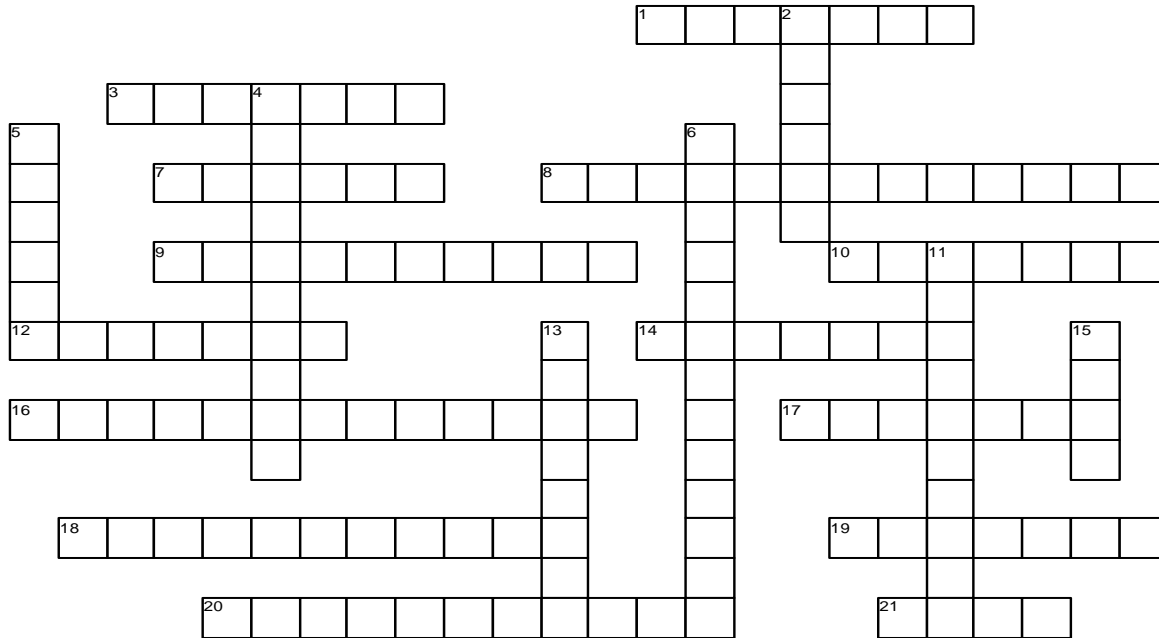


## Advanced Engine Performance Diagnosis 8<sup>th</sup> Edition

### Chapter 9

### On-Board Diagnosis



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#### ACROSS

- 1 \_\_\_\_-\_\_\_\_ Diagnosis is a vehicle's self-diagnostic and reporting system that monitors various engine and emission control components and stores trouble codes when a fault is detected.
- 3 \_\_\_\_\_ Codes: Diagnostic trouble codes that have been detected but do not yet trigger the MIL. These codes often require additional occurrences before becoming active DTCs.
- 7 \_\_\_\_\_ Criteria: Conditions that must be met before a particular OBD monitor can run.
- 8 \_\_\_\_\_ Weighted Moving Average (EWMA) Monitor is a statistical method used to smooth data and help detect trends or anomalies in system performance over time.
- 9 \_\_\_\_\_ Monitors: Diagnostic systems that constantly monitor certain aspects of engine operation, such as misfires and fuel trim, even when other tests are not running.
- 10 \_\_\_\_\_ of Automotive Engineers is an organization that develops standards for automotive systems, including diagnostic systems like OBD-II.
- 12 \_\_\_\_\_ Gas Recirculation Monitor is a system that tests the functionality of the EGR system, which helps reduce nitrogen oxide (NOx) emissions by recirculating a portion of the exhaust gas back into the intake manifold.
- 14 \_\_\_\_\_ Test Procedure: A set of standardized driving conditions used by the EPA to measure vehicle emissions and fuel economy.
- 16 Refers to the process of testing if a component is working as designed.
- 17 \_\_\_\_\_ Monitor is a system that detects engine misfires by analyzing data from the crankshaft position sensor.
- 18 A test used by the PCM to compare sensor inputs to ensure they make sense under current operating conditions.

- 19 Refers to the different tests and systems in the OBD-II that check the performance of various components and subsystems in the vehicle.
- 20 \_\_\_\_\_ Emissions Monitor is a monitor that checks the evaporative emissions control system for leaks or malfunctions. It ensures that fuel vapors are not being released into the atmosphere.
- 21 \_\_\_\_\_ Manager: The software in Chrysler vehicles that manages the execution of diagnostic tests and monitors in the OBD-II system. It is responsible for sequencing and running the necessary tests.

#### DOWN

- 2 \_\_\_\_\_ Sensor Monitor: A system that tests the performance of the oxygen sensors, ensuring they can accurately measure the oxygen content in the exhaust and help adjust the air-fuel mixture.
- 4 \_\_\_\_\_ Executive: The software used in OBD-II systems to manage the execution of diagnostic tests and monitor the powertrain control module (PCM).
- 5 \_\_\_\_\_-Frame is a snapshot of engine conditions taken at the moment a DTC is stored. This data helps technicians understand the conditions under which a fault occurred.
- 6 \_\_\_\_\_ Component Monitor: A monitor in OBD-II systems that checks for faults in all electrical components, sensors, and actuators not specifically monitored by other systems (p. 116).
- 11 \_\_\_\_\_ Air Resources Board: A regulatory body responsible for developing and enforcing air pollution control measures in California.
- 13 \_\_\_\_\_ Monitor: A system that monitors the efficiency of the catalytic converter in reducing emissions.
- 15 \_\_\_\_\_ Trim Monitor is a system that monitors the amount of fuel being injected into the engine.