



BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 524458-4

07/30/20
KS

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

This is one of our crossbar-style series baseplates, which allows the visible front portion to be easily removed from the front of the vehicle (Fig.A and Fig.B). The kit consists of a main receiver brace, two A braces, two removable front braces, and a hardware pack.

The main receiver brace mounts to A braces 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, 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.

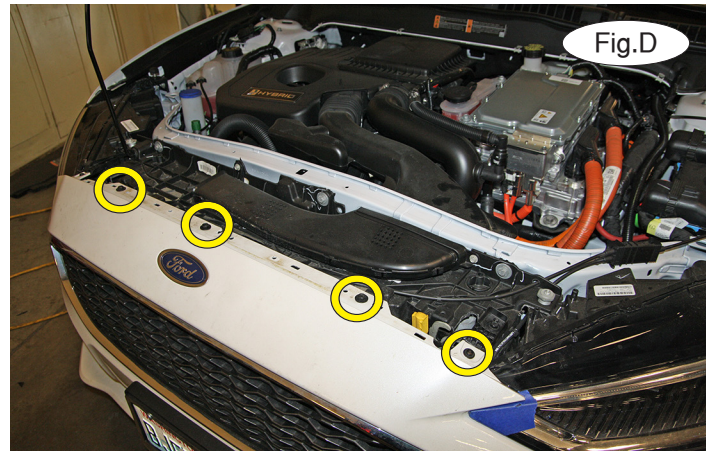
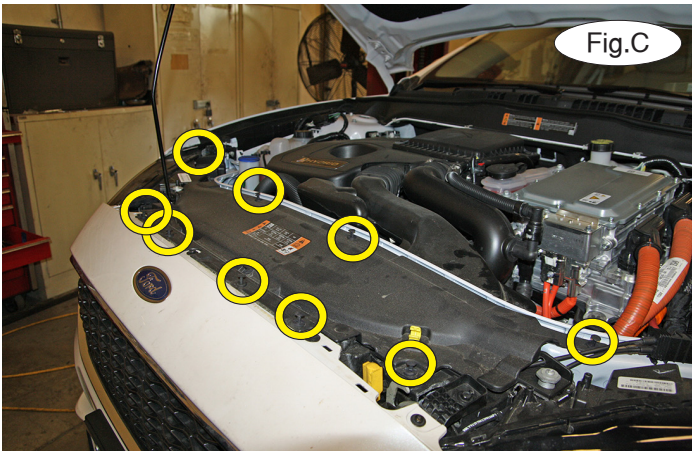


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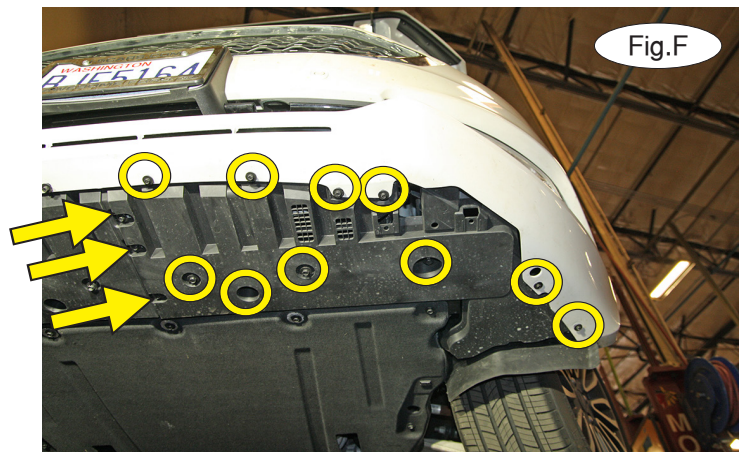
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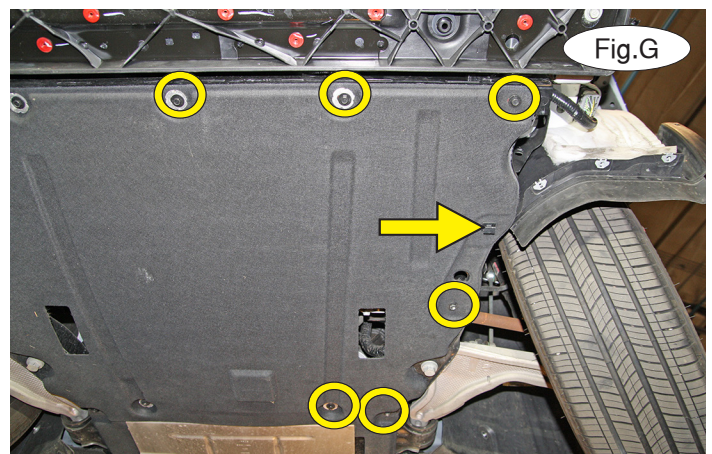


1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. Remove nine fasteners attaching the radiator cover to the radiator housing (Fig.C), and four 10mm (head) bolts attaching the top of the fascia to the core support (Fig.D).



2. On each side, remove three 7mm (head) screws attaching the lower air dam to the fender liner and fascia (Fig.E). Then, on each side, remove six 7mm (head) bolts attaching the splash shields to the bottom of the louver housing and four 10mm (head) bolts attaching the splash shielding to the subframe (Fig.F – circles). Now, remove three 7mm (head) bolts holding the two halves of the splash shield together (Fig.F – arrows). Remove the splash shields and set them aside for now.

3. On each side, remove five 10mm (head) screws and one in the middle attaching the belly pan to the core support and frame (Fig.G – circles) and release one plastic tab (Fig.G – arrow).



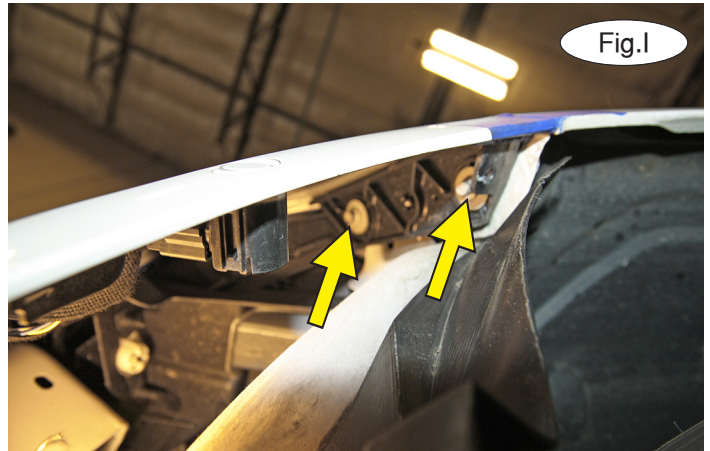
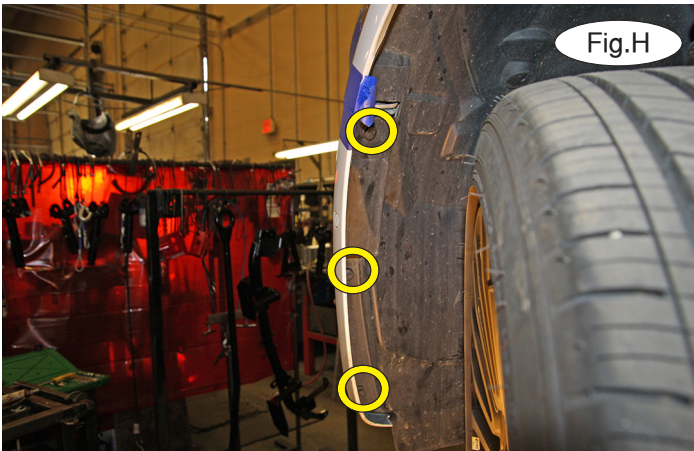


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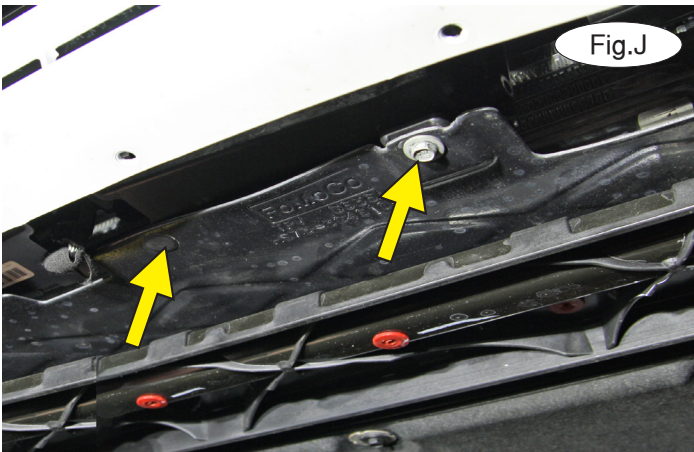
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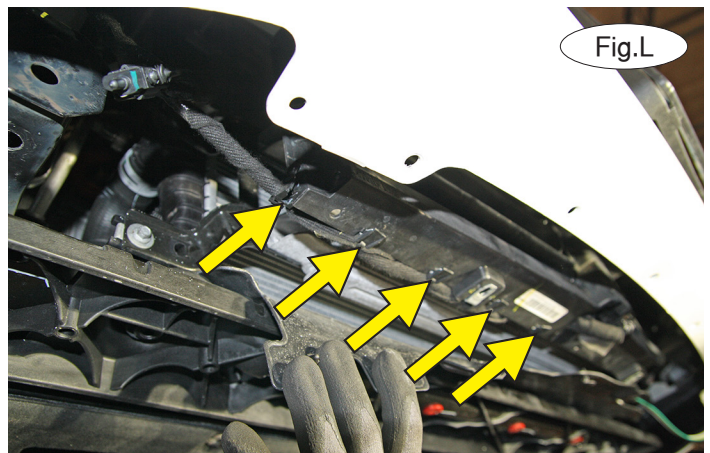
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4. On each side, remove two 7mm (head) bolts and one plastic fastener attaching the fender liner to the fascia (Fig.H).
 5. On each side, pull back the fender liner. Then, remove two 8mm (head) bolts attaching the fascia to the fender (Fig.I).
- Note:* Due to manufacturing variances, the bolts could be 10mm instead.



6. On each side, remove one 10mm (head) bolt and one plastic fastener attaching the air dam to the bottom of the louver housing (Fig.J).
7. Unplug the louver motor (Fig.K) and release five clips attaching the louver motor harness to the fascia (Fig.L).



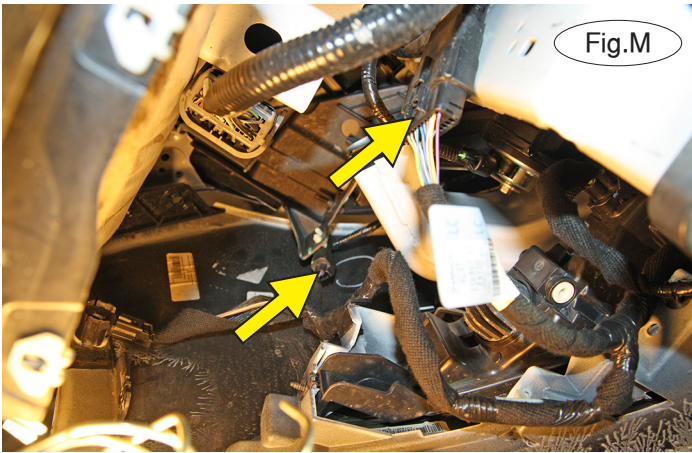


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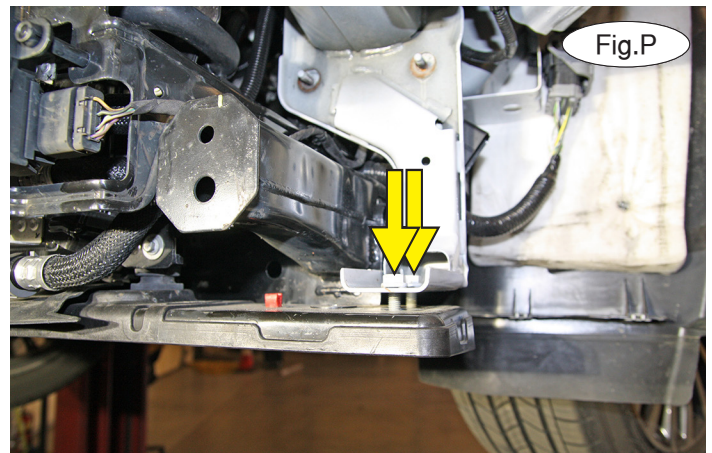
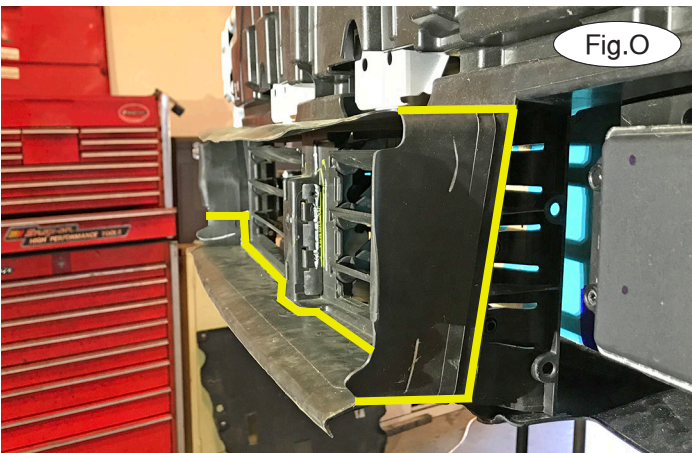
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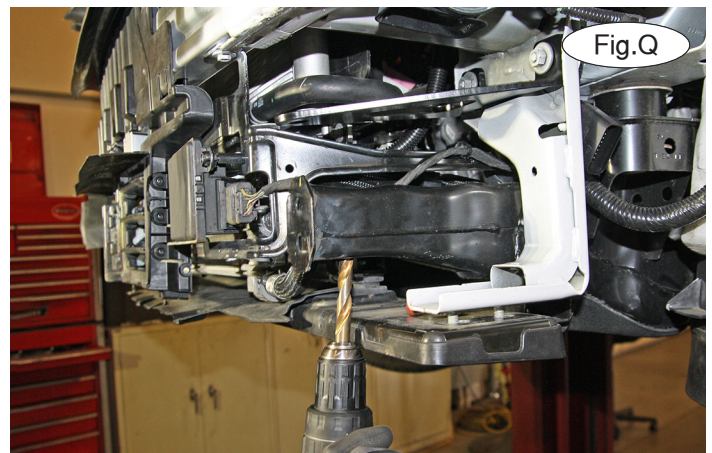
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8. On the driver's side, unplug two electrical connectors (Fig.M).
9. On each side, pull up on the top of the fascia and down at the seam to release the fascia's alignment pins and remove the fascia (Fig.N).



10. On each side, completely trim off the driver's side vertical wall of the louver housing and the bottom so that it is flush with the face of the louver housing. Use the yellow lines in Figure O as a guide for trimming.
11. On each side, locate the two 13mm (head) bolts attaching the lower radiator support to the frame. Loosen them until they are flush with the nuts (Fig.P). Let the lower radiator support hang down for now.
12. On each side, use a 19/32" drill bit of appropriate length to enlarge the holes in the bottom and top of the subframe (Fig.Q).



