



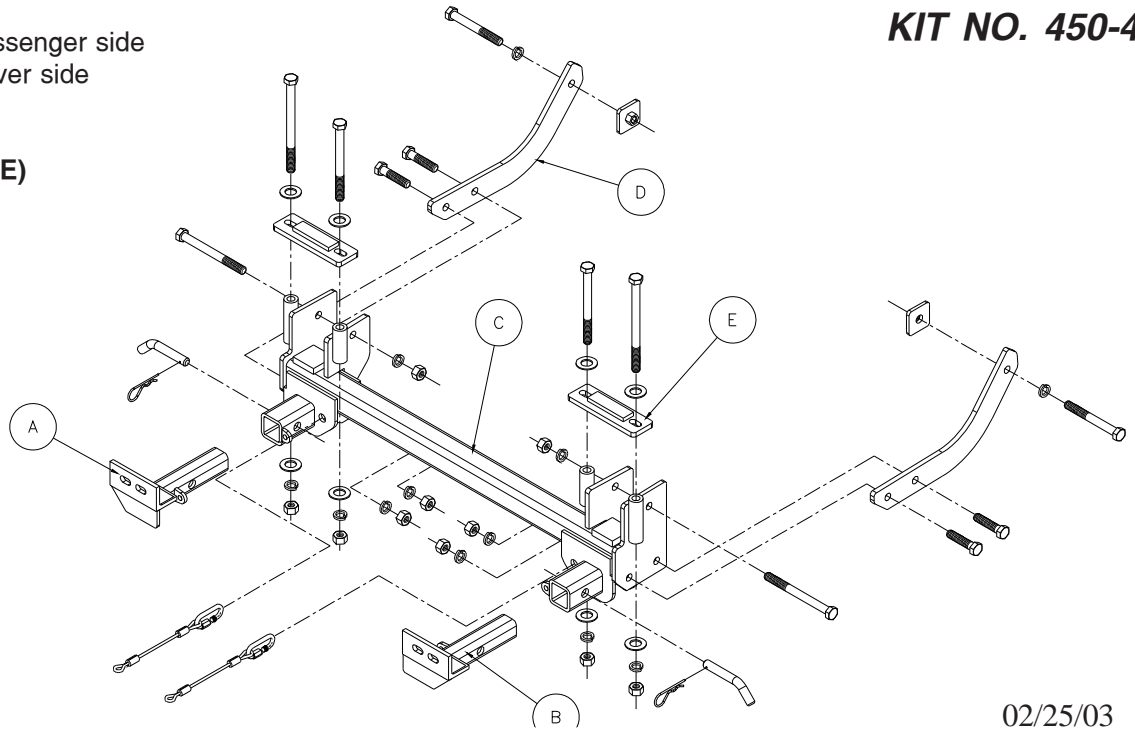
BASEPLATE KIT INSTALLATION INSTRUCTIONS

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- REAR BRACE (D)
- 2- UPPER FRAME BRACE (E)

KIT NO. 450-4



02/25/03

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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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 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.
2. Remove the large radiator air duct located under the radiator between the frame tubes (four 10mm head bolts). This will give you easy access to the back of the bumper and frame mounting area.
3. Remove the front bumper (four 18mm head nuts) and set aside.
4. Locate two 1/2" x 4 1/2" bolts and have ready. Hold the main receiver brace to the bottom of the frame rails just behind the bumper mounting plates and insert one bolt per side through the brace and the existing holes in the side of each frame tube. Finish with 1/2" lock washers and nuts. Leave the bolts loose to allow adjustment in the following steps.
5. Locate two 1/2" x 5", two 1/2" x 4 1/2" bolts and two 1/2" x 2" upper frame braces. These braces are reverseable to match both early and later frames. If the frame rails have reinforcement on top install the topbraces with the reinforcement rib on top, if the frame is rectangular install with the rib down on the top of the tube frames on with 1/2" x 5" bolts on the outside of each frame tube and 1/2" x 4 1/2" bolts on the inside of the frame tubes. Finish with 12mm flat washers(top and bottom), lock washers and nuts. *Note:* on the passenger side, install the inside bolt first. This will allow you to angle the bolt past the air bag sensor into the receiver brace mounting tube. Tighten these bolts finger tight for now. Try to keep the top plates parallel to the top of the frame tubes.
6. Using two 1/2" x 1 1/2" bolts per side, bolt through the rear side braces and the main receiver brace as illustrated. Align the bottom of the side braces parallel with the bottom of the receiver brace then torque bolts to the specifications below.
7. Tighten the top plate bolts evenly while checking front to back alignment of the main brace. Try to keep the receiver tubes parallel to the ground and the rear mounting holes in the side braces centered on the frame. When everything looks good, tighten the side bolts installed in step 4 to hold in place.
8. Using the side braces as templates drill one 1/2" hole through each frame tube.
9. Bolt through the rear braces and the frame tubes with 1/2" x 4" bolts, lock washers and 1/4" x 2" x 2" threaded backing plates.
10. Torque all mounting bolts to the specifications below.
11. Hold the bumper in position and mark the lower fascia to fit around the receiver brace. Trim then install reversing step 3.
12. Insert the front braces into the receiver tubes and pin with 5/8" draw pins and 1/8" spring pins.
13. Install the tow bar according to the manufacturer's instructions.
14. 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.

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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Hardware

- 4- 1/2" x 1 1/2" bolts
- 2- 1/2" x 5" bolts
- 4- 1/2" x 4 1/2" bolts
- 2- 1/2" x 4" bolts
- 2- 1/4" x 2" x 2" threaded backing plates
- 8- 12 mm flat washers
- 12- 1/2" lock washers
- 10- 1/2" nuts
- 2- 8" safety cables
- 2- cable connectors
- 2- 5/8" draw pins
- 2- 1/8" spring pins
- 2- 1/2" x 2" top plates

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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.