

# Medical Analyzers



mrc

## HA-17600, 2 Counting Channels Hematology Analyzer With Touch Screen



HA-17600

### Features:

- 20 parameters+3 histograms.
- 2 counting channels, 3-part differentiation of WBC.
- 2 Counting mode: whole blood and pre diluted.
- 60 samples per hour • Up to 50000 sample results (including histograms) can be stored • 10.4" TFT color LCD with touch screen • Built-in thermal printer, optional external printer • External AC adapter avoids electronic noises, enhancing accuracy • Multi-language software available on request.

Model	HA-17600
Parameters	WBC, LYM#, MID#, GRA#, LYM%, MID%, GRA%, RBC, HGB, MCHC, MCH, MCV, RDW-CV, RDW-SD, HCT, PLT, MPV, PDW, PCT, P-LCR and Histograms for WBC, RBC and PLT
Principles	Electrical resistance for counting WBC, RBC and PLT
Performance	Parameter Precision (CV %): WBC (109/L) 2.0(7.0-15.0) RBC (1012/L) 1.5(3.50-6.00), HGB (g/L) 1.5(110 - 180) MCV (fL) 0.4(80.0 - 110.0), PLT (109/L) 4(100 - 500)
Sample Volume	Prediluted: 20μL, Whole Blood: 9.8μL
Aperture Diameter	WBC 80μm; RBC 50μm
Throughput	60 samples per hour
Display	10.4" TFT Color LCD with touch screen, Resolution: 800×600
Alarms	Error messages
Carryover	WBC/RBC/HGB<0.5%, PLT<1.0%
Input/Output	RS-232, USB, LAN, keyboard and mouse interface
Printout	Thermal printer, 55mm width paper, various printout formats, external printer optional
Operating Environment	Temperature: 15°C~35°C; Humidity: 10%~90%
Power Requirement	AC 110-220V, 50/60Hz
Dimension(mm)	L436×W363×H367
Weight	18Kg

## SACA-11904C, High Quality Chemistry Analyzer With 7 Filters, Color LCD



SACA-11904C

### Features:

- Easy Windows operation system with mouse, large color LCD display.
- Reagent open system supports flow cell and cuvette mode, close system on request
- Analytical modes include kinetic, fixed time, bichromatic end point with/without reagent blank or sample blank, linear or

Model	SACA-11904C
Principle	Absorbance
Photometric range	-0.500~3.000Abs
Resolution	0.001Abs (displayed), 0.0001Abs (calculated)
Light Source	Halogen lamp
Wavelengths	340, 405, 500, 546, 578, 620, 670nm, 1 more filter optional
Wavelength Accuracy	±1nm
Band Width	8nm
Aspirate Volume	100~300μL
Carryover	<0.1%
Memory	160 test protocols, minimum 500 test result
Interface	RS-232, USB, SD card interface
Flow Cell	25μL Metal-quartz flow cell
Cuvette Mode	12.5mm x 12.5mm cuvette optional
Temperature Control	25°C, 30°C, 37°C, ±0.1°C
Display	7" color LCD
Input	USB mouse and external keyboard
Output	Build-in printer or external printer (optional)
Net Weight	8KG
Dimensions(mm)	L460×W330×H140
Power supply	AC 110-220V±10%, 50~60Hz

non-linear calibration curves • Real-time curve monitoring enhances the reliability of result • Large memory, up to 160 test protocols can be programmed • Powerful QC function: Westguard Multi-rule, Levey-Jennings plot, 2 controls per test • Auto self-check when power on • With lamp sleeping and wake-up function • Easy software upgrade by SD card, support USB mouse and keyboard • Multifunction result output including patient comprehensive report • Compact design enables USER-DIY maintenance • Multi-language software available on request.

**SACA-11904CV, Semi-Auto Chemistry, High Quality Analyzer Special For Veterinary Use****Features:**

- Easy Windows operation system with mouse, large color LCD display.
- Support up to 12 kinds of animal: 8 kinds fixed, 4 kinds open.
- 34 most common tests fixed, 20 more can be defined by user.
- Reagent open system supports flow cell and cuvette mode, close system on request.
- Analytical modes include kinetic, fixed time, bichromatic end point with or without reagent blank or sample blank, linear or non-linear calibration curves • Real-time curve monitoring enhances the reliability of result • Powerful QC function: Westgard Multi-rule, Levey-Jennings plot, 2 controls per test • Auto self-check when power on • With lamp sleeping and wake-up function • Easy software upgrade by SD card, support USB mouse and keyboard • Compact design enables USER-DIY maintenance • Multi-language software available on request
- Analytical modes include kinetic, fixed time, bichromatic end point with or without reagent blank or sample blank, linear or non-linear calibration curves • Real-time curve monitoring enhances the reliability of result • Powerful QC function: Westgard Multi-rule, Levey-Jennings plot, 2 controls per test • Auto self-check when power on • With lamp sleeping and wake-up function • Easy software upgrade by SD card, support USB mouse and keyboard • Compact design enables USER-DIY maintenance • Multi-language software available on request.

Model	SACA-11904CV
<b>Principle</b>	Absorbance
<b>Photometric range</b>	-0.500~3.000Abs
<b>Resolution</b>	0.001Abs (displayed), 0.0001Abs (calculated)
<b>Light Source</b>	Halogen lamp
<b>Wavelengths</b>	340, 405, 500, 546, 578, 620, 670nm, 1 more filter optional
<b>Wavelength Accuracy</b>	±1nm
<b>Band Width</b>	8nm
<b>Aspirate Volume</b>	100~300μL
<b>Carryover</b>	<0.1%
<b>Memory</b>	54 test parameters, up to 500 sample results
<b>Interface</b>	RS-232, USB, SD card interface
<b>Flow Cell</b>	25μL Metal-quartz flow cell
<b>Cuvette Mode</b>	12.5mm x 12.5mm cuvette optional
<b>Temperature Control</b>	25°C, 30°C, 37°C, ±0.1°C and ambient temperature
<b>Display</b>	7" color LCD(640 x 240, 256 colors)
<b>Input</b>	USB mouse and external keyboard
<b>Output</b>	Build-in printer or external printer (optional)
<b>Net Weight</b>	8KG
<b>Dimensions(mm)</b>	L460×W330×H140
<b>Power supply</b>	AC 110-220V±10%, 50-60Hz

**SACA-19200, Semi-auto Chemistry Analyzer****Features:**

- Easy keypad operation with LCD display.
- Wavelengths from 330-800nm, 5 standard filters, 3 more filters optional.
- Reagent-open system supports flowcell and cuvette mode. close system on request.
- Analytical modes include kinetic, two point, bichromatic end point with or without reagent blank or sample blank. linear or non-linear calibration curves.
- Memory for 60 programs and 2200 test results.
- Excellent QC function, 2 controls per test.
- Internal thermal-sensitive printer.
- Compact design enables USER-DIY maintenance.
- Standard English or other languages software available on request.

Model	SACA-19200
<b>Absorbance Range</b>	-0.500 - 3.000Abs
<b>Resolution</b>	0.001Abs (displayed), 0.0001Abs (calculated)
<b>Light Source</b>	Halogen lamp
<b>Wavelengths</b>	340, 405, 500, 546, 620nm, 3 more filters optional
<b>Wavelength Accuracy</b>	± 1nm
<b>Band Width</b>	< 8nm
<b>Cross Contamination Rate</b>	< 1%
<b>Interface</b>	RS-232 serial cable
<b>Flow Cell</b>	Metal - Quartz flow cell
<b>Temperature Control</b>	25°C, 30°C, 37°C. ±0.1°C & ambient temperature
<b>Display</b>	LCD display
<b>Output</b>	Internal printer or external printer (optional)
<b>Power Supply</b>	AC 100V - 240V ± 10%, 50-60Hz
<b>Net Weight</b>	-
<b>Dimensions LxWxH (mm)</b>	360 x 318 x 160

## SACA-19600, Semi-Auto Chemistry, Grating Inside, Touch Screen And USB



**SACA-19600**

### Features:

- Easy Windows operation system with large touch-screen.
- Displays the reaction curve in real-time.
- Continuously adjustable grating, enhances the stability and reliability of result
- Reagent-open system supports flow cell and cuvette mode, close system on request
- Analytical modes include kinetic, fixed time, bichromatic end point with or without reagent blank or sample blank, linear or non-linear calibration
- Powerful QC program: Westguard multi-rule, Levey-Jennings plots, 2 controls per test
- Large memory, up to 200 test protocols and 10000 results can be stored, compatible with SD card
- Multiform result output including patient comprehensive report
- Multi-interface support RS-232, VGA, USB, SD and Ethernet
- Easy communication with PC
- Powerful internet connection enables remote data sharing and OS update
- Compact design enables USER-DIY maintenance
- Multi-language software available on request.

