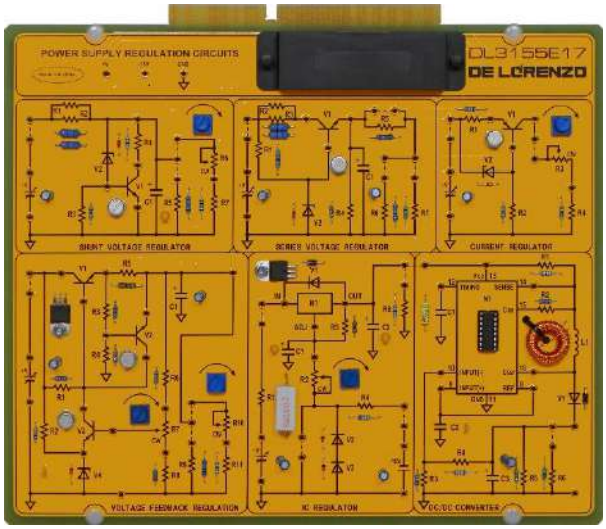
TIME ELECTRONIC BOARDS

POWER SUPPLY REGULATION CIRCUITS



DL 3155E17

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 voltage regulation circuits in parallel, in series and in feedback and the current regulation circuit using the transistor BJT and also regulators and DC/DC converters using integrated circuits.

THEORETICAL TOPICS

- Regulated power supplies
- Shunt voltage regulator
- Zener diode introductory information
- Shunt voltage regulator with Zener diode parallel connected to the load
- Shunt voltage regulator with bipolar transistor
- Series voltage regulators
- Voltage feedback regulators with current limiting protection
- Series current regulators
- IC regulators and DC-to-DC converter
- General characteristics of monolithic regulators
- Three-pin IC regulator operation (LM317T)
- DC-to-DC converter operating characteristics (LM78S40N)

CIRCUIT BLOCKS

- Shunt Voltage Regulator
- Series Voltage Regulator
- Current Regulator
- Voltage Feedback Regulation
- IC Regulation
- DC-to-DC Converter

Complete with theoretical and practical manual.
Dimensions of the board: 297x260mm

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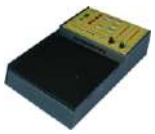
CAI SOFTWARE:
Each board of the TIME system can be supplied complete with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.
Ordering code: please add SW after the code of the board (i.e. DL 3155E17SW)



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 ±5 ±15 0±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.