

# Automotive Electrical and Engine Performance - 9th edition

## Ch46: Strategy-Based Diagnosis

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. The Eight Step Diagnostic Process, Scan Tools, and Retrieval of Diagnostic Information
  2. Troubleshooting Using Diagnostic Trouble Codes, and Manufacture's Diagnostic Routines
  3. Completing System Repairs
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#### **OBJECTIVES:**

1. List the steps of the diagnostic process.
  2. Discuss the types of scan tools that are used to assess vehicle components.
  3. Explain how to retrieve diagnostic information and how to use DTCs.
  4. Explain the troubleshooting procedures to follow if a diagnostic trouble code has been set.
  5. Explain manufacturer's diagnostic routines.
  6. Discuss completing system repairs, including resetting the PCM and road test (drive cycle).
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#### **RESOURCES:** (All resources may be found at [jameshalderman.com](http://jameshalderman.com))

1. Task Sheet: Access Service Information
  2. Task Sheet: Testing Using a Scan Tool
  3. Task Sheet: Retrieve DTCs, Monitor Status & Freeze Frame
  4. Task Sheet: Scan Tool Diagnosis
  5. Crossword Puzzle and Word Search
  6. Videos: (A8) Engine Performance Videos
  7. Animations: (A8) Engine Performance Animations
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#### **ACTIVITIES:**

1. Task Sheet: Access Service Information
  2. Task Sheet: Testing Using a Scan Tool
  3. Task Sheet: Retrieve DTCs, Monitor Status & Freeze Frame
  4. Task Sheet: Scan Tool Diagnosis
  5. Chapter PowerPoint
  6. 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:**

