

#### Superlift 4" lift system for 2005 and Newer JEEP GRAND CHEROKEE (WK) and JEEP COMMANDER (XK) 4WD INSTALLATION INSTRUCTIONS

#### INTRODUCTION

Installation requires a professional mechanic. Prior to beginning, inspect the vehicles steering, driveline, and brake systems, paying close attention to the suspension link arms and bushings, stabilizer bars and bushings, tie rod ends, pitman arm, ball joints and wheel bearings. Also check the steering sector-to-frame and all suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace all worn parts.

## Read instructions several times before starting. Be sure you have all needed parts and know where they install. Read each step completely as you go.

#### NOTES:

- New wheels or wheel spacers required Due to tight clearance between the front tires and steering knuckles, either the factory wheels must be replaced with different back spaced wheels, or bolt-on wheel spacers must be used. Most factory wheels have 6.5" back spacing. New wheels must have at least 5.75" back spacing with 5.5" preferred. Use 1" to 1.25" bolt-on spacers if factory wheels are retained. The factory spare tire / wheel can be used in emergencies.
- **Tire fitment** A 285 / 70 series tire (32.7" tall x 11.5" wide) on a 8.5" wide wheel will generally clear without modifying the front inner fender. Using a 305 / 55 series tire (33.2" tall x 12.4" wide) on a 8.5" wide wheel generally requires minor modifications to the inner fenders as detailed in the system's Installation Instructions.
- If the vehicle is equipped with Jeep's Electronic Stability Program (ESP), premature system
  engagement may be encountered after installing this or any other lift system. ESP function
  is impacted by tire size, wheel offset, and a multitude of other factors. If the ESP system
  routinely activates during normal driving conditions, the driver can disable the system by
  pushing the "off" button located in the center stack of the dash. Note that the ESP system
  will be impacted if the steering wheel is not properly centered and that the system must be
  disabled with each key cycle. Superlift is working on an ESP recalibration system; check the
  website for the latest information.
- Prior to beginning the installation, check all parts and hardware in the box with the parts list below. If you find a packaging error, contact Superlift directly. Do not contact the dealer where the system was originally purchased. You will need the control number from each box when calling; this number is located at the bottom of the part number label and to the right of the bar code.
- Installation of this lift system requires disassembling the struts for the front suspension. A special strut compressor tool is required to safely unload spring pressure and to facilitate reassembly. Do not attempt to disassemble the struts without one of these tools; serious injury could result. If necessary, the struts can be removed from the vehicle and taken to a qualified repair facility equipped with one of these tools.

- These vehicles are equipped with air pressure sensors mounted inside each factory tire and wheel. If the factory wheels are replaced, these sensors must be swapped over to the new wheels or a warning light will illuminate on the dash.
- Welding is required. Refer to Step 8.
- All knuckle and driveshaft fasteners require Loc-Tite thread-locking compound. Loc-Tite has been provided in the hardware bags.
- Special tools are recommended to detach/attach the pitman/idler studs. Refer to the factory service manual.
- Front end realignment is necessary.
- An arrow on diagrams indicates which direction is toward the front of the vehicle.
- A foot-pound torque reading is given in parenthesis () after each appropriate fastener.
- Do not fabricate any components to gain additional suspension height.
- Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged.
- After drilling, file smooth any burrs and sharp edges.
- Prior to operating a torch or saw, protect any heat-sensitive components located in the immediate area by covering them with a water-saturated cloth. Most undercoating is flammable but can be extinguished using a water-filled spray bottle. Have a spray bottle and an ABC rated fire extinguisher on hand.
- Paint or undercoat all exposed metal surfaces.
- Prior to attaching components, be sure all mating surfaces are free of grit, grease, undercoating, etc.
- A factory service manual should be on hand for reference.
- Use the check-off box "□" found at each step to help you keep your place. Two "□□" denotes that one check-off box is for the driver side and one is for the passenger side. Unless otherwise noted, always start with the driver side.

**PARTS LIST** ... The part number is stamped into each part or printed on an adhesive label. Identify each part and place the appropriate mounting hardware with it.

PART NO	<b>DESCRIPTION</b> (Oty if more than one)	NEW ATTACHING HARDWARE (Qty if more than one)	BAG #
66-01-5150	knuckle, driver side	. (1) tube Loc-Tite	77-5150A
66-02-5150	knuckle, passenger side	. (1) tube Loc-Tite	
55-027-5150	front crossmember	. (2) 55-025-5150 Cam bolt (4) 55-026-5150 Cam washer (2) 5/8" Stover nut	77-5150A
55-004-5150	front differential bracket	. (5) 12mm x 50mm bolt (4) 1/2" SAE washer (4) 3/8" SAE washer (5) 12mm Stover nut	77-5150B

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PART NO	DESCRIPTION	NEW ATTACHING HARDWARE	BAG #
	(Qty if more than one)	(Qty if more than one)	
55-005-5150	front differential bracket spacer		
55-028-5150	belly pan	(4) 5/16" x 3/4" allen-head bo (2) 5/16" flange nut (2) 5/16" nut plate (2) 1/4" thick spacer plate (1) 8mm x 25mm bolt (1) 5/16" SAE washer	lt 77-5152
55-007-5150	upper differential bracket, front, driver side	(1) 12mm x 100mm bolt (1) 12mm flat washer (1) 12mm Stover nut	77-5150B
55-008-5150	upper differential bracket, rear, driver side	(1) 7/8" OD x 1-15/16" sleeve	77-5150B
55-009-5150	differential bracket, front, passenger side	(1) 12mm x 100mm bolt (1) 12mm washer (1) 12mm Stover nut (1) 1/4" x 3/4" bolt (1) 1/4" SAE washer (1) 1/4" nyloc nut	77-5150B
55-010-5150	differential bracket, rear passenger side	(1) 7/8" OD x 1-15/16" sleeve	77-5150B
55-013-5150	front shock mount, driver side	(4) 1/2" x 1-1/2" bolt (6) 1/2" SAE washer (2) 1/2" Stover nut (2) 1/2" tab nut (2) cable tie	77-5150C
55-014-5150	front shock mount, passenger side	(4) 1/2" x 1-1/2" bolt (6) 1/2" SAE washer (2) 1/2" Stover nut (2) 1/2" tab nut (2) cable tie	77-5150C
55-022-5150	(2) shock preload spacer		
55-017-5150	(2) front stabilizer bar link	(4) 5/8" OD x 1-1/2" sleeve (2) 7/16" USS washer (4) hourglass bushing	77-5150C
55-018-5150	(2) rocker panel bracket	(2) 3/16" pop rivet	77-5150C
55-019-5150	brake line extension, driver side	(1) 1/4" x 3/4" bolt (1) 1/4" nyloc nut (1) 5/16" self-tapping bolt	77-5150C
55-020-5150	brake line extension, passenger side	(1) 1/4" x 3/4" bolt (1) 1/4" nyloc nut (1) 5/16" self-tapping bolt	77-5150C

