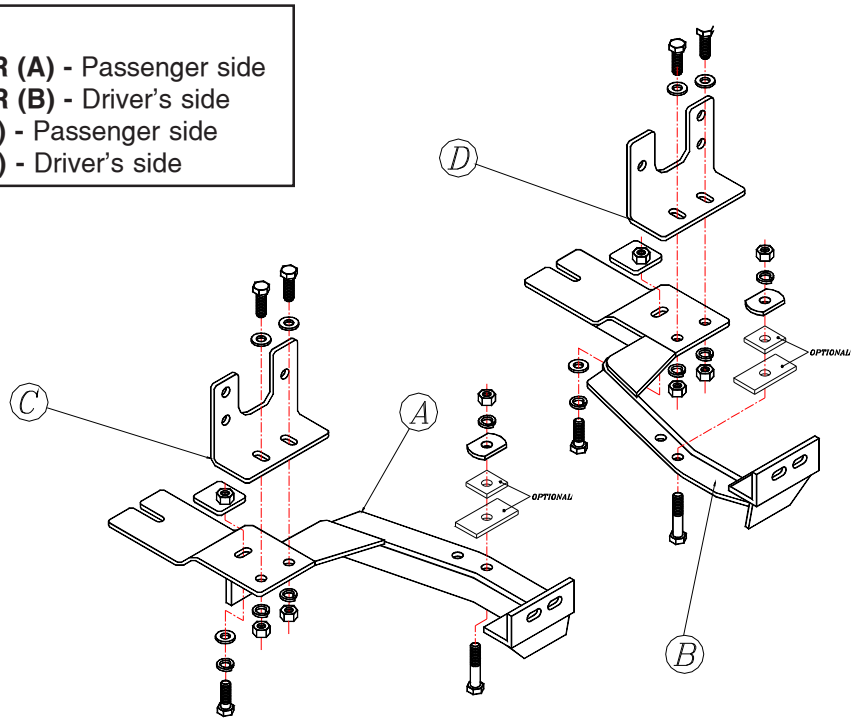
MOUNTING BRACKET KIT
INSTALLATION INSTRUCTIONS

PARTS LIST:
1- LOWER RECEIVER (A) - Passenger side
1- LOWER RECEIVER (B) - Driver's side
1- FRONT BRACE (C) - Passenger side
1- FRONT BRACE (D) - Driver's side

KIT NO. 144-1



IMPORTANT: All brackets ***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

ROADMASTER Limited Warranty, including One-Year Conditional Warranty Text and Product Registration Card, in Carton.

⚠ WARNING

Failure to follow these instructions can result in property damage, personal injury or even death.

- **Installation of most mounting brackets 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.** Failure to do so could result in loss of the towed vehicle.
- **Use Loctite® Red** on all bolts used for mounting this bracket.
- **Do not use this document for custom fabrication,** as it may not show all parts or structural components. Custom fabrication or an attempt to copy this bracket design could result in loss of the towed vehicle.
- **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 mounts and brackets for cracks or other signs of fatigue every 3,000 miles.** Failure to do so could result in loss of the towed vehicle.
- **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.
- **If running changes were made** by the vehicle manufacturer after this bracket 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 that the bracket is securely fastened to the vehicle and fitted with the correct hardware to account for these changes. Failure to securely fasten the bracket 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 bracket. **Do not install the bracket if any structural frame damage is found.** Failure to repair the damage could result in the loss of the towed vehicle.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or bracket 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 bracket is designed for use with ROADMASTER tow bars and ROADMASTER adaptors only. **Using this bracket with other brands, without an approved ROADMASTER adaptor, may result in non-warranty damage or injury.**
- Upon final installation, **the installer must inspect the bracket to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc.**, or non-warranty damage to the towed vehicle will result.
- **This bracket is only warranteed for the original installation.** Installing a used bracket on another vehicle is not recommended and will void the warranty.

MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT NO. 144-1

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 utilizes the E-A(Energy Absorbing) unit mounts on each side as well as the front bumper. Working on one side at a time, remove the three bolts that attach the E-A units to the car. Save these bolts, as they will be reinstalled later.
2. Install the upper brace over the E-A bolt holes and bolt through the brace and the E-A mounts with the original bolts removed earlier, hand tight only at this time.
3. Locate the large rubber isolation dampener at the sub frame and loosen the bolt until there is approximately ¼" between the sub frame and the body of the car. Install a main brace(A or B) through the lower grill and insert the rear slotted portion of the brace between the sub frame and the body.
4. Loosely bolt the upper and lower braces together with four ½" x 1½" bolts and nuts. Adjust the front of the main braces so that there is a hole spacing of 27" and 30" at the front clips(where the tow bar will eventually mount) and using the braces as templates, drill a 17/32" hole up through the oval hole in the brace. Remove the upper braces and main braces, then install the special ½" nutted backing plates into the end of the frame and over the hole just drilled. Reinstall the main braces and upper braces and bolt the two braces together with four ½" x 1½" bolts, flat washers, lock washers and nuts. Bolt through the oval hole just drilled with a ½" x 1½" bolt, lock washer and flat washer.
5. Once again align the braces at the front clips to 27" and 30", then torque all bolts to the chart below. Using the braces as templates, drill up through the brace into the bottom of the bumper. If there is any clearance between the brace and bumper, a ¼" and ½" spacer blocks is included in the kit to take up this space. Insert the ½" x 2½" bolt up through the brace, the spacer blocks and into the hole just drilled, then insert a clipped plate washer onto the bolt inside the bumper. Finish with a ½" lock washer and nut.
6. Torque all remaining bolts to the chart below. Install the tow bar according to the manufacturer's instructions.

Hardware List

2- ½" x 2-1/2" bolts
6- ½" x 1-1/2" bolts
2- ½" clipped plate washers
6- ½" flat washers
6- ½" nuts
8- ½" lock washers
2- 1/4 x 2 x 2 " nutted backing plates
2- 1/4 x 1 1/4 x 1 3/4" spacer blocks
2- 1/4 x 1 1/2 x 3" spacer blocks

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.