

HOME BREW BATTERY PACK FOR FT897D

Each battery pack 11 cells, each 1,2V, 4.500 mAh

After the previous discussion here in this forum, I built two battery packs fitting into the battery room of the transceiver.

Part list

(the part # are from the German company CONRAD, www.conrad.de)

- 22 pcs SANYO NiMH accu cells, Type HR-4/3FAU, 1,2V/ 4500mAh, with soldering pads. Each cell 67 mm length, diameter 18mm
- 2 pcs temperature switch (release temperature 72 deg.C) # 540459-55
- 1 plate 200mm x 400mm x 1mm # 528064-59
- Soldering connectors for 1 mm pins (for the battery connector)
- Insulation tape
- 2 fuse with fuse holder # 532983-55
- 2 pcs low voltage connector with switch # 733946-59

First I build a battery compartment to insulate the cells and to avoid possible cell leakages to penetrate into the transceiver.

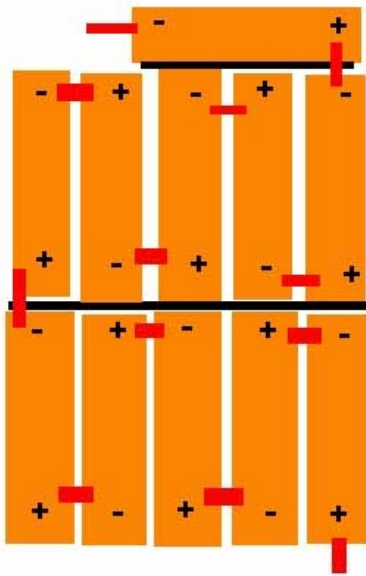
The bottom plate and the side plates are sealed with 'hot glue'.

The thickness of the plate should not exceed 1 mm. Otherwise the available room for the battery can be too small.

The battery compartment should firmly fit into the housing, otherwise you lose space for the accu cells.

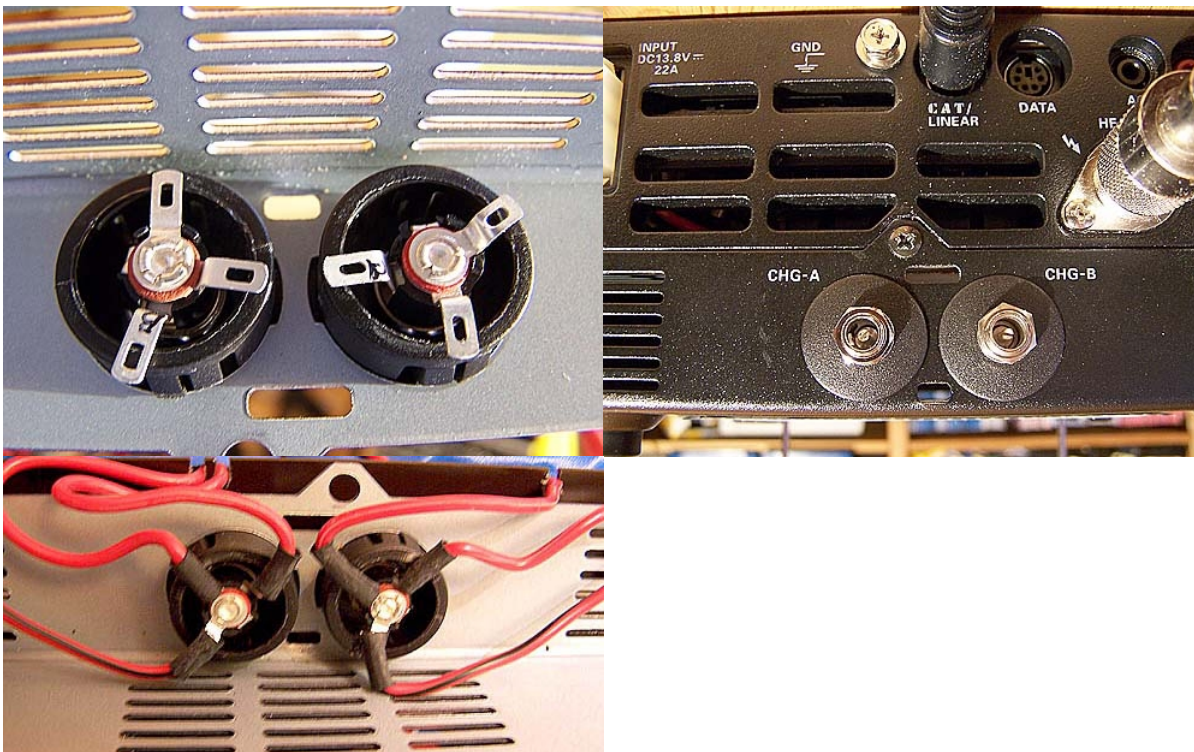


The most time I spent for arranging the 22 cells into the battery room. Every millimetre counts....:-)
The rows (2 x 5 cells) are separated by 1 mm insulation plate. I took care that the battery contacts are well insulated.



For the charging connector I use one with a switching contact.
With this type of connector, the battery pack is disconnected from the transceiver during charging.

With a 'dummy plug' you can disconnect both battery packs from the radio.



The connectors are installed into the original plastic covers at the rear side. Because there is only limited space between the battery compartment and the cover, I have to bend the connections 90 degree. Also here, insulate the contacts well, to avoid contacts to the transceiver housing.

A temperature switch is installed at each battery pack directly at one of the cells. If the battery temperature exceed 70 deg.C. the 'temperature fuse' will disconnect the + line.

A current fuse with holder in the + line protects again over current.

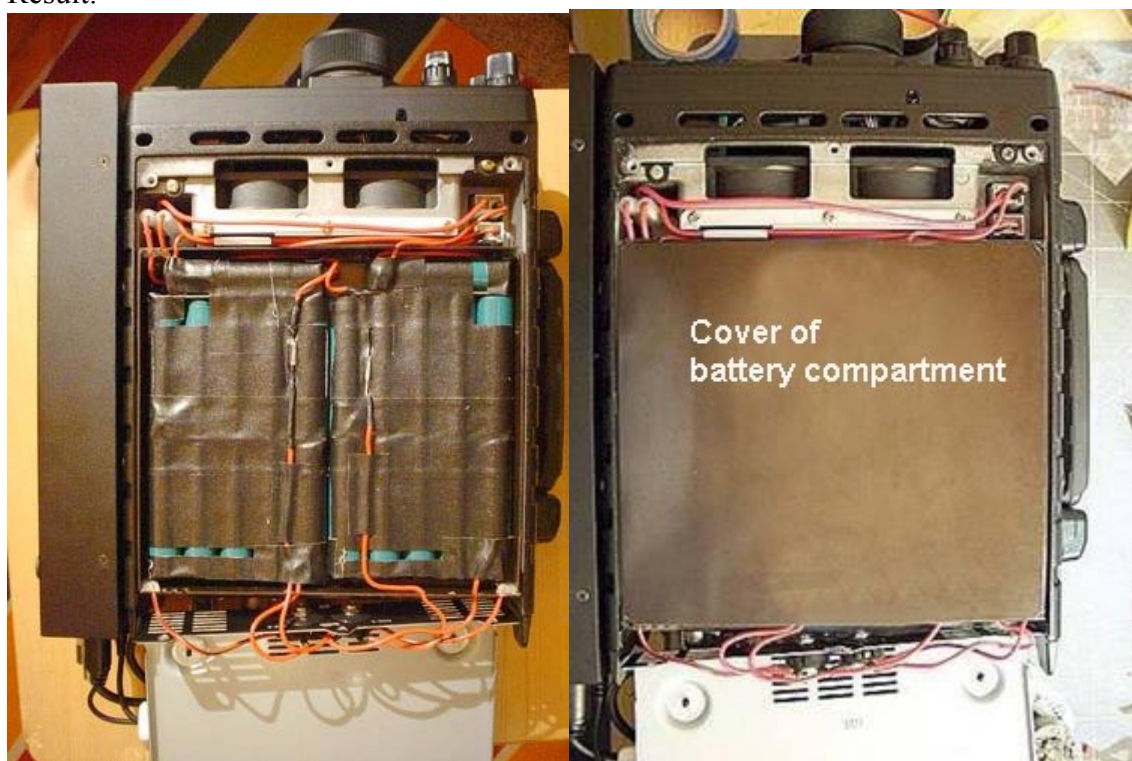


Current fuses

temperature fuse

The temperature fuses are pressed again the battery cell by a soft distance piece at the cover.

Result:



It looks not as nice as the original battery packs. But the when the cover is closed you can not see it :-)
Up to now I could not test the running time.

Warning:

The user is solely responsible for all his doings at the transceiver and all works are on users own risk.
Liability of damages and consequential damages to any equipment and/or parts or others is the sole responsibility of the user.

There is no guarantee that the described battery pack works without failures and collateral damages at the transceiver or other parts/equipment.

73 de Thomas, DG8FBV