MINDRAY

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BS-120 NEW

Chemistry Analyzer

MINDRAY™

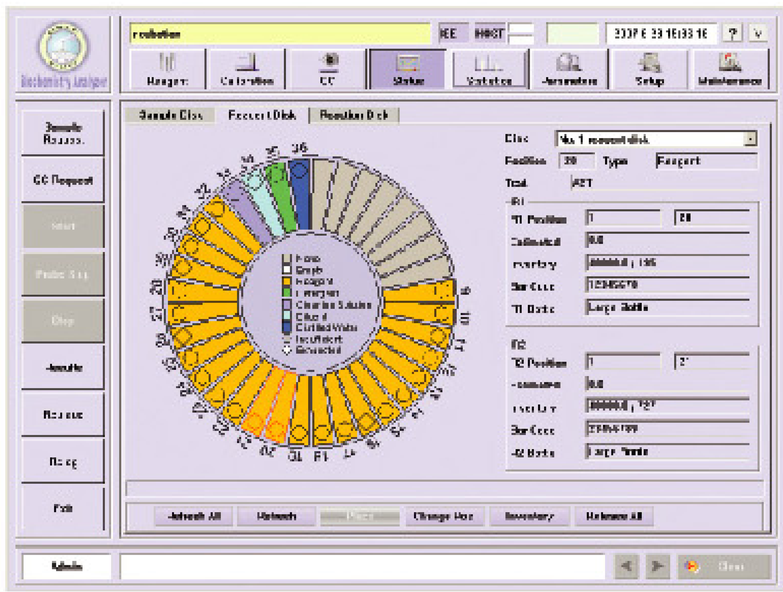
BS-120

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

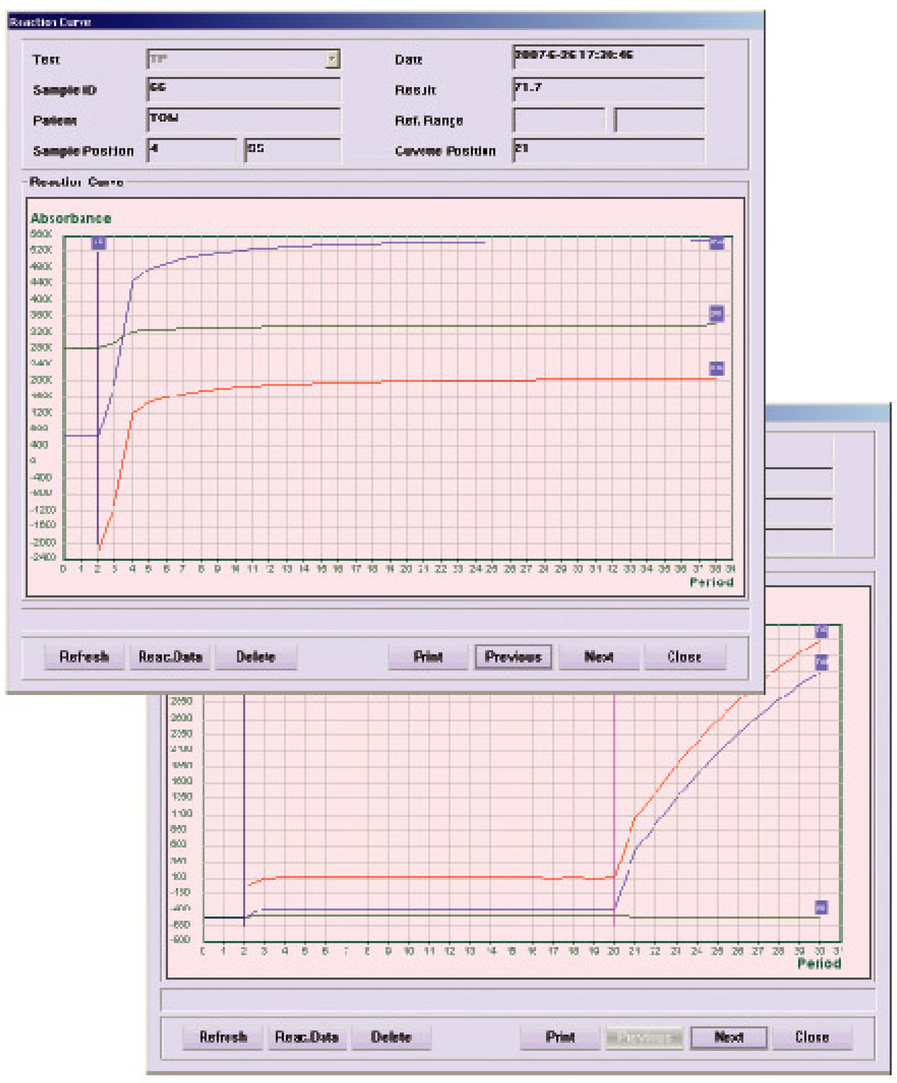
Sample of Test Menu

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 ± 0.1℃
- 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 dispending 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 ℃)
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 ℃
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 2000 Pro with SP4 or Windows XP Pro / Home
Interface:	RS-232

Working Conditions:

Power Supply:	AC200~240V, 50/60Hz, 800W or AC100~130V, 50/60Hz, 800W
Temperature:	15-30 ℃
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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