



Sound Level Meter

IEC 61672-3:2013

Calibration Certificate

Calibration Number C23407

Client Details	Tech Rentals Pty Ltd 18 Joseph Street Blackburn North, VIC, 3130
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Equipment Tested/ Model Number :	ARL Ngara
Instrument Serial Number :	8781EE
Microphone Serial Number :	23368
Pre-amplifier Serial Number :	28588
Firmware Version :	12.6

Pre-Test Atmospheric Conditions	Post-Test Atmospheric Conditions
Ambient Temperature : 20.4 °C	Ambient Temperature : 21.1 °C
Relative Humidity : 38.3 %	Relative Humidity : 37.4 %
Barometric Pressure : 100.36 kPa	Barometric Pressure : 100.34 kPa

Calibration Technician : Shaheen Boaz	Secondary Check: Rhys Gravelle
Calibration Date : 26 Jun 2023	Report Issue Date : 30 Jun 2023

Approved Signatory : 

Ken Williams

Clause and Characteristic Tested	Result	Clause and Characteristic Tested	Result
12: Acoustical Sig. tests of a frequency weighting	Pass	17: Level linearity incl. the level range control	N/A
13: Electrical Sig. tests of frequency weightings	Pass	18: Toneburst response	Pass
14: Frequency and time weightings at 1 kHz	Pass	19: C Weighted Peak Sound Level	N/A
15: Long Term Stability	Pass	20: Overload Indication	Pass
16: Level linearity on the reference level range	Pass	21: High Level Stability	Pass

The sound level meter submitted for testing has successfully completed the class 1 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full requirements of IEC 61672-1:2013 because evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2013 and because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Uncertainties of Measurement - Environmental Conditions			
Acoustic Tests		Temperature	±0.1 °C
125Hz	±0.13 dB	Relative Humidity	±1.9 %
1kHz	±0.13 dB	Barometric Pressure	±0.014 kPa
8kHz	±0.14 dB		
Electrical Tests	±0.13 dB		

All uncertainties are derived at the 95% confidence level with a coverage factor of 2.



This calibration certificate is to be read in conjunction with the calibration test report.

Acoustic Research Labs Pty Ltd is NATA Accredited Laboratory Number 14172. Accredited for compliance with ISO/IEC 17025 - Calibration.

The results of the tests, calibrations and/or measurements included in this document are traceable to SI units.

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports.



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Sound Calibrator

IEC 60942:2017

Calibration Certificate

Calibration Number C23408

Client Details Tech Rentals Pty Ltd
18 Joseph Street
Blackburn North, VIC, 3130

Equipment Tested/ Model Number : Pulsar Model 105
Instrument Serial Number : 87783

Atmospheric Conditions

Ambient Temperature : 21.4 °C
Relative Humidity : 37.6 %
Barometric Pressure : 100.29 kPa

Calibration Technician : Shaheen Boaz
Calibration Date : 26 Jun 2023
Secondary Check: Rhys Gravelle
Report Issue Date : 30 Jun 2023

Approved Signatory : 

Ken Williams

Characteristic Tested	Result
Generated Sound Pressure Level	Pass
Frequency Generated	Pass
Total Distortion	Pass

Nominal Level	Nominal Frequency	Measured Level	Measured Frequency
94	1000	93.92	1000.30

The sound calibrator has been shown to conform to the class 1 requirements for periodic testing, described in Annex B of IEC 60942:2017 for the sound pressure level(s) and frequency(ies) stated, for the environmental conditions under which the tests were performed..

Uncertainties of Measurement -

Specific Tests	Environmental Conditions
Generated SPL	Temperature
Frequency	Relative Humidity
Distortion	Barometric Pressure

All uncertainties are derived at the 95% confidence level with a coverage factor of 2.



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