

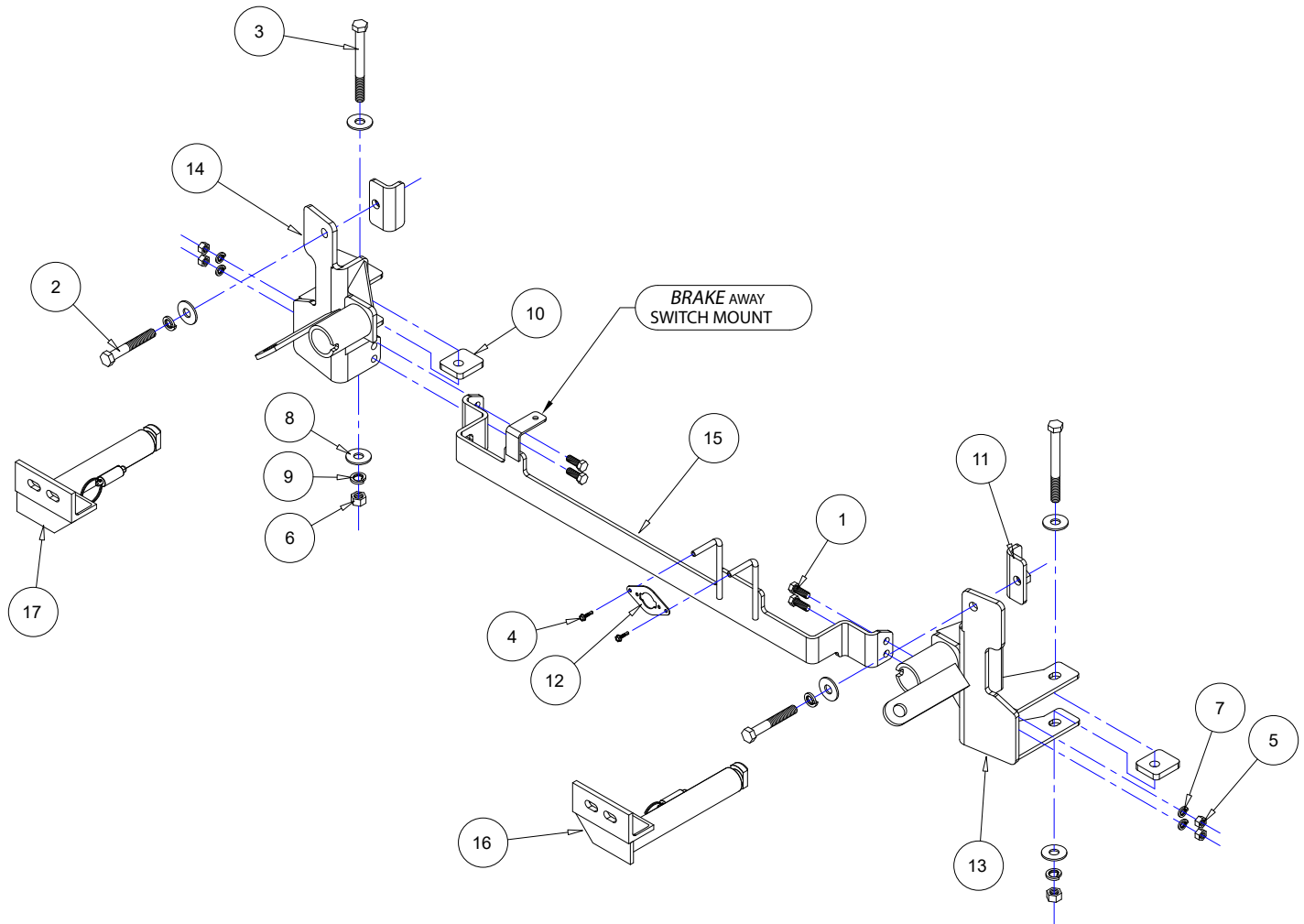


BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 524461-4

04/21/22
KS

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ITEM	QTY	NAME	PART#
1.....	4.....	3/8" x 1" BOLT.....	350055-00
2.....	2.....	1/2" x 3 1/2" BOLT.....	350103-00
3.....	2.....	1/2" x 4 1/2" BOLT.....	350106-00
4.....	2.....	#10 x 3/4" SELF DRILLING SCREW.....	350247-35
5.....	4.....	3/8" HEX NUT	350254-00
6.....	2.....	1/2" HEX NUT	350258-00
7.....	4.....	3/8" LOCK WASHER	350305-00
8.....	6.....	1/2" FLAT WASHER	350308-00
9.....	4.....	1/2" LOCK WASHER	350309-00
10.....	2.....	SPACER PLATE	A000765
11.....	2.....	THREADED BACKING PLATE.....	C003517
12.....	1.....	WIRE PLUG PLATE	A003801
13.....	1.....	DRIVER SIDE RECEIVER	C003439
14.....	1.....	PASSENGER SIDE RECEIVER.....	C003440
15.....	1.....	CROSS BAR.....	C003441
16.....	1.....	DRIVER SIDE ARM.....	C003442
17.....	1.....	PASSENGER SIDE ARM	C003443



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This is one of our crossbar-style series, which allows the visible front portion of the baseplate to be easily removed from the front of the vehicle (Fig.A and Fig.B). This kit consists of two side-specific braces, a crossbar, two removable front arms, and a hardware pack.

The braces mount to the frame and the support braces. 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 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.

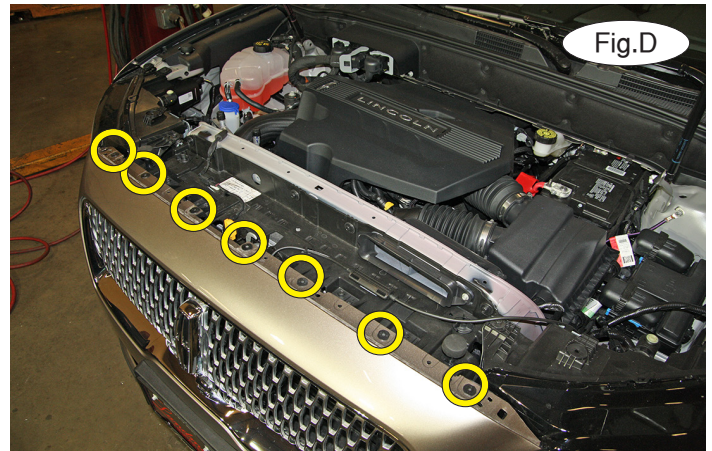


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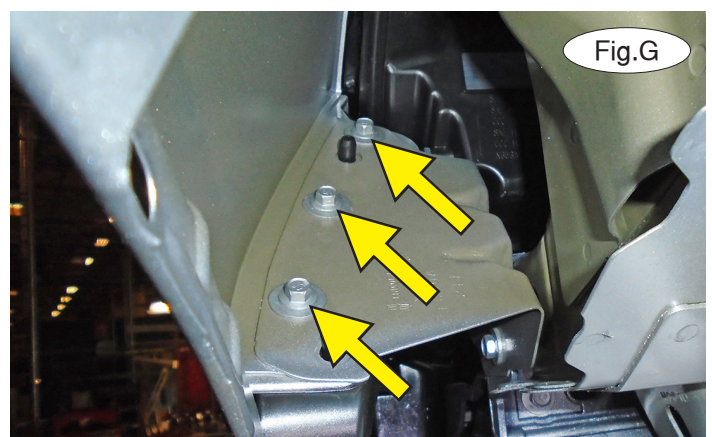
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1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. On each side, remove eight plastic fasteners attaching the radiator cover to the fascia and core support (Fig C – driver's side). Set it aside.
2. Remove seven T20 Torx (head) bolts attaching the fascia to the core support (Fig.D).
3. On each side, remove five plastic fasteners attaching the fender well to the fascia (Fig.E).



4. On each side, release the plastic clips attaching the wheel well trim to the fascia and fender (Fig.F)
5. On each side, pull back the fender liner and remove three 8mm (head) bolts attaching the fascia to the fender (Fig.G).



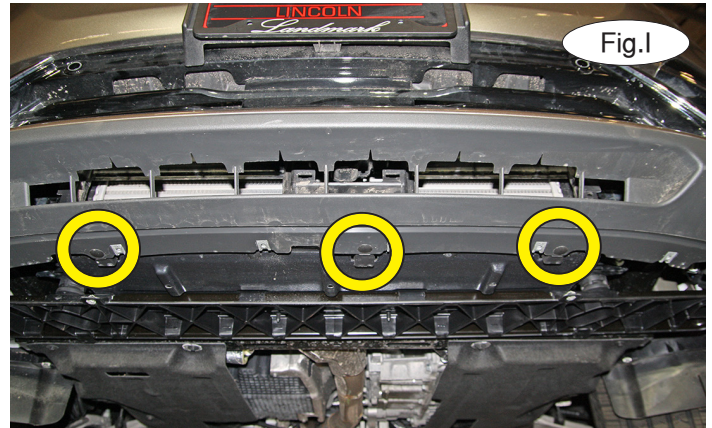
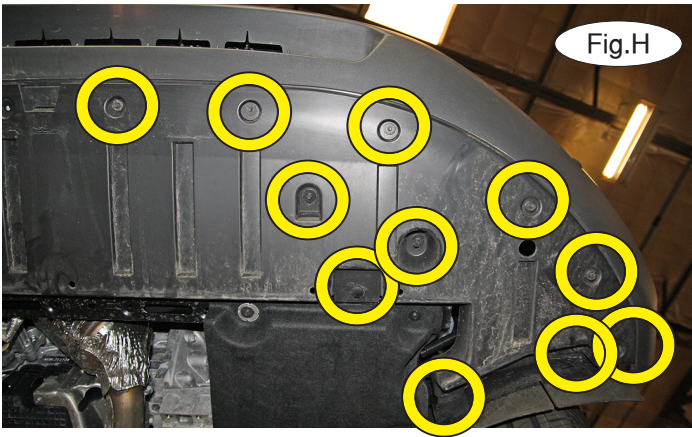


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6. On each side, remove eight 5.5mm (head) screws, two 7mm (head) screws and one plastic fastener attaching the splash shielding to the fascia and subframe (Fig.H). Slide toward the rear of the vehicle to remove the splash shield and set it aside for now.

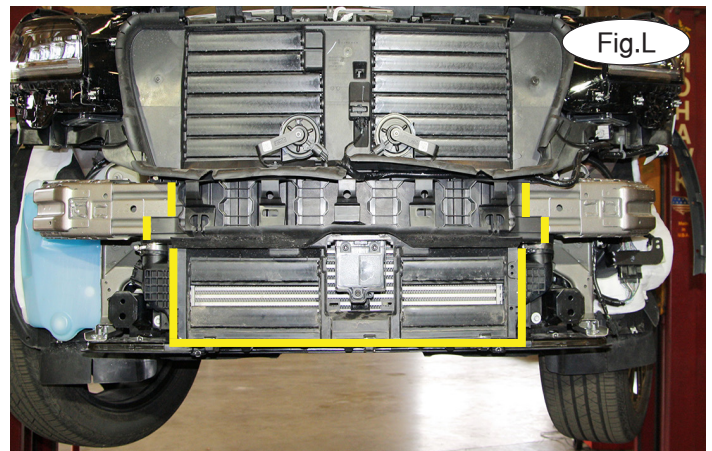


7. Remove three plastic fasteners attaching the fascia to the louver housing (Fig.I).

8. Pull out on the corners to remove the fascia (Fig.J). Disconnect all wiring harnesses and the front camera washer hose, if equipped.

9. Unclip the ambient temperature sensor and its harness and let it hang down for now (Fig.K).

10. On each side, trim the louver housing and plastic bumper cover, using the yellow lines in Figure L as a reference.



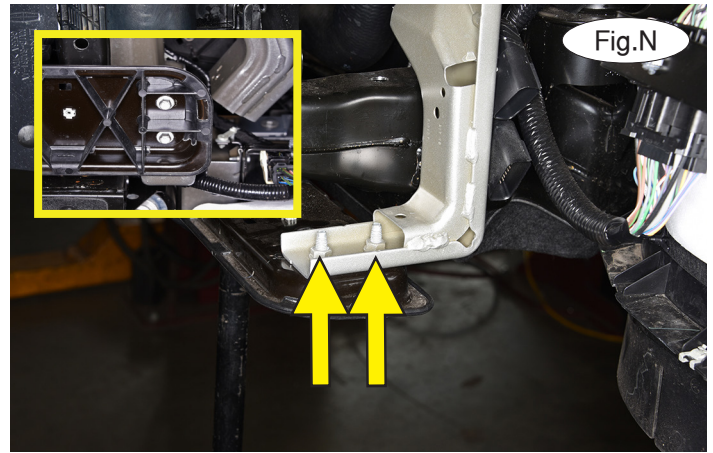


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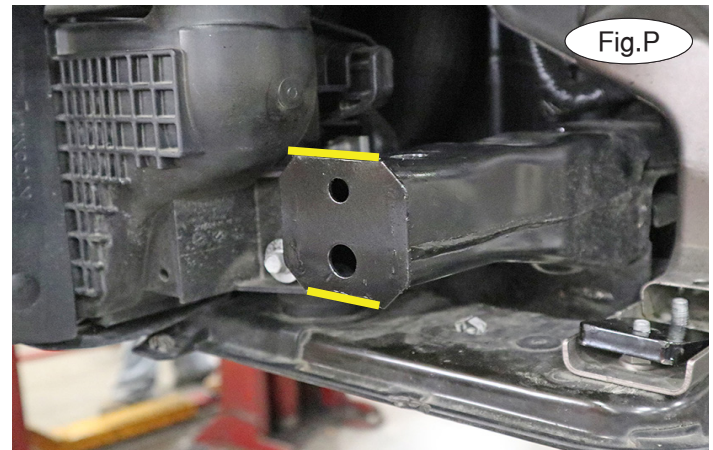
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11. **For models without Active Air Shutters:** Proceed to step 12. **For models with Active Air Shutters:** On each side, remove the top louver by gently bending it in the middle and pulling out to release it (Fig.M – inset).

12. Use a jack stand to brace the lower radiator support and on each side, remove two 10mm (head) bolts (Fig.N and inset).



13. On each side, use a long 1/2" drill bit to enlarge the factory subframe holes. Drill up through the bottom and top of the subframe. *Note:* You will need to push the lower radiator support out of the way to accomplish this (Fig.O). Now, reinstall the lower radiator support by replacing the bolts you removed in the previous step.

14. On each side, trim the top and bottom of the front frame horn flange so that they are flush with the frame rail (Fig.P).

15. Working on the driver's side only, locate the driver's side-specific brace and place it over the frame horn, allowing the upper plate to sit flush on the surface you trimmed in the previous step (Fig.Q). Prepare a 1/2" flat washer and Loctite over a 1/2" x 4 1/2" bolt, and then place the provided 3/8" x 1 3/4" x 2" plate washer between the bottom of the frame horn and the lower plate of the baseplate and bolt down through it (Fig.R – next page). *Note:* When properly situated, the hole in the plate washer will be offset toward the front of the vehicle (Fig.R – arrow). Now, finish with a 1/2" flat washer, a 1/2" lock washer, and 1/2" nut and then tighten the bolt to the torque specifications.



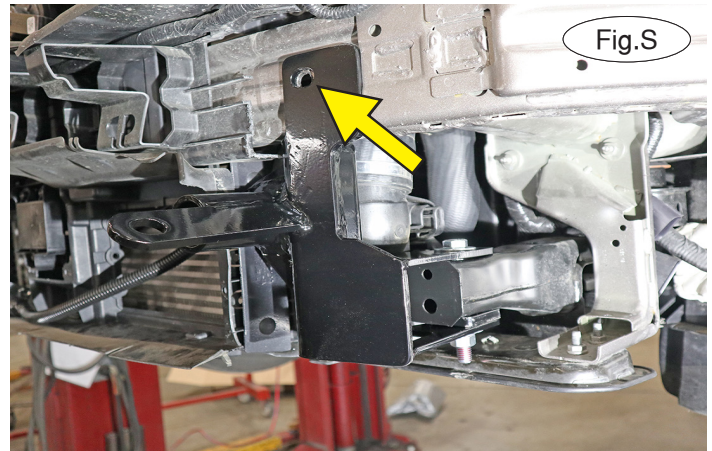
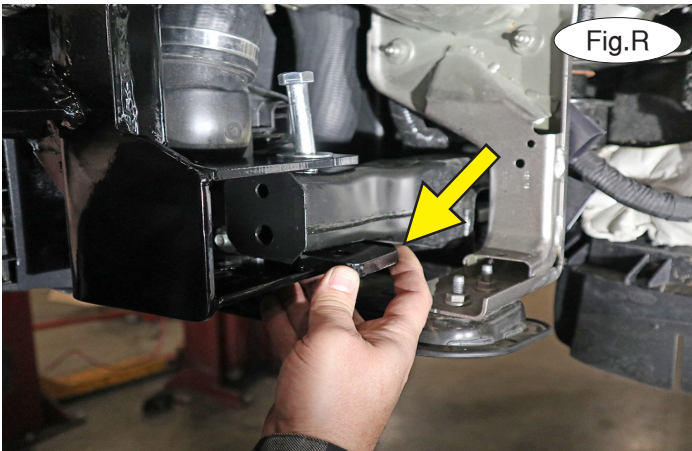


