

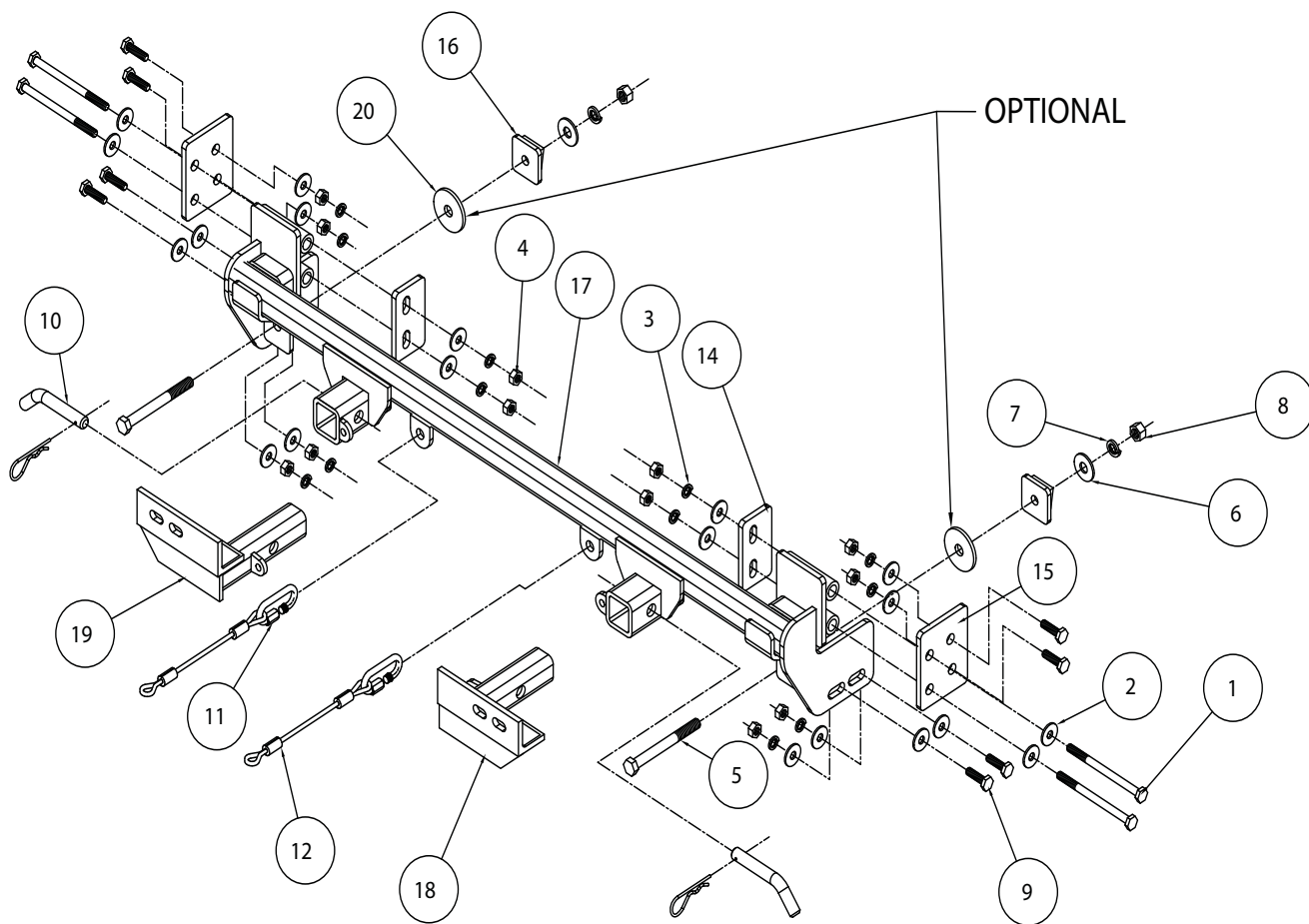


MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 4414-1

04/19/12
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.....		10mm x 1.5 x 140mm BOLT	356124-00
2.....20.....		3/8" FLAT WASHER	350304-00
3.....12.....		10mm LOCK WASHER.....	355715-00
4.....12.....		10mm x 1.5 NUT	356230-00
5.....2.....		1/2" x 5 1/2" BOLT.....	350108-00
6.....2.....		1/2" FLAT WASHER.....	350308-20
7.....2.....		1/2" LOCK WASHER	350309-00
8.....2.....		1/2" HEX NUT	350258-00
9.....8.....		10mm x 1.5 x 35 mm BOLT	356102-00
10.....2.....		DRAW PIN, SPRING PIN	357035-00
11.....2.....		QUICK LINK.....	200008-00
12.....2.....		SAFETY CABLE 12"	650646-12
13.....4.....		ZIP TIE 7"	300140-00
14.....2.....		BACKING PLATE - 2 1/4" x 4"	A-000446
15.....2.....		BACKING PLATE - 3 5/8" x 4 1/2"	A-000447
16.....2.....		BEVELED BACKING PLATE - 2" x 2".....	C-000232
17.....1.....		MAIN RECEIVER.....	C-001541
18.....1.....		DRIVER SIDE ARM	C-001542
19.....1.....		PASSENGER SIDE ARM.....	C-001543
20.....2.....		1/2" PLATE WASHER	350351-00



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This is one of our XL 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 main receiver brace, two removable front bracket arms and a hardware pack. The main receiver braces mount to the frame rails and the removable front brackets 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.

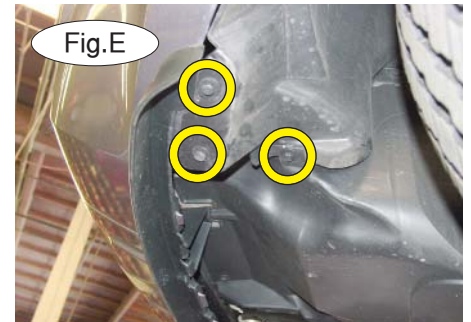
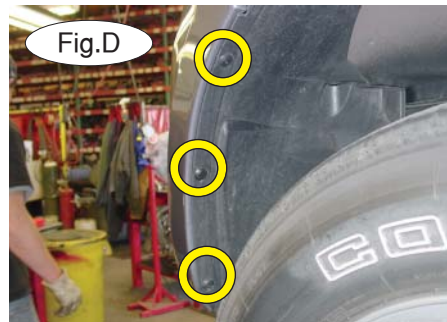


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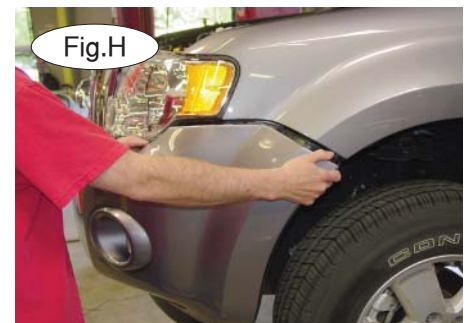
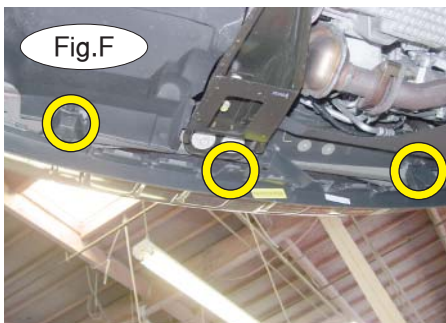
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1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation by removing one 10mm (head) bolt on each side, attaching the grille to the core support (Fig.C).

2. On both sides, remove three plastic fasteners attaching the fender liner to the fascia (Fig.D).

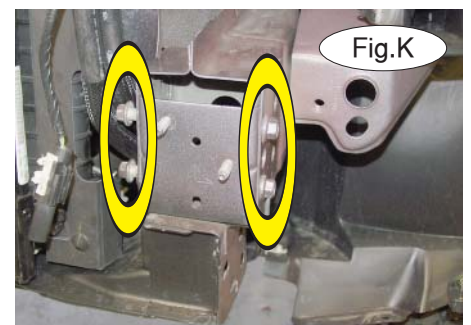
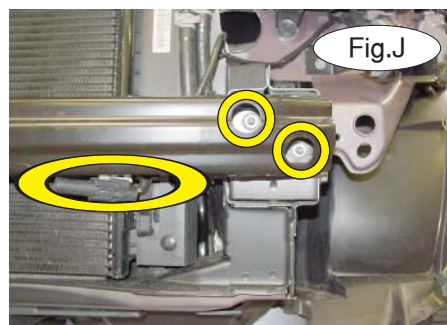
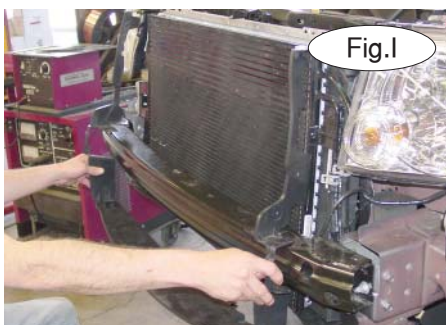
3. Next, remove nine 10mm (head) bolts attaching the lower fascia to the fender liner. There are three on each side (Fig.E) and three in the center (Fig.F).



