



Chip your 'Wagen

Almost double the output of your T5 in less than an hour, and for less cash than a weekend away? Here's how...

Words and photos Jim Blackstock

So-called 'chip tuning' has always been a successful way of increasing engine power and torque, particularly with turbocharged engines. Whether petrol or diesel, replacing the factory 'map', or set of variables within the engine control unit (ECU) controlling fuelling, turbo boost and ignition, can free up additional performance, and potentially improve fuel consumption on turbo diesel engines as well.

While there are a huge number of companies out there offering to re-map engines, one of the longest established is Superchips, and the company is famous for its Bluefin hand-held device. This plugs into the Van's on-board diagnostic (OBD) socket, allowing the owner to re-programme the ECU themselves. The process typically takes around an hour, with the added benefit that you can swap between the performance map and the original, factory-installed one in minutes.

The company offers conversions for 1.9 and 2.5 TDi versions of the T4, as well as all engine variants in the T5 range. The installation process is the same regardless of vehicle, and we decided to fit one to this 2.0-litre, 84bhp T5 to see just how straightforward it is.

All T4s are plug-and-play, but T5

diesel engines need to be Bluefin-enabled before the process outlined here can be carried out. This involves taking your Van to a Superchips dealer, who can enable the ECU to allow it to communicate with the Bluefin hand set. This takes a couple of hours and costs around £60 but, while you're there, you can buy your Bluefin device so that, once you're home, you're all set.

It's worth noting that while you can swap between the original and Superchips re-map as often as you like, the Bluefin device will only work on one vehicle. During the process, the system checks the VIN to ensure it's plugged into the original vehicle. If you change your Van, you can buy a new re-map, which will cost less than the initial purchase as you already have the hand set itself, which can be used again.

It's also worth noting that this system works on all versions of each engine (the 1.9, 2.0 and 2.5-litre), whatever the factory output. Mechanically, the engines are very similar and the different quoted power figures are determined by the software within the ECU. This can be for a variety of reasons, including markets where vehicle tax is determined on engine output, for example. Essentially, what this means is that any engine variant will give essentially the same end figure, as you can see from

the power and torque curves below.

The results are nothing short of staggering. On the 84bhp version we tested, we saw a 76bhp increase at 3,640rpm, bringing the maximum up to 168bhp, while torque rose by 132Nm to 372Nm maximum. While the numbers are impressive, even more so is the way the Van drives. With loads of grunt from the bottom end, the already nippy Van is noticeably quicker and much easier to drive, on part and full throttle. Result.

▼ It looks like some kind of medical instrument, and will leave you feeling warm and fuzzy inside



NEED TO KNOW

TOOLS USED
■ Computer (PC, not Mac)

SKILL LEVEL
1 2 3 4 5

TIME TAKEN
■ One hour (not including Bluefin enabling, which must be carried out by a Superchips authorised dealer)

COST DIY
■ Enabling—£60
■ Bluefin—£399, and the satisfaction of having carried out your own re-map

COST PRO
■ The same as DIY

CONTACT
■ www.superchips.co.uk
Tel. 01280 816781



01 The first thing is to locate the OBD port. By convention, this must be within 1m of the driver and, on the T5, it's under the dashboard, just above the accelerator pedal. Unpack your Bluefin device and connect it to the OBD port. Make sure the ignition is turned off, but keep the key in—you'll need it in a bit



02 Once you've plugged it in, the handset lets you know you're on the right track



03 From here on, you basically follow the instructions. Leave the ignition off and press 'Y' on the hand set. At this stage, you're in the 'read' part of the cycle so, if you inadvertently disconnect the Bluefin, you won't have any problems. Once that part of the process is complete, it will prompt you to turn the ignition on and press 'Y' again. However, it also tells you NOT to start the engine



