![ADONIS TECHNOLOGY]

The Adonis DPF emulator is designed to recreate the signals from sensors, which are responsible for the diagnosis and maintenance of the FAP/DPF system by the Toyota ECU during driving conditions.
The emulator is mandatory in any case where the original FAP/DPF is removed.
The recreation of signals is carried out for the specific Toyota D4-D engine setting, recorded and written in memory of the emulator.

The emulator generates signals of the pressure differential and temperature sensors, taking into account of the following factors:

- Air flow
- Temperature of the exhaust gases
- Heat capacity of the filter
- Thermodynamics of original exhaust system
- Effect of the chemical processes in the FAP / DPF filter on the sensor data
- Emulates an increase of filter filling level
- Regeneration start is tracked and the behavior of the filter during regeneration is emulated.
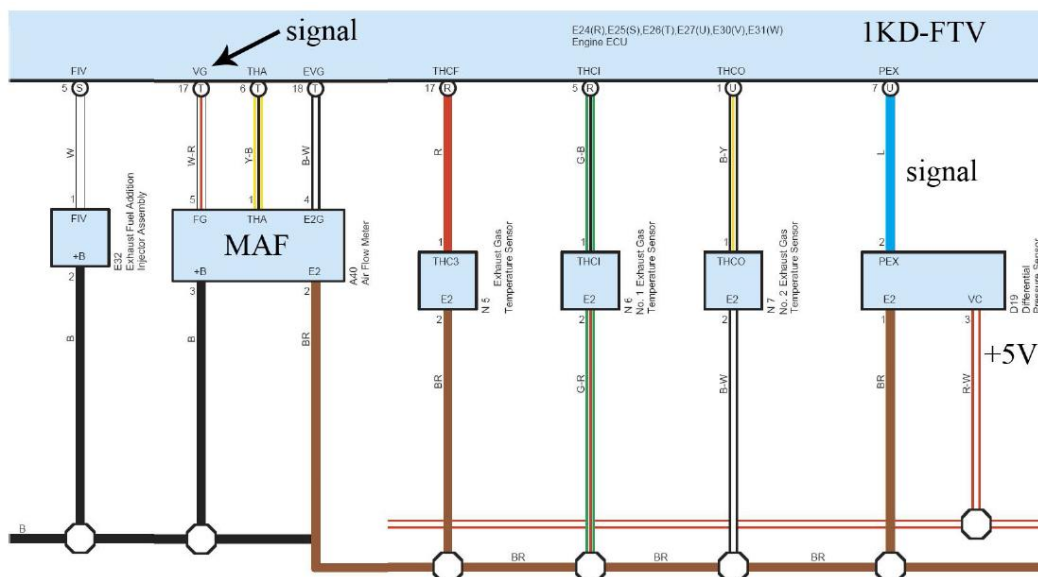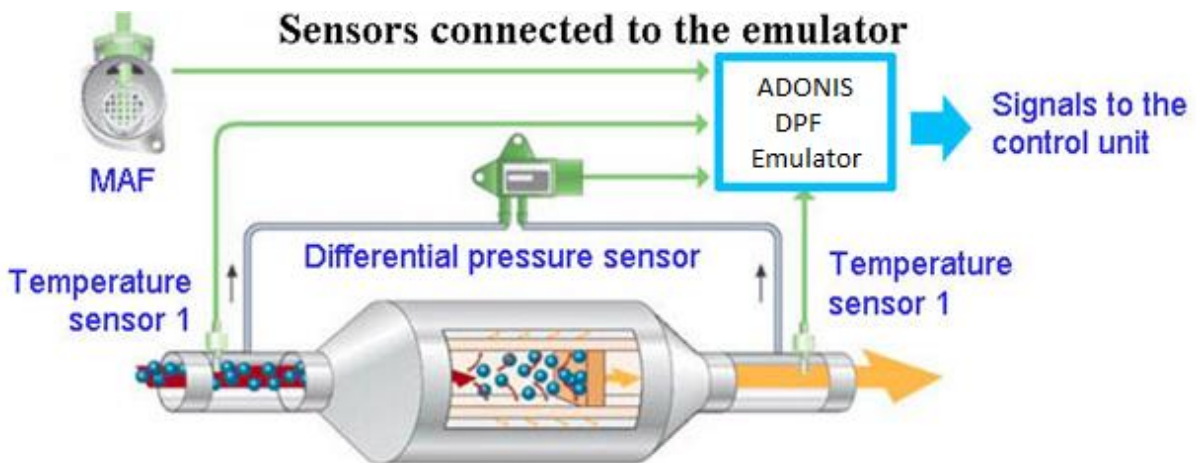

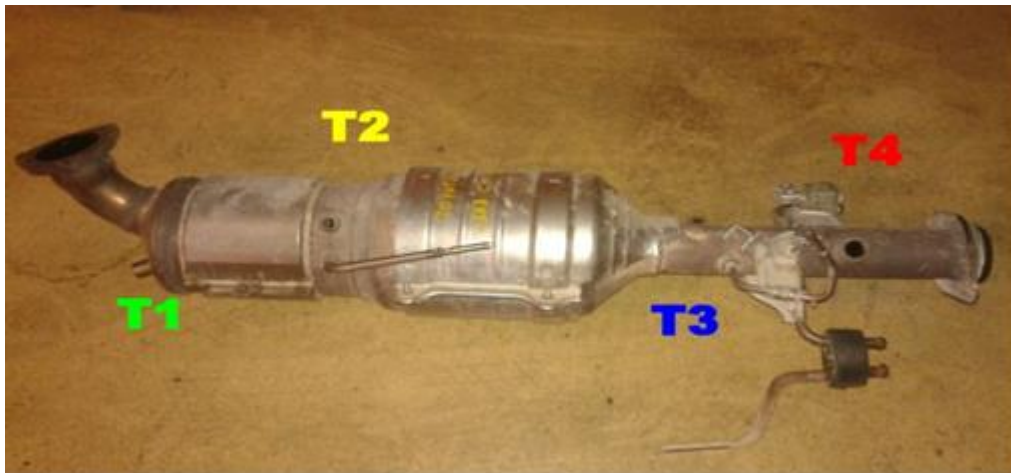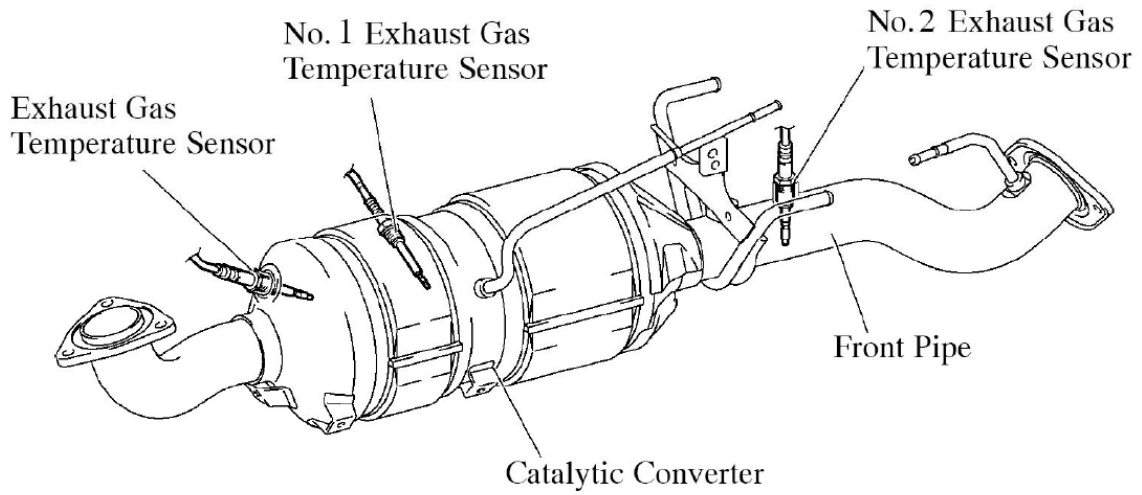**Figure 1 : Toyota 1KD-FTV ADONIS DPF Emulator and ECU connection**

Figure 2 : TOYOTA 1KD-FTV Catalytic + DPF Exhaust pipe and sensors location

The Adonis electronic emulator is programmed to work with the DPF/FAP replacement pipe presented hereafter. All sensors (T1, T2, T3, T4 and differential pressure hoses) are mandatory and need to me moved from the Original DPF/FAP to the replacement pipe.
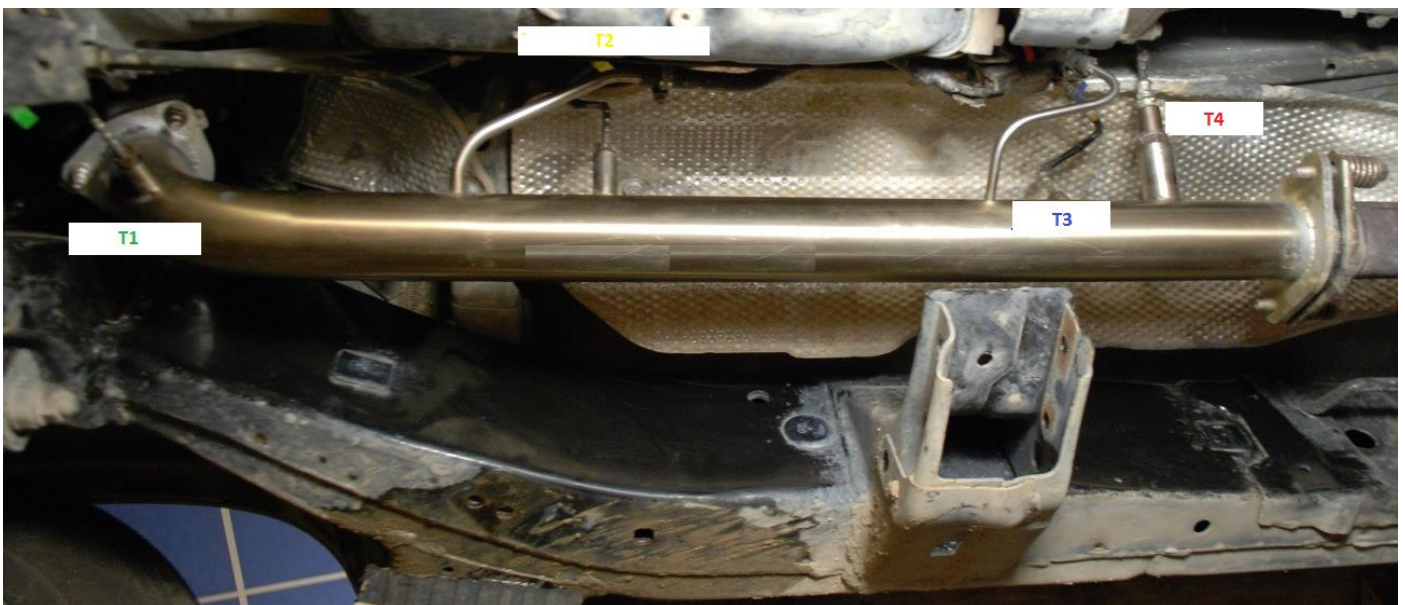

Figure 3 : DPF Replacement exhaust pipe + Sensors