

Electrical equipment

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This guidance is for England, Scotland and Wales

Electrical equipment is required to comply with the Electrical Equipment (Safety) Regulations 2016, which have been amended the Product Safety and Metrology etc (Amendment etc) (EU Exit) Regulations 2019. There are separate provisions made for Northern Ireland to take account of the Northern Ireland Protocol whilst it is in force.

The Regulations apply to electrical equipment that is designed to be connected to a domestic mains electricity supply, as well as to some industrial equipment. Components of electrical equipment are also covered if they are to be supplied as separate items.

Electrical equipment designed for use between 50-1,000 volts AC or 75-1,500 volts DC must be safe, constructed in accordance with principles constituting good engineering practice and conform to specific regulatory safety objectives.

If the electrical equipment complies with a UK designated standard, it is automatically taken to be safe. There are specific requirements for the manufacturer of the product, including affixing the UKCA mark, drawing up and holding a declaration of conformity, and keeping technical information for inspection purposes.

Second-hand items (including items for hire and equipment supplied as part of a furnished accommodation) are required to satisfy the principal elements of the safety objectives only. They are not required to have the UKCA mark etc.

Principal safety objectives

Electrical equipment must:

- be constructed in such a way to ensure that it can be used safely and for the purpose that it was made
- be in conformity with the safety objectives contained in Part 2 of and Schedules 1 and 2 to the Regulations, including:
 - being marked in accordance with the requirements set out below so that it can be easily traced
 - designed so that the equipment, including its component parts, can be safely and properly assembled and connected
 - instructions and information required for the equipment to be used safely must be marked on the equipment or in an accompanying notice
 - operate at a safe temperature with no dangerous arcing or radiation
 - have adequate insulation for foreseeable conditions
 - have the right technical information available, demonstrating compliance with UK marking requirements and a 'declaration of conformity'

Satisfying the principal safety objectives

Manufacturers must have adequate internal production control (quality assurance) as a means of satisfying conformity, achieved through taking responsibility for the technical documentation and monitoring manufacturing processes. Either the manufacturer or (by written mandate) the authorised representatives should draw up a declaration of conformity in accordance with Schedule 8 to the Regulations and apply the UKCA mark (as below).

If the electrical equipment complies with a UK designated standard, there is a presumption that it meets the principal safety objectives. If there is no relevant UK designated standard, compliance with international standards will be sufficient. If there are no relevant international standards, compliance with a national standard will be sufficient provided that standard includes everything in the principal safety objectives.

Labelling and records

A manufacturer or their authorised representative must do the following.

Ensure that the electrical equipment bears a type, batch or serial number or other element allowing its identification.

Indicate on the electrical equipment the manufacturer's name, registered trade name or registered trade mark and the postal address at which they can be contacted. If it is not possible to indicate these on the equipment itself, then it may be indicated on the product packaging or accompanying documents. These have to be legible and easily understood by the end users and market surveillance authorities. In the UK it must be in English.

Affix a UKCA mark to the equipment, the packaging, instruction sheet or guarantee certificate. The UKCA mark is a declaration that the equipment complies with the Regulations.



Where Northern Ireland is involved, there is a further mark that is used: the UKNI mark.



There will be a crossover period for the UKCA and UKNI marks, and in most cases the CE mark can still be used until 31 December 2021.



For more information on the UKCA, UKNI and CE marks, please see 'Product safety: due diligence'.

Draw up and hold a 'declaration of conformity', which should contain:

- product model, type, batch or serial number(s) to which the declaration of conformity applies (for traceability purposes)
- the name and address of the manufacturer or their authorised representative
- a description of the electrical equipment (may include a colour image where necessary for the identification of the electrical equipment)
- a reference to the relevant UK designated standards used to assess compliance (if no designated standard, then a reference to other specifications)
- identification of the person who will enter into commitments on behalf of the manufacturer or authorised representative (if appropriate)
- the place and date of issue

Compile and hold technical documentation, which should contain:

- a general description of the electrical equipment
- the conceptual design, manufacturing drawings, details of components, etc along with information to help interpretation of these
- a list of the standards with which the electrical equipment complies; or, if standards were not used, a description of what has been done to ensure compliance with the general safety requirement
- results and reports of tests, examinations, calculations, etc

Obligations of importers and distributors

An importer is a person or business based in the UK who places equipment on the GB market from a country outside the UK. Importers must not place any electrical equipment on the market unless they have assurances that it complies with the principal safety objectives (see above) and ensure that the manufacturers have met all their obligations in relation to conformity assessment procedures, technical documentation, UKCA marking and labelling requirements. This must be made available to an enforcement body on request.

Importers must also indicate on the electrical equipment their name or registered trade mark and a postal address at which they can be contacted. To assist with the changeover, the UK is applying a transitional period ending on 31 December 2022 to allow UK importers of goods from the EEA or Switzerland (that, before the EU exit date, were considered as distributors) to provide their details on the packaging or in accompanying documentation as an alternative to placing them on the equipment itself.

There are particular rules for goods that are not qualifying Northern Ireland goods, the definition of which is found in the Definition of Qualifying Northern Ireland Goods (EU Exit) Regulations 2020 (see link in '**Key legislation**' below).

Obligations of manufacturers and importers

Manufacturers and importers have additional obligations; they must:

- carry out sample testing of electrical equipment made available on the market
- investigate (and keep a register of complaints about) non-conforming electrical equipment and electrical equipment recalls
- keep distributors informed of any such monitoring

Who should keep the documentation?

The declaration of conformity and the technical documentation must be kept and be available for inspection by enforcement bodies (including trading standards) by:

1. the manufacturer, if they are in the UK
2. their authorised representative*
3. if neither of the above, the importer into the UK

These must be kept for a period of 10 years beginning on the day on which the electrical equipment is placed on the market.

[*You can continue to use authorised representatives if they are based in the UK, the European Union, the European Economic Area, or Switzerland and Turkey. However, if you need to appoint a new authorised representative to put your goods on the market after Brexit, the new authorised representative will need to be based in the UK.]

Safe connection for domestic electrical equipment

If the electrical equipment is a plug-in device (such as a charger) intended to be connected, without the use of a mains lead or plug, directly to the UK public electricity supply via a socket outlet conforming to BS 1363: *13 A plugs, socket-outlets, adaptors and connection units*, the economic operator must ensure that the plug-in device is compatible with socket outlets conforming to BS 1363.

Where the electrical equipment has a flexible lead and plug assembly, such as a vacuum cleaner, and is intended to be connected to the UK public electricity supply by means of a socket outlet conforming to BS 1363, the economic operator must ensure that that plug is a correctly fitted standard plug fitted with a BS 1362 fuse, or is a correctly fitted non-UK plug conforming to the safety provisions of IEC 884-1 and correctly fitted with a compatible conversion plug.

Many modern electrical appliances are now fitted with 'smart' technology, some connected via bluetooth and others via apps on computer, laptop or mobile devices. Such devices may also be covered by the Radio Equipment Regulations 2017.

Other UKCA marking regulations that may apply

- Medical Devices Regulations 2002 (further information is available from the Medicines and Healthcare products Regulatory Agency, telephone 020 3080 6000)
- Supply of Machinery (Safety) Regulations 2008
- Toys (Safety) Regulations 2011 (also contain a general safety requirement)
- Electromagnetic Compatibility Regulations 2016 (contain provisions prohibiting electromagnetic emissions from electrical equipment interfering with the operation of other equipment)
- Radio Equipment Regulations 2017

Penalties

Failure to comply with trading standards law can lead to enforcement action and to sanctions, which may include a fine and/or imprisonment. For more information please see 'Trading standards: powers, enforcement and penalties'.

Key legislation

Medical Devices Regulations 2002

Supply of Machinery (Safety) Regulations 2008

Toys (Safety) Regulations 2011

Electrical Equipment (Safety) Regulations 2016

Electromagnetic Compatibility Regulations 2016

Radio Equipment Regulations 2017

Product Safety and Metrology etc (Amendment etc) (EU Exit) Regulations 2019

Definition of Qualifying Northern Ireland Goods (EU Exit) Regulations 2020

Last reviewed / updated: January 2021

In this update

The United Kingdom has left the European Union and the post-Brexit transition period has ended; the content has been updated to reflect this

Please note

This information is intended for guidance; only the courts can give an authoritative interpretation of the law.

The guide's 'Key legislation' links may only show the original version of the legislation, although some amending legislation is linked to separately where it is directly related to the content of a guide. Information on amendments to legislation can be found on each link's 'More Resources' tab.

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