Electronics

Measuring Resistance

Lecture Contents

- How to measure resistance

Turning the Multimeter Off

- Turn the power off when you are finished using the multimeter.
- The meter will also first beep, then turn itself off if it hasn’t been used for a time.

Measuring resistance

- When measuring resistance, insert:
  - the **black** lead into the “COM” (*common*) port, and
  - the **red** lead into the “ V Ω ⊣⊢ ” port.

By convention:

- **`Black`** is used for ***negative*** (or ***ground***)
- **`RED`** is used for ***positive*** voltage

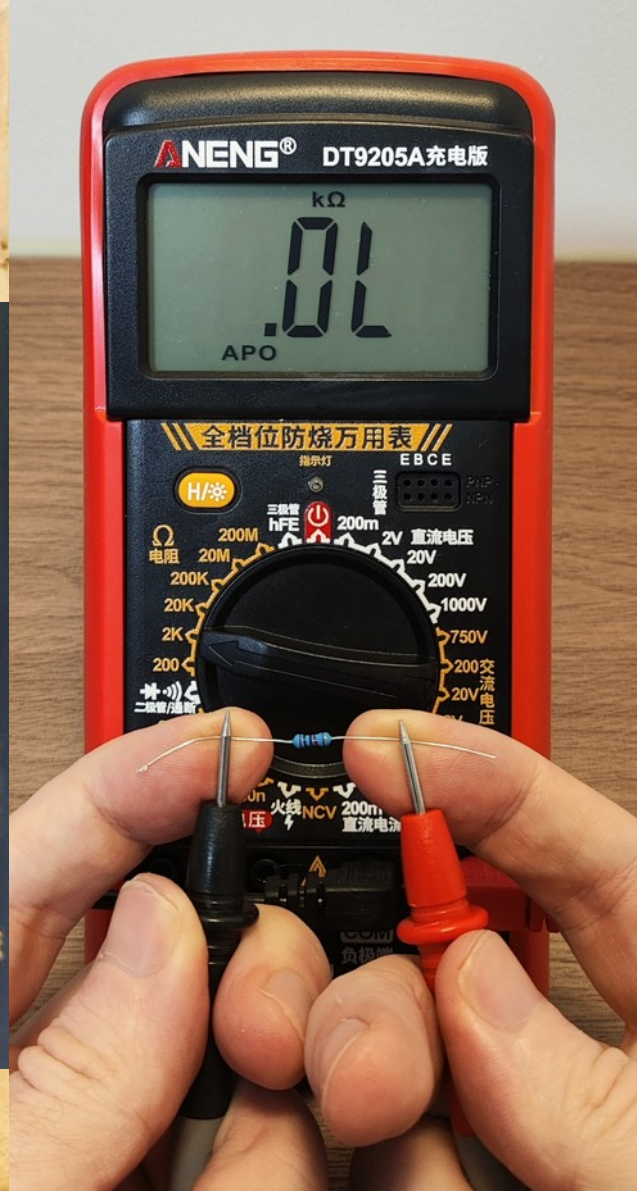
Measuring resistance

- To measure resistance, set the dial to the appropriate value.
- The value on the dial should be slightly larger than the resistor value.

Measuring resistance

- If the dial setting is too low, the screen will read OL (*over limit*).

  Try a higher setting or, check the connections.



Measuring resistance

- If the dial setting is too high, the screen will measure zero or a small number.

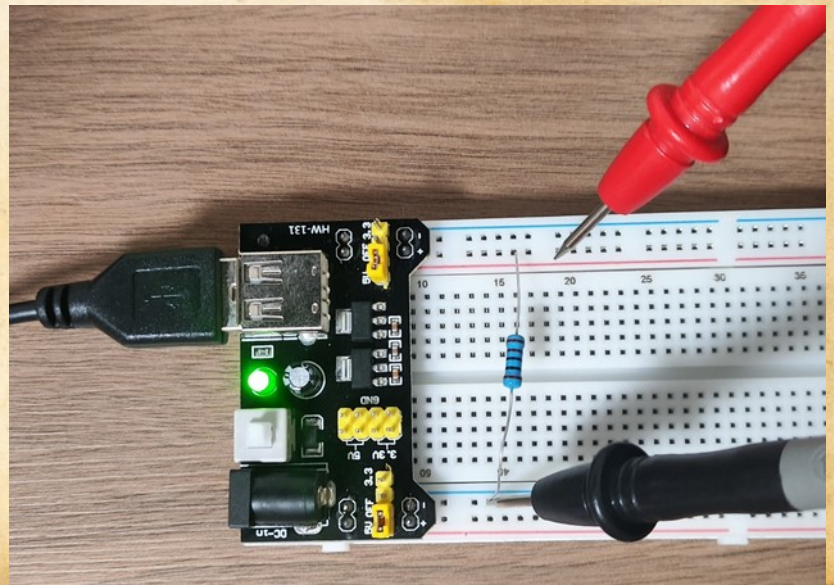
  Try a lower setting to get a more accurate reading.

Measuring resistance

- Resistance measured with good precision.

Warning

- Do **NOT** try to measure resistance when the resistor is in a circuit.
  - The value will be incorrect
  - If the power is on, it will likely damage the meter.



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