

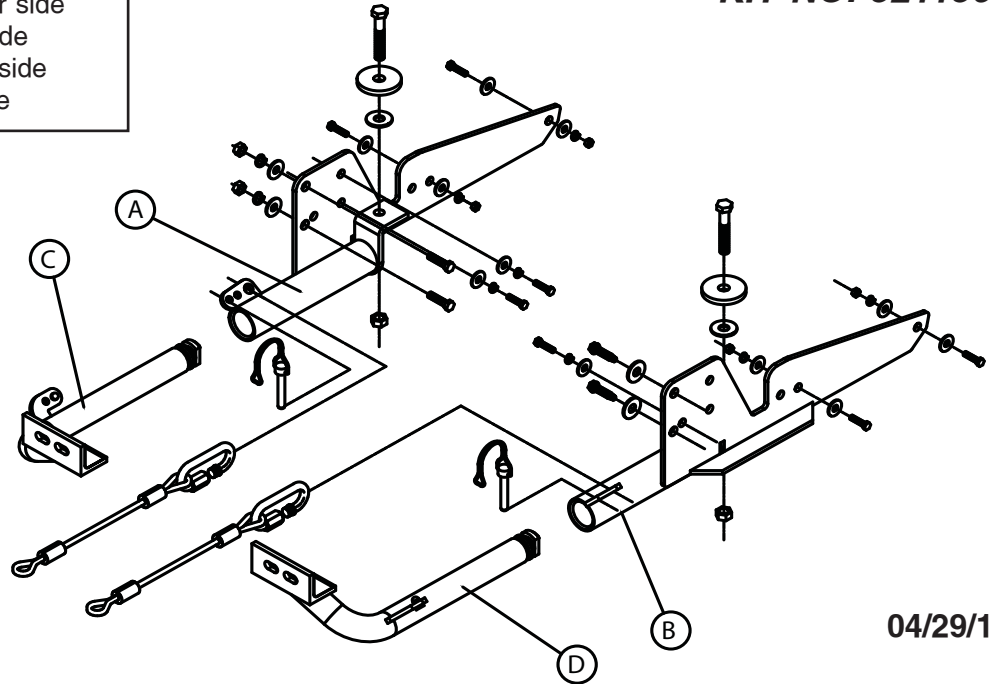
BASEPLATE KIT INSTALLATION INSTRUCTIONS

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

PARTS LIST:

- 1- MAIN RECEIVER (A) - Passenger side
- 1- MAIN RECEIVER (B) - Driver's side
- 1- FRONT BRACE (C) - Passenger side
- 1- FRONT BRACE (D) - Driver's side

KIT NO. 521156-1



04/29/13

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 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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- 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 EZ lock bracket series, which allows the visible front portion of the brackets to be easily removed from the front of the car by rotating the front braces. The bracket kit consists of two main receiver braces, two tubular front braces and a hardware pack. The rear receiver braces mount to the bottom and side of the sub frame and protrude through the lower grill below the headlights and the bumper. The front tubular braces insert into the rear braces and rotate 90 degrees to lock in place. The passenger side of the lower grille will have to be trimmed to fit around the tubular portion of the main receiver brace. The lower splash shields will be removed then reinstalled. Before starting the installation, lay out the kit components as it is illustrated. This will give you a visual idea of how the components work and also confirm that everything is present and accounted for.
- Begin by removing nine 10mm (head) bolts holding the two lower splash panels. Set the panels aside for reinstallation. This will provide access to the subframe mounting area.
- Starting with the driver's side, remove two 12mm (head) bolts holding the tow bracket. It is located behind and below the bumper core, and will not be replaced. Now, locate the resistor block located next to this tow bracket. Unbolt the two 10mm (head) bolts and leave hanging for now.
- Locate the removable tow eye cover in the lower front grille and remove. Use this cover to trace a identical opening in the same spot on the other side of the grille. Cut this opening out, making it as close to identical as possible to the original driver's side opening. This is where the passenger side rear brace will come through the grille.
- Hold the driver side's receiver brace behind the bumper fascia and push through the front grille opening until the mounting holes in the brace mounting plate line up with the existing frame holes.
- Bolt through the two bottom holes in the brace and frame with 5/16" x 1 1/2" bolts, flat washers, lock washers and nuts. Now, bolt through the front of the plate into the frame with two 10mm x 1.25 x 35mm bolts, lock washers and flat washers. Bolt the resistor block, in place, over the mounting plate with two 6mm x 1.0 x 25mm bolts, lock washers and flat washers. Hold the brace against the bottom of the frame then tighten the bolts to hold in position.
- Locate the existing 5/8" hole in the bottom of the frame and be sure that the mounting hole in the brace lines up. *Note:* due to manufacturing variances, you may need to use one or more of the supplied optional 1/2" flat washers as spacers between the frame hole and the bracket mount. Go to the top of the vehicle and locate the fender side brace with large holes. If you look down through the first hole in the brace you will see the top of the subframe opposite the bottom hole. If you check, this spot on the frame will be directly above the existing bottom hole. Mark the frame on top above the existing bottom hole, then using a long drill bit and the top fender brace hole as a guide, drill through the top of the frame. *Note:* this space is close to the air bag sensor, so be careful.
- Now, put a 1/2" plate washer on the top of the frame over the hole and install a 1/2" x 6" bolt through the frame and receiver brace. Finish on the bottom with a 1/2" nylock nut. Tighten this bolt until the receiver brace is tight to the bottom of the frame rail, then tighten the 5/16" x 1 1/2" bolts and 10mm x 1.25 x 35mm side bolts to the torque specifications below. Once this is done, finish tightening the large 1/2" bolt to the torque specifications below.
- Reinstall the resistor block with the supplied 6mm x 1.0 x 25mm bolts, lock washers and flat washers.

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

| 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. |



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10. Repeat steps 3 through 7 for the passenger side receiver brace with the exception of removing the lower washer bottle bolt. Now, drill two 1/4" holes and install two self tapping 3/8" x 1 1/2" bolts and flat washers. Finish with a 6mm x 1.0 x 25mm bolt, lock washer and flat washer for the washer bottle mount.
11. Install the front braces by inserting with front braces vertical to the ground, push in and twist down 90 degrees to lock in place.
12. Replace the lower splash shields on each side.
13. Mount the tow bar according to the tow bar manufacturer's instructions. Install the 10" safety cables to the side of the main receiver portion of the bracket with quick links provided. Attach the other end to the tow vehicle's safety cables and the tow bar.

Hardware list:

- 3- 6mm x 1.0 x 25mm bolts
- 3- 6mm fender washers
- 3- 6mm lock washers
- 4- 5/16" x 1 1/2" bolts
- 8- 5/16" flat washers
- 4- 5/16" lock washers
- 4- 5/16" nuts
- 2- 10mm x 1.25 x 35mm bolts
- 2- 10mm lock washers
- 2- 10mm nuts
- 2- 3/8" x 1 1/2" self-tapping bolts
- 2- 3/8" flat washers
- 2- 1/2" nylock nuts
- 2- 1/2" x 6 1/2" bolts
- 2- 1/2" plate washers
- 2- 10" safety cables
- 2-quick links
- 2-safety pins
- 8-1/2" flat washers (optional)

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. |