Service Apparatus Test Form

To be completed by authorised electricians. The tester and witness must complete the declaration at the completion of the test procedure.
Witness is not required if data recording instruments are used to record the test results.
Service connections to uni-pillars and mini-pillars with exposed live parts require a safety observer able to identify safety issues relevant to the task.

	Pre-testing verification and visual checks			Tick
1.	Use an approved tester to test the meter enclosure to ensure no voltage is present.			
2.	**Site address**			
3.	**Meter number**	**Meter reading**		
4.	Ensure the correct operation of the testing instrument(s) on a known source of supply or on a proving device as a minimum **prior to** and **after** undertaking the testing.			
5.	**Confirm** correct operation and calibration of testing instruments. Record their serial number and calibration date.	**Electrical Installation Tester with memory*** serial no / Calib. date#		
		Volt meter serial no / Calib. date#		
		Impedance meter serial no / Calib date#		
6.	Ensure the pillar is **energised** and confirm the relevant installation consumer mains per the above details are not connected.			
7.	For single metered installations a **neutral link** on the meter panel is **not permitted**.			
8.	Ensure consumer's main switch is switched OFF, fit "Out of Service Warning Tag" and the SPD/meter fuses are **switched off/removed.**			
9.	No active and neutral conductors are transposed between the **Pillar→SPD→meter→customer main switch**.			
10.	**Ensure** conductors are correctly wired into the kWh meter. **(1Ø - ANNA)** **(3Ø - AA /AA /AA /NN)**		**1Ø**	**3Ø**
11.	**Ensure** the **LOAD neutral is disconnected** from the kWh meter. Ensure the LINE and LOAD active(s) and the LINE neutral are properly secured (pull test) in the kWh meter.			
12.	Install independent earth stake >3.0 metres from the consumer's earth and any potential earth.			
13.	Connect consumer mains at the pillar. **Caution** - the consumer's line neutral conductor could be live if connected incorrectly.			
	TESTING			
14.	Test between independent earth and line neutral at the kWh meter terminal and record the voltage reading. Expected results **0-6 V** Record the results		**……. volts**	
15.	Test for continuity between the disconnected load neutral and customer earth electrode. Record the reading. If the reading is greater than 0,5 ohm identify and rectify consumer's **MEN** connection.		**…….ohm**	
16.	Test the voltage at the LINE side of the SPD(s) to 1. Independent earth. 2. Load neutral. 3. Line neutral. 4. Metal meter enclosure, to confirm the meter enclosure and load neutral are connected to earth and the consumer mains are connected to supply. Expected results **1Ø 225-255V** Record the results.		**……. volts**	

	Testing continued				Tick
17.	**Energise the meter by replacing the SPD(s)/meter fuse(s).** Confirm supply by testing between the independent earth, line neutral and the line active(s) at the kWh meter terminals. Do not record the readings.				
18.	**For 3 phase connections ONLY** check and record the phase rotation at the kWh meter terminals		Anticlockwise	Clockwise	
19.	Check and record **voltages** between line neutral and line active(s) at the kWh meter terminals. Expected results **225-255**	**Red Ø 1**	**White Ø 2**	**Blue Ø 3**	
20.	Check and record **line impedance** between line neutral and line active(s) at the kWh meter terminals. Expected results **<1 Ω**	**Red Ø 1**	**White Ø 2**	**Blue Ø 3**	
21.	Test and record phase to phase voltages at the kWh meter. Expected results **390-440 V**	**Red Ø 1**	**White Ø 2**	**Blue Ø 3**	
22.	The SPD/meter fuses are **switched off/removed**. Prove the meter is de-energised by testing at the kWh meter terminals. Test between the line neutral and line active(s) (Critical test). Test between independent earth and the line neutral and the line active				
23.	**Reconnect the load neutral tail into the kWh meter.** Always double check all the conductors are in their correct terminals and are checked for tightness (pull test)				
24.	**Energise the meter by replacing the SPD(s)/meter fuse(s).** Confirm supply has been restored by testing between the independent earth, line neutral and the line active(s) at the kWh meter terminals. Do not record the readings.				
25.	Apply a load test at the kWh meter terminals between the load neutral and load active(s) to prove the meter is operating correctly (the meter should pulse).				
26.	The SPD/meter fuses are **switched off/removed.** Prove the **kWh** meter is de-energised by testing at the kWh meter terminals. Test between the line neutral and line active(s) (Critical test). Test between independent earth and the line neutral and the line active.				
27.	Ensure consumer's main switch is off.				
28	Test between metal enclosure and independent earth. Measure volts between independent earth & customer earth				**<6 volts**
	SACS Test is Complete - Ensure "Out of Service Warning Tag" is left fitted.				
1A.	**FOR CONTRACTOR CONNECT ACCREDITED** Electrical Workers ONLY Reconfirm SACS testing of steps 14 to 26.				
1B.	The SPD/meter fuses are switched on/replaced.				
1C.	Remove "Out of Service Warning Tag" ENSURE Main Switch is "OFF"				
1D.	Test between metal enclosure and independent earth. Measure volts between independent earth & customer earth.				**<6 volts**
1E.	Ensure correct operation of testing instrument(s) on a known source of supply or proving device				

Note: The meter must not be left energised unless the EW is Contractor Connect Accredited.

I, the undersigned tester, certify that I have carried out tests 1 to 28 and 1A to 1E in this SAT form properly and consecutively in the order that they are numbered. The test results recorded in this SCT form are all true and correct and: The service apparatus tested are in a safe and fit condition for supplying electricity to the service address.

Name:			**Signature:**		
Seal# (if CC):	**NAC#:**	**EW No:**	**EC No:**	**Date:**	**Time:**

I, the undersigned witness, certify that all the test 1 to 28 and 1A to 1E in this SAT form were carried out properly and consecutively in the order that they are numbered. I recorded the results of each test I observed as it was completed. (*not required when test is conducted using Electrical Installation Tester with built-in memory).

Name:			**Signature:**		
Seal# (if CC):	**NAC#:**	**EW No:**	**EC No:**	**Date:**	**Time:**