



By Margie Siegal

nce upon a time, batteries were boring black boxes. They were all lead acid based, weighed a ton and all they did was power the lights and an occasional electric starter. Now, batteries are complicated. Deciphering the veritable alphabet soup of technological advances and telling the players apart definitely requires a score card. Longtime Dealernews readers can look back to a time when Yuasa was celebrating 50 years of being the battery leader... now Yuasa is celebrating its 100th anniversary [see sidebar] and there are dozens of contenders.

The basic lead acid battery has been used commercially for more than 100 years, utilizing the same chemical principles to store energy. However, batteries have become increasingly more complex in the past couple of years because the demands have increased logarithmically. Present day customers often want additional electronics installed on their new ride, or added to an older model. Have you seen the "infotainment" centers on everything ATVs and UTVs to ADV and Touring bikes? The additional amps needed by those extra lights, stereo systems, GPS, Bluetooth and alarms can overwhelm the stock battery. Worse, many of these components continually draw a small amount of current ("parasitic draw"). Customers are demanding more cold cranking amps out of smaller, lighter weight battery boxes.

One size definitely does not fit all! Getting a higher amperage battery to fit in the battery case may not be easy. To make things worse, the fitments on some aftermarket battery "upgrades" make it difficult to connect the battery cables. Harley techs will recognize this issue. However, Voltz Power President Kathy Peterson states that the Voltz terminals can be connected to most battery cables without an adapter. Voltz makes extra power batteries in stock dimensions specifically for V-Twins.

What's In The Marketplace Now?

AGM, Gel, Li-Ion... what does this alphabet soup really mean? Standard "wet" cell, gel cell and absorbed glass mat (AGM) are variations on the lead acid battery... Li-Ion (Lithium Ion) is a different animal altogether.

Absorbed Glass Mat (AGM): These lead acid batteries come in two flavors: batteries that are charged at the factory and batteries that need to be charged at the dealership. While it may be a a hassle, batteries that need charging before installation can sit on the shelf for a long time without any loss of potential power.

Kathy Peterson points out that Factory Activated AGM batteries will not sit on a shelf forever without losing charge. "You have to reboost them every 4-6 months." Factory Activated AGM batteries should be tracked through your DMS and put on charge if they are at the dealership for an extended amount of time.

The best AGM batteries have pure, not recycled lead plates. Kirk Alves, Fire Power Brand & Sales Manager, explains that the pure lead in Fire Power AGM batteries provide for longer life and better cranking. Fire Power's AGM battery and new featherweight Lithium-Ion battery are exclusive to Western Power Sports.

Odyssey batteries also feature pure lead construction. "Pure lead discharges slower and recharges faster," explains Alan Kohler, Transportation & Specialty Marketing Manager for EnerSys' Odyssey brand batteries. "It can deep cycle without harm. We have some folks getting 10+ years out of their batteries."



AGM batteries in general are sensitive to overcharging. It is important to warn customers that an inexpensive or older trickle charger that does not stop charging when the battery is fully charged may drastically shorten AGM battery life. Suggest that your customers use a charger with a float mechanism if they plan to keep the battery connected to the charger for a long period of time... say all winter (see sidebar on chargers).

Gel Cell: Gel batteries are even more sensitive to overcharging than AGM batteries, but have advantages that, for many customers, outweigh their extra cost and charging requirements. With all things being equal, a gel cell may last longer. Also, In the event of an accident, a gel cell is unlikely to spill its contents... with the standard lead acid battery filled with a 35% sulfuric acid and 65% water solution, spills can be a real concern.

Li-Ion: The new kid on the block is lithium ion. Lithium ion batteries are lighter and can be smaller than lead acid batteries, a big plus for custom installations. They can also sit on the shelf for an extended period of time without needing recharging. They are not cheap, however, and if not maintained correctly or if they do not have the correct protection built in (both Firepower and Antigravity batteries do) can heat up and begin to melt if overcharged. "We are currently a leader in Lithium-Ion batteries for powersport and motorsport applications," says Antigravity's Scott Schafer. "We have the most technologically advanced batteries currently available."

In fact, the Antigravity lithium battery has complete built-in circuitry that will prevent over-discharge and over-charge, and had a built in reserve allowing the vehicle to be re-started again if drained. "Think of it as the first battery ever with builtin jump starting," explains Antigravity's Brand Ambassador/ Technical Support guru Chad Estevez. "This battery also puts itself to sleep before the battery can be drained dead. You always have enough reserve capacity to start your vehicle and get out of those dead battery emergencies. Just press the RE-START Button located on the top of the battery." Check out **www.antigravitybatteries.com** for more details.

The Fire Power lithium battery has built in circuitry that will prevent an overcharge," adds Kirk Alves. "This allows it to be safely connected to any good quality trickle charger."

Take It To The Bank

Average battery life has become shorter as energy requirements have increased. Think of a battery as a piggy bank. If you keep taking out and putting nothing back, you'll have nothing left. Until the advent of the Li-Ion battery technology, the same lead acid battery basics have been in commercial use for the past 100 years, however the demands have been increased far beyond a battery only needing to run the headlight!

In keeping with the piggy bank analogy, stocking batteries and chargers can be an investment in your bottom line... customers are going to continue to withdraw every last bit of charge from their batteries sooner than later (much sooner with all the parasitic draws and infotainment drains modern machines place on the system).





