



To: Heads of all Establishments
Cc's: Governors/Management Committees
Trade Union Safety Representatives
Employee Notice boards
Intranet

November 2005

ELECTRICITY SAFETY

PORTABLE ELECTRICAL EQUIPMENT TESTING



Electricity At Work Regulations 1989

Principles

The term 'portable electrical equipment' covers a wide variety of electrical equipment and includes such items as kettles, floor polishers, angle poise lamps, in fact most things that have a 3 pin plug attached to the end of a lead.

Purchasing


Ensure all electrical equipment is purchased to British and or European Standards.

Maintenance

Maintenance is a term, which includes visual inspection, testing, repair and replacement. Maintenance will determine whether:

- a) equipment is fully serviceable, or
- b) remedial action is necessary
- c) maintained to British and or European Standards.

Routine inspection and appropriate testing are part of an overall strategy for ensuring that work equipment is maintained in a safe condition. The user of an electrical appliance is protected from electric shock using two basic methods, insulation and earthing. Dependent upon the type of protection determines the class of portable appliance.

Class I  Earthed appliances: use earthing + insulation test e.g. an electric kettle.

**Published by: Health and Safety Team, Human Resources
Learning & Culture**

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Class II ☐ Double insulated appliances: use insulation + insulation test e.g. desk lamp.

The safety tests for Class 1 and Class 2 appliances differ according to the type of protection.

Based on a suitable and sufficient risk assessment and in view of the amount of wear and tear items of portable electrical equipment receive in educational establishments the authority requires that items of equipment are visually checked **before** use and given a formal test on an **annual** basis.

User checks (visual) – Daily

All employees on site are required to look critically at the electrical equipment before they use it and, visually check that the equipment is in sound condition. When undertaking a visual inspection the following will indicate that the equipment is **NOT** in sound condition:

- ☐ Damage (apart from light scuffing) on the **cable sheath**.
- ☐ Damaged **plug**, for example the casing is cracked or the pins are bent.
- ☐ Inadequate **joints**, including taped joints in the cable.
- ☐ The **outer sheath** of the cable is not effectively secured where it enters the plug.
- ☐ (obvious evidence would be if the coloured insulation of the internal cables cases were showing).
- ☐ Damage of the **external casing** of the equipment or loose parts or screws.
- ☐ Evidence of overheating (**burn marks** or **discolouration**).
- ☐ The item of equipment has been subjected to conditions for which it is not suitable, e.g. it is wet.

These checks also apply to **extension leads** and associated **plugs** and **sockets**. All portable RCD test buttons should be activated each time before being put into operation. The user should undertake checks when the equipment is first taken into use and during use. Any faults should be reported to management and the equipment taken out of use immediately. Management should take effective steps to ensure that the equipment is not used again until repaired by a person competent to carry out the task, (e.g. the defective equipment should be labelled as 'faulty' and its associated plug removed).

Combined Inspection & Test

In order to control the risks and to monitor user checks, a competent person is required to carry out a formal visual inspection and test of portable electrical equipment on an annual

basis. Heads of Establishment are required to ensure that formal testing of equipment is arranged, by using any one of the following schemes:-

- (a) 'In-house' tester
- (b) Mouchel Parkman
- (c) A competent electrical engineer

The Health and Safety Team on behalf of the Director, monitors that Heads of Establishment have made suitable arrangements for the testing of portable electrical equipment.

The tester has the responsibility for the inspection and testing of portable electrical equipment. The tester is NOT responsible for the repair of equipment, which may have failed the tests. It is the site manager's responsibility to arrange for a competent electrical contractor to undertake repairs.

The inspection and testing includes portable electrical equipment brought onto the premises by the staff / students, etc., for **use at work**.

N.B. A simple way to define portable electrical equipment is any item using a 3 pin fused plug. This includes all extension leads.

Maintenance and Test Records

Once a programme of inspection/testing has been undertaken the findings must be recorded. A suitable log is a useful management tool for monitoring and reviewing the effectiveness of the maintenance scheme and to show that the scheme exists. A model "Portable Electrical Testing Register" can be found in **Appendix 1**.

Monitoring

The test records must also be made available for inspection by authorised monitoring advisers / officers of the Authority. The log will also form an inventory of items of portable electrical equipment to provide a means of monitoring the use of unauthorised items of equipment e.g. domestic items brought to work by employees/ other persons using the site.

Training

The competent person selected to undertake the inspection and testing of portable electrical equipment can be an employee who has sufficient training and experience.

Contact Health and

Safety Training for details of courses.

For Further Information and Advice:

Specialist: Mouchel Parkman
Health and Safety Training

Tel – **0800 7314617**
Tel - **01865 816467**



General: Health & Safety Team

Tel - **01865 816464**

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