

# Safety of electrical equipment and installations



## Introduction

Electricity can kill, and electrical faults can start fires, but electrical installations can be made safe and kept safe by following a few simple steps, these are explained below.

**Remember, NEVER work on live electrical equipment or installations.**

## What should we do?

Ensure that the fixed electrical installation:

- Is inspected and tested at suitable intervals by an electrician or other suitably qualified person
- When required, is modified or repaired correctly and then inspected and tested by an electrician or other suitably qualified person before being put into use

The appropriate frequency of testing of the electrical installation will depend on many factors such as the age of the installation and its state of repair. If there are any doubts or suspicions about the system then it should be checked. As a [guide](#), landlords of Houses in Multiple Occupation are required to have the electrical installation checked every five years. There is advice on how to find a Registered Electrician [here](#).

Ensure that portable electrical equipment (i.e. anything that plugs into an electrical socket) is:

- visually checked and, where necessary, tested periodically; and
- taken out of service and repaired, or discarded and replaced, if found to be damaged.

Ensure that fixed electrical equipment (e.g. cooker) is:

- inspected and tested at suitable intervals by an electrician or other suitably qualified person.

The frequency of tests on equipment will depend on the frequency and type of use. The areas that are most likely to be damaged in use (e.g. electrical cables) should be checked most frequently. Equipment that is relatively new, tends to remain in one location and tends to use little current (e.g. a television screen fixed to a wall with a fixed cable that does not touch the floor) need only be checked annually if it is not likely to be damaged.

Equipment, such as electric power tools, where damage is more likely, should be checked at the start of each period of use.

## How do we check portable electrical equipment?

- Switch off and unplug the equipment before you start any checks
- Check that the plug is correctly wired (but only if you are competent to do so), (see note below)
- Ensure the fuse is correctly rated by checking the equipment rating plate or instruction book
- Check that the plug is not damaged (e.g. damage to the cover or bent pins) and that the cable is properly secured with no internal coloured wires visible
- Check the electrical cable is not damaged (e.g. damage can include including fraying, cuts or heavy scuffing, e.g. from floor box covers) and has not been repaired with

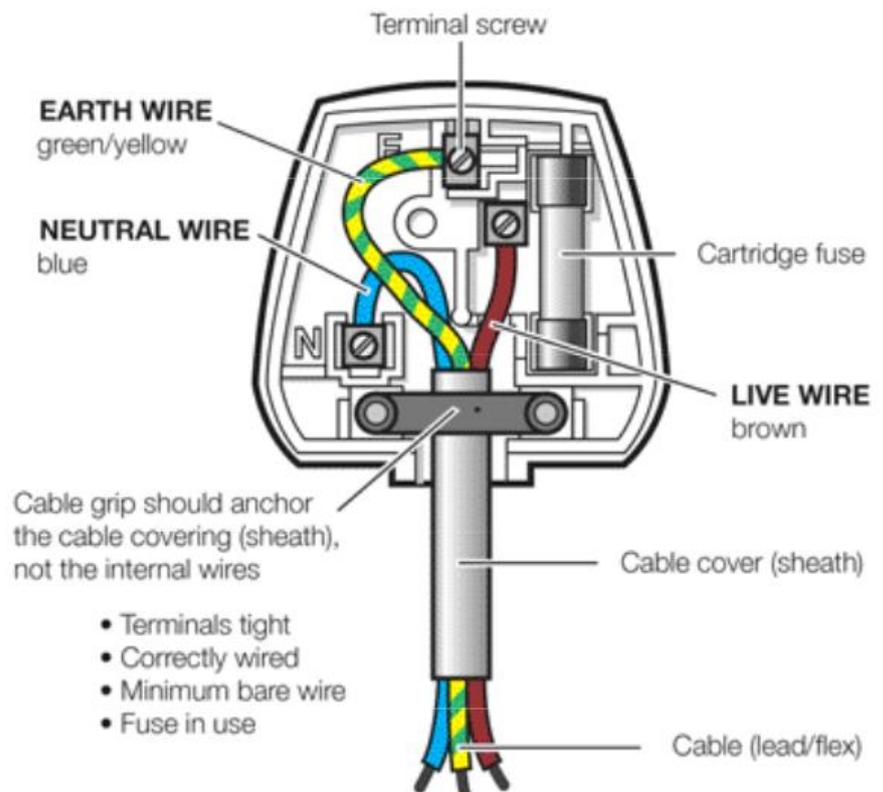
insulating tape or an unsuitable connector. Damaged cables should be replaced with a new cable by a competent person

- Check that the outer cover of the equipment is not damaged in a way that will give rise to electrical or mechanical hazards
- Check for burn marks or staining that suggests the equipment is overheating
- Position any trailing wires so that they are not a trip hazard and are less likely to get damaged
- Check equipment that has been used or stored in unsuitable conditions, such as wet or dusty environments or where water spills are possible; and
- Check that cables have not been trapped under furniture.

### How do we do a check the inner parts of a plug?

The visual inspection should include the checks carried out by the user and, where possible, will include removing the plug cover and checking internally that:

- there are no signs of internal damage, overheating or water damage;
- the correct fuse is in use and it is a proper fuse, not a piece of wire, nail etc;
- the wires including the earth, where fitted, are attached to the correct terminal;
- the terminal screws are tight;
- the cord grip is holding the outer part (sheath) of the cable tightly; and
- no bare wire is visible other than at the terminals.



For equipment/cables fitted with moulded plugs only the fuse can be checked.

### Legal Requirements

The relevant regulation is the

[The Electricity at Work Regulations 1989](#)

### Further Information

For further information see:

<http://www.hse.gov.uk/pubns/indg236.pdf>

<http://www.electricalsafetyfirst.org.uk/guides-and-advice/for-landlords/>

<http://www.electricalsafetyfirst.org.uk/find-an-electrician/>