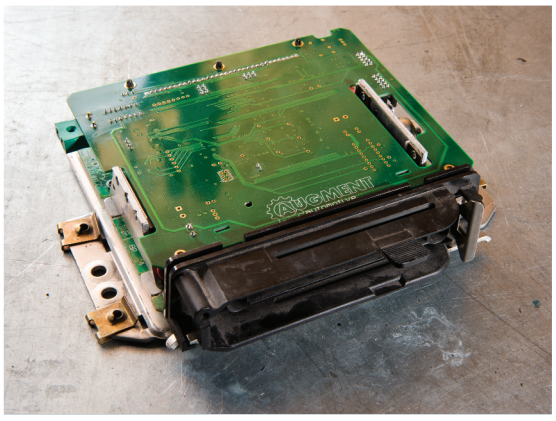


**Above, left to right: The heart of the matter: Augment Automotive's ECU brings modern injection mapping to the party. Bosch injector (left), with ASNU. This is still work in progress. Koni dampers are a big improvement over worn, standard items**

to try these too, but between all of us, we just couldn't get them to work.

In optimum conditions they worked just fine, noticeably enhancing the smooth running of the engine, which was already pretty good. However, for no apparent reason the ignition curve would throw a wobbly and all semblance of smooth running would disappear, most notably in heavy traffic, or even occasionally when cruising at steady or part throttle, when a spike would send the revs up or down. Various theories were investigated, most notably that of a voltage spike from the ECU to the injectors, but the signal was measured and found to be nothing other than consistent, particularly after the alternator had been reconditioned. Finally Tom and David at Augment concluded that the injectors, with their very fine atomisation, were very sensitive to under bonnet ambient temperature and significant vapourisation/condensing of the fuel in the intake, which causes a change in fuel volume, displacing a varying amount of air and so altering the mixture. This is not a fault of the injector as such, but exposes a limitation of the Augtronic ECU, which although vastly more flexible than the standard set-up, would require a volumetric or mass measurement of air flow into the engine.

For the moment we've reverted to the standard Bosch injectors, but ASNU are working on a new spray pattern that won't be quite so fine and will work with what we've got. But we still have the benefits that the Augtronic ECU brings to the party, which included the ability to tailor the fuelling and ignition to specifics such as a camshaft change.

Yes, that's right. Ever since I'd got behind the wheel of Augment's cam enhanced demo car, I knew that this was a mod that I needed for my car. The standard 2.5, 8-valve cam is a very conservative means of opening and closing the valves, designed seemingly to neuter the top end of the rev range, which manifests itself in a general lack of interest much above 5000rpm. Augment have developed their own cam, giving more lift and so more top end bite, but not at the expense of torque and mid range. On the rolling road, and combined with Augment's ECU, the cam produces around 175bhp and, at 3000+rpm, you can really feel it.

So engine sorted my attention was turned to other problems. With just approaching 100,000-miles there are lots of bits that are just plain wearing out. The main culprit is the suspension, or more specifically the dampers. They've never been changed and while they weren't leaking or anything, they weren't really doing much to prop the car up either. My initial thought was to just go standard, but David and Tom persuaded me that Konis were the way to go. Hmmm, I wasn't sure. I've messed up cars before with dampers that were just too stiff, but then again I've have very positive experiences with Konis and they are what Porsche fitted to the M030 spec 944 Turbo and 968 Club Sport.

OK, I was convinced and so a set duly arrived. The fronts are inserts and so the standard front suspension legs have to be modified slightly to accommodate them. The rears are just straight bolt on. For the moment, and



**Below, left to right: Rare picture of Bennett's 944 not in pieces. On the rolling road for one of many mapping sessions. We'll be back on the rollers to get a final figure for the cam. Full frontal. How many D-plate cars do you see regularly on the roads these days?**