

## MB SPRINTER 2007-18 REAR LADDER INSTALLATION INSTRUCTIONS

SKU: 210587, 210587.1

### **IMPORTANT**

- APPLY ANTISEIZE TO STAINLESS HARDWARE
  - Stainless steel hardware may bind together when tightening—MUST apply an **anti-seize** lubricant to the threads of each bolt before assembly.
- Installation requires two or more people.
- Maximum load is 100 lbs while traveling.



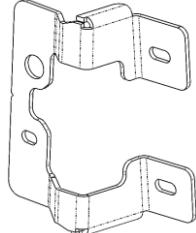
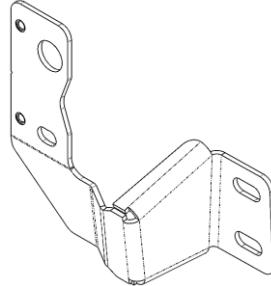
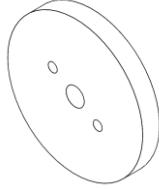
### **Required Tools**

• Standard/Metric Wrenches	• Liquid Soap
• Standard/ Metric Sockets	• Spray Bottle
• Standard Allen Keys	• Clean Rag
• Torx Bit	• Squeegee OR Plastic Card
• Isopropyl Alcohol	

### **Included Hardware**

PN	DESCRIPTION	QUANTITY
70024	HEX LOCKNUT, 3/8-16, SS	1
70028	FW, 3/8 X 7/8, SS	2
70031	HHCS, 3/8-16 X 2, SS	1
70111	SW, 5/16, ZINC	4
70124	HHCS M8-1.25 X 40MM, ST, ZINC, GR 8.8	4
70246	ANTI SEIZE	1
70344	BHCS, 5/16-18 X 1, SS, BO	4
70345	FW, 5/16, SS, BO	8
70346	HEX LOCKNUT, 5/16-18, SS, BO	4
350746.2	PROTECTIVE TAPE, LOWER HINGE	1
350746.3	PROTECTIVE TAPE, UPPER HINGE	1

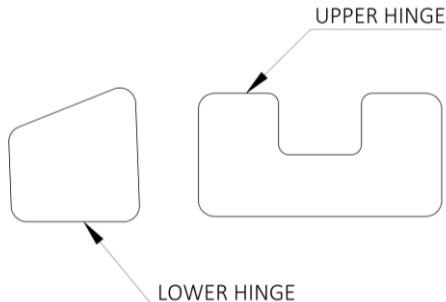
***Included Parts/Subassemblies***

PN	DESCRIPTION	QUANTITY	PICTURE
301258	M8 MACHINED SPACER	2	
350649	UPPER HINGE BRACKET, DRV	1	
350651	LOWER HINGE BRACKET, DRV	1	
350697	DOOR BACKING PLATE	1	
351998	DOOR BACKING PLATE	1	

## Install Instructions

### Prep:

1. Use the supplied protective tape protect your paint.



**Figure 1: Protective Tape**

2. Prepare to apply the protective tape one at a time to each location shown on the driver side door,
  - a. Top hinge
  - b. Lower hinge, tape is located directly below the bottom of the hinge



**Figure 2: Protective Tape Vehicle Locations**

**IMPORTANT:** Do not apply in direct sunlight, temperature must be above 60 °F, and wash your hands thoroughly before application.

3. Clean the area around each hinge with isopropyl alcohol and rag.
4. Create two separate wetting solutions in spray bottles:
  - i. Soap and water: 95% water and 5% soap
  - ii. Alcohol and water: 75% water and 25% isopropyl alcohol
5. Spray the taping location thoroughly with soap/water solution and do not wipe down surface.
6. Remove the liner from the protective tape while spraying the adhesive side with soap/water solution.
7. Apply the protective tape to the outside of the door. At the upper and lower hinge location, leaving approximately a  $\frac{1}{2}$ " of tape overhanging to be wrapped around the edge of the door. Do not attach the overhang yet.
8. Use a squeegee or card to press all air bubbles out starting at adhered edge.
9. Use the alcohol/water solution to speed up adhesion at one edge by lifting a section up and spraying the adhesive side as needed.
10. Wrap remaining protective tape around the door underneath hinge as best as possible.

### Bracket Install:

1. On the upper hinge bracket, uninstall the lower factory bolt located on the door.
  - a. NOTE: Leave the upper bolt installed.



**Figure 3: Upper Hinge, Bolt to Remove**

10. Fit the upper hinge bracket (350649) over the hinge and rotate into place.



Figure 4: Fitting Upper Bracket over the Hinge



Figure 7: Upper Bracket, Installed Lower Bolt

12. Remove upper factory bolt and install a M8 machined spacer (301258), M8-1.25 x 40MM hex head bolt (70124) and 5/16" split washer (70111).



Figure 5: Rotating Upper Bracket into Position

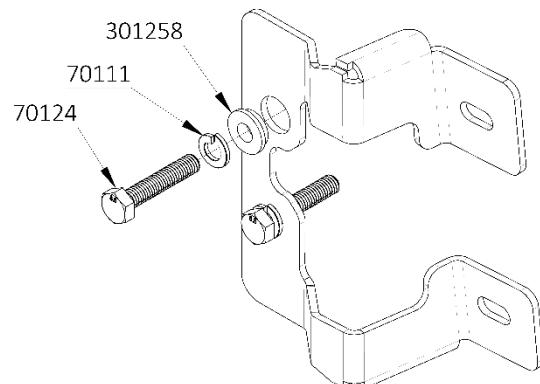


Figure 8: Upper Bracket, Upper Bolt Hardware

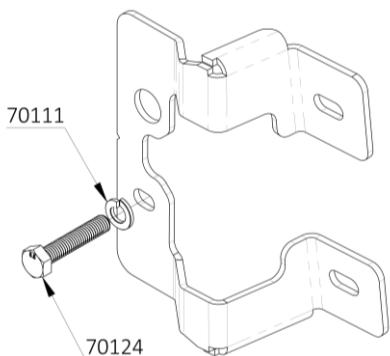


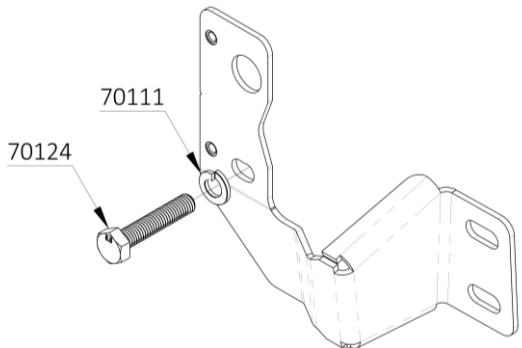
Figure 6: Upper Bracket, Lower Bolt Hardware



Figure 9: Upper Bracket, Installed Upper Bolt

13. On the lower hinge bracket, uninstall the lower factory bolt located on the door.
  - a. NOTE: Leave the upper bolt installed.

14. Fit the lower hinge bracket (350651) over the hinge by lifting the bracket up from the bottom.
15. Place the bracket over the upper factory bolt and the hole left by the lower bolt.
16. Install a M8-1.25 x 40MM hex head bolt (70124) and 5/16" split washer (70111) into the bottom hole. Tighten the bolt.

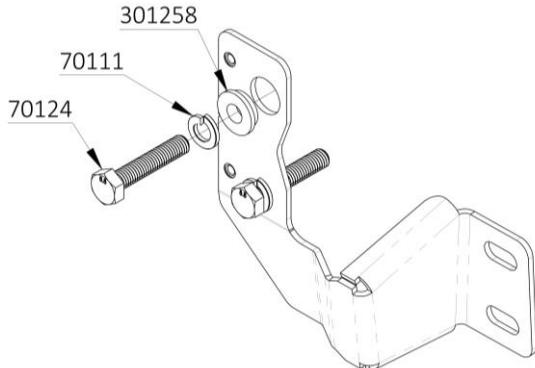


**Figure 10: Lower Bracket, Lower Bolt Hardware**



**Figure 11: Lower Bracket, Installed Lower Bolt**

17. Remove upper upper factory bolt and install a M8 machined spacer (301258), M8-1.25 x 40MM hex head bolt (70124) and 5/16" split washer (70111).



**Figure 12: Lower Bracket, Upper Bolt Hardware**



**Figure 13: Lower Bracket, Installed Upper Bolt**

**Ladder Install:**

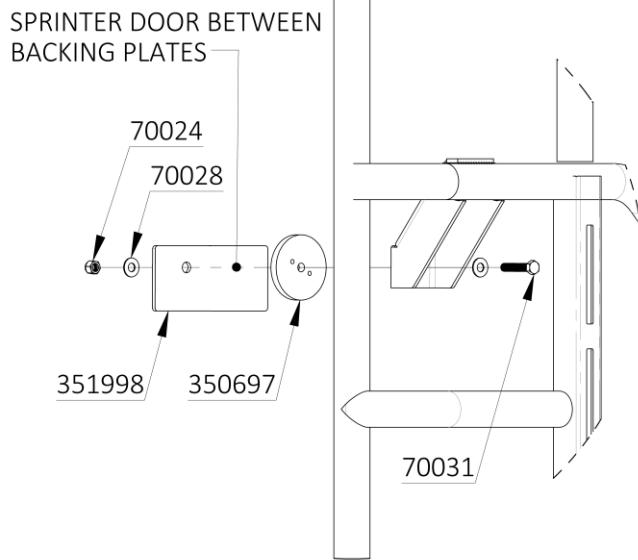
18. Remove door panel rivets to gain access to door magnet hardware, located inside of the door.



**Figure 4: Magnet Hardware Inside the Door**

19. Remove nut that secures factory door magnet and set parts aside.
20. Loosely install all bolts through bracket and ladder before tightening, see Figure 14.
  - a. For the upper hinge use the 1" 5/16 bolts (2X 70344), the 5/16" nylon locking nuts (2X 70346), and the 5/16" washers (4X 70345).
  - b. With the lower hinge use the 1" 5/16 bolts (2X 70344), the 5/16" nylon locking nuts (2X 70346), and the 5/16" washers (4X 70345).
  - c. For the through door mount use the 3/8-16 X 2 hex head bolt (1X 70031), the 3/8 nylon locking nut (1X 70024), and the 3/8 washers (2X 70028).

23. Check mounting hardware after first 100 miles of driving and periodically thereafter. Your new Aluminess ladder is now installed, enjoy!



**Figure 14: Loosely Installed Center Latch**

21. Tighten the upper and lower hinge brackets.
22. With all bolts tightened, verify the hinge brackets have appropriate clearances with the body while slowly opening and closing the doors. Adjust as needed.

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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1. **Lifetime Warranty.** Aluminess provides a lifetime warranty of its products to the original retail purchaser provided such products are installed correctly according to the official Aluminess installation instructions. Any modification to the original product design, function or use of any Aluminess products will void the Aluminess warranty. Aluminess will have sole discretion to determine warranty eligibility for any and all Aluminess products sold to any purchaser.
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.
3. **Modification.** Aluminess products are designed to be mounted to factory equipped vehicles. Aftermarket additions to such vehicle may or may not require modification of an Aluminess product. The Aluminess warranty does not extend to any Aluminess products that are modified to fit around other otherwise accommodate or be compatible with any aftermarket vehicle accessories or alterations. Aluminess does not guarantee fitment with any other aftermarket accessories or modified vehicle, and it is up to purchaser to determine fitment prior to purchasing any Aluminess product.
4. **Damage.** Damage to Aluminess products due to normal wear and tear, including, but not limited to, cosmetic issues and superficial scratches, or structural damage to an Aluminess product in connection with any vehicle collisions or other structural degradation in connection with the use of such vehicle (on road or off road) will not be covered by the Aluminess warranty. Additionally, any product user's misuse, neglect, overloading, improper maintenance or improper installation or repair of any Aluminess products are not covered under the Aluminess warranty.
5. **Use of the Products.** Aluminess products are designed for off road vehicle use. Installing Aluminess products on a vehicle may exceed the factory designed capabilities of such vehicle and could potentially lead to vehicle damage. Aluminess will not be responsible for any damage caused to a purchaser or user's vehicle or any vehicle accessories caused by the use of any Aluminess products. It is to the sole responsibility of purchaser to inspect and ensure that the intended vehicle and Aluminess products are suitable and compatible for travel on road and off road. No seller nor any manufacturer of Aluminess products will be liable for any loss, damage or injury directly or indirectly arising from the use of any Aluminess products. Before using any Aluminess products, the purchaser or user will determine the suitability of the product(s) for their intended use(s) and the purchaser or user shall assume all responsibility and risk in connection therewith.
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8. **Warranty Claim Submission.** Purchaser will be responsible for returning any defective product to Aluminess for warranty consideration and purchaser may be responsible for all costs associated with shipping the product to and from Aluminess. Prior to returning any product for warranty, purchaser must contact Aluminess Products Inc. for proper authorization.