

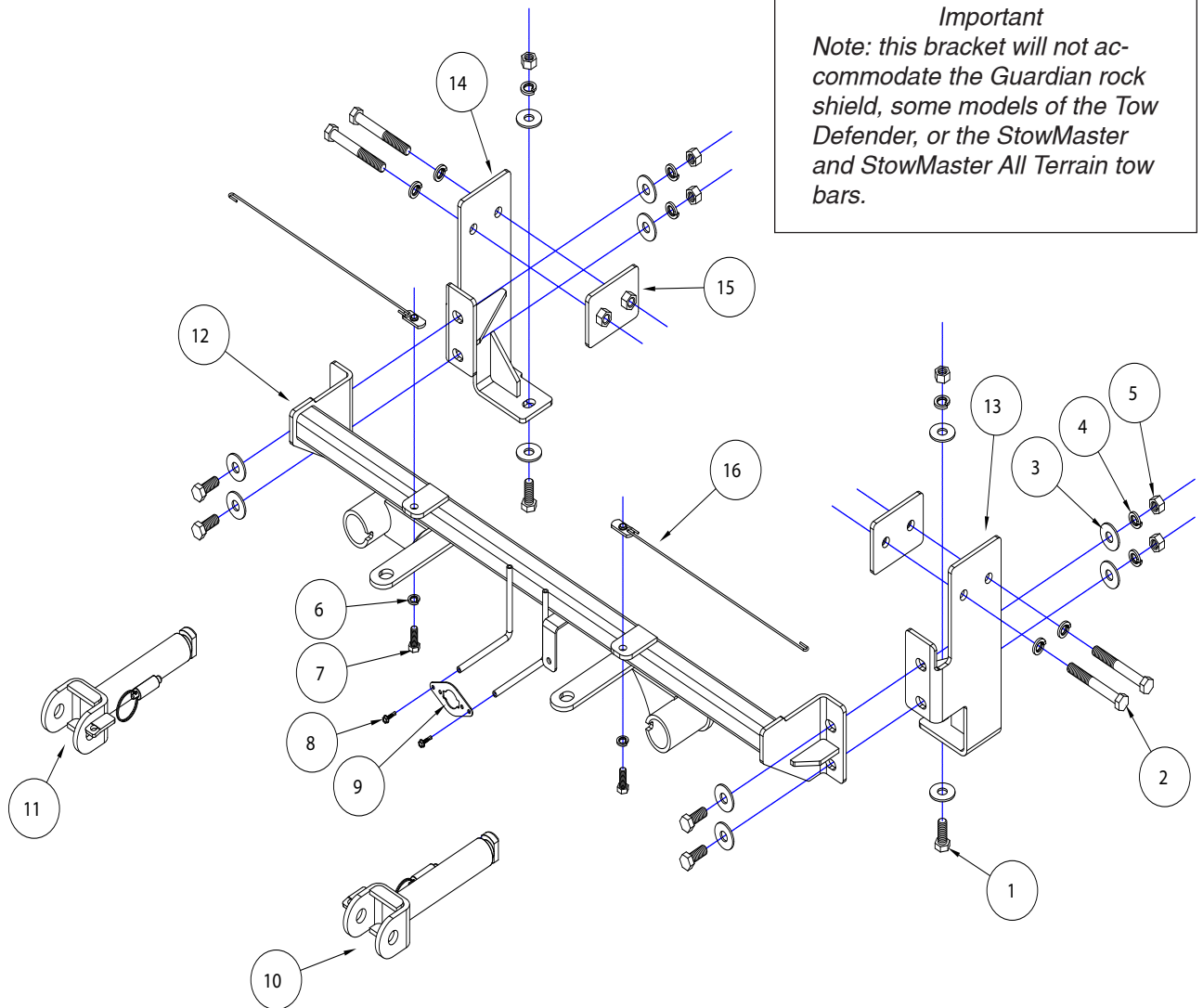


BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 521571-5

11/16/17
KS

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 360-896-0407 fax 360-735-9300 www.roadmasterinc.com



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.....6.....	6.....	1/2" x 1 1/4" BOLT	350094-00
2.....4.....	4.....	1/2" x 4" BOLT	350105-00
3.....12.....	12.....	1/2" FLAT WASHER	350308-00
4.....10.....	10.....	1/2" LOCK WASHER.....	350309-00
5.....6.....	6.....	1/2" NUT	350258-00
6.....2.....	2.....	3/8" LOCK WASHER.....	350305-00
7.....2.....	2.....	3/8" x 1" BOLT	350055-00
8.....2.....	2.....	#10 x 3/4" SELF DRILLING SCREW	350247-35
9.....1.....	1.....	WIRE PLUG PLATE	A-003801
10.....1.....	1.....	DRIVER SIDE ARM	C-002383
11.....1.....	1.....	PASSENGER SIDE ARM.....	C-002384
12.....1.....	1.....	MAIN RECEIVER BRACE.....	C-003240
13.....1.....	1.....	DRIVER SIDE REAR BRACE	C-003241
14.....1.....	1.....	PASSENGER SIDE REAR BRACE	C-003242
15.....2.....	2.....	NUTTED BACKING PLATE	C-003243
16.....2.....	2.....	3/8" TAB WELDNUT WITH 14" ROD	C-003244



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This is one of our direct-connect baseplates, which allows the visible front portion of the baseplate 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 the frame rails and 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.

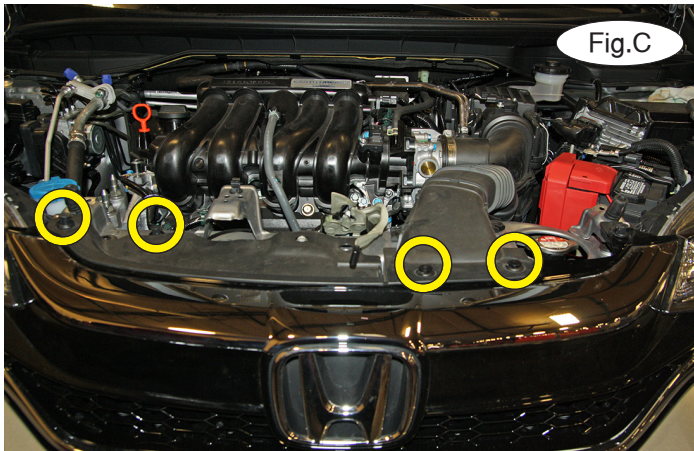


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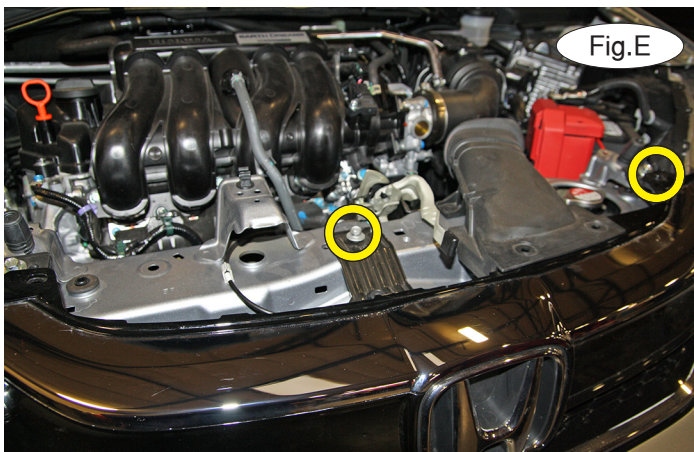
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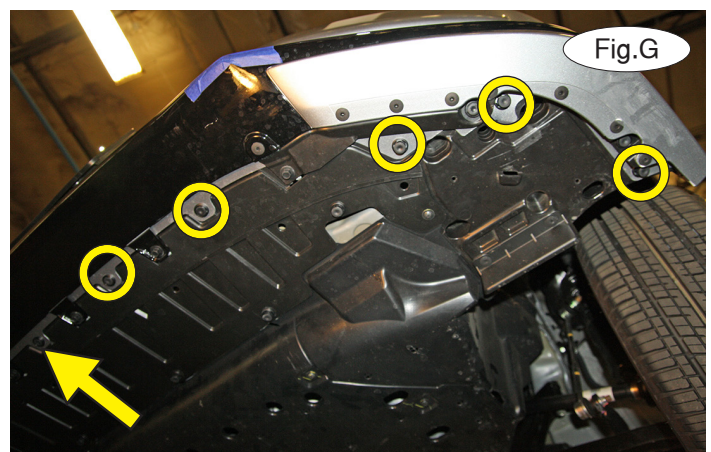
1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. Remove two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



2. Remove one 10mm (head) bolt and one plastic fastener attaching the upper grille to the radiator housing (Fig.E).

3. On each side, remove one Phillips screw and two plastic fasteners attaching the fender liner to the fascia (Fig.F).

4. On each side, remove five plastic fasteners – and one fastener in the middle (Fig.G – arrow) – attaching the bottom of the fascia to the splash shielding (Fig.G – circles).





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Fig.H

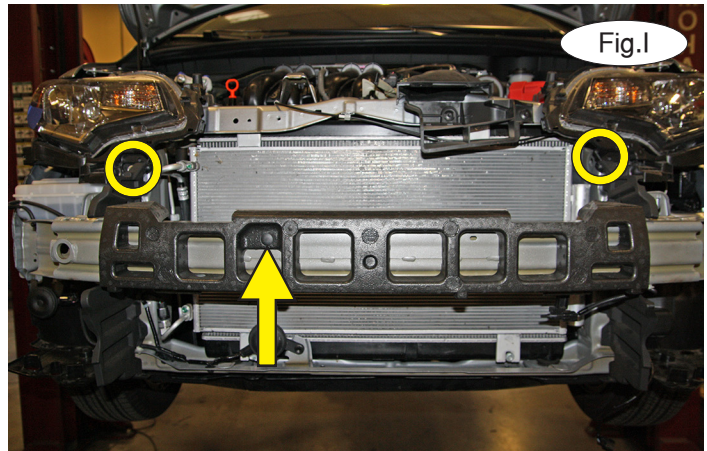


Fig.I

5. Pull out and forward on the corners of the fascia to release the locking strip (Fig.H). Disconnect the fog lights, if the vehicle is so equipped.

6. On each side, remove one plastic fastener attaching the air dam to the core support (Fig.I – circles). Then, remove one plastic fastener attaching the foam shock absorption pad to the bumper core (Fig.I – arrow). *Note:* it will not be replaced. Retain the foam shock absorption pad for replacement in case the bracket is ever removed from the vehicle.

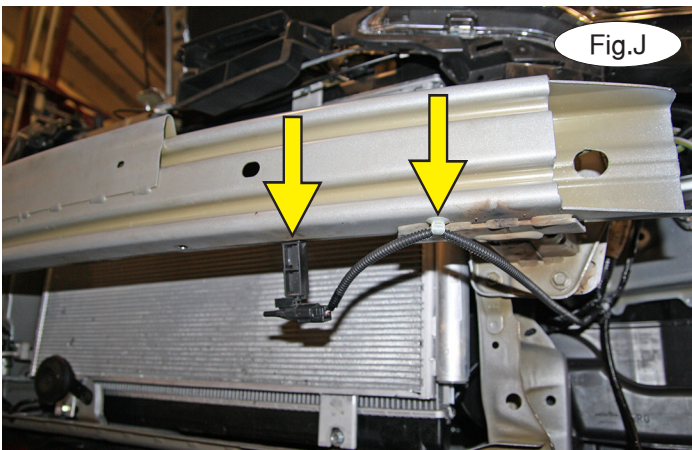


Fig.J



Fig.K

7. Disconnect the plastic fastener and one wiring harness clip attaching the ambient temperature sensor to the bumper core (Fig.J).

8. On the passenger side, remove one plastic fastener attaching the filler neck of the washer bottle to the core support (Fig.K). Twist the filler neck and pull up on it to remove it.

9. Remove two 10mm (head) bolts attaching the washer bottle to the frame (Fig.L). *Note:* the arrow denotes the approximate location of the second bolt. Unplug the electrical connector. Secure it away from the frame for now.

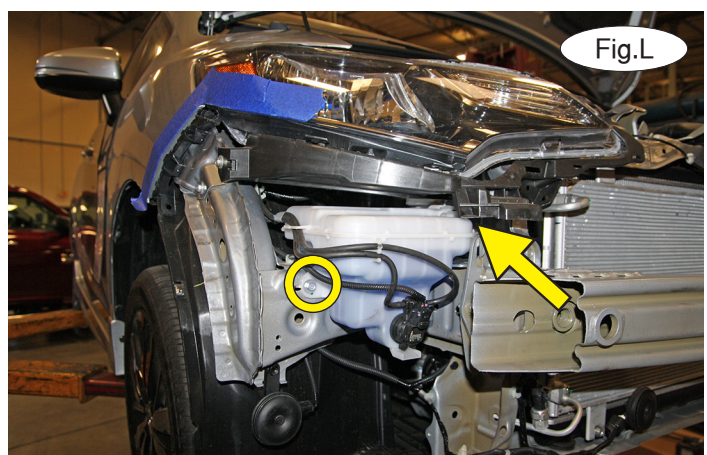


Fig.L

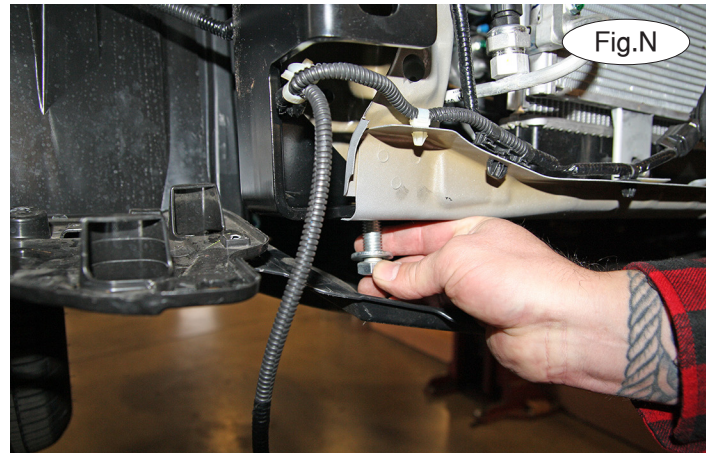
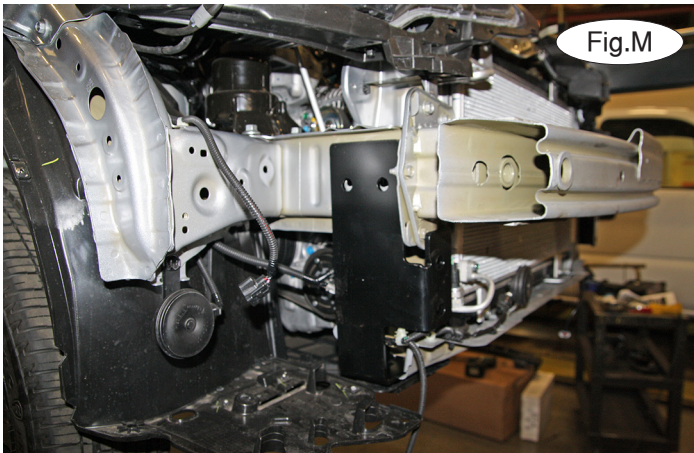


