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

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

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

- 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 guizzes downloaded from the website.



CLASS DISCUSSION:

ASSIGNMENTS:

- 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:



