BS-200E

Chemistry Analyzer

mindray

healthcare within reach

BS-200E

Chemistry Analyz

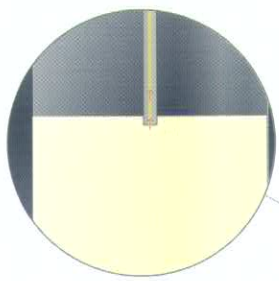
Smart, Vers

Intelligent collision protection

- Vertical & horizontal collision audible alarm
- Ensure operator safety

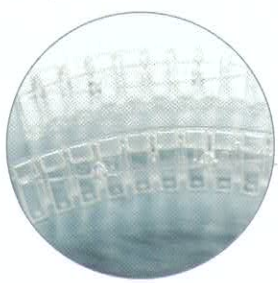
Smart probe function

- Effective liquid level detection
- Liquid level tracking
- Prevent short sampling



Semi-permanent cuvettes

- Lower consumable cost
- Easy replacement
- Durable material, long lasting

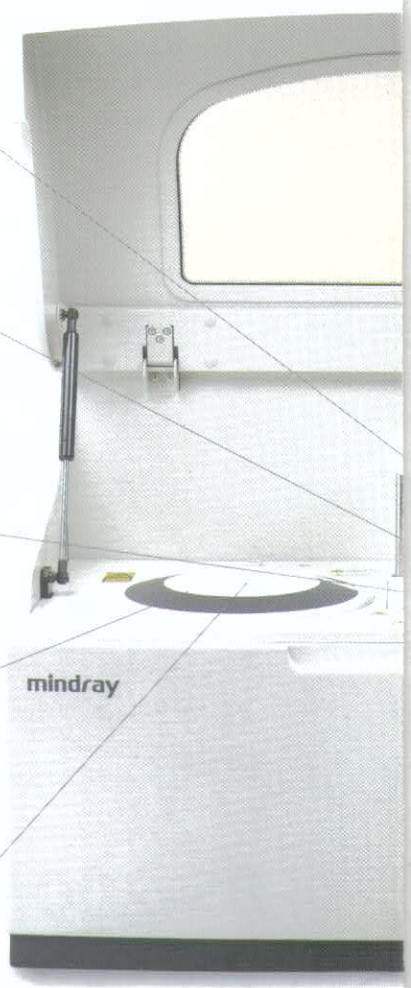


Reagent and sample cooling compartment

- 2~12°C continuous cooling
- Enhance reagent and sample stability

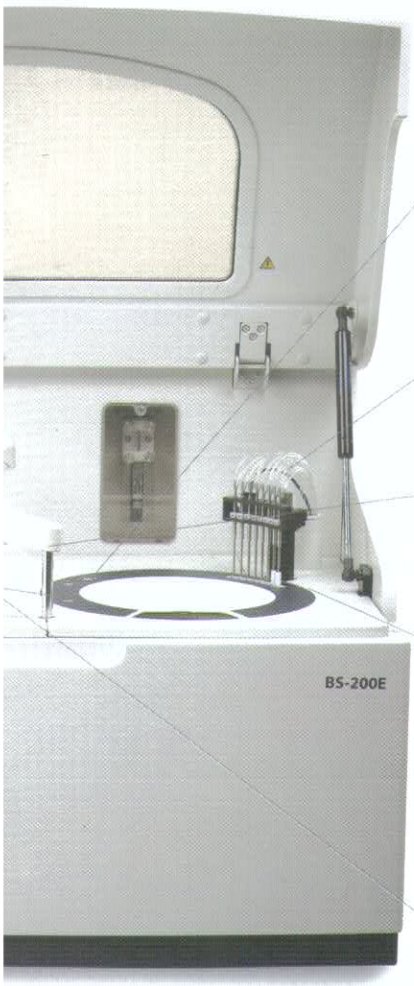
Highly compatible reagent system

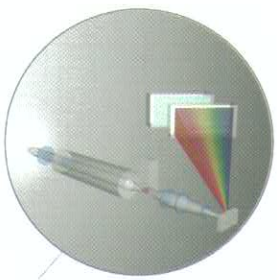
- Reagents, QC and CAL
- Metrological traceability



- Throughput: 200 tests per hour for chemistry
- Grating optical system with 12 wavelengths
- 8-step auto wash
- High efficiency standalone mixing bar
- 150µl minimum reaction volume
- Liquid level detection and track
- Highly compatible reagent system : reagents, QC & Calibrators ready for use

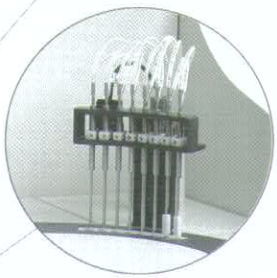
atile, Easy





Grating optic system

- 12 Wavelengths; up to 800nm
- Reversed optics
- Accomodate most chemistry assays

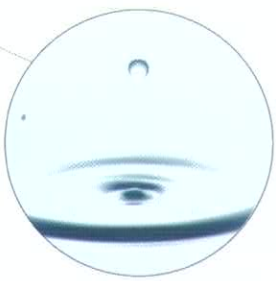


8-step washing station

- Enable lengthy operator walk-away time
- High quality cuvette washing
- Ensure optimal cleaniness with pre-heated detergent and water

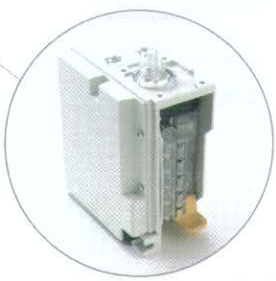
Standalone mixing bar

- Effectively minimizes potential carry-over
- Innovative design
- Minimal maintenance; simple installation



150 µl minimum reaction volume

- Lower reagent consumption
- Long term saving on reagent cost



3-channel integrated ISE module

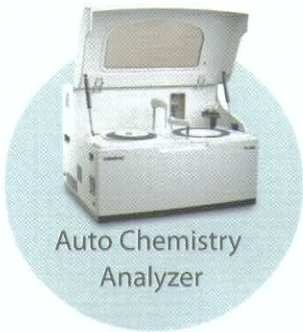
- Na^+, K^+, Cl^- electrodes
- Durable assemble
- Highly efficient electrolytes analysis

ystem with pre-warmed detergent and water • 80 semi-permanent cuvettes

ıg • Vertical & horizontal collision protection • Intuitive; user-friendly operation software

Mindray solution for clinical chemistry

After more than 10 years of research and development on reagents, Mindray can now provide 48 parameters of dedicated reagents(more than 17 others are coming), covering hepatic, renal, cardiac, lipids, diabetes, pancreatitis, inorganic ions and immunalassays, etc.,together with original calibrators with metrological traceability as well as controls for BS-200E chemistry analyzer.



Mindray solution for clinical chemistry

Calibrators with traceability:

Reference Method (Certified by 'Joint Committee for Traceability in Laboratory Medicine' (JCTLM))

- International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)
- National Institute of Standards and Technology(NIST)
- Centers for Disease Control and Prevention (CDC, USA)
- American Association for Clinical Chemistry (AACC)

Reference Material

- Institute for Reference Materials and Measurements (IRMM) standards
- National Institute of Standards and Technology (NIST) standards
- World Health Organization (WHO) standards
- Japan Committee for Clinical Laboratory(JCCLS) standards

Chemistry Reagents

Hepatic

Alanine Aminotransferase (ALT)
Aspartate Aminotransferase (AST)
Alkaline Phosphatase (ALP)
γ-GlutamylTransferase (γ-GT)
Direct Bilirubin (D-Bil) DSA Method
Direct Bilirubin (D-Bil)VOX Method
Total Bilirubin (T-Bil) DSA Method
Total Bilirubin (T-Bil)VOX Method
Total Protein (TP)
Albumin (ALB)
Total Bile Acids (TBA)
Prealbumin (PA)
Cholinesterase (CHE)
Adenosine deaminase (ADA) *
α-L-fucosidase (AFU) *
5'-nucleotidase (5'-NT) *

Renal

Urea (UREA)
Creatinine (CREA) Modified JafféMethod
Creatinine (CREA)Sarcosine OxidaseMethod
Uric Acid (UA)
Carbon dioxide (CO_2)
Microalbumin*
β2-Microglobulin (β2-MG) *
Cystatin C (CysC) *

Cardiac

Creatine Kinase (CK)
Creatine Kinase-MB (CK-MB)
Lactate Dehydrogenase (LDH)
α-Hydroxybutyrate Dehydrogenase(α-HBDH)
Homocysteine (HCY)
Myoglobin*

Ferrum

Iron (Fe)
Ferritin (FER) *
Transferrin (TRF) *
Total iron binding capacity / unsaturated ironBinding capacity (TIBC/UIBC) *

Lipids

Total Cholesterol (TC)
Triglycerides (TG)
HDL-Cholesterol (HDL-C)
LDL-Cholesterol (LDL-C)
Apolipoprotein A1 (ApoA1)
Apolipoprotein B (ApoB)
Lipoportein(a) [LP(a)]

Pancreatitis

α-Amylase (α-AMY)
Lipase (LIP)

Diabetes

Glucose (Glu) GOD-POD Method
Glucose (Glu) HK Meth
Hemoglobin A1c (HbA1c)
Fructosamine (FUN)

Inorganic ions

Calcium (Ca)
Magnesium (Mg)
Phosphate Inorganic (P)

Rheumatism

High sensitivity C-reactive protein (hs-CRP) *
Rheumatoid Factor (RF)
Antibodies Against Streptolysin O (ASO)

Immune

Immunoglobulin A (IgA)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Immunoglobulin E (IgE) *
Complement C3 (C3)
Complement C4 (C4)
C-Reactive Protein (CRP)

Others

Glucose-6-phosphate dehydrogenase (G6PD) *
D-dimer*
Angiotensin converting enzyme (ACE) *
Retinol binding protein (RBP) *
D3-hydroxybutyric acid (D3-HB) *

* Coming soon

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 chemistry calculation
System pack reagents ready to use

Reagent/Sample Handling:

Reagent/Sample tray:
40 reagent positions, 40 sample positions 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 tracking, vertical & horizontal collision protection and inventory checking

Probe cleaning: Automatic washing of 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 scan
Applicable to various bar code systems such as Codabar, ITF (Interleaved Two of Five), code128, code39, UPC/EAN, Code93
Bi-directional interface LIS transmission

ISE Module (optional):

Measure K^+, Na^+, Cl^-

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: Standalone mixing bar

Cuvette Washing: 8-step washing station with pre-heated 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, L-J Chart

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
Dimension: 860mm (W) x700mm (D) x625mm (H)
Weight: 130 Kg

P/N: ENG-BS200E-210285x4-20120312

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