



Tire Rack INSTALLATION INSTRUCTIONS
2007-2016 Mercedes SPRINTER

Please read before beginning

- *Stainless steel hardware may bind together when tightening—It is recommended that you apply an anti-seize assembly lubricant to the threads of each bolt before assembly*
- *This installation requires two people*

Required tools

- Standard and metric wrench set
- Allen wrench set
- Torx-head (5 point star) wrench set
- Flat-head screwdriver (used to remove stock plastic fasteners)
- Phillips-head Screwdriver



Included hardware

Quantity

- | | |
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| • Steel mounting brackets | |
| ○ Sprinter Rack Base and Swing arm Assembly | 1 |
| ○ 70090—7/16-14 x 3-3/4 Hex head bolts | 4 |
| ○ 70056---7/16-14 Nylock Nuts | 4 |
| ○ 70057---7/16 Flat Washers | 8 |
| • Upper Latch Assembly | |
| ○ Door Latch Pin | 1 |
| ○ Door Latch Pin Circle Plate | 1 |
| ○ Inner Door Plate | 1 |
| ○ 70030—3/8-16 x 1.5" Countersunk Head Bolt | 1 |
| ○ 70024---3/8-16 Nylock Nuts | 1 |
| ○ 70028---3/8" Flat Washers | 1 |
| ○ 70009---1/4" Washer | 2 |
| ○ 70223—1/4-20 x .5" Button Head | 2 |
| • 350163 - SUPPORT BRACKET | 1 |
| • 70022 - BOLT, Hex head cap screw 5/16-18 x 1" | 2 |
| ○ 70020 - WASHER, 5/16 | 4 |
| ○ 70019 - NUT, Nylon insert locking 5/16-18 | 2 |
| • 70059 - U-BOLT, 3/8-16 x 2 | 1 |
| ○ 70028 - WASHER, 3/8 | 2 |
| ○ 70024 - NUT, Nylon insert locking 3/8-16 | 2 |
| • 70011 - BOLT, Hex head cap screw 1/4-20 x 3/4 | 1 |
| • 70228- BOLT HEX HEAD 8.8, M14 X 1.5 ZINC x 75mm Full Thread | 1 |
| • 70213 - Washer, Self Retaining, 1/2" | 1 |



Assembly instructions

1. Your Aluminess Tire Rack will most likely ship disassembled. Assemble the rack system by placing one of the bearings on the base shaft. Place the Swing arm on the shaft and insert the second bearing. Place the washer on the bearing and tighten down with the locknut.
2. With someone assisting you by holding up the trailer hitch and tire rack, mount the tire rack to the frame using the 7/16" Bolts. If your Sprinter has the factory backing plate you can retain it and use it with the washers on the inside of the frame
 - a. Some sprinters have only 3 bolts supporting the hitch in which case a 4th hole will need to be drilled. Fasten down the provided bolt for this additional hole that needs to be drilled.



Figure 2: Aluminess Hitch with Factory Backing Plate

3. Make sure the Tire Rack is slid as far to the rear of the vehicle as possible. You will also need to keep the bolts loose at this time so that the tire rack can pivot forward and back (or to and from the door of the van).
4. You will now remove the interior door panel on the back door to gain access to the magnet mounting bolt. To do this gently pry around the corners of the plastic to pop it off the fasteners.
5. With the door panels removed you will have access to the door magnet bolt on the Driver Side. Remove the door magnet and replace it with the supplied Aluminess Latch Pin Mounting Plate that has the countersunk hole in the middle of it. It helps to have the latch pin attached to the mounting plate so you can align the pin horizontally when installing it on the door.
6. Once the latch pin is sitting horizontal you can snug the 3/8" bolt on the inside of the door.
7. You can now put the door panels back on the van door. If any of the fasteners were left in the door you will need to remove them and slide them into the door panel slots before you can snap the door panel back on.





8. With the Latch Pin in place on the door you can close the van doors and close the swing arms on the tire rack. Make sure the lower latch is fully closed. There are 2 “clicks” on the latch.
9. Make sure the latch pin is loose on the Latch pin mounting plate so that it can slide up and down.
10. You can now pivot the tire rack towards the van until the latch on the swing arm engages with the latch pin on the door. Once the latch is engaged with the latch pin the tire rack is aligned correctly.
11. You can now tighten all of the 7/16” bolts that hold the tire rack to the frame.



Support Bracket Installation

12. In order to mount the support bracket, first remove the circular plastic insert so that a hole is exposed as shown in Figure 1 to the right
13. Put the support bracket (black rectangular piece seen in image to the right) up against the rectangular 2”x2” steel tube on the tire rack base
14. Put the U-Bolt around the 2”x2” steel tube and through the holes in the support bracket with washers and hand tighten the nuts on as shown in Figure 2
15. Bolt a tire onto the rack in order to make adjustments in the next steps
16. Slide the support bracket against the side of the vehicle toward the driver’s side of the van.
17. Have one person hold the tire rack in position by pushing it toward the vehicle so the rubber contact is compressed on against the magnet on the door as shown in **Error! Reference source not found.**
18. If needed use a hydraulic floor jack to push up on the 2”x2” square tube and keep it located to the door magnet
19. While holding the tire rack so the contact is against the magnet, use a small drill bit to drill a pilot hole through the two holes already in the support bracket and through the sheet metal on the side of the van, then use a 5/16” drill bit for the final hole
20. Install the 5/16-18 x 1 bolts with washers and fasten with nylon locking nuts facing toward the center of the vehicle
21. With the rubber contact still pressed firmly against the magnet, tighten down the four bolts that go through the frame, the two bolts in the support bracket, and



Figure 1: Support bracket installed on vehicle



Figure 2: U-bolt installed on 2x2” tube



the U-bolt

22. Tighten the 3/8-16 x 1 1/4" hex bolt which runs through the bent mounting bracket and the backing plate
23. If you have a hitch and/or a step, drill a 1/4" pilot hole through the lower hole already cut in the bent mounting bracket and through the side of the hitch, then use a 3/8" drill bit for the final hole
24. Install a 3/8-16 x 1 1/4" bolt with a washer on both sides and fasten with a nylon locking nut
25. If there is a gap between the bent mounting bracket and the step or hitch use the supplied 3/8 thick washers as a spacer
26. can slide it back and forth on the square tube. Slide the bracket up against the body of the van.
27. With 7/16" bolts tightened, the tire rack is now locked in place. You can open the swing arm and tighten the latch pin that is mounted to the door.
28. It is important to keep the latch holding the swing arm to the door when the vehicle is in motion. This upper support helps keep everything stable and solid.
29. The tire rack is now installed—check the mounting hardware after 100 miles of driving to insure that nothing has come loose due to vibration