

**SUPERLIFT SUSPENSION SYSTEMS**

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**Superlift 2" lift system for 1996 - Present**  
**G.M. S-10 Blazer /Jimmy, Pickup 4WD equipped with ZR2 off-road package**  
**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, anti-sway 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:**

- The lift you obtain over current height depends if and then how much the torsion bars have been adjusted up. If the bars have already been "cranked-up" 1 inch or so, you can expect that much less lift. It's possible that the new car dealer or the previous owner cranked the bars somewhat. On a S-10 / S-15 with adjusted up bars, the upper control arms extension travel snubbers will be (or almost be) making contact with their travel stops. This "bind" is what makes the truck ride harsh. Installing this Superlift system on a cranked bar truck or one equipped with an aftermarket torsion bar kit will result in 1"-2" lift and an improved ride. Review Step 21.
- If you are increasing lift over an existing 1-1/2 " replacement bar system, the vehicle should already be equipped with replacement torsion bars / adjuster arms and rear add-a-leafs. You only need the following Superlift parts: Upper Control Arms (with hardware) rear shackles, possibly shocks.
- A special tool is required to load / unload the torsion bars (step 7). Other 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 are 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, undercoatings, 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.

| <b>PART NO</b>     | <b>DESCRIPTION</b><br>(Qty.- if more than one) | <b>NEW ATTACHING HARDWARE</b><br>(Qty.- if more than one)   |
|--------------------|--|---|
| 55-01-3110.....    | upper control arm, driver side.....            | (2) 90° zerk fitting<br>(4) bushing half<br>(2) 1/2" ID x 2-1/4" serrated sleeve<br>(4) 1/4" x 1" allen head bolt<br>(8) 1/4" flat washer<br>(4) 1/4" stover nut<br>(1) 1/4" x 1/2" self-tapping bolt<br>(1) 1/4" star washer |
| 55-02-3110 .....   | upper control arm, .....<br>passenger side     | (2) 90° zerk fitting<br>(4) bushing half<br>(2) 1/2" ID x 2-1/4" serrated sleeve<br>(4) 1/4" x 1" allen head bolt<br>(8) 1/4" flat washer<br>(4) 1/4" stover nut<br>(1) 1/4" x 1/2" self-tapping bolt<br>(1) 1/4" star washer |
| 66-01-3103-5 ..... | (2) torsion bar adjuster arm                   |   |

|                    |                                 |   |
|--------------------|---------------------------------|---|
| 55-01-3103-5 ..... | (2) rear spring shackle         |   |
| 55-07-3110.....    | rear brake line extension ..... | (1) 3/8" x 1" bolt<br>(1) 3/8" nyloc nut<br>(1) SAE flat washer |
| <b>pickup only</b> |                                 |   |

**OR**

|                            |                         |              |
|----------------------------|-------------------------|--------------|
| 55-01-3110-5 .....         | (2) rear spring shackle |              |
| 2305.....                  | (2) add-a-leaf.....     | (2) tie bolt |
| <b>Blazer / Jimmy only</b> |                         |              |

0034..... Superlift badge ..... alcohol wipe pad

00461 ..... decal, "Warning To Driver"

**REAR PROCEDURE**

**NOTE:** The rear is installed first for reference as to how much to adjust the front ride height to level up the vehicle.

**1) PRIOR TO BEGINNING INSTALLATION...**

- Have an alignment shop inspect the upper / lower ball joints, tie-rod ends and idler arm for slack. Replace if needed.

**2) PREPARE VEHICLE...**

- Position a floor jack under the center of the rear axle and raise vehicle. Place jack stands underneath the frame rails, just in front of the spring hangers. Ease jack down until frame is resting on stands. Chock front wheels to prevent any possibility of movement.
- Remove tires, shocks and U-bolts. Save the stock U-bolts for reuse.

**3) BRAKE LINE RELOCATION...**

**NOTE:** This step is performed only on the pickup. Relocation is not necessary on the Blazer / Jimmy.

- Remove the retaining clip that attaches the stock rubber brake hose to its upper mounting bracket on the frame.
- Attach the Z-shaped relocating bracket (#55-07-3110) to the frame bracket using the supplied 3/8" x 1" bolt, washer, and nyloc nut. Tighten (XX).
- Carefully bend the metal brake line to reach the lower portion of the "07" bracket. Position the line through the hole in the "07" bracket and secure using the original brake line clip.

**4) INSTALLING ADD-A-LEAVES...**

**NOTE:** This step is performed only on Blazer / Jimmys. For pickups, proceed to step 4.

- Raise the rear axle and secure it up and out of the way.
- Remove the upper and lower spring shackle bolts and the front spring hanger bolt to allow removal of leaf spring and shackle.

**For springs equipped with bolt style retaining clamps:**

- Remove the spring bolt / spacer tube that goes through the clip located on the front end of the spring.
- Position a C-clamp approximately 3- to 4-inches away from the the center tie bolt on each side to hold the leaf pack together, then carefully remove the center bolt and remove the C-clamps. **WARNING:** Use caution when removing the C-clamps since the leaves are "loaded" and will "explode" apart when released.
- Insert the Superlift leaf directly underneath the main leaf (the first and longest leaf with the eyes). Note that the long end of the new leaf goes toward the rear. Use C-clamps or a press to compress the spring pack. Do not compress the leaf pack with the furnished center-bolt; this will result in stripping the bolt / nut threads. Tighten bolt and trim off excess.

Be sure the spring pack is fully compressed on both sides of the clip. The holes in the clip "ears" need to be elongated so the bolt / spacer tube can be used with the thicker spring pack; use a pencil tip die grinder or a rattail file.

Repeat this procedure on the other spring.

**For springs equipped with cinch type retaining clamps:**

Using a torch, heat the "ears" of the retaining straps and use a hammer to bend them outward to allow for leaf pack disassembly. Remove the tie bolt, then carefully loosen the C-clamps. Warning: Use caution when removing the C-clamps since the leaves are "loaded" and will "explode" apart when released.

Insert the Superlift leaf directly underneath the main leaf (the first and longest leaf with the eyes). Note that the long end of the new leaf goes toward the rear. Use C-clamps or a press to compress the spring pack. Do not compress the leaf pack with the furnished center-bolt; this will result in stripping the bolt / nut threads. Tighten bolt and trim off excess.

Be sure the spring pack is fully compressed on both sides of the retaining clamps. Reheat the clamps and use a hammer to bend them back into their original positions. Allow the clamps to cool naturally and fully before removing the C-clamps.

**5) REAR SHACKLES...**

Re-attach the spring to the front hanger; do not tighten the bolt yet. Position the Superlift shackle (#55-01-3103-5 for pickups or #55-01-3110-5 for Blazers) with the open end toward the front. Loosely install the factory upper / lower shackle bolts. Do not fully tighten at this time.

With the jack, ease down the rear axle to its spring attaching points. Be sure the contact points (springs, pads) are clean and the center bolt heads align and seat properly into the pads.

Position the U-bolt plates and tighten the stock U-bolts (105) using a "X" torque pattern.

With the tires on (refer to Diagram 3) and the vehicle on the ground, manually bounce the rear to somewhat pre-settle the springs. With the full vehicle weight on the springs, torque the attaching points: front and rear spring eye bolts and shackle-to-frame bolts (88).

**6) SHOCKS...**

New shocks are required and are available separately from Superlift. Install the rear shocks now per separate instructions.

