**Automotive Technology 6th Edition**

**Chapter 94 –** **Hybrid Safety and Service Procedures**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. High-voltage safety, high-voltage safety equipment, and safety interlock system

2. Loss of insulation test, electric shock potential, and de-power high-voltage systems

3. Collision and repair industry issues and moving and towing a hybrid

4. Removing the high-voltage batteries and routine service procedures

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**OBJECTIVES:**

1. Correctly use appropriate personal protective equipment (PPE).

2. Discuss the safety interlock system and loss of insulation in a hybrid electric vehicle.

3. Safely de-power a hybrid electric vehicle.

4. Explain hazards while driving, moving, and hoisting a hybrid electric vehicle.

5. Perform routine vehicle service procedure on a hybrid electric vehicle and understand the HEV's unique service requirements.

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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-B-7) P-2**: Hybrid Vehicle HV Circuit Disconnect

**2**. **Task Sheet ASE (A6-B-7) P-2**: Identify HV of Hybrid Electric Vehicles

**3**. **Task Sheet**: High-Voltage Battery Chargers

**4**. **Task Sheet ASE (A1-A-9) P-2**: Hybrid Engine Service Precautions

**5**. **Task Sheet ASE (A7-B-4) P-2**: Hybrid A/C System Circuits

6. Chapter PowerPoint

7. Chapter Crossword Puzzle and Word Search

8. Videos: [(L3) Light Duty Hybrid Electric Videos](https://jameshalderman.com/l3_vid_lib_page/)

9. Animations: [(L3) Light Duty Hybrid Electric Animations](https://jameshalderman.com/l3_anim_lib_page/)

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**ACTIVITIES:**

**1. Task Sheet ASE (A6-B-7) P-2**: Have students complete Hybrid Vehicle HV Circuit Disconnect Task Sheet.

**2**. **Task Sheet ASE (A6-B-7) P-2**: Have students complete Identify HV of Hybrid Electric Vehicles Task Sheet.

**3**. **Task Sheet**: Have students complete High-Voltage Battery Chargers Task Sheet.

**4**. **Task Sheet ASE (A1-A-9) P-2**: Have students complete Hybrid Engine Service Precautions Task Sheet.

**5**. **Task Sheet ASE (A7-B-4) P-2**: Have students complete Hybrid A/C System Circuits 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:**

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