

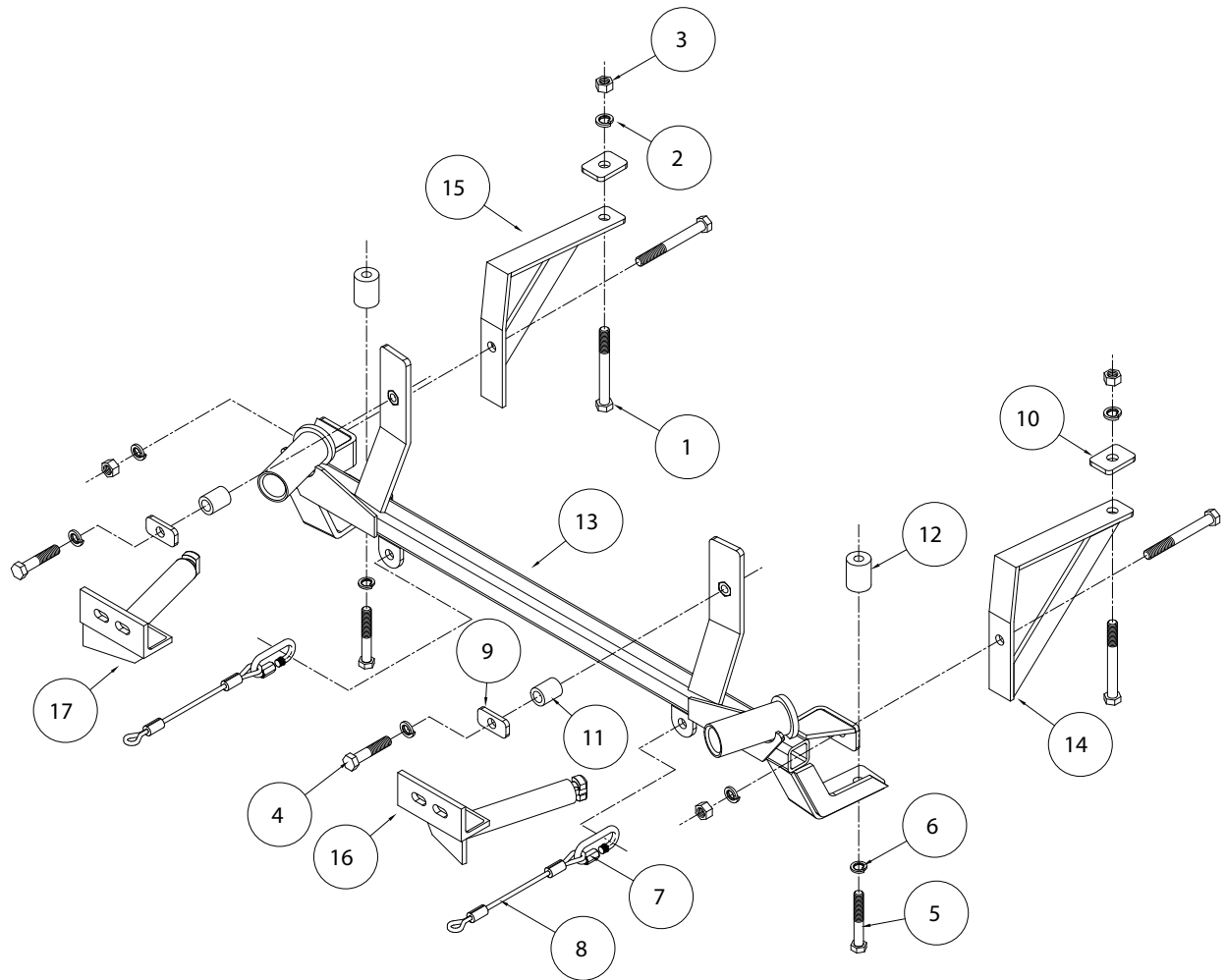


# BASEPLATE KIT INSTALLATION INSTRUCTIONS

**KIT# 523161-1**

08/18/09  
RV

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



ITEM	QTY	NAME	MATERIAL
1.....	4.....	1/2" x 4 1/2" BOLT.....	350106-00
2.....	6.....	1/2" LOCK WASHER.....	350309-00
3.....	4.....	1/2" HEX NUT.....	350258-00
4.....	2.....	1/2" x 2 1/2" BOLT.....	350099-00
5.....	2.....	12mm x 1.25 x 80 mm BOLT.....	357111-00
6.....	2.....	12mm LOCK WASHER.....	355725-00
7.....	2.....	QUICK LINK.....	200008-00
8.....	2.....	SAFETY CABLE 12".....	650646-12
9.....	2.....	1/4" x 1" x 2" ROUND HOLE BACKING PLATE.....	A-000842
10.....	2.....	1/4" x 1 1/2" x 2" ROUND HOLE BACKING PLATE.....	A-000122
11.....	2.....	1" O.D. x 0.188 WALL TUBE x 1 1/4".....	A-001493
12.....	2.....	1 1/4" O.D. x 0.375 WALL TUBE x 1 5/8".....	A-000909
13.....	1.....	MAIN RECEIVER.....	C-001885
14.....	1.....	DRIVER SIDE BRACE.....	C-001886
15.....	1.....	PASSENGER SIDE BRACE.....	C-001887
16.....	1.....	DRIVER SIDE ARM.....	C-001888
17.....	1.....	PASSENGER SIDE ARM.....	C-001889



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This is one of our EZ2 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 removable front braces and a hardware pack. The main receiver brace mounts to the bumper core, radiator support and frame rails. The rear support braces are attached to the main receiver brace and frame rails. 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.



**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 non-warranty 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 warranted for the original installation. Installing a used baseplate on another vehicle is not recommended and will void the warranty.

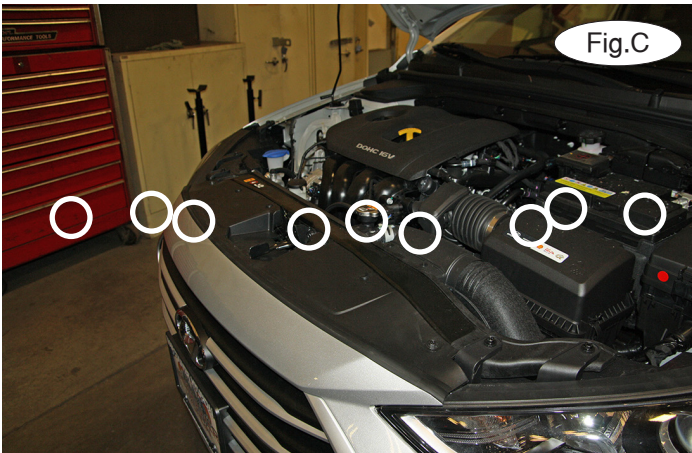


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1. Remove nine plastic fasteners attaching the top of the fascia to the core support (Fig.C).
2. Remove three plastic fasteners attaching the inside of the fascia to the bumper core. They are located behind the grille.  
*Note: one fastener is underneath the plastic tab (Fig.D).*



3. On each side, remove three 10mm (head) bolts attaching the headlight to the core support (Fig.E – driver's side).  
Now, unplug the three electrical plugs on each side (Fig.F – driver's side) and set the headlights aside.
4. On each side, remove one 7mm (head) screw attaching the fascia to the front corner of the fender (Fig.G).



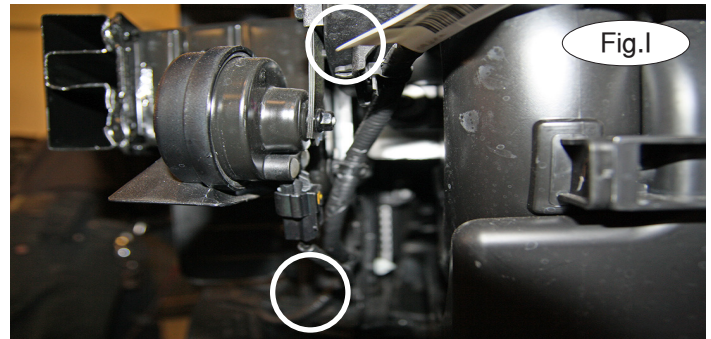
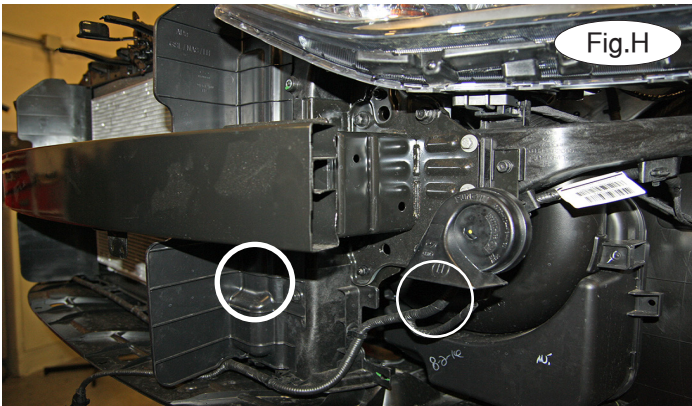


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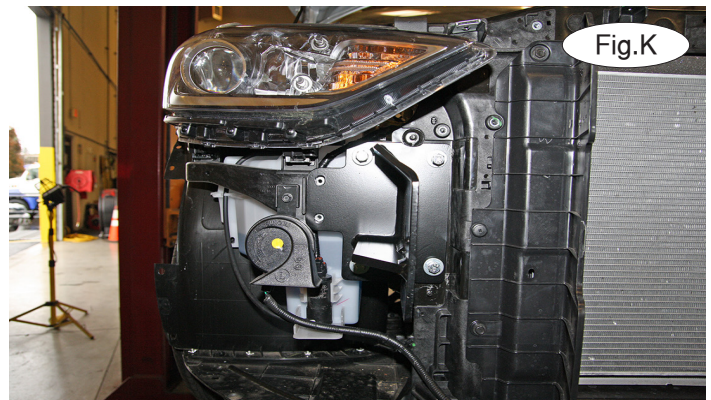
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5. On each side, remove two plastic fasteners attaching the fascia to the core support (Fig.H).
6. Remove two plastic fasteners and one Phillips head screw attaching the fascia to the bottom of the core support. *Note:* there is one fastener on each side and one in the middle (Fig.I).



7. On each side, remove three 7mm (head) screws attaching the fender liner to the fascia (Fig.J – driver's side).
8. Pull back the fender liners and disconnect the fog lights, if the vehicle is so equipped.
9. On each side, remove one 7mm (head) screw attaching the fascia to the back corner of the fender (Fig.K).
10. Pull forward on the fascia to remove it (Fig.L).





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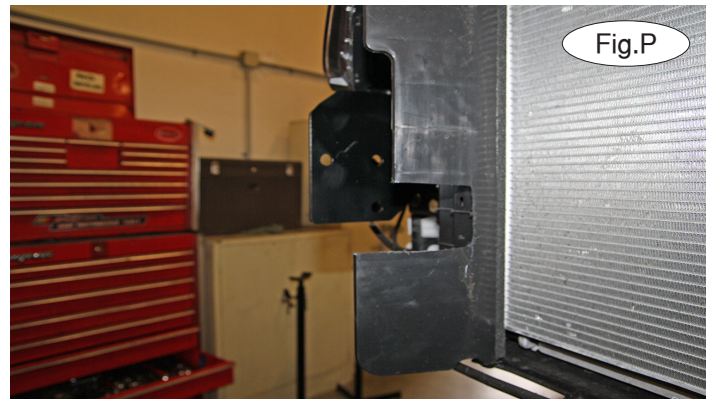
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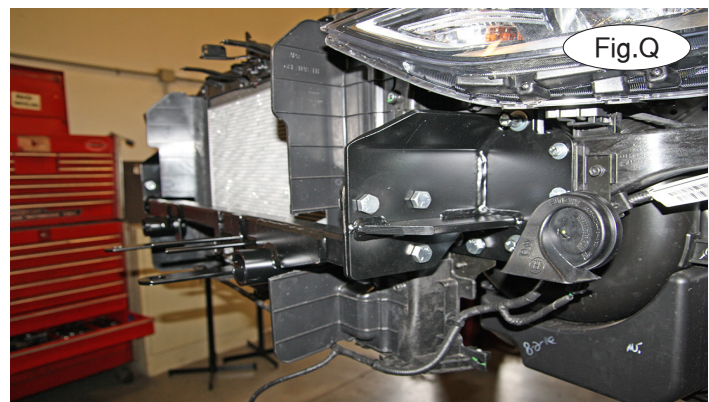
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11. Pull forward on the foam shock absorption pad to remove it (Fig.M).
12. Locate the passenger side aluminum auxiliary port on the air conditioner. Grind off approximately  $\frac{1}{4}$ " at a 45-degree (Fig.N). On each side, cut off two studs on the side of the radiator support (Fig.O).



13. On each side, place a 12mm lock washer over one of the supplied 12mm x 1.25 x 80mm bolts, and place it through the bottom mounting point of the main receiver brace. Place a  $1\frac{1}{4}$ " x 1-5/8" spacer on the top side of the bolt.
14. Lift the main receiver brace into place under the radiator support and bolt into the existing weld nuts in the bottom of the radiator support (Fig.P).
15. Using a die grinder or drill, enlarge the two existing holes in the face of the bumper core to  $\frac{1}{2}$ " (Fig.Q).



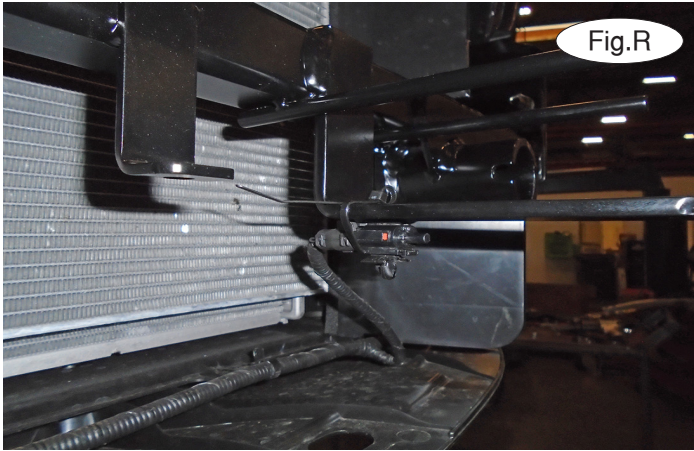


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16. On each side, place a  $\frac{1}{2}$ " lock washer and a  $\frac{1}{4}$ " x 2" backing plate over a  $\frac{1}{2}$ " x  $2\frac{1}{2}$ " bolt and bolt through the holes you enlarged in step 15 (Fig.R).

17. On each side, place a 1" x  $1\frac{1}{4}$ " spacer between the back of the bumper core and the upper mounting point of the main receiver brace. Bolt through the bumper core and spacer and into the weld nut in the upper mounting point of the main receiver brace (Fig.S).



18. Beginning with the bolts installed in step 14, tighten the bolts to the bolt torque requirements found at the end of these instructions.

19. On each side, using a  $\frac{1}{2}$ " drill bit and the center mounting point of the main receiver brace as a template, drill a  $\frac{1}{2}$ " hole through the front of the radiator support (Fig.T). *Note:* use a piece of metal as a buffer between the drill bit and the engine components.

20. On the passenger side only, remove one 10mm nut and one 10mm (head) bolt attaching the bottom of the splash shield to the core support (Fig.U). Pull the corner of the splash shield down to gain access for the rear support brace.



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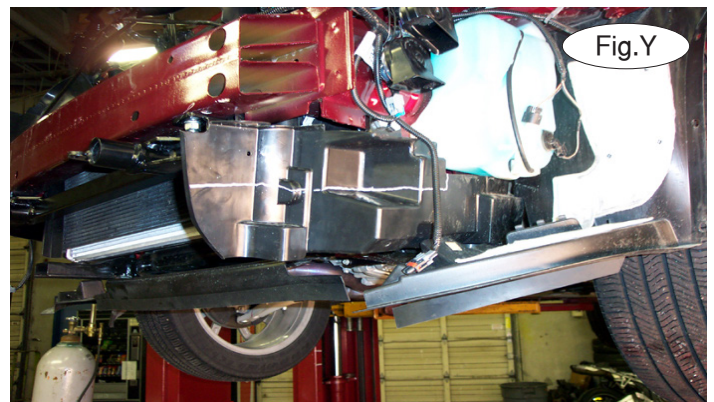
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21. Starting on the passenger side, place the rear support brace into the corner of the frame rail and the back of the radiator support. Place a  $\frac{1}{2}$ " x  $4\frac{1}{2}$ " bolt through the rear brace, frame rail and into the main receiver brace, and finish with a  $\frac{1}{2}$ " lock washer and nut (Fig.V).

22. Using the back hole of the rear support brace and the existing hole in the frame rail as templates, drill a  $\frac{1}{2}$ " hole through the top of the frame rail (Fig.W). *Note:* use a piece of metal as a buffer between the drill bit and the engine components.



23. Place a  $\frac{1}{2}$ " x  $4\frac{1}{2}$ " bolt through the main receiver brace, frame rail and the hole you just drilled. Place a  $\frac{1}{4}$ " x  $1\frac{1}{2}$ " x 2" backing plate over the bolt. Finish with a  $\frac{1}{2}$ " lock washer and nut (Fig.X).

24. Repeat steps 21 through 23 for the driver's side of the vehicle. Tighten all bolts to the bolt torque requirements found at the end of these instructions.

25. Trim the two locating tabs on the shock absorption pad. Figure Y denotes the driver's side tab.



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26. Hold the fascia in place over the receivers and mark it for trimming. Figure Z shows the completed trimming.
27. Reinstall the fascia and air deflector by reversing steps 1 through 10.
28. Insert the removable front bracket arms into the front receiver braces, and twist each one 90 degrees to lock.
29. Attach the 8" safety cables with the cable connectors (Q-Links) to the front of the receiver braces (Fig.Z).
30. Attach the ends of the safety cables to the tow vehicle's safety cables.
31. Install the tow bar to the mounting bracket 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

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.