



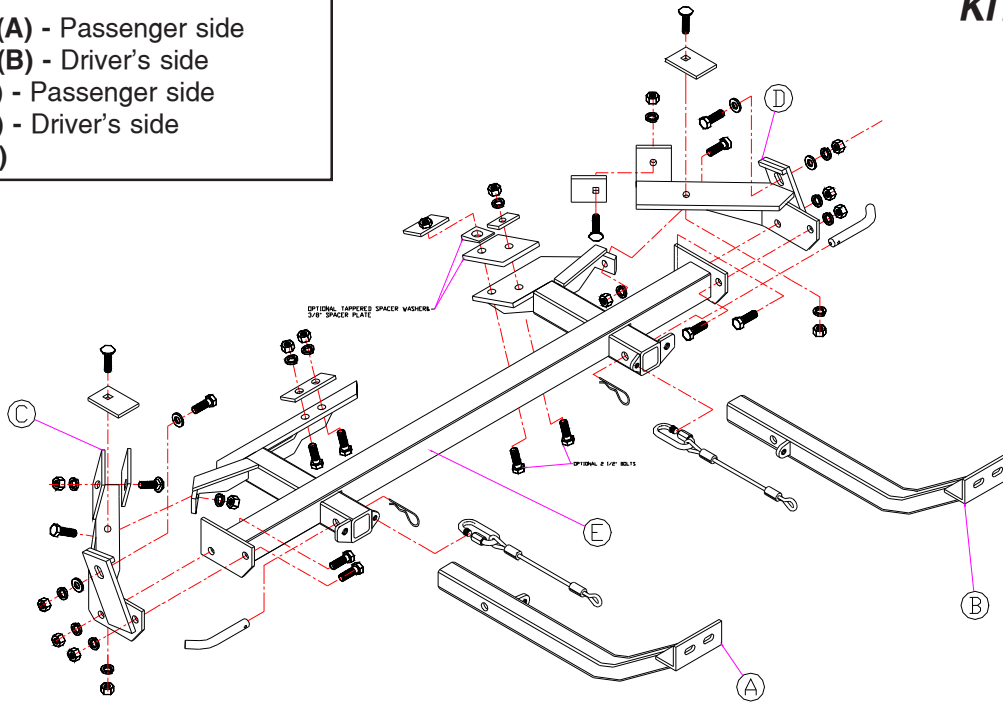
# BASEPLATE KIT INSTALLATION INSTRUCTIONS

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- MAIN BRACE (E)

**KIT NO. 190-1**



**12-02-97**

**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
- Use lock washers on all fasteners

## WARNING

Failure to follow the below warnings and the installation instructions may result in voiding your warranty, property damage, the loss of your towed vehicle, personal injury or even death.

- Installation of most baseplates requires moderate mechanical aptitude and skills. We strongly recommend professional installation by an experienced installer.
- The installer must read the instructions and use all bolts and parts supplied.
- Use Loctite® Red on all bolts used for mounting this baseplate.
- Every 3,000 miles, the owner must inspect the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions. The owner must also inspect all mounting points for cracks or other signs of fatigue every 3,000 miles.
- The owner must check the vehicle manufacturer's instructions for the proper procedure(s) to prepare the vehicle for towing. Some vehicles must be equipped with a transmission lube pump, an axle disconnect, driveline disconnect or free-wheeling hubs before they can be towed. Failure to properly equip the vehicle will cause severe damage to the transmission.
- Do not weld. This baseplate is designed to be bolted to the vehicle. Welding will void the warranty.
- Do not use this document for custom fabrication, as it may not show all parts or structural components could result in loss of the towed vehicle.
- 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.
- If running changes were made by the vehicle manufacturer after this

kit was designed, some bolts or other fasteners in the hardware pack may no longer be the correct size. It is the installer's responsibility to verify this kit is securely fastened to the vehicle and fitted with the correct hardware to account for these changes.

- 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 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, motorhome and/or towed vehicle.
- 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. Refer to the cable instructions for proper routing. Failure to leave enough slack in the safety cables, or failure to connect the safety cables frame to frame, will result in 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.
- Upon final installation, the installer must inspect the baseplate to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc.
- 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 subframe 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 instructions. 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 subframe 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 can't, 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 hold it up to the bottom of the subframe. Fish wire 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 subframe.
- 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 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 subframe. 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 holes and wires are out of the way.
- Each of the holes just drilled will take a different backing plate. The driver 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 subframe 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 washer and nuts. *Note:* earlier frames will need to be 3/8" spacer plate and tapered shim 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.						



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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 secure with 5/8" draw pins and 1/8" spring pins.
- 16. Mount the tow bar according to the manufacturer's 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" SQ HOLE BACKING PLATES
- 1-1/4" X 1 1/2" X 2 3/4" THREADED BACKING PLATE
- 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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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.