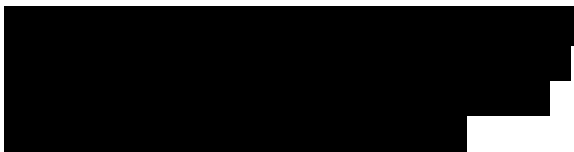




Testing Times

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LPG, Traction Control and Aussie Cars

Commodores and Falcons are available with Electronic Traction Control (ETC) and both are frequently converted to use LPG. However, sometimes all the good things in life don't mix and this can be the case with LPG and ETC.

ETC is a bit like ABS in reverse. When the ABS wheel sensors detect a drive wheel going faster than it should for the forward speed of the vehicle (i.e. wheel spinning) the ETC system tells the engine management system to reduce engine power. This is usually done by retarding the ignition timing and then selectively cutting the fuel supply to some cylinders. If this is not sufficient, as a last resort, the ABS system is requested to apply the brake on the offending wheel.



Retarding the ignition and selectively cutting the fuel supply to some cylinders is a cinch with modern computer controlled engine

management and multi-point fuel injection systems and can be smoothly and safely done. However, this is not the case with the current single port LPG systems. Consequently, the ETC system's "last resort" brake applications become the mainstay and are much more common particularly when driving in icy conditions. This can lead to excessive brake wear and other problems.



As a result, both Holden and Ford require that the operation of their ETC systems be changed when vehicles are converted to LPG. However, each takes a slightly different approach.

Ford requires that the ETC manual over-ride system be diverted through the LPG/Petrol change-over switch so that whenever LPG is selected, the ETC system is automatically turned off and the TRAC OFF light comes on irrespective of the ETC switch position.

Holden on the other hand requires that the ETC system is permanently disabled and that the TRAC OFF warning lamp remains on whenever the ignition is on irrespective of the position of the ETC switch.

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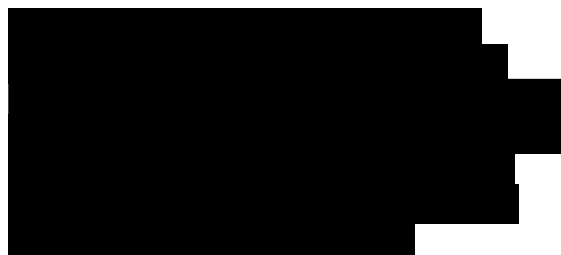
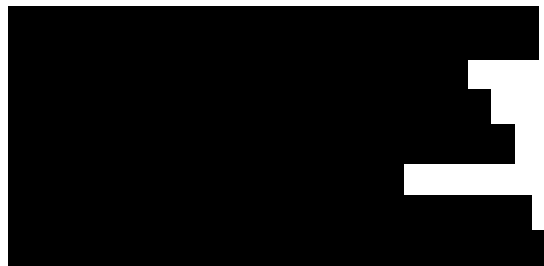
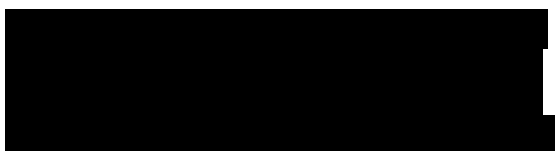
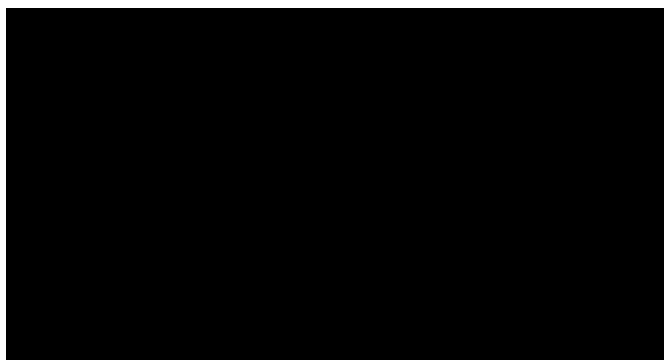
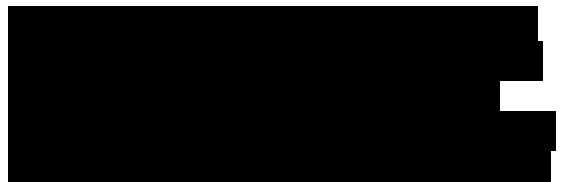
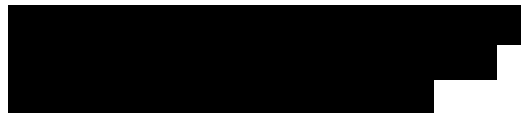


The two approaches have safety advantages and disadvantages. With one system the driver has the safety benefits of ETC at some times. However they lose the benefits when switching over to LPG and may not realise this as they have not consciously disengaged traction control. With the other system the driver never has the benefits of traction control but then again should not get caught out by its intermittent absence.



What does this all mean for LVTs? Well, traction control is an optional safety feature and there are no regulatory requirements regarding how it works or what controls and warning lights are provided.

Consequently, if someone has been annoyed by the TRAC OFF light being on permanently in a Holden and has disconnected it, or someone didn't like the intermittent availability of traction control in a Ford and has changed the wiring, this doesn't make the vehicle un-roadworthy. However, if a tester discovers this type of modification it would be wise to make a note on the inspection report and to advise the person presenting the vehicle.



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