

GLOSSARY

A-Circuit—A generator or alternator field circuit that is grounded externally through the regulator contacts.

After Top Dead Center—The position of a piston after it has passed top dead center. Abbreviated: atdc. Usually expressed in degrees, such as 5 degrees atdc.

Air-Fuel Ratio—The ratio of air to gasoline by weight in the air-fuel mixture drawn into an engine.

Alternating Current—A flow of electricity through a conductor, first in one direction and then rapidly changing to the opposite direction.

Ambient Temperature—The temperature of the air surrounding a particular device or location.

Ammeter—A meter used to measure electrical current flow in amperes.

Ampere—The unit for measuring the rate of electrical current flow.

Ampere-Hour Rating—A battery rating based on the amperes of current that a battery can supply steadily for 20 hours, with no battery cell falling below 1.75 volts. Also called a 20-hour discharge rating.

Analog—Describes a computer that uses variations in voltage to make calculations, as opposed to the discrete numbers used by a digital computer.

Armature—The movable part in a relay. The revolving part in a generator or motor.

Available Voltage—The peak voltage that a coil can produce.

Bakelite—A synthetic plastic material that is a good insulator. Distributor caps are often made of bakelite.

Ballast (Primary) Resistor—A resistor in the primary circuit that stabilizes ignition system voltage and current flow.

Base—The center layer of semiconductor material in a transistor.

B-Circuit—A generator or alternator field circuit that is grounded internally.

Before Top Dead Center—The position of a piston as it nears top dead center. Abbreviated: bt dc. Usually expressed in degrees, such as 5 degrees bt dc.

Blasing—Applying voltage to a junction of semiconductor materials.

Bottom Dead Center—The exact bottom of a piston stroke. Abbreviated: bdc.

Breakdown Voltage—The voltage above which a zener diode will allow reverse current flow.

Breaker Points—The metal contact points that act as an electrical switch in a distributor. They open and close the ignition primary circuit.

Brushes—Bars of carbon, or other conductive material, that make an electrical connection with the rotating commutator or sliprings.

Buss Bar—A solid metal strip, or bar, used as a conductor in a fuse panel.

Capacitance—The ability of two conducting surfaces, separated by an insulator, to store an electric charge.

Carbon Monoxide—An odorless, colorless, tasteless poisonous gas. A major pollutant given off by an internal combustion engine.

Centrifugal (Mechanical) Advance—A method of advancing the ignition spark, using weights in the distributor that react to centrifugal force.

Centrifugal Force—The natural tendency of objects, when rotated, to move away from the center of rotation.

Circuit—A circle or unbroken path through which an electric current can flow.

Circuit Diagram—A combination of a schematic and a wiring diagram. It shows the wires, the connections, and what the loads do in an electrical circuit.

Circuit Number—The number, or number and letter, that carmakers use to identify an electrical circuit in a diagram.

Clutch Switch—A starting safety switch that is operated by the clutch pedal.

Cold-Cranking Rating—A battery rating based on the amperes of current that a battery can supply for 30 seconds at 0 degrees F, with no battery cell falling below 1.2 volts.

Collector—The outside layer of semiconductor material, in a transistor, that conducts current away from the base.

Color Coding—The use of colored insulation on wire to identify an electrical circuit.

Commutator—A segmented ring attached to one end of an armature in a generator or a motor, providing an electrical connection between the armature and brushes. In a generator, it rectifies the alternating current. In a motor, it provides a current path to the armature.

Compound Motor—A motor that has both series and shunt field windings. Often used as a starter motor.

Concentric—Having the same center, such as two circles drawn around a common centerpoint.

Condenser—A device that stores an electrical charge. Also called a capacitor.

Conductors—Materials that allow easy electron flow because of their many free electrons.

Continuity—Continuous, unbroken. Used to describe a working electrical circuit or component that is not open.

Conventional Theory—The current flow theory which says electricity flows from positive to negative. Also called the positive current flow theory.

Core—A magnetic path through a coil or transformer. In a generator, a core and the windings that surround it are called an armature.

Counterelectromotive Force—An induced voltage that opposes the source voltage and any change (increase or decrease) in the charging current. Abbreviated: CEMF.

Cross-Firing—Ignition voltage jumping from the distributor rotor to the wrong spark plug electrode inside the distributor cap. Also, ignition voltage jumping from one spark plug cable to another due to worn insulation.

Current Regulator—A relay that limits a generator's current output.

Cutout Relay—A relay that keeps the battery from discharging when the engine is off or idling. It acts as a circuit breaker to open the circuit between the battery and the generator.

Cycling—Battery electrochemical action. One complete