



 **FSA**
Fire & Security Association

A specialist group of the
Electrical Contractors' Association



Electrical Safety – The Hidden Perils

Steve Martin – Head of Specialist Groups

E: steve.martin@eca.co.uk

T: 020 7313 4807

M: 07866 487593



@ecasteve martin



Electrical Safety – The Hidden Perils..

- What can you work on when installing a system?
- Safe Isolation – Doing the job safely..
- Update in wiring regulations that effect installers.



Representing the best in electrical
engineering and building services

The Electrical Contractors' Association

- ***Represents the interests of electrical, electro-technical and other engineering contractors, at regional, national and European level.***
- ***2,800 member firms with a combined turnover exceeding £6 billion annually, range across the domestic and commercial sectors made up of micro, SME to national contractors - employing thousands.***
- ***ECA / FSA members are rigorously audited for both business and technical capabilities – with ongoing surveillance.***
- ***ECA members provide the highest level of assurance to clients.***

UK's largest Trade Association for electro technical engineering contractors



Fire & Security Association

**More than
just a badge...**

The UK's leading trade association for the Fire, emergency & Security Systems Industry. Plus alarm receiving centres (ARCs) Remote Video Response Centres (RVRC's).

A specialist group of the
Electrical Contractors' Association



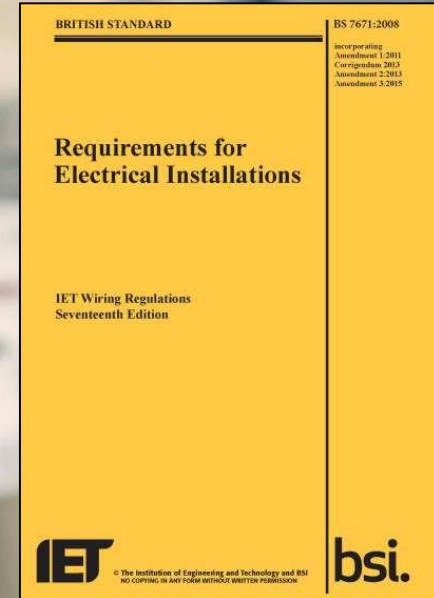
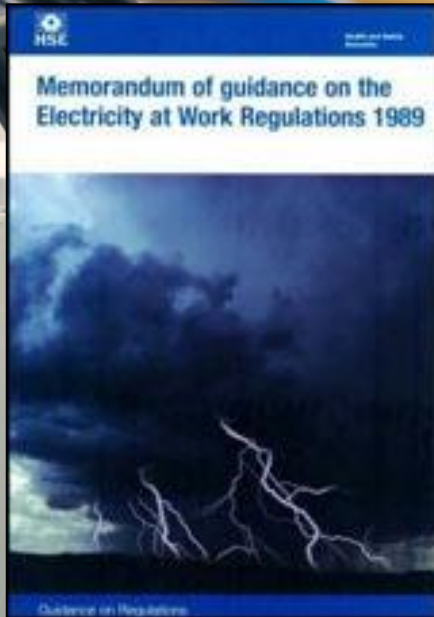


Representing the best in electrical
engineering and building services

Working in partnership..



Standards & Legislation..



Electricity at Work Regulations..

Regulation 16 – Persons to be competent to prevent danger and injury..

*No person shall be engaged in any work activity where technical knowledge or experience is necessary to prevent **danger** or, where appropriate, **injury**, unless he possesses such **knowledge** or **experience**, or is under such degree of supervision as may be appropriate having regard to the nature of the work.*

Electrical Work within dwellings..

Notifiable work:

- Installation of a new circuit.
- Replacement of a consumer unit.
- Any addition and alteration to an existing circuit within a special location.

Installing fixed equipment is within the scope of Part P but only notifiable if it involves installing a new circuit.

See paragraphs 2.2 to 2.4

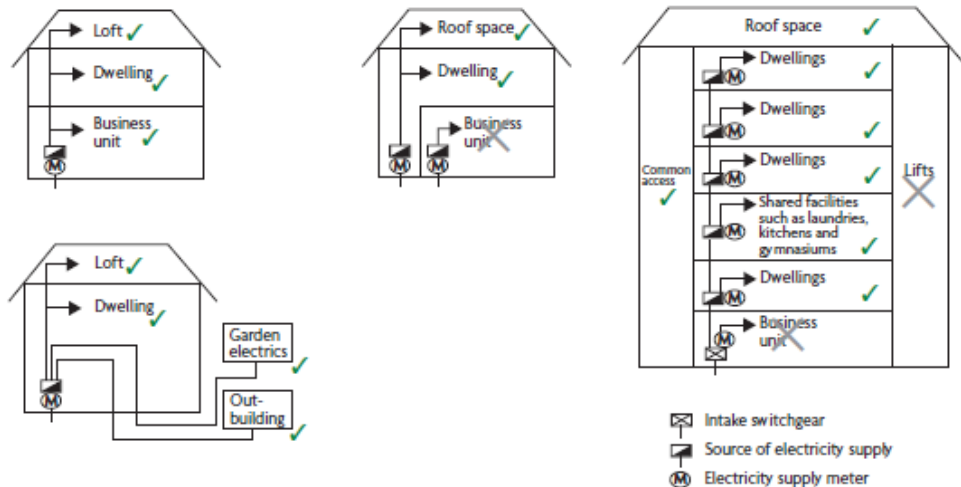



Diagram 1

Scope of Part P

Safely connecting your system..

Membership number: This certificate is not valid unless the member has been advised by the ECA. 

DETAILS OF THE CLIENT

INSTALLATION ADDRESS

DESCRIPTION AND EXTENT OF THE INSTALLATION

Description of installation:

Extent of installation covered by this certificate:

Also a continuation sheet if necessary

FOR DESIGN

I being the person(s) responsible for the design of the electrical installation described above, having exercised reasonable skill and care and who have been responsible to, to the best of my knowledge and belief, for the design of the installation, I accept full responsibility for the design of the installation.

Details of departures from BS 7671 (Regulation 120.3 and 123.5):

Details of permitted exceptions (Regulation 411.3.3) where applicable a suitable risk assessment(s) must be attached to this certificate. Risk assessment attached: ☐

The extent of liability of the signatory or signatories is limited to the for the DESIGN of the installation.

Signature: Date:

Signature: Date:

FOR CONSTRUCTION

I being the person(s) responsible for the construction of the electrical installation described above, having exercised reasonable skill and care and who have been responsible to, to the best of my knowledge and belief, for the construction of the installation, I accept full responsibility for the construction of the installation.

Details of departures from BS 7671 (Regulation 120.3 and 123.5):

The extent of liability of the signatory is limited to the work described for the CONSTRUCTION of the installation.

Signature: Date:

FOR INSPECTION & TESTING

I being the person(s) responsible for the inspection & testing of the electrical installation described above, having exercised reasonable skill and care and who have been responsible to, to the best of my knowledge and belief, for the inspection & testing of the installation, I accept full responsibility for the inspection & testing of the installation.

Details of departures from BS 7671 (Regulation 120.3 and 123.5):

The extent of liability of the signatory is limited to the work described for the INSPECTION & TESTING of the installation.

Signature: Date:

NEXT INSPECTION

Where the designer(s) recommend that this installation is further inspected:

SECTION A: DETAILS OF THE CLIENT / PROJECT

Name:

Address:

SECTION B: REASON FOR PRODUCING THIS CERTIFICATE

Occupier:

Address:

Description of premises: a) Domestic ☐ b) Commercial ☐ c) Industrial ☐

Estimated age of wiring system: years Evidence:

If yes, estimate age: years Installation records and:

SECTION C: DETAILS OF THE INSTALLATION

Occupier:

Address:

Description of premises: a) Domestic ☐ b) Commercial ☐ c) Industrial ☐

Estimated age of wiring system: years Evidence:

If yes, estimate age: years Installation records and:

SECTION D: EXTENT AND LIMITATIONS OF THE CERTIFICATE

Extent of electrical installation covered by this report

Agreed limitations including the reasons (see Regulation 120.3 and 123.5):

Agreed with:

The inspection and testing described in this report and accompanying schedule is to be carried out in accordance with the following conditions and unless otherwise agreed between the client and the signatory prior to the start of the work:

SECTION E: SUMMARY OF THE CONDITIONS

General condition of the installation:

Overall assessment of the installation in terms of its suitability for the intended use:

The following assessment indicates the degree of risk (1=Low, 2=Medium, 3=High):

SECTION F: RECOMMENDATIONS

Where the overall assessment of the suitability of the installation for the intended use is not satisfactory, the signatory must recommend a suitable course of action to be taken to bring the installation into compliance with the requirements of BS 7671 (Regulation 120.3 and 123.5). Subject to the necessary remedial action being taken, the signatory must recommend a suitable course of action to be taken to bring the installation into compliance with the requirements of BS 7671 (Regulation 120.3 and 123.5).

SECTION G: DECLARATION

I being the person(s) responsible for the inspection and testing of the electrical installation described above, having exercised reasonable skill and care and who have been responsible to, to the best of my knowledge and belief, for the inspection and testing of the installation, I accept full responsibility for the inspection and testing of the installation.

Inspected and tested by: Name (PRINTED):

Position:

Report authorised for issue by: Name (PRINTED):

Position:

SECTION H: SCHEDULE(S)

Schedule(s) of inspection and:

Schedule(s) of test results:

MINOR ELECTRICAL INSTALLATION WORKS CERTIFICATE FOR UP TO THREE CIRCUITS

Incorporating Amendment 3: 2015

To be used only for minor electrical work which does not include the provision of a new circuit

PART 1: DESCRIPTION OF MINOR WORKS

1. Description of the minor works: (1) (2) (3)

2. Location / address:

3. Date minor works completed:

4. Details of departures, if any, from BS 7671:2008 as amended:

5. Details of permitted exceptions (Regulation 411.3.3). Where applicable, a suitable risk assessment(s) must be attached to this Certificate. Risk assessment attached: ☐

PART 2: INSTALLATION DETAILS

1. System earthing arrangement: TN-C-S ☐ TN-S ☐ TT ☐

2. Method of fault protection:

3. Protective device for the modified circuit: 1 Type: Rating: A 2 Type: Rating: A 3 Type: Rating: A

Comments on existing installation, including adequacy of earthing and bonding arrangements (see 132.14):

PART 3: ESSENTIAL TESTS

Circuit No	Circuit description	Continuity of CPC (BS 1134 only)	Insulation resistance MΩ	Polarity	Zs	RCD (ms) (if applicable)	Earth RCD (mA)	Test Result
1		Rs + Rn	Rs	Live - Live	✓	Q	1 x (Δn)	5 x (Δn)
2								
3								

PART 4: DECLARATION

I CERTIFY that the said works do not impair the safety of the existing installation, that the said works have been designed, constructed, inspected and tested in accordance with BS 7671:2008 (BS 7671 Wiring Regulations), amended to and that the said works, to the best of my knowledge and belief, at the time of my inspection complied with BS 7671 except as detailed in Part 1 above.

Contractor's name: Signature: Date:

For and on behalf of: Position:

Address:

Provision of information..

Sufficient information should be provided to ensure that people can operate, maintain or alter an electrical installation with reasonable safety..

