Continuity tester

A Continuity tester determines whether a material is:

a good conductor of electricity

a poor conductor of electricity

an insulator (does not conduct electricity).

It works by trying to pass a small electric current through the material.

A good conductor lights the LED brightly, a poor conductor lights the LED dimly.

The LED does not light if the material is an insulator.

It can be used to test wires, cables, headphones, fuses as well as electronic components like LEDs, diodes, capacitors, transistors etc. It can also be used to check for damp and when potted plants need watering.

YOU WILL NEED:

terminal strip, 1k resistor, 9V battery, screwdriver, blue LED, battery connector, red and black test leads wire cutters/strippers

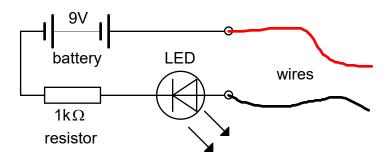
SAFETY:

Wire cutters and screw drivers are both sharp - ensure that you do not cut or pierce yourself when using these. Report any injury.

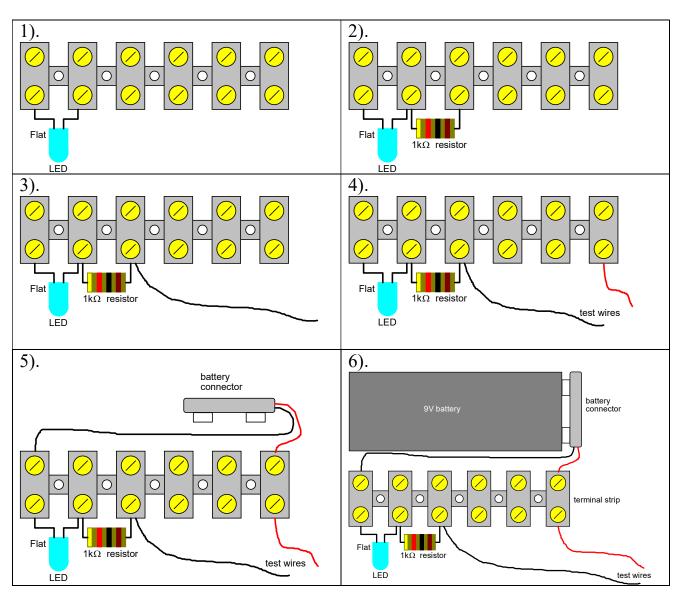
NEVER USE ON ANYTHING CONNECTED TO A BATTERY OR THE MAINS ELECTRICITY.

CIRCUIT DIAGRAM

Electrical components are represented by symbols in diagrams. The circuit diagram for the Continuity Tester is shown below.



STEP BY STEP INSTRUCTION



Connect the battery to the battery connector.

Touch the test wires together.

If the LED does not light, check for wiring faults or screws not tightened.

If the LED does light, fix the terminal strip to the battery with Blu-tac.

TO USE

Connect the material/item to the test wires.

If the LED lights brightly, then the material/item is a good conductor.

If the LED lights dimly, then the material/item is a poor conductor.

If the LED does not light, then the material/item is an insulator.