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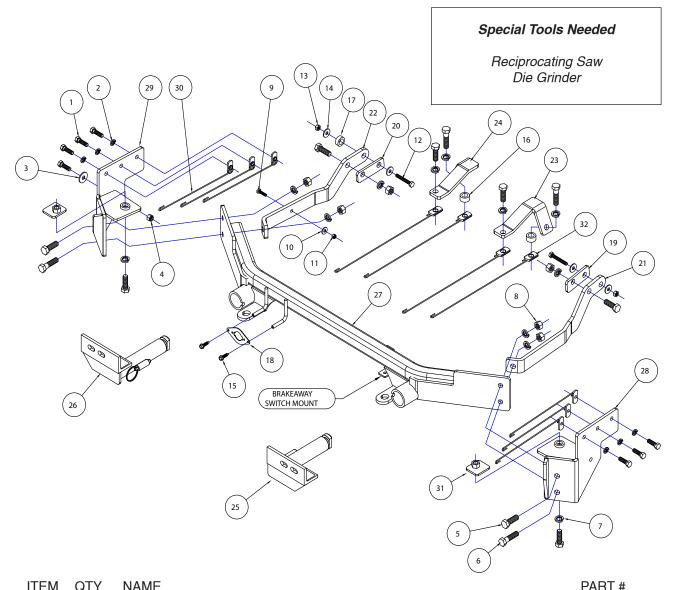
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BASEPLATE KIT KI INSTALLATION INSTRUCTIONS

KIT# 524443-4 05/02/18

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



TIEW QTI WAWE	FAILE#
173/8" x 1 1/4" BOLT	350056-00
263/8" LOCK WASHER	350305-00
313/8" FLAT WASHER	350304-00
413/8" NYLOCK NUT	
581/2" x 1 1/2" BOLT	350095-00
641/2" x 2" BOLT	350097-00
7121/2" LOCK WASHER	
861/2" HEX NUT	350258-00
91.1.4" x 1" BOLT	350005-00
101/4" FLAT WASHER	350300-00
111/4" NYLOCK NUT	350251-00
122	
132	356208-00
1448mm FENDER WASHER	355702-00
152#10 x 3/4" SELF DRILLING SCREW	350247-35
162	A-00061
171" O.D. x 0.188 WALL x 3/8" TUBE SPACER	
181WIRE PLUG PLATE	A-003801



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continued from previous page

19	1	DRIVER SIDE LOWER BRACE BACKING PLATE	A-005677
20	1F	PASSENGER SIDE LOWER BRACE BACKING PLATE	A-005678
21	1	ORIVER SIDE LOWER BRACE	.B-003426
22	1F	PASSENGER SIDE LOWER BRACE	.B-003427
23	1	ORIVER SIDE UPPER BRACKET	.B-003428
24	1F	PASSENGER SIDE UPPER BRACKET	.B-003429
25	1	ORIVER SIDE ARM	C-002813
26	1F	PASSENGER SIDE ARM	C-002814
27	1N	//AIN RECEIVER	C-002815
28	1	ORIVER SIDE BRACE	C-002816
29	1F	PASSENGER SIDE BRACE	C-002817
		8/8" TAB WELDNUT WITH 10" ROD	
31	23	3/16" x 1 3/4" x 2" THREADED BACKING PLATE	.C-003230
32	4 1	/2" TAB WELDNUT WITH 14" ROD	C-003231

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.



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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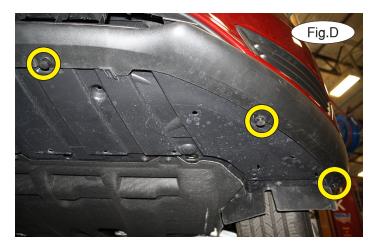




- 1. *Important:* please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. Start by removing two plastic fasteners and three T30 torx screws attaching the fascia to the core support (Fig.A). *Note*: due to manufacturing variances, there may be up to an additional four T30 Torx bolts and four plastic fasteners.
- 2. On each side, remove two T30 torx screws attaching the headlights to the vehicle (Fig.B). Disconnect the headlights, and set aside for now.



- 3. On each side, remove one plastic fastener and two T27 Torx screws attaching the fascia to the fender and the fender liner (Fig.C).
- 4. Now, on each side, remove three plastic fasteners attaching the splash shield to the fascia (Fig.D).
- 5. Pry the hood latch cable from the lever bracket, and then disconnect the cable from the lever (Fig.E).







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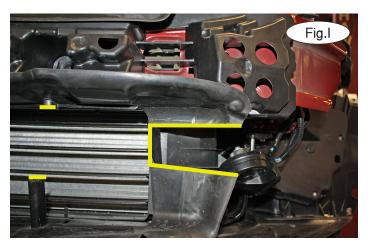
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- 6. On each side, remove the fascia by pulling out on the corners to release the locking strip (Fig.F), and then lift up on the core support tabs (Fig.G).
- 7. Remove the louver cowling by removing two T30 Torx screws attaching it to the frame (Fig.H) or use the yellow lines in Figure I as a reference for trimming to allow clearance for the main receiver brace.





- 8. On each side, remove three T30 Torx screws attaching the fender liner to the splash shield and one T30 Torx screw attaching the fender liner to the frame (Fig.J).
- 9. On the passenger side only, remove two 10mm (head) bolts attaching the washer bottle to the frame (Fig.K). Slide the bottle back to remove it. Drain the washer bottle, to be refilled later, or secure it away from the frame.







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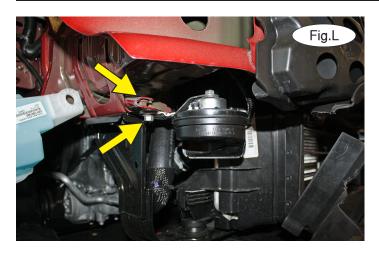
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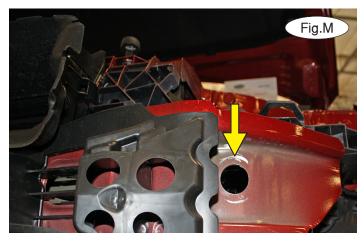
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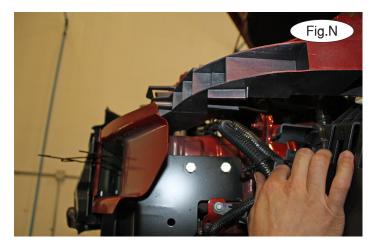
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- 10. Remove the driver's side 8mm bolt and passenger side 10mm bolt attaching the horns to the frame. They will be remounted in a later step. Then, on the passenger side only, bend the forwardmost washer bottle mount over 90 degrees (Fig.L).
- 11. On each side, use a ½" drill bit to drill through the face of the bumper, in line with the center of the frame rail. Then, enlarge the hole to 1¾" using a die grinder. This will allow access to the interior of the frame rail. Figure M shows the completed drilling indicated with a yellow arrow.





- 12. Disconnect the wiring loom from the driver's side frame. Then, place the driver's side brace against the side of the frame, aligning the three holes in the brace with the existing holes in the frame. Then, temporarily place 3/8" x 11/4" bolts in the two outermost holes. Place one of the 3/8" tab weld nuts with rod into the frame rail and align it with the center hole of the side brace (Fig.N). Bend the rod as necessary to fit it in the frame rail. Now, place one of the supplied 3/8" lock washers over a 3/8" x 11/4" bolt and bolt through the center hole of the side brace and into the tab weld nut. Repeat for the remaining two outer holes on each side after removing the bolts.
- 13. On each side, place one of the supplied 3/16" x 1%" x 2" backing plates with offset hole inside the frame, aligning it with the hole in the bottom of the frame and the side
- ing it with the hole in the bottom of the frame and the side brace. Place a $\frac{1}{2}$ " lock washer over a $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " bolt and bolt up through the side brace and into the backing plate (Fig.O).
- 14. Trim the shock absorption pad as shown in Figure P to allow clearance for the main receiver brace. Then, bend back or trim the rods from the tab weldnuts.



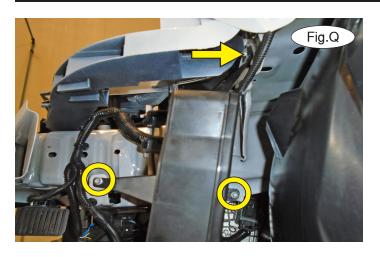
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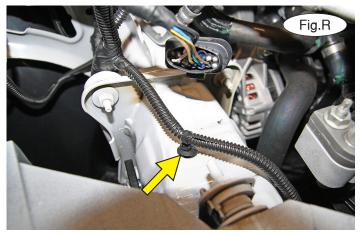
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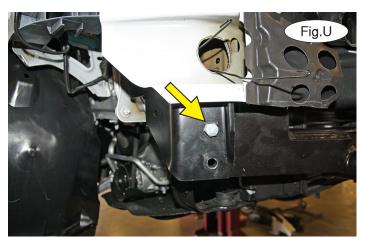


- 15. On the driver's side only, remove three 8mm (head) bolts attaching the computer box to the frame (Fig.Q). Secure it out of the way for now.
- 16. On each side, remove the plastic fastener attaching the wiring harness to the bumper core (Fig.R) and then use a ½" drill bit to enlarge the hole. Place the upper brace over the hole. Now, using a ½" x 1½" bolt and ½" lock washer, bolt down through the upper brace, frame rail and into a ½" tab weldnut with rod (Fig.S). Leave the bolt loose for now.





