CERTIFICATE OF CALIBRATION

Issued By PASS Ltd - www.calibrate.co.uk - 0845 365 39 44

Date of Issue 06 March 2013

Certificate Number
STD26031

PASS
Portable Appliance Safety Services

1 Alberto Street
Stockton On Tees
Teesside
TS18 2BQ

Approved Signatory

☐ P.Beswick ☐ D.Kendrew ☑ M.Allick ☐ D.Sparrow ☐ N.Walker

Customer : DEMO
,

Date Received : 06 March 2013

Instrument -

System ID :	ID51321	Job Number : J28903-1
Description :	Digital Benchtop Multimeter	
Manufacturer :	Solatron	
Model Number :	7150	
Serial Number :	DEMO0001	
Procedure Version :	1/MA	

Environmental Conditions

Temperature :	20°C +/- 1°C	Mains Voltage :	240V +/- 10V
Relative Humidity :	50% +/- 10%	Mains Frequency :	50Hz +/- 1Hz

Comments

Instrument was placed in lab and allowed to stablise before calibration.
Calibrated with in house test leads.

Traceability Information

Instrument description	*Serial number*	*Certificate number*	*Cal. Date*	*Cal. Period*
2041A Precision Multi-Product Calibrator	106966D5	21792	07/06/2012	52

Calibrated By : M.Allick **Date of Calibration :** 06 March 2013

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Test Title	Tolerance	Applied Value	Reading	Pass/Fail
General Operation Tests				
LCD Screen Test	---	---	Pass	
Keypad Test	---	---	Pass	
D.C Voltage Range				
100mV	48uV	100.00mV	100.00mV	Pass
300mV	64uV	300.00mV	300.00mV	Pass
600mV	88uV	600.00mV	600.01mV	Pass
900mV	112uV	900.00mV	900.01mV	Pass
1V	480uV	1.000 0V	1.000 2V	Pass
3V	640uV	3.000 0V	3.000 3V	Pass
6V	880uV	6.000 0V	6.000 2V	Pass
9V	1.1mV	9.000 0V	9.000 3V	Pass
10V	4.8mV	10.000V	9.999V	Pass
30V	6.4mV	30.000V	29.999V	Pass
60V	8.8mV	60.000V	59.998V	Pass
90V	11.2mV	90.000V	89.998V	Pass
100V	48mV	100.00V	99.98V	Pass
200V	56mV	200.00V	199.98V	Pass
300V	64mV	300.00V	299.99V	Pass
400V	72mV	400.00V	399.98V	Pass
500V	80mV	500.00V	499.98V	Pass
600V	88mV	600.00V	599.98V	Pass
700V	96mV	700.00V	699.98V	Pass
800V	104mV	800.00V	799.98V	Pass
900V	112mV	900.00V	899.97V	Pass
990V	119.2mV	990.00V	989.97V	Pass
A.C Voltage Range				
100mV	230uV	100.00mV	99.97mV	Pass
300mV	280uV	300.00mV	299.97mV	Pass
600mV	630uV	600.00mV	599.96mV	Pass
900mV	870uV	900.00mV	899.93mV	Pass
1V	150.7mV	1.00V	0.98V	Pass
3V	152.1mV	3.00V	2.97V	Pass
6V	154.8mV	6.00V	5.97V	Pass
9V	156.3mV	9.00V	8.97V	Pass
10V	157mV	10.00V	9.97V	Pass
30V	174mV	30.00V	29.97V	Pass

Uncertainties

D.C. Voltage	0 to 1000V: 0.002% ± 1digit
A.C. Voltage	0 to 1000V: 0.01% ± 1digit
D.C. Current	0 to 10A: 0.008% ± 1digit
A.C. Current	0 to 10A: 0.02% ± 2digit
Resistance	0 to 10MOhms 0.005% ± 1digit: 10Mohms to 1Gohm 0.4% ± 1 digit

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Test Title	Tolerance	Applied Value	Reading	Pass/Fail
60V	198mV	60.00V	59.89V	Pass
90V	222mV	90.00V	89.92V	Pass
100V	230mV	100.00V	99.89V	Pass
200V	310mV	200.00V	199.90V	Pass
300V	390mV	300.00V	299.90V	Pass
400V	470mV	400.00V	399.70V	Pass
500V	550mV	500.00V	499.86V	Pass
600V	630mV	600.00V	599.69V	Pass
700V	710mV	700.00V	699.86V	Pass
750V	742mV	740.00V	739.90V	Pass
D.C. Current Range				
1mA	5.4uA	1.000mA	1.000mA	Pass
3mA	6.2uA	3.000mA	3.000mA	Pass
6mA	7.4uA	6.000mA	6.000mA	Pass
9mA	8.6uA	9.000mA	9.000mA	Pass
10mA	9uA	10.000mA	10.001mA	Pass
30mA	17uA	30.000mA	30.001mA	Pass
60mA	29uA	60.000mA	60.001mA	Pass
90mA	41uA	90.000mA	90.001mA	Pass
120mA	53uA	120.000mA	120.003mA	Pass
150mA	65uA	150.000mA	150.004mA	Pass
200mA	85uA	200.000mA	200.003mA	Pass
500mA	205uA	500.000mA	500.006mA	Pass
1A	5.4mA	1.000A	1.001A	Pass
2A	5.8mA	1.900A	1.901A	Pass
A.C. Current Range				
10mA	20uA	10.000mA	10.002mA	Pass
30mA	110uA	30.000mA	30.003mA	Pass
60mA	170uA	60.000mA	60.004mA	Pass
90mA	230uA	90.000mA	90.006mA	Pass
120mA	245uA	120.000mA	120.007mA	Pass
150mA	305uA	150.000mA	150.006mA	Pass
200mA	405uA	200.000mA	200.003mA	Pass
500mA	1mA	500.000mA	500.006mA	Pass
1A	7mA	1.000A	1.001A	Pass
2A	8.8mA	1.900A	1.904A	Pass

Uncertainties

D.C. Voltage	0 to 1000V: 0.002% ± 1digit
A.C. Voltage	0 to 1000V: 0.01% ± 1digit
D.C. Current	0 to 10A: 0.008% ± 1digit
A.C. Current	0 to 10A: 0.02% ± 2digit
Resistance	0 to 10MOhms 0.005% ± 1digit: 10Mohms to 1Gohm 0.4% ± 1 digit

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Test Title	Tolerance	Applied Value	Reading	Pass/Fail
2-Wire Resistance Range				
100mΩ	25uΩ	0.235Ω	0.235Ω	Pass
200mΩ	45uΩ	0.235Ω	0.235Ω	Pass
1Ω	5.2mΩ	1.150Ω	1.152Ω	Pass
10Ω	7mΩ	10.161Ω	10.162Ω	Pass
100Ω	25mΩ	100.210Ω	100.213Ω	Pass
1kΩ	5.2Ω	1.001kΩ	1.003kΩ	Pass
10kΩ	6Ω	10.001kΩ	10.002kΩ	Pass
100kΩ	34Ω	100.006kΩ	100.008kΩ	Pass
1MΩ	4.3kΩ	1.000MΩ	1.003MΩ	Pass
10MΩ	25kΩ	10.002MΩ	10.006MΩ	Pass
4-Wire Resitance Range				
100mΩ	25uΩ	0.102Ω	0.102Ω	Pass
200mΩ	45uΩ	0.102Ω	0.102Ω	Pass
1Ω	5.2mΩ	1.007Ω	1.006Ω	Pass
10Ω	7mΩ	10.002Ω	10.003Ω	Pass
100Ω	25mΩ	100.062Ω	100.065Ω	Pass
1kΩ	5.2Ω	1.001kΩ	1.002kΩ	Pass
10kΩ	6Ω	10.001kΩ	10.003kΩ	Pass
100kΩ	34Ω	100.006kΩ	100.007kΩ	Pass
1MΩ	4.3kΩ	1.000MΩ	1.002MΩ	Pass
10MΩ	25kΩ	10.000MΩ	10.009MΩ	Pass

End Of Tests

Uncertainties

D.C. Voltage	0 to 1000V: 0.002% ± 1digit
A.C. Voltage	0 to 1000V: 0.01% ± 1digit
D.C. Current	0 to 10A: 0.008% ± 1digit
A.C. Current	0 to 10A: 0.02% ± 2digit
Resistance	0 to 10MOhms 0.005% ± 1digit: 10Mohms to 1Gohm 0.4% ± 1 digit