



SmartGauge

- **Model Based Battery Monitor**
- **Does not run out of synchronisation with batteries. Much more accurate than basic Ah counters**
- **Provides voltage and SoC% for auxiliary battery and voltage of engine start battery**
- **High/Low voltage and SoC% alarms**
- **Alarm contacts for auto start/stop of generators, load shedding, external alarms etc.**

SmartGauge provides highly accurate battery monitoring at a similar cost of standard Ah counting based monitors. The easy to understand display, dependable SoC% reading and its ease of use mean that even the most technically challenged crew member can truly understand just how much power is left in the battery.

The Answer To Battery Management Questions: Once users understand battery % remaining they can get the most out of the batteries. This saves you the cost of early battery replacement and adds the safety benefit of them not running out of power. SmartGauge answers questions like "Are the batteries charged yet?", "When should I start the engine to recharge?", "Can I leave the fridge/lights/echo sounder on overnight?". SmartGauge is fitted in applications as varied as cruising yachts to ambulances and electric invalid carriages to utility vehicles – imparting battery information to previously uninformed users in a clear, easy to understand format.

Automation of Systems: Using Ah counters to automatically start/stop generators and shed loads is often fraught with trouble. As soon as the Ah counter runs out of synchronisation, generators start at unexpected times and loads are switched off when more than enough battery capacity remains. Because SmartGauge never runs out of synch, it is your generator's perfect auto start/stop controller. The free alarm contact provided can also be used for remote alarms or to turn off loads.

Information: SmartGauge provides Battery Voltage & SoC% for one main battery bank. Suitable for 12 or 24V battery banks of 50-2000Ah. It displays the voltage only for a second (normally engine) battery. High/Low voltage alarms and State of Charge % alarm are standard features.

Low Power Consumption: SmartGauge uses around a tenth of the power of a competitive monitor. Because battery monitors should be left connected at all times, power usage is very important. SmartGauge uses just 3.5Ah per month – a 100Ah battery can power SmartGauge (with no charge sources) for around 14 months.

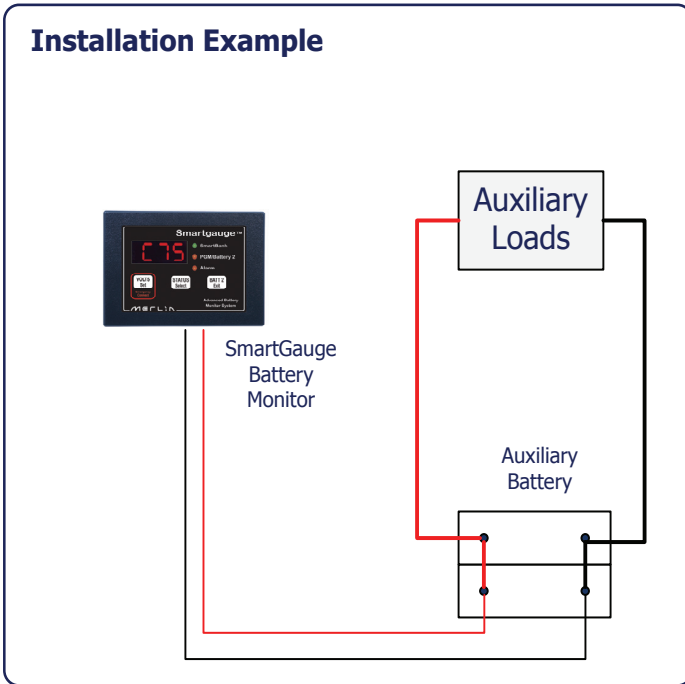
Easy Installation: SmartGauge connects using just three wires, no complex heavy cabling or shunts are required. Installation is possible within around 20-30 minutes.

Split Charge System Integration: SmartGauge can interface directly with Merlin SmartBank Advanced, SmartBank PRO and SmartGuard COMBI. Once interfaced, the SmartGauge becomes a split charge system control panel to display status and allows menu based on screen programming. SmartGauge also continuously tunes the split charging system as the batteries age to ensure that split charging remains effective throughout the life of the batteries (and retunes to their eventual replacements).

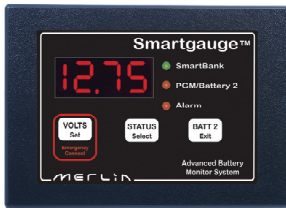
Fuel Saving Tip

Batteries charge quickly up to 80% State of Charge. After 80% they take longer to charge – burning an exponentially larger amount of fuel. Efficient use of a generator or engine alternator is to discharge batteries to 50% DoD (Depth of Discharge – the maximum a battery should be discharged to is 50%) and recharge to 80%. Merlin Battery Monitors can automatically start/stop generators according to battery State of Charge %.

Installation Example



Part #	19-1001
Voltage	12 or 24V
Voltage Range	9-40V
12V Measurement Range	9-17V
24V Measurement Range	18-34V
Power Consumption (Sleep)	<5mA
Power Consumption (Display On)	<15mA
Recommended Battery Size	50-2000Ah
Overall Dimensions LxWxH (inch)	112x77x29mm (4.41x3.03x1.14)
Weight	90g (0.20 lbs)
Compliance	EMC 89/336/EEC, CE ISO-7637-2, RoHS



SmartGauge Display: In stand-alone mode, SmartGauge will display the voltage of the main auxiliary battery. Pressing Status will show auxiliary battery State of Charge %. SmartGauge will display the voltage of a second battery by pressing the Voltage button twice.



When interfaced with SmartBank Advanced, SmartBank PRO or SmartGuard COMBI, SmartGauge displays Split Charging Status. Pressing the Volts & Status buttons simultaneously for five seconds will activate Emergency Parallel.

Interfacing SmartBank PRO, SmartBank Advanced or SmartGuard PRO is easy – plug in and SmartGauge will self configure the split charging system (settings can be manually over-riden if required).

Recommended Applications:

