

i-Smart 30 **PRO** ELECTROLYTE ANALYZER

Innovative and Convenient



Fast
Analysis



Small
Sample Volume



All in One
Cartridge



4 Week
Uselife



Touch Screen
Operation



Convenient
Quality Control

i-Smart[®] 30 PRO

ELECTROLYTE ANALYZER

- Measures Na⁺, K⁺, and Cl⁻ concentrations with 60µl of blood.
- Reports patient results in 35 seconds on a big color screen.
- Eliminates maintenance by use of all-in-one cartridge.
- Cartridge can now be used for up to 4 weeks.
- Operates on battery for max. two hours without being plugged in.
- Allows fast and error-free data entry using barcode scanner.

01

Maintenance - Free Cartridge




- All-in-one cartridge contains all reagents & consumables such as electrodes, calibration solutions, tubing, waste bag, and sampler.
- Replacing a cartridge is all you have to do for maintenance!
- Each cartridge offers an extended uselife of 4 weeks!

Available Cartridge Types :

- 100 Samples / 4 weeks
- 200 Samples / 4 weeks

Comparison of Maintenance Schedule

Other Brand Analyzers	i-Smart 30 PRO
Cleaning daily	 <p>Replace cartridge Monthly</p>
Conditioning daily	
Clean sample probe/fill port weekly	
Clean ref. electrode housing monthly	
Change pump tubing Semi-annually	
Change main tubing harness annually	
Replace electrodes as needed	
Replace reagent packs as needed	



02

User-Friendly Interface

- Offer intuitive & easily ac
- Display analyzer's status
- Reports analysis results a
- List and search saved pa
- Easy network interface s



Database >> Patient Data >> Last Patient Results

Next Cal 2 remaining 00:01:24

Last Patient Results		Ready	87	Samples Remaining	01/01/2012 04:58 PM
Sample No.	120101-010	Patient ID	100529750		
Operator ID	p1234	Patient Name	Kyle		
01/01/2012 04:57:41 PM					
Analytes	Results	Unit	[Ref. Range]		
Na ⁺	140	mmol/L	[135 ~ 148]		
K ⁺	3.8	mmol/L	[3.5 ~ 5.3]		
Cl ⁻	102	mmol/L	[98 ~ 107]		

Database >> Patient Data >> Patient Results List

Next Cal 2 remaining 00:01:10

Patient Results List		Ready	87	Samples Remaining	01/01/2012 04:58 PM	
Date & Time	Sample No.	Patient ID	Na ⁺ mmol/L	K ⁺ mmol/L	Cl ⁻ mmol/L	
01/01/2012 04:57:41 PM	120101-010	100529750	140	3.8	102	
01/01/2012 04:55:25 PM	120101-009	100529750	140	4.2	106	
01/01/2012 04:54:23 PM	120101-008	100420002	142	4.5	106	
01/01/2012 04:53:04 PM	120101-007	100420002	142	4.5	106	
01/01/2012 04:51:40 PM	120101-006	200902250	139	4.2	102	
01/01/2012 04:50:10 PM	120101-005	200902250	142	4.3	104	
01/01/2012 04:48:11 PM	120101-004	100419001	140	4.1	104	

Database >> Calibration List

Next Cal 1 remaining 00:14:02

Calibration List		Ready	100	Samples Remaining	08/13/2012 04:59 PM
Database	Patient Data	Calibration List			
Maintenance	QC Data	Calibration Search			
Setup	Calibration Data				
Shutdown	Cartridge Data				

03

Convenient Quality Control

Run QC

Next Cal 1 remaining 00:04:14

Run QC		Ready	98	Samples Remaining	01/01/2012 03:34 PM
Select QC level.					
Level 1	Level 2				
Level 3	Other QC				



• Multiple screen menus.
 • Upcoming event.
 • Results with reference ranges.
 • Results to LIS/HIS.

- QC range setup in seconds by barcode scanning.
- Up to four levels of QC available to set up.
- Option to discard unwanted QC results.
- QC statistics of n, mean, SD, and %CV available.
- i-Smart QC material available in three levels.

Technical Specifications

Measured Parameters			
Parameter	Unit	Measuring range	Resolution
Na ⁺	mmol/L	20 ~ 250	1
K ⁺	mmol/L	0.5 ~ 20.0	0.1
Cl ⁻	mmol/L	20 ~ 250	1

Operating Parameters	
Sample type	Whole blood, Plasma, Serum
Sample volume	60 μl
Sample introduction	Aspiration
Sample container	Syringe, Capillary
Time to Analysis	35 seconds
Measuring temperature	37.0 ± 0.2 °C
Measuring method	Electrochemistry (Direct ISE)
Calibration	Automatic 1- 2-point calibration Manual calibration is available if necessary
Temperature	15 ~ 35 °C
Relative humidity	5 ~ 85 %

Cartridge	
No. of samples / Onboard lifetime	100 samples / 4 weeks 200 samples / 4 weeks
Dimensions / Weight	138 mm x 139 mm x 80 mm / 0.8 kg
Storage temperature	10 ~ 30 °C
Shelf life	18 months

Instrument	
Computer	1 GHz process Mobile PC / 1 GB RAM / 4 GB Flash Memory
Operating system	Microsoft® Windows® XP Embedded
Display	7 inch TFT LCD, Touch screen
Printer	2 inch thermal printer (internal printer)
Interface	USB (3 ports), Serial (RS-232), LAN (RJ45 Ethernet) USB type external barcode scanner

Dimension / Weight	
Height	292 mm
Width	256 mm
Depth	177 mm
Weight	5.5 kg

Power Requirement	
Voltage / Frequency	100 ~ 240 VAC 50/60 Hz (±10%)
Power adapter	AC-DC power supplies (output: +24 VDC, 2.7 A, 65W)
battery operation	Max. 2 hours (Li ion cells)

Clinical Performance

