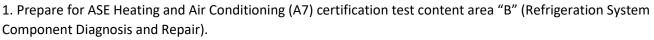
## Automotive Heating and Air Conditioning 9<sup>th</sup> Edition Chapter 6 – A/C System Components, Operation, and Service Lesson Plan

#### **CHAPTER SUMMARY:**

- 1. Compressors, Condensers, Thermal Expansion Valves, Orifice Tube Systems
- 2. Evaporators, Receiver-Driers and Accumulators, and Lines and Hoses
- 3. Electrical Switches and Evaporator Temperature Controls, and Rear AC Systems
- 4. Component Replacement Procedures

#### **OBJECTIVES:**



- 2. Discuss the purpose and function of compressors and condensers.
- 3. Describe the operation of thermal expansion valves.
- 4. Explain the construction and operation of orifice tubes.
- 5. Explain the purpose and function of evaporators and accumulators.
- 6. Discuss the use of lines and hoses in refrigeration.
- 7. Describe electrical switches and evaporator temperature controls used in A/C systems.
- 8. Explain component replacement procedures.

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

- 1. Task Sheet: Replace Expansion Valve/Orifice Tube
- 2. Task Sheet: Evaporator/Heater Core Replacement
- 3. Task Sheet: Inspect A/C System Hoses, Lines, O-Rings & Fittings
- 4. Task Sheet: Receiver Drier & Accumulator Drier
- 5. Task Sheet: Inspect the Air Conditioning Condenser
- 6. Chapter PowerPoint
- 7. Crossword Puzzle and Word Search (A7)
- 8. <u>Videos: (A7) Heating & Air Conditioning</u>
- 9. Animations: (A7) Heating & Air Conditioning

#### ACTIVITIES:

- 1. Task Sheet: Replace Expansion Valve/Orifice Tube
- 2. Task Sheet: Evaporator/Heater Core Replacement
- 3. Task Sheet: Inspect A/C System Hoses, Lines, O-Rings & Fittings
- 4. Task Sheet: Receiver Drier & Accumulator Drier
- 5. Task Sheet: Inspect the Air Conditioning Condenser

#### 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 <u>Frequently Asked Questions</u> and <u>Tech Tips</u> sections.

2. Review and group discussion of the five (5) chapter Review Questions.



### **NOTES AND EVALUATION:**

