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ICOM IC-765 MODS REVISITED

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In the December 1995 issue of QST, Dean Straw, N6BV, described two modifications to the IC-765 transceiver AGC. [1] I added the modifications to my rig and discovered that one of them caused me to experience eardrum-rattling pops when switching from transmit to receive when using the rig in full-break-in (QSK) mode. After Dean and I traded a few e-mail messages, I went back to investigate the trouble. I found that in my transceiver, C300's value is approximately 0.56 μF , as opposed to the 0.22- μF value Dean has in his rig. Bridging a 0.68- μF capacitor across the existing C300 in my rig fixed the problem. As it turns out, this totals about 1.24 μF , fairly close to the 1.72 μF that Dean's modification uses.

I also found Dean's value for C280 to be a bit too large for CW DXing, so I connected a 0.33- μF capacitor across the existing 0.1- μF unit, for a total of 0.43 μF . This value provides roughly half the decay time and is a bit better for CW (SSB doesn't appear to suffer either).

Dean also mentioned another change: shunting R440 (1 k Ω) to decrease its value to around 470 Ω . This is supposed to decrease the AGC attack-time pop, but I could hear no difference. I'm interested in helping this part of the 765's AGC circuit as well, but didn't have the time to work on it longer.

Other IC-765 owners should check the value of C300 before applying Dean's modification because it appears ICOM used at least two different capacitance values. My rig's serial number is 04187, which is not one of the early ones. CW ops may want to use the capacitance value I've chosen, while SSB ops may like Dean's choice.