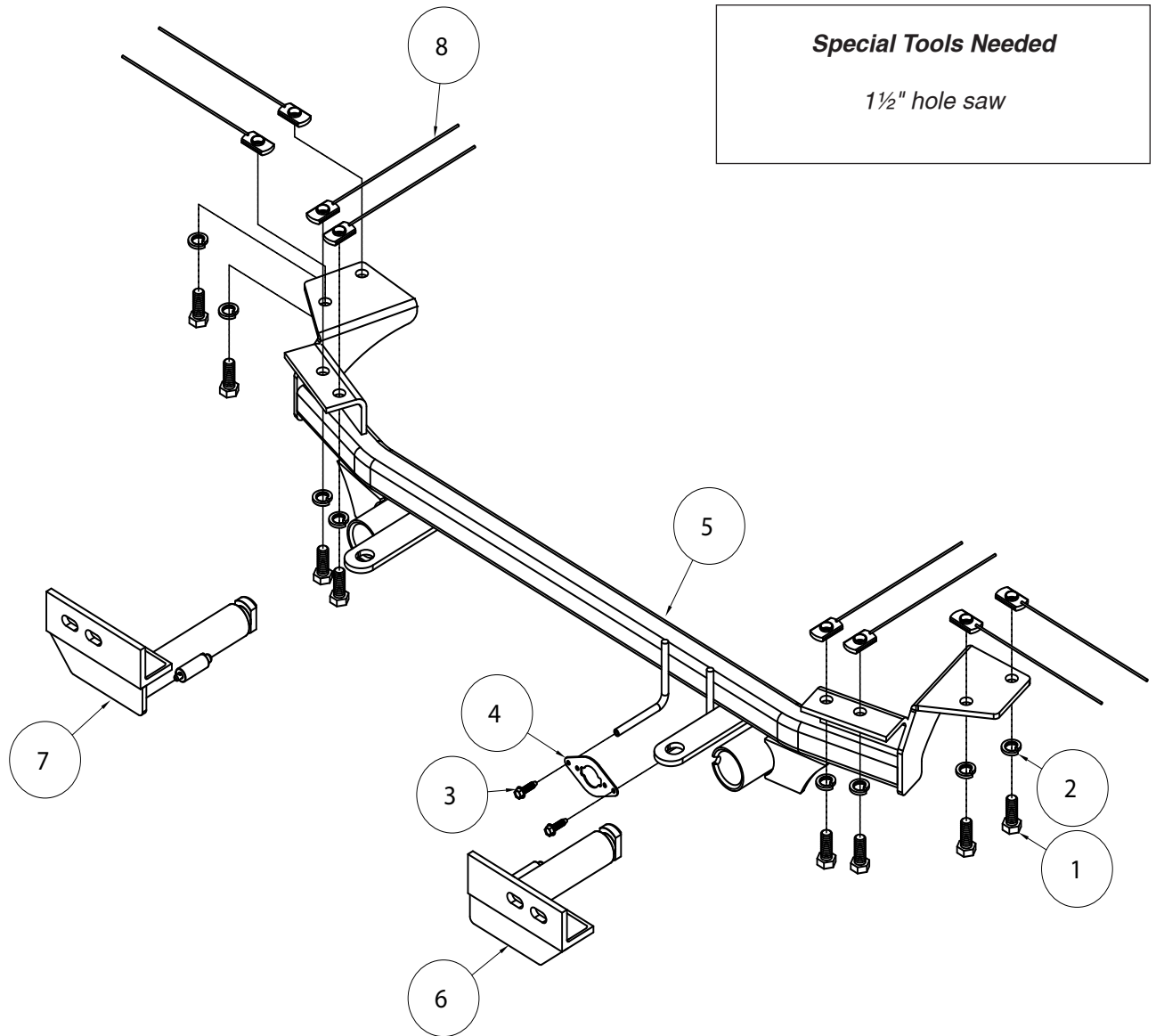




**MOUNTING BRACKET KIT**  
**INSTALLATION INSTRUCTIONS**

**KIT# 523181-4**

02/04/15



**Special Tools Needed**  
 1½" hole saw

ITEM	QTY	NAME	PART #
1.....	8	1/2" x 1 1/4" BOLT.....	350094-00
2.....	8	1/2" LOCK WASHER.....	350309-00
3.....	2	#10 x 3/4" SELF DRILLING SCREW.....	350247-35
4.....	1	WIRE PLUG PLATE.....	A-003801
5.....	1	MAIN RECEIVER.....	C-002824
6.....	1	DRIVER SIDE ARM.....	C-002825
7.....	1	PASSENGER SIDE ARM.....	C-002826
8.....	8	1/2" WELD NUT W/ ROD.....	C-002827
9.....	1	ZIP TIE.....	300140-10



# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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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 frame rails. 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.

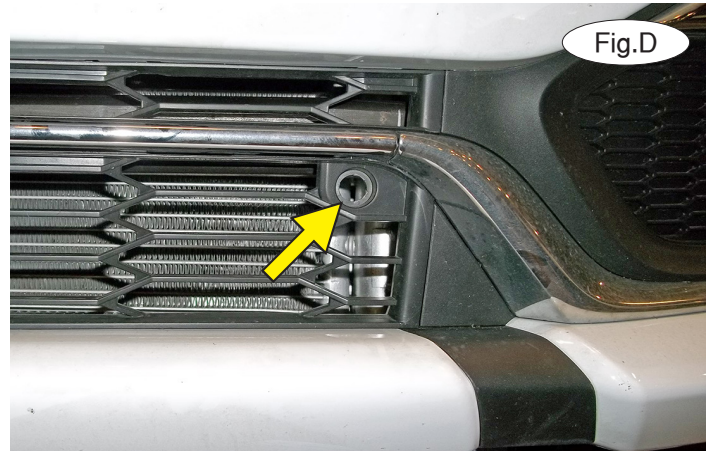
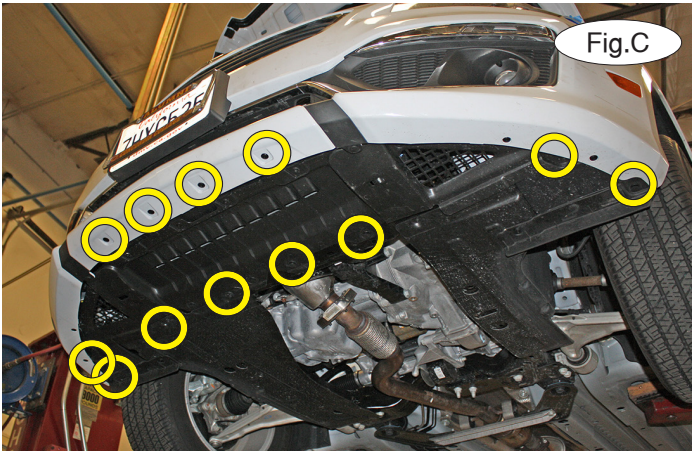
- Roadmaster manufactures many styles of brackets. If your bracket has removable arms, they must be removed before driving the vehicle, unless the arms can be pinned or padlocked in place. If not secured, the arms could vibrate out, resulting in non-warranty damage or personal injury.
- Some motorhome 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

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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 four plastic fasteners and eight T20 Torx screws attaching the splash shielding to the frame (Fig.C). Remove the splash shielding and set it aside for now.

2. On each side, reach underneath and disconnect all electrical connectors attaching the fascia to the vehicle. There may be two side marker lights, fog lights and an ambient temperature sensor. Remove the ambient temperature sensor from the lower grille opening (Fig.D) and let it hang down for now.



3. On each side, remove three T20 Torx screws attaching the fender liner to the fascia (Fig.E).

4. Remove four plastic fasteners and two 10mm (head) bolts attaching the top of the fascia to the core support (Fig.F).

5. On each side, pull out on the bottom of the fender liner to release it from the aligning pin on the fascia (Fig.G).

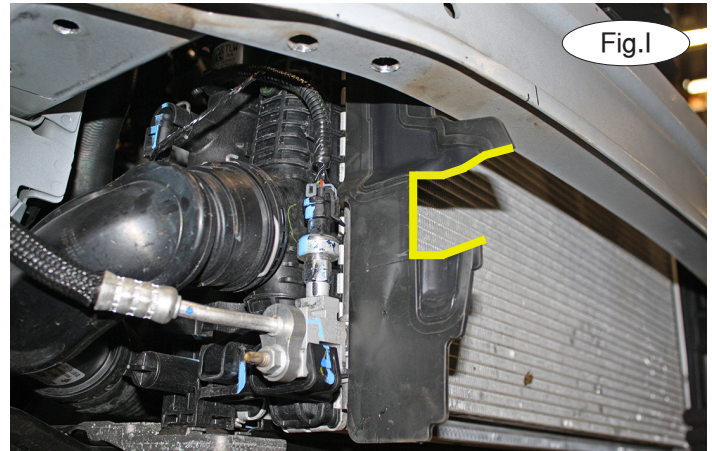




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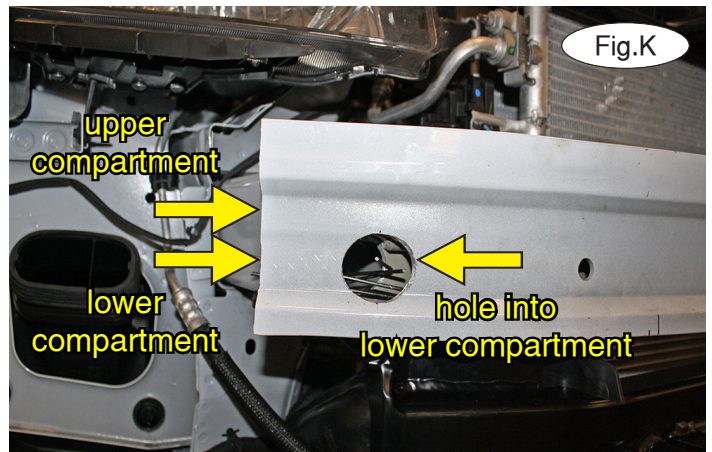
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6. On each side, pull out on the fascia to release the locking strips at the corner seam of the fascia and under the headlight (Fig.H).

7. Trim the air dams as shown in Figure I (passenger side) and Figure J (driver's side).



8. On each side, the frame and the bumper have both an upper and lower compartment. In order to allow access for future steps, we will need to drill a hole in the center of the lower compartment. Using a 1½" hole saw, drill through the front lower center of the bumper core as shown in Figure K to allow access to the lower compartment of the frame.

9. Place the main receiver brace under the bumper and clamp it into place (Fig.L).

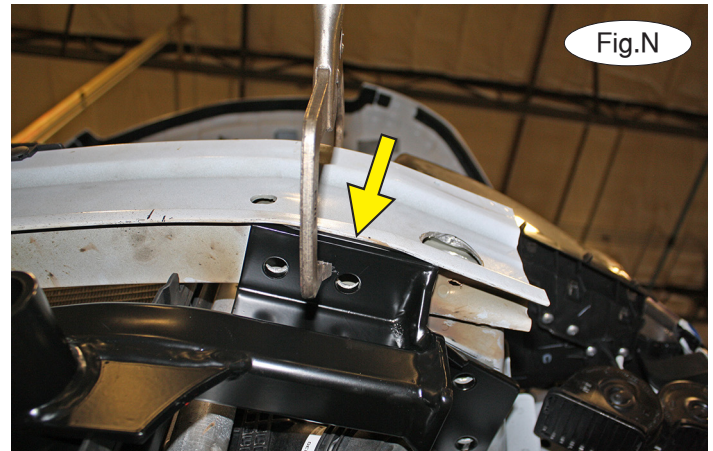
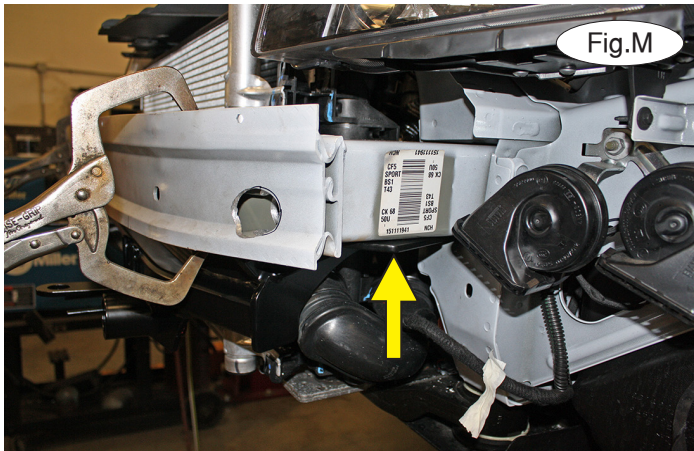




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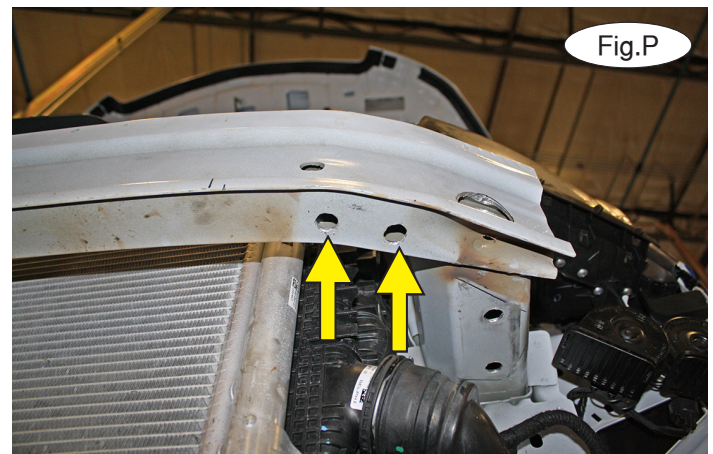
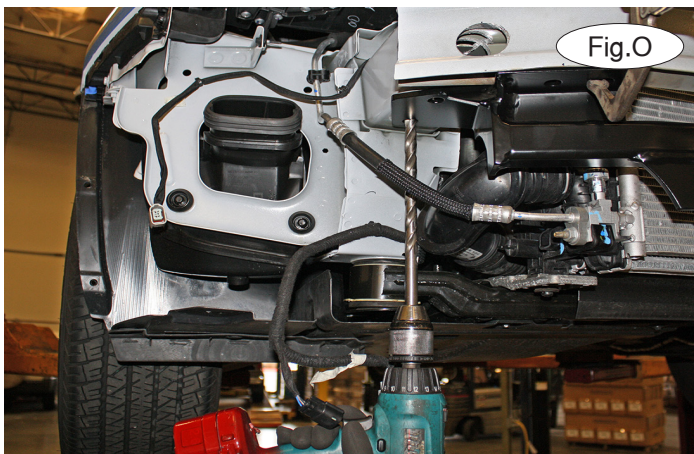
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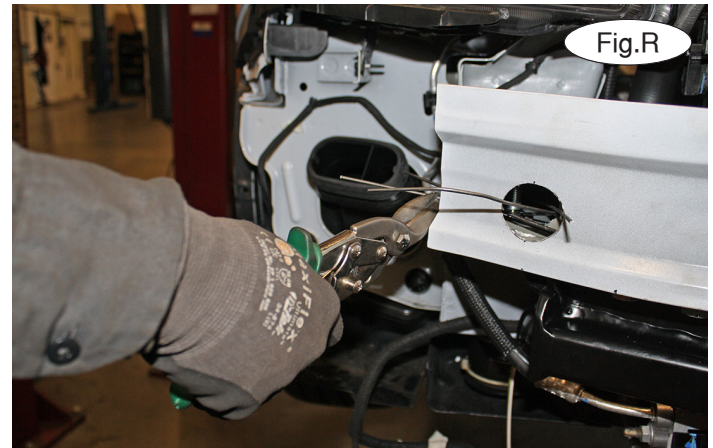
10. Ensure that the bracket is even from side to side at the point indicated in Figure M, and that the bracket is slid all the way forward so it contacts the lip of the bumper to ensure alignment (Fig.N).

11. On each side, using the pre-existing holes as templates, use a  $\frac{1}{2}$ " drill and drill up through the two bottom rear holes and up through the first layer of the bumper (Fig.O). Then, using the two front pre-existing holes as templates, mark the front holes, temporarily remove the bracket, and drill out the holes (Fig.P). Now, replace the bracket and clamp it in place once more.



12. On each side, place a  $\frac{1}{2}$ " weld nut with rod into the front of the bumper and over one of the holes you drilled in the previous step. Bolt it into place using one of the supplied  $\frac{1}{2}$ " x  $\frac{1}{4}$ " bolts and a  $\frac{1}{2}$ " lock washer. Repeat for the remaining three holes on each side (Fig.Q – passenger side). **Note: use Loctite® Red on all nuts and bolts.**

13. Tighten all bolts to the bolt torque requirements found at the end of these instructions. Then, trim the rods back so they are flush with the bumper (Fig.R).

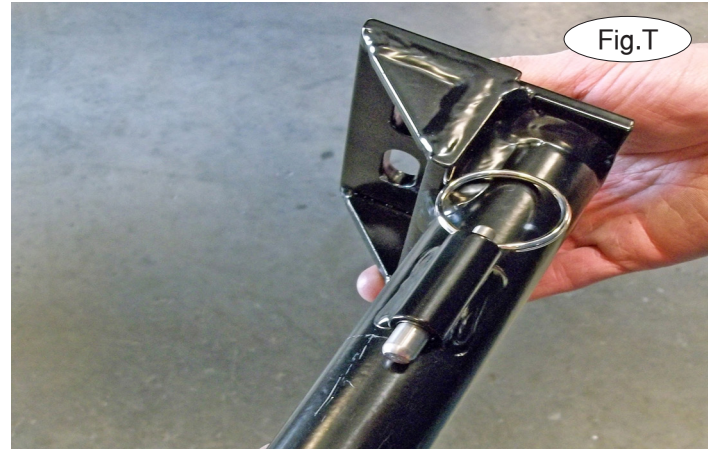
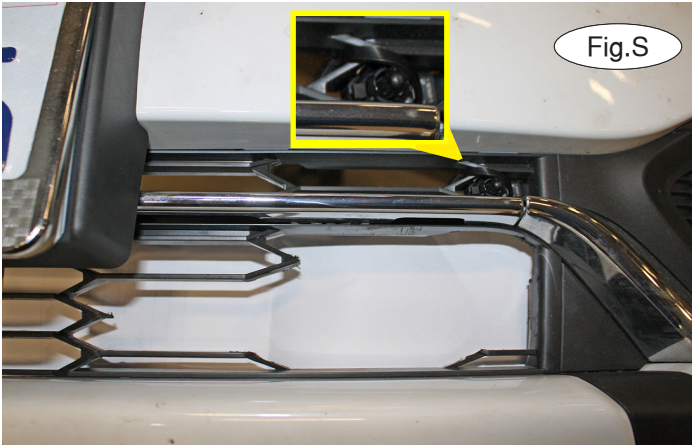




# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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14. Trim the fascia as shown in Figure S. Place the ambient temperature sensor through the grille and zip tie it to the honycomed piece above it (Fig.S – call-out).

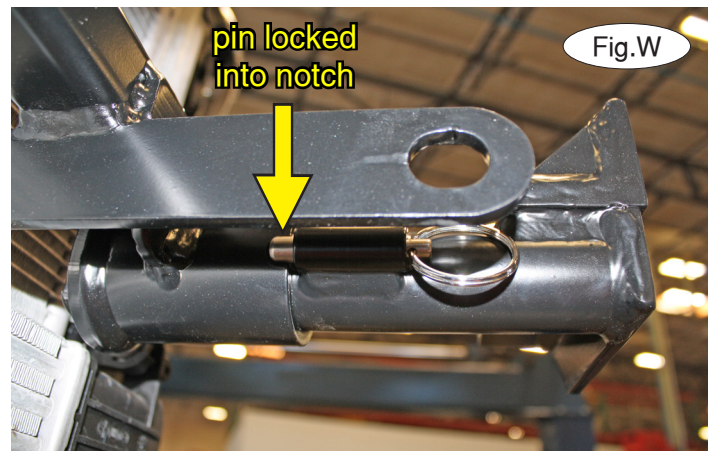
15. Reinstall the fascia, reversing steps 1 through 6.



16. **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.T and Fig.U).

17. 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.V). 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.W).



**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.**



# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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18. 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 X. 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.**

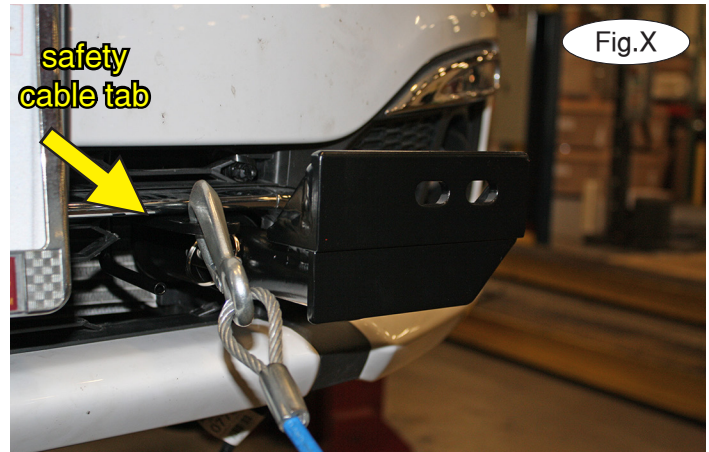


Fig.X

### 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.Y). 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.

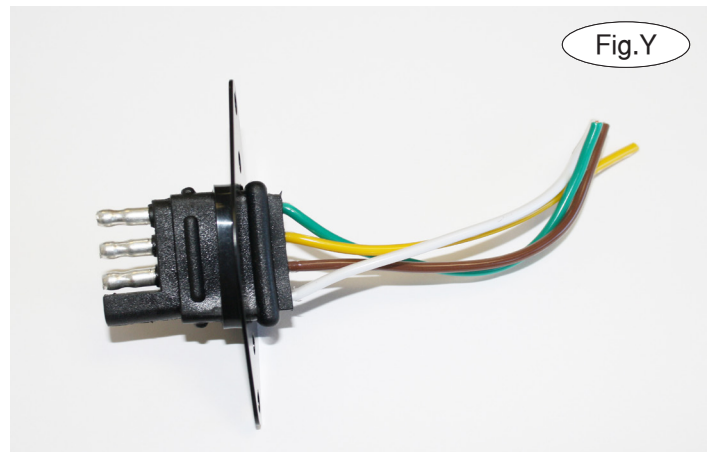


Fig.Y

### 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.