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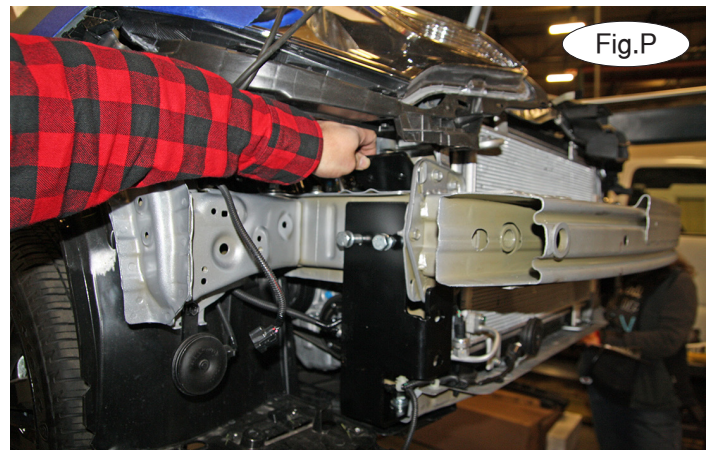
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10. Working on the passenger side only, use the drawing on page 1 to choose the passenger side-specific rear support plate, place the plate over the side of the frame rail and the radiator support (Fig.M). Then, pull down on the splash shield and use one of the supplied $\frac{1}{2}$ " x $1\frac{1}{4}$ " bolts and $\frac{1}{2}$ " flat washers to bolt through the rear support plate and into the bottom of the radiator support (Fig.N). Finish with a $\frac{1}{2}$ " flat washer, lock washer and nut. Finger tighten the bolt for now.

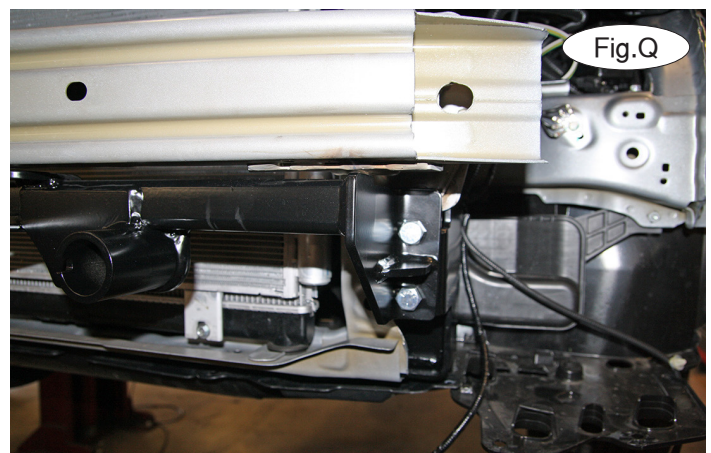


11. Use a $\frac{1}{2}$ " drill, and the two existing holes in the rear support plate as a template, and drill through both layers of the frame for each mount (Fig.O).

12. Use the two supplied $\frac{1}{2}$ " x 4" bolts and $\frac{1}{2}$ " lock washers and bolt through the holes you drilled in the previous step. Then, place the two-holed backing plate to the inside of the frame rail, over the bolts (Fig.P). Tighten the bolts. *Note:* ensure proper alignment, as the bolts will receive Loctite® Red and will be torqued at the end of these instructions.

13. Repeat steps 10 through 12 for the driver's side.

14. On each side, place the main receiver brace over the rear support plates and bolt it into place using the supplied $\frac{1}{2}$ " x $1\frac{1}{4}$ " bolts. Finish with a $\frac{1}{2}$ " flat washer, lock washer and nut (Fig.Q). Beginning with the top bolts, and ensuring that the main receiver brace is centered side to side, tighten all bolts to the bolt torque requirements found at the end of these instructions. *Note:* use Loctite® Red on all nuts and bolts.



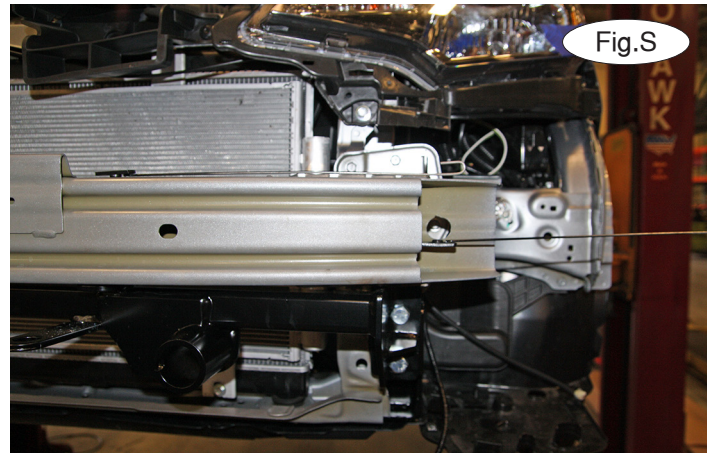
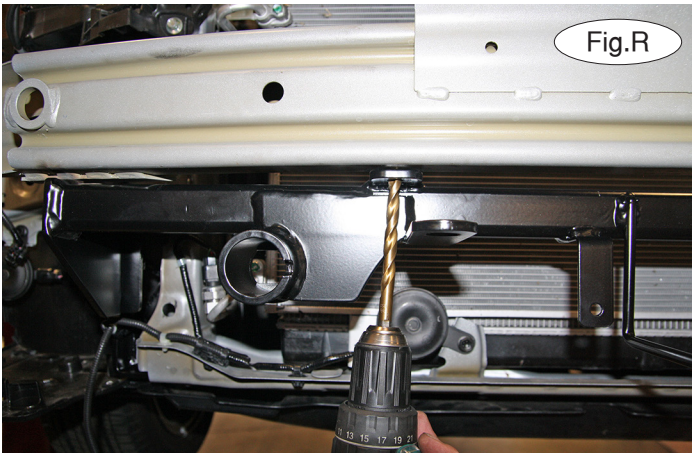


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15. On each side, using the upper mount of the main receiver brace as a template, drill a 3/8" hole into the bumper core (Fig.R).

16. On each side, place a 3/8" tabbed weld nut with rod into the bumper core, over the holes you drilled in the previous step (Fig.S). Then, bolt up through the holes and into the tabbed weld nuts with rod using the supplied 3/8" x 1" bolts and 3/8" lock washers (Fig.T). Use a pair of pliers to bend back the rods.



17. Remount the ambient temperature sensor as shown in Figure U.

18. On each side, trim the fascia as shown in Figure V. Then, on the back of the fascia, trim off two plastic fasteners on each side to allow clearance for the main receiver brace (Fig.V).

19. Reinstall the washer bottle and its filler neck, reversing steps 8 and 9. Then, reinstall the fascia, reversing steps 1 through 5.





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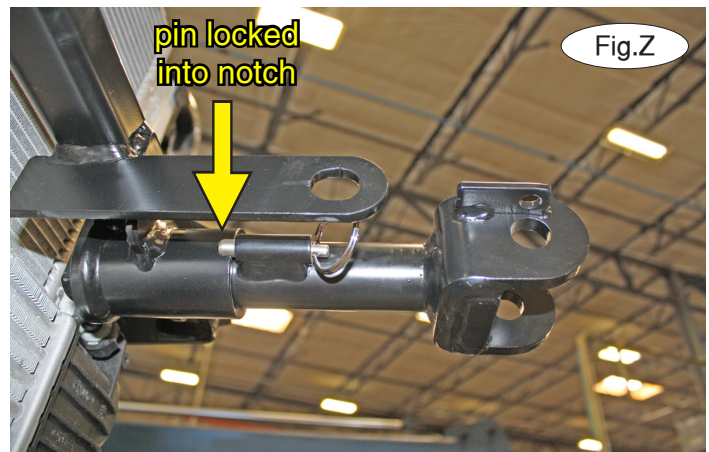
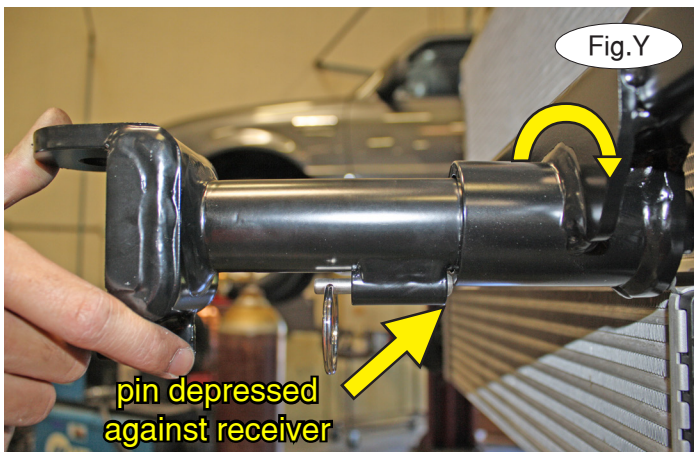
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20. **Note: the following four images are for illustration purposes only, as your specific application may be slightly different.**

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.W and Fig.X).



21. On each side, insert the removable front baseplate arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver (Fig.Y). 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.Z).

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.

22. Install the tow bar to the baseplate 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 in Figure AA. 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.

Note: if the bracket is so equipped, the holes in the alignment tabs which are welded to the arms and main receivers are for padlocks only. Under no circumstances should you bolt the alignment tabs together. Bolting the alignment tabs together may result in non-warranty damage to the bracket.

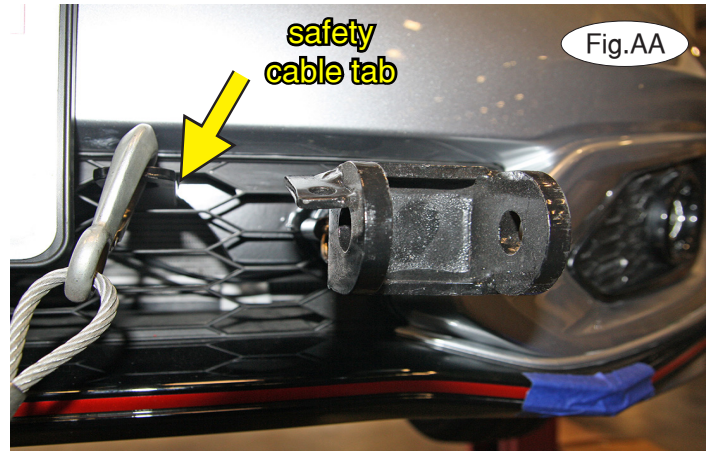


Fig.AA

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.BB). 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.

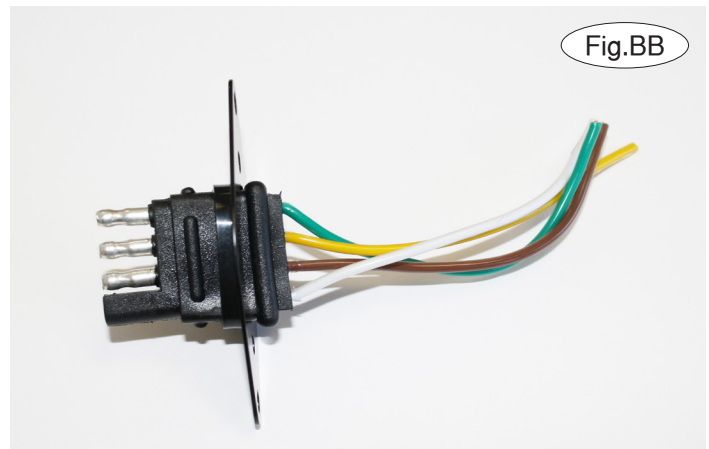


Fig.BB

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.