

Automotive Heating and Air Conditioning 9th Edition

Chapter 5 – Refrigerants and Refrigerant Oils

Lesson Plan



CHAPTER SUMMARY:

1. Refrigerants, Legislation, Environmental Issues, and HFO-1234yf
 2. Carbon Dioxide as a Refrigerant, Alternative Refrigerants, and Non-Condensable Gas
 3. Refrigerant Oils
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OBJECTIVES:

1. Prepare for ASE Heating and Air Conditioning (A7) certification test content area “B” (Refrigeration System Component Diagnosis and Repair).
 2. Discuss the depletion of the ozone layer and the resulting issues of global warming.
 3. Explain the impact of legislative laws on automotive A/C systems.
 4. Discuss identifying refrigerants and proper storage container.
 5. Explain refrigerant safety precautions.
 6. Discuss the different types and viscosities of refrigerant oils.
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RESOURCES: ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Checking Refrigerant for Contamination
 2. Task Sheet: Refrigerant Oil Inspection
 3. Chapter PowerPoint
 4. [Crossword Puzzle and Word Search \(A7\)](#)
 5. [Videos: \(A7\) Heating & Air Conditioning](#)
 6. [Animations: \(A7\) Heating & Air Conditioning](#)
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ACTIVITIES:

1. Task Sheet: Checking Refrigerant for Contamination
 2. Task Sheet: Refrigerant Oil Inspection
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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:
