



ANNEX F

NOISE



ANNEX F1

CALIBRATION CERTIFICATES FOR NOISE

# *Certificate of Calibration*

*for*

*Description:* **Sound Level Calibrator**

*Manufacturer:* **Larson Davis**

*Type No.:* **CAL 200**

*Serial No.:* **15678**

***Submitted by:***

*Customer:* **Envirotech Services Co.**

*Address:* **Rm. 712, 7/F., My Loft, 9 Hoi Wing Road,  
Tuen Mun, Hong Kong**

**Upon receipt for calibration, the instrument was found to be:**

☒ **Within**

☐ **Outside**

**the allowable tolerance.**


The test equipments used for calibration are traceable to National Standards via:

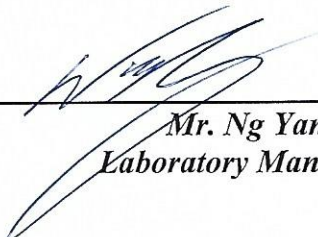
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

**Date of receipt: 03 January 2025**

**Date of calibration: 06 January 2025**

**Date of NEXT calibration: 05 January 2026**

**Calibrated by:**   
**Calibration Technician**

**Certified by:**   
**Mr. Ng Yan Wa**  
**Laboratory Manager**

**Date of issue: 06 January 2025**

**Certificate No.: APJ24-124-CC003**



Page 1 of 2

**1. Calibration Precautions:**

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

**2. Calibration Specifications:**

Calibration check

**3. Calibration Conditions:**

Air Temperature: 22.9°C  
Air Pressure: 1019 hPa  
Relative Humidity: 33.2 %

**4. Calibration Equipment:**

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV240109	HOKLAS

**5. Calibration Results****5.1 Sound Pressure Level**

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	94.1
114.0	113.6	114.4	114.1

**6. Calibration Results Applied**

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 60942 Class 1.

Note:

The values given in this certification only related to the values measured at the time of the calibration.

Certificate No.: APJ24-124-CC003



Page 2 of 2



# *Certificate of Calibration*

*for*

*Description:* *Sound Level Meter*  
*Manufacturer:* *RION*  
*Type No.:* *NL-52 (Serial No.: 00175561)*  
*Microphone:* *UC-59 (Serial No.: 16651)*  
*Preamplifier:* *NH-25 (Serial No.: 65663)*

***Submitted by:***

*Customer:* *Envirotech Services Co.*  
*Address:* *Rm. 712, 7/F., My Loft, 9 Hoi Wing Road,*  
*Tuen Mun, Hong Kong*

Upon receipt for calibration, the instrument was found to be:

- ☒ Within (31.5Hz – 8kHz)  
☐ Outside

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:


- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

**Date of receipt:** 03 January 2025

**Date of calibration:** 06 January 2025

**Date of NEXT calibration:** 05 January 2026

*Calibrated by:*   
*Calibration Technician*

*Certified by:*   
*Mr. Ng Yan Wa*  
*Laboratory Manager*

**Date of issue:** 06 January 2025

*Certificate No.:* APJ24-124-CC001



**1. Calibration Precaution:**

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

**2. Calibration Conditions:**

Air Temperature: 22.9 °C  
Air Pressure: 1019 hPa  
Relative Humidity: 33.2 %

**3. Calibration Equipment:**

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

**4. Calibration Results**

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA SPL	Fast		94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA SPL	Fast		94	1000	94.0	Ref
				104		104.0	±0.3
				114		114.1	±0.3

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA SPL	Fast		94	1000	94.0	Ref
		Slow				94.0	±0.3

Certificate No.: APJ24-124-CC001



Page 2 of 4



Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dB	SPL	94	31.5	94.2	$\pm 2.0$
				63	94.3	$\pm 1.5$
				125	94.2	$\pm 1.5$
				250	94.2	$\pm 1.4$
				500	94.1	$\pm 1.4$
				1000	94.0	Ref
				2000	93.7	$\pm 1.6$
				4000	93.2	$\pm 1.6$
				8000	91.8	$+2.1; -3.1$

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	94	31.5	54.8	$-39.4 \pm 2.0$
				63	68.1	$-26.2 \pm 1.5$
				125	78.1	$-16.1 \pm 1.5$
				250	85.5	$-8.6 \pm 1.4$
				500	90.9	$-3.2 \pm 1.4$
				1000	94.0	Ref
				2000	94.9	$+1.2 \pm 1.6$
				4000	94.2	$+1.0 \pm 1.6$
				8000	90.8	$-1.1 + 2.1; -3.1$

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBC	SPL	94	31.5	91.2	$-3.0 \pm 2.0$
				63	93.4	$-0.8 \pm 1.5$
				125	94.1	$-0.2 \pm 1.5$
				250	94.2	$-0.0 \pm 1.4$
				500	94.1	$-0.0 \pm 1.4$
				1000	94.0	Ref
				2000	93.6	$-0.2 \pm 1.6$
				4000	92.4	$-0.8 \pm 1.6$
				8000	88.9	$-3.0 + 2.1; -3.1$

Certificate No.: APJ24-124-CC001



Page 3 of 4

## 5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.15
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)\*L shall not be liable for any loss or damage resulting from the use of the equipment.

Certificate No.: APJ24-124-CC001



Page 4 of 4





ANNEX F2

MONITORING SCHEDULE FOR NOISE

**Tung Chung New Town Extension (East)**  
**Noise Monitoring Schedule (November 2025)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Nov
2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	8-Nov
	Noise Monitoring					Noise Monitoring
9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov
					Noise Monitoring	
16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov
				Noise Monitoring		
23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	29-Nov
			Noise Monitoring			
30-Nov						



ANNEX F3

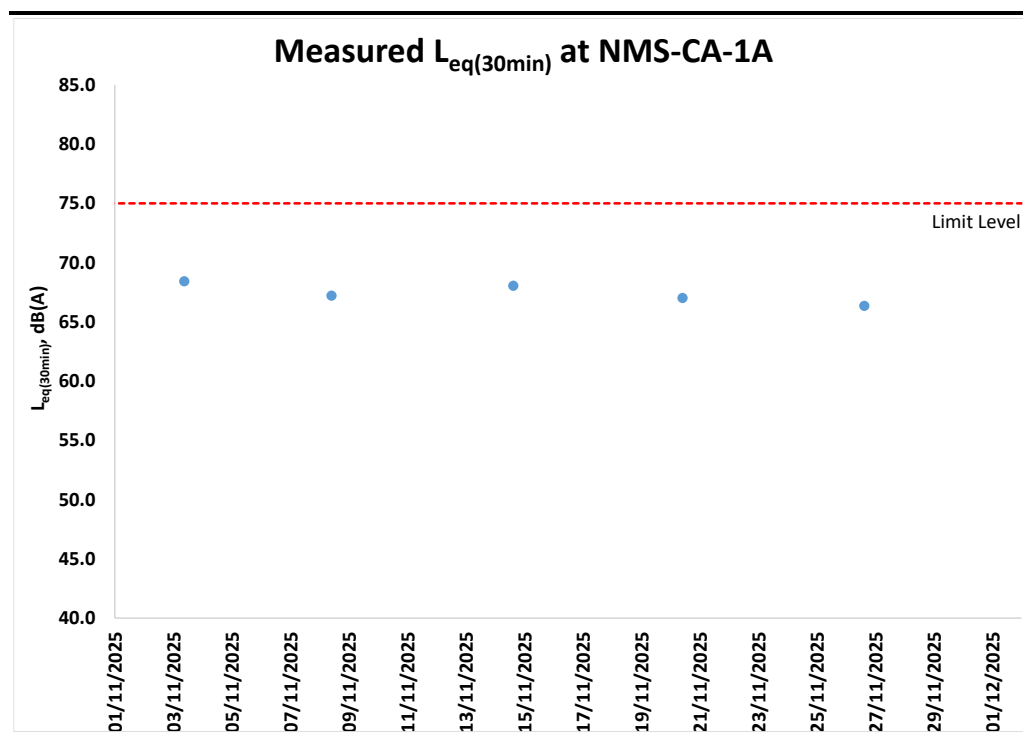
MONITORING RESULTS FOR NOISE



**Table F3.1**      **Data for Noise Monitoring at Station NMS-CA-1A during Normal Working Hours (0700-1900 hours)**

Date & Time	L <sub>eq</sub> (5min)	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub> (30min)
3/11/2025 9:05	67.4	69.6	63.1	68.4
3/11/2025 9:10	68.4	71.0	65.4	
3/11/2025 9:15	69.2	73.0	64.1	
3/11/2025 9:20	67.7	70.5	63.9	
3/11/2025 9:25	70.4	73.1	65.8	
3/11/2025 9:30	66.2	68.8	62.7	
8/11/2025 9:51	66.9	70.1	60.6	67.2
8/11/2025 9:56	65.6	67.8	59.9	
8/11/2025 10:01	68.9	71.4	64.9	
8/11/2025 10:06	66.8	68.6	64.5	
8/11/2025 10:11	68.5	71.0	64.7	
8/11/2025 10:16	65.3	67.8	60.7	
14/11/2025 15:00	69.1	71.2	66.0	68.0
14/11/2025 15:05	67.5	69.7	63.6	
14/11/2025 15:10	69.7	71.7	61.5	
14/11/2025 15:15	66.7	69.0	61.7	
14/11/2025 15:20	67.0	68.9	64.6	
14/11/2025 15:25	67.4	69.3	61.2	
20/11/2025 9:52	65.6	69.2	58.4	67.0
20/11/2025 9:57	67.6	70.0	64.0	
20/11/2025 10:02	69.4	73.1	64.3	
20/11/2025 10:07	66.4	68.6	62.9	
20/11/2025 10:12	65.9	68.5	62.4	
20/11/2025 10:17	65.8	68.7	59.6	
26/11/2025 15:07	67.8	70.4	63.3	66.3
26/11/2025 15:12	64.6	67.1	61.6	
26/11/2025 15:17	67.3	69.7	62.2	
26/11/2025 15:22	65.7	67.6	60.7	
26/11/2025 15:27	64.2	66.8	59.5	
26/11/2025 15:32	67.2	70.7	61.2	

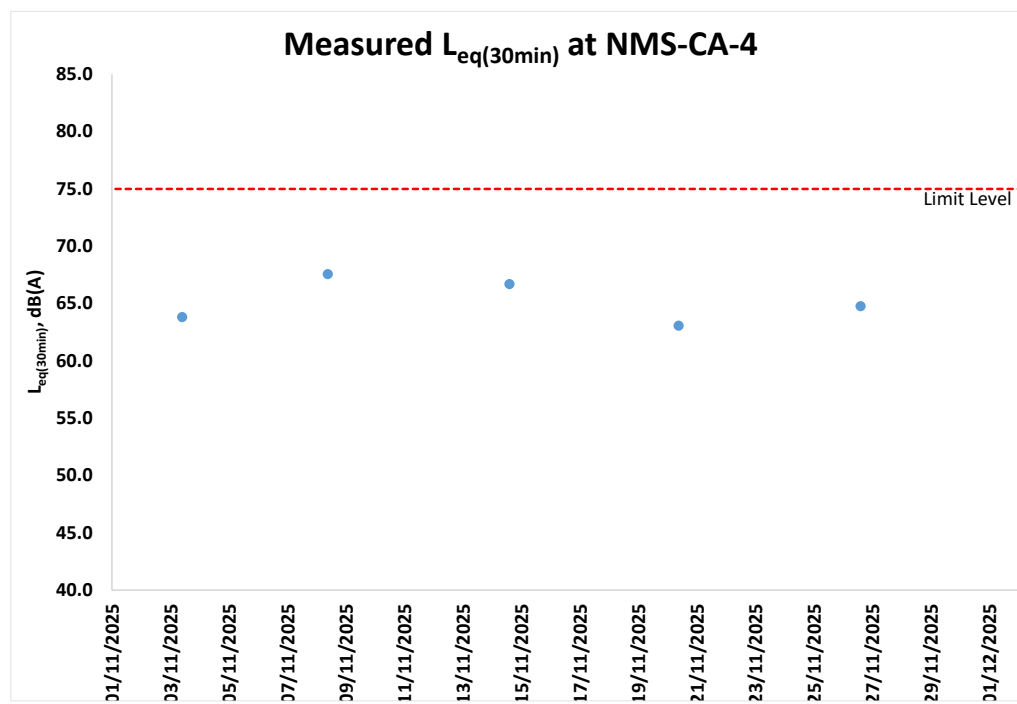
**Figure F3.1**      **Graphical Presentation for Noise Monitoring at Station NMS-CA-1A**



**Table F3.2 Data for Noise Monitoring at Station NMS-CA-4 during Normal Working Hours (0700-1900 hours)**

Date & Time	$L_{eq}(5min)$	$L_{10}$	$L_{90}$	$L_{eq}(30min)$
3/11/2025 9:48	62.1	63.9	60.3	63.8
3/11/2025 9:53	64.5	66.0	59.3	
3/11/2025 9:58	63.9	65.7	61.4	
3/11/2025 10:03	63.9	66.9	60.1	
3/11/2025 10:08	63.5	65.1	62.0	
3/11/2025 10:13	64.5	67.4	60.4	
8/11/2025 9:14	68.1	71.5	63.5	67.6
8/11/2025 9:19	67.9	71.4	64.1	
8/11/2025 9:24	67.3	71.5	62.7	
8/11/2025 9:29	66.4	70.0	62.8	
8/11/2025 9:34	67.5	70.5	63.4	
8/11/2025 9:39	67.9	71.8	64.0	
14/11/2025 14:24	66.5	67.9	63.9	66.7
14/11/2025 14:29	65.9	67.2	64.1	
14/11/2025 14:34	67.9	68.6	63.7	
14/11/2025 14:39	66.7	68.1	65.1	
14/11/2025 14:44	66.1	67.5	64.2	
14/11/2025 14:49	66.7	68.1	64.9	
20/11/2025 9:17	61.8	63.2	59.5	63.1
20/11/2025 9:22	64.3	66.4	60.7	
20/11/2025 9:27	64.4	66.6	61.4	
20/11/2025 9:32	63.0	65.4	60.4	
20/11/2025 9:37	62.8	65.0	60.7	
20/11/2025 9:42	61.1	62.6	59.7	
26/11/2025 14:31	64.4	66.9	61.8	64.8
26/11/2025 14:36	65.3	67.4	62.9	
26/11/2025 14:41	64.1	66.1	62.3	
26/11/2025 14:46	64.9	67.6	61.9	
26/11/2025 14:51	65.2	67.3	62.5	
26/11/2025 14:56	64.5	65.8	62.6	

**Figure F3.2 Graphical Presentation for Noise Monitoring at Station NMS-CA-4**





ANNEX F4

EVENT AND ACTION PLAN FOR NOISE



**Annex F4**      **Event and Action Plan for Construction Noise**

Event	Action			
	ET	IEC	ER	Contractor
Action Level Exceedance	<ol style="list-style-type: none"> <li>1. Notify IEC, ER and Contractor;</li> <li>2. Carry out investigation;</li> <li>3. Report the results of investigation to the IEC, ER and Contractor;</li> <li>4. Discuss with the Contractor and formulate remedial measures;</li> <li>5. Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analysed results submitted by the ET;</li> <li>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to IEC and ER;</li> <li>2. Implement noise mitigation proposals.</li> </ol>
Limit Level Exceedance	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC, ER, EPD and Contractor;</li> <li>3. Repeat measurements to confirm findings;</li> <li>4. Increase monitoring frequency;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Inform IEC, ER and EPD the causes and actions taken for the exceedances;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures properly implemented;</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>