



Description

- Air-conditioning system trainer
- With auxiliary petrol heating unit
- Electronic climate control system CLIMATRONIC
- A fully functional system with R134a 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 electronics, mechanics, the theory of air conditioning, and climate control systems better. 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, perform various measurements, tests, and other diagnostic procedures, to use diagnostic scan tools or other special tools and equipment. In order to show all the functions of climate control, this educational aid has 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
- Installed pressure gauges can monitor the pressure distribution of R134a 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 of the parameters of each system component:

- The airflow fan speed
- The airflow flap positions
- The interior (inside) temperature
- The Refrigerant R134a 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

Note: Specifications are subject to change.

- 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 delivers heated coolant fluid to the heating exchange unit to enable the climate control run and show how it cools or heats 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 diagnostics (with the scan tool)
- Diagnostics through OBD 16 – pin diagnostic connector
- Electronic control unit (ECU) identification
- Reading/erasing fault codes
- Displaying parameters (live data) of the operating system
- Activating the actuators (depends on the control unit)
- Diagnosis of the auxiliary heating unit through the specific diagnostic socket

Other

- Power supply: 220V
- CE certificate

Optional Accessories

- Tesca oscilloscope
- OBD Diagnostic scan tool
- Auxiliary heating unit diagnostic interface
- Air conditioning recharge station
- Order nr.: MSC03-B

Tesca manufactures a fully functional Dual Zone Air Conditioning And Climate Control Educational Trainer With Auxiliary Heater MSC03-B Tesca for automotive technical and vocational education.

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