

SOUTHERN TRUCK

Lift your life.

2007-2013 7.5" GMC/Chevrolet 1500 4WD Suspension Lift kit

15004

| | |
|-----------------------------|---|
| 2 - Cross-member (Fr/Rr) | 8 - Cross-member Sq. Washer (4 Fr/4 Rr) |
| 2 - Sway Bar Drop Bracket | 1 - Skid Plate |
| 2 - Knuckle (Dr/Pass) | 2 - Front Brake Line Bracket |
| 1 - Driver Diff. Bracket | 1 - Rear Brake Line Bracket |
| 1 - Passenger Diff. Bracket | 2 - Axle Spacers |
| 2 - Strut Spacer | 4 - 7/16" Rear U-Bolt |
| 2 - Rear Blocks | 4 - 9/16" Rear U-Bolt |
| 2 - Rear Shocks | |

*See back page for complete list of included hardware

PRE-INSTALLATION

Professional installation by a certified technician is strongly recommended.

Not responsible for altered products. No claims are made regarding any lifting devices. Any and all claims implied in this document excluded.

NOTES:

Larger rim/tire combinations increase leverage on suspension, steering and other components. An alignment is required after installing this product. Test-fit all tire/wheel combinations. An 18" or larger wheel not to exceed 9" in width is recommended. When using an 18" wheel, backspacing should be maximum of 5.5" and minimum 5.0" With a 20" or larger wheel, backspacing should be maximum of 6.0" and minimum of 5.5" Larger tires may require modifications to factory trim pieces.

REQUIRED TOOLS:

| | | |
|-------------------------|---------------------|----------------------|
| Floor Jack /Jack Stands | 8mm Allen Socket | 10mm socket /wrench |
| 11mm socket /wrench | 13 mm socket/wrench | 15mm socket / wrench |
| 17mm socket/wrench | 18mm socket /wrench | 21mm socket /wrench |
| 22mm socket /wrench | 24mm socket /wrench | 19mm socket /wrench |
| 35mm socket | 9/16 socket /wrench | Torsion bar Tool |
| Reciprocating Saw | Drill | 11/16" Drill Bit |
| Hand Grinder | Thread Locker | |

Torque Specs:

| Size | Grade 5 | Grade 8 | Size | Class 8.8 | Class 10.9 |
|-------|------------|------------|------|-----------|------------|
| 5/16" | 15 ft/lbs | 20 ft/lbs | 6MM | 5ft/lbs | 9ft/lbs |
| 3/8" | 30 ft/lbs | 35 ft/lbs | 8MM | 18ft/lbs | 23ft/lbs |
| 7/16" | 45 ft/lbs | 60 ft/lbs | 10MM | 32ft/lbs | 45ft/lbs |
| 1/2" | 65 ft/lbs | 90 ft/lbs | 12MM | 55ft/lbs | 75ft/lbs |
| 9/16" | 95 ft/lbs | 130 ft/lbs | 14MM | 85ft/lbs | 120ft/lbs |
| 5/8" | 135 ft/lbs | 175 ft/lbs | 16MM | 130ft/lbs | 165ft/lbs |
| 3/4" | 185 ft/lbs | 280 ft/lbs | 18MM | 170ft/lbs | 240ft/lbs |

INSTALLATION INSTRUCTIONS

Front

STEP 1: Park vehicle on level surface and chock rear wheels.

STEP 2: Jack up front of vehicle. Place jack stands under frame rails and lower onto jack stands letting front suspension hang.

STEP 3: Remove front wheels. Remove upper and lower factory skid plates. (15mm wrench - save factory hardware and front skid plate)

STEP 4: Remove tie-rod nut. Tap side of mount with hammer to dislodge tie rod end and remove from knuckle. (21mm wrench)

STEP 5: Remove sensor wire from plastic clip. Remove bracket from control arm. (10mm wrench)

STEP 6: Remove and unplug ABS sensor wire from frame. Remove two bolts holding brake caliper to factory knuckle. (18mm wrench) Remove caliper assembly from knuckle and secure out of the way. Do not let caliper hang by brake hose.

STEP 7: Remove axle nut from knuckle. (35mm socket - save factory hardware)

STEP 8: Remove upper strut nuts. (18mm wrench - save factory hardware)

STEP 9: Remove two bolts securing lower strut to lower control arm. (15mm wrench) Remove strut from vehicle. Remove and discard factory lower retainer clips. New hardware will be used.

STEP 10: Remove sway bar and end links from lower control arm. (15mm wrench)

STEP 11: Remove sway bar from frame. (10mm wrench - save factory hardware)

STEP 12: Remove six axle shaft bolts from differential and remove from knuckle. (15mm wrench) Repeat on opposite side.

STEP 13: Remove upper and lower ball joint from knuckle. (Upper: 18mm wrench, Lower: 24mm wrench) Tap knuckle with hammer to dislodge ball joint. Separate upper control and lower control arm from knuckle and remove knuckle and lower control arms from vehicle.

STEP 14: Mark location of alignment cams on upper control arms for reinstallation at same position. Remove upper control arms from vehicle. (21mm wrench and 21mm socket - save factory hardware)

STEP 15: Cut bump stop from upper control arm mount on passenger and driver side. (Reciprocating saw)

STEP 16: After bump stop has been cut from control arm mount, grind and apply paint to cut surface to prevent rust. Reinstall stock control arm in factory location using factory hardware and tighten. (21mm socket / wrench) Be sure to use alignment marks for reference.

STEP 17: Mark alignment of driveshaft and differential input flange. Remove four drive shaft bolts. (11mm wrench - save factory hardware)

STEP 18: Support differential assembly with floor jack.

INSTALLATION INSTRUCTIONS *Front (Continued)*

- STEP 19:** Unplug electrical connector on differential.
- STEP 20:** Unplug differential vent hose.
- STEP 21:** Remove four rear cross-member bolts and remove rear cross-member brace. (18mm wrench)
- STEP 22:** Remove four differential bolts (2 each side) securing differential to frame. (18mm socket - save factory hardware)
- STEP 23:** Lower differential assembly slowly to ground.
- STEP 24:** Cut (square off) rounded corners in lower control arm mount on the frame enough to allow new cross-member to fit.
- STEP 25:** Install front cross-member with included 5/8" x 4 1/2" bolts, nuts and washers. Do not tighten yet.
- STEP 26:** On driver side rear lower control arm pocket, measure 3/4" from edge of hole on rear frame where the cross-member was removed in step 21 and mark line to be cut. (See **Figure 1**) Note: area should be cleaned of any oil, grease and/or undercoating which may be flammable.
- STEP 27:** Cut area with reciprocating saw all the way through, front to back.
- STEP 28:** After cross-member mount has been trimmed, grind edges smooth and apply paint to raw metal.
- STEP 29:** Install passenger differential drop bracket (open side to center of vehicle) with included 12mm flange nuts.
- STEP 30:** Install driver side differential drop bracket (open side to center of vehicle) with notch at bottom to allow clearance for differential axle shaft flange with included 12mm x 35mm bolts and washers. Do not tighten.
- STEP 31:** Raise differential back into place and install on drivers side drop brackets with included 12mm flange nut and factory bolts.
- STEP 32:** Install differential to passenger side drop brackets with factory nuts and included 12mm x 45mm bolts and washer on head of bolt. Stock nuts/large washers must be reused to ensure differential stays located in drop bracket.
- STEP 33:** Tighten differential drop brackets to frame and differential to differential drop brackets. (18mm wrench - torque to 65 ft. lbs)
- STEP 34:** Install rear cross-member in factory location using included 5/8" x 5 1/2' bolts, nuts and washers.
- STEP 35:** Reinstall lower control arms in cross-member brackets with factory hardware. Do not tighten yet.
- STEP 36:** Use included sleeve and nut to seat 10mm studs into strut spacer. (17mm wrench)
- STEP 37:** Install strut spacer on top of factory strut with stock hardware and tighten. (18mm wrench)
- STEP 38:** Install strut in upper strut tower with included 10mm nuts, washers and lock washers, then tighten. (18mm wrench)
- STEP 39:** Install lower part of strut in factory location on lower control arm with included 10mm x 55mm bolts, nuts and washers, then tighten. (17mm wrench)
- STEP 40:** Brake shroud must be marked and trimmed to allow caliper reinstallation. (Refer to **Figure 2**) Reinstall brake caliper on knuckle with factory hardware and tighten.
- STEP 41:** On factory knuckles, remove bearing assembly. (15mm wrench) Install in new knuckle and tighten hardware.
- STEP 42:** Install knuckles on lower ball joint with factory hardware and tighten. (18mm wrench)
- STEP 43:** Position axle shafts in knuckle and tighten factory nut. (35mm socket - torque to 155 ft-lbs)
- STEP 44:** Install CV axle spacer between axle shaft and differential. Secure with included 10mm x 65mm allen head bolts using Loctite on bolt threads and tightening in a crossing pattern. (8mm allen socket - torque to 45 ft. lbs)
- STEP 45:** Trim each part of threaded tie rod ends by 3/8" (See **Figure 3**) Install tie rod ends on knuckle and tighten. (21mm wrench)
- STEP 46:** Install sway bar drop brackets with 10mm x 35mm bolts, lock washers, and flat washers, then tighten. (17mm wrench)
- STEP 47:** Install sway bar on sway bar drop brackets with stock bolts and included 10mm nuts and washers then tighten. (17mm wrench)
- STEP 48:** Reinstall drive shaft on differential with stock hardware. (11mm wrench) Note: Align marks made during disassembly.
- STEP 49:** Install skid plate with included four 3/8" x 1" bolts, flat washers and lock washers on front and rear cross-member, then tighten. (9/16 wrench)
- STEP 50:** Use template (**Figure 4**) as a guide to mark and drill lower control arm using an 11/16" drill bit to relocate the sway bar end link. Install the sway bar end link in new mounting hole with stock hardware and tighten.
- STEP 51:** Slightly pull down on differential vent hose and reinstall on differential, loosening vent hose from wire loom if necessary.
- STEP 52:** Reconnect electrical connection on axle removed in Step 19.
- STEP 53:** Remove brake line bracket from upper control arm mount. (13mm wrench)

INSTALLATION INSTRUCTIONS *Front (Continued)*

STEP 54: Install included brake line relocation bracket on upper control arm mount with stock hardware. Slightly pull down on brake line assembly and reinstall on drop bracket with included 5/16" x 3/4" bolts, nuts and washers, then tighten. (7/16 wrench) Reconnect ABS wire that was disconnected in Step 6.

STEP 55: Remove ABS wire from brake line clip and remove brake line from bracket using a flat head screwdriver. Trim brake line side from bracket. Reinstall modified bracket on stock control arm with factory hardware and reinstall ABS wire in clip.

STEP 56: Reinstall factory upper skid plate with factory hardware.

STEP 57: Install front wheels. Jack up front of vehicle and remove jack stands.

STEP 58: Lower vehicle to ground.

INSTALLATION INSTRUCTIONS *Rear*

STEP 1: Chock front tires.

STEP 2: Before jacking up rear of vehicle, remove stock brake line bracket from driver side frame rail to allow extension bracket to be installed. (13mm wrench) Remove clip securing hard line and wiring harness to top of frame. Stock bolts can be accessed from side of vehicle. (Save factory hardware)

STEP 3: Install brake line bracket to new extension bracket with included 5/16" x 3/4" bolts, nuts and washers. Reinstall assembly in stock location with factory hardware. (13mm wrench)

STEP 4: Remove e-brake cable from mount, bending open mounting loop with screwdriver.

STEP 5: Remove ABS wire, if equipped, from frame rail to allow slack in line.

STEP 6: Jack up rear of vehicle and place jack stands under frame rails. Remove rear wheels.

STEP 7: Support differential with floor jack .

STEP 8: Remove stock shock absorbers. (21mm wrench - save factory hardware)

STEP 9: Remove stock u-bolts and lower axle to allow included block to be installed. Discard factory block if equipped.

STEP 10: Install new block (shorter side toward front of vehicle) with included 7/16" X 3" u-bolts on leaf spring. Do not tighten yet. Jack up axle to meet new block, making sure center pin is in axle, then tighten 7/16" u-bolts.

