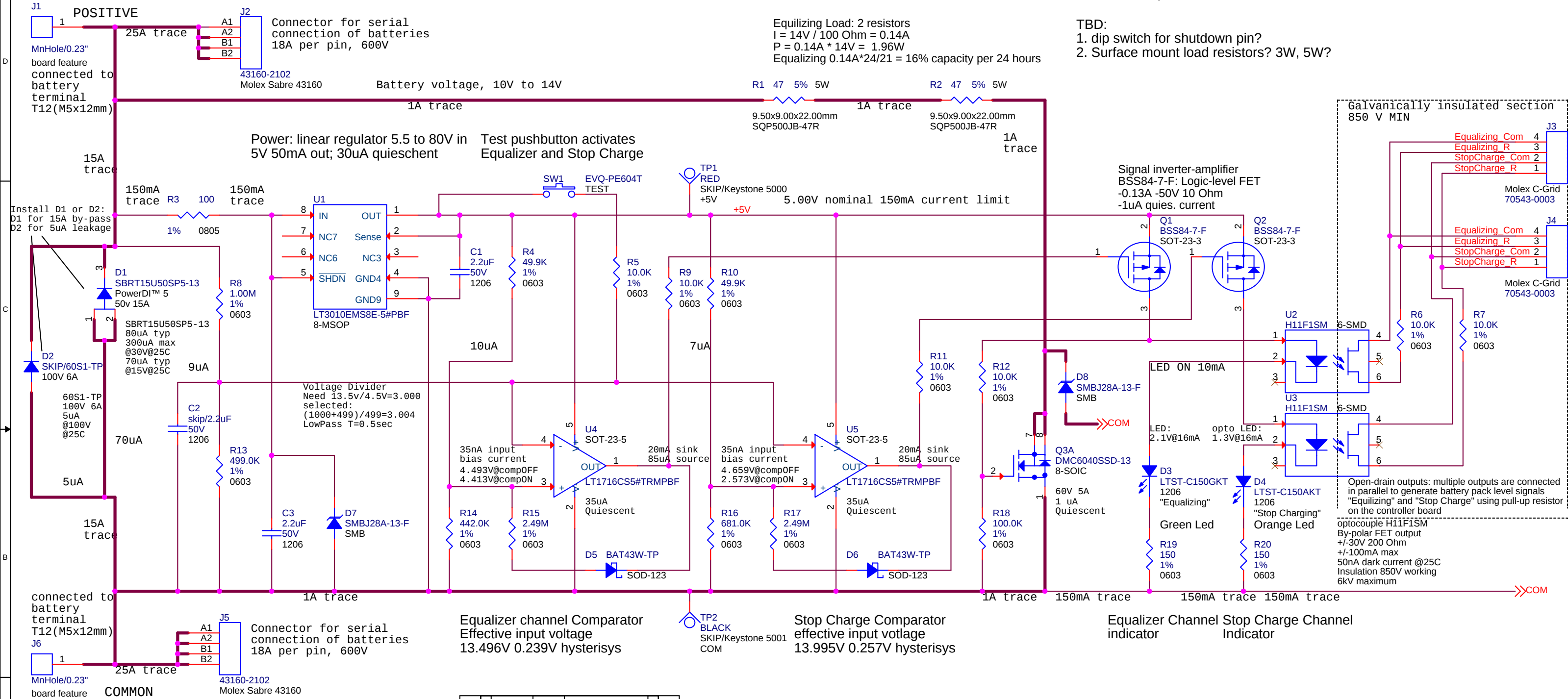


UNFUSED BATTERY OUTPUT!!!
Use fusible links between the batteries,
and/or 1 fuse on the output of the pack!

- Layout notes:
1. Traces current requirements 50mA MIN unless specified.
 2. Copper area for regulator LT3010 50 sq. mm MIN @ 2 OZ copper
 3. Galvanically insulated section

- TBD:
1. dip switch for shutdown pin?
 2. Surface mount load resistors? 3W, 5W?



Battery Status Board is mounted across battery terminals:
Power Sonic PDC-12200, 12V 21AH, T12 terminal (12 mm x M5)

Power Sonic Lead-Acid batteries

Temperature compensation at cyclic use:

- At 50C, CV charge at 2.30+/-0.05V/cell or 13.80 +/- 0.3V
- At 40C, CV charge at 2.36+/-0.05V/cell or 14.16 +/- 0.3V
- At 30C, CV charge at 2.42+/-0.05V/cell or 14.52 +/- 0.3V
- At 25C, CV charge at 2.45+/-0.05V/cell or 14.7 +/- 0.3V
- At 20C, CV charge at 2.48+/-0.05V/cell or 14.88 +/- 0.3V
- At 10C, CV charge at 2.54+/-0.05V/cell or 15.24 +/- 0.3V
- At 0C, CV charge at 2.60+/-0.05V/cell or 15.6 +/- 0.3V

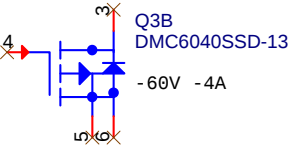
Batteries specifications

http://www.power-sonic.com/images/powersonic/technical/1277751263_20100627-TechManual-Lo.pdf

Temperature compensation for float:

- At 50C, float at 2.225+/-0.025V/cell or 13.35 +/- 0.15V
- At 40C, float at 2.245+/-0.025V/cell or 13.47 +/- 0.15V
- At 30C, float at 2.265+/-0.025V/cell or 13.59 +/- 0.15V
- At 25C, float at 2.275+/-0.025V/cell or 13.65 +/- 0.15V
- At 20C, float at 2.285+/-0.025V/cell or 13.71 +/- 0.15V
- At 10C, float at 2.305+/-0.025V/cell or 13.83 +/- 0.15V
- At 0C, float at 2.325+/-0.025V/cell or 13.95 +/- 0.15V

Blockign diode option
SBR10U45SP5-13
45V 10A
40uA typ
@15V @25C
50uA typ, 300uA max
@30V @25C



RevB(7/31/2015): C2 2.2uF/50V/1206 removed; output signal names added
RevC(05/15/2018): R1, R2 mounting changed to silicone compound; conformal coating changed to localized application of voltage references and dividers area

		Monterey Bay Aquarium Research Institute 7700 Sandholdt Rd, Moss landing CA 95076	
Engineer Klimov		Page Title Battery Status Board	
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Doc. or Part Number <Doc>		Rev C	
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Page Modify Date (auto): Tuesday, May 15, 2018		Design Modify Date (auto): Tuesday, May 15, 2018	
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