



18th Edition

Wiring Regulations

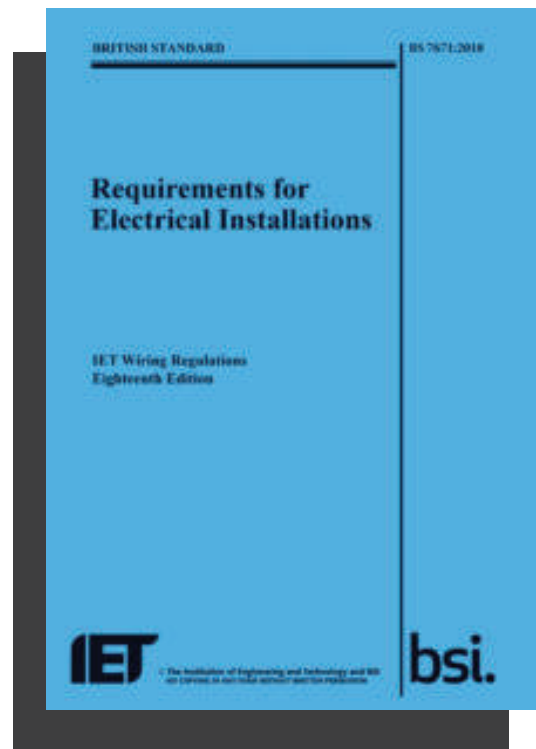
Essential Changes
Explained



The 18th Edition of the **IET Wiring Regulations** (BS7671) comes into force from January 1, 2019. That means construction site managers, health and safety managers, electricians and electrical contractors need to be fully compliant and up-to-date with the new BS7671 wiring regulations – especially in relation to how cables are supported in the event of a fire

The new 18th Edition wiring regulations

<https://electrical.theiet.org/bs-7671/18th-edition-changes/> include updates designed to reduce the risk of death from the placement of hanging cables. The aim is to improve installation safety using the adequate placement of metal clips to support hanging cables. Other updates in BS7671 include new RCD protection requirements and recommendations for installing Arc Fault Detection Devices (AFDDs).



If you're a construction site manager or a health and safety consultant or manager, it pays to be fully aware of the new wiring regulations – especially if you're responsible for cable fixing installation across a site. Electricians or electrical contractors installing, hanging or suspending electrical cabling will need to meet full wiring regs compliance by January 1, 2019. This article explains what the new 18th Edition wiring regulations mean in terms of fixing and suspending electrical cables.

Why have the 18th Edition wiring regulations (BS7671) been changed?



The new wiring regs come into effect in January 1, 2019. The 18th Edition states that plastic fixings cannot be used as the sole use of holding up cables. However, the IET states:

“Suitably spaced steel or copper clips, saddles or ties are examples that will meet the requirements of this regulations.” This means that plastic fixings can be supplemented with metal ones – but that electricians and electrical contractors cannot rely exclusively on plastic clips, saddles or ties.

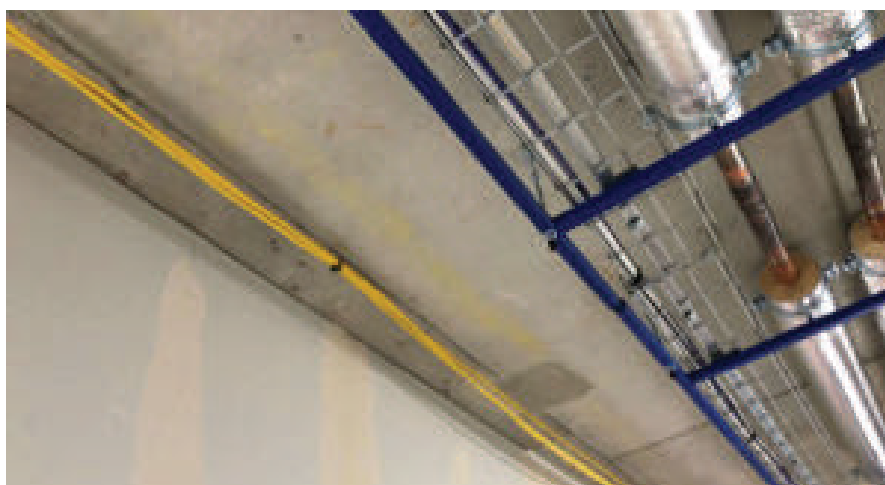
The 18th Edition wiring regulations apply to all types of cable installation and not just escape routes such as fire exits. Regulation 521.10.202 now requires cables to be adequately supported against their premature collapse in the event of a fire. It applies to all types of cable that could fall in the event of a fire. This means that cables fixed against a wall (that don't cover a doorway) can be supported fully by plastic fixings as if the cable fell in a fire, it would fall to the corner of the corridor and not trap anyone.

What type of cable supports does the 18th Edition wiring regulations allow?

