

ELECTRICAL CONDITION REPORT FOR AN ELECTRICAL INSTALLATION

Aziah & Lazlo Beesley

19 Redhills Close, Exeter, EX4 1SD

Tel. 07555692736

Bawcombe Farm, Tavistock, PL19 0QS

Tel. 07855114519

This document is not valid if the number below has been defaced/altered.

Report Number:

ECR_24-03-2021_LBE_AB_000121_000133

A. Details of the Client

Pure Letting

4 East Street

Okehampton

EX20 1AS

Purpose for Which This Report is Required:

Landlords safety report

B. Details of the Installation

Cemetrey Bungalow

Winkleigh

EX19 8HZ

Description of Premises: **Domestic**

Estimated Age of the Electrical Installation: **15.00** years

Evidence of Alterations and Additions: **Yes**

Estimated Age: **1** years

Date of Last Inspection: **Unavailable**

Records Available: **NA**

C. Extent and Limitations of the Inspection

Extent of the electrical installation covered by this report:

Fixed wiring only, with approximately 30% of faceplates removed. Subject to agreed limitations.

Limitations

1. Where fluorescent fittings would require every fitting to be disconnected, or electronic equipment (potential risk of damage to electrical components) is part of circuits to be tested, the insulation resistance test will only have been carried out by between phase/neutral (linked together) and earth. The phase to neutral measurement will not have been measured and therefore not recorded.
2. Functional testing of fire alarms and emergency lighting has not been carried out. This will if requested be carried out under a separate report.
3. Where circuits have been 'Untraced', 'Unable to gain access to carry out tests' or 'Unable to shut down to carry out tests', this will be stated under section 'N. Distribution Board / Circuit Observations and Recommendations'
4. The list of deviations recorded in sections 'M. Site Observations' and 'N. Distribution Board / Circuit Observations and Recommendations' cannot be taken as an exhaustive list. Where deviations have been recorded as a Code FI (further investigation required), further deviations maybe found by the competent person carrying out the investigation.
5. No testing has been carried out above a height of 3.5 metres. If testing is requested, the client is to provide appropriate access equipment with trained personnel as necessary unless otherwise agreed. An attempt may be made to calculate an earth loop impedance reading above 3.5 metres by estimating the length of circuit and using the R1 + R2 method. If this method is used it will be recorded as below in section 'N. Distribution Board / Circuit Observations and Recommendations.' 'Unable to gain access to carry out measured earth loop tests, figures entered are R1 + R2 (Ohms) based on the approximate measured length of circuit. (This figure is for guidance only)' Polarity and earth continuity have not been tested and therefore not recorded.
6. No extra-low voltage circuits have been tested with regard to burglar, fire alarm, equipment/plant control circuits and emergency lighting systems (central battery type). The 240-Volt supplies to these items of equipment will have been tested where access to equipment panels could be gained.
7. Under section 'F. Supply Characteristics and Earthing Arrangements', measurement Ze can only be accurately obtained with the electrical system de-energised and the main earthing conductor isolated from the installation. Where this is not practicable for safety considerations, the main earthing conductor will not be disconnected and that Ze becomes Zdb.

8. Where suspicion that items of equipment contains asbestos (e.g. fuse flash arrestors), fuses will NOT be removed. Therefore, fuse type and size will not be verified or recorded and minimal testing and recording (see note below) of the equipment containing asbestos will be carried out. An observation will be recorded 'Unable to gain access to carry out full testing of equipment due to the presence of asbestos', category Code FI (further investigation required). Note: Restricted to cable type and size, earth loop PFC and overall insulation resistance tests if accessible without dismantling the equipment.

This inspection has been carried out in accordance with BS 7671 : 2018 (IEE Regulations)

Cables concealed within trunking and conduits, or cables and conduits concealed under floors and generally within the fabric of the building or underground have not been inspected.

D. Next Inspection

The interval below is based upon all observations and recommendations being carried out to bring the electrical installation up to current standards.

I/We recommend that this installation is further inspected and tested after an interval of not more than **60 Months** .

E. Declaration

To the best of our knowledge and belief we confirm that the details recorded above and in the attached Observation and Circuit Test Results are an accurate assessment, within the extent and limitations specified at C, of the condition of the electrical installation at B above.

Inspected and Tested By: Aziah Beesley (Test Engineer)

Reviewed By:

L.Beasley

Lazlo Beesley 13/04/2021

F. Supply Characteristics and Earthing Arrangements

Earthing Arrangements: **TN-C-S**

Number and Type of Live Conductors: **AC 1-phase 2-wire
230V Neutral**

Nature of Supply Parameters

Nominal Voltage, $U/U_o^{(1)}$: **230 V**

Nominal Frequency, $f^{(1)}$: **50 Hz**

Prospective Fault Current P-P-P, $I_{pf}^{(2)}$: **NA kA**

External Loop Impedance $Z_e^{(2)}$: **0.570 Ω**

Prospective Fault Current P-N, $I_{pf}^{(2)}$: **0.41 kA**

Note: (1) by enquiry, (2) by enquiry or by measurement

Supply Protective Device BS (EN): **DNO cut out
sealed**

Nominal Current Rating: **NA A**

Main Supply Conductor Material: **Single Phase Split Concentric (PCU/PVC/PVC)**

Short Circuit Capacity: **NA kA**

Csa: **16.00 mm**

G. Particulars of Installation Referred to in the Report

Means of Earthing

Means: **Supplier's Facility**

Details of Installation Earth

Electrode: **NA**

Earth Electrode Location: **NA**

Electrode Resistance to Earth: **NA** Ω

Main Protective Conductors

Material

CSA (mm)

Bunched Copper Cable

16.00

Main Switch or Circuit Breaker

Location: **DB1**

BS (EN): **BS 60947/3**

Current Rating: **100.00 A**

Fuse Rating or Setting: **NA A**

Number of Poles: **2**

Voltage Rating: **230.00 V**

Rated Residual Operating
Current (I_{Δn}): **NA mA**

Operating Time at I_{Δn}: **NA s**

Main Equipotential Bonding Conductors

Type	Present	Connected	Material	CSA (mm)
Water	Yes	Yes	Bunched Copper Cable	10.00
Gas	No	-	-	-
Oil	Yes	Yes	Bunched Copper Cable	10.00
Lightning	No	-	-	-
Pipework	No	-	-	-
Steelwork	No	-	-	-

H. Observations and Recommendations

Referring to the attached Schedule(s) of Inspection and Test Results and subject to the limitations specified at section C of the Inspection section:

Remedial work is required: **No**

If Yes, please see the observations as listed on the following pages under Site Observations and Distribution Board/Circuit Observations.

Code C1: 'Danger present'. Risk of injury. Immediate remedial action required.

Code C2: 'Potentially dangerous'. Urgent remedial action required.

Code C3: 'Improvement recommended'.

Code LIMIT: 'Limitation'.

Code FI: Further investigation required to determine whether danger or potential danger exists.

Code C5: Comment only and is not a recommendation and is not part of BS7671.

I. Summary of the Inspection

Date of the Inspection: **24/03/2021**

Overall Assessment: **Satisfactory**

General Condition of the Installation: **All C1 and/or C2 category code observations rectified at the time of the inspection and where applicable, results have been updated. Only category C3 code observations, recommendations or non-compliances from the regulations found and recorded remain outstanding, although safe for continued use, the electrical installation does not comply with the current regulations. Recommend that the installation is brought up to current standards to enhance the safety of the user(s).**

J Schedule(s)

The attached Schedules are part of this document and this Report is valid only when all pages are present.

K. Schedule of Inspections

Item	Description	Outcome
1.0	Condition/adequacy of distributor's/supply intake equipment	
1.1	Service cable	PASS
1.2	Service head	PASS
1.3	Distributor's earthing arrangement	PASS
1.4	Meter Tails - Distributor / Consumer	PASS
1.5	Metering equipment	PASS
1.6	Means of isolation	PASS
2.0	Presence of adequate arrangements for parallel or switched alternative sources such as microgenerators (551.6; 551.7)	NA
2.1	Adequate arrangements where a generating set operates as a switched alternative to the public/normal supply (551.6)	NA
2.2	Adequate arrangements where a generating set operates in parallel with the public/normal supply (551.7)	NA
3.0	Automatic disconnection of supply	
3.1	Main earthing and bonding arrangements (411.3; Chapter 54)	PASS
3.1.1	Presence and condition of distributor's/supplier's earthing arrangement (542.1.2.1; 542.1.2.2)	PASS
3.1.2	Presence and condition of earth electrode arrangement (542.1.2.3)	NA
3.1.3	Adequacy of earthing conductor size (542.3; 543.1.1)	PASS
3.1.4	Adequacy of earthing conductor connections (542.3.2; 543.2.2; 543.2.5)	PASS
3.1.5	Accessibility and condition of earthing conductor and connections including at the MET (543.3.2)	PASS
3.1.6	Adequacy of main protective bonding conductor size(s) (544.1)	PASS
3.1.7	Adequacy and location of main protective bonding conductor connections (543.3.2; 544.1.2)	PASS
3.1.8	Accessibility of all protective bonding conductor connections (543.3.2)	PASS
3.1.9	Provision of earthing/bonding labels at all appropriate locations (514.13)	PASS
3.2.1	Source providing at least simple separation (411.7.4)	NA
3.2.2	Plugs, socket-outlets and the like not interchangeable with those of other systems within the premises (411.7.5)	NA
3.3	Reduced Low Voltage (s/phase 55 V & 3-phase 63.5 V to earthed mid point)	
3.3.1	Adequacy of source	NA
3.3.2	Plugs, socket-outlets and the like not interchangeable with those of other systems within the premises	NA
4.0	Other methods of protection (where the methods of protection listed below are employed, details should be provided on separate sheets)	
4.1	Double insulation (Section 412)	NA
4.2	Reinforced insulation (Section 412)	NA
4.3	Use of obstacles (Section 417)	NA
4.4	Placing out of reach (Section 417.3)	NA
4.5	Non-conducting location (418.1)	NA
4.6	Earth-free local equipotential bonding (Section 418.2)	NA
4.7	Electrical separation for two or more items of equipment from a single source (Section 418.3)	NA
5.0	Distribution equipment	
5.1	Adequacy of working space/accessibility of distribution equipment (132.12; 513.1; 526.3)	PASS
5.2	Security of fixing (134.1.1)	PASS
5.3	Condition of insulation of live parts (416.1)	PASS
5.5	Condition of enclosure(s) in terms of IP rating (416.2)	PASS
5.6	Condition of enclosure(s) in terms of fire rating (421.1.201; 526.5)	C3
5.7	Enclosure not damaged/deteriorated so as to impair safety (412.2)	PASS
5.8	Presence of main switch(es), linked where required (537.1.2; 537.1.4)	PASS

Pass indicates **Acceptable condition**

Limit indicates **Limitation**

NA indicates **Not applicable**

C1 or C2 indicates **Unacceptable condition**

C3 indicates **improvement recommended**

FI indicates **further investigation required** to determine whether danger or potential danger exists

C5 indicates **Comment only** and is not a recommendation and is not part of BS 7671

5.9	Operation of main switch(es) (functional check) (612.13.2)	PASS
5.10	Correct identification of circuit details and protective devices (514.8.1; 514.9.1)	PASS
5.11	RCD(s) provided for fault protection - includes RCBOs (411.4.9; 411.5.2; 531.2)	PASS
5.12	RCD(s) provided for additional protection - includes RCBOs (411.3.3; 415.1)	PASS
5.13	RCD(s) provided for protection against fire - includes RCBOs (422.3.9; 532.1)	PASS
5.14	Adequacy of protective devices for prospective fault current. (434.5.1)	PASS
5.15	Confirmation that integral test button(s)/switch causes RCD(s) to trip when operated (functional check). (612.13.1)	PASS
5.16	Presence of RCD quarterly test notice at or near equipment where required (514.12.2)	PASS
5.17	Presence of diagrams, charts or schedules at or near equipment where required (514.9.1)	PASS
5.18	Presence of non-standard (mixed) cable colour warning notice at or near equipment where required (514.14)	PASS
5.19	Presence of alternative supply arrangement warning notice(s) at or near equipment where required (514.15)	NA
5.20	Presence of replacement next inspection recommendation label (514.12.1)	PASS
5.21	Presence of other required labelling (specify) (Section 514)	NA
5.23	Single-pole switching or protective devices are in the line conductor only (132.14.1; 530.3.2)	PASS
5.24	Protection against mechanical damage where cables enter equipment (522.8.1; 522.8.11)	PASS
5.25	Protection against electromagnetic effects where cables enter metallic enclosures (521.5.1)	PASS
6.0	Distribution/final circuits	
6.1	Identification of conductors (514.3.1)	PASS
6.2	Cables correctly supported throughout their run (522.8.5)	PASS
6.3	Condition of insulation of live parts (416.1)	PASS
6.4	Non-sheathed cables protected by enclosure in conduit, duct or trunking (521.10.1)	NA
6.5	Suitability of containment systems for continued use (including flexible conduit) (Section 522)	PASS
6.6	Cables correctly terminated in enclosures (Section 526)	PASS
6.7	Examination of cables for signs of unacceptable thermal and mechanical damage/deterioration (421.1; 522.6; 526.2)	PASS
6.8	Adequacy of cables for current-carrying capacity with regard to the type and nature of installation (Section 523)	PASS
6.9	Adequacy of protective devices; type and rated current for fault protection (411.3)	PASS
6.10	Presence and adequacy of circuit protective conductors (411.3.1.1; 543.1)	PASS
6.11	Co-ordination between conductors and overload protective devices (433.1; 533.2.1)	PASS
6.12	Wiring system(s) or cable installation methods/practices appropriate to the type and nature of installation and external influences (Section 522)	PASS
6.13	Cables where exposed to direct sunlight, of a suitable type (522.11.1)	C3
6.14	Concealed cables installed in prescribed zones (see Extent and Limitations) (522.6.202)	PASS
6.16	Confirmation of indication that SPD(s) are functional. (534.2.8)	NA
6.17	Confirmation that ALL conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)	PASS
6.18	Provision of additional protection by 30 mA RCD	
6.18.1	For cables concealed/installed in walls or partitions at a depth of less than 50 mm NOT in compliance with Regulation 522.6.204 (e.g. earthed mechanical protection). (522.6.202; .203)	PASS
6.18.2	For supply to mobile equipment not exceeding 32amps for use outdoors. (411.3.3)	PASS
6.18.3	For all socket-outlets of rating 20amps or less, unless exempt. (411.3.3)	PASS
6.18.4	For cables concealed/installed in walls or partitions containing metal parts regardless of depth NOT in compliance with Regulation 522.6.204 (e.g. earthed mechanical protection). (522.6.203)	PASS
6.19	Provision of fire barriers, sealing arrangements and protection against thermal effects. (Section 527)	PASS
6.20	Band II cables segregated/separated from Band I cables. (528.1)	PASS
6.21	Cables segregated/separated from non-electrical services. (528.3)	PASS
6.22	Termination of cables at enclosures	

Pass indicates Acceptable condition

Limit indicates Limitation

NA indicates Not applicable

C1 or C2 indicates Unacceptable condition

C3 indicates improvement recommended

F1 indicates further investigation required to determine whether danger or potential danger exists

C5 indicates Comment only and is not a recommendation and is not part of BS 7671

6.22.1	Connections under no undue strain. (526.6)	PASS
6.22.2	No basic insulation of a conductor visible outside an enclosure. (526.8)	PASS
6.22.3	Connections of live conductors adequately enclosed. (526.5)	PASS
6.22.4	Adequacy of connection at point of entry to enclosure (gland, bush or similar). (522.8.5)	PASS
6.23	General condition of wiring systems. (Section 522)	PASS
6.24	Temperature rating of cable insulation. (512.1.5)	PASS
6.25	Condition of electrical equipment / accessories including socket-outlets, switches and joint boxes. (612.2(iii))	PASS
6.26	Suitability of electrical equipment / accessories for external influences. (512.2)	PASS
7.0	Isolation and switching	
7.1	Isolators (537.2)	
7.1.1	Presence and condition of appropriate devices. (537.2.2; 560.7.5)	PASS
7.1.2	Acceptable location. (537.3.2.4)	PASS
7.1.3	Capable of being secured in the OFF position. (537.2.1.2)	PASS
7.1.4	Correct operation verified. (612.13.2)	PASS
7.1.5	Clearly identified by position and/or durable marking(s) (537.2.2.6)	PASS
7.1.6	Warning label posted in situations where live parts cannot be isolated by the operation of a single device. (514.11.1; 537.2.1.3)	PASS
7.2	Switching off for mechanical maintenance	
7.2.1	Presence and condition of appropriate devices. (537.3.1.1)	PASS
7.2.2	Acceptable location. (537.3.2.4)	PASS
7.2.3	Capable of being secured in the OFF position. (537.3.2.3)	PASS
7.2.4	Correct operation verified. (612.13.2)	PASS
7.2.5	Clearly identified by position and/or durable marking(s)	PASS
7.3	Emergency switching/stopping	
7.3.1	Presence and condition of appropriate devices. (537.4.1.1)	NA
7.3.2	Readily accessible for operation where danger might occur. (537.4.2.5)	NA
7.3.3	Capable of being secured in the OFF position. (537.4.2.6)	NA
7.3.4	Correct operation verified. (537.4.2.6)	NA
7.3.5	Clearly identified by position and/or durable marking(s). (537.4.2.7)	NA
7.4	Functional switching	
7.4.1	Presence and condition of appropriate devices. (537.5.1.1)	PASS
7.4.2	Correct operation verified. (537.5.1.3; 537.5.2.2)	PASS
8.0	Current-using equipment (permanently connected)	
8.1	Condition of equipment in terms of IP rating. (Section 512 & 416.2)	PASS
8.2	Equipment does not constitute a fire hazard. (Sections 421; 422)	PASS
8.3	Enclosure not damaged/deteriorated so as to impair safety. (416.2.1)	PASS
8.4	Suitability for the environment and external influences. (512.2)	PASS
8.5	Security of fixing. (134.1.1)	PASS
8.6	Cable entry holes in ceiling above luminaires, sized or sealed so as to restrict the spread of fire (indicate extent of sampling in Section D of report)	PASS
8.7	Recessed luminaires (e.g. downlighters)	
8.7.1	Correct type of lamps fitted	NA
8.7.2	Installed to minimise build-up of heat by use of 'fire rated' fittings, insulation displacement box or similar. (421.1.2; 559.4.1)	NA
8.7.3	No signs of overheating to surrounding building fabric. (559.4.1)	NA
8.7.4	No signs of overheating to conductors/terminations. (526.2(v))	NA
9.0	Location(s) containing a bath or shower (Section 701)	
9.1	Additional protection for all low voltage (LV) circuits by RCD not exceeding 30 mA for low voltage circuits serving the location and for low voltage circuits passing through Zone 1 and Zone 2 not serving the location if applicable. (701.411.3.3)	PASS

Pass indicates Acceptable condition

Limit indicates Limitation

NA indicates Not applicable

C1 or C2 indicates Unacceptable condition

C3 indicates improvement recommended

FI indicates further investigation required to determine whether danger or potential danger exists

C5 indicates Comment only and is not a recommendation and is not part of BS 7671

9.2	Where used as a protective measure, requirements for SELV or PELV are met. (701.414)	NA
9.3	Shaver sockets comply with BS EN 61558-2-5 or BS 3535. (701.512.3)	PASS
9.4	Presence of supplementary bonding conductors if required. (701.415.2)	NA
9.5	Low voltage (e.g. 230 volts) socket-outlets sited at least 3 m from zone 1. (701.512.3)	PASS
9.6	Suitability of equipment for external influences for installed locations in terms of IP rating. (701.512.2)	PASS
9.7	Suitability of equipment for installation in a particular zone. (701.512.3)	PASS
9.8	Suitability of current using equipment for particular position within the location. (701.55)	PASS

Pass indicates **Acceptable condition**

Limit indicates **Limitation**

NA indicates **Not applicable**

C1 or C2 indicates **Unacceptable condition**

C3 indicates **improvement recommended**

FI indicates **further investigation required** to determine whether danger or potential danger exists

C5 indicates **Comment only** and is not a recommendation and is not part of BS 7671

L. Guidance for Recipients on the Recommendation Codes

Only one Recommendation Code should have been given for each recorded observation in sections M and N under column "Severity".

- It is important to note that the recommendation given at Section D (Next Inspection) of this report for the maximum interval until the next inspection is conditional upon all items which have been given a Code 1 or Code FI being remedied immediately, and all items which have been given a Code 2 being remedied as a matter of urgency. See column "Severity" in sections F, N and M.
- It would not be reasonable for the inspector to indicate that the installation is in a satisfactory condition if any observation in this report has been given a Code C1, Code C2 or Code FI classification.
- The testing engineer reserves the right to isolate any part of the installation that in the engineers opinion would give rise to immediate shock or fire risk.

Code C1 (Danger present)

Where an observation has been given a Code C1, the safety of those using the installation may be at risk and immediate remedial action is required.

The person responsible for the maintenance of the installation is advised to take action without delay to remedy the observed deficiency in the installation or to take other appropriate action (such as switching off and isolating the affected part(s) of the installation) to remove the potential danger. The Approved Contractor issuing this report will be able to provide further advice.

Code C2 (Potentially dangerous)

Code C2 indicates that whilst safety of those using the installation may not be at immediate risk, urgent remedial action should be taken as soon as possible to remove potential danger. The Approved Contractor issuing this report will be able to provide further advice.

Code C3 (Improvement recommended)

Where an observation has been given a Code C3, the inspection and/or testing has revealed a non-compliance with the current safety standard which, whilst not presenting immediate or potential danger, would result in a significant safety improvement if remedied. Careful consideration should be given to the safety benefits of improving these aspects of the installation. The Approved Contractor issuing this report will be able to provide further advice.

Code LIMIT (Limitation)

When carrying out an Electrical Installation Condition report, additional limitations with regard to testing may be placed upon the inspecting engineer due to access (height), client production or other constraints e.g. unable to isolate circuits for dead testing, or electronic equipment within the circuitry may suffer damage by high test voltages (500 Volts). The inspector will make an assessment with regard to the size and type of protective device, the type and size of cable and method of installation. If, in the opinion of the inspector, the circuit is **safe for continued use** the inspector will enter the relevant observation with the code "LIMIT".

Code FI (Requires further investigation)

However, where "FI" has been entered against an observation in the "Severity" column at sections N and M, the inspector considers that further investigation of that observation is likely to reveal danger or potential danger that, due to the agreed extent or limitations of the inspection and/or testing, could not be fully identified at the time.

Code 5

Code 5 is a comment only and not a recommendation and is not part of BS7671. It is intended as information only, which could be useful to the person ordering this report, the engineer carrying out the inspection and/or the competent person carrying out any remedial actions.

The data used to create this report is available as an ETAS file. ETAS software can help you maintain complex and/or multiple electrical installations and is free for end-user/client use. Download ETAS from <https://www.etas.co.uk>. Then please contact your electrical contractor or testing company for the data.

Cemetrey Bungalow
Winkleigh
EX19 8HZ

Test Instrument Details Used in the Compilation of This Report

Make	Model	Serial Number
Metrel	MI3152	20060741

M. Site Observations and Recommendations

Ref.		Severity	Rectified By	Date
S1.	Arc Fault Detection Devices (AFDD) conforming to BS EN 62606 are recommended as a means of providing additional protection against fire caused by arc faults in AC final circuits. Each AFDD should be placed at the origin of the circuit to be protected, for AC single phase circuits not exceeding 230V (Regulation 421.1.7 and 532.6).	C3		
S2.	Unable to gain access to verify type and size of DNO fuse. It is the inspector's opinion that there is no apparent risk for continued use and therefore, as agreed with the client, this observation is categorized as a limitation (LIMIT). Regulation 612.1 (soi1.2)	LIMIT		

N. Distribution Board / Circuit Observations and Recommendations

Ref.		Severity	Rectified By	Date
1.	Split RCD Fuse Board: DB1 Location: Kitchen			
1.1	10. Wiring systems shall be supported such that they will not be liable to premature collapse in the event of a fire. Non-escape routes only (Regulation 521.10.202). (SOI 6.12)	C3		
1.2	Protection against transient overvoltages (surge protection) shall be considered where the consequence by the overvoltage is unlikely to result in serious injury to, or loss of, human life and where no risk assessment has been carried out to permit the exclusion of such protection (Regulation 443.4). (SOI 6.16)	C3		
1.3	The consumer unit, also known as Fuseboard at the premises is not made of a non-combustible enclosure. Regulation 421.1.201	C3		
1.4	Circuit 7L1: Continuity reading high on ring main, suspect circuit too large, therefore may be at risk of excessive voltage drop. Regulation 433.1.103 and Appendix 15	C3		
2.	RCD Fuse Board: Outbuilding Location: Garage			
2.1	Circuit 1L1: Unable to gain access to carry out earth loop tests. It is the inspector's opinion that there is no apparent risk for continued use and therefore, as agreed with the client, this observation is categorized as a limitation (LIMIT) subject to safe isolation procedures are in place before any maintenance on electrical equipment is carried out. Regulation 612.9 (soi6.9)	LIMIT		

This page is intentionally left blank.

Type/ID:	Split RCD Fuse Board: DB1		Make/Frame:	MK		Effective Upline Device	
Fed From:	DNO Supply		RCD1	RCD2	BS (EN):	DNO cut out sealed	
Located:	Kitchen		BS 61008	BS 61008	Rating:	- A	
Supply Type:	AC 1-phase 2-wire 230V Neutral		Rating: NA	A	Rating: NA	A	Breaking Capacity: - kA
Cable BS Type:	6004	CSA: 16.0 mm	IΔn: 30.00 mA	IΔn: 30.00 mA	Overload Io/Ir: - A		
CPC Type:	Bunched Copper Cable	CSA: 16.00 mm	Circuits: 2L1-4L1	Circuits: 5L1-7L1	Instant Setting I/Im: - A		
			PE/PN	PP	PPP		
			Max. Let Through (kA): 0.407	NA	NA		

Circuit Number	Circuit Description	Method of Installation	Conductor Details					Maximum Disconnection Time Permitted by BS7671	Overcurrent Protective Device							Maximum Zs Permitted by BS7671	
			Number of Phases	Number of Cables	Live Conductor	CPC Conductor	CPC Material		Protective Switch Type	Sub Category	Rating	Short Circuit Capacity	Overload Io/Ir	Instant Setting I/Im	RCBO (Fuseway)		RCD (Circuit)
					mm	mm	s	BS (EN)		A	kA	A	kA	mA	mA	Ω	
1L1	RCD Fuse Board: Outbuilding	D5:2	1	1	6	2.5	Cu	5.00	BS 60898	B	32.0	6.0	-	-	-	-	1.370
2L1	Cooker	D5:2	1	1	6	2.5	Cu	0.40	BS 60898	B	32.0	6.0	-	-	-	-	1666.667
3L1	Water Heater	D5:2	1	1	2.5	1.5	Cu	0.40	BS 60898	B	16.0	6.0	-	-	-	-	1666.667
4L1	Smoke Alarm & Boiler Room Light	D5:2	1	1	1	1.0	Cu	0.40	BS 60898	B	6.0	6.0	-	-	-	-	1666.667
5L1	Sockets - Whole House Old Circuit	D5:2	1	2	2.5	3.0	Cu	0.40	BS 60898	B	32.0	6.0	-	-	-	-	1666.667
6L1	Lights - Whole House	D5:2	1	1	1	1.0	Cu	0.40	BS 60898	B	6.0	6.0	-	-	-	-	1666.667
7L1	Sockets - Whole House New Circuit	D5:2	1	2	2.5	3.0	Cu	0.40	BS 60898	B	32.0	6.0	-	-	-	-	1666.667

Methods of installation are formatted <table code>-<x>, where refers to column <x> of the table given in Appendix 4 of the 17th Edition regulations or in manufacturer's data. Where cables are buried in a duct or directly in the ground, a ground temperature of 15°C @ a minimum depth 0.5 metre with a ground thermal resistivity of 1.2 K.m/W is assumed.

D1	4D1A	Single core 70°C thplastic sheathed cables, non-armoured (Cu)	H3	4H3A	Single-core 70°C armoured thplastic insulated cables (non-mag. armour) (Al)
D2	4D2A	Multicore 70°C thplastic insulated & thplastic sheathed cables, non-armoured (Cu)	H4	4H4A	Multi-core 70°C armoured thplastic insulated cables (Al)
D3	4D3A	Single core 70°C armoured thplastic (pvc) insulated cables (non-mag. armour) (Cu)	D5	4D5	70°C thplastic insulated & sheathed flat cable with protective conductor (Cu)
D4	4D4A	Multicore 70°C armoured thplastic insulated cables (Cu)	J1	4J1A	Single-core 90°C thsetting insulated cables, unarmoured, with or without sheath (Al)
E1	4E1A	90°C thsetting insulated cables, unarmoured, with or without sheath (Cu)	J2	4J2A	Multicore 90°C thsetting insulated & thplastic sheathed cables, non-armoured (Al)
E2	4E2A	Multicore 90°C thsetting insulated & thplastic sheathed cables, non-armoured (Cu)	J3	4J3A	Single core 90° C armoured thsetting insulated cables (non-mag. armour) (Al)
E3	4E3A	Single-core 90°C armoured thsetting insulated cables (non-mag. armour) (Cu)	J4	4J4A	Multi-core 90° C armoured thsetting insulated cables (Al)
E4	4E4A	Multi-core 90°C armoured thsetting insulated cables (Cu)	CO	Conc	Both concentric & split concentric cables
G1	4G1A	Mineral insulated cables thplastic covered or bare & exposed to touch (Cu&Sheath)	PC	Papcop	Paper insulated, lead sheath with either cloth or PVC outer sleeving. (Cu)

Location:	Kitchen		Site Name:	Cemetrey Bungalow						
Results:	Z _{db} :	0.570 Ω	Outside of the Potential Zone:	No						
	I _{pf} :	0.41 kA	Means of Earthing:	NA						
RCD1	IΔn:	22.10 ms	Earth Electrode Location:	NA						
	5IΔn:	18.90 ms	Main/Electrode Earthing Conductor:	NA mm						
RCD2	IΔn:	31.90 ms	Water:	NA mm	Gas:	NA mm	Oil:	NA mm	Structural Steelwork:	NA mm
	5IΔn:	11.60 ms	Metalwork Between Buildings (Separate DNO Supply):	NA mm		Other:	NA mm			

Circuit Number	Ring Main Impedances			Circuit Impedances			Insulation Resistance				Polarity	Maximum Measured Earth Loop Impedance Z _s	RCBO Fuseway		RCD Circuit		Maximum Non-compliance Severity Observed	Circuit Compliance for Continued Safe Use
	RI Ω	Rn Ω	R2 Ω	R1 + R2 Ω	R2 Ω	CPC Continuous Throughout Circuit P/F	Phase/Phase MΩ	Phase/Neutral MΩ	Phase/Earth MΩ	Neural/Earth MΩ			At IΔn 0° & 180° (Highest Reading) ms	At 5IΔn (≤30 mA) 0° & 180° (Highest Reading) ms	At IΔn 0° & 180° (Highest Reading) ms	At 5IΔn (≤30 mA) 0° & 180° (Highest Reading) ms		
1L1	-	-	-	-	-	Yes	-	UTT	200.00	200.00	Pass	0.630	-	-	-	-	-	Pass
2L1	-	-	-	-	-	Yes	-	UTT	200.00	200.00	Pass	0.590	-	-	-	-	-	Pass
3L1	-	-	-	-	-	Yes	-	UTT	200.00	200.00	Pass	0.740	-	-	-	-	-	Pass
4L1	-	-	-	-	-	Yes	-	UTT	200.00	200.00	Pass	0.650	-	-	-	-	-	Pass
5L1	0.66	0.66	1.10	0.440	-	Yes	-	UTT	1.04	1.04	Pass	1.010	-	-	-	-	-	Pass
6L1	-	-	-	-	-	Yes	-	UTT	1.10	1.10	Pass	1.260	-	-	-	-	-	Pass
7L1	0.85	0.85	1.41	0.560	-	Yes	-	UTT	1.97	1.97	Pass	1.130	-	-	-	-	C3	Pass

Type/ID:	RCD Fuse Board: Outbuilding		Make/Frame:	Hager		Effective Upline Device
Fed From:	Split RCD Fuse Board: DB1		RCD1	RCD2		BS (EN): BS 60898/B
Located:	Garage		BS 61008	NA		Rating: 32.0 A
Supply Type:	AC 1-phase 2-wire 230V Neutral		Rating: NA A	Rating: NA A		Breaking Capacity: 6.0 kA
Cable BS Type:	6004	CSA: 6.0 mm	IΔn: 30.00 mA	IΔn: NA mA		Overload Io/Ir: - A
CPC Type:	Core of Copper Cable		Circuits: 1L1-4L1	Circuits: NA		Instant Setting I/Im: - A
Max. Let Through (kA):	PE/PN		0.365	PP		PPP
				NA		NA

