

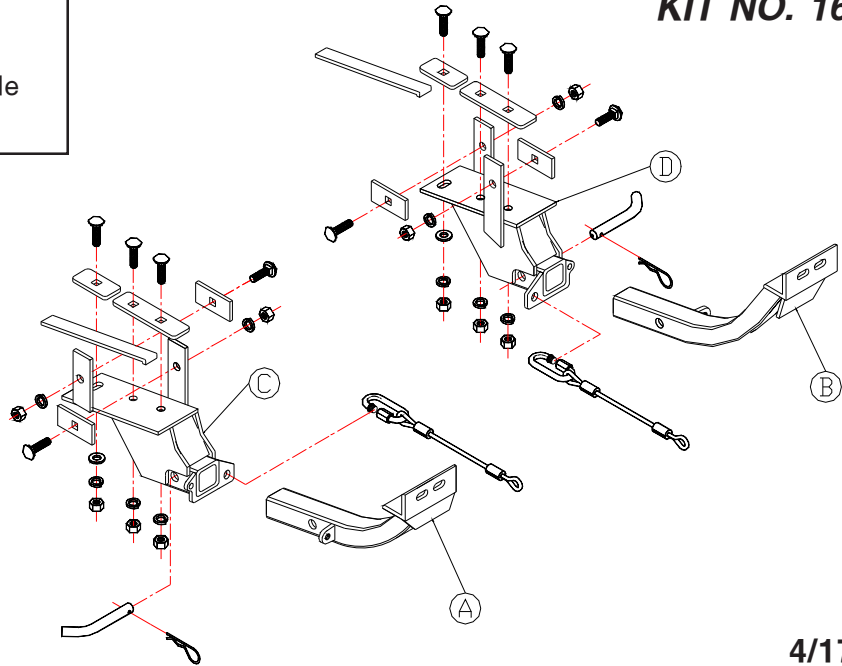
BASEPLATE KIT INSTALLATION INSTRUCTIONS

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
- 1- RECEIVER BRACE (C) - Passenger side
- 1- RECEIVER BRACE (D) - Driver's side

KIT NO. 161-1



4/17/03

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 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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KIT NO. 161-1

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 is one of our XL series, which allows you to remove the most visible portion of the bracket. This bracket kit consists of two receiver braces, two arms and the hardware pack. The bracket kit mounts to the bottom of the frame horns behind and below the front bumper. *Note:* later vehicles may have a small black plastic splashguard under the front of the frame that has to be removed (four 15mm head bolts).
2. To mount the main braces, locate the rear-most existing hole in the bottom of the frame rails on each side. Fishwire a 1/2" x 1 3/4" carriage bolt and 1/4" x 1 1/2" x 2 1/2" backing plate into the hole in each frame rail.
3. Hold the braces to the bottom of the frame rail with the bolts through the rear hole in the braces. Secure with flat washers, lock washers and nuts.
4. Locate the holes on the sides of the frame that line up with the side mounting tabs on the main braces and bolt through frame and bracket with 1/2" x 1 1/2" carriage bolts and 1/4" x 1 1/2" x 2 1/2" backing plates. *Note:* on some models, the existing hole on the outside of the frame will not line up exactly and will have to be drilled.
5. Make certain that the braces are aligned properly, then tighten in position so the braces snug against the bottom of the frame. *Note:* two alignment shims are included with the kit to take care of any alignment discrepancies in the frame. These shims can be used one or two at a time to align one side to the other.
6. Using the braces as templates, drill two 1/2" holes in the bottom of the frame on each side. *Note:* on later models with the splashguard removed, a nut in the bottom of each frame rail will be drilled out when drilling the front hole.
7. Insert a 1/4" x 1 1/2" x 5 1/2" two holed backing plate into the frame horn on each side and bolt through with two 1/2" x 1 3/4" carriage bolts. *Note:* on later models the fascia is very close to the front of the frame opening, either blocking the fascia away from the frame temporarily or cutting the small web out of the opening will facilitate fishwiring and inserting the plate. Torque all bolts to the specifications below.
8. Insert the front braces in the receiver tubes and secure with 5/8" draw pins and 3/16" spring pins.
9. Mount the tow bar according to the manufacturer's instructions.
10. Connect the 12" safety cables to the receiver braces with the included cable connectors. Connect the other end to the tow vehicle's safety cables and the tow bar.

HARDWARE LIST:

- | | |
|---|---------------------------------------|
| 8- 1/2" x 1 3/4" carriage bolts | 2- 1/2" flat washers |
| 10-1/2" nuts | 2- 1/8" x 1" x 8 1/2" alignment shims |
| 10-1/2" lock washers | 2- 3/16" spring pins |
| 2- 1/2" x 1 1/2" carriage bolts | 2- 5/8" draw pins |
| 6- 1/4" x 1 1/2" X 2 1/2" backing plates | 2- cable connectors |
| 2- 1/4" x 1 1/2" X 5 1/2" two hole backing plates | 2- 12" safety cables |

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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.