



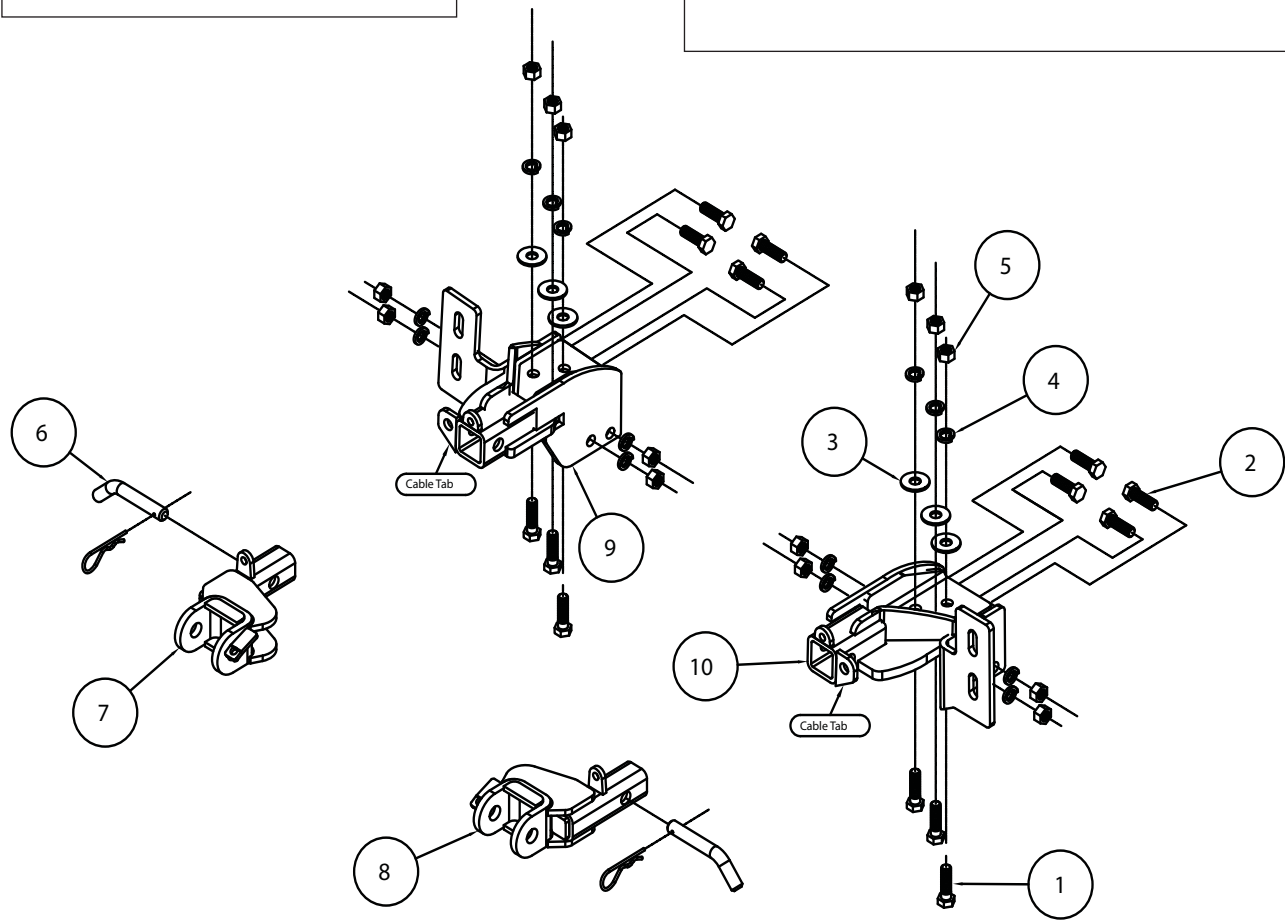
MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 4428-3

08/01/13
KS

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.....	6.....	1/2" x 1 3/4" BOLT	350096-00
2.....	8.....	1/2" x 1 1/2" BOLT	350095-00
3.....	6.....	1/2" FLAT WASHER	350308-20
4.....	14.....	1/2" LOCK WASHER.....	350309-00
5.....	14.....	1/2" HEX NUT.....	350258-00
6.....	2.....	5/8" DRAW PIN W/ CLIP	357035-00
7.....	1.....	PASSENGER SIDE ARM.....	C-002181
8.....	1.....	DRIVER SIDE ARM	C-002180
9.....	1.....	PASSENGER SIDE RECEIVER	C-002177
10.....	1.....	DRIVER SIDE RECEIVER.....	C-002174
11.....	1.....	ZIPTIE	300140-10



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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 the main receiver brace, removable front braces and a hardware pack.

The main receiver brace mounts to the front frame 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.



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

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.



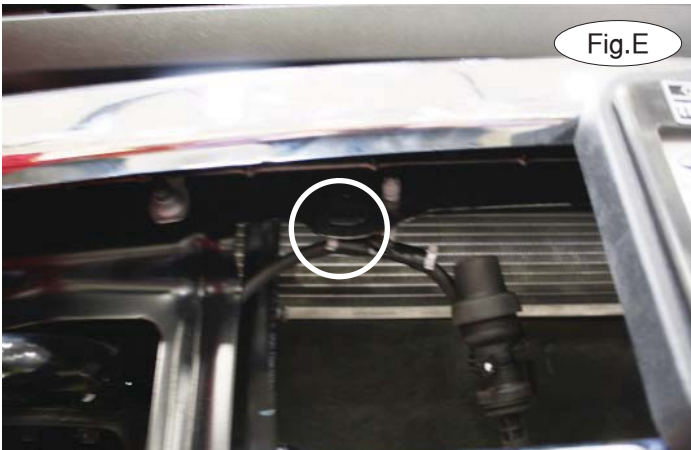
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1. **Important: please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel.** Now, begin the installation. Remove three plastic fasteners attaching the air deflector to the back of the bumper core (Fig.C).



