



## **BS-480 Chemistry Analyzer**

**mindray**  
healthcare within reach

# BS-480 Chemistry Analyzer

## Robust hardware

### Enhanced Liquid System

- Precise sample and reagent aspiration
- Built in air bubble elimination prior to washing
- High pressure interior probe wash
- Carry-over <0.05%



### Economy Usage

- Light-Spot Flattening Technology facilitates lower reaction volume
- 24 hour non-stop refrigeration at 2-10°C
- Minimum sample volume: 1.5 µl
- Reagent volume: 10 ~ 350 µl
- Cuvette Volume: 120~360µl



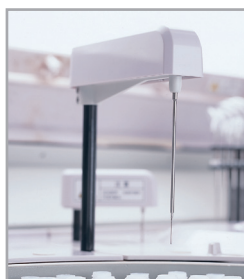
### Easy to perform maintenance

- Front loaded reagent compartment for easier access
- Easy access for routine maintenance and troubleshooting
- Built in Step-by-Step maintenance guide



### Intelligent Probe System

- Supports methods with up to 4 reagents
- Vertical and horizontal collision protection
- Automatic System Recovery
- Liquid level detection, clot detection



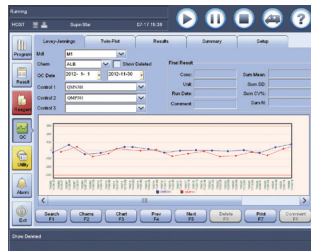
Tailor made

## Advanced software



### User-friendly Interface

- Real-time analytical and carousel status monitoring
- Bi-directional LIS interface transmission



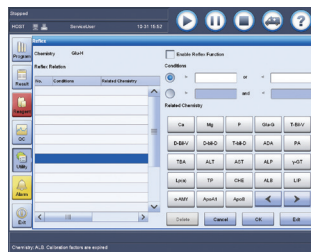
### Real-time QC Status Monitoring

- Levy-Jennings chart and Twin-Plot chart
- QC Out-of-Range real-time alarm
- Customizable periodic QC reminder

Quantity	Type	Sample ID	Bar Code	Position	Status	Result	Unit	Ref
1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
10	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
11	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

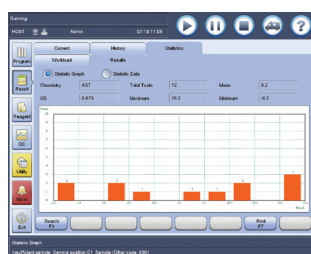
### Traceable Test Results

- Historic data recall from reagent/ calibrator/ control archive
- Intuitive software, easy historical results



### Reflex Function

- User-defined customizable reflexive assays
- Multiple reflexive criteria may apply to a single assay
- A single reflexive criteria may apply up to 20 assays



### Test Summary

- Test summary reports & sample rerun available on all assays and Quality Assurance
- Facilitate computation of total test costs
- Error Log Export function -facilitate error report to engineers
- Results Archive can be transferred to engineers for evaluation

for your lab

# BS-480 Chemistry Analyzer

## Technical Specifications

### System function

Fully automated, discrete, random access, STAT, urine and homogeneous immunoassays; STAT sample priority

Throughput: 400 photometric tests/hour, up to 240 tests/hour for ISE  
Measuring principles: Absorbance Photometry, Turbidity

Methodology: End-point, Fixed-time, Kinetic, ISE (Optional)  
Single/Dual/Triple/Quadruple reagent chemistries, Monochromatic/Bichromatic

Programming: User defined profiles and calculation

### Sample Handling

Sample tray: 90 positions for primary or secondary tubes and sample cups

Sample volume: 1.5~45  $\mu$ l, step by 0.1 $\mu$ l

Sample probe: Liquid level detection, clot detection and collision protection

Probe cleaning: Interior and exterior automatic probe washing carry-over < 0.05%  
Automatic sample dilution, Pre-dilution and post-dilution  
Dilution with ratio up to 1: 150

Dilution vessel: Permanent Cuvette

### Internal bar code reader

Sample/ Reagent barcode reading including Codabar, ITF (Interleaved Two of Five), code128, code39, UPC/EAN, Code93; Bi-directional LIS Interface transmission

### ISE Module (optional)

Optional selection of K<sup>+</sup>, Na<sup>+</sup>, Cl<sup>-</sup>

Throughput: Up to 240 tests per hour

### Reagent Handling

Reagent tray: 80 positions in refrigerated compartment (2~10°C)

Reagent volume: R1: 120- 350 ul, R2 ~ R4 :10 - 350ul

Reagent probe: Liquid level detection, collision protection and inventory check

Probe cleaning: Interior and exterior automatic probe washing

### Reaction System

Reaction rotor: Rotating tray, 90 cuvettes with automatic washing

Cuvette: Optical length 5mm

Reaction volume: 120~360 $\mu$ l

Operating temperature: 37°C

Temperature fluctuation:  $\pm$ 0.1°C

Mixing system: 2 independent mixers

### Optical System

Light Source: Halogen-tungsten lamp

Photometer: Reversed optics, grating photometry

Wavelength: 340nm, 380nm, 412nm, 450nm, 505nm, 546nm, 570nm, 605nm, 660nm, 700nm, 740nm, 800nm

Absorbance range: 0~3.3Abs (10mm conversion)

Resolution: 0.0001Abs

### 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: Westgard multi-rule, Levy-Jennings, Cumulative sum check, twin plot

### Operation Unit

Operation system: Windows 8

Interface: RS-232, Network Port, USB/ parallel port

### Working Conditions

Power Supply: 200~240V, 50/60Hz, 1500VA or 110~130V, 60Hz, 1500VA

Temperature: 15~30°C

Humidity: 35~85%

Water consumption:  $\leq$ 20L/hour, De-ionized water

Dimension: 46in x 28in x 45in (W x D x H)

Weight: 661lb

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