4. Now, pull back the fender and disconnect the fog lights, if your vehicle is so equipped.

5. Remove the two plastic fasteners located inside the grille opening (Fig.G).

6. Pull out and forward on both corners of the fascia to remove it (Fig.H).



7. Temporarily remove the plastic air deflector by releasing the two plastic clips on the top, and the two plastic push pins attaching it to the bumper core. Now, pull forward on the air deflector to remove it (Fig.I).

8. Remove the ambient temperature sensor on the bottom of the bumper core (Fig.J).

9. On both sides, remove three 13mm (head) nuts and remove the bumper core (Fig.J). It will not be replaced. *Note:* retain the bumper core and attachment hardware so that it can be replaced if the bracket is ever removed.

10. On both sides, remove four 13mm (head) bolts and remove the bumper core mounts (Fig.K).



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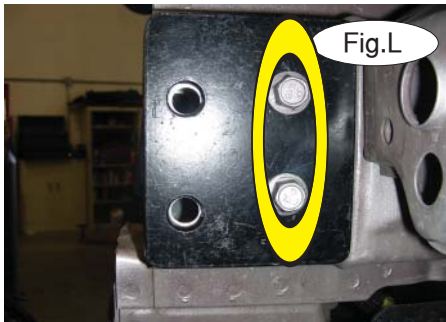


Fig.L

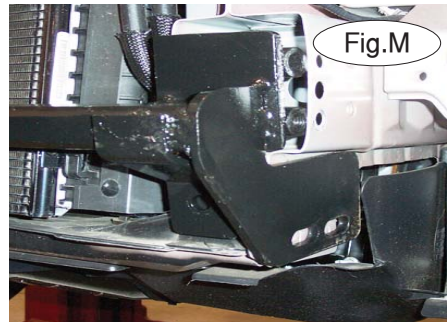


Fig.M

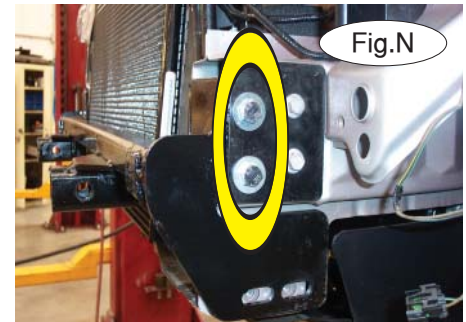


Fig.N

11. On both sides, using two of the bumper core mounting bolts you removed, bolt the 4½" x 3-5/8" backing plate to the side of the frame (Fig.L). *Note:* due to manufacturing variances, some vehicles may not be equipped with factory weld nuts. If this is the case, use the four supplied 3/8" fender washers, 10mm lock washers and nuts instead of the weld nuts.

