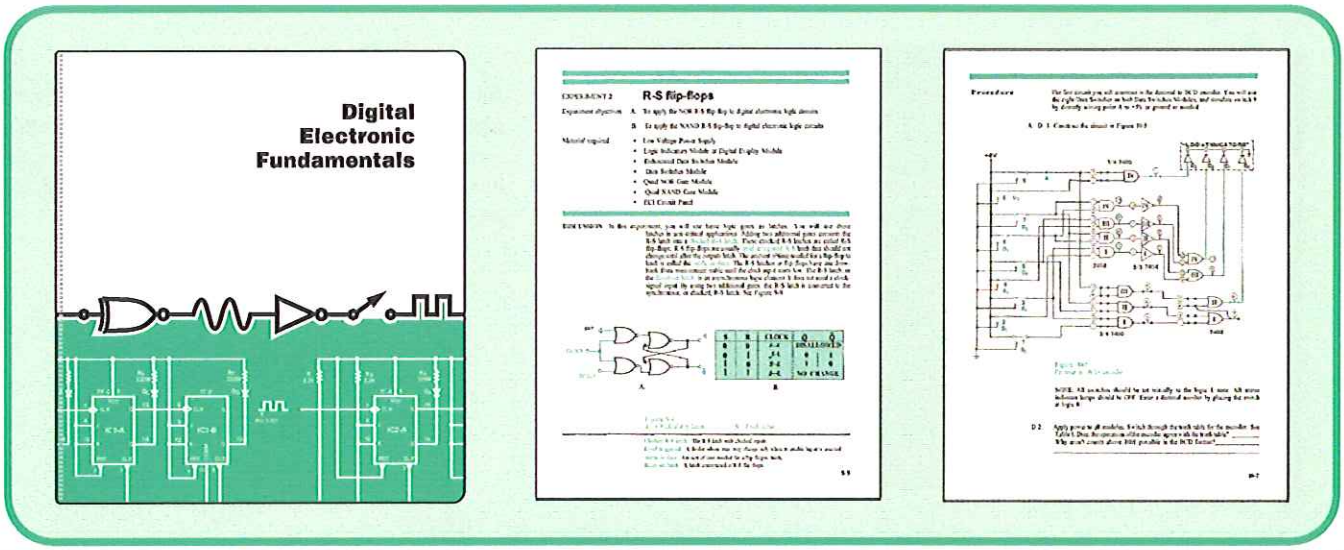
DIGITAL ELECTRONIC FUNDAMENTALS



Digital electronics and the computer field have benefited greatly by the advances in Integrated Circuit technology. We now find digital circuits in the home, automobile, industry and other applications too numerous to mention. The use of modern digital techniques is limited only by the imagination.

The Model 217SA Training System, "Digital Electronics Fundamentals" is complete with a 10-chapter, 25-experiment, 240-page laboratory manual, instructor's guide, circuit modules with storage board, hook-up wire and wire stripper package, and all materials necessary to support the course content.

THE LAB MANUAL 21701 A

The ECI lab manual is designed to help the student develop a thorough understanding of the subject matter. The text is written in easy-to-read vocabulary, minimizing reading requirements. Each chapter states an objective, discusses the concept, then provides hands-on experiments so students learn by doing. The Lab manual is illustrated with large, detailed photographs, circuit layouts, oversize schematics and diagrams. Two-color printing is used throughout for emphasis and easy comprehension.

System Familiarization
Trainer Inventory
Circuit Modules
Circuit Construction Techniques

Safety
Laboratory Safety
Shock Hazards
Equipment Protection

Introduction to Digital Logic
Digital Systems
Digital Logic

Binary Number Systems and Codes
Binary Numbers
Codes

Binary Arithmetic and Numbering Systems
Binary Arithmetic
Numbering Systems

Logic Families and Basic Gates
AND Gates
OR Gates

Combinational Gates
NOT Gates
NAND Gates
NOR Gates
Exclusive-OR and Exclusive-NOR Gates

Buffers, Inverters and Three-State Logic
Buffers and Inverters
Three-State Logic

Latches, Flip-Flops, and Basic Memories
Latches and Basic Memories
RS Flip-Flops
D-Type and T-Type Flip-Flops

Encoders and Decoders
Encoders
Decoders

Glossary

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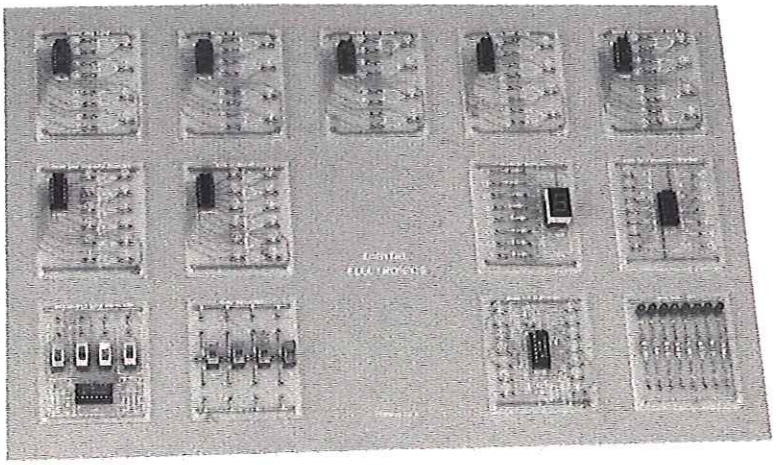
SYSTEM HARDWARE



KEYED STORAGE BOARDS

All modules for the 217-SA training system are keyed to an organized storage board. Imprinted outlines of modules permit quick inventory. Storage board is color-keyed to the system lab manual.

DIGITAL PLUG-IN COMPONENTS (21702 A)

All plug-in modules shown on the storage board above are constructed of rugged commercial grade PC boards that plug into the circuit panel. For added flexibility and convenience, ICs are socket mounted. These modules include:

- 1 Quad AND Gate
- 1 Quad OR Gate
- 1 Quad NAND Gate
- 1 Quad NOR Gate
- 1 Quad Exclusive OR Gate
- 1 Hex Schmitt Trigger (CMOS)
- 1 Hex Inverter
- 1 7-Segment Display
- 1 BCD-to-7 Segment Decoder
- 1 Debounced Data Switches
- 1 Data Switches
- 1 Dual J-K Flip-Flop
- 1 Logic Indicators
- 1 Storage Board

HOOK-UP WIRE AND WIRE STRIPPER PACKAGE (15005 A)

Complete package of one wire stripper, one 20-foot AWG solid hook-up wire, and four spring tips.

INSTRUCTOR'S GUIDE (21703 A)

A comprehensive instructor's guide and answer manual is included with the 217SA training system.

OPTIONAL ACCESSORIES

CIRCUIT PANEL

The ECI transparent Circuit Panel used with all ECI training systems is in use in thousands of educational and industrial applications for basic circuit set-up and advanced electronic design. The circuit panel is completely flexible and suitable for any general breadboarding work. The patented design eliminates soldering, jiffy clips, snap fasteners, or random layout on opaque wiring boards.

The 15200 Circuit Panel has150 phosphor bronze contact islands enclosed in clear plastic. Each isl and matches five holes through the top surface for insertion of mounted and unmounted components and standard hook-up wire. The ECI circuit panel provides 750 contacts and measures 14-11/16" L x 9-5/8" W x 1/2" T.

The 23500 Circuit Panel Easel is designed to hold the 15200 Circuit Panel at a five degree angle for ease of circuit building. A white plastic base provides maximum visibility. The base lifts out to reveal a roomy storage compartment for program materials. 16-1/2 x 11-3/4 x 3-5/16 x 1-3/16.

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