



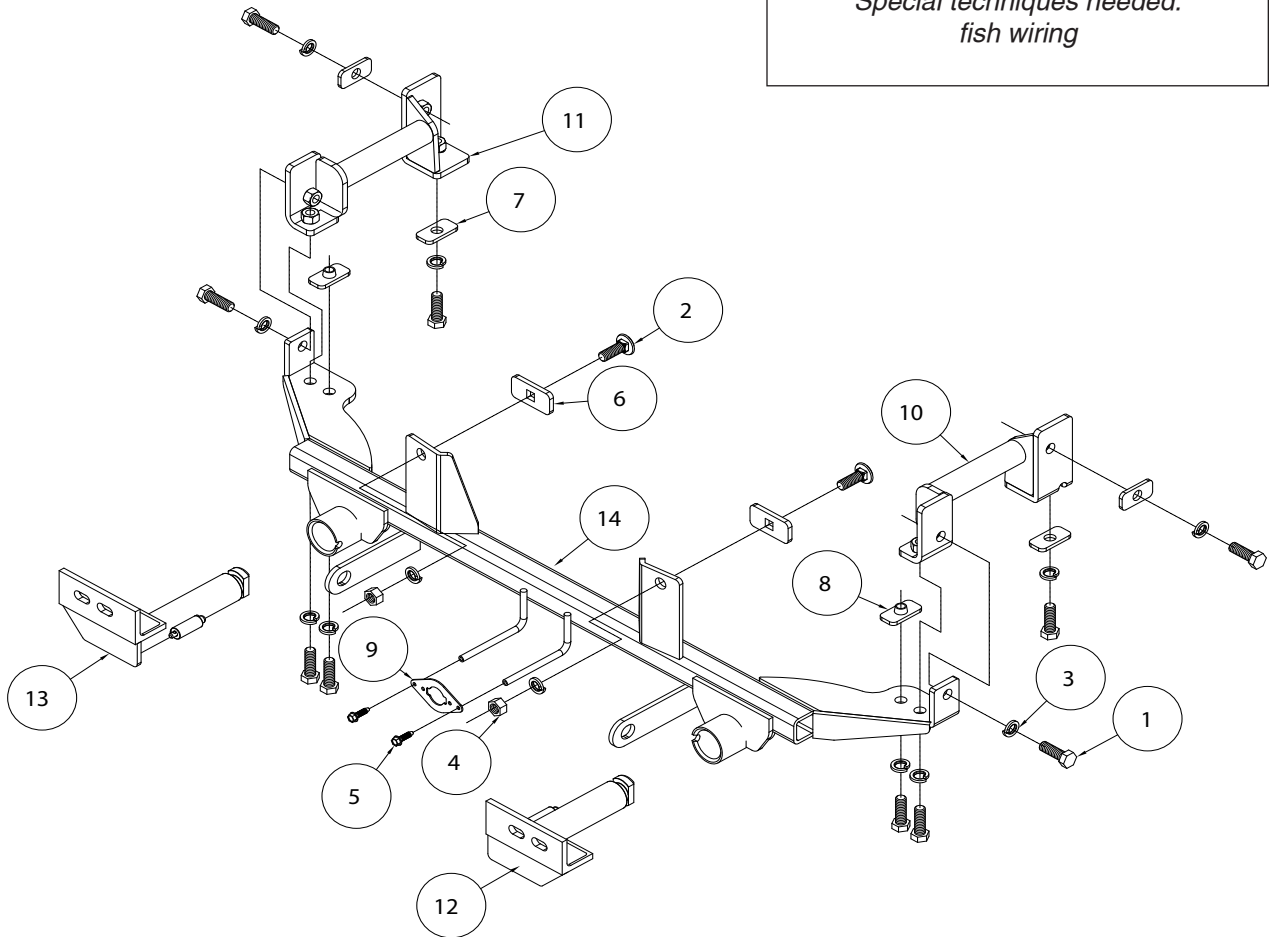
BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 524438-4

12/20/17
KS

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

Special techniques needed:
fish wiring



ITEM	QTY	NAME	PART #
1	10	1/2" x 1 1/2" BOLT	350095-00
2	2	1/2" x 1 1/4" CARRAGE BOLT	350361-00
3	12	1/2" LOCK WASHER	350309-00
4	2	1/2" HEX NUT	250258-00
5	2	#10 x 3/4" SELF TAPPING SCREW	350247-35
6	2	1/4" x 1 1/4" x 2 1/2" SQ. HOLE BACKING PLATE	A-000440
7	4	3/16" x 1" x 2" BACKING PLATE	A-000842
8	2	3/16" x 1" x 2" THREADED BACKING PLATE	A-003074
9	1	WIRE PLUG PLATE	A-003801
10	1	DRIVER SIDE BRACE	C-002060
11	1	PASSENGER SIDE BRACE	C-002061
12	1	DRIVER SIDE ARM	C-002642
13	1	PASSENGER SIDE ARM	C-002643
14	1	MAIN RECEIVER	C-002644



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This is one of our crossbar-style baseplates, 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 frame rails and the bumper core. The rear support braces mount to the bumper core and main receiver brace. 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 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.

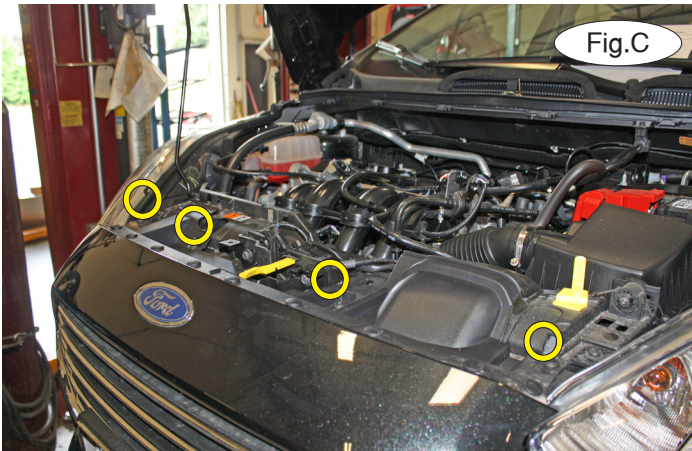


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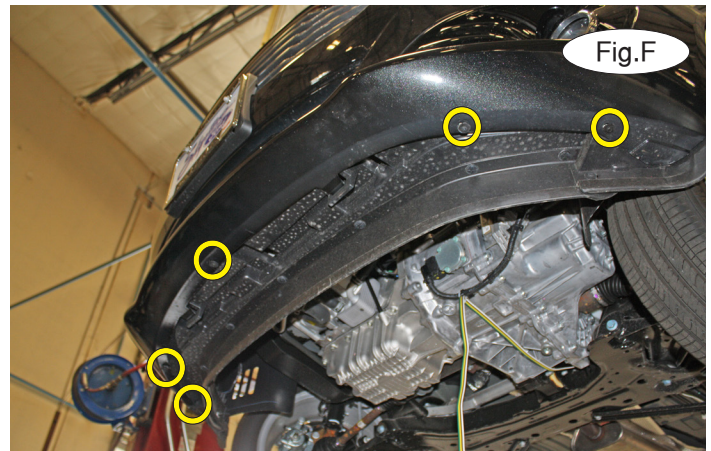
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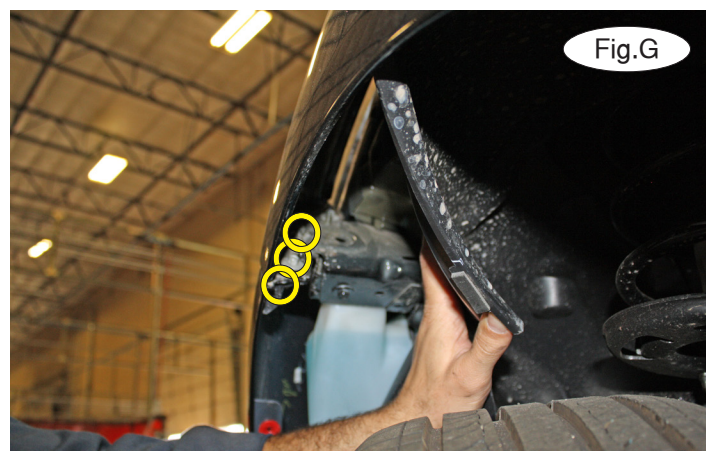
1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. Remove four plastic fasteners attaching the radiator cover to the core support (Fig.C).

2. On each side, remove three T30 Torx bolts attaching the headlights to the core support and fender (Fig.D). Remove the headlights, unplug them, and set them aside.



3. On each side, remove two T25 Torx bolts attaching the fender liner to the fascia (Fig.E).

4. Remove five 7mm (head) screws attaching the fascia to the splash shielding (Fig.F). On each side, peel back the fender liner to expose three additional 7mm (head) screws and remove them (Fig.G).



