

Power supplies and transformers

Power packs, battery chargers and extra low voltage transformers are a common sight in the modern home and workplace. The use of these items allows mains voltage (240V 50Hz) to be converted to a safer voltage, usually less than 50V DC, for use by low draw electrical or electronic devices, reducing the risk of electric shock to the user.



To ensure these items are built appropriately, they are listed as being of a prescribed class and type of equipment in schedule 3 of the Electrical Safety Regulation.

It is a breach of section 100 for any person or company to sell or hire equipment listed as prescribed unless the equipment bears a Queensland Type Approval, interstate equivalent (external approval) or the national Regulatory Compliance Mark.



Regulatory Compliance Mark

These items will typically also bear other marks, numbers and symbols.

	The item is electrically Double Insulated or of Class 2
	C- Tick mark for electromagnetic compliance, including registration number
Q	Queensland type approval number (example)
N20597	New South Wales type approval number (example)
V05016	Victorian type approval number (example)
	CE mark, the item has been declared compliant and safe within the European Union
	Underwriters Laboratories mark, certifies that the item has been tested by a third party to check safety in its intended use.

The last two marks and others like them, while comforting and indicative of a safer quality product, carry no legislative standing in Australia.

If the power pack has no functional earth when tested for test and tag, it must bear information stating that it is double insulated or class 2.

With the exception of some specifically exempted research and teaching devices under the federal Radiocommunications (Electromagnetic Compatibility) Standard 2001, all devices that plug into AC power, are not of a fixed installation or are DC powered at greater than 9 nanowatts must comply with the Australian electromagnetic compliance programme or recognised external [EMC standards](#).

If it is suspected that equipment has been supplied with non compliant power supplies, notify your local electrical or electronic support staff to investigate, if they are unable to identify the equipments status, notify the University Electrical Safety Officer.