



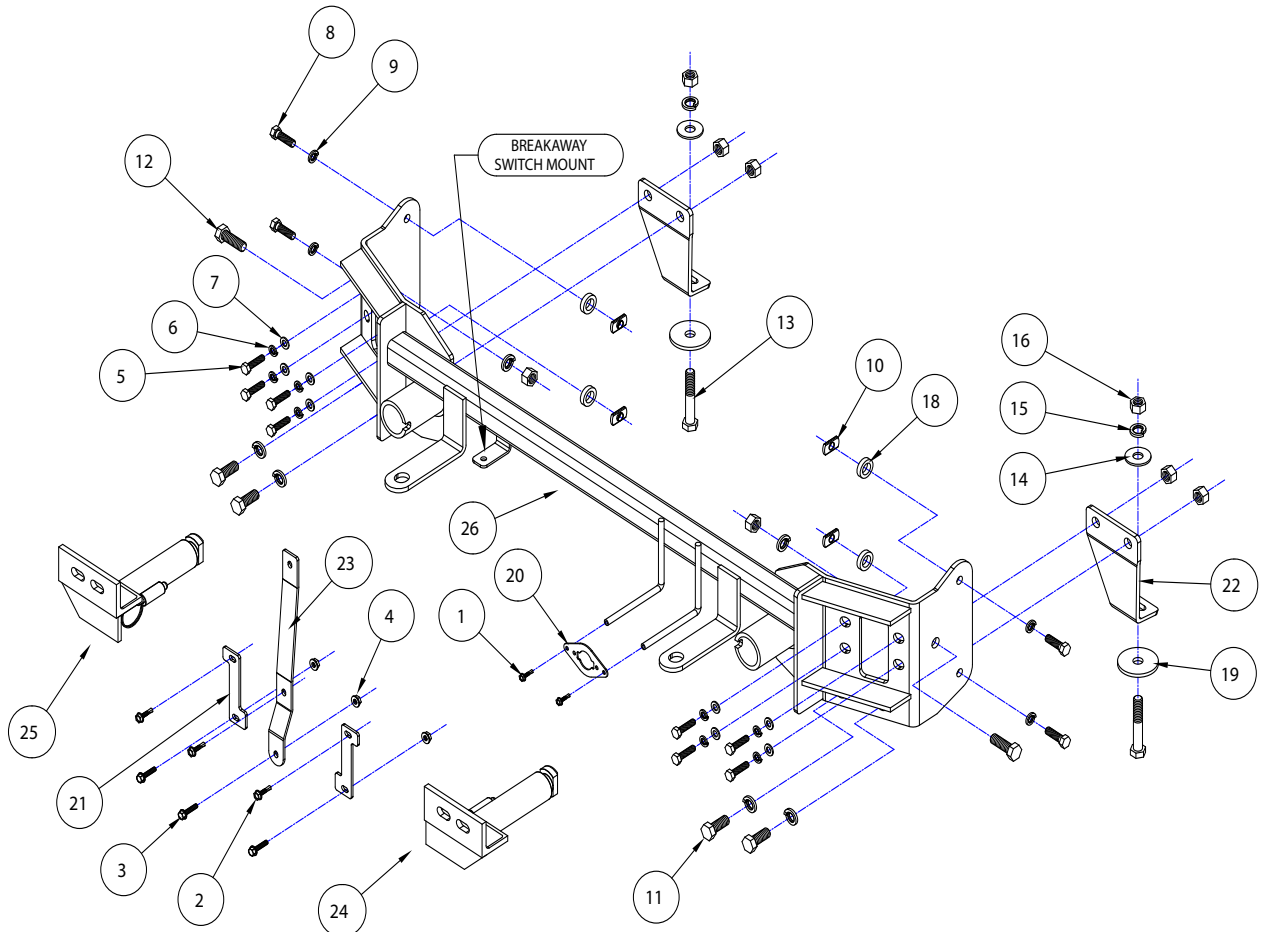
BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 523190-4

09/25/18
KS

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ROADMASTER, INC.



| ITEM | QTY | MATERIAL | MATERIAL# |
|------|-----|---|-----------|
| 1 | 2 | #10 x 3/4" SELF DRILLING SCREW | 350247-35 |
| 2 | 3 | #14 x 3/4" SELF DRILLING SCREW | 357250-00 |
| 3 | 3 | 1/4"-20 x 1" HEX WHIZ-LOK | 350400-20 |
| 4 | 3 | 1/4-20 WHIZ LOC HEX NUT | 350251-20 |
| 5 | 8 | 8mm x 1.25 x 30mm BOLT | 356001-00 |
| 6 | 8 | 8mm LOCK WASHER | 355705-00 |
| 7 | 8 | 5/16" FLAT WASHER | 350302-00 |
| 8 | 4 | 3/8" x 1 1/2" BOLT | 350057-00 |
| 9 | 4 | 3/8" LOCK WASHER | 350305-00 |
| 10 | 4 | 3/8" TAB WELD NUT | 350255-01 |
| 11 | 4 | 1/2" x 1 1/4" BOLT | 350094-00 |
| 12 | 2 | 1/2" x 1 1/2" BOLT | 350095-00 |
| 13 | 2 | 1/2" x 3" BOLT | 350101-00 |
| 14 | 2 | 1/2" FLAT WASHER | 350308-00 |
| 15 | 8 | 1/2" LOCK WASHER | 350309-00 |
| 16 | 8 | 1/2" HEX NUT | 350258-00 |
| 17 | 2 | ZIP TIE | 300140-8 |
| 18 | 4 | 1" O.D. x 0.188 WALL x 1/4" TUBE SPACER | A-001022 |
| 19 | 2 | 1/2" PLATE WASHER | A-003086 |
| 20 | 1 | WIRE PLUG PLATE | A-003801 |
| 21 | 2 | SIDE STRAP | A-006064 |
| 22 | 2 | REAR MOUNTING BRACE | B-003239 |
| 23 | 1 | CENTER STRAP | B-003636 |
| 24 | 1 | DRIVER SIDE ARM | C-003123 |
| 25 | 1 | PASSENGER SIDE ARM | C-003124 |
| 26 | 1 | MAIN RECEIVER | C-003125 |



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This is one of our crossbar-style 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 lower braces, two removable front braces, and a hardware pack. All of these components mount to the framing.

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.



Fig.A



Fig.B

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.

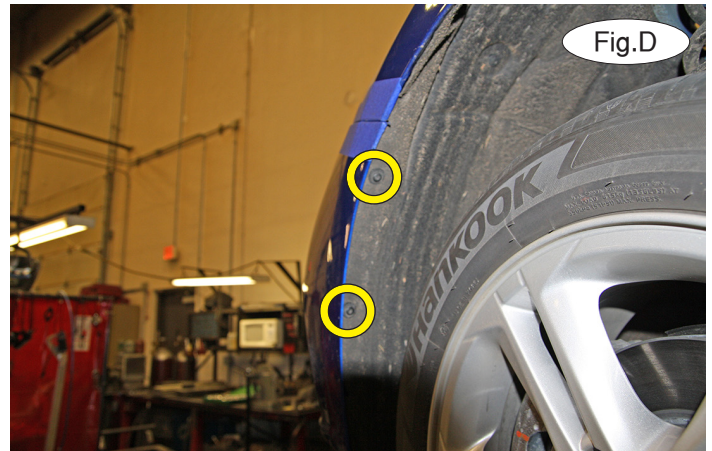


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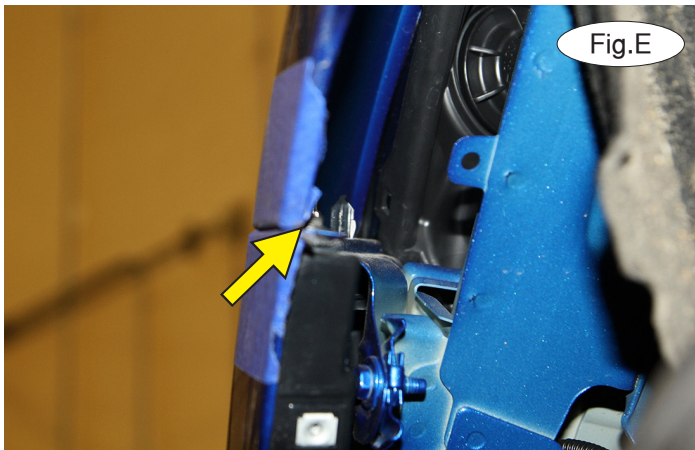
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1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. Remove four 7mm (head) screws attaching the fascia to the core support (Fig.C).

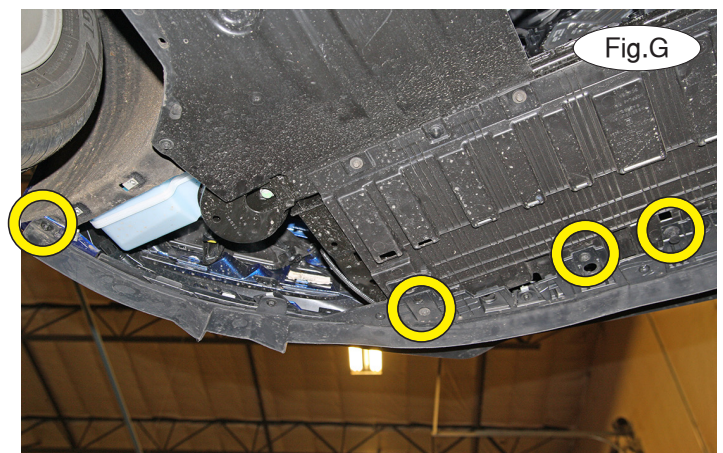
2. On each side, remove two T15 Torx screws attaching the fender liner to the fascia (Fig.D).



3. On each side, pull back the fender liner and remove a 7mm (head) screw attaching the fascia to the fender (Fig.E).

4. On each side, remove three 7mm (head) screws attaching the fender liner to the fender liner support (Fig.F).

5. On each side, remove three 7mm (head) bolts and one center plastic fastener attaching the splash shielding to the bottom of the fascia (Fig.G).



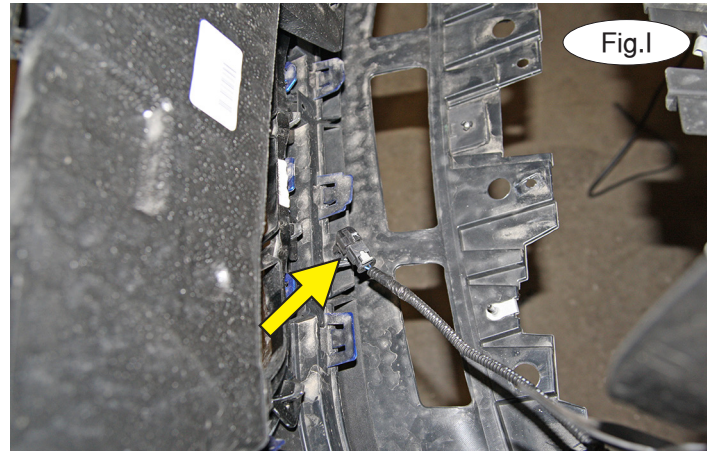


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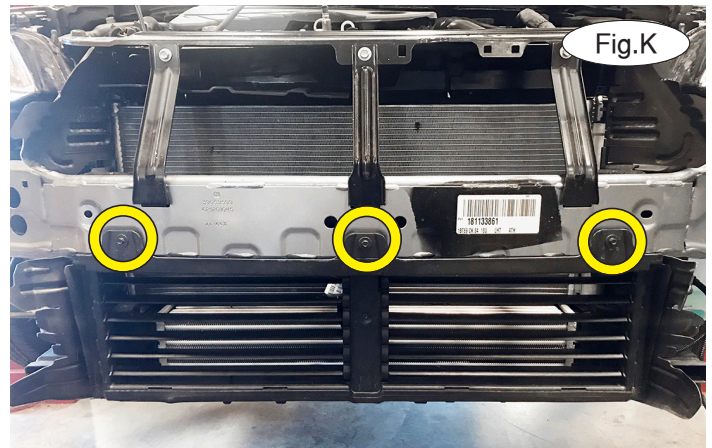
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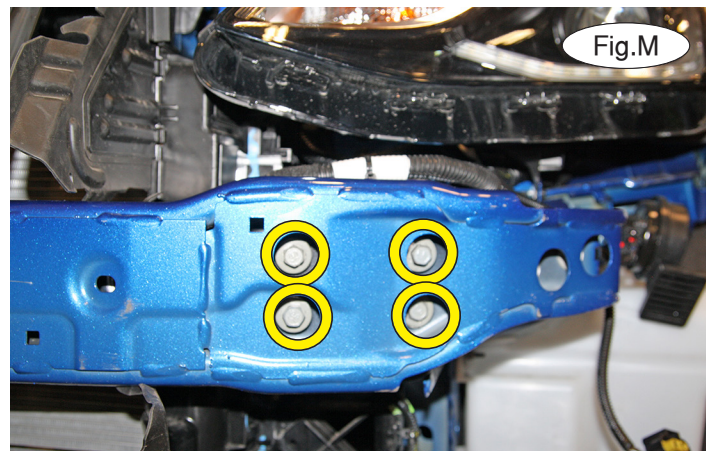
6. On each side, pull up on the top of the fascia and out on the corner to release it from its locking strip (Fig.H). Disconnect the ambient temperature sensor (Fig.I) and the fog lights and set the fascia aside.

