

## **2025 SPRINTER FRONT BUMPER INSTALLATION INSTRUCTIONS**

SKUS: 210812, 210815, 210816

### **IMPORTANT**

- APPLY ANTISEIZE TO STAINLESS HARDWARE
  - Stainless steel hardware may bind together when tightening—**Anti-seize** lubricant must be applied to the threads of each bolt before assembly.

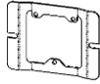
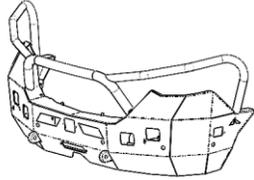
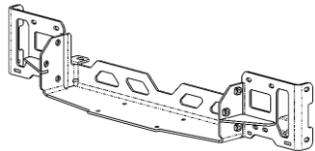
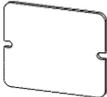
### **Required Tools**

- Ratchet with extension, sockets, and wrenches. Sizes: 13 MM, 14 MM, 18 MM, 3/8", 7/16", 1/2", 3/4"
- Torx driver set. Sizes: T25, T30, T35, T45
- Hex key/ driver set. Sizes: 1/8", 5/32"
- Torque wrench
- Phillips screwdriver
- Slotted screwdriver
- Hammer (optional)
- Small prybar (optional)
- Push-pin remover



### ***INCLUDED HARDWARE***

<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
70004	5	HEX LOCKNUT, 10-32, SS
70005	5	FW, NO. 10, SAE, SS
70007	1	HEX LOCKNUT, THIN, 1/4-20, SS
70009	1	FW, 1/4 X 5/8, SS
70033	4	HEX LOCKNUT, 1/2-13, GR 8
70036	8	HHCS, 1/2-13 X 1 1/2, GR 8
70078	3	FHCS, 10-32 X 1, SS
70246	1	ANTI-SEIZE
70280	12	FW, .531 X 1.061 X .098, ST, ZINC, GR 8
70344	2	BHCS, 5/16-18 X 1, SS, BO
70345	4	FW, 5/16, SS, BO
70346	2	HEX LOCKNUT, 5/16-18, SS, BO
70365	6	HEX LOCKNUT, 1/4-20, SS, BO
70366	12	FW, 1/4, SS, BO
70476	6	BHCS, 1/4-20 X 1, SS, BO
70723	1	CARRIAGE BOLT, 1/4-20 X 5/8, SS
70750	1	THREAD LOCKER
401018	8	ADHESIVE ZIP TIE MOUNT
401044	1	O-RING, 1/4 X 3/8
90101	8	8" ZIP TIE

<b>INCLUDED COMPONENTS</b>			
<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>	<b>PICTURE</b>
301291.5	AIR TEMPERATURE SENSOR BRACKET	1	
301876	FRONT RADAR SENSOR HOUSING	1	
301900	SIDE GUARD ASSIST SENSOR HOUSING	2	
301923	PARKING SENSOR RETAINER	8	
ONE OF THE FOLLOWING: 351819 (IN 210812) 351701 (IN 210816) 351702 (IN 210815)	ALUMINESS FRONT BUMPER (BRUSH GUARD SHOWN)	1	
351195	FAIRLEAD COVER	1	
351196	FENDER LINER SUPPORT BRACKET, L	1	
351196.1	FENDER LINER SUPPORT BRACKET, R	1	
351197	STEEL WINCH CRADLE	1	
350739	ACRYLIC SENSOR WINDOW	3	
351668	FENDER BRACKET, L	1	
351669	FENDER BRACKET, R	1	

**Bumper Removal Instructions**

1.  Open and secure the hood.
2.  Remove the (3) screws located on the top of the grille using a T25 driver. **See Figure 1.**

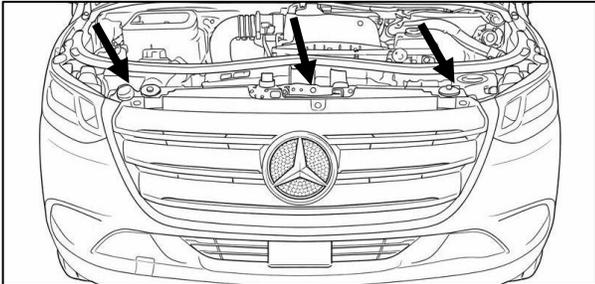


Figure 1: Grille Bolt Locations

3.  Pull the grille away from the bumper, the grille has tabs in 6 locations that must be unclipped. Once the tabs have been released, the grille can be removed. **See Figure 2.**

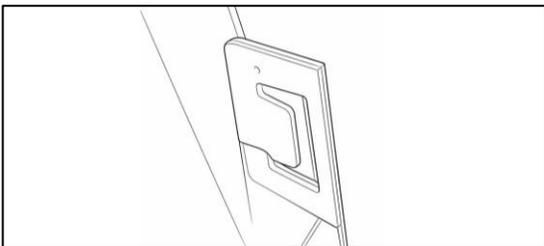


Figure 2: Grille Tab

4.  Uninstall the front camera if applicable.
5.  Remove the screws on both sides of the space left by the grill using a T30 driver. **See Figure 3.**

**PRO TIP:** Some bumpers may have an additional hex bolt to remove in the recessed hole next to the horn on the left side of the vehicle.

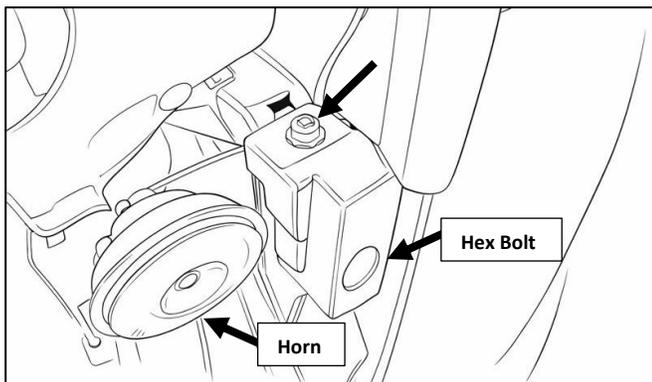


Figure 3: Bumper Inner Bolt Location, Left Side

6.  Use a push-pin remover and a slotted screwdriver to remove the (12) plastic push-pins that are located on the outer edges of the bumper. **See Figures 4 and 5.**

**NOTE:** 2 push-pins on the underside of the bumper on each side and 4 located in each wheel well.

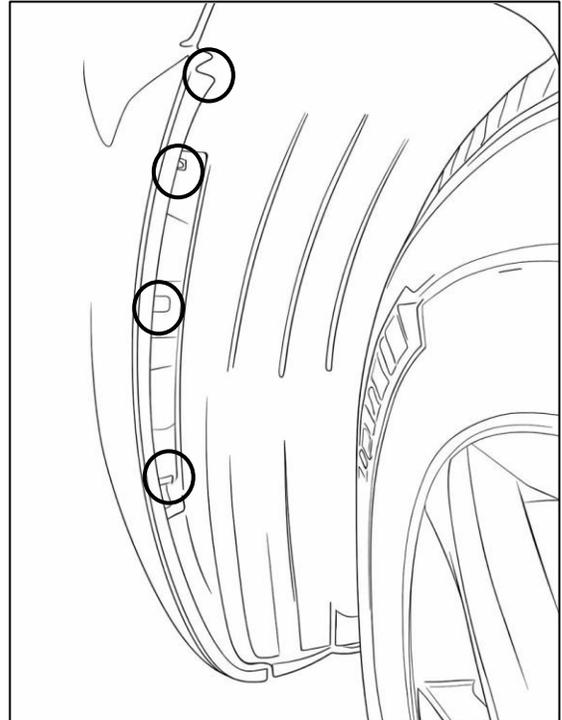


Figure 4: Wheel Well Push-Pins

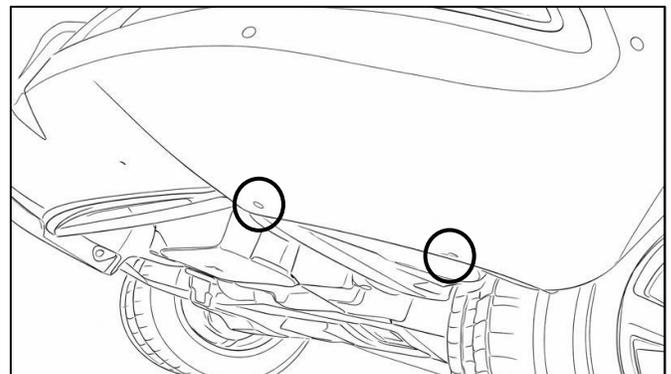
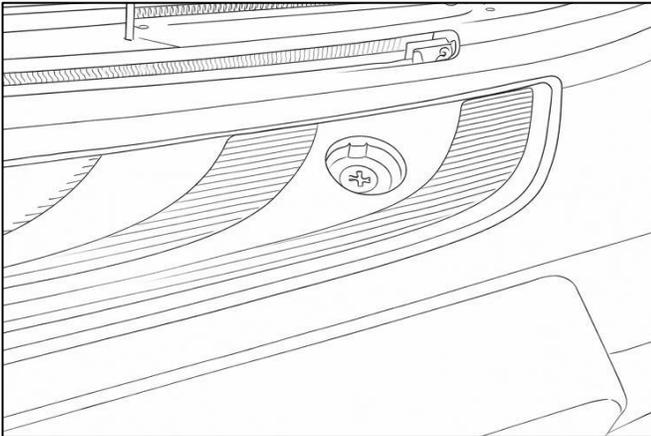


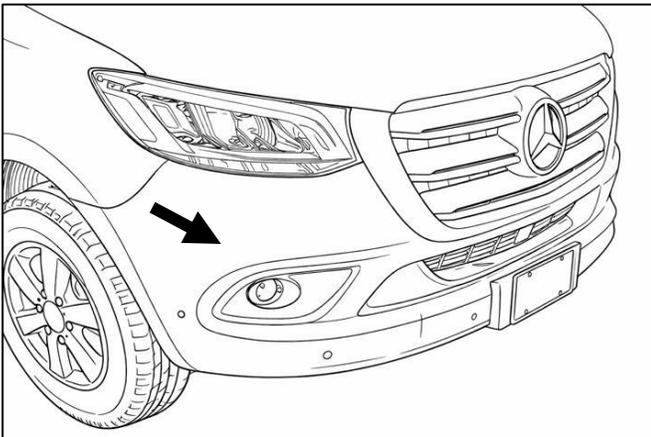
Figure 5: Underside Push-Pins

7.  Using a T45 driver, remove the (2) bolts located at the center of the bumper. **See Figure 6.**



*Figure 6: Center Step Bolts*

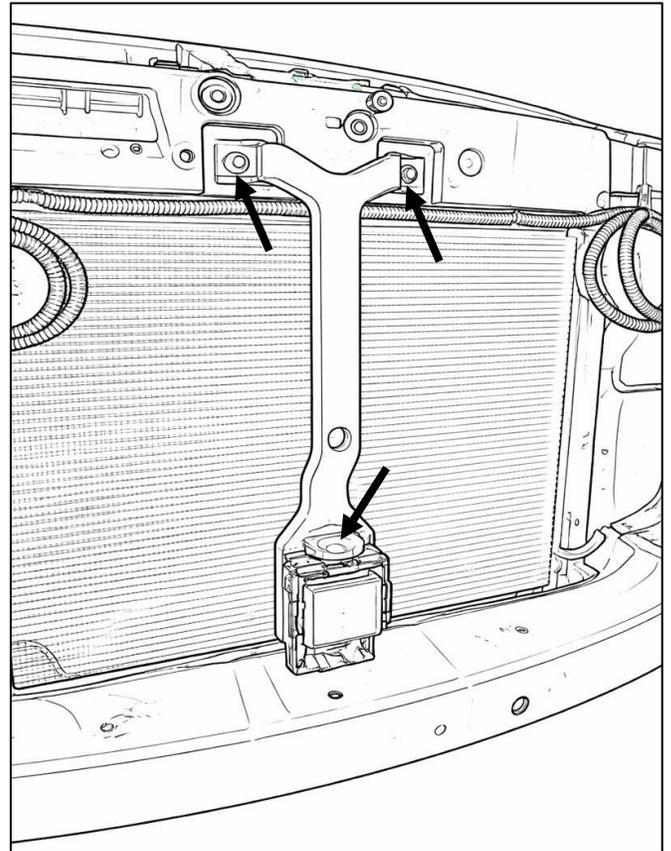
8.  Pull the bumper away from the vehicle to unclip it, starting at each wheel well and working towards the center. **See Figure 7.**



*Figure 7: Direction to Remove Stock Bumper*

9.  Disconnect the parking sensors, side guard assist, and fog light wiring as applicable.

10.  Using a T25 driver, remove the (2) screws that are holding the front radar sensor enclosure to the top of the radiator and the (1) screw holding it to the housing. Disconnect the wiring and remove the sensor from the enclosure. **See Figure 8.**



*Figure 8: Radar Sensor, Bolts*

11.  Using a 13 MM socket, remove the (8) bolts holding the stock crossmember to the frame rail. See **Figure 9**.

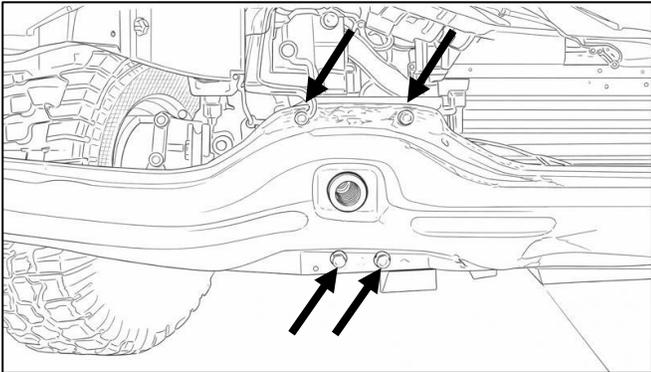


Figure 9: Stock Crossmember Bolting Location, Right Side

12.  Remove the airflow skirt by carefully unclipping it from each side of the radiator and the (3) clips located on the bottom. See **Figure 10**.

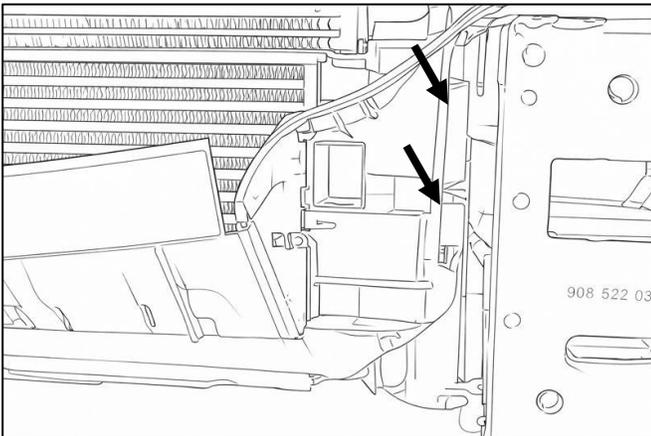


Figure 10: Airflow Skirt Clip Location

13.  Remove the bottom screw that attaches the black crossbar to the underside of the frame rail. See **Figure 11**.

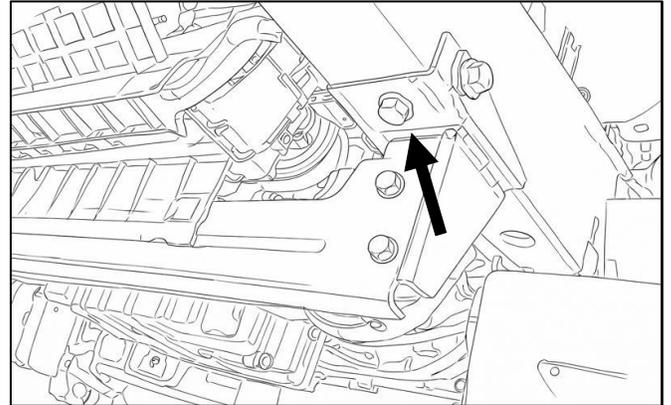


Figure 11: Black Crossbar Bolt to Remove

14.  Use a T30 driver and a 13MM socket to remove the (4) bolts on the outer fender support, removing the OEM support from bolt sides of the vehicle. See **Figure 12**.

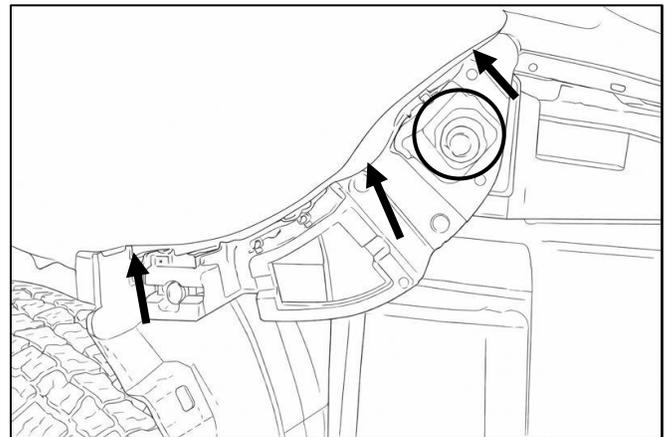


Figure 12: OEM Fender Support Removal

### **Bumper Install Instructions**

15.  Remove your ALUMINESS FRONT BUMPER from the pallet and unbolt the STEEL WINCH CRADLE.
16.  Fasten the WINCH CRADLE to the frame rail using the (8) factory bolts removed in Step 11. Apply thread locker to the threads but do not torque at this time.

**Pro Tip:** Use the recovery point on the frame located on the right side of the frame rail to help support the WINCH CRADLE.

17.  Reinstall the factory bolt to the underside of the WINCH CRADLE, apply thread locker but do not torque at this time. **See Figure 13.**

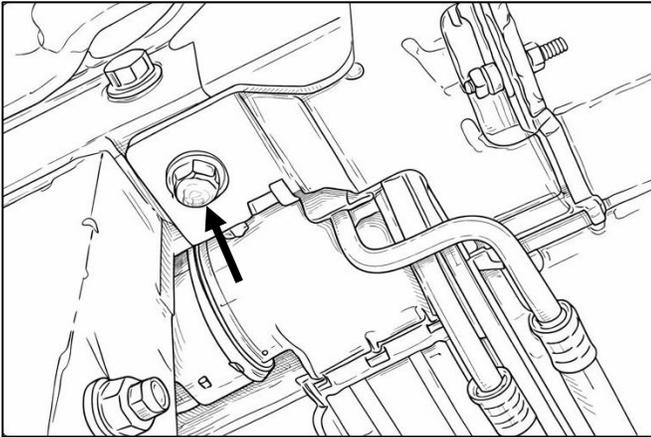


Figure 13: Underside Mounting of Winch Tray

18.  Center the WINCH CRADLE between the frame rails and torque the bolts to OEM specifications.  
19.  Install the OEM front radar sensor onto the FRONT RADAR SENSOR HOUSING [301876], using the 10-32 X 1 FHCS, washers, and locknuts. **See Figure 14.**

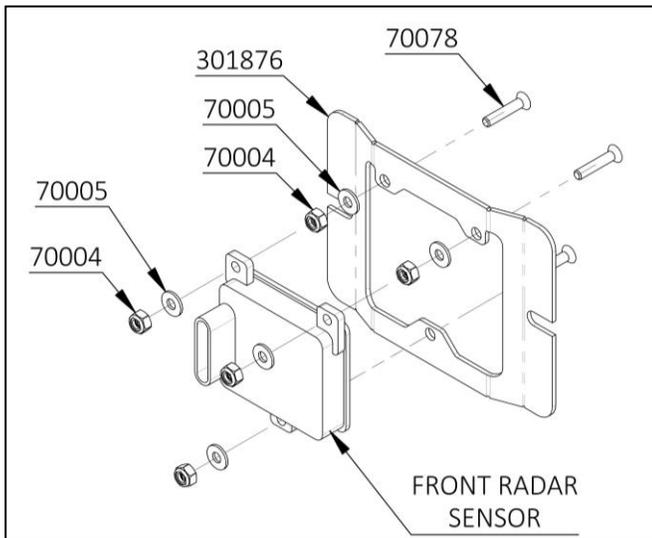


Figure 14: Radar Sensor Bracket (No. 10 Fasteners)

20.  Install the FRONT RADAR SENSOR BRACKET assembly and ACRYLIC SENSOR WINDOW [350739] on to your ALUMINESS FRONT BUMPER using the 1/4-20 X 1 BHCS, washers, and locknuts. **See Figure 15.**

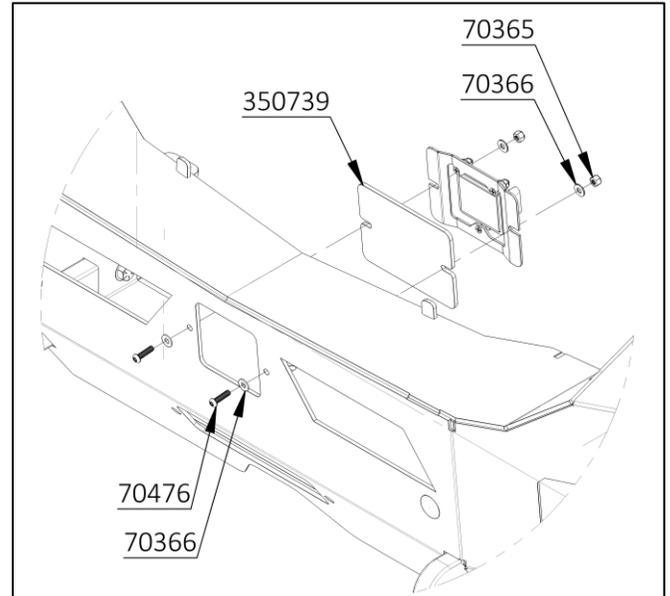


Figure 15: Radar Sensor Install (1/4" Fasteners)

21.  If installing a winch, do so at this time. See manufacturer's installation instructions.  
22.  If not installing a winch, install the FAIRLEAD COVER using the 5/16-18 X 1 BHCS, washers, and locknuts. **See Figure 16.**

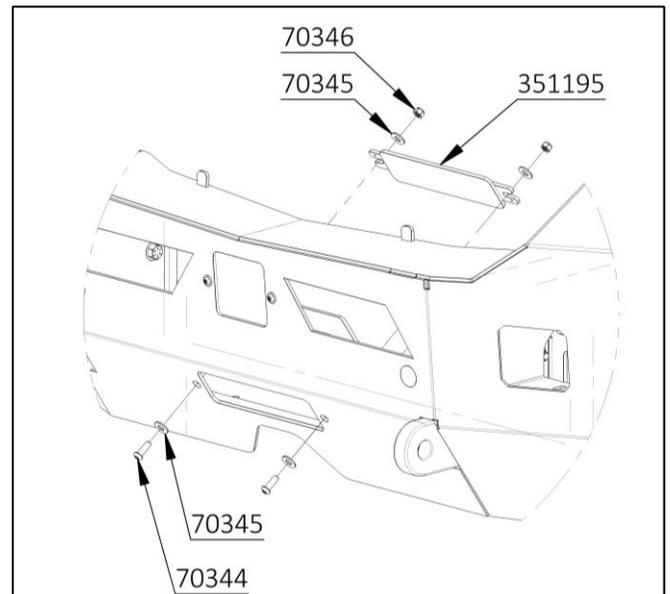


Figure 16: Fairlead Install (5/16" Fasteners)

23.  On each side of the van, install the side guard assist, SIDE GUARD ASSIST SENSOR HOUSING, and the ACRYLIC SENSOR WINDOW to your ALUMINESS FRONT BUMPER using 1/4-20 X 1 BHCS, washers, and locknuts. **See Figure 17.**

**PRO TIP:** Reconnect the wiring prior to fully tightening the hardware and be sure that the sensor is located entirely within the window opening.

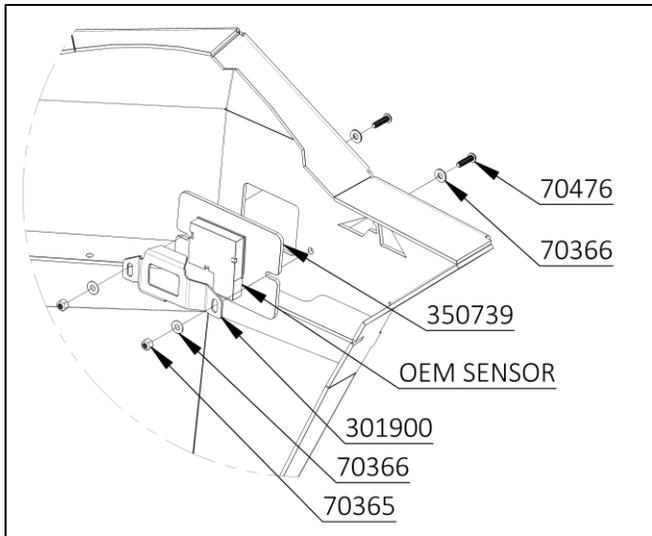


Figure 17: Side Guard Assist Install

24.  Install the (6) PARKING SENSOR RETAINERS [301923] by orienting the tab to fit in the relief cutout on the bumper. Ensure the tabs on the retainer are fully extended. **See Figure 18.**

**PRO TIP:** Eight sensors are included, two extra sensors provided in case of damage during installation.

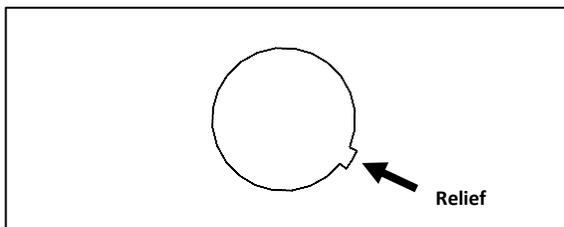


Figure 18: Cutout with Relief

25.  Route the sensor wiring harness through the cutouts in the bumper and install into the retainers with the OEM gasket. Secure the wiring with the zip tie mounts and the zip ties.

26.  Install both FENDER BRACKETS into position using the OEM hardware removed in Step 14. The bracket for the left side of the vehicle has "L" and right side has an "R". **See Figure 19.**

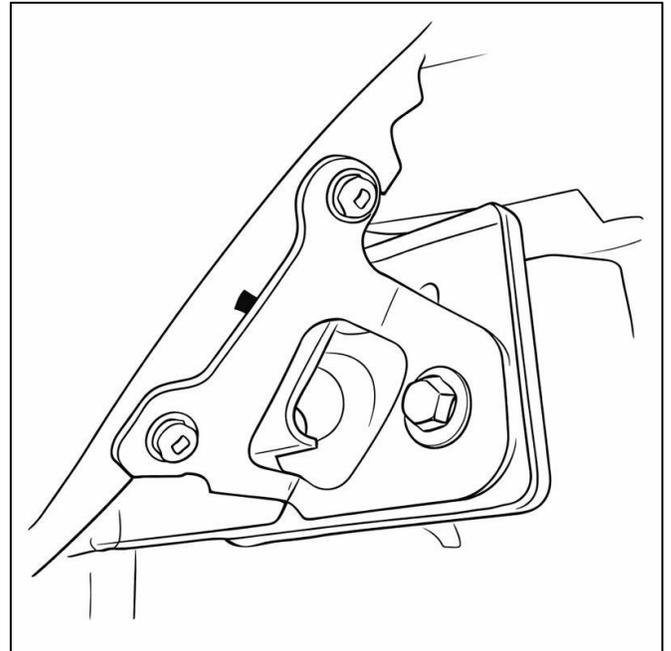


Figure 19: Fender Bracket Install, Right Side Shown

27.  Install the AIR TEMPERATURE SENSOR BRACKET [301291.5] into the light housing on the left side of the bumper using a 1/4-20 X 5/8 carriage bolt, washer, and locknut. **See Figure 20.**

**Pro Tip:** Do not fully tighten the hardware until the sensor is installed (next step).

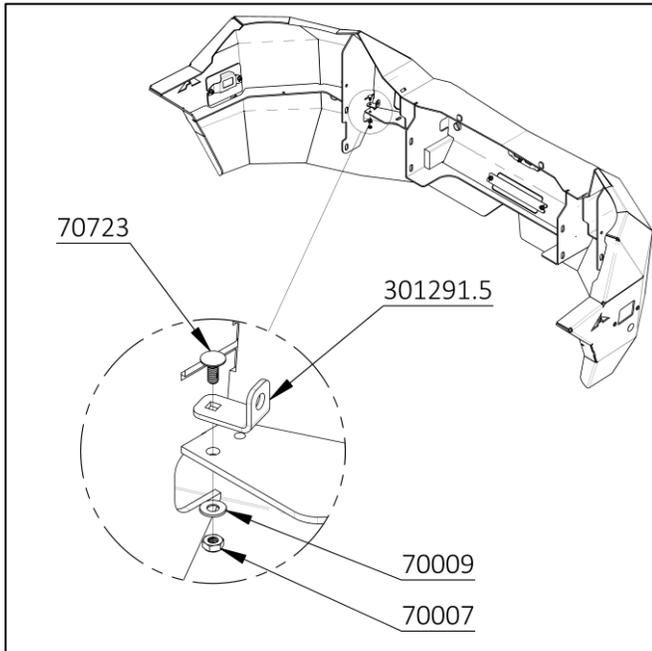


Figure 20: Air Temperature Sensor Install (1/4" Fasteners)

28.  Install the air temperature sensor into the bracket by placing the sensor in the bracket and then pushing an O-ring up to the indicated notch to secure. Tighten the locknut at this time. **See Figure 21.**

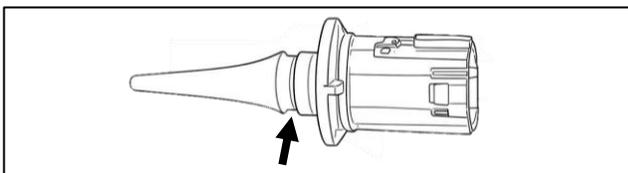


Figure 21: Air Sensor, Notch Location

29.  Connect all wiring to the corresponding sensors.

30.  Ensuring no wiring gets pinched and that the wheel liner is inside your ALUMINESS FRONT BUMPER, lift your ALUMINESS FRONT BUMPER onto the WINCH CRADLE. Use the 1/2-13 X 1 1/2 HHCS and washers. Apply thread locker to the threads and fasten the bumper to the WINCH CRADLE. Do not tighten at this time.

