

# Mechatronics Troubleshooting | Multimedia Courseware

Introduction to Mechatronics Troubleshooting - W25002-CA01UEN-E1

Objective 1: Describe Two Levels of Troubleshooting and Give an Application of Each

**Systems Level Troubleshooting**

Systems level troubleshooting is a process where the troubleshooter identifies, through observation and measurement, the failure in the PLC system.

For example, if a PLC system cannot turn on an output, the troubleshooting process might involve checking the PLC program, 24 VDC power supply, and PLC output to identify the failure.

**Manual/Automatic Input Devices**

- Pushbuttons
- Selector Switches
- Electrical Sensors
- Limit Switches

**Manual/Automatic Output Devices**

- Solenoid
- Motor Starters
- Indicators

Next

Page 4 of 61

## Multimedia Courseware - Mechatronics Troubleshooting, AB CompactLogix L16: M25002

PLC Troubleshooting -AB ControlLogix introduces Programmable Controllers by describing PLC orientation, operations, and programming languages. It covers basic PLC Programming by describing numbering systems, PLC memory organization, PLC programming software and PLC program analysis. PLC motor control, discrete input and output interfacing, PLC timer and counter instructions are also discussed to give a better application of Programmable Controllers. This course also introduces PLC troubleshooting by discussing levels of PLC troubleshooting, power supply troubleshooting, input troubleshooting and output troubleshooting.

### Learn PLC Troubleshooting

#### In-Depth, Comprehensive PLC Troubleshooting Curriculum Connected to Real-World Skills

Learners will study various aspects and components of PLC System Troubleshooting, including processor troubleshooting, systems troubleshooting techniques, program documentation. Individual lessons focus on topics like construction of a controller object, function of the SSV and GSV instructions, four types of PLC component tests, and function of project documentation. Learners will also practice skills, such as entering a controller routine that uses GSV instructions to extract controller object data, troubleshooting a processor fault, using a six-step sequence to troubleshoot a PLC system, and documenting a PLC program file.

### Multimedia

#### Highly-Interactive Multimedia Format Appeals to All Learning Styles

Amatrol's PLC Troubleshooting eLearning course curriculum features a highly-interactive multimedia format. Stunning 3D animations, videos, pictures, voiceovers of all text, and interactive quizzes and exercises bring learning to life. Amatrol's multimedia curriculum contains elements that will appeal to every learning style, keeping learners motivated and engaged.

Click on the image below to view Amatrol's eLearning demo:

### **Anytime, Anywhere Access Promotes Self-Paced Learning**

In today's fast-paced, technology-driven world, it's more important than ever to extend the reach of industrial skill training beyond the borders of traditional classrooms. Amatrol's eLearning meets the challenge for flexibility by offering in-depth, comprehensive technical skills training via an intuitive, easy-to-use web-based Learning Management System (LMS).

With anytime, anywhere online access, Amatrol's eLearning allows learners to set their own pace at home, on the job, in a traditional class setting, or a blended approach of these options. Click here to learn more about [Amatrol's eLearning and LMS](#).

---

#### **Address**

**Amatrol  
2400 Centennial Blvd  
Jeffersonville, IN 47130**

#### **Contacts**

**email: [contact@amatrol.com](mailto:contact@amatrol.com)  
phone: (800) 264 8285**