

PERIODIC INSPECTION REPORT FOR AN ELECTRICAL INSTALLATION

Issued in accordance with *British Standard 7671 - Requirements for Electrical Installations* by an Approved Contractor or Conforming Body enrolled with NICEIC, Warwick House, Houghton Hall Park, Houghton Regis, Dunstable LU5 5ZX

Original (To the person ordering the work)

A. DETAILS OF THE CLIENT

Client: AVENCO Address: HERITAGE HOUSE,
PARK PLACE
CLIFTON, BRISTOL BS8 1JW

B. PURPOSE OF THE REPORT This Periodic Inspection Report must be used only for reporting on the condition of an existing installation.

Purpose for which this report is required: EXPIRATION OF PREVIOUS

C. DETAILS OF THE INSTALLATION

	Domestic	Commercial	Industrial
Occupier: <u>STUDENTS</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address: <u>GROUND FLAT 75T STEPHENS STREET CITY CENTRE BRISTOL</u>	Description of premises: <input checked="" type="checkbox"/>		
Postcode: <u>BS1 1EE</u>	Other: (Please state) <input type="checkbox"/>		
Date of previous inspection: <u>2006</u>	Estimated age of the electrical installation: <u>5</u> years		
Records of installation available: <input checked="" type="checkbox"/>	Evidence of alterations or additions <input type="checkbox"/> If yes, estimated age <input type="checkbox"/> years		
Records held by: <u>DIGS</u>	Electrical Installation Certificate No or previous Periodic Inspection Report No: <input type="text"/>		

D. EXTENT OF THE INSTALLATION AND LIMITATIONS OF THE INSPECTION AND TESTING

Extent of the electrical installation covered by this report:
WHOLE INSTALLATION

Agreed limitations (including the reasons), if any, on the inspection and testing:
/

This inspection has been carried out in accordance with BS 7671, as amended. Cables concealed within trunking and conduits, or cables and conduits concealed under floors, in inaccessible roof spaces and generally within the fabric of the building or underground, have not been visually inspected.

E. DECLARATION

I/We, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by my/our signatures below), particulars of which are described above (see C), having exercised reasonable skill and care when carrying out the inspection and testing, hereby declare that the information in this report, including the observations (see F) and the attached schedules (see H), provides an accurate assessment of the condition of the electrical installation taking into account the stated extent of the installation and the limitations of the inspection and testing (see D).
I/We further declare that in my/our judgement, the said installation was overall in SATISFACTORY condition (see G) at the time the inspection was carried out, and that it should be further inspected as recommended (see I).
* (Insert 'a satisfactory' or 'an unsatisfactory', as appropriate)

INSPECTION, TESTING AND ASSESSMENT BY:	REPORT REVIEWED AND CONFIRMED BY: † See note below
Signature: <u>A JEFFERIES</u>	Signature: <u>A JEFFERIES</u>
Name: (CAPITALS) <u>A JEFFERIES</u>	Name: (CAPITALS) <u>A JEFFERIES</u>
Position: <u>A.S.</u>	(Registered Qualified Supervisor for the Approved Contractor at J)
Date: <u>15/3/11</u>	Date: <u>15/3/11</u>

† This Periodic Inspection Report should be reviewed and confirmed by the registered Qualified Supervisor for the Approved Contractor responsible for issuing the Report.

F. OBSERVATIONS AND RECOMMENDATIONS FOR ACTIONS TO BE TAKEN

Referring to the attached schedules of inspection and test results, and subject to the limitations at D:

There are no items adversely affecting electrical safety. ✓

or

The following observations and recommendations are made.

Item No

Code †

1

Note: If necessary, continue on additional pages(s), which must be identified by the Periodic Inspection Report serial number and page number(s).

† Where observations are made, the inspector will have entered one of the following codes against each observation to indicate the action (if any) recommended:-

- 1. 'requires urgent attention' or
- 2. 'requires improvement' or
- 3. 'requires further investigation' or
- 4. 'does not comply with BS 7671

Please see the reverse of this page for guidance regarding the recommendations.

Urgent remedial work recommended for Items:

Corrective action(s) recommended for Items:

G. SUMMARY OF THE INSPECTION

General condition of the installation:



Note: If necessary, continue on additional page(s), which must be identified by the Periodic Inspection Report serial number and page number(s).

Date(s) of the inspection: 15/3/11

Overall assessment of the installation:

SATISFACTORY

(Entry should read either 'Satisfactory' or 'Unsatisfactory')

H. SCHEDULES AND ADDITIONAL PAGES

Schedule of Items Inspected and Schedules of Items Tested: Page No 4 Additional pages, including additional source(s) data sheets: Page No(s) _____
 Schedule of Circuit Details for the Installation: Page No(s) 5 Schedule of Test Results for the Installation: Page No(s) 6

The pages identified here form an essential part of this report. The report is valid only if accompanied by all the schedules and additional pages identified above.

I. NEXT INSPECTION

I/We recommend that this installation is further inspected and tested after an interval of not more than **5 YEARS**
 (Enter interval in terms of years, months or weeks, as appropriate)

provided that any items at F which have been attributed a Recommendation Code 1 and Code 2 (requires urgent attention) are remedied without delay and as soon as possible respectively. Items which have been attributed a Recommendation Code 3 should be actioned as soon as practicable (see F).

J. DETAILS OF NICEIC APPROVED CONTRACTOR

Trading Title: **AVONCO**
 Address: **ABERVALE HOUSE
 PARK PLACE
 CLIFTON
 BRISTOL**
 Telephone number: **0117 909 9952**
 Fax number: **0117 909 9951**
 Postcode: **BS8 1JW**
 Enrolment number: **044447**
 Branch number: _____

K. SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

Tick boxes and enter details, as appropriate

System Type(s)	Number and Type of Live Conductors	Nature of Supply Parameters	Characteristics of Primary Supply Overcurrent Protective Device(s)
TN-S	a.c. <input checked="" type="checkbox"/> d.c. <input type="checkbox"/>	Nominal voltage(s): $U_n^{(1)}$ 230 V $U_o^{(1)}$ V	BS(EN) 1361 Type 2 Rated current 100 A Short-circuit capacity 10 kA
TN-C-S <input checked="" type="checkbox"/>	1-phase (2 wire) <input checked="" type="checkbox"/> 1-phase (3 wire) <input type="checkbox"/>	Nominal frequency, $f^{(1)}$ 50 Hz	
TN-C	2-phase (3 wire) <input type="checkbox"/> 3-phase <input type="checkbox"/>	Prospective fault current, $I_{pf}^{(2)}$ 2.2 kA	
TT	3-phase (3 wire) <input type="checkbox"/> 3-phase (4 wire) <input type="checkbox"/>	External earth fault loop impedance, $Z_e^{(3/4)}$ 0.13 Ω	
IT	Other <input type="checkbox"/> Please state _____	Number of supplies 1	

L. PARTICULARS OF INSTALLATION AT THE ORIGIN

Tick boxes and enter details, as appropriate

Means of Earthing	Details of Installation Earth Electrode (where applicable)	Main Switch or Circuit-Breaker	Earthing and Protective Bonding Conductors
Distributor's facility: <input checked="" type="checkbox"/>	Type: _____ Location: _____	Maximum Demand (Load): 80 kVA/Amps	Earthing conductor: COPPER Main protective bonding conductors: COPPER Bonding of extraneous-conductive-parts (✓) Water service _____ Gas service _____ Oil service _____ Structural steel _____ Lightning protection _____ Other incoming service(s) _____
Installation earth electrode: _____	Electrode resistance, R_A : _____ (Ω) Method of measurement: _____	Protective measures against electric shock: AD of S	
Type: BS(EN) 60947-3	Voltage rating: 230 V	Rated current, I_n : 100 A	
No of Poles: 2	RCD operating current, $I_{\Delta n}$: _____ mA	RCD operating time (at $I_{\Delta n}$): _____ ms	

Where a number of sources are available to supply the installation, and where the data given for the primary source may differ from other sources, a separate sheet must be provided which identifies the relevant information relating to each additional source.

SCHEDULE OF ITEMS INSPECTED		† See note below
PROTECTIVE MEASURES AGAINST ELECTRIC SHOCK		
Basic and fault protection		
Extra low voltage	N/A SELV	N/A PELV
Double or reinforced insulation	N/A Double or Reinforced Insulation	
Basic protection		
✓ Insulation of live parts	N/A Barriers or enclosures	
N/A Obstacles**	N/A Placing out of reach**	
Fault protection		
Automatic disconnection of supply		
✓	Presence of earthing conductor	
✓	Presence of circuit protective conductors	
✓	Presence of main protective bonding conductors	
✓	Presence of earthing arrangements for combined protective and functional purposes	
N/A	Presence of adequate arrangements for alternative source(s), where applicable	
N/A	FELV	
✓	Choice and setting of protective and monitoring devices (for fault protection and/or overcurrent protection)	
Non-conducting location**		
N/A	Absence of protective conductors	
Earth-free equipotential bonding**		
N/A	Presence of earth-free equipotential bonding	
Electrical separation		
✓	For one item of current-using equipment	
N/A	For more than one item of current-using equipment**	
Additional protection		
✓	Presence of residual current device(s)	
✓	Presence of supplementary bonding conductors	
** For use in controlled supervised/conditions only		
		Prevention of mutual detrimental influence
✓	Proximity of non-electrical services and other influences	
✓	Segregation of Band I and Band II circuits or Band II insulation used	
✓	Segregation of Safety Circuits	
		Identification
✓	Presence of diagrams, instructions, circuit charts and similar information	
✓	Presence of danger notices and other warning notices	
✓	Labelling of protective devices, switches and terminals	
✓	Identification of conductors	
		Cables and Conductors
✓	Selection of conductors for current carrying capacity and voltage drop	
✓	Erection methods	
✓	Routing of cables in prescribed zones	
✓	Cables incorporating earthed armour or sheath or run in an earthed wiring system, or otherwise protected against nails, screws and the like	
✓	Additional protection by 30mA RCD for cables concealed in walls (where required, in premises not under the supervision of skilled or instructed persons)	
✓	Connection of conductors	
✓	Presence of fire barriers, suitable seals and protection against thermal effects	
		General
✓	Presence and correct location of appropriate devices for isolation and switching	
✓	Adequacy of access to switchgear and other equipment	
✓	Particular protective measures for special installations and locations	
✓	Connection of single-pole devices for protection or switching in line conductors only	
✓	Correct connection of accessories and equipment	
✓	Presence of undervoltage protective devices	
✓	Selection of equipment and protective measures appropriate to external influences	
✓	Selection of appropriate functional switching devices	
SCHEDULE OF ITEMS TESTED		† See note below
✓	External earth fault loop impedance, Z_e	
N/A	Installation earth electrode resistance, R_A	
✓	Continuity of protective conductors	
✓	Continuity of ring final circuit conductors	
✓	Insulation resistance between live conductors	
✓	Insulation resistance between live conductors and Earth	
✓	Protection by separation of circuits	
N/A	Basic protection by barrier or enclosure provided during erection	
N/A	Insulation of non-conducting floors or walls	
✓	Polarity	
✓	Earth fault loop impedance, Z_s	
N/A	Verification of phase sequence	
✓	Operation of residual current devices	
✓	Functional testing of assemblies	
✓	Verification of voltage drop	

† All boxes must be completed.

- ✓ indicates that an inspection or a test was carried out and that the result was satisfactory
- X indicates that an inspection or a test was carried out and that the result was unsatisfactory
- N/A indicates that an inspection or a test was not applicable to the particular installation
- LIM indicates that, exceptionally, a limitation agreed with the person ordering the work (as recorded in Section D) prevented the inspection or test being carried out.

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

TO BE COMPLETED IN EVERY CASE	TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION*
Location of distribution board: LOUNGE	Supply to distribution board is from: MESSEL CUPBOARD NEXT DOOR No of phases: 1 Nominal voltage: 240 V
Distribution board designation: 12 WAY	Overcurrent protective device for the distribution circuit: Type: BS(EN) 1361 Rating: 100 A Associated RCD (if any): BS(EN) RCD No of poles: 1 $I_{\Delta n}$ mA

CIRCUIT DETAILS													
Circuit number and phase	Circuit designation	Type of wiring (see code below)	Reference method	Number of points served	Circuit conductors: csa			Overcurrent protective devices				RCD	
					Live	cpc	Max. disconnection time permitted by BS 7671 (s)	BS (EN)			Operating current $I_{\Delta n}$ (mA)	Maximum Z_s permitted by BS 7671 (Ω)	
					(mm ²)	(mm ²)		Type No	Rating (A)	Short-circuit capacity (kA)			
1	BASMENT + BOILER	A	1	4	2.5	1.5	4	60898	B	32	6	30	1.15
2	KITCHEN/LOUNGE R/C	A	1	9	2.5	1.5	4	60898	B	32	6		1.15
3	LIGHTS	A	1	6	1	1	4	60898	B	6	6		6.13
4	EMERGENCY LIGHTS	A	1	3	1	1	4	60898	B	6	6		6.13
5													
6													
7													
8													
9	UTILITY + BASEMENT LIGHTS	A	1	4	1	1	4	60898	B	6	6	30	6.13
10	WATERES	A	1	2	2.5	1.5	4	60898	B	16	6		2.30
11	BEDROOM R/C	A	1	8	2.5	1.5	4	60898	B	32	6		1.15
12	COOKER	A	1	2	6	2.5	4	60898	B	40	6		0.92

↑ See Table 4A2 of Appendix 4 of BS 7671

CODES FOR TYPE OF WIRING								
A	B	C	D	E	F	G	H	O (Other - please state)
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	

* In such cases, details of the distribution (sub-main) circuit(s), together with the test results for the circuit(s), must also be provided, on continuation schedules.

SCHEDULE OF TEST RESULTS FOR THE INSTALLATION

<p>TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION</p> <p>Characteristics at this distribution board</p> <p style="text-align: center;">✓ Confirmation of supply polarity</p> <p><small>* See note below</small></p> <p>Z_s * 0.13 Ω Operating times At $I_{\Delta n}$ ms</p> <p>I_{pf} * 2.2 kA RCD (if any) At $5I_{\Delta n}$ (if applicable) ms</p>	<p style="text-align: center;">Test instruments (serial numbers) used:</p> <p>Earth fault loop impedance 6111-772/020-08/2587 RCD As ABOVE</p> <p>Insulation resistance As ABOVE Other</p> <p>Continuity As ABOVE Other</p>
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TEST RESULTS													
Circuit number and phase	Circuit impedances (Ω)					Insulation resistance + Record lower or lowest value				Polarity	Maximum measured earth fault loop impedance, Z_s <small>* See note below</small>	RCD operating times	
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)		Line/Line +	Line/Neutral +	Line/Earth +	Neutral/Earth			at $I_{\Delta n}$	at $5I_{\Delta n}$ (if applicable)
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$R_1 + R_2$	R_2	(MΩ)	(MΩ)	(MΩ)	(MΩ)			(ms)	(ms)
1	0.11	0.11	0.18	0.07		>299	>299	>299		✓	0.53		
2	0.24	0.24	0.39	0.14		>299	>299	>299		✓	0.53	25.0	14.6
3				0.76		>299	>299	>299		✓	1.25		
4				0.51		>299	>299	>299		✓	0.89		
5													
6													
7													
8													
9				0.42		>299	>299	>299		✓	0.57		
10				0.22		>299	>299	>299		✓	0.48		
11	0.36	0.36	0.59	0.25		>299	>299	>299		✓	0.28	27.0	8.8
12				0.16		>299	>299	>299		✓	0.32		

* Note: Where the installation can be supplied by more than one source, such as a primary source (eg public supply) and a secondary source (eg standby generator), the higher or highest values must be recorded.

TESTED BY

Signature: A. Jefferson Position: Q.C. Page 6 of 6

Name: (CAPITALS) A. JEFFERSON Date of testing: 15/3/11