

# Automotive Electricity and Electronics

## Chapter 29 – Advanced Driver Assists Systems (ADAS)

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Advanced Driver Assist Systems, Blind Spot Monitor, and Parking-Assist Systems
  2. Lane Departure Warning, Lane Keep Assist, and Adaptive Cruise Control
  3. Rear Cross-Traffic Warning (RCTW) and Automatic Emergency Braking
  4. Pre-Collision System, Hill Start Assist, and ADAS Diagnosis
  5. Camera and Radar Sensor Calibration
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#### **OBJECTIVES:**

1. Describe the purpose and function of advanced driver assist systems.
  2. Discuss blind-spot monitors and parking assist, as well as self-parking systems.
  3. Explain lane departure warning and lane keep assist systems.
  4. Describe how adaptive cruise control systems work.
  5. Discuss rear cross-traffic warning system operation.
  6. Explain automatic emergency braking and pre-collision systems.
  7. Describe the operation of hill start assist.
  8. Describe the diagnostic and calibrations procedures for advanced driver assist systems.
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#### **RESOURCES:** ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Advanced Driver Assist Systems
  2. Task Sheet: ADAS Sensors
  3. Task Sheet: Sensor Calibration
  4. Chapter PowerPoint
  5. [Crossword and Word Search Puzzles \(A6\)](#)
  6. [Videos: \(A6\) Electrical/Electronic Systems](#)
  7. [Animations: \(A6\) Electrical/Electronic Systems](#)
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#### **ACTIVITIES:**

1. Task Sheet: Advanced Driver Assist Systems
  2. Task Sheet: ADAS Sensors
  3. Task Sheet: Sensor Calibration
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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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# Automotive Electricity and Electronics

## Chapter 28 – Body Electrical Accessories

### Lesson Plan



#### **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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