

4" Leveling Kit 2011-2013 HD 2500/3500 4WD CHEVY /GMC

KIT INCLUDES:

Left Upper Control Arm W/ Ball Joint
 Right Upper Control Arm W/ Ball Joint
 Cotter Pin
 Castle Nut
 Uca Bushings Black
 Uca Crush Sleeve
 Zerk Fittings
 2011 HD Torsion Keys

8) 3/8 X 1 1/4 Bolts
8) 3/8 Nuts
16) 3/8 Washers
1) Skid Plate (4wd Only)
2) 1" Flat Blocks
4) 3/4 X 15 Square U-Bolt
8) 3/4 U Bolt Nuts
8) 3/4 Washers

4) 9/16 X 5 1/2 Bolts
8) 9/16 Washers
4) 9/16 Nylock Nuts
4) 1" Diff Spacer .580 Id
4) 7/16 X 2" Bolts
4) 7/16 Nylock Nuts
8) 7/16 Washers
4) 1" Shock Spacers



Disassembly

1) With the vehicle on level ground set the emergency brake and blocks the rear tires. Disconnect the negative battery cable from the battery (Note that some vehicles have 2 or more batteries you will need to disconnect the negative cables from all batteries). Jack up the front end of the truck and support the frame rails with jack stands.

NEVER WORK UNDER AN UNSUPPORTED VEHICLE

2) Remove the front wheels and tires.

3)Important first step, must be followed to prevent damaging torsion bar tool. Peel back fender liner exposing upper shock mounting nuts. Loosen and remove mounting nuts.

4) Locate the torsion bar adjusting cams and threaded bolts. Measure exposed threads of torsion bar adjusting bolts and record for reinstallation.

5) Mark torsion bars indicating driver and passenger. Using a torsion bar removal tool unload the torsion bars and remove them. Retain the hardware for reinstallation.

(NOTE- Do not attempt to unload or remove torsion bars without the proper torsion bar tool. Torsion Bars are under extreme tension)

6) Remove the sway bar end link bolt using a 15mm socket and a 15mm open end wrench. Do this on both sides.

7) Remove the brake caliper using an 21mm socket. Secure the caliper so that the brake line does not get stretched or damaged. Repeat on opposite side.

8) Unbolt the tie rod end using a 21mm socket. A additional wrench may be need to keep the ball joint from spinning. Repeat on opposite side.

9) Remove the EIGHT 15mm axle shaft bolts. Set the hardware aside as it will be reused. Repeat on opposite side.

10) Separate the upper ball joint from the steering knuckle. Repeat on opposite side.

11) Unplug all electrical plugs and vent tubes from the front differential.

12) Remove the front differential.

13) Remove the two stock differential mounts.

14) Remove the stock steering linkage from the pitman arm and idler arm.

15) Mark the position of the alignment cams. Remove the 21mm UCA nuts, cams, and bolts.

16) Remove the upper control arm. Repeat on other side.

17) Locate the stock steering linkage and you will need to grind the thicker side to match the thinner side. See pic below

18) After grinding the steering linkage to the proper thickness reinstall the steering linkage facing forward (do not tighten at this time) See pic below.

19) With the steering linkage facing forward you will need to grind the frame for clearance. See pic below.

20) After grinding the frame for proper clearance you can tighten the steering linkage to factory specs.

21) Reinstall the factory diff drops using the supplied 1" spacer and the $9/16 \ge 1/2$ bolts and tighten at this time.

22) Raise the differential back up into its mounting location. Take care not to pinch the electrical line. (4WD Only)

23) Using the stock hardware reinstall the differential and tighten.

24) Reconnect the tabs from the wiring harness and plug the connector back in. (4WD only)

25) Re-attach the differential breather hose. (4WD Only)

26) Put the cross member back in place. Use of a rubber mallet may be needed to help persuade the cross member mounting holes to line up. (4WD Only)

27) Install the FTS upper control arm. The upper ball joint will be placed inside the control arm use the $3/8 \ge 1$ 1/4 bolts and tighten. Install the poly bushing into the control arm with the sleeves supplied (Use some grease on the bushing) Install the cam bolts and cams and line up your markings.

28) Re-install the tie rod into the stock spindle. Tighten to 90 ft-lb.

29) Install the front brake calipers using the factory hardware and 21mm socket. Tighten to 146 lb-ft.

30) Re-install the front driveshaft using the factory hardware and clamps. Tighten to 26 ft-lb. (4WD Only)

31) Reconnect the inner CV shaft using the factory hardware.Tighten to 45 ft-lb. (4WD Only)

32) Reconnect the ABS line and place back in factory location. Reinstall the sway bar end links on both sides. Tighten to 45 lb-ft.

33) Install the shock spacer on the top side of the shock and reinstall the shocks using the 7/16° x 1 $^{3}4$ ° bolts supplied and the factory bolt at the bottom and tighten at this time.

34) Install the FTS skid plate using the Factory bolts into the existing holes in the front and rear cross members. (4WD Only)

35) Install FTS torsion keys into position, and then slide torsion bar into hex as original.

36) Use torsion bar tool load tool torsion keys up just enough to insert adjuster blocks into cross member, Remove torsion bar loading tool.

37) Now install torsion key adjuster bolt and adjust for initial setting. Final adjustments will be done during alignment.

38) Reinstall tires and torque lugs to factory specs.

39) FRONT END ALIGNMENT IS REQUIRED AT THIS TIME.

REAR BLOCK INSTALLATION:

1) Unhook the ABS line located behind the rear bump stops on the underside of the frame on both sides. 2) Support the axle with a floor jack. Remove the rear shock with a 21mm socket and wrench.

3) Using a socket to remove the factory U-bolt nuts, axle plate, and U-bolts on the passenger side only.

4) Lower the axle.

5) Install FTS 1" block.

6) Install the new U-bolts, factory axle plate, washers, and nuts provided. Tighten to 160 lb-ft.

7) Install the shock into the lower mount using the factory hardware Tighten to 110 lb-ft

8) Tighten the upper shock mount to 110 lb-ft. Repeat steps 1-8 on opposite side.9) you may need to bend the upper and lower brake line brackets to allow enough slack in the line at full droop.

THANK YOU FOR USING FULL THROTTLE SUSPENSION LEVELING KITS









GRIND FRAME FOR STEERING CLEARANCE





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