Model	SACA-19600
Principle	Absorbance
Absorbance Range	-0.500 ~ 3.500Abs
Resolution	0.001 Abs (displayed), 0.0001Abs (calculated)
Light Source	Halogen lamp
Wavelengths	Continuously adjusted grating, wavelength range is 330 - 800nm, 1nm by step adjustment
Wavelength Accuracy	± 1nm
Band Width	< 6nm
Flow cell	Metal - quartz flow cell
Temperature Control	25°C,30°C,37°C,±0.1°C and ambient temperature
Carryover	< 1%
Memory	200 test protocols, up to 10000 test results, support SD to expand memory
Display	6.4" color/mono LCD
Interface	RS-232, support VGA,2 USB, SD, Ethernet
Output	Built-in printer, or external printer (optional)
Input	Touch screen, USB mouse and keyboard optional
Power Supply	AC 100V - 240V ± 10%,50-60Hz
Net Weight	11KG
Dimensions (mm)	L370xW284xH318

## SACA-19900, Semi-Auto Chemistry, Grating Inside, Easy Keypad Operation With LCD Display



**SACA-19900**

### Features:

- Easy keypad operation with LCD display
- Continuously adjustable grating, enhances the stability and reliability of result.
- Reagent open system supports flow cell and cuvette mode, close system on request
- Analytical modes include kinetic, fixed time, bichromatic end point with or without reagent blank or sample blank, linear or non-linear calibration curves
- Powerful QC program: Westguard multi-rule, Levey-Jennings plots,2 controls per test
- Large memory, up to 204 protocols and 5400 results can be stored
- Additional recloser design with lamp saving
- Powerful internet connection enables remote data sharing & OS update
- Compact design enables USER-DIY maintenance
- Multi-language software available on request.

Model	SACA-19900
Principle	Absorbance
Absorbance Range	-0.500 ~ 3.500Abs
Resolution	0.001 Abs (displayed), 0.0001Abs (calculated)
Light Source	Halogen lamp
Wavelengths	Continuously adjusted grating, wavelength range is 330 - 800nm, 1nm by step adjustment
Wavelength Accuracy	± 1nm
Band Width	< 6nm
Flow cell	Metal - quartz flow cell
Temperature Control	25°C,30°C,37°C,±0.1°C and ambient temperature
Aspirate Volume	0~3000µl
Carryover	< 1%
Memory	Up to 204 protocols and 5400 results can be stored
Display	LCD display
Interface	RS-232
Output	Built-in printer, or external printer (optional)
Power Supply	AC 110V - 220V ± 10%, 50-60Hz
Net Weight	8KG
Dimensions (mm)	L360xW318xH185



**FACA-1120, Auto Chemistry Analyzer****Features:**

- Automatic, random Access
- Up to 100 tests per hour
- Labor saving. Simple programming and real walk-away operation
- Reagent open system, close system on request
- Micro-volume for sample and reagent
- User-friendly software, simplicity and flexibility for operation
- Multi-language software available.

**Technical Specifications: System Function**

Model	FACA-1120
Automatic, Random Access	Yes
STAT sample priority	available for all sample position
Throughput	Constant throughput 60 tests/hour (double reagent); 90 tests/hour (single reagent)*
Contents of the testing	Clinical chemistry, Immunoturbidimetric
Analytical modes	End-point, Two-point, Kinetic,

\* Insert PC system with touch screen

**System Tray**

Sample position	9 positions for samples
Sample volume	3 ~ 45 $\mu$ L, 0.5 $\mu$ L adjustable
Flexible sample position design	MAX: 42 sample positions

**Reagent Tray**

Reagent position	26 positions for reagent
Reagent volume	R1: 180 ~ 450 $\mu$ L, 1 $\mu$ L adjustable R2: 3 ~ 450 $\mu$ L, 1 $\mu$ L adjustable

**Reaction System**

Reaction positions	90 cuvettes, 10 cuvettes/strip
Cuvette	Optical length 5mm
Reaction volume	180 ~ 500 $\mu$ L
Reaction temp.	37°C, fluctuation $\pm$ 0.3°C

1 mixing probe

**Probe**

Pre-heating for reagent	Yes
Collision protection, Liquid level detection and Inventory checking	Yes

Automatic inner and outer probe washing after every cycle, carry-over<0.1%

**Measuring and Optic System**

Lamp	Halogen Lamp
Absorbance range	0 ~ 3.500 ABS
Wavelengths	8 wavelengths from 320 ~ 850 nm
Resolution	0.0001 ABS

**Working Condition**

Power supply	100 ~ 240 VAC 50/60 Hz, 1500w
Temperature	10 ~ 35°C
Humidity	35 ~ 80%
Water consumption	<3 L/hour
Dimension	L630xW480xH510mm
Net Weight	70 KG

**FACA-1240, Fully Automated Chemistry, Discrete, Constant Throughput 120 Test/Hours, Random Access**

**Features:**

- Random Access automated chemistry analyzer, compact size
- Constant throughput of 120 tests/hour
- Automatic 8 steps washing system, Low carryover
- Labor saving. Simple programming and walk-away operation
- 24 hours non-stop Reagent cooling compartment
- Reagent open system, close system on request
- Micro-volume for sample and reagent
- User-friendly software based on Windows XP, simplicity and flexibility of operation
- LIS interface support (optional)
- Multi-language software (optional).

**Technical Specifications: System Function**

Model	FACA-1240
Automatic, Random Access	Yes
STAT sample priority	Yes
Barcode-Reading support	Optional
Throughput	200 tests/hour, Constant throughput around 120 tests/hour
Contents of the testing	Clinical chemistry, Immunturbidimetric
Analytical modes	End-point, Two-point, Kinetic, Single/Dual/reagent chemistries, Monochromatic/bichromatic, Linear/non-linear multipoint calibration
Programming	Open system with user defined programs & calculation

**Sample/Reagent Handling**

Sample/Reagent tray	40 positions for samples and 40 positions for reagents in refrigerated compartment
Refrigerated temp.	4 ~ 15°C
Reagent volume	R1: 180 ~ 450 µL, 1 µL adjustable R2: 30 ~ 250 µL, 1 µL adjustable
Sample volume	3 ~ 45 µL, 0.5 µL adjustable
Sample & Reagent probe	Collision protection, Liquid level detection & Inventory checking
Probe cleaning	Automatic washing both inside & outside, carry over <0.1%

Pre-heating for reagent

**Reaction System**

Reaction positions	81 cuvettes, 9 cuvettes/strip
Cuvette	Optical length 5mm
Reaction volume	180 ~ 500µl
Reaction temp.	37°C, fluctuation ±0.1°C

Independent mixing probe, Automatic washing system

**Measuring and Optic System**

Lamp	Halogen lamp
Absorption range	0 ~ 3.500Abs±1%
Wavelengths	8 wavelengths, including 340nm,405nm,450nm,510nm, 546nm,578nm,630nm,670nm
Resolution	0.0001ABS

**Working Condition**

Power supply	AC 220V 50/60 Hz
Temperature	20 ~ 30°C
Humidity	35 ~ 80%
Water consumption	2.5 ~ 10 L/hour
Dimension (cm)	L800xW600xH650
Gross weight	Bench top: 100KG



**FACA-1420**

## FACA-1420, Fully Automated Chemistry, Discrete, Random Access

### Features:

- Up to 560 tests per hour with ISE ( K,Na,Cl)
- Reversed grating system with 12 wavelengths
- Automatic 10 steps wash system, low carry over
- ISE( K, Na, Cl) module (optional)
- Built-in bar code scanner (optional)
- 24 hours non-stop reagent cooling compartment
- Two independent mixing stirrers, two reagent probe, one sample probe
- Pre-dilution and post-dilution for sample.

### Technical Specifications: System Function

Model	FACA-1420
Automatic, Random Access	Yes
STAT sample priority	available for all sample position
Barcode-Reading	support for sample and reagent, LIS support
Throughput	Constant throughput of 360 tests/hour(single and double reagent), 500 tests/hour with ISE (K,Na,Cl,Li)
Contents of the testing	Clinical chemistry, Immunoturbidimetric
Analytical modes	End-point, Two-point, Kinetic, Discrepant Value Single/Dual/reagent chemistries Monochromatic/bichromatic Linear/non-linear multipoint calibration
Programming	Open system with user defined profiles and calculation chemistries

### Sample/Reagent Handling: 2 reagent probes,1 sample probe

Sample/Reagent tray	100 positions for samples and 80 positions for reagents in refrigerated compartment
Refrigerated temperature	2 ~ 10°C
Reagent volume	20 ~ 350 µL, 0.1 µL adjustable (Support 3 and 4 reagent <b>R1:</b> 150 ~ 350 µL, 0.1 µL adjustable <b>R2:</b> 20 ~ 250 µL, 0.1 µL adjustable
Sample volume	2 ~ 45 µL, 0.1 µL adjustable
Sample and Reagent probe	Collision protection,Liquid level detection and inventory checking
Probe cleaning	Automatic washing both inside and outside, carry over <0.1%
Pre-heating for reagent	Yes
Auto dilution	3-150 times

### Reaction System

Reaction positions	100 cuvettes
Cuvette	Optical length 5mm
Reaction volume	150 ~ 500µl
Reaction temp.	37°C, fluctuation ±0.1°C

2 mixing probes, Automatic washing system

### Measuring and Optic System

Lamp	Halogen Lamp
Absorbion range	0 ~ 3.500 ABS ±1%
Wavelengths	Grating system Including 340nm,405nm,450nm,505nm,540nm,570nm,600nm, 635nm,670nm,700nm,760nm,795nm
Resolution	0.0001 ABS

### Working Condition

Power supply	100 ~ 240 VAC 50/60 Hz,1500w
Temperature	10 ~ 35°C
Humidity	40 ~ 80%
Water consumption	16 L/hour
Dimention	L1150xW726.5xH1150cm

## CA-01C, 1-Channel Coagulometer With Internal Printer



### Features:

- 1 channel (LED detector).
- Easy keypad operation with LCD display.
- Internal thermal-sensitive printer; Electronically-linked Pipette optional.
- Reagent position with magnetic rotor.
- Scattered light and percentage analysis ensure good results
- Open reagent system with low consumption, close reagent on request.
- Large memory to store up to 6000 test results.
- QC & calibration program incorporated.
- Auto self-check when power on.

Model	CA-01C
<b>Analysis Parameters</b>	PT, APTT, TT, FIB, F2, F5, F7, F8, F9, F10, F11, F12, Heparin, APC-R, Protein S, Protein C
<b>Principle</b>	Scattered light with percentage analysis
<b>Sample Volume Required</b>	PT: 25ul, APTT: 25ul, TT: 25ul, FIB: 25ul
<b>Testing Channel</b>	1 Channels
<b>Light Source</b>	Durable LED detector
<b>Sample Position</b>	5 positions
<b>Reagent Position</b>	2 positions (1 magnetic mixer included)
<b>Testing Time</b>	Normally 20~60 secs, Maximum time up to 600 secs
<b>Minimum Reagent Consumption</b>	30μL for APTT, 50μL for FIB, PT, APTT
<b>Position Warming-up</b>	37°C(±0.5°C)
<b>Memory</b>	6,000 test results
<b>Display</b>	LCD display
<b>Interface</b>	RS-232
<b>Input</b>	Easy operation keypad
<b>Output</b>	Internal printer
<b>Power supply</b>	AC 110-220V±10%, 50~60Hz
<b>Net Weight</b>	5KG
<b>Dimension (mm)</b>	L270xW270xH120

## CA-02C, 2-Channel Coagulometer With Internal Printer



### Features:

- 2 channel (2 durable LED detectors for 2 different parameters analysis)
- Easy keypad operation with LCD display
- Internal thermal-sensitive printer; Electronically-linked Pipette optional
- Reagent position with magnetic rotor.
- Scattered light and percentage analysis ensure good results.
- Open reagent system with low consumption, close reagent on request
- Large memory to store up to 6000 test results
- QC and calibration program incorporated
- Auto self-check when power on
- Multi-language software available on request.

Model	CA-02C
<b>Analysis Parameters</b>	PT, APTT, TT, FIB, F2, F5, F7, F8, F9, F10, F11, F12, Heparin, APC-R, Protein S, Protein C
<b>Principle</b>	Scattered light with percentage analysis
<b>Sample Volume Required</b>	PT: 25μl, APTT: 25μl, TT: 25μl, FIB: 25μl
<b>Testing Channel</b>	2 Channels
<b>Light Source</b>	Durable LED detector
<b>Sample Position</b>	5 positions
<b>Reagent Position</b>	2 positions (1 magnetic mixer included)
<b>Testing Time</b>	Normally 20~60 secs, Maximum time up to 600 secs
<b>Minimum Reagent Consumption</b>	30μL for APTT, 50μL for FIB, PT, APTT
<b>Position Warming-up</b>	37°C(±0.5°C)
<b>Memory</b>	6,000 test results
<b>Display</b>	LCD display
<b>Interface</b>	RS-232
<b>Input</b>	Easy operation keypad
<b>Output</b>	Internal printer
<b>Power supply</b>	AC 110-220V±10%, 50~60Hz
<b>Net Weight</b>	5KG
<b>Dimension (mm)</b>	L270xW270xH120



## CA-04C, 4-Channel Coagulometer With Touch Screen



CA-04C

### Features:

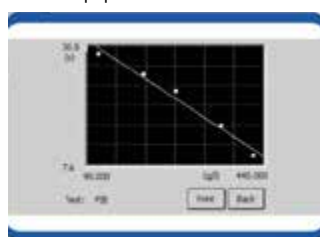
- 4 channels (4 durable LED detectors for 4 different parameters analysis).
- Easy Windows operation system with touch screen or mouse, large LCD display.
- Advanced scattered light principle and percentage analysis ensure accurate results.
- Low reagent consumption.
- Large memory, up to 10,000 results can be stored
- QC and calibration program incorporated
- Multiform result output including

patient comprehensive report • Easy software upgrade by SD card, support USB mouse & keyboard • Auto self-check when power on • Electronically-linked pipette.

Model	CA-04C
<b>Analysis Parameters</b>	PT, APTT, TT, FIB, F2, F5, F7, F8, F9, F10, F11, F12, Heparin, APC-R, Protein S, Protein C
<b>Principle</b>	Scattered light with percentage analysis
<b>Sample Volume Required</b>	PT: 25uL, APTT: 25uL, TT: 25uL, FIB: 25uL
<b>Testing Channel</b>	4 Channels
<b>Light Source</b>	Durable LED detector
<b>Sample Position</b>	24 positions
<b>Reagent Position</b>	6 positions (1 magnetic mixer included)
<b>Testing Time</b>	Normally 20~60 secs, Maximum time up to 600 secs
<b>Minimum Reagent Consumption</b>	25uL for TT, FIB, PT, APTT
<b>Position Warming-up</b>	37°C(±0.5°C)
<b>Memory</b>	10,000 test results
<b>Display</b>	6" LCD display
<b>Interface</b>	RS-232, USB, SD card interface
<b>Input</b>	Touch panel or USB mouse
<b>Output</b>	External printer (optional)
<b>Power supply</b>	AC 110-220V±10%, 50-60Hz
<b>Net Weight</b>	8KG
<b>Dimension (mm)</b>	L410×W310×H160



Main Menu

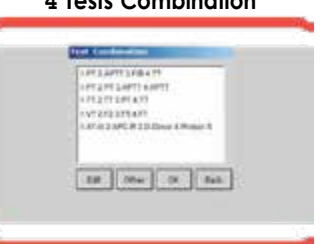


Standard Curve

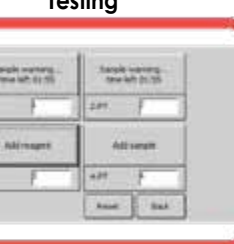
Report				
Name: John	Sex: Male	Age: 24	Dept: xxx	
Date: 15/03/2003	Sample: 02	Diagnose: xxx	Sender: xxx	
Bed No: 007				
Program	Full name	Result	Reference range	
PT	11.3s-1.12-1.06(INR)	224.6mg/dl	(9.8-12.7)	
APTT	28.6s-1.09		(23.4-30.6)	
TT	11.5s-1.02		(8.0-13.0)	
FIB	219.6mg/dl		(200-400)	
Print Date: 05/13/2004		Operator:	Checker:	



Programming



4 Tests Combination



Testing



Patient Data Setting

## UA-15, Compact Size for Urine Test



UA-15

Model	UA-15
<b>Test Items</b>	Ascorbic Acid, Bilirubin, Blood, Glucose, Ketone, Leucocytes, Nitrite, PH, Protein, Specific Gravity, Urobilinogen
<b>Throughput</b>	Normal mode, 60 samples/hour; Continuous mode, 120 samples/hour
<b>Display</b>	5" Large LCD
<b>Memory</b>	1000 sample results
<b>Output</b>	Built-in thermal printer
<b>Interface</b>	RS-232
<b>Power supply</b>	AC 110-220V±10%, 50-60Hz
<b>Net weight</b>	2KG
<b>Dimensions(mm)</b>	L185×W260×H157

- Compact size, low weight • 11 test items; Cold light source, high luminosity with long life time • 5" large LCD display • Auto save data in case of power failure • Up to 1000 results can be stored • Built in thermal printer • Easy connection with PC by RS-232 • Easy accessible design enables USER-DIY maintenance.



## Status Menu



## FACO-050, Auto Coagulation Analyzer

### Features:

- Random Access, smart and compact
- Clotting, Chromogenic, Immunologic measuring methods
- User friendly touchscreen interface, simple & easy to operate
- High throughput routine assays
- Labor saving, simple programming and real walk-away system
- Reagent open system, close system on request
- Multi-language software (optional).

### System Function:

- Throughput: 60 tests/hour for PT  
50 tests/hour for PT and APTT
- Parameters: PT, APTT, TT, FIB, AT-III, PLG, D-Dimer, FDP, etc.
- Measuring methods:  
Clotting: Scattered Light Detection method  
Chromogenic: Colorimetric method, 405nm  
Immunologic: Turbidimetric method, 575nm
- Memory: 100,000 test results and 10,000 reaction curves
- Quality control: 12 QC File\*10 test items\*30 curve"  
12 month
- Calibration, 6 points\*10 items
- Automatic, Random Access
- STAT sample priority
- Barcode-reading support (optional).



### 7 Detection Channels

- 5 for clotting assays
- 1 for chromogenic assays
- 1 for immunologic assays.



Sample/Reagent Probe with Liquid Level Detection.

### Sample Tray:

- Sample tray: 27 positions. user-defined STAT
- Incubation temperature: 37±0.5°C.

### Reagent Tray:

- Reagent tray: 23 positions
- Reagent cooling: ≤16°C.

### Reaction Tray:

- Cuvettes on board, 72
- Min reaction volume: 150ul
- Reaction temperature: 37±0.5°C.



### Probe:

- With probe pre-heating
- Automatic washing both inside and outside
- With collision protection, liquid level detection and Inventory checking.

### Print out:

- Built-in thermal printer, external printer optional.

### Measuring and Optic System:

- Light: LED
- Power: AC 11 0/240V, 50-60± 1 Hz
- Temperature: 10°C-30°C, humidity ≤85%
- Water consumption: <0.5L/hour
- Dimension LxWxH (mm) : 660x580x510
- Weight: 53KG.

**ELA-6000, Electrolyte Analyzer****ELA-6000****Test range and accuracy:**

Channel	Range	Resolution	CV%
pH	4.00 ~ 9.00	0.01	< 0.5
K <sup>+</sup>	0.50 ~ 15.00 mmol/L	0.01	< 1.0
Na <sup>+</sup>	30.0 ~ 200.0 mmol/L	0.1	< 1.0
Cl <sup>-</sup>	20.0 ~ 200.0 mmol/L	0.1	< 1.0
Ca <sup>++</sup>	0.1 ~ 6.0 mmol/L	0.01	< 1.5
TCO <sub>2</sub> <sup>+</sup>	2.0 ~ 70.0 mmol/L	0.1	< 3.0
Li <sup>+</sup>	0.1 ~ 5.0 mmol/L	0.01	< 2.0

**Working environment:**

<b>Ambient Temperature</b>	5°C ~ 35°C
<b>Relative Humidity</b>	≤ 85%
<b>Sun Radiation</b>	Avoid direct sunshine
<b>Power Supply</b>	AC 220V±10V (50/60HZ)

**Sample type:** Plasma, Serum, Blood, Urine**Features:**

- Larger LCD with touch-screen(320x240)
- Self-made maintenance free electrodes
- Sleep mode to save reagent
- Rapid test speed. 25 seconds/test
- Min-volume sample consumption: 60μL
- Reagent pack to avoid pollution
- On-line instructions provided for self problem-solving
- Protection function when powered-off suddenly
- Setting any time to power-off the equipment, to save reagent when free
- Randomly choose any combination of pH, K, Na, Cl, Ca, TCO<sub>2</sub>, Li, Ag channels.

**Main characters:**

<b>Flow Path</b>	Fluid Moving system
<b>Reagent pack</b>	Calibration solution in a single reagent pack
<b>Calibration</b>	Automatic or On-demand
<b>Memory Storage</b>	Up to 1000 patient result, extended to be over 20000 results
<b>Analyzing Time</b>	25 seconds after aspiration
<b>Sample Volume</b>	60~300μL whole blood or serum
<b>Input</b>	Touch screen(with operation menu)
<b>Output</b>	Internal thermal-printer ; RS232
<b>Auto sampler</b>	- 35 samples volume (for optional function) - 39x31.5x36cm, N.W: 6.5kg
<b>Waste Storage</b>	Closed Pack System
<b>Reagent Pack</b>	Closed Reagent System
<b>Dimensions</b>	42x37x56 cm
<b>Net weight</b>	16 kg

**ELA-5100, Electrolyte Analyzer****ELA-5100****Sample type:** Plasma, Serum, Blood, Urine**Test range and accuracy:**

Channel	Range	Resolution	CV%
pH	6.00 ~ 9.00	0.01	< 1.0
K <sup>+</sup>	0.50 ~ 10.00 mmol/L	0.01	< 1.0
Na <sup>+</sup>	20.0 ~ 200.0 mmol/L	0.1	< 1.0
Cl <sup>-</sup>	20.0 ~ 200.0 mmol/L	0.1	< 1.0
Ca <sup>++</sup>	0.3 ~ 5.0 mmol/L	0.01	< 1.5
Li <sup>+</sup>	0.1 ~ 3.0 mmol/L	0.01	< 1.5

**Working environment:**

<b>Ambient Temperature</b>	5°C ~ 40°C
<b>Relative Humidity</b>	≤ 85%
<b>Sun Radiation</b>	Avoid direct sunshine
<b>Power Supply</b>	AC100-240V(50/60HZ)

**Features:**

- Self-made maintenance free electrodes
- Sleep mode to save reagent
- Rapid test speed. 30 seconds/test
- Min-volume sample consumption: 65μL
- Reagent pack to avoid pollution
- On-line instructions provided for self problem-solving
- High efficient cleaning procedures, best for fatty samples
- High, middle and low QC values provided to adjust linearity
- Randomly choose any combination of pH, K, Na, Cl, Ca, Li channels
- Automatic one point & two points calibration with additional manual calibration.

**Main characters:**

<b>Flow Path</b>	Fluid Moving system
<b>Reagent pack</b>	Calibration solution in a single reagent pack
<b>Calibration</b>	Automatic or On-demand
<b>Memory Storage</b>	Up to 1500 patient result, 199 normal QC, 199 Abnormal QC
<b>Analyzing Time</b>	30 seconds after aspiration
<b>Sample Volume</b>	Minimum 65μL whole blood or serum
<b>Display</b>	Wide LCD (240x128)
<b>Input</b>	Keypad (16 alphabet Numeric display, YES or NO)
<b>Output</b>	Internal thermal-printer ; RS232
<b>Waste Storage</b>	Closed Pack System
<b>Reagent Pack</b>	Closed Reagent System
<b>Dimensions</b>	30x26x36 cm
<b>Net weight</b>	7.5 kg

## ESRA-300, ESR Analyzer



### Features:

- Random access
- Up to 30 samples can be scanned simultaneously
- Throughput up to 60 samples /hour
- Temperature compensation refer to 18°C according to Westergren method
- ESR curve display and print-out
- Touch screen, large LCD display
- Internal thermal printer.

### Technical Specification:

Model	ESRA-300
Application area	Erythrocyte sedimentation rate analysis
Measuring principle	Infrared sensor
Reading channels	30 available channels
Loading capability	Up to 30 samples at a time
Loading pattern	Random
Measuring time	30 minutes or 60 minutes selectable
Throughput	Up to 60 samples per hour
Analysis result	In Westergren ESR value (mm/hr)
Temperature compensation	Refer to 18°C automatically (selectable)
Reading resolution	0.2mm
Reproducibility	< 0.3% or 2mm/1h
Result resolution	1mm/1h
Blood level range	50mm ~ 64mm
Display	LCD
Input	Touch screen
Interface	RS-232 serial port
Print	Internal thermal printer
Power supply	AC 220V/110V ±10%, 50/60/Hz, 50W
Operation conditions	15°C~32°C Humidity ≤85%
Dimension	400mm×300mm×200mm(L×W×H)
Net weight	11.5kg

## ESRA-300A, ESR Analyzer



### Features:

- Infrared optical detection technology
- Automatically scanning blood cells and location of the plasma interface from time to time with accurate positioning
- Automatically amending the ESR results under the detecting temperature (15°C ~ 32°C) to the ESR values at 18°C, closely - related with Westergren results
- The results are not interfered by high levels of hemoglobin, bilirubin or triglyceride
- ESR curve display and print-out
- Internal thermal printer.

### Technical Specification:

Model	ESRA-300A
Measuring principle	Infrared sensor
Measuring time	30 minutes
Measuring precision	<0.2 mm
Reproducibility	< 3%
Temperature Precision	<0.3°C
Sample volume	<1.6mL whole blood anticoagulant
Reading channel	10
Display	LCD
Interface	RS-232 serial port
Print	Internal thermal printer
Operation conditions	15°C~32°C , Humidity ≤85%
Power supply	AC 220V/110V ±10%, 50/60 Hz
Dimension	320mm×260mm×158mm (L×W×H)
Net weight	5.0kg





HA-83

## HA-83, 5-part Hematology Analyzer

### Technical Specifications:

#### Technology

3-D Topographic Map • Integral titanium incubation system • Laser Scatter technology • Flow Cytometry technology • Cyanide Free reagents.

#### Parameters

Regular: WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD, RDW-CV, PLT, PDW, MPV, PCT, P-LCR, NEU#, NEU%, LYM#, LYM%, MON#, MON%, EOS#, EOS%, BAS#, BAS%.

Research: ALY#, ALY%, IG#, IG%, 2 histograms, 2 scattergrams.

**Test speed** 60 samples/hour

**Test mode** CBC+5DIFF, CBC

#### Performance

ITEM	Linear range	Carry over	CV
<b>WBC</b>	1.0-99.9X10 <sup>3</sup> /L	≤0.5%	≤2.0%
<b>RBC</b>	0.3-7.0X10 <sup>10</sup> /L	≤0.5%	≤1.5%
<b>HGB</b>	20-240g/L	≤0.5%	≤1.5%
<b>PLT</b>	20-999X10 <sup>9</sup> /L	≤1%	≤4.0%

#### QC & calibration

Multiple QC rules, including L-J, X-B etc. Auto and manual calibration function for both whole blood mode and pre-diluted blood mode.

**Power Supply** 100V-240V, 50Hz/60Hz

#### Operation environment

Temp.: 15-30°C • Humidity: 30%-85% • Weight: 53KG • L46xW57xH61cm.

#### Integral titanium incubation system:

An integrated titanium incubation system is adopted to keep the reagent & the sample in the same constant temp. which facilitates the complete reaction. This is the key technology to ensure the accuracy of 5-part differentiation.



#### 2 test modes

- CBC+5Diff mode
- CBC mode

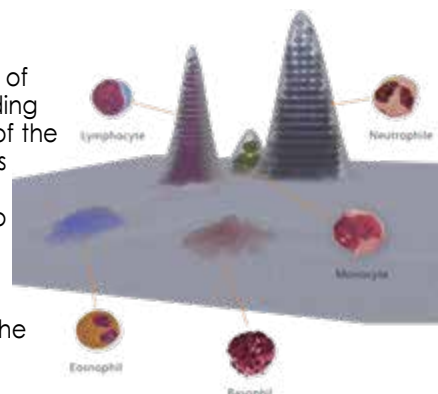
#### 2 Sample modes

- Whole blood sample mode
- Pre-diluted blood sample mode.



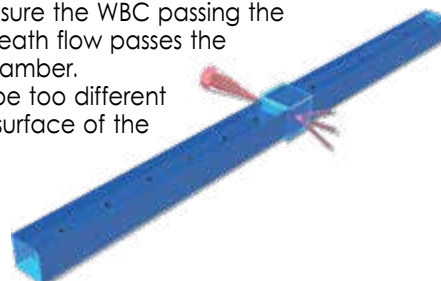
#### 3-D Topographic Maps for WBC:

Cytomorphologically, is a useful way of 5-part differentiation of WBC according to the size, complexity & granularity of the cells. The multiple scatter light beams are used to detect the WBC, which named as the 3-D Topographic Map technology. The forward small angle laser beam, the forward large angle laser beam & the lateral laser beam stand for the different properties of the WBC.



#### Constant Linear Sheath Flow:

A most important technology is to ensure the WBC passing the laser beam one by one. when the sheath flow passes the unique designed square counting chamber. As the diameter of the WBC will not be too different from the diameter of the transversal surface of the chamber. the WBC are fixed in the middle or the sheath flow passing the square chamber constantly with a high speed. This Constant Linear Sheath Flow ensures the accuracy of the WBC counting.



#### User-Friendly Software:

##### Data management

- 100,000 results storage including histogram and scattergram
- Multi print format including self-defined format
- Mean, CV and SD values are calculated
- Statistics including Sample, QC and Calibration
- Sort by sample number, patient name, type, time frame etc.

##### Easy maintenance

- Self-check during start up and shut down
- Tubing automatic maintenance
- Adjustable sleeping mode.

##### Multi-warning system

- Reagent inventory check
- Abnormal original data warning
- Multi warning flags.

##### System setup

- Different levels of permission
- Different reference ranges determined by age and gender

##### LIS Interface

- LIS interface with HL7 protocol.







HA-86

### HA-86, 5-part Hematology Analyzer

#### Technical Specifications:

##### Technology

3-D Topographic Map • Integral titanium incubation system • Laser Scatter technology • Flow Cytometry technology • Cyanide Free reagents • Autoloader & close Tube • Random direction tube barcode scanning technology (optional).

##### Parameters

Regular: WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD, RDW-CV, PLT, PDW, MPV, PCT, P-LCR, NEU#, NEU%, LYM#, LYM%, MON#, MON%, EOS#, EOS%, BAS#, BAS%.

Research: ALY#, ALY%, IG#, IG%, 2 histograms, 2 scattergrams.

**Test speed** 60 samples/hour

**Close Tube mode** 60 samples/hour

**Test mode** CBC+5DIFF, CBC

##### Performance

ITEM	Linear range	Carry over	CV
WBC	1.0-99.9X10 <sup>3</sup> /L	≤0.5%	≤2.0%
RBC	0.3-7.0X10 <sup>10</sup> /L	≤0.5%	≤1.5%
HGB	20-240g/L	≤0.5%	≤1.5%
PLT	20-999X10 <sup>9</sup> /L	≤1%	≤4.0%

#### QC & calibration

Multiple QC rules, including L-J, X-B etc. Auto and manual calibration function for both whole blood mode and pre-diluted blood mode.

**Power Supply** 100V-240V, 50Hz/60Hz

#### Operation environment

**Sampling Mode** Autoloader: 50 tubes, auto mixing, random direction tube barcode scanning technology.

**Close tube** STAT priority, support both whole blood & capillary blood samples

**Weight** 75KG

**Dimensions** L61xW76xH61cm.

#### Integral titanium incubation system:

An integrated titanium incubation system is adopted to keep the reagent & the sample in the same constant temp. which facilitates the complete reaction. This is the key technology to ensure the accuracy of 5-part differentiation.



#### 2 test modes

- CBC+5Diff mode
- CBC mode

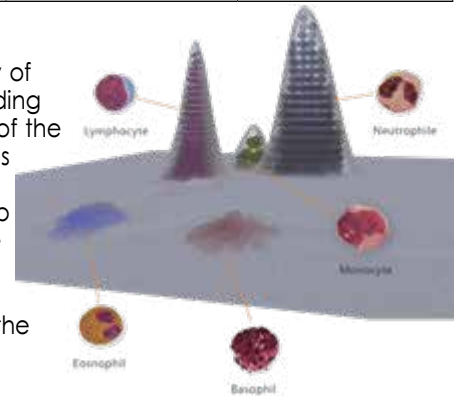
#### 2 Sample modes

- Whole blood sample mode
- Pre-diluted blood sample mode.



#### 3-D Topographic Maps for WBC:

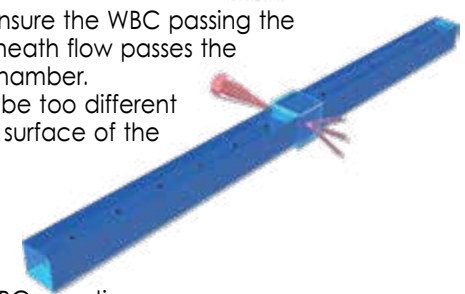
Cytomorphologically, is a useful way of 5-part differentiation of WBC according to the size, complexity & granularity of the cells. The multiple scatter light beams are used to detect the WBC, which named as the 3-D Topographic Map technology. The forward small angle laser beam, the forward large angle laser beam & the lateral laser beam stand for the different properties of the WBC.



#### Constant Linear Sheath Flow:

A most important technology is to ensure the WBC passing the laser beam one by one. when the sheath flow passes the unique designed square counting chamber. As the diameter of the WBC will not be too different from the diameter of the transversal surface of the chamber.

the WBC are fixed in the middle or the sheath flow passing the square chamber constantly with a high speed. This Constant Linear Sheath Flow ensures the accuracy of the WBC counting.



#### User-Friendly Software:

##### Data management

- 100,000 results storage including histogram and scattergram
- Multi print format including self-defined format
- Mean, CV and SD values are calculated
- Statistics including Sample, QC and Calibration
- Sort by sample number, patient name, type, time frame etc.

##### Easy maintenance

- Self-check during start up and shut down
- Tubing automatic maintenance
- Adjustable sleeping mode.

##### Multi-warning system

- Reagent inventory check
- Abnormal original data warning
- Multi warning flags.

##### System setup

- Different levels of permission
- Different reference ranges determined by age and gender

##### LIS Interface

- LIS interface with HL7 protocol.





### HA-8200VET, Auto Hematology Analyzer

#### Features:

- 12 pre-determined animal settings ( dog, cat , horse, pig, cow, rabbit, goat, rat, mouse, buffalo, camel, sheep ) + 4 options
- 3-part differentiation of WBC : 19 parameters + 3 histograms
- Throughput : ;;; 2 minute per sample
- Up to 35 , 000 sample results (including histograms) can be stored
- Built-in thermal recorder, optional external printer
- Auto reverse flushing and high pressure burn, block clearing
- Color LCD display.

Model	HA-8200VET	
Parameters	WBC Lymph# Mid# Gran# Lymph% Mid% Gran% RBC HGB HCT MCV MCH MCHC RDW-CV RDW-SD PLT MPV, PDW PCT and Histogram for WBC, RBC, PLT	
Principle	Electrical resistance for counting and SFT method for HGB	
Sample Volume	Prediluted blood: 20µL	
Throughput	30 samples per hour	
Memory	35,000 results	
Performance	Parameters: WBC(10 <sup>9</sup> /L) RBC PLT MCV(fL) HGB(g/L)	Precision CV%: 2.0% 1.5% 4.0% 0.5% 1.5%
Display	Large color LCD, displays all parameters result with histogram of WBC, RBC & PLT Resolution: 800x600	
Menu	Count. Sample mode, Review. Quality control, System setting, Reference value, System service, Calibration, Copyright, Shutdown	
Alert	25 sets of alert message	
Input/Output	USB (key board, mouse, flash disk) , Rs232, parallel	
Print	Graphic thermal printer with various printing format, optional external printer	
Operating Environment	Temperature: 18-30°C	Humidity: 70%
Power Requirement	AC110-240V, 50/60Hz 2A	
Dimension (mm)	L273xW420xH415	
Weight	16Kg	

## MEDICAL ANALYZERS Strip Readers

UT-200



### UT-200, Test Strip Reader

UT-200 portable Test Strip Reader is a compact design and extremely small reader. The reader is your solution for customized colorimetric tests. It can make rapid, high sensitivity—in qualitative, semi-quantitative, fully quantitative measurements for immunochromatographic reagent kits. UT-200 Portable Test Strip Reader is capable of reading up to 5 lines evaluating the Lateral Flow Colloidal Gold test cassettes and strips. The data can be saved using USB port or can be printed by the reader.

#### Small footprint and easy to use:

The UT-200 reader is a compact designed hand held device. With the UT-200 you are faced with a professional small instrument for rapid and automated analysis. It's ideal for meeting the needs for reliable in-the-field drug of abuse and point-of-care testing.

**Applications:** Customs Inspection • Environment Monitoring • Food Safety.

#### Features:

- A portable reader customized to your needs
- Adaptable to most test cassette and strip formats
- Supports a wide range of reagents as well as reagent development
- High-sensitivity measurement with high repeatability
- Large built-in memory can save more than 1,000 measurement records which you can check out at anytime
- Colorimetric detection: Colloidal gold, colored latex beads, carbon etc.
- Automatic line position detection and intensity calculation
- The results are highly sensitive compared to human eye readings
- OEM service is available according to different reagent kits or fluorescence detection
- Internet, wireless internet function extendable.

Model	UT-200
Display	Monochrome graphical LCD display
Test Strip dimensions	Width: 3~5mm, length<75mm
Test cassette dimen.	70x20x5mm (L x W x H)
Wavelength	525±30nm (Can Custom-make)
Colorimetric detection	Colloidal gold, colored latex beads, carbon etc.
Number of test	1
Number of test lines per strip	Up to 5 test/control lines per strip
Measurement time	<15 seconds for one test strip
Stability	Relative drift value ≤ 3% within 2 hours
Printer	Micro-Thermo printer
Save type	Built-in SD card (2 GB)
Connections	2 x USB port
Operating conditions	15~40°C, humidity: ≤80%
Input power	AC 100-240V 50/60Hz, DC 12V 2A

UT-100



### UT-100, Test Strip Reader

UT-100 Test Strip Reader can distinguish the differences of colors from various biochemical reactions and analyze the reactants to provide quantitative clinical diagnosis. The diagnostic analysis can be applied for drugs of abuse, fertility, and disease test etc.. It can also be applied to test disease or distinguish drug residual in animals. To summarize, these readers provide a detection platform for rapid test applications.

• Further to the test proceeding, the operator places the test cassette or the test strip into the reader's cassette holder and depending on the selected reading mode, the evaluation process will be automatically initiated, the final results will be printed out by the internal printer.

• We offer an OEM business-to-business solution based on the reader for different test strip manufacturers.

• The reader is capable of reading up to 5 lines evaluating the Lateral Flow Colloidal Gold test cassettes and strips.

#### Features:

- 6.2 inch touch screen and smart operation system
- High-sensitivity measurement with high repeatability
- Supports a wide range of reagents as well as reagent development
- Compatible with different reagent housing configurations
- Large built-in memory can save more than 10,000 measurement records which you can check out at anytime
- Colorimetric detection: Colloidal gold, colored latex beads, carbon etc.
- Automatic line position detection and intensity calculation
- Powerful Software functions for the manufacturer of rapid tests and for End-users
- OEM service is available according to different reagent kits or fluorescence detection
- Internet, wireless internet function extendable.

Model	UT-100
Display	6.2 inch touch screen
Test Strip dimensions	Width: 3~5mm, length <75mm
Test cassette dimensions	70x20x5mm (L x W x H)
Wavelength	525±30nm (Can Custom-make)
Colorimetric detection	Colloidal gold, colored latex beads, carbon etc.
Number of test	1
Number of test lines per strip	Up to 5 test/control lines per strip
Measurement time	<15 seconds for one test strip
Stability	Relative drift value ≤ 3% within 2 hours
Printer	Micro-Thermo printer
Save type	Built-in SD card (2 GB)
Connections	2 x USB port
Operating conditions	15~40°C, humidity: ≤80%
Dimensions / Weight	D320xW196xH156mm / 3.4Kg
Input power	AC 100-240V 50/60Hz, DC 12V 4A





UT-1001

### UT-1001, Semi Automated Plate Sealer

UT-1001 Plate Sealer is a semi-automatic thermal sealer which is ideal for the low to medium throughput laboratory that requires uniform and consistent sealing of micro-plates. Unlike manual plate sealer, the UT-1001 produces repeatable plate seals. With variable temperature and time settings, sealing conditions are easily optimised to guarantee consistent result, eliminating sample loss. The UT-1001 can be applied in product's quality control of many manufacture enterprise such as plastic film, food, medical, inspection institute, scholastic scientific research and teaching experiment. Offering complete versatility, the UT-1001 will accept a full range of plates for PCR, assay or storage applications.

#### Highlights:

- Format different micro well plates & heat seals
- Adjustable Sealing Temperature: 80 – 200°C
- OLED display screen, high light and no visual angle limit
- Precise temperature, timing and pressure for consistent sealing
- Automatic counting function
- Plate adapters allow use of virtually any ANSI microplate or PCR plate
- Motorized drawer and motorized sealing platen guarantee consistent good results
- Compact footprint: only W178mm x D370mm
- Power requirements: AC120V or AC220V.



#### Controls:

The UT-1001 allows optimal settings for all types of plates and sealing materials. Sealing time and temperature can be set by using the control knob, OLED display screen, high light and no visual angle limit.

- Sealing time (0.1sec increment) and temperature (1.0°C increment)
- Sealing pressure can be adjustable as the sealed plate results
- Automatic counting function.

#### Security:

- The drawer is controlled by MCU, if a hand or objects stuck in the drawer when it's moving, the drawer motor will automatically reverse. This feature prevents injury to the user and the unit
- Special & smart design on the drawer, it can be detached from the main device. So the user can maintain & clean easily the heating element.

#### Energy Saving Functions:

- When the UT-1001 is left idle more than 60mins, it will automatically switch into stand-by mode during which the temperature of the heating element is reduced to 60°C to save energy.
- When the UT-1001 is left idle more than 120mins, it will switch off automatically for safe. It will switch off the display and the heating element. then, the user can awaken the machine by pushing any button.

#### Accessories:



96-well PCR plate adapter

Standard plate adapter

Weighted seal platen

#### Easy to use:

Easy to use, only simple 5-step operations



Step.1 Pull the drawer



Step.2 Put the adapter, plate



Step.3-1 Put a sealing film



Step.3-2 Put the weighted sealing flake if the film is curly



Step.4 Press "RUN" key

#### Remark:

When using the weighted sealing flake, the recommended sealing times should be increased by 1 second!

Model	UT-1001
Display	OLED
Sealing Temperature	80 – 200°C (increment of 1.0°C)
Temp. accuracy	±1.0°C
Temp. uniformity	±1.0°C
Sealing time	0.5s ~ 10s, increased by 0.1 sec.
Input power	300W
Dimension(D×W×H)	370mm×178mm×330mm
Weight	9.6kg
Seals plate heights	9 to 48mm high
Compatible Plate Materials	PP (Polypropylene), PS (Polystyrene) PE (Polyethylene)
Compatible Plate Types	SBS Standard plates, Deep-well plates PCR plates (Skirted, semi-skirted & no-skirted formats)
Heating Sealing Films & Foils	Foil-polypropylene laminate, Clear polyester-polypropylene laminate, Clear polymer, Thin clear polymer

## UT-2100C, Microplate Reader



UT-2100C

### Features:

- Easy Windows operation system with touch screen or mouse, large LCD display.
- 8-channel optical fiber system enables 5 secs' reading for the whole plate.
- Bichromatic measurement. calculation modes including ABS, Cut-off, Curve, Linear-Log and Exponential regression.
- Large memory, up to 100 test protocols and 10,000 can be stored.
- Auto self-check when power on
- With lamp sleeping & wake-up function
- Random positive and negative control setting
- Multi-assay enables up to 12 different assays on one plate
- Plate shaking function
- Powerful QC function: Grubs, Westgard
- Multi-rule, Levey jennings plot (optional)
- Easy software upgrade by SO card, support USB mouse & keyboard
- Multiform result output including patient comprehensive report
- Ability to communicate with PC for data management(optional).

Model	UT-2100C
<b>Absorbance range</b>	0.000-4.000Abs
<b>Resolution</b>	0.001Abs (display), 0.0001Abs (calculation)
<b>Accuracy</b>	±0.1% or ±0.005Abs (calculation)
<b>Type of microplate</b>	Standard with 96-well or other kind of microplate & strip
<b>Wavelength</b>	405, 450, 492, 630nm, 4 more filters optional (from 400-700nm available on special order)
<b>Optic system</b>	8 channel optic fiber system
<b>Light source</b>	Halogen lamp
<b>Wavelength accuracy</b>	±1nm
<b>Band witch</b>	<8nm
<b>Calculation method</b>	ABS, Cut-off, single standard, curve, multi-percent, percent log, linear, exponential, power, 4PL regression
<b>Reading speed</b>	5 second for 96 well plate (single wavelength)
<b>Shaking plate</b>	Shaking time and speed adjustment
<b>Memory</b>	More than 100 programs, up to 100,000 test results
<b>Interface</b>	RS-232, USB, SD card interface
<b>Display</b>	6" LCD (with touch screen function)
<b>Input</b>	Touch panel or mouse
<b>Output</b>	External printer (optional)
<b>Power supply</b>	AC 110V-220V ±10%, 50/60Hz
<b>Net weight</b>	9kg
<b>Dimensions (mm)</b>	L460xW330xH200



UT-2600C

### Features:

- Fully automatic.
- Easy Windows operation system, large LCD display.
- Washes flat, U and V-bottom strips and plates.
- 12-way or 8-way manifold, automatic and manual positioning.
- Large memory, up to 50 wash protocols can be programmed.
- Automatic monitoring for vacuum and pressure, automatic rinse cycle.
- Washing pressure volume and time adjustable.
- Liquid level detection & alert function
- No special airtight bottle required for wash bottle.
- Easy maintenance.

## UT-2600C, Microplate Washer

Model	UT-2600C
<b>Plate Mode</b>	96-/48-well plate or strip
<b>Dispense Precision</b>	CV<2.0%
<b>Residual Volume</b>	<1µl
<b>Washing Volume</b>	50~3000µL for 8-way manifold 50~2000µLfor 12-way manifold
<b>Washing Cycle</b>	Maximum 99 cycles
<b>Strip Washing</b>	1 to 12 strips programmable
<b>Soaking Time</b>	0~24hours
<b>Shaking Time</b>	0~24hours
<b>Display</b>	5" LCD
<b>Wash Channels</b>	3 channel bottles, 1 for wash, 1 for water(rinse) and 1 for waste
<b>Bottles Capacity</b>	2 Liters each bottle
<b>Memory</b>	50 washing protocols
<b>Interface</b>	RS-232
<b>Power Supply</b>	AC 110/220V±10%, 50~60HZ
<b>Net Weight</b>	8KG
<b>Dimension (mm)</b>	L390xW340xH180



### UT-3100-3/5, Microplate Washer, 3/5 Channels, Build-In Incubator



#### Features:

- User friendly operation system with large LCD display
- Washes flat, U and V-bottom strips and plate
- 12-way or 8-way manifold, automatic and manual positioning
- Large memory, up to 100 wash protocols can be programmed
- Multi-channel, 1 or up to 3 for wash, 1 for rinse and 1 for waste
- Plate shaking function, time and speed are adjustable
- Two 96-well plate incubation positions (optional)
- Liquid level detection & alert function
- Easy maintenance.

Model	UT-3100-3/5
Plate Mode	96-/48-well plate or strip
Residual Volume	<3µl
Washing Volume	10~3000µl/well, 1µl by step
Washing Cycle	Maximum 99 cycles
Strip Washing	1 to 12 strips programmable
Soaking Time	0~24hours
Shaking Time	0~24hours
Display	Large LCD
Wash Channels	3 channels: 1 for wash, 1 for forrinse & 1 for waste 5 channels: 3 for wash, 1 for forrinse & 1 for waste
Bottles Capacity	2 Liters each bottle
Memory	99 washing protocols
Interface	RS-232
Power Supply	AC 110/220V 50HZ
Net Weight	13 KG
Dimension (mm)	L450xW390xH190
Incubator Temp. (optional)	25°C, 30°C, 37°C

### UT-3900, Microplate Washer



#### Features:

- 96-way manifold, automatic and manual positioning.
- Multi-channel, 3 for wash, 1 for rinse and 1 for waste.
- Plate shaking function, time and speed are adjustable.
- User friendly operation system with large LCD display.
- Washes flat, U and V-bottom strips and plate.
- Large memory, up to 100 wash protocols can be programmed.
- Liquid level detection & alert function.
- Easy maintenance.

Model	UT-3900
Plate mode	96-well plate or strip
Residual volume	<1µl
Washing volume	50~3000µl/well, 10/50 continuously adjustable
Washing cycle	Up to 99 cycles
Strip washing	Wash 2 plate at a time, 1-8 strips programmable
Soaking time	0~24 hours
Shaking time	0~24hours
Display	Large LCD
Wash channels	5 Channels, 3 for wash, 1 for rinse and 1 for waste
Memory	100 washing protocols & 10 plates protocols
Interface	RS-232
Power requirements	AC 110/220V±10%, 50±1 Hz
Net weight	23.8Kg
Dimension LxWxH (mm)	610x460x240

## UT-6000, Microplate Reader



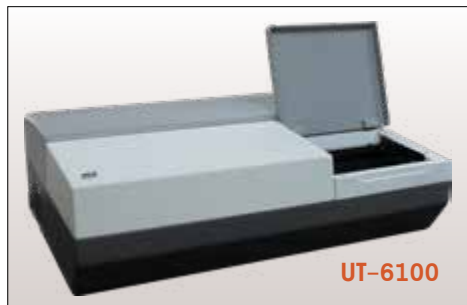
UT-6000

### Features:

- Easy Windows operation system with touch screen or mouse, large LCD display
- 8-channel optical fiber system enables 5 secs' reading for the whole plate
- Bichromatic measurement, calculation modes including ABS, Cut-off, Curve, Linear, Log and Exponential regression
- Large memory, up to 100 test protocols and 10,000 can be stored
- Auto self-check when power on
- With lamp sleeping and wake-up function
- Random positive and negative control setting
- Multi-assay enables up to 12 different assays on one plate
- Plate shaking function
- Internal printer (external printer optional)
- Powerful QC function: Grubs, Westgard Multi-rule, Levey jennings plot (optional)
- Easy software upgrade by SD card, support USB mouse and keyboard
- Multiform result output including patient comprehensive report
- Ability to communicate with PC for data management(optional).

Model	UT-6000
<b>Absorbance range</b>	0.000-4.000Abs
<b>Resolution</b>	0.001Abs(display), 0.0001Abs(calculation)
<b>Accuracy</b>	±0.1% or ±0.005Abs
<b>Type of microplate</b>	Standard with 96-well or other kind of microplate & strip
<b>Wavelength</b>	405,450,492,630nm, 4 more filters optional (from 400-700nm available on special order)
<b>Measurement range</b>	0.000-2.500Abs
<b>Optic system</b>	8 channel optic fiber system
<b>Light source</b>	Halogen lamp
<b>Wavelength accuracy</b>	±1nm
<b>Band witch</b>	<8nm
<b>Calculation method</b>	ABS, %ABS, Cut-Off, Single Standard, Curve, Multi-Percent, Percent Log, Linear, Exponential, Power, 4PL Regression
<b>Reading speed</b>	5 second for 96 well plate (single wavelength)
<b>Shaking plate</b>	Shaking time and speed adjustment
<b>Operation</b>	PC operation, bidirectional communications
<b>Memory</b>	More than 100 programs, up to 100,000 test results
<b>Interface</b>	RS-232, USB,SD card interface
<b>Display</b>	6" LCD (with touch screen function)
<b>Input</b>	Touch panel or mouse
<b>Output</b>	External printer (optional)
<b>Power supply</b>	AC 110V-220V ±10%, 50/60Hz
<b>Net weight</b>	9kg
<b>Dimensions (mm)</b>	L460xW330xH200

## UT-6100, Auto Microplate Reader



UT-6100

### Features:

- PC controlled system, Windows XP.
- 8-channel optical fiber system enables 5 secs' reading for 96-well plate.
- Calculation modes include ABS, Cut-Off, Curve, Linear, Log, Exponential, Power and 4PL regression.
- Up to 12 different tests can be performed in one plate.
- Powerful laboratory management software, more than 100 programs and 100,000 results can be stored.
- Powerful QC programs including Westgard Multi-rule and Instant method, automatic alarm.
- Multiform test reports output.
- Lamp saving and plate shaking.
- Save data automatically when power off unexpectedly
- Compatible with all popular external printers
- Powerful internet connection enables remote data sharing and OS update
- Multi-language software available on request.

