

INSTALLATION GUIDE



Part#: 037201



HARDCORE LIMITED LIFETIME WARRANTY

2" Suspension System

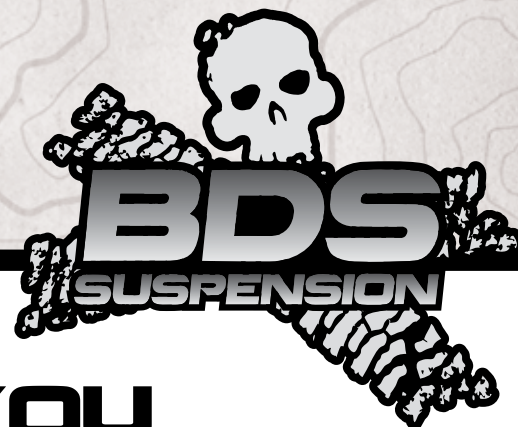
Suzuki Sidekick/ Geo Tracker, Suzuki Vitara

Rev. 062615

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Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come.

Thank you for choosing BDS Suspension!

BEFORE YOU START

BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

FOR YOUR SAFETY

Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices. You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

BEFORE INSTALLATION

- Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
- Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
- Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
- Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
- Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
- If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.
- Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.

BEFORE YOU DRIVE

Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.

Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.

Perform head light check and adjustment.

Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

TIRES AND WHEELS

235/75R15 Tire
3-1/2" Backspace Wheel



CONTENTS OF YOUR KIT



037201 Box Kit

Part #	Qty	Description
037201R	2	Front Coil Spring
FSE3	2	Strut Extension
81251	2	Cam Bolt

037209 Box Kit

Part #	Qty	Description
037209R	2	Rear Coil Spring

INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

FRONT INSTALLATION

1. Safely raise the front of vehicle and support the frame with jack stands.
2. Remove the wheels.

LOCKING HUB REMOVAL

MANUAL LOCKING HUBS

3. Set hub to the "Free" position. Apply an alignment mark between the hub cover and hub body with a paint marker.
4. Remove the cover mounting bolts and remove the hub cover and clutch.
5. Remove the snap ring at the end of the axle shaft with snap ring pliers.
6. Remove the mounting bolts from the hub body and pull the hub free from the wheel.

AUTOMATIC LOCKING HUBS

7. Remove the hub cover.
8. Remove the circlip with snap ring pliers.
9. Remove the bolts and drive flange.

STEERING KNUCKLE/STRUT/COIL SPRING REMOVAL

10. Remove the brake caliper and hang it out of the way. Do not hang the caliper by the brake hose.
11. Remove the brake rotor. Remove the brake dust cover
12. Disconnect the anti-sway bar from the lower control arm
13. Support the lower control arm with a floor jack.
14. Tap the wheel spindle off with a rubber mallet.
15. If equipped, remove the strut tower brace from the driver's and passenger's strut towers in the engine compartment.
16. Remove the strut rod nut from inside the engine compartment.
17. If equipped, remove the bolt that mounts the ABS speed sensor harness to the strut and remove the harness from strut
18. Remove the clip holding the brake line to the strut and remove the line from the strut.
19. Remove the strut-to-steering knuckle nuts and bolts. Separate the strut from the steering knuckle and remove it from the vehicle. Take care not to overextend the drive axle.
20. Remove the tie rod end cotter pin. Loosen but do not remove the tie rod nut. Strike the steering knuckle near the tie rod to break the tie rod end loose from the knuckle. Remove the nut and tie rod end from the knuckle.
21. Loosen but do not remove the ball joint nut. Strike the steering knuckle near the ball joint to break it loose from the knuckle. Remove the nut and remove the knuckle from the vehicle.
22. Lower the floor jack until the coil is completely extended. Remove the spring from the vehicle.

STEERING KNUCKLE/STRUT/COIL SPRING INSTALLATION

23. Apply Loctite to the strut rod threads and the female threads on the provided strut extension.
24. Holding the strut rod in a soft-jaw vice or with non marring pliers, install the extension on the strut and tighten securely.
25. Guide the small diameter end of the new BDS coil spring into the upper spring pocket and slide the large diameter end into the spring seat in the lower control arm. Make sure the spring sets in the lowest part of the spring seat.
26. Use the floor jack under the control arm to slightly compress the new coil spring.
27. Install the strut in the upper strut tower and fasten using the OE hardware. Do not tighten.
28. Install the steering knuckle on the lower control arm ball joint and the axle shaft. Fasten the knuckle to the ball joint with the OE nut. Do not tighten.
29. Install the tab washer on the provided strut eccentric bolt as explained in the provided instructions.
30. Attach the steering knuckle to the strut with the OE nut and bolt in the lower hole and the new eccentric hardware in the upper hole.
31. Attach the tie rod to the steering knuckle. Tighten the OE castellated nut securely and install a new cotter pin. If necessary, tighten the nut more to insert cotter pin, never loosen.
32. Torque the upper strut mounting nuts to 20 ft-lbs on 1998 models and older, torque to 40 ft-lbs on 1999 models and newer.
33. Adjust the eccentric so the cam is straight down and tighten the nut to 55 ft-lbs. Torque the lower OE bolt to 65 ft-lbs.
34. Attach the wheel spindle to the steering knuckle using a silicone sealant and lubricant.
35. Install the brake dust cover with OE hardware and tighten securely.
36. Mount the brake rotor on the spindle. Install the brake caliper.
37. If equipped, attach the ABS speed sensor harness to the strut with the OE bolt and tighten securely.
38. Attach the brake line to the strut with the OE clip.

MANUAL LOCKING HUBS

39. Apply grease to the inner splines of the hub. Mount the hub to the wheel with a new gasket. The hub must be in the free position.
40. Install the hub body mounting bolts and torque to 20 ft-lbs.
41. Install the snap ring on the axle shaft.
42. Install the hub cover and clutch by lining up the marks made earlier. Torque the cover nuts to 100 in-lbs.

AUTOMATIC LOCKING HUBS

43. Install the drive flange and mounting bolts. Torque the bolts to 15 ft-lbs.
44. Install the circlip. Install the hub cover.

POST INSTALLATION PROCEDURE

45. When both sides of the vehicle are complete, install the wheels and lower the vehicle to the ground.
46. If equipped, install the strut tower brace and torque the OE bolts to 36 ft-lbs.

REAR INSTALLATION

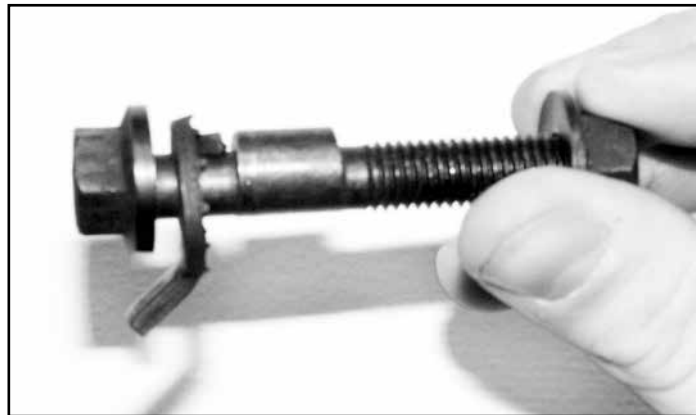
47. Safely raise the rear of vehicle and support the frame with jack stands.
48. Remove the wheels.

COIL SPRING REMOVAL/INSTALLATION

49. Support the rear axle under the differential with a floor jack.
50. Remove the OE shocks.
51. Lower the axle until the coil springs are fully extended. Remove the springs from the vehicle.
52. Install the new BDS coil springs in the vehicle. Make sure that the end of the spring rests in the lowest part of the spring seat.
53. Raise the floor jack to compress the coil spring enough to install the new BDS shocks. Torque the OE shock mounting hardware to 21 ft-lbs on 1998 models and older, torque the upper nuts to 21 ft-lbs and the lower nuts to 61 ft-lbs on 1999 models and newer.
54. Install the wheels and lower the vehicle to the ground.
55. Check all fasteners for proper torque.
56. The vehicle will need to have a front end alignment.
57. Align headlights.
58. Check all fasteners after 500 miles.

ALIGNMENT CAM BOLTS

FIGURE 1



59. Park the vehicle on a flat, clean surface and block the rear wheels for safety.
60. Raise the front of the vehicle and support with jack stands under the frame.
61. Remove the front wheels.
62. Remove the upper strut bolt but do not loosen the lower strut bolt.
63. Install the tab washer on the alignment cam with the bolt head arrow pointing away from the washer handle and the washer tab pointing from the bolt head so the washer tab is nestled in the space between the bolt head and the cam lobe (see figure).
64. Insert the alignment cam through the strut/spindle assembly in the same direction that the upper bolt was installed. Install the lock nut and torque to proper spec (12mm cams: 55 ft-lbs, 14mm cams: 95 ft-lbs).
65. Install the wheels and lower vehicle to the ground.
66. When alignment is performed, the cam bolt and OE lower strut bolt are loosened and the cam turned to achieve the proper camber angle. This kit will provided $\pm 2^\circ$ of adjustment. If more adjustment is needed, another kit can be installed in the place of the lower strut bolt to achieve an additional $\pm 2^\circ$ of adjustment.



WE WANT TO SEE YOUR RIDE!

Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at bds-suspension.com/bar and post them on the BDS Fan Page on Facebook at facebook.com/BDSSuspensions. Don't forget about your BDS swag! BDS offers t-shirts, hoodies, decals and more available on the BDS website or through your local BDS distributor.

TIME TO HAVE SOME FUN

Thank you for choosing BDS Suspension.

For questions, technical support and warranty issues relating to this BDS Suspension product, please contact your distributor/installer before contacting BDS Suspension directly.