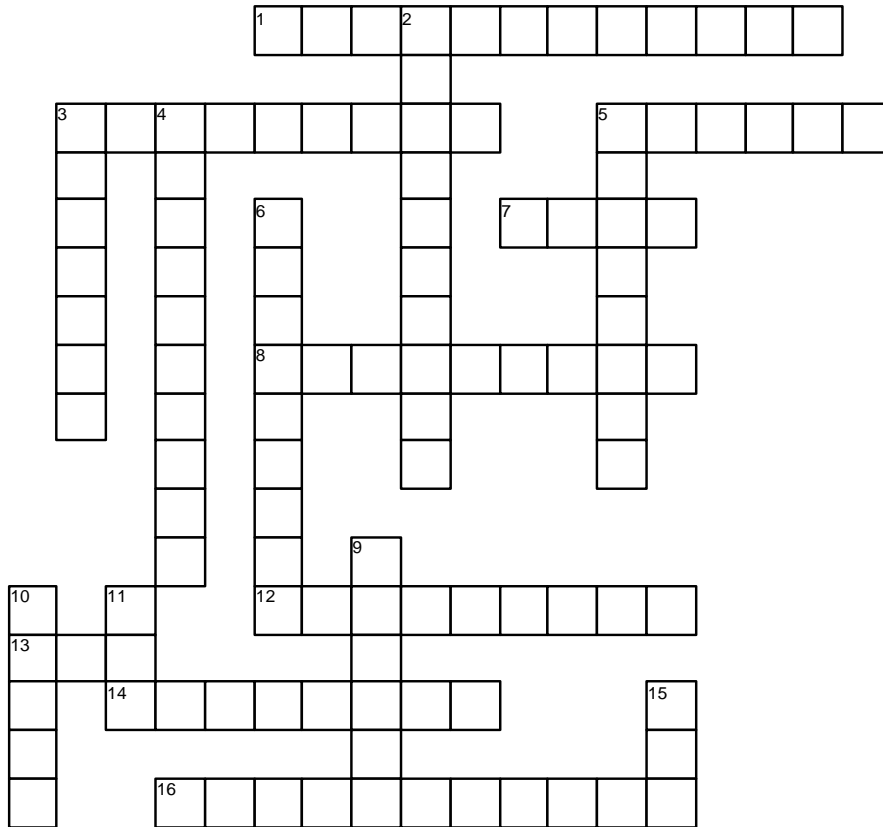


Charging System Parts and Operation

Chapter 51



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ACROSS

- 1 The _____ is connected in a triangular shape.
- 3 At both ends of the rotor windings are heavy-gauge metal plates bent over the windings with triangular fingers called _____.
- 5 _____ are constructed of a semiconductor material and operate as a one-way electrical check valve that permits the current to flow in only one direction.
- 7 A diode _____ uses three diodes in one housing, with one diode for each of the three stator windings and then on output terminal.
- 8 Diodes used in alternators are included in a single part called a _____.
- 12 The on-time, called _____, varies from 5% to 95%.
- 13 Many alternators are equipped with an _____, also called an overrunning clutch pulley.
- 14 If the _____ field is strong, a high output is possible because the current generated by electromagnetic induction is dependent on the number of magnetic lines of force that are cut.
- 16 The rear housing, or the _____-_____ housing, usually contains either a roller bearing or ball bearing support for the rotor and mounting for the brushes, diodes, and internal voltage regulator.

DOWN

- 2 A _____ provides lower resistance as the temperature increases.
- 3 The _____ necessary for the field (rotor) windings is conducted through slip rings with carbon brushes.
- 4 The term _____ is most commonly used in the trade for the generator.
- 5 A front ball bearing is pressed into the front housing, called the _____-_____ housing, to provide the support and friction reduction necessary for the belt-driven rotor assembly.
- 6 Alternator output is _____ with alternator rotational speed up to the alternator's maximum possible ampere output.
- 9 The _____ consists of the stationary coil windings inside the alternator.
- 10 The _____ is the rotating part of the alternator and is driven by the accessory drive belt.
- 11 A typical system used on some GM vehicles is called _____.
- 15 The most common term for a type of alternator pulley using a dampener spring inside plus a one-way clutch is the _____.