



The Modular & Portable Building Association

The Modular & Portable Building Association

Code of Practice For The Installation, Inspection and Testing of Electrical Installations

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1 Introduction –

This code of practice provides guidance for manufacturers, suppliers, customers and electrical contractors in relation to the electrical installation associated with modular and portable buildings. *Cabins* are covered in Section 2 and *Modular Buildings* are covered in Section 3. The aim of this code of practice is to ensure that electrical installations are initially safe and are working correctly and remain in this condition for the life of the building. The guidance leads to straightforward arrangements which can be understood by all parties involved in the design, manufacture, supply and use of modular and portable buildings, whether for sale or hire.

These arrangements meet compliance with health and safety legislation, the most relevant being the Electricity at Work Regulations 1989. Reference is also made to BS 7671:2008 Requirements for Electrical Installations, referred to in this code of practice as the IEE Wiring Regulations. Compliance with the IEE Wiring Regulations is likely to achieve compliance with the Electricity at Work Regulations. Other relevant reference documents are Parts 1 and 2 of BS 6767 Transportable Accommodation Units.

It should be noted that recognition of compliance with this code of practice is dependant on current membership of the MPBA and registration with the NICEIC for the MPBA scheme.

2 Cabins –

2.1 At Manufacture –

At the manufacturing stage the electrical installation should fully comply with the latest edition of the IEE Wiring Regulations. Prior to dispatch from the manufacturer's factory, the electrical installation should be fully inspected and tested and an appropriate electrical installation certificate should be provided by the manufacturer. Note:

- The *Original* certificate should be retained by the Owner of the cabin
- The *Duplicate* certificate should be retained by the Manufacturer / Electrical Contractor
- A *Copy* of the certificate should be displayed in the cabin, near the consumer unit

2.2 At Hire Depots –

The manufacturers' certification is valid for 12 months and is relevant and appropriate for the first hire.

Prior to the second and subsequent hires, a Pre-delivery Inspection and Test should be carried out and an appropriate report should be provided. An example of an appropriate report is the NICEIC Portable Building Pre-delivery Inspection and Testing Report, as shown in Appendix (I). Note:

- The *Original* report should be retained by the hire depot
- The *Duplicate* report should be displayed in the cabin, near the consumer unit

When the cabin is approximately 12 months old, a periodic inspection and test should be carried out and an appropriate periodic inspection report should be provided. An example of an appropriate periodic inspection report is the NICEIC Portable Building Periodic Inspection Report, as shown in Appendix (II). Note:

- The *Original* report should be retained by the Hire Depot
- The *Duplicate* report should be retained by the Hire Depot / Electrical Contractor

- A *Copy* of the report should be displayed in the cabin, near the consumer unit.

This report is valid for 12 months and prior to the second and subsequent hires, a Pre-delivery Inspection and Test should be carried out, as above. Therefore, throughout the life of the cabin, the electrical installation is supported by an *Electrical Installation Certificate* and *Periodic Inspection Reports* which is supplemented by *Pre-delivery Inspection and Testing*.

In the event of an electrical installation being altered, added to or refurbished, the work should fully comply with the latest edition of the IEE Wiring Regulations. The relevant part or parts of the electrical installation should be inspected and tested and an appropriate electrical installation certificate should be provided.

Valid certification / reports will be provided for the anticipated initial hire period, up to a maximum of 12 months.

2.3 At the Customers' Site or Premises –

The customer is responsible for the connection and disconnection to the supply. This should be carried out by a competent person in accordance with the latest edition of the IEE Wiring Regulations. It should be noted that the person making the connection to the supply must be satisfied that the characteristics of the supply are correct and suitable for the electrical installation and that the installation is safe to energise. At the very least, further tests will have to be carried out to ensure that the values of the earth fault loop impedance, maximum prospective fault current at the origin, polarity and RCD tests conform to the requirements of the IEE Wiring Regulations.

The customer is then responsible for any ongoing periodic inspections beyond the anticipated initial hire period or 12 months.

