



AUTOMOTIVE STARTING AND CHARGING

Course Length

1.5 to 3.0 hours

Course Description

In this course, learners are introduced to the automotive starting system, the charging system, and the testing procedures for both these systems. Users also learn about basic wire repair techniques.

Course Topics

Starting Systems

- ◆ Basics of the starting system
- ◆ Components of the starting system
- ◆ Functions of the starting system's components
- ◆ Starting system test procedures using Midtronics Micro 500s and load testers

Charging Systems

- ◆ Basics of automotive charging systems
- ◆ Components of the charging system
- ◆ Function of the charging system's components
- ◆ Charging system test procedures using Midtronics Micro 500s and load testers

Wire Repair

- ◆ Solder procedures
- ◆ Splicing procedures
- ◆ Connector repairs

Course Objectives

In this course, users will learn to:

- ◆ Explain the function of the starting system
- ◆ Identify key components of the starting system
- ◆ Categorize the components of the starting system into two circuits
- ◆ Test the condition of the battery and starting system using Midtronics Micro 500 testers and load testers
- ◆ Describe how to solder a connection
- ◆ Describe how to splice copper wires using splice clips and splice sleeves
- ◆ Explain how to perform a connector repair



Course Features

- ◆ Global navigation
- ◆ Practice pages with multiple choice, drag 'n drop, true/false
- ◆ Interactive and animated content pages
- ◆ Glossary and resource links
- ◆ Slide shows
- ◆ Final Assessment

STARTING AND CHARGING

The image displays three overlapping screenshots from the 'Automotive Starting and Charging' courseware. The top-left screenshot shows a 'Glossary' window with a list of terms including 'Generator', 'Glow Plug', and 'Glow Plug Resistance-Balance Test'. The top-right screenshot shows the 'Generators - Overview' page, which includes text explaining that a generator converts mechanical energy into alternating current, a diagram of a generator with a coil and magnets, and an 'Alternating Current Graph' showing a sine wave. The bottom screenshot shows the 'Starter Motor Circuit | Starter Motor - Practice' page, which features a diagram of a starter motor and a list of component names: Drive Spring, Overrunning Clutch, Drive End Housing, Armature, Field Windings, and Commutator End Bushing. The practice page includes a 'Click Check to see the correct answers.' button and 'CHECK', 'RE-LEARN', and 'RESET' buttons.

A selection of pages from CTI's Automotive Starting and Charging courseware, featuring global navigation, instructional graphics, and glossary of terms