



# Front Bumper Installation Instructions

P/N 210620; 210620.1; 210620.2: 2019+ Mercedes Sprinter Front Bumper

## Before you begin:

- This product is compatible with the Sprinter 1500, 2500, and 3500. However, 3500s may require specialized tooling and/or additional hardware.
- Stainless steel hardware may bind together when tightening — apply an anti-seize assembly lubricant to the threads of each bolt before assembly
- This installation requires two or more people
- Unless otherwise specified, refer to the general torque value at the end of the instructions for specified torque values.



## Required Tools:

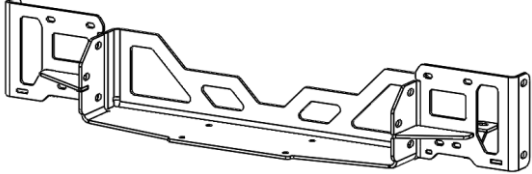
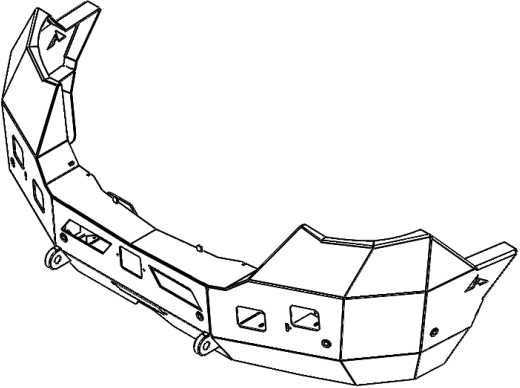
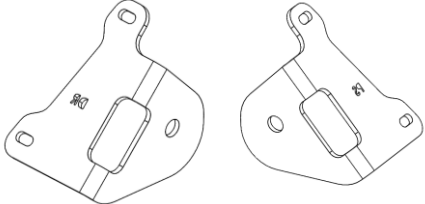
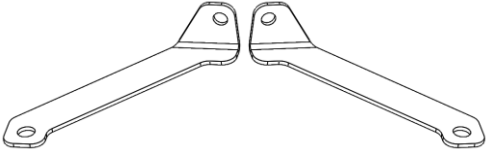
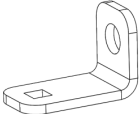
- Standard and metric wrench set
- Standard and metric socket set
- Torx wrench/bit set
- Flat head screwdriver
- Hammer
- Putty knife
- Razor blade or box cutter
- Painter's masking tape

## Included Hardware:

<b>P/N</b>	<b>Description</b>	<b>Quantity</b>
70124	M8-1.25 x 40mm, Fully Threaded, Zinc, Hex Head Bolt	8
70101	M8-1.25 Nut	8
70020	5/16" SS washer	8
70111	5/16" split locking washer	16
70036	½"-13 x 1- ½" grade 8 bolt	8
70035	½" Washer	12
70106	½" Split Washer	6
70033	½"-13 nylon-locking nut	4
70060	¼"-20 x 1" button head bolt, SS	4
70723	¼"-20" x 5/8" carriage bolt, SS	1
70009	¼" ID Washer	9
70008	¼"-20 nylon-locking nut	4
70007	¼"-20 nylon-locking nut, THIN	1
401044	O-ring, ¼" ID x 3/8" OD	1
70246	Antiseize bolt lubricant packet, 2g	1



**Additional Parts:**

<i>PN</i>	<i>Description</i>	<i>Quantity</i>	<i>Picture</i>
301289	Steel Winch Tray	1	
301290	Aluminum Front Bumper	1	
301291.1 & 301291.2	Fender Support Brackets: Driver's and Passenger's Side	1 L / 1 R	
301291.3 & 301291.4	Plastic Support Brackets: Driver's and Passenger's Side	1 L / 1 R	
301291.5	Air Temperature Sensor Bracket	1	

**Stock Bumper Removal:**

1. Open and secure the hood.
2. Remove the three (3) torx screws across the top of the grille; reference Figure 1.



Figure 1: Grille Screws

3. Pull the grille slightly away from the vehicle and unclip the grille in the six (6) indicated locations (see Figure 2 & 3). Once all tabs have been released, the grille can be removed.



Figure 2: Grille Tab Locations



Figure 3: Grille Tab Close Up

4. Unclip front camera from grille if applicable.
5. Remove the torx bolt near the top of the stock bumper on both sides seen with the grille removed. \*Some Sprinter models may have additional hex bolt in recessed hole that will also need to be removed. Reference Figure 4.

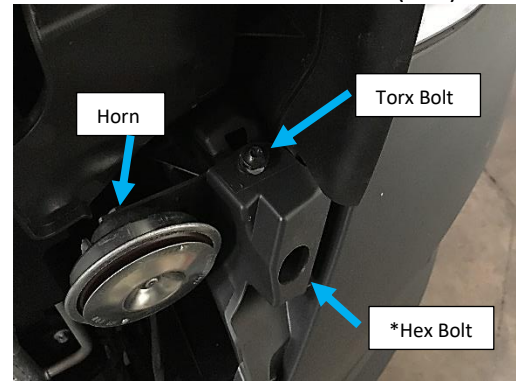


Figure 4: Torx Bolts Near Top of Stock Bumper

6. Remove the six (6) plastic rivets on the inside of each fender well. Gently pull the center of the rivet out, then remove entire rivet. Reference Figures 5-7.

PRO TIP: Access to the rivets is much easier by turning the vehicle's wheels.



Figure 5: (4X) Plastic Rivets on the Inside of the Wheel Well



Figure 6: (2X) Plastic Rivets on Underside of Bumper



Figure 7: Example of the Plastic Rivet

7. Pull gently on the corner of the plastic bumper directly away from the vehicle. Start in the corner nearest the wheel well working towards the center. Repeat for other side of vehicle. Reference Figure 8.



Figure 8: Removing Plastic Bumper

8. Remove the two (2) plastic caps on the front bumper step to reveal two (2) torx bolts (reference Figure 9 & 10). Remove bolts.

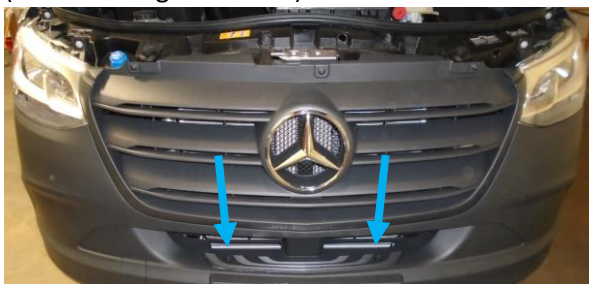


Figure 9: Plastic Cap Location



Figure 10: Front Bumper Step with Plastic Cap Removed

9. Remove stock front bumper by pulling directly away from vehicle being sure to disconnect any sensors that are attached (parking, air temperature, and/or fog lights as applicable).
10. Remove the collision prevention sensor from the plastic bracket. Release tab on the top of the sensor and rotate the sensor forward to remove. Disconnect sensor from wiring harness.
11. Remove the plastic sensor bracket by unscrewing the two (2) torx bolts near the top of the radiator and pulling loose from stock steel bumper.
12. Remove the eight (8) bolts holding the stock steel bumper in place using a 13mm wrench as shown in Figure 11.

**CAUTION:** Once all the bolts are removed, the bumper may fall if not properly supported.



Figure 11: Four (4) Frame Bolts per Side Holding the Stock Steel Bumper to the Vehicle.

13. Remove the stock steel bumper using a putty knife and a hammer if the bumper does not





come loose after removing the bolts in the previous step. The frame sealant may cause the steel bumper to stick to the frame. See Figure 12.

**CAUTION:** once the seal is broken, the bumper may fall if not properly supported.



Figure 12: Releasing the Stock Steel Bumper from the Vehicle Using a Putty Knife and Hammer

14. Remove the air flow skirt by unclipping each side and away from the van as shown in Figure 13-15. The rubber gasketing will need to be cut around the hose lines to remove – be careful not to cut the hoses!

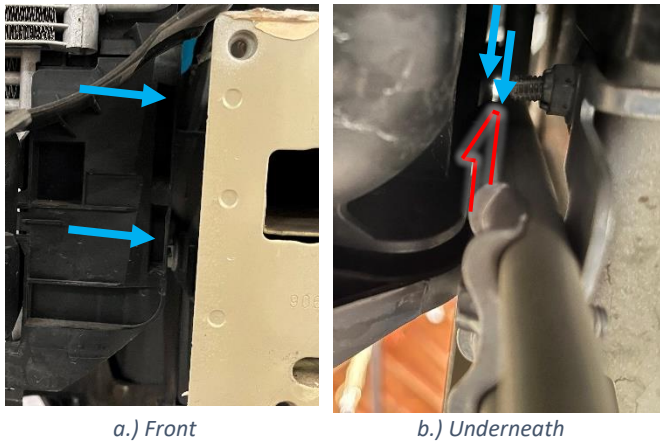


Figure 13: Air Flow Skirt Clip Locations from Front (a) and from Underneath (b)

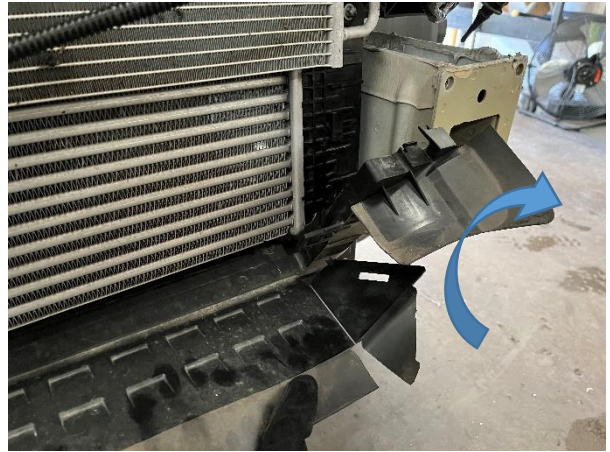


Figure 14: Air Flow Skirt Pulled Out



Figure 15: Air Flow Skirt Cut for Removal

15. Loosen only the bottom most bolts holding on each of the black steel crossmember underneath the radiator (see Figure 16). Retain factory bolt for re-installation.



Figure 16: Engine Crossmember Bracket Factory Bolts (Driver Side Shown)

**NOTE:** Sprinter 3500 may or may not have these factory bolts and/or threaded inserts. Additional tapping and hardware may be required.



16. Uninstall outer fender supports by removing the three torx bolts (T30) and the side securing bolt (size 13mm). Reference Figure 17.

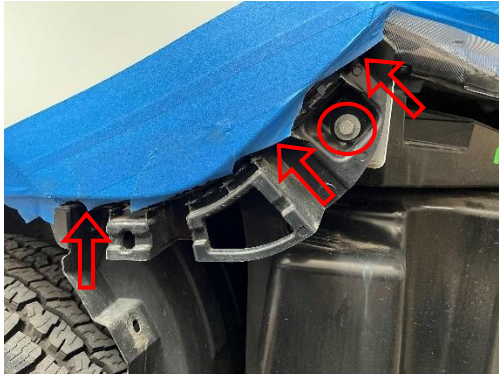


Figure 17: Outer Fender Plastic Support Removal

**Winch Tray Installation:**

17. Install the eight (8) provided M8 bolts with eight (8) split washers through the frame, from back to front, creating studs to mount the winch tray onto (Reference Figure 18).

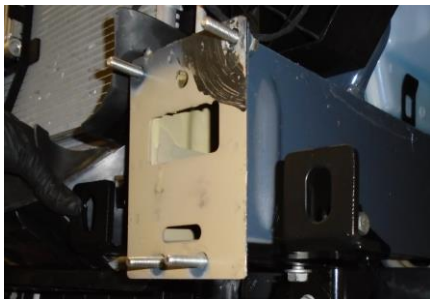


Figure 18: M8 Bolts Installed

18. Install the steel winch tray bracket onto the M8 'studs' and **over** the factory crossmember brackets. See Figure 19.



Figure 19: Winch tray Installed

19. Center the winch tray onto frame. Use remaining 5/16" washer, split washers, and M8 nuts to tighten tray into position.
20. From the bottom, reinstall the factory hardware through the winch tray and through the factory crossmember brackets. Reference Figure 20.



Figure 20: Installed Factory Crossmember Bolt Thru Winch Tray

21. Install winch onto winch tray if desired.

**Sensor Installation (as applicable):**

22. Install the front radar sensor into the sensor carriage by locating the two (2) protrusions on each side (Figure 21a) and rotating the sensor into the carriage (Figure 21b). Use Figure 22 as a guide to depress the tab on top to secure the sensor into place at the correct position.

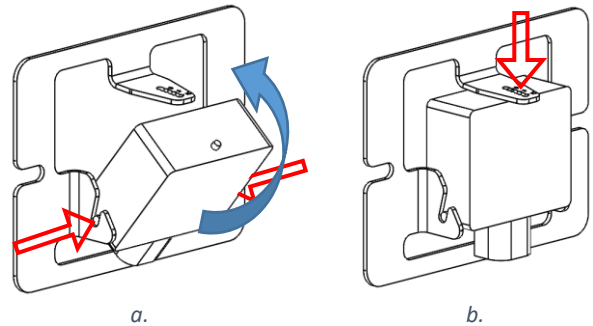


Figure 21: Sensor Installation

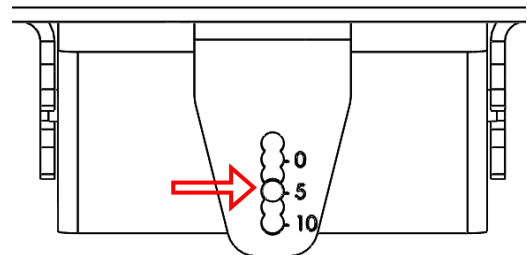


Figure 22: Sensor Alignment from -2.5 degrees to +10 degrees





NOTE: It is **essential** that the sensor is level left-to-right ( $\pm 1^\circ$ ) and as perpendicular to the road as possible ( $\pm 3^\circ$ ). Set the sensor to fourth (4<sup>th</sup>) position from the front (5 degrees) to start, but verify level while installing into the vehicle. This will make recalibrating the front sensor much easier.

23. Install sensor in sensor carriage onto front bumper behind sensor window as shown in Figure 23.

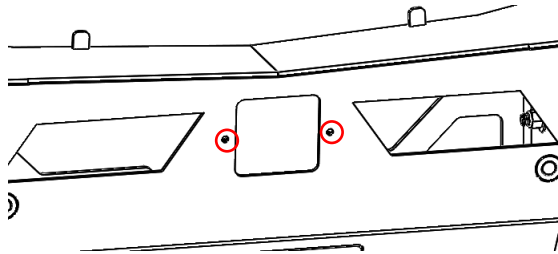


Figure 23: Sensor Window Removal

NOTE: Adjustment can be made after front bumper installation is complete by removing the front two  $\frac{1}{4}$ "-20 bolts, adjusting the sensor, and reinstalling (Figure 23).

24. If applicable, install parking sensor retainers (sold separately; PN 210560) and wiring harness (See Figure 23). Use arrows as a guide to find pre-cut holes to zip-tie wiring harness onto bumper.

