

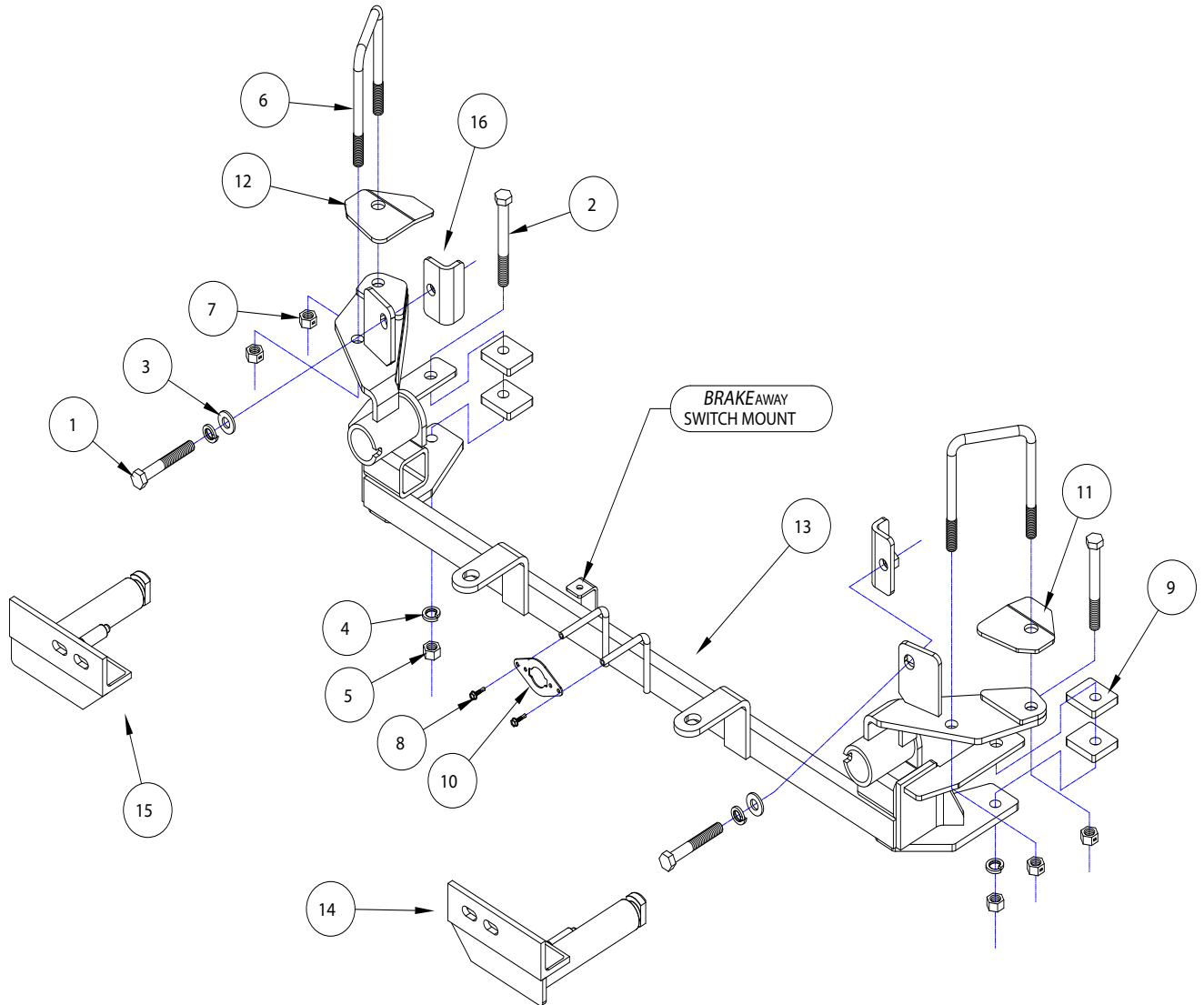


BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 524448-4

03/24/20
KS

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



ITEM	QTY	NAME	MATERIAL
1	2	1/2" x 3 1/2" BOLT	350103-00
2	2	1/2" x 4 1/2" BOLT	350106-00
3	2	1/2" FLAT WASHER SAE	350308-20
4	4	1/2" LOCK WASHER	350309-00
5	2	1/2" HEX NUT	350258-00
6	2	1/2" x 3.5" x 5.5" U-BOLT	357021-50
7	4	1/2" TWO WAY LOCK NUT	350258-20
8	2	#10 X 3/4" SELF DRILLING SCREW	350247-35
9	4	SPACER PLATE	A-000765
10	1	WIRE PLUG PLATE	A-003801
11	1	DRIVER SIDE SHIM PLATE	B-002900
12	1	PASSENGER SIDE SHIM PLATE	B-002901
13	1	MAIN RECEIVER BRACE	C-002985
14	1	DRIVER SIDE ARM	C-002986
15	1	PASSENGER SIDE ARM	C-002987
16	2	THREADED BACKING PLATE	C-003517



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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 bracket consists of a main receiver brace, two removable front braces, and a hardware pack.

The main receiver brace mounts to the bumper core and subframe. 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.

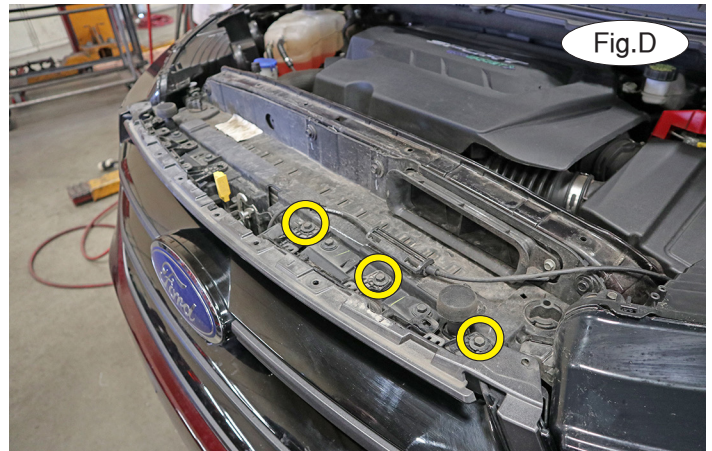
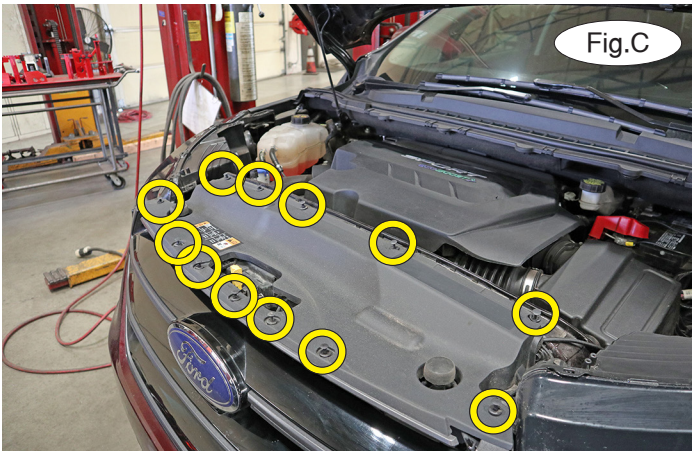


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1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation by removing 12 plastic fasteners attaching the top of the radiator cover to the core support (Fig.C). Set the radiator cover aside for now.

