



# BASEPLATE KIT INSTALLATION INSTRUCTIONS

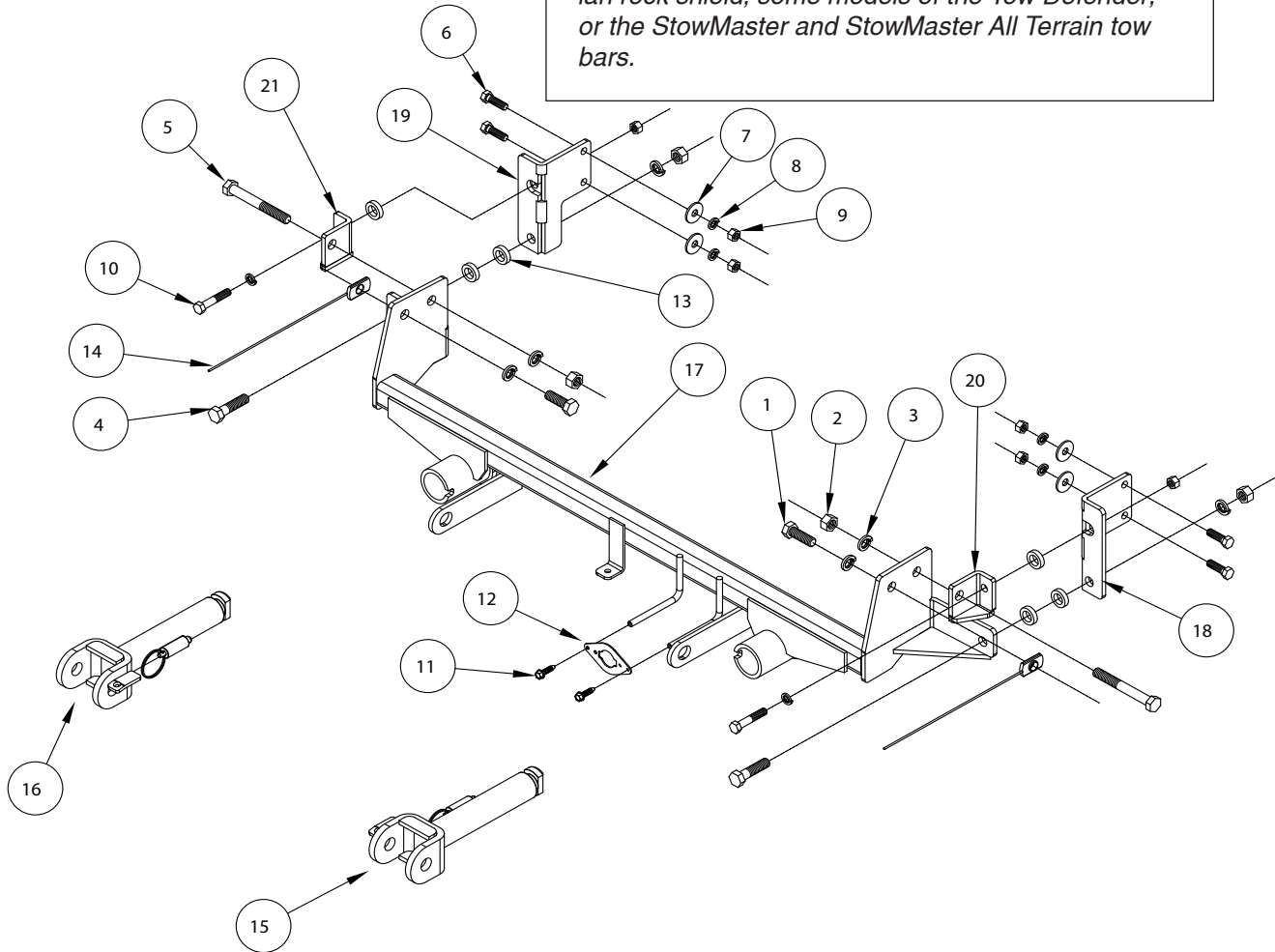
**KIT# 521570-5**

08/14/17  
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**Important**

Note: this bracket will not accommodate the Guardian rock shield, some models of the Tow Defender, or the StowMaster and StowMaster All Terrain tow bars.



ITEM	QTY	NAME	PART #
1.....	2.....	1/2" x 1 1/2" BOLTS.....	350095-00
2.....	4.....	1/2" NUT.....	350258-00
3.....	6.....	1/2" LOCK WASHER.....	350309-00
4.....	2.....	1/2" x 2" BOLT.....	350097-00
5.....	2.....	1/2" x 4" BOLT.....	350105-00
6.....	4.....	3/8" x 1 1/4" BOLT.....	350057-00
7.....	4.....	3/8" FLAT WASHER.....	350304-00
8.....	6.....	3/8" LOCK WASHER.....	350305-00
9.....	6.....	3/8" NUT.....	350254-00
10.....	2.....	3/8" x 2" BOLT.....	350059-00
11.....	2.....	#10 x 3/4" SELF DRILLING SCREW.....	350247-35
12.....	1.....	WIRE PLUG PLATE.....	A-003801
13.....	6.....	1" O.D. x 0.188 WALL x1/4" TUBE SPACER.....	A-001022
14.....	2.....	1/2" WELDNUT WITH 10" ROD.....	C-002820
15.....	1.....	DRIVER SIDE ARM.....	C-002383
16.....	1.....	PASSENGER SIDE ARM.....	C-002384
17.....	1.....	MAIN RECEIVER BRACE.....	C-002938
18.....	1.....	DRIVER SIDE REAR FRAME SUPPORT BRACE.....	C-002939
19.....	1.....	PASSENGER SIDE REAR FRAME SUPPORT BRACE.....	C-002940
20.....	1.....	DRIVER SIDE FRAME SUPPORT BRACE.....	C-002941
21.....	1.....	PASSENGER SIDE FRAME SUPPORT BRACE.....	C-002942
22.....	1.....	ZIP TIE.....	300140-8



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This is one of our EZ5 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 bumper core and the rear support plates reinforce the bumper core. 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.

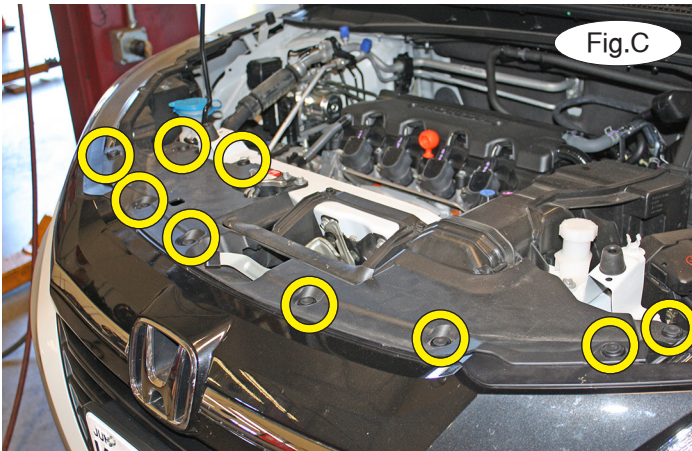


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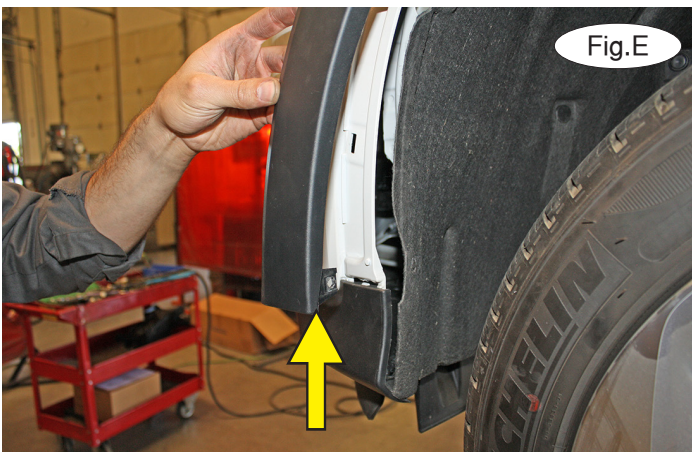
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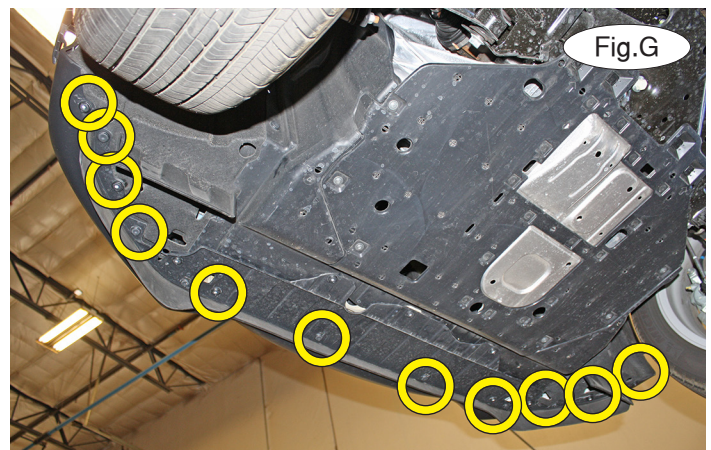
1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. Remove nine plastic fasteners attaching the radiator cover to the core support (Fig.C).

