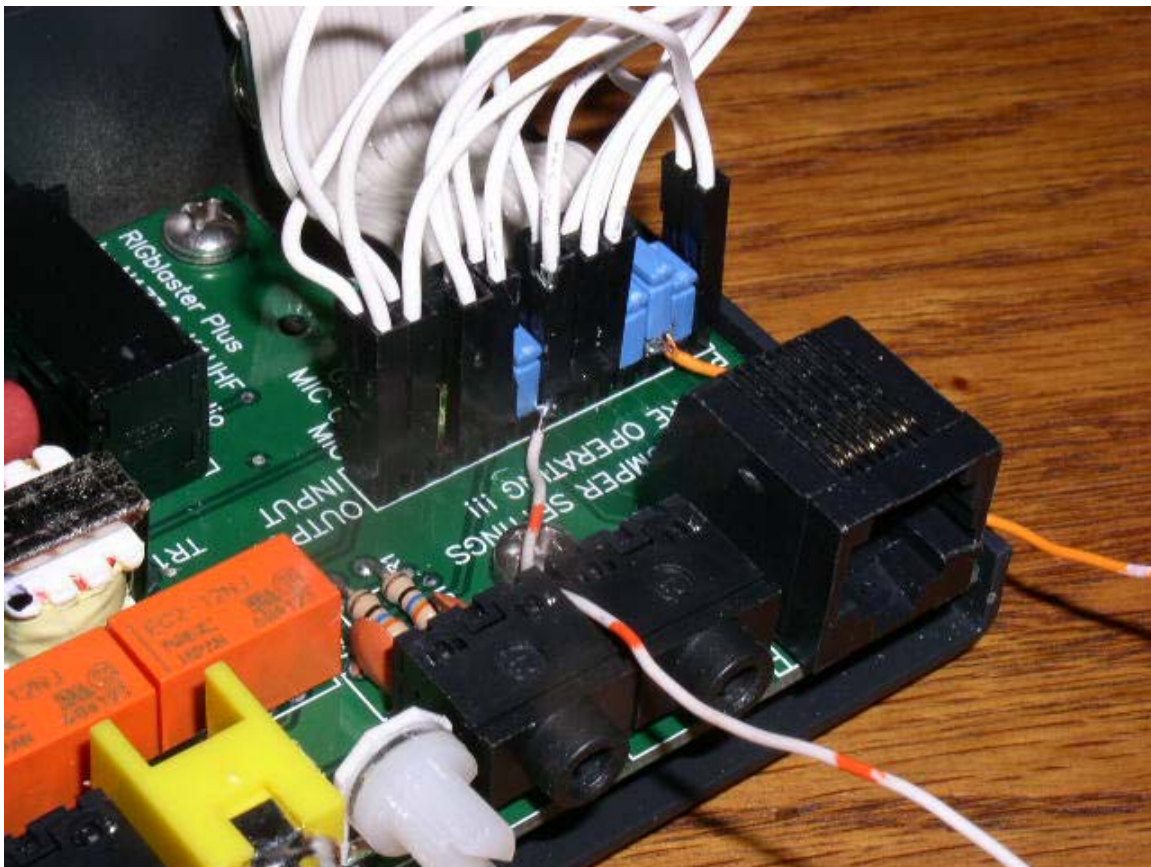


## Adapting the ICOM 756PRO2 External Keypad to the Rigbaster Plus By Mike Flowers, K6MKF

After the recent 2003 California QSO Party I had developed a sore right shoulder from constantly leaning and reaching over to hit the F-3 button on the rig to have the voice memory location #3 call 'CQ Contest' for me (Pathetic, isn't it?). I had been meaning to build the External Keypad shown on pg. 73 of the PRO2 instruction manual since I saw it, and now I had a real reason to do it.

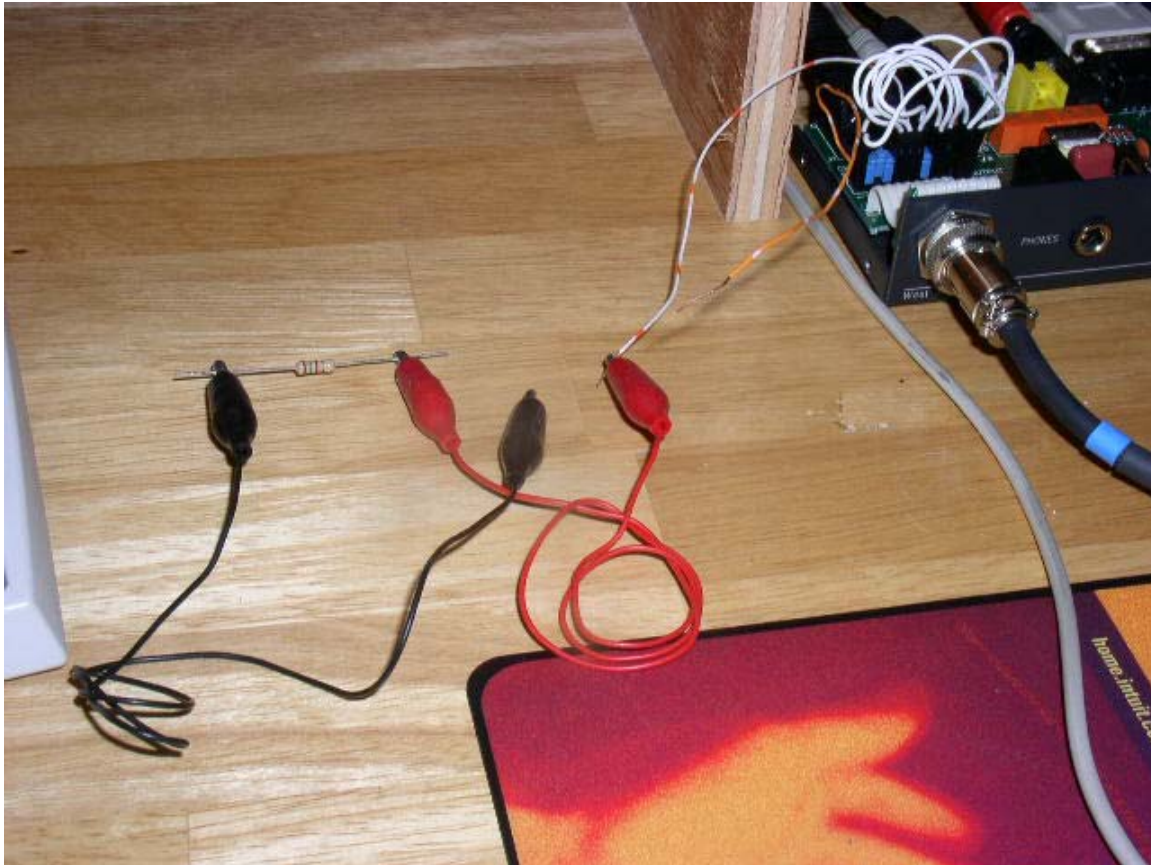
I also have a Rigblaster Plus interface from West Mountain Radio, which the YL got me for Christmas a couple of years ago. It's a great little interface and I use it a lot on PSK31 and the other digi-modes. It occurred to me that within in the Rigblaster, the mic pins were broken out on a jumper block.

All I should have to do is determine the jumpers for pins 3 and 7 on the output side of the jumper block and I'd have my connections for the external keypads. A quick check of the Rigblaster manual showed me just where pins 3 and 7 were on the output side of the jumper block. I powered off the Rigblaster, slipped the jumpers off the output side of these pins and soldered on some hook-up wire and replaced the jumpers:



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Well, that was easy! So I made sure that the PRO2 was set to EXTERNAL KEYPAD = AUTO, and I rigged up a test jig – just a 1.5K ohm resistor and a couple of test leads:



I connected one end of this test jig to the pin 3 wire, tuned up to a vacant frequency in the 10M phone band, went to USB and touched the pin 7 wire to the other test lead. Presto! The PRO2 transmitted the contents of the Voice Recorder Memory #1. I powered up the Rigblaster, checked out all the functions on the air, and tried the test again and it worked great!

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I decided to use a miniature stereo plug and jack to connect the keypad to the Rigblaster. After a bit of investigation, I found that there is enough room just above the Audio In and Audio Out jacks on the back panel of the Rigblaster to accommodate a small stereo mini-plug jack:



I drilled out the hole, mounted the stereo mini-plug jack in the Rigblaster cover as shown, and hooked up the pin 3 and pin 7 wires to the tip and collar connections of the jack. The barrel (ground) connection was not used. I disassembled the stereo mini-plug and used my test jig to again test to be sure that the wiring was correct. It worked fine. I then reassembled the Rigblaster and again tested all its functions to ensure I had not changed anything.

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I built up the External Keypad using Radio Shack parts, plugged it into the Rigblaster and everything worked fine. Here is a shot of the finished keypad connected to the Rigblaster. The gold colored plug seen in the back of the Rigblaster connects the keypad:



OK !! So let's bring on the next contest – I'm ready now !!

I bought all the parts I needed for this project at Radio Shack. The parts list follows:

- 274-249 3-Conductor Stereo 1/8" (3.5mm) Phone Jack – pack of two
- 270-1802 Project Enclosure
- 275-1547 SPST Mini Momentary Pushbutton Switch (Normally Open) – this part # is a pack of four
- 271-1120 1.5K ohm ½ watt 5% resistor – pack of five
- 271-1121 2.2K ohm ½ watt 5% resistor – pack of five
- 271-1124 4.7K ohm ½ watt 5% resistor – pack of five
- 274-858 3-Conductor Stereo 1/8" (3.5mm) Phone plug

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If you have any questions about this project, please drop me an email at [k6mkf@arrl.net](mailto:k6mkf@arrl.net) and I'll try to answer them!

Good luck and 73!

Mike, K6MKF