

#C1354 Installation Instructions 1999-2002 Chevy/GM 1500 4wd 3.5" Combo Lift Kit

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.

>> 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.

>> TECHNICAL SUPPORT

 $\it Live\ Chat$ provides instant communication with Zone tech support. Anyone can access live chat through a link on www.zoneoffroad.com .

www.zoneoffroad.com may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to tech@zoneoffroad.com detailing your issue for a quick response.

888.998.ZONE Call to speak directly with Zone tech support.

Difficulty Level

 $1 \quad 2 \quad 3 \quad 4 \quad 5 \quad difficult$

Estimated installation: 4-5 hours

Special Tools Required

Reciprocating saw or equivalent

Torsion bar unloading tool J36202 or equivalent

Tire/Wheel Fitment

33x12.50 tire

Stock wheel backspacing

>> 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 Zone Offroad Products. Always wear safety glasses when using power tools.
- 5. Zone Offroad Products 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.

Kit Contents

Qty Part

2 Chevy Torsion Key

1 Bolt Pack - Body Mount - #273

1 Bolt Pack - Front Bumper, etc - #272

16 3" Dia x 1.5" Tall Body Block

2 2" Dia x 1.5" Tall Bumper Spacer

1 Front Bumper Bracket - drv

1 Front Bumper Bracket - pass

4 1.5" Steel Bed Spacer

2 Upper Fan Shroud Bracket

2 Lower Fan Shroud Bracket



PRE-INSTALLATION INSTRUCTIONS

- 1. Zone Offroad recommends completing the 2" Torsion Bar Key lift first, as outlined in these instructions.
- 2. An optional rear bumper bracket kits is available (Zone #C9908). If installing the bumper bracket kit, do so after the body lift portion of the installation is complete.
- 3. Optional front shocks are available (Zone #4612). These can be installed during or after the 2" Torsion Bar Key installation.

2" TORSION BAR KEYS - INSTALLATION INSTRUCTIONS

- 1. Park vehicle on clean, flat, and level surface. Block the rear wheels for safety.
- 2. Measure the ride height of the vehicle and record.
- 3. Raise the front of the vehicle with a hydraulic jack. Support the frame rails with jackstands.
- 4. Measure the length of the torsion bar adjuster bolts (top of the adjuster bolt head to adjuster)
- 5. Remove the adjuster bolts, keep driver's and pass side bolts separate.
- 6. Use the torsion bar removal tool to remove the threaded adjuster assembly. Release the pressure from torsion bar with the unloading tool. Caution: There is an extreme amount of energy stored in the torsion bars. Use extreme care with the proper tools to avoid serious injury or death.
- 7. Slide the torsion bars forward to allow the keys to be removed. It may be necessary to use an air hammer to get the bars to break free.
- 8. Apply a small amount of grease to the hex on each end of the torsion bar. Install the new torsion keys.
- 9. If replacing the factory shocks remove them and save the lower hardware. Install new shocks according to the instructions in the shock box.
- 10. Install the torsion bar adjuster assembly with torsion bar tool.
- 11. Set the overall length of the exposed thread and bolt head to the original measurement. The minimum recommended length is 3/4". This may need to be adjusted if heavy accessories are added to the front of the vehicle.
- 12. Lower the front end to the ground, bounce the front end to settle the suspension.
- 13. Tighten the lower shock hardware to 95 ft-lbs.
- 14. Check the final ride height measurement. This should not be more than 23-1/2" (25" if measuring after the body lift is installed). If it is greater than this, the adjusters need to be lowered.
- 15. A front end alignment must now be performed.

Important—measure before starting!

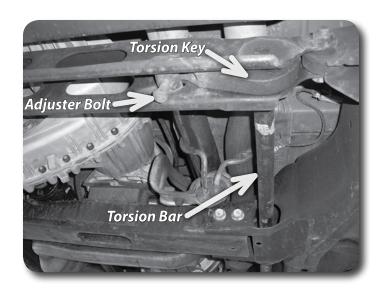
Measure from the center of the wheel up to the bottom edge of the wheel opening

| <i>LF</i> | RF | |
|-----------|----|--|
| LR | RR | |

Important—measure before starting!

Measure the exposed length of the torsion bar adjusters before starting.

Caution: There is an extreme amount of energy stored in the torsion bars. Use care with the proper tools to avoid serious injury.



1.5" BODY LIFT - INSTALLATION INSTRUCTIONS

1. Remove negative battery cable, then positive battery cable from the battery. If equipped, the Supplemental Restraint System (airbags) will be deactivated when the battery is disconnected.

>>> FRONT/UNDER HOOD

2. Remove the 7 plastic clips that mount the upper plastic core support cover to the core support Figure 1. Pull up on the center of the clip with a flat blade screw driver and then pull the clip out of the hole. Remove the cover from the vehicle. Save clips and cover.

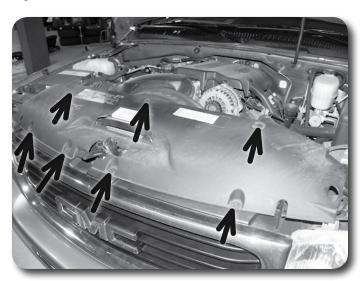


Figure 1

3. Remove the grill. Four Phillips head fasteners are located at the four corners of the grill face that require a quarter turn to release Figure 2. Remove the bolt at the top-center of the grill. Remove the grill from the vehicle by carefully pulling out the middle outside edges that are clipped in place.



Figure 2

4. Remove the 4 bolts mounting the transmission cooler to the core support Figure 3. Pull the cooler forward, free from the core support mount. Save bolts.

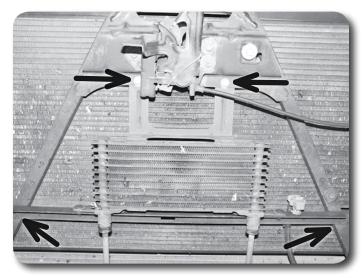


Figure 3

5. Remove the transmission cooler lines from the clips on the core support Figure 4.



Figure 4

Step 4 Note

In some earlier models the bottom clips were replaced with standard bolts.

Not all models were equipped with transmission coolers.

- 6. Remove the air intake tube from the throttle body and the air filter box by loosening the hose clamps at each point. If equipped, remove the radiator hose clip that is attached to the middle of the air intake tube. Remove the intake tube from the vehicle.
- 7. Remove the bolts (2 or 4, depending on vehicle) mounting the top of the fan shroud to the core support Figure 5. Save bolts.
- 8. Pull up on the fan shroud to remove it from the bottom retaining clips. On some models, oil lines must be removed from retaining clips on the driver's side of the lower fan shroud.
- 9. Disconnect the ground strap from the driver's side firewall Figure 6. Save nut.



Figure 5

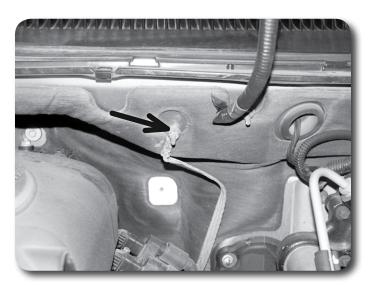


Figure 6

10. Lock the steering wheel. Locate the bolt that connects the upper steering column to the lower steering shaft Figure 7. Make a mark on each half for alignment during installation. Remove the bolt and separate the shafts by sliding the steering column up off the lower shaft. Save mounting hardware.

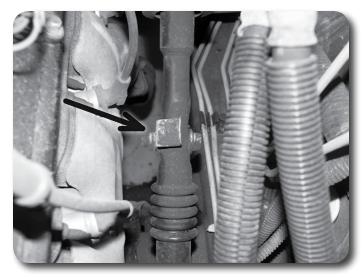


Figure 7

>>> FRONT BUMPER

- 11. If equipped, disconnect the fog light wires from the light housings mounted in the front bumper Figure 8.
- 12. Remove the bolt (on each side) mounting the outside bumper support to the bumper. Remove the bolts mounting the support to the frame and remove the support Figure 8. Save the supports and hardware.

