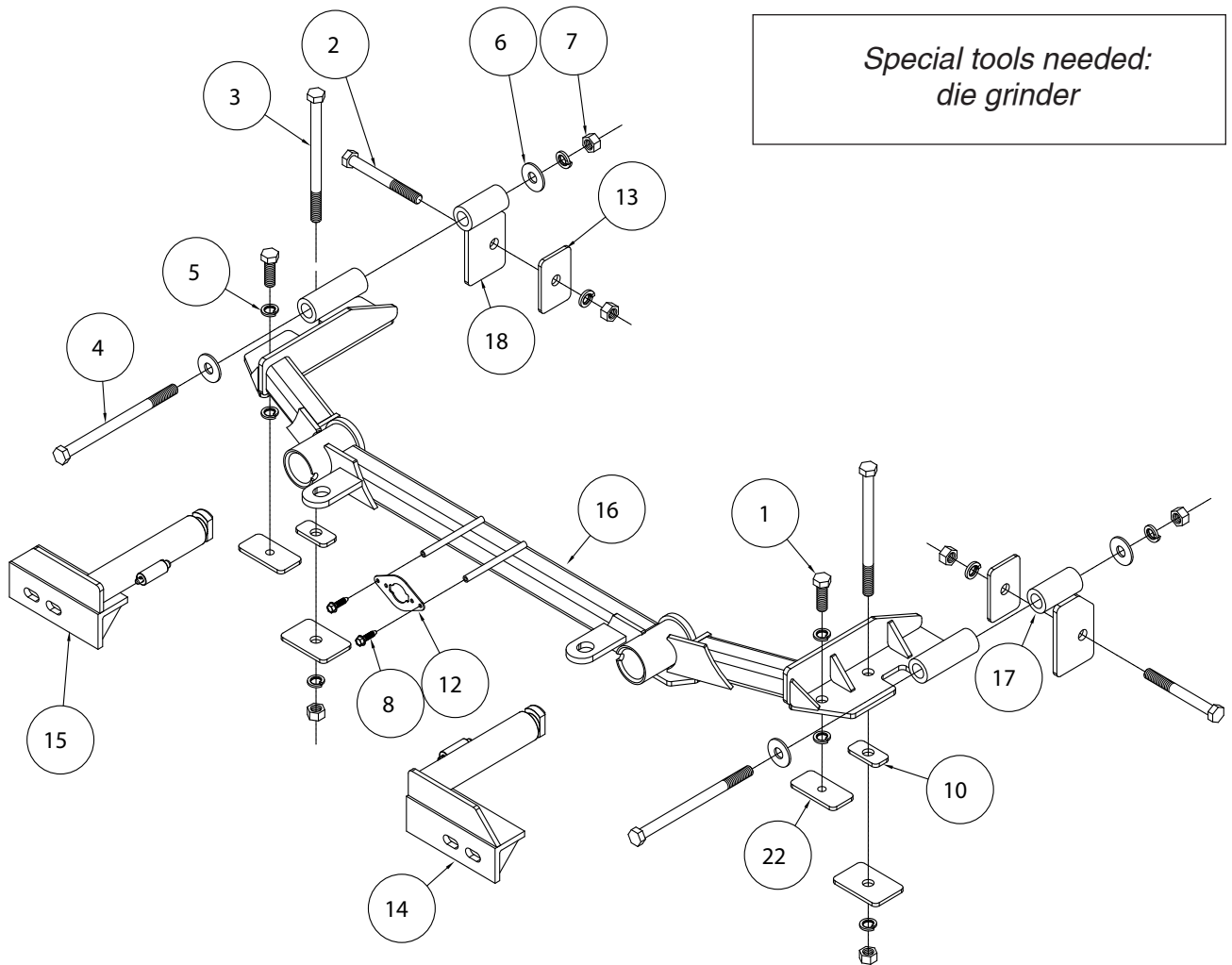




MOUNTING BRACKET KIT KIT# 524441-4

INSTALLATION INSTRUCTIONS



*Special tools needed:
die grinder*

ITEM	QTY	NAME	PART #
1	2	1/2" x 1 1/2" BOLTS	350095-00
2	2	1/2" x 4 1/2" BOLTS	350106-00
3	2	1/2" x 7" BOLT	350111-00
4	2	1/2" x 7 1/2" BOLT	350112-00
5	10	1/2" LOCK WASHER	350309-00
6	4	1/2" FLAT WASHER	350308-00
7	6	1/2" HEX NUT	350258-00
8	2	#10 x 3/4" SELF DRILLING SCREW	350247-35
9	1	1" O.D. x 5/8" SPACER	A-000156
10	2	1" x 2" BACKING PLATE	A-000842
11	1	1" O.D. x 1/4" SPACER	A-001022
12	1	WIRE PLUG PLATE	A-003801
13	4	2" x 3" BACKING PLATE	A-004473
14	1	DRIVER SIDE ARM	C-002752
15	1	PASSENGER SIDE ARM	C-002753
16	1	MAIN RECEIVER	C-002754
17	1	DRIVER SIDE BRACE	C-002756
18	1	PASSENGER SIDE BRACE	C-002755
19	1	6mm x 1 x 40mm BOLT	355751-00
20	1	6mm LOCK WASHER	355761-00
21	1	1/4" FLAT WASHER	350300-00
22	2	1 1/2" x 3" THREADED BACKING PLATE	A-003079



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 524441-4

This is one of our EZ4 Twistlock series brackets, 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 braces, two removable front braces and a hardware pack.

The main receiver brace mounts to the bumper core and rear braces. 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.



Fig.A



Fig.B

IMPORTANT: All brackets *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
- Use lock washers on all fasteners

ROADMASTER Limited Warranty, including One-Year Conditional Warranty Text and Product Registration Card, in Carton.

WARNING

Failure to follow these instructions can result in property damage, personal injury or even death.

- Installation of most mounting brackets requires moderate mechanical aptitude and skills. We strongly recommend professional installation by an experienced installer.
- The installer must read the instructions and use all bolts and parts supplied. Failure to do so could result in loss of the towed vehicle.
- Use Loctite® Red on all bolts used for mounting this bracket.
- Every 3,000 miles, the owner must inspect the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions. The owner must also inspect all mounts and brackets for cracks or other signs of fatigue every 3,000 miles. Failure to do so could result in loss of the towed vehicle.
- The owner must check the vehicle manufacturer's instructions for the proper procedure(s) to prepare the vehicle for towing. Some vehicles must be equipped with a transmission lube pump, an axle disconnect, driveline disconnect or free-wheeling hubs before they can be towed. Failure to properly equip the vehicle will cause severe damage to the transmission.
- If running changes were made by the vehicle manufacturer after this bracket was designed, some bolts or other fasteners in the hardware pack may no longer be the correct size. It is the installer's responsibility to verify that the bracket is securely fastened to the vehicle and fitted with the correct hardware to account for these changes. Failure to securely fasten the bracket could result in loss of the towed vehicle.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the bracket. Do not install the bracket if any structural frame damage is found. Failure to repair the damage could result in the loss of the towed vehicle.
- Roadmaster manufactures many styles of brackets. If your bracket 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, resulting in non-warranty damage or personal injury.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or bracket 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 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, motorhome and/or towed vehicle.
- 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. Refer to the cable instructions for proper routing. Failure to leave enough slack in the safety cables, or failure to connect the safety cables frame to frame, will result in the loss of the towed vehicle.
- This bracket is designed for use with ROADMASTER tow bars and ROADMASTER adaptors only. Using this bracket with other brands, without an approved ROADMASTER adaptor, may result in non-warranty damage or injury.
- Do not use this document for custom fabrication, as it may not show all parts or structural components. Custom fabrication or an attempt to copy this bracket design could result in loss of the towed vehicle.
- Upon final installation, the installer must inspect the bracket to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc., or non-warranty damage to the towed vehicle will result.
- This bracket is only warranted for the original installation. Installing a used bracket on another vehicle is not recommended and will void the warranty.



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 524441-4



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 top of the fascia to the core support (Fig.C).

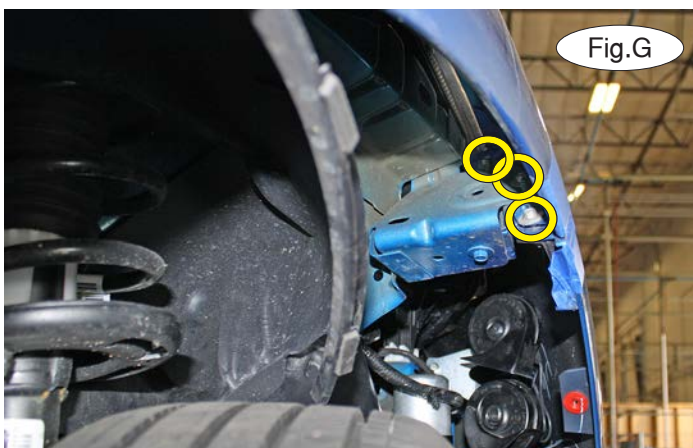
2. On each side, remove four plastic fasteners (Fig.D – yellow arrows denote approximate locations) and two T25 Torx bolts attaching the fascia to the fender liner (Fig.E). *Note:* due to manufacturing variances, there may be an additional 7mm (head) screw toward the bottom of the fender liner, attaching it to the fascia.



3. Remove five 7mm (head) screws attaching the fascia to the splash shield (Fig.F).

4. Pull back the fender liner and remove three 8mm (head) bolts attaching the fender to the fascia (Fig.G).

5. Pull out and forward on the corners of the fascia to remove it (Fig.H).





MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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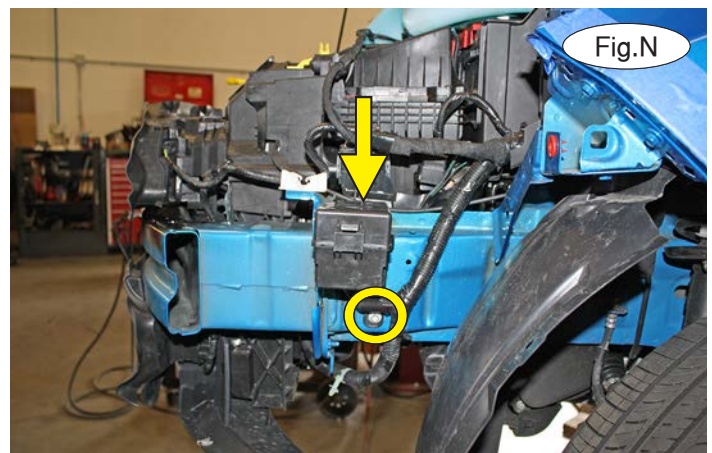
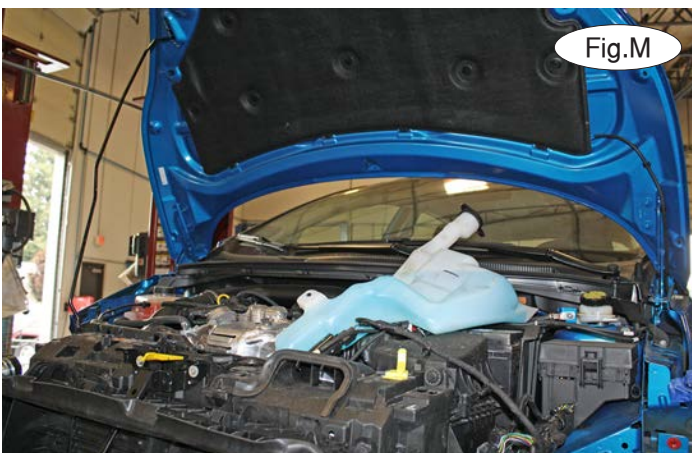


6. On each side, remove two T30 screws attaching the headlight to the frame (Fig.I). Then, unplug the wiring harness (Fig.J) and carefully lift the headlight out and set it aside.

7. On the passenger side only, remove one 10mm nut attaching the component bracket to the side of the frame (Fig.K).



8. On the driver's side, remove two 10mm (head) screws attaching the washer bottle to the frame (Fig.L). Lift the washer bottle and carefully maneuver it around the wiring harnesses and set it on top of the engine compartment for now (Fig.M). Now, remove two 8mm (head) bolts attaching the fuse box to the side of the frame (Fig.N). *Note:* the arrow denotes the approximate location of the top bolt. *Note:* fuse box may not be present on all models.



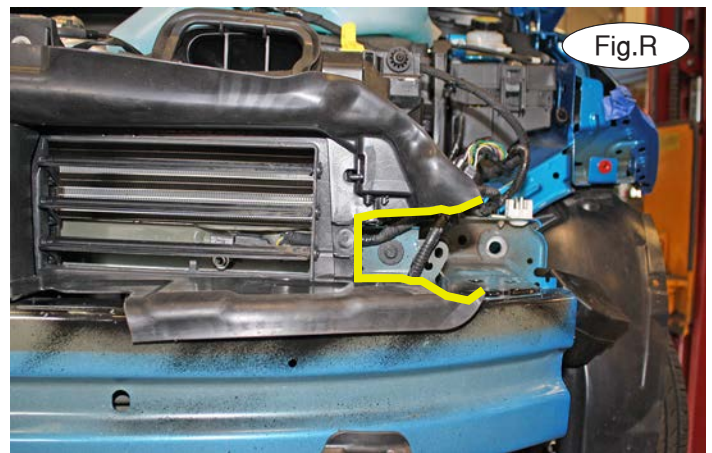
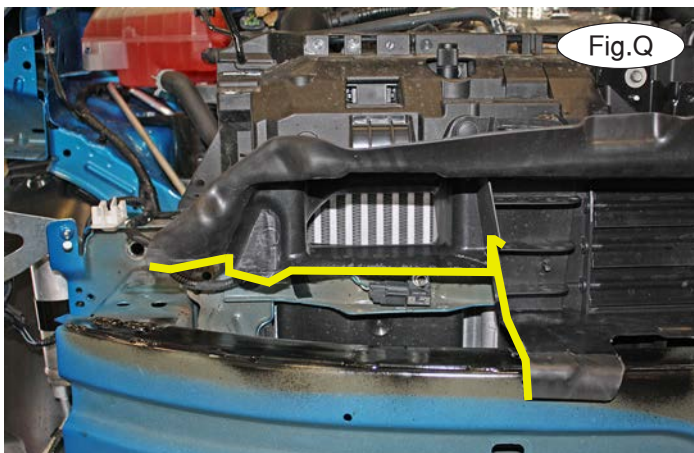


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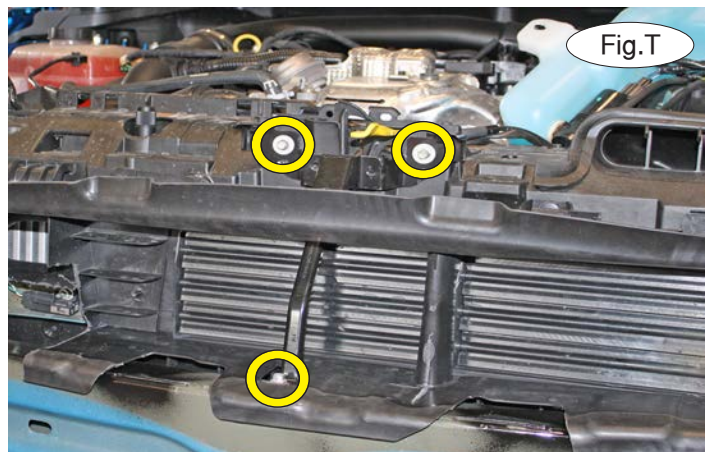
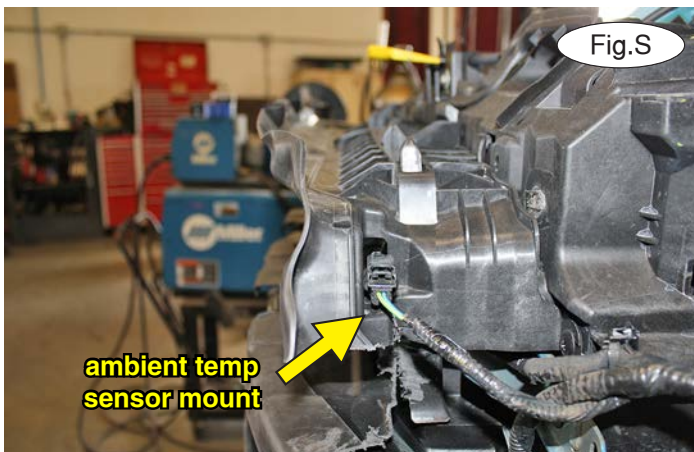


9. On each side, remove the upper- and outermost 13mm (head) bolt attaching the bumper core to the frame rail (Fig.O). Now, using a 9/16" drill, drill out the remaining weld nut (Fig.P).



10. Using the yellow lines as a reference for trimming, trim the air dam to allow clearance for the main receiver brace (Fig.Q – passenger side) (Fig.R – driver's side). *Note:* trimming on cowlings without louvers may be slightly different. *Note:* make certain that you leave the mount for the ambient temperature sensor intact (Fig.S).

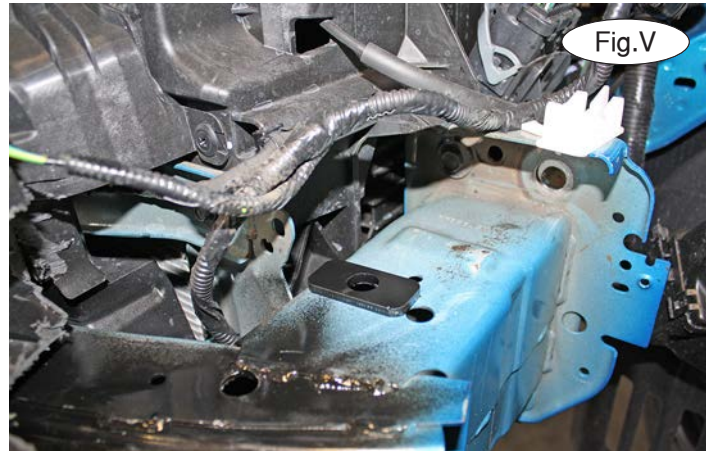
11. Remove three 8mm (head) screws attaching the bracket to the bumper core (Fig.T). Once the bracket is removed, immediately replace the top two screws.





MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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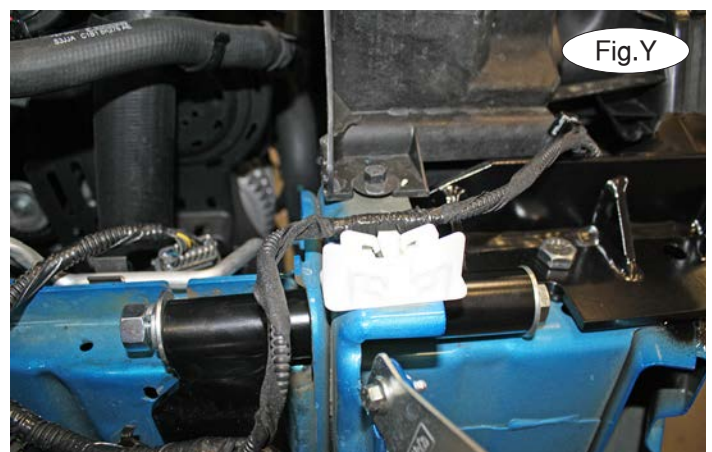


12. On each side, use a die grinder to slightly enlarge the innermost hole on the bumper core as shown in Figure U.

13. On each side, place one of the 3/16" x 1" x 2" backing plates over the hole you enlarged in the previous step (Fig.V). Place the main receiver brace on the bumper core, over the backing plates. Then, using one of the supplied 1/2" x 7" bolts, bolt down through the backing plate and the bumper core. Finish with a 3/16" x 2" x 3" backing plate, and a 1/2" lock washer and nut (Fig.W). **Note: ensure proper alignment, as the bolts will receive Loctite® Red and will be torqued at the end of these instructions.**



14. On each side, align the pipe spacer on the rear brace with the hole with the hole created when the weld nut was drilled out in step 9, and the pipe spacer welded to the main receiver brace (Fig.X). Now, place one of the supplied 1/2" flat washers over one of the 1/2" x 7 1/2" bolts and then bolt through the main receiver pipe spacer, the drilled hole, the rear brace pipe spacer and finish with a 1/2" flat washer, lock washer and nut (Fig.Y).





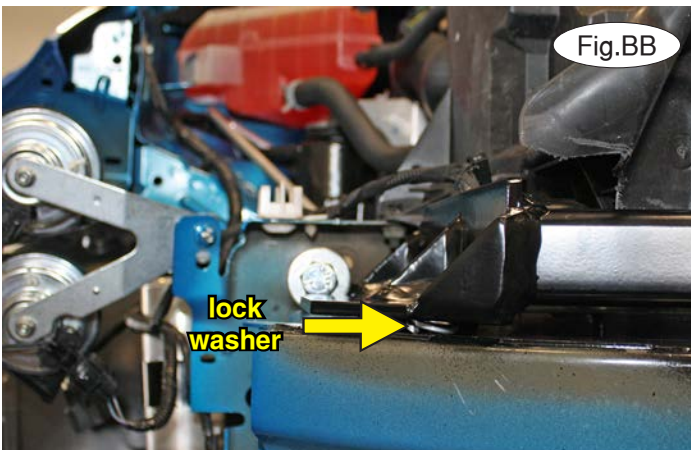
MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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15. On each side, bolt through the side mount of the rear brace using the supplied $\frac{1}{2}$ " x $4\frac{1}{2}$ " bolt and finish with a $\frac{3}{16}$ " x 2" x 3" backing plate, and a $\frac{1}{2}$ " lock washer and nut (Fig.Z).

16. On each side, using the forwardmost hole on the main receiver brace as a template for drilling, drill through the bumper core (Fig.AA).



17. On each side, place a $\frac{1}{2}$ " lock washer between the main receiver brace and the bumper core, over the hole you drilled in the previous step (Fig.BB). Bolt down through the main receiver brace, lock washer and bumper core using one of the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolts and finish with a $\frac{3}{16}$ " x $1\frac{1}{2}$ " x 3" threaded backing plate (Fig.CC).

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

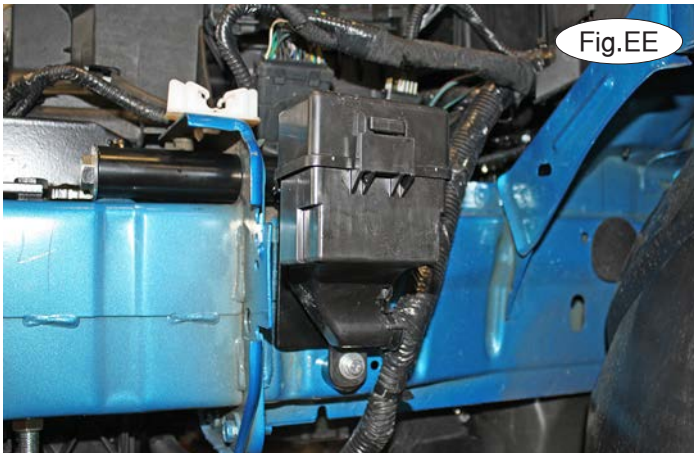
19. Trim the mounting tab off the fuse box you removed from the driver's side in step 8 (Fig.DD). **Note: leave the lower mount intact, as it will be used to remount the fuse box in the next step. Note: if fuse box was not present, proceed to step 21.**





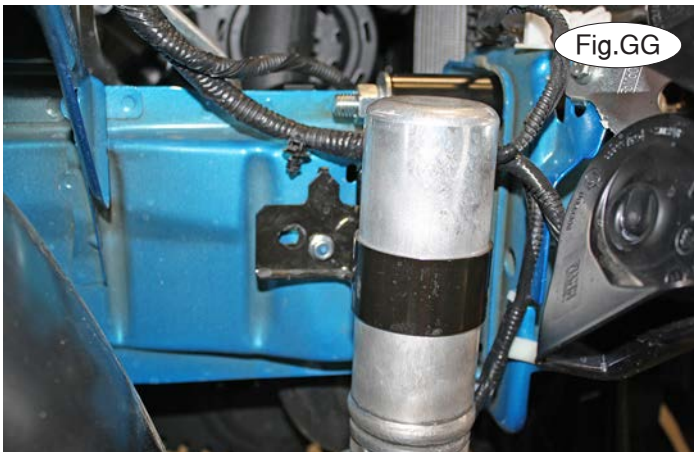
MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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20. On the driver's side, remount the fuse box using the supplied 5/8" x 1" O.D. x .188 wall pipe spacer and the 6mm x 1 x 40mm bolt, and the 6mm lock washer and nut (Fig.EE).

21. On the passenger side, use a 1/4" drill to drill a hole approximately 3/8" to the right of the existing hole in the component bracket (Fig.FF). Remount the component bracket by placing the supplied 1/4" x 1" O.D. x .188 wall pipe spacer over the existing stud and then securing the component bracket using the 10mm nut you removed in step 7 (Fig.GG).



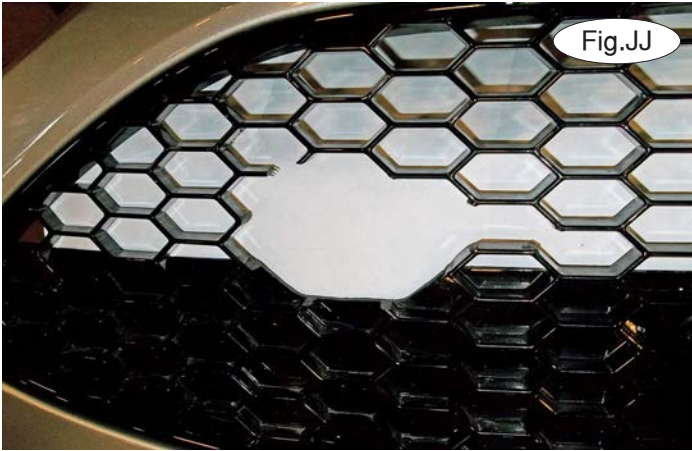
22. On the back of the fascia, trim off the plastic piece as shown in Figure HH. Now, trim the front of the fascia. If your grille looks like the one in Figure II, use the yellow lines as a guide for trimming. *Note:* if your grille has a honeycomb pattern, proceed to the next step.





MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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23. If your grille looks like the one shown in Figure JJ, hold the fascia over the bracket and mark it for trimming over the two receivers. Then, trim as shown in Figure JJ. Additional trimming may be required for the plug rods to fit through the grille. Now, trim the back of the fascia as shown in Figure KK.

24. Reinstall the fascia, headlights and washer bottle by reversing steps 1 through 8.



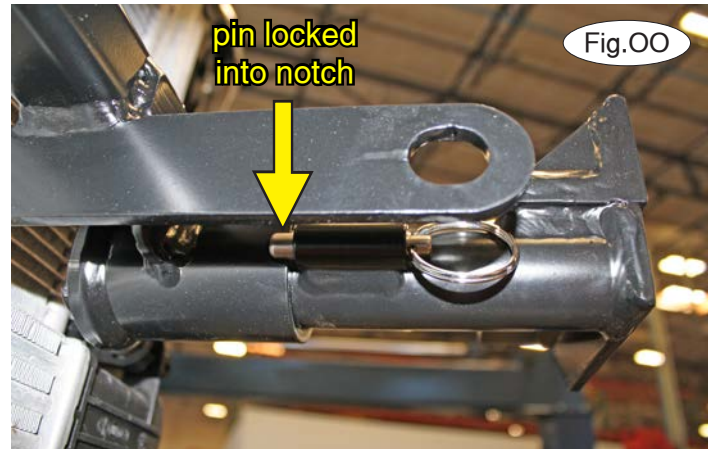
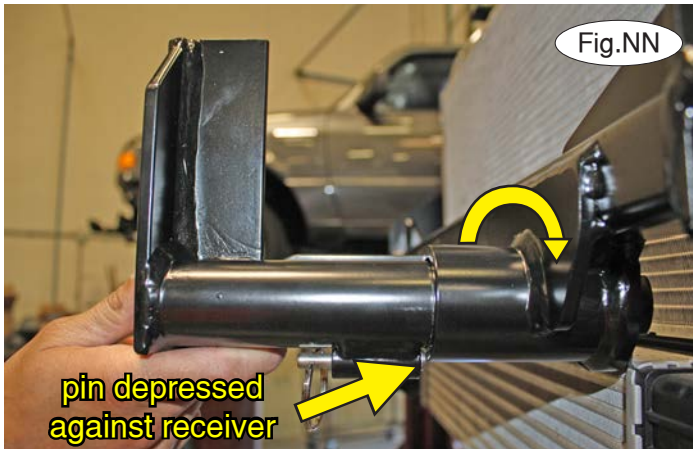
25. **Note: the following four images are for illustration purposes only, as your specific application may be slightly different.**

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.LL and Fig.MM).



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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26. 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.NN). 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.OO).

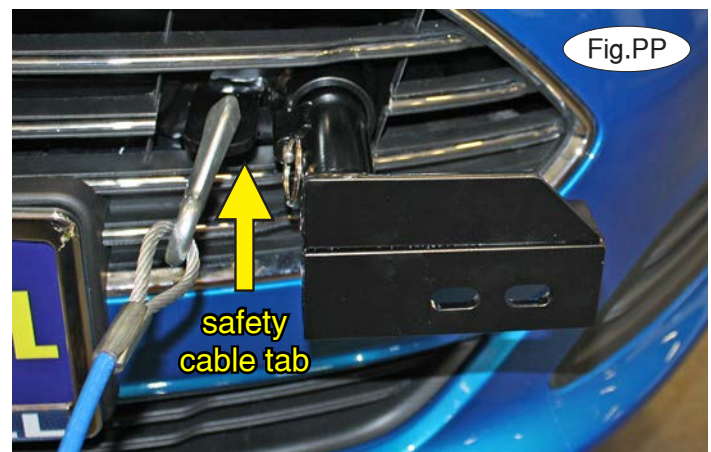
Please note: it is the owner's responsibility to ensure the locking of the pins before towing. Otherwise, failure of the towing system will result.

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

IMPORTANT!

Safety cables are required by law. When towing, connect safety cables to the safety cable tabs illustrated in Figure PP. 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 receivers 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.





MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

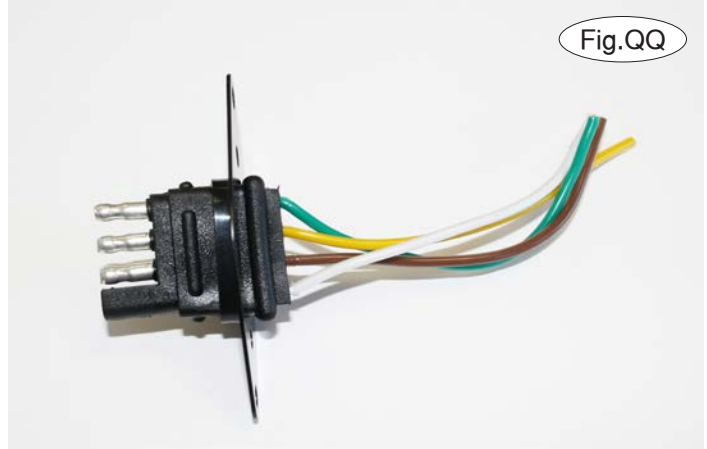
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Three options for attaching the wiring plug to the main receiver brace

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.QQ). 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.