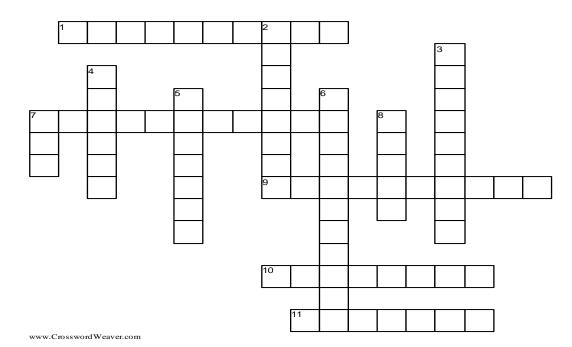


## Advanced Engine Performance Diagnosis 8<sup>th</sup> Edition

Chapter 8 Electronic Throttle Control System



## ACROSS

- 1 A DC motor used in the electronic throttle control system to adjust the throttle plate's position in response to inputs from the engine control module.
- 7 \_\_\_\_\_ pedal position sensor: A sensor that monitors the position of the accelerator pedal and sends this information to the engine control module (ECM) to control the throttle electronically.
- 9 \_\_\_\_\_ throttle control: A system that electronically controls the throttle valve using inputs from the accelerator pedal position sensor and other engine management components.
- 10 \_\_\_\_- position: The throttle plate's default position when the electronic throttle control system detects a fault, allowing limited engine operation so the vehicle can be moved to a safe location.
- 11 \_\_\_\_\_ position: The partially open position of the throttle plate when the throttle control system is not receiving power, ensuring that the engine can run at a limited speed even in the event of a system failure.

## DOWN

- 2 \_\_\_\_\_ position sensor: A sensor located in the throttle body assembly that monitors the position of the throttle plate and sends this information to the engine control module for proper fuel and air regulation.
- 3 \_\_\_\_\_ stall: A situation where the engine stalls while decelerating, typically caused by an issue with the throttle control system or idle control.
- 4 The ETC system can compensate for many \_\_\_\_\_ leaks.
- 5 \_\_\_\_\_ position: The default position of the throttle plate when no input is being received, allowing for minimal airflow to the engine at idle or in fail-safe mode.
- 6 \_\_\_\_\_: A system where the throttle is controlled electronically rather than mechanically, using sensors and actuators to regulate the throttle position based on inputs from the accelerator pedal.
- 7 The throttle pedal is connected to the \_ \_ \_ sensor.
- 8 The throttle \_\_\_\_\_ is driven closed to achieve speeds lower than the default position, such as idle speed.