

BASIC ELECTRICITY

DE LORENZO

LIST OF COMPONENTS

- 1 power supply with three outputs (0 to 3Vdc, 10A; 0 to 25Vdc, 2A; 0 to 25 Vac, 2A single phase) protected by magnetothermal switch and fuse
- 4 analog multimeters
- 1 set of multiple jack cables
- 1 switch
- 6 resistances
- 3 capacitors
- 2 battery holders with 1.5 V batteries
- 2 lamp holders
- 3 lamps
- 1 nickel-chrome wire
- 1 constantan wire
- 1 thermocouple
- 1 core with sheets
- 1 single-phase transformer
- 1 braking pendulum
- 1 solenoid with support
- 1 rectilinear conductor with support
- 1 turn with support
- 1 moving turn with support
- 1 hot wire instrument
- 1 moving coil instrument
- 1 moving iron instrument
- 1 coil 500 + 500 turns
- 2 cables for parallel wires
- 1 iron core
- 1 aluminium core
- 2 magnets
- 1 iron filing container
- 1 iron cylinder
- 1 compass
- 1 glass with mixer

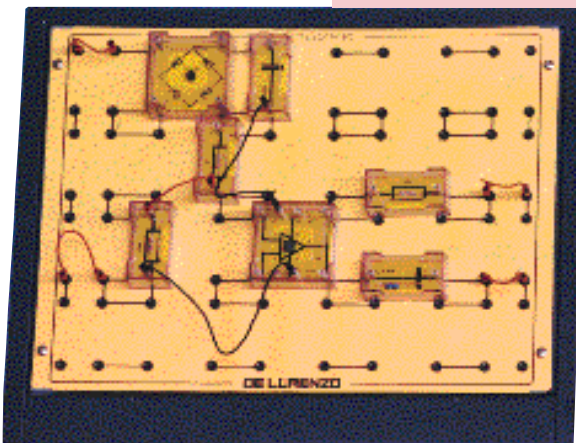
- 1 brass electrode
- 1 stainless steel electrode
- 1 copper sulphate bottle

EXAMPLES OF PERFORMABLE EXERCISES

- * Direct current
- * Voltage
- * Kirchoff's laws
- * E.M.F.
- * Ohm's law
- * Resistance
- * Resistivity
- * Non-ohmic resistor
- * Voltage drop
- * Internal resistance of a generator
- * Generators in series and in parallel
- * Resistances in series and in parallel
- * Electric power and energy
- * Current shunt
- * Mesh currents
- * Effects superposition
- * Thevenin's and Norton's theorems
- * Magnet, magnetic field, flux and induction
- * Electromagnet, mobile iron device, ferromagnetic materials and saturation
- * Magnetic circuits
- * Action of a magnetic field on a conductor and on a loop passed by current
- * Electric motor, electrodynamic actions

- * Electrolysis
- * Joule effect
- * Thermoelectric effect
- * Electromagnetic induction
- * Faraday's law
- * Lenz's law
- * Eddy currents
- * Self and mutual induction e.m.f.
- * Electric field, condenser, capacitance
- * Single phase alternate current
- * Pure resistance, inductance, capacitance
- * Phase shift between two signals
- * Series RL and RC circuits
- * Active, reactive and apparent power
- * Series resonance
- * Parallel RL and RC circuits
- * Series and parallel condensers

DL 2160PK



This version of the basic electricity kit consists of a supporting frame and of the same set of components listed in the basic version. Although the educational content and value of the two kits remain the same, this version allows a better presentation of the circuit lay-out for more than one student working at the same bench.