

Ref No: Avantor/Calibration /1941/03

Date: 10.04.2023

## CALIBRATION CERTIFICATE

Customer Name	ULTRA DIAGNOSTIC & RESEARCH CENTRE
Address	Ghosiyana, Preet Vihar Colony, Civil Lines, Barabanki- UP- 225001

### CALIBRATION REPORT FOR

Machine	FULLY AUTO CHEMISTRY ANALYZER
Model	BS200E
Serial Number	XR-8A003454

### CALIBRATION Validity

Calibration performed date	10.04.2023
Calibration validity	Six Months
Next Calibration Due on	October-2023

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## CHECKS BEFORE CALIBRATION

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### PHYSICAL CHECKS:

Outer Casing/Chassis O.K. (No Damage )	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
CPU, Keyboard, Monitor O.K.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
UPS Power supply OK	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Water Unit OK	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>

**Avantor Performance Materials India Ltd**

Registered Office: 19<sup>th</sup> Floor, Building No 5, DLF Cyber City, Phase III, Gurugram -122002, Haryana, India  
t +91-124-4656700, f +91-124-4656799, CIN : U24209HR1991PLC048501

**ENGINEERING CHECKS:**

Mechanical fittings O.K.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Screws tightening O.K.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Computer functioning normal	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
On/off switch working normally.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Instrument Switching On normally.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Software checks (All Programs working OK)	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
No abnormal and unusual sound coming.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Lamp switching on & off normal	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Reagent and sample Arm Action correct	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Input Voltage O.K.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Temperature O.K.	Yes: <input checked="" type="checkbox"/> / No: <input type="checkbox"/>
Any abnormal noise	Yes: <input checked="" type="checkbox"/> / No: <input checked="" type="checkbox"/>

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**CALIBRATION**  
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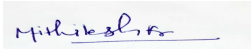
Sample probe action and movement	CALIBRATED
Reagent probe action and movement	CALIBRATED
Cuvette wash probe action and up/down movement	CALIBRATED
Reaction Cuvette positioning and movement	CALIBRATED
Sample Tray Positioning action and movement	CALIBRATED
Reagent Tray Positioning action and movement	CALIBRATED
Optical Unit	CALIBRATED
Temperature- Heating and Cooling	CALIBRATED
Water Supply Module motor function	CALIBRATED
Wash Unit Motor function	CALIBRATED
Waste Unit Motor Function	CALIBRATED
Mixing Unit Motor function	CALIBRATED
ISE Unit	CALIBRATED

CALIBRATOR NAME	CALIBRATOR LOT	EXPIRY
Multi Sera Calibrator	150122008	31.10.2023

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**PERFORMANCE CHECKS AFTER CALIBRATION**  
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<p><b><u>Photometric Unit performance after calibration</u></b>          Wavelength 340, 380, 412,450, 505, 546, 570, 605, 660, 700, 740, 800</p> <p><b><u>Segment wise performance after calibration:</u></b></p>	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Sample probe action and movement	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Reagent probe action and movement	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Cuvette wash probe action and up/down movement	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Reaction Cuvette positioning and movement	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Sample Tray Positioning action and movement	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Reagent Tray Positioning action and movement	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Optical Unit	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Temperature- Heating and Cooling	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Water Supply Module motor function	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Wash Unit Motor function	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Waste Unit Motor Function	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
Mixing Unit Motor function	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
ISE Unit	GOOD: <input checked="" type="checkbox"/> /POOR: <input type="checkbox"/>
<p><b><u>Overall performance</u></b></p>	Satisfactorily <input checked="" type="checkbox"/> Not satisfactorily <input type="checkbox"/>

Calibration performed by:



Signature.....

Name: Mithilesh Kumar

Area Service Manager, Lucknow

Date: 10.04.2023

# QC Data Summary

Control: L2 MINDRAY

Start Date: 4/12/2023

End Date: 4/12/2023

Test	Results	Units	Time	Control Range	Remarks/Flag
AMYLASE AVN	234.3	U/L	4/12/2023 1:27:00 PM	173.600-260.400	
SGOT AVT	174.6	U/L	4/12/2023 1:27:00 PM	132.000-198.000	
SGPT AVT	147.5	U/L	4/12/2023 1:27:00 PM	117.600-176.400	
CREAT SR	3.8	mg/dL	4/12/2023 1:27:00 PM	3.376-5.064	
HDL AVN	53.8	mg/dL	4/12/2023 1:27:00 PM	46.720-70.080	
PHOSP	7.6	mg/dL	4/12/2023 1:27:00 PM	6.248-9.372	
TG AVN	228.0	mg/dL	4/12/2023 1:27:00 PM	167.200-250.800	
CHO AVT	179.1	mg/dL	4/12/2023 1:27:00 PM	143.200-214.800	
CALCIUM	11.9	mg/dL	4/12/2023 1:27:00 PM	9.840-14.760	
URIC ACID AVN	9.8	mg/dL	4/12/2023 1:27:00 PM	8.480-12.720	
BILI T dsa	4.5	mg/dL	4/12/2023 1:27:00 PM	3.624-5.436	
UREA AVNT	118.7	mg/dL	4/12/2023 1:27:00 PM	100.800-151.200	
ALB AVT	4.7	g/dL	4/12/2023 1:27:00 PM	3.872-5.808	
T.PROT AVN	8.0	g/dL	4/12/2023 1:27:00 PM	6.832-10.248	
ALP	196.9	U/L	4/12/2023 1:27:00 PM	184.800-277.200	
GLU	246.5	mg/dL	4/12/2023 1:27:00 PM	200.000-300.000	

# QC Data Summary

Control: L1 MINDRAY

Start Date: 4/12/2023

End Date: 4/12/2023

Test	Results	Units	Time	Control Range	Remarks/Flag
AMYLASE AVN	86.7	U/L	4/12/2023 1:27:00 PM	65.920-98.880	
SGOT AVT	55.3	U/L	4/12/2023 1:27:00 PM	37.120-55.680	
SGPT AVT	65.8	U/L	4/12/2023 1:27:00 PM	51.280-76.920	
CREAT SR	1.1	mg/dL	4/12/2023 1:27:00 PM	0.824-1.236	
HDL AVN	31.3	mg/dL	4/12/2023 1:27:00 PM	25.760-38.640	
PHOSP	3.7	mg/dL	4/12/2023 1:27:00 PM	3.048-4.572	
TG AVN	120.0	mg/dL	4/12/2023 1:27:00 PM	89.600-134.400	
CHO AVT	105.8	mg/dL	4/12/2023 1:27:00 PM	84.000-126.000	
CALCIUM	8.6	mg/dL	4/12/2023 1:27:00 PM	6.928-10.392	
URIC ACID AVN	4.4	mg/dL	4/12/2023 1:27:00 PM	4.248-6.372	
BILI T dsa	1.2	mg/dL	4/12/2023 1:27:00 PM	0.832-1.248	
UREA AVNT	41.9	mg/dL	4/12/2023 1:27:00 PM	32.880-49.320	
ALB AVT	3.1	g/dL	4/12/2023 1:27:00 PM	2.560-3.840	
T.PROT AVN	5.1	g/dL	4/12/2023 1:27:00 PM	4.080-6.120	
ALP	95.4	U/L	4/12/2023 1:27:00 PM	78.720-118.080	
GLU	101.8	mg/dL	4/12/2023 1:27:00 PM	80.000-120.000	