STEP 11: Install included 9/16" u-bolts and tighten in a crossing pattern. (22mm wrench)

STEP 12: Install new shock absorbers in factory location tighten.

STEP 13: Lubricate ABS wire and slide rubber sleeve up to allow wire to be reinstalled in clip on frame. Connector will not be reattached to top of frame. Reroute lines as needed to gain slack.

STEP 14: Reinstall rear wheels.

STEP 15: Remove jack stands and lower vehicle to ground.

POST-INSTALLATION

STEP 1: Check for proper torque on all fasteners. Check clearance between upper control arm and sidewall.

STEP 2: Check steering for proper working order and check for interference. Test brake system. Check clearance between all rotating, mobile, fixed and hot parts.

STEP 3: Check distance between tire sidewall and the brake hose during full-turn to full-turn steering sweep. Any contact may result in component failure.

STEP 4: Activate four wheel drive system and check front hubs for engagement.

STEP 5: Adjust headlights to proper alignment.

STEP 6: Have vehicle alignment performed by certified technician. Realign to recommended factory specifications:

Caster in degrees: 4.5 +1.0 Camber in degrees: 0.0—3 Toe In in degrees: 0.1 +.2

Note: Alert your alignment specialist of possibility inner & outer tie rod ends may need to be trimmed (Figure 3) to allow proper front end alignment.

STEP 7: Check and retighten wheels at 50 miles and again at 500 miles.

MAINTENANCE: After 500 miles, re-torque all fasteners. (Recommended every 1000 miles thereafter) Have all suspension, driveline and steering components inspected by a certified technician during routine maintenance (Recommended every 3000 miles)

Figure 1:

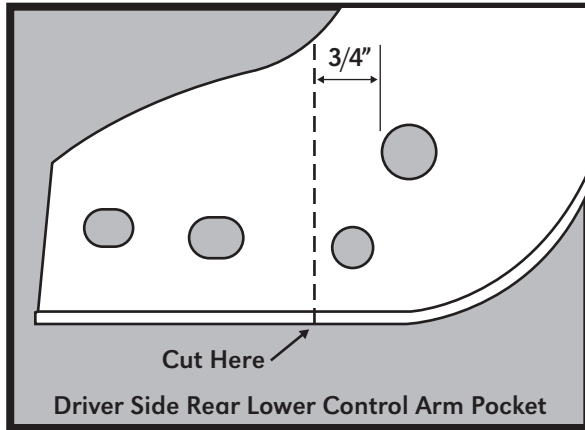


Figure 2:

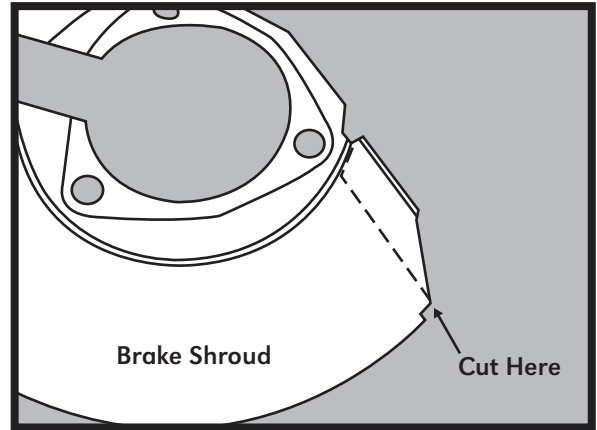


Figure 3:

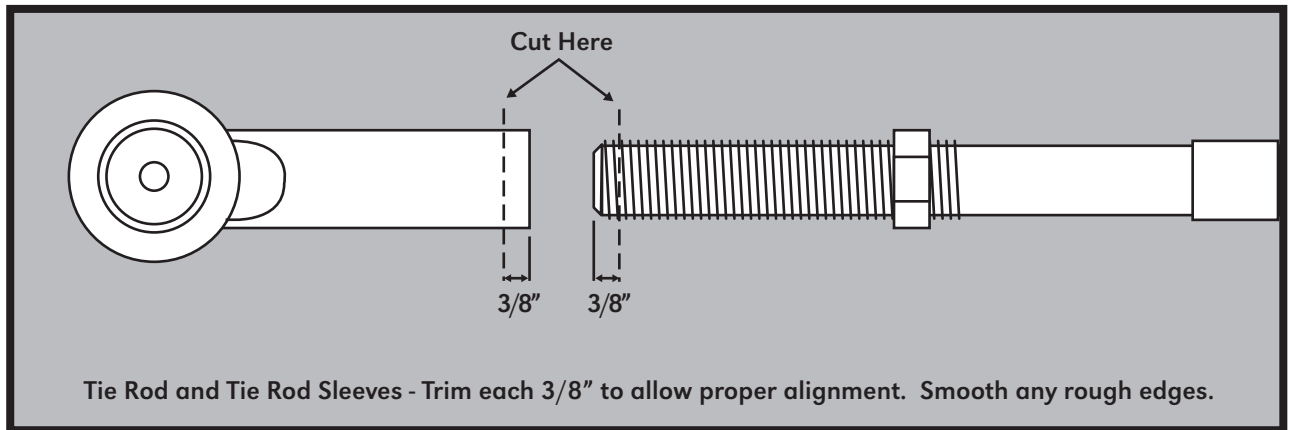
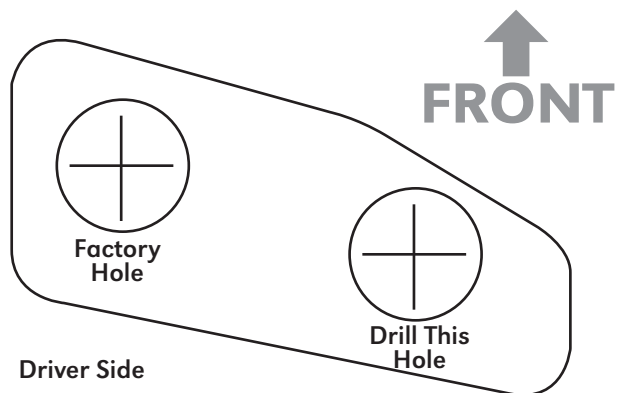


Figure 4:

Sway Bar Hole Relocation Template



HARDWARE PARTS LIST

Front Cross-Member:

- 2 - 5/8" x 4 1/2" Bolt
- 2 - 5/8" Lock Nut
- 4 - 5/8" Washer

Rear Cross-Member:

- 2 - 5/8" X 5 1/2" Bolt
- 2 - 5/8" Lock Nut
- 4 - 5/8" Washer

Front CV Axle Spacers:

- 12 - 10mm x 65mm Allen Hd Bolt

Lower Strut to Ctrl Arm Mount:

- 4 - 10mm x 55mm Bolt
- 4 - 10mm Lock Nut
- 8 - 10mm Washer

Sway Bar Bracket:

- 4 - 10mm x 35mm Bolt
- 4 - 10mm Lock Nuts
- 4 - 10mm Lock Washer
- 8 - 10mm Washer

Driver Side Differential Drop Bracket:

- 2 - 12mm x 35mm Bolt
- 2 - 12mm Flange Nut
- 2 - 12mm Washer

Passenger Side Differential Bracket:

- 2 - 12mm x 45mm Bolt
- 2 - 12mm Flange Nut
- 2 - 12mm Washer

Front and Rear Brake Line Brackets:

- 4 - 5/16" x 3/4" Bolt
- 4 - 5/16" Nylon Lock Nut
- 8 - 5/16" Washer

Skid Plate:

- 4 - 3/8" x 1" Bolt
- 4 - 3/8" Lock Washer
- 4 - 3/8" Flat Washer

9/16 U-Bolt:

- 8 - 9/16" Lock Nut
- 8 - 9/16" Washer

7/16 U-Bolt:

- 8 - 7/16" Lock Nut
- 8 - 7/16" Washer

Strut Spacer :

- 6 - 3/8" x 1.25" Self Clinch Bolt
- 6 - 3/8" Nut
- 6 - 3/8" Lock Washer

