

# CERTIFICATE OF CALIBRATION

QC 20/F

Certificate Number  
59562

Page 1 of 3

**BS EN ISO 9001:2008 Cert. No. FS 09953**

Quasartronics Ltd.  
Watt House, Dudley Innovation Centre  
Kingswinford,  
West Midlands  
DY6 7YD  
Tel: 01384 401132 Fax: 01384 400754  
e-mail: mail@quasartronics.com

CUSTOMER : CLAYTON FIRE & SECURITY  
BLACKPOLE BUSINESS CENTRE  
BLACKPOLE ROAD  
WORCESTER  
WR3 8SQ

Order No. : TBA

Customer Ref. : None

Engineer  
Location**Calibration Information**

Instrument Type : Megger AVO410 Multimeter  
System ID : WED422

Serial Number : 16011304  
Job Number : D172235-1

**Ambient Conditions**

Temperature : 21°C ± 2°C  
Relative Humidity : 52% ± 20%

Calibration Date : 01/08/2016  
Cal Due Date : 31/07/2017

Calibrated Under a Quality Management System Assessed By The BSI to BS EN ISO 9001:2008. The equipment used is traceable to National Standards (N.P.L.). ISO10012 : 2003 is used for guidance.

This instrument has been tested to the tolerances specified in the Procedure Number : 9040

CONDITION PRIOR TO CALIBRATION A :- No Adjustment Required

Overall result after calibration : PASS  
Calibration status : COMPLETED

**THE CALIBRATION STATUS WILL SHOW:**

TERMINATED - if the procedure was prematurely terminated;  
COMPLETED - if the procedure was completed without abnormal conditions

**STANDARDS USED FOR CALIBRATION**

<u>Instrument Description</u>	<u>Asset Number</u>	<u>Certificate Number</u>	<u>Cal. Date</u>	<u>Cal. Period</u>
2041 Precision Multi-Product Calibrator	Q22	29250	09/11/2016	52

Authorised Signatory :

D.Lloyd

CERTIFIED THAT THE WHOLE CALIBRATION DETAILED HEREON HAVE BEEN INSPECTED AND TESTED IN ACCORDANCE WITH THE CONDITIONS AND REQUIREMENTS OF THE CONTRACT OR PURCHASE ORDER AND UNLESS OTHERWISE STATED CONFORM IN ALL RESPECTS TO THE SPECIFICATION(S) DRAWING(S) RELEVANT THERETO, AND THE MANUFACTURERS ORIGINAL STANDARDS WHERE AVAILABLE.

# CERTIFICATE OF CALIBRATION

Calibration Date

01/08/2016

Certificate Number

59562

**BS EN ISO 9001:2008 Cert. No. FS 09953**

Page 2 of 3

Test Title	Tolerance	Applied Value	Reading	Pass / Fail
<b>General Operation Tests</b>				
Display	---	---		PASS
Continuity Buzzer	---	---		PASS
Diode	15.5mV	0.700V	0.700V	PASS
<b>DC Voltage Range</b>				
600mV	3mV	550.00mV	550.0mV	PASS
6V	29.5mV	5.5000V	5.500V	PASS
60V	295mV	55.000V	55.00V	PASS
600V	3V	550.00V	551.0V	PASS
1000V	6.5V	900.0V	901V	PASS
<b>AC Voltage Range</b>				
600mV @ 50Hz	5.5mV	550.00mV	545.5mV	PASS
600mV @ 60Hz	5.5mV	550.00mV	545.1mV	PASS
6V @ 50Hz	54.5mV	5.5000V	5.466V	PASS
60V @ 50Hz	545mV	55.000V	55.40V	PASS
600V @ 50Hz	5.5V	550.00V	554.0V	PASS
750V @ 50Hz	11.3V	700.0V	708V	PASS
<b>DC Current Range</b>				
600uA	5.8uA	550.00uA	550.9uA	PASS
6A	355mA	5.50A	5.5A	PASS
10A	120mA	9.000A	8.98A	PASS
<b>AC Current Range</b>				
6A @ 50Hz	582.5mA	5.50A	5.5A	PASS
10A @ 50Hz	185mA	9.000A	9.05A	PASS
<b>Resistance Range</b>				
600R	4.4R	1.00kR	1.0kR	PASS
6kR	40.5R	10.0009kR	9.990kR	PASS
60kR	465R	100.007kR	99.80kR	PASS
600kR	4.7kR	1.00MR	1.0MR	PASS
6MR	63kR	10.0008MR	9.990MR	PASS
<b>Capacitance</b>				
6 nF	19pF	1.062nF	1.070nF	PASS
60 nF	950pF	48.586nF	48.810nF	PASS
600 nF	1.9nF	98.920nF	99.300nF	PASS
6 uF	19nF	1.000uF	1.000uF	PASS
60 uF	190nF	9.934uF	9.870uF	PASS
600 uF	1.9uF	111.450uF	111.300uF	PASS
<b>Frequency</b>				
6000Hz	1Hz	1kHz	1kHz	PASS
60.00 kHz	10Hz	10.00kHz	10.00kHz	PASS
600.0 kHz	100Hz	100.0kHz	100.0kHz	PASS
6.000MHz	1kHz	1.000MHz	1.000MHz	PASS
60.0 MHz	10kHz	10.0MHz	10.0MHz	PASS



# CERTIFICATE OF CALIBRATION

Calibration Date  
01/08/2016

Certificate Number  
59562

Page 3 of 3

**BS EN ISO 9001:2008 Cert. No. FS 09953**

Test Title	Tolerance	Applied Value	Reading	Pass / Fail
------------	-----------	---------------	---------	-------------

Instrument was allowed to stabilise before calibration.

Specifications taken from user manual.

\*\*\*\*\* *END OF TEST DATA* \*\*\*\*\*

Watt House, Innovation Centre, Pensnett Estate,  
Kingswinford, West Midlands. DY6 7YD  
Tel:- 01384 401132 Fax:- 01384 400754

Web: www.quasartronics.com E-mail: mail@quasartronics.com

### PACKING NOTE

**INVOICE TO**

CLAYTON FIRE & SECURITY LTD  
BLACKPOLE BUSINESS CENTRE  
BLACKPOLE ROAD  
WORCESTER  
WORCESTERSHIRE  
WR3 8SQ

**DELIVER TO**

VAT Reg. No. 547 3460 35

TERMS: Strictly Nett Monthly.

DATE	INVOICE No.	ACCOUNT No.	YOUR ORDER No.
04/08/2016	312937	CL14	OFFICE

1 MULTIMETER AVO410 24.00  
JN D172235-1 SN 16011304  
CAL TO ABOVE \*B3\*

1. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

2. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

3. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

4. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

5. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

6. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

7. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

8. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

9. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

10. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

11. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

12. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

13. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

14. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

15. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

16. The goods are sold as described and the Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery. The Buyer shall be deemed to have accepted the goods as they are. The Seller shall not be liable for any loss or damage to the goods or for any delay in delivery.

CONTACT STACEY

Net Amount 24.00

RECEIVED BY: PRINT: DATE: //2016

VAT@ 20% 4.80

TITLE OF GOODS REMAIN PROPERTY OF QUASARTRONICS LIMITED	AMOUNT DUE
UNTIL PAYMENT HAS BEEN MADE IN FULL	28.80