

# Advanced Engine Performance Diagnosis 7<sup>th</sup> Edition

## Chapter 18 – Electronic Throttle Control System

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. Electronic Throttle Control (ETC) System and Normal Operation of the ETC System
  2. Acceleration Pedal Position Sensor, Throttle Body Assembly, and Throttle Position (TP) Sensor
  3. Diagnosis of Electronic Throttle Control System and ETC Throttle Follower Test
  4. Servicing Electronic Throttle Systems
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#### **OBJECTIVES:**

1. Describe the advantages of an electronic throttle control (ETC) system.
  2. Explain how an electronic throttle control system works.
  3. Explain how an accelerator pedal position sensor works.
  4. List the parts of a typical electronic throttle body assembly.
  5. Describe the two types of throttle position sensors.
  6. Describe how to diagnose faults in an electronic throttle control system.
  7. Explain how to service an electronic throttle system.
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#### **RESOURCES:** ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))

1. Task Sheet: Electronic Throttle Control System Identification
  2. Chapter PowerPoint
  3. [Crossword and Word Search Puzzles \(A8\)](#)
  4. [Videos: \(A8\) Engine Performance](#)
  5. [Animations: \(A8\) Engine Performance](#)
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#### **ACTIVITIES:**

1. Task Sheet: Electronic Throttle Control System Identification
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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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#### **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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