Circuit Number	Circuit Description	Method of Installation	Conductor Details					Maximum Disconnection Time Permitted by BS7671	Overcurrent Protective Device						RCBO (Fuseway)	RCD (Circuit)	Maximum Zs Permitted by BS7671
			Number of Phases	Number of Cables	Live Conductor		CPC Material		Protective Switch Type	Sub Category	Rating	Short Circuit Capacity	Overload Io/Ir	Instant Setting I/Im			
					mm	mm											
1L1	Lights - Garage	D5:6	1	1	1	1.0	Cu	0.40	BS 60898	B	6.0	6.0	-	-	-	-	1666.667
2L1	Split Circuit	-	-	-	-	-	-	-	BS 60898	B	20.0	6.0	-	-	-	-	-
2L1a	Socket Below	D5:6	1	1	2.5	1.5	Cu	0.40	BS 60898	B	20.0	6.0	-	-	-	-	1666.667
2L1b	Socket - Garage Door	D5:7	1	1	2.5	1.5	Cu	0.40	BS 60898	B	20.0	6.0	-	-	-	-	1666.667
3L1	Spare	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4L1	Spare	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Methods of installation are formatted <table code>-<x>, where refers to column <x> of the table given in Appendix 4 of the 17th Edition regulations or in manufacturer's data. Where cables are buried in a duct or directly in the ground, a ground temperature of 15°C @ a minimum depth 0.5 metre with a ground thermal resistivity of 1.2 K.m/W is assumed.

D1	4D1A	Single core 70°C thplastic sheathed cables, non-armoured (Cu)	H3	4H3A	Single-core 70°C armoured thplastic insulated cables (non-mag. armour) (Al)
D2	4D2A	Multicore 70°C thplastic insulated & thplastic sheathed cables, non-armoured (Cu)	H4	4H4A	Multi-core 70°C armoured thplastic insulated cables (Al)
D3	4D3A	Single core 70°C armoured thplastic (pvc) insulated cables (non-mag. armour) (Cu)	D5	4D5	70°C thplastic insulated & sheathed flat cable with protective conductor (Cu)
D4	4D4A	Multicore 70°C armoured thplastic insulated cables (Cu)	J1	4J1A	Single-core 90°C thsetting insulated cables, unarmoured, with or without sheath (Al)
E1	4E1A	90°C thsetting insulated cables, unarmoured, with or without sheath (Cu)	J2	4J2A	Multicore 90°C thsetting insulated & thplastic sheathed cables, non-armoured (Al)
E2	4E2A	Multicore 90°C thsetting insulated & thplastic sheathed cables, non-armoured (Cu)	J3	4J3A	Single core 90° C armoured thsetting insulated cables (non-mag. armour) (Al)
E3	4E3A	Single-core 90°C armoured thsetting insulated cables (non-mag. armour) (Cu)	J4	4J4A	Multi-core 90° C armoured thsetting insulated cables (Al)
E4	4E4A	Multi-core 90°C armoured thsetting insulated cables (Cu)	CO	Conc	Both concentric & split concentric cables
G1	4G1A	Mineral insulated cables thplastic covered or bare & exposed to touch (Cu&Sheath)	PC	Papcop	Paper insulated, lead sheath with either cloth or PVC outer sleeving. (Cu)

Location:	Garage		Site Name:	Cemetrey Bungalow	
Results:	Z _{db} : 0.630 Ω	Outside of the Potential Zone:	No	Earthing Arrangements:	NA
	I _{pf} : 0.37 kA	Means of Earthing:	NA	Earth Electrode Type:	NA
RCD1	IΔn: 13.50 ms	Earth Electrode Location:	NA	Electrode Resistance:	NA Ω
	5IΔn: 9.40 ms			Main/Electrode Earthing Conductor:	NA mm
RCD2	IΔn: NA ms	Water: NA mm	Gas: NA mm	Oil: NA mm	Structural Steelwork: NA mm
	5IΔn: NA ms	Metalwork Between Buildings (Separate DNO Supply): NA mm		Other:	NA mm

Circuit Number	Ring Main Impedances			Circuit Impedances			Insulation Resistance				Polarity	Maximum Measured Earth Loop Impedance Zs	RCBO Fuseway		RCD Circuit		Maximum Non-compliance Severity Observed	Circuit Compliance for Continued Safe Use
	RI	Rn	R2	R1 + R2	R2	CPC Continuous Throughout Circuit	Phase/Phase	Phase/Neutral	Phase/Earth	Neutral/Earth			At IΔn 0° & 180° (Highest Reading)	At 5IΔn (<=30 mA) 0° & 180° (Highest Reading)	At IΔn 0° & 180° (Highest Reading)	At 5IΔn (<=30 mA) 0° & 180° (Highest Reading)		
	Ω	Ω	Ω	Ω	Ω	P/F	MΩ	MΩ	MΩ	MΩ	P/F	Ω	ms	ms	ms	ms		P/F
1L1	-	-	-	-	-	Yes	-	UTT	98.80	98.80	Pass	UTT	-	-	-	-	LIMIT	Pass
2L1	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	Pass
2L1a	-	-	-	-	-	Yes	-	UTT	200.00	200.00	Pass	0.670	-	-	-	-	-	Pass
2L1b	-	-	-	-	-	Yes	-	UTT	99.00	99.00	Pass	0.820	-	-	-	-	-	Pass
3L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-