



BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 523216-4

12/24
RS

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407

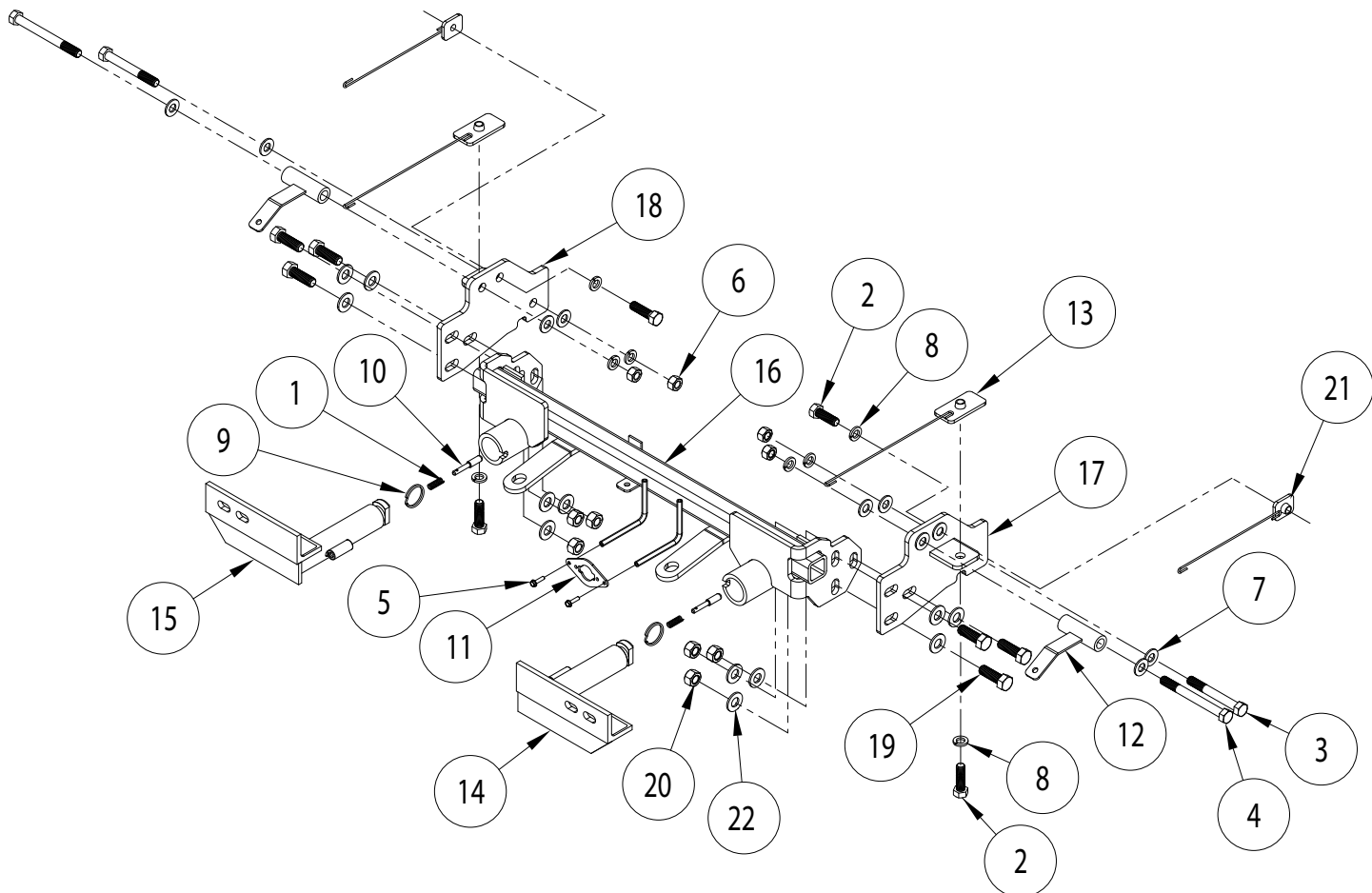
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Ratchets
7mm and 10mm sockets
3/4" wrench and socket
Extensions

