

Automotive Technology Teaching & Training

Ref.: MT-ESP1000

The MT-ESP model is an innovative educative support that allows comparative exploration of Anti-lock Braking System (ABS), Anti Skidding Regulation (ASR) and Electronic Stability Program (ESP) systems. It presents all advantages of 3D simulation and virtual technologies serving better systems comprehension.



OBJECTIVES

- Visualize, understand and compare how works separately and in combination the security systems:
- Anti-lock Braking System
- Anti-Skidding Regulation
- Electronic stability program

DESIGN

Supported by a steel structure, the model is composed of two large 19' touch screens (with 6 mm anti stripes protection), a real automotive dashboard, a measurement deck and an integrated central processing unit.

Delivered with a steering wheel bloc to control vehicle trajectory in simulation. Signals from the steering wheel angle sensor can be seen on High Speed CAN bus from the measurement panel (Steel chassis integrating an angle sensor – wiring harness connection at the back of the model) and a pedals bloc for acceleration and brake of the vehicle during simulation (Steel chassis – wiring harness connection at the back of the model).

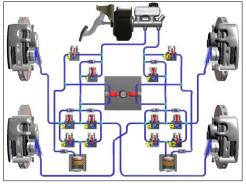
SPECIFICATIONS

Left screen, visualize a driving simulation:

- 2 working modes: driving simulation and replay a recorded simulation,
- Road profiles setup (slopes, ring tracks, slalom, mountain road track...),
- Weather conditions setup (dry, rain, snow, ice, alternated condition),
- Activation/ deactivation of vehicle security systems (ABS, ASR and / or ESP).
- Visualization of measured data on charts (dynamics parameters, steering, braking, engine control). Data can be exported (using a memory card) to a computer for analysis.





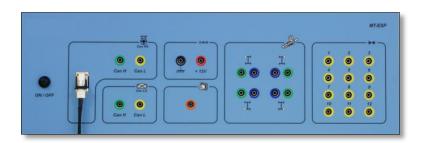


Right screen, directly linked to the simulation:

- Simplified view of hydraulic braking systems (classic, ABS, ASR or ESP, separately or in combination) to show fluid displacement in pipes, pump, callipers, electro valve management and actions on wheels,
- Visualization of regulation, Systems internal working display

Measurement deck:

- Measurement of sensors signals (wheel sensor ...),
- Measurement of actuators control signals (electro valves, electro-pump),
- Access to communication on Can Buses (HS and LS) e.g. for retrieving gyroscopic and wheel sensors signals.



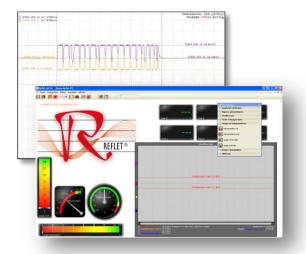
EQUIPMENT

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-ESP1000 teaching model.

The REFLET® is comparable with group of products **EXXITEST**® MUXUtilities (MUXTrace, MUX DLC, etc.) those are also delivered with the MT-ESP1000.

As an option you can use with this teaching model our acquisition system dedicated to automotive REFLET® that allows using:

- USB connection,
- 4 traces analog and digital oscilloscope module,
- 2D tools interface,
- 3D instruments interface, dynamic visualization of 3D object **EXXIITEST** ®innovation.



Version 00287665-v1

OTHER

For this teaching support you can order a special MT-table with castors.

Power supply: 220/110Vac - 50/60Hz

1200 X 800 X 1200 mm (transportation box) Size:

Gross weight: 95 Kg (ready to ship)

Net weight: 85 Kg

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