

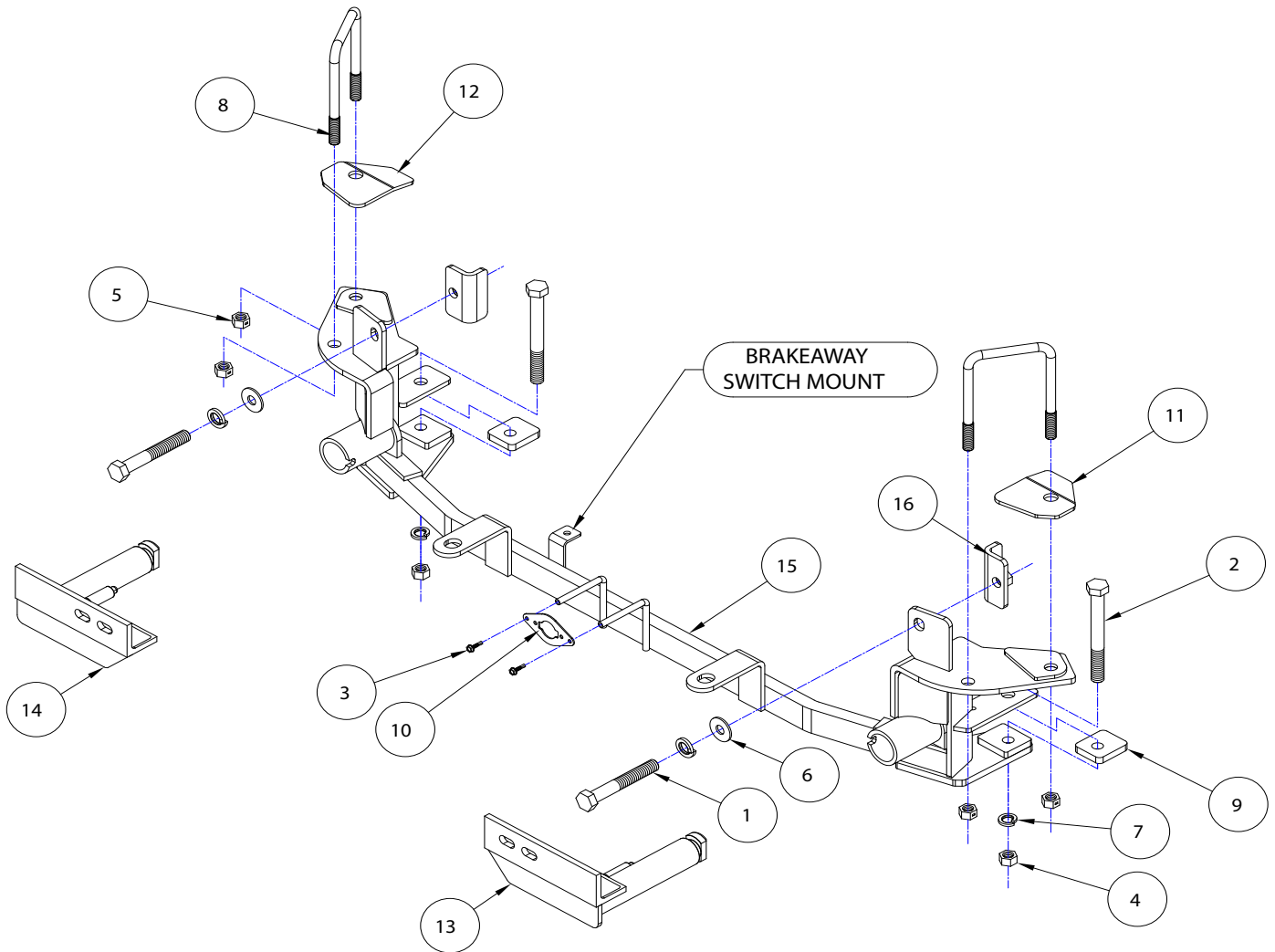


BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 524454-4

09/06/22
KS

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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	#10 x 3/4" SELF DRILLING SCREW	350247-35
4	2	1/2" HEX NUT	350258-00
5	4	1/2" TWO WAY LOCK NUT	350258-20
6	2	1/2" SAE WASHER	350308-20
7	4	1/2" LOCK WASHER	350309-00
8	2	1/2" x 3.5" x 5.5" U-BOLT	357021-50
9	2	3/8" x 1 3/4" x 2" SPACER PLATE	A000765
10	1	WIRE PLUG PLATE	A003801
11	1	DRIVER SIDE SHIM PLATE	B002900
12	1	PASSENGER SIDE SHIM PLATE	B002901
13	1	DRIVER SIDE ARM	C003164
14	1	PASSENGER SIDE ARM	C003165
15	1	MAIN RECEIVER BRACE	C-003166
16	2	THREADED BACKING PLATE	-003517



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This is one of our crossbar-style series baseplates, which allows the visible front portion of the kit to be easily removed from the front of the vehicle (Fig.A and Fig.B). This kit 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.

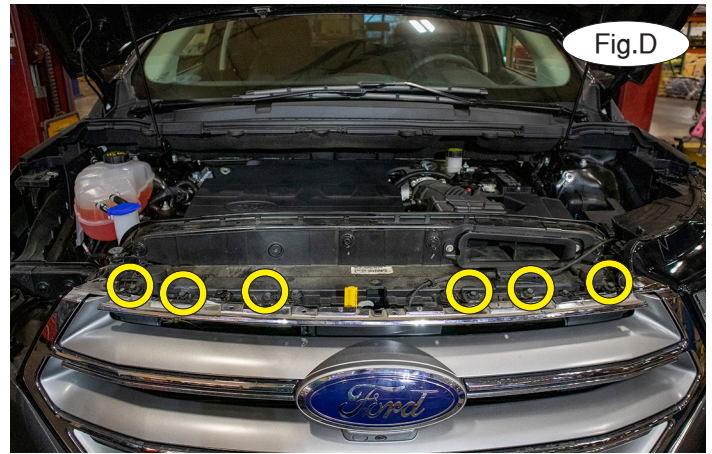


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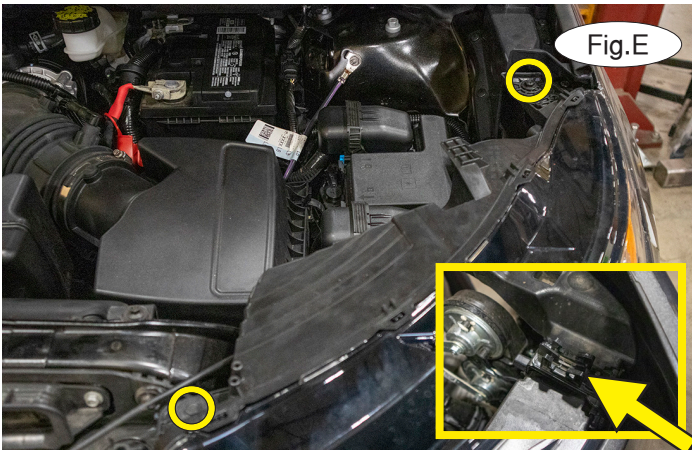
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1. **WARNING! Please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure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

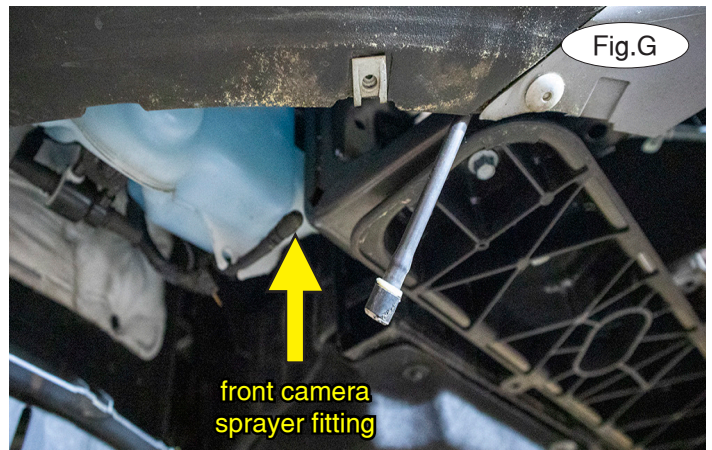
2. Remove six 10mm (head) bolts attaching the upper fascia to the core support (Fig.D).



3. On each side, remove two 10mm (head) bolts attaching the headlight to the fender and radiator support (Fig.E). Pull firmly and straight up to remove it from its clip (Fig.E – inset), disconnect any harnesses, and set the headlight aside.

4. On each side, remove seven 5.5mm (head) screws, two T30 (head) screws and one plastic fastener attaching the lower splash shield to the fascia and the core support (Fig.F – driver's side). *Note: Due to manufacturing variances, the T30 Torx screws may be 7mm (head) screws instead.*

5. **For models without a front camera sprayer:** Proceed to the next step. **For models equipped with a front camera sprayer:** Disconnect the sprayer hose from the sprayer fitting (Fig.G). Use a rubber cap or similar implement to seal off the line.



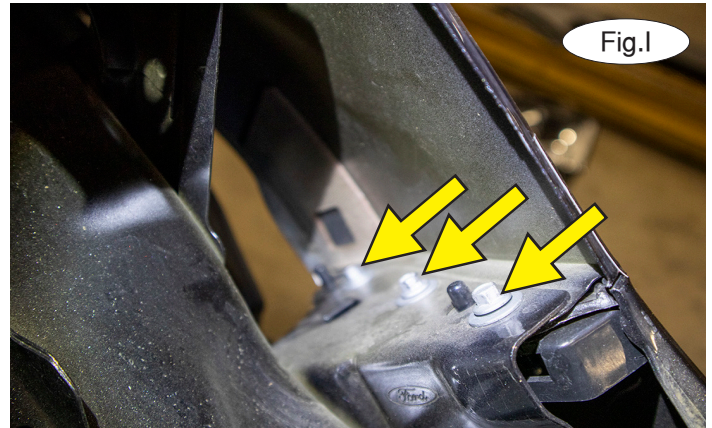
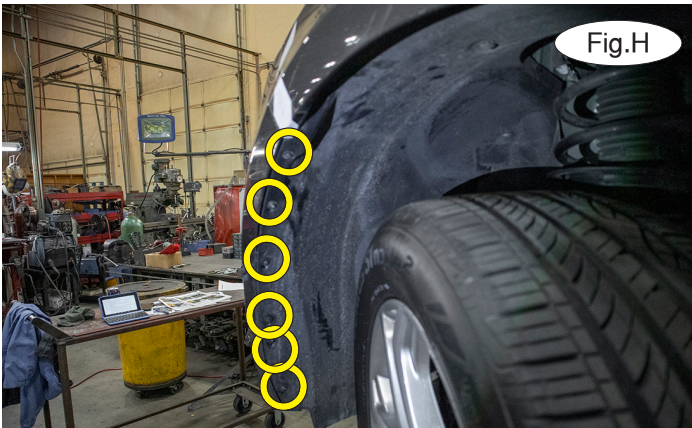


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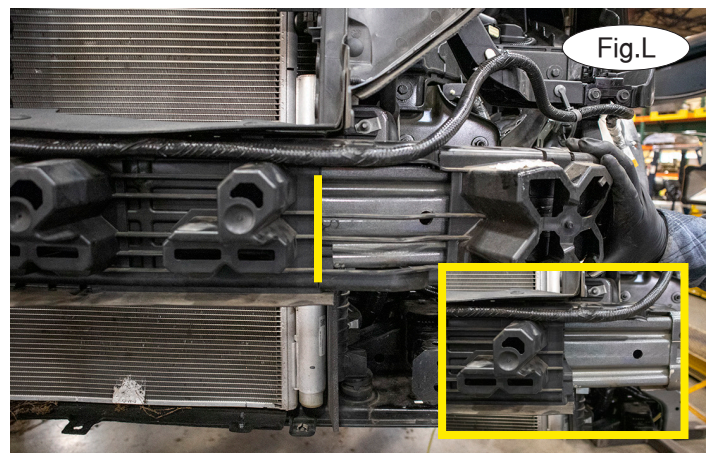


6. On each side, remove six 5.5mm (head) screws attaching the fender liner to the fascia (Fig.H).
7. On each side, remove three 8mm (head) bolts attaching the fascia to the fender (Fig.I).



8. On each side, lift up the plastic retaining clip located on the inner headlight area (Fig.J) to release the fascia. Pull straight out to remove it (Fig.K). Disconnect any electrical harnesses and set the fascia aside for now.

9. On each side, trim the shock absorption pad as shown (Fig.L – yellow line). Figure L (inset) shows the final trimming.



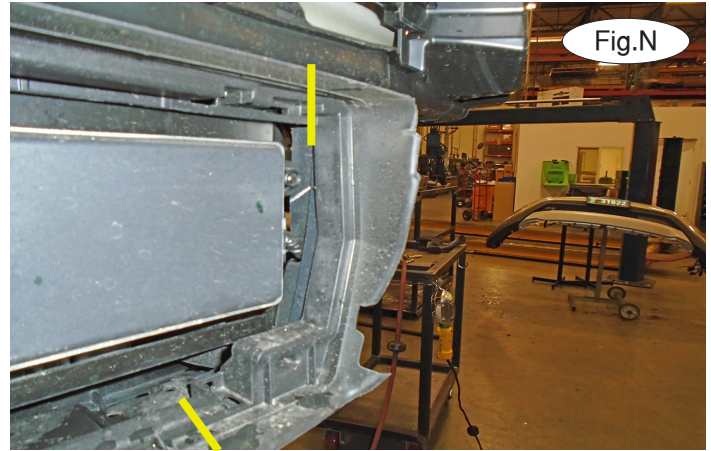
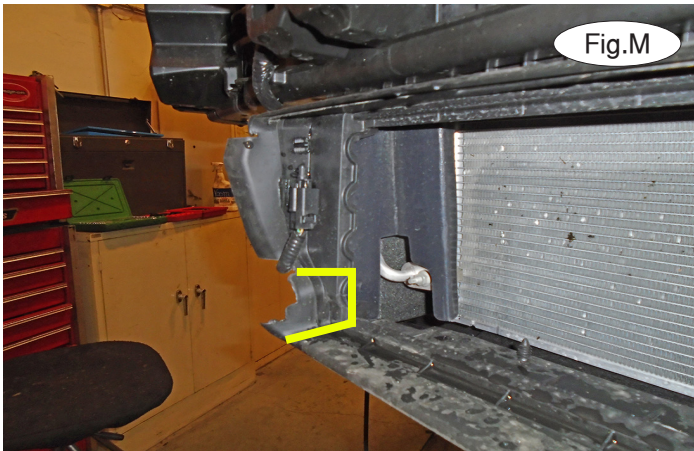


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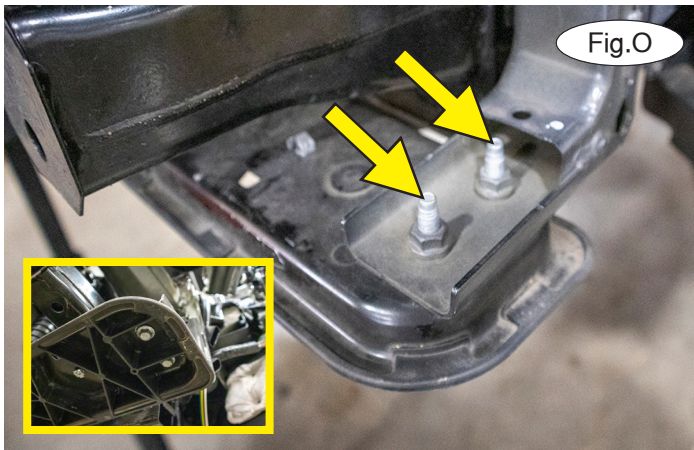
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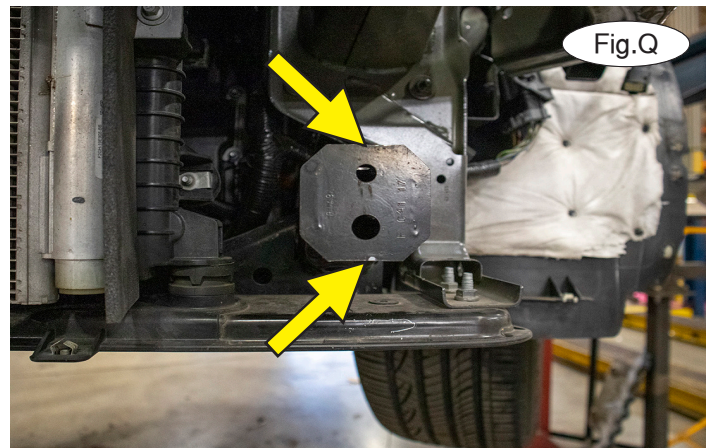
10. On each side, if the vehicle is so equipped, carefully remove the two bottom louvers and then trim the louver housing to allow clearance for the main receiver brace (Fig.M – passenger side) (Fig.N – driver's side). *Note: When trimming the driver's side, you will be trimming off the side of the louver housing.*

11. Support the radiator with a jack stand. Then, on each side, remove two 10mm (head) bolts attaching the radiator support to the frame (Fig.O and Fig.O – inset).



12. On each side, push the radiator support out of the way and use a 17/32" drill bit to enlarge the existing holes in the bottom and top of the frame horn (Fig.P). Then, re-install the bolts you removed in the previous step.

13. On each side, trim about 1/8" off the top and bottom of the frame horn as shown in Figure Q to allow clearance for the main receiver brace.



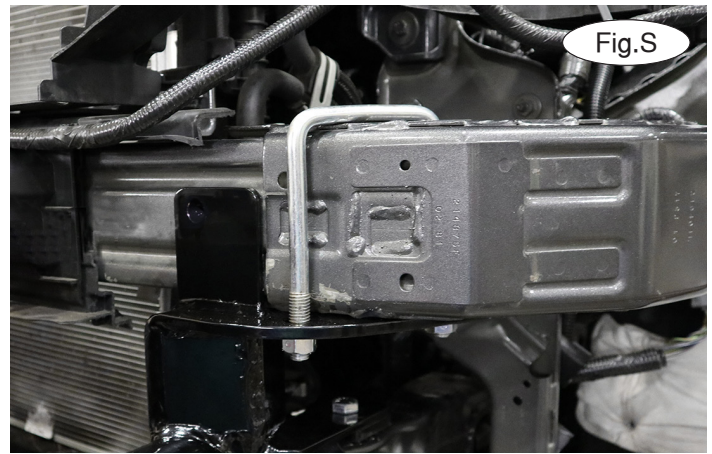


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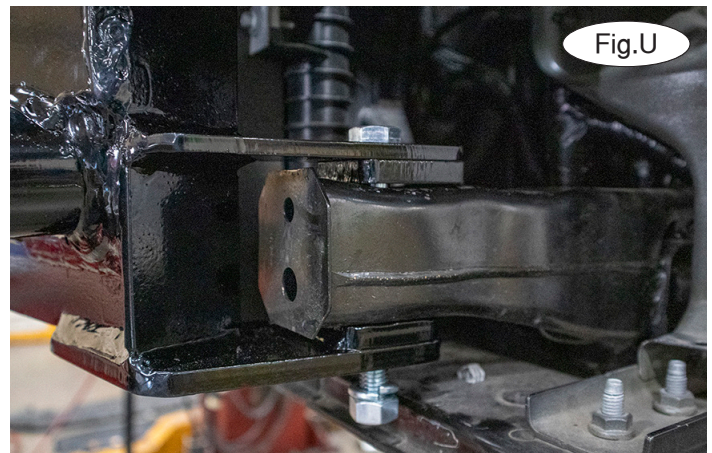
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14. Use the drawing on page 1 to locate the side-specific shim plates. Then, on each side, place the correct shim plate on top of the bumper core so it fits into the bumper profile. Then, place the U bolt over the bumper core and through the shim plate (Fig.R).

15. With the help of another person, place the main receiver brace under the bumper core and over the U bolts. Then, loosely thread the $\frac{1}{2}$ " two-way lock nuts onto the U bolts. *Note: The two way lock nuts are the dimpled ones and are self-locking (Fig.S).* Ensure the wiring looms are not being pinched between the baseplate and the frame.

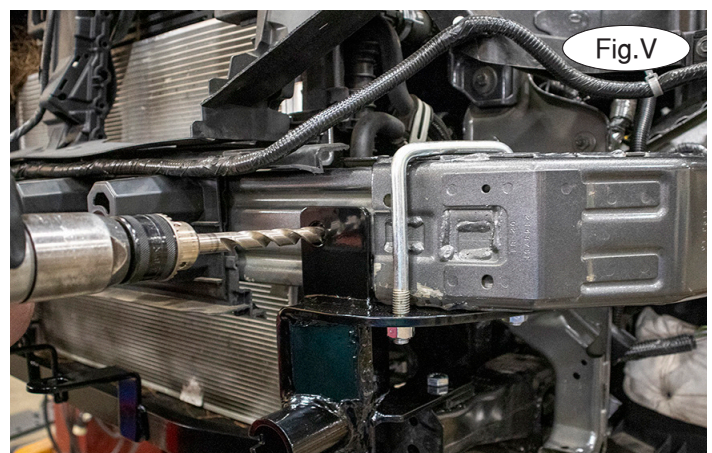


16. On each side, place a $\frac{3}{8}$ " x $1\frac{1}{4}$ " x 2" spacer with an offset hole between the baseplate and the top of the sub-frame horn (Fig.T). *Note: When installed correctly, the hole in the spacer should be closest to the front of the vehicle.*

17. On each side, use a $\frac{1}{2}$ " x $4\frac{1}{2}$ " bolt and pass it down through the top of the baseplate, the spacer you installed in the previous step, the frame horn and the bottom of the baseplate. Finish with a $\frac{1}{2}$ " lock washer and nut (Fig.U).

18. Now, tighten the $\frac{1}{2}$ " bolts on each side to the bolt torque specifications. Then, tighten the nuts on the U bolts.

19. On each side, use the upper mount of the baseplate as a template and drill a $\frac{17}{32}$ " hole through the bumper core (Fig.V).



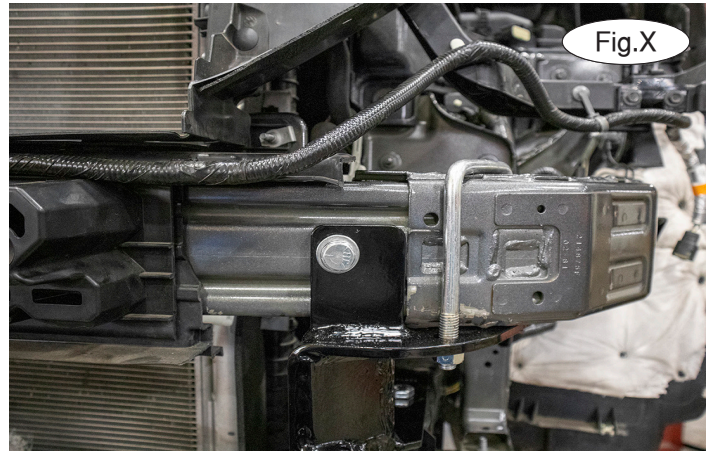


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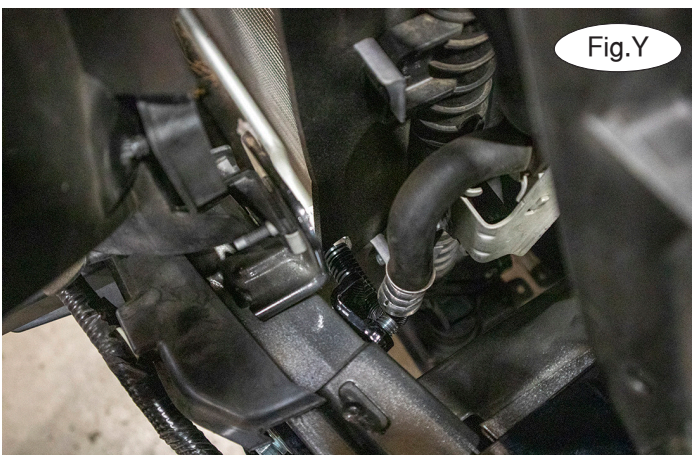
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20. Place a 1/2" lock washer and 1/2" small flat washer over a 1/2" x 3 1/2" bolt and pass it through the hole you just drilled into a 3/16" x 1 1/2" x 3" bent nutted backing plate you insert behind the bumper core (Fig.W). The plate has to sit with the bent edge to the inside (Fig.X). *Note:* Ensure the plate doesn't contact the coolant line (Fig.Y). If it does, carefully bend it out of the way so it doesn't touch.



21. Trim the fascia to allow clearance for the main receiver brace, using the pattern in Figure Z as a guide. **Note: Make certain to trim as little as necessary to allow clearance for the main receiver brace. The Adaptive Cruise Control unit must remain completely covered by the plastic grille. Otherwise, malfunction of the Adaptive Cruise Control system may result.**

22. Tighten all remaining bolts to the bolt torque requirements found at the end of these instructions. *Note: Use Loctite® Red on all nuts and bolts.*

23. Reinstall the fascia, reversing steps 1 through 8.

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.

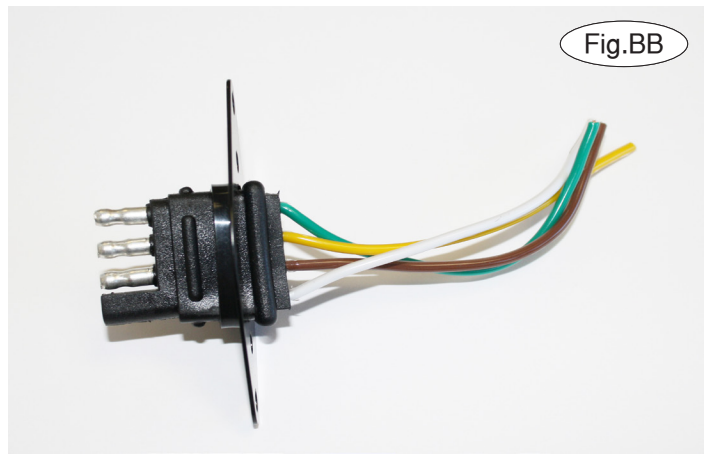


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IMPORTANT!

Safety cables are required by law. When towing, connect safety cables to the safety cable tabs illustrated on the first page and in Figure AA. 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.

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.BB). 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.