

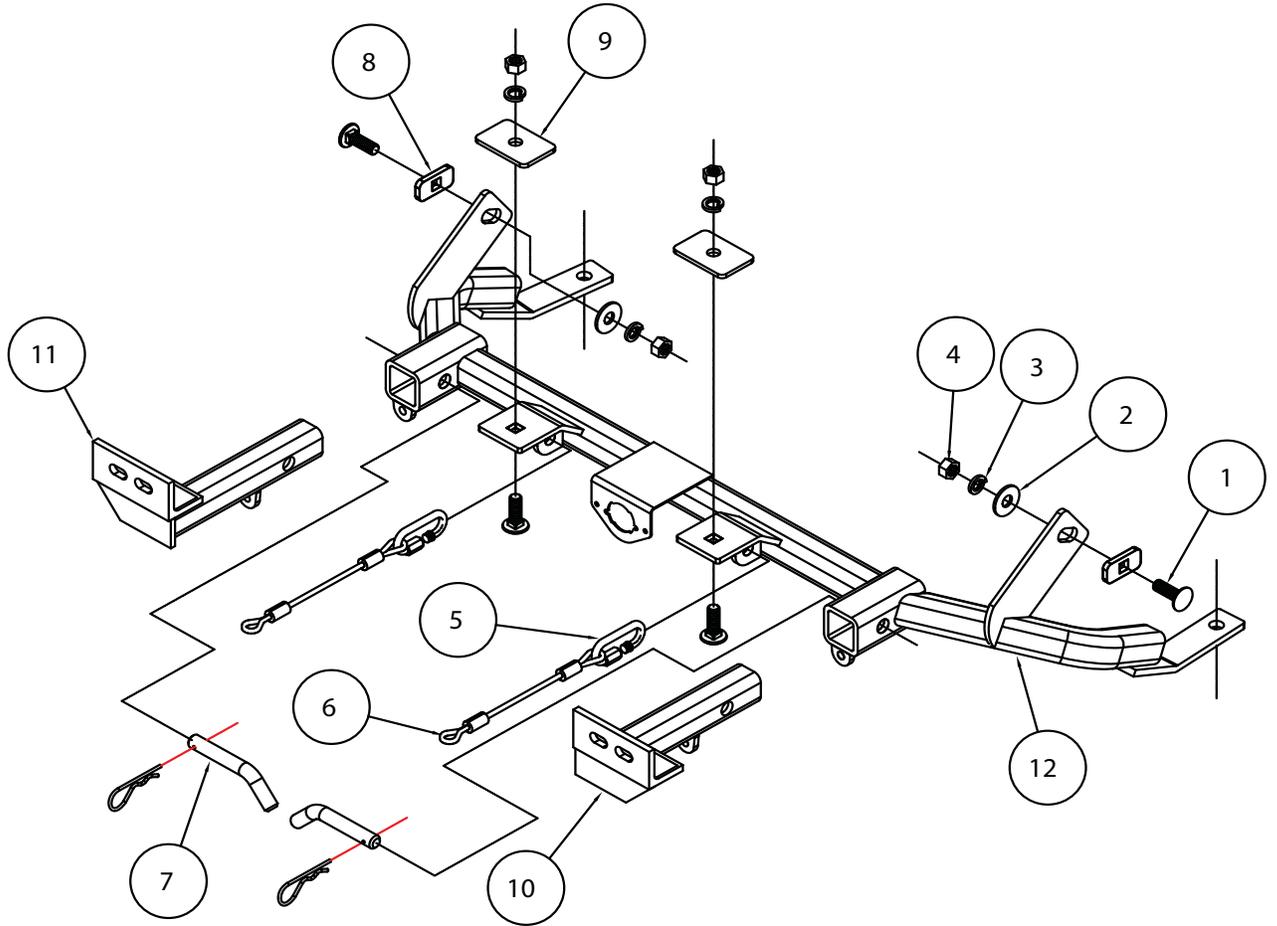


# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 3141-1**

09/22/11  
KS

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



ITEM	QTY	NAME	MATERIAL
1.....	4.....	1/2" x 1 1/2" CARRIAGE BOLT .....	350362-00
2.....	2.....	1/2" FLAT WASHER .....	350308-00
3.....	4.....	1/2" LOCK WASHER.....	350309-00
4.....	4.....	1/2" NUT .....	350258-00
5.....	2.....	QUICK LINKS.....	200008-00
6.....	2.....	12" SAFETY CABLE .....	650646-12
7.....	2.....	DRAW PIN / SPRING PIN.....	357035-00
8.....	2.....	1/4" x 1" x 2" SQUARE HOLE BACKING PLATE.....	A-000040
9.....	2.....	3/16" x 2" x 3" BACKING PLATE.....	A-000147
10.....	1.....	DRIVER SIDE ARM .....	C-001311
11.....	1.....	PASSENGER SIDE ARM.....	C-001312
12.....	1.....	MAIN RECEIVER.....	C-001313



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This is one of our XL series brackets, which allows the visible front portion of the bracket to be easily removed from the front of the vehicle (Fig.A and Fig.B). The bracket consists of a main receiver brace, two removable front braces and a hardware pack.

The main receiver brace mounts to the bumper core and the frame rail. The removable front braces install in the main receiver brace.

Before starting the installation, lay out the kit components in order, as they will be used. This will give you a visual idea of how the components work, and will also confirm that everything is present and accounted for.



**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.
- 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.
- Roadmaster manufactures many styles of brackets. If your bracket 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, resulting in non-warranty damage or personal injury.
- 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.
- 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.
- 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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Fig.C



Fig.D



Fig.E

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 by removing four 7mm (head) bolts (two on each side), attaching the fascia to the core support. They are located between the headlights and radiator (Fig.C).

2. Remove two 7mm (head) bolts and two plastic fasteners that attach the fender liner to the fascia. They are located on the inside of the fender well. Repeat for the other side (Fig.D).

3. Next, remove one 7mm (head) bolt and two plastic fasteners that attach the fascia to the fender well. They are located under the fascia on the outside corners. Repeat for the other side (Fig.E).



Fig.F



Fig.G



Fig.H

4. Pull back the fender liner to gain access to the fog lights and side marker lights. Unplug them and repeat for the other side (Fig.F).

5. On both sides of each headlight, pull forward to release the lock strip. Repeat for the other side (Fig.G - H).



Fig.I



Fig.J



Fig.K

6. Remove the fascia by pulling forward on it (Fig.I).

7. Now, remove four plastic fasteners on the driver's side and six plastic fasteners on the passenger's side to remove the splash shields (Fig.J).

8. Support the subframe (Fig.K). Remove the two front 21mm (head) subframe bolts (Fig.L).



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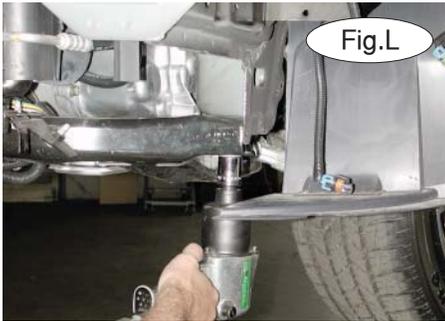


Fig.L



Fig.M



Fig.N

9. Lift the main receiver brace into place, and attach it to the subframe with the factory subframe bolts you removed in step 8, using thread lock (Fig.N). Torque the bolts to the specifications listed at the end of these instructions.

10. Now, remove the support from the subframe.



Fig.O



Fig.P



Fig.Q

11. Using the pre-drilled holes in the main receiver brace as a template, drill two 1/2" holes through the bumper core (Fig.O).

12. Bolt the main receiver brace to the bumper core using a 1/2" x 1 1/2" carriage bolt, a 3/16" x 1 1/2" x 2 1/2" backing plate, and a lock washer and nut on each side. *Note:* the backing plate is placed inside the bumper core (Fig.P).

13. Using a fishwired 1/2" x 1 1/2" carriage bolt and a 1/4" x 1" x 2" square hole backing plate, on each side, bolt the main receiver brace to the inside edge of both fender wells. Pull the fishwired carriage bolt through the square opening in the bottom of the frame (Fig.Q). Figure R shows the bolt and backing plate pulled through. Bolt in place on each side using a 1/2" flat washer, lock washer and nut.

14. Tighten all bolts to the torque specifications listed at the end of these instructions.

15. On both sides, trim the fascia approximately 3/4" to allow for clearance of the main receiver brace. Refer to the yellow marker line in Figure S for correct trimming.

16. Reinstall the fascia and splash shields, reversing steps 1 through 6.

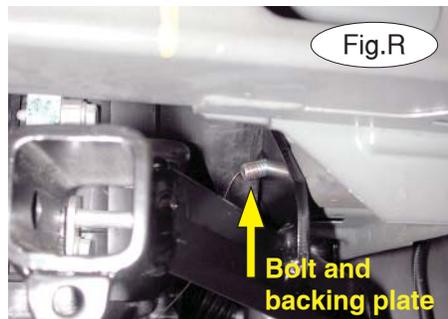


Fig.R

Bolt and backing plate

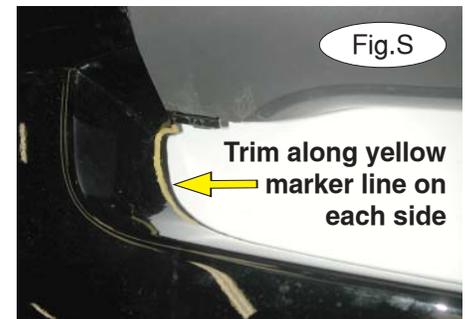


Fig.S

Trim along yellow marker line on each side



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- 17. Fit the front bracket arms into the front receiver braces, and secure them in place with the supplied 5/8" draw pins and spring pins.
- 18. Attach the 12" safety cables with the cable connectors (Q-Links) to the front of the receiver braces.
- 19. Attach the ends of the safety cables to the tow vehicle's safety cables and tow bar.
- 20. Install the tow bar to the mounting bracket according to the manufacturer's instructions.

*Note:* if the bracket is so equipped, the holes in the alignment tabs which are welded to the arms and main receiver braces are for padlocks only. Under no circumstances should you bolt the alignment tabs together. Bolting the alignment tabs together may result in non-warranty damage to the bracket.

## 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.

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.