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QST Issue: Dec 2002

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OLD RADIO

It's a Heathkit Time of the Year

Every December I think way back to the days when I would receive the Heathkit Christmas catalog. Of course two or three things would be placed on my gift-wish list. Dad was always hard to convince, but I remember well the Christmas I received my first Heathkit from him, an AC-1 antenna tuner. It was the first of about a dozen Heathkits I would build over the years. I miss those kit-building days.

The most complex kit, and the last one I ever built was the SB-101, an 80 to 10-meter SSB transceiver. I used it on the air for years. I still have it and it still works very well.

A few weeks ago I purchased several ham radios from an estate sale. Included was a pair of Heathkits. These were much newer than those I had built; they had transistors in them and digital read-outs. In no time at all I had them apart and was inspecting the construction and reviewing the step-by-step instructions.

HR-1680 Receiver

The HR-1680 replaced the HR-10B receiver with a new look. All solid state and with a digital display, it was sold from 1976 through 1982. Sensitivity was advertised as $0.5 \mu\text{V}$ on the 80, 40, 20, 15 and 10-meter bands. Modes are USB, LSB and CW. The controls are simple and easy to use. It also has a preselector. The power supply is built in.

As you can see in Figure 1, the

inside is spacious with modular printed circuit board construction. This should allow for easy maintenance as needed. The manual provides alignment and testing procedures with no exotic test equipment needed.

HX-1681 CW Transmitter

The HX-1681 is the matching (CW only) transmitter for the HR-1680. Introduced in 1979, Heath sold them until 1982. The original cost was \$239.95. Together they make a great looking pair.

The HX-1681 replaced the popular DX-60 that was sold for many years. It is a great transmitter for the CW operator. It features a solid-state VFO with less than 100 Hz drift in 30 minutes after warm up. Break-in keying with automatic antenna

switching and muting of the HR-1680 receiver make this pair easy to use together.

In Figure 2, on the right you can see the driver and final tubes. (I removed the safety cover for the photo.) The driver is a 12BY7 and the finals are a pair of 6146s. The VFO is under the aluminum cover that has the Danger sign on it.

The Station

As you can see in Figure 3, both front panels are well laid out. One gets familiar with each control very quickly. Tuning the transmitter (shown on the bottom) is easy into a 50- Ω load. An external antenna matcher is needed for antennas with high SWR.

Power for the transmitter is provided with the Heath SB-23 power supply, available separately. A matching speaker is the HS-1661, which was originally sold to go with the HW-100 series.

I found this transmitter and receiver pair to be much like my older SB-101. Many of these are still on the air, not just collecting dust on somebody's shelf. I have seen several for sale recently in the \$100 range (each), inexpensive enough to add to your collection. For more information, product reviews were in the following issues of *QST*: HX-1681, March 1981; HR-1680, January 1977.

Have more fun this holiday season by using your Old Radio.
—K2TQN

QST

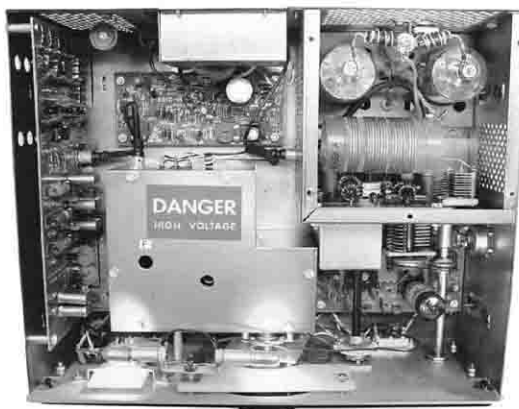


Figure 2—The Heath HX-1681 transmitter.

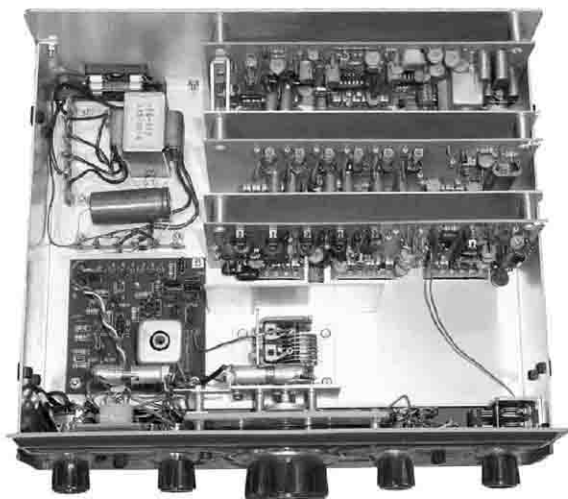


Figure 1—The HR-1680 receiver.



Figure 3—The pair of them together.