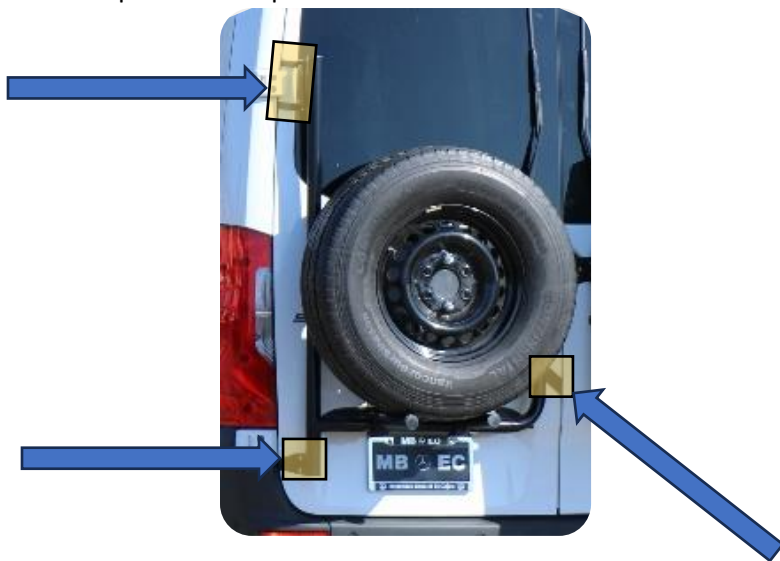


Figure 1: Protective Tape Locations on Door

3. Apply the protective tape to each location, one at a time, using the method described below (wet application technique).
4. Prepare the surface for protective film application:
  - a. Clean the area around each hinge with isopropyl alcohol and rag.
  - b. Wash your hands thoroughly.
  - c. Do not apply in direct sunlight
  - d. Apply in temperatures above 60°F.
5. Spray the surface thoroughly with water and do not wipe down the surface.
6. Remove the liner from the protective tape while spraying the adhesive side with water.
7. Apply the protective tape to the outside of the door at either the upper hinge, lower hinge, or center latching location. On the hinge side of the door, leave approximately ½" of tape overhanging to be wrapped around the edge of the door (contact zone). Leave the tape overhanging for now.
8. Squeegee all air bubbles out starting at adhered edge. Press with your fingers first, and squeegee only if needed.
9. Wrap remaining protective tape around the door edge.
10. The adhesion process can be sped up by creating a 3:1 water-alcohol solution (3-parts water, 1-part alcohol) and spraying between the door and tape (lift section up and spray adhesive side).
11. If desired, use a heat gun or blow dryer to conform the tape to curved areas further.



**Bracket Installation:**

12. Install the upper hinge bracket by:

a. Remove only the lower torx bolt, *on the door*.



b. Fit the upper hinge bracket over the hinge.



c. Rotate into place.



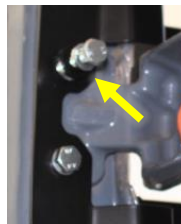
d. Fit the bracket over the upper torx bolt and rotate into desired position. Make sure the bracket is not contacting the sheet metal on the other side of the door, at either the top or the bottom of the bracket.



e. Install a M8 bolt and 5/16" split washer into the bottom hole. Tighten the bolt to ~17 ft-lbs (23 Nm).



f. Remove upper torx bolt and install **M8 machined spacer**. Install M8 Bolt (PN 70219).



g. Tighten down second bolt to ~17 ft-lbs (23 Nm)



13. Install the lower hinge bracket following the same procedure detailed in Step 12 and by installing over the hinge from the bottom up. Reference Figure 3.

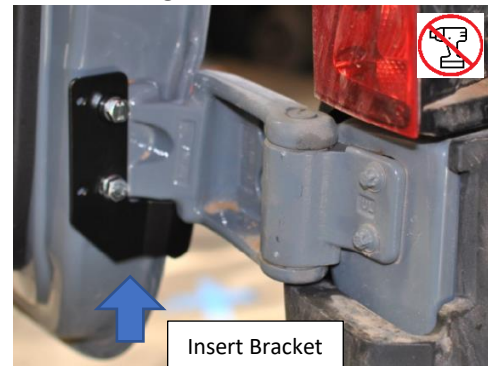


Figure 3: Lower Bracket Installed

**Tire Rack Installation:**

14. Remove door panel rivets to gain access to door magnet hardware. (See Figure 4)



Figure 4: Magnet Hardware

15. Remove nut that secures factory door magnet and set parts aside.

16. Install the rack using the provided hardware, keeping in mind the following:

- a. **Be sure to apply anti-seize on all bolts prior to threading on nut fasteners.**
- b. Loosely install all bolts through the mounting locations before tightening to ensure proper alignment.



- c. Use the 5/16-18 x 1" bolts for the upper and lower hinge brackets and the 3/8" bolt for the door mount.
- 17. Use the inner door bracket and door backing plate when installing the center mount (reference Figure 5 & 6).

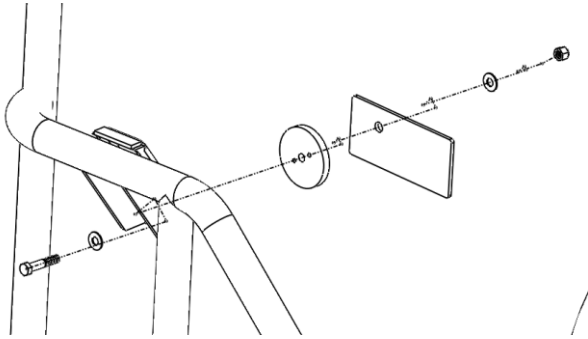


Figure 5: Center Mount Hardware Assembly (No Door Shown)

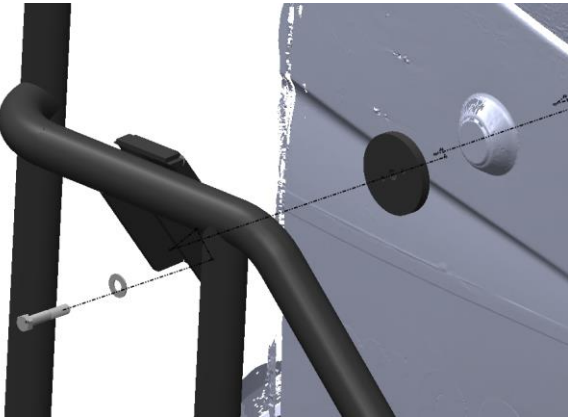


Figure 6: Center Mount Hardware Assembly (Outside of Door, Magnet Not Yet Removed)

- 18. Verify rack frame is in correct position and tighten 3/8" nut and bolt first. Proceed to tighten door hinge brackets last.
- 19. With all bolts tightened, verify the hinge brackets have appropriate clearances with the body while slowly opening and closing both rear doors. Adjust as needed.
- 20. Reinstall door panel from Step 14.

**Tire Rack Installation:**

- 21. Install your vans Aluminess Rear Door Ladder per the separately provided installation instructions.
- 22. Loosely install the bolt-on tire/box supports onto the bottom crossmember of the rack as shown in Figure 1.



Figure 7: Bolt-On Supports Loosely Bolted to Lower Crossmember

- 23. Starting with support closest to tail light – sliding support as close to the tail light as possible and then rotate into desired position and tighten.

PRO TIP: Reference Figure 2 for suggested mounting orientation.

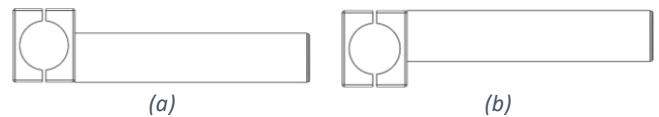


Figure 8: Suggested Orientation for Tire (a) and Box (b)

- 24. Repeat for the support opposite the center post, being sure that the spacing is equal from the center post, and the orientation is the same for both supports.
- 25. Loosely fasten the Tire Mount Bracket to the slotted channel, going through the bracket first, using the 3/8" carriage head bolts, washer, and nuts to mount. Reference Figure 9.

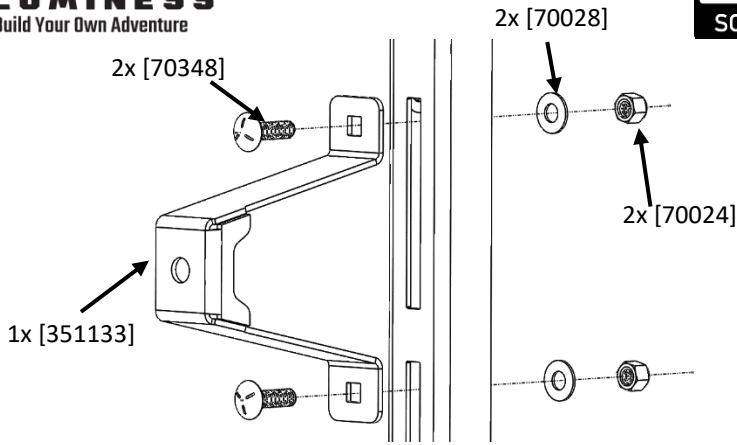


Figure 9: Mounting Tire Bracket

26. Place the mounting bracket in the correct location by placing your tire on the tire supports and then adjusting the bracket vertically until the center hub aligns with the center of the bracket.
27. Once the bracket is in place remove the tire and tighten the hardware holding the bracket in place.
28. Place the tire on the support stands and mount the wheel wedge, using the 5" hex head bolt, washer and star washer. Reference Figure 4 and 5.

**NOTE: Tighten down bolt until snug with wedge (it should be very hard/near impossible to rotate the wedge by hand. Once at this point tighten 2 more full rotations.**

**Note: Preferred torque is 70 inch pounds**

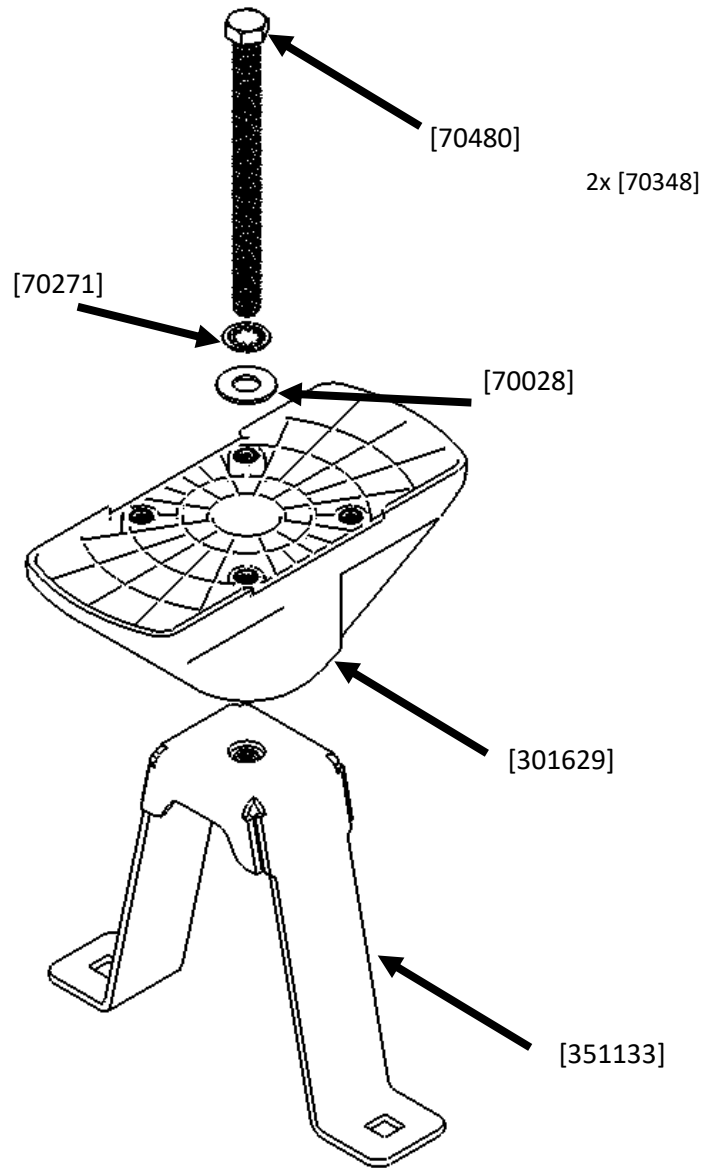


Figure 4: Wheel Wedge Assembly



Figure 5: Tire Mount Assembled

29. [Optional] If desired, you can mount a Rotopax to the wheel wedge. After installing the cover [Step 30], bolt the rotopax mount through the wheel wedge cover to the wheel wedge using the security bolts [70478], as shown below in figure 6. Then simply install the rotopax onto the mount.



Figure 6: Rotopax Mount

30. Once everything is securely fastened, bolt the cover to the wheel wedge using the included special bit [70479], and bolts [70478]. Reference Figure 7.

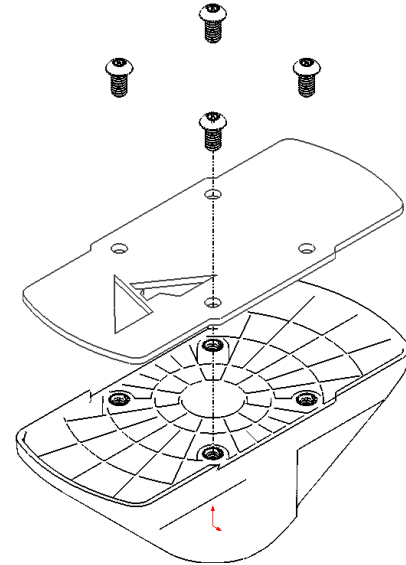
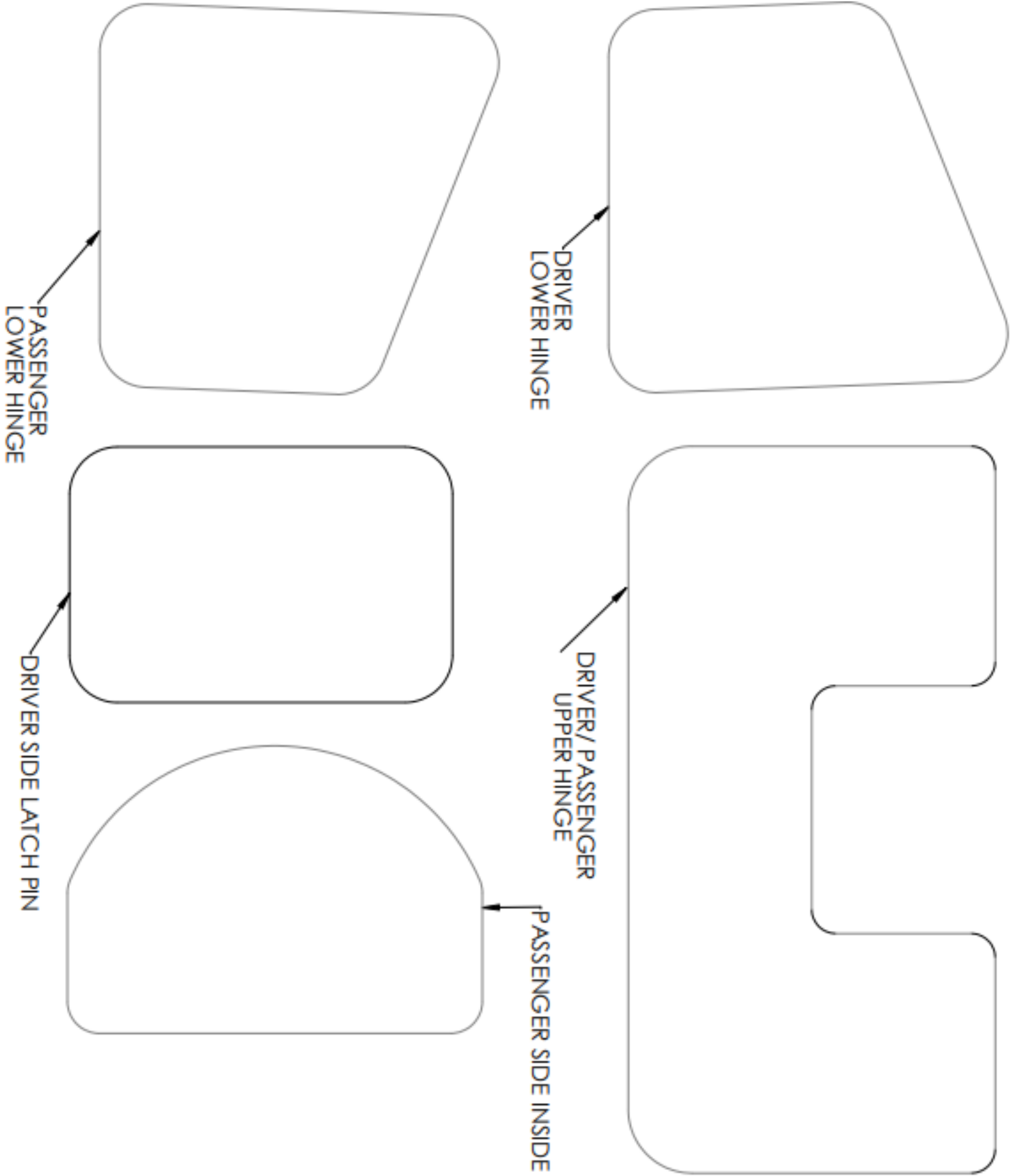


Figure 7: Wheel Wedge Cover Mounting

- 31. Check mounting hardware after first 100 miles of driving and periodically after to verify hardware has not become loose from vibration.
- 32. Your new Aluminess tire rack is now installed, enjoy!







<b>General Torque Values</b>			
<b>Size</b>	<b>Stainless Steel</b>	<b>Zinc</b>	<b>Grade 8</b>
#6-32	10 lb-ft	--	--
#8-32	18.4 lb-ft	--	--
#10-32	26.6 lb-ft	--	--
1/4"-20	5.3 lb-ft	7.8 lb-ft	9 lb-ft
5/16"-18	10.9 lb-ft	16 lb-ft	18 lb-ft
3/8"-16	19.4 lb-ft	28.3 lb-ft	33 lb-ft
7/16"-14	31 lb-ft	45 lb-ft	52 lb-ft
1/2"-13	47 lb-ft	69 lb-ft	80 lb-ft
M6	4.7 lb-ft	5.8 lb-ft	--
M8	11.3 lb-ft	14.1 lb-ft	--
M10	22.3 lb-ft	27.9 lb-ft	--
M12	38.9 lb-ft	48.7 lb-ft	--



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