**Automotive Technology 6th Edition**

**Chapter 89 –** **Onboard Diagnosis**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. On-board diagnostics generation-II (OBD-II) systems and diagnostic executive and task manager

2. Monitors, OBD-II monitor information, enabling criteria, and OBD-II DTC numbering designation

3. OBD-II freeze-frame, enabling conditions, PCM tests, and global OBD-II mode

4. Diagnosing problems using mode six

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**OBJECTIVES:**

1. Explain the purpose and function of systems.

2. List the various continuous and noncontinuous monitors.

3. Explain the numbering designation of OBD-II diagnostic trouble codes.

4. Explain the information captured by freeze-frame and the criteria to enable an OBD monitor.

5. Describe PCM tests related to OBD systems.

6. List the operation modes of a global scan tool.

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

**1.** **Task Sheet ASE (A8-A-2) P-1**: OBD II Connector Identification

**2. Task Sheet ASE (A8-B-1) P-1:** Retrieving OBD II Diagnostic Trouble Codes

**3.** **Task Sheet ASE (A8-B-1) P-1, (A8-B-4) P-1**: OBD II Monitors Status

4. Chapter PowerPoint

5. Chapter Crossword Puzzle and Word Search

6. Videos: [(A8) Engine Performance Videos](https://jameshalderman.com/a8_vid_lib_page/)

7. Animations: [(A8) Engine Performance Animations](https://jameshalderman.com/a8_anim_lib_page/)

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**ACTIVITIES:**

**1. Task Sheet ASE (A8-A-2) P-1**: Have students complete OBD II Connector Identification Task Sheet.

**2. Task Sheet ASE (A8-B-1) P-1:** Have students completeRetrieving OBD II Diagnostic Trouble Codes Task Sheet.

**3.** **Task Sheet ASE (A8-B-1) P-1, (A8-B-4) P-1**: Have students complete OBD II Monitors Status Task Sheet.

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**ASSIGNMENTS:**

1. Chapter crossword and word search puzzles.

2. Complete end of chapter 10 question quiz.

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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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