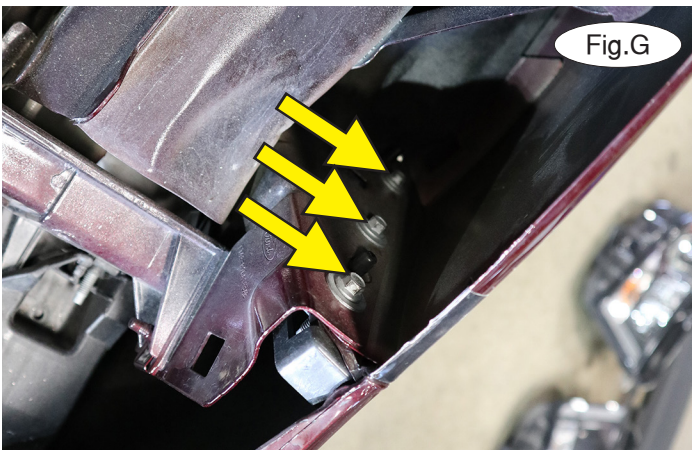
2. Now, on each side, remove three 10mm bolts attaching the top of the upper fascia to the core support (Fig.D).



3. On each side, remove two 10mm bolts attaching the headlight to the fender and core support (Fig.E). Disconnect the harness (Fig.F), and remove the headlight. Set it aside for now.

4. On each side, remove three 8mm bolts attaching the upper fascia to the fender (Fig.G).

5. On each side, turn the wheel inward and remove six 5.5mm screws attaching the fender liner to the fascia (Fig.H).



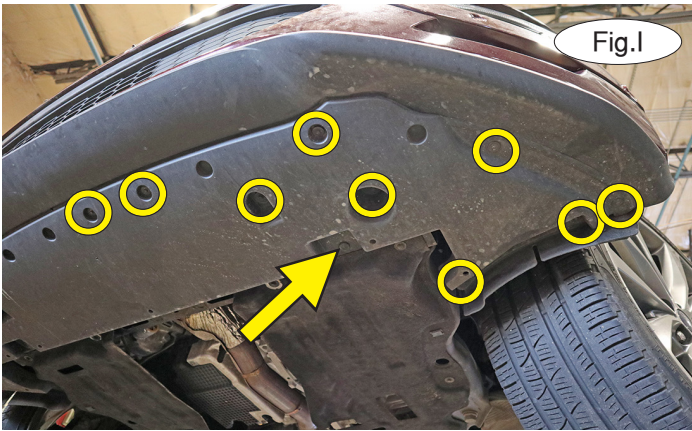


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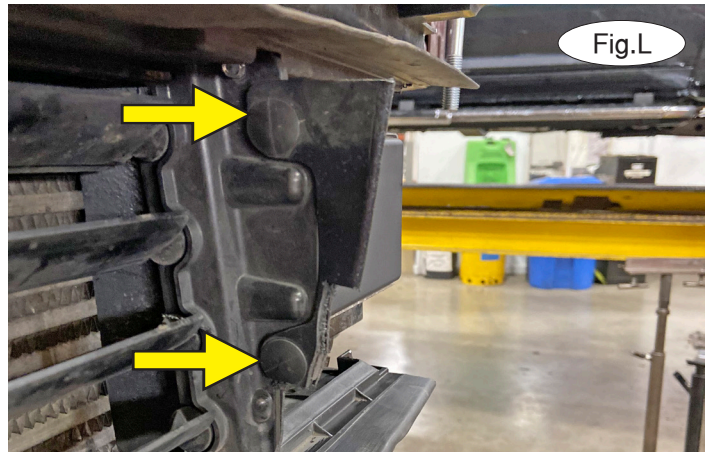
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6. On each side, remove seven 5.5mm screws, two 7mm screws and one plastic fastener (arrow) attaching the splash shield to the fascia and subframe (Fig.I). Set the splash shield aside for now.

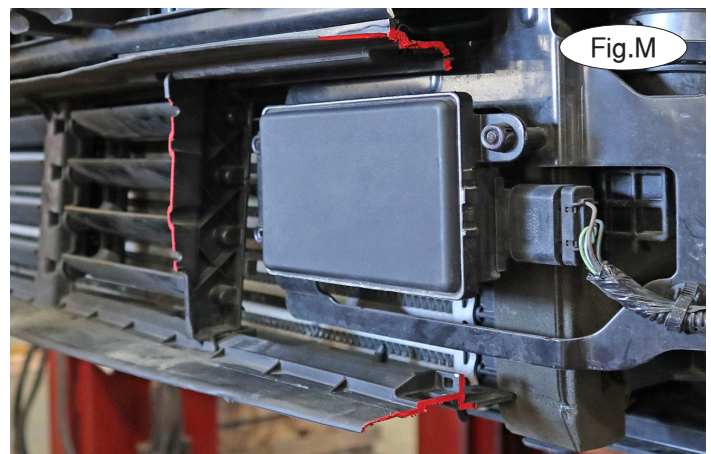
7. On the passenger side only, if the vehicle is equipped with a front camera sprayer, disconnect the hose under the washer bottle and cap it off (Fig.J).



8. On each side, lift up on the plastic retaining clip attaching the fascia to the headlight frame (Fig.K) and then remove the fascia. Disconnect the fog lights, engine block heater and electrical harnesses, if the vehicle is so equipped. **Note: Do not turn the vehicle on at any point once the fascia has been removed, as it may trigger a check engine light on the dash.**

9. On the driver's side only, remove the air dam by releasing two plastic fasteners (Fig.L – arrows) and, on the opposite side of the air dam, release the two clips by pulling it toward the outside of the vehicle.

10. Trim the active air shutter housing (Fig.M – red lines).



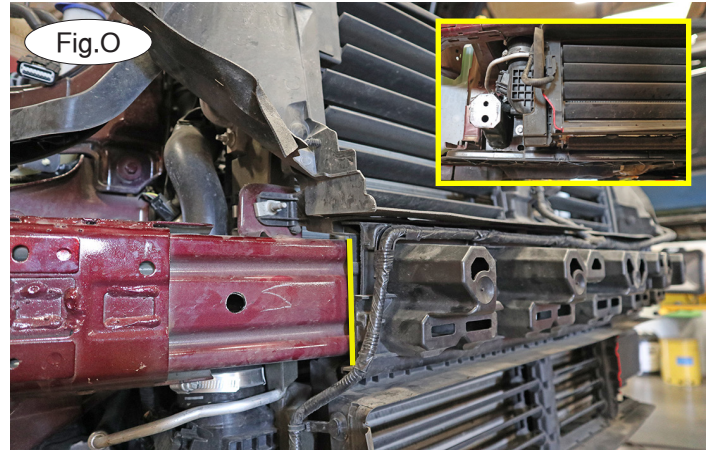
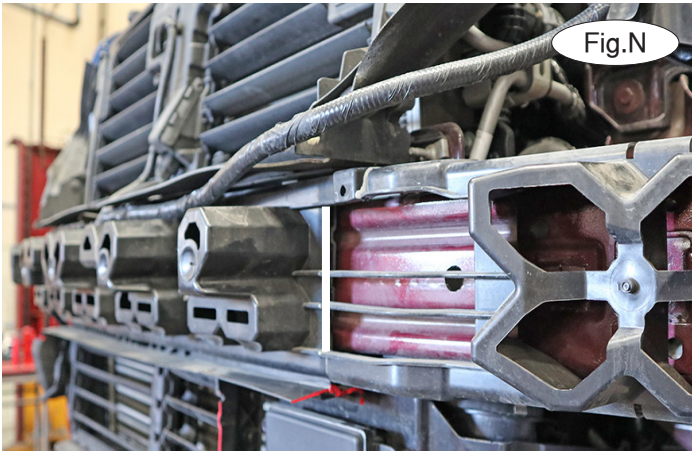


