A sturdy lead acid car battery using acid gel*

In the traditional car batteries, lead plates are immersed in dilute sulphuric acid. A reputed battery manufacturing company has now designed a new bat-

*Extracted from Professional Engineering, 1999, 12, 14.

tery, which they think, is much better than the conventional batteries. It also uses the lead-acid mix to generate electricity, but the metal is wound into a tightly cylindrically coiled mesh covered with an acidic gel. The mesh retains the semi-solid acid gel firmly and

so unlike in conventional battery technology the acid cannot spill. This battery is called Select Orbital Exide Battery. The price of this battery is stated to be about 50% more than the normal battery. The conventional automotive battery is expected to last about

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40 months for the typical motorist. However, in hot and moist weather, the average life can fall 30 months or less. The Select Orbital, according to the manufacturers of the new design, is expected to last at least five years (60 months) under all conditions and the battery can survive heat, wet weather as well as shocks. It can also sit completely discharged for a full year with-

out going dead. There are other advantages of this battery. It will not freeze in cold weather and users never need to add water and the battery does not vent hydrogen which is normally a by-product of conventional batteries (which can be explosive). The battery can therefore be mounted anywhere in the car, even in the passenger compartment. This is the first commercial bat-

tery available which uses the mesh and gel technology and these batteries are at present available in Europe and in USA, and are expected to be distributed all over the world.

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