

A Partner for Life  
Auto-Chemistry Analyzer

# REAGENT

## Hepatic Panel

|                             |       |
|-----------------------------|-------|
| Alanine Aminotransferase    | ALT   |
| Aspartate Aminotransferase  | AST   |
| Alkaline Phosphatase        | ALP   |
| γ-Glutamyl transferase      | GGT   |
| Cholinesterase              | CHE   |
| Total Bilirubin DSA Method  | TB    |
| Total Bilirubin VOX Method  | TB-V  |
| Direct Bilirubin DSA Method | DB    |
| Direct Bilirubin VOX Method | DB-V  |
| Bile Acids                  | TBA   |
| Total Protein               | TP    |
| Albumin                     | ALB   |
| Glutamate Dehydrogenase     | GLDH  |
| Iso-Citrate Dehydrogenase   | ICDH  |
| Leucine Aminopeptidase      | LAP   |
| Adenosine Deaminase         | ADA   |
| Prealbumin                  | PA    |
| 5'-Nucleotidase             | 5'-NT |

## Renal Panel

|                            |       |
|----------------------------|-------|
| Urea                       | BUN   |
| Uric Acid                  | UA    |
| Creatinine Enzyme Method   | CRE-E |
| Cystatin C                 | CYS-C |
| MicroAlbumin               | MALB  |
| β2- Microglobulin          | β2-MG |
| N-Acetyl-D-Glucosaminidase | NAG   |
| Total Protein In Urine     | TPU   |
| Retinol-Binding protein    | RBP   |
| α1-Microglobulin           | α1-MG |

## Immune Panel

|                  |     |
|------------------|-----|
| Immunoglobulin A | IgA |
| Immunoglobulin G | IgG |
| Immunoglobulin M | IgM |
| Complement C3    | C3  |
| Complement C4    | C4  |

## Pancreatitis Panel

|                    |       |
|--------------------|-------|
| Amylase            | AMY   |
| Pancreatic Amylase | P-AMY |
| Lipase             | LPS   |

## Cardiac Panel

|                                |       |
|--------------------------------|-------|
| Creatinine Kinase              | CK    |
| Creatinine Kinase MB Isoenzyme | CK-MB |
| Lactate Dehydrogenase          | LDH   |
| α-Hydroxybutyric dehydrogenase | HBDB  |
| Homocysteine                   | HCY   |
| Cardiac Troponin I             | cTnI  |
| Myoglobin Inorganic & Anemia   | MB    |

## Inorganic & Anemia

|                                      |                 |
|--------------------------------------|-----------------|
| Calcium Arsenazo III Method          | Ca-ARS          |
| Calcium O-Cresolphthalein Complexone | Ca-CPC          |
| Chloride                             | CL              |
| Magnesium                            | Mg              |
| Inorganic Phosphorus                 | PHOS            |
| Carbon Dioxide                       | CO <sub>2</sub> |
| Zinc                                 | Zn              |
| Iron                                 | Fe              |
| Total Iron-Binding Capacity          | TIBC            |
| Transferrin                          | TRF             |
| Ferritin                             | FER             |

## Lipid Panel

|                                      |        |
|--------------------------------------|--------|
| Cholesterol                          | TC     |
| Triglycerides                        | TG     |
| High Density Lipoprotein-Cholesterol | HDL-C  |
| Low Density Lipoprotein-Cholesterol  | LDL-C  |
| Apolipoprotein A1                    | APOA1  |
| Apolipoprotein B                     | APOB   |
| Lipoprotein (a)                      | LP (a) |

## Rheumatism Panel

|                     |     |
|---------------------|-----|
| Anti Streptolysin O | ASO |
| Rheumatoid Factor   | RF  |
| C-Reactive Protein  | CRP |

## Diabetes Panel

|                           |        |
|---------------------------|--------|
| Glucose Oxidase Method    | GLU-OX |
| Glucose Hexokinase Method | GLU-HK |
| Glycohemoglobin A1C       | HbA1c  |
| Fructosamine              | FMN    |

# CS-480<sup>NEW</sup>

Auto-Chemistry Analyzer

## Overall performance

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| Equipment type             | Fully automatic, discrete, STAT priority                               |
| Throughput                 | 400T/H for photometry tests, 800 T/H with ISE                          |
| Test principle             | Colorimetry, turbidimetry, ISE                                         |
| Analysis method            | End-point, kinetics, fixed-time, etc. support single/double wavelength |
| Simultaneous analysis item | 110 colorimetric items and 3 ISE items (K, Na, Cl optional)            |