04 So, turn the key so the ignition is on and hit 'Y' for the next part of the process



05 Now, the hand set is reading the original map and saving a copy of it in its memory. Once that is complete, it prompts you to press 'Y' to finalise this part. Having done that, it's time to disconnect from the Van and head inside, to the computer



06 The first thing to do is go to the Superchips website and download and install the software necessary to communicate with the Bluefin device



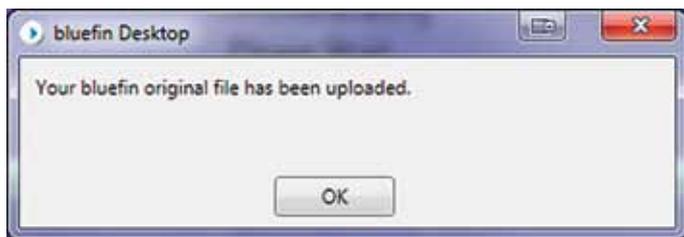
07 Once this is set up, plug the Bluefin into the computer using the USB lead supplied in the kit

08 Having input your details into the software, hit the 'Connect' button and your Bluefin will start talking to your computer. When the two are connected, the computer will read the original map that the Bluefin copied from the Van. Once this has been transferred, it is sent to Superchips to be processed

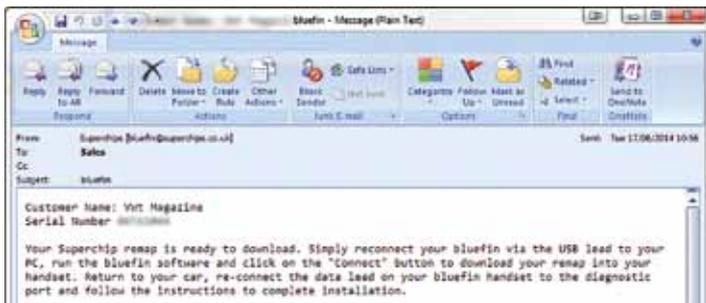


HOW TO

Re-map a T5 turbo diesel



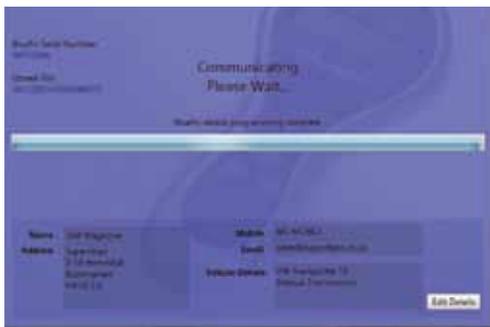
09 Once that process is complete, it tells you (easy this, isn't it?). The original map is compared with numerous originals kept on file at Superchips and, once it has been matched, the corresponding re-map file is prepared for download



10 When it is ready, you will receive an email telling you that your new, improved Superchips re-map is ready, and to connect your Bluefin back to the computer to download it. For us, this took five minutes



11 Now plug the Bluefin back into the computer, hit 'Connect' and the computer downloads the new map from the Superchips server. This is then added to the Bluefin device itself which, if all has gone to plan, will now contain the original map and the Superchips re-map, both of which will remain on the device



12 When the Bluefin programming is complete, you will see a handy message telling you it's all been successful and it's time to head back out to the Van



13 Plug the Bluefin in to the OBD port again and follow the instructions. When prompted, hit 'Y' to install the new map. Hitting 'N' takes you to an extras menu, which includes a very useful fault code reader in case you have any unrelated problems

Hit 'Y' again to confirm...

... and wait while the Bluefin talks to the Van and uploads the new map

14 And there you go—the new, improved map is installed and ready to go. If you want to revert to the original map, simply repeat step 13 and the Bluefin will swap maps each time you run through this process



15 The last thing to do is turn the ignition on, check there are no warning lights, then fire the engine up and go and enjoy the new-found driving experience your new re-map offers. Note the traction light is on here as we had just rolling road-tested our Van for the power curves