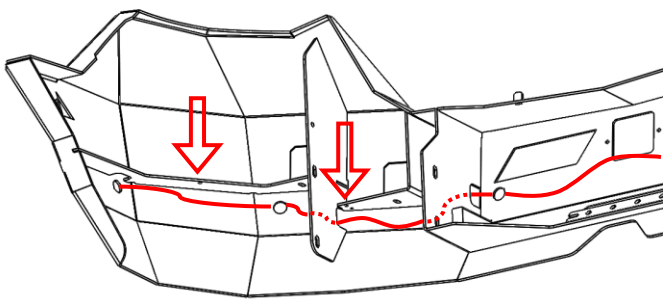


Figure 24: Parking Sensor Routing (Repeat for Other Side)

**Front Bumper Installation:**

25. Install both passenger side (labelled 'PS') and driver side (labelled 'DS') fender brackets into position. Reference Figure 25.

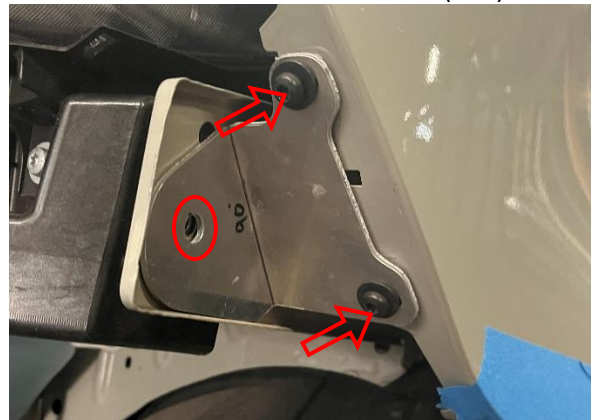


Figure 25: Fender Support Bracket Installation (Passenger's Side Shown)

26. Install the air temperature sensor into the air temperature bracket in the direction shown in Figure 26a. Slide the O-ring on the sensor from the tip up to the indicated notch (Figure 26b), securing the sensor into place.

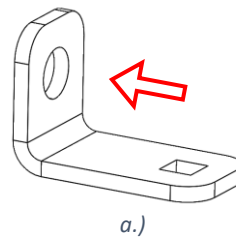


Figure 26: Air Temperature Sensor + Bracket

27. Install air temperature and bracket onto bumper in specified location (Figure 27).

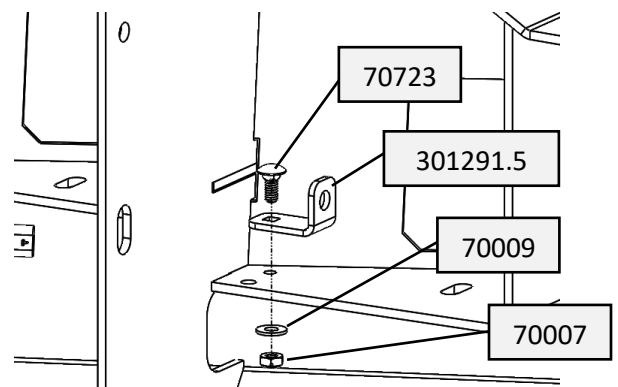


Figure 27: Air Temp and Bracket Installation from Back of Bumper

**PRO TIP:** Use a painter's tape from the grille to the wheel wells to protect the van around the headlights and fenders during installation. Place



tape so that it can be removed once bumper installation is complete.

28. Ensuring no wiring will get pinched, slide the aluminum front bumper onto winch tray and align the four (4) mounting holes per side (See Figure 28).

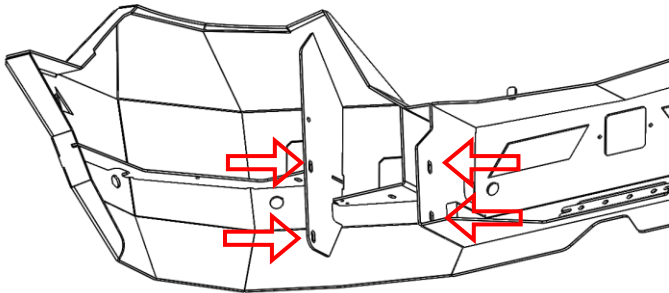


Figure 28: Mounting Locations, Aluminum to Steel Winch Tray (Repeat for Other Side)

29. Install plastic support bracket to outer bottom mounting hole on drivers and passengers side respectively. Attach wheel-well cover front to bottom hole. Long side of bracket attaches to steel winch tray, and short side mounts to plastic, with the bend going toward scenter. Reference Figure 29.

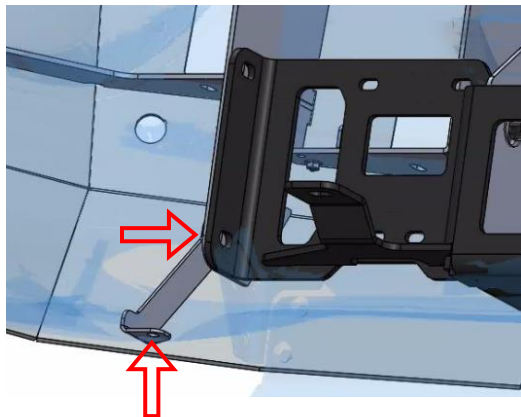


Figure 29: Plastic Support Installation (Driver's Side Shown, From Underneath, Center Looking Out)

30. Loosely install the 1/2" hardware through each mounting location, four (3) per side. Access may be gained front the bottom of the van or from the top through the winch box. There are weld nuts on th

31. Adjust bumper into desired position checking clearances around headlight and fenders (Figures 30-31).



Figure 30: Headlight Alignment

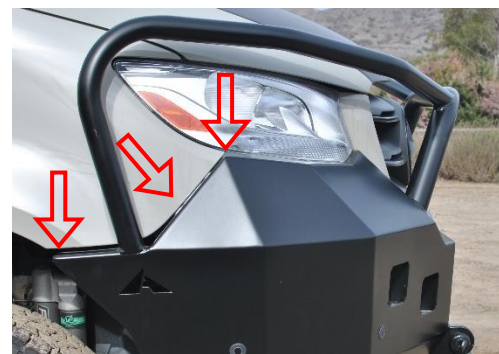


Figure 31: Fender Alignment

32. Tighten all 1/2" hardware.
33. Connect front radar sensor through the back of the bumper if applicable.
34. Reconnect the parking sensor wiring harness back into position if applicable.
35. Secure loose wires with zip ties as desired.
36. Re-install the grille onto vehicle. Reference Figures 2-3. Ensure all tabs are fully engaged upon reinstallation.
37. Re-install the final three (3) torx bolts to secure the grille shown in Figure 1.
38. Ensure all the sensors are working correctly (as applicable) by driving around 15-30 mins. Adjust as needed. Keep in mind the notes listed along with Figures 21-22.
39. Complete fairlead installation for your winch if applicable.
40. Verify the bolts for tightness after 100 miles of driving and periodically thereafter.
41. Enjoy your new Aluminess bumper!





<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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2. Limited Remedies. Subject to any limitations and exclusions described herein, and subject to Aluminess' determination of warranty eligibility, Aluminess will remedy defects in product materials and/or workmanship of any product by repairing or replacing such defective product, which shall be within Aluminess' sole discretion, without charge for parts or labor. Aluminess may elect in its sole discretion not to replace a defective product and issue the purchaser a refund equal to the purchase price of any defective product or purchaser may elect to receive a credit (equal to such refund) toward the purchase of new Aluminess products. Repair or replacement of a defective product or providing a refund or credit to purchaser will be purchaser's exclusive remedy under this warranty. Damage to a purchaser's vehicle, cargo and/or any other person or property is expressly excluded from the Aluminess warranty.
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