

# PLC Programming & Event Sequencing | eLearning Course

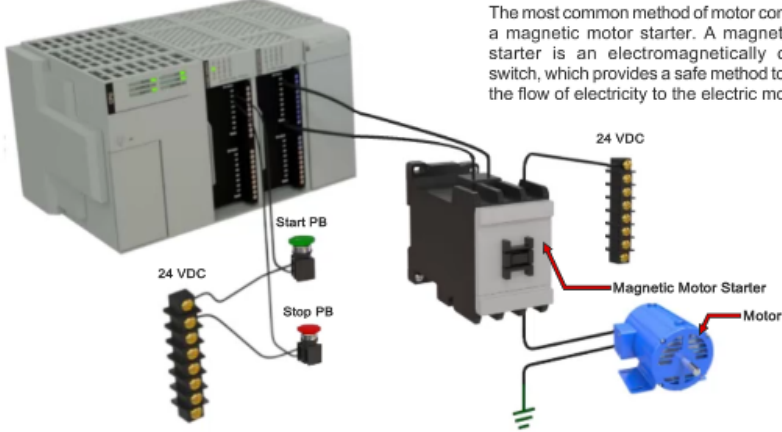
**PLC Motor Control - WB763-EB03UEN-E1**

Objective 1: Describe the Operation of a PLC-Controlled Constant Speed Electric Motor

### PLC Start/Stop Control

The start/stop control of a constant speed electric motor is one of the most common PLC applications. In this application, a single digital output from the PLC is used to turn the motor on and off.

The most common method of motor control uses a magnetic motor starter. A magnetic motor starter is an electromagnetically operated switch, which provides a safe method to channel the flow of electricity to the electric motor.



The diagram illustrates a PLC Start/Stop control circuit. On the left, a PLC rack is shown with a terminal block. A 24 VDC power source is connected to the terminal block. Two push buttons, labeled 'Start PB' (green) and 'Stop PB' (red), are connected to the PLC. The PLC's digital output is connected to a magnetic motor starter. The magnetic motor starter is connected to a 24 VDC power source and a motor. The motor is connected to a terminal block. The diagram also shows a warning symbol in the bottom right corner.

AMATROL Page 2 of 46

## eLearning Course: MB763

Programmable logic controllers (PLCs) are used by many industries to control machines, such as assembly machines, automatic transfer lines, packaging lines, robots, machining processes, and material flow. Amatrol's Computer Control 1 eLearning course (MB763) teaches users the basic elements of PLCs, including programming software, addressing, and sequencing.

### Teach Basic PLC Programming

#### Learn PLC Skills and Practice with Real-World Examples

Amatrol's Computer Control 1 PLC eLearning course (MB763) teaches learners PLC operation, programming, and event sequencing using real-world examples. Labeled examples of Rockwell's Connected Component Workbench (CCW) and step-by-step instructions guide users through several actions, such as creating, downloading, editing, and monitoring a PLC program.

### Programming Languages and Diagrams

The IEC describes five programming languages: ladder logic, sequential function chart, structured text, function block diagram, and instruction list. These programming languages, along with input/output diagrams and device logic, are taught within the course.

### Interactive eLearning

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

Amatrol's Computer Control 1 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.

### **Additional Info**

---



#### **Requires:**

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

#### **Options:**

- [Computer Control 1 Learning System \(96-CT1\)](#)

---

#### **Address**

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

#### **Contacts**

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