⋖

Z

⋖

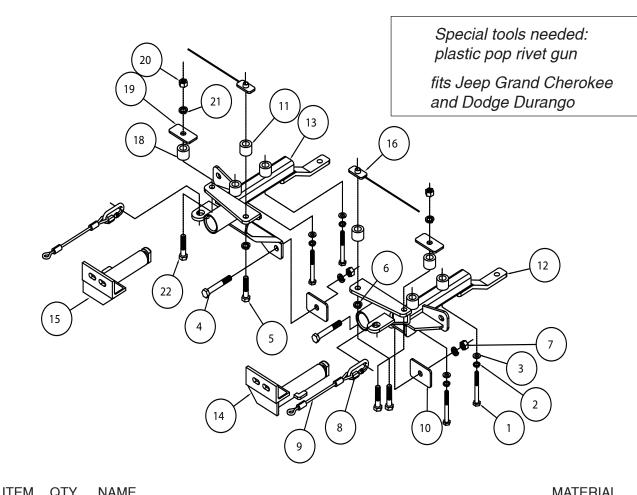
M

ROADMASTER

MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 521440-1A 03/11/13

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



HEM QIY NAME	MATERIAL
14 10mm x 1.5 x 90mm BOLT	356115-00
24 10mm LOCK WASHER	355715-00
343/8" FLAT WASHER	350304-00
42	350103-00
52	350098-00
64 1/2" LOCK WASHER	350309-00
72 1/2" HEX NUT	350258-00
82 QUICK LINK	200008-00
928" SAFETY CABLES	650648-08
102 3/16" x 2" x 3" BACKING PLATE	A-000147
112 1 1/4" O.D. x 0.25 WALL x 1" PIPE SPACER	
121DRIVER SIDE RECEIVER	
131PASSENGER SIDE RECEIVER	
141DRIVER SIDE ARM	
151	C-002065
162 3/16" x 1" x 2" THREADED BACKING PLATE W/ ROD	
174PLASTIC POP RIVET	350431-00
18 1 1/4" O.D. x 0.25 WALL x 1" PIPE SPACER	A-000945
192 3/16" x 1 1/2" x 3" BACKING PLATE	A-000185
2021/2" HEX NUT	350258-00
212 1/2" LOCK WASHER	350309-00
222	350098-00
232 1/2" FLAT WASHER	350308-00
2411/2" SPLIT LOOM 4"	300089-00
252IP TIES	300140-8



KIT# 521440-1A 03/11/13

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407

fax 360-735-9300

www.roadmasterinc.com

his is one of our EZ2 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 removable front braces, and a hardware pack.

The main receiver brace mounts to the 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



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.



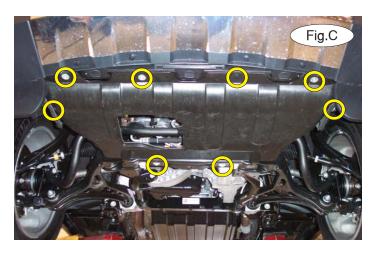
KIT# 521440-1A 03/11/13

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407 fax 360-735-9300





- 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 13mm (head) bolts, five 10mm (head) bolts and one plastic fastener attaching the lower splash shield to the subframe and core support (Fig.C).
- 2. On each side, remove one 10mm screw and use a pair of side cutters to remove two plastic pop rivets attaching the fender liner to the fascia (Fig.D – passenger side).





- 3. On each side, pull out on the lower edge of the fender flair to detach it from the fascia (Fig.E).
- 4. Twist counterclockwise to remove the five plastic fasteners attaching the lower fascia to the core support and splash shield (Fig.F - driver's side).
- 5. Pull out and forward on the corners of the fascia to remove it (Fig.G).





KIT# 521440-1A 03/11/13

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407 fax 360-735-9300



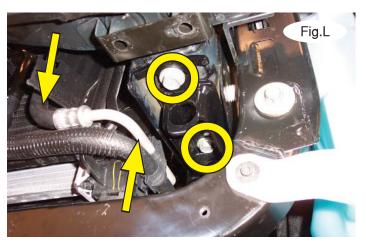


- 6. Support the subframe with a jack stand.
- 7. Trim the passenger side air deflector using the yellow lines in Figure H as a guide for trimming.
- 8. On each side, remove three 10mm (head) bolts attaching the air deflector to the bumper core and radiator support (Fig.I). Note: Dodge Durango models may not have this air deflector. If that is the case, proceed to the next step.





- 9. For models without tow hooks: skip to step 12.
- For models with tow hooks: complete steps 9 through 11. Remove the 30mm nut attaching the tow hook to the rear of the tow hook bracket (Fig.J).
- 10. Working on the driver's side only, remove the two front 16mm (head) bolts attaching the front of the tow hook to the bumper core (Fig.K).
- 11. Remove two 16mm (head) bolts attaching the tow hook mount to the bottom of the frame rail (Fig.L). The tow hook mount and bracket will not be replaced. Note: retain the tow hook mount and bracket so they can be replaced if the bracket is ever removed.
- 12. Now, place the supplied 4" split loom over the metal cooling line and secure the ends in place with zip ties in the spots indicated by yellow arrows in Figure L.





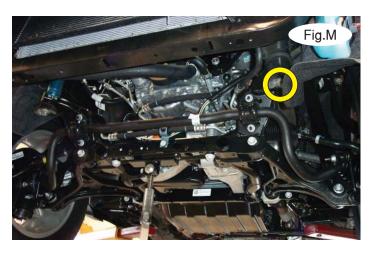
KIT# 521440-1A 03/11/13

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407 fax 360-735-9300



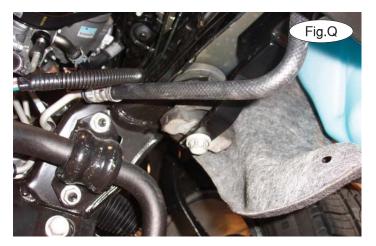


- 13. Working on the driver's side only, remove the 21mm (head) front subframe mounting bolt (Fig.M).
- 14. Remove one 13mm (head) bolt attaching the lower half of the radiator support to the frame rail (Fig.N).
- 15. Insert the main receiver brace into the opening between the radiator and the radiator support and replace the 13mm (head) bolt you removed in step 14 (Fig.O). Note: vehicles equipped with adaptive cruise control will have a wire going across the bumper core to the control unit. Make certain that this wire will not be pinched between the bumper core and main receiver brace.





- 16. Place one 3/8" flat washer and one 10mm lock washer over two of the supplied 10mm x 1.5 x 90mm bolts, and on both sides of the radiator support, bolt through the main receiver brace and into the two weld nuts located in the bottom the frame rail (Fig.P).
- 17. Place thread lock on the 21mm (head) subframe bolt that you removed in step 13 and bolt through the lower mounting point of the main receiver brace (Fig.Q).
- 18. Repeat steps 13 through 17 for the passenger side.





KIT# 521440-1A 03/11/13

ROADMASTER, Inc.

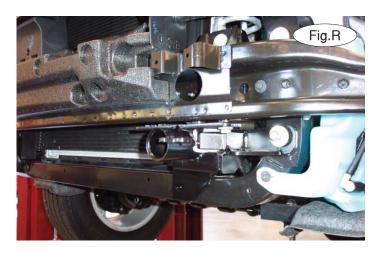
6110 NE 127th Ave.

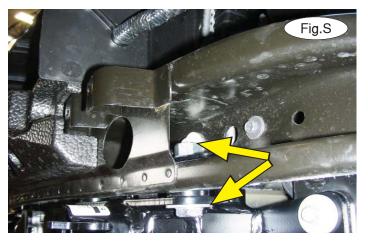
Vancouver, WA 98682

360-896-0407

fax 360-735-9300

www.roadmasterinc.com





19. For models with tow hooks: using the 16mm (head) bolts you removed in step 11, bolt through the outside upper mounting point of the main receiver brace and into the tow hook mount (Fig.R)

For models without tow hooks: on each side, place one of the $1\frac{1}{4}$ " x 1" pipe spacers between the outside mounting point on the main receiver brace and the bumper core. Place one of the supplied $\frac{1}{2}$ " flat washers over a $\frac{1}{2}$ " x $2\frac{1}{4}$ " bolt and bolt up through the main receiver brace, pipe spacer and into one of the supplied $\frac{3}{16}$ " x $\frac{1}{2}$ " x $\frac{3}{4}$ " backing plates. Finish with a $\frac{1}{2}$ " lock washer and nut (Fig.S).





- 20. Working on the driver's side only, and using the inside upper mounting point of the main receiver brace as a template, drill a $\frac{1}{2}$ " hole through the bottom of the bumper core (Fig.T).
- 21. Place one of the supplied 3/16" x 1" x 2" threaded backing plate with wire into the opening in the end of the bumper core and over the inside upper mounting point of the main receiver brace (Fig.U).



KIT# 521440-1A 03/11/13

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

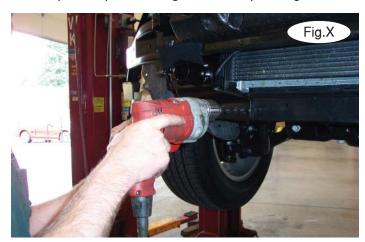
360-896-0407

fax 360-735-9300





- 22. Place a $1\frac{1}{4}$ " x 1" pipe spacer between the upper inside mounting point and the bumper core (Fig.V). Place a $\frac{1}{2}$ " lock washer over a $\frac{1}{2}$ " x $2\frac{1}{4}$ " bolt and bolt through the inside upper mounting point of the main receiver brace, bumper core and into the threaded backing plate (Fig.W).
- 23. Repeat steps 20 through 22 for the passenger side.



- 24. Torque all bolts to the bolt torque requirements found at the end of this document, starting with the bumper core mounting points. Using a pair of pliers, snap the wires off the backing plates.
- 25. On each side, using a ½" drill bit, and the lower mounting point of the main receiver brace as a template, drill through the front and back of the radiator support (Fig.X). *Note:* use caution and a metal plate to avoid drilling into engine components.
- 26. On each side, place one of the supplied $\frac{1}{2}$ " x $3\frac{1}{2}$ " bolts through the main receiver brace and core support. Finish with one of the supplied $\frac{3}{16}$ " x 2" x 3" backing plates, $\frac{1}{2}$ " lock washer and $\frac{1}{2}$ " nut (Fig.Y driver's side).
- 27. On each side, hold the side air deflector in place over the main receiver brace and trim using the yellow lines in Figure Z as a guide for trimming.







KIT# 521440-1A 03/11/13

ROADMASTER, Inc.

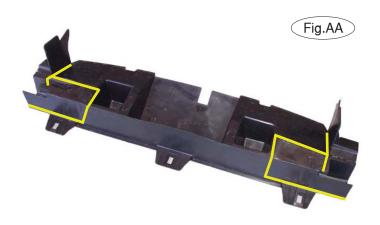
6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407

fax 360-735-9300

www.roadmasterinc.com





- 28. Trim the lower air deflector (Fig.AA) on both sides, using the yellow lines as a reference for trimming. *Note:* make certain that you do not cut off any of the mounting tabs on the air deflector. Figure BB shows the completed trimming on one side.
- 29. Reinstall the fascia by reversing steps 1 through 5. *Note:* you will need a pop rivet gun to reattach the fender liners.
- 30. Insert the removable front bracket arms into the front receiver braces, and twist each one 90 degrees to lock.
- 31. Attach the 8" safety cables with the cable connectors (Q-Links) to the front of the receiver braces (Fig.CC).
- 32. Attach the ends of the safety cables to the tow vehicle's safety cables.
- 33. Install the tow bar to the mounting bracket according to the manufacturer's instructions.



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							