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energy



ARE YOUR RV AND BOAT BATTERIES DYING OFTEN? **Firefly's Revolutionary Microcell™ Carbon Foam battery, Oasis™** **Lasts three times longer, lowers ownership costs.**

Traditional lead acid batteries fail due to sulfation and corrosion of the plates

Corrosion is caused by the formation of a passive layer (rust!) on the plates. This is accelerated as temperatures rise (above 70°F), even if the battery is not in use. Batteries self-discharge when not in use – between 1 to 10% per month depending on the type. *This causes premature loss of battery storage capacity.*

Sulfation is caused by sulfate crystals forming on the negative plates. This process is irreversible. This happens when a lead acid battery is deprived of a full charge, as it frequently happens with batteries in RV's and boats - engine idling at low speed cannot charge the battery sufficiently. Long storage periods, and temperature extremes also contribute to the onset of sulfation. *This increases internal resistance - lowers charge acceptance and charging takes longer.*

OPTIONS FOR COMBATING SULFATION AND CORROSION?

Several companies offer anti-sulfation devices that apply charging pulses to the battery terminals to prevent sulfation. Although this can reduce sulfation on a healthy battery, it cannot reverse the condition once present. Pulsing or applying an overcharge can actually harm the battery and increase corrosion. This adds to maintenance and costs money,

FIREFLY ENERGY HAS THE ANSWER TO CORROSION AND SULFATION

Originally developed by Caterpillar, Firefly "OASIS" BATTERY, uses a patented carbon Microcell Foam grid structure that is highly resistant to sulfation and grid corrosion. It has the longest life of any lead acid battery used for deep cycling, even at extreme temperatures and operation at less than full charge

- **Three times life expectancy of traditional lead acid batteries.**
- **Fast charge/discharge capabilities.**
- **Wider operating temperature range.**
- **Can be discharged 100% without damage.**
- **Can sustain partial state of charge operation**

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