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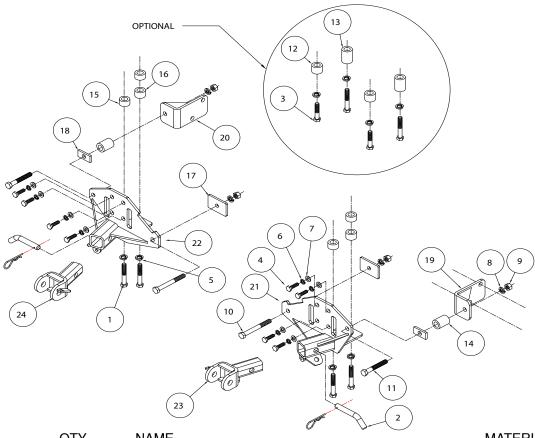
# BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 341-3 07/31/13

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

#### **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.



ITEM	QTY	NAME	MATERIAL
1	4	12mm x 1.25 x 80 mm BOLT	357111-00
2	2	DRAW PIN/SPRING PIN	357035-00
3	4	12mm x 1.25 x 60 mm BOLT	357007-00
4	8	10mm x 1.25 x 35 mm BOLT	356202-00
5	8	12mm LOCK WASHER	355725-00
6	8	10mm LOCK WASHER	355715-00
7	8	10mm FLAT WASHER	355710-00
8	4	1/2" LOCK WASHER	350309-00
9	4	1/2' HEX NUT	350258-00
10	2	1/2" x 4 1/2" BOLT	350106-00
11	2	1/2" x 3 1/2" BOLT	350103-00
12	2	1 1/4" O.D. x .250 WALL TUBE x 1"	A-000945
13	2	1 1/4" O.D. x .250 WALL TUBE x 1 7/8"	A-001011
14	2	1 1/4" O.D. x .250 WALL TUBE x 1 5/8"	A-001067
15	4	1 1/4" O.D. x .250 WALL TUBE x 3/4"	A-000559
16	2	1 1/4" O.D. x .250 WALL TUBE x 7/8"	A-000581
17	2	3/16" x 2" x 3" BACKING PLATE	A-000147
18	2	3/16" x 1" x 2" BACKING PLATE	A-000842
19	1	DRIVER SIDE BRACE	
		PASSENGER SIDE BRACE	
21	1	DRIVER SIDE RECEIVER	
22	1	PASSENGER SIDE RECEIVER	
23	1	DRIVER SIDE ARM	
24	1	PASSENGER SIDE ARM	



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This bracket kit is one of our MX series with removable front braces. The kit consists of two rear receiver braces which mount inside the front frame tubes, two inner braces, two rear braces and removable front braces (Fig. A). Everything but the front arm braces install behind the bumper fascia. The front bumper will have to be removed for the installation.



**IMPORTANT:** All baseplates **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 and lock washers on all fasteners.

#### **WARNING**

Failure to heed these warnings or follow the installation instructions may result in a voided warranty, loss of towed vehicle, personal injury or death.

- Do not weld or modify this baseplate or its components. Welding or modification will void the warranty.
- Do not use this document as a basis to design/fabricate a baseplate, as it may not show all parts or structural components.
- We strongly recommend professional installation.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the baseplate. Do not install the baseplate if any structural frame damage is found.
- The installer must use all bolts and parts supplied. If running changes were made by the vehicle manufacturer after this kit was designed, some bolts or other fasteners may no longer be the correct size. It is the installer's responsibility to verify this kit is securely fastened to the vehicle.
- Use Loctite® Red on all bolts used to secure this baseplate. Torque all bolts to the specifications found at the end of these instructions. Do not over-torque the bolts or failure may occur.
- The installer must inspect the baseplate to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc. or non-warranty failure may result.
- Roadmaster manufactures many styles of baseplates. If your baseplate 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.
- Some motorhome chassis have such a tight turning radius that you
  can damage your motorhome, towed vehicle, tow bar or baseplate
  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 your 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 or vehicles.
- 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. See cable instructions for proper routing. Failure to do so will result in non-warranty damage and/or the loss of the towed vehicle.
- This kit is designed for use with ROADMASTER tow bars and ROADMASTER adapters only. Using this kit with other brands, without an approved ROADMASTER adapter, may result in nonwarranty damage or injury.
- Receiver extensions and out-of-level towing situations of 3 inches or more. This can cause the system to swing much higher and lower, causing excessive strain on the tow bar, baseplate and frame. That can cause the towing system to fail, causing property damage, personal injury or even death. If you must use a receiver extension or drop hitch to tow, it will reduce your receiver's weight capacity by 1/3 to avoid damaging your system. Never use more than one extension and/or drop hitch, as this will void your warranty.
- Every 3,000 miles, the owner must inspect all mounting points for cracks or fatigue, and check the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions.
- The owner must follow the vehicle manufacturer's instructions to prepare the vehicle for towing. Failure to do so may cause severe damage to the vehicle.
- This baseplate is only warranteed for the original installation.
   Installing a used baseplate on another vehicle is not recommended and will void the warranty.



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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.

- 1. Starting on the top of the grille, release four grille catches on the top of the grill and three on the bottom by twisting counter clockwise (Fig.B,C), then pull forward to remove the grille.
- 2. Remove two bolts on each side (12mm head) from the top of the bumper (Fig. D) then two more bolts (12mm head) on each side in the bumper side braces (Fig.E).













3. If your vehicle is equipped with a lower skid plate, remove the lower skid plate (4-8mm allen head bolts and two 10mm head bolts) (Fig.F,G) then set aside.







- 4. Unplug the foglights on each side if your vehicle is so equipped (Fig.H).
- 5. Remove two more bumper bolts (12mm head) located beside the tow hooks on each side (Fig.I) then pull forward to remove the bumper fascia (Fig.J).



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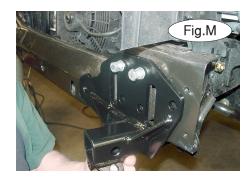
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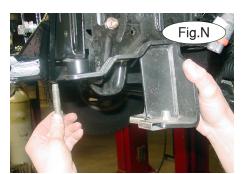
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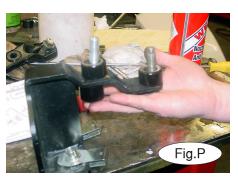




- 6. Now remove the tow hooks (two 17mm head) bolts (Fig.K). Note: This portion of the tow hooks will be remounted (Fig.L).
- 7. Bolt the main receiver braces to the front of the frame on each side with four 10mm x 1.25 x 35mm bolts and lock washers (Fig.M).







8. For vehicles with a skid plate, bolt through the lower front receiver braces mounting hole and the skid plate mounting brackets on each side using a 3/4" spacer and the original tow hook mounting bolts (Fig.N,O). Use supplied 12mm x 1.25 x 80mm bolts with 3/4" spacers on top and 7/8" spacers below in the rear holes (Fig.O). Figure P shows the basic assembly without the mounting plate.



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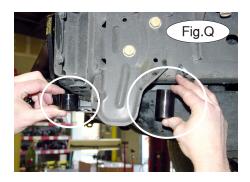
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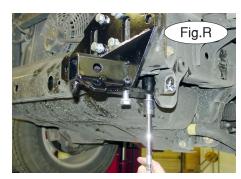
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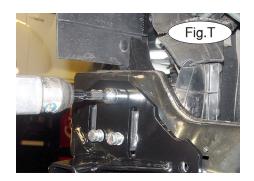
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- 9. For vehicles not equipped with a skid plate, insert a 1" spacer between the frame and the receiver brace for the front mounting point. For the rear mounting point insert a 1-7/8" spacer between the frame and the receiver brace (Fig.Q). Now, bolt through the receiver brace, pipe spacer and the bottom of the frame (Fig.R). The front mounting point uses a 12mm x 1.25 x 60mm bolt and lock washer. The rear mounting point uses a 12mm x 1.25 x 80mm bolt and lock washer.
- 10. Tighten all the mounting bolts installed so far starting with the lower front bolts (Fig.S) then four front bolts on each side (Fig.T) then the rear most lower bolts (Fig.U).





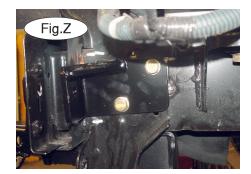








- 11. Using the receiver braces as templates drill two 17/32" front holes through the bumper core on each side (Fig.V) using protection for the radiator behind the bumper core.
- 12. Bolt through the receiver braces, the bumper core and 3/16" x 2" x 3" backing plates on each side with 1/2" x 4 1/2" bolts, lock washers and nuts (Fig.W,X).
- 13. Working on one side at a time, mark the bumper core side brace as shown (Fig.Y), then remove the two lower mounting bolts. Hold the rear side brace over the side brace and bolt in place over the bumper core side brace. Realign the marks and tighten the mounting bolts to hold everything in position (Fig.Z).





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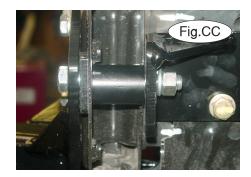
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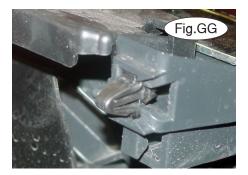
- 14. Drill another 17/32" hole through the bumper core using the main receiver brace as a template in the front and the rear side brace as a template on the rear of the bumper core (Fig.AA).
- 15. Fit a 3/16" x 1" x 1 1/2" spacer plate between the receiver brace and the bumper core (Fig.BB) then a 1 5/8" spacer in the bumper core over the drilled holes. Now bolt through the receiver brace, bumper core, spacer plate, 1 5/8" spacer, and the rear side brace with a 1/2" x 3 1/2" bolt, lock washer and nut (Fig.CC).







- 16. Repeat step 15 for the remaining side then tighten all bolts to the torque specifications on the last page (Fig.DD).
- 17. Mount the bumper reversing steps 2 through 4 (Fig.EE).
- 18. Remove the grille keepers from the front of the vehicle (Fig.FF) and insert in the grille (Fig.GG), then remount the grille and the skid plate removed in step 2.
- 19. Install the front braces in the receiver tubes and pin in place with 5/8" draw pins and 3/16" spring pins (Fig.HH).
- 20. Connect the safety cables to the safety cable tabs illustrated on the first page of these instructions.
- 21. Install the tow bar 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			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	150 ft./lb.						