

double  
issue.

# Form B03

## Scheduled Maintenance Work Order



Quantum Medical Solutions sdn bhd  
transcending boundaries, transforming life

Format Ref: - QMS/TSD-022 Rev.01

Work Order No.	PWO359950	Schedule Month	June 2018
Work Order Date	01/06/2018	Completed Date	19/6/18
Clinic Name	Klinik Kesihatan Batu Pahat	Clinic Code	JHR003
BE No.	JHR001682	Distict	BATU PAHAT
BE Category	Refrigerators, Laboratory	WO Assigned to	Najib Farhan
Ownership	<input checked="" type="checkbox"/> Existing Equipment	<input type="checkbox"/> Purchase	<input type="checkbox"/> New
BE Condition	<input checked="" type="checkbox"/> Active	<input type="checkbox"/> BER Proposed	
Work Order Type	<input checked="" type="checkbox"/> Preventive Maintenance (PM)	<input type="checkbox"/> Third Party Calibration (TPC)	
	<input type="checkbox"/> Routine Inspection (RI)	<input type="checkbox"/> Statutory Certification (SC)	

Reschedule Date	
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BE Third Party Calibration / Statutory Certification Details			
Company Name		Cal / Cert Date	
Contact Number		Cal / Cert Expiry Date	

Action Taken
<u>PPM Done as per Checklist</u> - Unit under breakdown, - PPM will be done after repair

Schedule Maintenance Execution Details				
SI No	QMS Engineer / Technician Name	Date	Start Time	End Time
	Farhan	19/6/18	1530	1545

Customer Remarks
NA

Engineer / Technician Signature	Customer Signature
Name Date 19/6/18	Name Designation Date Seal
MOHD NAJIB FARHAN B. ISMAIL BIOMEDICAL ENGINEER QUANTUM MEDICAL SOLUTIONS SDN. BHD.	AFIZA BINTI ABD. AZIZ Juruteknologi Makmal Perubatan U32 (KUP) Klinik Kesihatan Batu Pahat 19/6/18

For Internal Use

First Verification  
QMS Circle Incharge

Quantum Medical Solutions  
AFIZA BINTI ABD. AZIZ  
BIOMEDICAL ENGINEER

Final Verification  
QMS State Incharge





# KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
Refrigerators, Laboratory  
BE CODE : 17-157

CHECKLIST NO: CL-121-000  
REV.000

## PART 1 ASSET DETAILS

WORK ORDER NO ▶ BE NO ▶ JHR001682  
MANUFACTURER ▶ PROTECH MODEL ▶ LR-1050  
FREQUENCY ▶ 6 MONTHLY ( ) 12 MONTHLY ( ✓ ) PPM HOURS ▶ 1.00

## 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
	TEES0079	ELECTRICAL SAFETY TESTER	3226966	9/11/18
	TEES0138	THERMOMETER	150423878	10/11/18

## PART 4 QUALITATIVE TASKS

Tick ( ✓ ) where appropriate

	PASS	FAIL	NA		PASS	FAIL	NA
1 Chassis - verify physical integrity, cleanliness and condition	( )	( )	( )	7 Controls/ Switches/ Keypad - verify proper operation of controls	( )	( )	( )
2 Mount/ Fasteners - verify physical integrity	( )	( )	( )	8 Indicators/ Displays - verify proper illumination and operation	( )	( )	( )
3 Power Cord - verify proper insulation and integrity	( )	( )	( )	9 Alarm/ Audible Signal - verify operation	( )	( )	( )
4 Strain Relief - verify physical integrity at both ends of line cord	( )	( )	( )	10 Check Compressor - verify physical Integrity	( )	( )	( )
5 Circuit Breaker/ Fuse - verify integrity of external circuit breaker and/or rating of external fuse	( )	( )	( )	11 Check Thermostate - verify physical Integrity	( )	( )	( )
6 Door Gasket, Hinges - verify physical Integrity	( )	( )	( )				

## PART 5 PREVENTIVE MAINTENANCE TASKS

Tick ( ✓ ) where appropriate

	DONE	NOT DONE **	NA	Notes:
1 Cleaning the inside with a vacuum cleaner	( )	( )	( )	* For all Parts, NA is defined as NOT APPLICABLE ** If you have ticked 'NOT DONE', then justify in Part 8 *** Choose Whichever Applicable
2 Clean compressor	( )	( )	( )	





# KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
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CHECKLIST NO:CL-121-000  
REV.000

WORK ORDER NO ▶

## PART 6 QUANTITATIVE TASKS

Tick (✓) where appropriate

No	Description	Units / UOM	Set Values	Measured Values	Limit/Tolerance	PAS S	FAIL	NA
1	Temperature - Refrigerator	°C			2 - 8	(	(	( )

## PART 7 ELECTRICAL SAFETY TEST

ELECTRICAL SAFETY TEST, (attach report)

Tick (✓) where appropriate

Standard use :

Result :

☐ IEC 60601

☐ IEC 61010

☐ IEC 62353

☐ PASS

☐ FAIL

☐ NA

## PART 8 NOTES

☐

CORRECTIVE MAINTENANCE REQUIRED

☐

FUNCTIONING

☐

NOT FUNCTIONING

WORK ORDER NO ▶

NEXT PPM DA ▶

PPM has been performed in accordance to the checklist and the equipment is functioning to the intended purpose.

COMPLETED BY:

DATE :





## Test Setup

Operator ID :  
 Calibration Tech : DINA  
 Calibration Date : 9/10/2017  
 Firmware Version : 2.08.01  
 Serial Number : 3226906  
 Date & Time : 07/26/2018 & 01:36pm  
 JOB Name :

## DUT Information

Equipment Number : JHR001682  
 Serial Number :  
 Manufacturer :  
 Model :  
 Location : KK BATU PAHAT  
 Other :

## Template Information

Template Name : JHR001682  
 Pause after Power ON: NO  
 Power ON delay: 2  
 Test Speed: NORMAL  
 Halt on Test Failure: YES  
 Include Time: YES  
 Insulation Resistance \ 500V  
 Multi Enclosure Test : NO

Standard : IEC60601-1-2nd Ed  
 Pause before Power O NO  
 Power OFF delay: 0  
 Test Mode: AUTO  
 Multi PE Test: NO  
 Multi Resstore: 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	0.093 Ohm	0.2	-	P
Insulation Resistance				P
Mains to Protective Earth	999 MOhm	-	-	P
Mains to Non-Earth Accessible Conductive Par	999 MOhm	-	-	P
Mains Voltage				P
Live to Neutral	235.8 V	-	-	P
Neutral to Earth	115.5 V	-	-	P
Live to Earth	122.6 V	-	-	P
Equipment Current	0.2 A	-	-	P
Earth Leakage Current				P
Normal Condition	25.5 uA-OI	500	-	P
Open Neutral	65.4 uA-OI	1000	-	P
Open Neutral- Reversed Mains	65.2 uA-OI	1000	-	P
Normal Condition- Reversed Mains	35.9 uA-OI	500	-	P
Enclosure Leakage Current				P





Normal Condition	0.1 $\mu$ A-OPI	100 -	P
Open Earth	24.3 $\mu$ A-OI	500 -	P
Open Neutral	0.1 $\mu$ A-OPI	500 -	P
Open Neutral- Reversed Mains	0.1 $\mu$ A-OPI	500 -	P
Normal Condition- Reversed Mains	0.1 $\mu$ A-OPI	100 -	P
Open Earth- Reversed Mains	35.6 $\mu$ A-OI	500 -	P



Signature

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