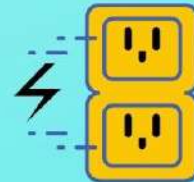




ELECTRICAL SAFETY

Plugs and Portable Socket Outlet (Extension Cord)



Purchase or import of equipment from overseas may not meet the local & NTU electrical safety requirements as the type of plugs varies from country to country. In addition, some plugs are not compatible for use with our building electrical sockets and will lead to unsafe condition or fire.

Plugs must process the
Singapore Safety Mark as shown:



Recommended Approved Plugs

The flat, two-pole, round-pin domestic AC power plug in accordance to EN 50075, rated for voltages up to 250 V and currents up to 2.5 A is a compromise design intended to connect low-power Class II appliances only and to be used with socket receptacle protector as shown.

13 AMP 3 flat-pin fused Plug SS145:1997
For 3-Pin Mains Plug (13 Amperes) the SAFETY Mark must carry the statement 'for mains plug' below the certification number.

15AMP 3 round-pin Plug SS 472: 1999
For 3-Pin Mains Plug (15 Amperes) the SAFETY Mark must carry the statement 'for mains plug' below the certification number.

Unapproved Plugs

From left: Flat-blade plug, Schuko plug with side grounding contact, Schuko plug with side grounding contact, 10/16 Amp round pin, flat-blade but with round grounding pin, flat-blade but with round grounding pin.



ELECTRICAL SAFETY

What to do if I have an unapproved plug in the lab for my equipment?



1. Source for a Licensed Electrical Worker (LEW) to replace the plug to a Singapore compliance plug (with **Safety Mark**); Or
2. Use an approved conversion plug as shown on the right picture. (note: the conversion plug must be certified to **SS 145 or BS 1363**)



The conversion plugs to comply to **SS145 or BS 1363**

Travel Adaptor

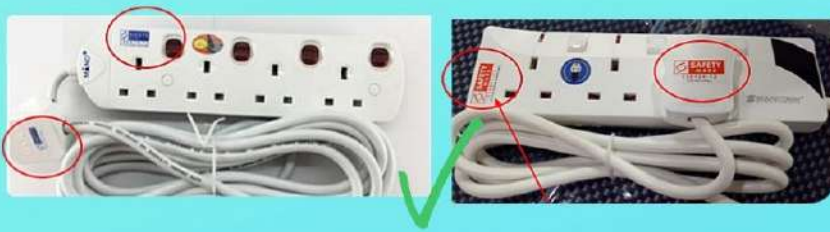
- Most travel adaptors do not have any certification mark
- Travel adaptor meant for short term usage on low power appliances such as laptops, handphone chargers are to be **kept immediately after use**.
- Not to be used for laboratory equipment





ELECTRICAL SAFETY

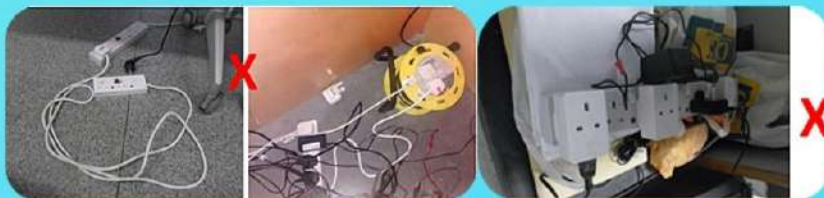
Examples of Portable Socket Outlet (Extension Cord)



Photos of approved portable socket outlet
Note: there must be **Two Safety Mark** on it.
One on the plug and another on the socket outlet assembly.



Photos of **unapproved portable socket outlet** without **Safety Mark**)



Daisy Chain (extension after extension)
This is **not allowed** as will lead to potential overloading.



Approved for use when the compatible plug/socket assembly (originally from overseas) complying with the respective country international approved standards. However, the final plug to the wall socket must not overload its rating and shall bear the **Singapore Safety Mark** logo.