

The MT-E5000 model is a teaching support intended for studying the sequential phased injection system of a petrol engine.



OBJECTIVES

- Observe, analyse and understand the operation of all the components of the petrol injection system.
- Learn about the whole of the sequential phased petrol injection system.
- Read and understand the electrical drawings.
- Measure signals at both ends (in/out) of the different components.
- Apply diagnosis methods using the CL550 scan tool.

DESIGN

Supported by a steel structure, the model is composed of three main instrument decks for the simulation, visualization and measurement (fault and diagnosis).

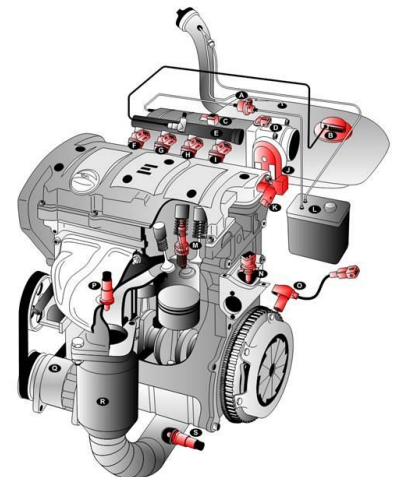
SPECIFICATIONS

Engine representation deck:

- Shows a $\frac{3}{4}$ view of the engine. For better visualization all sensors and actuators on the engine were made in red.
- The dynamic visualization (LEDs) of the injection and ignition cycles and of the throttle valve / engine rotation.

Vehicle / Instruments deck:

- Different parameters displaying: engine speed, engine load rate, pressure in the manifold, water temperature, air temperature, injection time and more.
- Adjustment of parameters as throttle valve position, engine load (road profile), manifold pressure, water and air temperature.
- OBD diagnostic plug to connect the provided **EXXOTEST® CL550** scan tool.



ECU and measurement deck:

- Injection ECU electrical drawings
- Accessible measurements on most of the ECU's pins: control of the injectors, of the primary ignition signal, position and control of the throttle valve, double track throttle sensor, lambda probes (upstream, downstream), camshaft and engine wheel sensors, fans GMV, etc...
- Hidden lockable "breakdown" box which gives the possibility to create faults, modify the knocking on the chosen cylinder, and modify the battery voltage, the voltage of the lambda probe upstream as well as creating a fault in the catalyser.

EQUIPMENT



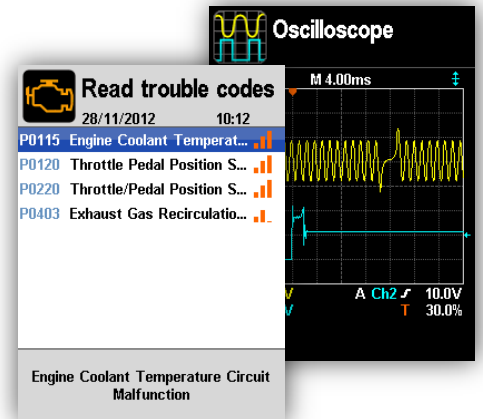
The **MT-E5000** training simulator comes with an EOBD Scan tool for reading parameters and faulty codes. **EXXOTEST® CL550**, multi-functions tester bringing together the functions of Oscilloscope, Multimeter and OBD II scan tool.

The **CL550** is powered by the car battery that allows to use it easily. The software supplied with the **CL550** allows archiving, printing or video projection of the measuring screens on the PC. Same time, the **CL550** is 100% scalable (USB connection allows free updates by internet).

As an option you can use with this teaching model our acquisition system dedicated to automotive **REFLET®** that allows using:



- USB connection,
- 4 traces analog and digital oscilloscope module,
- 2D tools interface,
- 3D instruments interface, dynamic visualization of 3D object.



OTHER



- For this teaching support you can order a special MT-table with castors.
- Power supply: 220/110Vac – 50/60Hz
- Size: 1200 X 800 X 1200 mm (transportation box)
- Gross weight : 56 Kg (ready to ship)
- Net weight: 46 Kg

Find all **EXXOTEST®** products on the Internet: www.exxotest.com