

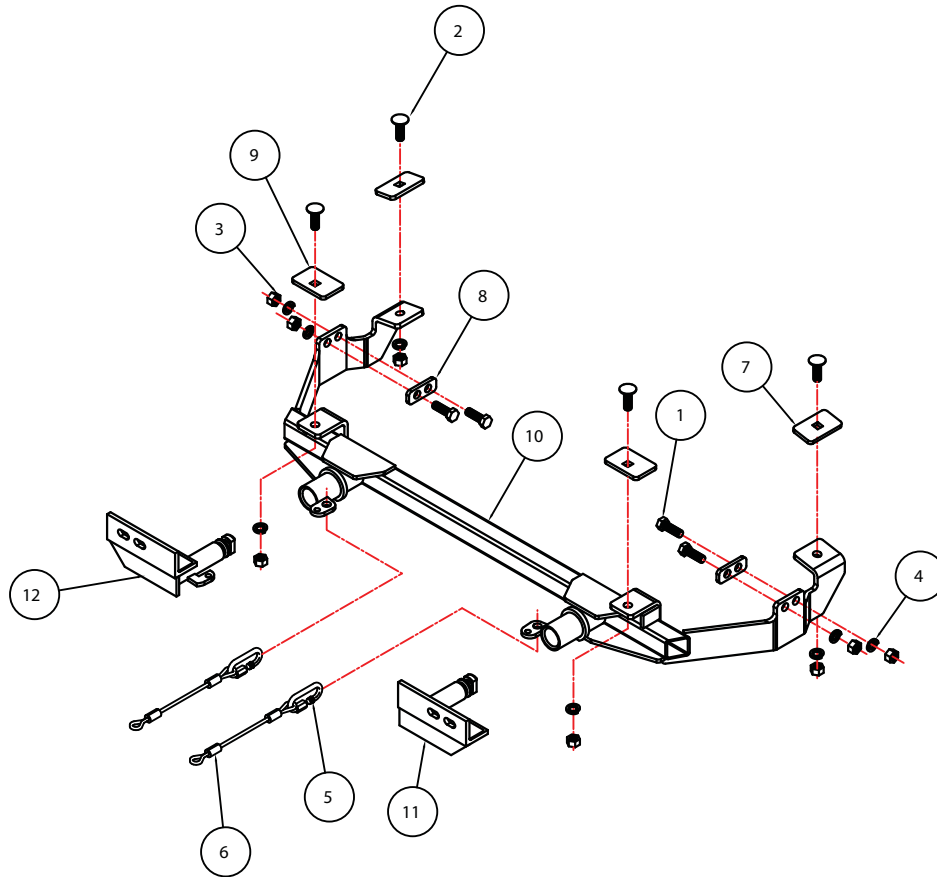


# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 523145-5**

01/22/09  
KS

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 1-800-669-9690 fax 360-735-9300 www.roadmasterinc.com



ITEM	QTY	NAME	MATERIAL
1	4	1/2" x 1 1/2" BOLT	350095-00
2	4	1/2" x 1 1/2" CARRIAGE BOLT	350362-00
3	8	1/2" NUT	350258-00
4	8	1/2" LOCK WASHER	350309-00
5	2	QUICK LINK	200008-00
6	2	8" SAFETY CABLE	500646-08
7	2	SQUARE HOLE BACKING PLATE	A-001248
8	2	BACKING PLATE WITH 2 9/16" HOLES	A-002308
9	2	1/4" x 2" x 3" SQ. HOLE BACKING PLATE	A-000271
10	1	MAIN RECEIVER BRACE WELDMENT	C-001441
11	1	DRIVER SIDE ARM WELDMENT	C-001442
12	1	PASSENGER SIDE ARM WELDMENT	C-001443



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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 consists of a main receiver brace, two removable front braces and a hardware pack.

The main receiver brace mounts to the frame rails and the bumper core. The removable front braces install in the main receiver brace.

