

BIOSCIENCE INTERNATIONAL

Innovative Microbiology Products
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CERTIFICATE OF CALIBRATION

Model:	SAS Super 180
Air Sampler Serial #:	00-C-1453
Air Sampler Head Serial #:	4508
Customer:	Aerobiology Laboratory
Customer Asset ID #:	n/a
Calibration performed at:	Woodglen site (see address above)

Cal. Date:	12 Jan 2022
Cal. Due:	12 Jan 2023 (12 months)
Procedure:	EOP-030
Certificate #:	00-C-1453-2573
Volume sampled (L):	1000
Calibrated w/media type:	BBL Petri TSA
Plate Lot #:	1302110
Plate Exp Date:	4/14/2022

	As Found	In Tolerance	As Left	In Tolerance	Acceptable Range
Battery output (Volts):	10.2	n/a	10.0	n/a	>8.2
Temperature (F°):	68.8	n/a	68.7	n/a	59 - 95
Barometric pressure (in. HG):	30.21	n/a	30.21	n/a	n/a
Time to sample 1000 Liters (min)	5.61	n/a	5.55	n/a	n/a
Temp. & Pressure Standardization Factor:	1.01	n/a	1.01	n/a	n/a
Air velocity reading (ft/min)	98.0	n/a	99.0	n/a	n/a
Air velocity reading (m/sec)	0.498	n/a	0.503	n/a	n/a
Standardized air velocity reading (m/sec)	0.504	n/a	0.509	n/a	n/a
Standardized Air Flow (L/min)	178.2	Yes	180.1	Yes	171 - 189

Additional heads inspected and determined to be within +/-2%:	n/a
Additional service, preventative maintenance, or calibration notes:	Non-Functional due to melted wiring. Replaced wire harness, on/off switch, CMOS battery and battery with like for like parts. As found readings taken, then as left readings taken.

Bioscience International certifies that the above described instrument conforms to the original manufacturer's tolerances for the parameters listed (not applicable to As Found data) & has been calibrated in accordance with ISO 17025:2017 guidelines using standards whose accuracies are traceable to the U.S. National Institute of Standards & Technology, have been verified with respect to instrumentation whose accuracy is traceable to NIST, or are derived from accepted values of physical constants. CMC test uncertainty is +/-2.2%. Instruments are calibrated with a test uncertainty ratio of 4:1 or greater whenever possible, with uncertainty defined as within a 95% confidence interval using a coverage factor of k = 2. In all cases, statistical methods are used to minimize uncertainty using the best commercially available methods. In Tolerance conditions are based on test results falling within the Acceptable Range. Measurement uncertainty is provided separately & independent of the decision rule. Voltage readings are for preventative maintenance purposes & not part of the calibration; values other than voltage, temperature, pressure, & air velocity are calculated values. Calibration results relate only to the items listed above; e.g., the instrument should be recalibrated prior to switching to a different media size (e.g., from 90mm Petri dishes to 55mm contact plates or vice versa).

Measurement Standards			
ID	Description	Last Cal.	Cal. Due
W-T95451906004	Velocity	10/12/2021	10/12/2022
W-6530-200391171	Temperature & Pressure	7/1/2020	7/1/2022

Work performed by / date: BIMBOLA FERNANDA 12 JAN 2022 Reviewed by / date: [Signature] 12 JAN 2022