

## STOP---READ THIS FIRST!

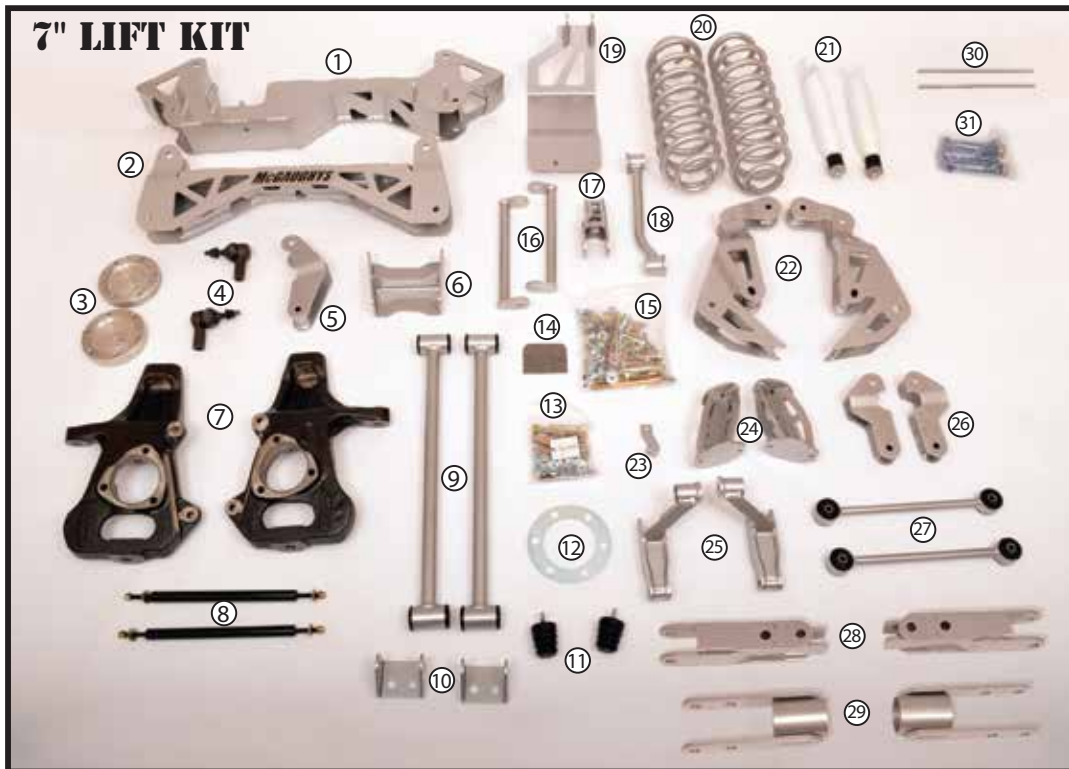
\*\*Read These Entire Instructions Before Starting Anything\*\*

### 1999-2006 GM SUV (1/2 Ton)

LIFT KIT INSTRUCTIONS (PART#50125, 20128, 50135, 50138 )

#### NOTE:

- \* The factory wheels and tires will not fit on the front of the vehicle once the lift kit is installed. You must use at least a minimum size of a 17" wheel, 8" wide. The rim's maximum back space allowed is 4 5/8".
- \* If you alter the powder-coating or finish of any of the provided parts or stock components like zinc plating or chroming which can damage the strength and structure of the metal, any warranties will be null and void.
- \* If any parts are ground on or modified in any way then no returns will be accepted.
- \* Step #13 requires welding which should be done by a certified welder. Do not weld any other components other than step #13.
- \* Over-sized tires and heavier rims can cause premature ball joint, tie-rod, and idler arm wear. You may need to install new components sooner than factory recommendations based on the tires and rims that you choose.



1. Rear Crossmember
2. Front Crossmember
3. CV Axle Spacers
4. Outer Tie-Rod Ends
5. Driver Diff. Drop Bracket
6. Passenger Diff. Drop Bracket
7. Spindles
8. Sway Bar End Links
9. Compression Struts
10. Compression Strut Brackets (2)
11. Bump Stops
12. Spare Tire Spacer
13. Hardware
14. Weld-in Filler Plate
15. Hardware
16. Lower A-Frame Support Rods

17. Track Bar Relocation Bracket
18. Track Bar Bracket Support
19. Skid Plate
20. Coil Springs (2)
21. Front Shocks (2)
22. Rear Tailing Arm Relocator (Driver, Passenger)
23. Rear Brake Line Extender
24. Rear Bump Stop Extenders (2)
25. Shock Extender
26. Torsion Bar Drop
27. Track Bar Brackets
- 28. Lower Strut Extension**
- 29. Upper Strut Extension**
- 30. Ride Height Sensor Extension**
- 31. Hardware**

**\*\*AUTO RIDE ONLY\*\***

## **FRONT INSTALLATION:**

**1.** Place wheel chocks behind the rear tires. With the parking brake set, use a jack and lift the front of the vehicle and place jack stands under the frame on each side. Remove the front tires.

