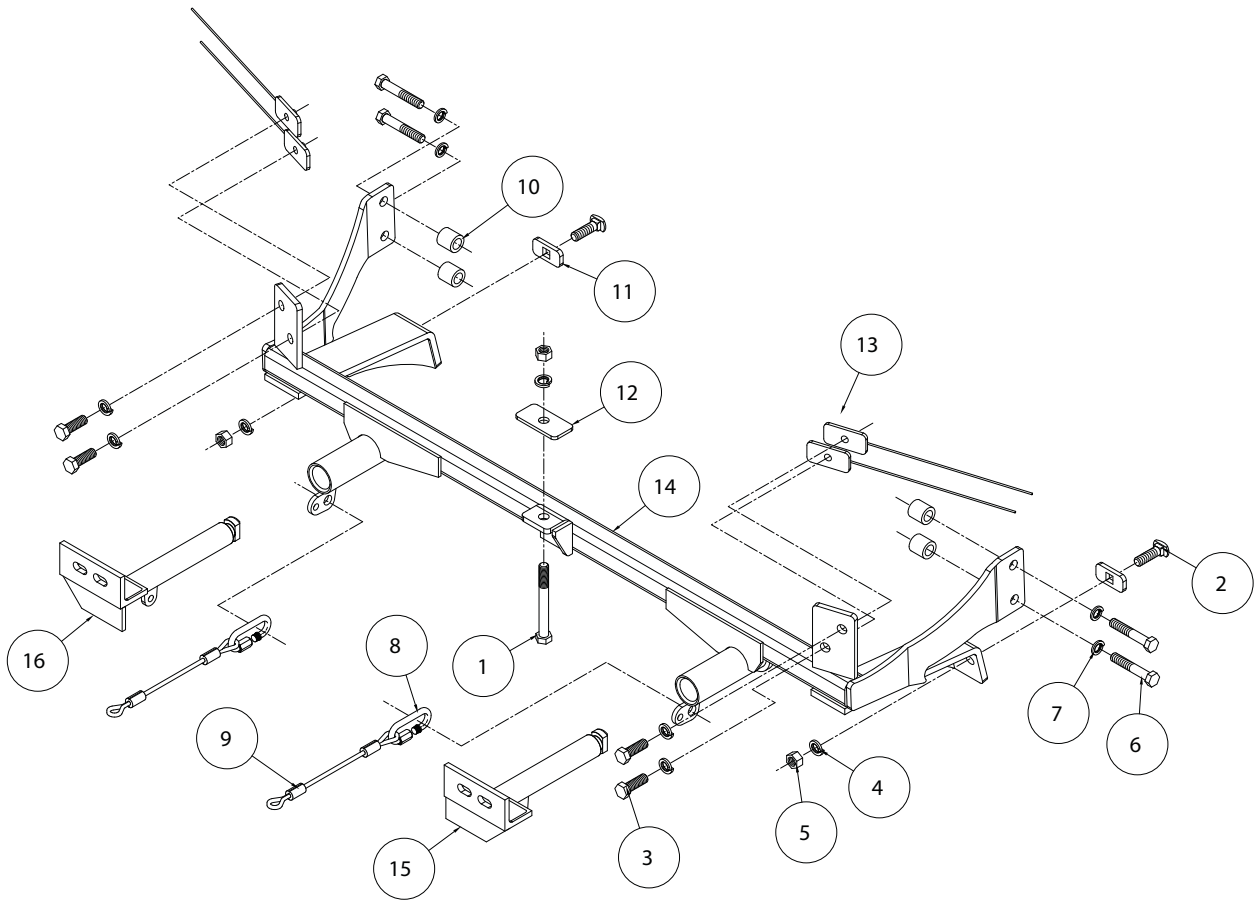




MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 523166-1

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| ITEM | QTY | NAME | MATERIAL |
|------|-----|---|-----------|
| 1 | 1 | 1/2" x 4 1/2" BOLT | 350106-00 |
| 2 | 2 | 1/2" x 1 3/4" CARRIAGE BOLT | A-003142 |
| 3 | 4 | 1/2" x 1 1/2" BOLT | 350095-00 |
| 4 | 7 | 1/2" LOCK WASHER | 350309-00 |
| 5 | 3 | 1/2" HEX NUT | 350258-00 |
| 6 | 4 | 12mm x 1.75 x 70 mm BOLT | 357211-00 |
| 7 | 4 | 12mm LOCK WASHER | 355725-00 |
| 8 | 2 | QUICK LINK | 200008-00 |
| 9 | 2 | SAFETY CABLE 8" | 650646-08 |
| 10 | 4 | 1" O.D. x 0.188 WALL x 1" PIPE SPACER | A-000028 |
| 11 | 2 | 1/4" x 1" x 2" SQ. HOLE BACKING PLATE | A-000040 |
| 12 | 1 | 3/16" x 1 1/2" x 3" ROUND HOLE BACKING PLATE | A-000185 |
| 13 | 4 | 3/16" x 1 1/4" x 2 1/2" THREADED BACKING PLATE W/ ROD | C-001416 |
| 14 | 1 | MAIN RECEIVER | C-001999 |
| 15 | 1 | DRIVER SIDE ARM | C-002000 |
| 16 | 1 | PASSENGER SIDE ARM | C-002001 |



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This 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.



Fig.A



Fig.B

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.

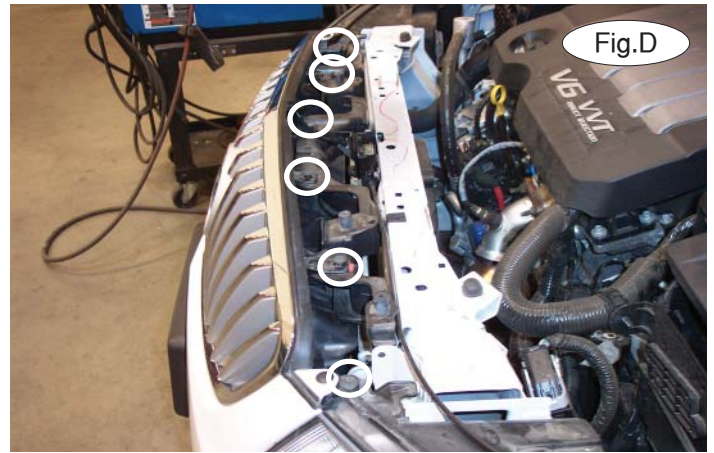
- Installation of most mounting brackets requires moderate mechanical aptitude and skills. We strongly recommend professional installation by an experienced installer.
- The installer must read the instructions and use all bolts and parts supplied. Failure to do so could result in loss of the towed vehicle.
- 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.



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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 seven plastic fasteners attaching the radiator cover to the fascia and core support (Fig.C).

2. Remove two 7mm (head) screws and four T15 Torx screws attaching the top of the fascia to the core support. Figure D shows the approximate location of all six screws (Fig.D).



3. On each side, remove one 7mm (head) screw attaching the corner of the fascia to the fender (Fig.E).

4. On each side, remove three T15 Torx screws attaching the fender liner to the fascia (Fig.F).

5. Remove five 7mm (head) screws attaching the bottom of the fender liner to the fascia (Fig.G).





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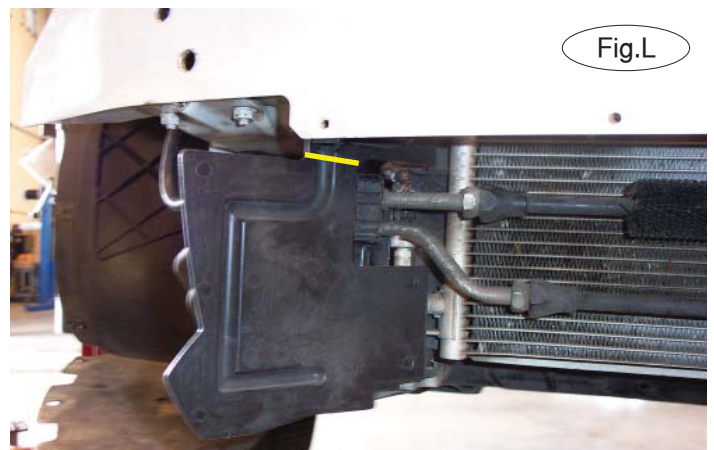
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6. Remove four plastic fasteners attaching the bottom of the fascia to the subframe (Fig.H).
7. Pull out and forward on the corners of the fascia to remove it (Fig.I). Unplug the foglights and ambient temperature sensor, if the vehicle is so equipped.



8. Remove the passenger side headlight by removing four 7mm (head) screws (Fig.J). Unplug the headlight.
9. Remove two plastic fasteners and one 7mm (head) bolt attaching the air intake assembly to the bumper core and core support (Fig.K).
10. On each side, trim the air deflector using the yellow line in Figure L as a guide for trimming.





MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

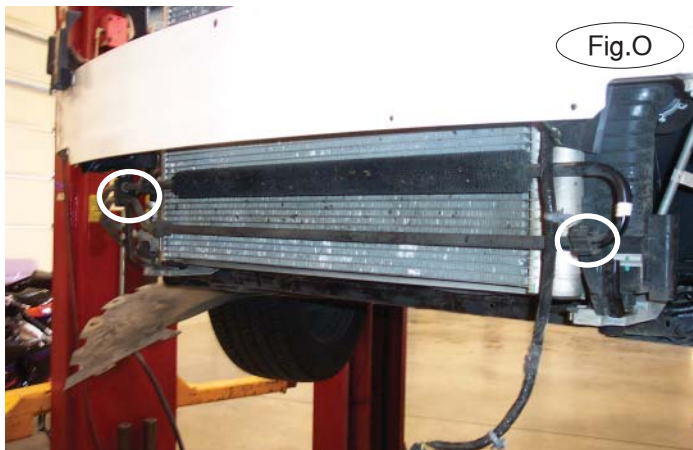
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11. On the driver's side, remove one 13mm nut attaching the horn assembly to the bumper core and core support (Fig.M). On each side, remove the two outside 19mm (head) bolts attaching the bumper core to the end of the frame rail (Fig.N).

12. Release the two plastic clips attaching the power steering cooler to the radiator support (Fig.O). Let it hang down.



13. Place the main receiver brace against the bottom of the bumper core and the ends of the frame rail with the passenger side lower support between the power steering cooler and the air conditioning lines.

On each side, using two of the supplied 1" x 1" spacers between the frame and side mounts of the main receiver brace, bolt through the main receiver brace, pipe spacers and into the weldments in the end of the frame rail. Replace the 19mm nuts removed in step 11 (Fig.P).

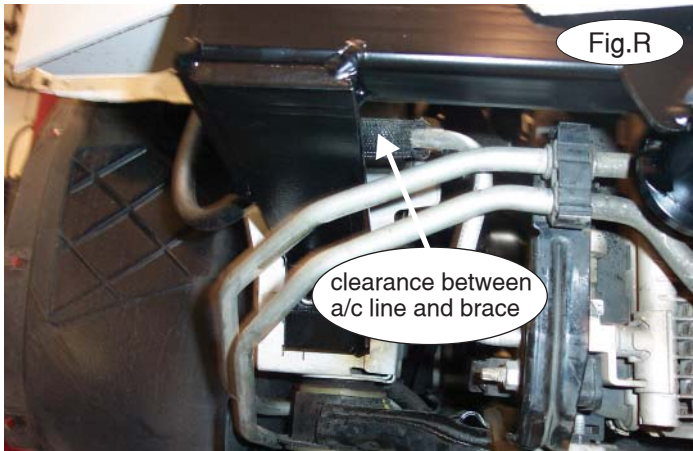
Note: this step will require the main receiver brace to be clamped to the bumper core, or for a second person to assist. Figure Q shows the main receiver brace mounted on both sides of the car.



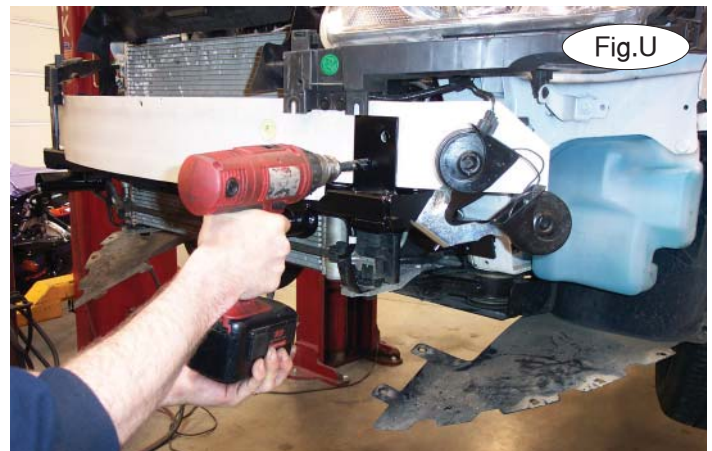


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15. Replace the power steering cooler, making certain that the air conditioning and power steering lines are not contacting the main receiver brace (Fig.R). If they are, pry them up and out of the way.
16. Using the center mounting point of the main receiver brace as a template, drill up through all three layers of the bumper core (Fig.S).



17. Using the supplied $\frac{1}{2}$ " x $4\frac{1}{2}$ " bolt, bolt up through the main receiver brace and bumper core. Place a $\frac{3}{16}$ " x $1\frac{1}{2}$ " x 3" backing plate over the top of the bolt and finish with a $\frac{1}{2}$ " lock washer and nut (Fig.T).
18. Tighten the center mounting point bolt and then the side bolts to the bolt torque requirements found at the end of these instructions.
19. Using the six upper mounting points of the main receiver brace as templates, drill through the first layer of the bumper core and lower subframe support (Fig.U).
20. Place one of the supplied $\frac{3}{16}$ " x 1" x 2" threaded backing plates with wire into the end of the bumper core (Fig.V) and over one of the six holes you just drilled. Using one of the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolts, bolt through the main receiver brace, bumper core and into the backing plate. Repeat this process for the remaining three bumper core mounting points.





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21. On each side, fishwire a $\frac{1}{4}$ " x 1" x 2" backing plate and $\frac{1}{2}$ " x $1\frac{1}{2}$ " carriage T bolt through the opening in the side of the frame rail and main receiver brace (Fig.W) and finish with a $\frac{1}{2}$ " lock washer and nut (Fig.X).



22. Torque all bolts to the bolt torque requirements found at the end of these instructions.

23. Flatten the tab on the horn assembly (Fig.Y). Replace the horn assembly (Fig.Z).

24. Using a pair of pliers, break the wires off the four backing plates you installed in step 21 (Fig.AA).





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25. Hold the fascia in place and mark it for trimming to allow clearance for the main receiver brace. Figure BB shows the completed trimming.
26. Trim the foam shock absorption pad to allow clearance for the upper mounting points. Figure CC shows the completed trimming.
27. Reassemble the fascia by reversing steps 1 through 9.
28. Insert the removable front bracket arms into the front receiver braces, and secure them in place with the supplied 5/8" draw pins and spring pins.
29. Attach the 8" safety cables with the cable connectors (Q-Links) to the front of the receiver braces (Fig.DD).
30. Attach the ends of the safety cables to the tow vehicle's safety cables.
31. Install the tow bar to the mounting bracket 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. |

All illustrations and specifications contained herein are based on the latest information available at the time of publication approval. ROADMASTER, INC. reserves the right to make changes at any time without notice in material, specification and models or to discontinue models.