



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

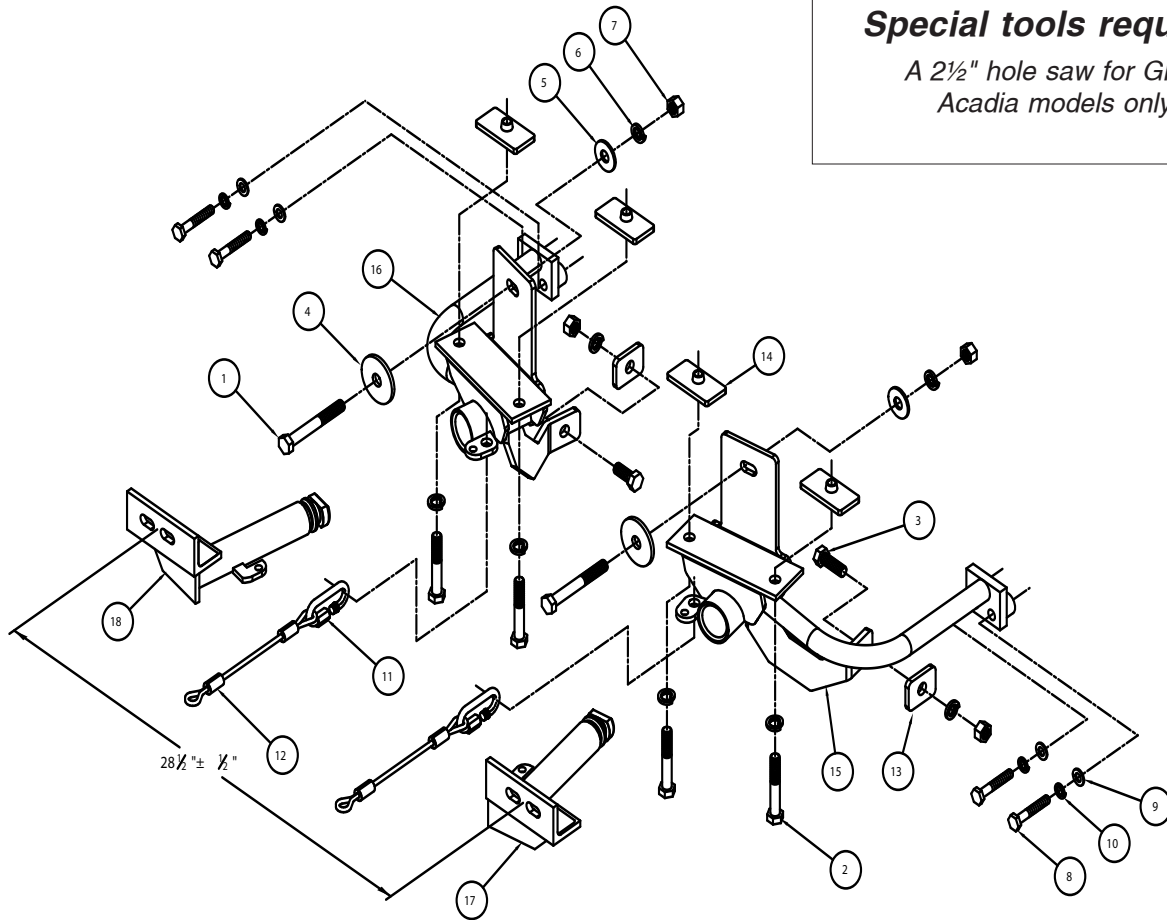
KIT# 523149-1

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Special tools required

A 2½" hole saw for GMC Acadia models only



| ITEM | QTY | NAME | MATERIAL |
|---------|--------|--|-----------|
| 1..... | 2..... | 1/2" x 4" BOLT | 350105-00 |
| 2..... | 4..... | 1/2" x 3" BOLT | 350101-00 |
| 3..... | 2..... | 1/2" x 1 1/2" BOLT | 350095-00 |
| 4..... | 2..... | 1/2" PLATE WASHER | A-003086 |
| 5..... | 2..... | 1/2" FLAT WASHER | 350308-00 |
| 6..... | 8..... | 1/2" LOCK WASHER..... | 350309-00 |
| 7..... | 4..... | 1/2" HEX NUT..... | 350258-00 |
| 8..... | 4..... | 10mm x 1.5 x 60 mm BOLT..... | 356107-00 |
| 9..... | 4..... | 10mm FLAT WASHER | 355710-00 |
| 10..... | 4..... | 10mm LOCK WASHER | 355715-00 |
| 11..... | 2..... | QUICK LINK | 200008-00 |
| 12..... | 2..... | SAFETY CABLE 8"..... | 650648-8 |
| 13..... | 2..... | 3/16" x 1 1/2" x 2" RD. HOLE BACKING PLATE..... | A-000122 |
| 14..... | 4..... | 3/16" x 1 1/2" x 3" THREADED BACKING PLATE | A-003079 |
| 15..... | 1..... | DRIVER SIDE RECEIVER..... | C-001494 |
| 16..... | 1..... | PASSENGER SIDE RECEIVER | C-001495 |
| 17..... | 1..... | DRIVER SIDE ARM | C-001492 |
| 18..... | 1..... | PASSENGER SIDE ARM..... | C-001493 |
| 19..... | 1..... | ZIP TIE | 300140-10 |

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This is one of our EZ series brackets, which allows the visible front portion of the bracket to be easily removed from the front of the vehicle (Fig.A and Fig.B). The bracket kit consists of a passenger and driver side main receiver brace, two removable front braces and a hardware pack.

The main receiver braces mount to the bumper core, the lower frame rail and the subframe. The removable front braces install in the main receiver braces.

Before starting the installation, lay out the kit components in order, as they will be used. This will give you a visual idea of how the components work, and will also confirm that everything is present and accounted for.



IMPORTANT: All brackets *must* be assembled with all the bolts left loose for final adjustment and positioning (before tightening) unless otherwise instructed. All bolts *must* be torqued for proper strength. If more than one bolt is used per fastening point, the diagram may only show one.

- Use flat washers over all slotted holes
- Use lock washers on all fasteners

ROADMASTER Limited Warranty, including One-Year Conditional Warranty Text and Product Registration Card, in Carton.

WARNING

Failure to follow these instructions can result in property damage, personal injury or even death.

- Installation of most mounting brackets requires moderate mechanical aptitude and skills. We strongly recommend professional installation by an experienced installer.
- The installer must read the instructions and use all bolts and parts supplied. Failure to do so could result in loss of the towed vehicle.
- Use Loctite® Red on all bolts used for mounting this bracket.
- Every 3,000 miles, the owner must inspect the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions. The owner must also inspect all mounts and brackets for cracks or other signs of fatigue every 3,000 miles. Failure to do so could result in loss of the towed vehicle.
- The owner must check the vehicle manufacturer's instructions for the proper procedure(s) to prepare the vehicle for towing. Some vehicles must be equipped with a transmission lube pump, an axle disconnect, driveline disconnect or free-wheeling hubs before they can be towed. Failure to properly equip the vehicle will cause severe damage to the transmission.
- If running changes were made by the vehicle manufacturer after this bracket was designed, some bolts or other fasteners in the hardware pack may no longer be the correct size. It is the installer's responsibility to verify that the bracket is securely fastened to the vehicle and fitted with the correct hardware to account for these changes. Failure to securely fasten the bracket could result in loss of the towed vehicle.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the bracket. Do not install the bracket if any structural frame damage is found. Failure to repair the damage could result in the loss of the towed vehicle.
- Roadmaster manufactures many styles of brackets. If your bracket has removable arms, they must be removed before driving the vehicle, unless the arms can be pinned or padlocked in place. If not secured, the arms could vibrate out, resulting in non-warranty damage or personal injury.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or bracket while turning sharply. Before getting on the road, test your turning radius in an empty parking lot. Turning too sharply could result in non-warranty damage to towing system, motorhome and/or towed vehicle.
- Do not back up with the towed vehicle attached or non-warranty damage will occur to your towing system, motorhome and/or towed vehicle.
- The safety cables must connect the towing vehicle to the towed vehicle frame to frame, with the cables crossed, with enough slack for sharp turns. Refer to the cable instructions for proper routing. Failure to leave enough slack in the safety cables, or failure to connect the safety cables frame to frame, will result in the loss of the towed vehicle.
- This bracket is designed for use with ROADMASTER tow bars and ROADMASTER adaptors only. Using this bracket with other brands, without an approved ROADMASTER adaptor, may result in non-warranty damage or injury.
- Do not use this document for custom fabrication, as it may not show all parts or structural components. Custom fabrication or an attempt to copy this bracket design could result in loss of the towed vehicle.
- Upon final installation, the installer must inspect the bracket to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc., or non-warranty damage to the towed vehicle will result.
- This bracket is only warranted for the original installation. Installing a used bracket on another vehicle is not recommended and will void the warranty.



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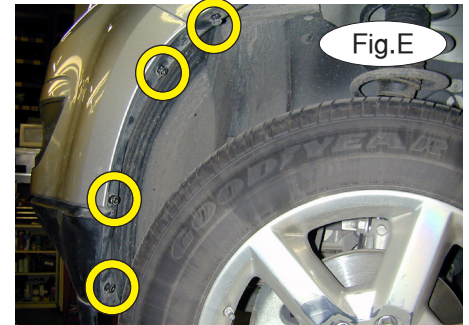
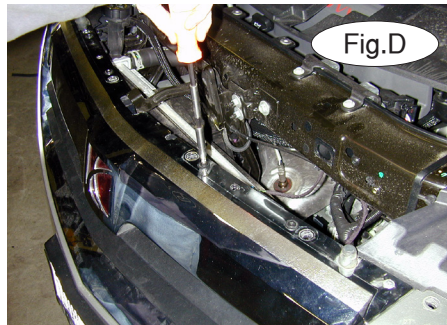
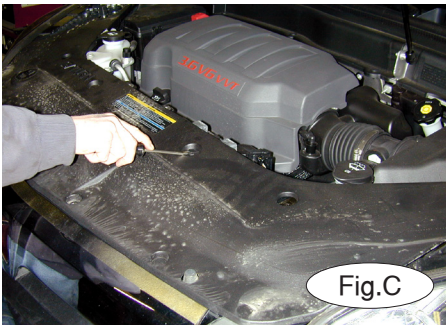
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Main Installation Instructions

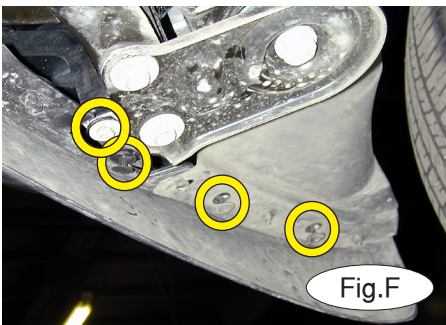
Please note: this bracket kit fits the Saturn Outlook, Buick Enclave, GMC Acadia and Chevy Traverse. Follow steps 1-6 below to remove the fascia on the Saturn Outlook; for the Buick Enclave, GMC Acadia and Chevy Traverse, see the separate supplements.



1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation.

Start by removing eight plastic fasteners (Fig.C) attaching the radiator cover to the core support. Then, remove the radiator cover.

- Remove two plastic fasteners and four Phillips head screws attaching the top of the fascia to the core support (Fig.D).
- On each side, remove four Phillips head screws attaching the inner fender liner to the fascia and fender (Fig.E).



4. Now, on each side, remove two Phillips head screws attaching the bottom of the fender liner to the lower fascia (Fig.F). Then remove one 10mm (head) bolt and one plastic fastener attaching the lower fascia to the support bracket (Fig.F). *Note:* the two 10mm bolts will not be replaced.

5. On each side, pull the fender liner out and away to gain access to one 7mm (head) bolt attaching the fascia to the fender. Remove the bolt (Fig.G).



6. Disconnect the fog lights (if the vehicle is so equipped). On each side, pull out and forward on each corner of the fascia to remove it (Fig.H). *Note:* due to manufacturing variances, there is an extra trim piece on the fender well on some models (Fig.I). Pull out on this piece to remove the fascia (Fig.J).



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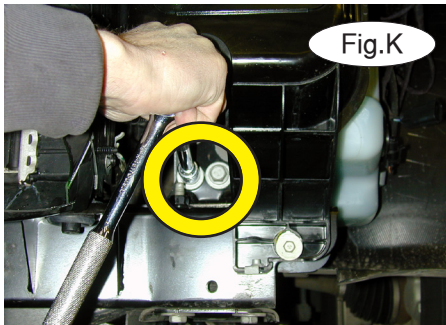


Fig.K

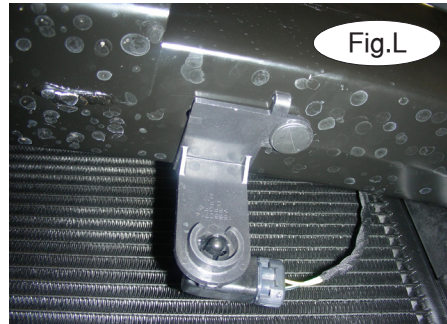


Fig.L

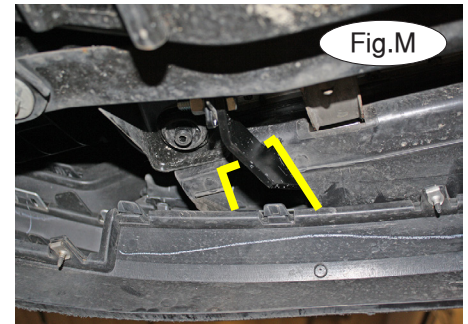


Fig.M

7. Attach one of the main receiver braces – starting on the driver's side, remove the two 15mm (head) bolts attaching the lower subframe to the lower frame rail (Fig.K). *Note:* if an ambient temperature sensor is present, remove it by removing one plastic fastener (Fig.L).

8. Position the driver's side main receiver brace against the bumper core, so that the two pre-drilled holes in the main receiver brace align to the holes for the bolts you removed in the previous step. If the vehicle is equipped with a lower splash shield, trim it to allow clearance for the main receiver brace (Fig.M).

9. Bolt the main receiver brace into place, using two 10mm x 1.5 x 60mm bolts, flat washers and lock washers (Fig.N).

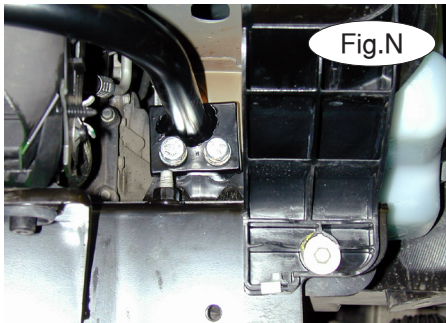


Fig.N

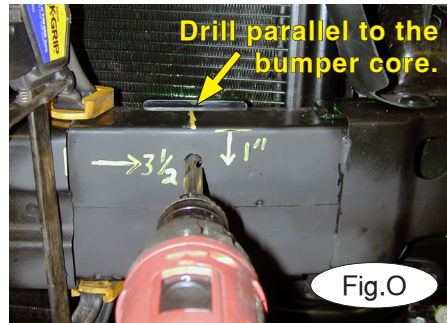


Fig.O

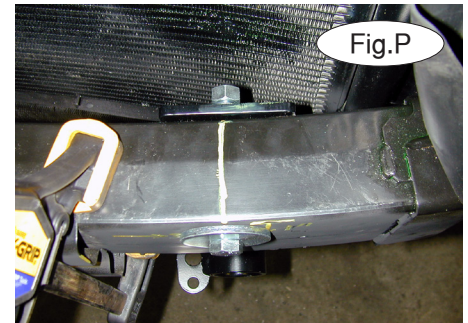


Fig.P

10. Clamp the main receiver brace to the bumper core, so that the rear backing plate and the bottom plate on the main receiver brace are both flush to the back of the bumper core (Fig.O).

11. Measure one inch down from the top of the bumper core and 3 1/2" over from the center reinforcement on the bumper core. Where these lines intersect, drill a 1/2" hole through the front and back of the bumper core (Fig.O).

Note: in order to align to the pre-drilled hole in the main receiver brace, drill parallel to the face of the bumper core, as indicated by the yellow marker line at the top of the bumper core in Figure P.

Note: to prevent damage to the condenser core, position a piece of scrap metal behind the main receiver brace before drilling.

12. Attach the main receiver brace with one of the supplied 1/2" x 4" bolts. Use a 1/2" plate washer at the front of the bumper core, and a 1/2" flat washer, lock washer and nut at the back of the bumper core (Fig.Q).

13. Using the two pre-drilled holes on either side of the receiver tube in the main receiver brace as templates, drill two 1/2" holes through the first and second layers of the bumper core (Fig.R).

14. Position two of the supplied 3/16" x 1 1/2" x 3" nutted backing plates inside the bumper core, so that the holes in the plates align over the holes you drilled in the previous step. From the bottom of the bumper core, bolt through the main receiver brace, the first and second layers of the bumper core and into the nutted backing plate (Fig.R). Use two of the 1/2" lock washers over two 1/2" x 3" bolts.

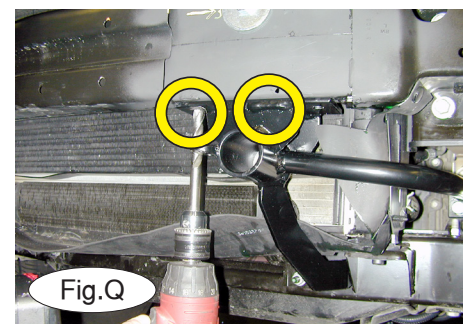


Fig.Q

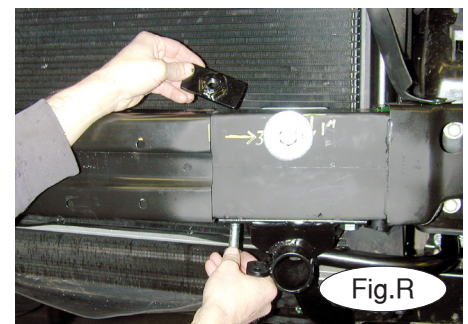


Fig.R

15. Repeat steps 7 through 14 to attach the passenger side main receiver brace.



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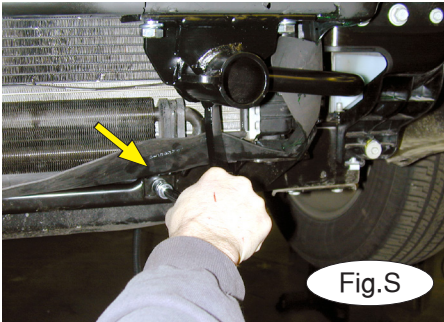


Fig.S

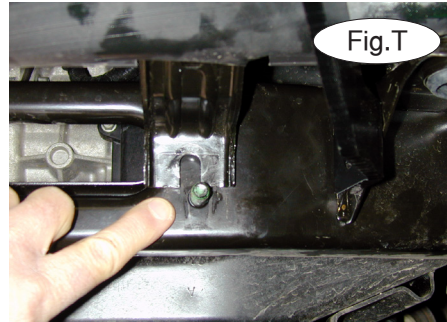


Fig.T

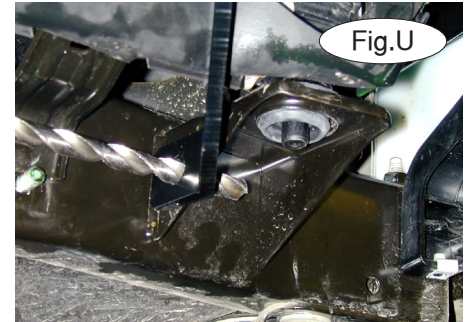


Fig.U

16. Attach both lower braces to the subframe – on each side, remove the two 15mm (head) nuts attaching the oil cooler to the subframe (Fig.S). Push the oil cooler mounts up and over, so they sit on the studs (Fig.T).

17. Using the pre-drilled hole in the lower brace as a template, drill a 1/2" hole through the support bracket on the subframe (Fig.U). Repeat for the other side.

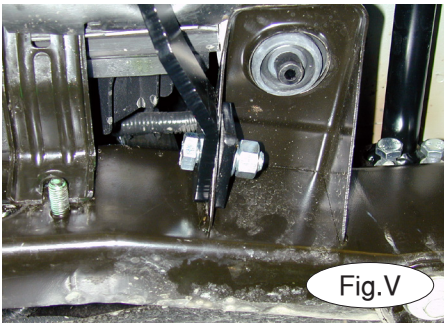


Fig.V

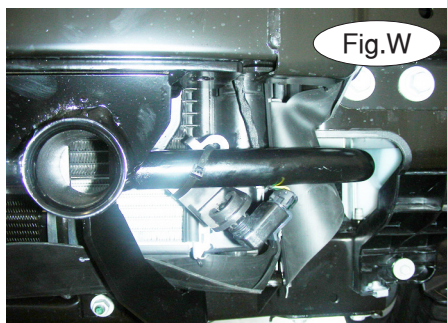


Fig.W



Fig.X

18. To attach the lower brace, bolt through the lower brace, the support and one of the 3/16" x 1/2" x 2" backing plates with one of the 1/2" x 1 1/2" bolts. Finish with a 1/2" lock washer and nut (Fig.V). Repeat for the other side.

19. Reattach the oil cooler (step 16). *Note:* make sure the oil cooler lines are not touching the main receiver brace. If they are, the oil cooler can be slid up and retightened, or the lines can be bent.

20. If the vehicle is so equipped, reattach the ambient temperature sensor to the driver's side brace using the supplied zip tie (Fig.W). Torque all bolts to the specifications listed at the end of these instructions.

21. **For Saturn Outlook models only:** in order to accommodate the receiver extensions, a portion of the fascia on each side must be trimmed. Use the yellow marker lines in Figure X as a reference. *Note: all other models have trimming photos within their specific supplements.*

22. **For Saturn Outlook models only:** remove the tab in Figure Y to accommodate the main receiver brace.

23. **For Saturn Outlook models only:** reattach the fascia and the radiator cover, reversing steps 1 through 6.

24. Insert the removable front braces into the main receiver brace, and twist them 90 degrees to lock.



Fig.Y

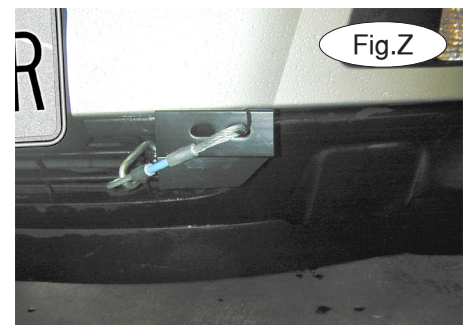


Fig.Z

Attach the safety cables with the cable connectors (Q-Links) to the front of the receiver brace (Fig.Z). Attach the ends of the safety cables to the tow vehicle's safety cables and tow bar.

25. Install the tow bar to the mounting bracket according to the manufacturer's instructions.

Note: if the bracket is so equipped, the holes in the alignment tabs which are welded to the arms and main receiver braces are for padlocks only. Under no circumstances should you bolt the alignment tabs together. Bolting the alignment tabs together may result in non-warranty damage to the bracket.



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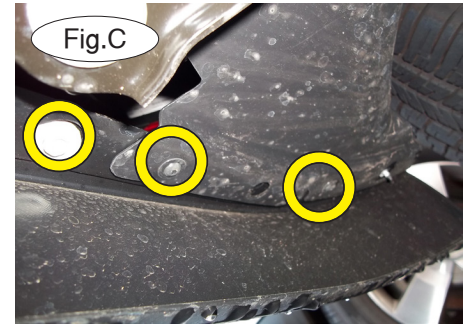
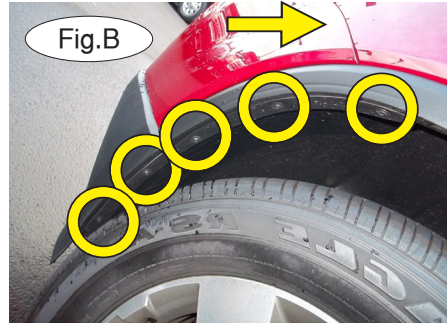
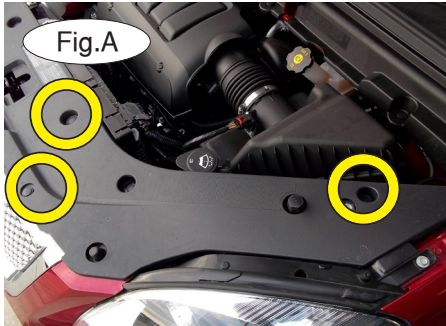
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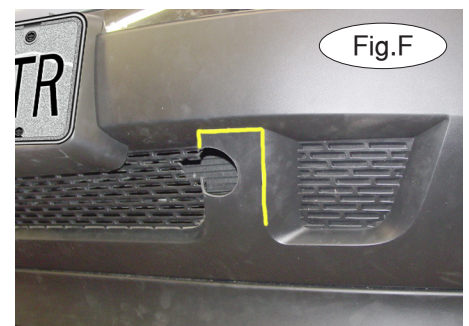
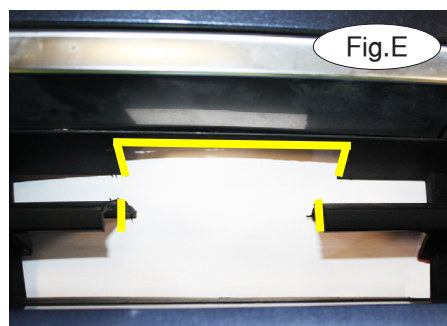
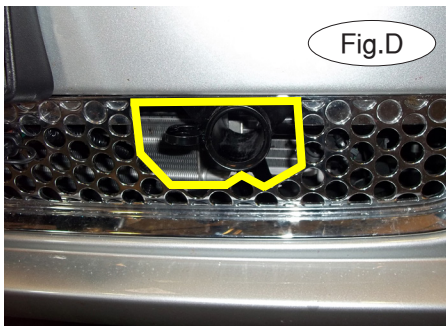
GMC Acadia Instructions

Please note: this bracket kit fits the Saturn Outlook, Buick Enclave, GMC Acadia and Chevy Traverse. Follow steps 1-8 below to remove and trim the fascia on the GMC Acadia; for the Buick Enclave, Saturn Outlook and Chevy Traverse, see the separate supplements.



1. On each side, remove three plastic fasteners attaching the radiator cover to the top of the fascia (Fig.A), After removing the cover, remove three Philips screws and one plastic fastener attaching the top of the fascia to the radiator cover. **Note: due to manufacturing variances, all screws referenced in this supplement may be T20 Torx and the total number of fasteners for each step may vary for '13 and later models.**

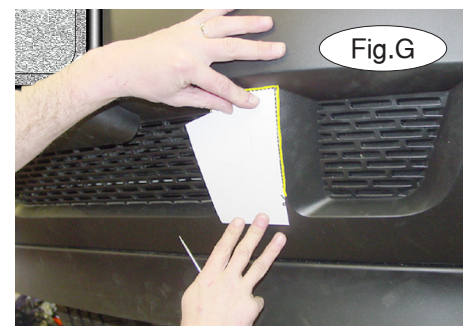
2. On each side, remove five Philips screws attaching the fender liner to the fascia (Fig.B). Now, pull back the fender liner and remove one 7mm screw at the corner of the fascia, as indicated by the arrow in Figure B.



3. On each side, remove two Philips screws and one 10mm (head) bolt attaching the fender liner to the lower fascia (Fig.C). Now, pull out on the corners of the fascia to remove it from the locking strips.

4. **For Acadia Denali models only:** remove the grille from the back of the fascia by releasing 18 plastic fasteners. Reinstall the fascia, reversing steps 1 through 3 in this supplement. Hold the grille in place and mark it for trimming. Use the yellow lines in Figure D as a reference for trimming the grille on each side. Then, reinstall the grille into the fascia before proceeding with step 5 below. **For all other Acadias:** proceed to step 5.

5. **For '13 and later models:** trim to allow clearance (Fig.E). **For all other models:** cut out the provided templates on the back page along the dotted line. Using the yellow marker line in Figure F for correct placement, place the template in position (Fig.G). Use a punch to make an impression through the X in the center of the circle on the template. This will be used as a center point for drilling.





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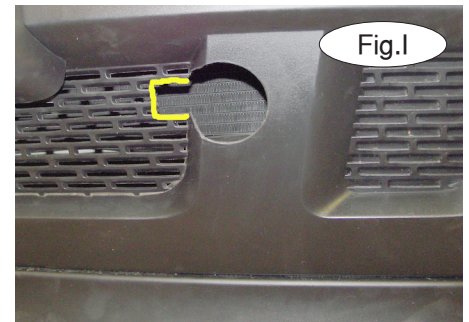
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Now, use the 2½" hole saw to drill the hole in the fascia (Fig.H). Repeat for the other side. A small portion of the grille next to the circle you cut will need to be trimmed to access the lock tabs, approximately 1" (Fig.I).

Now, return to step 7 in the Main Installation Instructions on page 4 to finish the installation.





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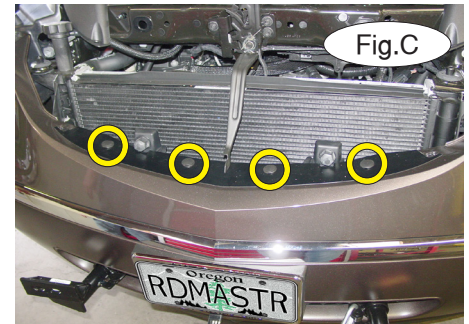
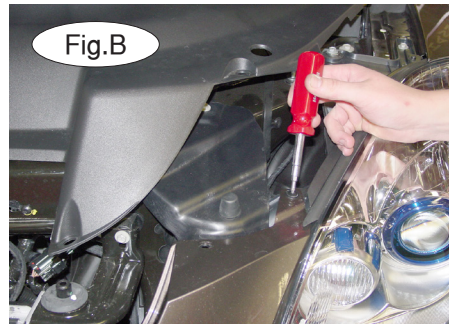
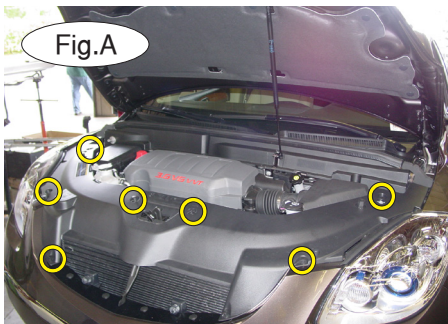
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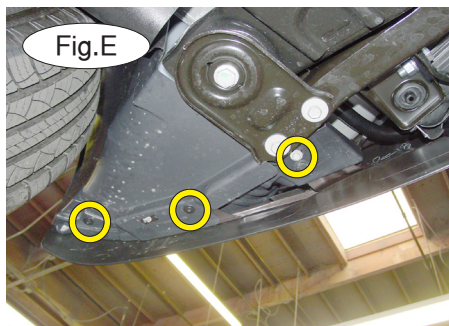
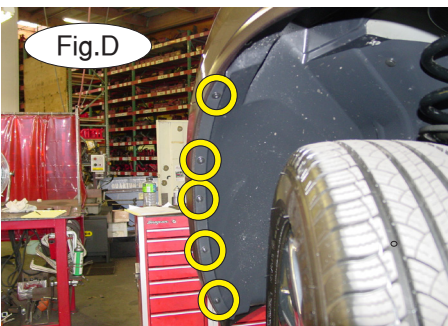
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Buick Enclave Instructions for '08-'12 Models

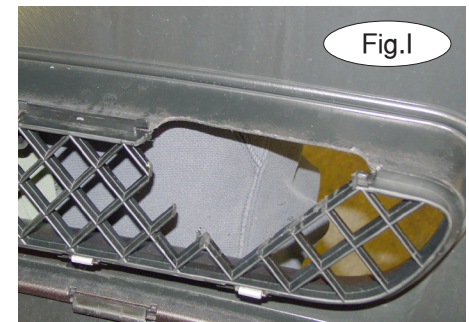
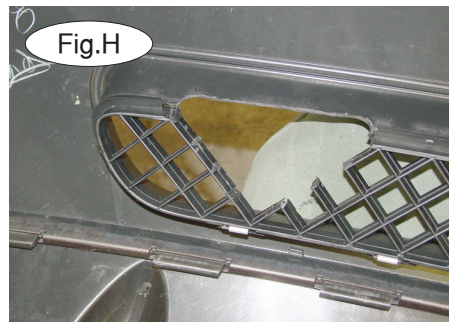
Please note: this bracket kit fits the Saturn Outlook, Buick Enclave, GMC Acadia and Chevy Traverse. Follow steps 1-8 below to remove and trim the fascia on the Buick Enclave '08-'12 models; for the '13 and later Buick Enclave, as well as Saturn Outlook, Acadia and Chevy Traverse models, see the separate supplements.



1. Remove eight plastic fasteners attaching the radiator cover to the core support and fascia (Fig.A).
2. Next, remove two Phillips screws (one per side – Fig.B) and four plastic fasteners attaching the top of the fascia to the core support (Fig.C).



3. Remove five Phillips screws attaching the fender liner to the fascia (Fig.D).
4. Remove two Phillips screws and one 10mm bolt attaching the fender liner to the bottom of the fascia (Fig.E). Repeat for the other side.
5. Now, disconnect the fog lights if your vehicle is so equipped.
6. On both sides, pull the corner of the trim piece out by pushing down on the back of the plastic tab (Fig.F).
7. Remove the fascia by pulling out and forward on both corners (Fig.G).



8. The top edge of the fascia needs to be trimmed back approximately 1/2". Refer to Figures H and I for correct trimming of the grille.

Now, return to step 7 in the Main Installation Instructions on page 4 to finish the installation.



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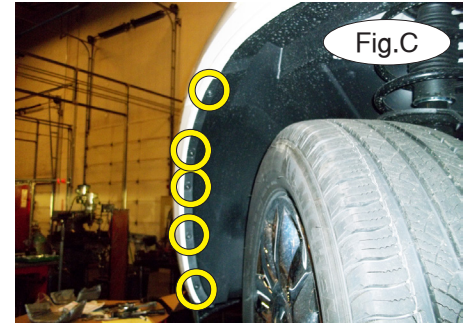
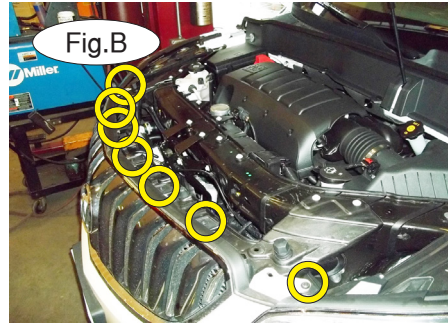
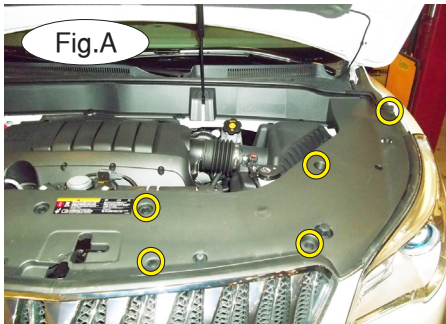
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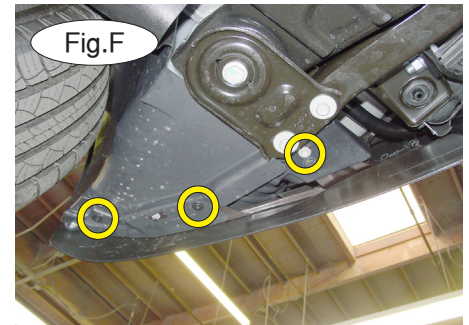
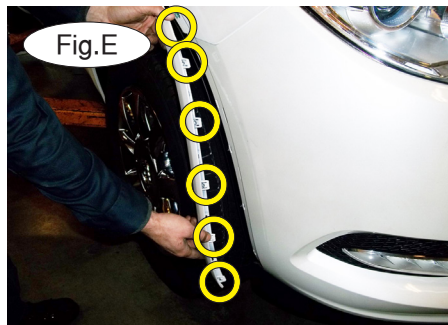
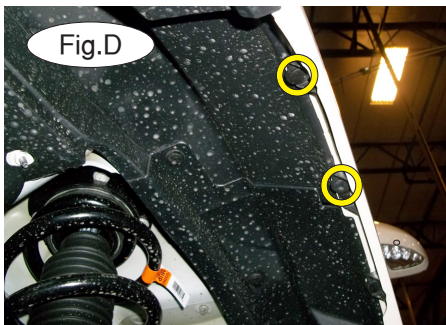
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Buick Enclave Instructions for '13 and Later Models

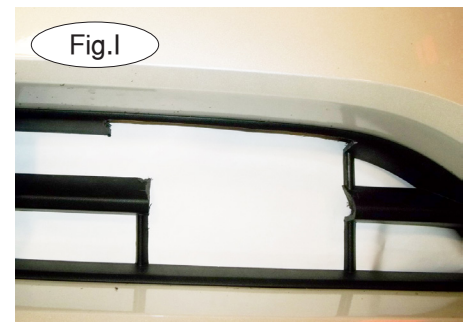
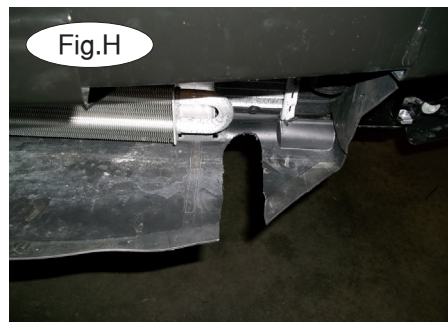
Please note: this bracket kit fits the Saturn Outlook, Buick Enclave, GMC Acadia and Chevy Traverse. Follow steps 1-8 below to remove and trim the fascia on the Buick Enclave '13 and later; for the '08-'12 Buick Enclave, as well as Saturn Outlook, Acadia and Chevy Traverse models, see the separate supplements.



1. Remove 10 plastic fasteners attaching the radiator cover to the core support and fascia (Fig.A – driver's side).
2. Next, remove seven T20 Torx screws attaching the top of the fascia to the core support (Fig.B).
3. On each side, remove five T20 Torx screws (Fig.C) and two plastic fasteners (Fig.D) attaching the trim the fascia.



4. On each side, release six plastic clips attaching the trim to the fascia and pull out to remove the trim piece (Fig.E).
5. On each side, remove two T20 Torx screws and one 10mm (head) bolt attaching the fascia to the fender liner (Fig.F).



6. Remove the fascia by pulling out and forward on both corners (Fig.G).
7. On each side, trim the splash shield as shown in Figure H to allow clearance for the main receiver brace.
8. On each side, trim the fascia as shown in Figure I.

Now, return to step 7 in the Main Installation Instructions on page 4 to finish the installation.



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

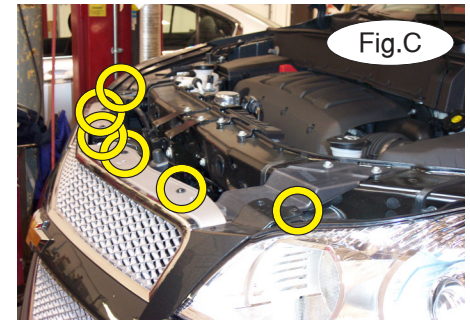
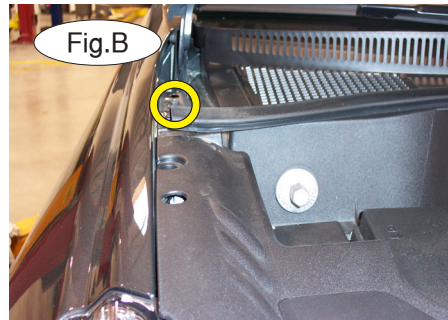
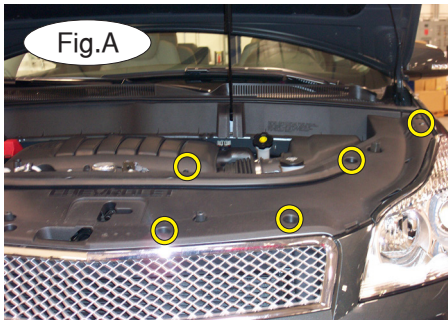
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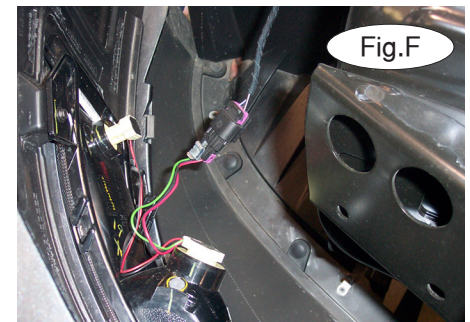
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Chevy Traverse Models

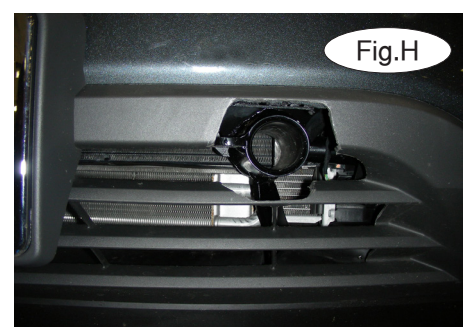
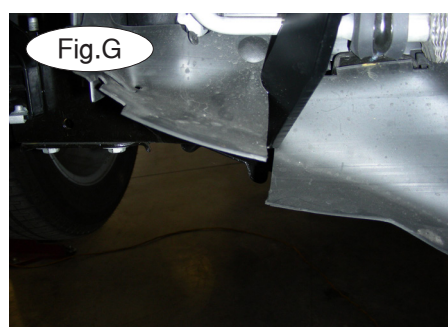
Please note: this bracket kit fits the Saturn Outlook, Buick Enclave, GMC Acadia and Chevy Traverse. Follow steps 1-7 below to remove and trim the fascia on the Chevy Traverse; for the Buick Enclave, Saturn Outlook, Acadia and Chevy Traverse models, see the separate supplements.



1. Remove 10 plastic fasteners attaching the radiator cover to the core support and fascia (Fig.A – driver's side).
2. On each side, remove one plastic fastener attaching the weather stripping to the back of the radiator cover (Fig.B – passenger side).
3. Remove six 7mm (head) bolts attaching the radiator core to the core support (Fig.C).

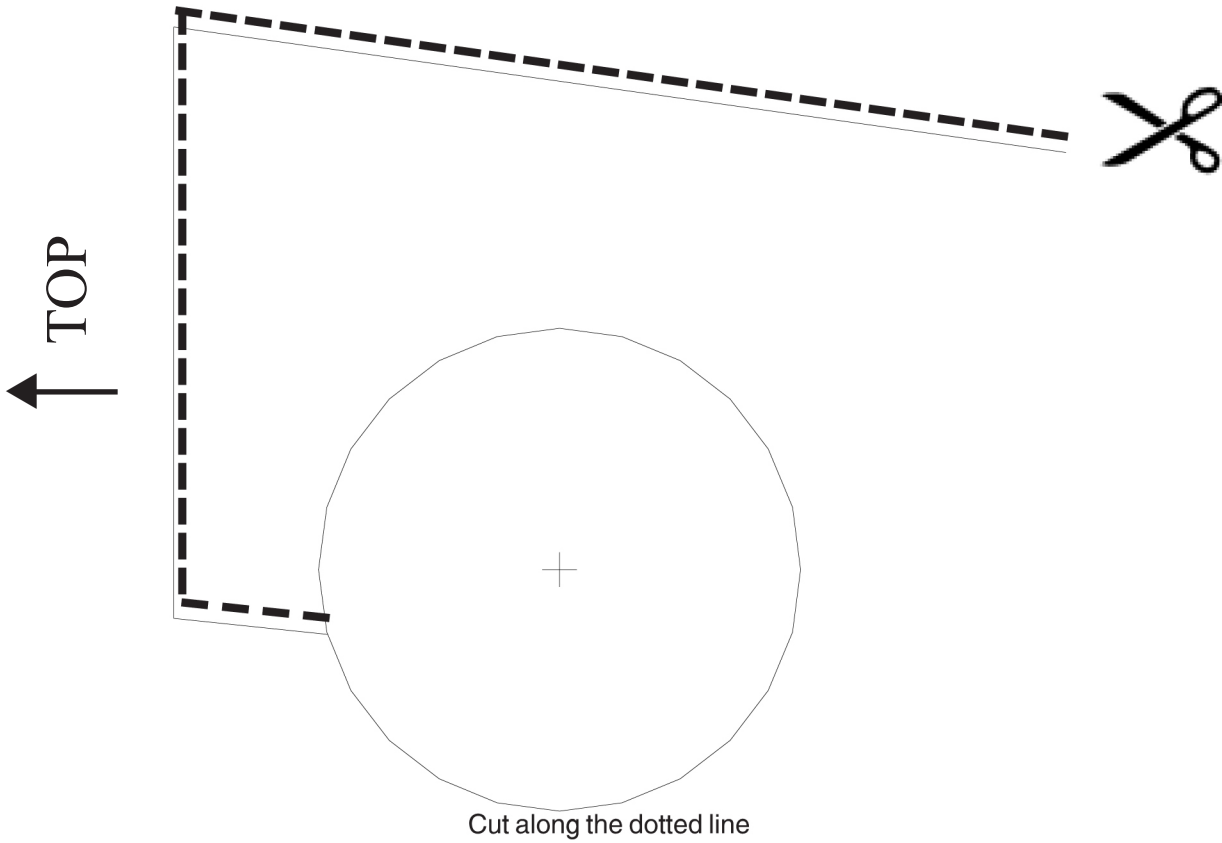


4. On each side, remove four Phillips screws, a 7mm (head) bolt and a 10mm (head) bolt attaching the fender to the fascia. *Note:* on each side, two screws and the 7mm (head) bolt are located on the inside edge of the fender wall (Fig.D) and the others are along the bottom (Fig.E).

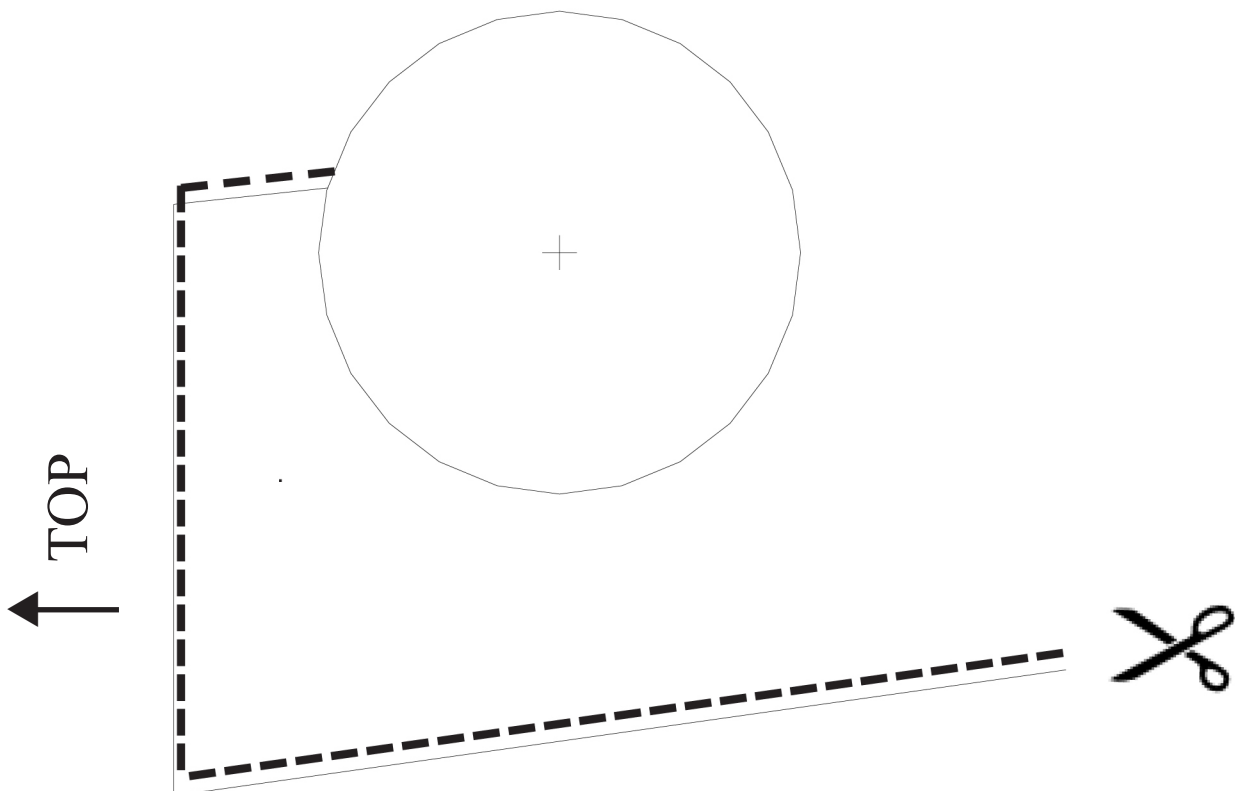


5. Pull out on the fascia so you can disconnect the fog lights and marker lights (Fig.F). Pull out the rest of the way to remove the fascia completely.
6. On each side, trim the air deflectors as shown in Figure G.
7. On each side, trim the fascia as shown in Figure H to allow clearance for the main receiver brace.

Now, return to step 7 in the Main Installation Instructions on page 4 to finish the installation.



(see also Figure E on page 6 in the GMC Acadia instructions for orientation purposes)





MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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BOLT TORQUE REQUIREMENTS

Note: The torque values represented below are intended as general guidelines. Torque requirements for specific applications may vary. Roadmaster does not warrant this information to be accurate for all applications and disclaims all liability for any claims or damages which may result from its use.

STANDARD BOLTS

| Thread Size | Grade | Torque |
|-------------|--------|-------------|
| 5/16..... | 5..... | 13 ft./lb. |
| 3/8..... | 5..... | 23 ft./lb. |
| 7/16..... | 5..... | 37 ft./lb. |
| 1/2..... | 5..... | 56 ft./lb. |
| 5/8..... | 5..... | 150 ft./lb. |

METRIC BOLTS

| Thread Size | Grade | Plated / Unplated |
|----------------|----------|-----------------------|
| 8mm-1.0..... | 8.8..... | 20 ft./lb. 18 ft./lb. |
| 8mm-1.25..... | 8.8..... | 19 ft./lb. 18 ft./lb. |
| 10mm-1.25..... | 8.8..... | 38 ft./lb. 36 ft./lb. |
| 10mm-1.5..... | 8.8..... | 37 ft./lb. 35 ft./lb. |

METRIC BOLTS

| Thread Size | Grade | Plated / Unplated |
|----------------|----------|------------------------|
| 12mm-1.25..... | 8.8..... | 70 ft./lb. 65 ft./lb. |
| 12mm-1.5..... | 8.8..... | 66 ft./lb. 61 ft./lb. |
| 12mm-1.75..... | 8.8..... | 65 ft./lb. 60 ft./lb. |
| 14mm-2.0..... | 8.8..... | 104 ft./lb. 97 ft./lb. |

All illustrations and specifications contained herein are based on the latest information available at the time of publication approval. ROADMASTER, INC. reserves the right to make changes at any time without notice in material, specification and models or to discontinue models.