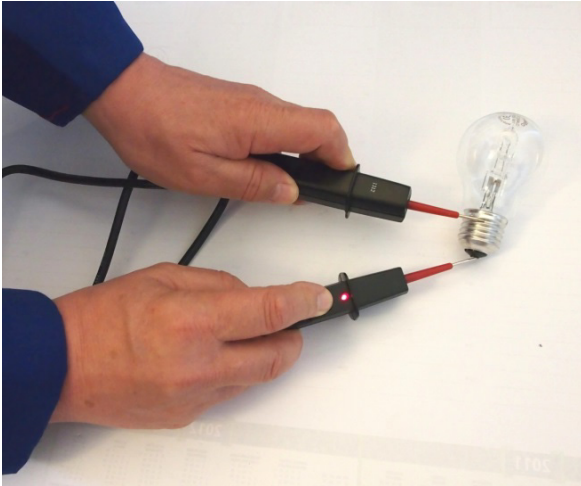


## A1.3 Electro quiz – Tracking down technology

The photo shows a measurement using a **continuity tester**.

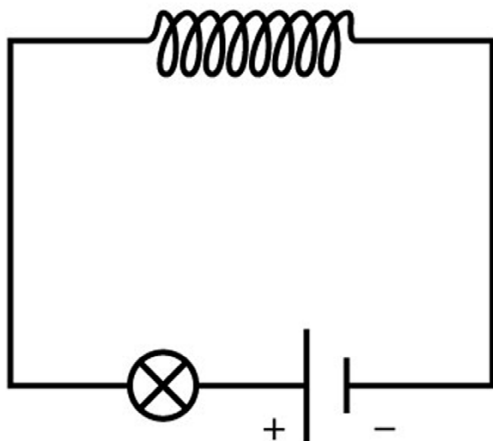


### What a continuity tester does:

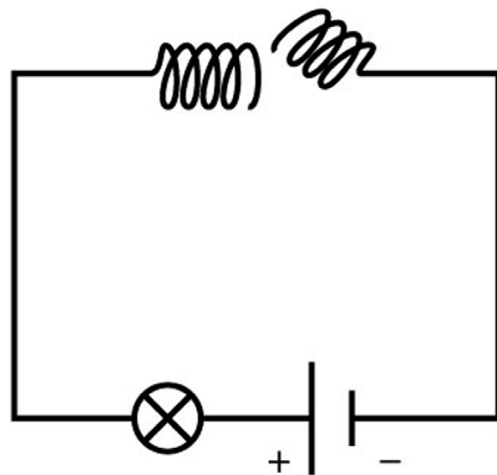
A continuity tester indicates whether two points are electrically connected to each other and whether current can flow. In this way you can test, for example, whether a circuit has been wired correctly. Or you can detect faults. Since the indicator light on the continuity tester is turned on in the photo, we can conclude that the incandescent lamp is working properly. If the filament were burned out, the indicator light would not turn on.

### Sketched circuit diagram:

The incandescent lamp is working.  
This corresponds to a closed switch in a circuit.



The incandescent lamp is broken.  
This corresponds to an open switch in a circuit.



**How a continuity tester works**

A continuity tester consists of two contacts (called test probes), a signal generator (can be a lamp or something that generates a sound), and a battery (direct current voltage source). When you place the test probes on the points to be tested and this closes the circuit, the indicator light turns on or a sound is emitted (depending on what kind of device you have).

You may use the continuity tester only if no voltage is applied to the cables you want to test. The low voltage necessary for the test comes from the battery of the continuity tester itself.

Important: Do not mix up the continuity tester with a voltage tester. You do not use a voltage tester to determine whether current is flowing, but to test whether voltage is applied. For this reason, an electrician usually has a device that can be used for both purposes – to test electricity and voltage. This type of device is called a multimeter (“multi” means “many,” “meter” means “measuring device”).