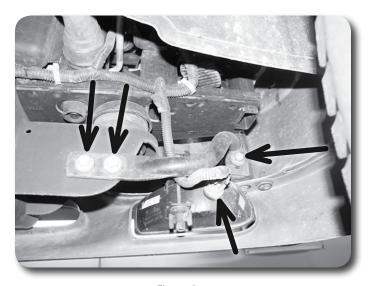


Figure 8

13. Since the grill was removed, the four inside bumper bolts (two on each side) can be accessed from above the bumper Figure 9. While supporting the bumper, remove the four bolts and separate the bumper from the vehicle. Save bumper mounting bolts.

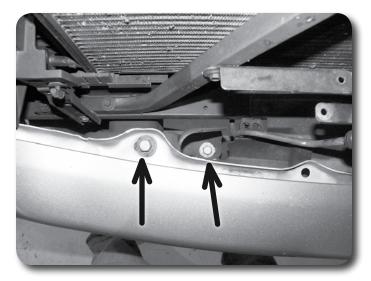


Figure 9

14. Locate the wire loom running along the bottom of the core support Figure 10.

Remove the wire loom from the retain clips (approximately 4 total) and remove the clips from the core support. The clips will not be reused. Be sure that the lower portion of the fan shroud lip is clear from the bottom edge of the core support so it is able to drop while the body is lifted. If the vehicle is equipped with a front skid plate, removing the skid plate will aid in accessing the clips.

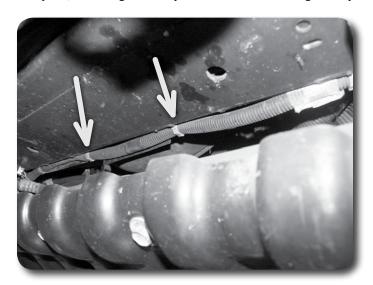


Figure 10

15. Locate the brake lines on the driver's side frame rail at the front driver's side wheel well. Remove the brake lines from the retaining clip Figure 11. Check for any other lines, hoses or wires in this area that may not have enough slack to compensate for 1.5" of lift. Mark these lines, hoses or wires and disconnect.



Figure 11

>>> PARKING BRAKE CABLE

16. Pull down on the parking brake cable that runs down the driver's side frame rail. Clamp the cable where it runs through the front body mount so it stays slack Figure 12.

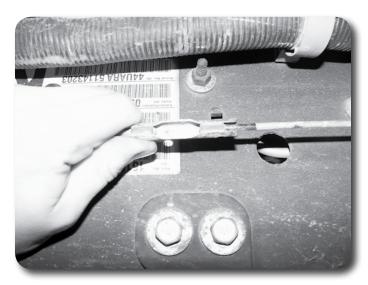


Figure 12

17. Disconnect the front section of the cable from the rear section at the connector just below the driver's side door. There is a small indent in the connector that must be removed to allow the cable to be pulled free Figure 13. Remove the indent with a punch, small rotary grinder or drill.



Figure 13

18. Compress the retaining clip at the body mount Figure 14 and pull the parking brake cable out the front of the body mount.

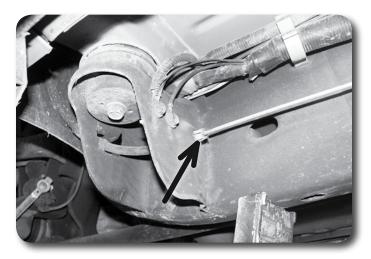


Figure 14

>>> CAB LIFT

- 19. Check for any other wires, hoses, cables, etc that may not have enough slack for 1.5" of body lift. Disconnect or reroute these parts as necessary.
- 20. Loosen but do not remove all cab mount bolts. All mounting bolts thread up into the cab except the two front bolts which are mounted downward. The front bolts are accessed through a hole in the body.
- 21. Remove the passenger's side body bolts. Place a hydraulic jack (with wooden block) under the passenger's side so that the weight is evenly distributed on the jack. Slowly raise body, checking for any wires or hoses that may be binding or stretching. Lift the body just high enough to install the large 3" diameter body spacers.
- 22. Install 12mm x 140mm bolts and 7/16" USS washers in all the body mounts in combination with the factory body bushing assemblies. The front mount uses the thick 1-3/4" diameter washers on the bolt that is installed from the top through the access hole in the body. Fasten the front bolt with a 7/16" USS washers and 12mm nuts along with the factory bushing assemblies. Do not tighten body mount bolts at this time.

