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MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

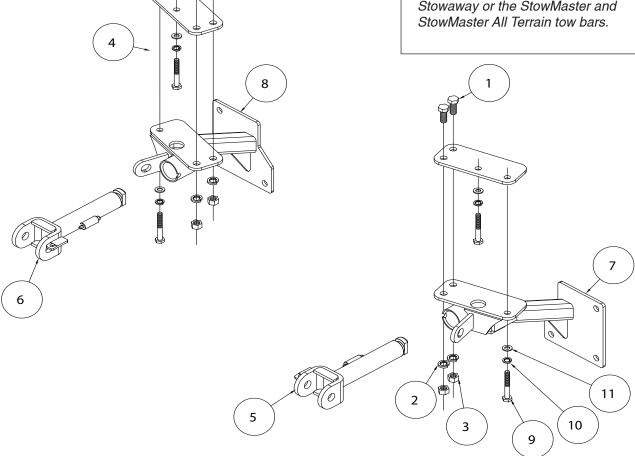
KIT# 521446-5 01/15/15

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 360-896-0407 fax 360-735-9300 www.roadmasterinc.com

Special tools needed: plastic pop rivet gun

Important

Note: this bracket will not accommodate the Guardian rock shield, some models of the Tow Defender, Stowaway or the StowMaster and StowMaster All Terrain tow bars



ITEM QTY	NAME	PART #
14	1/2" x 1 1/4" BOLT	350094-00
24	1/2" LOCK WASHER	350309-00
34	1/2" HEX NUT	350258-00
42	SPACER PLATE	A-004561
51	DRIVER SIDE ARM	C-002383
61	PASSENGER SIDE ARM	C-002384
71	DRIVER SIDE RECEIVER	C-002688
81	PASSENGER SIDE RECEIVER	C-002689
94	10mm x 1.5 x 65mm BOLT	356117-00
104	10mm LOCK WASHER	355715-00
114	3/8" FLAT WASHER	350304-00
122	PLASTIC POP RIVET	350341-00
131	LED LIGHTING INSTRUCTIONS	85-5241-00



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his is one of our EZ5 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 two main receiver braces, two spacer plates, two removable front braces, and a hardware pack.

The main receiver braces mount to the rear support plates, frame rails and the bumper core. 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.
- 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.

- Roadmaster manufactures many styles of brackets. If your bracket has removable arms, they must be removed before driving the vehicle, unless the arms can be pinned or padlocked in place. If not secured, the arms could vibrate out, resulting in non-warranty damage or personal injury.
- 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.
- 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.
- 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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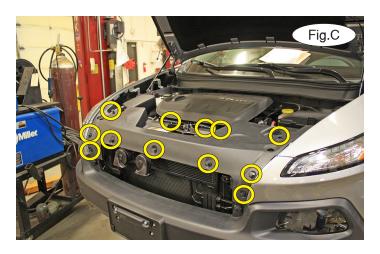
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- 1. Important: please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation by removing 12 plastic fasteners attaching the radiator cover to the core support (Fig.C).
- 2. On each side, remove three 10mm (head) bolts attaching the fascia to the core support (Fig.D).





- 3. On each side, remove three 8mm (head) screws attaching the fender liner to the fascia (Fig.E).
- 4. Remove four 10mm (head) bolts attaching the fascia to the core support (Fig.F). Note: you may need to remove the skid plate first (next step).
- 5. Remove seven 13mm (head) bolts attaching the skid plate to the core support (Fig.G).





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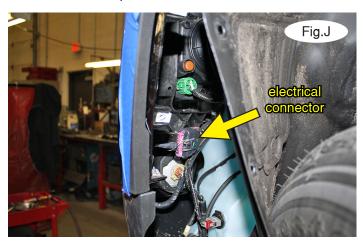
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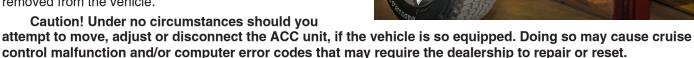


- 6. On each side, use a 1/4" drill bit to remove the plastic pop rivet attaching the bottom of the fascia to the fender liner (Fig.H).
- 7. On each side, pull back the fender liner and remove one 10mm (head) bolt attaching the fascia to the fender (Fig.I).





- 8. On the driver's side only, disconnect the purple electrical connector and a plastic fastener attaching the wiring loom to the core support (Fig.J). Note: make certain that the vehicle is not turned on while this connector is unplugged or it may trigger the 'Check Engine' light to illuminate.
- 9. On each side, pull out and forward on the corners of the fascia to remove it (Fig.K).
- 10. On each side, remove a 10mm nut and three 15mm (head) bolts attaching the aluminum brackets to the subframe (Fig.L). The brackets will not be replaced. Note: retain the brackets in case the main receiver brace is ever removed from the vehicle.







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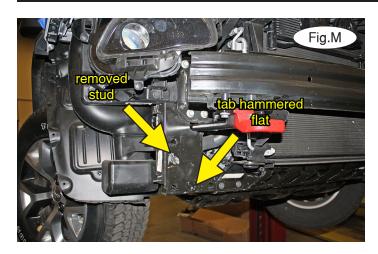
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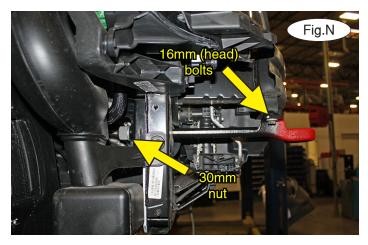
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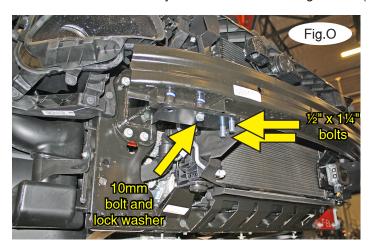
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- 11. On each side, use a cut-off wheel to remove the exposed stud and use a hammer to flatten the alignment tab (Fig.M).
- 12. On each side, remove two 16mm (head) bolts attaching the tow hooks to the bottom of the bumper core. Now, use a crescent wrench on the 30mm nut attaching the tow hook to the rear of the tow hook bracket and then twist the front of the tow hook back and forth by hand to aid in removing the nut (Fig.N).





- 13. On each side, place the spacer plate on the under side of the bumper core and bolt up through the center mounting point using the supplied 10mm x 1.5 x 65mm bolt, 10mm lock washer and 3/8" flat washer. Now, place the ½" x 1¼" bolts down through the inside holes of the plate (Fig.O). Align the outside hole of the spacer plate with the other tow hook mount and then tighten the bolt. *Note:* ensure proper alignment, as the bolts will receive Loctite® Red and will be torqued at the end of these instructions.
- 14. Align the main receiver brace with the holes in the spacer plate and ensure that the mounting surface of the bracket and the spacer plate are flush, and then use the supplied 10mm x 1.5 x 65mm bolt, 10mm lock washer 3/8" flat washer to bolt up through the main receiver brace and the spacer plate and into the tow hook mount (Fig.P).



15. On each side, finish the two $\frac{1}{2}$ " x $\frac{11}{4}$ " bolts on the inside holes of the spacer plate and main receiver brace by adding two $\frac{1}{2}$ " lock washers and nuts (Fig.Q).



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- 16. On each side, replace the three 15mm (head) bolts you removed in step 10 (Fig.R).
- 17. On each side, trim the front of the fascia as shown in Figure S and the back of the fascia as shown in Figure T using the yellow lines as references for trimming.





- 18. *Note:* use the drawing on page 1 as a guide to ensure the bracket is centered on the car and that the attachment points for the quick-disconnects are 28½" from center to center. Then, torque all the bolts to the bolt torque requirements found at the end of these instructions. *Note:* use Loctite® Red on the bolts. Otherwise, it will loosen and result in failure of the towing system.
- 19. Reinstall the fascia, reversing steps 1-9. *Note:* use a pop rivet gun and the supplied pop rivets for reversing step 6.
- 20. Note: the following four images are for illustration purposes only, as your specific application may be slightly different.

The spring-loaded pin on the removable arm snaps

into a notch on the receiver, locking the removable arm into its final towing position. Before inserting each arm into the receiver, verify that the spring is working by ensuring that the spring-loaded pin moves easily back and forth within the barrel when pulled and that it can be pulled flush with the face of the barrel (Fig.U and Fig.V).





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position (Fig.X).

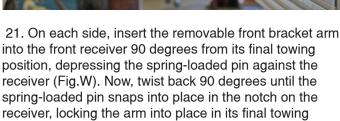
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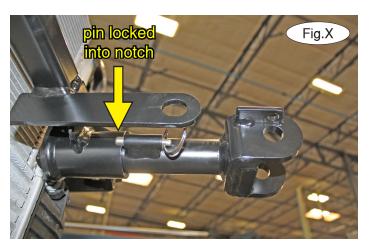
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Please note: it is the owner's responsibility to ensure the locking of the pins before towing. Otherwise, failure of the towing system will result.

22. Install the tow bar to the mounting bracket according to the manufacturer's instructions.





IMPORTANT!

Safety cables are required by law. When towing, connect safety cables to the safety cable tab shown in Figure Y. Make certain there is adequate slack in the cables to allow a full turning radius; otherwise, damage will result. If necessary, longer cables or cable extensions are available.

Note: if the bracket is so equipped, the holes in the alignment tabs which are welded to the arms and main receiver braces are for padlocks only. Under no circumstances should you bolt the alignment tabs together. Bolting the alignment tabs together may result in non-warranty damage to the bracket.

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						