

How to fix the IC-7000 audio noise (hiss)

This paper is about fixing the IC-7000 noisy audio that occurs only when the audio output is connected to high-fidelity earphones.

This audio noise (which sound like a hiss or white noise), is even stronger if the earphones are connected to the external speaker connector on the back of the transceiver.

The hiss (that is not the same as the 8 kHz tone issue) is very inconvenient especially when listen weak stations in CW and SSB and using high fidelity headphones.

What to do:

To fix this problem have to lower the cut-off frequency of the active audio filter (IC2551) which is placed before the audio power amplifier (IC2602).

How to do:

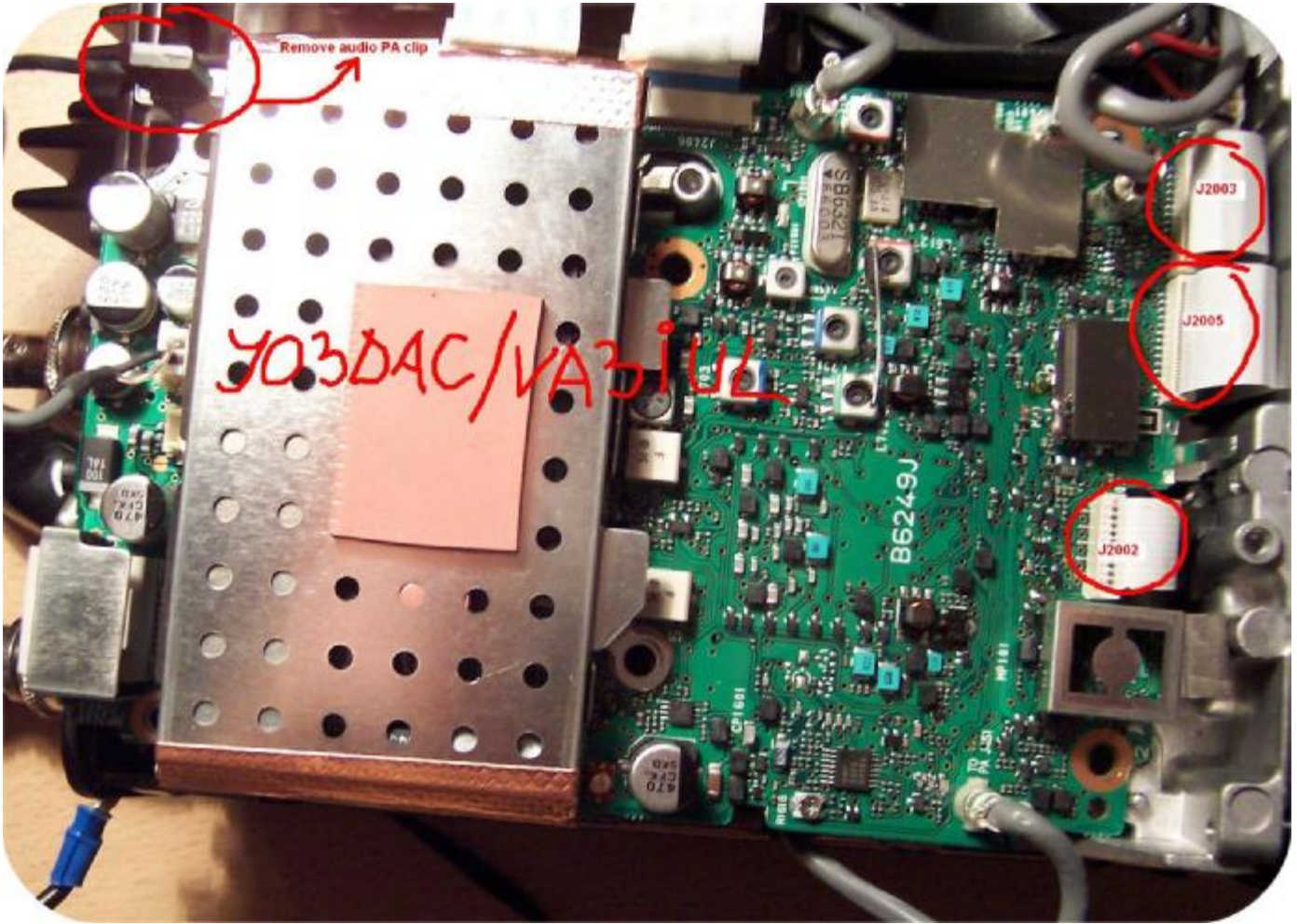
- Remove the top cover of the radio and unplug the speaker.
- Remove the spring clip of the audio Power Amplifier (IC2602 - see picture).
- Remove the CPU/Logic unit (Silver box).
- Remove the DDS unit (B6294L).
- Remove all coaxial plugs and ribbon cables from the board. **Be careful when removing the J2005 and J2003 ribbon cables as they can be pulled out of the PA unit. Would be very difficult to reinsert them into the PA unit.**
- Remove the Main Unit (B6249J) – The modification is done on the bottom of this unit.
- Add a 22nF capacitor in parallel to C2555. You can solder one pin of this cap to C2561 (10uF) and one pin to C2555, or you can add an SMD (0402) 22nF in parallel to C2555.
- Plug in the two ribbon cables from the DDS unit into the Main board before fitting the Main board to the chassis.
- Replace all screws and tighten.
- Plug in all the cables, re-fit the CPU/Logic unit.
- Replace the top cover and plug in the speaker.

