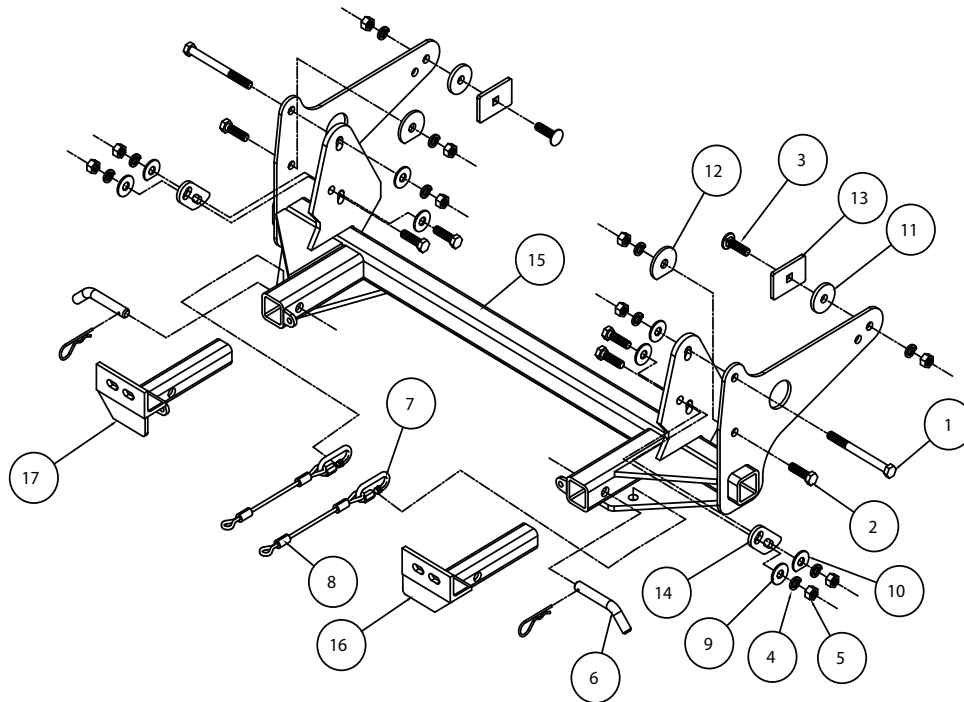


BASEPLATE KIT INSTALLATION INSTRUCTIONS

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 360-896-0407 fax 360-735-9300 www.roadmasterinc.com

KIT NO. 446-5



02-21-13

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. 446-5

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 small splash panel if present under the bumper fascia (two plastic fasteners). This will give you easy access to the bumper mounting area. *Note:* the splash shield will not be replaced. Retain the splash shield and attachment hardware so they can be replaced if the bracket is ever removed.
3. Remove the front bumper (four 19mm head nuts) and set it aside.
4. Locate two 1/2" x 5 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 push the receiver brace up until the top front mounting holes on each side match the topmost triangular holes through the frame on each side. Insert one bolt per side through the brace and the existing holes in the side of each frame tube. Finish with 1/2" flat washers, lock washers and nuts on the inside of the brace. Leave the bolts loose to allow adjustment in the following steps. *Note:* it may be necessary to ream the triangular holes for a proper fit.
5. Find the lower mounting holes in the receiver brace located in the 3/8" inner mounting plate below the top mounting holes that you used in step 4. Install a 1/2" x 1 3/4" bolt and a flat washer into these holes on the inside of the frame rails and finish with a special 1/4" x 1 1/2" two hole backing plate inside the frame rails followed with a flat washer, lock washer and nut. The slotted hole should line up with the remaining mounting hole in the side plate. This hole will be drilled in step 8.
6. Now, fish wire 1/2" x 1 3/4" carriage bolts and 1/4" x 2" x 3" sq. hole backing plates through the front frame rails on each side into the rear side brace mounting hole on each side. *Note:* there is no bolt in the first hole. The first hole is used for another application. Use a 1/4" thick plate washer spacer between the frame and the brace. Finish bolting with lock washers and nuts on the inside of the frame tubes.
7. Check the brace alignment then torque all mounting bolts to the specifications below.
8. Using the main receiver brace as a drill template, drill a 17/32" hole through the inside and outside wall of each frame member.
9. Bolt through the outside mounting holes with 1/2" x 1 3/4" bolts, clipped plate washers, lock washers and nuts. Bolt through the inside holes with 1/2" x 1 3/4" bolts, clipped flat washers, lock washers and nuts. Then, torque to the specifications below.
10. Hold the bumper in position and install, reversing step 3.
11. Insert the front braces into the receiver tubes and secure with 5/8" draw pins and 1/8" spring pins.
12. Install the tow bar according to the manufacturer's instructions.
13. Attach one end of the 8" safety cables to front holes on the receiver cross bar on each side of the receiver brace with the included cable connectors. Connect the other end to the tow vehicle's safety cables and the tow bar.

02-21-13

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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KIT NO. 446-5

ITEM	QTY	NAME	MATERIAL
1.....	2.....	1/2" x 5 1/2" BOLT.....	350108-00
2.....	6.....	1/2" x 1 3/4" BOLT.....	350096-00
3.....	2.....	1/2" x 1 3/4" CARRIAGE BOLT.....	350363-00
4.....	10.....	1/2" LOCK WASHER.....	350309-00
5.....	10.....	1/2" HEX NUT.....	350258-00
6.....	2.....	DRAW PIN W/ CLIP.....	357035-00
7.....	2.....	QUICK LINK.....	200008-00
8.....	2.....	SAFETY CABLE 8".....	650648-8
9.....	6.....	1/2" FLAT WASHER.....	350308-00
10.....	2.....	1/2" CLIPPED FLAT WASHER.....	A-000893
11.....	2.....	1/2" PLATE x 2" x 2".....	A-000574
12.....	2.....	1/2" CLIPPED PLATE WASHER.....	A-002687
13.....	2.....	1/4" PLATE x 2" x 3".....	A-000050
14.....	2.....	1/4" PLATE x 1 1/2" x 3 1/8".....	A-000572
15.....	1.....	MAIN RECEIVER.....	C-000297B
16.....	1.....	DRIVER SIDE ARM.....	C-000323A
17.....	1.....	PASSENGER SIDE ARM.....	C-000324A

12-31-08

BOLT TORQUE REQUIREMENTS

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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.

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.