

INSTALLATION GUIDE



Part#: 021518



HARDCORE LIFETIME WARRANTY

5" Rear AutoRide Lift System

GM SUV | 2014-2020

Rev. 050319

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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.



Visit 560plus.com for more information.

TRACTION CONTROL

In an effort to reduce the risk of rollover crashes the National Highway Traffic Safety Administration (NHTSA) established the Federal Motor Vehicle Safety Standard (FMVSS) No. 126 requiring all new passenger vehicles under 10,000 lbs GVWR include an electronic stability control (ESC) system as standard equipment. Effective August 2012 this law requires after-market products to be compliant with these same standards.



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.

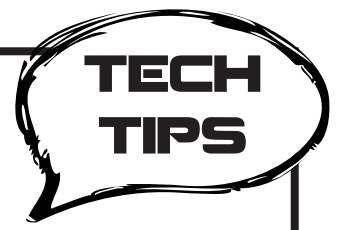
CONTENTS OF YOUR KIT

021518		
Part #	Qty	Description
031608R	2	Coil Springs
02966	1	Rear Track Bar Bracket
01499	1	Track Bar Spacer
02104B	2	Bump Stops Extension
02170B	1	Rear Track Bar Support Bracket
911103	2	Sway Bar Links
SB33BK	4	Sway Bar Link Hourglass Bushings
8	1	0.875 x 0.134 x 1.670 Sleeve
37	1	0.750 x 0.109 x 2.985 Sleeve
54314	4	0.625 x 0.060 x 1.475 Sleeve
099000	3	Zip ties
03408	1	GM AutoRide 5" - DRV
03409	1	GM AutoRide 5" - PASS
01499	2	1/4in Spacer
03503	2	Rear Leveler Bracket
342701	1	Loctite

021518		
551	1	Bolt pack
	4	7/16"-14 x 1" bolt
	4	7/16"-14 prevailing torque nut
	8	7/16" SAE flat washer
	2	12mm-1.75 x 70mm bolt
	2	12mm-1.75 prevailing torque nut
	4	7/16" USS flat washer
	1	8mm-1.25 x 100mm bolt
	1	5/16" SAE flat washer
	1	Cable Clamp
565	1	Bolt pack
	4	3/8"-16 x 1-1/4" bolt
	4	3/8"-16 prevailing torque nut
	8	3/8" SAE Thru hardened washer
	2	Wire Clip (Fastenal #0708762)
	2	#12 x 3/4" self-drilling hex head screw
	1	1/2"-13 x 1-1/2" bolt
	1	1/2"-13 prevailing torque nut
	2	1/2" SAE flat washer
	1	9/16"-12 x 3-1/2" bolt
	1	9/16"-12 prevailing torque nut
	2	9/16" SAE flat washer
983	1	Bolt Pack (Rear Shock Brkt)
	2	9/16"-12 x 3-1/4" bolt
	2	9/16"-12 prevailing torque nut
	4	9/16" SAE thru-hardened washer
	2	6mm-1.00 x 16mm bolt
	2	1/4"-20 x 1/2" type 23 self tapping bolt hex head
	2	1/4" SAE washer
941	1	Bolt Pack
	2	12mm-1.75mm x 80mm bolt
	2	12mm-1.75mm prevailing torque nut
	4	12mm flat washer

TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. This system will only fit 2014-2020 AutoRide or MagneRide Equipped Vehicles retaining the factory AutoRide and / or MagneRide System.

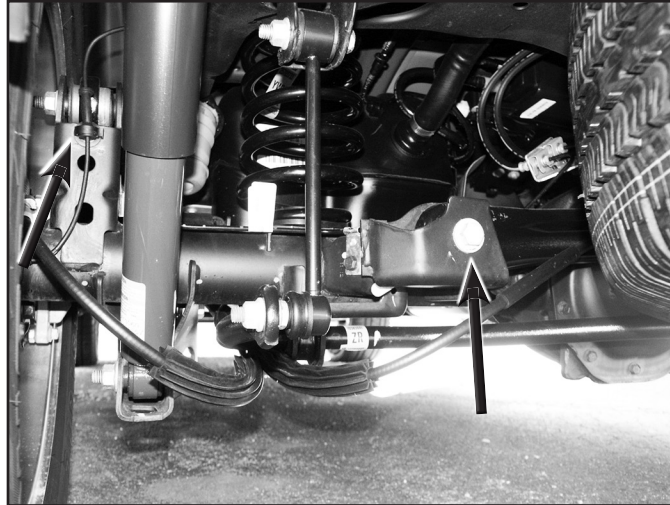


INSTALLATION INSTRUCTIONS

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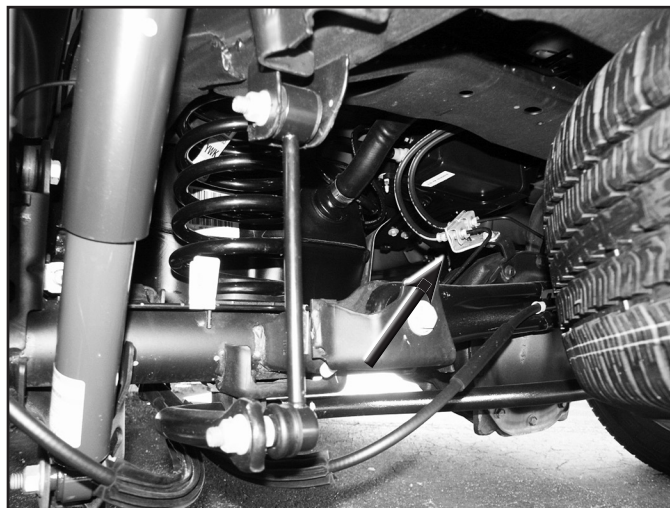
1. Block the front wheels for safety.
2. Disconnect the track bar from the rear axle mount. Retain mounting hardware. (Fig 1)

FIGURE 1



3. Raise the rear of the vehicle and support with jack stands under the frame rails just ahead of the lower control arm mounts.
4. Support the axle with a hydraulic jack.
5. Remove the wheels.
6. Disconnect the ABS wire from retainer clip at the axle. Remove the OE shocks and sway bar links. Retain the shock mounting hardware. (Fig 1)
7. Disconnect the brake line junction block from the bracket mounted to the differential (Fig 2).

FIGURE 2



8. Disconnect the parking brake cable loop from the driver's side axle lower control arm mount (Fig 3).

FIGURE 3



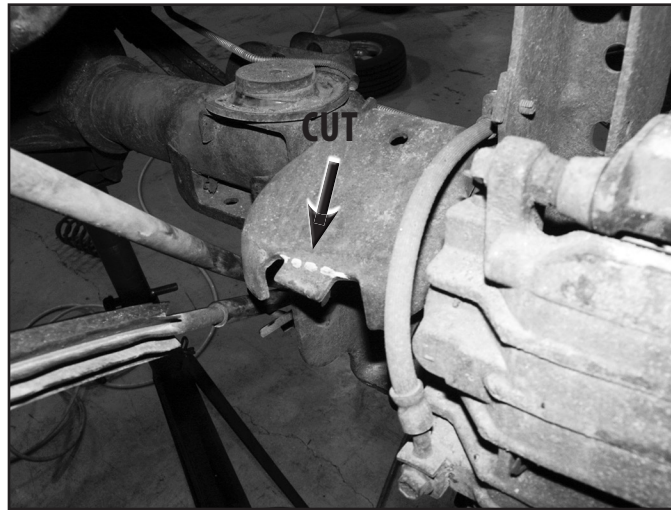
9. Disconnect the parking brake cable loop from the passenger's side frame rail. Remove the loop from the cable (Fig 4).
10. Remove the parking bracket cable from the retaining clips holding it to the rear track bar (Fig 2/4).

FIGURE 4



11. Loosen but do not remove the four (two per arm) lower control arm pivot bolts.
12. Lower the rear axle until the springs can be pulled free. Remove the springs. Retain the top and bottom rubber isolators.
Note: Take care not to over-extend the brake lines and ABS wires.
13. With axle still supported, one side at a time remove the lower control arm-to-axle pivot bolts and swing the lower control arm down away from the axle.
14. Mark and cut the small tab protruding out on the top front end of the lower control arm mounts so that a single straight edge is left (Fig 5) After one side is done, reconnect the lower control arm-to-axle pivot bolt and repeat the procedure on the other side of the vehicle.

