

# #9226

## Installation Instructions

### 2" Body Lift Kit

1994-1997 S-Series 2/4WD, ZR-2



**READ AND UNDERSTAND ALL INSTRUCTIONS AND WARNINGS PRIOR TO INSTALLATION OF SYSTEM AND OPERATION OF VEHICLE.**

#### SAFETY WARNING

BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/reassembly procedures and post installation checks must be known.

#### PRODUCT SAFETY WARNING

Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

#### PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.

4. Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
5. BDS Suspension Co. body lifts are designed to be used on vehicles in good operating condition. It is not recommended that body lifts be used on vehicles in poor physical shape. This includes rusted body mounts, damaged or worn frame-to-body mounting brackets, and poor mechanical condition. Perform a visual inspection of the vehicle before beginning installation.

#### POST-INSTALLATION WARNINGS

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 100 miles. Always inspect fasteners and components during routine servicing.

## Parts List

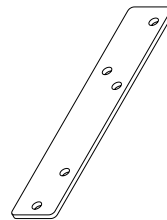
Part #	Qty	Description
3296	10	2" x 3" Body Lift Block
2296	10	2" x 2" Body Lift Block
231	1	Bolt Pack
233	1	Bolt Pack
01642	1	Ground Strap Relocation Bracket
01750	2	Rear Bumper Brackets
01633	4	Fan Shroud Spacer Tubes
01719	1	Lower Fan Shroud Support
400410	1	Fuel Filler Hose 2"IDx6"Lg
400406	1	Vent Hose 3/4"IDx6"Lg
01724	4	Overload Spacers
01723	1	Front Oil Filter Bracket
01722	1	Rear Oil Filter Bracket
01731	2	Tow Hook Spacer
01746	2	0.500x0.058x2.970 Sleeve
01751	1	Spare Tire Winch Bracket
099000	6	Zip Ties
241	2	#12 Hose Clamp
244	2	#36 Hose Clamp
342701	1	Loctite

## Torque Specifications

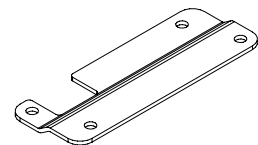
Fastener	Max. Torque (ft-lbs)
1/4"	10
5/16"	17
3/8"	30
7/16"-14	50
7/16"-20	55
1/2"-13	75
1/2" U-Bolt	65-80
9/16"	110
9/16" Grade 8	170
9/16" U-Bolt	75-90
5/8"	150
5/8" U-Bolt	85-110
3/4"	270
10mm	30
12mm	55

### BOLT PACK 231

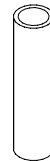
Qty	Description
8	12mm-1.75 x 140mm bolt
6	7/16" USS flat washer
2	1-3/4"OD x 1/2"ID x 3/16"thk washer
8	10mm-1.50 x 80mm bolt
8	3/8" USS flat washer



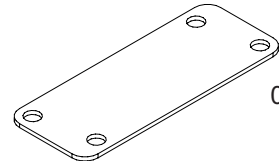
01750



01722



01633



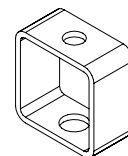
01723

### BOLT PACK 233

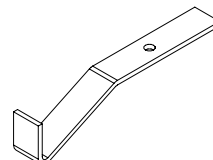
Qty	Description
3	1/4"-20 x 3/4" bolt
4	1/4"-20 prevailing torque nut
7	1/4" USS flat washer
4	10mm-1.50 x 80mm bolt
4	10mm-1.50 x 70mm bolt
1	3/8"-16 x 1-1/2" bolt
2	3/8"-16 x 4" bolt
2	3/8" SAE flat washer
28	3/8" USS flat washer
4	3/8"-16 x 3-1/2" bolt
7	3/8"-16 prevailing torque nut
4	5/16"-18 x 1" self-tapping bolt
1	#12 x 3/4" sheet metal screw



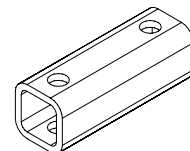
01642



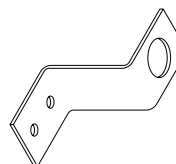
01724



01719



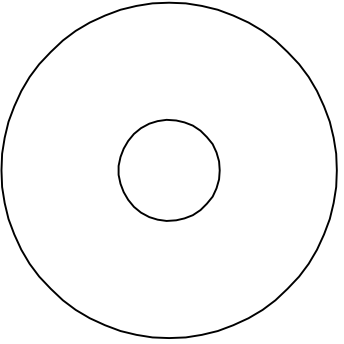
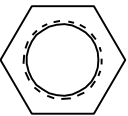
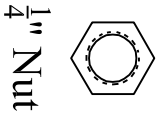
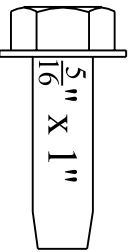
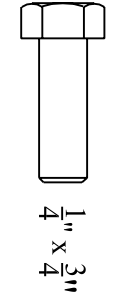
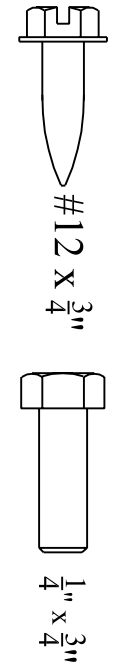
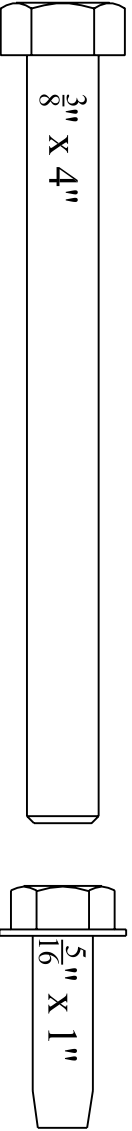
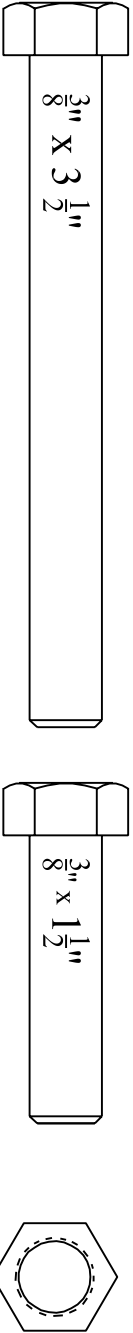
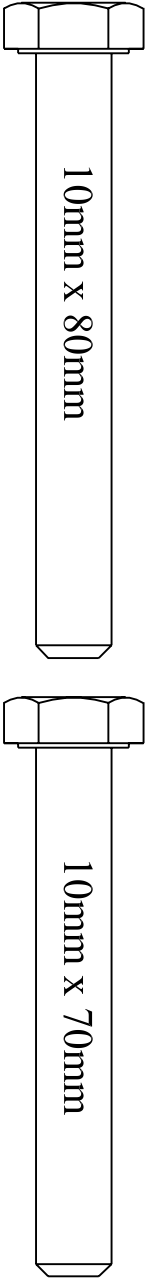
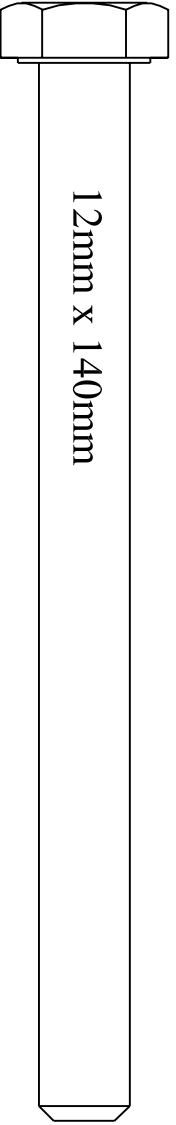
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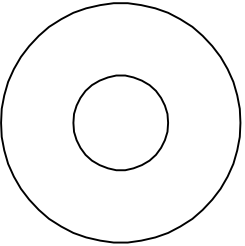
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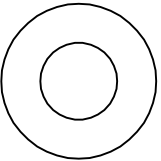
01746



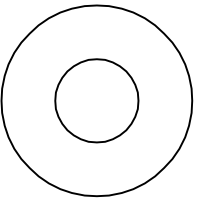
1 3/4" O.D. x 1/2" Washer



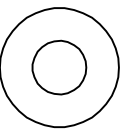
7/16" USS



3/8" SAE



3/8" USS



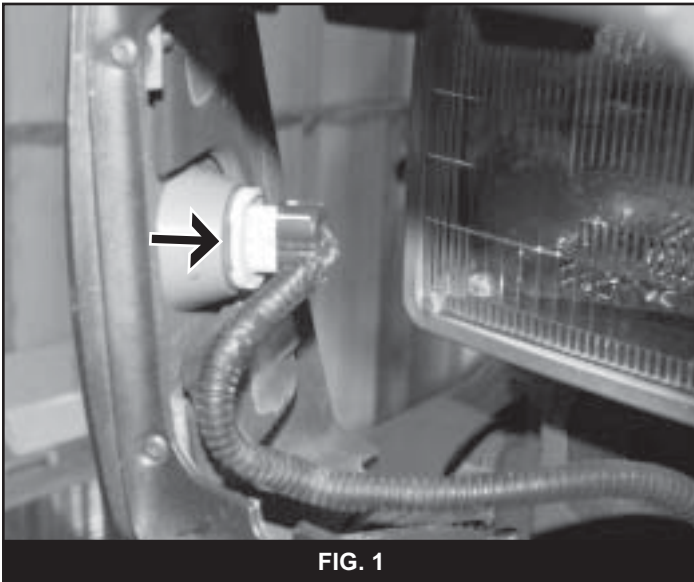
1/4" USS

## INSTALLATION INSTRUCTIONS

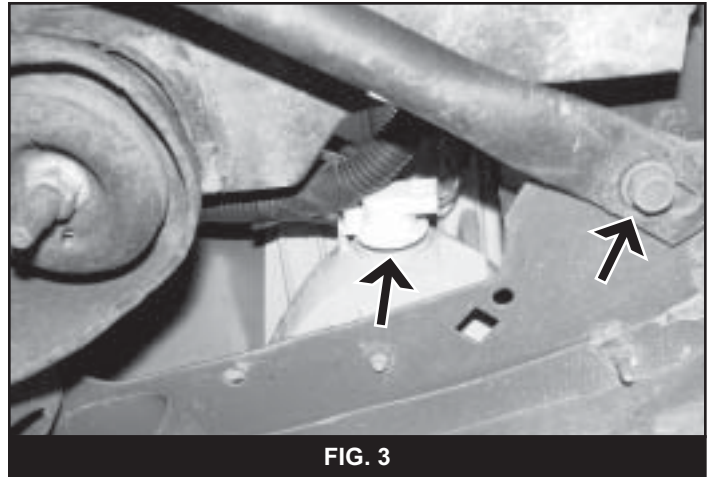
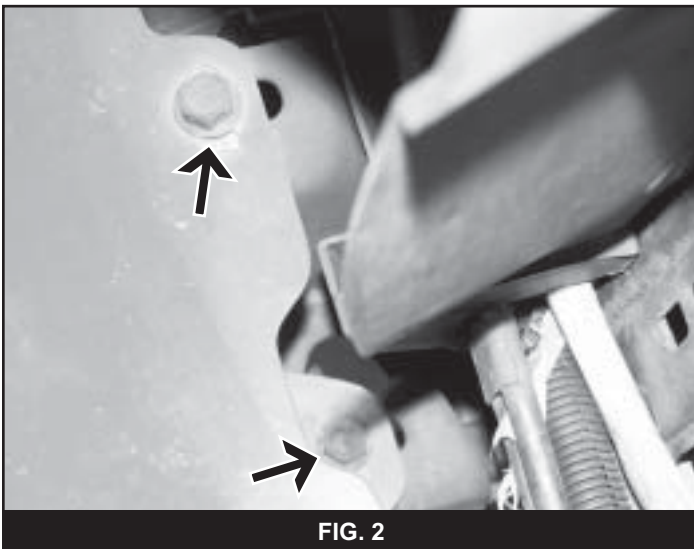
1. Park the vehicle on a clean, flat surface and block the wheels for safety. Place automatic transmissions in park and manual transmissions in neutral.
2. Remove the negative battery cable first, then the positive battery cable. If equipped, the Supplemental Restraint System will be deactivated when the battery is disconnected.
3. Measure and record the space between the bumpers and the body as well as the space between the cab and the bed for reference during installation of the kit.

### FRONT/UNDER HOOD

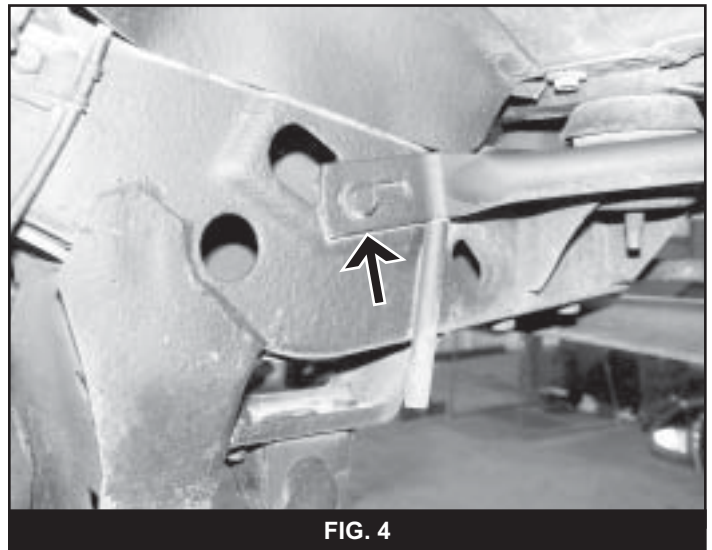
4. Remove the grill by removing the six retaining screws from the top and middle of the grill. The bottom of the grill is held in place by clips. Carefully pull the grill out to free the clips. Remove the turn signal lamps from the signal housings. (Fig 1).



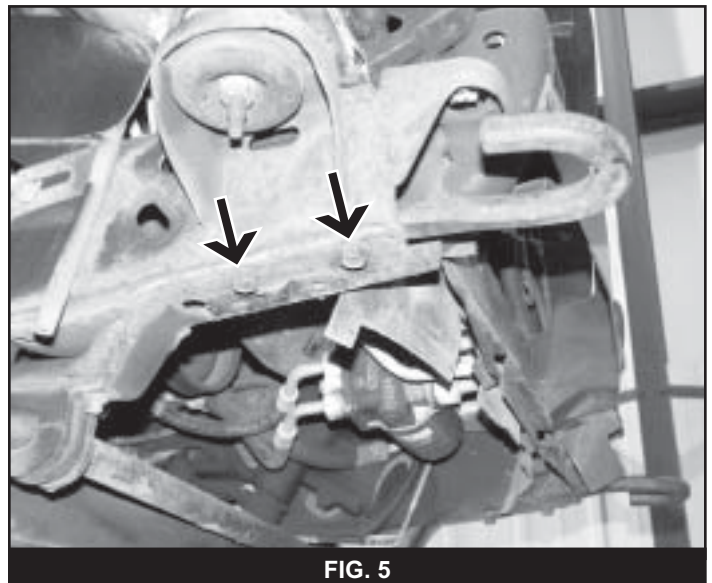
5. Remove the front bumper by removing the four bolts mounting the bumper to the frame horns (Fig 2) and the bolt (one on each side) mounting the bumper to the outside bumper supports (Fig 3). Disconnect the bumper turn signal lights. Remove the bumper from the vehicle.



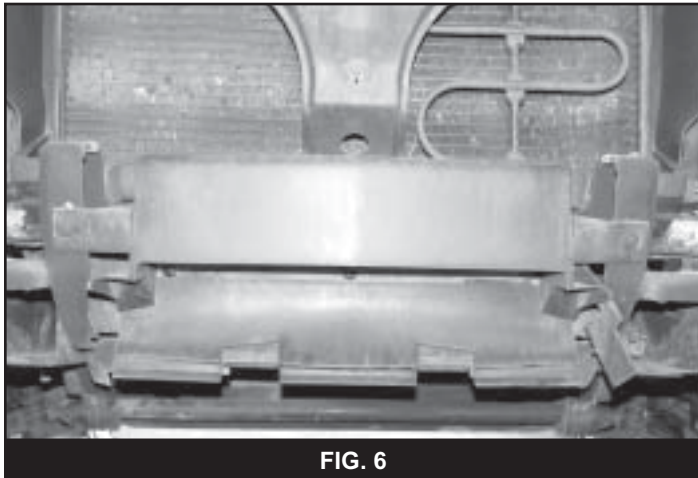
6. Remove the bolt mounting each of the outside bumper brackets to the frame and remove the brackets from the vehicle (Fig 4).



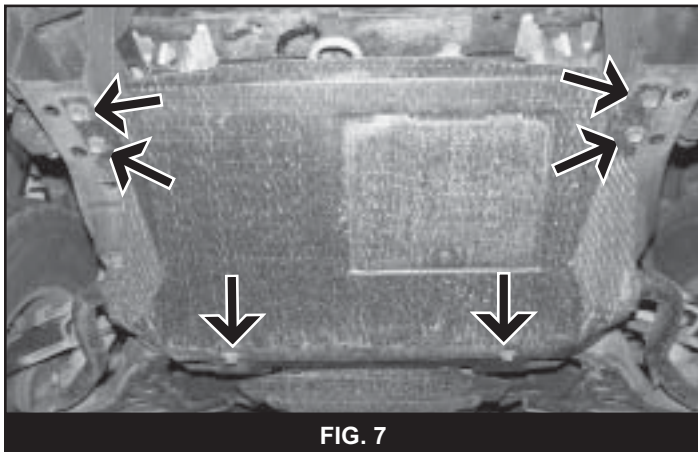
7. If equipped, remove the two bolts mounting each of the tow hooks in the frame rails and remove the tow hooks from the vehicle (Fig 5).



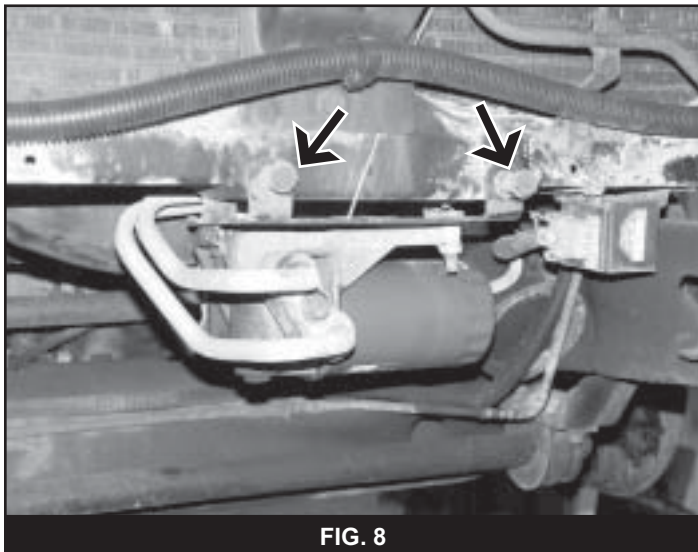
8. Remove the lower and upper plastic air scoops (Fig 6) from the core support by carefully releasing the plastic push in fasteners.



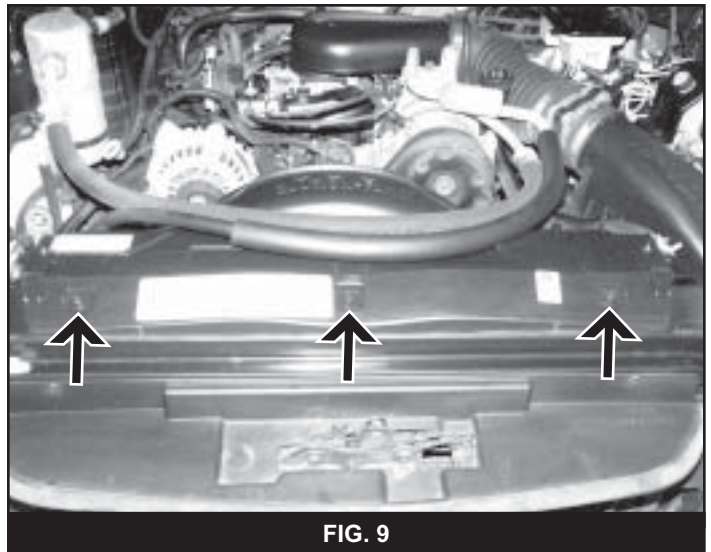
9. Remove the six bolts and the front skid plate from the vehicle (Fig 7).



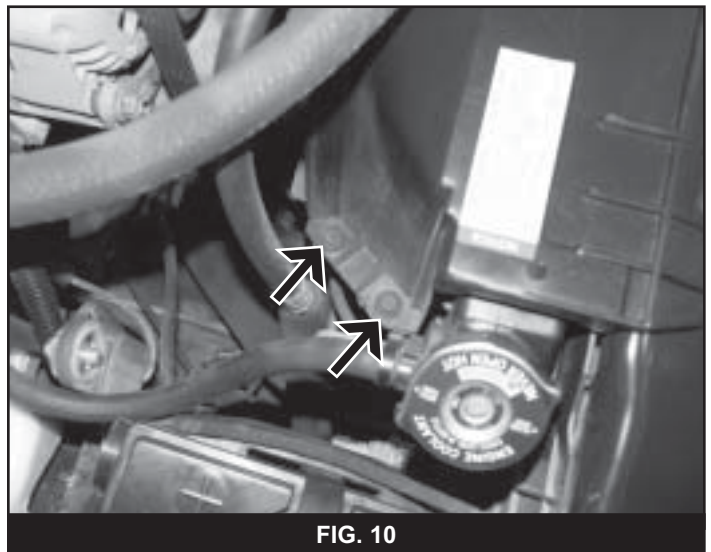
10. **V6 Only:** Disconnect the oil filter mounting bracket from the frame by removing the two shoulder bolts (Fig 8).



11. If equipped, remove the AC line from the plastic hose clip on the upper fan shroud (Fig 9).



12. **I-4 Only:** Remove the two clamps connecting the two flexible air duct hoses to the plastic air duct at the top of the radiator. Remove the duct from the radiator by carefully pulling straight up.
13. Remove the breather line from the plastic retaining clip on the driver's side of the fan shroud.
14. Remove the seven bolts mounting the upper fan shroud to the core support and lower fan shroud (Fig 9, 10). Remove the upper fan shroud from the vehicle.



15. Pull the lower fan shroud free from the lower retaining clips and let it rest on the frame rails. Note: A flat head screw driver may be required to release the lower fan shroud retaining clips.
16. Remove the large wiring harness running along the firewall from the retaining clip at the middle of the engine compartment (Fig 11).

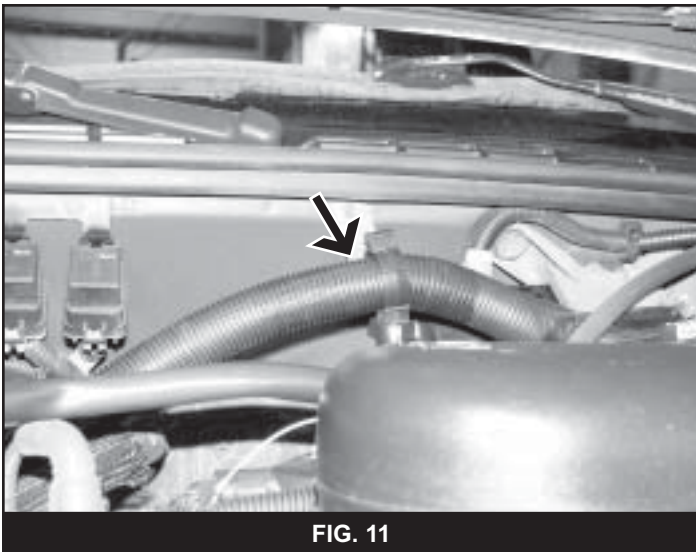


FIG. 11

17. **V6 Only:** Remove the heater hoses from the retaining clip on the passenger's side of the engine.
18. Remove the four screws mounting the air filter housing cover and remove the cover. Remove the intake hose from the throttle body and allow the intake hose assembly to rest on the engine during lifting.
19. **94 Models Only:** (BDS steering extension kit #9907 required) Lock the steering wheel. Locate the section of the steering shaft in the engine compartment where the upper and lower sections of the shaft are bolted together. Make an indexing mark on the both parts of the shaft for realignment. Disconnect the two parts of the shaft.
20. **Automatic Transmissions Only:** Loosen the bolt retaining the shift rod to the transmission linkage. Remove the shift rod from the linkage. Note: For column shift automatics only. If equipped with a console mounted shift lever no modifications are necessary.
21. **4wd only:** Remove the battery retaining clamp and remove the battery from the vehicle.
22. 4wd only: Remove the two bolts mounting the battery tray to the core support and remove the battery tray from the vehicle (Fig 12).

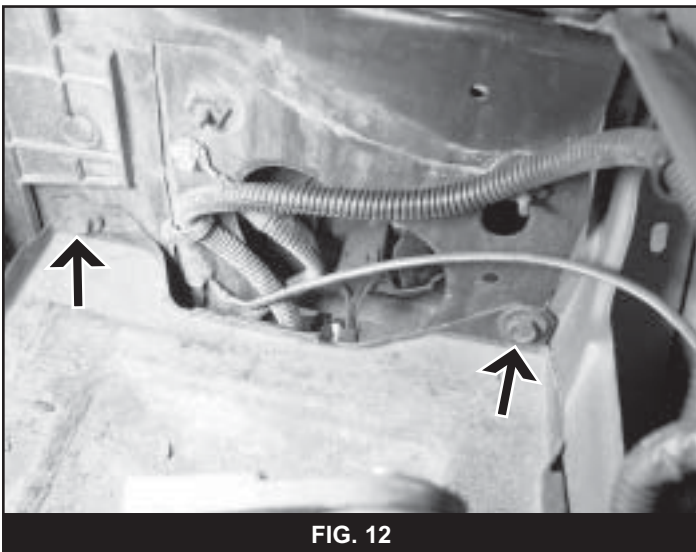


FIG. 12

23. **4wd only:** Remove the two bolts mounting the front axle actuator to the passenger's side inner fender. The bolts are accessed from inside the wheel well (Fig 13).

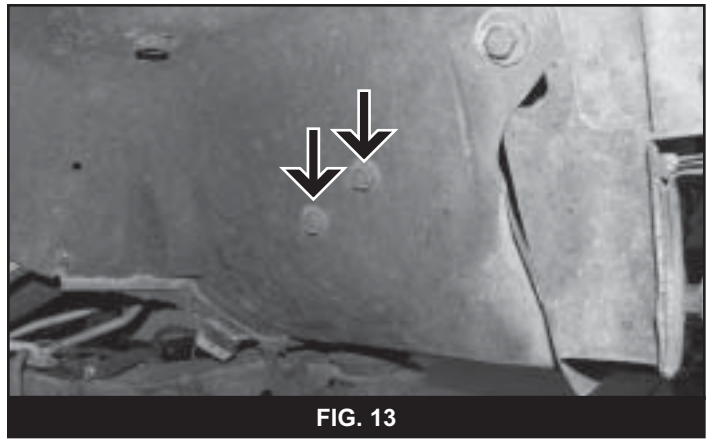


FIG. 13

## UNDER BODY/FRAE RAILS

24. Remove the bolt mounting the ground strap(s) to the passenger's side frame rail (Fig 14).

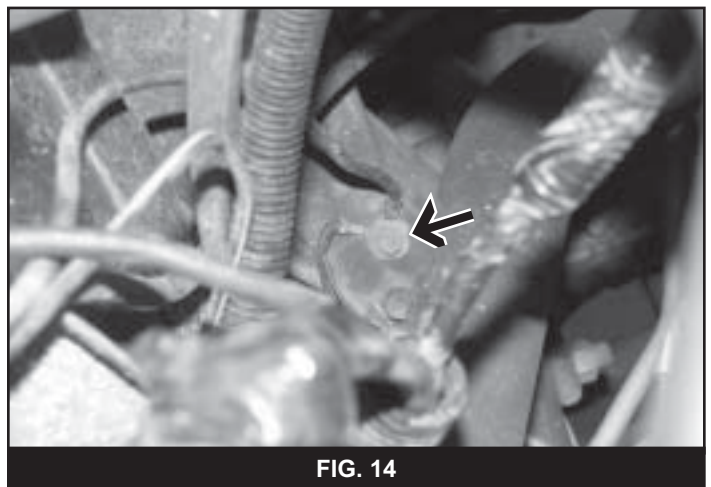


FIG. 14

25. Remove the bolt mounting the axle actuator cable clamp to the passenger's side frame rail (Fig 15).

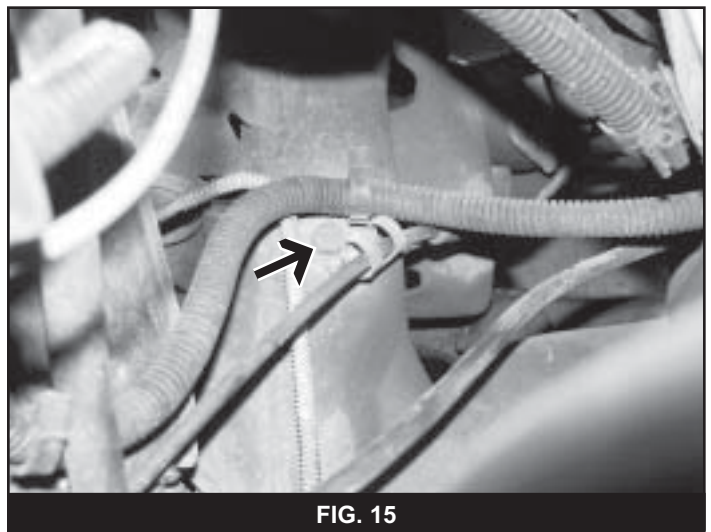


FIG. 15

26. Remove the wire harnesses from the plastic clips on the passenger's side frame rail (Fig 16).

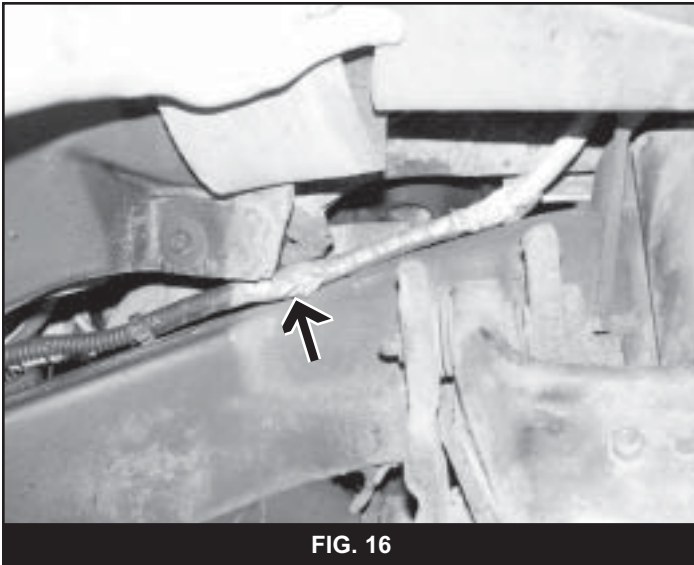


FIG. 16

27. Remove the bolt/clip mounting the oil cooler lines to the passenger's side of the engine oil pan (Fig 17). Remove the lines from the pan.

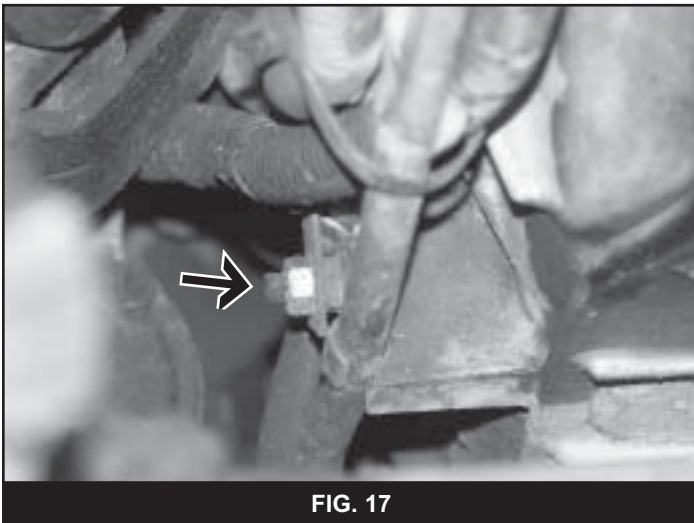


FIG. 17

28. Remove the bolt mounting the brake lines to the driver's side shock mount (Fig 18).

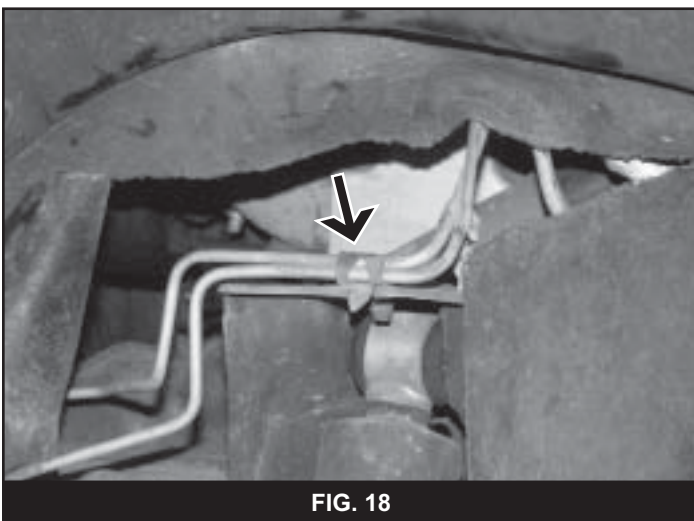


FIG. 18

29. Remove the brake line from the plastic retaining clip on the driver's side frame rail (Fig 19).

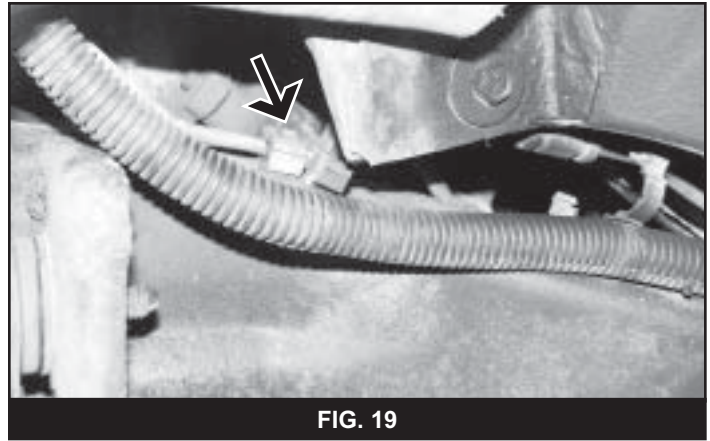


FIG. 19

30. Remove the wire harness from the plastic retaining clip on the driver's side frame rail (Fig 20).

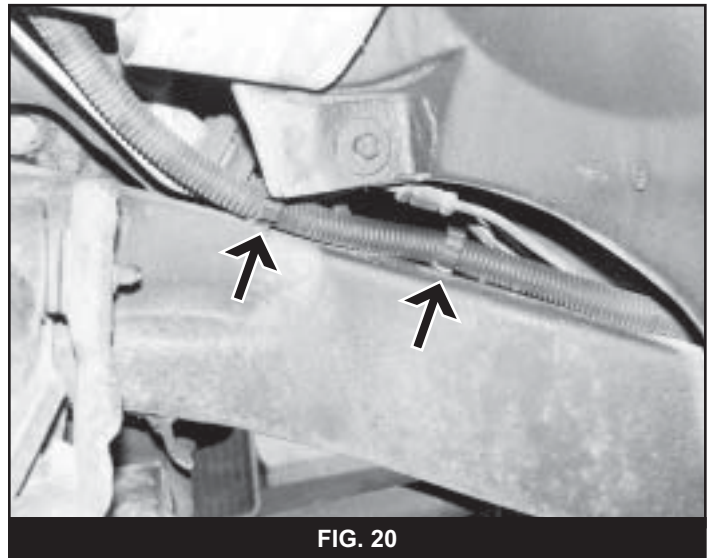


FIG. 20

## REAR/REAR BUMPER

31. Remove the fuel filler cap to access the three screws mounting the filler neck to the plastic body shroud (Fig 21). Remove the three screws to allow the filler neck to fall through the shroud while lifting the bed.

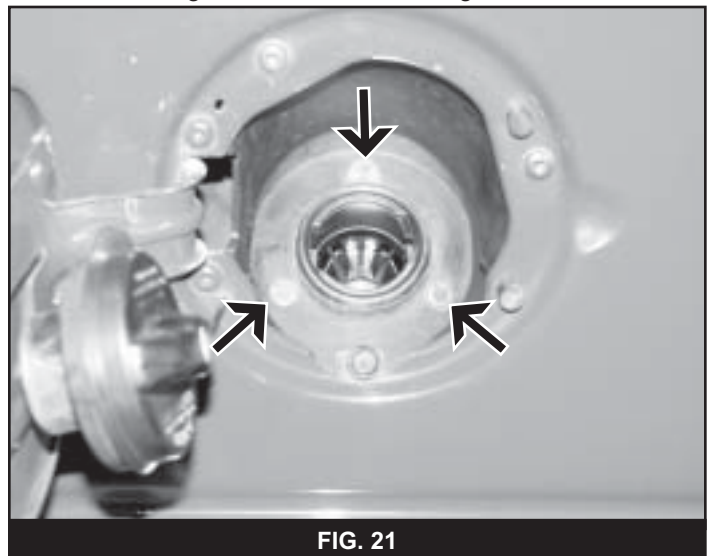


FIG. 21

32. Lower the spare tire from under the bed and remove it from the vehicle. Refer to manufacturer's spare tire removal instructions. Remove the crank rod from the

spare tire winch by removing the hitch pin clip and sliding the rod off the winch, out of the body and remove from the vehicle (Fig 22).

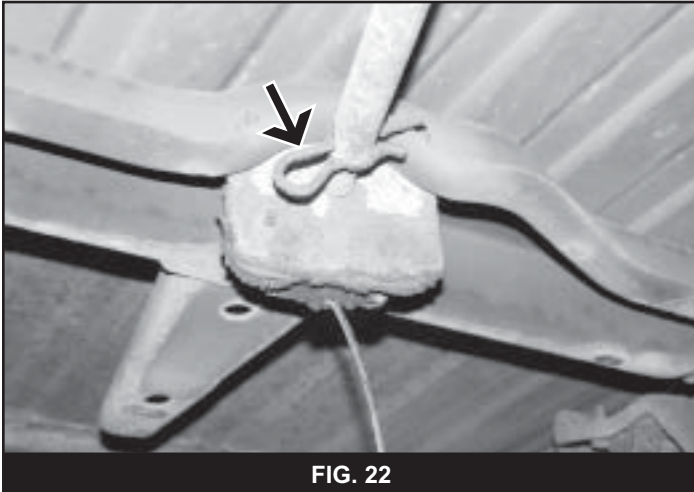


FIG. 22

33. Disconnect the license plates lights from the rear bumper (Fig 23).

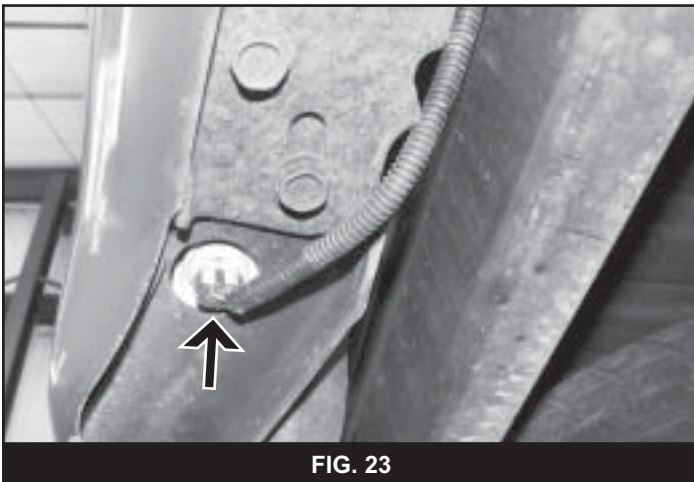


FIG. 23

34. Remove the six bolts (three per side) mounting the rear bumper to the frame and remove the bumper from the vehicle (Fig 24).

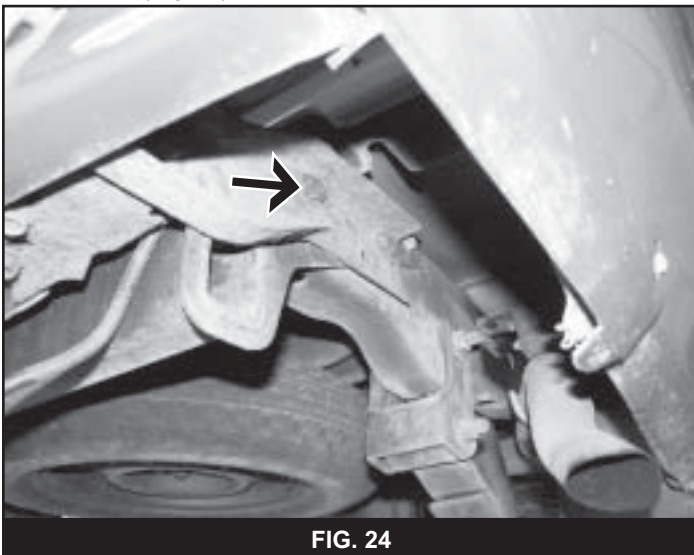


FIG. 24

## LIFT

35. Do a thorough visual check of all wires, hoses, etc to ensure that everything has adequate slack for 2" of lift.
36. Loosen but do not remove all of the body mount bolts. The bolts are located in the following locations: At the front core support (bolt from top down), under the front floorboard, behind the front seats, and at the rear of the cab (extended and crew cabs).
37. Remove the passenger's side mounting bolts. Using a hydraulic jack and block of wood, slowly lift the passenger's side of the cab high enough to place the 2" tall x 3" wide spacers on the frame body mounts. While lifting, continue to watch for hoses, wires, etc that may be overextending.
38. Install 12mm x 140mm bolts and 7/16" USS washer in conjunction with the OE washer and bushings in the main cab mounts. Install a 12mm x 140mm bolt with large 1/2" washer in the front core support mount from the top down and fasten with the OE bushing, washer, and nut (Fig 25). Leave all hardware loose at this time.

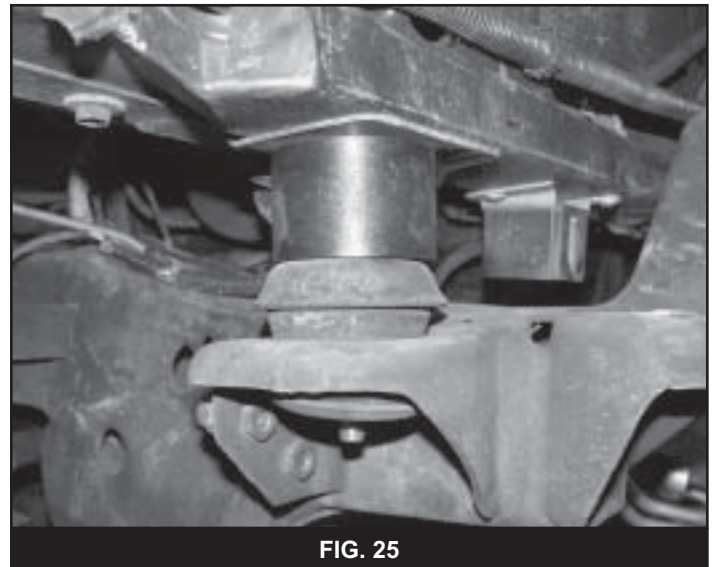


FIG. 25

39. Repeat lift procedure on driver's side of the vehicle.
40. Adjust the cab-to-bed distance using the measurements made at the beginning of the installation and tighten all mounting bolts securely. Use Loctite® on all mounting hardware.
41. Loosen but do not remove the eight bed mount bolts.
42. Remove the passenger's side mounting bolts. Using a hydraulic jack and block of wood, slowly lift the passenger's side of the bed high enough to place the spacers on the frame mounts. 2"x2" spacers go on the front three mounts and a 2"x3" goes on the rear mount. While lifting, continue to watch for hoses, wires, etc that may be overextending.
43. Install 10mm x 80mm bolts and 3/8" USS washers at the bed mounting points. Do not tighten at this time.
44. Repeat lift procedure on driver's side, taking care that the fuel filler neck falls through the plastic body shroud.
45. Adjust the bed-to-cab distance using the measurements made at the beginning of the installation and tighten all mounting bolts securely. Use Loctite® on all mounting hardware.
46. Remove the plastic disks from the frame rails where the bed originally rested on the frame. Install the provided overload spacers at these points and fasten them to the

frame rail with 5/16" x 1" self-tapping bolts in the existing holes in the frame (Fig 26). Note: Some vehicles only require two overload spacers.

