AUTOMATED BIOCHEMISTRY ANALYZER

Model M250

FEATURES:

- Desktop, Discrete, random access, fully automated
- Constant 250 tests/ hour
- Rear spectrophotometry of holographic flat field grating system with 12 wavelengths
- Reusable cuvettes with auto-washing station
- Auto clot detection and crash protection (vertical & horizontal)
- Continuous refrigeration for reagent and sample trays
- Automatic sample diluent: 2-115 times
- Bi-directional LIS interface

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ISO 13485 Quality management system

TECHNICAL SPECIFICATIONS

Performance

Type of Equipment	Desktop fully automatic, discrete, STAT priority
Through-put	250 test/ hour
Test principle	colorimetry, turbidimetry
Analysis principle	End-point, kinetics, fixed time, ...etc
	Support single/ double wavelength and 1-2 multiple reagent item
	Linear and non-linear calibration

Sample/ Reagent Handling

Sample reagent position	Totally 67 positions for both sample and reagent
	Continuously cooling to keep 5~15°C within 24 hours
Sampling technology	liquid level detection, clot detection and collision detection
Sample volume	3~35µL, 0.1µL stepping
Reagent volume	R1: 10~350 µL; R2: 10~200 µL, 1µL stepping
Carrying rate	≤ 0.1%, automatic warm water cleaning
Automatic sample dilution	2~115 times

Reaction Handling

Reaction cuvette	120 positions, optical plastic cup
Total volume of reaction	150 µl~450µl
Reaction temperature	37°C, ±0.1°C
Reaction disk constant temperature	Circulating water
Mixing needle	1
Reaction cuvette cleaning	8 stops, 12 steps by warm water rinsing
Wastewater treatment	Two diffluence for high and low concentration waste water, with the function of concentrated waste liquid level alarming.

Optical system

Light source	20W/12V halogen lamps. Shelf-life: 2000 hours
Photometer	Cluster-condensing light, grating photometry
Wavelength	340, 380, 405, 450, 480, 505, 546, 570, 600, 660, 700, 750 or 800 nm
Detector	Photodiode LED array
OD linear range	0 – 3.3 Abs

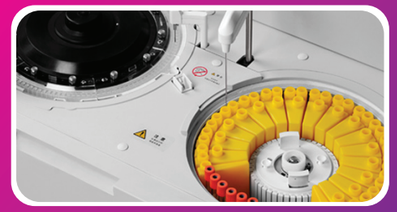
Calibration and QC

Calibration method	1 point linear, 2 point linear, muliple point linear, non linear method
Calibration tracking	Automatic description calibration K-value trends
QC method	Real-time QC, days QC and day QC
Out of control processing	Alarming for out of control sample, record lost control reason

Working conditions

Power supply	220V±22V, 50/60Hz, 650VA
Temperature	15-30°C
Humidity	35-85%
Water consumption	≤ 25l deionized water
Volume	998 x 752 x 517 mm
Weight	120 kg

DISTRIBUTOR:



Multi-functional reagent/ sample probe

• Automatic polish with nano processing technology, internal and external washing help reduce cross-contamination effectively
• Automatic liquid level detection with sensor, monitoring remained volume of reagent/ sample and alarm if inadequate reagent/ sample volume
• Intelligentized clot detection: Pipetting tube with pressure sensor detect the status of clot.
• Water degassing technology: equiped with special degassing device to remove the air disolved in the tube system, ensure quick, accurate and small volume pipeting
• Probe washing: high-pressure washing for inside, and stream washing for outside

Stirrer
• 1 stirrer stirring immediately after add reagent to mix the reaction solution well
• Stirrer surface is telfon coated to avoid liquid suspension and reduce cross-contamination
• "Flat paddle" design and swirl rinsing, the best cleaning effect.

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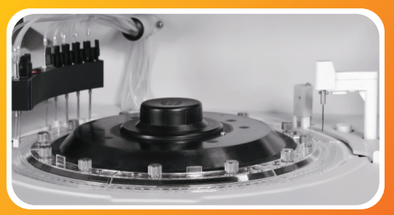
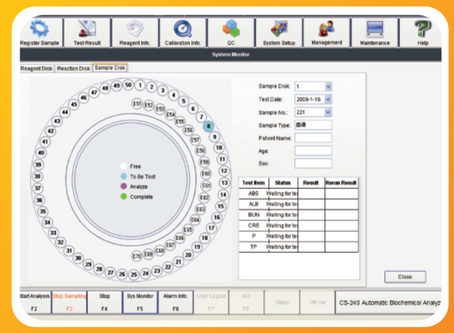
Multi-functional refrigerated sample & reagent tray

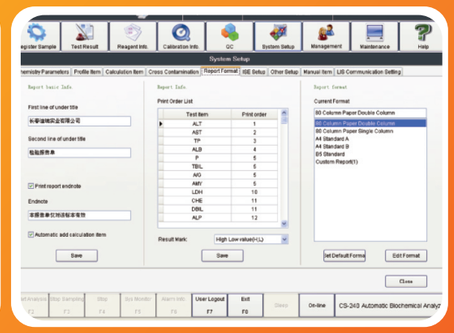
• 67 positions for both reagents and samples. User-defined proportion of reagent and sample positions
• 24 hour continuous cooling condition secures the quality of reagents, QC and calibration, maintained at 5-15°C
• Single/ Double reagent testing
• Support various tubes and cups



Reaction cuvette unit:

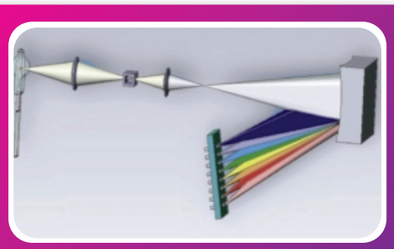
• 120 cuvette reactions
• Volume as low as 150µl
• Using recycling water constant temperature device, automatically changing water and adding defoamer
• Cuvette is emerged into warm water which heats the cup and reduces the ambient temperature influence
• PID thermostat technology ensures temperature at 37°C ± 0.1°C
• Automatic reaction cuvette rinsing with 8 stops 12 steps by warm water
• Vacuum draining liquid and warm water high pressure rinsing enhance cleaness





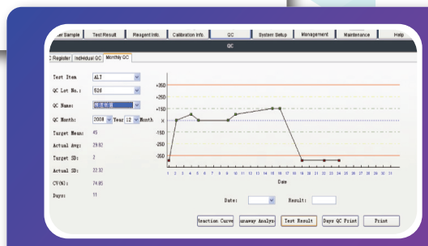
Multifunction User Interface

• Simple Interface and user friendly
• Real-time online help system
• Simple and easy software operating
• Multiple report formats, user-defined function
• Multiple self-monitoring functions
• Automatic execute super linear limit, super limit reference, substrate depletion, antigen surplus, no reaction equilibrium point auditing program
• Serum checking function, remove intereference from hemolysis, blood lipid, jaundice
• Against cross-contamination program, avoid interference from different reagent
• Automatic alarm during running process with explanations displayed
• User authority hierarchical management



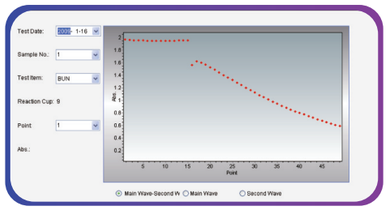
Photometry system

• Measuring technology: monochromator with holographic concave flat field grating, spectrophometric 12 ways parallel, reduce ambient light interference to get better accurate result.
• Point light source to reach super-microanalysis, total reaction volume is less than 150 µL, save more reagent.
• Light source: 20W/ 12V Halogen lamp, long-life
• 12 ways photodiode array detector, 12 ways high dynamic range logarithmic amplifier, the range can reach 6Abs without distortion, ensure high concentration sample testing without data overflow.
• Rigid plastic reaction cuvette with good penetrating of UV, resistance against acid and alkaline and long-life span



Calibration and QC functions

• Linear and non linear calibration, which can be set up with time, reagent lot No., etc..., with flexible calibration methods
• 9 types of calibration with 6 different levels' calibrator
• Tracing function, depicting calibration K value variation trends helps reduce system error



• Real time, today, days QC function
• QC rule: default as Westgard multi rules
• QC plot: automatic depict and print relative QC plot, L-J, Cumulative, Twin Plot
• Automatic storage of the reason for out of control and primary date.