



HI TECH
CALIBRATION SERVICES



CALIBRATION CERTIFICATE			
Certificate No.	HT/CC/220407-05/001	ULR No.	ULR - CC215122000014412F
CUSTOMER DETAILS		DEVICE UNDER CALIBRATION DETAILS	
Name	M/s. NorthLab India Pvt. Ltd.	Description	Digital Tachometer
Address	Plot No. 1, S.V Nagar, Peezumalpetta, Thiruvallur District - 602 024.	Make	Compact Instruments
		Model	A2103/LSR/001
		Range	3 to 99999 RPM
		Least Count	0.001/0.01/0.1/1 RPM
Job No.	220407-05	Accuracy	± (0.01 % Rdg + 1 digit)
Job Receipt Date	07-Apr-2022	Mode	Non - Contact
Issue Date	15-Apr-2022	Serial No.	2013046
Received Condition of DUC	Satisfactory	Location	-
ENVIRONMENTAL CONDITION		Calibration On	13-Apr-2022
Temperature	25 °C ± 2 °C	Due On	-(Customer Defined)
Humidity	30 % RH to 75 % RH	Calibrated By	P. Bharathi Priya
Discipline & Group	Mechanical Calibration & Acceleration, Speed and Acoustics		
Calibration Procedure	HT/W1/M/AS (Section 01) & SANAS TR 45-02 by Comparison Method		
STANDARD DETAILS			
Description	Digital Tachometer		
Identification No.	M/AS/TACHO/05		
Certificate No.	HT/CC/220303-20/001		
Valid Till	02-Mar-2023		

CALIBRATION RESULT

DUC Reading in RPM	Standard Reading in RPM	Error in RPM	Expanded Uncertainty in ± RPM
6.001	6.0	0.001	0.24
100.08	100.1	-0.02	0.27
1000.0	1000.0	0.0	0.44
5002.2	5002.0	0.2	0.46
8503.7	8503.9	-0.2	0.71
10019	10019.0	0.0	1.53
50017	50016.9	0.1	3.06
99949	99948.0	1.0	3.35

Remarks:

- The Calibration is performed at Permanent Facility.
- The Calibration certificate is valid for scientific & industrial purpose only.
- The Expanded uncertainty is expressed at 95.45 % confidence level with coverage factor k=2.

P. Bharathi Priya

Checked By

P. BHARATHI PRIYA - CALIBRATION ENGINEER

HT/CC/220407

End of Certificate

P. Bharathi Priya

P. BHARATHI PRIYA - ASSISTANT MANAGER

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Scientific Temper



Honesty, Humility

**NORTHLAB (INDIA) PVT. LTD.**Laboratory : Plot No. 1, S.V Nagar, Perumalpattu, Thiruvallur - 602 024.
Ph.: +91 89399 23940 / 89399 40050 E-mail: sales@northlab.in Website: www.northlab.in**Calibration Certificate**

CC-2457

Cert. No.	: 2360622-E109	ULR NO	: CC245722600003727F
Date of Issue	: 22-Jun-2022	Page	: 1 of 1
Customer	: THE MEDICAL OFFICER INCHARGE	Date Received	: 21-Jun-2022
		Date Calibrated	: 21-Jun-2022
Address	: Community Health Centre, T.V.Malai Road, Mannadipet, Puducherry - 605501.	Due Date	: 20-Jun-2023
		Ambient Temp.	: 25±2°C
		Relative Humidity	: 60±10% r.h.
Instrument	: <u>TIMER (CENTRIFUGE)</u>	Serial No.	: EPLO-3283
Manufacturer	: REMI	Instrument ID.	: ---
Model No.	: R-8C	Range (Res.)	: 0-99min
Part No.	: ---	Accuracy / MPE	: ---
Location	: 37A/LAB PACS	Test Results	: As Found

METHOD OF CALIBRATION

1. The instrument was calibrated as per method no. ETIM at customer premises in accordance with ISO/IEC 17025:2017(E).

Master Instrument Used	Cert. No	Cal. Date	Validity	Traceability
1. Digital Timer	TSC/21-22/13349-1	25-Dec-2021	25-Dec-2022	TRANSCAL

RESULTS OF ELECTRO TECHNICAL CALIBRATION

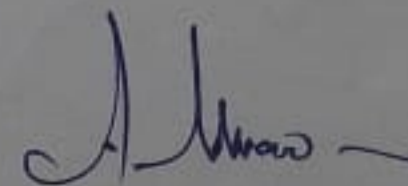
MASTER VALUE				DUC READING				CORRECTION		TOLERANCE (±) s	STATUS
Hr.	min.	sec.	1/100 s.	Hr.	min.	sec.	1/100 s.	sec.	1/100 s.		
00	05	00	05	---	05	00	---	00	05	---	---
00	10	00	10	---	10	00	---	00	10	---	---
00	15	00	14	---	15	00	---	00	14	---	---
00	30	00	17	---	30	00	---	00	17	---	---
00	45	00	23	---	45	00	---	00	23	---	---

REMARKS / DEVIATION IF ANY (SEE BACK OF THIS PAGE)

1. This result has an expanded uncertainty of ±0.47s with a coverage factor k=2 at approximately 95% confidence level.


K. Dinesh Kumar
Calibration Officer





L. Muthuraman / A. Alexander / U. Akshaya
Authorised Signatory
NorthLab (I) Pvt. Ltd

End Of Certificate

“களவினால் ஆகிய ஆக்கம் அளவிறந்து
ஆவது போலக் கெடும்” -குறள் 283



The property, which is acquired by fraud, will pass all bounds
and perish, even while it seems to increase. - Kural 283



Scientific Temper



Honesty, Humility



CC-2457

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NORTHLAB

Calibration Certificate

Cert. No.	: 2360622-M310	ULR. No.	: CC245722700002906F
Date of Issue	: 22-Jun-2022	Page	: 1 of 1
Customer	: THE MEDICAL OFFICER INCHARGE	Date Received	: 21-Jun-2022
Address	: Community Health Centre, T.V.Malai Road, Mannadipet, Puducherry - 605501.	Date Calibrated	: 21-Jun-2022
Instrument	: <u>CENTRIFUGE</u>	Due Date	: 20-Jun-2023
Manufacturer	: REMI	Ambient Temp.	: 23±2°C
Model No.	: R-8C	Relative Humidity	: 55±20% r.h.
Part No.	: ---	Serial No.	: EPO-3283
Location	: 37A/LABPACS	Instrument ID.	: ---
		Range	: 0-4500r.p.m(10r.p.m)
		Accuracy / MPE	: ---
		Test Results	: As Found

METHOD OF CALIBRATION

The instrument was calibrated as per method no. MRM (Based on TR 45-02) at customer premises in accordance with ISO/IEC 17025:2017(E).

Standard Instrument Used	ID No. / Cert. No	Cal. Date	Cal.Due	Traceability
1. DIGITAL TACHOMETER	HT/CC/220407-05/001	13-Apr-2022	12-Apr-2023	HI TECH

RESULTS OF MECHANICAL CALIBRATION

NON-CONTACT					
INSTRUMENT READINGS (r.p.m)	NOMINAL VALUES (r.p.m)	CORRECTION (r.p.m)	TOLERANCE (r.p.m)	STATUS	MEASUREMENT UNCERTAINTY ± (r.p.m)
1000	1001.3	1.3	---	---	0.35
2000	2002.1	2.1	---	---	0.64
3000	3002.9	2.9	---	---	0.93
4000	4003.4	3.4	---	---	1.21
4500	4504.2	4.2	---	---	3.13

REMARKS / DEVIATIONS IF ANY (SEE BACK OF THIS PAGE)

K. Sankar
K.Sankar
Calibration Officer



A. Murugappan / L. Muthuraman
Authorized Signatory
NorthLab (I) Pvt. Ltd

End of Certificate

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