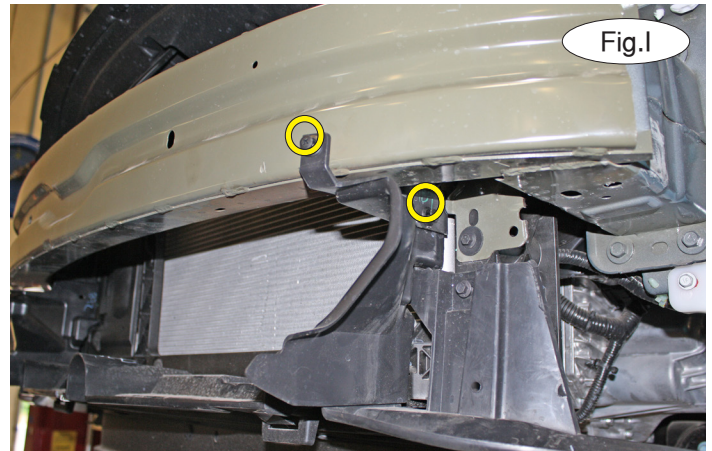


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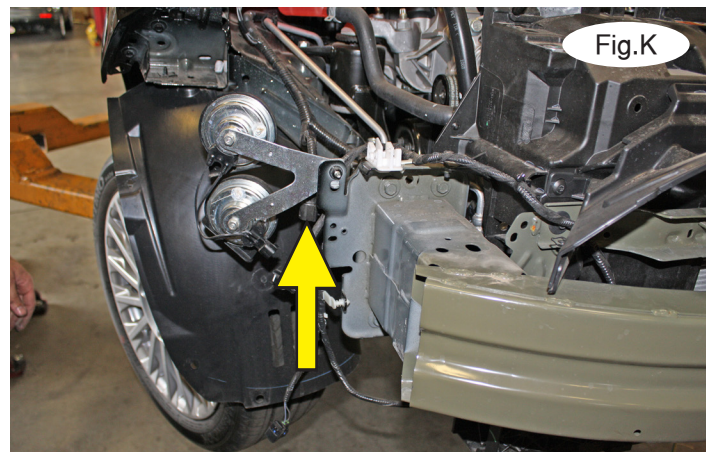
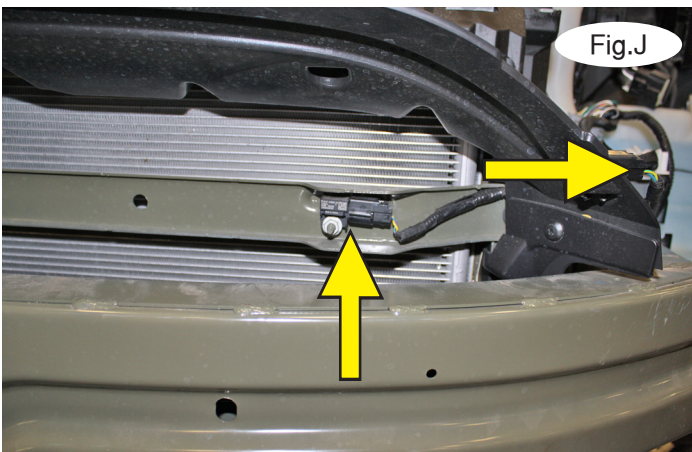
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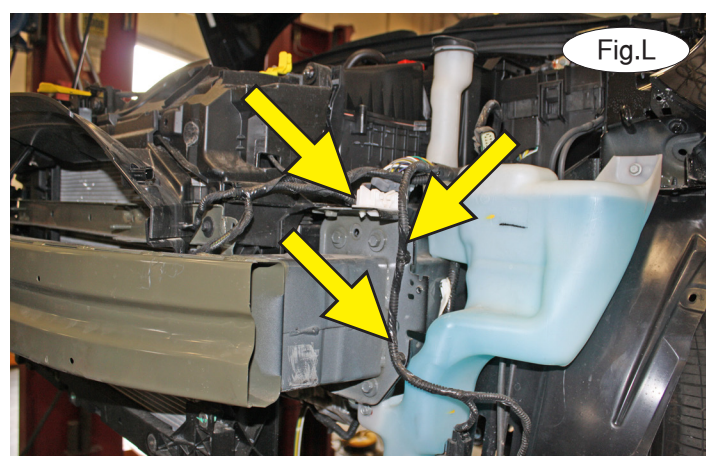
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5. Pull down and forward to remove the fascia (Fig.H). Disconnect the fog lights, if the vehicle is so equipped.
6. On each side, remove two plastic fasteners attaching the side air deflector to the bumper core (Fig.I). They will not be replaced. *Note:* retain the air deflectors and attachment hardware so they can be replaced if the bracket is ever removed.



7. On each side, remove one 10mm (head) nut attaching the air bag sensors to the bumper core and disconnect the ambient temperature sensor (Fig.J).
8. Disconnect the wiring harness from the horn (Fig.K).
9. On the passenger side, release the three plastic fasteners attaching the wiring loom to the bumper core (Fig.L).





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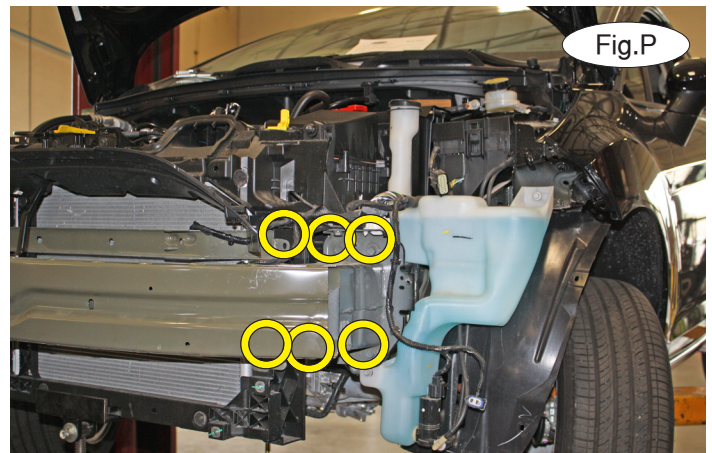
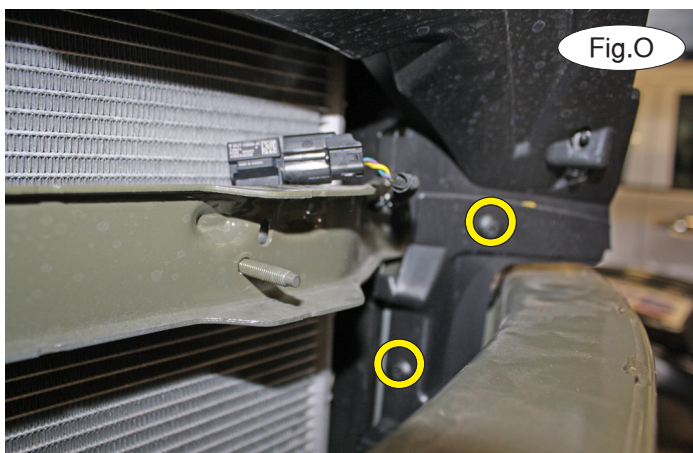
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10. On each side, remove two 10mm (head) bolts attaching the core support to the bumper core and one 10mm (head) bolt attaching the hood latch support to the bumper core (Fig.M).
11. Use a floor jack to support the core support (Fig.N).
12. On each side, remove two plastic fasteners attaching the air dam to the radiator support (Fig.O – driver's side).



13. On each side, remove two 8mm (head) bolts attaching the bumper support to the radiator support and four 13mm (head) bolts attaching the bumper core to the frame rails (Fig.P).
14. Place the bumper core bottom face-up on a workbench. Locate the existing hole in the bottom of the bumper core and enlarge it to 9/16" using a die grinder.
15. Place the main receiver brace over the bottom of the bumper core, aligning the pre-existing holes in the outside mounting points with the hole you enlarged in the previous step (Fig.Q). Now, clamp the bumper core and main receiver brace to the workbench.



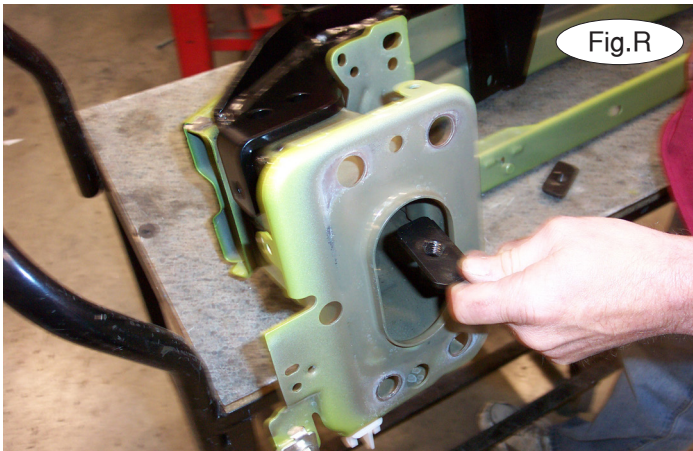


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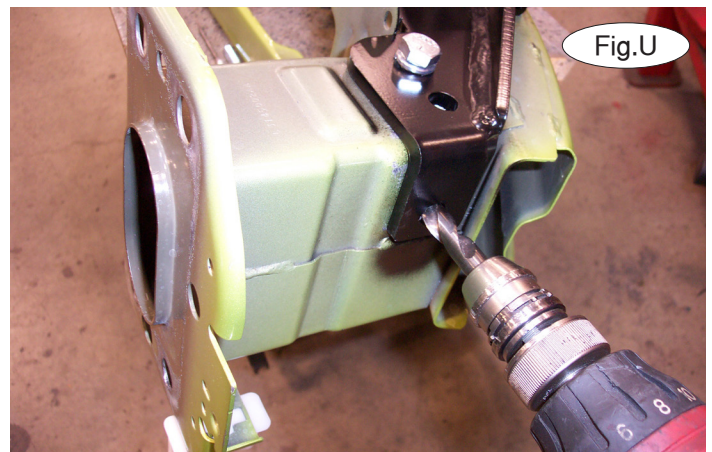
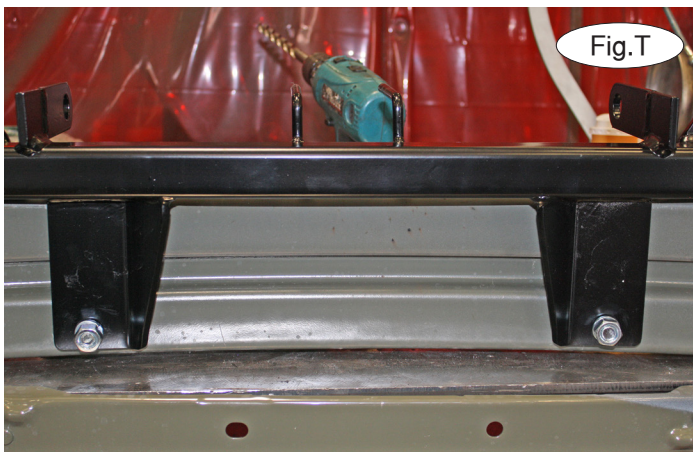
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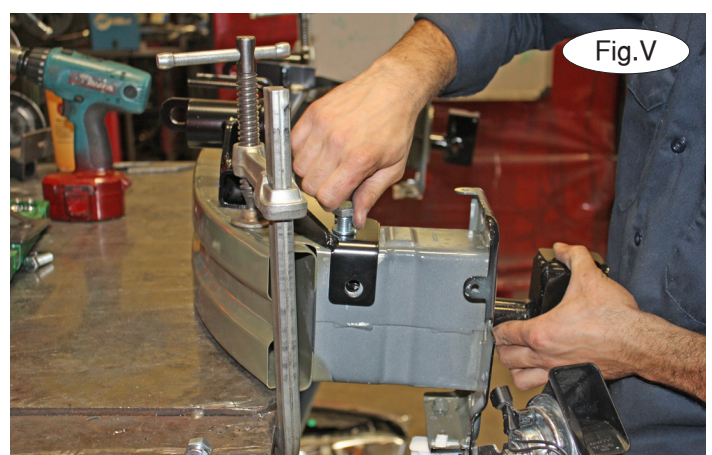
16. Working on the passenger side, place one of the supplied $\frac{1}{2}$ " lock washers over one of the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolts. Place a $\frac{3}{16}$ " x 1" x 2" threaded backing plate inside the bumper core (Fig.R). Bolt through the inside mounting point of the main receiver brace, the bumper core and into the backing plate (Fig.S). *Note:* ensure proper alignment, as the bolts will receive Loctite® Red and will be torqued at the end of these instructions.

17. Next, you will be inserting a fish wire through the open side of the bumper core and out the center mounting holes of the main receiver brace. For each mount, place the $\frac{1}{4}$ " x $1\frac{1}{4}$ " x $2\frac{1}{2}$ " square-holed backing plate over one of the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " carriage bolts. Fish wire the carriage bolt and pull it through the bumper core and out through one of the center mounting points of the main receiver brace. Finish with a $\frac{1}{2}$ " lock washer and $\frac{1}{2}$ " nut (Fig.T).



18. Using the side mounting point of the main receiver brace as a template, drill a $\frac{1}{2}$ " hole through the side of the bumper core (Fig.U).

19. Place the rear support brace into the bumper core, aligning it with the outside holes in the main receiver brace, and bolt it into place using the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolt and $\frac{1}{2}$ " lockwasher (Fig.V). *Note:* make certain that the rear brace is not overlapping the backing plate.



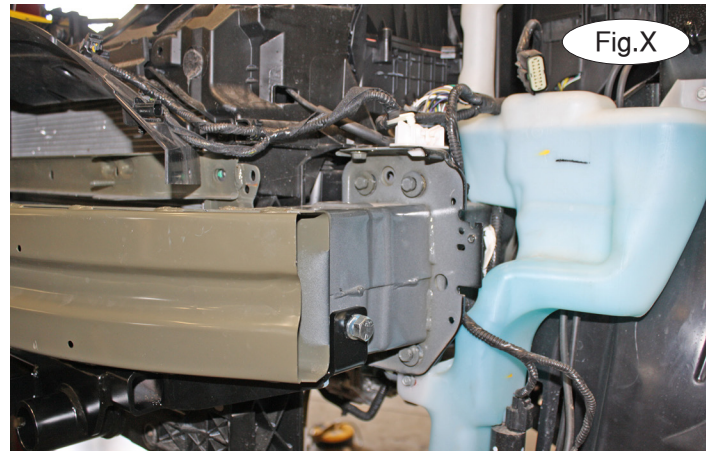


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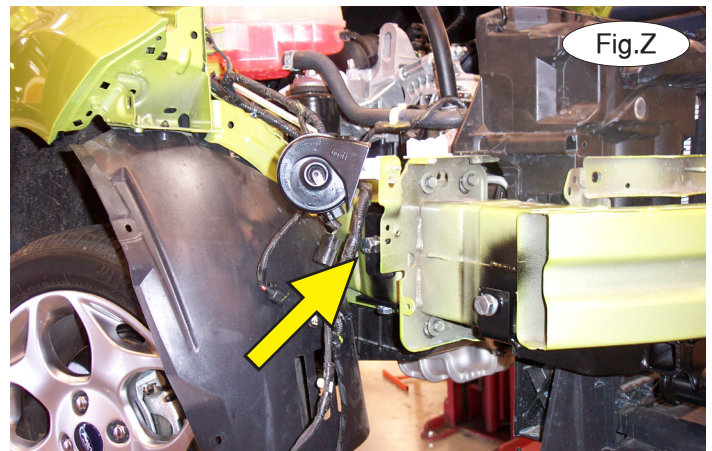
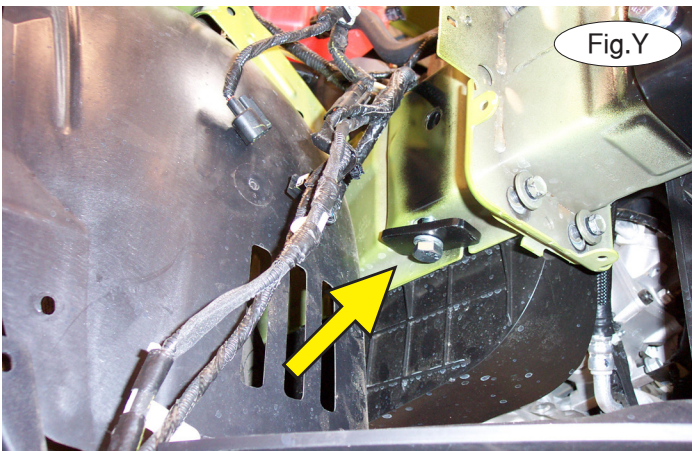
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20. Repeat steps 16 through 19 for the driver's side. Figure W shows the bumper core with the main receiver brace fully installed.

21. Replace the bumper against the frame rails, placing the rear braces into the openings in the frame rails. Then, replace the bolts you removed in step 13 and leave loose for now (Fig.X).



22. Working on the passenger side, place a 1/2" lock washer and a 3/16" x 1" x 2" backing plate over a 1/2" x 1 1/2" bolt and bolt through the bottom of the frame rail and into the rear brace (Fig.Y).

23. Place a 1/2" lock washer and a 3/16" x 1" x 2" backing plate over a 1/2" x 1 1/2" bolt and bolt through the side of the frame rail and into the rear support brace (Fig.Z).

24. Repeat steps 22 and 23 for the driver's side.

25. Replace and tighten the core support bolts, making certain that the core support seats correctly by aligning it with the outline of the washer on the back of the three bolts.

26. Torque all bolts to the bolt torque requirements found at the end of these instructions, beginning with the bolts at the rear of the bumper core. *Note:* use Loctite® Red on all nuts and bolts.

27. Using the two supplied zip ties, mount the ambient temperature sensor to the main receiver brace (Fig.AA).



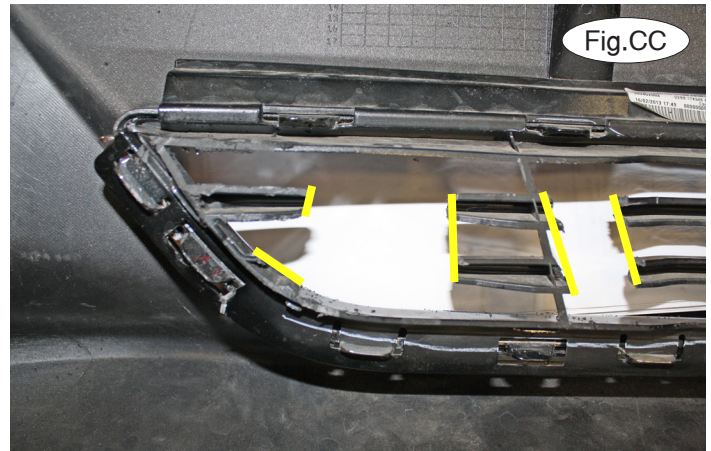
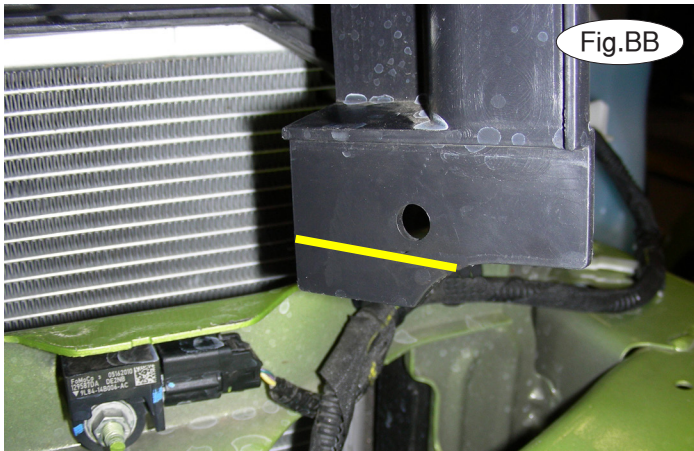


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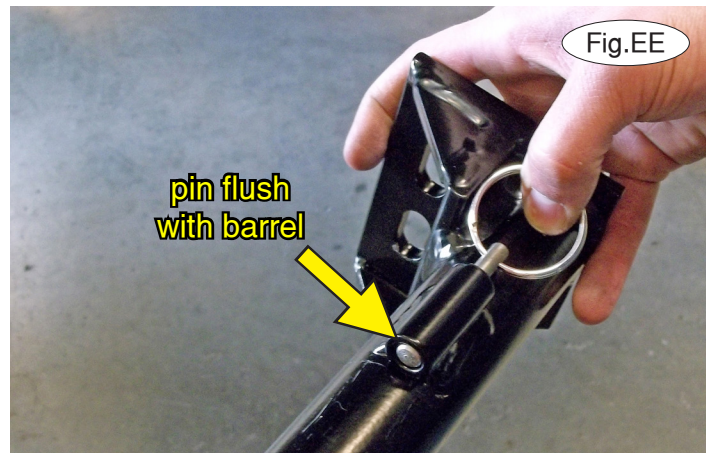
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28. Reassemble the core support and fascia, using steps 1 through 12 as a reference.
29. Trim the air deflectors using the yellow line in Figure BB as a guide for trimming.
30. Trim the fascia using the yellow lines in Figure CC as a guide for trimming.



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.DD and Fig.EE).

