



Guidance Note 2018.02.02: Earthing of Illuminated Signs

This Guidance Note replaces Guidance Note 2017.08.01

Illuminated signs made with a metal enclosure and mains supply voltage (e.g. metal box sign, built up metal letter, etc.), which do not have double insulation must be earthed. Any box sign or letter made with an extra low voltage supply (SELV) of less than 50 Volts is not required to be earthed.

Justification comes from two sources: -

- 1 The IET Wiring Regulations: -
 - a) The following quote is from the IET Wiring Regulations 17th Edition, BS 7671, 2008 (including Amendment 3, 2015).
"411.4 TN System. Each exposed-conductive-part of the installation shall be connected by a protective conductor to the main earthing terminal of the installation, which shall be connected to the earthing point of the power supply system."
 - b) For further information on the IET Wiring Regulations please refer to the BSGA Technical guideline K6.1 - "A guide to British Standard BS7671, 2008 Including Amendment No. 3:2015 - IET Wiring Regulations 17th Edition".
- 2 The British Standard for sign making - BS 559.
 - c) BS 559 states that a box sign which can be treated as a product (i.e. can just be plugged into a wall socket) shall conform to BS 4533 and BS EN 60598.
 - d) For further information on these standards, refer to BSGA Technical Guideline K7.1 A guide to BS 4533 (EN 60598).
K7.1 states: *"A Class 1 sign is one having a metal body which is earthed. Class 2 signs, which are double insulated or have reinforced insulation, are not normally earthed."*

The Near Future

In progress are 3 documents which should simplify matters for sign makers: -

prEN 50107-3. This is a draft standard currently being circulated for comment before publishing. This specifically relates to illuminated signs using lamps at less than 1000V. This includes signs illuminated using LEDs. This Standard is the low voltage equivalent to BS EN 50107-1 which relates to high voltage (neon) signs. It will also remove the need to refer to, and comply with the stringent requirements of, EN 60598 which is known as the Luminaire Standard.

prEN 60364-7-719. This is a draft Standard similar to prEN50107-3 but applicable to signs as installations. When completed and approved, it will form part of the IET Wiring Regulations.

European Sign Federation Code of Practice. This is a draft document that may well become a BS EN thereby replacing BS559 and it completely updates the requirements for all non-electrical aspects of sign design, construction, installation and maintenance.

Note of caution!

For those sign companies who “buy in” illuminated signs, we recommend that you obtain in writing from the manufacturer confirmation that the product being supplied conforms to all necessary standards and regulations as well as being free from third party rights. Companies that make their own illuminated products – and all sign suppliers for that matter - are duty and legally bound to ensure (and prove) that their product meets standards and regulations. Again, we recommend that the product design does not infringe any third party rights unless you have an agreement with any third party to do so.

Information on these and other standards can be obtained by Members from the Technical Guidelines on the BSGA website.

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