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## ortable Appliance Testing

The Provision and Use of Work Equipment Regulations 1998 (PUWER) states: “Every employer shall ensure that work equipment is so constructed or adopted as to be suitable for the purpose for which it is used or provided.”

The Electricity at Work Regulations 1989 says: “As may be necessary to prevent danger, all systems shall be maintained so as to prevent so far as reasonably practicable, such danger.”

This means that employers must ensure that all electrical work equipment is safe, suitable for the purpose and properly maintained in good order.

The scope of the legislation covers everything from small portable equipment to fixed distribution systems. The requirements apply to fixed and “hard-wired” electrical appliances such as hand driers in washrooms or ovens in commercial kitchens, in addition to portable and hand-held appliances which plug-in, such as drills or vacuum cleaners, both single and three phase.

Users of equipment should be encouraged to check the condition of the equipment prior to use. It is relatively easy for people to spot and report signs of damage, overheating and misuse. A regular formal visual inspection should be carried out by someone who has been properly trained to perform a more thorough check including examining plugs, fuses, flexible cables, and cable clamping arrangements etc.

Faults may arise in electrical equipment that may not be readily apparent. For example, internal damage may result from misuse or internal electrical connections may deteriorate over time. One way to identify such defects is through an electrical test which is done using a portable appliance test (PAT) instrument. In low risk environments, a properly trained member of staff can perform these tests using a PAT tester on appliances disconnected from the electrical supply. In higher risk areas a more highly trained specialist may be needed to disconnect the equipment from the electrical supply, perform complex tests and interpret the results.

There are no set periods for formal visual inspection and test. The maintenance regime should be appropriate to the environment and the task for which the equipment is used. Although there is no mandatory requirement to keep records on PAT testing, in the event of a prosecution arising from an injury relating to a portable appliance, it would assist the employer’s case if they can produce records to indicate that they had taken reasonable actions to comply with the Regulations.

*The Institution of Engineering and Technology has a range of guidance notes covering electrical testing regimes. [www.electrical.theiet.org](http://www.electrical.theiet.org)*