12. Place the main receiver brace into the frame rails (Fig.M).

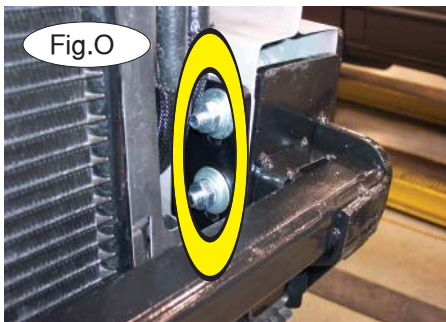


Fig.O

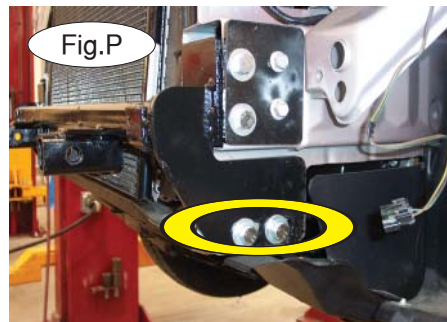


Fig.P



Fig.Q

13. Now, on both sides, place the two 3/8" fender washers over the two 10mm x 1.5 x 140mm bolts and bolt through the backing plate, frame rail and the main receiver brace (Fig.N). Finish with the 2¼" x 4" backing plate, fender washers, lock washers and nuts (Fig.O).

14. Using the lower mounting points in the main receiver brace, bolt the main receiver brace to the radiator support using the two 10mm x 1.5 x 35mm bolts, 3/8" fender washers and 10mm lock washers (Fig.P). *Note:* due to manufacturing variances, some vehicles may not be equipped with factory weld nuts. Enlarge the hole in the bottom of the frame and then use the four supplied 3/8" fender washers, 10mm lock washers and nuts instead of the weld nuts (Fig.Q).

15. Using the hole in the main receiver brace as a template, drill a ½" hole through the front and back of the core support (Fig.R).

16. Next, place the ½" x 5½" bolt through the main receiver brace and the hole you drilled in the core support. *Note:* if there is a space between the bracket and the frame, use the supplied ½" plate washer as a spacer. Place the beveled spacer over the back of the bolt and bolt into place using a ½" flat washer, lock washer and nut (Fig.S).

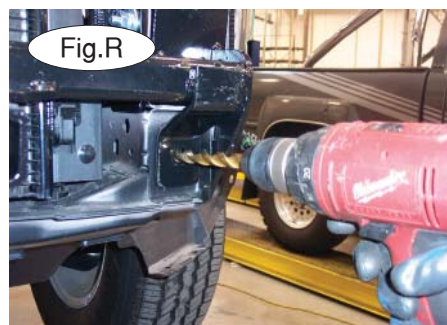


Fig.R

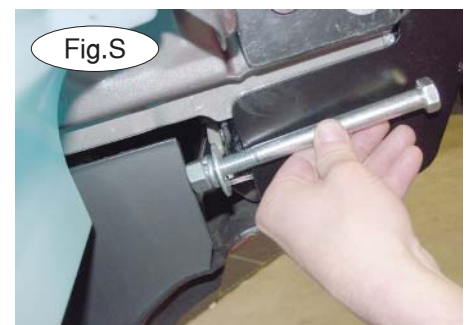


Fig.S

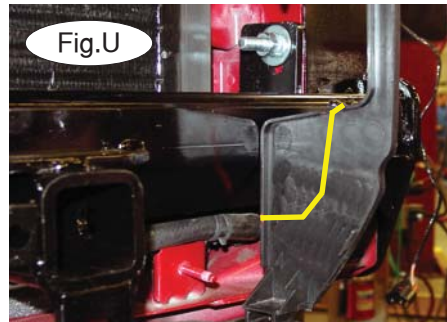
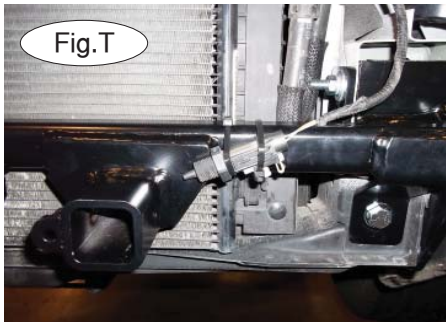


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17. Using the four provided zip ties, reattach the ambient temperature sensor you removed in step 8 to the main receiver brace (Fig.T).
18. Trim the air deflector, using the white guide lines in Figure U as a reference. Reinstall the air deflector.
19. Tighten all the remain bolts to the torque specifications listed at the end of these instructions.
20. Reassemble the fascia by reversing steps 1 through 6.
21. Insert the removable front bracket arms into the front receiver braces, and secure them in place with the supplied 5/8" draw pins and spring pins.
22. Attach the 8" safety cables with the cable connectors (Q-Links) to the front of the receiver braces (Fig.V).
23. Attach the ends of the safety cables to the tow vehicle's safety cables and tow bar.
24. 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.

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.