

Bubola Nicolò

Electronic Vocabulary

Electrical Units of Measure

Electrical Units of Measure

- **Voltage**, electric potential difference, electric pressure or electric tension (denoted ΔV or ΔU) is the difference in electric potential energy between two points per unit electric charge. It is measured in units of **volts**.



Electrical Units of Measure

- An **electric current** is a flow of electric charge. The SI unit for measuring an electric current is the **ampere**, which is the flow of electric charge across a surface at the rate of one coulomb per second.



Electrical Units of Measure

- The **electrical resistance** of an electrical conductor is a measure of the difficulty to pass an electric current through that conductor. The SI unit of electrical resistance is the **ohm** (Ω).



Electrical measuring equipment

Electrical measuring equipment

- **Analog instruments** move a pointer across a scale in proportion to the voltage of the circuit.



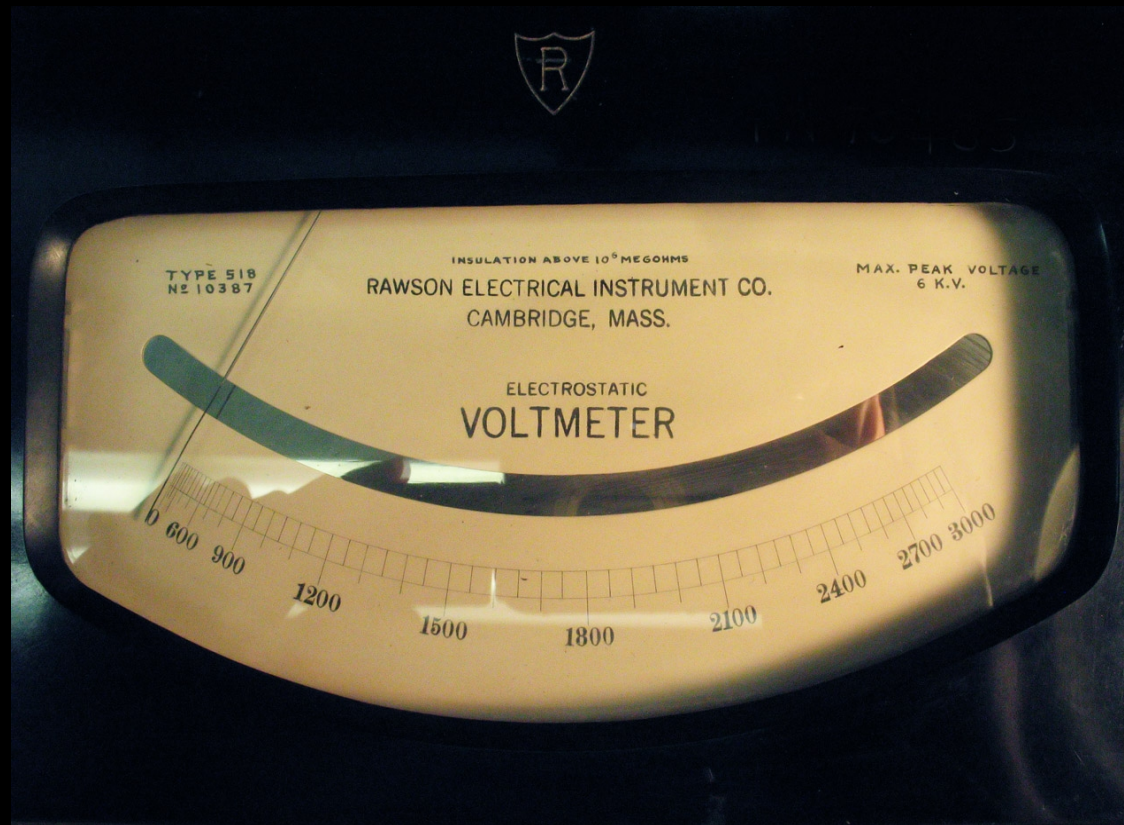
Electrical measuring equipment

- **Digital instruments** give a numerical display of the value of the measure by use of an analog to digital converter.



Electrical measuring equipment

- A **voltmeter** is an instrument used for measuring electrical **potential difference** between two points in an electric circuit.



Electrical measuring equipment

- An **ammeter** is a measuring instrument used to measure the **current** in a circuit.



Electrical measuring equipment

- An **ohmmeter** is an electrical instrument that measures **electrical resistance**.



Electrical measuring equipment

- A **multimeter** or a **multitester**, also known as a VOM (Volt-Ohm meter or Volt-Ohm-milliammeter), is an electronic measuring instrument that **combines several measurement functions in one unit.**



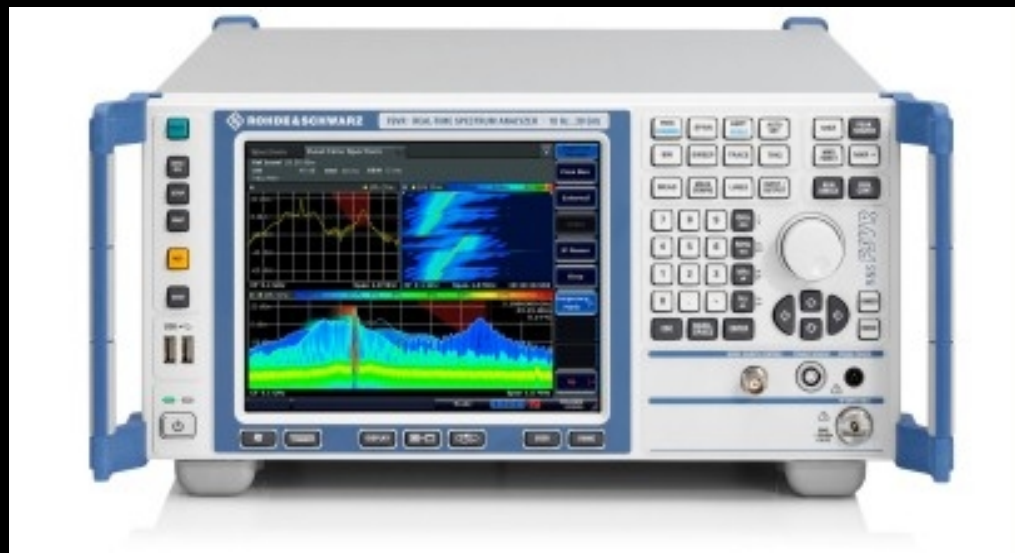
Electrical measuring equipment

- An **oscilloscope**, previously called an oscillograph, it is used to observe the change of an electrical signal over time, such that voltage and time describe a shape which is continuously graphed against a calibrated scale. The observed waveform can be analyzed for such properties as **amplitude**, **frequency**, **rise time**, **time interval**, **distortion** and others.



Electrical measuring equipment

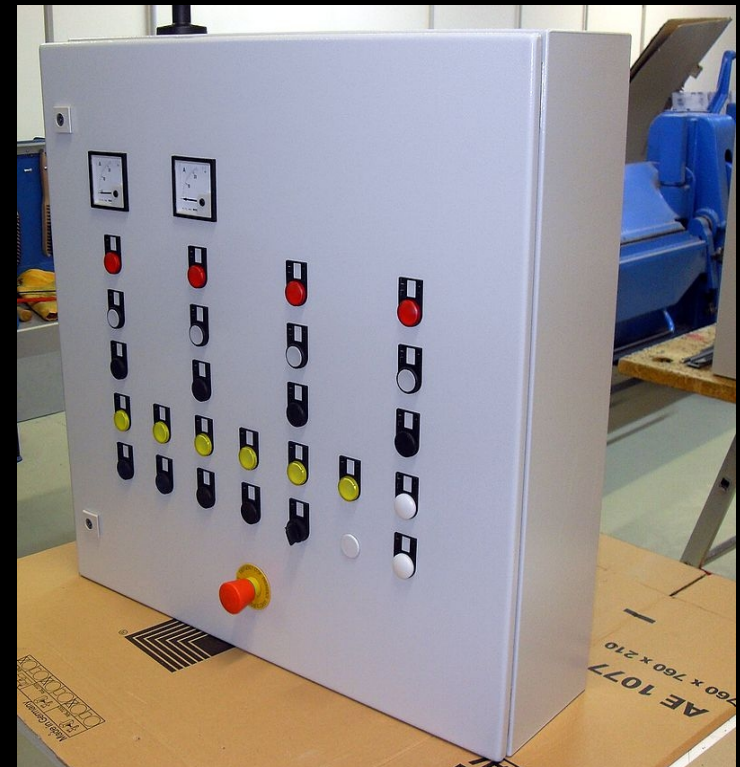
- A **spectrum analyzer** measures the magnitude of an input signal versus frequency within the full frequency range of the instrument. The primary use is to **measure the spectra of electrical signals, dominant frequency, power, distortion, harmonics, bandwidth, and other spectral components of a signal.**



Electrical Vocabulary

Electrical Vocabulary

- A **control panel** is a flat, often vertical, area where control or monitoring instruments are displayed.



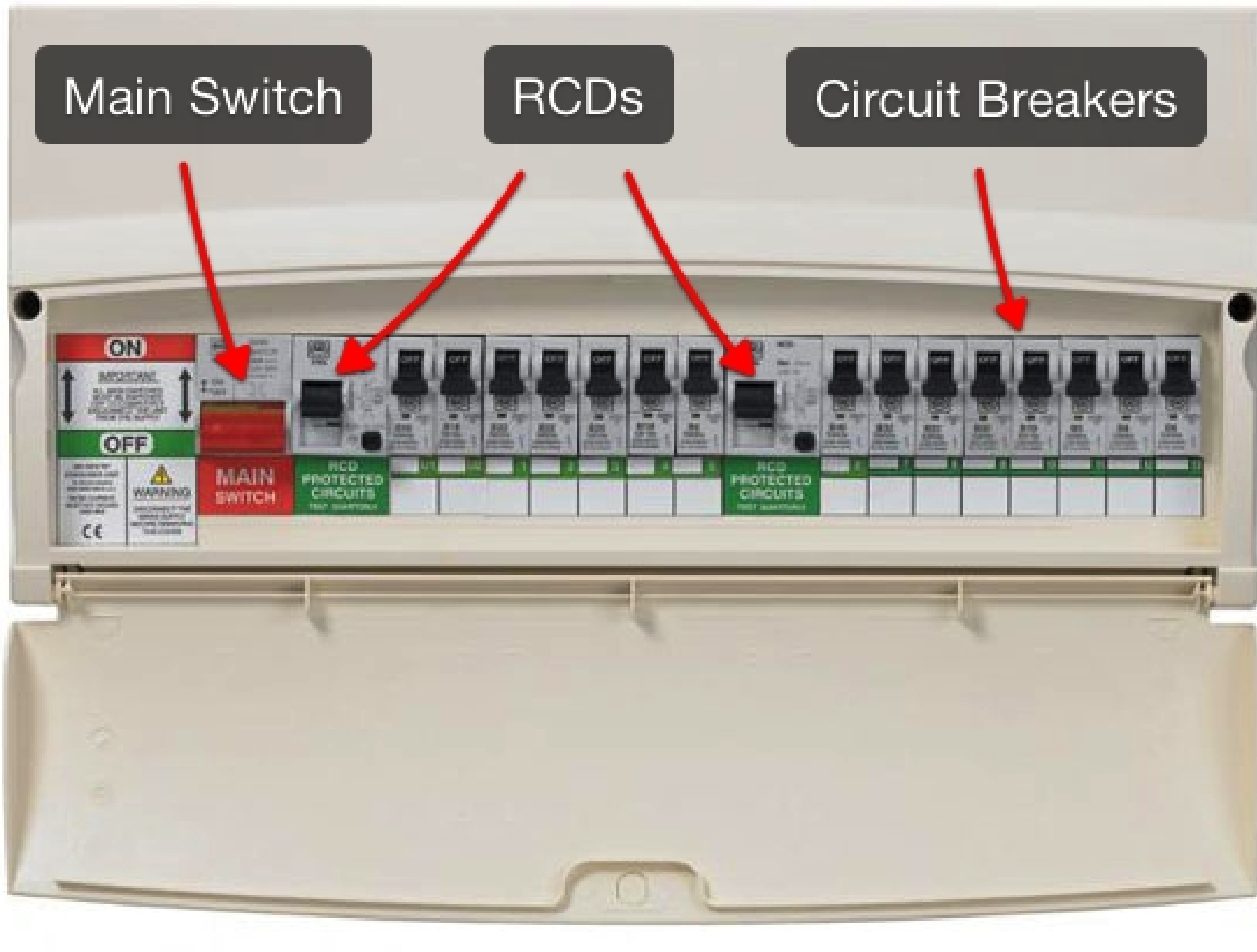
Electrical Vocabulary

- A **distribution board** is a component of an electricity supply system that divides an electrical power feed into subsidiary circuits, while providing a protective fuse or circuit breaker for each circuit in a common enclosure. Normally, a main switch, and in recent boards, one or more residual-current devices (RCD) or residual current breakers with overcurrent protection (RCBO), are also incorporated.

Main Switch

RCDs

Circuit Breakers



Electrical Vocabulary

- A **residual-current device** (RCD), is a device to quickly disconnect current to **prevent serious harm from an ongoing electric shock**.



Electrical Vocabulary

- A **circuit breaker** is an automatically operated electrical switch designed to protect an electrical circuit from damage caused by **overload or short circuit**.



Electrical Vocabulary

- AC power **plugs** and **sockets** are devices that allow electrically operated equipment to be connected to the primary alternating current (AC) power supply in a building. Electrical plugs and sockets differ in voltage and current rating, shape, size and type of connectors.



Some of main electrical terms translations

Electrical terms translations

- (to) **Plug**: **inserire**, immettere, connettere.
- (to) **Unplug**: **disinserire**, scollegare, disconnettere.
- (to) **Switch-on**: **accendere**, avviare.
- (to) **Switch-off**: **spegnere**, fermare.
- **Mains**: (terminali o bus) generali, **portanti**.
- **Live cable**: **cavo sotto tensione**, cavo alimentato.
- (to) **Cut-out**: (isolare,) **sezionare** (una parte specifica del circuito o dell'impianto).

End.



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