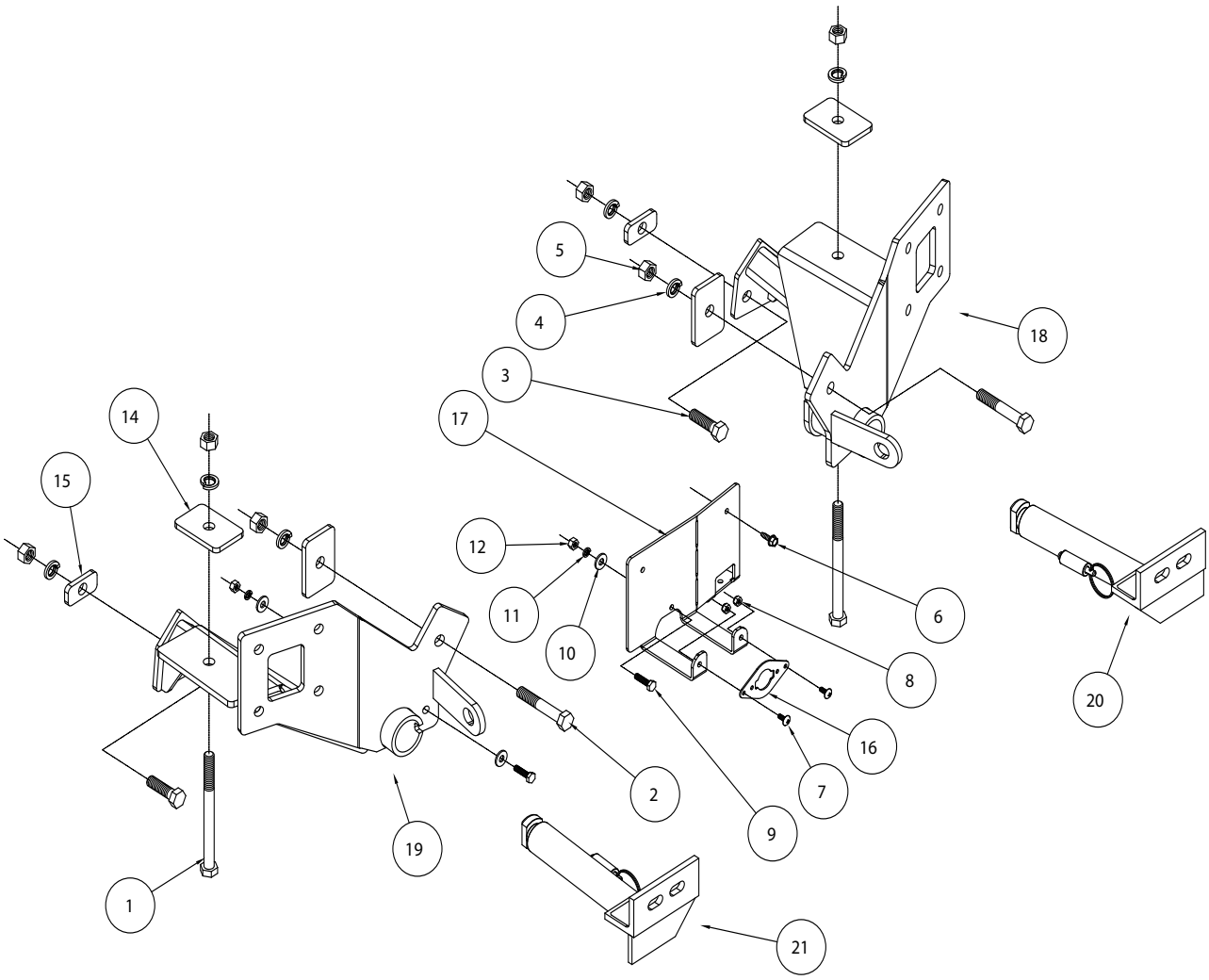
ROADMASTER, INC.