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PART NO	DESCRIPTION (Qty if more than one)	NEW ATTACHING HARDWARE (Qty if more than one)	BAG #
1-011-5150	sub-frame reinforcement plate		
01-515	(2) rear coil spring		
55-069-5150	lower link arm, rear	. (8) 810043 bushing (4) 1" OD x 9/16" ID x 2-5/8" I (4) 1/4" grease fitting	77-5150D _ength
55-103-5150	(2) upper link arm bracket, rear	. (2) 12mm x 100mm bolt (4) 12mm washer (2) 12mm Stover nut (4) 1/2" x 1" bolt (4) 1/2" SAE washer (4) 1/2" Stover nut (2) 7/16" x 1" bolt (2) 7/16" SAE washer (2) 7/16" Stover nut (2) 1" OD x 2-1/4" sleeve	77-5150D
55-105-5150	brake line extension, rear, passenger side	. (2) 1/4" x 3/4" bolt (2) 1/4" SAE washer (2) 1/4" nyloc nut	77-5150C
55-107-5150	brake line extension, rear, driver side	. (2) 1/4" x 3/4" bolt (2) 1/4" SAE washer (2) 1/4" nyloc nut	77-5150C
55-206-5150	track bar bracket, rear	. (1) 9/16" x 1-1/4" bolt (1) 9/16" x 3" bolt (2) 9/16" SAE washer (2) 9/16" Stover nut (1) 7/16" x 1" bolt (1) 7/16" SAE washer (1) 7/16" nyloc nut (1) 1" OD x 1-3/8" sleeve	77-5150E
55-209-5150	track bar support bracket, rear	. (2) 10mm x 25mm bolt (2) 10mm washer (2) 10mm nut	77-5150E
55-29-3400	(2) stabilizer bar link, rear	<ul> <li>.(2) 01-5710 – 90 degree rod</li> <li>(2) 1/2" fine-thread Stover nut</li> <li>(2) 1/2" fine-thread jam nut</li> <li>(2) hourglass bushing</li> <li>(2) sleeve, 5/8" OD</li> <li>(2) 1/2" SAE flat washer</li> </ul>	77-5712

PART NO	DESCRIPTION (Qty if more than one)	NEW ATTACHING HARDWARE (Qty if more than one)	BAG #		
66-07-9064	(2) 10mm x 120mm bolt				
	(2) shock absorber, rear	(2) shock boot*, yellow 77-51500 (2) hardware pack and cable tie (2) 1/2" USS washer			
*(Note: Shock boot, if desired, purchased separately)					
00461	decal, "Warning To Driver"		88-5150		
0038	(2) Superlift / AEV decal		88-5150		

#### FRONT DISASSEMBLY

#### 1) PREPARE VEHICLE...

- Center the steering wheel. Place a piece of tape across the wheel and the steering column and draw a line to indicate center. Once the lift is completed, these reference marks will be needed to center the steering wheel.
- □ With the vehicle on the ground and the suspension supporting the vehicle's weight, remove the lower bolt from the rear track bar bolt at the axle.
- Disconnect the negative lead from the battery.
- Place vehicle in neutral. Raise front of vehicle with a jack and secure a jack stand beneath each frame rail, behind the lower control arms. Ease the frame down onto the stands, place transmission in low gear or "park", and chock rear tires. Remove front tires.

#### 2) SKID PLATE / STABILIZER BAR LINKS...

- Remove and discard the front skid plate. Save the two rear bolts for re-use.
- **D** Remove the front stabilizer bar links. Discard the links but save all hardware for re-use.

#### 3) AXLE SHAFT NUTS / UPPER CONTROL ARM BOLTS...

- Remove the bolts securing the axle-shafts to the hub assembly.
   NOTE: The axle-shaft nuts take a 1-3/8" socket or the metric equivalent.
- Loosen, but do not remove, the upper control arm bolts.

#### 4) BRAKE CALIPERS / ABS WIRING...

- Remove the brake caliper from the knuckle. Save all hardware for re-use. Using mechanics wire, tie the caliper up and out of the way. Take precautions to ensure the brake hose is not pinched or stretched.
- □□ Unbolt the brake hose bracket securing the connection between the rubber hose and the metal line at the frame. Save all hardware for re-use.
- Disconnect the ABS wire from the connection on the frame. Unclip the wire from any clips on the fenderwell and on the shock strut.

#### 5) KNUCKLES...

- Support the lower control arm / hub assembly with a jack and remove the clevis bolt securing the strut to the lower control arm.
- Loosen the nuts on the upper and lower ball joints. Save all hardware for re-use.
- Remove the nut securing the tie rod end to the knuckle and, using the appropriate puller tool, separate the tie rod end from the knuckle. Save all hardware for re-use
- Using the appropriate puller tool, separate the knuckle from the upper and lower ball joints. Remove the nut on the upper ball joint and tilt the knuckle outward to separate it from the axle-shaft. Remove the lower ball joint nut and remove the knuckle from the vehicle. Knuckle disassembly will take place in a later step; set aside for now.

#### 6) SHOCK STRUTS / LOWER CONTROL ARMS...

- □ Mark the struts with their respective (driver and passenger side) positions.
- Raise the hood of the vehicle and note that there are a few under-hood components that prevent accessing the nuts securing the strut to the body. Specifically, the coolant reservoir must be temporarily relocated on the passenger side, while the power distribution box will have to be moved on the driver side. Adjust the position of these and any other components as necessary in order to gain access to the nuts (four per side). Note that these components do not need to be removed entirely from the vehicle; simply adjust their position as necessary. Refer to the factory service manual for exact procedures and torque specifications.
- □□ Support the strut and remove the nuts securing the strut to the body (four per side). Save all hardware for re-use.
- □□ There is a clip for retaining the ABS wire attached to the body directly behind where the coil strut was mounted. Remove this clip as it will interfere with the coil on re-assembly.
- Remove the bolts securing the lower control arm to the vehicle. Remove the arm and save all hardware for re-use.

#### 7) DIFFERENTIAL...

- Gently pry the axle-shafts out of the differential. Take precautions not to damage any seals. Mark each for driver and passenger side for reference during assembly.
- Remove the vibration damper attached to the bottom of the differential. This damper will not be re-used.
- □ Mark the location of the driveshaft on the exhaust crossover pipe. This mark will be used to reference the exhaust modification that will be performed later.
- Make a couple of reference marks between the driveshaft and the companion flange on the differential. Unbolt the driveshaft from the companion flange and tie it up out of the way. Save the bolts for re-use.

**NOTE:** Some installers may find it easier to remove the driveshaft from the vehicle entirely to have more working room. If so, make reference marks for re-assembly and then remove the attaching hardware. Save all hardware for re-use.

- Disconnect the vent hose and wiring from the differential housing.
- □□ Support the differential with a jack. Remove the bolts securing the differential to the vehicle, and with the help of an assistant, lower the differential to the floor.

#### 8) MODIFYING THE REAR CROSSMEMBER...

**NOTE:** These steps are performed for front driveshaft clearance.

□ Locate the original skid plate mounting hole on the driver side of the rear crossmember. Using an 11/64" bit, drill upward through the existing hole and through the top of the crossmember.

**IMPORTANT:** This hole serves as the primary locator for the trimming that follows. Therefore, the bit must be perfectly vertical while drilling and not cocked at an angle.

- [TEMPLATE 1] Cut out the supplied template attached to this instruction form. Note that there is a circle in roughly the center of the template that should be aligned with the hole just drilled. Orient the template on the top of the crossmember so that the end marked "front" points toward the front of the vehicle and the end marked "inside" points toward the center of the vehicle. Fold the template so that it conforms with the contour of the crossmember and then trace the entire outside edge of the template on the crossmember. All the material inside this line will be removed.
- Remove the template and use a plasma cutter or torch to cut *inside* the traced lines so as not to oversize the trimmed area.
- □ Test-fit the supplied reinforcement plate (#011-5150) in the area just trimmed. Note that the plate should fit over the captured nut inside the crossmember and rest on the bulge where the nut is welded in place. Do any additional trimming to the crossmember to ensure the reinforcement plate fits properly.

**NOTE:** It should not be necessary to trim the reinforcement plate itself; trim only the crossmember.

- Snake the inside of the crossmember with a magnet to remove any slag.
- □ Verify that the reinforcement plate is seated one more time and then weld the entire bracket to the crossmember. Allow the weld to cool and then paint the affected area.

**NOTE:** If unsure of the proper position of the reinforcement plate, it is recommended that it be only tack-welded in place, then test-fit the driveshaft once the differential has been hung in place. However, the differential will need to be removed to perform final welding.

#### 9) EXHAUST MODIFICATIONS...

**NOTE:** The exhaust crossover pipe must be dimpled slightly for front driveshaft clearance.

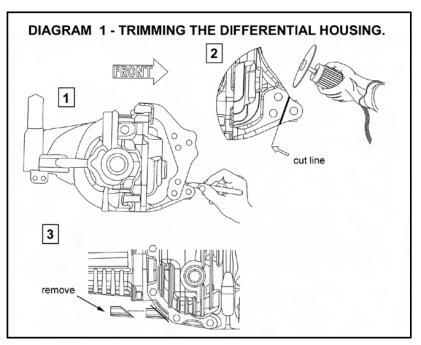
□ Using a torch, heat the area to be dimpled until it is red hot, then tap it with a ball peen hammer. Note that not much clearance is needed: the beginning O.D. of the pipe is approximately 2-5/8"; when finished the O.D. should be approximately 2-3/8".

### FRONT ASSEMBLY

#### 10) DIFFERENTIAL MODIFICATIONS...

- Remove the three bolts securing the front lower differential mount to the differential cover, followed by the top two bolts in the center of the differential cover. Save the mount and hardware for re-use.
- [DIAGRAM 1] Place the #55-004-5150 front differential bracket on the differential cover as shown and secure it using the two differential cover bolts just removed. Using the bracket as a template, mark the portion of the factory mount to be trimmed as shown. Remove the bracket and cut at the marked line.

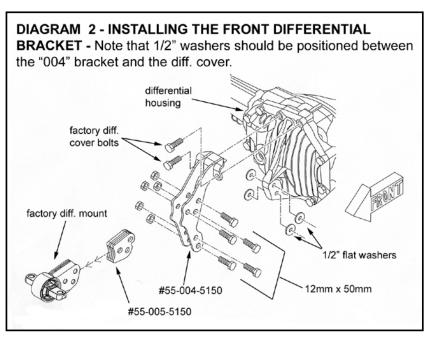
**NOTE:** Use only a cut-off wheel, hack saw, or similar tool to perform the above and subsequent differential trimming. Use of any heat, such as a torch or plasma cutter, will warp the housing and cause irrevocable damage.



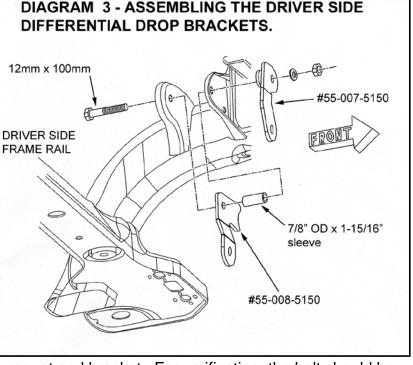
[DIAGRAM 1] When facing the front of the differential, there is a small protrusion on the housing just below and to the left of the differential cover. Using the appropriate tool, cut this piece off flush with the housing as shown.

**NOTE:** Some installers may find it easier to trim the differential housing once the housing is reinstalled in the vehicle. This will avoid potential fluid loss by turning the differential upside down in order to trim it on a workbench.

[DIAGRAM 2] Re-install the "004" front differential bracket using the factory diff. cover bolts at the top. Insert the supplied 1/2" flat washers between the bracket and differential cover at the lower holes as shown, then secure it using the supplied 12mm x 50mm bolts and nuts. Do not tighten at this time.



- Insert the front differential mount spacer (#55-005-5150) in the factory front differential mount as shown in Diagram 2, then secure the assembly to the "04" bracket using the supplied 12mm x 50mm bolts and nuts.
- Tighten the 12mm bolts (70) and factory differential cover bolts (23).
- 11) DRIVER / PASSENGER DIFFERENTIAL DROP BRACKETS...
- [DIAGRAM 3] Locate the rear upper differential bracket for the driver side (#55-008-5250).
   Position it in the factory mount as shown and start the supplied



12mm x 100mm through the factory mount and bracket. For verification, the bolt should be installed from the rear.

- Position the supplied 7/8" OD x 1-15/16" sleeve between the "008" bracket and factory mount as shown in Diagram 3, then slide the 12mm x 100mm bolt all the way through the sleeve. Hang the front upper differential bracket (#55-007-5150) on the bolt, followed by the supplied 12mm washer and Stover nut. Do not tighten at this time.
- [DIAGRAM 4] Locate the passenger side upper differential bracket (#55-010-5150).
   Position it as shown in the factory mount and start the supplied 12mm x 100mm bolt. For verification, the bolt should be installed from the rear.
- Position the supplied 7/8" OD x 1-15/16" sleeve between the "010" bracket and factory mount as shown in Diagram 4, then slide the 12mm x 100mm bolt all the way through the sleeve. Install the passenger side front differential bracket (#55-009-5150), followed by the supplied 12mm washer and Stover nut. Note that the bung on the "009" bracket should fit in the bulge present in the factory mount. Do not tighten at this time.
- Install the supplied 1/4" x 3/4" bolt through the remaining small hole in the top of the "009" bracket and existing hole in the factory diff mount and secure using the supplied washer and nyloc nut. Do not tighten at this time.

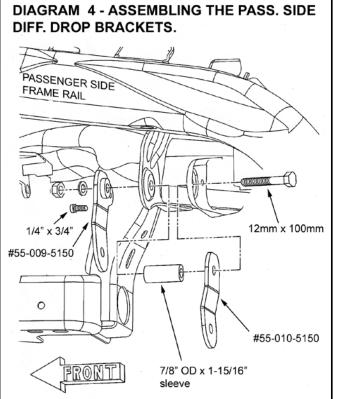
## 12) DIFFERENTIAL INSTALLATION...

- □□ Using a jack, raise the differential into position and secure it to the upper brackets using the factory hardware. The bolts should be installed from the front.
- Secure the driver side front mount using the factory hardware. Tighten (35).
- □□ Tighten the 12mm bolts (70) and factory hardware (70) for the upper mounts, followed by the 1/4" bolt (95 in-lb).

- □ Re-connect the differential wiring and vent hose.
- Reconnect the front driveshaft following the marks made during removal and secure using the factory hardware with thread-locking compound at the differential (80). If the upper end of the driveshaft was detached, reconnect it now using the factory hardware and tighten to factory specifications

#### 13) LOWER CONTROL ARMS...

- [DIAGRAM 5] On each of the factory front lower control arm mount there are lips just below the LCA mounting holes that must be trimmed to make room for the front crossmember. Trim off these lips as shown. Do not cut into the factory weld.
- Install the front crossmember (#55-027-5150) in the factory front lower control arm mounting locations using the factory LCA hardware. The bolts should be installed from the rear. Tighten (125).



- □□ The factory rear lower control arm mounts are pressed on to the rear legs of lower control arms; in their original configuration they bolted to the top of the rear crossmember. Rotate the LCA mounts 180 degrees so that they will attach to the bottom of the crossmember rather than the top. Secure using the factory hardware installed from the top. Center the slots in the mounts and tighten (105).
- □□ Install the front legs of the lower control arms to the front crossmember using the supplied cam bolts and washers. The bolts should be installed from the front. One cam washer is positioned on the head and the other on the nut, the washers should be positioned in the neutral position where the bolt is at the bottom Do not tighten at this time.

#### 14) AXLE-SHAFTS...

□ Install the axle-shafts in the differential according to the marks made during removal. The exact precedure

the marks made during removal. The exact procedure can be found in the factory service manual.

#### 15) SHOCK STRUTS...

[DIAGRAM 6] Install the supplied preload spacers (#022-5150) in the coil struts. This requires the use of a strut compressor and following the disassembly / assembly procedures found in the factory service manual. The diagram has been supplied as a reference. If necessary, take the struts to a qualified facility with the proper equipment for installation. For verification, the spacer should be positioned on top of the factory rubber isolator just below



the top plate. There are four recesses in the spacer that should positioned upward to provide clearance for the upper mounting studs.

**WARNING:** Do not attempt to disassemble the struts without a strut compressor. The coils are under a tremendous amount of tension and attempting to disassemble the strut without the proper equipment could result in serious injury.

Attach the shock mount (#55-013-5150 driver side and #55-014-5150 passenger side) to the appropriate shock strut using the factory nuts. There is a small notch on the back

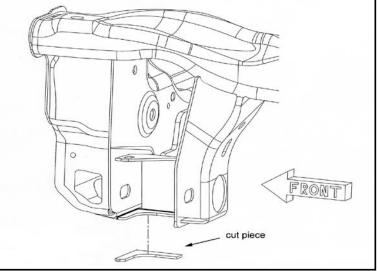
leg of each bracket that, when installed on the vehicle, should be facing forward. Tighten the factory nuts (70).

