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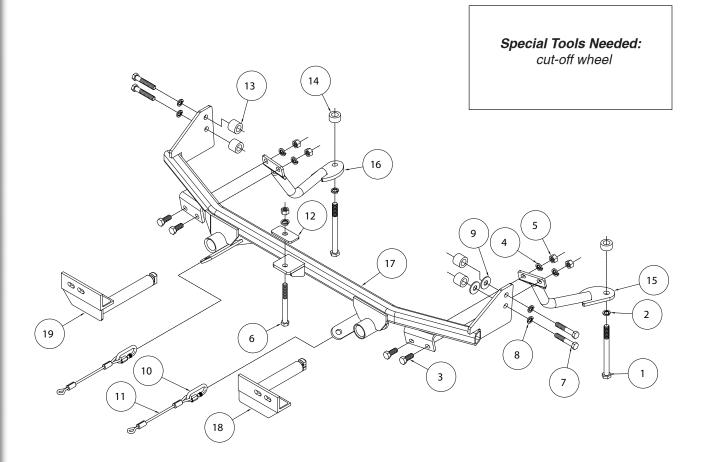
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BASEPLATE KIT KIT# 523170-1 INSTALLATION INSTRUCTIONS 12/08/11

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



ITEM QTY NAME	MATERIAL
1214mm x 2.0 x 140mm BOLT	355910-00
2214mm LOCK WASHER	
341/2" x 1 1/4" BOLT	
451/2" LOCK WASHER	350095-00
551/2" HEX NUT	350258-00
61/2" x 5" BOLT	
7412mm x 1.75 x 70mm BOLT	
8412mm LOCK WASHER	
92." 1/2" FLAT WASHER	
102QUICK LINK	
1128" SAFETY CABLE	650646-08
1213/16" x 1 1/2" x 3" BACKING PLATE	
134	
142	
151DRIVER SIDE BRACE	
161	
171MAIN RECEIVER	
191PASSENGER SIDE ARM	C-002279



KIT# 523170-1

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his is one of our EZ 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 rear support braces, two upper support braces, two removable front braces and a hardware pack.

The main receiver brace mounts to the bumper core and frame rails. The rear support braces are attached to the main receiver brace and frame rails. The upper support braces are attached to the main receiver brace and the frame. 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 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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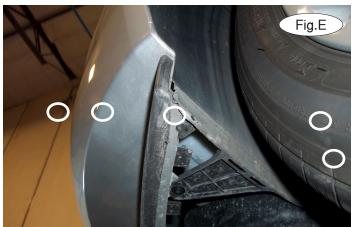
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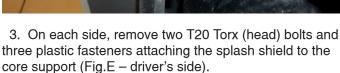
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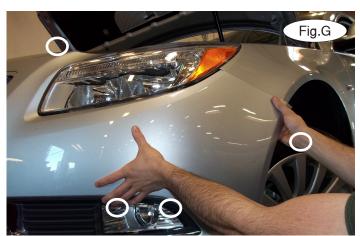
- 1. *Important:* please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation by removing two 10mm (head) bolts and four plastic fasteners attaching the top of the fascia to the core support (Fig.C).
- 2. On each side, remove three T20 Torx bolts attaching the fender liner to the fascia (Fig.D).





- 4. Pull out and forward on the corners of the fascia to remove it (Fig.F). *Note:* disconnect the fog lights, side marker lights and ambient temperature sensor, if the vehicle is so equipped.
- 5. On each side, remove the headlight by removing four 7mm (head) bolts and unplugging two connectors (Fig.G).







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- 6. Remove one 10mm (head) bolt attaching the cold air intake to the core support (Fig.H).
- 7. Remove the front half of the cover around the cold air intake (Fig.I).





- 8. Disconnect the cold air intake from the air box beneath the passenger side headlight (Fig.J). Disconnect the air box from the core support by pushing in on the lower air box to release the rubber grommets. Let the piece hang down for now (Fig.K).
- 9. Release one plastic clip attaching the air conditioning line to the frame (Fig.L).





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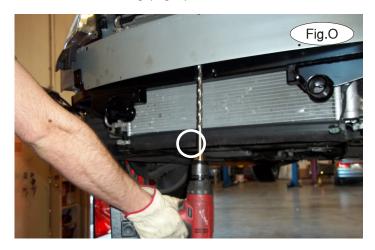
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- 10. On each side, trim the lower half of the air deflector to allow clearance for the main receiver brace (Fig.M).
- 11. On each side, trim a section of the splash shield covering the subframe bolt. Use the yellow lines in Figure M as a reference for trimming (Fig.N).





- 12. On the driver's side, remove the 13mm nut attaching the horn to the frame (Fig.O).
- 13. On each side, remove two 18mm (head) bolts attaching the bumper core to the frame rail (Fig.P).
- 14. Place the main receiver brace on the vehicle, pushing it up against the bottom of the bumper core. Now, clamp it to the bumper core (Fig.Q).





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15. Starting with the lower hole of the driver's side main receiver brace, place a 1" x 1" pipe spacer and ½" flat washer between the main receiver brace and the frame. Now, place one of the 12mm lock washers over the supplied 12mm x 1.75 x 70mm bolts, and bolt through the main receiver brace, flat washer, pipe spacer, and into the frame. Repeat this process for the upper hole (Fig.R). *Note:* use Loctite® Red on all bolts used for mounting this bracket.





- 16. Repeat step 15 for the passenger side of the vehicle. *Note:* the flat washers are not used on the passenger side.
- 17. Tighten the bumper core bolts to the bolt torque requirements found at the end of these instructions.
- 18. Remove the clamp from the center mounting point and using the pre-existing hole in the main receiver brace as a template, drill a $\frac{1}{2}$ " hole through the bottom and top of the bumper core (Fig.S).
- 19. Using one of the supplied $\frac{1}{2}$ " x 5" bolts, bolt up through the main receiver brace and the bumper core and into a 3/16" x $1\frac{1}{2}$ " x 3" backing plate. Finish with a $\frac{1}{2}$ " lock washer and nut (Fig.T).
- 20. Support the subframe with a jack stand (Fig.U).
- 21. On each side, remove the 21mm (head) subframe bolt and bushing cup (Fig.V). The bolts will not be replaced. *Note:* retain the bolts for replacement in case the bracket is ever removed.





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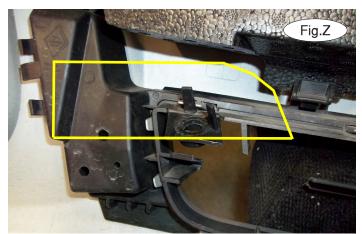
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22. Starting with the driver's side, place one of the supplied $14\text{mm} \times 2.0 \times 140\text{mm}$ bolts through the rear mounting point of the lower support brace. Now, place one of the supplied $1\frac{1}{4}$ " x 5/8" x .250 wall pipe spacers and the bushing cup over the bolt and bolt up into the subframe (Fig.W).





- 23. Using two of the supplied $\frac{1}{2}$ " x $1\frac{1}{4}$ " bolts. bolt through the upper mounting points of the lower support brace and into the main receiver brace (Fig.X).
- 24. Repeat steps 22 and 23 for the passenger side of the vehicle.
- 25. Torque the remaining bolts to the bolt torque requirements found at the end of these instructions.
- 26. Make certain the air conditioning line is not contacting the main receiver brace or the lower support brace. If it is, bend it slightly out of the way (Fig.Y).
- 27. On each side, trim the upper outer section of the grille opening to allow clearance for the main receiver brace. Use the yellow lines in Figure Z as a guide for trimming.
- 28. The Active Grille Shutters will need to be trimmed to allow clearance for the main receiver brace. Using a screwdriver, remove the top shutter by releasing six plastic pins (Fig. AA).





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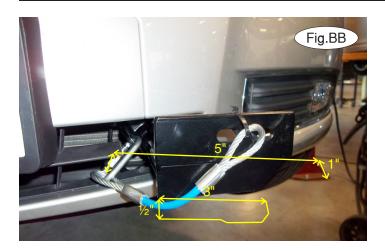
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- 29. On the shutter below the one you just removed, measure over 1" from the end, mark and then measure and mark another 3". Use a cut-off wheel to trim a $\frac{1}{2}$ " x 3" section from the second shutter. Now, trim a 1" x 5" section from the top of the front bumper shutter bracket. Use the yellow lines in Figure BB as a guide for trimming.
- 30. Reassemble the fascia, reversing steps 1 through 9.
- 31. Insert the removable front bracket arms into the front receiver braces, and twist each one 90 degrees to lock.
- 32. Attach the 8" safety cables with the cable connectors (Q-Links) to the front of the receiver braces (Fig.CC).
- 33. Attach the ends of the safety cables to the tow vehicle's safety cables.

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.						