

Technical Note

Installation Guidelines Update – BS7671 Electrical Regulations, 17th Edition, Amendment 3 - 2015



Title: TN21
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This technical note covers the changes to the Electrical Regulations that must be followed to comply with installation practices moving forward.

Chapter 52 – Selection and Erection of Wiring Systems

In particular this section of the regulations has seen the significant addition of the following Regulation:

521.11 Wiring Systems in escape routes

521.11.201 Wiring systems in escape routes **shall**⁽¹⁾ be supported such that they will not be liable to premature collapse in the event of fire. The requirements of the Regulation 422.2.1 shall also apply⁽²⁾, irrespective of the classification of the conditions for evacuation in an emergency.

- **Note 1:** Non-Metallic cable trunking or other non-metallic means of support can fail when subject to either direct flame or hot products of combustion. This may lead to wiring systems hanging across access or egress routes such as that they hinder evacuation and firefighting activities.
- **Note 2:** This precludes the use of non-metallic cable clips, cable ties or cable trundling as the sole means of support. For example, where non-metallic cable trunking is used, a suitable fire-resistant means of support/retention must be provided to prevent cables from falling out in the event of fire.
 1. In standards and regulations terminology SHALL means MUST or Mandatory.
 2. 422.2 – **Conditions for evacuation in an emergency (from the existing Regulations and not amended)**

The following regulations refer to conditions:

BD2: Low density occupation, difficult conditions for evacuation

BD3: High density occupation, easy conditions for evacuation

BD4: High density occupation, difficult conditions for evacuation.

Note: Authorities such as those responsible for building construction, public gathering, fire prevention, hospitals etc. may specify which BD condition is applicable.

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422.2.1 In conditions BD2, BD3 or BD4 wiring systems shall not encroach on escape routes unless the wiring in the wiring system is provided with sheaths or enclosures, provided by the cable management system itself or by other means.

What this means.

Escape routes as defined within these regulations could be interpreted as any routes used by the occupants to get into and out of the building both in normal as well as emergency conditions. To avoid any confusion or risk this should therefore be considered as all corridors or passageways within buildings.

This is now of particular importance as it is common practice for these routes to also be used for the distribution of communication cables at high level.

Therefore effective from January 2015 any cables being run at high level shall now be supported by metallic supports along their full length when installed in these areas. This will include, cable tray, metal basket tray and metal 'J Hooks' the latter will be spaced at recognised regular intervals of every 1.5m.(5ft).

Amendments to Excel Installation Guidelines

The use of nylon and 'hook n loop' cable ties to retain communication cables from the underneath of cable or basket tray will not be acceptable.

The use of nylon or 'hook n loop' cable ties to suspend communications cables, irrespective of the quantity, from 'anchor systems' driven into the floor slab at high level will also not be acceptable

Finally, the use of Non-Metallic 'Anchor Systems' for supporting communications cables will not be acceptable.

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