



INSTALLATION INSTRUCTIONS
PART SK19900 3" SUSPENSION SYSTEM
SUZUKI SIDEKICK/GEO TRACKER 89-98 2/4 DOOR

INTRODUCTION

Please read and understand entire instructions before attempting installation. This installation requires a professional mechanic. This kit has been engineered to bolt-on without drilling or welding. Minor grinding is required. A hydraulic jack or lift rack is required. A factory Suzuki service manual is required for reference before beginning installation. Prior to installation, carefully inspect vehicle's original steering system, tie rod ends and related steering/suspension components. Check the parts and hardware in this kit to ensure it is complete. The overall vehicle must be in excellent working condition. Replace worn parts.

PART - 1

FRONT SUSPENSION REMOVAL AND INSTALLATION

1. Jack up the front of the vehicle and support frame with safety stands. Remove wheels.

2. Detach the front sway bar end links from the factory lower control arms. Pivot sway bar out of the way. The sway bar will be remounted to the new CALMINI control arms later.

3. Remove brake line clips and pull line out of the holders. Do not remove brake line from vehicle.

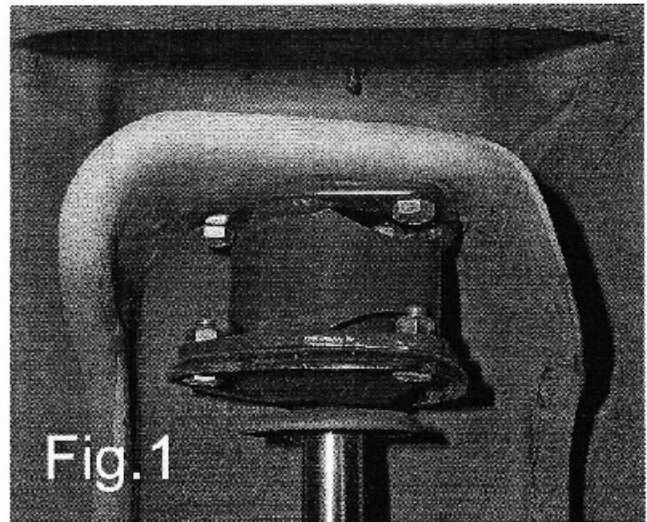
4. Remove brake caliper bolts. Allow caliper attached to the brake line to hang from the top brake line clip holder.

5. Support control arm with safety stands. Loosen, but do not remove the control arm pivot bolts holding the control arm to the chassis.

6. Disconnect front half shaft(axle) bolts on both left and right axles. Save hardware. Passenger side axle is a pry-out design. Do not damage the aluminum diff housing .

7. Open engine hood. Remove the upper strut support nuts. Remove the strut bracket nuts connecting the strut to the spindle. Save hardware. **USE CAUTION DURING THIS STEP. SUPPORT THE CONTROL ARM AND LOWER THE JACK SLOWLY TO ALLOW THE COIL SPRING TO BE REMOVED.**

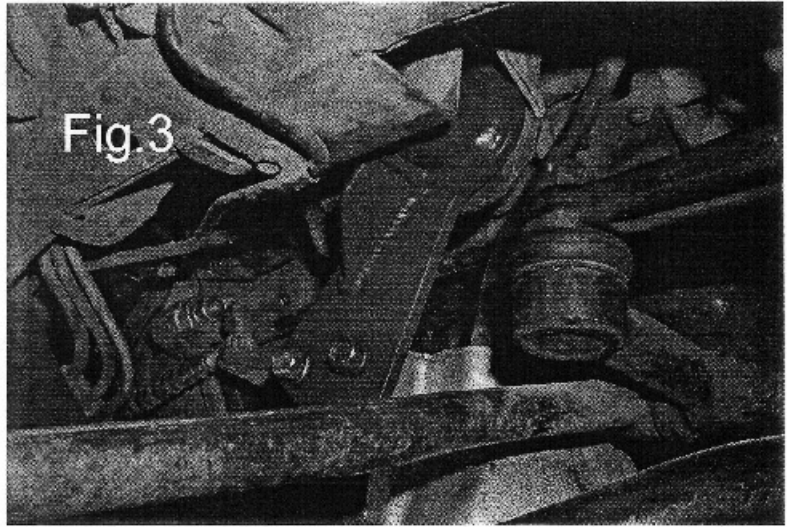
8. After both axles have been disconnected, remove the bracket holding the differential carrier to the center cross member. Save hardware.



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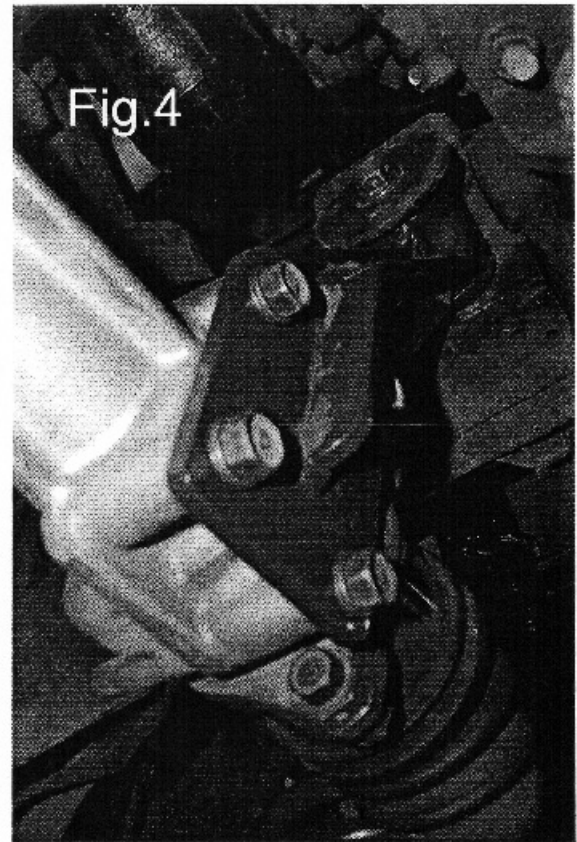
9. Using factory hardware, install new CALMINI center diff bracket to differential and # MO2522 supplied bushing. No sleeve is required. Fig. 2 Secure hardware.

10. Remove the factory brackets on both left and right sides holding the front axle housing to the frame. Install the new CALMINI front axle mount brackets using factory hardware. (See Fig. 3,4)



11. Install new CALMINI strut spacer to the new CALMINI strut using 5/16" hardware as shown earlier in Fig.1. Attach the strut and spacer on its top mount. Let the strut hang. The new CALMINI control arms come pre-assembled with the polyurethane bushings and sleeves.

12. Starting on the right side, install CALMINI control arms using the factory bolts, nuts, and washers. Leave the hardware loose at this time. Install the CALMINI front coil spring into the cup on the new control arm. The narrow end of the spring in the upward position. The front coil springs can be identified from the rear - the front coils are shorter in length. To compress the spring, using either a floor jack (or if working on a car hoist, use a transmission type stand), Raise the jack under the control arm and guide the spring into position. Be sure the coil spring is fully seated into the recess of the spring cup. If the spring is not properly seated, the vehicle will not sit level or align properly. Mount the ball joint on the TOP SIDE (Fig. 5) of the control arm plate . Torque 50-75 lb/ft.



13. Continue installing the coil spring and complete the mounting procedure by inserting the bolts through the strut body/spindle holes. Repeat steps 13 thru 14 for opposite side.

14. Install the factory sway bar links to the new control arm.

15. Torque the control arm bolts 50-75 lb/ft.

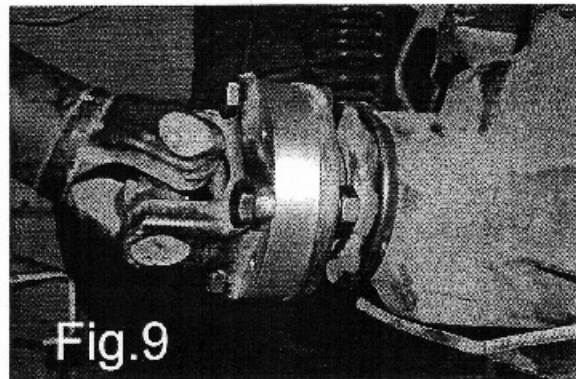
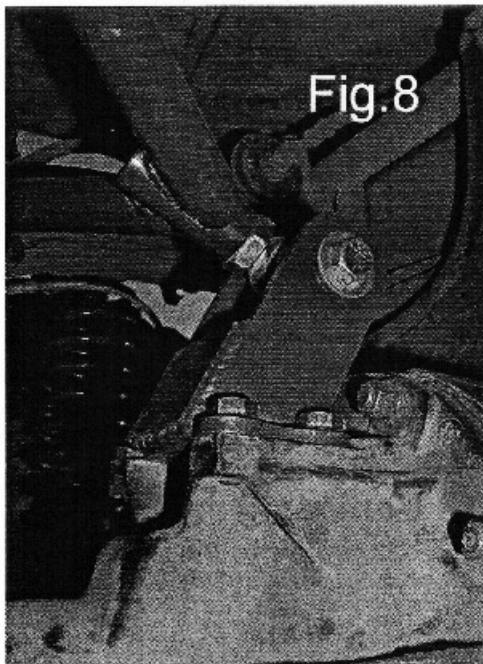
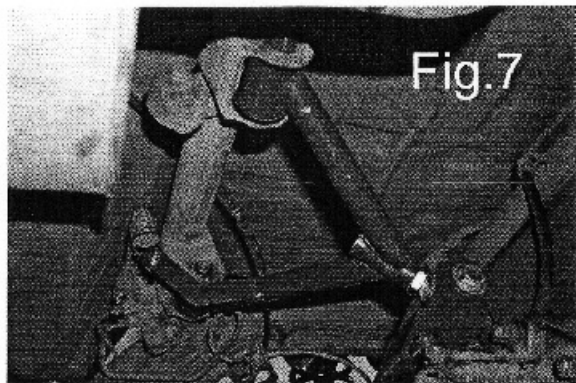
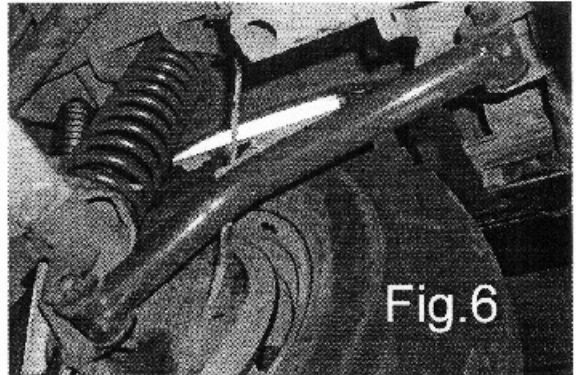
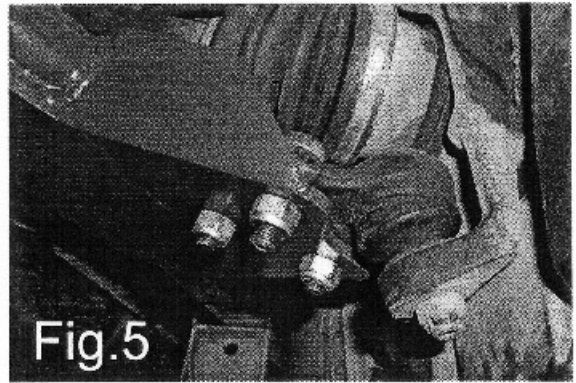
16. Install front wheels.

Although this kit is designed for proper camber and caster, it is still required to have a qualified alignment shop adjust the toe setting. Suggested toe setting should be from 1/8" inward to 1/16" out.

PART 2

REAR SUSPENSION REMOVAL AND INSTALLATION

1. Jack up the rear of vehicle and place suitable jack stands under the frame rails near the end of the frame.
2. Remove the rear wheels. Place floor jack under the center differential housing and raise up slightly.
3. Remove small tension spring from the brake proportioning valve. Save spring. If vehicle is equipped with ABS, disregard this step. Remove factory rear brake line. Install new steel braided hydraulic brake line.
4. Remove the rear shock absorbers. Save hardware.
5. Pull down slightly on the rear axle housing to remove the coil springs.
6. Remove the rear trailing arm on the driver's side of the vehicle. Using assembly lube or lithium grease, install special CALMINI undercut bushing #MO2782 and sleeves into the new CALMINI rear trailing arms. Failure to assemble bushings without lube will result in suspension squeaks. Install new CALMINI trailing arm with the arch and the center mount tab in the *up/on top* position. (Fig.6) Repeat same for opposite side. Leave hardware hand tight. Use tab on control arm to mount E-brake cable guide.



UPPER REAR V-BAR INSTALLATION PROCEDURE

1. Remove upper control arm joint bracket from differential carrier.
2. Remove the pivot bolts securing the factory rear upper Triangle Arm to frame cross bar. Remove arm from vehicle. Save hardware.
3. Using grease or anti-seize compound thread the supplied rod end and 3/4"x16 jamb nut into the new CALMINI upper V-bar. This joint is to be threaded in Completely. Later to complete the install, this threaded joint will be used to correct pinion angle. Use assembly lube or lithium grease, install special CALMINI undercut bushing # M02782 and sleeves into the V-bar. Install new CALMINI rear upper V-bar to cross brace using factory hardware. (Fig 7) Leave hardware hand tight. Install proportioning valve tension spring.
4. Install new CALMINI differential carrier bracket using the supplied 10mm x 25mm x 1.25 bolts and lock washers. (Fig 8) Torque to 43 lb/ft.
5. Install new CALMINI rear coil springs with the pig tail end upward. Make sure the coils are properly seated on their mounts.
6. Using a die grinder, grind the edge of the rear lower shock mount in order to clear the new CALMINI larger diameter shock body. *Failure to grind will damage the shock body and will not allow proper articulation of the suspension. No warranties or shock replacement will be honored due to improper installation of shocks.* After grinding, install new CALMINI shocks & boots.
7. Torque all hardware on trailing arms, V-Bar, rod end, and shocks to FACTORY SPECS. Refer to Suzuki Sidekick/Geo Tracker factory service manual for torque specs. Torque the 3/4x16 rod end half nut approx 75 ft/lb. **DO NOT LEAVE LOOSE.** This joint should be checked for wear and proper torque after EVERY OFF ROAD usage. Failure to do so could result in a loss of control.
8. Install rear drive shaft spacer on the flange near differential. (Fig 9)
9. Bleed rear brakes. Install rear wheels. Align front end and test drive vehicle. If a rear drive line vibration is detected, adjust the rod end on the upper v-bar out until a proper pinion angle is attained. For proper strength, a MINIMUM of 1/2" (.500") of rod end thread must remain threaded into the V-bar. Contact your place of purchase or CALMINI Products for instructions if proper adjustment can not be attained.
10. RE-TORQUE ALL HARDWARE AFTER INITIAL 500 MILES OR EVERY OFF-ROAD USE

BILL OF MATERIALS

<u>Carton 1 of 3</u>		<u>Carton 3 of 3</u>	
Control arm - Right	1	Struts - Front	2
Control arm - Left	1	Shocks - Rear	2
Trailing arms	2	Shock boots	2
Front Axle drop link - Right	1	Shock bushing pak	1
Front Axle drop link - Left	1	CALMINI Decals	2
Front Axle drop link - Center	1		
Front upper Strut spacers	2		
Center rod end w/nut	1		
Rod end side spacers	2		
Rear upper V-bar	1		
Rear V-bar mount to differential	1		
Drive shaft spacer	1		
Bushing and hardware kit	1		
Brake line - Rear	1		
Installation Instructions	1		
<u>Carton 2 of 3</u>			
Coil spring - Front	2		
Coil spring - Rear	2		

Double check all hardware for proper torque before and immediately after driving vehicle.

Mfg. By: CALMINI Products, Inc. 6951 McDivitt Dr. Bakersfield, Ca 93313

Tech Ph: 661-398-9500 Fax: 661-398-9555 Web Site: www.calmini.com

MADE IN USA

IMPORTANT - READ THIS
Part # SK19900 3" suspension system.

This suspension system is designed for extreme use. It is a commitment to greatly improved off-road performance. Therefore, certain components need to be used together for proper function. After installation of this system, it is mandatory to use a larger/wider than stock tire/wheel combo to obtain proper wheel alignment. CALMINI recommends a 15X7"wide - 2.5"-3.0" backspaced wheel for proper leverage.

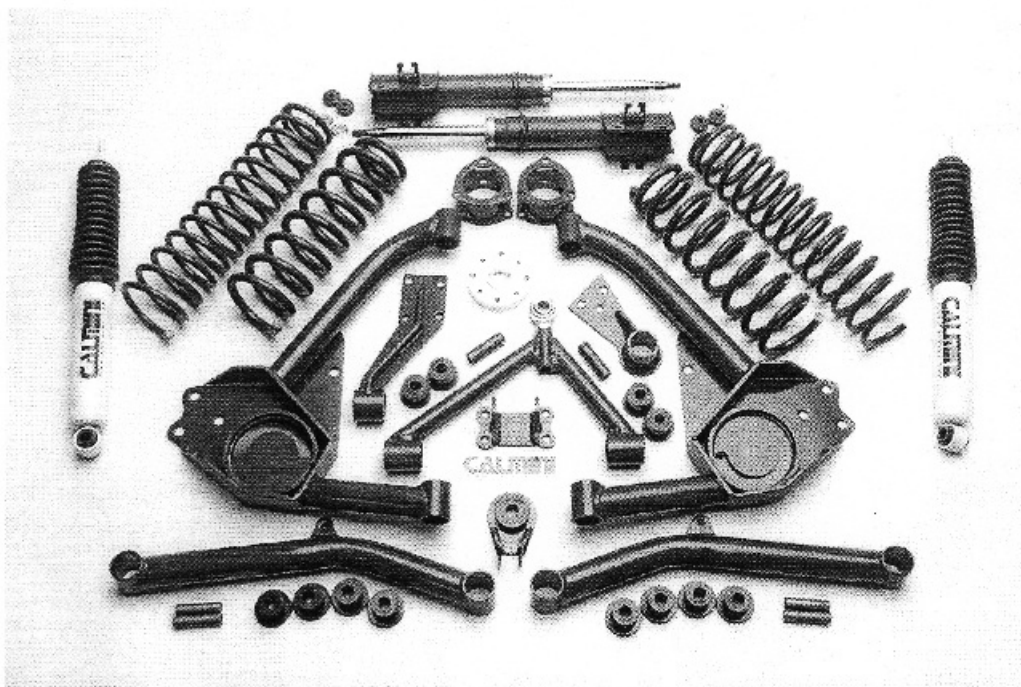
The heavy duty springs used in this kit are designed to carry the extra load of accessories (example: a steel bumper/winch combo). Without the proper amount of load exerted against the springs, it may be necessary to correct wheel camber by trimming length from the front coil springs. Contact CALMINI for advice before attempting this procedure.

For immediate release 5/2001

3" SUSPENSION LIFT FOR SUZUKI SIDEKICK/GEO TRACKER

Run up to 32" tires! CALMINI Products, Inc. Now offers a new super articulation suspension system for the 89-98 Suzuki Sidekick/Geo Tracker. Trick, ultra massive tubular control arms and specially designed longer coil springs provide a full 3" of lift, 3" of much needed additional ground clearance, and with the use of larger tires, up to 5-1/2" off additional ground clearance is realized. The complete kit includes new upper V-link with an adjustable high mis-alignment heim joint which allows massive articulation and adjustable pinion angle. Longer replacement lower trailing arms are angled for maximum ground clearance. Front axle drop brackets and specially valved struts and rear shocks are included. Best of all, this kit is 100% bolt-on. Total of 6" of lift is achieved together with the CALMINI 3" body lift.

CALMINI Products, Inc. 6951 McDivitt Dr. Bakersfield Ca. 93313 USA
Direct Orders: 800/345-3305 Tech Dept: 661/398-9500 Web Site: www.puresuzuki.com
Dealer inquires invited. Call for free color brochure.



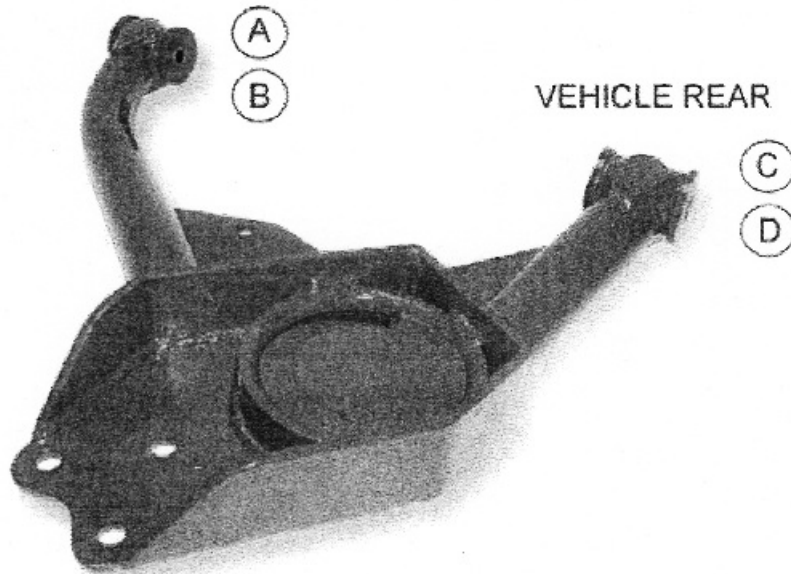


SK19900 Control Arm Bushing & Sleeve Installation Locations

Bushing & Sleeve Description:

- (A) MO2664 Bushing
- (B) SLE106 Narrow Sleeve
- (C) MO2662 Bushing
- (D) SLE102 Larger Sleeve

VEHICLE FRONT



VEHICLE REAR