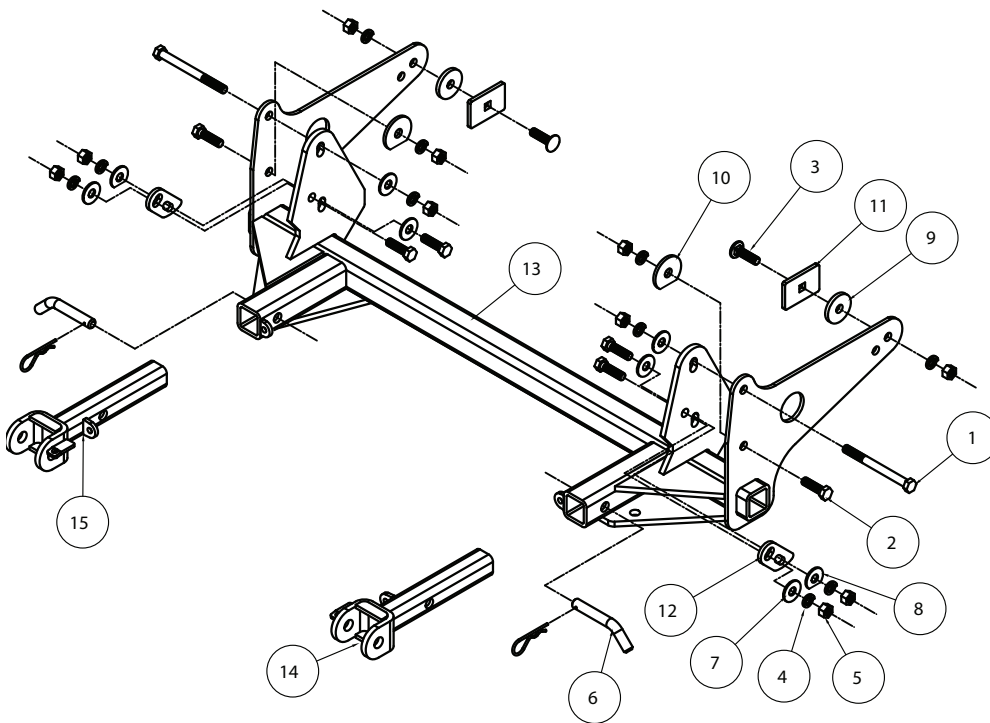


# BASEPLATE KIT INSTALLATION INSTRUCTIONS

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 1-800-669-9690 fax 360-735-9300 www.roadmasterinc.com

**KIT NO. 446-33**



## **Important**

Note: this bracket will not accommodate the Guardian rock shield, some models of the Tow Defender, Stowaway or the StowMaster and StowMaster All Terrain tow bars.

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**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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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 is one of our MX series brackets, which allows the visible front portion of the brackets to be easily removed from the front of the vehicle. 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 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 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 the safety cables to the main receiver brace.

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## 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.						

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.



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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.....	6 .....	1/2" FLAT WASHER.....	350308-00
8.....	2 .....	1/2" CLIPPED FLAT WASHER .....	A-000893
9.....	2 .....	1/2" PLATE x 2" x 2".....	A-000574
10.....	2 .....	1/2" CLIPPED PLATE WASHER .....	A-002687
11.....	2 .....	1/4" PLATE x 2" x 3".....	A-000050
12.....	2 .....	1/4" PLATE x 1 1/2" x 3 1/8".....	A-000572
13.....	1 .....	MAIN RECEIVER.....	C-000297B
14.....	1 .....	DRIVER SIDE MX ARM .....	C-000298A
15.....	1 .....	PASSENGER SIDE MX ARM.....	C-000299A

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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.