FIGURE 5



15. Loosely mount the provided bump stop brackets on the top of the lower control arm axle mount using the existing hole (7/16" hardware from bolt pack #551. The bump stops will angle towards the rear of the vehicle.
16. With the bump stop brackets in position, using the bracket as a template, mark the other mounting hole to be drilled in the axle mount.
17. Rotate the brackets out of the way and drill 7/16 holes at the marks. Attach the brackets with the remaining 7/16 hardware, the front bolts run from the bottom up, and torque all four mounting bolts to 45 ft-lbs.
18. Loosely install the provided track bar relocation bracket to the axle with a 9/16" x 3-1/4" bolt, nut and 9/16" SAE washers from bolt pack 565 through the original track bar mounting hole (Fig 6).



Tip On 2007 and newer model years the hole indicated will not work (Fig 6A). A bolt on support bracket is included with the kit to stabilize the track bar bracket (Fig 7).

FIGURE 6A



FIGURE 6B

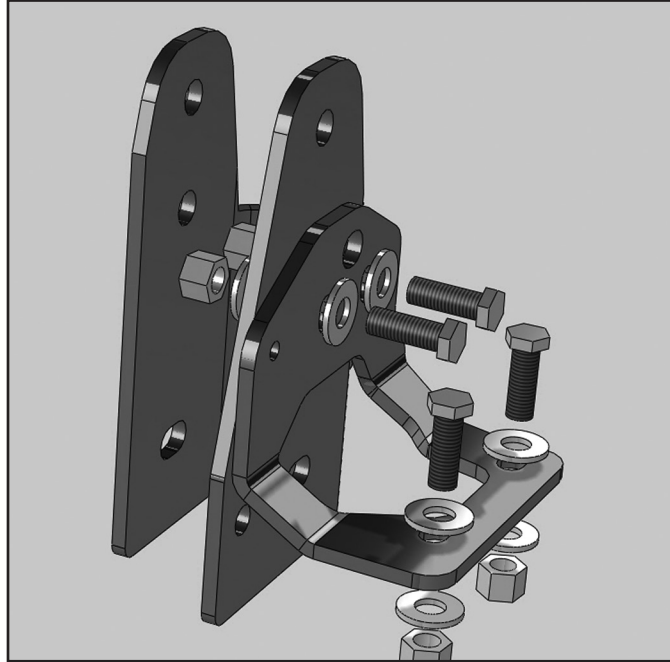


19. Ensure that the track bar bracket is square to the bottom of the OE bracket and mark the hole in the OE bracket on the driver side that best matches the axle bracket to be drilled. The lower hole will most likely be drilled when the bracket is aligned correctly. Remove the bracket and drill 1/2" hole.
20. Reinstall the track bar bracket with the 9/16" hardware in conjunction with the provided 7/8" spacer sleeve (Fig 6A). Attach to axle bracket with new 1/2" x 1-1/2 bolt, SAE washers and nut from Bolt Pack 565 through the hole drilled in the previous step.
21. Attach the support bracket through the two OE slots on top of the axle with 3/8" x 1-1/4" bolts, nuts and SAE washers from Bolt Pack 565 (Fig. 7). Leave hardware loose. The OE slots on top of the axle may need to be clearance out for the brace. Make sure that the new track bar bracket stays square to the bottom of the OE bracket.

Note: The large slot is used with 3~4" rear box kits and will not be used with the 5" kits when the trackbar is attached to the upper hole.

Note: The brake line will not be reconnected to the track bar bracket on the axle. Reform the brake line to clear the track bar support bracket.

FIGURE 7



22. Tighten the track bar bracket hardware starting with the 9/16 - 95 (ft-lbs), then the 1/2" - 65 (ft-lbs), finally 3/8" - 35 (ft-lbs). The track bar will be reinstalled later with the weight of the vehicle on the axle.
23. Install the provided bushings and sleeves in the new extended sway bar links. Install the links with the provided 12mm x 70mm bolts, nuts and 7/16 USS flat washers from Bolt Pack #551 at the sway bar. Leave hardware loose.
24. Install rear shock relocation bracket as shown into the OE shock mount and against the sway bar link frame mounting bracket (Fig. 8). The sway bar link will be attached to the frame end at this time with the 12mm hardware from Bolt Pack 941, with the bolt going through the sway bar link, frame mount, and rear shock relocation bracket. Leave hardware loose.

Note: The passenger side bracket may need the 1/4" spacer between the bracket and sway bar mount. If the bracket mounts flat to the sway bar mount the 1/4" spacer is not needed.

FIGURE 8



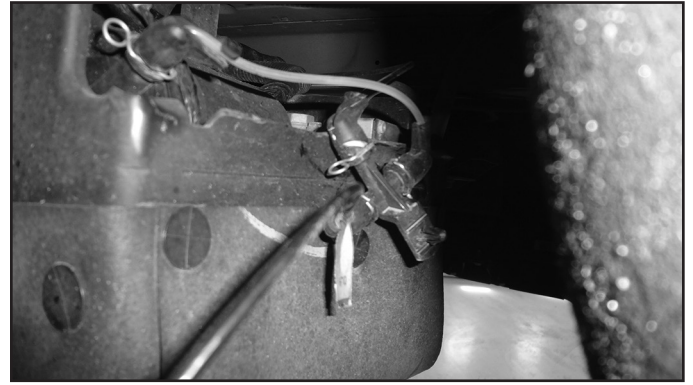
25. Attach upper shock eye to the relocation bracket with 9/16" x 3-1/4" bolt, washers, and nut from Bolt Pack 983 (Fig. 9). Run bolt from outside - in for additional clearance. If there is a wire coming out of the shock eye, the wire must face towards the rear of the vehicle. If there is no wire on the shock eye, install the shock in the same direction as it was removed.

Note: Additional slack may be required from the air line. Unclip the air line bracket from the box attached to the air box. An additional 1/4" hole may be drilled to relocate the air line bracket for additional slack to the shock (Figure 10).

FIGURE 9



FIGURE 10



26. Unthread the ball stud from the AutoRide level sensor bracket on the rear upper control arm.

Note: It is easiest to pop the ball out of the plastic socket and use a socket to remove the stud. Be careful not to break the plastic socket when removing it from the ball stud.

27. Attach the level sensor relocation bracket to the OE bracket with a 6mm, 1/4" washer and Loctite into the forward position and 1/4" self tapping bolt from Bolt Pack 983 in the rearward hole. Securely tighten both fasteners. (Figure 11)

FIGURE 11



28. Apply Loctite and thread the ball stud into the upper hole for 6" kits; securely tighten the stud. If removed, pop the ball back into the plastic socket at this time.
29. Install the new coil spring in conjunction with the OE upper and lower rubber isolators.
Note: Take care not to over-extend the brake lines.
30. Attach the lower shock eye to the axle with OE hardware.
31. Tighten 9/16" and lower shock hardware to 95 ft-lbs. Tighten the 12mm sway bar hardware to 55 ft-lbs. If the air lines were disconnected, reconnect the air lines to the shock now.
32. Install the provided brake line spacer sleeve (between the brake line junction block and the differential mounting tab and fasten with the provided 8mm x 100mm bolt and 5/16 washer from Bolt Pack #551 (Fig 12). Torque to 15 ft-lbs.

FIGURE 12



33. Reattach the parking brake cable to the driver's side axle mount with the original hardware.
34. Attach the emergency brake cable to the mounting bolt at the top of the differential with a new cable clamp from Bolt Pack #551. Torque to 10 ft-lbs. Ensure that the cable is routed so that it does not rub on any suspension components. Use the provided plastic wire ties where necessary.
35. Attach ABS wires to the inside of the fender well or frame rail with provided cable clamps and #sheet metal screws from Bolt Pack #565. Ensure that cables will not be overextended. Use provided plastic ties to retain the cables if necessary. Return ABS wires to retaining clips on axle. It may be necessary to slide the rubber protective grommet down on the ABS wire. Spray some lubricant around the grommet to aid in movement.
36. Install wheels and lower vehicle to ground. Bounce the vehicle to settle the suspension.
37. Torque the lower control arm mounting bolts to 95 ft-lbs.
38. Install the track bar in the track bar relocation bracket with the OE hardware. Torque to 95 ft-lbs.
39. Check all hardware for proper torque.
40. Check all hardware after 500 miles.



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.