What You'll Need

17/32" bit and drill
Panel tool
T15 Torx driver

2 1/4" hole saw
Flathead screwdriver
Torque wrench
Loctite© Red or Blue



ITEM	QTY.	DESCRIPTION	PART NUMBER
1	2	SPRING	200146-00
2	4	1/2" x 1 3/4" BOLT	350096-00
3	2	1/2" x 4" BOLT	350105-00
4	2	1/2" x 4 1/2" BOLT	350106-00
5	2	#10 x 3/4" SELF DRILLING SCREW	350247-35
6	4	1/2" HEX NUT	350258-00
7	8	1/2" FLAT WASHER	350308-00
8	8	1/2" LOCK WASHER	350309-00
9	2	RING	350520-00
10	2	LOCK PIN	A000008
11	1	WIRE PLUG PLATE	A003801
12	2	FRAME INSERT	C003583
13	2	1 1/2" x 3" THREADED BACKING PLATE W/ 10" ROD	C003584
14	1	DRIVER SIDE ARM	C003615
15	1	PASSENGER SIDE ARM	C003616
16	1	MAIN RECEIVER	C003617
17	1	DRIVER SIDE BRACE	C003724
18	1	PASSENGER SIDE BRACE	C003725
19	6	9/16-12 X 2" BOLT - GRADE 8 YELLOW ZINC	350216-05
20	6	9/16-12 NYLON INSERT LOCK NUT - GRADE 8 YELLOW ZINC	350261-25
21	2	1 1/4" x 1 1/2" THREADED BACKING PLATE W/ 8" ROD	C003372
22	12	9/16" HARDENED WASHER - YELLOW ZINC	350311-40



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This is one of our crossbar-style baseplates, which allows the visible front portion to be easily removed from the front of the vehicle (Fig.A and Fig.B).

The baseplate mounts to the frame of the vehicle and consists of two main receiver braces, two removable front braces, and a hardware pack.

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 baseplates **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 and lock washers on all fasteners.

WARNING

Failure to heed these warnings or follow the installation instructions may result in a voided warranty, loss of towed vehicle, personal injury or death.

- Do not weld or modify this baseplate or its components. Welding or modification will void the warranty.
- Do not use this document as a basis to design/fabricate a baseplate, as it may not show all parts or structural components.
- We strongly recommend professional installation.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the baseplate. Do not install the baseplate if any structural frame damage is found.
- The installer must use all bolts and parts supplied. If running changes were made by the vehicle manufacturer after this kit was designed, some bolts or other fasteners may no longer be the correct size. It is the installer's responsibility to verify this kit is securely fastened to the vehicle.
- Use Loctite® Red on all bolts used to secure this baseplate. Torque all bolts to the specifications found at the end of these instructions. Do not over-torque the bolts or failure may occur.
- The installer must inspect the baseplate to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc. or non-warranty failure may result.
- Roadmaster manufactures many styles of baseplates. If your baseplate 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.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or baseplate 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 your 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 or vehicles.
- 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. See cable instructions for proper routing. Failure to do so will result in non-warranty damage and/or the loss of the towed vehicle.
- This kit is designed for use with ROADMASTER tow bars and ROADMASTER adapters only. Using this kit with other brands, without an approved ROADMASTER adapter, may result in non-warranty damage or injury.
- Receiver extensions and out-of-level towing situations of 3 inches or more. This can cause the system to swing much higher and lower, causing excessive strain on the tow bar, baseplate and frame. That can cause the towing system to fail, causing property damage, personal injury or even death. If you must use a receiver extension or drop hitch to tow, it will reduce your receiver's weight capacity by 1/3 to avoid damaging your system. Never use more than one extension and/or drop hitch, as this will void your warranty.
- Every 3,000 miles, the owner must inspect all mounting points for cracks or fatigue, and check the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions.
- The owner must follow the vehicle manufacturer's instructions to prepare the vehicle for towing. Failure to do so may cause severe damage to the vehicle.
- This baseplate is only warranted for the original installation. Installing a used baseplate on another vehicle is not recommended and will void the warranty.



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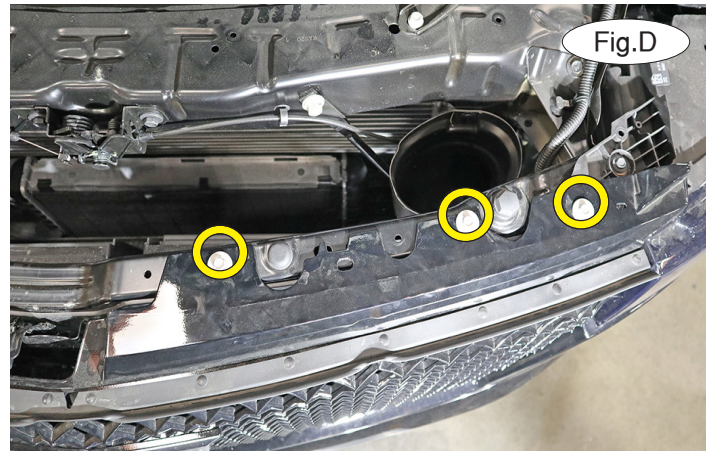
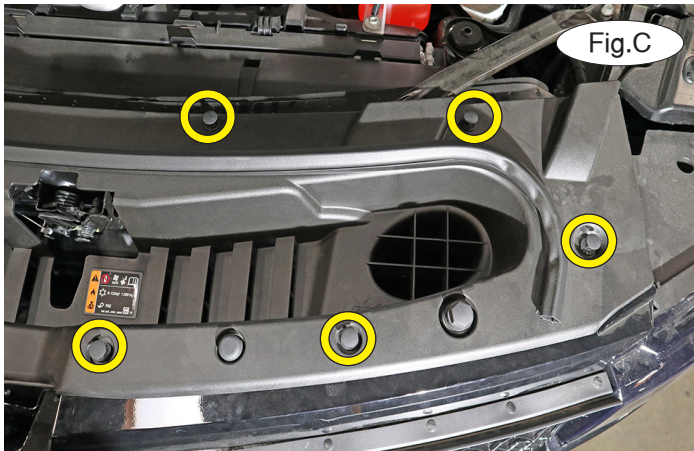
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Important: Please use all supplied hardware and read through these instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel.

1. Remove nine plastic fasteners attaching the filler panel to the fascia and core support. There are five on the driver's side (Fig.C) and four on the passenger side. Pull straight up and set the filler panel aside for now.



2. On each side, remove three 10mm bolts attaching the top of the fascia to the core support (Fig.D).

3. On each side, lift up on the top of the fascia to release it from the locking pin (Fig.E).

4. On each side, remove seven T15 screws attaching the fender liner to the fascia (Fig.F and Fig.F – inset).

5. On the driver's side only, disconnect the auxiliary harness and the front washer sprayer line and block heater, if the vehicle is so equipped (Fig.G). On the passenger side only, disconnect the front camera harness and the main wiring harness (Fig.G – inset). **IMPORTANT! Do not turn the vehicle on after this point or you may need to go to the dealership to get the lights reset.**



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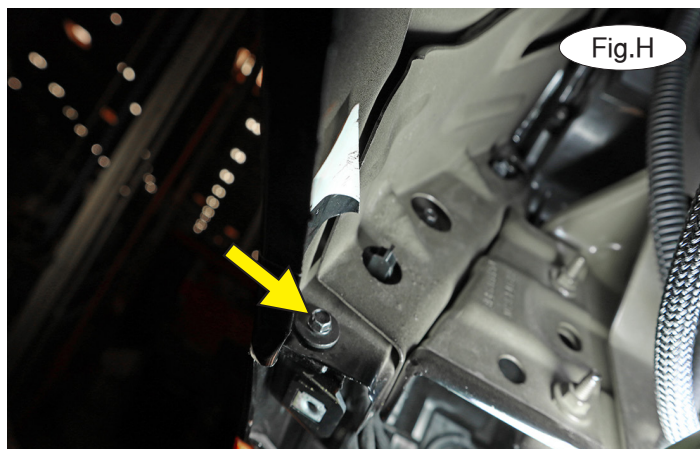
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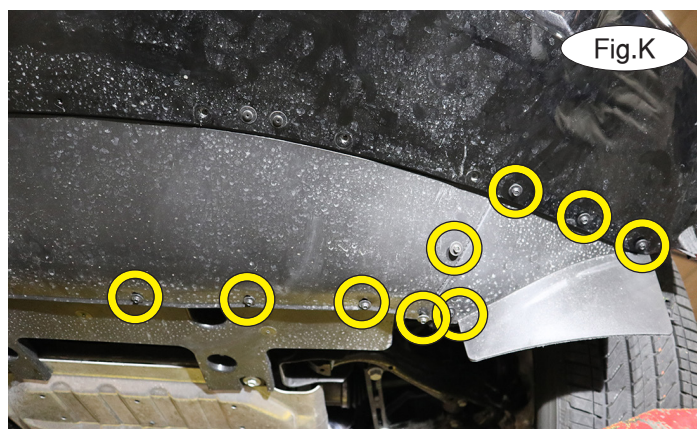
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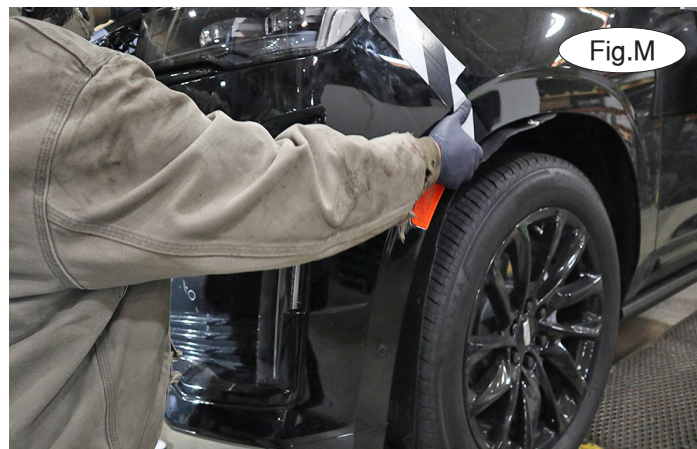
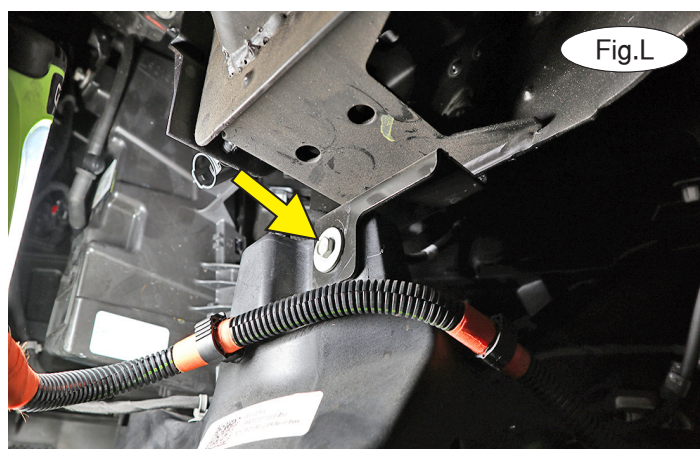
6. On each side, pull back the fender liner and remove one 7mm screw attaching the fascia to the fender (Fig.H). Then, remove two 10mm bolts attaching the fog light housing to the frame (Fig.I).

7. On each side remove four T15 screws attaching the bottom of the fascia to the core support (Fig.J – driver's side). Then, remove nine 7mm screws attaching the bottom of the fascia to the core support (Fig.K). Pull toward the rear of the vehicle to remove it and set it aside for now.



8. On each side, remove one 10mm bolt attaching the fascia to the frame (Fig.L).

9. On each side, with the assistance of a second person, pull out at the seam to release the fascia (Fig.M). *Note: You will need to pull out firmly to release the seven clips attaching the center and bottom of the grille to the core support (Fig.N – next page, five of seven clips shown).* Set it aside for now.





