Engine control system BOSCH MOTRONIC MED 7.5.10 (FSI)
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 direct petrol injection (FSI) system MOTRONIC MED 7.5.10. The educational training board is based on Audi/VW OEM components. The integrated engine control system shows the different operation modes of the direct fuel injection/ignition 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 direct petrol injection (FSI)
- Monitoring operation of fuel supply system, injected fuel quantity, spray pattern quality, low fuel pressure of the fuel pump
- Low pressure fuel pump is built into a transparent tank which allows to see its operation
- The adjustable air flowrate simulator demonstrates the function of the mass - air flow meter and air temperature sensor
- Visible work process of spark plugs
- Easy access for high voltage measurements
- Manual adjustment of the engine crankshaft speed
- Integrated simulators allow changes to the parameters of each system component:

  - Lambda probe signal simulation
  - Engine operation temperature simulation
  - NOx sensor parameter simulation
  - Exhaust gas temperature sensor simulation
  - Intake manifold pressure sensor simulation

- Training board has a complete electric wiring diagram of direct petrol injection system (FSI)
- 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 system faults by disconnecting Banana plug jumpers
- The training board has integrated TFT voltmetre. It displays voltage of electronic system component:

  - G212 Exhaust gas recirculation potentiometer
  - G70 Air-mass flow meter
  - G185 Accelerator pedal position sender I
  - G79 Accelerator pedal position sender II
  - G336 Intake manifold flap potentiometer
  - G247 Fuel pressure sensor
  - G187 Throttle valve potentiometer I
  - G188 Throttle valve potentiometer II
  - G71 Intake manifold pressure sensor
  - G62 Engine operation temperature sensor
  - G83 Coolant temperature sensor
  - G235 Exhaust gas temperature sensor

- Intake manifold flap regulation (vacuum pump is required; optional)

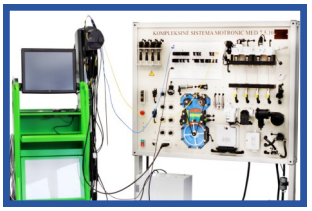
Diagnostic and measurement

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)
- Ability to measure high voltage circuit of the ignition system

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)
- Throttle valve adaptation
- Control unit encoding/configuration

Other
- The stand has a closed structure – internal wiring is not visible
- Power supply: 220V
- Dimensions approx.: (HxLxW) 1820x1360x500 mm
- Nett weight approx.: 105 Kg
- Made in Lithuania
- CE certificate

Optional accessories
- Examination console for 10 hidden fault simulations
- Vacuum / pressure pump
- Automotive oscilloscope
- OBD diagnostic scan tool



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