

BATTERY PACK, BATTERY PROTECTION PROCESSING APPARATUS,
AND
CONTROL METHOD OF THE BATTERY PROTECTION PROCESSING
APPARATUS

ABSTRACT OF THE DISCLOSURE

It is aimed at stably implementing a protection function of a secondary battery mainly under software control and providing a battery pack characterized by a reduced circuit installation area, parts costs, and power consumption. An AD converter outputs a voltage value between a positive electrode and a negative electrode of a secondary battery. Based on the voltage value, a microcontroller determines a state of the secondary battery out of overcharge, normal operation, and over-discharge states. According to the determined state, the microcontroller controls operations of a discharge current cutoff means and a charge current cutoff means via a FET driver. When it is determined that the secondary battery is placed in an overcurrent state based on the charge and discharge current size of the secondary battery, an overcurrent detection circuit enables the discharge current cutoff means to be a cutoff state in preference to control by the microcontroller.

FIG. 5