

SUMEID02

Design and Determine the Positioning, Fitting and Fixing of Electrical Wiring Systems, Wiring, Enclosures, Accessories & Equipment In Dwellings In Accordance with Building Regulations



Overview

This standard is for a person ensuring that the positioning, fitting and fixing for electrical wiring systems, wiring enclosures, equipment and/or accessories in “Dwellings” are in accordance with the identified specification and the Building Regulations (England and Wales)

This standard is about confirming that all the necessary preparations have been undertaken correctly before work commences and with the proper authorisation.

SUMEID02

Design and Determine the Positioning, Fitting and Fixing of Electrical Wiring Systems, Wiring, Enclosures, Accessories & Equipment In Dwellings In Accordance with Building Regulations

Performance criteria

- You must be able to:*
- P1 confirm authorisation to start work in accordance with accepted industrial practices and procedures, including where necessary relevant personnel, has been administered
 - P2 confirm before work starts that the building structure and fabric has been checked for risks to health and safety and the work to be carried out will not cause damage to the structure or fabric of the dwelling
 - P3 endorse at the outset, that the installation design and plans for positioning and fixing the identified wiring systems, wiring enclosures, electrical equipment and accessories meet the specification
 - P4 identify any variances in the working conditions which might impact on the work to take place and comply with the approved procedures for;
 - P4.1 reporting
 - P4.2 recording
 - P4.3 taking corrective action.
 - P5 identify whether or not the appropriate tools and equipment to carry out the work are safe and fit for purpose.
 - P6 identify that the wiring systems, wiring enclosures, electrical equipment and accessories are:
 - P6.1 of the right type
 - P6.2 fit for purpose in accordance with the electrical installation's design and specification
 - P6.3 suitable for the working environment
 - P7 identify that fixing and fitting methods are fit for purpose and appropriate for the site structure and building fabric, and meet the requirements of the specification
 - P8 confirm that all appropriate manufacturers' instructions have being adhered to in the use and preparation of:
 - P8.1 wiring systems,
 - P8.2 wiring enclosures,
 - P8.3 electrical equipment and accessories
 - P9 liaise with, as appropriate, all technical and non-technical persons visiting or present at the site in a professional manner

SUMEID02

Design and Determine the Positioning, Fitting and Fixing of Electrical Wiring Systems, Wiring, Enclosures, Accessories & Equipment In Dwellings In Accordance with Building Regulations

Knowledge and understanding

You need to know and understand:

- K1 the plans/specification for the electrical installation work and what is required
- K2 the common types, their advantages and limitations of wiring systems, wiring enclosures, electrical equipment and accessories
- K3 the materials which are recommended for use as electrical conductors and insulators
- K4 determining sizes, types and quantities of wiring systems, wiring enclosures, electrical equipment and accessories
- K5 the importance of having a schedule of quantities of all materials for the electrical installation
- K6 determining whether a wiring system, wiring enclosure, electrical equipment and accessories for an electrical installation in “Dwellings” are suitable and fit for purpose
- K7 determining the suitability of fixing methods to building fabric in the environment of the installation

With regard to Health and Safety you should know and understand

You need to know and understand:

- K8 the advantages and limitations of tools and equipment used for the positioning and fixing of wiring systems, wiring enclosures, electrical equipment and accessories
- K9 the effects of installing into unknown building fabric
- K10 your legal responsibilities for health and safety as required by the Health and Safety at Work Act and the Electricity At Work Regulations appropriate to working in “Dwellings”
- K11 the importance of handling wiring systems, wiring enclosures, electrical equipment and accessories in the correct manner

With regard to Principles and theory you should know and understand as relevant:

You need to know and understand:

- K12 HSE Memorandum of guidance on The Electricity at Work Regulations (HSR 25);
- K13 Building Regulations (England and Wales)
- K14 British Standard 7671:2008;
- K15 IEE On-Site Guide to BS7671:2008 or equivalent.
- K16 Electricity Safety, Quality and Continuity Regulations 2002

Design and Determine the Positioning, Fitting and Fixing of Electrical Wiring Systems, Wiring, Enclosures, Accessories & Equipment In Dwellings In Accordance with Building Regulations

Additional Information

Glossary

These National Occupational Standards identify the level of competence that is required by individuals who have the responsibility on a day-to-day basis for the safety, technical standard and quality of “Full Scope” and/or “Defined Scope” electrical installation work in “Dwellings”

1. Electrical Installation Work in a “**Dwelling**” includes work in;
 - 1.1. Houses or flats
 - 1.2. “Dwellings” and business premises that have a common electrical supply – e.g. shops or public houses with a flat/living quarter as part of the main structure
 - 1.3. Common access areas in blocks of flats such as corridors and staircases
 - 1.4. Shared amenities of blocks of flats/bedsits such as laundries, kitchen or WC
2. These National Occupational Standards **DO NOT** apply to a “room (s) for residential purposes” which is used by one or more persons to live and sleep in, including rooms in hotels, hostels, boarding houses, halls of residence and residential homes.”
3. These National Occupational Standards **APPLY** to electrical installations that are intended to operate at low or extra-low voltage (BS7671) and are;
 - 3.1. in or attached to a “Dwelling”
 - 3.2. in the common parts of a building serving one or more “Dwellings”, but excluding power supplies to lifts
 - 3.3. in a building that receives its electricity from a source located within or shared with a dwelling
 - 3.4. in a garden or in or on land associated with a building where the electricity is from a source located within or shared with a “Dwelling”
4. Electrical Installation Work is the design, installation, inspection and testing of electrical systems and equipment in “Dwellings”, as a whole system or part thereof located on the consumers side of the electricity supply. Electrical systems and equipment includes;
 - 4.1. Equipment - apparatus/components, accessories switch-gear, distribution panels, consumer units, control systems, cables/cable carriers and luminaries that are fit purpose for an electrical installation in a “Dwelling”
 - 4.2. Wiring systems – An assembly made up of cable or busbars and parts which secure and, if necessary, enclose the cable or busbars, for example multi-core and single core cables with PVC, XLPE or LSF insulation and sheathing, M I cables with or without PVC/LSF sheathing and SWA cables with PVC, XLPE or LSF insulation and sheathing, conduit, trunking and tray
 - 4.3. Accessories - devices, other than current-using equipment, associated with such equipment or with the wiring of an installation
 - 4.4. Appliance - an item of current-using equipment other than a luminaire or an independent motor

Design and Determine the Positioning, Fitting and Fixing of Electrical Wiring Systems, Wiring, Enclosures, Accessories & Equipment In Dwellings In Accordance with Building Regulations

5. The categories of Electrical Installation Work in “Dwellings” are;
 - 5.1. Full Scope (Level A) “Electrical Installation Work” includes the design, installation, inspection and testing of electrical installation work that is associated with dwellings and is intended to operate at a voltage that does not exceed low-voltage
 - 5.2. Defined Scope (Level B) “Electrical Installation Work” that is limited to the design, installation, inspection and testing of defined electrical installation work intended to operate at a voltage that does not exceed low-voltage that is associated with dwellings and is undertaken in connection with, or ancillary to some other work
6. Defined Scope Electrical Installation Work in “Dwellings” can be;
 - 6.1. Plumbing
 - connection of an “Appliance” flex into a fused Spur Unit
 - additions to and extensions of certified fixed wiring systems
 - replacement of accessories and equipment – e.g. double-pole switch for a shower-unit to a pre-installed supply cable/outlet
 - 6.2. Gas installation work (Similar to plumbing)
 - 6.3. Installation of oil-fired combustion appliances;
 - 6.4. Installation of solid fuel burning combustion appliances;
 - 6.5. Installation or refurbishment of kitchens, bathrooms or bedrooms;
 - 6.6. Stair-lift installation work;
 - 6.7. Air conditioning installation work;
 - 6.8. Installation of domestic extractor fans;
 - 6.9. Installation of security systems;
 - 6.10. Installation of telecommunications systems;
 - 6.11. Installation of door or gate entry systems;
 - 6.12. CCTV systems;
 - 6.13. Property maintenance.
 - 6.14. Spa bath installations
 - 6.15. Swimming pool installations
7. A Competent Person is a person with sufficient technical knowledge and competence to undertake the identified “Electrical Installation Work” in “Dwellings” in terms of preventing danger, the risk of injury and be able to render “Electrical Installation Work” fit for purpose in terms of the identified scope of work
8. Qualified Supervisor - a competent person with specific responsibility on a day-to-day basis for the safety, technical standard and quality of “Full Scope” electrical installation work in “Dwellings”
9. Responsible Person - a person who is competent to do electrical work and has specific responsibility on a day-to-day basis for the safety, technical standard and quality of “Defined Scope” electrical installation work in “Dwellings”
10. **Principal Duty Holder** - can be a person who is appointed by the enterprise to have responsibility for the maintenance of the overall standard and safety of electrical installation work in “Dwellings”

SUMEID02

Design and Determine the Positioning, Fitting and Fixing of Electrical Wiring Systems, Wiring, Enclosures, Accessories & Equipment In Dwellings In Accordance with Building Regulations

Developed by SummitSkills

Version number 1

Date approved January 2006

Indicative review date January 2018

Validity Current

Status Original

Originating organisation SummitSkills

Original URN EDI02

Relevant occupations Electrical Engineer; Electrical Fitter; Electrical Trades;

Suite Ensuring the Compliance of Electrical Installation Work in Dwellings with the Building Regulations (England & Wales)

Key words Electrical installation; Dwellings and Business Premises with a common electrical supply; Houses; Flats; Shops; Public houses; Wiring; Building Regulations;