## MAINTENANCE-FREE SEALED RECHARGEABLE BATTERIES

**GPS Standard BATTERIES** are maintenance free sealed lead acid rechargeable batteries. They have excellent economy stability and superior output. Various characteristics have been improved such as leak proof, overcharging and overdischarging. Their performance is not compromised even at extremely high or low temperatures, exerting a great improvement over the conventional batteries.





# PRINCIPAL CHARACTERISTICS

#### Leak proof construction

By the special sealing design, there is no leakage of liquid or gas and it is safe for all applications. It can be installed in equipment safely without leakage.

#### Separator

Absorbtive glass mat (AGM) with high & long durability is used for separators, which absorbs electrolyte and retains constant volume of electrolyte.

#### •Gas recombination

The Batteries are incorporated with unique design that effectively controls generation of gas and allows recombination within the battery of over 99% of gas generated during the normal operation.

#### •Maintenance-Free operation

The gas evolved from the positive plates diffuses through the microporons glass fibers to the negative plates where it is changed to water by recombination reaction, eliminating the need for water addition.

#### Position-Free

The combination of the sealed construction and the use of absorbtive mat separators permit that operation of batteries are made to be suitable any position.

#### •Safe valve

The safety valve is made of rubber with special oil. The valve operates at 7 PSI to 10 PSI automatically releasing excess gas in case that internal pressure increase to a level above the

normal rate to assure safety and reliability. After releasing is finished, the pressure is returned to normal.

## •Heavy-duty grids

Advanced lead-calcium alloy grids provide an extra performance and long service life in both cyclic and floating applications even in deep discharge condition.

## •Cyclic life

Depending on the average depth of discharge, over 1,000 discharge/recharge cycles can be expected.

## •Float life

The expected life using under float (trickle charge) condition is 5 to 7 years.

## •Low self-discharge & long self-life

The rate of self-discharge varies with the ambient temperature. At an ambient temperature of  $20^{\circ}$ C (68°F), the self-discharge rate of batteries is approx. 3% of rated capacity per month. One recharge every six to nine month is sufficient to maintain the original capacity of a battery in no use.

## •Operating temperature range

GPS Batteries may be used over a wide range of ambient temperatures permitting to let the system design and location flexible.

## •Deep discharge recovery

Special separators, advanced plate composition, and a carefully balanced electrolyte system have greatly improved the capability of recovering from deep discharge.