



Electricity Industry Bulletin No: 50 March 2003

FOR THE ATTENTION OF ALL ELECTRICAL WORKERS

1. ACCESS TO SOCKET OUTLETS

Kitchen appliances like refrigerators, freezers, dishwashers, microwave ovens and range hoods are commonly recessed into built-in cupboards. These appliances all come supplied with a flexible cord and plug. To avoid the cords being unsightly and in the way, socket outlets are fitted within cupboards in close proximity.

The wiring rules require that each socket outlet must be installed so that any plug to be used with the socket outlet can be conveniently inserted or withdrawn and not cause damage to any cord or cable (clause 4.9.2.1, AS/NZS 3000:2000 Accessibility).

In most cases this means the socket outlet must not be installed behind the appliance or even in the same recess but is commonly installed in an adjacent accessible cupboard or section.

Exceptions would be where:

- a microwave oven is not totally inbuilt and sits on a shelf that has room on either side of the oven, this would allow the microwave to be easily moved sideways to gain access to the socket outlet
- a socket outlet is mounted at the top of a recess for a refrigerator or freezer, allowing access over the top of the appliance
- wheels are fitted that allow the appliance to be easily moved in order to gain access.

Where an appliance cord passes through a dividing section of a cupboard, the hole for the cord must be large enough to allow the attached plug to pass through the hole. If it is necessary to vermin-proof the section, then a removable surround can be fitted to provide a neat fit around the cord yet still allow passage of the plug when required.

2. USE OF ELECTRICAL INSULATION TAPE

PVC tape is one of those items every electrician carries on their tool belt for a multitude of uses: to wrap around a cut finger, retain a length of rolled up cable or tie a bundle of conduit together. Unfortunately, it is often used inappropriately, to support cables in suspended ceilings or protect against contact with live parts.

The glue used in standard grades of tape is not intended to make the tape suitable as a permanent fixing for cables. If the tape is subjected to elevated temperatures, it may unravel.



Protection against direct contact with live parts must be provided in accordance with Clause 1.7.3.2 of AS/NZS 3000:2000. As the manufacture of tape varies in thickness, dielectric strength and UV stabilisation, the onus is on the electrician to ensure compliance with AS/NZS 3000:2000, particularly clauses 3.3.12 and 3.7.2.2.

Note: at least one manufacturer produces a lead free PVC tape. This new PVC compound is much safer for the environment; check with your wholesaler.

3. MATES RATES

'Mates Rates' is a term we occasionally hear out in the field. One instance recently came to light where an unlicensed property owner put a 'Mates Rates' proposal to their 'mate' who held an electrical workers licence. In the case in question, the unlicensed property owner carried out the bulk of the proposed electrical work with the intention of having their electrical 'mate' undertake the fit off.

Once the Electrical Safety Regulator became aware of the situation, several things happened. Firstly, the electrical 'mate' disappeared. Secondly, as the property owner had selected and installed the wrong conduit underground. The Electrical Safety office issued a safety report requiring the conduit wiring system be upgraded to the correct requirements. It also required a licensed electrical contractor to carry out the work and certify it.

Consequently the property owner has paid a lot of money to have the situation made good. They are also subject to possible action by the licensing board; the electrical 'mate', when located, will be asked several questions about their involvement.

The property owner would have been better served by his 'mate' if the work had been done legitimately. The cost both financially and personally would have been far less.

Remember to treat your mates like you would your clients. Give them the best advice and don't let them down.

This article has been substantially based on an editorial published December 2002 by the Electricity Safety Regulator, Darwin, Northern Territory. Electricity Standards and Safety acknowledges their consideration in reproducing this article.

4. CONNECTION BY PLUG AND CORD

Compliance Inspectors are continually finding that cables used as extension leads are inappropriate. Building cables such as TPS and orange circulars are not designed or acceptable for use as flexible cables, and if found in service will have the plug and socket removed.

Similarly, extension leads used on construction sites or at shows and carnivals that are either not correct or unsafe will be removed from service.

5. DISCIPLINARY ACTION TAKEN

A southern electrical contractor and technician (the same person) appeared before the Disciplinary Panel for being responsible (both as a technician and as a contractor) for defective electrical work and failing to ensure that electrical work:

1. carried out under his contractor's licence was properly managed or supervised
2. complied with AS/NZS 3000:2000
3. carried out under his contractor's licence was performed by licensed technicians or apprentices.

The contractor employed two unlicensed technicians to perform electrical work for him on no less than 16 occasions.

Over five months, the contractor lodged more than 20 electrical installation notices that had defects. Most defects were those of his employees but many were his own.

The Panel made its recommendation to the delegate of the Regulator, Mr S J Hyam.

As an electrical contractor, he was given a formal written reprimand by Mr Hyam. As a technician, he was compelled to commence and conclude a training course to refresh his skills and knowledge.

These mitigating factors were influential in determining these penalties:

- the Panel chose to make no recommendation about the defective work
- re-inspection fees exceeding \$1,000 had already been sustained.

Mr Hyam said that he had no power under the *Electricity Industry Safety and Administration Act 1997* to fine licence holders although re-inspection fees could be viewed in that way.

In Mr Hyam's view, suspending or cancelling a licence would have been a financial burden similar to a fine and he saw no reason to do either in the light of the burden already sustained.

Mr Hyam said that requiring the licence holder to study at TAFE was recognised as a second financial burden that would act as a personal deterrent, with educational benefits to the licence holder.

6. STANDARDS AUSTRALIA UPDATE

The revision of AS/NZS 3012:2003 Electrical Installations – Construction and demolition sites was published on 31 January 2003.

A number of significant changes were made, including the requirements for:

- switchboards used on construction and demolition sites have been expressed in terms of fitness for purpose, rather than limiting of design
- using residual current devices on portable generators have been clarified
- marking switchboards to warn of the possibility of access to live parts have been included and illustrated
- supplying relocatable construction huts have been clarified.
- inspection of the connection between the generator windings and the equipotential bonding system on portable generators have been included at intervals not exceeding three months.

Contact Standards Australia offices on 1300 654 646 or visit their website at www.standards.com.au for a copy.

**AS/NZS 3000:2000 WIRING RULES
HALF-DAY REFRESHER WORKSHOPS
8 MAY 2003
Contact Standards Australia (03) 6224 2830**

7. OCCUPATIONAL LICENSING - PROPOSAL FOR A NEW ACT

A discussion paper outlining a proposal for a new Occupational Licensing Act governing the licensing of plumbers, gas-fitters, electrical technicians and contractors is now available for public comment.

A departmental committee developed the paper, after discussions between government and industry identified efficiencies and benefits to consumers and to business that would result from developing an Occupational Licensing Act.

The Act would provide for the licensing of tradespersons and contractors in the electrical, plumbing and gas-fitting industries under a single, streamlined administrative system.

The paper is available for comment on the Internet at www.wst.tas.gov.au or by writing to "Occupational Licensing Project", PO Box 56, Rosny Park, Tasmania, 7018.

8. INVESTIGATION OF ELECTRIC SHOCKS

There have been two recent cases where an electrical contractor had been called to investigate apparent electric shocks. In both these situations the electricians were unable to determine the cause and left the site. This was extremely poor judgement, leaving the occupants of the premises in a potentially life threatening situation.

When responding to a customer's call indicating that someone may have received an electric shock, electricians have a duty of care to contact Compliance Inspectors at Aurora Energy to rectify any unsafe situation. Inspectors will respond to reports of electric shock at any time of the day or night and can also either assist the electrician in determining the cause or investigate further to determine if the fault is on the supply side of the consumers main. If you cannot respond yourself then phone Aurora anyway on 132 004 so that someone goes to the aid of the consumer.

9. AS/NZS 3000:2000 CLAUSE 1.5 ALTERATION, ADDITIONS AND REPAIRS (SWITCHBOARDS)

Frequently Asked Questions (FAQs) on wiring rules are available at www.wiringrules.com.au. FAQ No 47 asks the question "what requirements would apply when a new switchboard replaces an existing switchboard".

The answer is the relevant conditions of the following:

- (a) Clause 2.4, Devices for the protection against over current
- (b) Clause 2.5, Protection against earth leakage
- (c) Clause 2.9, Switchboards.

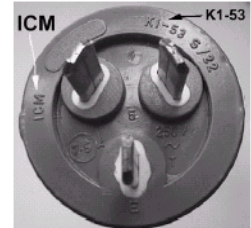
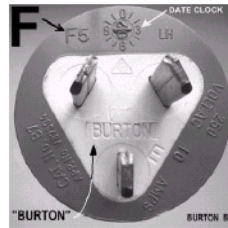
To further clarify the requirements of (b), if the replacement of the switchboard was due to upgrading in relation to building renovations or additions, then RCDs will need to be installed. If the replacement of the switchboard was due to repairs, for example, replacing a burnt out fuse on an old switchboard then RCDs would not be mandatory.

It should be noted that Electricity Standards *and* Safety strongly advocate the installation of RCDs where possible and it is expected that the electrical industry would follow this example.



BURTON AND ICM 3-PIN PLUGS

The continuity in the earth circuitry of ICM branded and some Burton branded plugs has been identified as faulty. The risk of shock or fire would only arise where the plug is attached to an appliance that has a fault which causes the appliance to become “live”.



If you purchased an electrical appliance or an ICM or Burton plug other than an extension lead, after May 2001, look at the plug. See if the plug has 3 pins and either “ICM” or “Burton” on it. If your plug has 3 pins and the letters “ICM” and “K1-53” around the outside edge, you will need to check if your ICM plug either has texta marks on 2 of the pins or has a sticker on it that says “INSPECTED”. If the plug has either of these markings, there is no need to call. If it does not, telephone the Freecall number 1800 728 890 to discuss whether your plug may be affected.

If your plug has 3 pins and the word “Burton” on it and the letters “F” and “B7” on the plug perimeter, then you need to check if in the date stamp (as shown above) there is the number “02” in the centre and an arrow pointing to 4, 5, 6, 7, 8 or 9 o’clock. If it does have these features, and does not have texta marks on 2 of the pins or a sticker on it that says “INSPECTED”, telephone the Freecall number 1800 728 890 to discuss whether your plug may be affected.

If there is a need to inspect or test your ICM or Burton plug, the testing will be done at the company’s expense, and they will come to you.

If you require any additional information in relation to this safety recall, please telephone
Freecall 1800 728 890

LOEWE 70CM AND 72CM CONTUR AND PROFIL TELEVISION RECEIVERS

Models

Contur 1670, (Art No 58404L) 007940 to 011268, 002550 to 003549
Loewe Profil 3563, (Art No 58436L) 005880 to 008752, 001600 to 001850
Loewe Profil 3570, (Art No 58437L) 009229 to 013279, 001270 to 001880
Loewe Profil 3572 (Art No 58438L) 017565 to 027006, 002784 to 003584

Possible manufacturing fault at a solder connection that could lead to over heating with the potential to lead to the possibility of ignition.

Owners are advised to call the Loewe customer line 1800 456 393.

APC BACK – UPS UNINTERRUPTIBLE POWER SUPPLY SYSTEMS

Models

Isolated to: BK325I, BK325-RS, BK350, BK350EI, BK350-AZ, BK350-FR, BK350-GR, BK350-IT, BK350-UK, BK350JP, BK350IX218, BK475I, BK475-RS, BK500, BK500EI, BK500-AZ, BK500-BR, BK500-FR, BK500-GR, BK500-IT, BK500-UK, BK500BLK, BK500JP and BK500TW.

A number of incidents have been reported where the units have overheated, resulting in the melting of the outer casing.

For further information call 1800 652 725 or visit the website www.apc.com

Electricity Standards and Safety

Office: 30 Gordons Hill Road (PO Box 56)
Rosny Park, Tasmania, 7018
E-mail: robert.steedman@dier.tas.gov.au

Telephone: (03) 6233 7831
Facsimile: (03) 6233 8844
Website: www.wsa.tas.gov.au/electricity