ELECTRICAL INSTALLATION CONDITION REPORT

EC2423 - Master

Cannings
Building services engineers

A. Details of the Client/Person Ordering the Report

Client: Wessex RFCA

Address:
Mount House
Mount Street
Taunton
Devon
TA1 3QE

B. Reason for Producing this Report

Purpose of this report:
5 yearly test and inspect

Date(s) on which Inspection: and testing was carried out: 29/10/2019

C. Details of the Installation which is the Subject of this Report

Installation: Bridgewater Cadet hut

Occupier: Wessex

Address:
Friarn avenue
Bridgewater
Somerset
TA6 3RF

Description of premises:	Domestic	Commercial	Industrial
	N/A	✓	N/A

Other: N/A

Estimated age of wiring system: 20 yrs

Evidence of alterations or additions: N/A

If yes estimated Age: N/A yrs

Record of Installation available: N/A

Records held By: N/A

Date of previous inspection: Not Known

D. Extent and Limitations Inspection and Testing

Extent of Electrical Installation covered by this report:
fixed wiring only

Agreed limitations including the reasons (See regulation 653.2)
In accordance with guidance note 3 and BS7671

Agreed with name: wessx

Operational Limitations including the reasons (See page No N/A)
None

This inspection and testing detailed in this report and accompanying schedules have been carried out in accordance with BS7671:2018 (IET Wiring Regulations) as amended to July 2018
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.

E. Summary of the Condition of the Installation

General condition of the installations (In terms of electrical safety)
Installation is in good working order

Overall assessment of the installation: Satisfactory

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

F. Recommendations

Where the overall assessment of the suitability of the installation for continued use above is stated as SATISFACTORY , I recommend that any observations classified as 'Danger present' (code C1) or 'Potentially dangerous' (code C2) are acted upon as a matter of urgency.
Investigation without delay is recommended for observations identified as *'further investigation required' (code FI)*.
Observation classified as 'Improvement recommended' (code C3) should be given due consideration.
Subject to the necessary remedial action being taken I recommend that the installation is further inspected and tested by 29/10/2024

G. Declaration

I , being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by My 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 attached schedules, provides an accurate assessment of the condition of the electrical installation taking into account the stated extent and limitations in section D of this report.

Trading Title and address:
I J Cannings & Son Ltd.,
Stratford House Water Bridge Court,
Mat ford Park Road,
Exeter,
Devon, EX2 8EX

NICEIC Enrolment Number: 9140

Branch No. (If Applicable): n/a

Inspected and tested by:

Name: Martyn Thorpe Position: Approved Electrician Signature: Date: 29/10/2019

Report authorised for issue by:

Name: Callum Harrison Position: Approved Electrician Signature: Date: 29/10/2019

H. Schedule(s)

The attached schedule(s) are part of this document and this report is valid only when they are attached to it.

1 Schedule(s) of inspection and 1 Schedule(s) of test results are attached

I. Supply Characteristics and Earthing Arrangements

Earthing Arrangements		Number and Type of Live Conductors						Nature of Supply Parameters			Supply protective device	
TN-S	N/A	a.c.	✓			d.c.	N/A	Nominal Voltage	U (1)	400 V	BS(EN)	1361 Fuse HBC
TN-C-S	✓	1-Phase (2 wire)	N/A	1-Phase (3 wire)	N/A	2 Wire	N/A	Nominal Voltage	U0 (1)	230 V	Type	1
TN-C	N/A	2-Phase (3 wire)	N/A			3 Wire	N/A	Nominal frequency	f (1)	50 Hz	Nominal current rating	100 A
TT	N/A	3-Phase (3 wire)	N/A	3-Phase (4 wire)	✓	Other	N/A	Prospective fault current	Ipf (2)	1.066 kA	Short circuit capacity	16.5 kA
IT	N/A	Other	N/A					External loop impedance	Ze (2)	0.21 Ω		
		Confirmation of supply polarity	✓					Number of supplies		1		

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

J. 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 (e.g. rod(s), tape etc.)	N/A	Location	N/A
Resistance to Earth	N/A Ω	Method of measurement	N/A

Main Protective Conductors

Tick boxes and enter details as applicable

	Material	csa	Continuity Verified	Connection Verified
Earthing Conductor	Copper	25 mm 2	✓	✓
Main protective bonding conductors	Copper	16 mm 2	✓	✓

Bonding of Incoming Service

Water installation pipes	N/A	Gas installation pipes	N/A	Structural Steel	N/A	Lightning protection	N/A
Oil installation pipes	N/A						
Other incoming service(s)	N/A	Please State	N/A				

Maximum Demand (Load) 100 **Amps**

Protective measure(s) against electric shock: ADS

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

Location	office	Current rating	100 A	**if RCD main switch**	
Type BS(EN)	61008 RCD	Fuse/Device rating or setting	100 A	Rated residual operation current, IΔn	30 mA
No of poles	2	Voltage rating	230 V	Rated time delay	N/A ms
Supply Conductors material	Copper			RCD Operating time at, IΔn	44 ms
Supply Conductors csa	16 mm 2				

K. Observations

Referring to the attached schedule(s) of Inspection and Test Results, and subject to the limitations specified at the Extent and Limitations of the Inspection and testing section.

No remedial action is required. ✓ The following observations are made N/A

Item No	Observations	Code

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	0
C2 - Potentially dangerous - urgent remedial action required	0
C3 - Improvement recommended	0
FI - Further investigation required without delay	0

CONDITION REPORT INSPECTION SCHEDULE FOR DOMESTIC AND SIMILAR PREMISES WITH UP TO 100A SUPPLY

EC2423 - Master

Note: this form is suitable for many types of smaller installations, not exclusively domestic.

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

Item No	Description	Outcome	Comments
1.0	**EXTERNAL CONDITION OF INTAKE EQUIPMENT (VISUAL INSPECTION ONLY)**		
1.1	Service cable	✓	No
1.2	Service head	✓	No
1.3	Earthing arrangement	✓	No
1.4	Meter tails	✓	No
1.5	Metering equipment	✓	No
1.6	Isolator (where present)	✓	No
2.0	**PRESENCE OF ADEQUATE ARRANGEMENTS FOR OTHER SOURCES SUCH AS MICROGENERATORS (551.6; 551.7)**	✓	No
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)	✓	No
3.2	Presence and condition of earth electrode connection where applicable (542.1.2.3)	N/A	No
3.3	Provision of earthing/bonding labels at all appropriate locations (514.13.1)	✓	No
3.4	Confirmation of earthing conductor size (542.3; 543.1.1)	✓	No
3.5	Accessibility and condition of earthing conductor at MET (543.3.2)	✓	No
3.6	Confirmation of main protective bonding conductor sizes (544.1)	✓	No
3.7	Condition and accessibility of main protective bonding conductor connections (543.3.2; 544.1.2)	✓	No
3.8	Accessibility and condition of other protective bonding connections (543.3.1;543.3.2)	✓	No
4.0	**CONSUMER UNIT(S) / DISTRIBUTION BOARD(S)**		
4.1	Adequacy of working space/accessibility to consumer unit/distribution board (132.12; 513.1)	✓	No
4.2	Security of fixing (134.1.1)	✓	No
4.3	Condition of enclosure(s) in terms of IP rating etc (416.2)	✓	No
4.4	Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5)	✓	No
4.5	Enclosure not damaged/deteriorated so as to impair safety (651.2)	✓	No
4.6	Presence of main linked switch (as required by 462.1.201)	✓	No
4.7	Operation of main switch (functional check) (643.10)	✓	No
4.8	Manual operation of circuit-breakers and RCDs to prove disconnection (643.10)	✓	No
4.9	Correct identification of circuit details and protective devices (514.8.1; 514.9.1)	✓	No
4.10	Presence of RCD six-monthly test notice at or near consumer unit/distribution board (514.12.2)	✓	No
4.11	Presence of non-standard (mixed) cable colour warning notice at or near consumer unit/distribution board (514.14)	✓	No
4.12	Presence of alternative supply warning notice at or near consumer unit/distribution board (514.15)	✓	No
4.13	Presence of other required labelling (please specify) (Section 514)	✓	No
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)	✓	No
4.15	Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.3)	✓	No
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)	✓	No
4.17	Protection against electromagnetic effects where cables enter consumer unit/distribution board/enclosures (521.5.1)	✓	No
4.18	RCD(s) provided for fault protection - includes RCBOs (411.4.204; 411.5.2; 531.2)	✓	No
4.19	RCD(s) provided for additional protection/requirements - includes RCBOs (411.3.3;415.1)	✓	No
4.20	Confirmation of indication that SPD is functional (651.4)	✓	No
4.21	Confirmation that ALL conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)	✓	No
4.22	Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6)	✓	No
4.23	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)	✓	No
5.0	**FINAL CIRCUITS**		
5.1	Identification of conductors (514.3.1)	✓	No
5.2	Cables correctly supported throughout their run (521.10.202; 522.8.5)	✓	No
5.3	Condition of insulation of live parts (416.1)	✓	No

CONDITION REPORT INSPECTION SCHEDULE FOR DOMESTIC AND SIMILAR PREMISES WITH UP TO 100A SUPPLY CONTINUED

Note: this form is suitable for many types of smaller installations not exclusively domestic.

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

Item No	Description	Outcome	Comments
5.0	**FINAL CIRCUITS (Continued)**		
5.4	Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1)	✓	No
5.4.1	To include the integrity of conduit and trunking systems (metallic and plastic)	✓	No
5.5	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)	✓	No
5.6	Coordination between conductors and overload protective devices (433.1; 533.2.1)	✓	No
5.7	Adequacy of protective devices: type and rated current for fault protection (411.3)	✓	No
5.8	Presence and adequacy of circuit protective conductors (411.3.1; Section 543)	✓	No
5.9	Wiring system(s) appropriate for the type and nature of the installation and external influences (Section 522)	✓	No
5.10	Concealed cables installed in prescribed zones (see Section D. Extent and limitations) (522.6.202)	✓	No
5.11	Cables concealed under floors, above ceilings or in walls/partitions, adequately protected against damage (see Section D. Extent and limitations) (522.6.204)	✓	No
5.12	Provision of additional requirements for protection by RCD not exceeding 30 mA:		
5.12.1	For all socket-outlets of rating 32 A or less, unless an exception is permitted (411.3.3)	✓	No
5.12.2	For the supply of mobile equipment not exceeding 32 A rating for use outdoors (411.3.3)	✓	No
5.12.3	For cables concealed in walls at a depth of less than 50 mm (522.6.202; 522.6.203)	✓	No
5.12.4	For cables concealed in walls/partitions containing metal parts regardless of depth (522.6.203)	✓	No
5.12.5	Final circuits supplying luminaires within domestic (household) premises (411.3.4)	✓	No
5.13	Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527)	✓	No
5.14	Band II cables segregated/separated from Band I cables (528.1)	✓	No
5.15	Cables segregated/separated from communications cabling (528.2)	✓	No
5.16	Cables segregated/separated from non-electrical services (528.3)	✓	No
5.17	Termination of cables at enclosures - indicate extent of sampling in Section D of the report (Section 526)		
5.17.1	Connections soundly made and under no undue strain (526.6)	✓	No
5.17.2	No basic insulation of a conductor visible outside enclosure (526.8)	✓	No
5.17.3	Connections of live conductors adequately enclosed (526.5)	✓	No
5.17.4	Adequately connected at point of entry to enclosure (glands, bushes etc.) (522.8.5)	✓	No
5.18	Condition of accessories including socket-outlets, switches and joint boxes (651.2(v))	✓	No
5.19	Suitability of accessories for external influences (512.2)	✓	No
5.20	Adequacy of working space/accessibility to equipment (132.12; 513.1)	✓	No
5.21	Single-pole switching or protective devices in line conductors only (132.14.1;530.3.3)	✓	No
6.0	**LOCATION(S) CONTAINING A BATH OR SHOWER**		
6.1	Additional protection for all low voltage (LV) circuits by RCD not exceeding 30 mA (701.411.3.3)	✓	No
6.2	Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5)	N/A	No
6.3	Shaver sockets comply with BS EN 61558-2-5 formerly BS 3535 (701.512.3)	✓	No
6.4	Presence of supplementary bonding conductors, unless not required by BS 7671:2018 (701.415.2)	✓	No
6.5	Low voltage (e.g. 230 volt) socket-outlets sited at least 3 m from zone 1 (701.512.3)	✓	No
6.6	Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2)	✓	No
6.7	Suitability of accessories and controlgear etc. for a particular zone (701.512.3)	✓	No
6.8	Suitability of current-using equipment for particular position within the location (701.55)	✓	No
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 inspections applied.)	Number of locations: 0	No

Inspected By

Name: Martyn Thorpe

Date: 29/10/2019

Signature: 

Board Details

TO BE COMPLETED IN EVERY CASE

Location of Distribution Board: Office

Distribution board designation: DB 1

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Supply to distribution board is from: N/A

No of phases: N/A

Nominal Voltage: N/A V

Overcurrent protective device for the distribution circuit

Type BS(EN): N/A

Rating: N/A A

Associated RCD (if any)

BS(EN): N/A

RCD No of Poles: N/A

RCD Rating: N/A mA

Circuit Details

Circuit number and phase	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max permitted disconnection times (s)	Overcurrent protective device					RCD	Maximum permitted Zs (Ω)
					Live mm²	cpc mm²		BS(EN)	AFDD	Type	Rating (A)	Short circuit capacity (kA)	Operating current (IΔn)	
1/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-
2/L3	Skts	A	B	4	2.5	1.5	0.4	60898 MCB		B	32	10	30	1667
3/L3	fan heater office	A	B	1	2.5	1.5	0.4	60898 MCB		B	20	10	30	1667
4/L3	fan heater range	A	B	1	2.5	1.5	0.4	60898 MCB		B	20	10	30	1667
5/L3	heater	A	B	1	2.5	1.5	0.4	60898 MCB		B	20	10	30	1667
6/L3	fan	A	B	2	2.5	1.5	0.4	60898 MCB		B	10	10	30	1667
7/L3	Lts office	A	B	9	1.5	1	0.4	60898 MCB		B	10	10	30	1667
8/L3	Lts range	A	B	8	1.5	1	0.4	60898 MCB		B	10	10	30	1667
9/L3	Unknown	F	C	1	6	6	0.4	60898 MCB		C	32	10	30	1667
10/L3	Bollards	F	C	3	2.5	1.5	0.4	60898 MCB		C	16	10	30	1667
11/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-
12/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
PVC/PVC cables	PVC cables in metallic conduit	PVC cables in non-metallic conduit	PVC cables in metallic trunking	PVC cables in non-metallic trunking	PVC/SWA cables	XLPE/SWA cables	Mineral insulated cables	Other

Board Tests

TO BE COMPLETED IN EVERY CASE

Correct supply polarity confirmed ✓ | Phase sequence confirmed (where appropriate) ✓

Supplementary Conductors ✓

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs N/A Ω Ipf N/A kA

Operating times of associated RCD (if any) At I Δ n N/A ms

TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	225710	RCD	225710
Insulation resistance	225710	Multi-function	N/A
Continuity	225710	Other	N/A

Details of circuits and/or equipment vulnerable to damage

none

Circuit Tests

Circuit number and phase	Circuit Impedances Ω					Insulation resistance					Polarity (v)	Maximum measured earth fault loop impedance Ω	RCD		AFDD Test button operation	Remarks see continuation sheet
	Ring final circuits only (measure end to end)			All circuits (At least one column to be completed)		Test Voltage	Live/ Live MΩ	Live/ Neutral MΩ	Live/ Earth MΩ	Earth/ Neutral MΩ			Operating time at I Δ n (ms)	Test button operation		
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$(R_1 + R_2)$	(R_2)											
1/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/L3	0.17	0.17	0.29	0.23	N/A	500	N/A	200	200	200	✓	0.44	42	✓		NO
3/L3	N/A	N/A	N/A	0.25	N/A	500	N/A	200	200	200	✓	0.46	42	✓		NO
4/L3	N/A	N/A	N/A	0.45	N/A	500	N/A	200	200	200	✓	0.66	42	✓		NO
5/L3	N/A	N/A	N/A	0.18	N/A	500	N/A	200	200	200	✓	0.39	42	✓		NO
6/L3	N/A	N/A	N/A	0.28	N/A	500	N/A	200	200	200	✓	0.49	42	✓		NO
7/L3	N/A	N/A	N/A	0.26	N/A	500	N/A	200	200	200	✓	0.47	42	✓		NO
8/L3	N/A	N/A	N/A	0.16	N/A	500	N/A	200	200	200	✓	0.37	42	✓		NO
9/L3	N/A	N/A	N/A	0	N/A	500	N/A	200	200	200	✓	lim	42	✓		NO
10/L3	N/A	N/A	N/A	1.78	N/A	500	N/A	200	200	200	✓	1.99	42	✓		NO
11/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature		Position	Approved Electrician
Name	Martyn Thorpe	Date of testing	29/10/2019

CONDITION REPORT GUIDANCE FOR RECIPIENTS
(to be appended to the Report)

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 Section E). The Report should identify any damage, deterioration, defects and/or conditions which may give rise to danger (see Section K).

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. Section D (Extent and Limitations) 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 Section K as C1 ('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 Section K 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 Section K that an observation requires further investigation (code FI) the inspection has revealed an apparent deficiency which may result in a code C1 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 Section F).

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 Section F of the Report under ‘Recommendations’ and on a label at or near to the consumer unit/ distribution board.