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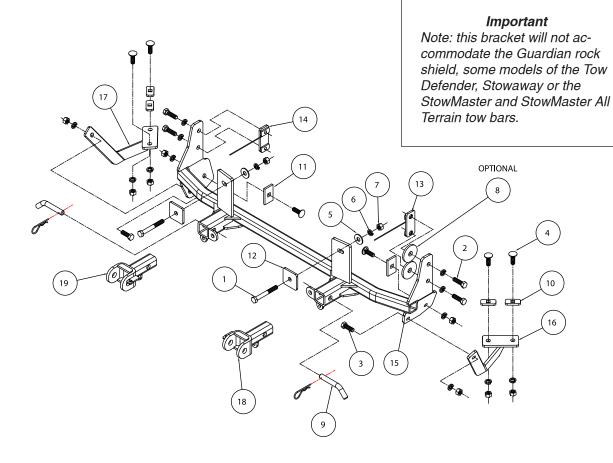
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# BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 1189-3

03/25/10

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



MATERIAL
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his 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, front braces, 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 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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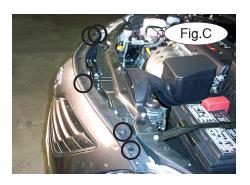
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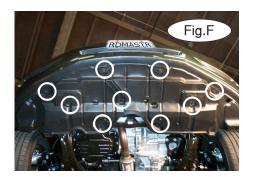
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- 1. *Important:* please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation by removing two plastic fasteners, two Phillips head screws, and one 10mm (head) bolt attaching the top of the fascia to the core support (Fig.C).
  - 2. On each side, remove one plastic fastener attaching the fender liner to the edge of the fascia (Fig.D).
  - 3. On each side, remove three 10mm (head) bolts attaching the lower splash shield to the fender liner (Fig.E).







- 4. Remove four 10mm (head) bolts and five plastic fasteners attaching the lower splash shield to the subframe and fascia (Fig.F).
- 5. On each side, pull back the fender liner and remove one 10mm (head) bolt attaching the corner of the fascia to the fender (Fig.G).
  - 6. Disconnect the fog lights, if the vehicle is so equipped.
- 7. Pull out and forward on the corners of the fascia to remove it from the locking track (Fig.H). Lift up and pull forward on the top of the fascia to remove it (Fig.I).







- 8. Cut off the stud on both sides (Fig.J).
- 9. Temporarily remove the foam shock absorption pad by pulling forward (Fig.K).



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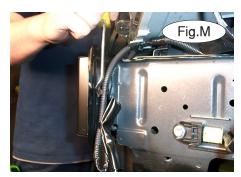
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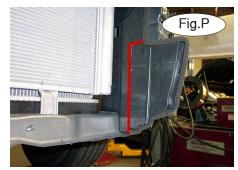






- 10. Remove five plastic fasteners attaching the wiring harness to the top of the bumper core. There are three in the center (Fig.L) and one on each end (Fig.M).
- 11. On each side, remove three 14mm (head) bolts attaching the bumper core to the ends of the frame rail (Fig.N).

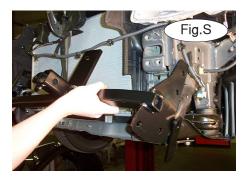


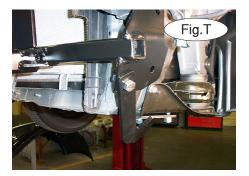




- 12. Trim the lower portion of the two air deflectors. Use the red lines in Figure O to trim the passenger side; use the red lines in Figure P to trim the driver's side.
- 13. Starting on the driver's side, place two  $\frac{1}{2}$ " x  $\frac{1}{2}$ " carriage bolts and two 1" x 2" backing plates and through the two holes located to each side of the large, pre-existing hole in the frame support (Fig.Q). Repeat this process for the passenger side.







- 14. Place the driver's side and passenger side lower braces over the carriage bolts and bolt them into place using  $\frac{1}{2}$ " lock washers and nuts (Fig.R driver's side).
- 15. Slide the main receiver brace over the sides of the frame (Fig.S) and bolt the main brace to the lower braces using two  $\frac{1}{2}$ " x  $\frac{1}{2}$ " bolts, lock washers and nuts (Fig.T).
- 16. Temporarily replace the bumper core. *Note:* it's only necessary to install one bolt on each side.





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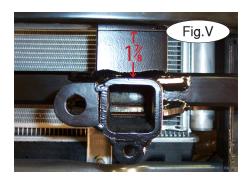
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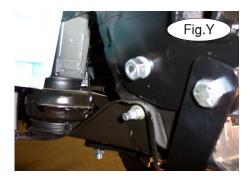






- 17. Slide the main receiver brace up so that the receivers are 1-7/8" from the bumper core (Fig.V).
- 18. Tighten the six lower brace bolts to the torque specifications found at the end of this document.
- 19. On each side, fishwire a  $\frac{1}{2}$ " x  $\frac{1}{2}$ " carriage bolt and a  $\frac{1}{2}$ " x  $\frac{2}{2}$ " backing plate through the opening to the inside of the radiator support, through the radiator support and into the main receiver brace (Fig.W passenger side). Figure X shows the completed fishwiring.

Bolt into place using ½" lock washers and nuts (Fig.Y). Tighten to the bolt torque requirements found at the end of this document.

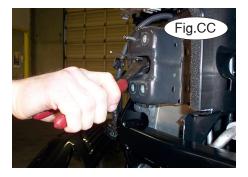






- 20. Using the two existing upper holes in the main receiver brace as templates, drill through the outside of the frame rail (Fig.Z). *Note:* the main receiver brace does not line up with the existing holes in the side of the frame rail.
- 21. Remove the clamps from the bumper core. Remove the two bolts you installed in step 16.
- 22. Working on the passenger side, place a  $1\frac{1}{2}$ " x 3-3/16" backing plate into the end of the frame rail (Fig.AA) and bolt through the main receiver brace, frame rail and into the backing plate using a  $\frac{1}{2}$ " x  $\frac{13}{4}$ " bolt and lock washer (Fig.BB).







- 23. Using a pair of side cutters, cut the end of the wire (Fig.CC).
- 24. Repeat steps 22 and 23 for the driver's side, placing two 5/8" plate washers between the frame rail and the main receiver brace (Fig.DD).



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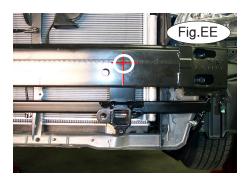
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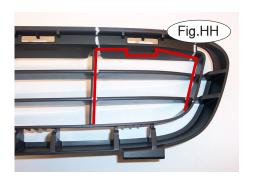






- 25. Replace the bumper core and tighten to the bolt torque requirements found at the end of this document.
- 26. Mark a line on the bumper core directly over the center of the main receiver brace (Fig.EE). Now, drill a ½" hole through the center of the weld seam directly over the center of the main receiver brace.

On each side, place a  $2\frac{1}{2}$ " x  $2\frac{1}{2}$ " backing plate over one of the supplied 4" bolts. Place the bolt through the bumper core and through the center support of the main receiver brace (Fig.FF). Bolt into place using a  $\frac{1}{2}$ " flat washer, lock washer and nut (Fig.GG).







- 27. For '07 to '09 models: trim both sides of the grille using the red lines in Figure HH as a guide. For '10 models: trim both sides of the grille using the red lines in Figure II as a guide.
- 28. Hold the foam shock absorption pad up to the bumper core. Mark it for trimming to allow for clearance of the bolt head and backing plate (Fig.II).
- 29. Reinstall the fascia, reversing steps 1 through 7.
- 30. Hold the splash guard in place and trim it to allow clearance for the main receiver brace (Fig.JJ and Fig.KK).
- 31. 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.
- 32. Install the tow bar according to the manufacturer's instructions. Attach the ends of the safety cables to the tow vehicle's safety cables.



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#### **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.						