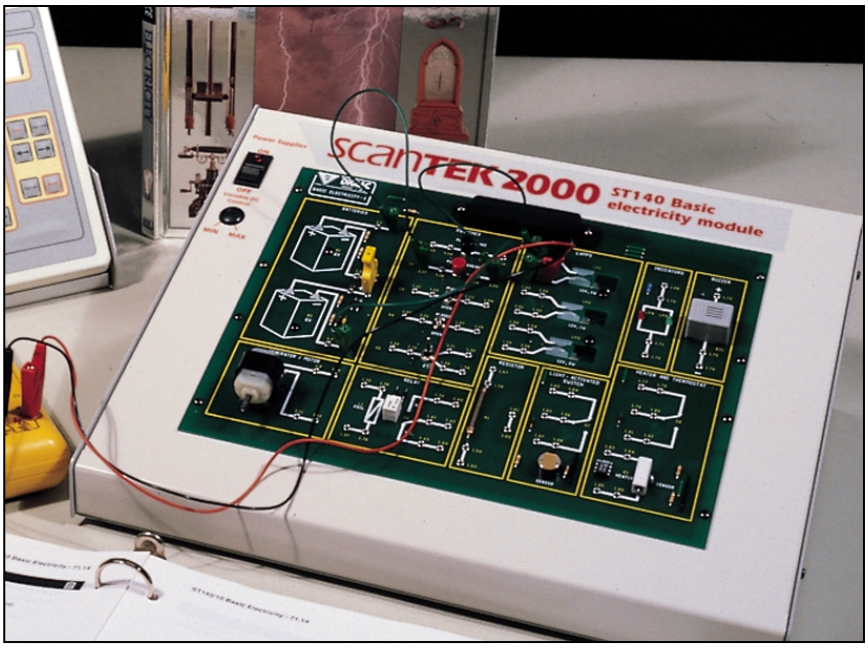
Basic Electricity (10-assignment)



This is an integrated instructional module designed specifically to operate within a Modular Program environment. It is ideal for use with our Scantek Technology program. The module includes a 10-assignment exploratory curriculum that is split into two parts. Each part includes a pre-test and post test. The module includes hardware, software and curriculum materials sufficient to provide a complete learning experience.

The curriculum incorporates continuous assessment through questions. When used in conjunction with a ClassAct networked management system, this provides instant feedback of student performance. The assessments begin with a comprehensive pre-test. This quiz includes questions for each subsequent assignment, together with questions that will specifically test math and reading ability.

Every assignment starts with a series of questions designed to track inventory. These ensure that any missing items are located before they are needed.

Each assignment is divided into a series of tasks. Hands-on tasks form the core of the student work. Where appropriate, these are accompanied by research tasks based upon illustrated textbooks and software applications. Assessment questions are incorporated into each task.

Typical 10-assignment topic areas include:

- Electricity production
- Electrical health and safety
- Circuit construction
- Current measurement in series and parallel DC circuits
- Voltage measurement in series and parallel DC circuits
- Electrical appliance disassembly
- Troubleshooting circuit problems

Typical 10-assignment activities include:

- Explore methods of industrial electricity production.
- Construct circuits on the computer using a simulation application.
- Construct an electricity generator.
- Construct series DC circuits using a Basic Electricity trainer.
- Use a multimeter to measure current in a series DC circuit.
- Use a multimeter to measure voltage in a series DC circuit.
- Construct parallel DC circuits using a Basic Electricity trainer.
- Use a multimeter to measure current in a parallel DC circuit.
- Use a multimeter to measure voltage in a parallel DC circuit.
- Demonstrate how increasing voltage increases the operating speed of a motor.
- Compare the differences between series circuits and parallel circuits.
- Fault-find a tropical fish aquarium electrical circuit.

Each assignment is designed around a list of performance objectives. These lists include academic, technical and occupational objectives. The assignments are written in such a way as to enable a student to attain the performance objectives, with the assessment questions linked to these in order to provide a measure of true competency.

The performance objectives are used by the ClassAct management system to generate a comprehensive portfolio of student competency reports. Default reports supplied with this module include:

- Entry report
- Technical/Occupational Exit report
- Basic Skills report based upon the federal SCAN's report.

The items supplied with this instructional module include:

- 10-assignment On-Screen Student Assignment Guide CD
- 10-assignment Student Assignment Guide
- 10-assignment Student Workbook
- 10-assignment Instructor's Guide
- Computer Aided Instruction software
- Basic Electricity trainer
- Basic Electricity accessory kit
- Digital multimeter
- Virtual Labs: Electricity software
- Electrical Circuit Simulator reference guide

Additional items required:

- Computer

Module Facts

For Technology Program, order as:
ST140/10 Basic Electricity

	No.	Average time
Assignments	10	45 minutes
Extension Activities	2	45 minutes
	Total	9 hours

LJ Technical Systems
Web site: www.ljgroup.com