2. On each side, remove two 13mm (head) bolts attaching the bumper brace to the frame rail (Fig.D).
3. On the passenger side only, remove the plastic clip attaching the engine block heater to the bumper, if the vehicle is so equipped (Fig.E).
4. On each side, remove two 18mm (head) bolts attaching the bumper to the tow hook (Fig.F).
5. Pull out and forward to remove the bumper (Fig.G).

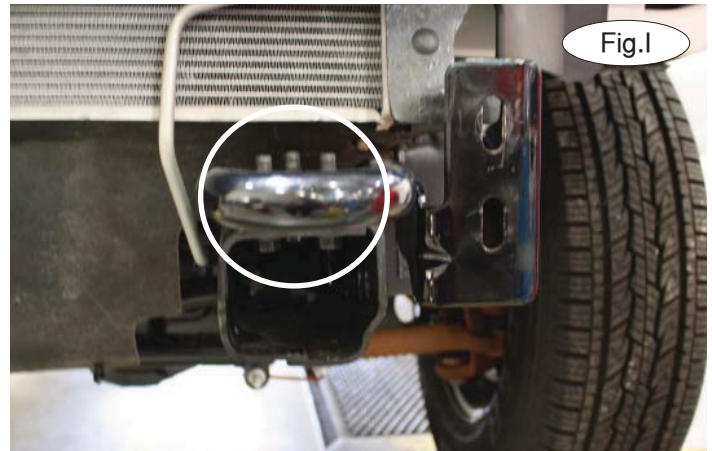
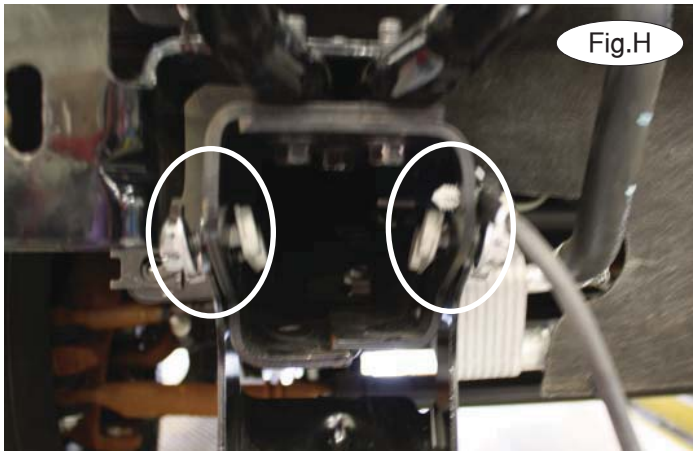




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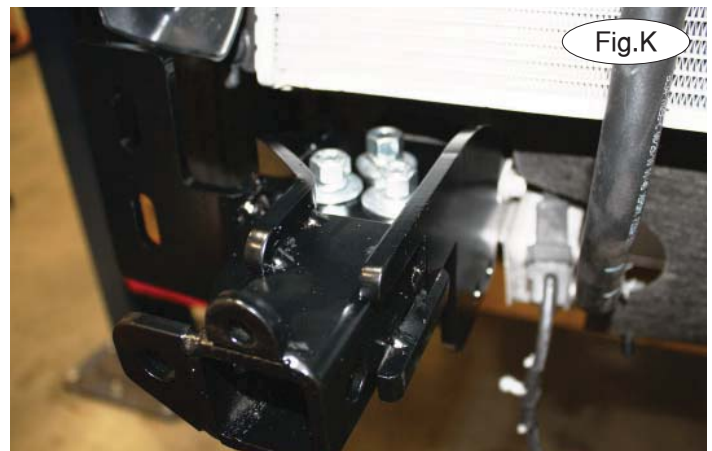
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6. **For F350 models only:** on each side, remove four 18mm (head) bolts and bolt plates attaching the bracket to the end of the frame rail (Fig.H). The bracket will not be replaced. Retain the hardware for reinstallation in step 10.

7. On each side, remove three 15mm (head) bolts attaching the tow hook to the frame rail (Fig.I). *Note:* the tow hooks and hardware will not be replaced. Retain the tow hooks and attachment hardware for replacement in case the bracket is ever removed.



8. On the passenger side only, remove the plastic fastener attaching the engine block heater to the side of the frame rail (Fig.J).

9. Working on the passenger side, place the main receiver brace over the end of the frame rail and using three of the supplied $\frac{1}{2}$ " x $1\frac{3}{4}$ " bolts, bolt through the tow hook mount and through the main receiver brace. Finish with a $\frac{1}{2}$ " flat washer, lock washer and nut (Fig.K). Due to manufacturing variances, the holes may need to be enlarged to $\frac{1}{2}$ ". *Note:* use Loctite® Red on all bolts used for mounting this bracket.

10. **For F350 models only:** use the hardware from step 6 to attach the main receiver brace to the frame rail. **For all other models:** use the four supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolts, lock washers and nuts to attach the main receiver brace to the frame rail (Fig.L).





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11. Torque all bolts to the bolt torque requirements found at the end of these instructions.
12. Repeat steps 9 through 11 for the driver's side
13. Zip tie the engine block heater to the oil cooler line (Fig.M).
14. Reinstall the fascia, reversing steps 1 through 5.
15. Fit the front bracket arms into the front receiver braces.
16. Install the tow bar to the mounting bracket according to the manufacturer's instructions. Connect the safety cables to the safety cable tabs illustrated on the first page of these instructions.



Fig.M

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.