

PORTABLE ELECTRICAL APPLIANCE – VISUAL INSPECTION GUIDE.

It is helpful if a user does regular visual checks as part of ongoing awareness and vigilance. Ideally, this should be performed prior to every use, most faults electrical appliances can be found just by looking. Users should be encouraged to take a "critically" look at the electrical equipment in their working environment before use. The following may be used a general guide but is not necessarily exhaustive or applicable to every situation.

IMPORTANT - Conducting a visual check requires manual handling of electrical leads and appliances. Persons must wear appropriate PPE and ensure items are NOT energised, unplugged from socket.

1	Residual current devices (RCDs)	
1.1	Are portable RCD powerboards in good working condition and have they been tested?	<i>Individual socket switches and safety drop switch work quick and efficiently and are free of foreign matter. No cracks in powerbox, manual drop test button works quickly. No exposed wires at lead entry points.</i>
2	Portable Electrical Appliances (computers, tools power adapters etc.)	
2.1	Are all portable power appliances in good working condition?	<i>Appliance has no cracks, breaks, splits or hairline fractures in outer casing, Double insulated items have no deep engraving (particularly by solder iron), casing not loose and chassis can take degree of rough treatment, i.e. when twisted. Appliance rating/warning are assigned to equipment, intact and legible. Device switches turn on and off including release of temporary held on switches (dead mans switch - drills, grinders etc.). Safety guards and covers are attached to the appliance, not altered or removed. Appliance leads are no greater than 1.8 meters in length.</i>
3	Flexible cord assemblies (extension lead and powerboard sets)	
3.1	Do all connections have either moulded or transparent type plugs and sockets'?	<i>Mandatory on construction sites only. Sockets on leads must have protective skirt/shroud, plug pins Active/Neutral are insulated at base.</i>
3.2	Are all Plug and Sockets in good condition?	<i>Plug pins are NOT loose, bend or twisted, Active & Neutral pins same length, Earth pin to be longest and NOT altered (filed down) to accommodate lower amp socket. If Active Neutral pins have insulation - not damaged. No exposed core wires at plug & socket fitting (evidence plugs are being remove by cord rather than holding plug). No brown burning discoloration (carbon flash), socket hole irregularities (enlarged), Current rating (amp) of plug and socket match, or plug greater than the rating of the socket, or maximum load of device.</i>
3.3	Are all leads in good condition?	<i>Lead is free of internal bumps, kinks and twists, foreign bodies such as staples, pins glass cuts and or deep abrasions that expose the basic insulation layer. Lead is flexible not stiff or ridged. Cord entry stress points are not loose. No evidence of overheating such as even repeated curl and twisting (Pig tail). No metallic items attached to directly to the cord (drill chuck, Metal ID tags etc) No Non-propriety joints, including taped joins and repairs in the cable. Lead entry grommets are not damaged particularly into metal appliances and enclosures.</i>
3.4.5	Are leads fully unwound "ran out" before use?	<i>Coiled leads generate heat, overheating causes a "pigtail" effect and breaks down insulation.</i>
3.5	Are all powerboards in good condition?	<i>Ventilation inlets/outlets are free from blockage - tape, dirt and dust build up. No foreign objects, rattles inside, lose or broken casing. Load rating of powerboard clearly legible. Powerboards should never be covered by combustible materials such as office paper, plastics, books, clothing and bags. The piggybacking of power-boards is not recommended as this causes excessive heat and may cause current overload. If you need to piggyback powerboards have a registered electrician install an extra power point.</i>