



## AUTOMOTIVE ELECTRICAL / ELECTRONICS SYSTEM TRAINING PANEL



### DL DM96

#### LEARNING EXPERIENCE

This demonstration panel is based on the electric system of a Volkswagen Passat B5 to display the structure and operation of the meter, lighting, wiper, horn, ignition, electric window, electric door lock, sound, start-up, and charging systems.

The device applies to theoretical teaching and maintenance training of the automobile electric equipment for secondary vocational skill schools.

#### MAIN CHARACTERISTICS

The didactic system shows a real and operable car electric structure used to illustrate the components of the system.

When the electric equipment system powers on, switches and buttons of various electric equipment are shown to demonstrate the operation of the meter, rear and front lighting, wiper, horn, ignition, electric window, electric door lock, sound, start-up and charging systems.

Components on panel:

- Detection control panel (with various detection terminals)
- Engine ECU
- Diagnosis socket
- Ignition switch / Dashboard / Combination switch
- Left and right headlight assembly
- Left and right front fog lights
- Left and right turn lights
- Left and right turn side lights
- Left and right combination taillights
- License plate light / High-mount brake light
- Light switch / Brake light switch
- Reversing light switch / Hazard light switch
- Wiring harness
- Wiper controller / Horn / Horn relay
- X contact point relay / Fog light relay
- Distributorless ignition system

#### GENERAL CHARACTERISTICS

- Dim. mm (HxLxW) : 1900x2400x700
- Weight approx. 200 kg
- Input power supply: A.C. 220V  $\pm$  10% 50Hz
- Operating voltage: 12V DC
- Operating functioning temperature: -40°C to +50°C



## ACCESSORIES

Suggested instruments for best practice:

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

- Simulated injector indicator light
- Fuel pump relay / Fuel pump indicator
- Crankshaft position sensor and signal wheel
- Power window main switch
- Left and right front doors control unit
- Comfort system control unit
- Right front door lock motor
- Left and right rear power window motor
- Left and right rear power window switch
- Left and right rear door lock motor
- Car audio assembly
- Speaker / Fuses

Components on shelf:

- Wiper assembly
- Spray motor
- Spray bottle
- Starter
- Generator
- Three-phase asynchronous motor
- Battery
- Main Power Switch

## 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 training panel has installed detection terminals to identify electric signals, such as resistance, voltage, current, and frequency, of circuit components of the electric equipment system of the finished automobile.
- c) The training panel has installed a diagnosis socket to which an automobile decoder can be connected to read and clear fault codes, read data stream from the engine control unit(ECU).
- d) The training base frame is made of steel and the surface is paint-coated. Pivoting wheels are mounted.
- e) Equipped with intelligent fault setting system, include fault setting and troubleshooting.