Step 22 Note

All body mount hardware is located in hardware pack #273.

- 23. Repeat lift procedure for other side of vehicle.
- 24. Inspect the body to see that it is properly aligned on the frame and the bed. Remove each body bolt one at a time and apply Loctite to the threads. Torque all body mount bolts to 65 ft-lbs.

>>> BED LIFT

- 25. Loosen but do not remove all bed mounting bolts (six on short bed, eight on long).
- 26. Remove the bolts from one side of the bed. Using a hydraulic jack and a block of wood, lift the bed just high enough to install the body spacers. Install 12mm x 70mm bolts and 7/16" washers in the body spacers but do not tighten.
- 27. Repeat the lifting procedure for the other side of the vehicle. Align the bed to the cab and tighten all mounting hardware. Use Loctite® on all mounting hardware.
- 28. Remove the rubber pads from the frame where the bed's cross members originally rested (four locations on long beds, two on short beds). Place the metal body spacers at these locations. Figure 15 Attach the spacers to the frame with 5/16" x 3/4" self-tapping bolts. Tighten hardware to 10 ft-lbs.

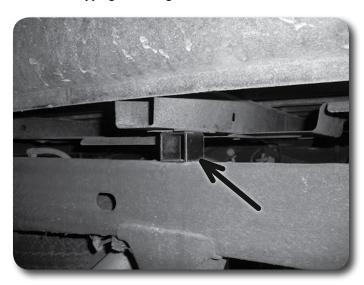


Figure 15

>> FRONT/UNDER HOOD

- 29. Reconnect the upper and lower steering shaft halves. Align the mark made during disassembly. Fasten with the factory bolt and torque hardware to 40 ft-lbs.
- 30. Reattach the ground wire to the stud on the firewall. Fasten with the original nut and torque to 10 ft-lbs.
- 31. Install the new 1.25" fan shroud relocation brackets (w/1/4" studs) to the original shroud mounting holes using the stock bolts Figure 16. Install the brackets so the studs point toward the engine compartment. Torque hardware to 10 ft-lbs.

Step 24 Note

If the vehicle is equipped with aftermarket step bars that mount off of the body mounts, longer mounting bolts may be required in those locations.

Step 26 Note

All bed mounting hardware is located in hardware pack #273.

Step 28 Note

5/16" bed spacer hardware is located in hardware pack #273. It may be helpful to use the bolts to tap the holes before installing the spacer.



Figure 16

Step 32,35 Note

Upper and lower fan shroud hardware is located in hardware pack #272

- 32. Mount the fan shroud on the relocation bracket studs and fasten with the provided 1/4" nuts and washers. Torque to 5 ft-lbs.
- 33. Working from the bottom of the fan shroud, pull the wire loom out away from the fan shroud. Figure 17A Locate the provided lower fan shroud brackets (2) and position them as shown. Figure 17B The lower horizontal shroud lip should rest just below the core support and the shroud pulled tight forward. Use the brackets to mark the position of the holes to be drilled.

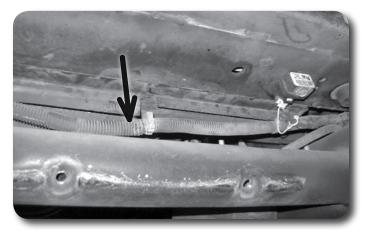


Figure 17A

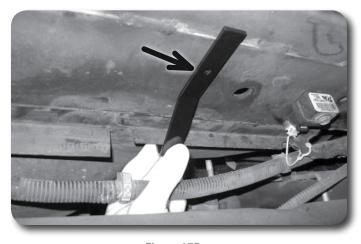


Figure 17B

- 34. Drill a 7/32" holes at each of the marks for the lower shroud brackets. *CAU-TION: Take care to not drill more then 1/2" past the thickness of the core support material. The radiator is located just above.*
- 35. With the holes drilled, reposition the lower shroud brackets and fasten with the provided 1/4" x 3/4" self-tapping bolts. Tighten bolts to 10 ft-lbs. Figure 18



