

## Impressions of the Drake R-8B

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As a birthday present to myself for turning middle aged this year, I've acquired a shiny new Drake R8B. As I tell my wife, it could be worse, it could be a Mercedes convertible like the guy down the street bought for his 40th <grin>. Anyway, before the R8B, I'd used a Kiwa-modified Sony 2010 and (occasionally) a well-aligned Hammarlund HQ-180. So these are the only serious receivers I can use for comparison. As I unpacked, set up and first used the R8B, I jotted down impressions and conclusions. These may be useful to anyone contemplating a similar purchase. Note, there is no particular order to this. Also note, some of the impressions may be negative, but overall I'm very happy with the purchase.

The first thing I noticed was that the Drake R8B has a gorgeous and impressive front panel. The green LED readout is full of useful info that is very easy to read. The visual is better than the tactile, as the tuning knob is light and feels a bit cheesy (very cheesy compared to the hefty and smooth tuning of the HQ-180). Also, the R8B's buttons are a bit mushy and lack tactile feedback. Compared to the Sony 2010, knob tuning initially seems slow given the R8B's .01 kHz precision. But after a few minutes with the R8B's slew buttons that tune in 10 kHz steps, suddenly tuning the 2010 seems old-fashioned and slow.

The Sony 2010 has 32 memory locations, each represented by its own button. Because of this brute-force approach to building separate physical controls, programming and retrieval of memories is as simple as it could possibly be on the 2010. The R8B has 1000 memories, but not (thankfully) 1000 buttons. So there is more power, but the programming is not as easy as on the 2010. So I find that I use the memories less on the R8B. However, the R8B's two separate VFOs switchable by a single push compensate for this. I find I use the second VFO extensively when checking parallels, an operation for which I used memories on the 2010.

The R8B back panel is very good, with all the right connectors. I particularly like the fact that you can have two antennas selectable from the front panel, and that one of the antenna inputs can be either a low-impedance 50-ohm connection or a high, 500-ohm connection. I needed two 50-ohm connections to avoid buying another antenna switch, and the R8B provided them.

For me the biggest ergonomic annoyance is one I've not seen in other radios - you can't turn the volume all the way down to inaudible. As I often use multiple receivers, I like to turn the volume down on one to listen to another (which is why I use speakers more than headphones). Also, I leave the radio on all night for timer operation, and I prefer to turn the volume down so that there is no chatter emanating from the radio room. This is not possible on the R8B. So I've resorted to plugging in a blank 1/4" phone plug to the headphone jack to shut the audio off. This is not an optimal solution, as it dramatically increases the wear and tear on the headphone jack.

The R8B's sensitivity is great, and audio is intelligible even for signals as low as 2 or 3 on the S-meter. After listening to the R8B, I realized how noisy the 2010 can be. There were several cases where I could make out clear audio from weak stations on the R8B that were unintelligible on the 2010. Daytime DXing of nearby TIS stations in the x-band using a quiet wire antenna and the R8B can be very interesting with intelligible audio that barely moves the S-meter.

The behavior of the S-meter is somewhat odd on the R8B. On the Sony 2010 or the Hammarlund HQ-180, if you turn down the RF gain, the S-meter reading falls as well. This can be an important tool when using a phasing unit like the Quantum Phaser. If a local station is too strong and pushes the S-meter into the top of its range, then it is hard to tell if you've got the signal strength equalized between the two antennas (a requirement for phasing). So what I do is turn down the RF gain until the S-meter is in the middle of its range and minor differences in signal strength are easier to see. On the R8B, turning down the RF gain actually makes the S-meter

reading rise, and the S-meter is essentially unusable when RF gain is set to anything but maximum. I don't really understand why this is, but it is described this way in the manual, so I think it is normal behavior. Fortunately, the S-meter is very sensitive throughout its range and it is still possible to equalize signals for phasing, but it can take more fiddling than on the 2010 or the Hammarlund.

The most unpleasant surprise was the fact that suppression of adjacent channel splatter from stations 10 kHz away, while better than the 2010, is not as good as the HQ-180. I was expecting a much more quiet, splatter-free band, and that isn't as true as I'd hoped. Also, separation of splits through superior selectivity is better on the HQ-180 than on the R8B. This is offset by the R8B's superior audio, the synchronous detector option, selectable sideband, variable passband, and different bandwidths. Still, I'd expected better ultimate rejection at 10 kHz spacing.

A couple notes on the R8B synchronous detector: I find it is a tad more awkward to use than the Sony's. And because it can lock across a wider range, it can be harder to lock on a weak split next to a strong local with the R8B than with the Sony. As a result, I find myself doing manual ECSS - listening in single sideband mode - with the R8B quite often. The R8B's 10 Hz tuning makes this possible, where it is not possible to get clean audio this way with the Sony 2010's 100 Hz increments. The Sony 2010's detector circuit is also faster, finding lock with less of a pause than on the R8B. But the R8B has one big advantage over the Sony's excellent sync detector - the R8B will seek the carrier after it loses lock. Once you lose lock on the 2010, it is gone until you touch the tuning knob. But on the R8B, if you're locked on a TA that fades to nothing for 10 minutes, when the TA returns the R8B will zero back in and re-establish lock.

For me, the great joy of the R8B is its dynamic range and freedom from spurs and images. The R8B's dynamic range seems the equal of the triple-conversion HQ-180. I get most sensitivity out of my wire antennas when they are plugged directly into a receiver, with no preselectors/phasers/etc. in between. This is impossible to do on the Sony, as the signals from the wire overload (dramatically) the 2010. I've only detected a couple mixing products on the R8B, and only from superlocals during the day.

Interestingly, the lack of images on the R8B brought to light the fact that images are actually generated within my Quantum Phaser unit. This was not previously noticeable on the 2010 because the receiver's images couldn't be separated from the externally-produced images. But when I switch the Phaser over to the R8B, faint images and mixing products appear in the upper part of the band. This is not a criticism of the Quantum Phaser, but I think it is more a fact of life - lots of circuitry in your antenna system means more opportunity for mixing products to appear.

When I purchased the Drake, the most likely alternative was the AOR 7030. But in working with the Drake and Sony side by side, I've come to appreciate how much emphasis I personally put on ergonomics. Given this, and given the discussions on the web regarding the sometimes challenging 7030 ergonomics, I think I made the right choice.

Overall, I'm very pleased with the Drake R8B. I think the Drake R8B is an excellent receiver for mediumwave DXing, and fits very well with my highly automated DXing style. Yet, I believe some older receivers in a similar price range may offer better raw selectivity and split-digging ability, but with a severe tradeoff in terms of convenience. So I'm not going to sell my HQ-180 just yet.

I hope someone finds this informal review useful, and I'm happy to answer any questions. And if any of the Drake R8 veterans see flaws in the above or in how I'm using the receiver, do let me know <grin>.