



# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 293-3**  
08/01/13

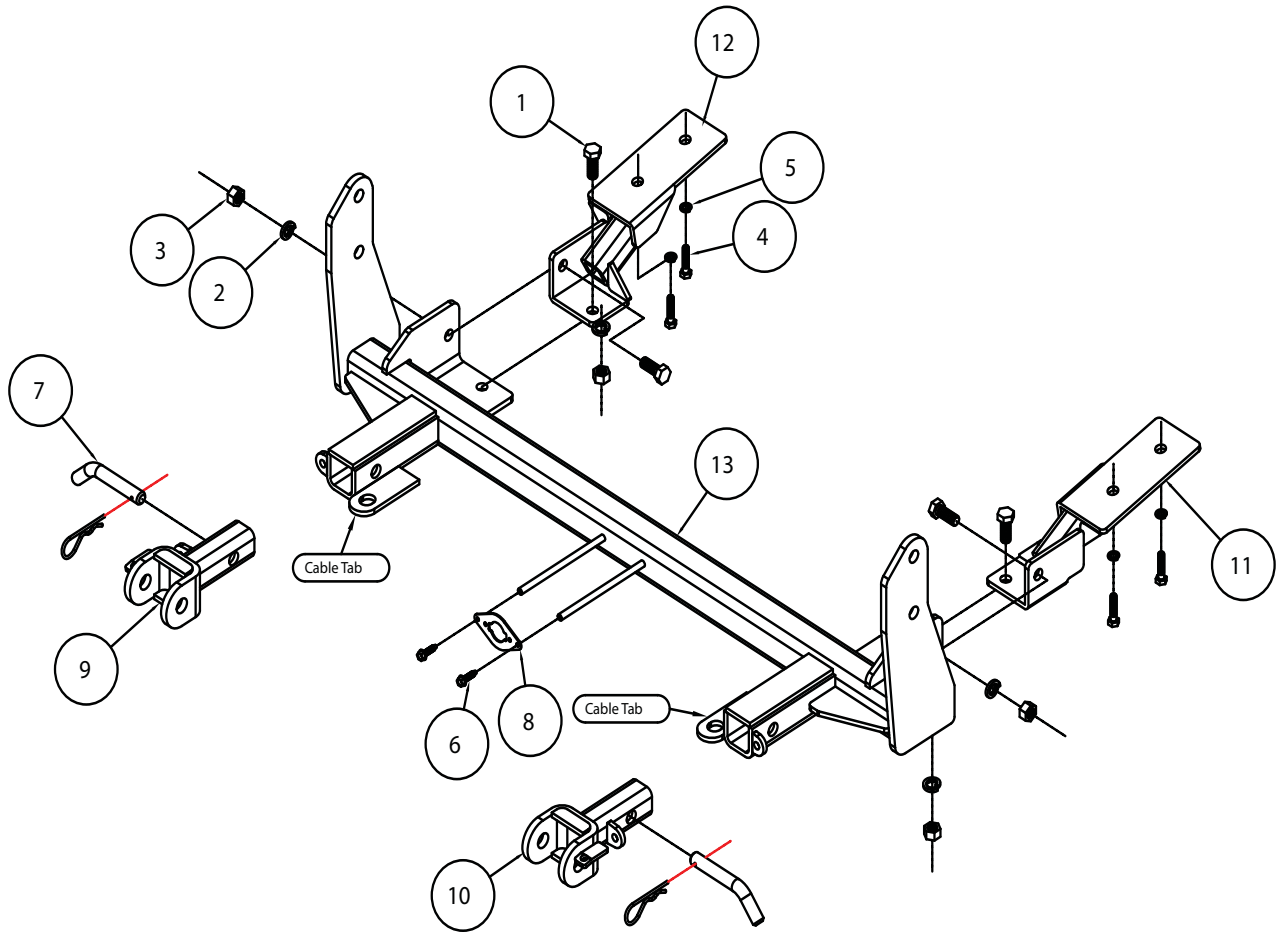
*Important*

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.

**Warning**

*Maximum weight capacity – 10,000 pounds.*

*Failure to follow these instructions may cause bracket failure, resulting in property damage, personal injury or even death.*



ITEM	QTY	NAME	MATERIAL
1.....	4.....	1/2" x 1 1/4" BOLT.....	350094-00
2.....	4.....	1/2" LOCK WASHER.....	350309-00
3.....	4.....	1/2" HEX NUT.....	350258-00
4.....	4.....	10mm x 1.5 x 35mm BOLT.....	356102-00
5.....	4.....	10mm LOCK WASHER.....	355715-00
6.....	2.....	#10 x 3/4" SELF TAPPING SCREW.....	350247-35
7.....	2.....	5/8" DRAW PIN W/CLIP.....	357035-00
8.....	1.....	WIRE MOUNTING PLATE.....	A-003801
9.....	1.....	PASSENGER SIDE ARM.....	C-001476
10.....	1.....	DRIVER SIDE ARM.....	C-001477
11.....	1.....	DRIVER SIDE BRACE.....	C-002381
12.....	1.....	PASSENGER SIDE BRACE.....	C-002382
13.....	1.....	MAIN RECEIVER.....	C-002510



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This is one of our MX 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 braces, two removable front braces, and a hardware pack.

The main receiver brace mounts to the frame rails; the rear braces mount to the main receiver brace and frame rails, and 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.

## WARNING

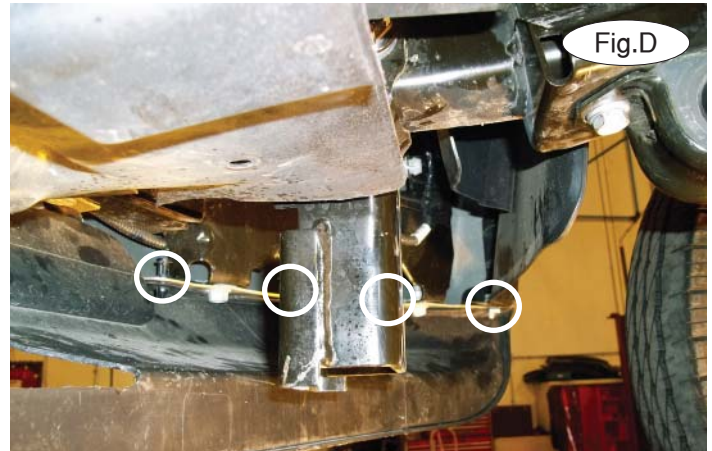
Failure to follow these instructions can result in property damage, personal injury or even death.

- 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.
- 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 non-warranty 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 warranted 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 nine plastic fasteners attaching the top of the fascia to the bottom of the bumper (Fig.C).

2. On each side, remove three plastic fasteners and one 10mm (head) bolt attaching the fascia to the bumper (Fig.D). *Note:* two are located behind the frame guard. Remove the fascia from the bumper (Fig.E).



3. On each side, remove two 15mm (head) bolts attaching the sway bar clamp to the frame (Fig.F). Let the sway bar hang down for now.



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4. On each side, remove two 18mm (head) nuts and two 15mm (head) nuts attaching the frame bracket to the frame rail (Fig.G). Then, push the protruding studs inward so they are flush with the side of the frame to allow the frame brackets to be removed (Fig.H). The frame brackets will not be replaced. *Note:* retain the frame brackets for replacement in case the bracket is ever removed. The hardware will be used in the next step.

5. Ensure the studs from the previous step are flush with the frame and slide the main receiver brace around the frame rails, aligning the main receiver brace's mounting holes with the studs. Use a stand to support the main receiver brace (Fig.I) and using a pry bar if needed, push the studs back through the frame and main receiver brace (Fig.J). Replace the 18mm (head) nuts you removed from step 4 (Fig.K).



6. On each side, bolt the rear brace to the main receiver brace using two of the  $\frac{1}{2}$ " x  $1\frac{1}{4}$ " bolts,  $\frac{1}{2}$ " lock washers and nuts (Fig.L – driver's side).





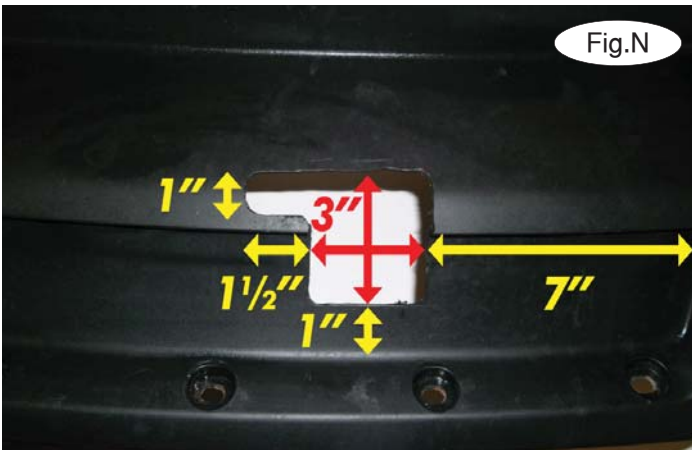
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7. On each side, align the holes in the rear brace over the sway bar clamp mounting holes. Lift the sway bar into place over the rear brace and bolt through the sway bar clamp, rear brace and into the frame using the two supplied 10mm x 1.5 x 35mm bolts and 10mm lock washers (Fig.M).

8. Reverse step 4 to replace the 15mm (head) nuts, leaving off the frame brackets.



9. Flip the fascia over, place it on a flat surface and reference Figure N (passenger side) for trimming and measurements for each side. It is also necessary to trim the fascia to allow clearance for the wire plug mount. Use the measurements in Figure O as a reference for trimming.

10. Tighten all bolts to the bolt torque requirements found at the end of these instructions. *Note:* use Loctite® Red on all nuts and bolts.

11. Reinstall the fascia, reversing steps 1 and 2.

12. Connect the safety cables to the safety cable tabs illustrated on the first page of these instructions.

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



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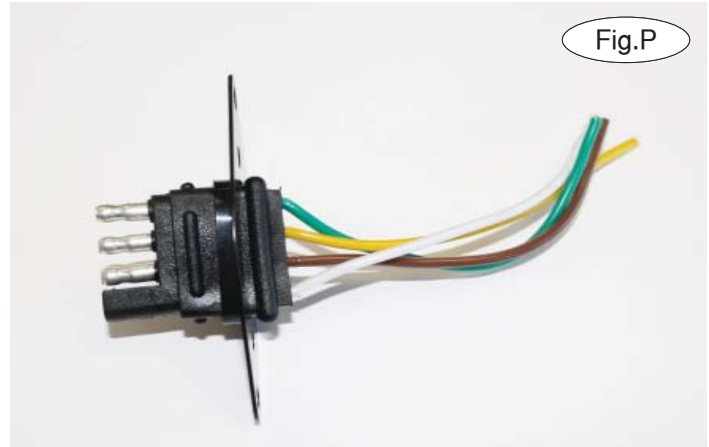
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## Three options for attaching the wiring plug to the main receiver brace

**For six-wire plugs:** use the two supplied 3/4" self-tapping screws to attach the electrical plug directly to the rods on the front of the main receiver brace.

**For four-wire round plugs:** attach to the plug mounting plate and then use the two supplied 3/4" self-tapping screws to attach the mounting plate to the rods on the front of the main receiver brace.

**For four-wire flat plugs:** place the plug through the mounting plug plate, and then secure it using the supplied zip tie on the front of the plug (Fig.P). Use the two supplied 3/4" self-tapping screws to attach the mounting plate to the rods on the front of the main receiver brace.



## 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.