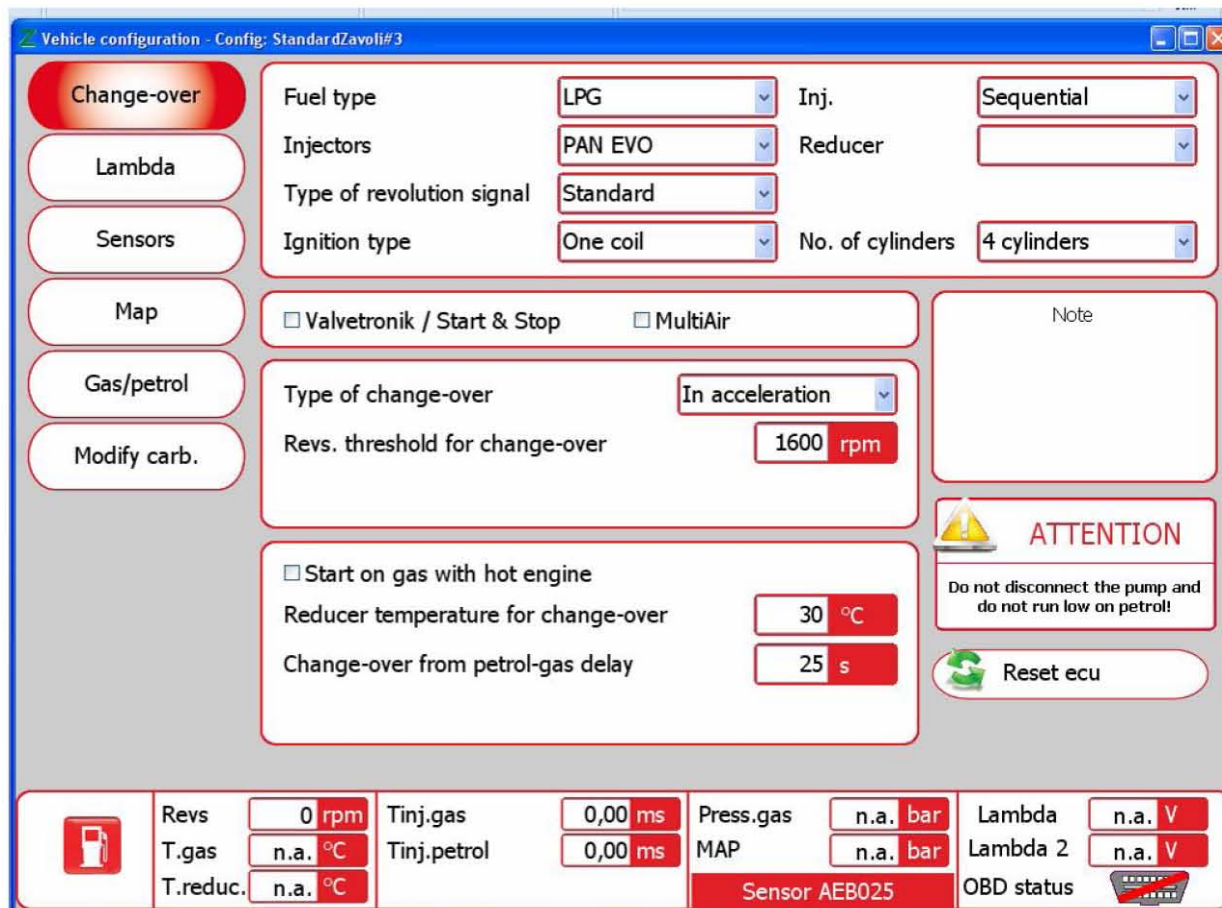


3. VEHICLE CONFIGURATION

This menu is composed of 6 pages, which will allow you to set up parameters for the gas control unit (Fig. 3-1).



Vehicle configuration - Config: StandardZavoli#3

Change-over (selected)

Fuel type: **LPG** Inj.: **Sequential**

Injectors: **PAN EVO** Reducer:

Type of revolution signal: **Standard**

Ignition type: **One coil** No. of cylinders: **4 cylinders**

☐ Valvetronik / Start & Stop ☐ MultiAir

Type of change-over: **In acceleration**

Revs. threshold for change-over: **1600 rpm**

☐ Start on gas with hot engine

Reducer temperature for change-over: **30 °C**

Change-over from petrol-gas delay: **25 s**

Note:

ATTENTION
Do not disconnect the pump and do not run low on petrol!

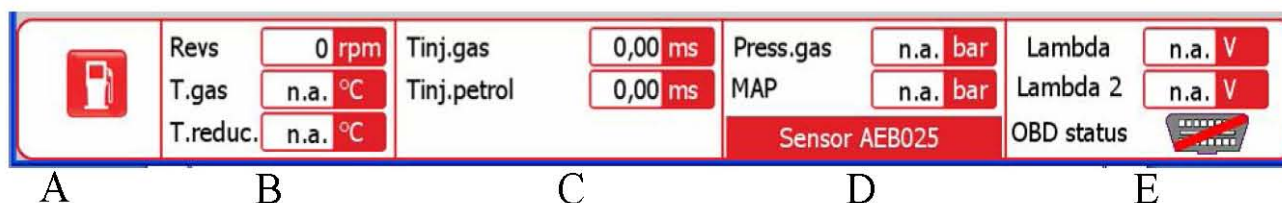
Reset ecu

Status Bar:

Revs	0 rpm	Tinj.gas	0,00 ms	Press.gas	n.a. bar	Lambda	n.a. V
T.gas	n.a. °C	Tinj.petrol	0,00 ms	MAP	n.a. bar	Lambda 2	n.a. V
T.reduc.	n.a. °C	Sensor AEB025		OBD status			

Fig 3-1

As shown in Fig. 3-2, the bottom of each page gives you an overview of the current general operating signals of the system.



Status Bar:

Revs	0 rpm	Tinj.gas	0,00 ms	Press.gas	n.a. bar	Lambda	n.a. V
T.gas	n.a. °C	Tinj.petrol	0,00 ms	MAP	n.a. bar	Lambda 2	n.a. V
T.reduc.	n.a. °C	Sensor AEB025		OBD status			

A **B** **C** **D** **E**

Fig 3-2

- A.** In this section it is possible to switch from your laptop, indicates whether the vehicle is using gas or petrol. When the system is in a cut-off mode, the words CUT-OFF will appear on the display.

- B.** This section displays the following information:
ROUNDS: engine revolutions are read in real time by the gas control unit.
GAS T.: it indicates the gas temperature, as gauged by the temperature sensor located on the GAS tube near the gas injectors.
REGULATOR T.: it indicates the temperature of the gas regulator, as gauged by the temperature sensor located on the GAS regulator.
- C.** This section displays both Gas Injection Times (Gas Tinj.) and Petrol Injection Times (Petr. Tinj).
- D.** This section provides information about:
GAS PRESS.: the difference in pressure between the gas inside the gas injectors and the intake manifold, as determined by the pressure gauge supplied with the kit.
MAP: If an AEB025 pressure sensor has been installed in the system, this parameter indicates the pressure of the intake manifold.
SENSOR AEB025: it indicates the type of pressure gauge connected to the system.
- E.** This section displays the following information:
- The current of the **lambda** sensor, as gauged by the purple wire connection. If the latter is not connected, no parameter will be displayed (=n. d.).
 - The OBD connection state will be flashing and crossed if the wires are not connected to the car's OBD connector and will be fixed and in green colour if the connection is active.

3.1 **F1 Change**

Clicking on “F1 Change-over” you will enter the following window, Figure 3.1-1.

