



Advanced Engine Performance Diagnosis

3rd Edition includes 4 new chapters!

Overview

Third Edition released in January 2006!

Based on the premise that simple problems should always be checked first, this practical, hands-on book/CD-ROM package introduces the diagnosis and troubleshooting of automotive engine control systems.

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It serves as a single source for information on digital storage oscilloscopes, fuel injection and ignition system diagnoses, five-gas exhaust analysis, emission testing, and more—with a very technical but easy-to-read and understand presentation.

A valuable reference book for those wishing to improve their diagnostic and troubleshooting skills as well as those preparing to take the ASE L1.

- **added in 3rd Edition —Updated and expanded material throughout**—Coverage of OBD II has been expanded to an entire chapter; expanded chapters on ignition include coverage on waste-spark, compression sensing as well as coil-on-plug and ion sensing ignition systems; and coverage on enhanced emission control failure analysis has been expanded.
- **added in 3rd Edition —Over 100 real world examples of troubleshooting** — And even more included on the enclosed CD ROM.
- **added in 2nd Edition —Updated and expanded material throughout:** Features the use of clamp-on meters; tone generators for locating opens and shorts; capacity-type battery testers; and additional OBD II information. Reflects the latest trends and developments in the industry.
- **added in 2nd Edition —Additional photo sequences.:** Shows students the exact step-by-step procedures to follow when testing and diagnosing engine problems and related concerns.
- **added in 2nd Edition —Added technical tips, diagnostic stories, and answers to frequently asked questions:** Offers students real-life advice, and solutions to problems throughout the text.
- **A diagnostic approach:** Covers the parts involved plus the purpose, function, and operation, as well as how to test and diagnose each system. Gives students a time-tested, easy-to-follow, step-by-step diagnostic plan to promote skill development and enable them to determine and correct the root cause of an engine performance problem.
- **ASE content and tests:** Includes ASE-type multiple-choice questions and two sample ASE-type tests. Prepares students for the Engine Performance (A8) and Advanced Level (L1) areas of certification as specified by ASE and NATEF.
- **Diagnostic funnel concept:** Teaches students to consistently narrow the diagnostic search to ensure correct diagnosis and effective problem solving.
- **A practical orientation:** Employs actual methods and tools used by professionals in the industry.
- **Chapter-opening objectives.** Alerts students to key content in each area and helps them identify and organize their learning goals.
- **Chapter summaries and review questions.** Gives students an opportunity to review and test their understanding of major concepts before moving on.
- **Extensive use of photographs** —With detailed captions as well as line drawings.
- **Multimedia package:** Supplies students with a CD-ROM that includes live action video, hundreds of photos and line drawings, animation, and quizzes after each chapter. Also included are scope waveforms and a complete glossary of terms—all in full color and interactive!

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NOTE: Each chapter includes a Summary, Review Questions and ASE Cert-type questions.

Appendix 1: Sample ASE Engine Performance (A8) Cert Test

Appendix 2: Sample ASE Advanced Level (L1) Engine Performance Cert Test

Appendix 3: Engine Performance (A8) ASE Cert Test Correlation Chart

Appendix 4: Engine Performance (A8) NATEF Task List Correlation Chart

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