

Report No. 24PTP_01PM04240034

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Preventive Maintenance Action Report

EQUIPMENT : INFUSION PUMPS

ID CODE : PTP02164

MANUFACTURER : TOP

MODEL : TOP-2200

SERIAL No. : ELZ8629S

LOCATION : Patient Wards 15

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

1. REFERENCE STANDARD INSTRUMENT:

MASTERMANUFACTURERMODELSERIAL NO.CERTIFICATE NO.DUE DATEElectrical SafetyFlukeESA615349403423MD7747 Jun 2024

Analyzer

Performed by:

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 $\leq 0.5 \Omega$ | / | | | 0.394 Ω |
| 2 | Chassis Leakage Current ≤500 μA | / | | | 145.2 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

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