



Description

- Air-conditioning system trainer
- With auxiliary petrol heating unit
- Electronic climate control system
- A fully functional system with R1234yf refrigerant
- Diagnosis through OBD 16 pole diagnostic socket
- Open contacts for measuring of system's components and circuits
- Fault code simulations

A fully functional dual-zone air conditioning and climate control system trainer is installed in a mobile aluminum frame. This training board – simulator is specially designed to help technical students understand better electronics, mechanics, and the theory of air conditioning and climate control system. The educational training stand is based on Audi/VW OEM components. Equipment for technical and vocational Tesca education and training.

The integrated air conditioning and climate control system shows the different operation modes. The training board-simulator is a great educational tool that allows students to learn the structure of air conditioning and climate control system, study its components, and perform various measurements, tests, and other diagnostic procedures to use diagnostic scan tools or other special tools and equipment. To show all the functions of climate control, in this educational aid is installed the auxiliary heating unit which could be petrol or diesel on request.

Technical specifications and functions:

- Integrated electronic 2C – Climatronic heating and air conditioning system
- Monitoring operation modes of air conditioning and climate control system
- Visible HVAC compressor, electromagnetic compressor clutch, and its operation modes
- With installed pressure gauges, it is possible to monitor the pressure distribution of R1234yf refrigerant in the high and low-pressure sides (circuits)

Visible HVAC (heating, ventilating, and air conditioning) mixing unit with its operation modes.

- Visible the operation of airflow flaps
- Ability to monitor and control changes to the parameters of each system component.
- The airflow fan speed
- The airflow flap positions
- The interior (inside) temperature

– The Refrigerant R1234yf pressure changes depending on the speed of the cooling radiator fan

Note: Specifications are subject to change.

- The Refrigerant R1234yf pressure changes depending on the speed of the cooling radiator fan
- The rate of the temperature change depending on the speed of the airflow radiator fan
- The airflow flap position according to operation modes: defrost, air recirculation (fresh air), or footwell
- The training stand has a complete electrical wiring diagram with built-in banana plug jumpers for measurements and simulation of the system fault codes
- Ability to simulate more than 15 system faults by disconnecting banana plug jumpers. Ability to monitor the changing operation mode of each system component;
- The training stand has an integrated auxiliary heating unit which could be petrol or diesel on request. The heating unit grants the delivery of heated coolant fluid to the heating exchange unit to make it possible to run climate control to show how it is cooling or heating the air.

Diagnostic and Measurement

Oscilloscope/Multimeter

System's parameters are measured by connecting to the banana connector;
Ability to measure electrical signal parameters of each system component (such as sensor or actuator):

Control unit diagnosis (with the scan tool)

- Diagnosis through OBD 16 – pin Diagnostic connector
- Electronic control unit (ECU) identification
- Reading/erasing fault codes
- Displaying the operating system parameters (live data)
- Activating the actuators (Depends on the control unit)
- Diagnosis of auxiliary heating unit through the specific diagnostic socket

Other

- Power supply: 220V
- Dimensions approx : (HxLxW): 124x142x70 cm
- Netto weight approx : 130 Kg
- CE certificate

Optional Accessories

- Tesca oscilloscope
- OBD Diagnostic scan tool

Dual-zone air conditioning and climate control trainer can be ordered with petrol (MSC4-P) or diesel (MSC4-D) auxiliary heater according to customer's request

Tesca training equipment is a great tool for professional teachers and technicians that helps explain to students of technical subjects how processes in Dual-zone Air conditioning and climate control Educational Trainer with R 1234yf GAS MSC4-R1234yf-D Tesca operate and its technology.

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