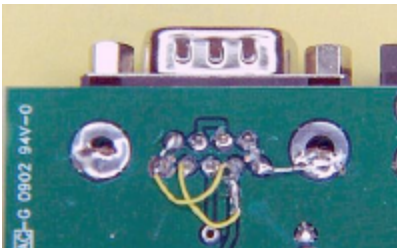# Serial CW Sender Assembly Notes

J1 - DB9M Connector

Before soldering J1 into position, ensure that it is spaced about 1/32" above the surface of the pcb. This will ensure a better fit within the enclosure. Use a thin piece of cardboard to hold J1 evenly up off the pcb while soldering, then remove the cardboard shim.

Jumpers J6 & J7

These are optional jumper positions. The Sender will operate normally without jumpers in place. See manual text for intended use.

Crystal X1 & Transistor Q1

These two components should be slightly elevated above the pcb to ensure that their metal bodies do not short out the pads.
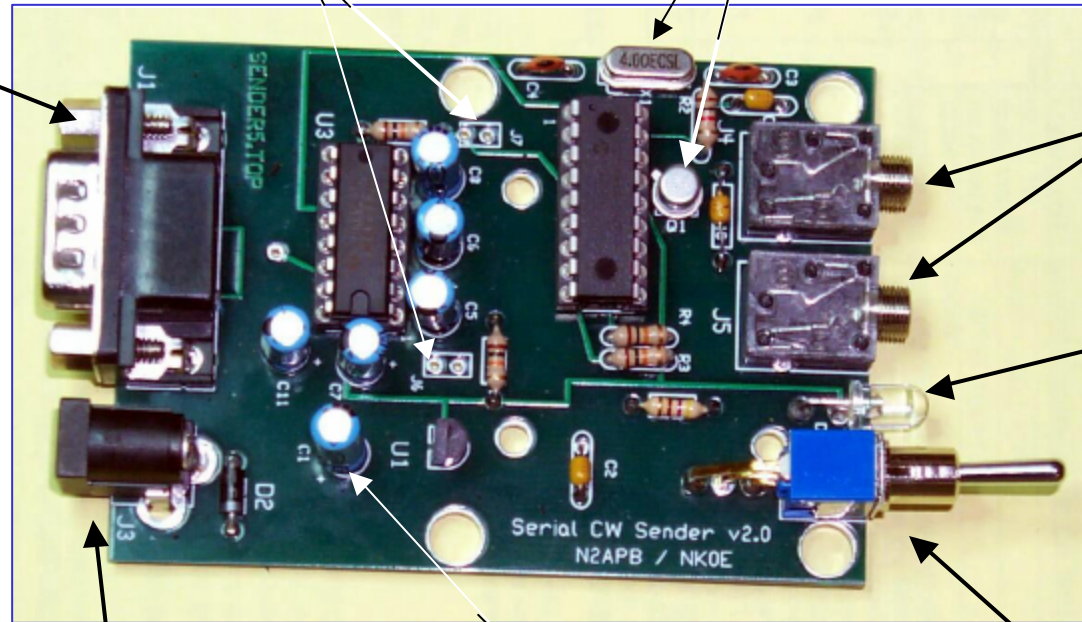
J4-J5 1/8" Connectors

These connectors fit nice & tight into position. Ensure that all 3 leads are in the holes before pressing firmly into place.

LED

The LED should be mounted flush on top of the pcb, with its leads bent as shown in the manual. The shorter lead goes in the hole closest to the board edge. (This shorter lead is also closest to a small flat on the side of the LED plastic body.)

PCB Mods to J1

An "inverted connector pinout" error to J1 wasn't noticed until after production boards were made, so the corrections noted above are necessary to establish serial connection to the Palm PDA. The 2 trace cuts are shown by a thick dash. Pin 1 must also be isolated from ground. A 4th cut is made on the top side of the board, breaking the trace connecting pins 2 and 5. Four wires are added as shown by dark kines. (**Note**: The pcb supplied in the kit may already have these mods applied.)

J3 – Coaxial Power Jack

The mounting holes are large to accommodate various vendor types of connectors. Hold carefully in place and solder one lead, ensure angle and position, then solder remaining 2 leads.

Electrolytic Caps

Positive polarity is marked on the pcb with a + sign. The longer lead of the cap is positive. (The negative lead is denoted by a large "dash" along the body of the cap.) A trick to getting these caps mounted straight is to insert them all into the holes and bend the leads out to hold them in place. Then solder one of each pair of leads, adjust all caps to be straight and upright, then solder the second lead of each cap.

Toggle Switch

Ensure that the switch body is flush on the pcb and that the mounting tabs are up against the edge of the board. When the toggle switch is in the UP position, the power is OFF.