

Advanced Engine Performance Diagnosis 7th Edition

Chapter 19 – Oxygen Sensors

Lesson Plan



CHAPTER SUMMARY:

1. Oxygen Sensors, Titania Oxygen Sensor, PCM Uses of the Oxygen Sensor, and Oxygen Sensor Diagnosis
2. Post-Catalytic Converter Oxygen Sensor Testing and Wide Band Oxygen Sensors
3. Dual Cell Planar Wide-Band Sensor Operation and Dual Cell Diagnosis
4. Single Cell Wide-Band Oxygen Sensors and Wide-Band Oxygen Pattern Failures
5. Oxygen Sensor Related Diagnostic Trouble Codes

OBJECTIVES:



1. Discuss how oxygen sensors (O2S) work.
2. List the methods that can be used to test oxygen sensors.
3. Describe how a wide-band oxygen sensor works and how to test it.

RESOURCES: ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))



1. Task Sheet: Electronic Oxygen Sensor Diagnosis
2. Task Sheet: Wide-Band Oxygen Sensor
3. Chapter PowerPoint
4. [Crossword and Word Search Puzzles \(A8\)](#)
5. [Videos: \(A8\) Engine Performance](#)
6. [Animations: \(A8\) Engine Performance](#)

ACTIVITIES:



1. Task Sheet: Electronic Oxygen Sensor Diagnosis
2. Task Sheet: Wide-Band Oxygen Sensor

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.

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](#).

NOTES AND EVALUATION:

