

INFORMATION BULLETIN

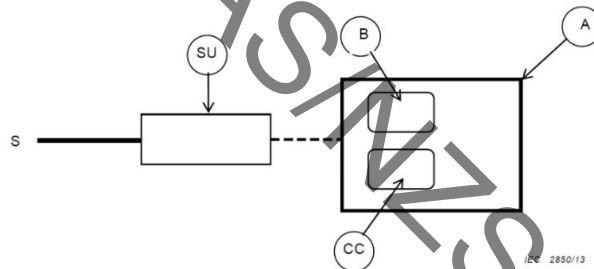
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#0013

Electrical Safety of Hoverboards and Electric Scooters

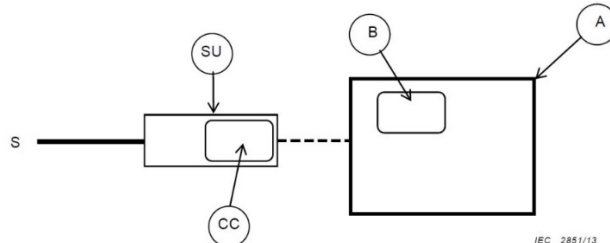
This information notice is to give guidance on what is required for electrical safety of hoverboards or electric scooters. There are many variations of these devices, with four versions as shown in Annex A.

These devices essentially come in two different types:

1. The device (A) incorporates an internal rechargeable battery (B) that is supplied via a detachable supply unit (SU). The battery charging circuitry (CC) is incorporated within the device containing the battery.



2. The device (A) incorporates an internal rechargeable battery (B) that is supplied via a detachable supply unit (SU). The battery charging circuitry (CC) is incorporated within the detachable supply unit.



Although these devices in their entirety are not classified as appliances and are not covered by the scope of AS/NZS 60335.1 *Household and similar electrical appliances – Safety Part 1: General requirements*, the battery charging functionality, ancillary electronics and supply units could be assessed to AS/NZS 60335.1 Annex B (*Appliances powered by rechargeable batteries that are recharged in the appliance*).

In addition the internal batteries should comply with IEC 62133 *Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications* , or equivalent safety standard for the battery technology being used if it is not covered by IEC 62133.

In both examples provided above the supply unit is classified as a high risk item (level 3 / prescribed item) and must be certified prior to it being supplied in Australia (some state also require the supply unit to be registered with a responsible supplier).

For Type 1 described above the supply unit would also have to comply with, and be certified to, the relevant part of the AS/NZS 61558 *Safety of Power transformers, Power Supplies, Reactors and Similar Products* series.

For type 2 described above the supply unit would also have to comply with, and be certified to, AS/NZS 60335.2.29 *Household and similar electrical appliances – Safety Part 2.29: particular requirements for battery chargers*.

AS/NZS 60950.1 *Information technology equipment – safety Part 1: General requirements* is not an appropriate standard for electrical safety testing of the detachable supply unit as it is not intended to be used with information technology equipment

ANNEX A – Example of Hoverboards and Electric Scooters

