**Automotive Technology 7th Edition**

**Chapter 109 – Tires-Pressure Monitoring Systems**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Need for Tire Pressure Monitoring, Tread Act, Indirect TPMS, and Direct TPMS

2. TPMS Pressure Sensors, TPMS Sensor Operation, TPMS Receiver, and TPMS Diagnosis

3. TPMS Sensor Activations, TPMS Diagnostic Tools, and Sensor Replacement Options

4. TPMS Sensor Relearn, TPMS Sensor Service Tools

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**OBJECTIVES:**

1. Explain why a tire-pressure monitoring system (TPMS) is used.

2. Discuss the TREAD Act.

3. Explain indirect TPMS.

4. Explain direct TPMS.

5. List the two types of TPMS pressure sensors.

6. Discuss TPMS sensor operation.

7. Discuss the TPMS receiver.

8. Explain direct TPMS diagnosis.

9. Explain TPMS sensor activations.

10. Describe TPMS diagnostic tools.

11. List replacement options for TPMS sensors.

12. Describe how to relearn TPMS sensors.

13. Describe the tools needed to service a TPMS. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Tire Pressure Monitoring System

2. Crossword Puzzle and Word Search

3. Chapter PowerPoint

4. Videos: [(A4) Suspension and Steering Videos](https://jameshalderman.com/a4_vid_lib_page/)

5. Animations: [(A4) Suspension and Steering Animations](https://jameshalderman.com/a4_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Tire Pressure Monitoring System

2. Crossword Puzzle and Word Search

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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:**

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