

Using a Multimeter to Check Electrical Equipment

V =	DC Voltage
V ~	AC Voltage
Ω	Resistance
→ + or	Continuity with beep

Plug the black probe into the **COM** port on your multimeter.
Plug the red probe into the **V Ω** port.

Testing Continuity (electrical leads, fuses, light globe etc.)

Check if two things are electrically connected.

If your multimeter has a continuity mode set it to the continuity mode → + ||||| or |||||

If no continuity mode set mode to Ω at lowest range

Check multimeter by touching probes directly.

Check circuit by place one probe at each end of the circuit component you are testing
e.g. electrical lead.

Screen displays a value of zero (or near zero) & beeps (if using continuity mode) — the test current flows through. Screen display 1 or OL - no continuity & no beep (if using continuity mode, it means there is a break somewhere in the circuit

Testing Voltage (power packs, batteries etc.)

For DC set the dial to DC voltage mode (V=). This is the most common for electronic devices.

For AC set the dial to DC voltage mode (V=).

Set to the correct range i.e. above the expected voltage e.g. if measuring 12 volts put on the 20 setting for the mode your using. If voltage unknown set the maximum range.

Place the red probe on the positive terminal, and the black probe on the negative terminal.

Testing Resistance (resistors)

Set the dial to resistance mode (Ω) and to the correct range i.e. the range above the expected resistance of item. If resistance unknown set the maximum range.

Place one probe at each end of component you want to test.

The resistance will be displayed. If close to zero, the range is set too high for a good measurement, turn the dial to a lower setting. If you set the range too low, the multimeter simply reads 1 or OL, indicating that it is overloaded or out of range.

Recommended Multimeter to use in the lab



Economy Autorange Multimeter with Non-Contact Voltage Sensor
CAT.NO: QM1529 (Jaycar)