PETROL (GASOLINE) ENGINE TRAINER WITH MULTIPOINT INJECTION SYSTEM (MPI)

A8

Product number
MVMPI01

Fully operational EURO 3 compliant petrol (gasoline) engine with a multipoint injection (MPI) system. It includes an OBD 16-pin diagnostic connector for comprehensive ECU diagnostics, fault code management, and live data display. The trainer is equipped with advanced fault simulation capabilities, allowing for over 20 fault scenarios using banana plug jumpers. It provides precise measurements of exhaust gases, electrical signals, and high-voltage ignition circuits. Constructed with a closed aluminum frame, it ensures durability and safety with removable panels

Features

- Fully functional MPI petrol (gasoline) engine with EURO 3 emission compliance. Includes a fuel supply system, cooling system, power supply, and exhaust system.
- OBD II diagnostic connector (16-pin) for engine control unit (ECU) identifi cation, fault code management, live data display, actuator testing, and throttle adaptation.
- Ability to simulate over 20 different faults using banana plug jumpers for detailed troubleshooting exercises.
- Equipped with banana plug connectors for electrical signal measurements, including high-voltage ignition circuits and sensor outputs.
- Capability to measure exhaust gas emissions before and after the catalytic converter.
- Removable safety panels protect against hot and rotating parts; integrated emergency stop button for added safety.
- Plug and play design, requiring no additional mountings, assembly, or special preparation for operation.

Value for Students

- Fully operational MPI engine that accurately represents modern fuel systems, including comprehensive exposure to the fuel supply, cooling, and exhaust systems.
- Utilize the OBD 16-pin diagnostic socket for precise fault code retrieval, ECU identification, and live data monitoring. Master the procedures for reading, erasing fault codes, and conducting actuator tests.
- Measure electrical signals and high-voltage circuits through banana plug connectors. Gain proficiency in assessing sensor outputs, actuator functions, and ignition system performance.
- Simulate over 20 faults by disconnecting banana plug jumpers, enabling detailed troubleshooting and diagnostic exercises. This hands-on experience is crucial for developing problem-solving skills.
- Conduct measurements of exhaust gases before and after the catalytic converter, gaining insights into emission control and regulatory compliance.

Value for Instructors

- Demonstrate complex engine operations, diagnostics, and fault simulations in a controlled environment. The removable safety panels allow for easy access to engine components for analysis and maintenance.
- Uses OEM components for easy, safe, and realistic training that mimics real car.
- The built-in wiring diagram and fault simulation panel make it easier to prepare lessons and teach engine diagnostics and repairs effectively.
- The trainer includes safety features such as an emergency stop button and protective panels to ensure safe operation during demonstrations.
- The closed aluminum frame with internal wiring ensures durability and a professional appearance, while the mobile design allows for flexible classroom integration.
- Mobile and space saving in the classroom, allows concurrent use by multiple students.
- Requires small adjustments to reset to default parameters, making it easy to prepare and start each lesson.
- Plug and play design, requiring no additional mountings, assembly, or special preparation for operation.

Specifications

- Dimensions: 1550 x 1000 x 1200 mm (61.02 in×39.37 in×47.24 in)
- Weight: approx. 310 kg (683 lb)
- Power supply: integrated 12V battery
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