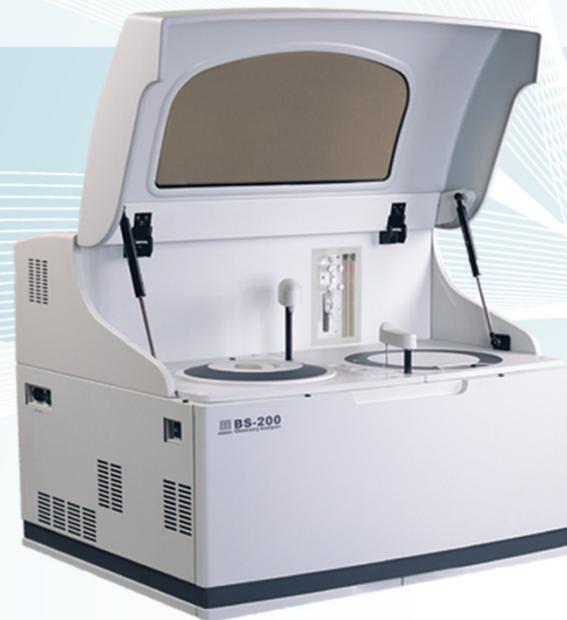


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BS-200 Chemistry Analyzer

mindray™
NORTH AMERICA



- **BS-200 Snapshot**
- **Features & Benefits**
- **Who Benefits Most from the BS-200**





Product Summary

- More than **4,000** units sold worldwide
- Small bench-top footprint (34x28x25 inch)
- Broad test menu to meet your wide needs for chemistry testing
- Unsurpassed reliability, i.e., MTBF greater than twelve months
- Excellent performance, great correlation results with Hitachi 917 and AU400



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Product Fact Sheet

- Discrete, random access, automated
- Up to **330** tests per hour with ISE
- **40** positions for samples and **40** positions for reagents
- Reversed optic system with **8** wavelengths: 340-670nm
- Built-in ISE module and internal sample/reagent bar code reader
- On-board reagent refrigeration
- Bi-directional LIS interface
- Unlimited storage of test results and QC files, supporting Windows 7/Vista/XP/2000
- Automatic probe cleaning, liquid level detection, depth adjustment and disposable cuvettes ensures minimal carryover
- Probe collision protection and reagent pre-heating
- Micro sample and reagent consumption



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Simple Design, Robust Features

Reagent/Sample Disk

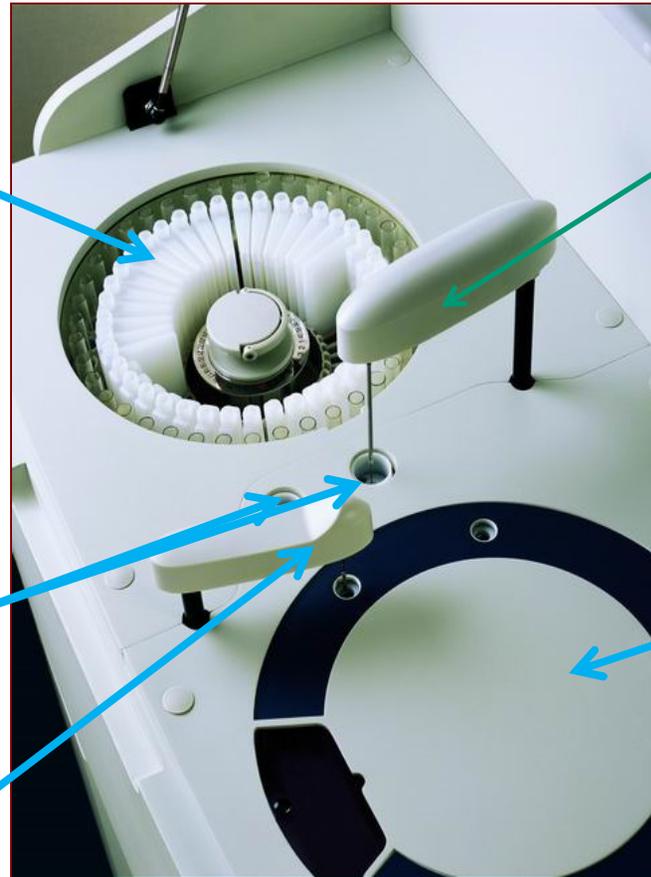
- 40 positions for reagents and 40 for samples
- 24 hour non-stop on-board reagent refrigeration
- Optional multiple disks
- Freedom of programming assays and samples/STAT/QC/Cal at any position you want

Wash Wells

- Wash the mixing bar and probe after every movement

Independent Mixer

- Mixing reagents and sample



Reagent/Sample Probe

- Liquid Level Detection
- Auto Depth Adjustment
- Reagent/Sample Pre-heating
- Auto Wash (Inside/Outside)
- Probe Collision Protection
- Minimal Sample Volume (3 μ l~45 μ l)

Reaction Chamber

- Disposable cuvettes to eliminate carryover
- Excellent temperature control
- Minimal reaction volume \leq 180 μ l to save reagents
- Lamp life 2,000 hours
- 8 wavelengths

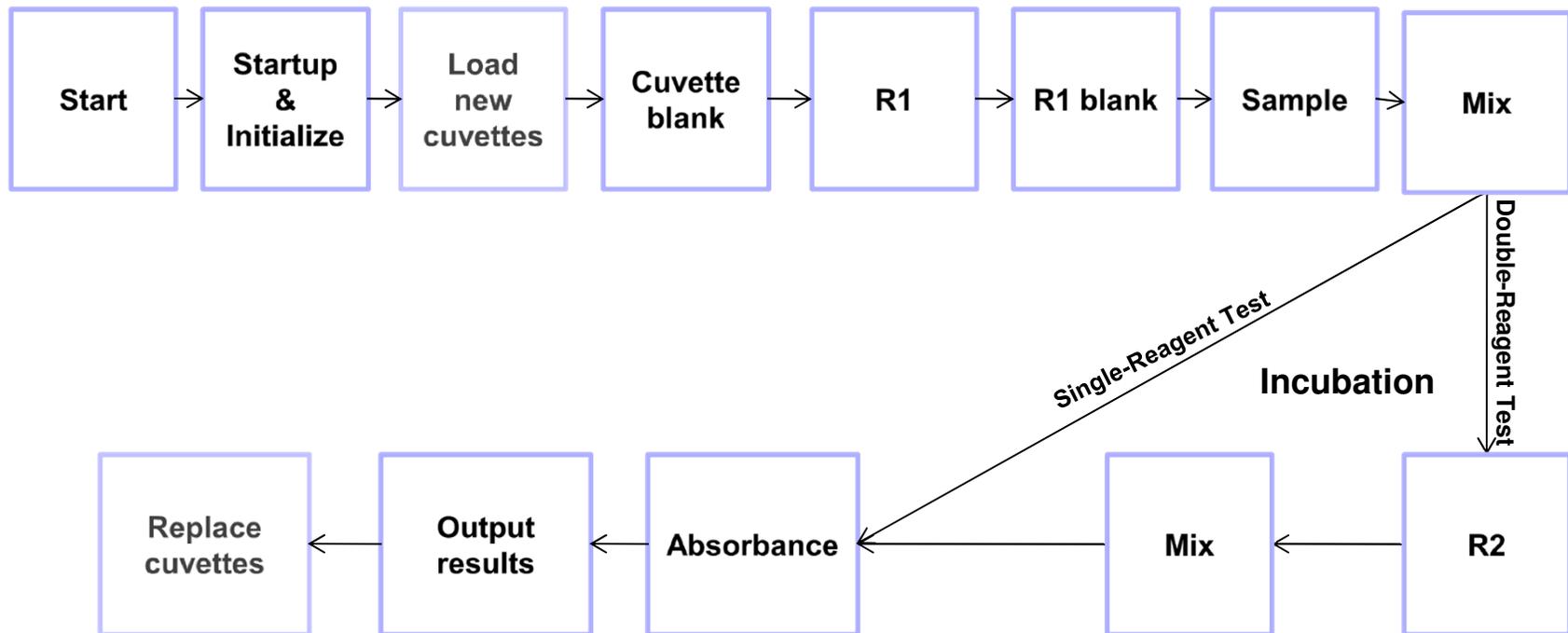


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General Work Flow of BS-200



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Test Menu

28 Barcoded Reagents

Albumin	BUN (Urea Nitrogen)	Fructosamine	autoLDL™
Alkaline Phosphatase	Calcium	γ-Glutamyl Transferase	Lipase
ALT	Carbon Dioxide	Glucose Hexokinase	Magnesium
Amylase	Cholesterol	Hemoglobin A1c	Phosphorus
AST	Creatine Kinase	autoHDL™	Protein – Total
Bilirubin – Direct	Creatinine	Iron – Total	Triglycerides
Bilirubin – Total	CRP(hs)	Lactate Dehydrogenase	Uric Acid

13 Highly Complex Open Channel Reagents

Alcohol	HDL – Mg/Dex
Ammonia	Homocysteine
Creatinine Enzymatic	Lactate
CK-MB	Lp(a)
Glucose Oxidase	Microalbumin
G6PD	Microprotein
HDL – PEG	

16 Highly Complex Drugs of Abuse

6-Acetylmorphine	Ethanol
Amphetamine	Methadone
Barbiturate	Methadone Metabolite (EDDP)
Benzodiazepine	Methamphetamine
Buprenorphine (Suboxone)	Opiates
Cannabinoid (THC)	Oxycodone
Cocaine Metabolite	Phencyclidine
Ecstasy (MDMA)	Propoxyphene



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- **BS-200 Snapshot**
- **Features & Benefits**
- **Who Benefits Most from the BS-200**





Designed with a busy lab in mind

- Discrete, random access and automated sample processing
- User-friendly software, supporting Windows 7/Vista/XP/2000
- High throughput for a compact size (330 tests/hr w ISE)
- 40 positions for samples, 40 for reagents, and additional virtual and physical sample/reagent disk
- No fixed position for sample, STAT, control, or calibrator
- Zero daily maintenance: visual checking only
- Auto QC function



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Designed with a busy lab in mind

- STAT sample priority

Sample Information

No.	1	-	1	Position	1	Patient	
Type	Serum		Bar Code		<input checked="" type="checkbox"/>	STAT	

- Internal barcode readers for both samples and reagents ensures positive sample and reagent identification
- On-board reagent refrigeration with 24-hour non-stop cooling allows greater reagent on-board stability
- Dual switches allow 24-hour reagent refrigeration while turning off other on-board mechanisms



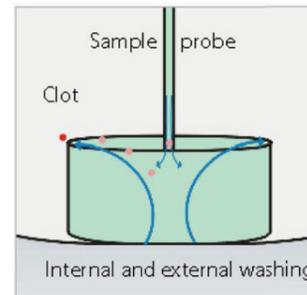
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High performance safeguards the integrity of patient results

- Advanced Dispensing System:
 - Internal and external probe washing after each dispensing
 - Liquid level detection to avoid inaccurate sampling
 - Automatic probe depth adjustment when dispensing, so as to avoid bubbles and carry-over
 - Reagent probe pre-heating function to reach 37 °C more quickly.
 - Probe collision protection



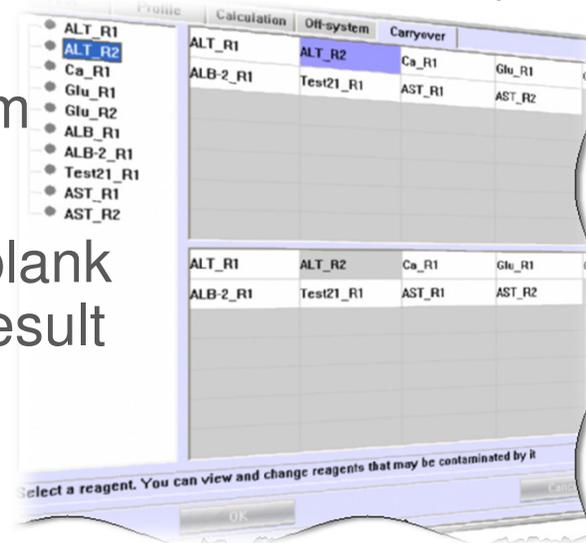
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High performance safeguards the integrity of patient results

- Stable temperature control for both reagent and reaction chambers
- Highly accurate motors and syringes: 3 - 45ul sample volume in 0.5ul increments for accuracy and precision
- Carry-over avoiding program
- Independent Mixer
- Automatic cuvette and R1 blank checking to ensure accurate result



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High performance safeguards the integrity of patient results

What do these features mean to your customer?



Safe Operation

Accurate Results

Elimination of Contamination



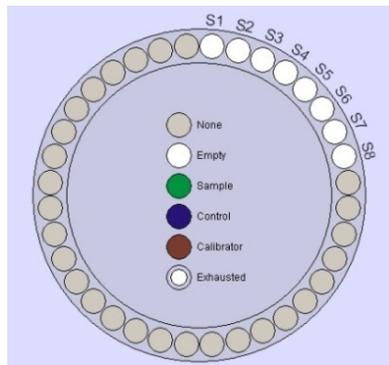
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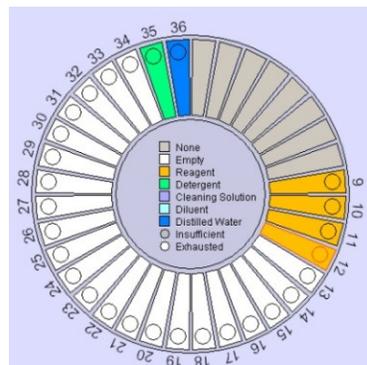


State-of-the-Art Technology & Design

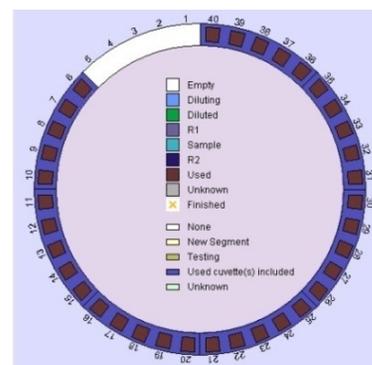
- User-friendly software, supporting Windows Vista/XP/2000
- Real-time Monitoring
 - Dynamic display of running status and sample info
 - Real-time monitoring of residual reagent volume
 - Optimized calibration curve



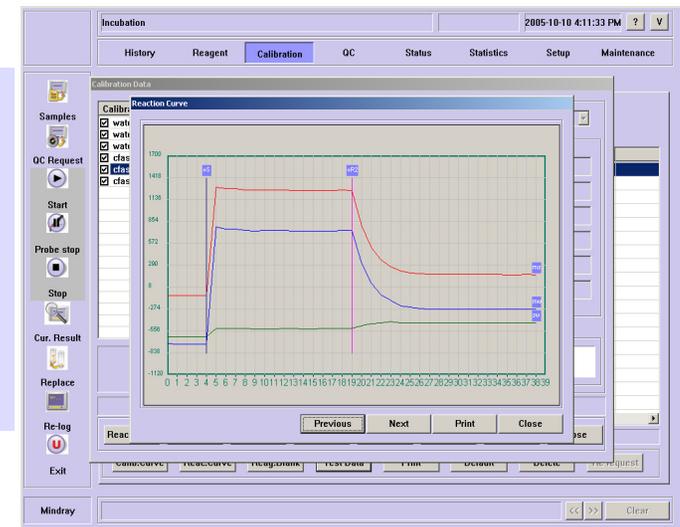
Sample Wheel



Reagent Wheel



Test Running Status



Reaction Curve



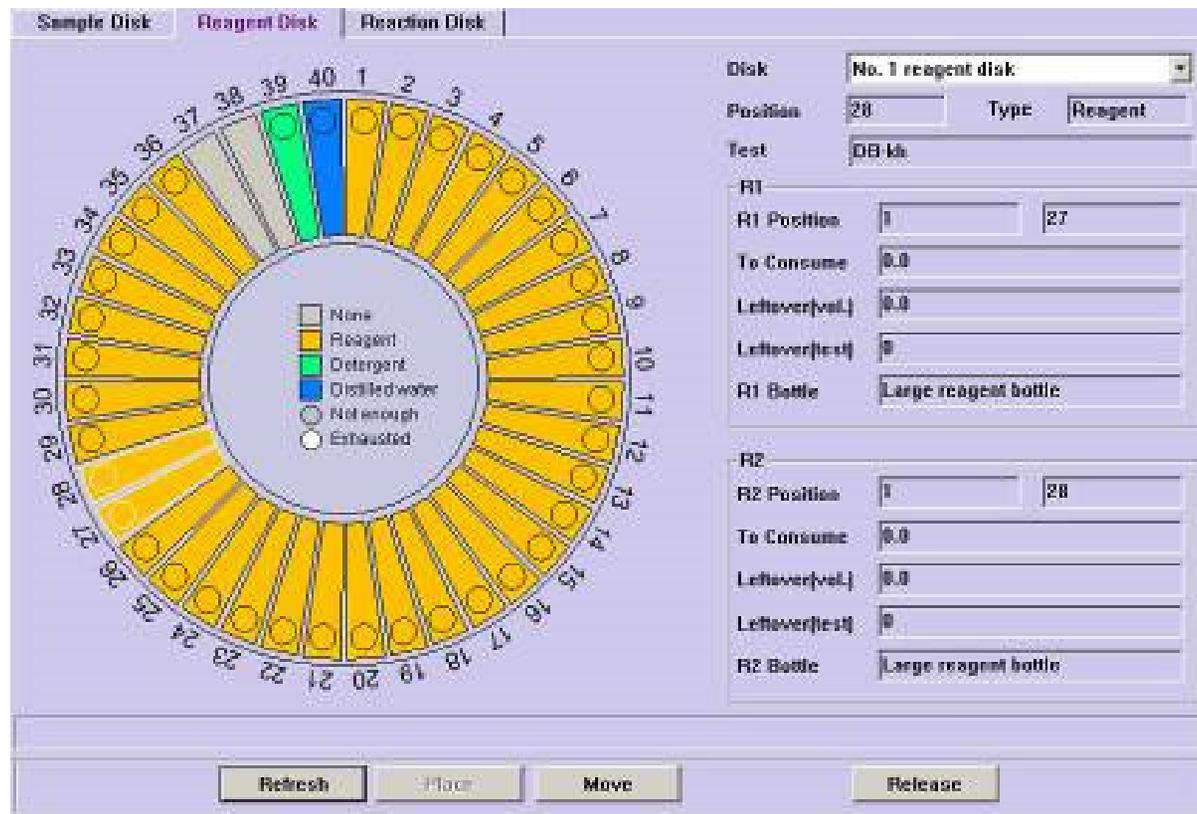
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State-of-the-Art Technology & Design

- Example: Reagent Monitoring Screen



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State-of-the-Art Technology & Design

- Example: Sample Monitoring Screen

Sample Disk Reagent Disk Reaction Disk

Disk: No.1 sample disk
Position: 40 Type: Calibrator

Calibrator Information

Name: Multi-Cal
Lot No.: 832502
Position: 1 40
Level: Medium
Exp. Date: 10/31/2012

Concentration

Test	Conc.
ALB	4.0
ALP	
ALT	
AST	
T-BILI	4.0
BUN	49
CA (AR-III)	10.1
CO2	24

Details Refresh Change Pos. Release All



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State-of-the-Art Technology & Design

- Auto QC
- Auto dilution and pre-dilution of sample and calibrator
- Auto rerun of abnormal results
- Auto print-out after sample run
- Allows easy programming of batch work
- QC on profiles
- Up to 10 programmable disks
- Customization of calculation formula, i.e., microalbumin/creatinine
- Unlimited storage of test results and QC files
- Built-in Online Operation Manual in Operational Software
- An instrument that “talks” to you
- Audible alarm (volume adjustable)
- Many more ...

MINDRAY BS-120 CHEMISTRY ANALYZER

Incubation

Reagent Calibration QC Status

Sample Request

QC Request

Reagent Setup

Test	Tests Left	Reagent...	Inventory(μl)
ALT	216	R1	40000.0
TG	216	R1	40000.0
Glu	216	R1	40000.0
LDH	216	R1	40000.0



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Significant Cost Savings

- Low-cost instrument with same features and precision available on high-end analyzers
- Quality low-cost reagents
- Minimum reaction volume: $\leq 180\mu\text{l}$
- Low-cost cuvettes: costs for cuvette cleaning agents, distilled water or lost time waiting for washing is eliminated
- Low-maintenance instrument
- Long-life lamp (2,000 hours)
- 6-month electrodes shelf-life guarantee



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- **BS-200 Snapshot**
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Who Benefits Most from the BS-200

- Extreme low-cost in relation to its throughput and state-of-the-art features - a viable and profitable solution for labs with annual test volumes of 30,000 to 125,000 tests
- A broad test menu fits the needs of general chemistry labs and specialty labs, i.e., pain management, drugs of abuse, immunoprotein testing, etc.
- POLs or small hospitals with less than 125,000 tests/year
- POLs with test volumes too small to afford other analyzers
- Departments of some large hospitals who want to spin off from the central lab and have their own in-house chemistry analyzer dedicated for one or more specialty tests, i.e. glucose, special proteins, etc.



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Thank You

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