



# BASEPLATE KIT INSTALLATION INSTRUCTIONS

**KIT# 522203-5**

07/06/22  
KS

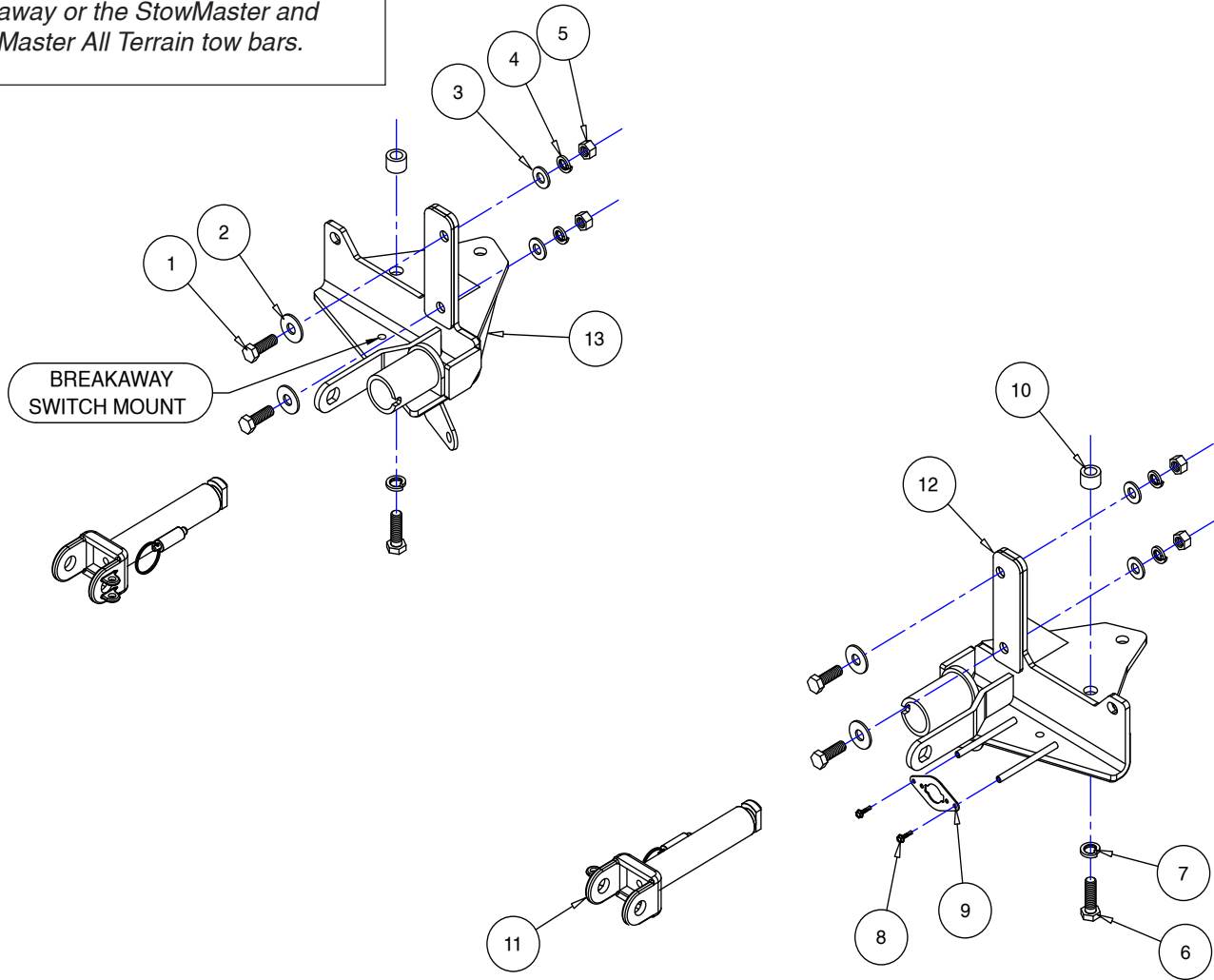
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### Important

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

### Special Tools Needed

Die Grinder or Reciprocating Saw



| ITEM    | QTY    | NAME                                | PART #    |
|---------|--------|-------------------------------------|-----------|
| 1.....  | 4..... | 1/2" x 1 1/2" BOLT .....            | 350095-00 |
| 2.....  | 4..... | 1/2" FLAT WASHER .....              | 350308-00 |
| 3.....  | 4..... | 1/2" FLAT WASHER SAE .....          | 350308-20 |
| 4.....  | 4..... | 1/2" LOCK WASHER .....              | 350309-00 |
| 5.....  | 4..... | 1/2" NUT .....                      | 350258-00 |
| 6.....  | 2..... | 14mm x 2.0 x 45mm BOLT .....        | 355899-00 |
| 7.....  | 2..... | 14mm LOCK WASHER .....              | 355740-00 |
| 8.....  | 2..... | #10 x 3/4" SELF DRILLING SCREW..... | 350247-35 |
| 9.....  | 1..... | WIRE PLUG MOUNTING PLATE.....       | A003801   |
| 10..... | 2..... | 1" O.D. x 11/16" TUBE SPACER .....  | A004551   |
| 11..... | 2..... | ARM.....                            | C002383   |
| 12..... | 1..... | DRIVER SIDE RECEIVER .....          | C003349   |
| 13..... | 1..... | PASSENGER SIDE RECEIVER.....        | C003350   |



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This is one of our direct-connect baseplate kits, 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 kit consists of the two main receiver braces, two removable front braces, and a hardware pack. The main receiver braces mount to the frame rails, and 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 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.

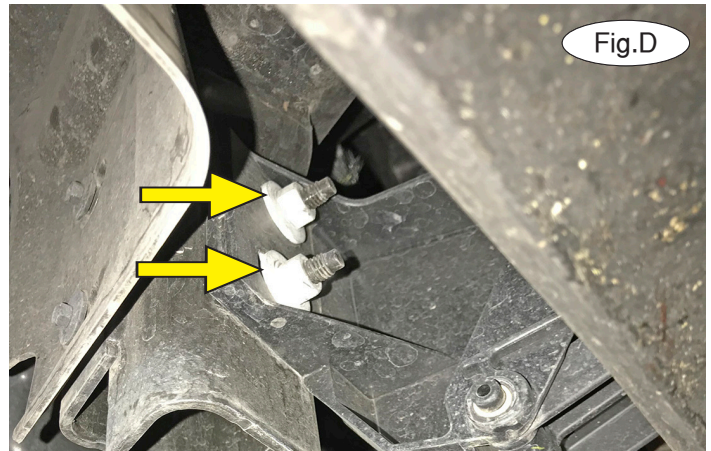
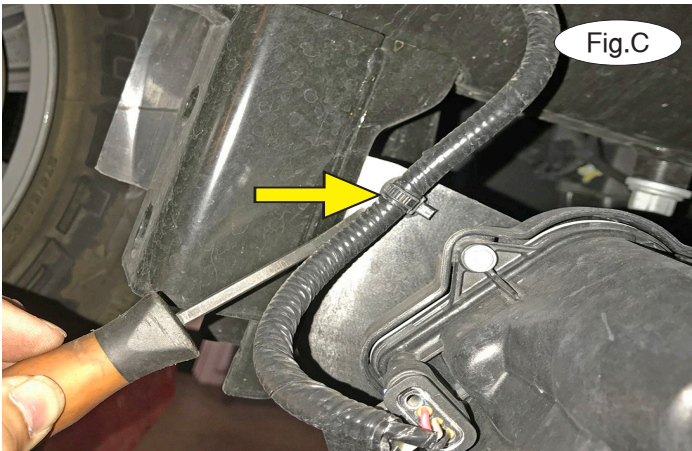


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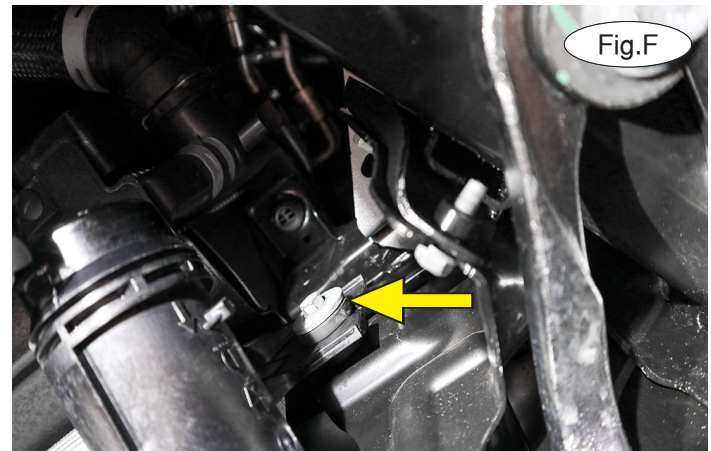
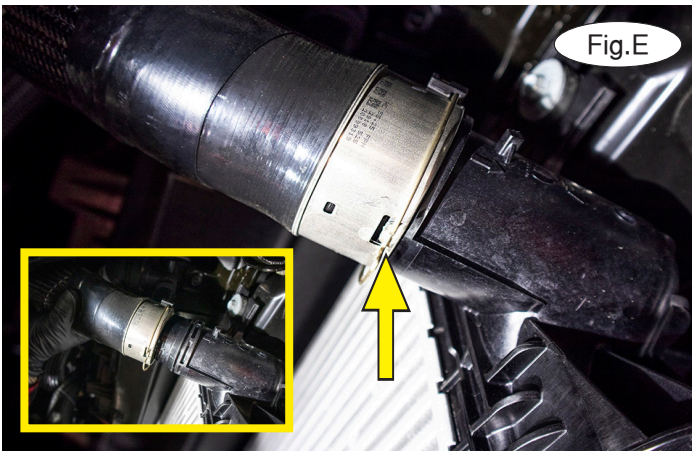
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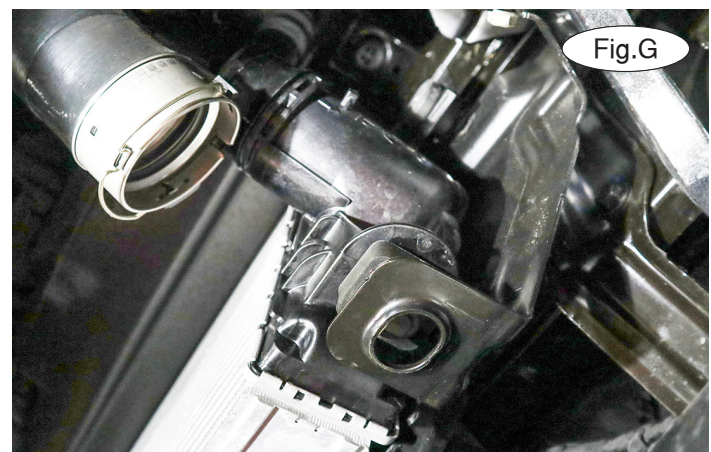


1. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. **For vehicles without Active Air Dams:** skip to the next step. **For vehicles with Active Air Dams:** On the driver's side only, unclip the Active Air Dam's wiring harness (Fig.C) and unplug it. Then, on each side, remove two 13mm (head) nuts attaching the Active Air Dam to the frame (Fig.D). Pull out toward the front of the vehicle to remove it and set it aside for now.



2. **For vehicles with a gas engine:** Proceed to step 5. **For vehicles with a turbo diesel engine:** The intercooler will need to be temporarily removed. At each end of the intercooler, disconnect the air hose. Using a flathead screwdriver, pry up on the retaining ring (Fig.E – arrow) and pull the hose away from its connector (Fig.E – inset).

3. On each side, completely remove one 13mm (head) bolt attaching the intercooler to its mounts (Fig.F – passenger side). Gently lift up on the intercooler to release the rubber mounts on the bottom (Fig.G) and set it aside for now.



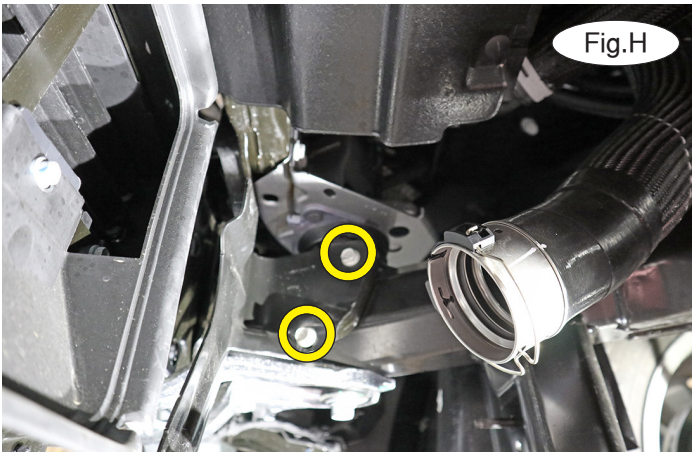


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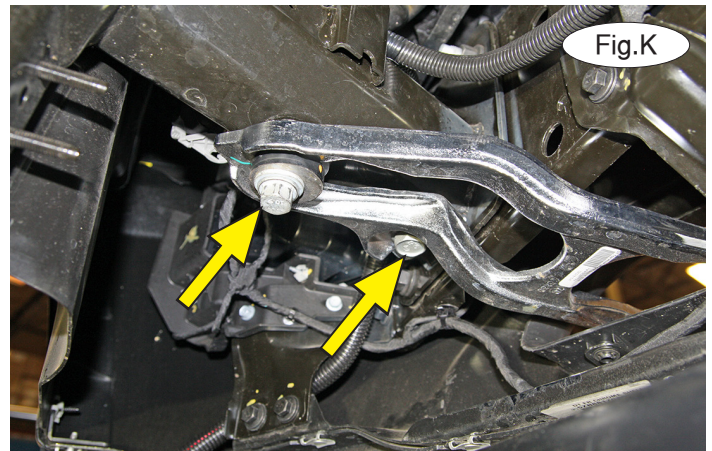
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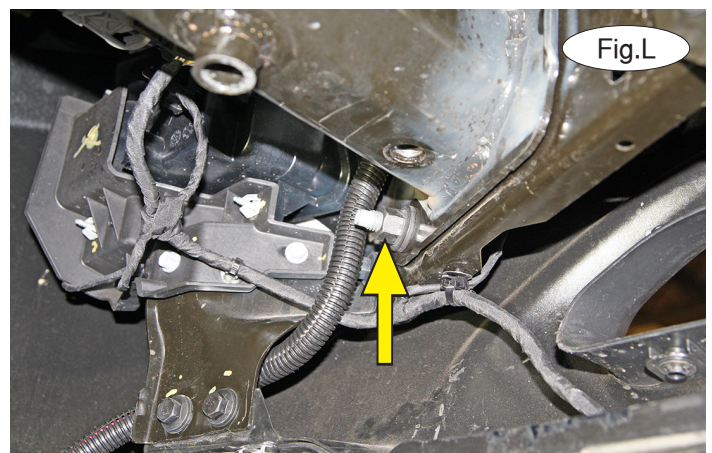
4. On each side, remove two 13mm head bolts attaching the intercooler mounts to the frame (Fig.H).



**5. If the vehicle is not equipped with tow hooks:**

Remove each plastic tow hook housing by removing two 8mm nuts on the top and releasing two locking rings on the bottom. Push the top out of each one toward the front of the vehicle to remove (Fig.I – arrows). You can either leave them off or trim them and replace them as shown in Figure J to allow clearance for the main receiver brace. Then, remove the 18mm (head) body mounting bolt. Now, proceed to step 6.

**If the vehicle is equipped with tow hooks:** Working on the driver's side only, remove an 18mm (head) bolt and a 13/16" (head) bolt attaching the tow hook to the frame (Fig.K). *Note:* it is necessary to pull firmly on the tow hook to remove the rear bolt from its attached star washer on the top side of the frame.



6. Remove an 18mm nut attaching the bumper to the frame (Fig.L).

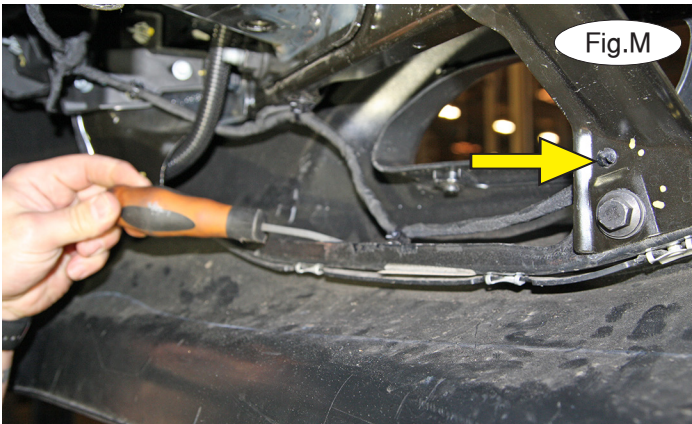


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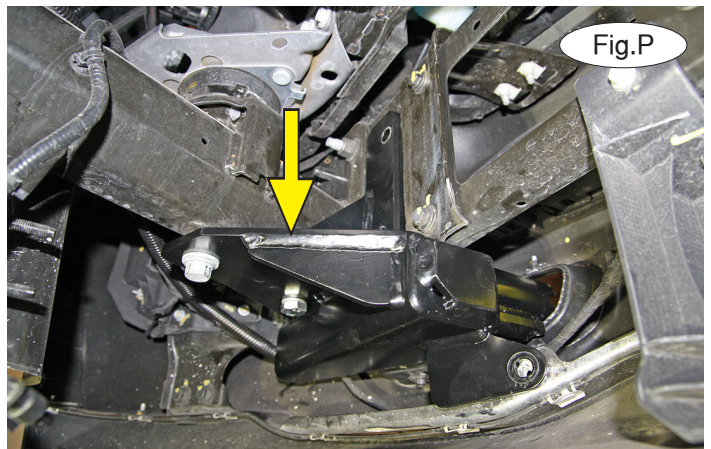
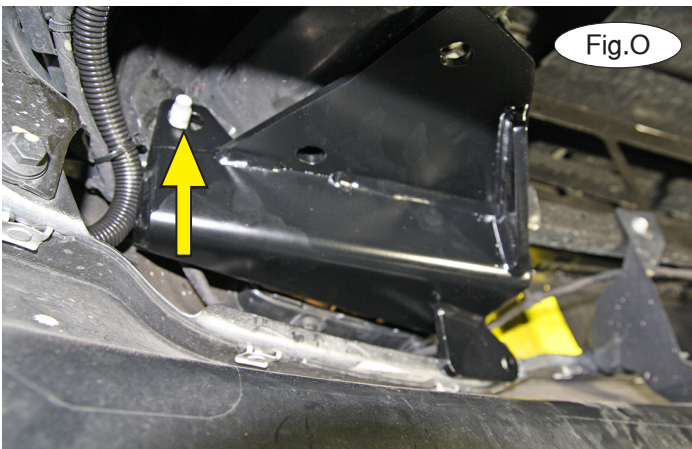
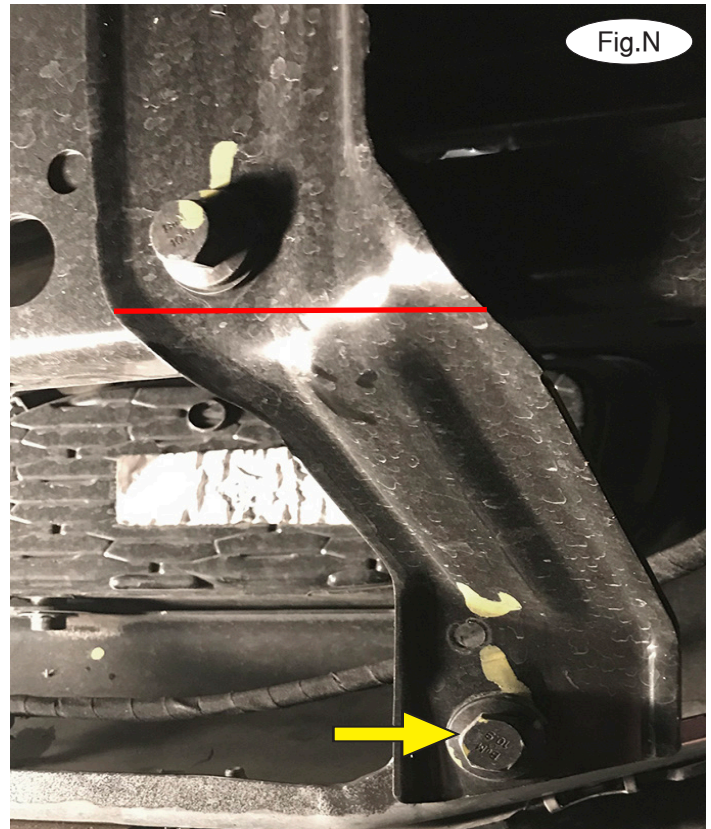
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7. Release the two clips attaching the wiring harness to the bottom of the bumper (Fig.M). Then, push the harness toward the front of the vehicle to allow clearance for the main receiver brace.

8. Remove one 13mm (head) bolt (Fig.N – arrow) and then, using the red line in Figure H as a guide, trim off the bumper stiffener mount using a reciprocating saw or die grinder.

9. Now, use the drawing on page 1 to locate the driver's side-specific brace. Place it over the stud you exposed in step 6 (Fig.O) and loosely replace the 18mm (head) nut.



10. Still working on the driver's side only, slide the supplied 1" x .188 wall x 11/16" pipe spacer between the frame and the baseplate, over the forwardmost hole. The arrow in Figure P denotes the hole over which the pipe spacer should be placed. Then, use the supplied 14mm x 2.0 x 45mm bolt and bolt through the baseplate, pipe spacer and into the frame. Then, replace the 18mm (head) bolt you removed in step 1 (Fig.P).

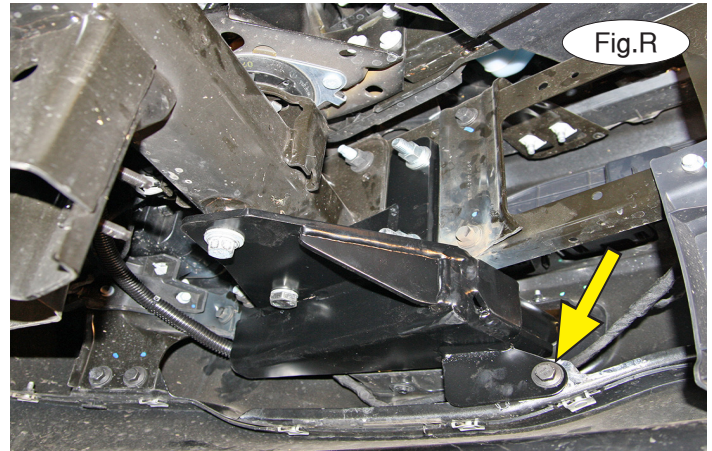
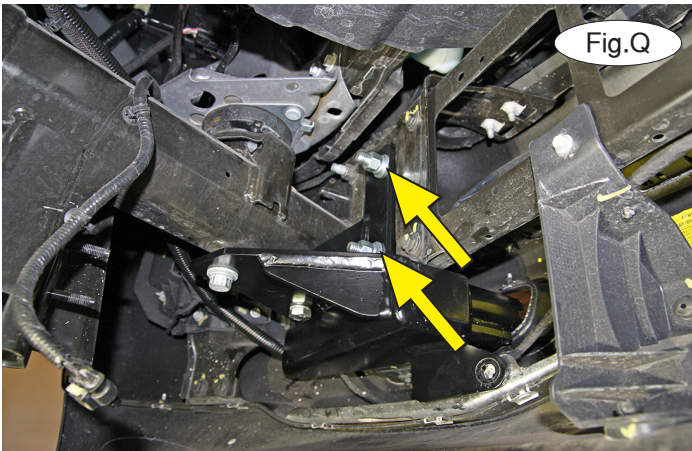


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11. On each of the two upper mounts, insert a supplied  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " bolt and  $\frac{1}{2}$ " flat washer, and finish with a small  $\frac{1}{2}$ " flat washer,  $\frac{1}{2}$ " lock washer and  $\frac{1}{2}$ " nut (Fig.Q). *Note:* it is easiest to utilize the openings in the bumper framework to apply the finishing hardware. Then, replace the 13mm (head) bolt you removed in step 4 (Fig.R).

12. Repeat steps 5 through 11 for the passenger side of the vehicle. Then, replace the Active Air Dam and/or the inter-cooler by reversing steps 1 through 4, if the vehicle is so equipped.

13. Tighten the bolts to the bolt torque requirements, starting with the three forwardmost mounts. Then, finish torquing the remaining bolts. *Note:* use Loctite® Red on all nuts and bolts.

14. On each side, insert the removable baseplate arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver. 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.

***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.***

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

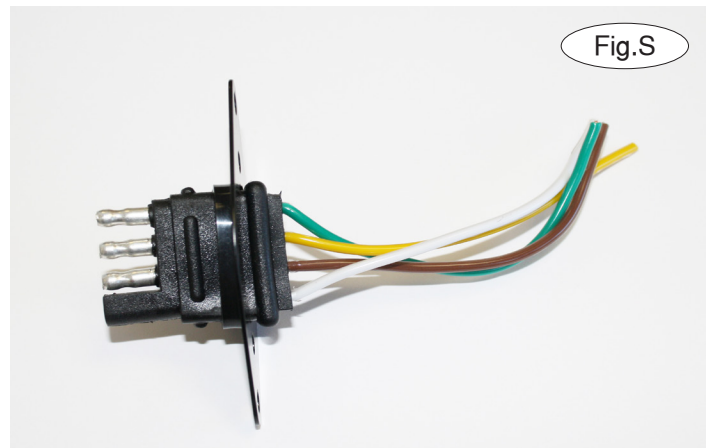
## **IMPORTANT!**

**Safety cables are required by law. When towing, connect safety cables to the safety cable tabs illustrated in the drawing on page 1. 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 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 grille.

**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.S). Use the two supplied  $\frac{3}{4}$ " self-tapping screws to attach the mounting plate to the grille on the front of the main receiver brace.





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## 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. |

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.