

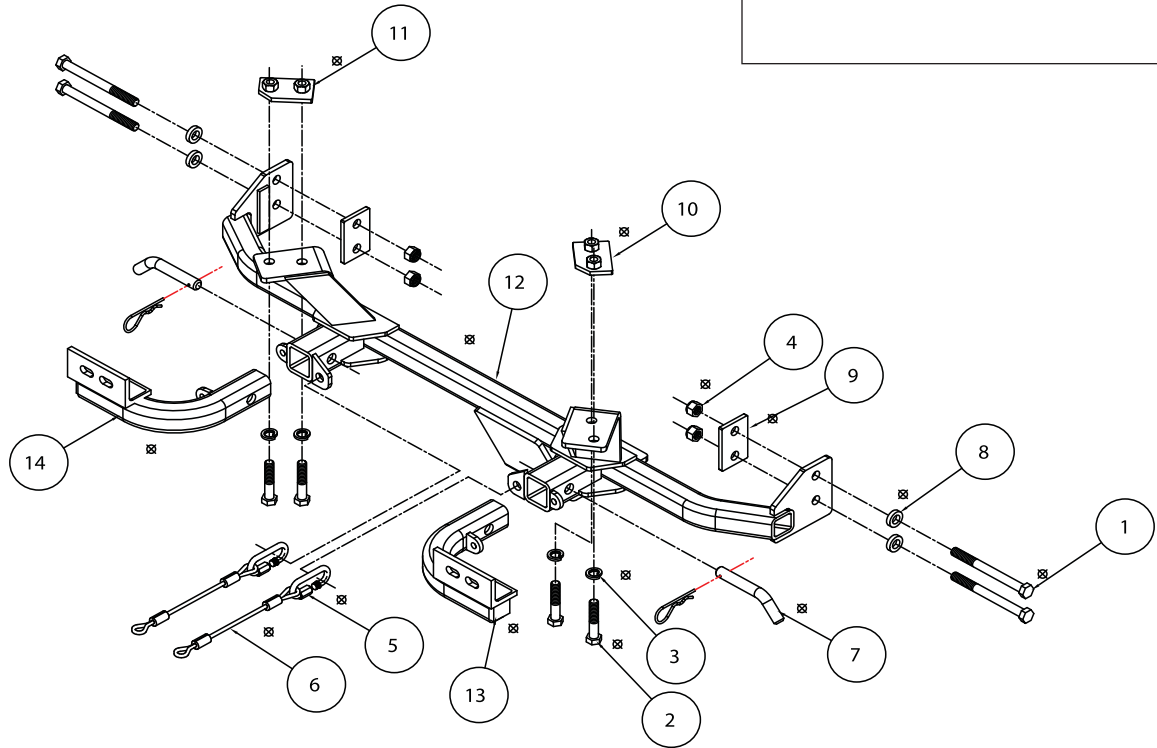


MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 284-1

02/21/13

*Special tools needed:
1/2" x 12" drill bit*



ITEM	QTY	NAME	MATERIAL
1.....	4.....	1/2" x 5 1/2" BOLT	350108-00
2.....	4.....	1/2" x 2 1/2" BOLT	350099-00
3.....	4.....	1/2" LOCK WASHER.....	350309-00
4.....	4.....	1/2" NYLOCK NUT	350259-00
5.....	2.....	QUICK LINK	200008-00
6.....	2.....	10" SAFETY CABLES	650648-10
7.....	2.....	DRAW PIN W/ CLIP	357035-00
8.....	4.....	1" O.D. x 0.219 WALL x 1/4" PIPE SPACER.....	A-002255
9.....	2.....	1/4" x 2" x 3" BACKING PLATE W/ 2 HOLES	A-002555
10.....	1.....	1/4" x 2" x 3" THREADED BACKING PLATE- DRIVER SIDE	C-001628
11.....	1.....	1/4" x 2" x 3" THREADED BACKING PLATE- PASSENGER SIDE	C-001629
12.....	1.....	MAIN RECEIVER	C-001623
13.....	1.....	DRIVER SIDE ARM	C-001624
14.....	1.....	PASSENGER SIDE ARM	C-001625



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This bracket kit is one of our XL series, which allows the visible front portion of the brackets to be easily removed (Fig.A and Fig.B). The kit consists of the main receiver brace, front braces, backing plate weldments and a hardware pack. The main receiver brace mounts to the front frame and bumper core on each side. The front braces insert into the receivers on each side and are secured with draw pins. 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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Fig.C



Fig.D

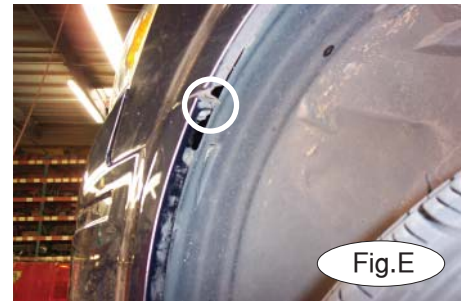


Fig.E

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 two plastic fasteners attaching the core support to the top of the fascia (Fig.C).

