

# TITAN Version Changes

Updated 22/02/2011

## Explanation 2.2.1.A (Example)

2. PC Software Version

2. TITAN ECU

1. Protocol Version

A. Firmware Version

2.2.0.0 This is the first TITAN Test release version. New feature on the EMU computers is the **Maximum Timing** and the **Pulses / RPM** Scaling for rev counters. A few bugs may still be resident but should not hamper the basic operation.

2.2.0.A The first version of **Micro Fueling Injector** and a **Boost Limiter** feature is included.

2.2.1.0 This is the first official release version.

Firmware changes are that the engine limiter now only cut fuel and not the spark anymore. It also retards the timing to lose power before the fuel cut. Final fuel cut happens 300 RPM after the Limiter Setting. This helps to improve soft engine limiting.

The Map files extension changed from .EMU to .ECU Note that older Map file versions cannot be opened by late software versions.

Data Logging is now active and you can record to a data file and play it back afterwards.

2.2.2.0 On the Setup – Engine Configuration the “MAP Number is added. It is not used at this stage but for future development on certain firmware.

On the Setup - Fuel page the following is added:

- At Fuel Calculation, “Both” is added. This will let the tuner use the TPS sensor for idling and the MAP sensor for running.
- Also on this page “Fuel Injection Type” is added which is an indication of which type of injection is used by the ECU firmware. It cannot be changed at this stage.
- Under Fuel Configuration “Injection Degrees” is added. It is not used at this stage but for future development on certain firmware.

On the Setup - Sensors page under Lambda Configuration a “Startup Delay” is added. This helps with the use of the Lambda graphs.

Changes were made in the firmware that smoothes the Micro Fueling operation.

2.2.2.A The Analog Vacuum gauge scaling error is fixed.

2.2.2.B The ‘Write to ECU’ bug when you quit the tuning software when not saved, is fixed.