

Automotive Engines Theory and Servicing 10th Edition

Chapter 17 – Ignition System Operation and Diagnosis

Lesson Plan



CHAPTER SUMMARY:

1. Ignition System, Ignition Switching and Triggering, and Distributor Ignition (DI)
 2. Waste-Spark Ignition Systems, Coil-On-Plug Ignition, Knock Sensors, and Ignition System Diagnosis
 3. Spark Plug Wire Inspection, Spark Plugs, Ignition Wires, and Ignition Symptom Guide
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OBJECTIVES:

1. Describe the purpose and function of the ignition system.
 2. Discuss ignition switching and triggering.
 3. Explain the purpose and function of distributor ignition systems.
 4. Discuss waste-spark ignition systems and coil-on-plug ignition systems.
 5. Discuss the purpose and function of knock sensors.
 6. Explain ignition system diagnosis.
 7. Explain spark plug construction, service, and how to conduct a spark plug wire inspection.
 8. Explain ignition timing, and discuss the symptoms of a faulty ignition system.
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RESOURCES: ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Ignition System Information
 2. Task Sheet: Ignition System Identification
 3. Chapter PowerPoint
 4. [Crossword Puzzle and Word Search \(A6\)](#)
 5. [Videos: \(A6\) Electrical/Electronic Systems](#)
 6. [Animations: \(A6\) Electrical/Electronic Systems](#)
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ACTIVITIES:

1. Task Sheet: Ignition System Information
 2. Task Sheet: Ignition System Identification
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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.
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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](#).
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NOTES AND EVALUATION:
