

# Advanced Engine Performance Diagnosis 8<sup>th</sup> Edition

## Chapter 6 – Scan Tools and Scan Tool Diagnosis

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Malfunction Indicator Lamp (MIL), Data Link Connector (DLC), and Scan Tools
  2. Using a Scan Tool, Diagnostic Information, and Pre- and Post-Scans
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#### **OBJECTIVES:**

1. Explain the advantages of a digital storage oscilloscope.
  2. Describe the process for adjusting the oscilloscope time base and voltage scale.
  3. Explain the difference between Ac and Dc coupling.
  4. Describe the different pulse train measurement scales.
  5. Explain the purpose of multiple scope channels.
  6. Explain the purpose of a trigger.
  7. Explain how a scope is used.
  8. Describe the operation of a current clamp and pressure transducer.
  9. Explain how to analyze a waveform.
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#### **RESOURCES:** (All resources may be found at [jameshalderman.com](http://jameshalderman.com))

1. Task Sheet: Testing Using a Scan Tool
  2. Task Sheet: OBD II Monitors Status
  3. Task Sheet: Retrieve DTCs, Monitor Status & Freeze Frame
  4. Chapter PowerPoint
  5. Crossword and Word Search Puzzles
  6. Videos: (A6) General Electrical/Electronic System Diagnosis
  7. Animations: (A6) General Electrical/Electronic System Diagnosis
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#### **ACTIVITIES:**

1. Task Sheet: Testing Using a Scan Tool
  2. Task Sheet: OBD II Monitors Status
  3. Task Sheet: Retrieve DTCs, Monitor Status & Freeze Frame
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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:**

