

*How do I?*

*An occasional series*

*This week: A First Look at the Icom V86 HT*



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Editor's Note: Personal preferences and opinions expressed in this article are those of the author .  
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Icom is one of the %Big 3+ amateur radio manufacturers. They produce a line of quality products used by hams around the world.

On the High Frequency (HF) ham radio bands the Icom 718, an entry level radio, without all the bells and whistles, still gets thousands of hams their first HF contact. Icom also produces a line of mobile and hand-held radios.

Here is a first look at the Icom V86 HT, introduced in 2019.

Icom has a history of successful HTs. The Icom V80 was a classic and was produced for many years. It was replaced by the V82 and in 2019, by the V86. The V86v is the VHF (2 meter band) model and the V86u is the UHF (70 cm band or 440 MHz model).

My first amateur radio was a Yaesu VX170 HT. The current version of it is the Yaesu FT270. My first HF rig was the Icom 718, and I still use it as a portable rig. But somehow for mobile and HT radios, I gravitated to Yaesu, even though Icom and Kenwood produce some excellent radios that may suit you better.

This fall I encountered two railfans using Icom HTs as scanners to listen to railroad radio communications in the 155-174 MHz business land-mobile band. One had an Icom V80 and I think the other the Icom V82. Neither was sure what antenna they were using. One may have been the stock factory antenna and the other seemed to be an aftermarket antenna. Both were hearing things my Yaesu VX170 could not hear. To say I was impressed is an understatement. My train chasing companion lives near Lancaster, PA and regularly uses a Radio Shack scanner to listen to the local railroads. He has a Yaesu mobile rig in his car he uses for the same purpose. He bought a V86v and was amazed at how this the radio with a Diamond RH77 series antenna pulled in stuff he could never hear before.-- both at the office and on the road.

I bought the Icom V86v as well. Christmas Eve I finally got the squelch adjusted so it could hear and used the RT Systems programming cable and software to load my standard frequency package. While it's not apples to oranges, I had my Yaesu FT60 as well and tweaked some frequencies in it.

First off, I am once again amazed at how easy the RT Systems software is to use. Second, the V86 is easier (fewer steps) to read and write from the radio memory to the computer.

Once I had my basic frequency package installed in the V86 I started both radios to scanning. The FT60 found the local Bedford County Amateur Radio Society (BCARS) Tuesday evening ARES/RACES net starting. A few seconds later the V86 found it as well. Both had excellent receive audio. I wasn't sure where the repeater was located, and I wasn't sure I could reach it using the HT.

I went outside and faced the closest mountain. When they called for more check-ins, I replied. The Net Control Station could hear me, but not well. They suggested trying to get up higher. I rotated about 45 degrees so I was facing Mount Dallas instead, and they said I was booming in. About 7 or 8 miles across rolling country with 7 watts output! I was using the Diamond BNC mount version of the RH77 antenna. I am impressed! Unfortunately the net session was short duration and it was pretty cold for me to be out in shirt sleeves, so I didn't try the FT60 on the net or swap to the factory antenna on the V86. To be honest, if I had intended to check into that net I would have used the mobile rig and would have missed learning what the V86 could do!

My editor gives me limited space, so I will not list the features and specifications here. It is a typical mil spec, semi waterproofed HT capable of 2m operation and has a dedicated NOAA weather radio scan button and can scan 155-174 MHz. The basic manual covers several Icom radios and is only 4 pages. The advanced manual is only 55 pages and can be downloaded as a free PDF from the Icom website.

The ICOM V86 can be programmed from the keyboard. One of the sales points is it does not need computer support for programming the radio. That is true, but for me, not having the RT Systems software would be like having a car without air conditioning. Yeah, it works, but it's not as much fun!. I presume CHIRP and some other free software works but you still need the cable.

There are several battery pack options. I have the standard battery and charger. I bought the AA cell battery holder just in case. I do not know how long the

standard rechargeable battery lasts, but expect under average use, most of a day.

While the V86 has excellent receive capabilities and audio, I have found a few features I don't care for as much.

1. If you need a water resistant radio that will survive immersion, I have no doubt the V86 will work. But to achieve that, it uses a screw-on cover over the speaker and charger ports. So to program it, you need a small screw driver. The Yaesu radios use a press-fit rubber plug, and at least on the FT60 I have trouble getting it to fit well. So for everyday use, I think I prefer the FT60, but if I thought it was going to take a bath, I'd leave it behind.

2. I like to set up Memory Banks of frequencies. In my standard package I have 146.520 MHz and 146.490 MHz in all banks. In Bank 1 I have the railroad frequencies, Bank 2 is amateur frequencies, mostly repeaters in western PA, western MD, West Virginia and Virginia. Bank 3 is all. Banks 4-10 are not used or have a special purpose, such as a place to store amateur radio satellite frequencies. The V86 software doesn't have the ability to set up banks as far as I have found and the basic manual doesn't mention them. Not a deal breaker but frustrating as I have to change my system. As cheap as these radios are, if it's a big deal, buy more than one and program each as if it was a different bank.

3. As of now Icom does not sell a speaker mic for the V86. For public service events, these can be very useful. If you use one, the radio will not be water resistant, but I'd expect Icom to offer one at some point. I do not know what is different from the other Icom radios in production that the speaker mic is not compatible for all. Heil offers a very good headset for HT's at an amazing price, but I have not investigated whether it can work (plugs, etc) with the V86.

I have no experience with the V86u but would expect it to be the same.

In short, I now have to decide if the V86 is my main field HT or if I stick with the VX170 for a basic 2m amateur hand held radio. For public service, the choice is easy as the Yaesu readily works with a speaker-mic.

I may provide updates as I use it more. And as always % your mileage may vary!

Catch ya on the air!