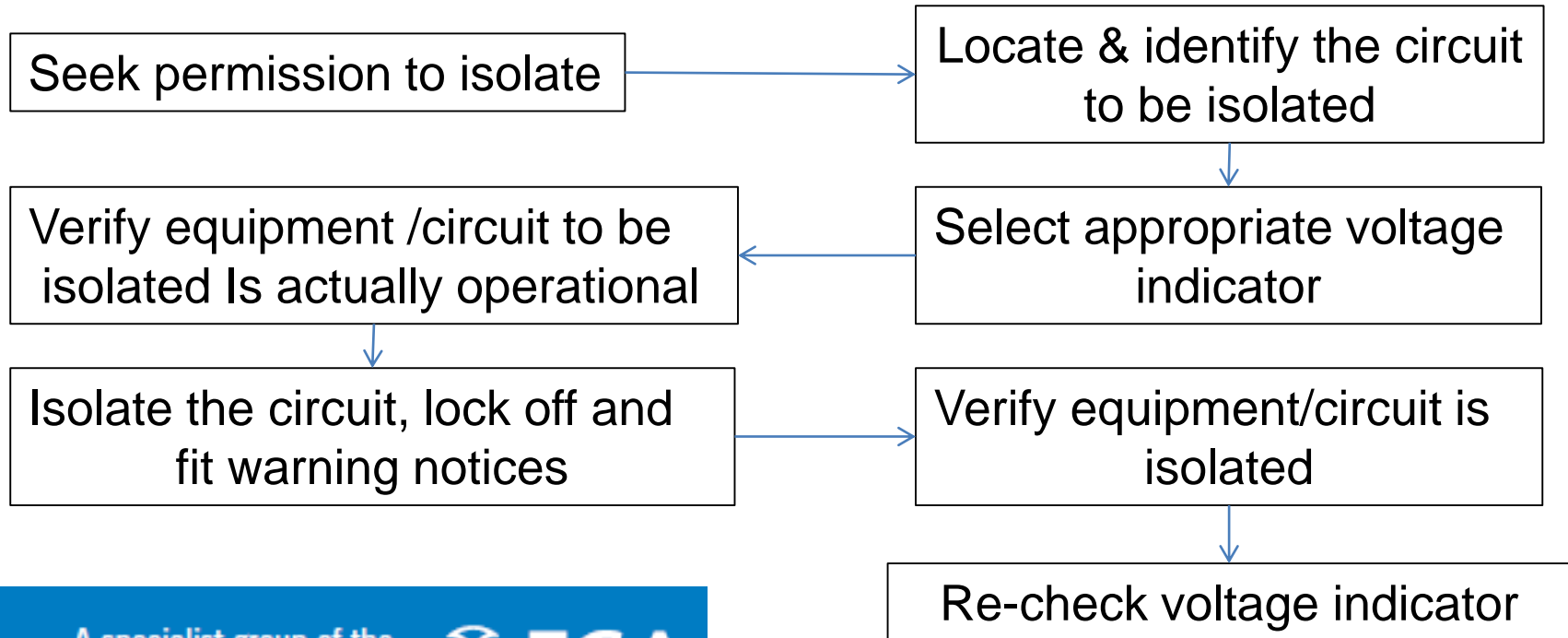
Safely connecting your system..



Evidence of this cant be trusted..

Safely connecting your system..

Safe Isolation Procedures





Safely connecting your system..

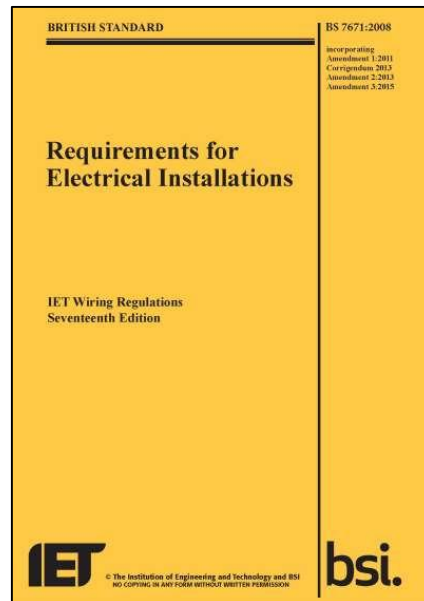
Carrying out an addition or alteration on an electrical installation..

- Have the relevant skill, knowledge and experience.
- Have the relevant insurances to cover the scope of work.
- Be fully conversant with BS 7671 (Requirements for electrical installation)
- For work within dwellings (Part P) – Registered under a competent person scheme.
- Have the relevant test equipment in order to certify the work.
- Complete a Minor Works Certificate or Electrical Installation Certificate

Premature collapse of cables..

BS 7671 applies to the installation of all cables, not just LV cables:

- Wiring for Security Systems.
- Wiring for Fire Alarm Systems.
- Data cabling.
- TV Coaxial cabling.
- Other Specialist cabling.



Premature collapse of cables..



- Any wiring in escape route should be protected against premature collapse in event of fire.
- Essentially restricting the use of PVC trunking / conduit, plastic clips or cable ties as the sole means of support.

***Escape Route.** Path to follow for access to a safe area in the event of an emergency.*



Premature collapse – to prevent this..



To conclude..

- The need to be competent – understand the risks associated with electricity. (skill, knowledge and experience)
- Keep a record of your employees competence and ensure they receive regular CPD.
- Understand and follow correct isolation procedures.
- Have the right tools and testing equipment for the job.



Fire & Security Association

Get in touch and find out how the
FSA can help transform your business

T. 020 7313 4807

E. enquiries@fireandsecurityassociation.co.uk

[**www.FireandSecurityAssociation.co.uk**](http://www.FireandSecurityAssociation.co.uk)



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