**2.** Using the proper torsion bar tool, measure/mark the exposed threads on the torsion bar adjusting bolts, and then UNLOAD and remove the cross member and bars. (Keep all the hardware)

**3.** Remove the factory sway bar end links from the lower control arms and the sway bar. Take off the stock shocks which you will not re-use.

**4.** Take off the bump stops (lower) from the frame and save them.

**5.** Take off the front differential skid plate and splash shield.

**6.** Using a rubber mallet, uninstall the tie-rods (hit the spindle to loosen the tie-rods). Be very careful to not damage the tie-rods.

**7.** Remove the brake hose bracket from the top of the spindle and unplug the ABS from the frame and control arm. Take off the brake caliper and move it out of the way. Take off the rotor, axle nut, and washer. Unbolt the hub by taking off the three hub bolts on the back side of the spindle. Remove the bearing hub assembly from the spindle.

**8.** Take off the upper and lower ball joint nuts and remove the ball joints. You can remove them by using your rubber mallet and hitting the SPINDLE near the ball joints, NOT THE BALL JOINTS!

**9.** If 4WD, uninstall the CV axles from the differential housing.

**10.** Take off the lower control arms.

**11.** Take off the front drive shaft from the differential. Disconnect the vacuum line and electrical connection from the differential.

**12.** Remove the differential housing assembly and diff. cross member. It may help to turn the steering wheel to the left or you may have to use a die-grinder to cut the backside of the driver side lower control arm pocket. In order to cut you will need to measure 1.5"

from the back side of the pocket (closest to the rear on the lower a-frame) and make a vertical cut line around the entire pocket.



**13.** Now that the pocket is cut-off and gone, use the re-enforcement plate provided in the kit and weld it to the driver's side. Once the welds are cool and the plate is clean, paint the piece so that it doesn't rust!

**14.** Install the McGaughy's **rear cross member drop** using the factory hardware. Install the passenger side **differential drop**, using the factory hardware, to the bottom factory mount on the frame. The wider end of the bracket should be facing the front of the vehicle. Bolt the driver side **upper differential drop bracket** (the closed end on the new bracket) using the factory bolt through the factory dif mount bracket. Bolt the open end of the upper differential drop bracket (use the 9/16 x 3 1/2 bolt and nylock nut provided) to the factory driver side upper differential bushing. The diff. bracket may rub (on the stud that attaches the center-link to the pitman arm), if so, cut off the extra stud hanging down past the nut. Don't tighten yet! Reinstall the factory differential with the factory hardware.



**15.** Install the **front cross member** into the factory a-arm pockets, using the factory hardware. Install the electrical connection and the vacuum line to the factory differential housing. Don't tighten yet!



**17.** Install the factory lower a-arms into the new cross-members, using the **lower a-frame support rods** over the pivot bolts, between the cross members. Use the provided 5/8" x 5" long bolts with 5/8" washers for the front a-arm pocket. Use the provided 5/8" x 6 1/4" bolt to bolt to the rear pockets. Make sure the bolts go from the front to the rear with the nuts closer to the rear of the vehicle.

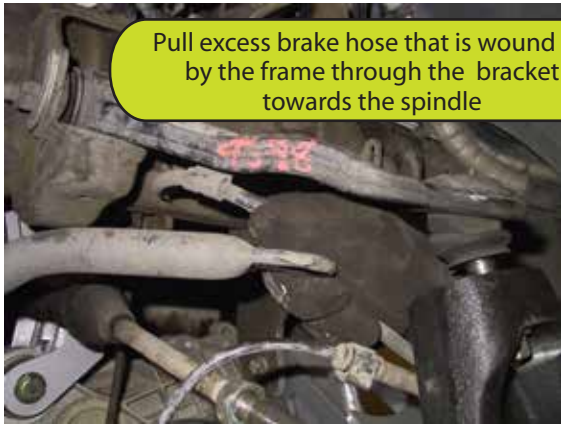


**18.** Attach the **skid plate** to the back side of the front cross member using the provided 1/2" x 4 1/2" bolt and lock nut. Use the provided 1/2" x 1 1/4" to bolt the back side of the skid plate to the **rear cross member**, the nut is already installed/welded onto the cross member for you. (torque the hardware to 50 ft. lbs.)

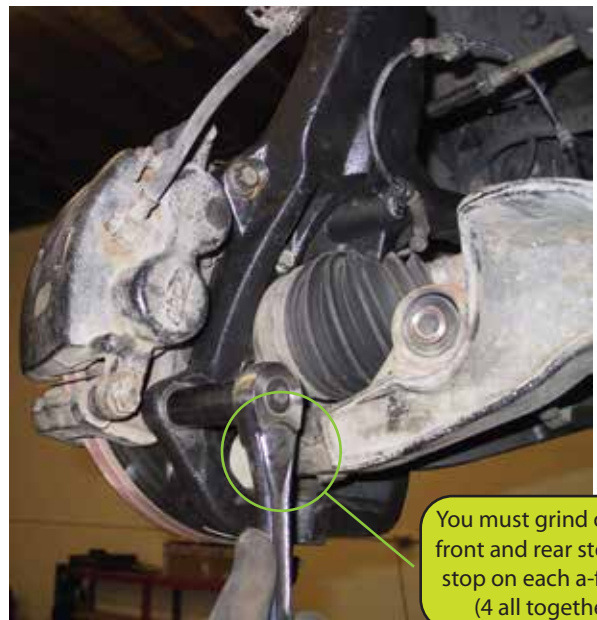
**19.** Now tighten (torque to 70 ft. lbs) the passenger side differential housing mount bolts and the driver side differential bushing bolts (front and rear).

**20.** Install the new front **bump stops** into the outside edge of the rear crossmember.

**21.** Install the new McGaughy's **lift spindles**. Re-install original hub assembly back onto the new spindles and make sure to use lock-tite on the flange bolts and stock hardware. Torque to 130 ft. lbs.



**22.** Re-install the stock upper and lower ball joints and McGaughy's new tie-rods. Torque the ball joints to 70 ft. lbs and the tie-rods to 30 ft. lbs. Install the factory brake hose bracket to the new McGaughy's Lift spindle using the provided self-tapping bolts into the pre-drilled holes. Do not use any air tools or electric drivers, use hand tools only to tighten



**23.** Now, make sure that you have re-checked all of the front-end bolts to make sure that everything so far has been tightened. Make sure that you went back and tightened the parts that were originally left loose like the cross member and control arms. Make sure everything is torqued to the proper specifications.

**24.** If the vehicle is a 4WD, re-install the CV axles and install the new 1" thick CV axle spacers which go between the CV axle and the differential housing. You will use the provided 10mm bolts and washers. Make sure to use lock-tite and torque to 55 ft. lbs in a star pattern. Next, install the axle nut (torque to 150 ft. lbs.).



**25.** Install the new provided **front shocks** using the factory hardware and shock hardware provided. Torque the top bushing to 15 ft. lbs. and the bottom bolt to 35 ft. lbs.



**26.** Install the original rotor as well as the caliper (torque to 70 ft. lbs.). Use the factory clamp for the ABS line and brake hose to the back side of the spindle and then to the a-arms using the provided  $\frac{1}{4}$ " x 1" long bolts, nuts, and washers (torque to 5 ft. lbs.). Make sure the ABS line and brake hose are routed in a way so that you are not losing any turning radius when the wheel turns completely both directions. Also, use wire ties to keep the ABS line and brake hose hooked to the spindles and upper a-arms so that there isn't any rubbing on anything including the tires or any new suspension parts.

**27.** You may need to re-route your exhaust depending on how it is currently ran on the vehicle. Make sure a reputable muffler shop does any work if it is needed to clear the drive line so that it can be bolted back in. Once the exhaust is correct, re-install the front yoke with the original hardware and torque the bolts to the "U" joint strap to 20 ft. lbs. NEVER DRIVE THE VEHICLE WITHOUT THE DRIVELINE INSTALLED AS IT COULD CAUSE SEVERE DAMAGE AND OIL LEAKS.

**28.** Install new sway bar end links, using the original rubber grommets and hardware. Torque to 25 ft. lbs.

**29.** Just to make sure, re-check all the bolts on the front to make sure that at this point everything is tightened and that nothing has been left loose.

**30.** On the back side of the lower a-arms there are tabs that need to bolt to the new provided **compression struts**. Use the provided  $\frac{1}{2}$ " x 4" bolts, nuts, and washers to install but do not completely tighten yet.



**31.** Next, install the new provided **compression strut brackets** to the holes in the transmission mount crossmember. Make sure that the two transmission crossmember bolts are pointing towards the rear of the vehicle. Rotate the compression struts into the rear strut brackets and use  $\frac{1}{2}$ " x 4" bolts and lock nut to bolt-in. Tighten/torque to 60 ft. lbs.



**32.** Next you will be installing the **torsion bar drop down brackets**. The new brackets will locate to the underside of the frame so that the center of the bracket's bushing hole is straight down from the center of the bushing on the original torsion bar. Use some "C" clamps and hold the bracket in place to the frame. Using a center-punch, mark the holes and drill  $\frac{7}{16}$ " holes on the frame so that you can bolt in the new drop down bracket using the provided  $\frac{7}{16}$ " x  $\frac{1}{4}$ " bolts, nuts, and washers (Torque to 65 ft. lbs.).



**33.** Install the original torsion bar cross member (using the original hardware) into the new **drop down brackets** and torque to 70 ft. lbs. Install the original torsion bars back onto the lower a-arms and to the cross member using the original adjusters. Put the adjusters back at the original spot that you originally marked on the threads. **DO NOT** "crank-up" the torsion bars which puts excessive and unnecessary pressure on the components and interferes with the alignment and front-end geometry. Install the tires and wheels and set the vehicle back on the ground. Tighten the lug nuts to manufacturer's specifications.

Check the front for tire clearance by turning the steering all the way each direction for clearance. If you are running an oversized tire you may need to trim the front bumper valance and/or bumper as well as anything else that they may be rubbing on. Re-check all components and tighten all hardware.

**THE FRONT INSTALLATION IS COMPLETE!**

## REAR INSTRUCTIONS:

38. Using jack stands to support the rear frame, jack up the rear of the vehicle and support the rear differential. Unplug the factory ABS line on both sides of the vehicle. The line is easy to get to from the rear fender wells. The line is attached at one end to the frame and the other end hooks to the rear-end with a plastic clip. Take off the plastic clip from the frame and then unplug the line (follow upwards by the top of the shock mount). Unplug at the factory clips.

39. Disconnect both emergency brake cables (both are on the driver's side, in front of the rear fender well). Gently pull the cable loose at the black metal clamp (located where the main cable from the front hooks to the clamp and then turns to two cables out the other end towards the back). Slide a 13mm boxed in wrench over the cable to loosen and then the entire cable and plastic bushing will pull out from the rear. Make sure you take out both cables.

40. Support the rear-end. Using two 21mm wrenches, take off the rear shocks from the factory shock mounts.

41. Once the rear-end is lowered slightly, the pressure will be off of the coils. Pull out the factory rear coils.

42. Use a 21mm socket and unbolt the factory track bar bolt (where it attaches to the rear-end) on the driver side. Leave the passenger side still attached.

43. Using a 13mm socket, unbolt the factory rubber brake line bracket from the rear-end housing (where the rubber hoses hook to the bracket and steel lines).

44. Unbolt the sway bar end links completely, both ends on both sides, using an 18mm wrench and a 19mm socket.

45. Using a 21mm socket and wrench, Unbolt the front bolt of the rear trailing arms (both sides).

46. Bolt in the McGaughy's **trailing arm drops** (part# 16 & 18) in the factory frame hole where the stock a-arm unbolted from using the factory hardware to the stock frame. Leave the bolt loose for now. (both sides)

47. Bolt the factory lower trailing arm into the new drop bracket (the lowest hole hanging at the bottom) using 9/16" x 4" bolt, flat washer, & nut provided. (Do on both sides and leave loose for now.)

48. Bolt back in the factory upper trailing arm to the new trailing arm drop bracket (both sides). Use the provided 9/16" x 3 1/2" bolt, flat washer, & nut. Tighten the lower and upper trailing arm bolts as well as the top factory bolt that

bolts the new drop bracket to the frame.

49. Use 1/2" x 1 1/4" bolt, flat washer, & nut to bolt the front of the new trailing arm drop down bracket into the factory frame hole and tighten. (Do on both sides)

50. Drill both top factory 3/8" holes to 1/2" on the factory track bar mount (on the rear-end). Be careful of the stock steel brake line that runs right by the two holes.

51. Loosely bolt-in the new **track bar relocater** (part#21) into the factory track mount stock hole using the factory hardware. You will know which way the bracket goes because there is a piece on the new bracket that goes around the stock mount on the passenger side and points toward the front of the truck.



