Automotive Technology 6th Edition
Chapter 54 – Charging System
Lesson Plan

CHAPTER SUMMARY:

1. Principles of alternator operation and alternator construction
2. Alternator overrunning pulleys and alternator components and operation
3. How an alternator works, alternator output factors, and alternator voltage regulation
4. Alternator cooling and computer-controlled alternators

OBJECTIVES:

1. Explain why an alternator generates an AC and changes it to DC.
2. Describe an alternator's construction, including overrunning pulleys.
3. Describe the components and operation of an alternator.
4. Discuss how an alternator works.
5. List the factors determining an alternator's output voltage and current.
6. Explain how the voltage and heat produced by an alternator are regulated.
7. Discuss computer-controlled alternators. This chapter will help prepare for the ASE Electrical/Electronic Systems (A6) certification test content area "C" (Starting System Diagnosis and Repair).

RESOURCES: (All resources may be found at http://www.jameshalderman.com) Internet access required to hyperlink.

1. Task Sheet ASE (A6-A-1) P-1: Alternator Identification
2. Chapter PowerPoint
3. Chapter Crossword Puzzle and Word Search
4. Videos: (A6) Electrical/Electronic Systems Videos
5. Animations: (A6) Electrical/Electronic Systems Animations

ACTIVITIES:

1. Task Sheet ASE (A6-A-1) P-1: Have students complete Alternator Identification Task Sheet.

ASSIGNMENTS:

1. Chapter crossword and word search puzzles.
2. Complete end of chapter 10 question quiz.

CLASS DISCUSSION:

1. Review and group discussion chapter Frequently Asked Questions and Tech Tips sections.
2. Review and group discussion of the five (5) chapter Review Questions.

NOTES AND EVALUATION:
