

Mod 1-

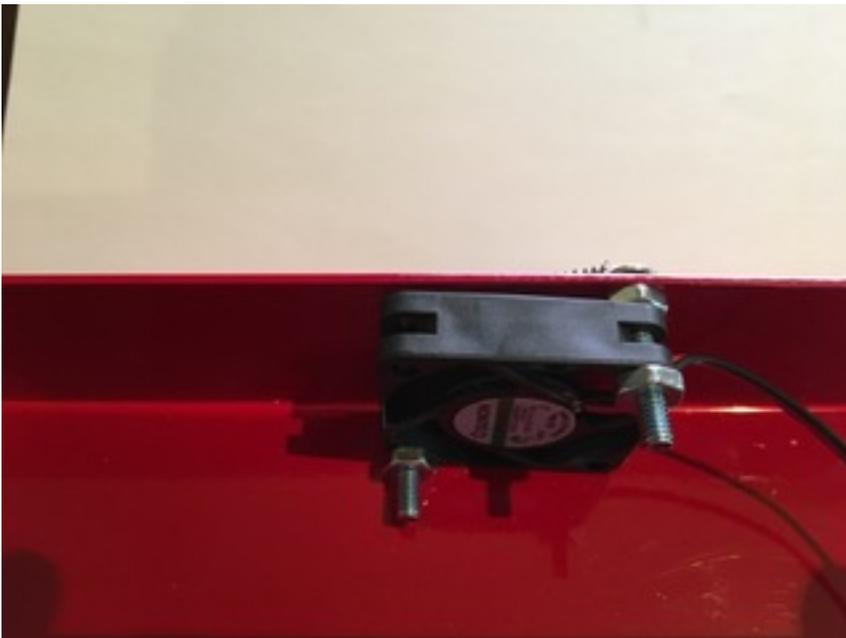
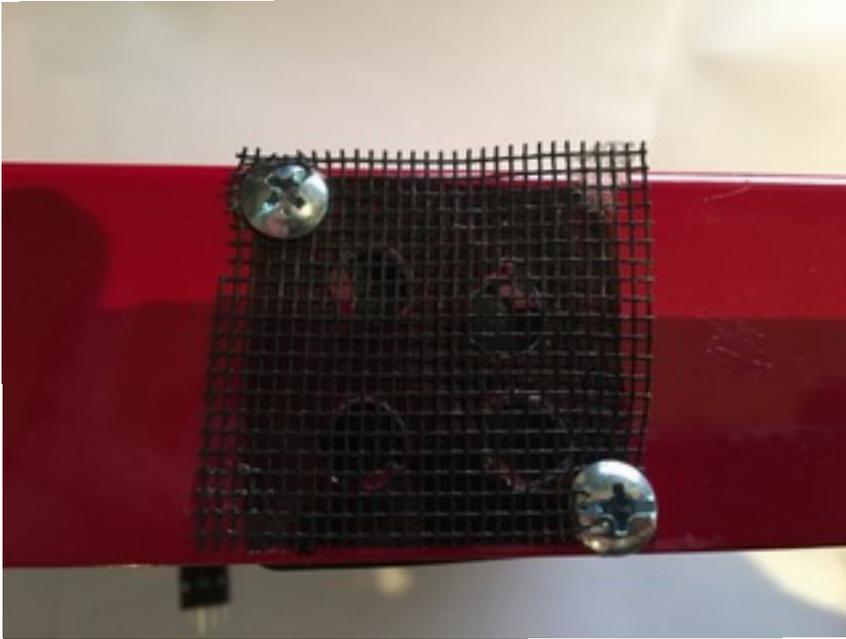
Fan

Reports on-line indicate lots of heat when increasing PA power on when doing digital modes. So I installed a fan in the lid.

I used a 12V computer fan I had laying around. Some may note the screws are a little long, but I already had them, they fit, and do the job.

The fan is connected through a switch to power. No need to hear the noise when not needed.

(A drill press would have made a neater set of holes)





Mod 2-

I installed a plug in the wires coming off the lid (fan, speaker). Makes it easier when opening the case (something I do often to fix my mistakes).



Mod 3-

As I intend to use this portable, I installed an internal battery.

The model I chose is:

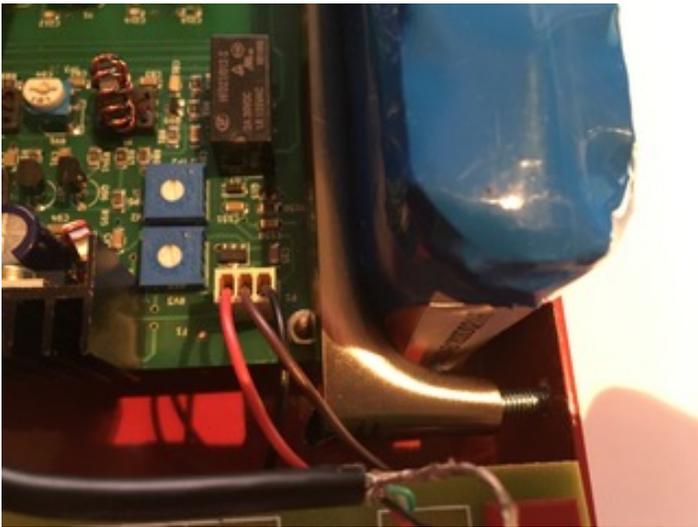
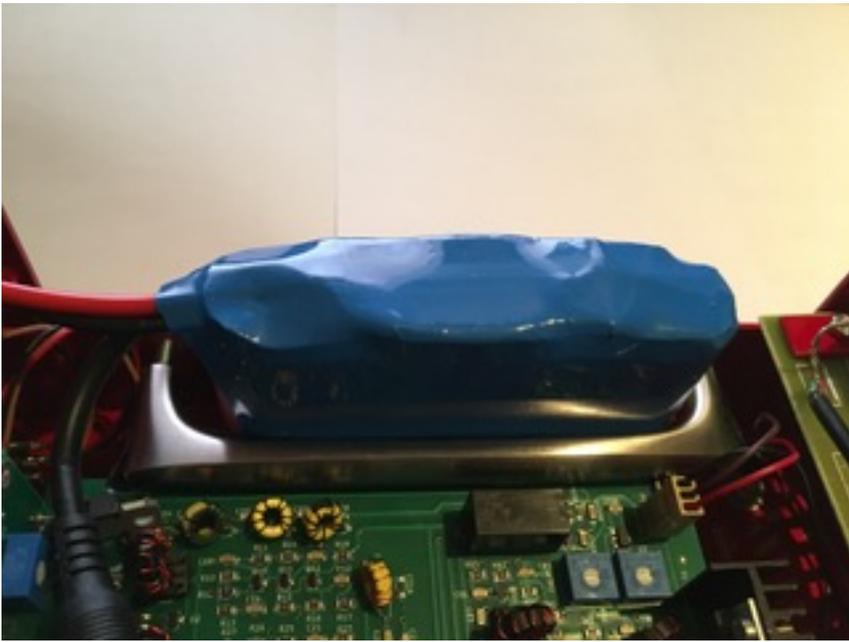
12V, 3Ah, LiFePO4

<https://www.bioennopower.com/collections/12v-series-lifepo4-batteries/products/copy-of-12v-3ah-lfp-battery-pvc-blf-1203a>



There are two connectors- Anderson Power Pole for output, DC plug for charging. The cases we bought come with a male and female DC plug set. I mounted the female to the case, and wired the male on the inside. This connects nicely to the power input cord of the battery. A set of Anderson Power Poles delivers 12V to the on/off switch. The charger I bought with the battery already has a male DC plug to connect to the female on the case.

I mounted the battery to the inside of the case (just fits between case and main PCB) using a drawer handle from Lowes.



Mod 4-

The main board and Raduino use 12 volts, but the PA transistors can run off higher voltage. The power plug to the board has 3 leads: ground, main board, and PA transistors. I ran the Brown lead (for PA Bias) to a SPDT switch. I can select either internal battery power, or a second DC plug on back of the case. (The first one is to charge the battery). I can then use a 20V power supply to obtain a little more gain.