2. On each side, remove three plastic fasteners attaching the fender liner to the fender trim (Fig.D).



3. On each side, release the plastic tab securing the fender trim to the fascia at the seam (Fig.E – approximate location). Now, release enough of the fender trim plastic fasteners to gain access to the Philips screw in the corner of the fascia (Fig.F – circle).

4. Remove 11 plastic fasteners attaching the lower fascia to the core support and fender liner (Fig.G).



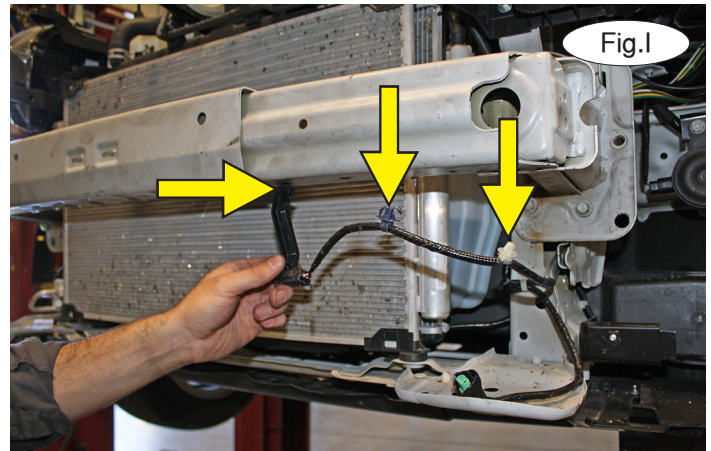


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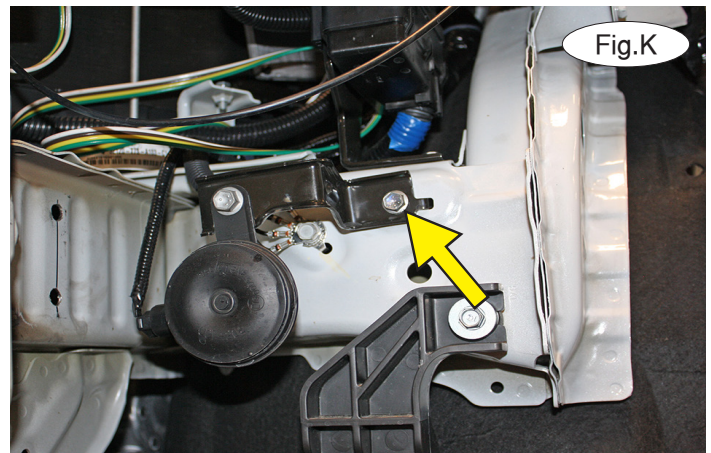
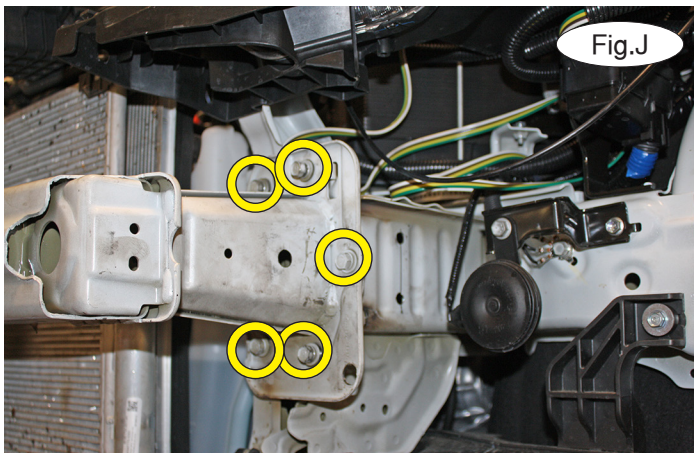
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5. On each side, reach behind the fascia and disconnect the fog lights, if the vehicle is so equipped. Pull out and forward on the corners of the fascia to release the locking strip (Fig.H).

