





High-Volume Clinical Chemistry Analyzer

Maximum 900 photometric test per hour, 1200 test per hour with ISE





High-Volume Clinical Chemistry Analyzer

- Affordable
- Discrete, random access, batch and stat
- Up to 900 photometric tests per hour, 1200 tests with ISE
- Bar-coded sample tubes and reagents
- Bar-coded ready-to-use reagents (most assays)
- Accommodates one-part, two-part, and up to four part reagents
- Exemplary after-sale support
- Excellent for clinical laboratories located in large clinics, hospitals or reference laboratories of all sizes



Quiet | Easy | Fast | Economical

Representing the highest level of Chemistry Analyzer technology





High-Volume Clinical Chemistry Analyzer



Meet the CLC 1600

Carolina Liquid Chemistries' dedicated to clinical chemistry since 1994, is proud to introduce the CLC 1600. The CLC 1600 offers you peace of mind with its reliable, up to date software, micro-electronics, fluidics and robust hardware. The efficient design of the CLC 1600 increases productivity and provides better results. CLC's experienced technologists and engineers are empathetic to the needs of a laboratory during installation. Our engineers and technologists ensure your installation experience is positive by offering pre-site surveys, thorough customer training, installation, validation assistance, free hot-line support and dedicated field service engineers that will be on-site within 24 hours. CLC is the easiest company to work with when you purchase a new analyzer.

Advanced Photometry System

Holographic concave flat field grating, rear spectrophotometry

- The cluster-condensing light (point light source) technology for microvolume analysis uses less reagent
- Long life light source
- The light source design eliminates signal attenuation and interference
- Anti-ambient light interference control system insures precise results

Stable Temperature Control System

A. Cooling System

 Advanced postposition semi-conductor directs heat release ensuring stable temperature and easy maintenance

B. Constant Temperature System for Reaction Cuvette

PID thermostat technology maintains $37^{\circ}\text{C} \pm 0.1^{\circ}\text{C}$. Reaction cuvettes are evenly heated, reducing the influence of ambient temperature.

Accurate Sample/Reagent Pipetting Mechanism

Probe:

- Polished probes with nano processing technology effectively reduces cross-contamination
- Automatic liquid level detection: probes detect the liquid level and stops descent ensuring perfect submersion depth
- Collision detection function; self-resetting; sample and reagent pipetting resume automatically
- Intelligent clog and clot detection
- High pressure rinsing function for the inner wall, waterfall rinsing for the outer wall enhances pipetting volume accuracy

Syringe:

- Long-life high-precision ceramic piston reduces maintenance cost
- Water degassing technology removes dissolved air in the tube system to ensure quick, accurate and microvolume pipetting
- Senses automatically and alarms when the samples and reagent are insufficient
- Microsampling is beneficial to pediatric testing

High-Efficient Rinsing System

A. Automatic Cuvette Rinsing

• 8 stops, 12 steps warm water rinse ensures thorough cleaning

B. Probe Inner Wall Rinsing

- Vacuum liquid draining; high pressure detergent washing and warm water rinsing
- Carryover contamination rate \leq 0.1%















Calibration and QC Function

- Linear and non linear calibration; with manual and automatic calibration function
- 9 types of calibration curves
- Up to 6 calibration points
- Calibration tracking function; K value tracking chart helps reduce system error
- QC with Westgard multi-rules, Levy-Jenning chart, and cumulative summary
- Explanation for out-of-range QC may be recorded and re-run
- Calibrator status screen gives operator calibration overview

Operating Software

- Intuitive software, user friendly interface
- Real-time online technical support, reduces downtime
- Built-in trouble shooting guide
- Self-monitoring of system parameters, with system status screen
- Convenient and efficient data dictionary and information input
- Calibration and control data query, statistics, and reports
- Multiple report format with user customization
- Windows 7 Pro 32 Bit

Monitoring and Calibration Function

- Checks for linear limits, reference limits, substrate depletion, and excess antigen
- Analyzes serum indices (hemoglobin, lipema, and bilirubin) to avoid interference
- User-defined carryover settings
- Hierarchical user permission for security

Barcode Scanning

- Automatic sample barcode ensures positive sample identification
- Automatic reagent barcode enables accurate and fast reagent loading and tracking











ISE Module (Optional)

- Indirect simultaneous measurement of K. Na. CI
- Throughput of 450 tests /hour
- Long life electrodes

User-friendly Design

- 2 reagent compartments, 132 reagent positions
- Continuous refrigeration
- Flexible sample holder. Holds up to 140 sample cups or a variety of specimen tubes

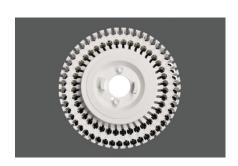
Advanced Analysis System

- Bar-coded reagents (most analytes)
- High quality reagents, controls, and calibrators
- Excellent precision
- Auto re-run of out-of-range results

CLC After-Sale Support

- Pre-installation site survey
- Training at state-of-the-art CLC Customer Training Center located in Wake Forest Biotech Place
- Delivery to fit your schedule
- Installation by CLC service engineer
- Validation assistance by a trained CLC technologist
- Validation data reduction binder
- Operator and training manuals provided
- Electronic peer group surveys
- Nationwide service by CLC trained service engineers
- Hotline assistance covers reagents and hardware
- CLC offers inventory management so you never run out of reagents















High-Volume Analyzer

Maximum 900 photometric test per hour, 1200 test per hour with ISE



System Type	Random Access, fully automatic, discrete, STAT priority
Throughput	Constant Speed 900T/H for colorimetric test, 450 T/H for ISE
Light Source	Long life halogen lamp
Wavelength	340 - 750nm, 12 wavelengths
Analysis Method	End-point, kinetics, fixed-time, turbidimetric
Calibration Method	1 point, 2 point, multiple point linear, and non-linear
Probe	Independent sample and reagent with automatic liquid level and clot detection
Rinsing Mechanism	High pressure
Mixing Mechanism	2 independent mixers ensure optimal reaction
Reaction Cuvette	160 reaction cuvettes
Temperature Control	Reaction disk incubation is $37^{\circ}\text{C} \pm 0.1^{\circ}\text{C}$
Sample Volume	1.5µl - 35µl, 0.1µl increment
Reagent Volume	15μl - 350μl, 1μl increment
Sample Wheel	 Refrigerated wheel (5 -15°C) protects sample, control, and calibrator integrity Total of 140 positions, for 90 samples, 47 cals/controls, and 3 utility Disks easy to load and unload with convenient handle Accommodates sample tubes with width (12 - 16mm) and height (25 - 100mm) LED indicator notifies operator when to load or unload sample tubes or disks
Reagent Wheel	 Total of 132 reagent positions, 66 R1 and 66 R2 Accommodates and reads 70mL and 20mL barcoded cartridges System accepts 1, 2, 3, and 4-part reagent parameters Refrigerated compartment maintains constant 5 -15°C temperature Once cartridge is empty, system automatically advances to next full cartridge
Dimensions	50 in × 35 in × 44 in (w × d × h)
Water Usage	35L/hour at peak
Electrical Requirement	220V
Operating Software	Windows 7 Pro 32 Bit

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^{*} Specifications subject to change without notice.

Questions on specifications should be directed to Carolina Liquid Chemistries Regulatory Affairs.