

C5/6 Alignment & Ride Height by Paul Hamersly

How do you lower your C5/C6 within the range of the factory adjusters? Note, if you want to lower more, be aware that your shocks should probably be changed because you will have reduced travel range and the shocks will not be centered at the new static ride height.

- Front –
 - Make sure parking brake is set and place chocks behind rear tires.
 - Jack up front end and support with jack stands on rear portion of cross member.
 - Remove front wheels.
 - Place rubber pad or something 'soft' on floor jack and lift slightly under the end of leaf spring to take the load off the spring.
 - Clean the bolt/nut at the outboard end of the leaf spring.
 - Use a 10mm socket or wrench to turn the adjusting bolt at the outboard end of the spring COUNTERCLOCKWISE.
 - You can safely turn it to a point where it stops turning, then reverse it 1-1.5 turns.
 - Lower jack under spring end.
 - Replace wheel & snug lug nuts.
 - Repeat on opposite side, turning the bolt the same number of turns.
 - Lower car to ground & torque lug nuts to 100 lbs.
- Rear – Place chocks in front of front tires so car does not roll.
 - Lift car from center of rear cross member, remembering to use a pad or wood block on the metal cup of the floor jack.
 - Place jack stands on each side of the floor jack and let the car down on the stands.
 - Turn the lowering bolt at the outboard end of the transverse leaf spring COUNTERCLOCKWISE using a 18mm wrench on the bolt head and a 13/16" wrench on the nut.
 - Leave at least 1 thread above the nut.
 - Repeat on opposite side, turning the bolt the same number of turns.
 - Raise car with floor jack, remove jack stands and lower car to ground.
- Drive car to settle the springs.
- Measure ride height on level ground. Measure to the 'jack puck slots' front & rear. You want the front and rear to be the same height on both sides of the car.
- Check for the rear to be approximately ¼" higher than the front.
- **Now, it's time for an alignment since lowering the car will have changed your camber settings front and rear, which will, in turn, have affected your toe settings.**

- But, first recheck the ride height side-to-side and front-to-rear to make sure they are even. If not, repeat the above procedure on one side only to make the sides equal. Similarly, adjust rear height if it isn't what you desire.

What alignment settings should I use on my C5/6? The factory settings are given in a "range of acceptability" or tolerance I strongly believe that you should go to a reputable alignment shop and have the alignment done to EXACT equal settings for each side. This will result in better handling because you are eliminating the potential of one side being at the low end of the factory allowable tolerance and the other side being at the other extreme of the allowable setting range. You do want it to handle its best, don't you?

- **In my opinion**, the factory settings are made for people who do not exercise their Corvette's handling potential on a good back road, much less a competitive event.
- For **street** use, but with much improved handling, I recommend lowering it as previously described and then setting alignment to:
 - Front camber @ -1.25 degrees.
 - Front toe set to zero, or possibly 1/32" OUT.
 - Front caster to approximately positive 6.75.
 - Rear camber to -1.0 degrees.
 - Rear toe set to 3/16" IN (combined total of 3/32" IN on each side).
- For track or autocross use, you will want to increase these settings, but I don't recommend this until you've discussed your particular goals and type of participation with someone experienced in track alignment. Track alignment depends on many variables, including tire type (street, DOT Racing, Race Only, Slicks, etc.) and brand! Yes, different brands and types require differing camber settings for optimal performance.
 - If you autocross or track your Vette and also use it on the street, strongly consider adjusting your front toe settings different for racing than on the street.
 - Align front toe to **zero**.
 - Paint a mark on the tie rod end and the tie rod so you can readily see them in alignment at zero.
 - Before the event, loosen the 22mm tie rod lock nut and turn the tie rods out ½ turn on each side with a 13mm wrench (turn 3 flats). Return them to the zero mark after the event for street driving by turning the tie rods back in ½ turn.