



DIESEL ENGINE CONTROL SYSTEM CR/EDC 15 EDUCATIONAL TRAINER

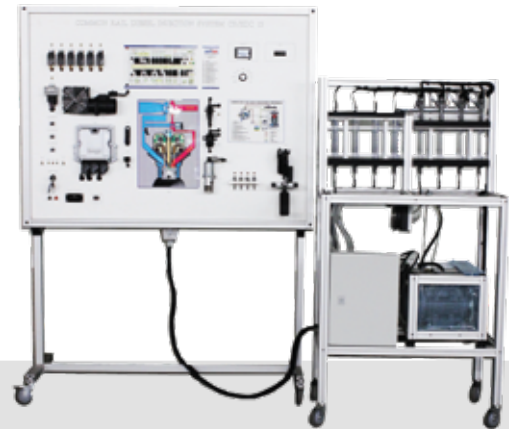


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Product number
MSCR01



Fully functional diesel engine Bosch EDC 15C3-4.1 control system with common rail (CR) injection system. Uses OEM components to demonstrate direct fuel injection, includes an OBD 16-pin connector for ECU diagnostics, and simulates over 20 system faults for hands-on learning. Connect an oscilloscope or multimeter to measure key sensor signals and use a TFT voltmeter for real-time data from various sensors.



Features

- Incorporates Bosch EDC 15C3-4.1 with direct injection, demonstrating high-pressure fuel supply and injector operation.
- Dual-Part Configuration: The system includes two main parts: the Electronic Part, which comprises the ECU, sensors (such as MAF and FRP), actuators, diagnostic connectors, and wiring diagrams, and the Mechanical Part, which contains the high-pressure fuel pump, injectors, electric motor, and measuring cylinders, all working in sync.
- Adjustable Simulators: The system allows simulation of air flow through MAF and ACT sensors, temperature adjustments via CTS and IAT sensors, and pressure conditions using MAP and FRP sensors. Crankshaft speed can be modified to observe resulting system changes.
- Diagnostics and Monitoring: The integrated TFT Voltmeter displays voltage readings from key sensors including APPS, ACT, FPS, MAP, EGR, CTS, and FTS. The OBD diagnostics feature utilizes a 16-pin connector for ECU identification, fault code management, live data monitoring, and actuator activation.





Value for instructors

- Show functionality of diesel engine components, including sensors, actuators, and control units.
- Easy, safe, and comfortable training using OEM components to offer a realistic car repair experience.
- Compact and vertically design for efficient use of classroom space. Durable and light construction makes it long lasting and safe to use. Closed panels and internal wiring for safe to use and ensures accidental damage. Allows concurrent use by multiple students.
- Requires small adjustments to reset to default parameters, making it easy to prepare and start each lesson.



Value for students

- Understand diesel engine with Common rail (CR) injection system and BOSCH EDC 15C3-4.1 control system.
- OBD 16-pin connector to identify the ECU, read and erase fault codes, monitor live data, and activate actuators.
- Simulate over 20 different system faults by disconnecting banana plug jumpers.
- Track changes in high-pressure fuel supply, fuel injection quantity, back leak amount, and spray pattern quality.
- Uses the integrated TFT voltmeter to read voltage signals from key sensors such as the Accelerator Pedal Position (APPS1, APPS2), Air Charge Temperature (ACT), Fuel High-Pressure (FPS), Intake Manifold Pressure (MAP), and Engine Coolant Temperature (CTS) sensors, Mass-Air Flow (MAF), Fuel Rail Pressure (FRP) sensor, and Exhaust Gas Recirculation (EGR).
- Adjust crankshaft speed, engine temperature, intake air pressure, and mass-air flow.



Specifications

- Dimensions:
Electronic Part (Board): 1820 x 1360 x 500 mm
(71.65in x 53.54in x 19.69in)
- Mechanical Part (Trolley): 1500 x 800 x 500 mm
(59.06in x 31.50in x 19.69in)
- Weight: approx. 135 kg (297 lb)
- Power supply: 220/12 V (US 110 V)
- Product number: MSCR01

