

CPU faults

Most of the time the CPU or MCU board works just fine, most of the problems I have come across are to do with the MCU being zapped by static electricity which can be up to 8kv.

Stock Faults

1. If the display shows 26.000 or 28.000 with TX on and only the functions buttons which work are NB/ANL, R.BEEP, DIM and SWR. The radio is stuck in the TX mode and MCU can not reset. If you check Pin1 of connector CN605 you will find it has a short to Ground, in this case the CPU board needs to be replaced.
2. If the display shows 26.000 or 28.000 with Up or Down arrow on and only the functions buttons which work are NB/ANL, R.BEEP, DIM and SWR. The radio is stuck in the Scan mode and MCU can not reset. If you check Pin2 or 3 of connector CN610 you will find that one or both are short to Ground, in this case the CPU board needs to be replaced.
3. If the buzzer is constantly making a noise when the radio is in USB and LSB Mode but is OK in AM, FM and CW but will not change frequency when frequency Selector is moved and the Up Down functions buttons work OK then the frequency Selector needs to be replaced.
4. All functions are mixed up and some are missing, this is due to U5 or U605 shift register, check parallel output of Q1,2,3 and 4 you will find that one of them does not change state, you can replace this chip if you are good with your soldering.

If you can still not get the CPU to run check the Voltage regulator U2 or U602, check for a reset at power up, check the 4MHz ceramic resonator, check for any input lines which maybe shorted to ground.

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