

SENSORS AND ACTUATORS EDUCATIONAL TRAINER





Specialized educational training tool offers detailed learning of automotive sensor and actuator systems. Installed OEM components from various vehicle models, this trainer enables precise measurement and analysis of real-world automotive signals, making it an essential resource for technical and vocational automotive education.



Features

- Includes OEM sensors: ACT, CTS1, CTS2, MAF, TPS, Knock, and MAP sensors.
- Features voltmeter and temperature displays for real-time monitoring of sensor outputs and performance.
- PWM control allows for control and analysis of actuators such as the IAC valve, DC motor, and solenoid valve via PWM signals.
- Equipped with LED indicators for relay status, heater operation, and sensor feedback to facilitate troubleshooting and understanding of system functions.
- Safe, durable and mobile construction with internal wiring for best learning experience and safe environment.







Value for instructors

- Provides a practical platform for demonstrating sensor and actuator functions, enabling clear and effective instruction on automotive systems.
- . Real OEM components to teach about sensor operation, actuator control, and signal measurement. The trainer's design supports technical discussions and practical demonstrations.
- * Supports a range of diagnostic and measurement activities, making it suitable for various instructional scenarios and enhancing students' understanding of complex automotive systems.
- Board on castors version, which is mobile and space saving in the classroom, allows concurrent use by multiple students, promoting collaborative learning and practical training opportunities.

The training stand is designed for simplicity, requiring only small adjustments to reset to default parameters, making it easy to prepare and start each lesson quickly and efficiently.

Value for students

- OEM sensors including Air Charge Temperature (ACT) sensor, Coolant Temperature Sensors (CTS1 & CTS2), Mass Air Flow (MAF) sensor, and Throttle Position Sensor (TPS). Understand their operating principles and performance characteristics through practical exercises.
- Measure electrical signal parameters from various sensors using built-in contacts. The trainer allows for direct voltage measurement of sensor outputs, including temperature and pressure signals, facilitating accurate diagnostics and component testing.
- Study and control actuators such as the Idle Air Control (IAC) valve and DC motor. Analyze their operation through Pulse Width Modulation (PWM) signals and understand their role in engine management and performance adjustments.
- Use the voltmeter display to monitor real-time data from sensors and actuators. Perform diagnostic procedures to detect and troubleshoot faults, enhancing practical troubleshooting skills.
- Provides easy, safe, and comfortable training that builds confidence, using OEM components to offer a realistic car repair experience.

Specifications

- Dimensions: approx. 1820 x 1360 x 500 mm (71.65in x 53.54in x 19.69in)
- Weight: approx. 60 kg (132 lb)
- Power supply: 12V battery (optional)
- Optional Accessories: 12V Battery, 220/12V Power Supply Unit, Automotive Oscilloscope
- Product number: MSD01