52. Set the new **track bar brace** (part# 23) over the two newly drilled 1/2" holes (directly in front of the new track bar relocater). Slide the 9/16" x 4" bolt through both pieces (top hole) to locate where the new track bar brace will fit. Once the brace is in place, mark the hole, move the bracket, and drill the side hole (on the side of the bracket closest to the passenger side) to 1/2". Bolt in the factory bolt to the bottom of the new relocater and frame. Bolt the 1/2" x 1 3/4" bolt to the newly drilled hole in the frame. Bolt the two top bolts (1/2" x 1 3/4") into the newly drilled frame holes and the new track bar brace.



53. Install the factory track bar into the new **track bar relocater** (part#21) using the 9/16" x 4" bolt that goes through the new relocater, through the factory track bar, and then through the new track bar brace.

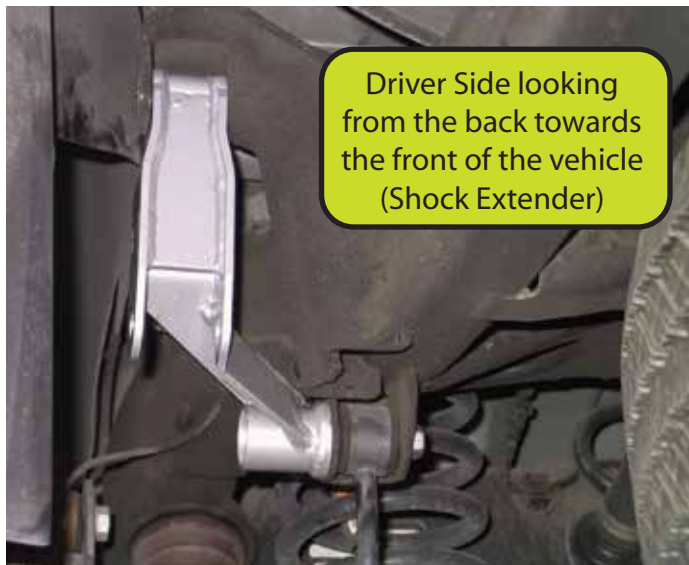




54. Install the new **brake line extender** (part# 20)(where the original brake line bracket unbolted from on the rear-end) Use the factory bolt on the lower hole of the new bracket (smaller bent end). The longer side of the new bracket goes up and re-bolts to the stock brake line bracket using the provided 5/16" x 1 1/4" bolt, flat washer, & nut. The stock brake line bracket will be pointing upward with the rubber brake hoses going straight up as well.



55. Hold the new McGaughy's **bump stop extender** (part# 24) on top of the frame below the factory foam bump stop. Line up the factory hole with the new bump stop extender, mark and drill the other hole to 3/8". Bolt-in the new bump stop extender to the frame using the provided 3/8" x 1" bolts and lock nuts. The new McGaughy's bump stop extenders are both the same there isn't a specific driver and passenger side, either bracket can go on either side. The top flat plate that the factory foam bump stop will make contact with should angle with the higher side closest to the rear of the vehicle and slope down towards the front of the vehicle. Tighten.



56. Install the new McGaughy's **shock extenders** (part#19) to the factory shocks. If you have a factory air/auto leveling shock then you will also use the provided linkage rod that is included in the kit. You do not change the shocks.



57. Install the rubber, factory spring isolators to the top and bottom of the new McGaughy's lift **coil springs** (part#17). Install the coil onto the rear-end spring pocket. Raise the rear-end up to install the top of the coil making sure the top goes into the factory coil pocket as well.

58. Install the new McGaughy's **sway bar end links** (part#22). Bolt the top in first with the stock bolt and then bolt-in the bottom eye with the provided 7/16" x 2 1/2" bolt. The lower bolt goes from the outside inwards and use the provided fender washer on the inner side of the endlink between the bushing and lock nut.

59. Bolt in the bottom end of the shock using the factory hardware and tighten. The main shock body mounts to the bottom and the exposed shaft points upward. Tighten.

60. Take the factory plastic clip off the factory ABS line and discard. Use the new provided addel clamp around the ABS line. Use the provided self tapping screw and mount to the frame. Check for clearance. Make sure there is enough slack in the ABS line so that when the vehicle's suspension is at full droop, the line isn't stretched, broken, pinched, rubbing, etc.

61. Re-install the factory emergency brake cables the same way they were originally. These are the two cables that go into the bracket on the driver's side and then the main single line goes to the front.

62. Re-tighten all the bolts and hardware. Inspect all parts for rubbing / clearance.

63. Install the tires and wheels and tighten to manufacturer's specifications.

64. Re-check and tighten everything after 100 miles.