

Automotive Technology 7th Edition

Chapter 80 – Evaporative Emissions Control and EGR Systems

Lesson Plan



CHAPTER SUMMARY:

1. Evaporative Emissions Control System, and Enhanced Evaporative Control System
2. Leak Detection System, Onboard Refueling Vapor Recovery, and Diagnosing the EVAP System
3. Evaporative System Monitor, Exhaust Gas Recirculation Systems, and OBD-II EGR Monitoring Strategies
4. Diagnosing a Defective EGR System



OBJECTIVES:

1. Explain the operation of an evaporative emission control (EVAP) system.
2. Discuss enhanced evaporative control systems.
3. Discuss leak detection pump systems.
4. Discuss onboard refueling vapor recovery.
5. Explain how to diagnose the EVAP system.
6. Discuss the functions of an evaporative system monitor.
7. Discuss the purpose and function of exhaust gas recirculation (EGR) systems.
8. Explain the strategies to monitor on-board diagnostics generation II (OBD-II) exhaust gas recirculation (EGR) systems.
9. Explain how to diagnose a defective EGR system.



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

1. Task Sheet: EVAP System Component Inspection
2. Task Sheet: Evaporative Emission Controls Diagnosis
3. Task Sheet: Evaporative Emission DTC
4. Task Sheet: EGR System Diagnosis
5. Task Sheet: Service EGR System
6. Task Sheet: EGR Electrical Sensors
7. Crossword Puzzle and Word Search
8. Chapter PowerPoint
9. Videos: [\(A8\) Engine Performance Videos](#)
10. Animations: [\(A8\) Engine Performance Animations](#)



ACTIVITIES:

1. Task Sheet: EVAP System Component Inspection
2. Task Sheet: Evaporative Emission Controls Diagnosis
3. Task Sheet: Evaporative Emission DTC
4. Task Sheet: EGR System Diagnosis
5. Task Sheet: Service EGR System
6. Task Sheet: EGR Electrical Sensors
7. Crossword Puzzle and Word Search



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.

NOTES AND EVALUATION:

