

AIR RIDE SUSPENSION SYSTEMS

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03+ Gm 4500/5500 4x4 front Installation Instructions



- 1. Jack up the truck from the frame right behind the rear shackles and place a jack stand under the frame on each side of the truck in front of the axle.
- 2. Loosen U bolts, loosen the leaf spring bolts and remove the leaf springs.



3. Measure the leaf spring from the center pin back 5 3/4". Cut the leaf springs with a chop saw or cut off wheel. **Do not use a torch or plasma cutter. Heating up the leaf springs will cause them to loose its strength.** Once the springs are cut, reinstall them in the front factory leaf spring perches.



4. Locate the drivers side air bag mount, 3/8" shim, and ds lower air bag brace, u bolts and upper u bolt mount and lower axle clamp. Lift the leaf spring up and slide the lower air bag mount on to the axle. Make sure the locating pin drops into the axle. Next, locate the 3/8" spacer shim. Slide the shim in between leaf spring. Make sure the alignment pins line up. Now, locate the factory u bolt mount and put it on top of the leaf springs. Locate the u bolts and drop them over the assembly and fasten them in place with the lower axle clamp. **JUST SNUG THE NUTS ON THE U BOLTS.**



_ower bag brace

All these pictures drivers side

5. Locate the lower air bag brace. Remove the nuts on the rear u bolt. Slide the lower air bag brace from the bottom up. Use the 9/16x2" bolts to fasten the air bag mount and the bag mount brace together. Make sure to run the bolts from the top down. Now you can torque the u bolts to 175 fl/lbs. Torque the 9/16" bolts to 95 ft/lbs.



- 6. Locate the drivers side upper bag mount. This is the mount with the pan hard bar ears. Remove the four nuts that hold the transmission mount in place. Place the upper bag/pan hard bar mount against the frame and fasten it to the frame with the factory nuts and the four 1/2x2 1/2" bolts. Torque the bolts to 125 ft/lbs.
- 7. Locate the 5323 air bags. Slide the bag over the air bag mount and fasten in place with the 1/2x4" bolt. Use the supplies flat washer and lock nut. Wait to install the nuts on the top air bag studs until the passengers side is installed.
- 8. Locate the passengers side lower air bag mount. Insert the mount in between the leaf spring and the axle. Fasten the assembly together using the u bolts, upper u bolt mount, and lower axle clamp. Locate the lower bag brace and install just like the drivers side with the factory u bolt and the 9/16x2" bolts. Fasten the bottom of the air bag in place with the 1/2 x 4" bolt, flat washer and lock nut.



Spacers on drivers side

Spacers on passengers side



Drivers side

Passengers side

- Locate the passengers side upper air bag mount. Fasten to the frame with the four 1/2x2 1/2" bolts. You may have to reem out the factory holes. Torque the bolts to 85 ft/lbs.
- 10. Remove the jack stands and lower the truck down enough so that the upper air bag mounts slide over the studs on top of the air bag. Fasten the bag in place with the 1/2" and 3/4" lock washers and nuts. Next insert the air bag fitting in the air inlet on the tall stud of the airbag.
- 11. Locate the panhard bar. Use the 7/8x4" bolt, flat washers and lock nut to connect the hiem ends into the panhard bar ears. Make sure to use the supplied spacers to center the hiem end in place. Once in place torque the bolts to 200 ft/lbs.
- 12. Locate the sway bar upper end link mounts. These fasten to the engine cross member. Use the 1/2x4 1/2" bolts to fasten through the holes in the crossmember. Next, locate the lower sway bar mounts. Take off the front U bolt nuts and slide the mounts over the u bolts. Make sure the tabs with the two holes go towards the center of the vehicle. Tighten with the factory u bolt nuts. Torque to 150 ft/lbs.





1/2 x 2" bolts

13. Locate the sway bar, blue bushings and "D" clamps. Put the blue bushings on the sway bar and slide the "D" clamps over it. Use the $1/2x^2$ " bolts to fasten the sway bar to the lower sway bar mounts.

14. Next locate the endlinks. The endlinks fasten to the upper mounts with the 1/2x3" bolts. Make sure to run the drivers side bolt outside in, so the nut and treads are towards the center of the truck. Failure to do this may cause the leaf spring to rub on the bolts. Torque to 100 ft/lbs.

15. Attach the bottom of the endlinks to the sway bar. Put one red bushing on each side of the sway bar. Tighten until the bushings begin to crush.



Drivers side

- 16. Inflate the bags to 8". Next adjust the panhard bar so that the axle is centered. Make sure the wheels are straight and measure from the frame to the inside of the tires. Check the steering wheel. It should be close to straight. You may have to adjust the panhard bar to get the wheel straight. It will not matter if the axle is off a 1/4" or so to make the steering wheel straight.
- 17. Now go back and retorque all the bolts.
- 18. Let all the air out of the bags. It may require you slightly bend the transmission coolant line in order to provide clearance for the driveshaft. Make sure you have at least 1/4" between the closest point of the transmission line and the driveshaft. This will prevent the driveshaft from ever rubbing on the coolant lines.



Make sure you have 1/4" clearance when air is deflated.