- 17. On each side, align the rearmost mount of the upper brace against the back of the flange. Then use the existing rear hole in the brace to drill through the frame rail. Place the 1/2" x 1" pipe spacer over the hole you just drilled, and then using a ½" x 2" bolt and ½" lock washer, bolt through the upper brace, pipe space, frame rail and into a ½" tab weldnut with rod (Fig.T).
- 18. On each side, place the main receiver brace up behind the side brace. Bolt the main bracket to the side brace using one of the supplied ½"x 1½" bolts, ½" lock washers and ½" nuts (Fig.U).





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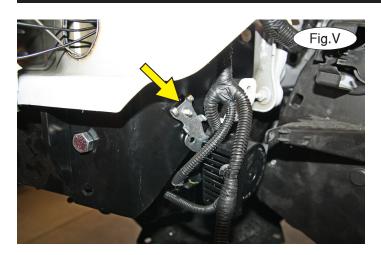
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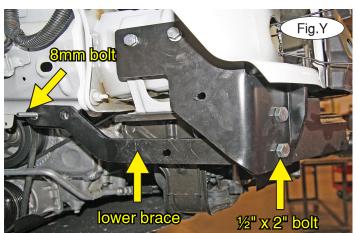
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- 19. On the driver's side only, bend the horn bracket and then re-attach it to the existing hole in the side brace using its hardware from step 10 (Fig.V). *Note:* bend the horn bracket as necessary to prevent the horns from contacting any other components.
- 20. Working on the passenger side, locate the existing hole in the pinch weld, forward of the washer bottle mount. Enlarge it using a $\frac{1}{2}$ " drill bit (Fig.W). Using the drawing on page 1 as a reference, locate the passenger side two-holed backing plate to ensure the proper installation, with the larger hole to the rear of the pinchweld and place it over the two holes (Fig.X). Then, using the supplied 8mm x 1.25 x 55mm bolt and 8mm fender washer, bolt from the inside of the pinch weld through the two-holed backing plate and the existing nut. Torque the bolt.





- 21. Now, place the lower brace over the bolt you installed in the previous step and bolt it to the side brace using the supplied $\frac{1}{2}$ " x 2" bolt. Finish with a $\frac{1}{2}$ " lock washer and $\frac{1}{2}$ " nut (Fig.Y).
- 22. Bolt through the remaining hole on the lower brace using a $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " bolt and finish with a $\frac{1}{2}$ " lock washer and nut (Fig.Z).





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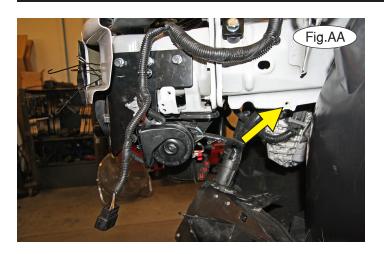
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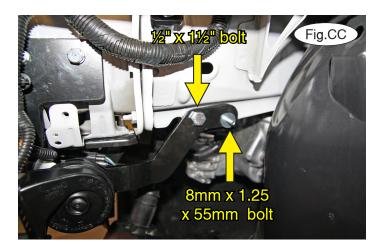
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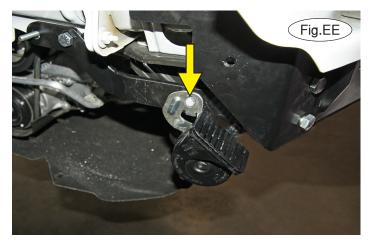
23. On the driver's side only, locate the slip nut on the pinch weld computer mount and remove it (Fig.AA). Then, take the lower brace and bolt it to the side brace as in step 22 using a $\frac{1}{2}$ " x 2" bolt. Finish with a $\frac{1}{2}$ " lock washer and $\frac{1}{2}$ " nut. Now, hold the lower brace firmly against the pinch weld and mark the forward hole and drill (Fig.BB). *Note:* the rear hole of the lower brace should align roughly with the computer mount.





- 24. Using the drawing on page 1 as a reference, locate the driver's side two-holed backing plate to ensure the proper installation and place it over the two holes. Then, bolt through the front hole on the lower brace using a $\frac{1}{2}$ " x $\frac{1}{2}$ " bolt and finish with a $\frac{1}{2}$ " lock washer and nut (Fig. CC). Now, using the supplied 8mm x 1.25 x 55mm bolt and 8mm fender washer, bolt from the inside through the two-holed backing plate, pinch weld and the lower brace and $\frac{5}{16}$ " fender washer over the bolt.
- 25. Reinstall the computer box, reversing step 15 but placing the lower mount over the 8mm x 1.25 x 55mm bolt you installed in the previous step and finishing with an 8mm x 1.25 nut (Fig.DD).
- 26. Remount the passenger side horn to the existing hole

in the lower brace using a ¼" x 1¼" bolt, ¼" flat washer and ¼" Nylock nut (Fig.EE). *Note:* bend the horn bracket as necessary to prevent the horns from contacting any other components.





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- 27. Place a 3/8" x 1" O.D. x .188 wall pipe spacer over the rear bolt that you installed in step 20. Then, reinstall the washer bottle but bolt the forwardmost mount to the side of the bracket using the supplied 3/8" x 1¼" bolt, 3/8" washer, and 3/8" nylock nut. Now, finish the rear bolt with a 5/16" fender washer and 8mm x 1.25 nut to secure the rear hole (Fig.FF).
- 28. Tighten all bolts to the bolt torque requirements found at the end of these instructions. *Note:* use Loctite® Red on all nuts and bolts.
- 29. Trim the fascia as shown in Figure GG.
- 30. Reinstall the fascia, reversing steps 1-6, and 8.





31. Note: the following four images are for illustration purposes only, as your specific application may be slightly different.

The spring-loaded pin on the removable arm snaps into a notch on the receiver, locking the removable arm into its final towing position. Before inserting each arm into the receiver, verify that the spring is working by ensuring that the spring-loaded pin moves easily back and forth within the barrel when pulled and that it can be pulled flush with the face of the barrel (Fig.HH and Fig.II).



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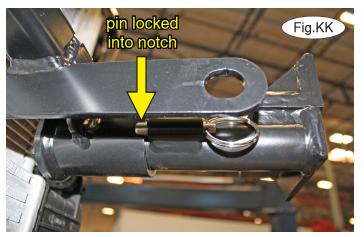
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32. On each side, insert the removable front bracket arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver (Fig.JJ). Now, twist back 90 degrees until the spring-loaded pin snaps into place in the notch on the receiver, locking the arm into place in its final towing position (Fig.KK).

Please note: it is the owner's responsibility to ensure the locking of the pins before towing. Otherwise, failure of the towing system will result.

33. Install the tow bar to the mounting bracket according to the manufacturer's instructions.



IMPORTANT!

Safety cables are required by law. When towing, connect safety cables to the safety cable tab shown in Figure LL. Make certain there is adequate slack in the cables to allow a full turning radius; otherwise, damage will result. If necessary, longer cables or cable extensions are available.



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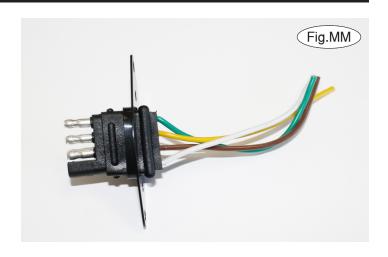
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Three options for attaching the wiring plug to the main receiver brace

For six-wire plugs: use the two supplied ¾" self-tapping screws to attach the electrical plug directly to the rods on the front of the main receiver brace.

For four-wire round plugs: attach to the plug mounting plate and then use the two supplied 3/4" self-tapping screws to attach the mounting plate to the rods on the front of the main receiver brace.

For four-wire flat plugs: place the plug through the mounting plug plate, and then secure it using the supplied zip tie on the front of the plug (Fig.MM). Use the two supplied 3/4" self-tapping screws to attach the mounting plate to the rods on the front of the main receiver brace.



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 Torque	Thread Size Grade Torque	
5/16-185	6mm-1.08.86 ft./lb.	12mm-1.258.8 64 ft./lb.	
3/8-165	8mm-1.0 8.8 18 ft./lb.	12mm-1.58.8 60 ft./lb.	
7/16-14537 ft./lb.	8mm-1.258.816 ft./lb.	12mm-1.758.8 55 ft./lb.	
1/2-13557 ft./lb.	10mm-1.258.8 36 ft./lb.	14mm-2.08.8 88 ft./lb.	
5/8-11	10mm-1.58.8 31 ft./lb.		