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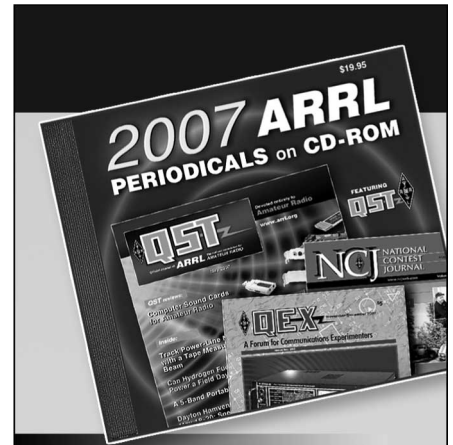
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Author: Jim Zvolanek, W9AG

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Hints and Kinks

Conducted By David Newkirk, WJ1Z
Assistant Technical Editor

TEAMING THE W6OWP KEYING INTERFACE WITH THE HEATHKIT HW-101 TRANSCEIVER

□ In April 1987 *QST*,¹ F. A. Bartlett, W6OWP, described a circuit capable of eliminating first-character distortion (shortening) that occurs during semi-break-in (keyed VOX) CW operation with some transceivers. Teaming the circuit with my Heathkit® HW-101 involved a few modifications that may be of interest to others who intend to use the interface with older, tube-based transceivers. Here's how I modified the two to work together.

Fig 1 shows the additional circuitry necessary to connect the interface's PTT-control line to V12B, the HW-101's TR-relay driver. U2D, unused in the original interface circuit, is put to work here.

The original interface was designed to be powered from a 13.5-V dc source in its associated transceiver. Such a supply is unavailable in the HW-101, so I used the circuit shown in Fig 1B, deleting the 9.1-V Zener diode, 200-Ω resistor, and 0.1- and 200-μF capacitors that provide 9.1-V dc from 13.5 V in the original design.

Construction and Installation

I decided to build the interface into the transceiver on a Radio Shack® 276-150 Multipurpose Board. This board has ample room to accommodate the original interface circuitry (including the MARK and SPACE pots) and the additional parts called for in Fig 1A.

I mounted the interface board on the HW-101's main chassis, 3/4 inch to the right of the cage containing the rig's 6146 amplifier tubes and over the 5/8-inch-diameter access hole, which also allows wiring to the underchassis circuits. An aluminum bracket, 3 × 2 inches in size with a 1/4-inch flange, supports the board. Position the board on the bracket so the MARK and SPACE pots are accessible for easy adjustment.

I built the power supply underneath the chassis on the vertical partition that supports the coil compartment. A bolt suitable for mounting the 7808 regulator is available 3-1/2 inches from the rear of the chassis. Other power-supply parts are wired to a terminal strip mounted over the grounding lug for the socket of RL2 (one of the HW-101's TR relays).

The HW-101's KEY-jack wiring must be modified because the interface unit's keying transistor (Q2, an MPSA42; see the article cited in note 1) must operate grounded-collector, with its emitter connected to the HW-101's keying line. Lift the black/white wire at the tip terminal of the HW-101's

