**Automotive Electrical and Engine Performance - 9th edition**

**Ch20: Airbag and Pretensioner Circuits**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Safety Belts and Retractors, Front Airbags, and Airbag Diagnosis Tools and Equipment

2. Airbag System Service and Driver Side Airbag Module Replacement

3. Safety When Manually Deploying Airbags and Occupant Detection Systems

4. Seat and Side Curtain Airbags and Event Data Recorders

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**OBJECTIVES:**

1. Explain how safety belts and retractors function.

2. Explain the operation of front airbags.

3. Describe the procedures to diagnose common faults in airbag systems.

4. Describe the procedures to repair common faults in airbag systems.

5. Discuss driver side airbag module replacement.

6. Discuss safety issues when manually deploying airbags.

7. Explain how the passenger presence system works.

8. Describe how seat and side curtain airbags function.

9. Describe the data recorded by an event data recorder when an airbag is deployed. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Disarm and Enable Airbags

2. Task Sheet: Airbag Diagnosis

3. Crossword Puzzle and Word Search

4. Videos: (A6) Electrical/Electronic Systems Videos

5. Animations: (A6) Electrical/Electronic Systems Animations

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**ACTIVITIES:**

1. Task Sheet: Disarm and Enable Airbags

2. Task Sheet: Airbag Diagnosis

3. Crossword Puzzle and Word Search

4. Chapter PowerPoint

5. Crossword Puzzle and Word Search

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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. Ten (10) question end of Chapter Quiz.

3. Five (5) end of chapter Review Question for class discussion.

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**NOTES AND EVALUATION:**

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