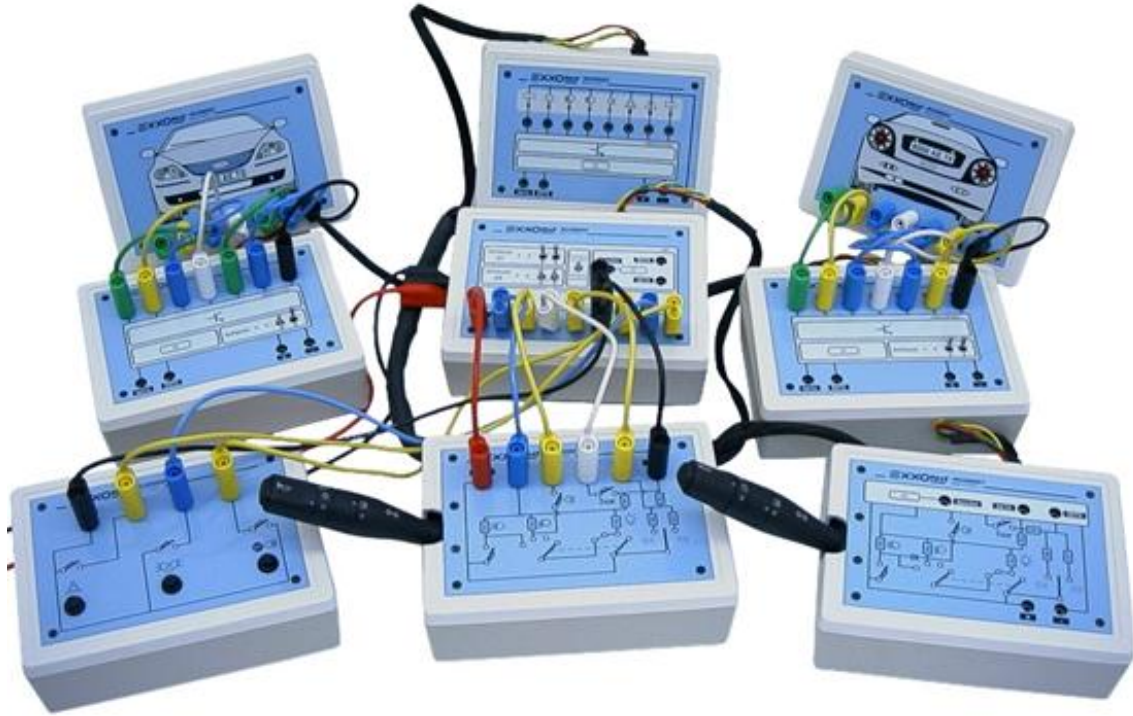The DTM-MUX8000, set composed of 9 modules which are linked up depending on the exercises, represents a multiplexed network applied in a vehicle. This unit use the frames adapted for education process: theirs observation and decryption are organised easily than on real vehicle's multiplexed network.

OBJECTIVES

- Understanding the purpose of multiplexing applied in the automotive.

- Visualization and comprehension the various signals, those are issued by the multiplexed bus.

- Decomposition and analyze of the frames: modules addresses, data, acknowledging receipt.

- Studying the wiring and its functioning, selector switches, light BSI, dashboard, etc.

- Analysis of two types of lights selector switches (analog and multiplexed).

DESIGN

This teaching model consists of the nine modules those could be connected between them using 4 mm pin type plugs and a multiplexed 4 wire bus. Each of the models covers one sector of functioning:

- MUX8001:   Rear light.
- MUX8002:   Front light.
- MUX8003:   Dashboard
- MUX8004 (x2):   Intelligent lighting unit.
- MUX8005:   Multiplexed BSI.
- MUX8006:   Analogue lighting selector switch.
- MUX8007:   Multiplexed lighting selector switch.
- MUX8008:   Brake sensor, reverse light and hazard warning switch.

SPECIFICATIONS

The DTM-MUX8000 set possesses 2 types of lights selector switchers:

1 analogue switcher (MUX8006) sends the analogue signals to BSI (module MUX8005) that transforms those signals to binaries signals for sending them by multiplexed bus in 3 frames consist 13 bits:

- 1 frame destined to front light,
- 1 frame destined to rear light,
- 1 frame destined to dashboard.

1 multiplexed switcher (MUX8007) that transforms the analogue signals to binaries signals for sending them to BSI by multiplexed bus (module DTM8004). On this mode we found 5 frames on the bus:

- frame from BSI destined to multiplexed switcher (question),
- 1 frame from multiplexed switcher destined to BSI (answer),
- 1 frame destined to front light,
- 1 frame destined to rear light,
- 1 frame destined to dashboard.

EQUIPMENT

As an option with this teaching model you can use an alimentation 12 to 18V CC 3A - AL-SA 4S (is not delivered with the set) that according with the DTM-MUX8005 module.

OTHER

- Accessories:

  - 2 power supply cables;
  - 10 wires 50 cm long;
  - 14 wires 10 cm long;
  - 1 multiplexed bus containing 4 wires (2 power wires and 2 signal wires);
  - 1 user and training guide.
- Power supply: 12 to 18Vac
- Size: 600 X 400 X 300 mm (transportation box)
- Gross weight : 7 Kg (ready to ship)
- Net weight: 6 Kg

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