

Report No. 24PTP_01PM04240052

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Preventive Maintenance Action Report

EQUIPMENT : INFUSION PUMPS

ID CODE : PTP00094

MANUFACTURER : TOP

MODEL : TOP-2300

SERIAL No. : 15A0138

LOCATION : Patient Wards 18

SUBMITTED BY : PHYATHAI PHAHOLYOTHIN HOSPITAL

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

Tel: 02-271-7000 Fax: -

PM. DATE : 16 APRIL 2024

ISSUE DATE : 3 MAY 2024

Chakkaphan

CHAKKAPHAN KHAMPHUMI

Approved by:

PHUWASIN YIWKIM

CONDITION OF THIS RESULT OF TEST

Performed by:

1. REFERENCE STANDARD INSTRUMENT:

MASTER	MANUFACTURER	MODEL	SERIAL NO.	CERTIFICATE NO.	DUE DATE
Electrical Safety	Fluke	ESA615	3494034	23MD774	7 Jun 2024
Analyzer					
Calibration with	Brüel & Kjaer	4231	3024287	AA-2031-23	19 Nov 2024
sound Level Meter					

2. THIS CERTIFICATION IS TRACEABLE TO:

- Technology Promotion Association (Thai-Japan)
- Sound Level Meter 1/2" Free-field Microphone Preamplifier Calibration with sound Level Meter 1/2" Pressure-filed Microphone USB Audio interface

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



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1. Qualitative Tests

No.	List	Pass	Fail	None	Comment
1	Chassis/Housing	/			
2	Mount	/			
3	Casters/Brakes			/	
4	AC Plug	/			
5	Line Cord	/			
6	Strain Reliefs	/			
7	Fittings/Connectors	/			
8	Controls/Switches	/			
9	Battery	/			
10	Indicators/Displays	/			
11	Self-Test	/			
12	Time/Date Settings			/	
13	Cybersecurity			/	
14	Alarms	/			
15	Flow-Stop Mechanism (s)	/			
16	Open Door/Misloaded Infusion Set/Syringe/Vial	/			
17	Empty Container	/			
18	Occlusion	/			
19	Infusion Complete	/			
20	Nurse Call (Verify only if that function is used)			/	
21	Labeling	/			
22	Accessories	/			

2. Quantitative Tests

No.	List	Pass	Fail	None	Comment
1	Grounding Resistance $\leq 0.5 \Omega$			/	
2	Chassis Leakage Current ≤500 μA	/			44.7 μΑ
3	Flow Accuracy ±5%	/			Flow Accuracy ±10%
4	Occlusion Pressure Alarm <1000 mmHg	/			
5	Air-in-Line Detection 50-100 μL	/			



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3. Preventive Maintenance

No.	List	Pass	Fail	None	Comment
1	Clean the exterior and accessories	/			
2	Lubricate			/	
3	Adjust			/	
4	Replace			/	

Electrical Safety Test: Master used Electrical Safety Analyzer (Metron / QA-90) according to IEC.60601.1

FI-BME-NHS-CP-011/3 Rev.03 Page 3/3 Issued Date 20/07/2023