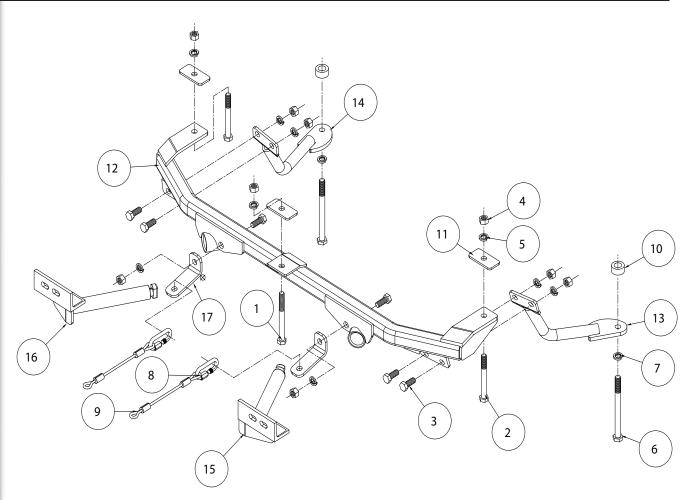
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#### **MOUNTING BRACKET KIT KIT# 523168-1** INSTALLATION INSTRUCTIONS

Vancouver, WA 98682 1-800-669-9690 fax 360-735-9300 www.roadmasterinc.com



ITEM QTY NAME	MATERIAL
11 1/2" x 5" BOLT	350107-00
22 1/2" x 4 1/2" BOLT	350106-00
36 1/2" x 1 1/4" BOLT	350094-00
49 1/2" HEX NUT	350258-00
59 1/2" LOCK WASHER	
62 14mm x 2.0 x 140mm BOLT	
72 14mm LOCK WASHER	
82 QUICK LINK	
928" SAFETY CABLE	
102 1 1/4" O.D. x 0.250 x 5/8" PIPE SPACER	
1133/16" x 1 1/2" x 3" BACKING PLATE	A-000185
121 MAIN RECEIVER	
131 DRIVER SIDE BRACE	
141 PASSENGER SIDE BRACE	
151 DRIVER SIDE ARM	
161PASSENGER SIDE ARM	
172SAFETY CABLE TAB	B-001809



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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 rear support braces, two upper support braces, two removable front braces and a hardware pack.

The main receiver brace mounts to the bumper core and frame rails. The rear support braces are attached to the main receiver brace and frame rails. The upper support braces are attached to the main receiver brace and the frame. 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.



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.



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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 by removing two 10mm (head) bolts and four plastic fasteners attaching the top of the fascia to the core support (Fig.C).
- 2. On each side, remove three T20 Torx bolts attaching the fender liner to the fascia (Fig.D).





- 3. On each side, remove two T20 Torx (head) bolts and three plastic fasteners attaching the splash shield to the core support (Fig.E driver's side).
- 4. Pull out and forward on the corners of the fascia to remove it (Fig.F). *Note:* disconnect the fog lights, side marker lights and ambient temperature sensor, if the vehicle is so equipped.
- 5. On each side, use the yellow lines in Figure G as a guide for trimming the air deflector to allow clearance for the main receiver brace (Fig.G).





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- 6. Position the main receiver brace against the bottom of the bumper core and clamp the center mounting point of the brace to the bumper core, making certain that the brace is flush with the lip of the bumper core (Fig.H).
- 7. Now, on each side, check the distance between the side of the bumper core and the side of the bracket to make certain that the bracket is centered on the underside of the bumper core (Fig.I). Now, measure the distance from the end of the frame rail to the back edge of the bracket on each side to make certain that the distance is equal (Fig.J).

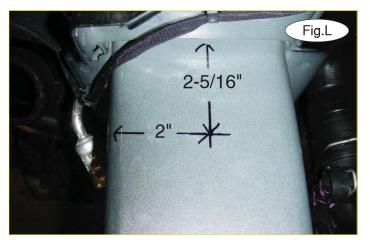




8. If the vehicle is equipped with turbo, remove the headlight on each side by removing four 7mm (head) bolts attaching each headlight to the core support and fender. *Note:* Figure K shows the top bolts but there are also two located along the bottom outside edge.

Once the headlight is removed, use the dimensions in Figure L to locate the spot for drilling a  $\frac{1}{2}$ " hole through the top and bottom of the bumper core.

If the vehicle is not equipped with turbo, use the preexisting hole in the main receiver brace as a template and drill a  $\frac{1}{2}$ " hole through the top and bottom of the bumper core.





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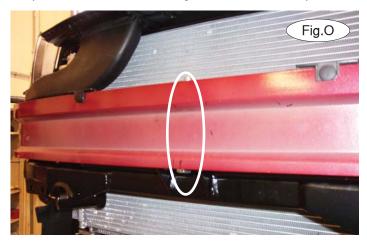
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- 9. On each side, using one of the supplied  $\frac{1}{2}$ " x  $4\frac{1}{2}$ " bolts, bolt up through the main receiver brace and the bumper core and into a  $\frac{3}{16}$ " x  $\frac{1}{2}$ " x  $\frac{3}$ " backing plate. Finish with a  $\frac{1}{2}$ " lock washer and nut (Fig.M passenger side). *Note:* use Loctite® Red on all bolts used for mounting this bracket.
- 10. Remove the clamp from the center mounting point and using the pre-existing hole in the main receiver brace as a template, drill a ½" hole through the bottom and top of the bumper core (Fig.N).





- 11. Using one of the supplied  $\frac{1}{2}$ " x 5" bolts, bolt up through the main receiver brace and the bumper core and into a 3/16" x 1½" x 3" backing plate. Finish with a ½" lock washer and nut (Fig.O).
- 12. If the vehicle is equipped with turbo, replace the headlights, reversing step 8.
- 13. Tighten all bolts to the bolt torque requirements found at the end of these instructions.
- 14. On each side, trim the splash shield to allow access to the rear subframe holes. Use the yellow lines in Figure P as a guide for trimming.
- 15. Support the subframe with a jack stand (Fig.Q).





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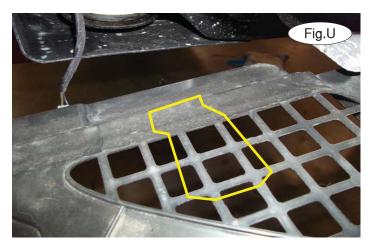
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- 16. Working on the driver's side only, remove the 21mm (head) subframe bolt and bushing cup. The bolt will not be replaced. *Note:* retain the bolt for replacement in case the bracket is ever removed.
- 17. Using one of the supplied 14mm x 2.0 x 140mm bolts, bolt through the rear brace. Place one of the supplied 11/4" x 5/8" pipe spacers over the bolt, and replace the bushing cup. Now, bolt into the subframe (Fig.R).





- 18. Using two of the supplied  $\frac{1}{2}$ " x 1 $\frac{1}{4}$ " bolts,  $\frac{1}{2}$ " lock washers and nuts, bolt the lower brace to the main receiver brace (Fig.S).
- 19. Tighten the bolts to the bolt torque requirements found at the end of these instructions.
- 20. Repeat steps 16 through 19 for the passenger side. *Note:* bend the air conditioning line back to avoid contact with the main receiver brace (Fig.T).
- 21. Using the yellow lines in Figure U as a guide for trimming, trim the splash shield to allow clearance for the main receiver brace.



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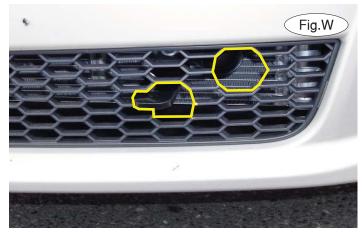
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- 22. **For RS models:** attach the supplied quick-link extension using one  $\frac{1}{2}$ " x  $1\frac{1}{4}$ " bolt,  $\frac{1}{2}$ " lock washer and nut (Fig.V). Hold the fascia in place and mark it for trimming. Use the yellow lines in Figure W as a reference for trimming areas for both the receiver and the quick-link extension. **For all other models:** proceed to step 23.
- 23. Reassemble the fascia by reversing steps 1 through 4.
- 24. Insert the removable front bracket arms into the front receiver braces, and twist each one 90 degrees to lock.
- 25. Attach the 8" safety cables with the cable connectors (Q-Links) to the front of the receiver braces.
- 26. Attach the ends of the safety cables to the tow vehicle's safety cables.

#### **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.						