

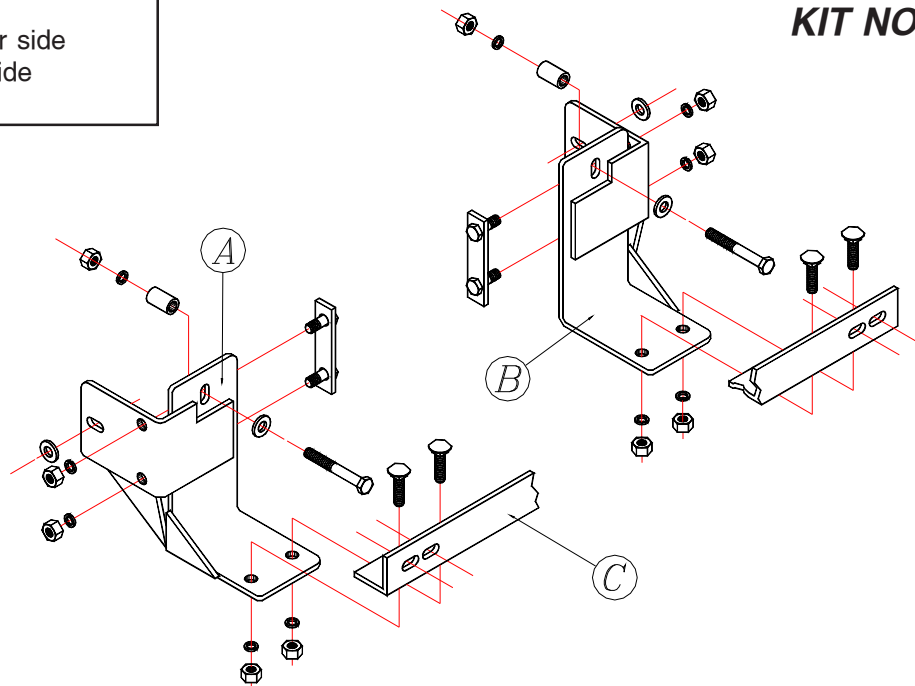
# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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

**PARTS LIST:**

- 1- MAIN BRACE (A) - Passenger side
- 1- MAIN BRACE (B) - Driver's side
- 1- FACE PLATE (C)

**KIT NO. 1402-1**



7/8/02

**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. 1402-1

- 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 designed to fit to the front of the frame, just behind the front bumper. To gain access, remove the two small screws on the bottom side of the bumper on the passenger side that attach a vacuum canister to the bumper. Next, remove the two torx bolts in the bottom of the bumper and the two torx bolts behind the bumper ( the two behind the bumper can be accessed by pushing up on the rubber splash panel; the two bolts are horizontal on the upper part of the back side of the bumper). Pull the bumper off of its brackets and set aside.
- Remove three bolts holding each bumper bracket on and set aside. Remove the spring clips (two on each side) that held the bumper brackets on and discard. Locate a hole just to the inside of the bumper bracket flanges and drill out to 17/32". These holes will be used later in the installation. Find the 1/4" x 1" x 4 1/2" backing plates with 1/2" bolts welded to them and insert into holes left by spring clips. *Note:* backing plates must go from inside out. Install main braces onto 1/2" backing plate bolts, then install bumper bracket over main brace and onto the same 1/2" bolts. Loosely fasten to bolts with 1/2" lock washers and nuts.
- Locate one of the 10mm bolts originally removed from the bumper brackets, insert the 7/16" flat washer onto the bolt through the slotted hole in the side of the main brace.
- Locate the 1/2" x 3" bolts and 1/2" flat washers and bolt through the slotted hole in the face of the main brace, through the 1/2" x 1 1/4" pipe spacers and through the hole drilled out previously. Install a 1/2" lock washer and nut onto the bolt. *Note:* access to the back side of the frame may be fairly difficult, but is easiest if approached from the underside through the rubber splash panels.
- Install the face plate onto the main braces with four 1/2" x 1 1/2" carriage bolts and nuts. Make sure braces are square with each other, then temporarily tighten the four carriage bolts. Torque all the other bolts to the torque specifications below, then remove the face plate.
- Reinstall the bumper onto its brackets and reattach the vacuum canister onto the bumper. The bumper may need to be trimmed slightly to fit around the main braces. Reinstall the face plate onto the main braces and bolt through using the 1/2" x 1 1/2" carriage bolts, 1/2" lock washers and nuts and torque these bolts to the torque specifications below.
- Mount the tow bar to the main receiver brace according to the manufacturer's instructions.

### HARDWARE LIST:

4-1/2" X 1 1/2" CARRIAGE BOLTS	2-1/2" X 1 1/4" PIPE SPACERS
2-1/2" X 3" BOLTS	2-1/4" X 1" X 4 1/2" BACKING PLATES WITH 1/2" BOLTS
2-1/2" FLAT WASHERS	10-1/2" LOCKWASHERS
2-7/16" FLAT WASHERS	10-1/2" 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.						