



# BS-200E

Chemistry Analyzer

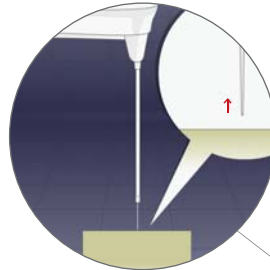
**mindray**  
healthcare within reach

# BS-200E Chemistry Analyzer

## Smart, Vers

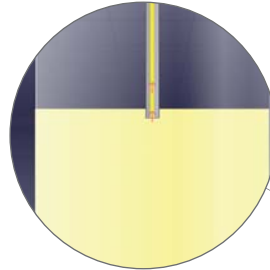
### Intelligent collision protection

- Real-time alarms for any possible vertical & horizontal collision
- Ensures safety of operators



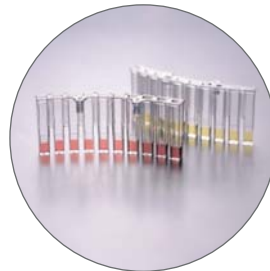
### Effective liquid level detection and tracking

- Minimizes carry-over



### Reusable and durable cuvettes

- Saves cost
- Easy replacement



### Reagent cooling compartment

- 2~12°C continuous cooling for reagents
- Ensures reagent stability



### Original system pack reagents

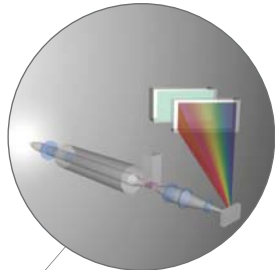
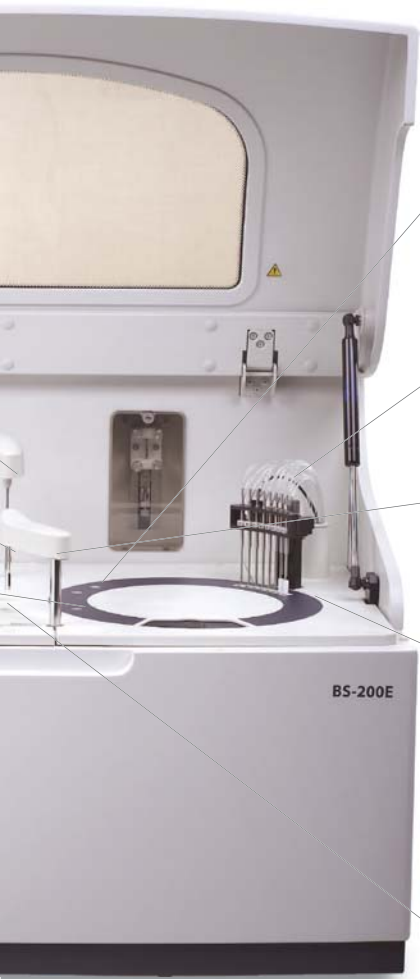
- Available original reagents, QC and CAL
- Metrological traceability



- Constant 200 tests per hour for chemistries
- Grating optical system with 12 wavelengths
- 8-step auto washing
- High efficiency independent mixing bar
- 150µl minimum reaction volume
- Effective liquid level detection and tracking
- Original 48 parameters system pack reagents and QC & Calibrators ready to use

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# atile, Easy



## Grating optical system

- 12 Wavelengths
- Enhanced accuracy



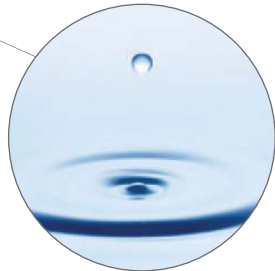
## 8-step washing station

- Highly efficient washing system
- Longer walk-away time



## Independent mixing bar

- Efficient and effective mixing minimizes carry-over
- Innovative design ensures easy maintenance



## 150 µl minimum reaction volume

- Lower reagent consumption



## 3-channel integrated ISE module

- Na<sup>+</sup>, K<sup>+</sup>, Cl<sup>-</sup> electrodes

g system with pre-warmed detergent and water

• 80 reusable and durable cuvettes

nd tracking

• Vertical & horizontal collision protection for probe

• Multifunctional and user-friendly operation software

# BS-200E

## Chemistry Analyzer

### Technical Specifications

#### System Function:

Automatic, Discrete, Random Access  
STAT sample priority

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

#### 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 multi-point calibration

Programming: Open system with user defined profiles  
and calculation chemistries  
Original system pack reagents ready to use

#### Reagent/Sample Handling:

Reagent/Sample tray: 40 positions for reagents and 40 positions  
for samples in cooling compartment (2~12°C)

#### Reagent volume:

R1: 10~350µl, step by 1 µl

R2: 10~200µl, step by 1 µl

Sample volume: 2~45µl, step by 0.1 µl

#### Reagent/Sample probe:

Liquid level detection and tracing, vertical &  
horizontal collision protection and inventory  
checking

Probe cleaning: Automatic washing for both interior and exterior  
Carry-over < 0.1%

#### Automatic sample dilution:

Pre-dilution and post-dilution  
Dilution ratio up to 1: 200

#### Internal Bar Code Reader (optional):

Used for sample and reagent programming  
Applicable to various bar code systems of  
Codabar, ITF (Interleaved  
Two of Five), code128, code39,  
UPC/EAN, Code93  
Capable to communicate with LIS in  
bi-directional mode

#### ISE Module (optional):

Measuring K<sup>+</sup>, Na<sup>+</sup>, Cl<sup>-</sup>

#### Optical System:

Light Source: Halogen-tungsten lamp  
Photometer: Grating system, reversed optics  
Wavelength: 12 wavelengths, 340nm, 380nm, 412nm, 450nm,  
505nm, 546nm, 570nm, 605nm, 660nm, 700nm,  
740nm and 800nm  
Absorption range: 0~3.3Abs (10mm conversion)  
Resolution: 0.0001Abs

#### Reaction System:

Reaction rotor: Rotating tray, containing 80 cuvettes  
Cuvette: Reusable, optical length 5mm  
Reaction volume: 150~500µl  
Reaction temperature: 37°C  
Temperature fluctuation: ±0.1°C

#### Mixing System:

Independent mixing bar

#### Cuvette Washing:

8-step washing station with pre-warmed detergent  
and water

#### 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: Westgard multi-rule, Cumulative sum  
check, Twin plot

#### Operation Unit:

Operation system: Windows® XP Professional/Home SP2 or above  
Windows® 7  
Interface: RS-232

#### Working Conditions:

Power Supply: AC 200~240V, 50/60Hz, ≤1500VA or  
AC 100~130V, 50/60Hz, ≤1500VA  
Temperature: 15-30°C for operation  
Humidity: 35-85% RH  
Water consumption: ≤4.5L/hour  
Dimension: 860mm (W) x700mm (D) x625mm (H)  
Weight: 130 Kg

DISTRIBUTOR:



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