

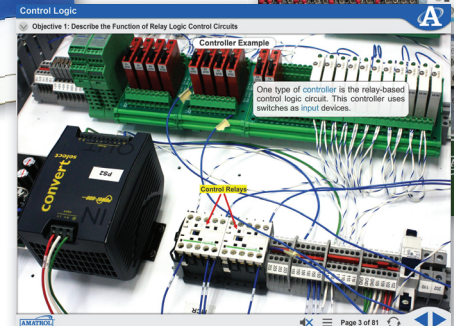
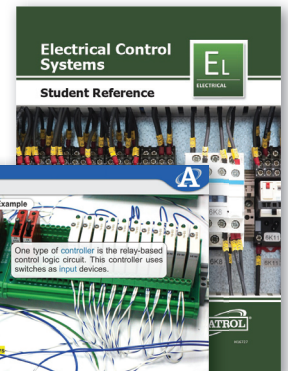
Electrical Relay Control Learning System

90-EC1A



90-EC1A

Student Reference Guide



Interactive Multimedia Curriculum

Learning Topics:

- Control Logic
- Logic Elements
- Ladder Diagrams
- Electro-Pneumatic Solenoid Valves
- Sequencing Control
- Relay Operation & Applications
- Limit Switch Operation & Applications
- Timers and Advanced Systems
- Time-Delay Relays
- Time-Delay Relay Application
- Multiple Cylinder Control
- Machine Modes of Operation

The Electrical Relay Control Learning System (90-EC1A) teaches learners how to interpret, design, and operate relay control circuits using ladder diagrams. Electrical control is vital in the operation of electric and fluid power actuators and also forms the fundamental building block of automation systems like programmable logic controllers (PLCs), which are programmed using the electrical control schematic method, the ladder diagram.

The Electrical Relay Control Learning System includes a tabletop console with pre-mounted electrical control, pneumatic, and electric power components. Each component's electrical terminals are connected to heavy-duty banana jacks, enabling learners to quickly connect and operate a variety of automation control circuits. This learning system also features world-class curriculum covering major topic areas like control logic, ladder diagrams, sequencing control, timers, and advanced systems.



Technical Data

Complete technical specifications available upon request.

Pneumatic Cylinders

Limit Switches

DPDT Relays

Pushbuttons

Selector Switch

Banana Jacks

Electric Motor

Lead Set

Interactive Multimedia Curriculum (M16727)

Instructor's Guide (C16727)

Installation Guide (D16727)

Student Reference Guide (H16727)

Additional Recommendations:

Mobile Technology Workstation (82-610)

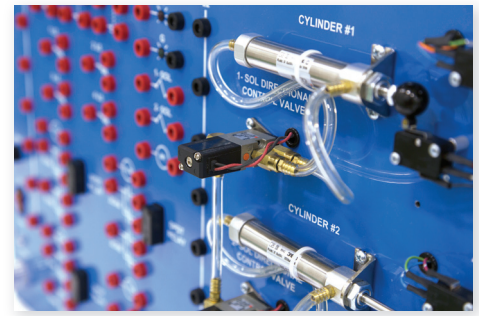
Utilities:

Electricity (120 VAC/60 Hz/1 phase)

Compressed Air

Use Real World Components for Hands-On Skills

The 90-EC1A features numerous real-world components including DPDT relays, double-acting cylinders, limit switches, pushbuttons, accelerator switches, and solenoid operator valves. Learners use these components mounted on a tabletop, 18 gauge steel workstation to practice hands-on skills such as connecting and operating logic control circuits to energize fluid-power actuators and an electric motor. A timer relay and limit switches are used to provide sequencing control.



Real World Cylinders and DCVs

World-Class Speed Control Curriculum

The 90-EC1A features curriculum with a stunning breadth and depth of topics. Major topic areas include logic elements, ladder diagrams, electro-pneumatic solenoid valves, relay operational and applications, limit switch operation and applications, time-delay relays and applications, multiple cylinder control, and machine modes of operation. The Electric Relay Control curriculum is presented in an interactive multimedia format that utilizes text with voiceovers, pictures, videos, stunning 3D animations, and interactive quizzes and reviews that engage learners in theoretical knowledge and concepts. This thorough, detailed curriculum begins with the basics and advances to complex concepts. Through partnerships with key industry leaders and leading educators, Amatrol developed the right balance of knowledge to train learners to work in their chosen field.



Interactive Multimedia Curriculum

Student Reference Guide

A sample copy of the Electrical Control Systems Student Reference Guide is also included with the system for your evaluation. Sourced from the system's multimedia curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfect-bound book. 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 course takeaway.

