GMB notes on killing 150Hz squelch tone on RT351-based Clansman UK/VRQ301

The RT351 (and other Clansman transceivers) adds a 150Hz tone to the transmitted audio that will attract unwelcome comments from non-military stations. I measured the deviation as 2kHz so quite a significant level – not the usual “sub-audible” tone. If you don't want the full Clansman link-though features then killing this is something to consider.

To remove RT351 from VRQ301:

Disconnect front and rear cable.
Unclick the two spring clips.
Unscrew big screw at front holding clamp.
Note the power contacts between RT351 and RT352.
Lift unit off - bit of a fiddle.

There is no need to remove the VRQ front panel.

Set mode selector to "R".
Remove 4 hex screws from top and 3 hex screws from rear gearbox.
Note the screws all have crinkle washers - and are not captive.
You can now lift both away from RT351 (upwards and backwards), disengaging the gearbox from rear selector switch.

To dismantle the RT351:

Unscrew 4 captive hex screws at back of RT351.
Carefully lift it off a little and check that seal isn't half stuck to both sides of joint.
Now pull off the black plug that connects ribbon cable to PCB mounted in end casting.

Take care that the two short locator pins inside the end housing don't fall into the works!
Note disposition of any desiccant bags. These should be cooked at 80 degrees to reactivate them.

Unscrew 4 captive hex screws on front and lift off the body casting, taking care about front gasket.
Take care not to damage the side of the guts - the folded ribbon interconnect. Note that all the ribbon interconnects are fragile and may have gone brittle.

To kill the 150Hz squelch tone:

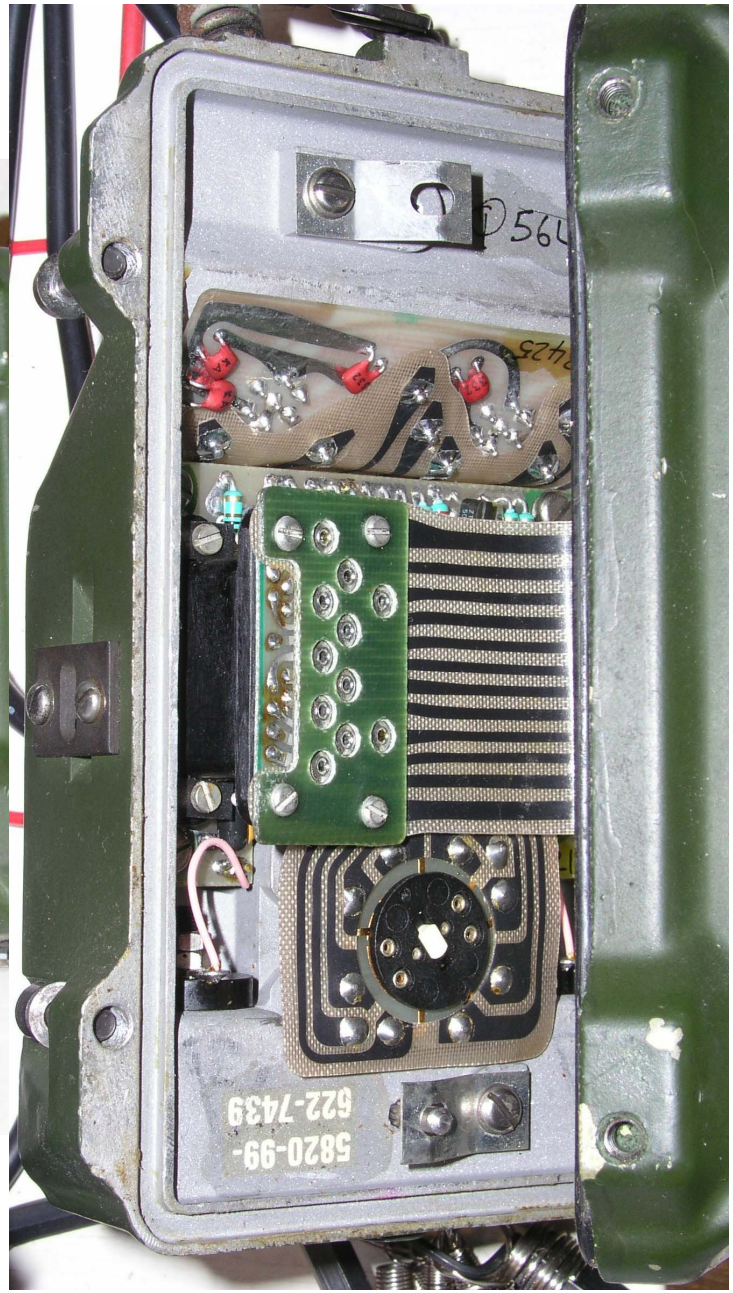
The deviation level of the 150Hz tone is set by R9 on module 13 (13R9) so just set that pre-set pot to zero by rotating anticlockwise. It turned about 180 degrees on mine.
NB: It's fragile so take care not be force it. It's very hard to fix if broken.

To refit:

Refit is simple reversal.
Note that the main casting goes on with insulating strip to the side of the ribbon interconnect.

When refitting the VRQ top panel make sure it's biased into end position corresponding to "R".


TRANSMITTER
RECEIVER RT-351
5820-99-114-3639
SERIAL NO.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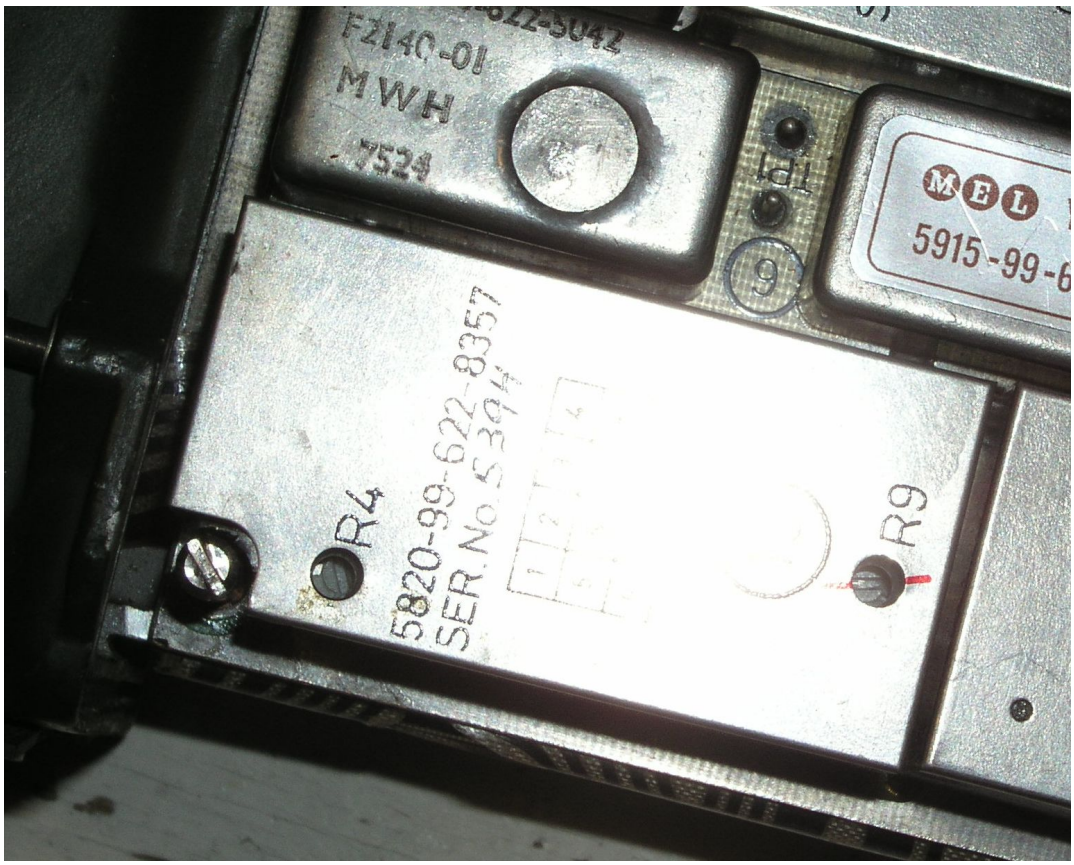
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R4
R9