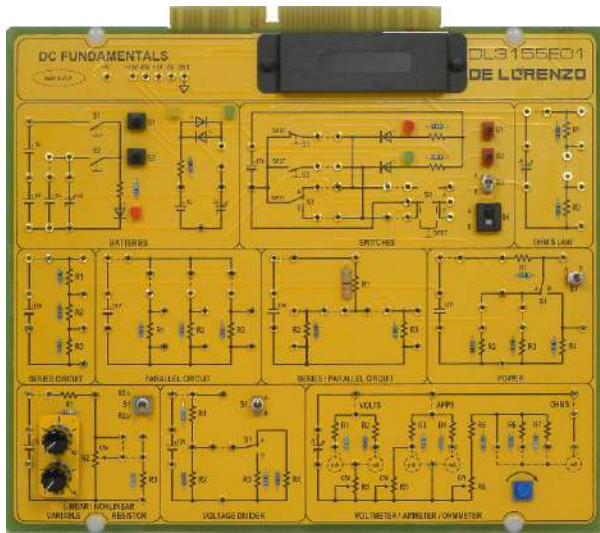




ELECTRIC FIELD



DL 3155M04

The design and construction of electronic circuits to solve practical problems is an essential technique in the fields of electronic engineering and computer engineering.

With this board the students can study the characteristics of an electric field, the different types of capacitors in series and parallel configurations and the principle of operation of the charging and discharging of a capacitor.

THEORETICAL TOPICS

- Fields of force
- The field vector
- The potential and the potential difference
- Characteristics of the electric field and its measurement units
- The electric field generated by a uniformly loaded unlimited plane surface
- The electric field of a double plane surface
- Capacitors: composition, identification, connection
- Charge of capacitors
- Discharge of capacitors
- Energy of the electric field in the capacitors
- Fault simulation

CIRCUIT BLOCKS

- Superficial electrization of the bodies
- Electrostatic machine
- Energy of the capacitors
- Type of capacitors
- Capacitors in series
- Capacitors in parallel
- Charge and discharge of a capacitor

Complete with theoretical and practical manual.

Dimensions of the board: 297x260mm

CAI SOFTWARE:

Each board of the TIME system can be supplied complete with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.

Ordering code: please add SW after the code of the board (i.e. DL 3155M04SW)

Required:

POWER SUPPLY NOT INCLUDED

Base frame with power supply (completed with connecting cables):

- **DL 3155AL3** - Base frame with power supply and interface to pc and virtual instrumentation
- **DL 3155AL2** - Base frame with power supply and interface to pc

Basic power supply (connecting cables not included):

- **DL 2555ALF** - DC power supply $\pm 5 \pm 15 0 \pm 15$ Vdc, 1A
- **TL 3155AL2** - Connecting cables

Choosing this power supply, for the execution of the experiments, it is normally required the use of an oscilloscope and two multimeters.

