

# DC Drive with SCR Speed Control Training | eLearning Course

**SCR Motor Control - W17412-CJ20JEN-E1**

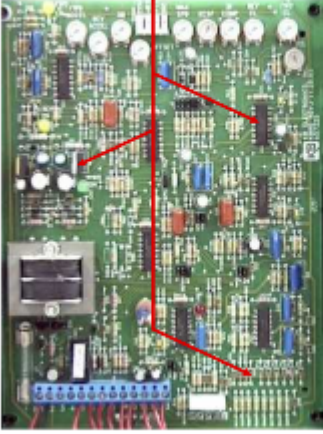
Objective 7: Describe How to Troubleshoot an SCR Speed Control Circuit

**SCR Troubleshooting Considerations**

Users typically select **SCR controllers** because of their simplicity and **reliability**. However, just like any other **electrical device**, SCR controllers do sometimes fail. SCR controllers contain **solid state components** that outside forces such as the **line voltage**, the motor, or the speed control reference used will affect (e.g. speed control potentiometer).

You must consider all of these outside forces when you troubleshoot an SCR control circuit. If you find that you have a faulty SCR controller, you need to determine if something outside the controller caused the fault. Otherwise, you will replace or repair the controller, only to damage it again.

**Solid-State Device**



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## eLearning Course: M17412

Amatrol's Multimedia Courseware - DC Drive with SCR Speed Control (M17412) teaches speed control of DC electric motors using Silicon Controlled Rectifier (SCR)-based circuits. SCRs provide efficient variable speed control of DC motors and are widely used in industrial applications. Learners develop knowledge in the operation, installation, performance analysis, and troubleshooting using SCRs for various applications. The DC electric motor speed control eLearning curriculum also focuses on full- and half-wave rectification.

## In-Depth DC Drive with SCR Speed Control Curriculum

### **Comprehensive DC Drive Speed Control Curriculum Connected to Real-World Skills**

Amatrol's DC Drive with Speed Control eLearning course covers important topics, such as:

#### **SCR Motor Control**

Learners begin with an introduction to SCR motor control, including SCR half-wave speed control and performance; SCR full-wave speed control and performance; and SCR controller troubleshooting. Individual lessons focus on topics like operation of an SCR half-wave speed control, performance characteristics of SCR half-wave speed control, operation of SCR full-wave speed control, performance characteristics of SCR full-wave speed control, and SCR speed control circuit troubleshooting. Learners will also practice skills, such as connecting and operating a motor with SCR half-wave control; measuring the performance of SCR half-wave speed control; connecting and operating a motor with SCR full-wave speed control; measuring the performance of SCR full-wave speed control; and troubleshooting an SCR speed control circuit.

## Interactive eLearning with Learning Management System

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

Amatrol's DC drive with SCR speed 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.

### **Additional Info**

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#### **Requires:**

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

#### **Options:**

- DC Drive with SCR Speed Control Learning System ([85-MT5F](#))

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#### **Address**

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