



## Description:

TECHTronic 2.0 is a device that changes the voltage from the flowmeter to voltage in a different range (U/U) or the frequency of the digital flowmeter to voltage that corresponds with this frequency (F/U) relative to set characteristics.

The TECHTronic 2.0 module is used in vehicles that have no vacuum in the manifold, which is why TECH controllers cannot read the load signal, and therefore it is impossible to create a map of gas injection times. This phenomenon occurs only in Valvetronic type engines (BMW) and MultiAir type engines (Fiat).

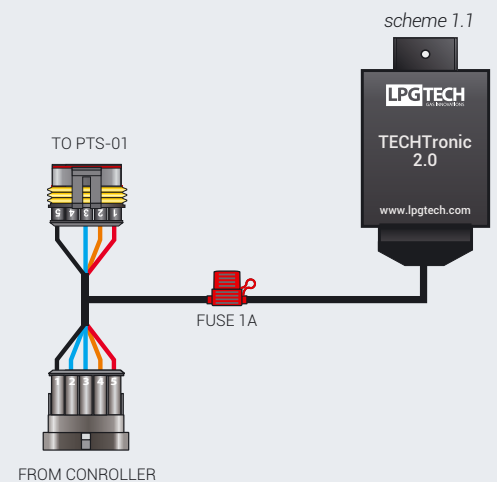
The module works with digital and analogue flowmeters. It can be customized using a dedicated application for the PC.

## Installation instructions:

The TECHTronic 2.0 module must be installed in the engine bay. The wiring loom has been designed to minimize the amount of solder joints. The system is connected in 3 places of the car:

1. At the PTS-01 pressure sensor - disconnect PTS-01 and connect module wiring loom between it ([scheme 1.1](#)):
2. In the diagnostic connector – connect the plug into the TECHTronic wiring loom
3. In the flowmeter:
  - for the analogue flowmeter – two conductors are required for the connection: ground (grey-black) and the flowmeter signal (green)
  - for the digital flowmeter – only one conductor is required for the connection - the flowmeter signal (green), the ground should be isolated and not connected

After making this connection, secure the conductors in a way so that they do not come into contact with mechanical parts and the exhaust manifold.



## Configuration and setting:

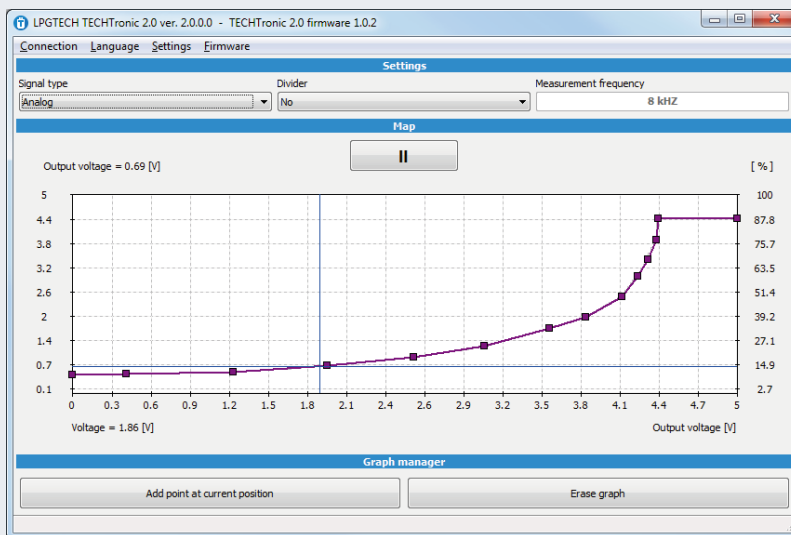
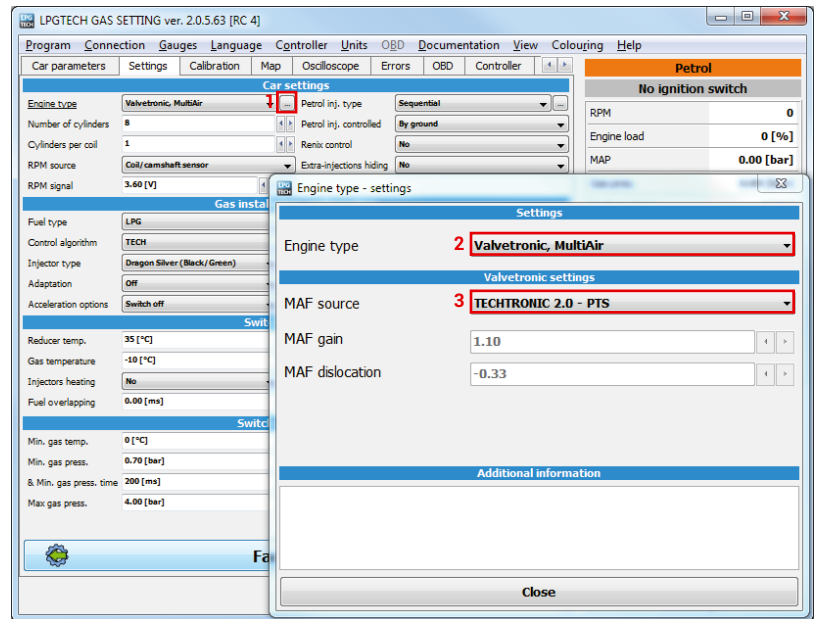
After all connections the conductors in the installation of the car and turning the ignition, the module should start to operate. Then, connect the interface (OptoTECH) to the TECHTronic diagnostic connection, and turn on the GAS SETTING program.

Go to the Settings tab and select as follows:

1. Advanced Settings [1]
2. Engine type -> Valvetronic, MultiAir [2]
3. MAF Source -> TECHtronic PTS [3]

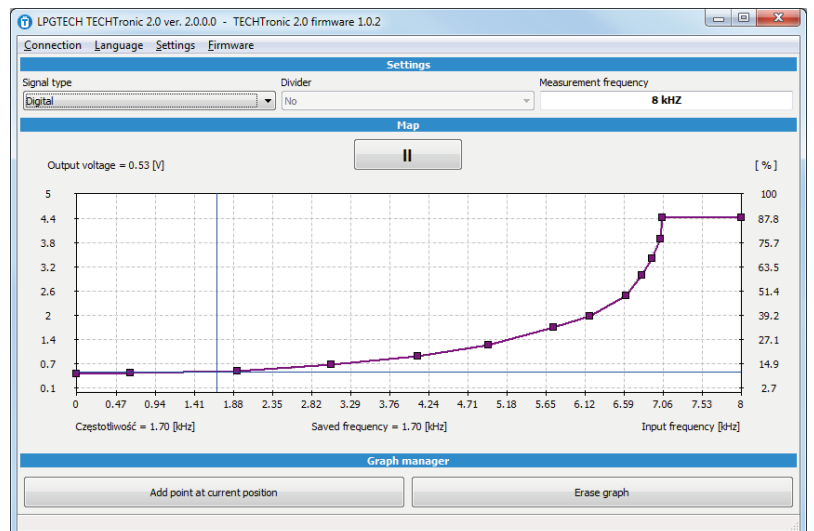
The next step is to configure the TECHTronic module. To do this, go to [www.lpgtech.com](http://www.lpgtech.com), download and install a TECHTronic 2.0 application.

After any changes in above settings, it is necessary to pick up the points on petrol and gas map again!



**Analogue  
flowmeter**

**Digital  
flowmeter**



## Features overview:

1. **Signal type:** determines the type of flowmeter in the car
2. **Divider:** works only when the analogue signal is chosen; set it to YES if the voltage from the flowmeter is greater than 5V
3. **Measurement frequency:** works only when choosing a digital signal; the maximum frequency generated by the flowmeter should be given. In most cases, the measurement frequency must be equal to or greater than the saved frequency

Depending on the type of signal selected, under the graph there will be given other flowmeter data:

- a) For the analogue flowmeter
  - **Voltage** – voltage on the conductor connected to the flowmeter
- b) For the digital flowmeter
  - **Frequency** - frequency on the conductor connected to the flowmeter
  - **Saved frequency** – this is the highest value recorded by the device.

To facilitate the setting the characteristics show load 0% and 100%, and the TECHTronic module should be set in this range. Moreover, the cursor showing the load (in the driver the load value will be the same) with given voltage or frequency values in the TECHtronic module is visible all the time. Any change in the settings of the TECHtronic 2.0 module will recalibrate the controller.

- Insert (Right mouse button)** – add a new point
- Delete** – delete a selected point
- Home** – starting point of the characteristic curve
- End** – ending point of the characteristic curve
- PageUp, PageDown** – moving along the points on the curve
- Cursors** – moving a selected point

## Keyboard shortcuts:

## Firmware update:

Visit [www.lpgtech.com](http://www.lpgtech.com) where the current version of the software is available. To update the software:

1. Connect the TECHTronic 2.0 module to the computer
2. Start the TECHTronic 2.0 application, and then choose **Firmware**
3. Select the firmware, then press the **Upload firmware** button and the software upload will begin

