

Automotive Electrical and Engine Performance - 9th edition

Ch14: Starting System Diagnosis and Service

Lesson Plan



CHAPTER SUMMARY:

1. Starting System Troubleshooting Procedure, Voltage Drop Test, and Control Circuit Testing
2. Starter Amperage Test, Starter Removal, Bench Testing, and Starter Installation

OBJECTIVES:



1. Explain the procedure to troubleshoot a starting system problem.
2. Discuss how to perform a voltage drop test on the cranking circuit.
3. Perform control circuit testing.
4. Perform a starter amperage test and determine necessary action.
5. Describe the procedure to remove a starter motor.
6. Explain starter motor bench testing.
7. Describe the procedure to install a starter motor.
8. Describe how to troubleshoot starting systems based on their symptoms.

RESOURCES: (All resources may be found at jameshalderman.com)



1. Task Sheet: Starter Voltage Drop/Current Draw Tests
2. Task Sheet: Starter Disassembly and Testing
3. Task Sheet: Starter Solenoid Testing
4. Task Sheet: Remove and Install the Starter
5. Task Sheet: Diagnose Electrical/Electronic Circuits
6. Crossword Puzzle and Word Search
7. Videos: (A6) Electrical/Electronic Systems Videos
8. Animations: (A6) Electrical/Electronic Systems Animations

ACTIVITIES:



1. Task Sheet: Starter Voltage Drop/Current Draw Tests
2. Task Sheet: Starter Disassembly and Testing
3. Task Sheet: Starter Solenoid Testing
4. Task Sheet: Remove and Install the Starter
5. Task Sheet: Diagnose Electrical/Electronic Circuits
6. Crossword Puzzle and Word Search
7. Chapter PowerPoint
8. Crossword Puzzle and Word Search

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:
