

# Introduction to Portable Appliance Testing



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## FREQUENTLY ASKED QUESTIONS

### What is Portable Appliance Testing and why do I have to do it?

Portable Appliance Testing, or PAT testing is a way of ensuring the safety of electrical appliances in your workplace by carrying out some basic maintenance checks. It is reported by the Health and Safety Executive that 25% of all reportable electrical accidents involve portable appliances. Many fires are due to faulty electrical appliances.

The Health and Safety at Work Act 1974 puts a duty of care upon both employer and employee to ensure the safety of all persons using the work premises. This includes the self-employed.

The Electricity at Work Regulations 1989 state "As may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practicable, such danger."

All electrical appliances are safe when first brought in to the workplace as new as they should all conform to the European Low Voltage Directive. It should have what we know as the CE mark on the rating plate. An example of this mark is shown here.



It is inevitable that over a period of time the appliances will deteriorate, some more than others. It is this deterioration that we are looking for whilst PAT testing.



For example, the power cable on this drill has been damaged to an extent where the inner wires are exposed. If not repaired or removed from service, there is a high risk of someone getting an electric shock from this.

### Do I have to be an electrician to PAT test?

No. The HSE state "you must be a competent person who has been given instruction". If you have no experience of PAT it would be a good idea to attend a training course.

You need to be aware of the different types of electrical appliances and how often to inspect and test each type. All electrical appliances can be divided into Class 1 or Class II and you would need to know how to do this.

### How often should I carry out PAT Testing?

This depends on a number of factors. Some appliances in a low

risk environment, such as in an office may only need an inspection from time to time. Other appliances, in a high risk environment, such as a factory or a construction site may need inspection and testing every few months.

The frequency of inspection and testing is based on a risk assessment that is carried out by the duty holder.

Most good training courses in PAT testing will guide delegates on what factors to take into account when doing this.

### **What types of appliances should be PAT tested?**

All appliances with a flexible lead and can be moved must be PAT tested. This should include items that are moved only infrequently, say for cleaning.



This also includes appliances which are hard wired into a spur although these items would be tested by an electrician.



### **What sort of things can go wrong with appliances?**

Appliances can be dangerous for any number of reasons. One would be looking for things like cracked plugs, bent pins and damaged joints. On the appliance itself one would look for burn marks or cracks on the body of the appliance.



This picture shows a plug with a bent pin. If this is not corrected, then this may cause damage to the socket outlet.



This shows a plug that has been damaged possibly because it has been dropped, or a piece of furniture has been moved against it. This is very common and is a