

FIVE QUESTIONS TO ASK BEFORE TUNING YOUR 4X4



Want more performance from your turbo diesel 4x4, but don't know where to start? These are the five easy questions you need to ask.

WORDS AND IMAGES BY EVAN SPENCE

Now, we are going to focus heavily on ECU tuning in this piece, because this, in my opinion, is a very interesting topic that deserves the time, and if I'm honest, certainly the way I'd go with my own 4X4 if it didn't have a mechanical fuel pump :), but there are, of course, other well-known tuning options available, such as chips and plugin modules.

And let's face it, it can be so easy to feel overwhelmed when it comes to performance tuning your 4X4. Is a cheap chip even going to work? Will a more expensive module suit my individual needs? Is the person flash tuning my very expensive factory ECU an expert with good insurance should they cook it?

Fear no more – I spent a few days hanging out with qualified mechanics, diesel tuners and experts in the field and asked them the following question. When it comes to factory ECU retunes, what should people ask their tuner before letting a few thousand moths out of their wallets?



PRICE – HOW CHEAP IS TOO CHEAP?

You get what you pay for is a phrase every four-wheel-driver should repeat each time they reach into their wallet. If it sounds too good to be true...no, I'm not going to patronise you any more than that.

Budget between \$1,000-\$1,600 for an ECU tune, and ask enough questions to understand what you are getting. Are you just getting a tune loaded into your ECU, or a custom tune to suit your vehicle? Is dyno time included?

Our industry expert Jeremy, from Advanced Installation Service in Blaxland, told us a custom CRD Tech tune (his preferred agent) will usually cost you \$1,350 with as much dyno time

as it needs to get the tune right.

"This works within 12 main factory safety parameters to keep everything safe, and offers at least a 20 percent gain in power and torque with 10 percent better fuel economy being the common outcome", Jeremy said. "We have used plug-in performance modules in the past, but from our experience, it's hard to beat a custom tune for reliability, tuneability, power and fuel economy". But you need to pay for that, and if the quote you've just received sounds too cheap, it could be time to run for the door.

Which leads us to...

DO THEY HAVE A DYNO?

A dyno can be used to provide a baseline for what your vehicle made power-wise before and then after, tuning. It also provides a next-level degree of insight into where the potential lies for power gains to be made throughout the rev range.

More importantly, a dyno allows the tuner to set healthy air-fuel-ratio levels. Not enough air and too much fuel equals a bad time for your engine and eventually your hip pocket. Huge amounts of soot (some of you seem to enjoy that stuff), high EGTs, melted pistons, and then pain all-round.

A dyno helps validate these figures,

and while it is possible to tune modern turbo-diesel 4X4s without a dyno if it was my money on the line, I'd insist on dyno tuning for peace of mind and the cool certificate you get to hang on the wall. Just remember the outright power figures aren't the most important thing to sling around the campfire, as all dynos vary in what they'll report in this regard. It's the gains from stock, or the difference between that first dyno run of your stock 4X4, and the final dyno run of your newly tuned 4X4. Remember, the dyno is there to provide a baseline.

Next question!

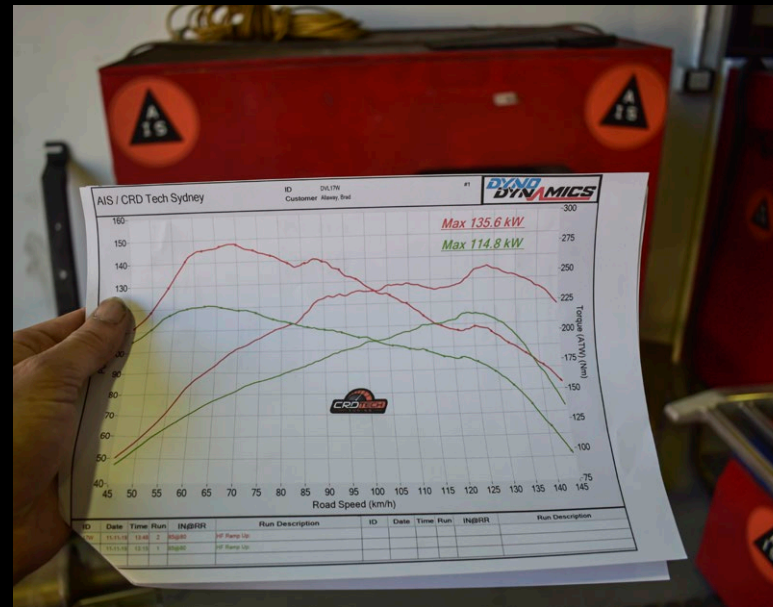


HOW MUCH MORE POWWWWAAAARR?

The sky is the limit, and the end result will be determined by what you're prepared to spend, but let's imagine a bog stock late model diesel 4X4 rolls off the street wanting a tune to help tow a camper trailer. If they don't drive away with a 20 percent gain in power and torque, they should be asking why. And while this is, without doubt, a generalisation, I saw gains of this magnitude consistently while being that pest in the workshop asking stupid questions, so you don't have to.

A full suite of supporting mods such as a larger diameter free-flowing exhaust, upgraded intercooler, larger air-box with intake mods and the like, will help boost output gains even further, but don't expect the world, if you change just one component in isolation.

Let me explain. A good chicken parmigiana is the culmination of its ingredients, but we all know it's just a schnitzel with delicious shit on top. If you just put some cheese on a schnitzel, it's okay, but like, it didn't need it. Add some sauce, ham and herbs, and suddenly you've got yourself a parmigiana party. It's a complete package. The moral of



this now food-related story is that a good custom tune will work with what you have and make it better, but if you want to make serious power, reliably (the full parmigiana), then you can't just throw one or two performance ingredients into the mix and expect big gains.

Taking your tune up a notch or three is a conversation that you need to have with your tuner, and it will be a case of expectation versus budget. In my opinion, if you need or want a significant improvement over stock factory outputs, then it's worth spending the money to have the right modifications made, to achieve your goal. If you can find a workshop that has already achieved similar results to the ones you're seeking for your vehicle and application, then call them. There's nothing worse than having to pay someone to learn on the job.



HAVE THEY TUNED THEIR OWN 4X4?

The proof is in the pudding as they say. If your tuner doesn't trust their work on their own vehicle, why should you? I've always thought a company that has a display or promo vehicle, that is well set up with what they sell and believe in, is a powerful tool.


If you can find an outlet that offers a dyno and custom tune plus their own vehicles have been tweaked, you've found a potential winner straight away in my books. Ask them if they can take you for a drive in their vehicle. It's your money, and they should be willing to put your money where their loud pedal is.

They'll also be able to talk to you about real-world post-tune fuel consumption, and any quirks or issues that they've experienced along the way, with their tuned vehicle.

It pays to do your research and rely on reputable outlets that believe in what they promote. Forums and Facebook groups can be your friend here. The information found on these platforms should be regarded as general advice only, but they are a great networking tool and could very well lead you to the tuner of your dreams.



THANKS TO

Thanks to Jeremy and Shannon from Advanced Installation Service for their time showing us through the turbo diesel tune-up world. If you own an Amarok, they are VW specialists but love modifying and tuning all 4X4s. 

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WHAT HAPPENS IF SOMETHING GOES WRONG?

This is the big one. What if there is an issue with the tune when say, for example, you hook up your caravan and the vehicle goes into limp-mode while climbing a steep hill? As the old saying goes, it's not the problem it's the solution that counts. And this is the moment where I tell you that you must ask your diesel tuner about the level of backup support they offer.

Much like buying aftermarket 4X4 accessories from major outlets that have distributors nation-wide (think

ARB, TJM, Opposite Lock and the like), if you have your 4X4 tuned in Sydney, is there someone in QLD that can look at it if something weird happens? Sure, bulk power gains are sweet, but they are useless if you are stuck in the desert with an engine light flashing and no support.

Don't settle for a handshake agreement; get confirmation that your selected tuner has the support network to keep you making strong numbers reliably Australia wide.

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