

Diesel engine control system CR/EDC 15C3-4.1 Training board-simulator

Fully functional engine control system is installed in a mobile aluminum frame. This training board-simulator is specially designed to help technical students understand better 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.

The 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

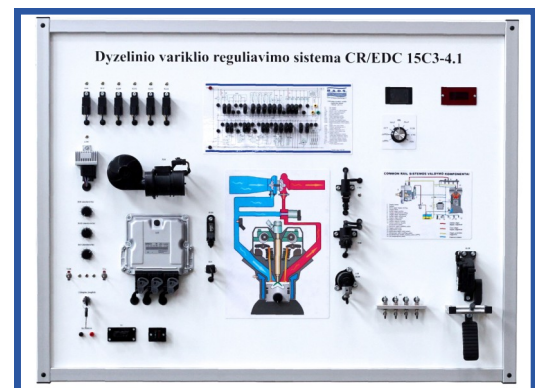
- The integrated engine control system with diesel Common Rail direct injection;
- The stand consists of two parts: one is designed to demonstrate a work of the high pressure pump and the injectors, the other – to demonstrate the electronic engine management system; Both parts are electrically interconnected 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 to the parameters of engine temperature sensor;
- Integrated simulators allow changes to the parameters of 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; Ability to simulate more than 20 faults by disconnecting Banana plug jumpers;
- The training board has integrated voltmeter TFT voltmeter. It 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;

Other

- The stand has a closed structure – internal wiring is not visible;
- Power supply: 220/12 V
- Dimensions approx.: (HxLxW)
 - Electronic part (board) 1820x1360x500mm
 - Mechanical part (trolley) 1500 x 800 x 500 mm
- Nett weight approx.: 135 Kg
- Made in Lithuania
- CE certificate

Optional accessories

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



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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;