MOUNTING BRACKET KIT

INSTALLATION INSTRUCTIONS

KIT# 523162-4

02/22/16



ITEM	QTY	NAME	PART #
1	2	½” x 6” BOLT	350309-00
2	2	½” x 3” BOLT	350101-00
3	2	½” x 1 ¾” BOLT	350096-00
4	6	½” LOCK WASHER	350309-00
5	6	½” HEX NUT	350258-00
6	1	¼” x ¾” SELF TAPPING SCREW	350271-00
7	2	#10 x ½” BOLT	350389-00
8	2	#10 NYLON LOCKNUT	350249-00
9	2	¼” x 1” BOLT	350005-00
10	3	¼” FLAT WASHER	350300-00
11	2	¼” LOCK WASHER	350301-00
12	2	¼” NUT	350250-00
13	2	ZIP TIE	300140-10
14	2	1” x 2” ROUND HOLE BACKING PLATE	A-000842
15	4	2” x 3” ROUND HOLE BACKING PLATE	A-000147
16	1	WIRE PLUG PLATE	A-003801
17	1	ACCESSORY BRACKET	B-002984
18	1	DRIVER SIDE RECEIVER	C-002962
19	1	PASSENGER SIDE RECEIVER	C-002963
20	1	DRIVER SIDE ARM	C-002964
21	1	PASSENGER SIDE ARM	C-002965

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This is one of our EZ4 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 two main receiver braces, two removable front braces and a hardware pack.

The main receiver brace mounts to the bumper core and 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 warranteed for the original installation.** Installing a used bracket on another vehicle is not recommended and will void the warranty.

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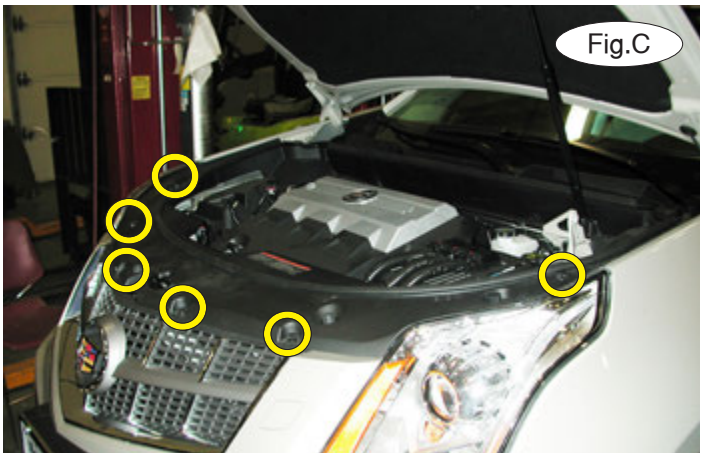
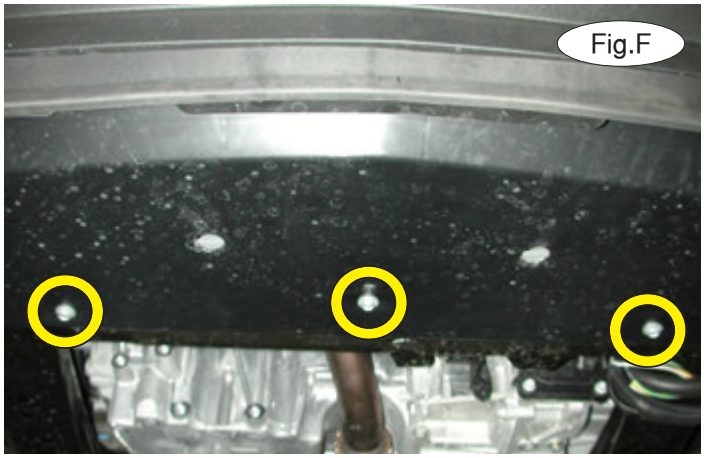


1. Remove six fasteners attaching the radiator cover to the core support (Fig.C).
2. Remove six 10mm (head) bolts attaching the top of the fascia to the core support (Fig.D).

3. Remove six fasteners attaching the fender liner to the fascia on the passenger side (Fig.E) and five fasteners on the driver's side.
4. Remove three 10mm screws attaching the center splash shield to the radiator support (Fig.F).



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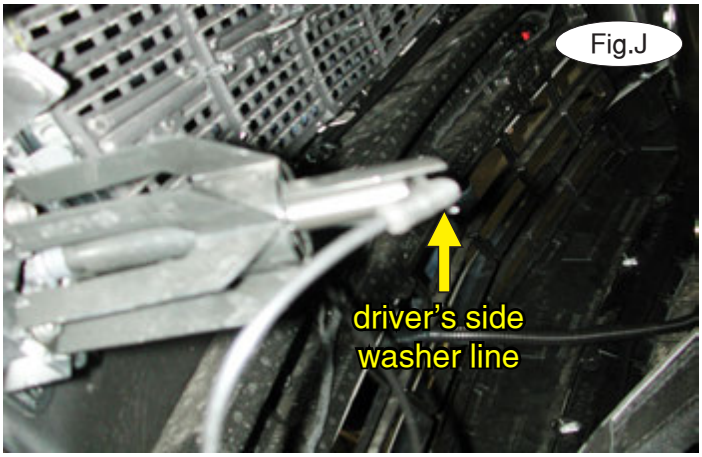
5. On each side, pull back the fender liner and remove one 7mm (head) bolt attaching the corner of the fender to the fascia (Fig.G).

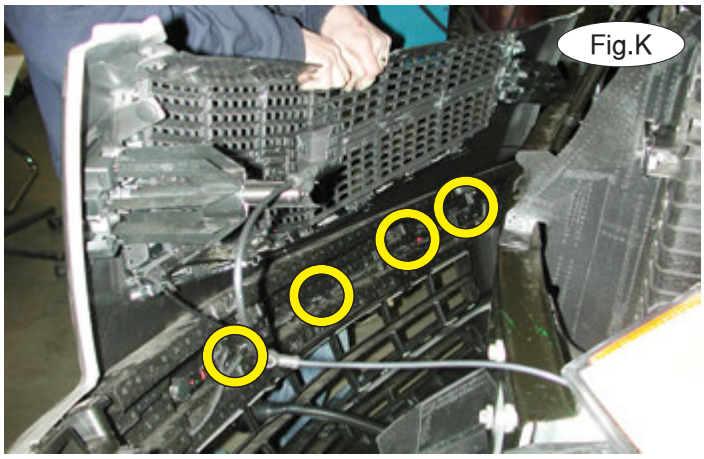
6. Pull up and forward on the corners to remove the fascia (Fig.H). *Note:* due to manufacturing variances, there may also be a rivet to release from the top of the fascia.



7. On the driver's side, disconnect the wiring harness plug from the back of the fascia (Fig.I).

8. Disconnect the two head light washer fluid lines (Fig.J). Note: *Note:* due to manufacturing variances, these washer fluid lines may not be present.

9. Unsnap the four clips attaching the water line to the back of the fascia (Fig.K).



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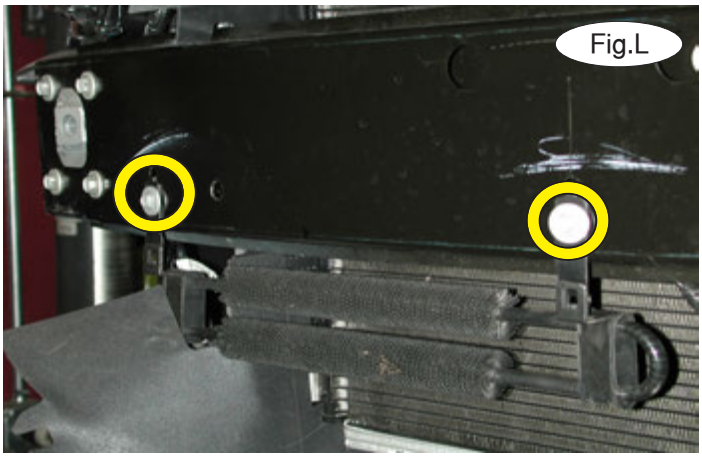
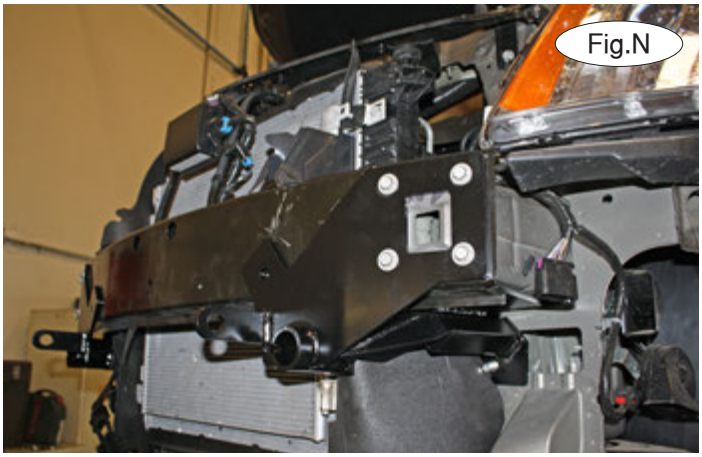


10. Remove two 10mm (head) bolts attaching the power steering cooler to the bumper core (Fig.L).

11. Starting with the driver's side, remove four 13mm (head) bolts attaching the bumper core to the end of the frame rail (Fig.M).



12. Place the main receiver brace over the end of the frame rail and replace the bolts you removed in the previous step (Fig.N).

13. Repeat steps 11 and 12 for the passenger side.

14. Temporarily place the fascia over the receivers to check the alignment of the receivers where they pass through the grille opening. If the alignment is off, loosen the bumper mounting bolts to raise or lower the receiver braces. Figure O shows the proper alignment.

Once aligned, remove the fascia and torque the bumper mounting bolts to the bolt torque requirements found at the end of these instructions.

15. Working on the driver's side only, remove the plastic fastener attaching the wiring harness to the top of the frame (Fig.P).

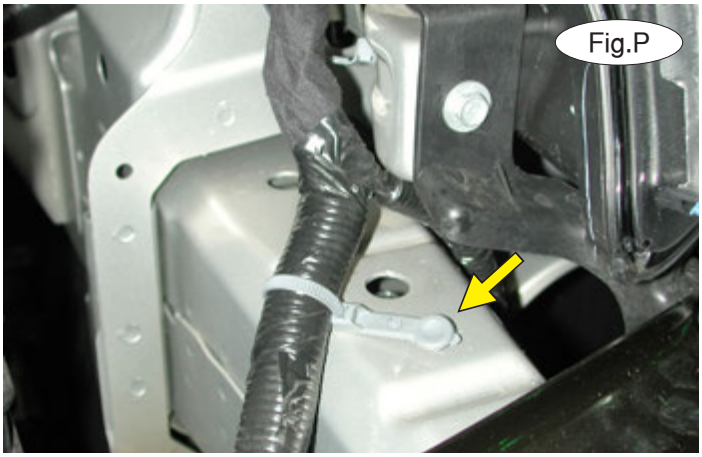


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Fig.Q


Fig.R

16. Using one of the supplied ½" x 6" bolts, bolt up through the center mounting point of the main receiver brace and through the frame rail. Place a 2" x 3" backing plate over the top of the bolt and finish with a ½" lock washer and nut (Fig.Q). *Note:* due to frame variances, the hole may need to be enlarged.

17. Using one of the supplied ½" x 1¾" bolts, bolt through the rear mounting point of the main receiver brace. Place a 1" x 2" backing plate on the back side of the frame rail and finish with a ½" lock washer and nut (Fig.R).

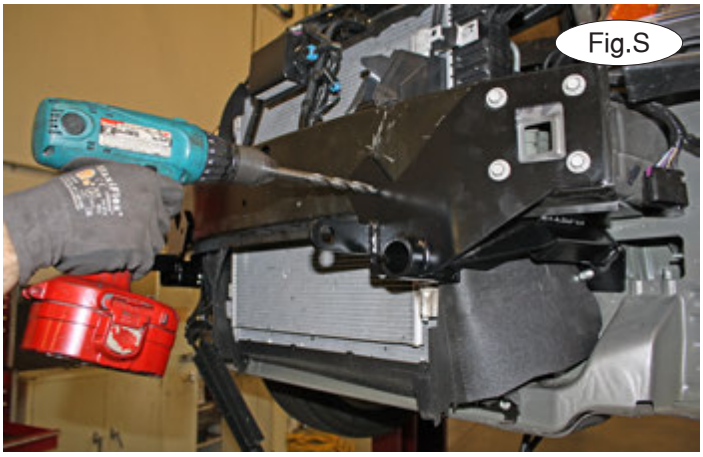
Fig.S

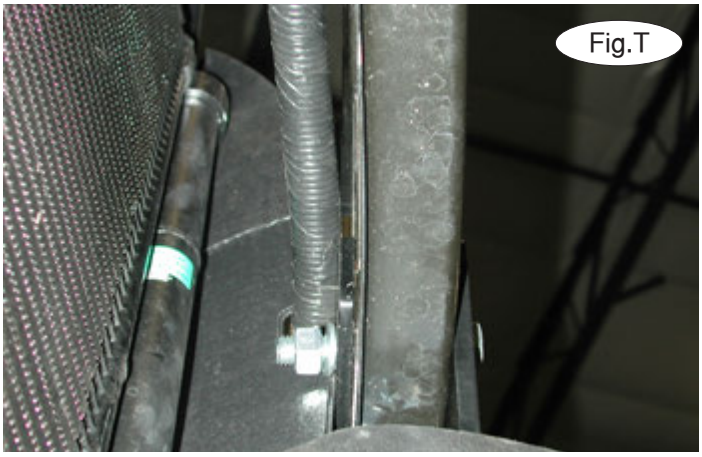
Fig.T

18. Using the pre-existing hole in the main receiver brace as a template, drill a ½" hole through the front and the back of the bumper core (Fig.S).

19. Bolt through the main receive brace and bumper core using one of the supplied ½" x 3" bolts. Place a 2" x 3" backing plate over the back side of the bumper core and finish with a ½" lock washer and nut (Fig.T).

20. Repeat steps 15 through 19 for the passenger side of the vehicle.

21. Tighten all bolts to the bolt torque requirements found at the end of these instructions.

22. Remove the ambient temperature sensor from its mounting point and relocate it to the hood latch support, just above the bumper core, to allow for clearance of the main receiver brace (Fig.U).

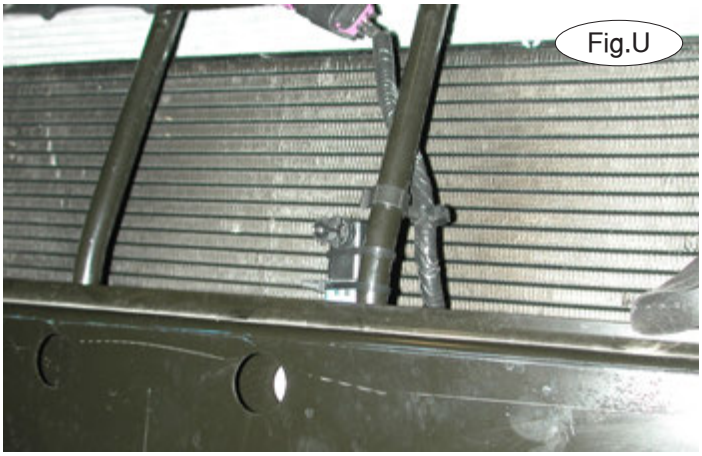
Fig.U

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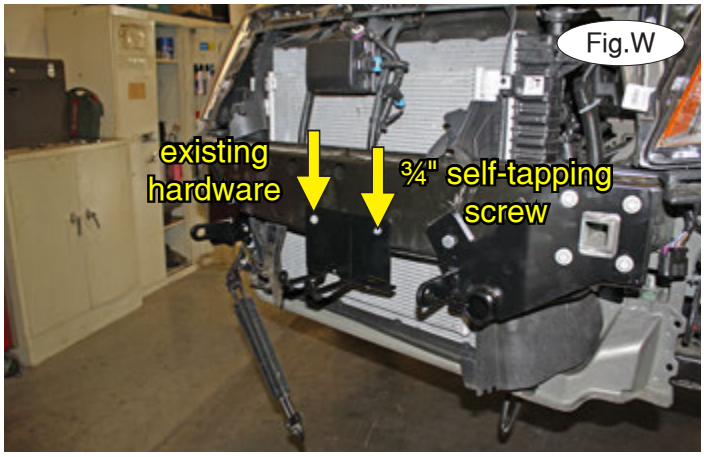
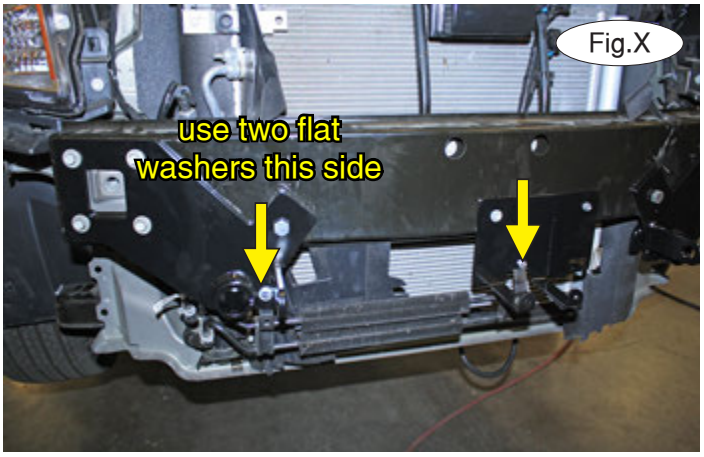
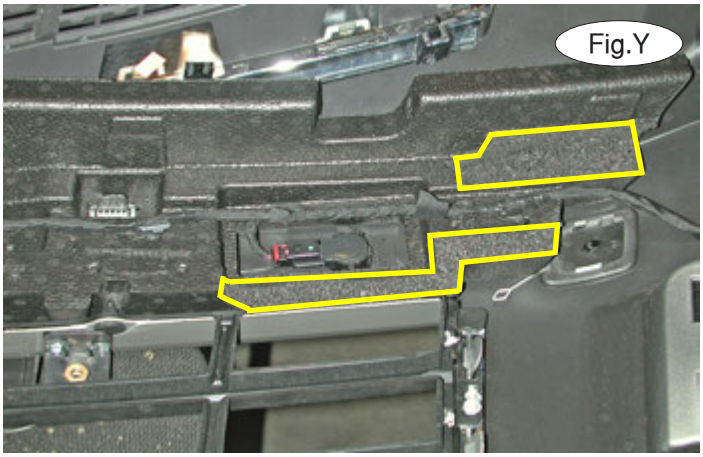
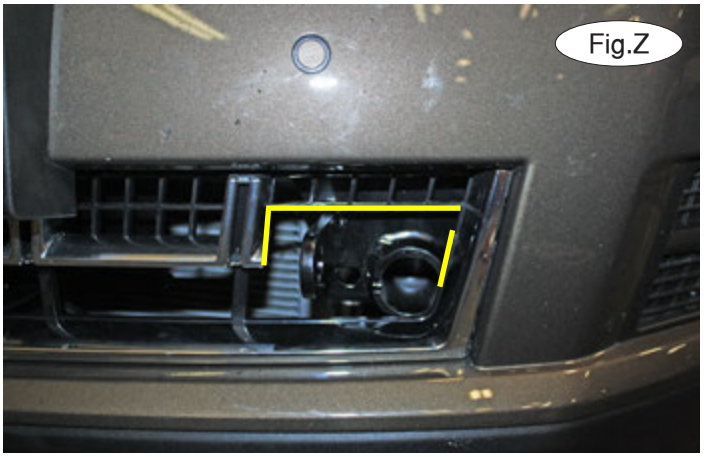




23. Place the accessory bracket over the centermost hole you uncovered when you removed the power steering cooler in step 10. Replace the factory hardware for that mount, and then ensure that the bracket is level on the driver's side and use the supplied ¾" self-tapping screw to finish mounting the accessory bracket to the center of the bumper core (Fig.W).

24. Mount the power steering cooler unit to the passenger side main receiver brace and accessory bracket you installed in the previous step using the two supplied ¼" x 1" bolts, ¼" lock washers, ¼" flat washers and nuts (Fig.X). *Note:* you will need two flat washers on the passenger side hole.





25. Trim the foam shock absorption pad so it is flush with the back of the fascia. Figure Y shows the areas that need to be trimmed out. Trim the fascia as shown in Figure Z to allow clearance for the main receiver brace.

26. Reassemble the fascia by reversing steps 1 through 6.

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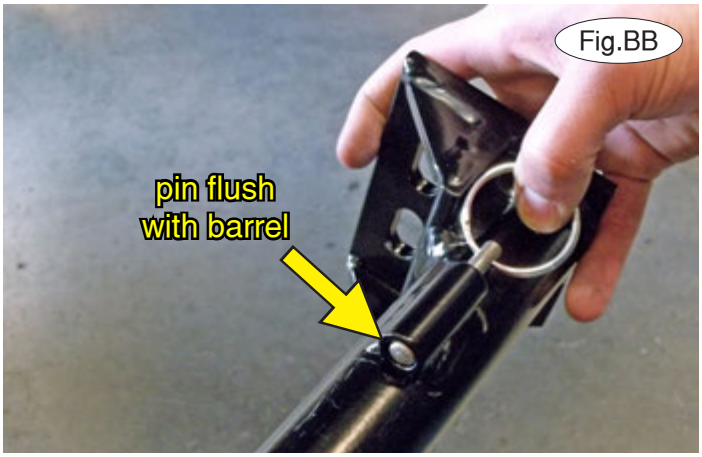
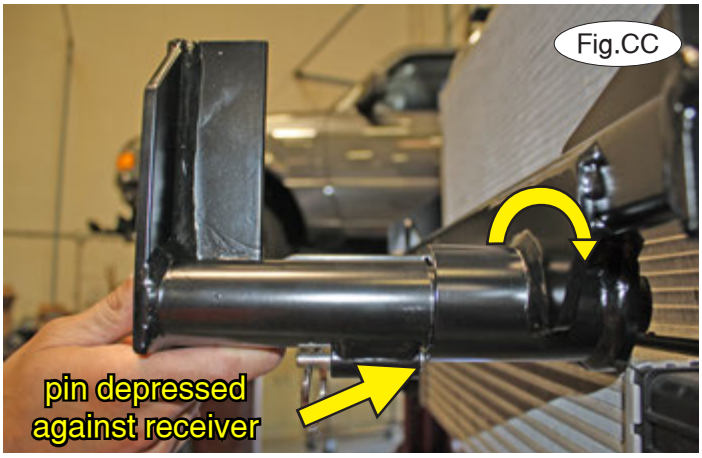
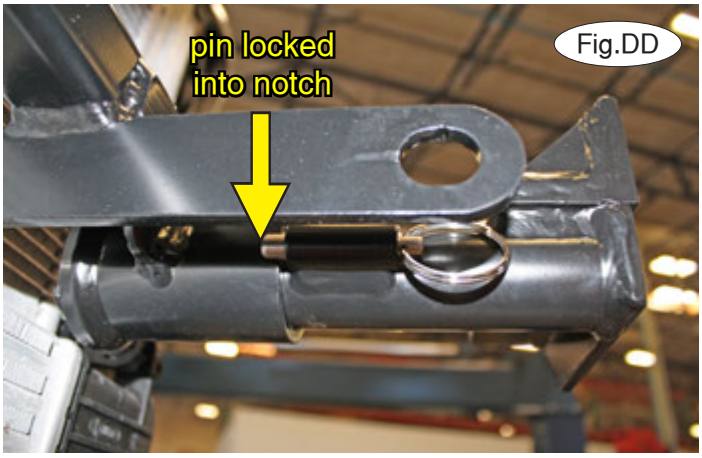


27. ***Note: the following four images are for illustration purposes only, as your specific application may be slightly different.***

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.AA and Fig.BB).





28. 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.CC). 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.DD).

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.

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

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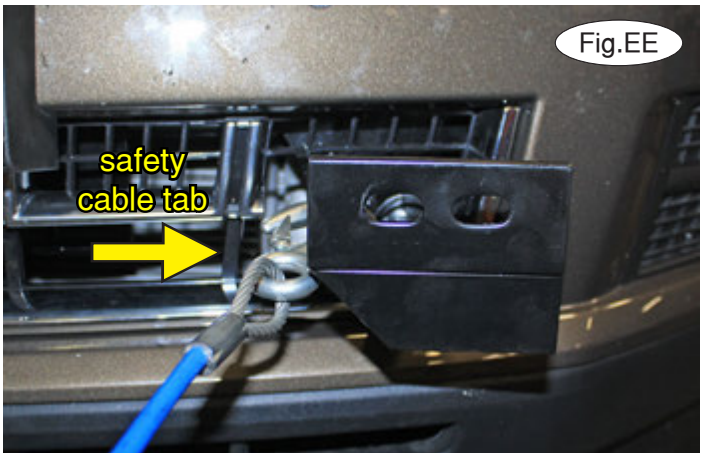
IMPORTANT!

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

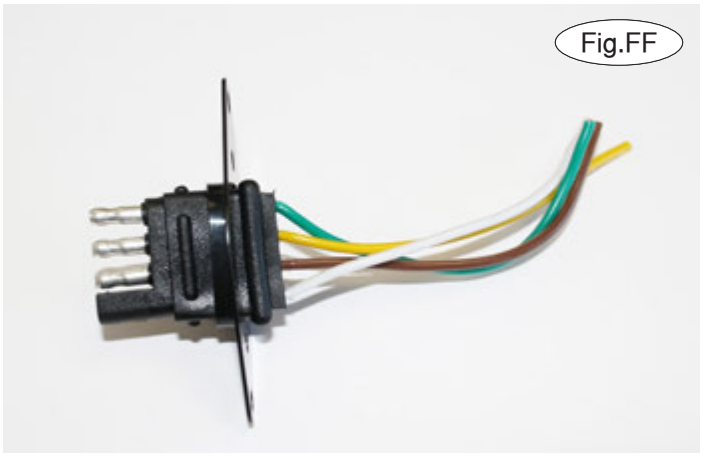


Three options for attaching the wiring plug to the main receiver brace

For six-wire plugs: use the two supplied ¾" 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 ¾" 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.FF). Use the two supplied ¾" 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.