SUSPENSION

ADVANCED LEVELING SYSTEMS

INSTALLATION INSTRUCTIONS

PART #SMX - CC15 PART #SMX - CC17

INSTALL TIME: 3-4 HRS.



1.5" Body Lift

For use with: 2004-Up Automatic Transmission Colorado & Canyon

Canyon/Colorado owners generally use one of two means to add tire clearance to their trucks: a full suspension lift or buying the 3" PA kit. The Suspension Maxx 1.5" kit was designed to offer a compromise between the two. It features increased lift when combined with our patent pending leveling kits and potentially more durability and serves as an economical alternative to the higher priced full suspension lift. Installs with basic hand tools in three to four hours. The **PerforMAXX** also gives your truck a nice lifted stance without exposing too much of the frame.

NOTE: Before beginning installation, carefully read these instructions, paying attention to all Warnings and Cautions!

WARNING! DRIVER AIR BAG EQUIPPED! PROFESSIONAL INSTALLATION RECOMMENDED!

Tools Needed:

Hydraulic Jack and wood block, wheel chocks, 1/2" drive torque wrench, 1/2" drive breaker bar, 1/2" drive ratchet, 1/2" drive extension - 9" length, 1/2" drive extension - 6" length, 1/2" drive extension - 2" length, metric socket set, 1/4" drive ratchet, 1/4" drill bit and drill, torque wrench, 1/4" allen wrench hammer, file, pliers or vice grips, flat tip screwdriver, three 4" X 4" wooden blocks, Anti-Seize, Red Loc-Tite, spray paint (optional), proper safety gear (eye protection recommended)

Kit Includes:

- (12) to (14) POLYCAST spacers (depending on cab style)

- 14mm 10.9 grade cab bolts/washers

- 12mm 10.9 grade cargo box bolts/washers
- Fan shroud lock retainer
- SuspensionMAXX billet 1.5 inch steering extension
- Grade 8 drilled socket head retaining bolt
- Pre installed safety wire
- Full instructions

Front bumper relocation kit

- (4) 10mm 10.9 grade fasteners
- (4) Heavy Duty bumper lift spacers
- (2) Outboard bumper brace relocation plates
- Required 10.9 grade fasteners

Install Tips: The cab bolts included in the kit may have a black oxide finish. While rust resistant to a certain degree, they are not rust proof. If desired, you may use black spray paint and apply several light coats to each bolt and allow it to dry.

Inspect the parking brake cable where it comes down from the cab and starts along the frame. Loosen the adjuster nut several turns where the front cable joins the rear cables to allow for extra slack.





SUSPENSION AND ADVANCED DEVELOR SYSTEMS

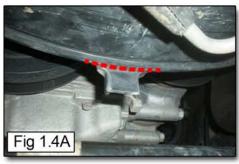
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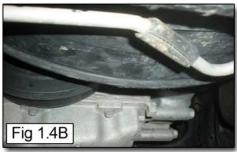
(Optional) For added safety disconnect the negative battery terminal. Caution: this may cause the Body Control Module to go into 'protective' mode, causing the door locks and driver's front window to temporarily stop working.

- 1. Chock one front and one rear wheel.
- 2. Remove the front skid plate (if equipped).
- 3. Unplug factory fog light harnesses (if equipped).
- 4. (Optional for additional clearance) You will need to trim the tab in the center of the bottom fan shroud. (Fig 1.4A) File flush with edge as shown. (Fig 1.4B)
- 5. Release the 'horseshoe' tab on the left side of the bottom fan shroud by gently prying the tab towards the fan blades. (Fig 1.5)
- 6. Rotate the bottom fan shroud 180 degrees so it is now directly under the top half of the fan shroud. The fan blades are now free to rotate below the original fan shroud location.
- 7. Measure in 1 & 5/16" from the edge of the shroud and centered between the symbols and drill a 17/64" hole thru both sections of the fan shrouds and install the plastic push pin retainer to keep the fan shroud sections from moving. (Fig 1.7)

Note: for the purposes of this install, the front cab mount next to the radiator is #1, the mount behind the front wheel is #2, the mount under the center is #3, and the mount at the rear of the cab is #4. Depending on cab configuration you may only have 3 mounts on each side.

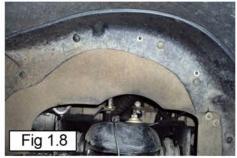
- 8. On the driver's side, remove the inner splash shield. (Fig 1.8)
- 9. Warning: Place one end of a bungee / ratchet strap around the steering wheel and secure the other end to the seat frame. DO NOT ROTATE STEERING WHEEL FROM THE ORIGINAL STRAIGHT AHEAD LOCATION DURING REMAINDER OF INSTALLATION!!
 (See Fig 1.9 on next page)











- 10. Remove the bolt holding the upper end of the intermediate steering shaft to the firewall steering shaft. (Fig 2.10)
- 11. Separate the intermediate shaft from the firewall shaft. Clean the end of the shaft to remove any rust. (Fig 2.11)
- 12. On the passenger side, loosen but do not remove the cab mount bolts.
- 13. On the driver's side, loosen and remove all cab mount bolts and bottom half of the cab mounts. (Fig 2.13)
- 14. The upper half of cab mount is still on the frame. Note the shape where it goes thru the frame. (Fig 2.14)
- 15. Place a jack and wooden block under the driver's side rear corner of the cab. Be careful where you jack so as not to damage the sheet metal on the cab floor. The metal reinforcements running across the bottom of the cab are excellent places to lift from since they are heavier sheet metal. (Fig 2.15)
- 16. Slowly raise the jack and block until there is room to add a spacer ONLY between the cab floor and the #3 mount. Inspect and monitor equipment routed from the frame to body. Don't be surprised if you hear the cab make a bit of noise as you lift. (Fig 2.16)
- 17. Slowly lower the jack until the cab almost touches the spacers. Make sure the upper half of the mount is still seated in the frame. (Fig 2.17)

NOTE: Remove the factory bolt from the lower half of the cab mount. Support the lower mount using two wooden blocks and hammer the factory bolt out of the mount.

- 18. Apply a thin film of anti-seize to the unthreaded portion of the new cab bolt and a few drops of Loc-Tite to the threads. Now place the lower half of the cab mount on the bolt and put the bolt thru the #3 upper half and spacer. Once the bolt is started, turn it by hand several turns to make sure it isn't cross threaded.
- 19. Repeat Steps 16 thru 18 for the #4 cab mount if equipped.
- 20. Carefully inspect the underside of the cab and under the hood to ensure wiring harnesses, hoses, cables, etc have sufficient clearance. Also inspect the parking brake cable where it comes down from the cab and starts along the frame. You may need to loosen the adjuster nut several turns where the front cable joins the rear cables to allow for extra slack.
- 21. Lower the jack and move it closer to the front of the cab. A good location is the cab reinforcement just to the left of the transmission. Using the block and jack slowly raise the cab until you can add a spacer on top of the #2 mount.
- 22. Repeat Steps 17 and 18.

















- 23. Lower the jack and move it directly under the metal radiator support next to the #1 cab mount. Slowly raise the cab until you can put a spacer on top of the #1 mount.
- 24. Repeat Steps 17 and 18.
- 25. Lower the jack and snug all four bolts, then loosen about two turns.
- 26. Raise the hood and carefully inspect all harnesses and brake lines on the driver's side.
- 27. Move to the passenger side and remove all four bolts.
- 28. Place the block and jack between the two rearmost cab mounts and under the reinforcement. (Midway between doors on the Crew cab / Extended cab models).
- 29. Slowly raise the cab until you have room for a spacer on top of the #3 mount.

Note: At this point the entire passenger side should be lifted so you may install all the spacers on top of all the upper mounts.

- 30. Carefully inspect the underside of the cab and under the passenger side of the hood to ensure no harnesses, etc are stretched.
- 31. Slowly lower the jack until it almost touches the spacers and repeat Step 16 thru 18 for the bolts.
- 32. Completely lower the jack. Torque all cab mount bolts to 59 ft lbs.
- 33. Install the steering extension from the kit onto the upper end of the Lower intermediate shaft.
- 34. Install the Allen head cap screw and tighten to 25-28 ft lbs.
- 35. Place the safety wire thru the holes in the bolt head so equal amounts of the wire protrude from each side of the bolt head.
- 36. Take the piece of wire protruding from the left side and wrap it clockwise around the head of the bolt until it reaches the wire protruding from the right side.
- 37. Hold the two wires together and approximately 1" from the bolt head, grip the wires securely with pliers or vice grips.
- 38. Twist the wires clockwise until you have made 6 8 twists in the wires.
- 39. Keeping the twisted portion of the wires tight against the steering extension, route the untwisted portions over and under the intermediate shaft.
- 40. Grip the wires again and make another 6 -8 twists to produce a 'tail'. Cut off the excess wire below the twist and fold the tail back over the shaft along the original wire.

TORQUE ALLEN CAP SCREW to 25- 28 ft/lbs

FINISH WRAP SAFETY WIRE AS INDICATED AROUND STEERING SHAFT TO SECURE

Note: Safety wire properly installed.





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- 41. Place the upper end of the steering extension into the firewall shaft, install the factory bolt, and tighten to 25 ft lbs. (Fig 4.41)
- 42. Install the splash shield and remove the bungee strap from the steering wheel. Note: You can raise the bed of the truck by using the block and jack under the bed crossmembers. Other options include having a helper lift the cab while you install the spacers and lifting a rear corner of the cab and placing a 2×4 between the frame and bed. When lifting the box by hand, lift from the bottom of the tailgate itself, not the sheet metal lip underneath.



- 43. Remove the five 10mm bolts from each of the plastic liners inside the rear wheel opening and remove the liner. This allows you easy access to the front bed mounts and also lets you monitor the hose between the filler neck and gas tank.
- 44. Loosen but do not remove the three bed mount bolts on the passenger side of the box. (Fig 4.44)
- 45. Loosen and remove the three bolts on the driver's side bed mounts. For the rear mount you may have to unbolt the trailer harness connector box from the frame to allow room to access the bolt.
- 46. Lift the bed and install spacers on each bed mount. Carefully place the steel bed blocks in the frame with the stud facing downward. There are two locations on each side of vehicle. One is in the center of bed and the other is forward of it. (Fig 4.50 and 4.51) Don't be alarmed if the bed shifts, there is an easy fix later on.
- 47. Apply a thin film of antiseize to the unthreaded portion of the bed bolts and a few drops of Loc-tite to the threads.
- 48. Install the three bolts and turn them by hand for several turns. (Fig 4.48)
- 49. Inspect the hose between the filler neck and gas tank for kinks or strectching. If necessary you can loosen the clamp and slide the hose. Double check for secure seal connection at clamp area. (Fig 4.49)
- 50. Move to the passenger side and remove all three bed mount bolts.
- 51. Repeat Steps 46, 47, and 48.
- 52. Realign the bed if needed. Grab the bottom edge of the tailgate and push the bed forward until it stops. Examine each front corner to see if one side sticks out from the cab further than the other. You can push on the inside of the wheel well where the side of the bed meets the floor to move the box from side to side. Once the bed is centered, you may pull it slightly to the rear to adjust the gap between the rear of the cab and the bed.
- 53. Torque the bed mount bolts to 59 ft/lbs.
- 54. Reconnect the factory fog light harnesses and install skid plate.













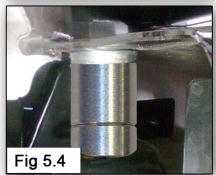
Front Bumper Lift Installation

- 55. Unplug the harnesses for the front turn signal/parking light assemblies.
- 56. Remove the grille.
- 57. Unplug the foglight harnesses (if equipped).
- 58. Remove the front bumper. There are two bolts on the top lip, two bolts on the bottom lip and two bolts on each side bracket for a total of eight. (Fig 5.1 and Fig 5.2)
- 59. Lay the bumper upside down on cardboard or old blankets, etc to prevent scratching the chrome or paint.
- 60. Install the side plates from the kit to the sides of the front cab mounts where the bumper brackets originally mounted. Torque the bolts to 35 ft lbs. (Fig 5.3)
- 61. Take the four M10 X 1.5 X 60mm bolts included in the kit and slide a washer onto the head of each bolt. Then apply a thin film of anti-seize to the unthreaded shank of each bolt. Then apply a few drops of blue Loc-Tite to the threads.
- 62. Place the bumper onto the frame. Lift the left side of the bumper and place a 1" or 1" plus 0.5" spacer between the top lip of the bumper and the frame. Start the bolt by hand and engage several threads. (Fig 5.4)
- 63. Lift the right side of the bumper and install a spacer between the top lip of the bumper and the frame. Start the bolt by hand and engage several threads.
- 64. Recheck the gap again and make sure it is level. If not, loosen the bolts holding the side bracket to the plate and adjust the bracket up or down as needed to make the bumper level. Once you are satisfied the gap is level, torque the bolts to 35 ft lbs.
- 65. From underneath push up on the bottom lip of the bumper and install the remaining spacers between the bottom lip and the frame.
- 66. Install the two remaining bolts.
- 67. Torque all four bolts to 35 ft lbs.











- 68. Starting from either side of the bumper, check the gap between the bumper and the bottom of the sheet metal/fender flare. (Fig 6.1)
- 69. Fasten the side brackets to the plate with the supplied hardware. (Fig 6.2)
- 70. Recheck the gap again and make sure it is level. If not, loosen the bolts holding the side bracket to the plate and adjust the bracket up or down as needed to make the bumper level. Once you are satisfied the gap is level, torque the bolts to 35 ft lbs.
- 71. Connect the foglight harnesses (if equipped).
- 72. Reinstall the grille and connect the front turn signal/parking light harnesses.

Safety Check list: check for interference and operation of the following:

Steering - check for interference and operation under hood

Hydraulic brake function - check fluid level check brake line routing and proper brake operation

Parking brake - cable tension / adjustment/ operation

Fan clearance for operation

Battery cable slack, Air conditioning hoses, Rear tail light hamess

- 73. Reconnect negative battery cable (if disconnected).
- 74. CAUTION: Start the engine and observe the instrument cluster and listen for any unusual noises. If everything is in order test brakes and steering operation before driving.

LAST STEP: ENJOY YOUR NEW RIDE!