## Sample unit

|                               |                                                                                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------|
| Sample position               | 115 sample positions                                                                               |
| Sample volume                 | 1.5μL~35μL, 0.1μL stepping                                                                         |
| Sample cuvettes specification | Standard cup, original blood tube, multi-specification<br>tube available (Φ10~13) mm × (75~100) mm |
| Sample barcode                | code 128, code 39, code 93, 1 2of5, UPC/EAN                                                        |
| Sampling technology           | Liquid level detection, clot detection and collision protection                                    |

## Reagent unit

|                  |                                                 |
|------------------|-------------------------------------------------|
| Reagent probe    | Liquid level detection and collision protection |
| Reagent volume   | 20μL~350μL, 1μL stepping                        |
| Reagent position | Double reagent disk up to 112 positions         |
| Reagent barcode  | Code128                                         |

## Reaction unit

|                                    |                                                                                                                           |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Reaction cuvette                   | 120 positions optical plastic cuvettes                                                                                    |
| Total volume of reaction liquid    | 120μL~450μL                                                                                                               |
| Reaction temperature               | 37°C±0.1°C                                                                                                                |
| Reaction disk constant temperature | Circulating water                                                                                                         |
| Mixing needle                      | Blending immediately after joining reagent                                                                                |
| Reaction cuvette cleaning          | 7 stops 11 steps by warm water rinsing                                                                                    |
| Wastewater treatment               | Two diffuence for high and low concentration waste water<br>With the function of concentrated waste liquid level alarming |

## Optical system

|                    |                        |
|--------------------|------------------------|
| Light source       | 20W/12V halogen lamps  |
| Monochromator      | Grating photometry     |
| Photoelectron road | Rear spectrophotometry |
| Wavelength         | 340nm~800nm            |
| Detector           | photodiode LED array   |
| OD linear range    | 0~3.6Abs               |

## Calibration and QC

|                           |                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------|
| Calibration method        | 1 point linear method, 2 point linear method, multiple point linear<br>method, non-linear method |
| Calibration tracking      | Automatic description calibration K-value trends                                                 |
| QC method                 | Real-time QC, daily QC and monthly QC                                                            |
| Out of control processing | Alarming for out of control sample, record lost control reason                                   |

## Operating system

|                           |                                              |
|---------------------------|----------------------------------------------|
| PC operating system       | Windows 7/ Windows10 operating system        |
| Analysis control software | English version graphical operating software |
| Report printing           | Report formats support the user-defined mode |
|                           | QC and state information etc.                |
| System connection         | RJ45 network interface                       |

## Others

|              |                                          |
|--------------|------------------------------------------|
| Volume       | 1060mm×790mm×1150mm(L×W×H)               |
| Weight       | 300Kg                                    |
| Power supply | Voltage AC 220±22V,50Hz±1Hz,power 2000VA |

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·Specifications subject to change without notice.  
20190826

# DIRUI



CE  
Certified to  
ISO 9001:2008 and ISO 13485:2003



**COMPACT SIZE WITH  
ROBUST FUNCTIONS**

# CS-480<sup>NEW</sup>

Auto-Chemistry Analyzer

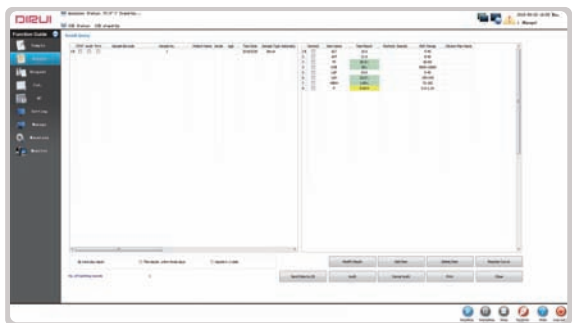
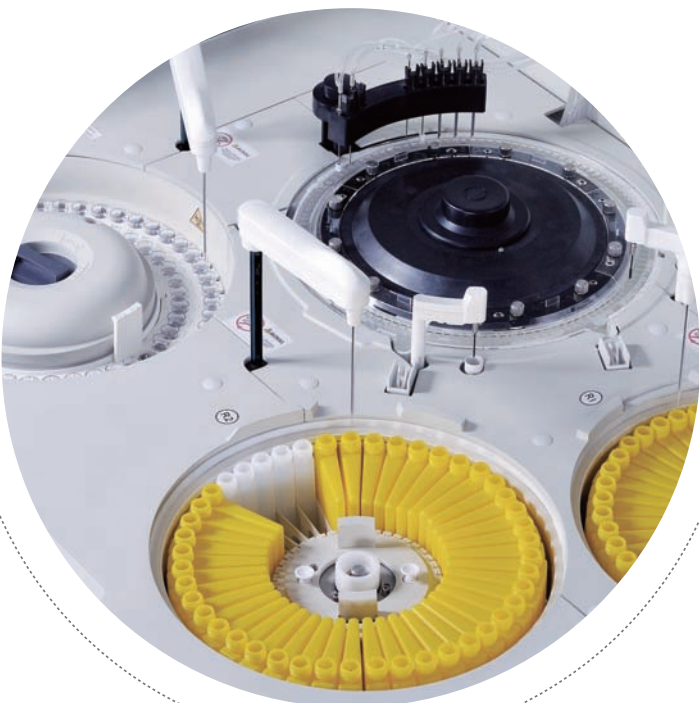


# DIRUI

# SOFTWARE

**DIRUI provides friendly software interface and easy-to-use for all staffs.**

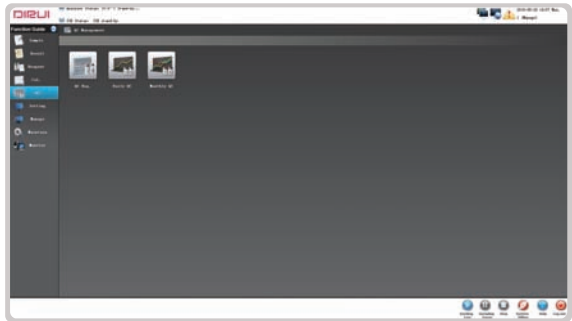
The result interface supports research results in real time, provides reaction analysis, and print result or transmit to LIS (Laboratory Information System). DIRUI refers to Westgards rules , and generates QC chart and QC statistics for reliable patients results. The monitor interface displays full sample test status real-time.



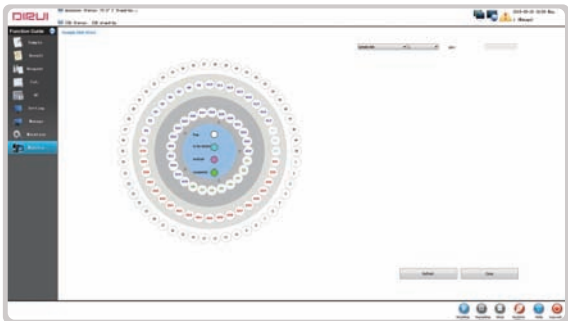
Search result easily by different conditions  
check the real time reaction process  
Print results and transmit result to LIS



Detect Reagent remain volume  
Automatically calculates the remain times.  
Online reagent refilling function



The Quality Control generates QC chart  
QC statistics and make it easy to identify QC errors.



Display full patient demographics.  
View the sample reaction status in real time.

## THE ON-BOARD HEMOLYSIS FUNCTION

- NGSP certification of whole blood latex-agglutination method on analyzer
- Whole blood testing function for HbA1c to avoid artificial error
- Not necessary for centrifugation
- Automatically hemolysis function, easy operation and standardization for HbA1c test

## HIGH CAPACITY

- Up to 115 elastic design sample positions, suitable for different size of tubes
- 112 oblique design reagent positions for full use reagent to save reagent and cost

## ACCURATE RESULT

- 340-800nm 12 wavelengths
- Digital liquid level detection high sensitivity avoids bubbles' interference
- Reagent inventory management, automatically calculate remaining volume and remaining number

## EXCELLENT PERFORMANCE

- Automatically cuvette checkup ensure the cuvette clean
- Collision Protection

## SAVE TIME AND COST

- Optical diameter 5mm
- Minimum reaction volume 120μL

## HIGH RELIABILITY

- Large Absorbance Linear Range: Up to 3.6Abs
- High traceability with original reagents,calibrators and controls