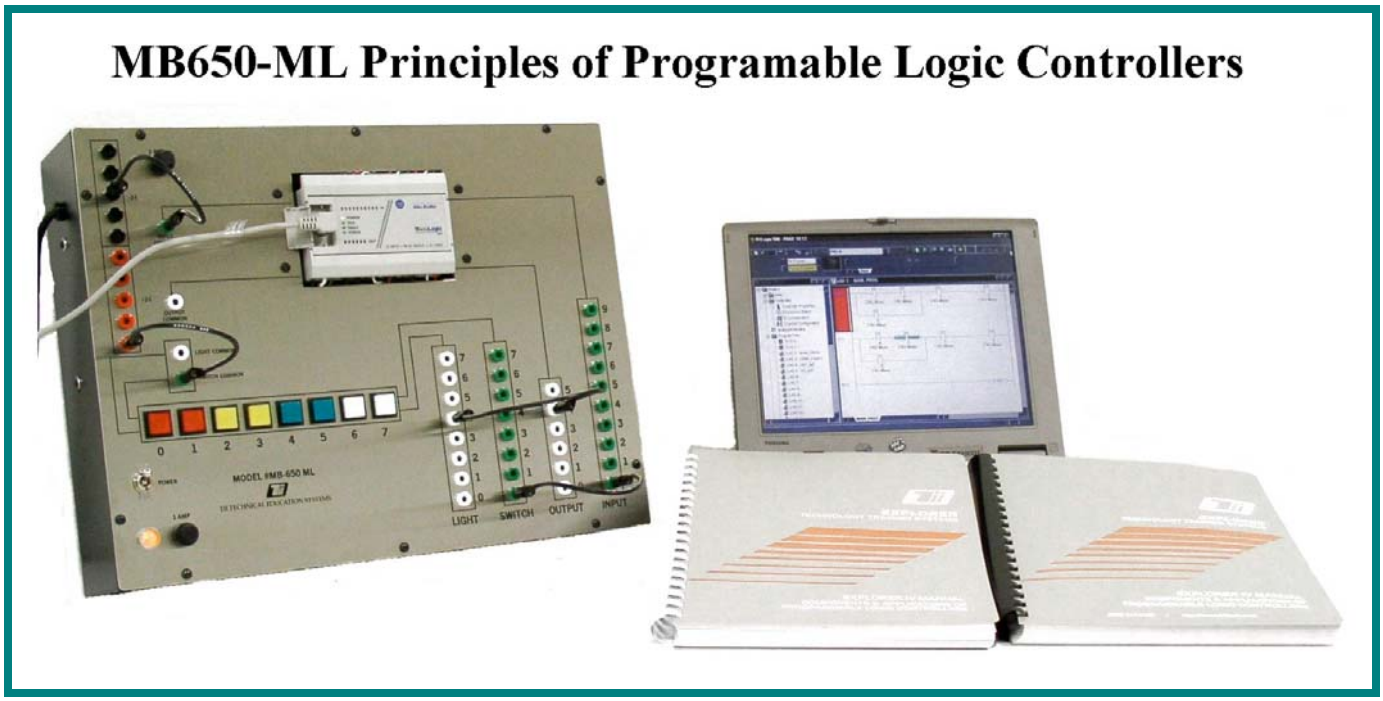
TII Technical Education Systems

Teaching Technology for Tomorrow.

Fundamentals of Technology

MB650-ML Principles of Programmable Logic Controllers



A Complete PLC Training System Featuring The Allen-Bradley MicroLogix 1000

The MB650 ML Programming Logic Controller Training System enables learners to develop competence in operating, programming and troubleshooting a true industrial programmable logic controller (PLC). It includes a student activity manual written in a skill building format and understandable language, allowing a novice to rapidly attain programming competency.

The MB650 ML curriculum begins with basic wiring concepts and quickly moves through circuits, ladder logic and programming. Additional units foucus on troubleshooting and the special features of the Allen-Bradley MicroLogix 1000.

The learning system includes RSLogix 500 programming software, interface cable, input and output devices and a wiring kit. Each unit in the curriculum includes programming and wiring experiments, which simulate proficiency in PLC operation and industrial applications.

The experiment station design permits easy access to the input/output terminal strips with simple banana jack connectors. This allows rapid set-up and testing of wiring changes, using the built in input/output devices or user-identified external devices.

The MB650 ML's rugged design and portability allow it to stand up to the most demanding training schedule. The programmable controller training system can be used stand-alone or interfaced to TII's pneumatic/hydraulic electromechanical controls, sensors, or advanced PLC application modules. Options to expand the MB650ML's capabilities include a Hand Held Terminal (HHT), industrial sensors for input/interface and robotics for more advanced applications. TII offers training systems for other PLC's including Cuttler-Hammer,Mitsubishi, Allen-Bradley and other models.

SPECIFICATIONS

The entire learning system is enclosed in a portable and lockable impact-resistant polyethylene storage case. The steel panel contains the Allen-Bradley MicroLogix 1000 (internally fused), mounted in a steel training frame. Included on the panel is the 24-volt DC power supply (grounded and fused), 8 combination lights and switches (4 momentary(2 normally open,2 normally closed) and 4 maintained switches (2 normally open,2 normally closed), and banana jacks terminal strip with protective shields for the lights/switches and for the 10 inputs/6 outputs from the MicroLogix 1000. All features of the panel have been silk-screened for easy identification. The programming interface cable attaches to the front of the PLC. The unit also includes one set of wire patch cords. The panel is designed for use on a table, bench or as part of a flexible manufacturing system.

Allen-Bradley MicroLogix 1000 Specifications

Programming Software:
- RSLinx Lite
- RSLogix 500

System Requirements:
- Intel Pentium III or greater
- 128 MB Ram
- Windows 98 or greater
- CD-ROM Drive
- 3.5 inch 1.4 MB disk drive
- 115 MB of hard disk space

Voltage:
- Line In: 115 VAC,60 HZ
- Optional 230 VAC,50 HZ
- Inputs: 24 VDC
- Outputs: 24 VDC

Inputs/Outputs:
- 10 Digital Inputs
- 6 Digital Outputs

Memory Size and type:
- 1K EPROM

Counters: 32 Counters both Up and Down
Counter Range: -32.768 to 32.767
Timers: 32
Timer Range: 0-32,767 Seconds
Case Size: 20” x 16” x 8”
Shipping Weight: 30 lbs.

CURRICULUM

The Principles of Programmable Logic Controllers curriculum was designed and reviewed by a panel of experienced community college instructors and industrial trainers. It includes 22 units of hands-on activities and instructional support. Each unit contains a series of modules with objectives that cover background study, observational and hand-on experiments and application exericises. The unit in the first section has been developed to address the basic of PLC operation. The second and third sections provide experience in programming and special features of the PLC. Courseware includes a student activity manual, an instructor’s reference guide and assessment testing.

Introduction to Programmable Logic Controllers	What is A Programmable Logic Contoller? PLC Internal Operations Introduction to the MB650 Series and Parallel Circuitrs Numbering Systems Boolean Algebra Ladder Logic Diagram
Basic PLC Functions And Their Applications	Introduction to RSLogix PLC Programming Software Inputs and Outputs Internal Relays “And” and “Or” Circuits Latching Relays
Output Control Functions And Their Applications	Timers Counters Cascading Timers Timer/Counter Programs Master Control Relay Output Sequencing Shift Registers Introduction to Special Functions

For more information, customer service, or technical assistance please call 800-451-2169

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