

Electricity and Electronic Kits

Educational Training Equipment for the 21st Century

Bulletin 283J

Hardware Features

- Lockable Storage & Carrying Case
- Neat Work Areas
- Ease of Circuit Assembly
- Individually Mounted Components
- Low Voltage

Courseware Features

- Background Theory
- Easy to Follow Sequence
- Tests
- Workbooks & Instructor's Guide

Electricity

MODEL HEE-A Core Segment

The core segment, *Discovering Facts about Electricity*, consists of a self-contained power source, and the following components:

Resistors, switches, potentiometer, solar cell, diodes, lamps, motor, magnets, compass, iron filings, voltaic cell, dry cells, capacitor, coils, relay, thermocouple wire, transformer, a Velcro work surface, interconnecting leads.

A Student Workbook containing 91 experiments under 17 topic headings includes:

- Power Sources
- Electrical Power
- Series Circuits
- Magnetism
- Parallel Circuits
- Electromagnetism
- Ohm's Law
- Relays
- Kirchhoff's Laws
- Inductance
- Potentiometers and Rheostats
- Transformers
- Electron Flow
- Capacitance
- Switches and Switching Circuits
- Impedance
- Rotating Electrical Machines

Electronics

MODEL HEE-AE Supplement to HEE-A (Optional)

This supplemental segment, *Discovering Facts about Electronics* includes the following additional components:

Resistors, potentiometers, Zener diode, field-effect transistor, silicon controlled rectifier, neon glow lamp, choke.

A Student Workbook containing 23 experiments under 8 topic headings includes:

- Semiconductor Diodes
- Neon Glow Lamps
- Full-wave and Half-wave Rectifiers
- Silicon Controlled Rectifiers (SCRs)
- Filters and Voltage Doublers
- Zener Diodes
- Field Effect Transistors (FETs)
- Three Element Transistors

Model HEE-A

Dimensions: 12"H x 17¼"W x 8"D

Shipping Weight: 40 lbs.

All HEE-A Series Kits can be ordered as *Drawer Stored (HEE-A-D)* using the supplied glue-on tray support panels (two per drawer) or *Case Stored (HEE-A-C)*. Specify at time of order.



Optional Drawer Storage Available

Photo Electronics

MODEL HEE-SC: Supplement to HEE-A (Optional)

This supplemental segment, *Discovering Facts about Photo Electronic Devices* includes the following additional components:

Resistors, Zener diode, transistor, photo-conductor cell, photovoltaic cell, photodiode, relay, NiCd battery, phototransistor.

A Student Workbook containing 12 experiments under 4 topic headings includes:

- Photovoltaic Cell
- Photodiode
- Photoconductor Cell
- Phototransistor



All Hampden units are available for operation at any voltage or frequency

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Computer-Aided Learning Software

Educational Training Equipment for the 21st Century

Bulletin 283-1J

Hampden H-CAI-HEE-A Computer-Aided Electricity Program

Purpose

Revolutionize Your Classroom with Hampden's H-CAI-HEE-A Computer-Aided Instruction Software—combining the teaching potential of computer-aided instruction with the *Proven Power* of hands-on training.

Description

Hampden's H-CAI-HEE-A Instruction Software is highly recommended as a comprehensive, multi-level, instructional tool which directs students to work independently and at their own speed, while also freeing the instructor to provide specific guidance wherever needed.

In addition to the comprehensive background and tutorial segments, students will also be presented with a wide range of experimental circuits. These experiments can then be assembled and evaluated* on the workbench using the computer model as a benchmark.

The program's emphasis is on student interaction including IMMEDIATE feedback by means of chapter-by-chapter, pre-test and post-test questions. All courseware is supported with student texts, workbooks, and instructor texts.

The H-CAI-HEE-AD Instruction Software is strongly recommended for completing your *Electricity* curriculum. Included on CD media is support for Hampden's HEE-A, HEE-AE, and HEE-SC learning modules, all in one package!

*Actual components from your existing HEE-A, HEE-AE or HEE-SC hardware package plus additional testing equipment may be required.

H-CAI-HEE-A requires PC computer with Windows® XP OS/Vista/7 or later (32 bit)

Topics

Model HEE-A Topics

- Power Sources
- Electrical Power
- Series Circuits
- Magnetism
- Parallel Circuits
- Electromagnetism
- Ohm's Law
- Relays
- Kirchhoff's Laws
- Inductance
- Potentiometers and Rheostats
- Transformers
- Electron Flow
- Capacitance
- Switches and Switching Circuits
- Impedance
- Rotating Electrical Machines

Model HEE-AE Topics

- Semiconductor Diodes
- Neon Glow Lamps
- Full-wave and Half-wave Rectifiers
- Silicon Controlled Rectifiers (SCRs)
- Filters and Voltage Doublers
- Zener Diodes
- Field Effect Transistors (FETs)
- Three Element Transistors

Model HEE-SC Topics

- Photovoltaic Cell
- Photodiode
- Photoconductor Cell
- Phototransistor

Revolutionize
Your Classroom!



Software Features

- Problem Solving
- Record Keeping
- Animation
- Student Tracking Capability
- Interactive Response Units
- Pre-test Questions
- Post-test Questions
- Readily Available Formulae
- Curriculum Map
- Electronics Symbols Library

Combine the
Teaching Potential of
H-CAI Comprehensive
Learning Software with
the Proven Power of
Hands-On Training.

All Hampden units are available for operation at any voltage or frequency

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