

**ENERGY MANAGEMENT SYSTEM FOR VEHICLES HAVING LIMITED
ENERGY STORAGE**

Abstract

The Energy Management System comprises an electronic module 10 which incorporates a microcontroller 12 as a calculation engine and means for controlling various systems of an electric vehicle or other vehicle having limited energy storage. A variety of sensors including battery sensors 18, temperature sensor 20, current sensor 22, temperature sensors 24, 26, 28, 30, speed sensor 32, accelerometer 34, and ignition switch 36 provide information for the Energy Management System to derive control parameters for the systems. Automatic control of heating and air conditioning system 56, external lighting system 58 and the operation of motor controller 54 as well as display of information, status and queries to the driver are controlled by the Energy Management System and range and navigation recommendations are made based on predefined driving profiles maintained in the system.

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