



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

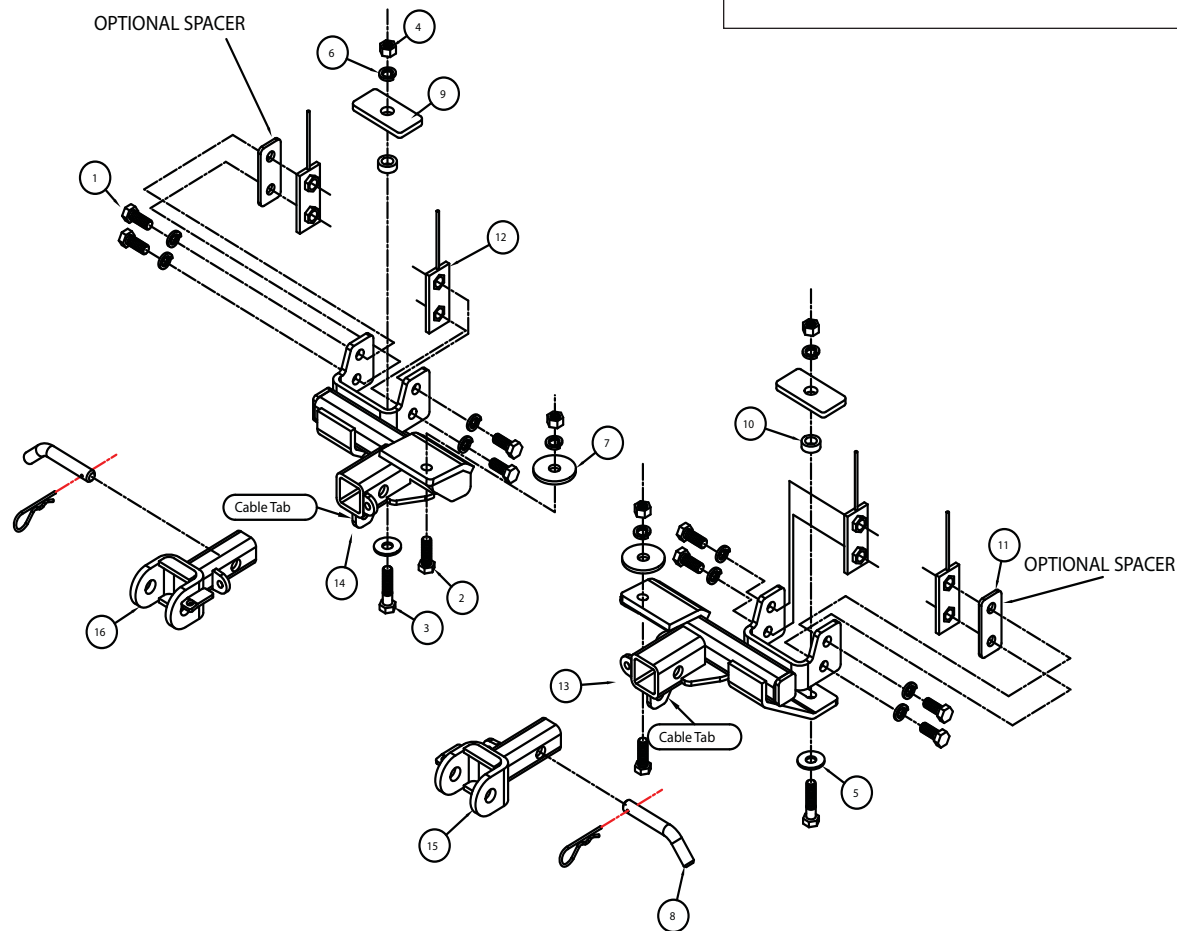
KIT# 1432-3

08/22/13
KS

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

Special tools needed:
die grinder
(for 2012 and later
models only)

Important
*Note: this bracket will not accom-
modate the Guardian rock shield,
some models of the Tow Defender,
Stowaway or the StowMaster and
StowMaster All Terrain tow bars.*



ITEM	QTY	NAME	MATERIAL
1	8	1/2" x 1 1/4" BOLT	350094-00
2	2	1/2" X 1 1/2" BOLT	350095-00
3	2	1/2" x 2" BOLT	350097-00
4	4	1/2" NUT	350258-00
5	2	1/2" FLAT WASHER	350308-00
6	12	1/2" LOCK WASHER	350309-00
7	2	1/2" PLATE WASHER	A-003086
8	2	DRAW PIN W/ CLIP	357035-00
9	2	1 1/2" x 3" BACKING PLATE	A-000185
10	2	1" O.D. x 0.188 x 3/8" PIPE SPACER	A-000187
11	2	SPACER PLATE	A-004491
12	4	1 1/2" x 3 1/2" THREADED BACKING PLATE W/ ROD	C-001835
13	1	DRIVER SIDE RECEIVER	C-001895
14	1	PASSENGER SIDE RECEIVER	C-001896
15	1	DRIVER SIDE MX ARM	C-001476
16	1	PASSENGER SIDE MX ARM	C-001477



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This bracket kit is one of our MX series, which allows the visible front portion of the brackets to be easily removed (Fig.A and Fig.B). The kit consists of two main receiver braces, removable front braces and a hardware pack.

The main receiver brace mounts to the frame rails and bumper core on each side. The removable 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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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 six plastic fasteners attaching the rock guard to the bumper. *Note:* four fasteners are located in the front (Fig.C) and two in the back.

2. On each side, remove four 18mm (head) nuts attaching the bumper core to the frame rails (Fig.D – driver's side). *Note:* Figure D only shows two nuts; the other two are located on the outside of the frame rail.



3. Now, pull forward on the bumper core and unplug the fog lights, if the vehicle is so equipped (Fig.E). Remove the bumper core (Fig.F).

4. Remove the two plastic fasteners attaching the frame cover to the frame (Fig.G).

For 2012 and later models only: see the supplemental instructions found at the end of this document for removing the pump and enlarging the hole in the pump mounting bracket.



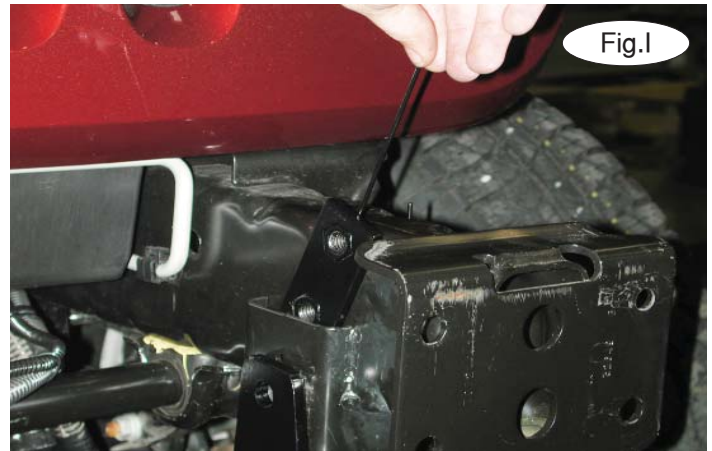


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5. Working on the driver's side, place the main receiver brace over the end of the frame rail (Fig.H). Place one of the supplied 3/16" x 1 1/2" x 3 1/2" threaded backing plates with wire through the opening to the inside edge of the frame rail (Fig.I). Using the two supplied 1/2" x 1 1/4" bolts and lock washers, bolt through the driver's side main receiver brace, frame rail and into the threaded backing plate with wire (Fig.J).



6. Using one of the supplied 1/2" x 1 1/4" bolts and lock washers, temporarily bolt through the bottom outside hole to align the brace. Gently lift the front end of the brace until it locks, and then torque the two bolts you just installed to the inside of the frame rail.

7. Using the pre-existing hole in the outside upper mounting point of the main receiver brace as a template, drill a 1/2" hole through the frame rail (Fig.K).

8. Remove the lower bolt you installed in step 6. Now, still working on the driver's side, place one of the supplied 3/16" x 1 1/2" x 3 1/2" threaded backing plates with wire through the opening in the outside edge of the frame rail. Using the two supplied 1/2" x 1 1/4" bolts and lock washers, bolt through the driver's side main receiver brace, frame rail and into the threaded backing plate with wire. *Note:* due to manufacturing variances, there may be a gap between the frame and main receiver brace. If this is the case, use one of the supplied spacer plates between the backing plate with wire and the outside edge of the frame rail to obtain a better fit.

9. Repeat steps 5 through 8 for the passenger side of the vehicle.



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10. Now, reinstall the bumper core, reversing steps 2 through 4.

11. Working on the driver's side, place a $\frac{1}{2}$ " flat washer over a $\frac{1}{2}$ " x 2" bolt, and bolt up through the bottom mounting point of the main receiver brace. Place a $\frac{3}{8}$ " pipe spacer over the bolt, and then bolt up through the pre-existing hole in the frame rail. Now, place a $\frac{3}{16}$ " x $1\frac{1}{2}$ " x 3" backing plate over the top of the bolt, and finish with a lock washer and nut (Fig.L).



12. Place a $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolt through the pre-existing hole in the driver's side main receiver brace and the bumper core. Place a $\frac{1}{2}$ " plate washer on the top side of the bolt and finish with a lock washer and nut (Fig.M).

13. Replace the bumper core, making certain that the bumper core is pushed all the way back until it stops. Now, clamp the passenger side main receiver brace to the bumper core (Fig.N). *Note:* use a cloth to prevent scratching the bumper core.

14. Now, using the pre-existing hole in the top of the main receiver brace as a template, drill a $\frac{1}{2}$ " hole through the bottom of the bumper core (Fig.O).

15. Continuing to work on the passenger side, use the pre-existing hole in the main receiver brace as a template and drill a $\frac{1}{2}$ " hole through the crossmember (Fig.P).

16. Repeat steps 11 and 12 for the passenger side.





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17. Now, tighten all bolts to the bolt torque requirements found at the end of this document.

18. Use a pair of pliers to snap the wires off the four backing plates you installed in steps 5 and 8. **For 2012 and later models:** replace the pump removed in the supplemental instructions. Replace the frame cover and the bumper core by reversing steps 1 through 4.

19. Hold the rock guard in place, and mark it for trimming using the yellow lines in Figure Q as a reference.

20. 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.

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



Fig.Q

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

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.



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Supplemental Instructions for 2012 and Later Models Only



Fig.A

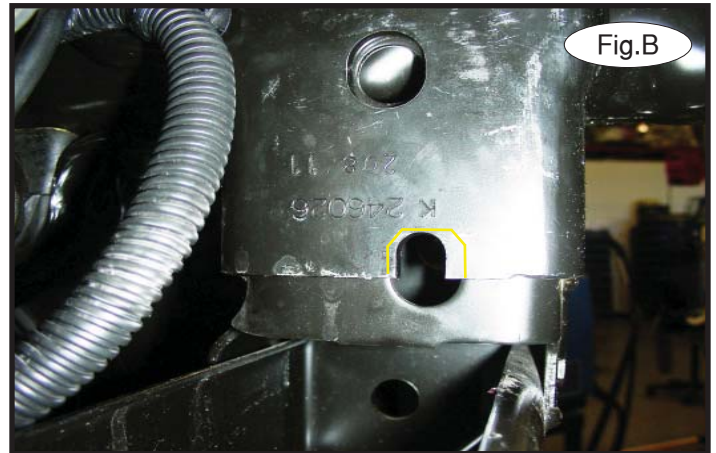


Fig.B

1. Remove the front 10mm nut (Fig.A) and pull the pump off to the side. Then, using a die grinder, enlarge the lower slot in the pump mounting bracket to match the size of the innermost hole (Fig.B). The yellow lines show the approximate area that needs to be enlarged.

Now, return to step 5 in the regular instructions to finish the installation.