RIGblaster Plus modification

The following describes a method for connecting an Icom transceiver to a PC using the West Mountain Radio RIGblaster Plus as an interface device. These modifications have the following advantages:

- Permit SSB, FSK RTTY, CW, and PSK operation without any hardware, cable, or jumper changes
- Eliminate the RIGblaster Plus microphone connection from the Icom's front panel mic plug. Your mic will plug directly into the front of the rig.
- Reduce the cable count between rig, pc, and RIGblaster
- Eliminate the need for a wall wart 12 VDC power source to the RIGblaster

BEFORE BEGINNING: Open the RIGblaster and REMOVE ALL JUMPERS from the internal jumper blocks. This modification will supply your rig's 12 VDC power across the P1 block. You do not want to make a mistake and send 12 volts to the wrong place!

HOMEBREW WIRE JUMPERS – Aside from the double-ended jumpers that came with the RIGblaster, you will need 2 jumpers with long wires, a jumper block push-on connector on one end and a solderable wire on the other. I dug through my computer collection of cables and junk parts, and found many double-ended 2 conductor jumpers from old PCs (used for wiring various accessories in the PC case). I cut off the end of one wire and removed the second wire (you'll only use one wire from each set) and they work fine for this purpose.

Cables - 4 cables connect to the RIGblaster Plus:

1. A standard 9 pin serial cable, connects between PC serial port and RB+ serial port

2. A standard PC 1/8" to 1/8" audio cable, connects between PC soundcard audio input (mic or aux) and rear panel RIGblaster Audio In

3. An 8 conductor, 20 gauge shielded cable, all 8 lines wired pin-for-pin from Icom ACC-1 DIN plug to RIGblaster Plus front panel mic plug.

4. A single conductor shielded audio cable with 1/8" connector on one end, RJ45 comm plug (ethernet jack) on other end. On the RJ45 end, crimp the cable shield on pin 1, and the center conductor on pin 8. This cable will connect the PC soundcard speaker out jack to the rear panel RIGblaster RJ45 connector.

Modifications to the RIGblaster Plus – one simple change:

1. Add a 10 ohm 1/4 watt resistor from RIGblaster chassis ground to the outer conductor (shell) of J5. This provides ground reference for the FSK/CW output line, otherwise the signal floats above ground and does not key the rig. The 10 ohm resistor value is not critical – could actually be just a piece of wire but I thought the 10 ohms might provide a little ground isolation between PC and rig. (?)

Jumper Settings

P5 - small jumper block - NOTE that the pins on this block are numbered down one side and back up the other. There are ten total pins. Pin 1 is adjacent to pin 10, 2-to-9, 3-to-8, 4-to-7, and 5-to-6.

1. RTS, DTR, TxD - the jumpers for RTS, DTR, and TxD LEDs: use block jumpers to short pins 1-to-10, 2-to-9 and 5-to-6. These 3 just jumper across the connector block. The other pins (for pins 3-to-8 and 4-to-7) are open.

P1 - large connector block – NOTE that the large jumper block, P1, contains 26 pins. The

PROBLEMS YOU MAY ENCOUNTER: (full disclosure here ;-)

I operate CW from a USB-connected Winkey. You will need to connect a CW key line from the CW/FSK jack to the Icom rear panel key jack.

I have TWO SOUND CARDS and do not need to route PC sounds THROUGH the RB+ to my speakers. If you need computer sound, you will end up connecting a
jumper to pin 13 (MIC OUT).

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