

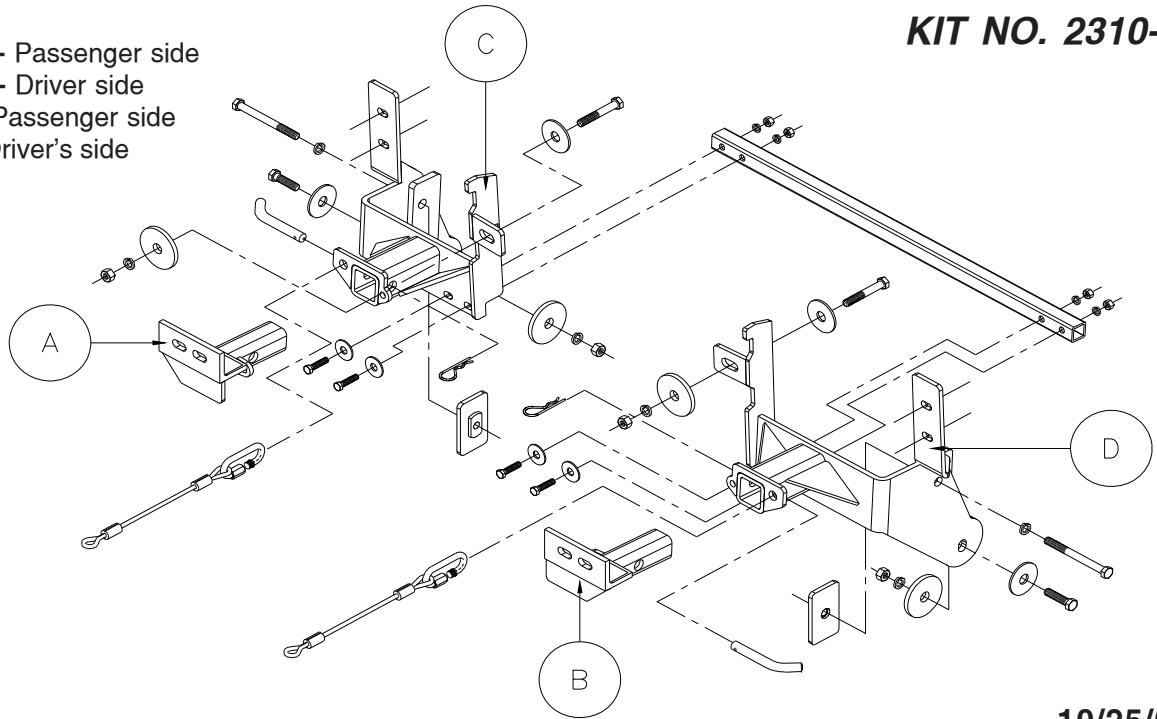
BASEPLATE KIT INSTALLATION INSTRUCTIONS

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) - Passenger side
- 1- MAIN BRACE (D) - Driver's side

KIT NO. 2310-1



10/25/01

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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KIT NO. 2310-1

1. This bracket kit is one of our XL series, which is designed to be partly removable. The kit consists of the main receiver braces, two front braces, center brace and a hardware pack. The main receiver braces mount below and behind the front bumper core and utilize the stock side bumper core mounts and the side of the frame rails for back mounting points. The rear of the braces also bolt through the lower tie down plates. The center brace bolts between the main receiver braces below the bumper core. The front braces then insert into the receiver brace under the front bumper core. The front bumper fascia will have to be removed to access the mounting area. 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. **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. Start by removing the headlights retaining bolts (2 10mm head bolts per side), pull forward disconnect the wiring harness then set aside.
3. Remove the bumper fascia (five plastic fasteners on top, a 10mm head bolt in each side, five 7mm head screws in the passenger side fender well, four 7mm head screws in the driver side fender well, four plastic fasteners under the bumper core). Pull forward and lift the fascia and Styrofoam core off.
4. Working on one side at a time, remove two bumper core-retaining nuts on the outside bumper core mount. Hold the appropriate receiver brace over the bumper core studs with the front contoured plate behind the bumper core. Replace the nuts to hold the receiver brace in position.
5. Bolt through the lower tie down plate with a 1/2" x 2" bolt, plate washer, lockwasher and nut.
6. Repeat step 4 for the remaining brace.
7. Now attach the two receiver braces together with the center bar and four 3/8" x 2" bolts, lock washers and nuts.
8. Align the braces then tighten the rear bumper core nuts, center bar nuts and the lower bolt to hold in position. Measure 10 5/8" from the side of the receiver brace and in the middle of the bumper core. Drill a 1/2" hole through the bumper core that lines up with the mounting slot in the brace located behind the bumper core. Bolt through the bumper core and brace with a 1/2" x 3" bolt, plate washer, flat washer, lockwasher and nut. Be sure and put the plate washer on the front of the bumper core.
9. Use the side hole in the brace as a position guide to drill through the frame tube with a 1/2" bit. Use a backing plate behind the frame when doing this. Bolt through this hole with a 1/2" x 4" bolt, lock washer and 1/4" x 2" x 3 1/2" backing plate. Torque to 35ft lbs. to avoid compressing the frame.
10. Install the remaining brace then torque the rest of the bolts to the specifications below.
11. Prepare the Styrofoam bumper face by hollowing out the area around the bolt heads and plate washers.
12. Put rags over the front of the receiver tubes for protection then reinstall the front fascia and grill reversing steps 2 and 3.
13. Insert the front braces into the receiver brace and pin with 5/8" draw pins and 3/16" spring pins.
14. Install the tow bar according to the manufacturer's instructions.
15. Attach the 8" safety cables to the holes provided in the receiver brace with the included cable links. Attach the other end to the bar and the tow vehicle's safety cables.

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

- 2- 1/2" x 2" bolts
- 2- 1/2" x 3" bolts
- 2- 1/2" x 4" bolts
- 6- 1/2" lock washers
- 4- 1/2" plate washers
- 4- 1/2" nuts
- 4- 3/8" x 2" bolts
- 4- 3/8" nuts
- 4- 3/8" lock washers
- 4- 3/8" flat washers
- 2- 1/4" x 2" x 3 1/2" threaded backing plates
- 2- 3/16" spring pins
- 2- cable connectors
- 2- 8" safety cables
- 2- 5/8" draw pins

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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.