



Modifying a car's ECU can improve more aspects of performance than many realise

SOFTWARE WARS

It was only a matter of time before another software package came along to challenge LS1 Edit. VCM Suite makes LS1 tuning easier than ever

Story + Photos PAUL SENTOR

AS THE Commodore faithful are aware, when the now famous Gen III first hit the Australian market, the 5.7-litre Chevy V8 was delivering 225kW, better than any other production-based engine ever before released in this country. The figure was well down on the output in US spec, but there were various reasons for this local detuning process. Not least of which was the fact that it allowed Holden to slowly increase engine output with each new series or model without leaning very hard on the engine at all.

In the US, the Gen III had been out on the road for some time and had the benefit of thousands of hours of development by local tuning companies. One such company that has achieved great results with its product is LS1 Edit. Its software package is designed to provide tuners with an opportunity to improve on the factory 'tune' with considerable ease.

Many people believe that the days of popping the bonnet and bolting on a few go-fast bits are over, given the presence of computer-controlled engine and transmission systems. But automotive enthusiasts and performance shops continue to install aftermarket components on late-model cars, chasing additional performance, economy or driveability.

The engine management system is one of those things people don't think you can touch. But although engines are more complex these days, the fundamental operating principles have not changed radically, just the means of control.

So, getting back to the first Gen III on the Australian scene (in the Series II VT), the detuning process consisted of reducing the spark advance and adding rich fuel mixtures at open throttle. But with the help of LS1 Edit, hundreds of Commodores have since benefited from a significant power increase without even a single bolt-on modification to a stock 225, 235 or 245kW Commodore.

Apart from the pure performance aspect, modifying the ECU affects a number of other things that people once took for granted but which have since disappeared into the confines of a computer. Aside from the good old diff ratio changes and recalibrating the speedo, there's the stuff a lot of people don't even realise exists in a factory ECU, such as rev limiters per gear and adaptive spark advance tables to account for temperature and fuel octane.

NEW KID ON THE BLOCK

Given the success of LS1 Edit, it was only a matter of time before another company developed a similar package. Enter HP Tuners' VCM (Vehicle Control Module) Suite. VCM Suite manages all of the functions included in LS1 Edit, as well as several others, while boasting a range of features that radically simplify the tuning procedure. The makers also claim the system is designed for the home user as well as the experienced mechanic's workshop.

VCM Suite is claimed to be the first in the industry to provide comprehensive flashing,