



BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 524467-4

01/27/24
KS

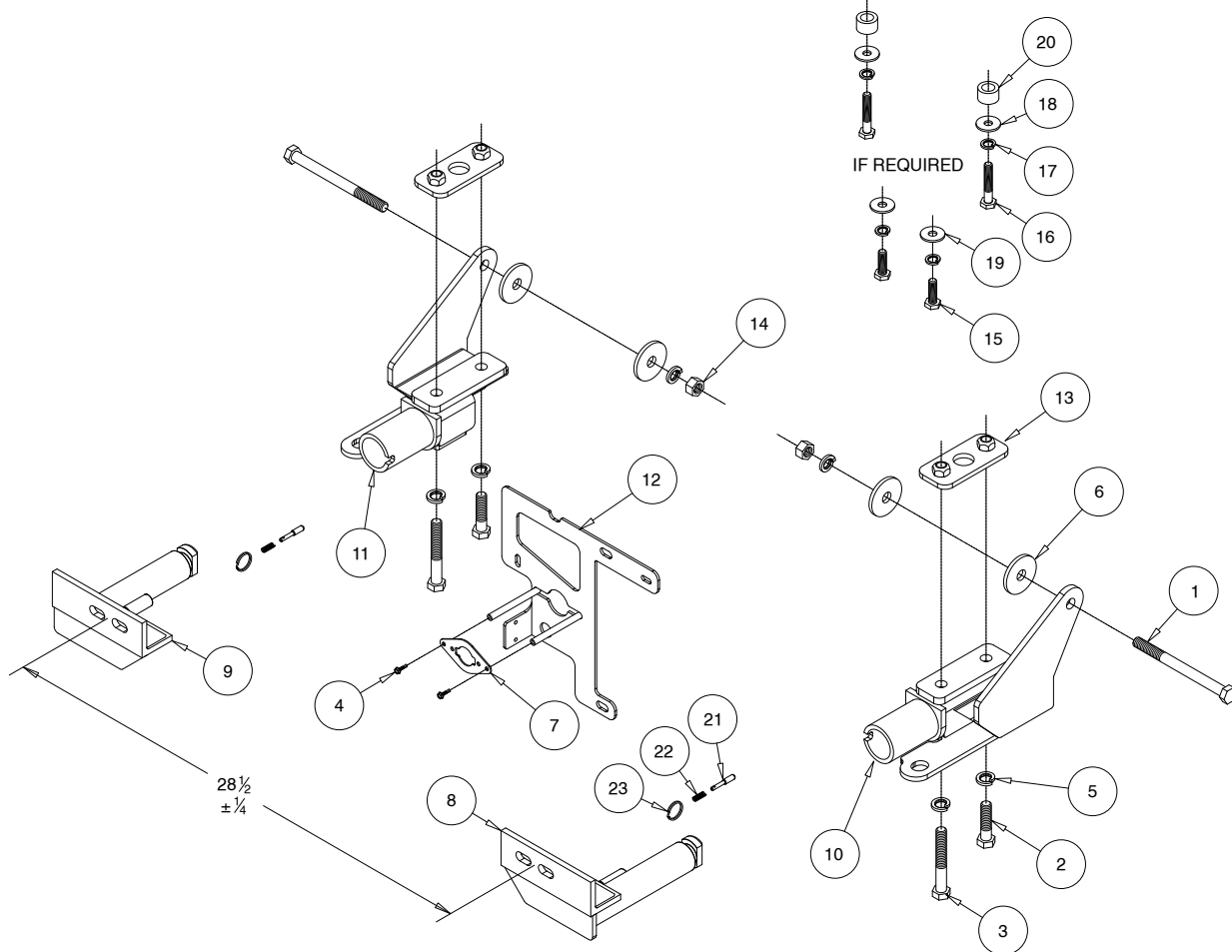
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Second person to assist
T30 Torx driver
3/8" and 3/4" sockets
7, 8, 10, 13, 15 and 21mm sockets
Ratchets

What You'll Need

17/32" bit and drill
Adjustable wrench
Permanent marker

Panel tool
Tape measure
Reciprocating saw
Torque wrench
Loctite© Red or Blue



ITEM	QTY	NAME	PART #
1.....	2	1/2" x 6" BOLT	350109-00
2.....	2	1/2" x 2" GRADE 8 BOLT	350258-80
3.....	2	1/2" x 4" GRADE 8 BOLT	350258-90
4.....	2	#10 x 3/4" SELF DRILLING SCREW	350246-35
5.....	6	1/2" LOCK WASHER	350309-00
6.....	4	1/2" PLATE WASHER	A003086
7.....	1	WIRE PLUG PLATE	A003801
8.....	1	DRIVER SIDE ARM	C003079
9.....	1	PASSENGER SIDE ARM	C003080
10.....	1	DRIVER SIDE RECEIVER	C003081
11.....	1	PASSENGER SIDE RECEIVER	C003082
12.....	1	WIRE PLUG BRACKET	C003608
13.....	2	1/4" x 2" x 4 1/2" THREADED BACKING PLATE	C003476
14.....	2	1/2" HEX NUT	350258-00
15.....	2	M10 x 1.5 x 30 mm BOLT	356101-00
16.....	2	M10 x 1.5 x 55 mm BOLT	356106-00
17.....	4	M10 LOCK WASHER	355715-00
18.....	2	3/8" FLAT WASHER	350304-00
19.....	2	M10 FENDER WASHER	355716-00
20.....	2	1" O.D. x 0.188" WALL x 5/8" SPACER	A000156
21.....	2	LOCK PIN	A000008
22.....	2	SPRING	200146-00
23.....	2	RING	350520-00



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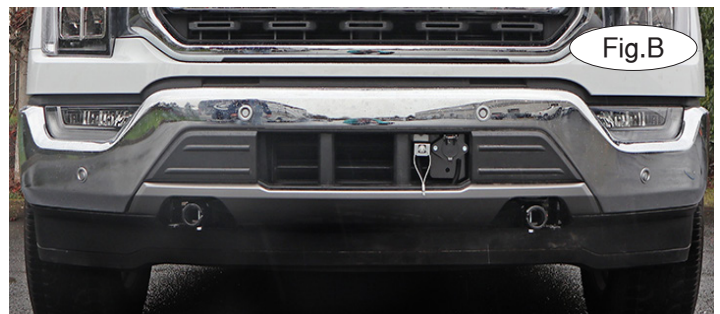
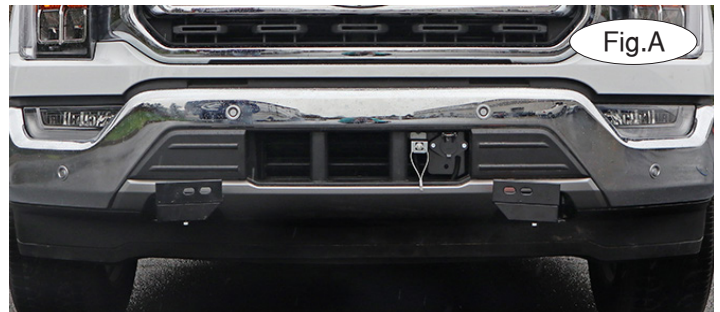
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This is one of our crossbar-style baseplates, which allows the visible front portion of the baseplate to be easily removed from the front of the vehicle (Fig.A and Fig.B).

The kit mounts to the frame of the vehicle, and consists of two side-specific 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.



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.

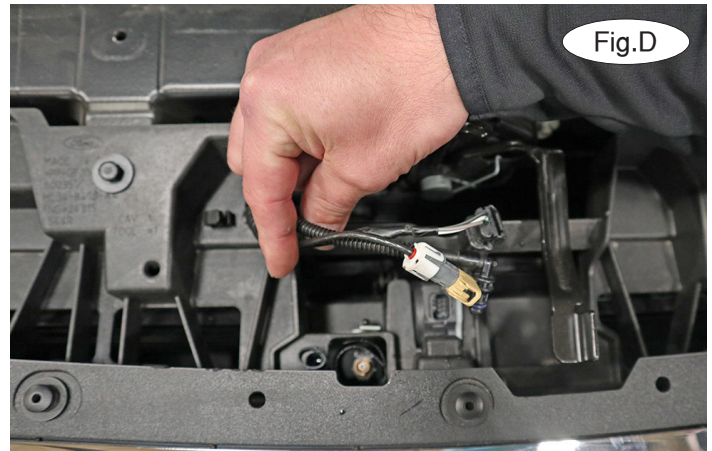
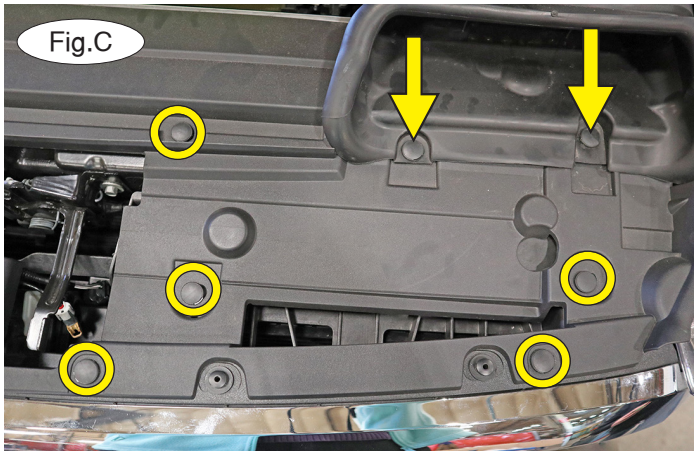


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KIT# 524467-4

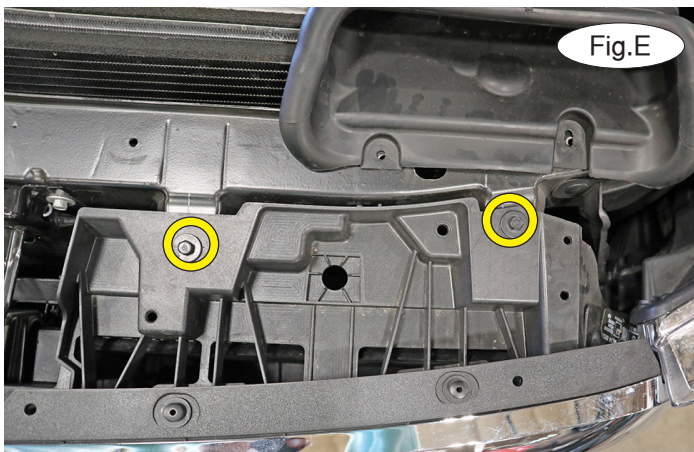
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Important: Please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel.

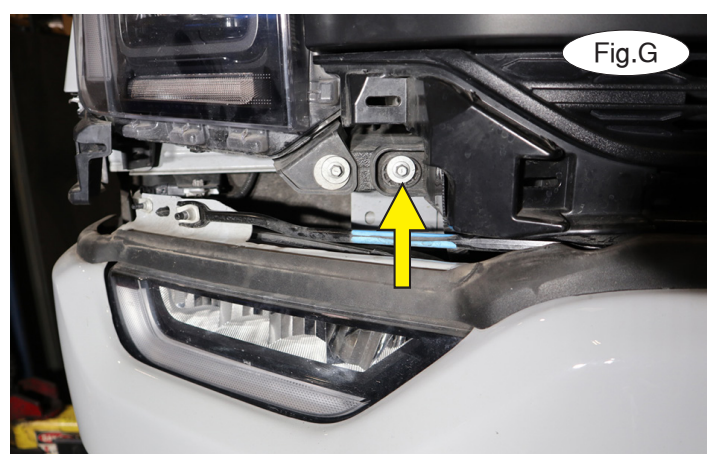
1. On each side, remove five plastic fasteners attaching the filler panel to the grille and core support (Fig.C – circles). On the driver's side, there are also two plastic fasteners holding the intake to the core support (Fig.C – arrows). Set the filler panel aside for now. Depending upon the trim level of the vehicle, electrical and fluid connections may need to be disconnected in order to remove the grille (Fig.D). *Note: Due to manufacturing variances, there may be 8 plastic fasteners on the driver's side and six on the passenger side.*



2. On each side, remove two 10mm bolts attaching the top of the grille to the core support (Fig.E).

3. Using another person, on each side, remove two 7mm screws attaching the body-colored filler panel to the wheel arch (Fig.F). Pull it out on each side, away from the wheel arch, and set it aside for now. *Note: Use care to avoid breaking the clips.*

4. On each side, remove one 8mm bolt attaching the lower corner of the grille to the core support (Fig.G). Pull straight out to remove the grille. *Note: Due to manufacturing variances, your bolt may be in a slightly different configuration. Just remove the one that attaches the corner of the grille to the core support.*



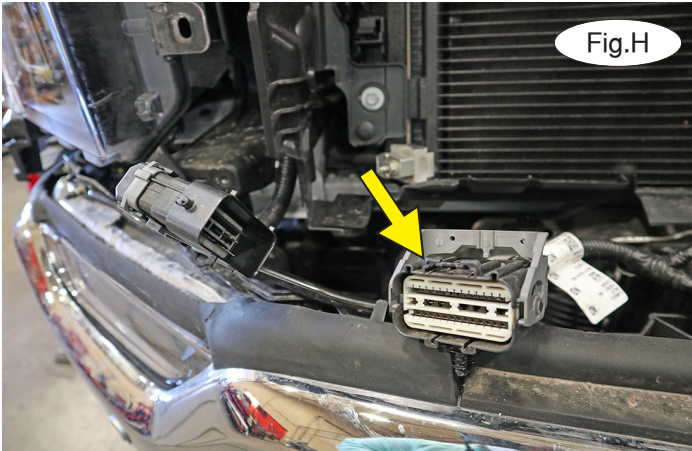


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5. Disconnect any wiring harnesses still attaching the bumper to the frame and lower shutter housing (Fig.H and Fig.I). The number of harnesses will vary, based upon trim level and vehicle options.



6. On each side, with the assistance of a second person, remove three 21mm nuts attaching the bumper to the frame (Fig.J – driver's side). It may be easier to remove the nuts from above (Fig.K). Then, pull straight out to remove the bumper and disconnect any remaining harnesses (Fig.L). Set the bumper aside for now.

7. On each side, pull straight out to remove the tow hook cover (Fig.M). Set them aside. They will not be replaced.



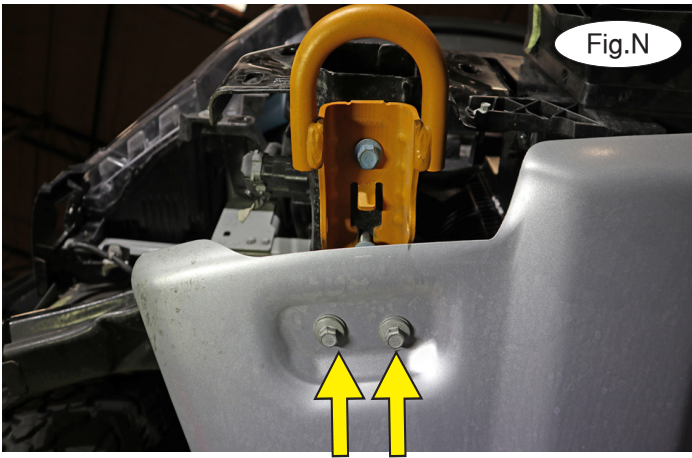


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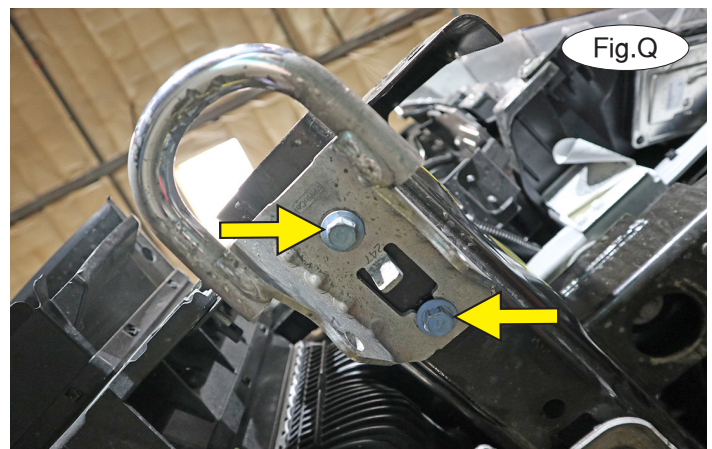
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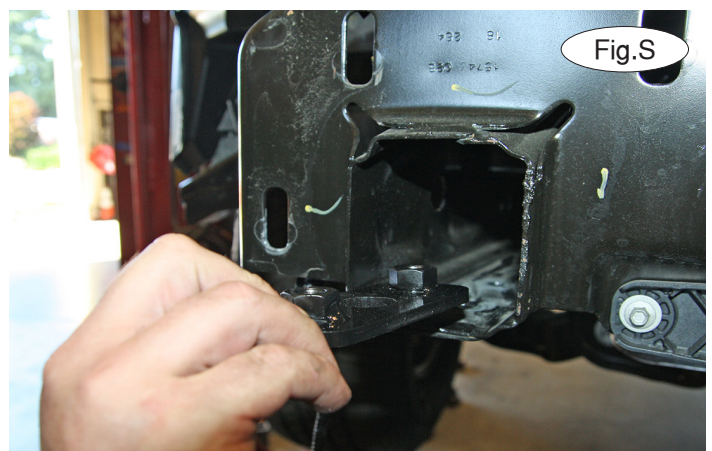
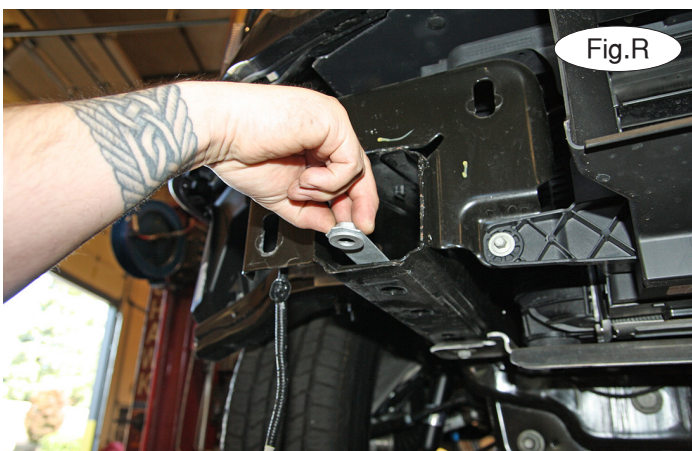
8. For all models except for Tremor: Skip ahead to step 10. For Tremor models only: On each side, remove three 13mm bolts attaching the skid plate to the frame (Fig.N and O).

9. On each side, remove one 13mm bolt attaching the S bracket to the frame (Fig.P).



10. Working on the passenger side only, use a 15mm socket to remove the two bolts attaching the tow hook to the frame (Fig.Q) and the factory nutted backing plate (Fig.R). They will not be replaced. *Note: Retain the tow hook and its hardware for replacement in case the baseplate is ever removed from the vehicle.*

11. Place one of the supplied two-hole nutted backing plates inside the frame, over the two holes exposed in the previous step (Fig.S).



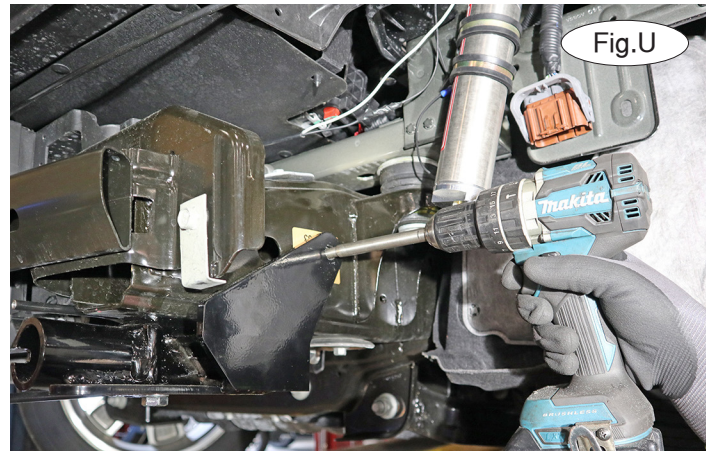
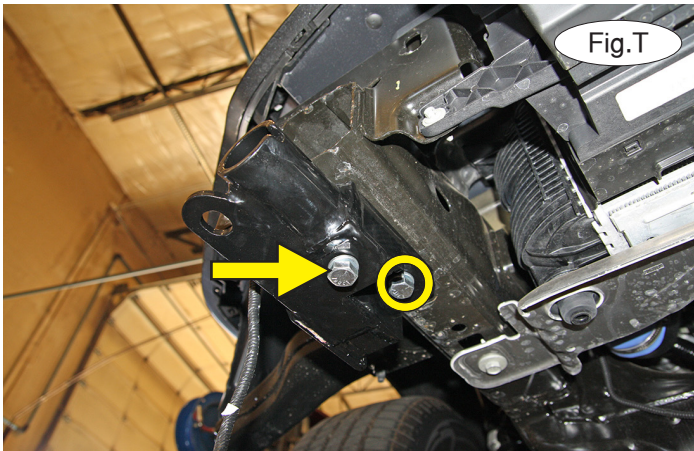


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12. Place one of the supplied $\frac{1}{2}$ " lock washers and Loctite Red[®] over one of the $\frac{1}{2}$ " x 2" Grade 8 bolts, and bolt up through the main receiver brace, the frame and into the rear hole of the nutted backing plate (Fig.T – circle). Bolt up through the main receiver brace, the frame rail and into the forward hole of the nutted backing plate using a $\frac{1}{2}$ " x 4" Grade 8 bolt with $\frac{1}{2}$ " lock washer and Loctite Red (Fig.T – arrow).



13. Repeat steps 8 through 10 for the driver's side.

14. Working on the driver's side only, use the upper mount of the main receiver brace as a template and, using a long $17/32$ " bit, drill straight through both sides of the frame rail (Fig.U). *Note: Use a piece of metal and extreme caution to avoid drilling into critical engine components.*

15. Apply Loctite Red to a $\frac{1}{2}$ " x 6" bolt. Place one of the supplied $\frac{1}{2}$ " plate washers between the upper mount of the baseplate and the frame (Fig.V), over the hole you drilled in the previous step. Push the bolt all the way through the upper mount, the plate washer, the frame, and finish with a $\frac{1}{2}$ " plate washer, $\frac{1}{2}$ " lock washer and $\frac{1}{2}$ " nut (Fig.W).

16. Repeat steps 14 and 15 for the passenger side. Then, tighten all bolts to the bolt torque specifications found at the end of these instructions. **Note: The $\frac{1}{2}$ " x 2" and $\frac{1}{2}$ " x 4" bolts are Grade 8 and should be torqued to 90 ft-lbs.**

Warning!

If you do not use Loctite Red on all bolts in this kit and torque to the specified values, it could cause failure of the towing system.

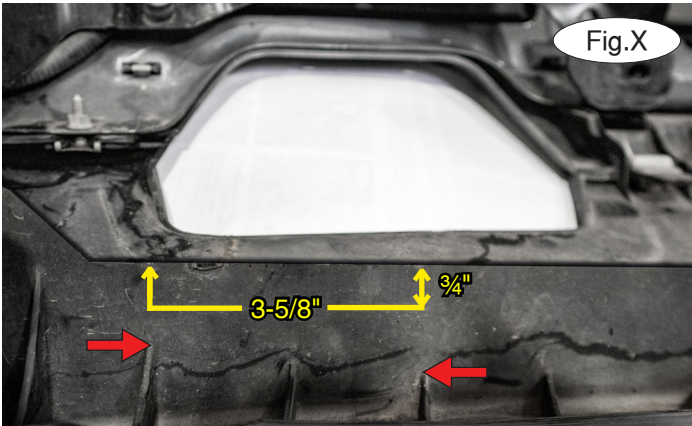


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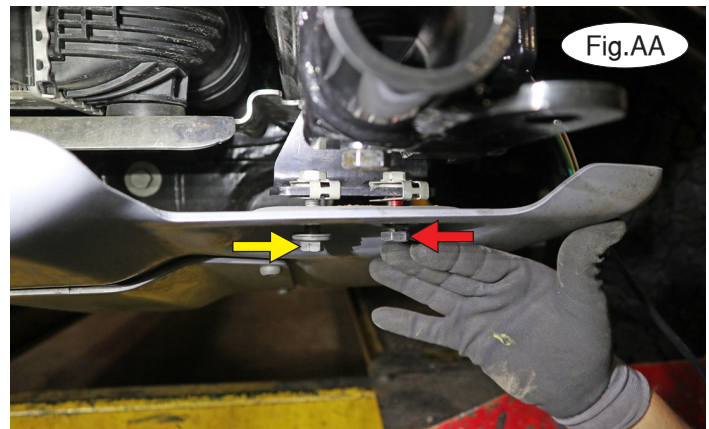
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17. **For Tremor models only:** Proceed to step 20. **For all other models using our Combo Bracket and Brakeaway Mount:** Proceed to the supplement found at the end of these instructions. **If you are not:** Proceed to step 19.

18. **If the vehicle is not equipped with an Active Air Dam:** Proceed to step 20. **If the vehicle is equipped with an Active Air Dam:** You will need to trim to allow clearance. On each side, follow the body lines indicated with red arrows in Figure X up to the edge of the Active Air Dam. This is where your measurements begin. The final trim dimensions should be approximately $\frac{3}{4}$ " x 3-5/8". Test the trimmed section to ensure that the Active Air Dam can move without contacting the baseplate.



19. Hold the bumper in place over the baseplate. If it contacts the fascia at the tow hook opening, on each side, trim the bottom of the tow hook opening flush with the seam as shown in Figure Y to allow clearance for the baseplate.

20. Reinstall the bumper, reversing steps 1 through 6.

21. **For all models except Tremor:** Proceed to step 22. **For Tremor models only:** Reinstall the skid plate and S bracket. Working on one side at a time, place the supplied $\frac{5}{8}$ " x 1" x .188 wall pipe spacer between the frame and the S bracket you removed in step 9 (Fig.Z – red arrow). Then, use the supplied 10mm x 1.5 x 55mm bolt, 10mm lock washer and $\frac{3}{8}$ " flat washer to bolt through the S bracket, the pipe spacer and into the frame (Fig.Z – yellow arrow).

Now, reinstall the skid plate by reversing step 8. On each side, use the factory 13mm bolt on the front inside mount (Fig.AA – yellow arrow) but use the supplied 10mm by 1.5 x 30mm bolt, 10mm lock washer and 10mm fender washer on the front outside mount (Fig.AA – red arrow). Figure AA shows the driver's side bolt configuration.



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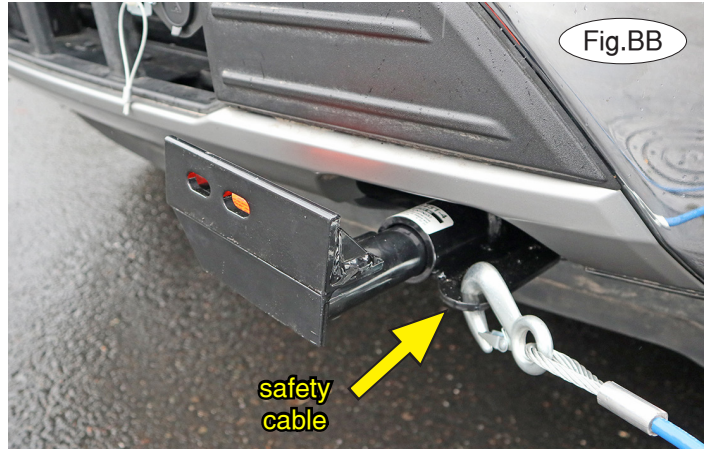
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22. On each side, insert the removable front arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver. Twist back 90 degrees until the spring-loaded pin snaps into place in the notch 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. Then, 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 on the first page and in Figure BB. 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.

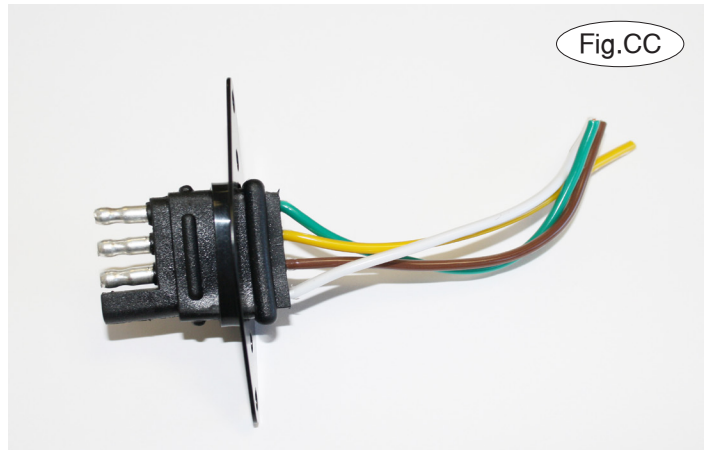


Three options for attaching the wiring plug to the main receiver brace

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.CC). 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.
1/2.....	8.....	90 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.



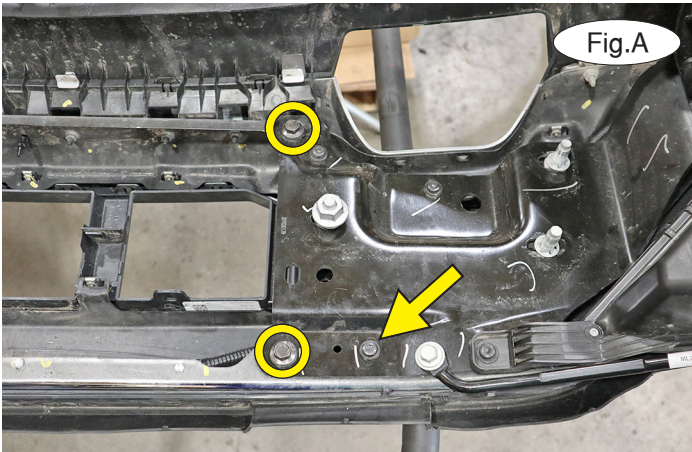
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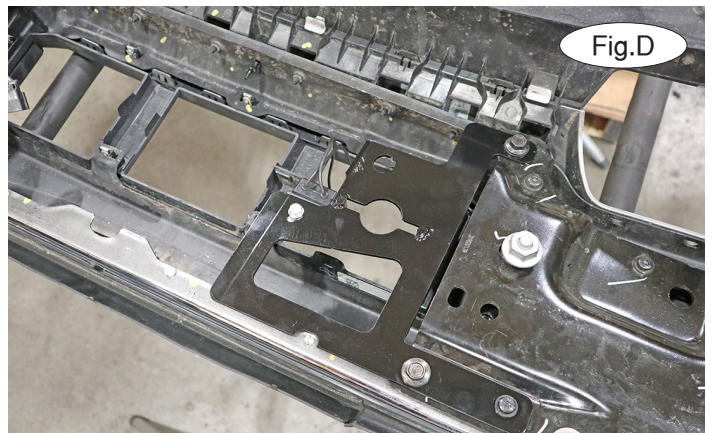
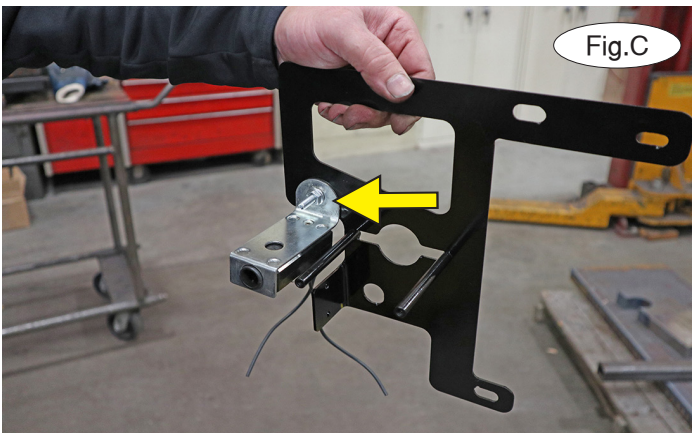
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Combo Bracket and Brakeaway Mount Supplement



1. While the bumper is still removed, remove two 13mm bolts (circles) and one T30 torx bolt (arrow) from the bumper mounts (Fig.A).

2. If you are using a BrakeMaster, install the fitting as shown (Fig.B). To mount a Brakeaway switch, bend the tab 90 degrees as shown in Figure C and use the provided $\frac{1}{4}$ " x 1" whiz bolt and $\frac{1}{4}$ " whiz nut to attach it to the bracket. Then, place the bracket over the mounts you just exposed in the previous step and replace the bolts (Fig.D). Ensure that the wiring plug rods and the Brakeaway clear both sides of the grille opening before tightening the bolts.



3. Trim the active air shutter housing on the driver's side using the measurements indicated in Figure E. Trim the outer section first and then release the clips attaching it to the base of the housing. Then, trim it flush as shown (Fig.F).

Now, return to step 15 in the regular instructions in order to finish reinstalling the bumper.

