Smart Battery Testers

Not so long ago the process for testing batteries was to determine the state of charge by using a Hydrometer to test the specific gravity of the fluid in the battery and then load test with a carbon pile load tester, making a judgment call on how the battery held its voltage under load. Battery fluid or a solution of Sulfuric Acid (35% to water 65%) is relatively heavier when the battery is fully charged than when flat as the Specific Gravity changes. A battery with fluid that reads 1.260 depending on the temperature is considered fully charged whereas a battery with a specific gravity of 1.100 would be too flat to test.

This is now almost impossible as most batteries do not have access to the fluid in them through vents in the top.

Modern battery testing is achieved using a “Smart Battery Tester” such as an LV8111 which will give a quick, accurate and printable condition report on the state of the Battery relative to the capacity printed on its label or case, Charging System and Starter Function. It will also report Battery Health, Voltage and internal Resistance.

This is even more important with modern computer controlled charging systems. A report recently related a situation where an FG Falcon had issues with its A/C system not operating correctly and the root cause turned out to be the Battery was low in capacity. The ECU in the vehicle determined the Battery to be below its rated capacity and in this situation it will shut down what is considered “non-essential” equipment for periods of time to reserve the battery for starting. The vehicle was initially brought in for a basic service, the battery was tested and reported as faulty off a Smart Tester but as the car was still starting OK the customer decided against replacement until the link was discovered between the battery condition and poor A/C operation. The Battery was replaced and the A/C worked correctly again.

A good Smart Battery Tester is Essential in a Modern Workshop!

LV8111