



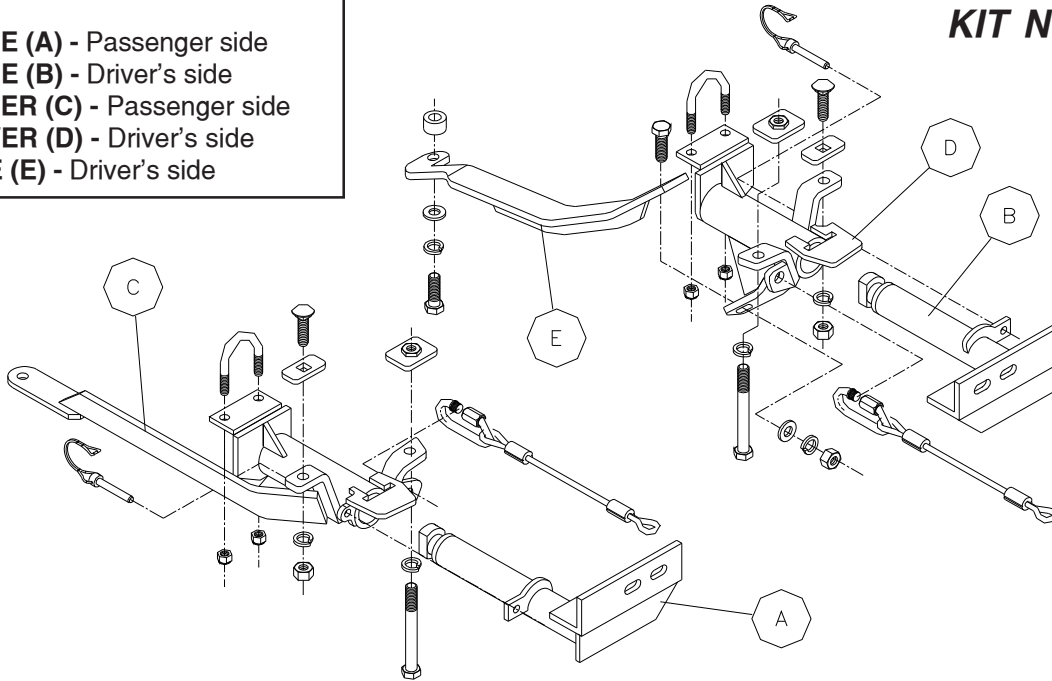
# BASEPLATE KIT INSTALLATION INSTRUCTIONS

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
- 1- REAR BRACE (E) - Driver's side

KIT NO. 521223-1



2-20-02

**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. 521223-1

- 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 kit is one of our EZ series which is designed to be partly removable. The kit consists of the main receiver braces, front braces, rear driver's side brace and a hardware pack. The main receiver brace mounts behind the front bumper fascia to the bumper core, EA unit and front suspension mount. The front braces insert into the receiver brace on each side then twist 90 degrees to lock in position. Start by laying the kit out according to the illustration. This will give you a visual idea of how the kit installs and also confirm that the kit components are present and accounted for.
- Start by removing the lower plastic engine splash guard. This held on with a total of 8 fasteners, two plastic in each fender well and three metal underneath the vehicle. This will provide access to the suspension area.
- Remove the front license plate and holder (four bolts).
- Unsnap and pull the lower front grille covering the vehicles towing loop on the passenger side. Now, unsnap the rest of the lower grille by pulling forward and out. Set the grilles aside for trimming and reinstallation later. *Note:* if the grille is difficult to unsnap, depress the snaps slightly with a thin screwdriver or knife then pull.
- Remove a Phillips screw just inside the front of each fender well then unsnap and remove the lower bottom bumper fascia. This will give you access to the bottom mounting area. The retention system is similar to the grille system removed in step 4.
- Working on one side at a time, starting with the passenger side, remove the outermost 19mm (head) suspension bolt located in an aluminum casting in front of the front wheel suspension.
- Locate a 3/8" U bolt in the hardware packet and place over the bumper EA unit mounting bracket.
- Insert the passenger side receiver brace through the front bumper grille opening and position with U bolt through the top mounting holes and the rear most hole over the suspension bolt hole. Now bolt through the rear of the brace using the 19mm (head) suspension bolt removed in step 6. Tighten to hold in place.
- Install 3/8" nylock nuts on the U bolt using a 3/8" flex drive and extension then tighten.
- Using the brace as a drill template, drill two 1/2" holes into the bottom of the bumper. Continue completely through the bumper core on the inner hole.
- Bolt through the inner bracket mounting hole with a 7/16" x 5 1/2" bolt and threaded 1/4" x 1 1/4" x 2" backing plate on the top of the bumper core.
- Fishwire a 7/16" x 1 1/2" carriage bolt and 1/4" x 1" x 2" backing plate through the open end of the bumper core into the outer mounting hole you just drilled and finish bolting with a 7/16" nut and lock washer.
- Torque all mounting bolts to the specifications below.
- The driver's side bracket installs in the same manner with the exception of replacing the 19mm head suspension bolt with a longer 10mm x 1.5 x 85mm bolt, lock washer and spacer, and bolting the rear brace to the front brace with a 1/2" x 1 3/4" bolt, lock washer and nut.
- Complete steps 6 through 14 for the driver's side.
- Trim the top two ribs from the area of the front grille pieces directly in front of the installed receivers on each side and reinstall.
- Insert the front braces into the receivers on each side and twist to lock in position. Install the safety pins to the tabs on the tubes to lock them into place.
- Install the tow bar according to the manufacturer's instructions and torque all mounting bolts to the specifications below.

### 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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19. Attach one end of the included 10" safety cables to the front hole in the inside mounting plate of the receiver braces with the included cable connectors. Connect the other end to the tow vehicle's safety cables and the tow bar.

### Hardware

- 1- 10mm x 1.5 x 85mm bolt
- 1- 10mm lock washer
- 1- 10mm fender washer
- 1- 5/8" pipe spacer
- 2- 3/8" x 1 3/4" ID U bolts
- 4- 3/8" nylock nuts
- 2- 7/16" x 5 1/2" bolts
- 2- 7/16" x 1 1/2" carriage bolts
- 2- 7/16" nuts
- 1- 1/2" flat washer
- 4- 7/16" lock washers
- 1- 1/2" x 1 3/4" bolt
- 1- 1/2" nut
- 1- 1/2" lock washer
- 2- 1/4" x 1 1/4" x 2" threaded backing plates (7/16")
- 2- 1/4" x 1 x 2" sq. hole backing plates (7/16")
- 2- 10" safety cables
- 2- cable connectors
- 2- safety pins

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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.

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.