

## INSTALLATION INSTRUCTIONS FOR GSI FRONT SUSPENSION KIT

1. Place chassis on jack stands. The engine will need to be removed as the engine mounts change.
2. Remove all factory suspension components, engine, and cross member. Inner fender wells will need to be removed if still in place.
3. Install the 4x (4x means 4 times) grease zerks from the hardware kit *CROSSMEMBER GREASE ZERKS* into the crossmember cross shafts in the *CROSSMEMBER* and the *UPPER ARM/BAG BRACKET*
4. Using a floor jack, lift up The GSI *CROSSMEMBER* to frame and align the mounting holes with those on the frame.

### **DISTORTION NOTE:**

Removal of the factory cross member may cause the frame to distort depending on the condition and accident history of the frame. It may be necessary to compress the frame using tools such as long clamps or ratchet straps to bring the factory frame holes in alignment with the GSI suspension cross member.

5. Insert the *LEFT FRAME C* over top of the left frame rail and line up with factory cross member bolt holes on lower frame rail. Repeat with 5102-R on the right side of the frame.
6. Install (**DO NOT FULLY TIGHTEN YET**) the 3x  $\varnothing 1/2"$  ( $\varnothing 1/2"$  means half inch diameter) bolts, from hardware kit *5101 CROSSMEMBER TO FRAME* per side. This hardware holds the two *FRAME C* and GSI *CROSSMEMBER* to the frame. Nuts are threaded on through the side windows on the GSI *CROSSMEMBER*.

### **1963-1966 FRAME NOTE:**

- If installing the kit on a 1963-1966, you should use the supplied shim (PN: 5103-5) for step 8 between the frame and the Frame C.
- If the frame protrudes past the shim, inboard of the frame, grind back the frame rail flush with the shim.

7. Install the left *UPPER ARM/BAG BRACKET* on top of left frame rail over the *LEFT FRAME C*. Insert 3x  $\varnothing 3/8"$  bolts from *5104 FORWARD UPPER AIR BAG MOUNT TO FRAME* thru top of the *UPPER ARM/BAG BRACKET* to frame. Tighten upper bolts to allow the bracket to fit tight against frame. Repeat process on the right side.
8. With *UPPER ARM/BAG BRACKETs* on the frame, note that one of the holes will line up with an existing hole in the frame. Using the *UPPER ARM/BAG BRACKET* as a guide mark and drill out the remaining 3x  $\varnothing 3/8"$  holes through the frame. Deburr the holes and Install 4x  $\varnothing 3/8$  bolts.

### **BOLT CLEARANCE NOTE:**

THE UPPER FORWARD BOLT HAS TO BE INSTALLED WITH THE HEAD OF THE BOLT ON THE INSIDE OF THE FRAME.  
OTHERWISE IT WILL INTERFERE WITH OTHER HARDWARE.

9. Install the *MOTOR MOUNTS* to the GSI *CROSSMEMBER* and *FRAME C* using hardware from *5102 ENGINE MOUNTS TO 5101 CROSSMEMBER* and *5102 ENGINE MOUNTS TO 5103 FRAME C INNER SUPPORT*.
10. At this point tighten all installed hardware, including those from step 6. This should serve to "suck in" the frame crossmember and engine mounts.
11. Install lower ball joints and bushings into the *LOWER CONTROL ARMS*. **KEEP THE BALL JOINTS CASTELLATED NUT AND COTTER PIN FOR STEP 17.**
12. Install *LOWER CONTROL ARMS* onto GSI *CROSSMEMBER* using two  $\varnothing 5/8 \times 13"$  long bolts and hardware from *5108 LOWER ARMS TO 5101 CROSSMEMBER*. **Do not tighten yet!**

13. Install the D2600 airbags onto the *UPPER ARM/BAG BRACKETs* using hardware from *FRONT AIR BAGS TO 5104 FORWARD UPPER AIR BAG MOUNT*. Ensure that the hole for the air fitting lines up with the hole in the bracket. Lift up the *LOWER CONTROL ARMS* and install the remaining lower airbag hardware through the arm.

14. Install upper ball joints into the upper arm.

**UPPER BALL JOINT HARWARE NOTE:**

- USE THE HARDWARE FROM *UPPER BALL JOINTS TO 5109 UPPER ARMS BAG*.
- THE BOLTS ARE INSTALLED UPSIDE DOWN. THE NUTS WILL BE ON THE TOP OF THE BALL JOINT.
- KEEP THE STOCK BALL JOINT CASTELLATED NUT AND COTTER PIN FOR USE IN STEP 17.
- WHEN THE BALL JOINTS ARE INSTALLED CORRECTLY THE BALL JOINT WILL COVER THE ENGRAVING "DRVR" OR "PASS" ON THE ARMS.

15. Install *UPPER CONTROL ARMS* using the 5/8 x 14in long bolts.

**LONG BOLT NOTE:**

THE HEAD GOES TOWARD THE FRONT OF THE VEHICLE. THE BOLT ALSO ACTS THE UPPER SHOCK MOUNT

16. Install the forward shocks to the *LOWER CONTROL ARM* using hardware from *5108 LOWER ARM TO FRONT SHOCK BOLTS*.

17. Install spindle onto lower and upper ball joints using hardware supplied with the ball joints.

18. Tighten UPPER and LOWER CONTROL ARM mounting hardware.

19. Install jam nuts from *STEERING ADAPTOR* on rack and pinion ends. Using a cut off tool of your choice cut 1/2" off each end of the racks threaded tie rods. Use the jam nuts and a file to clean up the threads cut off areas.

**TIE ROD LENGTH NOTE:**

IN SOME CASES, IT IS NECESSARY TO CUT MORE OFF RACK END DUE TO DIFFERENCES IN RACK AND PINION MANUFACTURES. CUTTING IS REQUIRED TO CUT RACK ENDS TO PROPERLY ADJUST TIE RODS.

20. Install rack and pinion onto front cross member with *RACK AND PINION TO 5101 CROSSMEMBER* hardware and 5118 POWER STEERING RP BUSHING SET.

**STEERING BUSHING NOTE:**

MAKE SURE THE THICK SPACER PORTION OF THE RACK BUSHING IS BETWEEN THE RACK AND THE CROSSMEMBER

21. Assemble tie rod adapters with rod end (PN: FKJMXL12T) and Ø3/4 jam nuts. Thread them onto the rack and pinion tie rods, which should already have a jam nut installed.

22. Install *STEERING ADAPTOR TAPER BOLT (PN: 5114-1)* into the spindle along with the two misalignment spacers (PN: 5114-2 &-3) The larger of the two goes up against the spindle. Finish with the castellated nut and cotter pin from *STEERING ADAPTOR HARDWARE* kit.

23. Double check you have tightened all hardware and installed cotter pins.

24. You have completed the installation of the GSI front suspension kit.

**STEERING SHAFT SUPPORT AND PAINT**

THERE IS A STEERING SHAFT SUPPORT TAB THAT WE SUPPLY THAT MUST BE WELDED TO THE UPPER CONTROL ARM CROSS BAR. WE SUGGEST THAT THIS IS DONE BEFORE FINAL FINISH FOR OBVIOUS REASONS.

