Barton Electrical
ELECTRICAL CONTRACTORS

- 5 DEC 2022

DOMESTIC ELECTRICAL INSTALLATION CONDITION REPORT

Requirements For Electrical Installations - BS 7671 IET Wiring Regulations

Report Reference: 1810-BR10

1 DETAILS OF THE PERSON ORDERING THE REPORT

Client: Brunel Management

Address: Brunel Chambers, Devonshire Place, St.Helier, JE2 3RD

2 REASON FOR PRODUCING THIS REPORT

Reason for producing this report:

Change of occupancy.

Date(s) on which inspection and testing was carried out: 14/09/2020

3 DETAILS OF THE INSTALLATION WHICH IS THE SUBJECT OF THIS REPORT

Installation Address: Flat 10 Brooklands, 66 Le Vier Mont Helier, St.Helier, JE2 4NG

Estimated age of wiring system: 14 years

Evidence of additions/ alterations: No if yes, estimated age: N/A years

Installation records available? (Regulation 651.1) No

Date of last inspection: 30/08/2018

4 EXTENT AND LIMITATIONS OF INSPECTION AND TESTING

Extent of the electrical installation covered by this report:

100% of the installation.

Agreed limitations including the reasons (see Regulation 653.2):

No Lifting of floor boards or inspection of loft space.
No inspection of cables concealed within walls all above ceilings.
Supply protective device characteristics unable to be verified.
Initial visual inspection of 50% of switchgear items, raising to 100% if issues discovered.

Agreed with: Brunel Management

Operational limitations including the reasons:

None

The inspection and testing detailed in this report and accompanying schedules have been carried out in accordance with BS 7671:2018 (IET Wiring Regulations) as amended to 2020.
It should be noted that cables concealed within trunking and conduits, under floors, in roof spaces, and generally within the fabric of the building or underground, have not been inspected unless specifically agreed between the client and inspector prior to the inspection. An inspection should be made within an accessible roof space housing other electrical equipment.

5 SUMMARY OF THE CONDITION OF THE INSTALLATION

See page 3 for a summary of the general condition of the installation in terms of electrical safety.

Overall assessment of the installation in terms of it's suitability for continued use*: **SATISFACTORY**

*** An unsatisfactory assessment indicates that dangerous (Code C1) and/or potentially dangerous (Code C2) conditions have been identified.**

6 RECOMMENDATIONS

Where the overall assessment of the suitability of the installation for continued use on page 1 is stated as 'UNSATISFACTORY', I/We recommend that any observations classified as 'Code 1 - Danger Present' or 'Code 2 - Potentially dangerous' are acted upon as a matter of urgency.
Investigation without delay is recommended for observations identified as 'FI - Further Investigation Required'.
Observations classified as 'Code 3 - Improvement recommended' should be given due consideration.

Subject to the necessary remedial action being taken, I/we recommend that the installation is further inspected and tested by: 5 Years or change of tenant/owner

Note: The proposed date for the next inspection should take into consideration the frequency and quality of maintenance that the installation can reasonably be expected to receive during its intended life. The period should be agreed between relevant parties.

7 OBSERVATIONS AND RECOMMENDATIONS FOR ACTIONS TO BE TAKEN

Referring to the attached schedules of inspection and test results, and subject to the limitations specified on page 1 of this report under 'Extent of the Installation and Limitations of Inspection and Testing':

N/A There are no items adversely affecting electrical safety

or

✔ The following observations and recommendations are made

Item No	Observations	Classification Code
1	Inspection Schedule Item 5.12.3: For cables concealed in walls at a depth of less than 50mm (522.6.202; 522.6.203) is recommended for improvement.	C3
2	Inspection Schedule Item 5.12.4: For cables concealed in walls/partitions containing metal parts regardless of depth (522.6.203) is recommended for improvement.	C3
3	Inspection Schedule Item 5.12.5: Final circuits supplying luminaires within domestic (household) premises (411.3.4) is recommended for improvement.	C3
4	Inspection Schedule Item 6.1: Additional protection for all low voltage (LV) circuits by RCD not exceeding 30mA (701.411.3.3) is recommended for improvement.	C3

One of the following codes, as appropriate, has been allocated to each of the observations made above to indicate to the person(s) responsible for the installation the degree of urgency for remedial action.

C1 **Danger Present** Risk of injury. Immediate remedial action required

C2 **Potentially dangerous** Urgent remedial action required

C3 **Improvement recommended**

FI **Further investigation required without delay**

Immediate remedial action required for items:	N/A
Urgent remedial action required for items:	N/A
Improvement recommended for items:	1, 2, 3, 4
Further investigation required for items:	N/A

8 GENERAL CONDITION OF THE INSTALLATION

General condition of the installation (in terms of electrical safety):

Satisfactory at time of testing

9 DECLARATION

I/We, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing, hereby declare that the information in this report, including the observations and the attached schedules, provides an accurate assessment of the condition of the electrical installation taking into account the stated extent and limitations in section 4 of this report.

Trading Title:	BARTON ELECTRICAL		
Address:	WOODLANDS FARM LA RUE DE MAUPERTUIS ST.HELIER, JERSEY Postcode: JE2 3HG	Registration Number (if applicable):	N/A
		Telephone Number:	01534 611196

For the INSPECTION, TESTING AND ASSESSMENT of the report:

Name:	Position:	Signature:	Date:
Nick Barton	Manager	NBarton	15/09/2020

10 TEST INSTRUMENTS

Details of Test Instruments used (state serial and/or asset numbers):

Multi-functional:	101109009	Earth electrode resistance:	N/A
Insulation resistance:	N/A	Earth fault loop impedance:	N/A
Continuity:	N/A	RCD:	N/A

11 SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

Earthing Arrangements

TN-S: N/A
TN-C-S: ✔
TT: N/A

Number and Type of Live Conductors

1-phase (2 wire):	✔	1-phase (3 wire):	N/A
3-phase (3 wire):	N/A	3-phase (4 wire):	N/A
Other:	N/A		

Confirmation of supply polarity: ✔

Nature of Supply Parameters

Nominal voltage(s):	U: 240 V	Uo: 230 V	
Nominal frequency, f:	50 Hz		
Prospective fault current, Ipf:	1.76 kA		
External earth fault loop impedance, Ze:	0.13 Ω		

Supply Protective Device

BS(EN):	LIM
Type:	LIM
Rated current:	LIM A
Short-circuit capacity:	LIM kA

12 PARTICULARS OF INSTALLATION REFERRED TO IN THE REPORT

Means of Earthing

Distributor's facility: ✔
Installation earth electrode: N/A

Details of Installation Earth Electrode (where applicable)

Type:	N/A	Location:	N/A
Resistance to Earth:	N/A Ω	Method of measurement:	N/A

Maximum Demand (Load): 40 Amps

Protective measure(s) against electric shock: ADS

Main Switch / Switch-Fuse / Circuit-Breaker / RCD

Type BS(EN):	60947-3 Isolator	Current rating:	100 A	Supply conductors material:	Copper
Number of poles:	2	Fuse/device rating or setting:	60 A	Supply conductors csa:	16 mm²
		Voltage rating:	240 V		

If RCD main switch:

Rated residual operating current (IΔn):	N/A mA
Rated time delay:	N/A ms
Measured operating time (at IΔn):	N/A ms

Earthing and Protective Bonding Conductors

Earthing conductor

Conductor material: Copper
csa: 10 mm²
Connection/ continuity verified: ✔

Main protective bonding conductors

Conductor material: Copper
csa: mm²
Connection/ continuity verified:

Bonding of extraneous-conductive parts

To water installation pipes:	✔	To gas installation pipes:	N/A
To oil installation pipes:	N/A	To lightning protection:	N/A
To structural steel:	N/A	To other service(s):	N/A

13 INSPECTION SCHEDULE FOR DOMESTIC & SIMILAR PREMISES WITH UP TO 100A SUPPLY

Item	Description	Comments	Outcome
1.0	**EXTERNAL CONDITION OF INTAKE EQUIPMENT (VISUAL INSPECTION ONLY)**		
1.1	Service cable	N/A	✔
1.2	Service head	N/A	✔
1.3	Earthing arrangement	N/A	✔
1.4	Meter tails	N/A	✔
1.5	Metering equipment	N/A	✔
1.6	Isolator (where present)	N/A	N/A
2.0	**PRESENCE OF ADEQUATE ARRANGEMENTS FOR OTHER SOURCES SUCH AS MICROGENERATORS (551.6; 551.7)**	N/A	N/A
3.0	**EARTHING / BONDING ARRANGEMENTS (411.3; Chap 54)**		
3.1	Presence and condition of distributor's earthing arrangement (542.1.2.1; 542.1.2.2)	N/A	✔
3.2	Presence and condition of earth electrode connection where applicable (542.1.2.3)	N/A	N/A
3.3	Provision of earthing/bonding labels at all appropriate locations (514.13.1)	N/A	✔
3.4	Confirmation of earthing conductor size (542.3; 543.1.1)	N/A	✔
3.5	Accessibility and condition of earthing conductor at MET (543.3.2)	N/A	✔
3.6	Confirmation of main protective bonding conductor sizes (544.1)	N/A	✔
3.7	Condition and accessibility of main protective bonding conductor connections (543.3.2; 544.1.2)	N/A	✔
3.8	Accessibility and condition of other protective bonding connections (543.3.1; 543.3.2)	N/A	✔
4.0	**CONSUMER UNIT(S) / DISTRIBUTION BOARD(S)**		
4.1	Adequacy of working space/accessibility to consumer unit/distribution board (132.12; 513.1)	N/A	✔
4.2	Security of fixing (134.1.1)	N/A	✔
4.3	Condition of enclosure(s) in terms of IP rating etc (416.2)	N/A	✔
4.4	Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5)	N/A	✔
4.5	Enclosure not damaged/deteriorated so as to impair safety (651.2)	N/A	✔
4.6	Presence of main linked switch (as required by 462.1.201)	N/A	✔
4.7	Operation of main switch (functional check) (643.10)	N/A	✔
4.8	Manual operation of circuit-breakers and RCDs to prove disconnection (643.10)	N/A	✔
4.9	Correct identification of circuit details and protective devices (514.8.1; 514.9.1)	N/A	✔
4.10	Presence of RCD six-monthly test notice at or near consumer unit/distribution board (514.12.2)	N/A	✔
4.11	Presence of non-standard (mixed) cable colour warning notice at or near consumer unit/distribution board (514.14)	N/A	N/A
4.12	Presence of alternative supply warning notice at or near consumer unit/distribution board (514.15)	N/A	N/A
4.13	Presence of other required labelling (please specify) (Section 514)	N/A	✔
4.14	Compatibility of protective devices, bases and other components; correct type and rating (No signs of unacceptable thermal damage, arcing or overheating) (411.3.2; 411.4; 411.5; 411.6; Sections 432, 433)	N/A	✔

OUTCOMES

Acceptable condition	✔	Unacceptable condition	**C1 or C2**	Improvement recommended	**C3**	Further investigation	**FI**	Not verified	**N/V**	Limitation	**LIM**	Not applicable	**N/A**

14 INSPECTION SCHEDULE FOR DOMESTIC & SIMILAR PREMISES WITH UP TO 100A SUPPLY

Item	Description	Comments	Outcome
4.15	Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.3)	N/A	✔
4.16	Protection against mechanical damage where cables enter consumer unit/distribution board (132.14.1; 522.8.1; 522.8.5; 522.8.11)	N/A	✔
4.17	Protection against electromagnetic effects where cables enter consumer unit/distribution board/enclosures (521.5.1)	N/A	✔
4.18	RCD(s) provided for fault protection - includes RCBOs (411.4.204; 411.5.2; 531.2)	N/A	✔
4.19	RCD(s) provided for additional protection/requirements - includes RCBOs (411.3.3; 415.1)	N/A	✔
4.20	Confirmation of indication that SPD is functional (651.4)	N/A	N/A
4.21	Confirmation that ALL conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)	N/A	✔
4.22	Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6)	N/A	N/A
4.23	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)	N/A	N/A
5.0	**FINAL CIRCUITS**		
5.1	Identification of conductors (514.3.1)	N/A	✔
5.2	Cables correctly supported throughout their run (521.10.202; 522.8.5)	N/A	✔
5.3	Condition of insulation of live parts (416.1)	N/A	✔
5.4	Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1)	N/A	N/A
5.4.1	To include the integrity of conduit and trunking systems (metallic and plastic)	N/A	✔
5.5	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)	N/A	✔
5.6	Coordination between conductors and overload protective devices (433.1; 533.2.1)	N/A	✔
5.7	Adequacy of protective devices: type and rated current for fault protection (411.3)	N/A	✔
5.8	Presence and adequacy of circuit protective conductors (411.3.1; Section 543)	N/A	✔
5.9	Wiring system(s) appropriate for the type and nature of the installation and external influences (Section 522)	N/A	✔
5.10	Concealed cables installed in prescribed zones (see Section 4. Extent and Limitations) (522.6.202)	N/A	LIM
5.11	Cables concealed under floors, above ceilings or in walls/partitions, adequately protected against damage (see Section 4. Extent and Limitations) (522.6.204)	N/A	LIM
5.12	**Provision of additional requirements for protection by RCD not exceeding 30mA:**		
5.12.1	For all socket-outlets of rating 32A or less, unless an exception is permitted (411.3.3)	N/A	✔
5.12.2	For the supply of mobile equipment not exceeding 32A rating for use outdoors (411.3.3)	N/A	N/A
5.12.3	For cables concealed in walls at a depth of less than 50mm (522.6.202; 522.6.203)	N/A	C3
5.12.4	For cables concealed in walls/partitions containing metal parts regardless of depth (522.6.203)	N/A	C3
5.12.5	Final circuits supplying luminaires within domestic (household) premises (411.3.4)	N/A	C3

OUTCOMES

Acceptable condition	✔	Unacceptable condition	**C1 or C2**	Improvement recommended	**C3**	Further investigation	**FI**	Not verified	**N/V**	Limitation	**LIM**	Not applicable	**N/A**

15 INSPECTION SCHEDULE FOR DOMESTIC & SIMILAR PREMISES WITH UP TO 100A SUPPLY

Item	Description	Comments	Outcome
5.13	Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527)	N/A	✔
5.14	Band II cables segregated/separated from Band I cables (528.1)	N/A	LIM
5.15	Cables segregated/separated from communications cabling (528.2)	N/A	LIM
5.16	Cables segregated/separated from non-electrical services (528.3)	N/A	LIM
5.17	**Termination of cables at enclosures - indicate extent of sampling in Section 4 of the report (Section 526)**		
5.17.1	Connections soundly made and under no undue strain (526.6)	N/A	✔
5.17.2	No basic insulation of a conductor visible outside enclosure (526.8)	N/A	✔
5.17.3	Connections of live conductors adequately enclosed (526.5)	N/A	✔
5.17.4	Adequately connected at point of entry to enclosure (glands, bushes etc.) (522.8.5)	N/A	✔
5.18	Condition of accessories including socket-outlets, switches and joint boxes (651.2(v))	N/A	✔
5.19	Suitability of accessories for external influences (512.2)	N/A	✔
5.20	Adequacy of working space/accessibility to equipment (132.12; 513.1)	N/A	✔
5.21	Single-pole switching or protective devices in line conductors only (132.14.1, 530.3.3)	N/A	✔
6.0	**LOCATION(S) CONTAINING A BATH OR SHOWER**		
6.1	Additional protection for all low voltage (LV) circuits by RCD not exceeding 30mA (701.411.3.3)	N/A	C3
6.2	Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5)	N/A	✔
6.3	Shaver sockets comply with BS EN 61558-2-5 formerly BS 3535 (701.512.3)	N/A	✔
6.4	Presence of supplementary bonding conductors, unless not required by BS 7671:2018 (701.415.2)	N/A	✔
6.5	Low voltage (e.g. 230 volt) socket-outlets sited at least 3m from zone 1 (701.512.3)	N/A	N/A
6.6	Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2)	N/A	✔
6.7	Suitability of accessories and controlgear etc. for a particular zone (701.512.3)	N/A	✔
6.8	Suitability of current-using equipment for particular position within the location (701.55)	N/A	✔
7.0	**OTHER PART 7 SPECIAL INSTALLATIONS OR LOCATIONS** List all other special installation or locations present, if any. (Record separately the results of particular inspections)		
7.1	N/A	N/A	
7.2	N/A	N/A	
7.3	N/A	N/A	
7.4	N/A	N/A	
7.5	N/A	N/A	
7.6	N/A	N/A	
7.7	N/A	N/A	
7.8	N/A	N/A	
7.9	N/A	N/A	
7.10	N/A	N/A	

OUTCOMES

Acceptable condition	✔	Unacceptable condition	**C1 or C2**	Improvement recommended	**C3**	Further investigation	**FI**	Not verified	**N/V**	Limitation	**LIM**	Not applicable	**N/A**

16 SCHEDULE OF CIRCUIT DETAILS AND TEST RESULTS

Designation of consumer unit: **D.B. 1 GLP and Off Peak Heating** Location: Hallway Cupboard

Circuit number	Circuit designation	Type of wiring	Reference Method	Number of points served	Circuit conductors: csa		Max disconnect time permitted by BS7671	Overcurrent protective devices				RCD	Maximum Z_s permitted by BS7671	Circuit impedances (O			
					Live	cpc		BS(EN)	Type No	Rating	Capacity	Operating current, $I\Delta n$		Ring final circuits only (measured end to end)			A (on be
					mm^2	mm^2	s			A	kA	mA	Ω	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	R_1+
1	Cooker	A	102	1	6	2.5	0.4	60898	B	32	6	N/A	1.37	N/A	N/A	N/A	0.(
2	Kitchen Sockets	A	102	8	2.5	1.5	0.4	61009	B	32	6	30	1.37	0.30	0.30	0.53	N/
3	Beds, Lounge and Hall Sockets	A	102	11	2.5	1.5	0.4	61009	B	32	6	30	1.37	0.62	0.62	0.77	N/
4	Heating Points	A	102	3	2.5	1.5	0.4	60898	B	32	6	N/A	1.37	0.26	0.26	0.41	N/
5	Water Heater	A	102	1	2.5	1.5	0.4	60898	B	16	6	N/A	2.73	N/A	N/A	N/A	0.
6	Lights	A	102	12	1.0	1.0	0.4	60898	B	6	6	N/A	7.28	N/A	N/A	N/A	1.:
7	Smoke Detectors	A	102	1	1.0	1.0	0.4	60898	B	6	6	N/A	7.28	N/A	N/A	N/A	0.:
8	E7 ContactorSupply	A	N/A	1	16	10	5	60898	B	45	6	N/A	0.98	N/A	N/A	N/A	0.(
9	Contactor																
10	Contactor																
11	Contactor																
12	Kitchen Heater	A	102	1	2.5	1.0	0.4	60898	B	16	6	N/A	2.73	N/A	N/A	N/A	0.:
13	Lounge N/Store Heater	A	102	1	2.5	1.5	0.4	60898	B	16	6	N/A	2.73	N/A	N/A	N/A	0.:
14	Hall N/Store Heater	A	102	1	2.5	1.5	0.4	60898	B	16	6	N/A	2.73	N/A	N/A	N/A	0.

CODES FOR TYPE OF WIRING	A Thermoplastic insulated/sheathed cables	B Thermoplastic cables in metallic conduit	C Thermoplastic cables in nonmetallic conduit	D Thermoplastic cables in metallic trunking	E Thermoplastic cables in nonmetallic trunking	F Thermoplastic /SWA cables	G Thermos /SWA ca

This form is based on the model shown in Appendix 6 of BS 7671:2018. Ref: 1