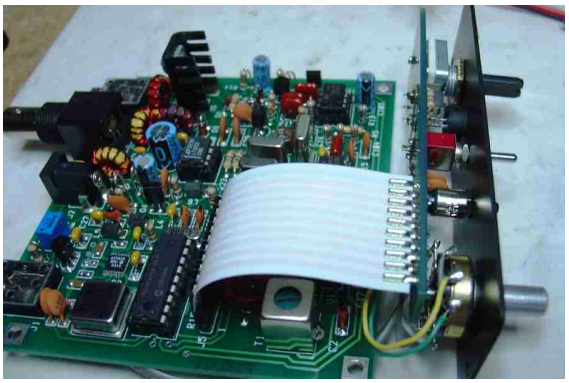
Add an On-Off Switch to your DSW-II-XX Transceiver
By Phil Salas – AD5X

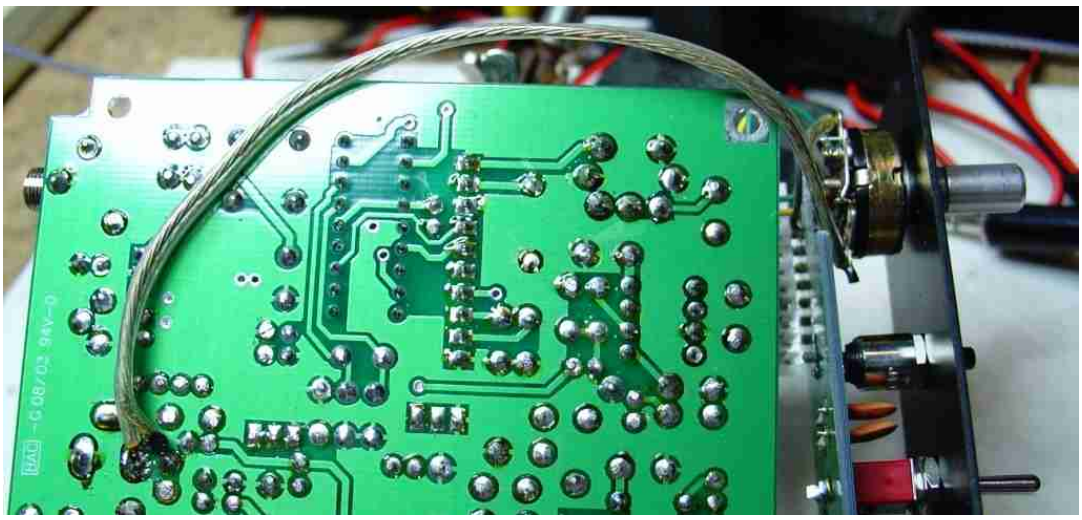
The DSW-II-XX series of transceivers from Small Wonder Labs are really amazingly tiny, yet effective, QRP radios. I'll never part with my DSW-II-20. My only pet peeve is that there is no on/off switch. The radio just powers up when you apply power. So I decided to add an on/off switch by replacing the GAIN control with a new control that includes a SPST switch. I found a miniature pot/switch at Mouser Electronics (www.mouser.com) that can be made to fit. This is Mouser part number 31CQ305-F, which only costs $1.13.

The modification process is as follows: Remove the DSW-II-XX from its case. Disconnect the ribbon cable to separate the main board from the front panel assembly. Next, remove the control and switch nuts on the on the front panel assembly, and then remove the front panel from the front pc board assembly. Now clip off the existing gain pot and remove the gain pot terminals from the pc board. Next, solder on three 1.5"-long wires to the gain pot holes in the pc board, and then nibble out the pc board behind where the new pot will mount as shown below. I used a cheap ($10) nibbling tool for this.


The nibbled area clears some of the pot protrusions, but you still need to mount the pc board a little farther back from the front panel to ensure clearance, and still keep the front panel parallel to the PC board. To do this, I found additional nuts for the encoder, freq, and keyer controls (washers would also work). I installed these nuts on the controls so the front panel would be about 0.1 inch further from the pc board. The photo below shows the front panel mounted with the new pot/switch.



Next, flip over the main board and cut the circuit trace between the center pin of the DC power connector and the reverse protection diode. Then solder wires from the switch on the new pot to the power connector center pin and the reverse protection diode.



You're finished! Turn on the unit and make sure everything is working properly. Then reassemble the radio into its case. I added an "Off" label to my front panel as shown below, using Casio "White-on-Clear" labeling tape (Casio part number XR-9AX).