□□ Position the coil assembly on the vehicle and line up the upper holes in the shock mount with the holes on the vehicle. Secure the assembly using the supplied 1/2" x 1-1/2" bolts, Stover nuts, and tab nuts. Note that the bolts should be installed from the top, and the tab nuts should be used to aid in the installation of the two inside bolts on each side. Once all four bolts are started, tighten (57).

**NOTE:** Some installers might find it helpful to adjust the angle of the tab on the tab nuts and use pliers to hold them in position during assembly.

- Put all of the under-hood components that were moved to gain access to the upper shock strut hardware back in their factory locations and tighten all hardware to factory specifications.
- Raise the lower control arm to the lower mount on the coil strut and install the factory clevis bolt from the front. Do not tighten at this time.
- 16) KNUCKLE ASSEMBLY...

**DIAGRAM 5 - TRIMMING THE LOWER CONTROL ARM MOUNTS -** Trim the lips on the inside of the L.C.A. mounts flush with the frame. Perform the trimming on both driver and passenger sides.



# DIAGRAM 6 - PRELOAD SPACER **INSTALLATION AND COIL ASSEMBLY - Note** that the nub on the upper shock mount must be 180 degrees from the centerline of the lower bracket for proper installation. #55-013-5150 upper shock mount note nub orientation FRON #55-022-5150 Note clevis orientation

**NOTE:** Perform these steps one side at a time to avoid any confusion. Start with the driver side.

- □ Place the factory knuckles and the new knuckles (#66-01-5150 driver side and #66-0205150 passenger side) side by side. Note the orientation of the ABS sensor and dust shield, then remove the bolts securing the wheel hub to the original knuckle.
- □□ Transfer the components to the new knuckle and position them in the exact same orientation as they were on the originals. Apply thread-locking compound to the factory bolts and tighten (100).
- **Q** Repeat these steps for the passenger side knuckle.

#### 17) KNUCKLE INSTALLATION...

- □ Install the knuckle on the vehicle. Start by lining up the splines in the wheel hub with the axle-shaft, then insert the lower ball joint in the knuckle and loosely secure using the factory nut. Finally, position the upper ball joint in the knuckle and secure using the factory nut.
- □□ Tighten the lower ball joint (70), upper ball joint (55) and axle-shaft nut (100).
- □□ Install the tie rod on the knuckle using the factory hardware and tighten (70).
- [DIAGRAM 7] Route the ABS wire following its factory position. Re-use the remaining factory retaining clips and snap it into the connector on the frame. Snap the last retaining clip into the attachment hole in the knuckle. Use the supplied zip ties to attach the ABS wire to the shock body. Be sure there is enough slack in the wire to accommodate full knuckle rotation and suspension travel, yet the routing should keep the ABS wire from making contact with the tire once installed.
- Reinstall the brake calipers using the factory hardware. Apply thread-locking compound to the caliper bolts and tighten (125).

# DIAGRAM 7 - ABS WIRE ROUTING - Use the supplied zip ties to attach the wire to the shock body.

#### 18) BRAKE LINE EXTENSIONS...

- Position the upper hole of the supplied brake line extension (#55-19-5150 driver side and #55-020-5150 passenger side) on the frame where the factory brake line bracket was once attached. Note that the notched end of the bracket should be positioned downward (opposite the end attached to the frame) and kicked outward (toward the tire) Secure the upper end using the factory hardware and tighten (105 in-lb).
- □□ Install the supplied 5/16" self-tapping bolt in the hole close to the factory bolt and tighten (240 in-lb).

□□ Carefully re-form the metal line so that the factory bracket lines up with the bottom of the extension bracket. The locating tab on the factory bracket should engage the slot in the extension bracket. Secure the brackets using the supplied 1/4" x 3/4" bolt and nyloc nut (87 in-lb).

**WARNING:** Use extreme caution when reforming the metal brake line to avoid kicking, pinching, or otherwise damaging it.

#### 19) STABILIZER BAR LINKS...

□□ Install the supplied bushings and sleeves in the stabilizer bar links (#55-017-5150).

Position the stabilizer bar link on the vehicle so that the upper end of each link kicks outward (toward the tires). The link should be mounted inboard of the stabilizer bar body; mounting it outboard of the bar will cause tire interference. Secure using the factory hardware along with the supplied 7/16" washer, noting that the top bolt should be installed from the outside. Tighten the upper end (100) and lower end (85).

#### 20) BELLY PAN...

- □□ Position the supplied 5/16" nut plates in the front crossmember and line them up with the belly plate mounting holes. The tabs of the nut plates should protrude through a slot in the crossmember.
- Position the front of the belly pan (#55-028-5150) against the front crossmember and loosely secure using the supplied 5/16" x 3/4" tapered allen bolts threaded in the nut plates and 5/16" flange nuts. Do not fully tighten at this time.
- Position the supplied 1-3/8" diameter 1/4" thick spacers above the two rear mounting holes in the belly pan. Raise the pan into position and insert the factory belly pan hardware through the pan, spacers, and crossmember on the passenger side. On the driver side, install the supplied 8mm x 25mm bolt (this bolt is supplied for driveshaft clearance). Tighten all of the belly pan hardware (14).
- □ If necessary, install the front tires and lower vehicle to the floor. Final clearances and torque checks will occur once the rear installation is complete.

#### REAR DISASSEMBLY

#### 21) PREPARE VEHICLE...

□□ Raise the rear of the vehicle using a jack and position a jackstand beneath each frame rail just ahead of the rear trailing link mounts. Ease the frame down on the stands and lower the jack so that it supports, but does not raise, the rear axle. Remove the rear tires.

#### 22) SHOCKS / STABILIZER BAR LINKS...

- **D** Remove and discard the rear shock absorbers; save all hardware for re-use.
- Remove the stabilizer bar links and save the upper hardware for re-use. Then remove the stabilizer bar from the vehicle, but save all hardware and bushings for re-use.

#### 23) COIL SPRINGS...

- Disconnect the ABS wire and vent hose from the differential.
- **D** Remove the bolts securing the rear brake hoses to the frame and let hang.
- Lower the axle enough to facilitate removing the coil springs. Discard the factory springs.
- 24) DRIVER SIDE LOWER LINK ARM BOLT...

**NOTE:** The driver side lower link arm bolt was installed from the inside at the factory and the gas tank interferes with its removal.

□ Loosen the bolt enough to expose the shank of the bolt. Using a reciprocating saw, cut the head off of the bolt. The remainder of the bolt will be removed in a later step. A replacement bolt has been supplied.

#### REAR ASSEMBLY

**NOTE:** Perform the following steps one side at a time. Start on the driver side.

- 25) LOWER LINK ARM...
- Remove the lower link arm bolt at the frame, followed by the bolt at the axle and remove the link arm from the vehicle.
- □ Apply a lithium based grease to the link arm bushings and install into the eyes of the rear link arms (#55-069-5150). Install the 1" x 9/16" x 2-5/8" sleeves into the bushings. Install the grease fittings on each end.
- Position the new lower link arm (#55-069-5150) in the frame mount and snug but do not tighten at this time using the factory hardware. The longest distance from the link arm eye to the bend in the link arm should be positioned towards the front of the vehicle.

#### 26) UPPER LINK ARM DROP BRACKETS...

- Remove the bolts securing the upper link arm at the axle and frame and remove the link from the vehicle. Save all hardware for re-use.
- □□ [DIAGRAM 9] Position the upper link arm bracket (#55-103-5150) over the factory bracket on the axle as shown. Position the supplied 1" x 2-1/4" sleeve inside the factory bracket and line it up with the original link arm mounting hole. Insert the supplied 12mm x 100mm bolt through the "103" bracket, factory bracket, and sleeve and secure using a flat washer and Stover nut. Do not tighten at this time.
- □ □ [DIAGRAM 9] Be sure the "103" bracket is seated against the factory mount. Using the bracket as a template, mark the location of the three holes to be drilled in the factory mount (one 1/2" hole on each side of the mount and one 7/16" hole on the back).

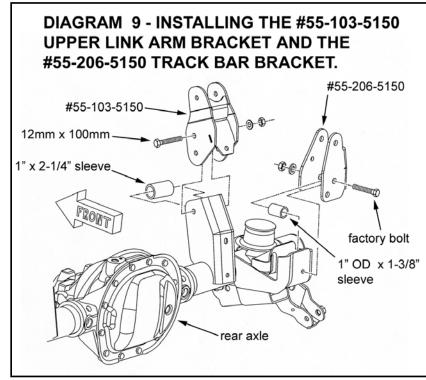
- Remove the bracket and drill at the marked locations using a 1/2" bit for the side holes and a 7/16" bit for the rear hole.
- □□ Reinstall the "103" bracket and install the supplied 1/2" x 1" bolts, washers, and nyloc nuts in the side holes just drilled. Install the supplied 7/16" x 1" bolt, washer, and nyloc nut in the rear hole.
- □□ Tighten the 1/2" hardware (57), 12mm hardware (70), and the 7/16" hardware (37).
- Attach the upper link arm to the axle bracket and frame using the factory hardware. Do not tighten at this time.
- □ Repeat steps 25 and 26 on the passenger side.

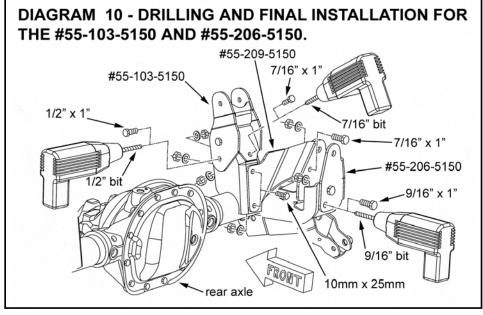
#### 27) TRACK BAR BRACKET...

[DIAGRAMS 9 & 10] Position the track bar bracket (#55-206-5150) on the factory track bar mount as shown. Note that the smaller lip of the bracket should be positioned inside the factory mount, while the larger lip of the bracket is outside the mount (if viewed from the side, the bracket is offset slightly toward the rear of the vehicle). Insert the supplied 1" OD x 1-3/8" sleeve between the "206" bracket and factory mount, and line it up with the original track bar mounting hole. Install the supplied 9/16" x 3" bolt through the sleeve and secure

using the supplied 9/16" washers and nyloc nut. Do not tighten at this time.

Position the track bar bracket reinforcement plate (#55-209-5150) against the track bar bracket and factory upper link arm attachment point on the axle as shown in Diagram 9. Attach the reinforcement plate to the "206" bracket using the supplied 7/16" x 1" bolts, washers, and nyloc nuts. Attach the plate the





upper link arm attachment point using the supplied 10mm x 25mm bolts and nuts. Snug, but do not tighten at this time.

- □ Using a plumb bob, check to be sure the original track bar mounting hole and the new mounting hole in the "206" track bar bracket are aligned vertically. Mark the location of the remaining 9/16" hole to be drilled (in the lower left hand corner of the "206" bracket when viewed from the rear), remove the bracket, and drill using a 9/16" bit.
- □ Reinstall the bracket and insert the supplied 9/16" x 1" bolt through the hole just drilled. Tighten the 9/16" hardware (105), 7/16" hardware (37), and 10mm hardware (40).

#### 28) COMPRESSION STOP EXTENSIONS...

- □□ On each side, pull the factory compression stops out of their mounting cups
- □□ Unbolt the mounting cup from the upper spring seat and position the supplied compression stop extension (#66-07-9064) in its place. Place the mounting cup on the bottom of the extension and secure the assembly using the supplied 10mm x 120mm bolt. Tighten (40).
- **D** Press the factory compression stops back into their mounting cups.

#### 29) COIL SPRINGS...

Lower the axle enough to facilitate installing the #01-515 coil springs. Be sure the top and bottom rubber isolators are indexed properly, then raise the axle enough to seat the springs.

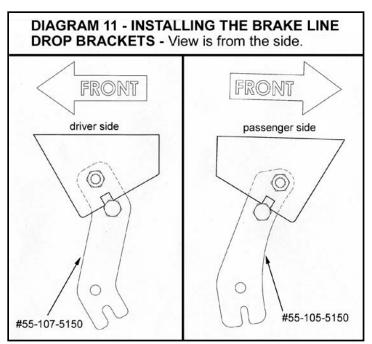
#### 30) STABILIZER BAR...

- Re-attach the stabilizer bar in the factory location using the factory hardware. Note the parking brake cable should be routed above the stabilizer bar (factory location was below the bar). Tighten (34).
- □□ Lubricate the supplied bushings and sleeves with a light, Silicone or Lithium based grease; then install 5/8" ID bushings and 5/8" OD sleeves into the bottom (eyeing) end of the Superlift stabilizer bar links. (#55-29-3400)
- ❑ Apply anti-seize to the top (stud) end of the Superlift stabilizer bar links. Install the 1/2" jam nut onto the link then the 90° swivel end. Adjust the swivel end to reach a center of swivelto-center of eye length of 13-5/16" then tighten the jam nut.
- □□ Position one 1/2" SAE washer onto the link stud then insert stud through the stabilizer bar body attachment hole. Position remaining 1/2" SAE washer, Nyloc nut and tighten (80).
- □ Attach the Superlift links' lower ends using the factory hardware. Tighten (150).

#### 31) BRAKE LINE EXTENSIONS...

□□ [DIAGRAM 11] Bolt the supplied brake line extensions (#55-107-5150 driver side and #55-105-5150 passenger side) to the holes where the factory brake hose mounting brackets were removed. Use the factory hardware and tighten to factory specifications.

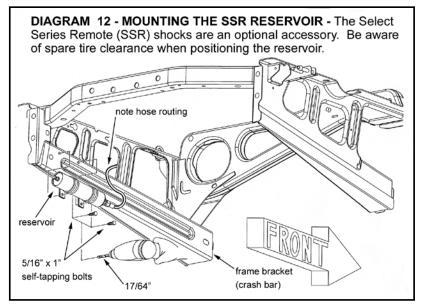
- Just below the factory bolt is a locating slot. Line up the smaller hole in the bracket with this
  - slot and install the supplied 1/4" x 3/4" bolt, washer, and nyloc nut and tighten (96 in-lb).
- □□ Carefully re-form the metal line so that the factory bracket lines up with the lower end of the drop bracket, Attach the brackets using the supplied 1/4" x 3/4" bolts, washers, and nyloc nuts and tighten (96 in-lb).
- Re-attach the differential vent hose and ABS wire.
- 32) SHOCK ABSORBERS...
- □□ Install the bushings, sleeves, and shock boots on the rear shock absorbers.



- □□ Insert the upper end of the shock in the upper mount and position a supplied 1/2" USS washer between the shock eye and the outside of the mount. Secure using the factory bolt.
- □□ Install the lower end of the shock in the factory location using the factory hardware and tighten (70, upper; 85 lower).
- 33) ATTACHING THE RESERVOIR FOR THE OPTIONAL SSR SHOCKS...

**NOTE:** If the Superlift Select Series Remote (SSR) shocks were not purchased, proceed to the next step.

[DIAGRAM 12] Mount the shock body as described above. Route the reservoir and hose as shown, so that the reservoir is positioned on the inside of the frame bracket. Note that on the driver side it will be necessary to unbolt the charcoal canister from the frame bracket and temporarily move it out of the way.



Route the reservoir and hose up over the fuel filler neck and back down through the hole shown in the Diagram. It may take some time to position the reservoir and hose over the filler neck as clearance is tight, but we have found it can be done without removing the filler neck. Once routed, re-install the charcoal canister using the factory hardware and tighten to factory specifications.

□□ While determining the final position of the reservoir be sure it will not interfere with the spare tire should it be necessary to lower the tire to the ground. Mock up the two supplied

reservoir clamps and mark the location of the two mounting holes to be drilled. Lower the reservoir out of the way and drill a 17/64" hole at the two marked locations.

Line up the clamps with the holes just drilled and install the supplied 5/16" x 1" self-tapping bolts. Tighten (95 in-lb).

#### **FINAL PROCEDURES**

#### **TIRES / WHEELS...** 34)

- Install wheel spacers if retaining the factory wheels following the wheel spacer manufacturer's instructions and torque to the proper specification.
- [DIAGRAM 13] Tighten the lug nuts (100  $\pm$ 15) in the sequence shown.

WARNING: When the tires / wheels are installed, always check for and remove any corrosion, dirt, or foreign material on the wheel mounting surface, or anything that contacts the wheel mounting surface (hub, rotor, etc.). Installing wheels without the proper metal-tometal contact at the wheel mounting surfaces can cause the lug nuts to loosen and the wheel to come off while the vehicle is in motion.

WARNING: If wheel spacers are used, check wheel spacer torque every 100 miles for the first 500 miles the vehicle is driven and follow all wheel spacer manufacturer's instructions for torque checks after that. Failure to do so could cause the wheels to come off while the vehicle is in motion.

WARNING: Retighten lug nuts at 500 miles after any wheel change, or anytime the lug nuts are loosened. Failure to do so could cause wheels to come off while vehicle is in motion.

(95)

(100)

#### 35) CLEARANCE CHECK...

- With the vehicle still on jack stands, and the suspension "hanging" at full extension travel, cycle steering lock-to-lock and check all components for proper operation and clearances. Pay special attention to the clearance between the tires / wheels and brake hoses, wiring, etc.
- Lower vehicle to the floor.
- Reconnect the battery.

#### HARDWARE TORQUE SEQUENCE... 36)

- Connect the lower end of the track bar to the axle using the factory hardware and tighten the upper (140) and lower (105) ends of the bar.
- Tighten the following hardware:
  - Lower link arm at the frame (115)(115)
  - Lower link arm at the axle
  - Upper link arm bolts at the frame
  - Upper link arm bolts at the axle
  - Front lower control arm pivot bolts (125)(90)
  - Upper control arm pivot bolts
  - Front lower shock clevis bolts (60)



#### 37) FINAL CLEARANCE and TORQUE CHECK...

□ With vehicle on floor, cycle steering lock-to-lock and inspect the tires / wheels, and the steering, suspension, and brake systems for proper operation, tightness, and adequate clearance.

**NOTE:** In some cases the front driveshaft may make contact with the rear crossmember under acceleration. If necessary, clearance the front edge of the reinforcement plate that was welded in place using a grinder.

#### 38) FENDER TRIMMING...

**NOTE:** If the maximum recommended tire is used with the correct wheel offset, it should not be necessary to perform any fender trimming. However, certain tire and wheel combinations may cause the tire to make contact with the rear portion of the fender liner. Perform the following steps to trim the fender liner for extra clearance.

#### **GRAND CHEROKEE:**

- □ Note there is a bulge in the rear portion of the front fender liner. Behind this bulge is a pinch weld in the body. Using the appropriate tool, trim back the pinch weld until tire clearance is achieved, but do not cut the pinched area enough to compromise the integrity of the weld. Conversely, the pinch weld can folded over using a large hammer to gain the necessary clearance.
- Affix the fender liner to the re-shaped area using a sheet-metal screw. In some cases it may be necessary to trim the bulged area of the fender liner so that it will sit flat against the re-shaped area.

#### COMMANDER:

- □□ Contact most likely occurs at the lower rear portion of the front fender liner near the location where the rocker panel cover (a plastic trim piece) attaches. Use a knife to trim the fender liner as necessary until clearance is achieved.
- [DIAGRAM 14] Position the Z-shaped #55-018-5150 rocker panel bracket as shown, and attach it to the sheet-metal mount just behind the fender liner. Tighten to factory specifications. Line up the bracket and plastic rocker panel and drill a hole through both pieces. Use the supplied pop rivet to attach the rocker panel to the bracket.

#### 39) FOUR WHEEL DRIVE...

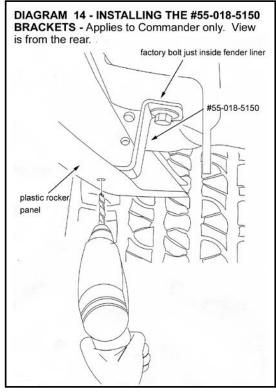
Activate four-wheel drive system and check for proper engagement.

#### 40) HEADLIGHTS ...

Readjust headlights to proper setting.

#### 41) SUPERLIFT WARNING DECAL...

Install the WARNING TO DRIVER decal on the inside of the windshield, or on the dash, within driver's view. Refer to the "NOTICE TO DEALER AND VEHICLE OWNER" section below.



#### 42) ALIGNMENT...

- □ Center the steering wheel according to the reference mark made prior to disassembly. If the steering wheel is not perfectly centered, the vehicle's traction control operation (ESP) will be affected.
- Realign vehicle to factory specifications. Record the ride height measurement at time of alignment.

#### Limited Lifetime Warranty / Warnings

Your Superlift<sup>®</sup> product is covered by the Limited Warranty explained below that gives you specific legal rights. This limited warranty is the only warranty Superlift<sup>®</sup> makes in connection with your product purchase. Superlift<sup>®</sup> neither assumes nor authorizes any retailer or other person or entity to assume for it any other obligation or liability in connection with this product or limited warranty.

**What is covered?** Subject to the terms below, Superlift<sup>®</sup> will repair or replace its products found defective in materials or workmanship for so long as the original purchaser owns the vehicle on which the product was originally installed. Your warrantor is LKI Enterprises, Inc. d/b/a Superlift<sup>®</sup> Suspension Systems ("Superlift<sup>®</sup>").

What is not covered? Your Superlift<sup>®</sup> Limited Warranty does not cover products, parts or vehicles Superlift<sup>®</sup> determines to have been damaged by or subjected to:

- Alteration, modification or failure to maintain.
- Normal wear and tear (bushings, tie-rod ends, etc.). Scratches or defects in product finishes (powdercoating, plating, etc.),
- Damage to or resulting from vehicle's electronic stability system, related components or other vehicle systems.
- Racing or other vehicle competitions or contests. Accidents, impact by rocks, trees, obstacles or other aspects of the environment.
- Theft, vandalism or other intentional damage.

**Remedy Limited to Repair / Replacement.** The exclusive remedy provided hereunder shall, upon Superlift's inspection and at Superlift's option, be either repair or replacement of product or parts covered under this Limited Warranty. Customers requesting warranty consideration should contact Superlift<sup>®</sup> by phone (1-800-551-4955) to obtain a Returned Goods Authorization number. All removal, shipping and installation costs are customer's responsibility.

If a replacement part is needed before the Superlift<sup>®</sup> part in question can be returned, you must first purchase the replacement part. Then, if the part in question is deemed warrantable, you will be credited / refunded.

#### Other Limitations - Exclusion of Damages - Your Rights Under State Law

- Neither Superlift<sup>®</sup> nor your independent Superlift<sup>®</sup> dealer are responsible for any time loss, rental costs, or for any incidental, consequential or other damages you may have.
- This Limited Warranty gives you specific rights. You may also have other rights that vary from state to state. For example, while all implied warranties are disclaimed herein, any implied warranty required by law is limited to the terms of our Limited Lifetime Warranty as described above. Some states do not allow limitations of how long an implied warranty lasts and / or do not allow the exclusion or limitation of incidental or consequential damages, so the limitations and exclusions herein may not apply to you.

#### Important Product Use and Safety Information / Warnings

As a general rule, the taller a vehicle is, the easier it will roll over. Offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go "wide" as you go "tall". Many sportsmen remove their mud tires after hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as feasible to enhance vehicle stability. We strongly recommend, because of rollover possibility, that the vehicle be equipped with a functional roll bar and cage system. Seat belts and shoulder harnesses should be

worn at all times. Avoid situations where a side rollover may occur.

Generally, braking performance and capabilities are decreased when significantly larger / heavier tires and wheels are used. Take this into consideration while driving. Also, changing axle gear ratios or using tires that are taller or shorter than factory height will cause an erroneous speedometer reading. On vehicles equipped with an electronic speedometer, the speed signal impacts other important functions as well. Speedometer recalibration for both mechanical and electronic types is highly recommended.

Do not add, alter, or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the Superlift<sup>®</sup> product purchased. Mixing component brands is not recommended.

#### SUPERLIFT SUSPENSION SYSTEMS

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## **TEMPLATE 1**

