

Jargon buster - A quick explanation of electrical terms. Do you speak sparky?

Mainly Sourced from NICEIC



Whether your whole house is being rewired or you're just having some new sockets fitted, it helps to know the difference between a consumer unit and a circuit breaker. These technical terms flow from an electrician's mouth, but may sound like a foreign language to most homeowners. Knowing what they mean could avoid embarrassing misunderstandings.

Each of the 20,000 government-approved electricians registered with leading electrical body NICEIC, wants to deliver the best service to their clients. However, they understand that industry jargon can be barrier to a good working relationship.

To help you understand better and learn to 'speak sparky', we've put together a jargon buster to explain below some of the more common terms used by electricians.

The A –Z of the electrical industry:

A.C.

Alternating Current

Amp

Measurement of current

BS - British Standard

British Standard BS 7671 – also known as the IEE (Institute of Electrical Engineering) 17th Edition Wiring Regulations. This details the requirements for electrical installations and is the standard against which all NICEIC contractors are assessed. To enrol with NICEIC all electricians, and anyone they employ, must meet this national safety standard.

Certificates

Any electrician installing a new electrical installation (including a single circuit), altering, extending or adapting an existing circuit should issue the homeowner with an electrical installation certificate or minor electrical installation works certificate confirming the work complies with the requirements of BS 7671.

Circuit

An assembly of electrical equipment (eg. socket outlets, lighting points and switches) supplied from the same origin and protected against over current by protective device(s).

Circuit breaker or MCB (Mini Circuit Breaker)

A device capable of making, carrying and breaking normal load currents and also making and automatically breaking, under pre-determined conditions, abnormal currents such as short-circuits. It is usually required to operate infrequently although some types are suitable for frequent operation.

Class I equipment

Equipment in which protection against electric shock does not rely on basic insulation only, but includes means for the connection of exposed conductive parts to a protective conductor in the fixed wiring of the installation. Class I equipment has exposed metallic parts, e.g. the metallic enclosure of washing machine.

Class II equipment

Class II equipment, such as music systems and televisions, do not rely on basic insulation only, but have additional safety precautions such as supplementary insulation provided.

Class III equipment

Equipment, for example for medical use, in which protection against electric shock relies on supply from SELV (Safety extra low voltage). Class III equipment must be supplied from a safety isolating transformer.

Consumer unit

Also known as a fusebox. A particular type of distribution board comprising a co-ordinated assembly for the control and distribution of electrical energy principally in domestic premises. It incorporates manual means of double-pole isolation on the incoming circuit(s) and an assembly of one or more fuses, MCB's, RCD's and other devices purposely manufactured for such use.

Current

A flow of electric charge or the rate of flow of electric charge.

Distribution board

An assembly containing switching or protective devices associated with one or more outgoing circuits fed from one or more incoming circuits, together with terminals for the neutral and protective circuit conductors. It may also



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include signalling and other control devices. Means of isolation may be included in the board or may be provided separately.

Double Pole Switch

Isolates two parts of the circuit at the same time.

Earthing / Earth Bonding

This is a key safety measure providing an alternative return path (overflow) for electricity under fault conditions. Earth bonding is the process for linking together exposed metal parts such as water pipes within a property.

Electrical installation

Any assembly of electrical equipment supplied by a common source to fulfil a specific purpose. Eg every circuit within the house or one circuit only such as to an electric shower.

Electrical Safety Regulations

NICEIC registered electricians have already helped to improve the standard of electrical work in the UK. A new electrical safety law, often referred to as Part P of the Building Regulations, has further enhanced the protection of homeowners and reduced the risk of electric shock when using electricity. The law requires an electrician registered with a government approved scheme, such as NICEIC, to carry out most electrical work in the home. After completion of notifiable work a Building Regulations Compliance Certificate is issued to prove it meets the required standards of Part P. You can only carry out electrical work yourself if you can inspect and test that it is safe for use. To comply with the law you must notify your local building control office before you begin any work and pay the appropriate fee for them to inspect the work.

Intermediate Switch

More than 2 switches controlling a light(s)

HIPS - Do I need an electrician

You may do. There is no compulsory requirement for a homeowner to have a qualified electrician carry out an electrical safety check for the purpose of producing a Home Information Pack. However it is recommended* that installations are checked every 10 years or at a change of occupancy. * IEE guidance note 3 Inspection and Testing

Light Switch - 1 to 4 Gang

Number of switches on one plate or at one position.

Light Switch – 2 Way

2 switches controlling one light(s)

LV - Low Voltage

MA - Milliamp or 1/1000 part of an amp

MCB – see **Circuit Breaker**

NICEIC

NICEIC is the electrical contracting industry's independent voluntary body for electrical installation matters throughout the UK. NICEIC helps to protect householders and consumers from the dangers of unsafe and unsound electrical installations. For more information go to www.niceic.com - householder section or ask for a copy of our fact sheet.

Overcurrent

Electrical current (in amps) that exceeds the maximum limit of a circuit. May result in risk of fire or shock from insulation damaged from heat generated by an overcurrent condition.

Part P

The specific section of the Building Regulations for England and Wales that relates to electrical installations in domestic properties. Part P provides safety regulations to protect householders, and requires most domestic electrical work to be carried out by government-registered electricians, or to be inspected by Building Control officers.

PAT - Portable Appliance Testing

Inspection and testing of electrical equipment including portable appliances, moveable equipment, hand held appliances, stationary equipment, fixed equipment/appliances, IT equipment and extension leads. But predominately in commercial situations.

PIR - Periodic Inspection Report

An electrical survey, known as a Periodic Inspection Report (PIR) that may reveal potential hazards in the installation. The cost of a typical PIR depends on the size of your property. The report will establish the overall



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condition of all the electrics and state whether it is satisfactory for continued use, and should detail any work that might need to be done.

PIR – Passive Infra-Red Sensor

A control device activated by movement and heat. Commonly used to control security lights.

PLI - Public Liability Insurance

Broad term for insurance which covers liability exposures for individuals and business owners. Homeowners should check that their electrician has £2 million public liability insurance, which covers them if someone is accidentally injured by them or their business operation. It will also cover them if they damage your property while on business.

Portable equipment

Electrical equipment which is less than 18 kg in mass and is intended to be moved while in operation or which can easily be moved from one place to another, such as a toaster, food mixer, vacuum cleaner, fan heater.

RCD - Residual Current Device

Residual current device is a safety device that switches off the electricity automatically when it detects an earth fault, providing protection against electric shock.

This is not just a manually operated isolating switch, but a very sensitive safety device which cuts off in fractions of a second. RCDs can be bought in different current ratings and various sensitivities to current leakage.

RCBO

Combination of RCD and MCB protection

Ring or Ring Main

A final circuit in the form of a ring and connected to a single point of supply.

SELV

Separated Extra-Low Voltage. An extra-low voltage system, which is electrically separated from Earth and from other systems in such a way that a single fault cannot give rise to the risk of electric shock.

Transformer

Transforms one voltage to another.

Trustmark

TrustMark is a scheme supported by the Government, the building industry and consumer groups to help consumers find reliable and trustworthy trades people to make improvements and repairs to domestic properties. For more information go to www.trustmark.org.uk or ask for a copy of our fact sheet.

Voltage & extra low voltage

Voltage is the force behind electricity. It can be referred to as electric pressure and compared with the water pressure in a plumbing system. Another term for voltage is EMF or electromotive force. Voltage appears across components and current flows through them.

Extra Low: means normally not exceeding 50 volts a.c.

Low: exceeding 50 V a.c. but not exceeding 1000 V a.c.

High: exceeding 1000 V a.c.

Most domestic situations operate at 230 volts.



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