

Automotive Technology 6th Edition

Chapter 53 – Cranking System Diagnosis and Service

Lesson Plan



CHAPTER SUMMARY:

1. Starting system troubleshooting procedure and voltage drop testing
 2. Control circuit testing, starter amperage test, starter removal, and starter motor service
 3. Bench testing and starter installation
 4. Starter drive-to-fly wheel clearance
-



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 and starter amperage test, and determine necessary action.
 4. Describe the procedure to remove a starter motor.
 5. Explain starter motor service and bench testing.
 6. Describe the procedure to install a starter motor.
 7. Describe how to ensure proper clearance between the starter pinion and the engine flywheel.
 8. This chapter will help prepare for the ASE Electrical/Electronic Systems (A6) certification test content area “C” (Battery and Starting Systems Diagnosis and repair).
-



RESOURCES: (All resources may be found at <http://www.jameshalderman.com>) Internet access required to hyperlink.

1. **Task Sheet:** Starter Disassembly and Testing
 2. **Task Sheet ASE (A6-C-1) P-1, (A6-C-2) P-1, (A6-C-3) P-2, (A6-C-6) P-2:** Starter Voltage Drop/Current Draw Tests
 3. **Task Sheet ASE (A6-C-5) P-2:** Starter Relays and Solenoids
 4. **Task Sheet ASE(A6-C-4) P-1:** Remove and Install the Starter
 5. Chapter PowerPoint
 6. Chapter Crossword Puzzle and Word Search
 7. Videos: [\(A6\) Electrical/Electronic Systems Videos](#)
 8. Animations: [\(A6\) Electrical/Electronic Systems Animations](#)
-



ACTIVITIES:

1. **Task Sheet:** Have students complete Starter Disassembly and Testing Task Sheet
 2. **Task Sheet ASE (A6-C-1) P-1, (A6-C-2) P-1, (A6-C-3) P-2, (A6-C-6) P-2:** Have students complete Starter Voltage Drop/Current Draw Tests Task Sheet.
 3. **Task Sheet ASE (A6-C-5) P-2:** Have students complete Starter Relays and Solenoids Task Sheet.
 4. **Task Sheet ASE(A6-C-4) P-1:** Have students complete Remove and Install the Starter Task Sheet.
-



ASSIGNMENTS:

1. Chapter crossword and word search puzzles.
 2. Complete end of chapter 10 question quiz.
-

Automotive Technology 6th Edition
Chapter 53 – Cranking System Diagnosis and Service
Lesson Plan



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.
-



NOTES AND EVALUATION:
