

Icom IC-M700D mod

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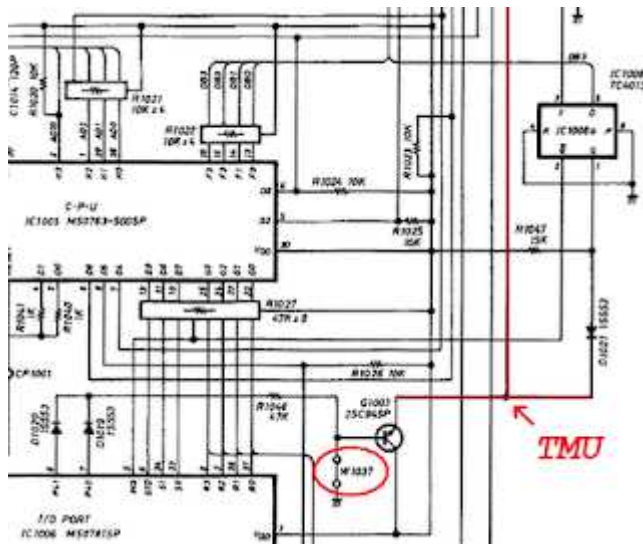
Despite what is told on the internet, there are version of the Icom IC-M700 which actually block out transmission on frequencies outside the marine bands.

Recently, I obtained one of those, the IC-M700D. This radio has got a "Posthörnchen" on it, meaning that the FTZ (Fernmeldetechnisches Zentralamt) gave its blessings. This however means, the radio does *not* do what it is not supposed to, i.e. transmit outside the marine bands.

Luckily, there is a service manual for the IC-M700 (no D!) available on the internet.

Browsing through the circuit description reveals that LOGIC CIRCUITS holds on control of the receive and transmit frequencies. The manual further recites that IC1006 outputs signals "mute signals for outside the marine bands to P40&P41. Ah! In the schematics diagram, P40 & P41 (pins 7&8 of IC11006) enable a voltage called "TMU" via transistor Q1003. The schematics diagram further shows a wire bridge W1037 shorting the base of Q1003 to ground. Hmmmmm, with W1037 installed, the transistor is never engaged to release the TMU voltage. Could TMU be an acronym for Transmitter MUTE?

Let's have a look:



This is how the LOGIC CIRCUITS section looks in its original state:



Note the cut wire, just above the label Q3.

That's the cut W37.



W37 aka W1037 reinstalled here. And yes, the radio now switches to transmit on all frequencies. Hard to find, easy to fix.

I hope this will help amateurs since the IC-M700D presently still is very cheaply available, because it does not transmit on amateur radio frequencies... or does it?!

Despite the above success story, the radio by default only is equipped with USB. Yes, the mode switch does have two J3E-positions, however, they both do the same. I will have a closer look into the circuit if there is an easy way to get the BFO to oscillate for LSB too. For the case there is none, the casing provides enough space to add a pulled CB-crystal to add a BFO for the lower side-band. After all, the I.F. is 9MHz ;-)

