



AUTOMOTIVE ACTUATOR AND SENSOR TRAINING STAND



DL DM92

LEARNING EXPERIENCE

This demonstration panels can show the main sensors and actuators in a car system.

The device applies to theoretical teaching and maintenance training of the car actuators and sensors for secondary vocational skill schools.

GENERAL CHARACTERISTICS

- Main panel : Dim. mm (HxLxW) : 1800x1600x800
Weight approx. 100 kg
- Component bench:
Dim. mm (HxLxW) : 1300x1800x900
Weight approx. kg 200
- Input power supply: A.C. 220V \pm 10% 50Hz
- Operating voltage: 12V DC
- Operating functioning temperature: -40°C to +50°C

MAIN CHARACTERISTICS

The didactic system is composed of one training panel and one training bench that include :

- Throttle control unit,
- Accelerator pedal position sensor,
- Air-fuel ratio oxygen sensor,
- Hall sensor,
- Coolant temperature sensor,
- Air flow meter,
- Ignition coil and ignition module,
- Canister solenoid valve,
- Oxygen sensor,
- Intake air temperature sensor,
- Knock sensor,
- Boost air recycle solenoid valve,
- Boost pressure sensor,
- Boost pressure limit solenoid valve,
- Camshaft regulating valve,
- Crankshaft position sensor,
- Oil pressure switch
- Coolant level switch
- Oil level & temperature sensor

The components on the training bench can be connected to the corresponding terminals on the training panel by connecting wires.



ACCESSORIES

Suggested instruments for best practice:

- Digital Multimeter (not included)
- Automotive Oscilloscope (not included)
- OBD Fault diagnosis Scanner (not included)

OTHER CHARACTERISTICS

- (a) The trainer is made of advanced aluminum-plastic plate with characteristics of not less than 4mm thick. The plate is corrosion resistant, impact resistant, pollution resistant, fireproof, and moisture proof. The panel surface is processed by special craft and spraying primer. The circuit diagrams are painted with never fade colour and the boards are coated with varnish. The trainees can learn and analyze the working principle of the control system by looking and analysing the diagram and the real-life components.
- (b) The adjustable-speed motor controlled by throttle percentage drives crankshaft sensor signal wheel to simulate the engine operation, then actuators can start to work (Such as spark plug ignition, fuel pump and fuel injection pump works, idle speed motor rotates). It demonstrates the working process of engine sensors and actuators.
- (c) The sensors and actuators are equipped with the original vehicle wire harness plug. Trainees can directly detect the electrical signal of each circuit element, such as resistance, voltage, current and frequency signal.
- (d) The training panel has installed a diagnosis socket to which an automobile decoder can be connected to read and clear fault codes, read data streams, components testing, conduct wave analysis for the engine electrical control system.
- (e) The training base frame is made of steel and the surface is paint-coated. Pivoting wheels are mounted. A small table top shelf is fixed on the base frame to place material and testing devices
- (f) The didactic panel does not use accumulators or battery and it does not require any charging. It can be connected to a 220V AC voltage which changes to a 12V DC voltage through the internal circuit. The 12V DC voltage protects the training panel against short circuit.
- (g) Equipped with intelligent fault setting system, include fault setting and troubleshooting.