

# PLC Troubleshooting Training System | Allen-Bradley ControlLogix Programming



## Learning System: 890-AB5500

Amatrol's PLC Troubleshooting Learning System - AB ControlLogix (890-AB5500) teaches troubleshooting, programming, and applications of Allen-Bradley's ControlLogix PLC. The programmable controller is considered by many to be the most important development ever in industrial automation, because it is a prepackaged, industrially-hardened computer that can be quickly programmed to control a wide range of industrial processes and machines. The A-B ControlLogix training system adds to the Programmable Controller Troubleshooting Workstation (890-PECB) and also requires a computer and RS Logix 5000 PLC programming software.

The A-B ControlLogix training system includes an Allen-Bradley PLC with ControlLogix 5000 processor, an I/O Connector Kit, and a Fault Insertion Engineering Integration and Connector Kit. These components will be used to cover a wide variety of PLC topics, applications, and skills, such as PLC operation, communications, programming, motor control, I/O interfacing, timer and counter instructions, and systems and I/O troubleshooting. The ControlLogix 5000 is a PLC that learners will actually find in automated manufacturing facilities and other industrial settings, so the skills and knowledge that they gain from the A-B ControlLogix training system will be directly applicable to real-world environments.

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## Teach Hands-On Skills

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### **Design a PLC Program that Controls a Centrifugal Air Compressor and More!**

The A-B ControlLogix training system includes a ControlLogix 5000 PLC, thirty-two 24 VDC discrete inputs and outputs, a PLC programming cable, an I/O connector kit, and a fault insertion connector kit. This system will be used to practice real-world, hands-on skills like: designing a PLC program that uses subroutines to control a motor application with an alarm; testing a PLC discrete output module; troubleshooting PLC power supply problems;

designing a PLC program that controls a centrifugal air compressor; and more!

### **Additional Learning Systems Available to Expand Your Training**

Additional, advanced training is possible with the A-B ControlLogix training system by adding one or more of the following optional systems: Analog Application (89-AS-AB5500), ControlNet (89-CN-AB5500), EtherNet (89-EN-AB5500), and PanelView Plus (89-PVAB5500).

## **Interactive eLearning**

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### **In-Depth PLC Programming & Troubleshooting Curriculum**

Amatrol's Allen-Bradley ControlLogix PLC troubleshooting training system features 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. Specific PLC programming and troubleshooting topics covered include: PLC programming; PLC motor control; event sequencing; application development; PLC systems troubleshooting; discrete I/O interfacing; PLC timer and counter instructions; program control instructions; and math and move data instructions. Within these topics, learners will study objectives like entering and running a basic routine using Studio 5000 software; developing an interface wiring diagram to interface a PLC to a machine controller; troubleshooting a PLC-controlled electric motor system; and troubleshooting a PLC program that controls a plastic injection molding machine.

### **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**

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### **Requires:**

- Programmable Controller Troubleshooting Workstation ([890-PECB](#))
- RS Logix 5000 PLC Programming Software for Education (82-800) (or 82-800-I for all other organizations)
- Router (if using more than one 89-AB5500 on the same network)
- Computer (see [Computer Requirements](#))

### **Utilities:**

- See 890-PECB for utility requirements.

## Options:

- [PLC Analog Application Learning System \(89-AS-AB5500\)](#)
  - [PLC EtherNet Learning System for ControlLogix \(89-EN-AB5500\)](#)
  - [PanelView Plus Learning System - AB ControlLogix \(89-PVAB5500\)](#)
  - [PLC Process Control Training - AB and Siemens \(99-PCAB53A/99-PCS712/89-PC-AB5500\)](#)
  - PLC Troubleshooting Training System - Allen-Bradley ControlLogix Programming (890-AB5500)
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