6. Disconnect the ambient temperature sensor and two plastic fasteners attaching its loom to the bumper (Fig.I).

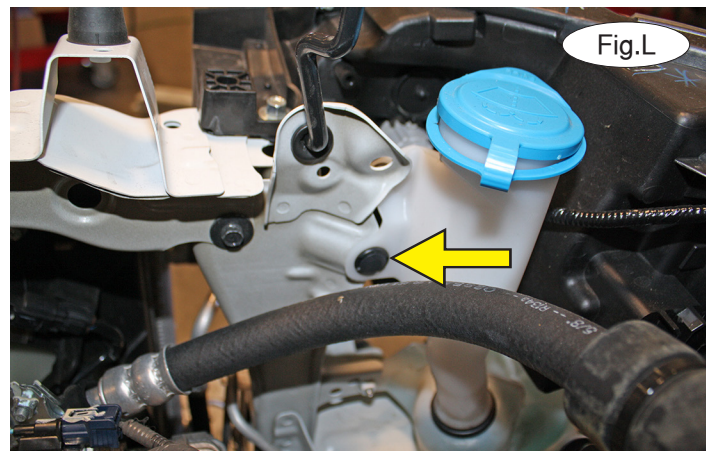


7. On each side, remove three fasteners attaching the plastic air dams, located on either side of the radiator. Either trim and replace them to allow clearance for the main receiver brace or leave them off.

Then, remove five 12mm (head) bolts attaching the bumper core to the frame (Fig.J – driver's side).

8. On the driver's side only, remove one 10mm (head) attaching the horn bracket to the frame and let it hang down for now (Fig.K).

9. On the passenger side only, remove one plastic fastener attaching the washer reservoir filler neck to the core support (Fig.L).



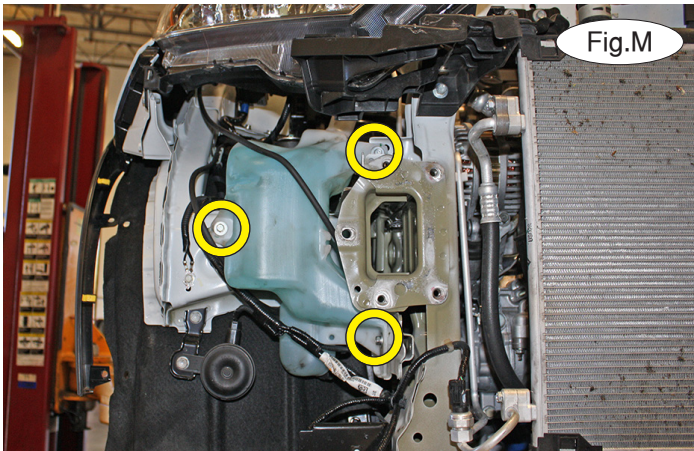


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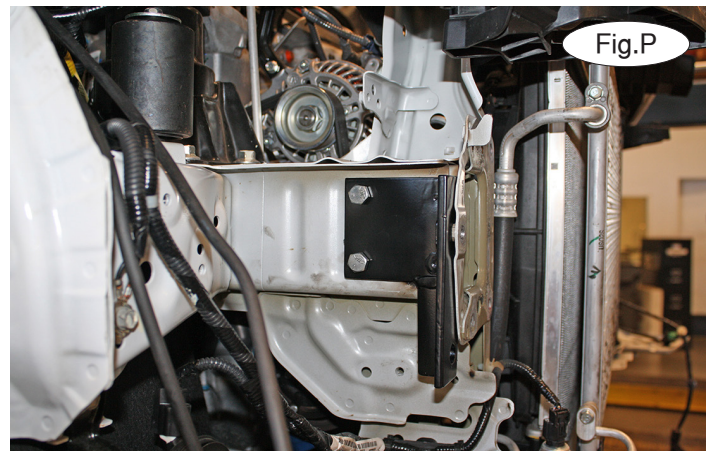
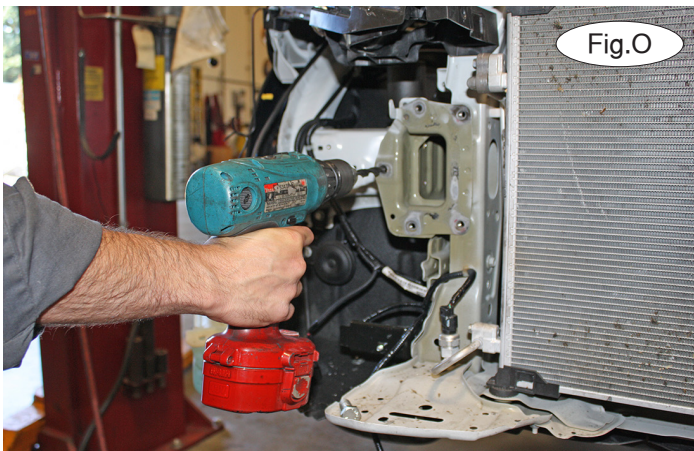
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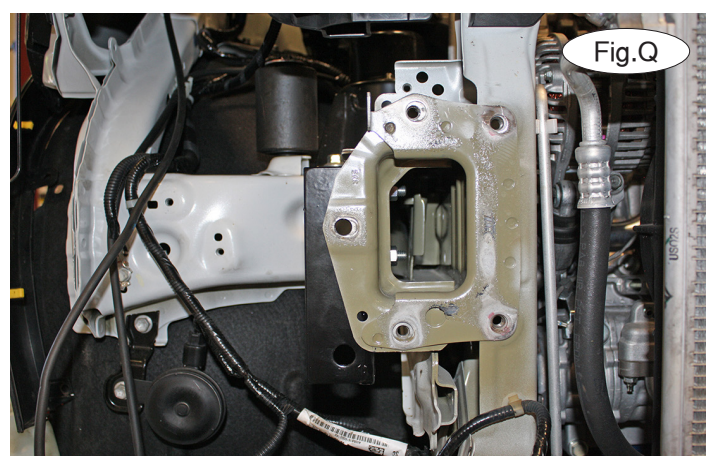


10. On the passenger side only, remove three 10mm (head) bolts attaching the washer reservoir to the frame (Fig.M). Either drain the washer reservoir or hang it securely away from the frame (Fig.N).

11. On each side, use a 3/8" drill to drill out the outer bumper flange nut (Fig.O).



12. On each side, align the rear support brace over the backside of the hole you drilled in the previous step. Mark the two rear holes for drilling and drill using a 3/8" bit, then use the supplied 3/8" x 1 1/4" bolts, 3/8" lock washers, 3/8" flat washers and nuts to bolt the brace to the frame rail (Fig.P and Fig.Q). Tighten the bolts to the bolt torque requirements found at the end of these instructions. *Note:* use Loctite® Red on the bolts.



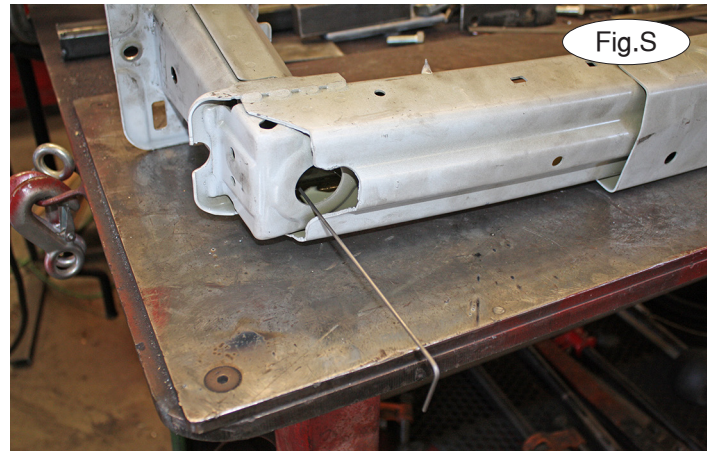
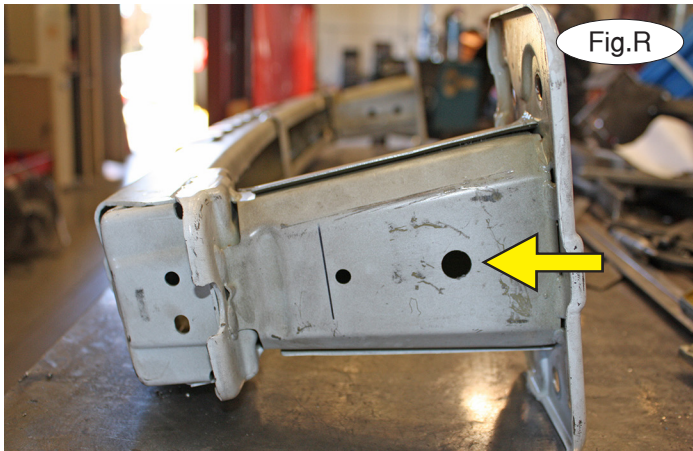


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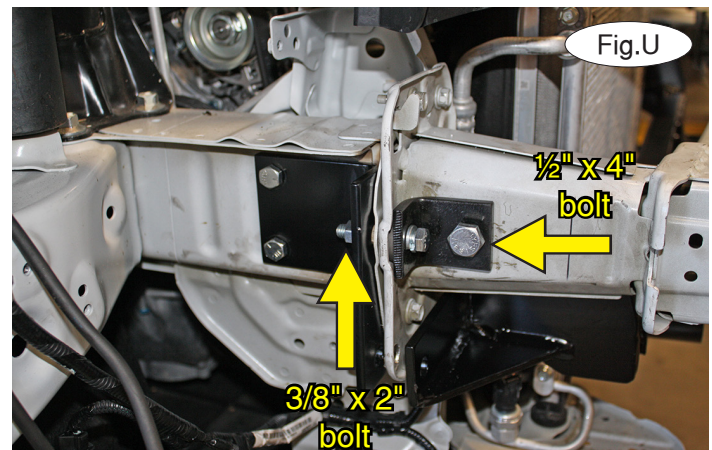
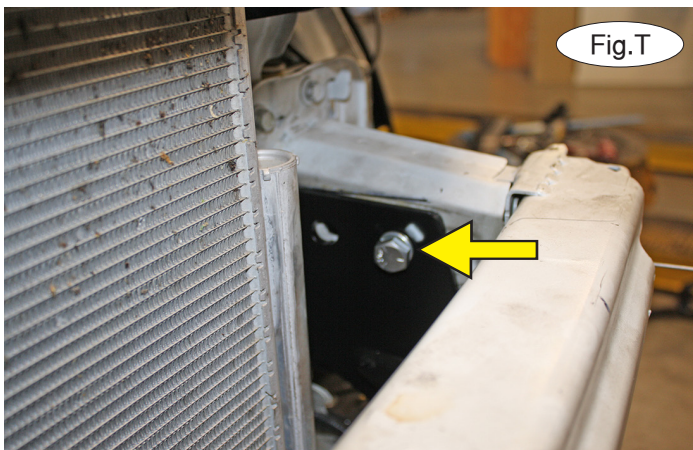
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13. Place the bumper core on a workbench. On each side, use either a die grinder or a  $\frac{1}{2}$ " drill to enlarge the rearmost hole on the outside and the inside of the bumper core (Fig.R). Then, enlarge the two forwardmost holes on the inside of the bumper core.

14. On each side, place one of the  $\frac{1}{2}$ " x  $1\frac{1}{4}$ " x  $1\frac{1}{2}$ " tab weldnut with 10" rod through the front access holes of the bumper core and bend the end as shown in Figure S so it doesn't fall in.



15. Replace the bumper core and its bolts you removed in step 7. *Note:* ensure proper alignment, as the bolts will receive Loctite® Red and will be torqued at the end of these instructions.

16. Use a jack stand or a second person to place the main receiver brace under the bumper core, aligning the uppermost holes of the main receiver brace with the inside holes of the bumper core. Then, on each side, bolt into the tab weldnut with rod by bolting through the forwardmost hole, the main receiver brace and the bumper core using a  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " bolt and  $\frac{1}{2}$ " lock washer (Fig.T).

17. On each side, place the L-shaped support brace over the rearmost hole in the bumper core and using one of the supplied  $\frac{1}{2}$ " x 4" bolts, bolt through the L-shaped support brace and bumper core and the main receiver brace and finish with a  $\frac{1}{2}$ " lock washer and nut. Place a pipe spacer between the L-shaped support brace and bumper flange and then bolt the two support braces together using a  $\frac{3}{8}$ " x 2" bolt,  $\frac{3}{8}$ " lock washer and a  $\frac{3}{8}$ " nut (Fig.U).



18. On each side, using the lowermost mount of the main receiver brace as a template, drill a  $\frac{1}{2}$ " hole through the bumper flange and out the rear support plate (Fig.V). Then, place the supplied 1" x  $.188$  x  $\frac{1}{4}$ " pipe spacer on both sides of the flange before bolting through using the  $\frac{1}{2}$ " x 2" bolt and  $\frac{1}{2}$ " lock washer. Finish with a  $\frac{1}{2}$ " nut (Fig.W).

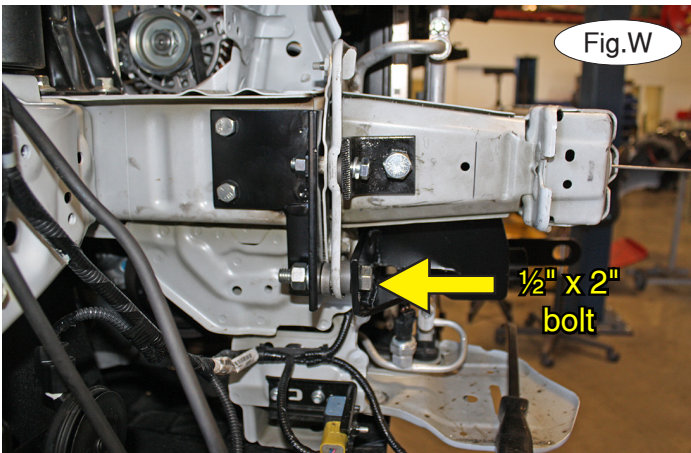


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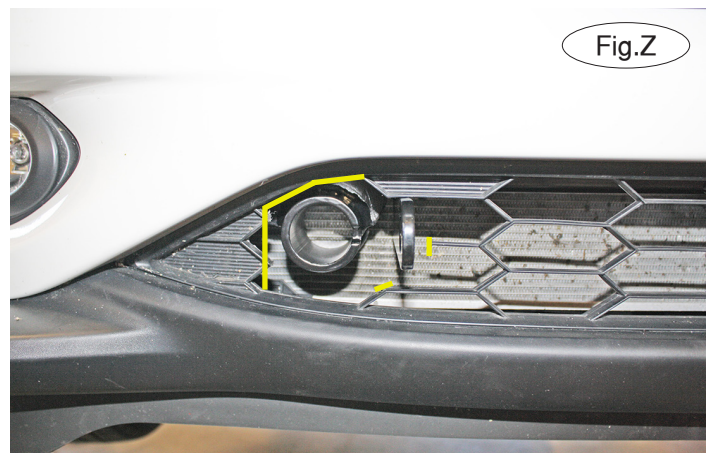
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19. Tighten all bolts to the bolt torque requirements found at the end of these instructions. *Note:* use Loctite® Red on all nuts and bolts. Use a pair of pliers to break the wires off the threaded backing plates (Fig.X).

20. Zip tie the ambient temperature sensor to the main receiver brace (Fig.Y). Reinstall the washer bottle and horn by reversing steps 8 through 10 and trim the fascia using the yellow lines in Figure Z as a reference for trimming. Then, reinstall the fascia by reversing steps 1 through 5.



21. *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).



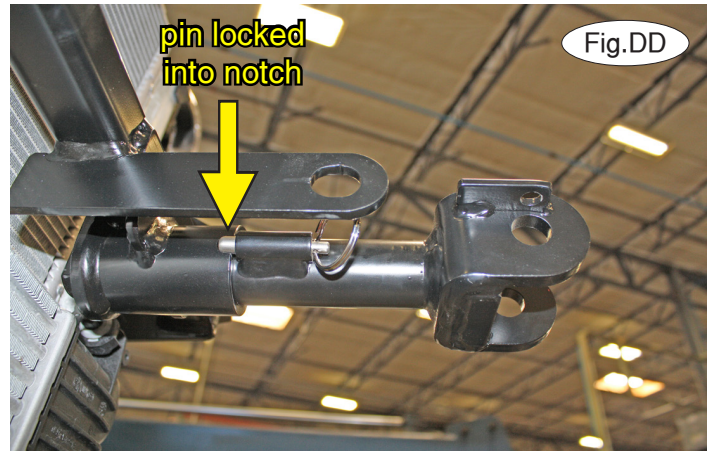
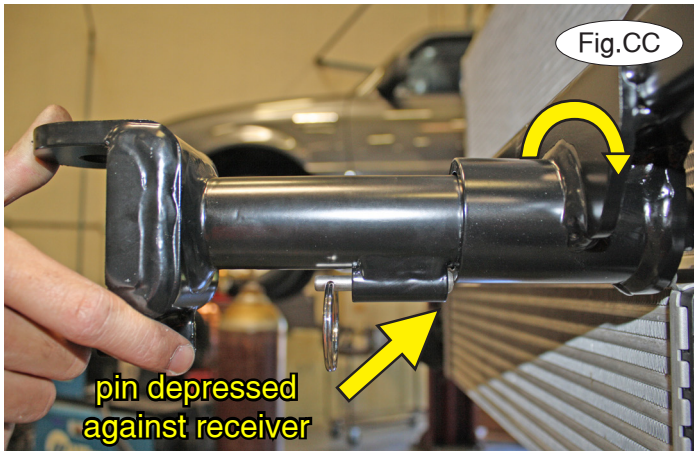


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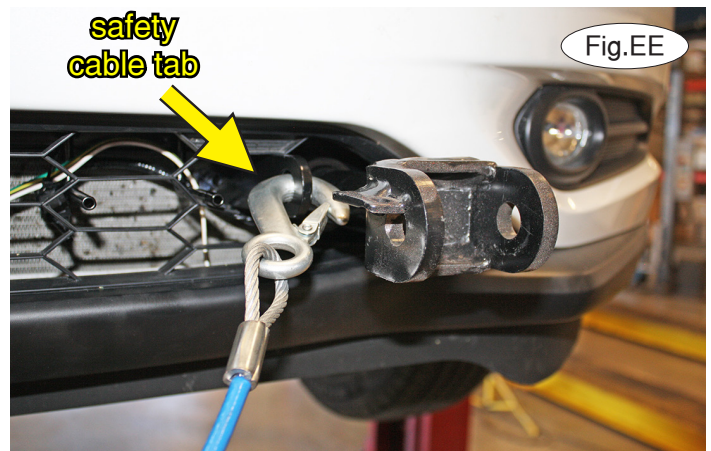
22. On each side, insert the removable front bracket arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver (Fig.CC). Now, twist back 90 degrees until the spring-loaded pin snaps into place in the notch on the receiver, locking the 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.**

23. 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 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 available.**





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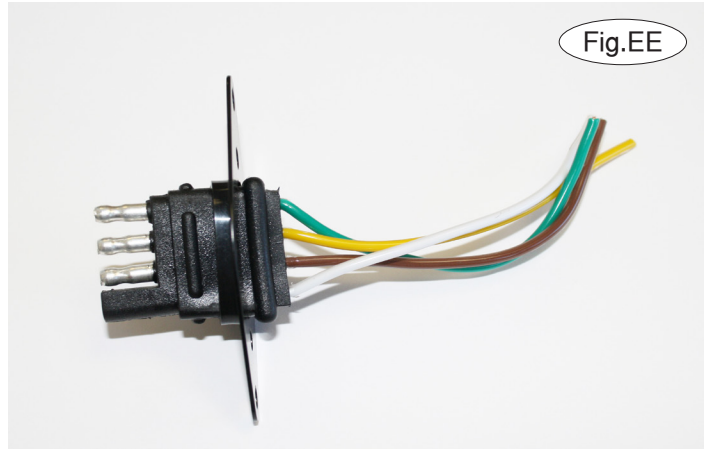
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## Three options for attaching the wiring plug to the main receiver brace

**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.EE). 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.....	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.