

## PORTABLE AND TRANSPORTABLE ELECTRICAL APPLIANCES

### 1.0 INTRODUCTION

All electrical installations in workplaces are subject to the Electricity at Work Regulations 1998. The requirement relating to the maintenance of electrical equipment is contained in Regulation 4(2) this states:

*“As may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practicable, such danger”*

The word “system” as defined in the regulations means an electrical system in which all the electrical equipment is, or may be electrically connected to a common source of electrical energy. The definition therefore embraces all possible situations and includes all items of portable and transportable electrical equipment.

Portable and transportable equipment is generally equipment which has a lead and plug and which is normally moved around or can be moved from place to place e.g. vacuum cleaners, kettles, floor scrubbers, heaters, fans, desk lamps, televisions, all mains powered portable electrical tools; and also equipment that can be moved photocopiers, fax machines, desktop computers etc. The effect of this is to require duty holders to maintain portable and transportable electrical equipment in a safe condition.

It is essential that the maintenance of the items of electrical equipment be undertaken by competent people. **Employees must not** attempt to repair, maintain or adapt **any item** of portable or transportable electrical equipment provided by their employer or used on their employers property or in the case of property managing agents on “clients managed property” unless they are a suitably qualified “competent person” and have written approval from their employer to undertake such work.

However, once the equipment has been safely commissioned and a suitable system of maintenance established with regular formal inspections by a competent person, risk can be further controlled by means of regular visual inspections by the users of the equipment, prompt reporting of faults and appropriate action taken to rectify those faults.

### 2.0 VISUAL INSPECTION BY THE USER

A suitable written checklist compiled to assist with these regular visual inspections by the user who:

will/can ask the questions:-

- Is there any damage to the electrical supply socket to the equipment?
- Does the plug supplying the equipment appear damaged? Is the casing cracked or are the pins damaged?

- Does the plug get hot when the equipment is operating?
- Is the outer sheath of the supply cable effectively secured at the plug end and equipment end?
- Are any of the inner conducting cables visible?
- Is the cable supplying the equipment sufficiently protected along its length to prevent damage?
- Is the cable supplying the equipment free from defects, temporary joints or kinks along its full continuous length?
- Are the risks of tripping over trailing leads and of damage to the cable sufficiently minimised?
- Is there any damage to the external casing of the equipment, or are there any loose parts or loose/missing screws?
- Is there any evidence of the equipment or the cable supplying it overheating?
- Does the equipment operate satisfactorily at all times with no evidence of an intermittent or continuous fault?
- Is the equipment used in unsuitable conditions, e.g. where it is dusty, wet or damp.

Where the visual inspection identifies a fault, the fault should be reported to management, the equipment then requires to be withdrawn from service, suitably marked “not to be used” and stored until it can be repaired and certified safe to use by a competent person, or disposal is arranged.

### 3.0 GENERAL

Employees (including client employees on property under management) require to be suitably trained/instructed in the operation and care of the portable or transportable electrical equipment before use, equipment care will normally be described in the manufacturer’s instruction manual.

- **No equipment is to be used unless it possesses a current test certificate.**
- No employee owned electrical equipment is to be brought onto the premises or used on the premises or on behalf of the organisation unless there is evidence that it has been tested and certified.  
**Employees must not** attempt to repair, maintain or adapt **any item** of portable or transportable electrical equipment provided by the Company or used on our Company’s property or managed property unless they are a suitably qualified “competent person” and have written approval to undertake such work by the Company.
- No temporary wiring connections are to be made.
- Wherever possible tools and power socket outlets are switched off before plugging in or unplugging.
- Equipment is switched off and/or unplugged before making adjustments.
- **Do not use** any item of electrical equipment that has an electrical fault of any kind.

- **Never use** electrical appliances in wet conditions unless the appliances are specifically designed for such use e.g. wet and dry vacuum cleaners, scrubbing machines.
- **Always use** a residual current device (RCD) in conjunction with wet duty equipment and all equipment used outside the premises e.g. in yard/car park or garden areas. RCDs are designed to protect the user by fast reaction to short circuit, earth leakages etc. If the RCD trips a fault is indicated. Check the system before using it again.
- Always ensure that extension cables are fully unwound during use. Do not run cables across traffic routes
- Only use cables of the correct length. Do not allow them to become stretched.
- Do not break used light bulbs, tubes etc. which may contain hazardous substances (e.g. mercury).
- Remember that people fitted with pacemakers or similar equipment should not enter high voltage areas.
- Be aware that equipment such as photocopiers, televisions and electrostatic air precipitators may retain their charge (which can be up to 15,000 volts) for a considerable period of time after disconnection.
- **Wherever possible** consider using safer alternatives e.g. 110 volt equipment, battery powered tools, petrol driven garden equipment.

#### 4.0 INSPECTION BY A “COMPETENT PERSON”

All items of portable electrical equipment used by employees are to be regularly tested for electrical safety by a competent person and all such tests are to be identified on a signed tag or label secured to the item of equipment also stating the last test date and retest date. Test equipment usually incorporates a facility for printing out details of the test. This test record should be retained and also checked against the equipment register to identify missed or new appliances.

Extension leads are classed as portable electrical equipment and as such require regular testing for electrical safety.

The frequency of testing will depend on the individual item, the level of duty and the conditions under which the equipment is used. Equipment for external (garden / grounds maintenance) use is likely to require more frequent testing than internally used equipment. Equipment such as vacuum cleaners, floor scrubbers, electric kettles, extension leads, hand-tools are normally tested on an annual basis.

The competent person is required to carry out a preliminary visual inspection to ensure there is no sign of physical damage to the equipment, electrical plug or cable followed by a more detailed inspection for:

- Cracking or perishing of the cable insulation.
- Damaged or loose cord grip where the cable enters the plug and the equipment.
- Cord grip not holding the cable over the outer insulation.
- Damage to the fuse holder.
- Incorrect fuse.
- Loose screws in the plug pins.
- Bent pins in the plug.
- Damage to the outer casing of the plug.
- Incorrectly routed cables/wiring.
- Incorrect wiring.
- Live pin - Brown or Red.
- Neutral pin - Blue or Black.
- Earth pin - Green/Yellow or Green.
- Corrosion on terminals or pins.
- Evidence of arcing on pins.
- Dirty or fractured outer casing of equipment.
- Cable outer cover damaged.
- Missing items (e.g. securing screws etc.).

## **5.0 ELECTRICAL TESTING**

Only qualified electricians or competent persons shall undertake electrical testing.

## **6.0 COMPLETION**

If the equipment is serviceable, the electrician or competent person is required to record the fact in the Electrical Equipment Register and complete the Test record sheet.

Where the visual inspection identifies a fault, the fault should be reported to management, the equipment should be then withdrawn from service, suitably marked by the tester “not to be used” and stored until it can be repaired and certified safe to use by a competent person or disposal is arranged.