

## Technical Specifications

### Performance

Type	Discrete Automatic, Random Access
Principle	Absorption Spectrometry, Turbidimetry
Throughput	Constant 200tests/hour (without ISE)
Test Method	End-point, Fixed-time, kinetic
Test Sequence	Run tests in strict accordance with sample sequence, Insert emergency at any time

### Optical System

Light Source	Halogen-tungsten lamp, 12V/20W More than 2000hrs service time
Spectrometric Method	After spectrometric method 8 wavelengths, selectable among 340-800nm
Wavelength	Photodiode array
Absorption Range	0-4.0Abs
Optical System	Integrated full closed optical system

### Reaction System

Reaction tray	81 positions
Reaction volume	Mini 150 $\mu$

### Sample System

Sample tray	30/60 positions available
Sample volume	2-100 $\mu$ l, 0.1 $\mu$ l by step
Online sample	60 samples/ batch, unlimited batch input

### Reagent System

Reaction tray	60 positions, open system
Reagent volume	20-500 $\mu$ l, 1 $\mu$ l by step
Reagent bottle	Bottles with 15ml and 30ml are available, dead volume < 0.5ml

### Temperature Control System

Heating mode	Solid constant temperature closed direct heating
Heating time	Less than 3minutes
Reaction temperature	37 $\pm$ 0.2 $^{\circ}$ C
Temperature fluctuation	$\pm$ 0.1 $^{\circ}$ C
Refrigeration system	24 hours cooling for reagent tray, temperature 4-12 $^{\circ}$ C

### Calibration and QC

Calibration mode	Linear, Logit-4p, Logit-5p, Spline, Factor, Polynomial Automatically check calibration curve and fitting the best calibration curve
QC type	Multi-type
QC rules	Multi-rule; default: Westgard
Status monitoring	Real-time monitor the sample tray, reagent tray, reaction tray; Real-time display reaction tray humidity, reagent remain, reaction curve, calibration curve and QC chart.
Inspection & judgment	Reaction end point judgment, reaction linear range judgment, substrate depletion judgment, reagent blank absorbance judgment

### Operation and Print

Operation system	Windows XP or Windows 7 Home
Database	SQL Server
Data storage	Automatic storage and backup, permanently preserve all kinds of data
Print content	Print content can be customized
Print format	Provide a variety of print format

### Working Conditions

Water consumption	Less than 5L/hour
Power supply	AC 220 $\pm$ 22V 50HZ $\pm$ 1HZ
Power	Max 200VA
Ambient temperature	15 $^{\circ}$ C-30 $^{\circ}$ C
Dimension(L*W*H)	79x59x108cm
Net Weight	90KGS

**PRIMAN**<sup>TM</sup>  
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ISO9001 ISO13485



- Good economic choice to replace semi-auto
- 200tests /hour
- 81 reaction positions
- Bench-top available
- Auto washing
- 60 reagent positions
- 24hours refrigeration
- 30/60 sample positions available

**FBA-200**

Fully-auto Biochemistry Analyzer

**PRIMAN INSTRUMENTS PVT.LTD**

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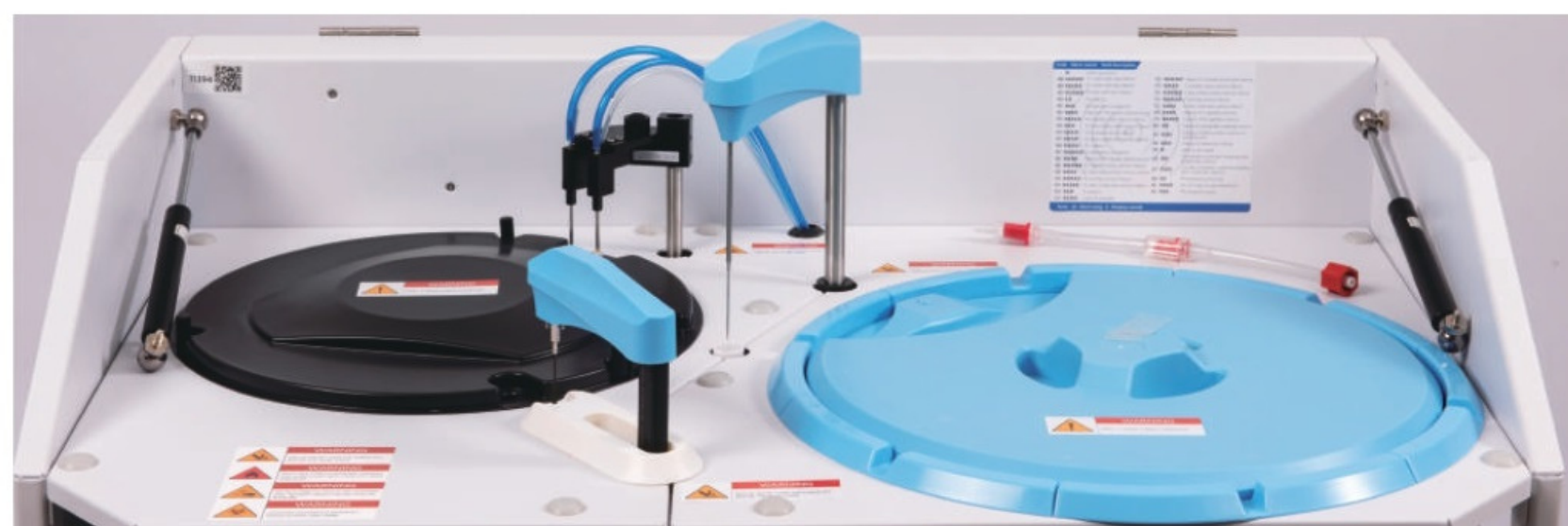
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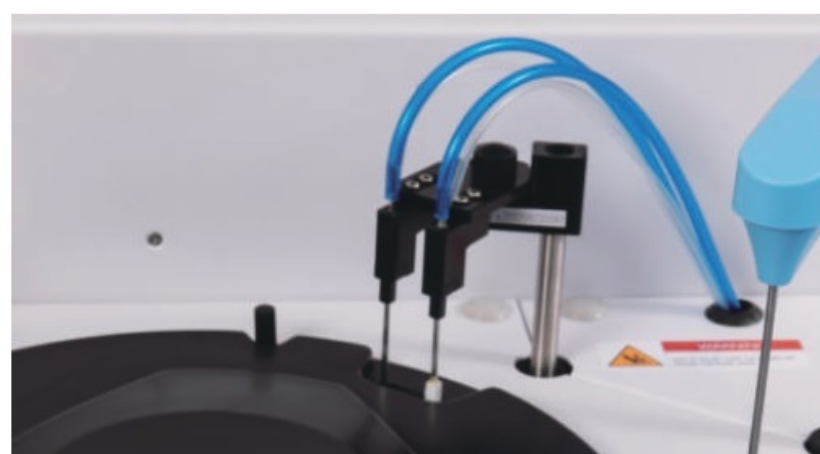
**PRIMAN INSTRUMENTS PVT.LTD**

# 1 FBA-200 Fully-auto Biochemistry Analyzer



- Random access, discrete automatic biochemistry analyzer, Insert emergency at any time
- High performance and reasonable price, It is the good economic choice from semi-auto upgraded to fully-auto analyzer
- Probe cleaning: Automatic washing for both interior and exterior
- Probe performance: Liquid level detection, all-round anti-collision protection and inventory checking, have automatic stop and alarm prompt for an obstacle
- Separate mixer, Auto washing, 24hours refrigeration system

## Analysis System



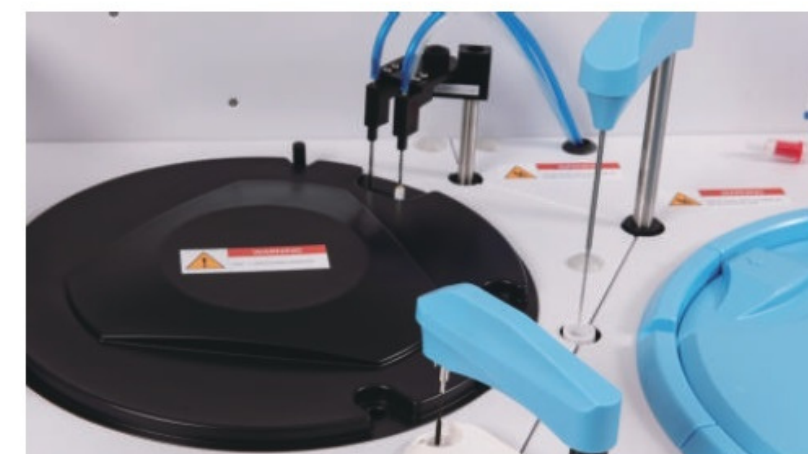
- Constant 200 tests/hour, up to 320 tests/hour
- Test method: End-point, Fixed-time (two point method), kinetic
- Reaction tray: 81 UV cuvettes
- Mini reaction volume: 150 $\mu$ l, save reagent cost
- Insert emergency at any time
- Support linear and non-linear calibration
- Heating method: solid constant temperature closed direct heating
- Temperature equilibrium time: less than 3minutes,
- Reaction Temperature: 37 $\pm$ 0.2 $^{\circ}$ C
- Temperature Fluctuation:  $\pm$  0.1 $^{\circ}$ C

## Optical System



- Integrated full closed optical system, after spectrometric method, no mechanical parts, not moldy, no maintenance cost
- 8 wavelengths, selectable among 340-800nm
- Absorption range: 0.00-4.00Abs
- Halogen-tungsten lamp has more than 2000hrs service time
- Center wavelength deviation:  $\pm$ 2nm, half wave width less than 12nm
- Stray light less than 0.3%
- Resolution: 0.0001Abs

## Sample adding and rinsing system



- Sample volume: 2- 100 $\mu$ l, 0.1 $\mu$ l by step
- Reagent volume: 20-500 $\mu$ l, 1 $\mu$ l by step
- Water consumption: less than 5L/hour

## Mixing and washing system

- Mixing system: separate mixer, to mix the sample and reagent completely, for better reaction effect
- Washing system: single needle to wash cuvettes one by one automatically

## Reagent/Sample Tray



- 60 reagent + 30/60 sample positions available
- Advanced reagent tray refrigeration system, temperature: 4-12 $^{\circ}$ C
- Automatically detect reagent remain, real time display reagent remain
- Reagent bottles with 15ml and 30ml are available, dead volume < 0.5ml
- Support single/ dual reagents, reagents are open
- Real time display reagent tray status
- Automatically judge substrate depletion and automatically dilute and retest

## Operation System

- Windows XP or Windows 7 Home, easy to operate
- Set the operating authority, no time limit and storage limit,
- Permanently preserve all kinds of data
- Automatic storage, automatic backup,
- English print report, the user can modify the print format
- English online help and operation guide
- The test parameter setting is completely open
- The unique user password management, reasonable distribute the operating authority
- Real-time display the status of sample testing, reagent remain, reaction tray and reaction curve recording
- Real-time understand the testing progress
- Automatically check calibration curve and fitting the best calibration curve
- Calibration Mode: Linear, Logit-4p, Logit-5p, Spline, Factor, Polynomial
- The computing items can be set randomly, automatically judge substrate depletion, automatically retest
- Real-time display the reaction tray temperature
- RS232 standard interface, support the intranet and remote printing



Bench-top available, compact size