

# E E C S

Electrical Equipment Calibration Services  
1700 Wyatt Drive STE. 1 San Jose, CA. 95054  
Ph#: 510-651-5112

## CERTIFICATE OF CALIBRATION

Prepared For:  
WATERRECLAIM COMPANY  
ATTN: RUSS KELLER  
1129 HIDDEN HILL DRIVE  
WAKE FOREST, NC 27587

Traceability/Job No: F30554

### INSTRUMENT INFORMATION

Inst. Descrip.: DMM,  
Manufacturer: AGILENT  
Model: 3458A  
Serial No.: MY45042794  
Cust. ID. No.: N/A  
Accuracy: MM

Calibration Site: In Shop  
Date Received: 03/29/2022  
Date of Cal.: 04/01/2022  
Next Cal. Due: 04/01/2023  
Proc.: MM  
Calibration Result: Passed

*As Received*

*As Left*

Non-Operational

In Tolerance  
Operational  
Full Calibration

#### Remarks:

REPLACED INPUT CONNECTORS, AND CALIBRATED.

### STANDARDS USED

<u>ID. No.</u>	<u>Model No.</u>	<u>Manufacturer</u>	<u>Description</u>	<u>Cal Date</u>	<u>Due Date</u>	<u>Uncertainty</u>
FRES226	3458A	AGILENT	DIGITAL MULTIME	01/20/2022	01/20/2023	MM
FRES080	732A	FLUKE	STANDARD, DC RE	11/01/2021	11/01/2022	.5 PPM
FRES020	742A-10K	FLUKE	RESISTANCE STAN	02/20/2022	02/20/2023	MM
FRES405	5500A	FLUKE	CALIBRATOR MULI	02/25/2022	02/25/2023	5 PPM VDC

### TEST ROOM ENVIRONMENT

Temperature: 23.0C / 73.4 F

Relative Humidity: 40.0 %

Barometric Pressure: N/A in. Hg

*E E C S certifies that the above listed instrument meets or exceeds all published specifications. It has been calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology. Alternatively, accuracies have been derived from accepted values of natural physical constants, or have been derived by the ratio type of self-calibration techniques. This certificate may be reproduced in full. Partial reproduction may be done only with written prior consent of E E C S. All calibration activities are performed in compliance with ANSI/NCSL Z540-1, and MIL-STD-45662A.*

Measurements certified by: Tom

Date: 4/1/22

Title: Service Tech

ELECTRICAL EQUIPMENT CALIBRATION SERVICES  
1700 WYATT DRIVE SUITE 1  
SAN JOSE, CA 95054  
REPORT OF CALIBRATION

CALIBRATION REPORT NUMBER: 30554

TEST DATE: 04/01/2022

UNIT UNDER TEST	: AGILENT 3458A
SERIAL NUMBER	: MY45042794
CUST. ID. NUMBER	: MY45042794
CUSTOMER NAME	: WATERRECLAIM COMPANY
CUSTOMER ADDRESS	: 1129 HIDDEN HILL DRIVE
CUSTOMER CITY, STATE	: WAKE FOREST, NC. 27587
CUSTOMER P.O.#	: N/A
PROCEDURE NAME	: MM
PROCEDURE REVISION	: NONE
DATA TYPE	: OUTGOING DATA
TEST RESULT	: PASS
FAILED TESTS	: NONE
CALIBRATED BY	: TONG
TEMPERATURE	: 23 °C
RELATIVE HUMIDITY	: 40 %

The Electrical Equipment Calibration Services Corporation certifies that the above listed instrument meets or exceeds all published specifications (unless otherwise noted). It has been calibrated using measurement standards that are traceable to the National Institute of Standards and Technology (NIST), or to NIST accepted intrinsic standards of measurement. Alternatively TraceAbility may be achieved from accepted values of natural physical constants, or have been derived by the ratio type of self-calibration techniques.

This calibration complies with MIL-STD-45662A and ANSI/NCSL Z540-1-1994.

This report applies only to the item identified above and shall not be reproduced, except in full, without specific written approval of Electrical Equipment Calibration Services.

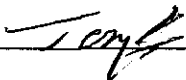
NOTE: Any Test Uncertainty Ratio (TUR) that is less than four to one will appear under the "TUR" heading on the data record. If the TUR meets or exceeds four to one, the field is left blank.

STANDARDS USED:

Instrument Model	Asset Number	Cal Date	Due Date
FLUKE 5500A	F 405	02/22/2022	02/25/2023
FLUKE 732A	F 080	11/01/2021	11/01/2022
FLUKE 732A-10K	F 020	02/20/2022	02/20/2023
AGILENT 3458A	F 226	01/20/2022	01/20/2023

REMARKS:

Metrology Technician



PARAMETER	OUTGOING DATA	ACCEPTANCE LIMITS		
		LOW	HIGH	TUR
SELF-TEST		PASS		
ZERO OFFSET TESTS (FRONT INPUT)				
DC. Voltage Tests (Short)				
100mV. Range	-0.00008	-0.00160mV.	0.00160mV.	
1.00V. Range	-0.00000005	-0.0000106V.	-0.0000106V.	
10.0V. Range	0.00000002	-0.0000023V.	0.0000023V.	
100.0V. Range	0.0000012	-0.000036V.	0.000036V.	
1000.0V. Range	0.00002	-0.00013V.	0.00013V.	
4 Wires Ohms Tests (short)				
100Ohm Range	0.00002	-0.00050Ohm	0.00050Ohm	
1000Ohm Range	0.00015	-0.00050Ohm	0.00050Ohm	
1.0KOhm Range	0.0000001	-0.0000005Ohm	0.0000005Ohm	
10.0KOhm Range	0.000002	-0.000005Ohm	0.000005Ohm	
100.0KOhm Range	0.000001	-0.00005Ohm	0.00005Ohm	
1.0MOhm Range	0.0000001	-0.0000020Ohm	0.0000020Ohm	
10.0MOhm Range	0.000001	-0.000100Ohm	0.000100Ohm	
100.0MOhm Range	0.00000	-0.00010Ohm	0.00010Ohm	
1.0Gohm Range	0.0000000	-0.0000005Ohm.	0.0000006Ohm.	
DC. Current Tests (short)				
100nA. Range	0.002	0.040nA.	0.040nA.	
1.0uA. Range	0.000001	-0.000400uA.	0.000400uA.	
10.0uA. Range	0.000006	-0.000100uA.	0.000100uA	
100.0uA. Range	0.00018	-0.00100uA.	0.00100uA.	
1.0mA. Range	0.0000008	-0.0000050mA.	0.0000050mA.	
10.0mA. Range	0.000008	-0.000050mA.	0.000050mA.	
100.0mA. Range	0.000021	-0.00050mA.	0.00050mA.	
1.0A. Range	0.0000020	-0.0000100A.	0.0000100A.	
DC. Voltage Tests				
100mV Range	99.99925	99.99854mV.	100.00147mV.	
-100mV Range	-99.99952	-100.00147mV.	-99.99854mV.	
1.0V Range	0.99999503	0.9999895V.	1.0000104V.	
-1.0V. Range	-0.99999948	-1.0000104V.	-0.999895V.	
10.0V Range	9.9999968	9.999898V.	10.0001013V.	
-10.0V. Range	-10.0000452	-10.0001013V.	-9.999898V.	
100.0V Range	100.000978	99.998759V.	100.001241V.	
-100.0V. Range	-100.000855	-100.001241V.	-99.998759V.	
1000.0V. Range	1000.00982	999.97582V.	10000.2418V.	
-1000.0V. Range	-1000.01582	-10000.2418V.	-999.97582V.	
4 Wires Ohms Tests				
100Ohm Range	9.99925	9.99912Ohm	10.00087Ohm	
1000Ohm Range	99.99865	99.99598Ohm	100.00034Ohm	
1.0 KOhm Range	0.9999924	0.9999950KOhm	1.0000224KOhm	
10.0KOhm Range	9.999938	9.999462KOhm	10.000538KOhm	
100.0KOhm Range	99.99858	99.99690KOhm	100.00310KOhm	
2 Wires Ohms Test				
1.0MOhm Range	0.9999672	0.9999803MOhm	1.0000209MOhm	
10.0MOhm Range	9.999579	9.998747MOhm	10.000015MOhm	
100.0 MOhm Range	99.98524	99.95073Mohm	100.05765MOhm	

PARAMETER	OUTGOING DATA	ACCEPTANCE LIMITS		
		LOW	HIGH	TUR
AC. Voltage Tests				
100mV@1KHz.	99.9956	99.9648mV.	100.0252mV.	
100mV Range				
1.0V@1KHz.	0.999945	0.999698V.	1.000302mV.	
1V. Range				
1.0V.@1KHz.	0.99972	0.99880V.	1.00120V.	
10V. Range				
1.0V.@50KHz.	0.99871	0.99450V.	1.00550V.	
10V. Range				
10.0V.@10Hz.	9.98334	9.95798V.	10.04202V.	
10V. Range				
10.0V.@20Hz.	9.99374	9.98298V.	10.01702V.	
10V. Range				
10.0V.@200Hz.	9.99948	9.99698V.	10.00302V.	
10V. Range				
10.0V.@500Hz.	9.99929	9.99698V.	10.00302V.	
10V. Range				
10.0V.@1KHz.	9.99905	9.99698V.	10.00302V.	
10V. Range				
10.0V.@20KHz.	9.99921	9.99698V.	10.00302V.	
10V. Range				
10.0V.@50KHz.	9.99894	9.98098V.	10.01902V.	
10V. Range				
10.0V.@100KHz.	10.00014	9.93198V.	10.06802V.	
10V. Range				
100V.@1KHz.	99.9931	99.9598V.	100.0402V.	
100V. Range				
700V.@1KHz.	699.876	699.379V.	700.621V.	
100V. Range				
DC. CURRENT TESTS				
100uA.	100.00132	99.99550uA.	100.00450uA.	
-100uA.	-99.99835	-100.00450uA.	99.99550uA.	
1.0mA.	1.0000076	0.99995796mA.	1.0004204mA.	
-1.0mA.	-0.9999985	-1.00004204mA.	-0.99995796mA.	
10mA.	10.000254	9.9996876mA.	10.0003124mA.	
-10mA.	-10.000105	10.00031240mA.	-9.99968760mA.	
100mA.	100.00122	99.995376mA.	100.004624mA.	
-100mA.	-100.00224	-100.004624mA	-99.0065376mA.	
1.0A.	1.0000396	0.99987376A.	1.00012624A.	
-1.0A.	-1.0000536	-1.00012624A.	-0.99987376A.	
AC. CURRENT TESTS				
100uA.@1KHz	100.0325	99.9138uA.	100.0948uA.	
1.0mA.@1KHz	1.000221	0.999488mA.	1.000498mA.	
10mA.@1KHz	10.00365	9.99468mA.	10.00478mA.	
100mA.@1KHz	100.0152	99.94898mA.	100.04998mA.	
1.0A.@1KHz	1.000325	0.998810A.	1.001220A.	