

DODGE PROMASTER REAR DOOR LADDER INSTALLATION INSTRUCTIONS

SKU: 210567, 210567.1

IMPORTANT

- **APPLY ANTISEIZE TO STAINLESS HARDWARE**
 - *Stainless steel hardware may bind together when tightening—MUST apply an anti-seize assembly lubricant to the threads of each bolt before assembly*
- *Installation requires two or more people.*
- *Requires the license plate and license plate light to be relocated. Electrical connections must be made – professional installation required.*

Required tools

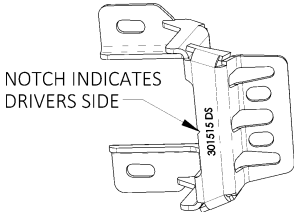
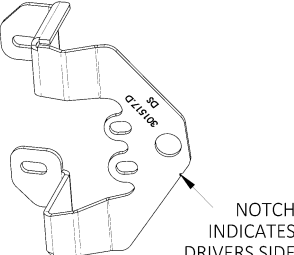
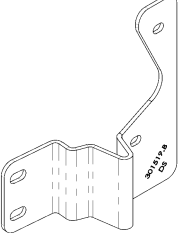

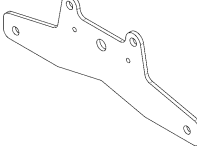
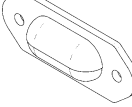

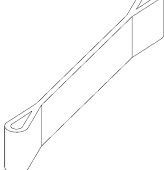
- Standard/Metric Wrenches
- Standard/ Metric Sockets
- Standard/Metric Allen Keys OR Hex Sockets
- Torx Bit
- Breaker Bar
- Tin-Snips OR Heavy-Duty Cutting Pliers
- Isopropyl Alcohol
- Liquid Soap
- Spray Bottle
- Clean Rag
- Squeegee OR Plastic Card
- Vice Grips
- Door Panel Plastic Rivet Puller OR Flat Head Screw Driver
- Scissor/Floor Jack (Optional)



Included Hardware

PN	DESCRIPTION	QUANTITY
70004	Nylock Nut, 10-32, SS	4
70005	Washer, #10, SS	2
70008	Nylock Nut, 1/4-20, SS	5
70009	Washer, 1/4 X 5/8, SS	2
70060	Button Head Socket Cap Bolt, 1/4-20 X 1, SS	4
70079	Pan Head Phillips Screw, 10-32 X 1/2, SS	2
70246	Loctite Anti-Seize, 2g	1
70344	Button Head Bolt, 5/16-18 X 1, SS, Black Oxide	6
70345	Washer, 5/16, SS, Black Oxide	12
70346	Nylock Nut, 5/16-18, SS, Black Oxide	6
70437	Button Head Bolt, M6-1.0 X 16MM, SS	4
70447	Hex Bolt, 1/4-20 X 3 1/4, SS, Zinc	1
70448	Washer, 5/16 X 3/4 X .125, SS	2
70461	Nylock Nut, 6-32, SS	2
70462	Socket Cap Bolt, 6-32 X 1, SS, Black Oxide	2
70477	Countersunk Flat Head Bolt, M8-1.5 X 30MM, SS	1
70733	1 3/4 Conduit Clamp EPMD	2
400999	Impact Resistant Protective Tape	14.5"

Included Parts/Subassemblies

PN	DESCRIPTION	QUANTITY	PICTURE
350682	Upper Hinge Bracket	1	
350684	Lower Hinge Bracket	1	
350686	Inner Door Bracket	1	
350688	Door Stop Channel	1	
350749	License Plate Mount	1	
400508	LED Light	1	
401022	Webbing Anchor	1	
401035	Door Strap	1	

Installation Instructions

Prep:

NOTE: Provided as additional paint protection.

1. Cut the supplied protective tape into a 4.5" section, a 3" section, and a 7" section. Round all corners.
2. Prepare to apply the protective tape **one at a time** to each location shown in Figure 1,
 - a. Top hinge
 - b. Bottom hinge
 - c. Inner door, the top of this tape is about 1 to 2 inches below the inner door pull handle.



Figure 1: Protective Tape Location

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

- d. Clean the area around each hinge with isopropyl alcohol and rag.
 - e. 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
3. Spray the taping location thoroughly with soap/water solution and do **not** wipe down surface.
4. Remove the liner from the protective tape while spraying the **adhesive side** with soap/water solution.

5. Apply the protective tape to the outside of the door. At the upper and lower hinge location, leaving approximately a ½" of tape overhanging to be wrapped around the edge of the door. Do **not** attach the overhang yet.
6. Use a squeegee or card to press all air bubbles out starting at adhered edge.
7. Use the alcohol/water solution to speed up adhesion at one edge by lifting a section up and spraying the adhesive side as needed.
8. Wrap remaining protective tape around the door underneath hinge as best as possible else, finish wrapping at Step 10 and 14.

Bracket Install:

9. Open the driver's door and support the weight of the door as seen in Figure 2 with a floor or scissor jack and a piece of wood or recruit assistance.



Figure 2: Supporting the Door

10. Looking at the upper hinge, remove the two torx bolts connecting the hinge to the door using a (Figure 3) and rotate the hinge away from the door (Figure 4).

NOTE: Keep the bolts, they will be reinstalled.

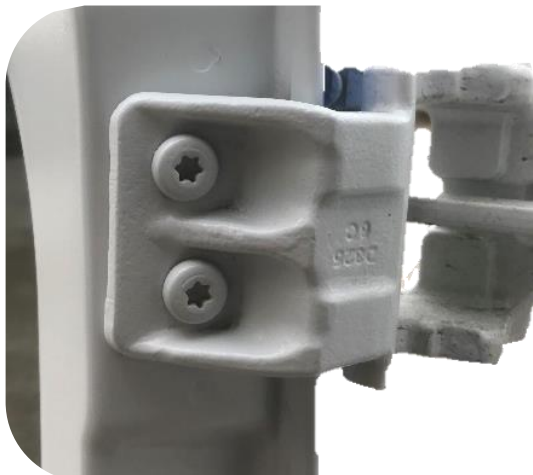


Figure 3: Upper Hinge Bolt Location



Figure 4: Upper Hinge Rotated Away from Door

11. Install the upper hinge bracket (350682) the holes in the bracket should align with the bolt holes, the "legs" should be facing the outside of the door as seen in Figure 5.

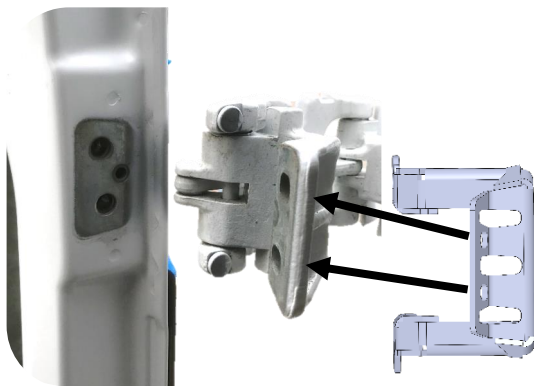


Figure 5: Upper Bracket Orientation

12. Rotate the hinge and bracket back to lining up with the door as seen in Figure 6.

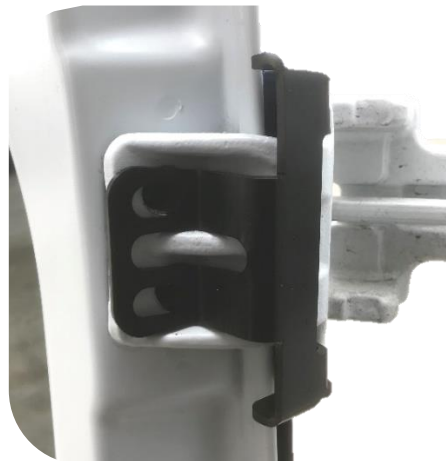


Figure 6: Upper Bracket over Factory Hinge

13. Confirm that bracket clears the rear door glass (if applicable) and use the saved factory hardware to reinstall the hinge and upper bracket (Figure 7).
- Center the bracket around the hinge and verify clearances around the hinge while slowly opening and closing the door.

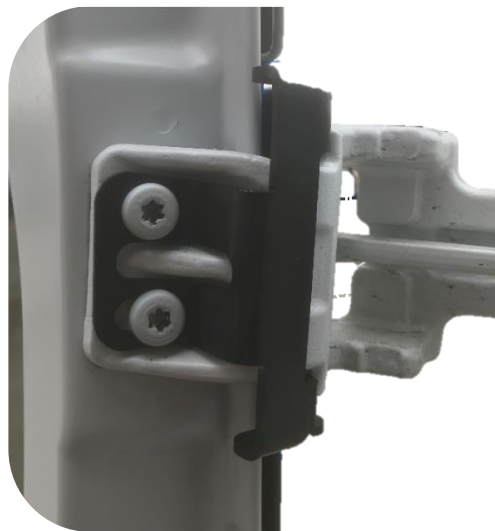


Figure 7: Installed Upper Bracket

14. Looking at the lower hinge, remove the three torx bolts connecting the hinge to the door using a (Figure 8) and rotate the hinge away from the door.

NOTE: Keep 2 of the bolts, they will be reinstalled.



Figure 8: Lower Hinge Bolt Location

15. Place the lower bracket (350684) following the same method as Step 11, where the “legs” are orientated to the outside of the door.
16. Rotate the hinge and bracket back to lining up with the door similar to Step 12.
17. Use the saved factory hardware to reinstall the two outer bolts and the provided M8 countersunk bolt (70477) to secure the front hole (Figure 9).
 - a. Center the bracket around the hinge and verify clearances around the hinge while slowly opening and closing the door.

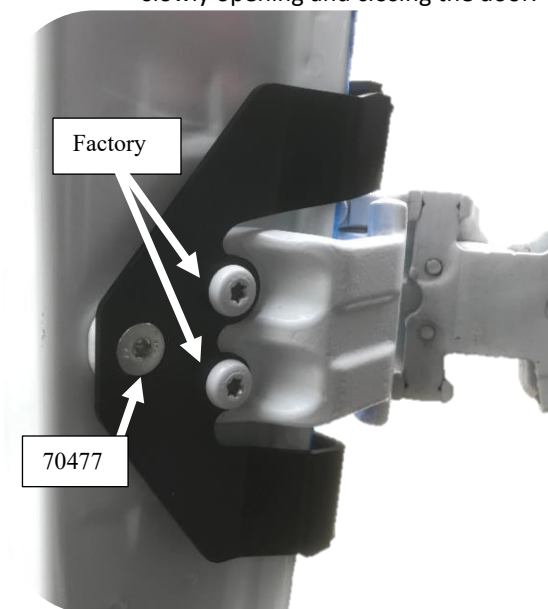


Figure 9: Installed Lower Bracket

18. To install the inner door bracket, loosen the weather-stripping on the inside of the driver’s side door starting from the top and peel towards bottom of the door.

19. Remove the driver’s side inside handle by removing the factory bolt seen in Figure 10. Keep the bolt to reinstall.



Figure 10: Driver's Side Inside Handle

20. Hold lever mounting post (inside of the door) with clamp or vice during the installation to prevent the latch falling into the door.
 - a. Lever mounting post is located in the door where the handle was removed from. Can grab the post by reaching through the hole the handle was mounted in.
21. Then remove the two torx screws located above and below the handle.
22. Install the inner driver door bracket using the two M6 bolts (70437). Then remove the clamp and reinstall the pull handle using the factory bolt as seen in Figure 11.

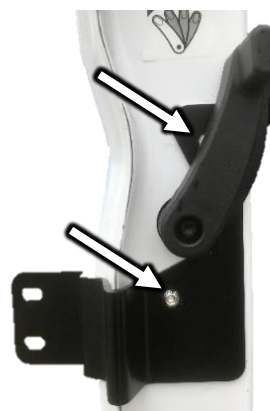


Figure 11: Installed Inner Bracket

23. Verify the inside door handle operates as desired.
24. Reinstall weather stripping over installed inner bracket and mark where strip overlaps bracket. Peel back weather stripping again and proceed to cut marked region to fit around inner door bracket.

Only cut the portion that attaches to the van, not the bulb that meets the other door. See Figure 12 and Figure 13.

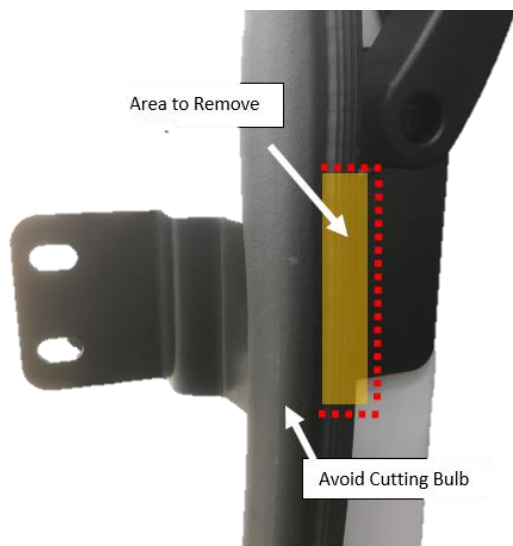


Figure 12: Cutting the Weather Stripping



Figure 13: Cut Weather Stripping

25. Reinstall weather stripping over the bracket ensuring cut section lines up with bracket as shown in Figure 14.



Figure 14: Installed Weather Strip

26. Loosely install the rack onto the upper, lower, and inner brackets using the provided 5/16"-18 bolts (70344), washers (70345), and nuts (70346).
- Place a washer onto the bolt, then the bolt through the slot, then another washer, before fastening the nut.
27. Tighten the upper and lower hinge brackets first. Followed by the inner bracket.
- There should be a small gap at the inner bracket before tightening (0 to an 1/8"). If the gap is larger than 1/8", use the provided 1/8" washers (70448) to close the gap until is less than or equal to 1/8" see Figure 15.

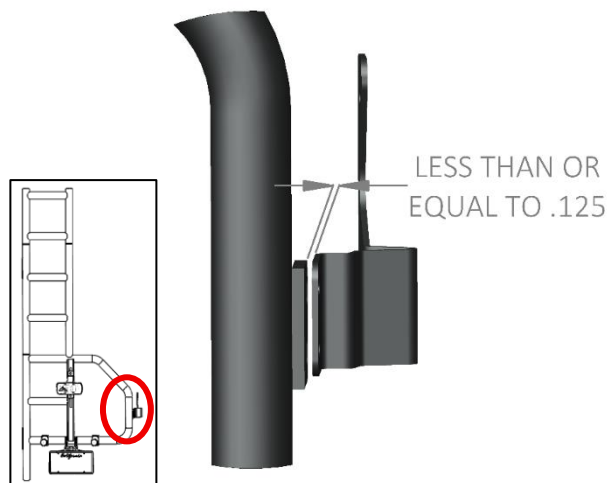


Figure 15: Inner Bracket to Ladder Spacing

Door Stop Install:

28. On the door trim next to the taillight, install the door stop channel bracket (350688) into the factory threaded holes using two M6-1.0 X 16mm button head screws (70437) as seen in Figure 16.



Figure 16: Factory Threads on Door Trim

29. Remove the plug grommet located on the of the door as seen in Figure 17.



Figure 17: Rubber Door Grommet

30. Partially remove door panel cover by carefully prying out push fastener using a plastic rivet puller or a flat head screw driver (recommend wrapping the flat head with tape to protect the paint). See Figure 18.



Figure 18: Plastic Door Rivets

31. Thread the door strap (401035) into the door stop channel (Step 28) as shown in Figure 19.

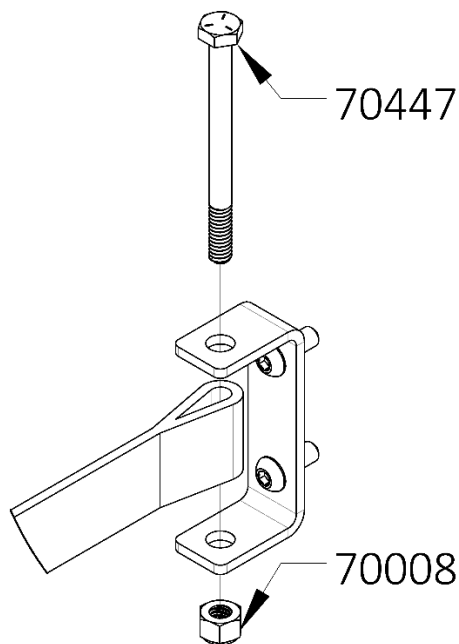


Figure 19: Door Stop Channel Hardware

32. Thread the other end of the door strap (401035) into the webbing anchor (401022) as shown in Figure 20. Install the webbing anchor to the door where the rubber grommet was removed.

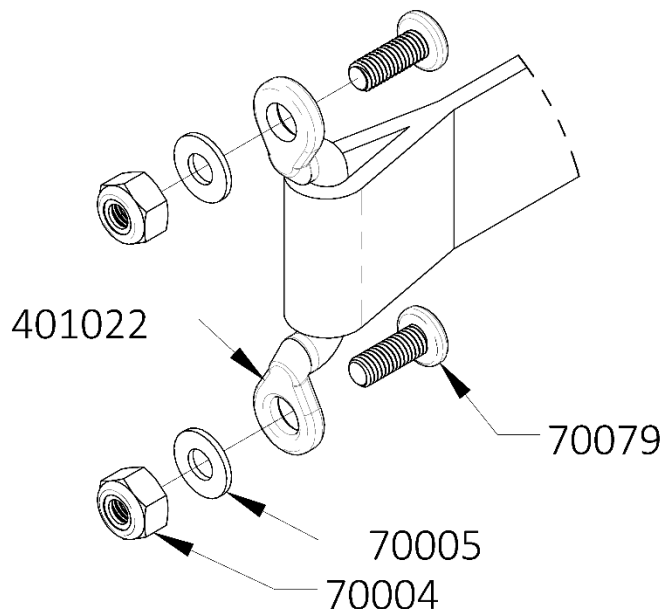


Figure 20: Webbing Anchor Hardware

33. Door strap should now look like Figure 21.

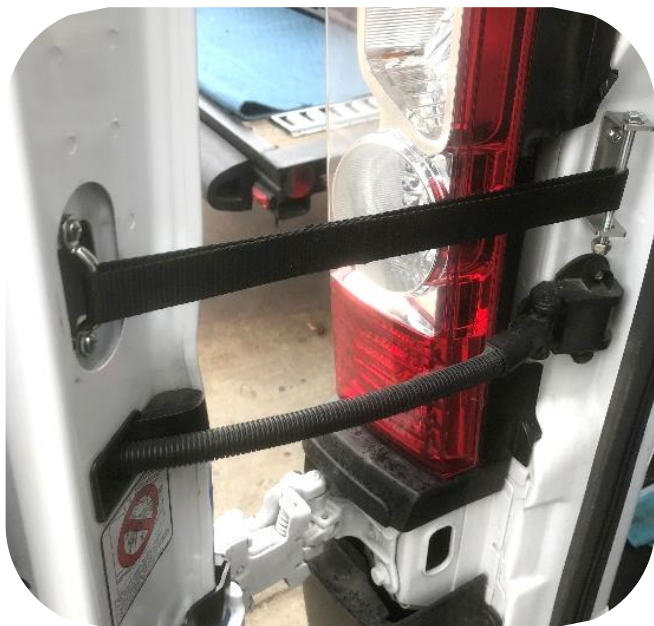


Figure 21: Installed Door Stop

34. Reinstall the door panel from Step 30.

License Plate Install:

35. Install the License plate holder onto the lower pipe as seen in Figure 22.

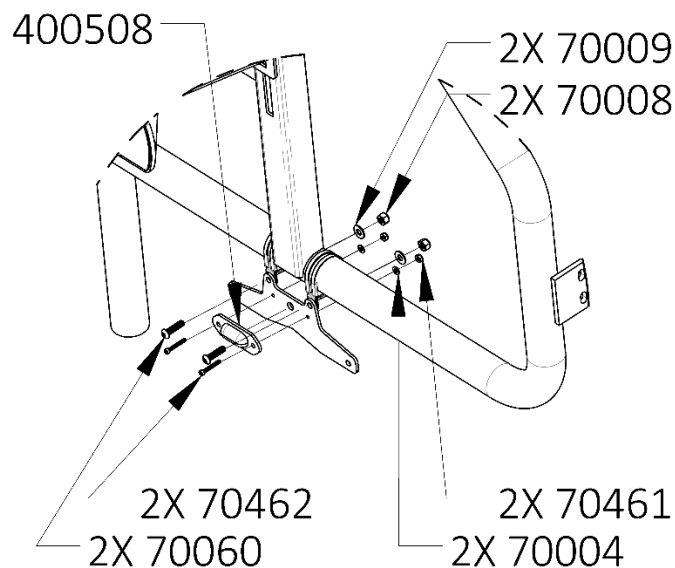


Figure 22: License Plate Install

36. Install license plate onto mount using 1/4-20 bolts (2X 70060) and 1/4-20 nylock nuts (2X 70008).

37. Verify that position is correct (Figure 23). Proceed to tighten nuts.

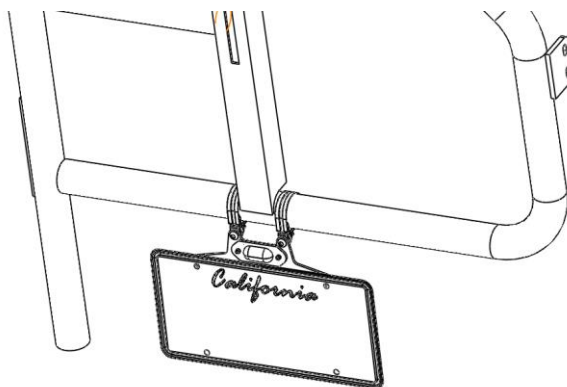


Figure 23: Installed License Plate

38. For bolt-on LED wiring (400508), please consult a certified automotive electrician to perform installation.

39. Congratulations! You have completed the installation of your new Aluminess Ladder Rack. Check mounting hardware on entire ladder assembly after the first 100 miles of driving and periodically after.

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.
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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.
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8. Warranty Claim Submission. Purchaser will 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.