

# Portable Power and Control Electronics | eLearning Course

**Solid State Speed and Power Control - W11128-AA10UEN-E1**

Objective 7: Describe the Operation of a Triac Relay Circuit

**Triac Relay Circuit Timing Diagram**

This graphic shows a timing diagram for the circuit. AC power is supplied to the load only after switch SW1 is turned on to supply the DC control signal to the photocoupler.

AC current continues to flow through the load while the DC control signal is on.

AMATROL Page 50 of 113

## eLearning Course: M11128

Amatrol's Portable Power and Control Electronics eLearning course (M11128) teaches learners how to operate, adjust, and troubleshoot electronic components, circuits, and systems used in machine applications. This course allows users to explore the fundamental concepts of industrial power and control electronics, such as measuring temperature, speed, analog signals, linear power supplies, solid state relays, discrete and thermal sensing devices, solid state switching, and more!

## Teach Control Electronics

### Electronics Components and Devices

This course covers a wide variety of electronics components and devices, including oscilloscopes, AC and DC power supplies,  $\Delta V$  potentiometer, thermocouples, resistive temperature detectors, thermistors, electronic sensors, solid state relays, transistor and operational amplifiers, field effect transistors, silicon-controlled rectifiers, triacs, and phase control circuits.

## Interactive eLearning

### Study the Modern Applications of Solid State Electronics with In-Depth Curriculum

This course's [in-depth multimedia curriculum](#) teaches the concepts of solid state electronics as they apply to modern applications, such as switching power supplies, analog and discrete sensing, solid state relays, transistors, PWM control, and variable speed motor control. Specifically, learners will study topics like the operation of a full-wave rectifier, the installation of a photoelectric sensor, and testing a triac relay circuit. The curriculum is presented in a highly-interactive, multimedia format that includes stunning 3D graphics and videos, voiceovers of all text, and interactive quizzes and exercises.

## Additional Info

### Requires:

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

**Options:**

- Portable Power and Control Electronics Learning System (990-ELE1)
- 

**Address**

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

**Contacts**

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