



MOUNTING BRACKET KIT **KIT# 523149-1**

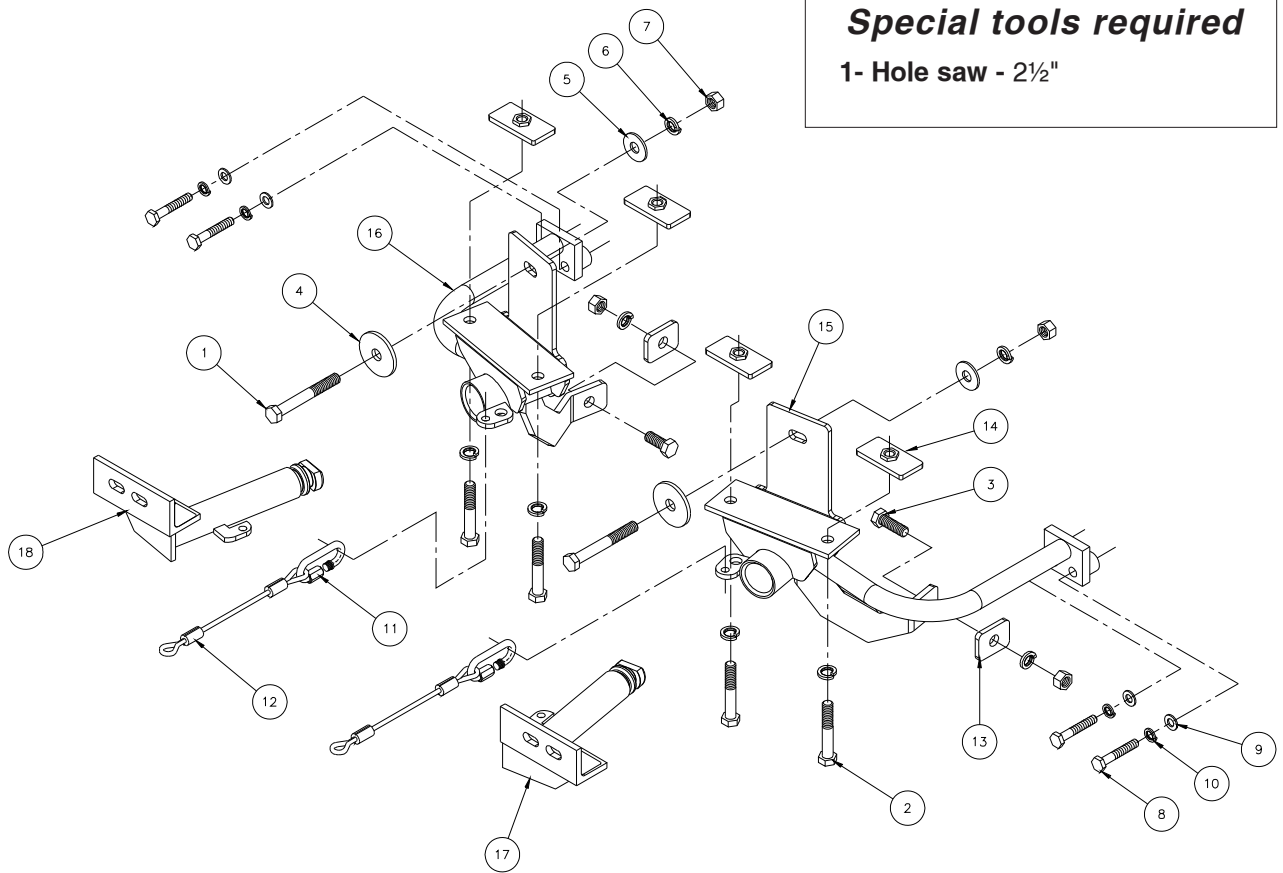
INSTALLATION INSTRUCTIONS

06/22/07
RV

ROADMASTER, Inc. 5602 N.E. Skyport Way Portland, OR 97218 1-800-669-9690 Fax (503) 288-8900 www.roadmasterinc.com

Special tools required

1- Hole saw - 2 1/2"



Item	Qty.	Description
1	2	1/2" x 4" BOLT
2	4	1/2" x 3" BOLT
3	2	1/2" x 1 1/2" BOLT
4	2	1/2" PLATE WASHER
5	2	1/2" FLAT WASHER
6	8	1/2" LOCKWASHER
7	4	1/2" HEX NUT
8	4	10mm x 1.5 x 60mm BOLT
9	4	10mm FLAT WASHER
10	4	10mm LOCK WASHER
11	2	QUICK LINK
12	2	SAFETY CABLE 8"
13	2	1 1/2" x 2" BACKING PLATE
14	4	1 1/2" x 3" THREADED BACKING PLATE
15	1	DRIVER SIDE RECEIVER
16	1	PASSENGER SIDE RECEIVER
17	1	DRIVER SIDE ARM
18	1	PASSENGER SIDE ARM

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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.



Fig.A



Fig.B

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

- 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.
- The owner must inspect all mounts and brackets before each use for cracks or other signs of fatigue. Also, inspect the fasteners for proper torque, according to the bolt torque requirements chart on the last page. Failure to do so could result in loss of the towed vehicle.
- The owner must check the 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.
- The installer must read the instructions and use all bolts and parts supplied. Failure to securely fasten the bracket could result in loss of the towed vehicle.
- If running changes were made by the vehicle manufacturer after this bracket was designed, some bolts or other fasteners in the included 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 may result in the loss of the towed vehicle.

- 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.
- 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.

WARNING

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



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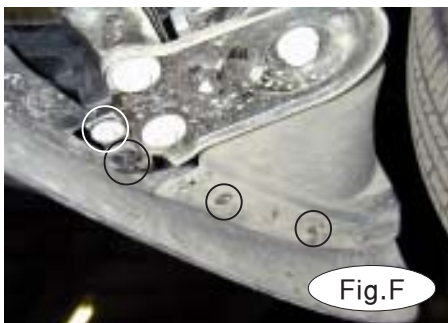
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For disassembly and trimming of the **Buick Enclave**, refer to the supplement at the end of these instructions



1. Start by removing eight plastic fasteners (Fig.C) attaching the radiator cover to the core support. Then, remove the radiator cover.
2. Remove two plastic fasteners and four Phillips head screws attaching the top of the fascia to the core support (Fig.D).
3. 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:* on the GMC Acadia, there is an extra trim piece on the fender well (Fig.I). Pull out on this piece to remove the fascia (Fig.J).





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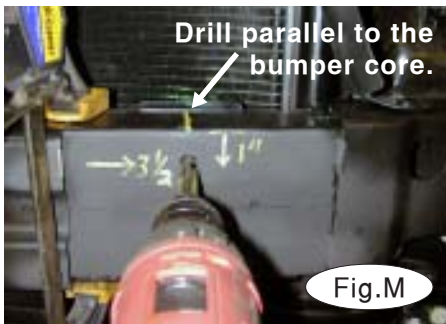
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7. Attach one of the main receiver braces – starting on the driver’s side, remove the two 15mm (head) bolts attaching the lower subframe to the lower frame rail (Fig.K).



8. Position the driver 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.

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



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.M).

11. Measure one inch down from the top of the bumper core (Fig.M) and 3½" over from the center reinforcement on the bumper core (Fig.M). Where these lines intersect, drill a ½" hole through the front and back of the bumper core.

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 M.

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 ½" x 4" bolts (Fig.N). Use a ½" plate washer at the front of the bumper core (Fig.N), and a ½" flat washer, lock washer and nut at the back of the bumper core (Fig.N).

13. Using the two pre-drilled holes on either side of the receiver tube in the main receiver brace as templates, drill two ½" holes through the first and second layers of the bumper core (Fig.O).

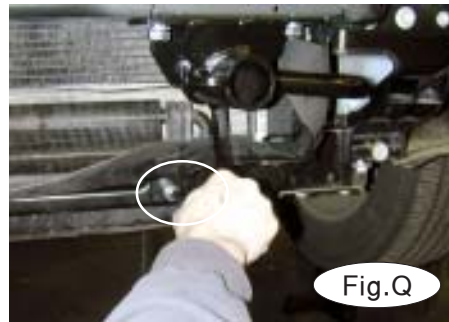
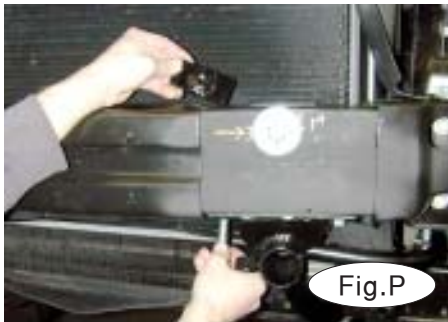


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14. Position two of the supplied $\frac{1}{4}$ " x $1\frac{1}{2}$ " x 3" nutted backing plates inside the bumper core, so that the holes in the plates align over the holes you drilled in the previous step. From the bottom of the bumper core, bolt through the main brace, the first and second layers of the bumper core and into the nutted backing plate (Fig.P). Use two of the $\frac{1}{2}$ " lock washers over two $\frac{1}{2}$ " x 3" bolts.
15. Repeat steps 7 through 14 to attach the passenger side main receiver brace.
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.Q). Push the oil cooler mounts up and over, so they sit on the studs (Fig.R).



17. Using the pre-drilled hole in the lower brace as a template, drill a $\frac{1}{2}$ " hole through the support bracket on the subframe (Fig.S). Repeat for the other side.
18. To attach the lower brace, bolt through the lower brace, the support and one of the $\frac{1}{2}$ " x 2" backing plates with one of the $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolts (Fig.T). Finish with a $\frac{1}{2}$ " lock washer and nut (Fig.T). 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. Torque all bolts to the specifications listed at the bottom of these instructions.
Note: for the GMC Acadia see the supplemental instructions at the end this instruction for the trimming of the fascia.
21. 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 U as a reference.



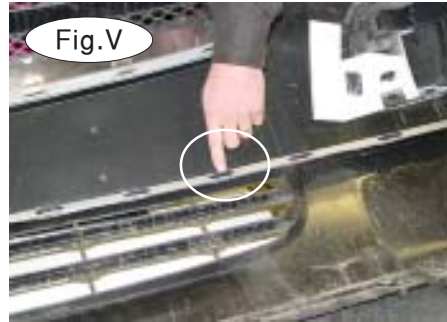
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22. Now, remove the tab in Figure V to accommodate the main receiver brace.



23. Reattach the fascia and the radiator cover, reversing steps 1 through 6.



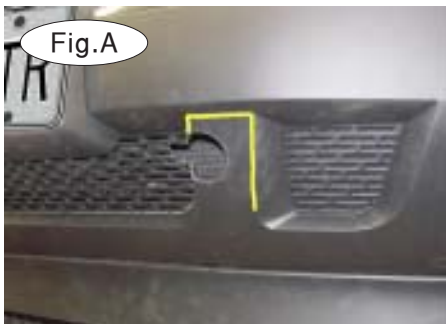
24. Insert the removable front braces into the main receiver brace, and twist them 90 degrees to lock.

Attach the safety cables with the cable connectors (Q-Links) to the front of the receiver brace (Fig.W). 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.

Acadia Supplement

You will need a 2½" hole saw to drill the holes in the fascia.



1. Cut out the provided templates on the following page along the dotted line.

2. Using the yellow marker line in Figure A for correct placement, place the template in position (Fig.B).

3. 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. Now, use the 2½" hole saw to drill the hole in the fascia (Fig.C). Repeat for the other side.

4. 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.D).



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.



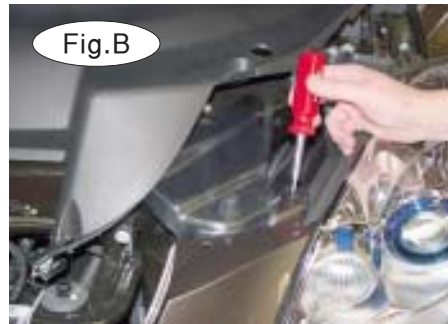
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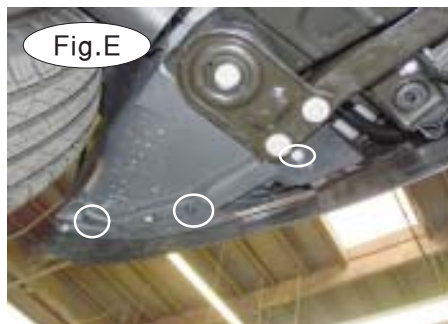
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Buick Enclave Supplement



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).

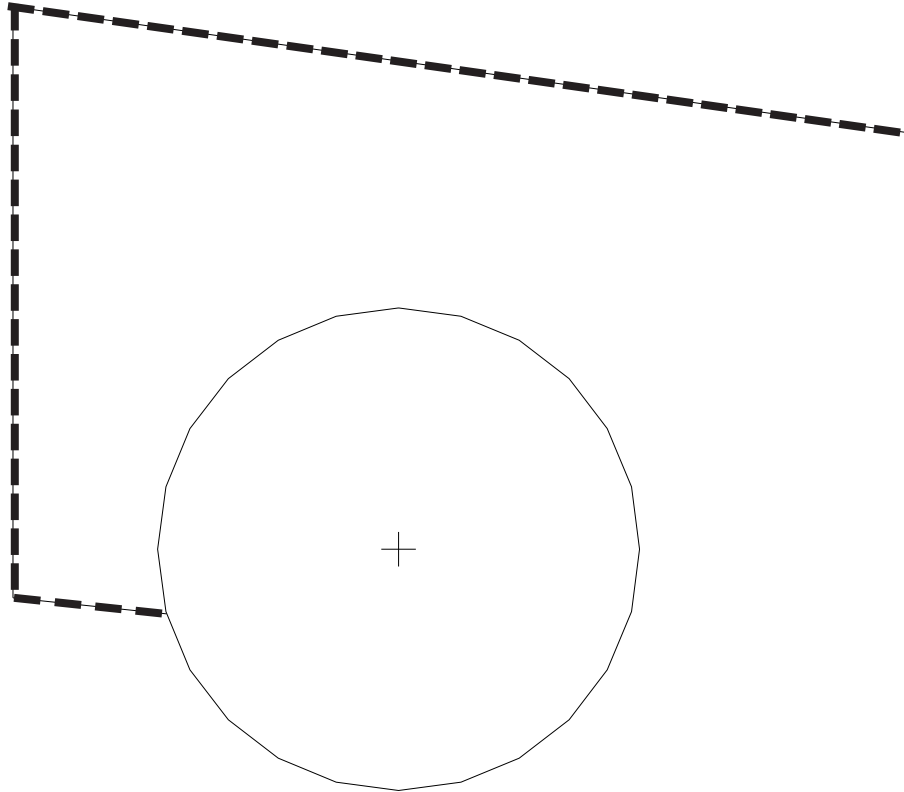


8. The top edge of the fascia needs to be trimmed back approximately ½". Refer to Figures H and I for correct trimming of the grille.
9. Now, proceed to step 7 to complete the installation.



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Cut along the dotted line

