

**Higher Performance
With You In Mind.**

**The COULTER® LH 780
Hematology Systems**

General Chemistry
Immunodiagnostics
Centrifugation
Molecular Diagnostics
Hematology
Disease Management
Hemostasis
Information Systems
Lab Automation
Flow Cytometry
Primary Care





The LIS interface of the COULTER® LH 780 series receives STAT information in the Test Order, and communicates directly to the LH SlideMaker, saving time and preventing errors.

We've tapped the best minds in hematology to design the COULTER® LH 780 hematology systems.

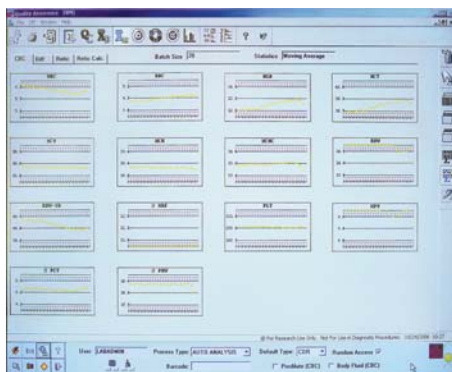
No one understands high-volume hematology analyzers better than our customers. So when we asked what you wanted most in your laboratories, we listened carefully. The result is the groundbreaking COULTER® LH 780 hematology systems, with one of the world's best-in-class combinations of performance, reliability, service and support.

The LH 780 hematology series continues the evolution of advanced technologies, delivering some of the highest sensitivity, specificity and efficiency in WBC differential analysis. To this, we've added a broad spectrum of workflow and functional enhancements in response to your requests.

Advanced Barcode Reading Our customers believe that worry-free barcode reading is essential for smooth, uninterrupted workflow and greater patient safety. Our answer: the innovative, optical-based laser scanning system of the LH 780 analyzers easily reads most barcode labels – even those with lower print quality. What's more, the system has no moving mechanical parts, to ensure the utmost in reliability.

RDW-SD Parameter Expands Your Insights For RBCs Standard deviation of the width of the red cell population (RDW-SD) is an indication of size dispersion within the red cell population. One potential application of the RDW-SD parameter is that it may assist in the differentiation of the cause of anemia. Studies have shown that an elevated RDW-SD may indicate iron deficiency, whereas a normal or decreased RDW-SD may indicate heterozygous thalassemia.





Obtain an exponentially weighted moving average (EWMA) of CBC, 5-Part Diff and NRBC, as well as reticulocyte parameters, with the XM QC package.

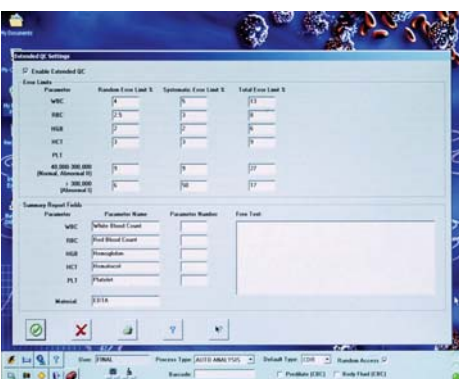
range for four pivotal LH 780 series parameters: WBC, RBC, HGB and PLT.

Intuitive User Interface The improved user interface of the LH 780 series is carefully designed to be easy to learn and intuitive to use, yet with more features than ever before. To facilitate

Extended Quality Control Packages

Consistency and accuracy are paramount concerns of our customers, so LH 780 analyzers empower them with precision tools for quality control.

The XM quality control package provides an exponentially weighted moving average (EWMA) of CBC, 5-Part Diff and NRBC, as well as reticulocyte parameters. Batch sizes are user-configurable for two to 1,000 runs, for up to 20 batches.



Extended QC Rules provide for the verification of random error or imprecision, systematic error or bias, and total error or inaccuracy.

systematic error or bias, and total error or inaccuracy. Plus, you can enhance your ability to manage QC data files with designated QC file filters.

Environmentally-Friendly Consumables

Consumables are an all-important consideration in any laboratory because they can help optimize both workflow and performance. The LH 780 analyzers offer two major advancements in this area. COULTER® LH Series Cleaner offers a new, improved formaldehyde-free formulation. COULTER® LIN-C® Linearity Control significantly extends the reportable

Extended QC Rules, an additional quality control package, incorporates medically-based performance standards and provides user-enabled rules for the verification of random error or imprecision,



Productivity is optimized by the easy-to-understand user interface, with its robust reporting and enhanced data handling capabilities.

information access and control, key screens have been redesigned and expanded, providing the most frequently used data and information on one screen.

COULTER® LH SlideMaker and LH SlideStainer

The LH 780 configured with LH SlideMaker and LH SlideStainer streamlines one of your lab's most time-consuming manual tasks with automated slide preparation. By eliminating complex tracks for specimen delivery, the LH SlideMaker and LH SlideStainer help decrease errors and increase accuracy with simple, no-prep loading. Operators simply insert sample cassettes into the workcell and return later to remove stained blood films with clear slide labeling, stain-resistant labels and optional bar coding.

COULTER® LH 780 Hematology Analyzer Specifications

Available Parameters

WBC	MO%	Hgb	Retic #	
NE#	EO#	HCT	Retic %	Plt
NE%	EO%	MCV	IRF (Immature Reticulocyte Fraction)	MPV (Mean Platelet Volume)
LY#	BA#	MCH	MRV (Mean Reticulocyte Volume)	
LY%	BA%	MCHC		
MO#	RBC	RDW		
RDW-SD				
NRBC%				
NRBC#				

LH 780 Throughput

Mode	Sample/Hour
CBC Only	110
CBC/Diff	110
Retic Only	45

Linearity/Operating Ranges

Parameters	Linearity Range	Operating Range
WBC	0.00 to 400.00 x 10 ³ cells/μL	0.00 to 900.00 x 10 ³ cells/μL
RBC	0.00 to 8.00 x 10 ⁶ cells/μL	0.00 to 20.00 x 10 ⁶ cells/μL
Hgb	0.0 to 25.0 g/dL	0.0 to 99.9 g/dL
Plt	0 to 3000 x 10 ³ cells/μL	0 to 5000 x 10 ³ cells/μL
NE#, LY#, MO#, EO#, BA#		0 to 900 x 10 ³ cells/μL
RET%		0.0 to 100.0%
RET #		0.0 to 999.9 x 10 ⁶ cells/μL

Precision

Parameters	Limit	Parameters	Limit
WBC at 9 to 11 x 10 ³ cells/μL	≤1.7% CV	NE% at 50 to 60%	2SD ≤3.0
RBC at 4.5 to 5.5 x 10 ⁶ cells/μL	≤0.8% CV	LY% at 25 to 35%	2SD ≤3.0
Hgb at 14 to 16 g/dL	≤0.8% CV	MO% at 5 to 10%	2SD ≤2.0
MCV at 80 to 90 fL	≤0.8% CV	EO% at 2 to 5%	2SD ≤1.0
RDW at 12 to 14%	≤2.2% CV	BA% at 0.5 to 1.5%	2SD ≤1.0
Plt at 280 to 320 x 10 ³ cells/μL	≤3.3% CV	RET% at 0.0 to 0.49%	SD ≤0.23 or CV% ≤16.5
Plt at 90 to 110 x 10 ³ cells/μL	≤6.6% CV	RET% at 0.5 to 1.49%	SD ≤0.23 or CV% ≤14.5
Plt at 10.0 to 15.0 x 10 ³ cells/μL	≤14.0% CV	RET% at 1.50 to 4.00%	SD ≤0.68 or CV% ≤11.0
MPV at 8 to 10 fL	≤2.2% CV	RET% at 4.01 to 15.00%	SD ≤0.68 or CV% ≤5.5
RDW-SD at 33 to 48 fL	≤2.5% CV		

NRBC Accuracy Characteristics

Parameter:	NRBC
Units:	% (NRBC/100 WBC)

Comparison to Predicate Analyzer

Population Minimum:	0.00
Population Maximum:	24.11
Mean Difference:	0.08

Comparison to Manual Method

Population Minimum:	0.00
Population Maximum:	61.50
Mean Difference:	-0.02

Dimensions and Weight

Analyzer/Diluter:	Power Supply:
Height: 35 inches (88.9 cm)	Height: 23.3 inches (59 cm)
Width: 40 inches (101.6 cm)	Width: 14 inches (35.5 cm)
Depth: 24 inches (61 cm)	Depth: 24 inches (60 cm)
Weight: 205 pounds (93.2 kg)	Weight: 125 pounds (56.7 kg)

COULTER® LH 780 with LH SlideMaker and LH SlideStainer

Dimensions and Weight

SlideMaker:	SlideStainer:
Height: 20.5 inches (52.1 cm)	Height: 19.75 inches (50.2 cm)
Width: 29.5 inches (74.9 cm)	Width: 23.75 inches (60.3 cm)
Depth: 27 inches (68.6 cm)	Depth: 30 inches (76.2 cm)
Weight: 90 pounds (40.9 kg)	Weight: 80 pounds (36.4 kg)

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