

Advanced Engine Performance Diagnosis 7th Edition

Chapter 6 – In-Vehicle Engine Service

Lesson Plan



CHAPTER SUMMARY:

1. Thermostat Replacement, Water Pump Replacement, and Intake Manifold Gasket Inspection
 2. Intake Manifold Gasket Replacement, Timing Belt Replacement, and Engine Mount Replacement
 3. Hybrid Engine Precautions
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OBJECTIVES:

1. Explain thermostat replacement and water pump replacement in engines.
 2. Discuss intake manifold gasket inspection and replacement.
 3. Describe the steps involved in timing belt replacement.
 4. Explain how to inspect engine mounts.
 5. Discuss hybrid engine precautions.
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RESOURCES: ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Water Pump Diagnosis and Replacement
 2. Task Sheet: Camshaft Timing
 3. Task Sheet: Intake Manifold Gasket
 4. Task Sheet: Valve Adjustment
 5. Task Sheet: Timing Belt/Chain Replacement
 6. Task Sheet: Thermostat Replacement
 7. Task Sheet: Hybrid Engine Service Precautions
 8. Chapter PowerPoint
 9. [Crossword and Word Search Puzzles \(A8\)](#)
 10. [Crossword and Word Search Puzzles \(A1\)](#)
 11. [Videos: \(A1\) Engine Repair](#)
 12. [Animations: \(A1\) Engine Repair](#)
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ACTIVITIES:

1. Task Sheet: Water Pump Diagnosis and Replacement
 2. Task Sheet: Camshaft Timing
 3. Task Sheet: Intake Manifold Gasket
 4. Task Sheet: Valve Adjustment
 5. Task Sheet: Timing Belt/Chain Replacement
 6. Task Sheet: Thermostat Replacement
 7. Task Sheet: Hybrid Engine Service Precautions
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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:
