

Control motors using PWM

Automotive Technology Teaching & Training

Ref.: DT-C003

The DT-C003 model is a teaching support that allows observation and comprehension of actuators functionality at the motors using Pulse Width Modulation.



OBJECTIVES

- Analyze of direct current electrical motors functionality.
- Utilization of the tool adapted for the involved signals.
- Analyze of various signals and sensors orders and identification of theirs origin.
- Observation of electrical circuit.

DESIGN

This module is equipped with an aluminium box that is covered by the instrument desk with real automotive components and measuring inputs terminals. It includes: motorized throttle valve, air dispenser and EGR valve.



EGR valve allows controlling the quantity of recycled exhaust gas. Then the control motor is alimented by the injector calculator, the EGR valve opens system of exhaust gas recirculating. This opening is progressive and defined by control motor on base of EGR. EGR valve includes a Hall sensor for the valve servo.

The motorized throttle controls the amount of air flowing into the engine, in response to driver accelerator pedal input. Driven by PWM calculator it allows to define dosage more precise found on various phases of functioning.



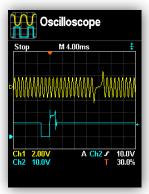
Air dispenser EGR is a supplement of EGR valve that allows amelioration of exhaust gas recirculating by closing air admission. It takes the high impedance measures directly from actors and sensors

OUTFITS:



As an option you can use with this teaching model our EOBD Scan tool for reading parameters. **EXXITEST**® CL550 - multi-functions tester bringing together the functions of Oscilloscope, Multimeter and OBD II scan tool.

The CL550 is powered by the car battery that allows using it easily. The software supplied with the CL550 allows archiving, printing or video projection of the measuring screens on the PC. Same time, the CL550 is 100% scalable (USB connection allows free updates by internet).



OTHER

Delivered with:

- use and teaching instruction book,
- banana plug cable assemblies according to the module needs,
- $-\,$ 12V and / or 5V power supply according to the module's needs.
- Power supply: 220/110Vac 50/60Hz
- Size: 600 X 400 X 300 mm (transportation box)
- Gross weight: 8,5 Kg (ready to ship)
- Net weight: 7,5 Kg