

	RECORD OF CONTINUITY AND INSULATION RESISTANCE TEST	CKE.ITP.01.29.(00).2012
		Date Issued : 2 nd February 2012
		Revision : -
		Revision Date : -
		Page : 1 / 2

This **Record Of Continuity** and **Insulation Resistance Test** form shall be used for the reporting on the condition of **All Final Circuit Wiring** (except Ring Final Circuits) for **New Installation** before final connection of the switches, sockets, electrical accessories, fittings and DB.

A. PARTICULARS OF THE INSTALLATION <i>[Please tick (✓) the relevant boxes and enter details as appropriate]</i>		
Project Name		
Drawing No./Installation Address		
Block No./Floor		
DB Designation	☐ Single phase, Phase ☐ R ☐ Y ☐ B	☐ Three phase
System of Wiring	☐ Loop-in system	☐ Tee system

B. TEST INSTRUMENT USED				
Instrument	Brand	Model No.	Serial No.	Calibration Date
Insulation & Continuity Tester				
Insulation Tester				

C. TEST RESULTS <i>(Please X where not applicable. Please refer to Page 2 for notes and test procedures)</i>												
Circuit Number And Phase												
Type of Wiring <i>[see note 2]</i>												
Circuit Reference <i>[see note 3]</i>												
Number of Points												
Cable Size	Phase (mm ²)											
	CPC (mm ²)											
C1. CONTINUITY TEST <i>(Choose either Test Method 1 or 2)</i>												
Neutral & CPC, <i>[see Test Method 1]</i>	(ohms)											
Phase & CPC, <i>[see Test Method 2]</i>	(ohms)											
Confirmation of CPC in the circuit is continuous (Mark Y for YES and N for NO)												
C2. INSULATION RESISTANCE TEST												
Phase to Neutral (L - N)	(Mohms)											
Phase to CPC (L - E)	(Mohms)											
Neutral to CPC (N - E)	(Mohms)											
Phase & Neutral to G.I Conduit/Trunking	(Mohms)											

D1. INSULATION TEST VOLTAGE (Volts)		E. REMARKS <i>(If Any)</i>
D2. INSULATION TEST RESISTANCE (Mohms)		

F. PENGAKUAN ORANG KOMPETEN (BAGI PIHAK KONTRAKTOR ELEKTRIK)	G. PENGESAHAN JABATAN
Diuji Oleh : _____ (Nama Pendawai)	Disaksi Oleh : _____ (Nama)
Tandatangan : _____	Tandatangan : _____
No. Kekompetenan : _____	Jawatan : _____
Tarikh Ujian : _____	Tarikh : _____
Nama & Cop Kontraktor : _____	

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		Page : 2 / 2

(Notes & Test Procedure)

A. NOTES

1.0 FORMS NUMBER FOR CONTINUITY AND INSULATION RESISTANCE TESTS

- 1.1 FORM NO: **CKE.ITP.01.29.(00).2012** is for **single phase** points in a single phase DB or single phase points in a three phase DB for ALL CIRCUITS except Ring Final Circuits
- 1.2 FORM NO: **CKE.ITP.01.30.(00).2012** is for **single phase** points in a single phase DB or single phase points in a three phase DB for RING FINAL CIRCUITS only
- 1.3 FORM NO: **CKE.ITP.01.32.(00).2012** is for **three phase** points, **submain cables, armoured underground cable and street lighting cables**

2.0	CODES FOR TYPE OF WIRING							
	A	B	C	D	E	F	G	H (Other - please state)
	PVC Cables in surface GI conduit	PVC Cables in surface UPVC conduit	PVC Cables in concealed GI conduit	PVC Cables in concealed UPVC conduit	PVC Cables in trunking	PVC/PVC Cables	Mineral Insulated Cables	

3.0	CIRCUIT REFERENCE						
	L	SSO	A/C	W/H	K & E	S	Other - (Please state)
	Lighting	Socket - Radial Cct	Air Cond.	Water Heater	Keluar Sign EL	Spare	

B. TEST PROCEDURES (FOR LIGHTING CIRCUITS ONLY)

It should be noted that the continuity and insulation resistance tests for **lighting circuit** described below can only be applied to a 'loop-in' wiring system only

1.0 CONTINUITY OF CPC IN LIGHTING CIRCUIT

- 1.1 **Test method 1 (CPC conductor terminated at the last point of the circuit and using the neutral conductor as a return lead)**
 - 1.1.1 Connect the neutral conductor to the CPC conductor (earth wire) at the last point of the circuit under test.
 - 1.1.2 Test between neutral and earth of the circuit at the DB.
 - 1.1.3 Record the test result obtained.
 - 1.1.4 The readings should be compared with the "Resistance of copper conductors" table for a particular length and size.
- 1.2 **Test method 2 (CPC terminated at the switch panel and using the phase conductor as a return lead)**
 - 1.2.1 Connect the phase conductor (phase wire) to the CPC conductor (earth wire) at the switch panel.
 - 1.2.2 Test between the phase and earth of the circuit at the DB.
 - 1.2.3 Record the test result obtained.
 - 1.2.4 The readings should be compared with the "Resistance of copper conductors" table for a particular length and size.

2.0 INSULATION RESISTANCE IN LIGHTING CIRCUIT

- 2.1 A d.c voltage not less than twice (2x) the nominal voltage of the circuit concerned (r.m.s value for an a.c supply) shall be applied for the measurement of insulation resistance, provided that the test voltage need not exceed 500 V d.c for installations rated up to 500V.
- 2.2 **Test method (CPC conductor terminated at the last point of the circuit)**
 - 2.2.1 Test between the **phase** (join together all phase conductors at the switch panel) and the **neutral** at the DB.
 - 2.2.2 Repeat the test for **phase** to **CPC**.
 - 2.2.3 Test between the neutral and the CPC at the DB.
 - 2.2.4 A value of less than **100MΩ** on a final circuit is to be unacceptably low and require further investigation.