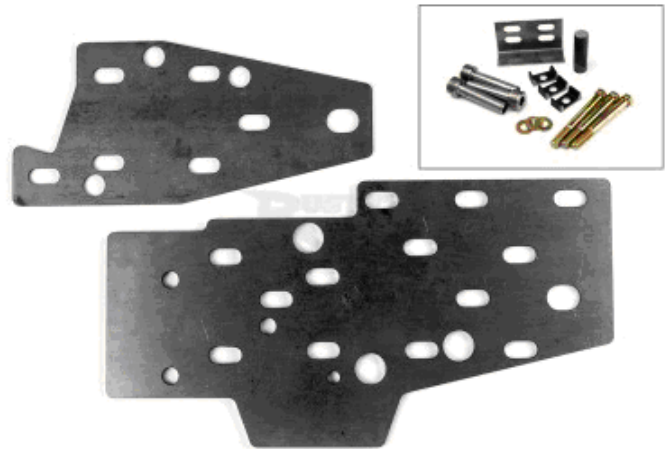




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## Steering Frame Plate

PART #: RAM960 | APPLICATION: XJ



### INTRODUCTION

Rusty's recommends that this installation should be performed by a certified automotive technician or a person with a professional mechanical knowledge. Installing this kit with out this expertise may jeopardize the handling and safety of the vehicle.

Read instructions several times before starting. Be sure you have all needed parts and know where they install. Read each step completely as you go. Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged. After any drilling or cutting, de burr and grind smooth any surfaces, be sure to paint or undercoat afterwards.

### Tools List

- Socket wrench Set
- Spray Paint Satin Finish
- Die Grinder with sanding and grinding wheel
- Welding equipment
- Hammer
- Service manual
- Carbide cutting tool
- C-clamp or locking pliers
- 5/8" drill bit

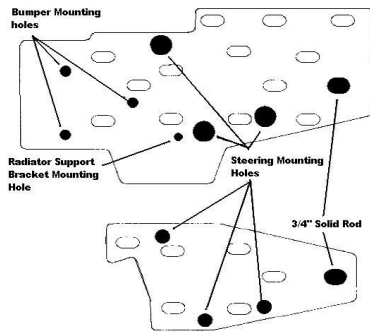
## PARTS LIST

Be sure you have all needed parts and know where they install. Read each step completely as you go.

DESCRIPTION	QTY
Outer Chassis Plate	1
Inner Chassis Plate	1
Support Sleeves	3
Flat Washers	3
Steering mounting Bolts	3
Tow Hook Bracket	1
3/4 Solid Rod	1
Spacers	3

**Attention Installer**

This is a note regarding dual steering frame bracket. The following instructions refer to installation of a single steering frame mount on driver's side chassis rail only. For dual steering frame bracket, the additional parts should be installed on the passenger side chassis rail using the same procedures.



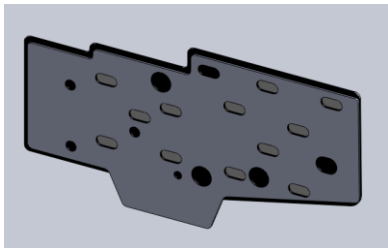
**HOLE IDENTIFICATION DIAGRAM**

## INSTALLATION

- 1) The following items must be removed from the chassis rail, along with any other components that prevent the Chassis Plates from fitting flush against mounting surface. Refer to factory service manual for specific instructions.
  - Tow Hook Bracket
  - Lower radiator support bracket
  - Front swaybar
  - Front bumper and bracket

Unbolt the steering gear and adapter plate from the chassis. Temporarily secure the steering gear out of the way-it should not be necessary to disconnect the fluid lines or steering shaft. Discard steering gear adapter plate.

Test fit the inner and outer chassis plates with the chassis rail. Mark an outline of each plate onto the chassis surface.



Completely remove all paint and primer, weld slag, or other debris from chassis surface (inboard and outboard side) until bare metal is exposed.

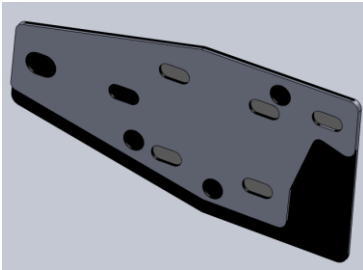
Test fit the inner and outer chassis plates again. Check for flush fitment against the chassis surface, and to

ensure all debris has been removed from the necessary areas.

- 2) Locate the three steering mounting holes on the inboard and outboard side of chassis rail.

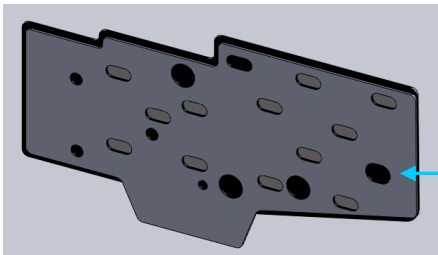
Enlarge the inboard and outboard mounting holes to approx. 5/8" or until the narrow end of the supplied support sleeves can be inserted. (A uni-bit is useful for enlarging holes to 5/8" and is more effective on the uni-body chassis than standard drill bits. A pneumatic die grinder or dremel tool with carbide cutting attachment is also effective, particularly where clearance is limited.)

- 3) Position inner chassis plate against the steering gear mounting holes from inboard side of chassis. Once inserted, the shoulder of support sleeves will hold inner chassis plate in place.



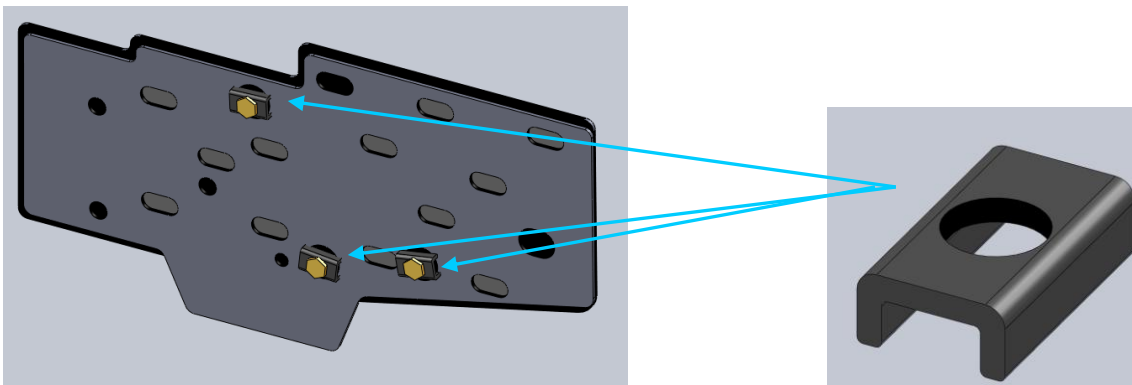
Driver's Side Inside View

Insert the 3/4" solid rod into large hole in chassis rail. Refer to the hole identification diagram for assistance. Position and align the Outer Chassis Plate against the outboard side of chassis.



3/4 Solid Rod

Place the supplied installation spacers on the steering mounting bolts and temporarily insert bolts into support sleeves from the outboard side of chassis.

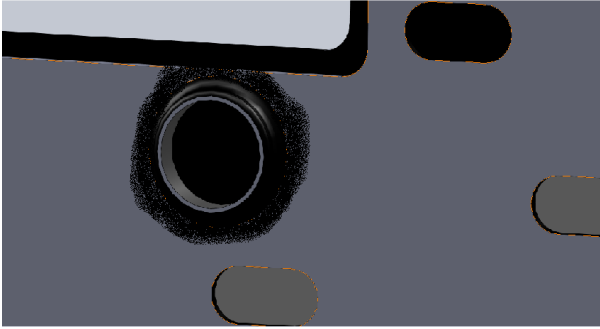


Position steering gear against the inboard side of chassis and align with mounting holes.

Thread Steering Mounting Bolts into steering and lightly snug bolts. Make sure bolt chassis plates remain aligned and flush with chassis surface.

Tack weld all three support sleeves to the outer chassis plate.

Working with one mounting hole at a time, Remove a steering mounting bolt and finish welding the support sleeve to the outer chassis plate making sure any voids are completely filled.



After support sleeves have been welded to the outer chassis plate, secure the steering gear out of the way to gain access to the inner chassis plate.

Weld the shoulder of all three Support Sleeves to the inner chassis plate.

Weld Support sleeves and Chassis Plate to frame

Rosette weld inner and outer plates to chassis at each slotted hole. Although not necessary, Chassis plates may also be stitch-WELDED ALONG EDGES FOR ADDITIONAL SUPPORT.

Rosette weld the  $\frac{3}{4}$ " solid rod to inner and outer chassis plate.

Once welding is complete, grind any protruding portion of the support sleeves on outboard side of chassis until completely flush with the outer plate.

Remove any other protrusions from the surface of inner and outer chassis plate until smooth and completely flat.

#### 4) Mount tow hook bracket

Position the tow hook support bracket against the underside of chassis rail with the slotted holes facing up. Clamp the non slotted side of bracket to the outer chassis plate.

Weld edges and bottom seam of tow hook support bracket to outer chassis plate

Rosette weld slotted holes of tow hook support bracket to underside of chassis rail.

Once all welding and final sanding and grinding is complete, any bare metal must be painted to prevent corrosion. There should be no exposed metal visible when painted properly.

#### 5) Mount Steering gear to chassis

Place a flat washer on each steering mounting bolt and insert bolts into support sleeves from the outboard side of chassis.

Position steering gear against the inboard side of chassis and align with mounting holes.

Thread bolts into steering gear and tighten to 55-60 ft lbs using torque wrench.

#### 6) Re-install radiator support bracket to original mounting location. Enlarge the upper mounting holes of support bracket if they don't line up.

Re-install front swaybar to original location.

Thread bolts into steering gear and tighten 55-60 ft lbs. using a torque wrench.

#### 7) Re-install related components

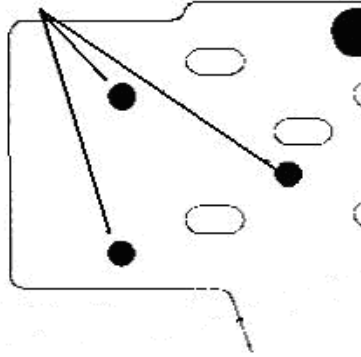
Install original tow hook on vertical surface of tow hook support bracket where welded to the outer chassis plate. Drill new mounting holes using  $\frac{3}{4}$  drill bit and install tow hook using original mounting hardware.

#### Option 1 Bolt on Mounting Bracket

**Choose this option if the front bumper will fit the reinforced chassis without interference.**

Install the front bumper with the mounting bracket positioned outboard of the Outer Chassis Plate. Use the new bumper mounting holes located at the front of the chassis plate- see illustration below. If necessary, re-drill any mounting holes or trim Chassis Plate to fit.

**Bumper Mounting  
holes**



**Option 2 Modify Bumper Bracket**

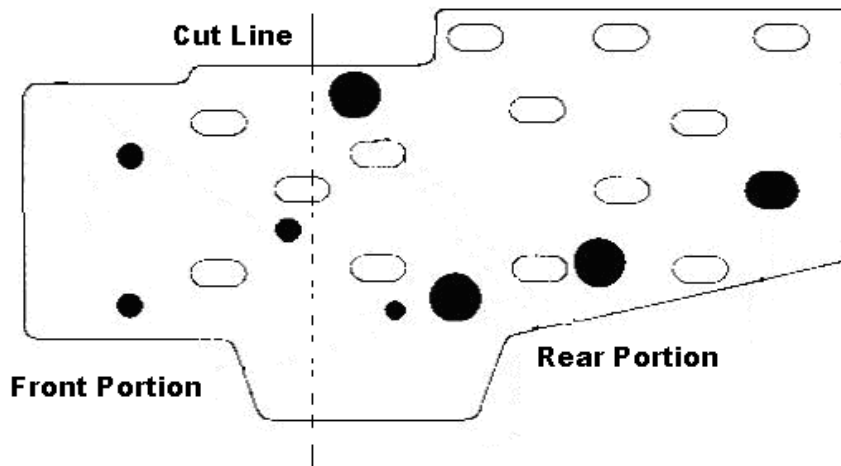
**Choose this option if the front bumper will not fit reinforced chassis.**

Modify the bumper mounting bracket to accommodate the additional 3/16" thickness of the Outer Chassis Plate. Install the front bumper with the mounting bracket positioned outboard of the Outer Chassis Plate. Use the new bumper mounting holes located at the front of the chassis plate. If necessary, re-drill any mounting holes or trim Chassis Plate to fit.

**Option 3 Modify SBS Chassis Plate**

**Choose this option if modification of bumper mounting bracket is not possible or ineffective.**

Before uninstalling Outer Chassis Plate, cut in half as indicated in the illustration and discard the front portion. Install the rear portion of chassis plate as instructed. Mount bumper to original mounting holes in chassis. If necessary, re-drilling any mounting holes or trim Chassis Plate to fit.



For questions or suggestions, contact our Tech Department  
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