**Automotive Technology 6th Edition**

**Chapter 111 –** **ABS Diagnosis and Service**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. ABS fault diagnosis and retrieving ABS codes prior to 1996

2. ABS diagnosis on OBD-II equipped vehicles and wheel speed sensor diagnosis

3. Hydraulic ABS service and ABS safety precautions

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**OBJECTIVES:**

1. Explain the ABS diagnostic procedure and retrieval of diagnostic codes.

2. Explain how to diagnose the OBD-II ABS system.

3. Explain how to diagnose wheel speed sensors.

4. List the steps in the hydraulic ABS service procedure.

5. Discuss ABS safety precautions.

6. This chapter will help prepare for Brakes (A5) ASE certification test content area “D” (Electronic Brake Control Systems: Antilock Brake System (ABS), Traction Control System (TCS), and Electronic Stability Control System (ESC) Diagnosis and Repair).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

**1.** **Task Sheet ASE (A5-G-1) P-1**: Electronic Brake (ABS) Component Inspection

**2**. **Task Sheet ASE (A5-G-3) P-2, (A5-G-4) P-2**: Electronic Brake (ABS) Fault Diagnosis

**3**. **Task Sheet ASE (A5-G-5) P-2**: Depressurization of High-Pressure ABS

**4**. **Task Sheet ASE (A5-G-6) P-1**: Bleed ABS Hydraulic Circuits

**5**. **Task Sheet ASE (A5-G-7) P-2**: ABS Wheel Speed Sensor Testing

**6**. **Task Sheet ASE (A5-G-8) P-1**: Modified Vehicle ABS Problem Diagnosis

7. Chapter PowerPoint

8. Chapter Crossword Puzzle and Word Search

9. Videos: [(A5) Brakes Videos](https://jameshalderman.com/a5_vid_lib_page/)

10. Animations: [(A5) Brakes Animations](https://jameshalderman.com/a5_anim_lib_page/)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ACTIVITIES:**

**1. Task Sheet ASE (A5-G-1) P-1**: Have students complete Electronic Brake (ABS) Component Inspection Task Sheet.

**2**. **Task Sheet ASE (A5-G-3) P-2, (A5-G-4) P-2**: Have students complete Electronic Brake (ABS) Fault Diagnosis Task Sheet.

**3**. **Task Sheet ASE (A5-G-5) P-2**: Have students complete Depressurization of High-Pressure ABS Task Sheet.

**4**. **Task Sheet ASE (A5-G-6) P-1**: Have students complete Bleed ABS Hydraulic Circuits Task Sheet.

**5**. **Task Sheet ASE (A5-G-7) P-2**: Have students complete ABS Wheel Speed Sensor Testing Task Sheet.

**6**. **Task Sheet ASE (A5-G-8) P-1**: Have students complete Modified Vehicle ABS Problem Diagnosis Task Sheet.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Automotive Technology 6th Edition**

**Chapter 111 –** **ABS Diagnosis and Service**

**Lesson Plan**

**ASSIGNMENTS:**

1. Chapter crossword and word search puzzles.

2. Complete end of chapter 10 question quiz.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**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:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_