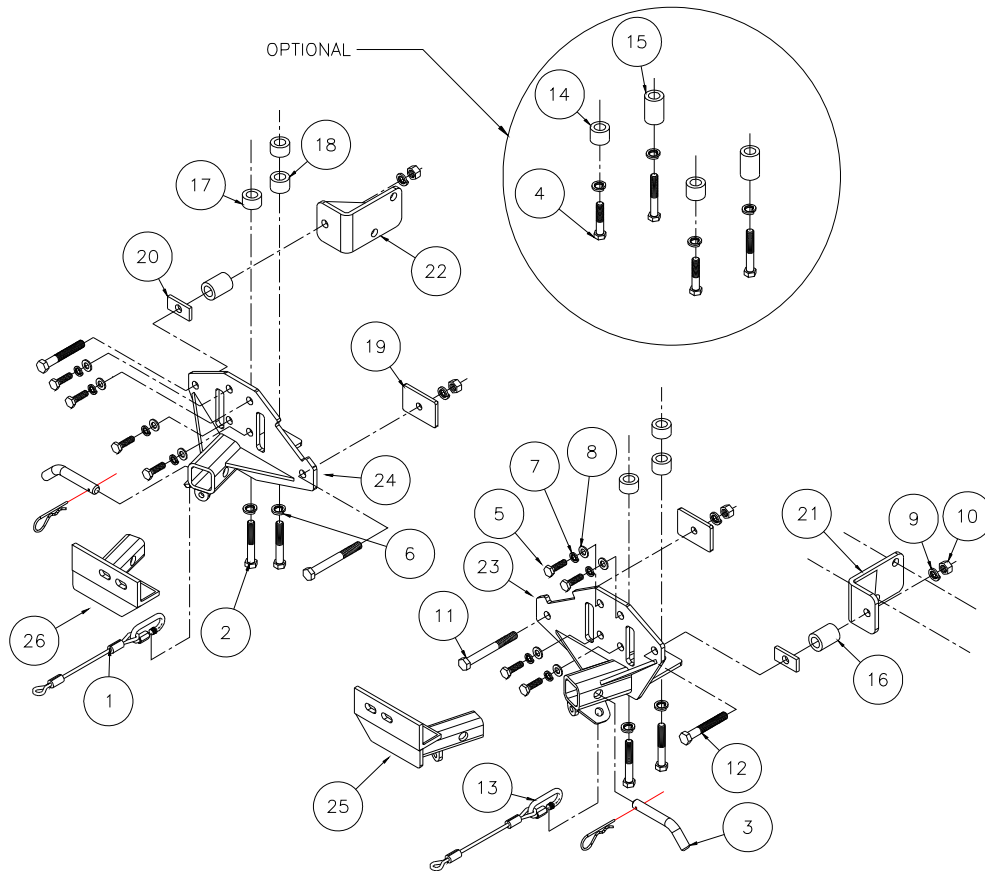




MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 341-1
06/15/10



ITEM	QTY	NAME	MATERIAL
1	2	8000 lb. SAFETY CABLE 8"	650648-08
2	4	12mm x 1.25 x 80 mm BOLT	357111-00
3	2	DRAW PIN/SPRING PIN	357035-00
4	4	12mm x 1.25 x 60 mm BOLT	357007-00
5	8	10mm x 1.25 x 35 mm BOLT	356202-00
6	8	12mm LOCK WASHER	355725-00
7	8	10mm LOCK WASHER	355715-00
8	8	10mm FLAT WASHER	355710-00
9	4	1/2" LOCK WASHER	350309-00
10	4	1/2" HEX NUT	350258-00
11	2	1/2" x 4 1/2" BOLT	350106-00
12	2	1/2" x 3 1/2" BOLT	350103-00
13	2	QUICK LINK	200008-00
14	2	1 1/4" O.D. x .250 WALL TUBE x 1"	A-000945
15	2	1 1/4" O.D. x .250 WALL TUBE x 1 7/8"	A-001011
16	2	1 1/4" O.D. x .250 WALL TUBE x 1 5/8"	A-001067
17	4	1 1/4" O.D. x .250 WALL TUBE x 3/4"	A-000559
18	2	1 1/4" O.D. x .250 WALL TUBE x 7/8"	A-000581
19	2	3/16" x 2" x 3" BACKING PLATE	A-000147
20	2	3/16" x 1" x 2" BACKING PLATE	A-000842
21	1	DRIVER SIDE BRACE	C-002003
22	1	PASSENGER SIDE BRACE	C-002004
23	1	DRIVER SIDE RECEIVER	C-000884
24	1	PASSENGER SIDE RECEIVER	C-000885
25	1	DRIVER SIDE ARM	C-000886
26	1	PASSENGER SIDE ARM	C-000887



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This bracket kit is one of our XL series with removable front braces. The kit consists of two rear receiver braces which mount inside the front frame tubes, two inner braces, two rear braces and removable front braces (Fig. A). Everything but the front arm braces install behind the bumper fascia. The front bumper will have to be removed for the installation.



Fig.A

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.



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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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. Starting on the top of the grille, release four grille catches on the top of the grill and three on the bottom by twisting counter clockwise (Fig.B,C), then pull forward to remove the grille.

2. Remove two bolts on each side (12mm head) from the top of the bumper (Fig. D) then two more bolts (12mm head) on each side in the bumper side braces (Fig.E).



Fig.B



Fig.C



Fig.D



Fig.E



Fig.F



Fig.G

3. If your vehicle is equipped with a lower skid plate, remove the lower skid plate (4- 8mm allen head bolts and two 10mm head bolts) (Fig.F,G) then set aside.



Fig.H



Fig.I



Fig.J

4. Unplug the foglights on each side if your vehicle is so equipped (Fig.H).

5. Remove two more bumper bolts (12mm head) located beside the tow hooks on each side (Fig.I) then pull forward to remove the bumper fascia (Fig.J).



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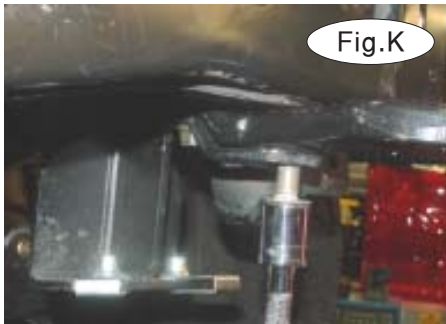


Fig.K



Fig.L



Fig.M

6. Now remove the tow hooks (two 17mm head) bolts (Fig.K). *Note:* this portion of the tow hooks will be remounted (Fig.L).

7. Bolt the main receiver braces to the front of the frame on each side with four 10mm x 1.25 x 35mm bolts and lock washers (Fig.M).



Fig.N



Fig.O



Fig.P

8. For vehicles with a skid plate, bolt through the lower front receiver braces mounting hole and the skid plate mounting brackets on each side using a $\frac{3}{4}$ " spacer and the original tow hook mounting bolts (Fig.N,O). Use supplied 12mm x 1.25 x 80mm bolts with $\frac{3}{4}$ " spacers on top and $\frac{7}{8}$ " spacers below in the rear holes (Fig.O). Figure P shows the basic assembly without the mounting plate.

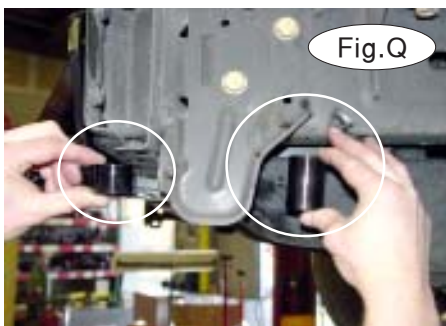


Fig.Q



Fig.R



Fig.S

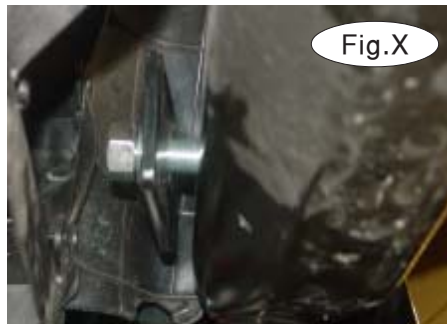
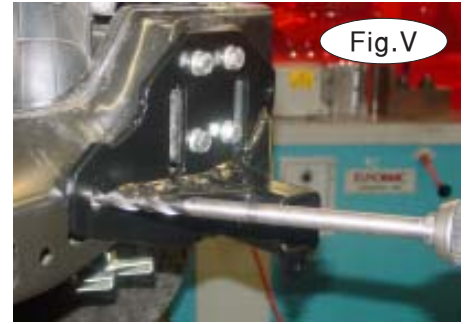
9. For vehicles not equipped with a skid plate, insert a 1" spacer between the frame and the receiver brace for the front mounting point. For the rear mounting point insert a 1-7/8" spacer between the frame and the receiver brace (Fig.Q). Now, bolt through the receiver brace, pipe spacer and the bottom of the frame (Fig.R). The front mounting point uses a 12mm x 1.25 x 60mm bolt and lock washer. The rear mounting point uses a 12mm x 1.25 x 80mm bolt and lock washer.

10. Tighten all the mounting bolts installed so far starting with the lower front bolts (Fig.S) then four front bolts on each side (Fig.T) then the rear most lower bolts (Fig.U).



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

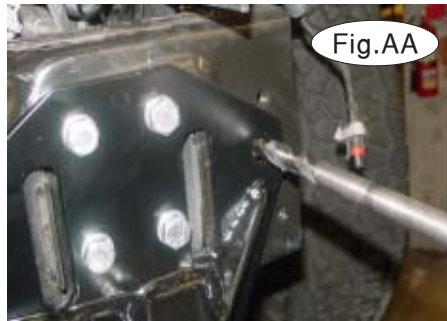
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11. Using the receiver braces as templates drill two 17/32" front holes through the bumper core on each side (Fig.V) using protection for the radiator behind the bumper core.

12. Bolt through the receiver braces, the bumper core and 3/16" x 2" x 3" backing plates on each side with 1/2" x 4 1/2" bolts, lock washers and nuts (Fig.W,X).

13. Working on one side at a time, mark the bumper core side brace as shown (Fig.Y), then remove the two lower mounting bolts. Hold the rear side brace over the side brace and bolt in place over the bumper core side brace. Realign the marks and tighten the mounting bolts to hold everything in position (Fig.Z).



14. Drill another 17/32" hole through the bumper core using the main receiver brace as a template in the front and the rear side brace as a template on the rear of the bumper core (Fig.AA).

15. Fit a 3/16" x 1" x 1 1/2" spacer plate between the receiver brace and the bumper core (Fig.BB) then a 1 5/8" spacer in the bumper core over the drilled holes. Now bolt through the receiver brace, bumper core, spacer plate, 1-5/8" spacer, and the rear side brace with a 1/2" x 3 1/2" bolt, lock washer and nut (Fig.CC).





MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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Fig.DD



Fig.EE

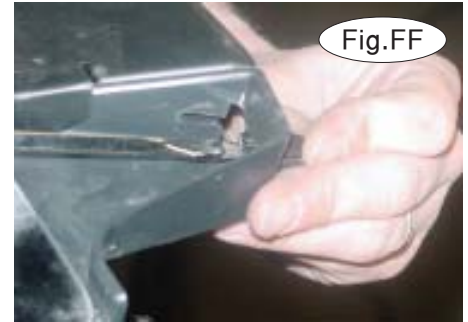


Fig.FF

16. Repeat step 15 for the remaining side then tighten all bolts to the torque specifications on the last page (Fig.DD).

17. Mount the bumper reversing steps 2 through 4 (Fig.EE).

18. Remove the grille keepers from the front of the vehicle (Fig.FF) and insert in the grille (Fig.GG), then remount the grille and the skid plate removed in step 2.

19. Install the front braces in the receiver tubes and secure in place with 5/8" draw pins and 3/16" spring pins (Fig.HH).

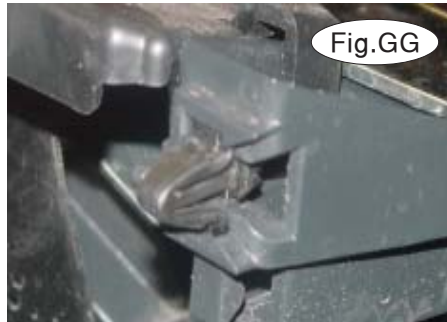


Fig.GG

20. Attach the 8" safety cables to the receiver braces with the included cable connectors. Connect the other ends to the tow vehicle's safety cables and tow bar (Fig.II).



Fig.HH

21. Install the tow bar according to the manufacturer's instructions.

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.