



What are the recommended PAT testing frequencies?

Find out about PAT testing frequencies and how often you should PAT test here

Understanding & implementing PAT Testing Frequencies

There are many questions raised when implementing a PAT Testing programme or advising potential clients on 'How often should PAT Testing be carried out?'

Its important to note that although there is no formal legislation stating 'Thou shall do PAT Testing' there are legal obligations to ensure equipment in the workplace is fit for purpose & safe to use & they best way to achieve this is with a preventative maintenance programme.

There is a perception that PAT Testing should be carried out on an annual basis although this is not always the case & the frequency of PAT Testing should be based on a Risk Assessment approach. Regular visual inspections by both the user & formal visual inspections carried out by a competent person would dramatically reduce the risk of an electrical appliance as visual inspections cater over 90% of appliance failures.

The Legal Obligations

Electricity at Work Act (1989)

4 (2) As may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practicable, such danger.

4 (3) Every work activity, including operation, use and maintenance of a system and work near a system, shall be carried out in such a manner as not to give rise, so far as is reasonably practicable, to danger.

4 (4) Any equipment provided under these Regulations for the purpose of protecting persons at work on or near electrical equipment shall be suitable for the use for which it is provided, be maintained in a condition suitable for that use, and be properly used.

The Management of Health and Safety at Work Regulations 1999

Every employer shall make suitable assessment of the risks to health and safety of his employees to which they are exposed whilst at work and the risk to the health and safety of persons not in his employment arising of or in connection with the conduct by him of his undertaking.

Existing Guidance & Codes of Practice

- HSE Guidance Note HS (G) 107 and IEE Code of practice were introduced in 1994.
- HSE Guidance Notes are published alongside IEE (now IET) updated Codes of Practice.
- The current IET Code of Practice is the 'IET Code of Practice for in-service inspection & test' 4th Edition.

Determining the frequency of PAT Testing

There are a number of things that need to be considered when determining the frequency of PAT Testing. It basically comes down to the higher the risk the more frequent inspection & testing should be carried out. It is down to the 'Duty Holder' to assess the electrical appliances within their control & in conclusion implement a preventative maintenance programme for in-service inspection & testing. To do this they would need

to consider the following:

1. Equipment Type (portable, hand held or transportable)
2. Equipment Class (Class I or Class II)
3. Equipment use (continuous, infrequent, rough)
4. How long equipment has been in service (Age)
5. If equipment is moved around & how frequent
6. Competence of personnel using the equipment
7. Where equipment is used (outdoors, construction sites, hazardous atmospheres etc).
8. Previous test results
9. Manufacturers guidelines & recommendations
10. Equipment modifications or repairs

PAT Testing Frequency Table

Below is a table offering guidance on how often PAT Testing should be carried out based on the criteria covered with a Risk Assessment approach. It is very common for PAT Testing frequencies to be the carried out at the longest suggested frequency, but these frequencies are suggested on the basis that both User Inspections & Formal Visual Inspections take place as well as combined inspection & test.

Type of business	User checks	Formal visual inspection	Com and
Equipment hire	N/A	Before issue/after return	Before
Battery operated equipment (less than 40 V)		No	No
Extra low voltage (less than 50 V ac), telephone equipment, low-voltage desk lights	No	No	No
Construction 110V equipment	Yes, weekly	Yes, monthly	Yes, site then
Construction 230V equipment	Yes, daily/every shift	Yes, weekly	Yes, site t

Fixed RCDs	Yes, daily/every shift	Yes, weekly	Yes, before first use on site then 3-monthly (portable RCDs monthly)	
Equipment site offices	Yes, monthly	Yes, 6 monthly	Yes, before first use on site then yearly	
Heavy industrial/high risk of equipment damage (not construction)		No	Yes, 2-4 year	No if other
Light industrial		Yes	Yes, before initial use then 6-monthly	Yes,
Office information technology rarely moved, eg desktop computers, photocopiers, fax machines		No	Yes, 2-4 year	No if other
Double insulated (Class II) equipment moved occasionally (not hand-held), eg fans, table lamps		No	2-4 years	No
Hand-held, double insulated (Class II) equipment, eg some floor cleaners, some kitchen equipment		Yes	Yes, 6 months - 1 year	No
Earthed (Class I) equipment, eg electric kettles, some floor cleaners		Yes	Yes, 6 months - 1 year	Yes,
Cables, leads and plugs connected to Class I equipment, extension leads and battery charging equipment		Yes	Yes, 6 months - 4 years depending on type of equipment it is connected to	Yes, depending on equipment connected

Note: Cables, leads and plugs connected to Class II equipment should be maintained as part of that equipment. Cables leads and plugs not

dedicated to an item of equipment should be maintained as individual items as appropriate. Over time, when you look at the results of user checks, formal visual inspections and portable appliance tests you will notice trends. These may tell you that you need to look at or test electrical equipment more or less often, depending on the number of problems being found. If electrical equipment is grouped together for testing at the same time, you should use the shortest testing interval in the group rather than the longest.

Alternatively, it may be appropriate to group your electrical equipment by testing interval. The IET Code of Practice has a similar table but with the information presented in a slightly different manner. In some instances with more detail and specifics, however, the two sets of information are considered to be consistent with each other.

User inspections can be carried out by any member of staff but are non-intrusive & would not be expected to start opening up plug tops or casing for a full visual inspection. These do not need to be logged but there should be a process in place that they can follow to log any faulty equipment found. It is recommended that staff are put through basic 'User Visual Inspection Training'.

Formal Visual Inspection & combined Inspection & Test should be carried out by the competent person.

Environment - Please note that it's very likely different areas in your place of work will fall under the different environments listed in the above table & not all under 1 environment. As an example in a College, IT Equipment Class I (used by students) would come under Schools & require 12 month combined inspection & test whereas IT Equipment (not used by students) could come under the office environment & therefor requires 60 month combined inspection & test.

Equipment Type

- S = Stationary. A piece of equipment or appliance that has a mass exceeding 18kg in weight & does not provide a carrying handle.
- IT = Information Technology equipment includes computers, mains

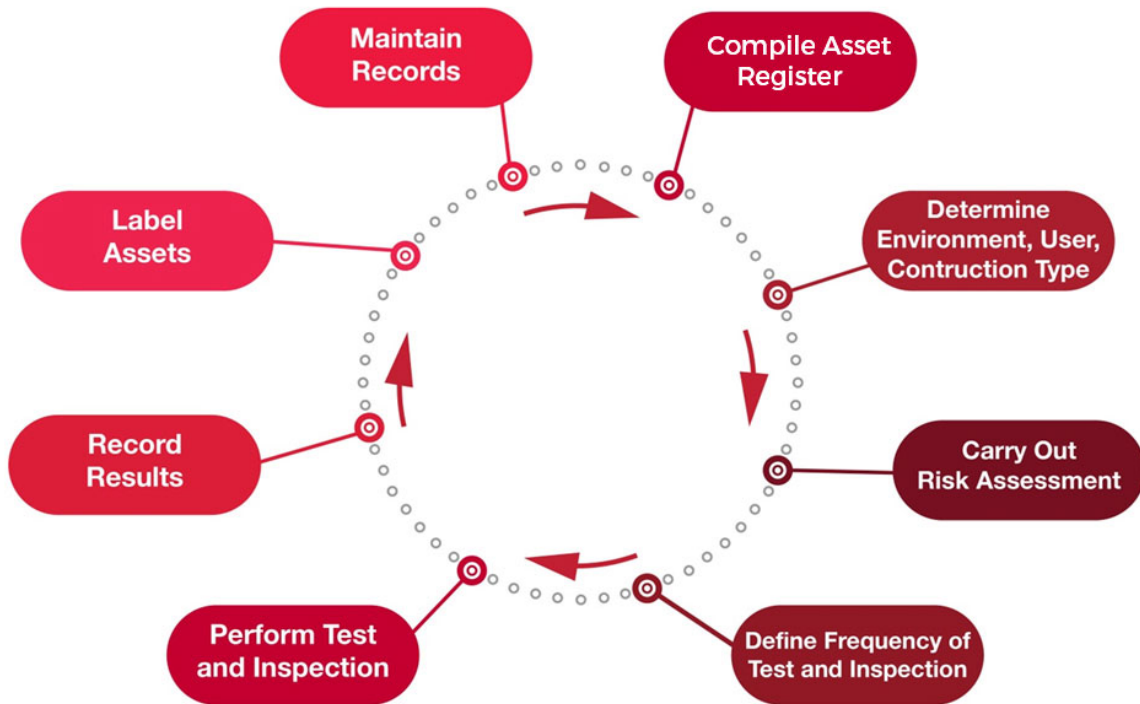
powered telecommunications equipment & other equipment used in general business use.

- Movable = Equipment 18kg or less & is not fixed.
- Portable = An item less than 18kg & is intended to be used whilst in operation or an item that can be easily moved from 1 place to another.
- H= Hand-held. An item that is held in the hand during normal use.
- F – Fixed. Equipment that is fastened to a support or otherwise secured in a specific location. It also includes equipment connected to the fixed installation via a Fused Connection Unit (FCU).

NOTE

- The formal visual inspection may form part of the combined inspection and tests when they coincide and must be recorded.
- If class of equipment is not known, it must be tested as Class I
- The results of formal visual inspections & combined inspection and test are recorded
- For some equipment such as children's rides a daily check may be necessary
- (+) By supervisor/teacher/member of staff
- # 110V earthed centre tapped supply 230V portable or handheld equipment must be supplied via a 30 mA r.c.d. and the intervals between inspections and tests reduced

Demonstrating Compliance



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