



# Ladder Installation Instructions

P/N 210708: 2007+ Mercedes Sprinter Penthouse Ladder

## Before you begin:

- *Stainless steel hardware may bind together when tightening — apply an anti-seize assembly lubricant to the threads of each bolt before assembly*
- *Over tightening bolts can cause the hardware to break due to excessive force. When tightening, be sure to apply only the recommended torque.*
- **Lower attachment bracket (PN: 350558) will not be covered under warranty. Replacements can be ordered for additional cost.**
- *The ladder is designed to fit in front of the rear wheel on the driver's side of the van.*
- *Unless otherwise specified, refer to the general torque value at the end of the instructions for specified torque values*



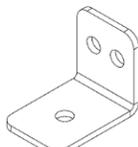
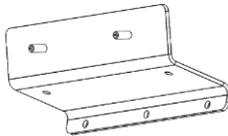
## Required Tools:

- Standard and metric wrench set
- Standard and metric socket set
- Standard hex key (Allen wrench) set
- Drill with drill bits

## Included Hardware:

<b>P/N</b>	<b>Description</b>	<b>Quantity</b>
70008	¼"-20 Nylon-Locking Stainless Steel Nut	7
70009	¼"ID Stainless Steel Washer	12
70019	5/16"-18 Nylon-Locking Stainless Steel Nut	2
70020	5/16" ID Stainless Steel Washer	2
70060	¼"-20 x 1" Stainless Steel Button Head Screw	3
70094	¼"-20 x 3/4" Stainless Steel Button Head Screw	2
70201	5/16"-16 x 1" Stainless Steel Socket Cap Screw	2
70231	#14 x 1.5" Stainless Steel Self-Drilling Screw	4
70246	Antiseize bolt lubricant packet, 2g	1

## Additional Parts:

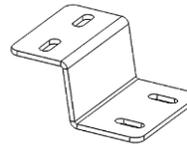
<b>Description</b>	<b>Quantity</b>	<b>Picture</b>	<b>Part Number</b>
Upper Attachment "L" Brackets	2		350567
Lower Attachment Bracket	1		350558



"S" Mounting Bracket

2

350569



**Ladder Installation:**

NOTE: If you purchased an accompanying pair of nerf bars, it is easier to install the **ladder** first.

**Upper Attachment Installation:**

1. Assemble the "S" brackets and "L" brackets together and bolt them to the top of the ladder as shown in Figure 1.
  - a. Bolt the "L" bracket to the top of the ladder, facing the center of the ladder using the 5/16" socket cap screw, washer, and nut.
  - b. Bolt the "S" bracket to the bottom of the "L" bracket using the 1/4"-20 x 3/4" bolts. Ensure the holes remaining on the "S" brackets are perpendicular to the vehicle direction for final adjustment during fastening (reference Figure 1). **BE CAREFUL** to not over tighten and make sure to apply anti-seize to the screws.

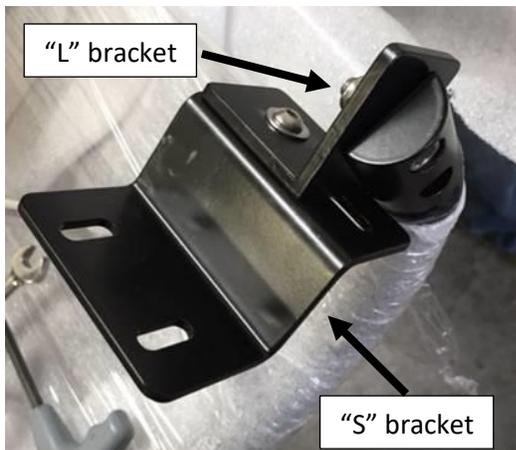


Figure 1: Upper Attachment Assembly

4. Temporarily remove the ladder and apply a generous amount of silicone to the underside of each "S" bracket. Line up the brackets with the marks on roof and hold in place.
5. Use the self-drilling screws to attach the mounting brackets to the roof. Make sure that silicone oozes out from all sides of the bracket to ensure a good seal. If you do not see silicone ooze out of all sides, make sure to apply a bead of silicone around the edge for proper sealing. Reference Figure 2.



Figure 2: Upper Attachment Assembly Installed into the Roof Gutter

2. Pop up the penthouse top to expose the gutter for mounting. Hold the ladder up against the van to find desired location.
3. Using the "S" bracket as a template, mark the location in the gutter of where the mounting surface of the brackets will be.

6. Seal the screw head with silicone to prevent water working down the threads of the screws.
7. Close any gaps around the screw heads and brackets with additional silicone as needed.
8. Allow the silicone to completely dry before attempting to close the penthouse top.

**Lower Bracket Installation:**

9. With the ladder attached at the top, locate the desired position of the lower attachment bracket. Ensure the ladder is straight compared to the vehicle before finalizing lower bracket placement.
10. Hold the lower attachment bracket up to the vehicle body using C-clamps or spring clips. Be sure to align the bottom three holes with the pinch weld.



Figure 3: Lower Bracket Installation

11. Using a 1/4" drill bit, make three holes through the pinch weld using the bracket as a template for alignment.
12. Install the 1/4" button head screws, washers, and nuts into the drilled holes. NOTE: **BE CAREFUL** to not over tighten and make sure to apply anti-seize to the screws.
13. Place ladder against lower attachment bracket making sure the bottom of the ladder aligns over the threaded studs.
14. Install 1/4" washers and nuts onto the threaded studs.
15. While applying downward pressure to the ladder, tighten the 1/2"-20 nuts fixing the ladder in place.

NOTE: **BE CAREFUL** to not over tighten and be sure to apply anti-seize to threaded studs.



Figure 4: Lower Bracket Tightening Technique.

1. Visually inspect the position of the ladder—if satisfied, tighten down the top bolts to 6 ft-lbs. of torque for the 1/4" hardware and to 11 ft-lbs of torque for the 5/16" hardware.
2. Check all fasteners for fitment after 50 miles of driving, and every 1000 miles afterwards. 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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