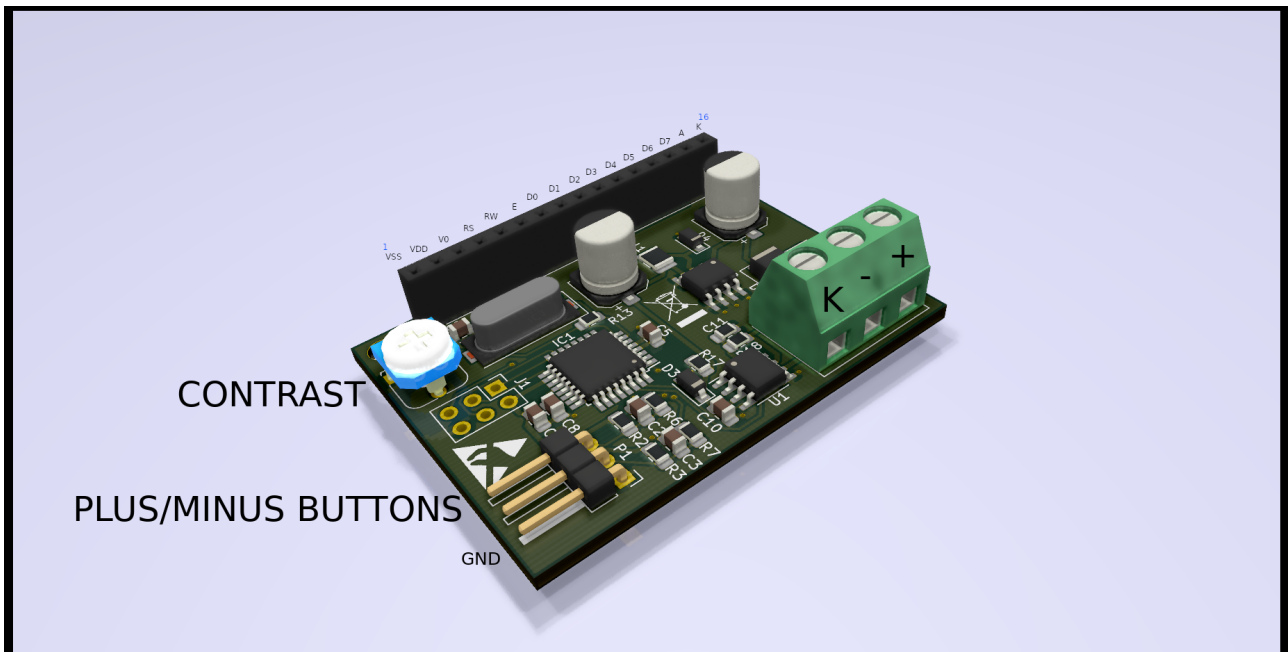# Td5Gauge

On-board Computer for Land Rover vehicles with Td5 engine (Discovery 2 and Defender) has been developed as a result of our passion for programming and electronics combined with passion for Land Rovers.

The on-board computer is designed to help you diagnose problems with the Td5 engine. An additional advantage is the possibility of continuous monitoring engine parameters while driving.

Whole communication with the sensors in the engine takes place through the OBD2 diagnostic port and ECU, which allows you to reduce the number of wires to three (two for power and one for communication with the ECU – K-Line).
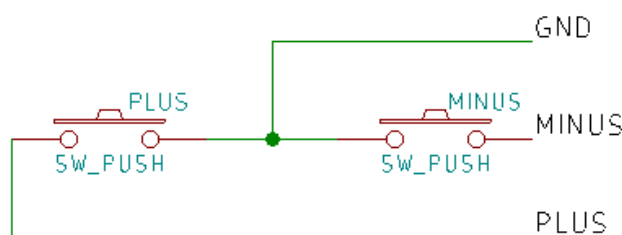
Implemented parameters:

- Momentary fuel consumption.
- Fuel consumption from engine start.
- Drivers wish.
- Idle fuel injection.
- Total fuel injected.
- Current speed – Value can be increased up to 30%.
- Fuel temperature.
- Intake manifold temperature.
- Coolant temperature.
- Engine RPM.

- ECU voltage.
- MAF Sensor data.
- MAP pressure + RAW data.
- AAP pressure. + RAW data.
- Turbo boost.
- Wastegate PWM modulation.
- Injectors balance.
- Throttle potentiometer voltage.

INSTALLATION AND MANUAL

1. Speed multiplier can be changed by pressing PLUS/MINUS button for more than 3 sec. While button is hold value will change with 1% step. Release of button will automatically store programmed value in internal memory. It will be confirmed by „OK!" message on LCD.

2. You can switch parameters by PLUS/MINUS buttons. Last used parameter will be visible after module restart.

3. In case of communication problems between ECU and module (On LCD: „Wait Restarting...") press and hold PLUS or MINUS button while starting module.

4. To connect module to car wiring you have to connect wires like on attached picture. „-" is „-" on car (Ground), „+" is +12V feed from car harness and „K" is K-Line. It is on pin number 7 in OBD2 port (pink wire).

5. Buttons should be connected this way: (you can use only one button if you want). Please use momentary buttons normally open:

6. LCD Contrast can be tuned with CONTRAST potentiometer. LCD can not be unpluged while module is powered up.

7. In case of new LCD you need to connect new LCD with pinout like on picture above.

8. You cannot connect LCD in reverse pin order.

9. To perform diagnostics with the help of a workshop diagnostcis equipment, disconnect the module from the car's installation.