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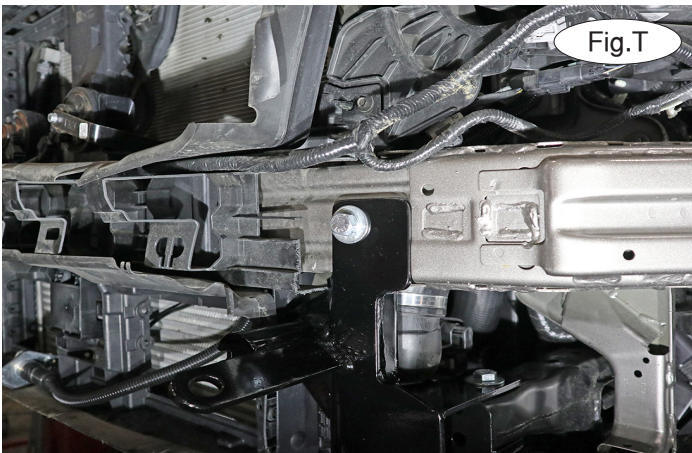
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16. Using the upper mount of the baseplate as a template (Fig.S), use a $\frac{1}{2}$ " drill bit to drill through the face of the bumper core. *Note:* Make certain you use care to avoid drilling into critical engine components.

17. Place a $\frac{1}{2}$ " lock washer and flat washer over a $\frac{1}{2}$ " x $3\frac{1}{2}$ " bolt. Then, insert a $\frac{1}{4}$ " x 2" x 3" nutted backing plate vertically behind the bumper core and then pass the $3\frac{1}{2}$ " bolt through the upper mount of the baseplate, the hole you drilled in the previous step, and into the nutted backing plate (Fig.T). Then, tighten the bolts to the torque specifications found at the end of these instructions.



18. Repeat steps 15 through 17 for the passenger side of the vehicle.

19. Locate the crossbar and place it between the two side-specific braces. Then, on each side, align the holes in the crossbar with the holes in the lower mounts (Fig.U). Use two of the supplied $\frac{3}{8}$ " x 1" bolts and bolt through the crossbar and baseplate toward the outside of the vehicle. Finish with a $\frac{3}{8}$ " lock washer and nut (Fig.U – inset). Level the crossbar and then tighten the bolts to the torque specifications found at the end of these instructions.

20. Reattach the ambient temperature sensor, reversing step 9. *Note:* You will not reuse all of the clips.

21. Trim the fascia as shown in Figure V to allow clearance for the baseplate.





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22. Reinstall the fascia by reversing steps 1 through 8. Ensure that all hoses and wiring harnesses have been reconnected.

23. 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.**

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



IMPORTANT!

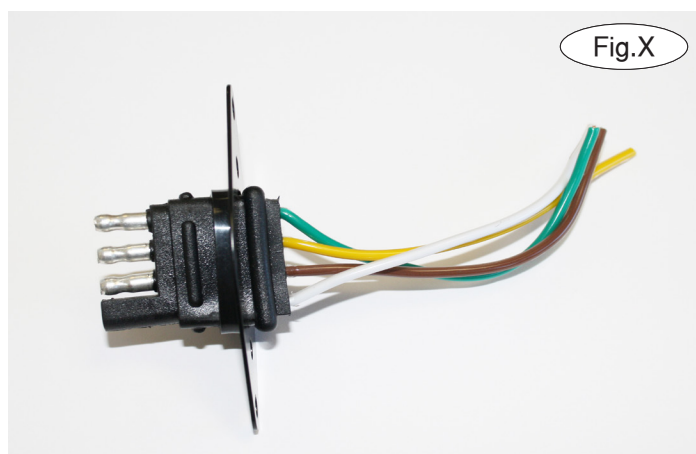
Safety cables are required by law. When towing, connect safety cables to the safety cable tabs illustrated on the first page and in Figure W. Make certain there is adequate slack in the cables to allow a full turning radius; otherwise, damage will result. If necessary, longer cables or cable extensions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

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

For six-wire plugs: use the two supplied $\frac{3}{4}$ " 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 $\frac{3}{4}$ " 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.X). Use the two supplied $\frac{3}{4}$ " 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.

All illustrations and specifications contained herein are based on the latest information available at the time of publication approval.
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