

METHOD AND APPARATUS FOR DETERMINING EXTERNAL POWER SUPPLY TYPE

Abstract of the Disclosure

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In summary, the present invention provides a method and apparatus for determining an external power supply type and modifying the charging of the internal battery (14) based upon the external power supply type and battery information. The device has an external power adapter (12) used to provide power to the device (10), as well as charging current for the battery which is regulated by the internal battery charger. A microcontroller (20) in the device (10) regulates the charging current to the battery (14). The microcontroller (20) preferably contains an A/D converter (21) which is connected to a pull-up resistor (32) internal to the device, and to a pull-down resistor (34) in the external power adapter (12). The voltage generated by the resistor divider network including the pull-up resistor (32) and the pull-down resistor (34) in the external power adapter is used to identify the external power adapter type. By changing the value of the pull-down resistor (34) in the external power supply to identify the external power supply, the microcontroller (20) in the apparatus may determine the optimum charging profile to use for the battery based upon the charger type and other information relating to the battery.

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