Battery Monitoring System

Mk III

Features

- One sensor per pair of 12V batteries
- Measures voltage, current, temperature and conductance of each battery
- Reports :
  - State of charge
  - State of life
  - Time remaining
- CAN interface
  - J1939 compatible
- Scalable system for up to eight battery pairs
- Qualification tested to US Military Specifications
- Rugged design in metal enclosure

The Ultra Electronics battery monitoring system (BMS) has been specifically designed for use on military vehicles. Based on Midtronics' patented InGen™ technology that incorporates a real-time complex algorithm, the BMS simultaneously measures conductance, voltage, current, temperature, and time to provide a highly reliable and accurate measurement of the state of life and charge of a vehicle's batteries. The battery monitoring system provides the vehicle crew with accurate real-time battery health data.

The Mk III was developed meet the BMS performance specification written by PEO Ground Combat Systems. The technology used in the Mk III system has been in use on military vehicles in theater.

Benefits

- Power consumption monitoring
  - Providing accurate time remaining measurements for silent watch applications
- Critical power threshold alerts
  - Crew alerts activate when power is too low to guarantee completion of a mission
- Reduced life cycle cost
  - Identifies faulty batteries so that only the defective batteries are replaced
- Controller monitors up to three battery pairs

Ultra ELECTRONICS

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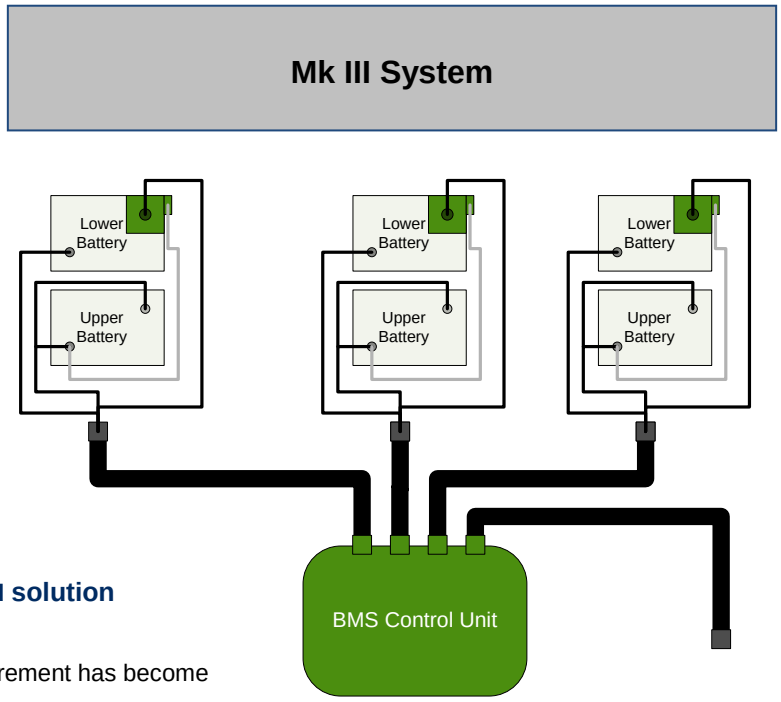

Conductance based solution

Conductance measurement has become established in the automotive and standby power industry as the only reliable method for quantifying the health of a lead acid battery.

The battery monitoring system combines conductance measurement with voltage, current, temperature and time to provide accurate state of health and state of charge for each battery in the vehicle.

A sensor unit mounts directly to the lower negative battery terminal. An LED indicator on top of the sensor indicates the state of function. Each sensor outputs data via a control card onto CAN bus so that information can be displayed either on existing vehicle displays or a custom solution. The control unit can be scaled to house from one to three control cards.

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