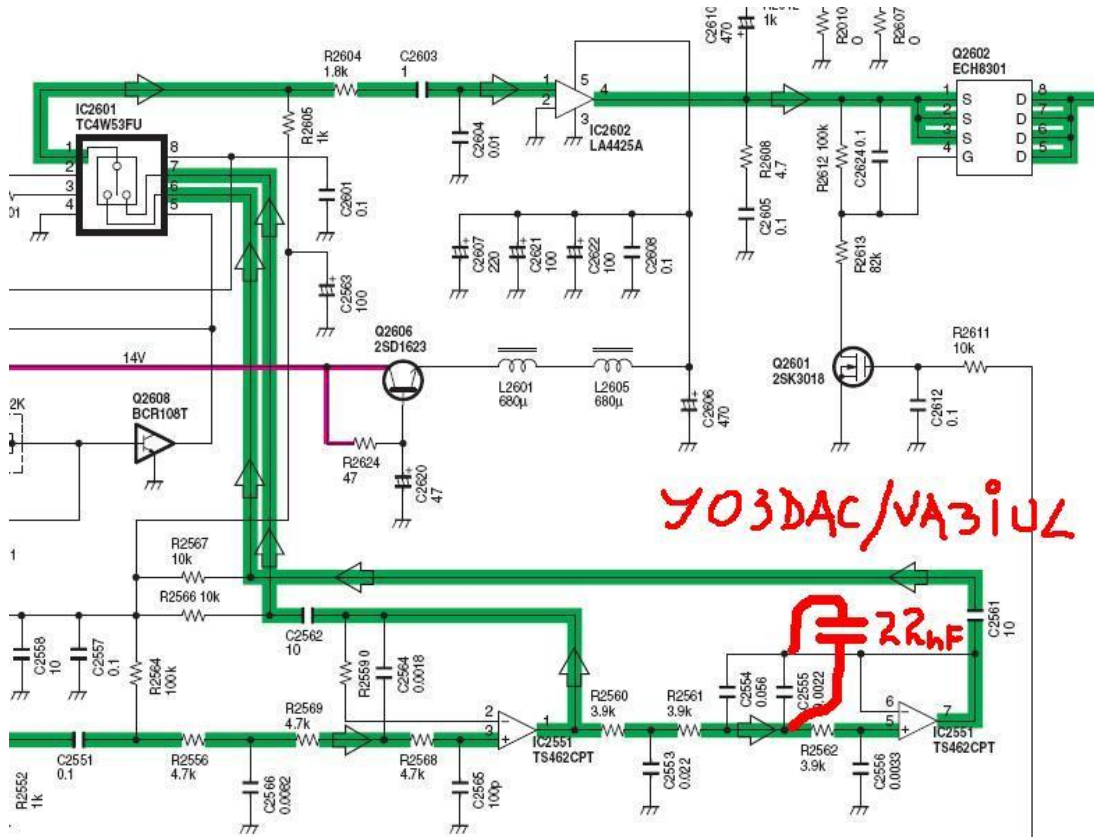
Good luck,

73's

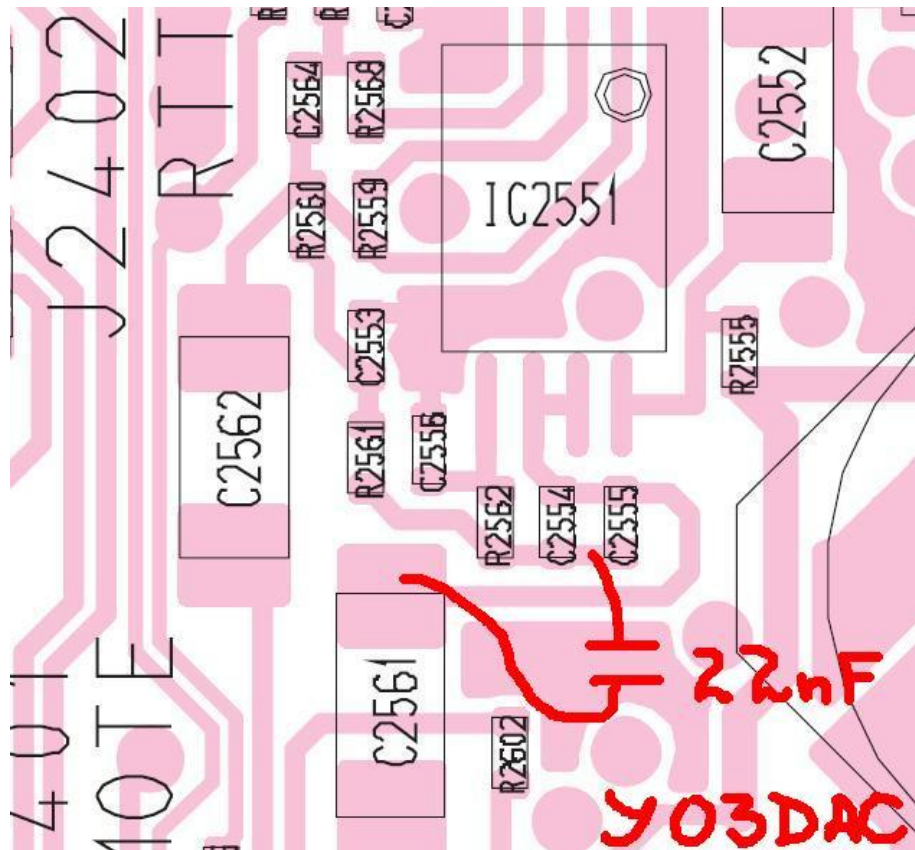
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