



1-800-669-9690

R O A D M A S T E R

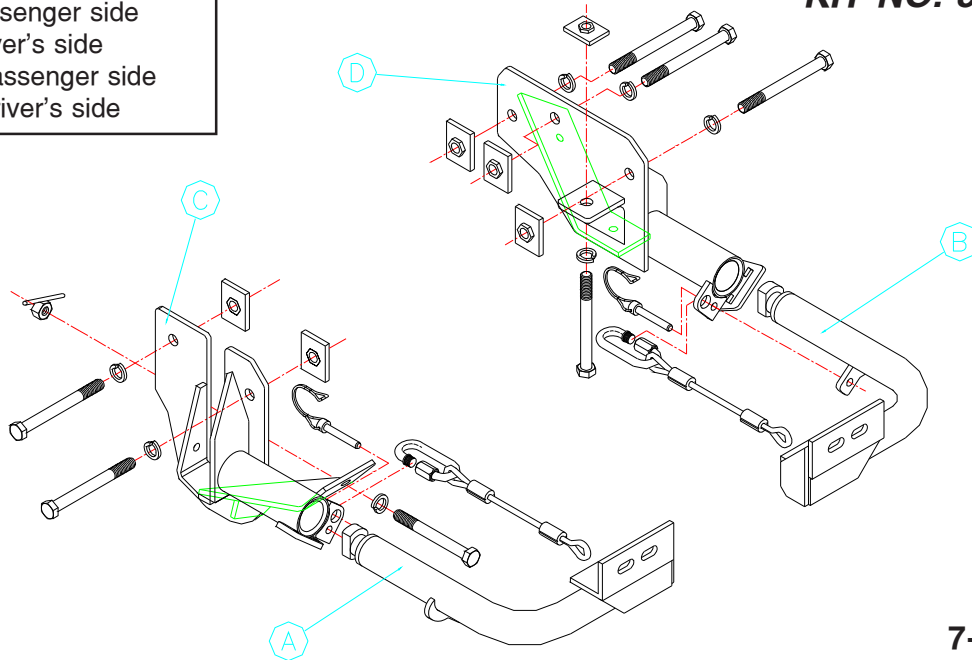
# BASEPLATE KIT INSTALLATION INSTRUCTIONS

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

KIT NO. 521227-3



7-24-01

**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 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. 521227-3

1. 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 of the sub frame and protrude through the lower grill below the headlights and the bumper. The front tubular braces are inserted into the rear braces and rotated 90 degrees to lock in place. The sides of the lower grille will have to be trimmed to fit around the tubular portion of the main braces or left off. The front bumper fascia will have to be removed to access the frame mounting area. 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.
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 by removing three plastic pop fasteners and a number 25-torx screw located in each front fender well. To remove these pop fasteners, press the center pin out with a small punch. Be sure and save the center pins with the fasteners for reinstallation. The torx screw is located inside the fender well near the junction of the upper corner of the fascia and the fender well. *Note:* later models may have four number 25-torx screws instead of three plastic pop fasteners.
3. Disconnect the hood latch lever by disengaging the metal retainer then spreading the nylon clevis open with a screwdriver.
4. Remove the upper grille by pulling forward on the top of the grille then lifting up and out. This will expose two number 30 torx bolts in board of each head light and three more in the top of the bumper fascia. Remove all five.
5. Pull the front two lower side grilles forward and out. This will expose a number 30-torx bolt in each opening which needs to be removed.
6. Go to the bottom of the facia and remove two number 25 torx screws on each side and four pop fasteners in the middle of the facia.
7. Pull the fascia forward to disconnect the marker lights. Remove the fascia and set it aside.
8. Starting with the driver's side, unbolt the side and front horn including the front horn bracket. Leave hanging for now.
9. Take the driver's side receiver brace and clamp to the bottom and side of the frame. The lower front mounting hole should line up with a existing 7/16" hole in the bottom of the frame. Line up with this hole and clamp in position.
10. Check the alignment, then using the brace as a drill template, drill through the existing bottom hole and the top of the frame and three holes through both sides of the frame rail. *Note:* be sure to use a backer plate, on top and behind the frame rail when drilling.
11. Now bolt through the frame and brace with three 1/2" x 3 1/2" bolts, lock washers and 1/4" x 1 1/2" x 2" threaded backing plates. For the bolt that mounts vertically, use the 5" bolt. *Note:* tighten these bolts enough to flatten the lock washers, about 35ft. lb.
12. Mount the horns on the receiver brace in the holes provided for this purpose with the 8mm x 1.25 x 25mm bolts, flat washers and lock washers. *Note:* if the vehicle is non turbo-charged and has no inter-cooler, skip steps 13 and 14 and proceed step 15.
13. Go to the passenger side and remove the inter-cooler air duct by lifting up and off.
14. Now remove three 10mm (head) bolts holding the turbo inter-cooler. Move the large hose spring clamps on the top and bottom rubber hoses up on the hoses to release the inter-cooler. Pull the inter-cooler out and set aside. A slight amount of oil leakage is normal. *Note:* remove front head light if more access is needed.

## 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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15. Put a special ½" T-nut behind the existing passenger side tow ring bracket located in the front below the bumper core. Hold the receiver brace up in front of the bracket and bolt through with a ½" x 4" bolt and lock washer. Tighten enough to hold position then check the alignment. Make sure that the top of the plate is parallel and matches the passenger side. The front and back of the mounting plate should be in the same position behind the bumper core on both sides. Once this is achieved, clamp in position and drill three ½" holes through the frame using the brace as a drill template. *Note:* use a backing plate when drilling to prevent damage.
16. Bolt through the brace and the frame with the supplied ½" x 3½" bolts, lock washers and ¼" x 1½" x 2" threaded backing plates. *Note:* tighten these side bolts enough to flatten the lock washers, about 35 ft. lb. Tighten the front bolt to the torque specifications below.
17. Trim the inter-cooler air duct, removed in step 13 to fit around the side of the receiver brace then reinstall. *Note:* skip this step for models without turbos and inter-coolers
18. Reinstall the bumper fascia and grille, reversing steps 2 through 7.
19. Install the front braces by inserting with front braces vertical to the ground, push in and twist down to lock in place. Once locked in and parallel to the ground, install safety pins.
20. At this point decide whether to reinstall the lower grilles by trimming to fit or leaving off and saving for reinstallation at a later date. If you want to reinstall, trim the grilles to fit around the braces and snap back in.
21. 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

- 1- 1/2" x 5" bolt
- 1- ½" x 4 " bolt
- 5- ½" x 3 ½" bolts
- 1- ½" welded T nut
- 7- ½" lock washers
- 6- ¼" x 1 ½" x 2" threaded backing plates
- 2- 8mm x 1.25 x 25mm bolts
- 2- 8mm lock washers
- 2- 8mm flat washers
- 2- 10" safety cables
- 2- quick links
- 2- safety pins

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10mm-1.25 .....	8.8 .....	38 ft./lb. 36 ft./lb.
10mm-1.5 .....	8.8 .....	37 ft./lb. 35 ft./lb.

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14mm-2.0 .....	8.8 .....	104 ft./lb. 97 ft./lb.