



## #C9201 Installation Instructions 1998-2004 S-Series, 2/4wd, ZR-2 2" Body Lift

### **Read and understand all instructions and warnings prior to installation of product and operation of vehicle.**

Zone Offroad Products 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. Minimum tool requirements include the following: Assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands. See the "Special Tools Required" section for additional tools needed to complete this installation properly and safely.

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#### » **PRODUCT SAFETY WARNING**

Certain Zone 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. Zone Offroad Products 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.

#### **Difficulty Level**

easy 1 2 **3** 4 5 difficult

Estimated installation: 6-8 hours

#### **Special Tools Required**

None

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#### » **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. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
7. Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.

## Kit Contents

**\*Important\* Verify you have all of the kit components before beginning installation.**

Qty	Part	
3296	10	2" x 3" Body Lift Block
2296	10	2" x 2" Body Lift Block
231	1	Bolt Pack
232	1	Bolt Pack
01642	1	Ground Strap Relocation Bracket
01602	1	Ground Strap Relocation Bracket
01633	4	Fan Shroud Spacer Tubes
01721	1	Rear Bumper Bracket (pass)
01732	1	Rear Bumper Bracket (drv)
01719	1	Lower Fan Shroud Support
	1	Fuel Filler Hose 2" x 6"
400406	1	Vent Hose 3/4" x 6"
01724	4	Overload Spacers
01720	2	Outside Bumper Brackets
01723	1	Front Oil Filter Bracket
01722	1	Rear Oil Filter Bracket
01731	2	Tow Hook Spacer
01746	2	0.500x0.058x2.970 Sleeve
099000	6	Zip Ties
241	2	#12 Hose Clamp
244	2	#36 Hose Clamp
342701	1	Loctite

### » 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

### » BOLT PACK 232

Qty	Description
1	1/4"-20 x 3/4" bolt
2	1/4"-20 prevailing torque nut
3	1/4" USS flat washer
4	10mm-1.50 x 80mm bolt
4	10mm-1.50 x 70mm bolt
4	7/16" USS flat washer
4	12mm-1.75 prevailing torque nut
2	3/8"-16 x 4" bolt
2	3/8"-16 x 1" bolt
32	3/8" USS flat washer
4	3/8"-16 x 3-1/2" bolt
8	3/8"-16 prevailing torque nut
4	5/16"-18 x 1" self-tapping bolt
1	#12 x 3/4" sheet metal screw
1	1" ID wire eye bolt
1	1/2"-13 prevailing torque nut
2	1/2" SAE flat washer

## Torque Specifications

Fastener (ft-lbs)	Max. Torque
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



## 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 airbags 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 pulling the ten retaining clips free from the core support. Remove the turn signal lamps from the signal housings. If equipped, remove the two wire harness connectors from the running lights and remove the grill from the vehicle **Figure 1**.



Figure 1

5. Remove the front bumper by removing the four bolts mounting the bumper to the frame horns **Figure 2** and two bolts (one on each side) mounting the bumper to the outside bumper brackets **Figure 3**. Remove the bumper from the vehicle. Save hardware.

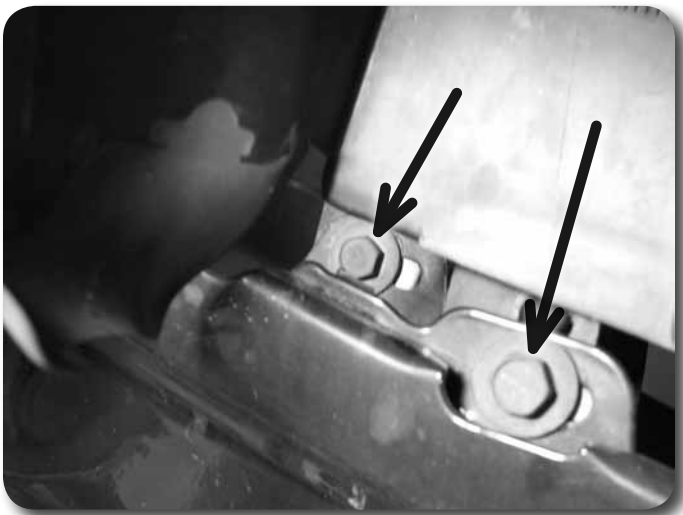


Figure 2

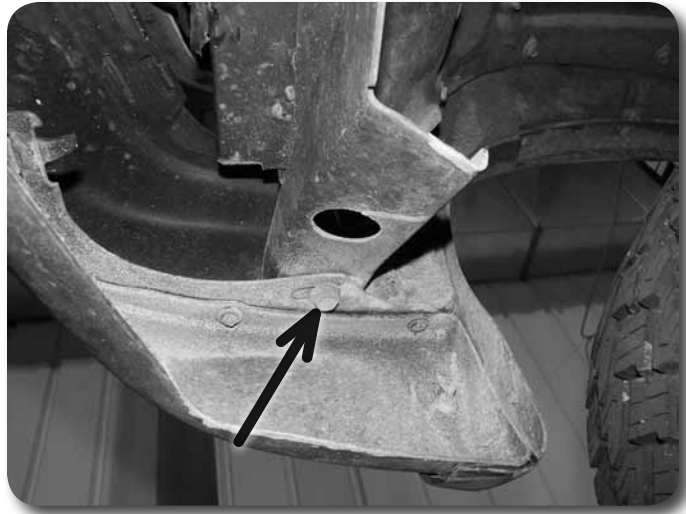


Figure 3

6. Remove the two bolts mounting each of the outside bumper brackets to the frame and remove the brackets from the vehicle Figure 4. Save hardware.

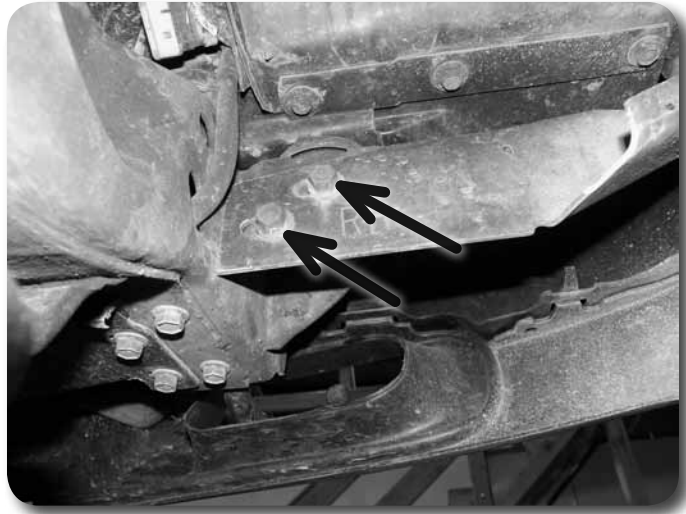


Figure 4

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 Figure 5.



Figure 5

8. Remove the plastic air scoop **Figure 6** from the core support by carefully releasing the four plastic push in fasteners. Save fasteners.

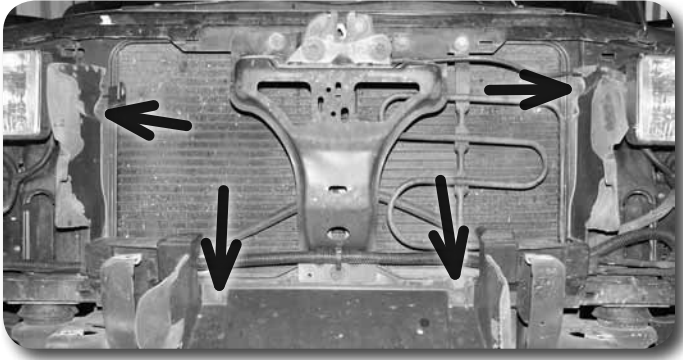


Figure 6

9. Remove the six bolts and the front skid plate from the vehicle **Figure 7**. Save hardware.

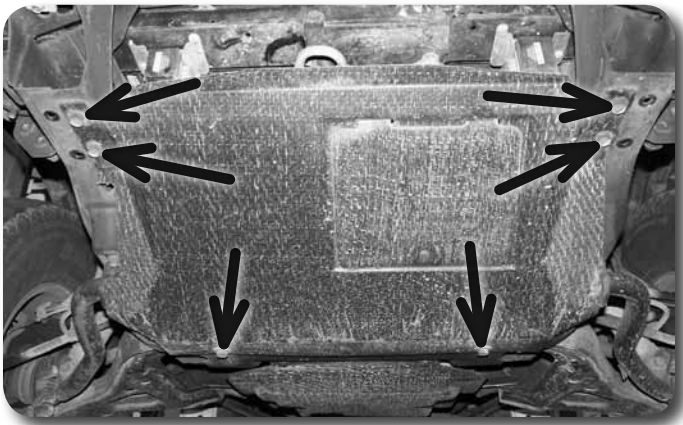


Figure 7

10. Disconnect the oil filter mounting bracket from the core support by removing the two shoulder bolts **Figure 8**. Save hardware.



Figure 8

11. If equipped, remove the AC line from the plastic hose clip on the upper fan shroud **Figure 9**.

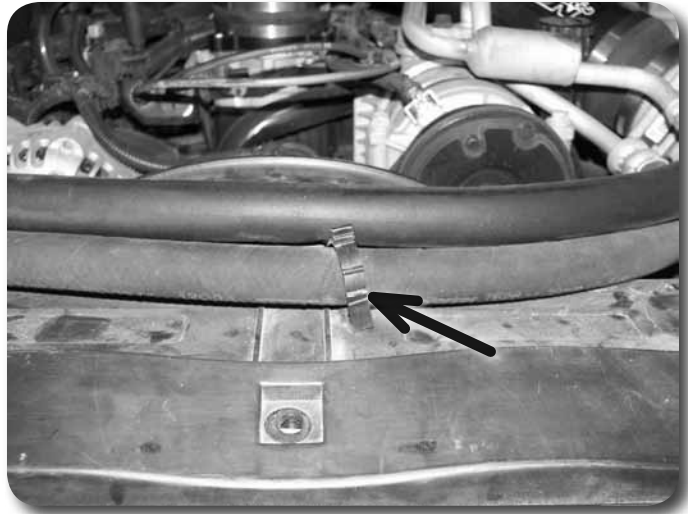


Figure 9

12. Remove the seven bolts mounting the upper fan shroud to the core support and lower fan shroud Figures 10 & 11. Remove the upper fan shroud from the vehicle. Save hardware.

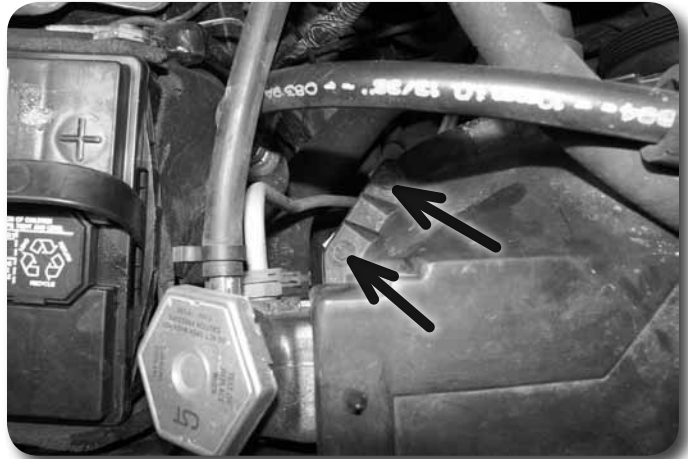


Figure 10



Figure 11

**Step 13 Note**

A flat head screw driver may be required to release the lower fan shroud retaining clips.

13. Pull the lower fan shroud free from the lower retaining clips and let it rest on the frame rails.

14. Remove the nut mounting the ground strap at the passenger's side firewall and remove the wire from the stud **Figure 12**. Save nut.



Figure 12

15. 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. Save screws.
16. 4wd only: Remove the battery retaining clamp and remove the battery from the vehicle **Figure 13**.



Figure 13

17. 4wd only: Remove the two bolts mounting the battery tray to the core support and remove the battery tray from the vehicle **Figure 14**. Save hardware.



Figure 14

18. 4wd only: Remove the two sheet metal screws and bracket mounting the positive battery cable terminal box to the core support Figure 15. Save hardware.
19. 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 Figure 15 & 16. Save hardware.



