

## BATTERY DATA SHEET

### BATTERY TYPES TO USE WITH OUR REGULATOR/RECTIFIERS

**ONLY** Lead Acid    Liquid electrolyte (acid + distilled water)  
Sealed Glass mat types – modern version  
Cyclon cell

**NOT** Lithium-ion (Li-ion) or any other Lithium chemistry

**NOT** Nickel Cadmium (Ni-Cd), Nickel Metal Hydride (NiMH) or any other types now or in the future

#### **WHY ONLY LEAD ACID?**

These have been used for over 100 years for automotive and motorcycle applications. Motorcycles are usually supplied with them from new and like the OEM regulator/rectifier was only designed to work with lead acid batteries.

**Note** Battery capacity Ah needs matching to the output of the charging system so do not use a car battery for any motorcycle or large motorcycle battery with a low output charging system.

#### **WHY NOT LITHIUM-ION?**

Requires very careful control of charging current and voltage – constant current with steady increase of voltage. Motorcycle charging systems have a wide range of voltage and current input completely unsuitable for Li-ion type. To overcome this problem manufacturers of Li-ion batteries for motorcycles have built in control electronics - but these are highly variable in operation and quality.

Lithium-ion batteries do not accept overcharge or either excessive current when charged or continued charging when fully charged. This can result in serious damage to the battery and consequential damage to the regulator/rectifier, worst case the battery can catch fire or even explode.

Not suitable for trickle charging.

With many varying environmental conditions which motorcycles are used; it is worth noting that Li-ion batteries will not charge below 0°C.

**All warranty is void and we accept no liability for any damage or injury caused if a Lithium-ion battery, Nickel Cadmium (Ni-Cd), Nickel Metal Hydride (NiMH) or any other type other than lead acid now or in the future, is used.**