This part is left open to interpretation – Regulation 521.10.202 calls for 'adequately supported' cables – and we feel that it would be better if the IET would clarify with a clear definition of what 'adequately supported' means. However, experts consider the new wiring regs call for metal cable supports to ensure compliance. This includes all cable supports such as cable trays, baskets, hangers and hooks.

Does the 18th Edition ban the use of plastic cable fixings?

Plastic fixings are not banned and can be widely used throughout the industry as a cost-effective way to manage cables. However, plastic cabling fixings can no longer be used as the sole means of securing cables in place.



This will affect the sole use of products such as:

- Cable ties
- Cable clips
- Plastic conduit (with plastic fixings)
- Plastic trunking
- Plastic fixings
- Holding up cable tray
- Plastic cable hooks and hangers

Existing plastic cable management solutions will need to be supplemented by metal fixings to ensure they're not the 'sole means of supporting' cables.

Does the 18th Edition wiring regulations apply to existing cable installations?

The Regulations apply to the design, erection and verification of electrical installations, as well as additions and alterations to existing electrical cable installations. The good news for construction site managers and health & safety consultants/managers is that existing installations that have been installed in accordance with earlier editions of the Regulations do not need to be replaced. This change is not retrospective and any installations fitted before 1st January may still be compliant.

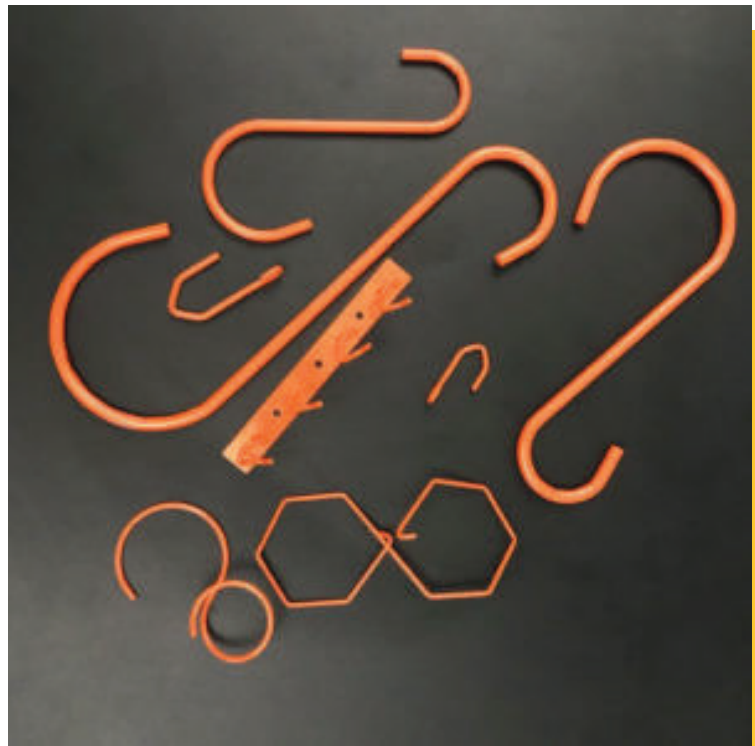
The new regulations have been welcomed by the fire services. According to Charlie Pugsley of the London Fire Brigade's Fire Investigation Team: *"We believe it's essential [521.10.202] because ... we've lost three firefighters in the course of firefighting operations, where the clips have become damaged by fire and cables have dropped and then crews have become entangled. We feel this is a really good, positive step to improve safety for our officers and also for the public".*

How has Tidi-Cable prepared for the 18th Edition wiring regulations (BS7671)?

Tidi-Cable is fully supportive of the 18th Edition wiring regulations. We have developed a range of metal cable supports and fixings to help ensure construction site managers responsible for electricians and electrical contractors are fully compliant of the new wiring regs.

Our range of steel cable supports and fixings are re-usable, strong and effective for installing and pulling cables on construction sites. We have been developing these new products over the past 12 months in preparation for the new regulations.

Our high-quality cable fixing ranges are safe, easy-to-use and cost-effective while meeting 18th Edition wiring regulations.



Find out more about our range of cable tidy products <https://tidi-cable.com/uk/products-home> for construction sites, factories, festivals, events and other industry sections.

Tidi-Cable has been at the forefront of manufacturing cable management solutions for the six years and we feel that these additions to our range further secure our position in the market. Benefits include:

- **Full 18th Edition wiring regulations compliance.** The new product range is 18th Edition compliant. Our steel cable fixings and supports can be used either completely in the place of our plastic products or use to supplement them.
- **Heavy duty cable fixings.** The added benefit of our metal cable supports is the versatility to support and fix heavier items such as armoured cables, pipework and compression hoses that often need to be managed properly to keep sites safe.
- **Temporary and permanent installation.** Our steel cable supports are ideal for both temporary and permanent cables. Cable supports been created to manage temporary power and lighting distribution in order to keep leads safely above head height, and to help eliminate slip, trip and fall risks.
- **Cable security.** Pulling cables has its own problems and using hooks historically can be problematic in that cables often fall out of hooks. Our customers asked for versions where cables can be contained more within a hook. We are pleased that in the development of the new fire proof range we have addressed this issue by creating systems that keep cables secured in place.



Safe cable management is our priority at Tidi-Cable. As construction site managers, health and safety managers or electrical contractors looking to comply with 18th Edition wiring regulations, our products are compliant, trusted, easy-to-use and cost-effective. With more sectors needing electrical cable management – from theatres to music venues with increased power and lighting demands – our ranges will ensure you meet the new wiring regulations.

Find out more about our Tidi-Cable range of cable tidy products in different industry sectors with our cable management case studies.

<https://tidi-cable.com/uk/case-studies>

Changes to the 18th Edition Wiring Regulations

Chapter 52 - Selection and erection of wiring systems



The new IET Wiring regulations were released in July 2018 with the enforcement date set as January 2019.

Essentially, the new regulations state that using plastic products as the sole means of fixing cables in place is no longer compliant. This affects all plastic products as well as any other products that would prematurely collapse in the event of a fire.

Previously it was stated that all cables in fire escapes had to be properly supported in the event of a fire. However, this is now extended to cables anywhere in the building.

This does not mean, however, that plastic products aren't compliant, it just means that they now have to be supplemented with metal products. Note 4 below (from the regulations) states: "Suitably spaced steel or copper clips, saddles or ties are examples that will meet the requirements of this regulations".

What do the regulations say?

521.10.202 Wiring systems shall be supported such that they will not be liable to premature collapse in the event of a fire.

NOTE 1: Wiring systems hanging across access or egress routes may hinder evacuation and firefighting activities.



NOTE 2: Cables installed in or on steel cable containment systems are deemed to meet the requirements of this regulation.

NOTE 3: This regulation precludes, for example, the use of non-metallic cable clips or cable ties as the sole means of support where cables are clipped direct to exposed surfaces or suspended under cable trays, and the use of non-metallic cable trunking as the sole means of support of the cables therein.

NOTE 4: Suitably spaced steel or copper clips, saddles or ties are examples that will meet the requirements of this regulations.

To move with this change, Tidi-Cable have released a comprehensive range of steel products to supplement our plastic range.



Tidi-Cable® 8 Hooks (Steel)

Flexible steel 8 hooks designed with interlocking clips. These clips enable users to securely fix the product to scaffolding, cable trays and hand rails, whilst fixing cables firmly in place using the bottom section.

Product Code	TCS011
Length	205mm
Width	92mm
Max Load (kg)	10kg
Max Load	Cable/hoses up to 75mm diameter
Material	Steel
Manufactured in	UK



Tidi-Cable® S Hooks (4 sizes) (Steel)

TCS003 – 235mm, small hook internal diameter 55mm, large hook internal diameter 72mm, Max load 10kg.

TCS004 – 235mm, small hook internal diameter 55mm, large hook internal diameter 72mm, Max load 20kg.

TCS005 – 310mm, small hook internal diameter 55mm, large hook internal diameter 90mm, Max load 30kg.

TCS006 – 415mm, small hook internal diameter 64mm, large hook internal diameter 115mm, Max load 55kg.



Tidi-Hangers® (Steel) Spiral

Great for fixing to cable trays. The pig tail prevents cables from becoming dislodged.

Product Code	TCS010
Length	205mm
Width	92mm
Max Load (kg)	10kg
Max Load	Cable/hoses up to 75mm diameter
Material	Steel
Manufactured in	UK



Tidi-Hooks® (Steel)

TCS001 – 6mm screw hole, max load 10kg, internal diameter 25mm (arctic cables).

TCS002 – 6mm screw hole, max load 15kg, internal diameter 35mm (armoured cables).

Steel Tidi-Hooks® are perfect for fixing cables above doorways, along corridors and in fire escapes. Made from steel and powder coated in highly visible orange, these products have a melting point of 1500 degrees celcius.



Cable Channel (3 sizes) (Steel)

TCS007 – 1 x pig tail, 6mm screw hole, max load 5kg, internal diameter 12mm.

TCS008 – 2 x pig tails, 6mm screw holes, max load 5kg per pig tail, internal diameter 12mm.

TCS009 – 4 x pig tails, 6mm screw holes, max load 5kg per pig tail, internal diameter 12mm.

Tidi-Cable® Steel Cable Wall/Ceiling Channels are perfect for fixing cables in place and are used by many contractors as an alternative to cable trays. They're also excellent for creating easily moveable drop down points for temporary electrics.

Find out more about our Tidi-Cable range of cable tidy products in different industry sectors with our cable management case studies. <https://tidi-cable.com/uk/case-studies>