**Automotive Electricity and Electronics**

**Chapter 30 –** **Audio System Operation and Diagnosis**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Audio Fundamentals, Radios and Receivers, Antennas, and Antenna Diagnosis

2. Speakers, Speaker Types, Sound Levels, Crossovers, and Aftermarket Sound System Upgrade

3. Voice Recognition, Bluetooth, Satellite Radio, and Radio Interference,

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**OBJECTIVES:**

1. Describe how AM, FM, and satellite radio work.

2. Describe radios, receivers, antennas, and antenna diagnosis.

3. Discuss the purpose, function, and types of speakers, and explain the decibel scale.

4. Discuss crossovers, aftermarket sound system upgrades, and voice recognition systems.

5. Explain how Bluetooth and satellite radio systems work.

6. List causes and corrections of radio noise and interference.

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**RESOURCES:** [(All resources may be found at jameshalderman.com)](https://jameshalderman.com/)

1. Task Sheet: Radio Diagnosis

2. Chapter PowerPoint

3. [Crossword and Word Search Puzzles (A6)](https://jameshalderman.com/a6_puzzles_lib_page/)

4. [Videos: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_vid_lib_page/)

5. [Animations: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Radio Diagnosis

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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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