7. On each side, remove one 7mm screw attaching the plastic support to the bumper core (Fig.J). **For diesel models only:** Remove three 7mm screws attaching the louver housing to the bumper core and let it hang down for now (Fig.K).



8. Disconnect the wiring loom from the bumper core by releasing all of its plastic fasteners (Fig.L).

9. On each side, remove four 13mm (head) bolts attaching the bumper core to the frame (Fig.M). It will not be replaced. *Note:* retain the bumper core and its hardware for replacement in case the mounting bracket is ever removed.



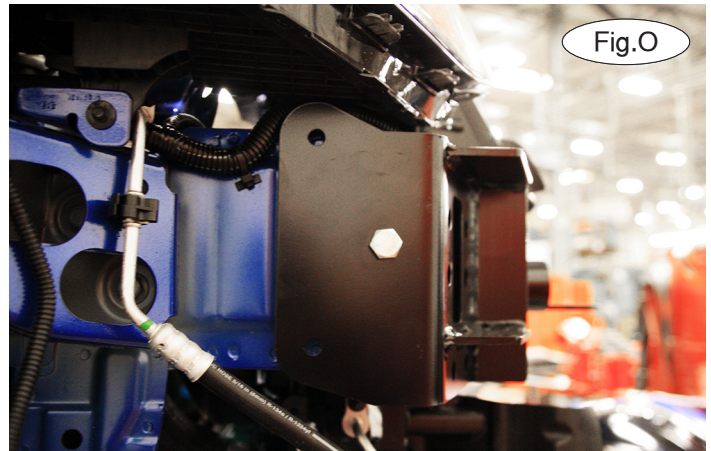


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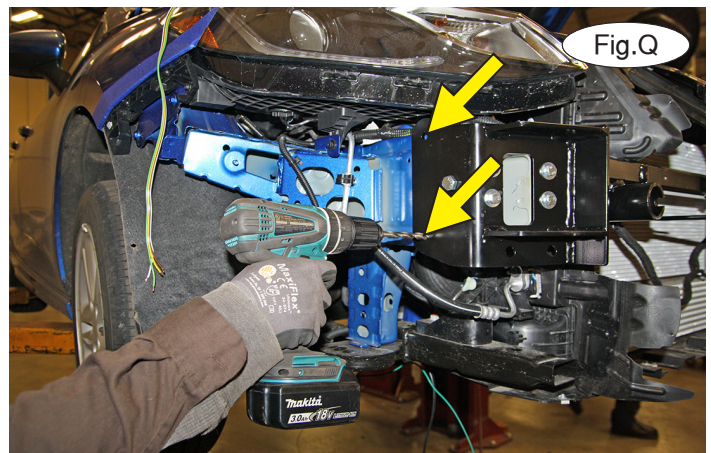
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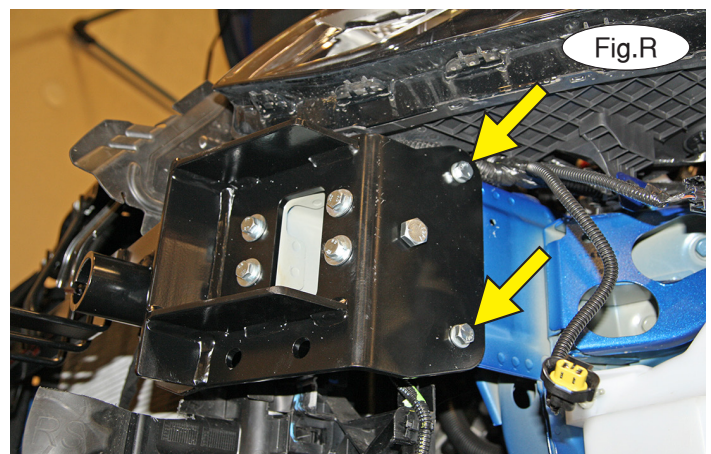
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10. On each side, trim the air dam as indicated in Figure N.
11. Place the main receiver brace over the bumper core mounts and, on each side, bolt it into place using the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolt and finish with a $\frac{1}{2}$ " lock washer and nut (Fig.O).



12. On each side, bolt the main receiver brace to the frame using the supplied 8mm x 1.25 x 30mm bolts, 5/16" flat washers and 8mm lock washers (Fig.P).
13. On each side, use a 3/8" drill and the two existing holes in the top and bottom of the main receiver brace as templates and drill straight through the center of the pinch weld (Fig.Q).
14. On each side, place a $\frac{1}{4}$ " x 1" x .188 pipe spacer between the pinch weld and the main receiver brace. Then, bolt through the main receiver brace, pipe spacer and pinch weld using the supplied 3/8" x $1\frac{1}{2}$ " bolt, 3/8" lock washer, and finish with the 3/8" tabbed weld nut (Fig.R and Fig.S).





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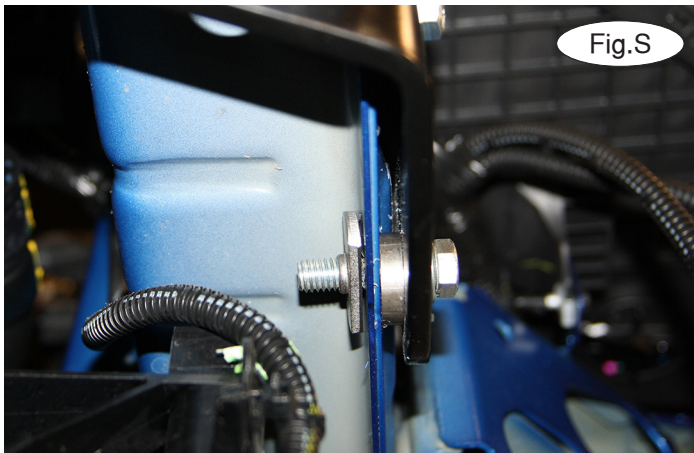


Fig.S



Fig.T

15. On each side, use a $\frac{1}{4}$ " drill to drill through the support brackets (Fig.T). **For diesel models only:** proceed to the next step. **For all other models:** Remount the end of the support brace to the crossbar of the main receiver brace using the supplied #14 self-drilling screws (Fig.U – arrows). Then, remove the center support bracket's 10mm bolt (Fig.U – circle). Now, proceed to step 17 on the following page.

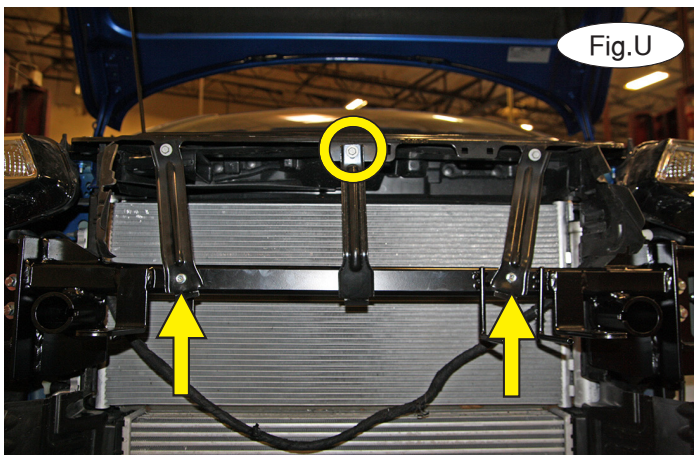


Fig.U

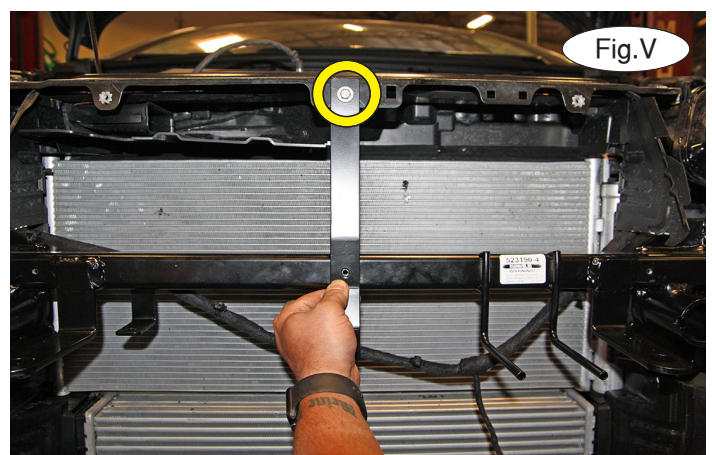


Fig.V

16. **For diesel models only:** Install the optional center strap using the 10mm (head) bolt located on the lip of the fascia, and leave the bolt finger-tight for now (Fig.V – circle). Now, align the hole in the center strap with the hole in the main receiver brace (Fig.V) and bolt through it using the supplied #14 self-drilling screw (Fig.W – arrow). Then, use the drawing on page 1 to locate the side-specific small straps and install each one to the main receiver brace using #14 self-drilling screws (Fig.X – circles). Bolt the louver housing to all three straps using $\frac{1}{4}$ " x 1" bolts and $\frac{1}{4}$ " whiz nuts (Fig.X – arrows).

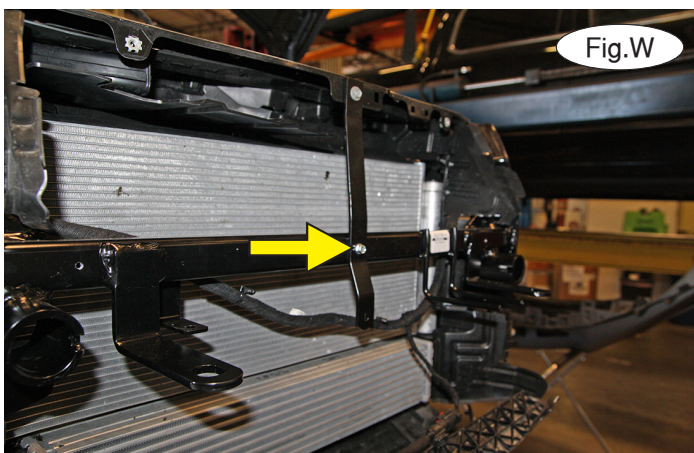


Fig.W

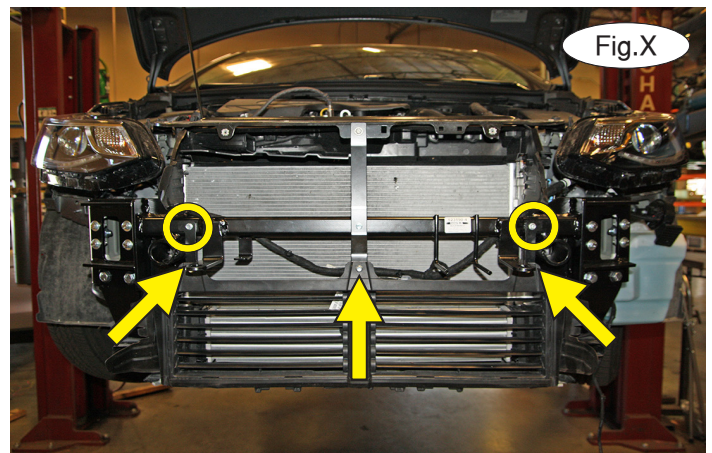


Fig.X

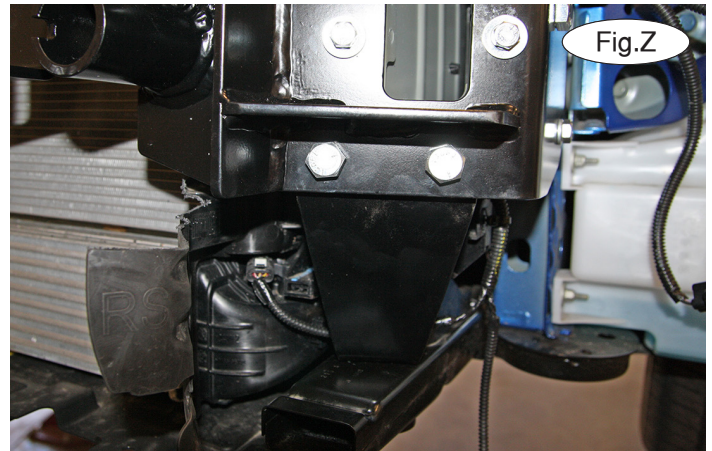
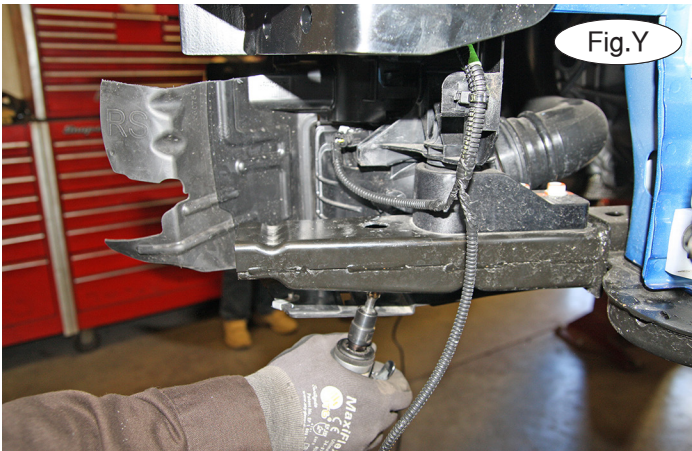


