

Reference Number:

DADO 21001

ELECTRICAL INSTALLATION CONDITION REPORT

(REQUIREMENTS FOR ELECTRICAL INSTALLATIONS - BS7671 (IET WIRING REGULATIONS))

ORIGINAL

Details of the Client

1

Details of the Client:

Viamed Limited
15 Station Road
Crosshills
Keighley

BD20 7DT

Reason for producing the report:

Client request

Details of the Installation

2

Occupier and Address:

As above

Description of premises:

Commercial

Estimated age of wiring system(years):

70

Evidence of additions / alterations:

Yes

If yes, estimate
age: (years)

50/20

Installation records
available:

No

Date of last inspection:

Not known

Extent and Limitations of Inspection and Testing

3

Extent of installation covered by this report:

Whole installation

Agreed and operational limitations on inspection and testing (include reasons and person agreed with):

Inaccessible accessories not inspected
See below

The inspection and testing detailed in this report and accompanying schedules has been carried out in accordance with BS7671:2008 (IET Wiring Regulations) as amended to 2011. 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.

Summary of the Condition of the Installation

4

See page 2 for a summary of the general condition of the installation in terms of electrical safety.

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

satisfactory

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

Declaration

5

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

Inspected and Tested by:

Name:

D Dower

Position:

Qualified Supervisor

Date:

17/12/2013

Signature:

Report reviewed and authorised for Issue by:

Name:

D Dower

Position:

Proprietor

Date:

17/12/2013

Signature:

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Observations

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

No remedial action is required:

N/A

The following observations are made:

✓

Classification
Code:Further Investigation
Required:

Observation No:

Observation(s):

- | Observation No. | Observation(s) | Classification Code | Further Investigation Required |
|-----------------|--|---------------------|--------------------------------|
| 1 | No RCD protection in place for sockets outlets that could be used to supply equipment outdoors | C4 | |
| 2 | Switch lines are not correctly colour coded throughout the installation | C4 | |
| 3 | Green and yellow sleeving not always present to uninsulated circuit protective conductors | C4 | |
| 4 | Cable conductor colours do not comply with current wiring regulations e.g. red and black | C4 | |
| 5 | No RCD protection in place for cables buried in walls less than 50mm from surface | C4 | |
| 6 | No single point of isolation for the complete installation | C4 | |
| 7 | No RCD in place for lighting circuits | C4 | |

Code C4 indicates items which do not comply with the current edition of BS7671:but are consider safe under previous editions

Code C1 Indicates that danger is present. Immediate remedial action required.
Code C2 Indicates that an item is potentially dangerous. Urgent remedial action required.
Code C3 Indicates that improvement is recommended.

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Inspection Schedule (2)

ORIGINAL

	Comments	Outcome	Further investigation required
5 - DISTRIBUTION EQUIPMENT (Continued)			
Presence and effectiveness of obstacles		N/A	
Placing out of reach		N/A	
Presence of main switch(es), linked where required		✓	
Operation of main switch(es) (functional check)		✓	
Manual operation of circuit-breakers and RCD(s) to prove disconnection		N/A	
Confirmation that integral test button / switch causes RCD(s) to trip when operated (functional check)		N/A	
RCD(s) provided for fault protection - includes RCBOs		N/A	
RCD(s) provided for additional protection where required - includes RCBOs		✓	
Presence of RCD quarterly test notice at or near equipment where required		✓	
Presence of diagrams, charts or schedules at or near equipment where required		✓	
Presence of non-standard (mixed) cable colour warning notice at or near equipment where required		✓	
Presence of alternative supply warning notice at or near equipment where required		N/A	
Presence of next inspection recommended label		✓	
Presence of other required labelling (Please specify)		N/A	
Examination of protective device(s) and base(s); correct type and rating (no signs of unacceptable thermal damage, arcing and overheating)		✓	
Single-pole protective devices in line conductor only		✓	
Protection against mechanical damage where cables enter equipment		✓	
Protection against electromagnetic effects where cables enter ferromagnetic enclosures		✓	
6 - DISTRIBUTION CIRCUITS			
Identification of conductors		✓	
Cables correctly supported throughout their run		✓	
Condition of insulation of live parts		✓	
Non-sheathed cables protected by enclosure in conduit, duct or trunking		✓	
Suitability of containment systems for continued use (including flexible conduit)		✓	
Cables correctly terminated in enclosures		✓	
Examination of cables for signs of unacceptable thermal and mechanical damage / deterioration		✓	
Adequacy of cables for current-carrying capacity with regard for the type and nature of installation		✓	
Adequacy of protective devices; type and rated current for fault protection		✓	
Presence and adequacy of circuit protective conductors		✓	
Coordination between conductors and overload protective device		✓	
✓ : Acceptable condition. C1 or C2 : Unacceptable condition. C3 : Improvement recommended. N/V : Not verified. LIM : Limitation. N/A : Not applicable			

This form is based on the model shown in Appendix 6 of BS7671:2008 amended 2011. Generated by Castline Systems FormFill software. © July 2011.

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ORIGINAL

Inspection Schedule (4)

7 - FINAL CIRCUITS (Continued)

Cables concealed under floors, above ceilings, in walls / partitions less than 50mm from a surface, and in partitions containing metal parts

installed in prescribed zones (see *Extent and limitations*) •incorporating earthed armour or sheath, or run within earthed wiring system, or otherwise protected against mechanical damage from nails, screws and the like (see *Extent and limitations*) or

*for an installation not under the supervision of skilled or instructed persons, provided with additional protection by a 30mA RCD

Comments

Outcome
Further
investigation
required

LIM

N/A

some final socket circuits only

LIM

Provision of additional protection by 30mA RCD

*for circuits used to supply mobile equipment not exceeding 32A rating for use outdoors in all cases •

*for all socket outlets of rating 20A or less provided for use by ordinary persons unless exempt •

Some sockets only

C4

Provision of fire barriers, sealing arrangements and protection against thermal effects

✓

Band II cables segregated / separated from band I cables

✓

Cables segregated / separated from non-electrical services

✓

Termination of cables at enclosures - identify / record numbers and locations of items inspected

Connections under no undue strain •

No basic insulation of a conductor visible outside enclosure •

Connections of live conductors adequately enclosed •

Adequately connected at point of entry to enclosure (glands, bushes etc) •

Condition of accessories including socket-outlets, switches and joint boxes

Suitability of accessories for external influences

✓

✓

✓

✓

✓

✓

*Note: Older installations designed prior to BS7671:2008 may not have been provided with RCDs for additional protection

8 - ISOLATION AND SWITCHING

Isolators

Presence and condition of appropriate devices •

Acceptable location - state if local or remote from equipment in question •

Capable of being secured in the OFF position •

Correct operation verified •

Clearly identified by position and / or durable marking •

Warning label posted in situations where live parts cannot be isolated by the operation of a single device •

compressor only

✓

local

✓

✓

✓

✓

N/A

Switching off for mechanical maintenance

Presence and condition of appropriate devices •

Acceptable location - state if local or remote from equipment in question •

Capable of being secured in the OFF position •

Correct operation verified •

Clearly identified by position and / or durable marking •

N/A

N/A

N/A

N/A

N/A

✓ : Acceptable condition. C1 or C2 : Unacceptable condition. C3 : Improvement recommended. N/V : Not verified. LIM : Limitation. N/A : Not applicable

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Intentionally Blank

Test Results

Reference Number:

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DB Reference:

No 1

DB Location:

Intake cupboard

Tested by:

Name:

Signature:

Date:

D Dower

17/12/2013

Test instrument serial numbers:

Continuity:

RCD:

Other:

Earth electrode resistance:

Earth fault loop impedance:

Insulation resistance:

Details of circuits and/or installed equipment vulnerable to damage when testing

Test Results

Circuit Number	Ring final circuit continuity (Ω)			Continuity (Ω)			Insulation Resistance ($M\Omega$)			RCD		Distribution Board Characteristics		
	R_1 (line)	R_n (neutral)	R_2 (cpc)	$R_1 + R_2$	R_2	Live-Live	Live-Neutral	Live-Earth	Neutral-Earth	Polarity	Measured Z_s (G) @ 1m	Z_s (ms) @ 5m	Nominal Voltage: No. of phases:	400 V Polarity: Phase rotation:
1				0.41	299	299	299	299	299	✓	0.40	N/A		✓
2				0.41	299	299	299	299	299	✓	0.42	N/A		✓
3				0.41	299	299	299	299	299	✓	0.41	N/A		✓
4				0.27	N/A	299	299	299	299	✓	0.29	N/A	2 core SWA with Armour as cpc	
5					N/A	299	299	299	299				Disconnected - no live tests	
6														
7														
8														
9														
10														
11														
12														
13			0.30		N/A	299	299	299	299	✓	0.32	N/A		

ORIGINAL

Test Results

Reference Number:

DADO 21001

DB Reference:

No 2

DB Location:

Intake cupboard

Tested by:

D. Power

Test instrument serial numbers:

Earth electrode resistance:

Details of circuits and/or installed equipment vulnerable to damage when testing
Telephone distribution board
Fire & alarm system
PIR o/s light
Ceiling fan controller

Signature:

17/12/2013

Continuity:

Earth fault loop impedance:

Date:

17/12/2013

RCD:

649/040204 2685

Insulation resistance:

Test Results

Circuit Number	Ring final circuit continuity (Ω)			Continuity (Ω)			Insulation Resistance ($M\Omega$)			RCD		Distribution Board Characteristics	
	R_1 (line)	R_n (neutral)	R_2 (cpc)	$R_1 + R_2$	R_2	Live-Live	Live-Neutral	Live-Earth	Neutral-Earth	Polarity	Measured Z_s (Ω)	Z_s (Ω)	Nominal Voltage: 230 V
1			0.10		N/A	299	299	299	299	✓	0.28	N/A	✓
2	0.11	0.11	0.09		N/A	299	299	299	299	✓	0.27	N/A	
3					N/A	299	299	299	299	✓	0.38	N/A	
4	0.41	0.43	0.73		N/A	299	299	299	299	✓	0.47	N/A	Inaccessible sockets not inspected
5													
6			0.13		N/A	299	299	299	299	✓	0.31	N/A	Non-function
7			0.13		N/A	299	299	299	299	✓	0.31	N/A	Ladies non-function
8					N/A	299	299	299	299	✓		N/A	
9													
10			0.19		N/A	299	299	299	299	✓	0.37	N/A	Tested to FCU in loft
11				0.13	N/A	299	299	299	299	✓	0.31	N/A	R2 tested to controller only
12				0.13	N/A	299	299	299	299	✓	0.31	N/A	Insulation resistance P+N vs E
13			0.82		N/A	299	299	299	299	✓	1.06	N/A	Emergency light cpc not connected. Insulation resistance P+N vs E
14			0.38		N/A	299	299	299	299	✓	0.56	N/A	Insulation resistance P+N vs E
15			0.80		N/A	299	299	299	299	✓	1.00	N/A	Insulation resistance P+N vs E
16			0.18	0.11	N/A	299	299	299	299	✓	0.29	N/A	Insulation resistance P+N vs E. No cpc connection in ladies
17					N/A	299	299	299	299	✓	0.36	N/A	Insulation resistance P+N vs E
18			1.64		N/A	299	299	299	299	✓	1.83	N/A	No R2 measured - light fitting corroded shut
			1.02		N/A	299	299	299	299	✓	1.29	N/A	Insulation resistance P+N vs E
			0.01		N/A	299	299	299	299	✓	0.20	N/A	Insulation resistance P+N vs E
													Tested to FCU only

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Test Results

DB Reference:

No 3,4,5

DB Location:

Basement store room 5

Tested by:

Name:

Signature:

Date:

17/12/2013

Test instrument serial numbers:

Continuity:

RCD:

Other:

649/040204 2665

Earth electrode resistance:

Earth fault loop impedance:

Insulation resistance:

Details of circuits and/or installed equipment vulnerable to damage when testing

RCDs on ccts 1,2,3,5
Emergency lights on ccts 6,7

Test Results

Circuit Number	Ring final circuit continuity (Ω)			Continuity (Ω)			Insulation Resistance (MΩ)			RCD		Distribution Board Characteristics		Circuit Comments
	R ₁ (line)	R _n (neutral)	R ₂ (cpc)	R ₁ + R ₂	R ₂	Live-Live	Live-Neutral	Live-Earth	Neutral-Earth	Polarity	Measured Z _s (Ω)	@ 1m	@ 5m	
1				0.01	N/A	N/A	299	299	✓	0.29	N/A			Insulation resistance P+N vs E
2	0.06	0.08	0.14	0.05	N/A	N/A	299	299	✓	0.31	30.6	26.0	✓	Ins. Res. P+N vs E
3			0.34		N/A	N/A	299	299	✓	0.62	17.8	51+	✓	Ins Res P+N vs E
4			0.14		N/A	299	299	299	✓	0.42	37.4	27.7	✓	
5					N/A	299	299	299						Unknown load not found
6			0.31		N/A	299	299	299	✓	0.59	N/A			Ins Res P+N vs E
7			0.44		N/A	299	299	299	✓	0.72	29.6	16.1	✓	Ins Res P+N vs E switches closed, emergency light test switches open
8					N/A	299	299	299	✓	0.66	N/A			Ins Res P+N vs E. No cpc to stair head golfballs
1					N/A									MIMS cable into ceiling to unknown load
2	0.20	0.19	0.36	0.14	N/A	N/A	299	299	✓	0.42	N/A			Not connected
3			0.01		N/A	N/A	299	299	✓	0.45	N/A			Ins Res P+N vs E
4			0.17		N/A	N/A	299	299	✓	0.45	N/A			Ins Res P+N vs E
5	0.14	0.14	0.23	0.64	N/A	N/A	299	299	✓	0.45	17.7	8.4	✓	Ins Res P+N vs E
6					N/A	N/A	299	299	✓	0.92	32.1	13.8	✓	
7					N/A	N/A	299	299	✓	0.67	27.1	13.5	✓	Ins Res P+N vs E
8			0.80		N/A	N/A	299	299	✓	1.08	N/A			Ins Res P+N vs E switch open. Phase to sink area from w/shop switched live
1					N/A	N/A								Zs 0.38 ohms at board 5
2					N/A	N/A								PVC cables connect to conduit cables with conduit as earth
3					N/A	N/A								Ins Res @ 250 volts only P+N vs E

ORIGINAL

Test Results

Reference Number:

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DB Reference:

No 6

DB Location:

Old Boiler room

Tested by:

Name:

Signature:

Date:

17/12/2013

Test instrument serial numbers:

Continuity:

RCD:

Other:

649/040204 2685

Earth electrode resistance:

Earth fault loop impedance:

Insulation resistance:

Details of circuits and/or installed equipment vulnerable to damage when testing

RCDs on ccts 2,3,12

Emergency lights

Boiler

Toilet pump

Test Results

Tested by: D Power										Test instrument serial numbers:				Details of circuits and/or installed equipment vulnerable to damage when testing											
Name: Continuity:										Earth electrode resistance:				RCDs on ccts 2,3,12											
Signature: RCD:										Earth fault loop impedance:				Emergency lights											
Date: 17/12/2013										Other: 649/040204 2685				Insulation resistance:				Boiler							
																		Toilet pump							
Test Results																									
Circuit Number	Ring final circuit continuity (Ω)					Continuity (Ω)					Insulation Resistance (MΩ)					RCD					Distribution Board Characteristics				
	R ₁ (line)	R _n (neutral)	R ₂ (cpc)	R ₁ + R ₂	R ₂	Live-Live	Live-Neutral	Live-Earth	Neutral-Earth	Polarity	Measured Z _s (Ω)	@ 1m	@ 51m	Test Button Operation	Z _s	I _{pf}	Nominal Voltage:	No. of phases:	Polarity:	Phase rotation:					
1	0.08	0.08	0.14	0.05	N/A	299	299	299	299	✓	0.32	N/A					0.29	230	2	✓					
2				0.57	N/A	299	299	299	299	✓	0.86	17.8	8.7	✓											
3				0.19	N/A	299	299	299	299	✓	0.48	17.9	8.5	✓											
4				0.06	N/A	299	299	299	299		0.35	N/A													
5																									
6				0.05	N/A	299	299	299	299	✓	0.21	N/A													
7				1.23	N/A	299	299	299	299	✓	0.34	N/A													
8				0.43	N/A	299	299	299	299	✓	1.52	N/A													
9				0.08	N/A	299	299	299	299	✓	0.72	N/A													
10											0.37	N/A													
11				1.54	N/A	299	299	299	299	✓	0.21	N/A													
12				0.14	N/A	299	299	299	299	✓	0.34	N/A													
				0.36	N/A	299	299	299	299	✓	1.52	N/A													
				0.16	N/A	299	299	299	299	✓	0.72	N/A													
	0.03	0.03	0.37		N/A	299	299	299	299	✓	0.37	N/A													
											0.64	27.1	14.8	✓											

ORIGINAL