

the LEDs off the board for now. Take care with the orientation of the polarised components, including the IC sockets.

With everything but the LEDs installed on the PCB, once again illuminate it from the top, and check for and correct any solder bridges or other problems.

Now turn your attention to the front panel, mounting the banana sockets and the power switch in their respective holes.

Attach the tapped spacers to the corners of the board using plain 3mm screws, and solder long component lead offcuts to the `GND', `HOT Collector' and `+' solder pads, followed by the battery snap's black wire to the `-' pad. Then, without soldering them, poke the leads of all the LEDs through their respective holes in the board. Make sure the coloured LEDs are in their correct places, and that all the (long) anode and (short) cathode leads are correctly oriented as shown in Fig.3.

Using black countersunk 3mm screws, attach the front panel to the board assembly and place the whole thing face-down on a soft flat surface. Manoeuvre all of the LEDs into their cutouts in the front panel, and push each LED down slightly to ensure its face is level with the front of the panel. In the unlikely event that a LED won't fit, use a small file or similar to remove the excess powder coating inside the hole.

Now solder all the LEDs into place, then connect the test lead sockets and the closest terminal of the power switch to their respective wires from the board, and finally the red battery snap wire to the free switch contact (Ref. to Fig.4.





Fig.4: Shows how the battery snap (positive lead) is wired through the switch to the printed circuit board. Note, as the component overlay shown is viewed from the copper side of the PCB, wiring terminations for the Power and Hot Collector/GND should be made to the PCB pins on the component side of the board.

wiring diagram).

Snip off the battery holder's PCB mounting pins, then install four `AAA' cells into it. Connect the battery snap to the terminals, and switch the unit on. If everything's OK then the bottom red (`1') LED will illuminate, and shorting the test leads will cause it to go off.

An effective way to test the unit is to

connect the test leads to the primary winding of a known good LOPT out of circuit, which should bring all eight LEDs on. Then thread a loop of solder around the ferrite core of the LOPT (simulating a single shorted turn), and the LED count should drop to 1-3 as the loop is closed.

If everything's OK, use double-sided