

Genesis® EP

The distinctive all-black Genesis® EP battery was designed in the early 1990s to be a battery that combined several features in one box that previously required separate batteries. It was a breakthrough in VRLA battery technology, analogous to an athlete possessing the qualities of an excellent sprinter and a marathon runner in the same body. The Genesis® EP battery combines several high-performance features including

- ***Superior high rate capability***
- ***High energy and power densities***
- ***Quick charge capability***
- ***Long storage life on open circuit***
- ***Deep cycle capability (up to 400 cycles to 80% depth of discharge)***
- ***Ability to recover from repeated deep discharges***
- ***Extreme high temperature (up to 176°F/80°C) operability***

These features allowed the Genesis® EP battery to make inroads into several non-consumer markets, such as outdoor telecommunications backup, medical devices and high-reliability uninterruptible power systems (UPS), that demand extreme performance from rechargeable batteries.

ODYSSEY® development

It did not take long for the Genesis® EP battery to attract attention from a broad spectrum of battery users for its outstanding overall performance. Even more intriguing was the battery's ability to tolerate and indeed thrive in abusive environments, particularly in consumer applications.

Realizing the benefits the battery could bring to the consumer market, EnerSys formally launched the ODYSSEY® brand in July 1999, specifically targeting consumer applications that place a premium on battery performance. Once again, the battery had a unique appearance, this time with an attractive orange case and cover.

The goal of the ODYSSEY® program was to present the consumer looking for a high-performance, low replacement-frequency battery with an alternative battery that augmented the unique strengths of the Genesis® EP battery with even better resistance to shock and vibration.

The changes made to the Genesis® EP battery to create the ODYSSEY® battery were evolutionary, and leveraged the extensive military design experience that EnerSys has. It began

with thicker plates inside the battery that gave the battery longer life and better resistance to shock and vibration. Another enhancement was the ability for ODYSSEY® batteries to be ordered with special terminals that make them compatible with automotive engine start applications. Finally, ODYSSEY® batteries were also made visually different (with the exception of the PC535 and the PC625) by packaging them in bright orange plastic.

However, the process used to mold the case of the newest member of the ODYSSEY® family, the PC2150 (BCI Group 31) precludes the use of colored plastic. The extreme temperature and pressure generated during the molding of the case discolors the plastic, preventing the use of colors in the plastic for the battery case. This necessitated the use of black plastic for the PC2150 case. Therefore, in order to maintain visual consistency, the existing ODYSSEY® batteries¹ are now made with black cases and orange covers. All optional metal jackets are orange.

Field trials have shown a significant improvement in battery endurance and validated the design changes. These changes have led to increased ODYSSEY® sales and the battery's market share. The battery is fast becoming the preferred product in the premium-performance market.

Today, the ODYSSEY® battery is available from a wide network of distributors in North America, Asia, Australia and Europe, and continues to establish itself as the premium product in more and more demanding applications worldwide. Such demanding applications include emergency service vehicles in Europe and the United States to GT series racing cars in Japan to top fuel dragsters in Australia.

As the ODYSSEY® program grows, EnerSys continues to develop and enhance the technology of the ODYSSEY® product range to bring the unique benefits of this battery to an ever-wider field of users and applications.

¹ The exceptions are the PC535 and PC625 both of which have black case and cover. The PC310 and the PC2250 (both manufactured in our sister facility in the UK) have orange cases and covers.