Review: Kenwood TH-D7A(G) HT

By Natasha L. - www.lupinia.net

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As someone who buys a lot of expensive toys, I'm not really in the habit of writing reviews of the things I buy. However, every once in awhile, a product I use on a regular basis simply begs to be reviewed, in the hopes of sharing my positive experience with the world. This is one such product, the Kenwood TH-D7A(G) Dual-Band Handheld Amateur Radio Transceiver. If you're not familiar with amateur radio or radio equipment, this article probably won't make much sense from this point on. For technical data about this radio, click here.

(Image: http://cdn.fur.vc/awi/gallery/d7-boot-up-screen_icon.jpg)

I admittedly don't use amateur radio gear as often as other HAM radio operators, but I do attend a lot of events with other HAMs, and I use my equipment on a regular basis at these gatherings. An HT is pretty much a requirement for my usage style, and while my older HT (a Kenwood TH-G71A) is acceptable for this, I wanted something better, with dual-receive capabilities. Being a fan of Kenwood products, this was a natural choice, and it has greatly exceeded my expectations thus far.

The D7 is one of the most feature-packed HTs available, and one of the easiest to use in my experience. Kenwood's interface design philosophy revolves around ease of use rather than minimizing the design impact, something that's all too common for other radio manufacturers. The D7's keypad is evidence of this, especially compared to a similarly-equipped Yaesu or Icom. It may be a bit overwhelming to look at, but virtually none of its functions are more than two keystrokes away (including scrolling), and the user almost never has to visit the main menu once the radio is initially configured. Why the other radio manufacturers don't design their interfaces this way, I don't know. Another handy addition is the directional rocker button in the top-left corner of the keypad. Its up and down directions are redundant controls for the multi-knob on top, and the left and right directions are Cancel and OK, respectively. The redundancy is a bit unnecessary at first glance, but multi-knobs are a bit cumbersome at times, and the rocker button makes it almost second-nature to use the radio completely one-handed (including its packet/messaging/APRS features, more about that later), a plus when doing other things at the same time, or in emergency situations.

1 Frequency Coverage

(Image: http://cdn.fur.vc/awi/gallery/d7-dual-receive-mode_icon.jpg)

The D7 works two frequency ranges, 2 meter (144-148MHz), and 70 centimeter (440-450MHz), with extended receive ranges of 118-174MHz and 400-480MHz, respectively. The transmission mode is FM, and its primary receive mode is FM, though it will also receive AM on the lower end of the VHF band. Unfortunately, its dual-receive feature doesn't work both bands with both sides of the radio. Side A is VHF only, and Side B is VHF/UHF, but will not receive VHF frequencies outside the amateur allocation (ie, no extended receive on the VHF band of Side B).

2 Dual-Receive

This is one of the D7's most prominent features, and arguably one of its biggest selling points. As explained above, the dual-receive implementation doesn't allow for receiving UHF on both sides of the radio, but depending on your usage, this may not be an issue. On the plus side, the dual-receive features add to the radio's ease of use as an APRS interface as well as a usable radio (more about that later).

As usual, Kenwood's dual-receive interface is a bit different from that of other manufacturers. The most noticeable difference is that instead of a pair of volume knobs, the D7 has only one. Adjusting the volume level between bands is accomplished with the BAL key (first column, just under the rocker button).

The A/B key (third column, top row) switches between sides, and the Dual key (second column, bottom) switches between dual-receive and single-receive. This is handy if, for example, you're monitoring conversations on both sides, and need to concentrate on one or the other when both are talking. Switching to single-receive mode also greatly improves battery life, to the point that it'll outlast my old G71 with the same-size battery.

3 Dot-Matrix Display, with upper and lower-case character support

To a long-time HAM, this may seem like a really superfluous feature, but it was a big selling point for me. Instead of a traditional LCD display, this radio has a dot-matrix LCD display, much like what you'd find on a late-90s cellphone. It's far easier to read than the older-style displays, and allows for lower-case characters, in addition to a larger set of symbols. It also allows 8 characters in memory names, instead of the usual 6, making it easier to write understandable memory names.

4 APRS and Digital Operations

(Image: http://cdn.fur.vc/awi/gallery/d7-aprs-position_icon.jpg)

This is what makes the D7 truly stand out. It's one of the first HTs with a built-in TNC for packet operations, *and* onboard APRS (Automated Position Relay System, click here for more info) programming. All it needs is a GPS receiver, connected with a NMEA-compatible serial connection, and you have an out-of-the-box APRS system.

Unfortunately, at the time of writing this, I haven't had the necessary equipment to try out the APRS features of the D7. Once I have, I'll update this part of the article as necessary. One thing's for sure, though; if you're looking for an easy-to-use APRS system, this is the way to go. And since it's an HT, you can carry it with you for portable APRS, something that was difficult to do before. Dual-receive allows you to use the radio for standard voice communications while transmitting location packets, so normal usage of the radio isn't interrupted.

5 Overview

Overall, I consider the Kenwood D7 to be one of the best HTs on the market. Its interface doesn't appeal to everyone, but if you're looking for an intuitive, easy to use HT with dual-receive capability and/or integrated packet operations, there's no radio I can recommend more strongly.

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About the Author, and Contact Information

Natasha L. is a web application developer, and avid photographer and writer, living in the DC metro area. Visit `www.lupinia.net` to learn more. Contact information, including an email form and links to other websites, can be found at `www.lupinia.net/contact`.