

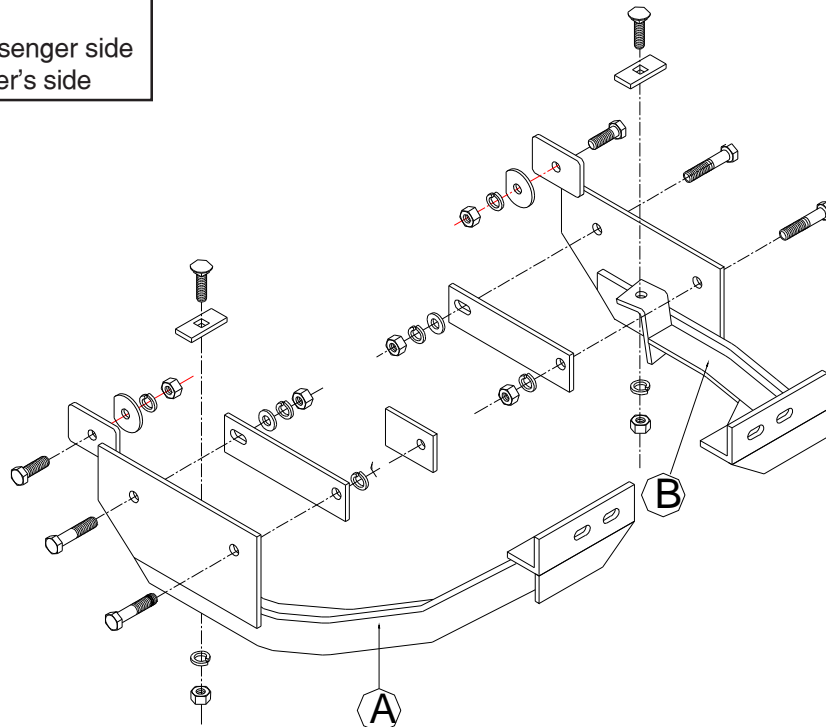
BASEPLATE KIT INSTALLATION INSTRUCTIONS

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's side

KIT NO. 417-1



12-02-03

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
- Use lock washers on all fasteners

WARNING

Failure to follow the below warnings and the installation instructions may result in voiding your warranty, property damage, the loss of your towed vehicle, personal injury or even death.

- Installation of most baseplates 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.
- Use Loctite® Red on all bolts used for mounting this baseplate.
- 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 mounting points for cracks or other signs of fatigue every 3,000 miles.
- 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.
- Do not weld. This baseplate is designed to be bolted to the vehicle. Welding will void the warranty.
- Do not use this document for custom fabrication, as it may not show all parts or structural components 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 baseplate. Do not install the baseplate if any structural frame damage is found.
- If running changes were made by the vehicle manufacturer after this

kit 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 this kit is securely fastened to the vehicle and fitted with the correct hardware to account for these changes.

- 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 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 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.
- Upon final installation, the installer must inspect the baseplate to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc.
- 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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- 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. These brackets mount to the underneath and to the outside of the frame on each side. Begin by locating the reinforcement tab located on the bottom of the frame. If it is held on with a small screw, remove the screw and tab and discard. If welded on, leave intact as it will not interfere with the installation.
- Locate a 1/2" x 1 1/2" carriage bolt and a 1/4" x 1" x 2" square hole backing plate in the hardware kit. Fish wire the bolt and backing plate through the forward most hole in the outside of the frame and down into the hole in the bottom of the frame. Hold the respective brace (A or B) up to the 1/2" bolt and secure to the bottom tab in the brace with a 1/2" lock washer and nut.
- Bolt through the upper most tab in the brace and through the frame with a 1/2" x 1 3/4" bolt, with a clipped plate washer, lock washer and nut on the inside of the frame. *Note:* there may be a suspension bolt which may block this hole in the frame. If so, remove this bolt, bolt through the brace as instructed above, then reinstall suspension bolt. When this bolt is tight, it will lay against the flat of the nut previously installed.
- Repeat steps 1 through 3 on the other side. Make certain that there is a center to center distance of 27" and 30" at the front holes of the braces (where the tow bar will eventually mount) and torque the four bolts to the torque chart below.
- Using the braces as templates, drill through the two holes in the side of the brace and through the frame. A majority of the hole may be there already, so drill enough to be able to put a 1/2" bolt through the hole. It may be difficult to drill a straight hole due to limited space, but drill as straight as possible. Place a 1/4" x 2" x 7" backing plate to the inside of the frame with the oval hole to the rear. Bolt through the main brace, frame and backing plate with a 1/2" x 3 1/2" bolt with a lock washer and nut on the front bolt, a lock washer, flat washer and nut on the rear bolt. **SPECIAL NOTE:** on models with air conditioning, the 1/2" x 3 1/2" bolt would hit the a/c pulley if inserted into the rear hole. For models with a/c, there's an optional 1/4" x 2" x 3" backing plate included in the kit. Insert the 1/2" x 3 1/2" bolt into the front hole of the brace on the passenger side and the optional backing plate to the inside of the frame, then install a lock washer and nut onto the bolt. This will leave three bolts holding the passenger side and four bolts holding the driver's side.
- Torque all of the bolts to the torque chart below, then mount the tow bar according to the manufacturer's instructions.

HARDWARE LIST:

- | | |
|--------------------------------|---|
| 2-1/2" X 1 3/4" BOLTS | 2-1/2" FLAT WASHERS |
| 2-1/2" X 1 1/2" CARRIAGE BOLTS | 2-1/2" CLIPPED PLATE WASHERS |
| 4-1/2" X 3 1/2" BOLTS | 2-1/4" X 1" X 2" BACKING PLATES |
| 8-1/2" NUTS | 2-1/4" X 2" X 7" BACKING PLATES |
| 8-1/2" LOCK WASHERS | 1-1/2" X 2" X 3" OPTIONAL BACKING PLATE |

12-02-03

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.						