



Common faults found on the FT-290R

NO RF O/P : PA

If it is not PA (the most likely cause) then check diode D24 in aerial switching, check for L2012 physically shorting to copper screen, and check driver Q2021 and R69.

OFF FREQUENCY RX +- TX

If this is just a couple of KHz then realign PLL local osc. If it is several KHz (possibly 10-12) off frequency then suspect PLL local osc xtal X02 (18.7414MHz).

OFF FREQUENCY FM TX

Realign L1002 (FM TX osc coil). If frequency error is significant then suspect xtal X1001.

ERRATIC FREQUENCY JUMPS

Check X02 as above.

DRIFTING

Check -6.8v. rail, and check Q05 on REG unit if this is missing.

POOR SQUELCH OPERATION

Check Q1019 (MC3357P) and D32 in squelch circuitry.

POOR QUALITY FM RX

Xtal X1003 (11.265MHz).

ERRATIC TUNING

The tuning step switch.

TUNING JUMPS

The tuning step switch.

INTERMITTENT TX+-RX

Check TX/RX relay. Check alignment of VCO in PLL.

NO AUDIO O/P

Check audio IC Q1027. Also check to see if the reverse polarity diode is blown, as reverse polarity causes failure of this IC.

CONTINUOUS CW OR NO CW TX

Check Q2010 (MC14001B). Also check the wire to the key socket is not s/c or broken, as this can happen when the battery compartment is taken in and out.

LOW SENSITIVITY RX

Check T1001 Ae. i/p coil, D25 in aerial switching and RF amp.

LOW SENSITIVITY ON A UNIT WITH A MUTEK BOARD

Check for loose strands from the braid of the Mutek board's coax shorting out the connecting pins on the Mutek board. Then check BF980 in Mutek board.

FADING LCD DISPLAY

Dismantle LCD display unit and clean the rubber connecting strip and the PCB it makes contact to.

CRACKLING NOISE ON TX AUDIO (FM ONLY)

Q2004 mic amp IC.

CRACKLING NOISE ON TX+-RX

Check X3001 (5.76MHz) in PLL.

MELTED NICADS

Replace DC i/p socket (and nicads). This fault can also occur as a result of using a DC input plug which is not quite the correct diameter or length, because the batteries are then not disconnected when DC is plugged in.

POOR SSB TX (NON-LINEAR)

If the PA has gone non-linear, then replace the PA and change R70 from 390R to 270R.

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