Electrical Installation Condition Report

To comply with:

BS 7671: 2018 (Amendment 1: 2020)
Requirement for Electrical Installations
IET Wiring Regulations Eighteenth Edition

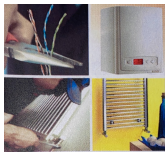
The Old Rectory
Flat 6.
Vicarage Lane
Bognor Regis
West Sussex
PO22 7EA

Electrical verification undertaken for:	
Date inspected:	28 July 2021
Overall assessment:	Unsatisfactory

Electrical specification presented by:

D J M Building Services

55 Halewick Lane
Sompting
West Sussex
BN15 0ND
☎ 01903 750058



Registered Competent Person — Electrical

ELECSA

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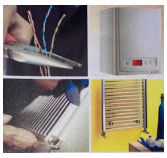

This safety certificate is an important and valuable document which should be retained for future reference

Unique Certificate No. DJMBS-000015-EICR

ELECTRICAL INSTALLATION CONDITION REPORT

Issued in accordance with BS 7671 - Requirements for Electrical Installations

DETAILS OF THE CLIENT

Client:	Mr John Ware	Contract Ref (if any):	
Address:			
Sussex Masonic Housing LTD, 5 Hadrian Avenue, Southwick, West Sussex, BN42 4LJ			

REASON FOR PRODUCING THIS REPORT

Electrical inspection for tenancy agreement	
Date(s) on which inspection and testing was carried out	28 July 2021

DETAILS OF THE INSTALLATION WHICH IS THE SUBJECT OF THIS REPORT

Occupier:	Brian	Description of premises:	Domestic
Address:	The Old Rectory, Flat 6., Vicarage Lane, Bognor Regis, West Sussex, PO22 7EA	Estimated age of wiring system:	55 years
		Evidence of additions / alterations:	Yes
		If yes, estimate age:	5 years
Date of last inspection:	Not known	Electrical Installation Certificate No or previous Electrical Installation Condition Report No:	Not Known
Installation records available:	No	Records held by:	

EXTENT OF THE INSTALLATION

Extent of the installation covered by this certificate:

Visual and full electrical verification

LIMITATIONS OF THE INSPECTION AND TESTING

Agreed limitations including the reasons (See Regulation 634.2):

Ring main circuits unable to access in consumer unit.
Too many cores in RCBO not removed for safety. Unable to access water heater termination due to boxing.

Agreed with:	Landlord.

Operational limitations including the reasons

Ring main circuits unable to access in consumer unit.
Too many cores in RCBO not removed for safety. Unable to access water heater termination due to boxing.

The inspection and testing detailed in this report and accompanying schedules have been carried out in accordance with BS 7671: 2018 (Amendment 1: 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.

SUMMARY OF THE CONDITION OF THE INSTALLATION

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

Poor. MET overloaded cable cut short. Heavy use of extension leads and plug adaptors. lose connections these have been repaired as initial visual. Very old wiring, evidence of parelle ring and spur off spur. smoke sensor next to light fitting.Cables clipped over door jams no fire clips.Broken back boxes. No main bond visible. Heat damage to trunking in kitchen.

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

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

RECOMMENDATIONS

Where the overall assessment of the suitability of the installation for continued use above Is stated as UNSATISFACTORY, I/we recommend that any observations classified as 'Danger present' (Code C1) or 'Potentially dangerous' (Code C2) are acted upon as a matter or urgency.

Investigation without delay is recommended for observations identified as 'Further investigation required' (code FI).

Observations classified as 'Improvement recommended' (Code C3) should be given due consideration.

It is recommended that the installation is further inspected & tested:	following remedial action

DECLARATION

I/We being the person(s) responsible for the inspection & 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 & 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 extent and limitations stated in this report.

INSPECTED AND TESTED BY:

Name	David Mitchell	For & on behalf of:	D J M Building Services
Position	Owner	Address:	55 Halewick Lane Sompting West Sussex BN15 0ND 01903 750058 dave62@me.com
Date	28 July 2021		
Signature			
Enrolment No.:		Branch No.:	Accredited Body: N/A

REPORT AUTHORISED FOR ISSUE BY:

Name	David Mitchell	For & on behalf of:	D J M Building Services
Position	Owner	Address:	55 Halewick Lane Sompting West Sussex BN15 0ND 01903 750058 dave62@me.com
Date	01 August 2021		
Signature			
Enrolment No.:		Branch No.:	Accredited Body: N/A

SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

System type and earthing arrangements	TN-S	✓	TN-C-S		TT		TN-C		IT
Number and Type of Live Conductors	A.C./D.C.	A.C.	No. of phases	1-Phase (3-wire)					

Nature of Supply Parameters

Nominal voltage(s), U_0	230V	Nominal frequency, f	50Hz	Number of supplies	1	Phase sequence confirmed:	N/A
U		External earth fault loop impedance, Z_e	0.27Ω	Prospective fault current, I_{pf}	0.814kA	Supply polarity confirmed:	✓
Primary Supply Overcurrent Protective Device(s)	BS 88-2 System G (Clip-in)			Rated current	60A	Short-circuit capacity	16.5kA

Other sources of supply:

PARTICULARS Of INSTALLATION AT THE ORIGIN

Means of earthing	Supplier's facility	Maximum Demand (Load):	
Method of Fault Protection	ADS		

Main Protective Conductors

Earthing Conductor	Conductor material	Copper	Conductor csa	16mm²	Continuity check	✓	
Main protective bonding conductors	Conductor material	Copper	Conductor csa	10mm²	Continuity check	N	
Bonding of extraneous-conductive parts	Water installation pipes:	LIM	Gas installation pipes:	N/A	Oil service:	N/A	
	Structural steel:	N/A	Lightning protection:	N/A	Other incoming services	N/A	

Main Switch / Switch-Fuse / Circuit-breaker / RCD

Location	Hall cupboard.	BS(EN)	BS EN 60947-3		
No. of poles	2	Rated voltage	400V	Rated current	100A
Fuse rating or setting		Conductors material	Copper	Conductors csa	2 x 16mm²

Front End Residual Current Device details (if applicable):

Operating current $I_{\Delta n}$		Operating time @ $I_{\Delta n}$		Type 'S' RCD (time delayed)	

EICR Inspection Schedule

If the schedule item applies to a particular board or circuit, this is shown in the 'Location' column. Further detail can be found in the 'Observations' section.

Item No	Description	Outcome	Location
1.0	Distributor's (DNO) Supply intake equipment (VISUAL INSPECTION ONLY)		
1.1	Condition of service cable	✓	
1.2	Condition of service head	✓	
1.3	Condition of distributor's earthing arrangement	✓	
1.4	Condition of meter tails - distributor or consumer	C3 - Improvement recommended	Installation
1.5	Condition of metering equipment	✓	
1.6	Condition of isolator (where present)	N/A	
1.	Distributor's (DNO) Supply intake equipment - general observation	✓	
2.0	Presence of adequate arrangements for other sources such as micro-generators		
2.	Presence of adequate arrangements for other sources such as micro-generators (551.6; 551.7)	N/A	
3.0	Earthing & bonding arrangements		
3.1	Presence and condition of distributor's earthing arrangement (542.1.2.1; 542.1.2.2)	✓	
3.2	Presence and condition of earth electrode connection where applicable (542.1.2.3)	N/A	
3.3	Provision of earthing/bonding labels at all appropriate locations (514.13.1)	✓	
3.4	Confirmation of earthing conductor size (542.3; 543.1.1)	✓	
3.5	Accessibility and condition of earthing conductor at MET (543.3.2)	C3 - Improvement recommended	Installation
3.6	Confirmation of main protective bonding conductor sizes (544.1)	FI - Further Investigation Required	Installation
3.7	Condition and accessibility of main protective bonding conductor connections (543.3.2; 544.1.2)	FI - Further Investigation Required	Installation
3.8	Accessibility and condition of other protective bonding connections (543.3.1; 543.3.2)	N/A	
3.	Earthing & bonding arrangements - not covered by any BS7671 item in Section 3	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)	C3 - Improvement recommended	Installation
4.2	Security of fixing (134.1.1)	✓	
4.3	Condition of enclosure(s) in terms of IP rating etc (416.2)	✓	
4.4	Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5)	C3 - Improvement recommended	Installation
4.5	Enclosure not damaged/deteriorated so as to impair safety (651.2)	✓	
4.6	Presence of main linked switch (as required by 462.1.201)	✓	
4.7	Operation of main switch (functional check) (643.10)	✓	
4.8	Manual operation of circuit-breakers and RCDs to prove disconnection (643.10)	✓	
4.9	Correct identification of circuit details and protective devices (514.8.1; 514.9.1)	FI - Further Investigation Required	Installation
4.10	Presence of RCD six-monthly test notice at or near consumer unit/distribution board (514.12.2)	FI - Further Investigation Required	Installation
4.11	Presence of non-standard (mixed) cable colour warning notice at or near consumer unit/distribution board (514.14)	FI - Further Investigation Required	Installation
4.12	Presence of alternative supply warning notice at or near consumer unit/distribution board (514.15)	N/A	
4.13	Presence of other required labelling (please specify) (Section 514)	FI - Further Investigation Required	Installation
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)	FI - Further Investigation Required	Installation
4.15	Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.3)	✓	
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)	✓	
4.17	Protection against electromagnetic effects where cables enter consumer unit/distribution board/ enclosures (521.5.1)	✓	

Item No	Description	Outcome	Location
4.18	RCD(s) provided for fault protection - includes RCBOs (411.4.204; 411.5.2; 531.2)	C2 - Potentially dangerous	Installation
4.19	RCD(s) provided for additional protection/requirements - includes RCBOs (411.3.3; 415.1)	C2 - Potentially dangerous	Installation
4.20	Confirmation of indication that SPD is functional (651.4)	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)	FI - Further Investigation Required	Installation
4.22	Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6)	N/A	
4.23	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)	N/A	
4.	Consumer unit(s) / Distribution board(s) - not covered by any BS7671 item in Section 4	N/A	
5.0	Final circuits		
5.1	Identification of conductors (514.3.1)	FI - Further Investigation Required	Installation
5.2	Cables correctly supported throughout their run (521.10.202; 522.8.5)		
5.3	Condition of insulation of live parts (416.1)		
5.4	Non-sheathed cables protected by enclosure in conduit, ductling or trunking (to include the integrity of conduits and trunking systems, both metal and plastic) (521.10.1)		
5.5	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)		
5.6	Coordination between conductors and overload protective devices (433.1; 533.2.1)		
5.7	Adequacy of protective devices: type and rated current for fault protection (411.3)		
5.8	Presence and adequacy of circuit protective conductors (411.3.1; Section 543)	C2 - Potentially dangerous	Installation
5.9	Wiring system(s) appropriate for the type and nature of the installation and extemal influences (Section 522)	C2 - Potentially dangerous	Installation
5.10	Concealed cables installed in prescribed zones (refer to: Extent and Limitations) (522.6.202)	LIM - Limitation	Installation
5.11	Cables concealed under floor, above ceilings, or in walls/partitions, adequately protected protected against mechanical damage (refer to: Extent and Limitations) (522.6.204)	LIM - Limitation	Installation
5.12.1	Provision of additional requirements for protection by RCD not exceeding 30 mA for all socket-outlets of rating 32 A or less, unless an exception is permitted (411.3.3)	✓	
5.12.2	Provision of additional requirements for protection by RCD not exceeding 30 mA for the supply of mobile equipment not exceeding 32 A rating for use outdoors (411.3.3)	✓	
5.12.3	Provision of additional requirements for protection by RCD not exceeding 30 mA for cables concealed in walls at a depth of less than 50 mm (522.6.202; 522.6.203)	C2 - Potentially dangerous	Installation
5.12.4	Provision of additional requirements for protection by RCD not exceeding 30 mA for cables concealed in walls/partitions containing metal parts regardless of depth (522.6.203)	N/A	
5.12.5	Provision of additional requirements for protection by RCD not exceeding 30 mA for final circuits supplying luminaires within domestic (household) premises (411.3.4)	C2 - Potentially dangerous	Installation
5.13	Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527)	✓	
5.14	Band II cables segregated/separated from Band I cables (528.1)	C3 - Improvement recommended	Installation
5.15	Cables segregated/separated from communications cabling (528.2)	N/A	
5.16	Cables segregated/separated from non-electrical services (528.3)	✓	
5.17.1	Termination of cables at enclosures - indicate extent of sampling in Extent & Limitations of the report (Section 526); Connections soundly made and under no undue strain (526.6)		
5.17.2	Termination of cables at enclosures - indicate extent of sampling in Extent & Limitations of the report (Section 526); No basic insulation of a conductor visible outside enclosure (526.8)	LIM - Limitation	Installation
5.17.3	Termination of cables at enclosures - indicate extent of sampling in Extent & Limitations of the report (Section 526); Connection of live conductors adequately enclosed (526.5)	C3 - Improvement recommended	Installation
5.17.4	Termination of cables at enclosures - indicate extent of sampling in Extent & Limitations of the report (Section 526); Adequately connected at point of entry to enclosure (glands, bushes etc.) (522.8.5)	C3 - Improvement recommended	Installation
5.18	Condition of accessories including socket-outlets, switches and joint boxes (651.2(v))	FI - Further Investigation Required	Installation
5.19	Suitability of accessories for external influences (512.2)	✓	
5.20	Adequacy of working space/accessibility to equipment (132.12; 513.1)	C3 - Improvement recommended	Installation
5.21	Single-pole switching or protective devices in line conductors only (132.14.1, 530.3.3)	✓	
5.22	Provision of relevant certification confirming that the electrical installation, or alteration, has been inspected and verified in accordance with Chapter 64	C3 - Improvement recommended	Installation
5.	Final circuits - not covered by any BS7671 item in Section 5	N/A	
6.0	Location(s) containing a bath or shower		

Item No	Description	Outcome	Location
6.1	Additional protection for all low voltage (LV) circuits by RCD not exceeding 30 mA (701.411.3.3)	C2 - Potentially dangerous	Installation
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 3 m from zone 1 (701.512.3)	✓	
6.6	Suitability of equipment for extemal influences for installed location in terms of IP rating (701.512.2)	✓	
6.7	Suitability of accessories and controlgear etc. for a particular zone (701.512.3)	✓	
6.8	Suitability of current-using equipment for particular position within the location (701.55)	✓	
6.	Location(s) containing a bath or shower - not covered by any BS7671 item in Section 6	✓	
7.0	Other part 7 special installations or locations		
7.1	List all other special installations or locations present, if any (record separately the results of particular installations applied)	N/A	
8.0	Not covered by any BS7671 Inspection Schedule section		
8.	Not covered by any BS7671 Inspection Schedule section	N/A	

Observations

C2 - Potentially dangerous

Absence of 30mA RCD protection of cables buried in walls or partitions

Schedule Item contravened:
4.19 - RCD(s) provided for additional protection/requirements - includes RCBOs (411.3.3; 415.1)

C2 - Potentially dangerous

Absence of 30mA RCD protection of cables buried in walls or partitions

Schedule Item contravened:
5.12.3 - Provision of additional requirements for protection by RCD not exceeding 30 mA for cables concealed in walls at a depth of less than 50 mm (522.6.202; 522.6.203)

C2 - Potentially dangerous

Absence of RCD protection to circuits within a room containing a bath or shower

Schedule Item contravened:
6.1 - Additional protection for all low voltage (LV) circuits by RCD not exceeding 30 mA (701.411.3.3)

C2 - Potentially dangerous

Absence of residual current device protection of circuits [for fault protection]

Schedule Item contravened:
4.18 - RCD(s) provided for fault protection - includes RCBOs (411.4.204; 411.5.2; 531.2)

C2 - Potentially dangerous

Inadequate provision of 13A socket outlets [reliance on extension leads]

Schedule Item contravened:
5.9 - Wiring system(s) appropriate for the type and nature of the installation and extemal influences (Section 522)

C2 - Potentially dangerous

Lighting circuits not covered by RCD.

Schedule Item contravened:
5.12.5 - Provision of additional requirements for protection by RCD not exceeding 30 mA for final circuits supplying luminaires within domestic (household) premises (411.3.4)

C2 - Potentially dangerous

Main equipotential bonding conductor continuity check fault

Schedule Item contravened:
5.8 - Presence and adequacy of circuit protective conductors (411.3.1; Section 543)

C3 - Improvement recommended

Absence of Electrical Installation Certificate for recent works

Schedule Item contravened:
5.22 - Provision of relevant certification confirming that the electrical installation, or alteration, has been inspected and verified in accordance with Chapter 64

C3 - Improvement recommended

Consumer unit is plastic on escape route. No signs of distress. connections good.

Schedule Item contravened:
4.4 - Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5)

C3 - Improvement recommended

Electrical switchgear inaccessible

Schedule Item contravened:
5.20 - Adequacy of working space/accessibility to equipment (132.12; 513.1)

C3 - Improvement recommended

Inadequate segregation of Band I & Band II cables [different voltage ratings]

Schedule Item contravened:
5.14 - Band II cables segregated/separated from Band I cables (528.1)

C3 - Improvement recommended

Inadequate termination of cables [including joints & glands], including inadequate access for inspection, testing, & maintenance

Schedule Item contravened:
5.17.4 - Termination of cables at enclosures - indicate extent of sampling in Extent & Limitations of the report (Section 526); Adequately connected at point of entry to enclosure (glands, bushes etc.) (522.8.5)

C3 - Improvement recommended

Poor positioning of distribution board. Hard to reach.

Schedule Item contravened:
4.1 - Adequacy of working space/accessibility to consumer unit/distribution board (132.12; 513.1)

C3 - Improvement recommended

Poor termination of conductors [including access to live parts]

Schedule Item contravened:
5.17.3 - Termination of cables at enclosures - indicate extent of sampling in Extent & Limitations of the report (Section 526); Connection of live conductors adequately enclosed (526.5)

C3 - Improvement recommended

Poor termination of earthing conductor [termination loose, inaccessible, or showing visible signs of corrosion]
MET too smal larger MET required.l

Schedule Item contravened:
3.5 - Accessibility and condition of earthing conductor at MET (543.3.2)

C3 - Improvement recommended

VIR tails no damage. No signs of distress.

Schedule Item contravened:
1.4 - Condition of meter tails - distributor or consumer

FI - Further Investigation Required

Absence of adequate labelling at, or near, consumer units or distribution boards, warning against presence of non-standard cable colours.
Absence of identification to two types of wiring to BS 7671

Schedule Item contravened:
4.11 - Presence of non-standard (mixed) cable colour warning notice at or near consumer unit/distribution board (514.14)

FI - Further Investigation Required

Absence of identification of conductors at main earthing terminal [CMET]

Schedule Item contravened:
4.13 - Presence of other required labelling (please specify) (Section 514)

FI - Further Investigation Required

Absence of identification of conductors at main earthing terminal [CMET]
Absence of the accurate identification of circuits
CPCs & neutral conductors within distribution board are out of sequence with corresponding phase conductor

Schedule Item contravened:
5.1 - Identification of conductors (514.3.1)

FI - Further Investigation Required

Absence of main protective bonding conductor to incoming water service

Schedule Item contravened:
3.6 - Confirmation of main protective bonding conductor sizes (544.1)

FI - Further Investigation Required

Absence of residual current device [RCD] test label

Schedule Item contravened:
4.10 - Presence of RCD six-monthly test notice at or near consumer unit/distribution board (514.12.2)

FI - Further Investigation Required

Absence of Schedule of Distribution at sub-distribution board/consumer unit

Schedule Item contravened:
4.9 - Correct identification of circuit details and protective devices (514.8.1; 514.9.1)

FI - Further Investigation Required

Antiquated electrical switchgear [electrical accessories; light switches, 13A sockets etc.]

Schedule Item contravened:
5.18 - Condition of accessories including socket-outlets, switches and joint boxes (651.2(v))

FI - Further Investigation Required

Electrical termination inaccessible [BS 7671 requires all terminations to be accessible for verification]

Schedule Item contravened:
3.7 - Condition and accessibility of main protective bonding conductor connections (543.3.2; 544.1.2)

FI - Further Investigation Required

Incorrect miniature circuit breaker [MCB] installed within distribution board

Schedule Item contravened:
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)

FI - Further Investigation Required

Poor termination of cables within distribution board
Poor termination of cables

Schedule Item contravened:
4.21 - Confirmation that ALL conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)

Distribution Schedule: DB 001

DB Location:	Hall cupboard.	Supply Derived From:	Main Supply	Primary Overcurrent Device:	BS 88-2 System G (Clip-in)
DB Type/No:	MEM 1Ø Distribution Board (SinglePole & Neutral)	Voltage:	230V	OPD Current Rating	60A
Designation:	Lighting & Power	No. of phases:	1	OPD Short circuit capacity	16.5kA
Tested by:	David Mitchell	Signature		Date	01 August 2021

Circuit	Circuit Description	Type of wiring	Reference Method	No. of points	Circuit Conductors		Max disconnection time perm	Protective device				Max Permitted Earth Loop	RCD				
					Live	CPC		BS (EN)	Type	Rating	Breaking capacity		BS (EN)	Type	Rating	$I_{\Delta n}$	No. of poles
1	Cooker.	PVC T&E	B	1	LIM	LIM	0.4s	60898	B	32A	6kA	1.37Ω	-------	-------	-------	-------	-------
2	Spare.	-------	-------	-------	-------	-------	-------	60898	B	32A	6kA	-------	-------	-------	-------	-------	-------
3	Sockets.	PVC T&E	LIM	14	LIM	LIM	0.4s	61009	C	32A	10kA	0.68Ω	61009	C	32A	30mA	2
4	Lights.	PVC T&E	B	6	LIM	LIM	0.4s	60898	B	6A	6kA	7.28Ω	-------	-------	-------	-------	-------

Test Results: DB 001

Phase sequence confirmed:	N/A	Z_s at DB:	0.27Ω	Vulnerable circuits and/or installed equipment:	Spur neons, cooker and lights.
Supply polarity confirmed:	✓	I_{pf} at DB:	0.814kA		

Details of Test Instruments Used					
Continuity:	T.I.S MFT-PRO 18101179	Insulation resistance:	T.I.S MFT-PRO 18101179	Earth fault loop impedance:	T.I.S MFT-PRO 18101179
RCD:	T.I.S MFT-PRO 18101179	Earth electrode resistance:			

Circuit	Circuit Description	Ring Final Circuit Continuity			Continuity		Insulation Resistance Test Voltage	Insulation Resistance			Polarity	Max Measured Earth Loop	RCD Test Results				Manual AFDD test button operation
		r_1 (line)	r_n (neutral)	r_2 (cpc)	$R_1 + R_2$	R_2		Live-Live	Live-Neutral	Live-Earth			Test Button	No trip at ½$I_{\Delta n}$	Op time at $I_{\Delta n}$	Op time at 5$I_{\Delta n}$	
1	Cooker.	-------	-------	-------	0.05Ω	-------	500V	N/A	>999MΩ	>999MΩ	✓	0.27Ω	-------	-------	-------	-------	N/A
2	Spare.	-------	-------	-------	-------	-------	-------	N/A	-------	-------	---	-------	-------	-------	-------	-------	-------
3	Sockets.	LIM	LIM	LIM	Lim	-------	500V	N/A	>100MΩ	>100MΩ	✓	0.49Ω	Pass	No trip	36ms	26ms	N/A
4	Lights.	-------	-------	-------	-------	1.88Ω	500V	N/A	>500MΩ	>500MΩ	✓	2.6Ω	-------	-------	-------	-------	N/A

Distribution Schedule: DB 002

DB Location:	Hall cupboard.	Supply Derived From:	Main Supply	Primary Overcurrent Device:	BS 88-2 System G (Clip-in)
DB Type/No:	Alto 1Ø Distribution Board (SinglePole & Neutral)	Voltage:	230V	OPD Current Rating	60A
Designation:	Power	No. of phases:	1	OPD Short circuit capacity	16.5kA
Tested by:	David Mitchell	Signature		Date	01 August 2021

Circuit	Circuit Description	Type of wiring	Reference Method	No. of points	Circuit Conductors		Max disconnection time perm	Protective device				Max Permitted Earth Loop	RCD				
					Live	CPC		BS (EN)	Type	Rating	Breaking capacity		BS (EN)	Type	Rating	$I_{\Delta n}$	No. of poles
1	Shower	PVC T&E	B	1	10mm²	4.0mm²	5s	60898	B	50A	6kA	0.87Ω	61008	AC	63A	30mA	2
2	Water heater and blow heater.	PVC T&E	B	2	2.5mm²	1.5mm²	0.4s	60898	B	20A	6kA	2.19Ω	61008	AC	63A	30mA	2

Test Results: DB 002

Phase sequence confirmed:	N/A	Z_s at DB:	0.27Ω	Vulnerable circuits and/or installed equipment:	Shower and heater.
Supply polarity confirmed:	✓	I_{pf} at DB:	0.814kA		

Details of Test Instruments Used					
Continuity:	T.I.S MFT-PRO 18101179	Insulation resistance:	T.I.S MFT-PRO 18101179	Earth fault loop impedance:	T.I.S MFT-PRO 18101179
RCD:	T.I.S MFT-PRO 18101179	Earth electrode resistance:			

Circuit	Circuit Description	Ring Final Circuit Continuity			Continuity		Insulation Resistance Test Voltage	Insulation Resistance			Polarity	Max Measured Earth Loop	RCD Test Results				Manual AFDD test button operation
		r_1 (line)	r_n (neutral)	r_2 (cpc)	$R_1 + R_2$	R_2		Live-Live	Live-Neutral	Live-Earth			Test Button	No trip at ½$I_{\Delta n}$	Op time at $I_{\Delta n}$	Op time at 5$I_{\Delta n}$	
1	Shower	-------	-------	-------	0.09Ω	-------	500V	N/A	>999MΩ	>999MΩ	✓	0.62Ω	Pass	No trip	36ms	21ms	N/A
2	Water heater and blow heater.	-------	-------	-------	0.14Ω	-------	500V	N/A	>999MΩ	>999MΩ	✓	0.61Ω	Pass	No trip	36ms	21ms	N/A

Distribution Schedule: DB 003

DB Location:	Hall cupboard	Supply Derived From:	Main Supply	Primary Overcurrent Device:	BS 88-2 System G (Clip-in)
DB Type/No:	Wylex 1Ø Distribution Board (SinglePole & Neutral)	Voltage:	230V	OPD Current Rating	60A
Designation:	Heating	No. of phases:	1	OPD Short circuit capacity	16.5kA
Tested by:	David Mitchell	Signature		Date	01 August 2021

Circuit	Circuit Description	Type of wiring	Reference Method	No. of points	Circuit Conductors		Max disconnection time perm	Protective device				Max Permitted Earth Loop	RCD				
					Live	CPC		BS (EN)	Type	Rating	Breaking capacity		BS (EN)	Type	Rating	$I_{\Delta n}$	No. of poles
1	Lounge.	PVC T&E	B	1	2.5mm²	1.5mm²	0.4s	60898	B	16A	6kA	2.73Ω	61008	AC	100A	100mA	2
2	Bed 2.	PVC T&E	B	1	2.5mm²	1.5mm²	0.4s	60898	B	16A	6kA	2.73Ω	61008	AC	100A	100mA	2
3	Hall.	PVC T&E	B	1	2.5mm²	1.5mm²	0.4s	60898	B	16A	6kA	2.73Ω	61008	AC	100A	100mA	2
4	Lounge Spur heater removed.	PVC T&E	B	1	2.5mm²	1.5mm²	0.4s	60898	B	16A	6kA	2.73Ω	61008	AC	100A	100mA	2
5	Spare.	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Test Results: DB 003

Phase sequence confirmed:	N/A	Z_s at DB:	0.27Ω	Vulnerable circuits and/or installed equipment:	None.
Supply polarity confirmed:	LIM	I_{pf} at DB:	0.814kA		

Details of Test Instruments Used					
Continuity:	T.I.S MFT-PRO 18101179	Insulation resistance:	T.I.S MFT-PRO 18101179	Earth fault loop impedance:	T.I.S MFT-PRO 18101179
RCD:	T.I.S MFT-PRO 18101179	Earth electrode resistance:			

Circuit	Circuit Description	Ring Final Circuit Continuity			Continuity		Insulation Resistance Test Voltage	Insulation Resistance			Polarity	Max Measured Earth Loop	RCD Test Results				Manual AFDD test button operation
		r_1 (line)	r_n (neutral)	r_2 (cpc)	$R_1 + R_2$	R_2		Live-Live	Live-Neutral	Live-Earth			Test Button	No trip at ½$I_{\Delta n}$	Op time at $I_{\Delta n}$	Op time at 5$I_{\Delta n}$	
1	Lounge.	-------	-------	-------	1.14Ω	-------	500V	N/A	>999MΩ	>999MΩ	LIM	-------	LIM	LIM	No test	No test	N/A
2	Bed 2.	-------	-------	-------	1.37Ω	-------	500V	N/A	>999MΩ	>999MΩ	LIM	-------	LIM	LIM	No test	No test	N/A
3	Hall.	-------	-------	-------	0.55Ω	-------	500V	N/A	>999MΩ	>999MΩ	LIM	-------	LIM	LIM	No test	No test	N/A
4	Lounge Spur heater removed.	-------	-------	-------	0.21Ω	-------	500V	N/A	>999MΩ	>999MΩ	LIM	-------	LIM	LIM	No test	No test	N/A
5	Spare.	-------	-------	-------	-------	-------	-------	N/A	-------	-------	---	-------	-------	-------	-------	-------	-------

Condition Report

Guidance for Recipients [to be appended to the Certificate)

This Report is an important and valuable document which should be retained for future reference.

1. The purpose of this Report is to confirm, so far as reasonably practicable, whether or not the electrical installation is in a satisfactory condition for continued service (see ‘Summary of the Condition of the Installation’). The Report should identify any damage, deterioration, defects and/or conditions which may give rise to danger (see Observations section).

2. The person ordering the Report should have received the 'original' Report and the inspector should have retained a duplicate.

3. The 'original ' Report should be retained in a safe place and be made available to any person inspecting or undertaking work on the electrical installation in the future. If the property is vacated, this Report will provide the new owner/occupier with details of the condition of the electrical installation at the time the Report was issued.

4. Where the installation incorporates a residual current device (RCD) there should be a notice at, or near the device, stating that it should be tested six-monthly. For safety reasons it is important that this instruction is followed.

5. The Extent and Limitations of Inspection and Testing section should identify fully the extent of the installation covered by this Report and any limitations on the inspection and testing. The inspector should have agreed these aspects with the person ordering the Report and with other interested parties (licensing authority, insurance company, mortgage provider and the like) before the inspection was carried out.

6. Some operational limitations such as inability to gain access to parts of the installation or an item of equipment may have been encountered during the inspection. The inspector should have noted these in Section D.

7. For items classified in the Observations section as C I (' Danger present'), the safety of those using the installation is at risk, and it is recommended that a skilled person or persons competent in electrical installation work undertakes the necessary remedial work immediately.

8. For items classified in the Observations section as C2 (‘Potentially dangerous'), the safety of those using the installation may be at risk and it is recommended that a skilled person or persons competent in electrical installation work undertakes the necessary remedial work as a matter of urgency.

9. Where it has been stated in the Observations section that an observation requires further investigation (code FI) the inspection has revealed an apparent deficiency which may result in a code C l or C2, and could not, due to the extent or limitations of the inspection, be fully identified. Such observations should be investigated without delay. A further examination of the installation will be necessary, to determine the nature and extent of the apparent deficiency (see Recommendations section).

10. For safety reasons, the electrical installation should be re-inspected at appropriate intervals by a skilled person or persons, competent in such work. The recommended date by which the next inspection is due is stated in the Recommendations section of the Report under 'Recommendations ' and on a label at or near to the consumer unit/distribution board.

Glossary of Terms

Abbreviations

ATLP	Access to Live Parts	LSHF/PVCS	Low Smoke Halogen Free PVC Single Cables in Conduit/ Trunking Containment
BH	Bulkhead Light Fitting	LSHF/SWA	Low Smoke Halogen Free Steel Wired Armoured Cable
CMET	Consumer Main Earth Terminal	LSHF/T&E	Low Smoke Halogen Free T&E
CPC	Circuit Protective Conductor	LSHF/XLPE/SWA	XLPE Low Smoke Halogen Free Steel Wired Armoured Cable
CSP	Heat Resistant Rubber Flexible Cable	MCB	Miniature Circuit Breaker
DB	Distribution Board	MCCB	Moulded Case Circuit Breaker
DNO	Distribution Network Operator	MEB	Main Equipotential Bonding
EES	Emergency Exit Signs	MET	Main Earth Terminal
EPR	Heat Resistant Rubber Flexible Cable	MICC	Mineral Insulated Copper Cable
ELV	Extra Low Voltage	NT	Not Tested (Dysfunctional)
EML	Emergency Lighting	OCP	Overcurrent Protection
EN 60898	Miniature Circuit Breaker	PSU	Power Supply Unit (via 13A FCU)
EN 60947-2	Moulded Case Circuit Breaker	PVC T&E	PVC/PVC twin and earth cable
EN 60947-3	Switch, disconnector, or switch-fuse	PVC/SWA	PVC Steel Wired Armoured Cable
EN 61008	Residual Circuit Breaker (without overcurrent protection)	PVCS	PVC Single Cables in Conduit/ Trunking Containment
EN 61009	Residual Circuit Breaker (with overcurrent protection)	Radial	Radial Circuit
FCU	13A Fused Connection Unit	RC	Refer to Comments
FIR	Further Investigation Required	RCD	Residual Circuit Device
FP	Fire Rated Protected Cable	RFC	Ring Final Circuit
IP	Ingress Protection	S/O 13A	Socket Outlet
LHS/RHS	Left Hand Side/Right Hand Side	VIR	Vulcanised Indian Rubber
LSF	Low Smoke & Fume Cables	XLPE/SWA	XLPE Steel Wired Armoured Cable

Overcurrent Protective Device Abbreviations

BS (EN)	Type No	Device
60898	B	BS EN 60898 MCB Type B - Miniature Circuit Breaker (Type B)
60898	C	BS EN 60898 MCB Type C - Miniature Circuit Breaker (Type C)
60898	D	BS EN 60898 MCB Type D - Miniature Circuit Breaker (Type D)
61009	B	BS EN 61009 RCBO Type B - Residual Current Device (Type B)
61009	C	BS EN 61009 RCBO Type C - Residual Current Device (Type C)
61009	D	BS EN 61009 RCBO Type D - Residual Current Device (Type D)
3871	1	BS 3871 MCB Type 1 - Miniature Circuit Breaker (Type 1)
3871	2	BS 3871 MCB Type 2 - Miniature Circuit Breaker (Type 2)
3871	3	BS 3871 MCB Type 3 - Miniature Circuit Breaker (Type 3)
3871	4	BS 3871 MCB Type 4 - Miniature Circuit Breaker (Type 4)
61008		BS EN 61008 RCD - Residual Current Device
4293		BS EN 4293 RCD - Residual Current Device
88-2	E	BS 88-2 Fuse System E (Bolted) - High Rupture Capacity Cartridge Fuse
88-2	G	BS 88-2 Fuse System G (Clip-In) - High Rupture Capacity Cartridge Fuse
88-2.2	gG	BS 88-2.2 Fuse (gG) - High Rupture Capacity Cartridge Fuse
88-3	C	BS 88-3 Fuse System C - High Rupture Capacity Cartridge Fuse
88-6	gG	BS 88-6 Fuse (gG) - High Rupture Capacity Cartridge Fuse
1361	2	BS 1361 Fuse Type 2
1362		BS 1362 Fuse (Domestic)
3036		BS 3036 Fuse Rewirable (Semi-Enclosed)
60947-2	MCCB	BS EN 60947-2 MCCB - Moulded Case Circuit Breaker
60947-3		BS EN 60947-3 - Isolator
60947-2	ACB	BS EN 60947-2 ACB - Air Circuit Breaker
N/V		Non-Verifiable
LIM		Limitation (Refer to: Limitations of the Inspection)

British Standard (BS)

British Standard BS 7671: 2018 Amendment 1: 2020 – also known as the IET (Institution of Engineering & Technology) Wiring Regulations (18th Edition) - Requirements for Electrical Installations is the standard against which all electrical installations are assessed.

Certificate

Any electrician installing a new electrical installation (including a single circuit), altering, extending or adapting an existing circuit should issue to their client, or the homeowner, an Electrical Installation Certificate (EIC), or a Minor Electrical Installation Works Certificate (MEW) to confirm the work complies with the requirements of BS 7671 Appendix 6

Circuit

An assembly of electrical equipment (socket outlets, lighting points and switches) supplied from the same origin and protected against overcurrent by the same protective device(s).

Class I Equipment

Equipment in which protection against electric shock does not rely on basic insulation only, but which includes means for the connection of exposed-conductive-parts to a protective conductor in the fixed wiring of the installation. Class I equipment has exposed metallic parts, e.g. the metallic enclosure of washing machine.

Class II Equipment

Class II equipment, such as music systems, television and video players, in which protection against electric shock does not rely on basic insulation only, but in which additional safety precautions such as supplementary insulation are provided, there being no provision for the connection of exposed metalwork of the equipment to a protective conductor, and no reliance upon precautions to be taken in the fixed wiring of the installation.

Class III Equipment

Equipment, for example for medical use, in which protection against electric shock relies on supply at SELV (Safety extra low voltage) and in which voltages higher than those of SELV are not generated. Class III equipment must be supplied from a safety isolating transformer.

Consumer Unit (also known as a fuse board, or distribution board)

A type of distribution board (principally for domestic premises) comprising a co-ordinated assembly for the control and distribution of electrical energy, incorporating manual means of double-pole isolation on the incoming circuit(s) and an assembly of one or more fuses, circuit-breakers, residual current operated devices or signalling and other devices purposely manufactured for such use.

Distribution Board

An assembly containing switching or protective devices (e.g. fuses, circuit-breakers, residual current operated devices) associated with one or more outgoing circuits fed from one or more incoming circuits, together with terminals for the neutral and protective circuit conductors. It may also include signalling and other control devices. Means of isolation may be included in the board or may be provided separately.

Electrical Installation

Any assembly of electrical equipment supplied by a common source to fulfil a specific purpose.

EICR – Electrical Installation Condition Report

An electrical survey, known as an Electrical Installation Condition Report (EICR) will reveal if electrical circuits are overloaded, find potential hazards in the installation, identify defective DIY work, highlight any lack of earthing or bonding and carry out tests on the fixed wiring of the installation. The report will establish the overall condition of all the electrics and state whether it is satisfactory for continued use and should detail any work that might need to be done.

Electrical Safety Regulations

Registered electricians have already helped to improve the standard of electrical work in the UK. A new electrical safety law, often referred to as Part P (of the Building Regulations), has further enhanced the protection of homeowners and reduced the risk of electric shock when using electricity. The law, which applies to England and Wales aims to improve electrical safety in the home and prevent the number of accidents, which are caused by faulty electrical work. The law requires an electrician registered with a government-approved scheme, such as the NICEIC/ECA/NAPIT/ELECSA/STROMA etc., to carry out most electrical work in the home. After completion of any work, your registered electrician will issue you with a Building Regulations Compliance Certificate to prove it meets the required standards of Part P. You can only carry out electrical work yourself if you can inspect and test that it is safe for use. To comply with the law, you must notify your local building control office before you begin any work and pay the appropriate fee for them to inspect the work.

Extension Leads
An extension cable, also known as a power extender, extension cord or an extension lead, is a length of flexible electrical power cable or flex with a plug on one end and one or more sockets on the other end - usually of the same type as the plug. However, use of extension leads should be avoided where possible, as there is a chance of overloading the circuit.

Miniature Circuit Breaker
A device capable of making, carrying and breaking normal load currents, and making and automatically breaking under predetermined conditions, abnormal currents such as short-circuit currents. It is usually required to operate infrequently, although some types are suitable for frequent operation.

Moulded Case Circuit Breaker
A device capable of making, carrying, and breaking normal load currents, and making and automatically breaking under pre-determined conditions abnormal currents such as short-circuit currents. It is usually required to operate infrequently, although some types are suitable for frequent operation. It is meant for higher rated current and is commonly used in Industrial applications. It's usual range is 250A-800A.

Overcurrent
Electrical current (in amps) that exceeds the maximum limit of a circuit. May result in risk of fire or shock from insulation damaged from heat generated by overcurrent condition.

Part P
The specific section of the Building Regulations for England and Wales that relates to electrical installations in domestic properties. Part P provides safety regulations to protect householders and requires most domestic electrical work to be carried out by government-registered electricians, or to be inspected by Building Control officers.

PAT - Portable Appliance Testing
Inspection and testing of electrical equipment including portable appliances, moveable equipment, hand held appliances, stationary equipment, fixed equipment/appliances, IT equipment and extension leads.

PLI - Public Liability Insurance
Broad term for insurance which covers liability exposures for individuals and business owners. Homeowners should check that their electrician has public liability insurance, which covers them if someone is accidentally injured by them or their business operation. It will also cover them if they damage your property while on business. The cover should include any legal fees and expenses which result from any claim by you. Homeowners looking to employ trades people to undertake work on their homes should ensure the companies selected have suitable cover – minimum recommendation is £2 million.

Portable equipment
Electrical equipment which is less than 18 kg in mass and is intended to be moved while in operation or which can easily be moved from one place to another, such as a toaster, food mixer, vacuum cleaner, fan heater.

Prospective fault current
The value of overcurrent at a given point in a circuit resulting from a fault between live conductors, or a live conductor and earth.

RCD - Residual Current Device
Residual current device is a safety device that switches off the electricity automatically when it detects an earth fault, providing protection against electric shock (only when rated at 30mA or less).

Ring Final Circuit
A final circuit connected in the form of a ring and connected to a single point of supply.

Voltages:

SELV
Separated Extra-Low Voltage. An extra-low voltage system, which is electrically separated from Earth and from other systems in such a way that a single fault cannot give rise to the risk of electric shock.

Extra-Low Voltage
Normally not exceeding 50 V ac or 120 V ripple-free dc whether between conductors or to earth.

Low Voltage
Low Voltage (50V - 1000V)

mA
Milliamp or 1/1000 part of an amp (0.001 amp)