

MINDRAY

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BS-120 NEW Chemistry Analyzer



BS-120

Chemistry Analyzer

- Discrete, random access, fully automated
- 100 tests per hour, up to 300 tests per hour with ISE
- Up to 28 onboard chemistries and 4 ions
- Refrigerated reagent compartment
- Automatic probe cleaning, liquid level detection & collision protection
- 8 wavelengths: 340-670nm
- Automatic dilution for abnormal sample
- External bar code reader (optional)
- Bi-directional LIS interface





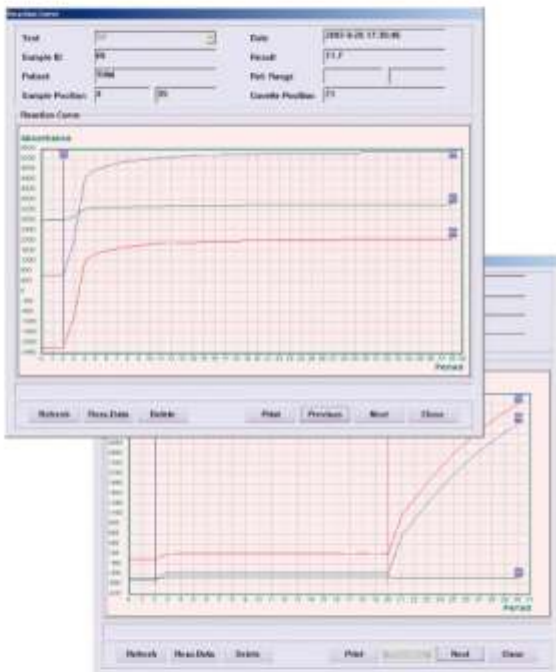
Sample of Test Menu

Enzymes	ALT	AST	ALP	ACP	α -HBDH	LDH	CK	CK-MB	α -AMY	MSO	ChE
	ADA	γ -GT	MAO	Lip	Lap	NAG					
Substrates	TG	TC	HDL Cholesterol		LDL Cholesterol		Glu	Lactate	UREA	Cr	UA
	TP	Alb	TBIL	DBIL	TBA	FMN					
Electrolytes	Na	K	Cl	Ca	Mg	P	Fe	UIBC	Tf	Cu	
Specific Proteins	APOAI		APOB	Lp(a)	ASO	C3	C4	CRP	IgA	IgM	IgG
	Microalbumin		RF	β 2-MG	Myoglobin		TF	FIB			
Others	HbA1c	HbAo	U-Alb	BTR							



Dynamic and real time display of running status

- Running status of reagent/sample tray and reaction tray
- Real time monitoring of reagent residual volume
- Intelligent carry-over settings to adjust test sequence
- Automatic probe depth adjustments
- Real time diagnosis of system working status



Original reaction data record

- Real time monitoring of reaction
- Bichromatic testing to avoid interface
- Simultaneously displays primary and secondary wavelengths
- Detailed profile of alert messages



Optimum calibration curve

- Linear curve type: Single-point linear, Two-point linear and Multi-point linear
- Nonlinear curve type: Logistic-Log 4P, Logistic-Log 5P, Exponential 5P, Polynomial 5P and Spline



Multi-functional sample/reagent probe

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



Flexible sample/reagent tray

- Optional external reagent/sample bar code reader
- 28 positions for reagents and 8 positions for samples respectively
- Up to 20/10 virtual sample/reagent trays can be programmed
- Primary tubes and various sample cups can be used, non-fixed positions for sample, control, calibrator or STAT
- 24 hour non-stop cooling with Peltier elements



Excellent reaction tray

- Highly stable reaction temperature control at $37 \pm 0.1 \text{ } ^\circ\text{C}$
- Spot photometry with high speed digital transmission system
- Contains 40 disposable reaction cuvettes
- Automatic 8-position filter-wheel
- Maintenance free heater elements



High quality ISE module (optional)

- Measurements of K^+ , Na^+ , Cl^- , Li^+
- Throughput: up to 200 tests per hour
- 6 months shelf life



Disposable reaction cuvettes

- Disposable cuvettes to avoid carry-over and to save testing costs
- Automatic cuvettes blank testing to assure precise results



High performance mixer design

- Avoid cross contamination
- Optimal homogenization in minimum time
- Thoroughly mixes after dispensing of sample or second reagent

BS-120

Chemistry Analyzer

Technical Specifications

System Function:

automatic, discrete, random access,
STAT sample priority
Throughput: up to 100 tests/hour (without ISE), up to
300 tests/hour with ISE (4 ions)

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 calculations

Reagent/Sample Handling:

Reagent/Sample tray:

28 positions for reagents and 8
positions for samples in refrigerated
compartment (4~15 °C)

Reagent volume:

R1: 180~450µl, step by 1µl

R2: 30~250µl, 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 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

External Bar Code Reader (optional):

used for sample and reagent programming;
applicable to various bar code systems
including Codabar, ITF (Interleaved Two of
Five), Code128, Code39, UPC/EAN, Code93;
capable to communicate with LIS in a
bi-directional mode

ISE Module (optional)

Measuring parameter: K^+ , Na^+ , Cl^- , LI^+
Throughput: up to 200 tests per hour

Reaction System:

Reaction rotor: rotating tray, containing 40 cuvettes

Cuvette: optical length 5mm

Reaction volume: 180~500 µl

Reaction temperature: 37 ± 0.1 °C

Mixing system: independent mixing probe

Optical System:

Light Source: Halogen-tungsten lamp

Wavelength: 340nm, 405nm, 450nm, 510nm, 546nm,
578nm, 630nm, 670nm

Linear range: 0~3.5Abs

Control and Calibration:

Calibration mode: linear (one point, two-point and multi-point),
Logit-Log 4P, Logit-Log 5P, spline,
exponential, polynomial, parabola

Control rules: 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: AC200~240V, 50/60Hz, 800W or
AC100~130V, 50/60Hz, 800W

Temperature: 15-30 °C

Humidity: 35-85%

Water consumption: 2.5L/hour

Dimension: bench top: 690mm(W)x570 mm(D)x595 mm(H)

Weight: 75 kg



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