



#C1350 Installation Instructions 2007-2012 Chevy/GMC, 1/2 Ton, 2/4wd 3.5" Combo 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

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.

» 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.

Difficulty Level

easy 1 (2) 3 4 5 difficult

Estimated installation: 4-6 hours

Special Tools Required

Rotary Grinder or Drill

Welder when C9901 is not used

Tire/Wheel Fitment

Tire:

33x12.50

Wheel:

Stock Backspacing

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

Kit Contents

Qty	Part	Qty	Part
16	1.5" x 3" Body Block	1	Bolt Pack - Body/Bed Mounts
2	Front Outside Bumper Bracket	1	Bolt Pack - Front Bumper
2	Front Bumper Brkt Gusset	1	Loctite
2	Front Bumper Spacer Sleeve	2	Strut Spacer
2	Steel Bed Spacers	1	Bolt Pack - Strut Spacer
		1	Engine Ground Extension Strap



INSTALLATION INSTRUCTIONS - 1.5" BODY LIFT

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Remove the negative battery cable first, then the positive battery cable. If equipped, the Supplemental Restraint System (airbags) will be deactivated when the battery is disconnected.
3. Measure and record the space between the front bumper and the body as well as the cab to the bed for reference during the installation.

FRONT

» FRONT DISASSEMBLY

1. Remove the 8 plastic retaining clips holding the upper core support cover to the core support **Figure 1**. Pull up on the center of the clips to unlock and then pull them out of the cover. Save the cover and clips.

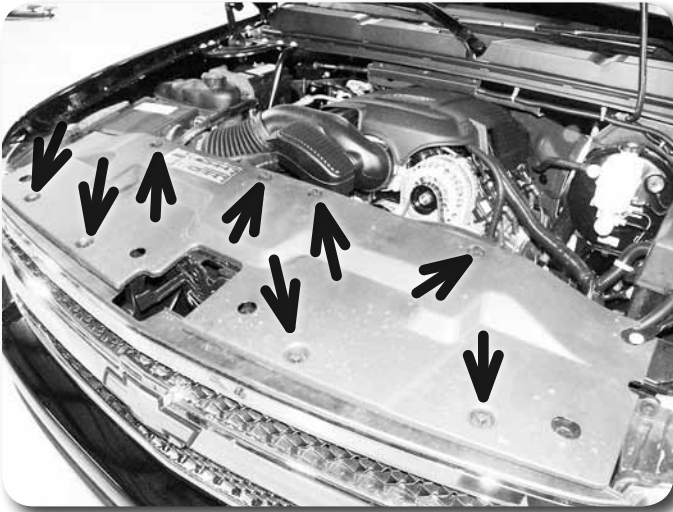


Figure 1

2. Remove the 4 bolts mounting the top of the grill to the core support **Figure 2**. Pull out on the grill (starting at the bottom) to release the retaining clips. Remove the grill from the vehicle.

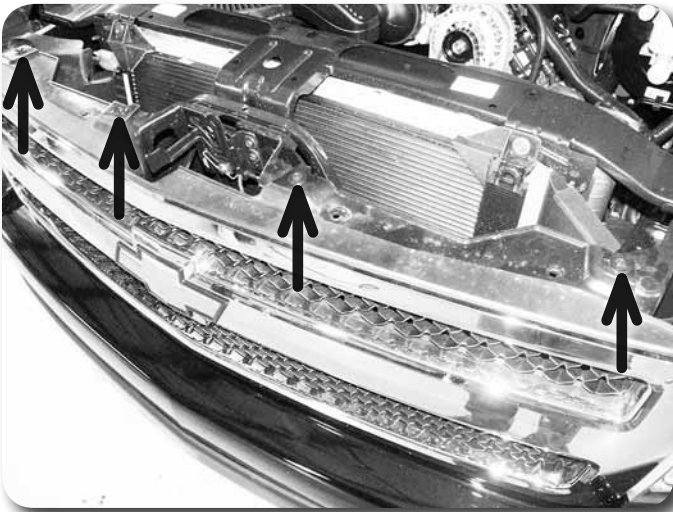


Figure 2

3. If equipped, disconnect the fog light wiring connectors from the fog lights **Figure 3**.

Important—measure before starting!

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

LF _____ RF _____

LR _____ RR _____

Step 2 Note

Pliers may be used to compress the clips to help release them.



Figure 3

4. Disconnect the outer bumper supports from the bumper **Figure 3**. Save bolts.
5. Disconnect the rubber core support shroud that runs from the core support **Figure 4**. Disconnect the shroud from the bumper only (4 plastic push-in style retaining clips).
6. Remove the two bumper bolts that mount the bumper to the frame horns **Figure 4** and remove the bumper from the vehicle.



Figure 4

7. Make a small mark on each tow hook to indicate which side is up. Remove the tow hooks from the frame by removing the two (per hook) mounting bolts **Figure 5**. Save the mounting hardware and hooks.
8. Remove the factory front bumper brackets from the frame horns **Figure 5**. Save all hardware.
9. Disconnect the outer bumper supports from the frame. Save hardware and supports.
10. Disconnect the ground wire(s) from the passenger's side front body mount bracket **Figure 5**. Save bolt.



Figure 5

11. Disconnect the upper radiator hose from the retaining clamp at the top of the radiator
Figure 6



Figure 6

12. Loosen the air intake tube hose clamp at the air box and the remove the intake tube from the air box. Figure 7
13. Disconnect the ground wire from the driver's side firewall Figure 8. Save the mounting nut.



Figure 7

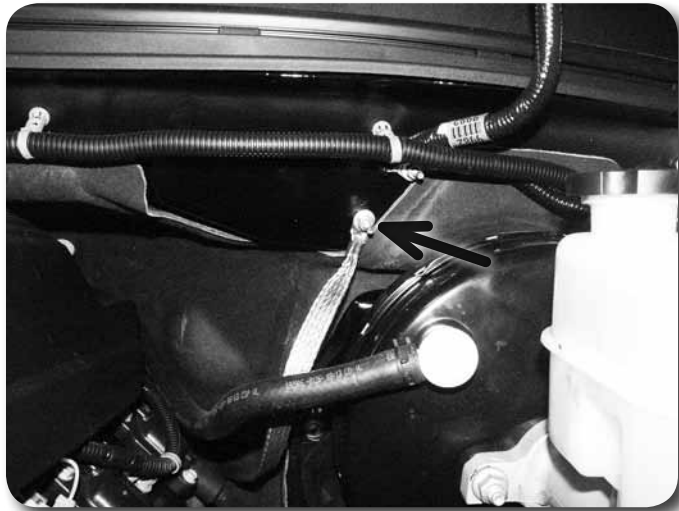


Figure 8

14. Lock the steering wheel. Mark the relationship between the upper and lower halves of the steering shaft. **Figure 9**. Remove the bolt and pull the steering shaft apart. The upper steering column will collapse into the firewall. Save hardware.



Figure 9

15. Remove the four bolts mounting the front skid plate to the frame Figure 10. Remove the skid plate from the vehicle. Save skid plate and bolts.

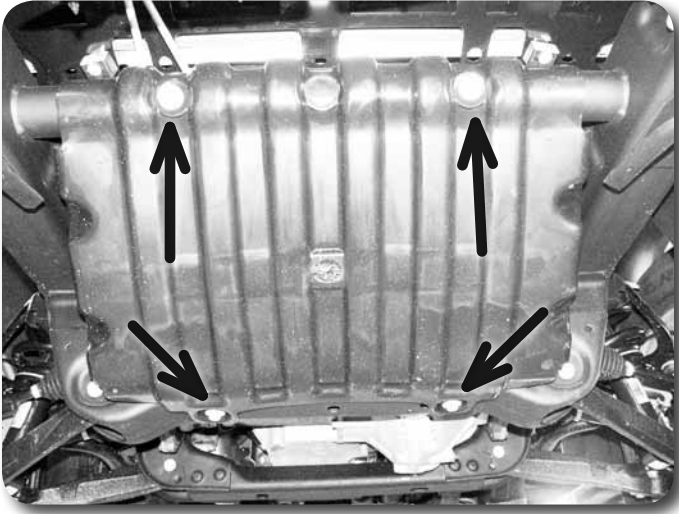


Figure 10

16. Disconnect the starter power wire and the O2 sensor wire from the top of the passenger's side frame rail near the rear of the wheel well opening Figure 11. These will be reattached after the body is lifted.

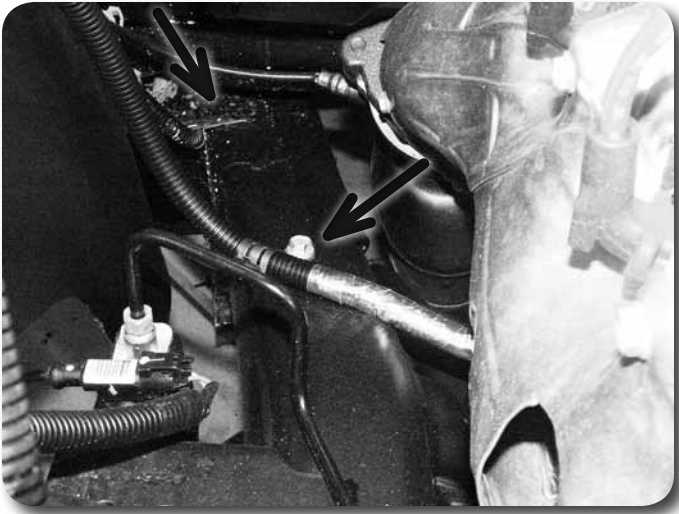


Figure 11

17. 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.

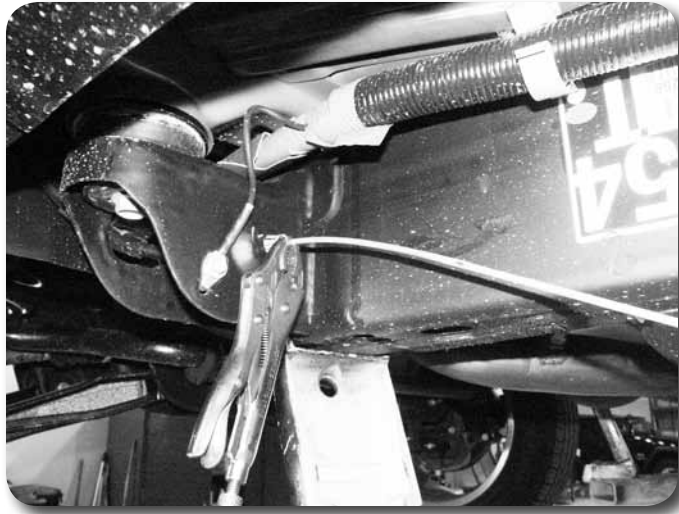


Figure 12

18. 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

19. Compress the retaining clip at the body mount and pull the parking brake cable out the front of the body mount.
20. Check for any other wires, hoses, etc that may not have enough slack for 1.5" of body lift. Disconnect or reroute these parts as necessary.

» **CAB LIFT**

21. Loosen but do not remove all of the cab mount bolts. The front bolts run from the top down through the core support and are attached with a nut. The remaining bolts run from the bottom up into captive threads in the cab.
22. Remove the passenger's side cab bolts. Be sure to remove the large washer (top) with the front bolt, it will be reused with the new hardware.
23. Using a hydraulic jack and block of wood, slowly lift the passenger's side of the cab. Continuously watch for lines, hoses, etc to be sure none are overextended. Lift the cab just enough to place the provided lift blocks between the body and the frame body mounts. Install the provided 1.5" tall blocks in the 4 cab mount positions.

24. Install 14mm x 140mm bolts with the factory lower bushing up through the 3 rear cab mount positions. Install a 12mm x 140mm bolt with the factory large flat washer down through the core support and fasten with the factory bushing, 7/16" USS washer and 12mm lock nut. Leave hardware loose.
25. Repeat the lift procedure on the driver's side.
26. With the cab lifted, go back and remove each bolt and apply Loctite to the threads. Ensure the body is square on the frame. Torque all 14mm body mount hardware to 95 ft-lbs and the two front 12mm bolts to 65 ft-lbs.

Step 24 Note

All body/bed mount hardware is located in hardware pack #270

» FRONT ASSEMBLY

27. Reconnect the upper and lower halves of the steering shaft with the factory hardware. Torque bolt to 40 ft-lbs.
28. Attach the ground wire extension strap to the firewall with the factory nut. Attach the ground wire to the strap with 1/4" hardware, use external tooth serrated washer to bite into the strap as shown. Failure to install serrated washer may result in a poor ground. Torque hardware to 15 ft-lbs. **Figure 13b**



Figure 13b

29. Reinstall the intake tube to the airbox. Tighten the factory hose clamp securely.
30. Reattach the upper radiator hose to the clamp on the top of the radiator.
31. Reattach the ground wire(s) that was removed from the front passenger's side body mount bracket. Torque bolt to 15 ft-lbs.
32. Check the transmission cooler lines that run from the front of the vehicle to the passenger's side of the oil pan to be sure they are not rubbing on any components **Figure 14**. If clearance is needed, carefully bend the hardlines up near the point where they attach to the rubber section (near the radiator). Make only small bends by hand, it doesn't take much of a bend to gain adequate clearance.



Figure 14

33. Reinstall the front skid plate with the factory bolts and torque to 20 ft-lbs.
34. Reattach the O2 sensor wire and battery cable to the passenger's side frame rail.
35. Locate the factory tow hook mount holes in the front of the frame rails. The driver's side of each frame rail will only have one tow hook hole. Measure straight back from the center of the existing hole 1-7/16" and mark. **Figure 15** Drill a 1/2" to 9/16" hole at the mark (one hole per frame rail).
36. Install the tow hooks in the frame so that they are flipped over from how they were removed (the mark made earlier is now facing down). Install the hooks to the frame using the original front holes and one new back hole with the factory hardware. Torque the tow hook bolts to 65 ft-lbs.

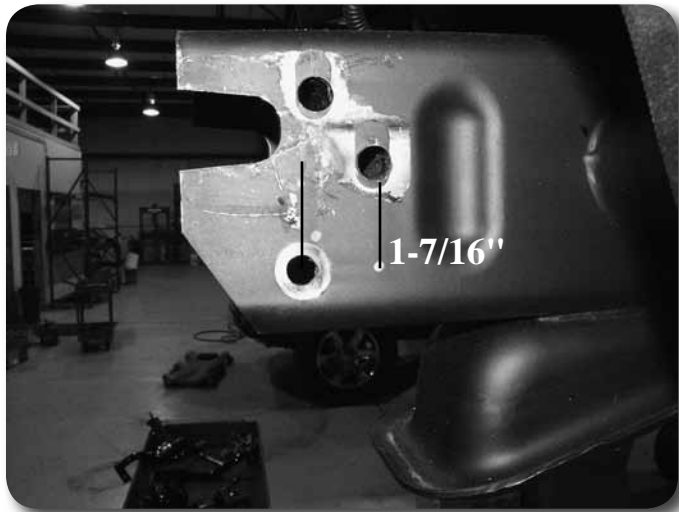


Figure 15

37. Locate the bottom mount tabs on the front bumper where the bumper mounts to the factory bumper brackets. There will be a captive nut attached to the tab. Mark and cut the tab flush with the nut. **Figure 16** Paint bare metal.

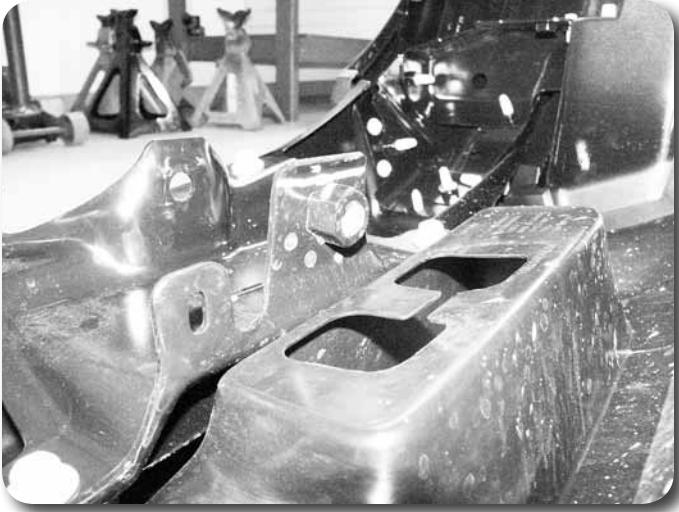


Figure 16

38. Locate the factory front bumper brackets that were removed from the frame. Make cut lines on the front and bottom faces as shown in Figure 17A, B. Measure up from the bottom of the center tube and mark at 1-1/2" Figure 17C. Cut the brackets at the cut lines with a cut-off wheel and/or reciprocating saw. Figure 17D



Figure 17A



Figure 17B

Step 38 Note

If installing the optional C9901 replacement front bumper brackets, skip steps 38-41. Refer to the instructions provided with C9901.



Figure 17C



Figure 17D

Step 39 Note

If necessary, the front bumper brackets and new gusset can be taken to a shop to be welded.

39. Locate the provided bumper bracket gussets. The gussets will be welded between the front face of the factory bracket and the center tube. Remove paint from these areas to promote good weld penetration. The gusset should be set in about 1/8 to 1/4" from the cut edge. Weld the gusset in place. **Figure 18**



Figure 18

40. Once the bracket gussets are welded in and the bracket has cooled, paint all bare metal.
41. Locate the provided 1.5" tall steel bumper spacer sleeves. Position the sleeve on the top of the factory bumper bracket and install the bracket and sleeve into the original mount position on the bumper. Fasten the sleeve/bracket with the original bolt. Leave hardware loose. **Figure 19**

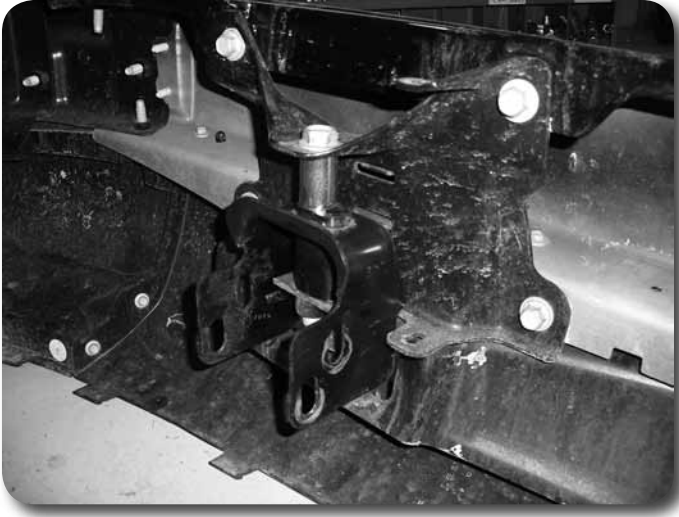


Figure 19

42. With the help of an assistant, install the bumper on the vehicle. Align the factory brackets with the original mount holes and fasten with the factory hardware. Leave loose.
43. Adjust the bumper side to side and tighten the two main vertical bolts mounting the bumper to the bumper brackets. Torque bolts to 65 ft-lbs.
44. Adjust the bumper vertically and tighten the four bolts/nuts mounting the brackets to the frame. Torque nuts to 95 ft-lbs.
45. Attach the provided outer bumper support relocation brackets to the original support mount location on the frame **Figure 20**. Fasten the brackets with 7/16" x 1-1/4" bolts, nuts and washers. Leave hardware loose.



Figure 20

46. Reattach the factory outer bumper supports to the bumper with the original hardware. Leave hardware loose. See figure 3 for proper orientation.
47. Attach the factory outer bumper support to the relocation brackets with the factory bolts. The support should mount to the front surface of the relocation bracket. **Figure 21** Torque all 7/16" and factory bumper support hardware to 40 ft-lbs.

Step 45 Note

Front bumper support bracket hardware is located in hardware pack #605 (2 packs total).



Figure 21

48. Reattach the rubber core support shroud to the bumper with the original plastic push-in fasteners.
49. If equipped, reconnect the fog light wire connectors to the fog lights.
50. Install the grill by pushing the retaining clips back in place. Fasten the grill to the top of the core support with the 4 factory bolts. Tighten the bolts securely.
51. Install the upper core support cover with the 8 factory plastic retainers.
52. Locate the tab on the driver's side body mount where the parking brake cable runs through it. **Figure 22A** Bend the tab up flat against the mount to gain slack for the cable. **Figure 22B** Run the cable back through the mount into its original location. **Figure 22C**



Figure 22A



Figure 22B



Figure 22C

53. 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.

REAR

1. Loosen but do not remove all bed mounting bolts. All the bolts mount from the bottom up into captive nuts. 4 bolts per side.
2. Remove the passenger's side bed mounting bolts. With a hydraulic jack and block of wood, slowly raise the bed just high enough to place the provided lift blocks between the frame and the bed. Place the blocks at the bed bolt locations. Loosely fasten the bed/spacers with 12mm x 70mm bolts and 7/16" USS washers.
3. Repeat the bed lift procedure on the driver's side. Make sure the fuel filler neck falls through the body.
4. Remove the plastic bed pads **Figure 23A** where the bed crossmember rested on the frame at the rear wheel well (one per side). Install the provided rectangular steel bed spacers where the plastic pads were located and fasten with a 5/16" x 1" self-tapping bolt and 5/16" USS washer in the existing frame hole **Figure 23B** Torque bolt to approximately 15 ft-lbs.

Step 1 Note

The two rear bolts on each side are located inside the frame rail.

Step 2 Note

When lifting the passenger's side of the bed, watch the clearance between the rear bumper and the driver's side of the bed.

Step 4 Note

It may be easier to tap the hole first with the bolt then install the spacer.

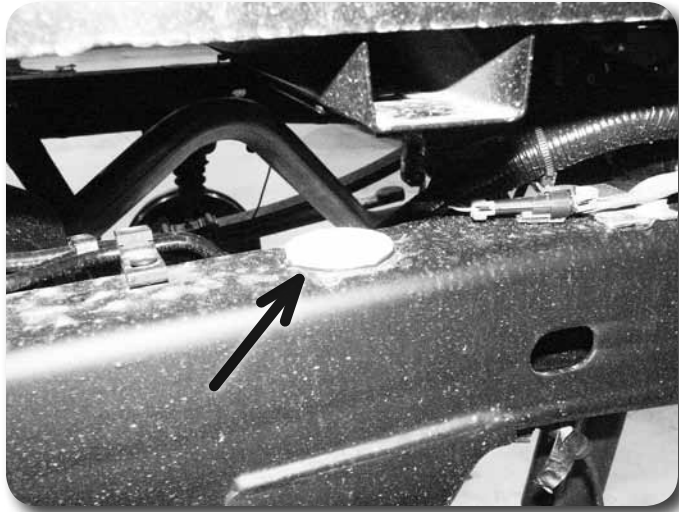


Figure 23A

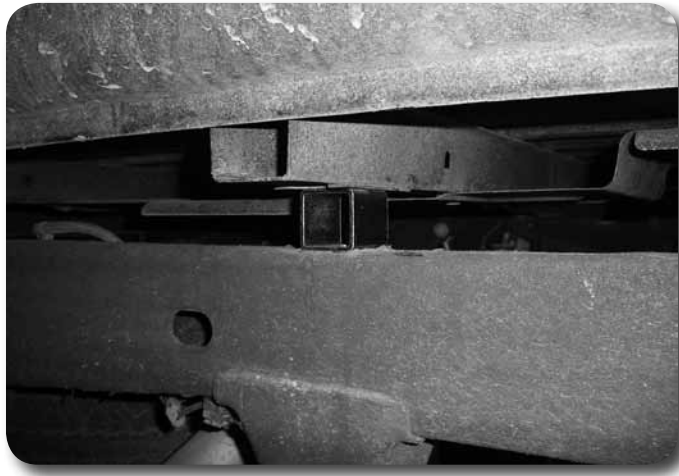


Figure 23B

5. With the bed lift complete, go back and remove each bolt one at a time and apply Loctite to the threads. Adjust the bed to cab clearance and torque bolts to 65 ft-lbs.

INSTALLATION INSTRUCTIONS - 2" STRUT SPACER

1. Raise the front of the vehicle and support the frame rails with jack stands.
2. Remove the front wheels.
3. Disconnect the front driver's and passenger's side sway bar links from the sway bar. Save hardware. **Figure 1**



Figure 1

Perform the following installation steps on one side at a time.

4. Loosen but do not remove the three upper strut mount nuts at the frame. **Figure 2** Do not loose the center strut rod nut.



Figure 2

5. Remove the nut from the steering tie rod end. **Figure 3** Thread the nut back on a couple of turns by hand. Strike the knuckle near the tie rod end to dislodge the rod end taper from the knuckle. Remove the nut and the tie rod end from the knuckle. Save nut.

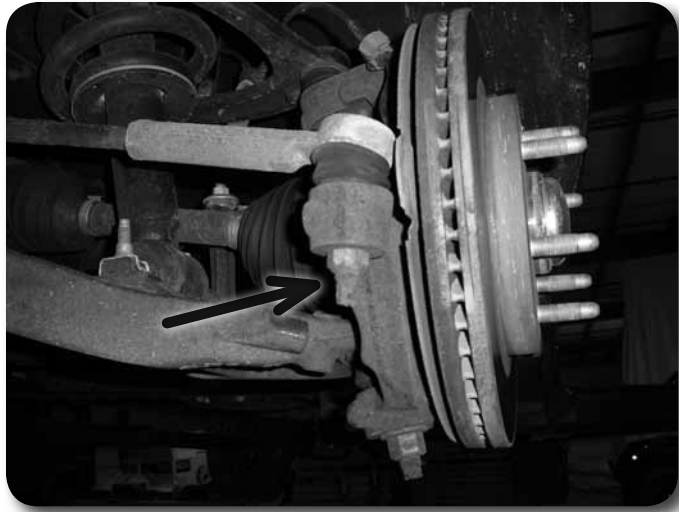


Figure 3

6. Remove the nut from the upper ball joint. **Figure 4** Thread the nut back on a couple of turns by hand. Strike the knuckle near the upper ball joint to dislodge the rod end taper from the knuckle. Remove the nut and allow the knuckle to swing rearward out of the way. Save the ball joint nut.



Figure 4

7. Support the lower control arm with a jack. Remove the two lower strut bar pin bolts. **Figure 5** The bolts will not be reused. Lower the control arm with the jack so there is about 1" of room between the strut bar pin and the lower control arm.



Figure 5

8. Using a flat head screw driver, remove the factory nut clips from the strut bar pins. **Figure 6** These will not be reused.



Figure 6

9. Locate one of the new provided strut mount spacers. Position the spacer between the strut bar pin and the control arm. The small tabs on the spacer will point up and be positioned on the outside of the strut bar pin. The "U" shaped portion of the spacer will wrap down around the backside of the control arm mount.
10. Align the holes in the strut bar pin and the spacer. Install the provided 7/16" x 3-1/2" bolts with washers down through the bar pin and spacer. **Figure 7** Once the bolts are in position, align them with the holes in the control arm and raise the control arm up to seat the assembly together. Fasten the 7/16" bolts with the provided nuts and washers. Torque the 7/16" hardware to 45 ft-lbs.

Recommend Alignment Specifications

CASTER

$3.30^{\circ} \pm 1.00^{\circ}$

CAMBER

$-0.10^{\circ} \pm 0.60^{\circ}$

TOE

$+0.10^{\circ} \pm 0.20^{\circ}$

Step 10 Note

The bolts must run from the top down. All hardware is located in pack #646.



Figure 7

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.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

11. With the lower hardware tight. Torque the factory upper strut mount nuts to 40 ft-lbs.
12. Reattach the upper ball joint to the knuckle. Use the jack to support the lower control arm and torque the upper ball joint nut to 40 ft-lbs.
13. Reattach the steering to the knuckle and torque the factory nut to 44 ft-lbs.
14. Repeat installation on the opposite side of the vehicle. When both sides are complete, reattach the sway bar links and tighten hardware until the bushings begin to swell.
15. Reinstall the wheels and lower the vehicle to the ground. Torque lug nuts to 140 ft-lbs in a crossing pattern.

POST-INSTALLATION - BODY LIFT/STRUT SPACER LIFT

1. Check all body and suspension hardware for proper torque.
2. Reconnect battery.
3. Check hardware after 500 miles.
4. Adjust headlights
5. The vehicle will need a complete front end alignment.