

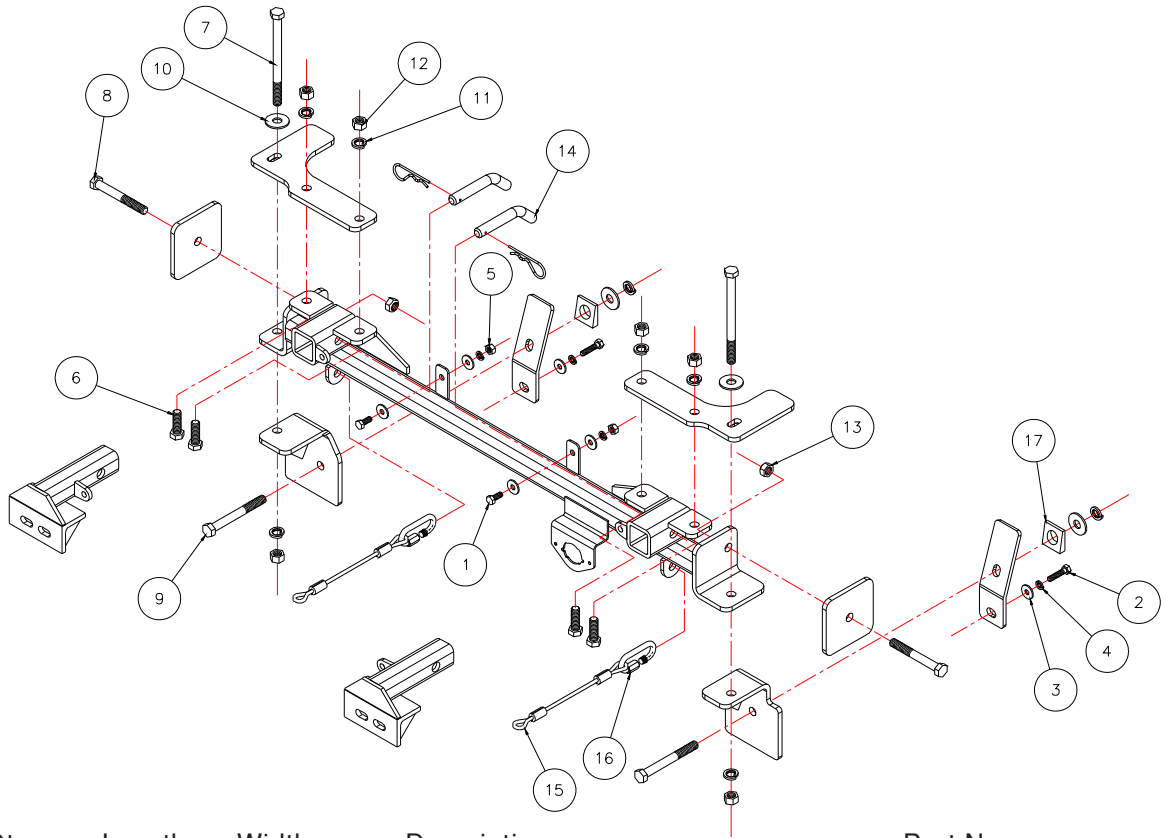


MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 1158-1

10/28/03

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



Item	Qty	Length	Width	Description	Part No.
1	2	20mm	8mm	8mm x 1.25 x 20mm Bolt	356000-00
2	2	35mm	8mm	8mm x 1.25 x 35mm Bolt	356002-00
3	6		8mm	8mm Fender Washer	355702-00
4	6		8mm	8mm Lock Washer	355705-00
5	4		8mm	8mm x 1.25 Nuts	356208-00
6	4	1 1/2"	1/2"	Bolt	350095-00
7	2	6 1/2"	1/2"	Bolt	350110-00
8	2	4"	1/2"	Bolt	350105-00
9	2	4 1/2"	1/2"	Bolt	350106-00
10	4		1/2"	Flat Washer	350308-00
11	8		1/2"	Lock Washer	350309-00
12	8		1/2"	Nut	350258-00
13	2		1/2"	Lock Nut	350258-01
14	2			5/8" Draw Pin / 3/16" Spring Pin	357035-00
15	2	10"		Safety Cable	500646-10
16	2			Connector	200008-00
17	2	1 1/2"	1 1/2"	3/4" Beveled Washer	350349-00
18	2	8"		Black Zip Ties	

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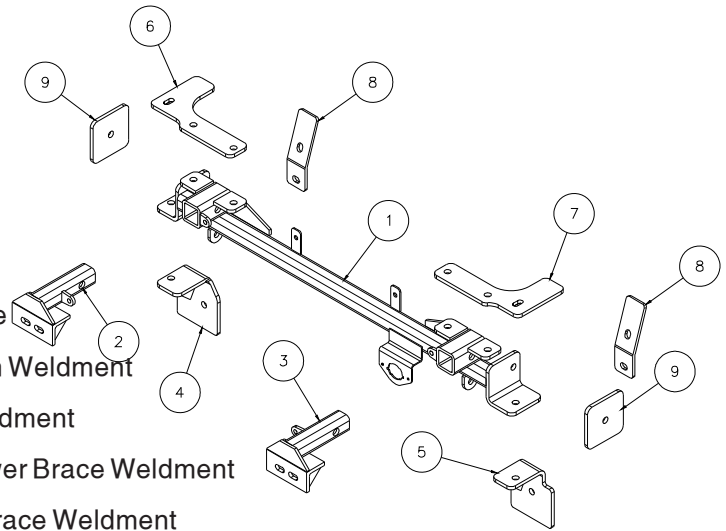
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Item	Qty.	Part No.	Description
1	1	C-000403	Main Receiver Brace
2	1	C-000404	Passenger Side Arm Weldment
3	1	C-000405	Driver Side Arm Weldment
4	1	C-000406	Passenger Side Lower Brace Weldment
5	1	C-000407	Driver Side Lower Brace Weldment
6	1	C-000408	Passenger Side Upper Brace Weldment
7	1	C-000409	Driver Side Upper Brace Weldment
8	2	B-000307	Rear Brace
9	2	A-000754	4" x 4" Backing Plate



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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Congratulations!

You have purchased another fine Roadmaster product. Thank you!

1. This is one of our XL bracket series, which allows the visible front portion of the brackets to be easily removed from the front of the vehicle. The bracket kit consists of a main receiver brace, two front braces and a hardware pack. The rear receiver brace mounts to the front, top and side of the frame and protrude through the lower grill below the headlights and the bumper. The front braces insert into the main receiver brace and pin in place. The bumper core is removed in this installation and replaced by the receiver brace. The lower splashguards will be removed then reinstalled. 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.



Fig. A

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 lower center splash guards (Fig.B and C) and bottom bumper fascia bolts. (twelve 12mm head fasteners).

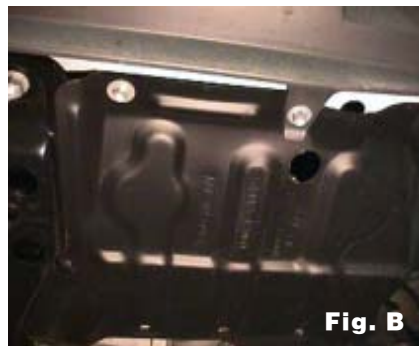


Fig. B



Fig. C

3. Remove the front grille, starting with two large Phillips screws on the top (Fig.D) on each side and three additional smaller screws across the middle. Pull the top forward slightly then unsnap three lower snaps along the bottom with a small screwdriver (Fig.E). Now pull forward and off.



Fig. D



Fig. E

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R O A D M A S T E R, I N C.



Fig. F



Fig. G

- Now we must remove the metal cowl and fascia trim that fits between the grille, headlights and bumper fascia. First remove two remaining screws on top of the grille opening on each side then remove four plastic fasteners in the grill opening. Working on both sides, use a small screwdriver to press in the side plastic snaps that hold the metal grille trim to the front fenders (Fig. F and G). There are two plastic fasteners per side, simply insert the screw driver into the seam, depress the plastic snap and pull out on the trim at the same time (twice) and remove metal trim. Watch the paint!

- Remove two screws in each fenderwell, disconnect the fog lights and remove the fascia.

- Remove the two horns (two 12mm head bolts) located on the steel bumper core (Fig. H) then the bumper core (four 12mm head bolts) and set aside. The horn wire harness will also have to be removed from the bumper core. The receiver brace will replace the bumper core.



Fig. H

- Now take the main receiver brace (1) and bolt the top mounting braces to the receiver brace with $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolts, flat washers, lock washers and nuts (Fig. I). *Note:* bolt through from the receiver brace up through the top braces and leave loose temporarily.



Fig. I

- Slide the assembly over the front frame with the top mounting braces on top of the frame and the receiver brace below and inside the frame on each side (Fig. I). Push it on until the side plates are flush with the front of the frame then tighten the bolts to hold it in place. Check for radiator clearance in front and on both sides.

- Bolt the lower mounting braces to the front of the frame through existing holes on each side with a 0.189" x $4\frac{1}{2}$ " bolt, formed backing plate, tapered washer, flat washer, lock washer and nut.



Fig. J



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Note: If the holes are too small, enlarge. These bolts should go all the way through the frame and a formed backing plate, which is used on the back side of the frame (Fig.J). Finish bolting the bottoms of the backing plates into existing frame nuts with 8mm x 1.25 x 35mm bolts, fender washers, lock washers and nuts.

- Line the top holes in the top mounting braces with the bottom mounting holes in the receiver brace and finish tightening the top plates in place. Using the lower mounting braces and main receiver brace as a drill template, drill up through the braces, frame and the top mounting braces with a 17/32" long drill bit.
- Bolt through the frame and braces on each side with 1/2" x 6 1/2" bolts, flat washers, lock washers and nuts (Fig.N).

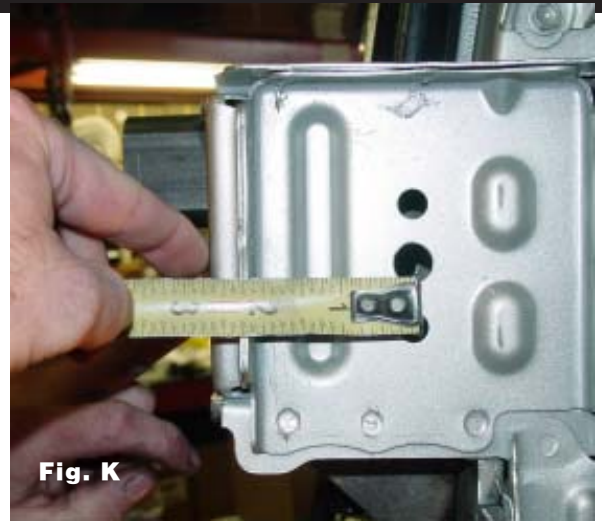


Fig. K

- Look at the side of the frame rails (Fig.K) and you will see two holes inline in each



Fig. L



Fig. M



Fig. N

side located 2 3/4" from the front. Drill a 17/32" hole in the middle of these holes through the frame into the receiver brace mounting hole on the inside of the frame. Note: be sure to use a backing plate between the frame and drill these holes on each side to prevent damage to the radiator.

- Now torque all remaining mounting bolts to the specifications on the last page.
- Find the large 5/16" x 4" sq. backing plates and bolt through these on each side with 1/2" x 4" bolts (Fig.L)
- Mount special locking nuts inside the units to the frame (Fig.O) bolts. Note: washers, clear washers between the end of the bolt and the radiator on each side.
- Reconnect the wiring harness to the horns secure to the receiver brace with the provided zip ties (Fig.O).
- Reinstall the fascia and grille reversing steps 2 through 5.
- Reinstall the bottom gravel guard, trimming to fit around the two front lower braces.

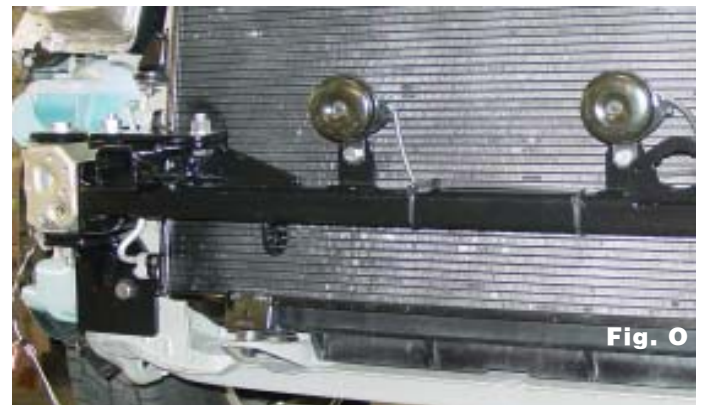


Fig. O

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- 19. Install the front braces in the receivers and pin with the provided 5/8" draw pins and 3/16" spring pins.
- 20. Mount the tow bar according to the tow bar manufacturer's instructions. Install the 10" safety cables on the main receiver cross bar with the quick links provided. Attach the other end to the tow vehicle's safety cables and the 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	104 ft./lb. 97 ft./lb.
5/8	5	150 ft./lb.						

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