### TB-CRD & CRD2

**TB-CRD & CRD2** both use the same Tuning Box, and were designed for all Common Rail diesel engines. Like most other systems on the market, this unit plugs-in to the Rail Pressure sensor (1st 3D Map) and is supplied pre-programmed. The TB-CRD2 wiring loom also has an extra set of plugs to connect to the vehicles MAP (Turbo Boost) sensor (2nd 3D



map), located between the Turbo and the Inlet Manifold. This allows a better control of the air/fuel ratio, especially on the late model vehicles fitted with Piezoelectric Injectors. This is the only system, which can increase both air (from Boost) and fuel, to give safe and reliable power increases, without harming vehicle emissions or damaging Exhaust Particle Filters. This unit also contains a 3rd 3D map, which allows for future development, and is now also available for Petrol engines.

### ECU re-programming

This system covers mainly European car models, including EFI Petrol engines, and is only available in Melbourne. The advantage of this is that it can adjust all ECU functions. For EFI Diesel it adjusts fuel pressure, injection timing/duration and boost. For EFI Petrol it adjusts injection timing/duration and ignition timing. What you will also notice with our ECU reprogramming systems, is that the power gains achieved on Diesel engines is much higher than on Petrol engines. The reason for this is that Petrol engines are reaching their development limits, and the limit for Diesel development is still a long way off. The industry has realised that in some car models, the Diesel car is the quickest and also the most economical.

# TUNING BOXES

Tuning boxes are mainly used on EFI diesels, their purpose is to intercept the signal controlling Fuel Pressure, Injector Timing or Turbo Boost, and vary this signal to improve performance.

Some of our systems are user-adjustable; these are mainly for older distributor pump style systems. This is because these older systems do not have modern Airflow sensors, and so they do not have the ability to read airflow increases.

Modern Common Rail systems are more sophisticated and have a greater ability to self-tune. The Tuning Boxes for these cars, are pre-programmed for the individual vehicle type, they are not user adjustable. But we can adjust these settings if required.

The difference between our system and similar systems is that we do not want shops to carry stock on the shelf, which would then be used as **Universal** fitment. The units must be supplied, pre-programmed for the **individual** vehicle.

When the unit is ordered we need to know what modifications have or will be made to the vehicle. We are then able to create a **3D** map to suit these vehicles requirements.

A proper **3D** program map cannot be adjusted using a single screw type adjuster (these are **2D** systems), no matter how many levels of adjustment it can provide. For all late model Diesel systems, we do not provide a "User Adjustment" system, as this could result in tampering with these settings, which could cause engine damage. We have tested vehicles with other systems, showing Exhaust Gas Temperatures of up to 800°C (safe temp should be around 600°C).

Our programs have over 1000 adjustment points, visible to us in either Data Table or a rotatable 3D Graph, allowing us to adjust any point of Load or RPM. Due to the power of this software, it will not initially be available to the shops. But we have been creating a simplified system, which allows adjustment of data in sections, and this will automatically create a smooth, consistent curve between the surrounding Load and RPM sections.

All power gains listed on our web site were achieved on standard vehicles, with no other modifications. So the systems are also a "stand alone" modification, which when combined with other products, achieve further gains.

### www.morepower.com.au



## Electronic Tuning Systems



### *Electronic Tuning Solutions for modern engines*

## MOREPOWER.COM.AU TUNING SYSTEMS

#### TB-MP

**TB-MP** is used on early Electronically controlled Diesel systems like the Bosch VP-37, Lucas Epic etc... This unit is the

same as all the other brands of tuning box, being a 2D system, and is adjusted via either one or three potentiometer type screws. It is connected by up to seven wires, which include Earth, Power, Accelerator Pedal, Air Mass and Turbo Boost etc... Common vehicles which use this include Early XJ series Jeep Cherokee and Mitsubishi Pajero 3.2DiD (precommon rail).

### TB-DENSO

**TB-DENSO** was designed to fit all Distributor style injection pumps like the Bosch VP-44 and Nippon Denso.We mainly use this system on early Toyota



vehicles and it has adjustments available inside the end cap cover. Adjustment should not be required, as the unit will be supplied pre-programmed to suit the vehicle. It is connected via four or five wires. On Toyota 1HD & 1KZ engines, all wires are connected next to the ECU; no connections are made inside the engine compartment.

#### TB-PD1 & TB-PD2

**TB-PD1** is used on early VW and Audi, PD style Unit Injection systems. This unit is the same as all the other brands of tuning box, being a 2D system,



adjusted via either one or three potentiometer type screws. It is a simple plug-in connection.

**TB-PD2** is used on late model VW and Audi, PD style Unit Injection systems. This system connects to, and controls the individual Unit Injectors (contains 6



Injector Drivers). This unit is pre-programmed, and is a simple plug-in connection.

On PD style Unit Injection systems; the engine camshaft mechanically creates the fuel pressure. Electronic adjustment of these systems involves controlling the Injector Duty Cycle (open time). This same style of Tuning Box can also be fitted to Common Rail injection systems as in our TB-CRPD4 & 6.

### TB-VP44

**TB-VP44** has superseded the TB-DENSO for installation on vehicles with the Bosch VP-44 style pump like the



on late model Common Rail injection systems. This system connects



TB-CRPD4

to, and controls the individual injectors (contains 6 Injector Drivers). This unit is supplied preprogrammed, and is simple plug-in installation unlike some systems, it does not require an additional TPS signal. The unit self calculates via the received injection pulses. Some engines, especially the 4 Cyl Japanese Common Rail engines, respond better to control of the injector duty cycle (open time). This unit allows high power outputs to be achieved on these engines, without increasing the demand on the High-Pressure Fuel Pump. Some Tuning companies do not have a similar unit in their range, and find they need to de-tune their CRD style units to avoid

Rodeo, Navara and Patrol 3.0L engines. This is a

pre-programmed unit with a simple plug-in

triggering the vehicle "Check Engine" systems, when the High Pressure Pump, is unable to meet the additional demand.

