# Automotive Technology 6<sup>th</sup> Edition Chapter 65 – Automatic Air-Conditioning Systems Operation Lesson Plan

### **CHAPTER SUMMARY:**



- 1. Airflow management and automatic air conditioning
- 2. Actuators, cabin filters, vacuum control circuits, and electric servomotor circuits
- 3. Blower motor controls, dual-zone climate controls, and rear air-conditioning systems
- 4. Recirculation operation and hybrid electric vehicle heating and cooling systems

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### **OBJECTIVES:**

- 1. Explain airflow management and the sensors and actuators used in automatic air conditioning.
- 2. Discuss the filters and controls used in automatic air conditioning.
- 3. Explain dual-zone climate controls, rear air-conditioning system operation, and recirculation operation.
- 4. Describe how hybrid electrical vehicle heating and cooling systems are different from conventional systems.

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**RESOURCES**: (All resources may be found at <a href="http://www.jameshalderman.com">http://www.jameshalderman.com</a>) Internet access required to hyperlink.

- 1. Task Sheet ASE (A7-D-8) P-2: Automatic/Dual Climate System ID
- 2. Task Sheet ASE (A7-D-8) P-2: Automatic AC System Operation
- 3. Chapter PowerPoint
- 4. Chapter Crossword Puzzle and Word Search
- 5. Videos: (A7) Heating & Air Conditioning Videos
- 6. Animations: (A7) Heating & Air Conditioning Animations

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## **ACTIVITIES:**

- 1. Task Sheet ASE (A7-D-8) P-2: Have students complete Automatic/Dual Climate System ID Task Sheet.
- 2. Task Sheet ASE (A7-D-8) P-2: Have students complete Automatic AC System Operation Task Sheet.



# **ASSIGNMENTS**:

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



# **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:**

