

Performance and value you can count on.

COULTER A^C•T 5diff AL (Autoloader) Hematology Analyzer

Blood Banking
Centrifugation
Chemistry
Flow Cytometry
Hematology
Hemostasis
Immunoassay
Information Systems
Lab Automation
Molecular Diagnostics
Rapid Diagnostics



COULTER AC•T 5diff AL (Autoloader)

Automated sample processing for walkaway efficiency

The AC•T 5diff AL significantly improves sample handling by eliminating manual sample loading – a feature that not only saves time, but also lowers operational costs and increases your lab's overall workflow efficiency. In addition, the software enables laboratories to upload QC assay values and download IQAP data automatically, which enhances Quality Assurance program management while requiring less manual manipulation of data.



Easy-to-use data management system includes on-board quality assurance, patient storage and work lists for pre-assigning patient demographics.

Easy-to-use data management

- Easy quality control file management
- Patient storage for streamlined data recall
- Interlaboratory Quality Assurance Program (IQAP) complements your lab's in-house quality control efforts and increases confidence in your results
- Downloadable IQAP data and uploadable control assay reduce manual data manipulation and save time
- Qualitative flagging speeds review of patient results and decreases turnaround time
- 20 user-definable patient and action ranges for increased flexibility
- Individual log books consolidate and automate record keeping



The AC•T 5diff AL simplifies daily tasks with informative results screens and an extensive quality control program.





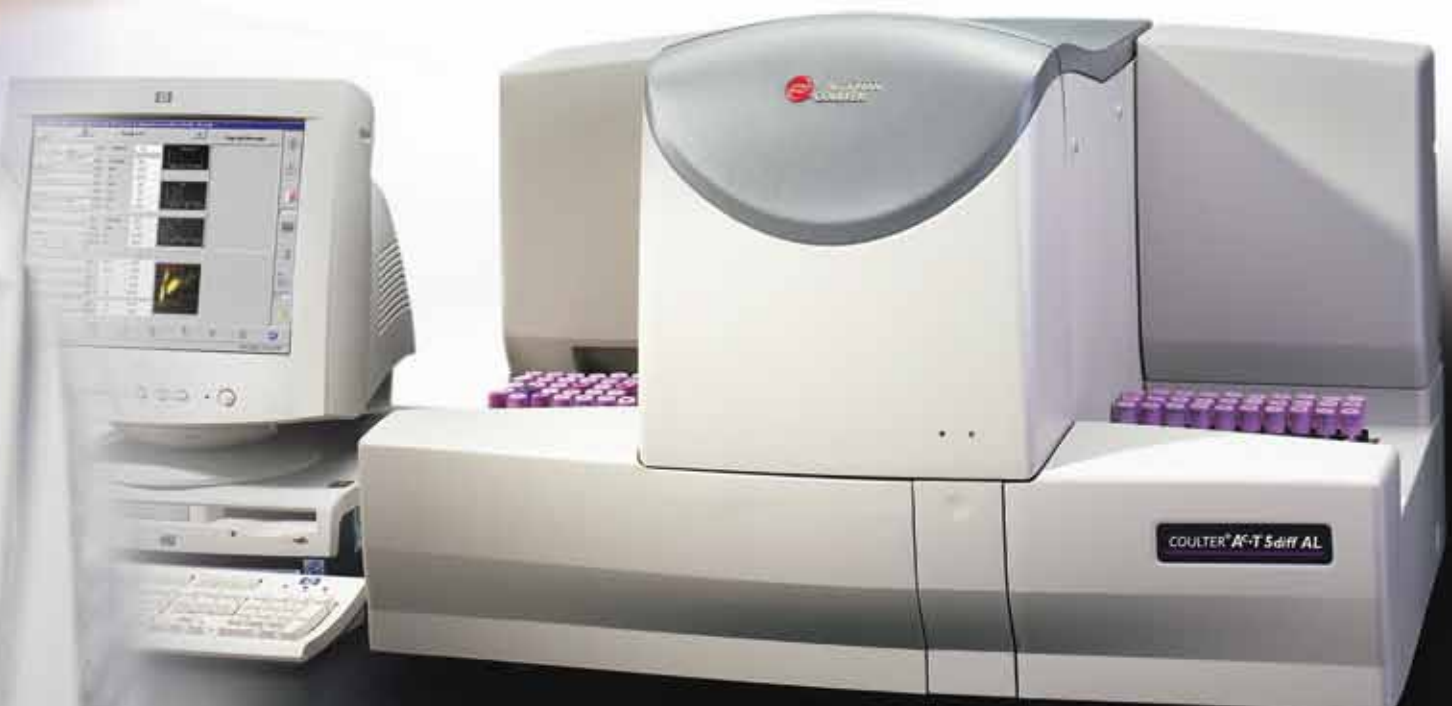
The AC-T 5diff AL has 100-sample loading capacity.

Easy to Operate

- Integrated autoloader processes 1 to 100 samples, loading up to ten racks (each holding ten 13 x 75 mm tubes) for higher testing capacity – 80 samples per hour
- Two additional tube holders accommodate tubes of varying sizes, such as pediatric tubes, for increased system flexibility during manual mode sampling
- Internal point-of-aspiration barcode reader provides positive sample identification
- STAT interrupt, enables operators to bypass the autoloader and load an emergency sample for prioritized testing
- System recognizes whole blood vs. platelet concentrate and automatically applies the appropriate linearity and reportable ranges
- Comprehensive on-board Help database uses key word searches to help solve problems quickly and easily
- CD-ROM Help software demonstrates system operation and troubleshooting, thus speeding training for new operators
- An external computer with Windows software enables easy operator management
- Intuitive icons make the system easy to operate and streamline testing workflow



Two additional tube holders accommodate tubes of varying sizes.



Specifications



Method and Technologies

Sequential dilution system
Dual focused flow fluid dynamics

CBC Analysis and HGB

Coulter Principle (impedance): counting and sizing
Duplicate counting
Coincidence correction
Pulse editing
Rinse flow system
Spectrophotometry for hemoglobin
Beckman Coulter AC-T 5diff reagent system

5-Part Differential Analysis

Absorbance Cytochemistry with Volume
AC-T 5diff Fix and WBC Lyse system

Available Parameters

WBC	RBC	PLT
NE#	HGB	MPV
NE%	HCT	PCT*
LY#	MCV	PDW*
LY%	MCH	
MO#	MCHC	
MO%	RDW	
EO#		
EO%		
BA#		
BA%		
ATL#*		
ATL%*		
IMM#*		
IMM%*		

Sample Handling

53 μ L whole blood, CBC/DIFF Mode
30 μ L whole blood, CBC Only Mode
Universal closed tube sampling system

Quality Control

AC-T 5diff Control Plus (tri-level/barcoded)
AC-T 5diff Cal (calibrator)

Precision

Parameter	CV	
WBC	<2%	at 10×10^3 cells/ μ L
RBC	<2%	at 5×10^6 cells/ μ L
HGB	<1%	at 15 g/dL
HCT	<2%	at 45%
PLT	<5%	at 300×10^3 cells/ μ L

Accuracy

Correlation $r > 0.95$ for WBC, RBC PLT, HGB, HCT

Positive ID

Internal barcode reader
Hand-held barcode reader
Codabar
Code 39
Code 128
Interleaved 2-of-5
EAN 8
EAN 13

AC-T 5diff AL Reportable Range

Parameter	Range	Units
WBC	0-150	$10^3/\mu$ L
RBC	0-18	$10^6/\mu$ L
PLT	0-1900	$10^3/\mu$ L
PLT Concentrate	0-2800	$10^3/\mu$ L
HCT	0-80	%
HGB	0-30	g/dL

Linearity

WBC	0.4-120.0 $\times 10^3/\mu$ L
RBC	0.3-8.0 $\times 10^6/\mu$ L
HGB	1.3-24.0 g/dL
HCT	2.0-67.0%
PLT	10-1000 $\times 10^3/\mu$ L
PLT Concentrate	100-1900 $\times 10^3/\mu$ L

Dimensions/Weight

Height	54.21 cm	(21.5 in)
Width	81.45 cm	(32.3 in)
Depth	57.73 cm	(22.5 in)
Weight	55 kg	(121.3 lb)

Reagent System

Reagent System	Part Number
AC-T 5diff Calibrator	7547175
AC-T 5diff Control Plus	7547198
AC-T 5diff Rinse	8547167
AC-T 5diff HGB Lyse	8547168
AC-T 5diff Diluent	8547169
AC-T 5diff WBC Lyse	8547170
AC-T 5diff Fix	8547171

Throughput

Up to 80 samples/hour for CBC or CBC/DIFF

Data Management

Auto-sequence run number available
20 flagging set (8 are predefined, 12 can be added)
20 result action ranges with interpretive messages
Customizable report format
5 reporting unit format options
RS232C host transmission
10,000 patient result storage
On board quality control (24 control files)
Worklist capability for addition of patient demographics
On board help files
Control data upload
Calibration data upload
IQAP download

Sample Stability

CBC 48 hr room temperature
DIFF 24 hr room temperature

Operating Temperature

16 to 34°C (61 to 93°F)



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