**See Figure 22.**

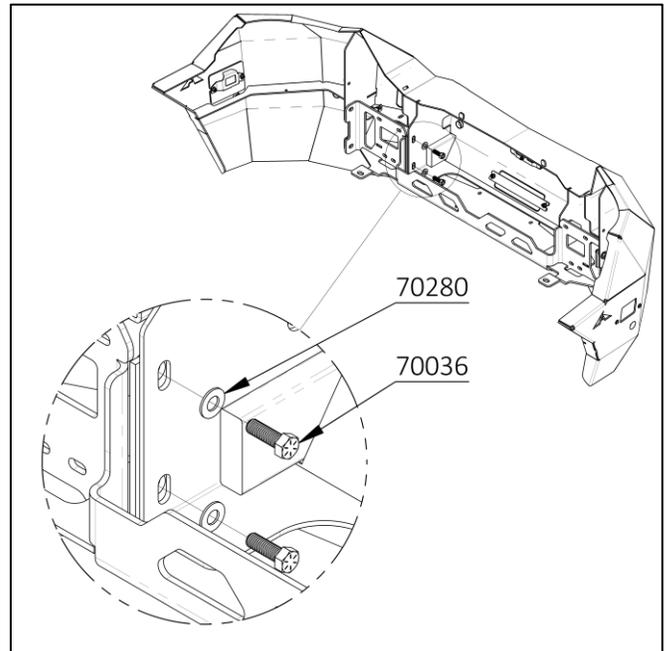


Figure 22: Inner Winch Cradle Install (1/2" Fasteners)

31.  Loosely install the 1/2-13 X 1 1/2 HHCS, washers, and locknuts to the upper slot on both outer flanges. Loosely install the FENDER LINER SUPPORT BRACKETS [351196-LEFT / 351196.1-RIGHT] onto the outer flanges utilizing the lower slot using the remaining 1/2" hardware. Install an OEM push-pin into each bracket and the inner push-pin hole of the wheel liner. **See Figure 23.**

33.  Reinstall the grille, locate into the grille tabs on the bumper and reinstall the (3) OEM screws along the top of the grille using a T25 driver.

34.  Verify that all sensors are working by driving for 15 to 30 minutes.

35.  Verify tightness of bolts after 100 miles, periodically afterwards, and after any off-road use.

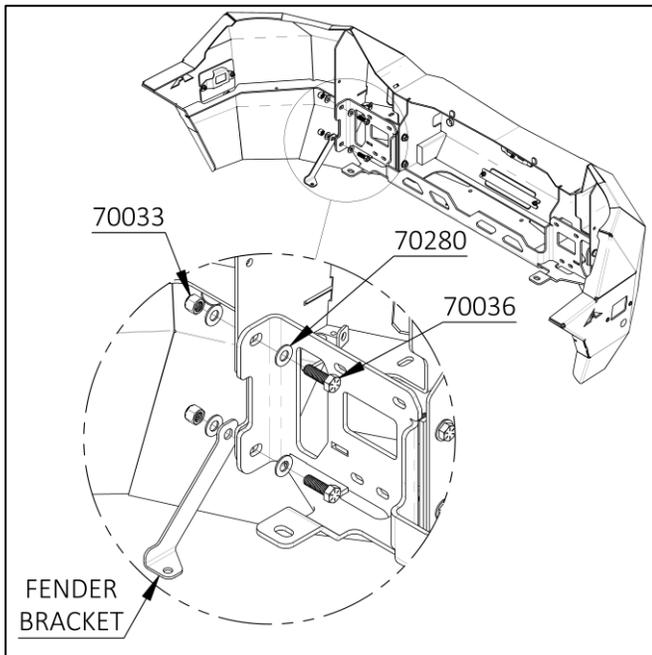


Figure 23: Outer Winch Cradle Install (1/2 Fasteners)

32.  Adjust the bumper into the desired position around the headlights and fenders by evenly tightening all 1/2" hardware. Then torque all hardware to 75 ft-lbs.

**Pro Tip:** Use caution near the headlights when installing the bumper.

TORQUE SPECIFICATIONS			
SIZE (SAE)	18-8 SS	GRADE 5 ZINC PLATED	GRADE 8 ZINC PLATED
6-32 (IN-LBS)	9.6	15.3	21.5
8-32 (IN-LBS)	19.8	29.5	41.7
10-24 (IN-LBS)	22.8	47.0	62.9
10-32 (IN-LBS)	31.7	48.0	68.0
1/4-20 (IN-LBS)	75.2	91	129
5/16-18 (IN-LBS)	132	188	265
3/8-16 (FT-LBS)	20	28	39
7/16-14 (FT-LBS)	31	44	63
1/2-13 (FT-LBS)	43	68	96
9/16-12 (FT-LBS)	57	109	226
SIZE (Metric)	18-8 SS	CLASS 8.8 ZINC PLATED	CLASS 10.9 ZINC PLATED
M5 X 0.8 (IN-LBS)	38.4	46.8	66.0
M6 X 1.0 (IN-LBS)	57.6	79.2	112.8
M8 X 1.25 (IN-LBS)	99.6	192.0	274.8
M10 X 1.5 (FT-LBS)	13.8	31.6	45.2
M12 X 1.75 (FT-LBS)	21.0	55.1	78.9
M14 X 2.0 (FT-LBS)	29.4	88.1	126.1



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