

[Contact Us](#)[ABOUT US](#)[BATTERY TECHNOLOGY](#)[BATTERY CARE](#)[BATTERY BASICS](#)[FAQS](#)[Overview](#)[Selection](#)[Anatomy](#)[How a Battery Works](#)[Recycling](#)[Glossary](#)[Home / Battery Basics / Glossary](#)[View All](#)

A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

Word**Definition**

Acid

A type of chemical that can release hydrogen ions when mixed with water. Sulfuric acid is used in a lead-acid battery.

Active Material

The porous structure of lead compounds that produces and stores electrical energy within a lead-acid battery. The active material in the positive plates is lead dioxide and that in the negative is metallic sponge lead. When an electrical circuit is created, these materials react with sulfuric acid during charging and discharging according to the following chemical reaction: $PbO_2 + Pb + 2H_2SO_4 = 2PbSO_4 + 2H_2O$.

AGM (Absorbent Glass Mat)

A type of non-woven separator material composed almost entirely of glass microfibers that absorbs and retains the electrolyte, leaving no free electrolyte in the cell to spill. VRLA batteries made with this material are often referred to as "AGM" batteries.

Ampere (Amp, A)

The unit of measure of the electron flow rate, or current, through a circuit.

Ampere-Hour (Amp-Hrs, Ah)

A unit of measure for a battery's electrical storage capacity, obtained by multiplying the current in amperes by the time in hours of discharge. (Example: A battery that delivers 5 amperes for 20 hours delivers 5 amperes x 20 hours = 100 amp-hrs of capacity.)

Word**Definition****Word****Definition**

Capacity

The capacity of a battery is specified as the number of amp-hrs that the battery will deliver at a specific discharge rate and temperature. The capacity of a battery is not a constant value and is seen to decrease with increasing discharge rate. The capacity of a battery is affected by a number of factors such as active material weight, density of the active material, adhesion of the active material to the grid, number, design and dimensions of plates, plate spacing, design of

BATTERY SELECTOR

Find the right battery for your vehicle.

RETAIL FINDER

Find a retailer near you.

Word	Definition
	separators, specific gravity and quantity of available electrolyte, grid alloys, final limiting voltage, discharge rate, temperature, internal and external resistance, age, and life history of the battery.
Cell	The basic electrochemical current-producing unit in a battery, consisting of a set of positive plates, negative plates, electrolyte, separators and casing. In a lead-acid battery, the cell has an open-circuit voltage of approximately 2 volts. There are six cells in a 12-volt lead-acid battery.
Charge Acceptance	The quantity of current in ampere-hours which a battery in a defined charge state can accept at a specified temperature and charge voltage within a defined period.
Circuit	An electrical circuit is the path followed by a flow of electrons. A closed circuit is a complete path. An open circuit has a broken, or disconnected, path.
Circuit (Parallel)	A circuit that provides more than one path for the flow of current. A parallel arrangement of batteries (usually of like voltages and capacities) has all positive terminals connected to a conductor and all negative terminals connected to another conductor. If two 12-volt batteries of 50 ampere-hour capacity each are connected in parallel, the circuit voltage is 12 volts, and the ampere-hour capacity of the combination is 100 ampere-hours.
Circuit (Series)	A circuit that has only one path for the flow of current. Batteries arranged in series are connected with negative of the first to positive of the second, negative of the second to positive of the third, etc. If two 12-volt batteries of 50 ampere-hours capacity each are connected in series, the circuit voltage is equal to the sum of the two battery voltages, or 24 volts, and the ampere-hour capacity of the combination is 50 ampere-hours.
Cold Crank Rating	The cold crank rating refers to number of amperes a lead-acid battery at 0°F (-17.8°C) can deliver for 30 seconds and while maintaining at least 7.2 volts (1.2 volts per cell). This is commonly referred to as CCA (cold cranking amps).
Conductance	The ability to transmit current in a circuit or battery.
Container and Cover	The reservoir and lid containing the battery parts and electrolyte made from impact and acid-resistant material such as polypropylene.
Corrosion	The chemical or electrochemical reaction between a material, usually a metal, and its environment that produces a deterioration of the material and its properties. The positive lead grids in a battery gradually corrode in service, often leading to a battery failure. Battery terminals are subject to corrosion if they are not properly maintained.
Current	The rate of flow of electricity, or the movement of electrons along a conductor. It is comparable to the flow of a stream of water. The unit of measure for current is the ampere.

Word	Definition
Current (Alternating) (AC)	A current that varies periodically in magnitude and direction. A battery does not deliver alternating current.

Current (Direct) (DC)	An electrical current flowing in an electrical circuit in one direction only. A secondary battery delivers direct current and must be recharged with direct current in the opposite direction of the discharge.
-----------------------	---

Cycle	In a battery, one discharge plus one recharge equals one cycle.
-------	---

Word	Definition
-------------	-------------------

Deep Discharge	State in which a cell is fully discharged using low current, so that the voltage falls below the final discharging voltage.
----------------	---

Deep-Cycle Battery	Battery that provides a steady amount of current over a long period of time, provides a surge when needed and is designed to be deeply discharged over and over again.
--------------------	--

Discharging	When a battery is delivering current, it is said to be discharging.
-------------	---

Word	Definition
-------------	-------------------

Electrolyte	In a lead-acid battery, the electrolyte is sulfuric acid diluted with water. It is a conductor that supplies water and sulfate for the electrochemical reaction: $\text{PbO}_2 + \text{Pb} + 2\text{H}_2\text{SO}_4 = 2\text{PbSO}_4 + 2\text{H}_2\text{O}$.
-------------	---

Electronic Tester	An electronic device that assesses the condition of a battery through an ohmic measurement such as resistance or conductance, typically without drawing large current loads.
-------------------	--

Element	A set of positive and negative plates assembled with separators.
---------	--

Equalization Charge	The process of ensuring that the cells and plates within a battery are all at full charge and that the electrolyte is uniform and free of stratification. This is normally done by charging the battery under controlled conditions (charge current, time and upper voltage limits are usually specified).
---------------------	--

Word	Definition
-------------	-------------------

Formation	In battery manufacturing, formation is the process of charging the battery for the first time. Electrochemically, formation changes the lead oxide paste on the positive grids into lead dioxide and the lead oxide paste on the negative grids into metallic sponge lead.
-----------	--

Word	Definition
-------------	-------------------

Gel	Electrolyte that has been immobilized by the addition of a chemical agent, normally fine silica, to prevent spillage. Batteries made with gelled electrolyte are often referred to as gel batteries. Gel batteries are one typical type of VRLA battery.
-----	--

Grid	A lead alloy framework that supports the active material of a battery plate and conducts current.
------	---

Word	Definition
Ground	The reference potential of a circuit. In automotive use, the result of attaching one battery cable to the body or frame of a vehicle that is used as a path for completing a circuit in lieu of a direct wire from a component. Today, over 99% of automotive and LTV applications use the negative terminal of the battery as the ground.
Word	Definition
Hydrometer	A device used to measure the strength (i.e., the concentration of sulfuric acid in the electrolyte) of the electrolyte through specific gravity of the electrolyte.
Word	Definition
Intercell Connectors	Lead structures that connect adjoining cells in series, positive of one cell to the negative of the next, within a battery.
Word	Definition
Lead-Acid Battery	Battery made up of plates, lead and lead oxide (various other elements are used to change density, hardness, porosity, etc.) with a 35 percent sulfuric acid and 65 percent water solution. This solution is called electrolyte, which causes a chemical reaction that produces electrons.
Load Tester	An instrument that draws current (discharges) from a battery using an electrical load while measuring voltage. It determines the battery's ability to perform under actual discharge conditions.
Low Water-Loss Battery	A battery that does not require periodic water addition under normal driving conditions; also referred to as a maintenance-free battery
Word	Definition
Maintenance-Free	A battery that normally requires no service watering during its lifetime of use.
Word	Definition
Negative	Designating, or pertaining to, electrical potential. The negative battery terminal is the point from which electrons flow during discharge.
Word	Definition
Ohm	A unit for measuring electrical resistance or impedance within an electrical circuit.
Ohm's Law	Expresses the relationship between volts (V) and amperes (A) in an electrical circuit with resistance (R). It can be expressed as follows: $V=IR$. Volts (V) = amperes (I) x ohms (R). If any two of the three values are known, the third value can be calculated using the above equation.
Open-Circuit Voltage	The voltage of a battery when it is not delivering or receiving power.
Word	Definition
Plates	Thin, flat structures composed of a grid and active material. The grid supports the active material and conducts electrons out of the cell. Plates are either positive or negative, depending on the active material they hold.

Word	Definition
Positive	Designating, or pertaining to, a kind of electrical potential; opposite of negative. A point or terminal on a battery having higher relative electrical potential. The positive battery terminal is the point to which electrons flow during discharge.
About Us	<p> Battery Technology Battery Care Battery Basics FAQs </p> <p> Conventional Lead-Acid Installation Selection </p> <p> Absorbent Glass Mat Charging & Maintenance Anatomy </p> <p> SPIRALCELL TECHNOLOGY® Jump-Starting How a Battery Works </p> <p> Compare Technologies Testing Recycling </p> <p> Safety & Handling Glossary </p> <p> Seasonal Tips </p>
Primary Battery	A battery that can store and deliver electrical energy but cannot be recharged. A lead-acid battery is NOT a primary battery.
Word	Definition
Reserve Capacity Rating	The time in minutes that a new, fully charged battery will deliver 25 amperes at 27°C (80°F) and maintain a terminal voltage equal to, or higher than, 1.75 volts per cell. This rating represents the time the battery will continue to operate essential accessories if the alternator or generator of a vehicle fails.
Resistance	The opposition to the free flow of current in a circuit or battery. It is commonly measured in ohms.
Word	Definition
Sealed Battery	See VRLA.
Secondary Battery	A battery that can store and deliver electrical energy and can be recharged by passing direct current through it in a direction opposite to that of discharge. A lead-acid battery is a secondary battery.
Separator	A porous divider between the positive and negative plates in a cell that allows the flow of ionic current to pass through it, but not electrical current. Separators are made from numerous materials such as polyethylene, polyvinyl chloride, rubber, glass fiber, cellulose, etc.
Short Circuit	An unintended current-bypass in an electric device or wiring. Outside the battery, a short circuit is established when a conductive path is established between the two terminals of a battery. Inside a battery, a cell short circuit is the result of contact between the positive and negative plates and will cause a cell to discharge and render the battery useless.
Specific Gravity (Sp. Gr. or SG)	Specific gravity is a measure of the electrolyte concentration in a battery. This measurement is based on the density of the electrolyte compared to the density of water and is typically determined by the use of a hydrometer (see Hydrometer). By definition, the specific gravity of water is 1.00 and the specific gravity of the sulfuric acid electrolyte in a typical fully charged battery is 1.265-1.285 . Specific gravity measurements are typically used to determine if the battery is fully charged or if the battery has a bad cell.
Splash Barrel	A splash barrel is part of the battery's vent system. Its purpose is to keep acid out of the vents when the battery is upright as acid is splashed around in the cell from motion and vibration.
Starting, Lighting, Ignition (SLI) Battery	Rechargeable battery that supplies electric energy to an automobile to power the starter motor, the lights and the ignition system of a vehicle's engine.

Copyright © 2015, Autobatteries.com

Sitemap | Terms and Conditions

Word	Definition
State of Charge (or State of Health)	The amount of deliverable low-rate electrical energy stored in a battery at a given time expressed as a percentage of the energy when fully charged and measured under the same discharge conditions. If the battery is fully charged, the state of charge is said to be 100 percent.
Stratification	The unequal concentration of electrolyte due to density gradients from the bottom to the top of a cell. This condition is encountered most often in batteries recharged from a deep discharge at constant voltage without a great deal of gassing. Continued deep cycling of a stratified battery will result in softening of the bottoms of the positive plates. Equalization charging is a way to avoid acid stratification.
Sulfation	The generation or conversion of the lead sulfate discharge in the plates to a state that resists normal recharge. Sulfation often develops when a battery is stored or cycled in a partially discharged state at warm temperatures.
Word	Definition
Terminals	The electrical structures on the battery to which the external circuit is connected. Typically, batteries have either top terminals (posts) or side-terminals. Some batteries have both types of terminals (dual terminal).
Word	Definition
Vents	Mechanisms that allow gases to escape from the battery while retaining the electrolyte within the case. Flame-arresting vents typically contain porous disks that reduce the probability of an internal explosion as a result of an external spark. Vents come in both permanently fixed and removable designs.
Volt	The unit of measure for electrical potential or voltage.
Voltage Drop	The net difference in the electrical potential (voltage) when measured across a resistance or impedance (ohms). Its relationship to current is described in Ohm's law.
Voltmeter	An electronic device used to measure voltage, normally in a digital format.
VRLA	Valve-regulated lead-acid battery. AGM and gel are the two types of VRLA batteries. These batteries have no "free" liquid electrolyte and in the cell operate on the oxygen recombination cycle, which is designed to minimize water loss. VRLA batteries feature vents that are one-way burp valves. These low-pressure burp valves prohibit air ingress to the cell while permitting gases to vent from the cell if necessary. The pressure maintained in the battery, though only very slight (<3-psi) is required to facilitate the oxygen generated at the positive plates back into water.
Word	Definition
Watt	The unit for measuring electrical power, i.e., the rate of doing work, in moving electrons by, or against, an electrical potential. Formula: watts = amperes x volts.

Word

Watt-Hour (Watt-Hrs, WH)

Definition

The unit of measure for electrical energy expressed as watts x hours.

THE POWER BEHIND AN AGM BATTERY

Reliability and long life for today's most demanding vehicles.

LEARN MORE ▶

KNOW HOW TO RECYCLE AN OLD BATTERY?

Find out what it takes to recycle a battery and how you can do your part.

LEARN MORE ▶

SEASONAL TIPS

Hot weather means high temperatures under the hood, which accelerates corrosion inside the battery.

LEARN MORE ▶

