



DANGER OF SEPERATION OF ELECTRICAL PLUGS AND SOCKETS SAFETY ALERT

Background

The recent death of a self-employed builder has highlighted the hazard created by extension cord plug and socket connections separating and why a safety switch may have prevented a fatal eclectic shock

The Incident

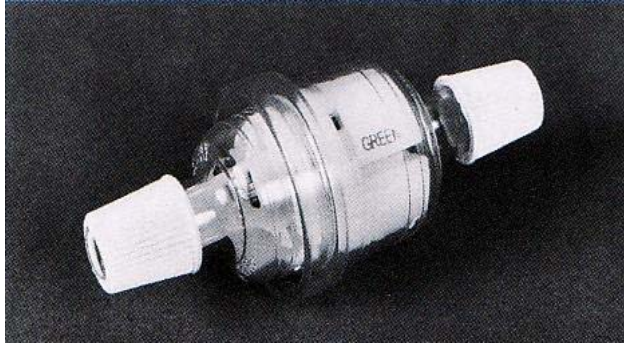
A self-employed builder was using a “nibble” metal cutting tool whilst working on a metal carport roof when the male and female plugs on the extension cord partially separated. This allowed the active pin to touch part of the metal roofing material and make it “live”. When the builder then touched some guttering on an adjacent roof whilst still on the metal carport he would have had “mains voltage” across his body and received a fatal shock.

The accident investigation found that a safety switch was not being used the time of the accident but the victim had one in his vehicle. Subsequent inspections of tests of his equipment indicated that there was no other cause of the accident.

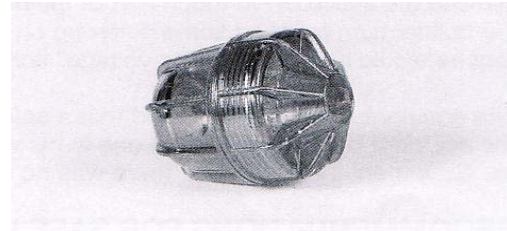
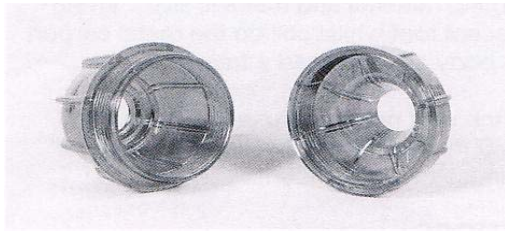
Recommendations for safe practises

- The possibility of plugs and extension cord sockets parting is real. Where work is being done in situations such as, conducting roofs, metal decks of vessels or where puddles of water are present, then it is strongly recommended that **all joined plugs and sockets are covered to** ensure that contact with conductive material is prevented. There are accessories on the market designed for this purpose.
- All workers using portable electric power tools should ensure that the electricity supply incorporates a safety switch (earth leakage residual current device).
- As from 1 August 1997 only *shrouded* extension cord sockets will be available for sale in NSW. These shrouded sockets are designed to that when the plug begins to withdraw from the socket it disconnects before a gap appears between the plug and socket. Photographs of the shrouded type of socket appear below

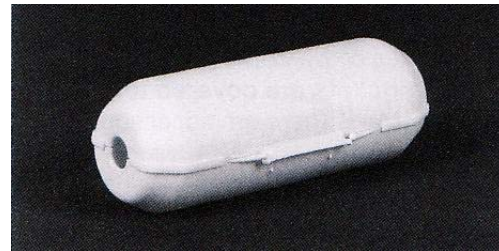
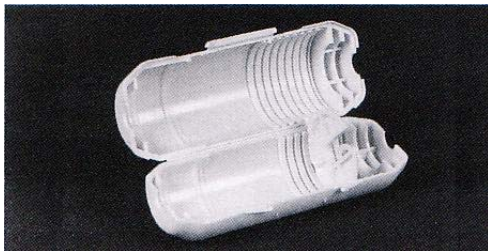
Examples of shrouded sockets



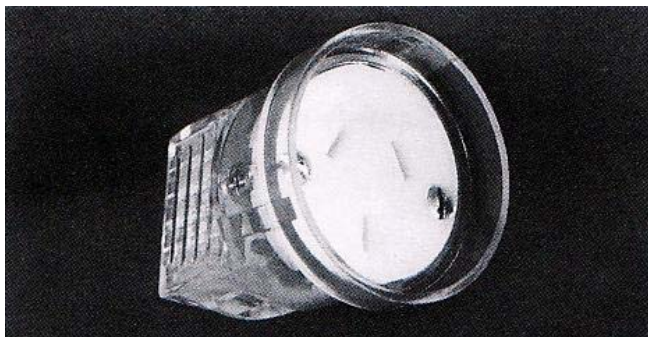
- Shrouded socket: this shows the plug and sock partially separated while still sounding the live pins.



- This is a secure way of preventing unsafe separation of the shroud and socket.



- One piece shroud opens to accommodate engaged plug and socket and when closed contains them in a shrouded environment.



- This socket, of impact-resistant hard plastic, has a moulded grip.

Authorised by Andrew Ferguson, State Secretary, CFMEU (Construction & General Division) NSW Branch,

12 Railway Street, LIDCOMBE NSW 2141 Ph: (02) 9749 0400

Email: enquiries@nsw.cfmeu.asn.au; Web: www.cfmeu-construction-nsw.com

sadangsep.doc