

Universal Socket-Outlets

MARCH 2014

BEAMA takes safety seriously and warns against installation and use of Universal Socket-Outlets.

What are Universal socket-outlets?

Universal socket-outlets are intended to accommodate a variety of plug types used in countries outside of the UK. These universal socket-outlets are a particularly attractive concept for specifiers and installers of electrical services in hotels and other locations where international visitors are prevalent.



Examples of Universal Socket-Outlets

Dangers of use

The use of these socket-outlets introduces a serious risk of electric shock and / or fire.

- Electric shock



The unsheathed pins of a 2-pin plug are accessible during plug insertion and withdrawal. These pins are potentially live and if touched would result in an electric shock.

The use of un-shuttered socket-outlets in households and similar locations is prohibited by BS 7671 (IET Wiring Regulations 17th Edition) due to unimpeded access to live parts within the socket-outlet.

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- Fire

Some universal socket-outlet designs will accept plugs rated at 100 – 120Vac for the connection of items of electrical equipment having a similar 100 – 120Vac rating. Such electrical equipment, specifically those containing motors and heating elements such as hair dryers, travel irons and kettles, will not operate safely at 230Vac. This could cause overheating and fire.

Compliance and legislation

Research¹ commissioned by the Electrical Safety Council and the ensuing test report² issued by a notified body found that the universal socket-outlets assessed did not comply with; the UK General Product Safety Regulations 2005, the safety requirements of the UK 'Plug and Socket Safety Regulations 1994' or *BS 1363* the UK's specification for 13A socket-outlets.

In Conclusions

There are legal implications to installing universal socket-outlets in the UK. The use of universal socket-outlets introduces serious potential hazards including risk of electrocution and risk of fire.

BEAMA recommends that installations where universal socket-outlets are already in use should be subjected to a risk analysis to identify if these socket-outlets are electrically safe. All electrically unsafe universal socket-outlets must be removed from service and replaced with *BS 1363* compliant products.

Furthermore BEAMA calls upon Trading Standards to take appropriate action against the sellers of electrically unsafe universal socket-outlets. Specifiers and installers of electrical services should consider the legal implications of specifying and installing universal socket-outlets in the UK.

Similarly distributors of universal socket-outlets have a responsibility under the General Product Safety Regulations to act "with due care". Distributors should be able to substantiate that the universal socket-outlets they supply are electrically safe.

¹ Electrical Safety Council SwitchedOn Issue 29 Summer 2013 Pages 14 – 15

² A copy of the laboratory test report is available to view in the 'Industry' section of the Council's website www.esc.org.uk