

Odyssey AGM Battery



Written by Gary Springgay // Photos by Manufacturer | 29 April 2010



Our vehicles battery is the type of component we seldom give a second thought to, until the day comes that our car won't start. Well, some folks are spending an inordinate amount of time thinking about batteries, and I'm really glad they are!

Automotive battery designs have come a long way in the last couple of decades. We have gone from a typical wet cell lead acid battery that used to need regular maintenance and adding of water, and even then would last just a couple of seasons, all the way to the new high-tech, Absorbed Glass Mat designs that will reliably start our cars for 2 or 3 times as many years, requiring no maintenance, cannot leak, don't corrode, and vastly outperform the old designs in every possible way. There is no question that AGM batteries are becoming more and more popular. The design lends itself better to withstanding shock and vibration, and most will give you at least several years of maintenance free service. But, as I recently learned, all AGM batteries are not created equal.

One of the leaders in battery technology is a company called EnerSys, who manufacture the highly respected Odyssey brand of AGM batteries. Technically, these batteries are known as "valve regulated lead recombinant" batteries, and EnerSys patented the technology way back in 1973. Odyssey makes batteries for almost every conceivable application, including some of the most extreme duty situations you could imagine. You can find Odyssey batteries in everything from race cars to military vehicles like jet fighters, destroyers, and tanks. I'm told the U.S. Coast Guard has 500 batteries in 50 Bollinger 87 foot Protector Class cutters since 1998 without a single failure to date. That right there should tell you something about the Odyssey batteries.

As you may have surmised by now, the Odyssey AGM battery is very unique and technologically advanced. It was designed to meet the demanding needs of the US Military with respect to heat, cold, shock and vibration, and to last much longer than other batteries. Most of the AGM batteries you can buy today use recycled lead, which shortens their service life. It's not uncommon for an Odyssey battery to actually last 6 to 10 years, which is attributed to it being manufactured with 99.9% pure virgin lead. Because this very pure material can be made thinner compared to the recycled lead used in other batteries, more plates can be fit into the same space. This translates to increased power, as much as double that of a conventional battery. The battery I tested for this article is a Group 34-PC1500, which is rated at 1500 amps for 3 seconds, and has a HCA (Hot Cranking Amperage) of 1250A for 30 seconds! Another benefit, this construction provides very low internal resistance (under 3 milliohms is typical) so it can not only provide more cranking amperage than other AGM's, but it also recharges faster as well. Low internal resistance is also very good for powering car audio amplifiers, because an amplifier actually draws current in very fast pulses, and the lower the resistance in the feed circuit, the faster the amps internal capacitors recharge, resulting in improved musicality, and better performance. The Odyssey batteries excel at deep cycle applications too, and can be 100% discharged over 400 times. If you have a car that is seldom driven, you can simply disconnect one battery terminal and leave the car sit for up to 2 years, and the Odyssey battery will still be able to start the car.

Because Odyssey dry cell batteries have been rated by the U.S. Department of Transportation (USDOT) as non-spillable, your battery can be shipped using express air services. Conventional lead acid batteries are classified hazardous material and are restricted to ground transport only.

While you can certainly find a less expensive battery, this is one case where you get what you pay for. And to show how much Odyssey believes in their product, the 34-PC1500 I tested comes with a full 4 year replacement warranty, with no pro-rata clauses. If it fails, they give you a new one. But, after learning how these batteries are made, and doing my load and charge testing here in the lab, I doubt you'll be needing the warranty.

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