

# Electrical Motor Control Virtual Trainer | eLearning Course

Systems Troubleshooting - V17401-CL07JEN-E2

Objective 8: Describe Five Types of In-Circuit Component Tests

Description of In-Circuit Component Testing

In addition to knowing proper troubleshooting methods, a troubleshooter needs to know how to actually test the circuit components during this troubleshooting process.

AMATROK

Page 36 of 72

## eLearning Course: N17401

Amatrol's Virtual Trainer Courseware - Electrical Motor Control (N17401) teaches the operation and installation of and applications for electric relay control of AC motors. This virtual trainer allows learners to develop skills and knowledge needed to apply the use of motor control in modern industry. It takes learners through key topics and skills in measurement, including how to read and interpret ladder diagrams.

In addition, the electrical motor control virtual trainer covers manual motor control, control ladder logic, motor starters, and automatic input devices. This system allows learners to study the function, operation, and types of control relays, and then practice hands-on skills like converting between U.S. customary units and SI metric units, measuring the outside dimension of a part using a micrometer, calibrating a dial caliper, mastering a dial indicator, collecting and displaying data using data acquisition software, creating and analyzing a histogram, creating and analyzing a control chart, and geometric dimensioning and tolerancing.

---

## In-Depth Electric Motor Control Curriculum

### Comprehensive Electrical Motor Control Curriculum

Amatrol's Virtual Trainer Courseware - Electrical Motor Control (N17401) teaches a wide variety of electrical motor control topics, including: manual motor control and overload protection; control transformers; control ladder logic; control relays and motor starters; reversing motor control; automatic input devices; basic timer control; and systems troubleshooting. Within these topics, learners will study objectives like starting and stopping a motor using a manual starter; connecting and operating a basic electrical control circuit that uses a pushbutton switch; troubleshooting a 3-wire control system; and designing a motor reversing circuit that uses a drum switch and a magnetic motor starter.

### Superb Troubleshooting Skills

The electrical motor control virtual trainer also allows allows learners to practice real-world troubleshooting. Troubleshooting skills include testing an indicator lamp, manual switch, control relay, motor contactor, overload relay, and many more!

---

## Interactive eLearning with Learning Management System

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

Amatrol's electrical motor control eLearning course 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.

## 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.

## Virtual Simulator

---

### This eLearning course includes a virtual simulator!

Amatrol's electrical motor control eLearning course also features a [virtual simulator](#) that allows learners to practice hands-on skills even when they don't have access to a physical trainer. Virtual simulators replicate hands-on equipment in such great detail that learners will feel like they are using actual equipment. Learners perform essentially the same industry-based tasks using the virtual equipment that they would perform using equipment hardware. Virtual simulators offer instructors and learners great flexibility when learning remotely or when a physical trainer must be shared by multiple learners.

## Additional Info

---



### Requires:

- Computer (see [Computer Requirements](#))

### Options:

- Electric Motor Control Learning System ([85-MT5](#))

---

### Address

Amatrol  
2400 Centennial Blvd  
Jeffersonville, IN 47130

### Contacts

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