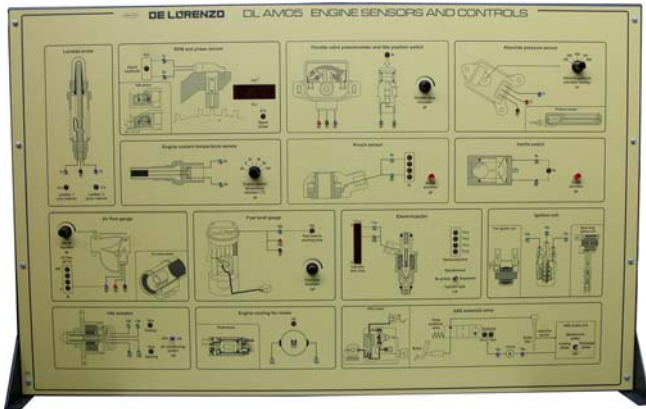




## ENGINE SENSORS AND CONTROLS



DL AM05

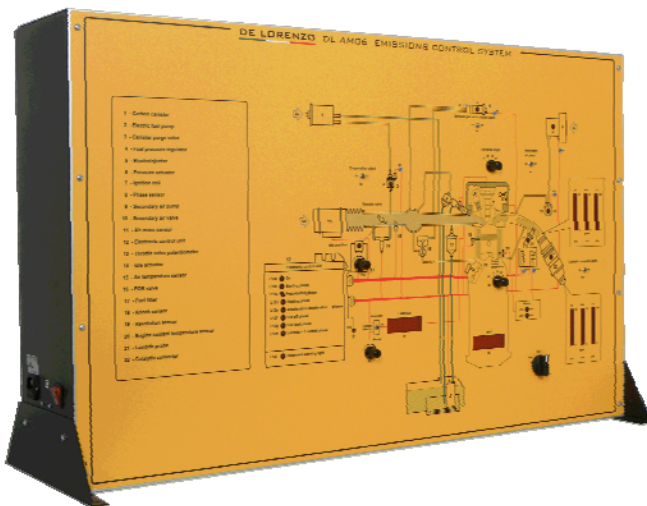
The extensive use of sensors and actuators comes from the need of the electronic control panels to know in real time the actual values of the physical parameters to be controlled or which influence the behaviour of the car. The simulator takes into consideration all these components, by analyzing their behaviour and their structure.

In particular, the following components are analyzed:

- Temperature sensors
- Pressure sensors
- Air flow rate sensors
- Position sensors
- Rpm/reference point sensors
- Oxygen sensors (Lambda probe)
- Knock sensors
- Level Sensors
- Inertial sensors
- Electro pumps and geared motors
- Servomotors
- Electro-valve
- Electro injectors
- Coils

The panel is complete with CAI software.

## EMISSION CONTROL



DL AM06

The combustion of the fuel inside the cylinders of an engine is, usually, incomplete. The more it is incomplete, the bigger is the emission of noxious components which can be found in the exhaust gases from the engine. To reduce environmental pollution it is necessary to improve the efficiency of the engine for what concerns the exhaust gases.

This simulator takes into consideration all the relevant subjects and in particular:

- Composition and control of the exhaust gases in the Otto cycle based engines
- Combustion products
- Preparation and control of the fuel and operating conditions
- Adaptation to the operating conditions
- Lambda regulation
- Recirculation of the exhaust gases
- Anti-evaporation of the fuel
- Catalytic thermal post-combustion
- Analysis of the exhaust gases in the Otto cycle based engines: test cycles

The panel is complete with CAI software.