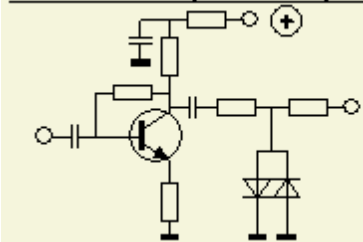


PAØFRI's DSB CLIPPER FOR YAESU FT-757GX

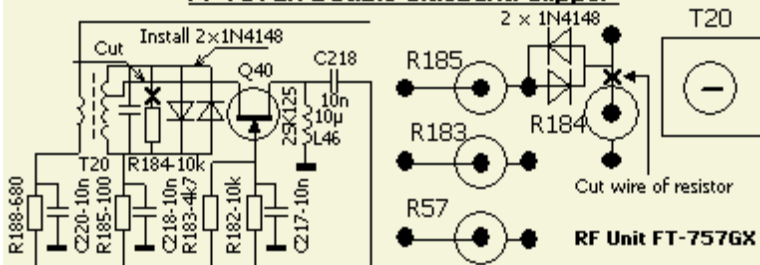
FT-757GX's original audio processor



I did not like the («fig) original LF speech processor because an unacceptable distortion. It is no more than an simple system: one transistor as amplifier and a collector circuit with two germanium diodes anti-parallel as limiter.

A RF clipper works better with less distortion. I had installed a DSB (double side band) clipper in a Kenwood TS-50 and was looking if this system could applied without much "demolition work". The most suited point was the transmit portion of the RF UNIT e.g. buffer amplifier Q40 (2SK120) in front of a crystal filter.

FT-757GX Double Sideband Clipper



The («fig) drain of Q40 is loaded with IF transformer T20 and resistor R184 (10k). With sufficient drive and 2 × 1N4148 diodes anti-parallel across T20 the system works as IF limiter. The subsequent crystal filter

ensures suppressing of undesirable harmonics. It turns out that drain's output was sufficient for a reasonably effective clipp level but even better if damping resistor R184 was removed. Here, it was done by cutting the top leg of R184. Damping still occurs when the diodes begins to limit. The result of this simple system is not spectacular, but works better than the original processor.

Moreover, almost no one notice that a clipper is active, it can remain permanently. The PROC button could be used for something else. Installation on the track side, but if you have a steady hand, it can quickly on the component side. My method was solder between the lower end of resistor R185, and at the top of the cut leg of resistor R184. I expect photos and drawings are clear enough for easy assembly.

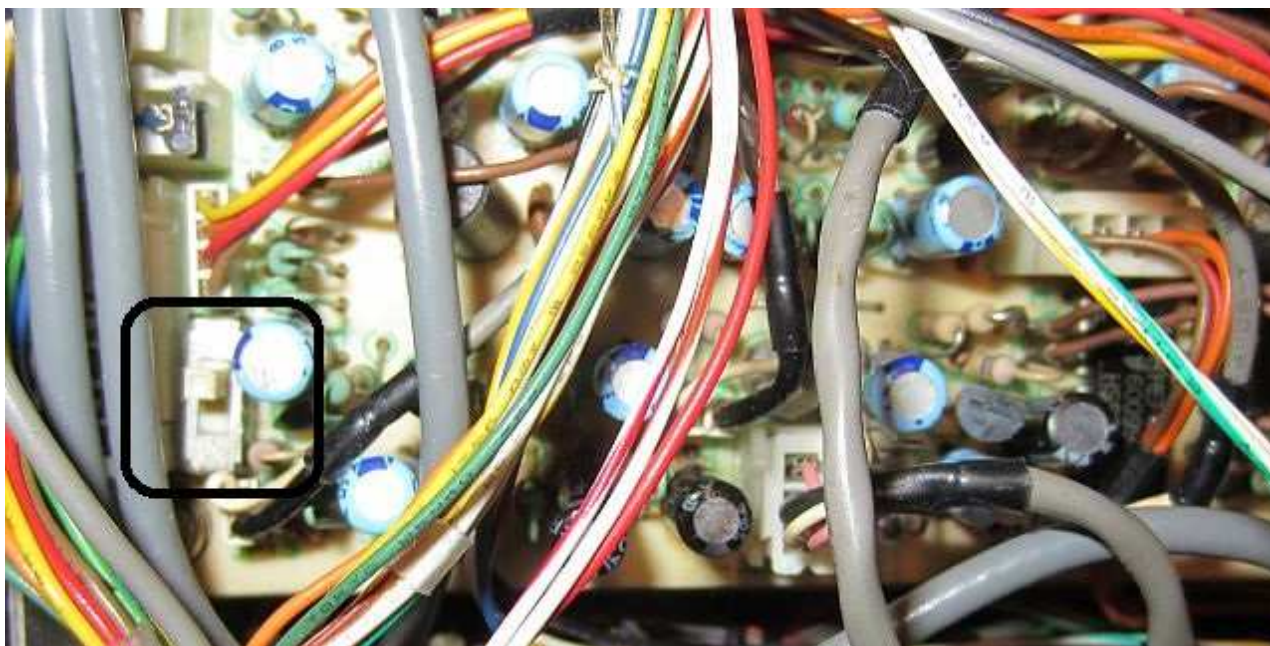


The compaction of the signal is clearly seen on («fig) a scope, which means that average output power is increased. Clip level can be



adjusted with MIC volume knob. Overdriving the output stages is almost impossible but with too much microphone gain your modulation will sound rough.

Besides T20 it is better to readjust all TX IF transformers T20, T21, T23, T24 and T25 as prescribed in the manual. It's a piece of cake and there is no need for special measuring equipment.



For increased microphone find the slide switch in the left front corner on the LOCAL Unit PCB behind the microphone connector. Slide the switch into the position as set in the photo.