

Some FT-857/897 owners told about a "flickering" squelch behaviour while being standby and monitor a free frequency.

I recognized this on my FT-897 too but first I thought it was some fading of too weak signals being in the FM noise. But it wasn't ! It really is a flickering squelch.

So I picked up the posting of Brady (K0UC) from the FT-897 yahoo group. He told about maybe modifying C1336 but I never tried it and no one had any experience of that mod and its result.

Great ! So it was time for me to "weak up and do some action", hihi....

C1336 is located on the upper side of the MAIN UNIT and you can find him easily on the backside, just between the "DATA" and "ACC" socket. It's a small SMD electrolyt capacitor with 0,47µF, so it has the label of "474".

**Just add a 4,7µF capacitor parallel to C1336 and the squelch never flickers again !!**

Don't worry, I did some tests and therefore I can tell you that the squelch don't react too slow or something like that after this fix. Just the opposite. Some things of this "new squelch" are very remarkable...

- Without any antenna connected (so only the FM noise) **the open/close edge is now real absolutely sharp** and now on 10 o'clock while it was on 12 o'clock before (..and still there it was sometimes flickering even without any antenna connected !..)
- With the signals from the antenna **the levels are equal to the state before** without the fix so you don't have to re-adjust your hidden-menu settings of the squelch (of course, only if that alignment was done before correctly ...)
- But the most remarkable thing for me was that a real poor station of a background QSO on 2m FM which was in the FM noise and which was only readable with RST 100 and much, much noise, was recognized and detected from this "new squelch" 100% ! Even on the 12 o'clock position where I had the squelch settings before the fix.

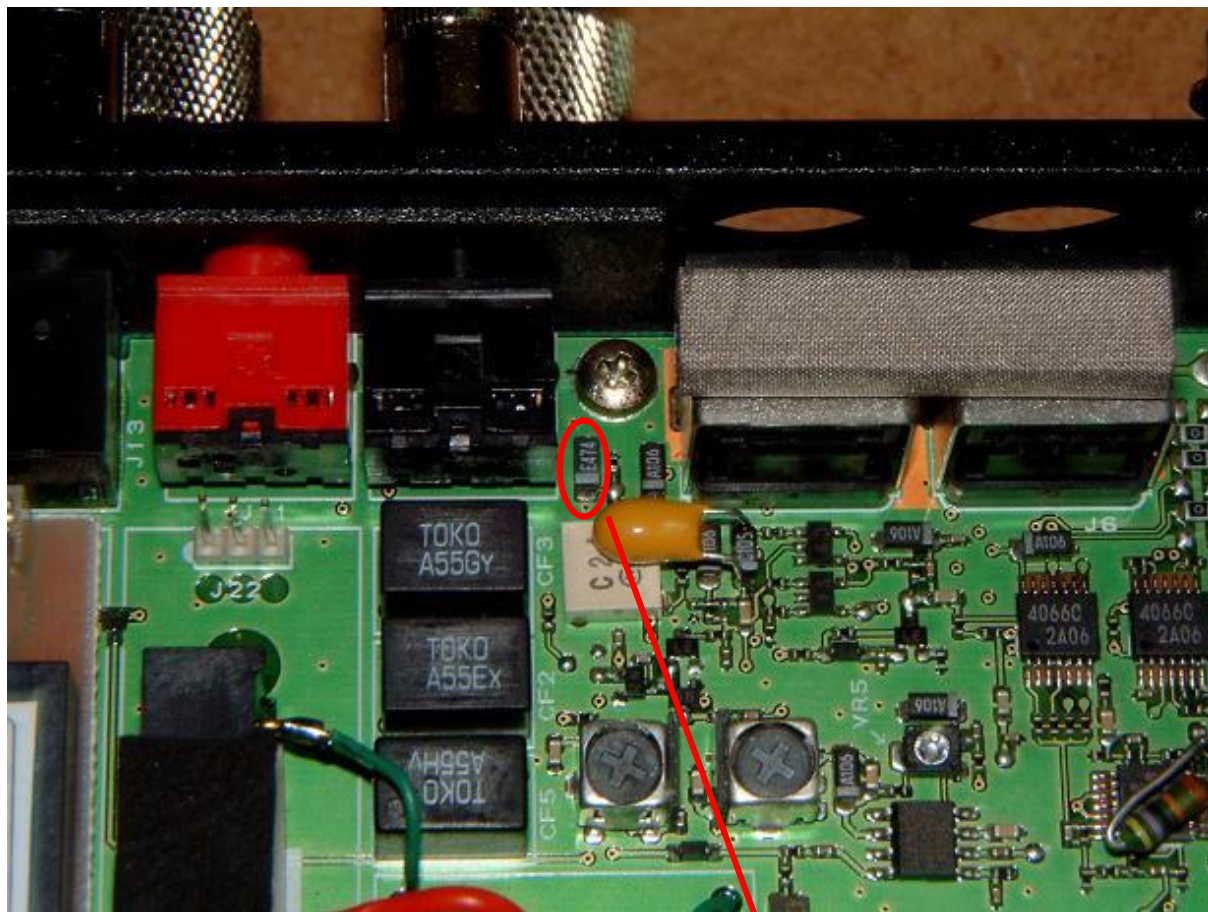
What would that mean ? That means that with this accurate switching of the "new squelch" **poor signals will still come through and will never be missed** even if you would have adjusted your squelch knob a little more than on the real open/closing edge (10 o'clock in my case). So this was the proof that my "more average weighted" new squelch wouldn't reduce the squelch sensitivity or misses some weaker signals. Great thing – and my main target !!

- The additional 4,7µF capacitor **adds a little delay on closing the squelch after a signal has dropped**. It's only hearable if you would do the A/B comparison with/without this additional capacitor. Depending on the sensitivity choice of your squelch knob positions you might hear a real short "FM noise burst" just before the squelch is muting the AF stage. When I say "real short", I mean "real short", so this might be some few 100 milliseconds.

What would that mean ? That means that this would be a great effect for us on working on fading signals (while being mobile with the FT-857, having a QSO to a portable station, or doing FM DX...). So we just have a very short delay now until the squelch would close again. If the signal comes back during this short delay time the squelch won't close and we don't miss any parts of the audio. Mobile operation with the FT-857 should be much more pleasant now, I believe.

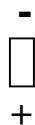
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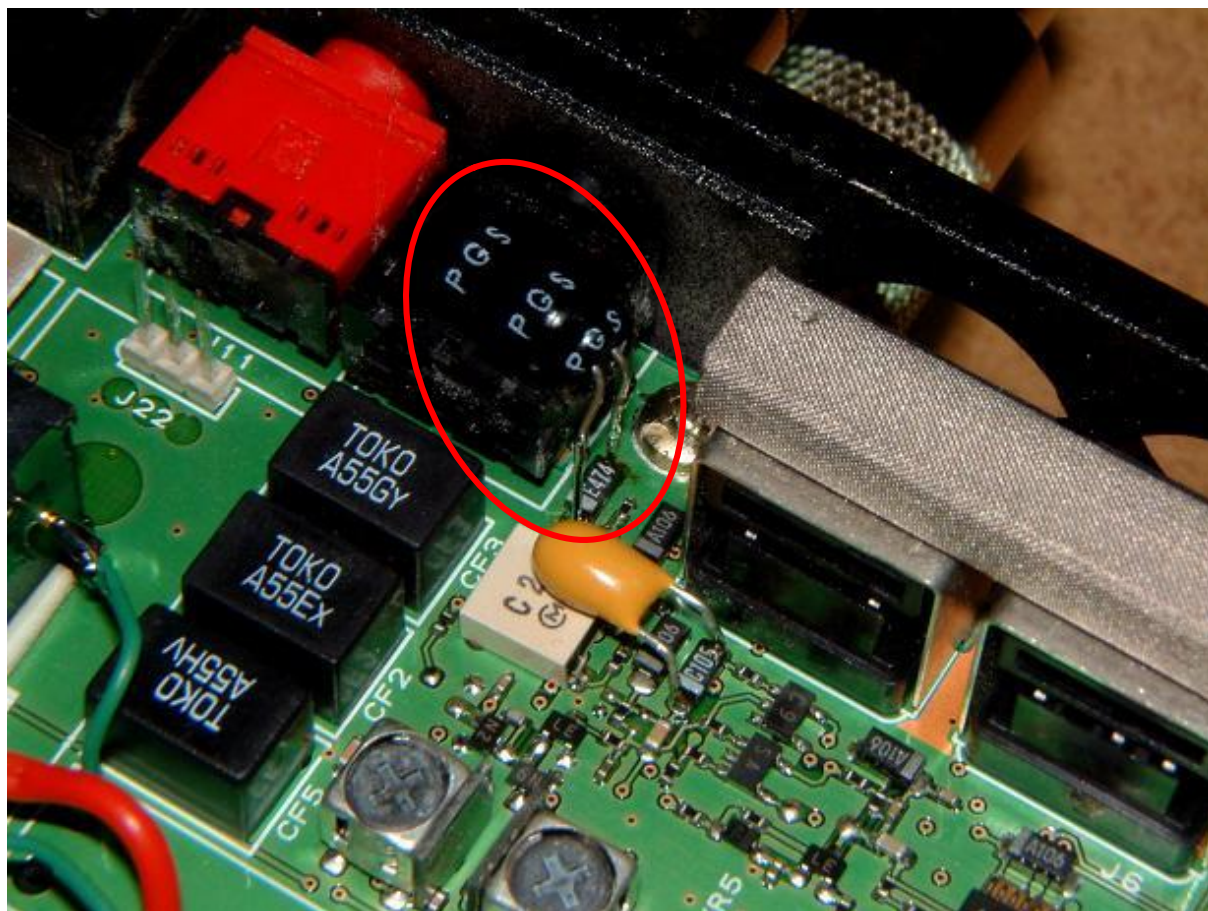
Jochen —DG2IAQ—

Details:

This is the position on which you can find **C1336** = 0,47 $\mu$ F = **E474** (SMD)

The polarisation is





Here you can see how I easily added a normal 4,7 $\mu$ F electrolyt in parallel.

There's room enough in the FT-897.

## Disclaimer • Disclaimer of liability

This modifications mostly need to be done by a electronic specialist who had enough practise and who has knowledge in SMD soldering. **You do the modifications on your own risk !**

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