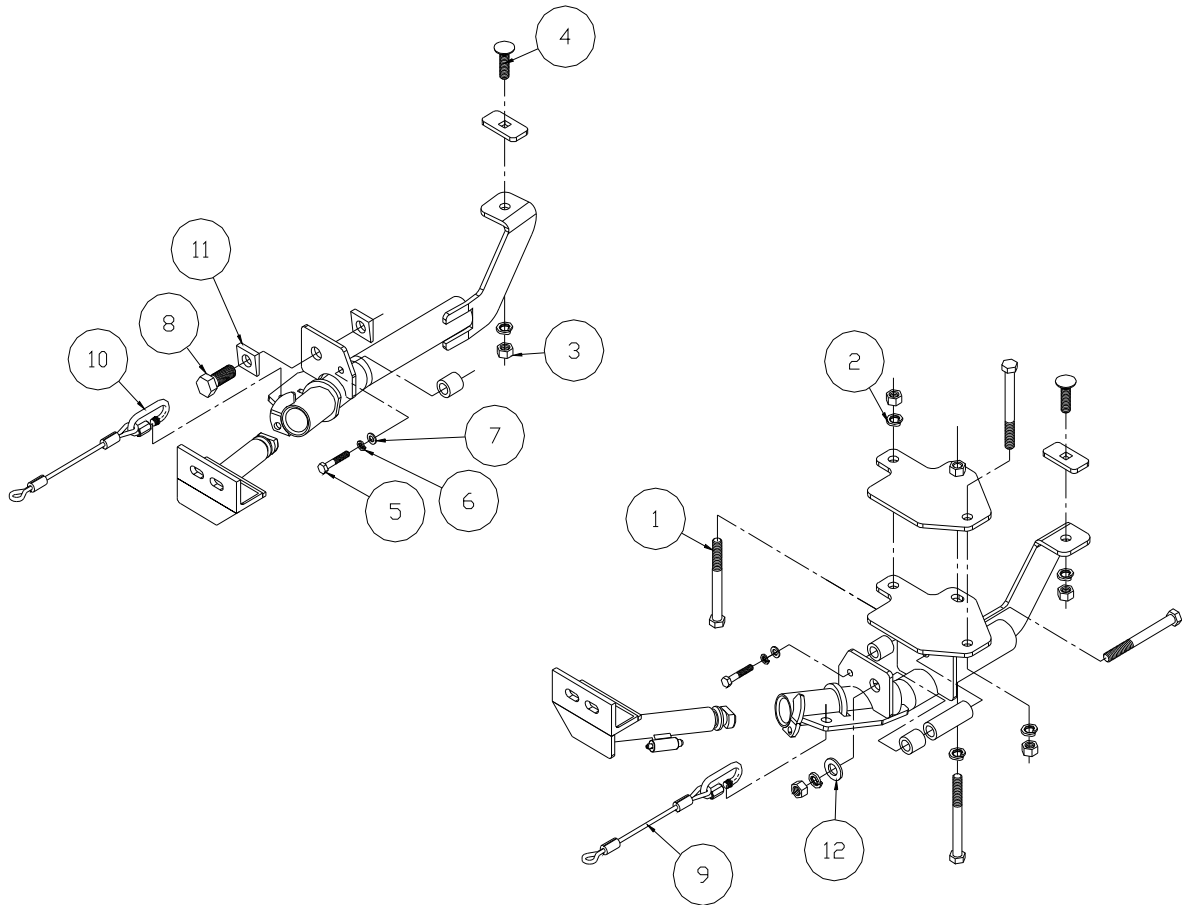




# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**

12/23/08

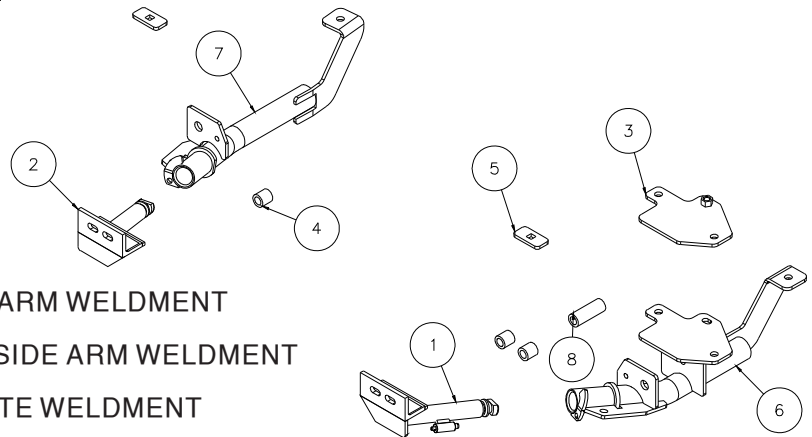


Item	Qty	Length	Width	Hardware	Part No.
1	4	5"	1/2"	BOLT	350107-00
2	6		1/2"	LOCK WASHER	350309-00
3	5		1/2"	NUT	350258-00
4	2	1 3/4"	1/2"	CARRIAGE BOLT	350363-00
5	2	8mm	50mm	8 x 1.25 x 50mm	356005-00
6	2		8mm	LOCK WASHER	355705-00
7	2		8mm	FENDER WASHER	355700-00
8	1	18mm	45mm	18mm x 2.5 x 45mm BOLT L THD	355911-00
9	2	8"		8"CABLES	500646-08
10	2			CABLE CONNECTOR	200008-00
11	2	1 1/2"	1 1/2"	BEVELED WASHER	350349-00
12	1		1/2"	FLAT WASHER	350308-00
13	1		5ML	LOCKTITE #262	200544-00
HARDWAREKIT .... (includes all bolts, washers and miscellaneous parts listed above) ..					521228-1HK



# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**  
12/23/08



Item	Qty	Part No.	Assembly
1	1	C-000757	DRIVER SIDE ARM WELDMENT
2	1	C-000758	PASSENGER SIDE ARM WELDMENT
3	1	C-000759	BACKING PLATE WELDMENT
4	3	A-001274	1" O.D. x 1" x .219 WALL TUBE
5	2	A-000440	1 1/4" x 2 1/2" SQ. HOLE BACKING PLATE
6	1	C-000755	DRIVER SIDE RECEIVER BRACE WELDMENT
7	1	C-000756	PASSENGER SIDE RECEIVER BRACE WELDMENT
8	1	A-000456	1" O.D. x 2 3/4" x .219 WALL TUBE

**IMPORTANT:** All brackets **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
- Use lock washers on all fasteners

ROADMASTER Limited Warranty, including One-Year Conditional Warranty Text and Product Registration Card, in Carton.

## WARNING

Failure to follow these instructions can result in property damage, personal injury or even death.

- **Installation of most mounting brackets requires moderate mechanical aptitude and skills.** We strongly recommend professional installation by an experienced installer.
- **The installer must read the instructions and use all bolts and parts supplied.** Failure to do so could result in loss of the towed vehicle.
- **Use Loctite® Red** on all bolts used for mounting this bracket.
- **Do not use this document for custom fabrication**, as it may not show all parts or structural components. Custom fabrication or an attempt to copy this bracket design could result in loss of the towed vehicle.
- **Every 3,000 miles, the owner must inspect the fasteners** for proper torque, according to the bolt torque requirements chart on the last page of these instructions. **The owner must also inspect all mounts and brackets for cracks or other signs of fatigue every 3,000 miles.** Failure to do so could result in loss of the towed vehicle.
- **The owner must check the vehicle manufacturer's instructions for the proper procedure(s) to prepare the vehicle for towing.** Some vehicles must be equipped with a transmission lube pump, an axle disconnect, driveline disconnect or free-wheeling hubs before they can be towed. Failure to properly equip the vehicle will cause severe damage to the transmission.
- **If running changes were made** by the vehicle manufacturer after this bracket was designed, some bolts or other fasteners in the hardware pack may no longer be the correct size. **It is the installer's responsibility** to verify that the bracket is securely fastened to the vehicle and fitted with the correct hardware to account for these changes. Failure to securely fasten the bracket could result in loss of the towed vehicle.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the bracket. **Do not install the bracket if any structural frame damage is found.** Failure to repair the damage could result in the loss of the towed vehicle.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or bracket 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 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, motorhome and/or towed vehicle.
- **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.** Refer to the cable instructions for proper routing. Failure to leave enough slack in the safety cables, or failure to connect the safety cables frame to frame, will result in the loss of the towed vehicle.
- This bracket is designed for use with ROADMASTER tow bars and ROADMASTER adaptors only. **Using this bracket with other brands, without an approved ROADMASTER adaptor, may result in non-warranty damage or injury.**
- Upon final installation, **the installer must inspect the bracket to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc.,** or non-warranty damage to the towed vehicle will result.
- **This bracket is only warranted for the original installation.** Installing a used bracket on another vehicle is not recommended and will void the warranty.

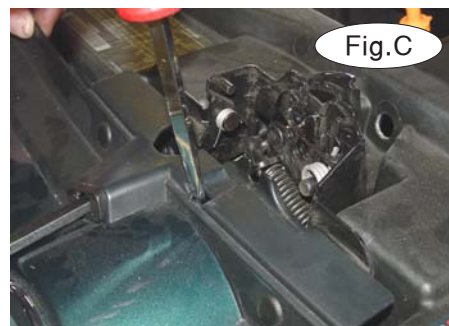


# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**

12/23/08

This is one of our EZ lock bracket series, which allows the visible front portion of the brackets to be easily removed from the front of the car by rotating the front braces. The bracket kit consists of two main receiver braces, two tubular front braces and a hardware pack. The rear receiver braces mount to the frame on each side. The front tubular braces insert into the rear braces and rotate 90 degrees to lock in place (Fig.A). The side grilles will have to be trimmed to fit around the main receiver braces. The bumper fascia will have to be removed to fit the receiver braces. Before starting the installation, lay out the kit components as illustrated to be sure the components are present and accounted for.



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 by spreading the end of the hood latch lever and disconnecting it (Fig.B).

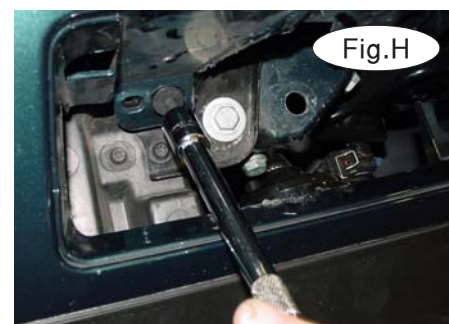
2. Push down on the grille release tab with a screw driver (Fig.C), then pull forward to remove the grille (Fig.D).



3. Remove a fastener (T30) on each side beside the headlight (Fig.E), then remove five more fasteners (Fig.F).

4. Remove the small side grilles on each side (Fig.G) then remove one more fastener (T30) under the cover on each side (Fig.H).

5. Move to the fender wells and remove four screws in each (T25) (Fig.I).







# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**  
12/23/08

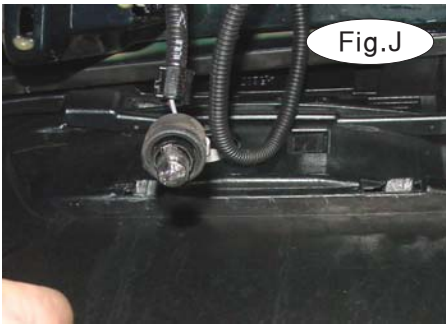


Fig.J



Fig.K



Fig.L

6. Remove the marker light fittings (Fig.J).
7. Now pull forward to remove the fascia (Fig.K).
8. Remove the passenger side air plenum (Fig.L) then the horns (two 13mm head bolts) (Fig.M,N). Leave them hanging for now.



Fig.M

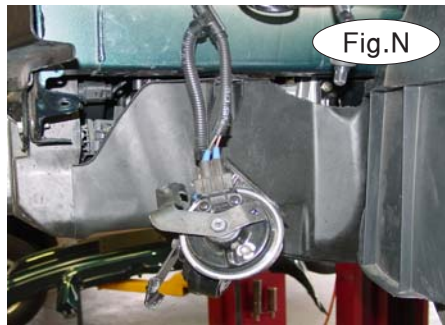


Fig.N



Fig.O



Fig.P

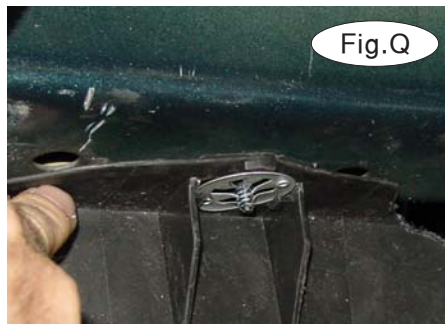


Fig.Q



Fig.R

9. Remove ten (T30 fasteners) (Fig.O) and 10 fasteners (Fig.P) from the splash panels then pull and pry straight down to remove the side splash panels from the side studs (Fig.Q,R).

10. Go to the front of the radiator support and remove three (T30 head bolts) on each side (Fig.S), then remove two more bolts (13mm head) on each side (Fig.T).

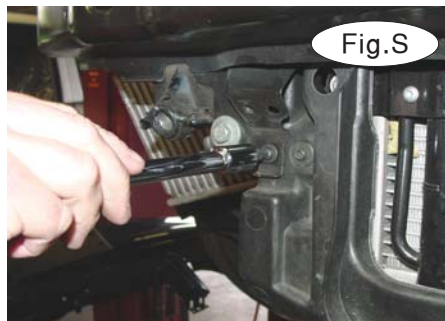


Fig.S

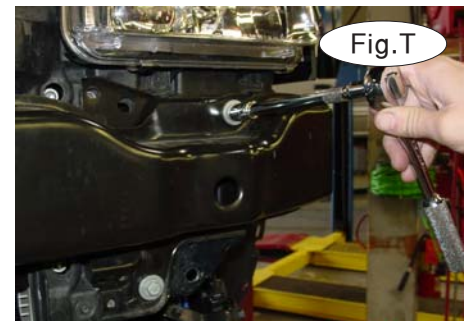


Fig.T



# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**

12/23/08

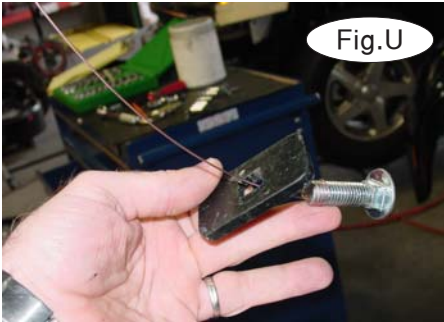


Fig.U



Fig.V

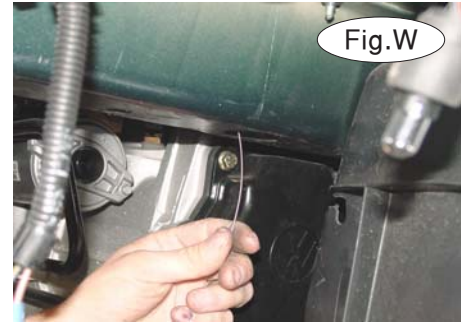


Fig.W

11. Working on the driver's side, prepare a fishwire for a  $\frac{1}{2}$ " x  $1\frac{3}{4}$ " carriage bolt and a  $\frac{1}{4}$ " x  $1\frac{1}{4}$ " x  $2\frac{1}{2}$ " backing plate (Fig.U), then pull the radiator support forward enough to slip the bolt and backing plate into the front of the frame (Fig.V) and into the lower hole in the frame as shown (Fig.W-X). Do the same on the passenger side.

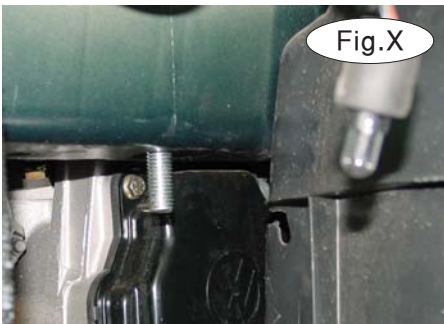


Fig.X

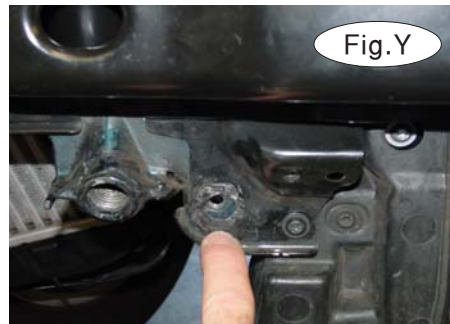


Fig.Y



Fig.Z

12. Line up all the holes in the radiator support (Fig.Y) and reinstall all the bolts removed in step 10, except the bottom 13mm head bolts (Fig.Z).

13. Remove the top frame plug on the driver's side (Fig.AA).

14. Working on the driver's side, position the upper plate on the top of the frame (Fig.BB).

15. Hold the brace in position under the frame (Fig.CC) and bolt through the rear of the brace using a  $\frac{1}{2}$ " nut and lock washer (Fig.DD).



Fig.AA



Fig.BB



Fig.CC

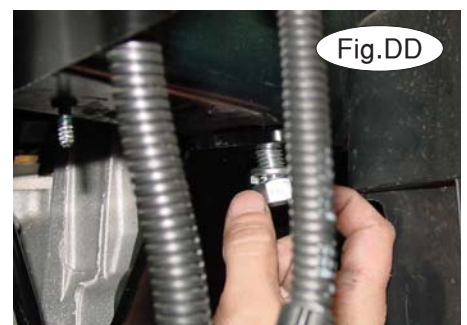


Fig.DD





# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**  
12/23/08

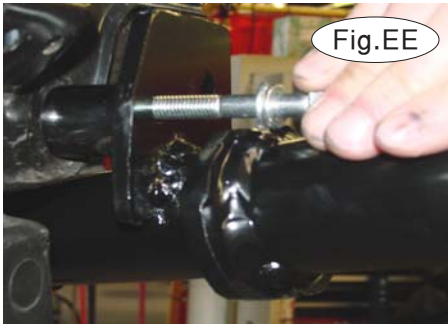


Fig.EE

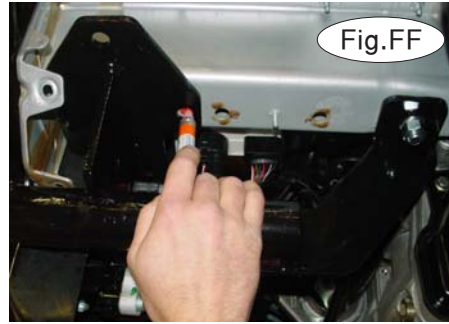


Fig.FF

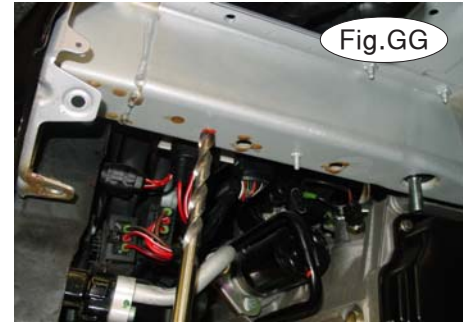


Fig.GG

16. Bolt through the front of the brace and a 1" spacer with a 8mm x 1.25 x 50mm bolt, lock washer and fender washer (Fig.EE). Tighten the front 8mm bolt, then the rear bolt to align the brace under the frame then using the lower brace mounting hole as a template, mark the bottom of the frame (Fig.FF). Remove the brace and drill a 17/32" hole through the bottom of the frame using the mark as your guide (Fig.GG).

17. Reinstall the receiver brace as in step 16 and retighten the mounting bolts.

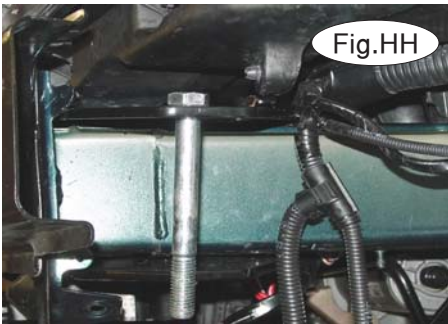


Fig.HH

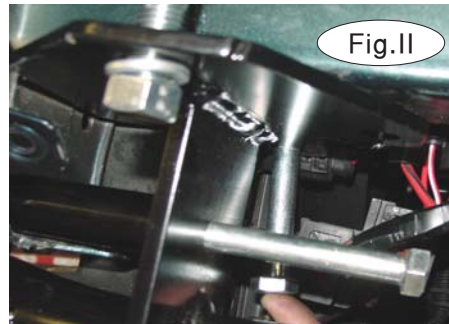


Fig.II

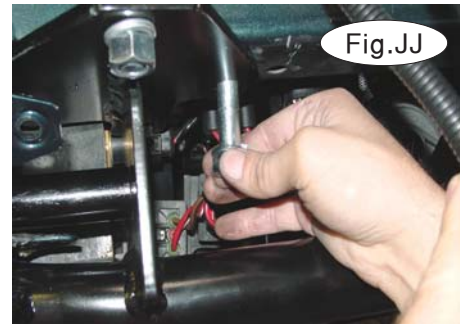


Fig.JJ

18. Install a 1/2" x 5" bolt down through the top plate and the receiver brace as shown and secure with a 1/2" lock washer and nut (Fig.HH) then put the inner 5" bolt up through the brace into the top plate and secure with another 1/2" lock washer and nut (Fig.II). Put a 1/2" lock washer on another 5" bolt and bolt up through the brace and frame into the threaded hole in the top plate (Fig.JJ).

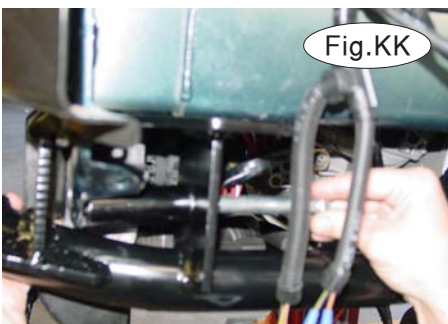


Fig.KK

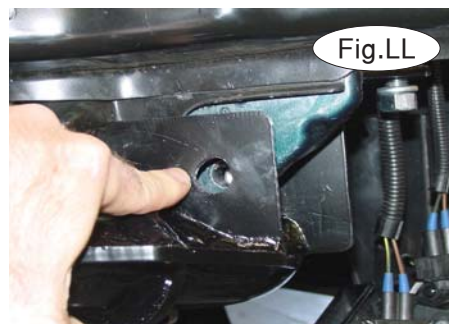


Fig.LL

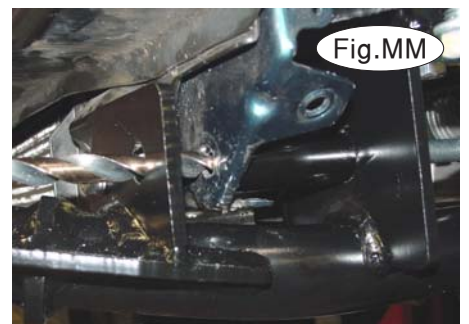


Fig.MM

19. Put a 1/2" x 5" vertical bolt in position halfway through a 2 3/4" spacer (Fig.KK) to hold the spacer. Tighten all the mounting bolts to align the brace.

20. Now using the front of the brace as a drill template (Fig.LL), drill through the front of the frame into the 2 3/4" spacer (Fig.MM).



# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**  
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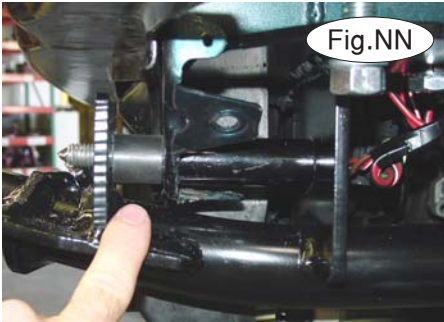


Fig.NN

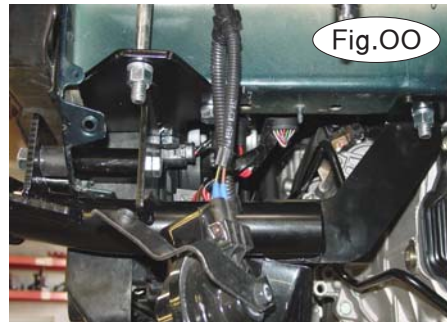


Fig.OO

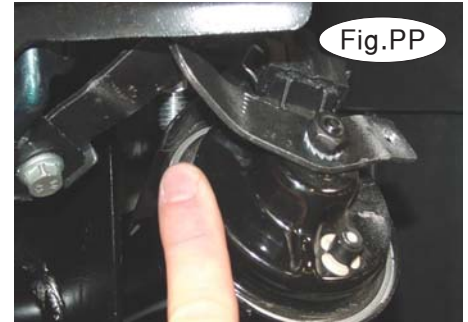


Fig.PP

21. Insert a 1" spacer between the frame and brace (Fig.NN) then bolt through the front and rear spacers, frame and brace with the 1/2" x 5" vertical bolt, flat washer, lock washer and nut (Fig.OO).

22. Torque all the bolts to the torque specifications on the last page.

23. Refit the horns in a slightly different location. Do this by straightening the first bend in the longest horn bracket arm (Fig.PP) then enlarging the second hole in the arm so that the horns will mount on the front and back of the bracket (Fig.QQ). Once the horns are mounted, check the clearances to make sure there is no contact between the horn bodies and anything in the vicinity (Fig.RR).

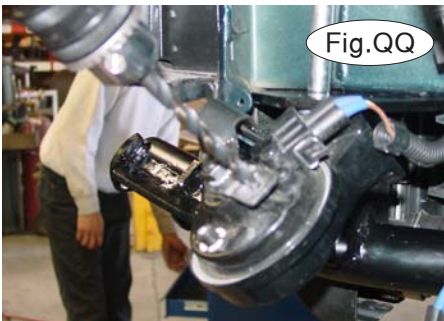


Fig.QQ

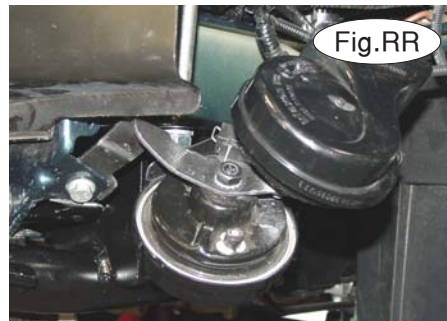


Fig.RR



Fig.SS

24. Repeat steps 13 through 17 to partly mount the passenger side receiver brace (Fig.SS,TT).

25. Now find the special reverse thread (18 X 2.5 X 45mm) bolt provided and using loctite (Fig.UU) bolt through the tapered spacers into the vehicles front towing bracket as shown (Fig.VV).

26. Align the receiver brace then tighten the bolts to torque specifications on the last page, using the 5/8" bolt specifications for the reverse bolt (Fig.WW).



Fig.TT

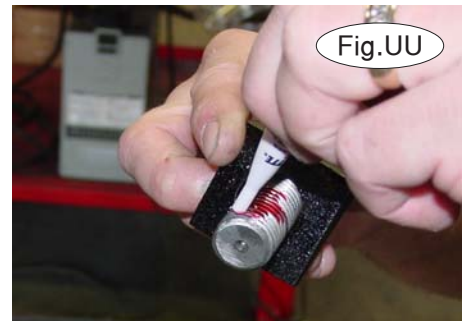


Fig.UU

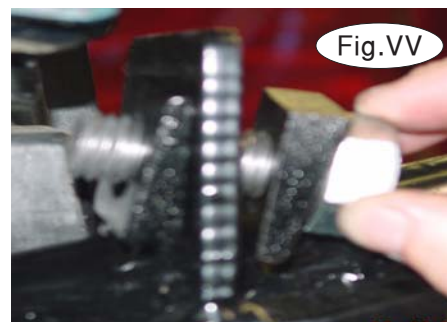


Fig.VV

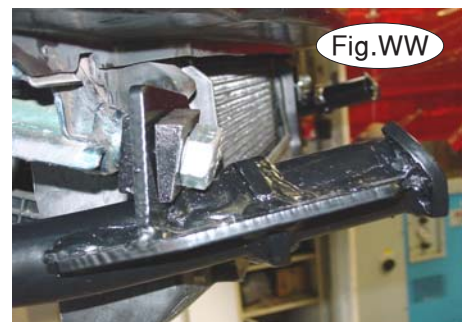


Fig.WW





# MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

**KIT# 521228-1**  
12/23/08

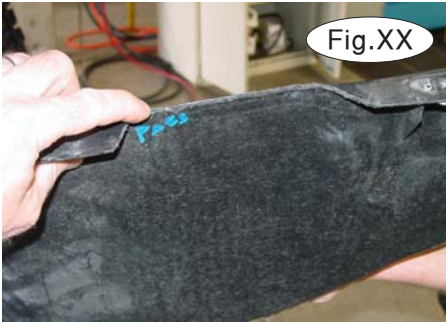


Fig. XX

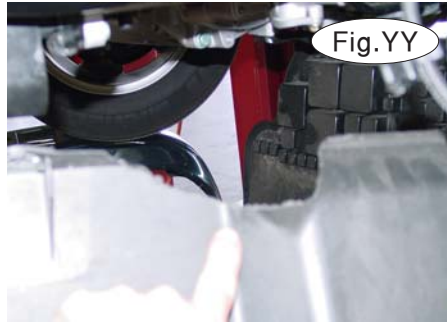


Fig. YY

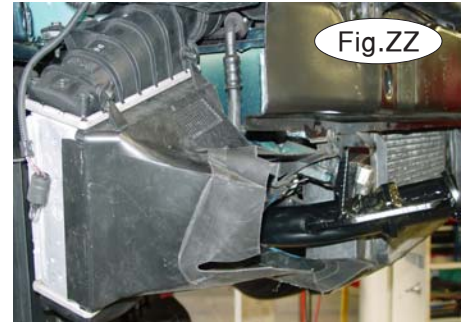


Fig. ZZ

27. Trim the passenger side splash panel to fit as shown (Fig. XX, YY) then reinstall reversing step 9.
28. Trim the turbo cooler's air deflector to fit around the receiver brace then reinstall (Fig. ZZ).

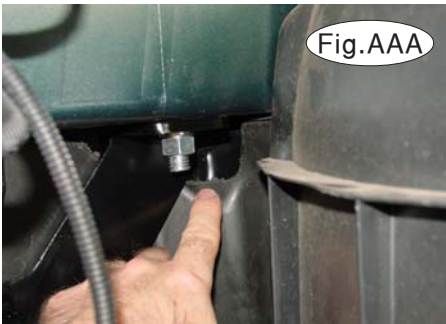


Fig. AAA



Fig. BBB



Fig. CCC

29. Trim the driver's side splash panel to fit (Fig. AAA) and reinstall.
30. Reinstall the lower splash panel reversing step 9 (Fig. BBB).
31. Now trim the lower grilles removed in step 4, to fit around the receiver braces (Fig. CCC).
32. Install the front braces by inserting and turning 90 degrees to lock in place (Fig. CCC, DDD).



Fig. DDD



Fig. EEE

33. Install the 8" safety cables on the sides of the receiver braces with the provided cable connectors (Fig. EEE).
34. Connect the other ends of the safety cables to the tow vehicle's safety cables and tow bar.

## 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.

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