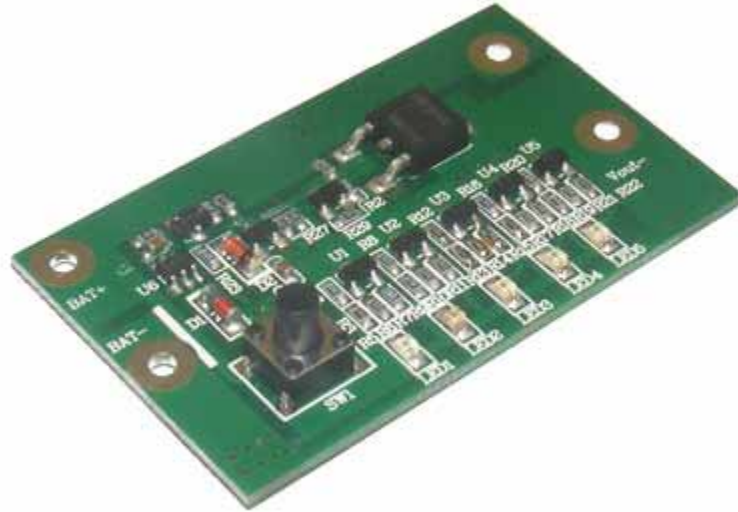


Specification of
Protection Circuit Module (PCB) with LED Fuel Gauge for 10
cells (12V, 5A limited) NiMH/NiCd Battery Pack



AA Portable Power Corp (<http://www.batteryspace.com>)
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Prepared & Approved by Max Liu (01/01/12)

Protection Circuit Module with LED Fuel Gauge For 12V NiMH/NiCd Battery Packs

This protection circuit is specially designed for **12V NiMH/NiCd** Battery pack with **5.0A** discharging rate.

- Keep 12V NiMH/NiCd Battery pack from over-discharge (10V)
- **None over-charge protection**
- Limit 12V NiMH/NiCd Battery pack's discharging current below 5.0A.
- 5 LEDs display battery pack's voltage
 - LED1 (Red) = pack voltage: 10.8-11.5V (must recharge battery)
 - LED2 (Yellow) = pack voltage: 12.5-12.9V (battery need recharging)
 - LED3 (Green) = pack voltage: 13-13.4V
 - LED4 (Green) = pack voltage: 13.5-13.9V
 - LED5 (Green) = pack voltage: > 14V (battery is fully charge)

Features:

- Apply for 10Cells NiMH/NiCdBattery pack with discharging current <5.0A
- Dimension (LxWxH): 50mm(2.0") x 30mm(1.2") x 10mm(0.4")
- Weight: 5.6 grams (0.2Oz)

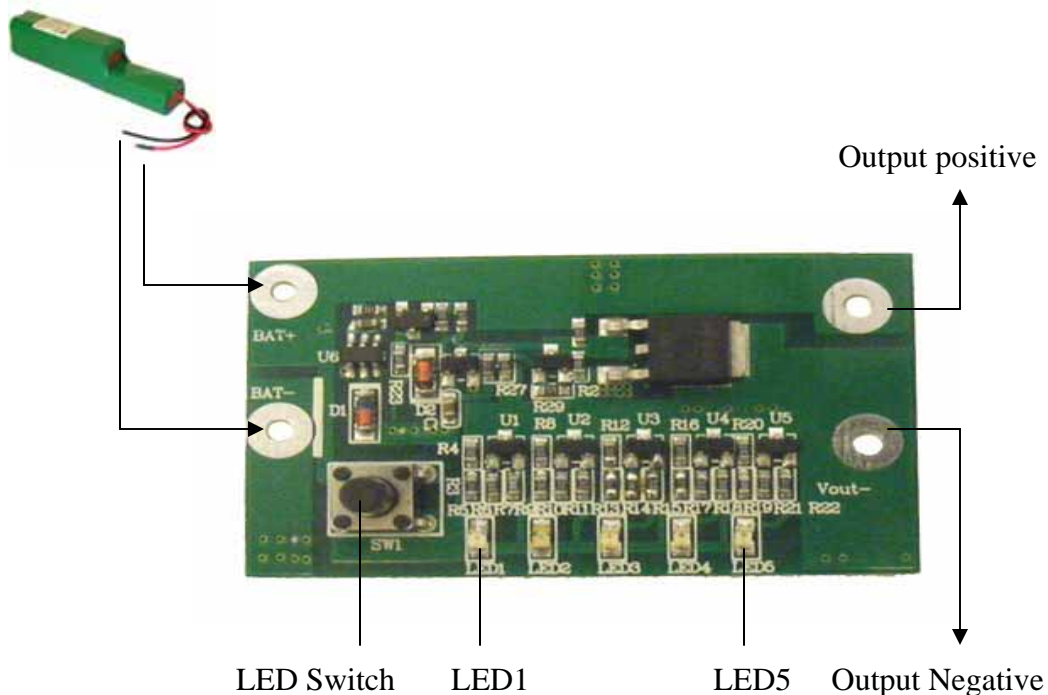
Connection Diagram:

Input positive = BAT + = 12V positive

Input negative = BAT - = 12V Negative

Output positive = Vout + (Solder spot above Vout-) = Charge + / Discharge +

Output negative = Vout- = Charge - / Discharge -



Warning:

- **You must be professional in NiMH/NiCd battery pack to buy the PCB. Misusing PCB may cause battery damage or explode. We are not responsible for any damage caused by user.**
- **Don't use this PCB with Li-Ion / LifePo4 battery pack**
- **Must charge battery pack up to 12VDC minimum**
- **Must disconnect load from PCB to "Reset" PCB**
- **Since this PCB does not have over-charge protection function, must use our 12.0V NiMH/NiCd smart charger to recharge 12V battery pack.**