

Innovated Battery Magic?



In our daily lives without realizing it, our reliance and expectations from our vehicle have increased and this requires our battery to be in prime condition to perform on demand, when demanded. A non-start event causes activity disruption and annoyance, especially in situations when you least want to face them.

“Why won’t my car start (this morning)?” “It was still working fine the night before!?” “Shouldn’t my battery last much longer since its Maintenance-Free?” “Batteries nowadays don’t last like they used to”... General gripes from all motorists. Are we resigned to these facts or is there a solution at hand?

Most are unaware that the main culprit that causes unsuspected battery failure is LEAD SULPHATION which happens within the cells. It is a natural occurrence in all lead-acid batteries (*Maintenance and Maintenance-Free*) (Fig1) and the process is unfortunately worsened under the high temperature environments within our vehicles.

When driving unsuspectingly with a sulphated battery, it robs the engine of valuable horsepower which is undesirable. The vehicle’s rated fuel efficiency is also affected since constant charging demand to the alternator increases engine load and more fuel is consumed unnecessarily.

MAGIC IN A BOX

Unlike other battery assist or support products that only perform pre-alert or monitoring functions, Nanopulser’s novel approach involves ‘Renewing’ and ‘Rejuvenating’ the internal lead plates of your battery, the main active component. Why forewarn when you can forestall battery catastrophe and improve all aspects of its performance?

Nanopulser performs its magic via special dual frequency pulses which decomposes lead

Liquid acid forms lead sulfate “crystals” on the battery’s lead plates during discharge.

In a perfect world, these soft crystals dissolve upon recharge, returning the battery to full capacity.

In the real world, some crystals become permanently stuck on the plates, over time reducing the battery’s capacity to store energy. The battery will appear fully charged, but it will become empty more quickly due to lost capacity.

Eventually, the battery will lose so much capacity that it is no longer useful in its application.

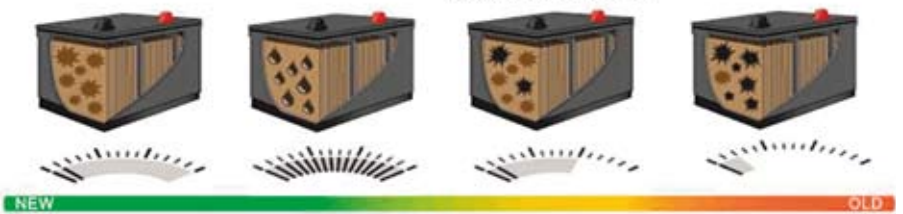


Fig 1: Battery Sulphation Chart

sulphate crystals and converts them back to lead and lead dioxide reusable components. The new plate condition is maintained thereafter by inhibiting sulphate crystals from forming again based on its full time conditioning action (Fig 2).

The built-in ‘smart’ CPU processor adjusts the pulse frequency depending on the impedance value of the sulphated cells. This patented feature is not available in any battery support product in the market and is unique to Nanopulser. This remarkable approach of using specific frequencies has been praised by engineers as the preferred method in solving sulphation and premature plate deterioration.

In addition, Nanopulser’s multi functional LED indicator shows your battery condition in real time at source. This is far more accurate than any voltage display or ‘viewer eye’ located on most batteries which only shows isolated electrolyte level!

AN URBAN SOLUTION

Vehicle owners can now have peace of mind knowing that Nanopulser puts drivers back in control of their vehicles, without worrying about their battery causing unexpected disruptions to their daily activities. In addition, owners benefit with savings gained from minimal battery replacements while in turn contributing towards environmental sustainability efforts.

Without any extra effort or requirement on your part, your battery with Nanopulser will be able to recover lost capacity and always maintain its ‘fresh and new’ condition even

DID YOU KNOW?

EUROPE: A study conducted by a German manufacturer of luxury cars revealed that of 400 car batteries returned under warranty, 200 were working well and had no problems. Lead sulphation and acid stratification are the most common causes of apparent battery failure. This problem occurs more frequently for large luxury cars offering power-hungry auxiliary options.

JAPAN: In Japan, battery failure is the largest complaint among new car owners. The average car is only driven 15-30 km per day and mostly within a congested city grid. As a result, the batteries will never get fully charged and sulphation occurs. The batteries in Japanese cars are usually small and only provide enough power to crank the engine and perform some rudimentary functions.

when your car is infrequently used or if travel time on the road is reduced.

With Nanopulser, there are no disruptions, no disappointments, no unnecessary expenses, just your expectations met... as it should be.

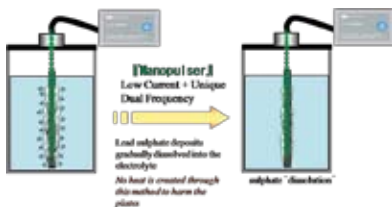


Fig 3: Nanopulser Process

For more product information and enquiries, please visit website www.nanopulser.com.sg or email info@nanopulser.com.sg