

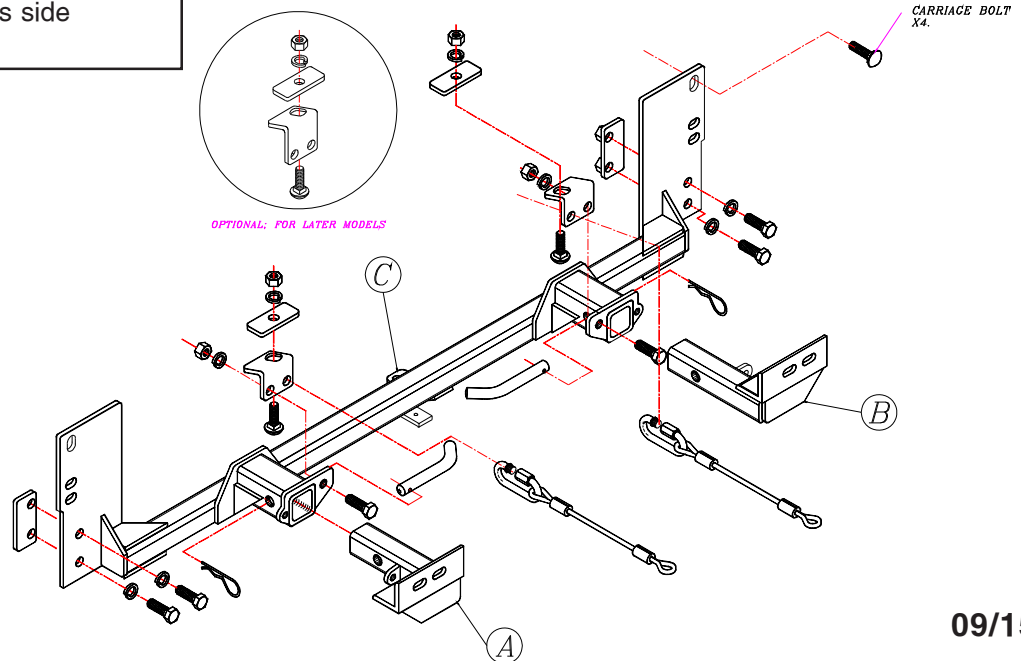
# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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

**PARTS LIST:**

- 1- FRONT BRACE (A) - Passenger side
- 1- FRONT BRACE (B) - Driver's side
- 1- RECEIVER ASSEMBLY (C)

**KIT NO. 242-2**



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**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 securely fasten the bracket could result in loss of the towed vehicle.
- 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 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 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 could 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.

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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. This is a XL Series mounting kit, which consists of the receiver assembly which mounts behind the bumper, two upper braces which bolt under the bumper and two front braces which can be removed when the vehicle is not being towed. To install the kit, the plastic bumper skin must be removed to provide access to the area behind the bumper. Disconnect the fog light connections before proceeding.
2. Start by removing three screws from the front of the fender well splash panels on each side.
3. Remove the two bolts on each side holding the bumper skin to the fender sheet metal.
4. Remove the lower bolts fastening the bumper skin to the lower frame cross member.
5. Remove the upper bolts and plastic fasteners holding the skin to the radiator core support, then pull forward and off. *Note:* on some models, the ambient air sensor may interfere with mounting the receiver brace. If this is the case, temporarily remove the screw holding the sensor. It can be remounted later using the same screw in a different adjacent location. A small hole will have to be drilled for the mounting screw.
6. Remove the two nuts on each side holding the bumper on and remove the bumper.
7. Remove the front bolt from the motor mount on the cross member.
8. Mount the receiver brace in place of the bumper on the front of the vehicle using four ½" x 1½" bolts and nuts. *Note:* these bolts will be used temporarily as line up bolts and will be removed later. The holes may need to be enlarged slightly. If so, be careful. The windshield water bottle and other items are located behind the mounting flange.
9. Bolt through the center tab using the stock motor mount bolt which was removed in step 7.
10. Using the receiver brace as a template, drill two ½" holes per side through the lower part of the frame.
11. Remove the ½" bolts holding the receiver brace in position and bolt through the two drilled holes on each side using the bolts, ½" lock washers and threaded backing plates.
12. Now, install ½" x 1½" carriage bolts into the bumper, then reinstall the bumper, sandwiching the receiver brace between the bumper and the bumper mount. *Note:* two sets of upper braces are included. Later models will use the longer upper braces
13. Now, install two small upper braces as illustrated between the front portion of the receivers and the bottom of the bumper. Bolt the upper braces to the receiver braces with ½" x 1¼" bolts, lock washers and nuts. Drill two ½" holes through the bottom of the bumper using the upper braces as drill guides. Bolt with two ½" x 1½" carriage bolts, ¼" x 1½" x 3" backing plates, lock washers and nuts.

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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			METRIC BOLTS			METRIC BOLTS		
Thread Size	Grade	Torque	Thread Size	Grade	Plated/Unplated	Thread Size	Grade	Plated/Unplated
5/16	5	13 ft./lb.	8mm-1.0	8.8	20 ft./lb. 18 ft./lb.	12mm-1.25	8.8	70 ft./lb. 65 ft./lb.
3/8	5	23 ft./lb.	8mm-1.25	8.8	19 ft./lb. 18 ft./lb.	12mm-1.5	8.8	66 ft./lb. 61 ft./lb.
7/16	5	37 ft./lb.	10mm-1.25	8.8	38 ft./lb. 36 ft./lb.	12mm-1.75	8.8	65 ft./lb. 60 ft./lb.
1/2	5	56 ft./lb.	10mm-1.5	8.8	37 ft./lb. 35 ft./lb.	14mm-2.0	8.8	104 ft./lb. 97 ft./lb.
5/8	5	150 ft./lb.						



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- 14. Tighten all the bolts to the torque specifications below and reinstall the bumper skin reversing steps 1 through 5. **Note:** The bumper skin will have to be trimmed slightly to clear the upper braces.
- 15. Insert the front braces into the receiver brace as illustrated and pin using a 5/8" draw pin and a 1/8" spring pin for each brace.
- 16. Mount the tow bar according to the manufacturer's instructions.
- 17. Connect the tow vehicle's safety cables to the receiver brace, using the provided cable connectors.

**Hardware:**

- (4) 1/2" x 1-1/2" bolts
- (8) 1/2" lock washers
- (4) 1/2" nuts
- (2) 1/4" x 1-1/2" x 3 3/8" threaded backing plates
- (2) 1/4" x 1-1/4" x 3" backing plates
- (2) 1/2" x 1-1/2" carriage bolts
- (2) 5/8" draw pins
- (2) 1/8" spring pins
- (2) cable connectors
- (2) 13" safety cables
- (4) 1/2" x 1-1/2" carriage bolts
- (2) 1/4" x 1-7/8" x 2-3/16" bumper mount brace
- (2) 1/4" x 1-3/16" x 2 1/4" bumper mount brace
- (2) 1/2" x 1-1/4" bolts

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3/8	5	23 ft./lb.	8mm-1.25	8.8	19 ft./lb. 18 ft./lb.	12mm-1.5	8.8	66 ft./lb. 61 ft./lb.
7/16	5	37 ft./lb.	10mm-1.25	8.8	38 ft./lb. 36 ft./lb.	12mm-1.75	8.8	65 ft./lb. 60 ft./lb.
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5/8	5	150 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.