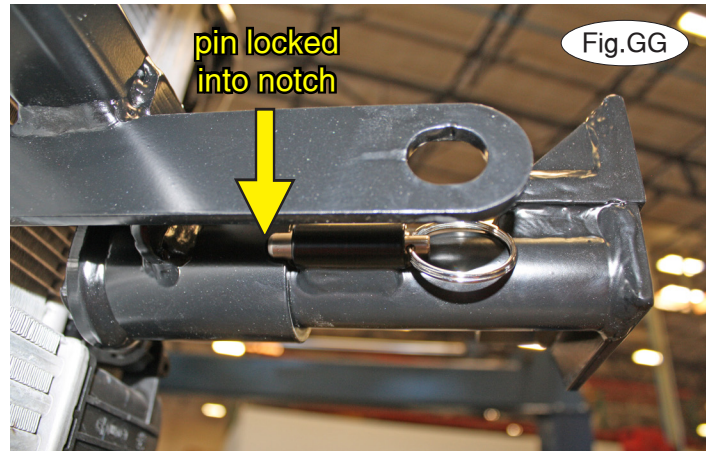
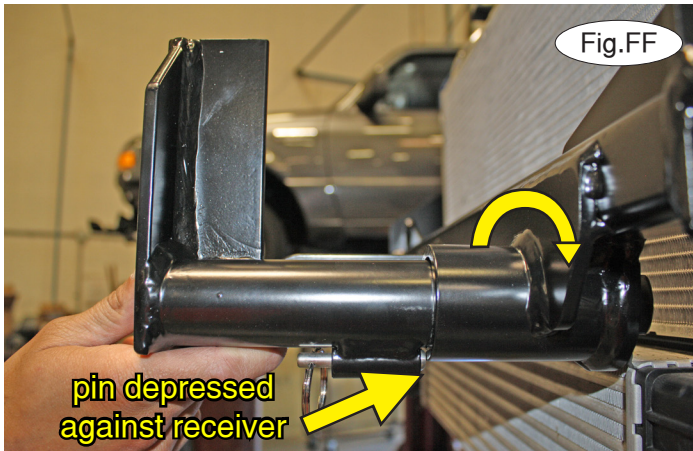


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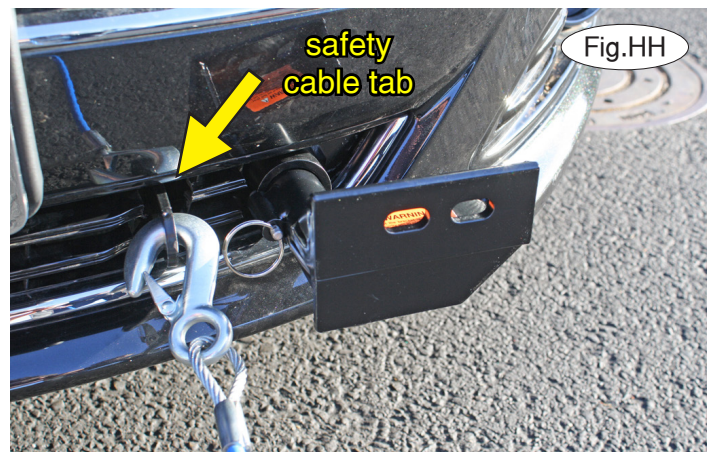
32. On each side, insert the removable front bracket arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver (Fig.FF). Now, twist back 90 degrees until the spring-loaded pin snaps into place in the notch on the receiver, locking the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

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 tabs shown in Figure HH. 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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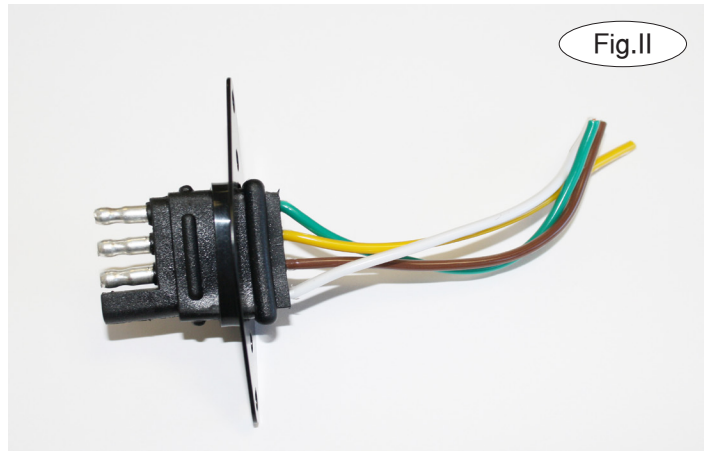
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Three options for attaching the wiring plug to the main receiver brace

For six-wire plugs: use the two supplied 3/4" 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.II). 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

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.