

Form B03

Scheduled Maintenance Work Order

Quantum Medical Solutions sdn bhd
transcending boundaries, transforming life

Format Ref. - QMS/TSD-003 Rev. 00

Work Order No	200372188	Scheduled Month	FEBRUARY 2018
Work Order Date	1/2/18	Completed Date	12/2/2018
Clinic Name	KLINIK MALAYSIA (JMW MUTIARA)	Clinic Code	WPL0166
BE No	WPL00160	District	WP. Labuan
BE Category	OXIMETERS, PULSE	WO Assigned to	Moffo - Asfhami
Ownership	<input type="checkbox"/> Existing Equipment	<input type="checkbox"/> New & Purchased Equipment	
BE Condition	<input type="checkbox"/> Under Warranty	<input type="checkbox"/> BER Proposed	
Work Order Type	<input type="checkbox"/> Preventive Maintenance (PM) <input type="checkbox"/> Routine Inspection (RI)	<input type="checkbox"/> Third Party Calibration (TPC) <input type="checkbox"/> Statutory Certification (SC)	

BE Third Party Calibration / Statutory Certification Details

Company Name		Cal / Cert Date	
Contact Number		Cal / Cert Expiry Date	

Action Taken

↳ Do PPM as per Checklist.

Schedule Maintenance Execution Details

SI No	QMS Engineer / Technician Name	Date	Start Time	End Time
	HOND. ASHMANI & HOND. NISMAN BIOMEDICAL TECHNICIAN, QMS 019-2636231	12/2/2018	12.30pm	1.30pm

Customer Remarks

Engineer / Technician Signature Name Date HOND. ASHMANI & HOND. NISMAN BIOMEDICAL TECHNICIAN, QMS 019-2636231 12/2/2018	Customer Signature Name Designation Date Stamp HAIZZA WAIDIN Penolong Pegawai Perubatan U29
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For Internal Use only

First Verification
QMS Circle Incharge

JULIUS LIANSUN
BIOMEDICAL ENGINEER, QMS
019-3620179

Final Verification
QMS State Incharge

DICKY LEE
SABAH STATE MANAGER
QUANTUM MEDICAL SOLUTIONS SDN BHD



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BEMS Planned Preventive Maintenance Checklist

Oximeters, Pulse

BE CODE : 17-148

CHECKLIST NO: CL-107
REV.000

PART 1 ASSET DETAILS

WORK ORDER NO ▶ **PWD 372185** ASSET NO ▶ **Cap 00160**
MANUFACTURER ▶ MODEL ▶
FREQUENCY ▶ 3 MONTHLY () 6 MONTHLY () 12 MONTHLY (✓) PPM HOURS ▶ **1.0**

PART 2 SPECIAL PRECAUTION

If there is evidence of body fluid contamination, submit the device for cleaning and decontamination before inspecting it.

Wear appropriate Personnel Protection Equipment (PPE) during work.

Wear grounded electrostatic wristband when handling PCB or electronic components.

Refer to the safety procedure for additional precautions and guidance as per manufacturer guidelines.

Make sure the test equipment used are duly calibrated.

PART 3 TEST APPARATUS

Tick (✓) where appropriate

NO	ASSET NO	DESCRIPTION	SERIAL NO	CALIBRATION DUE ON
	TEESA 0085	ELECTRICAL SAFETY ANALYZER	3227039	10/1/19
	TEESA 0187	OXYGEN SATURATION/PULSE RATE ANALYZER	3233027	11/3/18

PART 4 QUALITATIVE TASKS


Tick (✓) where appropriate

	PASS	FAIL	NA		PASS	FAIL	NA
1 Chassis - verify physical integrity, cleanliness and condition	(✓)	()	()	9 Controls/Switches - verify proper operation of controls	(✓)	()	()
2 Mount/ Fasteners - verify physical integrity	(✓)	()	()	10 Indicators/ Displays - verify proper illumination and operation	(✓)	()	()
3 Casters/Brakes - if mounted, verify physical integrity	(✓)	()	()	11 Alarms/ Interlocks - check all alarms available	(✓)	()	()
4 AC Plug - verify integrity	(✓)	()	()	12 Label - verify physical integrity	(✓)	()	()
5 Power Cord - verify proper insulation and integrity	(✓)	()	()	13 SPO2 Probe - verify proper operation and condition	(✓)	()	()
6 Strain Relief - verify physical integrity at both ends of line cord	(✓)	()	()	14 Power ON Self Test	(✓)	()	()
7 Circuit Breaker/ Fuse - verify integrity of external circuit breaker and/or rating of external fuse	(✓)	()	()	15 Recorder - verify operation (if applicable)	()	()	(✓)
8 Fittings/ Connectors - check all fittings/connectors	(✓)	()	()	16 Battery - verify battery charging indicator	()	()	(✓)

PART 5 PREVENTIVE MAINTENANCE TASKS

Tick (✓) where appropriate

	DONE	NOT DONE**	NA	
1 Inspect, Clean Interior and Exterior	(✓)	()	()	Notes: * For all Parts, NA is defined as NOT APPLICABLE ** If you have ticked 'NOT DONE', then justify in Part 8 *** Choose Whichever Applicable
2 Battery - check/ replace***	(✓)	()	()	

 Quantum Medical Solutions sdn bhd <small>transforming healthcare, transforming life</small>	Quantum Medical Solutions Sdn Bhd BEMS Planned Preventive Maintenance Checklist Oximeters, Pulse BE CODE : 17-148	CHECKLIST NO: CL-107 REV.000						
WORK ORDER NO ▶ <u>pw0372185</u>								
PART 6 QUANTITATIVE TASKS (Continues)								
<i>Tick (✓) where appropriate</i>								
No	Description	Units / UOM	Set Values	Measured Values	Limit/Tolerance	PASS	FAIL	NA
	SPO2 Accuracy	%	81	82	79 - 83	(✓)	()	()
		%	90	91	88 - 92	(✓)	()	()
	Pulse Rate Accuracy	bpm	30	30	27 - 33	(✓)	()	()
		bpm	60	60	57 - 63	(✓)	()	()
		bpm	120	120	117 - 123	(✓)	()	()
PART 7 ELECTRICAL SAFETY TEST								
ELECTRICAL SAFETY TEST, (attach report) (In accordance to IEC 60601)								
<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> NA								
PART 8 NOTES								
Part 5 - Item 2 Please indicate the part number, description of PPM Kit and any repair work to be carried out (if any) : Manufacturer Recommendation NBP - 40 requires no routine service or calibration .								
HAIZZA MAIDIN Penolong Pegawai Perubatan U29								
<input type="checkbox"/> CORRECTIVE MAINTENANCE REQUIRED <input checked="" type="checkbox"/> FUNCTIONING <input type="checkbox"/> NOT FUNCTIONING								
WORK ORDER NO ▶ <u>NA</u>						NEXT PPM DATE ▶ <u>10/2/2019</u>		
PPM has been performed in accordance to the checklist and the equipment is functioning to the intended purpose.								
COMPLETED BY: <u>DR. ASHATH MOHD HAZIM</u> BIOMEDICAL TECHNICIAN, GDS 619-2536231								
DATE: <u>12/2/2018</u>								

Fluke Biomedical

Date 12/02/2018

Test Setup

Operator ID LBNBME
Calibration Tech
Calibration Date 10/01/2019
Firmware Version 2.08.01
Serial Number 82270 3K
Date & Time 12/02/2018 & 12:51
JOB Name

DUT Information

Equipment Number WPL 000160
Serial Number
Manufacturer
Model
Location K1M
Other

Template Information

Template Name OXIMETERS
Pause after Power ON NO
Power ON delay 2
Test Speed RAPID
Halt on Test Failure YES
Include Time YES
Insulation Resistance Voltage 250V
Multi Enclosure Test NO

Standard IEC62353-Differential
Pause before Power OFF NO
Power OFF delay 0
Test Mode AUTO
Multi PE Test NO
Multi Restore WORST/LAST
Reverse Polarity YES
Classification I

PLC Configuration-Applied part setup

AP Name AP Type AP Num

ESA615 Test Results

Test Name	Value	High Limits	Low Limits	Status
Protective Earth Resistance	0.13 Ohm	0.3	-	P
Insulation Resistance				P
Mains to Protective Earth	999 MOhm	-	-	P
Mains Voltage				P
Live to Neutral	240.9 V	-	-	P
Live to Earth	12.7 V	-	-	P
Neutral to Earth	240.2 V	-	-	P
Equipment Current	10.2 A	-	-	P
Differential Leakage				P
Normal Condition	29 uA	500	-	P
Normal Condition-Reversed mains	43 uA	500	-	P

Signature

MOHD. ASHMANI B MOHD HISHAM
BIOMEDICAL TECHNICIAN, QMS
019-2334231

