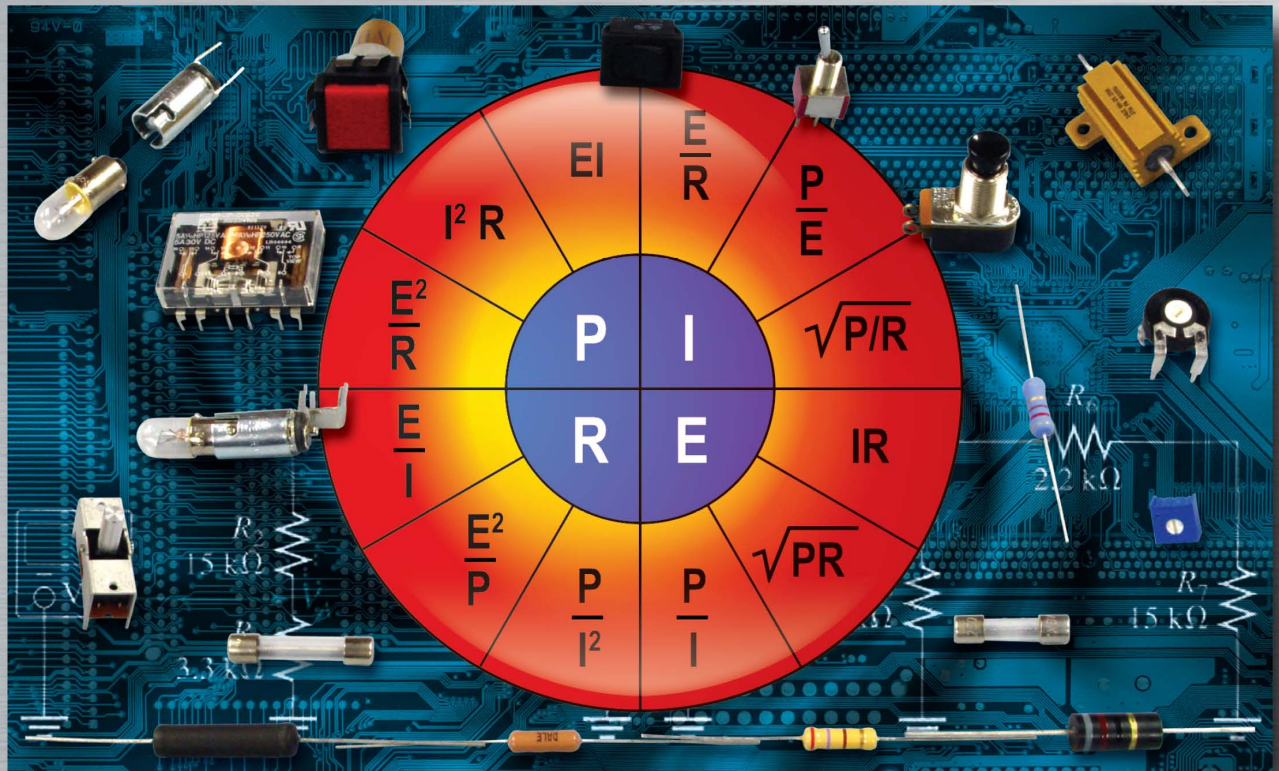


DC Circuits



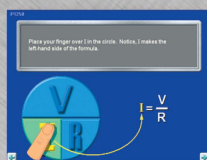
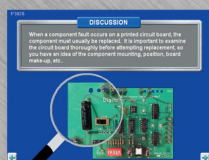
Taking the First Step Towards a Technology Career

The first step of any journey is the most important one. It provides the motivation for further steps and sets the pace for the entire trip. As students travel on the path to a technology career, they begin their journey with DC Circuits. The E & L-Nida DC Circuits courseware is designed to start each student out on the right foot. Using safe and simple DC circuits, the E & L-Nida DC Circuits courseware teaches students basic circuit concepts and principles.

Students learn, through theory and hands-on experimentation, how series, parallel, and combinational circuits react to voltage, current, and resistance changes. DC circuit values are measured with basic test equipment to ensure students acquire the skills necessary to safely work around electronic circuits. Basic wiring and soldering are introduced using DC circuits that emulate "real world" circuitry. E & L-Nida DC Circuits: the first step to a successful technology career.

E & L-Nida DC Circuits

The E & L-Nida Digital Circuits courseware is designed in a computer based format to provide students with a comprehensive, interactive courseware that logically presents digital concepts and devices. The courseware provides experiments and troubleshooting scenarios that align with the E & L-Nida Model 1404 (Series) of Digital Circuits Experiment Boards Set. The boards sets support different levels of digital experiments from basic level to University level. For determining which board set is right for your course, refer to the E & L-Nida CAI Course Chart.



Topics

Introduction to Electricity

Safety Practices, Tools, Metric Notation
Voltage, Current, & Resistors
Switches, Fuses, & Circuit Breakers
Introduction to Technical Graphics

Multimeter Measurements

Magnetism, Relays, & Meters
Introduction to Multimeters, Multimeter Use
Voltage, Current, & Resistance Measurements

Basic DC Circuits

Ohm's Law & Power
Series Circuits
Parallel Circuits
Series-Parallel Circuits
Troubleshooting Theory, Experiments, & Practice

Complex DC Circuits

Voltage Divider Circuits
Bridge Circuits
Kirchhoff's Voltage & Current Law
Norton's Theorem
Thevenin's Theorem
Meter Loading

Wiring

PCB Component Insertion & Extraction
Basic Soldering Techniques
Basic Connector Termination Techniques
Basic Wire Wrapping Techniques
Basic Wiring & Connector Troubleshooting Theory
Wire Troubleshooting

Supporting Hardware

- Model 130E Test Console
- Model 4050 Test Instrument Module
- Model TD2000 Tec Dec
- Model 1401 (Series) DC Circuits Experiment Boards Set

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E & L-Nida

Courseware Series