

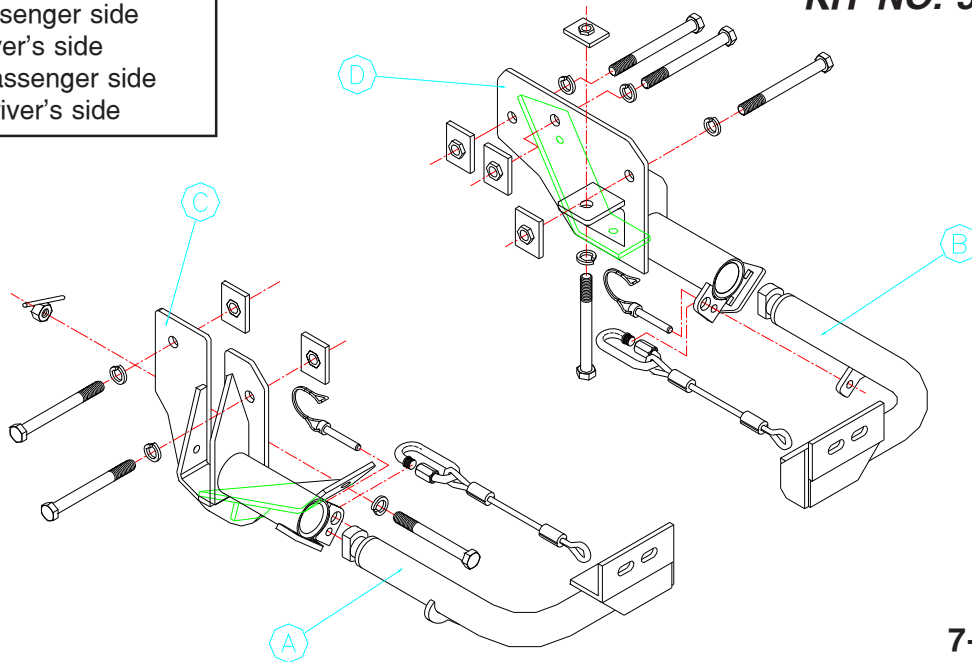
# MOUNTING BRACKET KIT

## INSTALLATION INSTRUCTIONS

**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 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 warranted for the original installation. Installing a used bracket on another vehicle is not recommended and will void the warranty.

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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			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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15. Put a special 1/2" 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 1/2" 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 1/2" 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 1/2" x 3 1/2" bolts, lock washers and 1/4" x 1 1/2" 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- 1/2" x 4" bolt
- 5- 1/2" x 3 1/2" bolts
- 1- 1/2" welded T nut
- 7- 1/2" lock washers
- 6- 1/4" x 1 1/2" 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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