The MT-C5001 model is a teaching support that allows observation and evaluation of auto-regulated air conditioning automotive system.
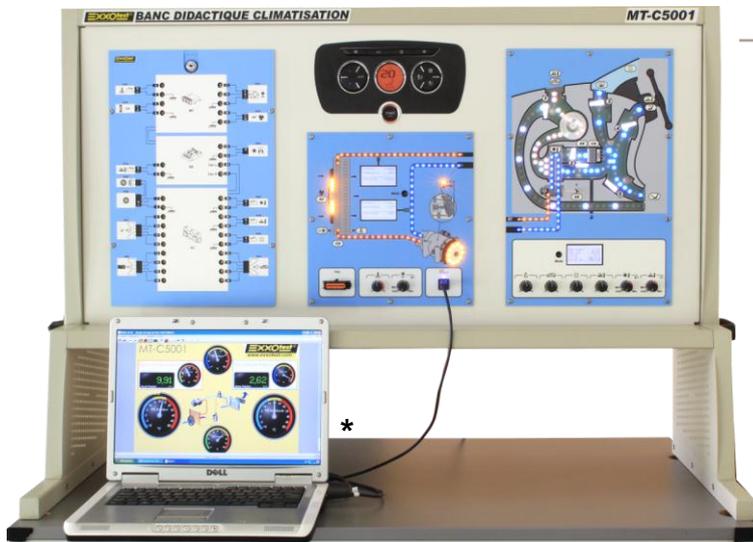
* PC not included

OBJECTIVES

- To discover complete automotive system of cold production.

- To observe and understand works of all system components.

- To measure and analyze the different signals from the various ECUs inputs and outputs.

- To apply diagnostic methods for effective fault searching (breakdown boxes included).

DESIGN

Supported by a steel structure, the model is composed of three main instrument decks for the simulation, visualization and measurement (fault and diagnosis) and of an air conditioning control panel.

SPECIFICATIONS

Air conditioning ECU (left) deck:

- Components electrical drawings (variable displacement compressor, condenser, evaporator, ventilation and air-conditioning, ...).
- Engine management, Air conditioning and engine's cooling management ECUs electrical drawings.
- 4mm standard sockets allowing the application of real measurements using multimeter and/or oscilloscope (REFLET® oscilloscope optional feature is recommended).
- Hidden and locked access to a "breakdown" box allowing professors to create faults safely.
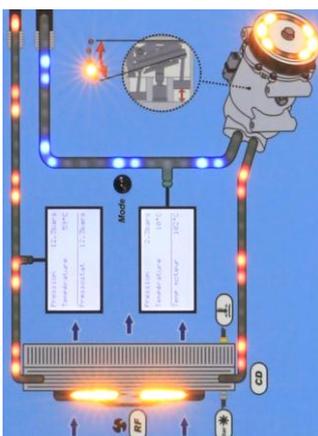
Cold loop visualization (central) deck:

- Real automotive AC ECU with its control panel (PSA component).
- Representation of refrigerant circulation through the cold loop components, variable displacement compressor, fans, condenser, engine cooling circuit, etc.
- Two LCD displays allowing showing (low & high) pressures and temperatures at circuit filling-valve points, engine's rpm, etc.
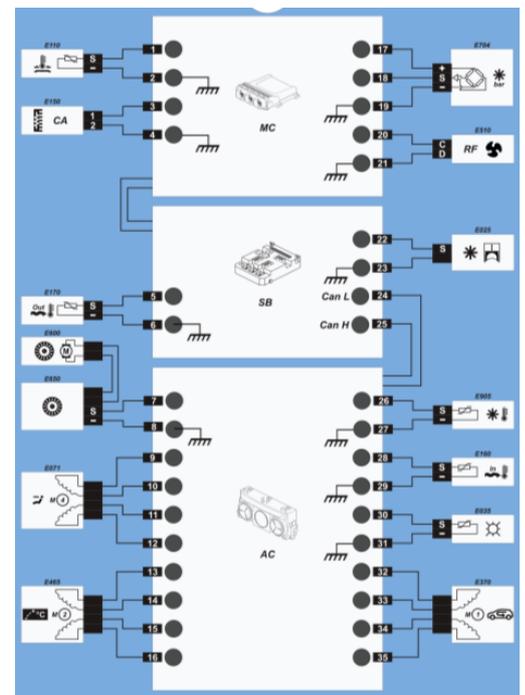
- Two potentiometers allowing high pressure and engine temperature adjustments.
- OBD II diagnostic plug (16-pins SAE J1962 standard connector).
- USB connection for REFLET® PC application (included).
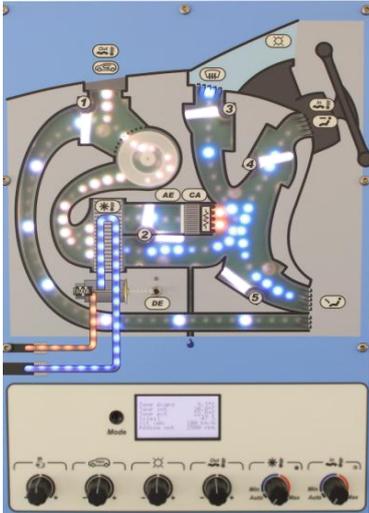
Climate control and temperature regulation (right) deck:

- Representation of airflow and refrigerant circulation as well as their temperatures by a light animation (roads of multicolor LEDs).
- Position of the different sensors and actuators around the air box: sunlight sensor, temperature sensors, ventilation, step motorized flaps for air mixing and distribution, etc.
- One display and six adjustment potentiometers for inside and outside air temperatures, vehicle speed, engine's rpm, sunlight and evaporator temperature (manual and / or automatic parameters adjustment).

EQUIPMENT

The REFLET® is a measurements logging system specifically designed for automotive applications. It allows real-time playback and recording, curves tracing, and more. REFLET® also provides a 3D instruments interface and dynamic visualization of 3D objects. The REFLET® software is delivered with the MT-C5001 teaching model.

The REFLET® is comparable with group of products EXXOTEST® MUXUtilites (MUXTrace, MUX DLC, etc.) those are also delivered with the MT-C5001.

As an option you can use with this teaching model our acquisition system dedicated to automotive REFLET® that allows to use:
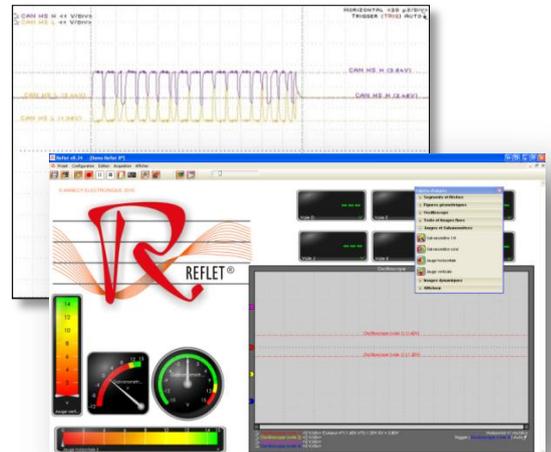
- USB connection,
- 4 traces analog and digital oscilloscope module,
- 2D tools interface,
- 3D instruments interface, dynamic visualization of 3D object - EXXOTEST® innovation

OTHER

- For this teaching support you can order a special MT-table with castors.
- Power supply: 220/110Vac – 50/60Hz
- Size: 1200 X 800 X 1200 mm (transportation box)
- Gross weight : 64 Kg (ready to ship)
- Net weight: 54 Kg

Find all EXXOTEST® products on the Internet: www.exxotest.com