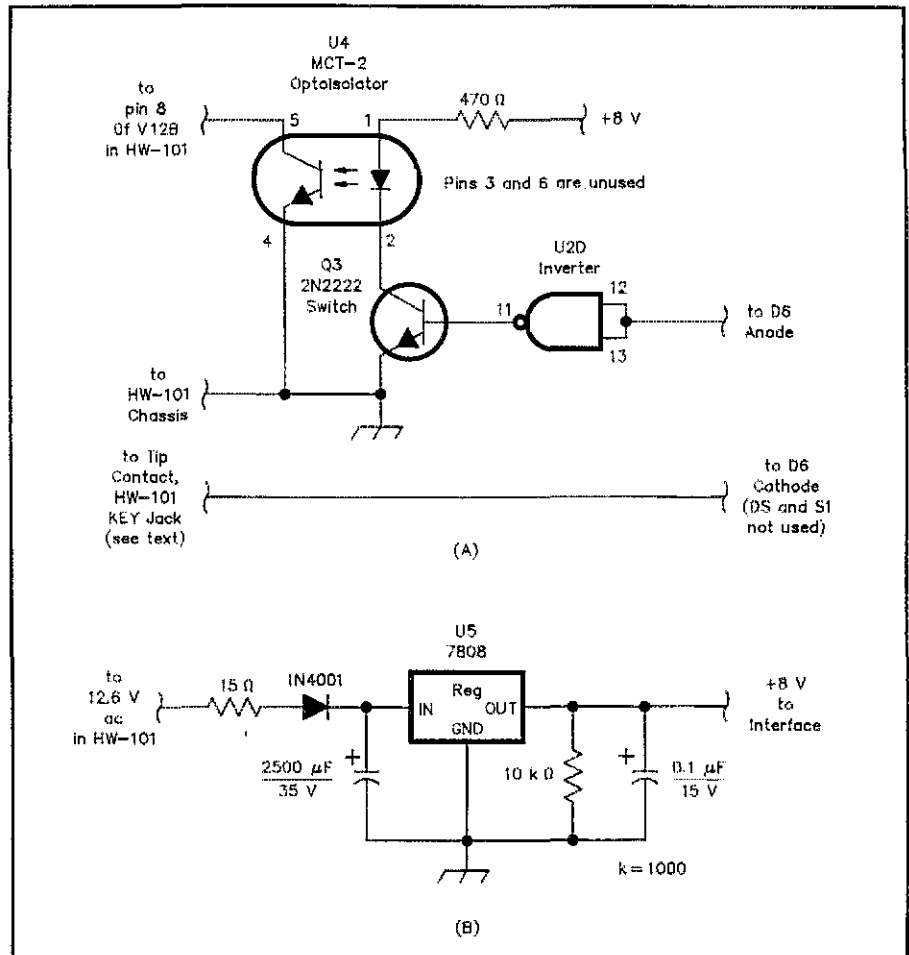


Fig 1—Jim Zvolanek modified F. A. Bartlett's CW keying interface for compatibility with a Heathkit HW-101 transceiver as shown at A. New power-supply circuitry (B), powered by the HW-101's 12.6-V ac heater supply, was necessary, too. Resistors are 1/4-W, carbon-film units. See text.

KEY jack and connect this wire to Q2's emitter. Then run a wire from the HW-101's KEY-jack tip terminal to the cathode of D6 in the interface circuit. This completes the modification.

Follow the adjustment procedures described in the original article, and you're ready to operate.—Jim Zvolanek, W9AG, 3827 W 83rd Pl, Chicago, IL 60652

MAKE YOUR OWN QRP CARRY-ALL

□ One of the great things about QRP is that it really opens up the possibility of go-anywhere operation. Recently, I've been taking my gear with me in style in my QRP Carry-All bag (Fig 2). Besides holding my gear, it's a great way to "fly the flag" because it displays the League diamond and a Michigan QRP Club patch. The Carry-All makes a home construction project that requires absolutely no debugging and no test equipment!

An uncle in England gave me a British school bag—similar to an American canvas

knapsack—that was just the right size for my W7EL transceiver, battery box and assorted portable-operation-materials kit that I've assembled for my QRP ramblings. I based the QRP Carry-All on this bag. The assembly instructions? Simply dress it up with a couple of patches!

You don't even need to sew. Acquire a suitable bag or day pack. Then, using iron-on adhesive (intended for hemming garments, and available at fabric stores and variety-store notions counters), apply ham-radio-related patches to the bag. Such patches are available from many sources; ARRL sells an eye-catching ARRL-flag patch, as well as ARRL-diamond patches of two different sizes. The Society of Wireless Pioneers and other organizations also offer beautiful patches.

When not toting a portable station, the QRP Carry-All is also great for holding small hamfest purchases. Carried during air travel, the bag invariably attracts the attention of other traveling hams, who stop by

¹F. Bartlett, "A CW Keying Interface," *QST*, Apr 1987, pp 51-53.