

Common Rail training board – simulator with engine control system Bosch EDC 15C3-4.1 is installed in a mobile aluminum frame. This training board-simulator is specially designed to help technical students understand the system of diesel injection Common Rail.

The educational training board is based on Renault OEM components. The integrated engine control system Bosch EDC 15 shows the different operation modes of the direct fuel injection system.

Common Rail training board-simulator is a great educational tool that allows students to learn the structure of engine control system, study its components and operation modes, perform various measurements, tests and other diagnostic procedures.

Technical specifications and functions

Integrated engine control system with diesel Common Rail direct injection

The stand consists of two parts: one is designed to demonstrate the work of the high pressure pump and injectors, the other – to demonstrate the electronic engine management system;

Both parts are electrically interconnected and operate as a single system

Monitoring operation of high pressure fuel supply system, injected fuel quantity, the amount of fuel back leak, spray pattern quality

The adjustable air flow rate simulator demonstrates the function of the mass – air flow meter and air temperature sensor

Manual adjustment of the engine crankshaft speed

Integrated simulators allow changes of the parameters of the engine temperature sensor

Integrated simulators allow changes of the parameters of the intake air pressure sensor

Electric wiring diagram with built – in banana plug jumpers for measurements and simulation of system fault codes

Ability to monitor the changing operation mode of each system component

Possibility to simulate more than 20 faults by disconnecting Banana plug jumpers

Integrated TFT voltmeter displays voltage of electronic system component:

- APPS1 Accelerator pedal position sender I
- APPS2 Accelerator pedal position sender II
- ACT Air charge temperature sensor
- MAF Air – mass flow meter
- FPS Fuel high pressure sensor
- MAP Intake manifold pressure sensor
- EGR Exhaust gas recirculation potentiometer
- CTS Engine coolant temperature sensor
- FTS Fuel temperature sensor

Diagnostic and measurement

Oscilloscope/multimeter

System's parameters are measured by connecting to the banana connector

Ability to measure electrical signal parameters of each system component (such as sensor or actuator)

Control unit diagnosis

Diagnosis through OBD 16 – pin diagnostic connector
Electronic control unit (ECU) identification
Reading/erasing fault codes
Displaying the operating system parameters (live data)
Activating the actuators (depends on the control unit)
Control unit encoding/configuration

Other

The stand has a closed structure – internal wiring is not visible
Power supply: 220/12 V
Dimensions approx.: (HxLxW)
– Electronic part (board) 1820 x 1360 x 500 mm
– Mechanical part (trolley) 1500 x 800 x 500 mm

Nett weight approx.: 135 Kg
Made in EU
CE certificate

Optional accessories

Examination console for 10 hidden fault simulations
Automotive oscilloscope
OBD diagnostic scan tool