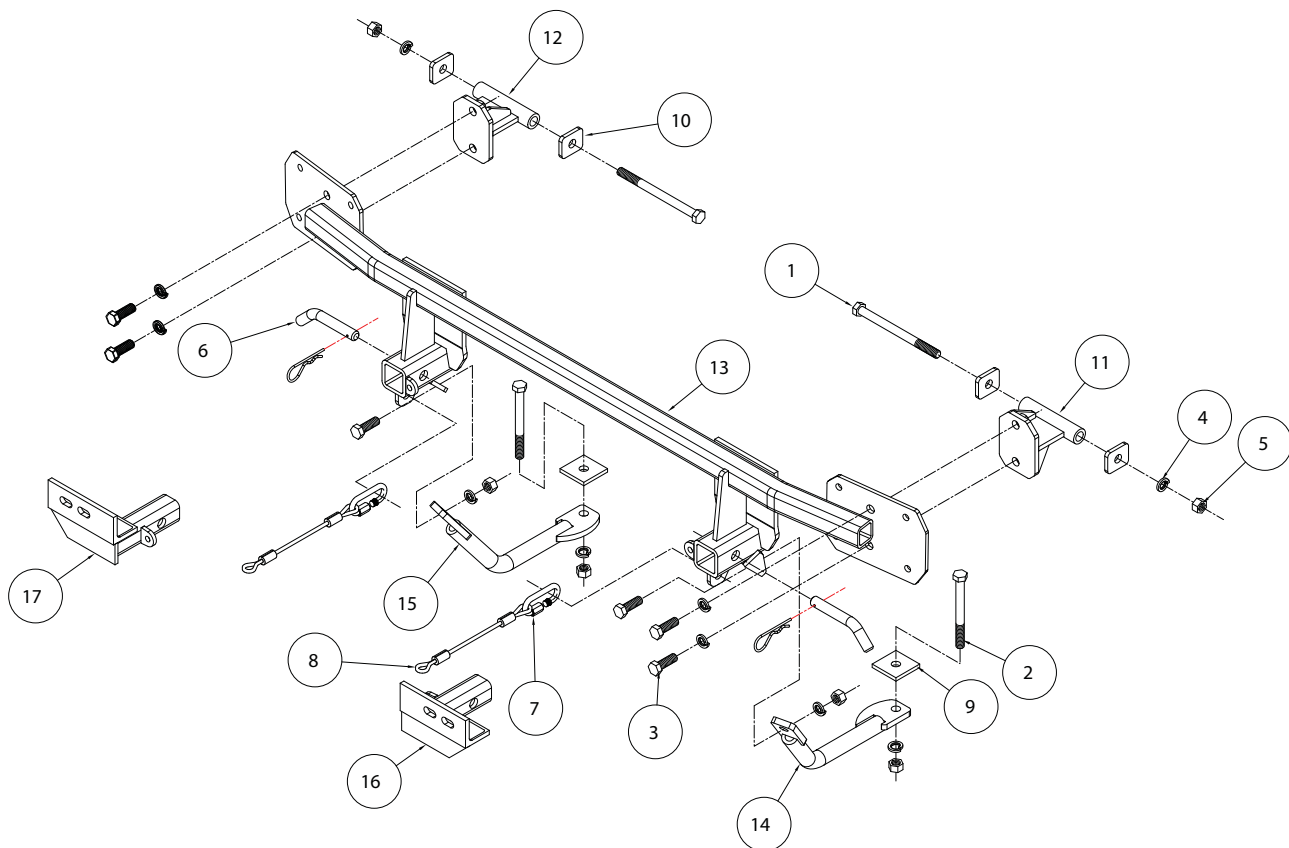




MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 4421-1



ITEM	QTY	NAME	MATERIAL
1.....	2.....	1/2" x 6 1/2" BOLT	350110-00
2.....	2.....	1/2" x 4 1/2" BOLT	350106-00
3.....	6.....	1/2" x 1 1/2" BOLT	350095-00
4.....	10.....	1/2" LOCK WASHER	350309-00
5.....	6.....	1/2" HEX NUT.....	350258-00
6.....	2.....	DRAW PIN W/ CLIP.....	357035-00
7.....	2.....	QUICK LINK	200008-00
8.....	2.....	SAFETY CABLE 8".....	650646-08
9.....	2.....	3/16" x 2" x 2" ROUND HOLE BACKING PLATE.....	A-001066
10.....	4.....	3/16" x 1 1/2" x 1 3/4" ROUND HOLE BACKING PLATE.....	A-001864
11.....	1.....	DRIVER SIDE BRACE	C-001723
12.....	1.....	PASSENGER SIDE BRACE.....	C-001724
13.....	1.....	MAIN RECEIVER	C-001902
14.....	1.....	DRIVER SIDE REAR BRACE	C-001903
15.....	1.....	PASSENGER SIDE REAR BRACE.....	C-001904
16.....	1.....	DRIVER SIDE ARM.....	C-001905
17.....	1.....	PASSENGER SIDE ARM	C-001906
18.....	2.....	ZIP TIE.....	300140-10



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 4421-1

This bracket kit is one of our XL series, which allows the visible front portion of the brackets to be easily removed (Fig.A and Fig.B). The kit consists of the main receiver brace, removable front braces and a hardware pack.

The main receiver brace mounts to the front frame and bumper core on each side. The removable front braces insert into the receivers on each side and are secured with draw pins.

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.
- 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.
- 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.
- 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.
- 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# 4421-1



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 two 10mm screws and four plastic fasteners attaching the top of the fascia to the core support (Fig.C).



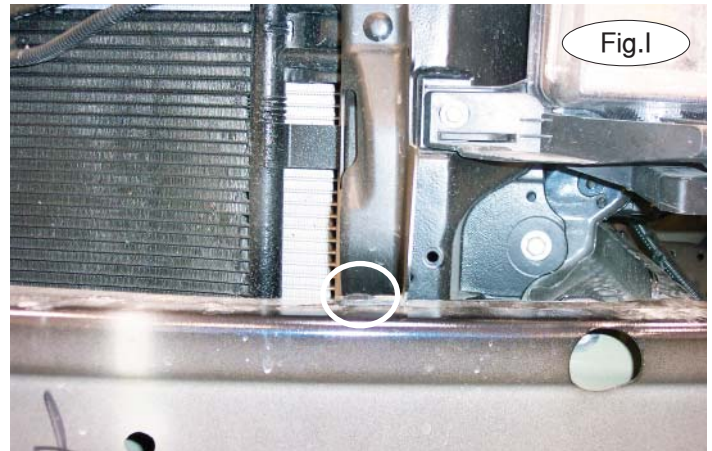
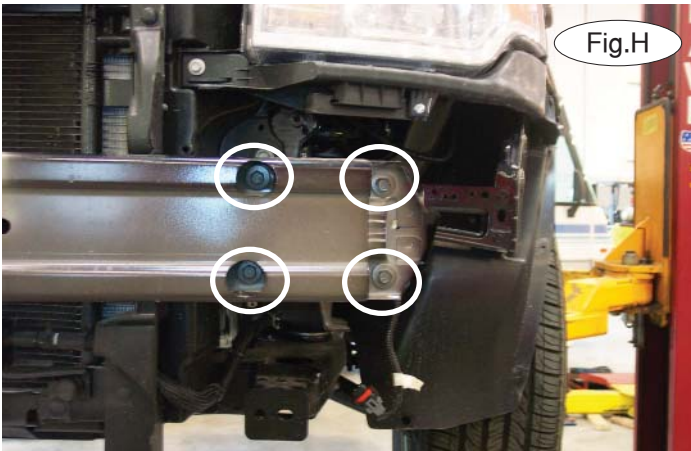
2. On each side, remove three 5.5mm screws and one plastic fastener attaching the fender liner to the fascia (Fig.D).
3. Remove three plastic fasteners attaching the bottom of the fascia to the radiator support (Fig.E).
4. Remove two plastic fasteners attaching the fascia to the bumper core just above the lower grille (Fig.F).
5. Disconnect the fog lights, if the vehicle is so equipped.
6. Pull out and forward to remove the fascia (Fig.G).



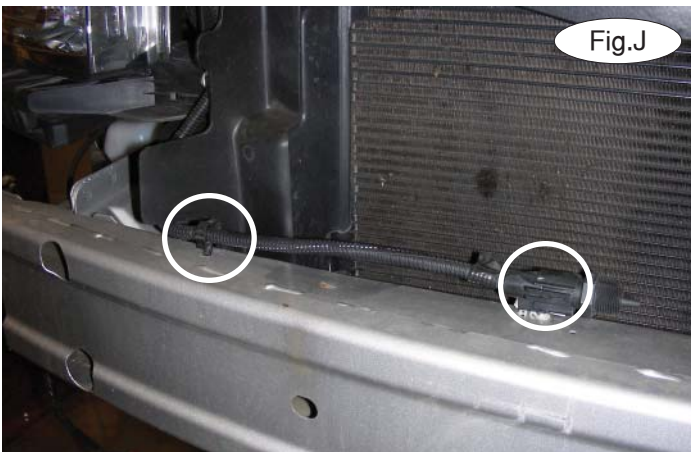


MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 4421-1



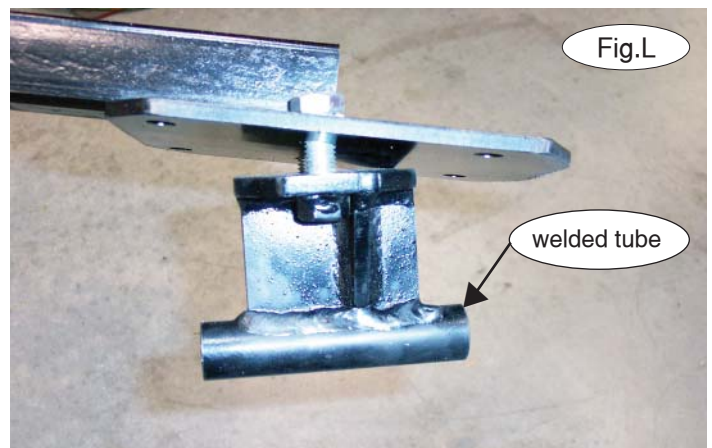
7. On each side, remove four 13mm (head) bolts attaching the bumper core to the end of the frame rail (Fig.H).
8. On each side, remove a plastic fastener attaching the air deflectors to the bumper core (Fig.I).
9. Remove the ambient temperature sensor by removing two plastic fasteners attaching it to the bumper core (Fig.J).



10. On each side, use a sharp 3/8" drill bit to drill out the two spot welds attaching the bumper core to the end of the frame rail (Fig.K – driver's side).

11. Remove the bumper core. It will not be replaced. *Note:* retain the bumper core so that it can be replaced if the bracket is ever removed.

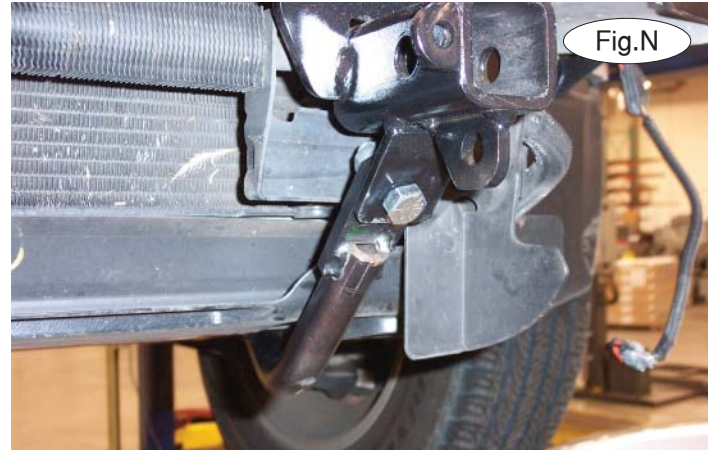
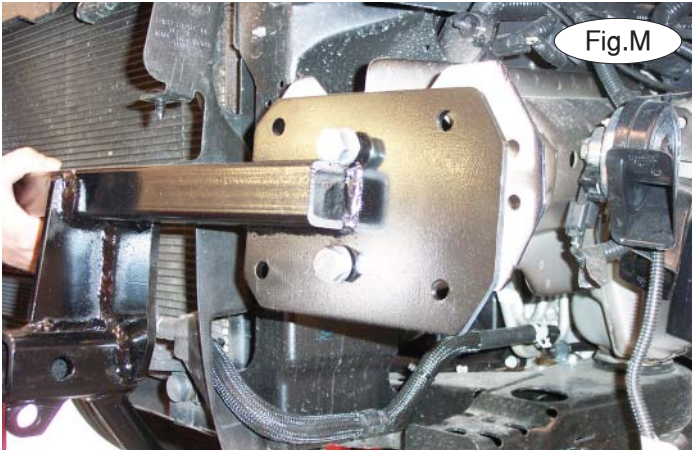
12. On each side, use the four supplied 1/2" x 1/2" bolts and lock washers to bolt the passenger and driver's side braces to the main receiver brace. Leave the bolts completely loose for now (Fig.L). *Note:* the welded tube will be used for attachment in step 16.





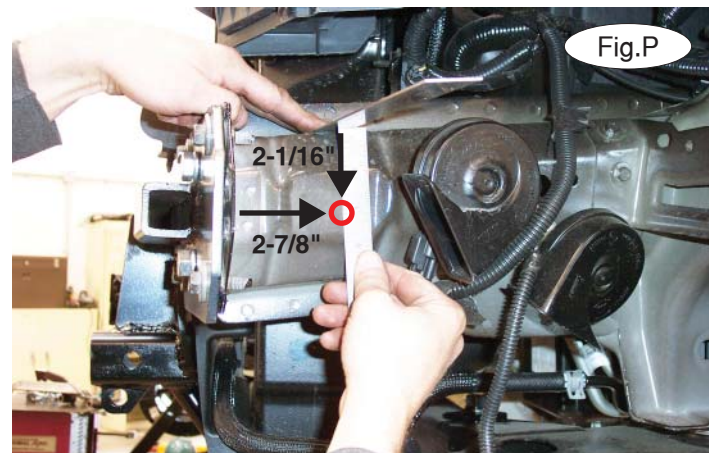
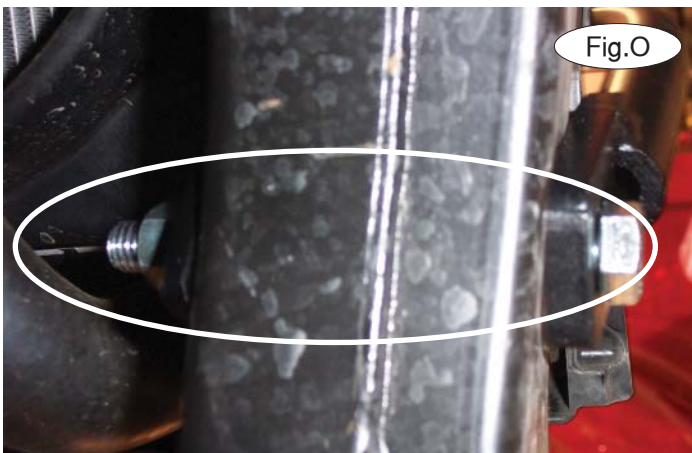
MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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13. Set the main receiver brace over the ends of the frame rails so the rear braces slip into the frame rails (Fig.M – driver's side). Replace the eight bumper core bolts you removed in step 7. *Note:* use thread lock on the bolts.

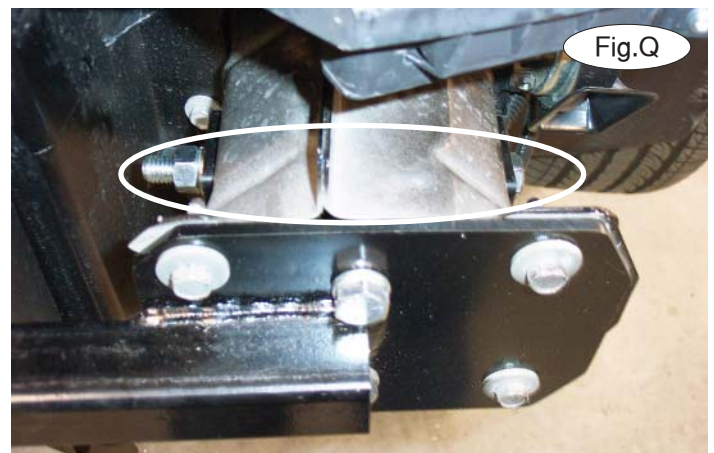
14. On each side, tighten the bumper core bolts to the bolt torque requirements found at the end of this document. Now, tighten the $\frac{1}{2}$ " bolts to the bolt torque requirements.



15. Working on the driver's side, bolt the lower support brace to the upper brace using the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolt and $\frac{1}{2}$ " lock washer and nut (Fig.N). *Note:* the radius portion of the lower mounting tab faces toward the inside of the car on both the driver's and passenger side braces.

16. Bolt through the lower rear mounting point of the main receiver brace and subframe using a $\frac{1}{2}$ " x $4\frac{1}{2}$ " bolt. Place a $\frac{3}{16}$ " x 2" x 2" backing plate on the top side of the subframe. Finish with a $\frac{1}{2}$ " lock washer and nut (Fig.O). *Note:* due to manufacturing variances, the pre-existing hole may need to be enlarged.

17. Measure $2\frac{7}{8}$ " from the back surface of the end of the frame rail and $2\frac{1}{16}$ " from the top surface of the frame. Where the two intersect (Fig.P – driver's side), mark a hole, and using a $\frac{1}{2}$ " drill bit, drill a hole through the outside of the frame rail, pass through the welded tube, and through the inside frame rail.

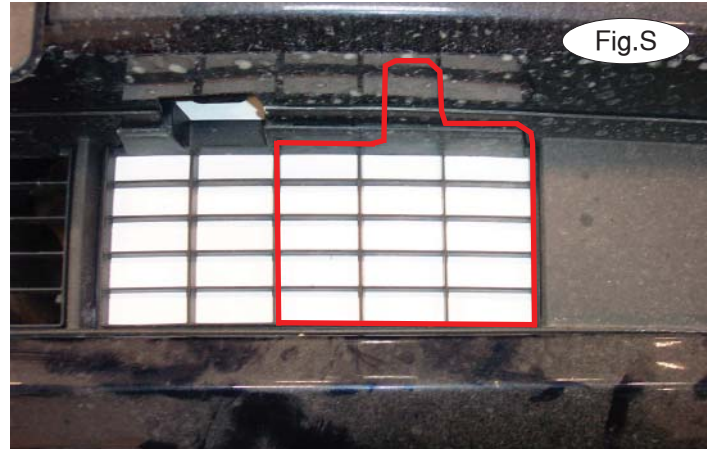
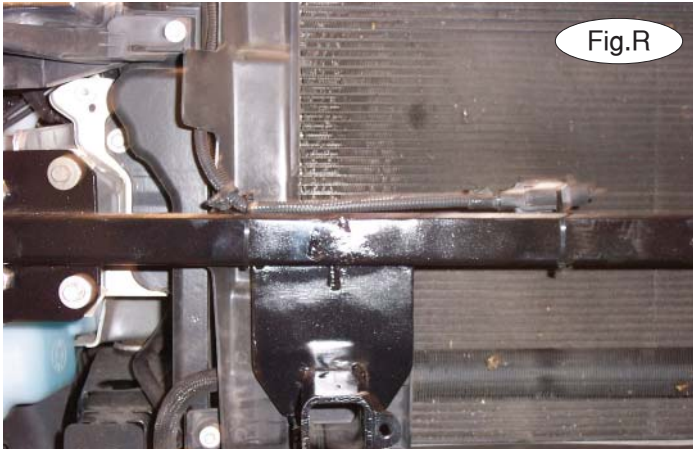


Place a $\frac{3}{16}$ " x $1\frac{1}{2}$ " x $1\frac{3}{4}$ " backing plate over a $\frac{1}{2}$ " x $6\frac{1}{2}$ " bolt. Thread the bolt through the hole you just drilled and into another $\frac{3}{16}$ " x $1\frac{1}{2}$ " x $1\frac{3}{4}$ " backing plate on the outer edge of the inside frame rail. Finish with a $\frac{1}{2}$ " lock washer and nut (Fig.Q).



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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18. Repeat steps 15 through 17 for the passenger side. Tighten all bolts to the bolt torque requirements found at the end of this document.

19. Using the two supplied zip ties, attach the ambient temperature sensor to the main receiver brace (Fig.R).



20. On each side, measure 2½" from the side of the grille opening and remove a 1" x 2¾" piece from the top of the grille. Trim the first three sections of the grille. Use the red lines in Figure S (driver's side) as a guide for trimming.

21. On each side, trim the lower splash shield to accommodate the rear support brace (Fig.T – driver's side).

22. Reassemble the fascia, reversing steps 1 through 6.

23. Insert the removable front bracket arms into the front receiver braces, and secure them in place with the supplied 5/8" draw pins and spring pins.

24. Attach the 8" safety cables with the cable connectors (Q-Links) to the front of the receiver braces (Fig.U).

25. Attach the ends of the safety cables to the tow vehicle's safety cables and install the tow bar to the mounting bracket according to the manufacturer's instructions.



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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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

<i>Thread Size</i>	<i>Grade</i>	<i>Torque</i>
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

<i>Thread Size</i>	<i>Grade</i>	<i>Plated / Unplated</i>
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

<i>Thread Size</i>	<i>Grade</i>	<i>Plated / Unplated</i>
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.