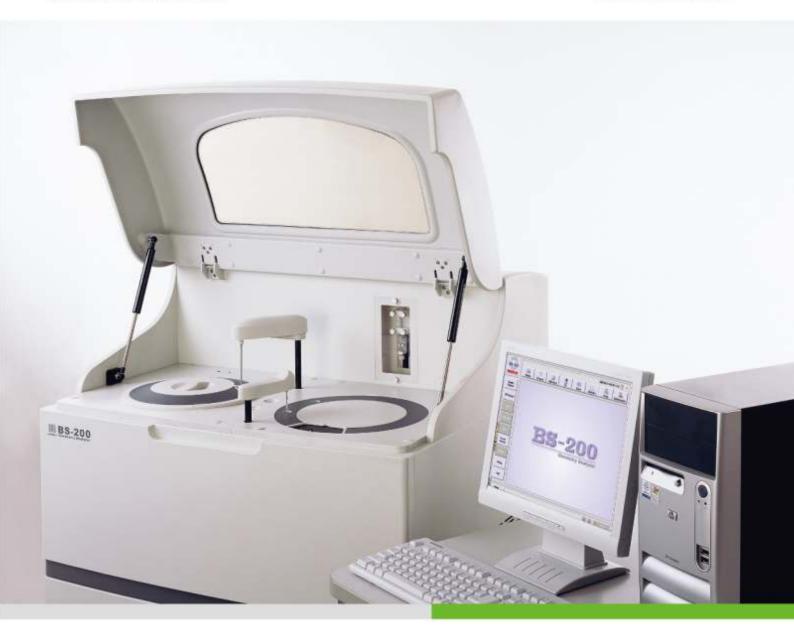
# **MINDRAY**



BS-200 Chemistry Analyzer



## **BS-200**

## **Chemistry Analyzer**

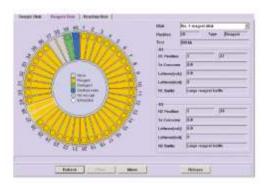
- Discrete, random access, automated
- 200 tests per hour, up to 330 tests per hour with ISE
- Optional for ISE module and internal bar code reader
- Up to 40 positions for samples and reagents respectively
- Automatic probe cleaning, liquid level detection, collision protection
- Reversed optic system with 8 wavelengths: 340-670nm
- Refrigerated reagent compartment
- Bi-directional LIS interface





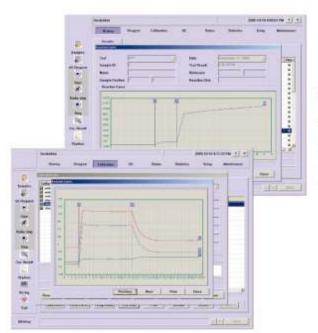
## Sample of Test Menu

Enzymes	ALT ADA	AST γ–GT	ALP MAO	ACP LIP	α-HBDH NAG	I LDH	CK	CK-MB	α-AMY	MSO	ChE	
Substrates	TG UA	TC TP	HDL CI	nolesterol TBIL	LD DBIL	L Cholesterol TBA	Glu FMN	Lac	tate	UREA	BUN	Cr
Electrolytes	Na	К	CI	Ca	Mg	P Fe	UIBC	TF	Cu			
Specific Proteins	ApoA1 Microal		ApoB FR	Lp(a) β2-l	ASO MG	C3 Myoglobin	C4 FIB	CRP	IgA	IgM	lgG	
Others	HbA1c	H	oAo	U-Alb	BTR	í.						



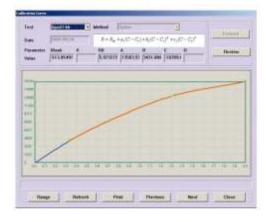
### Dynamic and real time display of running status

- Running status of reagent tray, sample tray and reaction tray
- Real time monitoring of reagent residual volume
- Intelligent carry over settings to adjust test sequence
- Probe depth adjustment automatically



### Original reaction data record

- Real time monitoring of reaction curve
- Bichromatic testing to avoid interference
- Simultaneously display primary and secondary wavelengths
- Detailed profile of alert messages
- Real time diagnosis of system working status



### Optimum calibration curve

- Calibration classification;
- Linear curve type: Single-point linear, two-point linear and Multi-point linear.
- Nonlinear curve type: Logistic-Log 4P 、Logistic-Log 5P 、Exponential5P 、Polynomial5P and Spline.





