

# Health & Safety

## Electricity

We all take it for granted that when we switch on a plug socket, our appliance will work. That's because of electricity, but what is it? We will answer this question and consider the ways in which electricity poses a threat in the workplace and how we can reduce the risk of this hazard actually causing harm. This course explores the law in relation to electricity and looks at the duties of both the employer and the employee in the maintenance of a safe working environment.

## In this Module

Videoscribe explainer video, with professional audio (duration: 02:35)

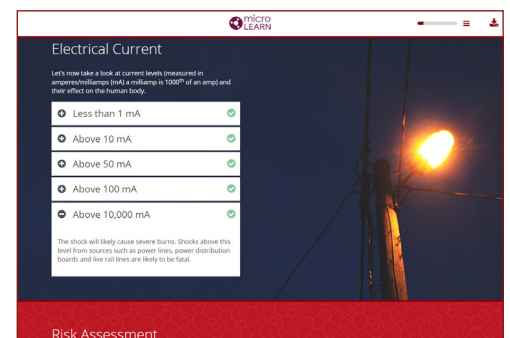
English Subtitles

7 Expanded learning content blocks in the module format

'Check my understanding'  
5 Question knowledge check

## Top Tips

1. Employers have a duty to comply with regulations and to ensure electrical systems are safe.
2. Employees must take reasonable care for their own safety and co-operate with their employer.
3. Don't take chances with electricity, if something looks unsafe, don't use it, report it!



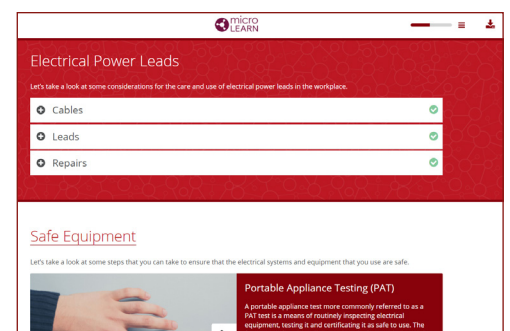
**Electrical Current**

Let's now take a look at current levels (measured in amperes/millamps [mA] a millamp is 1000<sup>th</sup> of an amp) and their effect on the human body.

- Less than 1 mA
- Above 10 mA
- Above 50 mA
- Above 100 mA
- Above 10,000 mA

The shock will likely cause severe burns. Shocks above this level from sources such as power lines, power distribution boards and live rail lines are likely to be fatal.

**Risk Assessment**



**Electrical Power Leads**

Let's take a look at some considerations for the care and use of electrical power leads in the workplace.

- Cables
- Leads
- Repairs

**Safe Equipment**

Let's take a look at some steps that you can take to ensure that the electrical systems and equipment that you use are safe.

**Portable Appliance Testing (PAT)**

A portable appliance test more commonly referred to as a PAT test is a means of routinely inspecting electrical equipment, testing it and certifying it as safe to use. The frequency of testing will depend on the item and where it is