

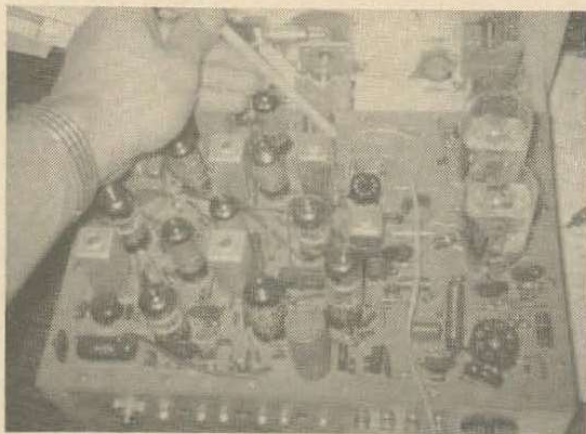
Put Your HW-22 on CW

It only takes a few minutes to modify this Heath SSB transceiver for CW.

I admire the Heathkit monoband SSB transceivers and feel that for the price, they are one of the best buys on the amateur market. Their only weak point is that they have no provisions for CW. However, the HW-22 can be put on CW very easily (and no changes in its appearance) by cathode keying the 12BY7 driver, V5 and by lowering the VFO frequency to the CW segment of the 40 meter band.

Modification

After pulling the chassis and turning the unit on its side, locate the driver tube V5 (12BY7). Carefully remove the grounded side of R52 (a 150 ohm resistor connected to pin 1, the cathode of V5) and solder a two foot piece of insulated hookup wire to the free end of R52. Next strip one quarter inch of insulation from another two foot piece of insulated hookup wire and tin its end. Insert the tinned end of the prepared hookup wire through the



The keying line and connection are shown at the end of the pencil point. The 12BY7 driver has been removed for this picture.

hole in the printed circuit board vacated by R52 and solder.

Now locate the VFO coil L6. Moving the slug out will lower the frequency. It is easier to turn the slug from the bottom side rather than the top. Be sure C131, the main tuning capacitor, is fully meshed before turning the VFO slug. In my case turning the slug all the way out to the stop brought the frequency down to 7012 kc. After the adjustment of L6, the transceiver will now tune 100 kc or so of the bottom of the 40 meter band. Replace the cabinet and put the twisted two foot length of hookup wire through one of the holes in the cabinet. Connect the free ends of this hookup wire to a bug or key.

Operation

With the function switch in tune position, a DC voltage is applied to the balanced modulator to provide a steady output signal for transmitter tuning purposes, but since we have lifted the cathode of the driver V5 from DC ground, we are now able to key this output signal. To operate the HW-22 on CW just put the function switch in the tune position, close the key, load in the normal manner and start sending CW. To receive, just put the function switch back in the VOX position.

I have made many CW contacts with the HW-22 and all reports have been excellent with no signs or reports of clicks, drift or chirp. This modification can also be made to the HW-32 and HW-12.

To put the HW-22 back on SSB, just raise the VFO frequency back to 7200 kc and close the key. The modification for CW takes less time than reading this article.

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