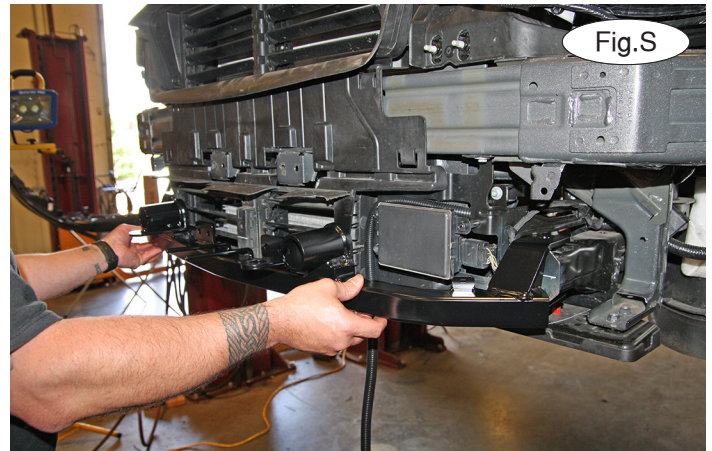
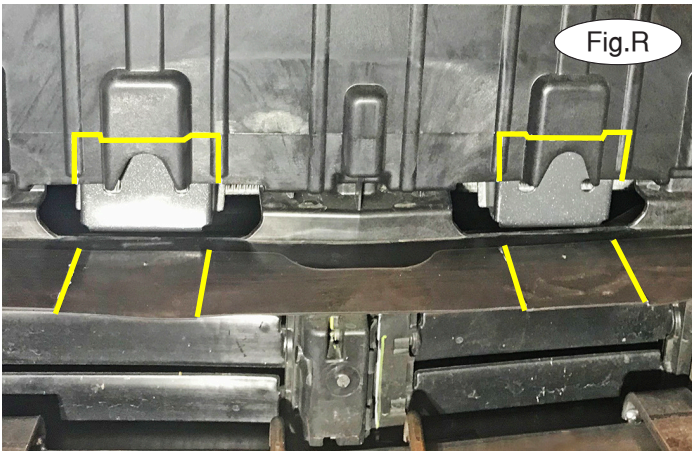


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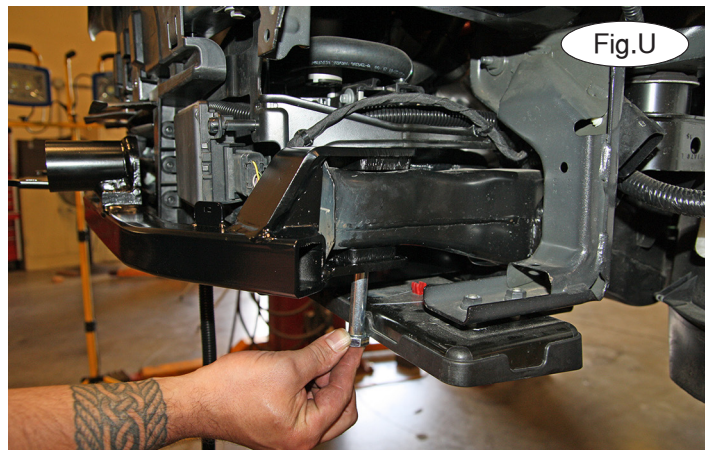
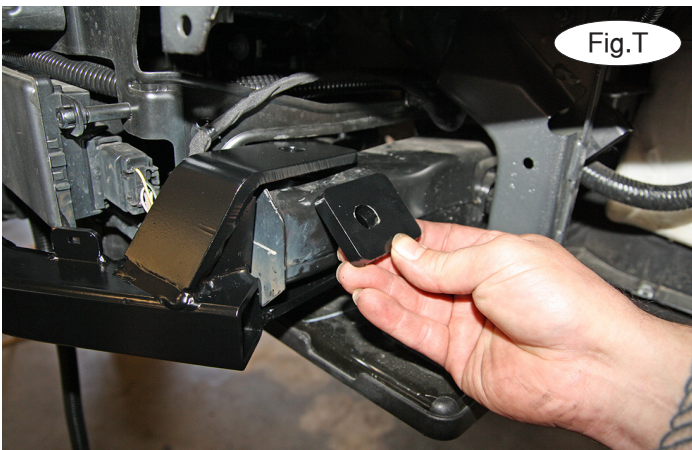
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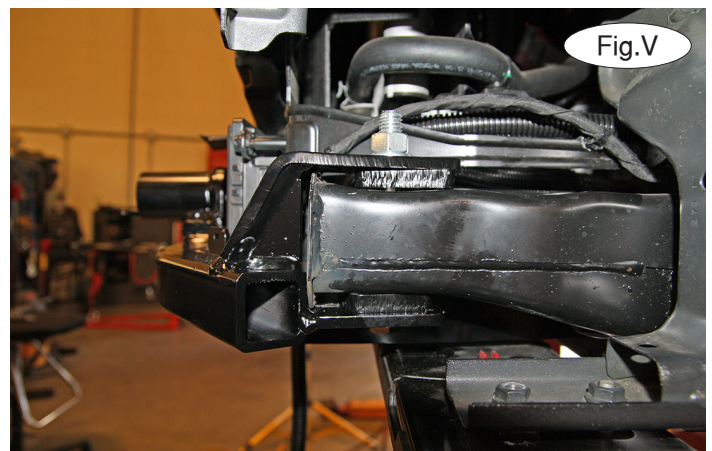


13. Trim the air deflectors using the yellow lines in Figure R as a guide for trimming.

14. Slide the baseplate over the subframe (Fig.S). Then, on each side, place the two supplied $3/8" \times 2" \times 1\frac{1}{4}"$ shims between the baseplate mount and the frame (Fig.T). *Note:* Refer to the drawing on page 1 for the correct orientation of the plates.



15. On each side, bolt up through the side mount of the baseplate, the bottom shim, frame rail, top shim and the baseplate using the supplied $1/2" \times 4\frac{1}{2}"$ bolt and $1/2"$ flat washer. Finish with a $1/2"$ lock washer and nut (Fig.U and Fig.V).





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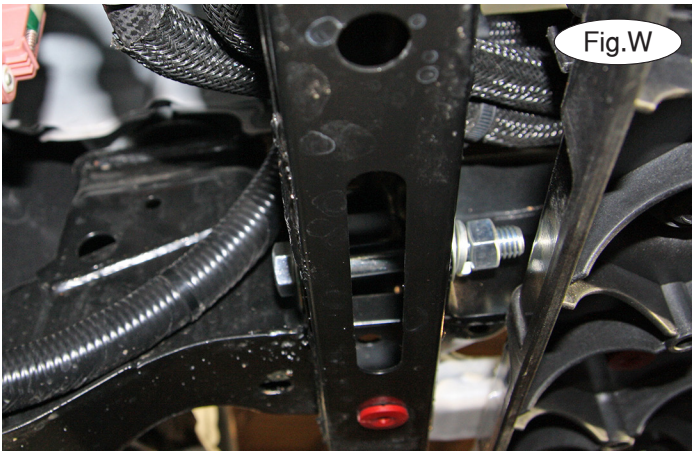


Fig.W



Fig.X

16. On each side, bolt through the rear mount using the $\frac{1}{2}$ " x $3\frac{1}{2}$ " bolt and $\frac{1}{2}$ " flat washer. Finish with a $\frac{1}{2}$ " small washer, lock washer and nut (Fig.W).

17. On each side, place the support plate over the holes you exposed in step 13 and using the plate as a template, enlarge the holes to $\frac{3}{8}$ " (Fig.X). *Note:* use a piece of metal between the drill bit and the radiator, to avoid drilling into critical engine components.

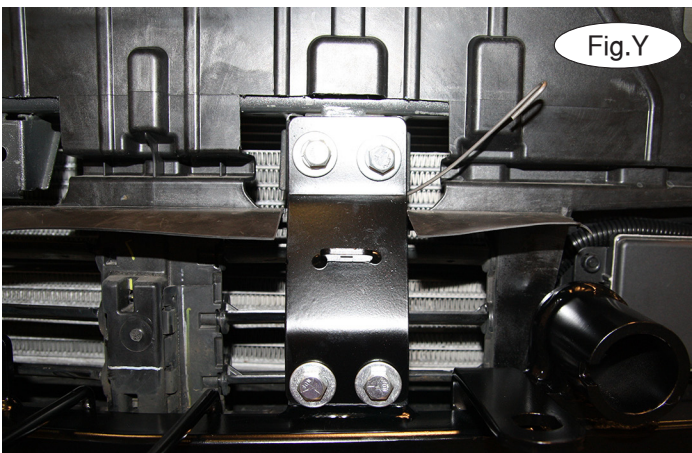


Fig.Y

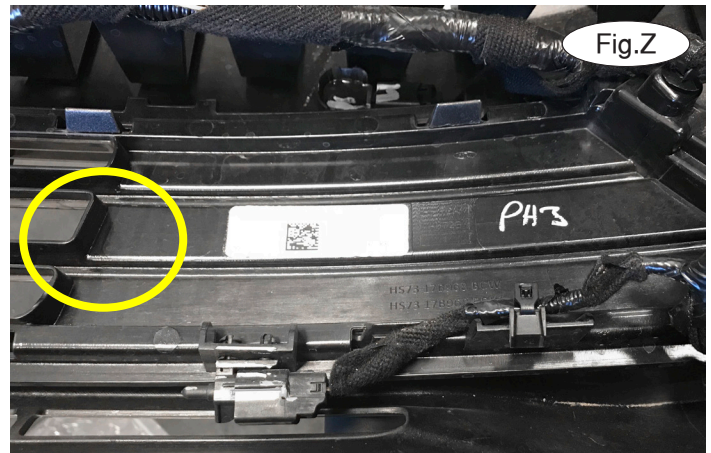


Fig.Z

18. Working on the top holes only, place a $\frac{3}{8}$ " tabbed weld nut with rod behind the mount and then bolt through the support plate and into the tabbed weld nut using the supplied $\frac{3}{8}$ " x $1\frac{1}{4}$ " bolts, $\frac{3}{8}$ " lock washers and $\frac{3}{8}$ " flat washers.

Repeat the process above for the bottom holes but use $\frac{3}{8}$ " nuts instead of the tabbed weld nuts (Fig.Y). Then, torque all bolts using the bolt torque specifications found at the end of these instructions.

19. Place the fascia over the main receiver brace and mark it for trimming. Then, use a $2\frac{1}{2}$ " hole saw to trim the fascia in a close approximation of the yellow circle shown in Figure Z. Then, trim off the ambient temperature mounts from the back of the fascia (Fig.AA). *Note:* If you are mounting a breakaway system, we recommend trimming an additional section and mounting the switch to the baseplate as shown in Figure BB (next page).



Fig.AA



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20. On each side, trim the bottom of the splash shielding to allow clearance for the main receiver brace (Fig.CC). Then, zip tie the ambient temperature sensor to its wiring harness (Fig.DD).

21. Reinstall the radiator support and the fascia, reversing steps 11, and then 1-9.

22. On each side, insert the removable front arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver. 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. **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.**

23. 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 illustrated on page 1. 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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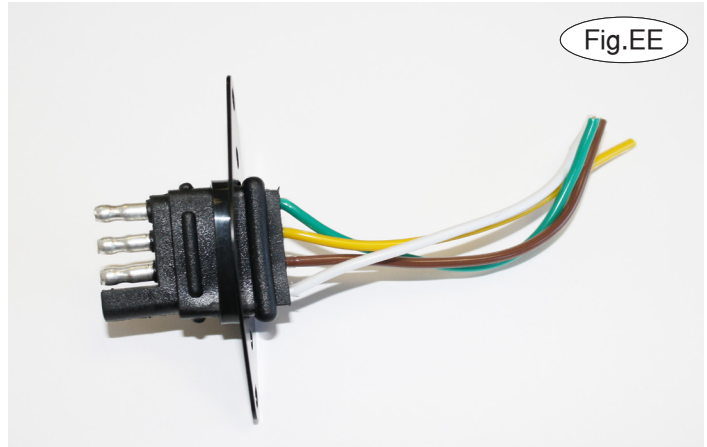
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Three options for attaching the wiring plug to the main receiver brace

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.EE). 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
5/16-18	5	13 ft./lb.
3/8-16	5	23 ft./lb.
7/16-14	5	37 ft./lb.
1/2-13	5	57 ft./lb.
5/8-11	5	112 ft./lb.

METRIC BOLTS

Thread Size	Grade	Torque
6mm-1.0	8.8	6 ft./lb.
8mm-1.0	8.8	18 ft./lb.
8mm-1.25	8.8	16 ft./lb.
10mm-1.25	8.8	36 ft./lb.
10mm-1.5	8.8	31 ft./lb.

METRIC BOLTS

Thread Size	Grade	Torque
12mm-1.25	8.8	64 ft./lb.
12mm-1.5	8.8	60 ft./lb.
12mm-1.75	8.8	55 ft./lb.
14mm-2.0	8.8	88 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.