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07-11 SUBURBAN, TAHOE, AVALANCHE 4WD
CSS-C3-12
4" LIFT KIT

READ THE FOLLOWING NOTES PRIOR TO INSTALLATION

NOTE: IF YOU USE STOCK WHEELS, YOU MAY NEED TO USE 1/4" WHEEL SPACERS ON THE FRONT

Do not alter the finish of any components. Changing the finish such as chroming, zinc-plating, or any type of painting, can cause structural fatigue of components.

Prior to installation, compare the parts list with the components received in the kit. If any pieces are missing please contact your local retailer or CST Performance Suspension at 951-571-0212, and you will be taken care of in a timely manor.

Read all instructions from start to finish before beginning Installation. If these instructions are not properly followed, severe frame, tire, or suspension damage may result to the vehicle. If you incur a problem during the installation of this kit, first be sure you have followed the instructions from start to finish accurately and if so please call 951-571-0212; we will do our best over the phone to assist you with your problem, or direct you accordingly.

Vehicles that receive over sized tires should check ball joints, tie rod ends, bushings and steering components, as well as generally inspect the entire suspension front to rear every 2500 – 5000 miles for wear and replace as needed.

Parts list:

1 – Sub frame
2 – Spindles
3 – Upper arms
5 – Front coil over spacers
6 – Passenger side diff drop
7 – Drivers side diff drop
9 – Rear coil spacers
10 – Sway bar drop mounts

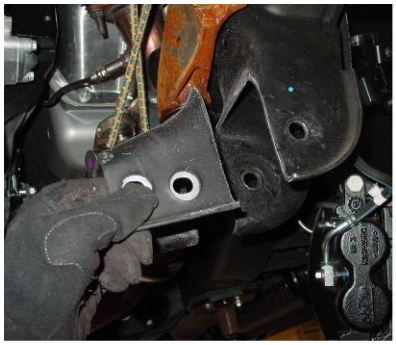
Instructions:

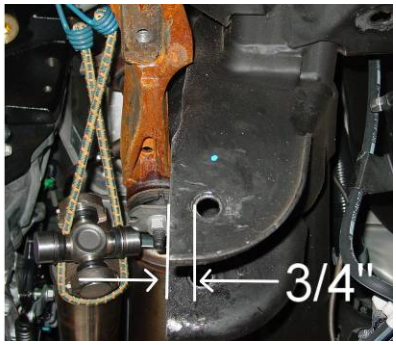
1. Place the vehicle on a flat concrete or asphalt surface.
2. Remove the negative battery cable. (10mm wrench)
3. Jack up the vehicle and support it with 4 jack stands under the frame, never work under a vehicle that is not properly supported.
4. Remove the front wheels. (22mm socket)
5. Separate the tie rod end from the spindle; remove the nut, apply light upward pressure on the tie rod end with a pry bar and smack the spindle with a hammer to jar the taper loose. Do not hit the tie rod end. If you are concerned about damaging your stock spindle you can use a removal tool. (21mm socket)

6. Separate the antilock wire where it clips together at the frame. Free the wire from the clips on the spindle, the arm, and the frame. (10mm socket)
7. Remove the two bolts that hold the brake caliper to the spindle, and the bolt that holds the brake line to the upper arm. Remove and discard the bracket that attached the brake line to the upper a-arm, you will have to bend or cut it off, be careful not to damage the brake line. Hang the calipers out of the way with brake caliper hooks; do not let them hang on the lines. (18mm socket)
8. Remove the sway bar links and the sway bar. (15mm socket, 10mm socket)
9. Mark the hubs, lower arms, front axles and shocks driver and passenger so you can reinstall them on the same side they came off.
10. Loosen the nuts on the upper and lower ball joints. Leave them on the ball joints about 1/2” to catch the spindle when you break the tapers loose. (18mm wrench, 24mm socket)

11. Break the upper ball joint loose, apply light upward pressure on the arm with a pry bar and hit the spindle near the upper taper with a hammer to break the taper loose. Do the same for the lower tapers. Do not hit the threads of the ball joint. If you don't want to damage your stock spindles you can use a removal tool.

12. Remove the large nut that holds the front axle to the hub and the bolts that hold the front axle to the front diff. (36mm socket, 15mm socket)
13. Remove the nut for the upper ball joint and tip the spindle out. Tap the front axle out of the hub with a rubber mallet.
14. Remove the nut for the lower ball joint and remove the spindles and the front axles.
15. Remove the front shocks. Do the bottom first. (15mm socket, 18mm wrench)
16. Remove the upper arms. (21mm wrench, 21mm socket)
17. Remove the lower arms. (18mm wrench, 24mm socket)
18. Remove the cross member that is between the rear side of the lower arms. (18mm wrench, 18mm socket)
19. Unplug the wire from the front diff and pull out the clips that attach the wire to the diff.
20. Separate the vent line from the front diff.
21. Disconnect the driveshaft from the front diff and tie it up out of the way, do not remove the driveshaft from the transfer case. (11mm wrench)
22. Support the front diff and remove the hardware that holds the diff to the diff mounts. Remove the front diff, have someone help you with this step. (18mm wrench, 21mm wrench)
23. Part of the frame on the driver's side where the lower arm was needs to be cut off. Mark a vertical line on the frame 3/4" in from the inside of the lower arm hole; see the pictures below for reference. Cut the frame in the marked location below. Smooth out any sharp edges and paint the bare metal to prevent rust.





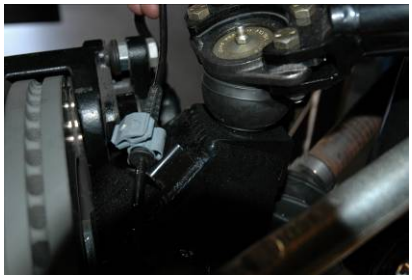
24. Install the drivers side diff drop using the stock hardware and locktite, install with the open side out as shown in the picture. The short side goes to the rear. (18mm wrench)

← Driver Passenger →

25. Install the passenger side diff drop using the stock hardware and locktite. Install with the open side in as shown in the picture. The short side goes to the rear. (21mm wrench)
26. Open parts bag # 1
27. Install the diff using the supplied ½ x 2" bolts on the driver's side and the supplied 5/8 x 2 bolts on the passenger side. Have someone help you with this step. (3/4 wrench, 3/4 socket, 15/16 wrench, 15/16 socket)
28. Connect the wiring to the diff and push the clips back in the holes to secure the wire. Push the vent line extension in to the vent line, and connect it to the diff. Reattach the front drive line to the front diff using the stock hardware and locktite. (11mm wrench)
29. Install the sub frame using the supplied 5/8 x 4 1/2" bolts in the front and the 5/8 x 5 1/2" bolts in the back, make sure you install the bolts from front to rear, with the bolt head toward the front of the truck and the nut side to the back of the truck. (15/16 wrench, 15/16 socket)
30. Open parts bag # 2
31. Prep the upper arms. Grease the urethane bushings and push them into the arms. Grease the crush sleeves and push them into the bushings. Place the ball joint spacer on top of the ball joint and slide them into the arm, secure them in place with the supplied 5/16 x 1 1/2" bolts. (Note; the opening in the arm is oversized to accommodate our optional machined ball joint, if you are using the machined ball joint do not use the spacer.) (1/2 wrench, 1/2 socket)

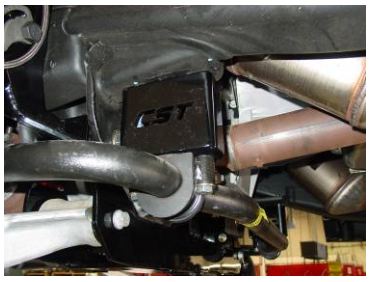
32. Pull the plastic pieces out of the stock alignment cams. Install the arms using the stock alignment cams. The cams should be installed with the nut side pointing out to the outside of the arms. Tighten the cams in the center of the alignment and tighten the rest of the hardware holding the drop mounts in. (21mm socket, 21mm wrench)

33. Install the lower arms using the stock hardware; do not tighten at this time.
34. Bolt the coil over spacers to the top of the shocks using the stock hardware and locktite. (18mm socket)
35. Bolt the coil over with the spacer on it into the truck using the supplied 7/16 locknuts and washers. Bolt the bottom of the shock to the arm using the stock hardware and locktite. Tighten all the shock hardware. (11/16 wrench, 15mm socket.
36. Secure the front axle to the diff using the stock hardware and locktite. (15mm socket)
37. Remove the hubs from the stock spindles and install them into the new spindles. Discard the dust shields. Use the stock bolts and locktite. (15mm socket)
38. Attach the spindle to the lower ball joint using the stock nut, slide the front axle into the hub at the same time. Use locktite on the axle nut. (24mm socket, 36mm socket)
39. Rotate the upper ball joint so the cotter pin hole will be accessible after it is installed in the spindle. Attach the spindle to the upper arm using the supplied castle nut, If you hold the ball joint all the down in the spindle you can run the castle nut up by hand, then tighten it with a box end wrench. Install the supplied cotter pin. (26mm wrench, pliers)
40. Clip the antilock wire to the front of the spindle and run it up the back of the upper arm. Reconnect it in to the wire at the frame.



41. Install the brake line brackets. There is a driver and a passenger bracket, the bracket shown in the photo below is the driver's side. Remove the bolt that holds the brake line to the frame. Install the bracket to the frame using the stock bolt. Carefully bend the brake line down to line up with the lower holes on the bracket. Bolt the brake line to the new bracket using the supplied 5/16 bolt and hardware. Zip tie the antilock wire in between the 2 holes on the front of the bracket. (13mm socket, 1/2" wrench, 1/2" socket)

42. Bolt the brake caliper to the spindle using the stock bolts and locktite. (18mm socket)
43. Open parts bag # 3
44. Attach the antilock wire and the brake line to the back of the spindle with zip ties. Zip tie the antilock wire to the brake line and attach it to the bracket with a zip tie. Turn the wheels both ways and make sure the brake lines do not rub on anything or get pinched during turning and suspension travel.
45. Attach the tie rod ends to the spindles using the stock nuts. (21mm socket)
46. Install the sway bar drop mounts using the supplied 10 x 30 mm allen bolts. Bolt the swaybar to the drop mounts using the supplied 3/8 x 2 ½ bolts (Depending on the year your truck was made, you may need to use 3/8 x 2 bolts for the swaybar. Both lengths are provided, use the ones that fit your application.). (9/16” wrench, 9/16” socket)



47. Install the sway bar links. (15mm socket)
48. Install the skid plate using the supplied 1/2 x 1 1/2" bolts and washers. Make sure you start the bolts by hand and they are not cross threaded. (3/4 socket)

49. Rear lift installation:
50. Disconnect the rear sway bar links from the sway bar. (19mm wrench, 18mm socket)
51. Remove the clips that hold the antilock wires to the frame in the rear.
52. Support the rear diff with a jack and remove the rear shocks. Make sure the diff is supported before you remove the shocks or the diff will fall. (21mm socket, 21mm wrench)
53. Let the jack down enough to get the rear coils out. Do not over stretch any lines. Remove the rear coils.
54. Open parts bag # 4

55. Bolt the spring spacer in to the coil pocket using the supplied 5/16 x bolts; Thread the bolts into the top of the spacer but leave them sticking up, insert it into the large part of the holes in the spring pocket, then rotate the spacer so the bolts are on the small part of the slot. Tighten from the top. (1/2" wrench)

56. Install the coils one side at a time, re-use the rubber isolators.
57. Install new rear shocks (not included in kit), we recommend using our shocks part # CSR-2300. (21mm wrench, 21mm socket)
58. Reattach the sway bar links.
59. Install the tires and torque the lugs to 100 ft-lbs. Set the vehicle on its tires. Tighten the bolts for the front lower arms. (18mm wrench, 24mm socket)
60. Depending on what tire/ rim combination you run, you may need to do a little trimming to the front bumper and the steps. Do so if needed.
61. Re-check the brake lines and the antilock wires are not going to be pinched or over stretched during turning, or during suspension movement. Turn the wheels both ways and check both sides. Readjust as necessary.
62. Using a grease gun fill the ball joints and the bushings on the upper arms with grease.
63. If needed, adjust the camber and the toe to get them approximately straight. (16mm wrench, 24mm wrench, 21mm socket, 21mm wrench)
64. Do a final inspection of every part you installed and make sure all the bolts are tight.
65. Have the truck professionally aligned.

For technical assistance call CST at 951-571-0212