THE FRG-8800
Some Second Thoughts

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The Yaesu FRG-8800 entered the market in 1985, shortly after the Icom R-71A. Apparently designed to compete with the Icom, and to outperform the Kenwood models the available, the -8800 came equipped with a sufficient number of bells and whistles to attract both the DXer and the casual SWL.

Before buying my -8800, I made an in-store comparison with the R-71A. Daytime conditions in downtown Tokyo are not the best for testing, but both radios suffered equal disadvantage. The Yaesu was marginally better than the Icom, based upon what I could hear. The overall features seemed acceptable.

The design of the -8800 indicates that Yaesu meant it to be simple to operate, yet versatile. The receiver has five modes of operation, 12 channel memory, dual signal strength meter, keypad and dial tuning, AF/RF gain, tone control, AGC, a noise blanking circuit, phone and record output jacks, and several clock functions.

The five modes are AM, LSB, USB, CW, and FM. AM, CW, and FM are all user selectable for "narrow" or "wide" using a momentary contact switch on the front of the unit. Unmodified, this is 15 kHz and 6 kHz for AM, much too wide for serious DXing, but adequate for program listening. The FM wide mode does not work unless the optional VHF converter is installed. Narrow FM and both CW bandwidths perform very well.

Touching the "MR" button will activate the 12 channel memory. Besides the channel selection, the memory circuits also allow the user to scan some or all of the 12 channels or scan a bank of frequencies between two adjacent channels. While this scan feature is of minimal use in DXing, it may have some applicationin monitoring multi-channel broadcasters such as the BBC. Placing the proper frequencies for, say, the BBC into the memory, and using the scan mode, the listener would have the best possible reception at all times with a "hands off" operation. The receiver should do all the work. This is possible in practice, though not with 100% success.

The signal strength meter is unique. It is a bar graph, each bar taller than the one left of it, until the tallest bar reflects a strength of 60 over 9. This scale is at the base of the meter. Up the left side, graduated from 1 to 5, is a scale marked "SINPO" and does indeed approximate the rating for signal strength which I use. This is a stingy meter; I've only had it to its maximum using a 100' antenna and receiving a local station's ground wave.

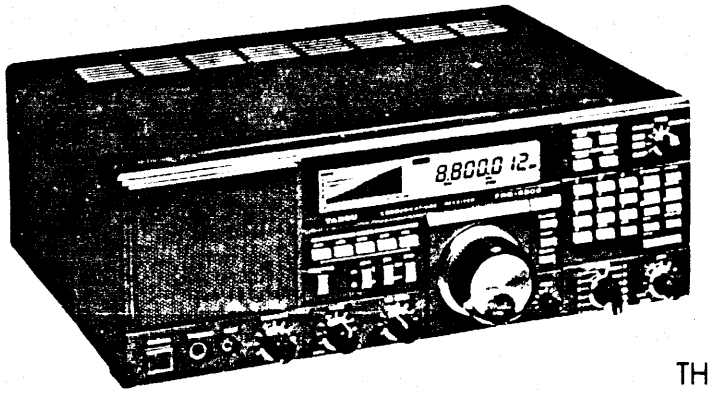
The tuning system, employing both the keypad and a tuning knob, has another feature which has proven useful. This is the speed control for the VFO. It can be set to "FAST", tuning through 125 Khz per revolution of the dial, "SLOW" allows about 6 Khz/revolution. A third setting is "D. LOCK", to lock the display. This last disables the knob, preventing inadvertant tuning. The keypad is not affected by D. LOCK.

In addition to a dual time clock, the -8800 has a timer circuit which will automatically turn the radio on and off. Additionally, through output jacks on the back of the cabinet, the user can employ this timer to control other equipment. I use this to control a tape recorder, allowing "remote" listening for those times when I can't be at the radio.

I have had second thoughts about this radio. It has performed to specifications, but the specifications don't allow it to perform as a first class DX machine. The stock bandwidths are not suitable for DXing using the AM mode. The noise blanking circuit was designed to limit the interference of over the horizon radar, the so-called "woodpecker," it is not for reducing QRN. This is a serious limitation, and not the stuff of which great radios are made. The DX-160 had a better noise reducing circuit.

With the inherent problems using the AM mode, ECSSB using the USB and LSB modes is the only way to go. This will generally answer for all but the most demanding DXing, but the DXer compromises the excellent audio found using AM. A solution is to modify the AM bandwidths; that is beyond the scope of this article. The stock -8800 is, overall, poor to fair in the all important area of selectivity.

Sensitivity on shortwave is adequate. MW sensitivity is poor. This latter is due to a designed attenuation of all signals below 1600 kHz. Such design



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is puzzling in a communications receiver which features an attenuation control.

Overloading is a rare problem, but still possible. The attenuator will correct it when it happens on SW. The MW attenuation, welcome perhaps at some locations, has certainly proven to be an annoyance to me. MW DX is typically just at the threshold, and there is nothing built into this radio to allow the DXer to correct that. A simple modification for this may exist.

The circuitry in my -8800 appears to be overly sensitive to humidity and dust. I've had the cabinet open several times to fix troubles caused from humidity and dust. None of the other equipment in this shack, exposed to the same conditions, has failed for similar reasons. It seems that the FRG-8800 was not "built to take it" as was the FRG-7.

I've used this radio at two locations (Clark Air Base, Republic of the Philippines, and northwest Florida) with a variety of antennas. All the wires were 100' or longer. I don't use a preamp or tuner with this receiver.

I don't recommend the Yaesu FRG-8800 as a DX receiver for SW or MW. The DXer will be better served using the R-71A, NRD-5x5 receivers, or a vintage model such as the Collins R-390A. Yaesu should go back to the basics for their next communications receiver or leave this market. Their advances since the FRG-7 have become disappointments in the long term. The -8800 solidly continues this questionable tradition.