

Replacing the backup battery from the YAESU FT-757 GX

by F4ANN 08/2014

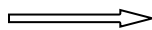
When the transmitter / receiver no longer keeps the frequencies stored and displays 7.000 MHZ each time it is turned on, the internal lithium battery is empty. I have not found much on the net, I propose here a description by pictures of how I did the replacement.



Yaesu photo taken from the net.



CR-1/3N, 3 legs



The original CR-1 / 3N (3 feet) battery is soldered to a circuit board. It has a voltage 3V 160 mA. It can be advantageously replaced by a newer type battery CR 2032 which delivers 170 mA. This is the option I have chosen for several reasons. The cost of this battery is much lower, it is found in all supermarkets, and its future replacement will be simplified 90%.

Whatever option is chosen, the method for a first replacement is the same.

The main recommendations are a minimum of soldering practice, patience and certainly no tears. For my part, I took advantage of the opening of the unit to replace the backlight of the galvanometer (S-meter) which were burnt and check the PA cooling fan that became noisy.

This description is for information purposes only and is the sole responsibility of the person doing the work.

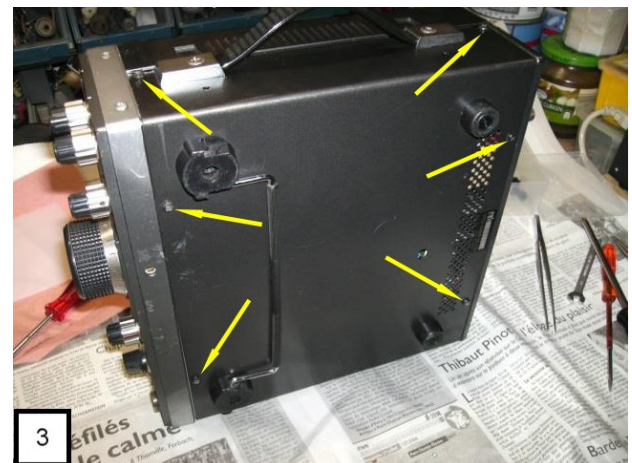
Remove the 4 screws on the top indicated with red arrows (photos 1 and 2)

Attention, all the screws are not the same length. I placed them in the sticky side of masking tape. This is useful to keep them grouped and mark their provenance.

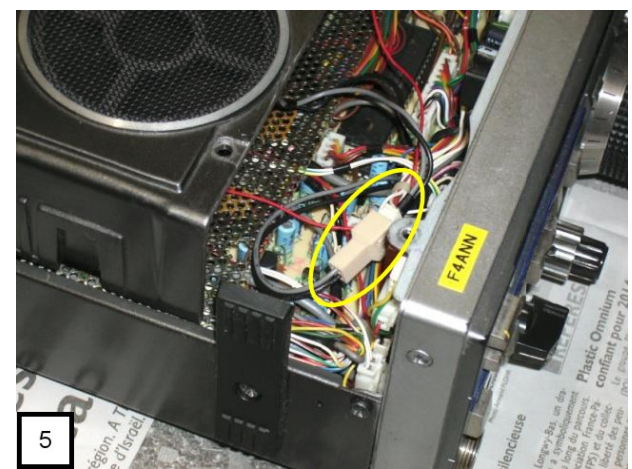
Remove the 4 knobs on the rear by simply pulling (black arrows photo 2).



Remove the eight screws from the upper and lower cover (yellow arrows pictures 1 and 3) resting the device on its side.

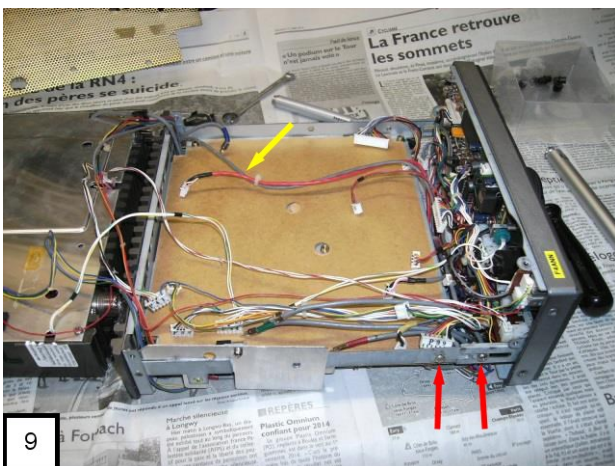
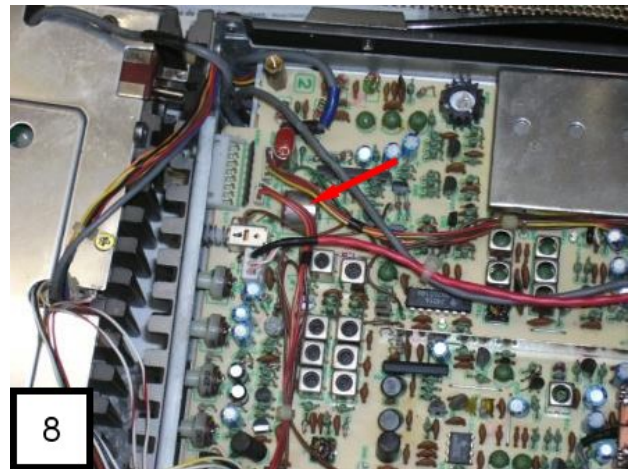
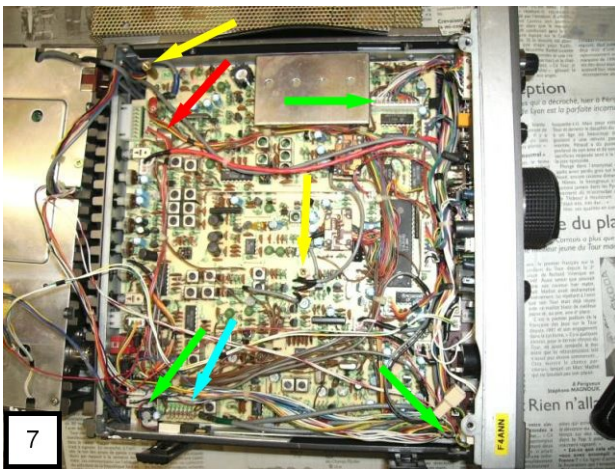
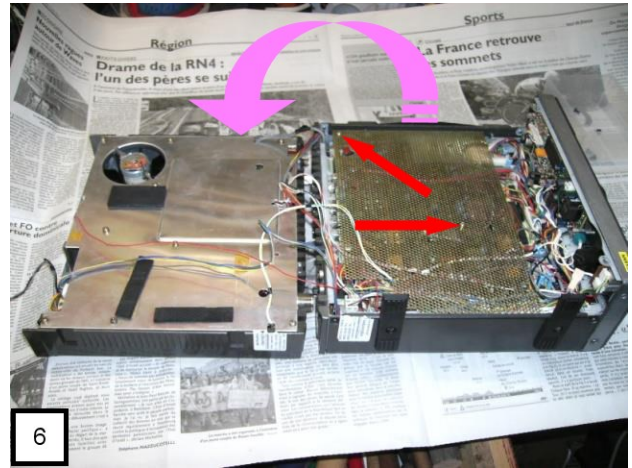


Push the upper back slightly (photo 4) to the connector of the speaker (photo 5) that must be separated.



Swing the top gently towards back, as if you opened a book (photo 6) then remove the grille shield by removing the two screws indicated by the red arrows. Take care not to tear or damage the wires during this manipulation, the edges of the grid being sharp.

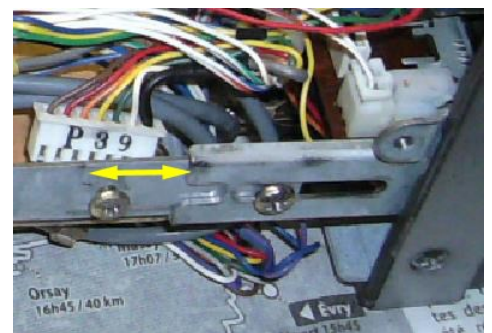
We discover the pcb on which the battery is soldered. Its location is indicated by a red arrow in photos 7 & 8. For desoldering it you will have to extract properly the pcb.



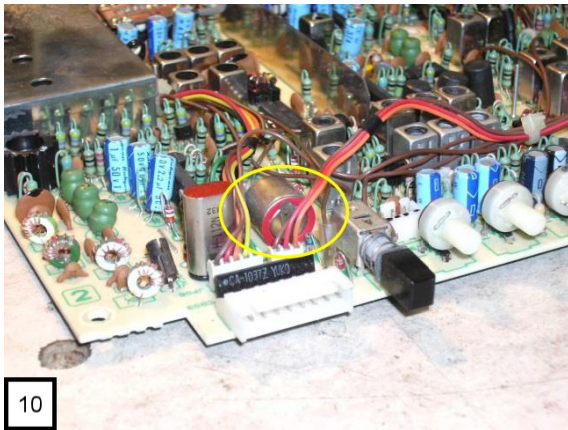
Unscrew and remove the two spacers into which was screwed the shielding grid removed previously (yellow arrows photo 7) using a key 5.5 mm. Remove the other three screws around the pcb (green arrows picture 7). **Identify and carefully** unplug the 16 connectors connected to the pcb, the four coaxial connectors and transistor connector, which is fixed on the side of the housing (blue arrow Photo 7). The board is now released. To remove it, you must still release the screw of the slide fixing the front (red arrows photo 9) and pull it toward forward

in order to have enough clearance to advance the pcb and escape the various controls and buttons on the front panel. Gently lift out the pcb by passing laterally under the coaxial connection (gray) that still passes over it (photo 9 yellow arrow).

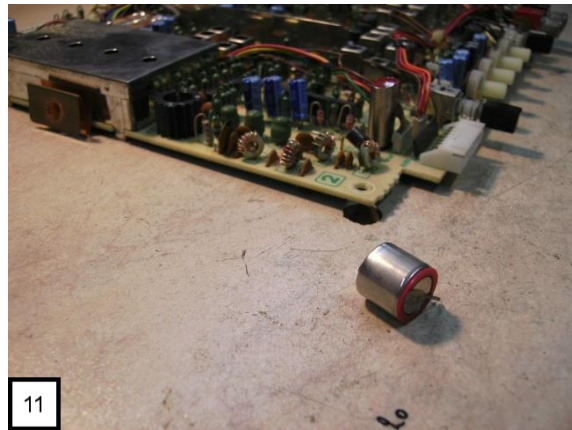
Once the pcb is removed, one can now easily desolder the battery.



Photographs 10 and 11 show the battery on the pcb and when unsoldered.



10



11

After this step, there are two options. Either replace the battery in the same way if you are lucky to find one, or use another type of battery with equivalent performance and more convenient to replace. For my part, I chose the second option by installing a button battery holder recovered from an old computer motherboard that can accommodate a CR 2032 battery with a gain of more than 10 mA, as indicated at the beginning of the description.



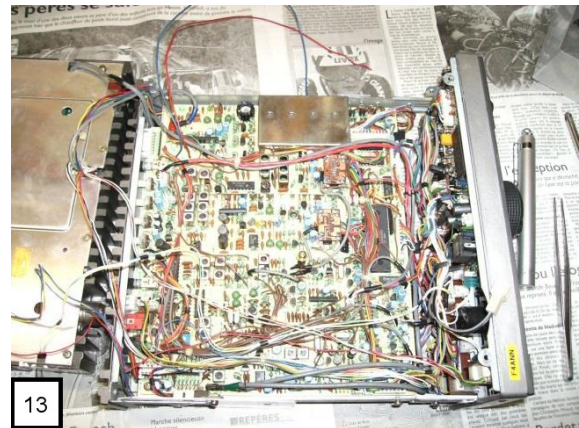
Solder two wires of about 30cm, preferably red for + and blue for - (photo 12)

instead of the battery. At the same time check all solder joints, then replace the pcb in it's seat, taking care not to catch the wires and that no connector remains below.

Reconnect all connectors. Push the front panel in place and tighten the two screws on either side. Check that no connector has been forgotten! (photo 13)



12

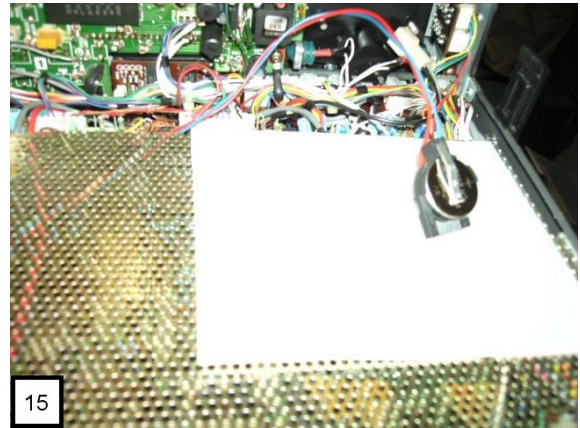
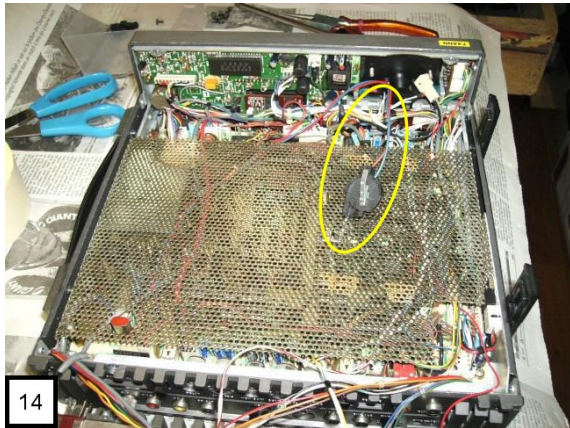


13

Route the red and blue wires between components to the front. Refit shielding grid (our two wires remaining below) for front side out.

Solder both wires on the legs of the button battery holder (photo 14) ensuring the correct polarity. The + of the button battery is the side with the inscriptions.

Place a temporary insulation shield on the grid (here a plastic sheet) to avoid short-circuit and insert the button battery safely (photo 15).



Protect the battery holder with an insulating sheath and house behind the galvanometer. In my case it takes a simple jamming (photos 16 and 17)



At this stage, I also took the opportunity to replace the backlights of the galvanometer (S meter) that were burnt out and put a drop of lubricant on the shaft of the PA cooling fan that made noise. It remains to perform the steps in reverse to close the unit taking care not to catch the wires and coax in the rear, between the top and bottom. Better check several times! Do not forget to reconnect the speaker (photo 5). Thereafter, if a battery replacement is necessary, it will be much easier because there are only 4 screws to remove to access the battery holder.

Hoping that this description can serve the greatest number, 73 Denis F4ANN.

Translated by Terry Mowles VK5TM 11/2014