Make an Elecraft K2 “Serial” RS-232C Interface Cable
By VY1GP Sept 2006

The Elecraft K2 can be controlled from a computer with many popular software packages through the computer’s serial port. The K2 requires a custom-made cable to connect the radio to a computer. Under no circumstances can you use a standard serial cable. The K2 manual provides details for building a cable, using a shielded cable and 9-pin "D" connectors (type DB9F).

In some of the smaller Canadian cities and towns it is sometimes difficult to buy parts and components. The ubiquitous Radio Shack has been bought out and renamed the Source. The new store reflects the changing market trends, catering to customers who are interested in computers, TVs, electronic toys, and standard packaged cables. There are often only a limited number of electronic components.

You can easily modify one of the standard shielded RS-232C cables for the Elecraft K2 and perhaps other equipment requiring custom cable using the 9-pin connectors.

1. Cut the cable about 6 to 10 inches from the female (computer) end. Remove about 1 “ of the outer insulated sheath from both pieces. Use a sharp utility knife to cut the plastic sheath about 1” along the length, peel it back, and snip it off, being careful to not to destroy the thin foil shield. Slide a piece of heat-shrink tubing on to the longer cable piece to use later.

2. Carefully slide the shield back and remove about ¼ “ of insulation from each of the wires. My wire stripper did not have small enough gauge, so I cut a small niche in the insulation and pulled it off my thumb fingernail.

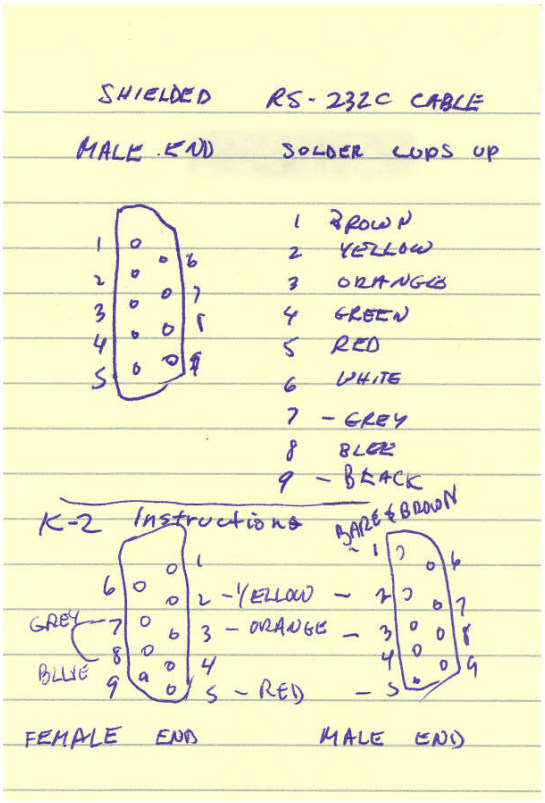
3. Use a volt meter or continuity tester and probes to map the connector pins to the coloured wires. A small alligator clips helps. Note this information on a sketch. See example below.

4. Following the instructions in the K2 manual, identify the appropriate pins and wires. Note that the K2 instructions show the DB9F with the soldering ends up.

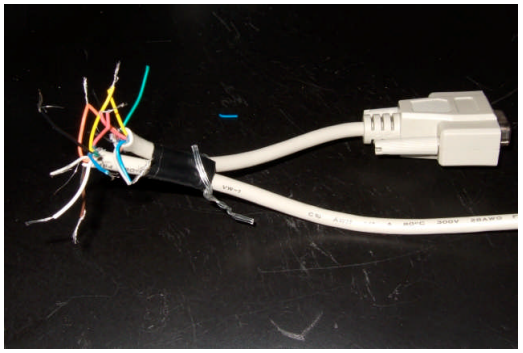
5. Make temporary twisted connections in the appropriate wires between the two pieces of cable, matching the correct coloured wires and shield. Fold back the unused wires.

6. Test the computer-radio connection as per instructions in the K2 manual to verify that the cable works properly.

7. Solder the temporary connections and insulate with a small piece of electrical tape. Clip the exposed part of the wire on the remaining wires and wrap tape around the bundle. Slide the heat shrink tube over both pieces of the insulated cable, apply heat as per instructions and shrink it tight.



Sketch – record of pins and wires



Testing the connections before soldering