Model	UT-6100
<b>Absorbance Range</b>	0.000-4.000Abs
<b>Resolution</b>	0.001Abs (display), 0.0001Abs (calculation)
<b>Accuracy</b>	±0.5% or ±0.005Abs
<b>Type of Microplate</b>	Standard with 96-well or other kind of microplate & strip
<b>Wavelength</b>	405, 450, 492, 630nm, 4 more filters optional (from 400-700nm available on special order)
<b>Measurement range</b>	0.000-2.500Abs
<b>Optic System</b>	8-channel optic fiber system
<b>Light Source</b>	Halogen lamp
<b>Wavelengths</b>	405, 450, 492, 630nm, 4 more filters optional
<b>Wavelength Accuracy</b>	± 1nm
<b>Band width</b>	<8nm
<b>Methodologies</b>	End Point, fixed time, Kinetic
<b>Calculation Method</b>	ABS, Cut-Off, Single Standard, Curve, Multi-Percent, Percent Log, Linear, Exponential, Power, 4PL Regression
<b>Reading Speed</b>	5 seconds for 96 well plate (single wavelength)
<b>Shaking Plate</b>	Shaking time and speed adjustable
<b>Operation</b>	PC operation, bidirectional communications
<b>Memory</b>	More than 100 programs, up to 100,000 test results
<b>Printer</b>	All printers compatible with Windows
<b>Interface</b>	RS-232, USB
<b>Power supply</b>	AC 110V - 240V ± 10%, 50-60Hz
<b>Net Weight</b>	7KG
<b>Dimensions (mm)</b>	L454xW295xH146



UT-6500

#### Features:

- UV wavelength available, including 340nm.
- End Point, Fixed time, Kinetic.
- Temperature control(optional), incubation time & temp. adjustable.
- PC controlled system, windows XP.
- 8-channel optical fiber system enables 5 secs' reading for the whole plate.
- More than 500 Programs and minimum 100,000 results can be stored.
- Powerful QC programs including Westguard Multi-rule and Instant method, automatic alarm.
- Calculation modes include ABS, cut-off, curve, linear, log. Exponential, Power and 4PL regression.
- Auto self- check when power on, with lamp saving and plate shaking.
- Random positive and negative control setting.
- Multi-assay enables up to 12 different assays on one plate.

#### UT-6500, Microplate Reader

Model	UT-6500
<b>Absorbance range</b>	0.000-4000 Abs
<b>Resolution</b>	0.001 Abs (display), 0.0001 Abs (calculated)
<b>Wavelengths</b>	340,405,450,492,630nm,3 more filters optional
<b>Wavelength accuracy</b>	±1nm
<b>Band width</b>	<8nm
<b>Methodologies</b>	End point, fixed time, Kinetic
<b>Calculation method</b>	ABS, cut-off, single standard, curve, multi-percent, percent log, linear, exponential, power, 4PL regression
<b>Reading speed</b>	5 Seconds for 96 well plate (single wavelength)
<b>Shaking plate</b>	Shaking time and speed adjustable
<b>Plate incubation</b>	Ambient temperature +4~45°C, adjustable
<b>Optic system</b>	8-channel optic fiber system
<b>Light source</b>	Halogen lamp
<b>Operation</b>	PC operation, bidirectional communications
<b>Memory</b>	More than 500 programs, up to 100,000 test result
<b>Printer</b>	All printers compatible with windows
<b>Interface</b>	RS-232
<b>Power requirement</b>	AC 110V/240V ±10%, 50/60 ±1Hz
<b>Net weight</b>	9 kg
<b>Dimensions (mm)</b>	L186xW440xH220

**Standard Filters:** 405nm, 450nm, 492nm, 630nm.

**Special Filters:** 412nm, 420nm, 490nm, 505nm, 540nm, 550nm, 545nm, 546nm, 578nm, 595nm, 590nm, 570nm, 690nm, 650nm, 655nm, 600nm, 690nm, 530nm, 562nm, 620nm, 675nm, 685nm, 660nm.



UT-6550

#### UT-6550, Microplate Reader and Washer

UT-6550 Microplate Reader is a reliable and robust instrument for a wide variety of research and clinical applications. It reads various kinds of 96-wells plates, and is equipped with shaking function. It can be used as a stand alone instrument or under PC control with regular or APP software. It is easy-to-use the software.

#### Filters:

The UT-6550 Microplate Reader comes with four standard absorbance filters: 405, 450, 492, and 630nm. We also supply custom filters at 5~9nm intervals from 340 to 750nm on request.

#### Software:

UT-6550 keeps with high visual and logical user interface of software, it can be offered a comprehensive inbuilt calculations, such as blank subtraction, quantitative curve fit, quantitative classification and kinetic calculations, as well as the versatile reporting tool and make data reduction.

#### Features:

- Easy of use with 7 inch touch screen together with 3 external keys
- A broad wavelength range of 340-750nm
- Able to use individually or connect with PC and export results or a PAD with Android system
- Absorbance range: 0.0~4.000Abs
- 8 positions optical filter wheel, equipped with 4 standard optical filters
- Fast and accurate measurement of 96-well plates within 6 seconds
- Convenient built-in shaker
- Wide-format internal thermal graphical printer
- Wide applicability for life science and clinical laboratories.

Model	UT-6550
<b>Display</b>	7 inch touch screen (800x480 dots)
<b>Light source</b>	Quartz-halogen lamp 6V/10W
<b>Wavelength</b>	340-750nm
<b>Half-bandwidth of filters</b>	3~9nm
<b>Read-out range</b>	0~4.000Abs
<b>Linearity (405nm)</b>	0~2.000Abs ≤±1% 2~4.000Abs ≤±2%
<b>Resolution</b>	0.001Abs
<b>Accuracy (405nm)</b>	±1% (0~3Abs) ±2% (3~4Abs)
<b>Precision(405nm)</b>	CV≤0.2% (0~3Abs) CV≤1.0% (3~4 Abs)
<b>Test speed</b>	<6s for 96 wells plate
<b>Incubator</b>	No
<b>Shaking</b>	3 modes shaking: slow, medium and fast
<b>User interface</b>	Integrated software or PC control software
<b>Operation</b>	Touch screen, 3 pcs external keys
<b>Storage</b>	200 programs and 100,000 test records
<b>Ports</b>	3 USB ports, for PC, printer and USB-disk
<b>Dimensions (W x D x H)</b>	440 x 295 x 225 mm
<b>Weight</b>	10 kg



MIC-WAS-100

#### Installation diagram

10 feed the 8-channel dispenser enough gravity to dispense, buffer bottle must be placed 60 cm above plate base.

\*Waste Bottle (2L) and Buffer Bottle (4L) are optional.



### MIC-WAS-100, Gravity-fed Microplate Washer

#### Features:

- **Economical**  
MIC-WAS-100 is a manual dispenser by utilizing the force of gravity, ideal for washing immunoassays in 96-well microplate for ELISA procedure or similar applications.
- **Convenient operation**  
Unique designed plate base can accept flexible placement of 96-well microplate in flat or upward-sloping way that can reduce residues more efficient.
- **No cross contamination**  
There are 2 separate rows of tiny S.S. tubes in different length on 8-channel dispenser. The shorter row is used to distribute washing solution and the longer row is used to suck waste liquid. The 2-row design can avoid cross contamination.
- **Autoclavable**  
The main body of 8-channel dispenser is made of PTFE and its 2-row of tubes are made of SUS 304. Both have a long working life and are autoclavable.

#### Applications:

- ELISA washing procedure. • 96-Well microplate washing and dispensing.

Model	MIC-WAS-100
Min. height	Buffer bottle must be placed 60 cm above plate base.
8-channel dispenser dim. (mm)	137(0 x 67(W) x 33(H)
8-channel dispenser material	PTFE
Port thread	3/16 inch (5 mm)
Plate base dimension (mm)	197(Li x 148(W) x 433(H)
Plate base material	Acrylic
Dispensing tube material	51/5304

### ELI-WAS-200, Semi-automatic Microplate Washer (ELISA Washer)



ELI-WAS-200

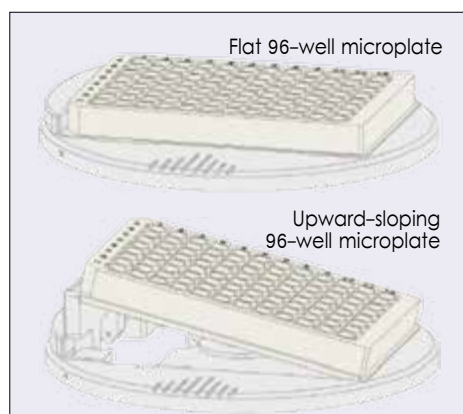
#### Features:

- **Economical** ELI-WAS-200 is very ideal for washing immunoassays in 8-well and 96-well microplate for ELISA procedure; economic price is especially suitable for laboratories with limited budget.
- **Convenient operation** Unique ergonomic platform can accommodate 8-channel dispenser and accept flexible placement of 96-well microplate in flat or upward-sloping way that can reduce residues more efficient.
- **No cross contamination** There are 2 separate rows of tiny S.S. tubes in different length on 8-channel dispenser. The shorter row is used to distribute washing solution and the longer row is used to suck waste liquid. The 2-row design can avoid cross contamination.
- **Autoclavable** The main body of 8-channel dispenser is made of PTFE and its 2-row of tubes are made of SUS 304. Both have a long working life and are autoclavable.

#### Applications:

- ELISA washing procedure. • 96-well microplate washing and dispensing.

Model	ELI-WAS-200
Max. flow	500 ml/min, adjustable
Buffer bottle capacity	2 Liter
Waste bottle capacity	2 Liter
8-channel dispenser dimension	137(L)x67(W)x33(H) (mm)
8-channel dispenser material	PTFE
Dispensing tube material	SUS 304
Machine dimension	200(L)x240(W)x130(H) (mm)
Packing dimension	350(L)x310(W)x370(H) (mm)
N.W./G.W.	4.10 / 5kg



Flat 96-well microplate

Upward-sloping 96-well microplate