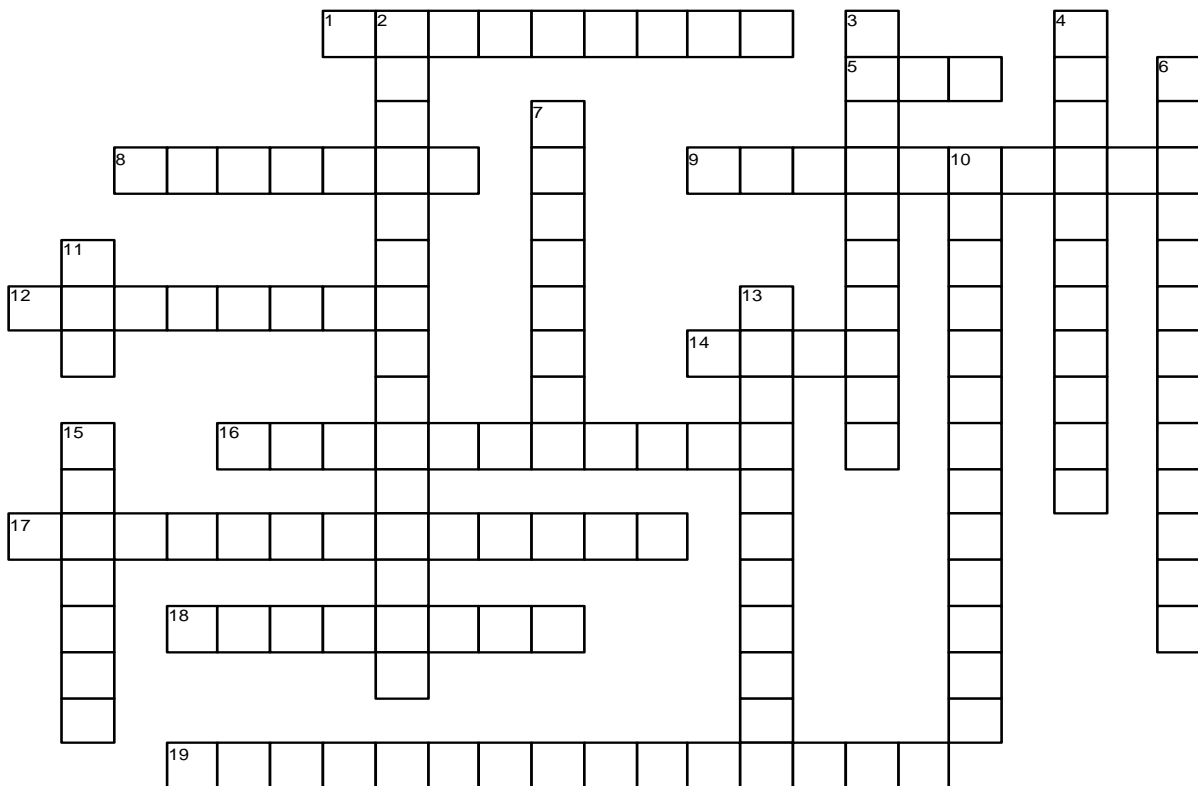


# Engine Starting And Charging Systems

## Chapter 16



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### ACROSS

- 1 The battery electrical \_\_\_\_\_ determines if some component or circuit in a vehicle or truck is causing a drain on the battery when everything is off.
- 5 \_\_\_\_\_ rating is similar to the cranking amperes rating and is tested at 32°F (0°C).
- 8 The \_\_\_\_\_ drive uses a small gear that contacts the engine flywheel gear and transmits starter motor power to rotate the engine.
- 9 The battery is a voltage stabilizer because it acts as a reservoir where large amounts of current can be removed quickly during starting and replaced gradually by the \_\_\_\_\_ during charging.
- 12 \_\_\_\_\_ voltage is the AC part of the DC charging voltage produced by the alternator.
- 14 The abbreviation for ignition on engine off.
- 16 Another name for the rear housing is the \_\_\_\_\_-\_\_\_\_\_.
- 17 If the \_\_\_\_\_ of a battery is low, it must be recharged.
- 18 One method to determine the condition of any battery is the \_\_\_\_\_.
- 19 \_\_\_\_\_ are not the same as CCA, but are often advertised and labeled on batteries.

### DOWN

- 2 The \_\_\_\_\_ rating for batteries is the number of minutes for which the battery can produce 25 amperes and still have a battery voltage of 1.75 volts per cell.
- 3 The \_\_\_\_\_-\_\_\_\_\_ is how many amperes can be discharged from the battery before dropping to 10.5 volts over a 20 hour period.
- 4 \_\_\_\_\_ is the drop in voltage that occurs when current is flowing through resistance.
- 6 A \_\_\_\_\_ is a charge of higher-than-normal voltage that is only on the surface of the battery plates.
- 7 The \_\_\_\_\_ switch and safety control switches control the starter motor operation.
- 10 Many automobile manufacturers use a \_\_\_\_\_ switch that opens the circuit between the ignition switch and the starter to prevent starter motor operation unless the gear selector is in neutral or park.
- 11 Try to purchase a battery that offers the highest \_\_\_\_\_ for the money.
- 13 GM and other manufacturers specify that a \_\_\_\_\_ tester be used to test batteries in vehicles still under factory warranty.
- 15 The primary purpose of an automotive \_\_\_\_\_ is to provide a source of electrical power for starting and for electrical demands that exceed alternator output.