



**Automotive Technology Teaching & Training** 

Ref.: MT-H9000

The MT-H9000 training simulator is a training unit aimed to study and comprehend a diesel automotive Common Rail injection system associated to a real ECU.



## **OBJECTIVES**

- Learn about the whole Common Rail diesel injection system.
- Observe, analyze and understand the operation of all the components of the Common Rail injection system.
- Read and understand the diagrams.
- Measure signals at both ends (in/out) of the different components.
- Simulate breakdown for the diagnosis methods studying.

DESIGN

Supported by a steel structure, the model is composed of three main instrument decks for the simulation, visualization and measurement (fault and diagnosis): a vehicle board/instrument panel for modifying road and engine parameters with an EOBD communication diagnosis connection socket; an integrated breakdown simulation board with measuring sockets; an engine cut-away view board witch visualizes the air flows, exhausts and gasoil; and a real ECU.

## **SPECIFICATIONS**

## The real elements are:

- The injection Common Rail ECU.
- The key ignition switch.
- The EOBD diagnosis socket.

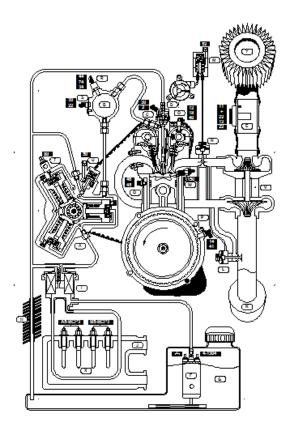
#### The elements assembled by **EXXDTEST**®:

## An ECU board:

- Diagram of an injection ECU and of in/out logical management.
- Accessible measurements on all ECU terminals.
- Inside, the fuses allow for protection when measuring and simulating breakdown situations.

## A vehicle board / instrument panel:

- Display and visualisation of the following parameters: engine speed, charge in %, air flow, air temperature, water temperature, fuel temperature and rail pressure.
- Modification of the following parameters: accelerator, charge (road profile), air, water and fuel temperature.
- EOBD socket for connecting the scan tool provided.



## An engine board:

- Diagram cut-away views of the engine, the turbo, the high pressure pump, the tank, and the various air's, water's and gas oil's pipes.
- The air and gasoil flows visualisation through the led.
- The operation of 3rd piston de-activator, the gasoil pump, the EGR valve, the glow plugs visualisation through the led.

# **EQUIPMENT**



The MT-H9000 training simulator comes with an EOBD Scan tool for reading parameters and faulty codes. **EXXDTEST**® 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



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#### OTHER



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- For this teaching support you can order a special MT-table with castors.
- Power supply: 220/110Vac 50/60Hz
- Size: 1200 X 800 X 1500 mm (transportation box)
- Gross weight: 85 Kg (ready to ship)
- Net weight: 70 Kg

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