



# Front Receiver Installation Instructions

P/N 210223: 2007+ Mercedes Sprinter Front Receiver

**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.*
- *This installation may require two 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 or bit set
- Drill with drill bits
- Hammer
- Putty knife
- Razor or box cutter
- Drill, with 3/8" drill bit
- Gloves
- Dremel or cut-off wheel



**Included Hardware:**

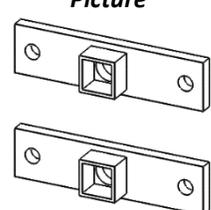
**PRE-KITTED 350456**

<b>P/N</b>	<b>Description</b>	<b>Quantity</b>
70124	M8-1.25 x 40mm Bolt, Hex Head, Fully Threaded, Zinc	10
70101	M8-1.25 Nut, Zinc	8
70111	5/16" Washer, Split, Locking, Zinc	10
70020	5/16" ID Washer	10
70029	3/8"-16 x 1-1/4" Bolt, Hex Head, SS	5
70028	3/8" ID Washer, SS	10
70024	3/8"-16 Nylon-Locking Nut, SS	5
70185	7/16"-14 x 4-1/2" Bolt, Hex Head, Grade 8	2
70057	7/16" ID Washer, Zinc	4
70056	7/16"-14 Nylon-Locking Nut, Grade 8	2
70258	Locking Lynch Pin for License Plate Holder	1
70246	Antiseize bolt lubricant packet, 2g	1

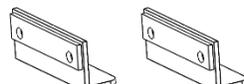
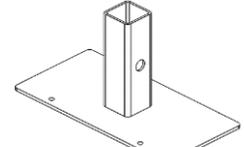
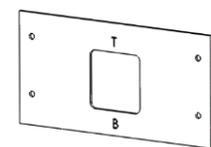
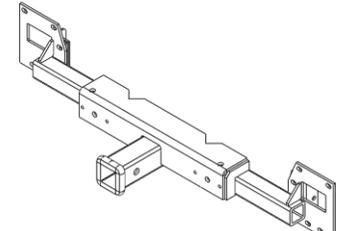


**Preassembled**

<i>P/N</i>	<i>Description</i>	<i>Quantity</i>
70008	¼"-20 Nylon-Locking Stainless-Steel Nut	4
70009	¼"ID Stainless Steel Washer	8
70060	¼"-20 x 1" Stainless Steel Button Head Screw	4

<i>Part Number</i>	<i>Description</i>	<i>Quantity</i>	<i>Picture</i>
N/A	Receiver Front Spacers	2	

**Additional Parts:**

<i>Part Number</i>	<i>Description</i>	<i>Quantity</i>	<i>Picture</i>
N/A	Steel Angle Brackets	2	
350390	DEF Tank Bracket (only used on Sprinters with front mounted DEF tanks)	1	
350408	License Plate Holder	1	
300876	Cutting Template	1	
N/A	Front Receiver	1	



**Receiver Installation:**

NOTE: If you are installing the Aluminess Front Receiver onto a 2007 – 2013 Sprinter, the 2 pre-assembled spacer assemblies will need **removed**. Sprinters built in 2014 and later will need to keep these spacers installed.

1. Open the hood.
2. Remove the two (2) torx-head bolts and four (4) plastic pop out clips holding the grill on – do not discard these, you will need them to put the grill back on (see Figure 1 & 2).



Figure 1: Stock Grill Hardware



Figure 2: Open and Closed Plastic Fasteners

3. Once the bolts have been removed, the plastic clips holding the grill on must be released—pull the grill towards you gently to allow some space to put your hand behind it and reach the clips
  - a. To release the two large clips on the sides of the grill (seen in Figure 3), squeeze the top and bottom together (indicated by arrows) and push down—be careful, these break easily.

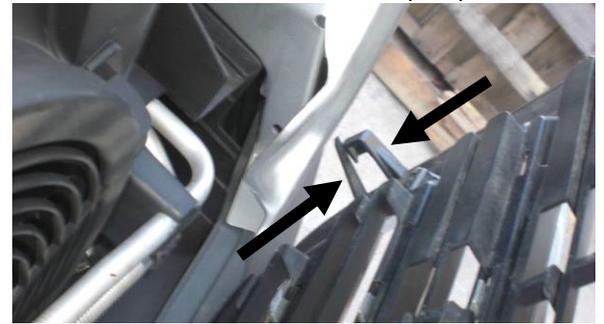


Figure 3: Grill Retaining Clips

- b. To release the three bottom clips holding the grill to the bumper cover as seen in (Figure 4), push down on the tab sticking out from the grill while pulling the grill gently towards you—these too can break easily.

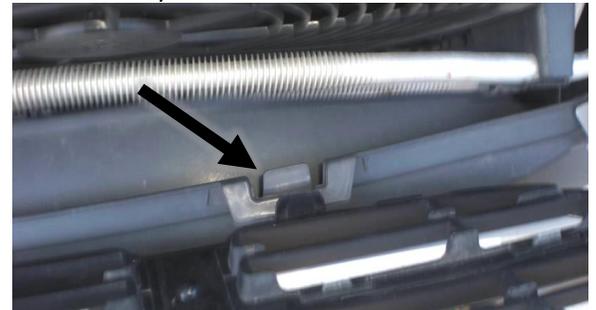


Figure 4: Lower Grill Retaining Clips (Top View)

- c. The use of gloves is strongly recommended here, as the metal heat exchanger tubes behind the grill are fairly sharp
4. Remove the plastic fasteners holding the bumper cover to the fender liners—there are three (3) inside the fender and two (2) underneath the front edge of the bumper cover on each side as seen in the photos below—in order to remove them, pry up on the center part of the fastener with a flat head screwdriver until it pops up, then the entire fastener may be removed by hand (see Figure 5 & 6).



Figure 5: Plastic Fastener Location in Fender Well



Figure 6: Plastic Fastener Locations Under Leading Edge of Bumper

- Remove the two (2) torx-head bolts at the inner corners of the headlights (See Figure 7).



Figure 7: Headlight Trim Piece Torx Bolts

- Now remove the plate cover shown in Figure 8 & 9. There are four bolts holding it on and there may be a sensor attached to it – disconnect the wiring connector.



Figure 8: License Plate Cover Installed



Figure 9: License Plate Cover Removed

- Now simply slide the bumper cover forward to remove it—if resistance is encountered, stop and check for fasteners or sensors that are still attached; the bumper should slide off easily.
- Now the steel bumper should be exposed (Figure 10); there are four bolts on each side which must be removed, use a 13mm wrench—There may be some frame sealant stuck on the bolt heads; Use a box cutter to scrape it off in order to fit a wrench on the head of the bolt.



Figure 10: Stock Steel Bumper, Passenger Side

- Once the bolts are removed, the bumper usually is stuck to the frame of the vehicle because of the frame sealant; In order to release the bumper, gently tap on the seam between the bumper and the frame using a putty knife and hammer as shown in Figure 11 — Make sure there is someone supporting the bumper as you do this so that it does not fall and cause injury once released; once the seal is broken between the bumper and frame, pull the bumper forward on that side—the leverage should release the seal on the opposite side as well.



Figure 11: Releasing Stock Bumper with Hammer and Putty Knife

10. If your van has a flange extending out from the side of the frame horn (Figure 12), cut it off so that the edge runs perpendicular to the ground. The frame, after cutting off the flange, should look like the frame in Figure 13.

FLANGE MUST BE CUT OFF

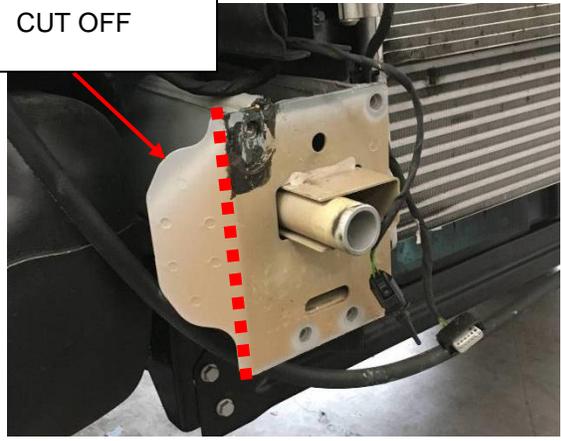


Figure 12: Frame with Flange



Figure 13: Frame Profile After Cutting

11. Line up the receiver mounting plates on the frame horns and insert four M8-1.25 x 40mm bolts through the frame so that the aftermarket hitch can slide onto the vehicle (see Figures 14a - 14c).

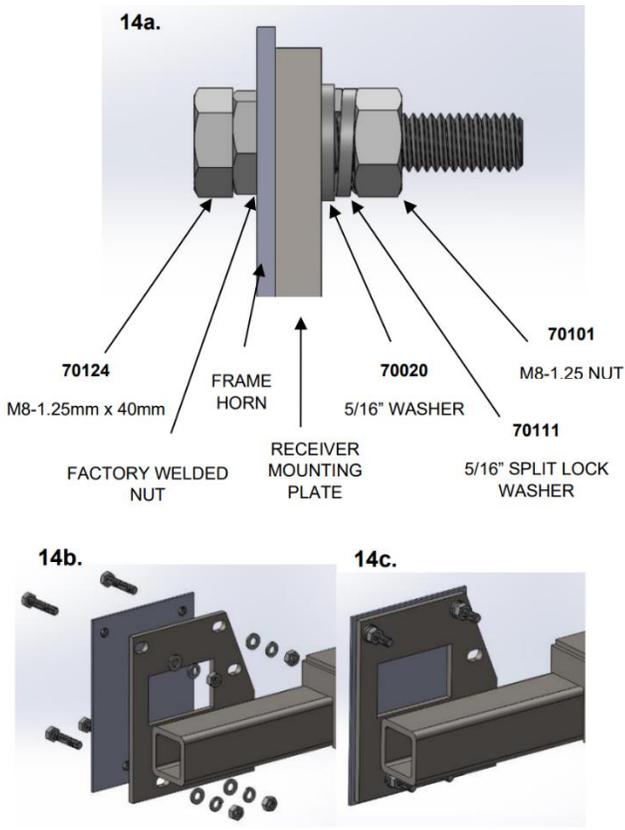


Figure 14: Top to Bottom (a) Detailed view of hardware used to mount receiver to frame mounts (b) exploded view of hardware mounting for receiver (c) final assembly after bolts, washers and nuts are assembled and tightened down.

**\*\*\*If your vehicle has a front-mounted DEF Tank, follow step 12 to install the DEF Tank bracket.**

**If you don't have a DEF Tank or it is located someplace else, skip to step 13. \*\*\***

12. With the aftermarket receiver installed, attach the support bracket to the DEF tank bracket, and the top 2 bolts on the passenger side of the frame (Figure 15).



Figure 15: DEF Tank Bracket Placement

- Attach the provided 2" X 1" angle brackets to the backside of the receiver mounting plates. The 1" side should butt against the frame. Use the provided 3/8" hardware to fasten together (Figure 16)



Figure 16: 2" X 1" Angle Brackets Attached to the Receiver Mounting Plate (This is the Passenger Side)

- Drill two equally spaced 7/16" holes through the frame using the angle bracket holes as a guide (reference Figure 17). Install 7/16" hardware.



Figure 17: Drill Two (2) Equally Spaced 7/16" Holes Through the Frame (One (1) Hole Through Frame per Side)

- The cutting template is marked with a "T" and "B" for you to determine which side is top and which side is bottom. Use the stock license plate screws to hold the cutting template to the front of the plastic bumper.

*NOTE: You do not need to tighten the bolts very much, they are just used to hold the cutting template in place so you can trace the cut out.*

- Mark and cut your stock bumper.
- It is now a good idea to place the plastic bumper over the receiver to make sure the hole you cut lines up. You may need to open the cut out by 1/8"-1/4" for ease of installation (reference Figure 18).



Figure 18: Verify Fitment of Front Receiver on Bumper and License Plate Cover

- Align the chrome license plate holder over the plastic bumper. From behind trace the square that was cut out of the plastic bumper onto the license plate holder (Reference Figure 18).
- Cut the square out of the license plate holder. It is best to use a cutoff wheel for this step. Jigsaws can cause the chrome to flake and peel.
- Re-install the factory bumper using the installation instructions in reverse.
- When installing the front two (2) mounting bolts behind the license plate cover, you may need to use the provided longer M8-1.25mm x 40mm hex head bolts to reach the threaded inserts (reference Figure 9).
- Check all fasteners for fitment after 50 miles of driving, and every 1000 miles afterwards.
- Your Aluminess Front Receiver 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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