

48102



2011-2013 CHEVY/GMC 2500HD/3500HD 10" 2WD Kit

PACKING LIST

C4800-1 COMPONENT BOX 1

BOX 1 36" 102 LBS

- 1) Rear X Member
- 1) Driver Torsion Bar Drop
- 1) Passenger Torsion Bar Drop
- 1) Driver Front Bump Stop
- 1) Pass Front Bump Stop
- 1) Driver Rear Bump Stop
- 2) Pass Rear Bump Stop

C4800-2 COMPONENT BOX 2

BOX 2 36" 00 LBS

- 1) Front X Member
- 1) Front Lower X Member
- 1) Left Compression Strut
- 1) Right Compression Strut

C4800-5 HARDWARE KIT AND REAR BLOCK KIT W/20" U BOLTS

- (1) Left Block W/ Bump Stop
- (1) Right Block W/ Bump Stop
- (4) 3/4" X 3.25" X 20" Square U Bolts
- (8) 3/4" Fine Nuts
- (2) 18mm X 130 Bolts
- (2) 18mm X 150 Bolts
- (4) 18mm Nylock Nuts
- (8) 18mm Washers
- (4) 1/2" - 13 Crush Nuts
- (4) 1/2" X 1 1/2" Bolts
- (4) 1/2" Washers
- (14) 7/16" X 1 1/4" Bolts
- (14) 7/16" Nylock Nuts
- (32) 7/16" Washers
- (2) 9/16" X 4" Bolts
- (2) 9/16" Nylock Nuts
- (4) 9/16" Washers
- (4) 3/8" X 1.0" Bolts
- (4) 3/8" Nuts
- (8) 3/8" Washers
- (4) 7/16 X 2 3/4" Bolts
- (8) 7/16" Large Washers
- (2) 14" Sway Bar Extensions

C4800-8 2011 UP HD 10" SPINDLES

- 1) Left Spindle
- 1) Right Spindle

C4800-9 FRONT /REAR STEEL BRAIDED BRAKE LINES

Optional FTS upgrades

- 49841 BALL JOINT UPPER A ARM KIT
- 48140 DOUBLE SHOCK HOOP KIT
- 48143 HEIMS JOINT STEERING KIT
- 48139 DOUBLE SHOCK HOOPS W/ UPPER A ARM
- 15963 63" BOLT ON TRACTION BAR KIT (CREW CAB/ XTRA CAB SHORT BED)
- 15970 70" BOLT ON TRACTION BAR KIT (CREW CAB/ XTRA CAB LONG BED)

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. Remove front wheels and tires.

NEVER WORK UNDER AN UNSUPPORTED VEHICLE!

2. Locate the torsion bar adjusting cams and threaded bolts. Measure exposed threads of torsion bar adjusting bolts and record for reinstallation. Mark torsion bars indicating driver and passenger. Using a torsion bar removal tool unload the torsion bars and remove the cross member and bars. 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)

3. Remove the sway bar link ends from the sway bar and lower control arm. Discard links but retain the bushings for reassembly later.

4. Remove the stock front shocks and discard.

5. Remove the stock lower rubber bump stops from the frame and retain for reassembly later.

6. Remove the nut retaining the outer tie rod to the steering knuckle then disconnect the tie rod ends from the steering knuckle by striking the knuckle boss with a hammer to dislodge the tie rod end. Use care not to damage the tie rod end when removing.

7. Unplug the ABS brake connection from the frame and control arm. Remove the brake hose bracket from the top of the steering knuckle. Remove the caliper from the rotor and place above the upper control arm.

8. Remove brake rotor from the steering knuckle. Remove axle nut, washer as well as the 4 hub bolts on backside of knuckle. Remove hub bearing assembly including O ring from inside the knuckle. Retain all parts and hardware for reinstallation later.
9. Loosen the upper and lower ball joint nuts then 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. Remove both upper and lower ball joint nuts and retain them for reassembly later. Discard the steering knuckles.
10. Remove the lower control arms. Retain the arms and all hardware for reassembly.

Preparation

1. Next locate the holes on the underside of the factory bump stop mounts where you removed the bump stops in step 5 of disassembly. Use the holes as a pilot. Drill all 4 of them out using an 11/16 drill bit. Now install the nut inserts provided with the kit as shown in pic below. With the nut insert slid up into the 11/16 hole hold the installation tool from spinning and using an impact gun tighten the installation bolt till the nut has securely clamped itself to the frame, see PIC3 for an example. This will be done to all 4 of the factory bump stop mounts.

Assembly

1. Install front lower bump drop brackets to the factory lower front bump stop brackets using the supplied 1/2" bolts into the previously installed nut inserts, and the factory differential mount bolts through the drop bracket support struts as seen in PIC 4. Note that the left and right front lower bump stop drops have different support strut lengths so be sure to fit them to the mounts before tightening.
2. Install the rear lower control arm drop as shown in pic below using the factory rear lower control arm bolts and supplied 18mm washers on the bolt head side.
3. Install the rear lower bump stop drop brackets as shown in pic below using the supplied 1/2" bolts into the earlier installed nut inserts and 7/16" bolts to connect the drop bracket to the rear lower control arm drop cross member. Note the rear lower bump stop drop brackets are the same from left to right so it does not matter what side you install them on.
4. Once all four bump stop drop brackets are installed, install the factory bump stop rubbers into them by using light oil or soap as a lubricant and pushing up into the drop brackets till they pop into the retaining lip.
5. Next install the front lower control arm drop using the factory lower front control arm bolts and supplied 18mm washers on the bolt head side. Install the front lower control arm support that runs from side to side using the supplied 7/16 bolts.
6. Install the lower control arms using the supplied 18mm bolts to connect them to the lower control arm drops but do not tighten at this time.
7. Install the new steering knuckles to the control arms using the factory hardware. Now install the factory O-ring, wheel bearings and backing plate using the factory hardware and torque to factory specs.
8. Install the factory brake rotor and caliper using the factory hardware and torque to factory specs. Note we recommend new extended brake lines that can be purchased through us, but if you elect to not install extended lines be sure that you have routed the factory lines so that there is sufficient length and clearance for turning. Reconnect the factory tie rod to the steering knuckle. Note that now the tie rod goes in from top to bottom.
9. Install the compression strut to the rear lower control arm drop using the new lower control arm bolt as well as the supplied 7/16" bolts at the front and supplied 7/16" bolts at the rear to connect the strut to the transmission cross member frame mount.
10. Install the torsion bar cross member drop brackets using the supplied 9/16" x 4" bolts to secure them to the factory rubber frame mounts at the top. Note the offset of the brackets so that when installed they will move the torsion bar cross member forward in the vehicle. Install the torsion bar cross member to the drop brackets using the factory hardware as well as the supplied 3/8" bolts.
11. Reinstall the torsion bars as well as the torsion keys being sure that they are orientated just as they were originally removed from the vehicle. Load the torsion bars to the same height as they were set from the factory for a starting point.
12. Install the new sway bar end links using the factory rubber bushings with the supplied 7/16" large washers installed into them and supplied 7/16" bolts to secure them to the vehicle. Use Loctite or similar product to lock bolts into end links.
13. Install new front shocks. Front installation 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

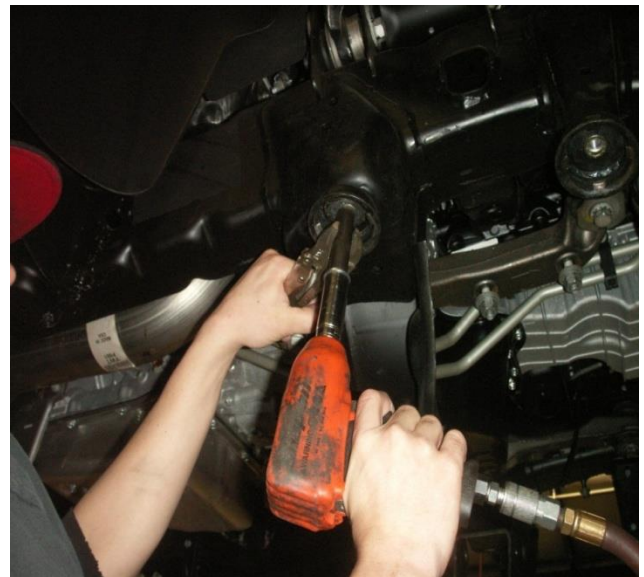
this time. Support the rear differential. Remove the rear shocks, U-bolts, blocks and lower axle down. Use care not to over extend the brake hose.

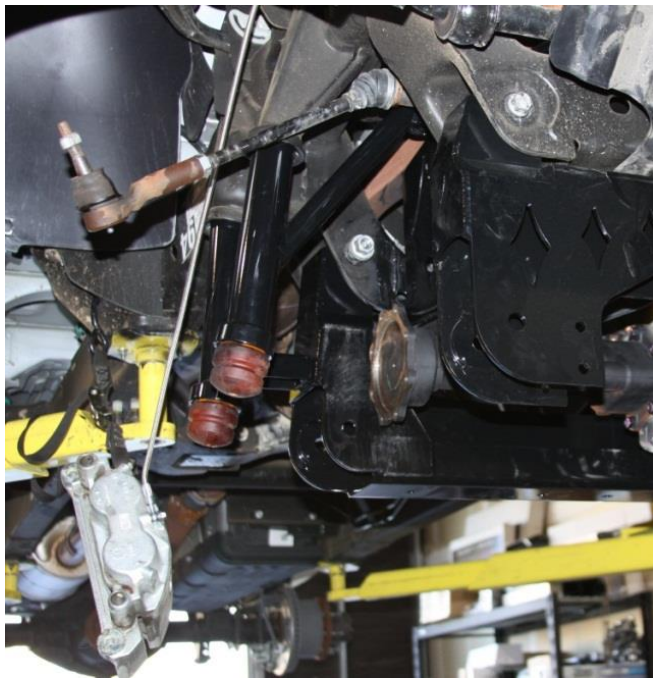
- 2) Install the rear lift blocks .The block is offset, Install the block so it pushes the axle forward. Using the provided U-bolts, nuts and factory washers, align the axle, lift blocks, and springs and torque U-bolts to 150 ft.-lbs.
- 3) Install the rear shocks. Install the shocks using the factory 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) Check the front-end alignment and set to the factory specifications. Re-adjust vehicles headlights.

WE HIGHLY RECOMMEND TRACTION BARS

BOLT ON TRACTION BAR KIT

SHORT BED	15963	63"
LONG BED	15970	70"





THIS IS WHAT YOU WILL NEED TO INSTALL THE INSERT INTO THE FRAME



Kit Hardware Torque Specifications

Remember that actual torque may vary if lubricant is used, or extension bars are used with the torque wrench. **Torque all re-used O.E. factory hardware** to original vehicle torque specifications according to factory service manual. If in doubt concerning the torque specification of ANY fastener, always consult the factory service manual. Always consult factory service manual for sequence and torque specification of any O.E. parts being reassembled, such as ball joint nuts, and steering tie rod ends. For hardware supplied with this kit, use the following list as a guide for fastener torque:

STANDARD BOLT TORQUE & IDENTIFICATION					
INCH SYSTEM			METRIC SYSTEM		
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 10.9	Class 12.9
5/16	15 FT-LB	20 FT-LB	M6	9 FT-LB	12 FT-LB
3/8	30 FT-LB	35 FT-LB	M8	23 FT-LB	27 FT-LB
7/16	45 FT-LB	60 FT-LB	M10	45 FT-LB	50 FT-LB
1/2	65 FT-LB	90 FT-LB	M12	75 FT-LB	90 FT-LB
9/16	95 FT-LB	130 FT-LB	M14	120 FT-LB	145 FT-LB
5/8	135 FT-LB	175 FT-LB	M16	165 FT-LB	210 FT-LB
3/4	185 FT-LB	280 FT-LB	M18	240 FT-LB	290 FT-LB

Important Maintenance Information

It is the end user's responsibility to have all fasteners checked for proper torque after the first 200 miles, then every 3000 miles. Have a qualified professional mechanic or alignment specialist inspect the steering, suspension and driveline components immediately after installation, and at regular intervals thereafter. Please see Limited Lifetime Warranty sheet included with the kit, and mail in the warranty information card. Limited lifetime warranty will only be honored if the original purchaser mails in the warranty card.

Disclaimer Notice: Installing this suspension system on any vehicle implies that you are in agreement with the following terms and conditions with respect to that vehicle, the vehicle owner, and any or all occupants of said vehicle at any time:

- Full Throttle Suspension is not responsible, and cannot be held responsible for any conditions of said vehicle including, but not limited to the following: 1) Any and all adverse behavior, premature failure, or breakage caused by oversized tires and wheels, improper installation, failure to follow instructions, or any general negligence caused by installer or owner of said vehicle. 2) Any breakage or premature failure caused by racing or driver negligence. 3) ANY incident determined to be caused by an increase height in said vehicle's center of gravity. 4) ANY incident determined to be caused by improper installation. 5) ANY incident determined to be caused by a failure of materials.
- Full Throttle Suspension is to be held harmless by the installer of this lift kit, owner of said vehicle, ANY occupants of said vehicle, and any parties related directly or indirectly to said vehicle or owner of said vehicle. Full Throttle Suspension is to be

held harmless by all parties mentioned during the course of any and all circumstances or incidence resulting from the installation of this lift kit.

- Full Throttle Suspension offers this kit strictly as a visual improvement of said vehicle over the factory aesthetics. The fact that the suspension system works and functions well is incidental, and it is not the intention of Full Throttle Suspension that said vehicle be modified for use on public highways sanctioned by the Department of Transportation, or any state or local governing body. Vehicle owner accepts sole responsibility for ensuring that said vehicle is not in violation of local, state, or federal laws or vehicle code. Please check local vehicle laws and regulations before modifying your vehicle. ALWAYS WEAR your seat belts, REDUCE your speed, and AVOID sharp turns and other abrupt maneuvers.
 - Before installing this system, have the vehicle's alignment and frame checked by a certified technician. The alignment must be within factory specifications and the frame of the vehicle must be sound (no cracks, damage, or corrosion).
 - Do not install a body lift with this suspension system or interchange Full Throttle components with parts from another manufacturer.
 - Do not chrome, cadmium, or zinc plate any of the components in the kit. To change the appearance of components, enamel paint can be applied over the original coating.
 - Each hardware kit in this system contains fasteners of high strength and specific size. Do not mix hardware kits or substitute a fastener of lesser strength. See bolt identification table on page 2.
 - Unless otherwise specified, tighten all nuts and bolts to the standard torque specifications shown in the table on page 2. USE A TORQUE WRENCH for accurate measurements.
 - It is extremely important to replace torsion bars, CV flanges, and front drive shaft/pinion relationship as original. Be sure to mark left/right, front/rear, and indexing of mating parts before disassembly. A paint marker or light colored nail polish is hand for this.
- By Installing This Kit or having this kit installed on your vehicle, you are implying that you agree to the above terms and conditions. Please do not install this system if you do not agree.

Important! Please read all instructions before attempting any work on the vehicle.

We strongly recommend installation be done by a professional mechanic, in a shop with a suitable vehicle hoist. If attempting this installation as a do-it-yourselfer, please review this packet carefully BEFORE attempting any work on the vehicle. This packet uses standard nomenclature when referring to each side of the vehicle: LEFT side means DRIVER'S side, while RIGHT side means PASSENGER side.

Required Tools and Equipment

Please review this list before attempting any work; it is common to spend more time finding the correct tools and equipment during the installation than actually installing the kit---save time by making sure all of these things are readily available BEFORE beginning work on the vehicle.

- Good quality safety glasses and ear protection
- Service manual
- Professional Quality Floor Jack (or vehicle hoist)
- Tall Jack Stands (4)
- ½ drive Socket set and ratchets with metric, standard and deep sockets
- 3/8 drive Socket set and ratchets with metric, standard and deep sockets
- Hex Sockets (recommended) OR Allen wrench (hex key) set
- Compressor w/ impact wrench and air ratchet (recommended)
- Air hammer with flat pointed chisel, and shovel tip chisel bits
- Pickle fork type tie-rod separator, and ball joint separator
- Torsion bar unloading tool
- Transmission Jack (recommended)
- Plasma Torch (recommended) OR Sawzal with metal cutting blades
- 4" grinder (recommended), or chisels and files
- ½" drill motor and drill index, (½" and 11/16" drill bits required)
- Dead blow hammer (recommended), OR suitable ball peen hammer
- Soft face hammer
- Screwdrivers
- Pliers and Channel Locks
- Sidecutter type cutting pliers
- Pointed Heel bars (recommended), OR prybars
- Cotter pin assortment
- Tie wire and/or plastic zip ties