



LIGHTWEIGHT ELECTRIC VEHICLES



DL AM21

Bench-top educational system for the simulation and the theoretical and practical study of the main circuits and components that are used in lightweight electric vehicles.

The simulator is divided in three sections, relevant, respectively, to electric bicycles, scooters and cars and it allows learning their operation through light signaling. By means of a selector it is possible to choose the vehicle that you want to analyze.

By connecting the panel to a computer it is possible to visualize on the screen the available information during the operation of the system.

The operating mode and the insertion of the faults are through computer. The simulator is complete with a software that allows students studying the theory and performing the exercises.

For all three vehicles, the simulator analyzes the normal drive operation and those that depends on the slope of the road. Furthermore, both domestic and public battery recharging systems are also dealt with.

The insertion of the faults is through computer and is relevant to the malfunctioning of the components of each vehicle.

The system is complete with a technical manual for theory and exercises.

Electric bicycle:

- Description of the E-bike system (electric bicycle)
- Description of the Pedicel system (electric bicycle with pedal assist system)
- The controller
- The braking system with suppressant of the motor supply
- Acceleration function for the E-bike (Twist and Go)
- Acceleration function for the Pedicel system
- PAS (Pedal Assist System)
- PAS/TAG system
- The torque sensor
- The batteries (types and performances)
- The motors (types and performances)
- Braking and regenerative deceleration
- Safety devices
- Battery recharging

Electric scooter:

- Description of the electric scooter
- Functions and controls
- The motor
- The controller
- The DC/DC converter
- The interface module (ICM)
- The braking system
- Braking and regenerative deceleration
- The batteries (types and performances)
- Safety devices
- Battery recharging

Electric car:

- Description of the electric car
- Main functions and controls
- The DC motor
- The controller for the DC motor
- The brushless motor
- The controller for the brushless motor
- The asynchronous motor
- The inverter
- The DC/DC converter
- The interface module (EVMS)
- The batteries (types and performances)
- The control of the batteries (BMS)
- The braking system