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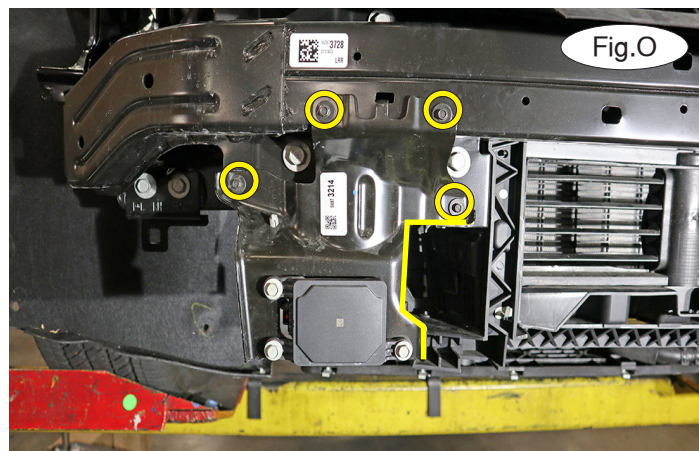
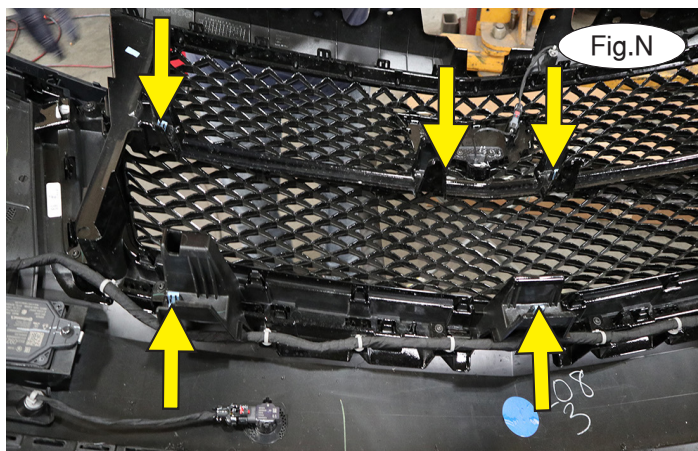
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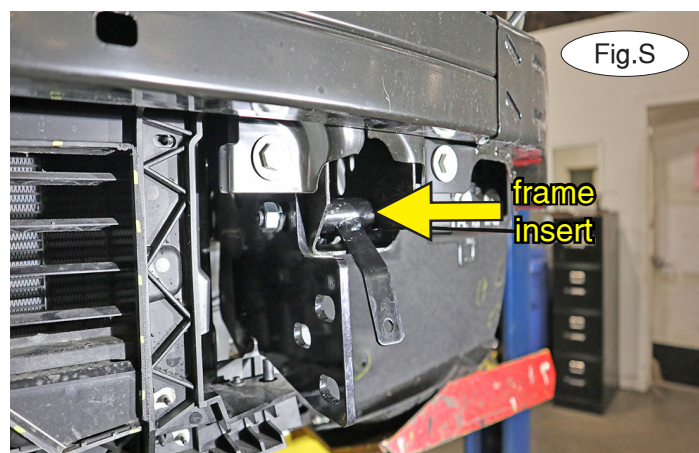


10. On the passenger side only, trim the ACC bracket as shown (Fig.O – yellow lines). Then, remove four 7mm screws attaching the ACC bracket to the bumper core (Fig.O – circles). Let the ACC sensor and its mount hang down for now.

11. **For models without lower shutters:** Proceed to the next step. **On models with lower shutters:** Trim the shutter housing as shown (Fig.P) until it is flush with its frame.



12. Working on the driver's side, place a 3/16" x 1 1/2" x 3" threaded backing plate with rod in the end of the frame rail (Fig.Q). Using the drawing on page 1 as a reference, locate the driver's side-specific brace. Then, place Loctite over a 1/2" x 4 1/2" bolt and install the frame insert into the frame rail, aligning it with the first set of holes. Now, bolt through the outside of the frame rail (Fig.R), through the frame insert and through the side-specific brace. Finish with a 1/2" lock washer and a 1/2" nut (Fig.S). Leave the nut finger tight for now.





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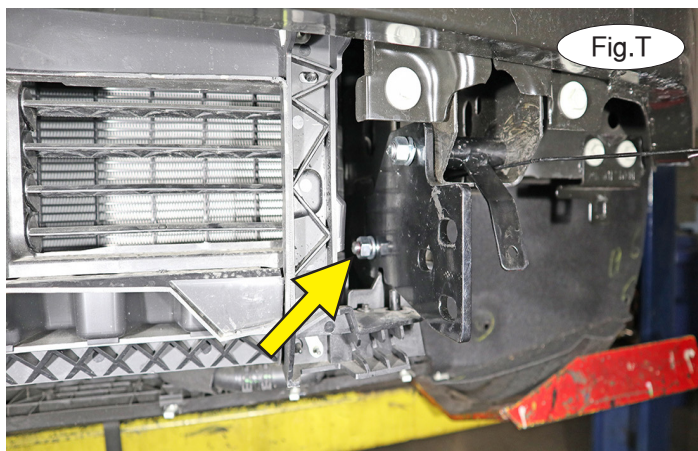


Fig.T



Fig.U

13. Place Loctite on a 1/2" x 4" bolt and then place it through the frame horn and into the rearmost mount of the driver's side-specific brace. Finish with a 1/2" lock washer and 1/2" nut (Fig.T) but leave the nut finger tight for now.

14. Prepare a 1/2" x 1 3/4" bolt with a 1/2" lock washer and Loctite. Locate one of the 3/16" x 1 1/4" x 1 1/2" nutted backing plates with rod and bend a 90 degree turn into the rod. Then, insert it into the end of the frame (Fig.U) and over the upper rear mount of the frame rail. Place the prepared 1 3/4" bolt into the backing plate to secure it. Leave it finger tight for now.

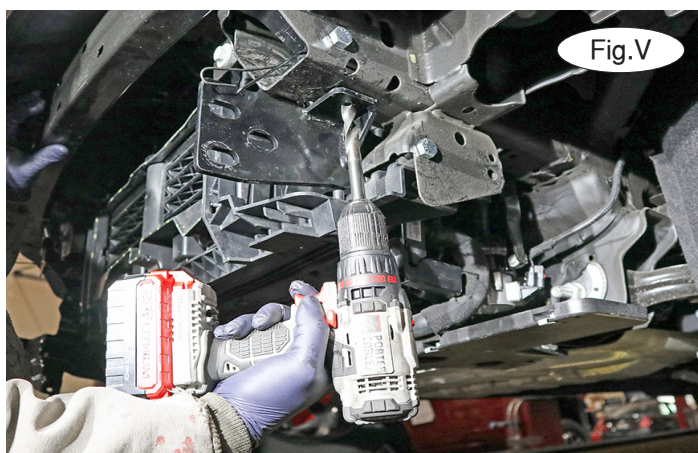


Fig.V



Fig.W

15. Place a 1/2" lock washer and Loctite over a 1/2" x 1 3/4" bolt. Using the bottom mount of the side-specific brace as a template, use a 17/32" bit to drill up through the frame (Fig.V). Pull forward on the backing plate you installed in step 12 until it aligns over the hole you just drilled and then place the prepared bolt up into the backing plate (Fig.W).

16. Repeat steps 12 through 15 for the passenger side but you will need to use the existing tow hook mount in the outer frame rail as a template and a 17/32" bit to drill through the inner wall of the frame rail to create an opening for the bolt. It may be helpful to use the locating hook to hang the ACC sensor to ensure it isn't damaged (Fig.X).

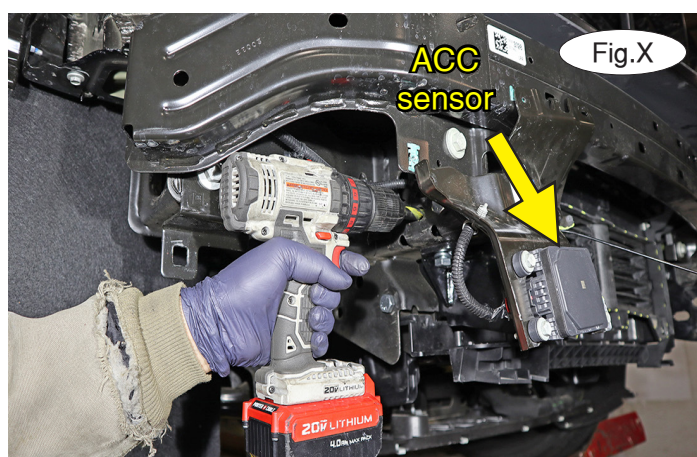


Fig.X



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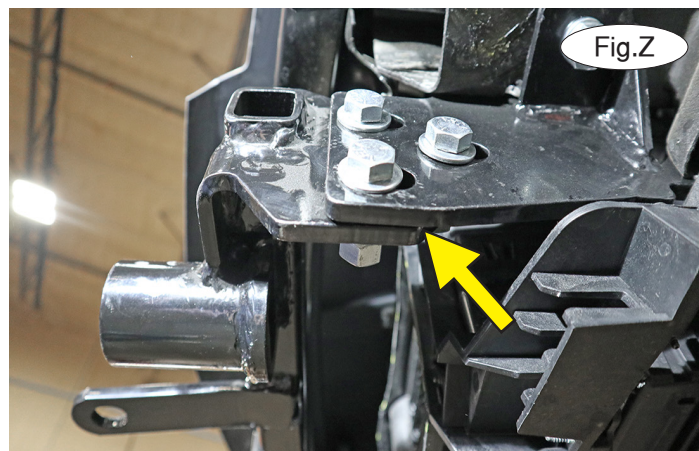
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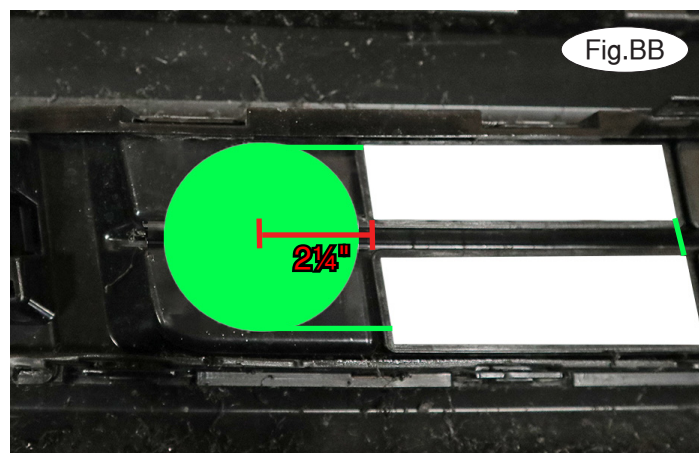
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17. IMPORTANT! Before proceeding, refer to the drawing on page 1. It is critical that you do not install the crossbar upside down.

Now, place six small 9/16" flat washers and Loctite over six 9/16" -12 x 2" coarse thread bolts. Place the crossbar between the mounts and, on each side, secure it to the side-specific brace using three of the bolts (Fig.Y).

Finish the bolts with 9/16" grade 8 flat washers and 9/16" coarse thread lock nuts. Then, push up on the crossbar until the mounts are flush in the spot indicated (Fig.Z) and finger tighten the bolts. **You will torque these in step 22.**



18. Using the bolt torque requirements found at the end of these instructions, tighten the bolts in this order – the bottom mount; rearmost mount, and then the two upper bolts. *Note: The crossbar bolts will be tightened in a future step.*

19. Reinstall the ACC sensor by reversing step 10.

20. Due to manufacturing variances, some models maybe feature a lower filler panel. **If your model is so equipped:** Use a small flathead screwdriver to remove two plastic clips retaining the lower filler panel to the fascia (Fig.AA). Pull out to remove it. It will not be replaced.

21. On each side, measure 2 1/4" as shown in the red lines in Figure BB. Then, drill a pilot hole on center. Use a 2 1/4" hole saw to trim an opening for the baseplate arm (Fig.BB – green circle). Now, use the green lines as a guide to remove the horizontal rib and its vertical support to allow clearance for the pin on the baseplate arms (Fig.BB). Test fit the fascia to ensure it fits over the baseplate, making any additional adjustments that might be needed before proceeding to the next step.

22. Ensure that the crossbar is level and pulled to its forwardmost position. **Then, tighten the coarse thread crossbar bolts to 129 ft-lbs.**

23. Reinstall the fascia, reversing steps 1 through 9.

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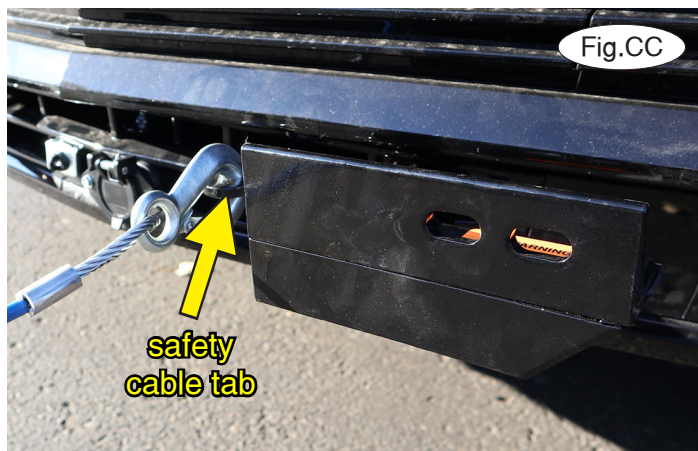
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24. On each side, insert the removable front arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver. Twist back 90 degrees until the spring-loaded pin snaps into place in the notch on the receiver, locking the arm into place in its final towing position. **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.**

25. Install the tow bar to the baseplate according to the manufacturer's instructions.



IMPORTANT!

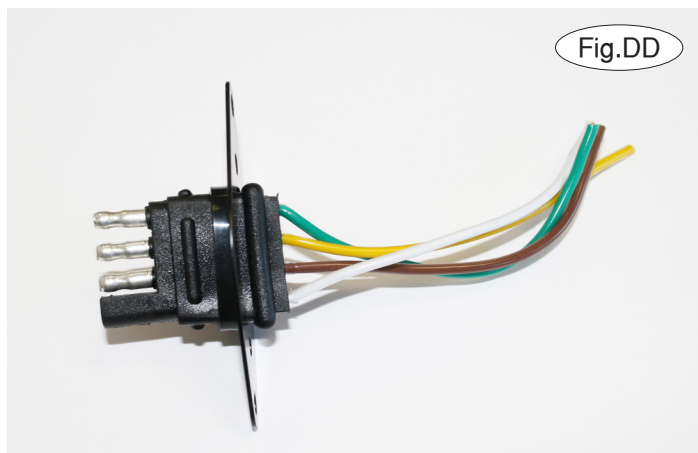
Safety cables are required by law. When towing, connect safety cables to the safety cable tabs illustrated in Figure CC. Make certain there is adequate slack in the cables to allow a full turning radius; otherwise, damage will result. If necessary, longer cables or cable extensions are available.

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.DD). 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
5/16-18	5	13 ft./lb.
3/8-16	5	23 ft./lb.
7/16-14	5	37 ft./lb.
1/2-13	5	57 ft./lb.
5/8-11	5	112 ft./lb.

METRIC BOLTS

Thread Size	Grade	Torque
6mm-1.0	8.8	6 ft./lb.
8mm-1.0	8.8	18 ft./lb.
8mm-1.25	8.8	16 ft./lb.
10mm-1.25	8.8	36 ft./lb.
10mm-1.5	8.8	31 ft./lb.

METRIC BOLTS

Thread Size	Grade	Torque
12mm-1.25	8.8	64 ft./lb.
12mm-1.5	8.8	60 ft./lb.
12mm-1.75	8.8	55 ft./lb.
14mm-2.0	8.8	88 ft./lb.