

82105



**1999-2006 CHEVY/GMC 1500 4WD 6 LUG
7" BASIC KIT W/ 7" REAR SPRINGS**

**RECOMMEND A 17X8 OR LARGER WHEEL WITH A MAXIMUM OF 5" BACK SPACING WITH
A 35x12.50r17 TIRE**



C8200-4 Main Box Kit W/Hardware

- 1) Front X Member
- 1) Rear X Member
- 2) Torsion Bar Drops
- 2) Compression Struts
- 2) Sway Bar End Links
- 2) Tie Rods T528
- 2) 6 Bolt Axle Spacers
- 1) Driver Diff Drop
- 1) Passenger Diff Drop
- 1) Drive Brake Line Bracket
- 1) Passenger Brake Line Bracket
- 1) Rear Brake Line Bracket
- 1) Hardware Pack

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
- 2) 1/2 X 1 1/2 Bolts
- 2) 1/2 Nylock Nuts
- 4) 1/2 Washers

Bolt Bag 2

- 4) 7/16 x 2 3/4" Bolts
- 8) 7/16 Thick Washers
- 6) 7/16 x 1 1/4" Bolts
- 6) 7/16 Nylock Nuts
- 12) 7/16 Washers
- 12) 10mm X 50mm Axle Bolts
- 3) 5/16 X 1 Bolts
- 3) 5/16 Nylock Nuts
- 6) 5/16 Washers

C8500-2 99-06 1500 Spindles

- 1) Left Hand Steering Knuckle
- 1) Right Hand Steering Knuckle

REAR SPRINGS

- 2) C7 Leaf Springs

FRONT SUSPENSION INSTRUCTIONS

1) Disconnect the negative terminal on the battery. With the vehicle on level ground and the emergency brake set, block the rear tires. 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 the truck is equipped with factory front skid plates. 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 15 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 nut on the tie rods; disconnect the tie rod ends from the steering knuckle by striking the knuckle to dislodge the tie rod end.

7) Remove the sway bar end link that connect the sway bar to the lower a arms, save the bushings for reassembly

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

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

10) 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.

11) Remove the upper and lower ball joint nuts. Disconnect the upper and lower ball joints from the steering knuckle by striking the knuckle with a large hammer next to each ball joint on the knuckle to dislodge the ball joints. Use care not to hit the ball joints when removing. Retain nuts and discard knuckle.

12) Remove the 6 bolts that attach the CV axle to the differential. Discard them. Disconnect CV axles from differential housing and remove.

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

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 stops by using a large channel lock type of pliers and Save for reuse

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 saw all 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) Install the rear FTS lower cross member into place using factory bolts and 5/8 washers supplied

24) Install factory bump stop into FTS rear cross member

- 25) Install the FTS driver differential drop to the rear of the front cross member using the ½ x 1 ½” bolts and hardware
- 26) Install the FTS passenger differential drop into place using the factory hardware at the top.
- 27) Carefully raise the differential into position using transmission jack, (this is a two man job). Attach the top differential mounting ears using factory hardware, Attach lower ear using factory hardware. Use supplied 5/8 x 2 bolts and hardware for passenger side. DO NOT tighten at this time.
- 28) 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. If you cannot see daylight between them or approximately 3/16” clearance, remove differential and clearance until it fits with adequate clearance.
- 29) 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.
- 30) 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.
- 31) 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 (sides should be within 1/8” of each other).
- 32) 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.
- 33) 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.
- 34) Install the FTS front cross member into front lower control arm pockets, using factory bolts and 5/8 supplied washers.
- 35) Position lower control arms into drop brackets using two 5/8 x 5” and two 5/8 x 6” bolts and nuts, Install the bolts from the front side of the cross members, so the nuts will be on the back side of the cross members. DO NOT TIGHTEN at this time.
- 36) Install FTS sway bar end links connecting lower control arms to sway bar on both sides of vehicle, Use the factory bushing and new supplied 7/16 x 2 ¾ bolts and washers, Tighten the link hardware to factory spec. **CAUTION: do not over-tighten sway bar links; the bushings do not need to “squeeze out” the sides, this is a common misconception.**
- 37) Torque the front and rear frame pocket bolts to 125ft-lbs
- 38) Reattach the driveshaft to the differential using the stock hardware torque to 19ft.-lbs.
- 39) Install the FTS steering knuckle for the driver side. Attach the upper control arm to the new knuckle using the factory hardware and torque to 35FT-LBS. Attach the lower control arm to the knuckle using the stock hardware and torque to 70ft-lbs
- 40) Reinstall the hub bearing assembly using the stock hardware and torque flange bolts to 125lbs. Reinstall brake rotor and caliper. Torque caliper bolts to factory specs.
- 41) Reinstall axle shaft through new knuckle and torque axle nut to 150ft-lbs and install bearing cover.
- 42) Install the FTS 1” CV spacers between the CV axle and the differential housing using 10mm x 50mm bolts. (Use thread lock compound and torque to 55lbs in a cross pattern)
- 43) Install the FTS outer tie rods part#T528. Loosen the jam nut and remove the factory outer tie rods and discard, leaving the factory jam nut on the inner tie rod. Install the new outer tie rod onto the inner tie rod until it makes contact with the jam nut. Attach new tie rod end to the knuckle with the supplied nut and torque to 45 lbs. (This is just a starting point; a final alignment must be performed upon completion of suspension system).

44) Install the FTS rear compression struts. Mount the lower portion of the compression strut to the 5/8" lower an arm pivot, Push the strut up to the bottom of the transmission cross member , mark the spot where the compression strut sits flat against the cross member. Locate the center of each hole. Center punch the cross member and drill out to 7/16", Install the supplies 7/16 x 1 ¼ bolts and hardware. Tighten to 50ft-lbs

45) Torque the lower control arm bolt to 125ft-lbs.

46) Locate the FTS torsion bar drops. Mount directly below the factory torsion bar bushing eye, clamp to the mount to the bottom and side of the frame. Locate the center of each hole, center punch the frame and drill out frame to 7/16" diameter. Attach torsion bar mounts using 7/16" x 1-1/4" bolts, nuts and washers. Torque to 65lbs. Repeat same procedure for the opposite side.

47) Install the factory torsion bar cross member using the factory hardware and torque to 70lbs.

48) Install front shocks using the stock hardware and torque the upper mount to 15lbs and lower to 55lbs

49) Re install the driver and passenger side torsion bars.

50) Set Torsion Bar adjusters to the recorded thread measurement from the disassembly.

51) Check the fluid in the front differential and fill if need with factory specification differential oil.

52) Install front tires and wheels. Torque lug nuts to wheel manufacturer's specifications.

Front Suspension Is Now Complete

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. Supporting the rear differential; remove the rear shocks, U-bolts, blocks and lower axle down. Use care not to over extend the brake hose.

2) Remove front and rear springs hanger bolts , remove spring, install FTS new 7" rear leaf pack in the same orintation the factory spring was removed , Reinstall factory u bolts and torque to 95ft-lbs

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

4) Install the supplied brake line bracket as show in pic below, using the 5/16" x 1" hardware .

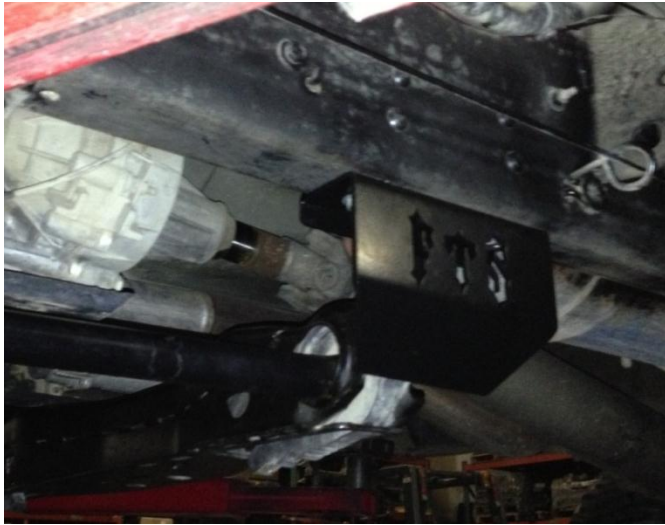
5) Recheck all bolts for proper torque. Recheck the front and rear brake hoses and ABS lines for proper clearances.

6) 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.

7) Check the front-end alignment and set to the factory specifications. Re-adjust vehicles headlights.







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.

FTS does not warrant any product for finish, alterations, modifications and/or installation contrary to FTS instructions. Alterations to the finish of the parts including but not limited to painting, powder coating, plating and/or welding will void all warranties. Some finish damage may occur to parts during shipping which is considered normal and is not covered under warranty.

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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 manufacturers production changes and/or inconsistencies by the auto manufacturer,

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