

Form B03

## Scheduled Maintenance Work Order

Quantum Medical Solutions Sdn Bhd  
Incorporated in Malaysia, registration no.

Form B03 - QMS-750002 Rev 2.1

Work Order No.	PWO365319	Schedule Month	June 2018
Work Order Date	01/06/2018	Completed Date	26/6/18
Clinic Name	Klinik Kesihatan Tanjung Serdang	Clinic Code	JHR048
BE No.	JHR024475	Dieter	REFATINGGI
BE Category	Analizers, Laboratory, Urine, Semi	WO Assigned to	KTYANM
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"/> BE 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	N/A
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3E Third Party Calibration / Statutory Certification Details			
Company Name		Cal / Cert Date	
Contact Number		Cal / Cert Expiry Date	
Action Taken		Manufacturer: <u>cygn</u>	
<input checked="" type="checkbox"/> PM / RI job done as per checklist. Unit tested functioning good & ready to use.		Model: <u>cygn</u>	
<input type="checkbox"/> Corrective Maintenance / <input type="checkbox"/> Breakdown		Serial No: <u>3011120080</u>	
BE Sticker Availability: <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> NA			
Remarks: <u>N/A</u>			

Schedule Maintenance Execution Details				
S/No	QMS Engineer / Technician Name	Date	Start Time	End Time
N/A	SHALWANA	26/6/18	10:00	10:30

Customer Remarks	N/A
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Engineer / Technician Signature	Customer Signature
Name: <u>SHALWANA BINTI LATIF</u>	Name: <u>GEVELAN ANAK JHOB</u>
Date: <u>26/6/18</u>	Designation: <u>QUANTUM MEDICAL SOLUTIONS Sdn Bhd</u>
	Date: <u>26/6/18</u>
	Seal: <u>26/6/18</u>

For Internal Use

**MUHD RAMZAN TAMAR JAYA**  
Biomedical Engineer  
Technical Service Department

First Verification **Quantum Medical Solutions Sdn. Bhd.**  
QMS Circle Incharge Tel: +60 12-396 1697

Final Verification  
QMS State Incharge



# KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
Analyzers, Laboratory, Urine, Semiautomated (Medium)  
BE CODE: ME-010

CHECKLIST NO: CL-019-000 REV.000

## PART 1 ASSET DETAILS

WORK ORDER NO ▶ PW 0365319  
BE NO ▶ JHR 02475  
MANUFACTURER ▶ Cypress  
MODEL ▶ Cyan  
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
	TEESA0010	ELECTRICAL SAFETY ANALYZER	3218031	11/8/18

## PART 4 QUALITATIVE TASKS

Tick (✓) where appropriate

	PASS	FAIL	NA		PASS	FAIL	NA
1 Chassis - verify physical integrity, cleanliness and condition	( / )	( )	( )	9 Test Strip Tray - Verify Physical integrity	( / )	( )	( )
2 Mount/ Fasteners - verify physical integrity	( / )	( )	( )	10 Motor - Verify proper operation	( / )	( )	( )
3 AC Plug / Power Card - verify Physical Integrity and Proper Insulation	( / )	( )	( )	11 Date /Time Verify Proper Setting	( / )	( )	( )
4 Strain Relief - verify physical integrity at both ends of line cord	( / )	( )	( )	12 LED- Verify Proper Operation	( / )	( )	( )
5 Fittings/ Connectors - check all fittings/connectors for Physical Integrity	( / )	( )	( )				
6 Controls/Switches/Keypad - verify proper operation of controls	( / )	( )	( )				
7 Indicators/Displays Verify Proper Operation	( / )	( )	( )				
8 Printer - Verify Operation	( / )	( )	( )				

## PART 5 PREVENTIVE MAINTENANCE TASKS

Tick (✓) where appropriate

	DONE	NOT DONE **	NA		DONE	NOT DONE **	NA
1 Cleanliness-Clean Interior and Exterior of the Unit	( / )	( )	( )	5 Carryout Calibration As needed	( / )	( )	( )
2 Clean the Test Strip Tray	( / )	( )	( )				
3 Lubricate Moving Parts	( / )	( )	( )				
4 Clean Printer Assembly	( / )	( )	( )				

\* For all Parts, NA is defined as NOT APPLICABLE  
\*\* If you have ticked 'NOT DONE', then justify in Part 6  
Notes: \*\*\* Choose Whichever Applicable

WORK ORDER NO ▶

PWD 365 829

## PART 6 QUANTITATIVE TASKS

Tick (✓) where appropriate

[illegible]

## 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

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 $N(A)$ 

NEXT PPM DATE ▶

6/2019.

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

COMPLETED BY:

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81712

NOORSHALWANA BINTI LATIP  
Biomedical Engineer  
Quantum Medical Solutions Sdn. Bhd.  
012-3962428

## Test Setup

Operator ID :  
 Calibration Tech : MOHANA  
 Calibration Date : 24/08/2018  
 Firmware Version : 2.08.01  
 Serial Number : 3218071  
 Date & Time : 26/06/2018 & 2:20pm  
 JOB Name :

## DUT Information

Equipment Number : JHR024475  
 Serial Number :  
 Manufacturer :  
 Model :  
 Location : KK TG SEDILI  
 Other :

## Template Information


Template Name :		Standard :	IEC60601-DIRECT
Pause after Power ON:	NO	Pause before Power OFF:	NO
Power ON delay:	2	Power OFF delay:	0
Test Speed:	NORMAL	Test Mode:	AUTO
Halt on Test Failure:	YES	Multi PE Test:	NO
Include Time:	YES	Multi Resstore:	WORST/LAST
Insulation Resistance Voltage 500V		Reverse Polarity:	YES
Multi Enclosure Test :	NO	Classification:	I

## PLC Configuration-Applied part setup

AP Name AP Type AP Num

## ES615 Test Results

Test Name	Value	High Limits	Low Limits	Status
Protective Earth Resistance	0.361 Ohm		0.2 -	F
Insulation Resistance				P
Mains to Protective Earth	49.0 MOhm	-	-	P
Mains to Non-Earth Accessible Conductive Part	999 MOhm	-	-	P
Mains Voltage				P
Live to Neutral	259.5 V	-	-	P
Neutral to Earth	5.4 V	-	-	P
Live to Earth	254.0 V	-	-	P
Equipment Current	0.0 A	-	-	P
Earth Leakage Current				P
Normal Condition	50.6 uA-0		500 -	P
Open Neutral	58.9 uA-0		1000 -	P
Open Neutral- Reversed Mains	27.4 uA-0		1000 -	P
Normal Condition- Reversed Mains	15.4 uA-0		500 -	P
Enclosure Leakage Current				P
Normal Condition	0.6 uA-0P		100 -	P
Open Earth	1.1 uA-0P		500 -	P
Open Neutral	0.7 uA-0P		500 -	P
Open Neutral- Reversed Mains	0.7 uA-0P		500 -	P
Normal Condition- Reversed Mains	0.6 uA-0P		100 -	P
Open Earth- Reversed Mains	0.7 uA-0P		500 -	P

  
 Signature