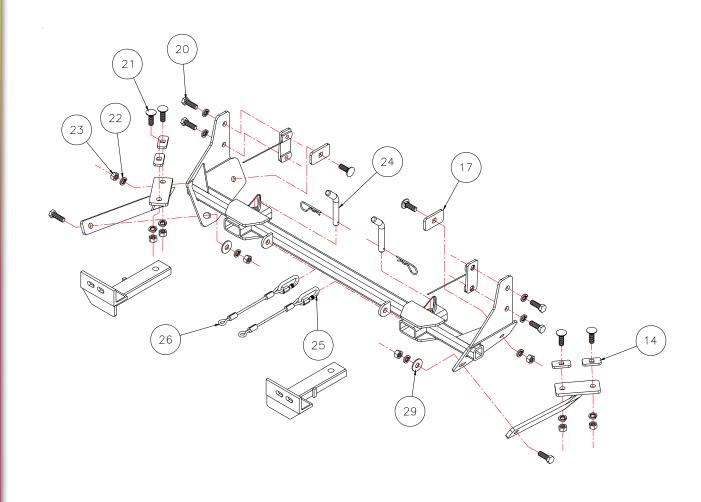


# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 1164-1 03/20/08

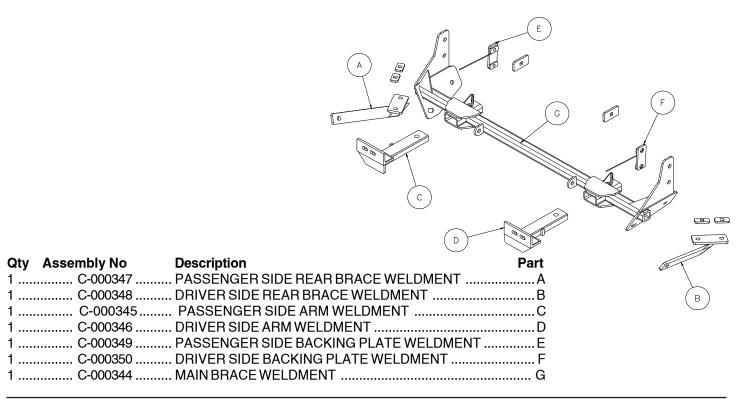


Item	Qty	Length	Width	Hardware	Part No.
14	.4	2"	1"	1/4" BACKING PLATE	100032-01
17	.2	2 1/2"	1 1/2"	1/4" BACKING PLATE	100032-01
20	. 6	1 1/2"	1/2"	1 1/2" BOLT	350095-00
21	. 6	1 1/2"	1/2"	1 1/2" CARRIAGE BOLT	350362-00
22	. 12		1/2"	LOCK WASHER	350309-00
23	.88		1/2"	NUT	350258-00
24	.2			DRAW PIN/ SPRING PIN	357035-00
25	.2			CONNECTORS	200008-00
26	.2	8"		8" SAFETY CABLES	500646-08
29	.2		1/2"	FLAT WASHER	350308-00



#### MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

#### KIT# 1164-1



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 lock washers on all fasteners Use flat washers over all slotted holes

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



Failure to follow these instructions WARNING 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 nonwarranty 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
- 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

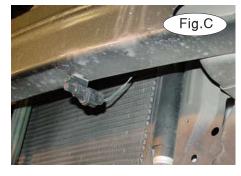
1. This bracket kit is one of our XL series, Fig. A, which is designed to be partly removable. The kit consists of the main receiver brace, front braces and a hardware pack. The main receiver brace mounts behind the front bumper fascia to the frame and side of the radiator support on each side. The front braces insert into the receivers on each side.

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.

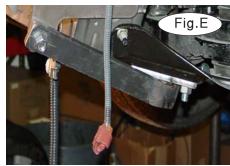
2. Important: please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation by removing the plastic fasteners in the top of the fascia. These consist of two 10mm (head) bolts, one in each corner and a plastic fastener in the center. Move to the side fender well fascia junction and remove a (10mm head) screw on each side. Remove seven more screws from the bottom fascia. Pull the sides of the fascia out to disengage the fasteners, then forward to disconnect the fog











lights then remove and set aside (Fig. B). Now, remove the energy absorption foam from the steel bumper core.

- 3. Remove the ambient air sensor and the wiring harness (plastic keepers) from the bumper core, then remove three 14mm (head) bumper core bolts on each side (Fig.C).
- 4. Bolt the lower braces to the bottom of the black subframe braces on each side using  $\frac{1}{2}$ " x  $\frac{1}{2}$ " carriage bolts,  $\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $\frac{1}{4}$ " and  $\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $\frac{1}{4}$ " and  $\frac{1}{4}$ " x  $\frac{1}{4}$ " and  $\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $\frac{1}{4}$ " and  $\frac{1}{4}$ " and  $\frac{1}{4}$ " x  $\frac{1}{4}$ " and  $\frac{1}{4}$ " and
- 5. Find two existing holes in the side of each frame located approximately 3" from the front of the frame (Fig.D). Enlarge these holes with a 17/32" drill bit.
- 6. Hold the main receiver brace to the bottom and side of the frame and bolt to the bottom braces with  $\frac{1}{2}$ " x  $\frac{1}{2}$ " bolts, lock washers and nuts (Fig.E).
- 7. Working on one side at a time, insert a shaped, threaded backing plate through the front of the frame and bolt through the receiver brace into the backing plate using two ½" x 1½" bolts and lock washers. Do this for both sides.
- 8. There is one mounting hole left in the lower rear of each side of the receiver brace. Opposite from these holes on the insides of the frame are large access holes. Fishwire  $\frac{1}{2}$ " x  $\frac{1}{2}$ " carriage bolts and  $\frac{1}{4}$ " x  $\frac{1}{2}$ " x  $\frac{2}{2}$ " backing plates through the access hole into the remaining mounting hole on each side. Finish bolting into place with  $\frac{1}{2}$ " nuts and lock washers on the outside of the receiver brace.



## MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS







- 9. Align the receiver brace and torque all mounting bolts to the torque specifications found at the end of this document.
- 10. Reinstall the bumper core and shock absorption foam, reversing steps 2 and 3 (Fig.F,G).
- 11. Reverse step 2 to reinstall the bumper fascia (Fig.F).





- 12. You will notice a small fin between the grille ribs in front of the main receivers on both sides (Fig.H). These will have to be cut and removed. Insert the front braces into the receiver tubes and secure from the top and behind the grille with 5/8" draw pins.
- 13. To secure the draw pins, cut two access holes in the plastic splash panels behind the fascia lip below the draw pins (Fig.I) to install the spring pins. *Note:* the access holes should be big enough to slip your hand in.
- 14. Install the tow bar according to the manufacturer's instructions and torque all mounting bolts to the specifications below.
- 15. Attach one end of the 8" safety cables to the front holes on the receiver cross bar on each side of the receiver brace with the included cable connectors (Fig.J). Connect the other end to the tow vehicle's safety cables and tow bar.

#### **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	104 ft./lb. 97 ft./lb.
5/8	5	150 ft./lb.						