

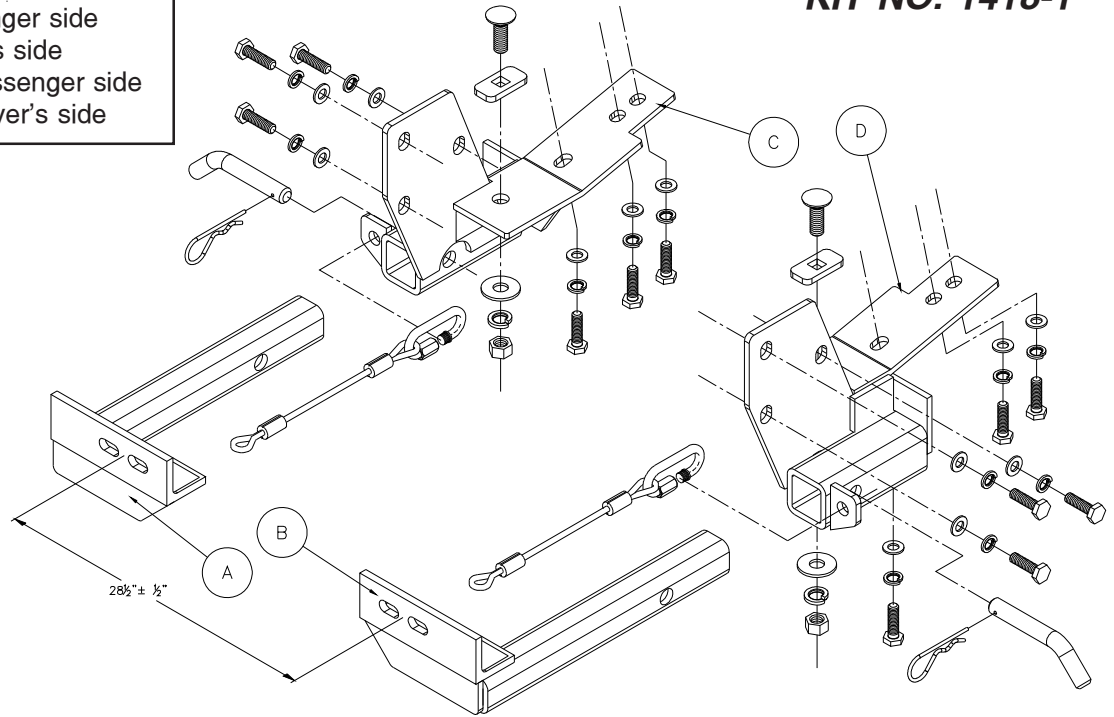
# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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 BRACE (C) - Passenger side
- 1- RECEIVER BRACE (D) - Driver's side

**KIT NO. 1418-1**



**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.
- 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.
- 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.
- 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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**KIT NO. 1418-1**

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 bracket is one of our XL series, which is partly removable. The braces included in this kit take advantage of existing holes provided for the accessory tow hooks available for this model. If the vehicle already has tow hooks in this area, they will have to be removed. The bumper will also have to be removed to provide access to the front of the frame tubes. Remove the bumper at this time by pulling the small plastic retainer from the lower splash shield on each side and pull back to access three bumper bracket bolts on each side. Remove the bumper bolts and then remove the bottom bumper torx bolt and replace with 10mm x 1.5 x 25mm. Pull the bumper from the vehicle and set aside.
2. Remove the two stabilizer bar mounting bolts on each side and allow the bar to drop down.
3. Working on one side at a time, fishwire a ½” x 1½” carriage bolt and a ¼” x 1” x 2” sq. hole backing plate through the front of the frame tube into an existing hole in the bottom of the frame located in front of the stabilizer bar mounting nuts. *Note:* some vehicles have a trim support located under the frame. If so, cut approximately 2¼”, so main brace will mount flush to bottom of the frame.
4. Hold the main brace to the bottom of the frame with the upper mounting plate to the side of the frame over the bumper mounting holes, then fasten the main brace to the bottom of the frame with a ½” lock washer and nut on the bolt installed in step 3. Bolt through the rear mounting hole in the brace with a 10mm x 1.5 x 35mm bolt, lock washer and fender washer.
5. Repeat steps 3 through 5 for the remaining side.
6. Reinstall the stabilizer bar over the main braces using the supplied 10mm x 1.5 x 35mm bolts, flat washers and lock washers.
7. If the vehicle has the later plastic bumper skin with molded bumpers, the end moldings will have to be removed to expose the upper bumper torx bolt in the bumper on each side. If you have an exposed metal bumper, the bolt should be accessible. Removing the bumper skin will require removing two upper 6mm bolts located on the front fender, two pop rivets, one on each side and eventually replacing them with 6mm x 20mm machine screws, fender washers, and nylon lock nuts. Remove the small bolts fastening the skin to the metal core, and once the torx bolt is exposed, loosen and move the bumper brackets out.

**02-11-11**

## 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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8. Replace the bumper, sliding the bumper braces over the installed main braces and bolt through the bumper and main braces with the 10mm x 1.5 x 35mm bolts, lock washers and flat washers supplied.
9. Torque all bolts to the specifications below and replace the bumper skins at this time. Using the drawing on the first page as a reference, measure between the two front braces, ensuring that the distance is still 28" +/- 1/2".
10. Insert the front braces into the receiver braces and secure with a 5/8" draw pin and a 1/8" spring pin. Recheck the measurements, to make certain this distance is still 28" +/- 1/2".
11. Install the towbar according to the manufacturer's instructions.
12. Attach the safety cables to the front of the receiver braces with the supplied safety cables. Attach the other end to the tow vehicle's safety cables and the towbar.

### HARDWARE LIST:

- 12-10MM X 1.5 X 35MM BOLTS
- 12-10MM FLAT WASHERS
- 12-10MM LOCK WASHERS
- 2-1/2" X 1 1/2" CARRIAGE BOLTS
- 2-1/2" LOCK WASHERS
- 2-1/2" NUTS
- 2-1/2" FLAT WASHERS
- 2-1/4" X 1" X 2" SQ. HOLE BACKING PLATE
- 2-6MM X 20MM MACHINE SCREWS
- 2-6MM NYLON LOCK NUTS
- 2-6MM FENDER WASHERS
- 2-10MM X 1.5 X 25MM BOLTS
- 2-10" SAFETY CABLES
- 2-CABLE CONNECTORS
- 2-2 5/8" DRAW PINS
- 2-1/8" SPRING PINS

also available: 1418-1HK hardware kit (includes all bolts, washers and miscellaneous parts listed above)

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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.