

# EASY on the CHIPS

Although generally frowned upon, there can be a place for engine chipping, as long as the process is above board, transparent and managed by professionals. Robin Dickeson reports

**W**e've been tuning vehicles for years. Enthusiastic amateurs and professionals alike try to squeeze more from standard engines, convinced they can do better than the manufacturers. Often they're right, as engine design involves compromises. People prepared to sacrifice in one direction may make useful gains in another.

Today, computer-controlled engine management systems offer a huge range of tuning opportunities. Changing or reprogramming the ECU (engine control unit) can make a big difference to performance. So chipping is a growing business: indeed, the Internet delivers lots of firms offering anything from slightly seedy-sounding roadside jobs to clearly sophisticated and well-run workshops. And there are plenty of outfits selling electronic kits for enthusiastic amateurs.

Several firms will chip truck ECUs – almost always claiming to boost power and/or cut fuel consumption. The going rate for one maximum capacity truck seems to be £500, although there are doubtless deals. However, virtually all truck makers say that chipping invalidates warranties, potentially leaving owners with hefty bills, if something goes wrong. Conversely, most of the chipping firms say their modifications don't affect truck makers' warranties or that they have their own cover.

If you want to chip your van or truck, best advice is to check with the vehicle manufacturer first. Truck makers don't like just anyone doing it and they have genuine safety worries. Vehicle management systems are sophisticated and the consequences of unexpected interference can be, well, unexpected.

Equally, chipping, like computer hacking, can prove difficult

to detect or prevent. Yet the wrong signals running around a truck's electrical system might, for instance, destabilise computer-controlled brakes. Similarly, playing with the fuel system may interfere with emissions, taking the truck outside its correct Euro level parameters and making it illegal.

Just as worrying for truck makers is the risk that fiddled fuel systems may damage engines or drivelines. This may be awkward, if vehicles are under warranty or covered by R&M contracts. Such deals offer predictable maintenance costs; for truck makers and dealers, they are a vital revenue stream. However, anything that threatens to expensively upset insurance-style models is hardly going to be welcome.

Some years ago, an influential truck makers' committee at the SMMT (Society of Motor Manufacturers and Traders) asked the UK DfT (Department for Transport) for help in banning chipping. The DfT declined, saying that, if even truck makers' experts were struggling to find evidence, there was little point in trying to create unenforceable laws. And a recent statement from DfT suggests little change: "We are aware of concerns about the re-chipping of haulage vehicles and are working with the industry to resolve this issue. Modifying a vehicle so that its emissions exceed approved levels is illegal and anyone who operates a vehicle must ensure it is roadworthy."

Incidentally, several chipping firms offer to bypass AdBlue systems etc. Ironically, this may help truck makers and dealers when exporting used vehicles to countries that have neither Ad-Blue nor emissions checks.

As for the SMMT, it believes that engine re-mapping or recalibration has a role to play, so long as regulated emissions continue to meet the appropriate Euro standards. The society goes on to say that it will continue to work with relevant authorities "to find a solution to this complex problem".

Don't hold your breath. **TE**

Last autumn, BT Fleet did a huge deal with vehicle tuning and ECU remapping specialist Viezu to chip 24,000 vans. Supported by the van maker, this is cutting the fleet's fuel use by 10–15%, "saving £4m this year alone", according to Shaun Rowley, senior product manager at BT.

In fuel and CO<sub>2</sub> terms, "it is equivalent to taking 5,000 vans off the road", he says. The deal optimised the vans' engine performance to tightly defined needs, instead of the generic ex-factory compromise settings.

