

Automotive Technology 7th Edition

Chapter 53 – Lighting and Signaling Circuits

Lesson Plan



CHAPTER SUMMARY:

1. Lighting Systems, LED Lighting, Bulb Numbers, Brake Lights, Turn Signals, and Daytime Running Lights
2. Headlights, High-Intensity Discharge Headlights, LED Headlights, and Adaptive Front Lighting System
3. Automatic Headlights, Headlight High/Low Beam Switch, and Auto Dimming Headlights
4. Headlight Aiming, Fog and Driving Lights, Automatic Dimming Mirrors, and Courtesy Mirrors
5. Illuminated Entry, Headlight System Diagnosis, and Lighting System Diagnosis



OBJECTIVES:

1. Explain lighting systems in an automobile.
2. List the advantages of using LED lights.
3. Read and interpret a bulb chart.
4. Discuss the operation of brake lights.
5. Discuss the operation of turn signals.
6. Describe daytime running lights.
7. Describe headlights.
8. Describe high-intensity discharge headlights.
9. Describe LED headlights.
10. Describe adaptive front lighting systems.
11. Describe automatic headlights.
12. Describe the headlight high-/low-beam switch.
13. Describe auto-dimming headlights.
14. Describe how to aim headlights.
15. Describe fog lights and driving lights.
16. Describe automatic dimming mirrors.
17. Describe courtesy lights.
18. Describe illuminated entry.
19. Explain the procedures to inspect and troubleshoot the headlight system.
20. Explain the procedures to diagnose the lighting and signaling system.



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

1. Task Sheet: Lighting System Diagnosis
2. Task Sheet: High-Intensity Discharge Headlights
3. Task Sheet: Aim Headlights
4. Chapter PowerPoint
5. Crossword Puzzle and Word Search
6. Videos: [\(A6\) Electrical/Electronic Systems Videos](#)
7. Animations: [\(A6\) Electrical/Electronic Systems Animations](#)



ACTIVITIES:

1. Task Sheet: Lighting System Diagnosis
2. Task Sheet: High-Intensity Discharge Headlights
3. Task Sheet: Aim Headlights

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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.



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:
