



Stop!!!!!!!

Caution

Modifying a vehicle for off-road use, whether it is center of gravity, suspension or steering, will change the way it handles both on and off road. Reaction, ride and possible premature wear on parts are possible. Extreme caution is recommended when encountering off camber of abrupt maneuvers. Avoid sharp turns that may result in a vehicle's loss of control and/or possible roll-over causing serious injury or death. Height modifications may increase a vehicles susceptibility to roll-overs. Know your provincial, territory, or state lift/modification laws. Not all modifications may be legal for road or safety certification in your area. Knowing your provincial, territory, or state laws is the responsibility of the purchaser and/or vehicle operator.

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4.5" Alter Ego Suspension Lift Installation Instructions for 99+ Tracker/Vitara/Grand Vitara

**Zuki Nation always recommends having a licensed professional install any kits or parts.
Please read all instructions carefully before installing any kit or parts.**

Lift was designed for a 3.75-4.25" backspace wheel, if you are using a different backspace wheel the wheel may contact the back of the control arm at full lock. If this happens adding some material (1/8" is usually more than sufficient) will need to be added to the steering stop.

Front

Secure front of vehicle under jack stands making sure you have enough room to work.

2. Remove front strut support bar.
3. Remove front tires.
4. Remove front drive flanges (in place of locking hubs)
5. Remove snap rings and washers from each side behind removed drive flanges. They are located on end of cv shaft.
6. Remove brake line clips.
7. Remove calipers (leave brake lines attached) and secure them out of the way.
8. Undo ABS connector brackets in front from inside wheel well (if so equipped) then from under hood behind headlights. Remove wire and bracket assembly from vehicle, leave abs sensor attached to knuckle, only remove wiring and brackets from vehicle.
9. Remove lower sway bar.
10. Remove driver side front cv, three 14mm bolts.
11. Place floor jack underneath a-arm and apply small amount of pressure. Loosen two 17mm bolts attaching strut to knuckle. Undo three 12mm nuts on upper strut mount. Slowly lower jack and guide strut out of mounting position. Remove remaining bolts, remove strut, remove brake rotor from knuckle. Undo lower ball joint nut and outer tie rod and remove knuckle assembly. Slowly lower a-arm completely, drop out, remove coil. Repeat for passenger side. You may need to loosen a-arm bolts to completely free a-arm to remove coil. Remove a-arms.
12. Remove passenger cv with large flat head screw driver or pry bar by gently prying cv out of the front differential.
13. Remove three front differential brackets****Be careful, the front differential is now only held in position by the front drive shaft.****
14. Install center differential bracket first. Leave loose until all diff drop brackets are installed, this will aid in the process. Clearance the lower rib on the front housing casting will be required where it wants to contact the crossmember (1/16 to 1/8" clearance required), remove 1/2" from center steel sleeve from lower bushing assembly on 4cyl models then tighten down. Remove sleeve completely on 6cyl models and tighten bushings until clearance of 1/8" on y pipe. If 1/8" clearance cannot be achieved, clearance or removal of heat shield on y pipe will be required. If you have a cast iron front diff assembly, it may be easier to clearance crossmember rather than diff housing.
15. ****NOTE**** The next two differential brackets have extremely tight tolerances, but they do fit. Do not let your bolts bottom out in housing, this can crack your housing, if your holes are not tapped far enough from the factory to accept the bolts with the new brackets you can use washers as spacers to install. Take your time!
16. Install large driver side bracket next. This bracket requires the 60mm sleeves and poly bushings installed. Reuse upper bolt. Thread the bolt loosely and allow the bracket to hang. **LOOSELY** fit all three or four lower bolts depending on which front housing you have. You may need to *massage* the bolts into place. When you have all bolts started run them in half way.
17. Thread and loosely hang passenger side differential bracket. This bracket requires the 60mm sleeves and poly bushings installed. Loosely start all three bolts and then tighten them half way.
18. Tighten all upper hanger and lower bracket bolts. Upper first
19. ****NOTE**** Not all front differential housing bolt holes for the mounts are threaded the same. In some instances, washers may need to be used as shims in case a bolt bottoms out.
20. Reinstall driver side cv, the differential end only.
21. Install front a-arms, install bushings in a-arms then the large 64mm sleeves, the rear mount on each a-arm will require the sleeves with the 14mm hole, the front mount the standard 64mm sleeve. Remove upper coil isolator, install

upper coil shims if wanted, we suggest none for stock rake, 1 or 2 for level ride no rake, 2 or 3 for bumper/winch combo. As these are optional and due to fact not all our kits are same color, they come bare and will need to be painted before assembly. Next replace rubber coil isolator to bottom of shims. Install lower ball joints to bottom of a-arm with the bolts facing down (nuts to ball joint side not a-arm side. Place ramped spring seat into a-arm coil pocket with the high ramped side to the outside or ball joint side of a-arm. Place the coil (small wound end up) making sure the pigtail (lower) lines up with the indent on the high ramped side of the poly seat of the a-arm.

