**Automotive Heating and Air Conditioning 9th Edition**

**Chapter 16 – A/C System Diagnosis and Repair**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Diagnostic Procedure, Verify Customer Concern, Visual Inspection, and Check DTCs

2. Check TSBs, Performance A/C Test, Root Cause, Addressing System Odors, and Noise Issues

3. Repair the System and Retrofitting

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**OBJECTIVES:**

1. Prepare for the ASE Heating and Air Conditioning (A7) certification test content area “A” (A/C System Service, Diagnosis and Repair).

2. Describe the eight-step diagnostic procedure for an A/C system.

3. Explain how to perform a visual inspection of an A/C system.

4. Discuss how to perform an A/C performance test.

5. Describe how to determine the root cause of the problem in an A/C system.

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**RESOURCES:** [(All resources may be found at jameshalderman.com)](https://jameshalderman.com/)

1. Task Sheet: Retrieve and Record Diagnostic Trouble Codes

2. Task Sheet: Air Conditioning Noise Diagnosis

3. Task Sheet: Performance Test Heating and A/C System

4. Task Sheet: Evaporator Housing Drain

5. Task Sheet: Remove and Install Evaporator

6. Task Sheet: Identify Source of A/C Odors

7. Chapter PowerPoint

8. [Crossword Puzzle and Word Search (A7)](https://jameshalderman.com/a7_puzzles_lib_page/)

9. [Videos: (A7) Heating & Air Conditioning](https://jameshalderman.com/a7_vid_lib_page/)

10. [Animations: (A7) Heating & Air Conditioning](https://jameshalderman.com/a7_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Retrieve and Record Diagnostic Trouble Codes

2. Task Sheet: Air Conditioning Noise Diagnosis

3. Task Sheet: Performance Test Heating and A/C System

4. Task Sheet: Evaporator Housing Drain

5. Task Sheet: Remove and Install Evaporator

6. Task Sheet: Identify Source of A/C Odors

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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:**

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