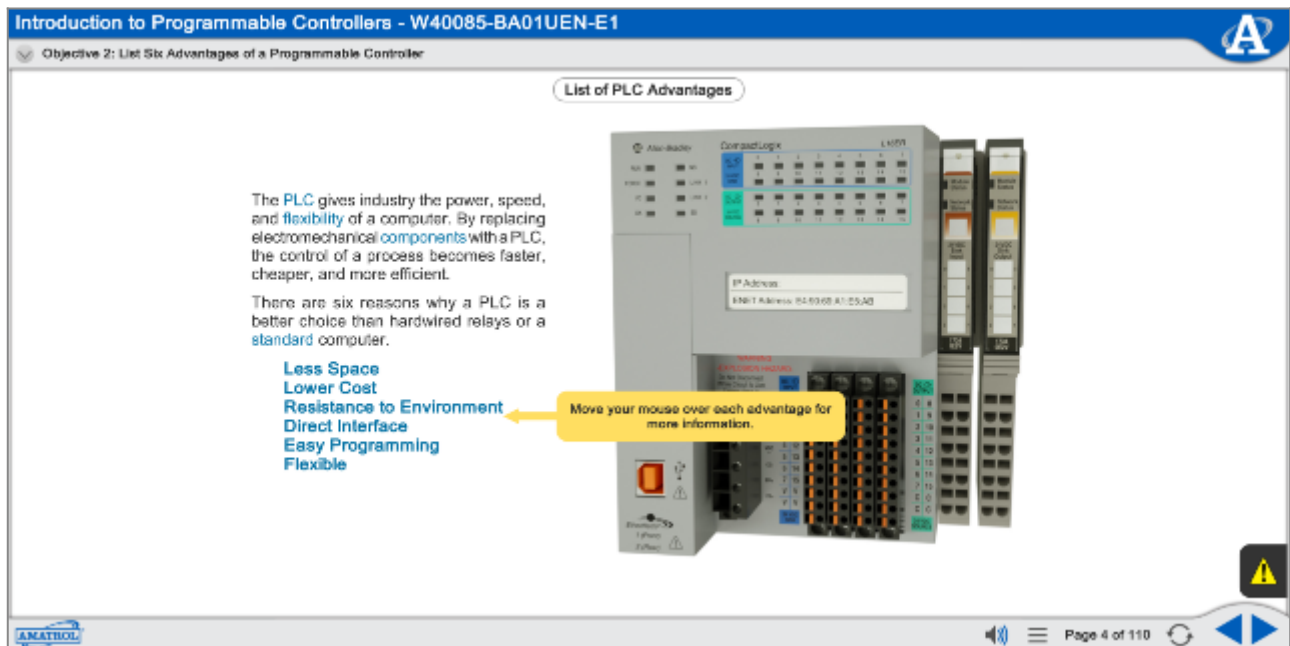


Portable PLC Troubleshooting Training | AB CompactLogix L16 eLearning Course



eLearning Courses: M40085/M40086

Amatrol's Multimedia Courseware - Programmable Controllers, AB L16 (M40085) and Multimedia Courseware - Portable PLC Troubleshooting, AB L16 (40086) eLearning courses provide a comprehensive curriculum to teach modern PLC systems as they are used in industry today. Students learn about both basic and advanced applications with focus on the powerful Allen-Bradley CompactLogix 5300 PLC. Major topic areas include application circuits and components for thermostatic temperature control, analog temperature control, reversing constant-speed motor control, variable speed motor control with feedback, and stepper motor homing and commissioning. In addition, students will develop key PLC troubleshooting skills, such as PLC input and output testing, software testing, and application troubleshooting, using [FaultPro](#), the industry's premier computer-based fault insertion system.

In-Depth PLC Programming & Troubleshooting Curriculum

Comprehensive PLC Programming and Operation Curriculum Connected to Real-World Skills

Amatrol's portable PLC troubleshooting eLearning courses cover important topics, such as:

PLC Programming

These eLearning courses have been designed to teach modern PLCs as they are used today, with the PanelView Plus terminal and networking introduced in the basic lessons and applied throughout the curriculum. Learners cover a wide variety of program commands beyond timers and contacts, such as stepper motor control, PWM control, and analog control. Featuring a wide range of analog, discrete, data, and networking commands, learners will quickly develop relevant and critical skills to be job ready in modern industry environments.

Introduction to PLC Troubleshooting

Learners begin with an introduction to PLC troubleshooting, including PLC power supply troubleshooting, and input/output testing. Individual lessons include two levels of troubleshooting, six types of PLC faults, PLC status and

diagnostic indicators, and PLC force function. Learners will also practice skills, such as using an Allen-Bradley CompactLogix L16 PLC, troubleshooting a PLC power supply and distribution system, and testing discrete input/output devices.

PLC Systems Troubleshooting

Learners will study PLC systems troubleshooting, including controller objects, processor troubleshooting, systems troubleshooting techniques, and PLC software troubleshooting tools. Individual lessons include construction and function of controller objects, function of SSV and GSV instructions, five methods of PLC troubleshooting, and operation of various computer software functions. Learners will also practice skills, such as using GSV instructions to extract object data, troubleshooting a CompactLogix processor fault, using a SixStep Sequence to troubleshoot a PLC system, and searching a project using the cross reference function.

Analog Input/Output Troubleshooting

Using Amatrol's portable PLC programming and operation eLearning course, learners will study testing analog input devices, troubleshooting analog inputs, and troubleshooting analog outputs. Individual lessons include how to test an analog input device, how to troubleshooting analog input loops, and how to test a CompactLogix analog output. Learners will also practice skills, such as testing an analog input channel, troubleshooting a PLC routine that performs on/off control using an analog input, and troubleshooting a CompactLogix analog output.

Analog Application Troubleshooting

In this module, learners will study analog application troubleshooting, including PWM application troubleshooting, variable speed drive troubleshooting, and stepper motor troubleshooting. Individual lessons include how to test a PLC-controlled PWM output device and a PLC-controlled variable speed drive, and basic operation and troubleshooting of a stepper motor. Learners will also practice skills, such as troubleshooting a PLC-controlled PWM temperature control application, troubleshooting a PLC-controlled variable speed drive, and troubleshooting a stepper motor.

Interactive eLearning with Learning Management System

Highly-Interactive Multimedia Format Appeals to All Learning Styles

Amatrol's portable PLC troubleshooting eLearning courses feature interactive eLearning curriculum that integrates various types of learning methods to create an engaging, effective learning experience. Amatrol's multimedia [eLearning](#) curriculum includes text with voiceovers, videos, 3D animations, pictures, and interactive activities, quizzes, and self-reviews.

Free Learning Management System (LMS)

Amatrol eLearning is easy-to-use for both students and instructors. Its web-based interface is simple to navigate and available on any WebGL-compatible Internet browser. Instructors love Amatrol eLearning for its simple, yet sophisticated Learning Management System (LMS). The LMS allows instructors to create custom courses, monitor student participation, track course progress, assess knowledge levels prior to a course, and test knowledge levels after completion. Learners appreciate the fact that they can start and stop as needed, moving through each Amatrol course at their own pace. If a self-review reveals that they didn't understand a particular topic as well as they thought they did, they can revisit it before moving on.

Additional Info



Requires:

- Computer (see [Computer Requirements](#))

Options:

- Portable PLC Troubleshooting Learning System - AB CompactLogix L16 (990-PAB53AF)
- **NOTE:** Learning System Available Without Troubleshooting (Equipment: 990-PAB53A; eLearning Course: M40085)
- Amatrol SkillTrace Software (94-ST1)

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