

## STOP---READ THIS FIRST!

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

# 2001-2010 GM 2500 TRUCK (8 Lug)

LIFT KIT INSTRUCTIONS (PART# 52000 & #52050)

#### **NOTE:**

- \* This kit will not work on vehicles with factory auto ride suspension.
- \* 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 16" 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. Compression Struts
- 2.1/2" Thick CV Axle Spacers
- 3. Front Shocks
- 4. Rear Shocks
- 5. Skid Plate
- 6. U-Bolts w/ hardware
- 7. Lift Blocks
- 8. Lower A-Frame Support Rods
- 9. Lift Spindles
- 10. Hardware (3 Bags)

11. Rear Bump Stop Extenders

(looks a little different from the parts in the picture)

- 12. Passenger Side Differential Drop
- 13. Rear Brake Line Extender
- 14. Driver Side Up. Differential Drop Bracket
- 15. Rear Crossmember Drop
- 16. Front Crossmember Drop
- 17. Front Bump Stop Extenders
- 18. Compression Strut Brackets
- 19. Torsion Bar Drop Brackets



## FRONT INSTALLATION:

- **1.** Place wheel chalks 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 four hub bolts on the back side of the spindle. Remove the bearing hub assembly and "O" ring 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 rear 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 and the backside of the front differential cross member. In order to cut you will need to measure 1.75" from the backside 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 (part#15 in the kit picture) using the factory hardware. Install the passenger side differential drop (part#12), 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 (part#14) (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 ½ bolt and nylock nut provided) to the factory driver side upper differential bushing. The dif. bracket may rub (on the stud that attaches the centerlink 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** (part#16) 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!



**16.** Install the electrical connection and the vacuum line to the factory differential housing.

17. Install the factory lower a-arms into the new cross-members, using the **lower a-frame support** rods (part#8) 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 ¼" 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** (part #5) to the back side of the front cross member using the provided ½" x 4 ½" bolt and lock nut. Use the provided ½" x 1 ¼" to bolt the back side of the skid plate to the **rear cross member** (part #15),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 stop extenders (part#17). You will use the 3/8" x 1 bolts and nuts to bolt the front bump stop extenders to the stock frame mount and torque to 20 ft. lbs. The other end of the extender will bolt to the rear cross member and will use the ½" x 1 ¼" bolts, nuts, and washers. Torque the ½" hardware to 35 ft. lbs. Now, re-install your factory bump stop to the underside of the new bump stop extender (part#17) and torque to 15 ft. lbs.



**21.** Install the new McGaughy's **lift spindles** (part#9) and make sure to re-install and re-use the factory "O" ring that you took out of your stock 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 tie-rods. Torque the ball joints to 70 ft. lbs and the tie-rods to 30 ft. lbs.

- **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 ½" 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.) and hub cover plate.



- **25.** Install the new provided **front shocks** (part#3) 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 ½" 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.







When sliding the upper brake line bracket check for clearance from left to right to be sure nothing is rubbing or binding.

- **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.** Unbolt the stock sway bar and flip it upside down and bolt back in with all the same hardware. The "U" strap bolts should be torqued to 25 ft. lbs. and the end link bolts should be torqued to 10 ft. lbs. The original sway bar end link will attach the flipped sway bar to the lower a-arms.
- **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** (part#1). Use the provided ½" x 4" bolts, nuts, and washers to install but do not completely tighten yet.
- **31.** Next, install the new provided **compression strut brackets** (part #18) to the strut. You will hold the compression strut bracket up and then rotate upward until it locates on the transmission cross member. Mark

and drill the ½" holes to bolt in the new bracket and use the provided ½" x 1 1/4" bolts and washers. We have provided two flat pieces of metal with nuts welded on to bolt in the compression strut bracket. Note: If your vehicle has an Allison Transmission, the bushing eye will face towards the rear and if it does not have an Allison, then the bracket will face forward.

**32.** Next you will be installing the **torsion bar drop down brackets** (part#19). 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 7/16" holes on the frame so that you can bolt in the new drop down bracket using the provided 7/16" x 1 ½" 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** (part#19, above) 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 LIFT KIT INSTALLATION:**

- **34.** Place wheel chalks under the front of the vehicle and jack up the rear. Place jack stands under the rear frame rails for extra support.
- **35.** Take off the rear shocks by supporting the rear differential, and take off the stock U-bolts. Lower the rear down slowly being very careful to not stretch the factory brake hoses.
- **36.** Use provided **rear bump stop extenders** (part#11) to bolt the factory bump stops to and then the whole bracket bolts back to the frame using the provided 3/8" x 1 ½" bolts, nuts, and washers (torque to 20 ft. lbs.). NOTE: The picture of part #11 in the kit picture is incorrect and the part you will be using is pictured below for reference.
- **37.** Install the new **lift blocks** (part#7) so that the center pin is on the bottom of the block. The taller side of the block faces towards the rear of the vehicle. Use the provided 5/8" U-bolts, nuts, and washers and tighten down to 90 ft. lbs making sure that the new lift blocks, U-bolts, leaf springs, and rear axle is all in line with each other.



**38.** Install the provided **rear brake line extender** (part#13) which extends the rubber brake hose away from the rear-end housing.



**39.** Install the new **shocks** (part#4) and torque to 65 ft. lbs.



- **40.** Check the rear differential fluid to make sure that it is at the correct fill amount. If more is needed make sure to use the proper oil that is recommended in your vehicle owner's manual.
- **41.** Install the rear tires and wheels and tighten to manufacturer's specifications. Inspect and tighten all components and check for clearance issues and/or rubbing. Set the vehicle back on the ground and then re-check and re-tighten all components again and re-check for any clearance issues. Address any issues before driving the vehicle so that you do not cause any permanent damage to the vehicle. Adjust the front headlights to the correct position now that the vehicle is higher!
- **42.** Before driving the vehicle anywhere, take the vehicle straight to a reputable front-end shop and get a front-end alignment. The alignment specification are the same as factory so there should not be any alignment issues related to the lift kit if the kit was installed properly.
- **43.** After driving approximately 50 miles on the new lift kit, make sure to re-tighten and re-check all components and hardware and torque to the specifications listed throughout this instruction.

**Rear Installation Is Complete!**