

## Not socket science?

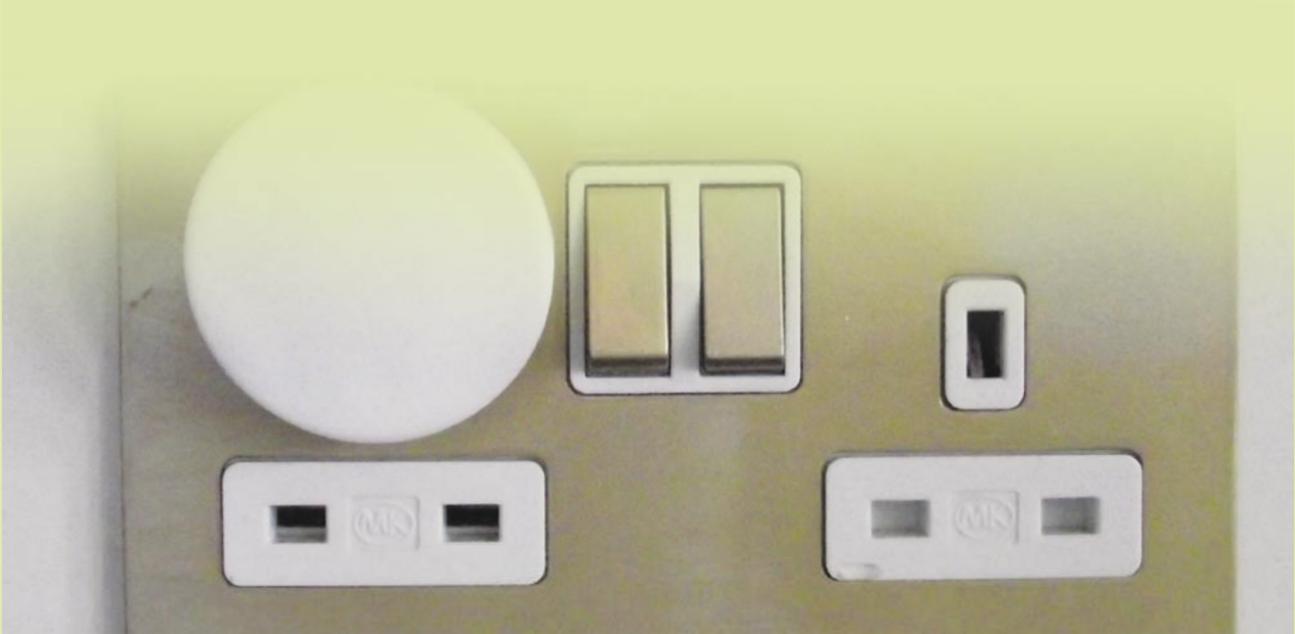


Figure 1 - Wrongly inserted socket protector.

Have a look at the humble UK 3 pin electrical socket. It epitomises what health and safety people call an “engineered control measure”. The steps to protect people from harm are built into it - no need to rely on them putting on protective equipment, no need to rely on them behaving in a sensible manner. A UK socket does this by having the live and neutral terminals covered by a shutter that only opens when the slightly longer earth pin is inserted. This design, to BS 1363, has been around since 1947. Some recent designs need all three pins to be inserted simultaneously before the shutters will open.

We have recently heard of some educational establishments taking further precautions that they feel will make these sockets even safer, namely fitting plug-in socket covers. Is this the right thing to do? The Royal Society for the Prevention of Accidents (RoSPA) [1], after describing the safety features outlined above, has this to say, “RoSPA therefore does not consider it necessary to recommend the use of socket covers.” Others think that socket covers are actually dangerous. If they are not made to the correct dimensions, they can damage the sockets. Many are flexible or brittle, leading to the situation where a child could insert the protector upside down (Figure 1), thus opening the shutters in and exposing live and neutral sockets. Similarly, if the cover snaps when a child attempts to remove it, the

earth pin may remain in place, keeping the live terminal open. The website <http://www.fatallyflawed.org.uk/> has a picture of a paper clip that has been inserted into the live terminal of a socket fitted with a protector.

Advocates of the covers point out that they are not solely to stop children from sticking foreign objects into sockets. They prevent a child from plugging in an iron or electric fire, for example, and burning themselves or starting a blaze. RoSPA’s advice is again helpful. Unused electrical equipment should be kept out of the way of children until they are old enough to be able to use it safely. This seems like a far better control measure than socket covers which may introduce hazards of their own. As we have said before, if your employer tells you that you must carry out a particular action for reasons of health and safety, SSERC cannot over ride that advice, but we are very happy to engage with local authorities and school management/governors when their advice is at odds with our own.

### Reference

[1] <http://www.rospace.com/faqs/detail.aspx?faq=595> (Accessed July 2013).