

Certificate No. 24PT

24PTP\_0104240332

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### **Certificate of Calibration**

EQUIPMENT : EXERCISERS, AEROBIC, TREADMILL

ID CODE : PTP01006 MANUFACTURER : QUINTON

MODEL : Q-STRESS TM55

SERIAL No. : QS007226

LOCATION : Heart Center

SUBMITTED BY : PHYATHAI PHAHOLYOTHIN HOSPITAL

670/1 Phaholyothin Road, Samsen Nai, Phaya Thai, Bangkok 10400

Tel: 02-271-7000 Fax: -

CALIBRATED DATE : 25 APRIL 2024

ISSUE DATE : 3 MAY 2024

Kanittha.

KANITTHA SRIPRAPAD

3,112724

PHUWASIN YIWKIM

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Approved by:

### **CONDITION OF THIS RESULT OF TEST**

Performed by:

#### 1. REFERENCE STANDARD INSTRUMENT:

MASTER MANUFACTURER MODEL SERIAL NO. CERTIFICATE NO. DUE DATE 7 Jun 2024 Vitalsign Simulator Fluke ProSim8 2541031 23MD777 Digital Tachometer **PLT200** 1837601 23E1911 7 Jun 2024 Monarch

### 2. THIS CERTIFICATION IS TRACEABLE TO:

- Technology Promotion Association (Thai-Japan)
- Technology Promotion Association (Thai-Japan)

# 3. THIS RESULT OF TEST WAS FOUND ACCURATE AS SHOW ON DATE AND PLACE OF TEST ONLY



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# **Calibration Report**

EQUIPMENT : EXERCISERS, AEROBIC, TREADMILL

ID CODE : PTP01006

MANUFACTURER : QUINTON

MODEL : Q-STRESS TM55

SERIAL No. : QS007226

DATE OF CALIBRATION : 25 APRIL 2024

ENVIRONMENT : TEMPERATURE 25 °C

RELATIVE HUMIDITY 55 %

### **PROCEDURE USED:**

This instrument was calibration by comparison with standard

### **MEASURMENT RESULT:**

/	Without Adjustment		Before Adjustment		After Adjustment
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Systolic						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
60	65.25	5.25	8.75	± 1.0767		
120	126.00	6.00	5.00	± 1.2702		
200	206.00	6.00	3.00	± 1.7321		

Diastolic						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
30	35.00	5.00	16.67	± 0.7506		
80	86.00	6.00	7.50	± 1.0393		
150	155.75	5.75	3.83	± 1.5276		

Heart Rate						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(BPM)	(BPM)	(BPM)	(%)	(BPM)		
60	60.25	0.25	0.42	± 0.8279		
80	80.00	0.00	0.00	± 0.0460		
120	120.00	0.00	0.00	± 0.0460		

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# **Calibration Report**

EQUIPMENT : EXERCISERS, AEROBIC, TREADMILL

ID CODE : PTP01006 SERIAL No. : QS007226

Gain						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mm/mV)	(mm/mV)	(mm/mV)	(%)	(mm/mV)		
5	5.00	0.00	0.00	± 0.0577		
10	10.00	0.00	0.00	± 0.0577		
20	20.00	0.00	0.00	± 0.0577		

Amplitude						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mV)	(mV)	(mV)	(%)	(mV)		
1	1.00	0.00	0.00	± 0.0042		
2	2.00	0.00	0.00	± 0.0042		

Paper Speed						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mm/sec)	(mm/sec)	(mm/sec)	(%)	(mm/sec)		
25	25.00	0.00	0.00	± 0.2887		
50	50.00	0.00	0.00	± 0.5774		

Speed					
UUC* Setting	Standard Reading	Error	% Error	Uncertainty	
(MPH)	(MPH)	(MPH)	(%)	(MPH)	
5	5.07	0.07	1.41	± 0.0315	
9.6	9.65	0.05	0.48	± 0.0023	

### **UUC\***: Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%

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