3 Modular Buildings –



3.1 New Modular Buildings for Sale or Hire –

The electrical installation should fully comply with the latest edition of the IEE Wiring Regulations. At the manufacturing stage it is normal for the electrical installation to be partially completed in the factory and then inter connected and completed on site. Prior to connection to the supply and following the connection to the supply the electrical installation should have the relevant inspection and tests carried out and an appropriate electrical installation certificate should be provided by the Supplier / Electrical Contractor.

3.2 Subsequent Use Of Modular Buildings For Sale Or Hire –

For modular buildings used on subsequent occasions, 3.1 should be followed if the electrical installation has been refurbished or renewed. However, if the electrical installation has been merely disconnected / split and then reconnected, the electrical installation should be inspected and tested and an appropriate periodic inspection report should be provided by the Supplier / Electrical Contractor.

Portable Building Pre-delivery Inspection & Testing Report

This report is not valid if the serial number has been defaced or altered **PBI/**

PORTABLE BUILDING PRE-DELIVERY INSPECTION & TESTING REPORT

Issued in accordance with British Standard 7671 - Requirements for Electrical Installations by a MPBA Scheme Registered Contractor with NICEIC, Warwick House, Houghton Hall Park, Houghton Regis, Dunstable, LU5 5ZX

COMPANY NAME/ADDRESS OF DEPOT

Depot Tel No:

PURPOSE OF REPORT

To verify that the electrical installation for the portable building complies with BS 7671 and is in a satisfactory condition for hire

CABIN/SIZE

IDENTIFICATION/SERIAL NUMBER

(✓) tick box for satisfactory

INSPECTION	SATISFACTORY/
Check the presence of protective bonding conductors	<input type="checkbox"/>
Inspection of accessories for soundness of fixings, breakages, missing parts and signs of overheating	<input type="checkbox"/>
Inspection of switchgear for soundness of fixings, breakages, missing parts and signs of overheating	<input type="checkbox"/>
Check all conductor connections are sound, labelled correctly and correctly identified	<input type="checkbox"/>
Disconnect and remove any non-original installation equipment/supply wiring to consumer unit	<input type="checkbox"/>

TESTING (ENSURE EVERY CIRCUIT IS TESTED)

Continuity of protective bonding conductor(s) (✓) tick box for satisfactory

CIRCUIT DETAILS

Circuit number	Circuit designation	Number of points served	Circuit conductor CSA		Rating	Circuit impedances (Ω)				Insulation resistance			Polarity	Maximum measured earth fault loop impedance, Z _s Ω	RCD operating times	
			Live	cpc		Ring final circuits: only (measured end to end)		All circuits: (At least one column to be completed)		Line/Neutral	Line/Earth	Neutral/Earth			at I _{Δn}	at 5 I _{Δn} (if applicable)
			mm ²	mm ²		R ₁ Line	R ₁ Neutral	R ₂ cpc	R ₁ + R ₂	R ₂	MΩ	MΩ			MΩ	ms
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

TEST RESULTS

Circuit impedances (Ω)		Insulation resistance			Polarity	Maximum measured earth fault loop impedance, Z _s Ω	RCD operating times			
Ring final circuits: only (measured end to end)		All circuits: (At least one column to be completed)		Line/Neutral			Line/Earth	Neutral/Earth	at I _{Δn}	at 5 I _{Δn} (if applicable)
R ₁ Line	R ₁ Neutral	R ₂ cpc	R ₁ + R ₂	R ₂			MΩ	MΩ	MΩ	ms

Functional testing of assemblies (✓) tick box for satisfactory

TEST INSTRUMENTS SERIAL NUMBERS

Continuity	Insulation Resistance	RCD	Loop	Multi Function Tester
<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/>

COMMENTS/REMEDIAL WORK COMPLETED

Signature of competent person	Name of competent person in block capitals	Date
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>

NEXT INSPECTION

This unit should be next inspected not more than 12 months from date of the latest Electrical Installation Certificate/Periodic Inspection Report. Date

IMPORTANT NOTICE TO HIRER
 This unit will need to be inspected and tested in accordance with BS 7671 once a supply is connected. This inspection and testing should be carried out by a competent person and a relevant report produced. Please see notes for recipients on the reverse of this page.

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PBI/1

Original (to the person ordering the work)

NOTES FOR RECIPIENTS

THIS PORTABLE BUILDING PRE-DELIVERY INSPECTION & TESTING REPORT SHOULD BE RETAINED FOR FUTURE REFERENCE

The purpose of this inspection report is to determine, so far as is reasonably practicable, whether an electrical installation is in a satisfactory condition for service. This report provides an assessment of the condition of the electrical installation identified overleaf at the time it was inspected, taking into account the stated extent of the installation and the limitations of the inspection and testing, if any, noted in the comments/remedial work completed section.



This report has been issued in accordance with the national standard for the safety of electrical installations, British Standard 7671 – Requirements for Electrical Installations (formerly known as the IEE Wiring Regulations).

As the installation incorporates a residual current device (RCD), its mechanical operation should be performed on a quarterly basis by operation of its integral test button.

Also for safety reasons, the electrical installation will need to be re-inspected at appropriate intervals by a competent person. The date that the next inspection is due is indicated on the report.

On installation of this Portable Building at a site and after connection to a supply by a competent person, that competent person should undertake such checks and tests as relevant to prove that the installation can be brought into and continue in service.

Portable Building Periodic Inspection Report

This report is not valid if the serial number has been defaced or altered **PBI/**

PORTABLE BUILDING PRE-DELIVERY INSPECTION & TESTING REPORT

Issued in accordance with British Standard 7671 – Requirements for Electrical Installations by a MPBA Scheme Registered Contractor with NICEIC, Warwick House, Houghton Hall Park, Houghton Regis, Dunstable, LU5 5ZX

COMPANY NAME/ADDRESS OF DEPOT

Depot Tel No: _____

PURPOSE OF REPORT

To verify that the electrical installation for the portable building complies with BS 7671 and is in a satisfactory condition for hire

CABIN/SIZE

IDENTIFICATION/SERIAL NUMBER

INSPECTION (✓) tick box for satisfactory

Check the presence of protective bonding conductors

Inspection of accessories for soundness of fixings, breakages, missing parts and signs of overheating

Inspection of switchgear for soundness of fixings, breakages, missing parts and signs of overheating

Check all conductor connections are sound, labelled correctly and correctly identified

Disconnect and remove any non-original installation equipment/supply wiring to consumer unit

SATISFACTORY/

TESTING (ENSURE EVERY CIRCUIT IS TESTED)

Continuity of protective bonding conductor(s) (✓) tick box for satisfactory

Circuit number	Circuit designation	Number of points served	Circuit conductors: csa			Rating	Circuit impedances (Ω)					Insulation resistance			Polarity	Maximum measured earth fault loop impedance, Z _s Ω	RCD operating times	
			Live	cpc	A		Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)		Line/Neutral	Line/Earth	Near to Earth			at I _{Δn}	at 5 I _{Δn} (if applicable)
							r ₁ Line	r _n Neutral	r ₂ cpc	R ₁ + R ₂	R ₂							
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Functional testing of assemblies (✓) tick box for satisfactory

TEST INSTRUMENTS SERIAL NUMBERS

Continuity	Insulation Resistance	RCD	Loop	Multi Function Tester

COMMENTS/REMEDIAL WORK COMPLETED

Signature of competent person	Name of competent person in block capitals	Date

NEXT INSPECTION Date

This unit should be next inspected not more than 12 months from date of the latest Electrical Installation Certificate/Periodic Inspection Report.

IMPORTANT NOTICE TO HIRER

This unit will need to be inspected and tested in accordance with BS 7671 once a supply is connected. This inspection and testing should be carried out by a competent person and a relevant report produced. Please see notes for recipients on the reverse of this page.

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