

# A PORTABLE BATTERY PACK FOR FIELD OPERATIONS

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WILL KEEP YOUR EQUIPMENT OPERATING FOR HOURS (KC8AON)



**PROVIDES POWER TO KEEP YOUR RADIOS OPERATING FOR SEVERAL HOURS AND ALLOWS VARIOUS CONNECTION POSSIBILITIES, AND IS EASY TO CARRY**

This project came about by accident. I had 2 - 6 volt 10 aH gel cell batteries that I had connected in series to create a 12 volt source. The batteries came from a discarded pack of 4 that had 2 batteries that were bad. It came from a UPS unit on the computer system at work, and I talked them out of the pack long enough to find out if it had any good batteries and I was lucky enough to find 2 of them that were good.

I connected the batteries together by simply taping them together with electricians tape at first, but this made them hard to carry for portable operations. What I needed was some sort of container to carry them in, then I discovered an old plastic tool case that I had that came with a socket wrench set. The socket wrench set is in a nylon tool bag that I keep in the car, so the plastic case was free to use.

I first mounted the batteries in the case with double stick tape, and positioned them so that I had room to mount a couple of 5 way binding posts and a cigar lighter socket for connection purposes. I also used a rolled up piece of foam stuffed between the batteries so that they could not jar loose and short together since I had short leads between them and had to lay them top to top. When I wired the batteries to the binding posts, I also included a fuse holder on the positive lead for short circuit and over current protection. I used a 10 amp fuse at first, but then switched to a 15 amp because a DC powered drill I use will blow a 10 amp fuse when I first hit the trigger due to high surge currents. The drill only uses a couple of amps during operation, but is just too much during the startup surge. If you are not going to use the pack in this way, use the 10 amp fuse or one that matches the batteries you are using.

Anyway, this makes an easy to transport battery pack, and has room inside the case to store a small wall wart charger (will be building a voltage regulator circuit into the pack later to prevent overcharging) and room for spare fuses too. It will also connect to my solar panel charger to keep it topped off longer in the field. It makes a great power source for my Icom 703 and my old Yaesu FT-7. It also makes a great source of power for emergency lighting when the power fails !