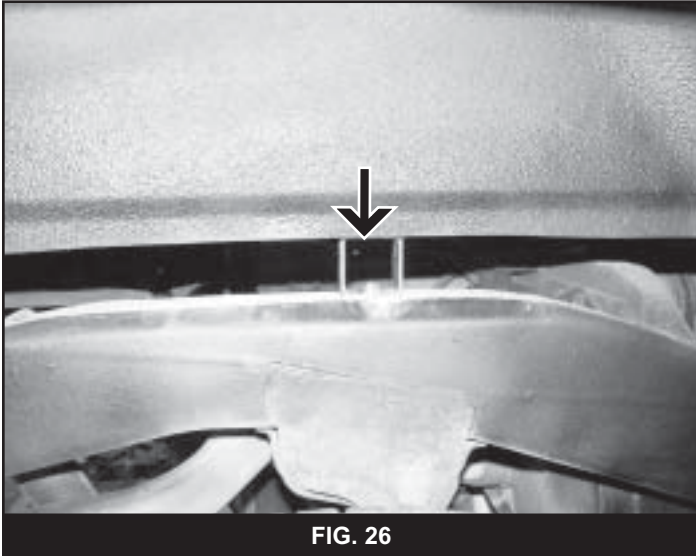


FIG. 26

hole for the spare tire crank. Measure from the right edge of the new hole 1-1/2" and 2-1/2" and mark. Drill 5/16" holes at these points.

54. Reattach the spare tire winch crank rod with the OE hitch pin. Install the rod so that it is under the rear frame crossmember (some short bed vehicles will not have this crossmember). Slide the provided crank rod bracket on the crank rod and align the two mounting holes in the bracket with the two 5/16" holes drilled in the bumper. Attach the bracket with two 1/4" x 3/4" bolts, nuts and 1/4" USS washers.
55. Reinstall the spare tire. Reinstall the license plate. Note: The license plate will now have to be removed to access the spare tire. Be sure to have the appropriate tools available in your vehicle at all times to remove the license plate.
56. Remove the bolt retaining the fuel filler ground wire to the frame (Fig 28). Loosen the hose clamps retaining the fuel filler and vent hoses to the filler neck and the fuel tank. Remove the hoses from the fuel tank and the filler neck. Note: The rubber hoses can be cut length-wise to aid in ease of removal.

## REAR/REAR BUMPER

47. Remove the four bolts (two on a side) and the rear bumper bracket assemblies from the rear bumper (Fig 27).

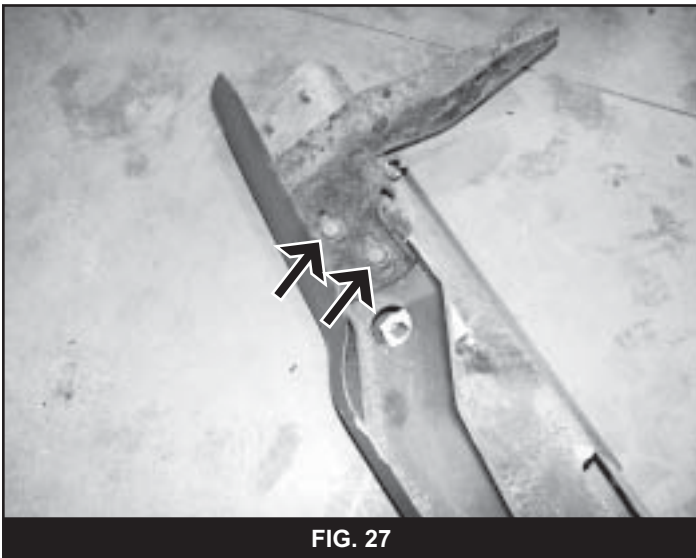


FIG. 27

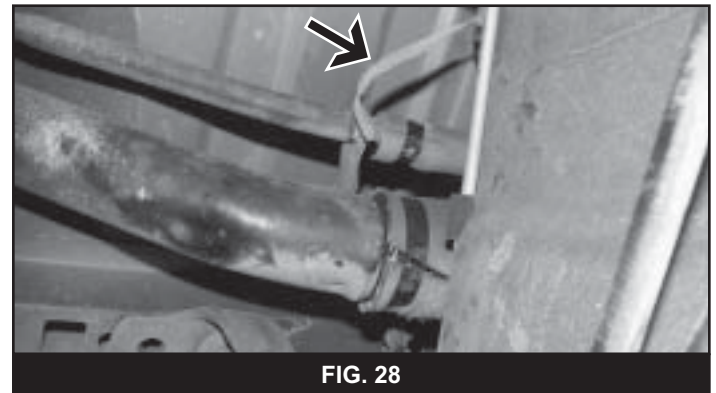


FIG. 28

48. Remove the two bolts that mount the outer bumper bracket to the inner bracket. The bracket that attached to the frame will be replaced with the new BDS bracket.
49. Line up the holes in the new bracket to the ones in the OE inner bracket and fasten with the stock hardware. Tighten hardware securely.
50. Loosely install the bracket assembly to the bumper in the original location with the stock hardware.
51. Install the bumper on the vehicle by lining up the three holes in the new brackets with the original mounting holes on the frame and fasten with the stock hardware. Leave hardware loose.
52. Adjust the bumper to the correct position using the measurements taken earlier and tighten all bumper hardware securely.
53. Measure over to the left from the left license plate mounting screw 3-3/4" and down from the top of the bumper 2" and mark the point. Drill a 7/8" hole at this point (a Unibit works well for this). This is the new access

57. Outside of the vehicle, install the new filler and vent hoses provided on the filler neck. Use silicone spray lubricant to aid in installation. Fasten the hoses with the provided hose clamps.
58. Install the filler neck assembly in the vehicle and attach the filler and vent hose to the fuel tank with the provided hose clamps (Fig 29).

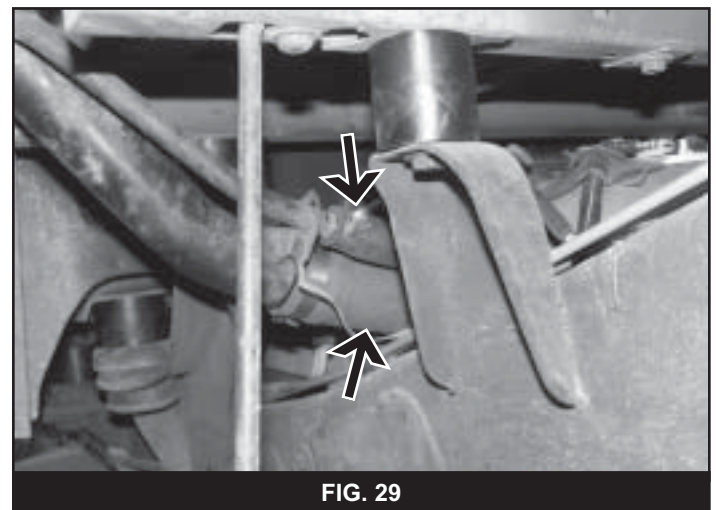


FIG. 29

59. Attach the filler neck to the body shroud with the OE screws. Attach the ground wire to the frame with the OE bolt. Install the filler cap. Tighten all hose clamps securely.

## UNDER BODY/FRAME RAILS

60. Install the short end of the provided L-shaped ground strap relocation to the passenger's side frame rail with the OE bolt (Fig 30). Attach the ground strap(s) to the bracket with a 1/4" x 3/4" bolt, nut and two 1/4" USS washers.

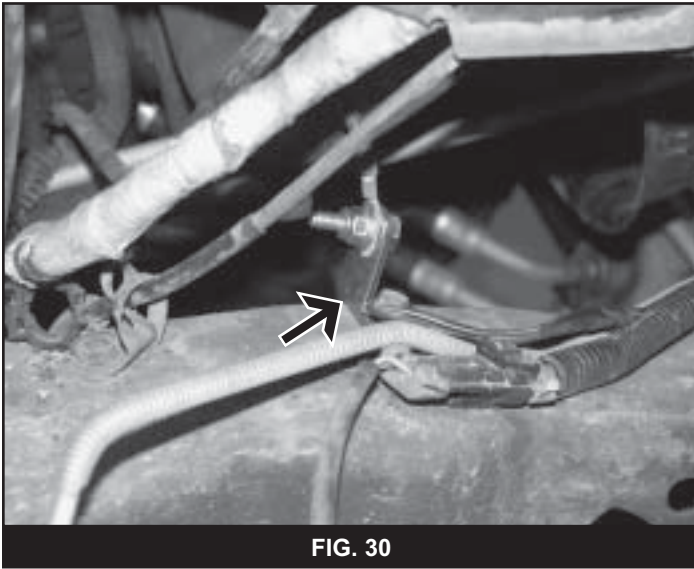


FIG. 30

61. Check all brake lines, wire harnesses, etc. to see that they are not rubbing on any abrasive surfaces. Reconnect them to the OE locations where possible. Use provided zip ties to secure lines where needed.

## FRONT/UNDER HOOD

62. 4wd only: NOTE: This modification is only necessary if the actuator will not bolt up to the original mounting holes as a result of the body lift. Measure and mark 1/2" to the inside of the positive battery cable terminal box bracket mounting holes on the passenger's side core support (Fig 31). Drill a 1/8" hole at each of the marks.

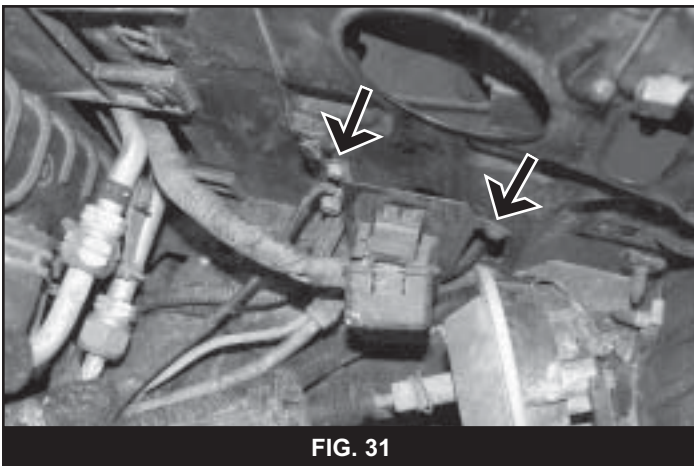


FIG. 31

63. **4wd only:** Mount the terminal box bracket to the new holes with the OE mounting screws.
64. **4wd only:** Measure and mark 1/2" to the inside of the axle actuator mounting holes on the inner fender (Fig 13). Drill a 3/8" hole at each mark.
65. **4wd only:** Mount the axle actuator to the inner fender using the new holes and the OE mounting bolts.
66. **4wd only:** Install the battery tray to the original mounting holes using the original mounting bolts.
67. **4wd only:** Install the battery on the battery tray and secure with the OE retaining bracket. Do not attach the

battery cables at this time.

68. Reattach the actuator cable to the passenger's side frame rail with the OE clamp and bolt.
69. **V6 Only:** Adjust and reattach the heater hose retaining clip to the mounting bracket on the passenger's side of the engine.
70. **94 Models Only:** Install the steering extension into the lower section of the steering shaft. Install a 3/8" x 1-1/2" bolt, nut and 3/8" SAE washers through the steering column and extension. Connect the upper section of the shaft to the steering extension and retain with the stock hardware. Torque hardware to 30 ft-lbs.
71. **Automatic Transmissions Only:** Reinstall the linkage to the transmission shift linkage. The linkage must be adjusted to compensate the lift. Check the shift indicator for the proper shift linkage adjustment.
72. **Manual Transmissions Only:** Check shifter operation for full engagement in all gears. If lever will not engage in all gears do the following: Remove the shift knob and shift boot. Remove the console retaining screws and console from the vehicle. Remove the foam pad positioned between the floorboard and the transmission. Check engagement. It may be necessary to bend the shift lever or trim the floorboard for clearance. If heating and bending the lever first remove the lever from the transmission. Heat and bend just above where the lever mounts in the transmission. Bend the lever in the forward-right direction. Reinstall, check operation and reinstall manual shift components and console.
73. Remove the four nut clips from the lower radiator fan shroud (Fig 32).

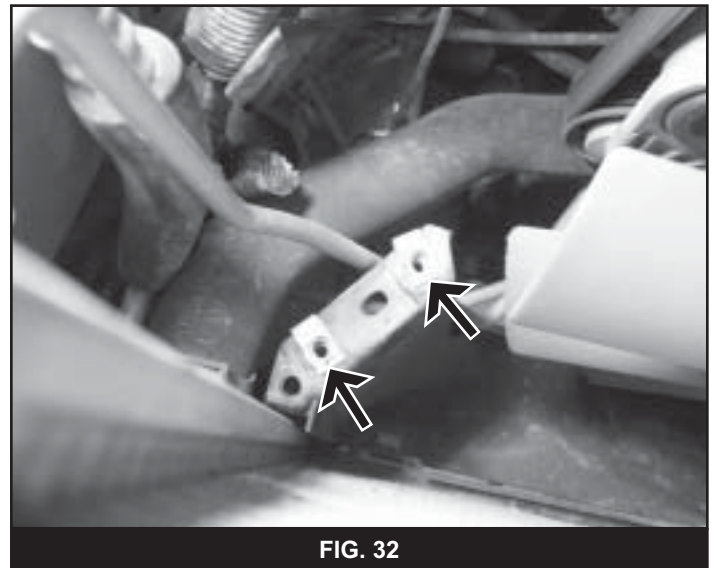


FIG. 32

74. Install the upper fan shroud in the vehicle and attach it to the core support with three OE bolts (Fig 9).
75. Attach the lower fan shroud to the upper fan shroud with four spacers, four 3/8" x 3-1/2" bolts, nuts, and sixteen 3/8" USS washers. The washers mount on both sides of the shroud flange to "sandwich" the plastic (Fig 33).

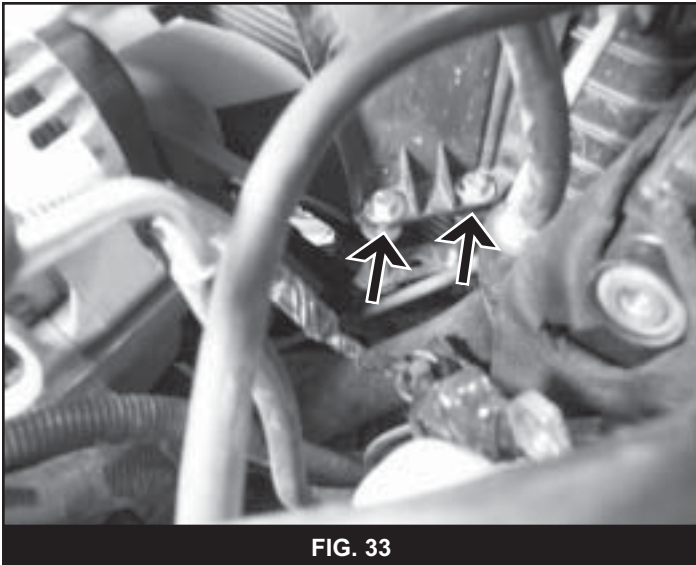


FIG. 33

76. Reattach the air box cover to the air box. Reattach the intake hose to the throttle body.
77. Locate the lower fan shroud bracket in the center shroud clip and against the lower surface of the core support. Using the bracket as a template, mark the mounting hole on the core support. Drill a 1/8" hole at the mark (Fig 34). Mount the shroud bracket to the core support with a #12 x 3/4" sheet metal screw.

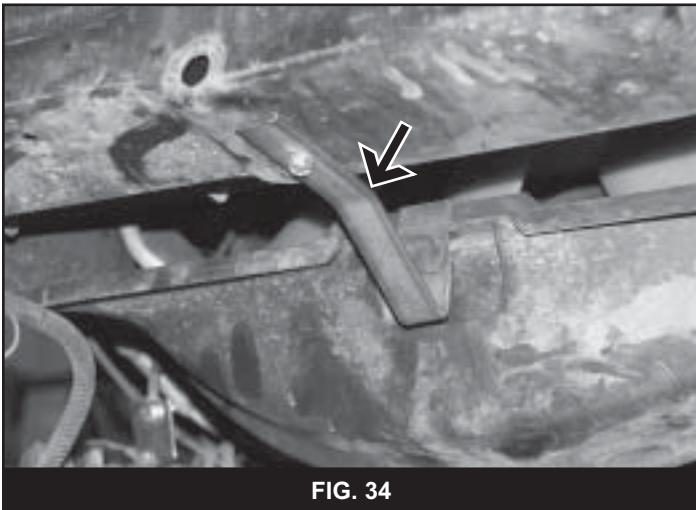


FIG. 34

78. **I-4 Only:** Reinstall the air duct to the top of the radiator. Connect the flexible ducts and tighten the clamps.
79. **V6 Only:** Install the oil filter relocation brackets to the original mounting holes in the core support with the provided 3/8" x 4" bolts, 1/2" x 2.970" sleeves, nuts and 3/8" USS washers. The front bracket is flat and the rear bracket should bend forward with the notch to the passenger's side of the vehicle fitting over the new radiator shroud bracket (Fig 35). The lower holes will be offset to the driver's side. Leave bolts loose.

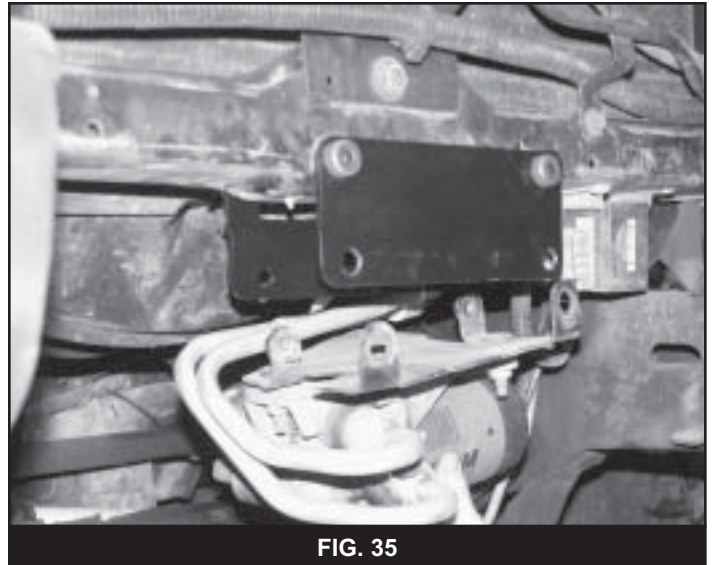


FIG. 35

80. **V6 Only:** Attach the OE filter bracket to the relocation brackets with the OE shoulder bolts. Tighten the four bolts securely.
81. Install the front plastic air scoop to the core support in the original location using the OE plastic fasteners. The lower plastic scoop will not be reused because of interference with the bumper in its new position.
82. Set four 2" x 2" body blocks on the four front bumper mounting points (Fig 36). Set the front bumper up to the mounts and mark where the front valance needs to be trimmed to clear the frame. The valance may not require trimming in some cases (Fig 37).

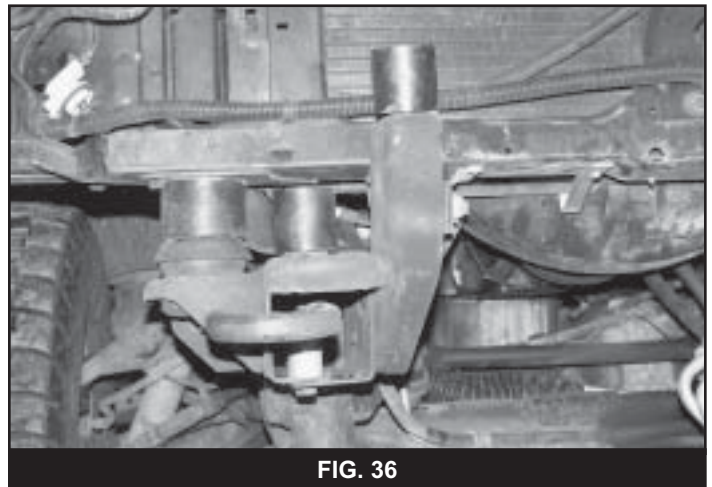


FIG. 36

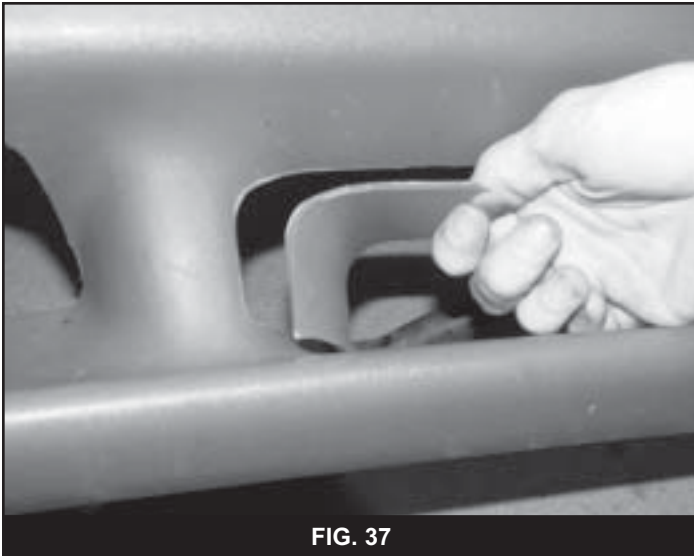


FIG. 37

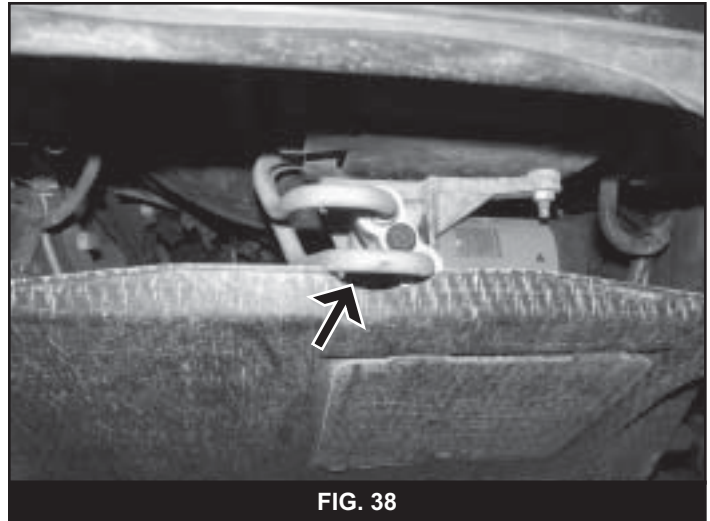


FIG. 38

83. After the bumper is properly trimmed, mount the bumper to the spacers and the frame with 10mm x 80mm bolts and 3/8" USS washer through the bumper, spacers and thread into the original nut tabs on the frame. Leave hardware loose.
84. Install the side bumper brackets to the bumper using the OE bolts. Leave bolts loose.
85. Install the brackets to the frame with the OE bolts in the original frame mounting holes. Leave hardware loose.
86. Adjust the bumper using the measurements made at the beginning of the installation and tighten all the mounting hardware starting with the four main mounts in front. Reconnect the bumper turn signal lights.
87. Install the grill by first reattaching the turn signal lights. Align the retain clips in the core support holes and carefully push the grill into place. Install the six OE retaining screws in the original locations.
88. If equipped, install the tow hook spacer block in the frame rail and line up the holes with the original tow hook mounting holes.
89. Apply Loctite to the threads of four 10mm x 70mm class 10.9 bolts. Insert the tow hook in the frame rail and line up the holes with the spacer and frame. Install the 10mm x 70mm bolts with 3/8" USS washers through the frame, spacer and into the threaded tow hook mounting holes. Tighten the bolts securely. Note: The hooks can be swapped side to side and inverted so the hook offset bend goes up, providing more clearance between the hook and the bumper valance.
90. Install the front skid plate in the original location with the six OE mounting bolts. Note: In some cases the skid plate may need to be trimmed slightly for oil line clearance as a result of lowering the oil filter location (Fig 38).

91. Check all fasteners for proper torque.
92. Adjust headlights.
93. Check hardware after 500 miles.

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**ZR-2 Models Only:** On some ZR-2 models the steering column angle may be too steep after the body is lifted, resulting in steering bind. After the lift is completed, take the vehicle for a slow test drive and turn the steering wheel through its full range. If any steering bind is detected, follow the instructions below to correct the angle.

1. Remove the negative battery cable, then the positive battery cable. This is necessary to ensure that the air bag does not deploy while working around the steering column.
2. Remove the lower plastic dash panel from under the steering column.
3. Four studs mount the steering column to the underside of the dash. Locate the two vertical studs near the instrument panel and the two horizontal studs near the firewall. Remove the four retaining nuts and lower the steering column to the floor. Do not disconnect any wire harnesses. Do not disconnect the steering column from the steering shaft.
4. The flange holes that mount to the horizontal studs near the firewall need to be elongated for adjustment. Using a hand file or power grinding tool, oblong the holes up to the edge of the mark that was left by the washer.
5. Reattach the steering column to the dash with the OE nuts. Before the hardware is tightened, pull down on the column so that the horizontal studs are at the top of the newly slotted holes. Tighten the nuts securely.
6. Check that the steering shaft boot at the firewall is in its proper location.
7. Reconnect the positive then negative battery cables.