

Report No. 24PTP_01PM04240048

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Preventive Maintenance Action Report

EQUIPMENT : INFUSION PUMPS

ID CODE : PTP00388

MANUFACTURER : TOP

MODEL : TOP-2200

SERIAL No. : HL63570

LOCATION : I.C.U

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:

MASTERMANUFACTURERMODELSERIAL NO.CERTIFICATE NO.DUE DATEElectrical SafetyFlukeESA615349403423MD7747 Jun 2024Analyzer

2. THIS CERTIFICATION IS TRACEABLE TO:

- 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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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 $\leq 0.5 \Omega$	/			0.381 Ω
2	Chassis Leakage Current ≤500 μA	/			142.3 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