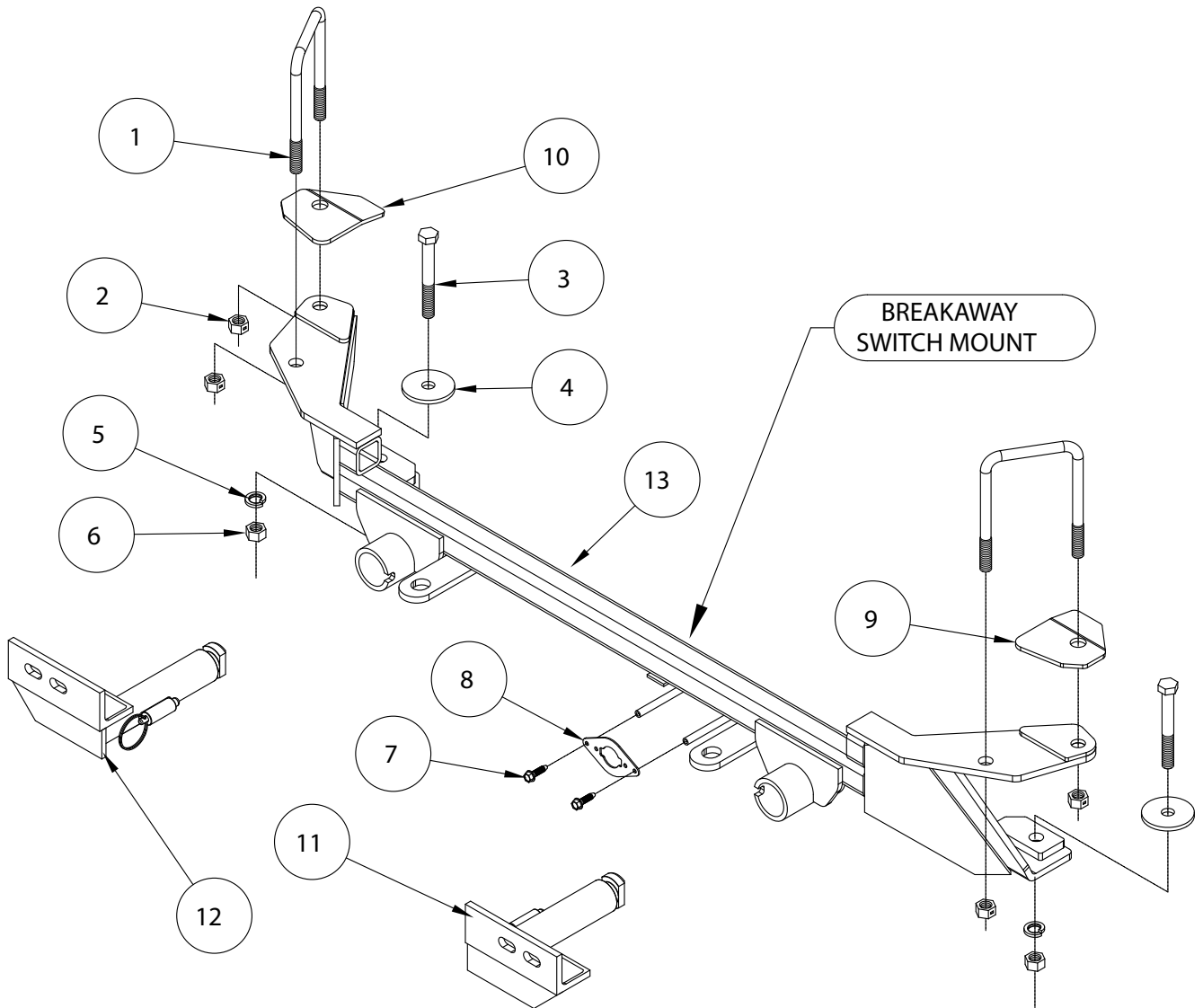




**MOUNTING BRACKET KIT    KIT# 524444-4**  
**INSTALLATION INSTRUCTIONS**



ITEM	QTY	NAME	PART #
1.....	2.....	1/2" x 3.5" x 5.5 U-BOLT.....	357021-50
2.....	4.....	1/2" TWO WAY LOCKNUT.....	350258-20
3.....	2.....	1/2" x 4" BOLT.....	350105-00
4.....	2.....	1/2" PLATE WASHER.....	A-003086
5.....	2.....	1/2" LOCK WASHER.....	350309-00
6.....	2.....	1/2" NUT.....	350258-00
7.....	2.....	#10 x 3/4" SELF DRILLING SCREW.....	350247-35
8.....	1.....	WIRE PLUG PLATE.....	A-003801
9.....	1.....	DRIVER SIDE SHIM PLATE.....	B-002900
10.....	1.....	PASSENGER SIDE SHIM PLATE.....	B-002901
11.....	1.....	DRIVER SIDE ARM.....	C-002813
12.....	1.....	PASSENGER SIDE ARM.....	C-002814
13.....	1.....	MAIN RECEIVER BRACE.....	C-002924
14.....	1.....	ZIP TIE.....	300140-10



# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 524444-4**

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 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 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# 524444-4**



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 by removing 12 plastic fasteners attaching the radiator cover to the core support (Fig.C).

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



3. On each side, remove six 5.5mm screws attaching the fender liner to the fascia (Fig.E).

4. On each side, pull back the fender liner and remove three 8mm (head) bolts attaching the fascia to the frame (Fig.F).

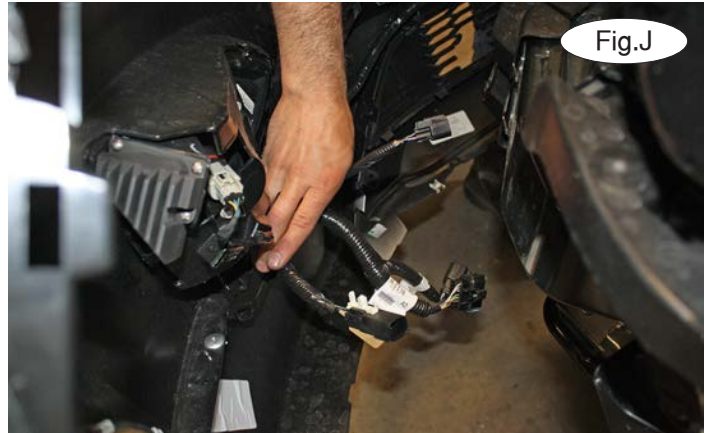
5. On each side, remove the splash shielding by removing seven 5.5mm screws (Fig.G) and two T30 Torx bolts and one plastic fastener (Fig.H).



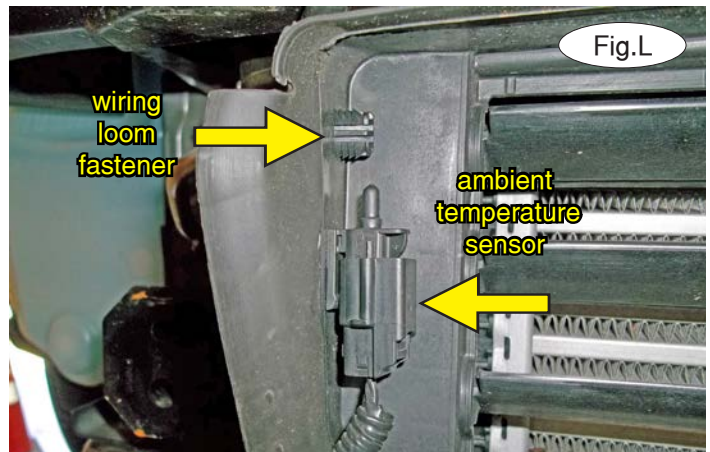
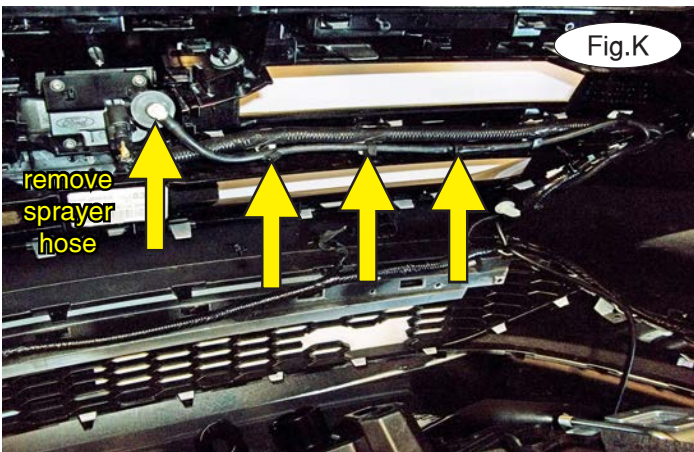


# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 524444-4**

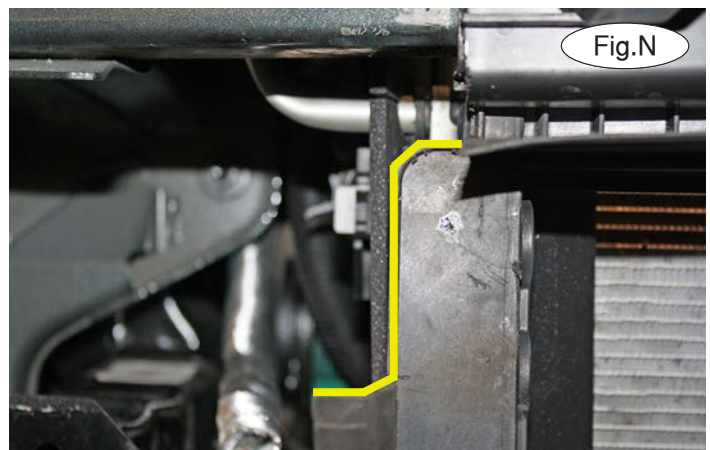
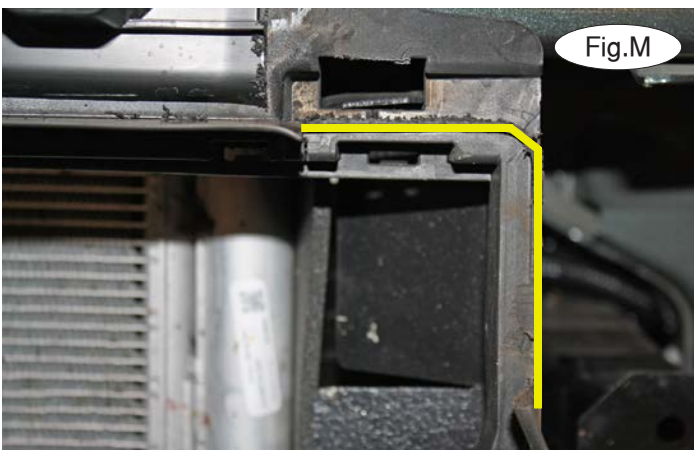


6. On each side, pull forward and down on the top of the fascia to release the plastic clip indicated in Figure I. On the driver's side only, disconnect all electrical connectors (Fig.J) and then set the fascia aside. *Note:* it is possible to disconnect the electrical connectors from underneath before removing the fascia. **For models equipped with a front camera sprayer:** disconnect the sprayer hose from the sprayer fitting and then release all of the clips attaching the sprayer hose to the fascia (Fig.K – only three clips indicated). Secure the hose above the reservoir for now. *Note:* it may be necessary to use either a second person to hold the fascia during this process or prop the fascia after removal.



7. On the passenger side, disconnect the ambient temperature sensor and the plastic fastener (Fig.L) attaching its wiring loom and let it hang down for now.

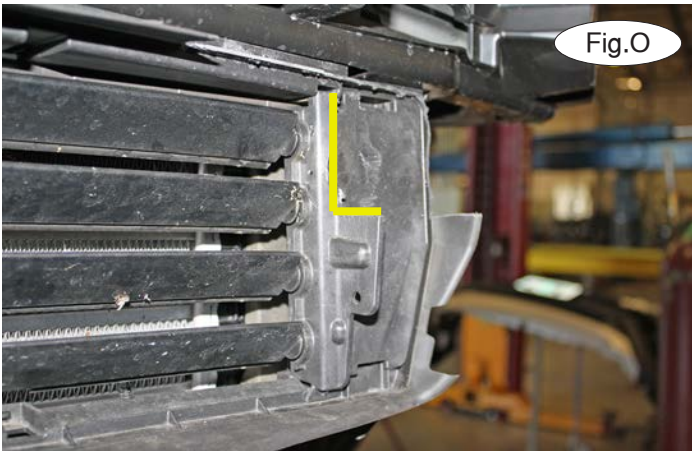
8. On each side, trim the air dam/louver housing as shown (Fig.M – driver's side, Fig.N – passenger side). **For models with louvers:** you will also need to trim out an additional piece of the louver housing using the same profile (Fig.O).





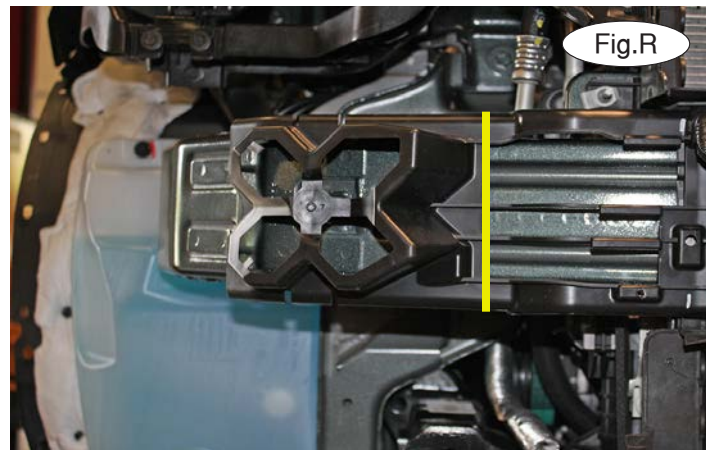
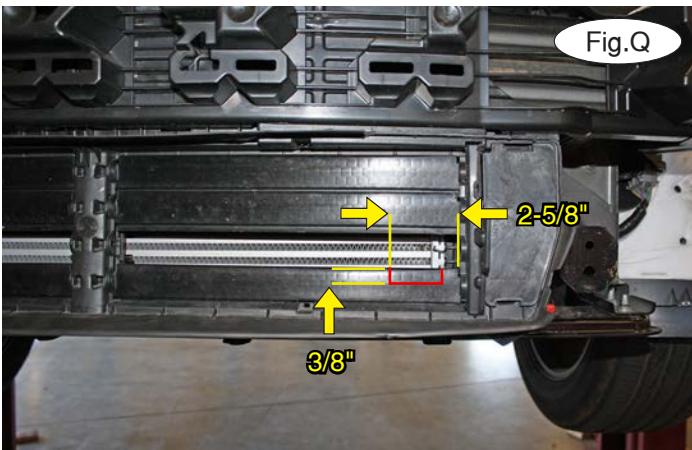
# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 524444-4**



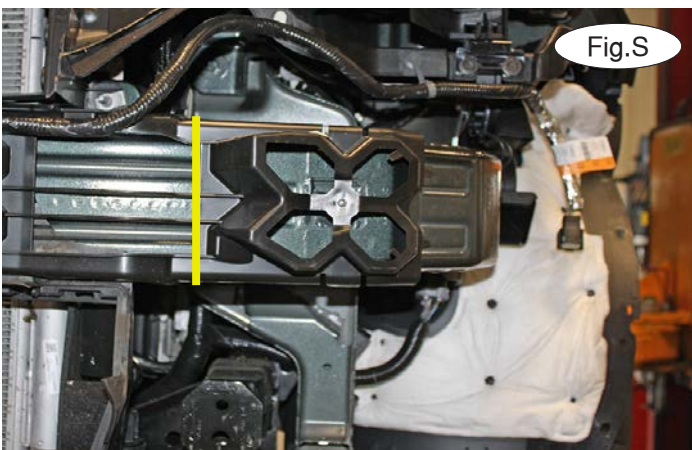
9. **For models without louvers: proceed to step 11. For models with louvers:** on each side, slightly bend the second louver from the bottom to pull out its hinge pins (Fig.P). The louvers will not be replaced. *Note:* retain the louvers for replacement in case the bracket is ever removed.

10. On each side, on the top of the bottom louver, trim out a 2" x 3/8" section as indicated in red in Figure Q, where the cut starts at 5/8" and ends 2-5/8" from the outside edge, and 3/8" down.



11. Trim off the ends of the shock absorption pad as shown to allow clearance for the main receiver brace (Fig.R – passenger side) and (Fig.S – driver's side).

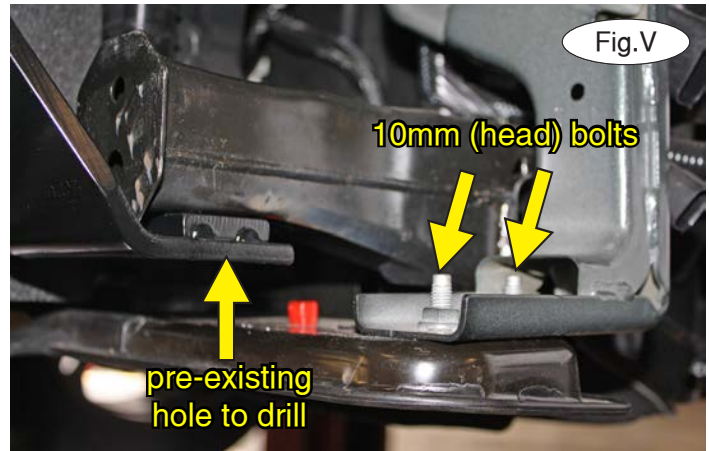
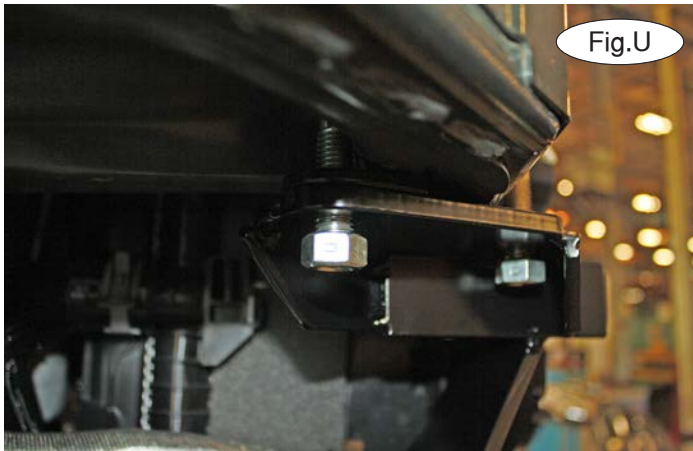
12. On each side, place the supplied shim plate on top of the bumper core so that the bend is facing down and so it fits into the bumper profile and place the U bolt over the bumper core and through the shim plate (Fig.T).





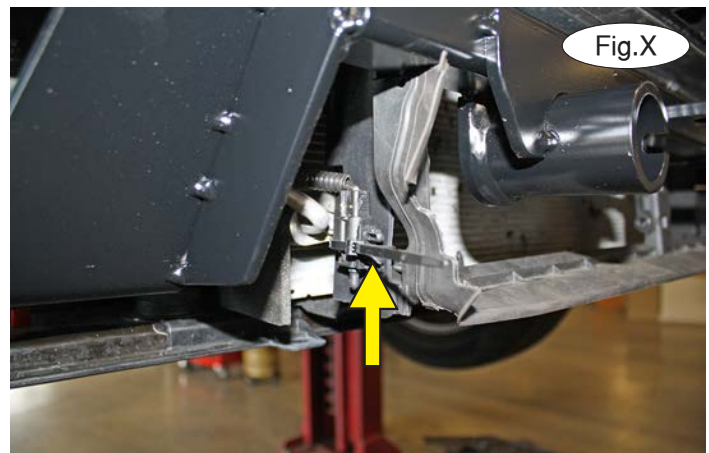
# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 524444-4**



13. On each side, place the main receiver brace under the bumper core and over the U bolts and then thread on the  $\frac{1}{2}$ " two-way locknuts (Fig.U). *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 bracket and frame.

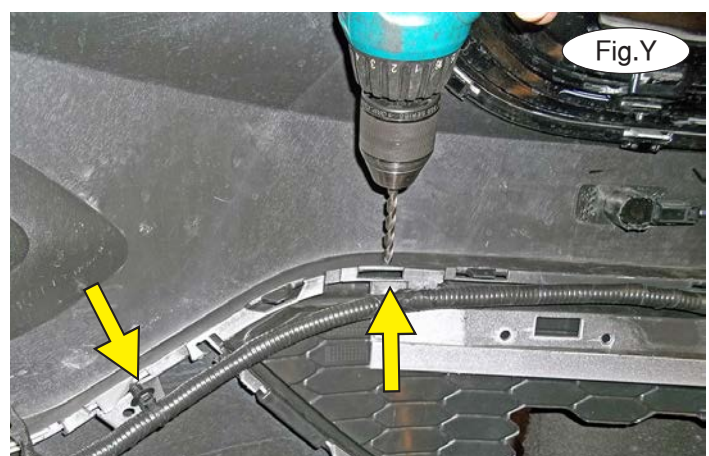
14. On each side, remove two 10mm (head) bolts attaching the lower radiator support to the frame to allow clearance (Fig.V). Now, align the pre-existing hole in the lowermost mount of the main receiver brace with the holes in the bottom and top of the subframe. Using the lowermost mount as a template, use a  $\frac{1}{2}$ " drill of appropriate length to drill out the holes in the bottom and top of the subframe.



15. On each side, place a  $\frac{1}{2}$ " plate washer over a  $\frac{1}{2}$ " x 4" bolt and bolt down through the subframe and main receiver brace. Finish with a  $\frac{1}{2}$ " lock washer and nut (Fig.W). *Note:* due to manufacturing variances, some applications may require bolting up through the main receiver brace and subframe instead.

16. Ziptie the ambient temperature sensor to the side of the air dam (Fig.X).

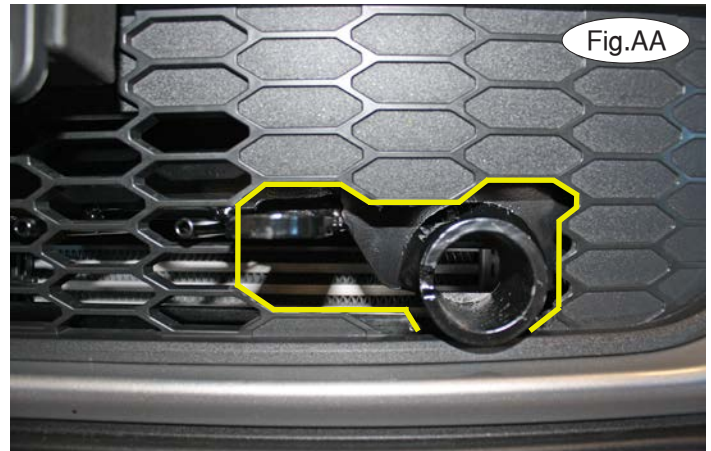
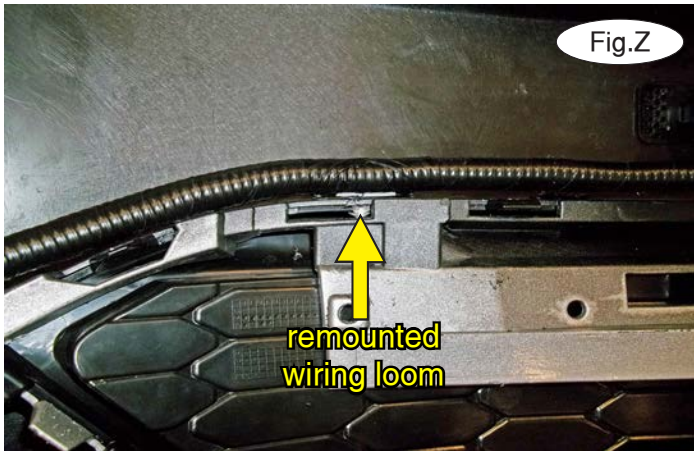
17. On the backside of the fascia on each side, disconnect two of the fasteners of the wiring loom, leaving the center of the loom still connected (Fig.Y). Use an approximately  $\frac{3}{16}$ " drill bit and drill a hole through the upper flange of the grille opening directly in front of the wiring loom fastener (Fig.Y). *Note:* ensure that the hole cannot be seen from the front of the vehicle.





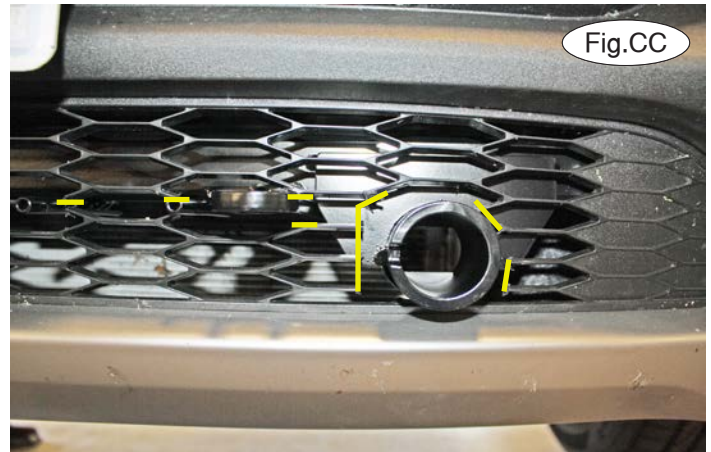
# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 524444-4**



18. Remount the wiring loom using the hole you drilled in the previous step (Fig.Z).

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.



20. **For Sport models:** trim the fascia using the yellow lines as a reference (Fig.AA – driver's side, Fig.BB – passenger side). **For all other models:** trim using the yellow lines in Figure CC as a reference.

21. Reinstall the fascia, reversing steps 1 through 6.

22. **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.DD and Fig.EE).

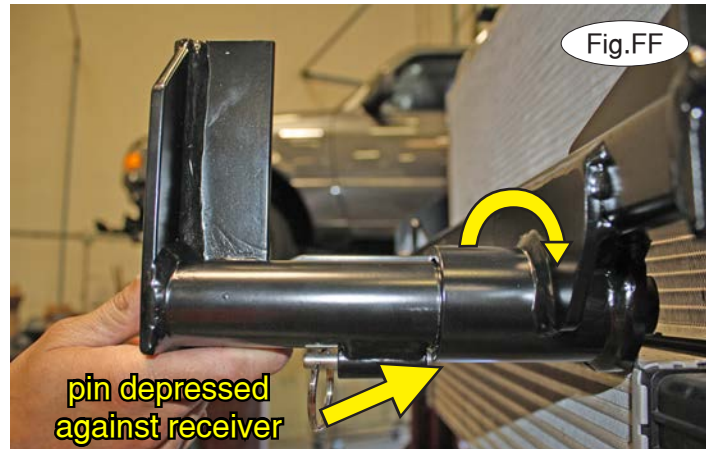




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**KIT# 524444-4**

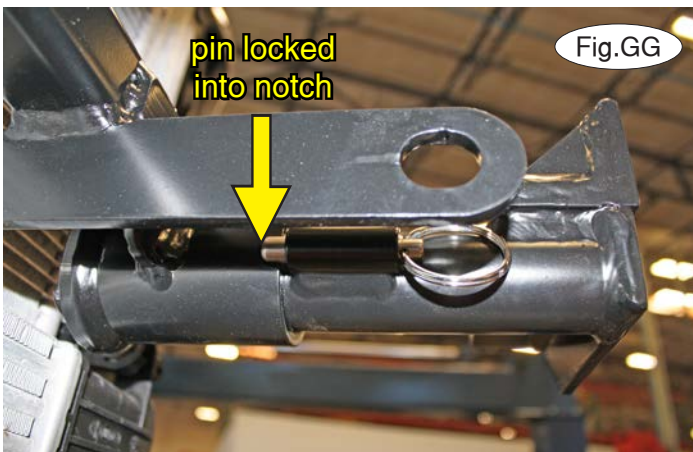
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23. On each side, insert the removable front bracket arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver (Fig.FF). Now, twist back 90 degrees until the spring-loaded pin snaps 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.**

24. 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 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.





# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

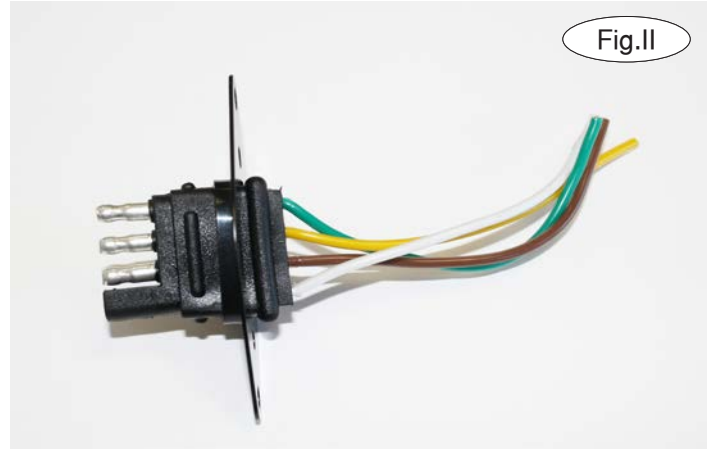
**KIT# 524444-4**

## 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.....	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.