

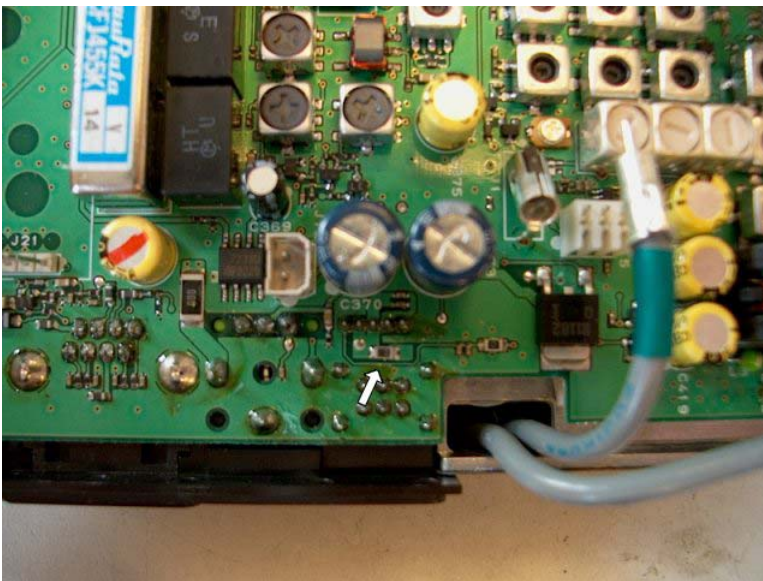
## Yaesu FT-817 charge modification.

The FT-817 has the capability to charge a battery of about 1000mAh. Unfortunately larger batteries can not be charged overnight. The only thing you can do is pressing the charge button for a second time to get the full capacity in your battery.

I did not really like this, so I took a peek at the charging circuit, and found it should be easy to charge at a greater current.

The initial charging current is now about 180 mA, and could easily be doubled for charging a 2200mAh NiMH battery.

Before you start with the modification, REMOVE THE BATTERY!!!!



Or else you will blow this fuse!

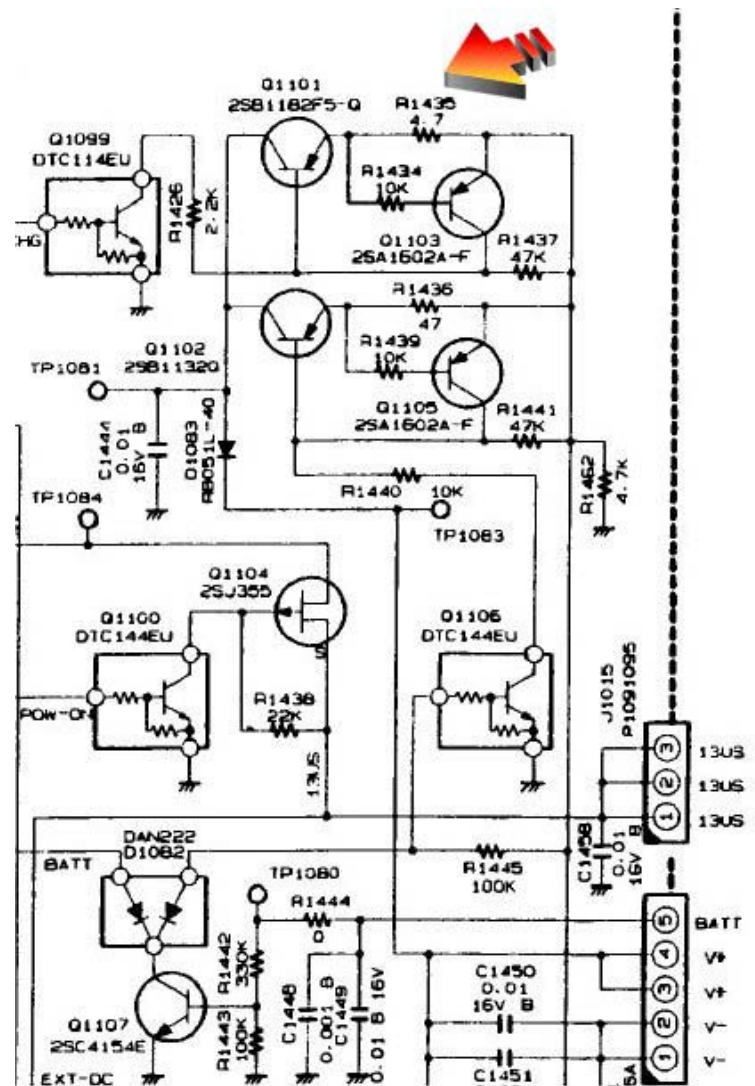
This small fuse (near the battery-leads) is a 3A smd fuse or a 0 Ohm smd resistor.

So if our battery does not work, check this fuse.

Note that it does not seem to be in the schematics.

The 2SB1182 is the transistor that takes care of switching on/off charging, R1435 4.7Ohm, limits the current that can flow to the battery. If the value is lowered by putting a resistor parallel, you can charge a bigger battery in the same time.

I used to have a 1600 mAh battery which I charged in 10 hours with a 10 ohms resistor parallel to R1435, lately I got a 2200 mAh battery so I had to lower the resistance even more. Now I use a 4.7 ohms resistor parallel to R1435, and it seems that 8 hours is only enough to charge 2050 mAh, so I think 10 hours will be quite fine for the 2200 mAh batteries.

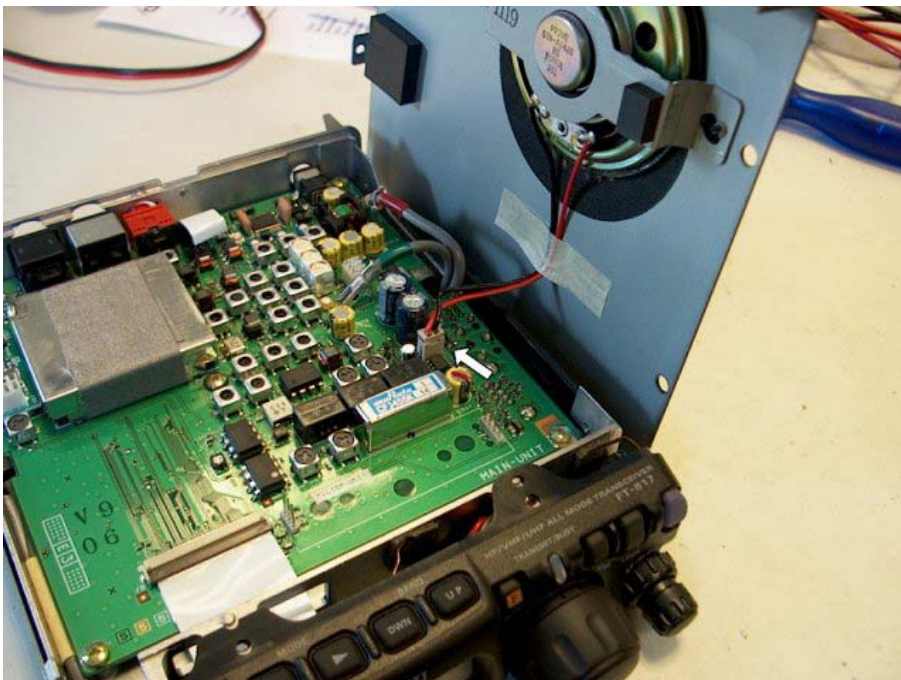


The modification:

Open the top cover by removing these 7 screws.



Remove the cover carefully and disconnect the speaker wires.



It works best if you also remove the bottom cover by removing these 9 screws. Be careful with the battery compartment lock!





Remove the bottom cover and this little plastic part and the springs, so you will not lose this or the springs.



Disconnect the four cables from the front and RF/amplifier unit. The cable from the front can not be just pulled out of the connector, you have to lift the brown "lock" be careful, do not break the hinges.

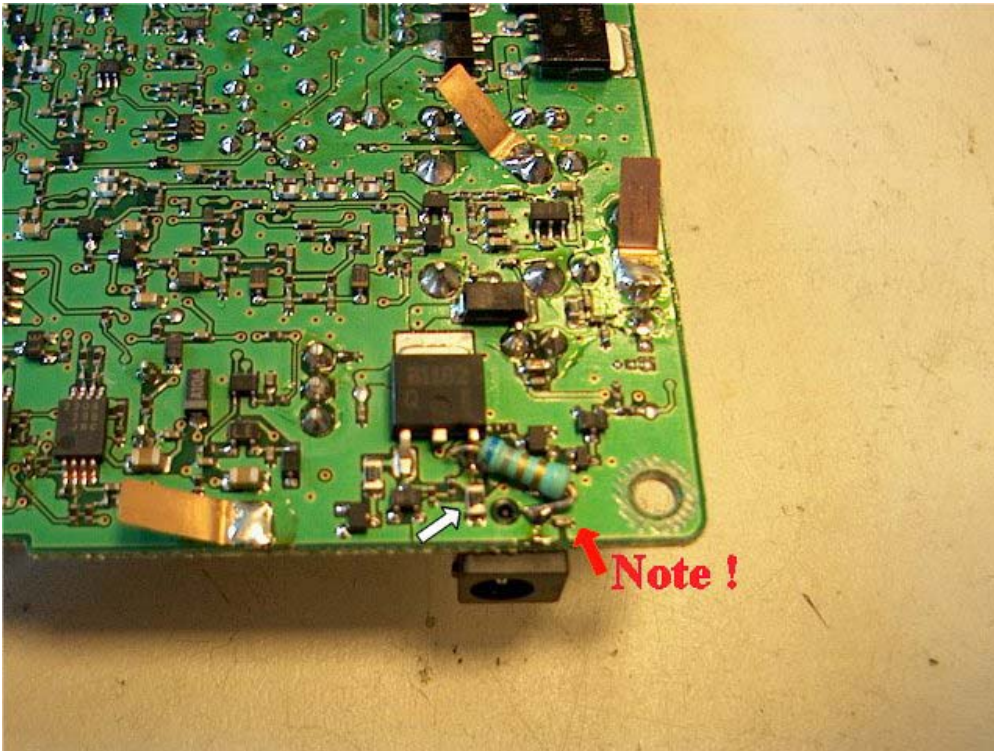


Now you can remove the 5 screws that hold the PCB and then you can lift the PCB out of the housing. The battery wire has to be pulled through a hole so be careful!





Turn the PCB upside-down and locate the 4.7 Ohm Resistor.  
Solder a resistor parallel to this one to increase the current.



Be careful to keep the resistor away from the hole on the right, your resistor could easily touch the housing of the FT-817.

Since the 4.7 ohm resistor is used for 1000mAh, you can easily calculate the new value for your battery.

4.7 for 1000

$4.7+15 // = 3.6$  for 1300

$4.7+10 // = 3.2$  for 1500

$4.7+8.2 // = 3$  for 1600

$4.7+6.8 // = 2.8$  for 1700

$4.7+4.7 // = 2.35$  for 2000

You can change the charge-time to make sure your battery gets fully charged.

Assemble your 817, be careful with the 3-pin connector when you put the board back in.

I made this mod twice without problems, even 4.7 // to 4.7 ohms worked well, please don't blame me if you mess up your FT-817.

73' Edwin PE1PWF