



# Tech Talk



## ***How to give your C5 more power***

***Source - Shawn Hanna – Past President Classic Corvettes of Minnesota***

How to give your car more power? Since we have quite a lot of C5's in Classic Corvettes I'll be starting with the 1997-2004 C5 Corvette mods. I'll also begin with things you can do yourself and move on to things you will most likely have a shop mechanic do the work. Next month I'll discuss the C6.

Air Intake: Halltech's C5 Venom and other cold-air intakes are the first step in the direction of easy, simple mods that will wake up your LS1 or LS6 (Z06) in a hurry. An ultra-low restriction filter, combined with a built-in velocity stack at the entrance of the filter flange, is an easy 20% gain in airflow, according to Halltech. Other good response can come from the VaraRam intake system. Next is a CAT BACK exhaust. There are lots of different styles and sounds out there, so do some research. But get this, if you combine the forced air filter system with an ASP crank pulley (and shorter belt) and a good cat back exhaust, you can expect a 40 WHP gain on your LS1. Good deal for anyone with basic wrenching skills. Just remember, if you do this you WILL need to get a computer tune to maximize the results. Typical computer tune is around \$400 and there are some good tuners in the area.

There are lots of choices for power when you choose to turn your car over to a good performance shop. With the above changes, adding headers and going to a shorter rear gear will give you a tire burning, neck snapping change. C5s come with a 2.73 gear in the automatics and a 3.42 gear in the manual transmission models. So if you have an automatic, switching to the 3.42 gears will give you noticeable improvement. For you manual people, it's best to spend some time using a rear gear calculator like <https://www.xse.com/leres/z06/calculator>

Forced induction can add significant power but may have some drivability issues. I would recommend a supercharger for most applications on a stock engine. You can expect a 125-150 hp increase with pretty good street manners. Based on if



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you want torque increases or high end power will determine, if you go with a centrifugal or screw type blower. Twin turbo induction is much more complex and this decision should be between you and your performance mechanic. You can expect some big power gains with a twin turbo set up but you'll need to discuss how this much power will affect the other parts of your car (and it will).

Heads and cam: This is one of my favorites because it should provide very linear power. However, again, you must do some homework so that you can tailor your design to your driving style. If you get too aggressive with this combo you'll have some drivability issues for the street. Talking with your performance mechanic will gain you knowledge and understanding of what you really want and what you realistically can expect from this combo.

Finally, the most important thing to remember is that any of these mods WILL REQUIRE computer tuning to make them work together for better power, fuel economy and drivability.

Three performance shops I can recommend are: [www.BoosPerformance.com](http://www.BoosPerformance.com); [www.DougRippie.com](http://www.DougRippie.com); and [www.olsencorvette.com](http://www.olsencorvette.com)