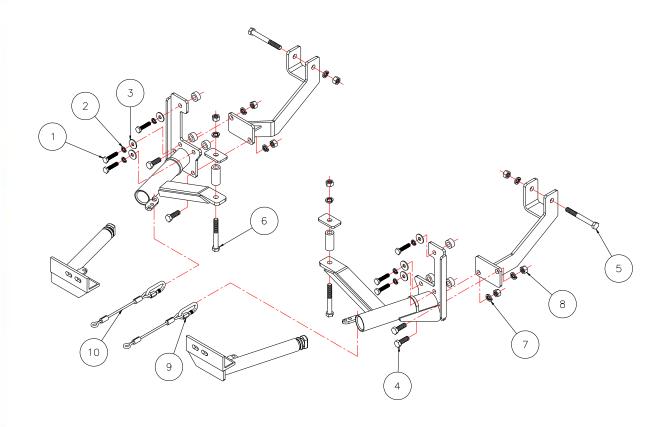


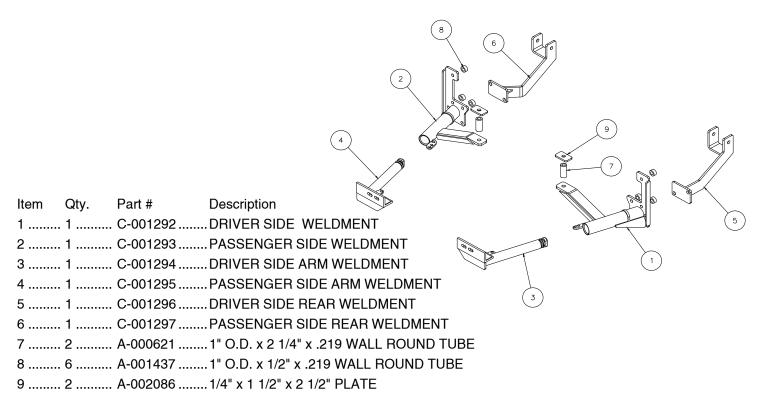
MOUNTING BRACKET KIT KIT# 521230-1 INSTALLATION INSTRUCTIONS 08/01/05



Item	Qty.	Length	Width	Description	Part#
1	6	.45mm	10mm	. 10mm x 1.5 x 45 BOLT	.356104-00
2	6		10mm	LOCK WASHER	.355715-00
3	6		10mm	.FENDER WASHER	.355716-00
4	4	. 1 1/2"	1/2"	.BOLT	.350095-00
5	2	. 4 1/2"	1/2"	.BOLT	.350106-00
6	2	. 4"	1/2"	.BOLT	.350105-00
7	8		1/2"	LOCK WASHER	.350309-00
8	88		1/2"	. NUT	.350258-00
9	2			.CABLE CONNECTOR	.200008-00
10	2	.8"		.SAFETY CABLE	.500646-08



KIT# 521230-1 08/01/05



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 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 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.



KIT# 521230-1 08/01/05

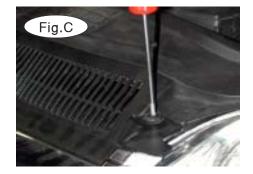
his is one of our EZ series brackets, which allows the visible front portion of the bracket to be easily removed from the front of the vehicle (Fig.A and Fig.B). The bracket consists of a main receiver brace, two removable front braces and a hardware pack.

The main receiver brace mounts to the frame ends, frame rails and the bumper core, below the front bumper fascia. The removable front braces install in the main receiver brace.

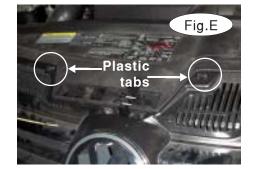
- 1. Important: please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation by removing the grille at the top of the grille, on both corners, remove one T25 Torx screw (Fig.C).
- 2. Now, remove two Phillips screws located at the base of the grille (Fig.D).











- 3. At the top of the grille, pull forward on the two plastic tabs and the grille at the same time. This will cause it to pop up. Then, remove it (Fig.E).
- 4. Now, remove two T27 Torx screws attaching the fascia to the core support (Fig.F).
- 5. On each of the fender wells, remove five T25 Torx screws. Four of them are along the edge attaching the fender liner to the fascia, and one is at the top attaching the fascia to the fender (Fig.G).



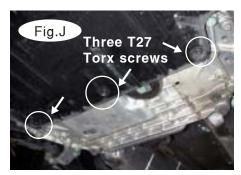




6. On the inside of the fender well there are two more T25 Torx screws that need to be removed. These are attaching the lower fender liner to the upper fender liner (Fig.H). Repeat for the other side.









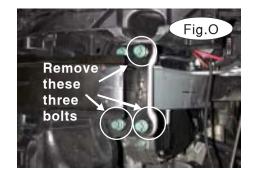
- 7. Remove eight T25 Torx screws, along the bottom front edge of the fascia, which attach the fascia and fender liner to the core support (Fig.I).
- 8. Remove three T27 Torx screws at the rear of the splash panel which attach the splash panel to the sub frame (Fig.J). Now, pull the splash panel off.
 - 9. Unplug the marker lights (and fog lights if the vehicle is so equipped Fig.K).



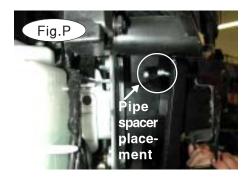




- 10. Pull forward to remove the fascia (Fig.L).
- 11. Remove the foam shock absorption core by pulling forward on it (Fig.M).
- 12. There is one horn on each side of the vehicle. Remove the horns by unbolting a 13mm (head) bolt (Fig.N).
- 13. Next, remove three of the bumper core mounting bolts from each side of the vehicle. Remove both of the lower bolts and the top outside bolt (Fig.O).



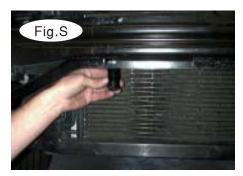


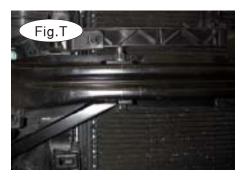






- 14. Bolt the main receiver brace to the frame ends using a 10mm x 1.5" x 45mm bolt, a 10mm fender washer, 10mm lock washer and a 1" x $\frac{1}{2}$ " x .219 wall pipe spacer. There are three attachments per side. *Note:* place the pipe spacer between the end of the frame and the main brace (Fig.P).
- 15. Now, clamp the core support mount on the main receiver brace to the core support (Fig.Q). Tighten the 10mm x 1.5" x 45mm bolt you used in step 14 to the torque specifications listed at the end of these instructions.
- 16. On both sides, drill from the bottom up through the top of the bumper core, using the pre-existing hole in the main receiver brace as a template (Fig.R).







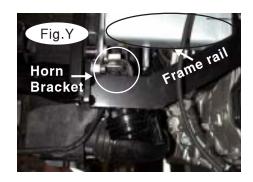
- 17. Position one of the 1" x $2\frac{1}{2}$ " x .219 wall pipe spacers inside of the bumper core. Now, bolt through the main brace, bottom of the bumper core, pipe spacer and through the top of the bumper core using a $\frac{1}{2}$ " x 4" bolt, $\frac{1}{2}$ " lock washer, $\frac{1}{2}$ " nut and a $\frac{1}{4}$ " x $\frac{1}{2}$ " backing plate with a $\frac{9}{16}$ " hole (Fig.S Fig.T). Repeat for the other side. Tighten to the torque specifications at the end of these instructions.
- 18. On the passenger side there is a VIN id tag that needs to be bent to allow for clearance of the rear brace (Fig.U).
- 19. Next, attach the rear brace to the main brace using a $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolt, $\frac{1}{2}$ " lock washer and $\frac{1}{2}$ " nut. Repeat this process for the other side. Tighten to the torque specifications at the end of these instructions (Fig.V).





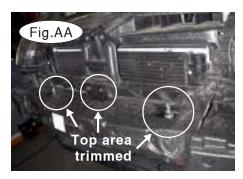


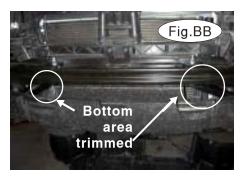




- 20. Using the pre-drilled hole in the rear brace as a template, drill through both sides of the frame rail. Bolt into place using a $\frac{1}{2}$ " x $4\frac{1}{2}$ " bolt, $\frac{1}{2}$ "lock washer and $\frac{1}{2}$ " nut. Repeat process for the other side (Fig.W-Fig.X).
- 21. Either bend the horn bracket to align with the existing mounting, or you can attach the horn to the side of the frame rail using a self-tapping screw. Repeat for the othe side (Fig.Y).







- 22. Trim the rubber air deflectors, at the outer edges of the radiator, to allow for clearance of the main receiver brace to the bumper core support (Fig.Z). Repeat for the other side.
- 23. Trim the foam shock absorption core to allow for clearance of the bumper core mounting points (Fig.AA top view Fig.BB bottom view).
- 24. Now, hold the fascia in place and mark the area that needs to be trimmed to accommodate the main receiver brace (Fig.CC).
 - 25. Reinstall the fascia, reversing steps 1 through 10.
- 26. Install the front braces in the receivers, then turn them 90 degrees to lock in place.
- 27. Connect the 8" safety cables to the cable tabs (located on the side of the receivers) with the included cable connectors (Fig.DD).







KIT# 521230-1 08/01/05

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 BOLT	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.
5/85	. 150 ft./lb.						