22. ****IMPORTANT**** Hold a-arm up with your hand. Place floor jack underneath, jack up a-arm until the spring collapses to the point where it wants to lift the vehicle.
 23. The back of the steering knuckle where the strut bolts go through, top hole only, (side that goes to the body of the strut) will need to be flattened where it contacts the strut body. It will have a round shape that needs to be made flat, belt sander or angle grinder will achieve this. Clearance this area so approximately 1/4" of material is left behind the hole and remove a small amount of material from the backside of the top rounded edge
 24. Clean all debris and grit etc. from driver side front knuckle and cv end.
 25. Liberally apply wheel bearing grease to inside of the knuckle assembly and bearings.
 26. Liberally apply wheel bearing grease to the end of the cv, paying special attention to both back shoulder areas.
 27. Slide the knuckle assembly onto/over outer cv end. At the same time install on lower ball joint and loosely install nut. Basically, putting onto ball joint and inserting cv end at same time, then loosely install ball joint nut.
 28. Install upper strut spacer to the strut mount. Removal of the alignment dowel pin will be required. Die grind upper knuckle mount hole of strut backward, making it a slot towards the strut body or inside of the truck. Grind the hole so a slot is long enough to allow a strut bolt to bottom against the body of the strut. Make sure not to enlarge the hole up or down, only like a slot, toward the body. This will aid in alignment later.
 29. Install strut with new spacer into truck. Reuse original hardware. Make sure orientation of strut mount when installed matches strut bar for later installation. ****NOTE**** We have found some variances in the upper strut mounts of these vehicles. If you find that the upper strut spacer will not bolt into the vehicle some relieving of the holes may be required. Running a 31/64 drill bit through one or more holes or some minor die grinding will solve this problem quickly.
 30. Continue jacking up a-arm to compress the spring further. **Be careful** This may cause the frame to temporarily lift off the jack stand on the side you are jacking up. This is not uncommon; the spring must be compressed heavily to install the knuckle assembly to the strut. Install the two strut/knuckle bolts.
 31. Reinstall the rotor and caliper. Make sure the brake line is on the outside of the strut.
 32. Re-install brake line into tab on strut, clip, and ABS sensor (if equipped). The upper frame tab for the brake lines located on the coil tower needs to be removed, this will not be reused, make sure no sharp edges on frame after removal or brake line damage can occur.
 33. Repeat for passenger side.
 34. When the front end is assembled, use floor jack under the ball joint to take a slight load off the suspension. slightly loosen lower knuckle assembly bolt, loosen the upper more, pull full assembly towards you, then push back ¾ way through its travel and lock in position. This will get your camber and alignment close enough to get to an alignment shop.
 35. Front sway bar: Must be flipped over so the driver side is now on the passenger side. Sway bar end links are removed and loosely hung on the front control arms. Attach the sway bar in its new orientation to the frame with the spacer blocks provided, then attach sway bar to end links. Tighten all bolts.
 36. Go over all bolts and nuts and ensure all are tight and cotter pins if required are installed.
 37. Re-install snap ring and washer.
 38. Re-install drive flanges or hubs if equipped.
 39. Mount front tires and secure lug nuts tightly.
 40. Once on the ground, reinstall upper strut support bar with supplied 1 9/16" spacers and hardware (some prying may be required to get all 6 bolts started).
- This completes your front installation.

Rear

41. Secure rear of vehicle on jack stands on the frame. Place floor jack on the center of the rear differential and jack up slightly to take pressure off the suspension.
42. Remove rear tires.
43. Remove driver side rear lower link. These may need to be cut out to be removed. Be careful not to cut the frame mounts.
44. Install rear lower link using factory hardware due to captured nuts. These will require 64mm sleeves and poly bushings to be installed.

45. If you have the Superflex option, the poly busing end goes into frame & the flex joint end goes to the axle. The mount flanges on the axle for the link mount will need to be drilled to the ½", "Axle end only". The frame side remains stock. Adjust the rear link to desired wheel base-up to 1" extra. At 1" of extension you are actually 1.5" rearward due to the link itself built at ½" extended. The lower Superflex links will require the 3/8" spacer added to each side of the high misalignment spacers. The upper do not require extra spacers. Do not forget to grease your Superflex joints and it is suggested to regrease after hard usage or at least every 5000kms. These are a wear item, the better you take care of them the longer they will last.
46. Repeat for the upper link, the upper links require the 49mm sleeves and poly bushings installed. And again, repeat steps for passenger side.
47. Install new extended brake line.
48. If your vehicle is equipped with the load sensing ABS proportioning valve that has a spring attaching to the rear axle, passenger side upper link mount, the spring mount will need to be relocated as high as possible straight above its normal location on the factory upper mount. Simply locate new position and drill a hole in the appropriate location and nut & bolt in place.
49. Remove Panhard bar from upper frame mount and loosen lower axle mount.
50. Install supplied Panhard drop bracket, mount with lower hole, then drill/ fit upper hole to match. Some massaging may be required to fit this bracket into the frame mount due to differences in the factory mount. Use supplied hardware.
51. Reinstall Panhard into new upper bracket.
52. Jack up rear of vehicle as high as safely possible, set on highest setting of jack stands. Place small amount of pressure on rear differential and remove rear shocks.
53. Take pressure off, lower jack and allow rear differential to lower completely. Pay attention to not over extend brake line. Remove rear coils. Install new rear coils, making sure pig tail matches the spring seat.
54. Install new rear shocks and small sleeves provided into lower shock bushings. On some models the shock may contact the brake line, if this happens slight manipulation of the hard lines may be required to gain clearance.
55. Install rear drive shaft spacer if required. (2DR or Superflex option only)
56. Tighten all link, Panhard, suspension shock bolts. Double check to make sure all are tight.
57. Extend rear differential vent tube. (If required)
58. Mount tires.
59. Remove from jack stands.
60. Take to alignment shop for alignment. Ensure that the alignment shop aligns the vehicle with a .5 - 1.0-degree positive camber with slight toe in. This will ensure proper camber after the springs are broken in. A second alignment may be required after suspension fully broke in.

Re-torque your suspension bolts after 400 kms and periodically check every few months or oil change to make sure bolts have not backed off.

When the vehicle is all back together and on the ground, it will sit higher than the 4.5" specified. The ride will be firm initially. It will remain this way until the springs start to break in. When the springs are fully broken in you will have 4.5" of lift and a soft ride. Break in time varies.