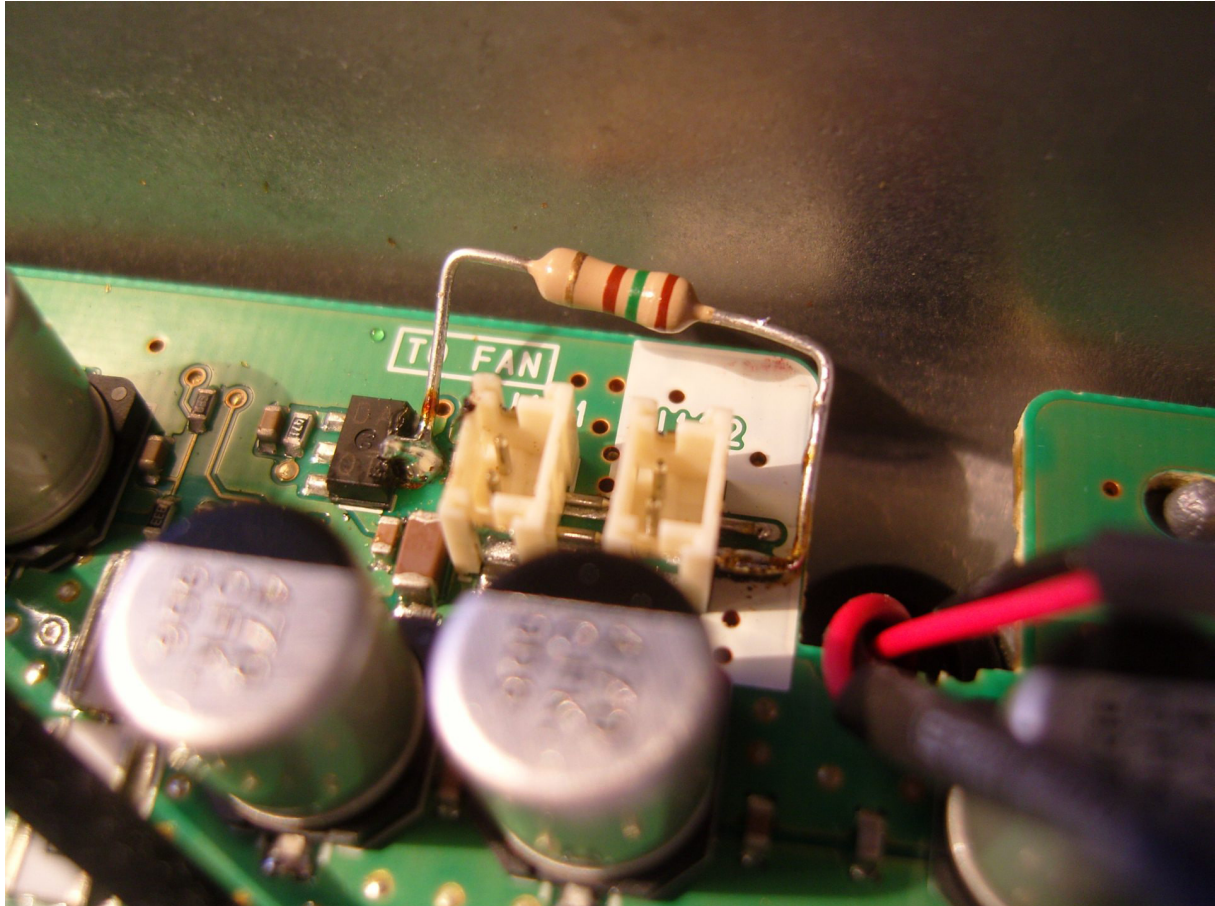


IC-7200 Fan Modification

(revised)



The IC-7200 stops its fan a few seconds after transmitting. Within several duty cycles the transceiver becomes very hot, even when transmitting low power like WSPR or JT65. When running the transceiver full power on a dummy load for 5 minutes repeatedly, you smell that electric smoke from the overheated PA PCB. A full 5 minutes cycle is often required for SSTV and FAX. Amperes have a peculiar odour.

Giving the fan a few revolutions during standby will transport enough heat out of the case to be prepared for the next transmit cycle. During a short transmit action, heat will be stored in the metal mass of the cooling system and the back of the unit will not exceed hand temperature. For a short transmit and long standby cycle, select 220 Ohms for the bypass resistor. The fans are barely audible. You may want to try 180 Ohms. For SSB-QSO usage or WSPR with 33% duty cycle select 150 Ohms. The fans become slightly audible, but the noise is low and comparable to a small laptop or power supply cooler. The noise is still below the background noise on any shortwave band. For contest and heavy duty use, e.g. mounted in a car, use a resistor of 100 Ohms. The fan will be audible, but in such situations that is of second priority. I am using 120 Ohms, so my shack is not too noisy. The photo was made with 150 Ohms mounted. Be careful when soldering at the transistor, the distance to some SMD parts there is very small. The fan connectors are on the bottom PCB of the IC-7200.

I have done a similar mod to the IC7000 and to the YAESU FT-100.

Both transceivers become hotter in standby than in short transmit, if not modded.

This is because in transmit mode the fan runs like hell. I wonder how the radio designers in Japan think. Probably they live in heavily air conditioned laboratories.

Dust may accumulate faster now and it is good practice to clean the radio with pressurized air once a year. You have to do that with any PC or laptop, so everyone should be used to it. OE8UWW