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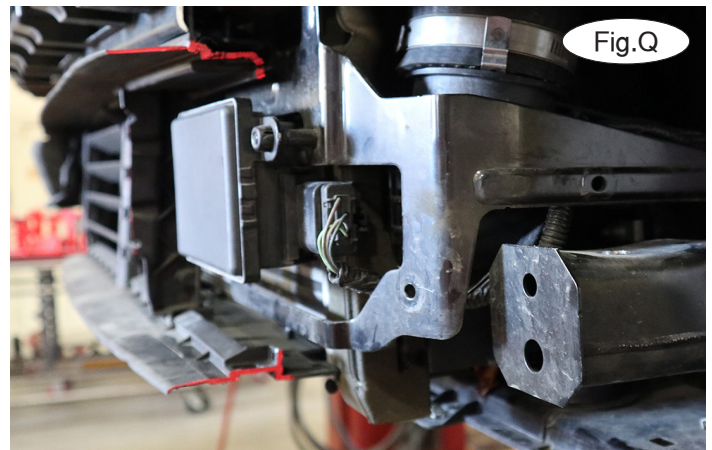
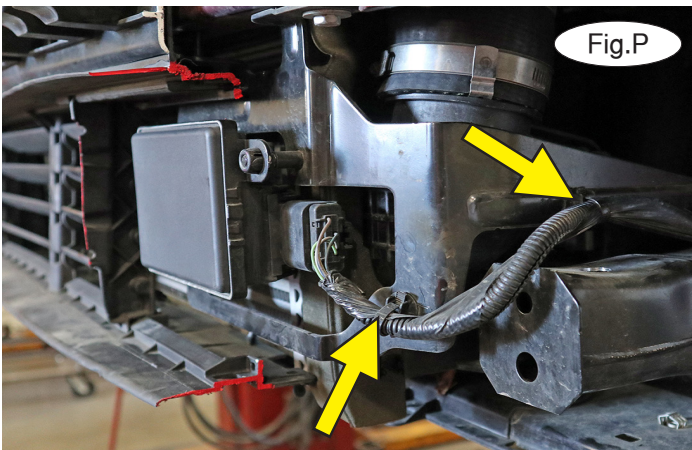
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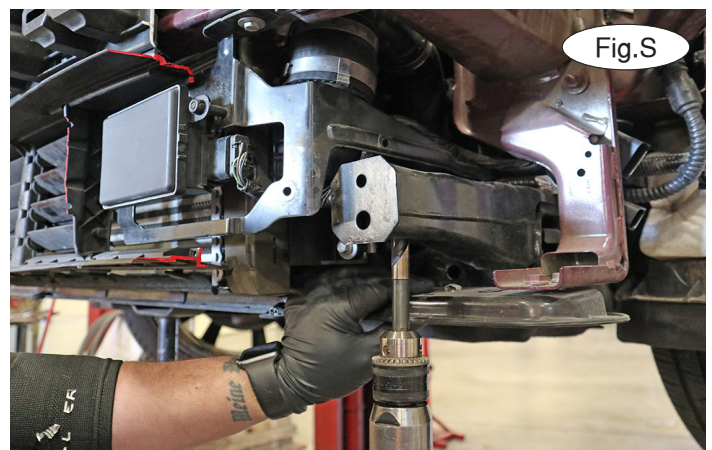
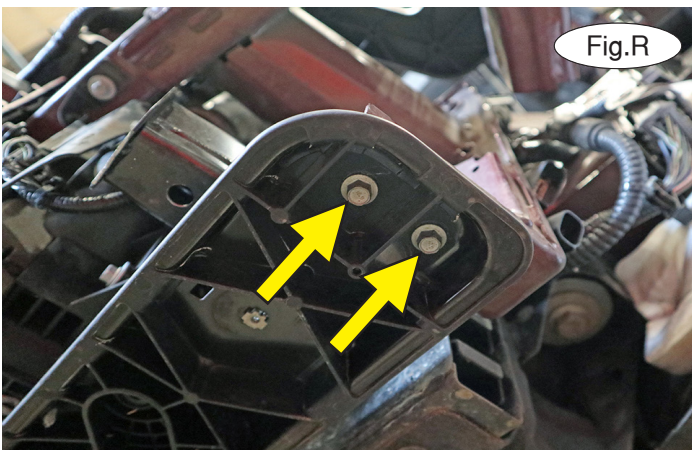
11. On the driver's side, trim the outside end of the plastic shock absorption pad (Fig.N – white line). On the passenger side, trim the pad (Fig.O – yellow line) and the bottom of the housing (Fig.O – inset).

12. On the driver's side, carefully unplug the ACC harness and unclip it from its mount. Route the harness behind the mount and reconnect the ACC unit (Fig.P).



13. Use a jackstand to support the lower radiator support and, on each side, remove two 10mm bolts attaching the lower radiator support to the frame rail (Fig.R).

14. On each side, push the radiator support out of the way and use a 17/32" drill bit to enlarge the existing holes on the top and bottom of the subframe horn (Fig.S). Now, reinstall the 10mm bolts by reversing step 13. Then, remove the jackstand.



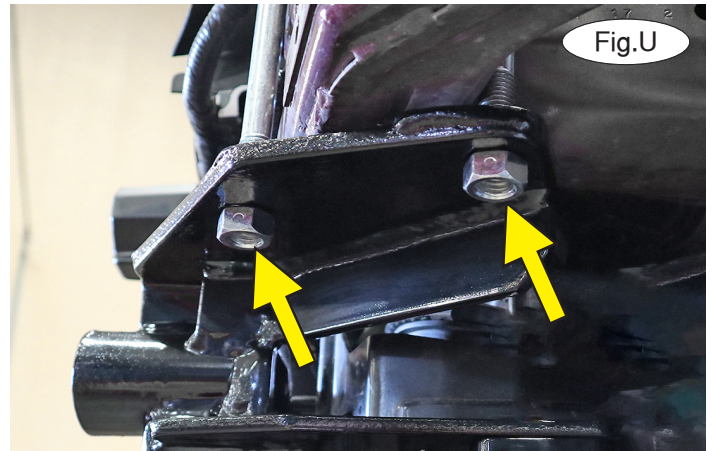


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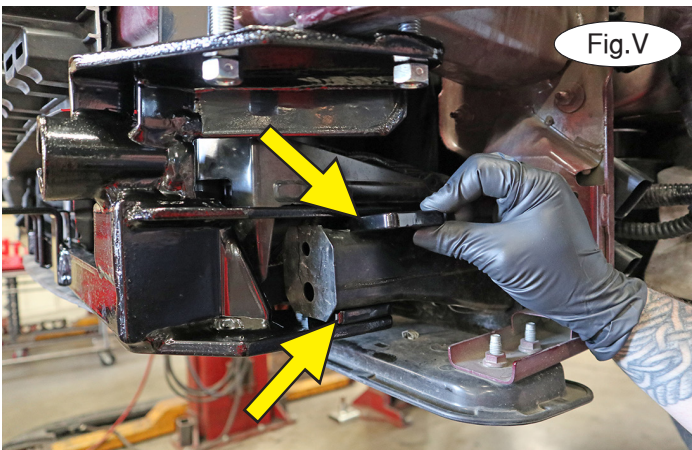
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15. Refer to the drawing on page 1 to locate the side-specific upper mounting plate. Then, on each side, install the plate along the contour and place a U bolt through it so that it sits in the seam (Fig.T).

16. On each side, with the help of another person, place the main brace under the bumper core and over the U bolts and then thread on the 1/2" two-way locknuts (Fig.U – arrows). *Note:* the two-way locknuts have a dimple on the side and are self-locking. *Note:* ensure that wiring looms are not being pinched between the baseplate and the frame.

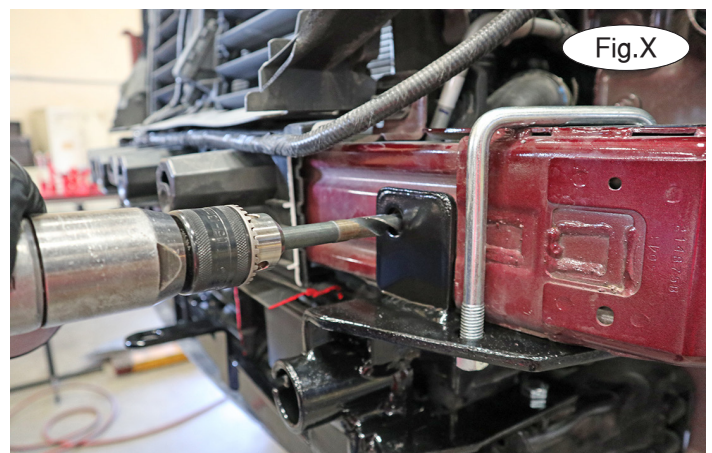


17. On each side, place an offset hole spacer above and below the frame rail, between the baseplate and frame rail (Fig.V).

18. On each side, pass a 1/2" x 4 1/2" bolt down through the baseplate, spacer, subframe, spacer and baseplate (Fig.W). Finish with a 1/2" lock washer and 1/2" nut.

19. Tighten all bolts to the bolt torque requirements found at the end of these instructions. *Note:* use Loctite® Red on all nuts and bolts. Start with the 4 1/2" bolts and then the two way locking nuts. *Note:* Ensure that you tighten the locking nuts evenly.

20. On each side, use the upper mount of the baseplate as a guide and drill a 17/32" hole through the bumper core (Fig.X). *Note:* Use caution and a piece of metal as a buffer to ensure that you don't drill into the engine components.





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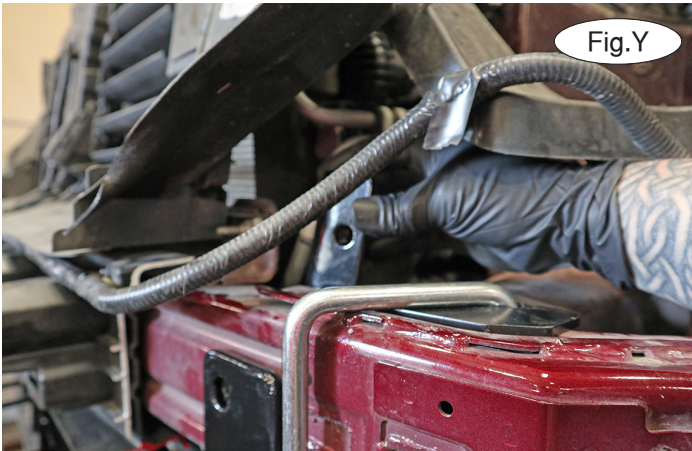


Fig.Y

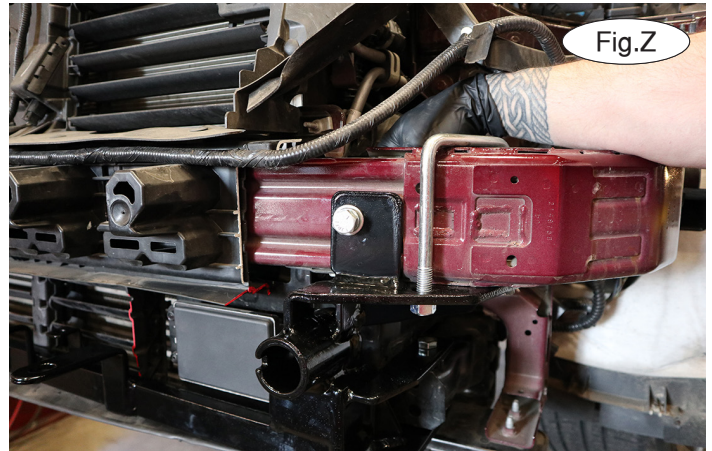


Fig.Z

21. On each side, place one of the angled and nitted plates behind the baseplate, aligning it with the hole you drilled in the previous step (Fig.Y). Then, place a 1/2" lock washer and a 1/2" flat washer over a 1/2" x 3/8" bolt and pass it through the baseplate and hole you drilled in the previous step, and into the plate (Fig.Z).

22. If the vehicle does not have an engine block heater, proceed to the next step. If it does, locate the retaining clips on the fascia mount and pull outward to release the plug and squeeze the remaining two retaining clips to push the mount through the fascia (Fig.AA and Fig.BB). It will not be replaced. Route the plug up through the engine compartment and zip tie it near the battery for easy access.



Fig.AA



Fig.BB

23. Cut out the enclosed template from the last page and place it over the fascia (Fig.CC). Drill a pilot hole in the center of the circle, and then trim the fascia to match the template hole (Fig.DD). Trim for the wiring plug mounts as well. *Note:* If you have an engine block heater and wish to order a new grille, the part number is FT4Z-17K945-EA.



Fig.CC



Fig.DD



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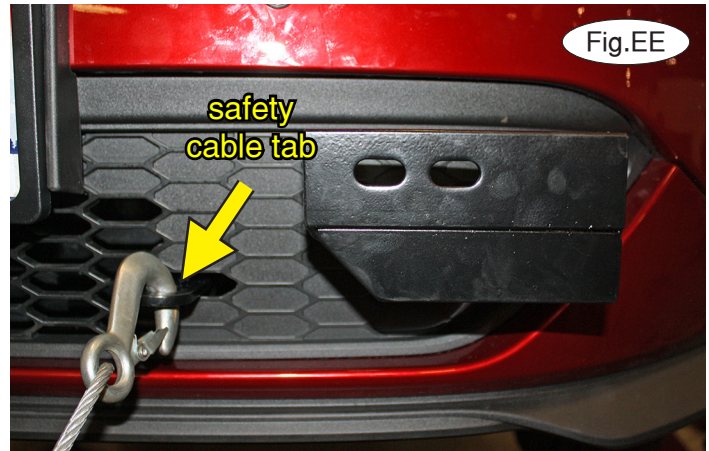
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24. On each side, insert the removable front arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver. Twist back 90 degrees until the spring-loaded pin snaps into place in the notch 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.**

25. 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 the first page and in Figure EE. 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.

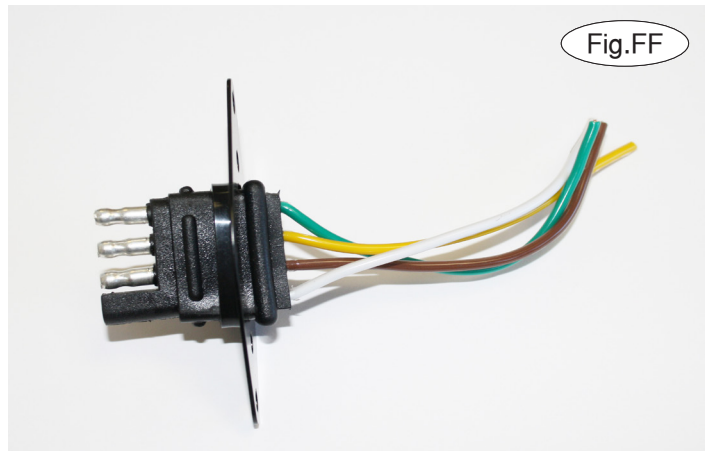
26. Install the tow bar to the mounting bracket according to the manufacturer's instructions.

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.FF). 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.

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