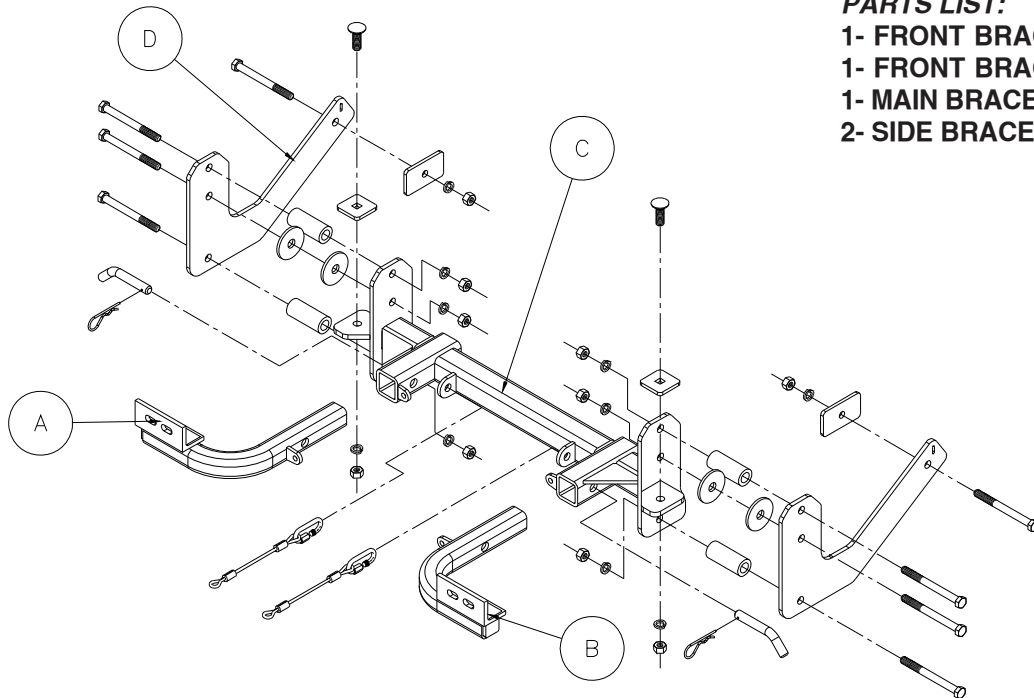


# BASEPLATE KIT INSTALLATION INSTRUCTIONS

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 side
- 1- MAIN BRACE (C)
- 2- SIDE BRACES (D)

**KIT NO. 450-2**

3/1/02

**IMPORTANT:** All baseplates **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 and lock washers on all fasteners.

## WARNING

Failure to heed these warnings or follow the installation instructions may result in a voided warranty, loss of towed vehicle, personal injury or death.

- Do not weld or modify this baseplate or its components. Welding or modification will void the warranty.
- Do not use this document as a basis to design/fabricate a baseplate, as it may not show all parts or structural components.
- We strongly recommend professional installation.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the baseplate. Do not install the baseplate if any structural frame damage is found.
- The installer must use all bolts and parts supplied. If running changes were made by the vehicle manufacturer after this kit was designed, some bolts or other fasteners may no longer be the correct size. It is the installer's responsibility to verify this kit is securely fastened to the vehicle.
- Use Loctite® Red on all bolts used to secure this baseplate. Torque all bolts to the specifications found at the end of these instructions. Do not over-torque the bolts or failure may occur.
- The installer must inspect the baseplate to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc. or non-warranty failure may result.
- Roadmaster manufactures many styles of baseplates. If your baseplate 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.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or baseplate 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 your 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 or vehicles.
- 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. See cable instructions for proper routing. Failure to do so will result in non-warranty damage and/or the loss of the towed vehicle.
- This kit is designed for use with ROADMASTER tow bars and ROADMASTER adapters only. Using this kit with other brands, without an approved ROADMASTER adapter, may result in non-warranty damage or injury.
- Receiver extensions and out-of-level towing situations of 3 inches or more. This can cause the system to swing much higher and lower, causing excessive strain on the tow bar, baseplate and frame. That can cause the towing system to fail, causing property damage, personal injury or even death. If you must use a receiver extension or drop hitch to tow, it will reduce your receiver's weight capacity by 1/3 to avoid damaging your system. Never use more than one extension and/or drop hitch, as this will void your warranty.
- Every 3,000 miles, the owner must inspect all mounting points for cracks or fatigue, and check the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions.
- The owner must follow the vehicle manufacturer's instructions to prepare the vehicle for towing. Failure to do so may cause severe damage to the vehicle.
- This baseplate is only warranted for the original installation. Installing a used baseplate on another vehicle is not recommended and will void the warranty.



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**KIT NO. 450-2**

- 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 kit is one of our XL series, which is designed to be partly removable. The kit consists of the main receiver brace, front braces and a hardware pack. The main receiver brace utilizes the rectangular frame tubes on each side as the primary mounting points. Start by laying the kit out according to the illustration. This will give you a visual idea of how the kit installs and also confirm that the kit components are present and accounted for.
- Remove the front bumper (four 18mm head nuts) and set aside.
- Fish wire a 1/2" x 1 1/2" carriage bolt and 1/4" x 2" x 2" sq. hole backing plate through the front of each frame tube into the large slotted bottom hole in the bottom of each frame tube. The front frame slots limit access but it can be done.
- Hold the main receiver brace to the bottom of the frame over the installed bolts on each side and bolt into position with 1/2" nuts, and lock washers. Leave loose at this time.
- Working on one side at a time, find a side brace and insert a 1/2" x 4 1/2" bolt through the middle front hole, then follow with a 1/2" plate washer. Hold the assembly to the side of the frame and bolt through the existing frame hole into the receiver brace on the other side of the frame.
- Repeat step 5 for the remaining side.
- You should now have the receiver brace and side brace plates installed, locate four 1 1/4" OD x 3" spacer tubes and four more 1/2" x 4 1/2" bolts. Install these spacers between the receiver brace and the side brace over the remaining front holes. Install the 1/2" x 4 1/2" bolts through the remaining holes on the front of the braces through the spaces and finish bolting with 1/2" nuts and lock washers.
- Align the braces then tighten the bolts already installed to hold the braces in position. Try to keep the receiver tubes parallel to the ground and the rear mounting holes in the side braces centered on the frame.
- Using the side braces as templates drill one 1/2" hole completely through each frame tube.
- Bolt through the rear braces and the frame tubes with 1/2" x 4 1/2" bolts, 1/4" x 2" x 3 1/2" backing plates, lock washers and nuts.
- Torque all mounting bolts to the specifications below.
- Hold the bumper in position and install reversing step 2.
- Insert the front braces into the receiver tubes and pin with 5/8" draw pins and 1/8" spring pins.
- Install the tow bar according to the manufacturer's instructions and torque all mounting bolts to the specifications below.
- Attach one end of the included safety cables to the receiver brace with the included cable connectors. Connect the other end to the tow vehicle's safety cables and the tow bar connectors.

### Hardware

- |   |                                      |
|---|--------------------------------------|
| 2- 1/2" x 1 1/2" carriage bolts           | 2- 8" safety cables                  |
| 8- 1/2" x 4 1/2" bolts                    | 2- cable connectors                  |
| 2- 1/4" x 2" x 2" sq. hole backing plates | 2- 5/8" draw pins                    |
| 4- 1/2" plate washers                     | 2- 1/8" spring pins                  |
| 10- 1/2" lock washers                     | 2- 1/4" x 2" x 3 1/2" backing plates |
| 10- 1/2" nuts                             | 4- 1 1/4" O.D. x 3" spacer tubes     |

### 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.