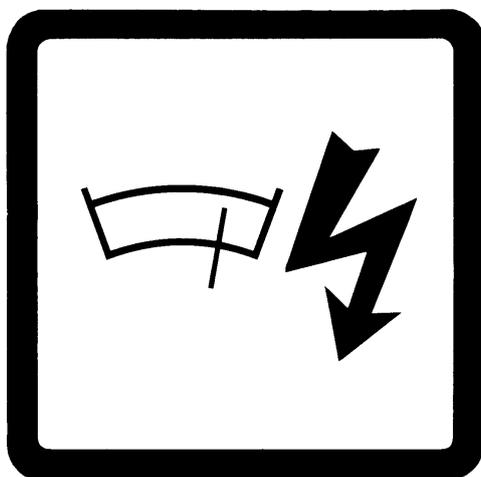


Safety Code of Practice 12

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PORTABLE APPLIANCE TESTING



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1 SUMMARY

This Safety Guide sets out what is required to ensure that portable electrical equipment (i.e. equipment with a plug) used at the University is maintained in a safe condition for use. The aim is to reduce the risk of injury and property damage from faulty electrical equipment. If followed it will ensure compliance with the maintenance requirements of Regulation 4(2) of the Electricity at Work Regulations 1989 (EAW) and The Provision and Use of Work Equipment Regulations (PUWER) 1998.

All staff and students must be encouraged to:

- visually inspect portable electrical equipment for any obvious faults before using the equipment;
- not use faulty electrical equipment and immediately report faults;
- not use equipment for work that has not been appropriately inspected or tested.

Heads of Schools / Functions are responsible for ensuring that arrangements are in place for the regular inspection and testing of portable electrical appliances within their areas of control, as outlined in this Guide.

Portable electrical equipment owned by the University in any Schools/Functions/Units that **DO NOT have suitably competent and trained technical staff** must be inspected and tested by the University-appointed contractors – see Appendices for contact details.

Schools/Functions that **DO** have suitable technical staff can arrange inspection and testing by either:

- sending suitable members of their staff on an internal university training course so that they can be trained to carry out in-house portable electrical appliance inspection, testing, labelling and record keeping. Contact Health & Safety Services for details of courses.
- or using the University-appointed contractor.

Inspection and test frequencies with respect to the various types of equipment used at the University are given in Appendix 4.

Equipment that has been satisfactorily inspected and/or tested must be labelled according to the standard University label format (see Section 8).

Items that fail inspection or test must be clearly labelled to denote that they must not be used until repaired and retested. Precautions must be taken to prevent use in the interim.

All electrical equipment must be purchased in compliance with current EC safety standards, and be used for the purpose intended by the manufacturer or designer.

Student-owned equipment must conform to current EC standards and must be safe in use. However it does not need to be subject to in-service inspection and testing unless there are doubts about its safety, or **UNLESS** it is used 'for work'. Any student-owned equipment that does not meet EC standards or which appears to be unsafe must not be used. The University reserves the right to ban use, confiscate the equipment, or insist on in-service inspection and test at the student's expense.

2 SCOPE

This Safety Guide sets out what managers and staff have to do to prevent, so far as is reasonably practicable, anyone being injured, or property damage, through poorly maintained portable electrical equipment.

This Guide outlines the University arrangements for portable appliance in-service inspection and test (PAT testing), and labelling, and gives general advice to users on how to tell if a portable appliance is safe, or unsafe, to use. Electrical equipment must not be used if there is any doubt about its safety.

2.1 What is portable electrical equipment?

Portable equipment is generally equipment that has a power lead (cable) and plug and which is normally moved around or can easily be moved from place to place. It also includes larger equipment that can be moved but which is generally stationary in a fixed location and which has a lead and plug e.g. photocopiers, larger items of scientific analytical equipment.

2.1.1 Categories of portable appliances

Portable electrical equipment is categorised into:

- Hand held
- Mobile
- Stationary
- Information Technology (IT) Equipment

These categories help to make decisions regarding the frequency of in-service inspection/test and the likelihood of damage occurring e.g. handheld equipment should be inspected more frequently than stationary equipment. Appendix 1 gives definitions and examples of these categories.

2.1.2 Three phase and 'hard wired' equipment

Portable equipment does not include electrical equipment that is permanently connected to the building electrical supply - 'hard wired', or three phase equipment. See section 4 for guidance on these types of equipment/systems.

3 REQUIREMENTS

3.1 Duties on managers

Heads of Schools/Functions and other managers must ensure that arrangements are in place for the regular inspection and testing of portable electrical appliances within their areas of control, as outlined in this Guide. This will include electrical equipment in offices, laboratories, workshops, stores, equipment brought onto site as part of an event and equipment designed and engineered as part of research activities.

3.2 Duties on all staff

Staff must:

- Ensure that they use electrical equipment as instructed;
- Check that equipment has no obvious visual damage or defects before using it;
- Remove from service and report any defective or out-of-test equipment;

Only use equipment that has a valid inspection/test label.

4 TYPES OF INSPECTION

4.1 User check

Users must check equipment before use. The user check is a vital safety precaution, as many faults can be identified by a simple visual inspection. The user is the person most familiar with the equipment and in the best position to know if equipment is in a safe condition and working properly. The user check is limited to an external visual inspection without any dismantling of the equipment, such as removal of covers or plug tops.

These checks do not need to be recorded. However, if faults are identified action must be taken to prevent further use until repair or disposal. A guide on what to look for during a user check is given in Appendix 2.

The frequency of check will vary depending on the type of equipment and its location. Guidance is given in Appendix 2.

4.2 Formal visual inspection

A formal visual inspection is a more detailed visual inspection by a competent person, and the equipment is labelled to state this inspection has been completed.

The formal visual inspection can be undertaken as the main test for double insulated equipment in low risk environments. The method for carrying out a formal visual inspection is set out in Appendix 3. Guidance on frequency of inspection is given in section 6 and Appendix 4.

The person carrying out the inspection must be trained and competent – see section 5.

Where equipment fails a formal visual inspection, it must be immediately removed from use and labelled as failed/faulty. Repair or disposal should be arranged.

4.3 In-service inspection and test

An in-service inspection and test is a more detailed examination of the equipment, involving:

- a preliminary inspection (as for a formal visual inspection)
- an earth continuity test (Class I equipment only)
- an insulation resistance test if applicable, or protective conductor current /touch current test or substitute / alternative leakage test
- a functional test.

The in-service inspection and test must be carried out by a trained and competent person – see section 5. Full details of how to conduct each test are given during training and in the IEE *Code of Practice for In-Service Inspection and Testing of Electrical Equipment*.

Recommendations on frequency of in-service inspection and test are given in section 6 and Appendix 4.

5 **THREE PHASE AND 'HARD-WIRED' EQUIPMENT**

Three-phase equipment, and equipment operating at currents in excess of 13A, **MUST NOT** be tested or repaired by School or Function staff (excluding suitably qualified Estates staff). This also applies to all hard-wired equipment.

Responsibility for the maintenance, inspection and test of such equipment rests with the owner of the equipment. Manufacturer's guidance regarding maintenance should be followed, and the owning department should have an appropriate inspection regime in place, covering the equipment and the supply, up to the point where it joins the building electrical supply.

Estates will ensure the inspection and test of this equipment when inspecting and testing the main electrical structure within the building, **if** they are advised of the need to do so. The owning department is responsible for any associated costs. Time scales for inspection will be in accordance with the environment and use and will follow guidance set out in the Institution of Engineering and Technology (IET) Guidance Note 3 Inspection and Testing.

6 **COMPETENCY - FORMAL VISUAL INSPECTIONS AND COMBINED INSPECTION AND TESTING**

6.1 **Staff**

Staff who carry out formal visual inspections and combined inspection and testing of portable electrical equipment must ensure they are competent to do so. Advice on the correct training can be obtained from Health & Safety Services.

As an example, an acceptable training course is the City and Guilds Certificate of Inspection and Testing Electrical Equipment (course number 2377-0020). Health & safety Services can help source an approved training centre.

Staff must attend a refresher training course every 4 years to ensure competence is maintained.

6.2 **University approved contractor**

Where formal inspection and/or testing is required and the School/Function chooses to engage a contractor, the University-approved contractor must be used. The procedure for doing so is given in Appendix 5.

7 FREQUENCY OF INSPECTION AND TESTING

Inspection and testing of electrical equipment is a means of assessing if the appliance is safe or if maintenance or repair is required. The frequency of inspection and testing will depend upon the likelihood of faults developing and the consequences of lack of maintenance. Factors which influence this include:

- the environment (e.g. wet or harsh conditions increase the risk);
- the users (e.g. use by multiple users or the public, or use limited to one person);
- the equipment construction (Class I or Class II);
- the type of equipment e.g. portable, hand held or stationary.

The University has set out the recommended frequency of inspection, adapted from Health and Safety Executive (HSE) guidance and the IEE Code of Practice for In-Service Inspection and Testing of Electrical Equipment. These test frequencies are set out in Appendix 4.

Staff and contractors carrying out formal inspections and tests must be guided by these frequencies. Where there is a higher level of risk the frequency of inspection/test may need to be increased i.e. where equipment is regularly damaged, fails tests or is mistreated. If a School/Function believes that less frequent inspection/test is required, this must be justified by risk assessment, with reference to previous inspection/test results, and failure data, and must be agreed with Health and Safety Services.

Guidance:

In general, office equipment which is kept in the same location e.g. IT equipment, photocopiers etc will only need an in-service inspection and test every 3 years. More frequently used equipment, in particular if it is moved regularly or is hand-held and hence is more likely to present a risk to the user, requires more frequent inspection and test e.g. extension cables require in-service inspection and test every year. Hand held tools and equipment which are regularly used by more than one person or are used in a hostile environment require more regular formal in-service inspection and test (at least annually) and may require additional visual inspections e.g. 6 monthly. See Appendix 4.

7.1 New equipment

Equipment manufacturers and suppliers are legally required to ensure that new or second hand equipment supplied by them is safe for use at work. No formal inspection or test is required before putting the equipment into first use. However new portable electrical equipment should be checked by the user before use for obvious signs of damage to the plug, cable or external casing.

New equipment should be inspected once it has been installed for 12 months (or sooner if convenient to do so). This may require labelling to ensure that the date it is brought into service is known.

The manufacturer's instructions should always be read and understood before an unfamiliar item of equipment is used for the first time.

7.2 Personal equipment brought into the University

Staff should be discouraged from bringing personal items of electrical equipment to work (e.g. radios, kettles, and fridges). However, there may be circumstances when this is approved by the Unit Head, in which case this equipment must be inspected and tested before use and then at intervals as specified in this Safety Guide.

Student owned equipment

Equipment that is not safe must not be used on university premises or during university activities.

It is not University policy to inspect and/or test electrical items owned by students, and this is not required under the Electricity at Work Regulations, UNLESS such equipment is being used 'for work'. Students are responsible for their own personal electrical/electronic equipment but must follow the local health and safety policies of their School. Action must then be taken to reduce the risk to an acceptable level. This may involve banning use of the equipment on university property; confiscation; or insisting on in-service inspection and test at the student's expense. Student owned electrical equipment held at UPP accommodation will be covered by the UPP portable appliance testing requirements.

7.3 Leased equipment

Equipment hire companies are legally required to ensure that equipment supplied by them is safe for use at work and is regularly inspected and tested before and after use. Therefore, equipment that is leased by the University should not normally need to be tested by university staff; appropriate routine safety testing should be an integral part of the service contract. If electrical testing is not part of the service contract (as may be the case for some photocopiers) then this equipment should be included in the in-house testing programme for that School/Function.

7.4 Equipment brought on site for events

Equipment that is brought onto site for an event must be in a safe condition. It is the responsibility of the Event Safety Co-ordinator to ensure equipment has been suitably inspected and if necessary tested. If this cannot be proved, then a competent person must carry out an in-service inspection and test appropriate to the class of equipment. See Safety Guide 33 for more information relevant to events.

8 PAT TESTING EQUIPMENT

Equipment used to carry out the in-service inspection and test must have the following facilities:

- Measurement of earth continuity with one or more pre-set test currents up to a maximum value of the order of 26 A;
- Measure of insulation resistance normally using a test voltage of 500V d.c.;
- Measurement of earth continuity using a low value of current in the range of 20 mA to 200mA, typically 100mA known as the "soft test";
- Fuse assessment.

9 LABELLING

Suitable labelling must be provided on equipment that has been formally visually inspected or tested, stating the following information:

- Date of inspection/test
- Name of tester
- Appliance number (if full records are being kept)
- Next inspection/test date due
- Pass or fail

Labels must be securely fixed so that they do not fall off easily. When re-testing equipment, the old label must be removed. When testing equipment that has a detachable power lead and both the equipment and the power lead are tested, both items must be labelled.

If the appliance has failed it must be labelled with the following information:

- Indication of danger e.g. 'faulty, dangerous, do not use.'
- Detail of the fault e.g. 'cable damaged'
- Name of inspector/tester
- Date of inspection/test

Failed equipment must be taken out of use immediately. It must be removed from the workplace and taken to a secure location, or disabled safely so that the equipment cannot be used.

Guidance:

It is recommended, but not mandatory, that Class I (earthed) equipment is tagged with a separate BLUE label, and that CLASS II (double insulated marked with a square within a square) equipment is tagged with a green label. This will help those undertaking testing in the future to identify which items need a formal visual inspection, or an in-service inspection and test.

10 RECORD KEEPING

There is no legal requirement to keep records of portable appliance inspection and testing. However, where inspection and testing is carried out by the University-appointed contractor, they will supply records of all items examined.

Where university staff carry out inspection and testing, the minimum requirement is to maintain records of:

- Items that fail, including description of the item and appliance number (if there is one); details of the fault; name of the inspector/tester; and the date of inspection/test (also see section 9 re. labelling).
- The total number of items inspected/tested.

The keeping of any records must not be used as a substitute for labelling equipment.

Guidance:

HSE advise that "you may find it helpful if you have a lot of electrical equipment to keep track of and also to help you review your maintenance procedures. Experience of faults found will determine whether inspection intervals can be lengthened and whether and how often there should be a combined inspection and test".

The evidence of records would also help in any legal case following an accident involving electrical appliances.

Records can be paper-based or electronic. If kept, they should comprise:

a record of formal and combined inspections and tests for each item of equipment

a record of repairs made and all faulty equipment

List of the numbers and types of equipment passed and those failed

If a PAT Tester that is designed to interface with a PC is used, the format of record storage and printouts will be determined by the PAT Tester and associated software.

If a manual tester is used, separate records will be required. They should detail:

appliance description

the equipment identifier e.g. asset number

class of appliance

test date

formal visual inspection or combined in-service inspection and test

test type, results and status (pass/fail)

11 ORGANISATION OF PAT TESTING

Schools/Functions should clearly define who is responsible for organising in-service inspection and testing, so that it is not overlooked. A PAT scheduling form is [provided on the H&SS website](#).

Guidance:

Where external contractors are engaged, an efficient way of managing testing is to organise an annual tour of the area by the person(s) doing the inspection and test. They should check the inspection/test frequency of all appliances and inspect/test those that are out of test, or about to become so.

Users should be informed in advance of the visit, and instructed to make all their appliances readily accessible, including those held in store (assuming these items are likely to be used in the following period).

The owning School/Function is responsible for organising the inspection and test. Where buildings are shared, it may be more efficient to organise inspection/test for the whole building. This must be agreed by Heads of Schools/Functions. Costs should be shared between the participating units based on the numbers of items tested for each for each School/Function via the testing results log.

12 MONITORING

Compliance with the procedures outlined in this Safety Guide should be monitored by the Heads of School/Function and Health & Safety Co-ordinators, particularly during their annual review of health and safety performance and during health and safety inspection tours.

In addition to the above, Health & Safety Services staff will check compliance with these procedures during inspections and audit visits made to Schools and Functions.

13 FURTHER INFORMATION

Further information and guidance is available from the following sources:

1. **Guidance note 3: Testing and Inspection, 8th edition 2018, or later edition.**
The Institution of Engineering and Technology
Michael Faraday House
Six Hills Way
Stevenage
SG1 2AY
UK.
01438 313311
postmaster@theiet.org
2. **Health and safety Executive (HSE)**
Maintaining portable electrical Equipment in offices and other low risk environments
<http://www.hse.gov.uk/pubns/indg236.pdf>
3. **Health and safety Executive (HSE)**
Maintaining portable electrical equipment in hotels and other tourist accommodation
<http://www.hse.gov.uk/pubns/indg237.pdf>

Appendix 1: Categories of portable electrical equipment

Hand held equipment

A hand held appliance or equipment is portable equipment intended to be held in the hand during normal use e.g. power drill, hedge cutter, soldering iron, hair drier.

This is the most hazardous type of equipment as current can flow from hand to hand and will pass close to the heart. Appliances are also gripped so the operator will find it almost impossible to let go of an appliance under shock conditions. The situation could be worse where a person is working hard and sweating or working outdoors in wet conditions. Moisture will reduce the contact resistance and a large current could flow.

Mobile equipment

Mobile equipment is intended to be moved while in operation e.g. vacuum cleaner, floor polisher, or an appliance that can easily be moved from one place to another e.g. food processor, kettle, desk fan, bench top centrifuges, hot plates, small laboratory water baths.

Stationary equipment

Equipment that has a mass greater than 18kg and is not provided with a carrying handle e.g. refrigerator, freezer, dishwasher or washing machine, large centrifuge, photocopier.

IT equipment

IT equipment includes computer monitors, data terminal equipment, power packs, mobile phone charging units, printers and televisions. **Plugs and leads to this equipment should be tested but the equipment itself may not be suitable for testing.**

Appendix 2: User checks

Users of portable appliances should look for the following indicators of damage or faults, before using the equipment:

- Is the user aware of any problems, does the appliance work?
- Damage to the cable/lead; e.g. cuts, fraying, abrasion (apart from light scuffing);
- Damage to the plug, e.g. the casing is cracked, the pins are bent, the screw holding the plug together is loose, the plug rattles;
- Non-standard joints, including taped joints in the cable;
- The outer covering (sheath) of the cable not being gripped where it enters the plug or the equipment. Look to see if the coloured insulation of the internal wires is showing;
- Damage to the outer cover of the equipment or obvious loose parts or screws;
- Signs of overheating (burn marks or staining) on the equipment or plug;
- Equipment being used in conditions where it is not suitable, e.g. a wet or dusty workplace;
- Equipment with signs of cracks, chemical or corrosive damage to the case, switches not working properly, protective covers missing or loose;
- Extension leads or adapters are overloaded (too many appliances for the fuse or current rating of the lead);
- Residual Current Devices (RCDs) failing to disconnect from the supply when the test button is pushed.

If any of the above are identified, do not use the equipment, remove it from service, and report it to your manager or Health & Safety Co-ordinator.

Frequency of checks

Where equipment is stationary, or not moved frequently, and is not used in a hostile environment, user checks may not be required until the equipment is moved, at which point it would be convenient to do so.

Where equipment is handheld, moved frequently, or is used in a hostile environment e.g. catering kitchens, workshops, or laboratories, it may be more prone to damage. Therefore user checks are recommended weekly for all such equipment, and before each use for handheld equipment.

Where portable appliances are used by members of the public in residential accommodation, e.g. conference guests or students on short courses staying in university residential accommodation, it is recommended that staff carry out a user check weekly, as part of their normal room servicing duties.

Appendix 3: Formal visual inspections

The following must be considered when carrying out a formal recorded inspection of equipment:

The environment

The inspector should consider if the equipment is suitable for the environment or the nature of the work. Particular care needs to be taken when selecting equipment for work in harsh or hazardous environments (e.g. if the equipment is exposed to):

- mechanical damage
- the weather
- natural hazards
- high or low temperatures
- pressure
- wet, dirty or corrosive conditions
- flammable or explosive substances

These conditions will influence the frequency of inspection and testing required. Specialist advice may need to be taken and reference must be made to British Standards and HSE guidance, e.g. the guidance on Regulation 6 in the Memorandum of Guidance on the Electricity at Work Regulations 1989.

Where the inspector considers the equipment to be unsuitable for the environment, this must be recorded and brought to the attention of the person responsible for the equipment.

Good housekeeping

Check that the equipment is installed and operated in accordance with the manufacturer's instructions. The following are examples of items which should be checked:

- cables are not located where they are likely to be damaged, e.g. trodden upon or snagged, or create trip hazards
- means of disconnection/isolation from the mains supply are readily accessible
- space around the equipment is adequate for ventilation and cooling
- ventilation openings are not blocked
- cups, plants and work material are not placed where their contents could spill into the equipment
- equipment is not positioned so close to walls and partitions that the cord is forced into a tight bend as it exits the equipment (this may also indicate inadequate spacing for ventilation and cooling)
- the equipment is operated with protective covers in place and doors closed
- check that there is no indiscriminate use of multiway adaptors and trailing socket outlets or overloaded extension cables.
- there are no unprotected cables run under carpets.

Disconnection of equipment

The means of isolation from the electricity supply must be readily accessible to the user i.e. in normal circumstances it must be possible to reach the plug and socket without difficulty. In general, the inspector will determine whether there is a means for switching off the electricity:

- a) for normal functional use
- b) in an emergency
- c) to carry out maintenance.

Where possible the equipment must be isolated from the supply. This will be simple to achieve when the equipment is connected via a plug and socket. However, some equipment may be connected to the supply by other means such as an isolator or connection unit, where isolation from the supply can be achieved only by switching OFF or by removing the fuse. Great care should be taken when carrying out a visual inspection of equipment which does not have a visible means of isolation.

The condition of the equipment

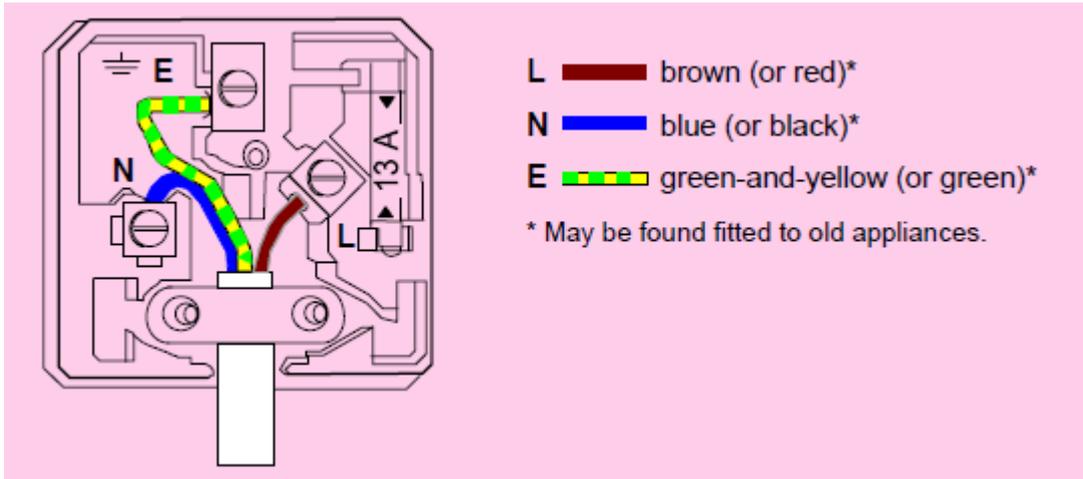
Before inspecting the equipment ask the users whether they are aware of any faults and whether it works properly, and proceed accordingly. The user is familiar with the equipment and may be aware of intermittent faults.

The following items need to be inspected:

- a) the flexible cable - is it in good condition? Is it free from cuts, fraying and damage?
- b) is it in a location where it could be damaged or cause a trip hazard? Is it too long, too short or in any other way unsatisfactory?
- c) the socket-outlet (if known) or flex outlet - is there any sign of overheating? Is it free from cracks and other damage?
- d) the appliance - does it work? Does it switch on and off properly? Is it free from cracks or damage to the case or damage which could result in access to live parts?
- e) can it be used safely?

NB Some of the following checks may not be possible for equipment fitted with a non-rewirable plug:

- f) check that detachable power supply cords to Class I equipment incorporate continuous protective conductor.
- g) look for signs of overheating - this may be caused by a fault in the plug (e.g. a loose connection) **or by a faulty socket-outlet (or connection).**
- h) remove the cover of the plug. Check that the flexible cable is properly secured in the cord anchorage - gripping the sheath so that there is no strain on the cable cores or the terminations.
- i) if the plug is of the non-rewirable type, the cable grip should be tested by firmly pulling and twisting the cable. No movement should be apparent.
- j) check that the cable core terminations are tight, the plug is correctly connected, there is no excessive removal of insulation, that there are no loose strands and the cable cores are not strained.
- k) the fuse should be securely gripped, and should not show any signs of overheating.
- l) Check that the fuse is to BS 1362 and is approved - an ASTA mark shows that it has been approved for safety. Check the rating of the fuse - most appliances up to about 700 W should have a 3 A fuse fitted (red). For appliances over about 700 W fit a 13 A fuse (brown). Non-rewirable plugs will have the appropriate fuse rating marked on them.
- m) when replacing the plug cover check that it fits properly and will not come loose during use.
- n) check the flexible cable connections and anchorage at the equipment, if practicable.



Appendix 4: Recommended in-service inspection and test frequency

A stringent test frequency cannot be set for all types of equipment and environments; however these test frequencies are given as a general guide for compliance. Test frequencies may be decreased if offset by formal visual inspections and backed up with evidence of limited failure rates and faults found. However any variation from the guidance in Table 1 must be agreed with Health & Safety Services. Where there is evidence of regular damage to equipment and higher failure rates are recorded, more frequent in service inspection and test will be necessary.

Area where equipment is used	Type of equipment	Class of equipment	Visual inspection / frequency	Combined inspection and test / frequency
Low risk Office	Battery operated equipment less than 40V	n/a	Not required	Not required
	Extra low voltage equipment less than 50V AC (e.g. telephone equipment, some desk lights).	n/a	Not required	Not required
	IT and general office equipment that is occasionally moved (e.g. photocopiers, fridges, desk top computers, shredders)	Class 1 earthed	Visual inspection 24 months	48 months
		Class 2 double insulated 	Visual inspection 24 months	Not required
	Mobile equipment that is moved in use, or is likely to be moved frequently (e.g. kettles, fans, heaters)	Class 1 earthed	Visual inspection 12 months	12 months
		Class 2 double insulated 	Visual inspection 12 months	Not required
Medium risk Laboratories, workshops, food pilot plant, kitchens and hotels / residential accommodation	IT and other equipment that is not moved frequently (e.g. microwaves, scientific analytical equipment)	Class 1 earthed	Visual inspection 24 months	24 months
		Class 2 double insulated 	Visual inspection 24 months	24 months
	All mobile and handheld equipment (e.g. kettles, fans, heaters, extension leads, food blenders,	Class 1 earthed or Class 2 double insulated 	Visual inspection 12 months	12 months

	laboratory & scientific equipment, workshop equipment and power tools)			
<p>High risk</p> <p>External environments, harsh environments e.g. exposure to chemicals, water, solvents, dust etc. farms, grounds equipment, construction sites, catering kitchens, or equipment moved in vehicles.</p>	All portable equipment, extension cables, detachable leads and plugs connected to class 1, battery charging equipment.	<p>Class 1 earthed or Class 2 double insulated</p> 	<p>Visual inspection 12 months</p>	12 months
<p>Industrial</p>	110v equipment	<p>Class 1 earthed or Class 2 double insulated</p> 	<p>Visual inspection 12 months</p>	12 months

Appendix 5: Using the university-appointed contractor to undertake PAT testing

A contract for Portable Appliance Testing (PAT testing) has been awarded to specialist contractor. The contractor contact details can be found on our University Procurement webpages.

University Schools and Functions should place orders for their PAT testing **directly** with the contractor. [A PAT scheduling form is provided on the H&S Service webpage](#). Schools and functions should advise the contractor that the work is to be undertaken in accordance with the University of Reading Term Contract. The contractor will require the following information to raise a quotation and subsequently to book the work:

1. An official University Order (if booking by telephone, the order number should be quoted and then issued by post).
2. The full address of the School or Function to be tested
3. A local contact name and their details of whom the contractor engineers should report.
4. An approximate number of appliances to be tested (the contractor can provide details of the number of tests conducted on the previous year – numbers will vary annually. See Appendix 4).
5. How soon the appliances will be 'out-of-date' and due for re-testing.
6. The access days and times when the work can be done (i.e. between 9am and 5pm Monday to Friday).
7. A list of rooms/areas to be visited, and the buildings numbers/names. Where possible how to arrange access to keys and door codes.
8. Information about any special risks or restrictions that may apply. See later below.

The contractor will publish test reports for School/Function to the individual that raises the PAT purchase order. This individual will also be provided with a pass code to allow online access to a secure file of test results for the current and previous years.

Under the terms of their contract, if the contractor engineers find any minor faults whilst they are on site (e.g. blown fuses, damaged plugs or loose plug connections), they will carry out these repairs. However, if they find any equipment with serious electrical faults, they will advise the owning department by means of daily failure reports (item locations and failure reasons) and affix labels indicating that the equipment must not be used. The School/Function must make these items inaccessible and subsequently arrange for repair (and re-testing) or suitable disposal.

Normal University practice is that PAT testing contractors should not have access to higher hazard areas where access is restricted to authorised personnel only. Examples are containment level 2 laboratories, workshops, the Bioresource Unit, radiation laboratories and plant rooms. If it is proposed to have PAT testing in these and similar areas undertaken by contractors, it is the School's/Function's responsibility to ensure that the contractor staff are adequately instructed about any risks and safe systems of work, and that they are appropriately supervised. Higher risk areas (Safety Note 56) must be identified in writing to the contractors with a written declaration that these areas are safe for them to conduct testing in. The University Permit to Work system for laboratories and workshops (Safety Note 58) must be used.

14 VERSION CONTROL LOG OF DOCUMENT CHANGES

Version	Changes	Author	Approved by	Approval date	Published date
7.0		H&S Services	UHSW Com.	October 2011	October 2011
8.0	Minor revision to update for changes in provisions of: the external contractor, the building manager role, and the University student accommodation.	S. Ansell, H&S Services	UHSW Com. Chair by means of correspondence	19/05/20	07/08/20
9.0	<ul style="list-style-type: none"> • Revision of Appendix 4, schedule of visual inspection and combined tests (PAT). • Weblink corrections • Inclusion of weblink to the H&S Service PAT scheduling form 	S. Ansell, H&S Services	UHSW Com.	02/02/23	13/02/23