Figure 15



Figure 16



## » UNDER BODY/FRAME RAILS

20. Remove the bolt mounting the ground strap(s) to the passenger's side frame rail  
Figure 17. Save hardware.

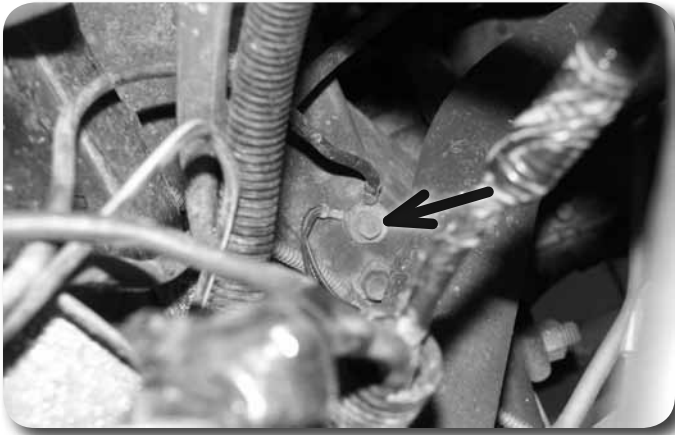


Figure 17

21. Remove the wire harness from the plastic clip on the passenger's side frame rail  
Figure 18.

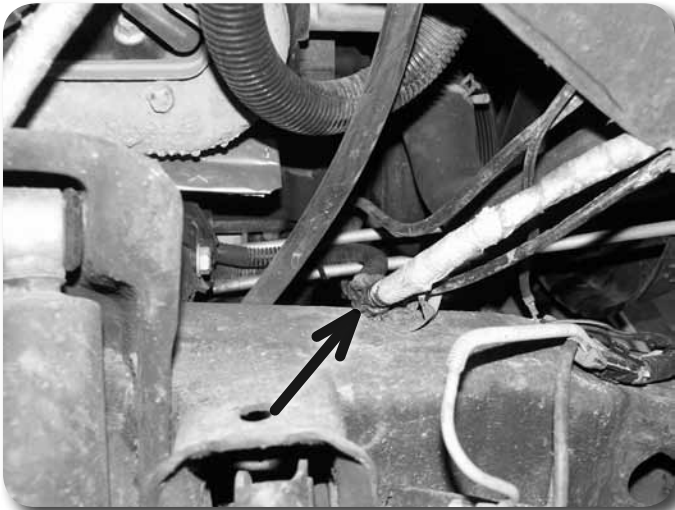


Figure 18

22. Remove the bolt/clip mounting the oil cooler lines to the passenger's side of the engine oil pan Figure 19. Remove the lines from the pan.

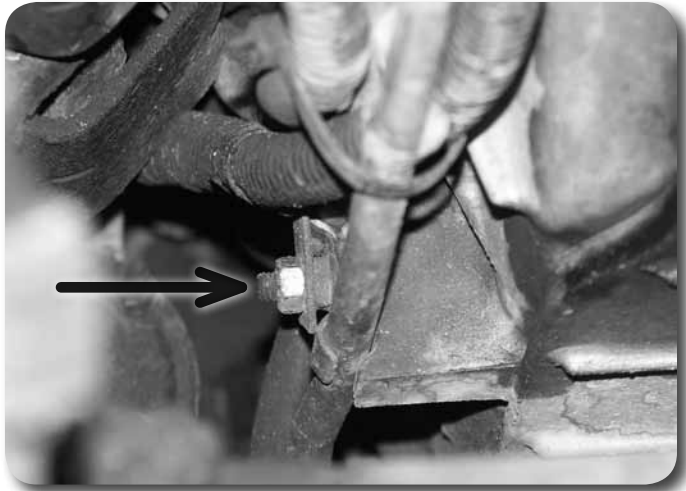


Figure 19

23. Remove the bolt mounting the brake lines to the driver's side shock mount Figure 20.



Figure 20

24. Remove the brake line from the plastic retaining clip on the driver's side frame rail Figure 21.



Figure 21

25. Remove the wire harness from the plastic retaining clip on the driver's side frame rail **Figure 22**.

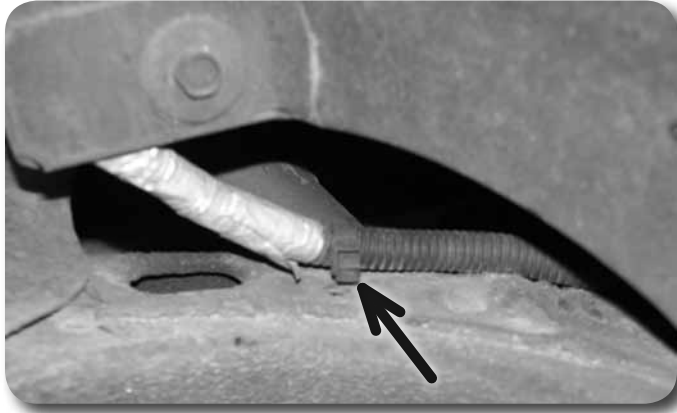


Figure 22

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» **REAR/REAR BUMPER**

26. Remove the fuel filler cap to access the three screws mounting the filler neck to the plastic body shroud **Figure 23**. Remove the three screws to allow the filler neck to fall through the shroud while lifting the bed. Save screws.

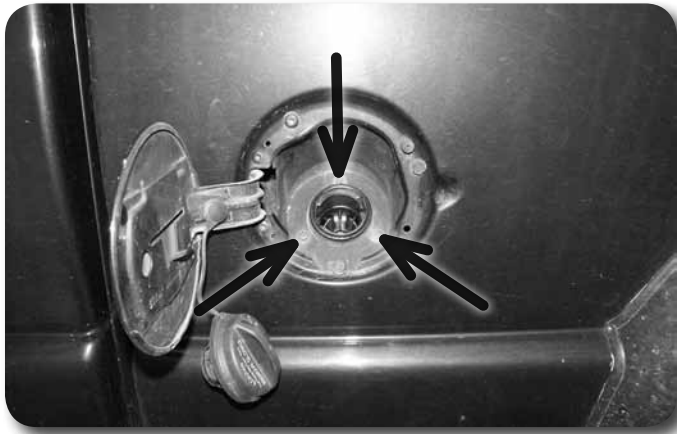


Figure 23

27. 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. Save pin and winch rod.
28. Disconnect the license plates lights from the rear bumper **Figure 24**.



Figure 24

29. Remove the six bolts (three per side) mounting the rear bumper to the frame and remove the bumper from the vehicle Figure 25. Save bolts.

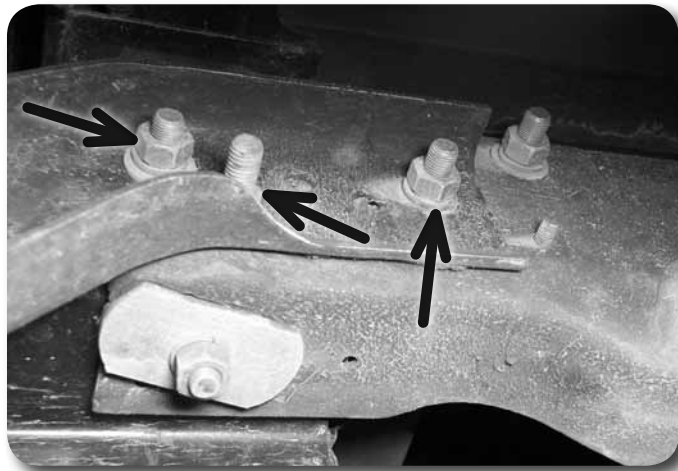


Figure 25

### » LIFT

30. Do a thorough visual check of all wires, hoses, etc to ensure that everything has adequate slack for 2" of lift.
31. 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).
32. 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.
33. Install 12mm x 140mm bolts and 7/16" USS washer in conjunction with the large factory washers 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 factory bushing, washer, and nut Figure 26. Leave all hardware loose at this time.

### Step 33 Note

All body mount hardware is located in hardware pack #231.



Figure 26

34. Repeat lift procedure on driver's side of the vehicle.
35. 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.
36. Loosen but do not remove the eight bed mount bolts. Bolts run from the bottom up.
37. 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.
38. Install 10mm x 80mm bolts and 3/8" USS washers at the bed mounting points. Do not tighten at this time.
39. Repeat lift procedure on driver's side, taking care that the fuel filler neck falls through the plastic body shroud.
40. 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.
41. Remove the plastic disks from the frame rails where the bed originally rested on the frame. Install the provided steel 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 **Figure 27**. Note: Some vehicles only require two overload spacers.

### **Step 38 Note**

All bed mount hardware is located in hardware pack #231.

### **Step 41 Note**

Some vehicles only require two overload spacers. Overload spacer hardware is located in hardware pack #232

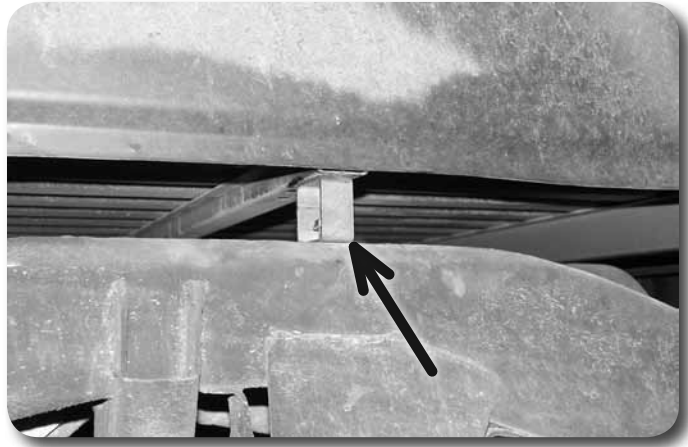


Figure 27

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### » REAR/REAR BUMPER

#### Step 42 Note

Spare tire crank hardware is located in hardware pack #232.

42. Install a 1/2" SAE washer on the provide 1/2" eye bolt and install the bolt through the hole in the cross member to the rear of the spare tire winch **Figure 28**. Fasten the bolt to the cross member with a 1/2" nut and 1/2" SAE washer but do not tighten.
43. Slide the winch crank rod through the eye bolt and install it on the spare tire winch with the stock hitch pin. Adjust the eye bolt so the crank rod runs perpendicular through the eye and tighten the nut securely **Figure 28**.



Figure 28

44. Remove the license plate from the rear bumper.
45. Remove the top plastic cover from the rear bumper by squeezing the plastic clips and pushing them out of the holes **Figure 29**.



Figure 29

46. Remove the eight bolts and the bumper brackets from the rear bumper Figure 30. Save bolts.

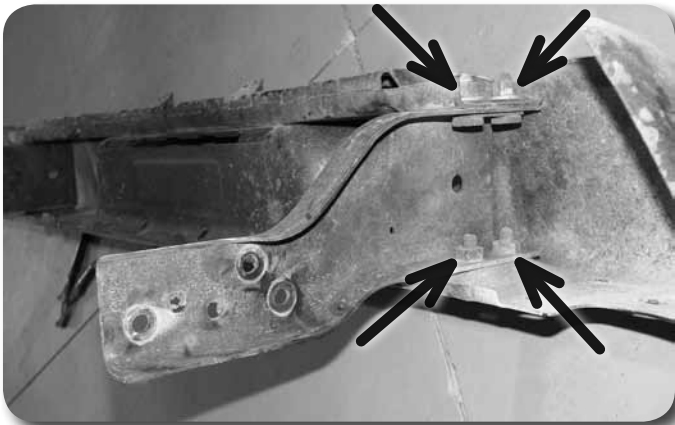


Figure 30

47. Install the new rear bumper brackets with the factory hardware and four 12mm nuts and 7/16" USS washers to replace the welded nuts on the upper factory bracket mounts Figure 31. Do not tighten at this time.



Figure 31

48. Install the bumper on the vehicle by aligning the original mounting holes with the corresponding holes in the new brackets. Fasten the bumper to the frame with the factory hardware. Do not tighten at this time.

**Step 47 Note**  
Rear bumper hardware is located in hardware pack #232.

49. Adjust the bumper-to-body distance using the measurements made at the beginning of the installation and tighten all the bumper mounting hardware securely.
50. Install the plastic bumper cover on the top of the bumper by aligning the clip holes and pushing them into place. Install the license plate lights.
51. Install the license plate with the original hardware.
52. Measure over 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 hole for the spare tire crank Figure 32.

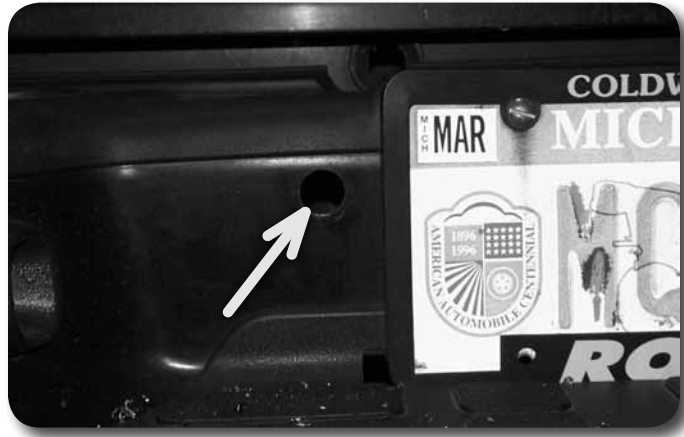


Figure 32

### Step 53 Note

The factory rubber hoses can be cut to aid removal.

53. Remove the bolt retaining the fuel filler ground wire to the frame Figure 33. 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.

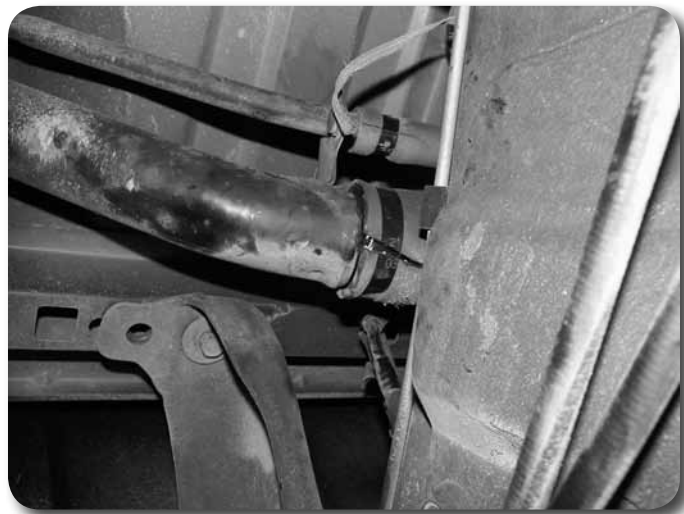


Figure 33

54. Outside of the vehicle, install the new filler and vent hoses provided on the filler neck. Use silicone spray lubricant to aid installation. Fasten the hoses with the provided hose clamps.
55. Install the filler neck assembly in the vehicle and attach the filler and vent hose to the fuel tank with the provided hose clamps Figure 34.



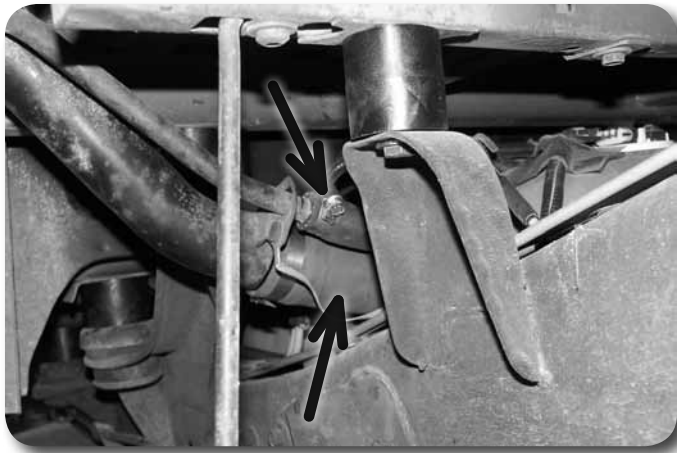


Figure 34

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

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### » UNDER BODY/FRAME RAILS

57. Install the short end of the provided L-shaped ground strap relocation to the passenger's side frame rail with the factory bolt **Figure 35**. Attach the ground strap(s) to the bracket with a  $\frac{1}{4}$ " x  $\frac{3}{4}$ " bolt, nut and two  $\frac{1}{4}$ " SAE washers.



Figure 35

58. Check all brake lines, wire harnesses, etc. to see that they are not rubbing on any abrasive surfaces. Use provided zip ties to secure lines were needed.

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### » FRONT/UNDER HOOD

59. 4wd only: Measure and mark  $\frac{1}{2}$ " to the inside of the positive battery cable terminal box bracket mounting holes on the passenger's side core support **Figure 15**. Drill a  $\frac{1}{8}$ " hole at each of the marks.
60. 4wd only: Mount the terminal box bracket to the new holes with the factory mounting screws.
61. 4wd only: Measure and mark  $\frac{1}{2}$ " to the inside of the axle actuator mounting holes on the inner fender **Figure 16**. Drill a  $\frac{3}{8}$ " hole at each mark.

#### **Step 57 Note**

Ground strap hardware is located in hardware pack #232

### Step 65 Note

Ground strap hardware is located in hardware pack #232

62. 4wd only: Mount the axle actuator to the inner fender using the new holes and the factory mounting bolts.
63. 4wd only: Install the battery tray to the original mounting holes using the original mounting bolts.
64. 4wd only: Install the battery on the battery tray and secure with the factory retaining bracket. Do not attach the battery cables at this time.
65. Install the provided ground strap extension on the ground stud at the passenger's side firewall and retain with the factory nut. Use serrated edge washer as shown to bite into the strap. Failure to do so may result in a poor ground. Attach the ground strap to the bracket stud with a 1/4" nut and 1/4" SAE washer Figure 36a 36b.



Figure 36



Figure 36b

66. Remove the four nut clips from the lower radiator fan shroud Figure 37.



Figure 37

67. Install the upper fan shroud in the vehicle and attach it to the core support with three factory bolts Figure 11.
68. Attach the lower fan shroud to the upper fan shroud with four 2" steel 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 Figure 38.

**Step 68-70 Note**

Fan shroud hardware is located in hardware pack #232



Figure 38

69. Reattach the air box cover to the air box. Reattach the intake hose to the throttle body.
70. Locate the lower fan shroud bracket in the shroud 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 Figure 39. Mount the shroud bracket to the core support with a #12 x 3/4" sheet metal screw.



Figure 39

### Step 71 Note

The rear mounting holes in the core support may need to be drilled out slightly to accept the new 3/8" hardware. Oil filter relocation hardware is located in hardware pack #232

71. 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 **Figure 40**. The lower holes will be offset to the driver's side. Leave bolts loose.



Figure 40

72. Attach the factory filter bracket to the relocation brackets with the factory shoulder bolts. Tighten the four bolts securely.
73. Install the front plastic air scoop to the core support in the original location using the factory plastic fasteners.
74. Set four 2" x 2" body blocks on the four front bumper mounting points **Figure 41**. 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.

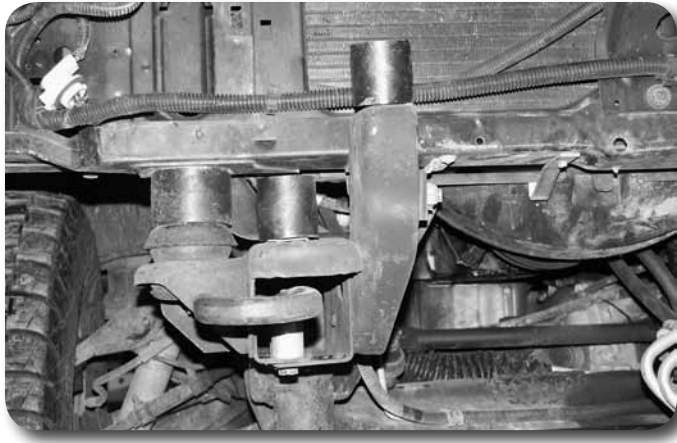


Figure 41

75. 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.
76. Install the side bumper brackets to the bumper using the factory bolts. Install the new side bumper relocation bracket to the frame through the lower factory hole. Mount the outside bumper bracket to the relocation bracket through the uppermost mounting hole with a 3/8" x 1" bolt, nut, and two 3/8" USS washers Figure 42.

### Step 75-82 Note

All front bumper/tow hook hardware is located in hardware pack #232



Figure 42

77. Mark the factory side bracket to drill a hole through to match the middle hole of the relocation bracket and outside factory mounting hole on the frame. Drill a 7/16" hole at the mark.
78. Install the brackets to the frame with the factory bolts in the lower two holes and the 3/8" hardware in the upper holes. Leave hardware loose.
79. 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.
80. Install the grill by first reattaching the turn signal and running lights. Align the retain clips in the core support holes and carefully push the grill into place.
81. If equipped, install the tow hook spacer block in the frame rail and line up the holes with the original tow hook mounting holes.

### Step 83 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. See Figure 43.

82. 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" SAE washers through the frame, spacer and into the threaded tow hook mounting holes. Tighten the bolts securely.
83. Install the front skid plate in the original location with the six factory mounting bolts. Figure 43.



Figure 43

84. Check all fasteners for proper torque.
85. Adjust headlights.
86. Check hardware after 500 miles.

### 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.

### » 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 factory 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.