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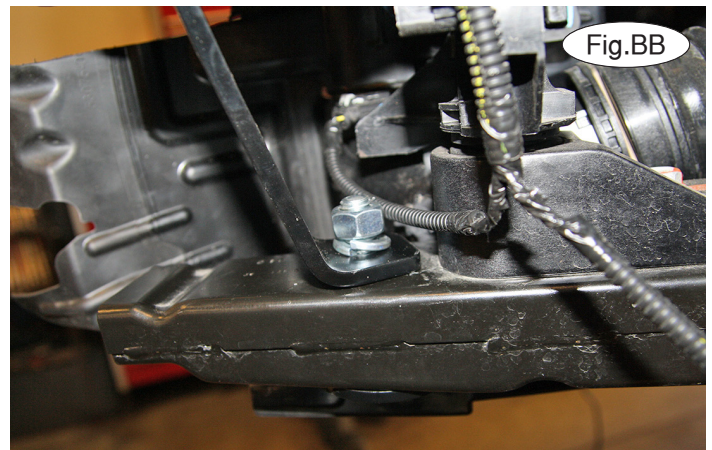
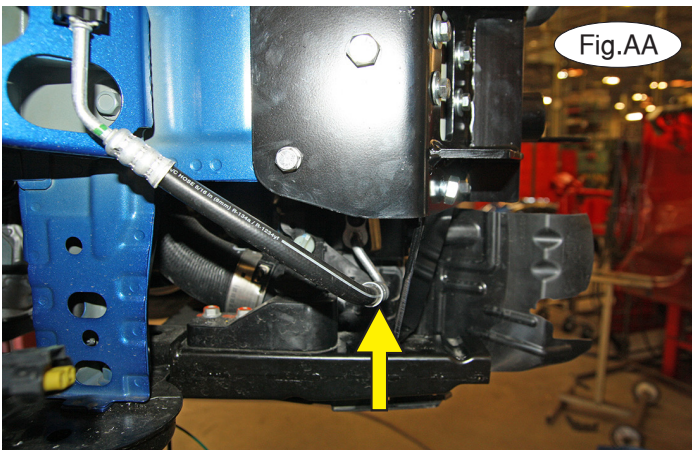
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17. Zip tie the wiring harness to the back of the main receiver brace.

18. On each side, hold the lower support brace up, aligning its upper holes with the holes in the main receiver brace. Temporarily bolt the lower support brace to the main receiver brace using the two supplied $\frac{1}{2}$ " x $1\frac{1}{4}$ " bolts and then mark the lower mount. Remove the bolts and the brace.



19. Use a drill bit or a die grinder to enlarge the holes you marked in the previous step (Fig.Y). *Note:* the passenger side already has a slotted hole but the outer edge of the slot will need to be enlarged to accommodate the bolt for the lower mount.

20. On each side, bolt the lower brace to the main receiver brace using the supplied $\frac{1}{2}$ " x $1\frac{1}{4}$ " bolts and finish with $\frac{1}{2}$ " lock washers and nuts (Fig.Z).

21. On each side, bolt up through the lower mount of the lower support brace and the subframe using the supplied $\frac{1}{2}$ " x 3" bolt and $\frac{1}{2}$ " plate washer, and finish with a $\frac{1}{2}$ " lock washer and nut (Fig.AA).

22. On the passenger side, ensure that the cooling line does not contact the braces or their hardware (Fig.BB). If it does, bend it out of the way.



23. Remove three clips attaching the foam shock absorption pad to the fascia (Fig.CC). It will not be replaced. *Note:* retain the bumper core and its hardware for replacement in case the mounting bracket is ever removed.



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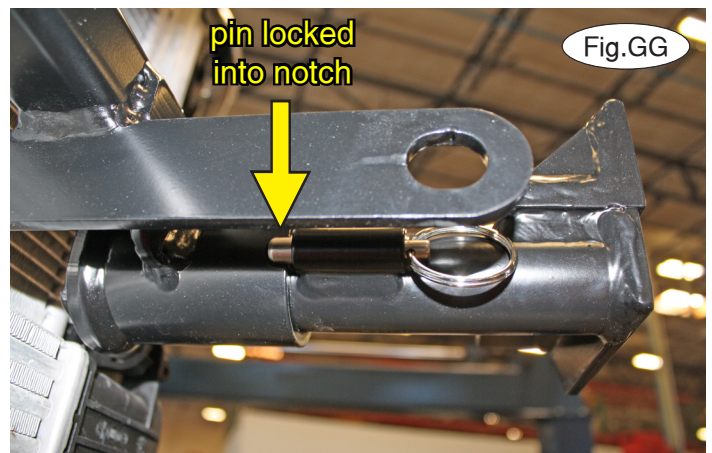
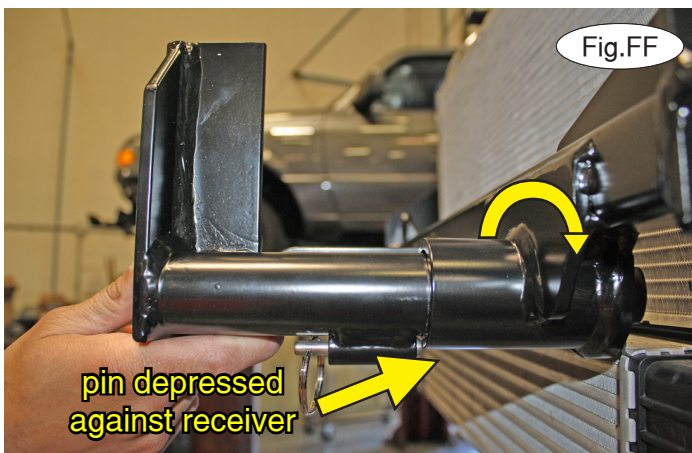
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24. **If your vehicle is an RS:** trim the fascia on each side as shown in Figure DD. **For all other models:** trim as shown in Figure EE. *Note:* additional trimming may be needed for the safety cable tab and plug rods.

25. Torque all bolts to the bolt torque specifications found at the end of these instructions. *Note:* use Loctite® Red on all nuts and bolts.



26. *Note: these two images are for illustration purposes only, as your specific application may be slightly different.* 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.

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



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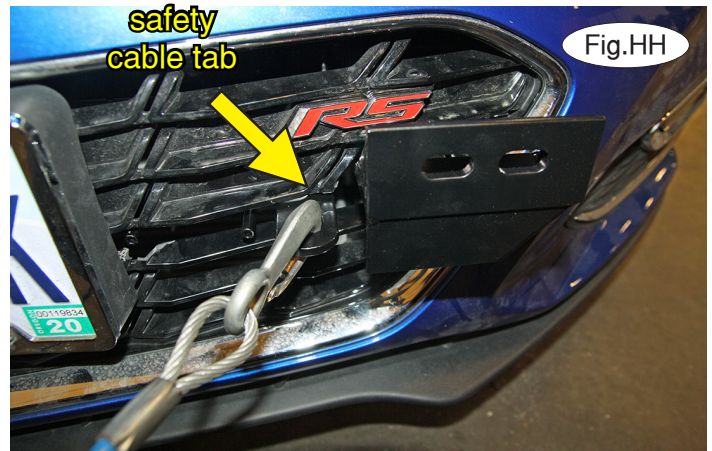
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IMPORTANT!

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.

Note: if the bracket is so equipped, the holes in the alignment tabs which are welded to the arms and main receiver braces are for padlocks only. Under no circumstances should you bolt the alignment tabs together. Bolting the alignment tabs together may result in non-warranty damage to the bracket.

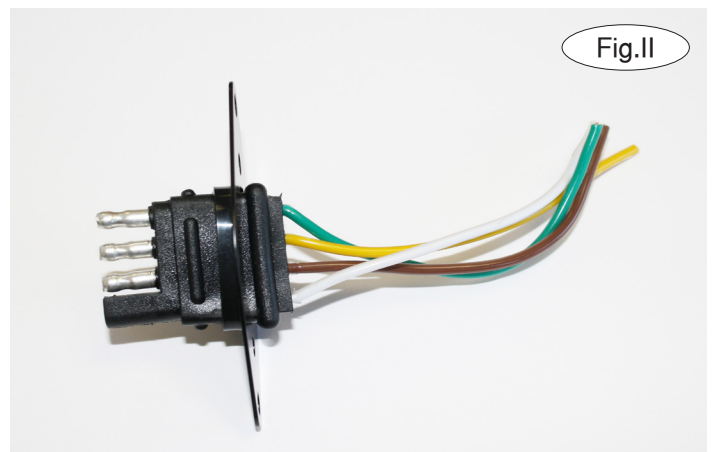


Three options for attaching the wiring plug to the main receiver brace

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 |
|-------------|-------|-------------|
| 5/16-18 | 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.