### High quality ISE Module (optional)

- Measuring K<sup>+</sup>, Na<sup>+</sup>, Cl<sup>-</sup>
- Throughput up to 225 tests per hour
- 0 6 months shelf life



### Multi-function sample/reagent probe

- Collision protection
- Liquid level detection
- Internal and external probe washing
- Probe depth adjustment automatically
- Pre-heating for reagents



### Excellent reaction tray

- High stability reaction temperature control at 37 ± 0.1℃
- Spot photometry with high speed digital transmission system
- Contain 80 disposable reaction cuvettes
- B static fiber optics minimize electromagnetic interference
- Maintenance free heater elements



### Multi-function sample/reagent tray

- Optional internal reagent/sample bar code reader
- o 40 positions for samples and reagents respectively
- Up to 20/10 virtual sample/reagent trays can be programmed
- Primary tube and various sample cup can be used, non-fixed positions for samples, control, calibrator nor STAT
- 24 hour non stop cooling with Peltier elements



### Disposable reaction cuvettes

- Disposable cuvettes to avoid carry over and saving of operating costs
- Automatic cuvettes blank testing to assure precise results



### High performance mixer design

- Absence of cross contamination
- Optimal homogenization in minimum time
- It functions immediately (within the same period) dispending of sample or the second reagent

## **BS-200**

### **Chemistry Analyzer**

### **Technical Specifications**

### System Function:

Automatic, Discrete, Random Access

STAT sample priority

Throughput: up to 200 tests/hour (without ISE), up to

330 tests/hour with ISE

Measuring principles:

Absorbance photometry, Turbidimetry,

Ion Selective Electrode technology

Methodology: End-point, Fixed-time, Kinetic, optional

ISE

Single / Dual reagent chemistries, monochromatic / bichromatic

Linear / non-linear multipoint calibration

Programming: Open system with user defined profiles

and calculation chemistries

### Reagent/Sample Handling:

Reagent/Sample tray:

40 positions for reagents and 40 positions for samples in refrigerated

compartment (4~15 ℃)

Reagent volume:

R1: 180~450µl, step by 1µl R2: 30~450µl, step by 1µl Sample volume: 3~45µl, step by 0.5µl

Reagent/Sample probe:

liquid level detection, collision protection

and inventory checking

Probe cleaning: automatic washing for both inside and

outside

carry over < 0.1%

Automatic sample dilution:

pre-dilution and post-dilution

dilution ratio up to 150

dilution vessel: disposable cuvette

### Internal Bar Code Reader (optional):

Used for sample and reagent

programming

Be applicable to various bar code systems of Codabar, ITF (Interleaved Two of Five), code128, code39,

UPC/EAN, Code 128

Capable to communicate with LIS in

bidirectional mode

### ISE Module (optional)

Measuring K+, Na+, Cl-

Throughput: Up to 225 tests per hour

#### Reaction System:

Reaction rotor: rotating tray, containing 80 cuvettes

Cuvette: optical length 5mm

Reaction volume:  $180\sim500~\mu$ l Reaction temperature:  $37~^{\circ}$ C Temperature fluctuation:  $\pm~0.1~^{\circ}$ C

Independent mixing probe

### Optical System:

Light Source: Halogen-tungsten lamp

Photometer: reversed optics, static fiber spot photometry
Wavelength: 340nm、405nm、510nm、546nm、

578nm、630nm、670nm

Absorption range: 0~4.0Abs (10mm conversion)

Resolution: 0.0001Abs

### Control and Calibration:

Calibration mode: linear (one point, two-point and multi-point),

Logit-Log 4P, Logit-Log 5P, spline, exponential, polynomial, parabola

Control software: X-R, L-J, Westgard multi-rule, Cumulative

sum check, twin plot

### **Operation Unit:**

Operation system: Windows XP Professional/Home SP2 or above

Windows VISTA Home/Business

Interface: RS-232

### **Working Conditions:**

Power Supply: AC100~130V, 50/60Hz, 1000W

Temperature: 15-30  $^{\circ}$ C Humidity: 35-80%

Water consumption: 3.5L/hour De-ionized

Dimension: Bench top: 860mm (W) x700mm (D) x625mm (H)

Floor standing: 860mm (W) x700mm (D) x1160mm (H)

Weight: Bench top: 116 kg

Cabinet (optional): 51 kg



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