Battery Equalizer (shunt-reg) for Li-Ion and LiFePO4 batteries

Mount centrally located to see all leds and include a 2A fuse at each battery connection

Make sure charger inherently go to <1A current when batts are 3.8V + X cells
Also charger inherently shuts off at dv/dt=0 & safety timeout

PWM's from .2V setting to full on at approx 1kHz
so a small clip on heat sink can be used for the TIP102 shunting 2A max
into the SW power resistor

optimum charger taper should be 1A final (remove secondary windings accordingly)

Vdrops measured with 3.3v cell

>4V or <2.8V charger cut off

wire output
in series
4-7V drop total

bypass operation is verified by the red led
use clear leds to see at low ma operation

It's best to mount all regs in a central visible location for viewing and safety
2.5 min 3.6-3.8V max typical

Note: If 3.6v shunt reg ckt fails to shut off charger (bad opto etc) at 2 amps, 4.8V failsafe closed loop will shut down charger

Not responsible for screw-ups

Solectrol

BattEq2.sch

Mark E. Hanson

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(prev 9/8/2009)