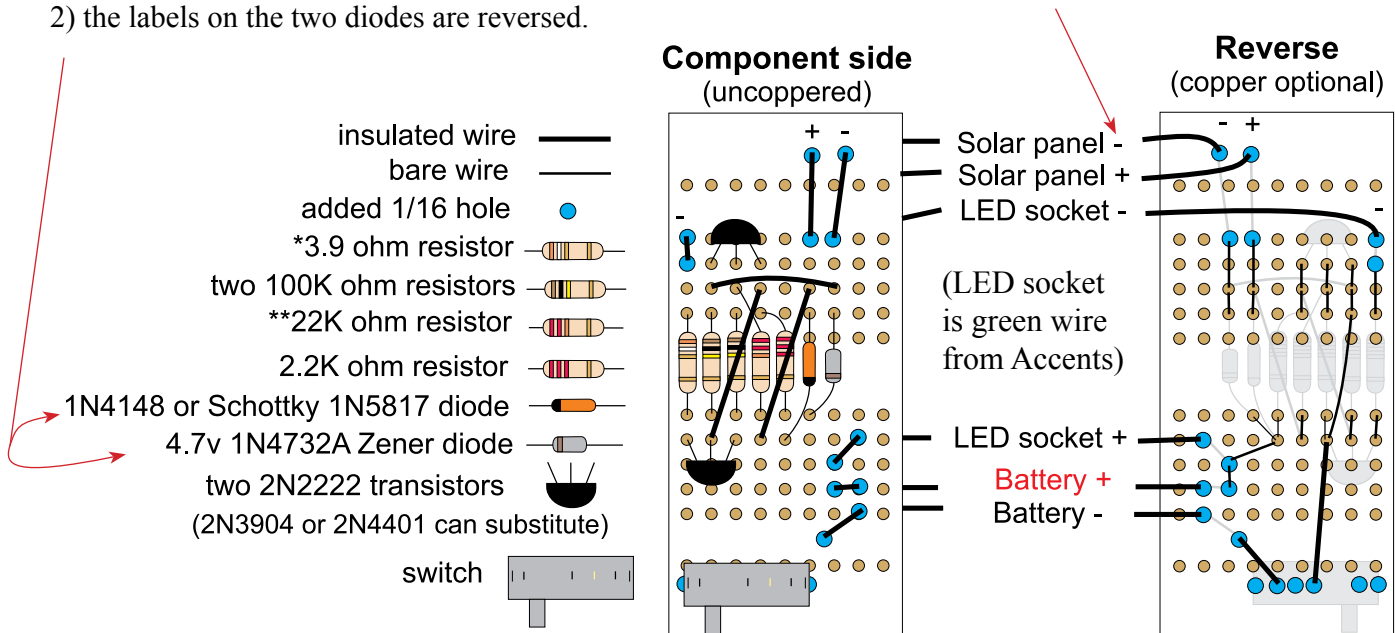


Corrected p. 42 Layout Diagram *see page 41 of Karen Seymour's "Garden Light" for further instructions*

We apologize profusely for any frustration our mistake has caused you.

The two mistakes corrected in this diagram are:

- 1) the plus and minus of the wires from the solar panel are reversed from the original
- 2) the labels on the two diodes are reversed.



* 3.9 ohm resistor is optional: for fewer than 25 LEDs, replace with wire.

** Change the value of the 22K resistor to tune the circuit to your solar panel as noted in step 5.

For those looking at this without the book: Accents is a brand of battery-powered LED light string from Fortune Products that is taken apart to supply some of the components. The lanterns in the book constrain the solar panel to 3.5 inches (85 mm) square. The various options are mentioned to allow the circuit to be adapted to add solar lighting to a range of garden ornaments.

If you have already built the circuit board:

The schematic, photo and text in the book are correct so if you built the circuit from the photo instead of the diagram and followed the text, your lantern is probably working fine. The symptom of the circuit not working is that the lights are always on: covering the solar panel (or darkness) is not needed to turn them on. And the solar panel does not charge the batteries even in bright sunlight.

Mis-wiring should not have damaged any parts. Take out the batteries and disconnect the LEDs before proceeding. The quick fix is to just swap the solar panel + and - wires. Cutting the wires and swapping halves will be easier than unsoldering and resoldering them on the circuit board (remember to shrink wrap the joins). You do not *need* to change the diodes. There must be a diode connected to the positive end of the solar panel for the circuit to work but either diode listed will do.

Swapping the diodes by moving the top end connections to the above configuration will just make it more efficient in storing sunlight (the bottoms go to the same point anyway so they don't need to move). This efficiency is helpful if your solar panel is only putting out around 4.5 volts or you have lots of cloudy days. Diodes are easily damaged by heat. Instead of trying to unsolder them, cut the end loose at the solder point and tack solder a piece of insulated wire to extend the cut end to the new point.

If you elect to correct the wiring of the diodes, you can even omit the Zener diode (at the negative end of the solar panel) for greater efficiency. However, if your solar panel is rated above 8 volts or 200mA, or your three NiMH batteries are rated at less than 2000mAh, keep the Zener. The Zener prevents overcharging the batteries at higher voltages and currents.

If re-wiring the circuit card as above does not fix your lantern, please contact us.