



ENGINE CONTROL SYSTEM MOTRONIC M 3.8.X (MPI) EDUCATIONAL TRAINER

A1

Product number
MSMPI01



Fully functional multipoint petrol injection (MPI) system integrates Audi/VW OEM components to simulate the operation modes of the fuel injection and ignition system. Showing structure of the engine control system, its components and operation modes, conduct various measurements, tests and diagnostic procedures.



Features

- Demonstrates multipoint petrol injection (MPI) system operations, including fuel supply, injection quantity, and spray pattern quality.
- Transparent fuel tank and visible spark plug operation allow students to observe internal processes.
- Features manual adjustment of engine crankshaft speed and air/fuel mixture via oxygen sensor signal simulator.
- Includes a detailed electric wiring diagram with built-in banana plug jumpers for accurate measurements and fault simulations.
- Simulates faults by disconnecting banana plug jumpers, with the ability to simulate over 20 different faults.
- Allows for comprehensive ECU diagnostics, including reading/erasing fault codes, live data display, and actuator activation.





Value for instructors

- Easy, safe, and comfortable training using OEM components to offer a realistic car repair experience.
- Compact and vertically oriented stand for mobility and efficient use of classroom space. Durable and light construction makes it long lasting and safe to use. Closed panels and internal wiring makes it safe to use and ensures accidental damage.
- Real-time monitoring and fault simulation to improve student understanding and troubleshooting skills.
- The Audi/VW OEM-based system allows to use specialized or OEM scan tools for diagnostics and troubleshooting.
- Space-saving and mobile for efficient use of classroom space. Durable and light construction from solid aluminum frame to make it long lasting and safe to use.
- Closed panels and internal wiring is safe to use and ensures accidental damage to sensitive training stand parts.



Value for students

- Uses OEM components for easy, safe, and realistic training that builds confidence. Learn about multipoint petrol injection systems and understand the interaction between fuel supply, exhaust and ignition systems.
- Analyze the electrical circuits of electrical components for multipoint petrol injection system engines, understand about the wiring diagrams and presented components on it.
- Understand and analyze high and low-pressure fuel supply systems, injected fuel quantity, spray pattern quality.
- Understand the operation and troubleshooting of modern ignition systems.
- Demonstrate and understand the synchronization between crankshaft and camshaft in engine operation.
- Monitor and measure electrical parameters with a real-time data oscilloscope, multimeter, scan tool.
- Adjust crankshaft rotation frequency, air flow rate and temperatures using potentiometers and simulators.



Specifications

- Dimensions: 1820 x 1360 x 500 mm (71.65in x 53.54in x 19.69in)
- Weight: approx. 70 kg (154 lb)
- Power Supply: 12V from battery or power supply unit (battery and power supply unit not included)
- Product number: MSMPI01
- Optional Accessories: Examination console for 10 hidden fault simulations, 12V battery, 220/12V power supply unit, OBD diagnostic scan tool

