



Ladder Installation Instructions

P/N 210587, 210587.1: 07-18 Mercedes Sprinter Rear Ladder, Driver Side, Low Roof & High Roof

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**
- *Use the Aluminess Bolt-On Box/Tire Carrier (PN 210574) for mounting a tire or box (sold separately).*
- *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	1
70028	3/8" ID Washer	2
70031	Bolt, Hex Head, SS, 3/8-16 x 2"	1
70344	5/16"-18 x 1" Button Head Bolt, BLACK OXIDE, SS	4
70345	5/16" ID Washer, BLACK OXIDE, SS	8
70219	M8-1.5 x 40mm, Fully Threaded, SS, Hex Head Bolt	4
70346	5/16"-18 Nylon-Locking Nut, BLACK OXIDE, SS	4
400999	Impact Resistant Protective Tape	12"
70246	Anti seize Bolt Lubricant Packet 2g	1
70111	5/16 Split Washer	4



Additional Parts:

Part Number:	Description:	Quantity:	Picture:
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.	

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

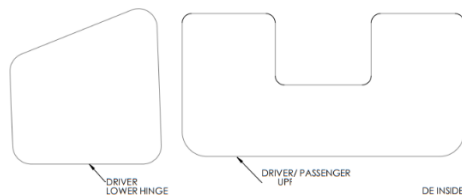


Figure 2: Template Examples (See End of Instructions for 1:1)

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.

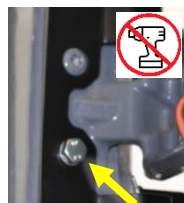




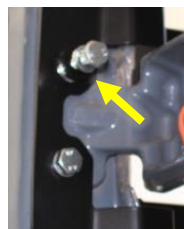
d. Fit the bracket over the upper torx bolt and rotate into desired position. Make sure the bracket is not contacting the sheet metal on the other side of the door, at either the top or the bottom of the bracket.



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**. Reinstall factory torx bolt.



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.

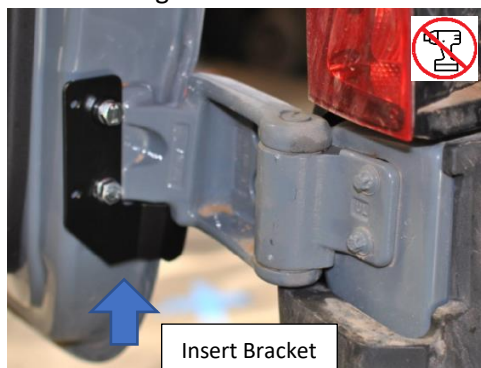


Figure 3: Lower Bracket Installed

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).

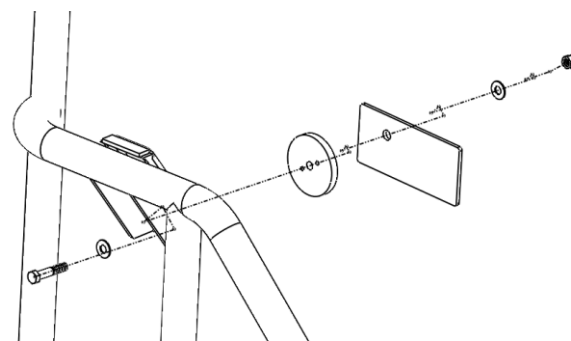


Figure 1: Center Mount Hardware Assembly (No Door Shown)

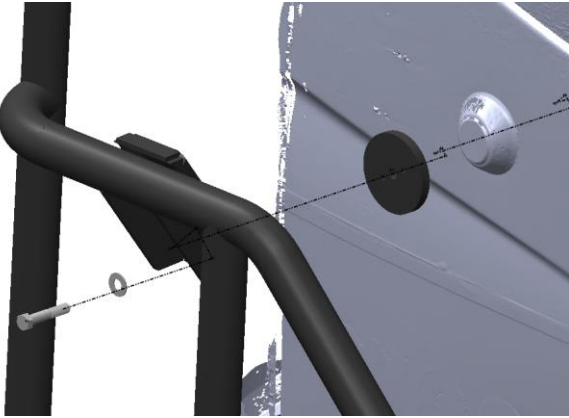
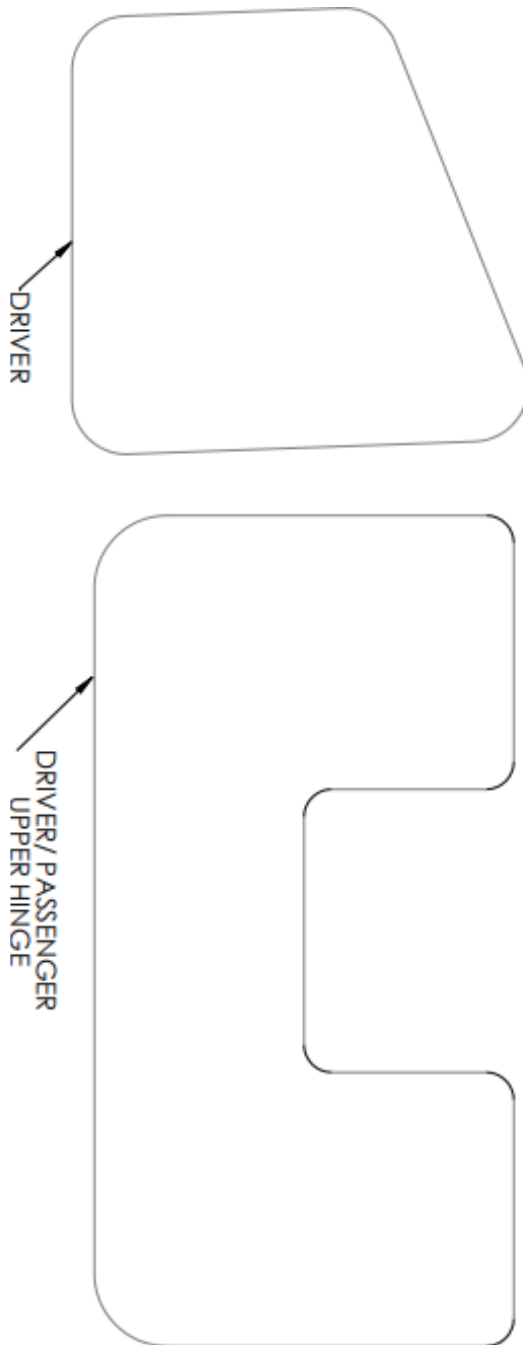


Figure 2: Center Mount Hardware Assembly (Outside of Door, Magnet Not Yet Removed)

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.
21. Check mounting hardware after first 100 miles of driving and periodically thereafter.
22. Your new Aluminess tire rack is now installed, enjoy!





General Torque Values			
Size	Stainless Steel	Zinc	Grade 8
#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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