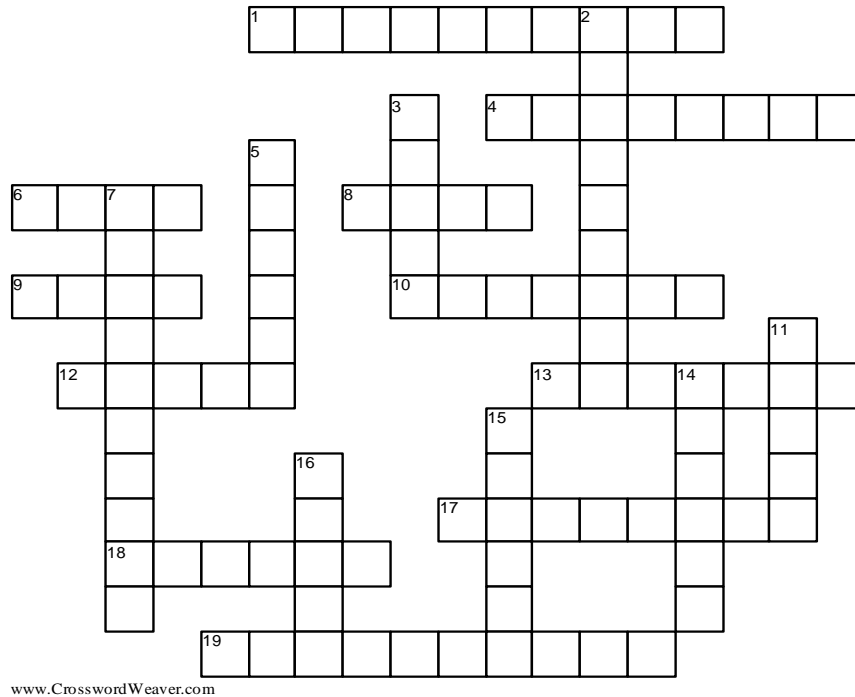


Automotive Electrical and Engine Performance 9th Edition

Chapter 16 - Charging System Diagnosis and Service



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ACROSS

- 1 Replace any _____ belt that has more than three cracks in any one rib that appears in a 3 inch span.
- 4 _____ v voltage test: A diagnostic procedure used to measure the v oltage produced by the alternator at the battery terminals to ensure the charging system is functioning correctly.
- 6 _____ poles: Magnetic structures inside the alternator's rotor that create a rotating magnetic field.
- 8 _____-ring-end (SRE) housing: The rear section of the alternator that contains the slip rings and brushes, which transfer current to the rotor.
- 9 _____ cycle: The percentage of time a component or system is active during an operation cycle.
- 10 An alternator output test measures the _____ of the alternator.
- 12 _____-end (DE) housing: The portion of the alternator that supports the drive pulley and contains the bearings.
- 13 A belt _____ gauge is needed to determine if it is at the specified belt _____.
- 17 Most v ehicles that use a _____-controlled charging system can be diagnosed using a scan tool.
- 18 For the proper operation of any charging system, there must be good electrical connections between the battery positive terminal and the alternator _____ terminal.
- 19 A temperature-sensitive resistor used in the alternator to regulate v oltage based on temperature changes.

DOWN

- 2 A weak or defective battery causes _____ test results.
- 3 _____ winding: A method of connecting stator windings in an alternator to increase current output.
- 5 AC _____ v voltage: A small residual AC v oltage present in the DC output of an alternator, caused by incomplete rectification of AC.
- 7 A device that generates electrical power in a v ehicle by converting mechanical energy into alternating current (AC) and then into direct current (DC) for use by the electrical system.
- 11 The rotating component of the alternator that creates the magnetic field.
- 14 The stationary coil windings inside the alternator where the rotating magnetic field induces electrical current.
- 15 Semiconductor components that allow current to flow in one direction only, used to convert AC generated by the alternator into DC.
- 16 If the v ehicle does not use a belt tensioner, then a belt tension _____ is needed to achieve the specified belt tension.