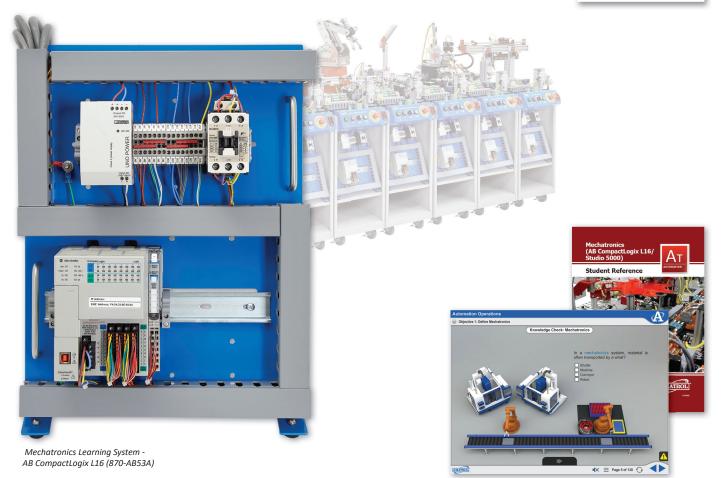
# Mechatronics Learning System - AB CompactLogix L16

870-AB53A





Interactive Multimedia Curriculum and Student Reference Guide

# **Learning Topics:**

- Automation Operations
- Basic Component Adjustments
- Pick and Place Feeding
- Gauging
- Indexing
- Sorting and Queueing
- Servo Robotic Assembly
- Torqueing
- Parts Storage
- Electro-Hydraulic Testing
- Multiple Station Control

Amatrol's Mechatronics Learning System – AB CompactLogix L16 (870-AB53A) provides an Allen-Bradley programmable logic controller (PLC) that learners will use in conjunction with Amatrol's Mechatronics system to program, operate, and adjust components and applications on an automated production line. PLCs are a vital part of modern industry and are used in innumerable applications across the automotive, manufacturing, packaging, and pharmaceutical industries, just to name a few. Each of Amatrol's Mechatronics carts requires one 870-AB53A, so you can buy one cart to train on a specific skill, such as indexing, pick-and-place, or gauging, or buy the entire Mechatronics system to recreate a fully functional automated line in your classroom or training center!

This PLC training system includes and L16 Allen-Bradley AB5300 PLC with a PLC mounting console, a 24 VDC power supply, a master control relay, interactive multimedia curriculum, an install guide, and a student reference guide. This learning system covers major topic areas such as mechatronics safety, electrical sensors, actuator adjustment, stepper motor programming, torque adjustment, discrete I/O handshaking, system startup/halt, and much more! Amatrol's Mechatronics and PLC training is second-to-none. Featuring real-world industrial components and PLCs, these learning systems will help learners gain hands-on skills and knowledge that can be applied to real, on-the-job tasks.

#### **Technical Data**

Complete technical specifications available upon request.

L16 Allen-Bradley AB5300 Programmable Controller: DualPort Ethernet DLR and USB port, 384KB User Memory PLC Portable Mounting Console 24 VDC Power Supply Master Control Relay Interactive Multimedia Curriculum (M25000) Instructor's Guide (D25000) Instructor's Guide (D25000) Student Reference Guides (H25044 and H25043) Additional Requirements: One 87-MS Station (stations 1-7 or 9) Mechatronic Hand Tool Package (41222) 90-START-4 82-8RSM RS Logix 5000 Mini for education,

82-8RSM RS Logix 5000 Mini for education, or 82-8RSMI for all other organizations, for each station

Computer, see requirements: http://www.amatrol. com/support/computer-requirements

#### An Industrial-Grade PLC for the Most Effective Skill-Building Possible

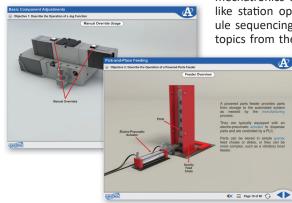
The PLC training system's major component is the L16 Allen-Bradley AB5300 PLC with a DualPort Ethernet DLR and USB port and 384KB of user memory. Learners will use the PLC with Amatrol's Mechatronics carts, a computer, and RSLogix 5000 PLC programming software to build the

most real-world applicable skills possible! The 870-AB53A allows learners to design a variety of PLC programs including: manual/ auto/reset functions; discrete I/O handshaking for multiple station quantity production; and sequencing various mechatronics station applications like part transfer modules, part insertion modules, and a non-servo electric traverse axis.



## **Comprehensive Mechatronics Interactive Multimedia Curriculum that's Second-to-None**

Amatrol's Mechatronics course curriculum offering is an impressive presentation of comprehensive theoretical knowledge. This curriculum begins with an introduction to mechatronics and



mechatronics safety and quickly builds on concepts like station operation, component adjustment, module sequencing, and station sequencing. Examples of topics from the curriculum include: manually overrid-

> ing an electro-pneumatic valves; sequencing the operation of a 2-axis pick and place manipulator; adjusting a fiber optic sensor; sequencing the operation of a parts queueing module; operating a gravity feeder with escapement; adjusting motor starter overloads; and much more!

#### Amatrol's Mechatronics Also Allows for Training on Siemens PLCs

The 870-AB53A can be used with any or all of Amatrol's Mechatronics carts, which include Pick and Place Feeding (87-MS1), Gauging (87-MS2), Orientation Processing (87-MS3), Sorting/Buffering (87-MS4), Servo Robotic Assembly (87-MS5-P2), Torque Assembly (87-MS6), Inventory Storage (87-MS7), and Electro-Hydraulic (87-MS9).

Additionally, Amatrol offers Mechatronics PLC training with Siemens PLCs (870-PS7 Series) from Siemens S7-300 line. While an Amatrol Mechatronics line can feature just Allen-Bradley or Siemens PLCs, this automated line also allows for a mix of both so learners can train on industry's two most widely-utilized PLCs simultaneously.

### **Student Reference Guide**

Sample copies of the Mechatronics (AB CompactLogix L16 / Studio 5000) Student Reference Guides are also included with the system for your evaluation. Sourced from the system's curriculum, these Student Reference Guides takes the entire series' technical content contained in the learning objectives and combines them into perfectly-bound books. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training making it the perfect mechatronics course takeaway.



