Automotive Electricity and Electronics
Chapter 22 – Charging System
Lesson Plan

CHAPTER SUMMARY:

1. Principles of Alternator Operation, Alternator Construction, and Alternator Overrunning Pulleys
2. Alternator Components and Operation, How an Alternator Works, and Alternator Output Factors
3. Alternator Voltage Regulation, Alternator Cooling, and Computer-Controlled Charging Systems

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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.

RESOURCES: (All resources may be found at jameshalderman.com)

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

ACTIVITIES:

1. Task Sheet: Alternator Identification

ASSIGNMENTS:

1. Chapter crossword and word search puzzles from the website.
2. Complete end of chapter quiz from the textbook.
3. Complete multiple choice and short answer quizzes downloaded from the website.

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:
