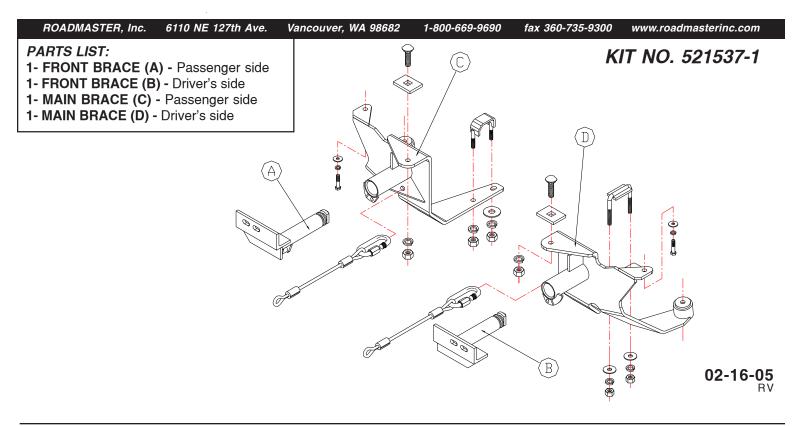


### **MOUNTING BRACKET KIT** INSTALLATION INSTRUCTIONS



**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.



Failure to follow these instructions WARNING railure 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 ROAD-MASTER adaptors only. Using this bracket with other brands, without an approved ROADMASTER adaptor, may result in non-warranty damage
- · 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

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 1-800-669-9690 fax 360-735-9300 www.roadmasterinc.com

KIT NO. 521537-1

- 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 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 and side of the subframe and protrude through the lower grill below the headlights and the bumper. The front tubular braces insert into the rear braces and rotate 90 degrees to lock in place. The lower grille will have to be trimmed to fit around the tubular portion of the main receiver braces and the bottom of the fascia will have to be trimmed around the lower sub frame mounting arm. The lower splash shield will be removed then reinstalled over the bracket. 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.
- Begin by removing the lower center gravel guard (10 plastic fasteners). This will provide access to the subframe mounting area.
- 3. Remove the front fascia, starting with the top and side plastic fasteners, then two screws in the fender wells and two on the bottom
- 4. Working on one side at a time, remove the front subframe mounting bolt and lower bumper core mounting bolt.
- 5. If the vehicle is equipped with an ambient temperature sensor, the temperature sensor will have to be remounted. Choose a location where air flow to the sensor is not obstructed by the bracket.

  Hold the driver's side receiver brace under the bumper core and under the subframe. The receiver brace should be lined up with the bolt holes and ready to bolt through.
- 6. Bolt through the rear bottom of the brace with the subframe mounting bolt removed in step 4. Now, bolt through the top rear-mounting hole behind the bumper core with a supplied 8mm x 1.25 x 35mm bolt, fender washer and lock washer. Align the brace then tighten this bolt and the bottom subframe bolt. Temporarily install the front brace in the receiver brace and twist 90 degrees to lock. Check behind the receiver brace and make sure that the end of the cam does not contact the radiator. Realign before proceeding, if necessary.
- 7. Locate the remaining mounting holes in the bottom of the brace and fish a 7/16" x 2 15/16" x 3¾" U bolt over the subframe and through these holes. Secure with 7/16" nuts, lock washers and flat washers then torque to 30 ft./lb.
- 8. Now drill a 9/16" hole through the bottom of the bumper core using the remaining mounting hole as a drill template.
- 9. Bolt through the bumper core and the brace using a ½" x 1½" carriage bolt, ¼" x 1¼" x 2" backing plate, lock washer and nut.
- 10. Repeat steps 4 through 9 for the passenger side receiver brace. **Note:** the passenger side U bolt in step 7 is a ½" strap U bolt which will also be torqued to 30 ft./lb.

02-16-05

### **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 1	04 ft./lb. 97 ft./lb.
5/8	5	150 ft /lb						

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- 11. Torque all remaining mounting bolts to the specifications below.
- 12. Trim two horizontal bars in the front fascia grille to clear the receiver tubes and install the fascia reversing step 3. Once the fascia is on the vehicle, trim around the lower bracket mounting arms on each side and finish the lower installation.
- 13. Reinstall the bottom splash shield. There will be bracket interference at the original center mounting points. Just put in the side fasteners and use the included nylon cable ties to secure the center of the splash shield over the bracket mounting arms.
- 14. Install the front braces by inserting with front braces vertical to the ground, push in and twist down 90 degrees to lock in place.
- 15. Replace the lower splash shields on each side.
- 16. 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

- 2-8mm x 1.25 x 35mm bolts
- 2-8mm fender washers
- 2-8mm lock washers
- 2- 1/2" x 1 1/2" carriage bolts
- 2- ¼" x 1 ¼" x 2" sq. hole backing plates
- 4- 1/2" lock washers
- 1- 1/2" flat washer
- 4- 1/2" nuts
- 1- 1/2" x 3" o.c. strap U-bolt
- 1- 7/16" x 2 15/16" o.c. x 3 3/4" U-bolts
- 2-7/16" nuts
- 2-7/16" lock washers
- 2-7/16" flat washers
- 2- nylon cable ties
- 2-10" safety cables
- 2-quick links

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ST	ANDARD B	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 6	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 10	04 ft./lb. 97 ft./lb.
5/8	5	150 ft./lb.						