

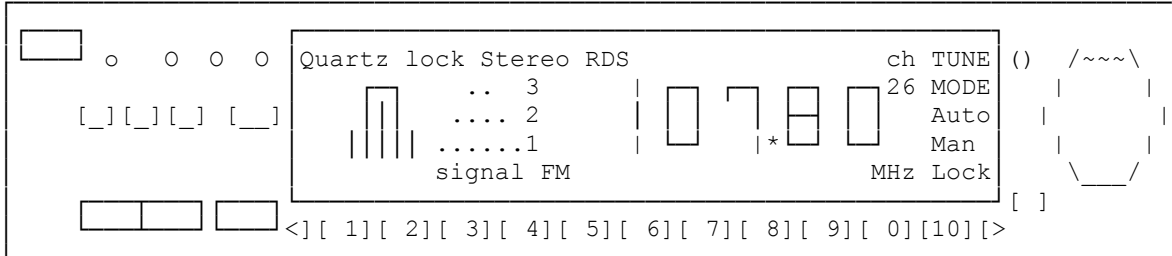
Technics Rx ST-RT550

By G8MNY

(Updated Jan 09)

(8 Bit ASCII graphics use page 437 or 850)

I was given a faulty one of these tuners, it covers LW, MW and Band 2 with RDS, and it has 39 memories. I have now got it all going OK.

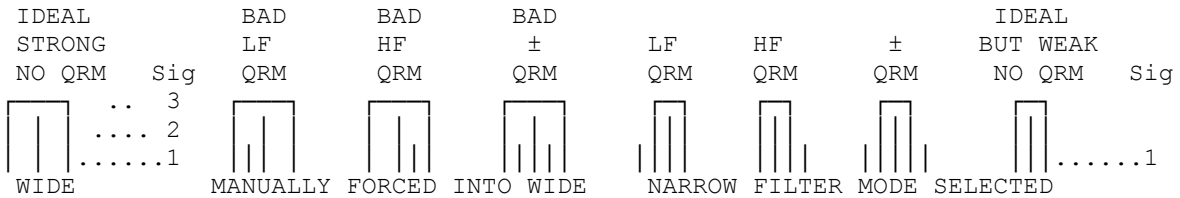


CLEVER AUTO IF WIDTH

It has an unusual feature regarding the automatic FM IF filter width selection I have not seen before. If the station is strong enough, it uses the wider low distortion IF (300kHz), unless there is a nearby carrier. It decides this by tuning ±100kHz first with the narrow filter (180kHz) and if there is a signal marking the spectrum graphic display with a bar | to the left or right of the main carrier and then it uses the narrow filter.

PSEUDO SPECTRUM GRAPHIC

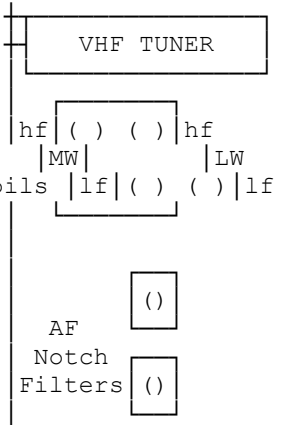
The Spectrum Graphics shows the IF bandwidth selected....



I wonder if anyone has any information, tips, do's and don'ts etc. for this Rx?

AM

It had no AM pickup loop aerial, so I am using a large loop from 6m of wire, (about 10uH) and I tracked the series LW and MW aerial and Osc coils to best match this.



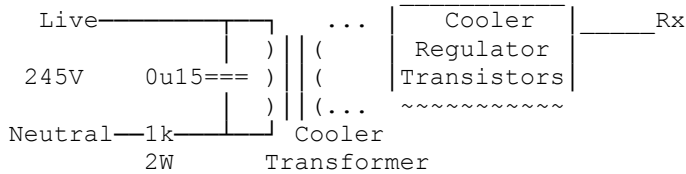
NO MAINS SWITCH!

As with many modern items there is NO MAINS SWITCH, the standby switch only really powers off the display.

Much of the power consumption on my UK mains @ 245V 50Hz is due to the large over run mains transformer (for 2x 110V 60Hz?) and gets hot even on standby with little load, as does the plastic power supply regulator transistors when on.

POWER MODIFICATION

I modified the mains circuit (the large empty PCB with the transformer was ideal) with a 2W 1k resistor in series with the mains neutral, and mounted it well above PCB, I also tuned the mains transformer to 50Hz with a mains 0u15 X type Cap for minimum mains current (PF=1.0).



The result was a much cooler transformer all the time and cooler power supply regulators, and hence less power wastage despite adding the 2W resistor. The transformer voltage now has 230V on standby (2W consumed) and 220V when on (5W), there is enough power supply headroom for the cooler running regulators OK, but the display is very slightly dimmer due to the directly heated filaments. (longer lifetime?)

HUM

I have done this sort of thing before on another FM Rx, but that case is was due to acoustic and strong stray magnetic flux leakage hum from the super saturated transformer causing problems. Again adding an series R reduced both these completely.

Any feedback would be greatly appreciated.

Y don't U send an interesting bul?

73 de John G8MNY @ GB7CIP.