

Portable Appliance Testing (PAT) Standard

Low risk environments

This section of the PAT Standard should be read in conjunction with 'PAT Explained'.

What is a low risk environment?

Low risk environments at the University include offices, seminar rooms (but not computer rooms) and retail shops on campus.

How often should PAT be carried out?

University guidance on the frequency of simple visual checks, formal visual inspection and combined PAT is summarised in the tables below for common types of equipment. See the Glossary of Terms on the University's Electrical Safety webpage for an explanation of Class I and Class II electrical equipment.

The person responsible for a particular area or electrical equipment may wish to carry out PAT more often, however the frequencies indicated below should be the minimum. See Points of Contact – Electrical Safety should further clarification be needed.

LOW RISK ENVIRONMENTS					
Equipment Type	Class	Example/s	Type of PAT and guide frequency		
	(See Glossary of Terms)		Simple Visual Check ¹	Formal Visual Inspection	Combined PAT (Note: may be required earlier in some circumstances. See 'PAT explained')
Second hand equipment	Any	Portable electrical equipment to be used on University premises	Yes	No	On receipt before use, then according to equipment type or local rules
Contractor owned equipment, including sub contractors	Any	Portable electrical equipment to be used on University premises e.g. used by maintenance contractors, entertainers	Yes, by contractor	Required should the equipment become faulty	Person assigning work / appointing contractor to check PAT label is in date OR Contractor to provide written record of combined PAT for electrical equipment to be used OR Written agreement in place. Lead contractor is responsible for ensuring all equipment has up-to-date combined PAT.
Battery operated: Less than 40 volts	-	Battery charged: • Drill • Screwdriver	No	No	No
Battery charging equipment plugged into mains	-	• Rechargeable battery charger • Laptops • Any charger with a 240 volt trailing lead between plug & charger	Yes	Yes, 1 - 3 years	No

¹ When installed, moved or may be included as part of an annual health and safety inspection

LOW RISK ENVIRONMENTS					
Equipment Type	Class (See Glossary of Terms)	Example/s	Type of PAT and guide frequency		
			Simple Visual Check ²	Formal Visual Inspection	Combined PAT (Note: may be required earlier in some circumstances. See 'PAT explained')
Battery charging equipment with transformer or USB connection built into plug	-	I-Pad or mobile phone charger.	Yes	No	No
Mains supply, extra low voltage: Less than 50 volts AC	-	Low voltage desk light Phone with digital display Answer machine	Yes	No	No
Information technology equipment	I, II ³	Desktop computer Laptop Notepad / tablet Printer Portable projector ⁴	Yes	Class II: 3 years	Class I: 3 years Note: ISS maintenance contracts do not include PAT
Office equipment: Not hand-held during use, rarely moved	I, II ³	Large printer Photocopier Fax machine Shredder Scanner Laminator Desk / pedestal lamp Desk / pedestal fan	Yes	Class II: 3 years	Class I: 3 years
Hand-held equipment: Earthed	I	Tools and cleaning equipment labelled as Class I	Yes	No	Annual
Portable equipment: Earthed	I	Electric kettle Toaster Coffee percolator Iron (residences) Equipment which reaches high temperatures	Yes	No	Annual
Larger equipment rarely moved	I	Water cooler Fridge / freezer Cooker Dishwasher	Yes, only when installed or moved	No	3 years
Portable equipment: Double insulated	II	Microscope	Yes	No	2 years
Cables (leads and plugs connected to the above) and mains voltage extension leads	I	Cables Extension leads Multi-way adaptors	Yes	No	1-3 years depending on the type of equipment it is connected to (frequency as shown in this table)
Plug-in Residual Current Devices (RCD's)	-	Portable RCD	Yes, check 'test' button at time of use and for cracks or damage	Annual	RCD to accompany equipment to be PAT Request RCD test to be carried out at same time
Vending machines	I	Vending machine	Yes	See combined PAT	Responsibility for maintenance inc PAT to be confirmed when contract is made with supplier; annual minimum

² When installed, moved or may be included as part of an annual health and safety inspection

³ The PAT tester can advise which Class applies.

⁴ Ceiling mounted projectors should all be connected to the mains services via a 13amp plug and socket and are to be tested as part of the PAT regime. Any existing units wired into a fused spur should be referred to the Estate Management Section Helpdesk or facilities management provider (see Points of Contact) and will be modified by the electrical team. Department / Section / Business Units should check who is responsible for PAT of ceiling mounted projectors located in their area.

Who carries out PAT?

Simple visual checks by users of equipment

A simple visual check can identify the majority of potential problems. Every person, whether University staff or otherwise, is encouraged to carry out simple visual checks of the electrical equipment they use, when it is first installed and whenever it is moved to a new location. Checks may also be included as part of an annual health and safety inspection.

The guide on how to carry out simple visual checks on electrical equipment should help to identify any immediately visible signs of damage. This guide may be presented as part of a group briefing and/or made available to individuals.

Where there are any concerns, do not use the equipment; switch it off if safe to do so and immediately contact the person responsible for electrical safety in that area or for that activity.

Provision of PAT by EMS Electrical Team

The Estate Management Section (for the Colchester campus) or facilities management provider (for Loughton and Southend campuses) will provide an authorised PAT tester to carry out PAT against an up-to-date inventory. It is the responsibility of the Head of Department / Section / Business Unit to arrange this, to supply an accurate inventory of items to be tested and to ensure all electrical equipment receives a combined PAT in line with University guidance.

Will there be a charge for PAT?

Note: Where charging applies for works carried out by the Estate Management Section or approved facilities management provider, this will be based on the amount of time spent to carry out testing, and to travel where PAT is not carried out at the Colchester campus. A quotation can be obtained by sending an email to the Estate Management Section Helpdesk ('faults').

University owned electrical equipment of a general office nature

Where an inventory is submitted by University of Essex academic departments or Professional Services according to the guidance for low risk environments or higher risk environments or activities, there will be no charge.

Where equipment is not recorded on the inventory or if there are any items that could not be inspected or tested at the time when a formal visual inspection and/or combined PAT have been arranged for, charges may be made for significant additional work which was not planned or for the PAT tester to re-visit at a later time. Examples might include where equipment cannot be readily found or is held in locked or inaccessible areas.