

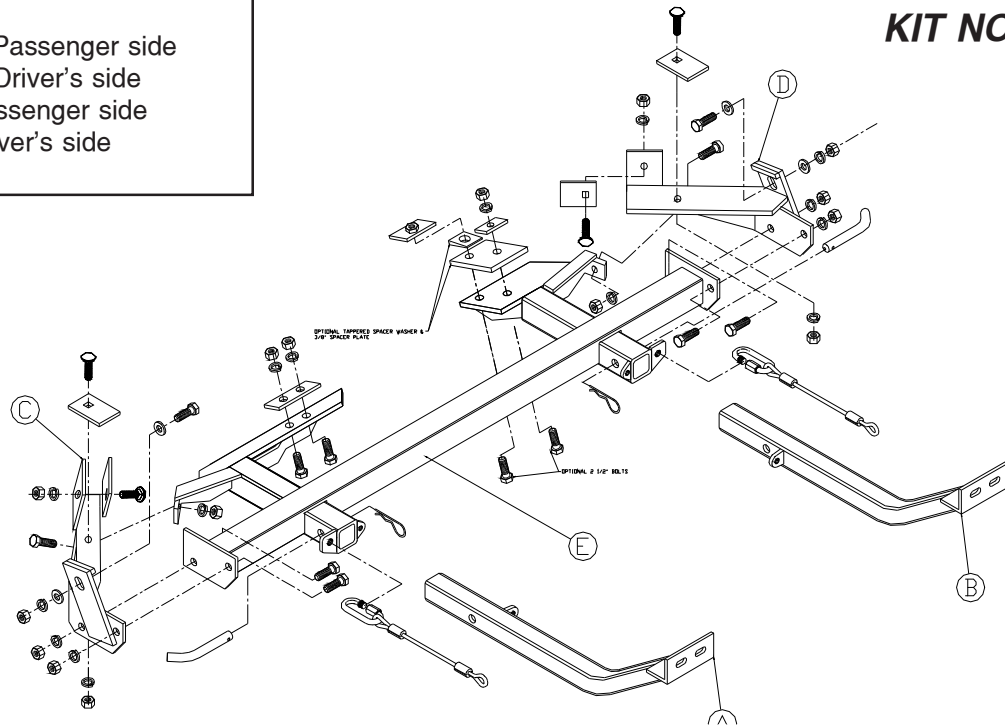
# BASEPLATE KIT INSTALLATION INSTRUCTIONS

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- SIDE BRACE (C) - Passenger side
- 1- SIDE BRACE (D) - Driver's side
- 1- CROSS BRACE (E)

KIT NO. 190-3



**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 bracket kit is one of our XL Series which consists of two outer mounting braces, a main receiver brace, two removable front braces and a hardware pack. The kit mounts to the sides and under the front sub frame on both sides of the vehicle. Remove the lower plastic bumper skirt and the protective plastic splash panel from the bottom of the sub frame. These will be trimmed to fit and reinstalled later.
- To mount the braces, begin by inserting a 1/2" x 1 1/2" carriage bolt into two 1/4" x 2" x 3" backing plates. Now, locate a oval hole on the side of each sub frame horn approximately 10" back from the front sub frame mount. *Note:* see the included fish wiring sheet included. Fish wire these backing plates and bolts down through the front of each frame horn and into the side hole. Leave the fish wire on each bolt for now.
- Look at the top outside of the frame horns on each side. You will find a 1/2" hole directly in line with the sub frame mount. Insert a 1/2" x 1 1/2" bolt with a flat washer through it from the inside of the frame horn, if you cant, enlarge it slightly. Find the two remaining 1/4" x 2" x 3" backing plates and insert a 1/2" x 1 1/2" carriage bolt into each one and set aside.
- Start with the driver side brace and hole it up to the bottom of the sub frame. Fish the bottom side bolt through the side tab and bolt with a 1/2" nut and lock washer. Do the same with the top bolt. Tighten the bolts so the side brace is snug against the sub frame.
- Follow the same procedure for the passenger side.
- Bolt the receiver brace between the side braces using three 1/2" x 1 1/2" bolts, lock washers and nuts per side. Align the braces and tighten the bolts.
- Using the side braces as a drill template, drill one 17/32" hole in the bottom front of each side of the sub frame.
- Install a backing plate and 1/2"x 1 1/2" carriage bolt inside each sub frame horn through the large opening at the front of the sub frame. Finish with a 1/2" nut and lock washer.
- Follow the same procedure for the passenger side.
- Now, find the remaining two holes in the bottom mounting plate on each side and drill through each into the horizontal cross member. *Note:* make sure all hoses and wires are out of the way.
- Each of the holes just drilled will take a different backing plate. The driver's side bottom hole will take a threaded 1/4" x 1 1/2" x 2 3/4" backing plate. Use the large access hole nearby to position this plate for a 1/2" x 1 1/2" bolt and lock washer. The upper driver side hole goes through the front lip of the sub frame and takes a 1/2" x 1 1/2" bolt, 1/4" x 1" x 2" backing plate, lock washer and nut. The two holes on the passenger side take two 1/2" x 1 1/2" bolts, 1/4" x 1 1/4" x 4" two hole backing plate, lock washers and nuts. A shim is needed on the driver's side.
- Torque all the mounting bolts to the specifications below.

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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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13. Trim the lower splash panel to fit if needed and reinstall.
14. If the lower bumper skirt is to be reinstalled, trim to fit and reinstall at this time.
15. Insert the front braces into the receivers and pin with 5/8" draw pins and 1/8" spring pins.
16. Mount the tow bar according to the manufacturers instructions and torque bolts to the specifications below.
17. Attach safety cables to the receiver brace using the included cable connectors and then to the tow bar and the tow vehicle's safety cables.

**HARDWARE LIST:**

- 4-1/2" X 1 1/2" CARRIAGE BOLTS
- 12-1/2" X 1 1/2" BOLTS
- 16-1/2" LOCK WASHERS
- 15-1/2" NUTS
- 4-1/2" FLAT WASHERS
- 4-1/4" X 2" X 3" SQUARE HOLE BACKING PLATES
- 1-1/4" X 1 1/2" X 2 3/4" THREADED BACKING PLATES
- 1-1/4" X 1" X 2" BACKING PLATE
- 1-1/4" X 1 1/4" X 4" TWO HOLE BACKING PLATE
- 2-5/8" DRAW PINS
- 2-1/8" SPRING PINS
- 2-CABLE CONNECTORS
- 2-19" SAFETY CABLES
- 2-1/2 x 2 1/2 BOLTS
- 1-TAPPERED SHIM
- 1-3/8" x 3" x 3 1/2" BACKING PLATE

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