

Advanced Engine Performance Diagnosis 7th Edition

Chapter 1 – The Diagnostic Process

Lesson Plan



CHAPTER SUMMARY:

1. The Eight-Step Diagnostic Procedure and Scan Tools
 2. Retrieval of Diagnostic Information and Troubleshooting Using Diagnostic Trouble Codes
 3. DLC Locations, OBD-II Diagnosis, OBD-II Active Tests, and No-Code Diagnosis
 4. Determining Root Cause of Repeated Component Failures
 5. Manufacturer's Diagnostic Routines and Verifying the Repair
 6. Road Test (Drive Cycle) and Diesel OBD-II Monitor Readiness
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OBJECTIVES:

1. List the steps of the diagnostic process.
 2. Discuss the type of scan tools that are used to assess vehicle components.
 3. Describe how to retrieve diagnostic information from a vehicle.
 4. Explain the troubleshooting procedures to follow if a diagnostic trouble code has been set.
 5. Describe diagnostic trouble code retrieval, diagnosis, and testing for OBD-II vehicles.
 6. Explain the troubleshooting procedures to follow if no diagnostic trouble code has been set.
 7. List the steps in most manufacturers' diagnostic routines.
 8. Describe how to verify the repair and conduct a universal drive cycle.
 9. Describe how to run OBD-II monitors on a light duty diesel vehicle.
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RESOURCES: ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Work Order
 2. Task Sheet: OBD II Diagnostic Trouble Codes
 3. Chapter PowerPoint
 4. [Crossword and Word Search Puzzles](#)
 5. [Videos: A0 Automotive Fundamentals](#)
 6. [Animations: \(A0\) Automotive Fundamentals](#)
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ACTIVITIES:

1. Task Sheet: Work Order
 2. Task Sheet: OBD II Diagnostic Trouble Codes
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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. Review and group discussion of the five (5) chapter Review Questions.
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NOTES AND EVALUATION:
