

CYCLE LIFE IN AGM BATTERIES

Q: What is Cycle Life?

A: A CYCLE is a single occurrence when energy is taken out of the battery and then put back in. CYCLE LIFE is the ability of the battery to do that over and over again and continue to deliver reliable performance.

Q: How does claims of extended CYCLE LIFE differ from claims of just extended battery life?

A: LIFE vs. CYCLE LIFE

Claims that a battery has extended LIFE could simply mean it survives longer than average in a typical automotive application in an average climate. In the real world, actual battery life is highly variable and unpredictable. The stresses on a battery differ by climate, vehicle differences, and user habits. A battery may last a long time under ideal conditions, but fail with only minimal abuse.

A battery with extended CYCLE LIFE survives longer than average under more grueling demands that portray a more realistic picture of real-world use. This includes warmer climates, higher under-hood temperatures, longer than typical hours of usage, higher annual miles of operation, and frequent electrical loads while the engine is off.

Q: Why do customers need better cycling performance from their batteries?

A: Today's vehicles, and those to come, are being built with more factory-installed electronics and more places to plug in portable devices. For example, cars and other passenger vehicles have to provide power for items like LCD viewers, GPS systems, stereos and speakers, powered windows or doors, cell and smart phone charging, and anything else that plugs in or turns on. Boats need power for accessories like live-wells, GPS systems, stereos, hazard lighting, fish finders, and any other item that plugs in or turns on.

Newer cars are also utilizing additional electronic functions in areas that were traditionally powered by the engine. This is not only the case for Hybrid Electric Vehicles, but is also being incorporated throughout a variety of standard automotive designs. These additional electronic services demand extra performance from the battery. As more types of vehicles evolve further into electrification, so will the need for the higher cycling tolerance and overall durability in a battery that can be found in the AGM design.

Q: How does Koyama's AGM product have extended CYCLE LIFE?

Koyama's AGM batteries have special glass mats that are strategically wrapped around the battery's power producing components. The main reason for this mat is to absorb all the battery's acid so the battery won't leak or spill if turned over or if cracked. However, these mats also provide an added layer of protection for these components. This added protection enhances the battery's durability against continual power drains like electronics. In fact, KOYAMA's AGM batteries have 2x the cycle life over traditional maintenance-free flooded batteries to power more accessories for much longer. This enhanced durability also protects the battery from vibration, high temperatures, the rigors of stop-and-go driving and frequent

vehicle use.