

Automotive Technology 6th Edition

Chapter 56 – Lighting and Signaling Circuits

Lesson Plan



CHAPTER SUMMARY:

1. Lighting systems, LED lighting, and bulb numbers
 2. Brake lights, turn signals, daytime running lights, and headlights
 3. High-intensity discharge headlights, LED headlights, and adaptive front lighting systems
 4. Automatic headlights, high/low beam switch, auto dimming headlights, and headlight aiming
 5. Fog and driving lights, automatic dimming mirrors, and courtesy lights
 6. Illuminated entry, headlight system diagnosis, and lighting system diagnosis
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OBJECTIVES:

1. Explain lighting systems in an automobile and list the advantages of using LED lights.
 2. Read and interpret a bulb chart.
 3. Discuss the operation of brake lights and turn signals.
 4. Describe daytime running lights, fog lights, driving lights, types of headlights, adaptive headlights, and how to aim headlights.
 5. Describe automatic dimming mirrors, courtesy lights, and illuminated entry.
 6. Explain the procedures to inspect and troubleshoot lighting and signaling systems.
 7. This chapter will help you prepare for the ASE Electrical/Electronic Systems (A6) certification test content area “E” (Lighting Systems diagnosis and repair).
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RESOURCES: (All resources may be found at <http://www.jameshalderman.com>) Internet access required to hyperlink.

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

1. **Task Sheet ASE (A6-E-1) P-1, (A6-E-2) P-1:** Have students complete Lighting System Diagnosis Task Sheet.
 2. **Task Sheet ASE (A6-E-4) P-2:** Have students complete High-Intensity Discharge Headlights Task Sheet.
 3. **Task Sheet ASE (A6-E-3) P-2:** Have students complete Aim Headlights Task Sheet.
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ASSIGNMENTS:

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