2. On each side, remove two Phillips screws attaching the fender liner to the fender well (Fig.D).

3. On each side, remove one 10mm (head) bolt attaching the corner of the fascia to the fender (Fig.E).



Fig.F



Fig.G



Fig.H

4. Remove four plastic fasteners attaching the bottom of the fascia to the radiator support (Fig.F) and one in the bottom inside cover of the driver's fender well (Fig.G).

5. Pull out and forward on the corners of the fascia to remove it (Fig.H).

6. Disconnect the fog lights, if the vehicle is so equipped.

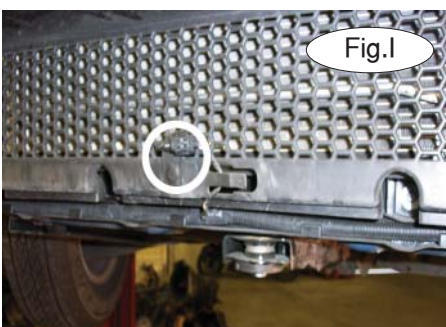


Fig.I



Fig.J



Fig.K

7. Disconnect the ambient temperature sensor. **For '08 to '10 models:** disconnect one plastic fastener from the grille insert (Fig.I). **For 2011 Chrysler Town and Country models:** disconnect it from the shock absorption pad.

8. Remove the grille insert and shock absorption pad by removing six plastic fasteners (Fig.J). *Note:* the grille insert will not be replaced. Retain the grille insert and all attachment hardware for replacement in case the bracket is ever removed.

9. On each side, trim the rubber air deflector using the red lines in Figure K as a reference.



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02/21/13



Fig.L

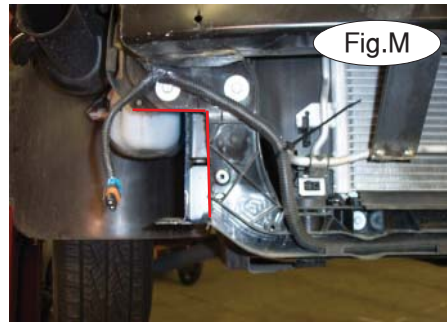


Fig.M

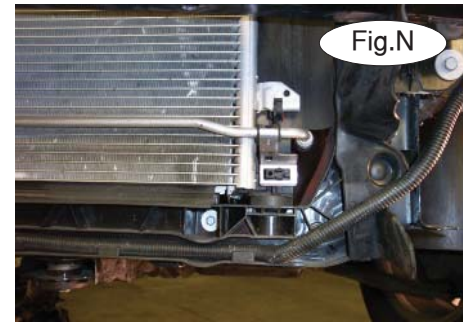


Fig.N

10. Locate the wiring harness track (Fig.L). Remove the harness from the track on each side of the core support. Trim the plastic track using the red lines in Figure M as a guide.

11. Bend the power steering cooler mounting brackets (Fig.N) up and back toward the air conditioner condenser (Fig.O) to allow clearance for the main receiver brace.

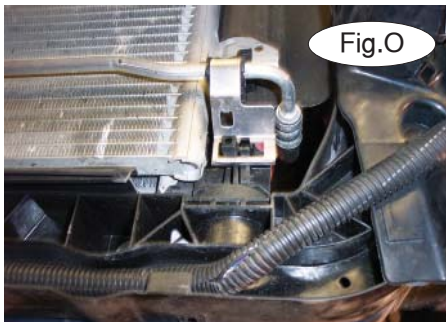


Fig.O

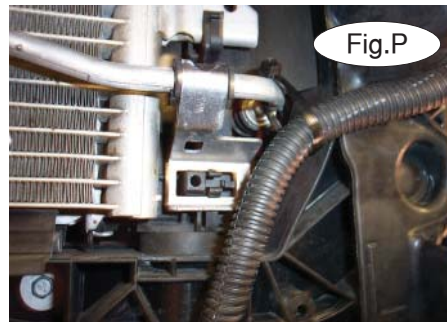


Fig.P



Fig.Q

12. On each side, use one of the supplied zip ties to attach the wiring harness to the power steering fluid line. *Note:* do not pull the harness tight against the line (Fig.P).

13. Support the motor mount and core support brace and remove the front 18mm (head) bolt (Fig.Q).



Fig.R

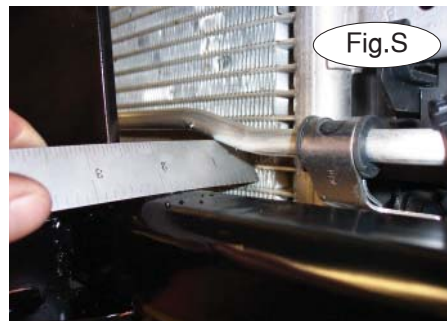


Fig.S

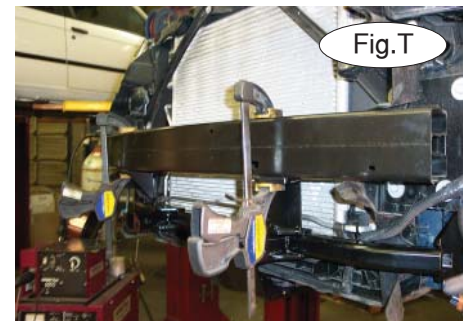


Fig.T

14. Remove the vibration dampener from the bolt and place the bolt through the rear center mounting point of the main receiver brace. Place the vibration dampener over the end of the bolt (Fig.R). Set the main receiver brace in place over the side of the frame rails and bolt it into place. *Note:* use thread lock on the bolt.

Tighten the bolt to the bolt torque requirements found at the end of this document.

15. The main receiver brace should be parallel to the condenser core. The rear cross bar should be 1 1/4" from the condenser on either side (Fig.S).

16. Clamp the upper mounting points of the main receiver brace to the bumper core (Fig.T).



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KIT# 284-1

02/21/13



Fig.U



Fig.V



Fig.W

17. Using the two pre-drilled holes in the main receiver brace as templates, drill through the three layers of frame rail (Fig.U). *Note:* place a backing plate between the drill and the engine components and make certain that the holes you are drilling are straight.

18. Working on the driver's side, place the two supplied 1" x 1/4" x .219 wall pipe spacers over the supplied 1/2" x 5 1/2" bolts and place the bolts through the side of the main receiver brace and the frame rail. Place the 1/4" x 2" x 3" backing plate over the two bolts and bolt into place using the two supplied nylon nuts (Fig.V).

19. Remove the clamps and, using the upper mounting point on the main receiver brace as a template, drill through the first two layers of the bumper core with a 1/2" x 12" drill bit (Fig.W). If you have difficulty in drilling the hole through the bumper core, drill a pilot hole first. *Note:* the drill bit must be sharp.



Fig.X

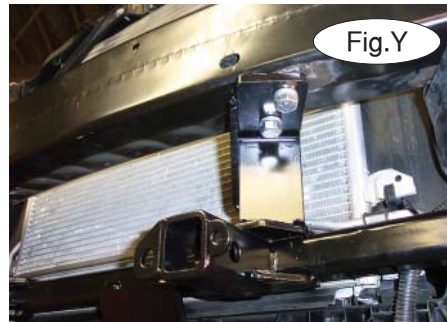


Fig.Y



Fig.Z

20. Now, place the 1/2" lock washer over the supplied 1/2" x 2 1/2" bolt and bolt up through the main receiver brace and the bumper core. Place the 1/4" x 2" x 3" nipped backing plate through the back of the bumper core (Fig.X) and bolt it into place (Fig.Y).

21. Repeat steps 18 through 20 for the passenger side of the vehicle.

22. Using one of the supplied zip ties, attach the ambient temperature sensor to the main receiver brace (Fig.Z).

23. Place the fascia back on the front end. Replace the two 10mm (head) bolts and the two plastic fasteners you removed in step 1. Trim around the lower support on the main receiver brace (Fig.AA).

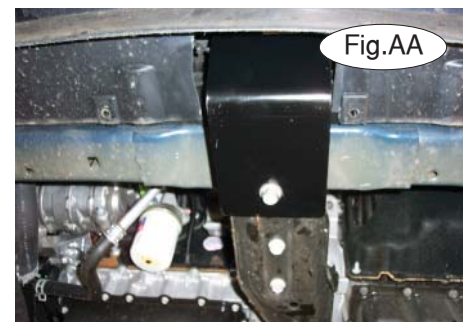


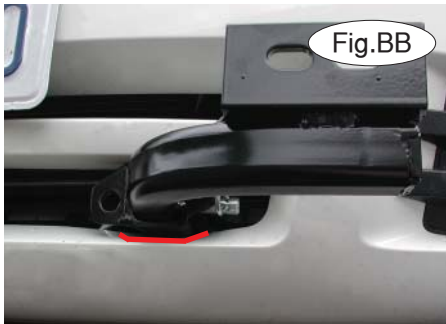
Fig.AA



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24. **For 2008 Dodge Grand Caravan models only:** use the red lines in Figure BB as a guide for trimming the fascia.
Note: it is not necessary to trim the fascia on the Caravan, but the receiver brace will rub against the bottom of the fascia.
For 2011 Chrysler Town and Country models: use the red lines in Figure CC as a guide for trimming the grille.
25. Plug in the fog lights, if the vehicle is so equipped, and replace the remaining fasteners.
26. 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.
27. Attach the 10" safety cables with the cable connectors (Q-Links) to the front of the receiver braces (Fig.DD).
28. Attach the ends of the safety cables to the tow vehicle's safety cables.
29. 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.