

**mindray**

# BC-5140

Fully automated 5 part Hematology Analyzer



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The Big 4

### 1. Parameters

25 reportable parameters: WBC, Lym%, Mon%, Neu%, Bas%, Eos%, Lym#, Mon#, Neu#, Eos#, Bas#, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT, MPV, PDW, PCT, P-LCR, P-LCC.

10 Research parameters include LIC%, LIC#, ALY%, ALY#, PLT Clump#, PLT Clump%, Lip#, Lip%, NRBC#, NRBC%, Blast#, Blast%, PDW-SD,NL ,PLR,Neu-X,Neu-Y,Neu-Z,Lym-X,Lym -Y, Lym-Z,Mon-X, Mon-Y,Mon-Z

3 histograms for WBC, RBC and PLT

1 scattergram for WBC differential

## 2. Works with 3 reagents

Only three routine reagents are required. These have 2 years shelf life and also less consumed by BC-5140.



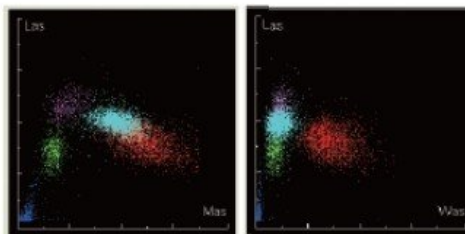
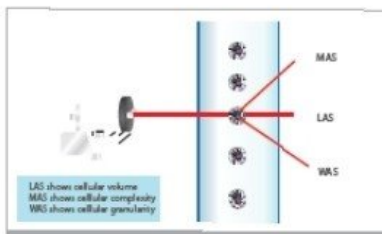
## 3. Improved technology

Compared with traditional helium neon laser or argon laser, semi-conductor laser has smaller size, lower cost and longer life cycle.



Improved DC impedance technology is used to count and size the RBC and PLT. The smaller counting aperture (50  $\mu\text{m}$  in diameter) provides better performance on samples with low PLT.

## 4. Large storage capacity up to 150,000 samples



### Principle:

Impedance method for RBC and PLT counting  
Cyanide free reagent for hemoglobin test  
Flow Cytometry (FCM) + Tri-angle laser scatter + Chemical dye method for WBC 5-part differential analysis and WBC counting thus creating the possibility for a better 5-part WBC differentiation even on samples with high Eosinophil. Dedicated optical counting channel for Basophil measurement



## Other features:

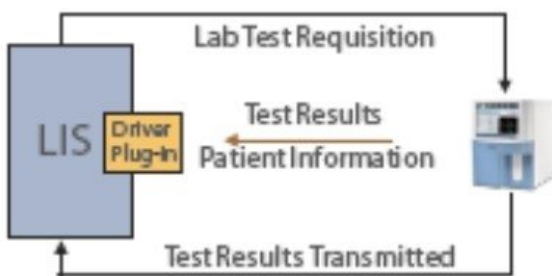
1. **Compact:** Two kinds of lyse reagents are located inside of BC-5140, which helps the small labs to save space and keep the workspace clutter free.



## 2. Great utility:

The 10.4 inch TFT touch screen with a wide viewing angle, brings convenience to clinicians. Users can complete all instrument operations on the screen, practically eliminating the need for an external PC.

4 USB ports are located on the instrument's left side. They permit BC-5140 users to transmit data conveniently and connect with printers, keyboard, mouse, barcode scanner, etc.



BC-5140 supports bi-directional LIS with test results and patient information. HL7 protocol is supported as well.

## 3. Three Sample modes:

Whole blood: 15 $\mu$ l, Capillary blood: 15 $\mu$ l

Pre-diluted: 20 $\mu$ l

Running capillary blood through the sample probe directly is more convenient for the users in children's hospitals, etc. For Prediluted mode, BC-5140 has higher dilution ratio than other 5-part hematology analyzers, thus it brings a better mixing effect.



4. Throughput : 60 samples per hour

5. Excellent Performance:

<b>Linearity</b>	WBC	$(0\sim 300.0)\times 10^9/L$
	RBC	$(0\sim 8.00)\times 10^{12}/L$
	HGB	$(0\sim 280)g/L$
	PLT	$(0\sim 4000)\times 10^9/L$
<b>Carryover</b>	HCT	$(0\sim 67)\%$
	WBC	$\leq 0.5\%$
	RBC	$\leq 0.5\%$
	HGB	$\leq 0.5\%$
<b>Reproducibility</b>	PLT	$\leq 1.0\%$
	WBC	$(7.0\sim 15.0)\times 10^9/L \leq 2.0\%$ $(4.0\sim 6.9)\times 10^9/L \leq 3.5\%$
	RBC	$\leq 1.5\%$
	HGB	$\leq 1.5\%$
<b>Other Technical Specifications</b>	PLT	$(150\sim 500)\times 10^9/L \leq 4.0\%$ $(100\sim 149)\times 10^9/L \leq 5.0\%$
	MCV	$\leq 0.5\%$

#### Printout

External Thermal printer/Laser printer / Inkjet printer,  
various printout

formats and User-defined formats

#### Operating Environment

Temperature:  $10^{\circ}C\sim 30^{\circ}C$

Humidity: 20%~85%

Air pressure: 70kPa~106kPa

#### Power requirement

100V-240V

50Hz/60Hz

#### Dimension and Weight

Depth\*width\*height: 400mm\*320mm\*410mm

Weight: 24kg