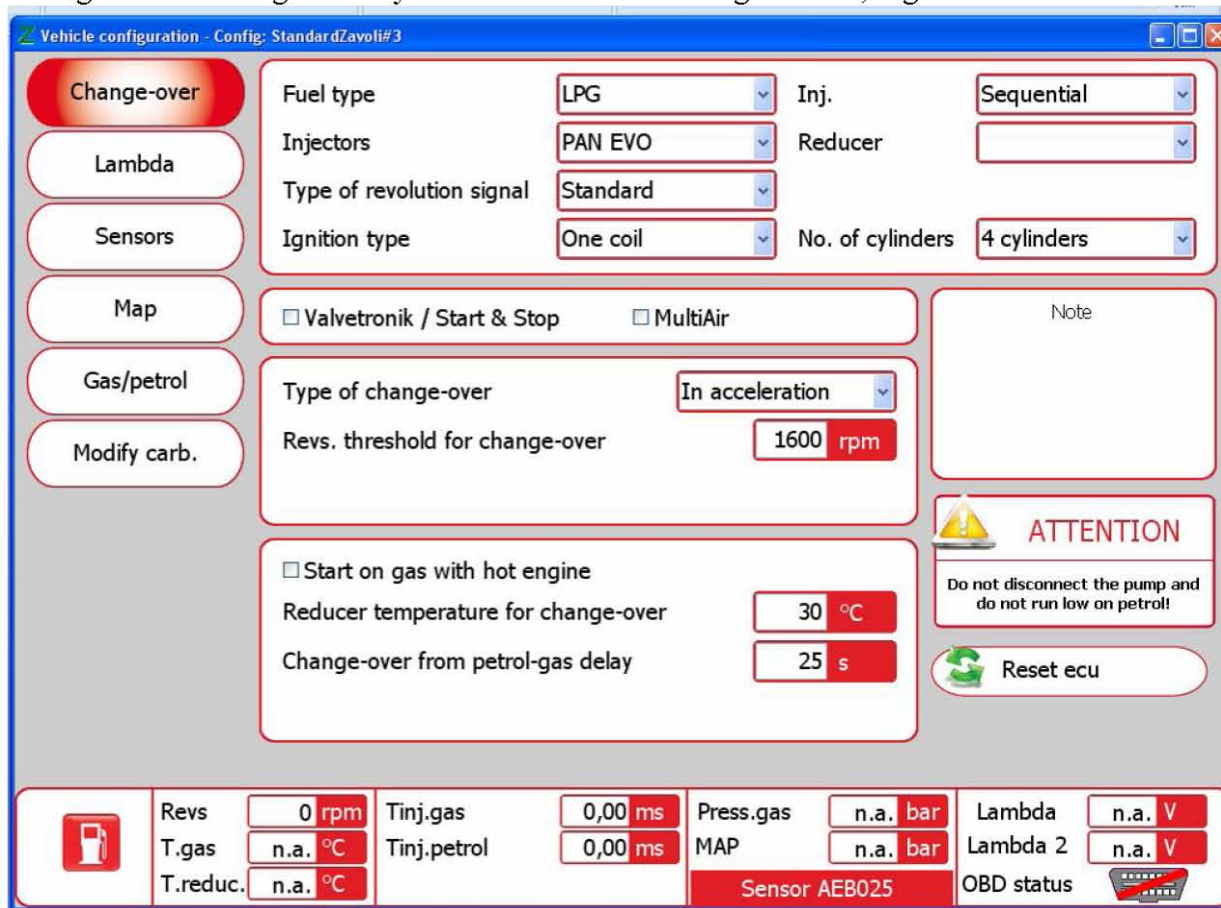


Fig 3.1-1

TYPE OF FUEL

This will allow you to initialize the control unit using default parameters for a proper operation of the system with the fuel of your choice.

Select:

LPG: for vehicles fuelled by LPG.

METHANE: for vehicles fuelled by METHANE.

When you select either LPG or METHANE, the save directory of your configuration files will be changed, too (see Load Configuration).

INJ.

This function allows you to select the type of activation strategy needed for GAS injectors depending on the system in use:

SEQUENTIAL: Select “Sequential” for vehicles with a sequential or semi-sequential engine. The GAS injector will be activated with each PETROL injection.

FULL GROUP: Select “Full Group” for vehicles with a full-group engine. The GAS injector will be activated with every other PETROL injection.

INJECTORS

This menu allows you to select the type of GAS injectors supplied with the installation kit.

Select **PAN EVO** if you are using modular PAN Evo injectors; select Zavoli if you are using injectors type **PAN**; select **MATRIX** if you are using Matrix injectors. Never select **ZAVOLI2**.

If you are loading a configuration which has been previously saved on your computer, the menu will indicate the type of gas injectors selected in the configuration.

If the GAS injectors do not correspond to the ones indicated in this menu, you will have to load a configuration file based on your current injectors, or change the gas injectors altogether. In case the injectors installed in the vehicle do not correspond to the ones you have selected, injectors will be controlled by incorrect parameters. This may lead to malfunctions in your gas system.

REGULATOR

This function allows you to select the type of regulator in use:

STANDARD: Select standard when you are using a ZETA N regulator, for engines up to 140kw.

SUPER: Select standard when you are using a ZETA S regulator, for engines 140kw and over.

ROUNDS SIGNAL TYPE

It programs the control unit to gauge RPMs by means of the BROWN wire (**Brown wire of the control unit cables**):

STANDARD: Select this option when the brown wire is connected to either one of the following signals:

- reading tachometer **with square wave signal (0 ÷ 12 V)**;
- coil negative.

WEAK SIGNAL: Select this option when the brown wire is connected to either one of the following signals:

- gauging tachometer **with square wave signal (0 ÷ 5 V)**;
- static ignition control **with square wave signal (0 ÷ 5 V)**.



These signals can only be read by means of an oscilloscope.

CYLINDER NUMBER

This parameter supplies the control unit with information about the number of cylinders in the vehicle, and the number of gas injectors that need to be activated:

Enter **3 CYLINDERS** or **4 CYLINDERS**, depending on the number of cylinders in your vehicle.

If your control unit is designed for a 5-6-8-cylinder vehicle, your menu will display the following options: select **5 CYLINDERS**, **6 CYLINDERS** or **8 CYLINDERS**, depending on the number of cylinders in the vehicle.

IGNITION TYPE

This parameter is used by the control unit to gauge the engine regime, which varies according to the type of ignition to which the BROWN wire is connected.

Enter:

SINGLE-COIL: for vehicles featuring one coil per cylinder, and when the BROWN wire is connected to the negative pole of one of the coils;

TWO-COIL: for vehicles featuring one coil per spark-plug couple, and when the BROWN wire is connected to the negative pole of one of the coils;

TACHOMETER: for vehicles with one coil and a mechanic distributor, and if the BROWN wire is connected to the negative pole of this coil. Enter this option also in case BROWN wire is connected to the tachometer signal wire.

TACHOMETER 2: select this option when in a **6- or 8-cylinder** vehicle (with the BROWN wire connected to the tachometer), RPMs are not being gauged correctly.

VALVETRONIK / START & STOP

This function must be selected during the conversion of Valvetronik or Start & Stop engines. The system doesn't consider the Vacuum value and works on the absolute pressure.

MULTIAIR

This function must be selected during the conversion of MultiAir engines. The system automatically will help you to set these particular engines.



☐ Valvetronik / Start & Stop ☐ MultiAir

Fig. 3.1-2

SWITCH TYPE

It allows you to select the type of switch, from PETROL mode to GAS mode.

ACCELERATION: Switching from PETROL to GAS occurs when the vehicle is accelerating, as soon as the RPM number surpasses the “**RPM THRESHOLD FOR FUEL SWITCH**”.

DECELERATION: In this case, the switch from PETROL to GAS occurs as a consequence of either one of the following conditions:

- When the RPM number surpasses the “**RPM THRESHOLD FOR FUEL SWITCH**” and then drops below it.
- When a Cut-Off condition occurs and the RPM number is higher than the “**RPM THRESHOLD FOR FUEL SWITCH**”.

RPM THRESHOLD FOR FUEL SWITCH

It indicates the RPM level which prompts the switch from PETROL to GAS.

REGULATOR TEMPERATURE FOR FUEL SWITCH

It indicates the temperature that the regulator must reach before the switch to gas is performed. The control unit **WILL NOT SWITCH TO GAS** unless a certain temperature level has been reached. If, when using gas, the temperature drops below the desired threshold, the control unit will still continue to use GAS. We suggest that the temperature threshold be set between 20°C and 45°C because: