

Problems with the display at my TS 850

At our VHF/UHF QTH, the " Ahornberg" mountain, we are using a Kenwood TS 850 as the exciter for our 70cm station. Doing its job during summer with +30 degrees and winter by -25 degrees in our hut, we never had any problems with this radio since many years.

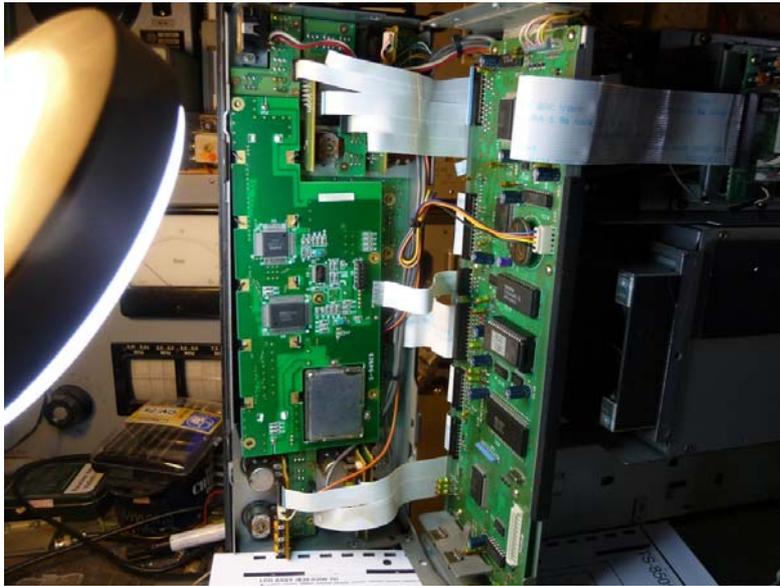
At the last weekend when I switched the TS 850 on, suddenly I could not read any more at the display. If I was pressing any switches or turning the frequency variation knob, the display was changing but it shows only nonsense.



Searching at the internet I could find several articles which are reporting about problems with the "digital unit" but it seems that all problems could be removed if the backup battery is changed and the PCB in the neighbourhood of the battery is cleaned. Another problem at this radio seems are the electrolytic capacitors which getting leak.

Quite often I could find reports about the variable capacitor at the "PLL Unit".

Unfortunately after checking all this possibilities my radio was still not working, so I decided to search the fault by myself.



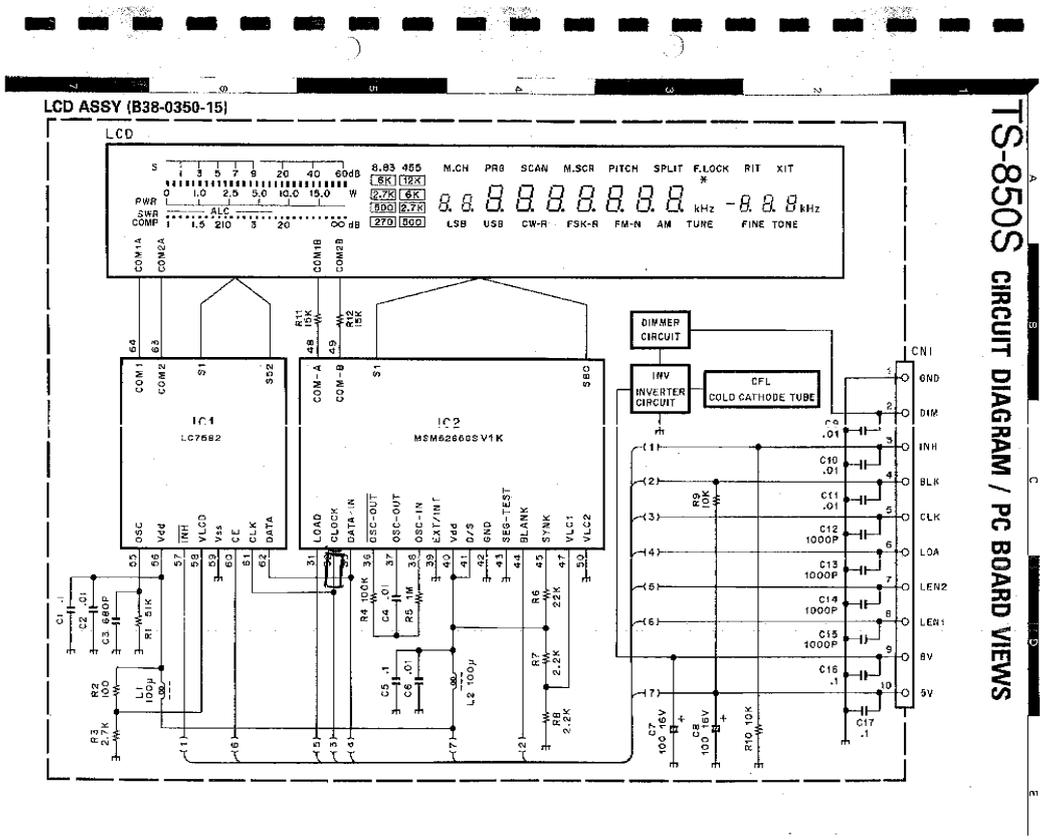
At my home I do not have perfect tools for doing such a job, also my acknowledgement for searching such faults is very poor indeed.

Spending lots of hours with reading the diagram and the service handbook I recognized a missing "clock" signal at the pin 32 from the 2nd display controller. It is marked as IC 2 at the LCD assembly.

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DTAG TSNL SCD ATSGK4C10

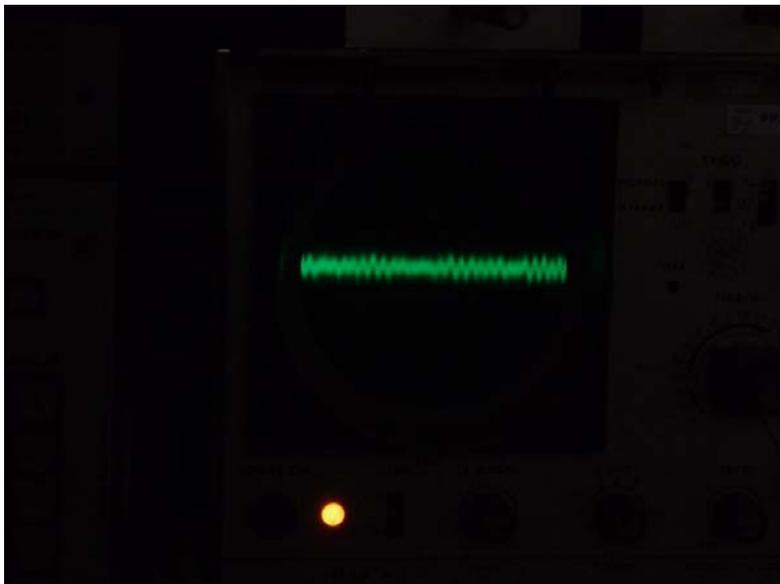
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The problem was a destroyed contact between the front- and the back of the PCB (sorry for my poor English, I do not know the special word). I could remove this problem very simple when I was bypassing the missing contact with a piece of wire.



The next picture shows (?) the "clock" signal at pin 32 of IC2. I am very sorry that I have only an oscilloscope from Phillips which is 50 years old and it is not able to give a better picture! Is there somebody who has a newer one for a good price for me?



The last picture shows the TS 850 with the correct display after repairing.



If I can help others who have the same problem with their radio the reason for this article is fulfilled.

Best 73s

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