Figure 18

- 36. Use the provided zip ties to secure the wire loom to the two new lower shroud brackets.
- 37. Double check fan-to-shroud clearance.
- 38. Reattach the air intake tube to the throttle body and air filter box with the factory clamps. Tighten clamps securely. If equipped, reattach the radiator hose to the intake tube.
- 39. Reattach the transmission oil cooler to the original location on the core support with the factory bolts. Torque hardware to 10 ft-lbs.
- 40. Mount the cooler lines back in the plastic retaining clip at the bottom of the core support. Check that the cooler lines are not rubbing on anything. It may be necessary to slightly bend them to properly clear the core support and/or the fan shroud.
- 41. Reconnect any other lines, hoses, etc that were removed prior to lifting that were not outlined in the instructions

>>> FRONT BUMPER

- 42. If equipped, remove the factory tow hooks. Save hardware and hooks. Note what side each tow hook goes. Figure 19
- 43. The factory front bumper frame mounts need to be modified. Draw a cut line that starts on the inside edge of the upper mount tab and runs down along the inside surface of the frame rail. Figure 20A

Step 34 Note

It may be helpful to remove the factory front plastic splash guard in order to get a better angle for drilling.

Front Bumper

All front bumper hardware is located in hardware pack #272.



Figure 19

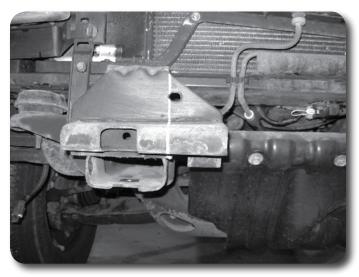


Figure 20A

44. Cut the inside of the frame brackets off along the cut line with a reciprocating saw. Figure 20B

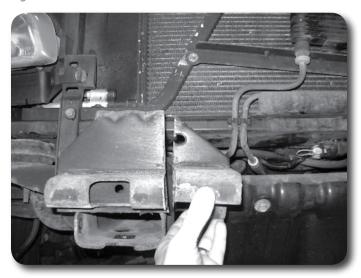


Figure 20B

45. Make a second cut line along to remove the front 'bumper' protruding from the face of the bracket. Figure 20C. Cut the 'bumper' off with a reciprocating saw. Paint any exposed metal.

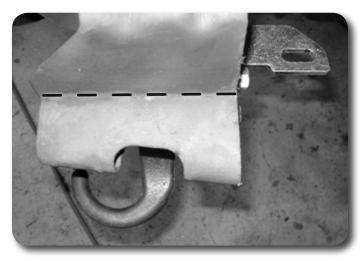


Figure 20C

46. Locate the new front bumper brackets. They are driver's and passenger's side specific. The straight edge/holes go toward the front and the tab points inward. Line the lower mounting hole of the new bracket with the factory tow hook hole (hole will be there regardless if the vehicle has tow hooks or not). Also, align the front vertical edge of the new bracket with the front face of the factory bracket. Mark the second bracket mounting hole to be drilled. Drill 1/2" hole at mark. Figure 21



Figure 21 - Pass Side Shown

47. Attach the new brackets to the frame with the provided 7/16" x 1-1/4" bolts, nuts and washers. Align the lower hole to the existing frame hole and torque upper hardware to 45 ft-lbs. Figure 22A Reinstall the tow hooks on the correct side and fasten through the frame and new bracket with the original hardware. Figure 22B Torque tow hook bolts to 55 ft-lbs.

Step 46 Note

2wd models have a factory bumper mount that bolts the frame. The new brackets will bolt to the frame with the factory bumper bracket bolt. No drilling is necessary.

Step 47 Note

If the vehicle was not equipped with tow hooks from the factory, use the second set of 7/16" x 1-1/4" bolts, nuts and washers provided in hardware pack #272 for the lower mounting hole.



Figure 22A



Figure 22B

48. Locate the original outside bumper support bracket mount holes on each front body mount. Measure straight up from the center of the holes 1-1/2" and mark. Drill 7/16" holes at the marks (4 total). Figure 23 The brackets will be attached after the bumper is in place.

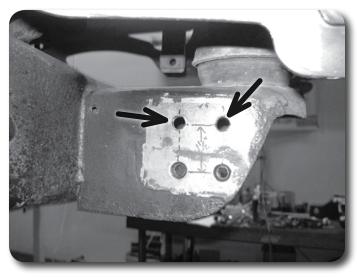


Figure 23

- 49. Locate the provided 2" diameter x 1-1/2" tall bumper spacers. Slide the bumper in place over the frame rails and place the spacers between the upper bumper mount tab and upper frame mount. Align the mounting holes in the bumper, frame and spacer. Loosely fasten with the provided 12mm x 70mm bolts and 1/2" washers. Figure 24
- 50. Attach the factory lower bumper tab to the bottom of the new frame brackets with the provided 1/2" x 1-1/4" bolts, nuts and washers. Leave hardware loose.

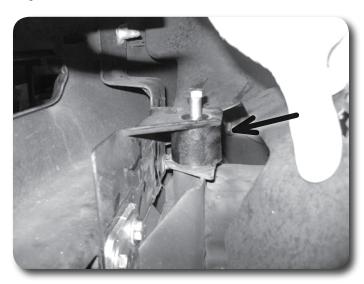


Figure 24

51. Loosely fasten the original outer support bracket to the new holes in the front body mounts with the factory bolts along with the 10mm nuts and 3/8" USS flat washers. Figure 25 Also, attach the supports to the original location on the bumper with the factory hardware. Leave all hardware loose.

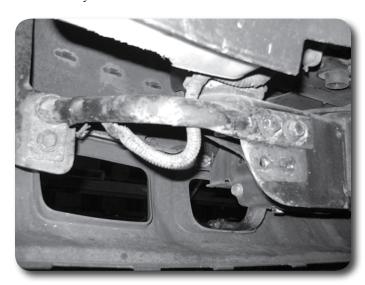


Figure 25

- 52. Adjust the bumper to the proper location and torque all mounting hardware. Tighten the outer support bolts (6 total) to 45 ft-lbs and upper/lower main frame mount bolts to 60 ft-lbs.
- 53. Check tow hook clearance to the front bumper valance. They should rest just above the bottom of the factory cut-out in the valance. Clearance varies between mount years. Additional valance trimming may be needed.
- 54. If equipped, reconnect the fog lights in the front bumper.

Step 49 Note

The new lower bumper brackets must be below the lower mount tabs on the frame.

- 55. Install the grill on the vehicle in the reverse of how it was removed.
- 56. Install the plastic core support cover on the top of the core support and fasten with the original plastic retaining clips.

>>> PARKING BRAKE CABLE

57. Locate the tab on the driver's side body mount where the parking brake cable runs through it. Figure 26A Bend the tab up flat against the mount to gain slack for the cable. Figure 26B Run the cable back through the mount into its original location. Figure 26C



Figure 26A

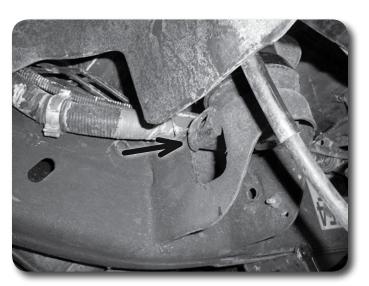


Figure 26B

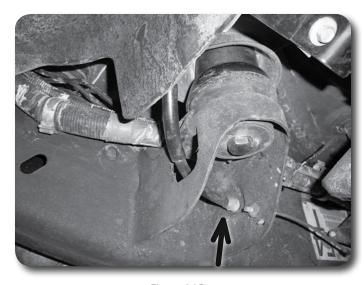


Figure 26C

58. Pull slack on the parking brake cable and clamp it off like it was during disassembly. Reconnect the front cable to the rear cable and remove the clamp.

>>> Fuel Line - Manual Shift Transfer Case Only

59. Check the fuel lines near the transfer case shift linkage. They are the on the driver's side of the transfer case. Be sure that the lines do not interfere with the shift operation through the full gear selection range. It may be necessary to bend the fuel lines slightly for proper clearance.

>>> Post-Installation

- 60. Reconnect battery.
- 61. Check all hardware for proper torque.
- 62. Check hardware after 500 miles.
- 63. Adjust headlights.

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.