

Automotive Technology 6th Edition

Chapter 47 – Magnetism and Electromagnetism

Lesson Plan



CHAPTER SUMMARY:

1. Fundamentals of magnetism
 2. Electromagnetism and uses of electromagnetism
 3. Electromagnetic induction and ignition coils
 4. Electromagnetic interference
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OBJECTIVES:

1. Define magnetism and explain the concepts of magnetic induction, permeability, and reluctance.
 2. Explain how an electromagnet works.
 3. Explain how electromagnetism is used in relays and solenoids.
 4. Explain how magnetism and voltage are related.
 5. Describe how an ignition coil works. describe ways to reduce electromagnetic interference.
 6. This chapter will help you prepare for the ASE Electrical/Electronic systems (A6) certification test content area "A" (General Electrical/ Electronic system Diagnosis).
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RESOURCES: (All resources may be found at <http://www.jameshalderman.com>)

1. **Task Sheet ASE (A6-A-10) P-1:** Inspect and Test the Relays
 2. Chapter PowerPoint
 3. Chapter Crossword Puzzle and Word Search
 4. Animations: Magnetic Induction, Magnets, and Electron Travel - Magnet
 5. Videos: Introduction to Magnetism (time 10:43) and Electromagnetism (time 57:47)
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ACTIVITIES:

1. **Task Sheet ASE (A6-A-10) P-1:** Have students complete Inspect and Test the Relays Task Sheet.
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ASSIGNMENTS:

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