**FRONT PROCEDURE**

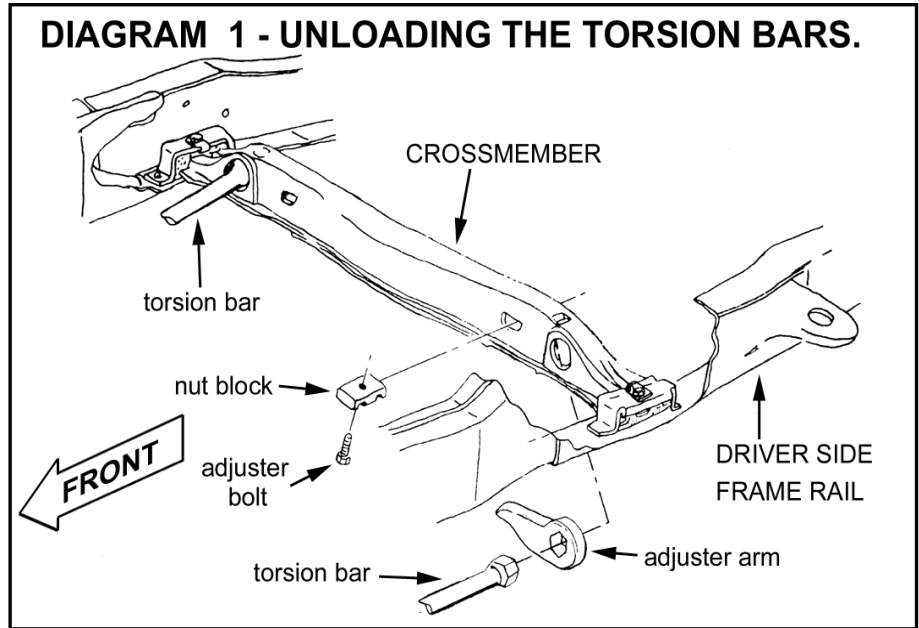
**7) PREPARE VEHICLE...**

Place vehicle in neutral. Raise the front with a floor jack positioned underneath the front axle crossmember. Place jack stands under the frame rails behind the front wheel wells and lower frame onto the stands. Put vehicle in gear and chock rear wheels to prevent any possibility of movement. Remove tires.

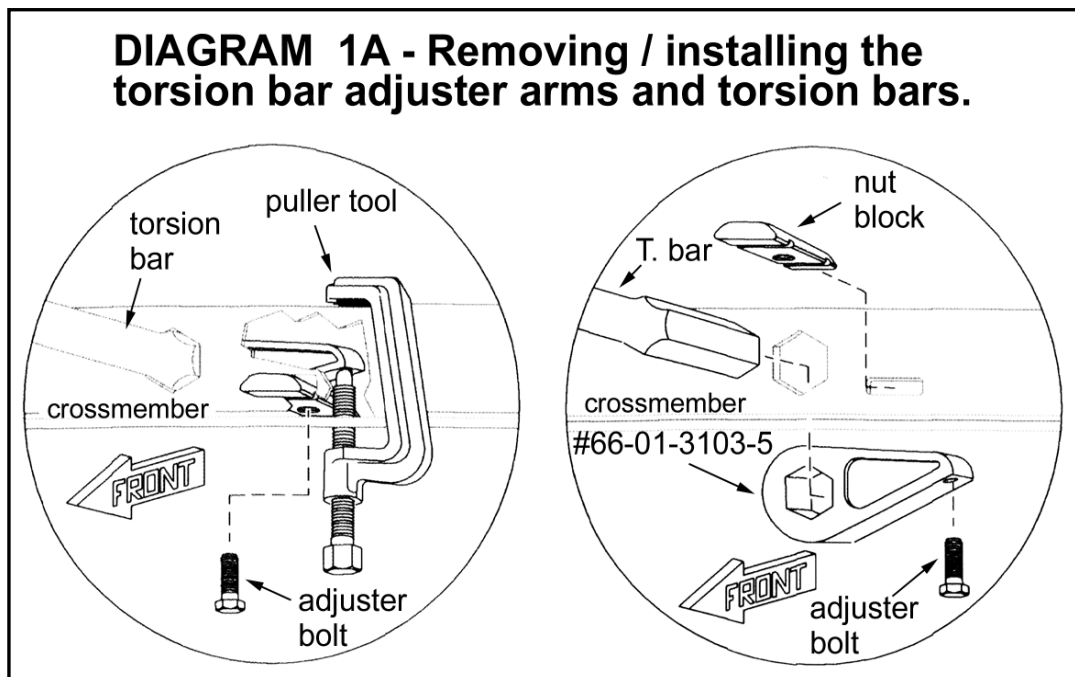
**8) UNLOADING THE TORSION BARS...**

**WARNING:** Be extremely careful when loading and unloading the torsion bars; there is a tremendous amount of energy stored in them. Keep your hands and body clear of the adjuster arm assembly and the puller tool in case anything slips or breaks.

- ☐☐ [DIAGRAM 1 and 1a] Note the approximate length of the adjuster bolt exposed below the nut block. You will need this measurement for initial ride height adjustments once the installation is complete. A special torsion bar puller tool is required to unload the torsion bars. Use the tool to load the torsion bar, then remove the adjusting bolt and nut block. Unload the bar and remove the puller tool.



**NOTE:** Because of the extreme loads generated by the torsion bars on these vehicles, a standard two-jaw puller tool tends to bend the "lips" of the crossmember (which it uses for attachment) and may pop out of place. We have had the best results using a C-clamp type puller tool as shown. If one cannot be found locally, this tool (PN J-22517-C) is available from the Kent Moore Tool Group in Roseville, Michigan (800/345-2233 or 313/774-9500).



- With the bar unloaded, slide it further forward into the lower control arm. If the bar seems lodged, use a hammer and punch routed through the hole in back of crossmember. When the bar shifts forward, the adjuster arm will fall free.

### 9) REMOVE UPPER CONTROL ARMS...

- Remove the cotter pin and nut. Using a "pickle fork" or other suitable tool, detach the ball joint stud from the knuckle.

**NOTE :** If any stud looseness is detected or you can twist the stud in its socket with your fingers, replace the joint. Regardless of perceived condition, Superlift strongly recommends replacing the ball joints on any high-mileage vehicle. Also, check the tapered hole for deformation / elongation and replace the knuckle if necessary.

- Using a scribe or marking paint, mark the position of the cam bolts for the upper control arms in relation to the frame. It will be necessary to return the cam bolts to their original position for a rough alignment following assembly. The vehicle will need to professionally realigned after the installation is complete.
- Remove the bolt holding the brake line and ABS wire (if applicable) to the front leg of the upper control arm, then loosen and remove the cam bolts holding the upper control arm to the frame. Save all hardware for reuse.

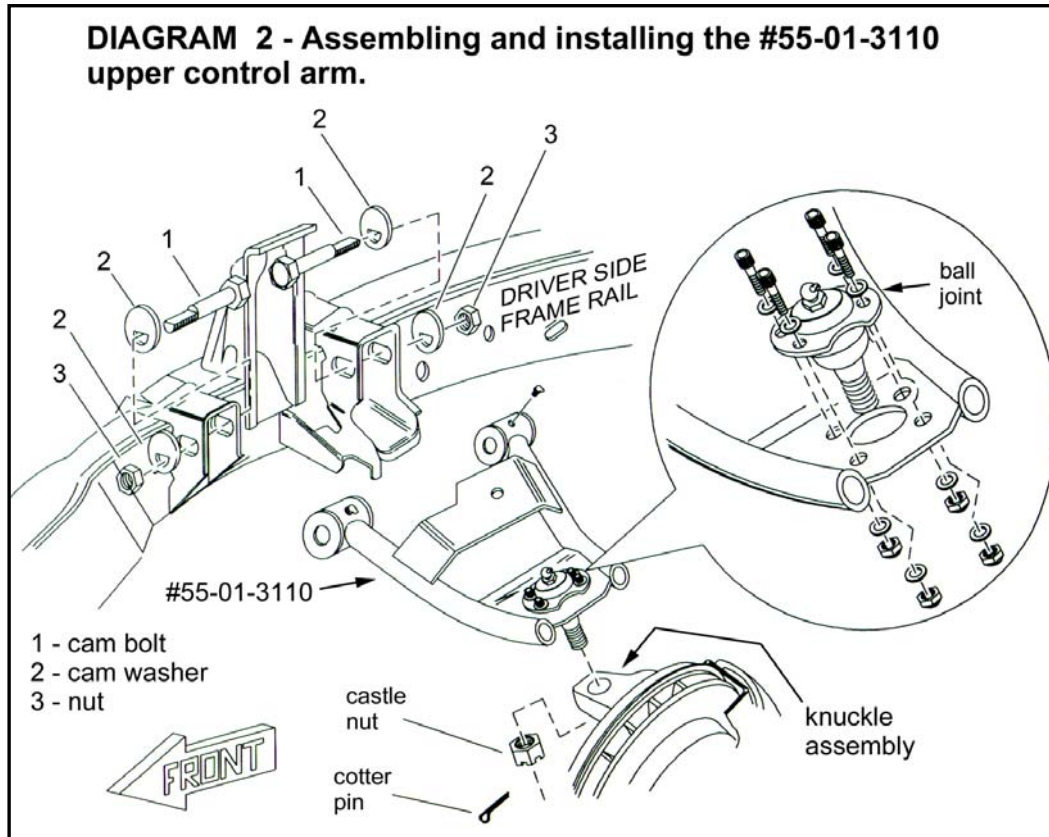
### 10) BALL JOINT REMOVAL...

**NOTE:** If the existing ball joints are being reused, they will need to be removed from the factory upper control arms. If new ball joints are purchased, proceed to step 10. Regardless, the factory control arms are not reused and can be discarded.

- Place the upper control arm in a vise or other suitable solid fixture. From the top, with a 1/8" diameter drill bit, drill into the centers of the 4 ball joint rivets approximately 1/4" deep. Then, with a 1/2" bit, drill just enough to remove the heads. Take care not to drill into the joint. Use a hammer and punch to drive the rivets through. Remove joint from the upper control arm and inspect the joint to ensure it has not been damaged.

### 11) BALL JOINT INSTALLATION...

- [DIAGRAM 2] Be sure the ball joint / Superlift upper control arm mating points are clean. Insert the ball joint in the Superlift upper control arm (#55-01-3110 driver side and #55-02-3110 passenger side) **from the top**, as shown in the diagram detail, and secure using the supplied 1/4" x 1" Grade 8 allen-head bolts, flat washers, and stover nuts (The 2 outside joint attaching holes are elongated to work with both early and late models). These bolts should be installed from the top to allow for wrench clearance, and the supplied flat washers should be placed under both the bolt heads and the nuts. Apply the supplied Loctite No. 24200 to bolt/nut threads and torque locking nuts (25).



## 12) INSPECT CV BOOTS...

- Closely inspect the inner and outer CV boots for excessive wear, cracking, or splitting. If damage is present, replace the CV boots before continuing. Replacement CV boots are available separately from Superlift (Part #3100).

## 13) UPPER CONTROL ARM...

- [Diagram 2] Install the bushing halves and sleeves into the control arm. The extension travel snubber should already be installed on the new arm. Attach arm to the frame using the factory cam bolt assemblies according to the diagram.
- Adjust both cams to the alignment marks made during disassembly for temporary alignment; torque (45). Install the two 90° grease fittings and lubricate the eye bushings with a good quality, high temperature, water resistant grease. If needed, use Loctite No. 24200 to secure fittings in the desired "facing outward" position.

**NOTE:** Clearance between the inside of the control arms rear leg and the rebound snubber bracketry is very close. Check clearance with the arm eyes attached and with the snubber resting on its stop. If necessary, re-form the bracket with a hammer. The stamped bracket with bend relatively easy, especially if heated.

## 14) KNUCKLE ASSEMBLY...

- Attach knuckle to the upper ball joint; torque slotted nut (65) and install cotter pin.

- Attach the brake hose bracket to the front tube of the control arm with the furnished 3/8 "x 1 " bolt and external tooth lockwasher. Straighten out the bend in the bracket so that the hose is routed parallel and towards the inside of the control arm leg. This prevents possible tire-to-hose contact while turning sharply. Install front shock.

### 15) INSTALLING NEW TORSION BAR ADJUSTER ARMS...

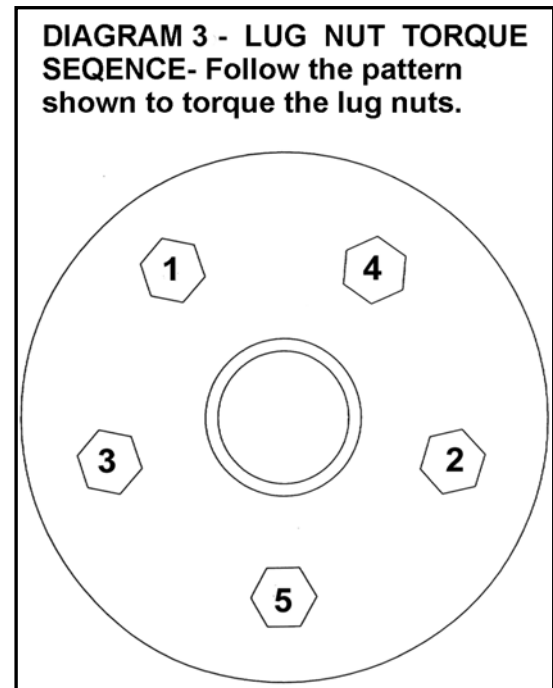
- Clean the hex splines on the torsion bar and apply a light lubricating grease.
- [Diagram 1a] Position the Superlift adjuster arm (#66-01-3103-5) in the crossmember as shown. When indexed properly, the bottom edge of the adjuster arm is basically flush with the bottom edge of the crossmember.
- Shift the torsion bar rearward into the adjuster arm. Position the special puller tool used during disassembly. Load the puller / bar and install the adjuster nut. Again, be careful!
- Unload and remove puller, then thread the adjuster bolt into the nut until the arm is raised approximately 1/4" off of the nut.

### 16) TIRES / WHEELS...

- [DIAGRAM 3] Tighten the lug nuts to factory specs 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-to-metal 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: 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.



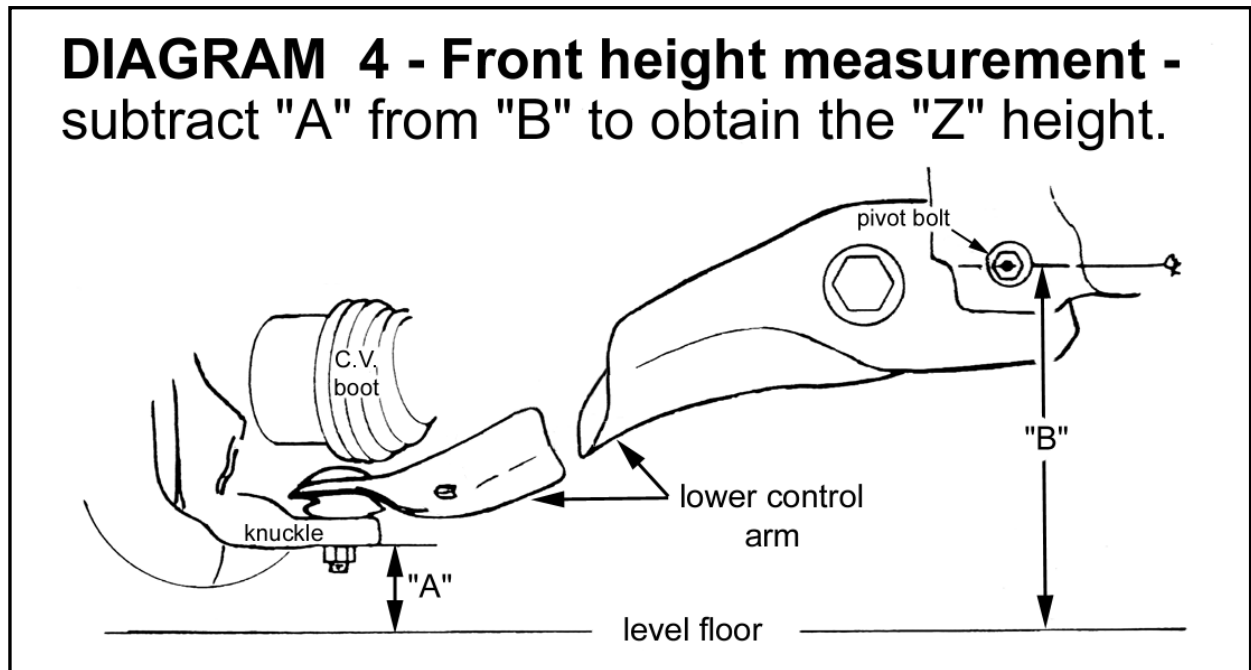
### 17) CLEARANCE CHECK...

- 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.

### 18) FINAL PROCEDURES...

- Re-torque everything that has been touched and double check for cotter pins.





#### 19) ADJUSTING FRONT RIDE HEIGHT...

- Manually bounce the front and rear of vehicle to normalize the torsion bars and leaf springs.
- [DIAGRAM 4] Position the vehicle on a level surface. Measure from the LCA front pivot bolt center down to the floor. Record this as Measurement "B".
- Now measure from the inside edge of the knuckle (at the lower ball joint boss) down to the floor. Record this as Measurement "A".

Subtract Measurement "A" from "B" for the ride height figure. Minimum ride height is 4.75"; maximum is 6.75". Ideal ride height is somewhere in between. Raise height by tightening the torsion bar adjusting bolt; lower height by loosening the bolt. You may need to adjust each side differently to get the vehicle level (side to side). Adjust height 3/8" to 1/2" above the final desired ride height, since the bars will settle slightly after the vehicle is driven.

**IMPORTANT NOTE:** It is possible to adjust up the bars too much. The lift limiting factor is the angle of the Constant Velocity type front axles. On the majority of vehicles, the upper control arm snubber will be within 1/2" of making contact with its stop when the vehicle is at full operational lift. An indication of too much lift, or C.V. angle, is a binding, grinding type vibration coming from the front axles. The result is excessive C.V. joint wear and/or failure. Another possible problem with excessive lift is premature C.V. boot failure. This is especially true with 1985 and newer models equipped with the relatively stiff urethane boots, as compared to the pliable neoprene boots found on the 1983-84 models. On these models, even at 2" of lift, you will experience a shortened boot service life. If plastic boot failure occurs and you do not want to lower the ride height, try installing 1983-84 inner boots (for either end). The inner boots short length and greater flexibility will yield a longer service life. If boot failure continues, the only alternative is to lower the vehicle ride height.

- The difference between measurements "A" and "B" will not exceed 4.5" on a stock vehicle. This differential cannot exceed 6.75" which means 2" of lift. To ensure proper C.V. operation and service life, the 2" maximum lift height must not be exceeded.

**20) REBOUND (extension) TRAVEL ADJUSTMENT...**

- After ride height adjustment is complete, check clearance between the Superlift Polyurethane upper control arm snubbers and their travel stop contact points. At full lift with the suspension loaded there is normally approx. 1-1/8" clearance.
- Raise the vehicle as per step 17 and let the suspension "hang" unloaded. Manually spin the front tires and check for C.V. bind. If binding occurs, shim the Poly-snubbers down closer to their stops with large diameter flat-washers (or something similar) until binding stops. Lower vehicle to the floor.
- Again, with the vehicle on the ground, cycle the steering lock-to-lock. Be sure the steering/suspension is functioning properly. Check for adequate clearance at front shocks-to-C.V. boots and at brake hose-to-wheels.

**21) ALIGNMENT...**

Have a reputable alignment shop align the vehicle to the following specifications:

**CASTER** - To increase positive caster, move front cam lobe inboard and rear cam lobe outboard.

**CAMBER**- To increase positive camber, move both front and rear lobes inboard.

|                  | Minimum | Preferred | Maximum | Side-to-Side Variation |
|------------------|---------|-----------|---------|------------------------|
| CASTER (Degrees) | + 1     | + 2       | + 3     | 1-1/2                  |
| CAMBER (Degrees) | 0       | +1/2      | + 1-1/2 | 23/32                  |
| TOE-IN (Inches)  | 1/16    | 1/8       | 1/4     | ----                   |

**22) 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.

**23) Activate four wheel drive system and check front hubs for engagement**

**24) HEADLIGHTS...**

- Readjust headlights to proper setting.

**25) SUPERLIFT NAME BADGE AND WARNING DECAL...**

The system includes one 2" x 5" name badge (#0034). Additional and / or larger badges are available from Superlift or a Superlift dealer. We suggest putting the badges on the front fenders, tailgate, or rear window. The badge mounts by means of factory applied, double-backed tape. Follow these instructions to ensure that badge sticks properly:

- Clean designated area with warm, soapy water. Rinse and wipe dry with a soft, lint free towel.
- Thoroughly prep the area with the furnished alcohol wipe pad and wipe dry with a soft, lint free towel. Do not touch the surface again with your hands; they transfer body oils.
- Remove mounting tape backing, line up badge, and press in place. Do not touch mounting tape or allow tape to get dirty.
- Press firmly on the badge face and hold a few seconds to seat mounting tape. A superior adhesive bond forms over time. We recommend allowing 24 hours of cure time before washing and waxing. The emblem itself can be cleaned with any glass cleaner.
- 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.

### **IMPORTANT PRODUCT USE INFORMATION**

As a general rule, the taller a vehicle is, the easier it will roll over. Offset, as much as possible, what is lost in roll over resistance by increasing tire track width. In other words, go "wide" as you go "tall". Many sportsmen remove their mud tires after winter / hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as possible to enhance vehicle stability.

We strongly recommend, because of roll over 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 performances and capabilities are decreased when significantly larger / heavier tires and wheels are used. Take this into consideration while driving.

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

Most states have some type of law limiting vehicle height. The amount of lift allowed, and how the lift may be achieved, varies greatly. Several states offer exemptions for farm or commercially registered vehicles. It is the owner's responsibility to check state and local laws to ensure that their vehicle will be in compliance.

Superlift makes no claims regarding lifting devices and excludes any and all implied claims. Superlift will not be responsible for any altered product or any improper installation or use of our products.

We will be happy to answer any questions concerning the design, function, and correct use of our products.

### **IMPORTANT MAINTENANCE INFORMATION**

It is the ultimate buyer's responsibility to have all bolts / nuts checked for tightness after the first 100 miles and then every 1000 miles. The steering, suspension and driveline systems, along with wheel alignment should be inspected by a qualified professional mechanic at least every 3000 miles.

**NOTICE TO DEALER AND VEHICLE OWNER**

Any vehicle equipped with a Superlift lifting device must have the enclosed "Warning to Driver" decal installed on the inside of the windshield or on the vehicle's dash, within driver's view. The "Warning to Driver" decal is to act as a constant safety reminder for whoever may be operating the vehicle. The WARRANTY IS VOID unless this decal is in place. **INSTALLING DEALER...** It is your responsibility to install warning decal and forward these installation instructions to the vehicle owner for review of warnings, product use and maintenance information. Replacement warning decals are available free upon request. These instructions are to be kept with the vehicle registration papers and owners manual for the service life of the vehicle.

**SUPERLIFT LIMITED LIFETIME WARRANTY**

Suspension products bearing the Superlift (LKI Ent.) name are warranted for as long as the original purchaser owns the vehicle that the LKI product was originally installed on. This warranty is non-transferable. Warranty covers only the product, no labor, time loss, or freight incurred. Any product that has been abused, altered, incorrectly installed, or used in competition is not covered. Product finish, spring bushings, Polyurethane products, and normal wear is not covered. The LKI product is subject to replacement or repair. No other warranties are expressed or implied. An authorized Superlift dealer must inspect the part in question and confirm that the "Warning to Driver" decal is properly displayed. A copy of the sales invoice is required for warranty consideration.