

85102



2000-2010 CHEVY/GMC 1500HD / 2500HD TRUCK DUALY 4WD 8 LUG 7" BASIC KIT



C8510-4 MAIN BOX KIT W/ HARDWARE

- 1) FRONT X MEMBER
- 1) REAR X MEMBER
- 2) TORSION BAR DROPS
- 1) LEFT BUMP STOP
- 1) RIGHT BUMP STOP
- 2) SWAY BAR END LINKS
- 1) DRIVER DIFF DROP
- 1) PASSENGER DIFF DROP

1) HARDWARE

C8510-7 REAR BLOCK KIT

- 2) 4" FLAT BLOCKS 2.5 X 5
- 4) 9/16 X 18" U BOLTS
- 8) 9/16 WASHERS
- 8) 9/16 FINE THREAD NUTS

C8510-8 HD SPINDLES

- 1) LEFT HAND STEERING KNUCKLE
- 1) RIGHT HAND STEERING KNUCKLE

BOLT BAG 1

- 2) 5/8 X 6 BOLTS
- 2) 5/8 X 5 BOLTS
- 2) 5/8 X 2 BOLTS
- 6) 5/8 NYLOCK NUTS
- 12) 5/8 WASHERS

BOLT BAG 2

- 4) 7/16 X 2 3/4 BOLTS
- 8) 7/16 X 1 1/4 BOLTS
- 8) 7/16 NYLOCK NUTS
- 16) 7/16 WASHERS
- 8) 7/16 LARGE FLATE WASHERS
- 2) 3/8 X 1 1/4 BOLTS
- 2) 3/8 NYLOCK NUTS
- 4) 3/8 WASHERS

FRONT SUSPENSION INSTRUCTIONS

1) Disconnect the negative terminal on the battery. With the vehicle on level ground and the engine off, Jack up the front end of the truck and support the frame rails with jack stands. NEVER WORK UNDER AN UNSUPPORTED VEHICLE! Remove the front tires.

2) If there are factory skid plates installed, remove them.

3) Measure the torsion bar adjusting screw depth and record this dimension for use when replacing the torsion adjuster arm on reassembly. Remove the torsion bar adjusting screw. Apply a small amount of lubricating grease to the puller (See note above) threads and the puller shaft-to-adjuster arm contact point. Load the puller and torsion adjuster arm until the adjuster nut can be easily removed from the cross member. Back the puller off to unload the torsion bar and set the puller aside. With the bar unloaded, slide it forward into the lower control arm until the adjuster arm falls free. If the bar seems stuck, use a Hammer and punch through the hole in the rear of the cross member to dislodge it. Repeat this procedure on the other side of the vehicle.

Mark the orientation of both torsion bars (i.e., left side, right side, and front). They must be reinstalled exactly as removed!

4) Remove the torsion bar cross member. Retain the hardware for reinstallation. Remove the torsion bar cross member by removing the through bolts on each side of the vehicle. With the cross member out of the way, the torsion bars can be pulled from the lower control arms and removed. Save these nuts and bolts for re-use on reassembly. Do not attempt to unload or remove torsion bars without the proper torsion bar tool. Torsion Bars are under extreme spring load.

Steps 5 through 14 are performed one side at a time:

5) Disconnect the ABS sensor wire and secure it out of the way to prevent damage to the wiring or connector ends.

6) Remove the brake caliper assembly from the rotor and secure it away from the work area.

7) Remove the 6 bolts that attach the CV axle to the differential. Save these for reassembly

8) Remove the nut on the tie rods; disconnect the tie rod ends from the steering knuckle by striking the knuckle to dislodge the tie rod end.

9) Remove the sway bar end link that connect the sway bar to the lower a arms, Save this hardware for reassembly

10) Remove the shock absorber mounting bolts from the lower A-arm. Save this hardware for reassembly

11) Remove the upper shock nuts and remove the stock shock absorbers. Discard these parts.

12) Remove the lower A-arm pivot nuts. Save this hardware for reuse on reassembly.

13) Remove the wheel stud clips and discard. Remove bearing cover, 36mm axle nut, washer, and rotor with hub bearing. (DO NOT REMOVE THE HUB FROM THE ROTOR). Retain parts and hardware for reinstallation.

14) Support the A-arm assembly and carefully remove the pivot bolts. Lower the assembly to the floor and set aside. This assembly is relatively heavy and not a rigid assembly. Be very careful when removing. Save the pivot bolts for reuse.

15) Detach the front drive shaft from the differential yoke and secure it out of the way. Disconnect the electronic sensor and vent line from the differential and secure them out of the way.

16) Remove the factory bump. Save bump stops for reassembly

17) Remove the front differential lower mounting bolt. Save this nut and bolt for reuse.

18) Remove the passenger side differential mounting bolts. Save this hardware for reuse.

19) Remove the differential cross member and discard this hardware.

20) While supporting the differential, remove the upper mount bolt and carefully lower the differential to the ground. Retain this nut and bolt for reuse on reassembly.

21) Use a sawzall on the driver side A-arm pocket / differential mount, cut the rear section out as shown below.

22) Dress all cut edges with a grinder or sanding wheel. Paint or undercoat raw edges at this time

23) Hang rear lower cross member into place using factory bolts. DO NOT TIGHTEN at this time.

24) Install the FTS bump stop bracket using the 3/8 x 1" bolt at the top and the 7/16 x 1 1/4" at the bottom.

25) Install the factory bump stops into the holes on the bottom of the FTS bump stop bracket and tighten to 35ft lbs

26) Position passenger differential drop into place.

27) Carefully raise the differential into position using transmission jack, (this is a two man job). Use two 5/8" x 2" bolts for the right side, and factory 14mm bolt for the left lower mount.

28) Install the front cross member into front lower control arm pockets, using factory bolts. DO NOT TIGHTEN at this time.

- 29) Install the drive side front differential bracket to the rear of the front cross member using the ½” x 1 ½” bolts. Attach the upper portion of the bracket to the differential using the factory 14mm bolt and hardware.
- 30) After starting the bolts enough to support the differential, check the clearance between the left side of the housing and the inside of the drop bracket as shown below right. If you cannot see daylight between them or approximately 3/16” clearance, remove differential and repeat the clearance process as in step 26 until it fits with adequate clearance.
- 31) After ensuring adequate clearance, torque all fasteners starting with the larger rear cross member bolts (rear lower control arm drop bracket), then the upper bolts for the differential drop brackets, and lastly the bolts holding the differential housing.
- 32) Take a few minutes to check the assembly for potential binding or rubbing, make sure the unit looks centered correctly and the horizontal sections look parallel as shown.
- 33) Check each side axle flange relative to the adjacent bolt hole in the lift kit bracket to make sure they are comparable side for side. This can be done with a straightedge as shown in the picture below right, (sides should be within 1/8” of each other).
- 34) Once the unit is tightened in place, gently draw the actuator wiring and plug down from the vehicle chassis to gain enough slack to reconnect the plug, and re-clip the harness.
- 35) Once the wiring is reconnected, GENTLY pull enough slack in the rubber vent hose to reach and reconnect to the vent plug on the left side.
- 36) Position lower control arms into drop brackets using two 5/8 x 5” and two 5/8 x 6” bolts and nuts, DO NOT TIGHTEN at this time.
- 37) Install the FTS sway bar end links connecting lower control arms to sway bar on both sides of vehicle, and tighten the link hardware to 40 ft lbs. CAUTION: do not over-tighten sway bar links; the bushings do not need to “squeeze out” the sides, this is a common misconception.
- 38) Install and torque the six CV axle flange bolts on each side to factory specification using Loctite on the threads use factory hardware.
- 39) Install the FTS steering knuckle and torque ball joints to factory specs.
- 40) Tighten lower 5/8 a arm bolts to 125 ft.--lbs.
- 41) Reinstall the rotor and hub bearing assembly using the stock hardware and torque flange bolts to 125 ft lbs. Reinstall brake rotor and caliper. Torque caliper bracket bolts to 90 ft. lbs.
- 42) Screw on the CV axle nut and also torque to factory specs. USE LOCKTITE
- 43) Install supplied front brake line brackets using the 5/16 x ¾ bolts and hardware.
- IF YOU PURCHASED DOUBLE SHOCK HOOP FOLLOW STEPS 44-45**
IF YOU ARE ONLY INSTALL SINGLE SHOCK SKIP STEPS 44-45
- 44) If installing dual front shock kit, install lower shock mount brackets around factory upper control arm. NOTE: The UPPER HALF of the LOWER shock mount bracket can be positioned by bolting into place using the factory brake line retaining bolts that thread into the upper control arm. Once the upper half is positioned by the OE bolts, through-bolt the lower half to the upper half using ½” x 2-1/2” bolts and nuts.
- 45) (Dual Shocks ONLY). Next install the shock hoops as shown below using ½” x 4 ½” bolts & nuts, first through the frame and then a 5/8” x 2 ½” to mount the upper support bracket to the stock upper shock mount as shown below. Mount the shock absorbers using ½” x 7” bolts and nuts, first through the top mounts, then through the bottom bracket.
- 46) Carefully bend and locate brake line and ABS wiring to create enough slack to remount to existing connection points along the upper control arm.
- 47) Using factory hardware, reconnect all ABS and brake line retaining brackets to existing mounting points on upper control arm and spindle.

48) Reattach front of drive driveshaft to front differential with factory hardware and tighten. Use “Blue” Loctite on front drive shaft bolts.

49) Center up the eccentric alignment washers within the range of the upper control arm drop brackets, and then tighten the nuts as shown. NOTE: the alignment shop will likely change the position after final assembly; this is just a preliminary setting.

50) Install the FTS torsion bar drops directly below the factory one in the frame. Hold the torsion bar drop below the frame and mark the 2 hole with a scribe it pick.

51) Drill the previous marked holes with a 7/16 drill bit, BE CAREFULL not to drill into the hard line on the frame

52) Mount the torsion bar drops with the 7/16 x 1 ¼ bolts and hardware supplied, DO NOT tighten at this time

53) Install torsion bar cross member to the FTS torsion bar drops with the large holes FACING FORWARD using factory hardware . Once the torsion bar cross member is in place, all hardware may be torqued to specification

54) Slide torsion bars through the socket holes in the lower control arms, then slide them back through the front holes in the cross member and engage them into the “pork chop” keyway as shown. WARNING! Install the torsion bars the exact same as their factory original orientation, keeping them the consistent end-for-end and side-for-side. NOTICE: if using the extra lift leveling keyways, install them instead of the factory keyways at this time.

55) Using suitable tool, load torsion bars and reinstall and set the torsion bar adjusting bolts. Start with the original bolt setting, and then make minor adjustments to fine tune the vehicle’s front ride height.

If you purchased Heim’s Joint Steering skip steps 56
SEE HEIMS JOINT STEERING INSTRUCTIONS PART#85043

56) Reconnect the outer tie rods and torque to factory specs.

57)The front lift is now complete. Double-check ALL fasteners and cycle the steering all the way left and right to make sure there is no binding or physical contact between parts. Turn both front hubs to make sure no binding exists within the CV axles. The hubs should rotate freely with NO BINDING with the suspension at full droop and the torsion bars tight (as shown below). If CV axle bind exists, the droop stops can be adjusted – wait until after the truck is aligned at a qualified alignment shop before attempting to adjust the droop stops, binding may sometimes be caused by the preliminary alignment condition.

58) Make sure that the flexible brake hose has adequate slack and is not pulled tight with rear lift installed and rear axle hanging in the air. Recheck all fasteners and make sure all hardware is torqued. Torque lower control a arm nuts after placing vehicle on the ground.

59) Install wheels and place vehicle on the ground. CHECK ALL FLEXIBLE BRAKE LINES making sure they are clear of moving parts when the suspension cycles up and down. Make preliminary adjustments to camber and toe-in as needed to get front wheels visually straight. Recheck all fasteners and components again to make sure everything is tight. REMEMBER TO TORQUE THE LUG NUTS. Reconnect battery.

REAR SUSPENSION INSTRUCTIONS

1) Jack up the rear end of the vehicle and support the frame rails with jack stands. Release the parking brake at this time. Support the rear differential; remove the rear shocks, U-bolts, blocks and lower axle down. Use care not to over extend the brake hose.

2) Install the rear lift blocks .Using the provided U-bolts, nuts and washers, align the axle, lift blocks, and springs and torque U-bolts to 90 ft.-lbs.

3) Install the rear shocks. Install the shocks using the factory hardware and torque upper and lower bolts to 45 ft.-lbs.

4) Recheck all bolts for proper torque. Recheck the front and rear brake hoses and ABS lines for proper clearances.

5) Install tires and wheels and torque lug nuts to wheel manufacturer’s specifications. Turn front tires left to right and check for appropriate tire clearance. Note -Some oversized tires may require trimming of the bumper and valance.

6) Test drive vehicle at speed and listen for noises. Drive vehicle in different conditions while turning in drive and reverse to check tire clearance, and trim plastic bumper valance if necessary. Re-adjust vehicles headlights. Engage 4WD in low and high range and check for correct function of Auto trac if applicable. Have a QUALIFIED ALIGNMENT SPECIALTY SHOP reset the front end alignment to correct specification. DO NOT drive vehicle more than 15 miles before having the alignment checked by a qualified shop. Retorqued wheels after 200 miles and recheck all lift kit hardware after 1000 miles, then at regular intervals thereafter. Please

mail in warranty card and refer to the WARRANTY INFORMATION at the beginning of this document.

Product Warranty and Warnings-

FTS provides a Limited Lifetime Warranty to the original retail purchaser who owns the vehicle, on which the product was originally installed, for defects in workmanship and materials.

The Limited Lifetime Warranty excludes the following FTS items; bushings, bump stops, ball joints, tie rod ends, limiting straps, cross shafts, heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days from the date of purchase for defects in workmanship.

Reservoir shocks are considered a serviceable shock with a one year warranty on leakage only. Service seal kits are available separately for future maintenance. All other shocks are covered under our Limited Lifetime Warranty.

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FTS products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (A "RACE" is defined as any contest between two or more vehicles, or any contest of one or more vehicle against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America.

Installation of most suspension products will raise the center of gravity of the vehicle and will cause the vehicle to handle differently than stock. It may increase the vehicle's susceptibility to a rollover, on road and off road, at all speeds. Extreme care should be taken to operate the vehicle safely at all times to prevent rollover or loss of control resulting in serious injury or death.

FTS makes every effort to ensure suspension product compatibility with all vehicles listed in the catalog, but due to unknown auto manufacturer's production changes and/or inconsistencies by the auto manufacturer, FTS cannot be responsible for 100% compatibility, including the fitment of tire and wheel sizes listed. The Tire and Wheel sizes listed in FTS' catalog are only a guideline for street driving with noted fender trimming. FTS is not responsible for damages to the vehicle's body or tires.

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