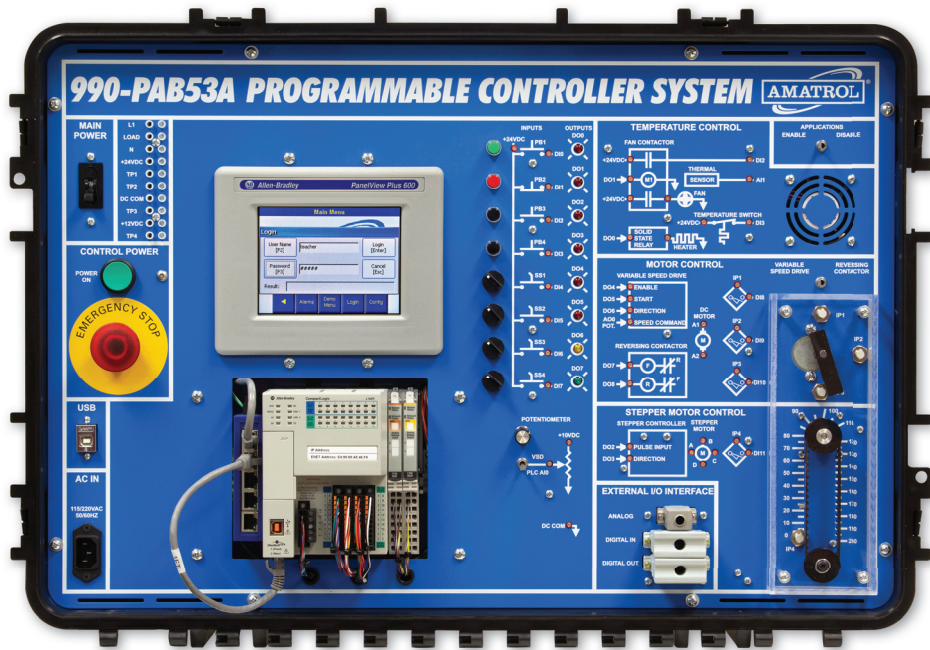
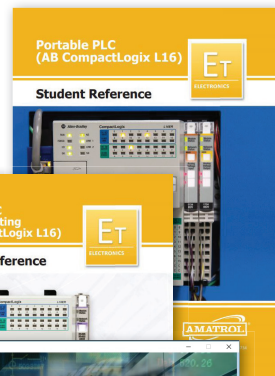


# Portable PLC Troubleshooting Learning System - CompactLogix L16

990-PAB53AF



990-PAB53AF



Interactive Multimedia, FaultPro, and Student Reference Guides

## Learning Topics:

- PLC Troubleshooting
- PLC Systems Troubleshooting
- Analog I/O Troubleshooting
- Analog Application Troubleshooting
- Programmable Controllers
- Basic PanelView Plus Terminal Operation
- PLC Program Operations
- PLC Programming
- PLC Motor Control
- PLC Timer and Counter Instructions
- Event Sequencing
- Program Control Instructions
- Math and Data Move Instructions
- PanelView Plus Application Editing
- Analog Inputs & Outputs

Amatrol's Portable PLC Troubleshooting Learning System (990-PAB53AF) teaches Programmable Logic Controller (PLC) programming, operation, and applications used throughout industry. The system also utilizes FaultPro, the industry's premier computer-based fault insertion system. FaultPro enables learners to develop key PLC troubleshooting skills, such as PLC input and output testing, software testing, and application troubleshooting.

This portable system provides hands-on experience with real-world components, including the powerful Allen-Bradley L16 CompactLogix 5300 PLC, a PanelView Plus terminal, an Ethernet Switch, an I/O Simulator, five application circuits, and a master control relay circuit. Learners will study industry-relevant applications and troubleshooting skills that will build a strong foundation for a successful career in a variety of industries.



## Technical Data

Complete technical specifications available upon request.

**Portable Case**  
**Circuit Breaker**  
**Master Control Relay Circuit**  
**Allen-Bradley L16 Compact Logix 5300 PLC**  
**PanelView Plus 600 HMI Panel**  
**Ethernet I/P Port**  
**12 & 24 VDC Power Supplies**  
**I/O Simulator**

- 1 Green Normally-Open Pushbutton
- 1 Red Normally-Closed Pushbutton
- 2 Black Normally-Open Pushbuttons
- 4 Two-Position Selector Switches
- 6 Red Indicators
- 1 Yellow Indicator
- 1 Green Indicator
- 1 Potentiometer for Analog Input Adjustment

**Thermostatic Temperature Application**

**Analog Temperature Application**

**Reversing Motor Starter Application**

**Variable Speed Motor Control Application**

**Stepper Motor Control Application**

**Cables (USB & Cat 5E)**

**FaultPro Troubleshooting Software**

**Multimedia Curricula (M40085/M40086)**

**Instructor's Guides (C40085/C40086)**

**Installation Guides (D40085/D40086/D40261)**

**Student Reference Guides (H19732/H19734/H40086)**

**Supplemental Disks (S40085/S40086)**

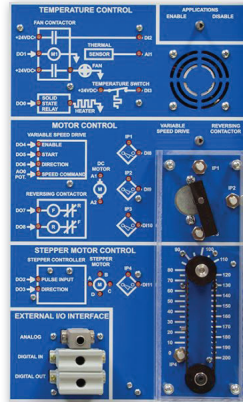
**Additional Requirements:**

- RS Logix 5000 PLC Programming Software (82-8RSMI) or RS Logix 5000 Mini PLC Programming Software (82-8RSM)
- (Optional: RS Logix 5000 PLC Programming Software for Education (82-800 or 82-800-1))
- FactoryTalk View ME Programming Software (82-711)
- Computer (Visit [www.amatrol.com/support/computer-requirements](http://www.amatrol.com/support/computer-requirements) for details.)

**Utilities Required:**  
Electricity: 100-240 VAC, 50-60 Hz, 1 phase

## Cutting-Edge PLC Troubleshooting

The 990-PAB53AF with FaultPro includes a variety of electronic faults that present realistic situations that technicians encounter on the job. This allows learners to develop important PLC troubleshooting skills, like PLC input and output testing, software testing, and application troubleshooting. Learners will practice skills, such as using a six-step sequence to troubleshoot a PLC system, troubleshooting a PLC routine that performs on/off control using an analog input, and testing a PLC-controlled PWM output device. FaultPro's computer-based faults automatically track progress, enabling learners to gain troubleshooting skills in a self-paced environment that ensures that faults are inserted safely, protecting both learners and equipment.



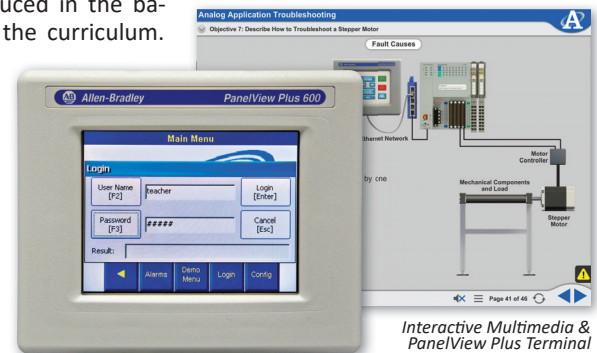
Application Circuits

## Rich Applications: Basic through Advanced

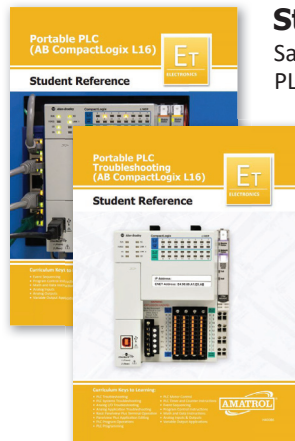
In addition to troubleshooting skills, the 990-PAB53F includes application circuits and components for thermostatic temperature control, analog temperature control, reversing constant-speed motor control, variable speed motor control with feedback, and stepper motor homing and commissioning. These circuits include basic and advanced applications starting with discrete I/O projects and extending to projects involving analog I/O. These applications enhance a learner's experience because they can actually see how a program controls real systems.

## In-Depth Curriculum with PanelView Plus Terminal and Networking

Amatrol's in-depth curriculum teaches a wide range of analog, discrete, data, and networking commands. Designed to teach modern PLCs as they are used today, the PanelView Plus terminal and networking are 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, PWN, and analog control. This curriculum is presented in a highly-interactive, multimedia format that includes stunning 3D graphics and videos, voiceovers of all text, and interactive quizzes and exercises.



Interactive Multimedia & PanelView Plus Terminal



## Student Reference Guides

Sample copies of the Portable PLC (AB CompactLogix L16) & Portable PLC Troubleshooting (AB CompactLogix L16) Student Reference Guides are also included with the system for your evaluation. Sourced from the system's curriculum, the Student Reference Guides take the entire series' technical content contained in the learning objectives and combine them into perfectly-bound books. Student Reference Guides supplement this course by providing condensed, inexpensive reference tools that learners will find invaluable once they finish their training, making them the perfect course takeaways.

