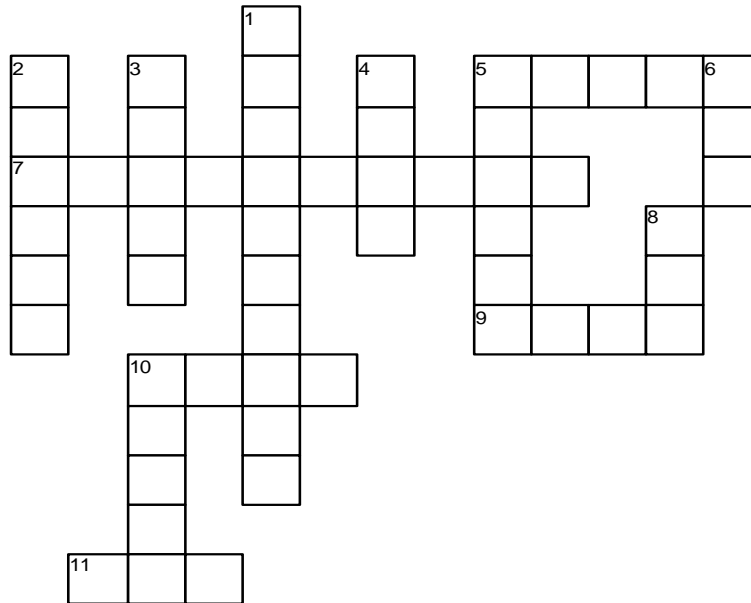


Automotive Electrical and Engine Performance 9th Edition Chapter 15 - Charging System Parts and Operation



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ACROSS

- 5** _____-end (DE) housing: The portion of the alternator that supports the drive pulley and contains the bearings.
- 7** A device that generates electrical power in a vehicle by converting mechanical energy into alternating current (AC) and then into direct current (DC) for use by the electrical system.
- 9** _____-ring-end (SRE) housing: The rear section of the alternator that contains the slip rings and brushes, which transfer current to the rotor.
- 10** _____ cycle: The percentage of time a component or system is active during an operation cycle.
- 11** _____ (Overrunning Alternator Decoupler): A device on the alternator pulley that reduces noise and vibration by allowing the alternator to overrun the engine during deceleration.

DOWN

- 1** A temperature-sensitive resistor used in the alternator to regulate voltage based on temperature changes.
- 2** The stationary coil windings inside the alternator where the rotating magnetic field induces electrical current.
- 3** The rotating component of the alternator that creates the magnetic field.
- 4** _____ poles: Magnetic structures inside the alternator's rotor that create a rotating magnetic field.
- 5** Semiconductor components that allow current to flow in one direction only, used to convert AC generated by the alternator into DC.
- 6** _____ (Electrical Power Management): A system used to manage and control the alternator's output and electrical load based on the vehicle's needs.
- 8** _____ (Overrunning Alternator Pulley): A pulley that allows the alternator rotor to spin freely when the engine speed decreases, improving efficiency and reducing belt wear.
- 10** _____ winding: A method of connecting stator windings in an alternator to increase current output.