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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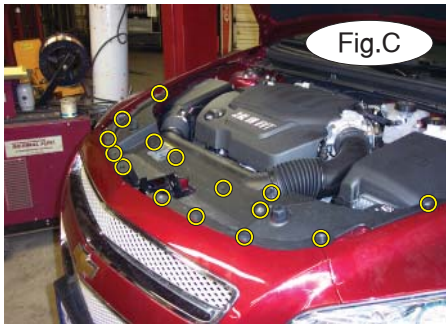


Fig.C

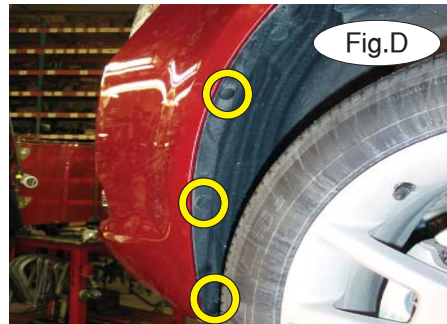


Fig.D



Fig.E

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. Remove four plastic fasteners and eleven 10mm (head) bolts attaching the radiator cover to the core support and fascia (Fig.C).

2. One each side, remove three plastic fasteners attaching the fender liner to the corner of the fascia (Fig.D).

3. On each side, remove the 10mm (head) bolt attaching the corner of the fascia to the fender (Fig.E).

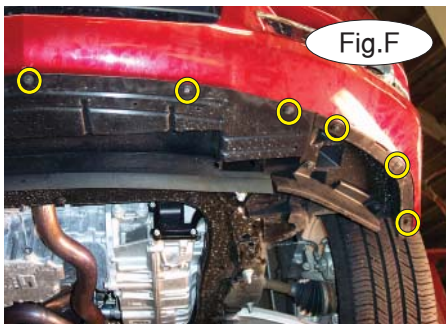


Fig.F

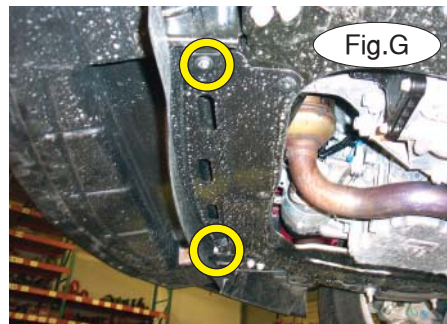


Fig.G



Fig.H

4. Remove nine 7mm (head) bolts and two plastic fasteners located along the bottom front edge of the fascia, attaching the fascia to the splash shield (Fig.F – driver's side).

5. Remove two more 7mm (head) bolts attaching the front half of the rear center splash shield (Fig.G).

6. Remove two more plastic fasteners attaching the sides of the center front splash shield to the radiator support (Fig.H – passenger side).

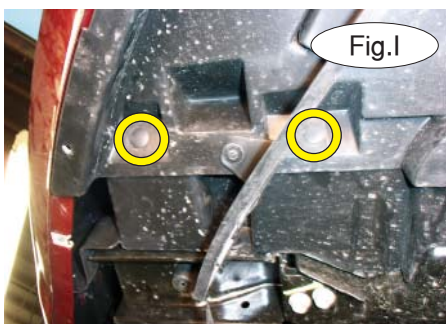


Fig.I



Fig.J



Fig.K

7. On each side, remove two plastic fasteners attaching the bottom of the fender liner to the inner fender liner (Fig.I).

8. Disconnect the fog lights, if the vehicle is so equipped (Fig.J)

9. Pull out on the corner of the fender and on the upper part of the fascia. Lift up and out to remove the fascia (Fig.K).



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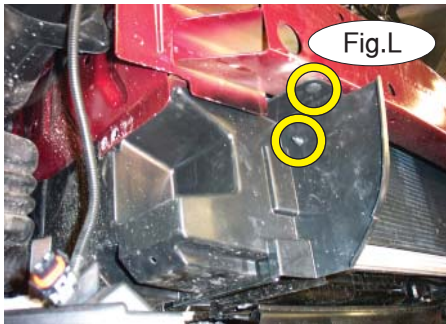


Fig.L

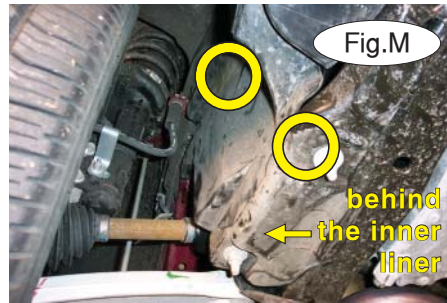


Fig.M

behind  
the inner  
liner

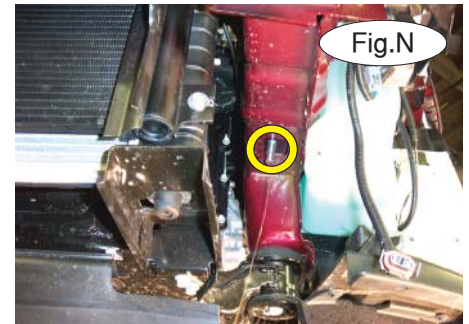


Fig.N

10. On each side, remove two plastic fasteners attaching the inner fender liner to the bumper core (Fig.L). Remove three additional fasteners from the passenger side, located toward the rear of the fender liner (Fig.M).

11. Using a  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " carriage bolt and a  $\frac{1}{4}$ " x  $1\frac{3}{4}$ " x 3" backing plate, fishwire into the pre-existing square hole located toward the rear of the frame rail (Fig.N).

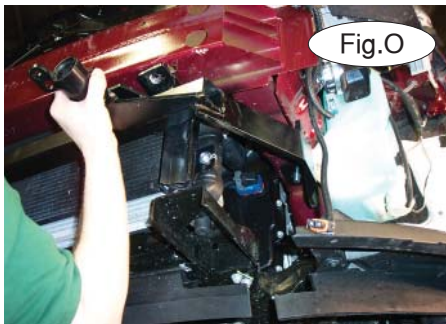


Fig.O

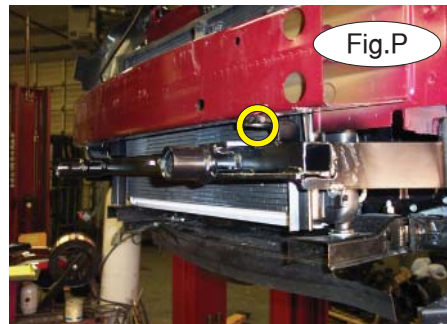


Fig.P

12. On each side, place the main receiver brace against the underside of the frame rail so the carriage bolts installed in the previous step will drop through (Fig.O). Bolt into place using  $\frac{1}{2}$ " nuts and lock washers.

13. Align the bracket so it is flush with the front edge of the bumper core. Use a pen or marker to mark for hole placement, using the pre-existing hole in the main receiver brace as a template (Fig.P).



Fig.Q

14. Remove the bracket.

15. Using a center punch, mark the center of the hole and drill a  $\frac{1}{2}$ " hole (Fig.Q).

16. Reinstall the bracket by placing the rear mounting points over the carriage bolts installed in step 11.

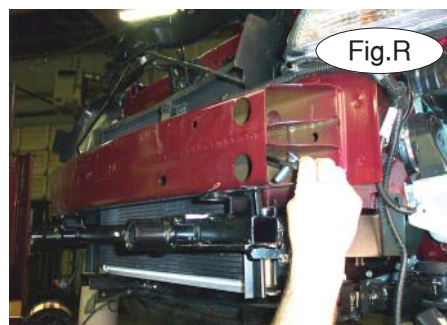


Fig.R

17. On each side, place a  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " carriage bolt and  $\frac{1}{4}$ " x 2" x 3" backing plate into the bumper core (Fig.R). Bolt through the bumper core and the front mount on the main receiver brace. Finish with a  $\frac{1}{2}$ " lock washer and nut (Fig.S).

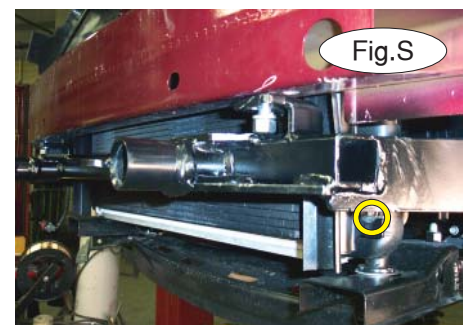


Fig.S

18. Tighten the front and rear bolts to the bolt torque requirements found at the end of this document.



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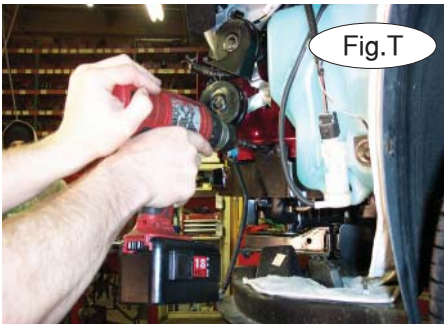


Fig.T



Fig.U

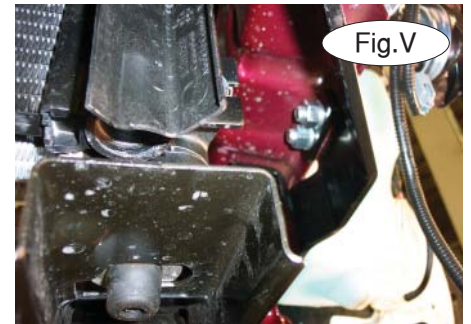


Fig.V

19. Using the two pre-existing holes in the main receiver brace as templates, drill a 1/2" hole through both sides of the main receiver brace and the frame rails (Fig.T). Before drilling, make certain you will not damage any components on the other side.

20. On each side, place two 1/2" x 1 1/2" bolts through the main receiver brace and the side of the frame rail. Place a 1/2" x 1" x 2 1/2" backing plate over the bolts and finish with 1/2" lock washers and nuts (Fig.U and V).

21. Tighten all bolts to the bolt torque requirements found at the end of this document.

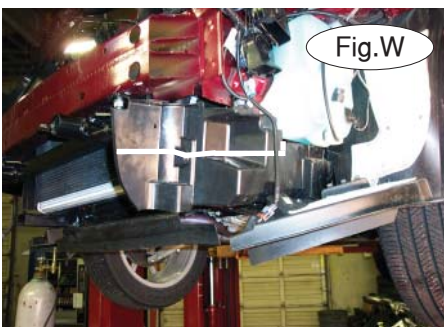


Fig.W



Fig.X



Fig.Y

22. Trim the side splash shields to allow clearance for the main receiver brace. On both sides, hold them in place and mark for trimming, using the white lines in Figure W as a guide.

23. The fascia will also need to be trimmed to allow clearance for the main receiver brace. Measure three inches from the edge of the grille toward the center of the fascia. Mark, and then trim. Figure X shows the completed trimming.

24. Reinstall the fascia and side splash shields, reversing steps 1 through 9.

25. Tighten all bolts to the bolt torque requirements found at the end of this document.

26. Insert the front braces into the receiver tubes and rotate 90 degrees to lock. Install the tow bar according to the manufacturer's instructions.

27. Attach one end of the 8" safety cables (Fig.Z) to the front holes on the receiver cross bar on each side of the receiver brace with the included cable connectors. Connect the other end to the tow vehicle's safety cables and the tow bar.

*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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## 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.