



St Chad's College

Portable Appliance Testing (PAT) Policy

Background (extracted from HSE website)

Portable appliance testing (PAT) is the term used to describe the examination of electrical appliances and equipment to ensure they are safe to use. A Portable Electrical Appliance is any electrical equipment capable of being carried and, in general, connected to the mains supply by a flexible lead and a plug. Most electrical safety defects can be found by visual examination but some types of defect can only be found by testing. However, it is essential to understand that visual examination is an essential part of the process because some types of electrical safety defect can't be detected by testing alone.

The law simply requires an employer to ensure that their electrical equipment is maintained in order to prevent danger. It does not say how this should be done or how often. Employers should take a risk-based approach, considering the type of equipment and what it is being used for. If it is used regularly and moved a lot e.g. a floor cleaner or a kettle, testing (along with visual checks) can be an important part of an effective maintenance regime giving employers confidence that they are doing what is necessary to help them meet their legal duties. HSE provides guidance on how to maintain equipment including the use of PAT

A relatively brief user check (based upon simple training and perhaps assisted by the use of a brief checklist) can be a very useful part of any electrical maintenance regime. However, more formal visual inspection and testing by a competent person may also be required at appropriate intervals, depending upon the type of equipment and the environment in which it is used

The Electricity at Work Regulations 1989 require that any electrical equipment that has the potential to cause injury is maintained in a safe condition. However, the Regulations do not specify what needs to be done, by whom or how frequently (ie they don't make inspection or testing of electrical appliances a legal requirement, nor do they make it a legal requirement to undertake this annually).

There is no legal requirement to label equipment that has been inspected or tested, nor is there a requirement to keep records of these activities. However, a record and / or labelling can be a useful management tool for monitoring and reviewing the effectiveness of the maintenance scheme – and to demonstrate that a scheme exists.

New equipment should be supplied in a safe condition and not require a formal portable appliance inspection or test. However, a simple visual check is recommended to verify the item is not damaged

The person doing testing work needs to be competent to do it. In many low-risk environments, a sensible (competent) member of staff can undertake visual inspections if they have enough knowledge and training. However, when undertaking combined inspection and testing, a greater level of knowledge and experience is needed, and the person will need:

- the right equipment to do the tests
- the ability to use this test equipment properly
- the ability to properly understand the test results

Introduction

St Chad's College take a risk based approach to PAT. Having assessed the risk and concluded that there are a minimal number of easily identifiable items which are regularly moved i.e. portable, that PAT will focus upon user checks to identify key potential electrical problems, supported by testing of the portable items (see list below). All other electrical items will be required to given a visual check by the user. The majority of electrical equipment is provided safe to use and as over 80% of electrical faults are discovered by visual inspection, this is the most important element of inspection and testing. The following schedule is recommended.

Visual Check

All electrical appliance should be checked for the following common faults:

Plug: cracked casing, bent pins, loose connections, loose cable clamp.

Mains Lead: cuts, fraying, brittle casing, kinked, tightly coiled, taped joints

Appliance: damaged or faulty operation of off/on switch, damaged casing, loose parts or missing screws; evidence of overheating; evidence of moisture; exposed wires;

Portable Appliance Testing

Portable electrical appliances must be regularly inspected and tested by competent persons to ensure that they can continue to be used safely. A competent person is somebody who is employed or contracted by the College who has received suitable and sufficient training in Portable Electrical Appliance Inspection and Testing.

The planned inspection and testing will include a visual inspection for signs of damage or deterioration; and an electrical test to check the earth continuity and a relevant insulation test.

The test results will be recorded to allow for future comparison, for written identification of defects to be remedied and to provide information for an assessment of risk. The individual item will be marked with a date to identify that it has been tested and when it was last tested.

A commercially available Portable Appliance Tester is required for electrical testing of robust appliances. Care must be taken on sensitive electronic equipment such as computers, as permanent damage may be caused by the high test voltages and currents.

Items identified for PAT are identified below. This list may need updating as portable electrical items are introduced into College (and society in general)

Desk Lamps in student bedrooms

Kettles provided in customers rooms

Cleaners (hoovers) used by the housekeeping team

Electrical Appliances in house kitchens (ie microwaves, toasters)

Electrical equipment used by the maintenance and portering teams.

Where the College allows staff to use their own appliances, e.g., kettles, coffee percolators, electric fans, they must be included in the inspection and testing arrangements. If they are found to fail in any way, they must be removed from the premises and repaired at the owner's expense. The use of personal electric heaters is not permitted.

Frequency of Inspection and Testing

There is no statutory frequency of inspection and testing. The frequency should reflect the risk of the appliance causing damage or injury. This increases with amount of appliance use and the harshness of its working environment. The following is recommended as a minimum standard:

Visual Inspection: On initial use and after moving the appliance and regularly during its lifetime.

Visual Inspection and Portable Appliance Testing

High risk items ie heavy or outside use, eg tools and equipment used outside or in a way such that their power leads may be subject to mechanical damage or will get wet should be visually inspected every time they are used and tested every 6 months e.g. extension cables, maintenance tools, housekeepers hoovers.

Medium risk items ie those that are moved but used inside in dry, benign environments, should be visually inspected every time they are used and tested every 12 months eg hand held appliances, micro waves, toasters, desk lamps and kettles.

Low risk items ie those that are infrequently moved but regularly used, eg personal computers, should be regularly visually inspected and tested every 5 years.

Recording of Inspection and Testing Results

When new electrical appliances are purchased a visual check is required. The first PAT will be carried out at the next calendar opportunity that PAT occurs. PAT will be carried out in June and January each year. Those items classed as high risk being tested in June and January, those at medium risk at either June or January.

A dated test label indicating PASS must be affixed to the appliance (and to the plug, if the lead is detachable). The inspection and test results must be recorded. The Clerk of Works should keep the results centrally, as they will be needed for audit inspections. Any items failing inspection should either be immediately destroyed or taken out of service until remedial action is taken and it is made safe..

The record should show the number of and type of appliances tested and the test result (ie the number that passed or failed),

This will provide important information on the number and condition of appliances held.

Competent Persons

Inspection and Testing must be carried out by Competent Persons i.e. a member of staff who has received suitable and sufficient training.

The decision as to whether an individual is competent to undertake a particular task is left to the Clerk of Works. It is necessary to weigh up the job's skill content against the individual's attributes, taking into account their:

- electrical knowledge;
- electrical experience;
- understanding of the system/equipment to be worked on;
- understanding of the hazards which could arise; and
- the ability to recognise at any time whether it is safe to continue to work.

Both formal theoretical training and practical "on the job" training, using the test equipment, are normally necessary. The former can be arranged with a training provider.